



Electronic Communications Committee (ECC)
within the European Conference of Postal and Telecommunications Administrations (CEPT)

**GUIDELINES FOR THE IMPLEMENTATION OF IMPACT ASSESSMENT IN
RELATION TO SPECTRUM MATTERS**

Liège, September 2008

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Guidelines for the implementation of impact assessment in relation to spectrum matters

1 INTRODUCTION

This document sets out the basic principles and misconceptions regarding Impact Assessments as well giving some guidance on the stages that should be followed when producing Impact Assessments (IA)¹. Assessing the impact of policy proposals is an essential part of rational and evidence-based policy-making, and is particularly important in relation to spectrum coordination and harmonisation. As is well understood, the radio spectrum is a finite resource that underpins a wide range of commercial, governmental, public interest and social activities. Radio spectrum is coming under increasing demand, especially in the relatively narrow range of frequencies between about 300 and 3000 MHz that provide the optimal combination of propagation characteristics and information carrying ability. It is therefore crucial to secure optimal use of the spectrum resource.

Availability of spectrum is essential to promote innovation and competitiveness and to support a variety of wider public policies in a range of sectors, as transport, public health defence and safety, research and science. A decision to allocate spectrum to technologies or applications may deny it to others and thereby impose costs on businesses, consumers and citizens. It is therefore important in making decisions on spectrum to take account of the implications of those decisions in terms of the consequences, both the benefits and the costs, including the opportunity cost of denying spectrum to other applications. In addition any costs related to restricting the future use of the existing spectrum incumbent when introducing new applications in the spectrum should be considered.

In today's telecoms environment wireless communications is critical to areas such as air travel, emergency services, cellular telephony, sound and television broadcasting, defence and utilities. Therefore the radio spectrum has become a major economic asset to CEPT members. There is also an increasing demand for new wireless applications which need new spectrum allocations. This has led to more scrutiny by industry of the regulatory decisions made by CEPT and a demand from industry for a more open decision making process based on evidence based policy making. In addition one of key duties of national regulators is to show how they are ensuring the optimal use of the radio spectrum under its management. All of the above issues have led to CEPT to review its working processes on how spectrum issues are dealt with in CEPT. Assessing the impact of policy proposals is an essential part of rational and evidence-based policy-making, and is particularly important in relation to spectrum coordination and harmonisation. One of the suggested ways forward was to look at the possibility of introducing Impact Assessments into the decision making process in CEPT, where agreed on a case by case basis.

It is considered that carrying out an impact assessment should precede and be published as part of the public consultation process. The basic approach should be that impact assessments are applied selectively where it will provide a sound basis for decision making.

In some CEPT member countries regulators have a statutory duty to provide impact assessments for all important policy proposals. Normally in these countries the national legislation under which the regulators operate gives a wide degree of discretion on how to interpret this duty in terms both of the decisions that require impact assessments to be produced and the form that they should take.

2 PRINCIPLES OF IMPACT ASSESSMENTS

The general principles that ought to be considered when producing and using impact assessments may be summarised as follows:

- Impact assessments provide a framework for weighing up the costs and benefits of the options. They could be also useful for reviewing existing regulation (to be identified on a case by case basis).
- They aim to consider a wide range of options, including not regulating or status quo in regulatory measures. The option of not intervening should always be seriously considered.
- In developing policy proposals think widely about the possible impacts, taking account of the whole value chain and knock-on effects across the relevant spectrum users (i.e. both in band and adjacent) as well as other sectors in order to minimise any unintended consequences of decisions.

¹ The management of Impact Assessments by ECC is outside of the scope of this report and will be described in a dedicated document.

- To be effective, the process of producing an impact assessment should begin right from the start of a project. It should be a core part of policy-making, not just a bureaucratic add-on.
- Impact assessments should be guided by the principle of proportionality and aim to have a low level of uncertainty by using the relevant data available to reduce this uncertainty. Any areas of uncertainties shall be clearly identified. A decision that is likely to have a wide-ranging impact or impose substantial costs on stakeholders or national administrations should have a more comprehensive assessment than a decision with less significant impact.
- Evaluation of success should also be identified in the impact assessment. How and when the success of the goal/objective of the decision will be measured.
- An impact assessment should not be considered as an economic analysis to challenge the final technical decision but should be a tool to give further justification that the technical decision taken is correct when ECC has considered a number of technical options.

