ADAPTIVE FORESIGHT IN THE CREATIVE CONTENT INDUSTRIES: ANTICIPATING VALUE CHAIN TRANSFORMATIONS AND NEED FOR POLICY ACTION

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1 The opinions of the author do not necessarily represent those of the European Commission (EC).
Summary

The creative content sector is becoming a major source of next-generation jobs across the world and the growing adoption of ICT is having a strong impact on the way creative content goods are produced, distributed and consumed. Recognising the strategic importance of this sector, the EC decided to carry out a FTA of the creative content industries to deepen its understanding of the disruptive transformation the sector is undergoing and identify possible future paths.

The creative content sector was defined as activities involving the creation and distribution of goods with an intrinsic cultural, aesthetic or entertainment value and the FTA covered the following sub-sectors: music, films, broadcasting, computer games, publishing and cultural spaces. We opted for an adaptive foresight methodology and defined five main building blocks: a sector analysis, a real-time online Delphi, a scenario building, an analysis of issues, and a final policy analysis.

The initial sector analysis helped identify the key characteristics of the creative content value chains, investigating each of the dimensions of content creation, distribution and consumption for the various sub-sectors selected. While the analysis provided a picture of emerging trends, that picture was one of uncertainty.

The Delphi survey that followed was implemented online and real-time, which addresses the problem of large drop-out rates in traditional surveys. The Delphi revealed a small number of topics where experts did not reach consensus as to their likely development. These topics together with conclusions from the sector analysis served as an input to the scenario development.

During a restricted two-day expert workshop four scenarios for the future of the creative industries were developed.

They led to a separate analysis of issues which was initiated at another workshop with around 25 experts whereby the scenario broad lines and key features as well as their potential implications were presented. This was a good means to stimulate discussions, but views were split depending on which part of the creative content sector experts represented and their respective position on these sub-sectors. This made it difficult to reach any consensus.

As a final step in our methodology the policy analysis aimed at deriving from all the above stages some policy options for a thriving European creative content sector in the future. The difficulty was to tailor the results of the FTA to specific needs of the client, like R&D policy priority setting.

In conclusion the methodological setup of the FTA exercise worked quite well and generated several forward looking perspectives on the creative content sector, however it did not lead to a consensus on the future of the sector. This in turn raises the question of applying an FTA to such a diverse sector where uncertainty dominates in all – technology, economic, social and structural – dimensions.
1 Introduction

1.1 Strategic importance of the creative content sector

The creative content sector is becoming a major source of next-generation jobs across the world. The creative industries are estimated to account for more than 7% of the World’s GDP and in the OECD countries these are growing at an annual rate of between 5 and 20% (these figures include advertising and marketing, besides cultural content). The global entertainment and media industries are estimated at US$ 1,255 billion for 2004. North America represents the largest market with 44.4% share, equivalent to US$ 528 billion for the United States of America and US$ 30 billion for Canada. Europe, Middle East and Africa (EMEA) are second with US$ 407 billion, followed by Asia with US$ 253 billion and Latin America with US$ 36 billion. The global entertainment and media (E&M) industry is forecasting to grow at a 6.6% compound annual growth rate (CAGR) to $1.8 trillion in 2010. New distribution channels, such as broadband Internet access and wireless communications are driving the significant growth in this industry. Europe’s strong cultural heritage provides a sound basis for this sector and this is reflected in a 29% world market share (worth $130 billion) in 2000. In terms of turnover, the top ten global media companies list includes at least six European companies, among which we can find Vivendi Universal, Bertelsmann, and the TV channel ARD.

The growing adoption of Information and Communication Technologies (ICTs) is having a momentous impact in all areas of the economy, changing the way goods are produced, distributed and consumed. The creative content sector constitutes, as a consequence of the symbolic, highly digitisable nature of the goods it produces, a particularly suitable environment for ICT application, which has become increasingly pervasive throughout the last two decades, with radical consequences. The transformation process of the creative content value chains already at work is likely to continue in the future but the direction it will take is subject to technological, economic, institutional and social uncertainties.

