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[Towards a new EU pharmaceutical strategy](#)

Vrsta publikacije Na kratko

Datum 15-12-2022

Avtor ANTUNES LUISA

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | farmacevtska industrija | javno zdravje | zdravstvo

Povzetek The European Commission plans to launch its revised EU pharmaceutical package in the first quarter of 2023. Ahead of its release, two recent STOA studies offer insight to inform upcoming Parliamentary discussions. Fragmentation of EU health research and development, lack of transparency and a translation gap between public investment and clinical output are among the weaknesses identified. Possible solutions include the creation of large-scale European biomedical infrastructure, and a series of targeted strategies to improve EU health research coordination and reprioritise areas of unmet therapeutic need.

Na kratko [EN](#)

[What if we grew plants vertically?](#)

Vrsta publikacije Na kratko

Datum 15-12-2022

Avtor KULJANIC Nera

Politično področje Dolgoročno načrtovanje | Kmetijstvo in razvoj podeželja | Okolje

Ključna beseda demografija in prebivalstvo | dobavna veriga | DRUŽBENA IN SOCIALNA VPRAŠANJA | gospodarska politika | GOSPODARSTVO | gradnja in urbanizem | kmetijska politika | kmetijstvo | KMETIJSTVO, GOZDARSTVO IN RIBIŠTVO | mestno prebivalstvo | način pridelave | obdelovanje kmetijskih zemljišč | proizvodnja | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | rastlinska proizvodnja | trajnostni razvoj | trajnostno kmetijstvo | urbano življenjsko okolje

Povzetek By 2050, an estimated two thirds of the world population will live in urban areas. Could vertical farming help feed this growing urban population sustainably by reducing the demand for agricultural land and shortening the travel distance between food production and consumption?

Na kratko [EN](#)

[What if quantum technologies were to revolutionise healthcare?](#)

Vrsta publikacije Na kratko

Datum 08-12-2022

Avtor MAHIEU VIRGINIA NOELLE

Politično področje Javno zdravje

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | e-zdravje | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | javno zdravje | komunikacije | kvantna tehnologija | varovanje tajnosti podatkov | varstvo podatkov | zdravstvena tehnologija | zdravstveno varstvo | zdravstvo

Povzetek Quantum technologies could be a game-changer in the digital transformation of health care. By enabling much faster and more complex data analysis, they could open the door to the accelerated discovery and development of novel therapeutics, improved diagnostics and treatments, including for rare and complex diseases, genuinely personalised medicine, and better data-driven health policy planning. However, as is also the case in other sectors, quantum technologies come with risks, particularly to cybersecurity and data privacy, as well as economics, trade, and global competition. The EU legislators need to prepare the health technology assessment process for the possible changes that this developing technology could entail.

Na kratko [EN](#)

[What if a 'Trojan horse' strategy could help address antimicrobial resistance?](#)

Vrsta publikacije Na kratko

Datum 16-11-2022

Avtor ANTUNES LUISA

Politično področje Dolgoročno načrtovanje | Industrija | Javno zdravje | Notranji trg in carinska unija | Okolje | Raziskovalna politika | Varnost hrane | Varstvo potrošnikov

Ključna beseda antibiotik | DRUŽBENA IN SOCIALNA VPRAŠANJA | FINANCE | financiranje in naložbe | javno zdravje | medicinske raziskave | nalezljiva bolezen | naložba | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | protimikrobna odpornost | raziskave in intelektualna lastnina | raziskave in razvoj | zdravstvo

Povzetek Antimicrobial-resistant infections are predicted to become the second biggest cause of death worldwide by 2050. Despite increasing investment in the development of new antimicrobials, awareness campaigns on antimicrobial misuse and abuse, and monitoring of antimicrobial use and resistance in animals, humans and the environment, antimicrobial resistance continues to grow and the last three decades have not seen even one novel antimicrobial class reach the market. Could the answer lie in a 'Trojan horse' strategy to disrupt a natural physiological process common to all bacteria?

Na kratko [EN](#)

Multimedijske vsebine [What if a 'Trojan horse' strategy could help address antimicrobial resistance?](#)

[Confiscating Russian sovereign assets to fund Ukraine's reconstruction: Mission impossible?](#)

Vrsta publikacije Na kratko

Datum 25-10-2022

Avtor NOONAN EAMONN

Politično področje Zunanje zadeve

Ključna beseda civilno pravo | ekonomska geografija | Evropa | GEOGRAFIJA | gospodarska politika | gospodarske razmere | gospodarske sankcije | GOSPODARSTVO | kazensko pravo | mednarodna varnost | mednarodne zadeve | MEDNARODNI ODNOSI | odškodnina | okrevanje gospodarstva | politična geografija | PRAVO | Rusija | rusko-ukrajinsko vprašanje | strukturno prilagajanje | Ukrajina | zamrznitev sredstev | zablembo premoženja

Povzetek The Russian invasion has caused huge destruction of life and property in Ukraine. Reconstruction will be a long and costly process, and the EU and others are already marshalling funds for this effort. Some EU leaders have expressed support for using frozen Russian central bank (RCB) funds towards reconstruction, but it is unclear if this will actually happen. There are recent examples of sovereign assets being confiscated and used to compensate victims of injustice, but the confiscation of Russia's sovereign funds raises complex legal and political issues that are unlikely to be resolved quickly or easily.

Na kratko [EN](#)

[Fostering coherence in EU health research: Strengthening EU research for better health](#)

Vrsta publikacije Študija

Datum 19-10-2022

Zunanji avtor DG, EPRS

Politično področje Dolgoročno načrtovanje | Industrija | Javno zdravje | Notranji trg in carinska unija | Raziskovalna politika

Ključna beseda cepivo | DRUŽBENA IN SOCIALNA VPRAŠANJA | ekonomska in socialna kohezija | epidemija | EVROPSKA UNIJA | FINANCE | financiranje in naložbe | financiranje projektov | graditev Evrope | koronavirusna bolezen | naložbe EU | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | zdravstvena politika | zdravstvo | znanstvene raziskave

Povzetek The COVID 19 pandemic prompted reinforced investment in health research, to support rapid research and innovation for vaccine development and health care measures. The European Union response highlighted strengths and weaknesses in EU research organisation and funding. Over time, EU investment in health research has been aimed at increasing knowledge and transfer of knowledge into innovation, for better health. To this end, several instruments have been developed, but the impact of these efforts is hampered by fragmentation and a lack of synergy between strategies at different levels. Inequalities in health and research across Member States need further measures. Policies can take inspiration from successful health research organisation and policies inside and outside the EU, for more coherence and throughput to implementation. Health research needs strong leadership to engage in global health and to tackle the challenges of the interconnectedness of health with environmental and climate challenges, and durable economic development. Stakeholder involvement in a formal structure will secure permanent dialogue for fruitful research and development.

Študija [EN](#)

Priloga 1 [EN](#)

[EU welfare systems and the challenges of poverty and inequality](#)

Vrsta publikacije Študija

Datum 10-10-2022

Avtor CHIRCOP Denise | MILOTAY Nora | MULLER KLAUS | NAVARRA Cecilia | NOONAN EAMONN | PASIKOWSKA-SCHNASS Magdalena

Politično področje Ekonomske in monetarne zadeve | Socialna politika | Zaposlovanje

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | družbene in socialne zadeve | država članica | GOSPODARSTVO | izvršilna oblast in javna uprava | javna politika | Mednarodna zveza socialnih zavarovanj | MEDNARODNE ORGANIZACIJE | MEDNARODNI ODNOSI | nacionalni računi | nevladne organizacije | POLITIKA | politika sodelovanja | revščina | socialna politika | socialno varstvo | usklajevanje socialnega zavarovanja

Povzetek This study examines how contemporary welfare state policies address the issues of inequality and poverty both between and within EU Member States. It combines quantitative and qualitative analysis to show the strong links between inequality and poverty, not only in statistical terms, but also in terms of wealth distribution, intergenerational mobility and labour market dynamics. Welfare states are discussed in a multidimensional way, covering traditional welfare state policies on social protection, labour markets and health as well as policies on education and on culture. These last two are also public policies that have the potential to mitigate social risk and marginalisation – a key aim of welfare state policies. The study points to the links between welfare state policies and economic strategies, and investigates the direct and indirect impact of EU policies. It shows convergence in some areas, such as decreasing poverty levels and more pre-distributive policies across Member States, but it also shows persisting inequalities and a great deal of path-dependency – the continuing impact of historical traditions and institutions. The study concludes with four scenarios for the future of EU welfare states, casting light on the wide range of possible policy options both at national and at EU level.

Študija [EN](#)

[What if everyone spoke the same language?](#)

Vrsta publikacije Na kratko

Datum 06-10-2022

Avtor ANTUNES LUISA

Zunanji avtor IMPORT FROM PUMA PROJECT

Politično področje Izobraževanje | Socialna politika | Vprašanje spola, enakost in različnost | Človekove pravice

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | jezikovna skupina | socialni okvir | sposobnost komuniciranja | zaposlovanje | ZAPOSLOVANJE IN DELOVNE RAZMERE

Povzetek One language disappears every two weeks, and up to 90 % of existing languages could be gone by the turn of the century. Globalisation, social and economic pressures and political options can determine whether a language survives. Multilingualism is a cornerstone of the European project, with 24 official and 60 minority languages. In a digital era, ensuring digital language equality can help preserve linguistic diversity.

Na kratko [EN](#)

Multimedijske vsebine [What if everyone spoke the same language?](#)

[What if AI could make the agri-food sector more resilient?](#)

Vrsta publikacije Na kratko

Datum 15-09-2022

Avtor GARCIA HIGUERA ANDRES

Politično področje Kmetijstvo in razvoj podeželja

Ključna beseda agroživilstvo | dobavna veriga | DRUŽBENA IN SOCIALNA VPRAŠANJA | ekonomske analize | gospodarska recesija | gospodarske posledice | gospodarske razmere | GOSPODARSTVO | informacije in obdelava informacij | IZOBRAŽEVANJE IN KOMUNIKACIJE | javno posvetovanje | kmetijska politika | KMETIJSKO ŽIVILSTVO | kmetijsko-živilski sektor | KMETIJSTVO, GOZDARSTVO IN RIBIŠTVO | komunikacije | POSLOVANJE IN KONKURENCA | produktivnost | proizvodnja | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | računovodstvo | skupna kmetijska politika | tehnologija | tehnologija in tehnični predpisi | umetna inteligenca | varnost hrane | zdravstvo

Povzetek Artificial intelligence (AI) has been the subject of such strong political and social debate that the question of its suitability for its main original purpose – improving supply chain efficiency – may come as a surprise. What if AI really could help strategic sectors cope with pressure? More specifically, could the agri-food sector benefit from this technology to compensate for the shortages broadly forecast as a result of today's crises?

Na kratko [EN](#)

Multimedijske vsebine [What if AI could make the agri-food sector more resilient?](#)

[Auditing the quality of datasets used in algorithmic decision-making systems](#)

Vrsta publikacije Študija

Datum 25-07-2022

Zunanji avtor DG, EPRS

Politično področje Demokracija | Dolgoročno načrtovanje | Industrija | Notranji trg in carinska unija | Ocena zakonodaje in politik v praksi | Raziskovalna politika | Razvoj in humanitarna pomoč | Sprejemanje zakonodaje s strani Evropskega parlamenta in Sveta | Varstvo potrošnikov

Ključna beseda boj proti diskriminaciji | družboslovne vede | enako obravnavanje | etika | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | osebni podatki | pametna tehnologija | pravice in svoboščine | PRAVO | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija in tehnični predpisi | umetna inteligenca | varstvo podatkov | zbiranje podatkov | ZNANOST

Povzetek Biases are commonly considered one of the most detrimental effects of artificial intelligence (AI) use. The EU is therefore committed to reducing their incidence as much as possible. However, the existence of biases pre-dates the creation of AI tools. All human societies are biased – AI only reproduces what we are. Therefore, opposing this technology for this reason would simply hide discrimination and not prevent it. It is up to human supervision to use all available means – which are many – to mitigate its biases. It is likely that at some point in the future, recommendations made by an AI mechanism will contain less bias than those made by human beings. Unlike humans, AI can be reviewed and its flaws corrected on a consistent basis. Ultimately, AI could serve to build fairer, less biased societies. This study begins by providing an overview of biases in the context of artificial intelligence, and more specifically to machine-learning applications. The second part is devoted to the analysis of biases from a legal point of view. The analysis shows that shortcomings in this area call for the implementation of additional regulatory tools to adequately address the issue of bias. Finally, this study puts forward several policy options in response to the challenges identified.

Študija [EN](#)

Priloga 1 [EN](#)

[Sustainability in the age of geopolitics](#)

Vrsta publikacije Na kratko

Datum 25-07-2022

Avtor KONONENKO Vadim | NOONAN EAMONN

Politično področje Okolje

Ključna beseda dobavna veriga | družboslovne vede | geopolitika | gospodarska politika | GOSPODARSTVO | mednarodna varnost | MEDNARODNI ODNOSI | obramba | obrambna politika | obremenitve okolja | OKOLJE | okoljska politika | proizvodnja | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | sprememba podnebja | trajnostni razvoj | vojna | zeleno gospodarstvo | zmanjšanje emisij plinov | ZNANOST

Povzetek In 2006, Jeffrey Sachs wrote that sustainability had replaced the Cold War as the dominant theme of global politics. He defined the 'geopolitics of sustainability' as a new approach to governance, which recognised the ecological underpinnings of war, terror and corruption, and sought to find solutions to these problems. Since then, sustainability has become a megatrend, intensively discussed in the media, the corporate world, and the expert community. Governments (particularly in the European Union) are steadily developing 'green transitions', planning decarbonisation and aiming for more digital and circular economies. Even so, military conflict may be regarded as a still greater trend than climate change, particularly after the Russian invasion of Ukraine. Global military spending continued to rise during the 2010s, and the number of armed conflicts increased. Russia's attack on Ukraine has had a dramatic impact and will have lasting consequences. The spectre of further escalation, and of war in other geopolitical hotspots, remains. Today, sustainability transitions are taking place in an age of military insecurity. When the concept of geopolitics of sustainability was developed in the 1980s, sustainable development was seen as an alternative to great power competition and Cold War politics. In the late 1990s and early 2000s, sustainability came to be seen as a corrective alternative to hyper-globalisation, rapid population growth and the depletion of planetary resources.

Na kratko [EN](#)

[Ethical and societal challenges of the approaching technological storm](#)

Vrsta publikacije Študija

Datum 25-07-2022

Zunanji avtor DG, EPRS

Politično področje Demokracija | Dolgoročno načrtovanje | Industrija | Notranji trg in carinska unija | Raziskovalna politika | Varstvo potrošnikov | Človekove pravice

Ključna beseda 5G | blokovna veriga | digitalna preobrazba | družboslovne vede | etika | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | prenosno omrežje | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija in tehnični predpisi | ZNANOST

Povzetek Supported by the arrival of 5G and, soon 6G, digital technologies are evolving towards an artificial intelligence-driven internet of robotic and bionano things. The merging of artificial intelligence (AI) with other technologies such as the internet of things (IoT) gives rise to acronyms such as 'AIoT', 'IoRT' (IoT and robotics) and 'IoBNT' (IoT and bionano technology). Blockchain, augmented reality and virtual reality add even more technological options to the mix. Smart bodies, smart homes, smart industries, smart cities and smart governments lie ahead, with the promise of many benefits and opportunities. However, unprecedented amounts of personal data will be collected, and digital technologies will affect the most intimate aspects of our life more than ever, including in the realms of love and friendship. This study offers a bird's eye perspective of the key societal and ethical challenges we can expect as a result of this convergence, and policy options that can be considered to address them effectively.

Študija [EN](#)

Priloga 1 [EN](#)

[Genome-edited crops and 21st century food system challenges](#)

Vrsta publikacije Poglobljena analiza

Datum 13-07-2022

Zunanji avtor DG, EPRS

Politično področje Kmetijstvo in razvoj podeželja

Ključna beseda dovoljenje za prodajo | DRUŽBENA IN SOCIALNA VPRAŠANJA | fitosanitarni nadzor | genetsko spremenjen organizem | kmetijska politika | kmetijstvo | KMETIJSTVO, GOZDARSTVO IN RIBIŠTVO | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | rastlinska proizvodnja | tehnologija in tehnični predpisi | TRGOVINA | trženje | varnost hrane | zdravstveni nadzor | zdravstvo | žlahtnjenje rastlin

Povzetek Genome editing is the targeted alteration of a few DNA letters within the existing genetic blueprint of an organism. By far the most widely used genome-editing tool is CRISPR-Cas. CRISPR-Cas genome-editing technology can be applied in a number of different ways. The genetic changes that are introduced by means of the SDN1 and SDN2 types of CRISPR-Cas technology do not differ from changes that can occur naturally or result from conventional breeding. While CRISPR-Cas technology is highly accurate, off-targets can occur. However, molecular characterisation of the genetic changes, combined with selection, can prevent plants with undesired changes from being introduced onto the market. Views on this new technology differ widely, but there is a clear need to discuss which type of regulatory governance is warranted for genome-edited crops.

Poglobljena analiza [EN](#)

[Governing data and artificial intelligence for all: Models for sustainable and just data governance](#)

Vrsta publikacije Študija

Datum 11-07-2022

Politično področje Globalno upravljanje | Območje svobode, varnosti in pravice | Raziskovalna politika | Varstvo potrošnikov

Ključna beseda digitalno gospodarstvo | notni digitalni trg | EVROPSKA UNIJA | FINANCE | financiranje in naložbe | gospodarska infrastruktura | gospodarska politika | gospodarska struktura | GOSPODARSTVO | graditev Evrope | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | javne dobrine | komunikacije | naložba | obdelava podatkov | potrošnja | predpisi o obdelavi podatkov | prenos podatkov | TRGOVINA | umetna inteligenca

Povzetek With a particular focus on artificial intelligence (AI), this study identifies and examines policy options for the EU's data governance framework that align with a data justice perspective. A data justice approach is one that centres on equity, recognition and representation of plural interests, and the creation and preservation of public goods as its principal goals. The analysis offers both an assessment of the EU data governance strategy overall and specific policy options for the AI act, the data governance act and the data act. Four benchmarks for good data governance are proposed, in line with the principles of justice: preserving and strengthening public infrastructure and public goods, inclusiveness, contestability and accountability, and global responsibility. Exploring examples of different governance models, we examine how these models and options intersect, and what lessons they offer for the EU case.

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Priloga 1 [EN](#)

['Splinternets': Addressing the renewed debate on internet fragmentation](#)

Vrsta publikacije Študija

Datum 11-07-2022

Zunanji avtor DG, EPRS

Politično področje Demokracija | Globalno upravljanje | Industrija | Konkurenčno pravo in ureditev na tem področju | Kultura | Mednarodna trgovina | Notranji trg in carinska unija | Predhodna ocena učinka | Raziskovalna politika | Varstvo potrošnikov | Zunanje zadeve

Ključna beseda digitalna tehnologija | digitalno gospodarstvo | notni digitalni trg | EVROPSKA UNIJA | gospodarska struktura | GOSPODARSTVO | graditev Evrope | internet | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | opravljanje storitev | prenosno omrežje | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | svoboda opravljanja storitev | tehnologija in tehnični predpisi | TRGOVINA | trženje | urejanje telekomunikacij | zaposlovanje | ZAPOSLOVANJE IN DELOVNE RAZMERE

Povzetek Recent events have multiplied concerns about potential fragmentation of the internet into a multitude of non-interoperable and disconnected 'splinternets'. Composed of thousands of compatible autonomous systems, the internet is by definition technically divided. Yet, the internet was also designed to be an open and global technical infrastructure. The unity and openness of the internet appear to be under great pressure from political, commercial and technological developments. This report explores the implications of the EU's recent policies in this field as well as the opportunities and challenges for EU Member States and institutions in addressing internet fragmentation. It underlines how recent EU legislative proposals – on the digital services act, digital markets act, artificial intelligence act, and NIS 2 Directive – could help to address patterns of fragmentation, but also have limitations and potentially unintended consequences. Four possible strategies emerge: stay with the status quo, embrace fragmentation, resist patterns of divergence, or frame discussions as a matter of fundamental rights.

Študija [EN](#)

Priloga 1 [EN](#)

[EU strategic autonomy 2013-2023: From concept to capacity](#)

Vrsta publikacije Briefing

Datum 08-07-2022

Avtor DAMEN Mario

Politično področje Dolgoročno načrtovanje

Ključna beseda dobavna veriga | družboslovne vede | ENERGETIKA | energetska politika | EVROPSKA UNIJA | evropska varnost | geopolitika | graditev Evrope | mednarodna trgovina | mednarodna trgovina | mednarodna varnost | mednarodna vloga EU | mednarodne zadeve | MEDNARODNI ODNOSI | politika EU | proizvodnja | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | samooskrba z energijo | strateška avtonomija | TRGOVINA | ZNANOST

Povzetek EU strategic autonomy (EU-SA) refers to the capacity of the EU to act autonomously – that is, without being dependent on other countries – in strategically important policy areas. These can range from defence policy to the economy, and the capacity to uphold democratic values. In order to structure the debate on strategic autonomy into analytical categories, this briefing assumes that by and large there have been several phases to the debate about EU-SA, each with a different focus. From 2013 to 2016, it was mainly seen as an approach to security and defence matters. From 2017 to 2019, EU-SA was considered as a way to defend European interests in a hostile geopolitical environment, marked by Brexit, the Trump Presidency and China's growing assertiveness. In 2020, the Covid 19 pandemic shifted the focus to mitigating economic dependence on foreign supply chains. Since 2021, the scope of EU-SA has been widened to virtually all EU policy areas, including that of the EU's values, while the expression 'strategic autonomy' was paradoxically used less and was often replaced by similar concepts, such as 'open strategic autonomy', 'strategic sovereignty', 'capacity to act' and 'resilience'. This briefing uses 'strategic autonomy' and 'strategic sovereignty' as equal and interchangeable terms. Since the Russian invasion of Ukraine in February 2022, steps towards achieving EU-SA are being taken, while the concept nevertheless remains blurred by the variation in terminology. Achieving EU-SA will require a common vision, political will and capabilities to implement it, and a distinct role for the EU, between Member States and global players. Visual tools, such as the 360° strategic autonomy wheel (in Annex 1), can help to identify dependencies and understand complex interdependencies between policy areas. Political will was expressed in the European Council's Versailles Declaration of 11 March 2022, which aims at greater EU-SA in defence, energy supply and the economy. However, EU-SA can be constrained by Member States and non-EU (third) countries or international organisations that challenge the EU. This EU strategic autonomy monitor is the first in a series on the state of play in the debate and implementation of EU-SA. It will be complemented by thematic papers in the 'strategic autonomy 360°' series.

Briefing [EN](#)

[Making solar a source of EU energy security](#)

Vrsta publikacije Na kratko

Datum 07-07-2022

Avtor VAN WIERINGEN KJELD

Politično področje Energija

Ključna beseda dobavna veriga | ENERGETIKA | energetska politika | energetska politika EU | INDUSTRIJA | industrijska politika EU | obnovljiva energija | organiziranost industrije in industrijska politika | oskrba z energijo | proizvodnja | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | samooskrba z energijo | sončna celica | sončni kolektor | trgovina | TRGOVINA | zanesljivost oskrbe | čista energija

Povzetek In 2022, most global renewable power growth will consist of photovoltaic (PV) solar energy. In its 2021 industrial strategy, the European Commission acknowledged the need for a more strategic approach to renewable energies. As Member States seek to diversify away from Russian fossil fuels following the invasion of Ukraine, they should avoid exacerbating dependencies on solar panels manufactured in China.

Na kratko [EN](#)

[Securing the EU's supply of critical raw materials](#)

Vrsta publikacije Na kratko

Datum 07-07-2022

Avtor VAN WIERINGEN KJELD

Politično področje Industrija | Mednarodna trgovina | Zunanje zadeve

Ključna beseda Azija in Oceanija | dobavna veriga | ekonomska geografija | Evropska investicijska banka | EVROPSKA UNIJA | FINANCE | financiranje in naložbe | GEOGRAFIJA | gospodarska politika | GOSPODARSTVO | INDUSTRIJA | industrijska politika EU | institucije EU in evropska javna uprava | Kitajska | mednarodna trgovina | naložba | OKOLJE | okoljska politika | organiziranost industrije in industrijska politika | proizvodnja | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | recikliranje odpadkov | surovine | trajnostni razvoj | trgovina | TRGOVINA | uvoz (EU) | zanesljivost oskrbe

Povzetek Critical raw materials are essential to sustain Europe's economic and environmental ambitions. As geoeconomic aggression and geopolitical tensions rise, the EU is re-thinking its reliance on certain imports. Can the EU secure its supply of critical materials?

Na kratko [EN](#)

[Strengthening EU chip capabilities: How will the chips act reinforce Europe's semiconductor sector by 2030?](#)

Vrsta publikacije Briefing

Datum 07-07-2022

Avtor VAN WIERINGEN KJELD

Politično področje Industrija | Mednarodna trgovina | Zunanje zadeve

Ključna beseda digitalna tehnologija | dobavna veriga | elektronika in elektrotehnika | elektronska komponenta | EVROPSKA UNIJA | FINANCE | financiranje in naložbe | INDUSTRIJA | industrijska politika EU | naložba | organiziranost industrije in industrijska politika | pravo Evropske unije | predlog (EU) | proizvodnja | proizvodnja EU | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija in tehnični predpisi | trgovina | TRGOVINA | visoko razvita industrija | vrednostna veriga | zanesljivost oskrbe

Povzetek The proposed European chips act, presented by the European Commission in February 2022, aims to mobilise €43 billion in 'policy-driven investment' for the EU's semiconductor sector by 2030. The Commission expects long-term private investment to exceed this. The plan serves to enable immediate EU coordination against supply disruptions, strengthen and scale up production and innovation throughout the EU semiconductor value chain, and further enhance the Union's technological leadership, practical applications and digital sovereignty in this crucial field. The global semiconductor value chain is characterised by chokepoints and critical dependencies, including on more advanced chips from Taiwan and South Korea, US intellectual property in chip design automation, Japanese wafers and Chinese chip assembly. Europe has strong capacities in research and equipment manufacturing, in addition to some production capacity of (less advanced) chips with larger transistors, often destined for the automotive sector, as well as (chemical) inputs. The future effectiveness of the EU chips act could benefit from further emphasis on certain key challenges to strengthen and safeguard Europe's position in the global chip value chain. Internally, reinforcing European chemical input and back-end manufacturing could be advanced by protecting European chemical suppliers against Chinese subsidies and by reshoring back-end facilities to Europe. Bilaterally, attracting and engaging in foreign semiconductor investment could see the use of relevant forums, partnerships and agreements, as well as relevant fast-track permits. Globally, enhancing foreign dependencies on the EU would require further reinforcement of existing European centres of excellence including in innovative research and equipment manufacturing. The EU chips act, if provided with the right resources, could help to improve the EU's position in the global semiconductor value chain significantly by 2030. Meanwhile, Intel's €33 billion investment and Taiwanese interest in European chip manufacturing are also cause for optimism.

Briefing [EN](#)

[What if microbial protein could help reverse climate change?](#)

Vrsta publikacije Na kratko

Datum 04-07-2022

Avtor ANTUNES LUISA

Politično področje Javno zdravje | Kmetijstvo in razvoj podeželja | Okolje | Raziskovalna politika | Varnost hrane | Varstvo potrošnikov

Ključna beseda biotska raznovrstnost | dobro počutje živali | kmetijski proizvodi | KMETIJSKO ŽIVILSTVO | kmetijstvo | KMETIJSSTVO, GOZDARSTVO IN RIBIŠTVO | krčenje gozdov | meso | naravno okolje | obremenitve okolja | OKOLJE | okoljska politika | potrošnja | prehranjevalne navade | rastlinska beljakovina | sprememba podnebja | toplogredni plin | TRGOVINA | zmanjšanje emisij plinov | živalski proizvodi | živila | živilo

Povzetek Demographic, socio-political and economic pressures have made eating meat an unsustainable practice for the long term. However, meat substitutes have proved unpopular, owing to social norms and a lack of trust; some alternatives also contribute heavily to climate change. Could microbial protein be a sustainable alternative to meat that not only solves these multidimensional pressures but also contributes actively to reversing climate change?

Na kratko [EN](#)

Multimedijske vsebine [What if microbial protein could help reverse climate change?](#)

[Climate change and energy transition: The end of coal?](#)

Vrsta publikacije Na kratko

Datum 29-06-2022

Avtor NOONAN EAMONN | WIDUTO Agnieszka

Politično področje Energija | Okolje

Ključna beseda električna energija | električna in jedrska energija | ENERGETIKA | energetska politika | FINANCE | financiranje in naložbe | naložba | obnovljiva energija | obremenitve okolja | OKOLJE | okoljska politika | premog | premogovništvo in rudarstvo | proizvodnja energije | sprememba podnebja | toplogredni plin | zmanjšanje emisij plinov | čista energija

Povzetek Accounting for about one quarter of global primary energy supply, coal is used mainly for power generation, heating, and in industries such as iron, steel and cement manufacturing. It provides almost 40 % of global electricity production and is responsible for over 40 % of energy-related CO2 emissions. While the global use of coal is driven by emerging economies in Asia, the West – and Europe in particular – is seeing a sharp decline in coal use because of air pollution, climate policies and, in some cases, cheaper alternatives. The Covid 19 pandemic caused a further drop in coal demand in 2020 (with a rebound in 2021). However, the recent dramatic rise in gas prices, concerns over gas supply linked to Russia's ongoing war in Ukraine and the EU embargo on coal imports from Russia may slow down coal exit processes.

Na kratko [EN](#)

[What if we sequenced all human genomes?](#)

Vrsta publikacije Na kratko

Datum 27-06-2022

Avtor ANTUNES LUISA

Politično področje Raziskovalna politika

Ključna beseda bioetika | DNK | DRUŽBENA IN SOCIALNA VPRAŠANJA | družbene in socialne zadeve | genska podatkovna zbirka | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | naravoslovne in uporabne vede | osebni podatki | pravice in svoboščine | PRAVO | preprečevanje bolezni | varstvo podatkov | varstvo zasebnosti | zbiranje podatkov | zdravstvo | ZNANOST

Povzetek The rapid growth of genetic databases worldwide, coupled with fast-decreasing costs and the rapid pace of technological change, has increased the possibility of every human genome on Earth being sequenced this century. This raises ethical and legal questions on data privacy and ownership. While a global genetic database would revolutionise preventive medicine and research, new forms of surveillance, discrimination and power imbalances could emerge. The global interplay between the individual, the state and private individuals could shift, requiring modern and flexible legislation to protect the rights of the individual.

Na kratko [EN](#)

Multimedijske vsebine [What if we sequenced all human genomes?](#)

[Genome editing in humans: A survey of law, regulation and governance principles](#)

Vrsta publikacije Študija

Datum 03-06-2022

Avtor ANTUNES LUISA

Politično področje Javno zdravje | Pravo EU: pravni sistem in akti | Raziskovalna politika | Varstvo potrošnikov

Ključna beseda EVROPSKA UNIJA | genska podatkovna zbirka | graditev Evrope | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | naravoslovne in uporabne vede | pravni viri in pravna področja | PRAVO | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | strategija EU | tehnologija in tehnični predpisi | tehnološka presoja | učinek informacijske tehnologije | zakonodaja | ZNANOST | človeško kloniranje

Povzetek Genome editing is a powerful new tool allowing precise additions, deletions and substitutions in the genome. The development of new approaches has made editing of the genome much more precise, efficient, flexible, and less expensive, relative to previous strategies. As with other medical advances, each such application comes with its own set of benefits, risks, ethical issues and societal implications, which may require new regulatory frameworks. Important questions raised with respect to genome editing include how to balance potential benefits against the risk of unintended harms; how to govern the use of these technologies, and how to incorporate societal values into salient clinical and policy considerations. This STOA study provides an overview of human genome editing applications and a review of the principles that guide the governance of genome editing in humans, at EU level and worldwide. The study also formulates a series of policy options targeted at basic research and to clinical applications, both somatic and germline.

Študija [EN](#)

Priloga 1 [EN](#)

[Artificial intelligence in healthcare: Applications, risks, and ethical and societal impacts](#)

Vrsta publikacije Študija

Datum 01-06-2022

Zunanji avtor DG, EPRS

Politično področje Raziskovalna politika

Ključna beseda bolnikove pravice | DRUŽBENA IN SOCIALNA VPRAŠANJA | informacije in obdelava informacij | IZOBRAŽEVANJE IN KOMUNIKACIJE | medicinski in kirurški instrumenti | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija | tehnologija in tehnični predpisi | umetna inteligenca | varnost pacientov | zdravniška diagnoza | zdravstveno varstvo | zdravstvo

Povzetek In recent years, the use of artificial intelligence (AI) in medicine and healthcare has been praised for the great promise it offers, but has also been at the centre of heated controversy. This study offers an overview of how AI can benefit future healthcare, in particular increasing the efficiency of clinicians, improving medical diagnosis and treatment, and optimising the allocation of human and technical resources. The report identifies and clarifies the main clinical, social and ethical risks posed by AI in healthcare, more specifically: potential errors and patient harm; risk of bias and increased health inequalities; lack of transparency and trust; and vulnerability to hacking and data privacy breaches. The study proposes mitigation measures and policy options to minimise these risks and maximise the benefits of medical AI, including multi-stakeholder engagement through the AI production lifetime, increased transparency and traceability, in-depth clinical validation of AI tools, and AI training and education for both clinicians and citizens.

Študija [EN](#)

[What if we built cities on water?](#)

Vrsta publikacije Na kratko

Datum 01-06-2022

Avtor ANTUNES LUISA

Politično področje Raziskovalna politika

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | dvig morske gladine | gospodarska politika | GOSPODARSTVO | gradnja in urbanizem | gradnja mest | naravno okolje | obala | obalno območje | obremenitve okolja | OKOLJE | poplava | regije in regionalna politika | sprememba podnebja | trajnostni razvoj | urbanistični problem | urbano življenjsko okolje

Povzetek Since ancient times, from the Roman Empire around the Mediterranean Sea to floating islands used by the Uro people of Peru, civilisations have settled near water. Today, rising sea levels place coastal cities under constant threat. An estimated 250 million people currently live on land below projected annual flood levels, often in coastal cities such as London, Lagos, Mumbai or Shanghai; and this number may rise to 630 million by the end of the century. An additional 318 million people have been displaced since 2018, due to climate disasters. Many of these cities have already taken measures to adapt to rising sea levels. Shanghai is protected by a gigantic protection system, while New York City has created a system to shield its island-located economic borough of Manhattan. The government in Indonesia took one of the most drastic actions, deciding to move its entire capital inland, mainly because it was sinking and experienced regular flooding. The location of the new capital, Nusantara, has been criticised for leading to the displacement of indigenous populations and the destruction of vast areas of natural rain forest, essential to counteracting climate change. Could it be that, instead of humankind fleeing from water, building on it could serve as a better long-term solution? What would the creation of entire water cities entail for societies, economies and the environment? What if populations could live on water instead of facing displacement and migration? The combined effects of climate change, land subsidence and accelerated urbanisation could force us to rethink the use of water surfaces on Earth as potential settlement areas, as an alternative to an Earth surface made uninhabitable by over-population and climate catastrophes.

Na kratko [EN](#)

Multimedijske vsebine [Building cities on water](#)

Regulatory divergences in the draft AI act: Differences in public and private sector obligations

Vrsta publikacije Študija

Datum 31-05-2022

Zunanji avtor DG, EPRS

Politično področje Dolgoročno načrtovanje | Pravo EU: pravni sistem in akti | Raziskovalna politika | Varstvo potrošnikov

Ključna beseda EVROPSKA UNIJA | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | nova tehnologija | osebni podatki | pametna tehnologija | pravice in svoboščine | PRAVO | pravo Evropske unije | predpisi o obdelavi podatkov | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija in tehnični predpisi | umetna inteligenca | uredba (EU) | varstvo podatkov | varstvo zasebnosti

Povzetek This study identifies and examines sources of regulatory divergence within the AI act regarding the obligations and limitations upon public and private sector actors when using certain AI systems. A reflection upon possible impacts and consequences is provided, and a range of policy options is suggested for the European Parliament that could respond to the identified sources of divergence. The study is specifically focused on three AI application areas: manipulative AI, social scoring and biometric AI systems. Questions regarding how and when those systems are designated as prohibited or high-risk and the potentially diverging obligations towards public versus private sector actors and the rationale behind it, are described.

Študija [EN](#)

Priloga 1 [EN](#)

The Green Deal ambition: Technology, creativity and the arts for environmental sustainability

Vrsta publikacije Študija

Datum 31-05-2022

Zunanji avtor DG, EPRS

Politično področje Energija | Industrija | Izobraževanje | Kultura | Okolje

Ključna beseda EVROPSKA UNIJA | graditev Evrope | obremenitve okolja | ogljična nevtralnost | OKOLJE | okoljska politika | okoljska politika EU | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave | raziskave in intelektualna lastnina | sprememba podnebja | strategija EU

Povzetek Responding to the challenge of rebuilding a resilient, sustainable, beautiful and more socially inclusive Europe, while facing a climate crisis and a pandemic, the New European Bauhaus has been launched as a comprehensive programme to break down silos and go beyond innovation within specific sectors. In its efforts to foster collaboration between arts, technology, science, social and cultural enterprises, citizens and institutions, the New European Bauhaus wishes to be open to insights, ideas and constructive criticism. This study combines knowledge gleaned from a literature review of the most up to date publications dealing with innovation in the technology and arts sectors with understanding gained from interviews with players from a diverse range of industries, professional sectors, institutions and societal groups.

Študija [EN](#)

Priloga 1 [EN](#)

AI and digital tools in workplace management and evaluation: An assessment of the EU's legal framework

Vrsta publikacije Študija

Datum 31-05-2022

Politično področje Industrija | Notranji trg in carinska unija | Pogodbeno pravo, gospodarsko pravo in pravo gospodarskih družb | Raziskovalna politika | Socialna politika | Varstvo potrošnikov | Zaposlovanje

Ključna beseda delovni pogoji | delovno pravo | delovno pravo in delovna razmerja | digitalna tehnologija | DRUŽBENA IN SOCIALNA VPRAŠANJA | družbene in socialne zadeve | ekonomske analize | evropska socialna politika | EVROPSKA UNIJA | GOSPODARSTVO | informacije in obdelava informacij | IZOBRAŽEVANJE IN KOMUNIKACIJE | organizacija dela in delovne razmere | politika zaposlovanja | pravo EU | pravo Evropske unije | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija in tehnični predpisi | umetna inteligenca | zaposlovanje | ZAPOSLOVANJE IN DELOVNE RAZMERE | študija učinkov

Povzetek This study focuses on options for regulating the use of AI enabled and algorithmic management systems in the world of work under EU law. The first part describes how these technologies are already being deployed, particularly in recruitment, staff appraisal, task distribution and disciplinary procedures. It discusses some near-term potential development prospects and presents an impact assessment, highlighting some of these technologies' most significant implications. The second part addresses the regulatory field. It examines the different EU regulations and directives that are already relevant to regulating the use of AI in employment. Subsequently, it analyses the potential labour and employment implications of the European Commission's proposal for a regulation laying down harmonised rules on artificial intelligence (AI act). Finally, it summarises the other ongoing EU policy debates relevant to the regulation of AI at work. The third and final part of this study reflects in detail upon the AI act and its potential impact on the existing EU social acquis. On this basis, it advances potential policy options across different EU legislative files, including but not limited to the AI act, to ensure that regulation keeps pace with technological development. It also argues that the AI act should 'serve' and complement – rather than over-ride – other regulatory standards that can already govern the introduction and use of AI-enabled and algorithmic-management systems at work.

Študija [EN](#)

Priloga 1 [EN](#)

Multimedijske vsebine [Using artificial intelligence in workplace management](#)

[A reimbursement system based on a fixed lump sum - Is it the right tool for the EU Framework Programme for research?](#)

Vrsta publikacije Študija

Datum 05-05-2022

Zunanji avtor DG, EPRS

Politično področje Proračunski nadzor | Raziskovalna politika

Povzetek Should the EU Framework Programmes for research use the recently piloted lump-sum (LS) system instead of traditional, expense-based reimbursement? The idea behind LS is that payments are made based on obtained results according to the agreed project plan. It aims to simplify the system by removing cost reporting, and helping to shift the focus from financial management to the technical and scientific content of projects. This study has collected input from 167 individuals from 29 countries, working for universities, research and technology organisations, small and large corporations, government organisations and European institutions, complemented by in-depth interviews with five randomly selected respondents. The most important result is that the general attitude towards the LS system is quite positive – it is perceived as better than the traditional system, at least for some funding schemes, and is seen as meeting its aims. However, the system could be modified further to reach its full potential.

Študija [EN](#)

[What if AI regulation promoted innovation?](#)

Vrsta publikacije Na kratko

Datum 29-04-2022

Avtor BOUCHER Philip Nicholas

Politično področje Dolgoročno načrtovanje | Industrija | Konkurenčno pravo in ureditev na tem področju | Kultura | Predhodna ocena učinka | Raziskovalna politika | Varstvo potrošnikov

Povzetek The word 'innovation' is often used as shorthand for improved technical, economic and social processes. However, any specific innovation involves the redistribution of costs and benefits, creating winners and losers. For some, regulation of technology should be avoided in case it hinders innovation, while others see regulation as essential, to mitigate risks on the path to innovation. However, regulation and innovation are not a zero-sum game. Debates about regulatory (in)action and its impact on innovation would benefit from greater specificity about which innovation paths are considered desirable, for whom, and how policy choices would help to achieve them. This paper explores the relationship between regulation and innovation in the context of artificial intelligence (AI).

Na kratko [EN](#)

[Organised crime in Europe: Emerging trends and policy challenges](#)

Vrsta publikacije Na kratko

Datum 25-03-2022

Avtor NOONAN EAMONN

Politično področje Območje svobode, varnosti in pravice

Ključna beseda boj proti kriminalu | DRUŽBENA IN SOCIALNA VPRAŠANJA | družbene in socialne zadeve | Europol | EVROPSKA UNIJA | graditev Evrope | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | kazensko pravo | korupcija | MEDNARODNI ODNOSI | organizirani kriminal | policijsko sodelovanje | politika sodelovanja | PRAVO | računalniška kriminaliteta | strategija EU | varovanje tajnosti podatkov | čezmejno sodelovanje

Povzetek Serious and organised crime inflict huge costs on both the EU economy and society. Organised crime is an increasingly dynamic and complex phenomenon, as it has become more interconnected, transnational and digital. The Covid-19 pandemic has led to an increase in cybercrime, fraud and counterfeiting. Police and judicial actions and the effective implementation of existing EU instruments are critical in tackling this challenge. New strategies to disrupt the business models and structures of criminal organisations will also benefit from an integrated approach, recognising the socio-economic, technological and geopolitical dimensions of the problem.

Na kratko [EN](#)

[What if machines made fairer decisions than humans?](#)

Vrsta publikacije Na kratko

Datum 23-03-2022

Avtor GARCIA HIGUERA ANDRES

Politično področje Demokracija | Industrija | Raziskovalna politika | Varstvo potrošnikov | Človekove pravice

Ključna beseda avtomatizacija pisarniškega poslovanja | družboslovne vede | etika | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | nova tehnologija | odločanje | POSLOVANJE IN KONKURENCA | poslovodenje | pravice in svobode | PRAVO | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | strojno učenje | tehnični standard | tehnologija in tehnični predpisi | varovanje tajnosti podatkov | varstvo podatkov | varstvo zasebnosti | ZNANOST

Povzetek Automated decision-making by systems that use machine learning to dynamically improve performance are still seen as lacking the 'human perspective' and flexibility to adapt to the particular nuances of specific cases. But perhaps, as they lack the 'cunning' to hide their biases, automated systems actually make fairer decisions than do humans, when these decisions are based on data that have been properly curated.

Na kratko [EN](#)

Multimedijske vsebine [What if machines made fairer decisions than humans?](#)

[Privacy and security aspects of 5G technology](#)

Vrsta publikacije Študija

Datum 17-03-2022

Zunanji avtor DG, EPRS

Politično področje Javno zdravje | Okolje | Varstvo potrošnikov

Ključna beseda 5G | dokumentacija | družboslovne vede | ekonomske analize | etika | GOSPODARSTVO | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | inovacija | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | nova tehnologija | osebni podatki | pravice in svoboščine | PRAVO | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | tehnologija in tehnični predpisi | varovanje tajnosti podatkov | varstvo podatkov | varstvo zasebnosti | ZNANOST | študija primera | študija učinkov

Povzetek This study describes two main dimensions of 5G technology, i.e. privacy and security. This research paper focuses on the analysis of cybersecurity risks and threats, privacy challenges and 5G technology opportunities at EU level and worldwide, as well as the relationship between cybersecurity risks and privacy issues. The methodological framework for this assessment of the impact of 5G technology is built on three pillars: (i) a document-based analysis; (ii) a parallel analysis with stakeholder involvement; and (iii) a selection of relevant case studies. The complexity of the 5G ecosystem, where new use cases are constantly emerging, also led the authors to assess the prospects of using new 5G-enabled technologies, such as the internet-of-things, robotics and AI. Moreover, policy options are defined and put forward for consideration by the European Parliament's Committees on Legal Affairs, Internal Market and Consumer Protection, Civil Liberties, Justice and Home Affairs, and the Subcommittee on Security and Defence, as well as by other EU institutions and the Member States.

Študija [EN](#)

Priloga 1 [EN](#)

[How are we coping with the pandemic? Mental health and resilience amid the Covid-19 pandemic in the EU](#)

Vrsta publikacije Študija

Datum 16-03-2022

Zunanji avtor DG, EPRS

Politično področje Javno zdravje

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | država članica EU | duševna bolezen | duševno zdravje | ekonomska geografija | epidemija | Evropa | GEOGRAFIJA | koronavirusna bolezen | politična geografija | tveganje za zdravje | zdravstvo | Združeno kraljestvo

Povzetek This report reviews the existing scientific evidence regarding the mental health of different population groups amid the Covid 19 pandemic in the European Union (EU) and its influential factors. Since the beginning of the pandemic, there has been extensive research on the psychosocial and mental health consequences, showing negative effects especially in the general population compared to before. On the other hand, there is also evidence of resilient responses as the pandemic progressed – that is, the maintenance or recovery of mental health. However, these findings are limited to the first wave or shortly thereafter. No reliable conclusions regarding the mental health impact of Covid 19 policy responses – containment and support measures – are possible. Several risk factors were identified, with a need for more research on protective factors. Finally, the study outlines a set of relevant policy options to address the mental health challenges during the Covid 19 pandemic and similar future situations.

Študija [EN](#)

Priloga 1 [EN](#)

Priloga 2 [EN](#)

Priloga 3 [EN](#)

[Towards a greener, fairer recovery: Perspectives from the 2021 ESPAS Conference](#)

Vrsta publikacije Na kratko

Datum 11-03-2022

Avtor NOONAN EAMONN

Politično področje Finančna in bančna vprašanja | Okolje | Socialna politika

Ključna beseda Afrika | Afrika | evropska konferenca | FINANCE | financiranje in naložbe | GEOGRAFIJA | gospodarska politika | GOSPODARSTVO | mednarodne zadeve | MEDNARODNI ODNOSI | naložba | obremenitve okolja | OKOLJE | okoljska politika | prilagoditev na podnebne spremembe | sprememba podnebja | trajnostni razvoj | trajnostno financiranje | zeleno gospodarstvo | zmanjšanje emisij plinov

Povzetek The modalities of financing the green transition, the need to maintain social justice, and the particular challenges facing Africa were among the themes addressed in a wide ranging discussion on how to 'build back better', at the 2021 ESPAS conference.

Na kratko [EN](#)

[What if we killed all microorganisms in our bodies?](#)

Vrsta publikacije Na kratko

Datum 04-02-2022

Avtor QUAGLIO Gianluca

Politično področje Javno zdravje | Kmetijstvo in razvoj podeželja | Varnost hrane | Varstvo potrošnikov

Ključna beseda antibiotik | DRUŽBENA IN SOCIALNA VPRAŠANJA | Evropska agencija za varnost hrane | EVROPSKA UNIJA | funkcionalna živila | institucije EU in evropska javna uprava | javno zdravje | KMETIJSKO ŽIVILSTVO | mikroorganizem | naravoslovne in uporabne vede | potrošnja | prehrana ljudi | prehranjevalne navade | preprečevanje bolezni | protimikrobna odpornost | TRGOVINA | varnost hrane | zdravstvo | ZNANOST | živila

Povzetek Scientific evidence indicates that beneficial microorganisms (that live in nearly ubiquitous communities called microbiota) are an essential component of human health, and could be a new frontier for personalised medicine to fight non-communicable diseases and improve human health. For their potential benefits to reach society, the EU should consider standardisation, protocols, and a regulatory framework to support research and innovation.

Na kratko [EN](#)

Multimedijske vsebine [What if we killed all microorganisms in our bodies?](#)

[What if xenotransplantation was the answer to the donor organ shortage?](#)

Vrsta publikacije Na kratko

Datum 13-01-2022

Avtor QUAGLIO Gianluca

Politično področje Javno zdravje | Varstvo potrošnikov

Ključna beseda bioetika | DRUŽBENA IN SOCIALNA VPRAŠANJA | družbene in socialne zadeve | genetsko spremenjen organizem | imunologija | javno zdravje | KMETIJSKO GOZDARSTVO IN RIBIŠTVO | preprečevanje bolezni | presajanje organov | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | sredstva kmetijske proizvodnje | svinja | tehnologija in tehnični predpisi | zdravstvo | zoonoza

Povzetek Xenotransplantation, defined as the transplantation of animal derived organs and cells into humans, is currently a very active focus of research as it overrides some of the obstacles encountered with tissue engineering, such as vascularization and innervation. The resurgence of interest in xenotransplantation is mainly attributed to the improvement of gene editing techniques (such as CRISPR/Cas9), since genetically engineered animals have been generated to overcome organ rejection. However, xenotransplantation also raises multiple biological and ethical questions that should be taken into consideration.

Na kratko [EN](#)

Multimedijske vsebine [What if xenotransplantation made up for the shortage of organ donation?](#)

[European pharmaceutical research and development: Could public infrastructure overcome market failures?](#)

Vrsta publikacije Študija

Datum 21-12-2021

Zunanji avtor DG, EPRS

Politično področje Dolgoročno načrtovanje | Industrija | Javno zdravje | Notranji trg in carinska unija | Raziskovalna politika | Varstvo potrošnikov

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | epidemija | farmacevtska industrija | izdatki za zdravila | javno zdravje | koronavirusna bolezen | lekarna | medicinske raziskave | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija in tehnični predpisi | tehnološka presoja | zdravstvo

Povzetek With a focus on research and development in the area of innovative medicines, this study discusses a new European approach to pharmaceutical policy. After examining the European pharmaceutical sector's features, and the strengths and weaknesses of the current research and business model, the study explores the need for and the concept of a European infrastructure with a long-term transboundary mission. Any such European medicines infrastructure should focus on threats and areas of research and development that are underinvested under the current business model. More specifically, the study uses an extensive literature review and a targeted survey of international experts from science, industry, public health and government institutions, to investigate the feasibility of different options in terms of the scope of the mission, and legal, organisational and financial arrangements for establishing such a European infrastructure. On the basis of their research, the authors present a range of policy options. The most ambitious of these considers a Europe-wide public infrastructure equipped with budgetary autonomy and home-grown research and development capacity. This organisation would be tasked with building a portfolio of new medicines and related biomedical technologies up to the delivery stage, over the course of 30 years, in partnership with third-party research centres at national or European level and with companies. It would be the most important global player in biomedical innovation in the world.

Študija [EN](#)

Priloga 1 [EN](#)

[Person identification, human rights and ethical principles: Rethinking biometrics in the era of artificial intelligence](#)

Vrsta publikacije Študija

Datum 16-12-2021

Zunanji avtor DG, EPRS

Politično področje Raziskovalna politika

Ključna beseda biometrija | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | naravoslovne in uporabne vede | nova tehnologija | osebni podatki | pametna tehnologija | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija in tehnični predpisi | umetna inteligenca | varstvo podatkov | ZNANOST

Povzetek As the use of biometrics becomes commonplace in the era of artificial intelligence (AI), this study aims to identify the impact on fundamental rights of current and upcoming developments, and to put forward relevant policy options at European Union (EU) level. Taking as a starting point the proposal for a regulation of the European Parliament and of the Council laying down harmonised rules on AI, presented by the European Commission in April 2021, the study reviews key controversies surrounding what the proposal addresses through the notions of 'remote biometric identification' (which most notably includes live facial recognition), 'biometric categorisation' and so-called 'emotion recognition'. Identifying gaps in the proposed approaches to all these issues, the study puts them in the context of broader regulatory discussions. More generally, the study stresses that the scope of the current legal approach to biometric data in EU law, centred on the use of such data for identification purposes, leaves out numerous current and expected developments that are not centred on the identification of individuals, but nevertheless have a serious impact on their fundamental rights and democracy.

Študija [EN](#)

Priloga [EN](#)

[Key enabling technologies for Europe's technological sovereignty](#)

Vrsta publikacije Študija

Datum 16-12-2021

Zunanji avtor DG, EPRS

Politično področje Industrija | Raziskovalna politika | Zunanje zadeve

Ključna beseda digitalna tehnologija | informacije in obdelava informacij | IZOBRAŽEVANJE IN KOMUNIKACIJE | mednarodne zadeve | MEDNARODNI ODNOSI | nova tehnologija | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | računalniška pismenost | tehnologija in tehnični predpisi | tehnološka neodvisnost | tehnološka sprememba | umetna inteligenca

Povzetek Technological sovereignty has been at the heart of recent political debate in the EU. Interest has only been strengthened by the Covid-19 pandemic crisis, due to its impact on many value chains. Key enabling technologies (KETs) – advanced manufacturing and materials, life-science technologies, micro/nano-electronics and photonics, artificial intelligence, and security and connectivity technologies – are crucial for an interconnected, digitalised, resilient and healthier European society, as well as being important for the EU's competitiveness and position in the global economy. This STOA study analyses how the EU is performing in developing and protecting ownership and know-how in these critical technologies, especially in comparison with strong global players such as China and the USA. Based on the challenges identified in the analysis, it discusses policy options for strengthening the EU's technological sovereignty in KETs.

Študija [EN](#)

Priloga 1 [EN](#)

[Participatory foresight: Preventing an impact gap in the EU's approach to sustainability and resilience](#)

Vrsta publikacije Briefing

Datum 15-12-2021

Avtor KONONENKO Vadim

Politično področje Dolgoročno načrtovanje | Raziskovalna politika

Ključna beseda EVROPSKA UNIJA | graditev Evrope | obremenitve okolja | OKOLJE | okoljska politika | okoljska politika EU | prilagoditev na podnebne spremembe | sprememba podnebja | strategija EU

Povzetek The concepts of 'sustainability' and 'resilience' have been steadily gaining prominence in the EU's political discourse. Most recently in 2019, the von der Leyen Commission placed the goal of increased sustainability – environmental, social and economic – at the heart of its European Green Deal set of policy initiatives. As the EU achieves higher levels of sustainability, it will be more resilient, that is, capable of better withstanding a future crisis or shock, whether in the form of another pandemic, an economic downturn or a climate emergency. By putting sustainability and resilience at the centre of its strategic foresight framework, the EU can anchor specific policy objectives in broader narratives about its future. However, this may also carry a risk of creating an 'impact gap' – a mismatch between citizens' and stakeholders' expectations, on the one hand, and actual outcomes of policies, on the other. This briefing examines how participatory foresight can help to address a potential impact gap in the EU's endeavours related to sustainable resilience and strategic autonomy.

Briefing [EN](#)

[Regulating genome editing: Societal hopes and fears](#)

Vrsta publikacije [Študija](#)

Datum 14-12-2021

Zunanji avtor DG, EPRS

Politično področje Dolgoročno načrtovanje | Kmetijstvo in razvoj podeželja | Okolje | Varstvo potrošnikov

Ključna beseda biotehnologija | inovacija | kmetijska politika | KMETIJSKO ŽIVILSTVO | KMETIJSTVO, GOZDARSTVO IN RIBIŠTVO | nova tehnologija | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | tehnologija in tehnični predpisi | trajnostno kmetijstvo | živilska tehnologija | živilska tehnologija

Povzetek The purpose of this paper is to inform the committees of the European Parliament about the challenges of genome editing in the 21st century, and the societal hopes and concerns surrounding its possible implementation to support European food production. The higher precision of new genetic techniques (NGTs) raises the question of whether they should be treated differently or even exempt from the current GMO Directive. NGTs (mainly CRISPR-cas9) are the subject of controversy, as some believe they will bring improvements to crop production, while others worry about potential problems associated with their use. These concerns were identified through a STOA foresight study, including an online survey and workshop with stakeholders from diverse fields affected by NGTs. The online survey used hypothetical policy options to guide stakeholders to identify arguments for and against several potential regulation scenarios, ranging from full regulation to full exemption.

[Študija](#) [EN](#)

[The potential of hydrogen for decarbonising EU industry](#)

Vrsta publikacije [Študija](#)

Datum 09-12-2021

Zunanji avtor DG, EPRS

Politično področje Dolgoročno načrtovanje | Energija | Ocena zakonodaje in politik v praksi | Okolje | Raziskovalna politika | Sprejemanje zakonodaje s strani Evropskega parlamenta in Sveta

Ključna beseda električna energija | električna in jedrska energija | ENERGETIKA | energetska politika | energetska politika EU | EVROPSKA UNIJA | FINANCE | financiranje in naložbe | gorivna celica | gospodarska politika | GOSPODARSTVO | graditev Evrope | INDUSTRIJA | inovacija | kemija | naložbe EU | obnovljiva energija | ogljična nevtralnost | OKOLJE | okoljska politika | proizvodnja energije | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | strategija EU | tehnologija in tehnični predpisi | trajnostni razvoj | vodik | čista energija | čista tehnologija

Povzetek Given the vast potential for renewable electricity generation, the production of renewable hydrogen is a promising option for the hard-to-decarbonise energy-intensive industry sectors. A growing hydrogen sector will also result in job creation and economic growth while fostering innovation and reducing pollution. The European Commission published its Hydrogen Strategy in 2020 with the aim of boosting hydrogen use in the EU while promoting the uptake of renewable hydrogen production. Recent activities, such as the launch of the European Clean Hydrogen Alliance and the EU Innovation Fund, the formation of Hydrogen Valleys and the promotion of Important Projects of Common European Interest (IPCEIs), provide promising first steps to foster a European hydrogen economy. Nevertheless, important policy gaps still need to be addressed. This study takes stock of the current situation with respect to the realisation of the EU Hydrogen Strategy and identifies policy options to address gaps in the current landscape.

[Študija](#) [EN](#)

[Priloga 1](#) [EN](#)

[Pollution and the spread of Covid-19](#)

Vrsta publikacije [Študija](#)

Datum 09-12-2021

Zunanji avtor DG, EPRS

Politično področje Dolgoročno načrtovanje | Javno zdravje | koronavirus | Okolje

Ključna beseda agroživilstvo | bolezni, ki se prenašajo s hrano | DRUŽBENA IN SOCIALNA VPRAŠANJA | epidemija | epidemiologija | javno zdravje | kakovost zraka | KMETIJSKO ŽIVILSTVO | koronavirusna bolezen | medicinske raziskave | mesnopredelovalna industrija | obremenitve okolja | OKOLJE | onesnaženo območje | onesnaževalo zraka | preprečevanje bolezni | spremljanje gibanja bolezni | zdravstvo

Povzetek Epidemiological studies of Covid-19 have, in most cases, provided inconclusive results to date regarding the role of air pollution in the transmission of the SARS-CoV-2 virus and the geographical spread of the disease, both regionally and globally. The present review analysed just under 6 000 articles published up to 31 May 2021, looking at the role of pollution and air quality factors in the transmission of SARS-CoV-2 and in the geographical differences in Covid-19 propagation. A body of evidence shows that chronic and short-term exposure to different fractions of aerosols and types of air pollution exacerbates symptoms, affects co-morbidities and increases mortality rates for respiratory diseases similar to Covid 19, as well as for Covid-19. Although other pathways can contribute, the airborne route is likely to be the dominant mode. There is consistent and increasing evidence that SARS-CoV-2 spreads by airborne transmission, and it is possible that different variants have different environmental sensitivities. Safer indoor environments are required, not only to protect unvaccinated people and those for whom vaccines fail, but also to deter vaccine-resistant variants or novel airborne threats that may appear at any time. The public health community, governments and health agencies should act accordingly, referring to this mode as the principal mode of transmission in their recommendations and statements, enhancing associated research and improving monitoring networks.

[Študija](#) [EN](#)

[Priloga](#) [EN](#)

[Japan's global vision: Tokyo's evolving foresight practices, Indo-Pacific strategy and EU-partnership](#)

Vrsta publikacije Briefing

Datum 08-12-2021

Avtor NOONAN EAMONN

Politično področje Dolgoročno načrtovanje | Zunanje zadeve

Ključna beseda Azija in Oceanija | ekonomska geografija | EVROPSKA UNIJA | GEOGRAFIJA | graditev Evrope | Japonska | mednarodno partnerstvo EU | odnosi EU | skupna zunanja in varnostna politika

Povzetek Since 1970, Japan has developed a world-leading capacity for foresight. At the outset, the focus was on technology and socio-economic development. Broader geopolitical and security aspects have become more pronounced in the past decade. Concerns about global political changes have given rise to an enhanced strategic partnership between Japan and the European Union. Common challenges include shifts in global economic power, the emergence of China, and uncertainties around the United States' international engagement. While Japan and the European Union have differing security policy perspectives and capabilities, joint efforts can have a positive impact in areas such as infrastructure, digital connectivity, overseas development assistance and energy sustainability. A shared vision on common challenges and responses is at the heart of the partnership between the European Union and Japan. Joint strategic foresight activities, building on existing foresight capabilities on each side, could be considered as a means of updating and strengthening this shared vision.

