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REPORT

on "2050: The future begins today – Recommendations for the EU's future integrated policy on climate change"
(2008/2105(INI))

Temporary Committee on Climate Change

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DRAFT EUROPEAN PARLIAMENT RESOLUTION

on "2050: The future begins today – Recommendations for the EU's future integrated policy on climate change"
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The European Parliament,

– having regard to its decision of 25 April 2007, adopted pursuant to Rule 175 of its Rules of Procedure, on setting up a temporary committee on climate change[1],

– having regard to existing EU environmental legislation making a positive contribution to combating climate change in various policy areas (Annex A) and to its resolutions on climate change, particularly those adopted during the current sixth parliamentary term (Annex B),

– having regard to its resolution of 15 November 2007 on limiting global climate change to 2 degrees Celsius – the way ahead for the Bali Conference on Climate Change and beyond (COP 13 and COP/MOP 3)[2],

– having regard to its resolution of 31 January 2008 on the outcome of the Bali Conference on Climate Change (COP 13 and COP/MOP 3)[3],

– having regard to its resolution of 10 April 2008 on the Commission Green Paper on "Adapting to climate change in Europe – options for EU action" (COM(2007)0354)[4],

– having regard to its resolution of 21 May 2008 on the scientific facts of climate change: findings and recommendations for decision-making[5],

– having regard to its resolution of 21 October 2008 on building a Global Climate Change Alliance between the European Union and poor developing countries most vulnerable to climate change[6],

– having regard to the declaration of 8 July 2008 made at the G8 Summit in Hokkaido Toyako (Japan) on 'Environment and Climate Change', stating the long-term intention to halve greenhouse gas emissions by 2050,

– having regard to the 14th Conference of Parties to the UN Framework Convention on Climate Change (UNFCCC) (COP 14) and the Fourth Conference of Parties serving as a meeting of the parties to the Kyoto Protocol (COP/MOP 4), from 1 to 12 December 2008 in Poznań (Poland),

– having regard to the Citizens' Agora on Climate Change, held on 12 and 13 June 2008,

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[1] OJ C 74 E, 20.3.2008, p. 652; see also the minutes of the plenary sitting of 18.2.2008, point 7.
[2] OJ C 282 E, 6.12.2008, p. 437.
[3] Texts adopted, P6_TA(2008)0032.
[4] Texts adopted, P6_TA(2008)0125.
[5] Texts adopted, P6_TA(2008)0223.
[6] Texts adopted, P6_TA(2008)0491.

– having regard to the Joint Parliamentary Meeting of the European Parliament and the national parliaments, held on 20 and 21 November 2008 to debate energy and sustainable development,

– having regard to the results of the Eurobarometer Special opinion poll No 300 on Europeans' attitudes to climate change,

– having regard to the public hearings and exchanges of views with senior figures held by the Temporary Committee on Climate Change and the outcome of delegation visits,

– having regard to Rule 45 of its Rules of Procedure,

– having regard to the report of the Temporary Committee on Climate Change (A6-0495/2008),

Guiding political ideas

A. whereas the task of preserving nature and humanity is passed on from one generation to the next,

B. whereas global warming is now recognised as a very serious, urgent and man-made threat and is already having, like climate change, a momentous impact,

C. whereas, particularly in the current parliamentary term, the European Parliament's work on climate change has been a source of inspiration and a mandate for action to shape an integrated European policy to combat climate change and to reconcile climate change with sustainable economic growth,

D. whereas Parliament is examining, together with the Council, proposals for legislation aimed at delivering the EU climate commitments,

E. whereas the Lisbon Treaty explicitly lays down the objectives and competences of the European Union in the field of climate change and, if ratified, will strengthen the Union's role in promoting sustainable development and fighting climate change,

F. whereas the leading role of the European Union in the international fight against global warming and its particular responsibility as a union of developed countries contribute to its sense of identity and imply an obligation to the citizens of Europe not only to formulate medium- and long-term climate objectives but to achieve those objectives through forward-looking political measures, as well as through political dialogue with developing countries,

G. whereas a key objective of the European Union as regards both its internal policy and its external relations is promoting respect for human rights, and whereas, in particular, the European Union recognises the rights to life, security, health, education and environmental protection as fundamental, as well as the protection of persons particularly vulnerable to the effects of climate change, including women, children, the elderly and persons with disabilities,

H. whereas parliamentary representatives of the citizens of Europe, not only now but in the

future, should be guided by these climate policy principles and by the principles of sustainability, social responsibility and equity between the generations and people, and should not cease from putting the necessary global climate objectives into practice,

I. whereas climate change has a particularly damaging and costly impact on some areas, such as upland and coastal areas,

J. whereas climate change is a challenge to which there is no single political solution, but whereas the combination of existing opportunities and a dramatic increase in efficiency in all areas of the economy and society may make a contribution to resolving the problem of resources and distribution and pave the way for a third industrial revolution,

K. whereas human society is facing a dual challenge as regards threats to the earth's life-supporting system, namely climate change and the overuse and destruction of many of the most important ecosystems; whereas there are many interlinkages between the climate system and ecosystems – in particular the capacity of oceans and terrestrial ecosystems to sequester carbon – and whereas climate change can only be addressed effectively within the context of healthy ecosystems,

L. whereas according to data for 2006 supplied by the European Environment Agency, energy production accounts for 30.9% of total greenhouse gas emissions within the EU, transport for 19.4%, private households and services for 14.6%, building trades and industrial production for 12.9%, agriculture for 9.2%, industrial processes for 8.1% and the waste sector for 2.9%, the other emissions being caused by chemical solvents and non-specific combustion processes,

M. whereas urgent measures are needed to tackle energy and fuel poverty,

N. whereas many sectors are already making a contribution to reducing greenhouse gas emissions and many low-cost climate change reduction opportunities and efficiency-improving technologies are already available, though their comprehensive application is being blocked by market access barriers, bureaucratic obstacles and high funding costs,

O. whereas it will not be possible to overcome climate change solely by emissions reductions in each individual sector; whereas, instead, a systematic approach to the problem will be needed in order to seek cross-sectoral political solutions and to achieve changes to production and consumption and trade patterns throughout society by coherent legislation and adaptation to unavoidable change,

P. whereas measures aimed at greenhouse gas reductions in production, land use and waste management are of the highest priority, and whereas the crucial importance of consumption patterns and lifestyles must also be recognised,

Q. whereas the impact of climate change on human societies is already being felt in many places, such as the Sahel, where desertification is having a major effect, Bangladesh, which is subject to repeated flooding, certain parts of Europe, and several Pacific islands which are destined to disappear underwater,

The international dimension: post-2012, external climate policy and international trade

R. whereas the negotiations towards a post-2012 agreement are being carried on under UN leadership in accordance with the Bali roadmap in the following core areas: emissions reductions and new binding reduction targets, adaptation measures, forest clearance**,** destruction and degradation, development of technology for mitigation and adaptation measures, the necessary financial resources, and finally the review of the flexible mechanisms under the Marrakesh agreements on the Kyoto Protocol,

S. whereas the World Trade Organization (WTO), the World Bank and the International Monetary Fund should also be deeply involved in the mitigation effort,

T. whereas the negotiations on a post-2012 agreement need to be concluded at the Copenhagen climate conference (COP 15) at the end of 2009 in order to avoid a gap between the first and second commitment periods,

U. whereas the Council's 2008 Spring Summit stressed the need to speed up the negotiations on the Bali roadmap with a view to adopting a new climate change agreement by 2009, in accordance with the EU's 2°C objective,

V. whereas the leading industrial nations expressed their support at the recent G8 summit in Hokkaido Toyako (Japan) for halving CO_2 emissions by 2050, and wish to pursue this objective in negotiations on a post-2012 agreement,

W. whereas climate change may exacerbate the potential for conflict in international relations, for example through climate-induced migration, loss of land and border disputes arising from floods and receding coastlines, as well as conflicts over resources owing to shrinking arable land, growing water scarcity or deforestation,

X. whereas the Council's 2008 Spring Summit ordered a European strategy to be drawn up for the financing of measures to combat climate change, aimed at the reduction of emissions and adaptation linked to research into, and development of, low-carbon technologies and the transfer of such technologies,

Y. whereas mitigation and adaptation efforts are both of paramount importance; whereas industrialised countries have an historical responsibility for climate change; whereas developing countries have contributed little to climate change and yet are the most affected by it; whereas the available funding to combat climate change in developing countries is inadequate and should be substantially increased,

Z. whereas the development and transfer of modern environmental technology is an essential precondition for the successful implementation of global emissions reduction and adaptation strategies,

AA. whereas technology transfer is being hindered by concerns about the protection of intellectual property, by weak political institutions and the absence of the rule of law, and by a general lack of capital,

AB. whereas the WTO does not represent an alternative negotiating forum for international

action on the climate, and whereas without a successful conclusion to the post-2012 negotiations world trade cannot be expected to help in combating climate change,

AC. whereas the EU's carbon footprint includes the greenhouse gases emitted in the production of goods consumed in Europe but produced elsewhere,

Energy

AD. whereas oil is the most important source of energy worldwide, accounting for some 35% of primary energy consumption, followed by coal at 25% and natural gas at 21%; whereas, however, the age of cheap and abundant fossil energy is coming to an end,

AE. whereas developments on the energy markets help the pursuit of climate objectives, since market-driven increases in energy prices form important incentives to sustainable use of resources and thus to low-CO_2-footprint consumption,

AF. whereas the International Energy Agency predicts an increase of at least 60% in world energy requirements by 2030, some of which will be engendered by the emerging countries,

AG. whereas in the medium to long term there can be no question of covering the increasing need for energy solely with fossil fuels, and whereas investment decisions over the next few years will determine the structure of the energy system and the composition of the energy mix for the coming decades,

AH. whereas the growing need for energy requires a number of complementary measures, such as the urgently needed modernisation of the existing fossil-fuel-fired power stations and transmission networks with a view to a massive improvement in overall energy efficiency, the construction of new power plants and the constant expansion of renewable energy sources,

AI. whereas energy savings are in the long term the most cost-effective and cleanest way of saving resources and thus combating climate change, and whereas committed and sustained efforts to enhance the EU’s energy efficiency will bring about widespread structural solutions across the economy, thereby paving the way towards a green low-carbon economy,

AJ. whereas the use of nuclear energy – irrespective of the availability of uranium – still raises the issue of the safe final storage of nuclear waste and the spread of the technology to undemocratic states,

AK. whereas the International Thermonuclear Experimental Reactor project has become a capital-intensive development centre for nuclear fusion as a possible new energy source for the future, and whereas any contribution to the energy market can only be expected in the ultra-long term,

Biofuels

AL. whereas current policy on biofuels must be seen in a global perspective, where on the one

hand there is growing competition for productive land and on the other there is an increasing need for renewable energy, in particular in the transport sector,

AM. whereas the production of biomass offers many developing countries new economic opportunities for energy production and as a fuel, and will make them less dependent on energy imports, provided that such production is sustainable and does not lead, for example, to monocultures or to competition as regards food production,

AN. whereas the emissions reduction potential of many first-generation biofuels in comparison to conventional fuels has been revised downwards, in some cases substantially, following a comprehensive life-cycle analysis, and whereas issues of sustainability, environmental impact and the availability of arable land in competition with food production have still not been satisfactorily resolved,

AO. whereas a sustainable biofuels policy should be geared not only to setting sustainability criteria for the manufacture of biofuels but also to promoting the most rapid development possible of second-generation biofuels,

AP. whereas the petroleum industry will only put in place the necessary comprehensive infrastructure for new fuels when there is a sufficient demand for biofuels, but whereas the motor industry has made technological advances permitting any mixture of petrol and biofuels to be detected by a sensor in the vehicle, a device which will also enable older vehicles to run on biofuels, thus achieving CO_2 emissions reductions over the whole range of existing vehicles,

AQ. whereas the potential of biofuels can only be realised if they are seen as a component in the development of sustainable transport systems, including the development and use of highly fuel-efficient vehicles,

Energy efficiency

AR. whereas several Member States do not have a clear strategy for energy efficiency,

AS. whereas the Member States should improve and expand the use of energy-efficiency certificates, and link the recommendations to financial incentives,

AT. whereas decreasing energy consumption together with energy efficiency at an individual and community level creates new commerce and jobs and combats energy poverty,

AU. whereas the construction sector accounts for 40% of final energy consumption, and 33% of all greenhouse gas emissions are thus generated by the built environment,

AV. whereas the building sector (residential buildings, commercial and public buildings) has an enormous cost-efficient potential for reducing CO_2 by modernising thermal insulation and heating/cooling systems, electrical appliances and ventilation systems and by installing sun protection,

AW. whereas low-energy houses are attractive, fashionable and cost-effective,

AX. whereas decoupling growth in energy consumption from economic growth by investing

in energy efficiency in all sectors of society is a key objective of the EU,

AY. whereas there is a need to develop financial instruments, to allocate the necessary budgetary resources for the improvement of energy efficiency and to constantly review and adjust efficiency standards for electrical and electronic appliances in line with market developments, as well as to extend standards to cover large industrial appliances and to consider introducing a ban on "stand-by" mode for new equipment,

Mobility and logistics

AZ. whereas the separation of transport growth from economic growth as a whole is a key objective of EU transport policy, but whereas demand for transport services has nevertheless outstripped GDP growth and the already high share of transport in EU greenhouse gas emissions is thus continuing to rise,

BA. whereas transport currently accounts for approximately one third of final energy consumption in the EU and the transport sector is almost completely (97%) dependent on petroleum-based fuels (petrol and diesel),

BB. whereas the EU's greenhouse gas emissions from 1990 to 2005 would have fallen by 14% instead of 7.9% if the transport sector had achieved the same reductions as other sectors,

BC. whereas 80% of Europe's population live in urban areas, where 40% of all transport emissions are produced, with congestion – which is also concentrated in urban areas – costing the EU some 1% of its GDP,

BD. whereas on the one hand urban mobility is directly linked to individual quality of life, while on the other hand it is individual transport in cities that contributes substantially to greenhouse gas emissions and other environmental problems such as air pollution and noise, so that instead of enhancing quality of life for many citizens it can considerably detract from it through negative effects on health,

BE. whereas half of all journeys made by EU citizens are shorter than 5 km,

BF. whereas 60% of all car journeys and 90% of all rail journeys in daily regional and commuter traffic are no longer than 30km,

BG. whereas the transport of freight by rail and waterways decreased between 2001 and 2006 (from 18.6% to 17.7% and from 6.5% to 5.6% respectively) while freight transport by road increased (from 74.9% to 76.7%),

BH. whereas the transport of passengers and goods by water is one of the most energy-efficient transport modes and the proportion of goods transported by water in the EU is around 40%,

BI. whereas it is estimated that the energy consumed per tonne of goods and km of travel by inland waterways transport amounts to one sixth of the energy consumption of road transport and half that of rail transport,

BJ. whereas trade on overseas routes is on the increase and the trend is towards larger container and passenger ships which consume more heavy-grade oil and thus pollute the environment more severely than in the past, and yet international shipping forms no part of international efforts to combat climate change,

BK. whereas on the one hand the gradual liberalisation and deregulation of the aviation sector over the past decade was an essential precondition for the dynamic growth of air transport, with a 49% increase in passenger flights within the EU from 1999 to 2004, while on the other hand CO_2 emissions from the sector as a whole rose by 79% from 1990 to 2005,

BL. whereas the growth of the air transport sector continues to increase its environmental impact in spite of technical and operational improvements, but whereas there has as yet been no debate on binding emission standards for aero engines, there have been only restricted improvements in engines and there are no studies on implementing possibilities,

BM. whereas the Commission and the Member States have launched the "Clean Sky" Joint Technology Initiative and the SESAR, Galileo and GMES programmes, as well as research projects for intelligent transport systems, with a view to improving energy efficiency in the transport field,

BN. whereas air transport emits into the atmosphere not only CO_2 but also nitrogen oxides, water vapour, sulphates and particulates which, according to estimates by the International Panel on Climate Change (IPCC), intensify the overall effect of aviation emissions by a factor of 2 to 4, estimates which do not take account of the additional effect of cirrus cloud formation,

BO. whereas it should be stressed that, in the long term, the most efficient way of reducing transport-based emissions is to decrease transport growth as a whole by making public transport a more attractive alternative to passenger cars, increasing the volume of rail transport and ensuring that urban and infrastructure planning takes into account the absolute need to reduce the use of passenger cars,

BP. whereas programmes such as Marco Polo and NAIADES have been insufficiently used by Member States to shift the transport of merchandise to inland waterways and to seas,

BQ. whereas the inhabitants and economies of the outermost regions are extremely dependent on air transport for their mobility and development,

Tourism and cultural heritage

BR. whereas a study by the UNESCO World Cultural Heritage Centre states that one-tenth of all world cultural heritage sites and traditional landscapes are threatened by the effects of climate change,

BS. whereas, according to the United Nations World Tourism Organization, Europe is the most important tourist region in the world, accounting for 55% of all international tourist arrivals in 2006,

BT. whereas climate change may alter tourist flows, which would involve major economic disadvantages for the holiday regions affected,

Emission Trading Scheme and industrial emissions

BU. whereas the European Emission Trading Scheme is a unique instrument for achieving emissions reductions with maximum efficiency and may act as a model for similar schemes, though the compatibility of such schemes would have to be guaranteed,

BV. whereas the industrial sectors are key to meeting the greenhouse gas emission reduction targets set by the European Council and whereas they should be encouraged to reduce their industrial greenhouse gas emissions further, whilst remaining competitive,

BW. whereas the idea underlying the Clean Development Mechanism (CDM) and Joint Implementation (JI), namely the dissemination of modern and efficient technologies, should work in reality; whereas CDM/JI should be limited to high-quality projects which provide documented additional reductions in greenhouse gas emissions,

Agriculture and livestock breeding

BX. whereas changes to agricultural practices, European environmental legislation and the most recent structural reforms in the common agricultural policy aim at sustainability and thus indirectly – via improved use of available resources – bring about a reduction in emissions,

BY. whereas agriculture is an emitter of greenhouse gases but also contributes positively to the reduction of greenhouse gas emissions, and also suffers directly from the negative effect of climate change leading to different economic and social consequences across regions of Europe,

BZ. whereas the increased consumption of meat and fish have had an impact on climate change as well as other environmental consequences, and may lead to conflicts about how best to use land and resources in order to reduce hunger in the world,

CA. whereas specific climate objectives – such as binding requirements for the reduction of methane and nitrous oxide emissions – are lacking in agriculture, as are incentive schemes to exploit existing emissions reduction potential,

