Performance-based Full Policy Cycle for the Digital Single Market

STUDY

Abstract
A benchmarking exercise of a number of Digital Single Market policy initiatives recently proposed by the European Commission against the performance-based policy model shows that the current policy development and assessment process could be improved markedly by following the performance-based policy model set out in the present study.

The key features of a performance-based full policy cycle are a clear articulation of policy objectives, the identification and use of quantitative indicators of expected short-term and longer-term policy impacts, the identification of synergies between policies, a much greater use of quantitative data in ex-ante impact assessments, the implementation of robust, data-based, independent ex-post assessments of the performance of policies relative to their expected impacts and a wide dissemination of lessons learned in such ex-post performance assessments.
CONTENTS

LIST OF ABBREVIATIONS 6
LIST OF TABLES 7
LIST OF FIGURES 7
EXECUTIVE SUMMARY 8

1. INTRODUCTION 14
   1.1. Terms of reference of the study 14
   1.2. Structure of the report 15

2. THE PERFORMANCE-BASED POLICY APPROACH 16
   2.1. Introduction 17
   2.2. The key elements of a policy-cycle 18
   2.3. Greater accountability in the policy cycle 21
   2.4. Policy objectives in the policy cycle 22
      2.4.1. Rationale for government intervention 22
      2.4.2. Indicators of policy objectives 23
   2.5. Synergies of various policies 24
   2.6. Impact assessments and use of quantitative data 26
      2.6.1. Background 26
      2.6.2. The essential elements of a good impact assessment 28
      2.6.3. Lack of data – the Achilles’ heel of evidence-based policy making 30
      2.6.4. Illustration of the problems arising from the lack of data 30
      2.6.5. Dearth of data and opportunities of “big data” 31
      2.6.6. Use of quantitative models 33
   2.7. Ex-post performance assessment and learning lessons 33
      2.7.1. Introduction 33
      2.7.2. Gaming – a potential hazard in a PBPC 34
      2.7.3. Timing of the ex-post performance assessments 34
      2.7.4. Approaches to ex-post performance assessments in various jurisdictions 35
      2.7.5. Learning lessons from ex-post performance assessment for future policy making 36
   2.8. Special focus on two elements of the policy cycle at the EU level – the ex-ante and ex-post assessment 37
      2.8.1. The European Commission and European Parliament approach to ex-ante assessments 37
      2.8.2. IAs at the EC 37
      2.8.3. IAs at the European Parliament 37
      2.8.4. General quality assessment of the EC’s IAs 38
2.8.5. Responsibility for ex-post assessments at the EU level 40
2.8.6. Timing of the ex-post assessments 41

3. ASSESSMENT OF A NUMBER OF EU DIGITAL SINGLE MARKET INITIATIVES FROM A PERFORMANCE BASED POLICY CYCLE PERSPECTIVE 42

3.1. Introduction 43
3.2. The key features of the performance-based policy cycle 43
3.3. Empirical assessment of the impact of the Single Market 44
  3.3.1. Background 44
  3.3.2. Ex-ante assessment of the Single Market – the Ceccchini report 46
  3.3.3. Other ex-ante assessments 46
  3.3.4. Ex-post assessment of the Single Market by the European Commission 47
  3.3.5. Estimates of additional gains to be reaped from a deeper Single Market 48
  3.3.6. The potential impact of Europe 2020 48
3.4. Empirical assessment of the impact of the DSM initiatives 48
  3.4.1. The Digital Single Market Initiatives 49
  3.4.2. Data issues 51
  3.4.3. Partial and complete assessments of DSM 51
  3.4.4. General observations regarding the impact of the DSM 53
  3.4.5. Conclusions regarding the impact of the DSM 54
3.5. Assessment of how well individual DSM initiatives covered by the present study meet the requirements of the performance based policy cycle 55
  3.5.1. Overview 55
  3.5.2. List of DSM initiatives being assessed in the context of the performance based policy cycle 55
  3.5.3. Approach to the assessment of how well the 10 DSM meet the requirements of the performance-based policy cycle and key findings 56
  3.5.4. Detailed findings 56
  3.5.5. Conclusions of the review of the 10 DSM initiatives from the perspective of the DSM 63

4. A MODEL OF THE PERFORMANCE-BASED POLICY CYCLE FOR THE DIGITAL SINGLE MARKET 64

4.1. Introduction 65
4.2. The key elements of performance-based policy cycle 65
4.3. Comprehensive assessment of the likely impact of the completion of the Digital Single Market 66
4.4. Detailed application of the performance based policy model to the Digital Single market 66
  4.4.1. Policy problem and intervention rationale 66
4.4.2. Identification of policy objectives and of quantitative indicators of expected outputs and outcomes of a policy initiative 67
4.4.3. Development of a comprehensive baseline or counterfactual scenario 67
4.4.4. Synergies and logic map 67
4.4.5. Articulation and implementation of data collection plan 72
4.4.6. Development of detailed evaluation plan including timeline for the ex-post assessment distinguishing between assessment of implementation, enforcement and materialisation of expected effects 72
4.4.7. Ex-post assessment of the performance of a policy initiative relative to expected benefits 73
4.4.8. Ex-post identification of success / failure factors and drawing out of lessons 73

5. CONCLUSIONS 74

5.1. Importance of the Digital Single Market 74
5.2. Importance of sound policy-making and problems with the current process 74
5.3. Recommendations 75

5.3.1. Recommendation 1: A more extensive quantitative assessment of the potential benefits of the Digital Single Market 76
5.3.2. Recommendation 2: Greater quantification of expected policy outputs and outcomes 76
5.3.3. Recommendation 3: Greater focus on synergies among policies in the same policy area or across policy areas 76
5.3.4. Recommendation 4: Systematic use of logic models or maps 76
5.3.5. Recommendation 5: Greater use of quantitative information 77
5.3.6. Recommendation 6: More systematic independent ex-post policy performance assessments 77
5.3.7. Recommendation 7: More systematic dissemination of the lessons learned from ex-post policy performance assessments 77

REFERENCES 79

ANNEX I: IDENTIFICATION OF THE DIGITAL SINGLE MARKET INITIATIVES REVIEWED BY THE STUDY 87

ANNEX II: OTHER ASSESSMENTS OF THE IMPACT OF THE SINGLE MARKET 89

ANNEX III: DETAILS OF THE DSM INITIATIVES REVIEWED 92
LIST OF ABBREVIATIONS

**DAE**  Digital Agenda for Europe

**DSM**  Digital Single Market

**EC**  European Commission

**EP**  European Parliament

**GAO**  U.S. Government Accountability Office

**ECIAG**  European Commission Impact Assessment Guidelines

**IMF**  International Monetary Fund

**LOLF**  Loi organique relative aux lois de finance

**PBPC**  Performance based policy cycle

**VBTB**  Van Beleidsbegroting tot Beleidsverantwoording
LIST OF TABLES

Table 1: Examples of non-spending government activities assessed by national and international audit organisations 36
Table 2: Examples of non-spending activities assessed by the European Court of Auditors 40
Table 3: The Cecchini report – gains from completing the EU Single Market 46
Table 4: Articulation of reason for DSM initiative and nature of the objective(s) 57
Table 5: Rationale for government intervention 58
Table 6: Impact assessment of DSM initiatives 59
Table 7: Source of data used quantitative IA 60
Table 8: Type of impacts quantified in the IA 61
Table 9: Logic model and evaluation indicators 63
Table 10: Impact of more complete implementation of the Services Directive 91

LIST OF FIGURES

Figure 1: A map of the effects of a regulation 18
Figure 2: Key stages of a full policy cycle 19
Figure 3: Detailed stages of a full policy cycle 20
Figure 4: Example of synergies between EU environmental and sectoral policies 25
Figure 5: Domestic barriers before and after transposition of the Electronic Commerce Directive 52
Figure 6: Example of a matrix showing synergies between 10 DSM initiatives and policies aiming to achieve the broader EU policy objectives set out in the Treaty for the Functioning of the European Union 69
Figure 7: Example of a synergy map of DSM initiatives 70
Figure 8: Example of a logic map of e-Infrastructures 71
EXECUTIVE SUMMARY

Purpose of the study

The overall objective of the study is to:

- provide a best practice model of a comprehensive performance-based policy cycle, from conceptualisation of the policy to ex-post assessment and evaluation;
- apply the analytical framework of the model to policies aiming to achieve the Digital Single Market; and,
- on the basis of the analysis undertaken, identify areas where the current policy process is deficient and develop recommendations for improvements.

The performance based policy-approach

Since the late eighties and early nineties, public administrations in OECD countries have shifted towards an outcome- or performance-based approach to public policy making and public management.

This approach increases the accountability of governments and makes it easier to assess whether the public sector and government departments, programmes, laws and regulations are performing well and achieving their objectives.

Evidence-based policy-making is an essential feature of any ex-ante or ex-post assessment in such a performance-focused policy framework and requires good data.

In designing government programmes, laws and regulations and in assessing ex-ante and ex-post their performance, it is essential to take account of their interactions and synergies with other government programmes, laws and regulations.

Moreover, to ensure that policies are effective and efficient, robust ex-post performance assessments are required so that any corrective measures can be taken rapidly. This is essential not only for government programmes involving public funds but also for any government intervention using a legislative or regulatory instrument as such policy interventions also involve costs, not so much for the public purse, but more so for individuals and businesses subject to the particular law or regulation.

Evidence-based, ex-post performance assessments require the identification of quantitative indicators of expected policy outputs and outcomes.

Evidence-based policy also aims to use quantitative data whenever possible.

In the case of a Directive, the final effect does not only depend on the substance of the Directive itself but also on the quality of the transposition of the Directive. Therefore, the correctness and completeness of the transposition of a Directive should be assessed early on in the ex-post performance assessment process.

Any lessons learned during the ex-post performance assessment need to be shared widely for the process to be fruitful. In practical terms, at the EU level, this means disseminating any such lessons to the three EU policy-making bodies, namely the European Parliament, the European Council and the European Commission.
Assessment of a number of Digital Single Market initiatives from a performance base policy cycle

The full achievement of the Digital Agenda for Europe and the Single Digital Market could increase EU GDP by 4 % in the long run based on standard economic analysis.

Such an increase is similar in magnitude to the one that was expected from the Single Market initiative.

The key features of a performance based policy-cycle, against which the information provided with a number of Digital Single Market Initiatives can be assessed, include:

- a clear articulation of the problem to be addressed by the policy intervention and the reasons why government should intervene;
- an identification of policy objectives and of quantitative indicators of expected outputs and outcomes of a policy initiative;
- the development of a comprehensive baseline or counterfactual scenario;
- the identification of how the policy objectives may be impacted by other policies and how the policy may contribute the achieving other government objectives and the development of a comprehensive logic map identifying among other synergies and conflicts with other policy initiatives;
- the incorporation of lessons from previous ex-post assessments;
- an articulation and implementation of data collection plan;
- the development of detailed evaluation plan including timeline for the ex-post assessment distinguishing between assessment of implementation, enforcement and outcomes;
- an independent ex-post assessment of the performance of a policy initiative relative to expected benefits;
- the ex-post identification of success / failure factors;
- the ex-post drawing out lessons learned for future policy-making.

A review of 10 specific DSM initiatives shows that, overall, the information provided with the Directives and Regulations rates rather poorly with regards to meeting the requirements of a full performance-based policy cycle:

- While the reason for EU intervention is articulated for all of the 10 DSM initiatives, quantitative objectives are only set out for 2. Obviously, the lack of quantitative objectives makes it almost impossible to undertake an objective and robust ex-post assessment of the performance of the DSM Directive or Regulation.
- Real, quantitative data are provided in only 4 of the 10 cases of interest.
- No detailed logic model/map is provided for any of the initiatives. While some of the documentation notes a few other initiatives that could lead to synergy benefits, no comprehensive information is provided, making it more difficult to assess how particular initiative fits within the overall picture.
- In only 5 cases is a list of quantitative indicators provided and in none of the 10 cases is a detailed evaluation plan provided.
A model of the performance-based policy cycle for the Digital Single Market

In light of the sparse quantitative evidence of the impact of the Digital Single Market, a first step in applying the performance based policy cycle would be to undertake more comprehensive and exhaustive studies of the potential gains that could arise from the completion of the Digital Single Market along the lines of the studies focusing on the impact of the Single Market.

Based on such studies, the various barriers to the completion of the Digital Single Market should be assessed in the terms of their importance, potential policy intervention to address these barriers would then need to be identified and, finally, a comprehensive action plan sequencing the various policy interventions should be developed.

Once the set of Digital Single Market initiatives are identified, precise policy objectives of each policy intervention need to be articulated and, to the extent possible, quantifiable indicators of the expected outputs and outcomes of each policy intervention need to be defined.

A simplified example of a matrix showing the potential synergies between the 10 Digital Single Market initiatives reviewed in the previous chapter and policy initiatives aiming to achieve the general EU policy objectives set out in the Treaty for the Functioning of the European Union shows that the potential for synergies is high.

Furthermore, an analysis of a number of DSM initiatives highlighted a number of synergies among these initiatives. To ensure that such synergies are fully exploited and the causal links between policy intervention and expected outputs and outcomes are clearly identified, a detailed logic map for each DSM initiative should be developed.

The application of the performance based policy cycle to the DSM also requires that, to facilitate the ex-post performance assessment, the information accompanying each proposed DSM policy initiative also contain detailed information on a) the data that should be collected as soon as the initiative is implemented (if a lack of data was identified at the policy development stage) and b) a timetable of the expected materialisation of the intervention’s outputs and outcome so as to allow for proper timing of the ex-post performance assessment.

Finally, the ex-post assessment of the performance of the DSM policy initiatives should be undertaken by an independent body as to avoid the conflicts of interest and gaming risks which arise when the officials responsible for the development of a particular policy are also in charge of the assessment of the performance of the policy.

Finally, any lessons learned during an ex-post performance assessment should be widely disseminated and inform subsequent policy work.

Moreover, a Digital Single Market Scoreboard should be created to bring together information on a) the state and quality of the transposition of the various EU Digital Single Market Directives; b) the effectiveness of the application and the enforcement of EU Digital Single Market Regulations and national laws transposing EU Digital Single Market Directives; c) the expected socio-economic and environmental outcomes and impacts; and d) the actual observed outcomes and impacts when such information becomes available.

The Digital Single Market Scoreboard should also provide an assessment of the cost to European citizens and businesses of any Digital Single Market initiatives which are not achieving their expected outcomes, particularly in cases where the ex-post assessment concluded that imperfect and/or incomplete transposition or ineffective application and
enforcement are the root causes of the failure to achieve the intended outcomes and impacts.

**Conclusions**

The completion of the Digital Single Market will make a substantial contribution to the EU economy and EU citizens’ standards of living.

But, the achievement of the Digital Single Market requires a supporting, effective and efficient legislative and regulatory framework.

However, at the present time, the EU policy process does not incorporate all the elements which ensure that the policy process is clearly focused on the performance of policies. In particular, the current approach could be strengthened by the implementation of the following seven recommendations.

**Recommendation 1: A more extensive quantitative assessment of the potential benefits of the Digital Single Market**

In light of the sparse quantitative evidence of the impact of the Digital Single Market, it would be important to undertake more comprehensive and exhaustive studies of the potential gains that could arise from the completion of the Digital Single Market along the lines of the studies focusing on the impact of the Single Market. Such more comprehensive studies would serve two purposes.

**Recommendation 2: Greater quantification of expected policy outputs and outcomes**

In order to be able to undertake an ex-post policy performance assessment to determine how well a policy is (or has worked), it is essential that the expected policy outputs and outcomes are clearly articulated during the ex-ante policy development stage.

Therefore, it is essential that the IA accompanying any policy proposal is very clear about expected policy outputs and outcomes and, whenever possible, provides quantified indicators of such expected outputs and outcomes.

**Recommendation 3: Greater focus on synergies among policies in the same policy area or across policy areas**

At the present time, it is very difficult, if not impossible, for legislators and policy-makers not deeply involved in the development of particular policy, to assess how that particular policy relates to other policies in the same policy areas or other policy areas. Synergies between different policies are typically not articulated in the information provided with policy initiatives and one can therefore reasonably assume that such synergies are largely ignored.

The presentation, in the information material accompanying a policy proposal, of a matrix showing how the particular policy initiatives interacts with other policies in a specific policy area, such as the Digital Single Market, and broader policy objectives would greatly help bring to the forefront of the policy-making process synergies and conflicts between policies and ensure the synergies are exploited.

**Recommendation 4: Systematic use of logic models or maps**

The information for the synergy analysis should feed into in a detailed logic model or map which shows in detail:

- how the policy under consideration will yield the expected outputs and outcomes;
• how extraneous factors (other policies and socio-economic factors) are also likely to impact on the evolution of the selected outcome and output indicators; and,
• how the policy under consideration will contribute to (or hinder) the achievement of objectives of other policies.

Such a detailed logic model or map should be included in every IA accompanying a policy proposal so as to clearly articulate the expected causal impacts and the relationships between the policy under consideration and other policies.

Such information is also essential for being able to undertake robust ex-post policy performance assessments without imposing the burden on the ex-post assessor to retroactively having to figure out how the policy-makers expected the policy to work.

**Recommendation 5: Greater use of quantitative information**

**Special data collection plan if no quantitative data are available at the ex-ante assessment**

As already noted earlier, the review of the 10 Digital Single Market showed that quantitative data were used only very rarely in the analysis of the rationale for government intervention and the options for achieving the desired policy outputs and outcomes.

While this situation may reflect the lack of readily available data at the time the ex-ante policy assessment was undertaken, in such circumstances it is essential that a proper data collection plan be developed during ex-ante policy development phase and implemented at the same time as the policy is implemented. In the absence of such a data collection process, it will be very difficult, if not impossible, to undertake a thorough ex-post policy performance assessment.

**Preparing for greater re-use of "big data"**

More generally, greater efforts should be made at the ex-ante policy development stage to determine to what extent greater use could be made of “big data” held by both the public and private sectors. This requires a) developing better intelligence about the “big data” which actually exists, b) developing potentially partnerships with businesses specialising in exploiting “big data” and “big data” holders to gain access to such data, and c) developing the analytical skills required to use such data in a statistically sound manner.

**Recommendation 6: More systematic independent ex-post policy performance assessments**

In order to avoid the potential conflicts of interest which may arise in the case of ex-post evaluations undertaken by the DGs of the EC and guarantee the independence of ex-post policy performance assessments, it is recommended that, in addition to the DGs in-house ex-post evaluations, the ECA also assess systematically the ex-post performance of EU legislation and regulation.

This would involve a considerable widening of the scope of the activities of the ECA which, currently, focuses mainly in on traditional public sector audit activities.

In addition, in order to guarantee the quality of any ex-post evaluations undertaken in-house at the EC, it is recommended that an EC-wide Evaluation Review Board be established along the lines of the EC Impact Assessment Review Board.

While, typically, the DGs have established internal evaluation quality review systems, the creation of an EC-wide review system will mitigate the risk of gaming and conflicts of interest inherent in set-up where those responsible for a policy are also those undertaking or commissioning the ex-post evaluation of the policy’s effectiveness and efficiency.
Recommendation 7: More systematic dissemination of the lessons learned from ex-post policy performance assessments

Any ex-post policy performance assessments (whether undertaken by the DGs of the EC or the ECA) yield useful lessons as to whether the policy performs as expected or not and the causes of successes or failures.

Therefore, in order to properly inform policy developers and policy-makers, and EU citizens and businesses more generally, and ensure that all relevant lessons can be drawn and built on in the policy process, it is recommended that:

- a central repository be created at the EC which contains all the ex-post evaluations undertaken by the various DGs along the lines of the repository of the IAs;¹
- every IA from the EC accompanying a policy proposal contain an obligatory special section presenting the findings of all relevant ex-post assessments (ex-post evaluations by DGs and ex-post performance assessments undertaken by the ECA); and,
- the EP prepare for the relevant EP committees on a regular basis (quarterly or semi-annually) summaries of the key findings and lessons of all ex-post assessments published by the EC and the ECA during the preceding period.

¹ For example, the EC IAs of 2013 are available at the link provide below and IAs from previous years can also be accessed through this webpage. http://ec.europa.eu/governance/impact/ia_carried_out/cia_2013_en.htm.
1. INTRODUCTION

Considerable efforts have been made in many countries over the last 20 years in increasing the efficiency of public policy-making and, especially, policy-implementation by focusing on policy performance and outcomes rather just inputs. Focusing on performance and aiming for high efficiency is particularly important in the current economic and fiscal environment of scarce budgetary resources.

Yet, while the current economic and fiscal environment is difficult, information technology developments and innovation are progressing at a very fast pace and the new digital economy offers a real possibility to boost economic welfare and pull the EU economy and the Single Market out of its current problems.

However, in order to ensure that consumers, businesses and governments can fully harness the opportunities offered by the digital economy, it is essential that an efficient and comprehensive legislative and regulatory framework is implemented so as to support, encourage and channel the myriad of new digital world activities while adequately protecting all stakeholders from potential detriment.

In this context, it is useful to consider whether the current policy-making process aiming to develop and implement the required legislative and regulatory framework can be improved. In particular, it would be desirable to ensure that any policy decisions are based on robust evidence and focused on achieving clear outcomes. The identification of such outcomes in the design of policies allows one to assess on a regular basis whether the policies perform as expected and adjustments are required.

As made explicit by the terms of reference of the study listed in the section below, the present study aims to contribute, in the context of the digital economy, to this general reflection of how to improve the policy-making process and put greater emphasis on performance and outcomes.

1.1. Terms of reference of the study

According to the terms of reference of the study, the overall objective of the research is to:

1. provide a best practice model of a comprehensive performance-based policy cycle, from conceptualisation of the policy to ex-post assessment and evaluation.
2. apply the analytical framework of the model to policies aiming to achieve the Digital Single Market.
3. on the basis of the analysis undertaken under point 2, identify areas where the current policy process is deficient and develop recommendations for improvements.

According to the terms of reference of the study, the development of the best practice performance-based policy-cycle model should build on an analysis of the importance, limits and scope (actual and desired) of policy planning.

Important elements that the best practice policy model should take account of include:

- synergies between different policy actions aimed at similar policy area or policy targets so that any assessment of planned or implemented policies takes account of all the effects that may materialise or have materialised;
- explicit audits of the efficiency and effectiveness of implemented policies and programmes to check if the anticipated results set out in the policy (and programme) planning and announcement documents have actually materialised and, if not, provide an assessment of whether any differences between expected and
actual results is due to errors in the ex-ante estimation of the results, inadequate implementation (for example, incomplete or erroneous transposition of Directives) or weak enforcement.

Overall, the best practice performance-based policy model should allow for a better integration of different policy areas such as the Digital Single Market, economic governance, budgetary considerations, etc.

1.2. Structure of the report

The structure of the report is as follows:

- Chapter 2 reviews the key features of performance based-policy making;
- chapter 3 examines, on the basis of recent Digital Single Market initiatives, the extent the key generic features of performance-based policy-making are reflected in EU policy-making at the present time;
- chapter 4 provides a detailed performance-based policy-making model for the Digital Single Market initiatives; and
- chapter 5 concludes by highlighting the key points raised in the present study and setting out a number of recommendations.

In addition:

- Annex 1 provides information on the process which has been used to identify the Digital Single Market which are assessed in the present report; and,
- annex 2 presents short summaries of these Digital Single Market Initiatives.
2. THE PERFORMANCE-BASED POLICY APPROACH

KEY FINDING

- Since the late eighties and early nineties, public administrations in OECD countries have shifted towards an outcomes- or performance-based approach to public policy making and public management.
- This approach increases the accountability of governments and makes it easier to assess whether the public sector and government departments, programmes, laws and regulations are performing well and achieving their objectives.
- Evidence-based policy-making is an essential feature of any ex-ante or ex-post assessment in such a performance-focused policy framework and requires good data.
- In designing government programmes, laws and regulations and in assessing ex-ante and ex-post their performance, it is essential to take account of their interactions and synergies with other government programmes, laws and regulations.
- Moreover, to ensure that policies are effective and efficient, robust ex-post performance assessments are required so that any corrective measures can be taken rapidly.
- Evidence-based, ex-post performance assessments require the identification of quantitative indicators of expected policy outputs and outcomes.
- Evidence-based policy also aims to use quantitative data whenever possible.
- In the case of a Directive, the final effect does not only depend on the substance of the Directive itself but also on the quality of the transposition of the Directive. Therefore, the correctness and completeness of the transposition of a Directive should be assessed early on in the ex-post performance assessment process.
- Any lessons learned during the ex-post performance assessment need to be shared widely for the process to be fruitful. In practical terms, at the EU level, this means disseminating any such lessons to the three EU policy-making bodies, namely the European Parliament, the European Council and the European Commission.
2.1. Introduction

Efforts in the late eighties and early nineties by public administrations to improve the policy-making process and increase the focus of public management and policy-making on policy outputs rather than just mere inputs (funding, etc.) culminated in the so-called new public management (NPM) adopted in one form or another by many OECD countries which in countries such as Australia, Canada, United Kingdom and United States evolved to also encompass evidence-based policy (EBP)\(^2\).