[Briefing EN](#)

[What if hydrogen could help decarbonise European industry?](#)

Vrsta publikacije Na kratko

Datum 07-12-2021

Avtor GARCIA HIGUERA ANDRES

Politično področje Dolgoročno načrtovanje | Energija | Okolje | Regionalni razvoj

Ključna beseda ENERGETIKA | energetska politika | energetska politika EU | energetska omrežje | EVROPSKA UNIJA | gospodarska politika | GOSPODARSTVO | graditev Evrope | INDUSTRIJA | kemija | naravno okolje | obnovljivi viri | ogljična nevtralnost | OKOLJE | okoljska politika | prilagoditev na podnebne spremembe | proizvodnja vodika | strategija EU | trajnostni razvoj | vodik

Povzetek The European Union has an ambitious climate strategy and is looking for ways to boost technologies that will make it possible. Could hydrogen and the deployment of related technology and infrastructure become a decisive factor in decarbonising specific industry sectors?

[Na kratko EN](#)

[A framework for foresight intelligence - Part 1: Horizon scanning tailored to STOA's needs](#)

Vrsta publikacije Študija

Datum 25-11-2021

Avtor VAN WOENSEL Lieve

Politično področje Energija | Izobraževanje | Kmetijstvo in razvoj podeželja | Okolje | Promet | Raziskovalna politika | Varnost hrane | Varstvo potrošnikov

Ključna beseda metoda vrednotenja | ovrednotenje projekta | pametna tehnologija | POSLOVANJE IN KONKURENCA | poslovanje | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | rezultati raziskav | tehnologija in tehnični predpisi | tehnološka presoja

Povzetek The first part of the STOA study 'A framework for technology foresight intelligence', this report includes a set of five horizon-scanning reports or 'radars', built with the resources of Futures Platform and covering several areas, including the world after Covid-19, disruptive futures, the Green Deal, food, and geoengineering. Horizon scanning is a discipline that could be harnessed to inform the future activities of the Panel for the Future of Science and Technology (STOA) at both strategic and practical levels. However, as STOA does not have the working structure, human resources or expertise necessary for continuous scanning, for the horizon scans in this study it used Futures Platform. Futures Platform is a professional trends knowledge platform that collects and analyses information on phenomena such as technology, trends and signals, using AI-based tools and a team of foresight experts to anticipate future developments. These trends and signals were used to build a set of trend radars with a view to testing the feasibility of adding horizon scanning activities to STOA's methodological toolbox.

[Študija EN](#)

[A framework for foresight intelligence - Part 2: Online stakeholder engagement](#)

Vrsta publikacije [Poglobljena analiza](#)

Datum [25-11-2021](#)

Avtor [GARCIA HIGUERA ANDRES](#)

Politično področje [Izobraževanje](#) | [Kmetijstvo in razvoj podeželja](#) | [Raziskovalna politika](#) | [Socialna politika](#) | [Varstvo potrošnikov](#)

Ključna beseda [beg možganov](#) | [dolgoročna ocena možnosti](#) | [DRUŽBENA IN SOCIALNA VPRAŠANJA](#) | [ekonomske analize](#) | [EVROPSKA UNIJA](#) | [Evropski parlament](#) | [GOSPODARSTVO](#) | [informacijska tehnologija in obdelava podatkov](#) | [institucije EU in evropska javna uprava](#) | [IZOBRAŽEVANJE IN KOMUNIKACIJE](#) | [migracije](#) | [možganski trust](#) | [odprta znanost](#) | [programska oprema](#) | [PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE](#) | [raziskave in intelektualna lastnina](#) | [raziskave posledic uvajanja novih tehnologij](#) | [tehnologija in tehnični predpisi](#)

Povzetek The second part of the STOA study, 'A framework for technology foresight intelligence', this report deals with horizon stakeholder engagement for the strategic and practical purposes of the STOA Panel's activities. It analyses online engagement methods and tools and their suitability for brainstorming meetings, and for technology assessment and foresight projects. To gain insight and experience in the use of online methods and tools for engagement, these were implemented in one ongoing STOA project. For this purpose, STOA selected a typical foresight study, investigating a complex issue that is the subject of controversy: gene-editing techniques for the future of farming in Europe. Experts from the Danish Board of Technology Foundation guided the STOA team in setting up and running the procedure for this project. This paper assesses the efficiency of online alternatives for foresight brainstorming meetings with colleagues, MEPs, experts and selected stakeholders. These alternatives include traditional surveys (to ascertain societal concerns about possible future technological developments) and simple variants of Delphi-type surveys.

[Poglobljena analiza](#) [EN](#)

[What if ecolabels could nudge us to choose greener food?](#)

Vrsta publikacije [Na kratko](#)

Datum [11-11-2021](#)

Avtor [KULJANIC Nera](#)

Politično področje [Kmetijstvo in razvoj podeželja](#) | [Okolje](#) | [Varstvo potrošnikov](#)

Ključna beseda [ekološka oznaka](#) | [ekološki odtis](#) | [gospodarska politika](#) | [GOSPODARSTVO](#) | [KMETIJSKO ŽIVILSTVO](#) | [obveščanje potrošnikov](#) | [OKOLJE](#) | [okoljska politika](#) | [okoljski standard](#) | [označevanje](#) | [Pariški sporazum](#) | [potrošnja](#) | [trajnostni proizvod](#) | [TRGOVINA](#) | [trženje](#) | [vpliv na okolje](#) | [živila](#) | [živilo](#) | [življenjska doba izdelka](#)

Povzetek The way most food is produced is harming the planet. A profound change is needed, involving all agri-food actors. As consumers, we sit at the end of the agri-food chain. Our daily dietary choices implicitly support certain food systems, production methods and types of food. What could help us make better choices?

[Na kratko](#) [EN](#)

Multimedijske vsebine [What if ecolabels could nudge us to choose greener food?](#)

[European Health Emergency Preparedness and Response Authority \(HERA\): Pre-legislative synthesis of national, regional and local positions on the European Commission's initiative](#)

Vrsta publikacije [Briefing](#)

Datum [15-10-2021](#)

Avtor [COLLOVA Claudio](#) | [QUAGLIO Gianluca](#)

Politično področje [Javno zdravje](#)

Ključna beseda [DRUŽBENA IN SOCIALNA VPRAŠANJA](#) | [državni organi](#) | [EVROPSKA UNIJA](#) | [institucije EU in evropska javna uprava](#) | [izvršilna oblast in javna uprava](#) | [javno zdravje](#) | [krizno upravljanje](#) | [MEDNARODNI ODNOSI](#) | [nujna medicinska pomoč](#) | [nujna pomoč](#) | [POLITIKA](#) | [politika in javna varnost](#) | [politika sodelovanja](#) | [politični okvir](#) | [POSLOVANJE IN KONKURENCA](#) | [poslovanje](#) | [pristojni nacionalni organ](#) | [pristojnosti v izrednih razmerah](#) | [sistem zdravstvenega varstva](#) | [urad ali agencija EU](#) | [zdravstveno varstvo](#) | [zdravstvo](#) | [čezmejno sodelovanje](#)

Povzetek This Briefing forms part of an EPRS series which offers a synthesis of the pre-legislative state-of-play and advance consultation on a range of key European Commission priorities during the latter's five-year term in office. It seeks to summarise the state of affairs in the relevant policy field, examine how existing policy is working on the ground, and identify best practice and ideas for the future on the part of governmental organisations at all levels of European system of multilevel governance. This analysis of the positions of partner organisations at EU, national, regional and local levels suggests that they would like the following main considerations to be reflected in discussion of the legislative proposal to establish an emergency framework for a European Health Emergency Preparedness and Response Authority (HERA): * Governmental organisations at all levels advocate a robust operational and infrastructural framework, with a long-term vision, a coherent legal structure and efficient decision-making procedures. They generally favour a comprehensive impact assessment in advance of the establishment of HERA. * Public authorities at national, regional and local levels suggest that the HERA should develop a strong relationship with the World Health Organization (WHO). Some governmental organisations especially stress the need for robust links with developing countries. * Public authorities agree on the need for a clear interface between HERA, the European Centre for Disease Prevention and Control (ECDC) and the European Medicines Agency (EMA). A further issue is the relationship between HERA and existing EU operational crisis management mechanisms, where national authorities recommend avoiding duplication of work. They also suggest taking into account regional and local circumstances in a coordinated crisis response. * Many governmental organisations hold a rather positive view of the interaction between the EU and the national levels, where HERA could have a beneficial coordinating role, although some public authorities have expressed concern about possible conflicts of competence between national and EU levels in the health sector.

[Briefing](#) [EN](#)

Multimedijske vsebine [The future of EU borders in times of pandemic](#)

What if new drug delivery methods revolutionised medicine?

Vrsta publikacije Na kratko

Datum 13-10-2021

Avtor QUAGLIO Gianluca

Politično področje Raziskovalna politika

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | javno zdravje | medicinske raziskave | nanotehnologija | potrošnja | preprečevanje bolezni | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija in tehnični predpisi | terapija | TRGOVINA | varnost proizvoda | zdravilo | zdravstvo

Povzetek Nanoparticles lie at the heart of a new method for delivering medicines inside the body – and they were crucial to the success of the Covid-19 mRNA vaccines. This new drug delivery method and others could transform the way we treat disease, potentially boosting the treatment of Alzheimer's, Parkinson's and HIV, among others. Insulin and Covid-19 vaccines might even become available as pills. Can the European Union stay on top of this trend? And what challenges lie ahead?

Na kratko [EN](#)

Multimedijske vsebine [What if novel drug delivery methods revolutionised medicine?](#)

Cities in a globalised world: Exploring trends and the effect on urban resilience

Vrsta publikacije Študija

Datum 07-10-2021

Avtor BINDER ECKHARD | GARCIA HIGUERA ANDRES | KULJANIC Nera | MORGADO SIMOES HENRIQUE ANDRE | PICHON Eric | RITTELMAYER Yann-Sven | SOONE Jaan | ZAMFIR Ionel

Politično področje Regionalni razvoj

Ključna beseda demografija in prebivalstvo | DRUŽBENA IN SOCIALNA VPRAŠANJA | ekonomske analize | ENERGETIKA | energetska politika | gospodarske posledice | GOSPODARSTVO | gradnja in urbanizem | mestna infrastruktura | mestno gospodarstvo | obremenitve okolja | OKOLJE | okoljska politika | poraba energije | rast prebivalstva | socialni okvir | socialni učinki | sprememba podnebja | staranje prebivalstva | urbanistični problem | vpliv na okolje

Povzetek Cities are inevitably affected by shocks and disruptions, the pandemic being a case in point. The extent of the impact however depends on cities' preparedness and capacity to adapt. By thinking ahead, cities can explore emerging or plausible developments in order to anticipate them and contain potential disruption. Drawing on a report prepared by the European Strategy and Policy Analysis System (ESPAS), this EPRS paper explores the impact on and implications for cities of current global trends, such as climate change, population growth, urbanisation, economic growth, increasing energy demand, higher connectivity and a changing world order, that will have direct consequences for the future of cities and their inhabitants.

Študija [DE](#), [EN](#), [FR](#)

What if the internet failed?

Vrsta publikacije Na kratko

Datum 27-09-2021

Avtor VAN WOENSEL Lieve

Politično področje Dolgoročno načrtovanje | Energija | Finančna in bančna vprašanja | Industrija | Izobraževanje | Javno zdravje | Kmetijstvo in razvoj podeželja | Kultura | Promet | Turizem | Varstvo potrošnikov | Zaposlovanje

Ključna beseda elektronska uprava | elektronsko bančništvo | elektronsko poslovanje | evropska varnost | FINANCE | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | informacijsko vojskovanje | internet | IZOBRAŽEVANJE IN KOMUNIKACIJE | izvršilna oblast in javna uprava | komunikacije | kreditne in finančne institucije | mednarodna varnost | MEDNARODNI ODNOSI | osebni podatki | POLITIKA | politika in javna varnost | TRGOVINA | trženje | varnost kritične infrastrukture | varovanje tajnosti podatkov | varstvo podatkov

Povzetek What if the internet failed? Since the 1960s, when work on its development began, internet infrastructure has become almost as important as the electricity and transport infrastructure in modern societies. More and more key services, such as banking, food retail and health care, rely on internet connections. Despite the internet's original resilient decentralised design, the increasing importance of a few central players and the shift towards greater centralisation have made the internet more susceptible to failure. This would have severe repercussions: people would not be able to withdraw cash or pay by card, supermarkets and large retailers would not be able to bill and sell products, and managing digital certificates (such as the Covid-19 vaccination certificate) would no longer be possible.

Na kratko [EN](#)

Multimedijske vsebine [What if the Internet failed?](#)

[EU Health data centre and a common data strategy for public health](#)

Vrsta publikacije Študija

Datum 21-09-2021

Zunanji avtor DG, EPRS_ This study has been written by Henrique Martins of ISCTE-Lisbon University Institute and Faculty of Medical Sciences, UBI Portugal, at the request of the Panel for the Future of Science and Technology (STOA) and managed by the Scientific Foresight Unit, within the Directorate-General for Parliamentary Research Services (EPRS) of the Secretariat of the European Parliament.

Politično področje Javno zdravje | Pravo EU: pravni sistem in akti

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | e-zdravje | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | izmenjava informacij | IZOBRAŽEVANJE IN KOMUNIKACIJE | javno zdravje | komunikacije | MEDNARODNI ODNOSI | politika sodelovanja | preprečevanje bolezni | sistem zdravstvenega varstva | umetna inteligenca | zbiranje podatkov | zdravstveni podatki | zdravstvo | čezmejni pretok podatkov | čezmejno sodelovanje

Povzetek Regarding health data, its availability and comparability, the Covid-19 pandemic revealed that the EU has no clear health data architecture. The lack of harmonisation in these practices and the absence of an EU-level centre for data analysis and use to support a better response to public health crises is the focus of this study. Through extensive desk review, interviews with key actors, and enquiry into experiences from outside the EU/EEA area, this study highlights that the EU must have the capacity to use data very effectively in order to make data-supported public health policy proposals and inform political decisions. The possible functions and characteristics of an EU health data centre are outlined. The centre can only fulfil its mandate if it has the power and competency to influence Member State public-health-relevant data ecosystems and institutionally link with their national level actors. The institutional structure, its possible activities and in particular its usage of advanced technologies such as AI are examined in detail.

Študija [EN](#)

Priloga [EN](#)

[Cost of crop protection measures](#)

Vrsta publikacije Študija

Datum 16-09-2021

Zunanji avtor DG, EPRS_ This study has been written by A.B. Smit, J.H. Jager, M. Manshanden and J. Bremmer of Wageningen Research at the request of the Panel for the Future of Science and Technology (STOA) and managed by the Scientific Foresight Unit, within the Directorate-General for Parliamentary Research Services (EPRS) of the Secretariat of the European Parliament.

Politično področje Kmetijstvo in razvoj podeželja | Okolje

Ključna beseda biotska raznovrstnost | fitosanitarni nadzor | kmetijska politika | kmetijstvo | KMETIJSTVO, GOZDARSTVO IN RIBIŠTVO | naravno okolje | obremenitve okolja | OKOLJE | okoljska politika | pesticid | rastlinska proizvodnja | skupna kmetijska politika | sredstva kmetijske proizvodnje | trajnostno kmetijstvo | uničevanje kmetijskih kultur | varstvo rastištev | škodljivci | organizem

Povzetek Existing, new and emerging crop protection practices, including mechanical techniques, precision agriculture, biocontrol, plant breeding, induced crop resistance, application of ecological principles to increase biodiversity and use of 'green' plant protection products, could help to reduce the use of conventional plant protection products and were described in an earlier STOA study. This new study provides cost estimates for various alternative crop protection practice options in the EU

Študija [EN](#)

[Trends in Chinese reporting on the European Union: Xinhua's coverage of EU affairs, 2012-2021](#)

Vrsta publikacije Briefing

Datum 10-09-2021

Avtor NOONAN EAMONN

Politično področje Dolgoročno načrtovanje | Ekonomske in monetarne zadeve | Globalno upravljanje | Mednarodna trgovina | Varnost in obramba | Zunanje zadeve | Človekove pravice

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | epidemija | informacije in obdelava informacij | informacijska politika | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | koronavirusna bolezen | tiskovna agencija | zdravstvo

Povzetek The main Chinese news service, Xinhua, has steadily expanded its coverage on the European Union over the past decade. The main challenges facing the Union have featured strongly, from the refugee crisis to Brexit to the impact of Covid 19. The tone of the coverage in this period has been neutral, rather than negative, and has not become more critical during the pandemic. Internal EU policies are often put in a favourable light, although internal divisions also feature in Xinhua's reporting. Xinhua tends to emphasise EU cooperation with China and EU divisions with the United States. It also criticises EU sanctions and human rights complaints, both about China – for example on Xinjiang and Hong Kong – and about countries including Russia and Turkey. These trends are in line with China's long-standing stated preference for the EU to become a pole in a multipolar world order that is able to balance US power, despite its disapproval of the EU's pursuit of human rights issues. Xinhua's coverage emphasises both the opportunities and the challenges facing European integration. This dual approach tends to support the view that China is ambiguous about the EU's ability to become a more influential and more useful strategic partner on the world stage. This briefing is based on a quantitative and qualitative analysis of Chinese-language online articles by the state-affiliated Xinhua News Agency since 2012, as well as a selection of secondary sources.

Briefing [EN](#)

[What if deepfakes made us doubt everything we see and hear?](#)

Vrsta publikacije Na kratko

Datum 07-09-2021

Avtor BOUCHER Philip Nicholas

Politično področje Demokracija | Kultura | Notranji trg in carinska unija | Raziskovalna politika | Varstvo potrošnikov | Vprašanje spola, enakost in različnost

Ključna beseda dezinformacija | DRUŽBENA IN SOCIALNA VPRAŠANJA | družbene in socialne zadeve | enotni digitalni trg | EVROPSKA UNIJA | goljufija | graditev Evrope | informacije in obdelava informacij | IZOBRAŽEVANJE IN KOMUNIKACIJE | kazensko pravo | komunikacije | pametna tehnologija | pornografija | pravice in svoboščine | PRAVO | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | svoboda izražanja | tehnologija in tehnični predpisi | umetna inteligenca | varstvo zasebnosti

Povzetek Deepfakes are hyper-realistic media products created through artificial intelligence (AI) techniques that manipulate how people look and the things that they appear to say or do. They hit the headlines in 2018 with a deepfake video of Barack Obama, which was designed to raise awareness of their challenges. The accessibility and outputs of deepfake generation tools are improving rapidly, and their use is increasing exponentially. A wide range of malicious uses have been identified, including fraud, extortion and political disinformation. The impacts of such misuse can be financial, psychological and reputational. However, the most widespread use so far has been the production of non-consensual pornographic videos, with negative impacts that overwhelmingly affect women. Deepfakes may also contribute to worrying trends in our media, as well as in our social and democratic systems. While the technology itself is legal, some malicious uses are not, and a combination of legal and technical measures may be mobilised to limit their production and dissemination.

Na kratko [EN](#)

Multimedijske vsebine [What if deepfakes made us doubt everything we see and hear?](#)

[The deepfake menace: a gendered issue](#)

[Can we protect society from the deepfake menace?](#)

[Innovative technologies shaping the 2040 battlefield](#)

Vrsta publikacije Študija

Datum 02-08-2021

Zunanji avtor This study has been written by Jacopo Bellasio, Linda Slapakova, Luke Huxtable, James Black, Theodora Ogden and Livia Dawaele of RAND Europe, at the request of the Panel for the Future of Science and Technology (STOA) and managed by the Scientific Foresight Unit, within the Directorate-General for Parliamentary Research Services (EPRS) of the Secretariat of the European Parliament.

Politično področje Varnost in obramba | Zunanje zadeve

Povzetek This study provides an assessment of the risks, challenges and opportunities related to new and emerging technologies that are most expected to shape the future battlefield out to 2040. The study presents implications stemming from consideration of individual technologies, as well as cross-cutting analysis of their interactions with broader political, social, economic, and environmental trends. In doing so, the study highlights a need for EU Institutions and Member States to pursue a broad range of capability development initiatives in a coherent and coordinated manner, ensure the development of an agile regulatory and organisational environment, and guide investments in technologies most relevant to the European context.

Študija [EN](#)

Priloga 1 [EN](#)

[Tackling deepfakes in European policy](#)

Vrsta publikacije Študija

Datum 30-07-2021

Zunanji avtor This study has been written by Mariëtte van Huijstee, Pieter van Boheemen and Djurre Das (Rathenau Institute, The Netherlands), Linda Nierling and Jutta Jahnel (Institute for Technology Assessment and Systems Analysis, Karlsruhe Institute of Technology, Germany), Murat Karaboga (Fraunhofer Institute for Systems and Innovation Research, Germany) and Martin Fatun (Technology Centre of the Academy of Sciences of the Czech Republic - TC ASCR), with the assistance of Linda Kool (Rathenau Institute) and Joost Gerritsen (Legal Beetle), at the request of the Panel for the Future of Science and Technology (STOA) and managed by the Scientific Foresight Unit, within the Directorate-General for Parliamentary Research Services (EPRS) of the Secretariat of the European Parliament.

Ključna beseda informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | mediji | pametna tehnologija | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija in tehnični predpisi | telekomunikacijska oprema | umetna inteligenca | učinek informacijske tehnologije

Povzetek The emergence of a new generation of digitally manipulated media – also known as deepfakes – has generated substantial concerns about possible misuse. In response to these concerns, this report assesses the technical, societal and regulatory aspects of deepfakes. The rapid development and spread of deepfakes is taking place within the wider context of a changing media system. An assessment of the risks associated with deepfakes shows that they can be psychological, financial and societal in nature, and their impacts can range from the individual to the societal level. The report identifies five dimensions of the deepfake lifecycle that policy-makers could take into account to prevent and address the adverse impacts of deepfakes. The report includes policy options under each of the five dimensions, which could be incorporated into the AI legislative framework, the digital service act package and beyond. A combination of measures will likely be necessary to limit the risks of deepfakes, while harnessing their potential.

Študija [EN](#)

Priloga [EN](#)

Multimedijske vsebine [The deepfake menace: a gendered issue](#)

[Guidelines for foresight-based policy analysis](#)

Vrsta publikacije Študija

Datum 26-07-2021

Avtor VAN WOENSEL Lieve

Politično področje Energija | Industrija | Javno zdravje | Kmetijstvo in razvoj podeželja | Okolje | Promet | Raziskovalna politika | Varnost hrane | Varnost in obramba | Varstvo potrošnikov | Zaposlovanje

Povzetek Policy analysis examines and assesses problems to determine possible courses for policy action (policy options). In highly complex or controversial contexts, evidence-based policy options might not be socially acceptable. Here, policy analysis can benefit from a foresight-based approach, which helps investigate the issue holistically and assess considered evidence-based policy options against societal concerns. This is especially important in a parliamentary setting, as it enables analysts to consider stakeholder views and geographical concerns/differences when assessing policy options. This manual establishes the methodology for the foresight process and foresight-informed policy analysis. It offers a conceptual clarification of foresight and foresight-based technology assessment, helps enhance the transparency of foresight processes and the quality of policy analyses, offers four general guidelines for conducting trustworthy policy analysis, and, finally, provides a practical framework with six basic components for foresight-based policy analysis.

Študija [DE](#), [EN](#), [FR](#), [IT](#)

[Health impact of 5G](#)

Vrsta publikacije Študija

Datum 22-07-2021

Zunanji avtor This study has been written by Dr Fiorella Belpoggi, BSC, PhD, International Academy of Toxicologic Pathology Fellow (IATPF), Ramazzini Institute, Bologna (Italy), at the request of the Panel for the Future of Science and Technology (STOA) and managed by the Scientific Foresight Unit, within the Directorate-General for Parliamentary Research Services (EPRS) of the Secretariat of the European Parliament. The scoping review search was performed by Dr Daria Sgargi, PhD, Master in Biostatistics, and Dr Andrea Vornoli, PhD in Cancer Research, Ramazzini Institute, Bologna.

Politično področje Industrija | Javno zdravje | Notranji trg in carinska unija | Okolje | Raziskovalna politika | Socialna politika | Varstvo potrošnikov

Povzetek Recent decades have experienced an unparalleled development in wireless communication technologies (mobile telephony, Wi-Fi). The imminent introduction of 5G technology across the EU is expected to bring new opportunities for citizens and businesses, through faster internet browsing, streaming and downloading, as well as through better connectivity. However, 5G, along with 3G and 4G, with which it will operate in parallel for several years, may also pose threats to human health. This STOA report aim to take stock of our present understanding of health effects of 5G.

Študija [EN](#)

[What if we could fight coronavirus by pooling computing power?](#)

Vrsta publikacije Na kratko

Datum 15-07-2021

Avtor KRITIKOS Michail

Politično področje Energija | Javno zdravje

Povzetek Distributed computing has accelerated COVID-19 research in molecular dynamics as it allows people to make their computers voluntarily available to scientists for virtually screening chemical compounds in an effective manner.

Na kratko [EN](#)

[Meeting the Green Deal objectives by alignment of technology and behaviour](#)

Vrsta publikacije Študija

Datum 09-07-2021

Avtor KONONENKO Vadim

Zunanji avtor This study has been written by Annika Hedberg (with the focus on food consumption), Said El Khadraoui (with the focus on mobility), and Vadim Kononenko (with the focus on understanding sustainable behaviour) at the request of the Panel for the Future of Science and Technology (STOA) and managed by the Scientific Foresight Unit, within the Directorate-General for Parliamentary Research Services (EPRS) of the Secretariat of the European Parliament.

Politično področje Industrija | Kmetijstvo in razvoj podeželja | Okolje | Promet | Varnost hrane | Varstvo potrošnikov

Ključna beseda dokumentacija | ekološki odtis | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | KMETIJSKO ŽIVILSTVO | obremenitve okolja | OKOLJE | okoljska politika | poraba živil | potrošnja | prehranjevalne navade | PROMET | prometna politika | raziskovalno poročilo | trajnostna mobilnost | trgovina | TRGOVINA | uporaba informacijske tehnologije | uvoz (EU) | učinek informacijske tehnologije | vpliv na okolje | zeleno gospodarstvo | živalski proizvod | živalski proizvodi | živilski odpadki

Povzetek This study explores the prospects of aligning citizens' behaviour with the objectives of the European Green Deal in the domains of food consumption and mobility. Creating a climate-neutral and resource-efficient European economy requires a deep transformation of energy, mobility and food systems, as well as a change in production and consumption practices. Such profound change will impact both individuals and society. At the same time, the transition to sustainability will not succeed if people do not support it by adapting their behaviour and consumption patterns. This would imply change towards 'sustainable behaviour'. The study explores options for such sustainable behaviour, with a focus on mobility and food consumption. It identifies key challenges and possibilities in each domain and explores how technological solutions can help people adapt to sustainable behaviour in alignment with the objectives of the European Green Deal.

Študija [EN](#)

Priloga 1 [EN](#)

Environmental impacts of 5G

Vrsta publikacije Študija

Datum 30-06-2021

Zunanji avtor This study has been written by Arno Thielens, Ghent University, Belgium, at the request of the Panel for the Future of Science and Technology (STOA) and managed by the Scientific Foresight Unit, within the Directorate-General for Parliamentary Research Services (EPRS) of the Secretariat of the European Parliament.

Politično področje Energija | Industrija | Javno zdravje | Notranji trg in carinska unija | Okolje | Varstvo potrošnikov

Ključna beseda 5G | dokumentacija | elektromagnetne motnje | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | nova tehnologija | obremenitve okolja | OKOLJE | okoljska politika | okoljske raziskave | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskovalno poročilo | tehnologija in tehnični predpisi | valovno območje | varstvo rastlinstva | varstvo živalstva | vpliv na okolje

Povzetek Telecommunication networks use radio-frequency electromagnetic fields to enable wireless communication. These networks have evolved over time, and have been launched in successive generations. The fifth generation of telecommunication networks will operate at frequencies that were not commonly used in previous generations, changing the exposure of wildlife to these waves. This report reviews the literature on the exposure of vertebrates, invertebrates and plants to radio-frequency electromagnetic fields in anticipation of this change. The review shows that dielectric heating can occur at all considered frequencies (0.4-300 GHz) and for all studied organisms. Summarising and discussing the results of a series of studies of radio-frequency electromagnetic field exposure of wildlife, the review shows that several studies into the effects of radio-frequency electromagnetic field exposure on invertebrates and plants in the frequency bands considered demonstrate experimental shortcomings. Furthermore, the literature on invertebrate and plant exposure to radio-frequency electromagnetic fields above 6 GHz is very limited. More research is needed in this field.

Študija [EN](#)

What if we chose new metaphors for artificial intelligence?

Vrsta publikacije Na kratko

Datum 08-06-2021

Avtor BOUCHER Philip Nicholas

Politično področje Kultura | Socialna politika | Varstvo potrošnikov

Ključna beseda Amerika | Azija in Oceanija | dokumentacija | ekonomska geografija | GEOGRAFIJA | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | Kitajska | konkurenca | mednarodna konkurenca | MEDNARODNI ODNOSI | mednarodno sodelovanje | politika sodelovanja | politična geografija | poročilo | POSLOVANJE IN KONKURENCA | terminologija | umetna inteligenca | uporaba informacijske tehnologije | učinek informacijske tehnologije | Združene države

Povzetek Artificial intelligence (AI) policy debates are replete with metaphors. Even the term 'AI' relies upon a metaphor for the human quality of intelligence, and its development is regularly described as a 'race'. While metaphors are useful in highlighting some features of their subject, they are so powerful that it can be difficult to imagine or discuss their subject in other terms. Here, we explore some challenges presented by the central metaphor of 'intelligence', examine how AI metaphors emphasise competition at the cost of cooperation, and ask whether new metaphors could help us to articulate ambitious visions for AI, and new criteria for success.

Na kratko [EN](#)

Multimedijske vsebine [What if we chose new metaphors for artificial intelligence?](#)

What if objects around us flocked together and became intelligent?

Vrsta publikacije Na kratko

Datum 01-06-2021

Avtor GARCIA HIGUERA ANDRES

Politično področje Demokracija | Industrija | Raziskovalna politika | Varstvo potrošnikov | Človekove pravice

Ključna beseda 5G | dokumentacija | DRUŽBENA IN SOCIALNA VPRAŠANJA | gradnja in urbanizem | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | internet stvari | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | pametna tehnologija | pametno mesto | poročilo | pravice in svoboščine | PRAVO | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | radiofrekvenčna identifikacija | računalništvo v oblaku | tehnologija in tehnični predpisi | umetna inteligenca | uporaba informacijske tehnologije | varovanje tajnosti podatkov | varstvo zasebnosti | velepodatki

Povzetek - Artificial Intelligence: the real driving force of IoT. - Artificial Intelligence of Things (AIoT) incorporates all the possibilities of AI and IoT, but also all ethical and legal concerns. - Potential advantages and possibilities for EU of Artificial Intelligence of Things.

Na kratko [EN](#)

Multimedijske vsebine [What if objects around us flocked together to become intelligent?](#)

[What if objects around us flocked together to become intelligent?](#)

What if consumers could use devices to sequence DNA?

Vrsta publikacije Na kratko

Datum 11-05-2021

Avtor VAN WOENSEL Lieve

Politično področje Varstvo potrošnikov

Ključna beseda DNK | DRUŽBENA IN SOCIALNA VPRAŠANJA | genska podatkovna zbirka | medicinski in kirurški instrumenti | naravoslovne in uporabne vede | potrošnja | pravice in svoboščine | PRAVO | preprečevanje bolezni | TRGOVINA | varstvo potrošnikov | varstvo zasebnosti | zdravniška diagnoza | zdravstvena tehnologija | zdravstvo | ZNANOST

Povzetek Sequencing and analysis of the human genome – all the genetic information stored in our DNA – provide us with understanding about a person's ancestry, health and other traits. Thanks to DNA sequencing, medicine and the life sciences are able to predict and cure diseases. As DNA sequencing technologies continuously improve and become less costly, what if we all soon possessed our personal, smart DNA sequencers and apps to analyse our DNA?

Na kratko [EN](#)

Multimedijske vsebine [What if consumers could use devices to sequence DNA?](#)

Carbon-free steel production: Cost reduction options and usage of existing gas infrastructure

Vrsta publikacije Študija

Datum 26-04-2021

Avtor GARCIA HIGUERA ANDRES | VAN WOENSEL Lieve

Politično področje Energija | Industrija | Okolje | Raziskovalna politika | Regionalni razvoj

Ključna beseda ENERGETIKA | energetska politika | energetska omrežje | gospodarska politika | GOSPODARSTVO | INDUSTRIJA | kemija | obnovljiva energija | obremenitve okolja | ogljična nevtralnost | OKOLJE | okoljska politika | oskrba z energijo | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | recikiranje odpadkov | tehnologija in tehnični predpisi | toplogredni plin | trajnostni razvoj | vodik | čista energija | čista tehnologija | železarska in jeklarska industrija | železarstvo, jeklarstvo in druga kovinska industrija

Povzetek The steel sector is one of the most challenging sectors to decarbonise and has recently received special attention owing to the potential use of low-carbon hydrogen (green and blue) to reduce its fuel combustion and process-related carbon emissions. This report addresses concerns that might arise while evaluating the potential and limitations of the future role of hydrogen in decarbonising the iron and steel industries. The report provides a comprehensive overview of current technical knowledge, (pilot) projects and road maps at national and EU level. This information is supplemented by previously published indicative price projections for the various steel production routes and a long-term study, analysing the evolution of the global steel sector up until 2100.

Študija [EN](#)

Strategic communications as a key factor in countering hybrid threats

Vrsta publikacije Študija

Datum 10-03-2021

Zunanji avtor DG, EPRS_ This study has been written by Juan Pablo Villar García, Carlota Tarín Quirós and Julio Blázquez Soria of Iclaves S.L., Carlos Galán Pascual of the University Carlos III of Madrid, and Carlos Galán Cordero of the Universitat Oberta de Catalunya at the request of the Panel for the Future of Science and Technology (STOA) and managed by the Scientific Foresight Unit, within the Directorate-General for Parliamentary Research Services (EPRS) of the Secretariat of the European Parliament.

Politično področje Demokracija | Območje svobode, varnosti in pravice | Zunanje zadeve

Ključna beseda demokracija | dezinformacija | družbeni mediji | družboslovne vede | EVROPSKA UNIJA | geopolitika | graditev Evrope | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | informacijsko vojskovanje | izmenjava informacij | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | mednarodna varnost | MEDNARODNI ODNOSI | obramba | ozaveščanje javnosti | POLITIKA | politika in javna varnost | politična propaganda | politični okvir | računalniška kriminaliteta | skupna zunanja in varnostna politika | terorizem | vohunjenje | ZNANOST

Povzetek This report describes the key features, technologies and processes of strategic communications to counter hybrid threats and their components. The theoretical description of hybrid threats is complemented by the analysis of diverse case studies, describing the geopolitical context in which the hybrid threat took place, its main features, the mechanisms related to strategic communications used by the victim to counter the hybrid threat and its impact and consequences. A comprehensive set of policy options aimed at improving the EU response to hybrid threats is also provided.

Študija [EN](#)

Priloga 1 [EN](#)

[Online platforms: Economic and societal effects](#)

Vrsta publikacije Študija

Datum 10-03-2021

Zunanji avtor DG, EPRS_ This study has been written by Professor Annabelle Gawer, Surrey Business School, University of Surrey (main author), Dr Nick Srnicek, King's College London, at the request of the Panel for the Future of Science and Technology (STOA) and managed by the Scientific Foresight Unit, within the Directorate-General for Parliamentary Research Services (EPRS) of the Secretariat of the European Parliament.

Politično področje Dolgoročno načrtovanje | Ocena zakonodaje in politik v praksi | Sprejemanje zakonodaje s strani Evropskega parlamenta in Sveta

Ključna beseda delavec na spletni platformi | delovni pogoji | digitalna tehnologija | EVROPSKA UNIJA | informacijska tehnologija in obdelava podatkov | inovacija | internet | IZOBRAŽEVANJE IN KOMUNIKACIJE | klasifikacija podjetij | kodeks ravnanja | komunikacije | konkurenca | mednarodne zadeve | MEDNARODNI ODNOSI | multinacionalna družba | nadzor nad združevanjem (podjetij) | organizacija dela in delovne razmere | politika konkurence | POSLOVANJE IN KONKURENCA | pravo Evropske unije | predlog (EU) | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | tehnologija in tehnični predpisi | trg dela | učinek informacijske tehnologije | ZAPOSLOVANJE IN DELOVNE RAZMERE | zbiranje podatkov

Povzetek Online platforms such as Google, Amazon, and Facebook play an increasingly central role in the economy and society. They operate as digital intermediaries across interconnected sectors and markets subject to network effects. These firms have grown to an unprecedented scale, propelled by data-driven business models. Online platforms have a massive impact on individual users and businesses, and are recasting the relationships between customers, advertisers, workers, and employers. This has triggered a public debate on online platforms' economic dominance and patterns of pervasive data collection. The report provides evidence of positive impact, and documents a set of important issues not fully addressed by existing European regulation and enforcement. The consensus is that there is a need to strengthen the current law enforcement and regulation of the platform economy. This report welcomes the proposed Digital Markets and Digital Services Acts, and offers a series of policy options for competition and innovation, working conditions and labour markets, consumer and societal risks, and environmental sustainability.

Študija [EN](#)

Priloga 1 [EN](#)

[What if we could engineer the planet to help fight climate change?](#)

Vrsta publikacije Na kratko

Datum 23-02-2021

Avtor VAN WOENSEL Lieve

Politično področje Dolgoročno načrtovanje | Okolje | Raziskovalna politika

Ključna beseda ENERGETIKA | globalno segrevanje | nova tehnologija | obremenitve okolja | OKOLJE | okoljska politika | prilagoditev na podnebne spremembe | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | sončna energija | tehnologija in tehnični predpisi | tehnološka sprememba | toplogredni plin | zmanjšanje emisij plinov | znanstveni napredek | čista energija

Povzetek Efforts to curb carbon emissions are falling short and geoengineering is again in the spotlight. Will governments end up tinkering with Earth's thermostat?

Na kratko [EN](#)

Multimedijske vsebine [What if we could engineer the planet to help fight climate change?](#)

[The future of crop protection in Europe](#)

Vrsta publikacije Študija

Datum 16-02-2021

Zunanji avtor DG, EPRS_ This study has been written by Johan Bremmer, Marleen Riemens and Machiel Reinders of Wageningen University & Research at the request of the Panel for the Future of Science and Technology (STOA) and managed by the Scientific Foresight Unit, within the Directorate-General for Parliamentary Research Services (EPRS) of the Secretariat of the European Parliament.

Politično področje Dolgoročno načrtovanje | Kmetijstvo in razvoj podeželja | Okolje | Varnost hrane | Varstvo potrošnikov

Ključna beseda dobavna veriga | kmetijska politika | kmetijstvo | KMETIJSTVO, GOZDARSTVO IN RIBIŠTVO | obdelovanje kmetijskih zemljišč | OKOLJE | okoljska politika | postopki zdravstvenega varstva rastlin | proizvodnja | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | rastlinska proizvodnja | sredstva kmetijske proizvodnje | sredstvo za varstvo rastlin | tehnologija in tehnični predpisi | tehnološka presoja | varstvo rastlinstva | zakonodaja o zdravstvenem varstvu rastlin | žlahtnjenje rastlin

Povzetek The overall objective of the future of crop protection project is to present an overview of crop protection options for European farmers to enable them to work sustainably while securing food production, preserving biodiversity and supporting farmers' incomes. The policy options proposed are based on an assessment of current and emerging crop protection practices and their impact on the common agricultural policy (CAP) objectives. This overview shows that several crop protection practices are under continuous development and have potential to improve future crop protection in Europe. The likelihood that policy options can be implemented successfully depends upon the extent to which they are consistent with the interests of stakeholder groups. These include farmers, suppliers, supply chain partners, consumers and NGOs defending societal interests. Furthermore, it is important that crop protection policy options are embedded in a systems perspective. This should include related areas, such as phytosanitary policy, the entire crop production system, the supply chain, and international trade relationships – which need to be in harmony with the crop protection policy. For each of these crop protection practices, different policy options are proposed, together with an impact assessment.

Študija [EN](#)

Priloga 1 [EN](#)

Priloga 2 [EN](#)

Priloga 3 [EN](#)

Liability of online platforms

Vrsta publikacije Študija

Datum 05-02-2021

Zunanji avtor DG, EPRS. This study was written by Andrea Bertolini, Assistant Professor of Private Law of the Scuola Superiore Sant'Anna (Pisa), and Director of the Jean Monnet Centre of Excellence on the Regulation of Robotics and Artificial Intelligence (EURA), Francesca Episcopo and Nicoleta-Angela Cherciu, Research Fellows in Private Law of the Scuola Superiore Sant'Anna (Pisa), and Junior Fellows of the Jean Monnet Centre of Excellence (EURA), at the request of the Panel for the Future of Science and Technology (STOA) and managed by the Scientific Foresight Unit within the Directorate-General for Parliamentary Research Services (EPRS) of the Secretariat of the European Parliament.

Politično področje Ekonomske in monetarne zadeve | Okolje

Ključna beseda civilno pravo | notni digitalni trg | EVROPSKA UNIJA | graditev Evrope | informacije in obdelava informacij | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | odgovornost | opravljanje storitev | organizacija poslovanja | POSLOVANJE IN KONKURENCA | poslovni model | potrošnik | potrošnja | PRAVO | računalniška pismenost | spletna stran | TRGOVINA | trženje | virtualna skupnost

Povzetek Given the central role that online platforms (OPs) play in the digital economy, questions arise about their responsibility in relation to illegal/harmful content or products hosted in the frame of their operation. Against this background, this study reviews the main legal/regulatory challenges associated with OP operations and analyses the incentives for OPs, their users and third parties to detect and remove illegal/harmful and dangerous material, content and/or products. To create a functional classification which can be used for regulatory purposes, it discusses the notion of OPs and attempts to categorise them under multiple criteria. The study then maps and critically assesses the whole range of OP liabilities, taking hard and soft law, self-regulation and national legislation into consideration, whenever relevant. Finally, the study puts forward policy options for an efficient EU liability regime: (i) maintaining the status quo; (ii) awareness-raising and media literacy; (iii) promoting self-regulation; (iv) establishing co-regulation mechanisms and tools; (v) adopting statutory legislation; (vi) modifying OPs' secondary liability by employing two different models – (a) by clarifying the conditions for liability exemptions provided by the e-Commerce Directive or (b) by establishing a harmonised regime of liability.

Študija [EN](#)

Priloga 1 [EN](#)

Digital automation and the future of work

Vrsta publikacije Študija

Datum 29-01-2021

Zunanji avtor DG, EPRS. This study has been written by David Spencer, Matt Cole, Simon Joyce, Xanthe Whittaker and Mark Stuart of the Leeds University Business School, University of Leeds, UK, at the request of the Panel for the Future of Science and Technology (STOA) and managed by the Scientific Foresight Unit, within the Directorate-General for Parliamentary Research Services (EPRS) of the Secretariat of the European Parliament.

Politično področje Demokracija | Demokracija EU, institucionalno in parlamentarno pravo | Dolgoročno načrtovanje | Pogodbeno pravo, gospodarsko pravo in pravo gospodarskih družb | Pravo EU: pravni sistem in akti | Socialna politika | Zaposlovanje | Zasebno mednarodno pravo in pravosodno sodelovanje v civilnih zadevah | Človekove pravice

Ključna beseda delo | digitalna tehnologija | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | nova tehnologija | organizacija dela in delovne razmere | politika zaposlovanja EU | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija in tehnični predpisi | tehnološka sprememba | umetna inteligenca | učinek informacijske tehnologije | zaposlovanje | ZAPOSLOVANJE IN DELOVNE RAZMERE

Povzetek This report addresses the nature, scope and possible effects of digital automation. It reviews relevant literature and situates modern debates on technological change in historical context. It also offers some policy options that, if implemented, would help to harness technology for positive economic and social ends. The report recognises that technological change can affect not just the volume of work but also its quality. It identifies threats to job quality and an unequal distribution of the risks and benefits associated with digital automation. In response, it recommends a number of policy options – ones that aim to go beyond the provision of skills and training and which seek a human-centred approach to digital transformations of work based on industrial democracy and social partnership. Overall, the report pushes for a new Digital Social Contract and a future of work that works for all

Študija [EN](#)

Priloga 1 [EN](#)

[Data subjects, digital surveillance, AI and the future of work](#)

Vrsta publikacije [Študija](#)

Datum [23-12-2020](#)

Zunanji avtor This study has been written by Associate Professor Dr Phoebe V. Moore, University of Leicester School of Business, United Kingdom, and Guest Research Fellow, Weizenbaum Institute, Wissenschaftszentrum für Sozialforschung, Berlin. The study was prepared at the request of the Panel for the Future of Science and Technology (STOA) and managed by the Scientific Foresight Unit, within the Directorate-General for Parliamentary Research Services (EPRS) of the Secretariat of the European Parliament.

Politično področje [Demokracija EU](#), [institucionalno in parlamentarno pravo](#) | [Javno mednarodno pravo](#) | [Pogodbeno pravo](#), [gospodarsko pravo](#) in [pravo gospodarskih družb](#) | [Zaposlovanje](#) | [Človekove pravice](#)

Ključna beseda [delovni pogoji](#) | [delovno pravo](#) in [delovna razmerja](#) | [država članica EU](#) | [ekonomska geografija](#) | [GEOGRAFIJA](#) | [informacije](#) in [obdelava informacij](#) | [informacijska tehnologija](#) in [obdelava podatkov](#) | [IZOBRAŽEVANJE](#) IN [KOMUNIKACIJE](#) | [nova tehnologija](#) | [odnosi med socialnimi partnerji](#) | [organizacija dela](#) in [delovne razmere](#) | [pravice in svoboščine](#) | [PRAVO](#) | [primerjalna analiza](#) | [PROIZVODNJA](#), [TEHNOLOGIJA](#) IN [RAZISKOVANJE](#) | [raziskave](#) in [intelektualna lastnina](#) | [standardi dela](#) | [tehnologija](#) in [tehnični predpisi](#) | [umetna inteligenca](#) | [učinek informacijske tehnologije](#) | [varstvo podatkov](#) | [varstvo zasebnosti](#) | [ZAPOSLOVANJE](#) IN [DELOVNE RAZMERE](#)

Povzetek The report provides an in-depth overview of the social, political and economic urgencies in identifying what we call the 'new surveillance workplace'. The report assesses the range of technologies that are being introduced to monitor, track and, ultimately, watch workers, and looks at the immense changes they imbue in several arenas. How are institutions responding to the widespread uptake of new tracking technologies in workplaces, from the office, to the contact centre, to the factory? What are the parameters to protect the privacy and other rights of workers, given the unprecedented and ever-pervasive functions of monitoring technologies? The report evidences how and where new technologies are being implemented; looks at the impact that surveillance workspaces are having on the employment relationship and on workers themselves at the psychosocial level; and outlines the social, legal and institutional frameworks within which this is occurring, across the EU and beyond, ultimately arguing that more worker representation is necessary to protect the data rights of workers.

[Študija](#) [EN](#)

[Priloga](#) [EN](#)

Multimedijske vsebine [Workplace Monitoring In The Era Of Artificial Intelligence](#)

[What if artificial intelligence in medical imaging could accelerate Covid-19 treatment?](#)

Vrsta publikacije [Na kratko](#)

Datum [21-12-2020](#)

Avtor [KRITIKOS Michail](#)

Politično področje [Dolgoročno načrtovanje](#) | [Javno zdravje](#) | [Notranji trg in carinska unija](#) | [Ocena zakonodaje in politik v praksi](#) | [Pravo EU: pravni sistem in akti](#) | [Promet](#) | [Raziskovalna politika](#) | [Varstvo potrošnikov](#) | [Zaposlovanje](#)

Ključna beseda [DRUŽBENA](#) IN [SOCIALNA VPRAŠANJA](#) | [epidemija](#) | [informacije](#) in [obdelava informacij](#) | [informacijska tehnologija](#) in [obdelava podatkov](#) | [IZOBRAŽEVANJE](#) IN [KOMUNIKACIJE](#) | [javno zdravje](#) | [kibernetika](#) | [koronavirusna bolezen](#) | [medicinski](#) in [kirurški instrumenti](#) | [naravoslovne](#) in [uporabne vede](#) | [nova tehnologija](#) | [PROIZVODNJA](#), [TEHNOLOGIJA](#) IN [RAZISKOVANJE](#) | [tehnologija](#) in [tehnični predpisi](#) | [umetna inteligenca](#) | [varovanje tajnosti podatkov](#) | [varstvo podatkov](#) | [zdravniška diagnoza](#) | [zdravstvo](#) | [ZNANOST](#)

Povzetek Thermal imaging cameras are currently being installed in office buildings, hospitals, shopping malls, schools and airports as a means of detecting people with fever-like symptoms. Given that these cameras are not necessarily designed to operate as medical devices, there are questions about their suitability in the context of the current pandemic. This note provides an overview of the use of thermal imaging empowered with artificial intelligence (AI) capabilities, its suitability in the context of the current pandemic and the core technical limitations of this technology. The main legal responses and ethical concerns related to the use of AI in the context of thermal imaging at entry points to identify and triage people who may have elevated temperatures are also examined.

[Na kratko](#) [EN](#)

[What if technology and culture combined to boost a green recovery?](#)

Vrsta publikacije [Na kratko](#)

Datum [21-12-2020](#)

Avtor [KONONENKO Vadim](#)

Politično področje [Dolgoročno načrtovanje](#) | [Industrija](#) | [Izobraževanje](#) | [Javno zdravje](#) | [Kultura](#) | [Okolje](#) | [Promet](#) | [Raziskovalna politika](#) | [Varstvo potrošnikov](#)

Ključna beseda [DRUŽBENA](#) IN [SOCIALNA VPRAŠANJA](#) | [ekonomske analize](#) | [epidemija](#) | [EVROPSKA UNIJA](#) | [gospodarska politika](#) | [gospodarske posledice](#) | [gospodarske razmere](#) | [GOSPODARSTVO](#) | [graditev Evrope](#) | [inovacija](#) | [koronavirusna bolezen](#) | [kultura](#) | [kultura in religija](#) | [nova tehnologija](#) | [OKOLJE](#) | [okoljska politika](#) | [okrevanje gospodarstva](#) | [PROIZVODNJA](#), [TEHNOLOGIJA](#) IN [RAZISKOVANJE](#) | [raziskave](#) in [intelektualna lastnina](#) | [strategija EU za rast](#) | [tehnologija](#) in [tehnični predpisi](#) | [tehnološka sprememba](#) | [trajnostni razvoj](#) | [zdravstvo](#) | [zeleno gospodarstvo](#)

Povzetek With its recent European Green Deal framework, the EU is striving to achieve climate neutrality in its economy by 2050 and, simultaneously, bring itself on the path of recovery from the adverse effects of the COVID-19 pandemic. Technology will inevitably play a significant part in this process. However, historical experience tells us that culture and aesthetic have too had significant roles in recovery from a crises, be it war, economic recession, or an epidemic.

[Na kratko](#) [EN](#)

Multimedijske vsebine [What If Technology And Culture Combined To Boost A Green Recovery?](#)

What if blockchain could guarantee ethical AI?

Vrsta publikacije Na kratko

Datum 21-12-2020

Avtor KRITIKOS Michail

Politično področje Dolgoročno načrtovanje | Finančna in bančna vprašanja | Javno zdravje | Okolje | Pravo EU: pravni sistem in akti | Varnost hrane | Varstvo potrošnikov

Ključna beseda blokovna veriga | denarno poslovanje | družboslovne vede | elektronsko bančništvo | etika | FINANCE | finančni trg | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | kibernetika | kreditne in finančne institucije | naravoslovne in uporabne vede | nova tehnologija | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | prost pretok kapitala | tehnologija in tehnični predpisi | umetna inteligenca | varovanje tajnosti podatkov | varstvo podatkov | virtualna valuta | ZNANOST

Povzetek As artificial intelligence (AI) companies and other organisations are seeking ways to comply with ethical principles and requirements, blockchain, under specific circumstances, could be seen as a means to safeguard that AI is deployed in an ethically sound manner.

Na kratko [EN](#)

Multimedijske vsebine [What if blockchain could guarantee ethical AI?](#)

What if AI took care of traffic as well as driving?

Vrsta publikacije Na kratko

Datum 21-12-2020

Avtor GARCIA HIGUERA ANDRES

Politično področje Dolgoročno načrtovanje | Industrija | Promet | Raziskovalna politika | Varstvo potrošnikov

Ključna beseda avtomobilska industrija | cestni prevoz | INDUSTRIJA | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | inteligentni prometni sistem | internet stvari | IZOBRAŽEVANJE IN KOMUNIKACIJE | kibernetika | komunikacije | kopenski promet | krmilni mehanizem | naravoslovne in uporabne vede | nova tehnologija | organizacija prevoza | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | PROMET | prometna politika | strojogradnja | tehnologija in tehnični predpisi | telematika | umetna inteligenca | varnost v cestnem prometu | ZNANOST

Povzetek As happens with all applications of AI, autonomous vehicles require abundant data. Information external to the vehicle is crucial as it needs to know the structure of the road and the presence of obstacles or other vehicles in its path. Internal information is also essential, as the vehicle needs to know its own status and the reliability of critical elements, such as brakes. Even if autonomous vehicles need to detect traditional signals and allocate uncertainty areas while sharing the public thoroughfare with non-autonomous vehicles, pedestrians and even animals, an efficient exchange of information with as many other vehicles as possible will greatly increase, not only their performance but also their safety.

Na kratko [EN](#)

Multimedijske vsebine [What if AI took care of traffic as well as driving?](#)

What if AI could improve thermal imaging, to help fight coronavirus?

Vrsta publikacije Na kratko

Datum 21-12-2020

Avtor KRITIKOS Michail

Politično področje Dolgoročno načrtovanje | Javno zdravje | koronavirus | Pravo EU: pravni sistem in akti | Raziskovalna politika | Varstvo potrošnikov | Zaposlovanje

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | epidemija | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | javno zdravje | koronavirusna bolezen | medicinski in kirurški instrumenti | neionizirajoče sevanje | nova tehnologija | obremenitve okolja | OKOLJE | preprečevanje bolezni | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija in tehnični predpisi | umetna inteligenca | varovanje tajnosti podatkov | varstvo podatkov | zdravstvo

Povzetek Thermal imaging cameras are currently being installed in office buildings, hospitals, shopping malls, schools and airports as a means of detecting people with fever-like symptoms. Given that these cameras are not necessarily designed to operate as medical devices, there are questions about their suitability in the context of the current pandemic. This note provides an overview of the use of thermal imaging empowered with artificial intelligence (AI) capabilities, its suitability in the context of the current pandemic and the core technical limitations of this technology. The main legal responses and ethical concerns related to the use of AI in the context of thermal imaging at entry points to identify and triage people who may have elevated temperatures are also examined.

Na kratko [EN](#)

Multimedijske vsebine [What if AI could assist thermal imaging in fighting coronavirus?](#)

[What if AI-powered passenger locator forms could help stop the spread of Covid-19?](#)

Vrsta publikacije Na kratko

Datum 21-12-2020

Avtor KRITIKOS Michail

Politično področje Dolgoročno načrtovanje | Javno zdravje | Notranji trg in carinska unija | Pravo EU: pravni sistem in akti | Promet | Turizem | Varstvo potrošnikov

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | epidemija | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | javno zdravje | koronavirusna bolezen | nova tehnologija | organizacija prevoza | osebni podatki | pravice potnikov | preprečevanje bolezni | prevoz oseb | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | PROMET | prometna politika | tehnologija in tehnični predpisi | umetna inteligenca | zbiranje podatkov | zdravstvo

Povzetek As decisions about who should get tested in an airport are important from public health and privacy perspectives, contact tracing and targeted testing based on AI-powered PLFs should be subject to thorough validation and accountability requirements so as to gain public trust and acceptance.

Na kratko [EN](#)

[The potential of hydrogen for decarbonising steel production](#)

Vrsta publikacije Briefing

Datum 14-12-2020

Avtor KURRER CHRISTIAN MARTIN

Politično področje Industrija | Okolje | Raziskovalna politika | Regionalni razvoj

Ključna beseda ENERGETIKA | gospodarska politika | GOSPODARSTVO | INDUSTRIJA | kakovost zraka | kemija | obnovljiva energija | obremenitve okolja | OKOLJE | okoljska politika | proizvodnja vodika | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | sprememba podnebja | tehnologija in tehnični predpisi | toplogredni plin | trajnostni razvoj | vodik | zmanjšanje emisij plinov | čista energija | čista tehnologija | železarska in jeklarska industrija | železarstvo, jeklarstvo in druga kovinska industrija

Povzetek The iron and steel industry is a major contributor to the overall anthropogenic CO2 emissions worldwide, and therefore a significant driver of climate change.

This paper explores the possible options for decarbonising iron and steel production processes, focusing on the use of renewable hydrogen as an alternative to fossil coal. It explains the basic physical and chemical differences between the two alternative processes, their cost structures and potential for further cost reductions, as well as the larger implications and longer-term consequences of switching to hydrogen in this key industrial sector.

Briefing [EN](#)

Multimedijske vsebine [Types of hydrogen](#)

[What future for democracy?](#)

Vrsta publikacije Na kratko

Datum 11-12-2020

Avtor NOONAN EAMONN

Politično področje Demokracija | Demokracija EU, institucionalno in parlamentarno pravo | Dolgoročno načrtovanje | Ekonomske in monetarne zadeve | Globalno upravljanje | Izobraževanje | Socialna politika | Zaposlovanje

Ključna beseda dezinformacija | digitalna tehnologija | dokumentacija | IZOBRAŽEVANJE IN KOMUNIKACIJE | javno mnenje | javno posvetovanje | komunikacije | neposredna demokracija | odnosi z javnostmi | participativna demokracija | POLITIKA | politika in javna varnost | politični okvir | populizem | predstavniška demokracija | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | razširjanje informacij | tehnologija in tehnični predpisi

Povzetek A panel at the 2020 ESPAS conference discussed the future of democracy in the light of the coronavirus pandemic. Participatory democracy was seen as a potential remedy for polarisation, while digitisation brings a need for careful governance. Misinformation and disinformation needs to be addressed through education. A poll of attendees identified tax equity as a key innovation for successfully rebuilding democracy.

Na kratko [EN](#)

[Sustainable economic recovery](#)

Vrsta publikacije Na kratko

Datum 11-12-2020

Avtor NOONAN EAMONN

Politično področje Demokracija | Demokracija EU, institucionalno in parlamentarno pravo | Dolgoročno načrtovanje | Ekonomske in monetarne zadeve | Evropski semester | Okolje | Proračun | Proračunski nadzor | Socialna politika | Zaposlovanje

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | ekonomske analize | ENERGETIKA | energetska politika | epidemija | fosilno gorivo | gospodarska politika | gospodarske posledice | gospodarske razmere | GOSPODARSTVO | koronavirusna bolezen | OKOLJE | okoljska politika | okrevanje gospodarstva | pomoč EU | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | socialni okvir | socialni učinki | tehnologija in tehnični predpisi | trajnostni razvoj | zdravstvo | zeleno gospodarstvo | čista tehnologija

Povzetek A panel at the 2020 ESPAS conference discussed how to create a sustainable economic recovery after the coronavirus pandemic. Robust governance is needed to get the most out of the new resources created at EU level. Both public funding and private capital are needed for the green transition. Public access to big data sets was identified as a critical issue, to prevent harmful monopolies. A poll of attendees identified dependence on fossil fuels as a key obstacle to a sustainable recovery.

Na kratko [EN](#)

[What if AI could help us become 'greener'?](#)

Vrsta publikacije Na kratko

Datum 20-11-2020

Avtor KONONENKO Vadim

Politično področje Dolgoročno načrtovanje | Industrija | Izobraževanje | Javno zdravje | Okolje | Promet | Raziskovalna politika | Varstvo potrošnikov

Ključna beseda EVROPSKA UNIJA | gospodarska politika | GOSPODARSTVO | graditev Evrope | informacije in obdelava informacij | inovacija | IZOBRAŽEVANJE IN KOMUNIKACIJE | kibernetika | krožno gospodarstvo | naravoslovne in uporabne vede | nova tehnologija | OKOLJE | okoljska politika | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | strategija EU za rast | tehnologija in tehnični predpisi | tehnološka sprememba | trajnostni razvoj | umetna inteligenca | zeleno gospodarstvo | ZNANOST

Povzetek While some argue that AI can potentially be useful or even indispensable in 'green transitions', important questions remain open. Should AI be only used in resolving different specific problems (for example, intelligent pollinating robots replacing a declining bee population) or should AI be employed in 'governing' the sustainability of complex socio-economic systems such as mobility, food, and energy? While the latter option is currently technically unattainable and may be ethically dubious, it marks the axis of a political debate about possible synergies between sustainability and AI.

Na kratko [EN](#)

Multimedijske vsebine [What if AI could help us become 'greener'?](#)

[What if we could renew all our cells?](#)

Vrsta publikacije Na kratko

Datum 20-11-2020

Avtor QUAGLIO Gianluca

Politično področje Dolgoročno načrtovanje | Industrija | Javno zdravje | Raziskovalna politika | Varstvo potrošnikov

Ključna beseda bioetika | biotehnologija | citologija | DRUŽBENA IN SOCIALNA VPRAŠANJA | družbene in socialne zadeve | javno zdravje | nadzor zdravil | naravoslovne in uporabne vede | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija in tehnični predpisi | terapija | zarodna celica | zdravilo | zdravstveno varstvo | zdravstvo | ZNANOST

Povzetek Regenerative medicine (RM) is an interdisciplinary field that applies engineering and life science techniques to restore tissues and organs damaged by age, disease or trauma, as well as those with congenital defects. Promising data supports the future capability of using RM across a wide array of organ systems and contexts, including surface wounds, cardiovascular diseases and traumas and treatments for certain types of cancer.