CB. whereas the widespread cultivation of feedstuffs for livestock production contributes substantially to the total greenhouse gas emissions from agriculture,

CC. whereas the rearing of livestock in a more nearly natural way has significant benefits for the environment in terms of care for the landscape and the conservation of grazing areas, while also reducing energy input and emissions,

CD. whereas livestock numbers should be adapted to suit the land areas available and whereas soil-sustainable grazing practices could help to prevent soil erosion in pasturage areas,

Forests

CE. whereas forests are very valuable for the biosphere and have many functions in the global eco-system,

CF. whereas forests have three-dimensional roles in climate change mitigation: as carbon stocks through sustainable use and protection of forests, as carbon sinks through forestation and as a substitute for fossil fuels and fossil products as a renewable raw material,

CG. whereas over 30% of the world's landmass is covered in forest, which is home to more than two thirds of all species living on earth, and whereas some 30% of annual greenhouse gas emissions are absorbed by forests,

CH. whereas on the one hand forests play a vital role in holding back climate change while on the other hand at least a third of the world's forests are affected by the consequences of climate change,

CI. whereas the most serious problem underlying forest destruction lies in related socio-economic factors such as poverty and under-development, weak political institutions and absence of the rule of law, as well as unjust property ownership conditions and corruption which can, amongst other consequences, lead to the illegal logging and clearing of forests,

CJ. whereas forest areas are destroyed because of fires caused by heat waves, flooding or deforestation,

CK. whereas there are not enough strategies and programmes for the reforestation of forests that have been cleared,

CL. whereas the great extent of the forest area destroyed each year makes a decisive contribution to CO_2 emissions,

CM. whereas the make-up of forest plantations in the EU does not reflect the natural mixed woodland characteristic of Europe,

Soil protection

CN. whereas the soils of Europe are undergoing irreversible damage at a faster rate than ever before, and the extent of this damage is being intensified by climate change,

CO. whereas the thawing of permafrost soils is altering the nature of soils in the northern hemisphere and releasing significant additional quantities of methane into the atmosphere,

Water management

CP. whereas the availability of water resources, drinking water and other water supplies, water consumption and the treatment of waste water are closely linked to economic and social conditions,

CQ. whereas the regional disparities in Europe with regard to available water resources, and the occurrence of floods and droughts, are being intensified still further by climate change,

Fisheries

CR. whereas fish and shellfish are an important source of food, and whereas the ocean is the largest carbon sink in the world and serves as a source of biomass and raw materials,

CS. whereas the nutritional resources of the sea are already being overexploited,

Waste treatment and resource management

CT. whereas the quantity of waste is regrettably continuing to rise, in spite of all efforts to reduce it,

CU. whereas European legislation on waste already contributes to reducing greenhouse gas emissions from the waste sector, even though not every potential is yet being exploited,

CV. whereas waste hierarchy is a key principle guiding climate change mitigation in the waste sector,

CW. whereas it should be acknowledged that waste disposal innovations and the increased use of recycled products have a positive impact on the environment,

Adaptation measures

CX. whereas adaptation measures of all kinds represent an insurance for the future with a view to alleviating damage from past greenhouse gas emissions and the consequent rise in temperature,

CY. whereas using a pure cost-benefit analysis in the development of adaptation measures is not sufficient to guarantee the necessary minimum protection to all population groups; whereas, with a view to such measures, the local effects of climate change need to be analysed as a matter of urgency,

CZ. whereas according to the Millennium Ecosystem Assessment the consumption of natural resources currently threatens two thirds of all ecosystems, increases vulnerability to climate change and thus further intensifies the pressure to develop adaptation measures as soon as possible,

DA. whereas the joint EEA (European Environment Agency), JRC (Joint Research Centre) and WHO (World Health Organization) report entitled “Impacts of Europe’s changing climate” draws attention to the fact that vulnerability to climate change varies widely across regions and sectors in Europe, hitting mountainous regions, coastal zones, the Mediterranean and the Arctic harder, and whereas that report underlines that, in addition to enhanced global greenhouse gas emission reductions, proactive adaptation measures are needed at European and national level in order to moderate effects**,**

Health

DB. whereas many of the effects of climate change on health as reported, for instance, by the WHO may be kept at bay by preparing and strengthening health systems by appropriate preventive measures, with particular attention being paid to the spread of tropical diseases, and by public information campaigns addressing especially vulnerable groups such as pregnant women, newborn babies, children and elderly people,

DC. whereas the European Environment and Health Action Plan 2004-2010 is definitely inadequate to address the environmental causes which affect health, especially those stemming from climate change,

Growth and employment

DD. whereas the climate policy goals agreed at the 2007 Spring Summit are technically and economically feasible and offer unique business opportunities for thousands of European firms,

DE. whereas many businesses have not yet sufficiently recognised the scope of the opportunities and risks linked to climate change,

DF. whereas committed action to combat climate change is compatible with continued economic growth and prosperity; whereas it could represent an effective investment with an important anti-recession function and must be seen as a challenge for wide-ranging structural changes having as their ultimate objective the development of a truly green economy,

DG. whereas there is more likely to be a restructuring of jobs within particular industries than between one industry and another,

Promoting technologies of the future

DH. whereas emissions trading is the essential building block of the European climate change programme, with a view to achieving lower greenhouse gas emissions through improved efficiency,

DI. whereas achieving climate change mitigation targets requires appropriate financial steering mechanisms to endorse the development and application of energy-efficient and clean technologies,

DJ. whereas sustainable housing offers enormous potential for job creation,

DK. whereas improved efficiency alone will not spark off a technological revolution, but will necessitate an integrated strategy at European, national and local level to boost R&D in novel and advanced technologies and processes, and to strengthen their take-up,

DL. whereas emissions trading alone is not sufficient to find a way out of the CO_2 impasse and to spark a widespread revolution in the field of low-CO_2 technologies,

DM. whereas carbon capture and storage (CCS) is already being applied on a small scale in

various areas – e.g. in oil and gas extraction – but is still in the early stages as a major technology to combat climate change,

DN. whereas the costs and risks still outweigh the economic advantages, and the effectiveness of power stations using CCS is diminishing despite the use of the latest technology,

DO. whereas the technology for CCS, as a bridging technology on the way to the decarbonisation of the energy system, may contribute to resolving the issue of reducing CO_2 emissions from power stations and could serve to complement renewable technologies, but whereas CCS is an end-of-pipe technology,

Intelligent computer systems and ICT

DP. whereas the ICT sector currently produces 2% of global CO_2 emissions, but the industry is potentially capable not only of reducing its own CO_2 emissions but also, in particular, of developing innovative and more energy-efficient applications for the economy as a whole,

Financing and budgetary matters

DQ. whereas the current EU budget is insufficient to achieve the climate objectives, since the political priority of combating climate change has not yet been furnished with the necessary budgetary appropriations,

DR. whereas in the forthcoming financial framework, budgetary appropriations must be allocated to combat climate change and create a European adaptation policy, in order to ensure that the EU has a sufficient "climate change budget" for the next budgetary period after 2013,

DS. whereas combating climate change must be taken into account in all EU policies; whereas, consequently, the EU can no longer merely redistribute existing resources but should promote the creation of new resources to finance the cross-sectoral nature of the fight against climate change,

Education, training, reporting, labelling and awareness-raising

DT. whereas economic and social policy measures to combat climate change herald a cultural transformation which will alter established habits and lifestyles, but whereas it will not be possible to achieve genuinely sustainable consumption and use of raw materials in all areas of society without a change of thinking and behaviour, for which new models of consumption and lifestyles must be developed,

DU. whereas climate change will give a boost to technological modernisation, representing an economic opportunity which can only be exploited if there are enough qualified specialist workers on the labour market,

DV. whereas the Eurobarometer Special Poll (Special Eurobarometer No 300) clearly shows that climate change is regarded as a very serious problem by a large majority of respondents in Europe, but whereas many complain of a lack of information and whereas

personal initiatives to counteract global warming tend to be confined to fairly simple measures such as waste sorting or lower energy and water consumption which do not call for any drastic changes in daily life,

DW. whereas the information needed to examine one's own mobility habits regarding, for example, the use of private cars and alternative means of transport (walking, cycling or public transport) is available,

DX. whereas European climate objectives and rules help local and municipal decision-makers to improve the quality of life in many towns in the European Union, and whereas local initiatives in metropolitan regions make a crucial contribution to reducing the EU's CO_2 emissions,

DY. whereas it is not the responsibility of retailers alone to bring about alternative purchasing behaviour among their customers; whereas, however, businesses as a whole could set examples of sustainability and resource efficiency through their business models and production processes and could make their staff into a significant multiplier for climate-aware action,

DZ. whereas consumer information concerning the climatic effects of agricultural products is largely lacking, but whereas targeted information campaigns can influence the purchasing behaviour of consumers and thus also achieve health policy objectives,

EA. whereas the problem of climate change cannot be tackled without the large-scale involvement of local people in all parts of the world, and whereas, therefore, one of the essential tasks will be to provide them, by every possible means, with the information they require in order to help solve problems and also to protect themselves when adaptation difficulties arise, as they inevitably will**,**

2050 – The future begins today

EB. whereas the world population's need for resources already exceeds by one quarter the earth's natural regeneration capacity, thus depriving future generations of the essentials of life,

EC. whereas the foundations of future production methods and consumer behaviour will be laid by the political decisions of the present, which call for foresight and political leadership, but whereas a more sustainable lifestyle will not be possible without the contribution of the economy, science, the media, organised civil society and the citizens,

ED. whereas climate change is a global environmental problem the causes of which are structural in nature,

Guiding political ideas

1. Recalls its abovementioned resolution of 21 May 2008, and in particular the fact that all efforts to curb emissions should aim at staying well below the objective of limiting global temperature increases to below 2°C, inasmuch as a level of warming of that magnitude would already impact heavily on our society and individual lifestyles and would also

entail significant changes in ecosystems and water resources; is deeply concerned about the fact that, as indicated by many recent scientific reports, climate change is both more rapid and more serious in terms of its adverse effects than was previously thought; consequently, calls on the Commission to closely monitor and analyse the latest scientific findings with a view to assessing, in particular, whether the EU 2°C target would still achieve the aim of avoiding dangerous climate change;

2. Stresses that there is an urgent need –pursuing a horizontal approach – to incorporate global warming and ensuing climate change as new parameters into all spheres and policies, and to take the causes and consequences of global warming into account in every relevant area of European legislation;

3. Recalls in particular the essential objectives in combating climate change and stresses the importance, in accordance with the recommendations contained in the IPCC's Fourth Assessment Report (AR4) and as included in the Bali roadmap, of setting, for the EU and the other industrialised countries as a group, a medium-term target of a 25-40% reduction in greenhouse gas emissions by 2020, as well as a long-term reduction target of at least 80% by 2050, compared to 1990, maintaining the focus on restricting the increase in average global temperature to 2°C over pre-industrial levels and thus achieving a 50% probability of meeting this objective;

4. Stresses that a nation's impact on the climate is not limited to its physical emissions; urges the EU to take urgent steps at home and in the context of international negotiations to develop accounting principles that also include the full effects of consumption, including the effects of international aviation;

5. Calls on the Commission to consider the carbon footprints of future European policy initiatives so as to ensure that climate change targets set at European level are met, whilst still ensuring a high level of protection for the environment and public health;

6. Stresses the political measures, and cooperation at international level (including regional multilateral agreements) and at EU and Member State level, repeatedly proposed by Parliament with a view to combating climate change;

7. Recalls its position of [date of adoption in plenary] within the framework of the legislative procedures on the “climate and energy package”;

8. Is committed to a leading role for the European Union in international negotiations under the UNFCCC at COP and MOP level, as well as in other international fora, such as the WTO, the World Bank and the International Monetary Fund; also highlights the urgent need for the EU and its Member States to meet the targets of the Kyoto Protocol in order to play this leading role in a credible way;

9. Agrees that the development, application and export of modern environmental technologies contributes simultaneously to fulfilling the Lisbon Strategy and meeting the EU’s Kyoto targets and other climate objectives, and points out that, in order to achieve the ambitious environmental targets and economic growth to be realised, the Lisbon strategy and the climate and energy package should be fully integrated;

10. Emphasises, in this context, that tackling climate change will lead to societal changes that will help to create new jobs and industries, combat energy poverty and dependency on imports of fossil fuels and provide social benefits for citizens; stresses that cooperation at international, regional and local level will be critical if we are to be successful in achieving this goal;

11. Is convinced, moreover, that climate change can only be successfully combated if citizens are fully engaged in the process and are protected during the period of transition to a carbon-neutral economy; highlights, therefore, the fact that mitigation and adaptation policies will push the European Union towards a new model of sustainable development which should promote its social character in order to secure the social consensus;

12. Stresses the need, first of all, to achieve dramatic improvements in efficiency in all areas of everyday life and, in parallel, to launch a sustainable production and consumption model with a conscious saving of resources on the basis of renewable energy;

13. Stresses in this context the need to examine the EU's budget, and existing and future financing instruments, as to their compatibility with European climate policy, and where necessary to adapt them;

14. Stresses that a successful R&D policy will only be made possible by the practical application of new technologies via secured market access points;

15. Calls for research to be carried out into potential trends of climate-induced migration and the ensuing pressures on local services, in order to inform long-term planning and risk-management processes;

16. Stresses that nearly half of the world's population is under the age of 25 and that today's decisions on climate policy will have far-reaching consequences for the largest generation of young people in human history;

The international dimension: post-2012, external climate policy and international trade

17. Urges the Commission and the coming Council Presidencies to assume a leadership role in international negotiations towards a post-2012 agreement and to reach a conclusion by the end of 2009, so that sufficient time remains to ratify the forthcoming climate change agreement and avoid a gap between obligation periods;

18. Stresses that the new climate change agreement should come into being under the auspices of the UN and on the principle of a "common but differentiated responsibility", with the countries of the industrialised world taking the lead in reducing their domestic emissions while the developing countries also commit themselves, in accordance with the Bali Action Plan, to taking nationally appropriate mitigation actions in the context of sustainable development, supported and enabled, in a measurable, reportable and verifiable manner, by technology, financing and capacity-building from industrialised countries;

19. Stresses that the post-2012 agreement needs to be reconciled with other objectives on the UN's and EU's political agendas, such as conservation of biodiversity, the Millennium

Development Goals and security issues, so that political synergies can be exploited;

20. Calls on the Commission and the Member States to construct a foreign policy on climate change and to repeatedly draw attention to the EU climate targets in the EU's and the Member States' diplomatic missions; for its own part, undertakes to repeatedly raise the issue of the EU climate targets, and to defend those targets, in its contacts with parliamentarians from other countries;

21. Calls on the Commission and the Member States to incorporate the requirements of emission reductions, and measures to adapt to the consequences of climate change, into development aid programmes, and/or to refer to these requirements in the decision-making processes of international development aid agencies, thus involving the private sector, public authorities and non-governmental organisations in the countries or regions concerned by way of partnerships; stresses that additional resources need to be mobilised to help developing countries to tackle the climate change challenge, and that emerging initiatives in this context must be formally linked to the UNFCCC process and to achieving the Millennium Development Goals; welcomes the EU's launching of a Global Climate Change Alliance (GCCA) to support adaptation to climate change in poor developing countries that are most vulnerable to climate change, and recalls in this regard its above-mentioned resolution of 21 October 2008;

22. Endorses the recommendations set out in the report by the High Representative for the Common Foreign and Security Policy and by the Commission on "Climate Change and International Security", and stresses the need to construct an appropriate multilateral preventive EU climate diplomacy to that end, so that climate issues can be incorporated to a greater extent in the formation of international relations together with other international relations factors such as population growth and climate-induced migration, urbanisation, energy needs, rising energy prices and shortages of food and water;

23. Calls on the EU and its Member States, in the context of the European Security Strategy (ESS) and the European Security and Defence Policy, to prevent, monitor, and take action to tackle the effects of climate change and resultant natural disasters on civil protection and human safety as well as possible conflicts caused by changes in water and land supply resulting from climate change;

24. Calls on the EU and its Member States to strengthen their existing climate partnerships with target developing countries, and to enter into new partnerships where these do not currently exist, providing significantly increased financial support for technology development and transfer, protection of intellectual property and institutional capacity-building;

25. Calls on the Commission and Member States to attach the highest priority to energy efficiency and renewable resources in the context of development cooperation;

26. Calls on the Commission, in the context of the WTO negotiation rounds and the post-2012 process, to pursue coordinated negotiation strategies in the field of trade and environment policy in order to send its negotiating partners a credible message about Europe's climate targets and the instruments developed to achieve them, to dispel concerns about trade barriers or other disadvantages to trade relations with third countries

that have no binding climate objectives, and to implement the reciprocity principle in the interests of combating climate change at a global level;

27. Calls on the Commission, the Presidents-in-Office and the Member States to adopt a mediating role at bilateral level in the negotiations towards a post-2012 agreement, in order to ensure the success of the climate negotiations aimed at achieving the 2ºC goal;

Energy

28. Stresses that Europe needs a forward-looking common energy policy, both within the EU and in external relations, so as to ensure a high level of security of energy supply meeting the conditions of sustainability, resource efficiency and climate neutrality;

29. Calls on the EU to create a European renewable energy community to promote further research and pilot projects in this field as well as the development of the grid so as to allow for the optimal integration of renewable energy resources;

30. Calls on the EU and its Member States to ensure:
– the development of, and investment in, a European energy transport infrastructure (including the so-called supergrid) needed to ensure diversity for the EU in terms of energy sources;
– ongoing research and development of pilot projects related to ICT-linked technology, decentralised production and other new technological developments;

31. Calls on the EU and its Member States to secure a transitional phase in the energy mix, influenced by politicians and led by entrepreneurs, during which the use of renewable energy sources gradually supplements and subsequently reduces and replaces the use of fossil fuels, by means of active support from the public authorities in the Member States and at EU level, together with the greatest possible degree of cooperation with other countries and international organisations;

32. Calls on the Member States to support a sense of ownership among regions and citizens and to promote the increased use of locally available renewable energy sources by means of legal and fiscal incentives;

33. Calls on the Member States to motivate electricity suppliers, by means of depreciation systems and tax incentive schemes, to carry out the necessary modernisation of fossil-fuel-fired power stations in order to achieve substantial efficiency improvements in conventional power production;

34. Calls on the Member States to secure network access for energy, gas and electricity from decentralised sources, to dismantle barriers to market access for innovative power suppliers in the renewable energy sector and to press for the expansion of local cogeneration and trigeneration, gearing it to medium-term targets;