According to Van Doren et al. (2010), “Originally derided by many OECD members (generally those who had not accepted its precepts), the take-up of NPM elements that involve performance (much less so market aspects) has spread almost universally across Europe. While NPM has been partly superseded in first generation countries, performance management has been further institutionalised in countries such as Australia and the United Kingdom. The language of NPM has become more prevalent now in late reforming countries. The most recent performance movement is evidence-based policy”.

To a large extent this evolution built on previous efforts aiming at making the policy process more rational and increase the efficiency and effectiveness on government activities, especially government spending\(^3\).

Following standard evaluation theory and methodology, the concepts of efficiency and effectiveness are defined as follows in the present report:

- **Effectiveness**: the effectiveness of a government programme is the extent to which the programme achieves its intended objectives;
- **Efficiency**: the efficiency of a programme is the extent to which the programme is minimising the costs incurred in achieving the objectives, i.e. is cost-efficient.

Typically, the ex-post assessments of effectiveness and efficiency focus on government programmes involving outlays of public funds.

But, the legislative and regulatory activities of governments can be subjected to the same type of ex-post assessments as it is useful, from a policy perspective, to determine whether regulations and laws are achieving their intended objectives.

For example, the figure below provides an illustration taken from Coglianese (2012) of how one would need to map out the potential impact of a regulation in an ex-post performance assessment.

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\(^2\) See, for example, Bouckaert and Halligan (2008), Fryer et al. (2009), Greiling (2005), Johnsen et al. (2006), Kuhlam (2010), Prollitt (2005), OECD (1997a), and Van Doren et al. (2010).

\(^3\) See, for example, Curristine et al. (2007) for an analysis of key institutional drivers that may contribute to improving public sector efficiency, in particular performance information and its role and use in the budget process.
Moreover, while regulations and laws may involve little direct government spending, they may yield significant benefits and/or impose substantial costs on the economic agents subject to these regulations and benefits. Therefore, it is essential to assess whether such regulations and laws are cost-efficient from a broader societal perspective, taking into account all social costs and benefits.

A key analytical tool underpinning the greater focus on performance and evidence-based policy-making is the concept of “policy cycle” which seeks to distinguish the different stages of policy-making, from conception to implementation and review, and identify the requirements of sound policy-making at each of the stages.

2.2. The key elements of a policy-cycle

While the voluminous academic literature on policy cycles does not fully agree on the precise number of stages in a comprehensive policy cycle, there is broad consensus that such a cycle comprises at least the following broad stages (see figure below):

- An initial stage during which the rationale of a policy is articulated. During this first stage, a problem is identified and the reasons for government intervention (such as, for example, the existence of a public good, market failures because of externalities (positive or negative, information asymmetries, etc.) are articulated. In the ideal world, this is the stage at which the rationale for government intervention should be articulated. In the academic literature, this stage is often called the “agenda setting” stage.

- In the next stage of the policy cycle, the policy objectives are defined. Such policy objectives should be clearly related to the rationale for the policy intervention articulated during the first stage of the cycle.

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4 For the purpose of the present report a large body of literature was reviewed to draw out the key distinguishing features of the policy-making process. Useful information is provided among others in Banks (2009), Bouckaert and Haligan (2008), de Bruin (2007), Calmette (2010), Conseil d’analyse économique (2013), Halisworth (2011, 2012), Halisworth et al. (2012), Jann and Wegrich (2007).
In a third stage, a number of policy options for addressing the problem and achieving the policy objectives are developed and assessed. The policy options need to consider various approaches (including a “do-nothing” option) and various policy instruments (spending / taxation, or regulation) where appropriate. Such assessment typically takes the form of an impact assessment or regulatory impact assessment which serves to rank the various options. In the academic literature, this stage and the previous one are often consolidated into a single stage called “policy formulation and decision making”.

The next and highly critical stage involves the actual implementation and monitoring of the implementation of the policy.

Finally, the policy needs to undergo a proper ex-post assessment to assess the efficiency of any spending of public funds, the effectiveness of the policy of achieving the desired objectives and the additionality of the policy (i.e. whether without the policy the objectives would not have been achieved).

The last stage in the policy cycle ensures that any lessons learned in the ex-post assessment feed back into either improving the existing policy and/or inform the development of new policies.

Figure 2: Key stages of a full policy cycle


While the example above is taken from the UK HMT Green Book, a document which sets out “binding guidance for departments and executive agencies” in the United Kingdom on the appraisal and evaluation of government action\(^5\), the European Commission’s Impact Assessment Guidelines (ECIAG) describe a very similar process with the key exception that the ECIAG do not explicitly address the implementation/monitoring stage.

The stylised model described above is incomplete in the sense that it abstracts from stakeholder involvement at various stages of the process, and ignores the political process and the interaction between the executive and the legislative arms of government.

The stylised model described above does not clearly distinguish between policy-making and policy implementation. However, it can easily be adjusted to incorporate the sub-stages highlighted in the figure below.

The key feature of this more refined policy-cycle model is that all the stages in the policy-making phases are ex-ante, i.e. before the policy is implemented while all the stages in the policy implementation phase are ex-post, i.e. post adoption of the policy. The policy-making stage covers the first three elements of the stylised model above (i.e. rationale, objectives and appraisal) while the policy administration stage covers the last three elements (i.e. monitoring, evaluation and feedback).

Stakeholder consultations and the political decision-making process are key elements of policy decision sub-stage.

**Figure 3: Detailed stages of a full policy cycle**

![Detailed stages of a full policy cycle diagram](image)

**Source:** London Economics based on Government of Spain and World Bank (2010).

One important feature which characterises this more detailed policy model is the existence of a feedback loop from the ex post evaluation / performance assessment stage to the policy-making stage of new policies in the same or other policy areas. In contrast, the stylised model typically considers only a feedback to the programme being assessed ex-post and ignores the possibility that lessons learned during the ex-post assessment may inform more broadly the policy-making process.

The two policy models described above assume a clear linear sequencing of the various stages leading up to the implementation / monitoring stage. In reality, policy-making does not always follow such clear linear process and, sometimes, the lines between the various stages get blurred due to feedback loops between the various stages leading up to implementation.\(^6\)

Finally, it is important to note that, while the policy model set out above may give the impression that any policy is to be considered in isolation from other policies which may also impact on the policy objectives, in practice this is not necessarily the case as there is clearly scope for taking into account synergies or conflicts with other policies.

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\(^6\) See, for example, Hallsworth, Parker and Rutter (2012).
The discussion above did not address the issue of the extent to which quantitative information can and should be used in the various stages of the policy cycle nor in the allocation of responsibility for the ex-post assessment / evaluation. These two points are discussed more extensively later in the report.

2.3. Greater accountability in the policy cycle

The reforms implementing the NPM together with EBP involved a mixture of financial management, human resource management and accountability reforms. In particular, the greater accountability dimension required that for each policy:

- **at the policy-making stage:**
  - policy objectives should be clearly defined and articulated; and,
  - measurable indicators of the policy objectives should be identified;

- **at the policy implementation stage:**
  - an assessment of the performance of the policy need to be actually undertaken on the basis of the selected indicators; and,
  - lessons should be learned from the performance assessment to adjust, if necessary, the policy parameters, or inform the development of new policies, both in the same policy area and in unrelated policy areas.

It is important to note that, in many OECD countries, performance is assessed at the level of a government department or agency, or a government spending programme and less so, if at all, at the level of a law or regulation.

Yet, laws and regulations are as important, if not more important, policy instruments used for achieving government objectives and typically involve costs, albeit not borne by the public purse but the entities (businesses, persons, etc.) subject to the laws and regulations.

Notable exceptions to the general rule that countries undertake few ex-post assessments of government activities not involving public funds are, among others, the Netherlands and Sweden where the performance or effectiveness of the regulatory activity of the government is also assessed on a regular basis.

While the precise institutional set-up for implementing such performance-based public management varies across countries, a number of generic features are common:

- Typically, **quantitative policy objectives and indicators** are either defined at the outset when a new programme is implemented or a new government agency is created or for already existing government institutions and / or programmes, and **performance targets** are established, often through discussion between a government department / agency and the central institutions in government responsible for ensuring the overall performance of government.

- Moreover, an **ex-post assessment of performance** is undertaken either by the institution responsible for achieving the targets or the government agency with which the performance targets were agreed or by an independent body such as a public audit body or a combination of these institutions. For example, a government department may undertake an in-house ex-post evaluation of the performance of a particular programme and a public audit body may undertake an external performance assessment of the same programme at a later stage.
Examples of laws, regulations and policy tools institutionalising such performance-based approaches at the national and sub-national level include, among others:

- the Loi organique relative aux lois de finance (LOLF) in France⁷;
- the Neues Steuerungsmodell at the local level in Germany⁸;
- the Van Beleidsbegroting tot Beleidsverantwoording (VBTB) in the Netherlands⁹;
- the Structural Reform Plans implemented in the UK¹⁰;
- the GPRA Modernisation Act in the USA¹¹.

In the sections below, the issues of:

a) the articulation of the policy objectives;

b) synergies between policies; and,

c) usage of data to inform policy-making and ex-post performance assessments,

are discussed in greater detail and the next chapter examines the extent to which various recent Digital Single Market (DSM) initiatives incorporate the various elements of a performance-based policy-cycle.

### 2.4. Policy objectives in the policy cycle

In the policy cycle models described above the articulation of the policy objective(s) is a key building block in the policy process. It typically involves two distinct activities, namely the **identification of a problem or issue** the government wishes to address (i.e., the policy rationale) and the **identification of objectives** that the government aims to achieve.

#### 2.4.1. Rationale for government intervention

In the rational, evidence-based, policy making process, “this underlying rationale is usually founded either in market failure or where there are clear government distributional objectives that need to be met. Market failure refers to where the market has not and cannot of itself be expected to deliver an efficient outcome; the intervention that is contemplated will seek to redress this. Distributional objectives are self-explanatory and are based on equity considerations.”¹²

The various types of market failures include among others¹³:

- **Productive and allocative inefficiency:** Markets may fail to produce and allocate scarce resources in the most efficient way;

- **Monopoly power:** Markets may fail to control the abuses of monopoly power;

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⁷ See, for example, French Government (2004 and 2012).
⁸ See Kommunale Gemeinschaftsstelle für Verwaltungsmanagement (2007).
⁹ See, for example, Posseth et al. (2006).
¹⁰ The move to structural reform plans was announced by the UK Prime Minister on 16 July 2010 and the plans set out the progress of each UK government department in achieving the coalition government’s publicly announced objectives.
¹¹ See, for example, Brass (2012).
¹³ The list of various types of market failures is from, [http://www.economicsonline.co.uk/Market_failures/Types_of_market_failure.html](http://www.economicsonline.co.uk/Market_failures/Types_of_market_failure.html).
• **Missing markets**: Markets may fail to form, resulting in a failure to meet a need or want, such as the need for public goods, such as defence, street lighting, and highways;

• **Incomplete markets**: Markets may fail to produce enough merit goods, such as education and healthcare;

• **De-merit goods**: Markets may also fail to control the manufacture and sale of goods like cigarettes and alcohol, which have less merit than consumers perceive;

• **Negative externalities**: Consumers and producers may fail to take into account the effects of their actions on third-parties, such as car drivers, who may fail to take into account the traffic congestion they create for others. Third-parties are individuals, organisations, or communities indirectly benefiting or suffering as a result of the actions of consumers and producers attempting to pursue their own self interest;

• **Lack of or incomplete property rights**: Markets work most effectively when consumers and producers are granted the right to own property, but in many cases property rights cannot easily be allocated to certain resources. Failure to assign property rights may limit the ability of markets to form;

• **Information failure**: Markets may not provide enough information because, during a market transaction, it may not be in the interests of one party to provide full information to the other party;

• **Unstable markets**: Sometimes markets become highly unstable, and a stable equilibrium may not be established, such as with certain agricultural markets, foreign exchange, and credit markets. Such volatility may require intervention.

As noted earlier, market failures are not the only reason for government intervention. Income distribution considerations are also frequently at the heart of government policies.

In both the case of market failure(s) and income distribution considerations, the rational policy-making cycle requires a clear articulation of:

a) the issue or problem that a proposed policy aims to address; and,

b) the reasons why government intervention is required and will help overcome the particular problem or issue.

To that extent possible, the formulation of the policy rationale should be evidence-based and draw, whenever feasible, on objective, quantitative analysis.

It is important to note that, in addition to the reasons for government intervention listed above, governments may adopt policies which aim to achieve certain values which they cherish.

Because the rationale for such government intervention is in the sphere of values, it is not amenable to the same type of objective, evidence-based policy process. Nevertheless, even in the case of value-driven policy-making, the requirement to identify clear indicators of policy objective(s) is essential to be able to assess later on whether the policy is working.

**2.4.2. Indicators of policy objectives**

In defining the policy objective(s) of a particular policy intervention, the rational policy-making process distinguishes between the **immediate outputs** of a policy intervention (for example, the number of additional special needs teachers hired as a result of the implementation of a government programme funding the training and hiring of special needs teachers) and the targeted **outcomes** of the policy (e.g., improved educational success rates of children with special needs).
In order to be able to assess ex-post the effectiveness of a policy, it is essential that both immediate outputs and expected outcomes be defined ex ante as precisely as possible during the policy development process.

Moreover, any output and outcome indicators ideally should be quantified so as to provide greater clarity and transparency about the objectives of the policy and facilitate the ex-post assessment.

For example, in the case of the example of the special-needs education programme, the output indicator should be defined in terms of a precise number of additional teachers and the outcome indicator(s) could include, among others, a number of the additional special needs children which will achieve a certain reading or writing standard by a pre-specified age.

In the absence of such quantitative policy-objective indicators, it is much more difficult to understand ex-ante what the policy aims to achieve and assess objectively ex-post the performance (i.e., effectiveness) of the policy.

2.5. Synergies of various policies

The world is a highly complex socio-economic system with numerous interdependences among key factors and variables. In response, in recent years, in countries such as the United States, the general performance-focused policy-making and public management framework has been expanded from a stove-pipe type approach focusing on individual government institutions, programmes and policies to a broader, more encompassing approach which considers not only the impact of a particular government department, programme or policy on the objective(s) they aim to achieve but also on the impacts of other policies on the achievement of these objectives.

In other words, synergies (as well as potentially conflicts) between different programmes and policies are explicitly taken into account in a) the performance framework and b) the definition of programme /policy objectives and objective indicators.

**Synergies can manifest themselves at two levels**

- First, the target objective(s) of a particular programme or policy may also be impacted by other already implemented or soon to be implemented programmes or policies. Therefore, in the development and assessment of any programme or policy, it is essential to consider to what extent other programmes or policies will complement and, or even possibly, conflict with the programme or policy under consideration. This type of synergy will be labelled type I synergy in the present report.

- Second, the programme or policy under consideration may also have an impact on the desired outcomes of other programmes or policies or on wider cross-cutting public objectives. This type of synergy will be labelled type II synergy in the present report.
**Figure 4: Example of synergies between EU environmental and sectoral policies**

<table>
<thead>
<tr>
<th>Case</th>
<th>Objectives</th>
<th>Instruments</th>
<th>Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bioenergy promotion versus greenhouse gas mitigation and land use change</td>
<td>synergy</td>
<td>neutral or weak synergy</td>
<td>neutral or weak conflict</td>
</tr>
<tr>
<td>Biomass promotion versus biodiversity</td>
<td>weak synergy – stated as requirement</td>
<td>neutral or weak synergy – under development</td>
<td>range from weak synergy to strong conflict</td>
</tr>
<tr>
<td>Renewable electricity promotion versus water quality</td>
<td>strong synergy</td>
<td>neutral</td>
<td>range from neutral to potential strong conflict</td>
</tr>
<tr>
<td>Transport technology innovation versus healthy cities and greenhouse gas mitigation</td>
<td>strong synergy</td>
<td>strong synergy</td>
<td>strong synergy</td>
</tr>
<tr>
<td>Transport price signals versus air quality</td>
<td>strong synergy</td>
<td>strong synergy</td>
<td>weak synergy (pricing not sufficient to cover social costs) conflict</td>
</tr>
<tr>
<td>Agriculture production subsidies versus biodiversity</td>
<td>neutral</td>
<td>now neutral but conflict from past practice</td>
<td>data not available</td>
</tr>
<tr>
<td>Rural development support versus climate adaptation and water scarcity</td>
<td>neutral but probably moving towards weak synergy</td>
<td>weak synergy – white paper notes relevance but measures still under development</td>
<td>data not available</td>
</tr>
<tr>
<td>Cohesion policy, environmental protection, growth versus waste prevention, reuse, recycling and recovery</td>
<td>strong synergy</td>
<td>neutral to weak conflict</td>
<td>range from strong synergy to strong conflict</td>
</tr>
<tr>
<td>Cohesion policy, innovation, growth versus resource efficiency</td>
<td>synergy</td>
<td>neutral</td>
<td>range from synergy to weak conflict</td>
</tr>
<tr>
<td>Cohesion policy versus transport infrastructure and land use</td>
<td>weak synergy</td>
<td>weak synergy</td>
<td>range from strong synergy to weak conflict</td>
</tr>
</tbody>
</table>

*Source:* Nilson et al. (2012).
An in-depth assessment of policy coherence between various policies contributes to identify potential synergies (and conflicts) at both the level of outputs and outcomes of policies. The extent of such synergies is highlighted by a recent study by Nilsson et al. (2012) who examined potential synergies between EU environmental and sectoral policies. Among the 10 cases considered by the authors, 4 were judged to exhibit strong synergies in terms of their policy objectives and a lack of synergy was identified in only two cases (see table overleaf).

Joined-up government and building on potential synergies has been advocated by both policy-makers based in central agencies/departments in government structures and academics for a number of years. But, the existing literature on this issue suggests that it has proven difficult to implement in practice\textsuperscript{14}.

The most notable example of a formalisation of such synergy considerations in the policy-making process is the US GPRA Modernisation Act of 2010 (GPRAMA). This act requires US federal government departments to identify priority goals, elaborate on how other government institutions contribute to the achievement of these priority goals and explain whether the achievement of any of the department’s priority goals contributes to broader government-wide objectives defined by a central agency, namely the Office of Management and Budget\textsuperscript{15}.

In practical terms, the two-step approach set out in Nilsson et al. (2012) for identifying and building on synergies among policies appears the most useful in terms of the rational policy-making cycle. These two steps are as follows.

- Step 1: establish an inventory of the policy objectives of the policies of interest to policy-makers. This requires reviewing all the main policies pursued by a government and identifying all the explicit and implicit policy objectives; and,
- Step 2: develop a series of screening matrices which map all the interactions between the main policies of interest. In order to gain a deep understanding of the various synergies, sectoral expert input may be required.

Such a synergy analysis does not only assist policy-makers in a) better understanding how a particular policy under consideration may interact with other policies and b) identifying potential leveraging opportunities, but also provides useful information for the ex-post assessment by identifying how the expected outputs and outcomes of a particular policy may also reflect the impact of other policies.

### 2.6. Impact assessments and use of quantitative data

#### 2.6.1. Background

An important element of the NPM is the strong focus in evidence-based policy making. The objective is to draw, in a rigorous manner, on all relevant information when developing a particular policy. To that extent possible, quantitative data are to be used.

Although the degree to which evidence-based policy-making has become embedded in the policy-making process in different countries, four key conditions need to be met to support robust evidence-based policy-making\textsuperscript{16}:

\textsuperscript{14} See, for example, Fiori et al. (2012), Larsen et al. (2012), Nilsson et al. (2012), Pachauri et al. (2012), Pollitt (2003), Porritt (2012) and Ürge-Vorsatz et al. (2012).

\textsuperscript{15} See Brass (2012) and United States Accountability Office (2013b).

\textsuperscript{16} See Policy and Science (2010).
1. Availability of relevant information and data;
2. Existence of a cadre of public officials with skills in data analysis and evaluation;
3. Existence of political and organisational incentives for utilising evidence-based analysis and advice; and,
4. Substantial mutual understanding between roles of policy professionals, researchers and decision-makers.

This evidence-based policy making approach manifests itself in the widespread adoption of impact assessment (IA) and regulatory impact assessments (RIA) as an important policy development tool in the OECD countries.

**In fact, an impact assessment, when well done, will provide all the information required for being able to implement a full, rational and performance-focused policy cycle.**

There is much scope for variation in the way that such an assessment can be implemented in practice. Administrative processes can vary and the nature of the assessment of advantages and disadvantages can vary considerably from highly quantified, evidence-based approaches to more qualitative approaches.

Two broad strands of theory provide the foundation for impact assessments – economic theory and political/public administration theory.

On the economics side, the practice of assessing the advantages and disadvantages, or the costs and benefits, of government policy options derives from welfare theory and the development of the concept of Pareto optimality at the end of the 19th century. Whilst an attractive concept in theory, the Pareto criterion does not, in practice, allow policy-makers to choose between policy options that make some people better off and some people worse off because comparisons of utility between individuals are not possible.

In the search for a more practical theoretical basis for making policy decisions an extension of the concept was developed during the 1930s. Kaldor proposed that a policy could be assumed to increase aggregate social welfare if, hypothetically, the winners would be in a position to compensate the losers such that both parties are better off (or not worse off) after the policy is implemented. This concept has since become known as the Kaldor-Hicks criterion.

Cost-benefit analysis derives from the application of this principle, relying on measures of willingness to pay (WTP) and willingness to accept (WTA) compensation as the basis for measuring costs and benefits. Perhaps the key drawback of using this approach for policy-making purposes is that whilst it focuses on (economic) efficiency issues it does not directly address issues of equity – i.e. how are the benefits and costs of policy options distributed across different groups (e.g. rich and poor) in the population.

Other analytical approaches, such as cost-effectiveness analysis, weighting and scoring, multi-criteria analysis etc, are developments of cost-benefit analysis usually with the aim of making the application of cost-benefit analysis easier in practice.

Political theories of impact assessment focus more on explaining the socio-political reasons for introducing impact assessment processes and on the reasons for why they may develop in certain ways. The basis for much of the political science thinking about impact assessments is principal-agent theory.

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17 See, for example, Jacob et al. (2011), Nilson et al. (2008), OECD (2004, 2009b, 2012b), and Radealli et al. (2008, 2010).
The ‘principal’ is the centre of government that is seeking to exert some form of control over the way in which policies are developed and implemented by the less central branches of government (the ‘agents’).

IA is a tool used by the Principal in order to exert this control. This type of control may be seen as necessary in order to prevent the practices of the agent from drifting away from the democratic contract that is entered at the time of an election. The political science literature, using principal-agent theory as a base, also seeks to explain the ways in which IA is implemented. This can be influenced by the objectives of the principal and the agent, but also by other interested parties, which may be those subject to the regulation (e.g. businesses subject to environmental regulation) and those who seek to benefit from the regulation being in place (e.g. environmental pressure groups).

According to the OECD, the main reasons industrialised countries have adopted the use of ex-ante and ex-post IAs are fourfold:

- IAs help better understand and assess the impact of government policies and activities on the citizens, businesses and socio-economic and environmental circumstances;
- IAs allow one to identify impacts and inter-linkages (conflicts and synergies) with other policies and ensure coherence across different government initiatives or activities;
- IAs improve transparency;
- IAs improve government accountability\(^{18}\).

2.6.2. The essential elements of a good impact assessment

In order to fully support the performance based policy cycle and to allow for a robust ex-post performance assessment, a good-quality impact assessment should include the following key elements:

- The problem that is being addressed by the initiative and the reasons why government intervention is required to address the problem;
- The baseline (or counterfactual) scenario setting out how the world and the problem are likely to evolve in the absence of government intervention. This is a key building block of any performance-based policy cycle as it defines the benchmark outlook against which the success or failure of an initiative are to be assessed;
- An assessment of policy options for addressing the problem of interest. To the extent possible the policy options assessment should be made on the basis of hard economic data which are available from official sources as to avoid undue influence of stakeholders on the quantification of the net benefits of the various options;
- Quantified indicators of the objectives (outcomes) that the policy aims to achieve – such an ex-ante quantification of the objectives is essential as otherwise the task of the ex-post assessor or evaluator is complicated by the need to define subjectively ex-post the objectives that policy-makers hand in mind;
- An explanation of how lessons from previous ex-post policy evaluations have been incorporated in the articulation of the policy objectives and the selection of the preferred policy option;

\(^{18}\) As note by Janowski et al. (2011), the Mandelkern report of 2011 “that has influenced the adoption of IAs in the EU stressed that the ultimate objective of a IA is to help in the restoration of confidence in governance and to improve the credibility and legitimacy of governments”.