Na kratko [EN](#)

Multimedijske vsebine [What if we could renew all our cells?](#)

[Global mega-trends: Scanning the post-coronavirus horizon](#)

Vrsta publikacije Briefing

Datum 13-11-2020

Avtor RECHARD Daniele

Politično področje Ekonomske in monetarne zadeve | Javno zdravje | Okolje

Ključna beseda analiza politik | DRUŽBENA IN SOCIALNA VPRAŠANJA | ekonomske analize | epidemija | gospodarska rast | gospodarska struktura | gospodarske posledice | gospodarske razmere | GOSPODARSTVO | izvršilna oblast in javna uprava | koronavirusna bolezen | kratkoročna napoved | MEDNARODNI ODNOSI | mednarodno sodelovanje | OKOLJE | okoljska politika | POLITIKA | politika o podnebnih spremembah | politika sodelovanja | socialni okvir | socialni učinki | svetovno gospodarstvo | zdravstvo

Povzetek The European Strategy and Policy Analysis System (ESPAS) – the strategic foresight network of the European Union institutions – offers a valuable 'free space' in which to conduct a genuine continental, and potentially global, conversation about where the world is heading over the medium to long run. It was initiated by the European Parliament almost a decade ago in order to help promote a serious discussion of this kind. The third ESPAS Global Trends Report, Global Trends to 2030: Challenges and Choices for Europe, as published in April 2019. Transposing into the European context the kind of strategic foresight analysis undertaken in the United States by the National Intelligence Council (NIC) on global trends since the end of the 1990s, it aims to sketch the global and longer-term backdrop against which Europeans will seek to shape their future. The coronavirus pandemic broke out less than a year later.

Briefing [EN](#)

[Foresight within the EU institutions: The ESPAS analysis so far](#)

Vrsta publikacije **Briefing**

Datum **13-10-2020**

Avtor **NOONAN EAMONN**

Politično področje **Demokracija EU, institucionalno in parlamentarno pravo | Dolgoročno načrtovanje | Ekonomske in monetarne zadeve | Globalno upravljanje | Okolje | Socialna politika**

Ključna beseda **analiza politik | dolgoročna napoved | dolgoročna ocena možnosti | ekonomske analize | EVROPSKA UNIJA | GOSPODARSTVO | graditev Evrope | izvršilna oblast in javna uprava | kratkoročna napoved | POLITIKA | politika EU**

Povzetek Three ESPAS Global Trends Reports identify major shifts through the 2010s and the challenges they pose for the European Union. The reports tease out both risks and opportunities arising in geopolitics, the economy, technology, the environment and society. They underline the need for anticipatory governance and for the development of a strategic foresight culture within the EU institutions.

Briefing [EN](#)

Multimedijske vsebine [Foresight within the EU institutions: The ESPAS analysis so far](#)

[Foresight for resilience: The European Commission's first annual Foresight Report](#)

Vrsta publikacije **Na kratko**

Datum **08-10-2020**

Avtor **NOONAN EAMONN**

Politično področje **Demokracija | Demokracija EU, institucionalno in parlamentarno pravo | Globalno upravljanje**

Ključna beseda **dokumentacija | DRUŽBENA IN SOCIALNA VPRAŠANJA | družboslovne vede | epidemija | Evropska komisija | EVROPSKA UNIJA | geopolitika | gospodarska politika | gospodarske razmere | GOSPODARSTVO | graditev Evrope | informacijska tehnologija in obdelava podatkov | institucije EU in evropska javna uprava | IZOBRAŽEVANJE IN KOMUNIKACIJE | koronavirusna bolezen | krožno gospodarstvo | OKOLJE | okoljska politika | okoljska politika EU | okrevanje gospodarstva | poročilo o dejavnosti | strategija EU | učinek informacijske tehnologije | zdravstvo | zeleno gospodarstvo | ZNANOST**

Povzetek The first Annual Foresight Report sets out how foresight will be used in the EU's work towards a sustainable recovery and open strategic autonomy, Horizon scanning can identify emerging risks and opportunities. Scenario development can tease out potential synergies, for example between green and digital objectives. Dashboards can be used to measure progress towards agreed goals, while a European Foresight Network can enhance the interaction between different levels of governance.

Na kratko [EN](#)

[Disruption by technology: Impacts on politics, economics and society](#)

Vrsta publikacije **Poglobljena analiza**

Datum **21-09-2020**

Avtor **BENTZEN Naja | BOUCHER Philip Nicholas | LATICI Tania | MADIEGA Tambiama André | SCHMERTZING Leopold | SZCZEPANSKI Marcin**

Politično področje **Demokracija | Dolgoročno načrtovanje | Ekonomske in monetarne zadeve | Industrija | koronavirus | Ocena zakonodaje in politik v praksi | Varnost in obramba | Zunanje zadeve**

Ključna beseda **avtomatizacija | demokracija | dezinformacija | digitalna tehnologija | DRUŽBENA IN SOCIALNA VPRAŠANJA | družbena norma | družbeni mediji | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | mednarodne zadeve | mednarodni odnosi | MEDNARODNI ODNOSI | obramba | obrambna politika | organizacija poslovanja | POLITIKA | politični okvir | POSLOVANJE IN KONKURENCA | poslovni model | proizvodnja | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | socialni okvir | tehnologija in tehnični predpisi | tehnološka sprememba | učinek informacijske tehnologije | vrednostna veriga**

Povzetek Technological development has long been considered as a disruptive force, provoking change at many levels, from the routine daily activities of individuals to dramatic competition between global superpowers. This analysis examines disruption caused by technologies in a series of key areas of politics, economics and society. It focuses on seven fields: the economic system, the military and defence, democratic debates and the 'infosphere', social norms, values and identities, international relations, and the legal and regulatory system. It also presents surveillance as an example of how technological disruption across these domains can converge to propel other phenomena. The key disruptive force of 2020 is non-technological, namely coronavirus. The pandemic is used here as an opportunity to examine how technological disruption interacts with other forms of disruption.

Poglobljena analiza [DE](#), [EN](#), [FR](#)

Multimedijske vsebine [Disruption by technology](#)

[What if 'rewilding' could help reverse biodiversity loss in Europe?](#)

Vrsta publikacije Na kratko

Datum 18-09-2020

Avtor KULJANIC Nera

Politično področje Demokracija EU, institucionalno in parlamentarno pravo | Javno zdravje | Kmetijstvo in razvoj podeželja | Okolje

Ključna beseda biotska raznovrstnost | naravno okolje | OKOLJE | okoljska politika | varstvo rastlinstva | zavarovana vrsta | zavarovano območje | zaščita živali

Povzetek Biodiversity is in crisis across the globe: species extinctions and a loss of nature occurring at rates unprecedented in human history, and with the EU no exception, our biodiversity and the essential value it brings are under threat. Could 'rewilding' help restore Europe's nature?

Na kratko [EN](#)

Multimedijske vsebine [What if 'rewilding' could help reverse biodiversity loss in Europe?](#)

[What if fashion were good for the planet?](#)

Vrsta publikacije Na kratko

Datum 10-09-2020

Avtor VAN WOENSEL Lieve

Politično področje Dolgoročno načrtovanje | Industrija | Okolje | Varstvo potrošnikov

Ključna beseda gospodarska politika | GOSPODARSTVO | INDUSTRIJA | industrijsko onesnaževanje | izvršilna oblast in javna uprava | oblačilna industrija | oblikovanje politik | obremenitve okolja | OKOLJE | okoljska politika | POLITIKA | potrošnja | potrošnja | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija in tehnični predpisi | trajnostni razvoj | TRGOVINA | usnjarska in tekstilna industrija | varstvo okolja | vpliv na okolje | čista tehnologija

Povzetek Fashion is the second most polluting industry in the world, coming just after oil. Clothing manufacture and consumption have a huge negative impact on both the environment and people. Sustainability is not only about the environment, but is also an economic and social indicator, and the clothing industry is a good example illustrating their interconnections. Are technological innovations alone enough to 'tailor' a green and fair future for fashion?

Na kratko [EN](#)

Multimedijske vsebine [What if fashion were good for the planet?](#)

[What if fashion were good for the planet?](#)

[Disinformation and Science: A survey of the gullibility of students with regard to false scientific news](#)

Vrsta publikacije Študija

Datum 04-09-2020

Zunanji avtor DG, EPRS

Politično področje Dolgoročno načrtovanje | koronavirus | Raziskovalna politika

Ključna beseda Avstrija | biološke vede | dezinformacija | dokumentacija | DRUŽBENA IN SOCIALNA VPRAŠANJA | družbene vede | družboslovne vede | ekonomska geografija | ekonomske analize | epidemija | Evropa | GEOGRAFIJA | GOSPODARSTVO | Hrvaška | Italija | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | koronavirusna bolezen | Madžarska | mediji | množične komunikacije | naravoslovne in uporabne vede | organizacija pouka | politična geografija | poučevanje | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskava vzorca | raziskave in intelektualna lastnina | raziskovalno poročilo | rezultati raziskav | Slovaška | univerza | zdravstvo | ZNANOST | Češka | študent/dijak

Povzetek The main aim of this report is to present and discuss the results of a survey concerning perspectives on fake news among undergraduate university students in central Europe and northern Italy. The survey was carried out in spring 2020, during the coronavirus pandemic. An online questionnaire was used. The report is therefore the product of what could be achieved under highly unusual circumstances and should serve as a pointer for further studies. Misinformation is always troubling, especially in science. Scientists feel distressed when public understanding diverges from the truth. Intentional disinformation (fake news), however, is not always the cause of misinformation. The report discusses the causes related to social trust and types of media consumption. The sample of the study consisted of several hundred bachelors or masters students from each participating country. Half of the students were recruited from social sciences areas and the other half of the sample were recruited from natural sciences areas. The method of approaching the students was online questioning. One university was chosen from each participating country, and the link to the questionnaire was sent by that university's administration to the students. The response to the questionnaire was naturally anonymous and voluntary.

Študija [EN](#)

[Scenarios for geo-politics after coronavirus: A recent Atlantic Council analysis](#)

Vrsta publikacije Na kratko

Datum 16-07-2020

Avtor SCHMERTZING Leopold

Politično področje Demokracija | Demokracija EU, institucionalno in parlamentarno pravo | Dolgoročno načrtovanje | Globalno upravljanje | Javno zdravje | koronavirus | Mednarodna trgovina | Socialna politika | Varnost in obramba | Zunanje zadeve

Ključna beseda Amerika | Azija in Oceanija | DRUŽBENA IN SOCIALNA VPRAŠANJA | družboslovne vede | ekonomska geografija | epidemija | Evropa | GEOGRAFIJA | geopolitika | Kitajska | koronavirusna bolezen | možganski trust | politična geografija | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | Rusija | zdravstvo | Združene države | ZNANOST

Povzetek The Atlantic Council report, 'What World Post-Covid-19? Three Scenarios', has two main takeaways: first, Chinese-US rivalry could get worse and go global, destabilising an increasingly divided EU and endangering the United States' alliances system in Asia. Second, there is no way around the US, Europe and China cooperating to develop a positive, global 'new normal'.

Na kratko [EN](#)

[Will distributed energy resources \(DERs\) change how we get our energy?](#)

Vrsta publikacije Na kratko

Datum 16-07-2020

Avtor NOONAN EAMONN

Politično področje Dolgoročno načrtovanje | Energija | Okolje | Razvoj in humanitarna pomoč | Regionalni razvoj

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | električni akumulator | elektronika in elektrotehnika | ENERGETIKA | energetska politika | energetska omrežje | gradnja in urbanizem | INDUSTRIJA | obnovljiva energija | obremenitve okolja | OKOLJE | okoljska politika | oskrba z električno energijo | sprememba podnebja | trg energije | zeleno gospodarstvo | zmanjšanje emisij plinov | čista energija

Povzetek Decentralised energy resources (DERs) may signal a paradigm shift for electricity production. By 2050, a majority of households in the EU could potentially be suppliers as well as consumers of energy. Energy communities, peer-to-peer trading and interoperable smart grids are emerging trends. This can fit well with the European Green Deal.

Na kratko [EN](#)

[Decoupling economic growth from environmental harm](#)

Vrsta publikacije Na kratko

Datum 16-07-2020

Avtor NOONAN EAMONN

Politično področje Dolgoročno načrtovanje | Ekonomske in monetarne zadeve | Energija | Globalno upravljanje | Okolje

Ključna beseda gospodarska politika | gospodarska rast | gospodarske razmere | GOSPODARSTVO | obremenitve okolja | OKOLJE | okoljska politika | sprememba podnebja | trajnostni razvoj | zmanjšanje emisij plinov

Povzetek Decoupling economic growth from the depletion of planetary resources is a major challenge. An effective strategy will span several domains. Trends to watch include the development of negative emissions technologies, advances in the storage of renewable energy, the circular economy, and reforestation - among many others.

Na kratko [EN](#)

[What if insects were on the menu in Europe?](#)

Vrsta publikacije Na kratko

Datum 03-07-2020

Avtor KULJANIC Nera

Politično področje Dolgoročno načrtovanje | Kmetijstvo in razvoj podeželja | Okolje | Pogodbeno pravo, gospodarsko pravo in pravo gospodarskih družb | Ribištvo | Varnost hrane | Varstvo potrošnikov

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | Evropska agencija za varnost hrane | EVROPSKA UNIJA | institucije EU in evropska javna uprava | kmetijska politika | KMETIJSKO ŽIVILSTVO | kmetijstvo | KMETIJSKO, GOZDARSTVO IN RIBIŠTVO | naravno okolje | nova živila | OKOLJE | poraba živil | potrošnja | prehrana | prehranjevalne navade | reja živali | trajnostno kmetijstvo | TRGOVINA | zdravstvo | živila | žuželka

Povzetek Insects, while commonly consumed elsewhere in the world, have long been off the menu in Europe – but they could soon be creeping their way onto our plates. Entomophagy, the practice of eating insects, is now gaining serious interest – is it set to take Europe by storm?

Na kratko [EN](#)

Multimedijske vsebine [What if insects were on the menu in Europe?](#)

[What if insects were on the menu in Europe?](#)

[Artificial intelligence: How does it work, why does it matter, and what can we do about it?](#)

Vrsta publikacije Študija

Datum 28-06-2020

Avtor BOUCHER Philip Nicholas

Politično področje Demokracija | Dolgoročno načrtovanje | Industrija | Izobraževanje | Kultura | Notranji trg in carinska unija | Raziskovalna politika | Socialna politika | Varnost in obramba | Varstvo potrošnikov | Zaposlovanje | Človekove pravice

Ključna beseda ekonomske analize | GOSPODARSTVO | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | nova tehnologija | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija in tehnični predpisi | umetna inteligenca | učinek informacijske tehnologije | študija učinkov

Povzetek Artificial intelligence (AI) is probably the defining technology of the last decade, and perhaps also the next. The aim of this report is to support meaningful reflection and productive debate about AI by providing accessible information about the full range of current and speculative techniques and their associated impacts, and setting out a wide range of regulatory, technological and societal measures that could be mobilised in response.

Študija [EN](#)

[The impact of the General Data Protection Regulation \(GDPR\) on artificial intelligence](#)

Vrsta publikacije Študija

Datum 25-06-2020

Zunanji avtor DG, EPRS. The study was led by Professor Giovanni Sartor, European University Institute of Florence, at the request of the Panel for the Future of Science and Technology (STOA) and managed by the Scientific Foresight Unit, within the Directorate-General for Parliamentary Research Services (EPRS) of the Secretariat of the European Parliament. It was co-authored by Professor Sartor and Dr Francesca Lagioia, European University Institute of Florence, working under his supervision.

Politično področje Dolgoročno načrtovanje | Ocena zakonodaje in politik v praksi | Pravo EU: pravni sistem in akti | Raziskovalna politika | Sprejemanje zakonodaje s strani Evropskega parlamenta in Sveta

Ključna beseda EVROPSKA UNIJA | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | osebni podatki | pravo Evropske unije | umetna inteligenca | uredba (EU) | varovanje tajnosti podatkov | varstvo podatkov

Povzetek This study addresses the relation between the EU General Data Protection Regulation (GDPR) and artificial intelligence (AI). It considers challenges and opportunities for individuals and society, and the ways in which risks can be countered and opportunities enabled through law and technology. The study discusses the tensions and proximities between AI and data protection principles, such as in particular purpose limitation and data minimisation. It makes a thorough analysis of automated decision-making, considering the extent to which it is admissible, the safeguard measures to be adopted, and whether data subjects have a right to individual explanations. The study then considers the extent to which the GDPR provides for a preventive risk-based approach, focused on data protection by design and by default.

Študija [EN](#)

Priloga 1 [EN](#)

[Artificial intelligence: From ethics to policy](#)

Vrsta publikacije Študija

Datum 24-06-2020

Zunanji avtor DG, EPRS. This study has been written by Dr Aimee van Wynsberghe of Delft University of Technology and co-director of the Foundation for Responsible Robotics at the request of the Panel for the Future of Science and Technology (STOA) and managed by the Scientific Foresight Unit, within the Directorate-General for Parliamentary Research Services (EPRS) of the Secretariat of the European Parliament.

Politično področje Mednarodna trgovina | Varstvo potrošnikov

Ključna beseda družboslovne vede | ekonomske analize | etika | EVROPSKA UNIJA | GOSPODARSTVO | informacije in obdelava informacij | IZOBRAŽEVANJE IN KOMUNIKACIJE | pravo Evropske unije | približevanje zakonodaje | umetna inteligenca | ZNANOST | študija učinkov

Povzetek There is little doubt that artificial intelligence (AI) and machine learning (ML) will revolutionise public services. However, the power for positive change that AI provides simultaneously has a potential for negative impacts on society. AI ethics work to uncover the variety of ethical issues resulting from the design, development, and deployment of AI. The question at the centre of all current work in AI ethics is: 'How can we move from AI ethics to specific policy and legislation for governing AI?' Based on a framing of 'AI as a social experiment', this study arrives at policy options for public administrations and governmental organisations who are looking to deploy AI/ML solutions, as well as the private companies who are creating AI/ML solutions for use in the public arena. The reasons for targeting this application sector concern: the need for a high standard of transparency, respect for democratic values, and legitimacy. The policy options presented here chart a path towards accountability; procedures and decisions of an ethical nature are systematically logged prior to the deployment of an AI system. This logging is the first step in allowing ethics to play a crucial role in the implementation of AI for the public good.

Študija [EN](#)

Priloga 1 [EN](#)

[Exploring the performance gap in EU Framework Programmes between EU13 and EU15 Member States](#)

Vrsta publikacije **Poglabljena analiza**

Datum **17-06-2020**

Zunanji avtor **DG, EPRS**-This document presents an update of the STOA study 'Overcoming innovation gaps in the EU-13 Member States'. The study was requested by the Panel for the Future of Science and Technology (STOA) and managed by the Scientific Foresight Unit (STOA) within the Directorate-General for Parliamentary Research Services (DG EPRS) of the European Parliament. Members of the project team were: Michal Pazour, Vladimir Albrecht, Daniel Frank, Vlastimil Ruzicka, Jiri Vanecek, Ondrej Pecha, Zdenek Kucera, Technology Centre CAS, Prague; Edwin Horlings, Barend van der Meulen, Rathenau Institute, The Hague; Leonhard Hennen (ETAG co-ordinator), KIT/ITAS, Karlsruhe. In addition, hypothesis 6 discussed in the present report is obtained from the STOA study 'Internationalisation of EU research organisations: A bibliometric stocktaking study', written by Marek Kwiek, Director of the Center for Public Policy Studies, UNESCO Chair in Institutional Research and Higher Education Policy at the University of Poznan, Poland.

Politično področje **Dolgoročno načrtovanje | Raziskovalna politika**

Ključna beseda **dokumentacija | država članica EU | ekonomska geografija | GEOGRAFIJA | inovacija | IZOBRAŽEVANJE IN KOMUNIKACIJE | MEDNARODNI ODNOSI | politika sodelovanja | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | raziskave in razvoj | raziskovalna politika EU | raziskovalni program | raziskovalni proračun | raziskovalno poročilo | znanstveni napredek | znanstveno sodelovanje**

Povzetek The European Union (EU)'s Research and Innovation Framework Programmes are the largest programmes for international research collaboration worldwide. Repeated reports point to the issue of underperformance in the Framework Programmes by the EU13 Member States - countries that joined the EU in and after 2004 - in comparison with the EU15 Member States - which entered the EU before 2004. This in-depth analysis explores the background of various challenges in research and development of EU13 vs EU15, in order to investigate the gap between these two groups. A set of hypotheses, divided in five domains, are tested empirically. This includes: research and innovation system structure; scientific level of research institutions and quality of proposals; quantity of submitted proposals; level of international collaboration; and other factors related to the Framework Programmes. The weak positions of most EU13 Member States for several of the indicators analysed, show that the field of research in EU13 Member States requires further structural changes. This report is followed by policy options for mitigating the innovation gap in Europe.

[Poglabljena analiza](#) [EN](#)

[What if AI could advance the science surrounding dementia?](#)

Vrsta publikacije **Na kratko**

Datum **10-06-2020**

Avtor **VAN WOENSEL Lieve**

Politično področje **Dolgoročno načrtovanje | Javno zdravje | Raziskovalna politika | Varstvo potrošnikov**

Ključna beseda **DRUŽBENA IN SOCIALNA VPRAŠANJA | duševna bolezen | informacije in obdelava informacij | IZOBRAŽEVANJE IN KOMUNIKACIJE | javno zdravje | umetna inteligenca | zdravniška diagnoza | zdravstvo**

Povzetek Artificial intelligence could help in the fight against dementia, a rapidly growing public health problem! Which AI applications in dementia diagnosis and treatment are already under way, and what are future directions and implications? What if, in the future, we could have access to human brains like Google maps? What if we could backup our minds and restore it when needed, such as in the case of getting dementia?

[Na kratko](#) [EN](#)

Multimedijske vsebine [What if AI could advance the science surrounding dementia?](#)

[Blockchain for supply chains and international trade](#)

Vrsta publikacije **Študija**

Datum **29-05-2020**

Zunanji avtor This study was written by Bertrand Copigneaux, Nikita Vlasov and Emarildo Bani of IDATE DigiWorld, Nikolay Tcholtchev and Philipp Lämmel of Fraunhofer Institute for Open Communication Systems, Michael Fuenfzig, Simone Snoeijsbos and Michael Flickenschild from Ecorys, and Martina Piantoni and Simona Frazzani from Grimaldi Studio Legale at the request of the Panel for the Future of Science and Technology (STOA) and managed by the Scientific Foresight Unit, within the Directorate-General for Parliamentary Research Services (EPRS) of the Secretariat of the European Parliament.

Politično področje **Dolgoročno načrtovanje | Ekonomske in monetarne zadeve | Finančna in bančna vprašanja | Industrija | Mednarodna trgovina | Notranji trg in carinska unija | Okolje | Pogodbeno pravo, gospodarsko pravo in pravo gospodarskih družb | Predhodna ocena učinka | Raziskovalna politika | Socialna politika | Varstvo potrošnikov | Zasebno mednarodno pravo in pravosodno sodelovanje v civilnih zadevah**

Ključna beseda **blokovna veriga | dobavna veriga | ekonomske analize | elektronsko bančništvo | FINANCE | GOSPODARSTVO | kreditne in finančne institucije | mednarodna trgovina | mednarodna trgovina | proizvodnja | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija in tehnični predpisi | TRGOVINA | študija učinkov**

Povzetek This study provides an analysis of blockchain technology in the context of international trade. It analyses the potential impacts of blockchain development and applications in eight use cases for supply chains and international trade. It also provides an analysis of the current legislative framework and existing initiatives. Based on this analysis, and following a broad consultation of relevant organisations, the study identifies several challenges in international trade documentation and processes, and presents a range of policy options for the European Parliament.

[Študija](#) [EN](#)

[Priloga](#) [EN](#)

[Foresight within the EU institutions: The ESPAS process so far](#)

Vrsta publikacije [Briefing](#)

Datum 20-05-2020

Avtor NOONAN EAMONN

Politično področje [Demokracija EU](#), [institucionalno in parlamentarno pravo](#) | [Dolgoročno načrtovanje](#) | [Proračun](#)

Ključna beseda [analiza politik](#) | [EVROPSKA UNIJA](#) | [institucija EU](#) | [institucije EU in evropska javna uprava](#) | [izvršilna oblast in javna uprava](#) | [medinstitucionalno sodelovanje \(EU\)](#) | [POLITIKA](#) | [upravno sodelovanje](#) | [urad ali agencija EU](#)

Povzetek The European Strategy and Policy Analysis System (ESPAS) brings together the various European Union (EU) institutions and bodies in a process of administrative-level cooperation designed to identify and analyse the medium- and long-term trends facing the European Union and their implications for policy-makers. This dialogue was established in the early 2010s as a means of promoting longer-term thinking in the EU policy process and encouraging the Union's various institutions to cooperate more closely in this field. This EPRS Briefing traces the origins of the ESPAS process and describes its operation to date, with the digital version of the Briefing offering links to some of its key output since 2012. A parallel Briefing will compare and contrast the three Global Trends Reports produced by the ESPAS process, in 2012, 2015 and 2019.

[Briefing](#) [EN](#)

[Potentially negative effects of internet use](#)

Vrsta publikacije [Poglobljena analiza](#)

Datum 13-05-2020

Avtor QUAGLIO Gianluca

Politično področje [Dolgoročno načrtovanje](#) | [Izobraževanje](#) | [Javno zdravje](#) | [Kultura](#) | [Socialna politika](#) | [Varstvo potrošnikov](#)

Ključna beseda [DRUŽBENA IN SOCIALNA VPRAŠANJA](#) | [družbene in socialne zadeve](#) | [ekonomske analize](#) | [enotni digitalni trg](#) | [EVROPSKA UNIJA](#) | [GOSPODARSTVO](#) | [graditev Evrope](#) | [informacije in obdelava informacij](#) | [informacijska tehnologija in obdelava podatkov](#) | [internet](#) | [IZOBRAŽEVANJE IN KOMUNIKACIJE](#) | [javno zdravje](#) | [komunikacije](#) | [medčloveški odnosi](#) | [osebni razvoj](#) | [ozaveščanje javnosti](#) | [POLITIKA](#) | [politika in javna varnost](#) | [računalniška pismenost](#) | [socialno vedenje](#) | [učinek informacijske tehnologije](#) | [varovanje tajnosti podatkov](#) | [zasvojenost z igrami](#) | [zdravstvo](#) | [študija učinkov](#)

Povzetek It is increasingly recognised that the internet, in spite of all its benefits to society, can also be correlated with significant harms to individuals and society. Some of these harms have been studied extensively, particularly harms to privacy, harms associated with security and cybercrime, and harms resulting from digital divides. This report covers less studied but equally important harms: harms associated with internet use that concern the health, well-being a functioning of individuals, and the impact on social structures and institutions. The ultimate aim of the study is to develop concrete policy options to be considered by the EU Institutions and Member States, to mitigate negative effects of the internet for European citizens.

[Poglobljena analiza](#) [EN](#)

Multimedijske vsebine [Potentially negative effects of internet use](#)

[What if we could fight antibiotic resistance with probiotics?](#)

Vrsta publikacije [Na kratko](#)

Datum 23-04-2020

Avtor QUAGLIO Gianluca

Politično področje [Dolgoročno načrtovanje](#) | [Javno zdravje](#) | [Kmetijstvo in razvoj podeželja](#) | [Okolje](#) | [Varnost hrane](#)

Ključna beseda [antibiotik](#) | [DRUŽBENA IN SOCIALNA VPRAŠANJA](#) | [funkcionalna živila](#) | [javno zdravje](#) | [KMETIJSKO ŽIVILSTVO](#) | [protimikrobna odpornost](#) | [zdravstvo](#) | [živila](#)

Povzetek Recent research suggests that the future combat against antimicrobial resistance (AMR) may involve probiotic-based approaches. Their use in our microbial ecosystems, including humans, animals and the healthcare environment, may provide a novel approach which deserves exploration.

[Na kratko](#) [EN](#)

Multimedijske vsebine [What if we could fight antibiotic resistance with probiotics?](#)

[Ten technologies to fight coronavirus](#)

Vrsta publikacije [Poglobljena analiza](#)

Datum 22-04-2020

Avtor KRITIKOS Michail

Politično področje [Dolgoročno načrtovanje](#) | [Javno zdravje](#) | [Pravo EU: pravni sistem in akti](#) | [Raziskovalna politika](#) | [Varstvo potrošnikov](#)

Ključna beseda [biologija](#) | [blokovna veriga](#) | [brezpilotni zrakoplov](#) | [DRUŽBENA IN SOCIALNA VPRAŠANJA](#) | [e-zdravje](#) | [epidemija](#) | [informacije in obdelava informacij](#) | [informacijska tehnologija in obdelava podatkov](#) | [IZOBRAŽEVANJE IN KOMUNIKACIJE](#) | [koronavirusna bolezen](#) | [nanotehnologija](#) | [naravoslovne in uporabne vede](#) | [odprtokodna programska oprema](#) | [PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE](#) | [PROMET](#) | [robotizacija](#) | [tehnologija in tehnični predpisi](#) | [tiskanje v tehniki 3D](#) | [umetna inteligenca](#) | [zdravstvo](#) | [ZNANOST](#) | [zračni in vesoljski promet](#)

Povzetek From synthetic biology to artificial intelligence and from blockchain technologies to nanotechnology, a wide range of technological applications are being deployed to combat COVID-19. Are they safe and effective? Have they been tested before in a public health emergency context? Does their use involve risks and threaten our values and rights? This well-timed STOA publication of ten central technological trajectories employed in the fight against this pandemic disease offers us a much-needed analysis of what is at stake in technological terms word-wide, but also of what legislators may need to do in order to tackle the relevant legal and ethical questions.

[Poglobljena analiza](#) [EN](#)

[Rethinking education in the digital age](#)

Vrsta publikacije Študija

Datum 31-03-2020

Zunanji avtor DG, EPRS_ This study has been written by VDI Technologiezentrum GmbH at the request of the Panel for the Future of Science and Technology (STOA) and managed by the Scientific Foresight Unit of the Directorate for Impact Assessment and European Added Value, within the Directorate-General for Parliamentary Research Services (EPRS) of the Secretariat of the European Parliament.

Politično področje Dolgoročno načrtovanje | Izobraževanje | Kultura | Socialna politika | Zaposlovanje

Ključna beseda avtomatizacija pisarniškega poslovanja | didaktična programska oprema | digitalna tehnologija | digitalni razkorak | dostop do zaposlitve | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | izobraževalna politika | izobraževanje | IZOBRAŽEVANJE IN KOMUNIKACIJE | organizacija pouka | permanentno izobraževanje | programirani pouk | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | računalniška pismenost | tehnologija in tehnični predpisi | trg dela | učenje na daljavo | učni program | ZAPOSLOVANJE IN DELOVNE RAZMERE

Povzetek Traditional roles, content and methods of education are being challenged – today's education needs to prepare students for changing tasks and roles both in the labour market and as European citizens. Rethinking education in the digital age should become a central matter for today's policy-makers and matters for safeguarding European values such as equality, democracy and the rule of law. The current study presents policy options on the basis of a thorough analysis of current strengths and weaknesses, as well as future opportunities and threats for education in the digital age.

Študija [EN](#)

Priloga 1 [EN](#)

[What if smartphones could help contain COVID-19?](#)

Vrsta publikacije Na kratko

Datum 24-03-2020

Avtor KURRER CHRISTIAN MARTIN

Politično področje Dolgoročno načrtovanje | Javno zdravje | Območje svobode, varnosti in pravice | Predhodna ocena učinka | Raziskovalna politika | Razvoj in humanitarna pomoč

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | epidemija | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | izmenjava informacij | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | koronavirusna bolezen | mobilni telefon | osebni podatki | varstvo podatkov | zdravstvo

Povzetek In recent years, smartphones have increasingly attracted attention as a key tools in emergency and disaster situations. Almost all smartphones are nowadays equipped with GPS sensors that can track the location of their owners. Comparing the location history of infected individuals with the location history of all other Smartphone users (tested positive or not yet tested) could help health authorities gain much better understanding of where the transmission might have occurred, and who else should be tested with urgency, avoiding the further spread of the infection.

Na kratko [EN](#)

[The ethics of artificial intelligence: Issues and initiatives](#)

Vrsta publikacije Študija

Datum 11-03-2020

Zunanji avtor DG, EPRS This study has been drafted by Eleanor Bird, Jasmin Fox-Skelly, Nicola Jenner, Ruth Larbey, Emma Weitkamp and Alan Winfield from the Science Communication Unit at the University of the West of England, at the request of the Panel for the Future of Science and Technology (STOA), and managed by the Scientific Foresight Unit, within the Directorate-General for Parliamentary Research Services (EPRS) of the Secretariat of the European Parliament.

Politično področje Demokracija | Dolgoročno načrtovanje | Finančna in bančna vprašanja | Globalno upravljanje | Javno zdravje | Območje svobode, varnosti in pravice | Pravo EU: pravni sistem in akti | Promet | Raziskovalna politika | Socialna politika | Varstvo potrošnikov | Zaposlovanje

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | družboslovne vede | ekonomske analize | etika | GOSPODARSTVO | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | nova tehnologija | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | robotika | socialni okvir | socialni učinki | tehnologija in tehnični predpisi | umetna inteligenca | ZNANOST | študija učinkov

Povzetek This study deals with the ethical implications and moral questions that arise from the development and implementation of artificial intelligence (AI) technologies. It also reviews the guidelines and frameworks that countries and regions around the world have created to address these. It presents a comparison between the current main frameworks and the main ethical issues, and highlights gaps around mechanisms of fair benefit sharing; assigning of responsibility; exploitation of workers; energy demands in the context of environmental and climate changes; and more complex and less certain implications of AI, such as those regarding human relationships.

Študija [EN](#)

Priloga 1 [EN](#)

[What if we could fight coronavirus with artificial intelligence?](#)

Vrsta publikacije Na kratko

Datum 10-03-2020

Avtor KRITIKOS Michail

Politično področje Dolgoročno načrtovanje | Globalno upravljanje | Javno zdravje | Mednarodna trgovina | Okolje | Pravo EU: pravni sistem in akti | Pravo intelektualne lastnine | Raziskovalna politika | Socialna politika | Varstvo potrošnikov | Človekove pravice

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | epidemija | informacije in obdelava informacij | IZOBRAŽEVANJE IN KOMUNIKACIJE | koronavirusna bolezen | preprečevanje bolezni | umetna inteligenca | zdravstveno varstvo | zdravstvo

Povzetek As coronavirus spreads, raising fears of a worldwide pandemic, international organisations and scientists are using artificial intelligence to track the epidemic in real-time, effectively predict where the virus might appear next and develop effective responses. Its multifaceted applications in the frame of this public health emergency raise questions about the legal and ethical soundness of its implementation.

Na kratko [EN](#)

Multimedijske vsebine [What if we could fight coronavirus with artificial intelligence?](#)

[Treatment optimisation in drug development](#)

Vrsta publikacije Študija

Datum 06-03-2020

Zunanji avtor This study has been written by Dr Denis Lacombe of the European Organisation for Research and Treatment of Cancer (EORTC), Robbe Saesen of the Catholic University of Leuven (KU Leuven) and EORTC, Stéphane Lejeune of EORTC, and Prof. Dr Isabelle Huys of KU Leuven, at the request of the Panel for the Future of Science and Technology (STOA) and managed by the Scientific Foresight Unit (STOA) within the Directorate-General for Parliamentary Research Services (EPRS) of the Secretariat of the European Parliament.

Politično področje Dolgoročno načrtovanje | Industrija | Javno zdravje | Raziskovalna politika | Varstvo potrošnikov

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | Evropska agencija za zdravila | EVROPSKA UNIJA | farmacevtski izdelek | institucije EU in evropska javna uprava | klinično preskušanje | medicinske raziskave | nadzor zdravil | terapija | zdravstvena tehnologija | zdravstvo

Povzetek The current drug development paradigm is too drug-centred and does not sufficiently take into account the patients that will receive the new therapy. This has led to the emergence of a research gap between the pre-approval development of medicines and their post-approval use in real-world conditions. In this study, semi-structured interviews were performed with experts in drug development process. It offer an overview concerning the concept of treatment optimisation and potential policy options.

Študija [EN](#)

Multimedijske vsebine [Tailoring medicine to patient needs](#)

[What if artificial intelligence made work obsolete?](#)

Vrsta publikacije Na kratko

Datum 02-03-2020

Avtor BOUCHER Philip Nicholas

Politično področje Ekonomske in monetarne zadeve | Izobraževanje | Kultura | Socialna politika | Vprašanje spola, enakost in različnost | Zaposlovanje

Ključna beseda avtomatizacija | dostop do zaposlitve | informacije in obdelava informacij | IZOBRAŽEVANJE IN KOMUNIKACIJE | politika zaposlovanja | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija in tehnični predpisi | trg dela | ukijanje delovnih mest | umetna inteligenca | zaposlovanje | ZAPOSLOVANJE IN DELOVNE RAZMERE

Povzetek The world of work is regularly disrupted by technology development. From mass production to word processing, innovations have regularly transformed our working lives and, with them, the broader economic system. Artificial intelligence (AI) is the latest in a long line of such technologies. What would happen if AI worked just as well as (or perhaps better than) humans, without taking holidays, getting sick, joining unions or drawing salaries?

Na kratko [EN](#)

Multimedijske vsebine [What if artificial intelligence made work obsolete?](#)

[What if crop protection were environment-friendly?](#)

Vrsta publikacije Na kratko

Datum 11-02-2020

Avtor KULJANIC Nera

Politično področje Dolgoročno načrtovanje | Kmetijstvo in razvoj podeželja | Okolje

Ključna beseda EVROPSKA UNIJA | graditev Evrope | hektarski donos | kmetijska politika | kmetijski sistemi | KMETIJSTVO, GOZDARSTVO IN RIBIŠTVO | obdelovanje kmetijskih zemljišč | OKOLJE | okoljska politika | politika EU | postopki zdravstvenega varstva rastlin | sredstva kmetijske proizvodnje | sredstvo za varstvo rastlin | varstvo rastlinstva | zakonodaja o zdravstvenem varstvu rastlin

Povzetek Pesticides are indispensable in modern agriculture, but the EU wants crop protection to be responsible and eco-friendly. What options are there to reduce the use of synthetic pesticides?

Na kratko [EN](#)

Multimedijske vsebine [What if crop protection were eco-friendly?](#)

[What if internet by satellite were to lead to congestion in orbit?](#)

Vrsta publikacije Na kratko

Datum 05-02-2020

Avtor VAN WOENSEL Lieve

Politično področje Dolgoročno načrtovanje | Energija | Globalno upravljanje | Industrija | Izobraževanje | Javno zdravje | Kmetijstvo in razvoj podeželja | Mednarodna trgovina | Notranji trg in carinska unija | Območje svobode, varnosti in pravice | Pogodbeno pravo, gospodarsko pravo in pravo gospodarskih družb | Pravo intelektualne lastnine | Promet | Raziskovalna politika | Regionalni razvoj | Ribišтво | Varnost in obramba | Varstvo potrošnikov | Zasebno mednarodno pravo in pravosodno sodelovanje v civilnih zadevah | Človekove pravice

Ključna beseda informacije in obdelava informacij | informacijski sistem | internet | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | mednarodno pravo | PRAVO | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | PROMET | raziskave in intelektualna lastnina | satelit | satelitske komunikacije | uporaba vesolja | vesoljska politika | zračni in vesoljski promet

Povzetek American Starlink project aims to bring high speed internet access across the globe by 2021. It's certainly a mission in the sky! But how will Elon Musk's plans to deploy this mega constellation of satellites impact on European citizens?

Na kratko [EN](#)

[The 2019 ESPAS Conference: Some useful take-aways](#)

Vrsta publikacije Na kratko

Datum 31-01-2020

Avtor SCHMERTZING Leopold

Politično področje Demokracija EU, institucionalno in parlamentarno pravo | Dolgoročno načrtovanje | Ekonomske in monetarne zadeve | Izobraževanje | Javno zdravje | Socialna politika | Varnost in obramba | Zunanje zadeve

Ključna beseda demografija in prebivalstvo | demografska napoved | dolgoročna ocena možnosti | DRUŽBENA IN SOCIALNA VPRAŠANJA | družboslovne vede | ekonomske analize | EVROPSKA UNIJA | geopolitika | GOSPODARSTVO | institucije EU in evropska javna uprava | IZOBRAŽEVANJE IN KOMUNIKACIJE | medinstitucionalni odnosi (EU) | poučevanje | socialna neenakost | socialni okvir | staranje prebivalstva | visokošolsko izobraževanje | ZNANOST

Povzetek What are the probable and less probable developments of ageing? How should university deal with the disrespect for facts? Will we see a multipolar or poly-nodal world? What will be the main causes of inequality? What can government do to prevent undesired futures? The 2019 ESPAS Conference was devoted to foresight, the disciplined exploration of alternative futures and had some useful take-aways in these questions

Na kratko [EN](#)

[Global Trendometer 2019](#)

Vrsta publikacije Študija

Datum 18-12-2019

Avtor KONONENKO Vadim | NOONAN EAMONN | RECHARD Daniele | SALM Christian | SCHMERTZING Leopold | WINDLE-WEHRLE Jessica Freya

Politično področje Demokracija | Demokracija EU, institucionalno in parlamentarno pravo | Dolgoročno načrtovanje | Ekonomske in monetarne zadeve | Območje svobode, varnosti in pravice | Okolje | Socialna politika | Varnost in obramba

Ključna beseda Afrika | Azija in Oceanija | demografija in prebivalstvo | demokracija | dokumentacija | dolgoročna ocena možnosti | DRUŽBENA IN SOCIALNA VPRAŠANJA | družbene in socialne zadeve | ekonomska geografija | ekonomske analize | evropska socialna politika | GEOGRAFIJA | GOSPODARSTVO | IZOBRAŽEVANJE IN KOMUNIKACIJE | Kitajska | POLITIKA | politični okvir | poročilo o študiji EU | POSLOVANJE IN KONKURENCA | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | računovodstvo | revidiranja | Severna Afrika | socialna struktura | socialni okvir | vesoljska politika | življenjska doba

Povzetek The new Global Trendometer examines topics ranging from deliberative democracy and the future of social policy in Europe, to scenarios for Northern Africa, China's social credit system, the auditing of algorithms and space as a new frontier.

Študija [EN](#)

Multimedijske vsebine [Global Trendometer](#)

[What if we lived up to 150 years?](#)

Vrsta publikacije Na kratko

Datum 16-12-2019

Avtor VAN WOENSEL Lieve

Politično področje Dolgoročno načrtovanje | Industrija | Javno zdravje | Okolje | Raziskovalna politika | Socialna politika | Vprašanje spola, enakost in različnost | Zaposlovanje | Človekove pravice

Ključna beseda demografija in prebivalstvo | demografska analiza | DRUŽBENA IN SOCIALNA VPRAŠANJA | staranje prebivalstva | življenjska doba

Povzetek Would you structure your life differently if the average life expectancy was 150 years? How would society reframe its conception of education and work, and the value placed on older generations? How can we ensure a coinciding increase in healthy life years? This latest foresight publication explores impacts and policy considerations in a dramatically aged population.

Na kratko [EN](#)

Multimedijske vsebine [What if life expectancy reached 150 years?](#)

[What if hydrogen could help decarbonise transport?](#)

Vrsta publikacije Na kratko

Datum 22-11-2019

Avtor KURRER CHRISTIAN MARTIN

Politično področje Dolgoročno načrtovanje | Energija | Evropska dodana vrednost | Industrija | Notranji trg in carinska unija | Okolje | Promet | Raziskovalna politika

Ključna beseda ENERGETIKA | energetska politika | gorivo | INDUSTRIJA | kemija | motorno vozilo | OKOLJE | okoljska politika | organizacija prevoza | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | PROMET | tehnologija in tehnični predpisi | vodik | zmanjšanje emisij plinov | čista tehnologija

Povzetek Cheap hydrogen produced with excess electricity from fluctuating renewable energy sources such as wind could help fuel-cell technology to break into the mainstream. This could at the same time further boost the competitiveness of wind and solar energy production

Na kratko [EN](#)

Multimedijske vsebine [What if hydrogen could help decarbonise transport?](#)

[What next for Europe? A strategic foresight perspective](#)

Vrsta publikacije Na kratko

Datum 10-10-2019

Avtor NOONAN EAMONN

Politično področje Demokracija | Dolgoročno načrtovanje | Ekonomske in monetarne zadeve | Območje svobode, varnosti in pravice | Okolje | Socialna politika | Varnost in obramba | Zunanje zadeve

Ključna beseda analiza politik | demografija in prebivalstvo | DRUŽBENA IN SOCIALNA VPRAŠANJA | izvršilna oblast in javna uprava | nova tehnologija | obremenitve okolja | OKOLJE | POLITIKA | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | raziskave in razvoj | sprememba podnebja | staranje prebivalstva | tehnologija in tehnični predpisi

Povzetek The ESPAS report examines the challenges posed for the European Union by megatrends such as digitisation, demographic change and the climate crisis. It emphasises the need for judicious responses, arguing that inaction heightens the risk of bad outcomes. It also notes that the more equal our societies are, the better prepared we are to face the future. Topics examined The report is the fruit of an inter-institutional strategic foresight exercise.

Na kratko [EN](#)

[What if technologies replaced humans in elderly care?](#)

Vrsta publikacije Na kratko

Datum 08-10-2019

Avtor BOUCHER Philip Nicholas

Politično področje Dolgoročno načrtovanje | Javno zdravje | Kultura | Socialna politika | Varstvo potrošnikov | Vprašanje spola, enakost in različnost | Zaposlovanje | Človekove pravice

Ključna beseda boj proti diskriminaciji | delovno aktivno prebivalstvo | demografija in prebivalstvo | digitalna tehnologija | dokumentacija | DRUŽBENA IN SOCIALNA VPRAŠANJA | družbene in socialne zadeve | informacijska tehnologija in obdelava podatkov | invalid | IZOBRAŽEVANJE IN KOMUNIKACIJE | medicinski in kirurški instrumenti | nova tehnologija | poročilo | pravice in svoboščine | PRAVO | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | robotika | robotizacija | skrb za starejše | socialno varstvo | staranje prebivalstva | starejša oseba | tehnologija in tehnični predpisi | trg dela | ZAPOSLOVANJE IN DELOVNE RAZMERE | zdravstvo

Povzetek Europeans are ageing. In 2016, there were 3.3 people of working-age for each citizen over 65 years. By 2070, this will fall to only two. As the population lives longer, our care needs grow, but fewer people will be available to deliver them. Could assistive technologies (ATs) help us to meet the challenges of elderly care?

Na kratko [EN](#)

Multimedijske vsebine [What if technologies substituted for humans in elderly care?](#)

[What if Libra disrupted the financial system?](#)

Vrsta publikacije Na kratko

Datum 13-09-2019

Avtor KRITIKOS Michail | VAN WOENSEL Lieve

Politično področje Dolgoročno načrtovanje | Ekonomske in monetarne zadeve | Finančna in bančna vprašanja | Mednarodna trgovina | Raziskovalna politika | Varstvo potrošnikov

Ključna beseda borzni posrednik | denarno poslovanje | dokumentacija | družbeni mediji | elektronski denar | elektronsko poslovanje | FINANCE | finančna tehnologija | finančne storitve | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | kreditne in finančne institucije | poročilo | potrošnja | pravice in svoboščine | PRAVO | predpisi o obdelavi podatkov | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija in tehnični predpisi | TRGOVINA | trgovinsko poslovanje | trženje | varovanje tajnosti podatkov | varstvo potrošnikov | varstvo zasebnosti | virtualna valuta

Povzetek Facebook's envisaged cryptocurrency project Libra may enable a way of more connected, digital banking. However, it also triggered a debate around the added value of cryptocurrencies. What would change for banks, businesses and consumers with the new digital currency?

Na kratko [EN](#)

Multimedijske vsebine [What if Libra disrupted the financial system?](#)

[Internationalisation of EU research organisations](#)

Vrsta publikacije Študija

Datum 24-07-2019

Zunanji avtor This study has been written by Professor Marek Kwiek, Director of the Center for Public Policy Studies, UNESCO Chair in Institutional Research and Higher Education Policy at the University of Poznan, Poland

Politično področje Dolgoročno načrtovanje | Raziskovalna politika

Ključna beseda IZOBRAŽEVANJE IN KOMUNIKACIJE | MEDNARODNI ODNOSI | politika sodelovanja | poučevanje | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | raziskovalna politika EU | visokošolsko izobraževanje | znanstvene raziskave | znanstveno sodelovanje

Povzetek International research collaboration is the core of contemporary higher education and science systems. The percentage of internationally co-authored publications globally and across Europe has been on the rise. The aim of the study is to analyse the changing nature of academic knowledge production in EU28 Member States towards its increasing internationalization. A number of policy options concerning the improvement of international research collaboration in the European Union are suggested.

Študija [EN](#)

[Blockchain and the General Data Protection Regulation](#)

Vrsta publikacije Študija

Datum 24-07-2019

Zunanji avtor This study was written by Dr Michèle Finck

Politično področje Dolgoročno načrtovanje | Ekonomske in monetarne zadeve | Finančna in bančna vprašanja | Industrija | Notranji trg in carinska unija | Območje svobode, varnosti in pravice | Ocena zakonodaje in politik v praksi | Pogodbeno pravo, gospodarsko pravo in pravo gospodarskih družb | Pravo EU: pravni sistem in akti | Varstvo potrošnikov | Zasebno mednarodno pravo in pravosodno sodelovanje v civilnih zadevah

Ključna beseda blokovna veriga | EVROPSKA UNIJA | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | osebni podatki | pravo Evropske unije | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija in tehnični predpisi | uredba (EU) | varstvo podatkov

Povzetek In recent times, there has been much discussion in policy circles, academia and the private sector regarding the tension between blockchains and the European Union's General Data Protection Regulation ('GDPR'). Whereas, the GDPR is based on an underlying assumption that in relation to each personal data point there is at least one the data controller, blockchains make the allocation of responsibility and accountability burdensome. Further, although the GDPR is based on the assumption that data can be modified or erased where necessary to comply with legal requirements, blockchains, however, render the unilateral modification of data purposefully onerous in order to ensure data integrity and to increase trust in the network.

Študija [EN](#)

Priloga 1 [EN](#)

[How the General Data Protection Regulation changes the rules for scientific research](#)

Vrsta publikacije Študija

Datum 24-07-2019

Zunanji avtor DG, EPRS; This study has been conducted by the Health Ethics and Policy Lab, ETH Zurich

Politično področje Dolgoročno načrtovanje | Globalno upravljanje | Pravo EU: pravni sistem in akti | Pravo intelektualne lastnine | Raziskovalna politika

Ključna beseda ekonomske analize | EVROPSKA UNIJA | GOSPODARSTVO | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | osebni podatki | pravice in svoboščine | PRAVO | pravo Evropske unije | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | raziskovalna integriteta | uredba (EU) | varstvo podatkov | varstvo zasebnosti | znanstvene raziskave | študija učinkov

Povzetek The implementation of the General Data Protection Regulation (GDPR) raises a series of challenges for scientific research, especially regarding research that is dependent on data. This study investigates the promises and challenges associated with the implementation of the GDPR in the scientific domain and examines the adequacy of the GDPR exceptions for scientific research in terms of safeguarding scientific freedom and technological progress.

Študija [EN](#)

Priloga 1 [EN](#)

Multimedijske vsebine [How the General Data Protection Regulation changes the rules for scientific research](#)

[What if we didn't need cows for our beef?](#)

Vrsta publikacije Na kratko

Datum 12-07-2019

Avtor VAN WOENSEL Lieve

Politično področje Dolgoročno načrtovanje | Javno zdravje | Kmetijstvo in razvoj podeželja | Okolje | Varnost hrane | Varstvo potrošnikov

Ključna beseda agroživilstvo | citologija | dobro počutje živali | dovoljenje za prodajo | DRUŽBENA IN SOCIALNA VPRAŠANJA | goveje meso | KMETIJSKO ŽIVILSTVO | kmetijstvo | KMETIJSKO, GOZDARSTVO IN RIBIŠTVO | mesni izdelek | mesnopredelovalna industrija | naravoslovne in uporabne vede | OKOLJE | okoljska politika | protimikrobna odpornost | sredstva kmetijske proizvodnje | TRGOVINA | trženje | vol | zdravstvo | zmanjšanje emisij plinov | ZNANOST | zoologija | živalski proizvodi | živila

Povzetek With the help of cells from a single cow, scientists can produce 175 million hamburgers. What if we didn't need cows for our beef? Technologies for producing cultured meat and dairy products will help feeding the world in a sustainable way. What if we could produce meat without farming? New technology within reach to produce meat with a very low eco-footprint

Na kratko [EN](#)

[What if policy anticipated advances in science and technology?](#)

Vrsta publikacije Na kratko

Datum 26-06-2019

Avtor VAN WOENSEL Lieve

Politično področje Dolgoročno načrtovanje | Energija | Industrija | Izobraževanje | Javno zdravje | Kmetijstvo in razvoj podeželja | Okolje | Pravo intelektualne lastnine | Promet | Raziskovalna politika | Razvoj in humanitarna pomoč | Varnost hrane | Varnost in obramba | Varstvo potrošnikov | Vprašanje spola, enakost in različnost | Zaposlovanje

Ključna beseda dokumentacija | EVROPSKA UNIJA | Evropski parlament | institucije EU in evropska javna uprava | IZOBRAŽEVANJE IN KOMUNIKACIJE | izvršilna oblast in javna uprava | nova tehnologija | oblikovanje politik | POLITIKA | poročilo | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | raziskovalna politika EU | tehnologija in tehnični predpisi | tehnološka presoja | tehnološka sprememba

Povzetek What if blockchain revolutionised voting? What if your emotions were tracked to spy on you? And what if we genetically engineered an entire species? Science and policy are intricately connected. Via monthly 'What if' publications, the Scientific Foresight Unit (STOA; part of the European Parliamentary Research Service) draws Members of the European Parliament's attention to new scientific and technological developments relevant for policy-making. The unit also provides administrative support to the Panel for the Future of Science and Technology (STOA), which brings together 25 Members from nine different parliamentary committees who share a strong interest in science and technology in the context of policy-making.

Na kratko [EN](#)

Multimedijske vsebine [What if policy anticipated advances in science and technology?](#)

[Technological innovation for humanitarian aid and assistance](#)

Vrsta publikacije Študija

Datum 07-05-2019

Zunanji avtor DG, EPRS

Politično področje Dolgoročno načrtovanje | Razvoj in humanitarna pomoč

Ključna beseda digitalna tehnologija | humanitarna pomoč | inovacija | MEDNARODNI ODNOSI | nova tehnologija | politika sodelovanja | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | tehnologija in tehnični predpisi

Povzetek Technological innovation in humanitarian assistance can play a role in addressing the challenges in the humanitarian sector, including preventing and reducing human suffering during crises. The field of humanitarian technological innovation is fast moving, dynamic and emergent in nature. The objective of this study is to analyse the impact of these innovations as transformative tools for both people in need as well as humanitarian relief providers. The report provides an overview of the current state-of-play and developments with regard to ICT-related innovation in humanitarian assistance. Based on concerns, opportunities and benefits identified, the study provides a set of policy options to further technological innovation in humanitarian assistance.

Študija [EN](#)

Priloga 1 [EN](#)

[Technology and the arts: Past, present and future synergies](#)

Vrsta publikacije **Briefing**

Datum **03-05-2019**

Avtor **BOUCHER Philip Nicholas**

Politično področje **Dolgoročno načrtovanje | Izobraževanje | Kultura | Notranji trg in carinska unija | Raziskovalna politika | Socialna politika | Zaposlovanje**

Ključna beseda **digitalna vsebina | DRUŽBENA IN SOCIALNA VPRAŠANJA | informacije in obdelava informacij | inovacija | IZOBRAŽEVANJE IN KOMUNIKACIJE | kultura in religija | nova tehnologija | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | računalniška pismenost | tehnologija in tehnični predpisi | umetniško ustvarjanje | umetnost**

Povzetek From the first canvas paintings to the production of musical instruments and contemporary cinema, art as we know it would be simply impossible without resource to humanity's historical cache of technology development. The reverse of this relationship is also important, with the arts creating driving innovation and generating substantial demand for technology products. In the course of their work, artists often develop new techniques and push the boundaries of the imagination in ways that can provoke new directions in technology development.

Briefing [EN](#)

[The relationship between artistic activities and digital technology development](#)

Vrsta publikacije **Študija**

Datum **03-05-2019**

Zunanji avtor **DG, EPRS**

Politično področje **Dolgoročno načrtovanje | Evropska dodana vrednost | Izobraževanje | Kultura | Notranji trg in carinska unija | Predhodna ocena učinka | Raziskovalna politika | Socialna politika | Zaposlovanje**

Ključna beseda **digitalna tehnologija | DRUŽBENA IN SOCIALNA VPRAŠANJA | ekonomske analize | GOSPODARSTVO | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | kultura in religija | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | računalniška pismenost | računalniško podprto projektiranje | tehnologija in tehnični predpisi | tehnološka sprememba | umetniško ustvarjanje | umetnost | učinek informacijske tehnologije | virtualna resničnost | študija učinkov**

Povzetek This report examines how digital technology change is affecting artistic activity and how artistic activity is affecting digital technology. Artistic activity is broadly defined to include design, film, computer games, architecture, music and fashion as well as art. The focus is on digital technology's role in creative activity. The study examines global trends with a particular focus on the European Union (EU). It describes likely future trends and sets out policy options to encourage activity at the intersection of artistic and technological skills.

Študija [EN](#)

[The historical relationship between artistic activities and technology development](#)

Vrsta publikacije **Poglobljena analiza**

Datum **03-05-2019**

Zunanji avtor **DG, EPRS**

Politično področje **Dolgoročno načrtovanje | Izobraževanje | Kultura | Notranji trg in carinska unija | Raziskovalna politika | Socialna politika | Zaposlovanje**

Ključna beseda **dokumentacija | DRUŽBENA IN SOCIALNA VPRAŠANJA | družboslovne vede | IZOBRAŽEVANJE IN KOMUNIKACIJE | izvršilna oblast in javna uprava | kronološko poročilo | kultura in religija | oblikovanje politik | POLITIKA | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija | tehnologija in tehnični predpisi | umetniško ustvarjanje | zgodovina | ZNANOST**

Povzetek Understanding the past of art and technology can help us to navigate the present and future. Technology and art have always been linked, and are now more intertwined than ever before. Technology and humanity create and shape each other in profound ways. People are not distinct from the technologies they are surrounded by and use – they are also defined and shaped by them. The present study contributes to our understanding of the cyclic nature of the intertwining of technology and art, focussing on pre-digital eras

Poglobljena analiza [EN](#)

[What if we could fight drug addiction with digital technology?](#)

Vrsta publikacije **Na kratko**

Datum **12-04-2019**

Avtor **QUAGLIO Gianluca**

Politično področje **Dolgoročno načrtovanje | Javno zdravje | Raziskovalna politika**

Ključna beseda **digitalna tehnologija | DRUŽBENA IN SOCIALNA VPRAŠANJA | družbene in socialne zadeve | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | nova tehnologija | osebni podatki | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija in tehnični predpisi | terapija | zasvojenost z mamili | zbiranje podatkov | zdravstvo**

Povzetek What if digital technology could assist drug addiction recovery by online counselling, monitoring behaviour, and real-time interventions in patients' everyday lives? Assistance at a distance: how could clinicians, health personnel, friends and family support a patient suffering from drug addiction via digital technology?

Na kratko [EN](#)

[A governance framework for algorithmic accountability and transparency](#)

Vrsta publikacije [Študija](#)

Datum 04-04-2019

Zunanji avtor DG, EPRS

Politično področje [Demokracija](#) | [Demokracija EU, institucionalno in parlamentarno pravo](#) | [Dolgoročno načrtovanje](#) | [Pravo EU: pravni sistem in akti](#) | [Socialna politika](#) | [Zaposlovanje](#) | [Človekove pravice](#)

Ključna beseda [enako obravnavanje](#) | [informacije in obdelava informacij](#) | [informacijska tehnologija in obdelava podatkov](#) | [IZOBRAŽEVANJE IN KOMUNIKACIJE](#) | [obdelava podatkov](#) | [odločanje](#) | [POSLOVANJE IN KONKURENCA](#) | [poslovanje](#) | [pravice in svoboščine](#) | [PRAVO](#) | [umetna inteligenca](#) | [velepodatki](#)

Povzetek Transparency and accountability are both tools to promote fair algorithmic decisions by providing the foundations for obtaining recourse to meaningful explanation, correction, or ways to ascertain faults that could bring about compensatory processes. The study develops policy options for the governance of algorithmic transparency and accountability, based on an analysis of the social, technical and regulatory challenges posed by algorithmic systems. Based on an extensive review and analysis of existing proposals for governance of algorithmic systems, the authors propose a set of four policy options each of which addresses a different aspect of algorithmic transparency and accountability. 1. Awareness raising: education, watchdogs and whistleblowers. 2. Accountability in public sector use of algorithmic decision-making. 3. Regulatory oversight and Legal liability. 4. Global coordination for algorithmic governance.

[Študija](#) [EN](#)

[Priloga 1](#) [EN](#)

[New technologies for Eastern Mediterranean offshore gas exploration](#)

Vrsta publikacije [Študija](#)

Datum 03-04-2019

Zunanji avtor DG, EPRS

Politično področje [Dolgoročno načrtovanje](#) | [Energija](#) | [Okolje](#)

Ključna beseda [ENERGETIKA](#) | [energetska politika](#) | [naftna industrija](#) | [naravno okolje](#) | [nova tehnologija](#) | [OKOLJE](#) | [okoljska politika](#) | [plinska industrija](#) | [plinsko polje](#) | [preprečevanje okoljskega tveganja](#) | [PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE](#) | [Sredozemsko morje](#) | [tehnologija in tehnični predpisi](#) | [varstvo okolja](#)

Povzetek The study examines the evolution of technologies in the offshore exploration and production of hydrocarbons in the Eastern Mediterranean, and their future environmental impact for the region. It finds that new technologies move this stage of natural gas development into increasing digitalisation, better designs for safety equipment, and increased automation. It then proceeds to propose a number of policy measures on collaboration, data sharing, environmental baseline surveys, open digital platforms, as well as better monitoring for fugitive greenhouse gas emissions. All these will aid in improving the environmental credentials of offshore operations, but they must be accompanied by closer cooperation and collaboration amongst the countries that surround the East Med.