35. Proposes the creation, as building blocks of a European external energy policy, of solar energy partnerships with third countries in the Mediterranean region which aim in the initial phase to generate solar power and transfer it to the European Union via high-voltage cables, and which may in a second phase form the basis for electricity and

hydrogen production and thus for the switch to a renewables-based economy;

36. Calls on the EU, the Member States and the business community:
– to invest in infrastructure, networks and grids for the production, transport and storage of solar energy and hydrogen;
– to offer third countries, by way of energy partnerships, programmes for the creation of the necessary institutions, infrastructures and training programmes for locally based experts and network access for their own needs;

37. Calls on the Member States to step up still further, in line with local or regional capabilities, the share in the energy mix of wind energy – which thanks to intensive promotion has already become an established means of energy generation – and of hydro and geothermal power, and to make further use of existing development potential, *inter alia* through European research initiatives and coordination via networks of excellence;

38. Stresses the considerable potential of the use of sustainable biomass for energy production with a view to reducing greenhouse gas emissions, and calls for a European strategy for the exploitation of sustainable biomass for production of electricity and gas, heating and cooling;

39. Calls on the Commission to submit a comprehensive analysis of all emissions throughout the entire life-cycle of individual sources of bioenergy in order to determine what role biomass from residues and dedicated cultures can play as an energy source in future; considers that the advantages and disadvantages of the opportunities offered by breeding innovations and the use of biotechnology for improving the calorific value of biomass should be investigated, without prejudging the outcome;

40. Regards combined heat and power as an effective, economical and environmentally sensible option;

41. Acknowledges the different approaches of the Member States with regard to nuclear energy and therefore urges the Commission to pay special attention to radioactive waste and its full cycle, with a view to improving safety;

42. Considers that research into the technological feasibility of nuclear fusion in the International Thermonuclear Experimental Reactor is the first step towards the objective of commercial utilisation of this form of energy, and stresses that the achievement of that goal is highly dependent on long-term guarantees of funding for such research;

Biofuels

43. Notes that certain production-types of biofuels can have an impact on food prices, loss of biodiversity and deforestation, and notes at the same time that biofuels must be produced responsibly and through a verifiably sustainable process;

44. Suggests that the Commission rethink the notion of a quota for biofuels and develop flexible policies which take account of the complex nature of biofuels production, including life-cycle greenhouse gas emissions and assessment of all relevant indirect effects;

45. Considers it essential to involve the developing countries in a long-term strategy for the development and production of biofuels, in order to examine the possibility of their economic planning and profitability, to secure the availability and production of food, to answer the question of their environmental sustainability, and not least to permit social development and a lasting increase in earnings, as well as to ensure that developing countries receive the training needed in order to be in a position to meet the EU sustainability criteria;

46. Calls on the Commission and the Member States to step up research and development of advanced biofuels, to ensure that they are allocated the necessary funding and to link them to fixed development goals;

47. Calls on the Commission and the Member States to use the experience gained from the development of sustainability criteria within the EU to actively promote the development of a global biofuels standard;

Energy efficiency

48. Calls on the Commission to propose a binding goal of 20% in energy efficiency by 2020 and to accompany that proposal with concrete interim reduction targets;

49. Calls for a broad, locally-based public information campaign to improve decentralised energy efficiency, with house and flat owners being provided with thermal images and energy performance information for their properties, as well as with recommendations for financing possible modernisation work, along the lines of micro-credits;

50. Calls on the Commission and the Member States to take active steps to increase awareness of the importance of information and communications technologies for improving energy efficiency, sustainable development and the quality of life of EU citizens;

51. Calls for synergy between property owners, financial service providers, tradesmen and other operators in the property sector to be generated through trade fairs, open days and seminars;

52. Calls for clear European coordination with a view to the expansion of electricity cogeneration and trigeneration and their integration into industrial plants, so as to guarantee local or regional starting-points for climate protection measures, whilst at the same time increasing energy consumption efficiency;

53. Calls on the Economic and Financial Affairs Council (ECOFIN) to introduce reduced rates of VAT for renewable energy and for energy-saving goods and services; proposes, in particular, that the Member States create incentives to modernisation by means of VAT reductions on modernisation work and the equipment used to carry this out, by gearing land or property taxation to the energy efficiency of buildings and by fully implementing and promoting energy performance certifications;

54. Proposes, as an incentive for the modernisation of rented property, the reduction of tax rates on rental income in line with investment in renewable heating and electricity systems as well as efficiency gains;

55. Notes, given the long life of buildings, the paramount importance of ensuring that new buildings are constructed to the highest energy-efficiency standards possible, that existing buildings are upgraded to contemporary standards, and that minimum levels of energy from renewable sources are used in all new or refurbished buildings requiring heating and cooling;

56. Proposes that Member States improve and expand the use of energy-efficiency certificates and link the recommendations to financial incentives;

57. Calls for minimum EU energy-efficiency standards for new and refurbished buildings; calls on the relevant local authorities and professional associations in the Member States to establish energy-efficiency criteria, guidelines and national legislation or administrative decisions for new buildings as a leitmotiv for architects and building engineers, with building regulations for the energy efficiency of new buildings and major renovation works**,** and to ensure in this context clean and healthy indoor air;

58. Stresses the need for minimum energy-efficiency criteria to be included in a comprehensive public procurement policy for public buildings and services at national, regional and local levels, as a means of promoting innovation in new technologies and ensuring their market access;

59. Calls on the Commission and the Member States to provide active support for research and technological development relating to lighting technologies and intelligent lighting applications, so that the introduction of more energy-efficient lighting in both indoor and outdoor public spaces – with an emphasis on highly efficient light-emitting diodes – can be more vigorously promoted;

60. Notes that renovation and improvement of the energy efficiency of tower-block buildings, especially in those countries where such buildings make up the biggest part of the housing market, is the easiest way to save energy and reduce CO_2 emissions; calls on the Commission to revise and increase the currently existing 2% structural funds limit applicable to grants for the renovation of tower blocks;

61. Notes that the long-term target in the building sector in Europe should be net zero-energy performance in new residential buildings by 2015 and in new commercial and public buildings by 2020, and considers that the target should be extended in the long term to cover renovated buildings;

62. Calls on the Commission to adjust the energy-efficiency requirements for electrical and electronic equipment of all kinds to market developments at least every five years following the “top runner” principle, to update existing labelling programmes or efficiency classifications and thus to prevent the consumer from being given inaccurate information;

63. Calls on the Commission to set stringent EU targets and establish integrated industrial policies designed to ensure market access and the uptake of energy-efficient technologies, including the development of common technological objectives (such as passive houses), greater use of integrated policy strategies such as lead markets and green public procurement, and supporting regulation in respect of product design and minimum

standards;

64. Calls on the Commission to implement consistently the ban on devices with high stand-by losses and, as a next step in the implementation of the Eco-design Directive[1], to consider making it compulsory for devices to have a switch-off function, and to make automatic switch-off and energy-saving modes mandatory even for installations with large motors and for industrial equipment and machinery;

65. Urges early and rigorous implementation of the 2006 requirements relating to the installation of smart meters in order to raise consumer awareness of energy use and help energy suppliers manage demand more effectively;

Mobility and logistics

66. Notes that the European economic and social model is based on securing the mobility and availability of persons and goods, giving priority to efficiency of time rather than efficiency of resources, and that a combined approach using both factors will thus be necessary in future;

67. Calls on the European Investment Bank and its risk-capital subsidiary, the European Investment Fund, to broaden significantly their support for energy efficiency and renewable energy development;

68. Reminds the relevant operators that the transport sector must also comply with the EU climate goals of reducing CO_2 emissions by 2020 by at least 20%, and if there is an international agreement by at least 30%, below 1990 levels and increasing energy efficiency by 20% during the same period;

69. Calls for a comprehensive policy mix of mutually supportive measures aimed at a sustainable transport policy comprising the development of vehicle technology (eco-efficient innovation), increased use of alternative energy sources for transport, the creation of distribution networks for clean fuels, increased use of alternative forms of propulsion, intelligent traffic management, changes in driving styles and car use, improved logistics, "green corridors" and ICT for transport, a CO_2 tax and the modernisation of public transport in order to achieve the goal of zero emissions without ignoring the increased need for mobility; points out that all of these could be promoted by clear preferences in public procurement;

70. Considers that special priority must be given to the application of the "polluter pays" principle, and calls for all modes of transport to be fully involved in the internalisation of their external costs; points out that the achievement of this goal will require an adequate economic environment, and therefore calls on the Member States to review the taxes and duties concerned;

71. Welcomes the Commission's Greening Transport Inventory, which lists both existing and necessary future legislation for sustainable growth in the transport sector;

[1] Directive 2005/32/EC of the European Parliament and of the Council of 6 July 2005 establishing a framework for the setting of ecodesign requirements for energy-using products (OJ L 191, 22.7.2005, p. 29).

72. Stresses the importance of infrastructure projects for the transport sector; however, calls for potential climate impact to be taken into account in future in planning, design and construction;

73. Calls on the Commission and the Member States to exploit the potential of satellite navigation systems with a view to increasing energy efficiency in the transport field by improving the management and organisation of traffic flows, providing real-time information concerning the movement of goods and persons, and optimising the selection of routes and modes of transport;

74. Regrets that the challenges involved in the delivery of transport-efficient and environmentally friendly town planning with pedestrian areas, cycle paths and flexible links to local public transport have in many places been addressed inadequately or too late, or have been only partially tackled;

75. Calls on European cities and local authorities to offer flexible and coordinated alternatives to car use and to extend mobility schemes, for example by linking existing central and peripheral local transport networks more closely and using traffic regulations to accord priority to public transport in city centre traffic;

76. Stresses the potential of rail transport as a low-carbon, energy-efficient mode of transport, both for long-distance freight haulage and for short- and medium-distance regional and commuter traffic, and asks that such priorities be reflected in the criteria for the support of regional and cohesion funds;

77. Welcomes the creation and the extension within the EU, as well as to the neighbourhood countries, of the Trans-European Transport Networks (TEN-T) and calls on the Member States to complete the priority projects, in particular those which are most climate-friendly, as soon as possible, since these are vitally important for freight transport logistics and a sustainable European transport policy;

78. Stresses the important role of inland waterways in goods transport; emphasises the environmentally friendly nature of this sector and the fact that it has plenty of spare carrying capacity;

79. Regrets that, in spite of the scope, in the interests of the transport sector as a whole, for effecting a modal shift to rail and inland waterways for a large proportion of freight, investment in the expansion of the railways has fallen during the past decade;

80. Calls on the Member States and local authorities, by means of pricing measures and other incentives, to promote a modal shift from cars to local public transport and from road to more environmentally friendly means of transport, and by substantial investment in the necessary infrastructure to massively expand and improve the overall service, making public transport more attractive; in the intermediate period, calls for improvements in the integration of private/individual transportation with passenger/freight-integrated logistics and public/collective transport systems; is convinced that investment in rail infrastructure must go hand in hand with a better railway service;

81. Stresses the importance of intelligent traffic management systems in the interests of co-

modality and their incorporation into Community, national, regional and local transport policy, since they lead to safer and more environmentally friendly transport; calls for the development and use of intelligent transport systems in order to manage traffic and to reduce traffic congestion;

82. Calls on the Member States to promote co-modality by introducing transferable number plates in line with existing practice, making it more attractive for citizens to use rail for long journeys and energy-saving local-use cars at their starting point and destination;

83. Calls on the EU and its Member States to work closely together with industry to create the necessary market policy conditions with a view to incorporating intelligent transport systems – particularly as regards logistics and safety management (ERTMS, RIS, eCall) – into transport management;

84. Supports the Commission in its plan to designate, together with the Member States, special “motorways of the sea”, and has great hopes regarding the ability of the forthcoming “European Maritime Transport Space without Barriers” to promote sea transport in Europe and to boost its efficiency;

85. Supports the Commission's proposals to increase port dues and berthing fees on the basis of vessels’ exhaust levels and to ensure that power for ships in port is supplied from land rather than by the ships' own generators;

86. Considers that shipyards and shipbuilders should look closely at new efficiency-boosting technologies such as the use of kite sails, the Air Cavity System, the exploitation of waste heat for electricity production, more efficient motors, better hull and rudder profiles, more accurate weather forecasts permitting course adjustments, and possible fuel savings thanks to hull paint;

87. Calls on the International Maritime Organization to agree on a reduction target within the shipping industry and to set minimum standards for the use of these modern technologies in the construction of new vessels; calls on the Commission to set an emission reduction target for maritime transport, should this prove to be necessary;

88. Considers that there is a need for an integrated approach in the aviation sector which will commit the aircraft industry worldwide, airlines and airport operators jointly to an emission reduction target by 2020, without calling in question the benefits of emissions trading as an instrument for increasing efficiency;

89. Urges the EU and its Member States to implement and expand both the Single European Sky and the SESAR (Single European Sky Air Traffic Management Research) projects as efficiently as possible before the entry into operation of the Emissions Trading Scheme for the aviation sector, so as to make the creation of functional and flexible airspace regions and the flexible use of airspace as a whole a priority, with a view to exploiting available reduction potentials immediately and reducing aircraft fuel consumption by up to 12%;

90. Calls on the producers of propulsion systems and motors for the transport sector to work together in accordance with Euro-6 standards, but also beyond those standards, on

continually improving the energy efficiency of their machines, to set targets within the industry for massive efficiency increases and to continue research into alternative fuels, so as to contribute to the more sustainable growth of the industry;

91. Calls on car manufacturers to shift their fleets towards smaller, lighter, more efficient models in order to allow for individual mobility under the constraints of climate change and limited oil resources;

92. Calls on the armaments industry also to look at efficiency improvements in their motors and propulsion systems and to carry out research into the possible use of alternative fuels;

93. Calls on all Member States and the EU institutions to give all necessary support to R&D in respect of break-through environmentally friendly transport technologies, such as hydrogen, electric, fuel cells, hybrids or advanced biofuels;

94. Calls on the European Union and its Member States to adopt a hydrogen-specific support framework based on renewable energy sources, so as to ensure that the production of hydrogen vehicles is rapidly speeded up; considers that the framework should address the issues of increasing EU budget support for hydrogen end-use applications, the provision by Member States of support to hydrogen-specific deployment through financial measures such as tax incentives, and creating early markets through zero-emission vehicle procurement within governmental services;

95. Calls on the Commission to draw up by 2010 a report on the restrictions which still exist on cabotage and other factors in the European Union which lead to unladen journeys and losses of efficiency in the internal market; believes that efficient and effective freight logistics, used as an integral part of the EU transport system, are the key to sustainable mobility in Europe, to economic efficiency and competitiveness, to optimal use of energy resources, to job creation, to the protection of the environment and to fighting against climate change;

Tourism and cultural heritage

96. Expresses its concern that cultural heritage and traditional landscapes in Europe are threatened by extreme weather phenomena and long-term climate change, and calls on the Member States to draw up a uniform list, coordinated at European level, of European cultural heritage sites threatened by climate change;

97. Calls on the Commission, Member States and regions, in climate-sensitive seasonal tourist areas where there are no real alternatives on offer, to take comprehensive adaptation and preventive measures – such as securing water supplies, protecting against forest fires, taking precautions against the melting of glaciers and improving coastal defences – to reflect the economic importance of tourism and of the necessary infrastructure for jobs and incomes, and to counteract significant economic damage along the whole length of the value chain;

98. Considers that in some regions the further growth of tourism is economically sensible and environmentally justifiable only when likely effects of climate change – such as more serious water shortages**,** lack of snow or the disappearance of glaciers – are taken into

account at local level when considering future development;

99. Calls on the tourist industry, together with local authorities and economic associations, to work on integrated strategies with a view to reducing emissions and improving the energy efficiency of the sector – particularly as regards transport and accommodation – and to plan measures to promote ecotourism and to protect tourist sites from extreme weather conditions;

100. Recommends the development of more ecological types of tourism, such as social tourism, sport tourism or cultural tourism, and stresses that the tourist destinations of excellence should be those which respect and protect the environment;

Emissions trading scheme and industrial emissions

101. Calls for the inclusion of workplace climate-change audits in company reporting standards to enhance transparency in the monitoring of greening policies and emissions reductions;

102. Requires all commercial and non-commercial entities to report publicly, on an annual basis, on the amount of greenhouse gas emitted, measures taken to reduce greenhouse gas emissions, activities undertaken to re-skill employees (in the event of closure due to proven carbon leakage) and revenues gained through emission trading scheme operations; asks the Commission to monitor these activities and to report to Parliament on progress made by industrial sectors to curb emissions;

Agriculture and livestock breeding

103. Calls on the Commission to consider, without prejudging the outcome, the explicit inclusion of agriculture in a future integrated European climate policy and the elaboration of binding reduction targets for the emission of greenhouse gases, including methane and nitrous oxide, from the agriculture sector, exploiting all existing potential;

104. Points out that optimised land management increases the humus content of soil and that if cultivation management is improved and unplanted fallow land is avoided, areas under cultivation can play a much larger part in carbon storage than hitherto;

105. Takes the view that optimised storage and application of mineral fertiliser can make a significant contribution to reducing nitrous oxide emissions; calls in this connection for fertilisation with organic mixtures in place of mineral fertiliser to be further stepped up;

106. Calls for economic analyses to be carried out of the profitability of certain regional cultivation practices under different climatic conditions, in order to identify possibilities of adaptation and to facilitate switching to other cultivars;

107. Calls for research to be carried out into new technologies and for the development of those technologies, including biotechnology for seed and plant breeding and green gene technology, and for plant protection to be stepped up, in order to implement a climate protection policy for agriculture; also calls for funding for research in to, and the development of, new and more environmentally friendly methods of cultivation and farm

management and for their implementation by way of pilot schemes, which should include seminars and educational programmes for both new and the existing farmers, in order to help agriculture to adapt to climate change;

108. Takes the view that, if agricultural practice is to take account of climate change, new land and water management know-how needs to be imparted, and that vocational training for young farmers should cover the effects of climate change or the climatic relevance of agricultural production;

109. Recognises that the cultivation of cereals and soya as feed for livestock is responsible for substantial greenhouse gas emissions; recalls the report entitled "Livestock's Long Shadow" issued by the UN Food and Agriculture Organization in November 2006, which states that the livestock industry is responsible for 18% of the world's total greenhouse gas emissions; considers that a switch from intensive livestock production to extensive sustainable systems should be encouraged while total meat consumption also needs to be reduced, in particular in industrialised countries;