1.2 Need for FTA

Recognising the strategic importance of the creative content sector for growth and jobs in Europe and its contribution to cultural diversity, the EC deemed it necessary to deepen its understanding of the disruptive transformations the sector is currently undergoing and assess possible paths for the future.

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5 IDATE (http://www.idate.fr)
The sector is characterised by disruptive developments, likely to affect issues ranging from the impact of ICT innovation on the structure of the creative content industries, the transformation of business models and adaptation of market players strategies to the evolution of user behaviour, at all stages of the creative content process, from production through distribution to consumption. Changes are expected on all these stages. However, due to a very high degree of uncertainty, it is very difficult to identify ex ante the most crucial dimensions and issues for impact assessment. These will emerge only in the context of the analysis and exploration.

Moreover, we are dealing with a highly heterogeneous sector covering very diverse activities, ranging from design, fashion and visual arts to music, books and audiovisual content, depending on the perspective adopted, which adds to the difficulty of the exercise.

The methodology designed and implemented aimed at exploring the future evolution of the creative content industries and identifying priority areas for policy making and R&D priority setting. It was set within an adaptive foresight framework, based on five main building blocks that seemed best suited to deal with the high level of uncertainties characterising the creative content sector and its future evolution. Against this background, the use of scenario technique was regarded as absolutely necessary, and the same goes for the mix of open participatory and restricted process elements to tackle sensitive policy issues. The high degree of uncertainty also entailed that impact assessment (or even impact identification) became a cross-cutting task.

This paper describes the FTA process and methodology used and assesses the results achieved. Starting with a definition of the creative content industries, we present our methodological approach, analysing its most important elements and showing how we implemented those in combination. We also highlight some of the outcomes of our research and demonstrate how the FTA and methodology chosen succeeded in building strategic knowledge in support of a sustainable European creative content sector in the future. Lessons learned in terms of impact on policy making are also presented.

2 Delineation of the creative content sector

The first challenge encountered when dealing with creative content industries is their diversity. The creative content sector comprises a wide range of heterogeneous activities with diverse levels of industrialisation and commoditisation (ranging from, for example, sculpture to advertising), and radically dissimilar value chains. Because of this diversity, it is not possible to propose a general framework capable of capturing, in a meaningful way, the nuances and idiosyncrasies of this rich variety of activities. This has made it necessary to pragmatically select a sub-set of them that appear to be particularly important considering the background of our project, with its focus on the impact of ICTs on the production and distribution of creative content goods.

We therefore defined the creative content sector as the collection of activities involving the creation and distribution of goods with an intrinsic cultural, aesthetic or entertainment value, which appears linked to their novelty and/or uniqueness. This definition (which, it should be noted, does not specify the direction of the linkage between “novelty” and “value”) makes it possible to adopt a tolerant characterisation of our subject matter avoiding traditional differentiations between “high” and “low” cultural activities, or the use of attributes that are restrictive such as “intellectual property” to identify them. It also establishes a clear separation
between creative content and media industries (where the value of the content is closely linked to its accuracy and timeliness).

As a result we have focussed our analysis on the following sub-sectors: music recording and publishing, film production, broadcasting (Radio and TV), computer games, publishing (newspapers and books) and cultural spaces (museums and libraries).

**Figure 1: The creative content sector**

![Image of the creative content sector]


This looks actually like a heterogeneous bundle of activities, with very different historical roots. However, in most of the above sub-sectors there is a creative effort aimed at the production of the master copy of a good, which is relatively easy to duplicate and distribute digitally (digitise), and as such they follow a publishing or broadcasting model.

In general, this delimitation and definition of the Creative Content sector emphasizes those types of creativity-based products and services that are characterised by a high degree of commoditisation and industrialisation, and that are addressed primarily to a mass audience. This definition allows, for instance, distinguishing the creative content sector from the production of individual pieces of arts.