[Študija](#) [EN](#)

[Priloga 1](#) [EN](#)

[What if a simple DNA test could predict your future?](#)

Vrsta publikacije [Na kratko](#)

Datum 22-03-2019

Avtor [VAN WOENSEL Lieve](#)

Politično področje [Dolgoročno načrtovanje](#) | [Javno zdravje](#) | [Območje svobode, varnosti in pravice](#) | [Raziskovalna politika](#) | [Varstvo potrošnikov](#)

Ključna beseda [DNK](#) | [DRUŽBENA IN SOCIALNA VPRAŠANJA](#) | [družboslovne vede](#) | [etika](#) | [genska podatkovna zbirka](#) | [informacije in obdelava informacij](#) | [informacijska tehnologija in obdelava podatkov](#) | [IZOBRAŽEVANJE IN KOMUNIKACIJE](#) | [naravoslovne in uporabne vede](#) | [osebni podatki](#) | [razkritje informacij](#) | [tveganje za zdravje](#) | [varstvo podatkov](#) | [zdravstvo](#) | [ZNANOST](#)

Povzetek What if new-born babies were given a DNA report card that predicted their intelligence, their odds of getting a PhD, their chances of becoming a chain smoker or suffering depression, a heart attack or cancer? Thanks to ongoing genetic studies, a large amount of genetic data is available today involving millions of people. The wealth of information available to researchers allows them to create a polygenic risk score based on the DNA test of a person. This can be used to predict a person's chances of getting a disease, his or her traits and behaviour, and many other things about their future. Are these predictions flawless? Who would benefit from them? What are their implications for a person's life in general?

[Na kratko](#) [EN](#)

Multimedijske vsebine [What if a simple DNA test could predict your future?](#)

[Automated tackling of disinformation-Major challenges ahead](#)

Vrsta publikacije Študija

Datum 15-03-2019

Zunanji avtor DG, EPRS

Politično področje Demokracija EU, institucionalno in parlamentarno pravo | Finančna in bančna vprašanja | Ocena zakonodaje in politik v praksi | Pravo EU: pravni sistem in akti | Raziskovalna politika | Socialna politika | Zaposlovanje

Ključna beseda dezinformacija | dokumentacija | družbeni mediji | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | POLITIKA | politika in javna varnost | politična propaganda | razširjanje informacij | volilna propaganda | volilni postopek in glasovanje

Povzetek This study maps and analyses current and future threats from online misinformation, alongside currently adopted socio-technical and legal approaches. The challenges of evaluating their effectiveness and practical adoption are also discussed. Drawing on and complementing existing literature, the study summarises and analyses the findings of relevant journalist and scientific studies and policy reports in relation to detecting, containing and countering online disinformation and propaganda campaigns. It traces recent development and trends and identifies significant new or emerging challenges. It also addresses potential policy implications of current socio-technical solutions for the EU.

Študija [EN](#)

Priloga 1 [EN](#)

[Artificial Intelligence ante portas: Legal & ethical reflections](#)

Vrsta publikacije Briefing

Datum 14-03-2019

Avtor KRITIKOS Michail

Politično področje Demokracija | Demokracija EU, institucionalno in parlamentarno pravo | Dolgoročno načrtovanje | Ocena zakonodaje in politik v praksi | Človekove pravice

Ključna beseda EVROPSKA UNIJA | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | institucije EU in evropska javna uprava | IZOBRAŽEVANJE IN KOMUNIKACIJE | obdelava podatkov | pravice in svobščine | pravna informatika | PRAVO | pravo Evropske unije | predpisi o obdelavi podatkov | preglednost odločanja | robotika | umetna inteligenca | uredba (EU) | učinek informacijske tehnologije | varovanje tajnosti podatkov | varstvo zasebnosti | velepodatki

Povzetek This briefing provides accessible introductions to some of the major legal, regulatory and ethical debates surrounding the deployment and use of AI systems. It focuses on the challenges that the sui generis features of AI may pose on the current legal framework and argues that as AI systems become more autonomous, a doctrinal paradigm shift may be needed. Given the foreseeable pervasiveness of AI, the briefing poses the question about how this new technology should be defined and classified in legal and ethical terms. By providing an analysis of the key legal initiatives in this field in Europe, the briefing aims to equip the reader with the understanding they need to engage in clear-headed reflection about AI's legal and socio-ethical challenges, and meaningful debates about how the current EU acquis may need to be adjusted to the new technological realities.

Briefing [EN](#)

Multimedijske vsebine [Artificial Intelligence ante portas: Legal & ethical reflections](#)

[How artificial intelligence works](#)

Vrsta publikacije Briefing

Datum 14-03-2019

Avtor BOUCHER Philip Nicholas

Politično področje Demokracija | Dolgoročno načrtovanje | Industrija | Javno zdravje | Kultura | Območje svobode, varnosti in pravice | Predhodna ocena učinka | Raziskovalna politika | Socialna politika | Varstvo potrošnikov | Zaposlovanje

Ključna beseda genska tehnologija | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | obdelava podatkov | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | robotika | tehnologija in tehnični predpisi | umetna inteligenca | velepodatki

Povzetek This briefing provides accessible introductions to some of the key techniques that come under the AI banner, grouped into three sections to give a sense the chronology of its development. The first describes early techniques, described as 'symbolic AI' while the second focusses on the 'data driven' approaches that currently dominate and the third looks towards possible future developments. By explaining what is 'deep' about deep learning and showing that AI is more maths than magic, the briefing aims to equip the reader with the understanding they need to engage in clear-headed reflection about AI's opportunities and challenges, and meaningful debates about its development.

Briefing [EN](#)

[Why artificial intelligence matters](#)

Vrsta publikacije [Briefing](#)

Datum [14-03-2019](#)

Avtor [BOUCHER Philip Nicholas](#)

Politično področje [Demokracija](#) | [Demokracija EU, institucionalno in parlamentarno pravo](#) | [Dolgoročno načrtovanje](#) | [Industrija](#) | [Javno zdravje](#) | [Kultura](#) | [Ocepa zakonodaje in politik v praksi](#) | [Raziskovalna politika](#) | [Socialna politika](#) | [Varnost in obramba](#) | [Varstvo potrošnikov](#) | [Človekove pravice](#)

Ključna beseda [informacije in obdelava informacij](#) | [informacijska tehnologija in obdelava podatkov](#) | [IZOBRAŽEVANJE IN KOMUNIKACIJE](#) | [obdelava podatkov](#) | [robotika](#) | [umetna inteligenca](#) | [učinek informacijske tehnologije](#)

Povzetek This briefing explains why AI matters by reviewing some of the key opportunities and challenges it presents, but it does so with reference to the functionality and readiness of the technology. The first section focuses on the opportunities and challenges presented by today's AI while the second explores longer-term speculative opportunities and challenges that are contingent upon future developments that may never happen.

[Briefing](#) [EN](#)

[What if your emotions were tracked to spy on you?](#)

Vrsta publikacije [Na kratko](#)

Datum [13-03-2019](#)

Avtor [VAN WOENSEL Lieve](#)

Politično področje [Dolgoročno načrtovanje](#) | [Izobraževanje](#) | [Območje svobode, varnosti in pravice](#) | [Predhodna ocena učinka](#) | [Varnost in obramba](#) | [Varstvo potrošnikov](#) | [Vprašanje spola, enakost in različnost](#) | [Zaposlovanje](#) | [Zasebno mednarodno pravo in pravosodno sodelovanje v civilnih zadevah](#) | [Človekove pravice](#)

Ključna beseda [biometrija](#) | [EVROPSKA UNIJA](#) | [informacije in obdelava informacij](#) | [informacijska tehnologija in obdelava podatkov](#) | [IZOBRAŽEVANJE IN KOMUNIKACIJE](#) | [komunikacije](#) | [MEDNARODNI ODNOSI](#) | [naravoslovne in uporabne vede](#) | [obramba](#) | [osebni podatki](#) | [policijski nadzor](#) | [pravice in svobosčine](#) | [PRAVO](#) | [pravo Evropske unije](#) | [predpisi o obdelavi podatkov](#) | [sodstvo](#) | [uredba \(EU\)](#) | [učinek informacijske tehnologije](#) | [varstvo podatkov](#) | [varstvo zasebnosti](#) | [video nadzor](#) | [vohunjenje](#) | [ZNANOST](#)

Povzetek Recent reports of celebrity singer, Taylor Swift, deploying facial recognition technology to spot stalkers at her concerts raised many eyebrows. What started out as a tool to unlock your smartphone or tag photos for you on social media is surreptitiously becoming a means of monitoring people in their daily lives without their consent. What impact and implications are facial recognition technology applications likely to have, and what can be done to ensure the fair engagement of this technology with its users and the public at large?

[Na kratko](#) [EN](#)

[Regulating disinformation with artificial intelligence](#)

Vrsta publikacije [Študija](#)

Datum [13-03-2019](#)

Zunanji avtor [DG, EPRS](#)

Politično področje [Demokracija](#) | [Demokracija EU, institucionalno in parlamentarno pravo](#) | [Finančna in bančna vprašanja](#) | [Globalno upravljanje](#) | [Ocena zakonodaje in politik v praksi](#) | [Pravo EU: pravni sistem in akti](#) | [Raziskovalna politika](#) | [Socialna politika](#) | [Zaposlovanje](#) | [Človekove pravice](#)

Ključna beseda [dezinformacija](#) | [dokumentacija](#) | [informacije in obdelava informacij](#) | [IZOBRAŽEVANJE IN KOMUNIKACIJE](#) | [komunikacije](#) | [pluralizem medijev](#) | [pravice in svobosčine](#) | [PRAVO](#) | [razširjanje informacij](#) | [svoboda izražanja](#) | [umetna inteligenca](#)

Povzetek In this study, we examine the consequences of the increasingly prevalent use of artificial intelligence (AI) disinformation initiatives upon freedom of expression, pluralism and the functioning of a democratic polity. The study examines the trade-offs in using automated technology to limit the spread of disinformation online. It presents (self-regulatory to legislative) options to regulate automated content recognition (ACR) technologies in this context. Special attention is paid to the opportunities for the European Union as a whole to take the lead in setting the framework for designing these technologies in a way that enhances accountability and transparency and respects free speech. The present project reviews some of the key academic and policy ideas on technology and disinformation and highlights their relevance to European policy.

[Študija](#) [EN](#)

[Priloga 1](#) [EN](#)

[Technology and social polarisation](#)

Vrsta publikacije Briefing

Datum 07-03-2019

Avtor BOUCHER Philip Nicholas

Politično področje Demokracija | Demokracija EU, institucionalno in parlamentarno pravo | Dolgoročno načrtovanje | Raziskovalna politika | Socialna politika | Varstvo potrošnikov

Ključna beseda demokracija | dezinformacija | družbeni mediji | državljan EU | EVROPSKA UNIJA | evropsko državljanstvo | graditev Evrope | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | mednarodno pravo | množične komunikacije | pluralizem medijev | poklic v komunikacijskih dejavnostih | POLITIKA | politika in javna varnost | politična propaganda | politični okvir | populizem | PRAVO | učinek informacijske tehnologije | volilna propaganda | volilni postopek in glasovanje

Povzetek With the Cambridge Analytica scandal, it became clear how technologies such as social media and techniques such as psychological profiling can be combined in election campaigns with worrying effects. Personalised political messaging is highly automated. It starts and ends with social media, which provides both the data for categorising users and the medium for targeting them with personalised messages. Messages might be designed to favour a particular candidate or to encourage widespread discord and mistrust. In either case, it could lead to more polarised societies in which citizens share less common ground and are less understanding of those with different political ideologies, attitudes to populism, or perspectives on specific topics such as immigration. These same technologies and techniques also shape trends in news production and consumption. As newspaper sales dwindle, outlets increasingly rely upon ad-revenue generated by clicks, making extensive use of social media platforms and user profiling. Public debate increasingly occurs via these social media platforms in which citizens, politicians, companies and bots communicate directly to each other without the traditional filters of journalistic standards and editorial oversight. It has been suggested that, where citizens increasingly rely on such platforms for news, they risk entering so-called 'filter bubbles' in which they are exposed to a narrow range of perspectives oriented around their own profiles, shielded from contrasting views, in a broad trend that could also lead to more polarised societies. In this context, STOA launched two studies to explore the mechanisms by which these technologies and techniques may foster polarisation in Europe. One study approached the question with reference to trends in the production and consumption of news media, while the other focussed on trends in political campaigning and communication strategies.

[Briefing EN](#)

[Polarisation and the news media in Europe](#)

Vrsta publikacije Študija

Datum 07-03-2019

Zunanji avtor DG, EPRS

Politično področje Demokracija | Demokracija EU, institucionalno in parlamentarno pravo | Dolgoročno načrtovanje | Raziskovalna politika | Socialna politika | Varstvo potrošnikov

Ključna beseda družbeni mediji | IZOBRAŽEVANJE IN KOMUNIKACIJE | javno mnenje | komunikacije | mediji | pluralizem medijev | POLITIKA | politika in javna varnost | politični okvir | populizem | pravice in svoboščine | PRAVO | svoboda izražanja mnenja

Povzetek • Across Europe there is as yet little evidence to support the idea that increased exposure to news featuring like-minded or opposing views leads to the widespread polarisation of attitudes. Though some studies have found that both can strengthen the attitudes of a minority who already hold strong views. • Most studies of news use on social media have failed to find evidence of echo chambers and/or filter bubbles, where people are over-exposed to like-minded views. Some studies even find evidence that it increases the likelihood of exposure to opposing views. • The extent to which people self-select news sources in Europe based on their political preferences, as well as the extent to which news outlets produce partisan coverage, still varies greatly by country. • In addition to differences between European countries, comparative research often tends to show that the US has much higher levels of partisan news consumption and polarisation, making it difficult to generalise from these findings. • There are large gaps in our understanding of the relationship between the news media and polarisation, particularly outside of Western and Northern Europe, and particularly concerning our knowledge of new, more partisan digital-born news sources.

[Študija EN](#)

[Polarisation and the use of technology in political campaigns and communication](#)

Vrsta publikacije Študija

Datum 07-03-2019

Zunanji avtor DG, EPRS

Politično področje Demokracija | Demokracija EU, institucionalno in parlamentarno pravo | Dolgoročno načrtovanje | Raziskovalna politika | Socialna politika | Varstvo potrošnikov

Ključna beseda demokracija | digitalna tehnologija | družbeni mediji | IZOBRAŽEVANJE IN KOMUNIKACIJE | javno mnenje | komunikacije | POLITIKA | politika in javna varnost | politična propaganda | politični okvir | populizem | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija in tehnični predpisi

Povzetek This report offers a comprehensive overview of the relationship between technology, democracy and the polarisation of public discourse. Technology is inherently political, and the ways in which it is designed and used have ongoing implications for participation, deliberation, and democracy. Algorithms, automation, big data analytics and artificial intelligence are becoming increasingly embedded in everyday life in democratic societies; this report provides an in-depth analysis of the technological affordances that enhance and undermine political decision-making, both now and in the future. To conclude, we formulate principles and policy options for fostering a better relationship between digital technology and public life.

[Študija EN](#)

Understanding algorithmic decision-making: Opportunities and challenges

Vrsta publikacije Študija

Datum 05-03-2019

Zunanji avtor DG, EPRS

Politično področje Dolgoročno načrtovanje | Javno zdravje | Kmetijstvo in razvoj podeželja | Ocena zakonodaje in politik v praksi | Okolje | Pravo EU: pravni sistem in akti | Pravo intelektualne lastnine | Promet | Raziskovalna politika | Socialna politika | Varnost hrane | Varstvo potrošnikov | Zaposlovanje

Ključna beseda enako obravnavanje | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | obdelava podatkov | odločanje | POSLOVANJE IN KONKURENCA | poslovanje | pravice in svoboščine | PRAVO | umetna inteligenca | velepodatki

Povzetek The expected benefits of Algorithmic Decision Systems (ADS) may be offset by the variety of risks for individuals (discrimination, unfair practices, loss of autonomy, etc.), the economy (unfair practices, limited access to markets, etc.) and society as a whole (manipulation, threat to democracy, etc.). We present existing options to reduce the risks related to ADS and explain their limitations. We sketch some recommendations to overcome these limitations to be able to benefit from the tremendous possibilities of ADS while limiting the risks related to their use. Beyond providing an up-to-date and systematic review of the situation, the report gives a precise definition of a number of key terms and an analysis of their differences. The main focus of the report is the technical aspects of ADS. However, other legal, ethical and social dimensions are considered to broaden the discussion.

Študija [EN](#)

Priloga 1 [EN](#)

Farming without plant protection products

Vrsta publikacije Poglobljena analiza

Datum 04-03-2019

Zunanji avtor DG, EPRS

Politično področje Dolgoročno načrtovanje | Javno zdravje | Kmetijstvo in razvoj podeželja | Okolje | Raziskovalna politika | Varnost hrane | Varstvo potrošnikov

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | ekološko kmetovanje | javno zdravje | kmetijska politika | kmetijska produktivnost | kmetijski sistemi | KMETIJSTVO, GOZDARSTVO IN RIBIŠTVO | obdelovanje kmetijskih zemljišč | sredstva kmetijske proizvodnje | sredstvo za varstvo rastlin | trajnostno kmetijstvo | zdravstvo

Povzetek Plant Protection Products (PPPs) are often perceived by consumers as very harmful for human health and for the environment. The tendency in the EU policy is to stimulate the reduction of PPPs. Can we maintain high yield with less PPPs? This paper presents the current state of the art regarding the role of PPPs in securing global food production, preserving biodiversity and supporting farmer's income. The role of various stakeholders on the current perception of risk by the general public is given and promising alternative and more sustainable strategies to further reduce PPP use. This report is meant as a background document to support the debate that will take place during the workshop 'Farming without plant protection products?', 6 March 2019, which contrasts the contents of this report with perspectives from conventional agriculture, the stance of organic farmers and the viewpoint of consumers.

Poglobljena analiza [EN](#)

Harmful internet use - Part II: Impact on culture and society

Vrsta publikacije Študija

Datum 31-01-2019

Zunanji avtor DG, EPRS

Politično področje Izobraževanje | Javno zdravje | Kultura | Socialna politika

Ključna beseda dezinformacija | DRUŽBENA IN SOCIALNA VPRAŠANJA | družbene in socialne zadeve | informacijska tehnologija in obdelava podatkov | internet | IZOBRAŽEVANJE IN KOMUNIKACIJE | javno zdravje | komunikacije | medčloveški odnosi | računalniška kriminaliteta | socialni okvir | socialni učinki | zdravstvo

Povzetek It is increasingly recognised that the internet, in spite of all its benefits to society, can also be correlated with significant harms to individuals and society. Some of these harms have been studied extensively, particularly harms to privacy, harms associated with security and cybercrime, and harms resulting from digital divides. This report covers less studied but equally important harms: harms associated with internet use that concern the health, well-being a functioning of individuals, and the impact on social structures and institutions. The Part II of the study address the harms of the internet at society level. The harms that are revised are among others: harms to cognitive development, information overload, harmful effects on knowledge and belief and harms to social relationships. The ultimate aim of the study is to develop concrete policy options to be considered by the EU Institutions and Member States, to mitigate harmful effects of the internet for European citizens.

Študija [EN](#)

Priloga 1 [EN](#)

[Harmful internet use - Part I: Internet addiction and problematic use](#)

Vrsta publikacije [Študija](#)

Datum 31-01-2019

Zunanji avtor DG, EPRS

Politično področje [Izobraževanje](#) | [Javno zdravje](#) | [Kultura](#) | [Socialna politika](#)

Ključna beseda [DRUŽBENA IN SOCIALNA VPRAŠANJA](#) | [družbene in socialne zadeve](#) | [duševna bolezen](#) | [internet](#) | [IZOBRAŽEVANJE IN KOMUNIKACIJE](#) | [javno zdravje](#) | [komunikacije](#) | [ozaveščanje javnosti](#) | [POLITIKA](#) | [politika in javna varnost](#) | [spletna igra](#) | [zasvojenost z igrami](#) | [zdravstvo](#)

Povzetek It is increasingly recognised that the internet, in spite of all its benefits to society, can also be correlated with significant harms to individuals and society. Some of these harms have been studied extensively, particularly harms to privacy, harms associated with security and cybercrime, and harms resulting from digital divides. This report covers less studied but equally important harms: harms associated with internet use that concern the health, well-being a functioning of individuals, and the impact on social structures and institutions. The Part I of the study address the issue of the maladaptive use the internet at individual level, including virtual social networks, video games and other potentially addictive types of interactive media content. The three problems which emerged from the study were: generalised internet addiction, online gaming addiction and online gambling addiction. The ultimate aim of the study is to develop concrete policy options to be considered by the EU Institutions and Member States, to mitigate harmful effects of the internet for European citizens.

[Študija](#) [EN](#)

[Priloga 1](#) [EN](#)

[Understanding public responses to low carbon technologies](#)

Vrsta publikacije [Poglobljena analiza](#)

Datum 30-01-2019

Zunanji avtor DG, EPRS

Politično področje [Energijska](#) | [Industrija](#) | [Okolje](#) | [Raziskovalna politika](#) | [Varstvo potrošnikov](#)

Ključna beseda [analiza informacij](#) | [dokumentacija](#) | [DRUŽBENA IN SOCIALNA VPRAŠANJA](#) | [družbene in socialne zadeve](#) | [ENERGETIKA](#) | [EVROPSKA UNIJA](#) | [graditev Evrope](#) | [institucije EU in evropska javna uprava](#) | [IZOBRAŽEVANJE IN KOMUNIKACIJE](#) | [javno mnenje](#) | [kakovost zraka](#) | [obnovljiva energija](#) | [obremenitve okolja](#) | [OKOLJE](#) | [okoljska politika](#) | [participativna demokracija](#) | [POLITIKA](#) | [politika EU](#) | [politika in javna varnost](#) | [politika o podnebnih spremembah](#) | [politični okvir](#) | [PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE](#) | [razširjanje informacij EU](#) | [sodelovanje v družbi](#) | [tehnologija in tehnični predpisi](#) | [toplogredni plin](#) | [zeleno gospodarstvo](#) | [čista energija](#) | [čista tehnologija](#)

Povzetek This report reviews different models and frameworks that explain public responses to low carbon technologies (LCTs). Based on insights from literature, it highlights the need for a multidimensional perspective to understand the complexities surrounding public acceptance or opposition to LCTs. It also proposes two key solutions for how public responses can be better accommodated in a way that engenders support from the public: by integrating social and values-based aspects in planning, and by ensuring procedural justice in technology deployment. Reflecting on these, policy options are drawn for how these solutions might help contribute to delivering better approaches in engaging the public in the low carbon transition.

[Poglobljena analiza](#) [EN](#)

[What if we could design better technologies through dialogue?](#)

Vrsta publikacije [Na kratko](#)

Datum 30-01-2019

Avtor [BOUCHER Philip Nicholas](#)

Politično področje [Industrija](#) | [Notranji trg in carinska unija](#) | [Raziskovalna politika](#) | [Socialna politika](#) | [Varstvo potrošnikov](#)

Ključna beseda [informacijska tehnologija in obdelava podatkov](#) | [inovacija](#) | [IZOBRAŽEVANJE IN KOMUNIKACIJE](#) | [nova tehnologija](#) | [PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE](#) | [raziskave in intelektualna lastnina](#) | [tehnologija in tehnični predpisi](#) | [tehnološka sprememba](#) | [učinek informacijske tehnologije](#)

Povzetek While we often talk about the need to achieve acceptance of technology in the face of real and potential public opposition, there are frequently gaps between how regulators, developers and experts conceptualise acceptance and opposition. Here, we examine some prominent conceptualisations and suggest that, rather than responding to public opposition with information campaigns designed to transform citizens into acceptors, strategies for managing public acceptability should include meaningful dialogues that aim to create better technologies which are not only acceptable to citizens, but can even be actively supported by them.

[Na kratko](#) [EN](#)

Multimedijske vsebine [What if we could design better technologies through dialogue?](#)

[What if we let consumer electricity prices fluctuate?](#)

Vrsta publikacije Na kratko

Datum 10-01-2019

Avtor KURRER CHRISTIAN MARTIN

Politično področje Energija | Notranji trg in carinska unija

Ključna beseda cena energije | cene | električna energija | električna in jedrska energija | ENERGETIKA | energetska politika | FINANCE | nihanje cen

Povzetek Electricity production from renewable sources such as wind and solar energy is expanding rapidly in Europe and around the world. However, integrating these fluctuating sources into the grid is increasingly becoming a challenge for grid operators that need to match electricity supply with demand. Switching over to a new electricity market system where the demand would better adapt to the supply could be crucial for the success of the transition towards a low-carbon society.

Na kratko [EN](#)

Multimedijske vsebine [What if we let consumer electricity prices fluctuate?](#)

[What if we genetically engineered an entire species?](#)

Vrsta publikacije Na kratko

Datum 07-12-2018

Avtor VAN WOENSEL Lieve

Politično področje Javno zdravje | Kmetijstvo in razvoj podeželja | Okolje | Pravo EU: pravni sistem in akti | Raziskovalna politika | Razvoj in humanitarna pomoč

Ključna beseda ekosistem | genetika | genetsko spremenjen organizem | naravno okolje | naravoslovne in uporabne vede | OKOLJE | okoljska politika | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija in tehnični predpisi | vpliv na okolje | ZNANOST

Povzetek 'Gene drives' are best known for their capacity to suppress malaria by eradicating mosquito populations. However, its applications reach even further, including the potential to eliminate other insect-transmitted diseases, erasing herbicide and pesticide resistance in weeds and pests, and removing invasive species from ecosystems. How do we navigate the potential benefits and significant risks that are involved in gene drive use?

Na kratko [EN](#)

Multimedijske vsebine [What if we genetically engineered an entire species?](#)

[What if algorithms could abide by ethical principles?](#)

Vrsta publikacije Na kratko

Datum 20-11-2018

Avtor KRITIKOS Michail

Politično področje Javno zdravje | Kmetijstvo in razvoj podeželja | Okolje | Pravo EU: pravni sistem in akti | Pravo intelektualne lastnine | Promet | Raziskovalna politika | Varnost hrane | Varstvo potrošnikov | Zaposlovanje

Ključna beseda boj proti diskriminaciji | družboslovne vede | etika | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | odločanje | POSLOVANJE IN KONKURENCA | poslovanje | pravice in svobode | PRAVO | računalniški sistem | umetna inteligenca | učinek informacijske tehnologije | ZNANOST

Povzetek Algorithms, are step-by-step procedure for solving a problem, usually expressed in computer code as a set of instructions for a computer to follow in order to complete a task. Day-to-day decisions around the world are increasingly based on data science techniques powered by machine learning algorithms that are gradually making a meaningful impact on human lives. For example, the operation of intermediary platforms that propose accommodation (AirBnB) or transportation alternatives (Uber) are extensively using algorithms. Algorithms implicitly or explicitly are not neutral as they comprise essential value-judgments that can potentially have race or sex biases. This raises an important question: is it possible to develop and ensure that algorithms are ethical?

Na kratko [EN](#)

Multimedijske vsebine [What if algorithms were to become ethical?](#)

[Global Trends to 2035 - Economy and Society](#)

Vrsta publikacije Študija

Datum 20-11-2018

Zunanji avtor EPRS, DG

Politično področje Dolgoročno načrtovanje | Ekonomske in monetarne zadeve | Okolje | Socialna politika

Ključna beseda demografija in prebivalstvo | DRUŽBENA IN SOCIALNA VPRAŠANJA | družboslovne vede | ENERGETIKA | energetska politika | fosilno gorivo | geopolitika | GOSPODARSTVO | kakovost zraka | mednarodna trgovina | mednarodna trgovina | nacionalni računi | nova tehnologija | obnovljiva energija | obremenitve okolja | OKOLJE | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | razporejanje dohodka | socialna neenakost | socialni okvir | sprememba podnebja | svetovno prebivalstvo | tehnologija in tehnični predpisi | TRGOVINA | ustvarjanje delovnih mest | zaposlovanje | ZAPOSLOVANJE IN DELOVNE RAZMERE | ZNANOST | čista energija

Povzetek This study maps and analyses current and future global trends in the fields of economics and society, covering the period to 2035. Drawing on and complementing existing literature, it summarises and analyses the findings of relevant foresight studies in relation to such global trends. It traces recent changes in the perceived trajectory of already-identified trends and identifies significant new or emerging trends. It also addresses potential policy implications of such trends for the EU.

Študija [EN](#)

[Galileo Satellite Navigation System](#)

Vrsta publikacije Študija

Datum 25-10-2018

Zunanji avtor DG, EPRS; EPRS, DG

Politično področje Industrija | Promet | Razvoj in humanitarna pomoč | Varnost in obramba

Ključna beseda Agencija za evropski GNSS | avtonomija | elektronika in elektrotehnika | elektronska industrija | EVROPSKA UNIJA | graditev Evrope | INDUSTRIJA | institucije EU in evropska javna uprava | IZOBRAŽEVANJE IN KOMUNIKACIJE | izvršilna oblast in javna uprava | komunikacije | kopenski promet | kopenski promet | MEDNARODNI ODNOSI | mobilna komunikacija | morski prevoz | nujna pomoč | organizacija prevoza | POLITIKA | politika sodelovanja | pomorski promet in promet po celinskih plovnih poteh | program EU | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | PROMET | raziskave in intelektualna lastnina | raziskave in razvoj | satelitska navigacija | satelitske komunikacije | telekomunikacijska industrija | vesoljska politika | železniški promet

Povzetek This study explains the background necessary for understanding of the Global Satellite Navigation System (GNSS) working principles and the importance of GNSS in our daily life and work. It highlights the specific socio-economic and strategic advantages enabled by the European satellite navigation system 'Galileo'. It also identifies some of the gaps and challenges towards Galileo's final operational capability expected in 2021. The study proposes different policy options in order to maximise the impact of the European satellite navigation system in the near future and in the long term.

Študija [CS](#), [EN](#)

[What if 'nudging' good habits could make us healthier?](#)

Vrsta publikacije Na kratko

Datum 19-10-2018

Avtor KULJANIC Nera

Politično področje Ekonomske in monetarne zadeve | Industrija | Javno zdravje | Notranji trg in carinska unija | Varstvo potrošnikov

Ključna beseda agroživilstvo | DRUŽBENA IN SOCIALNA VPRAŠANJA | javno zdravje | KMETIJSKO ŽIVILSTVO | potrošnja | prehrana | TRGOVINA | varstvo potrošnikov | zdravstvo | živilska industrija

Povzetek The link between high consumption of trans fats, sugar and salt, found in high amounts in processed food, and an increased risk of cardiovascular diseases (CVDs), type 2 diabetes and various cancers is well established. In the current food market, calorie-rich, processed food, wrapped with ambiguous labels, is readily available, cheap and heavily promoted. But what if consumers could be prompted to make healthier food choices?

Na kratko [EN](#)

Multimedijske vsebine [What if nudging good habits could make us healthier?](#)

[What if gene editing became routine practice?](#)

Vrsta publikacije Na kratko

Datum 16-10-2018

Avtor KRITIKOS Michail

Politično področje Javno zdravje | Kmetijstvo in razvoj podeželja | Okolje | Pravo EU: pravni sistem in akti | Raziskovalna politika | Varnost hrane | Varstvo potrošnikov

Ključna beseda bioetika | DRUŽBENA IN SOCIALNA VPRAŠANJA | družbene in socialne zadeve | genetika | genska tehnologija | naravoslovne in uporabne vede | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija in tehnični predpisi | ZNANOST

Povzetek The CRISPR-Cas9 system currently stands out as the fastest, cheapest and most reliable system for 'editing' genes. It is seen as the biggest game changer in the field of gene editing due to its high degree of reliability, effectiveness and low cost. At the same time, the use of CRISPR has generated a series of socio-ethical concerns over whether and how gene editing should be used to make heritable changes to the human genome, to lead to designer babies, to generate potentially risky genome edits or to disrupt entire ecosystems.

Na kratko [EN](#)

What if blockchain offered a way to reconcile privacy with transparency?

Vrsta publikacije Na kratko

Datum 27-09-2018

Avtor KRITIKOS Michail

Politično področje Demokracija | Demokracija EU, institucionalno in parlamentarno pravo | Ekonomske in monetarne zadeve | Finančna in bančna vprašanja | Globalno upravljanje | Industrija | Javno zdravje | Mednarodna trgovina | Notranji trg in carinska unija | Območje svobode, varnosti in pravice | Okolje | Pogodbeno pravo, gospodarsko pravo in pravo gospodarskih družb | Pravo EU: pravni sistem in akti | Pravo intelektualne lastnine | Promet | Raziskovalna politika | Socialna politika | Varnost hrane | Varstvo potrošnikov | Zasebno mednarodno pravo in pravosodno sodelovanje v civilnih zadevah

Ključna beseda blokovna veriga | denarno poslovanje | elektronsko bančništvo | EVROPSKA UNIJA | FINANCE | finančni nadzor | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | kreditne in finančne institucije | kriptografija | osebni podatki | pravice in svoboščine | PRAVO | pravo Evropske unije | predpisi o obdelavi podatkov | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | prost pretok kapitala | tehnologija in tehnični predpisi | uredba (EU) | učinek informacijske tehnologije | varstvo podatkov | varstvo zasebnosti | virtualna valuta

Povzetek One of the most appealing aspects of blockchain technology is the degree of transparency that it can provide. Blockchain has the potential to improve supply chains and clinical trials, enforce the law, enable responsible consumption and enhance democratic governance through a traceability of information as a means of ensuring that nothing is unduly modified. The level of transparency that blockchain brings forward adds a degree of accountability that has not existed to date. At the same time, one of the most appealing aspects of blockchain technology is the degree of privacy that it can provide. How could blockchain safeguard the rights to privacy and control over one's data, whilst promoting data transparency?

Na kratko [EN](#)

Multimedijske vsebine [What if blockchain were to be truly decentralised?](#)

What if blockchain were to be truly decentralised?

Vrsta publikacije Na kratko

Datum 27-09-2018

Avtor KRITIKOS Michail

Politično področje Demokracija | Demokracija EU, institucionalno in parlamentarno pravo | Ekonomske in monetarne zadeve | Finančna in bančna vprašanja | Globalno upravljanje | Industrija | Javno zdravje | Mednarodna trgovina | Notranji trg in carinska unija | Območje svobode, varnosti in pravice | Okolje | Pogodbeno pravo, gospodarsko pravo in pravo gospodarskih družb | Pravo EU: pravni sistem in akti | Pravo intelektualne lastnine | Promet | Raziskovalna politika | Varnost hrane | Varstvo potrošnikov | Zasebno mednarodno pravo in pravosodno sodelovanje v civilnih zadevah

Ključna beseda blokovna veriga | centralizacija informacij | denarno poslovanje | elektronsko bančništvo | FINANCE | informacije in obdelava informacij | IZOBRAŽEVANJE IN KOMUNIKACIJE | kreditne in finančne institucije | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija in tehnični predpisi | virtualna valuta

Povzetek Technological systems, once introduced in a particular socio-economic context, often evolve in unforeseen ways and may fall prey to unexpected power relations. Blockchain, as a technology that relies on decentralisation to enable storing and securing data-based transactions without central administration, is currently facing significant centralisation pressures that may undermine the purpose of operating a decentralised blockchain network. But what if blockchain fulfilled its promise to be truly decentralised?

Na kratko [EN](#)

Multimedijske vsebine [What if blockchain were to be truly decentralised?](#)

What if technologies challenged our ethical norms?

Vrsta publikacije Na kratko

Datum 06-09-2018

Avtor KRITIKOS Michail

Politično področje Demokracija | Demokracija EU, institucionalno in parlamentarno pravo | Dolgoročno načrtovanje | Finančna in bančna vprašanja | Globalno upravljanje | Javno zdravje | Območje svobode, varnosti in pravice | Ocena zakonodaje in politik v praksi | Okolje | Pogodbeno pravo, gospodarsko pravo in pravo gospodarskih družb | Pravo EU: pravni sistem in akti | Promet | Raziskovalna politika | Socialna politika | Varnost hrane | Varstvo potrošnikov

Ključna beseda družboslovne vede | etika | inovacija | nova tehnologija | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | tehnologija in tehnični predpisi | ZNANOST

Povzetek Exploring the relationship between ethics and technological innovation has always been a challenging task for policy-makers. Ethical considerations concerning the impact of research and innovation (R&I) are increasingly important owing to the quickening pace of technological innovation and the transformative potential and complexity of contemporary advances in science and technology. The multiplication of legal references to ethical principles and the mushrooming of ad hoc ethics committees indicate the institutional embedding of ethics into the scientific research process as such, but also into an increasing array of technological trajectories. Yet the rapid development of disruptive technologies means that social and ethical norms often struggle to keep up with technological development. But what if disruptive technologies were to challenge traditional ethical norms and structures?

Na kratko [EN](#)

Multimedijske vsebine [What if technologies challenged our ethical norms?](#)

[What if technologies had their own ethical standards?](#)

Vrsta publikacije Na kratko

Datum 06-09-2018

Avtor KRITIKOS Michail

Politično področje Demokracija | Demokracija EU, institucionalno in parlamentarno pravo | Dolgoročno načrtovanje | Finančna in bančna vprašanja | Globalno upravljanje | Javno zdravje | Območje svobode, varnosti in pravice | Ocena zakonodaje in politik v praksi | Okolje | Pogodbeno pravo, gospodarsko pravo in pravo gospodarskih družb | Pravo EU: pravni sistem in akti | Promet | Raziskovalna politika | Socialna politika | Varnost hrane

Ključna beseda družboslovne vede | etika | inovacija | nova tehnologija | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | tehnologija in tehnični predpisi | ZNANOST

Povzetek Technologies are often seen either as objects of ethical scrutiny or as challenging traditional ethical norms. The advent of autonomous machines, deep learning and big data techniques, blockchain applications and 'smart' technological products raises the need to introduce ethical norms into these devices. The very act of building new and emerging technologies has also become the act of creating specific moral systems within which human and artificial agents will interact through transactions with moral implications. But what if technologies introduced and defined their own ethical standards?

Na kratko [EN](#)

Multimedijske vsebine [What if technologies had their own ethical standards?](#)

[3D bio-printing for medical and enhancement purposes](#)

Vrsta publikacije Poglobljena analiza

Datum 20-07-2018

Avtor BOUCHER Philip Nicholas

Politično področje Industrija | Raziskovalna politika | Varstvo potrošnikov

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | inovacija | medicinske raziskave | nova tehnologija | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | raziskave in razvoj | tehnologija in tehnični predpisi | zdravstveno varstvo | zdravstvo | širjenje inovacij

Povzetek 3D bio-printing is defined here as the use of 3D printing technology for applications related to the body, whether the products themselves include biological material or not, and whether or not their purpose is medical. It includes any application for rehabilitating, supporting or augmenting any kind of biological functionality. The impacts of 3D bio-printing are uncertain, and it is not clear which actions may be required to foster responsible development of the technology. A STOA study, 'Additive bio-manufacturing: 3D printing for medical recovery and human enhancement', responded to these uncertainties by describing the state of the art and future development prospects of 3D bio-printing technology, analysing their wide-ranging impacts – including social, ethical and economic aspects – and identifying key policy challenges along with options to respond to them. Key challenges and responsive options were identified in the approach to regulation, in managing the distribution of costs and benefits, and in the role of citizens in technology development. This In-depth Analysis draws upon the findings of the STOA Study, summarising and reflecting upon its key findings. The conclusions highlight key trends and offer further reflections on the study in the context of responsible research and innovation.

Poglobljena analiza [EN](#), [IT](#)

Priloga 1 [EN](#)

Priloga 2 [IT](#), [EN](#)

[Global Trendometer - Essays on medium- and long-term global trends - July 2018](#)

Vrsta publikacije Študija

Datum 18-07-2018

Avtor CESLUK-GRAJEWSKI Marcin | NOONAN EAMONN | RECHARD Daniele | SCHMERTZING Leopold | WINDLE-WEHRLÉ Jessica Freya

Politično področje Demokracija | Demokracija EU, institucionalno in parlamentarno pravo | Ekonomske in monetarne zadeve | Območje svobode, varnosti in pravice | Okolje | Varnost hrane | Zunanje zadeve

Ključna beseda Amerika | Azija in Oceanija | delovna sila | demokracija | dezinformacija | dohodek | DRUŽBENA IN SOCIALNA VPRAŠANJA | ekonomska geografija | GEOGRAFIJA | GOSPODARSTVO | Indija | informacije in obdelava informacij | IZOBRAŽEVANJE IN KOMUNIKACIJE | javno naročilo | Kitajska | komunikacije | nacionalni računi | OKOLJE | okoljska politika | POLITIKA | politika in javna varnost | politika o podnebnih spremembah | politična geografija | politična propaganda | politični okvir | prehranska varnost | trg dela | TRGOVINA | trgovinska politika | umetna inteligenca | ZAPOSLOVANJE IN DELOVNE RAZMERE | zdravstvo | Združene države

Povzetek The EU faces challenges from the outside and the inside. Most of those are the symptoms of big underlying trends, and handling them needs foresight. The Global Trendometer tries to provide foresight for decision makers in the EU by analysing the changes in these long-term trends. This publication does not offer answers or make recommendations. It presents summarised information derived from a range of carefully selected sources. This issue of the Global Trendometer analyses long-term trends on India, the labour-share of income, and democracy and artificial intelligence. It also features two-pagers on geoengineering, remittances, food security in China, economic waves, the US after Trump, public procurement and deep fakes.

Študija [EN](#)

[New technologies and regional policy: Towards the next cohesion policy framework](#)

Vrsta publikacije [Študija](#)

Datum 04-07-2018

Zunanji avtor Jan Annerstedt (Copenhagen Business School)

We are grateful to Ramón Luis Valcárcel Siso, Vice-President of the European Parliament responsible for STOA, and to Constanze Krehl and Lambert Van Nistelrooij, Members of the European Parliament - REGI Committee, who supported this study, offering their valuable contribution during the workshop, providing inputs to this publication.

Politično področje Ekonomske in monetarne zadeve | Industrija | Kmetijstvo in razvoj podeželja | Notranji trg in carinska unija | Promet | Raziskovalna politika | Regionalni razvoj | Socialna politika | Zaposlovanje

Ključna beseda EVROPSKA UNIJA | FINANCE | finance EU | financiranje in naložbe | inovacija | klasifikacija podjetij | mala in srednje velika podjetja | MEDNARODNI ODNOSI | nova tehnologija | okvirni program za raziskave in razvoj | politika sodelovanja | POSLOVANJE IN KONKURENCA | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | raziskave in razvoj | sofinanciranje | strukturni skladi | tehnologija in tehnični predpisi | čezmejno sodelovanje | širjenje inovacij

Povzetek This study aims at highlighting the importance of the territorial dimension and structures for economic growth at European level. It focuses on the role and potential of the existing cohesion policy funding in planning and implementing ICT infrastructures in the regions, and in accompanying the efforts to digitalise European economy and society. In the same context, the study also highlights the role and potential of cohesion policy funding in planning and implementing integrated science and technology parks.

[Študija EN](#)

[Priloga 1 EN](#)

[What if law shaped technologies?](#)

Vrsta publikacije [Na kratko](#)

Datum 28-06-2018

Avtor KRITIKOS Michail

Politično področje Demokracija EU, institucionalno in parlamentarno pravo | Finančna in bančna vprašanja | Globalno upravljanje | Okolje | Pogodbeno pravo, gospodarsko pravo in pravo gospodarskih družb | Pravo EU: pravni sistem in akti | Promet | Varnost hrane | Varstvo potrošnikov

Ključna beseda delo parlamenta | EVROPSKA UNIJA | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | izvršilna oblast in javna uprava | POLITIKA | pravni viri in pravna področja | PRAVO | pravo Evropske unije | priprava zakonodaje | priprava zakonodaje EU | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | regulativna politika | tehnologija in tehnični predpisi | tehnološka sprememba | učinek informacijske tehnologije | zakonik

Povzetek Existing legal structures may prove a poor match for new types of disputes raised by disruptive technologies. Can the legal system overcome the temporal gap between the emergence of a technology and the subsequent need for controlling its possible effects and retain both flexibility and responsiveness? What regulation is justified by a particular technology? How should a particular technology be regulated? How can law regulate uncertain and unknown futures in the face of limited knowledge?

[Na kratko EN](#)

Multimedijske vsebine [What if law shaped technologies ?](#)

[What if technologies shaped the law?](#)

Vrsta publikacije [Na kratko](#)

Datum 07-06-2018

Avtor KRITIKOS Michail

Politično področje Demokracija EU, institucionalno in parlamentarno pravo | Finančna in bančna vprašanja | Okolje | Pogodbeno pravo, gospodarsko pravo in pravo gospodarskih družb | Pravo EU: pravni sistem in akti | Varnost hrane | Varstvo potrošnikov

Ključna beseda blokovna veriga | delo parlamenta | EVROPSKA UNIJA | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | izvršilna oblast in javna uprava | POLITIKA | pravni viri in pravna področja | PRAVO | pravo Evropske unije | priprava zakonodaje | priprava zakonodaje EU | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | regulativna politika | tehnologija in tehnični predpisi | tehnološka sprememba | učinek informacijske tehnologije | zakonik

Povzetek Is there a relationship between law, technological innovation, and regulatory governance? Are technologies ordinary objects of formal law that can fit into the traditional doctrinal classification? What if technologies were legal artefacts that question and challenge the traditional boundaries of legal thought? Has technology been developed to the extent that it exerts the functions of law? Is there a gradual shift from the traditional notion of "code is law" (i.e. code having the effect of law) to the new conception of "law is code"?

[Na kratko EN](#)

Multimedijske vsebine [What if technologies shaped the law?](#)

[What if social media were open and connected?](#)

Vrsta publikacije Na kratko

Datum 22-05-2018

Avtor BOUCHER Philip Nicholas

Politično področje Dolgoročno načrtovanje | Varstvo potrošnikov

Ključna beseda družbeni mediji | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | semantični splet | uporabnik interneta

Povzetek Social media platforms are often thought of as open and connected spaces, since they allow users to communicate with a wide range of people and organisations. It seems obvious that to have access to a social network it should be necessary to open an account with the platform, and that on closing the account that access would be lost. However, telephone and email networks do not restrict access to their networks depending on which provider or platform is being used, and there are ways in which social media too could be more open and connected, providing greater connectivity and allowing users to change platform without losing access to the network. This could help foster a more competitive market that is more responsive to challenges such as privacy and disinformation.

Na kratko [EN](#)

Multimedijske vsebine [What if social media were open and connected?](#)

[What if we were to travel on levitating trains?](#)

Vrsta publikacije Na kratko

Datum 12-04-2018

Avtor KURRER CHRISTIAN MARTIN

Politično področje Energija | Industrija | Promet | Raziskovalna politika | Regionalni razvoj

Ključna beseda EVROPSKA UNIJA | graditev Evrope | kopenski promet | MEDNARODNI ODNOSI | nova tehnologija | okvirni program za raziskave in razvoj | organizacija prevoza | politika sodelovanja | prevoz po zraku | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | PROMET | promet visokih hitrosti | prometna infrastruktura | prometna politika | raziskave in intelektualna lastnina | tehnologija in tehnični predpisi | tretja država | vseevropsko omrežje | zračni in vesoljski promet | železniški promet

Povzetek Magnetic levitation-based transport might be about to enter our lives, providing for faster, safer and more energy-efficient journeys. As it will enable longer distances to be covered more rapidly and cleanly, could it affect where we choose to live?

Na kratko [EN](#)

[Should we fear artificial intelligence?](#)

Vrsta publikacije Poglobljena analiza

Datum 26-03-2018

Zunanji avtor EPRS, DG

Politično področje Dolgoročno načrtovanje | Raziskovalna politika | Socialna politika | Varstvo potrošnikov | Zaposlovanje

Ključna beseda enotni digitalni trg | EVROPSKA UNIJA | graditev Evrope | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | informatika | inovacija | IZOBRAŽEVANJE IN KOMUNIKACIJE | nova tehnologija | pobuda EU | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | raziskave in razvoj | tehnologija in tehnični predpisi | umetna inteligenca | uporaba informacijske tehnologije | širjenje inovacij

Povzetek For better or worse, artificial intelligence (AI) is predicted to have a huge impact on the future of humanity. As new promises and concerns reach increasingly mainstream audiences, the debate is starting to capture the public imagination. In this publication, we present four opinion pieces, each responding to the question should we fear AI? The four authors come from different disciplinary backgrounds and present diverging perspectives on whether we should fear the future of AI, and how we should proceed with its development.

Poglobljena analiza [EN](#), [ES](#), [FR](#)

[Overcoming innovation gaps in the EU-13 Member States](#)

Vrsta publikacije Študija

Datum 14-03-2018

Zunanji avtor EPRS, DG

Politično področje Dolgoročno načrtovanje | Raziskovalna politika | Regionalni razvoj

Ključna beseda država članica EU | ekonomska geografija | GEOGRAFIJA | inovacija | okvirni program za raziskave in razvoj | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | raziskave in razvoj | tehnologija in tehnični predpisi | širjenje inovacij

Povzetek Investing in research is considered essential for achieving smart, sustainable and inclusive growth and jobs in Europe. The EU Framework Programme for research and innovation is the EU's primary instrument for building the European Research Area. Framework Programmes are expected to produce European added value: therefore the principle of just return does not apply. Research needs to be of the highest quality, produced in international collaboration and selected on a competitive basis. Under such conditions, uneven participation is unavoidable. However, Framework Programme participation appears to be disproportionately weak for an entire region of the EU. After almost 20 years of access to the opportunities of the FPs, the EU-13 still lags behind the EU-15. The aim of this study is to explore, identify and enlighten reasons for the low participation and success rate of EU-13 countries, in order to improve their future performance in Horizon 2020 and in future Framework Programmes.

Študija [EN](#)

Priloga 1 [EN](#)

[What if all technologies were inherently social?](#)

Vrsta publikacije Na kratko

Datum 02-03-2018

Avtor BOUCHER Philip Nicholas

Politično področje Demokracija | Dolgoročno načrtovanje | Notranji trg in carinska unija | Raziskovalna politika | Socialna politika | Varstvo potrošnikov

Ključna beseda avtomatizacija | biogorivo | DRUŽBENA IN SOCIALNA VPRAŠANJA | ENERGETIKA | energetska politika | gospodarska politika | GOSPODARSTVO | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | OKOLJE | okoljska politika | pluralizem medijev | pravice in svoboščine | PRAVO | prilagoditev na podnebne spremembe | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | raziskave in razvoj | socialni okvir | socialni učinki | svoboda izražanja | tehnologija in tehnični predpisi | tehnološka sprememba | trajnostni razvoj

Povzetek How technology has shaped society and how future technologies might affect it in the years to come are subjects for frequent debate. It can be tempting in this context to think of technologies as neutral 'things' that can be used for good or bad depending on the user's intentions and skills. But what if technologies were social objects that reflected and reinforced human activities or even political values? In fact, while mechanisms, effects and implications remain open to debate, experts on the relationship between technology and society broadly agree that technologies are indeed social in this way. By scripting, restricting and enabling different human behaviours, technologies can influence our lives in much the same way that policy programmes do. A number of key ideas have emerged from this field over the last five decades, with various implications for European policy-making.

Na kratko [EN](#)

Multimedijske vsebine [What if all technologies were inherently social?](#)

[New ways of financing transport infrastructure projects in Europe](#)

Vrsta publikacije Študija

Datum 01-03-2018

Avtor KRITIKOS Michail

Zunanji avtor EPRS, DG;

Politično področje Okolje | Promet | Regionalni razvoj

Ključna beseda cestnina | električno vozilo | EVROPSKA UNIJA | FINANCE | finance EU | financiranje | financiranje in naložbe | finančno poslovanje | GOSPODARSTVO | graditev Evrope | izvršilna oblast in javna uprava | javno-zasebno partnerstvo | naložba | obremenitve okolja | OKOLJE | onesnaževanje z motornimi vozili | organizacija prevoza | POLITIKA | POSLOVANJE IN KONKURENCA | poslovanje | PROMET | prometna politika | prometno omrežje | regije in regionalna politika | sklad (EU) | strategija EU za rast | vseevropsko omrežje | čezmejna razsežnost

Povzetek This study assesses a range of mechanisms to finance transport infrastructure projects in cross-border regions, and analyses the strategic role that European Groupings of Territorial Cohesion (EGTC) could play in the planning and implementation of cross-border investments. Special attention is given to often neglected small-scale projects, whose investment is up to €1 million. Building on an in-depth literature review, and supported by interviews with various regional cooperation structures and an experts' workshop, the study analyses the current situation regarding the availability of financing tools for new technologies that enhance transport infrastructure in cross-border regions. It also outlines sources of financial support that could meet investment needs and assesses technological challenges and trends in the field of Intelligent Transport Systems, with a focus on regional interoperability. The study ends with suggestions of policy options to facilitate and accelerate cross border transport infrastructure projects.

Študija [EN](#)

Priloga 1 [EN](#)

[The impact of new technologies on the labour market and the social economy](#)

Vrsta publikacije Študija

Datum 01-03-2018

Zunanji avtor EPRS, DG

Politično področje Ekonomske in monetarne zadeve | Industrija | Socialna politika | Zaposlovanje

Ključna beseda digitalni razkorak | DRUŽBENA IN SOCIALNA VPRAŠANJA | globalizacija | gospodarska politika | gospodarska struktura | GOSPODARSTVO | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | inovacija | IZOBRAŽEVANJE IN KOMUNIKACIJE | nacionalni računi | organizacija dela | organizacija dela in delovne razmere | porazdelitev bogastva | POSLOVANJE IN KONKURENCA | produktivnost | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | računovodstvo | socialna ekonomija | socialna neenakost | socialni okvir | strokovno izpopolnjevanje | tehnologija in tehnični predpisi | tehnološka sprememba | tehnološki presežek | trg dela | učinek informacijske tehnologije | zaposlovanje | ZAPOSLOVANJE IN DELOVNE RAZMERE

Povzetek This STOA study investigates the potential employment effects of new information and communication technologies, by examining the relationship between innovation, new technologies, employment and inequality. It reviews the existing literature and experiences of previous technological revolutions, and argues that the race between job creation through new products, and job destruction from process innovation, has been won in the past by the job-creating effects of innovation. It concludes that there is an uneven distribution in the costs of digitalisation, because of the skills-biased nature of technological change - so the challenge of the future lies in coping with rising inequality from technological change. The study also proposes a set of policy options for dealing with the employment effects of digitalisation.

Študija [EN](#)

Priloga 1 [EN](#)

[Prospects for e-democracy in Europe](#)

Vrsta publikacije [Študija](#)

Datum 02-02-2018

Zunanji avtor EPRS, DG

Politično področje [Demokracija](#) | [Demokracija EU](#), institucionalno in parlamentarno pravo | [Dolgoročno načrtovanje](#) | [Evropska dodana vrednost](#) | [Javno mednarodno pravo](#) | [Ocena zakonodaje in politik v praksi](#) | [Pravo EU: pravni sistem in akti](#) | [Prenos in izvajanje zakonodaje](#)

Ključna beseda [delo parlamenta](#) | [digitalna tehnologija](#) | [elektronska uprava](#) | [elektronsko glasovanje](#) | [informacijska tehnologija](#) | [informacijska tehnologija in obdelava podatkov](#) | [inovacija](#) | [internet](#) | [IZOBRAŽEVANJE IN KOMUNIKACIJE](#) | [izvršilna oblast in javna uprava](#) | [komunikacije](#) | [nova tehnologija](#) | [okvirni program za raziskave in razvoj](#) | [participativna demokracija](#) | [POLITIKA](#) | [politični okvir](#) | [preglednost uprave](#) | [PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE](#) | [raziskave in intelektualna lastnina](#) | [tehnologija in tehnični predpisi](#) | [varovanje tajnosti podatkov](#) | [vladanje](#) | [širjenje inovacij](#)

Povzetek Digital tools could create stronger connections between European citizens and the EU decision-making process and, by doing so, might contribute to reducing the EU democratic deficit. This report investigates what lessons can be drawn from local, national and European experiences of the use of digital tools for the functioning of EU decision-making procedures and institutions. For that purpose, a review of current literature on e-democracy and the European public sphere has been carried out; 22 local, national and EU experiences with existing digital tools have been investigated and evaluated; and an analysis has been made of the suitability of the most promising digital tools for implementation and use at EU level. The most important factors for successful e-participation identified in the report are: a close and clear link between e-participation processes and a concrete formal decision-making process; the participatory process and the contribution of its outputs to the overall decision-making process have to be clear to participants from the start; feedback to the participants about what has been done with their contributions is an indispensable feature of the process; a participative process should not be limited to one event but should be imbedded in an institutional 'culture of participation'; e-participation must be accompanied by an effective mobilisation and engagement strategy, involving communication instruments tailored for different target groups.

[Študija](#) [EN](#), [IT](#), [NL](#)

[Priloga 1](#) [EN](#)

[Priloga 2](#) [EN](#)

[Priloga 3](#) [EN](#)

[Priloga 4](#) [EN](#)

[What if all our meat were grown in a lab?](#)

Vrsta publikacije [Na kratko](#)

Datum 17-01-2018

Avtor KURRER CHRISTIAN MARTIN

Politično področje [Dolgoročno načrtovanje](#) | [Industrija](#) | [Kmetijstvo in razvoj podeželja](#) | [Okolje](#) | [Raziskovalna politika](#) | [Varnost hrane](#)

Ključna beseda [agroživilstvo](#) | [antibiotik](#) | [DRUŽBENA IN SOCIALNA VPRAŠANJA](#) | [kmetijski proizvodi](#) | [KMETIJSKO ŽIVILSTVO](#) | [kmetijstvo](#) | [KMETIJSTVO, GOZDARSTVO IN RIBIŠTVO](#) | [krčenje gozdov](#) | [mesni izdelek](#) | [mesnopredelovalna industrija](#) | [obremenitve okolja](#) | [OKOLJE](#) | [okoljska politika](#) | [okoljska politika EU](#) | [proizvodnja živil](#) | [PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE](#) | [raziskave in intelektualna lastnina](#) | [sintetična beljakovina](#) | [toplogredni plin](#) | [vpliv na okolje](#) | [zdravstvo](#) | [znanstvene raziskave](#) | [živila](#) | [živinoreja](#)

Povzetek Laboratory meat is grown from a small number of cells taken from a live animal and placed in a growth medium in a bioreactor where they proliferate independently. If meat cultured in this way became widely available, it could significantly alleviate the environmental problems currently caused by livestock production - such as greenhouse gas emissions and nitrogen pollution of waterways - without requiring humans to alter their consumption patterns. This publication provides an overview of the potential impacts of laboratory meat on environment, public health and farming, and makes suggestions for anticipatory policy-making in this area.

[Na kratko](#) [EN](#)

Multimedijske vsebine [What if all our meat were grown in a lab?](#)

[Assistive technologies for people with disabilities](#)

Vrsta publikacije **Poglobljena analiza**

Datum **15-01-2018**

Avtor **BOUCHER Philip Nicholas**

Politično področje **Dolgoročno načrtovanje | Industrija | Izobraževanje | Javno zdravje | Območje svobode, varnosti in pravice | Socialna politika | Varstvo potrošnikov | Vprašanje spola, enakost in različnost | Zaposlovanje | Človekove pravice**

Ključna beseda **dostop do izobraževanja | dostop do zaposlitve | DRUŽBENA IN SOCIALNA VPRAŠANJA | družbene in socialne zadeve | enako obravnavanje | evropska socialna politika | izobraževanje | IZOBRAŽEVANJE IN KOMUNIKACIJE | medicinski in kirurški instrumenti | nova tehnologija | pravice in svoboščine | PRAVO | pripomočki za invalide | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | socialno vključevanje invalidov | tehnologija in tehnični predpisi | trg dela | ZAPOSLOVANJE IN DELOVNE RAZMERE | zdravstvo**

Povzetek **Assistive technologies (ATs) are designed to improve the functional capabilities of people with disabilities. Some are relatively low-tech and very familiar, such as such as reading glasses, crutches and hearing aids. Others are more advanced, using cutting-edge science and technology, with future ATs under development that could have a huge impact on all our lives. This briefing provides an overview of a scientific foresight study of ATs for three specific types of disability: blindness and visual impairment, deafness and hearing impairment, and autism spectrum disorders.**

Poglobljena analiza [EN](#)

Priloga 1 [EN](#)

Priloga 2 [EN](#)

Priloga 3 [EN](#)

Priloga 4 [EN](#)

[Achieving a sovereign and trustworthy ICT industry in the EU](#)

Vrsta publikacije **Študija**

Datum **20-12-2017**

Zunanji avtor **EPRS, DG**

Politično področje **Dolgoročno načrtovanje | Industrija | Območje svobode, varnosti in pravice | Varstvo potrošnikov**

Ključna beseda **boj proti kriminalu | DRUŽBENA IN SOCIALNA VPRAŠANJA | družbene in socialne zadeve | enotni digitalni trg | EVROPSKA UNIJA | graditev Evrope | industrija informacijske tehnologije | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | kvalificiran delavec | MEDNARODNI ODNOSI | ozaveščanje javnosti | POLITIKA | politika in javna varnost | politika sodelovanja | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | raziskave in razvoj | računalniška kriminaliteta | tehnologija | tehnologija in tehnični predpisi | tretja država | trg dela | učinek informacijske tehnologije | ZAPOSLOVANJE IN DELOVNE RAZMERE**

Povzetek **This study attempts to identify and assess policy options for the EU to achieve cyber-resilience, and to develop capabilities, and industrial and technological resources for a trustworthy EU cyberspace, with a view also to promoting core values, such as online privacy protection. The findings could form the basis for an assessment of alternative measures to improve the resilience of the European ICT industry and the EU's strategic decision-making capacity, and enhance the resilience of critical information technology networks. The study further reviews the current state of reciprocity between search engine services and individual customers. The ultimate aim of this study is to develop concrete policy options to be considered by EU institutions and Member States – and potentially to be used as background by EP committees for their legislative and own-initiative reports.**

Študija [DE](#), [EN](#), [FR](#)

Priloga 1 [EN](#)

[What if mini-brains could help us understand dementia?](#)

Vrsta publikacije **Na kratko**

Datum **05-12-2017**

Avtor **KRITIKOS Michail**

Politično področje **Industrija | Raziskovalna politika**

Ključna beseda **bioetika | DRUŽBENA IN SOCIALNA VPRAŠANJA | družbene in socialne zadeve | duševna bolezen | genska podatkovna zbirka | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | medicinske raziskave | medicinsko pravo | metoda vrednotenja | naravoslovne in uporabne vede | osebni podatki | presajanje organov | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | rak | raziskave in intelektualna lastnina | raziskave posledic uvajanja novih tehnologij | tehnologija in tehnični predpisi | terapija | varstvo podatkov | zarodna celica | zdravlilo | zdravstveni podatki | zdravstvo | ZNANOST | človeško kloniranje**

Povzetek **Organoids are artificially grown organs that mimic the properties of real organs. What new possibilities for treating diseases, drug development, and personalised and regenerative medicine do organoids provide?**

Na kratko [EN](#)

Multimedijske vsebine [What if mini-brains could help us understand dementia?](#)

[Precision agriculture in Europe: Legal, social and ethical considerations](#)

Vrsta publikacije Študija

Datum 13-11-2017

Avtor KRITIKOS Michail

Politično področje Energija | Kmetijstvo in razvoj podeželja | Ocena zakonodaje in politik v praksi | Okolje | Pravo EU: pravni sistem in akti | Raziskovalna politika | Regionalni razvoj | Socialna politika | Sprejemanje zakonodaje s strani Evropskega parlamenta in Sveta | Varnost hrane | Varstvo potrošnikov | Zaposlovanje

Ključna beseda avtomatizacija | bioetika | biotehnologija | DRUŽBENA IN SOCIALNA VPRAŠANJA | družbene in socialne zadeve | kmetijska politika | kmetijska proizvodnja | kmetijski sistemi | KMETIJSTVO, GOZDARSTVO IN RIBIŠTVO | obremenitve okolja | OKOLJE | okoljska politika | organiziranost kmetovanja in kmetijska proizvodnja | posodobitev kmetije | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | sprememba podnebja | tehnologija in tehnični predpisi | trajnostno kmetijstvo | ureditev kmetijske proizvodnje | varnost hrane | vpliv na okolje | zdravstvo

Povzetek The aim of this study is to illustrate the different ways in which the current EU legislative framework may be affected by the digitisation and automation of farming activities and the respective technological trends. The study analyses the issues that might have to be dealt with, identifying the European Parliament committees concerned and the legislative acts that might need to be revisited, especially in view of the forthcoming Commission communication on the future of the Common Agricultural Policy (CAP). It also provides a series of overarching recommendations that EU actors may wish to take into account when dealing with precision agriculture. To do so, an analysis of the multiple ethical and legal challenges associated with precision farming technologies has been performed, along with a scanning of current legislation in a wide range of areas of EU policy-making, including agricultural policy and related fields, such as environment, health, food safety and climate change.