The EC framework for Impact Assessment processes can be consulted at <http://ec.europa.eu/governance/impact>

3 ADDRESSING SOME MISAPPREHENSIONS ABOUT IMPACT ASSESSMENTS

This is intended to draw attention to three misconceptions that have given rise to some concerns about impact assessments. An impact assessment should be an integral part of the policy making process. Concerns that impact assessments will hold back policy-making are groundless. On the contrary, when applied in a proportionate manner an impact assessment is an indispensable part of the process of producing effective policies that achieve the desired goal of securing the optimal use of spectrum for the benefit of all.

Misconception 1: impact assessment is concerned solely with commercial or monetary considerations to the exclusion of social or public policy goods.

An impact assessment should be sufficiently comprehensive to take account of the full range of costs and benefits, whether these are what may be termed ‘commercial’ or ‘social’. It should be based on economics in the widest sense to include non-monetary, as well as monetary, considerations even if these cannot all be quantified.

By way of illustration, the impact of a decision should be addressed for all relevant stakeholders, and the environment (carbon emissions etc).

Misconception 2: impact assessment comprises quantitative cost-benefit analysis to the exclusion of other analytical tools

Quantitative cost-benefit analysis is important when assessing the impact of a policy option but it is not the only technique that is available. Impact assessment involves a number of stages from defining the issue and objective through identifying options and impacts to selecting the best option.

It is recognised that collecting data for quantification is challenging and that, even where data are available, they are unlikely to be precise. It does not follow; however, that impact assessment is not feasible in such circumstances and should be dispensed with. There are other tools that can be applied. For example, costs and benefits can be estimated or expressed as ranges and the sensitivity of the assessment to them can be shown as an aid to determining which are important and so need to be taken into particular consideration. Risks associated with particular options can be identified together with ways of managing those risks to minimise adverse consequences. It is neither necessary nor desirable to limit impact assessment to cases in which it is possible to quantify precisely every parameter of the decision. However when quantitative data are not sufficient, the impact assessment will have some weaknesses and could be subject to misinterpretation. Any impact assessment which does not precisely quantify all the costs and benefits of an option will introduce a wide range of uncertainty. The accuracy of the outcomes of the IA analysis needs to reduce this uncertainty

Any ECC IA should not disregard evidential gaps and uncertainties resulting from the lack of quantitative data. Uncertainties shall be recorded in the interests of completeness and transparency. Probability of such uncertainties shall be assessed and included in the conclusions of the impact assessment in order to quantify the possible consequences of these uncertainties.

In particular, the fact that quantifying the benefits of social or public policy goals might be more difficult than estimating the costs of attaining them does not mean that impact assessment should be foregone. Policy-makers

cannot take a rational decision on whether or not to pursue social or public policy goals if they are not aware of the costs that will be incurred in so doing.

Issues on which the IA will apply subjective judgment shall be recorded. Any subjective judgement should be justified and limited in order to reduce uncertainties in the case where assumptions can be challenged. Any subjective judgement will endanger the ECC deliverables and decisions.

Misconception 3: impact assessment is a lengthy and difficult process that will inevitably slow down or block desired harmonisation

A requirement to produce impact assessments is not a barrier to active, speedy or effective policy-making. Impact assessments are used to proactively improve the quality of decision-making. This involves recognising that the effort devoted to impact assessment needs to be proportionate. It is important to ensure that the depth of analysis is proportionate to the potential impact of the options under consideration.

ECC should identify (on case by case or on a yearly basis) relevant ERO resources to support IA when needed.

Nor does production of impact assessment impose an unacceptable burden in terms of resource required. Given the very substantial adverse consequences of misallocation of spectrum, the cost of assessing the impact of spectrum coordination and harmonisation decisions is likely to be far smaller.

It is also relevant to note that decisions that are justified by way of impact assessment are less likely to be challenged legally, which reduces delays caused by appeals against decisions and so facilitates timely implementation of policy. . In any case, an IA should not delay a technical task/work.