110. Calls for feed rations in dairy and meat production to be reviewed, and where necessary improved, with the aim of achieving a reduction in methane formation in the rumen of ruminants; calls for any feeding and breeding measures in the livestock sector to be subject to an animal health and welfare impact assessment and for such measures not to be introduced if there are any adverse effects on the animals concerned;

111. Recognises that expansion of biogas systems to obtain energy by processing manure can make an economically feasible and environmentally meaningful contribution to reducing methane emissions from livestock farming;

Forests

112. Takes the view that the objective of future European climate policy should be not only the conservation of tropical rainforests and of the surviving boreal forests but also the care and reforestation of the European forests; points out that protective woodland belts around large urban areas and industrial centres can play an important role;

113. Takes the view that if avoiding the destruction of forests is to be effective in cutting emissions, an ongoing system of compensation must be devised for forestry through the UNFCCC, and calls for a clear economic incentive to be created for permanently preserving virgin forests or large forest areas by using them in a sustainable manner, with the value of a forest area being far more closely assessed according to the "eco-services" and overall social functions it performs;

114. Calls, in the context of a global CO_2 market, for those countries that still have large areas of natural forest to be given particular economic incentives to preserve them by recognising the carbon accumulated each year in a rigorously preserved forest; suggests that consideration be given to the question whether it makes sense in this connection to focus solely on tropical rainforests;

115. Calls on the EU, in cooperation with the international community, to set up aerial and satellite-based monitoring systems and the necessary infrastructure to secure the long-

term survival of tropical forests in particular; calls for the establishment of a global fund under the auspices of the World Bank for the creation of monitoring systems;

116. Considers that the global monitoring systems for forest protection can only be held to be a success if the necessary institutional support and administrative bodies with qualified staff are put in place and maintained in the long term;

117. Highlights in this connection the need for monitoring programmes in European forests to permit the early detection of pest damage and for scientific risk modelling in relation to wooded areas prone to heat waves, wildfires and drought, so as to make it possible to take appropriate counter-measures to protect the forests;

118. Considers that the Member States' national forest inventories are an important source of information with a view to analysing the overall condition of the European forests and their importance as a CO_2 sink; calls on the Commission not only to press for the drafting and evaluation by the Member States of the data collected but also to take advantage of existing best practice in the Member States;

119. Notes that, based on its life-cycle attributes, wood is a "greener" choice in construction than steel and concrete, since it locks up carbon dioxide and requires much less energy to produce than alternatives, and its by-products can be used to produce renewable energy; notes further that using wood as a construction material would help to take carbon emissions out of the carbon cycle permanently and would replace energy-intensive materials such as concrete;

120. Stresses that sustainable forest management, which uses very broad social, economic and environmental goals, should be implemented in the EU; notes that sustainable forest management aims in the long term to increase the forest carbon stock; notes further that young, growing and well managed forests are good carbon sinks and hence considers that, where forests are being cut down, new planting should be undertaken to replace those trees which are cut down; considers that, simultaneously, more old forests should be protected, as they play a vital role in maintaining biodiversity;

Soil protection

121. Recommends that scientific studies of and monitoring of the condition of soils be extended with a view to taking measures in good time to counteract erosion, the loss of agricultural land and biodiversity;

122. Calls on the Council to approve its common position on the Framework Directive on soil protection in order to introduce a genuine Community instrument to combat the effects of deforestation, erosion and desertification;

123. Calls on the Member States to establish a policy of soil protection by appropriate soil treatment methods, taking account of the importance of organic materials in the soil for its fertility, water retention capacity and ability to function as a carbon sink, and to consider the possibilities of using biochar;

124. Highlights in this connection the importance of the ecosystem approach in avoiding and

lessening the effects of soil erosion, destruction of permafrost, desertification, invasive alien species and forest fires;

Water management

125. Takes the view that strategic planning and integrated water resources based on supply measures and the hierarchy of water uses are crucial to coping successfully with the effects of climate change on the availability and variability of water resources;

126. Considers that integrated water resources management should comprise strategies for the improvement of water use efficiency, water saving, rationalisation and limitation of water consumption, and improved consumer awareness concerning sustainable water consumption, and that it should respond to issues concerning the collection and storage of rainwater in natural and artificial reservoirs, as well as to those relating to the risk and impact of floods and droughts; considers that action should be encouraged to establish an effective hierarchy of water uses and recalls that a demand-side approach should be preferred when managing water resources;

127. Calls on the Commission to assume an important cross-border coordinating role in water management, particularly by network creation and funding of research into innovative technologies for the desalination of sea water, new irrigation systems and agricultural and urban water consumption, and for pilot projects to reduce damage from drought or flooding; calls for the rapid establishment of the European Observatory on droughts, desertification, floods and other effects of climate change in order to gather information and ensure a more effective response by means of an early-warning system;

128. Considers that, in order to provide adequate incentives to use water resources efficiently, Member States should, in their water policy, take account of the principle of recovery of the costs of water services and of the "polluter pays" principle;

Fisheries

129. Stresses that some current fishing practices further decrease the resilience of fish stocks and marine life to the impact of climate change;

130. Is convinced that a comprehensive framework plan for the sea, as set out in the Marine Strategy Framework Directive[1], is needed in order to guarantee better and more sustainable management of the marine environment and resources; warns that European marine protection areas will otherwise become the last oases of biodiversity in a lifeless and empty ocean;

131. Welcomes the Commission's decision to increase the resilience of fish stocks and of the marine ecosystem as a whole by establishing catch quotas for industrial fishing on the basis of sustainability criteria;

132. Takes the view that environmental changes resulting from climate change could mean

[1] Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (OJ L 164, 25.6.2008, p. 19.

that aquaculture has to be relocated, resulting in economic harm to its current locations; warns, however, that the relocation of aquaculture may have negative effects on the ecosystems in question and calls in this connection for compulsory impact assessments;

Waste treatment and resource management

133. Recognises that the hierarchy of waste forms a leitmotiv in European waste policy; invites the Commission to propose percentage reduction targets on reducing, reusing and recycling waste; demands that the targets be reviewed and tightened when necessary;

134. Notes that waste prevention, for example by optimising packaging, is the best way of reducing the sector's direct emissions; stresses, however, that waste prevention in the long term demands changes in production methods and consumption habits;

135. Stresses that separate collection of biowaste and material recycling make a significant contribution to preventing direct emissions from landfill sites;

136. Considers that, in order to restrict direct emissions from the waste sector, it makes sense to avoid transporting unsorted waste over long distances; takes the view that cross-border transport of mixed domestic waste in the EU should therefore be reduced to a minimum; considers that illegal exports of material suitable for recycling must be combated in order to avoid "exporting emissions" and retain valuable raw materials in the EU;

137. Considers that, after a phasing-out period, Member States should entirely cease in the medium term to landfill unsorted domestic refuse, since better use of existing recycling systems or the development of completely new systems would improve waste treatment as a whole and exploit existing potential for reducing greenhouse gases using existing technologies; calls in this connection for compulsory methane capture for heat production on existing landfill sites;

138. Regards energy recovery from residual waste in dedicated waste-to-energy plants and energy recovery from pre-sorted waste, particularly in conjunction with cogeneration systems with strict emissions controls, as a potentially highly effective way of recovering energy which can reliably be used to reduce indirect greenhouse gas emissions and replace fossil fuels;

139. Considers that enhancing research and development in respect of waste treatment and resource management solutions is vital, and stresses the need for the immediate application of new innovative technologies in this field;

140. Acknowledges, in the context of the negotiations on a post-2012 agreement and the involvement of third countries, that more consistent application of European standards of waste treatment is a possible way of linking development objectives – such as better protection of human health and the environment – with new economic opportunities while making a positive contribution to combating global climate change;

141. Calls on the Commission to carry out a study on including the waste sector in emissions trading and the compatibility of such inclusion with CDM projects;

Adaptation measures

142. Recalls the demands made in its above-mentioned resolution of 10 April 2008, and calls on the Commission to publish without further delay its promised White Paper setting out a coordinated EU-wide framework for the planning of adaptation measures;

143. Stresses that, while the subsidiarity principle must be properly respected and while it is important to recognise the key role played by regional and local authorities, particularly in more vulnerable areas such as upland and coastal regions, action at EU level is essential in order to build resilience for biodiversity by reinforcing the Natura 2000 network and integrating effective adaptation measures into EU cohesion, agriculture, water and marine policies;

144. Stresses once again the need for coherence and the integrated coordination of adaptation measures at EU level and for the search for possible synergies, including under international agreements covering specific regions or territories to which the European Community is a party; reiterates its call for an EU-wide framework for the planning of adaptation measures;

145. Underlines the importance of the publication by the Commission of its Green Paper on territorial cohesion, which stresses the need for an integrated approach to sectoral policies in order to improve the combined territorial impact of EU and national and regional policies; therefore calls for the improvement of structural funds procedures to enable them to make an even larger contribution to climate measures;

Health

146. Stresses the importance of green zones in urban areas for the health of the general public, air quality and carbon capture, and to help to tackle climate change; calls on the Commission, the Member States and local authorities to preserve and enlarge the existing – and to develop new – green zones in urban areas;

147. Stresses the coordinating role of the EU, in particular in creating automatic or continuous pollutant monitoring and early warning systems for heat waves, prolonged frost and flooding, and in improving the systematic collation of health, meteorological**,** environmental and statistical data;

148. Stresses that climate change will play a critical role in the increased prevalence of certain diseases, as a result of the inevitable changes in the nature of ecosystems, which will affect *inter alia* animals, plants, insects, protozoons, bacteria and viruses;

149. Emphasises that it is of paramount importance to acquire specific expertise on the effects of climate change on human health, especially in relation to certain infectious and parasitic diseases;

150. Stresses that, although the main objective of the 2008-2013 public health programme is to act on the factors which traditionally determine health (diet, smoking, alcohol consumption and the use of drugs), it should also focus on certain new challenges to health and address the determining environmental factors resulting from climate change;

151. Stresses the coordinating role of the EU and the European Centre for Disease Prevention and Control in providing advice to the general public on avoiding insect-borne disease through the use of, in particular, protective clothing, bed nets and insect repellent and control products;

152. Notes that possible measures may include the collection and evaluation of relevant data on the effects of climate change on human health, improving preparedness for natural disasters, public health services and emergency planning, support for measures to promote health in all sectors, and measures to increase awareness, particularly the provision to the public of information about new types of dangers to health, warnings and specific tips on avoiding exposure, with special reference to insect-borne diseases and heat waves;

153. Highlights that tropical illness spread by parasites or mosquitoes and other pathogenic agents, usually encountered in tropical areas, could appear at higher latitudes and altitudes, representing a new threat to human beings;

154. Considers that there is a need for research in medical science and in the pharmaceutical sector in order to develop drugs and vaccines for new diseases, which should be made available to all affected populations at an affordable price;

Growth and employment

155. Considers that Europe enjoys an excellent starting position in the global race for a low-emission economy, and should make the most of this position to trigger greater innovation which will create new and competitive businesses and new jobs in the fields of clean technology, renewable energies and green enterprises and green skills in order to counterbalance any possible loss of jobs in high CO_2-emitting sectors, in full accordance with the Lisbon Strategy; calls on the Commission and the Member States to identify structural changes resulting from the implementation of climate change policies and calls on the Commission to propose, periodically, measures to support the populations most affected;

156. Warns against pessimism, which may lead to our missing the economic opportunity offered by climate change and the political measures needed to combat it, by stressing the need for optimism on the part of the social partners who will be directly involved in stimulating the economy and the possibilities of re-education and absorption of workers affected as a result of climate change adaptation and mitigation; considers that public and social consensus will be critical to winning the global race for efficiency, innovation, raw materials and future technologies, and markets;

157. Takes the view that growth and employment potential can only be fully realised if at the same time market access points are secured and bureaucratic barriers to the utilisation of available technology are dismantled;

158. Invites the Member States to examine the compatibility of existing rules with climate policy objectives and to develop incentives to facilitate the shift to a low-carbon economy;

159. Invites the social partners and the two sides of industry in the Member States and at EU level to develop common economic strategies for each sector, so as to identify and strategically exploit potential where it exists;

Promoting the technology of the future

160. Takes the view that a combined approach should be launched and developed comprising emission reductions and a separate process of technological renewal within the framework of an integrated European climate policy designed to secure resources for future generations;

161. Considers, particularly with regard to the technological neutrality of the EU approach, that the environmentally safe use of CCS should be discussed extensively and with the involvement of private and public stakeholders, without prejudging the outcome; advocates the promotion of international cooperation in order to encourage technology transfer, particularly with those emerging countries which still rely on local coal as a fuel;

162. Takes the view that creating next-generation technologies and making possible the necessary increase in scale requires considerable financial support for long-term research and development;

163. Urges the members of the UNFCCC to recognise CCS as a technology transfer under the CDM provided for by the Marrakesh Agreement on the Kyoto Protocol;

164. Calls on the EU and its Member States to respond by means of research and public awareness measures to possible public scepticism or concerns about the application of CCS;

165. Proposes that the integrated European climate policy should concern itself with proposals for fundamental incentive mechanisms and support measures, so that the necessary technological renewal can be launched, the running costs for new but costly technologies reduced, and more stringent reduction targets set and achieved in future;

166. Recommends that Member States consider ways of accelerating the implementation of clean and energy-efficient technologies, such as direct subsidies to consumers investing in technologies, for instance solar panels, ground heath pumps, air heath pumps, water heath pumps and cleaner burning hearth appliance stoves;

167. Proposes to that end parallel measures such as the participation of economists, engineers and private businesses in an institutionalised and parallel “Kyoto Plus Process”, along the lines of the successful method of the Montreal Protocol for protecting the ozone layer;

168. Calls for the establishment of a European Climate Fund and/or corresponding funds in the Member States, and regards this as a way of creating a capital stock to fund a future climate policy, given that there are limits on how far one can plan now for the individual measures which that policy will necessitate and the investment and solidarity they will require;

169. Proposes that this capital stock be used on the capital market to permit a backflow to the

economic operators and (re-)investment in future technologies, thus leaving it to the market to decide which technologies should be used in future to achieve medium- and long-term climate objectives, instead of determining this by legislation;

170. Stresses emphatically that, in the long term, effective solutions to the problem of climate change will also come from scientific innovations both in the field of the production, distribution and use of energy, and in other, related fields, which will effectively restrict the production of greenhouse gases without creating accompanying environmental problems;

171. Stresses the importance of the Seventh Research Framework Programme for the development of green energy sources and calls on the Council and the Commission to support this priority in forthcoming research framework programmes too;

Intelligent computer systems and ICT

172. Suggests to the forthcoming Council Presidencies that they make the future topic of ICT and its importance in combating and adapting to climate change one of the priorities of their periods of office;

173. Calls on the EU and its Member States to promote the testing, validation, introduction and further dissemination of computer- and ICT-based methods for dematerialisation and vastly enhanced energy efficiency – particularly through improved logistics in freight transport, replacing physical travel with tele- and videoconferencing, improved electricity networks, energy-efficient buildings and smart lightning – in cooperation with industry, consumers, authorities, universities and research institutions;

Financing and budgetary matters

174. Considers that the EU should make a financial commitment not only in the core areas of promoting and developing technologies to combat climate change and of climate-related development aid, but also in supporting cross-border adaptation measures, increased efficiency and aid for disasters, in accordance with the Union's solidarity principle;

175. Calls on the Commission to draw up an inventory of all existing funding instruments and their significance for European climate objectives and, on the basis of this "climate audit", to devise proposals for the future financial framework so that EU budget lines can be adapted in line with the requirements of climate policy, while not excluding the possibility of creating new funds and thus allocating new resources to them;

176. Calls on the Council to tackle the question of unused, earmarked funds from the EU budget, allocating these where necessary for climate policy purposes;

177. Stresses, in its capacity as an arm of the budgetary authority together with the Council, that the highest priority must be given to climate change and measures to combat it in the next financial perspective;

Education, training, reporting, labelling and awareness-raising

178. Calls on the competent bodies in the Member States to create new careers and to adapt not only practical work training but also occupational training colleges and courses at technical colleges and universities to the specific employment-related challenges of the structural economic change which is being hastened by climate change and its effects;

179. Recognises the important role played by workers and their representatives in greening their companies and workplaces, at the national and transnational levels, and calls for Community support for the development, exchange and dissemination of best practice;

180. Calls on the Commission to develop communication strategies to spread information to the general public on the science of climate change (based on the latest IPCC findings), energy saving strategies, energy efficiency measures and the use of renewable energy sources; in addition, suggests that EU youth exchange programmes focus on common climate change awareness projects and therefore calls on the Commission to commission annually, via Eurobarometer, an EU citizen survey measuring citizens' attitudes and perceptions towards climate change, and furthermore calls for general and simple efficiency standards for all areas of everyday life, and for the creation of incentives (e.g. of a fiscal nature) for responsible energy consumption;

181. Calls on the Member States, together with electricity suppliers, to enter into a dialogue with citizens in order to convince the public of the need, for reasons of energy and climate policy, to make modern fossil-fuel-fired power stations more energy-efficient, including a discussion of CCS;

182. Calls on the Commission to share information with citizens and Member States on successful projects such as the “car-free day” in the context of European Mobility Week, and highlights the need to make citizens think about their urban mobility and hence question their behaviour as road users in their cities, and not to confine the term “individual mobility” to the use of one's own car but extend it to all forms of individual travel in cities and conurbations, such as walking, cycling, car-sharing, car-pooling, taxis and local public transport;

183. Welcomes the meeting of the world’s largest cities under the auspices of C40, particularly as a forum for exchanging proven greenhouse gas reduction measures at global level, and for learning from each other;

184. Stresses in particular the need to inform and consult citizens on the ground and to involve them in decision-making processes, and encourages urban centres, regions and greater urban areas to aim for specific reduction targets and implement them by means of local or regional innovative financing programmes with support from the public authorities;

185. Calls on the Member States, with a view to raising public awareness, to incorporate into the relevant building regulations a provision to the effect that citizens applying for planning permission will receive comprehensive information on what opportunities exist locally for the use of renewable energy sources;

186. Suggests that local and regional authorities, districts, quarters and municipalities, and in

particular public institutions, schools and child and youth care establishments, carry out "energy saving competitions", as well as local campaigns properly resourced at national and EU level, with a view to raising public awareness of savings potential, achieving citizen participation and generating learning effects;