28 PE 507.457
• A logic map or model setting out how the policy will deliver the intended objectives through the policy’s outputs and impacts (medium-term and long-term). The logic map should also identify all the other policies and factors which may have a positive (synergies) or negative impact (conflicts) on the realisation of the policy’s objectives;

• A list of indicators (ideally quantifiable) which should be used in any ex-post assessment of outputs and impacts, and a clear data collection plan setting out how the indicator data should be collected if they are not readily available.

• A timeline for the ex-post assessment – in this timeline it is important to distinguish between the assessment of actual implementation of a programme or regulation (i.e. assessment of the output) from the assessment of the outcomes and achievement of objectives as the later are likely to take time to materialise as the ultimate effects arise from a change in behaviour of citizens and businesses targeted by the policy initiative.

While the core elements of a good impact assessment are generally acknowledged, the quality of the actual impact assessments is generally judged by the academic literature to be of variable quality reflecting a combination of factors such as, among other, insufficient analytical and technical skills and expertise, and more importantly lack of data\(^ {19}\).

Yet, while many countries now regularly require an impact assessment to be produced for major policy initiatives\(^ {20}\), only a very few have institutionalised an independent review of the impact assessments which are produced by government agencies and departments. For example:

• In the USA, IAs are produced only for regulation(s) implementing general legislative initiatives passed by Congress. The Office of Information and Regulatory Affairs, within the Office of Management and Budget, has the statutory duty to review significant regulations prior to their adoption. As part of the review, the Office of Information and Regulatory Affairs examines the proposed regulation and the accompanying regulatory impact assessment and makes suggestions to improve both the regulatory impact assessment and the regulation’s cost-effectiveness and makes sure that is consistent with the President’s priorities. If any issues between the Office of Information and Regulatory Affairs and the agency responsible for the proposed regulation cannot be resolved, the Office can send back the proposed regulation to the agency for reconsideration\(^ {21}\).

• In the United Kingdom, the current government set up the Regulatory Policy Committee, an independent body, whose task is to scrutinise all the impact assessments accompanying new proposed regulatory proposals and provide an opinion to the Reducing Regulation Committee, a ministerial body, on the quality of the analysis and the evidence presented in the impact assessment. If the Regulatory Policy Committee is very concerned about the quality of the analysis and impact assessment, it can specify changes that need to be made by the government department to the impact assessment before the Committee gives the green light for submission to Reducing Regulation Committee\(^ {22}\).

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\(^ {19}\) See in particular Caroll (2010).

\(^ {20}\) See, for example, Jacob et al. (2011), Nilson et al. (2008), OECD (2004, 2009b, 2012b), and Radealli et al. (2008, 2010).

\(^ {21}\) See Office of Information and Regulatory Affairs (2011) for further details.

\(^ {22}\) According to the latest report of the Regulatory Policy Committee (2013), 81 % of the impact assessments reviewed by the Committee in 2012 were judged to be fit for purpose.
2.6.3. Lack of data – the Achilles’ heel of evidence-based policy making

Robust, evidence-based policy-making requires good data in order to be able to undertake comprehensive ex-ante assessments of the likely impacts of various programme or policy options, and ex-post performance or effectiveness assessments of how the programme or policy actually worked and whether it achieved its intended outcomes.

Yet, unfortunately at the present time, in many instances, the required data are not readily available from data providers (public or private) and often need to be collected from stakeholders which will be impacted (positively or negatively) by a policy initiative.

For example, Mr. Banks, Chairman of the Australian Productivity Commission, an institution which undertakes frequently extensive ex-post policy assessments, noted recently that while evidence-based policy assessment is an extremely useful policy tool, “data deficiencies inhibit such analysis. Moreover, such a lack of data can also lead to the reliance on “quick and dirty” surveys or the use of focus groups”.

Such surveys, when done quickly, may be of a too small a size to be truly representative of the target population or of certain specific segments of such a population, or may include leading questions (not necessarily be design) because the sample and survey design were not undertaken by professional experts. As a result, such “quick and dirty” surveys are unlikely to be of the same quality and robustness as those run by the national statistics organisations.

Focus groups, like properly-run surveys, can be a useful tool to gather relevant information. But, again, it is essential that any ex-ante or ex-post assessor be aware of the potential biases which arise in the case of focus groups.

In the case of such data collection exercise undertaken for the preparation of ex-ante policy development or ex-post performance assessments, surveys of stakeholders or stakeholder focus groups obviously exposes policy-makers to the risk that the data provision by stakeholders will be “gamed” to influence the policy decision. Careful triangulation of the results of any such sources is essential in any evidence-based policy process.

2.6.4. Illustration of the problems arising from the lack of data

A recent report by London Economics for the European Parliament aimed to provide a good assessment of the size of the shadow economy in the EU at the present time in order to gain a better understanding of the extent to which a policy-driven reduction in the size of the shadow economy could contribute to re-launch the European Economy and the Single Market.

While by definition the shadow economy is not easily measureable, the report highlighted the paucity of data and estimates on a number tax gaps (i.e. the difference between the tax revenues should have been collected on the basis of the existing tax laws and the estimated level of economic activity) and the tax revenues which were actually collected. Overall, the report estimated that the overall size of the tax gap in the EU economy was EUR 297 billion in 2011. The figures for the customs gap and the VAT gap were EUR 387

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23 See Banks (2009).

24 Lack of data was also identified as being one of the causes of insufficient use of evidence in policy-making in a series of seminars on evidence and evaluation in policy-making held by the Institute of Government in the UK in 2012.

25 Such biases include: moderator bias, biased questions, biased answers, biased samples and biased reporting.

26 See Muller et al. (2013).
million in 2011 (only identified irregularities and fraud)\textsuperscript{27} and EUR 120 billion in 2011 respectively.

These figures are high level estimates of the likely “true” tax gaps and, in the case of customs at least, grossly underestimate the gap.

Clearly, the existence of large tax gaps should be a major policy concern, especially in the current times of highly constrained fiscal finances. Yet, in the absence of a better data, it is next to impossible to determine the extent to which budgetary resources should be committed to reducing these tax gaps and how to prioritise policy action(s) in the various tax areas.

Clearly, government accountability in the area of tax collection is undermined by the lack of good data or estimates.

2.6.5. Dearth of data and opportunities of “big data”

While “big data” has the potential to widely increase the range of data which could be used potentially in policy analysis and assessment\textsuperscript{28}, at the present time this is not yet the case as it is very difficult, if not impossible, for those other than the holders of big data to actually know what is available and how to harvest the data which would be useful for policy-making. The current state of play is not astonishing as, in many cases, the owners of big data themselves do not know what information they own and how it could be used in an intelligent manner\textsuperscript{29}.

While big data may not deliver to its potential in the near future, it would be useful to consider how better use could be made of the vast amount of data already collected by various government departments and agencies so as to be able to improve the policy-making process.

Reflecting the potential of big data in supporting the policy process, the concept of policy analytics, mirroring that of business analytics, is starting to be used in the policy cycle literature. For example, Tsoukias et al. (2013) foresee two major roles for policy analytics, namely the “first is to explore existing data sets. The second one is gather data and create new databases, to explore particular issues relevant for policy-makers”\textsuperscript{30}.

Greater use of policy analytics to explore and review the many large databases held by governments has the potential to yield substantial savings in the future. For example, a 2011 study by the McKinsey Global Institute identified three areas where big data can deliver savings:

- Efficiency savings by making smarter decisions about how government departments operate;
- Reductions in fraud and errors; and
- Improvement in tax collections.

\textsuperscript{27} This EUR 387 million figure is likely to be a very large under-estimate of the actual tax gaps as Europol estimates that the cost of cigarette smuggling alone was EUR 10 billion in lost budget revenues in 2011.

\textsuperscript{28} See, for example, Einav and Levin (2013).

\textsuperscript{29} In contrast to the state of affairs in the public policy sphere, private companies increasingly are making use of the vast amount data that have been accumulated within their business through the use of data driven decision making. A recent study comparing the performance of firms which use and do not use such a technique found that the level output and productivity was, on average, 5 % higher than among the latter (Brynjolfsson et al., 2011).

\textsuperscript{30} See Tsoukias et al. (2013) p. 124.
The McKinsey study estimates that, overall, potential savings to governments in the EU could be in range of EUR 150 billion to EUR 300 billion a year.

Using the McKinsey methodology, Yiu (2012) estimated savings for the UK government in the range of 2.5% to 4.5% of the government total budget of about £700 billion. Increased tax collections could reduce the UK tax gap of about £35 billion by £2 to £8 billion per year.

Clearly, better use of big data by the public sector has the potential to provide considerable more information and evidence for policy making and policy implementation and yield very significant savings. However, to reap such benefits, the required skills set to access and use such public sector big data must be developed in the public sector. As well issues about quality, representativity, selectivity, consistency and stability over time, standards and bias still need to be addressed (Yiu, 2012 and Das et al., 2013).

Interestingly, initiatives are also now underway in some countries such as Denmark and the United Kingdom to make available for research much the data that are collected by various government departments and agencies as part of their regular operations. For example:

- In the UK, the government department responsible for the collection of taxes, HMRC, makes currently available through its datalab anonymised micro data on corporation tax, personal tax, VAT, compliance activities, etc.\(^ {31}\).
- On 4th July 2013, the UK government launched the midata innovation Lab\(^ {32}\), a new government backed initiative which aims to give the power of consumer data back to consumers themselves. Under this initiative, the government is working with the energy, finance, telecoms and retail sectors to release customer data back to individuals in an easy-to-use digital form. Such data will also be a new rich and valuable source of information for policy analysis.
- On 8th October 2012, Denmark announced that it was launching an initiative aiming to release its digital raw material to the public\(^ {33}\).

National statistical agencies are also increasingly considering releasing anonymised micro datasets which could considerably enrich the policy-making process\(^ {34}\), especially if the different micro sets covering different aspects of the activities of economic agents can be linked.

Other initiatives such as FuturICT\(^ {35}\) which aims to build the Living Earth Platform, a simulation, visualisation and participation platform to support decision-making of policy-makers, business people and citizens will also provide rich, data-based, information to policy-makers once fully operational.

Overall access to broader, richer datasets will help to improve in the future evidence-based policy-making and, in turn, better, quantitative evidence-based policy making should improve policy outcomes and, overall, result in better performing policy over the longer run. Obviously, other factors will need to be met as well to increase the effectiveness of policies. But, good quality data are a necessary condition for the process to achieve its full potential.

\(^ {31}\) See http://www.hmrc.gov.uk/datalab/data.htm.
\(^ {32}\) See http://www.midatalab.org.uk.
\(^ {34}\) See, for example, the presentations made by a number of national statistical agencies at the 61st plenary session of the Conference of European Statisticians of the United Nations Economic Conference for Europe of 10 - 12 June 2013, http://www.unece.org/?id=31938.
\(^ {35}\) For further details, see http://www.futurict.eu/
Use of quantitative models

Finally, for major or broader policy initiatives, larger models such as, for example, general equilibrium economic models (e.g., the EC DG ECFIN Quest model) can be used to derive the broad macroeconomic impacts (ex-ante and ex-post). A number of examples of the use of such models to estimate either ex-ante or ex-post the gains from the Single Market are provided in the next chapter.

But, such large scale models can also be used to undertake ex-post assessment of other policies. For example, in 2007 DG Regio released three large scale macro-economic studies of the impact of Cohesion Policy and Convergence interventions. The approach taken by such studies could easily be replicated for many ex-post assessments of the performance of broader policy activities.36

2.7. Ex-post performance assessment and learning lessons

2.7.1. Introduction

The next to last essential step in a performance-based policy cycle is the ex-post assessment of the performance of the policy and the drawing out of lessons for any potential adjustments to the existing policy and the development of new policies in the same or other policy areas.

Performance auditing according to INTOSAI is an "independent examination of the efficiency and effectiveness of government undertakings, programs or organisations, with due regard to economy, and the aim of leading to improvements"37. Efficiency relates to the use of resources and getting the most or best output from available resources while effectiveness is about achieving the stipulated objectives. The question is whether the stipulated aims are being met, the outputs produced and the impacts observed.38

Before reviewing more extensively the approach adopted by OECD countries for the ex-post performance assessment of policies, the next two sub-sections focus on two broader issues related to any ex-post performance assessment, namely “gaming” by those responsible for implementing the policy and assessing its performance and the timing of the ex-post performance assessment.

While ex-post performance assessments and ex-post evaluation are closely related in the sense that both aim to assess the effectiveness and efficiency of a programme or government policy, the scope of analysis of the latter is broader as an evaluation also typically assesses whether the problem that the programme or policy aims to address was a real issue at the time the policy was conceived and implemented and is still a real issue at the time of the ex-post assessment. Moreover, an evaluation may also examine whether any changes in behaviour of entities targeted by the programme occurred and how these changes arose. Typically, an evaluation may use a wider set of analytical tools than a straight ex-post performance assessment.39

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36 See Bayar (2007), Bradley et al. (2007) and in't Veld (2007).
38 For a more general discussion of evaluations and performance assessment, and their contribution to real policy-making see, for example, Palfrey et al. (2012).
39 For a more extensive discussion of the differences between ex-post performance assessments and ex-post evaluations see, for example, GAO (2011), Rand (2009) and INTOSAI (2010).
2.7.2. Gaming – a potential hazard in a performance-based policy cycle

While a performance-based policy approach aims to improve policy outcomes by increasing the accountability of governments, it can be undermined by gaming at both the implementation and the assessment stages\textsuperscript{40}. Each of these two aspects is discussed below.

**Gaming in the policy implementation stage**

An important point to note is that, while the implementation of a performance-based approach in government is typically expected to increase efficiency and effectiveness of government, and make government more accountable, it can also lead government officials to “game” the system by focusing largely or exclusively on achieving the performance targets at the possible costs of good public management in areas not covered by the performance targets.

A famous example of such perverse effects is provided by the many unintended consequences of the introduction of a large number of performance targets in the UK health care system (Mannion and Braithwaite, 2012).

In the case of regulations and laws, i.e. the policy instruments of interest in the present study, the scope for gaming a performance-based system is less as the outcomes and effects of a policy initiative depend largely on the behavioural responses of the citizens and businesses targeted by the legal measure.

However, the scope for gaming by public officials is far from nil as the behavioural responses of citizens and businesses depend also on the manner of how a legal measure is implemented and enforced. For example, weak enforcement of tax laws is likely to result in greater tax evasion even if the tax law itself is very stringent.

**Gaming at the policy performance assessment stage**

At the core of this issue is the independence of the performance assessors. When the performance assessment is undertaken by the same party as the one which had been responsible for the design of the policy and / or the implementation of the policy, there are inherent risks in such an institutional set-up that:

- the ex-post assessment will be undertaken in a way which avoids identifying unsatisfactory outcomes by steering the performance assessment questions into a particular direction;
- any unsatisfactory outcomes be attributed to unexpected external factors such as a economic shocks; and,
- any unsatisfactory outcomes be swept under the carpet and the results of the assessments not used to inform future policy development.

Obviously, the risk of gaming at the assessment stage is eliminated when the ex-post performance analysis is undertaken by an independent body such a public audit body.

2.7.3. Timing of the ex-post performance assessments

At issue is whether the ex-post performance assessment is to focus on the outputs or outcomes of a particular policy.

If the focus is on outputs, a first ex-post assessment can be undertaken a few years after implementation.

\textsuperscript{40} See, for example, Bovens and t’Hart (2004) and van der Knaap (2006).
However, if the focus is on outcomes, the most relevant dimension for assessing policy effectiveness, it is necessary to allow sufficient time for the policy to generate all its effects before undertaking a thorough ex-post assessment. Yet, policy-makers often seek answers about the effectiveness of a policy only little time after its implementation when its full outcomes have not yet or only partially materialised.

This tension between the need to provide robust, ex-post evidence on the performance of a policy and a desire for quick evidence on its effectiveness needs to be explicitly recognised and managed by both the producers and users of ex-post performance assessments so as to avoid drawing unwarranted or erroneous conclusions about the policy’s effectiveness.

2.7.4. Approaches to ex-post performance assessments in various jurisdictions

In practice, ex-post performance assessments are undertaken or commissioned by the government departments or agencies responsible for the particular legislation or government programme being assessed and / or by outside bodies tasked with scrutinising government activities on behalf of the legislative arm of government.

When they are undertaken in-house, they are in some cases undertaken or commissioned by the same party as the one responsible for the design or the implementation of the policy (for example, in France or UK) or by special evaluation unit accountable only to the head of the institution and / or the board of the institution (for example, at international financial institutions such as the IMF and the EBRD).

As already noted in the previous section, when an ex-post assessment is undertaken by the government department or agency responsible for policy initiative, those undertaking or commissioning the assessment face an inherent conflict of interest and there is always a risk that the assessors may be implicitly or explicitly influenced to report positive or largely positive findings.

Therefore, in countries such as Canada, France, the Netherlands, Sweden, the United Kingdom and the United States a double performance-assessment track has been adopted:

- Independent public sector audit bodies are given the responsibility to not only ensure that any public funds were properly spent according to the various rules and regulations governing such spending, but also to assess the effectiveness of government policies.

- In addition, in most OECD countries, government departments and agencies undertake their own in-house ex-post assessments\(^{41}\) while in Sweden and Spain within government ex-post evaluations are also undertaken by a stand-alone institution, namely the Swedish Agency for Public Management (Statskontoret)\(^{42}\) and the Spanish Evaluation Agency (AEVAL)\(^{43}\).

Typically, such effectiveness assessment is limited to government spending programmes. But, in a number of cases, independent public audit bodies also examine the effectiveness of non-spending public sector activities and some examples are provided below.

\(^{41}\) For more information on the use evaluations in the Netherlands see Schoch et al. (2013).
\(^{43}\) See Feinstein et al. (2010).
### Table 1: Examples of non-spending government activities assessed by national and international audit organisations

<table>
<thead>
<tr>
<th>Country and organisation</th>
<th>Title of ex post assessment report</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>National organisations</strong></td>
<td></td>
</tr>
<tr>
<td>Canada – Office of the Auditor General of Canada</td>
<td>Oversight of Civil Aviation—Transport Canada, Chapter 5 in 2012 Spring Report</td>
</tr>
<tr>
<td>France – Cour des Comptes</td>
<td>La politique de la ville une décennie de réformes, juillet 2012</td>
</tr>
<tr>
<td>Netherlands – Algemene Rekenkamer</td>
<td>Handhaving Europese regels voor afvaltransport, October 2012</td>
</tr>
<tr>
<td>Sweden - Riksrevisionen</td>
<td>The government’s role on the gambling market – are targets achieved ?, 2012</td>
</tr>
<tr>
<td>United Kingdom – National Audit Office (NAO)</td>
<td>Regulating defined contribution pension schemes, July 2012</td>
</tr>
<tr>
<td>United States – Government Accountability Office (GAO)</td>
<td>Managing for Results - Data-Driven Performance Reviews Show Promise But Agencies Should Explore How to Involve Other Relevant Agencies, February 2013</td>
</tr>
<tr>
<td><strong>Pan-national organisations</strong></td>
<td></td>
</tr>
<tr>
<td>Independent Evaluation Office (IEO) of International Monetary Fund</td>
<td>The Role of the IMF as Trusted Advisor, February 2013</td>
</tr>
<tr>
<td></td>
<td>An IEO Evaluation of Structural Conditionality in IMF-Supported Programs, January 2008</td>
</tr>
</tbody>
</table>

**Source:** websites of national audit organisations and IMF IEO.

#### 2.7.5. Learning lessons from ex-post performance assessment for future policy making

An important part of the ex-post performance assessment is to draw conclusions as to whether:

- the policy has been effective, i.e. achieved its objectives;
- if relevant, the reasons why the policy was not as effective as expected or not effective at all. In this case, it would be essential to disentangle various potential factors such as 1) the world foreseen in baseline or counterfactual evolved in an unforeseen manner; 2) imperfect application and enforcement of any regulations; 3) bad policy design and finally, but not least important, inappropriate or irrelevant policy objectives;
- adjustments and corrections to the policy are required; and,
- any lessons are learned for application in the same policy area or more generally in other policy areas.

As mentioned earlier in the description of the various elements of the PBPC, any lessons learned during the ex-post performance assessment need to be shared widely for the process to be fruitful.
2.8. Special focus on two elements of the policy cycle at the EU level – the ex-ante and ex-post assessment

2.8.1. The European Commission and European Parliament approach to ex-ante assessments

The agreement on Better Lawmaking of 2003 enshrines the joint commitment of the European Parliament, the European Council and the European Commission to improve the quality of legislation applicable in the EU. One reflection of this common undertaking is the "Interinstitutional Common Approach to impact assessment" adopted in July 2006 by the Conference of Presidents. This Common Approach clarifies the role of the three institutions and sets out a number of rules governing the conduct of impact assessments.

So far only the European Commission and the European Parliament are actively involved in undertaking IAs.

2.8.2. IAs at the EC

At the European Commission (EC), IAs are to be prepared in principle for every significant policy initiative and published as a companion document with every European Commission communication of a proposal for new EU directive or EU regulation or a revision to an existing EU directive or EU regulation.

Broadly speaking, the EC’s IA guidelines incorporate the elements of a good IA although they are not always fully reflected in the actual IAs produced in support of a particular policy. The next chapter focusing on the IAs accompanying the various Digital Single Market initiatives will show clearly that this is the case.

2.8.3. IAs at the European Parliament

In June 2011, the European Parliament adopted a Resolution on guaranteeing independent impact assessments stressing the importance of good and robust impact assessments as a policy tool, the need for further improvements to the IAs undertaken by the Commission and IA process, and highlighting how the European Parliament should make greater use of IAs and calling for an autonomous impact assessment structure within the European Parliament. In particular the Resolution noted that European Parliament’s lack of trust in the objectivity of the assessments and noted that “it regards the Commission IAs as mere justifications of the Commission’s proposal, lacking unbiased analysis of the different possible options”.

Following the adoption of this resolution, a special IA unit was established within the newly created Directorate G for Impact assessment and European Value Added.

This special IA unit, among others, undertakes:

- initial appraisals of the IAs prepared by the Commission staff and published with Commission proposals for Directives, Regulations or recommendations. The purpose

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45 According to the 2009 revisions of the Impact Assessment Guidelines, “all important initiatives with far-reaching impacts should be accompanied by an IA. In practice this means all legislative proposals in the Commission’s Legislative and Work Programme, as well a selected non-CLWP legislative proposals and major non-legislative proposals (i.e. White Papers, Action Plans, or expenditure programs.)
46 Resolution P7_TA(2011)0259.
47 Poptcheva (2013).
48 For further details see Poptcheva (2013).
49 The IA roles and activities of the European Parliament IA are taken from Ballon (2013).
of these initial assessments is to check whether the Commission IAs which arrive in the European Parliament meet certain formal criteria;

- detailed assessments of the Commission IAs to check the quality and independence of these IAs and assess their relevance for the European Parliament’s work; and

- IAs of any substantive amendments being considered by a committee of the Parliament. Such IAs are always carried out by outside experts. Parliamentary Committees are responsible for determining whether the amendment(s) considered is (are) substantive and, if appropriate, should be subject of an impact assessment.

According to the European Parliament’s *Impact Assessment Handbook*[^50], the key quality criteria to assess IAs from the EC are the following:

- Transparent and targeted public consultations, involving regional and local authorities;
- Rigorous, objective and exhaustive approach;
- Adequate choice of strategic scenarios and options (including the option of no action);
- Proper justification of the options selected in light of the principles of subsidiarity and proportionality;
- Balanced analysis of the impact on the economic, social and environmental pillars and on public health (more detailed consultations with stakeholders to offset the lack of a methodology and data);
- Consideration of other assessment criteria, such as:
  - Impact outside the Union;
  - Impact of the four freedoms of the internal market ('internal market test');
  - Impact in terms of administrative burdens;
  - Objective of effective application in the Member States;
  - As far as possible, qualitative criteria, such as the impact on vulnerable social groups (social benchmarking), gender equality;
- IA process must be subject of independent quality control.

### 2.8.4. General quality assessment of the EC’s IAs

IAs are only useful to policy-makers if the they are of high quality, robust and address all the issues that are set out in the *EC Impact Guidelines* and the *EP Impact Assessment Handbook*.