4 WHY IS IMPACT ASSESSMENT IMPORTANT?

The decisions which ECC makes can impose significant costs on operators (commercial and government) manufacturers and users/consumers across Europe and it is important to think very carefully before adding to the burden of regulation. If intervention is justified, the aim should be to choose the least intrusive means of achieving the objectives. These guidelines explain how Impact Assessments could be used to help ECC apply these principles in a transparent and justifiable way.

Impact Assessments form a key part of best practice policy making. They provide a way of considering different options for regulation and then selecting the best option. In selecting and analysing options, the need to further promote the interests of CEPT members, operators, manufacturers and users/consumers is of paramount importance.

Impact Assessments are also useful tools for reviewing existing regulation. They provide a framework for weighing up the costs and benefits of removing regulation, as well as analysing other options.

In identifying options, ECC should aim to consider a wide range of options, including not regulating, that is, adopting the status quo in regulatory measures. Where appropriate, ECC could explore more risk-based, targeted approaches to regulation.

In developing policy proposals, the aim should be to think widely about the possible impacts, taking account of the whole value chain and knock-on effects to relevant spectrum users (both in band and adjacent band) and to third parties. By doing so, ECC should seek to minimise any unintended consequences.

To be effective, the process of doing an Impact Assessment should begin right at the start of a project or policy development process. An Impact Assessment should therefore be a core part of the policy-making process, not a bureaucratic add-on. In carrying out Impact Assessments, the ECC should be guided by the principle of proportionality. Areas of uncertainties shall be clearly identified. This means that a deliverable which is likely to have a wide-ranging impact and/or impose substantial costs on stakeholders will have a more comprehensive Impact Assessment than a decision which will have a less significant impact.

The benefits for operators, manufacturers and users/consumers are potentially largest where markets are open, new entrants can compete against incumbents, investment is encouraged and innovation flourishes. For this reason, the ECC is committed to introducing more flexibility in the mechanisms of frequency spectrum management and development of more effective and targeted regulations while encouraging a policy of deregulation. IA may improve confidence in ECC Decision.

Another benefit of carrying out Impact Assessments is that they provide a mechanism for considering the impact of our work on the interests of the full range of relevant spectrum users and other stakeholders, including operators, manufacturers, users/consumers and governmental spectrum users. In some cases, for example, the impact of policy options on the interests of people living in different parts of Europe or people who are elderly disabled or on low incomes should be considered.

Governmental users, operators and manufacturers can play an important part in the Impact Assessment process as often they will be in possession of the information needed to carry out the analysis. Generally, therefore, the ECC should seek to engage with them at an early stage.

ECC entities should consider each case on its merits and seek approval of the ECC. Subject to approval by the ECC, and ECC entity should apply the guidelines where it is appropriate to do so. In the event that an ECC entity decides to depart from the guidelines, it should set out the reasons for doing so.

5 WHAT IS AN IMPACT ASSESSMENT?

An Impact Assessment is an essential part of considering different options for regulation, and then, using objective criteria, selecting the best option. Subject to the principle of proportionality, an Impact Assessment will generally:

- identify the impacts of each option on the interests of particular groups of stakeholders;
- identify any impacts which each option would have on competition (this requirement may not always be applicable in ECC);
- identify and, where possible, quantify the costs and benefits flowing from the impacts which each option would have (including opportunity costs);
- assess the key risks associated with each option.

Impact Assessments will enable ECC and its stakeholders to identify more clearly the costs and benefits associated with different policy options, providing a higher degree of certainty for relevant stakeholders, who will be able to comment on comprehensive proposals, thus resulting in more effective consultations.

6 HOW DOES IMPACT ASSESSMENT FIT INTO ECC'S POLICY MAKING PROCESS?

Producing an Impact Assessment is a key part of the policy-making process and should influence decisions about whether to intervene and, if so, in what way. The Impact Assessment provides a formal process to record the reasons behind ECC activities/decisions. Most of the considerations outlined in an Impact Assessment are already carried out during the decision process but are not captured in a formal recognised manner.

The process of conducting an Impact Assessment should be an integral part of the ECC work and should usually begin as soon as an issue is started. An Impact Assessment is not an additional step which takes place after a policy decision has already been made. This applies both to new issues and where reviewing existing regulation.