187. Suggests that the Commission declare a European Year of Energy and Resource Efficiency in order to raise citizens' awareness at all policy levels of more efficient use of resources and to take climate change as an opportunity to hold an intensive debate on the availability and handling of resources; calls on the Commission and the Member States to fight energy poverty as well as to guarantee the development of a water saving culture and to raise public awareness of water saving through educational programmes; calls on the Commission to look into the possibility of promoting a network of cities to encourage sustainable water use with the aim of exchanging good practice and jointly carrying out pilot demonstration projects;

188. Regards advertising and product information as an important instrument for raising consumer awareness of the environmental costs of consumer goods and changing consumer behaviour; warns, however, of the risk of "greenwashing" and calls on the Commission and the Member States, in consultation with European industrial associations, to draw up an advertising and labelling code for their industries with a view to condemning misleading advertising and incorrect statements about the environmental effects of products, and to comply with existing European advertising and labelling rules;

189. Considers it important, in the dialogue with citizens and retailers, to focus advertising on regional and seasonal products, and to use consumer information, in particular mandatory labelling regarding the production method of meat products, as an aid to consumer decisions, so as to highlight the climate impact of intensive livestock production;

190. Considers that citizens should be made more aware of the fact that a reduction in the production and consumption of meat and dairy products would decrease greenhouse gas emissions as well as reduce the risks of certain cancers, heart disease and obesity;

191. Considers the lack of information among the public on measures to combat climate change to be a serious problem; therefore calls on the EU, its Member States and regional and local authorities and institutions, together with the press, broadcasters and online media, to devise and implement a Europe-wide information campaign on the causes and effects of climate change and growing scarcity of resources, focussing on individual ways of changing one's behaviour in everyday life and giving a better and more readily understandable picture of the work of European and national authorities on measures to combat climate change;

192. Welcomes initiatives by major undertakings to pursue internal reduction targets with the involvement of their staff and their small and medium-sized suppliers, and to use public communication strategies to promote sustainable production and consumption models; encourages economic organisations in the Member States and at European level to emphasise sustainable business practices as a unique asset in competition;

2050 – The future begins today

193. Calls for an agenda for action to combat climate change for the period 2009-2014, to be implemented as follows:

(a) at EU level, the Commission and the Member States should:

– lead discussions at a local and global level on actions to be taken to combat climate change,

– develop, fund and introduce an EU-wide supergrid accessible to all forms of electricity providers,

– promote and fund efficient, sustainable transport infrastructure to reduce carbon emissions, including hydrogen technology and high-speed railways,

– develop new communication strategies to educate citizens and provide them with incentives to reduce emissions in an affordable way, e.g. by developing information on the carbon content of products and services,

– develop appropriate legislative instruments to encourage all industrial sectors to become leaders in the fight against climate change, starting with a demand for transparency on carbon emissions,

– establish stronger links between the Lisbon policy agenda, the social agenda and climate change policies;

(b) at local and regional level, best practices should be promoted and exchanged, in particular concerning:

– energy efficiency measures to combat energy poverty, with the objective of net-zero-energy performance targets in private, commercial and public buildings,

– the recycling and re-utilisation of waste, for instance by developing infrastructures for collection points,

– the development of infrastructures for low-emission passenger cars using renewable energies, as well as the introduction of incentives for the development of zero-emission vehicles for public transport,

– the promotion of more sustainable mobility in cities and in rural areas,

– the adoption and implementation of measures for adaptation to climate change;

194. Stresses the need to face up to climate change and its effects by means of political and educational measures based on a long-term perspective and by implementing decisions in a coherent way, not subordinating them to short-term political goals; encourages the promotion of lifestyles and consumption patterns geared to sustainable development;

195. Stresses the need not to capitulate in the face of the complexity of the problem of climate

change but to show a visionary desire to make a difference, and to demonstrate leadership in the political, economic and social spheres, in our response to the economic, environmental and social challenges with which we are confronted at this turning-point in energy and climate policy, reflected in a growing scarcity of raw materials;

196. Stresses the need, on the basis of the founding ideals of the European Union, to take decisions out of a conviction that they are necessary and correct, and to take the unique opportunity of shaping the future of our society by means of strategic action;

197. Calls on Parliament's relevant bodies to draw up and publish a version of this report for the general reader within three months of its adoption;

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198. Instructs its President to forward this resolution to the Council, the Commission, the governments and parliaments of the Member States and the Secretariat of the UNFCCC with a request to the latter that it be forwarded to all contracting parties which are not EU Member States and to the observers referred to in the UNFCCC.

ANNEX A:
SELECTED EU LEGISLATION MAKING A POSITIVE CONTRIBUTION TO COMBATING CLIMATE CHANGE

Legislation in force:

– Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources[1]

– Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora[2], and related legislation

– Council Directive 93/12/EEC of 23 March 1993 relating to the sulphur content of certain liquid fuels[3], and related legislation

– Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control[4], and related legislation

– Directive 98/70/EC of the European Parliament and of the Council of 13 October 1998 relating to the quality of petrol and diesel fuels and amending Council Directive 93/12/EEC[5], and related legislation

– Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy[6]

– Directive 2001/80/EC of the European Parliament and of the Council of 23 October 2001 on the limitation of emissions of certain pollutants into the air from large combustion plants[7], and related legislation

– Directive 2002/91/EC of the European Parliament and of the Council of 16 December 2002 on the energy performance of buildings[8]

– Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC[9], and related legislation

– Directive 2003/105/EC of the European Parliament and of the Council of 16 December 2003 amending Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances[10]

– Directive 2004/12/EC of the European Parliament and of the Council of 11 February

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[1] OJ L 375, 31.12.1991, p. 1.
[2] OJ L 206, 22.7.1992, p. 7.
[3] OJ L 74, 27.3.1993, p. 81.
[4] OJ L 257, 10.10.1996, p. 26.
[5] OJ L 350, 28.12.1998, p. 58.
[6] OJ L 327, 22.12.2000, p. 1.
[7] OJ L 309, 27.11.2001, p. 1.
[8] OJ L 1, 4.1.2003, p. 65.
[9] OJ L 275, 25.10.2003, p. 32.
[10] OJ L 345, 31.12.2003, p. 97.

2004 amending Directive 94/62/EC on packaging and packaging waste[1]

– Regulation (EC) No 549/2004 of the European Parliament and of the Council of 10 March 2004 laying down the framework for the creation of the single European sky[2]

– Directive 2005/32/EC of the European Parliament and of the Council of 6 July 2005 establishing a framework for the setting of ecodesign requirements for energy-using products and amending Council Directive 92/42/EEC and Directives 96/57/EC and 2000/55/EC of the European Parliament and of the Council[3]

– Directive 2006/40/EC of the European Parliament and of the Council of 17 May 2006 relating to emissions from air-conditioning systems in motor vehicles and amending Council Directive 70/156/EEC[4] , and related legislation

– Decision no 1982/2006/EC of the European Parliament and of the Council of 18 December 2006 concerning the Seventh Framework Programme of the European Community for research, technological development and demonstration activities (2007-2013)[5]

– Regulation (EC) No 715/2007 of the European Parliament and of the Council of 20 June 2007 on type approval of motor vehicles with respect to emissions from light passenger and commercial vehicles (Euro 5 and Euro 6) and on access to vehicle repair and maintenance information[6], and related legislation

[1] OJ L 47, 18.2.2004, p. 26.
[2] OJ L 96, 31.3.2004, p. 1.
[3] OJ L 191, 22.7.2005, p. 29.
[4] OJ L 161, 14.6.2006, p. 12.
[5] OJ L 412, 30.12.2006, p. 1.
[6] OJ L 171, 29.6.2007, p. 1.

Proposed legislation:

– Proposal for a directive of the European Parliament and of the Council amending Directive 2003/87/EC so as to improve and extend the greenhouse gas emission allowance trading system of the Community (2008/0013 (COD) – COM(2008)0016)

– Proposal for a decision of the European Parliament and of the Council on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020 (2008/0014 (COD) – COM(2008)0017)

– Proposal for a directive of the European Parliament and of the Council on the geological storage of carbon dioxide and amending Council Directives 85/337/EEC, 96/61/EC, Directives 2000/60/EC, 2001/80/EC, 2004/35/EC, 2006/12/EC and Regulation (EC) No 1013/2006 (2008/0015 (COD) – COM(2008)0018)

– Proposal for a directive of the European Parliament and of the Council on the promotion of the use of energy from renewable sources (2008/0016 (COD) – COM(2008)0019)

– Proposal for a regulation of the European Parliament and of the Council setting emission performance standards for new passenger cars as part of the Community's integrated approach to reduce CO_2 emissions from light-duty vehicles (2007/0297 (COD) – COM(2007)0856)

ANNEX B:
EUROPEAN PARLIAMENT RESOLUTIONS ON CLIMATE CHANGE AND ENERGY

– Resolution of 17 November 2004 on the EU strategy for the Buenos Aires Conference on Climate Change (COP-10)[1]

– Resolution of 13 January 2005 on the outcome of the Buenos Aires Conference on climate change[2]

– Resolution of 12 May 2005 on the Seminar of Governmental Experts on Climate Change[3]

– Resolution of 16 November 2005 on "Winning the Battle Against Global Climate Change"[4]

– Resolution of 18 January 2006 on climate change[5]

– Resolution of 1 June 2006 on Energy efficiency or doing more with less – Green Paper[6]

– Resolution of 4 July 2006 on reducing the climate change impact of civil aviation,[7]

– Resolution of 26 October 2006 on the European Union strategy for the Nairobi Conference on Climate Change (COP 12 und COP/MOP 2),[8]

– Resolution of 14 December 2006 on a European Strategy for Sustainable, Competitive and Secure Energy – Green Paper[9]

– Resolution of 14 February 2007 on climate change[10]

– Resolution of 21 October 2008 on building a Global Climate Change Alliance between the European Union and poor developing countries most vulnerable to climate change[11]

[1] OJ C 210 E, 18.8.2005, p. 81.
[2] OJ C 247 E, 6.10.2005, p. 144.
[3] OJ C 92 E, 20.4.2006, p. 384.
[4] OJ C 280 E, 18.11.2006, p. 120.
[5] OJ C 287 E, 24.11.2006, p. 182.
[6] OJ C 298 E, 8.12.2006, p. 273.
[7] OJ C 303 E, 13.12.2006, p. 119.
[8] OJ C 313 E, 20.12.2006, p. 439.
[9] OJ C 317 E, 23.12.2006, p. 876.
[10] OJ C 287 E, 29.11.2007, p. 344.
[11] Texts adopted, P6_TA(2008)0491.

EXPLANATORY STATEMENT

Be the change you want to see in the world
Mahatma Gandhi

The creation of a Temporary Committee on Climate Change is the European Parliament's response and contribution to placing the challenge of climate change as a priority on the European and international agenda. Following the decision of the Conference of Presidents on 19 April 2007 to propose to Parliament the creation of a temporary committee on climate change, and following the decision of Parliament on 25 April to set up such a temporary committee, the newly created Temporary Committee on Climate Change held its constituent meeting on 22 May 2007. On 18 February 2008 Parliament decided to extend the mandate of the Temporary Committee until 9 February 2009. On 21 May 2008 Parliament adopted in plenary the interim report of the Temporary Committee on Climate Change on the scientific facts of climate change: findings and recommendations for decision-making.

This final report contains recommendations on the EU's future integrated climate policy to pave the way for a low-carbon economy, and seeks to coordinate Parliament's common position on the negotiations on a future international agreement on climate change.

It was drawn up on the basis of all the information gathered in the course of the Climate Change Committee's activities and is based on the premise that a well-founded scientific consensus now exists on the role played by anthropogenic greenhouse gas emissions in the world's climate, and that in view of the existing risk assessment there is an urgent need for action.

Your rapporteur is convinced that there is no single correct approach to combating climate change, but that we must firstly face up to the climate policy challenge by a dramatic increase in efficiency and better management of resources, and secondly that we must also be prepared to go down new paths. We are looking not at natural climate variations or oscillations but at a rise in global average temperature caused by humans as a result of a lifestyle which wastes resources instead of conserving them, and is thus not geared to sustainable development meeting the needs of today's generation without endangering the opportunities of future generations.

This final report is divided into 22 topics:

1. Guiding political ideas

The climate policy principles and guidelines of the final report of the Temporary Committee on Climate Change are based on the position of the European Parliament as already set out in the 13 resolutions on climate change in the current 6th legislative period. The report stresses in particular that climate change is to be understood as a horizontal policy to be taken into account in all legislative proposals.

These principles include first and foremost the key targets agreed upon and frequently reiterated since, such as the restriction of global climate change to 2°C, the reduction target of 20% below 1990 levels by 2020 (or 30% if other industrialised countries commit themselves to similar reductions) or 60%-80% by 2050.

The EU's leadership role in the international fight against global warming, which contributes to its sense of identity, entails an obligation to the citizens of Europe not only to formulate medium- and long-term climate objectives, but to achieve these objectives by forward-looking political measures, and requires not just present but future parliamentary representations and representatives of the citizens of Europe to be guided by these climate policy principles, and not to cease from putting the necessary global climate objectives into practice.

2. The international dimension: Post-2012, external climate policy and international trade

The negotiations on a post-2012 agreement at the Copenhagen Climate Conference (COP 15) at the end of 2009 must be successfully concluded, in order to prevent a gap between the first and second commitment periods. International commitment is also important because climate change may further heighten existing conflict potential in international relations, e.g. as a result of environment-induced migration, loss of land and border disputes owing to flooding and receding coastlines, conflicts over resources arising from the shrinkage of agricultural land, or increasing scarcity of water.

3. Energy

According to the World Energy Outlook of 2006, petroleum is the most important energy source in the world, accounting for 35% of primary energy consumption, followed by coal at 25% and natural gas at 21%. Reliable sources and predictions point to a substantial increase in energy needs in the world by 2020 and beyond. For example, the International Energy Agency expects an increase in world energy needs of at least 60% by 2030. This is linked to an increasing extent with a distribution problem, since the rising need for energy in emerging countries will further exacerbate the competition for secured access to fossil fuel sources in the next few years, particularly because the age of cheap and abundant fossil energy is coming to an end.

To meet this growing need, the world community is faced with enormous challenges. It seems unlikely that the increasing energy needs of a growing world population can be met solely by efficiency improvements. Accordingly, investment decisions taken in the next few years will determine the structure of the energy system and the energy mix over the coming decades.

4. Biofuels

Present-day biofuels policy has resulted in a conflict of objectives marked on the one hand by scarcity of foodstuffs and rising food prices and on the other by increasing energy needs and the search for alternative fuels. Meanwhile the issue of a sustainable biofuels policy is

becoming ever more acute and should be geared both to setting sustainability criteria for first-generation biofuels and to the ideology-free development of the second generation.

5. Energy efficiency

The existing scientific data speak for themselves: 40% of final energy consumption is accounted for by the buildings sector, which means that 33% of all greenhouse gas emissions derive from the built environment. Accordingly the buildings sector (residential accommodation as well as commercial and public buildings) has an immense and cost-effective potential for CO_2 reduction by modernising heat insulation and heating and cooling systems, electric appliances and ventilation systems. One crucial issue in this connection is what incentives can be created to trigger these necessary massive modernisation measures.

6. Mobility und logistics

While the separation of transport growth from general economic growth is a key objective of EU transport policy, demand for transport services has nevertheless outstripped GDP growth and the already high share of transport emissions as a percentage of overall greenhouse gas emissions in the EU is continuing to rise. At present transport accounts for around one third of final energy consumption in the EU, with the transport sector almost completely (97%) dependent on petroleum-based fuels (petrol and diesel).

On the one hand urban mobility is directly linked to individual quality of life, yet on the other hand it is individual traffic in cities which makes a substantial contribution to greenhouse gas emissions and to other environmental problems such as air pollution and noise. Instead of enhancing citizens' quality of life, it may significantly detract from it through negative effects on health.

Here, too, we must not evade the challenges. Ultimately the transport sector must also meet the EU's climate goals of reducing CO2 emissions by at least 20% below 1990 levels by 2020 and increasing energy efficiency by 20% over the same period. We therefore need to give a common answer to the question how we are to reconcile the European economic and social model – which is based on the availability of people, goods and services, giving priority to efficiency of time – with the efficiency of resources needed for sustainable development.

7. Tourism and cultural heritage

According to UNESCO, one tenth of all world heritage sites and traditional landscapes are endangered by the effects of climate changes. In Europe this means that the tourist industry is hard hit, because according to the UN World Tourism Organisation (UNWTO) Europe is the most important tourist region in the world, with 55% of all international tourist arrivals in 2006. It is well known that climate change can alter tourist flows, which would result in significant economic disadvantages for the holiday regions in question.

8. Emissions Trading Scheme and industrial emissions

With its Emissions Trading Scheme the European Union has created a unique instrument for achieving emissions reductions with maximum efficiency. The first multi-national emissions allowance trading entered into force on 1 January 2005. As the first scheme of its kind in the world, it has the potential in particular to serve as a model for our international partners.

On 23 January 2008 the Commission submitted a proposal for a directive amending the Emissions Trading Scheme, under which investment cycles (availability of new types of production process, capital requirement, time factor) should be taken into account in the formulation of further reduction targets for emissions trading.

9. Agriculture and livestock breeding

Climate change confronts agriculture in Europe and the world with several challenges of equal magnitude. Agriculture needs first of all to reduce its own emissions and develop adaptation strategies to changing climatic conditions. As a producer of biomass and materials for biofuels it supplies the essential raw materials for emerging sources of energy. At the same time sufficient food must be produced to feed the world's still growing population. In this context, livestock production in particular plays a crucial role: the Food and Agriculture Organisation (FAO) predicts an increase in meat production from 229 million tonnes at present to 465 million tonnes in 2050, and for milk production from 580 to 1043 million tonnes. This means that the livestock rearing sector will be growing faster than any other sector of the agriculture industry. At the same time, all along the value chain, livestock production is responsible for 18% of global greenhouse gas emissions and thus produces more greenhouse gases than the transport sector!

Changes to agricultural practice, European legislation and the most recent structural reforms to the Common Agricultural Policy, which increasingly aim at sustainability, will undoubtedly lead indirectly, via improved use of available resources, to emissions reductions. However, one should not ignore the fact that there are no specific climate objectives for agriculture, nor are there any incentives to exploit existing mitigation potential. As in other sectors, a modern career with a clear climate profile is becoming more and more important. Climate-friendly agricultural practice therefore calls for the transmission of new knowledge in soil management, and the professional training of young farmers must increasingly take account of the impact of climate change and the climate impact of agricultural production in order to confront the challenge which climate change represents for agriculture and livestock rearing.