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3 Adaptive foresight applied to creative content

3.1 Choice of methodology

In order to achieve our objective of delivering forward-looking intelligence on the future evolution of the creative content industries, we opted for an adaptive foresight process, adaptive in terms of stressing the need to adapt to changing contextual developments (as opposed to stressing the ability to shape the future), in terms of assigning iterative monitoring and learning a central role in foresight, and in terms of adding targeted strategy process to the usual open participatory processes of anticipation. This methodology consists of five main building blocks as shown in Figure 2 below: a sector analysis, a Delphi survey, a scenario process leading to an analysis of issues and a final policy analysis.

At each stage of the above process, a different level of participation was embedded. The sector analysis was carried out by the project team through literature review and expert interviews. The first findings were then submitted to the assessment of a large number of experts via a broad participatory tool, the Delphi survey. This fed into the scenario development, which was based on the involvement of a restricted number of experts. The next stage was open to broader participation again, through a validation workshop where stakeholders from the various creative content sub-sectors and policy makers were invited to give their views on the scenarios developed in order to identify in consensus most likely developments and critical issues for further policy discussion. The final policy analysis stage was restricted to discussions with the client, i.e. the European Commission. The various degrees of openness/closeness enabled us to handle better the complexity and uncertainties about the creative content sector evolution as well as the diversities of views from different stakeholders.
An impact assessment was possible (and necessary) to a varying extent at every stage of the process:

- In the initial sector analysis, impact chains were studied, although not in a systematic way, so as to gain an in-depth understanding of the sector and its transformation.
- The Delphi was meant to help reduce the uncertainties associated with some of the impacts we came across in the analysis.
- The scenarios aimed at synthesizing the insights about potential impacts (including the differences in opinion about the impacts of some trends). In order to tackle the diversity of the creative content sub-sectors, the scenarios addressed two levels, namely the Creative Content sector in general and specificities of at least some sub-sectors.
- After the scenario stage, we extracted “key issues”, which in the end make up the main dimensions for the overall impact assessment. In our case, these were mainly sub-dimensions of two sustainability dimensions, namely of the “social” and the “economic” ones. These two dimensions are regarded as particularly important and controversial in the case of the Creative Content sector. Moreover, in view of major uncertainties, any attempt of environmental impact assessment would have gone far beyond the scope of the project.
- The policy analysis phase aimed at looking not only at the issues as such and potential European policies to address them, but also at differences in assessments and interests of stakeholders.

Each of the stages is explained in detail in the following sections.

3.2 Step 1 – Sector analysis

The first step in our process is the analysis of the sector in terms of the actors, business models, technology trends, societal developments, and user behaviour influencing the evolution of the sector.

To start with we proceeded to define the scope of our research by analysing the characteristics of creative content goods. As mentioned earlier the creative content sector being very diverse and heterogeneous it was necessary from the outset to focus on a sub-set of activities most likely to be impacted by ICT innovation and where creativity and culture play an important role. This led to the selection of music, books, video and films, games, museums and cultural spaces as the focus of our research.

Within these boundaries, we then analysed the key characteristics of the creative content value chain in a generic manner, looking at the role of the various actors on the value chain (e.g. publishers, retail…), investigating key aspects of the creative content goods like the role of digitisation, IPR or channel diversification. This provided a general framework, which we could apply to each of the creative content sub-sectors defined.

In a next step we analysed the three dimensions of content creation, content distribution and user interaction for each of the above activities (see Figure 3 below). This enabled us to understand and describe the transition from traditional business models to online ones and identify the impacts of digitisation and other trends on the various steps in the value chain, as well as on the actors’ strategies.