Producing an Impact Assessment also helps make transparent the consideration of the impact of our policies on the interests of different groups of stakeholders. Given the ECC primary goals, it is particularly important for the ECC to identify the impact of options on the interests of operators, manufacturers and users/consumers.

Focusing on competition issues, an impact assessment should only be applicable to ECC policy objectives covering electronic communications networks and services.

It is important that the ECC does try to not substitute itself for national regulators who have the responsibility to ensure competition and market development, taking into account spectrum scarcity and social/cultural issues. An ECC impact assessment shall not duplicate the impact assessment from national regulators and shall be independent from those national impact assessments.

An impact assessment which determines the impact on competition should focus on electronic communications networks and services by excluding governmental services where competition is not relevant.

6.1 When do ECC need to do an Impact Assessment?

Impact Assessments form a key part of best practice policy-making and they should be carried out whenever considering measures which are likely to have a significant impact on the market. The nature of the Impact Assessment will depend on the type of decision being made. An Impact Assessment relating to a wide-ranging strategic review will be different to an Impact Assessment concerned with a detailed, narrowly-focused policy proposal.

When developing Decisions or Recommendations or adopting policies/approaches, it is recommended that the ECC requests or approves an ECC entity to carry out an Impact Assessment, on a case by case basis, if these are likely to involve the adoption of new policies or approaches of strategic importance or have a significant impact on the market as well as on the general public.

6.2 What form should an Impact Assessment take?

ECC should be committed to being both accountable and transparent in its approach to regulation. Although the analysis set out in an Impact Assessment should inform and underpin the main body of any consultation on a policy proposal, it is important that an Impact Assessment should be clearly identified. If the Impact Assessment is a part of an ECC deliverable or a policy document, it should generally be set out in a separate section or annex, although in many cases the Impact Assessment is likely to be a summary of the analysis.

7 WHAT STAGES ARE INVOLVED IN AN IMPACT ASSESSMENT?

A key principle is that an Impact Assessment should be proportionate to the likely impact of the decision. This means that the more substantial and/or wide-ranging the impact on stakeholders, the more comprehensive the Impact Assessment should be. This means that there would normally be a deeper level of analysis. However, the depth of analysis will also depend on the information available. Credibility of the Impact Assessment will be dependent on the quality and accuracy of quantitative data for evaluation of costs and benefits. Care will be taken to record when data is lacking or partial. The report shall clearly state the resulting uncertainties. Issues on which the IA will apply subjective judgment shall be recorded.

The level of detail included in Impact Assessments will therefore vary and, as mentioned in the previous section, an Impact Assessment relating to a detailed, narrowly-focused policy decision will look different to an Impact Assessment concerned with a wide-ranging strategic review. Such reviews are likely to examine high-level options concerned with ECC's strategic direction and although these options would be likely to have a substantial and wide-ranging impact and would need to be examined carefully, it may not be possible, particularly at an early stage of a review, to quantify the costs and benefits associated with such options. Any impact assessment which does not precisely quantify all the costs and benefits of an option will introduce a wide range of uncertainty.

A wide-ranging strategic review which concerned the ECC strategic direction without quantify costs and benefits associated with such options is not an impact assessment.

Generally, it should be possible to take an initial view of the likely impact of a decision at the start of a project to identify data which are needed to perform the analysis.

Producing an Impact Assessment will normally involve 7 stages:

- Identification/description of the issue/problem(s) (stage 1);
- Describe the policy /measure and identify the objectives (stage 2);
- Identify and describe the regulatory options (stage 3);
- Determine the impacts on all stakeholders including relevant spectrum incumbents (stage 4);
- Determine the impact on competition (if relevant) (stage 5);
- Assess the impacts and choose the best option (stage 6);
- Monitoring and evaluation (stage 7);

Each of the six stages in the process is examined in more detail below:

7.1 Stage 1 – Identification/description of the issue/problem(s)

This stage should be initiated either the ECC, an ECC WG or by request from the EC by identifying when they think an Impact Assessment is needed.

If being submitted to the ECC by a working group this should contain a short report identifying and describing to the ECC what they believe to be the issue/problem.