10. Forests

There can be no doubt that forests are of immense value for our biosphere. 30% of the world's

land surface is covered in forests, which are home to more than two thirds of all the species on earth. Furthermore some 30% of annual greenhouse gas emissions are absorbed by forests. Forests thus play a major role in combating climate change. And yet, in spite of their many functions in the global ecosystem, they have no overall market price. Moreover, at least a third of the world's forests are already affected by the consequences of climate change. We should recognise these eco-services and social functions performed by forests – or, to put it rather flippantly, we should acknowledge that the forest is more than the sum of its trees.

11. Soil protection

The soil is the most important spatial basis for economic activity. On the one hand it is the basis for the production of 90% of all human food, animal feed, textiles and fuels. As a result of the increasing and often contradictory demands placed on it by nearly all sectors of the economy, including agriculture, private homes, industry and trade, transport and tourism, the soil is exposed more rapidly than ever before to irreversible damage by sealing and erosion, organic matter decline, pollution, salination, compaction, loss of biodiversity, flooding and landslides.

There is a clear link between climate change, sustainable development, environmental quality and soil degradation. The soil is affected by climate changes which may in turn lead to further degradation of the soil. At the same time the soil plays an important role via the dynamics of humus in binding atmospheric carbon. Soil degradation leads to the loss of organic soil material (and thus of organically bound carbon), which in turn entails a loss of the soil's capacity to operate as a carbon sink.

We must therefore do all we can to establish a policy of soil protection by appropriate soil treatment measures taking account of the importance of organic substances in the soil for its fertility, its water storage capacity and its ability to function as a carbon sink.

12. Water management

Owing to the negative effects of climate change and sometimes inept water management, the quality of the EU's water is far from satisfactory. Water quality is subject to particular dangers from a number of sources including releases, emissions and losses of hazardous substances. Human activities impact so deeply on the structure of global hydrology that it is barely possible for water to regenerate. Most of all, however, water also has a central role to play in climate change in that it not only triggers climate-changing processes (e.g. in the form of meltwater) but is also itself subject to change. The effects of climate change on the hydrological cycle may in turn unleash a domino effect on a number of economic sectors such as agriculture (increased need for watering), energy (less hydroelectric potential and reduced availability of water for cooling), human health (poorer water quality), leisure and recreation (restrictions on tourism), fisheries and shipping, as well as negative effects on already threatened biodiversity.

The central challenge we need to face is the issue of integrated water management based on present and future water requirements, which is the key to coping successfully with the

impact of climate change on available water resources.

13. Fisheries

Over the past hundred years, the average global temperature has risen by some 0.6°C, and sea levels by 0.17m. During that period both seawater and freshwater systems have warmed by 0.04°C, while surface temperatures have risen by 0.6°C.

It is predictable that climate change will bring major changes to sea fishing and marine aquaculture in the European Union. For example, a rise in temperature and thus in sea levels is expected, as is a change in the Atlantic thermohaline circulation, a change in salinity and the geographical distribution of organisms, shifts in fish populations and a quantitative reduction in phytoplankton. Consequently the changing climate will have a direct influence on survival rates, spread, fertility and behaviour of individual animals and thus on the size and distribution of industrial fish stocks.

We therefore need a comprehensive framework plan for the sea, as provided for in the Marine Strategy Directive, to ensure a better and more sustainable management of marine areas and resources.

14. Waste treatment and resource management

Our waste and resource management is faced with crucial challenges: on the one hand it is clear that European waste legislation already contributes to reducing net greenhouse gas emissions from the waste sector. That is certainly a success. However, it is regrettably also clear that waste quantities continue to increase in spite of our best efforts. Forecasts promise that this trend will continue: the European Environmental Agency expects a 25% rise in the quantity of household waste between 2005 and 2020. Nevertheless, the Agency predicts a clear (more than 80%) drop in emissions from the waste sector as compared with the late 1980s.

We must therefore rely more on biological presorting and material recycling in order to avoid direct emissions from landfill sites. Moreover, energy recovery from waste in conjunction with cogeneration systems makes an important contribution to avoiding indirect emissions, as it replaces fossil fuels to generate electricity and heat. The strict application of the nearness principle would also certainly be useful: waste transport over long distances should be avoided in order to restrict direct emissions from the waste sector.

15. Adaptation measures

In its resolution of 10 April 2008 on the Commission's Green Paper on 'Adapting to climate change in Europe – options for EU action' (COM(2007) 354) the European Parliament gave a detailed opinion on this topic. This final report of the Temporary Committee on Climate Change stresses once again the need for coherence and integrated coordination of adaptation measures at EU level, and reiterates its call for an EU-wide framework for the planning of

adaptation measures, taking due account of the subsidiarity principle, since regional and local authorities in Europe are better placed to make political responses based on their own experience.

16. Health

Climate change affects human health both by altering weather phenomena (e.g. more intense and more frequent extreme weather events) and indirectly by changes affecting water quality and quantity, air and food, as well as ecosystems, agriculture, livelihoods and infrastructures. The WHO states that climatic conditions influence diseases which are transmitted either by water or by certain vectors such as mosquitoes. These include dysentery, malaria and metabolic diseases resulting from malnutrition. Africa is particularly hard hit by these diseases. In addition, climate changes have an influence on the release of allergens and on increased ultraviolet radiation.

According to the WHO, 150 000 people a year die as a result of climate change, and a further five million become ill. The indirect results through floods, soil desiccation, crop failure, changes in animal or plant life or destruction by weather are particularly serious.

The specific challenge we are faced with in this area is twofold. On the one hand we must massively reinforce our health systems, because in doing so we can keep many health impacts of climate change at bay. On the other hand the widely differing health risks associated with climate change call for corresponding preventive measures.

17. Growth and employment

Europe enjoys an excellent starting position in the global race for a low-emission economy. We should therefore make the most of this position to trigger greater innovation which will create new and competitive businesses and new jobs in the field of clean technology in full accordance with the Lisbon Strategy. This is a real economic opportunity offered by climate change and by political measures to combat it, and pessimism should not cause us to pass it up.

We should therefore make a point of enabling market access for efficient, innovative technologies, dismantling bureaucratic hurdles and at the same time developing incentives to facilitate the shift to a low-carbon economy, in order to exploit all our opportunities in the global competition for efficiency, innovations, raw materials and future technologies, and markets.

18. Promotion of technologies of the future

Increased efficiency is a necessary but not a sufficient condition for combating climate change. Efficiency improvements alone cannot spark off the necessary technological revolution needed to find the way out of the carbon impasse.

Although emissions trading is the essential building block in the European climate programme with a view to achieving lower greenhouse gas emissions through efficiency increases, this will probably only favour those technologies and processes which have already been developed and are market-ready. It is not a way to cut the cost of developing new and consequently costly technologies, nor to help the market penetration of existing technologies, though these are urgently needed to meet long-term climate targets.

We should therefore do all we can to create fundamental incentive mechanisms and support measures so as to launch the necessary technological renewal, reduce the running costs for expensive but new technologies, and set and in future achieve more stringent reduction targets.

The International Energy Agency is expecting an increase of at least 60% in the world's energy needs by 2030. Even now, 24% of the EU's CO_2 emissions derive from coal-fired power stations. It is less a matter of how to plan for the abandonment of coal than of how to manage the shift to clean coal.

The UN's International Panel on Climate Change (IPCC) considers, in its 'IPCC Special Report on Carbon Dioxide Capture and Storage' (2005), that by the end of the century CCS technology could contribute between 15% and 55% of necessary greenhouse gas reductions and serve to supplement the expansion of renewables. However, the costs and risks still outweigh the economic advantages. For example, CCS consumes energy itself, and a power station with CCS consumes between 10% and 40% more primary energy to produce the same amount of electricity.

There are also many unanswered questions about storage sites. The CO_2 can be stored at a depth of at least 800m (where the gas changes to a quasi-liquid state), in worked-out or almost empty oil or gas fields, in salt rock strata or in deep salt water veins. Research is also being carried out into the possibility of storing the CO_2 in mineral form. However, there is still the underlying risk that storage sites will develop leaks and will gradually release small, or even suddenly larger quantities of CO_2 into the atmosphere. Moreover, not every soil is suited as a potential storage site. Finally, possible scepticism or concern among the general public about the use of CCS must also be taken seriously. Overall it is important, in view of the technological neutrality of the EU approach, to debate the issue of CCS openly without prejudging the outcome.

19. Intelligent computer systems and ICT

The ICT sector currently produces 2% of worldwide CO_2 emissions. However, the industry could not only reduce its own CO_2 emissions but could in particular develop innovative and more energy-efficient applications for the economy as a whole. Accordingly there is an urgent need to focus more closely on the testing, validation, introduction and further dissemination of computer- and ICT-based methods to improve energy efficiency.

20. Financing and budgetary matters

The current EU budget for achieving climate targets is insufficient. However, the EU should

commit itself financially in the core areas of support and development of technologies for combating climate change and climate development aid, and in supporting cross-border adaptation measures, efficiency increases and aid for natural disasters, in accordance with the EU's solidarity principle. A first step in the right direction would be to draw up an inventory of all existing financing instruments and their significance for European climate goals and, on the basis of this 'climate audit', to devise proposals for the future financial perspective to ensure that the EU budget lines can be adapted in accordance with the requirements of climate policy. In addition, unused, earmarked funds from the EU budget could be allocated where necessary for climate policy purposes.

21. Education, training and awareness-raising

The topic of 'energy efficiency' should impinge much more strongly on our daily lives. Simple and flexible efficiency standards for all spheres of everyday life could be the first step in the right direction. We should also, as a matter of urgency, adapt not only practical work training but also occupational training colleges and courses at technical colleges and universities to the specific employment-related challenges of the structural economic change hastened by climate change and its effects. This includes the creation of 'climate-related careers'. This final report considers that one possible awareness-raising measure might be a European Resource Efficiency Year, to raise awareness of more efficient use of resources and to take climate change as the starting point for a debate on the availability and use of resources.

22. 2050 – The future begins today

Climate change is a global environmental problem, whose causes are structural in nature. One reason for it certainly lies in a thoughtless use of our resources. The world's need for resources already exceeds its natural regeneration capacity by a quarter. Our lifestyle is depriving coming generations of their means of subsistence. It therefore seems absolutely crucial to counteract climate change and its effects by political measures on the basis of a long-term perspective and to implement the long-term decisions underlying it coherently and not to subordinate it to short-term political goals.

But a more sustainable lifestyle will not be possible without the contribution of the economy, science, the media, organised civil society and the citizens. It is therefore important not to capitulate in the face of the complexity of the problem. We must show a visionary desire to make a difference, together with leadership qualities in the political, economic and social spheres, in our response to the economic, environmental and social challenges with which we are confronted at this turning point in energy and climate policy, reflected in a growing scarcity of raw materials. And we are called upon to act today, because our action today will determine our future.

ANNEX 1: WORK PROGRAMME OF THE TEMPORARY COMMITTEE ON CLIMATE CHANGE

- **Tuesday, 17.07.2007,** 15:00-18:30
  - ❖ Exchange of views with Commissioner Dimas

- **Thursday, 06.09.2007,** 10:00-12:00
  - ❖ Discussion on COP 13 draft resolution

- **Monday, 10.09.2007**, 15:00-18:30
  ***1st thematic session:* Climate impact of different levels of warming**

- **Monday, 01.10.2007**, 15.00 - 18.30 - **Tuesday, 02.10.2007**, 9.00 - 12.30
  Joint Parliamentary Meeting on Climate organised by the President of the European Parliament and the President of the Portuguese Parliament

- **Thursday, 04.10.2007**, 09:00-12:30
  - ❖ Consideration of amendments to COP 13 draft resolution
  - ❖ Exchange of views with Mr Hans-Gert Poettering, President of the European Parliament

- **Thursday, 04.10.2007**, 15:00-18:30
  ***2nd thematic session:* The Climate Protection Challenge post-2012**

- **Monday, 22.10.2007,** 19:00-20:30
  - ❖ Vote on COP 13 draft resolution

- **Monday, 05.11.2007 - Wednesday, 07.11.2007**
  Delegation visit to China

- **Monday, 19.11.2007**, 15:00-18:30
  ***3rd thematic session:* Social and economic dimension, R&D, new technologies, transfer of technologies, innovation and incentives**

- **Wednesday, 12.12.2007 - Saturday, 15.12.2007**
  EP delegation to the Thirteenth Conference of the Parties to the UN-Convention on Climate Change (COP 13) - Bali, Indonesia

- **Monday, 17.12.2007**, 15:00-18:30
  - ❖ Outcome of COP 13 Bali - Exchange of views

- **Wednesday, 23.01.2008,** 15h00-18h30
  - ❖ Exchange of views with Minister Podobonik, Slovenian Minister for Environment
  - ❖ Consideration of draft resolution on adaptation
  - ❖ Adoption of draft resolution on outcome of COP 13

- **Monday, 28.01.2008**, 15h00-18h30
  - ❖ Consideration of Florenz draft interim report

- **Tuesday, 29.01.2008**, 15h00-18h30
  4th thematic session: ***Climate change and the world's water with special focus on sustainable development, land use, land use change and forests***

- **Monday, 04.02.2008 - Friday, 08.02.2008**
  Delegation visit to India and Bangladesh

- **Monday, 18.02.2008**, 19h00-20h00
  - ❖ Consideration of amendments to draft resolution on adaptation

- **Monday, 3.03.2008**, 15h00-18h30
  5th thematic session: ***Sources of emission from the industry and energy sector and transport emissions at global level***

- **Monday, 10.03.2008**, 21h00-22h30
  - ❖ Consideration of amendments to Florenz draft interim report

- **Wednesday, 26.03.2008**, 15h30-19h00
  6th thematic session: ***How to engage other main actors - climate change, adaptation in third countries and global security***

- **Thursday, 27.03.2008**, 9h00-12h30
  - ❖ Vote on draft resolution on adaptation

- **Tuesday, 1.04.2008**, 9h00-12h30
  - ❖ Vote on Florenz draft interim report

- **Monday, 28.04.2008 - Wednesday, 30.04.2008**
  Delegation visit to United States

- **Thursday, 29.05.2088,**
  7th thematic session: ***Meeting the climate commitments: addressing competitiveness, trade, financing and sustainable employment in a European and global context***

- **Thursday, 12.06.2008 - Friday, 13.06.2008**
  Citizens' Agora on Climate Change

- **Monday, 23.06.2008,** 15h00-18h30
- ***8th thematic session:*** ***Achieving significant CO_2 emission reductions in short time: learning from Best Practices regarding successful policies and technologies***

- **Tuesday, 24.06.2008,** 9h00-12h30
  - ❖ Report back by Commission on UNFCCC AHW negotiation sessions
  - ❖ First exchange of views without document on Florenz draft report

- **Monday, 14.07.2008**, 15h00-17h30
  - ❖ Second exchange of views without document on Florenz draft report

- **Thursday, 17.07.2008,** 11h00-12h30
  - ❖ Exchange of views with Minister Borloo, Minister of Environment, Energy and Sustainable Development of France

- **Monday, 15.09.2008**, 15h00-18h30
  - ❖ First consideration of Florenz draft report
  - ❖ Presentation of results of Eurobarometer's survey on European attitudes towards climate change

- **Thursday, 18.09.2008**, 9h00-12h30
  - ❖ Second consideration of Florenz draft report

- **Wednesday, 8.10.2008**, 16h00-18h30
  - ❖ Exchange of views with Ms Hedegaard, Minister for Climate Change and Energy (Denmark)

- **Monday, 20.10.2008**, 21h00-22h30
  - ❖ Consideration of amendments to Florenz draft report

- **Monday, 27.10.2008 - Wednesday, 29.10.2008**
  - ❖ Delegation visit to Russia

- **Tuesday, 04.11.2008, 9h30-12h30**
  - ❖ Consideration of amendments to Florenz draft report
  - ❖ Exchange of views with a delegation of Members of the Joint Committee on Climate Change and Energy Security of the Oireachtas

- **Thursday, 20.11.2008 - Friday, 21.11.2008 (Strasbourg)**
  Joint Parliamentary Meeting on Energy and Sustainable Development

- **Tuesday, 2.12.2008**, 15h00-18h30
  - ❖ Adoption of Florenz draft report
  - ❖ Briefing by Commissioner Dimas in preparation to COP 14

- **9-13.12.2008**
  EP delegation to the Fourteenth Conference of the Parties to the UN-Convention on Climate Change (COP 14) - Poznan, Poland

- **Thursday, 18.12.08**, 10h00 - 12h00
  - ❖ Exchange of views on outcome of COP 14

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February 2009 part-session: Plenary vote on Florenz final report

ANNEX 2: THEMATIC SESSIONS HELD BY THE TEMPORARY COMMITTEE ON CLIMATE CHANGE

1st THEMATIC SESSION, "Climate Impact of different levels of warming", Monday, 10.09.2007, 15:00-18:30

Theme leader: Vittorio Prodi

Key-note speaker:
Prof. Hans Joachim SCHELLNHUBER
Director of the Potsdam Institute for Climate Impact Research, Germany

Experts:
Prof. Dr. Richard LINDZEN
Professor of Meteorology at the Massachusetts Institute of Technology

Michel JARRAUD
Secretary General of the World Meteorological Organisation, Switzerland

Prof. Javier MARTIN VIDE
University of Barcelona

Dr. Malte MEINSHAUSEN
Institute for Climate Impact Research, Germany

Dott.ssa Cristina SABBIONI
Istituto Scienze dell'Atmosfera e del Clima, Italy

Prof. Sir Brian HOSKINS
Dept. of Meteorology at the University of Reading, United Kingdom

Prof. Jean-Pascal VAN YPERSELE
Vice-Chair of IPCC Working Group II,
Catholic University of Louvain, Belgium

Prof. Dr. Robert WATSON
School of Environmental Sciences,
University of East Anglia, United Kingdom

2nd THEMATIC SESSION, "The Climate Protection Challenge post-2012", Tuesday, 4.10 2007, 15:00-18:30

Theme leader: Satu Hassi

Key-note speakers:
John ASHTON
Special Representative on Climate Change of the UK Foreign and Commonwealth Office

Yvo DE BOER,
Executive Secretary of the UN Framework Convention on Climate Change

Experts:
H.E. Takekazu KAWAMURA
Ambassador, Mission of Japan to the EU, Brussels, Belgium

H.E. C. Boyden GRAY
Ambassador, Mission of the United States of America to the EU, Brussels, Belgium