Študija [EN](#)

[What if we could 3D-print our own body parts](#)

Vrsta publikacije Na kratko

Datum 10-11-2017

Avtor BOUCHER Philip Nicholas

Politično področje Dolgoročno načrtovanje | Javno zdravje | Raziskovalna politika | Varnost hrane | Varstvo potrošnikov

Ključna beseda bioetika | DRUŽBENA IN SOCIALNA VPRAŠANJA | družbene in socialne zadeve | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | javno zdravje | poskusi na ljudeh | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | raziskave in razvoj | stomatologija | telemedicina | tiskanje v tehniki 3D | zdravstvo | znanstveni napredek

Povzetek The 3D-printing sector has proven its commercial viability in recent years, reaching the high street and, indeed, many homes. The technology is already used in some medical domains, such as dentistry and prosthetics, and many scientists are now exploring methods of printing biological materials – even if reports about lifesaving 3D-printed hearts are certainly premature.

Na kratko [EN](#)

Multimedijske vsebine [What if we could 3D-print body parts?](#)

[Towards a circular economy-Waste management in the EU](#)

Vrsta publikacije Študija

Datum 25-09-2017

Zunanji avtor EPRS, DG

Politično področje Okolje

Ključna beseda država članica EU | ekonomska geografija | ekonomske analize | EVROPSKA UNIJA | GEOGRAFIJA | gospodarska politika | GOSPODARSTVO | klasifikacija podjetij | krožno gospodarstvo | mala in srednje velika podjetja | mednarodna trgovina | obremenitve okolja | odpadki | OKOLJE | okoljska politika | pakiranje | POSLOVANJE IN KONKURENCA | pravo EU – nacionalno pravo | pravo Evropske unije | preprečevanje onesnaževanja | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | ravnanje z odpadki | statistika EU | surovine | tehnologija in tehnični predpisi | tehnologija recikliranja | TRGOVINA | trženje | zeleno gospodarstvo

Povzetek This STOA study explores waste management in the EU. Around one third of EU municipal waste was sent to landfill in 2012. To turn waste into a resource, waste management objectives must be aligned with the goals of a circular economy transition. This report highlights progress and challenges across Member States and in municipalities for (1) reducing waste, and (2) generating high-quality waste streams for re-use and recovery. It focuses on the current policy landscape, trends, and technologies for the five waste streams identified in the European Commission's Circular Economy Action Plan. Employment opportunities for the different steps of the waste hierarchy as well as future policy options are identified and discussed.

Študija [EN](#)

Priloga 1 [EN](#)

'Global Trends to 2035' Geo-politics and international power

Vrsta publikacije Študija

Datum 20-09-2017

Avtor SCHMERTZING Leopold

Politično področje Regionalni razvoj | Socialna politika | Varnost in obramba | Zunanje zadeve

Ključna beseda avtomatizacija | begunec | družbeni mediji | družboslovne vede | države v razvoju | geopolitika | gospodarske razmere | GOSPODARSTVO | informacije in obdelava informacij | informacijska avtocesta | internet | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | mednarodna varnost | mednarodne zadeve | mednarodni odnosi | MEDNARODNI ODNOSI | naravna nesreča | obramba | obremenitve okolja | OKOLJE | okoljska politika | okoljska politika | politika sodelovanja | preprečevanje konfliktov | prilagoditev na podnebne spremembe | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | strateška obramba | tehnologija in tehnični predpisi | tretja država | večstranski odnosi | ZNANOST

Povzetek This study considers eight economic, societal, and political global trends that will shape the world to 2035, namely an ageing population, fragile globalisation, a technological revolution, climate change, shifting power relations, new areas of state competition, politics of the information age and ecological threats. It first examines how they may affect some of the fundamental assumptions of the international system. Then it considers four scenarios based on two factors: an unstable or stable Europe and world. Finally, it presents policy options for the EU to address the challenges created by these trends.

Študija [EN](#)

What if manmade biological organisms could help treat cancer?

Vrsta publikacije Na kratko

Datum 08-09-2017

Avtor KRITIKOS Michail

Politično področje Dolgoročno načrtovanje | Raziskovalna politika

Ključna beseda bioetika | biotehnologija | DRUŽBENA IN SOCIALNA VPRAŠANJA | družbene in socialne zadeve | EVROPSKA UNIJA | inovacija | izum | medicinske raziskave | pravo Evropske unije | priprava zakonodaje EU | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | tehnologija in tehnični predpisi | zdravstveno varstvo | zdravstvo | znanstvene raziskave | širjenje inovacij

Povzetek Synthetic biology is expected to begin to design, construct and develop artificial (i.e. man-made) biological systems that mimic or even go beyond naturally occurring biological systems. Applications of synthetic biology in the healthcare domain hold great promise, but also raise a number of questions. What are the benefits and challenges of this emerging field? What ethical and social issues arise from this engineering approach to biology?

Na kratko [EN](#)

Multimedijske vsebine [What if manmade biological organisms could help treat cancer?](#)

Global Trendometer: Essays on medium- and long-term global trends - Summer 2017

Vrsta publikacije Študija

Datum 06-09-2017

Avtor ALTMAYER Anne | CESLUK-GRAJEWSKI Marcin | NOONAN EAMONN | RECHARD Daniele | WIDUTO Agnieszka | WINDLE-WEHRLE Jessica Freya

Politično področje Demokracija | Dolgoročno načrtovanje | Ekonomske in monetarne zadeve | Mednarodna trgovina | Obdavčitev | Območje svobode, varnosti in pravice | Razvoj in humanitarna pomoč | Socialna politika | Varnost in obramba | Vprašanje spola, enakost in različnost | Zunanje zadeve

Ključna beseda Afrika | Azija in Oceanija | davčni sistem | demografija | demografija in prebivalstvo | DRUŽBENA IN SOCIALNA VPRAŠANJA | ekonomska analiza | ekonomska geografija | ekonomske analize | enako obravnavanje | FINANCE | GEOGRAFIJA | gospodarska politika | GOSPODARSTVO | gradbena oprema | gradbeništvo in javna dela | INDUSTRIJA | Kitajska | mednarodna trgovina | mednarodna trgovina | mednarodne zadeve | MEDNARODNI ODNOSI | nacionalni računi | obdavčenje | OKOLJE | okoljska politika | podsaharska Afrika | pravice in svobščine | PRAVO | prerazporeditev dohodka | protekcionizem | socialni okvir | srednji sloj | surovine | TRGOVINA | upravljanje voda | večstranski odnosi

Povzetek With the publication of the "Global Trendometer" the EPRS Global Trends Unit seeks to contribute to the process of identifying and addressing medium- and long-term trends, and their possible implications for policy-making in the European Union. In this latest edition, three essays and seven two-page vignettes on different geopolitical, economic, technological and social issues paint a broad-ranging picture of some developments that may shape Europe's future.

Študija [EN](#)

[Forward-looking policy-making at the European Parliament through scientific foresight](#)

Vrsta publikacije **Briefing**

Datum **31-08-2017**

Avtor **VAN WOENSEL Lieve**

Politično področje **Dolgoročno načrtovanje | Raziskovalna politika**

Ključna beseda **dokumentacija | družboslovne vede | ekonomske analize | etika | EVROPSKA UNIJA | Evropski parlament | GOSPODARSTVO | institucije EU in evropska javna uprava | IZOBRAŽEVANJE IN KOMUNIKACIJE | kibernetika | naravoslovne in uporabne vede | ocenjevanje | organizacija pouka | poslanec Evropskega parlamenta | ZNANOST | znanstveno mnenje | študija učinkov**

Povzetek The European Parliament's Science and Technology Options Assessment (STOA) Panel, supported by the Scientific Foresight Unit (STOA), decided two years ago to experiment with a process involving scenario development and assessment to explore possible future techno-scientific developments and their potential impacts, while backcasting possible future opportunities and concerns to options available to policy-makers today. This was achieved with the involvement of experts from a variety of backgrounds, together with stakeholders, using a multi-perspective approach. In this setting, various types of possible impacts are explored, which provide the foundations for imagined exploratory scenarios. From these scenarios we can learn about the possible challenges and opportunities arising from them. By communicating these challenges and opportunities to the Members of the European Parliament (MEPs), together with related legal and ethical reflections, the MEPs are provided with potential insights into how to anticipate future policy issues. The MEPs might thus be able to identify options for working towards the most desirable futures and avoiding undesirable futures, and even for anticipating undesirable scenarios. Therefore, foresight-based policy preparation can help the European Parliament stay well prepared for what might lie ahead, allowing informed, anticipatory action.

Briefing [EN](#)

[Ten more technologies which could change our lives](#)

Vrsta publikacije **Poglobljena analiza**

Datum **14-07-2017**

Avtor **KURRER CHRISTIAN MARTIN**

Politično področje **Industrija | Raziskovalna politika**

Ključna beseda **brežžične telekomunikacije | DRUŽBENA IN SOCIALNA VPRAŠANJA | električno vozilo | EVROPSKA UNIJA | genska tehnologija | gradbeni les | graditev Evrope | INDUSTRIJA | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | inteligentni prometni sistem | IZOBRAŽEVANJE IN KOMUNIKACIJE | kmetijska politika | KMETIJSTVO, GOZDARSTVO IN RIBIŠTVO | komunikacije | kriptografija | lesarstvo | naravno okolje | obnovljivi viri | OKOLJE | okvirni program za raziskave in razvoj | organizacija prevoza | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | PROMET | promet visokih hitrosti | prometna politika | raziskave in intelektualna lastnina | superprevodna zlitina | tehnologija in tehnični predpisi | trajnostna mobilnost | trajnostno kmetijstvo | velepodatki | vseevropsko omrežje | zdravstveno varstvo | zdravstvo**

Povzetek In 2015, the European Parliament's Directorate-General for Parliamentary Research Services (DG EPRS) broke new ground with its publication 'Ten technologies which could change our lives – potential impacts and policy implications', with each chapter highlighting a particular technology, its promises and potential negative consequences, and the role that the European Parliament could and should play in shaping these developments. This new study continues this work, presenting ten additional technologies that will increasingly require the attention of policy-makers. The topics for the current study have been chosen to reflect the wide range of topics that the Parliament's Science and Technology Options Assessment (STOA) Panel has decided to focus upon for the eighth parliamentary term (2014-2019). The aim of the publication is not only to draw attention to these ten particular technologies, but also to promote further reflection about other technological developments that may still be at an early stage but that could, in a similar way, massively impact our lives in the short- or longer-term future.

Poglobljena analiza [CS](#), [DE](#), [EN](#), [ES](#), [FR](#), [IT](#), [NL](#), [PT](#), [PL](#)

Multimedijske vsebine [Intelligent urban transport systems](#)

[Radio frequency identification tags](#)

[What if editing genes could fight rare diseases?](#)

[Maglev transportation, from Ten more technologies which could change our lives](#)

[Horizon scanning and analysis of techno-scientific trends: Scientific Foresight Study](#)

Vrsta publikacije **Študija**

Datum **05-07-2017**

Zunanji avtor **Michael Baumgartner, Bijan Farsijani (Augmented Intelligence Institute; <http://www.augmento.ai>)**

Politično področje **Dolgoročno načrtovanje | Raziskovalna politika**

Ključna beseda **biotehnologija | dezinformacija | družbeni mediji | električno vozilo | genetika | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | kibernetika | komunikacije | naravoslovne in uporabne vede | organizacija prevoza | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | PROMET | tehnologija in tehnični predpisi | umetna inteligenca | velepodatki | ZNANOST**

Povzetek This horizon scan has identified eight major technological trends relevant for STOA. First, a scan was conducted to measure controversy on social media, and this constituted an initial controversy ranking. After more detailed analysis of the main technology trends identified, a set of STOA-relevant areas were selected, which have not yet been investigated by STOA so far. These are big data, gene technology, electric vehicles, autonomous cars and impact of algorithms. A number of additional trend areas with high potential impact on society were identified for analysis: screen addiction, fake news and bioterrorism. Within the eight topics selected for detailed analysis from the initial horizon scanning process, keywords, subtopics, and sentiments have been detected and analysed from social media and news articles. These eight technologies are areas for discussion amongst the STOA Panel members when considering new project activities to be undertaken.

Študija [EN](#)

[What if technology helped society become more inclusive?](#)

Vrsta publikacije Na kratko

Datum 28-06-2017

Avtor BOUCHER Philip Nicholas

Politično področje Industrija | Raziskovalna politika

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | družbene in socialne zadeve | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | nedvisnost invalidov | nova tehnologija | pripomočki za invalide | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave posledic uvajanja novih tehnologij | socialno vključevanje invalidov | tehnologija in tehnični predpisi | telesno prizadeta oseba | uporaba informacijske tehnologije | učinek informacijske tehnologije

Povzetek There are already many 'assistive technologies' available, which can help people with disabilities participate more fully in society. More advanced assistive technologies are under development, but is technology the key to a more inclusive society?

Na kratko [EN](#)

[What if your personal health tracker could save your life?](#)

Vrsta publikacije Na kratko

Datum 09-06-2017

Avtor KURRER CHRISTIAN MARTIN

Politično področje Raziskovalna politika

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | FINANCE | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | medicinske raziskave | organizacija poslovanja | poskusi na ljudeh | POSLOVANJE IN KONKURENCA | poslovna etika | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | telemedicina | uporaba informacijske tehnologije | učinek informacijske tehnologije | varstvo podatkov | velepodatki | zavarovalnica | zavarovanje | zbiranje podatkov | zdravniška diagnoza | zdravstveni podatki | zdravstveno varstvo | zdravstvo

Povzetek Through advances in technology, big data has become a major asset and can open up numerous opportunities in all areas, but how can we use this in the context of health care and ensure it benefits everyone?

Na kratko [EN](#)

Multimedijske vsebine [What if your personal health tracker could save your life?](#)

[Cybersecurity in the EU Common Security and Defence Policy \(CSDP\): Challenges and risks for the EU](#)

Vrsta publikacije Študija

Datum 16-05-2017

Zunanji avtor EPRS, DG; Panagiotis Trimintzios, Georgios Chatzichristos, Silvia Portesi, Prokopios Drogkaris, Lauri Palkmets, Dimitra Liveri and Andrea Dufkova.

Politično področje Varnost in obramba

Ključna beseda brezpilotni zrakoplov | država članica EU | ekonomska geografija | EVROPSKA UNIJA | evropska varnost | GEOGRAFIJA | graditev Evrope | informacijska tehnologija in obdelava podatkov | institucija EU | institucije EU in evropska javna uprava | institucionalne pristojnosti (EU) | internet | IZOBRAŽEVANJE IN KOMUNIKACIJE | izvršilna oblast in javna uprava | javno-zasebno partnerstvo | klasifikacija podjetij | komunikacije | mednarodna organizacija | mednarodna varnost | MEDNARODNE ORGANIZACIJE | mednarodne zadeve | MEDNARODNI ODNOSI | NATO | POLITIKA | politika sodelovanja | POSLOVANJE IN KONKURENCA | PROMET | računalniška kriminaliteta | skupna varnostna in obrambna politika | sodelovanje EU-NATO | strokovno izpopolnjevanje | svetovne organizacije | tretja država | zaposlovanje | ZAPOSLOVANJE IN DELOVNE RAZMERE | zasebno podjetje | zračni in vesoljski promet

Povzetek This report is the result of a study conducted by the European Union Agency for Network and Information Security (ENISA) for the European Parliament's Science and Technology Options Assessment (STOA) Panel with the aim of identifying risks, challenges and opportunities for cyber-defence in the context of the EU Common Security and Defence Policy (CSDP). Acceptance of cyber as an independent domain calls for the investigation of its integration with the EU's current and future policies and capabilities. ENISA analysed the related literature and work on cybersecurity, including its own publications, to form the basis for this study. In addition, a number of stakeholders, experts and practitioners, from academia, EU institutions and international organisations, were consulted in order to ensure the study is well-founded and comprehensive. The study revolves around three thematic areas, namely: policies, capacity building, and the integration of cyber in the CSDP missions, with the last one being the main focus of the study. For each thematic area, we compile a set of policy options, covering different levels, starting from the EU's political/strategic level and progressing down to the operational and even tactical/technical levels of the CSDP's supporting mechanisms. These policy options are summarised in a separate options briefing document accompanying this study.

Študija [EN](#)

Priloga [EN](#)

Priloga 2 [FR](#)

Priloga 3 [DE](#)

[What if blockchain changed social values?](#)

Vrsta publikacije Na kratko

Datum 10-05-2017

Avtor BOUCHER Philip Nicholas

Politično področje Dolgoročno načrtovanje | Raziskovalna politika

Ključna beseda civilno pravo | digitalna pogodba | ekonomske analize | FINANCE | gospodarske posledice | GOSPODARSTVO | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | obdelava podatkov | plačilni sistem | pravice in svoboščine | PRAVO | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | prost pretok kapitala | raziskave posledic uvajanja novih tehnologij | tehnologija in tehnični predpisi | tehnološka sprememba | tehnološki presežek | TRGOVINA | trgovinska politika | uravnavanje trgovinskega prometa | učinek informacijske tehnologije | varstvo zasebnosti | zaposlovanje | ZAPOSLOVANJE IN DÉLOVNE RAZMERE

Povzetek Blockchain technology could shake up many aspects of our daily lives, from the currency we use to the purchases we make. But what is the impact on our social values, and what can policy-makers do about it?

Na kratko [EN](#)

Multimedijske vsebine [What if blockchain changed social values?](#)

[What if we were to build skyscrapers from wood?](#)

Vrsta publikacije Na kratko

Datum 03-04-2017

Avtor KURRER CHRISTIAN MARTIN

Politično področje Dolgoročno načrtovanje | Energija | Industrija | Kmetijstvo in razvoj podeželja | Okolje | Promet | Raziskovalna politika

Ključna beseda biomasa | ENERGETIKA | gozdarstvo | gradbeni les | gradbeništvo in javna dela | INDUSTRIJA | KMETIJSTVO, GOZDARSTVO IN RIBIŠTVO | lesarstvo | nova tehnologija | obnovljiva energija | obremenitve okolja | ogrevanje | OKOLJE | okoljska politika | pogozdovanje | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | sprememba podnebja | tehnologija in tehnični predpisi | toplogredni plin | vpliv na okolje | čista energija

Povzetek Can new technologies contribute to a revival of wood as a source for biomass and construction material, and play a leading role in the fight against climate change? Wood has been part of human civilisation for many thousands of years, playing a key role as fuel or construction material, as well as a material for the manufacture of furniture, machinery, means of transport and everyday objects.

Na kratko [EN](#)

[Technological innovation strategies in substance use disorders](#)

Vrsta publikacije Študija

Datum 30-03-2017

Avtor QUAGLIO Gianluca

Zunanji avtor Giovanni Esposito, European Brain Council (EBC): Chapter 6 (drawing up of the questionnaire, gathering of responses, analyse of the results and writing the report).

Politično področje Javno zdravje | Raziskovalna politika

Ključna beseda alkoholizem | dokumentacija | DRUŽBENA IN SOCIALNA VPRAŠANJA | družbene in socialne zadeve | EVROPSKA UNIJA | Evropski center za spremljanje drog in zasvojenosti z drogami | institucije EU in evropska javna uprava | IZOBRAŽEVANJE IN KOMUNIKACIJE | javno zdravje | KMETIJSKO ŽIVILSTVO | nova tehnologija | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | rastlinski proizvodi | razširjanje informacij | tehnologija in tehnični predpisi | tobak | zasvojenost z mamili | zdravstvo

Povzetek Drug disorders are complex social and health problems that affect millions of people in the EU. In the last two decades, we have witnessed an extraordinary growth in computer and mobile technologies available to the general public. Researchers in the field of drug addiction have started to exploit the growth of the internet and new technologies, and an increasing number of interventions designed to promote changes in substance use disorders are now available. The study includes an extensive critical literature review on the potential of new technologies for drug addiction management. A survey among European experts in the field of addiction was also carried out. New technologies have the potential to provide parallel/alternative instruments of information, prevention and treatment for substance use disorders. They have the capacity to reach populations that have not traditionally been in treatment. Despite encouraging progress, new technologies need to be evaluated with caution. Across research studies, there are methodological difficulties, such as a lack of common definitions, selection biases and inappropriate research designs, which require further investigation. To date, new technologies have the potential to affect, and perhaps deeply transform, existing models of health care delivery in the field of addiction.

Študija [EN](#)

Language equality in the digital age - Towards a Human Language Project

Vrsta publikacije Študija

Datum 24-03-2017

Zunanji avtor Rafael RIVERA PASTOR, Iclaves S.L.
Carlota TARÍN QUIRÓS, Iclaves S.L.
Juan Pablo VILLAR GARCÍA, Iclaves S.L.
Prof. Toni BADIA CARDÚS, PhD, Universitat Pompeu Fabra
Prof. Maite MELERO NOGUÉS, PhD, Universitat Pompeu Fabra

Politično področje Dolgoročno načrtovanje | Kultura | Raziskovalna politika

Ključna beseda digitalna tehnologija | DRUŽBENA IN SOCIALNA VPRAŠANJA | družboslovne vede | enako obravnavanje | EVROPSKA UNIJA | graditev Evrope | informacijska tehnologija | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | jezikovna politika | jezikovna skupina | jezikovne spretnosti in znanja | komunikacije | nova tehnologija | pobuda EU | POLITIKA | politika in javna varnost | pravice in svoboščine | PRAVO | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | raziskovalna politika EU | socialni okvir | tehnologija in tehnični predpisi | uradni jezik | učinek informacijske tehnologije | zaposlovanje | ZAPOSLOVANJE IN DELOVNE RAZMERE | ZNANOST

Povzetek The EU is a unique endeavour involving more than 500 million citizens sharing about 80 different languages, and while multilingualism is a key feature, it is also one of the most substantial challenges for the creation of a truly integrated EU. Language barriers have a profound effect on cross-border public services, on fostering a common European identity, on workers' mobility, and on cross-border e-commerce and trade, in the context of a Digital Single Market. The emergence of new technological approaches, based on increased computational power and access to sizeable amounts of data, are making Human Language Technologies (HLT) a real solution to overcoming language barriers. However, several challenges, such as market fragmentation and unsubstantial and uncoordinated funding strategies, are hindering the European HLT community, including research and industry.

Študija [EN](#), [LT](#), [LV](#)

Priloga [EN](#)

Priloga 2 [LV](#)

Priloga 3 [LT](#)

Priloga 4 [DE](#)

Priloga 5 [FR](#)

What if intensification of farming could enhance biodiversity?

Vrsta publikacije Na kratko

Datum 06-03-2017

Avtor VAN WOENSEL Lieve

Politično področje Dolgoročno načrtovanje | Kmetijstvo in razvoj podeželja | Okolje | Raziskovalna politika

Ključna beseda biotska raznovrstnost | daljinsko zaznavanje | DRUŽBENA IN SOCIALNA VPRAŠANJA | geografski informacijski sistem | gospodarska struktura | GOSPODARSTVO | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | kmetijska politika | kmetijski sektor | KMETIJSKO ŽIVILSTVO | KMETIJSTVO, GOZDARSTVO IN RIBIŠTVO | naravno okolje | naravoslovne in uporabne vede | nova tehnologija | OKOLJE | prehrabni viri | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | robotizacija | skupna kmetijska politika | tehnologija in tehnični predpisi | trajnostno kmetijstvo | varnost hrane | zdravstvo | ZNANOST | živilska tehnologija | živilska tehnologija

Povzetek Could introducing more precision agriculture in Europe allow us to obtain food resilience, while ensuring sustainability and jobs, and taking into account the EU's wide agricultural diversity? Precision agriculture (PA), or precision farming, involves using technology to improve the ratio between agricultural output (usually food) and agricultural input (land, energy, water, fertilisers, pesticides, etc.). PA consists of using sensors to identify crop or livestock needs precisely (in space or time), and then intervening in a targeted way to maximise the productivity of each plant and animal, whilst minimising any waste of resources.

Na kratko [EN](#)

Multimedijske vsebine [What if intensification of farming could enhance biodiversity? \[Scientific and Foresight Podcast\]](#)

[How blockchain technology could change our lives](#)

Vrsta publikacije **Poglobljena analiza**

Datum **20-02-2017**

Avtor **BOUCHER Philip Nicholas**

Politično področje **Demokracija | Dolgoročno načrtovanje | Ekonomske in monetarne zadeve | Finančna in bančna vprašanja | Pogodbeno pravo, gospodarsko pravo in pravo gospodarskih družb | Pravo intelektualne lastnine | Raziskovalna politika | Varstvo potrošnikov**

Ključna beseda **avtorska pravica | delo parlamenta | denarno poslovanje | digitalizacija | digitalna tehnologija | dokumentacija | elektronsko glasovanje | emisija denarja | EVROPSKA UNIJA | Evropski bančni organ | FINANCE | informacijska tehnologija in obdelava podatkov | institucije EU in evropska javna uprava | IZOBRAŽEVANJE IN KOMUNIKACIJE | licenca patenta | POLITIKA | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | tehnologija in tehnični predpisi | uporaba informacijske tehnologije | upravljanje digitalnih pravic | varovanje tajnosti podatkov**

Povzetek Blockchain technology is of increasing interest to citizens, businesses and legislators across the European Union. This report is aimed at providing a point of entry for those curious about blockchain technology, so as to stimulate interest and provoke discussion around its potential impact. A general introduction is followed by a closer look at eight areas in which blockchain has been described as having a substantial potential impact. For each of these, an explanation is given of how the technology could be developed in that particular area, the possible impacts this development might have, and what potential policy issues are to be anticipated.

Poglobljena analiza [DE](#), [EN](#), [ES](#), [FR](#), [IT](#), [PT](#), [PL](#)

Multimedijske vsebine [How blockchain technology could change our lives](#)

[What if animal farming were not so bad for the environment?](#)

Vrsta publikacije **Na kratko**

Datum **08-02-2017**

Avtor **VAN WOENSEL Lieve**

Politično področje **Dolgoročno načrtovanje | Kmetijstvo in razvoj podeželja | Okolje | Raziskovalna politika**

Ključna beseda **agroživilstvo | diverzifikacija oskrbe z energijo | ENERGETIKA | energetska politika | gnojilo | kmetijska politika | kmetijske raziskave | KMETIJSKO ŽIVILSTVO | kmetijstvo | KMETIJSKO, GOZDARSTVO IN RIBIŠTVO | mesnopredelovalna industrija | obremenitve okolja | OKOLJE | okoljska politika | onesnaževanje vode | poraba živil | potrošnja | skupna kmetijska politika | sredstva kmetijske proizvodnje | toplogredni plin | TRGOVINA | zmanjšanje emisij plinov | živalska krma | živinoreja**

Povzetek What options exist, especially in terms of new technologies, for reducing the carbon footprint of the livestock industry, how effective might they be, and what could be done to encourage their implementation? The livestock industry is responsible for around 14.5 % of global greenhouse gas emissions. The magnitude of this percentage is due to the emission of large amounts of methane and nitrous oxide, which both result in greater global warming than carbon dioxide per gram of gas released. The main cause of livestock methane emissions is the digestive process in ruminants, such as cattle and sheep. In these animals, food is fermented, generating methane which is burped out. Nitrous oxide is generated through the application of fertilisers for animal feed production. This is also the case with crops grown for human consumption, but, as most of the energy stored in crops is lost when they are fed to animals, emissions due to fertilisers are much greater per calorie of animal produce than of plant produce. Both gases are produced by the storage of manure and its application as a fertiliser. In addition, carbon dioxide is emitted through burning fossil fuels for purposes such as fertiliser production, operation of farm machinery and transport of goods.

Na kratko [EN](#)

Multimedijske vsebine [What if animal farming were not so bad for the environment?](#)

[What if computers were trillions of times faster?](#)

Vrsta publikacije **Na kratko**

Datum **17-01-2017**

Avtor **VAN WOENSEL Lieve**

Politično področje **Dolgoročno načrtovanje | Raziskovalna politika**

Ključna beseda **digitalna tehnologija | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | kriptografija | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | tehnologija in tehnični predpisi | umetna inteligenca | uporabne raziskave**

Povzetek Could the theory of quantum mechanics one day revolutionise commonplace technical devices such as sensors, communication devices and computers? Quantum mechanics is a scientific theory that has revolutionised our understanding of the Universe. In the world of classical physics, a system is always in one particular state (e.g. at rest or in motion) while in the quantum world, a system can be in a superposition of two or more states. Performing a measurement on such a superposition causes it to collapse into a single state. Furthermore, in contrast to the classical world, where a system can be measured without changing it, in the quantum world a measurement can have an impact on the state of the system.

Na kratko [EN](#)

Multimedijske vsebine [What if computers were trillions of times faster?](#)

[Precision Agriculture and the Future of Farming in Europe](#)

Vrsta publikacije [Študija](#)

Datum [22-12-2016](#)

Politično področje [Dolgoročno načrtovanje](#) | [Kmetijstvo in razvoj podeželja](#)

Ključna beseda [digitalna tehnologija](#) | [gnojilo](#) | [kmetijska politika](#) | [kmetijska politika](#) | [kmetijski proizvod](#) | [kmetijski sistemi](#) | [kmetijstvo](#) | [KMETIJSTVO, GOZDARSTVO IN RIBIŠTVO](#) | [obdelovanje kmetijskih zemljišč](#) | [OKOLJE](#) | [okoljska politika](#) | [organizacija prevoza](#) | [PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE](#) | [PROMET](#) | [satelitska navigacija](#) | [sistem kmetovanja](#) | [sredstva kmetijske proizvodnje](#) | [tehnologija in tehnični predpisi](#) | [vpliv na okolje](#) | [žetev](#)

Povzetek This study resulted in the identification of four main future opportunities and concerns regarding precision agriculture (PA), or precision farming, in the EU, on which the European Parliament could take anticipatory action now: 1. PA can actively contribute to food security and safety; 2. PA supports sustainable farming; 3. PA will trigger societal changes along with its uptake; 4. PA requires new skills to be learned. The wide diversity of agriculture throughout the EU, regarding particularly farm size, types of farming, farming practices, output and employment, presents a challenge for European policy-makers. European policy measures therefore should differentiate between Member States, taking into account that the opportunities and concerns vary highly from one country to another.

[Študija](#) [DE](#), [EN](#), [ES](#), [FR](#), [IT](#), [PT](#), [PL](#)

[Priloga](#) [EN](#)

[Priloga 2](#) [EN](#)

[Human health implications of organic food and organic agriculture](#)

Vrsta publikacije [Študija](#)

Datum [20-12-2016](#)

Politično področje [Javno zdravje](#) | [Kmetijstvo in razvoj podeželja](#) | [Raziskovalna politika](#)

Ključna beseda [alergija](#) | [antibiotik](#) | [DRUŽBENA IN SOCIALNA VPRAŠANJA](#) | [ekološki kmetijski pridelek](#) | [ekološko kmetovanje](#) | [gnojilo](#) | [INDUSTRIJA](#) | [javno zdravje](#) | [kadmij](#) | [KMETIJSKO ŽIVILSTVO](#) | [KMETIJSTVO, GOZDARSTVO IN RIBIŠTVO](#) | [obdelovanje kmetijskih zemljišč](#) | [pesticid](#) | [postopki zdravstvenega varstva rastlin](#) | [prehrana ljudi](#) | [prehranska bolezen](#) | [sredstva kmetijske proizvodnje](#) | [zdravstvo](#) | [železarstvo, jeklarstvo in druga kovinska industrija](#) | [živila](#)

Povzetek This study reviews existing scientific evidence regarding the impact of organic food on human health from an EU perspective, with a focus on public health. The development of environmentally sustainable and healthy food systems is an international priority. The study examines how organic food and organic agriculture can contribute to this in relation to public health. Human and animal studies directly addressing the health effects of organic food are reviewed. Furthermore, evidence linking principles and rules of organic production to human health effects is discussed.

[Študija](#) [EN](#)

[What if electric cars became an affordable and convenient way to travel?](#)

Vrsta publikacije [Na kratko](#)

Datum [07-12-2016](#)

Avtor [KURRER CHRISTIAN MARTIN](#) | [TARLTON JAMES](#)

Politično področje [Dolgoročno načrtovanje](#) | [Energija](#) | [Industrija](#) | [Okolje](#) | [Promet](#) | [Raziskovalna politika](#)

Ključna beseda [DRUŽBENA IN SOCIALNA VPRAŠANJA](#) | [električna energija](#) | [električna in jedrska energija](#) | [električno vozilo](#) | [ENERGETIKA](#) | [gradnja in urbanizem](#) | [OKOLJE](#) | [okoljska politika](#) | [organizacija prevoza](#) | [oskrba z električno energijo](#) | [PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE](#) | [PROMET](#) | [raziskave in intelektualna lastnina](#) | [raziskave posledic uvajanja novih tehnologij](#) | [tehnologija in tehnični predpisi](#) | [vpliv na okolje](#) | [zmanjšanje emisij plinov](#) | [znanstveni napredek](#)

Povzetek Are electric cars on the verge of becoming the norm, should we encourage this transition, and what would be the consequences for the environment, the automobile industry and our electricity grid? Over the past century, cars have become an integral part of our society. They generally offer greater flexibility than alternative modes of transport, and they are affordable to a large proportion of people. Ever since cars were first mass-produced, they have almost exclusively been powered by ICEs (internal combustion engines), which burn fossil fuels, such as petrol and diesel, to provide the energy required to turn the cars' wheels and perform auxiliary tasks. However, in recent years concerns about climate change and dependence on oil have led to a great deal of effort and attention being invested in developing alternative ways of providing this energy.

[Na kratko](#) [EN](#)

Multimedijske vsebine [What if electric cars became an affordable and convenient way to travel?](#)

What if I had to put my safety in the hands of a robot?

Vrsta publikacije Na kratko

Datum 18-11-2016

Avtor VAN WOENSEL Lieve

Politično področje Dolgoročno načrtovanje | Industrija | Raziskovalna politika

Ključna beseda brezpilotni zrakoplov | civilno pravo | civilno pravo | DRUŽBENA IN SOCIALNA VPRAŠANJA | družboslovne vede | etika | industrijski robot | informacije in obdelava informacij | informacijska tehnologija | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | medicinski in kirurški instrumenti | PRAVO | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | PROMET | tehnologija in tehnični predpisi | umetna inteligenca | varstvo podatkov | zdravstvo | ZNANOST | zračni in vesoljski promet

Povzetek Will intelligent robots bring us benefits in relation to security and safety, or will the vulnerabilities within these systems mean that they cause more problems than they solve? Cyber-physical systems (CPS) are currently found in a wide range of services and applications, and their numbers are rapidly increasing. CPS are intelligent robotic systems linked to the Internet of Things. They make decisions based on the ability to sense their environment. Their actions have a physical impact on either the environment or themselves. This is what sets CPS apart: they are not solely smart systems, but rather, they have physical aspects to them. These robots are likely to infiltrate our everyday lives in the coming years. Due to this, we must look at what impact they will have on citizens' safety and security. The question remains, how safe are these technologies?

Na kratko [EN](#)

Multimedijske vsebine [What if I had to put my safety in the hands of a robot?](#)

Global Trendometer

Vrsta publikacije Študija

Datum 06-10-2016

Avtor CESLUK-GRAJEWSKI Marcin | NOONAN EAMONN | RECHARD Daniele | SCHMERTZING Leopold | WINDLE-WEHRLE Jessica Freya

Politično področje Demokracija | Dolgoročno načrtovanje | Ekonomske in monetarne zadeve | Industrija | Območje svobode, varnosti in pravice | Razvoj in humanitarna pomoč | Socialna politika | Varnost in obramba | Zaposlovanje | Zunanje zadeve

Ključna beseda Amerika | Azija | Azija in Oceanija | Bližnji in Srednji Vzhod | digitalizacija | digitalna tehnologija | dokumentacija | dolgoročna napoved | DRUŽBENA IN SOCIALNA VPRAŠANJA | ekonomska geografija | ekonomske analize | Evropa | GEOGRAFIJA | gospodarska rast | gospodarske razmere | GOSPODARSTVO | industrijsko izdelovanje | internet | IZOBRAŽEVANJE IN KOMUNIKACIJE | Kitajska | komunikacije | mobilna komunikacija | naravno okolje | OKOLJE | okoljska politika | politična geografija | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | Rusija | socialna neenakost | socialni okvir | tehnologija in tehnični predpisi | vodna politika | vodni viri | Združene države

Povzetek With the publication of this inaugural edition of the "Global Trendometer," the EPRS Global Trends Unit seeks to contribute to the process of identifying and addressing medium- and long-term trends, and their possible implications for policy-making in the European Union. Three essays and eight two-page vignettes on different geopolitical, economic, technological and social issues paint a broad-ranging picture of developments that may shape Europe's future.

Študija [EN](#)

What if blockchain technology revolutionised voting?

Vrsta publikacije Na kratko

Datum 29-09-2016

Avtor BOUCHER Philip Nicholas

Politično področje Demokracija | Dolgoročno načrtovanje

Ključna beseda delo parlamenta | digitalna tehnologija | elektronsko glasovanje | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | participativna demokracija | POLITIKA | politični okvir | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija in tehnični predpisi | uporaba informacijske tehnologije

Povzetek Is blockchain the revolution in security and transparency that is needed to enable e-voting and, if so, what are the implications for the future of democracy? Despite the digitalisation of several important aspects of modern life, elections are still largely conducted offline, on paper. Since the turn of the century, e-voting has been considered a promising and (eventually) inevitable development, which could speed up, simplify and reduce the cost of elections, and might even lead to higher voter turnouts and the development of stronger democracies. E-voting could take many forms: using the internet or a dedicated, isolated network; requiring voters to attend a polling station or allowing unsupervised voting; using existing devices, such as mobile phones and laptops, or requiring specialist equipment. Now we have a further choice; to continue trusting central authorities to manage elections or to use blockchain technology to distribute an open voting record among citizens. Many experts agree that e-voting would require revolutionary developments in security systems. The debate is whether blockchain will represent a transformative or merely incremental development, and what its implications could be for the future of democracy.

Na kratko [EN](#)

Multimedijske vsebine [What if we used blockchain for elections?](#)

[What if the energy grid needed cars?](#)

Vrsta publikacije Na kratko

Datum 19-09-2016

Avtor VAN WOENSEL Lieve

Politično področje Dolgoročno načrtovanje | Energija | Industrija | Promet

Ključna beseda avtomobil | električna energija | električna in jedrska energija | električni akumulator | elektronika in elektrotehnika | ENERGETIKA | energetska politika | FINANCE | INDUSTRIJA | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | kopenski promet | nova tehnologija | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | PROMET | prometna infrastruktura | prometna politika | skladiščenje energije | tehnologija in tehnični predpisi | trajnostna mobilnost | zavarovanje | zavarovanje motornih vozil | zbiranje podatkov

Povzetek Smart transportation is widely seen as creating a world in which the vehicles of the future have the ability to make decisions without human input. But in addition, car batteries can serve as an electricity storage mechanism, supporting stabilisation of the electricity grid through vehicle-to-grid technology. Please click here for the full publication in PDF format

Na kratko [EN](#)

[Ethical Aspects of Cyber-Physical Systems](#)

Vrsta publikacije Študija

Datum 28-06-2016

Politično področje Dolgoročno načrtovanje | Raziskovalna politika

Ključna beseda avtomatizacija | civilno pravo | civilnopravna odgovornost | DRUŽBENA IN SOCIALNA VPRAŠANJA | družbene in socialne zadeve | družboslovne vede | e-zdravje | ENERGETIKA | energetska politika | etika | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | internet | IZOBRAŽEVANJE IN KOMUNIKACIJE | kmetijska politika | KMETIJSTVO, GOZDARSTVO IN RIBIŠTVO | komunikacije | mehanizacija kmetijstva | pravice in svoboščine | PRAVO | pripomočki za invalide | proizvodnja energije | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave posledic uvajanja novih tehnologij | robotika | robotizacija | socialni okvir | socialni učinki | tehnologija in tehnični predpisi | umetna inteligenca | učinek informacijske tehnologije | varstvo zasebnosti | zdravstvo | ZNANOST

Povzetek Cyber-physical systems (CPS) are intelligent robotics systems, linked with the Internet of Things, or technical systems of networked computers, robots and artificial intelligence that interact with the physical world. The project 'Ethical aspects of CPS' aims to provide insights into the potential ethical concerns and related unintended impacts of the possible evolution of CPS technology by 2050. The overarching purpose is to support the European Parliament, the parliamentary bodies, and the individual Members in their anticipation of possible future concerns regarding developments in CPS, robotics and artificial intelligence. The Scientific Foresight study was conducted in three phases: 1. A 'technical horizon scan', in the form of briefing papers describing the technical trends and their possible societal, ethical, economic, environmental, political/legal and demographic impacts, and this in seven application domains. 2. The 'soft impact and scenario phase', which analysed soft impacts of CPS, on the basis of the technical horizon scan, for pointing out possible future public concerns via an envisioning exercise and using exploratory scenarios. 3. The 'legal backcasting' phase, which resulted in a briefing for the European Parliament identifying the legal instruments that may need to be modified or reviewed, including — where appropriate — areas identified for anticipatory parliamentary work, in accordance with the conclusions reached within the project. The outcome of the study is a policy briefing for MEPs describing legal instruments to anticipate impacts of future developments in the area of cyber-physical systems, such as intelligent robotics systems, linked with the Internet of Things. It is important to note that not all impacts of CPS are easily translated into legislation, as it is often contested whether they are in effect harmful, who is to be held accountable, and to what extent these impacts constitute a public rather than a private concern.

Študija [EN](#)

Priloga [EN](#)

Priloga 1 [EN](#)

Multimedijske vsebine [The Ethics of Cyber-Physical Systems](#)

[What if we could make ourselves invisible to others?](#)

Vrsta publikacije Na kratko

Datum 21-06-2016

Avtor BOUCHER Philip Nicholas | KRITIKOS Michail

Politično področje Dolgoročno načrtovanje | Raziskovalna politika

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | nanotehnologija | nova tehnologija | pravice in svoboščine | PRAVO | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | raziskave posledic uvajanja novih tehnologij | sodni postopek | sodobni materiali | sodstvo | tehnologija in tehnični predpisi | tehnologija z dvojno rabo | tehnološka sprememba | tveganje za zdravje | varstvo zasebnosti | zdravstvo | znanstveni napredek

Povzetek Through developments in the field of metamaterials, we may be able to create products with surprising capabilities, from making DNA visible to making buildings invisible, but have we considered the risks, as well as the benefits?

Na kratko [EN](#)

Multimedijske vsebine [Invisibility powers of metamaterials](#)

What if others could read your mind?

Vrsta publikacije Na kratko

Datum 08-04-2016

Avtor BOUCHER Philip Nicholas | KRITIKOS Michail | VAN WOENSEL Lieve

Politično področje Raziskovalna politika

Ključna beseda bioetika | bolnikove pravice | DRUŽBENA IN SOCIALNA VPRAŠANJA | družbene in socialne zadeve | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | medicinske raziskave | medicinski in kirurški instrumenti | medicinsko pravo | pravice in svoboščine | PRAVO | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave posledic uvajanja novih tehnologij | tehnologija in tehnični predpisi | telesno prizadeta oseba | učinek informacijske tehnologije | varstvo podatkov | varstvo zasebnosti | zdravstvo

Povzetek Brain-computer interface technology has been advancing rapidly and will continue to do so as our knowledge of how the brain works increases. Could this transform our understanding of life as we know it? A brain-computer interface (BCI) is a direct communication pathway between the brain and an external device. This technology can be used to restore motor and sensory capacities which may have been lost through trauma, disease or congenital conditions. For example, combined with limb-replacement technology, BCI may allow patients not only to move prosthetic limbs, but also to feel the sensation of touch. The technology can either be implanted (invasive) or used externally (non-invasive). Invasive BCIs, including neuroprosthetics and brain implants, are devices which connect directly to the brain and are placed on its surface or attached to the cortex. A key application area for contemporary brain implant research is the development of biomedical prostheses to circumvent areas of the brain that have become dysfunctional after a stroke or other trauma. With deep brain stimulation, a 'brain pacemaker' sends electrical impulses to specific parts of the brain for the treatment of disorders such as Parkinson's disease, dystonia and major depression. Non-invasive BCIs consist of a range of technological devices which provide a similar interface between the brain and other machines without the need for surgery. There are several technologies capable of measuring and recording brain activity, although the signal quality may be weaker than is possible with implanted devices. Nonetheless, non-invasive BCIs have been used effectively, for example to control prosthetic hands.

Na kratko [EN](#)

Multimedijske vsebine [What if others could read your mind?](#)

ICT in the developing world

Vrsta publikacije Študija

Datum 21-12-2015

Avtor KULJANIC Nera | QUAGLIO Gianluca

Zunanji avtor External authors: Laura Delponte (lead author), Matteo Grigolini, Andrea Moroni and Silvia Vignetti (Centre for Industrial Studies - CSIL, Milan, Italy).
Massimiliano Claps and Nino Giguashvili (International Data Corporation - IDC, Milan, Italy).

Politično področje Dolgoročno načrtovanje | Raziskovalna politika | Razvoj in humanitarna pomoč

Ključna beseda dostop do izobraževanja | DRUŽBENA IN SOCIALNA VPRAŠANJA | države v razvoju | EVROPSKA UNIJA | finance EU | financiranje EU | gospodarska rast | gospodarske razmere | GOSPODARSTVO | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | izobraževanje | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | MEDNARODNI ODNOSI | nacionalni računi | politika sodelovanja | prenosno omrežje | razvojna pomoč | računalniška pismenost | revščina | sistem zdravstvenega varstva | telemedicina | uporaba pomoči | učenje na daljavo | učinek informacijske tehnologije | zdravstvo

Povzetek Over recent years, there have been increasing opportunities for inhabitants of low and middle-income countries (LMICs) to use information and communication technologies (ICT). ICT can potentially help LMICs tackle a wide range of health, social and economic problems. By improving access to information and enabling communication, ICT can play a role in achieving millennium development goals (MDGs) such as the elimination of extreme poverty, combating serious diseases, and accomplishing universal primary education. This study is aimed at examining the nature and extent of impact of ICT on poverty reduction in LMICs. A specific focus is developed for the health sector, elucidating which support ICT may provide to reduce inequalities and strengthen health systems in LMICs. In addition, present EU actions in the area of improving ICT diffusion in LMICs are assessed. Building on three literature reviews, the study first describes the conditions hampering or facilitating the support of ICT to poverty reduction in LMICs, then focuses on the specific opportunities and obstacles in the use of ICT in the healthcare sector and, finally, it illustrates the EU policy approach for promoting ICT in LMICs. Evidence from desk analysis is complemented by the opinions of 145 surveyed experts, ten of which were also interviewed. Experts' opinions confirm the evidence of desk analysis pointing to health and education as the main areas in which ICT can play a significant role in LMICs development. Building upon the evidence collected, the study provides policy options for future action which the EU could undertake to help LMICs profit from all the opportunities that ICT offer.

Študija [EN](#)

Priloga [EN](#)

Priloga 1 [EN](#)

[The Collaborative Economy](#)

Vrsta publikacije [Študija](#)

Datum 21-12-2015

Avtor IDE-KOSTIC PETER | VAN WOENSEL Lieve

Zunanji avtor External authors: Steve Robertshaw (editor), Nick Achilleopoulos, Johan E. Bengtsson, Patrick Crehan, Angele Giuliano, John Soldatos (AcrossLimits Ltd, Malta)

Politično področje Dolgoročno načrtovanje | Globalno upravljanje | Raziskovalna politika | Varstvo potrošnikov

Ključna beseda avtorska pravica | denarno poslovanje | DRUŽBENA IN SOCIALNA VPRAŠANJA | ekonomske analize | elektronski denar | elektronsko poslovanje | FINANCE | gospodarske posledice | GOSPODARSTVO | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | internet | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | obdelava informacij | potrošnja | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | raziskave posledic uvajanja novih tehnologij | računalniško podprto projektiranje | socialni okvir | socialni učinki | tehnologija in tehnični predpisi | tehnološka sprememba | TRGOVINA | trženje | učinek informacijske tehnologije | varstvo podatkov | varstvo potrošnikov

Povzetek Ever since its appearance, Internet has allowed us to collaborate with other people remotely. In the 80's, email was the breakthrough that enabled exchange of digital materials. In the 90's, the World Wide Web opened collaboration on web sites. After 2000, social media and e-meeting technologies enabled face-to-face interaction with others via the Internet. New modes of collaboration, such as crowd sourcing, crowd funding, co-creation or open design are reaching mainstream use. Advances in technologies related to Collaborative Internet, Big/Open Data, Crypto Currency and Additive Manufacturing are bringing the Collaborative Economy ever closer to us.

This study reveals a wide range of opportunities and threats associated with these technologies, as well as social, political, economic, moral and ethical issues related to this new way of working. Policy options are presented, in order to help policy makers anticipate developments with effective policies that will nurture the positive impacts of collaborative Internet and avoid the negative ones.

[Študija](#) [EN](#)

[Priloga](#) [EN](#)

Multimedijske vsebine [The Collaborative Economy](#)

[What if injections weren't needed anymore?](#)

Vrsta publikacije [Na kratko](#)

Datum 26-11-2015

Avtor KRITIKOS Michail | VAN WOENSEL Lieve

Politično področje Dolgoročno načrtovanje | Raziskovalna politika

Ključna beseda bioetika | biogorivo | biologija | biomateriali | biotehnologija | DRUŽBENA IN SOCIALNA VPRAŠANJA | družbene in socialne zadeve | ENERGETIKA | energetska politika | intelektualna lastnina | naravoslovne in uporabne vede | nova tehnologija | OKOLJE | okoljska politika | POLITIKA | politični okvir | pooblastilo za nadzor | preprečevanje okoljskega tveganja | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | raziskave posledic uvajanja novih tehnologij | tehnologija in tehnični predpisi | tehnologija z dvojno rabo | terapija | zdravstvo | ZNANOST

Povzetek Synthetic biology is expected to design, construct and develop artificial (i.e. man-made) biological systems that mimic or even go beyond naturally-occurring biological systems. What are the benefits of this emerging field? Are there any ethical and social issues arising from this engineering approach to biology?

[Na kratko](#) [EN](#)

[What if your shopping were delivered by drones?](#)

Vrsta publikacije [Na kratko](#)

Datum 26-05-2015

Avtor VAN WOENSEL Lieve

Politično področje Dolgoročno načrtovanje | Varstvo potrošnikov

Ključna beseda daljinsko zaznavanje | dobava | ekonomske analize | EVROPSKA UNIJA | gospodarske posledice | GOSPODARSTVO | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | kazensko pravo | KMETIJSTVO, GOZDARSTVO IN RIBIŠTVO | letalo | MEDNARODNI ODNOSI | način pridelave | nedovoljena trgovina | obdelovanje kmetijskih zemljišč | obramba | ogrožanje državne varnosti | pravice in svoboščine | PRAVO | pravo Evropske unije | prevoz po zraku | priprava zakonodaje EU | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | PROMET | prometna politika | tehnologija in tehnični predpisi | tehnološka sprememba | TRGOVINA | trgovinska politika | trgovinsko poslovanje | učinek informacijske tehnologije | varnost v zračnem prometu | varstvo podatkov | varstvo zasebnosti | vojaški zrakoplov | zračni in vesoljski promet

Povzetek Known as Remotely Piloted Air Systems (RPAS) or Unmanned Aerial Vehicles (UAVs), drones have become increasingly present due to a sharp drop in production costs, as a consequence of recent innovations in light-weight materials, on-board computers, batteries and fuel tanks. Since their inception, drones have been developed for military purposes, with the inclusion of weapons in them, as well as for surveillance and policing efforts. Recently, however, other uses have proliferated, in the fields of climate data collection, scientific exploration, 3-D mapping, infrastructure maintenance, logistics and delivery services, professional photography and filmmaking, entertainment, wildlife protection and agriculture. The increasing diversity and affordability of drones will surely lead to their widespread use amongst corporations, governmental institutions and common citizens. Thus, the legal and ethical issues already associated with drones will most likely become more prominent and require the attention of European policy makers.

[Na kratko](#) [EN](#)

Multimedijske vsebine [What if our shopping were delivered by drones?](#)

[Learning and teaching technology options](#)

Vrsta publikacije [Študija](#)

Datum 23-03-2015

Avtor KULJANIC Nera

Zunanji avtor Rafael Rivera Pastor, Carlota Tarín Quirós (Iclaves)

Politično področje Dolgoročno načrtovanje | Izobraževanje | Raziskovalna politika

Ključna beseda digitalni razkorak | informacije in obdelava informacij | informacijska tehnologija | informacijska tehnologija in obdelava podatkov | izobraževanje | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | načrtovanje izobraževanja | nove pedagoške metode | organizacija pouka | organizacija šolstva | programirani pouk | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | računalniška pismenost | stalno poklicno usposabljanje | tehnologija in tehnični predpisi | tehnološka sprememba | uporaba informacijske tehnologije | učenje na daljavo | učinek informacijske tehnologije | varstvo podatkov | zaposlovanje | ZAPOSLOVANJE IN DELOVNE RAZMERE

Povzetek Educational technology encompasses a wide array of technologies and methodologies that are shaped by stakeholders' behaviours and affected by contextual factors that, if adequately mixed, can contribute to students and teachers better achieving their goals. Such a wide and complex task cannot be addressed by a simple and single intervention. Comprehensive on-going policies are required, covering technology, methodology, economic and regulatory aspects; in addition, such policies are dependent on strong stakeholder engagement. This is a new process where we must learn by doing; therefore, carefully assessing the results of the different interventions is crucial to ensuring success.

[Študija EN](#)

[Skrajšana različica EN](#)

[Priloga EN](#)

[Technology options for deep-seabed exploitation - Tackling economic, environmental and societal challenges: Study](#)

Vrsta publikacije [Študija](#)

Datum 19-03-2015

Avtor KULJANIC Nera

Zunanji avtor Koen Rademaekers, Oscar Widerberg, Katarina Svatikova, Roel van der Veen, Triple E Consulting, Eleonora Panella, Milieu Ltd

Politično področje Dolgoročno načrtovanje | Okolje | Raziskovalna politika | Ribišтво

Ključna beseda analiza stroškov in koristi | bioindustrija | DRUŽBENA IN SOCIALNA VPRAŠANJA | genetika | izkoriščanje morskega dna | mednarodno pomorsko pravo | mednarodno pravo | mineralne surovine morskega dna | morski ekosistem | morski viri | naravno okolje | naravoslovne in uporabne vede | OKOLJE | okoljska politika | okoljska politika EU | ovrednotenje virov | POSLOVANJE IN KONKURENCA | PRAVO | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | računovodstvo | socialni okvir | socialni učinki | tehnologija in tehnični predpisi | vpliv na okolje | ZNANOST

Povzetek Exploration and exploitation of the deep-seas in search of marine minerals and genetic resources have over the past fifteen years received increased attention. Developments in sub-marine technologies, rising raw material prices and scarcity, and advancements in biotechnology, are changing the business-case for further investments in the marine environment. This report provides a state-of-play overview on exploring and exploiting deep-sea resources. A Cost-Benefit Analysis identifies the main potentials and challenges in a scenario where exploitation increases. Policy options are suggested to balance trade-offs between economic, social and environmental aspects associated with future developments. This STOA project 'Technology options for deep-seabed exploitation - Tackling economic, environmental and societal challenges' was carried out by Triple E Consulting and Milieu Ltd. at the request of the Science and Technology Options Assessment (STOA) Panel, within the Directorate-General for Parliamentary Research Services (DG EPRS) of the General Secretariat of the European Parliament.

[Študija EN](#)

[Skrajšana različica EN](#)

[Priloga EN](#)

[Towards Scientific Foresight in the European Parliament](#)

Vrsta publikacije [Poglabljena analiza](#)

Datum 29-01-2015

Avtor VAN WOENSEL Lieve | VRSCAJ Darja

Politično področje Dolgoročno načrtovanje | Raziskovalna politika

Ključna beseda dokumentacija | DRUŽBENA IN SOCIALNA VPRAŠANJA | EVROPSKA UNIJA | Evropski parlament | informacijska tehnologija in obdelava podatkov | institucije EU in evropska javna uprava | internet | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | odločanje | OKOLJE | okoljska politika | POSLOVANJE IN KONKURENCA | poslovanje | pravo Evropske unije | priprava zakonodaje EU | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave posledic uvajanja novih tehnologij | socialni okvir | socialni učinki | tehnologija in tehnični predpisi | tehnološka sprememba | učinek informacijske tehnologije | vpliv na okolje | znanstveno mnenje

Povzetek We are living in a technological culture in which technologies penetrate every domain of our society. Techno-scientific innovations are often designed to make our lives easier, or to solve some societal issues. However, technologies pose unwanted and unintended impacts. This document describes a methodology for Scientific Foresight which offers the Members of the European Parliament legislative pathways to anticipate possible impacts of techno-scientific innovations.

[Poglabljena analiza EN](#)

Multimedijske vsebine [Towards Scientific Foresight in the European Parliament](#)

Ten technologies which could change our lives: potential impacts and policy implications

Vrsta publikacije **Poglobljena analiza**

Datum **23-01-2015**

Avtor **VAN WOENSEL Lieve**

Zunanji avtor **Archer, Geoff**

Politično področje **Industrija | Raziskovalna politika**

Ključna beseda **denarno poslovanje | elektronski denar | ENERGETIKA | energetska politika | EVROPSKA UNIJA | FINANCE | informacijska tehnologija in obdelava podatkov | izobraževanje | IZOBRAŽEVANJE IN KOMUNIKACIJE | nova tehnologija | pravo EU | pravo Evropske unije | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave posledic uvajanja novih tehnologij | računalniške aplikacije | skladiščenje energije | sodobni materiali | tehnologija in tehnični predpisi | tehnološka sprememba | tiskalnik | učenje na daljavo | učinek informacijske tehnologije**

Povzetek This study was undertaken in support of the Scientific Foresight Unit's ongoing work to develop a methodology for carrying out foresight studies within the European Parliament. Ten different scientific and technological trends are investigated which reflect the interests of citizens, policy-makers and legislators drawn from across the European Union. A summary of each trend is provided followed by an overview of both the 'expected' and 'unexpected' impacts associated with the trend. A legal analysis is then provided which highlights procedural and legislative issues for policy-makers and legislators to consider when tackling policy-making in the EU in relation to each trend.

Poglobljena analiza [EN](#), [NL](#), [PT](#)

Mass Surveillance - Part 2: Technology foresight, options for longer term security and privacy improvements

Vrsta publikacije **Študija**

Datum **13-01-2015**

Zunanji avtor **Company:
Capgemini Consulting**

Authors:

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T. Slewe

Politično področje **Dolgoročno načrtovanje | Raziskovalna politika**

Ključna beseda **EVROPSKA UNIJA | graditev Evrope | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | internet | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | kriptografija | MEDNARODNI ODNOSI | območje svobode, varnosti in pravice | obramba | odprtokodna programska oprema | osebni podatki | pravice in svoboščine | PRAVO | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave posledic uvajanja novih tehnologij | računalniška kriminaliteta | tehnologija in tehnični predpisi | učinek informacijske tehnologije | varstvo podatkov | vohunjenje | zaščita komunikacij**

Povzetek The main objective of part two of this study is to provide the European Parliament with policy options, based on technology foresight, with regard to the protection of the European Information Society against mass surveillance from a perspective of technology and organisational foresight. Four scenarios with two to four technology options each were developed in this study, leading to twenty-three policy options.

Študija [EN](#)

Priloga 1 [EN](#)

Priloga 2 [EN](#)

Multimedijske vsebine [Mass surveillance and citizen rights in the EU part 2](#)

Mass Surveillance - Part 1: Risks and opportunities raised by the current generation of network services and applications

Vrsta publikacije Študija

Datum 12-01-2015

Zunanji avtor Company:
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Politično področje Dolgoročno načrtovanje | Raziskovalna politika

Ključna beseda elektronska pošta | EVROPSKA UNIJA | graditev Evrope | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | internet | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | kriptografija | MEDNARODNI ODNOSI | območje svobode, varnosti in pravice | obramba | osebni podatki | pravice in svoboščine | PRAVO | računalniška kriminaliteta | računalniški virus | učinek informacijske tehnologije | varstvo podatkov | vohunjenje | zaščita komunikacij

Povzetek This document identifies the risks of data breaches for users of publicly available Internet services such as email, social networks and cloud computing, and the possible impacts for them and the European Information Society. It presents the latest technology advances allowing the analysis of user data and their meta-data on a mass scale for surveillance reasons. It identifies technological and organisational measures and the key stakeholders for reducing the risks identified. Finally the study proposes possible policy options, in support of the risk reduction measures identified by the study.