7.2 Stage 2 – Describe the policy measure and identify the objectives

This stage should be where the ECC shall approve the description of the policy issue and identify the objectives that should be attached to the IA.

It should be noted that these guidelines do not substitute the role of any national or EU regulatory entities in any sector which have the responsibility to ensure competition and market development, taking into account spectrum scarcity and social/cultural issues.

This stage should also identify the issue(s) that need to be considered and to assess how the interests of stakeholders are affected. The main policy issue(s) and background to the situation should be outlined, including the scale of the problem and the main drivers. Having identified the relevant issue(s) and identified the key stakeholders, the policy objective or outcomes being sought should be clearly defined. These should be linked to the wider ECC policy goals or checked that they are consistent with them. The objectives should be SMART (*S* – specific, *M* – measurable, *A* – achievable, *R* – realistic and *T* – Time) and where there are links between objectives these should be highlighted. Objectives can be defined into 3 broad areas:

- general objectives - overall goals in terms of outcome or ultimate impact
- specific objectives - immediate objectives of the policy and it's direct and short-term effects
- operational objectives - outputs in terms of goods or services that the intervention should produce.

In circumstances where it is necessary to balance a number of different objectives, ECC should seek to explain how it proposes to do this. However, it should avoid being too prescriptive at an early stage as it may be useful to choose options that reflect different ways of balancing the objectives. In analysing these options it should then be possible to explore the extent to which they would meet the different objectives.

Moreover, an impact assessment should enhance ECC technical decisions, not delay the technical work, and shall be an aid to better and more transparent decision-making. However, ECC does not substitute itself to national regulators which have the responsibility to ensure competition and market development, taking into account spectrum scarcity and social/cultural issues. An impact assessment shall not be considered as an economic analysis to challenge the final technical decision but shall be considered to be a tool to give further justification that the technical decision taken is correct.

Due to policy issues that IA may support, ECC shall be involved in this first round of decision process and identification of policy issues and objectives. ECC WGs may not have enough legitimacy to decide on policy issues but they shall assist ECC to describe the issues and options to be considered. The objectives of an impact assessment shall be SMART (see above).

7.3 Stage 3 – Identify and describe the regulatory options

The process of identifying and describing the regulatory options should involve considering different types of regulatory approaches, for example, the provision of consumer information to make markets work better or more targeted, risk-based regulation. There are likely to be different approaches to selecting options:

- In straightforward cases there will be just a single issue that needs to be addressed; in which case the set of options selected should only need to address that issue.
- In other cases there will be multiple issues i.e. achieving the policy objective will require a number of issues to be addressed. In cases like this it may be necessary to identify the options available to address each of the issues.

An extensive list of options should be drawn up. The list then would be refined indicating why options were not considered and a short list created would be subject to further in-depth analysis.

When identifying the possible options, ECC should generally start by considering the option of not changing the regulatory framework, either by not introducing regulation or by retaining existing regulation. This option – ‘Do Nothing’ will be the benchmark or base case against which other options will be judged even though it may not be always practical.

Another option which it will often be useful to consider is the ‘wait and see’ option. This means no new intervention immediately, but a commitment to monitoring the situation and reviewing the position at a later time on the basis of further evidence. For example, it may be helpful to carry out research prior to performing the review.

It may also be possible to revise the regulatory framework, either by reducing/increasing regulation or removing regulation altogether. If it proves difficult to identify a range of options, it may be helpful to review the policy objective: if it has been framed too narrowly this may have inadvertently limited the range of options available.

The trap of considering only the following three options is to be avoided: the ‘Do Nothing’ Option, the Preferred Option, and the Ridiculous Option that nobody wants.

It is under the ECC WGs responsibility to identify the relevant options.

7.4 Stage 4 – Determine the impact on stakeholders

Once the short-list has been drawn up, for each option identify the costs, benefits and impacts to determine the likely effects (for example economic, social, environmental) on all stakeholders, including consumers and relevant spectrum users of the concerned band. Techniques such as cost-effectiveness analysis, multi-criteria analysis and cost-benefit analysis can be used. This stage of the process should help ensure that the interests of the full range of relevant stakeholders are considered and not just those with the loudest voices. Stakeholders whose interests should be considered will vary from case to case. Therefore engagement with stakeholders should be undertaken at the earliest stage possible.