Having characterised the industrial, business and technological characteristics of the creative content sector and its sub-sectors, we completed our understanding with an assessment of the European position both in qualitative and quantitative terms, based on the analysis of company documents, business and policy reports.
The first phase of our analysis gave us an understanding of ways in which ICT innovations challenge traditional value chain structures and business models, but further analysis was required to assess the role and impact of technology trends and user behaviour. This was done by means of reviewing emerging ICT innovation and identifying areas where these will have a significant effect on creative content. We described relevant technologies within our established framework, i.e. classifying them within creation, distribution and user interaction and we highlighted some essential trends of change, identifying opportunities and threats for the European industry in each of the sub-sectors. To complete the picture of the creative content sector, we analysed demand issues by using data from consumer surveys and developing case studies on failed instances of product introduction which helped unveil the mismatch between consumer expectations and perceptions on the one hand and the opportunities offered by a technology on the other.

Figure 3: Actors and key technological areas in the video-game sub-sector
Key technology trends:
- Increasingly decentralised production of content; technologies for content sharing/ control
- New business models with transformation of creative content goods into services
- Importance of communities of users as sources of talent, information, feedback and content via tools to create, access, reconfigure and share content
- Innovative business models based on transaction fees, micro-currencies, economies of reputation and targeted advertising.
- ‘winner-takes-all’ dynamics supported by networked platforms
- Development of innovative tools for content creation, publication and online access
- ‘long tail’ phenomenon and democratisation of the spotlight
- Increasing pressure on users’ attention and increased difficulty to navigate content

Important user demand trends:
- Industry needs to answer new patterns of use induced by new content delivery platforms and more constant patterns (e.g. sharing, social relationships, interactions)
- Company-customer interactions shift from the single unit in a group to more interconnected and less predictable behaviours
- User demographics (e.g. age and gender) influence use patterns although their weight should not be overestimated when trying to predict future patterns of use
- Usability, interoperability, communication and attention will remain irrespective of other developments.

The analysis was successful in providing a picture of emerging trends that impact the creative content sector. However the picture that emerged was one of uncertainty, with two potentially dominant future situations. The first is characterised by growing opportunities for the sort of small, flexible and talented players that populate the European creative milieus, thriving in an open environment where ICT innovation enables direct communication with distant or nascent audiences. The second involves the emergence of proprietary and convergent platforms for content selection and distribution. The risk of the first situation is that the overall size of the market for content may be smaller, more fragmented, and subject to a lower rate of growth precisely because of the absence of platform (mass markets) and commodity orientation. The risk of the second situation is in the negotiation for access, with the ensuing redistribution of revenue shares in favour of powerful platform owners, essential gatekeepers of audiences in the new convergent context, thus excluding smaller players.

On the demand side our analysis revealed the contrast between the relatively stable, unchanging nature of consumer demands and the radical changes brought into the creative content sector by digital technologies as well as the shift towards networked communities whereby people, and especially the younger generations, constantly look for means to maintain

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social relationships real-time, wherever they are. In this context, customer expectations need to be carefully managed for a company to remain successful and building trust and awareness are part of the equation. While demographics show clear patterns for the younger generations, any extrapolation is fraught with risks, as their attitude may evolve when they become adults. Finally, content is more important to consumers than the technologies to access or use it, and companies should not lose sight of this when defining their strategies and business models.

The above technology and social/societal trends and the way they interact with one another provide interesting insights for market players devising business plans but they are equally relevant for policy makers at the point of defining policies in support of the creative content sector development. However the uncertainties about the direction of change and the radically different consequences this could have on social and economic sustainability of the sector in Europe made it impossible after the analysis stage to draw any first conclusions upon which we could base our policy analysis. The Delphi was therefore useful to address in more depth these uncertainties. In addition as neither of the two possible future developments seemed to be more likely than the other it was necessary to add the (originally not foreseen) scenario process in order to address this systematically.

3.3 Step 2 – Delphi survey

We used the Delphi method to elicit views from a wide-ranging audience on current and future trends and related variants, uncertain issues, potential disruptions and the likelihood of possible trends/issues identified.