Študija [EN](#)

Priloga 1 [EN](#)

Priloga 2 [EN](#)

Multimedijske vsebine [Mass surveillance and citizen rights in the EU part 1](#)

Measuring Scientific Performance for Improved Policy Making

Vrsta publikacije Študija

Datum 15-04-2014

Zunanji avtor Bea Mahieu, Erik Arnold and Peter Kolarz

Politično področje Raziskovalna politika

Ključna beseda dokumentacija | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | informacijski sistem | izmenjava informacij | IZOBRAŽEVANJE IN KOMUNIKACIJE | organizacija raziskovanja | POSLOVANJE IN KONKURENCA | poslovanje | primerjalna presoja | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | raziskovalna politika | razširjanje informacij | rezultati raziskav | tehnologija in tehnični predpisi | tehnološka presoja | zbiranje podatkov | študija ekonomske upravičenosti

Povzetek In recent decades, developments in European research policy making have led to an enhancement of the role and function of evaluation to cope with the growing globalisation of research and the need to ensure effective research systems at the national level and in the European Research Area. These developments have led to a need for a more integrated way to understand research performance as well as its efficiency and effects, combined with a growing need for a European view.

The desire for better evidence for public management, a growing movement calling for open access to the results of publicly funded research and the vastly increased power of computing and communications coincide to support policy interest in steering and sharing research results and data about them. Current trends in the extended use of research information systems - at institutional, national and European level, set the context and create the opportunity for the development of a European research information infrastructure that could provide the basis for an improved research policy development in Europe.

Študija [EN](#)

Skrajšana različica [EN](#)

Priloga 1 [CS](#), [DE](#), [EL](#), [EN](#), [ES](#), [FR](#), [HU](#), [IT](#), [PT](#), [RO](#), [SV](#)

Methanol: A Future Transport Fuel Based on Hydrogen and Carbon Dioxide?

Vrsta publikacije Študija

Datum 03-04-2014

Zunanji avtor Stefano Faberi and Lorian Paolucci, reviewed by Andrea Ricci (ISIS), Daniela Velte and Izaskun Jiménez (Tecnalia)

Politično področje Promet | Raziskovalna politika

Ključna beseda Amerika | analiza stroškov in koristi | Azija in Oceanija | ekonomska geografija | ENERGETIKA | energetska politika | energetske raziskave | GEOGRAFIJA | Kitajska | metanol | OKOLJE | okoljska politika | politična geografija | POSLOVANJE IN KONKURENCA | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | PROMET | prometna politika | raziskave posledic uvajanja novih tehnologij | računovodstvo | samooskrba z energijo | skupna prometna politika | tehnologija in tehnični predpisi | trajnostna mobilnost | trgovina | TRGOVINA | vozilo, ki ne onesnažuje | zajemanje in shranjevanje ogljikovega dioksida | zanesljivost oskrbe | Združene države

Povzetek This study discusses the technological, environmental and economic barriers for producing methanol from carbon dioxide, as well as the possible uses of methanol in car transport in Europe. Costs and benefits are evaluated from a life-cycle perspective in order to compare different feedstocks for methanol production and to account for the potential benefits of CO₂-derived methanol in the transition to a more diversified fuel mix in the transport sector. Benefits in terms of reduced dependence on conventional fossil fuels and lower risks to security of supply can be envisioned in the medium and long term. It is nonetheless evident that considerable and sustained research efforts are necessary to turn CO₂ into an efficient and competitive prime materials, which would be attractive not only for the transport sector, but also other industries. Europe's increasingly limited and expensive access to fossil fuels makes it obligatory to consider policy options and smart strategies, combining market, regulatory and planning instruments, to bring down the direct and indirect costs of alternative fuels, so that transport services remain affordable for citizens and companies during the transition to a less petroleum-dependent economy.

Študija [EN](#)

Skrajšana različica [CS](#), [DE](#), [EL](#), [EN](#), [ES](#), [FR](#), [HU](#), [IT](#), [PT](#), [RO](#), [SV](#)

Potential and Impacts of Cloud Computing Services and Social Network Websites

Vrsta publikacije Študija

Datum 15-01-2014

Zunanji avtor Timo Leimbach (Project Leader), Dara Hallinan and Daniel Bachlechner (Fraunhofer ISI); Arnd Weber, Maggie Jaglo and Leonhard Hennen (ITAS); Rasmus Øjvind Nielsen (DBT); Michael Nentwich and Stefan Strauß (ITA); Theo Lynn and Graham Hunt (DCU/IC4)

Politično področje Raziskovalna politika | Varstvo potrošnikov

Ključna beseda digitalno arhiviranje | dokumentacija | ekonomske analize | gospodarske posledice | GOSPODARSTVO | informacije in obdelava informacij | informacijska tehnologija | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | pravice in svoboščine | PRAVO | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija in tehnični predpisi | tehnološka sprememba | telekomunikacijska politika | učinek informacijske tehnologije | varstvo podatkov | varstvo zasebnosti | virtualna skupnost

Povzetek The opportunities of using powerful computing resources on demand via the web are considered as a possible driver for the growth of the European economy. While the market for Social Network Sites has already experienced a consolidation, the market for Cloud Computing is still in an early stage, but with considerable growth rates. In addition the recent massive surveillances actions and the rise of cyber-crime showed the need for a more secure basis of future computing. As a result it is necessary to support the development of highly secure IT solutions. By modernizing the data protection regime Europe could not only ensure the better protection of citizens, but also serve as a model and partner for emerging markets. In order to encourage this evolution the digital life of citizens and business needs legal certainty to ensure new ideas are taken up. As well as this it is abundantly clear that a crucial precondition for a competitive ICT industry is an inspiring surrounding ecosystem.

Študija [EN](#)

Skrajšana različica [CS](#), [DE](#), [EL](#), [EN](#), [ES](#), [FR](#), [HU](#), [IT](#), [PT](#), [RO](#), [SV](#)

Priloga 1 [EN](#)

Integrated Urban e-Ticketing for Public Transport and Touristic Sites

Vrsta publikacije Študija

Datum 15-01-2014

Zunanji avtor Maïke Puhe (Project Leader), Markus Edelmann and Max Reichenbach (ITAS-KIT)

Politično področje Promet | Turizem

Ključna beseda denarno poslovanje | DRUŽBENA IN SOCIALNA VPRAŠANJA | družbene in socialne zadeve | elektronski denar | FINANCE | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | inteligentni prometni sistem | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | mobilni telefon | nosilec podatkov | organizacija prevoza | prevoz oseb | prevoz z javnimi prevoznimi sredstvi | PROMET | prometna politika | telematika | turistična infrastruktura | uporaba informacijske tehnologije | učinek informacijske tehnologije | vozovnica

Povzetek This report deals with the development of integrated e-ticketing systems for public transport and touristic sites in cities. While technologies are already available and ready to meet multi-function requirements, e-ticketing has not yet been implemented on a wider scale in Europe. The implementation of an integrated e-ticketing system is a complex process that requires the synchronised activity of heterogeneous actors. Public transport operators and authorities, financial service providers, telecommunications operators, and the tourism sector need to work together to combine their products on a single card. Besides technological characteristics, legal and economic aspects play a decisive role. Stakeholders that are involved in the implementation of an integrated ticketing system need to agree on technical specifications as well as on institutional and governance issues.

Študija [EN](#)

Skrajšana različica [CS](#), [DE](#), [EL](#), [EN](#), [ES](#), [FR](#), [HU](#), [IT](#), [PT](#), [RO](#), [SV](#)

[Options for Sustainable Food and Agriculture in the EU \(Synthesis of the Project 'Technology Options for Feeding 10 Billion People'\)](#)

Vrsta publikacije Študija

Datum 15-11-2013

Zunanji avtor Evelyn Underwood, David Baldock, Harry Aiking, Allan Buckwell, Elizabeth Dooley, Ana Freluh-Larsen, Sandra Naumann, Clementine O'Connor, Jana Poláková and Graham Tucker

Politično področje Kmetijstvo in razvoj podeželja | Raziskovalna politika | Varnost hrane

Ključna beseda agroenergija | agroživilstvo | biotska raznovrstnost | boj proti potratni porabi | ENERGETIKA | energetska politika | kmetijska politika | kmetijska produktivnost | kmetijske raziskave | kmetijski odpadki | kmetijski sistemi | KMETIJSKO ŽIVILSTVO | kmetijsko-živilski sektor | KMETIJSTVO, GOZDARSTVO IN RIBIŠTVO | mednarodne zadeve | MEDNARODNI ODNOSI | naravno okolje | obremenitve okolja | OKOLJE | okoljska politika | onesnaževanje iz kmetijskih virov | organiziranost kmetovanja in kmetijska proizvodnja | politika kmetijske proizvodnje | samooskrba s hrano | sprememba podnebja | trajnostno kmetijstvo

Povzetek How should Europe respond to the increased demands on our food and agriculture systems arising from global population growth, changing diets, and competing demands on agricultural land? This report offers a view on how the EU could play a role in meeting these challenges in the coming decades and sets out some of the options which merit particular attention. It focuses on options for increasing agricultural productivity whilst adapting to the effects of climate change and reducing emissions from agriculture, the means of reversing continued declines in farmland biodiversity, the reduction of food wastage, ways to achieve a more resource-efficient food sector, and the options for using wastes and residues to meet biomaterial and bioenergy needs in a sustainable way. It brings together some of the analysis and results of five commissioned studies in a synthesis, considering the state of play today and some of the key developments on the horizon moving towards 2050. The European Union has strongly developed common environmental and agricultural policies, and a recently reformed Common Agricultural Policy with a greater emphasis on both the environment and innovation, providing Member States with an opportunity to initiate a change in direction. At the same time, there are major challenges to increasing productivity in an appropriate way whilst reducing damage to European agricultural and natural resources and biodiversity. It will be important to produce more with less in Europe and to cut wastage.

Študija [EN](#)

Skrajšana različica [CS](#), [DE](#), [EL](#), [EN](#), [ES](#), [FR](#), [HU](#), [IT](#), [NL](#), [PT](#), [RO](#), [SV](#), [PL](#)

[State of the Art Report on 'Options for Sustainable Food Processing' \(Part of the Project 'Technology Options for Feeding 10 Billion People'\)](#)

Vrsta publikacije Študija

Datum 15-11-2013

Zunanji avtor H.C. Langelan, F. Pereira da Silva, U. Thoden van Velzen, J. Broeze, A.M. Matser and M. Vollebregt (Wageningen UR Food & Biobased Research), K. Schroën (Wageningen University Food Process Engineering)

Politično področje Raziskovalna politika | Varnost hrane

Ključna beseda agroživilstvo | DRUŽBENA IN SOCIALNA VPRAŠANJA | ENERGETIKA | energetska politika | gospodarska politika | GOSPODARSTVO | INDUSTRIJA | inovacija | kmetijski stranski proizvod | KMETIJSKO ŽIVILSTVO | kmetijstvo | KMETIJSTVO, GOZDARSTVO IN RIBIŠTVO | mednarodne zadeve | MEDNARODNI ODNOSI | nov izdelek | organiziranost industrije in industrijska politika | pakiranje | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | raziskave in razvoj | samooskrba s hrano | trajnostni razvoj | TRGOVINA | trženje | varnost hrane | varčevanje z energijo | zdravstvo | živilska industrija | živilska tehnologija | živilska tehnologija

Povzetek Innovations in food processing techniques can significantly contribute to meeting the needs of the future 10 billion world inhabitants with respect to quality, quantity and sustainability of their food intake. The present study provides an expert judgment for the potential of new and emerging technologies to enhance sustainability in the food processing sector. It includes the following technologies: sensor technology, sustainable packaging and refrigeration climate control, non-thermal pasteurisation and sterilisation, nano- and micro technology, innovative processes for utilisation of by-products, alternative processes requiring less energy or water, plant-based meat alternatives and information and knowledge transfer. For each technology the direct impact (reduced losses, energy and water use) as well as the indirect impact (food losses, suboptimal utilisation and unnecessary quality decay within the supply chain) are described, as well as their contribution to the areas of improvement of the European food processing industry (new and better food products, resource efficient manufacturing processes, integrated and transparent supply chains and enhanced innovation capacity).

Študija [EN](#)

Skrajšana različica [CS](#), [DE](#), [EL](#), [EN](#), [ES](#), [FR](#), [HU](#), [IT](#), [NL](#), [PT](#), [RO](#), [SV](#), [PL](#)

[Plant Breeding and Innovative Agriculture \(Part of the Project 'Technology options for feeding 10 billion people'\)](#)

Vrsta publikacije [Študija](#)

Datum [15-10-2013](#)

Zunanji avtor [Rolf Meyer \(ITAS, Karlsruhe, Germany\), Tomas Ratinger \(Technology Centre ASCR, Prague, Czech Republic\) and Kai Peter Voss-Fels \(University of Gießen, Germany\)](#)

Politično področje [Kmetijstvo in razvoj podeželja | Raziskovalna politika](#)

Ključna beseda [kmetijska politika | kmetijski sistemi | kmetijstvo | KMETIJSTVO, GOZDARSTVO IN RIBIŠTVO | obdelovanje kmetijskih zemljišč | pridelava poljščin | raba tal | rastlinska proizvodnja | sistem pridelovanja | slaba letina | trajnostno kmetijstvo | varstvo tal | žlahtnjenje rastlin](#)

Povzetek In the frame of the STOA project "Technology options for feeding 10 billion people", this report analyse how farming management concepts, practices and technologies, including plant breeding, could enable sustainable intensification of crop production, with the aim to increase food production and support food supply. The aim of sustainable intensification is to produce more food from the same area of land while reducing the environmental impacts, under social and economic beneficial conditions. The study addresses agriculture in developing countries as well as in industrialized countries (Europe), small-scale and large-scale farming, extensive and intensive agricultural production systems, and low and high tech production practices. The main topics are:
- Reducing yield gaps – sustainable intensification and improving crop management;
- Increasing yield potentials – plant breeding;
- Reducing crop losses – improving harvest and postharvest procedures.
For these topics, options for action are identified and discussed.

[Študija EN](#)

[Skrajšana različica CS, DE, EL, EN, ES, FR, HU, IT, NL, PT, RO, SV, PL](#)

[Priloga 1 EN](#)

[Priloga 2 EN](#)

[Options for Cutting Food Waste \(Part of the Project 'Technology options for feeding 10 billion people'\)](#)

Vrsta publikacije [Študija](#)

Datum [15-10-2013](#)

Zunanji avtor [Carmen Priefer \(Project Leader\), Juliane Jörissen and Klaus-Rainer Bräutigam \(ITAS\)](#)

Politično področje [Raziskovalna politika | Varnost hrane](#)

Ključna beseda [agroživilstvo | boj proti potratni porabi | DRUŽBENA IN SOCIALNA VPRAŠANJA | kmetijska proizvodnja | kmetijski sistemi | KMETIJSKO ŽIVILSTVO | KMETIJSTVO, GOZDARSTVO IN RIBIŠTVO | lakota | mednarodne zadeve | MEDNARODNI ODNOSI | OKOLJE | okoljska politika | ozaveščanje javnosti | POLITIKA | politika in javna varnost | poraba živil | potrošnja | prehrabna politika | proizvodnja živil | ravnanje z odpadki | samooskrba s hrano | TRGOVINA | zdravstvo](#)

Povzetek The reduction of food waste is seen as an important lever for achieving global food security, freeing up finite resources for other uses, diminishing environmental risks and avoiding financial losses. In its roadmap for a resource efficient Europe the European Commission has set the target to halve the generation of food waste by 2020. The present study deals with approaches for preventing food waste based on a thorough analysis of the scale, reasons and pattern of food wastage in EU-27. The focus is on measures and instruments that are considered in literature or in the current debate as particularly useful, easy to implement and/or that have already proven their effectiveness in practice. This includes among others the improvement and harmonization of the data basis, the setting of reduction targets on national and regional level, the revision of existing regulations on food date labelling, the enforcement of awareness campaigns, the introduction of economic incentives, the improvement of workflows as well as the implementation of an integrated supply chain management in the manufacturing and wholesale/retail sector including technological innovations which are likely to reduce food waste.

[Študija EN](#)

[Skrajšana različica CS, DE, EL, EN, ES, FR, HU, IT, NL, PT, RO, SV, PL](#)

[Priloga 1 EN](#)

Multimedijske vsebine [Food eco-footprint](#)

Security of eGovernment Systems

Vrsta publikacije Študija

Datum 15-07-2013

Zunanji avtor Anders Jacobi (Project leader, DBT), Mikkel Lund Jensen (DBT), Linda Kool (Rathenau Institute), Geert Munnichs (Rathenau Institute) and Arnd Weber (ITAS)

Politično področje Območje svobode, varnosti in pravice | Raziskovalna politika

Ključna beseda elektronska uprava | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | izvršilna oblast in javna uprava | javno naročilo | komunikacije | mednarodno pravo | osebni dokument | osebni podatki | POLITIKA | pravice in svoboščine | PRAVO | prenosno omrežje | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | računalniško omrežje | računalniško piratstvo | tehnologija in tehnični predpisi | TRGOVINA | trgovinska politika | uporaba informacijske tehnologije | usklajevanje standardov | varstvo zasebnosti

Povzetek The project 'Security of eGovernment systems' aimed at assisting policymakers in discerning policy options for meeting future challenges in securing eGovernment systems. The project focused on upcoming challenges of eGovernment security in delivering public services across borders. Through identifying key security barriers and enablers, the project points to promising avenues of policy development in an environment of rapidly changing ICTs and changing socio-economic concerns in the EU.
The most important contribution of the project is the development and assessment of 11 policy options.
Policy Option 1: Develop a policy strategy for improving the security of IT-systems used in Europe ;
Policy Option 2: Stimulate development and use of security checklists (short-term) ;
Policy Option 3: Policy Option 3: Encourage the development and use of highly secure components (mid-term) ;
Policy Option 4: Encourage the development and use of highly secure systems (long-term) ;
Policy option 5: Create stronger institutional supervision and oversight of security ;
Policy option 6: Build a 'Privacy by Design' knowledge base ;
Policy option 7: Substantiate the data minimization principle by using anonymization techniques in all European eGovernment systems ;
Policy option 8: Stimulate technical and legal solutions that avoid or limit privacy risks caused by re-identification of previously anonymized data ;
Policy option 9: Make Privacy Impact Assessments of eGovernment systems mandatory and public ;
Policy option 10: Use gateways to achieve interoperability of different national eGovernment security tools, but aim at Europe-wide availability and usability of tools ;
Policy option 11: Ensure open and transparent evaluations of the trade-offs between privacy, security, usability, interoperability and costs of an eGovernment system.

Študija [EN](#)

Skrajšana različica [EN](#)

Priloga 1 [EN](#)

Priloga 2 [EN](#)

Recycling Agricultural, Forestry & Food Wastes and Residues for Sustainable Bioenergy and Biomaterials (Part of the Project 'Technology Options for Feeding 10 Billion People')

Vrsta publikacije Študija

Datum 15-07-2013

Zunanji avtor Bettina Kretschmer (Project Leader), Claire Smith, Emma Watkins, Ben Allen, Allan Buckwell, Jane Desbarats and Daniel Kieve

Politično področje Kmetijstvo in razvoj podeželja | Okolje | Raziskovalna politika | Varnost hrane

Ključna beseda bioenergija | biomasa | biomateriali | ENERGETIKA | gospodarska politika | GOSPODARSTVO | gozdarska politika | gozdarstvo | kmetijski odpadki | KMETIJSKO ŽIVILSTVO | KMETIJSTVO, GOZDARSTVO IN RIBIŠTVO | naravno okolje | obnovljivi viri | obremenitve okolja | OKOLJE | okoljska ekonomika | okoljska politika | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | recikliranje odpadkov | tehnologija in tehnični predpisi | trajnostni razvoj | čista energija | živilska predelava | živilska tehnologija

Povzetek The purpose of this study is to examine and review biorefinery technology options that exist to convert biomass in the form of agricultural crop and forestry residues and waste from the whole food chain into biomaterials and bioenergy. It assesses the technological options, including the sustainability of the processes involved. The study forms part of a bigger project commissioned by the European Parliament's STOA ('Science and Technology Options Assessment') office under the heading of 'Technology options for feeding 10 billion people'.
Advanced biofuels and innovative bio-based pathways based on wastes and residues show considerable potential and should be further developed especially as Europe is already seen by some as having a lead in relevant technologies. However, there are also considerable uncertainties for investors and indeed all market participants and thus a major task is to ensure good transparency and better information concerning the availabilities of the waste and residue streams, the opportunities for processing, and the benefits to consumers. In addition, because, by definition, bio-based economic developments necessarily interact with ecosystems, there has to be visible assurance that the bio-products are indeed environmentally preferable with respect to GHG emissions, water, soil and biodiversity compared with their fossil-based counterparts. The conclusion is thus encouragement should be given to this sector, but with enhanced transparency of all aspects of its development, and with equally strong sustainability safeguards.

Študija [EN](#)

Skrajšana različica [DE](#), [EN](#), [FR](#)

Priloga 1 [EN](#)

[Interactions between Climate Change & Agriculture and Biodiversity & Agriculture \(Part of the Project 'Technology Options for Feeding 10 Billion People'\)](#)

Vrsta publikacije [Študija](#)

Datum [15-07-2013](#)

Zunanji avtor [E. Underwood, J. Poláková, B. Kretschmer, A. J. McConville and G. M. Tucker \(IEEP\)](#) ; [E. Dooley, A. Freluh-Larsen and S. Naumann \(Ecologic Institute\)](#) ; [S. Berman, M. Sarteel and C. Tostivint \(BIO Intelligence Service\)](#) ; [N. M. van der Grijp \(Institute for Environmental Studies - IVM ; VU University\)](#) ; [N. Maxted \(School of Biosciences, University of Birmingham\)](#)

Politično področje [Kmetijstvo in razvoj podeželja](#) | [Okolje](#) | [Raziskovalna politika](#)

Ključna beseda [biogorivo](#) | [biotska raznovrstnost](#) | [ENERGETIKA](#) | [energetska politika](#) | [globalno segrevanje](#) | [hektarski donos](#) | [kmetijska politika](#) | [kmetijski sistemi](#) | [KMETIJSTVO, GOZDARSTVO IN RIBIŠTVO](#) | [naravno okolje](#) | [obremenitve okolja](#) | [OKOLJE](#) | [onesnaževanje tal](#) | [pesticid](#) | [PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE](#) | [slaba letina](#) | [sredstva kmetijske proizvodnje](#) | [tehnologija in tehnični predpisi](#) | [toplogredni plin](#) | [trajnostno kmetijstvo](#) | [transgena rastlina](#)

Povzetek There will be rising global demand for food and energy from the land over the coming decades resulting from population growth and economic development. This will coincide with the need to adapt agriculture to increasing climate-related threats (which will probably outweigh opportunities in Europe), whilst decreasing the impact of agricultural emissions on climate change. At the same time, biodiversity losses due to intensive agricultural practices and abandonment of biodiversity-rich farming are expected to continue. The long-term sustainability of farming is being undermined by trends such as soil degradation, declines in pollinators, the loss of natural biological control of pests and diseases, and the loss of plant and animal genetic diversity. Substantial changes in agricultural systems are required in Europe to ensure rapid reductions in agricultural emissions of greenhouse gases, as well as effective adaptation to climate change and strengthened biodiversity conservation. This report describes a range of practices and developments in agriculture that could sustainably increase agricultural productivity whilst contributing to climate change mitigation and adaptation, and providing biodiversity benefits. Policy could play a larger role in supporting innovation and development in the full range of agricultural systems in Europe and in the use of certain wastes and residues for energy purposes. The report provides a set of recommended options for incentivising beneficial actions, constraining unsustainable practices, and promoting innovative options whilst ensuring environmental safeguards for new technologies that might have unwanted negative impacts on biodiversity.

[Študija](#) [EN](#)

[Skrajšana različica](#) [CS](#), [DE](#), [EL](#), [EN](#), [ES](#), [FR](#), [HU](#), [IT](#), [NL](#), [PT](#), [RO](#), [SV](#), [PL](#)

[Priloga 1](#) [EN](#)

[Priloga 2](#) [EN](#)

[Sustainable Management of Natural Resources with a Focus on Water and Agriculture \(Study, Annex, Summary and Options Brief\)](#)

Vrsta publikacije [Študija](#)

Datum [15-05-2013](#)

Zunanji avtor [Jana Poláková \(Project Leader, IEPP\)](#), [Andrew Farmer \(IEEP\)](#), [Sandra Berman \(BIO Intelligence Service\)](#), [Sandra Naumann \(Ecologic Institute\)](#), [Ana Freluh-Larsen \(Ecologic Institute\)](#) and [Johanna von Toggenburg \(Ecologic Institut\)](#)

Politično področje [Kmetijstvo in razvoj podeželja](#) | [Okolje](#) | [Raziskovalna politika](#)

Ključna beseda [kmetijska politika](#) | [kmetijske raziskave](#) | [KMETIJSTVO, GOZDARSTVO IN RIBIŠTVO](#) | [naravno okolje](#) | [obdelovanje kmetijskih zemljišč](#) | [OKOLJE](#) | [okoljska politika](#) | [okoljske raziskave](#) | [raba tal](#) | [skupna kmetijska politika](#) | [trajnostno kmetijstvo](#) | [upravljanje voda](#) | [upravljanje z vodami v kmetijstvu](#) | [varstvo tal](#) | [varstvo voda](#) | [viri tal](#) | [vodni viri](#)

Povzetek Water is a key natural resource targeted within resource efficiency policy of the European Union, as well as globally. This study has focussed on research, technologies and options for sustainable water use and water efficiency; agricultural land management with soil and water benefits; and measures within the Common Agricultural Policy (CAP) to address sustainable management of water and soil resources. Six key areas for improvement have been identified: (1) The legislative framework currently in place to protect Europe's waters needs to be implemented fully and effectively as well as adequately enforced; (2) Water priorities that have been articulated at the EU level need to be more fully integrated and well implemented within the sectoral policies at EU, national and regional levels; (3) Water losses should be reduced and water savings and efficiency should be increased, in particular in agriculture and water scarce areas; (4) Land and soil management approaches aimed at combating soil erosion, preventing loss of soil organic matter, sequestering soil carbon and improving water retention are critical for long-term sustainability of farming and healthy ecosystems and should be promoted at all levels; (5) EU funds, including CAP, allocated to water priorities should be used in an efficient and effective way; and (6) improved data and decision support tools relating to water and soils are essential for making informed decisions that support sustainable management of water and soil.

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[Priloga 1](#) [EN](#)

[Priloga 2](#) [CS](#), [DE](#), [EL](#), [EN](#), [ES](#), [FR](#), [HU](#), [IT](#), [PT](#), [RO](#), [SV](#)

Eco-Efficient Transport

Vrsta publikacije Študija

Datum 15-04-2013

Zunanji avtor Jens Schippl (Project leader), Markus Edelman, Maike Puhe and Max Reichenbach (Institute for Technology Assessment and Systems Analysis - ITAS, Karlsruhe Institute of Technology - KIT)

Politično področje Okolje | Promet | Raziskovalna politika

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | ENERGETIKA | energetska politika | energetska učinkovitost | kakovost življenja | kombinirani prevoz | načrtovanje prevoza | nova tehnologija | obremenitve okolja | OKOLJE | okoljska politika | onesnaževanje z motornimi vozili | organizacija prevoza | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | PROMET | prometna politika | socialni okvir | tehnologija in tehnični predpisi | toplogredni plin | trajnostna mobilnost | zmanjšanje emisij plinov | čista tehnologija

Povzetek An affordable, efficient and clean transport system is a basic pillar for economic growth and the quality of life in European countries. However, transport is still accompanied by a broad range of negative impacts on human health and the environment. It is still using huge amounts of finite resources. Congestion is increasingly hampering the efficiency of the system. Transport volumes are expected to further grow in the future. So, a transition to a more eco-efficient transport system is needed to cope with recent challenges and anticipated future developments in the transport sector. Against this background, the STOA Project on "Eco-Efficient Transport" aimed at assessing to what extent different concepts and approaches can help to increase the eco-efficiency of the transport system. To allow the required systemic perspective, the assessment was supported by scenario building. The feasibility and desirability of the scenarios and their elements was the subject of a stakeholder consultation.

This report is the final report (Deliverable 5) of the project. It summarises the previous phases of the project and draws conclusions on that basis. The previous reports, Deliverables 2, 2b, 3, and 4, are available online on the STOA homepage at: <http://www.europarl.europa.eu/stoa/cms/home/publications/studies>

Študija [EN](#)

Skrajšana različica [EN](#)

Priloga 1 [EN](#)

Priloga 2 [EN](#)

Priloga 3 [EN](#)

Priloga 4 [EN](#)

Urban Transport - Technology Options in Urban Transport: Changing paradigms and promising innovation pathways (Study, Interim Report I - IV and Options Brief)

Vrsta publikacije Študija

Datum 17-12-2012

Zunanji avtor This project has been carried out by the Institute for Technology Assessment and Systems Analysis (ITAS), Karlsruhe Institute of Technology (KIT) as a member of the European Technology Assessment Group (ETAG).
PROJECT LEADER :Jens Schippl, ITAS
AUTHORS: Jens Schippl, ITAS, KIT; Maike Puhe, ITAS, KIT

Politično področje Okolje | Promet | Raziskovalna politika

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | gradnja in urbanizem | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | mestni prevoz | načrtovanje prevoza | nova tehnologija | OKOLJE | okoljska politika | organizacija prevoza | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | PROMET | prometna infrastruktura | prometna politika | tehnologija in tehnični predpisi | trajnostna mobilnost | urbano življenjsko okolje | učinek informacijske tehnologije | varnost v cestnem prometu | zazidalni načrt | zmanjšanje emisij plinov

Povzetek Urban transport is related to a wide range of unsolved problems and challenges that need to be tackled in order to guarantee a high quality of life in European cities and to make the transport system an even more efficient pillar of the European economies. This final report highlights relevant aspects and pathways for a transition to a more sustainable urban transport system. For this purpose, relevant technologies and the factors influencing end-user behaviour were analysed, as well as the interrelations between them.

The transport system is understood as a socio-technical system of five key elements: paradigms and visions, mobility patterns, technologies and infrastructures, business models, and transport policies. In this report it is illustrated that changes in all elements of the transport system are taking place:

- On the one hand, a broad range of innovative technologies and concepts to achieve sustainable urban transport are emerging or are already used.

- On the other hand, the paradigm of sustainable transport is about to dominate transport planning in many urban areas and at different governmental levels – which has by far not always been like this.

Further there is evidence that travel behaviour is not as static as it seems, but rather changes over time. In several countries, the travel behaviour of some societal groups is evidently changing. All of the five elements offer pathways to sustainable urban transport. Nevertheless, successful pathways do not only require new developments in one of these elements, but in several or in all of them, and at the same time.

Against this background it is essential that governance strategies deal with the transport system as a whole. Integrated policies need to consider technical, as well as non-technical factors and developments. The facilitation of learning opportunities is crucial. Innovations need "spaces" to be tested and demonstrated. But, for a successful transition, the transport users need to

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[Making Perfect Life: European Governance Challenges in 21st Century Bio-engineering \(Study, Summary and Options Brief\)](#)

Vrsta publikacije [Študija](#)

Datum [14-09-2012](#)

Zunanji avtor Rinie van Est (Rathenau Instituut), Dirk Stemerding (Rathenau Instituut), Piret Kukk (Fraunhofer ISI), Bärbel Hüsing (Fraunhofer ISI), Ira van Keulen (Rathenau Instituut), Mirjam Schuijff (Rathenau Instituut), Knud Böhle (ITAS), Christopher Coenen (ITAS), Michael Decker (ITAS), Michael Rader (ITAS), Helge Torgersen (ITAS) and Markus Schmidt (Biofaction)

Politično področje Raziskovalna politika

Ključna beseda bioetika | DRUŽBENA IN SOCIALNA VPRAŠANJA | družbene in socialne zadeve | genetika | genska tehnologija | medicinske raziskave | naravoslovne in uporabne vede | nevrologija | ovrednotenje projekta | POSLOVANJE IN KONKURENCA | poslovanje | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | raziskovalni program | tehnologija in tehnični predpisi | zdravstvo | ZNANOST

Povzetek The report describes four fields of bio-engineering: engineering of living artefacts (chapter 2), engineering of the body (chapter 3), engineering of the brain (chapter 4), and engineering of intelligent artefacts (chapter 5). Each chapter describes the state of the art of these bio-engineering fields, and whether the concepts "biology becoming technology" and "technology becoming biology" are helpful in describing and understanding, from an engineering perspective, what is going on in each R&D terrain. Next, every chapter analyses to what extent the various research strands within each field of bio-engineering are stimulated by the European Commission, i.e., are part and parcel of the European Framework program. Finally, each chapter provides an overview of the social, ethical and legal questions that are raised by the various scientific and technological activities involved. The report's final chapter discusses to what extent the trends "biology becoming technology" and vice versa capture many of the developments that are going on in the four bio-engineering fields we have mapped. The report also reflects on the social, ethical and legal issues that are raised by the two bioengineering megatrends that constitute a new technology wave.

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[Knowledge Transfer From Public Research Organisations \(Study and Options Brief\)](#)

Vrsta publikacije [Študija](#)

Datum [14-09-2012](#)

Zunanji avtor Erik Arnold, Paula Knee, Neil Brown, Zsuzsa Jávorka, Flora Giarracca and Sabeen Siddiqui

Politično področje Industrija | Raziskovalna politika

Ključna beseda informacije in obdelava informacij | izmenjava informacij | IZOBRAŽEVANJE IN KOMUNIKACIJE | odnos industrija-raziskave | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | raziskave in razvoj | raziskovalna organizacija | tehnologija in tehnični predpisi | znanstveno odkritje | širjenje inovacij

Povzetek This study describes knowledge transfer from European universities and institutes to industry, focusing on the role of the Industrial Liaison / Technology / Knowledge Transfer Office function. It explores practices in European institutions and compares these with international ones, especially from the USA. The project is based upon a comprehensive literature review and a programme of detailed case studies of knowledge transfer strategies and practices. It addresses the wide range of knowledge transfer activities undertaken by public research organisations, in addition to IP exploitation and their different effects on innovation in the business sector. It presents a model of the transition of PROs' knowledge transfer strategies from pure technology transfer based only on IP to a broader role in knowledge transfer and ultimately to a two-way process of knowledge exchange between PROs and industry and wider society. The report presents a number of policy options to support this process.

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[Smart Grids / Energy Grids - The Techno-Scientific Developments of Smart Grids and the Related Political, Societal and Economic Implications \(Study and Options Brief\)](#)

Vrsta publikacije [Študija](#)

Datum [14-09-2012](#)

Zunanji avtor [Andrea Ricci and Stefano Faberi \(ISIS, project coordinators\), Nicolas Brizard and Brieuc Bougnoux \(Enerdata\), Melanie Degel \(IZT\), Daniela Velte and Eduardo Garcia \(Tecnalia\)](#)

Politično področje [Energija](#) | [Raziskovalna politika](#)

Ključna beseda [električna energija](#) | [električna in jedrska energija](#) | [ENERGETIKA](#) | [energetska politika](#) | [energetsko omrežje](#) | [energetsko pravo](#) | [nadzorni organ](#) | [obnovljiva energija](#) | [POLITIKA](#) | [politični okvir](#) | [poraba energije](#) | [prenos energije](#) | [proizvodnja energije](#) | [čista energija](#)

Povzetek The report presents the results of a project on the future of Smart Grids/Energy Grids. It discusses technological issues associated with Smart Grids, analyses implications for policy-makers, citizens and society, industry and operators, as well as regulatory and financial conditions.

While current trends point to a continuing growth of the electricity demand in the future, the emergence of advanced thermal technologies may result in partly curbing such growth. Also, the predictable increase in the cost performance of distributed generation might contribute to making off-grid solutions more competitive.

In addition to privacy and security issues, and to the concerns at times expressed on possible health effects, a major change of attitude is needed on behalf of utilities to actively involve and empower end-users.

Full bi-directional interconnection between all network nodes, and the need to ensure real-time exchange of consumption data, call for radical changes in the business models of operators, based on a clear and reliable identification of the benefits induced by the new system and of the extent to which each actor can ultimately accrue a fair share of such benefits.

A new regulatory framework is necessary to ensure the most effective type and level of incentives to stimulate the investments required by the transition towards Smart Grids, while ensuring a level playing field in the sector.

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[Skrajšana različica](#) [EN](#)

[NanoSafety - Risk Governance of Manufactured Nanoparticles \(Study and Options Brief\)](#)

Vrsta publikacije [Študija](#)

Datum [15-02-2012](#)

Zunanji avtor [Torsten Fleischer, Jutta Jahnel and Stefanie B. Seitz \(ITAS-KIT\)](#)

Politično področje [Javno zdravje](#) | [Okolje](#) | [Raziskovalna politika](#)

Ključna beseda [dovoljenje za prodajo](#) | [DRUŽBENA IN SOCIALNA VPRAŠANJA](#) | [mikrodelec](#) | [nanotehnologija](#) | [nova tehnologija](#) | [obremenitve okolja](#) | [odobritev tipa](#) | [OKOLJE](#) | [okoljska politika](#) | [preprečevanje okoljskega tveganja](#) | [PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE](#) | [spremljanje stanja okolja](#) | [strupena snov](#) | [tehnologija in tehnični predpisi](#) | [toksikologija](#) | [TRGOVINA](#) | [trženje](#) | [tveganje za zdravje](#) | [zdravstvo](#)

Povzetek This report deals with the potential environmental, health and safety (EHS) risks of engineered nanomaterials (ENM). Because of the great uncertainties regarding their actual health and environmental effects and numerous methodological challenges to established risk assessment procedures (toxicology, exposure and hazard assessments, life cycle assessment, analytics, and others), risk management of ENM is confronted with serious challenges. On the other hand, precautionary regulatory action with regard to ENM is demanded by a number of stakeholders and parts of the general public.

Regulation under uncertainty raises fundamental political questions of how lawmakers should regulate risk in the face of such uncertainty. To explore this issue in greater detail, the project focused on two important perspectives of regulation: Risk management strategies for ENM as discussed or proposed for the EU or its Member States, and risk communication problems and needs for EHS risks of ENM.

Findings of the project were discussed with MEPs in several workshops. In addition, the project used also a participatory method in order to investigate the risk communication expectations of the general public.

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Systemic Approach to Adaptation to Climate Change and Renewable Energy Harnessing (Biomass and Mini-Hydro) (Study and Options Brief)

Vrsta publikacije Študija

Datum 16-01-2012

Zunanji avtor Jane Desbarats, Bettina Kretschmer, Robbie Watt and Keith Whiriskey (IEEP)

Politično področje Energija | Okolje | Raziskovalna politika

Ključna beseda analiza stroškov in koristi | bioenergija | ENERGETIKA | energetske rastline | hidravlična energija | kmetijstvo | KMETIJSTVO, GOZDARSTVO IN RIBIŠTVO | OKOLJE | okoljska politika | POSLOVANJE IN KONKURENCA | prilagoditev na podnebne spremembe | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | računovodstvo | tehnologija in tehnični predpisi | čista energija | čista tehnologija

Povzetek Pyrolysis technology has been assessed in this report based on an examination of the costs, the benefits, the barriers to market uptake, and the potential for EU funding to contribute to innovation and/or technology deployment. Given the benefits associated with the application of biochar to soils, here we consider how it can be utilised in the context of on-farm mitigation options. Looking at application of the technology from this perspective helps underline the importance of local context and soil properties. In carrying out cost-benefit analysis however, it has been challenging to calculate the cost of biochar given the lack of available information. For this reason, we have had to consider the cost of the entire pyrolysis lifecycle by looking at the cost of a number of other products such as pyrolysis oil. We maintain that the added benefit of biochar in terms of its ability to address adaptation, improves its overall cost-effectiveness. We also conclude that, although there is significant potential to implement mini-hydro for mitigation purposes, investment in the technology with the dual purpose of addressing both policy agenda items is not likely to improve its overall cost effectiveness given the limitations associated with implementation.

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Future Metal Demand from Photovoltaic Cells and Wind Turbines - Investigating the Potential Risk of Disabling a Shift to Renewable Energy Systems

Vrsta publikacije Študija

Datum 15-12-2011

Zunanji avtor Isak Öhrlund

Politično področje Energija | Industrija | Okolje | Raziskovalna politika

Ključna beseda ENERGETIKA | INDUSTRIJA | industrijsko izdelovanje | kobalt | mednarodna trgovina | obnovljiva energija | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | sončna celica | specialne kovine | strojogradnja | surovine | tehnologija in tehnični predpisi | tehnologija recikliranja | trgovina | TRGOVINA | turbina | zanesljivost oskrbe | čista energija | železarstvo, jeklarstvo in druga kovinska industrija

Povzetek Our climate is rapidly changing, and to lower the risk of crossing a tipping point where dangerous climate change will be irreversible, greenhouse gas emissions must decrease rapidly within the coming decade and eventually be eliminated in a few decades ahead. To accomplish this, we will inevitably have to abandon fossil fuels and shift towards renewable energy systems, such as photovoltaic cells and wind turbines. Recent events have however indicated that the supply of raw materials used in advanced and emerging technologies may not be able to keep up with the rapidly increasing demand. Since the world cannot afford any further delay in climate change mitigation, this study investigates whether the supply of raw materials may hinder the successful transition to a renewable energy supply by looking at the future metal demand from photovoltaic cells and wind turbines. The findings show that major deployment of photovoltaic cells and wind turbines may have a serious impact on the future demand of 8 significant elements gallium, indium, selenium, tellurium, dysprosium, neodymium, praseodymium and terbium. The current recycling rate of these metals is less than one percent, and material substitution possibilities are found to be very limited. Due to the long lifespan of these technologies, increased demand will have to be met almost exclusively by virgin raw material extraction, which in turn will have major consequences for society and the environment, including large emissions of greenhouse gases. To tackle these issues and to avoid that the demand for certain raw materials will outstrip supply and cause a delay to any major deployment of photovoltaic cells and wind turbines, technological alternatives will have to be sought and implemented, as well as the concept of raw materials criticality will have to be reassessed and integrated into energy roadmaps and targets. If this is not done, bottlenecks in the future supply of these elements entail a risk of disabli

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[Technology Across Borders - Exploring Perspectives for Pan-European Parliamentary Technology Assessment \(Study and Options Brief\)](#)

Vrsta publikacije [Študija](#)

Datum 15-11-2011

Zunanji avtor Christien Enzing, Jasper Deuten, Monique Rijnders-Nagle and Jon van Til

Politično področje Demokracija EU, institucionalno in parlamentarno pravo | Industrija | Raziskovalna politika

Ključna beseda informacije in obdelava informacij | izmenjava informacij | IZOBRAŽEVANJE IN KOMUNIKACIJE | izvršilna oblast in javna uprava | organizacija raziskovanja | parlament | parlamentarni nadzor | POLITIKA | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | raziskovalna politika EU | upravni pregled | znanstveni napredek

Povzetek Parliamentary Technology Assessment (PTA) in Europe has been initiated and developed first in countries in northern and western parts of Europe and later also in Southern Europe. The main objective of this study is to trace the evolution of PTA from the Office of Technology Assessment in the US to a future pan-European participatory PTA and to deliver images of PTA future.

Overall, the main type of effect of PTA on parliaments is raising their knowledge on specific technology or societal problems and their technological solutions. However, the institutional settings of the PTA organisations shape the type of influence these PTA organisations have on parliamentary decision-making.

In order to ensure successful pan-European PTA cooperation, several conditions have to be fulfilled. These comprise having a PTA structure in countries all over Europe, an interface between scientists and politicians by creating a mutual language, the inclusion of the public and civil society organisations, the creation of a meeting place where all stakeholders have an easy access and, last but not least, the need for PTA to be mainstreamed within regional, national and European parliaments.

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[E-public, e-participation and e-voting in Europe - prospects and challenges \(Study and Options Brief\)](#)

Vrsta publikacije [Študija](#)

Datum 15-09-2011

Zunanji avtor Bernd Beckert (Fraunhofer ISI), Ralf Lindner (Fraunhofer ISI), Kerstin Goos (Fraunhofer ISI), Leonhard Hennen (ITAS), Georg Aichholzer (ITA) and Stefan Strauß (ITA)

Politično področje Demokracija EU, institucionalno in parlamentarno pravo | Območje svobode, varnosti in pravice | Peticije Evropskemu parlamentu

Ključna beseda civilna družba | delo parlamenta | digitalni razkorak | elektronska uprava | elektronsko glasovanje | informacije in obdelava informacij | internet | IZOBRAŽEVANJE IN KOMUNIKACIJE | izvršilna oblast in javna uprava | javno mnenje | komunikacije | participativna demokracija | POLITIKA | politika in javna varnost | politični okvir | vladanje | volilna udeležba | volilni postopek in glasovanje

Povzetek How can the Internet contribute to the development and establishment of a genuinely European public (e-public)?

What are good practices for e-participation in Europe and how can public organisations profit from opening up their processes to a wider audience (e-participation)? Is e-voting a realistic means to increase electoral turnout and what are the conditions for the success of e-voting? These are the main questions being dealt with in this report, which is the final report of the STOA-project on e-democracy.

The report includes the analysis and insights of a research and consultation project in which three scientific institutes, eleven external experts as participants of two workshops and several Members of the European Parliament were involved. The aim of the project, which went from January 2010 to September 2011, was to analyse current developments in the area of e-democracy and to relate the insights to the European policy context, especially to the needs of the European Parliament.

Within the three areas of e-democracy covered in the study, e-voting is the area in which the recommendation to the European Parliament is the most explicit: Based on the analysis, the build-up of a comprehensive system for e-voting in Europe cannot be recommended for the time being. The reasons for this are primarily cost-benefit considerations, technological issues and reasons of political legitimacy. Underlying the analysis was the conviction that elections are at the heart of the democratic process and that existing and working election routines in the countries will not be changed without good reasons.

Concerning e-public and e-participation the report argues that a European public sphere includes and requires an active citizenry endowed with political rights as well as with a sense of identity which motivates engagement and political concern. European citizenship cannot be based in common language and traditions but only in a sense of belonging to a political community w

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[Making Perfect Life: Bio-Engineering \(in\) the 21st Century - Phase II \(Monitoring Report\)](#)

Vrsta publikacije Študija

Datum 15-09-2011

Zunanji avtor Rinie van Est (Rathenau Institute, editor), Dirk Stermerding (Rathenau Institute, editor), Ira van Keulen (Rathenau Institute), Ingrid Geesink (Rathenau Institute), Mirjam Schuijff (Rathenau Institute), Helge Torgersen (ITA), Markus Schmidt (Biofaction), Karen Kastenhofer (ITA), Bärbel Hüsing (Fraunhofer ISI), Knud Böhle (ITAS), Christopher Coenen (ITAS), Michael Decker (ITAS) and Michael Rader (ITAS)

Politično področje Javno zdravje | Raziskovalna politika

Ključna beseda bioetika | DRUŽBENA IN SOCIALNA VPRAŠANJA | družbene in socialne zadeve | evgenika | genska tehnologija | medicinske raziskave | naravoslovne in uporabne vede | nevrologija | ovrednotenje projekta | POSLOVANJE IN KONKURENCA | poslovanje | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | raziskovalni program | tehnologija in tehnični predpisi | zarodek in plod | zdravstvo | ZNANOST

Povzetek The report describes four fields of bio-engineering: engineering of living artefacts (chapter 2), engineering of the body (chapter 3), engineering of the brain (chapter 4), and engineering of intelligent artefacts (chapter 5). Each chapter describes the state of the art of these bio-engineering fields, and whether the concepts “biology becoming technology” and “technology becoming biology” are helpful in describing and understanding, from an engineering perspective, what is going on in each R&D terrain. Next, every chapter analyses to what extent the various research strands within each field of bio-engineering are stimulated by the European Commission, i.e., are part and parcel of the European Framework program. Finally, each chapter provides an overview of the social, ethical and legal questions that are raised by the various scientific and technological activities involved. The report’s final chapter discusses to what extent the trends “biology becoming technology” and vice versa capture many of the developments that are going on in the four bio-engineering fields we have mapped. The report also reflects on the social, ethical and legal issues that are raised by the two bioengineering megatrends that constitute a new technology wave.

Študija [EN](#)

[Copyright in the EU - What Next ? \(Study and Options Brief\)](#)

Vrsta publikacije Študija

Datum 15-03-2011

Zunanji avtor Alfred Radauer (Technopolis Group)

Politično področje Notranji trg in carinska unija | Pravo intelektualne lastnine

Ključna beseda avtorska pravica | EVROPSKA UNIJA | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | pravo Evropske unije | približevanje zakonodaje | programska oprema | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | računalniško piratstvo | tehnologija in tehnični predpisi | učinek informacijske tehnologije | širjenje inovacij

Povzetek On October 12, 2010 the Science and Technology Options Assessment Panel (STOA) together with Technopolis Consulting Group supported by Knowledge4Innovation/The Lisbon Forum, and TNO, organised a half-day workshop entitled ‘Copyright in the Single Market, Opportunities for Harmonisation and management of Rights’. This workshop was part of the 2nd European Innovation Summit at the European Parliament which took place on 11-14 October 2010. The workshop addressed in the first part the topic of the opportunities for further harmonising EU Copyright law. Despite a number of copyright related Directives, harmonisation of copyright law remains an area of controversy and a considerable number of issues arise where higher degree of harmonisation and also the level of protection to be granted are heavily debated. The second part focused on issues related to the management of rights, i.e. the means by which copyright and related rights are administered (licensed, assigned and remunerated), and whether current practices with a particular view on transparency and governance of copyright management hinder the development of the Internal Market. Despite difficulties to reach consensus in the discussion, four areas for possible policy action were identified.

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Skrajšana različica [EN](#)

[Towards an Intellectual Property Rights Strategy for Innovation in Europe](#)

Vrsta publikacije Študija

Datum 15-12-2009

Zunanji avtor Alfred RADAUER (Technopolis Consulting Group) and Victor RODRIGUEZ (TNO)

Politično področje Industrija | Pravo intelektualne lastnine | Raziskovalna politika

Ključna beseda digitalna tehnologija | evropski patent | inovacija | kazensko pravo | mednarodna trgovina | ponarejanje denarja | PRAVO | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | tehnologija in tehnični predpisi | TRGOVINA | TRIPS | vzorci in modeli | znamka

Povzetek On October 13, 2009 the Science and Technology Options Assessment Panel (STOA) together with Knowledge4Innovation/The Lisbon Forum, supported by Technopolis Consulting Group and TNO, organised a half-day workshop entitled ‘Towards an Intellectual Property Rights Strategy for Innovation in Europe’. This workshop was part of the 1st European Innovation Summit at the European Parliament which took place on 13 October and 14 October 2009. It addressed the topics of the evolution and current issues concerning the European Patent System as well as International Protection and Enforcement of IPR (with special consideration of issues pertaining to IP enforcement in the Digital Environment). Conclusions drawn point to the benefits of a comprehensive European IPR strategy, covering a broad range of IP instruments and topics.

Študija [EN](#)

[Nanotechnology in the Food Sector \(TA-SWISS study translation\)](#)

Vrsta publikacije Študija

Datum 15-12-2009

Zunanji avtor Martin Möller, Ulrike Eberle, Andreas Hermann, Katja Moch, Britta Stratmann (Institute for Applied Ecology, Freiburg and Darmstadt, Germany)

Politično področje Okolje | Raziskovalna politika | Varnost hrane

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | ekonomska geografija | Evropa | GEOGRAFIJA | KMETIJSKO ŽIVILSTVO | nanotehnologija | OKOLJE | okoljska politika | pakiranje | politična geografija | potrošnja | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija in tehnični predpisi | TRGOVINA | trženje | varnost hrane | varstvo potrošnikov | vpliv na okolje | zdravstvo | Švica | živilska tehnologija | živilska tehnologija | živilska zakonodaja | živilski dodatek

Povzetek The study was commissioned by TA-SWISS and conducted by the Institute of Applied Ecology (Freiburg, D). It was subsequently translated by STOA into English. STOA gratefully acknowledges the chance to make it available for discussion in the European Parliament.

All rights of the original publication in German continue to be held by vdf Hochschulverlag AG an der ETH Zürich. All rights of this edition in English are held by the European Parliament.

Abstarct

The study by the Centre for Technology Assessment TA-SWISS provides an overview of nanomaterials already used in the food sector. Today, nanotechnology is virtually insignificant in terms of environmentally sound and health-promoting nutrition, and even in the future it is only likely to play a relatively subordinate role in making nutrition more sustainable. But nanotechnology is already used in food packaging, an area that is regarded as having considerable potential for innovation. The study assesses these products in respect of environmental issues and sustainability, showing the direction that future developments might take and where there is a need for caution.

Študija [EN](#)

[Current Policy Issues in the Governance of the European Patent System](#)

Vrsta publikacije Študija

Datum 15-12-2009

Zunanji avtor Víctor RODRIGUEZ (TNO), Jos LEIJTEN (TNO), Giuseppe SCELLATO (Fondazione Rosselli), Bianca POTI (Consiglio Nazionale delle Ricerche - CNR) and Ove GRANSTRAND (Chalmers University of Technology)

Politično področje Industrija | Pravo intelektualne lastnine | Raziskovalna politika

Ključna beseda evropske organizacije | evropski patent | Evropski patentni urad | inovacija | konkurenca | konkurenca | MEDNARODNE ORGANIZACIJE | patentno pravo | POSLOVANJE IN KONKURENCA | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina

Povzetek The European Parliament has been working towards building a discussion platform and a resource for further policy actions in the field of intellectual property rights. The Science and Technology Options Assessment Panel has set the goal of further enlarging the area of investigation in light of recent policy developments at the European level. In particular, the current study covers current policy issues in the governance of the European patent system, such as the backlog issue, the enhancement of patent awareness within the European Parliament, patent enforcement, the regional dimension of intellectual property in Europe, patents and standardisation, the use of existing patents, and patents and competition. These issues were discussed in the conference with stakeholders from European to national patent offices, from private to public sector actors. As a result of the conference, it was stated the need for an IP strategy for Europe.

Študija [EN](#)

[Assessing the Potential of ICT to Increase Energy Efficiency and Fight Climate Change - Key Technologies and Prospects](#)

Vrsta publikacije Študija

Datum 15-10-2009

Zunanji avtor Jens SCHIPPL and Ms Nora WEINBERGER (ITAS, Germany)

Politično področje Energija | Industrija | Okolje

Ključna beseda ENERGETIKA | energetska politika | energetska učinkovitost | energetska omrežje | informacijska tehnologija | inovacija | internet | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | obremenitve okolja | OKOLJE | okoljska politika | poraba energije | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | sprememba podnebja | toplogredni plin | zmanjšanje emisij plinov

Povzetek In order to combat climate change the EU has set the aim of a 20% reduction of CO2 emissions by 2020. This aim only seems achievable if a reduction in energy consumption supported by energy efficient technologies takes place. In principle, many innovative technologies are strongly linked with Information and Communication Technologies (ICT). Regarding the impact of ICT on climate change two different aspects can be distinguished. On the one hand, ICT is discussed as a technology that enables an increase in energy efficiency, a reduction of energy consumption, as well as a reduction of greenhouse gas (GHG) emissions in general. On the other hand, ICT are an energy consumer themselves. This STOA project aimed at assessing the net impact of ICT on energy efficiency/GHG emissions on the basis of data available in the literature and in technical documents. The main focus was on energy efficiency and energy consumption, but other sectors were examined as well. Results were validated by external experts. This report illustrates that ICT is a crucial enabling technology for the mitigation of climate change. Various ICT-applications in different sectors enable energy savings, increased energy efficiency and a reduction of GHG emissions. In four selected areas, the relevance of ICT for the reduction of GHG emissions was elaborated in more detail: Electricity distribution grids (smart grids); Smart buildings, smart homes and smart metering; Transport and dematerialisation; Industrial processes and organisational sustainability. For all four selected areas significant technological progress and organisational innovations with strong relation to ICT are expected to further tap energy saving potentials in the next decades. It is shown in the report that the saving potentials related to ICT as enabling technology in these four key-areas is by far larger than the approx. 2% stemming from ICT as an energy consumer. The net effect of ICT on climate change is clearly positive. Support

Študija [EN](#)

[Future Energy Systems in Europe](#)

Vrsta publikacije Študija

Datum 15-10-2009

Zunanji avtor Anders Kofoed-Wiuff and Alexandros Filippidis (Ea Energy Analyses, Copenhagen, Denmark) ; Kenneth Karlsson and Sara Moro (Risoe National Laboratory for Sustainable Energy, Technical University of Denmark, Roskilde, Denmark)

Politično področje Energija

Ključna beseda cena energije | električna in jedrska energija | ENERGETIKA | energetska politika | energetska tehnologija | energetske potrebe | jedrska energija | obnovljiva energija | obremenitve okolja | OKOLJE | poraba energije | skladiščenje energije | toplogredni plin | varčevanje z energijo | čista energija

Povzetek The European energy sector faces critical challenges in the future. In order to shed light on different pathways towards achieving these goals a number of energy scenarios for the EU27 have been developed within this project.

The focus of the scenario building procedure is on the overall energy system, showing how the different elements of the European energy systems interact with each other, and how different combinations of technology choices and policies lead to different overall results.

The project explores two essentially different developments of the European energy systems through a so-called Small-tech scenario and a Big-tech scenario. Both scenarios aim at achieving two concrete goals for 2030: reducing CO2 emissions by 50 per cent compared to the 1990 level, and reducing oil consumption by 50 per cent compared to the present level.

Among the project recommendations are saving energy (as being less expensive than producing energy), stimulate the development of district heating and district cooling grids to facilitate the utilization of waste heat, large-scale integration of variable renewable energy sources, strengthening and coordinating the European electricity infrastructure, three levels of transformation needed in the transport sector (fuel efficiency, introduction of electric vehicles and modal-change, new resources (the sustainable European biomass for energy purposes, municipal waste). A continued effort is also required to researching and developing technologies (wave and solar power, Carbon Capture and Storage and safe nuclear power).

Študija [EN](#)

[Agricultural Technologies for Developing Countries \(Study + Annexes 1 to 6\)](#)

Vrsta publikacije Študija

Datum 15-06-2009

Zunanji avtor Rolf MEYER (ITAS)

Politično področje Kmetijstvo in razvoj podeželja | Raziskovalna politika | Razvoj in humanitarna pomoč

Ključna beseda države v razvoju | gospodarske razmere | GOSPODARSTVO | kmetijska proizvodna sredstva | kmetijska proizvodnja | kmetijski sistemi | KMETIJSTVO, GOZDARSTVO IN RIBIŠTVO | obremenitve okolja | OKOLJE | prenos tehnologije | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | razvoj podeželja | regije in regionalna politika | sprememba podnebja | sredstva kmetijske proizvodnje | tehnologija in tehnični predpisi

Povzetek The study investigates the contribution of selected important agricultural production systems and technologies (incl. rainwater harvesting, conservation agriculture, rice intensification system, organic farming, agroforestry systems and transgenic plants) to higher food production and food security with focus on small-scale farmers in developing countries. It then suggests options for action within European development policies and development cooperation.

Študija [EN](#)

Priloga 1 [EN](#)

Priloga 2 [EN](#)

Priloga 3 [EN](#)

Priloga 4 [EN](#)

Priloga 5 [EN](#)

Priloga 6 [EN](#)

[Human Enhancement](#)

Vrsta publikacije Študija

Datum 15-05-2009

Zunanji avtor Christopher COENEN (ITAS), Mirjam SCHUIJFF (Rathenau Institute), Martijntje SMITS (Rathenau Institute), Pim KLAASSEN (University of Amsterdam), Leonhard HENNEN (ITAS), Michael RADER (ITAS) and Gregor WOLBRING (University of Calgary)

Politično področje Javno zdravje | Raziskovalna politika | Socialna politika

Ključna beseda bioetika | DRUŽBENA IN SOCIALNA VPRAŠANJA | družbene in socialne zadeve | farmacevtski izdelek | genska tehnologija | globalizacija | gospodarska politika | GOSPODARSTVO | kultura in religija | kulturni pluralizem | nanotehnologija | nova tehnologija | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija in tehnični predpisi | zdravstvo

Povzetek The study attempts to bridge the gap between visions on human enhancement (HE) and the relevant technoscientific developments. It outlines possible strategies of how to deal with HE in a European context, identifying a reasoned pro-enhancement approach, a reasoned restrictive approach and a case-by-case approach as viable options for the EU. The authors propose setting up a European body (temporary committee or working group) for the development of a normative framework that guides the formulation of EU policies on HE.

Študija [EN](#)

Implications of Global Trends in Eating Habits for Climate Change, Health and Natural Resources

Vrsta publikacije Študija

Datum 15-04-2009

Zunanji avtor Conrad CASPARI, Maria CHRISTODOULOU, John NGANGA and Mariana RICCI (Agra CEAS Consulting)

Politično področje Javno zdravje | Kmetijstvo in razvoj podeželja | Okolje | Varstvo potrošnikov

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | države v razvoju | gospodarske razmere | GOSPODARSTVO | kmetijska politika | KMETIJSKO ŽIVILSTVO | KMETIJSSTVO, GOZDARSTVO IN RIBIŠTVO | meso | obdelovanje kmetijskih zemljišč | ohranjanje virov | OKOLJE | okoljska politika | organiziranost kmetovanja in kmetijska proizvodnja | poraba živil | potrošnja | povpraševanje potrošnikov | prehranjevalne navade | prehranska bolezen | preusmeritev iz mlečne v mesno proizvodnjo | raba tal | trajnostno kmetijstvo | TRGOVINA | zdravstvo | živalski proizvodi

Povzetek The study outlines the contribution of livestock production to climate change and health risks associated with high meat consumption. The natural resources required to produce animal-based and plant-based protein are contrasted and diets with different levels of both types of protein compared. Using world population projections, three scenarios based on different theoretical alternative consumption patterns are created to show possible requirements and greenhouse gas emissions for animal and plant protein production: "minimal" scenario (assumes consumption of animal protein only via milk and eggs); "optimal" scenario (assuming diets with a low meat intake) and "maximum" (baseline) scenario (current level of meat consumption extended to developing countries). Comments are made on alternative protein sources. Policy options are suggested.