At the present time, three different EU bodies review the quality of the EC’s IAs, namely the EC Impact Assessment Board, the EP’s IA unit and, occasionally, the European Court of Auditors (ECA). Views of these three bodies on the quality of recent IAs are summarised below. Overall, the review of the EC’s IAs suggest that there is considerable scope for improving the quality of the actual IAs but the IA framework does not appear to be an issue per se.

The EC Impact Assessment Board

The EC’s Impact Assessment Board is tasked with ensuring that IAs produced by the various DGs are of high quality. It is important to note the Board is made up of 5 members who are appointed by the President of the EC and are senior staff from various DGs of the EC. Collectively, they should have expertise in the three broad areas which are to be addressed in IAs, namely the economic, environmental and social areas.

In addition to reviewing EC IAs and only allowing such IAs to be circulated if they meet quality requirements, the Board also produces annually a report on its activities and the IAs it reviewed during the previous year.

Of particular interest for the present study is that, in its latest annual report, the Board notes that it believes that further improvements are needed in terms of quantification. Moreover, the Board notes that a significant number of impact assessments did not include the results from ex-post evaluations of existing EU legislation or programmes. The Board notes that it will reinforce the verification of whether ex-post evaluation is undertaken and then used it in an appropriate manner to focus and strengthen the analysis in the impact assessments and encourage services to strengthen the way in which impact assessments set out a framework for future monitoring and evaluation.

As well, the Board reported that it frequently asked the IAs to include more robust plans for future monitoring of measures and note that the IA report “should define robust progress indicators (at minimum included in the future programming) and clearly indicate the timing of evaluations linked to future decision-making needs.”

The EP impact assessment unit

Each IA accompanying a proposal from the EC for a Directive or a Regulation is reviewed by the EP IA assessment unit. The outcome of this process is a short note providing an initial assessment of the strengths and weaknesses of the IA and its coherence with the legislative proposal.

Of particular interest in the assessment produced by the EP IA unit is the section called quality of data, research and analysis. A brief review of recent Initial appraisals of a European Commission Impact Assessment produced by EP IA unit shows that, typically no overall quality rating is provided. But, a number of the appraisals point to areas where the IA produced by the EC could have been strengthened, some deficiencies addressed or the analysis better explained.

The European Court of Auditors

The European Court of Auditors (ECA) also undertook recently a review of IAs produced by various DGs and concluded that while the IAs reviewed by the ECA “provided an adequate overview of the problem and specified a reasonable set of policy objectives”, none provided an explicit illustration of the intervention logic of how the expected benefits are to be attained.

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53 These assessments produced by the EP IA unit are available at http://www.europarl.europa.eu/committees/en/studies.html#studies
54 European Court of Auditors (2010).
The ECA also noted that availability of data for impact assessments remains a problem and highlighted that information on implementation aspects, enforcement costs and administrative burden can be further improved.

2.8.5. Responsibility for ex-post assessments at the EU level

At the present time, ex-post assessments are mainly undertaken by the DGs responsible for the policy programme being assessed. As a result, because of the conflict of interest mentioned earlier, there is always a risk that such ex-post assessments are not objective, and hence less informative for policy-makers. Interestingly, in contrast to the institutional set-up for IAs, there exists no special body within the EC whose task would be to provide a quality judgement on such ex-post assessments.

At the present time, the DGs assess themselves the quality of any such ex-post assessments when they are undertaken by outside contractors. As the conflict of interest faced by the commissioner of the ex-post assessment it still entirely present in such a system, the quality judgement cannot be assumed to be always totally unbiased.

The ECA also undertakes independent ex-post assessments. But, the ECA is mostly concerned with proper use of EU funds and increasingly the performance (i.e., effectiveness of EU programmes). In contrast, the ECA only infrequently assesses the performance of EU legislation even though it is the most frequently used policy tool at the EU level.

For example, in 2012, out of 25 special reports produced by the ECA, only two dealt with the effectiveness of EU legislation (see table below). In 2011, this was the case for only 1 out 16 special reports.

Table 2: Examples of non-spending activities assessed by the European Court of Auditors

<table>
<thead>
<tr>
<th>Examples of activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation of EU Hygiene legislation in slaughterhouses of countries that joined the EU since 2004, Special Report 14/2012</td>
</tr>
<tr>
<td>Audit report of the control system governing the production, processing and distribution and imports of organic products , Special Report 9/12</td>
</tr>
<tr>
<td>Do the design and management of the geographical indications scheme allow it to be effective, Special Report 11/2011</td>
</tr>
</tbody>
</table>

55 In contrast to the mandate of a number other public audit bodies, the mandate of the ECA is clearly focused a traditional public audit role as article 287.1 of the Treaty on the Functioning of the European Union specifies that “the Court of Auditors shall examine the accounts of all revenue and expenditure of the Union. It shall also examine the accounts of all revenue and expenditure of all bodies, offices or agencies set up by the Union in so far as the relevant instrument does preclude such examination. The Court of Auditors shall provide the European Parliament and the Council with a statement of assurance as to the reliability of the accounts and the legality and regularity of the underlying transactions which shall be published in the Official Journal of the European Union. This statement may be supplemented by specific statements for each major area of Union activity”. However, there is scope for the ECA to undertake ex-post performance assessments as article 287.4 of same treaty notes that “the Court of Auditors may also, at any time, submit observations, particularly in the form of special reports, on specific questions and deliver opinions at the request of one of the other institutions of the Union.”
2.8.6. Timing of the ex-post assessments

A final issue concerns the timing of the ex-post assessment. At the present time, such ex-post assessments, when they take the form of evaluations, occur often 3 to 5 years after the date of entry into force of a Directive or Regulation. In many cases, the timing of the evaluation is specified in the Directive or Regulation.

As the effects of a Directive or Regulation may require some time to materialise, such a time lag of 3 to 5 years is reasonable. The optimal time for such an assessment is likely to vary from case to case. Therefore, rather than adopting rigid timelines, it is probably best for the sponsors of a particular Directive or Regulation to specify the timelines and provide an explanation for the chosen date. At the present time, generally no explanation is provided for the selected timeframe.

Moreover, in the case of a Directive, the final effect does not only depend on the substance of the Directive itself but also on the quality of the transposition of the Directive. Therefore, it would be useful to assess the correctness and completeness of the transposition of a Directive early in the period following its transposition and implementation at national level so that remedial action can be implemented quickly or, in the absence of remedial action, ex-post assessors are fully aware of the situation and factor in the imperfect transposition in their assessment.

In addition, in the case of both Regulations and Directives, it would be worthwhile to assess the quality of the enforcement of the legislation in Member States. Lack of enforcement or poor enforcement typically implies that the intended outcome is unlikely to materialise.

Any lessons learned during the ex-post performance assessment need to be shared widely for the process to be fruitful. In practical terms, at the EU level, this means disseminating any such lessons to the three EU policy-making bodies, namely the European Parliament, the European Council and the European Commission.

Moreover, transparency in policy-making and accountability of EU policy-makers to EU citizens require that any such lessons also be made available to all stakeholders and EU citizens more generally.
3. ASSESSMENT OF A NUMBER OF EU DIGITAL SINGLE MARKET INITIATIVES FROM A PERFORMANCE BASED POLICY CYCLE PERSPECTIVE

KEY FINDINGS

- Full achievement of the Digital Agenda for Europe and the Single Digital Market could increase EU GDP by 4% in the long run.

- Such an increase is similar in magnitude to the one that was expected from the Single Market initiative.

- The key features of a performance-based policy cycle, against which the information provided with a number of Digital Single Market Initiatives can be assessed, include:
  - a clear articulation of the problem to be addressed by the policy intervention and the reasons why government should intervene;
  - an identification of policy objectives and of quantitative indicators of expected outputs and outcomes of a policy initiative;
  - the development of a comprehensive baseline or counterfactual scenario;
  - the identification of how the policy objectives may be impacted by other policies and how the policy may contribute to achieving other government objectives and the development of a comprehensive logic map identifying among other synergies and conflicts with other policy initiatives;
  - the incorporation of lessons from previous ex-post assessments;
  - an articulation and implementation of data collection plan;
  - the development of detailed evaluation plan including timeline for the ex-post assessment distinguishing between assessment of implementation, enforcement and outcomes;
  - an independent ex-post assessment of the performance of a policy initiative relative to expected benefits;
  - the ex-post identification of success / failure factors and drawing out lessons learned for future policy-making.

- A review of 10 specific DSM initiatives shows that, overall, the information provided with the Directives and Regulations rates rather poorly with regards to meeting the requirements of a full performance-based policy cycle:
  - While the reason for EU intervention is articulated for all of the 10 DSM initiatives, quantitative objectives are only set out for 2. Obviously, the lack of quantitative objectives makes it very difficult to undertake an objective and robust ex-post assessment of the performance of the DSM Directive or Regulation.
  - Real, quantitative data are used in only 4 of the 10 cases of interest.
  - No detailed logic model/map is provided for any of the initiatives. While some of the documentation notes a few other initiatives that could lead to synergy benefits, no comprehensive information is provided, making it more difficult to assess how particular initiative fits within the overall picture.
  - In ONLY 5 cases is a list of quantitative indicators is provided and in none of the 10 cases is a detailed evaluation plan provided.
3.1. Introduction

The present chapter first sets out the key elements of the performance-based policy cycle which will be used to assess the extent to which the documentation and information accompanying various Digital Single Market (DSM) initiatives meet the requirements of a performance based policy cycle.

Next, as background information for the analysis of the impact of the DSM, a brief overview of comprehensive assessments of the Single Market is presented. This information serves to put the expected impact of the DSM into perspectives.

Of interest is the fact that, contrary to many studies undertaken for or by the European Commission on the expected or actual impact of the Single Market, there exists no overall assessment of the expected impact of the DSM except for one study commissioned privately. This study is presented after the review of the Single Market studies.

3.2. The key features of the performance-based policy cycle

Based on the review of the literature focusing on the policy development process and the practical experience of the authors, the following best practice model of the performance-based policy cycle is proposed. Its key features include:

- a clear articulation of the problem to be addressed by the policy intervention and the reasons why government should intervene;
- an identification of policy objectives and of quantitative indicators of expected outputs and outcomes of a policy initiative;
- the development of a comprehensive baseline or counterfactual scenario;
- the identification of how the policy objectives may be impacted by other policies and how the policy may contribute the achieving other government objectives and the development of a comprehensive logic map identifying among other synergies and conflicts with other policy initiatives;
- incorporation of lessons from previous ex-post assessments;
- articulation and implementation of data collection plan;
- development of detailed evaluation plan including timeline for the ex-post assessment distinguishing between assessment of implementation, enforcement and outcomes;
- independent ex-post assessment of the performance of a policy initiative relative to expected benefits;
- ex-post identification of success / failure factors;
- ex-post drawing out lessons learned for future policy-making.

The main instrument at the EU policy-making level where the first seven features and the last feature of the performance-based policy cycle are crystallised (or should be crystallised) is the impact assessment which should accompany every policy proposal from the European Commission.

In contrast, the third and second last features of the performance based policy cycle (the ex-post performance assessment and the identification of success/failure factors)
relate to ex-post evaluations and performance audits, and are discussed in a subsequent chapter.

In concluding, it is worth noting that the proposed model of the performance based policy cycle builds on the generally followed policy-process by making the process more evidence-based and relying more on quantification.

Its key distinguishing features relative to the traditional policy cycle are the emphasis on:

- the identification of quantified policy objectives which allow taxpayers and policy-makers to objectively assess whether the policy is performing as expected;
- the identification of the synergies with other policies; and,
- a formal, ex-post assessment of the performance of the policy.

3.3. Empirical assessment of the impact of the Single Market

3.3.1. Background

Over the last 25 years, a number of studies by academics, think-tanks and the European Commission have quantified the impact of the Single Market. Some of these studies are ex-ante, in the sense that they aimed to provide an estimate of the likely impact of the Single Market policies while others are backward looking, providing estimates of the impact of the Single Market integration which actually occurred during the period covered by the studies.

In principle, a comprehensive analysis of any impact market integration would need to take account of the following static and dynamic impacts57:

- Static impacts flowing from:
  - increases in market size
  - the exploitation of economies of scale
  - increased competition which raises productivity and lowers prices

- Dynamic impacts arising from:
  - a wider choice of products and services for consumers
  - increased investment (capital formation)
  - increased innovation and R&D

57 See, for example, HM Government (2012), Pelkmans (2011).
In the case of the Single Market, the removal of non-tariff barriers was expected to:

- create a large integrated market for goods and services, allowing the realisation of economies of scale;
- increase competition in the market place which, in turn, was expected to result in allocative and productive efficiency gains;
- incentivise European producers to invest in product and process innovations and thus raise the dynamic efficiency of the European economy; and,
- yield a wider choice and lower prices for consumers.

In practice, it is difficult to consider all these impacts in any quantification of market integration, especially when a partial equilibrium approach is adopted as has been the case in many of the earlier ex-ante and ex-post assessments of the Single Market.

Below, brief summaries of a number of such assessments of the impact of the Single Market are provided for the main studies. Additional studies are presented at Annex II. The studies presented in this section include:

- the 1988 Cecchini report;
- comprehensive studies by Baldwin (1989) and Harrison et al. (1994); and,
- comprehensive ex-post assessments by the Commission (1996, 2007, 2010);

All these studies show that the Single Market policy initiative has had a major positive impact on the European economy.

However, before reviewing these academic studies, it is useful to briefly present two major tools used currently by the European Commission to assess progress in achieving the Single Market. These tools are the Internal Market Scoreboard prepared by EC DG Internal Market and Services, and the Market Monitoring instrument developed and used by EC DG Economic and Financial Affairs. As well, the Single Market Integration note accompanying the Annual Growth Survey is briefly discussed below.

The Internal Market Scoreboard

As noted in a recent European Parliament study, the Internal Market Scoreboard provides information on the implementation of Internal Market law but not about the state of the Internal Market. The European Parliament study recommended that a) greater emphasis should be placed on the quality of transposition and b) there is a need to distinguish between Directives having a major impact on the Single Market and other Directives. In addition, one expert consulted as part of the study suggested that the Scoreboard should also give an indication of the costs to EU citizens and businesses of non-transposition or imperfect transposition of Single Market Directives.

The Market Monitoring tool of EC DG Economic and Financial Affairs

The market monitoring tool was developed as part of the November 2007 Single Market Review and is used to assess the functioning of product and service markets in the EU from a number of perspectives, including Single Market integration. Unfortunately, while

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58 See Ilzkovitz at al. (2007).
59 A partial equilibrium analysis focuses only on a limited part of the economy or set of effects while a general equilibrium analysis takes account of potential feedback loops from the outcome variables targeted by a policy intervention to other variables and vice versa. In that sense, a general equilibrium analysis is a more complete analysis of the all the potential direct and indirect impacts. It is also much more complex to undertake.
this tool has considerable potential to provide considerable information on the state of the Internal Market in product and service markets, it is not used to produce regular, stand-alone reports.

The review of the state of Single Market integration

A more high-level assessment of the state of Single Market integration is provided in a stand-alone document accompanying the 2013 Annual Growth Survey. This review provides useful information on the impact of a) non-transposition or imperfect / incomplete transposition of EU Directives and b) ineffective application of EU Regulations and transposed Directives. But, the information is mainly qualitative in nature and does not provide much information about the cost of the incomplete or non-achievement of the Single Market in different areas.

3.3.2. Ex-ante assessment of the Single Market – the Cecchini report

The most famous ex-ante study is the so-called Cecchini report (Cecchini et al. 1988) which, using data from 1985 for the 12 Member States, estimated that the gains from achieving a complete Single Market among the 12 Member States could be of the order of 4.3% to 6.4% of EU12 GDP.

These gains were expected to arise from 1) an elimination of trade barriers between the 12 EU Member States; 2) an elimination of production barriers; 3) economies of scale; and 4) competition effects (see table below).

Overall, the largest contributors to the expected gains from the Single Market were the effects arising from the elimination of production barriers and achieving economies of scale.

Table 3: The Cecchini report – gains from completing the EU Single Market

<table>
<thead>
<tr>
<th>Category of gain</th>
<th>Percentage of EU 12 GDP (in 1985)</th>
<th>Percentage of total gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elimination of trade barriers</td>
<td>0.2-0.3</td>
<td>5 - 5</td>
</tr>
<tr>
<td>Elimination of production barriers</td>
<td>2.0-2.4</td>
<td>47-38</td>
</tr>
<tr>
<td>Economies of scale</td>
<td>2.0-2.1</td>
<td>47-33</td>
</tr>
<tr>
<td>Competition effects</td>
<td>0.1-1.6</td>
<td>2 -25</td>
</tr>
<tr>
<td>Total</td>
<td>4.3-6.4</td>
<td>100-100</td>
</tr>
</tbody>
</table>

Source: Analysis based on HM Government and CEPR (2012).

It should be noted that analysis in the Cecchini report is a partial equilibrium analysis, reflecting the fact that general equilibrium analysis was not very well developed as an analytical tool at the time when the report was prepared.

3.3.3. Other ex-ante assessments

Baldwin (1989) estimated that, in addition to the efficiency gains estimated by the Cecchini report, dynamic effects arising from increased investment in response to a better allocation of resources would raise the growth rate of EU GDP by 0.2% over a period of 15 years.

Harrison et al. (1994), using a general equilibrium modelling approach, estimate that the completion of SMP would in the long-run raise EU GDP by about 2.4%.

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3.3.4. Ex-post assessment of the Single Market by the European Commission

The few comprehensive ex-post assessments of the Single Market make use of the advances in economic modelling and rely on general equilibrium analysis to assess the impact to the Single Market.

a) The European Commission’s 1996 first assessment of the SMP

The first ex-post assessment undertaken by the Commission in 1996 used both a multi-country, multi-sectoral dynamic computable general equilibrium model (GEM-E3-IM) and a multi-country dynamic macroeconomic model (the European Commission’s QUEST II model) to assess the impact of the Single Market. The results of this analysis suggest the Single Market had raised the EU’s GDP level in 1994 by 1.1 % (GEM-E3-IM) to 1.5 % (QUEST II) relative to the level that would have prevailed in the absence of the Single Market.

The key factors contributing to this GDP boost in the analysis are an a) increase in competition and efficiency, and b) an increase in total factor productivity. Each of the two effects accounts for about half of the total GDP boost.

The assessment also concluded that the underlying inflation rate had been reduced by 1 % to 1.5 % and between 300,000 (GEM-E3-IM) and 900,000 (QUEST II) new jobs had been created.

As this ex-post assessment took place only a relatively short period after the target date of end of 1992 for the completion of the Single Market through the elimination of all remaining barriers to free circulation of goods, services, persons and capital, its authors noted that “the ex-post economic evaluation of the SMP (Single Market Program) should be viewed as a highly tentative exercise”.

b) The European Commission’s 2007 more comprehensive assessment of the SMP

A comprehensive assessment of the impact of the Single Market undertaken in 2007 focused on a 15-year period ranging from 1992 (date of the inception of the Single Market) to 2006. Using a general equilibrium approach, the assessment aimed to quantify the competition and innovation effects on manufacturing and the impact of the opening up of electricity and telecommunications markets.

Overall, the Single Market (including the liberalisation of the network industries) and the enlargement of the EU is estimated to have raised the level of EU25 GDP by 2.2 % higher in 2006 than it would have been otherwise.

This result is based on the assumption, derived from the findings of the relevant literature, that increased competition within the Single Market reduced the aggregate price-cost mark-up by 0.9 percentage point by 0.5 percentage point in the network industries, and boosted total factor productivity by 0.5 % over the period 1992-2006.

This ex-post assessment concluded that the full benefits of the Single Market had not yet been reaped over the period 1992-2006 because:

- transposition and implementation of Directives was slow and sometimes incorrect;
- policy instruments were not always fully operational;

64 A further analysis of the employment impact of the Single Market using a multi-regional, multi-sectoral econometric input-output model of the EU12 suggest that the employment gains were of the order of 600,000.
65 See Ilzkovitz et al. (1997).
66 Using the European Commission's Quest model.
67 A number of these studies are described in Annex II.
barriers persisted in a number of sectors;
the Single Market for knowledge was quasi non-existent.

In particular, the assessment report noted that "estimated gains would have been much larger if the services markets had been fully opened-up to cross-border competition and fiscal barriers reduced"\(^{68}\).

c) The European Commission’s 2010 assessment

In a 2010 study prepared for the LIME working group, the European Commission estimates that the level of EU GDP was raised by 4.8 % to 5.7 % as a result of the Single Market\(^{69}\).

3.3.5. Estimates of additional gains to be reaped from a deeper Single Market

While substantial gains have been achieved so far, a number of studies point out that a fuller and deeper Single Market could yield even greater benefits for EU citizens and businesses. For example,

- According to Izlkovitz \textit{et al.} (2007), these gains could be twice as large as those estimated in their study if most of the remaining Internal Market barriers were eliminated. In other words, the long-run level of EU GDP could be raised by a further 2.2 % with a further deepening of the Single Market.
- Aussilloux \textit{et al.} (2011), estimate that if all remaining barriers to trade in the EU were fully eliminated within the European Union, the level of EU GDP could be 14 % higher in the long run relative to a scenario of no further integration.
- Using the same model and approach as Aussilloux \textit{et al.}, Decreux (2012) shows that even a more modest objective of reducing the remaining trade barriers in the EU by only 50 % would raise the long-run level of EU GDP by 4.7 %.

3.3.6. The potential impact of Europe 2020

Using the European Commission’s Quest general equilibrium model, Hobz and Mourre (2010) undertake a scenario analysis of the potential impact of the Europe 2020 strategy which foresees the introduction of medium- to long-term reforms aiming to put public finances on a sustainable basis, raising the EU's economic potential and achieving the 2020 objectives. While not being strictly a Single Market initiative, if achieved, the Europe 2020 strategy will certainly boost the Single Market.

The general equilibrium results show that the impact of Europe 2020 could be substantial, ranging from a boost in the annual growth rate of GDP over the period 2010 to 2020 of about 0.2 % percentage point in a limited reform scenario to about 0.7 % in an ambitious reform scenario. By 2020, the level of EU GDP would be about 1.5 % to 7 % higher than otherwise.

3.4. Empirical assessment of the impact of the DSM initiatives

Following the review of the assessments of the impact of the Single Market, the present section reviews a small number of studies assessing the impact of the Digital Single Market. In contrast to more numerous studies focusing on the Single market, so far, there exists only one study which undertakes a comprehensive assessment of the DSM.

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\(^{68}\) Izlkovitz \textit{et al.} (1997) p. 58.

\(^{69}\) Note cited in Aussilloux \textit{et al.} (2011).
3.4.1. The Digital Single Market Initiatives

The *Digital Agenda for Europe* (DAE) was launched in May 2010\(^{70}\) as one of the key Europe 2020 initiatives. Its objective is to “reboot Europe's economy and help Europe's citizens and businesses to get the most out of digital technologies. It is the first of seven flagships initiatives under Europe 2020, the EU's strategy to deliver smart sustainable and inclusive growth”\(^{71}\).

It comprises 101 actions of which the following 21 are regrouped under the heading the *Digital Single Market* (DSM):

- **Action 1:** Simplifying pan-European licensing for online works;
- **Action 2:** Preserving orphan works and out of print works;
- **Action 3:** Open up public data for re-use;
- **Action 4:** Wide stakeholder debate on further measures for a European online content market;
- **Action 5:** Simplifying the distribution of creative content;
- **Action 6:** Protecting intellectual property rights online;
- **Action 7:** Fix a date for migration to Single Market European Payment and e-Invoicing;
- **Action 8:** Revision of the e-Signature Directive;
- **Action 9:** Updating the e-Commerce Directive;
- **Action 10:** Member States to implement laws to support the Digital Single Market;
- **Action 11:** Member States to transpose the VAT Directive;
- **Action 12:** Review the EU data protection rules;
- **Action 13:** Complementing the Consumer Rights Directive;
- **Action 14:** Explore the possibilities for Alternative Dispute Resolution;
- **Action 15:** Consult the stakeholders on collective rights;
- **Action 16:** Code of online rights;
- **Action 17:** Stakeholder platform for EU online trustmarks;
- **Action 18:** Harmonisation of numbering policies;
- **Action 19:** Spectrum Policy Plan;
- **Action 20:** Investigate the cost of non-Europe in the telecoms market; and,
- **Action 101:** Look for durable solutions for voice and data roaming by 2012.

According to the information provided by the European Commission (EC) on its digital agenda website, 16 of the actions have been completed and 5 (namely actions 6, 10, 11, 15 and 17) are on track\(^{72}\).

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\(^{70}\) See European Commission 2010.


\(^{72}\) Information retrieved from the Digital Agenda website on 11 May 2013.
Of note is the fact that many of the DSM actions, such as the various stakeholder consultations and reviews and examinations, do not result directly themselves in any policy initiatives but may lead to new policies in the near future.