The EPIS-Delphi was implemented as an Internet-based "Real-Time Delphi" (RT Delphi). Like in a classical two-round Delphi survey, experts in a broader sense participated in a survey, in which they had to assess topics formulated in statements about the future. In a Real-Time-Delphi, the participants do not only judge twice but can change their opinion as often as they like when they see the aggregated results of the other participants. The RT Delphi is a way to address the problem of the large dropout rate in online surveys in general and allows that all answers can be taken into account until the end of the survey. An initial concern was the difficulty to control the sample and that more active persons might be able to influence the sample in an above-average way. However, our experience shows that results of RT Delphis tend to be robust.

Theses were developed in a rather conventional way using a mixture of analytical desk research and expert workshops by delineating and structuring the field, resulting in a set of 36 uncertain issues and open questions in six thematic blocks. Experts were asked to assess the importance of each thesis in different dimensions (economic, scientific, society, quality of life) and the possible actions that could speed up or strengthen the realisation of the thesis.

1,111 experts with a focus on creative content were invited to participate in the Delphi survey that ran during June 2007. 426 experts visited the Delphi website (38.3 %) and 288 of them

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10 The results of the background analysis fuelling the theses formulation are documented in Mateos-Garcia et al. (2007a; 2007b; 2007c), see footnote 6
(25.9 %) started filling out the questionnaire. Out of these experts 124 (43 %) returned to the questionnaire at least once in order to review the results and change their assessment as necessary.\textsuperscript{11}

In a nutshell, the Delphi survey revealed only a small number of topics where experts did not come up with a consensus about the likely future development. They served as an input to our subsequent scenario development.

**Delphi theses**

The following issues were most controversial:

- Intellectual property rights (IPR), the relevance of current IPR concept under changing conditions, new ways to protect IPR and the issue of technical protection means like DRM systems.
- The structure of the Creative Content Sector and the fundamental transformation process it is undergoing: of particular importance is the question how new, innovative enterprises that experts regard as the drivers of technological and business changes can be supported in an environment that is currently dominated by a few globally active corporations.
- The relationship between voluntary and professional content creation activities and between profit-oriented businesses and cultural diversity (as represented by ‘core’ cultural activities and education).
- The open issue of the likely development and importance of virtual worlds (like second life) and multiplayer online-games (like World of Warcraft).

On the other hand consensus was reached on well known factors such as universal access to broadband networks, computer literacy and ICT skills which remain crucial for the future success of the creative content sector.

With hindsight a Delphi survey was possibly not the ideal research instrument, since it could not identify radically new developments. In this respect the use of techniques to identify weak signals would have improved the farsightedness of the theses although it would increase the risk of including unrealistic topics in the survey. To achieve such an objective a method based on identifying weak signals would be required, a domain which is still in its infancy.\textsuperscript{12}

### 3.4 Step 3 – Design of scenarios for the future

The sector analysis carried out as the first step of the process and complemented by the Delphi survey served as an input to a scenario-building workshop. The addition of a scenario process emerged at that point as a necessary new building block to our adaptive foresight methodology. A few selected experts with a background from the creative content industries and/or scenario building were invited to join the project team for a two-day workshop that started with a general

\textsuperscript{11} More technical details on the RT Delphi survey as well as the complete results can be found in Friedewald, M., von Oertzen, J., Cuhls, K. (2007): European Perspectives on the Information Society – Delphi Report. EPIS Deliverable 2.3.1.

brainstorming on global trends and other socio-economic considerations that may characterise the context in which creative content will unfold in the future. As a second step possible dimensions for the scenarios axes were discussed and agreement was reached on the two dimensions that would characterise meaningful and differentiated enough scenarios. Split into smaller groups, the participants were asked to sketch a storyline and identify the key characteristics of their respective scenarios. The project team completed a full-blown scenario description with the input from all participants after the workshop because of time constraints.