Študija [EN](#)

Animal-based Welfare Monitoring

Vrsta publikacije Študija

Datum 16-03-2009

Zunanji avtor Marc Bracke (ASG - WUR), Kathelijne Visser-Riedstra (ASG - WUR), Femke Schepers (WU), Nanda Ursinus (WU), Harry Blokhuis (ASG - WUR, SLU), Marien Gerritzen (WU) and Ellen ter Gast (Rathenau Institute) (Part 1) Martien Bokma-Bakker (ASG - WUR), Geert Munnichs (Rathenau Institute), Aart Evers (ASG - WUR), Michel de Haan (ASG - WUR), Eveline van Mil (LEI - WUR), Kees van Reenen (ASG - WUR) and Frans Brom (Rathenau Institute) (Part 2)

Politično področje Kmetijstvo in razvoj podeželja | Raziskovalna politika

Ključna beseda dobro počutje živali | kmetijska politika | kmetijstvo | KMETIJSSTVO, GOZDARSTVO IN RIBIŠTVO | OKOLJE | okoljska politika | veterinarska zakonodaja | zaščita živali | živalska proizvodnja

Povzetek The study examines the potential for introducing a European system of on-farm assessment of animal welfare using animal-based indicators. Part 1 describes the scientific and techno-logical state-of-the-art regarding animal-based welfare indicators and monitoring technology. Part 2 studies the socio-economic impact of introducing an animal-based welfare monitoring system on livestock production in EU Member States.

Študija [EN](#)

Looking forward in the ICT & Media Industries

Vrsta publikacije Študija

Datum 15-12-2008

Zunanji avtor Knud Böhle, Michael Rader, Arnd Weber and Dirk Weber (Institute for Technology Assessment and Systems Analysis - ITAS, Eggenstein-Leopoldshafen, Germany)

Politično področje Industrija | Kultura | Pravo intelektualne lastnine

Ključna beseda avdiovizualna industrija | avtorska pravica | digitalizacija | dokumentacija | elektronska pošta | informacijska tehnologija | inovacija | internet | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | poklic v komunikacijskih dejavnostih | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina

Študija [EN](#)

Direct to Consumer Genetic Testing

Vrsta publikacije Študija

Datum 14-11-2008

Zunanji avtor Leonhard Hennen (ITAS), Arnold Sauter (ITAS) and Els van den Cruyce (VIWTA)

Politično področje Javno zdravje | Varstvo potrošnikov

Ključna beseda bioetika | bolezen | DNK | dovoljenje za prodajo | DRUŽBENA IN SOCIALNA VPRAŠANJA | družbene in socialne zadeve | internet | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | naravoslovne in uporabne vede | potrošnja | TRGOVINA | trženje | varstvo potrošnikov | zdravstvo | ZNANOST

Povzetek The present report provides an overview of the current discussion on direct-to-consumer genetic testing (DCGT) among experts and public authorities and on the current status of DCGT offers on the internet. Guided by an analysis of the market development and the pros and cons of DCGT, the report discusses possible options and needs for political intervention.

Študija [EN](#)

[Workshop Report on Naturally Occurring and Health Compromising Substances in Plant-derived Foods :](#)

[Do we Have a Problem ?](#)

Vrsta publikacije Študija

Datum 14-11-2008

Zunanji avtor Danish Board of Technology (member of the ETAG Group) ;
Bjoern Bedsted, Signe Skibstrup Blach (DBT) (authors of the case studies) ;
Gary Williamson (University of Leeds, UK) (summary)

Politično področje Industrija | Javno zdravje | Pravo EU: pravni sistem in akti | Varnost hrane

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | kakovost izdelka | KMETIJSKO ŽIVILSTVO | nevarna snov | obremenitve okolja | obveščanje potrošnikov | OKOLJE | označevanje | potrošnja | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | rastlinski proizvodi | raziskave in intelektualna lastnina | sadje | TRGOVINA | trženje | tveganje za zdravje | varnost hrane | zdravstvo | zelenjava | znanstvene raziskave | živilska predelava | živilska tehnologija

Povzetek There is a wide variety of readily available food products on the market in the developed world today, which can provide necessary nutrition. The issue that has so far not been much focused upon and on which this study has focused is naturally-occurring substances in food, which may compromise health through, for example, toxic effects, allergenic effects or inhibition of nutrient assimilation.
In particular, new knowledge has been accumulated with regard to naturally-occurring and health-compromising substances in plant-derived food. Also, substances that are not added or taken in from environmental pollution, but may be health compromising by their own nature, through, for example, toxic effects, allergenic effects or inhibition of nutrient assimilation. The study explores and debates new developments in basic research: industrial food processing, novel and functional food, and consumer knowledge and behaviour in order to determine whether there are problems which can be identified and which need to be dealt with by the European Union in the years to come.

Študija [EN](#)

[The Future of European Long-Distance Transport - Scenario Report](#)

Vrsta publikacije Študija

Datum 15-10-2008

Zunanji avtor Jens Schippl, Ida Leisner, Per Kaspersen and Anders Koed Madsen (Institute for Technology Assessment and Systems Analysis - ITAS ; Forschungszentrum Karlsruhe in the Helmholtz Association and Danish Board of Technology - DBT, Copenhagen, Denmark)

Politično področje Energija | Okolje | Promet

Ključna beseda ENERGETIKA | energetska politika | obremenitve okolja | OKOLJE | okoljska politika | poraba energije | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | PROMET | prometna infrastruktura | prometna politika | skupna prometna politika | tehnologija | tehnologija in tehnični predpisi | toplogredni plin | zmanjšanje emisij plinov

Povzetek This document is Deliverable 5 of the project on "The Future of European Long-Distance Transport". It contains the report on the scenario process carried out in Phase II of the project. The scenario process is based on phase I, in which a general scoping and identification of key challenges took place.

Študija [EN](#)

[Synthesis Report on The Future of European Long-distance Transport \(Interview Meetings on Long Distance Transport and Global Warming\)](#)

Vrsta publikacije Študija

Datum 15-10-2008

Zunanji avtor Ida Leisner, Anders Jacobi and Per Kaspersen (Danish Board of Technology, Copenhagen, Denmark)

Politično področje Energija | Okolje | Promet

Ključna beseda ENERGETIKA | energetska politika | obremenitve okolja | OKOLJE | okoljska politika | poraba energije | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | PROMET | prometna politika | prometna politika | raziskave in intelektualna lastnina | raziskave in razvoj | sprememba podnebja | trgovina | TRGOVINA | varstvo okolja | zanesljivost oskrbe | zmanjšanje emisij plinov

Povzetek Long distance transport will face some serious challenges during the next 20-40 years regarding sustainability, oil dependency and accessibility. This study is geared towards exploring the inevitable challenges facing internal European transport in order to achieve a 60% reduction in CO2 emissions and 80% reduction in oil consumption. It aims at giving an idea of the magnitude of change that is needed if targets are to be reached by assessing and illustrating potential options for policy packages and technologies in different situations, comprising the infrastructure establishment need that will facilitate a shift towards sustainable transport and promote the use of new technologies and prudent transportation. The project explores three main option settings: (i) Strong and rich High-Tech Europe; (ii) Slow and reflexive lifestyles; (iii) Contrast-image: Economic pressure and expensive energy.

Študija [EN](#)

Extending the Pipeline - Toward a Comprehensive and Coordinated EU Approach to Poverty Related Diseases

Vrsta publikacije Študija

Datum 01-07-2008

Zunanji avtor Martijntje Smits (Rathenau Institute, The Hague, the Netherland)

Politično področje Industrija | Javno zdravje | Razvoj in humanitarna pomoč | Socialna politika

Ključna beseda Afrika | Afrika | bolezen | DRUŽBENA IN SOCIALNA VPRAŠANJA | EVROPSKA UNIJA | farmacevtski izdelek | GEOGRAFIJA | GOSPODARSTVO | graditev Evrope | higiena živil | medicinske raziskave | nacionalni računi | okvirni program za raziskave in razvoj | organizacija zdravstvenega varstva | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | revščina | socialna medicina | ukrep EU | zdravstvo

Povzetek Part of the project "Global human health 2, towards effective cooperation on Medicine Research and development".

Študija [EN](#)

Assessment of the Safety of Tunnels

Vrsta publikacije Študija

Datum 15-10-2007

Zunanji avtor Alan Beard (Heriot-Watt University, Edinburgh, UK) and David Cope (Parliamentary Office of Science and Technology - POST, House of Commons, London, UK)

Politično področje Promet

Ključna beseda cestni prevoz | kopenski promet | predor | PROMET | prometna nesreča | prometna politika | varnost v cestnem prometu | železniški promet

Povzetek The paper draws to a great extent on a literature search concerning the current status of risk assessment in relation to tunnels. It also draws on many conversations held with experts world-wide and to a small extent on the results of a questionnaire which was distributed to experts. Finally, it draws upon the discussions at a Workshop held at the European Parliament, Brussels, on 16th May 2007.

Študija [EN](#)

Interactions between New Technologies and the Job Market, Flexicurity and Training / Vocational Training

Vrsta publikacije Študija

Datum 01-10-2007

Zunanji avtor ETAG (European Technology Assessment Group) ; Institute for Technology Assessment and Systems Analysis (ITAS), Karlsruhe ; Danish Board of Technology (DBT), Copenhagen ; Flemish Institute for Science and Technology Assessment (viWTA), Brussels ; Parliamentary Office of Science and Technology (POST), London ; Rathenau Institute, The Hague ; Bettina-Johanna Krings and Anna Muellner (Institute for Technology Assessment and Systems Analysis - ITAS)

Politično področje Industrija | Izobraževanje | Zaposlovanje

Ključna beseda boj proti brezposelnosti | DRUŽBENA IN SOCIALNA VPRAŠANJA | družbene in socialne zadeve | fleksibilnost dela | izobraževanje | IZOBRAŽEVANJE IN KOMUNIKACIJE | kvalificiran delavec | nova tehnologija | nova vrsta zaposlitve | permanentno izobraževanje | poklicno usposabljanje | politika zaposlovanja EU | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | socialna vključenost | tehnologija in tehnični predpisi | trg dela | ustvarjanje delovnih mest | zaposlovanje | ZAPOSLOVANJE IN DELOVNE RAZMERE

Povzetek The following report provides a conceptual framework for the interaction between new technologies and job markets. It focuses on the importance of vocational training in these processes and on integrating the flexicurity concept as a policy instrument which is gaining more and more importance in public debate.

Študija [EN](#)

[Policy Options for the Improvement of the European Patent System](#)

Vrsta publikacije Študija

Datum 03-09-2007

Zunanji avtor Robin COWAN (BETA, Université Louis Pasteur and UNU-MERIT, Universteit Maastricht, the Netherlands) ; Wim Van der EIJK (International Legal Affairs and Patent law, EPO, München, Germany) ; Francesco LISSONI (University of Brescia, Italy) ; Peter LOTZ (Copenhagen Business School, Denmark) ; Geertrui Van OVERWALLE (University of Leuven, Belgium) and Jens SCHOVSBO (University of Copenhagen, Denmark)

Politično področje Industrija | Raziskovalna politika

Ključna beseda evropski patent | inovacija | nova tehnologija | patentno pravo | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | raziskave in razvoj | tehnologija in tehnični predpisi | širjenje inovacij

Povzetek This report is based on an independent, policy-oriented investigation of the current European patent system. The central premise of the report is that the patent system has so far been a positive factor in promoting innovation and the diffusion of knowledge, and thus that the system is contributing in a constructive way to economic and social welfare objectives. In acknowledging the importance of the patent system in relation to many aspects of society, it is also essential to continually evaluate whether the system is working as effectively as it could be. In addition, because of some of the influences coming to bear upon the system at the moment, as well as the various ways in which it has been operating, the workings of the European patent system especially merits close public attention.

Študija [EN](#)

[RFID and Identity Management in Everyday Life - Striking the Balance between Convenience, Choice and Control](#)

Vrsta publikacije Študija

Datum 04-06-2007

Zunanji avtor ETAG
European Technology Assessment Group:
Institute for Technology Assessment and Systems Analysis (ITAS), Karlsruhe
Danish Board of Technology (DBT), Copenhagen
Flemish Institute for Science and Technology Assessment (viWTA), Brussels
Parliamentary Office of Science and Technology (POST), London
Rathenau Institute, The Hague
Christian van't Hof
Rathenau Institute, the Netherlands

Politično področje Industrija | Varstvo potrošnikov

Ključna beseda informacijska tehnologija in obdelava podatkov | internet | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | osebni podatki | pravice in svoboščine | PRAVO | preiskovalni postopek | shranjevanje podatkov | sodstvo | valovno območje | varstvo zasebnosti | zapis podatkov | zbiranje podatkov

Povzetek The purpose of this deliverable is to provide insight into real life experiences with Radio Frequency Identification (RFID), draw a future scenario, and formulate challenges for this rapidly emerging technology.

Študija [EN](#)

[The role of Nanotechnology in Chemical Substitution](#)

Vrsta publikacije Študija

Datum 02-04-2007

Zunanji avtor ETAG (European Technology Assessment Group) ; Institute for Technology Assessment and Systems Analysis (ITAS), Karlsruhe ; Danish Board of Technology (DBT), Copenhagen ; Flemish Institute for Science and Technology Assessment (viWTA), Brussels ; Parliamentary Office of Science and Technology (POST), London ; Rathenau Institute, The Hague

Politično področje Industrija | Okolje

Ključna beseda nanotehnologija | nevarna snov | obremenitve okolja | OKOLJE | okoljska politika | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | sodobni materiali | tehnologija in tehnični predpisi | varstvo okolja | čista tehnologija

Povzetek This project was commissioned by STOA under Framework Contract IP/A/STOA/FWC/2005-28). The associated workshop, "The Role of Nanotechnology in Chemical Substitution" was organised by the European Parliament in Brussels on 13 September 2006.

Študija [EN](#)

[Gene, Vaccine and Immunotherapies against Cancer: New Approaches to an Old Problem](#)

Vrsta publikacije Študija

Datum 05-02-2007

Zunanji avtor ETAG (European Technology Assessment Group) ;
Institute for Technology Assessment and Systems Analysis (ITAS), Karlsruhe ;
Danish Board of Technology (DBT), Copenhagen ;
Flemish Institute for Science and Technology Assessment (viWTA), Brussels ;
Parliamentary Office of Science and Technology (POST), London ;
Rathenau Institute, The Hague

Politično področje Javno zdravje | Raziskovalna politika

Ključna beseda cepivo | demografija in prebivalstvo | DRUŽBENA IN SOCIALNA VPRAŠANJA | EVROPSKA UNIJA | finance EU | imunologija | izdatki za zdravila | medicinske raziskave | odhodki za raziskave (EU) | okvirni program za raziskave in razvoj | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | rak | raziskave in intelektualna lastnina | smrtnost | zdravstvo

Povzetek This publication is the result of a project commissioned by STOA under Framework Contract IP/A/STOA/FWC/2005-28 on "Future Development of Cancer Therapy". It contains contributions and discussions arising from a workshop that took place at the European Parliament in Brussels in February 2007 under the title "Gene, Vaccine and Immunotherapies against Cancer: New Approaches to an Old Problem".

Študija [EN](#)

[Alternative Technology Options for Road and Air Transport](#)

Vrsta publikacije Študija

Datum 05-02-2007

Zunanji avtor ETAG (European Technology Assessment Group) ;
ITAS - Institute for Technology Assessment & Systems Analysis, Karlsruhe ;
DBT - Danish Board of Technology, Copenhagen ;
viWTA - Flemish Institute for Science & Technology Assessment, Brussels ;
POST - Parliamentary Office of Science & Technology, London ;
Rathenau Institute, The Hague ;
Jens Schippl, Christian Dieckhoff and Torsten Fleischer (ITAS)

Politično področje Energija | Okolje | Promet | Raziskovalna politika

Ključna beseda alkoholno pogonsko gorivo | biogorivo | cestni prevoz | ENERGETIKA | energetska politika | gorivna celica | INDUSTRIJA | kemija | kopenski promet | naftna industrija | obremenitve okolja | OKOLJE | okoljska politika | prevoz po zraku | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | PROMET | sprememba podnebja | tehnologija in tehnični predpisi | tehnološka sprememba | vodik | zemeljski plin | zmanjšanje emisij plinov | zračni in vesoljski promet

Povzetek This final report was commissioned under specific contract IP/A/STOA/SC/2005-179, for the "Alternative Technology Options for Road and Air Transport" project.

Študija [EN](#)

[Technology Assessment on Converging Technologies](#)

Vrsta publikacije Študija

Datum 02-10-2006

Zunanji avtor ETAG (European Technology Assessment Group) ;
Institute for Technology Assessment and Systems Analysis (ITAS), Karlsruhe ;
Danish Board of Technology (DBT), Copenhagen ;
Flemish Institute for Science and Technology Assessment (viWTA), Brussels ;
Parliamentary Office of Science and Technology (POST), London ;
Rathenau Institute, The Hague ;
Robby Berloznik, Raf Casert and Robby Deboelpaep (viWTA) ;
Rinie van Est, Christien Enzing, Marc van Lieshout and Anouschka Versleijen (Rathenau)

Politično področje Industrija | Raziskovalna politika

Ključna beseda biotehnologija | inovacija | nanotehnologija | nova tehnologija | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | raziskave posledic uvajanja novih tehnologij | raziskovalna politika | tehnologija in tehnični predpisi | tehnološka sprememba | visokošolske raziskave | znanstveno odkritje

Povzetek The workshop was held in the European Parliament in Brussels on June 27, 2006. The title of the workshop was "Converging Technologies in the 21st century: heaven, hell or down to earth?"

Študija [EN](#)

Antibiotic Resistance

Vrsta publikacije Študija

Datum 02-10-2006

Zunanji avtor ETAG (European Technology Assessment Group) ;
Institute for Technology Assessment and Systems Analysis (ITAS), Karlsruhe ;
Danish Board of Technology (DBT), Copenhagen ;
Flemish Institute for Science and Technology Assessment (viWTA), Brussels ;
Parliamentary Office of Science and Technology (POST), London ;
Rathenau Institute, The Hague ;
Ulla Holm Vincentsen and Benjamin Michael Hope (DBT)

Politično področje Javno zdravje | Raziskovalna politika

Ključna beseda antibiotik | DRUŽBENA IN SOCIALNA VPRAŠANJA | EVROPSKA UNIJA | Evropski center za preprečevanje in obvladovanje bolezni | institucije EU in evropska javna uprava | javno zdravje | kmetijstvo | KMETIJSTVO, GOZDARSTVO IN RIBIŠTVO | medicinske raziskave | zdravje živali | zdravniška diagnoza | zdravstvo

Povzetek This document contains deliverable no. 3 of the project on Antibiotic Resistance. The report draws on discussions with a range of experts at an extended working group meeting in Copenhagen on June 27th 2006 and a workshop at the European Parliament on September 13th 2006.

Študija [EN](#)

Sustainable Energy Catalogue for European Decision-Makers

Vrsta publikacije Študija

Datum 02-10-2006

Zunanji avtor Søren Gram (Danish Board of Technology, DBT)

Politično področje Energija | Okolje

Ključna beseda bioenergija | bioplin | ENERGETIKA | energetska politika | energetska tehnologija | energija vetra | geotermalna energija | gospodarska politika | GOSPODARSTVO | obnovljiva energija | OKOLJE | okoljska politika | sončna energija | trajnostni razvoj | varčevanje z energijo | vpliv na okolje | čista energija

Povzetek The purpose of this catalogue is to offer planners and decision-makers in EU member states an inspirational tool to be used during local or regional transition towards sustainable energy technologies. The catalogue may also be used by anyone else needing an overview of sustainable energy technologies and their current development level and future potential. It may also be used in education.

Študija [EN](#)

Galileo Applications

Vrsta publikacije Študija

Datum 13-09-2006

Zunanji avtor ETAG (European Technology Assessment Group) ;
Institute for Technology Assessment & Systems Analysis (ITAS) ;
Danish Board of Technology (DBT) ;
Flemish Institute for Science and Technology Assessment (viWTA) ;
Parliamentary Office of Science & Technology (POST) ;
Rathenau Institute ;
Leonhard Hennen, ITAS

Politično področje Industrija | Raziskovalna politika

Ključna beseda izvršilna oblast in javna uprava | javno-zasebno partnerstvo | organizacija prevoza | POLITIKA | PROMET | satelitska navigacija | ustvarjanje delovnih mest | zaposlovanje | ZAPOSLOVANJE IN DELOVNE RAZMERE

Povzetek The present paper provides the documentation of a Workshop on the perspectives of the European Galileo satellite navigation system which took place at the European Parliament on September 13th, 2006.

Študija [EN](#)

Strategies for the Improvement of Global Human Health

Vrsta publikacije Študija

Datum 08-08-2006

Zunanji avtor ETAG (European Technology Assessment Group) ;
Institute for Technology Assessment and Systems Analysis (ITAS), Karlsruhe ;
Danish Board of Technology (DBT), Copenhagen ;
Flemish Institute for Science and Technology Assessment (viWTA), Brussels ;
Parliamentary Office of Science and Technology (POST), London, the UK ;
Rathenau Institute, The Hague, The Netherland ;
Elisabetta El-Karimy, Rathenau ;
Robby Deboelpeap, viWTA

Politično področje Industrija | Javno zdravje | Raziskovalna politika

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | farmacevtska industrija | inovacija | izdatki za zdravila | javno zdravje | medicinske raziskave | preprečevanje bolezni | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | raziskave in razvoj | sistem zdravstvenega varstva | zdravstvena služba | zdravstvo

Povzetek This report is the final Deliverable of the project Global Human Health commissioned by the Scientific and Technology Options Assessment (STOA) of the European Parliament and carried out by the European Technology Assessment Group (ETAG). It contains the summary of the workshop Strategies For The Improvement Of Global Human Health held on 29 June 2006 at the European Parliament in Brussels. The issues and recommendations raised at the workshop suggest topics for future technology assessment projects for STOA.

Main issues raised were:

- lack of successful coordination and cooperation in drug R&D;
- lack of investment in research of neglected and rare diseases;
- inequitable pricing of medicine;
- lack of considering health systems issues in research and funding.

Študija [EN](#)

How to Optimise the Efficiency of Science and Research, the Most Important Critical Success Factors of the High-Tech Economies - Scientific Methods Server

Vrsta publikacije Študija

Datum 01-09-2005

Zunanji avtor Walter Gränzer (Technische Universität München, Germany) with the support of Oliver Haas, Christian Hackl, Ulrich Wild (TUM-Tech GmbH, Germany)

Politično področje Raziskovalna politika

Ključna beseda biotehnologija | dokumentacija | FINANCE | financiranje in naložbe | inovacija | IZOBRAŽEVANJE IN KOMUNIKACIJE | javno financiranje | klasifikacija podjetij | POSLOVANJE IN KONKURENCA | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | raziskovalna metoda | razširjanje informacij | tehnologija in tehnični predpisi | zasebno podjetje | znanstvene raziskave

Povzetek The study provides the European Parliament with practicable solutions for raising substantially the efficiency of publicly funded academic research. The survey makes recommendations for raising efficiency

- in experimental research using biotechnology as an example,
- in the operation of research infrastructure and
- in technical research processes.

To this end, knowledge gained from commercial production processes is applied to research processes. In this regard it is essential to introduce new ways of thinking where research is concerned:

1. In many areas, research facilities function in a similar way to commercial enterprises.
2. For this reason value-creation is pursued also in research facilities.
3. Individual research processes are comparable with value-creation steps in the commercial economy.
4. Certain research processes and the deployed infrastructure contain significant potential for efficiency optimisation.

Študija [EN](#)

The Precautionary Principle in the Information Society - Effects of Pervasive Computing on Health and Environment

Vrsta publikacije Študija

Datum 01-08-2004

Zunanji avtor Lorenz M. Hilty, Andreas Köhler, Claudia Som, Arend Brunink, Siegfried Behrendt, Lorenz Erdmann, Felix Württemberger, Mathias Binswanger, Niels Kuster, Jürg Fröhlich

Politično področje Industrija | Javno zdravje | Okolje

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | elektromagnetne motnje | elektronika in elektrotehnika | gospodarska politika | GOSPODARSTVO | INDUSTRIJA | informacije in obdelava informacij | informacijska družba | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | mikroelektronika | obremenitve okolja | OKOLJE | okoljska politika | socialni okvir | socialni učinki | trajnostni razvoj | tveganje za zdravje | učinek informacijske tehnologije | vpliv na okolje | zdravstvo

Povzetek This study was drawn up on the instructions of TA Swiss.

Študija [EN](#)

Impact of the Trawl Fishery on the Stocks and the Environment in the Mediterranean

Vrsta publikacije Študija

Datum 01-02-2004

Zunanji avtor Integrated Environmental Management Ltd (IEM), Athens

Politično področje Okolje | Ribišтво

Ključna beseda KMETIJSTVO, GOZDARSTVO IN RIBIŠTVO | morski ekosistem | morsko okolje | naravno okolje | ohranjanje ribjega staleža | OKOLJE | okoljska politika | ribiška mreža | ribišтво | Sredozemsko morje | varstvo okolja

Povzetek The purpose of the study was to review and evaluate the consequences of trawl fishery in the Mediterranean in order to assist the European Parliament in its role.

Študija [EN](#)

Health and ICT in Developing Countries

Vrsta publikacije Študija

Datum 01-02-2004

Zunanji avtor Consultores Euroamericianos Asociados, Spain

Politično področje Industrija | Javno zdravje | Razvoj in humanitarna pomoč

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | države v razvoju | gospodarske razmere | GOSPODARSTVO | informacije in obdelava informacij | informacijska družba | informacijska tehnologija | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | PROIZVODNJA, TEHNOLOGIJA IN RAZIŠKOVANJE | tehnologija in tehnični predpisi | tehnološka sprememba | telekomunikacije | zdravstveno varstvo | zdravstvo

Povzetek This study was requested by the European Parliament's Committee on Development and Cooperation within the STOA Workplan 2002.

Študija [EN](#)

Production Capacity of the Renewable Energies in the European Union

Vrsta publikacije Študija

Datum 01-02-2004

Zunanji avtor Jörg Matthies, Cornelius Suchy and Andrei Belyi (ICEU GmbH, Brussels, Belgium)

Politično področje Energija | Kmetijstvo in razvoj podeželja | Okolje

Ključna beseda biomasa | cene | električna in jedrska energija | ENERGETIKA | energetska politika | FINANCE | gospodarska politika | GOSPODARSTVO | hidroelektrična energija | mehka tehnologija | obnovljiva energija | proizvodnja energije | PROIZVODNJA, TEHNOLOGIJA IN RAZIŠKOVANJE | razpoložljivi energetske viri | tehnologija in tehnični predpisi | trajnostni razvoj | tržna cena | čista energija | čista tehnologija

Povzetek The twofold aim of this study is, on the one hand, to outline the prospective production and capacity of renewable energy sources (RES) in the EU by 2010 in the context of current EU policies and targets and, on the other, to provide recommendations for policy makers to adopt adequate options and instruments for providing a vigorous and lasting impetus to RES development in the EU. The study is based on an analysis of trends in renewable energy technology (RET) development, available potentialities and costs, as well as current production and capacity levels. Policy recommendations are drawn from the gaps identified, the recognition of the barriers to RES development, and the clarification of potential policy options and tools.

Študija [EN](#)

Education and Information & Communication Technologies in Developing Countries

Vrsta publikacije Študija

Datum 01-02-2004

Zunanji avtor Maurizio Pedrelli (Pragmata, Italy)

Politično področje Industrija | Izobraževanje | Razvoj in humanitarna pomoč

Ključna beseda dostop do izobraževanja | države v razvoju | gospodarske razmere | GOSPODARSTVO | informacijska tehnologija | izobraževanje | izobraževanje | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | MEDNARODNI ODNOSI | mednarodno sodelovanje | politika sodelovanja | poučevanje | poučevanje | regionalno sodelovanje | učenje na daljavo

Povzetek The objective of this project is to explore how the new technologies are changing, and can change, patterns of education and learning in developing countries.

Študija [EN](#)

[Open-Source Software - in e-Government - Analysis and Recommendations Drawn Up by a Working Group under the Danish Board of Technology](#)

Vrsta publikacije Študija

Datum 15-12-2003

Zunanji avtor Jan Birk (Employment Training - AMU Centre, Copenhagen, Denmark), Jens Hørlück (Department of Economics, Århus University, Denmark), Niels Jørgensen (Department of Computer Science, Roskilde University Centre, Denmark) and Mogens Kühn Pedersen (Department of Informatics, Copenhagen Business School, Denmark)

Politično področje Demokracija EU, institucionalno in parlamentarno pravo | Ekonomske in monetarne zadeve | Industrija

Ključna beseda avtorska pravica | ekonomska analiza | ekonomske analize | elektronska uprava | GOSPODARSTVO | informacijska tehnologija | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | izvršilna oblast in javna uprava | javno podjetje | klasifikacija podjetij | komunikacije | POLITIKA | POSLOVANJE IN KONKURENCA | programska oprema | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | računalniško omrežje | uporaba informacijske tehnologije | učinek informacijske tehnologije

Študija [EN](#)

[Implementing Clean Coal Technologies - Need of Sustained Power Plant Equipment Supply for a Secure Energy Supply](#)

Vrsta publikacije Študija

Datum 15-12-2003

Zunanji avtor Decon Deutsche Energie-Consult Ingenieurgesellschaft mbH Bad Homburg (Germany)

Politično področje Energija | Okolje | Raziskovalna politika

Ključna beseda ENERGETIKA | energetska politika | energetska tehnologija | gospodarska politika | GOSPODARSTVO | oskrba z energijo | premog | premogovništvo in rudarstvo | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija in tehnični predpisi | trajnostni razvoj | čista tehnologija

Povzetek This study addresses the present and future role of high efficiency power plants based on Clean Coal Technologies (CCT). The overall objective of the study is to analyse the short and medium-term demand for the deployment of a low emission and high efficiency power plant using currently available CCT. The use of current available technology potential pro-vides a basis for ensuring the applicability and viability of new technologies. The European Commission has not only acknowledged the need to withdraw from a reliance on fuels not widely available within the EU, but also the necessity for further development of available technologies. It is all the more surprising that Clean Coal Technology plays a very minor part in the 6th Framework Programme for RTD.

Študija [EN](#)

[Protection and Implementation of Intellectual Property Rights in Security Technologies for Digital Media](#)

Vrsta publikacije Študija

Datum 15-12-2003

Zunanji avtor Franck Leprévost and Bertrand Warusfel (Faculté de Droit de Paris V, Paris, France)

Politično področje Industrija | Kultura | Pravo intelektualne lastnine

Ključna beseda digitalna tehnologija | informacije in obdelava informacij | informacijska industrija | informacijska tehnologija | intelektualna lastnina | IZOBRAŽEVANJE IN KOMUNIKACIJE | kazensko pravo | komunikacije | ponarejanje denarja | PRAVO | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | standardizacija | tehnologija in tehnični predpisi

Povzetek The present study concerns the protection and implementation of intellectual property rights in security technologies for digital media. Since digital media is a broad concept, the focus of this study is on digital content (sound, pictures or a combination thereof) involving the transfer of value. What is of interest here is not so much an exhaustive description of detailed technological solutions, but rather an analysis of their generic properties and their classification according to these properties. One of the major goals of the study was to describe how the choice of certain security technologies and their implementation would affect the structures of business in the information sector (access providers, content providers, copyright associations, etc.), as well as the legal context of access and use of the information resources by consumers (especially in connection with the new 2001 Copyright Directive). It was, of course, necessary to identify the potential standards (which may already be industry standards, and/or standards already delivered by standardisation bodies), and their interoperability.

Študija [EN](#)

Cultural Diversity in the New Media

Vrsta publikacije Poglobljena analiza

Datum 15-12-2003

Zunanji avtor Jesse B.T. Marsh (Atelier Studio Associato, Palermo, Italy)

Politično področje Industrija | Kultura

Ključna beseda avdiovizualna industrija | avdiovizualna produkcija | DRUŽBENA IN SOCIALNA VPRAŠANJA | informacije in obdelava informacij | informacijska družba | informacijska tehnologija | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | kultura in religija | kulturni pluralizem

Povzetek This study integrates and updates the findings of three previous STOA studies dealing with cultural diversity, globalisation and new media. It first provides a brief overview of each of the studies and then examines events that have taken place since 1999 which have radically changed the policy environment with new collective perceptions of culture, safety, technology and industry: nearly all the components of the equation. The broad trend identified is a shift from the technical to the meaningful. Citizens' concerns about culture, technology, economy and progress are being perceived in more human terms, while policy-makers need to learn to 'listen' to these processes and anticipate collective desires for identity in positive rather than defensive terms. Three key issues are examined in this context: economies without money, de-coding knowledge and the sense of home. Policy options are set forth within a broad framework addressing technical literacy, cultural literacy and collective creativity, calling for an overall shift from industrial policy to one based on social innovation. Concrete examples for action are also provided, in the context of on-going programmes.

Poglobljena analiza [EN](#)

Alternative Automotive Fuels - Supply, Technological and Environmental Scenarios to 2030

Vrsta publikacije Študija

Datum 01-12-2003

Zunanji avtor Tobias Kampet, Andreas Jahn, Henning Niemeyer (MVV Consultants and Engineers GmbH, Berlin, Germany)

Politično področje Energija | Okolje | Promet

Ključna beseda ENERGETIKA | energetska politika | energetska tehnologija | nadomestno gorivo | naftna industrija | pogonsko gorivo | poraba energije | razpoložljivi energetski viri | zemeljski plin

Povzetek This study was carried out on behalf and with the support of the European Parliament, DG for Research, Division for Industry, Research, Energy, Environment and STOA programme. The report has been prepared by Tobias Kampet, Andreas Jahn and Henning Niemeyer of MVV Consultants and Engineers GmbH. The consultants are particularly grateful to Dr. Peter Palinkas who supported the work at the European Parliament.

Študija [EN](#)

Evaluation of the Use of New Technologies in Order to Facilitate Democracy in Europe

Vrsta publikacije Študija

Datum 01-10-2003

Zunanji avtor Raphael KIES, Fernando MENDEZ and Philippe C. SCHMITTER (European University Institute, Florence, Italy)

Politično področje Demokracija EU, institucionalno in parlamentarno pravo | Industrija

Ključna beseda demokracija | informacijska tehnologija | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | parlament | parlament | POLITIKA | politična stranka | politična stranka | politični okvir | spletna stran

Povzetek This report is about the one of the latest changes in the 'technology of democracy' and how it may impact on some of our core institutions of democratic representation: parliaments and parties. As in the past, whenever something new was injected into the processes of election and representation pundits have emerged to argue that the nature of democracy would be transformed. This is no less true for one of the latest potential changes in the 'technology of democracy', namely the introduction into the democratic realm of information and communication technologies (ICT). This report evaluates whether the introduction and diffusion of ICT is having a significant impact upon the practice of democracy in the member and candidate states of the European Union. Two research strategies have been employed: The first is a comparative website analysis of parliamentary and political parties' websites. The second is a series of case studies and country reports which focus on e-democracy initiatives across the 26 polities we survey. The results of our core empirical analysis indicate that there is considerable variation among both parliaments and parties as far as the development of their websites is concerned. Existing member states tend to have more developed websites and, overall, the quality of parliamentary websites tends to be slightly superior to that of party websites. Most surprisingly, familiarity and use of ICT – as well as higher levels of wealth - do not inexorably lead to better website development. Differences in party systems – its fragmentation, ideological orientation, levels of turnout, distribution of major and minor parties- also do not seem to have a significant impact on website development for parliaments or parties. The variations we have observed suggest that it is political actors' strategies rather than ICT development or other institutional variables that are driving parliaments and parties' website development. To supplement the qu

Študija [EN](#)

[The Comparative Study of the Cultural Products and Services Industry EU-USA](#)

Vrsta publikacije Študija

Datum 15-07-2003

Zunanji avtor EUCLID (Liverpool, United Kingdom)

Politično področje Industrija | Kultura | Pravo intelektualne lastnine

Ključna beseda Amerika | digitalna tehnologija | dokumentacija | DRUŽBENA IN SOCIALNA VPRAŠANJA | ekonomska geografija | ekonomska vrednost | ekonomske analize | EVROPSKA UNIJA | finance EU | financiranje EU | GEOGRAFIJA | GOSPODARSTVO | intelektualna lastnina | interaktivno omrežje | IZOBRAŽEVANJE IN KOMUNIKACIJE | književna in umetniška lastnina | komunikacije | komunikacijska industrija | kultura in religija | kulturna industrija | politična geografija | primerjalna študija | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | tehnologija in tehnični predpisi | umetniško ustvarjanje | Združene države

Povzetek The focus of the study is the cultural products and services industries in the EU, and similar sectors in the US. There have been a number of definitions of the cultural industries sector proposed by various governments and other agencies, and this study will focus on the following sectors as they are generally acknowledged as the main areas of potential economic impact:

- Audiovisual: including cinema, video and DVD
- Broadcasting: including television and radio
- The music recording industry
- Publishing

The main purpose of this study is to identify a range of options that the European Parliament could consider, and perhaps adopt as European Community strategy.

Študija [EN](#)

[Updated Report on the "Health Risks Posed by Silicone Implants in General, with a Special Attention to Breast Implants"](#)

Vrsta publikacije Študija

Datum 01-06-2003

Zunanji avtor L. Gorgojo, J. González-Enríquez, W. Wisbaum and J. Martín-Moreno

Politično področje Javno zdravje

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | estetska kirurgija | tveganje za zdravje | zdravstvo

Povzetek Three years after the submission of the May 2000 study and in light of the Commission Communication of 2001 and the Commission Directive of 2003, there is interest in a small update of our study to learn whether there is new evidence or information on silicone breast implants and their potential implications. This update does not serve as a stand-alone study, but should be considered alongside, and as an addendum to, the main study, 'Health risks posed by silicone implants in general, with a special attention to breast implants', from May 2000.

Študija [EN](#)

[Thermonuclear Fusion - Current Status](#)

Vrsta publikacije Študija

Datum 01-03-2003

Zunanji avtor Armin Grunwald, Reinhard Gruenwald, Dagmar Oertel, Herbert Paschen, Office for Technology Assessment Attached to the German Bundestag

Politično področje Energija | Okolje | Raziskovalna politika

Ključna beseda električna in jedrska energija | ENERGETIKA | energetska politika | energetska tehnologija | jedrska fuzija | jedrska varnost | jedrske raziskave | OKOLJE | okoljska politika | vpliv na okolje

Povzetek Between the discovery of its fundamental principles and the possible availability of commercially usable fusion power there will probably (and remarkably) be a period of around 100 years of intensive (and very expensive) R&D. It is difficult to say definitively whether fusion research is still more a matter of fundamental research or has progressed into the stage of development of an energy technology. In this context, this study addresses the following questions:

- What is the cost of fusion research?
- Do we need thermonuclear fusion?
- Is thermonuclear fusion safe?
- Is electricity from thermonuclear fusion economical?
- Is electricity from thermonuclear fusion ecologically sound?
- Is thermonuclear fusion socially sustainable?

In the light of these questions, and the answers presented, the study then explores different options for how to proceed (or not) with the fusion R&D programmes.

Študija [EN](#)

[Les bibliothèques virtuelles et l'enseignement: évaluation de la technologie \(actualisation de l'étude de 1998\)](#)

Vrsta publikacije Študija

Datum 01-11-2002

Zunanji avtor Eric Sutter (Bureau Van Dijk, Paris, France)

Politično področje Izobraževanje | Kultura

Povzetek L'objectif de la promotion des bibliothèques virtuelles comme source de données est d'une part de faciliter la création et le développement de ces bibliothèques et d'autre part d'encourager l'usage de ce nouvel outil dans l'enseignement secondaire, supérieur et à distance. Le but ultime sera de permettre aux enseignants et aux étudiants de tout niveau d'accéder à tout moment et en tout lieu aux données contenues dans ces ressources documentaires.

Študija [FR](#)

[Information and Communication Technologies in Education and Training](#)

Vrsta publikacije Pogljbljena analiza

Datum 16-09-2002

Zunanji avtor Robin Mason (The Open University, Walton Hall, Milton Keynes, the UK)

Politično področje Industrija | Izobraževanje

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | družbene in socialne zadeve | informacijska tehnologija | internet | izobraževanje | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | organizacija pouka | osebni razvoj | učenje na daljavo | šolski sistem

Povzetek The impact of the Internet on learning has, if anything, been even more profound than the original report predicted, both in terms of what needs to be known and how it needs to be learned. The proliferation of information on the web has led to a greater emphasis on process - on learning how to e-learn - than on learning content. The connectivity of the web has led to the need for team-working skills and the ability to interact online with people, with resources and with ideas.
The present e-learning market is immature, moving from a command structure to a demand structure with all the discomfort, confusions and uncertainties that brings.
Whilst accreditation for learning and especially for e-learning is important and needs strengthening, there is also great demand for short, e-learning opportunities, which are just-in-time and just-the-right-amount. Training providers are working to establish standards which allow these learning objects to be interoperable.
The role of the teacher/trainer/tutor is changing rapidly. E-learning is empowering the individual learner so that the teacher is no longer the gatekeeper of knowledge. Technology facilitates continuous professional development for both learner and teacher. There is no evidence that the role is diminishing, but merely evolving.
There is a pressing need for organisations (schools, colleges, universities and training providers) to move to a more learner-centred approach to education which can be anywhere, anytime the student requires it.
Schools should be seen as opportunity centres, creating the habit of lifelong learning, reaching out to be a learning resource for the community.
E-learning has reinforced the importance of informal learning and helped to bring about a convergence between learning and working, between learning and communicating, and between learning and entertainment.
A robust and competent information advice and guidance system for individuals of all age groups and at all levels of learning

Pogljbljena analiza [EN](#)

[Nanotechnology Advances in Europe](#)

Vrsta publikacije Pogljbljena analiza

Datum 15-04-2002

Zunanji avtor S. Dunn and R.W. Whatmore (University of Cranfield, the UK)

Politično področje Izobraževanje | Raziskovalna politika

Ključna beseda inovacija | IZOBRAŽEVANJE IN KOMUNIKACIJE | nanotehnologija | ozaveščanje javnosti | POLITIKA | politika in javna varnost | poučevanje | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | raziskave in razvoj | raziskovalci | tehnologija in tehnični predpisi | visokošolsko izobraževanje

Povzetek Nanotechnology is currently an area of research focus in most developed nations. The effort in research and development in Europe is the largest, in terms of publications, in the world. The research conducted in Europe covers all of the main nanotechnology research areas and varies from country to country, due mainly to the historical manufacturing base.
The issues raised concern the lack of availability of suitable staff and students, a lack of accessible information about networking possibilities (for those new to the field) and concerns over the public perception of nanotechnology. The movement to larger research grants also concerns many as this is seen as potentially a move from emphasis on fundamental research to more short term goals. The generation of large collaborative centers of excellence concerns those who are not involved as they foresee the danger of politicisation, more difficulties in getting funding and further difficulties in getting staff. Funding for networking opportunities was criticised as being spread too thinly, though networking was described as adequate, by those who have been in the research field for a number of years.
The lack of suitable staff and students from within Europe is a major concern. The development of undergraduate and postgraduate training packages directed at nanotechnology was seen as beneficial, but the lack of funding for these initiatives was a concern.
The perception of nanotechnology by the general public was seen as dangerous for those conducting the research. Too much emphasis was placed on sensational reporting of nanotechnology that is unlikely to impact on people's lives in the near future, while nanotechnology with direct impact on people's lives was left largely unreported. The gap between the awareness and reporting of science in the US and Europe was a concern for some who felt that although they are conducting first class work there is little publicity for it in Europe.

Pogljbljena analiza [EN](#)

[The Specific Programmes of the 6th Framework Programme RTD - RTD EURATOM 2002-2006](#)

Vrsta publikacije Študija

Datum 15-03-2002

Zunanji avtor Pierre VERNET and Sophie ROGER-MARCHANT (Taylor Nelson Sofres Consulting, Montrouge, France)

Politično področje Energija | Proračun | Raziskovalna politika

Ključna beseda električna in jedrska energija | ENERGETIKA | EVROPSKA UNIJA | finance EU | jedrska energija | jedrska varnost | jedrske raziskave | odhodki za raziskave (EU) | okvirni program za raziskave in razvoj | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina

Povzetek This report provides the European Parliament (EP) with relevant analyses of the nuclear related parts of the specific programmes implementing the Sixth FP Euratom on research and training.

Študija [EN](#)

[European Union Action in the Tourism Sector - Improving Support Measures for Sustainable Tourism](#)

Vrsta publikacije Študija

Datum 15-02-2002

Zunanji avtor Herbert Hamele (Ecotrans e.V. of Saarbrücken, Germany)

Politično področje Okolje | Turizem

Ključna beseda druge gospodarske dejavnosti | DRUŽBENA IN SOCIALNA VPRAŠANJA | družbene in socialne zadeve | ekološki turizem | EVROPSKA UNIJA | GOSPODARSTVO | graditev Evrope | INDUSTRIJA | poštteni turizem | regije in regionalna politika | storitvene dejavnosti | turistična politika | turistično območje | ukrep EU

Povzetek The report is based on the analysis of a number of documents from the EU and the industry relevant to the nature of the tourism sector, policy-making issues, and the more general area of sustainable development. The introduction to the report outlines the process of sustainable tourism. It briefly discusses the effects of the 11th September, and provides a brief overview of the European tourism industry and its place in the global economy. The first part of the report presents options on EU policy improvements that would facilitate the move towards this process. A total of 26 recommendations are suggested, alongside a systemic methodology to guide their implementation. The second Part of the report examines the arguments and evidence behind the policy improvement recommendations. It separates current EC funding programmes and EC sustainable development strategies, demonstrating current types of support measures for sustainable tourism. Evidence from four Member States (Germany, the UK, Portugal and Italy) is presented in this section to augment the perspective from which to view the policy recommendations of Part A. A series of Annexes support the document, including the reports from the four countries and information on EU funding programmes.

Študija [EN](#)

[The European Parliament and the Euratom Treaty : Past, Present and Future](#)

Vrsta publikacije Študija

Datum 01-02-2002

Zunanji avtor Mervyn O' Driscoll (University College Cork, for Part One) and Gordon Lake (Directorate-General for Research) with the assistance of Berthold Rittberger (for Part Two) ; strategy paper two : Juliet Lodge (University of Leeds)

Politično področje Demokracija EU, institucionalno in parlamentarno pravo | Energija | Raziskovalna politika

Ključna beseda električna in jedrska energija | ENERGETIKA | energetska politika | energetska politika | ESAE | EVROPSKA UNIJA | graditev Evrope | institucije EU in evropska javna uprava | jedrska energija | jedrska tehnologija | jedrska varnost | jedrske raziskave | medinstitucionalni odnosi (EU) | pravo Evropske unije | revizija Pogodbe (EU) | trgovina | TRGOVINA | zanesljivost oskrbe

Povzetek Part One of the study is a history of the Euratom Treaty, which covers the period from the early 1950s to the late 1960s. Part Two of the study considers and analyses the most important provisions of the Euratom Treaty, chapter by chapter, and then Part Three offers some thoughts on possible strategies which the Parliament might use so as to reduce the 'democratic deficit' which is generally thought to characterise the Euratom Treaty.

Študija [EN](#)

[La portée des nouveaux instruments sur les actions de recherche et développement technologique dans le programme-cadre 2002-2006](#)

Vrsta publikacije Študija

Datum 01-01-2002

Avtor HELLARA Cristina | KARAPIPERIS Theodoros

Politično področje Pravo EU: pravni sistem in akti | Proračun | Raziskovalna politika

Povzetek La démarche proposée par cette étude est l'examen descriptif et analytique des instruments du nouveau Programme-cadre RDT 2002-2006.

Študija [FR](#)

Civilian and Military Air Traffic Control in the EU

Vrsta publikacije Študija

Datum 01-11-2001

Zunanji avtor Stefanos Thomas (Athens, Greece)

Politično področje Promet | Raziskovalna politika | Varnost in obramba

Ključna beseda INDUSTRIJA | kontrola zračnega prometa | letališče | letalska industrija | letalski potniški promet | MEDNARODNI ODNOSI | obramba | organizacija prevoza | PROMET | prometna politika | satelitska navigacija | strojogradnja | vojaški zrakoplov | zračna flota | zračni in vesoljski promet | zračni promet

Povzetek This Final Study on 'Civilian and Military Air Traffic Control in the EU' presents, on the one side, a factual assessment of Air Traffic Control (ATC) performance in the European Civil Aviation Conference (ECAC) area and, on the other side, introduces a strong, transparent and independent performance review and target setting system of regulations and technical aspects to facilitate more effective management of the European Air Traffic Management (ATM) system.

Študija [EN](#)

Possible Toxic Effects from the Nuclear Reprocessing Plants at Sellafield (UK) and Cap de la Hague (France)

Vrsta publikacije Študija

Datum 01-11-2001

Zunanji avtor Schneider, M., Coeytaux, X., Faïd, Y.B., Marignac, Y., Rouy, E. (WISE, Paris, France) ;
Thompson, G. (IRSS, Cambridge, USA) ;
Fairlie, I., Lowry, D., Sumner, D. (Independent consultants)

Politično področje Industrija | Javno zdravje | Okolje | Pravo EU: pravni sistem in akti

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | ekonomska geografija | električna in jedrska energija | ENERGETIKA | Evropa | Francija | GEOGRAFIJA | jedrska elektrarna | mednarodno pravo | mednarodno pravo | obremenitve okolja | OKOLJE | politična geografija | PRAVO | strupena snov | tveganje za zdravje | zdravstvo | Združeno kraljestvo

Povzetek The principal aim of this report is to assist the Committee of Petitions of the European Parliament in its consideration of Petition 393/95 brought by Dr. W. Nachtwey. The Petition expresses concerns about radioactive discharges from nuclear reprocessing plants at Sellafield in the UK and La Hague in France, and their possible adverse health effects.

Študija [EN](#)

Technological Requirements for Solutions in the Conservation and Protection of Historic Monuments and Archaeological Remains

Vrsta publikacije Študija

Datum 01-10-2001

Zunanji avtor May Cassar, Centre for Historic Buildings, Collections and Sites, Bartlett School of Graduate Studies, University College, London

Politično področje Kultura | Raziskovalna politika

Ključna beseda arheologija | DRUŽBENA IN SOCIALNA VPRAŠANJA | družboslovne vede | kultura in religija | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | raziskovalni proračun | spomenik | varstvo kulturne dediščine | zgodovinska znamenitost | ZNANOST

Povzetek This Study has discovered many achievements associated with European support for scientific and technological research for the protection and conservation of cultural heritage.

Študija [EN](#)

Effects on the Fisheries Industry of the Commission Proposals (SANCO) on Dioxin Content of Fish, Fish Oil and Fish Meal as Part of Animal Feed Regulations

Vrsta publikacije Študija

Datum 01-10-2001

Zunanji avtor R. Joas (BiPRO) and A. Potrykus (IRCE)

Politično področje Industrija | Javno zdravje | Ribištvo | Varnost hrane

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | ekonomske analize | GOSPODARSTVO | kmetijstvo | KMETIJSTVO, GOZDARSTVO IN RIBIŠTVO | obremenitve okolja | OKOLJE | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | ribištvo | ribištvo | standard kakovosti | strupena snov | tehnologija in tehnični predpisi | tveganje za zdravje | varnost hrane | zdravstvo | študija učinkov | živalska krma

Povzetek Recently some fish and fish products of European origin have been identified as major contributors to the dioxin contamination of feed materials finally occurring in the human food chain and according to the Scientific Committee on Animal Nutrition emphasis should be put on reducing the impact of the most contaminated feed materials such as fish oil or fish meal from Europe on overall diet contamination. Therefore the European Commission wants to set maximum limits for feed, including fish and fish products by amending Directive 1999/29/EC and to establish action and target limits in a Commission Recommendation to be adopted concurrently. This may affect the fisheries industry.

Študija [EN](#)

[The Consequences of Enlargement for EU Agriculture](#)

Vrsta publikacije Študija

Datum 01-10-2001

Zunanji avtor Dr. Dimitris Papaioannou (Integrated Environmental Management, Athens, Greece)

Politično področje Demokracija EU, institucionalno in parlamentarno pravo | Ekonomske in monetarne zadeve | Kmetijstvo in razvoj podeželja | Okolje | Socialna politika

Ključna beseda ekološko ravnovesje | ekonomska analiza | ekonomske analize | EVROPSKA UNIJA | GOSPODARSTVO | graditev Evrope | kmetijska delovna sila | kmetijska politika | kmetijska proizvodnja | kmetijski sistemi | kmetijski trg EU | KMETIJSTVO, GOZDARSTVO IN RIBIŠTVO | naravno okolje | obdelovanje kmetijskih zemljišč | OKOLJE | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raba tal | razvoj podeželja | regije in regionalna politika | skupna kmetijska politika | tehnologija in tehnični predpisi | usklajevanje standardov | širitev Evropske unije

Povzetek The significant structural changes that have been occurring in rural Europe, especially since the beginning of the last decade, involve the declining role of agriculture, the enhancement of structural development policies, the diversification of rural labour markets and the increasing importance of environmental issues. EU enlargement is going to create both pressure and opportunities in existing EU Member States and accession counties.

Študija [EN](#)

[Das Urteil des EuGH zur Tabakwerberichtlinie 98/43/EG](#)

Vrsta publikacije Študija

Datum 01-09-2001

Zunanji avtor Ulrike Im Sande

Politično področje Javno zdravje | Pravo EU: pravni sistem in akti

Povzetek Das Urteil zur Tabakwerberichtlinie hat eine lebhafte Diskussion zur Abgrenzung der Kompetenzen der Organe der EU ausgelöst. Diese Studie gibt einen historischen Überblick, sowie eine Einschätzung zur weiteren Entwicklung in diesem Bereich.

Študija [DE](#)

[Neurotoxicity of Environmental Pollutants](#)

Vrsta publikacije Študija

Datum 16-07-2001

Zunanji avtor Pierre OUDIN (SEMACO Environnement, France)

Politično področje Industrija | Javno zdravje | Okolje | Pravo EU: pravni sistem in akti | Raziskovalna politika

Ključna beseda boleznj živčevja | DRUŽBENA IN SOCIALNA VPRAŠANJA | obremenitve okolja | OKOLJE | okoljska politika | okoljska politika | onesnaževalo | organizacija dela in delovne razmere | preprečevanje bolezni | strupena snov | tveganje za zdravje | varstvo pri delu | ZAPOSLOVANJE IN DELOVNE RAZMERE | zdravstvo

Povzetek This study looks at the neurotoxicity of environmental pollutants. Industrial advances and the unending search for more sophisticated manufacturing processes mean that new chemicals are being manufactured and synthesised all the time. The wide range of these, and the highly diversified ways in which they are used, represent a potential risk to health and more particularly to our central and peripheral nervous systems which, by virtue of their structure and make-up, are especially susceptible to environmental pollutants. We know that some 1 000 new synthetic products are launched on to the market every year, so the potential impact of these substances on human health, and on the environment too, is naturally a matter of great concern.

Študija [EN](#)

[Legal, Technical and Policy Differences between the New Framework Programme RTD 2002-2006 and Previous Programmes](#)

Vrsta publikacije Študija

Datum 16-07-2001

Zunanji avtor University of Oviedo Foundation (Oviedo, Spain)

Politično področje Industrija | Proračun | Raziskovalna politika

Ključna beseda dejavnost EU | ekonomija znanja | EVROPSKA UNIJA | gospodarska struktura | GOSPODARSTVO | graditev Evrope | inovacija | okvirni program za raziskave in razvoj | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | raziskave in razvoj | raziskovalni proračun

Povzetek The purpose of this study is to analyse the new Framework Programme 2002-2006 for Research and Technological Development (FPRTD), with selective comparisons with the preceding framework programmes, particularly the Fifth Framework Programme for Research and Technological Development (1998-2002). This analysis will focus in particular on the legal, technical and policy aspects of the new framework programme and will be developed on the basis of its essential elements, i.e.: the pillars of the framework programme, particularly the legal basis and criteria for selecting priorities, its structure based on the priority themes, and the instruments for its implementation. A detailed analysis will also be made of the development of the budgets allotted to the framework programmes, particularly to the new Framework Programme for RTD (2002-2006), concluding with a list of the various topical subjects open to public debate.

Študija [EN](#)

Technological Feasibility of Reducing the Costs of Small Cross-Border Credit Transfers (CBCTS) within the Euro-Zone

Vrsta publikacije Študija

Datum 16-07-2001

Zunanji avtor European International University (Brussels, Belgium)

Politično področje Ekonomske in monetarne zadeve | Finančna in bančna vprašanja

Ključna beseda bančni sistem | denarni odnosi | denarno poslovanje | devizni posej | elektronski denar | euroobmočje | FINANCE | finančni trg | kreditna politika | kreditne in finančne institucije | mikrokredit | prenos kapitala | prost pretok kapitala

Študija [EN](#)

Globalisation of the Media Industry and Possible Threats to Cultural Diversity

Vrsta publikacije Študija

Datum 01-07-2001

Zunanji avtor Dr Maria Teresa La Porte Alfaro, together with Dr. Teresa Sabada, University of Navarra, Spain

Politično področje Industrija | Kultura

Ključna beseda avdiovizualna produkcija | DRUŽBENA IN SOCIALNA VPRAŠANJA | globalizacija | gospodarska politika | GOSPODARSTVO | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | komunikacijska industrija | konkurenčnost | kultura in religija | kulturna politika | kulturni pluralizem | nova tehnologija | organizacija poslovanja | POSLOVANJE IN KONKURENCA | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija in tehnični predpisi

Povzetek The objective of this report is to assess if the new circumstances produced by globalisation in the media industry represent a threat for cultural diversity and, if this is the case, to determine the areas affected and evaluate the consequences for the content distributed by the media.

Študija [EN](#)

Cultural Diversity and the Information Society

Vrsta publikacije Študija

Datum 01-07-2001

Zunanji avtor Jesse B.T. Marsh (Atelier Studio Associato, Palermo, Italy)

Politično področje Industrija | Kultura

Ključna beseda digitalna tehnologija | DRUŽBENA IN SOCIALNA VPRAŠANJA | globalizacija | gospodarska politika | GOSPODARSTVO | informacije in obdelava informacij | informacijska družba | inovacija | izobraževalna politika | izobraževanje | IZOBRAŽEVANJE IN KOMUNIKACIJE | kultura in religija | kulturna prepoznavnost | kulturne razlike | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | tehnologija in tehnični predpisi

Povzetek The forces of globalisation and technology development are paradoxical by nature, offering both threats and opportunities for cultural diversity. Yet the information society is currently perceived only as an economic imperative in a new environment shaped by rapid information technology developments, based on visions shaped primarily by technologist and business concerns and priorities. The prevailing options embedded in these visions, such as globalisation based on cultural homogenisation, are questionable not only from a political and social standpoint, but also in economic terms. In the final analysis, information society developments will hinge on political and social acceptance, for better or worse

Študija [EN](#)

Meeting Demand for Sustainable Transport and Transport Infrastructure in the Enlarged European Union

Vrsta publikacije Študija

Datum 01-06-2001

Zunanji avtor Lucio di Martino, Alain Fayard, Maurice Genete and Gilbert Meyer, Luxembourg/France

Politično področje Okolje | Promet

Ključna beseda OKOLJE | okoljska politika | PROMET | prometna infrastruktura | prometna politika | skupna prometna politika | trajnostna mobilnost | vpliv na okolje

Povzetek The achievement of sustainable mobility in the enlarged European Union poses numerous complex challenges. The present study identifies various types of action that could be taken to improve the effectiveness of the common transport policy.

Študija [EN](#), [FR](#)

[Technology Co-Operation in the Field of Environmentally Sound Technologies](#)

Vrsta publikacije Študija

Datum 01-06-2001

Zunanji avtor IED - Innovation Energie Développement - France

Politično področje Energija | Okolje | Promet | Raziskovalna politika | Razvoj in humanitarna pomoč

Ključna beseda ENERGETIKA | gospodarska politika | GOSPODARSTVO | MEDNARODNI ODNOSI | obnovljiva energija | OKOLJE | okoljska politika | okoljski standard | okoljsko sodelovanje | politika sodelovanja | pomoč za posodobitev | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | PROMET | prometna politika | ravnanje z odpadki | standard kakovosti | tehnologija in tehnični predpisi | trajnostna mobilnost | trajnostni razvoj | upravljanje voda | čista energija

Povzetek This Options Brief suggests actions which might be taken by European Institutions to help increase the use of Environmentally Sound Technologies in co-operation projects.

Študija [EN](#)

[Depleted Uranium : Environmental and Health Effects in the Gulf War, Bosnia and Kosovo](#)

Vrsta publikacije Študija

Datum 01-05-2001

Zunanji avtor Spiez Laboratory, Spiez

Politično področje Javno zdravje | Okolje | Varnost in obramba

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | električna in jedrska energija | ENERGETIKA | konvencionalno orožje | mednarodna varnost | MEDNARODNI ODNOSI | obramba | OKOLJE | okoljska politika | tveganje za zdravje | uran | vojna | vpliv na okolje | zdravstvo

Povzetek The authors conclude that the use of DU ammunition in Iraq and the Balkans neither has led to a serious widespread contamination of the environment nor represents an acute or appreciable long-term hazard for man's health.

Študija [EN](#)

[Security Technologies for Digital Media](#)

Vrsta publikacije Študija

Datum 01-05-2001

Zunanji avtor Franck Leprevost (Université de Grenoble, France) and Bertrand Warusfel (Université de Paris V, Paris, France)

Politično področje Industrija | Kultura | Pravo intelektualne lastnine

Ključna beseda avtorska pravica | digitalna tehnologija | informacije in obdelava informacij | informacijska družba | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | pravice in svoboščine | pravni viri in pravna področja | PRAVO | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | računalniška kriminaliteta | tehnologija in tehnični predpisi | telekomunikacije | uskladitveni pravni akt | zaupnost | zaščita komunikacij

Povzetek The aim of this study is to present a number of options on the question of digital content security technology to the European Parliament, particularly the Committee on Legal Affairs and the Internal Market, and the European Commission, including operational options.