Nevertheless, if all these actions were to result in new policy initiatives, it will be important to develop a prioritisation strategy and take account of the potential synergies between these policies and other policies which may impact on the DSM\textsuperscript{73}.

The drive towards achieving a DSM was given further impetus in early 2012, when the European Commission (2012a) launched additional DSM initiatives which encompass a better implementation of the Electronic Commerce Directive and a number of initiatives aiming to:

- Develop the legal and cross-border offer of online products and services;
- Improve operator information and consumer protection;
- Ensure the provision of reliable and efficient payment and delivery systems;
- Combat abuse and resolving disputes more effectively; and,
- Deploy high-speed networks and advanced technological solutions.

Moreover, the latest review by the European Commission of the progress with the DAE notes identifies 7 key areas for further efforts to stimulate the conditions to create growth and jobs in Europe\textsuperscript{74}, namely:

- Create a new and stable broadband regulatory environment;
- New public digital service infrastructures through Connecting Europe Facility loans;
- Launch Grand Coalition on Digital Skills and Jobs;
- Propose EU cyber-security strategy and Directive;
- Update EU's Copyright Framework;
- Accelerate cloud computing through public sector buying power; and
- Launch new electronics industrial strategy – an "Airbus of Chips".

A comparison of the list of the 21 DSM initiatives with the list of the 7 key areas shows that some of the latter 7 areas fall within the DSM.

The EC Single Market Act Communication of 2011 identified, within the set of DSM initiatives, legislation ensuring the mutual recognition of electronic identification and authentication across the EU and a review of the Directive on Electronic Signature as one of the key twelve levers to boost growth and strengthen confidence\textsuperscript{75}.

Subsequently, in the Single Market Act II Communication, the EC listed among, 12 key actions, 2 DSM initiatives, namely: a reduction in the cost and an increase in the efficiency in the deployment of high speed communication infrastructure and making electronic invoicing the standard invoicing mode for public procurement\textsuperscript{76}.

\textsuperscript{73} See, for example, the 2012 European Parliament report which highlights the numerous interactions between the various DSM initiatives and the need to prioritise these actions.

\textsuperscript{74} See European Commission 2012c.

\textsuperscript{75} See European Commission (2010).

\textsuperscript{76} See European Commission (2012d).
3.4.2. Data issues

It is important to note at the outset that the digital economy, and hence the DSM are not identified as such in the official economic statistics produced by various national statistical agencies or international statistical agencies. For example, the latest statistical classification of economic activities used by Eurostat NACE Rev.2 does recognise “web portals” and “publishing of computer games” but regroups all e-commerce activities under a general distance selling category “Retail sale via mail order houses or via Internet”. Despite the problems with measuring the digital economy, a number of observers are of the view that the digital economy could surpass in the next 10 to 20 years the physical economy in size (see, for example, Arthur (2011)).

While the data for measuring the digital economy may be partially lacking, a useful conceptual definition is that “the digital economy is comprised of markets based on digital technologies that facilitate the trade of goods and services through e-commerce”. Such a definition is broad-ranging in that it covers the providers of the technologies, the users of such technologies and the sellers and buyers of both digital goods and services and physical goods and services when using an e-commerce tool.

3.4.3. Partial and complete assessments of DSM

Following on the earlier review of the potential impact of the DSM, the present section presents briefly a limited number of quantitative assessments of the DSM. These relate to:

- an assessment of the impact of the e-commerce initiatives;
- a partial assessment of the DSM by the EC; and,
- a broader assessment of the impact of the DSM by Copenhagen Economics.

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77 See, for example Moulton (2000) and Landen and Fraumeni (2001).
78 OECD (2012a).
Assessment of e-commerce initiatives

Two studies, which provide an ex post assessment of the impact of the e-commerce Directive, are discussed below. In addition, the potential of the Directive can be assessed in relation to the potential of e-commerce more generally as the E-Commerce Directive was initially designed to target obstacles to cross-border online services.

The first report on the application of the Directive\(^79\) was carried out in 2003. Being published so soon after adoption of the Directive, there was a difficulty in including a quantitative evaluation of the impact. However, a qualitative review suggests the Directive provides an adequate legal framework for online services.

This report does highlight the idea that because information society services extend to the provision of communication, entertainment and other areas, the impact of the Directive is not limited to e-commerce. The authors suggest that it would be worthwhile to study the impact on other outcome indicators such as the percentage of internet users using internet to research a potential offline sale, the proportion of cross-border information searches of total searches, productivity gains as a result of lower information search costs in business-to-business sector and expenditure on online advertising.

A further study\(^80\) was published in 2007 on the economic impact of the Directive. This study included an assessment of the domestic barriers before and after transposition of the Directive based on expert opinion, as shown below. The responses indicate that barriers are judged to have been reduced in all Member States following the transposition of the Directive.

**Figure 5: Domestic barriers before and after transposition of the Electronic Commerce Directive**

![Domestic Barriers Graph]

**Note:** The index takes a minimum value of zero and a maximum value of one. A value of one indicates high barriers.

**Source:** Copenhagen Economics (2007).

The authors report that, at the time of the study, it was difficult to find clear evidence that cross-border online trade has been boosted by the Directive. They attribute this state of affairs to a lack of appropriate statistical data and the idea that it might still be too soon for effects to appear in statistical data.

They do, however, report that immediate impacts have been experienced in lower business costs to firms engaged in e-commerce as a result of the provisions within the Directive that

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\(^{80}\) Copenhagen Economics (2007).
Performance-based Full Policy Cycle for the Digital Single Market

relate to the liability of intermediary service providers and the ability to complete contacts electronically\(^{81}\).

They also acknowledge the possibility that long-run potential gains are substantial. The authors ran a simulation based on labour productivity and the Directive’s estimated direct sectoral impact (as a result of the elimination of frictional trade costs) on cross-border trade. In particular, the Directive is assumed to have a direct impact on the following sectors: computer activities, travel agencies, paper and publishing, regulated professions, business service, distributive trade, financial services and post and telecommunications. The simulation shows that the long-run welfare gain could be as high as 0.42 %.

**Partial assessment of the DSM by the EC**

In 2012, the European Commission launched an ambitious digital single market initiative\(^{82}\) which encompasses a better implementation of the Electronic Commerce Directive and a number of initiatives aiming to:

- Develop the legal and cross-border offer of online products and services;
- Improve operator information and consumer protection;
- Ensure the provision of reliable and efficient payment and delivery systems;
- Combat abuse and resolving disputes more effectively; and
- Deploy high-speed networks and advanced technological solutions.

This comprehensive package of initiatives is estimated to raise the long-run level of GDP. According to the European Commission, “if e-commerce were to grow to 15 % of the total retail sector and Single Market barriers were eliminated, total consumer welfare gains are estimated to be around EUR 204 billion, an amount equivalent with 1.7 % of EU GDP” (2012e).

These gains are only the direct gains arising from a higher level of e-commerce. However, the gains from the Digital Single Market initiatives could be much as higher as a deeper and broader penetration of the digital economy benefits not only consumers but also businesses in their operations.

**General assessment of the DSM by Copenhagen Economics**

A 2010 study by Copenhagen Economics\(^{83}\) estimates that the long-run\(^{84}\) level of EU27 GDP\(^{85}\) would be higher by 4 % as a result of a an acceleration of the digital economy involving increased use of online services, improved digital infrastructure, and improved e-skills. Overall, the authors of this 2010 study estimate that the Digital Single Market would have a similar impact as what was expected from the 1992 Single Market Programme.

3.4.4. **General observations regarding the impact of the DSM**

The absence of a comprehensive picture of the digital economy makes it more difficult to estimate the impact of any policy measures aimed at stimulating the digital economy and strengthening the DSM.

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\(^{82}\) See European Commission (2012f).

\(^{83}\) The 2010 Copenhagen Economics study builds on a 2007 study by the same authors and a 2009 study by Micus.

\(^{84}\) The long run is estimated to be 10 years.

\(^{85}\) Unfortunately, the study does not provide a country by country breakdown of the EU27 gain.
Despite these difficulties, the EC estimates that “full implementation of this updated Digital Agenda would increase European GDP by 5%, or EUR 1500 per person, over the next eight years, by increasing investment in ICT, improving eSkills levels in the labour force, enabling public sector innovation, and reforming the framework conditions for the internet economy. In terms of jobs, up to one million digital jobs risk going unfilled by 2015 without pan-European action while 1.2 million jobs could be created through infrastructure construction. This would rise to 3.8 million new jobs throughout the economy in the long term”\(^86\).

Moreover, “if e-commerce were to grow to 15% of the total retail sector and Single Market barriers were eliminated, total consumer welfare gains are estimated to be around EUR 204 billion, an amount equivalent with 1.7% of EU GDP\(^87\).

This early 2012 DSM initiative was followed up with a more general Communication by the EC in December 2012 on the overall digital agenda and how to harness the growth potential of the digital economy\(^88\).

The figures presented above refer only to the direct gains arising from a higher level of e-commerce. It is not clear from the available information whether these estimates also take account of declines in sales in brick and mortar shops and whether indirect impacts are considered such as an associated increase in shipping and trucking, etc.

Nevertheless, the overall estimate of the impact of the DAE derived by the EC appears plausible as, for example, a 2010 study by Copenhagen Economics estimates that the long-run level of EU27 GDP would be higher by 4% as a result of an acceleration of the digital economy involving increased use of online services, improved digital infrastructure, and improved e-skills.

3.4.5. Conclusions regarding the impact of the DSM

Even in the absence of a comprehensive analysis of the socio-economic impact of the DSM, the few studies presented in the previous section clearly show that the achievement of a complete DSM could significantly boost the European economy and the standard of living of the EU citizens over the medium term.

There, it is essential to ensure that the legal and regulatory framework of the DSM be as performing and effective as possible in contributing to complete the DSM over the coming years.

In order to be able to assess whether the various DSM Directives and Regulations are indeed effective, it is necessary that the information (impact assessment, recitals, etc.) provided with proposals from the EC for DSM Directives and Regulations be as clear and comprehensive as possible so that an in-depth, ex-post performance assessment can be undertaken some time after the implementation of the policy initiative.

In order to determine whether recent DSM initiatives meet the acid test of the performance-based policy cycle, a number of these DSM initiatives are reviewed in greater detail in the section below.


\(^{87}\) See European Commission (2012c).

\(^{88}\) See European Commission (2012d).
3.5. **Assessment of how well individual DSM initiatives covered by the present study meet the requirements of the performance based policy cycle**

3.5.1. **Overview**

The present section reviews 10 DSM initiatives and examines whether and the extent to which the information provided with these initiatives in the Communication from the EC for a draft proposal for a Directive or a Regulation and in the accompanying impact assessment documents meets the requirements of the performance-based policy cycle listed at the beginning of the present chapter.

The next sub-section provides the list of the 10 DSM initiatives being assessed and the subsequent sub-sections assess these 10 initiatives from the perspective of the performance based policy cycle.

3.5.2. **List of DSM initiatives being assessed in the context of the performance based policy cycle**

The definition of the DSM in the DAE does not take account of all the dimensions of the DSM and for the purpose of the assessment of DSM policy initiatives from the perspective of a full performance-based policy cycle a broader range of initiatives are considered, namely 5 Regulations and 5 Directives. These are:

1. Regulation establishing the Connecting Europe Facility (The EC aims to launch the Digital Service Infrastructure in 2014 under the facility) (2011);
2. Regulation on establishing the Creative Europe Programme (2011);
3. Regulation on electronic identification and trust services for electronic transactions in the internal market (2012);
4. Recast Roaming Regulation (2012);
5. Regulation on measures to reduce the cost of deploying high-speed electronic communications networks (2013);
7. Directive amending Directive 2006/112/EC on the common system of value added tax as regards the rules on invoicing (to allow for e-invoicing) (2012);
8. Directive on the accessibility of public sector bodies’ websites (2012);
9. Directive on the collective management of copyright and related rights and multi-territorial licensing of rights in musical works for online uses in the internal market (2012); and
10. Directive concerning measures to ensure a high common level of network and information security across the Union (2013).

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89 See Annex I for details on the reasons for the selection of these initiatives.
3.5.3. Approach to the assessment of how well the 10 DSM meet the requirements of the performance-based policy cycle and key findings

The approach

With the exception of the 2012 VAT e-invoicing Directive, all these initiatives were accompanied by a formal impact assessment undertaken by the EC.

The information provided for the 10 initiatives in the EC Communications and Impact Assessments and in the recital of the Directives and Regulations is assessed with a view to determine whether the information is sufficient for undertaking a robust performance assessment. To that end, the information pertaining to each of these 10 Directives and Regulations is summarised in Annex II.

In order to rate, from a performance based policy cycle perspective, the 10 DSM initiatives of interest and their IA (when available), the memorandum at the beginning of the EC Communication putting forward a proposal for a Directive or a Regulation, the recitals of the Directives and Regulations and their IA were reviewed and key points are summarised at Annex III. These key points of particular interest relate to:

- The context and rationale for intervention by the EU;
- The qualitative and quantitative objectives;
- The Legal framework and synergies with other objectives;
- The nature of the impact assessment;
- The documentation of an evaluation plan.

Overview of key findings

Overall, the information provided with the 10 DSM Directives and Regulations rates rather poorly with regards to meeting the requirements of a full performance-based policy cycle:

1. While the rationale for EU intervention is articulated for all of the 10 DSM initiatives, quantitative objectives are only set out for 2 initiatives (see Tables 4 and 5). Obviously, the lack of quantitative objectives makes it almost impossible to undertake an objective and robust ex-post assessment of the performance of the DSM Directive or Regulation.

2. Quantitative data are used in only 4 of the 10 cases of interest (see Table 6).

3. No detailed logic plan is provided for any of the initiatives. While some of the documentation notes a few other initiatives that could lead to synergy benefits, no comprehensive information is provided, making it more difficult to assess how particular initiative fits within the overall picture.

4. In only 5 cases is a list of quantitative indicators provided and in none of the 10 cases is a detailed evaluation plan provided.

3.5.4. Detailed findings

Reasons for policy interventions

All the IAs accompanying the policy proposals contain some description of the reason for proposed intervention, frequently a Single Market dimension (see Tables 4 and 5).
However, in a number of cases, a clearer analysis of why policy intervention is required would be helpful is articulating quantitative policy objectives which, as shown in Table 5, are typically only qualitative.

Obviously, the use of qualitative objectives limits the range of lessons that can be learned as a result of an ex-post performance assessment as the success test to be used is much weaker. For example, if the objective is couched in the general terms of an “increase in the number of users of X” and no specific quantitative objective is given, any increase would be counted as successful.

Moreover, with pure qualitative objectives, it is impossible to judge whether a small increase is a good or a poor performance as the expectations of the policy-makers in terms of quantitative gain are not articulated.

Table 4: Articulation of reason for DSM initiative and nature of the objective(s)

<table>
<thead>
<tr>
<th>DSM Initiative</th>
<th>Reason for intervention provided</th>
<th>Objective(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Regulation establishing the Connecting Europe Facility (2011)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2. Regulation on establishing the Creative Europe Programme (2011)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>4. Regulation on electronic identification and trust services for electronic transactions in the internal market (2012)</td>
<td>✓  Partially</td>
<td>✓</td>
</tr>
<tr>
<td>7. Directive on the collective management of copyright and related rights and multi-territorial licensing of rights in musical works for online uses in the internal market</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>8. Directive amending Directive 2006/112/EC on the common system of value added tax as regards the rules on invoicing (to allow for e-invoicing)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>9. Regulation on measures to reduce the cost of deploying high-speed electronic communications networks</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>10. Directive concerning measures to ensure a high common level of network and information security across the Union</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

Source: London Economics analysis of DSM IAs.
<table>
<thead>
<tr>
<th>DSM Initiative</th>
<th>Main rationale for intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Regulation establishing the Connecting Europe Facility (2011)</td>
<td>National infrastructure planning and development does not give sufficiently high priority to multi-country, cross-border investments</td>
</tr>
<tr>
<td>2. Regulation on establishing the Creative Europe Programme (2011)</td>
<td>Market does adapt quickly enough to global challenges because knowledge and knowhow is patchy, fragmented, geographically dispersed</td>
</tr>
<tr>
<td>4. Regulation on electronic identification and trust services for electronic transactions in the internal market (2012)</td>
<td>Lack of access to finance and poor accessibility for citizens</td>
</tr>
<tr>
<td>5. Recast Roaming Regulation (2012)</td>
<td>Market fragmentation and lack of trust and confidence by consumers in electronic systems, the related tools and the legal framework</td>
</tr>
<tr>
<td>6. Directive on the accessibility of public sector bodies’ websites (2012)</td>
<td>High roaming charges are important cost factors for European citizens and businesses and are an impediment to the completion of the Single Market</td>
</tr>
<tr>
<td>7. Directive on the collective management of copyright and related rights and multi-territorial licensing of rights in musical works for online uses in the internal market</td>
<td>Non-functioning internal market in web-accessibility and poor accessibility for citizens</td>
</tr>
<tr>
<td>8. Directive amending Directive 2006/112/EC on the common system of value added tax as regards the rules on invoicing (to allow for e-invoicing)</td>
<td>Current fragmented state of sector means that providers of on-line music services face problems due to a large number of licensors and variations as to the repertoires and right that they can license</td>
</tr>
<tr>
<td>9. Regulation on measures to reduce the cost of deploying high-speed electronic communications networks</td>
<td>Current VAT requirements hinder the take up of e-invoicing and thus prevent businesses from reaping potentially large savings</td>
</tr>
<tr>
<td>10. Directive concerning measures to ensure a high common level of network and information security across the Union</td>
<td>The current level of protection against network and information security incidents, risks and threats across the EU undermine the proper functioning of the Internal Market</td>
</tr>
</tbody>
</table>

**Source:** London Economics analysis of DSM IAs.
Use of quantitative data and source of quantitative data and type of impacts being assessed

Less than half of the DSM IAs use any type of hard data (i.e., quantitative data from primary sources such as national statistical organisations or private data providers or data gathered specifically for the IA) (see Tables 6 and 7).

In contrast, soft data (results of stakeholder consultations, focus groups, etc.) are used in all IAs (Table 6).

**Table 6: Impact assessment of DSM initiatives**

<table>
<thead>
<tr>
<th>DSM Initiative</th>
<th>IA provided</th>
<th>Objective(s)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hard data</td>
<td>Soft data</td>
</tr>
<tr>
<td>1. Regulation establishing the Connecting Europe Facility (2011)</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Regulation on establishing the Creative Europe Programme (2011)</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Regulation on electronic identification and trust services for electronic transactions in the internal market (2012)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>7. Directive on the collective management of copyright and related rights and multi-territorial licensing of rights in musical works for online uses in the internal market</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>8. Directive amending Directive 2006/112/EC on the common system of value added tax as regards the rules on invoicing (to allow for e-invoicing)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>9. Regulation on measures to reduce the cost of deploying high-speed electronic communications networks</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>10. Directive concerning measures to ensure a high common level of network and information security across the Union</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** soft data include consultations, stakeholder surveys, and hearings.

**Source:** London Economics analysis of DSM IAs.
### Table 7: Source of data used quantitative IA

<table>
<thead>
<tr>
<th>DSM Initiative</th>
<th>Source of data used in quantitative impact assessment</th>
<th>Direct impact</th>
<th>Economy wide impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Regulation establishing the Connecting Europe Facility (2011)</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>2. Regulation on establishing the Creative Europe Programme (2011)</td>
<td>Not applicable for both culture and media strands</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Own data for modelling of fund</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Directive on alternative dispute resolution for consumer disputes (2011)</td>
<td>Survey data from Eurobarometer and 2009 study by Civic on used of ADRs in Europe</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>4. Regulation on electronic identification and trust services for electronic transactions in the internal market (2012)</td>
<td>Member States survey for administrative costs</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>5. Recast Roaming Regulation (2012)</td>
<td>Data from Body of European Regulators for Electronic Communications (BEREC)</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>6. Directive on the accessibility of public sector bodies’ websites (2012)</td>
<td>Data from Eurostat, Gartner (a specialised IT consultancy), ENISA, JRC</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>7. Directive on the collective management of copyright and related rights and multi-territorial licensing of rights in musical works for online uses in the internal market</td>
<td>Data from 2009 Administrative burden study</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>8. Directive amending Directive 2006/112/EC on the common system of value added tax as regards the rules on invoicing (to allow for e-invoicing)</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>9. Regulation on measures to reduce the cost of deploying high-speed electronic communications networks</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>10. Directive concerning measures to ensure a high common level of network and information security across the Union</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td></td>
</tr>
</tbody>
</table>

**Source:** London Economics analysis of DSM IAs.
Scope of quantitative impact assessment

None of the DSM IAs reviewed for the present study provides a more comprehensive, economy-wide assessment of the likely impact of the proposed policy initiatives (see Table 8).

**Table 8: Type of impacts quantified in the IA**

<table>
<thead>
<tr>
<th>DSM Initiative</th>
<th>Direct impact</th>
<th>Economy wide impact (i.e. impact on GDP, total employment, etc.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Regulation establishing the Connecting Europe Facility (2011)</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>2. Regulation on establishing the Creative Europe Programme (2011)</td>
<td>No for both culture and media strand For financial instrument, modelling of the likely take up and financials of fund but no broader quantitative analysis</td>
<td>No</td>
</tr>
<tr>
<td>3. Directive on alternative dispute resolution for consumer disputes (2011)</td>
<td>Only of savings for consumers and businesses, and costs for businesses and governments</td>
<td>No</td>
</tr>
<tr>
<td>4. Regulation on electronic identification and trust services for electronic transactions in the internal market (2012)</td>
<td>No quantitative economic, social, environmental impacts Estimates of administrative costs</td>
<td>No</td>
</tr>
<tr>
<td>5. Recast Roaming Regulation (2012)</td>
<td>Model-based estimation of the impact of the various options on roaming quantities and revenues, consumer and producer surplus(^{(1)}), and total social welfare No but quantitative estimation of administrative and compliance costs</td>
<td>No</td>
</tr>
<tr>
<td>7. Directive on the collective management of copyright and related rights and multi-territorial licensing of rights in musical works for online uses in the internal market</td>
<td>No but quantitative estimation of administrative and compliance costs</td>
<td>No</td>
</tr>
</tbody>
</table>
### DSM Initiative | Quantitative impact assessment
<table>
<thead>
<tr>
<th></th>
<th>Direct impact</th>
<th>Economy wide impact (i.e. impact on GDP, total employment, etc.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. Regulation on measures to reduce the cost of deploying high-speed electronic communications networks</td>
<td>Largely qualitative assessment of the direct economic, social and environmental impacts and administrative costs</td>
<td>No</td>
</tr>
<tr>
<td>10. Directive concerning measures to ensure a high common level of network and information security across the Union</td>
<td>No but estimates of set-up, administrative and compliance costs are provided</td>
<td>No</td>
</tr>
</tbody>
</table>

**Notes:** (1) The consumer surplus is the amount that consumers are willing to pay for a given good minus the amount they are required to pay, the producer surplus is the amount paid to the sellers above and beyond the required minimum (i.e. the difference between the price and the underlying cost, social welfare is the sum of the consumer surplus and the economic surplus.

**Source:** London Economics analysis of DSM IAs.

### Presentation of a logic map and evaluation plan

Interestingly, none of the IAs provides a logic map for the proposed interventions. This make is very difficult, if not impossible, to assess:

- how the policy intervention is expected to generate the expected outcomes and impacts;
- the extent to which external factors or other policies will also drive the targeted outcomes and impacts; and,
- the extent to which the proposed policy intervention will also contribute to the achievement of other policy objectives.

Moreover, none of the 10 DSM IAs present the synergies that may exist between the DSM policy initiatives and other policies.