### Four Future Scenarios

In developing the four scenarios the workshop participants considered the impact of ICT innovation, user behaviours and other factors on the transformation of the creative content industries. In particular the following elements were deemed to play a fundamental role in shaping the creative content industries of tomorrow:

- global trends like the growing importance of Asian economies and their attitude to creative content
- European lifestyles, which are characterised by a decline of national identities but the persistence of regional differences
- demographics and digital divide issues
- the role of ICT as enabler for ubiquitous creativity.

Although they share the same basic assumptions, the four scenarios differ qualitatively from one another. Several driving forces could be regarded as very important both in terms of impact and uncertainty and could therefore serve as distinctive dimensions. We considered the framework conditions and technological characteristics (e.g. magnitude of sunk costs) that determine economic relations in the Creative Content sector, on the one hand, and the prevailing social values as reflected in attitudes towards (and thus demand for) new creative content products and services, on the other, as most pertinent and have therefore chosen those for positioning the four scenarios. Both issues are crucial for shaping the dominant mode of content creation (individual vs. collaborative) and for the types of business models likely to emerge. The resulting scenarios are therefore reference scenarios based on exploration of both current-day developments and variations in contextual factors.

The **economic framework** (competitive markets and entrepreneurialism vs. oligopolistic and “walled off” markets) and **social values** (positive public attitude of potential users towards and high demand for new creative content products and services vs. negative public attitude and lack of demand) were therefore derived for the axes used to define four scenarios:

- The **“incumbents take it all”**, a scenario that describes a closed and regulated market dominated by a few globally active companies.
- The **“open innovation society”** is a scenario depicting a situation where all promises associated with user created content, social software and Web 2.0 are realised.
- **“Society meets industry”** sketches an intermediate scenario between the previous two and assumes that the creative content sector is transformed rather than revolutionised.
- **“IT is not cool”**, finally, presents a future in which negative effects of ICT based media production and distribution (spamming, unrequested profiling, flooding of customers with...
trivial and trashy content) has resulted in a widespread loss of popularity for the Internet as a tool for communication and cultural expression.

Each scenario was described focusing on the following common elements:

- Global context and key drivers
- Infrastructure
- Practices of content production and distribution
- Practices of content users
- Interaction, interfaces and institution.

**Figure 4: Positioning of the four scenarios**

The boundaries between the scenarios, especially the first three, are not fixed. They can, as a matter of fact, be seen as situations that can take place sequentially. For instance the “society meets industry” scenario could be a stable situation when the hype about user-created content and the Web 2.0 gives way to a more realistic assessment of the future opportunities in the creative content industry.

The scenarios led to a modification and further specification of our initial list of issues of relevance to assess the impact of future socio-techno-economic trends on the sustainability of the Creative Content sector. The key point about these issues is that impacts will differ by scenarios, as elaborated in more detail in the subsequent section.

### 3.5 Step 4 - Analysis of issues

The fourth step of our methodology consisted in the analysis of the scenarios with a view to identifying issues that may have an impact on the sustainability of the sector in the future and may therefore require policy measures or could at least have policy implications. In order to reach our objective we made use of another workshop, which was attended by around 25 participants.
stakeholders, including representatives from some sub-sectors of the creative content industries, academia, policy making etc. To structure our discussion we followed the common elements used in step 3 to systematically describe our scenarios (global context and key drivers, infrastructure, practices of content production and distribution, practices of content users, interaction, interfaces and institutions).

We therefore not only presented the scenarios’ broad lines but we also highlighted those key features likely to have implications for instance on industry structure, players’ strategies or the legal environment, should a particular scenario come to realisation. This approach was very helpful to stimulate discussions. However depending on the creative content sub-sector the stakeholders represented and their role and relative position on these sub-sectors, they assessed the varying scenarios outcomes differently. As a result the workshop was successful in identifying problem areas, raising concerns and eliciting different views, which in turn means that no consensus on the future of the creative content industries could be achieved. This is probably a logical outcome in light of the diversity that characterises the creative content sector and its sub-sectors, its current state of transformation and the uncertainties it is facing.