Študija [EN](#), [FR](#)

[New Technologies in Defence Policy and Conflict Management : a Challenge for the EU](#)

Vrsta publikacije Študija

Datum 01-05-2001

Zunanji avtor TNO Physics and Electronics Laboratory, The Hague, and IABG, Munich, Germany

Politično področje Demokracija EU, institucionalno in parlamentarno pravo | Industrija | Varnost in obramba

Ključna beseda evropska obrambna politika | EVROPSKA UNIJA | evropska varnost | graditev Evrope | institucije EU in evropska javna uprava | institucionalne pristojnosti (EU) | mednarodna varnost | mednarodni konflikt | MEDNARODNI ODNOSI | mir | nova tehnologija | oborožitvena industrija | obramba | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | raziskave in razvoj | skupna varnostna in obrambna politika | tehnologija in tehnični predpisi | vojaška oprema

Povzetek The general aim of this study is to address a wide range of options for the EU's Common Security and Defence Policy (ESDP), taking into account the respective roles of the European Council and the High Representative (HR), the EU Commission and the European Parliament. The focus is on military capabilities and technology areas needed to implement the Petersberg tasks as embodied in the Treaty on the European Union (Art. 17 (2) / TEU).

Študija [EN](#)

Ecological Footprinting

Vrsta publikacije Študija

Datum 01-03-2001

Zunanji avtor ECOTEC Research and Consulting Limited, UK

Politično področje Ekonomske in monetarne zadeve | Okolje

Ključna beseda ekonomska analiza | ekonomske analize | gospodarski kazalec | GOSPODARSTVO | OKOLJE | okoljska politika | okoljski indikator | statistična metoda

Povzetek This report presents arguments and evidence reviewing the Ecological Footprinting methodology, comparing it with official and non-official indicators that are currently under development.

Študija [EN](#)

Developing Countries and the ICT Revolution

Vrsta publikacije Študija

Datum 01-03-2001

Zunanji avtor Maurizio Pedrelli (Pragmata srl, Reggio Emilia, Italy)

Politično področje Industrija | Razvoj in humanitarna pomoč

Ključna beseda digitalni razkorak | države v razvoju | gospodarske razmere | GOSPODARSTVO | INDUSTRIJA | industrija informacijske tehnologije | industrijski razvoj | industrijsko sodelovanje | informacije in obdelava informacij | informacijska tehnologija | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | MEDNARODNI ODNOSI | organiziranost industrije in industrijska politika | politika sodelovanja | prenos tehnologije | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | razvojni potencial | tehnologija in tehnični predpisi

Povzetek The objective of this project is to look at the potential role of the EU in supporting ICT capacity-building in low-income countries.

Študija [EN](#)

The Environmental and Health Impact of Aviation

Vrsta publikacije Študija

Datum 01-03-2001

Zunanji avtor Nicolas Cottis (ICF Environnement and Peter Morrell, Cranfield University, UK)

Politično področje Javno zdravje | Okolje | Promet

Ključna beseda davek na goriva | DRUŽBENA IN SOCIALNA VPRAŠANJA | ENERGETIKA | FINANCE | kerozin | naftna industrija | obdavčenje | obremenitev s hrupom | obremenitve okolja | OKOLJE | okoljska politika | prevoz po zraku | PROMET | tveganje za zdravje | zdravstvo | zmanjšanje emisij plinov | zračni in vesoljski promet

Povzetek This report summarises policy options and provides background information relevant to the impact of aviation on the environment and on human health. The report focuses on the impacts judged to be most significant and has been carried out through a combination of literature survey (reviewed literature and available grey literature), interviews with individuals from key European organisations involved in aviation, environment, or aviation medicine, and internet research.

The impacts surveyed are aircraft noise, aircraft engine emissions (especially their impact on climate), resource use, and human health impacts from cosmic radiation, cabin air quality (pathogens, volatile organic compounds), and deep vein thrombosis. Policy options are identified where appropriate and the background information required to understand the options is provided and notes on broader issues are included.

The key issues currently relate to (1) the next round of agreements on aircraft noise ("chapter 4 aircraft"), (2) the steps to be taken to include aviation in the steps to stabilise emissions of carbon dioxide (because of their role in climate change), and (3) concerns about passenger health. Of these, the noise agreements are closest to being finalised, the climate change concerns are important but are further from agreement, and the current consensus is that there is little evidence to justify serious concern over passenger health although airlines could improve their practices.

The report includes an extensive list of sources which can be consulted for further information.

Študija [EN](#)

The Physiological and Environmental Effects of Non-Ionising Electromagnetic Radiation

Vrsta publikacije Poglobljena analiza

Datum 01-03-2001

Zunanji avtor Gerard Hyland (University of Warwick, UK)

Politično področje Industrija | Javno zdravje | Okolje

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | mobilni telefon | neionizirajoče sevanje | obremenitve okolja | OKOLJE | okoljska politika | tveganje za zdravje | vpliv na okolje | zdravstvo

Povzetek This Study focuses upon an aspect of how living organisms and humans in particular can be adversely affected by highly coherent electromagnetic fields of technological origin, in a way that is not entertained or addressed by existing Safety Guidelines – namely, through the possibility of nonthermal, frequency-specific influences of an informational nature. Supporting evidence is presented, and attention drawn to a disturbing consistency between some of these influences and the nature of certain adverse health effects found amongst some exposed people. On the basis of a detailed analysis of the present situation, a number of recommendations are made to promote a higher degree of electromagnetic biocompatibility between these fields and the living human organism than currently obtains.

Poglobljena analiza [EN](#)

The Impact of Electronic Commerce on the Competitiveness of SMEs in the EU

Vrsta publikacije Študija

Datum 01-09-2000

Zunanji avtor Puay Tang (SPRU, University of Sussex, Brighton, UK)

Politično področje Industrija | Notranji trg in carinska unija

Ključna beseda elektronsko poslovanje | internet | IZOBRAŽEVANJE IN KOMUNIKACIJE | klasifikacija podjetij | komunikacije | konkurenčnost | mala in srednje velika podjetja | organizacija poslovanja | POSLOVANJE IN KONKURENCA | TRGOVINA | trgovina znotraj EU | trgovinska politika | trženje

Povzetek Electronic commerce (e-commerce), particularly over the Internet is widely argued to have the potential to transform the marketplace, and to provide small and medium size enterprises (SMEs) with a wider variety of opportunities to engage in this activity than hitherto. E-commerce, for the purposes of this report, treats it in terms of Business-to-Business (B2B) and Business-to-Consumer (B2C). E-commerce activities, for this study, also refer to marketing activities and the provision of digital information. The primary objective of this study is to investigate how e-commerce may give a competitive advantage over larger companies attempting to participate in the burgeoning e-marketplace. In association with this, the study also reviewed the inhibitors to, and catalysts for e-commerce, and provided a general overview of the development of this digital marketplace. In an attempt to further substantiate the extant general findings on e-commerce and SMEs, the research interviewed a select sample of 23 SMEs in the Netherlands, Spain, Germany, the UK, the Czech Republic, Bulgaria, Romania and Hungary. A main reason for interviewing SMEs of the candidate countries was to provide further insights into the activities and opinions of SMEs. The report concludes with Policy Options that the European Parliament and European Commission may want to consider in their measures to foster the development and take-up of e-commerce. Our research found three main incentives for SMEs to undertake e-commerce. They are (1) new opportunities; (2) flexibility to respond to new opportunities; and (3) cost savings. In particular, new opportunities reveal the degree of comparative advantage that firms adopting e-commerce could develop over those that continue operating in the traditional way, or with a minimum of integration of processes. First mover advantage and new opportunities also show how companies may develop a competitive edge over those that are slow to adopt e-commerce.

Študija [EN](#)

European Policy on Food Safety

Vrsta publikacije Študija

Datum 01-09-2000

Zunanji avtor Antonia Trichopolou (University of Athens, School of Medicine, Greece)

Politično področje Javno zdravje | Varnost hrane

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | Evropska agencija za varnost hrane | EVROPSKA UNIJA | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | institucije EU in evropska javna uprava | izmenjava informacij | IZOBRAŽEVANJE IN KOMUNIKACIJE | izvršilna oblast in javna uprava | OKOLJE | okoljska politika | POLITIKA | preprečevanje okoljskega tveganja | tveganje za zdravje | upravna organizacija | varnost hrane | zbiranje podatkov | zdravstvo

Povzetek This Report is written for the European Parliament - Science and Technology Options Assessment (STOA) as a response to the Commission's 2000 Food Safety White Paper. The White Paper made a series of major proposals, including a plan to set up a new European Food Authority (EFA). This STOA report analyses the background and technical arguments in the White Paper. A review is conducted of key issues in food-related public health, which the EFA will have to address. These include diet-related nutritional diseases, food poisoning, food quality and adulteration issues, chemical contamination, and problems raised by some new foods and processes. Developments in the role of science and technological information in policy-making on food and health matters are reviewed. In particular, the relationship between risk assessment, management and communication is explored. The proposed division of responsibilities between EFA and DG SANCO over those functions are judged to be inconsistent and may be unrealistic. A number of managerial issues need more attention, particularly enforcement, monitoring, data collection, lines of responsibility, and performance indicators. The EFA needs to have clear guidance as to how to manage uncertainty and conflicts of interest, and how and when (and by whom) a precautionary approach should be exercised. The report highlights a problem in levels of food governance. Relations between the EFA and DG SANCO, Member States and local authorities, and global bodies all need better liaison and terms of reference. A clear management structure is needed. A proposal is made for setting performance indicators and to ensure stakeholder consultation. The relationship between the EFA and the Food and Veterinary Office is discussed, as is the core challenge of how to link nutrition and food safety to give a consumer-friendly public health policy for Europe.

Študija [EN](#)

Recycled Cooking Oils : Assessment of Risks for Public Health

Vrsta publikacije Študija

Datum 01-09-2000

Zunanji avtor José Boatella Riera and Rafael Codony (University of Barcelona, Spain)

Politično področje Javno zdravje | Varnost hrane | Varstvo potrošnikov

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | javno zdravje | jedilne maščobe | kmetijski proizvodi | KMETIJSKO ŽIVILSTVO | kmetijstvo | KMETIJSTVO, GOZDARSTVO IN RIBIŠTVO | obremenitve okolja | obveščanje potrošnikov | odpadno olje | OKOLJE | potrošnja | rastlinsko olje | strupena snov | TRGOVINA | tveganje za zdravje | varnost hrane | zdravstvo | živalska krma

Povzetek Used cooking oils constitute waste which is included in the group of urban or municipal waste (as Other domestic/commercial waste), which have shown a huge increase in their volume of production in the last few decades. Catering establishments are on the increase in European countries, which suggests that cooking oils will also increase. Furthermore, their liquid nature prevents disposal in landfills, which is regulated by the corresponding EU directive. This means seeking alternatives for their recycling, currently based mainly on their use in animal feeds. The recent cases of dioxin contamination in chicken and other foods have urged EU institutions to promote the objective study of all aspects involved in the process, so that reasonable measures may be adopted to prevent further accidents, and to avoid drastic and ill conceived measures. This has led to the present study to assess cooking oils which, as waste from commercial food activities (catering industries and services), present a burden on the environment and are therefore currently recycled mainly for use as fatty raw materials in poultry and livestock feeds. Consumer safety demands an assessment of how the entire food chain should be continuously controlled (traceability) to prevent public health risks. Traceability is a basic aspect which establishes the essential inter-relationship and collaboration that must exist between all the agents. A break in this traceability, at any of the levels, greatly increases the risk of possible accidents with repercussions on public health, since full control of the process is lost. With the above in mind, the present study makes an analysis of risks derived from all the agents involved in using recycled cooking oils: primary sources producing cooking oils, collectors of oils for recycling, recycling industry, manufacturers and importers of fats for feeds, feed manufacturers, livestock/poultry farms, and consumers. The main aim of this report is to assess the risk i

Študija [EN](#)

Digital Technology Evolution and its Impact on the EU Entertainment and Media Sectors

Vrsta publikacije Študija

Datum 17-07-2000

Zunanji avtor Teleport Sachsen-Anhalt GmbH (Germany) and iCons srl (Italy)

Politično področje Industrija | Kultura

Ključna beseda avdiovizualna industrija | avdiovizualna politika | digitalna tehnologija | DRUŽBENA IN SOCIALNA VPRAŠANJA | informacijska tehnologija in obdelava podatkov | internet | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | kultura in religija | mediji | mobilni telefon | nova tehnologija | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija in tehnični predpisi | umetniško ustvarjanje | učinek informacijske tehnologije

Študija [EN](#)

The Ethical Implications of Research Involving Human Embryos

Vrsta publikacije Študija

Datum 01-07-2000

Zunanji avtor Tony McGleenan (Queen's University, Belfast, UK)

Politično področje Javno zdravje | Pravo EU: pravni sistem in akti | Raziskovalna politika

Ključna beseda bioetika | civilno pravo | DRUŽBENA IN SOCIALNA VPRAŠANJA | družbene in socialne zadeve | fizična oseba | medicinske raziskave | MEDNARODNI ODNOSI | naravoslovne in uporabne vede | načelo previdnosti | politika sodelovanja | PRAVO | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | zarodek in plod | zarodna celica | zdravstvo | ZNANOST | znanstvene raziskave | znanstveno sodelovanje

Povzetek Human embryo research is a well established feature of the modern scientific landscape. The technique has recently come to the fore in public policy debates because of new technological advances. Human embryo research now promises to play a pivotal role in the treatment of many chronic illnesses through developments in stem cell technology as well as continuing to offer hope for those who suffer from subfertility. Developments in the field of human stem cell research are, to a large degree, dependent upon human embryo research. There are conflicting pressures and arguments around this subject. On the one hand, there are those who argue that the need for therapies for diseases like Alzheimers and Parkinsons is such in our ageing population that all avenues for research ought to be explored. These views are supported by those in the healthcare and pharmaceutical industries who have identified the tremendous potential for new treatments and products. On the other hand there are those who argue that research upon human embryos violates fundamental moral norms and is an affront to the concept of human dignity. These divergent viewpoints are reflected in the existing and pending legislation among the member states of the European Union. Some states, such as the United Kingdom, have adopted a pragmatic and permissive approach to embryo research. Others, notably Austria and Germany, have established strong legal norms which reflect the moral argument that the human embryo has a status equivalent to any human being. Despite this apparently polarised situation there is much common ground to be found in the position of member states. This study examines the possible policy options for human embryo research in Europe. It analyses the existing legal positions among member states and provides a comparative assessment of policies adopted elsewhere, notably in North America. The study explores the ethical arguments relating to the fundamental questions of the moral status of

Študija [EN](#)

Prison Technologies (An Appraisal of Technologies for Political Control)

Vrsta publikacije Študija

Datum 01-07-2000

Zunanji avtor Luc Mampaey (GRIP, Brussels, Belgium)

Politično področje Industrija | Območje svobode, varnosti in pravice | Varnost in obramba

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | duševno zdravje | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | kazensko pravo | komunikacije | MEDNARODNI ODNOSI | nesmrtonosno orožje | nova tehnologija | obramba | osebni podatki | pravice in svoboščine | PRAVO | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija in tehnični predpisi | varstvo zasebnosti | video nadzor | zapornik | zaporniški režim | zdravstvo

Povzetek The present study is in line with the extension of a previous STOA research, published in 1997 and entitled "An appraisal of technologies of political control" (PE 166.499). The report highlighted the appearance of a trend in Europe to privatize the prison system. Furthermore, it outlined the pressures to which the public authorities are subjected to substitute technological innovations for prison personnel, with a view to reducing costs and fighting against prison overcrowding. The present report works towards five aims : (1) to give the European Parliament a description of the most recent technologies, used or usable in prison environment and determine their degree of penetration in the European Union (2) to assess the efficiency of these technologies in relation with their objectives (3) to analyse the impact of their use on detainees and their relatives, especially having in mind the already carried out experiments (4) to identify the dangers and risks they involve regarding the respect of fundamental freedoms (5) to present political options and recommendations to the European Parliament, in order for it to take adequate initiatives aiming at protecting the rights of people placed under surveillance or detention, while preserving European interests. Two replies are usually offered to the problems of overcrowding and growth of the costs of the penal system : privatization of the penal function and use of new technologies ; one often entailing the other. This phenomenon, prompted by an American conception of order and security, influences today the European debates on the reform of the penal system and leads to the introduction of two types of technologies in the prisons : surveillance technologies and neutralization technologies.

Študija [EN](#)

Dioxins and PCBs : Environmental and Health Effects

Vrsta publikacije Študija

Datum 01-06-2000

Zunanji avtor Alexander Potkytus (IRCE, Germany) and Reinhard Joas (BIPRO, Germany)

Politično področje Industrija | Javno zdravje | Okolje

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | obremenitve okolja | OKOLJE | okoljska politika | strupena snov | tveganje za zdravje | vpliv na okolje | zdravstvo

Študija [EN](#)

Health Risks Posed by Silicone Implants in General, with Special Attention to Breast Implants

Vrsta publikacije Študija

Datum 01-06-2000

Zunanji avtor José Martin-Moreno (Escuela Nacional de la Sanidad, Madrid, Spain)

Politično področje Javno zdravje

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | estetska kirurgija | tveganje za zdravje | zdravstvo

Povzetek The main objective of this project is to present well-informed and relevant alternative policy options to the European Parliament on silicone (breast) implants, based on a comprehensive, unbiased analysis of the scientific literature on the subject and of interested actors. With the aim of reflecting all views on this issue (negative and positive), we have interviewed patients, and have contacted and received information from self-help groups, women's groups, reconstructive surgeons, silicone breast implant manufacturers, countries, and scientific societies. Silicone implants were used for years before there was regulation or surveillance of their use. A great deal of focus has been given to silicone breast implants since the early 90s, leading to many different epidemiological studies that have driven to highly consistent results showing no evidence of a serious risk for major diseases. But because the studies started so recently, most have not been able to look at longterm effects, have mainly focused on certain systemic diseases (cancer and connective tissue diseases - the main two causes of concern) and have not always controlled for the different types of implants. This must be considered in light of the fact that a significant body of women claim to be experiencing symptoms which they think are associated with their implants. Moreover, local complications are obvious matters of concern. In light of this complex reality, a range of three potential operational policy options could be considered :
Option 1 : status quo: no ban, keep application of current legal framework : Pros: good legislative basis in place, inconclusive evidence of serious risks, maintain stability; Cons: evidence points to need for proper European harmonisation; self-help groups and others have called for an immediate ban.
Option 2 : ban on silicone breast implants due to lack of complete information regarding risks and petitions by some groups. Pros: most conservative option based on lac

Študija [EN](#)

[Crowd Control Technologies \(An Appraisal of Technologies for Political Control\)](#)

Vrsta publikacije Študija

Datum 01-06-2000

Zunanji avtor OMEGA Foundation (Manchester, the UK)

Politično področje Območje svobode, varnosti in pravice | Raziskovalna politika | Varnost in obramba | Človekove pravice

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | kemično orožje | MEDNARODNI ODNOSI | nadzor izvoza | nesmrtonosno orožje | oborožitvena industrija | obramba | POLITIKA | politika in javna varnost | politična agitacija | pravice in svoboščine | PRAVO | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija in tehnični predpisi | tehnološka presoja | TRGOVINA | trgovina z orožjem | trgovinska politika | tveganje za zdravje | zatiranje | zdravstvo | človekove pravice

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Priloga 1 [EN](#)

[Linguistic Diversity on the Internet: Assessment of the Contribution of Machine Translation](#)

Vrsta publikacije Študija

Datum 01-05-2000

Zunanji avtor Tom Moring (European Bureau for Lesser Used Languages, Brussels, Belgium)

Politično področje Izobraževanje | Varstvo potrošnikov

Ključna beseda dostop do informacij | DRUŽBENA IN SOCIALNA VPRAŠANJA | družboslovne vede | informacije in obdelava informacij | informacijska tehnologija | internet | IZOBRAŽEVANJE IN KOMUNIKACIJE | jezikovna skupina | komunikacije | manjšinski jezik | ovrednotenje projekta | POSLOVANJE IN KONKURENCA | poslovanje | socialni okvir | strojno prevajanje | večjezičnost | ZNANOST

Povzetek The objectives of this study have been to assess both the problems created and the opportunities offered by the Internet for the smaller and minority languages of the European Union; to consider what measures might facilitate the maximal use by European citizens of their own languages for communication and the accessing and presentation of information on the Internet; and to consider in particular the role which machine translation might play. The study finds that the threat to linguistic diversity on the Internet will not in the future come from the dominance of one language but from a multilingualism limited to perhaps half a dozen main world languages between which machine translation will be fully developed to the exclusion of the great majority of languages. It argues that the development of language technology for all European languages is not only essential from the point of view of citizenship and avoiding social exclusion, but can give Europe an important technology cluster. The weakest language-groups in the EU, while found to be making enterprising use of the Internet, need a basic IT environment in their languages. A larger number of languages which lack the full array of language resources - linguistic corpora, electronic dictionaries etc - are in danger of being excluded not from the Internet as it is now, but from many of the processes, including machine translation and other language processing functions, that will increasingly be carried out over the Internet. There is a need for a much enhanced investment in language resources. Machine translation can only be understood in relation to the availability of the above-mentioned language resources. It is not one process which succeeds or fails by a single absolute standard, but a range of systems with different costs and advantages and suited to different user requirements. The study surveys the field, in respect of the uses of MT on the Internet, and particularly with the costs/benefits to the sm

Študija [EN](#)

[Technological Options for a Community Strategy for a System of Navigation by Satellite \(GNSS\)](#)

Vrsta publikacije Študija

Datum 01-05-2000

Zunanji avtor University of Cranfield, UK & Ineco, Madrid, Spain

Politično področje Raziskovalna politika

Ključna beseda analiza stroškov in koristi | EVROPSKA UNIJA | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | organizacija prevoza | ovrednotenje projekta | POSLOVANJE IN KONKURENCA | poslovanje | pravo Evropske unije | PROMET | računovodstvo | satelitska navigacija | satelitske komunikacije | skupna strategija

Povzetek The Final Report of this 'Study into Options for a Community Strategy on a Satellite System' discusses the arguments and evidence supporting possible options on satellite system strategy that might be considered by the European Parliament, then presents technical information on current and future satellite system development and concludes by discussing relevant technical issues. The present and future satellite market can be divided into a number of applications including survey data, meteorological, agriculture and tracking, and more specifically air, marine and land transport. Most applications require specific levels of accuracy, signal coverage and reliability, and they are often safety critical. There will be a significant funding gap that will have to be met from external sources. All major projects have an element of risk and external investors will require to be convinced that potential benefits far outweigh the risks. Funding and pricing are important and issues to be resolved include investment levels, benefits and charging policy. Potential users include the community, states, industry, modes and individuals each of whom will have different needs and requirements. The technical part of the report includes the rationale behind the development of satellite navigation systems over the last thirty years. There are two main satellite navigation systems, one controlled by the USA (GPS) and the other by Russian Federation (GLONASS). Other satellite systems are used for telecommunications. Technical limitations are discussed together with augmentations that would enhance the use of existing systems, or justify the development of new systems to meet the needs of transport and other users. Current European developments are discussed together with the possible interface with GPS and GLONASS. The report concludes by outlining current and projected satellite system architecture. This includes the requirements by potential users for signal coverage, safety

Študija [EN](#)

[A European Health Card](#)

Vrsta publikacije Študija

Datum 01-03-2000

Zunanji avtor MEDEA - Italy

Politično področje Javno zdravje

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | socialno varstvo | zdravstvena kartica | zdravstveni podatki | zdravstveno varstvo | zdravstveno zavarovanje | zdravstvo

Povzetek The adoption of a European health card aims to guarantee a quick and easy access to health and insurance data and to create an integrated system to overcome all the differences between Member States' healthcare policies. The success of such initiative depends greatly on the achievement of the interoperability, at a European level, among the healthcare systems of all the Member States to transfer and share medical healthcare data with particular regard to data confidentiality and security.

A health card system consists of health cards, health data and the devices and policies that regulate the access to the health information on the basis of what is recorded on the card. There are two major technological aspects: card type and data organisation. All current studies propose technological solutions based on cards of the smart card type (like phone cards, "electronic" credit cards) with some data organised on the card and some in databases. Data confidentiality and security is then ensured by public key cryptography and access authentication schemes although access rights vary on the basis of the national laws of the nation in which the study was carried out.

Interoperability among health card systems greatly relies on technology compatibility since it cannot be achieved without having one health card system being able to make use of and/or update computer readable data held on the health cards issued by another health card system.

Many experiments were conducted in Europe to introduce smart cards in the health system. The cards used in the health system are similar to those used in communication and banking: The two specialist application segments of health and transport still remain quite small compared to telephone and banking, because of their reliance on small numbers of major projects. Still the growth is massive: health cards jumped by 71% to a total of 60 million in the last year, driven largely by the nation-wide roll-out of the French patient cards

Študija [EN](#)

[Women Professionals in the Media in the Context of New Technological Developments](#)

Vrsta publikacije Študija

Datum 01-02-2000

Zunanji avtor Mariagrazia Forcella (Teseo, Bergamo, Italy)

Politično področje Industrija | Izobraževanje | Vprašanje spola, enakost in različnost

Ključna beseda delavka | DRUŽBENA IN SOCIALNA VPRAŠANJA | družbene in socialne zadeve | enakost spolov | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | mediji | nova tehnologija | poklic v komunikacijskih dejavnostih | poklicno usposabljanje | položaj žensk | pravice in svobode | PRAVO | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija in tehnični predpisi | trg dela | zaposlovanje | ZAPOSLOVANJE IN DELOVNE RAZMERE

Povzetek This study, as well as the researches and statistics to which reference is made, demonstrate the gender imbalance is large in media professions. Not only women occupy fewer posts, but also they have lower pays, they are employed on precarious terms, they occupy decision-making positions only in exceptional cases. Moreover, they are suffering from invisible obstacles such as preconceived ideas on women-suitable jobs and stereotypes proposing only men at top-positions. Finally, the fact women generally remain responsible for the house and childcare not only discriminates them in the labour market, but also strongly affects the chances to advance in their carriers.

Most of the new jobs created during the last years in the media sector have been taken by women. The reason is the offer for part-time, independent, temporary, sub-contracted work, homework and other forms of telework, is raising. The new posts in media are mostly of this type and women seem to be more prepared to accept and, in some cases, even to require these types of work settlements.

The impact of the ongoing changes in media sector has been estimated in this study as positive for women. Some of the trends in new media labour market seem to lean it in the direction of a conciliation with the characteristics of women labour.

Anyway, risks should not be ignored. To get the opportunities the new media can offer to the improvement of women professional situation, several measures need to be taken. Among all the fields requiring the attention of policy makers, the crucial ones are:

1) women education and training: if women will not catch up on ICT skills, the impact on their employment risks to be disastrous;

2) women participation to decision-making: women need not only to adapt to new technologies, but also to participate in their design, become media managers and entrepreneurs;

3) new social provisions, concerning work protection, taxation, remuneration: the current upheavals in the media prof

Študija [EN](#)

The Impact of Rapid Technological Change in Information Technology on the Stability of World Trade and International Capital Flows

Vrsta publikacije Študija

Datum 01-02-2000

Zunanji avtor Jaume Valls, Anna Arbussa and Ricard Torres (University of Girona)

Politično področje Finančna in bančna vprašanja | Industrija | Mednarodna trgovina

Ključna beseda denarno poslovanje | devizni tečaj | FINANCE | financiranje in naložbe | finančne storitve | finančni trg | informacijska tehnologija | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | kreditne in finančne institucije | mednarodna trgovina | mednarodna trgovina | pretok kapitala | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | prost pretok kapitala | tehnologija in tehnični predpisi | tehnološka sprememba | TRGOVINA | tuja naložba

Povzetek The difficulties encountered at the new round of multilateral negotiations at the World Trade Organisation on further liberalisation of trade services and recent talks on the reform of the International Financial Architecture might be taken as examples of concerns raised by the increasing globalisation of the world economy. Developments in information technologies (IT), together with a move towards increased liberalisation, have strongly influenced the evolution of the world trade, financial services and international capital flows during the last decades. While international trade in goods has been growing significantly, the activity in the international financial markets has experienced a higher growth. This report considers the recent evolution of the international goods and financial markets, and discusses the role that the increased globalisation has played in the financial crises that have taken place during this period. Particular attention is given to the role that the Information Technologies have played. Innovation in the banking industry, and the new framework of the international financial markets are considered. The financial crises have opened up the debate on the role that national and international institutions should play in the new framework of a globalised economy. The report hints at the challenges regulators face, and discusses the main policy options available at both the European and the international levels. The following policy issues are considered:

- Should controls of capital flows be established?
- Should exchange rates be subject to a different regime?
- What should the role of the IMF be?
- Should financial transactions be subject to special taxes? And, in particular, what are the advantages of the introduction of a Tobin Tax?

The main arguments in favour and against these measures are presented in the report.

Študija [EN](#)

Use of New Technologies and Cost of Water in View of the New EU Water Directive

Vrsta publikacije Študija

Datum 01-02-2000

Zunanji avtor George Kallis (ERN, Athens)

Politično področje Okolje | Pravo EU: pravni sistem in akti

Ključna beseda naravno okolje | nova tehnologija | obremenitve okolja | ohranjanje virov | OKOLJE | okoljska politika | onesnaževanje | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija in tehnični predpisi | ukrepi proti onesnaževanju | upravljanje voda | varstvo voda | voda

Povzetek EU water policy is at a critical crossroad. Following more than two decades of environmental water policy a new framework directive is being discussed in the EU institutions that will shape both the Commission's and national efforts in the field of water for years to come. Past EU water directives have had momentous effects in transforming organisations/institutions and approaches in Member States and promoting technological progress in pollution control. Europe's water bodies, however, steadily deteriorate mainly due to pollution from diffuse sources. The long-term sustainability of water uses for human and environmental purposes is threatened. The new EU water framework directive aims to integrate action for water management both at an EU – legislation - level and at a national level, by asking for the establishment of river basin authorities and plans. The general objective is to achieve within a set time an acceptable environmental quality for all waters within the Union's territory. The costs entailed are high and difficult to estimate in advance given the lack of adequate monitoring. These costs come in an era when improvements in drinking and waste water treatment capacities are increasingly reflected in water prices. The study reviews the implementation of past EU water policy and raises the challenges for EU water policy in the 21st century. The proposal for a framework directive on water is critically discussed and its strengths and weaknesses are identified. The problems with calculating the costs and benefits of EU water policy are highlighted and empirical evidence from national information and two case studies in the U.K are used to give an indication of the magnitude of the costs. The effects on water prices are subsequently analysed. The issue of integrating quantitative and qualitative aspects in EU water policy is raised and it is demonstrated that the directive fails to recognise the emerging importance of water conservation approach

Študija [EN](#)

New Technologies for the Marketing and Sale of Medicines on the Internet and Television Networks

Vrsta publikacije Študija

Datum 01-01-2000

Zunanji avtor Ferran Sanz, Katrin Gaedt, Albert Alonso, Carlos Diaz

Politično področje Industrija | Javno zdravje | Pravo EU: pravni sistem in akti

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | elektronsko poslovanje | farmacevtski izdelek | internet | IZOBRAŽEVANJE IN KOMUNIKACIJE | javno zdravje | komunikacije | potrošnja | radiodifuzija | TRGOVINA | trženje | trženje | varstvo potrošnikov | zdravstvo

Povzetek This study aims to provide the European Parliament with sound information useful for the adoption of policies with respect to the marketing and sale of medicines on the Internet and other new information technologies. Medicinal products have important singularities affecting their launching, ways of distribution, information policies and their price. These singularities have been addressed in different European directives and member states' laws but none of them explicitly considers the case of new information technologies. The possible extension of the Internet into the domain of the marketing and sale of medicinal products has arisen the concern of European health related organisations that call for the adoption of proper policies to protect consumers against its incorrect use. The adoption of such policies first has to recognise the cross-boundary nature of the Internet that requires, as far as possible, world-wide level approaches. Secondly, it must consider consumers' interests in terms of self-determination, economics, security and convenience. Finally, it has to take into account the economic interests of involved enterprises and authorities for what respects to public health expenditure.

Študija [EN](#)

Genetically Modified Food : Objectives for EU Funded Research of Development

Vrsta publikacije Študija

Datum 01-12-1999

Zunanji avtor Jacques Blanchet (INRA, Grignon, France)

Politično področje Industrija | Raziskovalna politika | Varnost hrane

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | genetsko spremenjen organizem | industrijske raziskave | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | raziskovalni program | tehnologija in tehnični predpisi | tveganje za zdravje | varnost hrane | varnostni standard | zdravstvo

Povzetek This study provides a concise review and analysis of key issues concerning the current state of research in genetically modified (GM) food in the EU and in the world. It takes into account, among other issues, the strategies of private companies and public research organisms, the developments of consumer and other actors' perceptions and the problems which trade in raw materials for the production of GM food may involve. The shortcomings of European legislation affect the organisation of the monitoring and evaluation of the introduction of GMO in the food chain. Several options have been put forward concerning future research on GMOs in food, including the need for : the development of new methods for the evaluation of risks associated with GMO in food, the harmonisation of detection methods, the assessment of antibiotic marker genes and other techniques aimed at the control of gene expression, addressing the question of responsibility in the introduction of GMOs in food. These options are backed by evidence of recent changes in the organization and role played by public research and advances in genetic modification applied to plants and animals. Scientific results concerning field trials, the risk-benefit assessment of GM food (the study includes three case studies on the subject) and a technical file on genetic engineering techniques, provide additional information in order to gain insight into the debate.

Študija [EN](#)

Cost-Benefit Analysis of EU Research and Technological Development RDT Programmes

Vrsta publikacije Študija

Datum 01-12-1999

Zunanji avtor PRAGMATA, Reggio Emilia, Italy

Politično področje Ekonomske in monetarne zadeve | Industrija | Raziskovalna politika

Ključna beseda analiza gospodarnosti | analiza stroškov in koristi | ekonomske analize | EVROPSKA UNIJA | finance EU | gospodarski kazalec | GOSPODARSTVO | metoda vrednotenja | odhodki za raziskave (EU) | okvirni program za raziskave in razvoj | ovrednotenje projekta | POSLOVANJE IN KONKURENCA | poslovanje | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | raziskave in razvoj | računovodstvo | študija učinkov

Povzetek The study exposes several case studies and international experiences that could be helpful to steer the future development of the evaluation of the European Research and Technological Development activity.

Študija [EN](#)

[Assessment of Agricultural and Non-Agricultural Techniques for Combating Hunger and Poverty](#)

Vrsta publikacije Študija

Datum 01-12-1999

Zunanji avtor Jean-Marc Broussard et Saïd Sassi (INRA)

Politično področje Kmetijstvo in razvoj podeželja | Razvoj in humanitarna pomoč

Ključna beseda dostop do izobraževanja | DRUŽBENA IN SOCIALNA VPRAŠANJA | države v razvoju | gospodarska rast | gospodarske razmere | GOSPODARSTVO | gradnja in urbanizem | izobraževanje | IZOBRAŽEVANJE IN KOMUNIKACIJE | kmetijska proizvodnja | kmetijski sistemi | KMETIJSTVO, GOZDARSTVO IN RIBIŠTVO | lakota | nacionalni računi | OKOLJE | okoljska politika | revščina | socialna mobilnost | socialni okvir | stanovanje | varstvo okolja | zdravstvena služba | zdravstvo

Povzetek Poverty is a very real evil, even if it is difficult to define and measure. There are ways of combating poverty – by improving food security, by allowing the poor access to certain types of capital goods like housing and by encouraging social mobility through education and health services.

Poverty is often associated with overpopulation. However the relationship between demography and poverty is complex and action to combat poverty is one of the solutions that could be envisaged for reestablishing the demographic balance. The experience of the green revolution in Asia demonstrates that poverty is not inevitable.

Študija [EN](#)

[Personal Protective Equipment at Work](#)

Vrsta publikacije Poglobljena analiza

Datum 01-09-1999

Zunanji avtor Ineke Malsch (Utrecht, The Netherlands)

Politično področje Pravo EU: pravni sistem in akti | Zaposlovanje | Človekove pravice

Ključna beseda delovno mesto | DRUŽBENA IN SOCIALNA VPRAŠANJA | ekonomska geografija | Evropa | EVROPSKA UNIJA | GEOGRAFIJA | humanizacija dela | izvajanje prava EU | organizacija dela in delovne razmere | politična geografija | pravice in svoboščine | PRAVO | pravo Evropske unije | socialni okvir | svoboda veroizpovedi | verska skupina | ZAPOSLOVANJE IN DELOVNE RAZMERE | zaščitna oprema | Združeno kraljestvo | človekove pravice

Povzetek This report investigates whether there is a conflict between European harmonised legislation covering personal protective equipment at work and the freedom of orthodox Sikhs to practise their religious customs, in particular to wear uncut hair and beards, a comb in the hair knot on top of the head and a Turban for male Sikhs. We found evidence for such a conflict in the UK, where the implementation in national law of the relevant EU directives (DIR 89/656/EEC and 89/686/EEC) resulted in a reversal of a trend in progressive incorporation of a religious exemption from the obligation to wear protective headwear. The conflict appears to be mainly due to the national legislation. The relevant European legislation only prescribes minimum requirements. If the Turban is to be considered as an alternative for bump caps, this may be hampered by the wording of the definition of personal protective equipment in DIR 89/656/EEC, that it has to be designed as such. Several options are presented for EU legislation, administration and policy, concerning safety at work in general and personal protective equipment in particular. We also present options for considering the Turban as an alternative form of head protection.

Poglobljena analiza [EN](#)

[Use of Modern Technology for the Purpose of Setting Up a European Juridical Network](#)

Vrsta publikacije Študija

Datum 01-06-1999

Zunanji avtor Eric Sutter (Bureau Van Dijk, Paris, France)

Politično področje Območje svobode, varnosti in pravice | Pravo EU: pravni sistem in akti

Ključna beseda DRUŽBENA IN SOCIALNA VPRAŠANJA | družbene in socialne zadeve | EVROPSKA UNIJA | graditev Evrope | informacijska tehnologija | informacijska tehnologija in obdelava podatkov | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | nacionalno pravo | nova tehnologija | organizirani kriminal | osebni podatki | policijsko sodelovanje (EU) | pravni viri in pravna področja | PRAVO | pravosodno sodelovanje v kazenskih zadevah (EU) | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija in tehnični predpisi | telekomunikacije

Študija [EN](#)

[The Problem of Discards in Fisheries](#)

Vrsta publikacije Študija

Datum 01-06-1999

Zunanji avtor MegaPesca Lda (Alfeizerao, Portugal)

Politično področje Okolje | Ribištvo

Ključna beseda KMETIJSTVO, GOZDARSTVO IN RIBIŠTVO | nadzor nad ribolovom | ohranjanje ribjega staleža | ohranjanje virov | OKOLJE | okoljska politika | ribiška mreža | ribištvo | ribolovno območje | skupna ribiška politika | ulovna kvota

Povzetek This study, undertaken by Megapesca Lda. of Portugal, on behalf of Science and Technology Options Assessment of the European Parliament, defines the extent and nature of the problem caused by discarding in EU fisheries, and analyses the key issues involved.

Discarding is shown to be mainly a problem in the North Sea and Atlantic fisheries, most commonly involving demersal trawl fishing, especially for flatfish and crustacea. Most discards are caused by economic and legal constraints on fish landings. The main impact of discarding is direct and future losses of fish of commercial value, although indirect impacts are on the ecology of non-commercial species, the marine food-web and loss of fisheries mortality data. Because of their impacts, the issue of discards has received considerable research and policy support. Although no specific EU policy operates on discards, a range of conservation measures aimed at discard reduction are implemented.

The discard policy framework in Norway was investigated. This is based on progressive introduction of discard reduction measures, followed by a general discard ban. Due to significant structural differences such a policy is not considered to be an option at present for the EU, although selective discard bans may have a role in some fisheries in the longer term.

Other EU policy options are also considered, including mitigation of minimum landing sizes, flexible closed areas, use of multi-annual and multi-species quotas, technical gear controls and gear bans. For each policy option, the advantages and disadvantages are explored, and the pre-conditions outlined. Suggestions are made as to how specific EU fisheries with discard problems might benefit from the options presented.

Študija [EN](#)

[A Nuclear Amplifier for Energy for Electricity Production](#)

Vrsta publikacije Študija

Datum 01-06-1999

Zunanji avtor Jean-Pierre Husson and Philippe de Montgolfier (Essor Europe, Paris, France)

Politično področje Energija | Industrija | Raziskovalna politika

Ključna beseda električna energija | električna in jedrska energija | ENERGETIKA | energetska politika | inovacija | jedrska energija | jedrska tehnologija | jedrska varnost | jedrske raziskave | jedrski reaktor | obremenitve okolja | OKOLJE | proizvodnja energije | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | radioaktivni odpadki | raziskave in intelektualna lastnina | raziskave in razvoj

Povzetek The nuclear Energy Amplifier (EA) proposed in 1993 by Professor Carlo Rubbia, Nobel prize, is an original hybrid nuclear reactor made of a fast subcritical nuclear reactor driven by a high energetic and intense proton accelerator which could be at the same time basically a safe electricity producer and could also burn almost completely its own nuclear waste as well as other reactors ones. It found a number of echoes in Europe, in particular in Spain, Italy and France, as well as in the European Commission, in the European Parliament and in the World.

The whole technology of the EA includes several components which are separately well mastered by the nuclear energy industry and the nuclear research community but with a number of innovative improvements which may present implementation and reliability difficulties. Many technological options are still open, and there is a need for more R&D. Experts largely agree that the EA could not produce electricity at a competitive price, and that the EA technology should not be aimed mainly to electricity production. EA could be an option for burning Actinides and other nuclear fission products, electricity being an interesting by-product of the reactor.

In Europe, Italy, France and Spain have taken a first tripartite- initiative and are open to larger cooperation. Should Europe invest in this domain, and how? Should a research demonstrator be launched in short or medium term? This report addresses these points and propose orientation options to the European Parliament.

Študija [EN](#)

[Ethical Issues in Research and Technology](#)

Vrsta publikacije Študija

Datum 01-06-1999

Zunanji avtor Ruth Chadwick, Adam Hedgecoe, Lars Isaksen and Louise Sarch (Centre for Professional Ethics, University of Central Lancashire, UK)

Politično področje Industrija | Javno zdravje | Raziskovalna politika

Ključna beseda bioetika | delovno pravo in delovna razmerja | DRUŽBENA IN SOCIALNA VPRAŠANJA | družbene in socialne zadeve | genska tehnologija | nova tehnologija | poklicna etika | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave | raziskave in intelektualna lastnina | tehnologija in tehnični predpisi | ZAPOSLOVANJE IN DELOVNE RAZMERE

Povzetek The aim of this study has been to conduct research to establish the ethical issues and concerns that are currently considered significant by researchers within the European Union and to map the European research effort to see what expertise is being applied, in which countries and by whom. In accordance with the call for tenders, the CPE has sought to conduct this research using a 'bottom up' approach surveying the opinion of experts and individuals interested in this field through a series of questionnaires.

Študija [EN](#)

New Technologies and Their Contribution to Facilitating the Work of the EP

Vrsta publikacije Študija

Datum 01-06-1999

Zunanji avtor Eric Sutter (Bureau Van Dijk, Paris, France)

Politično področje Demokracija EU, institucionalno in parlamentarno pravo | Industrija | Pravo EU: pravni sistem in akti

Ključna beseda delo parlamenta | digitalna tehnologija | dokumentacija | EVROPSKA UNIJA | Evropski parlament | informacije in obdelava informacij | informacijski sistem | informacijsko omrežje | institucije EU in evropska javna uprava | IZOBRAŽEVANJE IN KOMUNIKACIJE | nova tehnologija | parlamentarni dokument | POLITIKA | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | tehnologija in tehnični predpisi | zakonodajni postopek

Povzetek Parliamentary work involves, briefly, tasks of research and consultation of documents, exchange of information and production of texts and decision-making. The implementation of new information and communication technologies can facilitate the achievement of some of these tasks and make the work of members of parliament more efficient. The European Parliament already offers members and officials a whole range of computerised tools, but further progress could be made to satisfy to a greater extent the expectations and to benefit from the possibilities offered by the most up-to-date technologies. On the basis of examples from other parliaments, suggestions are made to facilitate work within the European Parliament. Following a survey conducted among MEPs, to find out their expectations, and among the most modern national or regional parliaments, a certain number of examples, some of which are described in the form of case studies, are put forward together with suggestions for improving the internal provisions of the European Parliament. In particular a recommendation is made for development of the concept of the electronic office, greater integration of current applications and improved 'ergonomics' for consultation purposes and the use of electronic signature technologies.

Študija [EN](#)

Cultural Diversity in the New Media

Vrsta publikacije Študija

Datum 01-05-1999

Zunanji avtor Mariagrazia Forcella (Bergamo, Italy)

Politično področje Industrija | Izobraževanje | Kultura

Ključna beseda digitalna tehnologija | DRUŽBENA IN SOCIALNA VPRAŠANJA | družbeno-kulturna skupnost | družboslovne vede | IZOBRAŽEVANJE IN KOMUNIKACIJE | komunikacije | komunikacijski sistem | kultura in religija | kulturna dediščina | kulturni pluralizem | manjšinski jezik | mediji | nova tehnologija | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | socialni okvir | tehnologija in tehnični predpisi | ZNANOST

Povzetek Cultural identity has always been a continuous process where the cultures have been changed due to the influence of several factors, including technological changes. Within the information society, the European cultural diversity is going to face severe upheavals. The final impact is controversial. On one side the new technologies themselves can be a mean for the difision, valorization and safeguard of minority cultures, on the other there is a serious risk of a possible standardization of the cultures due to commercial reasons. The information society can be considered both as a community or a market place. If the latter aspect will prevail and the majority of the services will be offered by large multinationals, interested in reaching scale economies, the risk of cultural standardization is evident. If, due to interactivity, the participating cultural model where the users have an active role, will prevail, the offer will be more personalized and the impact on cultural diversity will be positive. The fact the new media will be not mass-media offers better opportunities to minority cultures to express themselves in an information arena tailored by the users, outside centralized control. The de-localization promoted by the new media can constitute a push both to globalism (i.e. the reformulation of cultures outside their original context with the risk of loss of traditions and ways of living) and to "tribalism" (i.e. the identification only with a local community, without recognition of larger levels). Nevertheless, cohesion and safeguard of local cultures, traditionally regarded as diverging objectives, can be conciliated within the information society. The dematerialization of the cultures makes the offer of information and communication explode anti will have a large positive impact on the difision and on the memorization of the information, anti therefore, of the cultural heritage. The new communities emerging within the information society may have

Študija [EN](#)

Technology-Induced Atypical Workforms

Vrsta publikacije Študija

Datum 01-05-1999

Zunanji avtor Gerard Valenduc (Fondation Travail, University of Namur, Belgium) in association with Andrew Gillespie (Curds, Newcastle-upon-Tyne, UK)

Politično področje Industrija | Zaposlovanje

Ključna beseda delovni čas | delovno mesto | delovno pravo | delovno pravo in delovna razmerja | informacijska tehnologija | IZOBRAŽEVANJE IN KOMUNIKACIJE | kadrovske zadeve in nagrajevanje | komunikacije | netipična oblika zaposlitve | organizacija dela in delovne razmere | pogodba o delu | trg dela | zaposlovanje | ZAPOSLOVANJE IN DELOVNE RAZMERE

Povzetek This report is concerned with the relationship between emerging patterns of "atypical" work and the increasingly pervasive information and communication technologies (ICTs). By atypical work we mean forms of work which appear to be increasing in response to the new ways in which societies are organising economic production, but which as yet still affect only a minority of Europe's workers. The report considers several forms of atypical work, using the organising concepts of work time, employment contracts, work location, and, job detachment. It provides a number of concrete examples some of these practices are linked to the growth of ICTs. The report suggests that technology is only one of the drivers leading towards new work patterns. Others include globalisation, increased competition, feminisation of the workforce, change in consumer attitudes and lifestyles. Within this context ICTs facilitate change, but they do not predetermine outcomes. The report draws a number of sources to suggest that new forms of work are, indeed, becoming more important. For example, most new employment in the European Union in the 1990s was part-time and/or temporary and this trend accelerated in the second half of the decade. The report presents five key findings. First, work forms are likely to become increasingly diverse over the next few years and a "core-periphery" workforce may be emerging. Second, existing labour regulations will become increasingly ineffective for combining worker protection and economic efficiency if current trends towards diversity continue. Third, in these circumstances, new mechanisms will be required to ensure that skills are portable, and that they can be upgraded on a continuous basis. This cannot be left to the individual worker alone, and a range of 'stakeholders' will need to accept responsibility for this process. Fourth, the "welfare state" (here we also include private sector providers of loans, insurance health etc.) will

Študija [EN](#)

Bioinformatics - A Technology Assessment of Recent Developments in Bioinformatics and Related Areas of Research and Development Including Highthroughput Screening and Combinatorial Chemistry

Vrsta publikacije Študija

Datum 01-05-1999

Zunanji avtor Nik Brown, Annemiek Nelis, Brian Rappert and Andrew Webster (Science and Technology Studies Unit - SATSU, Anglia, Polytechnic University, Cambridge, United Kingdom); J. B. van Ommen (Leiden University Medical Center, Leiden, The Netherlands)

Politično področje Industrija | Raziskovalna politika

Ključna beseda biotehnologija | informacijska tehnologija in obdelava podatkov | informatika | IZOBRAŽEVANJE IN KOMUNIKACIJE | organizacija raziskovanja | prenos tehnologije | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | raziskave in razvoj | raziskovalna politika EU | tehnologija in tehnični predpisi

Povzetek In recent years, new gene science has become probably the most information and automation intensive activity in modern research and clinical innovation. In particular, gene sequence and functional analysis is now fundamentally dependent upon the global production, circulation and consumption of huge amounts of data. The exchanges between computational and biological sciences are both far reaching and reciprocal. On the one hand, masses of genetic information are being translated from their 'wet platform' onto the 'dry platforms' of silicon based databases. On the other hand, silicon is now becoming the basis for conducting 'wet' biological and chemical research using genechips and labchips. However, the interfaces between life science research, clinical innovation and computational science are fraught with problems for policy makers. For example, with what consequences does genetic data become property; how is data-access controlled and distributed; who will benefit and who will be excluded from potential dividends; how will Europe's life sciences adapt to the rising access costs to modern biological innovation; how might it be possible to create seamless integration across Europe's bioinformatic resources; what are the difficulties in bringing biological and computational skills together in innovative combinations; how will the Parliament prepare for new therapeutic and diagnostic innovations; how will quality and safety be maintained? All of these questions are addressed in this report beginning with a brief introduction to new developments in bioinformatics and the key actors involved. Section Two discusses some of the main technical, organisational and market barriers which inhibit actors from fully exploiting opportunities in the area. Section Three offers an assessment of the likely impact of bioinformatic-related technologies on healthcare. These impacts are then discussed in the context of nonclinical sectors like financial and forensic s

Študija [EN](#)

Small and Medium Sized Enterprises, Technology and Development

Vrsta publikacije Študija

Datum 01-05-1999

Zunanji avtor Luciano d'Andrea (Cerfe, Rome, Italy)

Politično področje Industrija | Razvoj in humanitarna pomoč

Ključna beseda države v razvoju | gospodarska politika | gospodarske razmere | gospodarsko povezovanje | GOSPODARSTVO | industrijsko sodelovanje | klasifikacija podjetij | mala in srednje velika podjetja | MEDNARODNI ODNOSI | ovrednotenje projekta | politika sodelovanja | POSLOVANJE IN KONKURENCA | poslovanje | prenos tehnologije | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | raziskave in razvoj | razvojna pomoč | tehnologija in tehnični predpisi

Povzetek The research on "Small and Medium-sized Enterprises, Technology and Development. An assessment of the potential contribution of SMEs to the diffusion of technology in less developed countries and of options for action by the European Union to promote this context of development and cooperation policies", carried out by the CERFE, was aimed at providing the means for evaluating EU programs in support of SMEs in developing countries and to provide an analysis of options for future EU policies in the field of technological development. The Final Report, divided into 7 chapters, provides a description of the main EU instruments and programmes in support to SMEs in Third countries (CDI, ACP-EU Industrial and Business Fora, ECIP, AL-Invest, ASIA-Invest, MEDA); then, it analyses some trends affecting SMEs, mainly with regards to technology transfer. Some useful elements for evaluating EU programs, as they came from the interviews carried out, are then considered. Four main strategic key points requiring further analysis (lack of a unified strategy for programs in support of SMEs; risk of political and bureaucratic self-referencing; lack of control over the "micro" dimension; problems in the relations with European partners) as well as some problems concerning programmes' quality (timeframes, administrative procedures, quality of local intermediaries; services provided; etc.) are analysed and discussed. Moreover, four main strong points (programmes' capacity in developing networks and partnerships; integration at the regional level; dynamism; programmes' catalyst effects) are presented. The last part of the document sets out recommendations and provides some options for improving EU interventions in support of SMEs in Third countries. Four main issues are considered: support to a unified EU policy on SMEs and technology transfer; improvement of the quality of programmes; integration of the intervention at various levels; improvement of the loyalty of European business.

Študija [EN](#)

The Selection of Indicators for the Evaluation of Programmes of Regional Assistance in the EU - Methods of Quantifying the Impact of the Structural Funds on Sustainable Development

Vrsta publikacije Študija

Datum 01-04-1999

Zunanji avtor Loucas Gourtzoyannis and Nikos Maroulis (Logotech, Athens, Greece)

Politično področje Industrija | Okolje | Regionalni razvoj | Zaposlovanje

Ključna beseda enako obravnavanje | EVROPSKA UNIJA | finance EU | gospodarska politika | gospodarska struktura | GOSPODARSTVO | kakovost okolja | Kohezijski sklad | OKOLJE | okoljska politika | pravice in svoboščine | PRAVO | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | razvoj podeželja | regije in regionalna politika | regionalni razvoj | regionalno gospodarstvo | strukturni skladi | tehnologija in tehnični predpisi | tehnološka sprememba | trajnostni razvoj | trg dela | trg dela | ZAPOSLOVANJE IN DELOVNE RAZMERE

Povzetek The objective of the present study is the improvement of the planning system, the selection of projects and the assessment of the impacts of regional programmes, and particularly concerns the re-definitions of the sets of indicators in use, in order to ensure:
- that interventions funded by Structural Funds are in line with the main EU policies and especially those on; and
- better exploitation of the opportunities and to confront more effectively with the threats of technology. Technological content of regional interventions and their links with EU policies on sustainable development and environment, employment and equal opportunities were analysed based on a number of regional programmes. The analysis resulted in a taxonomy of actions with technological content which formulate the basis for the classification of indicators. Further the impact of technology on sustainable development, employment and equal opportunities was analysed and sets of baseline and technology impact indicators were developed. Finally a methodology framework was developed which allows EU policies on sustainable development and quality of the environment, employment and promotion of equal opportunities to be taken into consideration during planning and evaluation of interventions and selection of projects. The framework also allows the assessment of the use of technology to be introduced as an integrated part of impact evaluation and project selection.

Študija [EN](#)

[Development of Surveillance Technology and Risk of Abuse of Economic Information - Appraisal of Technologies of Political Control \(Volume 1 to 5\)](#)

Vrsta publikacije Študija

Datum 28-03-1999

Zunanji avtor Peggy Becker (visiting researcher, Directorate General for Research, European Parliament) - Volume 1
Duncan Campbell (IPTV Ltd., Edinburgh, the UK) - Volume 2
Franck Leprevost (Technische Universität Berlin, Germany) - Volume 3
Chris Elliot - Volume 4
Nikos Bogolikos (Zeus E.E.I.G) - Volume 5

Politično področje Industrija | Pravo EU: pravni sistem in akti | Varstvo potrošnikov | Človekove pravice

Ključna beseda EVROPSKA UNIJA | Evropski parlament | informacije in obdelava informacij | informacijska tehnologija in obdelava podatkov | institucije EU in evropska javna uprava | IZOBRAŽEVANJE IN KOMUNIKACIJE | komercialni mediji | komunikacije | kriptografija | pravice in svoboščine | PRAVO | telekomunikacije | varstvo podatkov | varstvo zasebnosti | človekove pravice

Povzetek Volume 1 - Presentation and Analysis. Containing four studies, this volume, commissioned by STOA, on electronic surveillance and the risk of abuse of economic information compares and contrasts the legislation covering fundamental freedoms with the respect for human rights.
Volume 2 - The state of the art in communications. Communications Intelligence (COMINT) of automated processing for intelligence purposes of intercepted broadband multi-language leased or common carrier systems, and its applicability to COMINT targeting and selection, including speech recognition.
Volume 3 - Encryption and cryptosystems in electronic surveillance : a survey of the technology assessment issues.
Volume 4 - The legality of the interception of electronic communications. A concise survey of the principal legal issues and instruments under international, European and national law.
Volume 5 - The perception of economic risks arising from the potential vulnerability of electronic commercial media to interception : Survey of opinions of experts.

Študija [EN](#)

[Sustainable Use of Pesticides](#)

Vrsta publikacije Študija

Datum 01-01-1999

Zunanji avtor Van Velsen (MTI Inst. Nijmegen, the Netherlands)

Politično področje Kmetijstvo in razvoj podeželja | Okolje | Varstvo potrošnikov

Ključna beseda kmetijska politika | kmetijstvo | KMETIJSTVO, GOZDARSTVO IN RIBIŠTVO | obremenitve okolja | OKOLJE | onesnaženje živil | onesnaževanje iz kmetijskih virov | ostanki pesticidov | potrošnja | rastlinska proizvodnja | trajnostno kmetijstvo | TRGOVINA | varstvo potrošnikov

Študija [EN](#)

[State of Play of the Interstate Customs Computer Network](#)

Vrsta publikacije Študija

Datum 01-12-1998

Zunanji avtor Maurizio Pedrelli (Pragmata, Reggio Emilia, Italy)

Politično področje Industrija | Notranji trg in carinska unija

Ključna beseda carinska politika | carinsko sodelovanje | notni trg | EVROPSKA UNIJA | FINANCE | graditev Evrope | informacije in obdelava informacij | izmenjava informacij | IZOBRAŽEVANJE IN KOMUNIKACIJE | izogibanje plačilu davka | mednarodna trgovina | MEDNARODNI ODNOSI | obdavčenje | poenostavitev carinskih formalnosti | politika sodelovanja | prosti pretok blaga | TRGOVINA

Povzetek The process of integration within the European Union has led, in a relatively short period, to the creation of a Single Market by means of the removal of physical, technical and fiscal barriers. On the other hand, the process of integration among legislation and customs authorities of the different Member States has not been so rapid, causing serious problems and inconsistency.
Customs procedures more exposed to frauds are import/export movements under a transit procedure (evasion of VAT and duties) and intra-community movements (evasion of VAT and excise duties); who primarily benefits from frauds are criminal organisations¹, and not traders now and then evading financial obligations. Bad consequences are also born by honest traders covering the movements with guarantees.
Since the early stages it was expected that extensive application of information networks would have made up for the inadequacy of the customs system. As a matter of fact a number of projects concerning the electronic interchange of standardised data and information has been launched since the early 80s to achieve that aim, but results still leave much to be desired in comparison with original objectives.
The existence of a national customs information system in each MS can no doubt influence (positively or negatively) the development of the European Customs network and it seems that the prospect of a unique customs information system at European level is very remote.
The cause of the difficulties experienced in the development of the European Customs network is attributed to the presence of different information systems in each MS. On the contrary some cases, described below, demonstrate the actual possibility to implement such a network among several information systems with the necessarily high security standard. The study discusses in details the development and the current state of the art of the European Customs Information System and presents alternative options for the establishment

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Consequences of Climate Change for Agricultural Production

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Datum 01-12-1998

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Politično področje Kmetijstvo in razvoj podeželja | Okolje | Razvoj in humanitarna pomoč

Ključna beseda ekosistem | hektarski donos | kmetijska proizvodnja | kmetijski sistemi | KMETIJSTVO, GOZDARSTVO IN RIBIŠTVO | naravna nesreča | naravno okolje | obremenitve okolja | OKOLJE | okoljska politika | slaba letina | sprememba podnebja | vodni viri | zmanjšanje emisij plinov | širjenje puščave

Povzetek Climate plays a major role in determining the yield levels, the year-to-year variability and the spatial patterns of global agriculture. Agriculture is sensitive to short term changes in weather and to seasonal, annual and longer term variations in climate. Over the long term, agriculture is able to tolerate moderate variations about the climatic mean. Longterm marked changes in temperature, precipitation, and solar radiation will have an effect on the productivity of crop and livestock agriculture. Climate change will also have economic effects on agriculture, including changes in farm profitability, prices, supply, demand, trade, and regional comparative advantages. The magnitude and geographical distribution of such climateinduced changes may affect our ability to expand food production as required to feed a population of more than 10000 million people projected for the middle of the next century. Climate change could thus have far-reaching effects on patterns of trade among nations, development, and food security. The world's forest estate has declined significantly in both area and quality in recent decades. The major causes of this decline are deforestation and air pollution, with climate change, storms and fires aggravating the situation. Because average temperatures are expected to rise more near the north and south poles than near the equator, the shift in climate zones will be more pronounced at higher latitudes. In the mid latitude regions (450 to 600), present temperature zones could shift by 150-550 km. Since each of today's latitudinal climate belts are optimal for particular crops, such shifts could strongly affect agricultural and livestock production. Efforts to shift crops poleward in response could be limited by the inability of soil types in the new climate zones to support intensive agriculture as practised today in the main producer countries. The impact on crop yields and productivity will vary considerably. Added heat stress, shifting m

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Revision of Directive 90/220/EEC on the Deliberate Release of Genetically Modified Organisms

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Datum 01-05-1998

Zunanji avtor René Von Schomberg (ICHPA, Tilburg, the Netherlands)

Politično področje Industrija | Notranji trg in carinska unija | Okolje | Peticije Evropskemu parlamentu

Ključna beseda dovoljenje za prodajo | enotni trg | EVROPSKA UNIJA | genetsko spremenjen organizem | graditev Evrope | izvajanje prava EU | načelo previdnosti | OKOLJE | okoljska politika | pravo Evropske unije | PROIZVODNJA, TEHNOLOGIJA IN RAZISKOVANJE | raziskave in intelektualna lastnina | tehnologija in tehnični predpisi | TRGOVINA | trženje | vpliv na okolje

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