Innovation in small regions’™ media sectors: how to promote what?

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Abstract
We tackle the issue of innovation policy in the context of the Flemish media sector. Which types of innovation government should support? How to organise innovation policy in the media sector?
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Abstract (short)
In this paper we tackle the issue of innovation policy in the specific context of the Flemish media sector. Which types of innovation government should support? How to organise innovation policy in the media sector? This study is based on a literature study, document analysis and several stakeholder interviews. The paper first applies the numerous, generic contribution on innovation policy to the specific field of broadcasting and this in a small market like Flanders. Secondly, it considers both technological and economic convergence in the sector. Thirdly, the management contract between the Flemish government and the public broadcaster VRT is being revised at present. This study, followed-up by the Flemish cabinet for media and innovation, will contribute to further policy-development in this respect.

1. Introduction
Against the background of a globalising and technologically converging media industry, single countries’ innovation policies (often part of industrial policy schemes) are under pressure. In the broadcasting sector, innovation policies in EU Member States centred mainly on public broadcasting organisations. The latter engaged in technological, process and product innovation programmes. Increasingly, this centralised approach is criticised by private media companies that argue against a pro-active role of public broadcasters in new media markets, also questioning public broadcasters’ role as innovators (Donders et al., 2010). Whereas criticism is fierce, concrete suggestions for ‘better’ ways to organise innovation policy in the broadcasting sector are lacking.

In this paper we tackle the issue of innovation policy in the specific context of a small media sector, i.e. the Flemish one. The research question is twofold; firstly, asking which types of innovation should be supported by government; secondly, asking how to organise innovation policy in the broadcasting (and by extension media) sector. This study of both the substantive focus and structural organisation of innovation policy in the Flemish broadcasting sector is based on a literature study (mainly in the fields of innovation studies and media economics), document analysis (including press releases, management contracts between government and public institutions, etc.) and stakeholder interviews. With regard to the latter, approximately 20 interviews were conducted between January and March 2011. The stakeholders consulted include the public broadcaster VRT, private broadcasters, publishers, universities and public innovation institutes.

The paper consists of four parts. We start by providing a definition of innovation as the valorisation of a new product or (production) process. This straightforward definition is used to build a mapping of innovation in the media sector, based on the one hand on the opposition between product and process.
The first typology is focused on the nature of innovation, *i.e.* we try to distinguish between innovations by looking at what they consist of, taking into account the specificities of the media sector as well. On the other hand, innovations are distinguished according to their scale of use, *i.e.* whether they aim at a large scale of use in the short-term or a small scale of use with a more long-term effects intended. After that, we briefly discuss the rationale of innovation policies in the broadcasting sector, describing the Flemish broadcasting sector and the traditional form of innovation policy therein. Consequently, the possible futures for innovation in the Flemish broadcasting sector are presented and critically evaluated, linking each scenario with its likely impact on the specific types of innovation identified in part one of the paper. Finally, some conclusions and recommendations for policy-makers are outlined.

The relevance of this research is threefold. Firstly, it applies the numerous, generic contribution on innovation policy to the specific field of broadcasting and this in a small market like Flanders. Secondly, it sets out from the traditional mode of innovation policy in the broadcasting sector, but extends the scope to the publishing and other media sectors as well, considering both technological and economic convergence in the sector. Thirdly, the management contract between the Flemish government and the public broadcaster VRT (VRT, 2006) is being revised at present. The contract, which stipulates the tasks of the VRT, also concerns innovation. At present, policy-makers have indicated not to know which innovation task should be assigned to the VRT. This study, followed-up by the Flemish cabinet for media and innovation, will contribute to further policy-development in this respect.

### 2. From a definition to a mapping of innovation in the media

There have been several typologies of innovation proposed until now, starting from the one by Schumpeter (1942). Our aim here is to propose a frame to map innovation in the media sector, considering that such innovation has some intrinsic features. Our mapping is based on the one hand on the nature of innovation, *i.e.* we try to distinguish between innovations by looking at what they consist of. On the other hand, we distinguish between innovations according to their scale of use.

#### 2.1. A definition of innovation

Innovation is an umbrella concept with a huge literature devoted to it, notably in innovation studies, in management and in economics. Being so widely used it has become somewhat messy. Three features are important in defining innovation.

Firstly, *novelty* is a crucial feature of innovation. This is best seen in Schumpeter’s (1942) typology of innovation, which refers constantly to the fact that something new is marketed, implemented or accessed. Also Castañer and Campos (2002) uphold a simple definition of innovation, referring to it as the “*introduction in the field (…) of something new*”. However, as we discuss later, the degree of novelty that distinguishes an innovation from a plain alteration (without genuine consequence in the market) is always debatable. Moreover,
some also argue that any novelty should also entail a significant improvement in order to qualify as innovation (OECD, 2002).