Finally, while most of the IAs of the 10 DSM initiatives list a number of indicators that could be used in an ex-post evaluation, none provide a detailed evaluation plan nor a detailed data collection plan for collecting the quantitative data that would required for a comprehensive ex-post performance assessment.
### Table 9: Logic model and evaluation indicators

<table>
<thead>
<tr>
<th>DSM Initiative</th>
<th>Detailed logic model</th>
<th>Evaluation indicators</th>
<th>Evaluation plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Regulation establishing the Connecting Europe Facility (2011)</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>2. Regulation on establishing the Creative Europe Programme (2011)</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>4. Regulation on electronic identification and trust services for electronic transactions in the internal market (2012)</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>5. Recast Roaming Regulation (2012)</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>7. Directive on the collective management of copyright and related rights and multi-territorial licensing of rights in musical works for online uses in the internal market</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>8. Directive amending Directive 2006/112/EC on the common system of value added tax as regards the rules on invoicing (to allow for e-invoicing)</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>9. Regulation on measures to reduce the cost of deploying high-speed electronic communications networks</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>10. Directive concerning measures to ensure a high common level of network and information security across the Union</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
</tbody>
</table>

**Notes:** Y = yes, N = No.

### 3.5.5. Conclusions of the review of the 10 DSM initiatives from the perspective of the DSM

In short, the review of the information provided with the 10 DSM initiatives shows that, as they stand, do not meet the requirements of the performance-based policy cycle described at the beginning of the chapter. In particular,

- Synergies with other policies are largely overlooked;
- Quantification of expected outputs and outcomes is almost non-existent and, in general, the IAs contain no or very little quantitative analysis.
4. A MODEL OF THE PERFORMANCE-BASED POLICY CYCLE FOR THE DIGITAL SINGLE MARKET

KEY FINDINGS

- In light of the sparse quantitative evidence of the impact of the Digital Single Market, a first step in applying the performance-based policy cycle would be to undertake more comprehensive and exhaustive studies of the potential gains that could arise from the completion of the Digital Single Market along the lines of the studies focusing on the impact of the Single Market.

- Based on such a study, the various barriers to the completion of the Digital Single Market should be assessed in the terms of their importance, potential policy intervention to address these barriers would then need to be identified and, finally, a comprehensive action plan sequencing the various policy interventions should be developed.

- Once the set of Digital Single Market initiatives are identified, precise policy objectives of each policy intervention need to be articulated and, to the extent possible, quantifiable indicators of the expected outputs and outcomes of each policy intervention need to be defined.

- A simplified example of a matrix showing the potential synergies between the 10 Digital Single Market initiatives reviewed in the previous chapter and policy initiatives aiming to achieve the general EU policy objectives set out in the Treaty for the Functioning of the European Union shows that the potential for synergies is high.

- Furthermore, an analysis of a number of DSM initiatives highlighted a number of synergies among these initiatives. To ensure that such synergies are fully exploited and the causal links between policy intervention and expected outputs and outcomes are clearly identified, a detailed logic map for each DSM initiative should be developed.

- The application of the performance-based policy cycle to the DSM also requires that, to facilitate the ex-post performance assessment, the information accompanying each proposed DSM policy initiative also contain detailed information on a) the data that should be collected as soon as the initiative is implemented (if a lack of data was identified at the policy development stage) and b) a timetable of the expected materialisation of the intervention’s outputs and outcome so as to allow for proper timing of the ex-post performance assessment.

- Finally, the ex-post assessment of the performance of the DSM policy initiatives should be undertaken by an independent body as to avoid the conflicts of interest and gaming risks which arise when the officials responsible for the development of a particular policy are also in charge of the assessment of the performance of the policy.

- Finally, any lessons learned during an ex-post performance assessment should be widely disseminated and inform subsequent policy work.
Moreover, a Digital Single Market Scoreboard should be created to bring together information on a) the state and quality of the transposition of the various EU Digital Single Market Directives; b) the effectiveness of the application and the enforcement of EU Digital Single Market Regulations and national laws transposing EU Digital Single Market Directives; c) the expected socio-economic and environmental outcomes and impacts; and d) the actual observed outcomes and impacts when such information becomes available.

The Digital Single Market Scoreboard should also provide an assessment of the cost to European citizens and businesses of any Digital Single Market initiatives which are not achieving their expected outcomes, particularly in cases where the ex-post assessment concluded that imperfect and/or incomplete transposition or ineffective application and enforcement are the root causes of the failure to achieve the intended outcomes and impacts.

4.1. Introduction

The present chapter sets out a model of performance-based policy cycle for the Digital Single Market. First, the key features of the performance-based policy cycle presented in the previous chapter are listed again for the convenience of the reader. Next, it discusses the need for a broader, more comprehensive study of the likely impact of the completion of the Digital Single Market. Finally, each of elements of the performance-based policy cycle is reviewed in greater detail in the context of the Digital Single Market.

4.2. The key elements of performance-based policy cycle

As already noted in the previous chapter, the key features of a performance-based policy cycle include the following 10 key elements:

- a clear articulation of the problem to be addressed by the policy intervention and the reasons why government should intervene;
- an identification of policy objectives and of quantitative indicators of expected outputs and outcomes of a policy initiative;
- the development of a comprehensive baseline or counterfactual scenario;
- the identification of synergies, i.e. of how the policy objectives may be impacted by other policies and how the policy may contribute the achieving other government objectives and the development of a comprehensive logic map identifying among other synergies and conflicts with other policy initiatives;
- incorporation of lessons from previous ex-post assessments;
- articulation and implementation of data collection plan;
- development of detailed evaluation plan including timeline for the ex-post assessment distinguishing between assessment of implementation, enforcement and outcomes;
- independent ex-post assessment of the performance of a policy initiative relative to expected benefits;

Each of these elements of the performance-based policy cycle is more fully fleshed out below focusing on the DSM.
4.3. Comprehensive assessment of the likely impact of the completion of the Digital Single Market

In light of the sparse quantitative evidence of the impact of the Digital Single Market, a first step in applying the performance based policy cycle would be to undertake more comprehensive and exhaustive studies of the potential gains that could arise from the completion of the Digital Single Market along the lines of the studies focusing on the impact of the Single Market. Such more comprehensive studies would serve two purposes.

- The first purpose would be to put any estimates of the likely benefits of the completion of the Digital Single Market on a more solid footing;
- The second purpose would be to identify all the current barriers to the completion of the Digital Single Market and provide quantitative estimates of their relative importance and the gains that would arise from their elimination. Such a holistic approach to the Digital Single Market will allow:
  - a prioritisation of the policy initiatives required to address the various impediments identified by the more comprehensive studies; and,
  - an identification of the likely synergies between various required policy initiatives and ensure that the potential for policy leverage arising from synergies is fully exploited.
- The third purpose would be assist in the development of a Digital Single Market Scoreboard. Such a scoreboard would go beyond the approach taken by the Single Market Scoreboard and provide information (at least qualitatively but ideally quantitatively) on the cost of the non-completion of the Digital Single Market by major area or sector.

4.4. Detailed application of the performance based policy model to the Digital Single market

4.4.1. Policy problem and intervention rationale

Based on the results of the comprehensive study of the Digital Single Market, the first step in the development of the Digital Single Market policy would be to undertake a holistic assessment covering all the areas of the Digital Single Market to:

- determine and analyse quantitatively, if data exist, the nature and scale of the various barriers to an fully functional Digital Single Market;
- rank these barriers in terms of importance, i.e. in terms of the impediments they generate to the completion of the Single Digital Market;
- for each barrier, elaborate on the rationale for intervention by analysing whether (and under what form) EU policy intervention could eliminate the barrier; and,
- based on the ranking of the barriers and the assessment of the scope for EU intervention, prioritise the set of policy interventions as guide for subsequent policy development and establish a comprehensive action plan sequencing the various policy interventions.

Such a prioritisation would help to ensure that the policy development focuses on those policy interventions which are the most important in terms addressing the most significant barriers, and not on most easily implementable policies.

As a number of Digital Single Market initiatives are already under development or have already been implemented, it would be necessary to determine the extent to which those
Digital Single Market initiatives which are still under development fit with the overall prioritisation of all the policy interventions which are required to complete the Digital Single Market. The comprehensive study of the Digital Single Market may identify additional policy interventions that should be given a higher priority than those currently contemplated. For this reason, it is essential that a comprehensive study of the barriers to the Digital Single Market (and the impact of its completion) is undertaken as soon as possible.

4.4.2. Identification of policy objectives and of quantitative indicators of expected outputs and outcomes of a policy initiative

Once the set of Digital Single Market initiatives are identified, precise policy objectives of each policy intervention need to be articulated and, to the extent possible, quantifiable indicators of the expected outputs and outcomes of each policy intervention need to be defined.

As already mentioned in the previous chapter, in order to be able to undertake robust ex-post performance assessments of any policy, it is essential that, during the ex-ante policy development and approval stage, a series of quantifiable indicators of expected outputs and outcomes are defined and that clear quantified targets be set for each of these indicators.

Otherwise, an ex-post performance assessor is left grappling with the issue of how to actually assess the effectiveness and efficiency of a policy and there exists a significant risk that any measures of success that the ex-post assessor uses in the performance assessment differs from what the policy developers had in mind. Such a situation can easily lead to a sterile debate between policy developers and ex-post policy performance assessors, and detract from the much more important task of assessing whether the policy is performing as expected.

The set of indicators selected for the various Digital Single Market initiatives should be brought together in a single document, the Digital Single Market Scoreboard, which should regularly (semi-annually or annually) provide information on a) the state and quality of the transposition of the various EU Digital Single Market Directives; b) the effectiveness of the application and the enforcement of EU Digital Single Market Regulations and national laws transposing EU Digital Single Market Directives; c) the expected socio-economic and environmental outcomes and impacts; and d) the actual observed outcomes and impacts when such information becomes available.

4.4.3. Development of a comprehensive baseline or counterfactual scenario

As part of the analysis of a) the problem to be addressed by a proposed policy intervention and b) policy choices for achieving desired policy objectives, the evolution of the world in the absence of policy intervention (i.e., the baseline scenario or counterfactual) should be clearly described so as to be able to determine the policy outcome relative to world without policy intervention.

In order to be able to develop such a baseline scenario, it is necessary to project the evolution of the Digital Single Market into the future. The comprehensive studies of the impact of the Digital Single Market discussed in section 4.3 could provide very useful information in this regard.

4.4.4. Synergies and logic map

Typically, an essential element of an IA is to:

- trace a map of the expected causal outcomes and impacts of the proposed policy intervention;
- articulate how these outcomes and impacts relate to each other;
Policy Department A: Economic and Scientific Policy

- identify how these outcomes and impacts are affected by other factors, including other policies (type I synergies); and,
- Identify the contribution of the policy to the achievement of other policy objectives (type II synergies).

Such map of the expected causal links between the policy intervention, outcomes and impacts is generally referred to as a logic map.

As the logic map in theory should identify all the factors that will have an effect on the outcomes and impacts of a policy intervention, it should, at least in principle, also identify all the synergies with other policies which may also contribute to shape the results of the policy intervention.

In order to build such a logic map, it would be useful to develop a matrix showing all the policy interventions in a particular policy area such as the Digital Single Market, together with the expected outcomes and impacts other policy interventions in the same area or in other areas.

For illustration, a simplified example of such matrix showing the potential synergies between the 10 Digital Single Market initiatives reviewed in the previous chapter and policy initiatives aiming to achieve the general EU policy objectives set out in the Treaty for the Functioning of the European Union is provided overleaf.

While one can quibble about some of the specific identification of synergies in the table overleaf, it is obvious that the DSM policy initiatives do not operate in a vacuum and that significant synergies appear to be exist and should be exploited.

Obviously, a full application of the performance based policy cycle model would require the development of a number of such matrices to identify at a more granular level the size of such synergies and gain a better understanding of how policy interventions could leverage of such synergies.

In the case of the Digital Single Market, it would be useful to develop first matrix identifying the synergies between the various DSM policy intervention, and then a series of matrices for each of the policy areas synergies are identified at high level in the matrix overleaf. Each of these more detailed matrices should identify synergies between the DSM initiatives and the main policy initiatives aiming to achieve the broader EU policy objectives.
### Figure 6: Example of a matrix showing synergies between 10 DSM initiatives and policies aiming to achieve the broader EU policy objectives set out in the Treaty for the Functioning of the European Union

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Market and four freedoms</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Prosperous agriculture</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Employment/skilled labour force</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Improved living and working conditions</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Quality education and vocational training</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Promotion of European sport issues</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Flowering of European cultures</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>High level of human health protection</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Consumer protection</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Achievement of trans-European networks</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Competitive European industry</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<td>Economic, social and territorial cohesion</td>
<td>✔</td>
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<tr>
<td>Strong scientific and technological bases</td>
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<td>Protection of the environment</td>
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<td>Well-functioning and secure energy markets</td>
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<td>Competitive European tourism industry</td>
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<tr>
<td>Effective civil protection</td>
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</table>

**Source:** London Economics analysis of the DSM initiatives and the Treaty for the Functioning of the European Union.
In the context of the increased focus on synergies in the performance-based policy cycle model, the logic model would also be the ideal tool to map the second type of synergies namely the impact of the policy intervention on the objectives of other policies.

The use of a logic model not only helps to frame the ex-post assessment, but also identifies the indicators for the various output(s) and impacts and, thus, identifies the data which need to be collected in order to be able to undertake the ex-post assessment.

In some cases, when many policies in a broadly similar area are being implemented at roughly the same time, the synergies between the different policies may become too complicated to include on the standard logic map, and it may be necessary to add a second map which identifies all the related policy strands and maps their interactions, interdependence and possibly, relative priority.

For example, in the case of the Digital Single Market, a flowchart in a recent note by the European Parliament provides a good example of synergies between different DSM policy initiatives (see Figure below).[^10]

**Figure 7: Example of a synergy map of DSM initiatives**

Note: The two-way dotted arrow associated with the Modernised Customs Code is testament to the peculiar status of this measure, whose effects are expected to start playing out from the deadline when this measure will be implemented and do not depend on the timing of the proposal.

Source: Bolognini and Legovini (2012).

An example of a logic model developed for the assessment of the impact of e-Infrastructures is provided below.

It provides a clear distinction between expected outputs and expected outcomes and shows that the expected outcomes will also have broader effects.

However, for simplicity reasons, it does not show whether other extraneous factors will impact on the expected outputs and outcomes nor does it identify any synergies (of type I or II) or conflicts with other policies.

**Figure 8: Example of a logic map of e-Infrastructures**

Source: Fraunhofer ISI and ZEW (2012).
4.4.5. Articulation and implementation of data collection plan

While data required for undertaking a thorough quantitative analysis may not always be available, either at all or within the timeframe foreseen for the production of the ex-ante IAs, more efforts should be devoted to:

- Defining the data that would be required for a robust, evidence-based ex-post assessment;
- Identifying possible sources for such data. Such data could include big data from stakeholders as long as these data are collected regularly by the stakeholders and do not involve ad-hoc judgement and subjective decision-making by stakeholders;
- Developing a data collection plan;
- Implementing the data collection plan at the time the initiative is being implemented. All too often, ex-post assessments have to start from scratch and, therefore, are unable to collect the required data.

4.4.6. Development of detailed evaluation plan including timeline for the ex-post assessment distinguishing between assessment of implementation, enforcement and materialisation of expected effects

Policy outputs and outcomes materialise on a different time scale, with the latter often taking more time to fully crystallise. This is especially the case with policy interventions involving legislation or regulation as the causal link from policy intervention to policy outcomes typically requires a change in the behaviour of individuals and businesses.

For example, in the case of the Digital Single Market initiative on alternative dispute resolution for consumer disputes, it is not enough for such facility to exist. Benefits from such an intervention will only materialise once consumers are aware of the facility and, more importantly, comfortable with using it.

This latter phase may be slow in reaching sufficient mass for an effect to be meaningfully observed and assessed. Therefore, the ex-post performance assessment of this intervention should only be undertaken after sufficient time has elapsed for any policy outcomes to be likely observable and to avoid the risk that an realised policy outcome is simply due to a too early performance assessment and not to a policy failure.

To provide greater clarity and transparency about the likely effects of a policy intervention, any IA accompanying an EC policy proposal should provide an explicit timetable of the likely dates when implementation, effectiveness in terms of outputs and outcomes can be meaningfully assessed ex-post.

The 10 Digital Single Market initiatives examined in the previous chapter do not contain such a timetable and as first step of applying the performance-based to the Digital Single Market initiatives, it would be necessary for the relevant policy developers to develop such a timetable and share it with the EP, the ECA and other stakeholders.

A comparison of the timetables of the various Digital Single Market initiatives will also help sequencing the various ex-post performance assessments and map out a timetable of how and when lessons from one ex-post performance assessment can inform future policy work in the same or similar areas.
4.4.7. Ex-post assessment of the performance of a policy initiative relative to expected benefits

This is one of the key elements of a performance based policy cycle. In order to determine whether a policy is effective and efficient, its performance needs to be carefully assessed, using as much as possible quantitative information.

To that end, the implementation of the data plan mentioned under point 4.4.4 is essential if data are lacking at the policy development stage and for the IA.

In order to avoid the potential conflicts of interest which may arise in the case of ex-post evaluations undertaken by the DGs of the EC and guarantee the independence of ex-post policy performance assessments, it is essential that, in addition to the ex-post evaluations undertaken by DGs, the ECA should also assess systematically the ex-post performance of EU legislation and regulation.

This would involve a considerable widening of the scope of the activities of the ECA which, currently, focuses mainly in on traditional public sector audit activities.

The results of the ex-post assessment should be incorporated into the Digital Single Market Scoreboard. The scoreboard should also provide an assessment of the cost to European citizens and businesses of any Digital Single Market initiatives which are not achieving their expected outcomes, particularly in cases where the ex-post assessment concluded that imperfect and/or incomplete transposition or ineffective application and enforcement are the root causes of the failure to achieve the intended outcomes and impacts.

4.4.8. Ex-post identification of success / failure factors and drawing out of lessons

Any ex-post assessments, whether ex-post evaluations by the DGs or ex-post performance by the ECA, should always identify very clearly the factors having contributed to the successful achievement of the policy objectives and /or the factors having impeded a successful outcome so that lessons can learned for future policy-making, including with regards to the policy intervention being assessed.

In practical terms, at the EU level, this means disseminating any such lessons to the three EU policy-making bodies, namely the European Parliament, the European Council and the European Commission.

Moreover, transparency in policy-making and accountability of EU policy-makers to EU citizens require that any such lessons also be made available to all stakeholders and EU citizens more generally.
5. CONCLUSIONS

KEY FINDINGS

- The completion of the Digital Single Market will make a substantial contribution to the EU economy and EU citizens’ standards of living.
- The achievement of the Digital Single Market requires a supporting, effective and efficient legislative and regulatory framework.
- However, at the present time, the EU policy process does not incorporate all the elements which ensure that the policy process is clearly focused on the performance of policies. In particular, the current approach could be strengthened by the implementation of the following seven recommendations.

2. A greater quantification of expected policy outputs and outcomes.
3. A greater focus on synergies among policies in the same policy area or across policy areas.
4. A systematic use of logic models or maps.
5. A greater use of quantitative information.
7. A more systematic dissemination of the lessons learned from ex-post policy performance assessments.

5.1. Importance of the Digital Single Market

The brief survey of the empirical studies on the Single Market and Digital Single Market in section 3.1 highlighted the fact that the very few studies focusing on the Digital Single Market suggest that the achievement of the Digital Single Market has the potential to raise the EU’s level of GDP by about the same rate as the Single Market so far.

For example, the most comprehensive study so far, suggests that the long-run level of EU27 GDP would be higher by 4% as a result of an acceleration of the digital economy involving increased use of online services, improved digital infrastructure and improved e-skills.

Thus, at a time of timid recovery from the recent economic and financial crisis, the completion of the DSM could give the EU economy a very substantial uplift.

5.2. Importance of sound policy-making and problems with the current process

In order to reap the full benefits of Digital Single Market it is essential that the proper legislative and regulatory framework be put in place. In turn, this requires that any policies put forward to establish the required legal and regulatory environment are as effective and efficient\(^91\) as possible.

\(^{91}\) In terms of net private costs imposed on individuals and businesses and public implementation, monitoring and enforcement costs.
In order to achieve these effectiveness and efficiency objectives, the present study mapped out the elements of a performance-based policy model which relative to the current approach puts much greater emphasis on:

- using quantitative indicators to better define desired policy outputs and outcomes;
- using quantitative information to support the analysis underlying the policy rationale for government intervention and the assessment and ranking of various options for achieving the desired policy outputs and outcomes;
- identifying and building on synergies that may exist between various policy initiatives in the same policy area or across policy areas;
- undertaking systematic, independent ex-post effectiveness and efficiency assessments to determine whether the policy is performing as expected and, if not, identifying the causes of sub-par performance; and,
- drawing out lessons from these ex-post performance assessments, both with regards to the policy being reviewed and other policies.

With regards to the first three points above, which relate to the policy-making stage outlined in Figure 3 in Chapter 2, the review of the information provided with the 10 DSM initiatives shows that, as they stand, do not meet the requirements of the performance-based policy cycle described in Chapter 4.

In particular,

- synergies with other policies are largely overlooked;
- the quantification of expected outputs and outcomes is almost non-existent and, in general, the IAs contain no or very little quantitative analysis.

The last two points above relate to initial stage of the policy. As the Digital Single Market initiatives are fairly recent, they may not yet have been subjected to any form of ex-post assessment. Thus, it is not possible to determine whether the requirements of the ex-post phase of the performance-based policy cycle are met.

However, it is possible to conclude more generally that the current policy process does not meet these requirements as:

- almost no independent ex-post performance assessments of EU legislative and regulatory policies are undertaken – as shown in Table 2, the ECA undertook only three ex-post assessments of EU legislative and regulatory policies in 2011 and 2012;
- the EC’s Impact Assessment Board, in its latest report, noted that a significant number of EC impact assessments did not include any results of ex-post evaluations undertaken by the DGs of the EC.

5.3. Recommendations

The review of a) the quantitative evidence on the potential impact of the Digital Single Market and b) the current policy-making process at the EU level suggest that a number of actions should be taken to increase the effectiveness and efficiency of policy initiatives and ensure, in the case of the Digital Single Market, that the full benefits of a well-functioning and complete Digital Single Market can be reaped.
5.3.1. **Recommendation 1: A more extensive quantitative assessment of the potential benefits of the Digital Single Market**

As noted in the previous chapter, in light of the sparse quantitative evidence of the impact of the Digital Single Market, it would be important to undertake more comprehensive and exhaustive studies of the potential gains that could arise from the completion of the Digital Single Market along the lines of the studies focusing on the impact of the Single Market. Such more comprehensive studies would serve to a) put any estimates of the likely impact of the completion of the Digital Single market on a more solid footing, b) identify all the barriers to the completion of the Digital Single Market and c) identify and prioritise the required policy intervention.

5.3.2. **Recommendation 2: Greater quantification of expected policy outputs and outcomes**

In order to be able to undertake an ex-post policy performance assessment to determine how well a policy is (or has worked), it is essential that the expected policy outputs and outcomes are clearly articulated during the ex-ante policy development stage. Therefore, it is essential that any IA accompanying an EC policy proposal be very clear about expected policy outputs and outcomes and, whenever possible, provide quantified indicators of such expected outputs and outcomes.

5.3.3. **Recommendation 3: Greater focus on synergies among policies in the same policy area or across policy areas**

At the present time, it is very difficult, if not impossible, for legislators and policy-makers not deeply involved in the development of particular policy, to assess how that particular policy relates to other policies in the same policy areas or other policy areas. Synergies between different policies are typically not articulated in the information provided with policy initiatives and one can therefore reasonably assume that such synergies are largely ignored.

The presentation, in the information material accompanying a policy proposal, of a matrix showing how the particular policy initiatives interacts with other policies in a specific policy area, such as the Digital Single Market, and broader policy objectives would greatly help bring to the forefront of the policy-making process synergies and conflicts between policies and ensure the synergies are exploited.

5.3.4. **Recommendation 4: Systematic use of logic models or maps**

The information for the synergy analysis should feed into a detailed logic model or map which shows in detail:

- how the policy under consideration will yield the expected outputs and outcomes;
- how extraneous factors (other policies and socio-economic factors) are also likely impact on the evolution of the selected outcome and output indicators; and,
- how the policy under consideration will contribute to (or hinder) the achievement of objectives of other policies.

Such a detailed logic model or map should be included in every IA accompanying a policy proposal so as to clearly articulate the expected causal impacts and the relationships between the policy under consideration and other policies.

Such information is also essential for being able to undertake robust ex-post policy performance assessments without imposing the burden on the ex-post assessor to retroactively having to figure out how the policy-makers expected the policy to work.
5.3.5. Recommendation 5: Greater use of quantitative information

Special data collection plan if no quantitative data are available at the ex-ante assessment

As already noted earlier, the review of the 10 Digital Single Market showed that quantitative data were used only very rarely in the analysis of the rationale for government intervention and the options for achieving the desired policy outputs and outcomes.

While this situation may reflect the lack of readily available data at the time the ex-ante policy assessment was undertaken, in such circumstances it is essential that a proper data collection plan be developed during ex-ante policy development phase and implemented at the same time as the policy is implemented. In the absence of such a data collection process, it will be very difficult, if not impossible, to undertake a thorough ex-post policy performance assessment.