In looking at the impact on stakeholders, it is necessary to apply the principle of proportionality. This means it will often be appropriate to identify the groups or sub-groups of stakeholders who might be most affected and focus on the impacts on those groups.

Information gathered should always draw upon available data where possible. The various impacts on each stakeholder group should be identified. A qualitative assessment of which impacts are the most significant can then be undertaken. Further advanced analysis can include what are the timescales involved, what are the possible unintended impacts, what is the likelihood and magnitude of the impact. The assessment should look at both short term and long term impacts. If these conflict, an assessment needs to be made to determine which best meets the wider policy goals.

Identification of costs which are relevant should be carefully studied and identified.

- An Impact assessment, based on the cost and benefit analysis, shall take into account various full range of costs and benefits. Section 8.5 of this document goes into more detail on the range of costs and benefits that are being recommended by ECC to be taken account of in an IA being produced by ECC.

Costs/benefits and impact shall also cover a large number of markets of CEPT administrations and not only a few of them.

When considering an option, the IA shall include the expected reactions from the stakeholders to the decision which could be implemented. The impact of the measures shall be considered on a short and a long term basis and shall be taken into account in the analysis.

Quantitative data

An impact assessment, based on a cost and benefits analysis, shall take into consideration qualitative and quantitative data as describe in stage 6 of the impact assessment (IA) guidelines;

ECC deliverables may be the source of binding decisions within other entities: EU or national level. Reducing uncertainties of the cost benefit analysis is a prerequisite in order to avoid a challenge of a binding decision resulting from an ECC deliverable based on an IA.

Mechanism to collect quantitative data

When quantitative data is not sufficient, the impact assessment will have some weaknesses and could be subject to interpretation. An impact assessment which does not quantify the costs and benefits of an option will introduce uncertainty.

Collection of data shall be clearly defined in order to address all CEPT countries. The source of quantitative and qualitative data shall be recorded.

7.5 Stage 5 – Determine the impact on competition (if appropriate)

It will normally be appropriate to identify any impacts which each of the options would have on competition. Where the policy objective involves promoting competition in a particular market, this analysis will be an integral part of the policy-making process.

Where promoting competition is not the main focus of the policy, it may still be important to assess the risk of options having a detrimental effect on the operation of markets and to factor this into the decision-making process. By doing so, it may be possible to lessen or remove significant adverse effects by modifying the proposed options or finding alternatives. However, it is important to distinguish between impacts on competition that would happen anyway and would therefore be taken into account in considering the option of no new intervention and impacts on competition that would happen as a result of other options. ECC should not generally proceed with a policy option unless any negative impacts on competition were outweighed by the benefits that would accrue.

Impact assessment is a method which could be used to consolidate the ECC decision and justify any technical decisions made. It could also provide more transparency to the drafting process of the decision.

An impact assessment which determines the impact on competition should focus on electronic communications networks and services. Therefore this may exclude government services where normal competition issues are not usually relevant.

7.6 Stage 6 – Assess the impacts and choose the best option

ECC policy goals will play an important part in making decisions. Encouraging a policy or regulation means that there must be a clear case for it and the prospective benefits should exceed the costs. If a case for regulation can be made, the least intrusive means of achieving the objective should be taken.

Choosing the best option will involve an assessment of the costs, benefits and effectiveness of regulatory measures which would flow from the options selected. However, this will generally inform rather than determine the decision. There are two main reasons for this. First, fulfilling policy goals will often mean taking account of issues that would fall outside a narrow consideration of costs and benefits. Secondly, it will often be difficult to quantify all the costs and benefits, in which case, it may be hard to identify which option has the highest net benefit and choose an option solely on that basis. Nevertheless, every impact of the chosen option would result in costs and/or benefits. If such costs and benefits cannot be quantified (or it is not proportionate to quantify them) they should still be described and taken into account in making the decision.

When quantitative data is not sufficient, the impact assessment will have some weaknesses and could be subject to interpretation. Any impact assessment which does not precisely quantify all the costs and benefits of an option will introduce a wide range of uncertainty.