Nevertheless, the workshop helped us identify the most important issues (e.g. usability, ubiquitous and easy access, user empowerment...) for which the realisation of each scenario would lead to different outcomes with varying consequences for the development of the creative content industries, in particular in terms of economic growth, jobs, social inclusion or cultural diversity, and for the actors in the sector. Our impact assessment consequently focused on four categories of issues (technology, regulatory, market and user related), each encompassing a number of sub-issues. (see box below).
Key issues for the future success of the creative content industry

Even though the scenarios reflect different, often contradictory trends and uncertainties about the future of the creative content industry, by looking across the scenarios a number of important issues can be highlighted. These issues may be technological, regulatory, market-related, user-related or of a broader societal nature. They will be decisive for the shape that the future pathway of the Creative Content sector will take. It is thus important to understand those factors and mechanisms that influence market uptake and diffusion along the Creative Content value chain (see Figure 5), and what obstacles need to be removed to strengthen the position of European actors in this sector.

Figure 5: Creative content goods, impact on industrial structure and key technologies

By their very nature, the issues raised tend to be assessed controversially by different actors dealing with the Creative Content sector, reflecting their respective interests and perspective. Moreover, the high degree of diversity of the Creative Content sector represents an added difficulty in taking a EU wide perspective, as diversity hinders the formulation of broad and coherent initiatives. Some of the creative content actors are rather adverse to public intervention in general. Often other policy actors than European ones are better positioned to take action. For instance, regional development agencies and local incubators are better equipped to deal with cultural specificities. Information sharing on ways to deal with issues and challenges may still be an initiative worthwhile pursuing at European level.

However, in spite of the diversity of the various creative content sub-sectors, the convergence of digital content and media has already given way to a growing convergence of future issues in
these sub-sectors. Many of the challenges and obstacles are similar for all sub-sectors while some remain sub-sector specific. Many are also related to similar or crosscutting technological solutions as in the case of seamless (IP-) based networks or mobile communications. Apart from business and technological challenges there are also cultural challenges, implying that content is not a product like any other but also a cultural good and an expression of diversity in Europe.

Among the multitude of factors that are potentially important for a successful future development of the content sector or some of its sub-sectors the following deserve particular attention:

- Technology issues: usability (e.g. intelligent technologies, Interface Technologies, Display Technologies, Multilanguage Access), easy access to and new conceptual models for content from everywhere, methods and tools for multi-channel production
- Regulatory issues: reaching a balance between monopoly and competition, the definition of legal and regulatory standards for a globalised market, digital rights, dealing with illegal behaviour
- Market related issues: primarily the development of new, sustainable business models and the stimulation of start-ups and their growth
- Societal sustainability issues: questions of fair access to contents, user empowerment and cultural diversity.

3.6 Step 5 - Policy analysis

Our adaptive foresight on the creative content industries was concluded with a policy analysis, aimed at deriving policy options for a thriving creative content sector in Europe in the future. This was done in closed discussion with the client, i.e. European policy makers who were involved in the various workshops throughout the process, and at the end of the process to assess the results of the exercise.

The overall objective of the FTA had been to provide the policy making process with strategic intelligence by taking a prospective view towards the evolution of ICT and in particular identifying the potential for disruptions, leading to policy formulation and recommendations for European and national policies, in particular R&D policy.

While all the steps leading to the policy analysis revealed important findings on potential directions of change and consequently possible challenges for policy making, the main difficulty encountered was to tailor the results to some of the specific needs of the client, i.e. R&D policy setting. In fact many of the issues identified in our research relate to policy areas not specific to the R&D agenda, or those that are R&D related may already be tackled through EU Framework programmes or other EC initiatives, although in a wider context than that of the creative content sector alone. Nonetheless we feel that the issues identified are crucial for ensuring a thriving European creative content sector in the future and had to be brought to the attention of our client. In that sense the policy analysis stage fulfilled its objectives to a large extent.