Ronglai ZHONG
Minister Counsellor of the Mission of the People's Republic of China to the EU, Brussels, Belgium

Karsten NEUHOFF
Faculty of Economics
University of Cambridge

Nick CAMPBELL
Chair, International Chamber of Commerce Climate Change Task Force, Paris, France

Katherine WATTS
Policy Officer, Climate Action Network (CAN), Brussels, Belgium

Chris MOTTERSHEAD
Distinguished Advisor, Energy and the Environment, BP, United Kingdom

Andrei MARCU
Chief Executive, International Emissions Trading Association (IETA), Brussels, Belgium

3rd THEMATIC SESSION, "The social and economic dimension, R & D, new technologies, transfer of technologies, innovation and incentives", Monday 19.11.2007, 15:00-18:30

Theme leader: Philippe Busquin

Key-note speakers:
Prof. Carlo RUBBIA
Nobel Prize for Physics

Günter VERHEUGEN
Vice-President of the European Commission

Experts:
Kevin ANDERSON,
Professor, Tyndall Centre, University of Manchester

Stefan MARCINOWSKI,
Member of Board of Executive Directors, BASF AG

Graeme SWEENEY,
Executive Vice-President of Future Fuels and CO2, Shell

Bernard FROIS,
CEA Grenoble

Milan NITZSCHKE,
CEO, German Renewable Energy Federation (BEE)
Solarworld AG, Authorized Representative

4TH THEMATIC SESSION, "Climate change and the world's water, with a specific focus on sustainable development, land use change and forests", Tuesday, 29.01.2008, 15:00-18:30

Theme leader: Cristina Gutiérrez-Cortines

Key-note speaker:
Kaveh ZAHEDI
UNEP Deputy-Director and Climate Change Coordinator

Experts:
Dr. Franz FISCHLER
President of Ecosocial Forum Europe

Dr. Henning STEINFELD
Head of the livestock sector analysis and policy branch at the UN Food and Agriculture Organization (FAO)

John LANCHBERY
Principal Climate Change Advisor at the Royal Society for the Protection of Birds

Prof. Riccardo PETRELLA
International Committee for the World Contract on Water

Prof. John A. DRACUP
Professor at the University of California, Berkeley

Prof. Seppo KELLOMAKI
Dean of Faculty of Forest Sciences, University of Joensuu

5TH THEMATIC SESSION, "Source of emission from the industry and energy sector and transport emissions at a global level", Monday, 3.3.2008, 15.00 – 18:30

Theme leader: Etelka Barsi-Pataky

Experts:
Gordon MCINNES
Deputy Director, European Environment Agency

Philippe EYDALEINE
Senior Vice President European Affairs**,** Air France - KLM

Matthias WISSMANN
President of VDA

Jos DINGS
Director of T&E, The European Federation for Transport and Environment
Christian AZAR
Professor of Energy and Environment, Professor of Sustainable Industrial Metabolism, Chalmers University of Technology

Lars Göran JOSEFSSON
CEO, Vattenfall

Felix MATTHES
Dr. rer.pol. Dipl.-Ing., Öko-Institut (Institute for Applied Ecology)

6TH THEMATIC SESSION, "How to engage other main actors - climate change, adaptation in third countries and global security", Wednesday, 26.3.2008, 15:30-19:00

Theme leader: Justas Vincas Paleckis

Key-note speaker:
Dr. Rajendra K. PACHAURI
Chairman of the Intergovernmental Panel on Climate Change, 2007 Nobel Peace Prize laureate

Experts:
Prodipto GHOSH
Member of the India's National Council on Climate Change, chaired by the Prime Minister, former Secretary in the Ministry of Environment and Forest, India

Rubens BORN
Vitae Civilis, Brazil

Amjad ABDULLA
Environment Ministry, Maldives

Frank ACKERMAN
Stockholm Environment Institute and Global Development and Environment Institute, Tufts University

Tapani VAAHTORANTA
Finnish Institute for International Affairs, Helsinki

7TH THEMATIC SESSION, "Meeting the Climate Commitments: Addressing Competitiveness, Trade, Financing and Sustainable Employment in a European and Global Context", Thursday, 29 May 2008, 15.00 – 18.30

Theme leaders: Lambert van Nistelrooij and Robert Goebbels

Key-note speaker:
Pascal LAMY
Director-General of the World Trade Organisation

Experts:
Matthew STILWELL
European Director of the Institute for Governance and Sustainable Development

René VAN SLOTEN
Executive Director Industrial Policy, CEFIC (European Chemical Industry Council)

Adam JACKSON
Climate Change Director, Tesco

John MONKS
Secretary General, ETUC

Michele DE NEVERS
Senior Manager, Environment Department, World Bank

Mike MATHIAS
Chair, CONCORD Policy Forum

8TH THEMATIC SESSION, "Achieving significant CO_2 emission reductions in short time: learning from best practices regarding successful policies and technologies", Monday 23 June 2008, 15:00 – 18:30

Theme leader: Bairbre de Brún

Key-note speaker:
Ken LIVINGSTONE
Former Mayor of London

Experts:
Frederic XIMENO I ROCA
Director General for Environmental Policies and Sustainability, Generalitat of Cataluña

Mark HARBERS
Rotterdam Climate Initiative, City Councillor (Wethouder)

Gösta GUSTAVSSON
Vice Mayor of Linköping, Sweden

Carin Ten Hage
Director Programme "Planet Me"
TNT

Neil HARRIS
Head of Green IT and Sustainability, CISCO Europe

Franco MIGLIETTA
Associate Professor, Department of Nuclear and Theoretical Physics, Research Director at the Institute of Biometeorology of CNR, Firenze

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All documents related to the Thematic Sessions can be found on :
http://www.europarl.europa.eu/activities/committees/hearingsCom.do?language=EN&body=CLIM

ANNEX 3 : DELEGATION VISITS OF THE TEMPORARY COMMITTEE ON CLIMATE CHANGE

Place	Date	Chair of the Delegation
Beijing, China	05.11.- 07.11.2007	Guido Sacconi
EP-delegation to COP 13, Bali	11.12.- 15.12.2007	Alejo Vidal-Quadras
Delhi, India / **Dhaka, Bangladesh**	04.02. - 07.02.2008	Guido Sacconi Romana Jordan Cizelj (for the Bangladesh part)
Washington, US	28.04. - 30.04.2008	Guido Sacconi
OECD, Paris	02.10.2008	Matthias Groote
Moscow, Russia	27.10 - 29.10.2008	Vittorio Prodi
EP-delegation to COP 14, Poznan	9.12.- 13.12.2008	Guido Sacconi Romana Jordan Cizelj

All documents related to the Delegation visits, including the summary reports, can be found on:
http://www.europarl.europa.eu/activities/committees/publicationsCom.do?language=EN&body=CLIM

ANNEX 4 : PARTICIPATION OF THE TEMPORARY COMMITTEE ON CLIMATE CHANGE IN THE WORK OF PARLIAMENTARY DELEGATIONS

Meeting	Date	CLIM representatives
EP-China Interparliamentary Meeting	Beijing and Tibet, 23-29 June 2007	Fiona HALL reported back to CLIM
EP-South Africa interparliamentary meeting	Strasbourg, 5-6 September 2007	Guido SACCONI, Chairman
COP 8 to the UN Convention to combat desertification	Madrid, 11-14 September 2007	Roberto MUSACCHIO, vice-chairman, reported back to CLIM
EP-China Interparliamentary Meeting	Strasbourg, 26-27 September 2007	Fiona HALL reported back to CLIM
EP delegation for relations with India	Brussels, 21 November 2007	Guido SACCONI, Chairman Karl-Heinz FLORENZ, rapporteur
EP-Canada interparliamentary meeting	Brussels, 22 November 2007	Guido SACCONI, Chairman
Baltic Sea Parliamentary Conference (BSPC), working group on energy and climate change	Tallinn, 5 February 2008	Paul RÜBIG, EP representative in the working group
EP-Mexico interparliamentary meeting	Strasbourg, 22 May 2008	Karl-Heinz FLORENZ, rapporteur Elisa FERREIRA
EP-US interparliamentary meeting	Ljubljana, 24-26 May 2008	Romana JORDAN CIZELJ
EP-Japan interparliamentary meeting	Brussels, 3 June 2008	Guido SACCONI, Chairman Romana JORDAN CIZELJ

ANNEX 5 : PRESS ACTIVITIES BY THE TEMPORARY COMMITTEE ON CLIMATE CHANGE

PRESS CONFERENCES HELD IN THE CONTEXT OF CLIM ACTIVITIES		
Subject	**Date**	**Participants**
CLIM 1st thematic session	Brussels, 10 September 2007	Guido SACCONI, Chairman Karl-Heinz FLORENZ, rapporteur Vittorio PRODI, theme-leader Prof. Hans-Joachim SCHELLNHUBER, key-note speaker
Delegation visit to Beijing	Beijing, 7 November 2007	Guido SACCONI, Chairman Vincenzo LAVARRA, Bairbre de BRÙN, Anne LAPERROUZE, members of the delegation
Adoption of resolution in view of COP 13	Strasbourg, 14 November 2007	Alejo VIDAL-QUADRAS, Chairman EP delegation to COP 13 Guido SACCONI, CLIM Chairman Karl-Heinz FLORENZ, rapporteur Satu HASSI, rapporteur on COP 13
CLIM 3rd thematic session	Brussels, 19 November 2007	Guido SACCONI, Chairman Karl-Heinz FLORENZ, rapporteur Philippe BUSQUIN, theme-leader Prof. Carlo RUBBIA, key-note speaker

In the context of the COP 13 Climate negotiations:		
Joint Press Conference with Commission	Bali, 11 December 2008	Commissioner Dimas Alejo VIDAL-QUADRAS, Chairman EP delegation to COP 13 Miroslav OUZKÝ, Co-Chairman EP delegation to COP 13
EP Press Conference on round-table of parliamentarians	Bali, 12 December 2008	Alejo VIDAL-QUADRAS, Chairman EP delegation to COP 13 Guido SACCONI, Co-Chairman EP delegation to COP 13 Karl-Heinz FLORENZ, EP speaker at round-table
Joint Press Conference with Council and Commission	Bali, 15 December 2008	statement read on behalf of Guido SACCONI, Co-Chairman EP delegation to COP 13
Delegation visit to Delhi	Delhi, 5 February 2008	Guido SACCONI, Chairman Romana JORDAN CIZELJ, Co-Chairman of the delegation Neena GILL, Chairman of the delegation for relations with India
CLIM 6th thematic session	Brussels, 26 March 2008	Guido SACCONI, Chairman Karl-Heinz FLORENZ, rapporteur Justas Vincas PALECKIS, theme-leader Dr. Rajendra K. PACHAURI, key-note speaker
Delegation visit to Washington	Washington, 30 April 2008	Guido SACCONI, Chairman Karl-Heinz FLORENZ, rapporteur
Adoption of CLIM interim report	Strasbourg, 21 May 2008	Guido SACCONI, Chairman Karl-Heinz FLORENZ, rapporteur

CLIM 8th thematic session	Brussels, 23 June 2008	Guido SACCONI, Chairman Karl-Heinz FLORENZ, rapporteur Bairbre DE BRÚN, theme-leader Ken LIVINGSTONE, key-note speaker
Presentation of results of Eurobarometer survey	Brussels, 11 September 2008	Commissioner WALLSTRÖM Commissioner DIMAS Guido SACCONI, Chairman
Delegation visit to Moscow	Moscow, 29 October 2008	Vittorio PRODI, Chairman of the delegation to Moscow Romana JORDAN CIZELJ Giulietto CHIESA Avril DOYLE Agnes SCHIERHUBER, members of the delegation

ANNEX 6 : OTHER ACTIVITIES BY THE TEMPORARY COMMITTEE ON CLIMATE CHANGE

RELATIONS WITH NATIONAL PARLIAMENTS		
Meeting	**Date**	**CLIM representatives**
Joint Parliamentary Meeting on climate change	Brussels, 1-2 October 2007	EP activity - several CLIM members
Hearing and exchange of views with EU delegation of French National Assembly	Paris, 17 October 2007	Guido SACCONI, Chairman Karl-Heinz FLORENZ, rapporteur
Meeting of the Chairpersons of the committees responsible for energy and the environment from the national parliaments and the European Parliament organised by the Slovenian National Assembly	Ljubljana, 20-21 January 2008	Guido SACCONI, Chairman
Exchange of views with a delegation of Members of the Joint Committee on Climate Change and Energy Security of the Oireachtas	Brussels, 4 November 2008	CLIM meeting
Joint Parliamentary Meeting on energy and sustainable development	Strasbourg, 20-21 November 2008	EP activity - several CLIM members

PARTICIPATION TO INFORMAL COUNCILS		
Informal Environment Council	Ljubljana/Brdo 10-12 April 2008	Hans BLOKLAND represented both ENVI and CLIM
Informal Environment /Energy Council	Paris, 3-5 July 2008	Guido SACCONI, Chairman

RELATIONS WITH LOCAL AUTHORITIES		
Final session of the Catalan Convention on Climate Change organised by the government of Catalunya	Barcelona, 14 February 2008	Guido SACCONI, Chairman

RELATIONS WITH CIVIL SOCIETY		
Agora on climate change	Brussels, 12-13 June 2008	EP activity - several CLIM members
International Expo 2008, European Day	Zaragoza, 5 September 2008	Roberto Musacchio, Vice-Chairman

OTHER ACTIVITIES		
Request for an Eurobarometer survey on Europeans' attitudes towards climate change		Presentation of results at CLIM meeting of 15 September 2008
Request to the EP Bureau to ask the Secretary-General to look into the possibility of setting-up within the EP a scheme for emissions offsetting	letter by CLIM Chairman of 31.3.2008	Bureau Decision of 22 September 2008 to examine the issue in the context of the reduction of the EP carbon footprint

ANNEX 7 : STUDIES AND BRIEFING PAPERS REQUESTED BY THE TEMPORARY COMMITTEE ON CLIMATE CHANGE

Joint Parliamentary meeting on Climate change and climate change related legislation

National Legislation and national initiatives and programmes (since 2005) on topics related to climate change

By IEEP, 03/09/07

http://www.europarl.europa.eu/activities/committees/studies/download.do?file=17631

This study presents national legislation, initiatives and programmes recently launched by EU Member States and EEA countries to tackle climate change. Lessons learnt from 'good' EU practices and efforts aimed at halting the loss of biodiversity and the fight to climate change indicate that these initiatives were not successful, mainly due to weak implementation (e.g. the lack of financial resources) and lack of political will. The various legislation, initiatives and programmes have been collected via a questionnaire sent out by the European Parliament through the ECPRD network to the different National Parliaments. This network is especially designed to facilitate the exchange of information between national parliaments and the European Parliament. The overall material has been processed, the main results are presented in comparative tables and the information within these tables and 'interesting practices' are briefly discussed.

Climate change legislation and initiatives at EU level

By Copenhagen Economics, 01/10/07

http://www.europarl.europa.eu/activities/committees/studies/download.do?file=18835

The study was to review current and prospective EU climate policy related legislation and initiatives and provide recommendations for future policies. It evaluates current performance and puts forward options for reform in the post-2012 regime. For policy actions already affecting the commitment period up to 2012, three priorities are underlined all with the aim of improving the cost-effectiveness of climate policies: create a better functioning internal market for energy, take a more selective approach to regulatory energy standards, and use more market based mechanisms to reduce road transport emissions. For the period post 2012, two issues are stressed: the needed reform of the ETS, and the challenges involved in distributing the target reductions among member states.

Climate Change Legislation and Initiatives at International Level and Design options for Future International Climate Policy

By Ecofys, 05/12/07

http://www.europarl.europa.eu/activities/committees/studies/download.do?file=18491

This study provides background information for the Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC) and the Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol (COP/MOP) in December 2007 in Bali, Indonesia. It discusses the major issues under discussion at the start of the official negotiation of an international post 2012 framework agreement, initiated at the COP/MOP meeting in Bali and to be reached by 2009. The study provides an overview an assessment of the approaches that can be taken in a future international agreement on climate

change. The study includes a review of climate change policies of major countries (European Union, USA, Japan, Russia, China, India, Brazil) and private and non-governmental initiatives as well as the extent to which they are implementing their existing commitments under the Kyoto Protocol. Future international climate policy is discussed in various international processes in addition to the UNFCCC, including the Gleneagles G8 plus 5 process, the Asia-Pacific Partnership (AP6), the United Nations High-Level Climate Change Talks, the US major emitters initiative and the Greenland/South Africa/Sweden Ministerial dialogue on climate change.

Social and economic dimension, R&D, new technologies, transfer of technologies, innovation and incentives

Burden Sharing - impact of climate change mitigation policies on growth and jobs
By IEEP, 15/03/08
http://www.europarl.europa.eu/activities/committees/studies/download.do?file=19998
This report provide a synthesis and review of existing studies addressing the impact of climate change mitigation polices on growth and jobs in different economic sectors (energy, iron and steel, cement, transport, construction). It looks at the implications of different mitigation scenarios for 2020 and beyond. The study reveals that, according to many literature sources, mitigation policy will lead to job creation in some sectors (e.g. related to RES, energy efficiency, CCS, etc), while some jobs will be lost in others (e.g. related to fossil fuels and production of inefficient products). In general, the studies highlight that the overall net effect is likely to be positive, as jobs in less labour intensive industries could be replaced by jobs in more labour intensive ones, or in sectors with longer value chains. Furthermore, it appears that the average cost of mitigation is usually considered relatively small, in the order of no more than 1% of GDP – with changes to assumptions resulting in slightly higher and lower estimates. Aggregated EU GDP could even slightly increase thanks to positive restructuring of the economy, such as the opening of profitable new markets (e.g. RES, CCS technologies and fuel efficient vehicles).

Climate change and the world's water with special focus on sustainable development, land use, land use change and forests

Climate change–induced water stress and its impact on natural and managed ecosystems
By IEEP, 07/01/08
http://www.europarl.europa.eu/activities/committees/studies/download.do?file=19073
This study has shown that much of the impact anticipated from climate change can be attributed to changes in water regimes. The simple summary is to say that this means in some places there will be too much water, in other places not enough; but the story is more complex – shifts in the timing of runoff due to early snow melt; increased annual average precipitation but falling in winter instead of during the growing season; interactions with rising CO2 levels and temperatures that can benefit certain plant species, but only up to a point. Preparing for and responding to climate impacts will require reviewing approaches to natural and managed ecosystems, for example through the lens of ecosystem services, by which greater emphasis is placed on the preservation of healthy ecosystems; and through sustainable agricultural and forestry practices that can lend to rather than working against climate resilience and species health.