Preparing for greater re-use of “big data”

More generally, greater efforts should be made at the ex-ante policy development stage to determine to what extent greater use could be made of “big data” held by both the public and private sectors. This requires a) developing better intelligence about the “big data” which actually exists, b) developing potentially partnerships with businesses specialising in exploiting “big data” and “big data” holders to gain access to such data, and c) developing the analytical skills required to use such data in a statistically sound manner.

5.3.6. Recommendation 6: More systematic independent ex-post policy performance assessments

In order to avoid the potential conflicts of interest which may arise in the case of ex-post evaluations undertaken by the DGs of the EC and guarantee the independence of ex-post policy performance assessments, it is recommended that, in addition to the DGs in-house ex-post evaluations, the ECA also assess systematically the ex-post performance of EU legislation and regulation.

This would involve a considerable widening of the scope of the activities of the ECA which, currently, focuses mainly in on traditional public sector audit activities.

In addition, in order to guarantee the quality of any ex-post evaluations undertaken in-house at the EC, it is recommended that an EC-wide Evaluation Review Board be established along the lines of the EC Impact Assessment Review Board.

While, typically, the DGs have established internal evaluation quality review systems, the creation of an EC-wide review system will mitigate the risk of gaming and conflicts of interest inherent in set-up where those responsible for a policy are also those undertaken or commissioning the ex-post evaluation of the policy’s effectiveness and efficiency.

5.3.7. Recommendation 7: More systematic dissemination of the lessons learned from ex-post policy performance assessments

Any ex-post policy performance assessments (whether undertaken by the DGs of the EC or the ECA) yield useful lessons as to whether the policy performs as expected or not and the causes of successes or failures.

Therefore, in order to properly inform policy developers and policy-makers, and EU citizens and businesses more generally, and ensure that all relevant lessons can be drawn and built on in the policy process, it is recommended that:
• a central repository be created at the EC which contains all the ex-post evaluations undertaken by the various DGs along the lines of the repository of the IAs\textsuperscript{92};
• every IA from the EC accompanying a policy proposal contain an obligatory special section presenting the findings of all relevant ex-post assessments (ex-post evaluations by DGs and ex-post performance assessments undertaken by the ECA); and,
• the IA unit of the EP prepare for the relevant EP committees on a regular basis (quarterly or semi-annually) summaries of the key findings and lessons of all ex-post assessments published during the EC and the ECA during the preceding period.

\textsuperscript{92} For example, the EC IAs of 2013 are available at the link provide below and IAs from previous years can also be accessed through this webpage. \url{http://ec.europa.eu/governance/impact/ia_carried_out/cia_2013_en.htm}. 
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ANNEX I: IDENTIFICATION OF THE DIGITAL SINGLE MARKET INITIATIVES REVIEWED BY THE STUDY

The present annex provides a brief summary of each of the following 10 Digital Single Market Initiatives covered by the present study.

In addition to the list of Digital Single Market initiatives listed in the 2012 EP note Roadmap to Digital Single Market, we also took note of all the Digital Single Market initiatives listed in:

- The January 2012 EC Communication A coherent framework for building trust in the Digital single market for e-commerce and online services;
- The September 2012 EC Communication Unleashing the potential of cloud computing in Europe;
- The October 2012 EC Communication Single Market II – Together for new growth;
- The December 2012 EC Communication On content in the Digital Single Market; and,
- The August 2010 EC Communication A Digital Agenda for Europe.

We also reviewed the list on the EC Impact Assessment’s website (http://ec.europa.eu/governance/impact/ia_carried_out/) of Commission proposals with impact assessments.

As the impact assessment process within the EC has evolved over time, we propose to limit the benchmarking of the Digital Single Market policy cycle to relatively recent policy initiatives.

Moreover, as noted earlier, we suggest examining policy initiatives which involve different types of policy instruments (Regulation, Directive, Recommendation, Guidelines, Other (general strategy document)).

As well, we believe that it is useful to include at least one program involving actual spending of EU funds.

In addition, we propose to consider initiatives targeted at different stakeholders. For the purpose of the present analysis, we propose to distinguish the following types of stakeholders:

- Consumers;
- Businesses in general (all businesses or selected segments of the business community);
- Businesses which enable the Digital Single Market (such ISPs, telecommunications companies); and,
- The public sector.

93 The list includes, among others, the initiatives listed in the August 2010 EC Communication “A digital agenda for Europe”.
Obviously, a policy aiming to increase investments by telecommunications companies will also benefit users (consumers, businesses and the public sector). Our proposed typology simply aims to identify the stakeholder group(s) which is impacted in the first instance.

The list below details the initiatives we propose to assess and identifies the type of policy instrument used and the stakeholder groups directly impacted by the initiatives. As well, it notes whether an impact assessment exists for this initiative.

The final selection of SDM initiatives covered by the present report includes the following:

**2011**

1. Regulation establishing the Connecting Europe Facility (The EC aims to launch the Digital Service Infrastructure in 2014 under the facility) (2011).
2. Regulation on establishing the Creative Europe Programme (2011).

**2012**

4. Regulation on electronic identification and trust services for electronic transactions in the internal market (2012).

**2013**

9. Regulation on measures to reduce the cost of deploying high-speed electronic communications networks (2013).
10. Directive concerning measures to ensure a high common level of network and information security across the Union (2013).

All but one of these initiatives were accompanied by a formal impact assessment.
ANNEX II: OTHER ASSESSMENTS OF THE IMPACT OF THE SINGLE MARKET

Other partial ex-post assessments of the Single Market

In addition to these broader studies of the impact of the Single Market Program, a number of studies have focused on the impact on productivity performance, competition and innovation.

- Allen et al. (1998), in an early assessment of the SMP, distinguish between the impact of the SMP on trade and prices. They found that the SMP was mainly trade creating and that the price-cost margins fell by about 3.6 percentage points in industries judged by the author to be of high or medium sensitivity to the SMP.
- Botasso and Sembenelli (2001) find that in Italian industries which were particularly sensitive to the SMP, market power has declined by about 10 percentage points.
- Badinger (2007), using data from 1981 to 1999, finds that the SMP increased competition and reduced mark-ups in manufacturing in the post-SMP completion period and in the construction sector in the pre-completion period. In contrast mark-ups appear to have gone up in the services sector since the early 1990s.
- Griffith et al. (2010) that the SMP increased product market competition and subsequently innovation intensity and productivity growth in manufacturing sectors.
- Notaro (2011) finds that the productivity level was higher by about 2% as result of the SMO in industrial sectors which judged to be of high or medium sensitivity to the SMP.

Combined ex-post assessment of Common Market and Single Market

While the two ex-post assessments of the European Commission focused explicitly on the impact of the Single Market, a more comprehensive assessment of the Common Market and the Single Market by Boltho and Eichengreen (2008) concluded that, overall, the level of EU GDP was 5% higher than it would have been in the absence of these two major policy initiatives.

Straathof et al. (2008) estimate that the effect of the deepening and extension of the Internal Market since 1960 had raised the 2005 level of EU GDP by 2% to 3%. Moreover, the authors noted that only about half of the potential gains of the internal market integration resulting from the measures adopted over the period 1960-2004 because the full benefits of re-allocation, productivity improvements and innovation take time to materialise. According to the authors, the long-run impact of the level of EU GDP is likely to be nearly 10%.

94 The sensitivity of the various industrial sectors was taken from Buigues et al. (1990) who identified 40 sectors as the ones most likely to be significantly impacted by the SMP. These sectors included industries in which the main purchaser was the public sector, industries where trade was hampered by differences in national standards and industries where the principle obstacles to trade were due to administrative and/or technical controls.
A note on the impact of the Single Market in services

No formal EC ex-ante impact assessment of the 2006 version of the Services Directive exists, at least in the public domain.95

**Country-specific assessments**

At the Member State level, an ex-ante assessment undertaken by Piette et al. (2009) for Belgium of the impact of the 2006 Services Directive showed that full implementation of the Directive at the national level would result in an increase of the long-run level of GDP of between 0.5 % and 1.0 % and in an employment boost of between 6,000 and 9,000 new jobs.

An ex-post assessment undertaken recently for Sweden (Kommerskollegium, 2012) concluded that, so far, no clear effects could be seen with regards to cross-border sales using data for 2010, the first year following the implementation of the Services Directive. No comments were made regarding the effect on new establishments as no data were available for the period after the implementation of the Services Directive.

**Pan-European assessment**

A more comprehensive, ex-post, pan-European assessment is provided by the 2012 study of Monteagudo et al. Using the DG Economic and Financial Affairs’ Quest model, the authors quantify the economic impact of the actual implementation of the elimination of the barriers foreseen by the Services Directive across Member States. The key findings of this analysis are that:

- The level of EU27-wide GDP is estimated to be 0.8 % higher in the long run as a result of the implementation of Services Directive.96 Across Member States, the impact varies substantially, ranging from less than 0.3 % to more than 1.5 %. Typically, almost 80 % of the output gains are realised by the 5th year of the implementation of the Directive;
- The level of EU27-wide productivity is 4.7 % higher in the long run;
- The level of EU-27 wide trade is 7.2 % higher in the long run;
- The level of EU-27 wide FDI is 3.8 % higher in the long run.

This particular study is of particular interest for the purpose of the present note because it does also provide estimates of the impact of a more comprehensive application of the Services Directive. These estimates are presented and discussed in the next section.

In addition, the authors also provide a quantitative assessment of the setting up of the Points of Single Contact (PSC) required by the Services Directive. These PSCs act as gateways or one-stop shops for service providers. At the EU-wide level, the GDP gain from the establishment of the PSCs (as they were at the time of study) is estimated at 0.1 % in

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95 A study by Copenhagen Economics assessed the likely impact of the Services Directive as originally proposed and found that aggregate consumption in the EU would be about 0.6 % higher in the long-run in real terms if barriers to cross-border trade in services were eliminated. Because the actual Services Directive differs for the one originally proposed, the Copenhagen Economics study is not further elaborated on in the present report.

96 The authors of the study view the estimate of 0.8 % as being conservative as not all services sectors covered by the Directive were included in the analysis. A rough estimation by the authors of the study suggest that, if a) all the services covered by the Directive were included in the analysis and b) the impact of the Directive in the sectors not covered by the analysis was identical to the impact on the sectors covered by the analysis, the overall GDP impact could be twice as large. In other words, the level of GDP could be raised by about 1.6 % in the long run. The aggregate size of the sector not covered by the study is about the same as that of the sectors covered by the study.
the long-run. Complete and effective implementation of the PSC requirements could raise the level of GDP by a further 0.1% to 0.2%\textsuperscript{97}.

The study by Monteagudo \textit{et al} (2012) provides estimates of two types of a more complete implementation of the Services Directive:

- In a first scenario, it is assumed that, following the elimination by each Member State of barriers to provision of services in a particular sector, each Member State’s profile of barriers is equal to the mean barrier profile across Member States (or lower if the Member State has already reached a lower level of barriers);
- In a second scenario, it assumed that, following the elimination by each Member State of barriers to provision of services in a particular sector, each Member State’s profile of barriers is equal to the mean barrier profile of the 5 best performers (in terms of lowest barriers) among Member States (or lower if the Member State has already reached a lower level of barriers)\textsuperscript{98}.

According to the author of the study, the second scenario is very close to a scenario in which the barriers are fully eliminated for most sectors, i.e. the Services Directive is fully implemented.

A fuller and more complete implementation of the Directive is likely to yield significant additional benefits over and above those which have already materialised as a result of the implementation so far of the Services Directive.

**Table 10: Impact of more complete implementation of the Services Directive**

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Impact on the level of GDP</th>
<th>Impact on the level of productivity</th>
<th>Impact on the level of trade</th>
<th>Impact on the level of FDI</th>
</tr>
</thead>
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<tr>
<td>Assessment of current implementation</td>
<td>0.8 %</td>
<td>4.7 %</td>
<td>7.2 %</td>
<td>3.8 %</td>
</tr>
<tr>
<td>Assessment of implementation to average of EU Member States</td>
<td>1.2 %</td>
<td>7.0 %</td>
<td>10.1 %</td>
<td>5.6 %</td>
</tr>
<tr>
<td>Assessment of implementation to average of 5 best performing Member States</td>
<td>2.6 %</td>
<td>13.6 %</td>
<td>14.7 %</td>
<td>12.6 %</td>
</tr>
</tbody>
</table>


\textsuperscript{97} A 2010 European Parliament report prepared by Ramboll Management Consulting reviewed the state of implementation of the Services Directive with regards to the adoption of new legislation, the screening and adaptation of existing legislation, the establishment of Points of Single Contacts and administrative cooperation between the Member States. It did not provide any estimates of the likely impacts of the Directive.

\textsuperscript{98} The authors note that the benchmark set of best performing countries varies across sectors.
ANNEX III: DETAILS OF THE DSM INITIATIVES REVIEWED

Regulation establishing the Connecting Europe Facility

The ‘Connecting Europe Facility’ (CEF) is an integrated instrument that fosters the infrastructure development, particularly in transport, telecommunication and energy. It should help reaching the targets defined in the Europe 2020 Strategy and, more generally, to achieve a high level of European Competitiveness. This summary focuses on the telecommunication part of the proposal.

Context and rationale for the European intervention

The Explanatory Memorandum of the proposal refers to the Monti report that shows that it is impossible to build an integrated market without ensuring the perfect connection between all the members. However, inequalities exist in the development of a common network and these differences create a dividing line between the centre and the peripheries. A European level intervention is therefore necessary in order to rebalance this situation.

The intervention touches upon three different sectors in order to maximise and exploit the synergies between them. This should help developing a simpler and coherent funding strategy.

Qualitative and quantitative objectives

There is one general objective that is defined in the proposal: “Contribute to smart, sustainable and inclusive growth by developing modern and high performing trans-European networks”. It is developed through two specific objectives:

1) Accelerating the deployment of fast and ultrafast broadband networks and their uptake, by households and businesses, including by small and medium sized enterprises (SMEs); and

2) Promoting the interconnection and interoperability of national public services online as well as access to such networks.

The text of the proposal defines the objectives and the indicators that will be used to monitor them (see the evaluation section of this document). The legislative financial statement of the proposal sets up quantitative targets.

For the general objective:

- There is a need of EUR 270bn for private investment until 2020 for fast and ultrafast broadband internet; and

- The public and private investment in projects of common interest for fast and ultrafast broadband should reach EUR 45.5bn, assuming EUR 6.5bn CEF funds leveraging private and public investment by a factor of 7.

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For the specific objective 1:

- The fast broadband coverage (≥30 Mbs) should reach 60% by 2017 and 100% by 2020; and
- The subscriptions to connections above 100 Mbs should be 20% by 2017 and 50% by 2020.

For the specific objective 2:

- Users of eGovernment services should go up to 50% of citizens and 85% of businesses by 2017 and 60% of citizens and 100% of businesses by 2020; and
- Availability of cross-border public services should grow to 80% by 2017 and 100% by 2020.\(^{101}\)

Legal framework and synergy with other directives

In the legislative financial statement, a paragraph develops the synergies that should emerge between different EU policy instruments. In 2011, the Commission adopted 'the MFF Communication' defining 'A Budget for Europe 2020' which determines the Union's finances for the years 2014-2020. The MFF Communication and its accompanying document as well as the Europe 2020 strategy, the EU Budget Review and the Single Market Act provide grounds for the CEF, which in turn, reflects the objective of the other instruments. Synergies will also be developed with Horizon 2020, the future Framework Programme for Research and Innovation.

Impact assessment

An impact assessment\(^{102}\) was realised and mainly based on exhaustive consultations with stakeholders, EU institutions and bodies, Member States, regional or local authorities, social and economic partners, academic experts and international institutions.

This impact assessment defines a different set of objectives that are valid across the three sectors. This includes, for instance, “increasing the leverage of EU funds by defining forms, methods and rules of financing”. As a result, there was no quantifying exercise possible for those objectives. However, we have seen that the proposal defines and quantifies targets for each sector.

Evaluation process

The evaluation should take place 3 years after the Regulation was adopted. In addition, a number of indicators will be continuously monitored:

- For the general objective: The volume of private investment in fast and ultra-fast broadband Internet; the volume of public and private investment in projects of common interest for fast and ultra-fast broadband internet funded by CEF;
- For the specific objective 1: The level of fast broadband coverage with connection faster than 30 Mbs; the level of subscription to broadband connections above 100 Mbs; and
- For the specific objective 2: The number of citizens and businesses using public services online; the availability of cross-border public services.

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\(^{101}\) This is currently not measured as the list of services still has to be defined by the Member States.

Regulation on establishing the Creative Europe Programme

The proposed regulation aims at establishing a Creative Europe Programme that would merge the existing Culture, MEDIA and MEDIA Mundus programmes in addition to give an easier access to finance for the SMEs and organisations in the cultural and creative sectors.

Context and rationale for the European intervention

The creative and cultural sectors have a direct impact on growth. The Explanatory Memorandum of the proposal estimates that they represent 4.5% of the European GDP and 3.8% of the EU workforce. In addition, they generate spill-over in the tourism and ICT sectors. Nonetheless, in the past years, the creative industry has suffered from the fragmentation between countries, the shortage of data, the lack of access to finance, and the impact on the industry of the globalisation and the shift to digital contents. It is therefore important to intervene at the European level to ensure that all the potential of the industry is exploited. It will also guarantee the promotion of Europe’s cultural and linguistic diversity.

Qualitative and quantitative objectives

In the Explanatory Memorandum, there are no quantitative objectives. However, a general objective of promotion of the European cultural and linguistic diversity, as well as an increase the competitiveness of the cultural and creative sectors, is defined. There are also four specific objectives:

- Support the international activity of the European cultural and creative sectors;
- Promote the transnational circulation of cultural and creative works and operators in order to reach new audiences both within Europe and beyond;
- Strengthen the financial capacity of the cultural and creative sectors; and
- Strengthen transnational policy cooperation in order to foster policy development, innovation, audience building and new business models.

Legal framework and synergy with other directives

Under the merging of the Culture, MEDIA and MEDIA Mundus programmes lies the idea that there are potential synergies between the three. The merger should allow a better coordination, knowledge transfer and cross-fertilisation between sectors. No other synergies with other sectors or programmes are highlighted in the proposal and the impact assessment.

Impact assessment

The proposed legislation comes together with an impact assessment’s document that relates the ex-ante evaluation of the regulation. This impact assessment contains mainly qualitative data as there is a lack of quantitative indicators in the industry. The evaluation is based on:

- An online consultation on the future of the MEDIA 2007 (September to November 2010);
- An online consultation on the future of the MEDIA Mundus Programme (March to May 2011);
- A public hearing on both programmes in 2011 in Brussels;
• A series of audiovisual stakeholder focus groups, conferences and meetings in the contexts of cultural events to explores attitudes towards the programme;

• An additional focus group on the problem of the access to financing.

**Evaluation process**

The monitoring of the new programme will go beyond the current one. The quantitative indicators, drawn from the dedicated IT system, will still be reported regularly. In addition, new indicators will be more accessible as they will be integrated in electronic application forms and electronic final reports. The list of indicators includes:

• For the general objective: The sectors' share of employment and share of GDP and the proportion of people reporting that they access European cultural works;

• For the specific objective 1: The internationalisation of cultural operators and the number of transnational partnerships created learning experiences for artists/cultural operators which have increased their skills and employability;

• For the specific objective 2: The number of people directly or indirectly reached through projects; and

• For the specific objective 3: The number of MS making use of the results of the new Open Method of Coordination in their national policy development and number of new policy initiatives.

Qualitative assessment will also take place to measure the impact of the programme on stakeholders. Such assessments would be put in place through online surveys or other appropriate methods.

The impact assessment foresees a reform of the evaluation process. The interim evaluation of the new programme would be the final of the previous programme (finished before 2017) while the new programme would be evaluated following a new evaluation process, based on round of multi-annual programmes (launched in 2014). All external evaluations should be conducted by independent, impartial bodies.

**Directive on alternative dispute resolution for consumer disputes**

Despite the high level of consumer protection guaranteed by the legislation, a high proportion of European consumers still experience problems while purchasing goods and services in the internal market, according to the Explanatory Memorandum of the proposed legislation. The Alternative Dispute resolution entities have proved to be of uneven qualities, with an unequal coverage and not enough awareness from the consumers and businesses. The proposed legislation aims at addressing these issues in order to increase the ADR in the internal market.

**Context and rationale for the European intervention**

The Explanatory Memorandum estimates that 20 % of the consumers had had trouble in purchasing goods and services in the EU. These problems are estimated to provoke a loss of 0.4 % of the EU-wide GDP. Therefore, some action needs to be taken to face these problems and increase the efficiency of the ADR.

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At the international level, the consumer protection is hindered by a number of obstacles such as the language barrier, the potentially higher costs and the legislative differences between Member States. As a result, an intervention at the European level is legitimate.

**Qualitative and quantitative objectives**

The Impact assessment document that goes together with the proposal, defines 4 objectives:

1. Increase in the share of consumer disputes transferred to ADR schemes;
2. Raise consumers' awareness on ADR;
3. Ensure that ADR schemes operate according to certain principles that allow consumers and businesses to trust them; and
4. Increase consumers’ and businesses' trust in the online trade.

For the last objective, quantitative targets are set up. The number of consumer willing to buy online from another Member State should increase by 20 % and this number should go up 10 % for the businesses, by 2020.

**Legal framework and synergy with other directives**

This proposed directive is based on the article 114 of the TFEU and completes the existing European legal framework. The Commission has adopted the recommendation 98/257/EC and 2001/310/EC on ADR and set up two networks, ECC-NET and FIN-NET. The first one guides consumers towards the right ADR entity and the second one deals with disputes between consumers and financial services providers. At a sector-specific level, some legislation exists. Finally, the Mediation Directive encourages the amicable settlement of disputes.

**Impact assessment**

An impact assessment has been carried out. It is based on the following data:

- Four studies carried out by the Commission on the existence and the functioning of the ADR entities;
- A public consultation and businesses consultations; and
- A summit with stakeholders.

Some quantitative analysis has been made to estimate the monetary impact of the preferred option. For consumers, the savings induced by more efficient ADR entities are estimated to be 20 billion Euros. For the businesses, the study looks at actual examples of costs of funding the ADR entities and finds that it varies between 100,000 Euros and 1 million Euros per year. Businesses will have to adapt their contracts and this would cost 771 million Euros as a one-off cost. On the other hand, businesses should save 1.7 to 3 million Euros and 258 days by not using the court procedures. At the MS level, there could be the cost of subsidising the ADR entities and cost for reporting their activity. However, the MS already have authority for this such that the extra cost should be marginal. At the European level a web-based system to deal with dispute will require some budget. It is estimated at a one-off cost of 2 million Euros in addition to 300,000 Euros annually of

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administrative costs. Finally ADR bodies should allow consumers to save money and these latter funds will be reinvested in the economy such that the social impact of the directive should be positive.

Evaluation process

The Commission elaborates an evaluation process in the impact assessment in order to monitor the results of the proposed directive. It consists in a bi-annual report two years after the directive has been adopted. The following indicators are mentioned in the reports:

- **For the objective 1:** The number of cross-border ADR cases and the number of consumers and of traders buying and selling cross-border and online;
- **For the objective 2:** The number of consumers aware of ADR and the number of consumers who use an ADR scheme to solve their dispute;
- **For the objective 3:** Compliance of the ADR schemes with the principles established at EU level; and
- **For the objective 4:** By 2020, a growth of 20% of the number of consumers who are willing to buy online from another MS and a growth of 10% of the number of businesses that are willing to sell online in another MS.

**Regulation on electronic identification and trust services for electronic transactions in the internal market**

To develop a performing single market, it is critical to achieve in Europe a trustworthy electronic environment. The proposed regulation aims at building an EU cross-border and cross-sector framework for secure electronic transactions, including electronic identification, authentication and signatures.

**Context and rationale for the European intervention**

Building a safe electronic transaction system would increase the efficiency of the private and public services online. This is essential for the economy and therefore, the action needs to be taken at the European level in order to reinforce the single market.

Currently there are obstacles to build the trust with the online transactions. The legislations are fragmented and the systems are not always compatible. These problems must be tackled by the European institutions.

**Qualitative and quantitative objectives**

The legislative financial statement following the proposal states the general and specific objectives. The general objectives of the proposed legislation are taken from the EU 2020 strategy as it is to turn the EU ‘into a smart, sustainable and inclusive economy delivering high levels of employment, productivity and social cohesion’.

The specific objective is taken from the key actions 3 and 16 of the Digital Agenda for Europe. It consists in enhancing ‘trust in pan-European electronic transactions and to ensure cross-border legal recognition of electronic identification, authentication, signature

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and related trust services as well as a high level of data protection and user empowerment in the single market’.

No quantitative targets are given.