The above finding however raises the question of the appropriateness of carrying out a FTA on a sector as diverse as the creative content with a specific policy area like R&D in mind. Many of the policy issues linked to the evolution of the creative content industries are of cross-cutting nature (e.g. skills, cultural diversity, 3D technologies, next generation networks…) and dealt with in different areas of the EC.
**Challenges for policy making**

The challenge for policy makers and regulators is to help create an environment, which facilitates the potentially positive developments identified in some of the scenarios, while protecting citizens and consumers from the potential disadvantages. In other words an environment that balances unimpeded access to content and fair remuneration between categories of right holders while fighting the fragmentation of the creative content sector, a fragmentation partly justifiable due to language and national identity barriers. Awareness of the issues and challenges raised subsequently will be decisive for fulfilling this task.

*Examples of policy issues identified:*

**Fostering ICT and Creative Skills**
- New initiatives to provide incentives for ICT training and skills development
- Promoting study programmes and curricula combining technical, business and creative skills
- Teaching the teachers
- Encouraging women to engage in creative content activities
- Raising awareness, especially among younger generations, of the value of creativity
- Mediating between skills and demand for skills

**Fostering Innovation**
- *Supporting R&D for infrastructure*
- *Facilitating mobile content development*
- *Accelerating broadband penetration*
- *Developing mechanisms to monitor trends and measure impacts*
- *Promoting further innovation-oriented public procurement*
- *Adopting further measures to encourage new entrants*

### 4 Lessons learned from foresight on the creative content sector

First of all with regard to the impact assessment aspect of the methodology, we can conclude that it is not realistic to have a fixed impact assessment framework already from the outset when dealing with a sector that is so much in flux and where the uncertainties are so high that even experts have difficulties to imagine the impacts (as evidenced by the strong discrepancies of assessments of impacts of trends). In this sense, the process of looking at emerging issues and assessing their potential impacts throughout all stages makes sense as it helps to improve our understanding of impacts step-by-step.

As to the impact of the FTA on policy it was limited in the sense that it did not lead to the direct development of policy measures or launch of specific initiatives. Nevertheless, our research confirmed some issues of major importance for the sustainability of the creative content industries, even if some of them do not seem to fit in the current political agenda. In fact, the process raised a number of key issues and the controversies about them as seen from the perspective of different stakeholders which is an important result.
Overall, the methodological setup of the FTA exercise worked quite well and generated several forward-looking perspectives on the creative content sector building on a consolidated understanding of how the sector works today and what are likely future trends. It was possible to flexibly adapt to changing requirements and insights by adding a scenario process.

However it turned out that the well-justified mixture of methods was not completely appropriate to answer some of the ambitious questions that the client wanted to have answered (e.g. identify the type of activities and business models likely to contribute to a thriving creative content sector in the future and derive conclusions for R&D policy priority setting).

As far as the methodology is concerned it turned out to be necessary to engage with practitioners working in rapidly changing areas early in the process of data gathering and analysis in order to ensure that the key areas of research focus reflect their main priorities and areas of concern. However there may be a flaw in so far practitioners may have an interest in preserving the status quo, depending on their position on the market. The challenge is therefore to manage to grasp the current situation and emerging trends by involving those who know best, i.e. the practitioners while ensuring a plausible new picture of the future can be shaped which the latter may not be willing to accept. In other words, for formulating propositions regarding the future it is necessary to find the right balance between the ‘feasibility’ and ‘surprise’ dimensions, which is again key in rapidly changing sectors like the Creative Content Sector, where long lead-times might make the outcomes of any foresight effort obsolete rather rapidly.

Finally it has to be stressed that a creative content sector foresight turned out a particular challenge because of the high degree of uncertainty in all – technological, economic, social and structural – dimensions, which were very difficult to capture.

References


IDATE (http://www.idate.fr)