The accuracy of the outcomes of the IA analysis needs to reduce this uncertainty.

Any ECC IA should not disregard evidential gaps and uncertainties resulting to the lack of quantitative data further to any consultation process. Uncertainties shall be recorded in the interests of completeness and transparency. Probability of such uncertainties shall be assess and included in the impact assessment to quantify the consequences of the uncertainties.

Issues on which the IA will apply subjective judgment shall be recorded. Such subjective judgement shall be rather limited in order to avoid uncertainties in the case of using assumptions that may be challenged.

It may be necessary to develop criteria by which to rank the options under consideration. These criteria should be linked to policy goals, in particular, the need to minimise the burden on operators, manufacturers and users/consumers and relevant incumbent and spectrum users (including governmental users).

Another factor to bear in mind is that we may have to take into account other initiatives which are designed to tackle the same issue. The existence of other initiatives will complicate our analysis and may make it difficult to quantify the costs and benefits that would result directly from ECC action. Nevertheless, the potential impacts of both ECC action and those resulting from other initiatives should be taken into account in our decision-making.

7.6.1 *Analysing costs and benefits*

A key part of assessing which is the best option will be an analysis of the benefits and costs that would flow from each option. In doing so, the following principles should be applied:

- All significant impacts of regulation are to be included (regardless of whether the resulting costs and benefits can be quantified) and the types of costs and benefits should be spelled out e.g. whether the costs or benefits are financial or non-financial.
- In analysing costs and benefits it is necessary to apply the principle of proportionality, which means it will often be appropriate to focus on the most significant costs and benefits and not spend a disproportionate amount of time considering costs and benefits which are relatively minor.
- As far as possible, it should be made clear who bears the costs and who receives the benefits, including those flowing from the impacts on the interests of particular groups or sub-groups of stakeholders. Assumptions should be clearly spelt out.
- Only costs and benefits that would be reasonably incurred as a result of an option being implemented (as opposed to costs and benefits that would be incurred anyway) should be taken into account.
- Where there is significant uncertainty about the impact of an option, it is good practice to present an analysis of the sensitivity of the results to changes in some of the most important variables. This should help ensure that the Impact Assessment and the final policy decision are more robust.
- The cost of complying with regulation e.g. of providing regulatory information or adopting new technical requirements, should be identified if possible, as well as the possible negative impacts of regulation.
- Dynamic benefits and costs should be taken into account e.g. regulation may have a wider benefit in terms of enhancing the productivity and competitiveness of the sector.
- Consideration of the opportunity costs need to be understood e.g. what other services/uses would be precluded from using the spectrum.
- Costs and benefits for both relevant commercial and governmental services should be considered.
- Costs and benefits shall not focus only on the sole electronic communications market development but have to be globally assessed with incumbent services' economical interests, in particular public interests.
- Costs and benefits in sectors outside the usual knowledge of ECC will be performed through an iterative consultation process between stakeholders.
- When introducing a new service/application, the impact assessment should cover the evaluation of consequences for the existing services in the band sharing the band with the newcomers.
- Refarming issues, when they are relevant to the options under study, shall also be considered.
- Costs/benefits and impact shall also cover a large number of markets of CEPT administrations and not only a few of them. Benefits that CEPT member states could gain (VAT, income taxes, spectrum fees) shall be taken into account.

7.6.2 *Quantifying costs and benefits*

- Costs and benefits should be quantified where possible, although benefits in particular may be hard to quantify as they tend to be more uncertain and are often spread across many operators, manufacturers and consumers/users and relevant spectrum users.
- The reference in data provision shall be clearly identified. Mechanism for data collection and weaknesses of it shall be recorded.
- Precise quantification will often not be possible and spurious accuracy should be avoided.
- Where costs and benefits cannot be quantified precisely, the aim should be to give broad estimates e.g. in the order of €x million, or ranges of costs and benefits e.g. between €x million and €y million. It is also helpful to form an idea of the relative size of the respective costs and benefits. As a minimum, costs and benefits should be described qualitatively.
- Any IA should not disregard evidential gaps and uncertainties resulting from the lack of quantitative data further to any consultation process. Uncertainties shall be recorded in the interests of completeness and transparency. Probability of such uncertainties shall be assessed and included in the impact assessment to quantify the consequences of the uncertainties.
- Where it is possible to quantify costs and benefits, the appropriate discount rate/s should be used to discount future costs and benefits and work out the net present value.
- Any impact assessment which includes a large amount of commonality with national impact assessments conducted by regulators could introduce distortion within CEPT markets. Therefore the mechanism to collect any data available in ECC shall be clearly defined in order to address also CEPT countries where impact assessment is not a normal duty. The reference of the source of quantitative and qualitative data shall be recorded in any impact assessment.