**Legal framework and synergy with other directives**

The legislative financial statement highlights other legislative texts that deal with the interoperability in the European Union, as well as the recognition problems for electronic procedures. Some examples are cited. They include: The Services Directive, the Public Procurement Directives, the revised VAT (eInvoicing) Directive and the European Citizen Initiative Regulation.

In addition, some Large Scale Pilots (LSPs) have been put in place to support the implementation of directives working towards a safer and trustworthy electronic communication network. The proposed regulation will set up a better legislative framework for the take-up of these pilots.

**Impact assessment**

The impact assessment is mainly based on qualitative data that has been gathered through:

- **Consultations**, including one online public consultation and feedback from Member States, the European Parliament and stakeholders during discussions, workshops and conferences; and
- **A literature review and studies** on electronic identifications, authorisations and signatures.

**Evaluation process**

First of all, the Commission will monitor the implementation of the regulation in the MS. If necessary, the European institutions will help the national ones to implement the regulation with workshops and bilateral meetings. Then, the Commission will monitor the following indicators:

1. Existence of eIdentifications, Authorisation and Signatures (eIAS) suppliers that have activities in multiple EU member states.
2. Usage of eIAS services by eService providers in other sectors than the “traditional closed niche sectors”.
3. Degree to which devices become interoperational (e.g. eCard readers) between sectors, countries.
4. Usage of eIAS by all categories of population via ‘Household survey’-type questionnaires.
5. Follow-up of reasons why consumers remain reluctant to use eIAS via ‘Household survey’-type questionnaires.
6. Extent to which eIAS are used by end-users for national transactions and international (cross-border) transactions.
7. Degree of harmonisation across members states when regulating eIAS (including related trust services).
8. Official electronic Identifications (eIDs) notified to the Commission.
10. Services accessible with notified eIDs provided by central, regional, local authorities.
11. Services accessible with notified eIDs provided by Points of Single Contact.
12. Electronic delivery systems accessible with notified eIDs; and
13. Services accessible with notified eIDs in the private sector (online banking, eCommerce, eGambling, login to websites, safer internet services e.g. chatrooms for children).

The indicators are not explicitly linked to the objectives in the impact assessment document. The collection of this data will be mainly based on desk research, online surveys, conferences, workshops such that no major cost will be induced. The evaluation will start 4 years after the implementation of the regulation as experience has proved that 2 years were not enough.

**Recast Roaming Regulation**

The recast roaming regulation aims at creating an internal market for mobile communication. This is done by eliminating differences between domestic charges and roaming charges. This implies establishing a common, harmonised approach to ensure that users do not pay excessive prices for Union-wide roaming services.

**Context and rationale for the European intervention**

At the moment, the great difference between domestic charges and roaming charges is preventing student, business travellers and tourists to use their mobile devices across Europe. Removing this obstacle would contribute to the creation of a European knowledge-based economy and the realisation of an internal market.

In addition, there is a need to regulate the market such that some competition puts downward pressure on prices for consumers. Regulatory bodies at the national level are not able to deal with the behaviour of the visited network operators, situated in other Member States, on whom those customers depend when using international roaming services. Consequently, there is a need for an EU-wide intervention.

**Qualitative and quantitative objectives**

The Impact assessment that comes together with the Recast of the Regulation defines qualitatively 3 general objectives broken down into 7 specific objectives (SO) as follow:

General objective 1: ‘ensuring the development of a single coherent regulatory framework, contributing to the development of the internal market’

- SO 1: Prevent distortions between Member States in terms of regulatory divergences;
- SO 2: Ensure an optimal level of governance to avoid isolated measures at the Member States level.

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General objective 2: ‘Stimulate and strengthen a sustainable competition’

- SO 3: Ensure that competitive market developments are stimulated and that technological developments are not hindered;
- SO 4: Strengthen the competitiveness of European industry by ensuring that businesses have access to competitive roaming prices.

General objective 3: ‘Promote the interest of consumers and ensuring a high level of consumer protection for all EU consumers’

- SO 5: Ensure user choice and transparency;
- SO 6: Ensure that prices are at a level reflecting underlying costs;
- SO 7: Ensure that consumers can easily benefit from prices reflecting underlying costs.

Legal framework and synergy with other directives

No synergy with other directive is explicitly highlighted in the Regulation or the Impact assessment.

Impact assessment

The legislation has been the object of an impact assessment. This latter is based on both qualitative and quantitative analysis. The qualitative analysis includes a large public consultation held in December 2008 as well as meeting with interested parties and studies commissioned to management consulting companies.

The data gathered by the Body of European regulators for Electronic Communications BEREC and the data provided by the National Regulation Authorities (NRAs) allowed the development of an economic model. This econometric analysis forecasted the costs and benefits of the regulation.

Evaluation process

The Impact Assessment document plans an evaluation in 2015 and every two years after this, until the regulation expires in 2022. There is no precise list of indicators that would be related to the objectives. However, the impact assessment describes how the Commission will monitor the implementation and the impact of the directive.

The Commission will continue to monitor the mobile market and it will also receive the data from the NRAs on the retail and wholesale voice tariffs and on SMS charges and data roaming charges. Finally some ad-hoc studies or surveys on main market and technical developments, charging systems, contract conditions, business vs. residential customers’ tariffs will be commissioned.
Directive on the accessibility of public sector bodies’ websites\textsuperscript{111}

The web-accessibility is defined by the United Nations Convention on the Rights of Persons (UNCRP) with Disabilities as the “principles and techniques to be observed when constructing websites, in order to render the content of these websites accessible to all users, in particular those with disabilities”. The proposed Directive aims at harmonising the web-accessibility for public bodies’ websites across Europe.

Context and rationale for the European intervention

The Explanatory Memorandum of the proposal highlights that the best accessibility of public bodies’ websites is critical as they provide citizens with essential information for the good functioning of the administration and the public sector. Furthermore, the number of people with disabilities and functional limitation will increase as the population ages. Therefore, there is a great need to adapt the offer on the web.

In addition, national requirements have been defined in some countries and they vary greatly from one Member State to another. This increases the cost for companies who want to operate cross-border. Consequently, there is scope for an EU-wide intervention to harmonise the web-accessibility.

Qualitative and quantitative objectives

The objectives defined in the Explanatory Memorandum or in the impact assessment\textsuperscript{112} of the proposal are mainly qualitative. The general, specific and operational objectives are defined as follow:

General objectives

1. Improvement of the functioning of the Internal Market for the supply of web-accessibility-related products and services.
2. Supporting the commitment relating to web-accessibility in public bodies’ websites

Specific objectives

1. Establishment of harmonised EU standards in web-accessibility.
2. Definition of types of websites concerned, with a minimum common list.
3. Promoting the web-accessibility of lists of ‘basic public services’.

Operational objectives

1. Achievement of regular and comparable monitoring reporting.
2. Achievement of collaboration in the measurement of the policy impact and in the reaction to the technological changes.
3. 100 % of web-accessibility in the public sector websites of the common list that were created after the adoption of the Directive, and by 2015, the same objective for the websites that existed before.


Legal framework and synergy with other directives

The proposed Directive supports Member States (MS) to achieve both their national and international commitment for web-accessibility. In particular, MS should comply with the article 9 of the United Nations Convention on the Rights of Persons with Disabilities which requires MS and the EU to take the necessary step towards an equal access for all to ICT, including internet.

The proposed legislation is in synergy with the European Accessibility Act (EAA) which is being prepared and will address the accessibility of goods and services, including ICT.

Impact assessment

The proposal goes together with the impact assessment document. This study was based on various sources including:

- Benchmarking Studies: in 2010-2011, the study “Monitoring eAccessibility” (MEAC-2) following up on MEAC-1 from 2006-2008;
- Study on “Economic Assessment for Improving e-Accessibility Services and Products” (SMART 2009/00-72) and on “E-accessibility legislation, implementation and market monitoring” in 2007-2008;
- Public consultations on web-accessibility through the Commission’s interactive Internet platform ”Your voice“ with Member States’ representatives and all the other concerned stakeholders, consultations of the INCOM (Inclusive Communications) working group of the Communications Committee (COCOM), and workshops;
- Member States consultations via the i2010 e-inclusion subgroups and the post-i2010 consultations;
- Survey ”Web-accessibility in European countries; and
- Exchanges with large software industries and European industry associations and representatives of major civil society organisations such as the European Disability Forum and the European Blind Union, AGE and ANEC.

Finally, the impact assessment was reviewed by a group of experts.

Evaluation process

The MS should report on the transposition. Furthermore, they should follow the EC methodology to monitor the compliance of the websites on the common list with the EU harmonised standard. These reports should include the result of their monitoring activities as well as other measures taken (for example, the extension of the list). The indicators monitored are as follow – with the number in parenthesis referring to the objectives:

1. Number of MS and EU institutions with websites complying with the standard (2,6,8).
2. Number of web-service providers bidding for public contracts in a Member State different from their own (1).
3. Number of European professionals or enterprises qualified to implement web-accessibility (1,5).
4. Number of registered training enterprises acting in the web-accessibility domain (1,5).
5. Necessary revisions of this intervention due to contradictory objectives raised by auditing in connection to policy actions (1,3,7).
6. Number and nature of citizens’ complaints related to the non accessibility of the websites (2,4).

7. Number of requests for / use of special accommodations (non on-line channels) (2,4).

This should help evaluating the success of the directive in terms of effectiveness, efficiency, sustainability, coherence and cost-benefit. Two years after the implementation, an evaluation will be organised to measure the actual effects, the coherence of the policy and the potential improvements.

**Directive on the collective management of copyright and related rights and multi-territorial licensing of rights in musical works for online uses in the internal market**

A licence is required for the use of any content protected by a copyright or any related right. A licence should be obtained from all the right holders, which can include authors, performers, producers etc., such that collective management of rights plays an important role. Usually, collecting societies manage the rights, remunerate the right holders and grant the licences. The proposal aims at updating the legal framework for the collective management of the rights by these collecting societies in order to improve their governance and transparency. In addition, the proposal aims at facilitating and encouraging multi-territorial licensing.

**Context and rationale for the European intervention**

The Explanatory Memorandum of the proposal underlines that the collective rights’ management needs to adapt to the fast changing industry. Especially in the online environment, a slow modernisation affects the innovation in the services provided. The digital contents are easily exchanged cross-border and the collecting societies have proved to be slow in adapting to this demand. The licenses have not been granted and as a result, the authors have not been properly remunerated. As a result, there is a need for a European-level intervention to preserve Europe’s diverse cultural offer and ensure the fair remuneration of authors’ works in the Single Market.

**Legal framework and synergy with other directives**

The Explanatory Memorandum explains that the proposed Directive should not be considered as an isolated element. It comes together with other proposed or to be proposed directives and it integrates into the Digital Agenda for Europe and the Europe 2020 Strategy. In various other communications, the Commission has highlighted the importance of the transnational management of intellectual property rights. The Article 167 of the Treaty on the Functioning of the European Union also emphasises the importance of cultural matters.

In addition, this proposed Directive complements the Directive 2006/123/EC which ensures the freedom of establishment and movements of services between Member States. It also echoes at the European level many international commitments such that the Berne Convention, the Rome Convention, the World Trade Organisation Agreement on Trade-
Related Aspects of Intellectual Property Rights, the World Intellectual Property Organisation Copyright Treaty etc.

Qualitative and quantitative objectives

In the Explanatory Memorandum, two qualitative objectives are presented. There is no quantitative information provided.

First, action will be taken in the area of the management of collecting societies. They are indeed a central actor to increase and diversify the musical offer. However, their functioning has been questioned in terms of transparency, accountability towards their members and management of their finances. The proposed Directive aims at setting international management standards across the EU and should allow right holders to have a say on the management of their rights.

Secondly, the proposed Directive will ease the licensing of music for an online use. The multi-territorial licensing should increase and diversify the musical offer on the internet.

Impact assessment

The proposal for the European directive was the object of an impact assessment\textsuperscript{116}. This document evaluates 2 sets of 4 different policies and concludes on the optimal one. The impact and costs of each option are evaluated relatively to each other. However, the impact assessment is essentially qualitative and no precise estimation of the impact and costs are made. The data was collected through:

- A public consultation on 'Content online';
- A consultation with collecting society and online music providers; and
- A public hearing with almost 300 stakeholders.

Nonetheless, there was no use of external expertise.

Evaluation process

The monitoring will be organised in two phases for the short-term and long-term effects. In the short-term, before the transposition deadline, the EC will organise transposition workshops and meetings with the Member States representatives. Then, after the deadline, an assessment of the transposition will be conducted. In the mid to long-term, the Commission will evaluate the direct effect of the Directive. No precise list of indicators is provided.

The data will be collected through surveys, consultations of national experts, bilateral discussions with the stakeholders and through information given by the dispute resolution bodies. Data gathering will start two to three years after the transposition deadline and the thorough evaluation would take place 5 years after the entry in force of the rules.

**Council Directive 2010/45/EU of 13 July 2010 on the common system of value added tax as regards the rules on invoicing**

The objective of this Council Directive is to simplify, modernise and harmonise the VAT invoicing rules in the European Union. This Directive amends the Directive 2006/112/EC.

**Context and rationale for the European intervention**

The Directive of the Council highlights some barriers to the development of the electronic invoicing identified by the Commission. As the technology evolves, the Commission highlighted the necessity to adapt the conditions and rules concerning the VAT with respect to invoices. To fulfil the objective of simplification, harmonisation and modernisation of the VAT invoicing rules, the national actions taken are not sufficient. On the contrary, they lead to divergence and fragmentation of the legal frameworks. An EU-wide action is therefore needed.

**Qualitative and quantitative objectives**

In the Directive itself there are no quantitative objectives. Four main objectives were defined in the proposal and are retaken in the legal text:

1. **Reducing burdens on business**: this is possible by implementing an equal treatment of paper and electronic invoices and by creating a set of simplified and harmonised rules that reduces the options for Member States.
2. **Promoting SMEs**: the directive achieves this by allowing VAT to be accounted using a cash accounting scheme which allow suppliers to pay the VAT to the competent authority when they receive it.
3. **Increasing the use of e-invoicing**: the directive removes legal obstacles to the transmission and storage of e-invoice and helps considering equally the paper and electronic invoices.
4. **Helping to tackle fraud**: by making rules on invoices clearer and tighter as well as making the invoices more available for control.

**Legal framework and synergy with other directives**

In the proposal document or in the directive itself, no synergies with other texts are emphasised. However, the proposal highlights the complementarity between the Directive and the Commission proposal (COM(2008) 147) on the shortening of the timeframe for recapitulative statements.

**Impact assessment**

The proposal states that the timing was too short to realise a full impact assessment. Information on the potential impact of the directive can be found in the proposal and the attached documents.

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Evaluation process

The evaluation process is usually in the impact assessment document. In the present case there is no impact assessment document and very little information is provided on the ex-post evaluation. The Directive states that by the end of 2016, an independent economic study should assess the impact of the invoicing on the administrative burden for businesses.

**Regulation on measures to reduce the cost of deploying high-speed electronic communications networks**{118} **(2013)**

The proposed regulation aims at lowering the cost of deploying a high-speed electronic communication network as well as increasing the efficiency of this latter across the EU. This will be achieved by promoting a best and joint use of the existing infrastructures and by defining the right incentives to invest in new high-speed communication infrastructures.

**Context and rationale for the European intervention**

Developing high-speed electronic communication networks is critical to achieve a Digital Single Market which, thereafter, would have an important economic impact. The Single Market Act II Communication{119} recalls that an increase in 10 % broadband penetration can have a positive impact of 1 to 1.5 % on the annual GDP and can improve the labour productivity by 1.5 %. Furthermore, the innovation based on this technology has the potential to create 2 million jobs by 2020.

Currently, several barriers appear at different stages of the development of the high-speed electronic communication networks. First, civil engineering works are the most costly; reaching up to 80 % of the total cost. They would be reduced by enhancing cooperation in the works. Then, the existing infrastructures could be used more intensively in order to lower the barriers to market entry and investment. Finally, the telecommunications services in Europe are fragmented along the national borders. Ecorys, TU Delft and TNO (2012){120} estimated the cost of non-Europe in this industry to be 110 billion. The cross-border regulatory differences make the access to national networks more costly and therefore hinder the potential economies of scales. They also prevent the development of innovative services that would emerge with a cross-border high-speed communication network. For these reasons, the European level intervention is necessary in order to provide a number of rights and obligations at the different levels of the deployment of the network.

**Qualitative and quantitative objectives**

The Explanatory Memorandum of the proposal highlights the four qualitative objectives:

- Reduce inefficiencies or bottlenecks in the use of existing physical infrastructure;
- Minimise the bottlenecks related to co-deployment;
- Reduce inefficiencies regarding administrative permit granting; and
- Remove bottlenecks concerning in-building deployment.

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{120} Ecorys, TU Delft and TNO (2012) ‘Steps towards a truly Internal Market for e-communications in the run-up to 2020’.
These measures are expected to allow saving of up to 20 – 30 % of the total investment (i.e. 63 billion Euros by 2020, see details at the end of the section)\textsuperscript{121}.

In addition, the proposal recalls the targets set up in the Digital Agenda for Europe\textsuperscript{122}:

- By 2013, all Europeans should have access to basic broadband; and
- By 2020, all Europeans should have access to speeds of above 30 Mbps and at least 50 % of the European households should have an internet connection faster than 100 Mbps.

**Legal framework and synergy with other directives**

This proposed regulation is based on the Article 114 of the Treaty on the Functioning of the European Union. It is part of the Digital Agenda for Europe and the Europe 2020 Strategy\textsuperscript{123}. The Explanatory Memorandum does not give any more information on complementary directives.

**Impact assessment**

The proposal for the European regulation goes together with an impact assessment\textsuperscript{124}. The analysis is based on qualitative and quantitative data when available, gathered through various sources:

- The Commission organised a stakeholder consultation with all the people involved in the development of the high-speed communication network from the planning phase to the connection with users;
- Two studies were commissioned to complete the information available from other studies and sources;
- The National Regulatory Authorities also provided detailed information;
- The Commission organised events, such as the meetings of the Digital Agenda Europe High Level Group, to discuss the possible actions to reduce the cost of the deployment of a high-speed electronic communication network; and
- Information from the experiences of Member States was collected. For example, the High Level Group of Electronic Communications and the DAE High Level Group allowed the exchange of national best practices and obstacles.

**Evaluation process**

The impact assessment estimates that the measures should decrease by 25 % the cost of rolling out high-speed broadband networks. In order to evaluate the achievement of this objective, a series of general indicators concerning the costs of deployment will be monitored in the framework of the Digital Agenda Scoreboard exercise. No precise list of indicators is provided.

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\textsuperscript{121} Analysys Mason, 2012.

\textsuperscript{122} Commission (EC) ‘A Digital Agenda for Europe’ (Communication) COM (200) 245 final, 19 May 2010.


Every three years the Commission should undertake an evaluation based on surveys, studies and on the data collected with the Digital Agenda Scoreboard exercise. The starting date of this process is not indicated in the documents.

Annexes - saving estimate details

The estimates cited by the Explanatory Memorandum are taken from a study from Analysys Mason (2012). The assumptions made to find these estimates are as follow:

- The existing infrastructure supports 25% of the deployment such that 75% of the Capex is saved for this part;
- 10% of the deployment connects the network to new housing developments, and co-deployment with other operators/utility companies is used, saving 15–60%;
- 5% of the deployment connects the network to pre-wired multi-dwelling units, saving 20–60%;
- In addition, there will also be social, environmental, and economic benefits.

**Directive concerning measures to ensure a high common level of network and information security across the Union**

The proposed Directive aims at facing the insufficient level of network and information security (NIS) in Europe. This will be achieved first by enhancing international cooperation. The Directive will also require key actors of the industry to report serious incident at a national level and will force them to take the necessary step towards a better management of the security risks.

**Context and rationale for the European intervention**

The Explanatory Memorandum of the proposal highlights the existing initiatives at the European level to build up NIS. However, the same text also emphasises the limits of the current legislative framework and the importance of solving this problem. In fact, 57% of the respondents of the Commission's online consultation answered that they had experienced NIS incident that had seriously impacted their activity in the past year.

Digital information systems play a critical role in the construction of a single market and ensuring that they are safe is essential.

At the moment, different levels of preparedness and capabilities are observed across the Member States. This weakens the NIS of the whole Union as an incident in the least protected networks will have an EU-wide impact. In addition, these cross-country differences lead to incoherent and uncoordinated regulatory approaches as well as divergent strategies and standards. Because digital information systems are a borderless instrument, interconnected across the Member States, there is a need to elaborate a cyber security policy for the EU.

Finally, the legislation needs to be extended across industries. In fact, the Explanatory Memorandum recalls that under the current legislation, only telecommunication companies are required to adopt risk management policies and to report serious incidents. Other critical service providers are highly dependent on correct network and information systems.

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1.26 The online public consultation on ‘Improving network and information security in the EU’ ran from 23 July to 15 October 2012.
and should be compelled to the same procedures. This includes banking, stock exchanges, energy generation, transmission and distribution, transports, health, internet services and public administrations.

**Qualitative and quantitative objectives**

As a result of the previous observations, the proposal sets up three qualitative objectives:

- Ensure a minimum level of national capabilities with: the establishment of national competent authorities, the creation of Computer Emergency Response Teams (CERTs) and the setting up of national NIS strategies and cooperation plans;
- Enhance international cooperation with the formation of a network where Member States can exchange information on threats and incidents; and
- Develop a risk management culture and cooperation between public and private actors on the basis of the Framework Directive for electronic communications. This implies that the companies operating in the sectors mentioned above will be required to assess the risk they face and take proportionate action to ensure NIS. Furthermore, any incident will have to be reported to the competent authority.

**Legal framework and synergy with other directives**

The proposed Directive is part of the European Digital Agenda and it completes the European legislation on the NIS and the data protection in Europe. This includes the establishment in 2004 of the European Network and Information Security Agency (ENISA), a data protection regulatory framework and the European Programme for Critical Infrastructure Protection (EPCIP) that sets up a unique approach for the protection of critical infrastructures.

In addition to the proposed Directive, a European Cybercrime centre (EC3) has been set up to fight against cybercrime in the EU. Furthermore, a European level Computer Emergency Response Team, called CERT-EU, has been created. A Directive on attacks against information systems is being discussed to harmonise the criminalisation of specific types of conduct. Finally, the European Union is also discussing the cyber security issues at a bilateral and multilateral level.

**Impact assessment**

The proposal for the European regulation goes together with an impact assessment. The analysis is based on qualitative data gathered from public and private actors concerned with NIS. This includes:

- An online public consultation on ‘Improving NIS in the EU’ (23/07/2012 to 15/10/2012) Member States consultations during events such as the European Forum for Member States (EFMS), bilateral meetings and the EU Conference on Cyber security;
- Discussions with private sector companies and associations in the context of the European Public-Private Partnership for Resilience (EP3R) and in bilateral meetings;
- Discussions with European Network and Information Security Agency (ENISA) and CERT-EU; and

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• Discussions in the context of the 2012 Digital Agenda Assembly.

**Evaluation process**

In order to evaluate the achievement of the three objectives, an evaluation will be carried out every three years (no starting date is mentioned). It will monitor indicators such as:

- **For the objective 1):** The number of Member States having appointed an NIS competent authority and a national CERT and the number of MS having adopted a national cyber-security strategy and a national Cyber incident contingency/cooperation plan.

- **For the objective 2):** The number of competent authorities cooperating via the network and those participating in the secure information exchange on NIS incidents, the implementation of the European cyber incident contingency plan, the convergence in the MS's approaches to NIS, the number of NIS cyber incidents at EU level, the number of conferences/meetings between MS to define goals for NIS, the capacity building activities involving the MS, the EU-wide NIS practices, the data on NIS from the competent authorities, the regular and timely publication of non-confidential information on threats, incidents and response on a common website.

- **For the objective 3):** Regular NIS risk assessment and level of investments by public administrations and key private players, the number of notifications of NIS incidents with a significant impact, governments' access to information and data on actual NIS incidents and the possibility to carry out analysis and compile statistics and to set priorities on NIS accordingly.

The Impact assessment document states that the Commission will use tools such as targeted studies and surveys, comparative implementation reports, expert discussions, workshops, Eurobarometer statistics etc. In addition, the Commission will use the information reported by the Member States on the progress and implementation of the Directive.
NOTES
DIRECTORATE-GENERAL FOR INTERNAL POLICIES

POLICY DEPARTMENT A
ECONOMIC AND SCIENTIFIC POLICY

Role
Policy departments are research units that provide specialised advice to committees, inter-parliamentary delegations and other parliamentary bodies.

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- Economic and Monetary Affairs
- Employment and Social Affairs
- Environment, Public Health and Food Safety
- Industry, Research and Energy
- Internal Market and Consumer Protection

Documents