Forestry and climate change: potential for carbon sequestration
By Goossens, Policy Dept. A
(only internal; available upon request)
The note aims to give some exact figures and data on - amongst others - global forest resources, deforestation and carbon stock in vegetation, supplementing the study requested and commissioned by the European Parliament to IEEP on "*Climate change - Induced water stress and its impact on natural and managed ecosystems*". The briefing note highlights the potential of forestry to contribute to climate change mitigation through carbon sequestration.

Sources of emission from the industry and energy sector and transport emissions at global level

An overview of global greenhouse gas emissions and emissions reduction scenarios for the future
By IEEP, 15/02/08
http://www.europarl.europa.eu/activities/committees/studies/download.do?file=19411
This study focuses on carbon dioxide (CO_2) emissions from fossil fuels. Key drivers of these emissions are activity, economics, energy intensity and carbon intensity. As reducing GDP or population is not a likely aim of climate policy, the primary means of affecting emissions is to change the last two of the four factors: reducing the amount of energy needed per GDP, and decarbonising the fuel mix. The study tries to quantify current greenhouse emissions and anticipate their future evolution which are important analytical inputs for policymaking.

How to engage other main actors - climate change, adaptation in third countries and global security

State of play of post-Bali negotiations
By Ecofys, 15/03/08
http://www.europarl.europa.eu/activities/committees/studies/download.do?file=19955
The note summarises the status of negotiations after the Bali meeting (COP 13/CMP 3) of December 2007, and presents the issues at stake for building the elements of a future climate agreement: on ***mitigation*** the specification of "measurable, reportable and verifiable nationally appropriate mitigation commitments or actions" for developed countries (most likely continuing the emission reduction targets under the Kyoto Protocol);. on ***adaptation,*** the difficult issue is to define exactly which adaptation activities should be supported by the international system and how developing countries would be able to apply for support; on ***technology,*** a comprehensive framework for technology transfer has been decided and ways to assess the effectiveness of technology transfer are being developed; on ***finance,*** the challenge is to create a constant flow of financial resources, substantially larger than the currently available funds, and independent of government budgets.

Engaging developing countries in climate change negotiations
By IEEP, 26/03/08
http://www.europarl.europa.eu/activities/committees/studies/download.do?file=20148
Engaging the developing world has become increasingly more important and urgent. This paper explores the possible ways to attract developing countries on board in addressing climate change and reducing their own emissions. The paper addressed the following issues: the division of the world into Annex I/B and non Annex I/B countries; the lack of

commitment globally to defining a long-term objective on when climate change becomes dangerous for the earth and defining a pathway towards achieving such a long-term goal; the limited resources available in the multiple funds especially for adaptation; the Clean Development Mechanism (CDM); the slow rate at which technology transfer and capacity building; land-use and deforestation; and adaptation. The paper concludes with a menu card of policy options and a set of recommendations on a long-term objective, on policies and measures.

Engaging emerging economies - Removing barriers for technology cooperation
By Wuppertal Institute, 26/03/08
http://www.europarl.europa.eu/activities/committees/studies/download.do?file=19911
For emerging economies technology transfer is crucial in order to ensure a steady energy supply for their rapid economic development. Energy demand in these countries is growing fast, particularly in India and China.. To ensure that the economic growth is not coupled with the high GHG emission growth, technology transfer of low-carbon technologies and technology avoiding negative impact on adaptation is essential. The briefing gives an overview of key partnerships and points the barriers that technology transfer is facing and examples for appropriate tools that can help to overcome the remaining obstacles and promote technology transfer and climate change-related projects.

Linking the EU ETS with other Emissions Trading Schemes
By Wuppertal Institute, 26/03/08
http://www.europarl.europa.eu/activities/committees/studies/download.do?file=19802
In this note, different options of linking the EU ETS with other emissions trading schemes are quantitatively and qualitatively assessed, as well as the economic and environmental impacts and the design implications of these options. Economic analysis shows the important role of cap-setting and global emissions constraints for the economic impacts of linking the EU ETS internationally. The institutional analysis shows that several design issues of emerging schemes have important implications for the equity, the economic and the environmental effectiveness in a combined scheme. The report concludes that these problematic issues fundamentally flow from countries' level of ambition as regards climate protection and that linking should therefore only be sought between countries which have a comparably ambitious climate policy outlook.

Engaging the US & other industrialized countries: US climate change policy
By World Resources Institute, 26/03/08
http://www.europarl.europa.eu/activities/committees/studies/download.do?file=19959
The United States' cumulative GHG emissions have continued to be among the world's largest – topped only by the rise in Chinese emissions on an annual basis. Due to lack of leadership at the federal level, the U.S. still does not have a comprehensive plan to reduce emissions. In the absence of a national direction, many regions, states, and municipalities have begun to implement policies to reduce emissions on their own and in concert with other regions, states, and municipalities. The policies addressing a variety of sectors – in particular the electricity and transportation sectors and many aim to increase energy efficiency and renewable energy use are presented in this note. These efforts are complemented by action in the private and nongovernmental sectors and, in part driven by local and business initiatives, new proposals for legislation in the U.S. Congress. The paper also presents the U.S. Presidency candidates policy perspectives in the field of climate change.

Meeting the Climate commitments: Addressing competitiveness, trade, financing and sustainable employment in a European global context

Competitive distortions and leakage in a world of different carbon prices
Compilation of briefing notes by several authors, 04/07/08
http://www.europarl.europa.eu/activities/committees/studies/download.do?file=21551
Effective climate policy in Europe requires early commitment to ambitious emission reduction targets, with tight emission caps and rapid shifts towards auctioning of emissions. This guides a transition to a low carbon economy, provides growth opportunities for innovative sectors and technologies, and demonstrates leadership to drive international climate policy. Whether or not an agreement is reached at the Copenhagen in 2009, it is very unlikely that a single global price for carbon will prevail. A frequently voiced concern is that states with stringent climate policies will place domestic industries at a disadvantage relative to competitors in states with less ambitious climate efforts. This study compilation is an attempt to present the policy options available in this possible future situation of different levels of ambitions in climate policies. This is done in 5 chapters by different authors, from different points of views and academic disciplines. The study compilation asks the question whether competitive distortions and leakage, either in CO2 or employment, present a realistic danger in a world of different carbon prices.

Climate change financing in developing countries
Compilation of briefing notes by several authors
http://www.europarl.europa.eu/activities/committees/studiesCom/download.do?file=21631#search=%20Climate%20change%20financing%20in%20developing%20countries%20

Part 1 the report assesses the interaction between climate change financing and development aid: what are the impacts of those policies today, and what are potential incoherencies in the different intervention areas of development assistance with regards to climate change adaptation and mitigation objectives and development objectives. Part2 provides an overview of EC programmes and international EC funded financing initiatives aimed at developing countries in the field of climate change mitigation and adaptation (objective, allocated budgets and financing mechanisms) and recommendations to improve coherence and effectiveness of the different EC mechanisms. Part 3 assesses the mechanisms for mainstreaming of adaptation and mitigation of climate change in development policies and programmes at EU and international level and for climate risk assessment and recommendations for improvement (EU/donor perspective). Part 4 assesses the mechanisms for mainstreaming of adaptation and mitigation into development projects on a national and local level and recommendations for improvement (recipient countries perspective)

Achieving significant CO2 emission reductions in short time: learning from Best Practices regarding successful policies and technologies

Sustainable cities: Best practices on CO_2 savings in urban areas - Building efficiency, household emissions and energy use
By Wuppertal Institute, 23/06/08
http://www.europarl.europa.eu/activities/committees/studies.do?language=EN
In Europe, numerous good practice examples related to emission reductions in cities can be found. A high number of cities and towns have implemented local energy action plans, local

emission reduction targets or even plan to become carbon neutral. These targets usually include a whole package of different measures and instruments. The aim of the following compilation is to identify medium-scale examples that are innovative, show short-term emission reductions and are replicable to other urban areas throughout Europe. The focus lies on energy efficiency in buildings, household emissions and energy use.

Delegations

China and climate change: Impacts and policy responses
By Prof Ash, London University, 01/10/07
http://www.europarl.europa.eu/activities/committees/studies/download.do?file=18039
This briefing paper seeks to demonstrate that the challenges for China posed by climate change are real. The consequences of global warming are already apparent. The scientific evidence of investigations by Chinese and international bodies overwhelmingly indicates that the threat to the sustainability of China's future social and economic development, as well as to fragile ecosystems, will intensify. That the Chinese government recognises the scale of the problems that China faces as a result of climate change is beyond doubt, as is its commitment to address those problems, subject to its insistence that industrialised countries bear the major responsibility in meeting the challenges of global warming. More questionable, however, is whether the policies Beijing has so far put in place will be capable of halting, let alone reversing, the recent inexorable and accelerating increase in China's GHG emissions.

China's energy policy in the light of climate change, and options for cooperation with the EU
By Prof. Holslag, 01/10/07
http://www.europarl.europa.eu/activities/committees/studies/download.do?file=18035
This paper briefly introduces China's new *comprehensive energy security* policy. Subsequently, it sheds a light on how the European Union tries to take advantage of this move, by stepping up its efforts to promote green energy and simultaneously tapping China's vast market. Afterwards, an assessment is made of the success of this European approach for wind and solar energy, clean coal technologies, natural gas, hydropower and bio-fuel and recommendations for EU policy in this area are provided.

Climate Change and India: Impacts, Policy Responses and a Framework for EU-India Cooperation
By Dr Kumar, TERI-Europe, 24/01/08
http://www.europarl.europa.eu/activities/committees/studies/download.do?file=19208
The briefing note provides a brief overview of the impacts that climate change is having on the Indian economy, government policies that are in place that assist in adaptation to climate change in sectors, India's contribution to global greenhouse gases and mitigation efforts currently underway and indicative areas for collaboration between the EU and India on adaptation to climate change as well as on mitigation efforts.

Climate Change Impacts and Responses in Bangladesh
By Dr. Huq, International Institute for Environment and Development, 24/01/08
http://www.europarl.europa.eu/activities/committees/studies/download.do?file=19195
Bangladesh is one of the most vulnerable countries to climate change because of its disadvantageous geographic location; flat and low-lying topography; high population density; high levels of poverty; reliance of many livelihoods on climate sensitive sectors, particularly agriculture and fisheries; and inefficient institutional aspects. Many of the anticipated adverse affects of climate change, will aggravate the existing stresses that already impede development in Bangladesh, particularly by reducing water and food security and damaging essential infrastructure. This briefing note describes the country characteristics that make it particularly vulnerable to climate change, before outlining the main climate change impacts that are of concern. These impacts are discussed in relation to their adverse effects on different sectors. Finally, the national and international policy responses to manage these effects are outlined.

Engaging the US & other industrialized countries: US climate change policy
By World Resources Institute, 26/03/08
http://www.europarl.europa.eu/activities/committees/studies/download.do?file=19959
The United States' cumulative GHG emissions have continued to be among the world's largest – topped only by the rise in Chinese emissions on an annual basis. Due to lack of leadership at the federal level, the U.S. still does not have a comprehensive plan to reduce emissions. In the absence of a national direction, many regions, states, and municipalities have begun to implement policies to reduce emissions on their own and in concert with other regions, states, and municipalities. The policies addressing a variety of sectors – in particular the electricity and transportation sectors and many aim to increase energy efficiency and renewable energy use are presented in this note. These efforts are complemented by action in the private and nongovernmental sectors and, in part driven by local and business initiatives, new proposals for legislation in the U.S. Congress. The paper also presents the U.S. Presidency candidates policy perspectives in the field of climate change.

UNFCCC - COP-14 in Poznan (December 2008)
http://www.europarl.europa.eu/activities/committees/studies/download.do?file=23435
The briefing was prepared as a background material for the EP delegation to the 14th UNFCCC COP meeting on Climate Change in December 2008 in Poznań, Poland. At last year's meeting in Bali, Indonesia, a time-lined negotiation on a post-2012 framework was agreed, aiming at reaching an agreement in Copenhagen in December 2009. As a steppingstone on the path from Bali to Copenhagen, the Poznań conference will mark the turning point from analysis and discussion to negotiation stage.

Ahead of the Poznań Conference there are four key issues or 'hot topics': i) sectoral approaches; ii) Clean Development Mechanism (CDM) and Land Use, Land Use Change and Forestry (LULUCF); iii) Reducing Emissions from Deforestation in Developing Countries (REDD); and iv) financing and development.

Other key issues are the participation of the US in an international climate change agreement; whether or not emerging economies should take up binding emission reduction commitments; and how to accommodate diversity among developing countries not only in terms of economic capability, natural resource endowments, and vulnerability to impacts of climate

change but also in terms of topics of their priority. The Copenhagen agreement should form a 'shared vision' with a level of ambition and send a strong signal from joint leadership of all major economies to the market, business, scientists, and citizens.

International Forest Policy: Integrated climate and forestry policy options. The implications of carbon financing for pro-poor community forestry: How do we design forest policy tools to jointly address climate change, environmental and development goals?
http://www.europarl.europa.eu/activities/committees/studies/download.do?file=23272
The study addresses the integrated climate and forestry policy options in developing countries, focussing on the implications of carbon financing for pro-poor community forestry. Specifically, it responds to the following question: "How do we design forest policy tools to jointly address climate change, environmental and development goals?"

The report provides an overview of carbon finance initiatives and proposals; analyses carbon finance initiatives/proposals targeting forest issues from the perspectives of climate change mitigation, biodiversity and other environmental issues, and development; and offers recommendations on steps forward to promote a pro-poor forest agenda for UNFCCC negotiations, the spending of revenues from EU-based green house gas emission mitigation efforts, and other pertinent processes. The focus is on tropical forests as these make the largest contribution to greenhouse gases (GHGs) and have most links with the 'pro-poor community forestry' agenda.

The study examines CDM afforestation/reforestation projects, Reduced Emissions from Deforestation and forest Degradation (REDD), and voluntary projects.

Energy and Climate Change in Russia
http://www.europarl.europa.eu/activities/committees/studies/download.do?file=21815
The briefing was prepared as a background material for the EP CLIM delegation to Russia in October 2008. The report addresses the impacts of climate change in Russia, including the expected impacts on ecosystems, and analyses how Russia's oil and gas contributes to climate change worldwide.

The briefing identifies the main opportunities in Russia to mitigate climate change through hosting Joint Implementation (JI) projects, LULUCF (Land Use, Land Use Change and Forestry) activities, participating in International Emissions Trading (IET), or applying some Green Investment Schemes (GIS), focusing on the country's potential in supplying the global carbon market with emission reductions.

The report presents the framework of cooperation between the EU and Russia, such as the Partnership and Cooperation Agreement (PCA), the EU-Russia "energy dialogue", and the debate concerning the ratification by Russia of the Energy Charter Treaty (ECT). Finally, opportunities for enhancing EU-Russia cooperation on climate change are being suggested.

Background information and external expertise
managed by EP Policy Department A

ANNEX 8 : WORKING DOCUMENTS DRAWN UP IN THE CONTEXT OF THE ACTIVITIES OF THE TEMPORARY COMMITTEE ON CLIMATE CHANGE

Working Documents on Thematic Sessions

No 1 on Climate Impact of different levels of warming by *Vittorio Prodi*, theme-leader
No 2 on The Climate Protection Challenge Post-2012 by *Satu Hassi*, theme-leader
No 3 on The social and economic dimension R & D, New Technologies, transfer of technologies, innovation and incentives by *Philippe Busquin*, theme-leader
No 4 on Climate change and the world's water, with a specific focus on sustainable development, land-use change and forests by *Cristina Gutiérrez-Cortines*, theme-leader
No 5 on Sources of Emission from the Industry and Energy Sector and Transport Emission at Global Level by *Etelka Barsi-Pataky*, theme-leader
No 6 on How to engage other main actors - climate change, adaptation in third countries and global security by *Justas Vincas Paleckis*, theme-leader
No 7 on Meeting the climate commitments: addressing Competitiveness, Trade, Financing and Sustainable Employment in a European and Global Context by *Lambert van Nistelrooij* and *Robert Goebbels*, theme-leaders
No 8 on Achieving significant CO2 emission reductions in short time: learning from best practices regarding successful policies and technologies by *Bairbre de Brún*, theme-leader

Working Documents by Karl-Heinz Florenz, Rapporteur

No 9 on waste treatment and resource management as part of a climate protection strategy
No 10 on water
No 11 on fisheries
No 12 on health
No 13 on adaptation to the consequences of climate change
No 14 on agriculture
No 15 on livestock breeding
No 16 on transport
No 17 on forests
No 18 on growth and employment
No 19 on Carbon Dioxide Capture and Storage (CCS)
No 20 on soil protection
No 21 on energy efficiency in the building sector
No 22 on energy
No 23 on financing and budgetary affairs

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All working documents can be found on:
http://www.europarl.europa.eu/activities/committees/homeCom.do?language=EN&body=CLIM

RESULT OF FINAL VOTE IN COMMITTEE

Date adopted	2.12.2008
Result of final vote	+: 47 –: 4 0: 2
Members present for the final vote	Liam Aylward, Etelka Barsi-Pataky, Ivo Belet, Johannes Blokland, John Bowis, Jerzy Buzek, Pilar del Castillo Vera, Dorette Corbey, Chris Davies, Avril Doyle, Lena Ek, Edite Estrela, Karl-Heinz Florenz, Matthias Groote, Françoise Grossetête, Rebecca Harms, Satu Hassi, Roger Helmer, Jens Holm, Dan Jørgensen, Romana Jordan Cizelj, Dieter-Lebrecht Koch, Eija-Riitta Korhola, Linda McAvan, Marian-Jean Marinescu, Roberto Musacchio, Riitta Myller, Dimitrios Papadimoulis, Markus Pieper, Vittorio Prodi, Herbert Reul, Luca Romagnoli, Guido Sacconi, Andres Tarand, Silvia-Adriana Ţicău, Antonios Trakatellis, Alejo Vidal-Quadras, Åsa Westlund, Anders Wijkman
Substitute(s) present for the final vote	Pilar Ayuso, Michl Ebner, Anne Ferreira, Catherine Guy-Quint, Fiona Hall, Peter Liese, Bill Newton Dunn, Zita Pleštinská
Substitute(s) under Rule 178(2) present for the final vote	Glenn Bedingfield, Francesco Ferrari, Juan Fraile Cantón, Louis Grech, Glenis Willmott, Stefano Zappalà