7.6.3 *Assessing risks and possible unintended consequences*

It is also important to consider the risks relating to particular options, for example, the risk that the intended impact would not be achieved or would be delayed by problems with implementation. An option which has a high net benefit, but which carries a high risk, might be less attractive than a lower risk option which has a lower net benefit. The degree of risk will be influenced by the likelihood of it occurring and the extent to which it may be possible to mitigate the risk.

A related issue is that of possible unintended consequences. In selecting and assessing the different options, the aim should be to think widely about the possible impacts, taking account of possible knock-on effects across the stakeholders, including other parts of the value chain, and on existing regulation. By doing so, the ECC should seek to minimise any unintended consequences, but it is important to be alive to the possibility that they may occur.

The risk of non-compliance with a decision should also be considered. The assessment of the costs and benefits that would flow from an option should therefore be based on a realistic level of likely compliance. This will involve exploring the incentives to comply, whether compliance will be practically possible and the costs of enforcement.

7.6.4 *Analysing distributional impacts*

The distributional impacts which the different options would have should also be taken into account and, where possible, quantified. A distributional impact is an impact which is transferred or unequal e.g. a policy might benefit consumers in urban areas at the expense of consumers in rural areas, while the net benefit remains the same. Clearly this would be a relevant consideration even though it would not be revealed by a narrow analysis of the costs and benefits.

When considering an option, the IA shall include the expected reactions from the stakeholders to the decision which could be implemented. The impact of the measures shall be considered on a short and a long term basis and shall be taken into account in the analysis.

7.6.5 *Understanding the opportunity costs*

Assessing opportunity costs is fundamental to assessing the true cost of any course of action. In the case where there is no explicit accounting or monetary cost attached to a course of action, ignoring opportunity costs may create the illusion that its benefits cost nothing at all. Note that opportunity cost is not the sum of the available alternatives, but rather of benefit of the best alternative of them.

7.6.6 *Cost to ECC members of implementing options*

Another consideration is the cost to ECC members of implementing an option. Relevant implementation costs should be identified, and the ECC should bear in mind that these costs may place a burden on stakeholders in terms of increased administrative fees. Other things being equal, this might make the option less attractive than an option with lower implementation costs.

7.6.7 *Assessing when costs and benefits are likely to be felt*

In assessing the costs and benefits of different options it is important to consider when and how they are likely to be felt. This may have the following benefits:

- It will be easier to assess the actual impact of interventions and feedback lessons learned into future policy-making.
- We will know when we expect to be able to withdraw the regulation or at least review whether it continues to be necessary.
- It will assist in considering calls for further intervention. If the need to intervene is required again too quickly there will be a risk of undermining or negating the initial intervention. Therefore, it may be better to resist calls for additional regulation until the initial intervention has been given time to take effect.

7.7 Stage 7 – Monitoring and evaluation

For regulations to be effective they need to be able to be monitored and where necessary enforced. Impact Assessment sets out how the proposed measure should be complied with and how it will be monitored. Also defined should be what data is needed and who will provide it.

To be able to evaluate decisions in the future, it is important to set out clearly in the Impact Assessments what the expected outcomes are and when they are expected to occur. Evaluation is a key part of the policy-making process and the lessons learned should feed into future work.

To inform the subsequent evaluation, it may be appropriate to put in place a programme of research. Evaluation is likely to encompass a range of issues that may be examined at different points in time, including:

- whether timetables for action have been met;
- whether the expected costs and benefits have materialised;

whether longer term dynamic benefits have been felt.