Secondly, it is common to distinguish between product and process innovation (Cave and Frinking, 2007). In the case of media product innovation, innovation relates to content and the way content is accessed by the customers. Process innovation includes all innovations in the production process of media content. In a related way Handke (2008, based on Caves, 2000) distinguishes between creative and humdrum innovations. Product innovation is the most visible from the consumer’s point of view. Process innovation may, however, imply the greatest changes in the organisation. Business model innovation is generally to be included in the category of process innovation.

Thirdly, an innovation consists in putting in practice some idea. Thus an innovation needs to be used (e.g. sold or implemented) to be a genuine innovation. At least since the works of Freeman (1991), a common distinction is made between invention, innovation and diffusion (see also Henten et al., 2004). Invention refers to new ideas and prototypes. Some work is still needed to turn an invention into an innovation, notably in terms of development or marketing. Thus, Schweizer (2003) defines innovation as “the process of bringing an invention into use”. The idea is that an innovation must have spread, notably – but not only – through commercial means. Here the use refers notably to the adoption by consumers (for a product), or the implementation by producers (for a process).

By combining the three features of an innovation, we propose the following definition of an innovation: the use of a new product or (production) process. The definition is certainly not groundbreaking as Pavitt (1984) already defined innovation as “a new or better product or production process successfully commercialised or used”. However, considering the huge amount of literature on innovation, it is necessary to further define what we mean by innovation in the media sector, as innovation in the latter sector has some specific features.

2.2. Innovation in the media: the joint roles of creative and technical innovations

Classical literature on innovation is very useful to be applied to the media sector, but it is important to take into account features that are sector-specific (Preston and Cawley, 2004).

First and foremost, most activities in the media sector belong to services and the literature is in general rather oriented towards innovation in manufactured goods (Djellal et al., 2003). Services have some specificity, notably since innovation is less centralised among firms and less localisable inside firms.

Moreover, the main distinctive feature of innovation in the media sector is the importance of creative vis-à-vis technical innovation. Preston and Cawley (2004) assert that both creative and technical knowledge are involved in any innovation in the media sector. As we will see in our typology of innovation in the media (cf. infra), this is questionable. Actually some kinds of innovation necessitate only
technical or creative inputs. In the case of the media sector, the specificity may be that innovation can mainly, if not exclusively, concern content.

However, Preston and Cawley (2004) argue that there has been a focus on technical aspects of innovation, but this may not be relevant for media. In particular innovative business models are often necessary for innovative products to succeed while new technical knowledge does not directly lead to innovation in services sector. In a related way, this may have an impact on the choice of relevant ways of measuring innovation in the media.

A consequence of the importance of creative innovation is that innovation is more likely to come “from the margins rather than the centre” (Flew et al., 2008, p.10), even compared to other services. Innovation in the media sector does not necessarily come from the huge, incumbent players that have enough funds to invest in it, but rather (and increasingly) from new, more agile (pure) players – or a group of firms in particular for a business model innovation. Media companies have to take into account the context of open innovation in which innovation increasingly comes from outside its boundaries and bottom up (Chesbrough, 2006). In addition the end-users play a non-negligible role in innovation in the media, as reflected notably in the development of concepts such as ‘produser’ (Bruns, 2008). For example, users can have a crucial influence on the way in which a technical innovation is adopted.

2.3. Product vs. process innovation

Product innovation
Schweitzer (2003) models a media product as made of three parts (see next figure):

1. The Core (i.e. the thematic part or the message)
2. The Inner Form (i.e. the style, e.g. format or genre). The core and the inner form constitute the content of a media product.
3. The Outer Form (i.e. the Media)

Therefore, innovation may consist in the use of something new in one or two or all of these parts. For a DVD of Titanic, the impossible love story is part of the core, the huge special effects belong to the inner form and the DVD cover is part of the outer form. Arguably, innovation in that case relates more to the inner form than to the core or the media. Innovation in the core corresponds to, e.g., a new format being created (like real-TV). Innovation in the outer form corresponds to a new medium, e.g. the blu-ray format. Any innovation related to content corresponds to what Stoneman (2010) refers to as soft innovation.
Figure 1: A model of the media product (Based on Schweizer, 2003, p.22)

Process innovation
In the case of process innovation it is worth considering a production process in the form of a value chain (see next figure). A process innovation is an innovation that relates to one or several of the following steps:
- creation (e.g. a new camera);
- (re)production (e.g. a new video codec);
- aggregation (e.g. a new encoding format);
- distribution (e.g. use of the Internet to distribute audiovisual content);
- exhibition (e.g. 3D cinema); and
- consumption (e.g. possibility to choose which camera is followed during a sport event).

A last form of process innovation cannot be grasped through such a decomposition of the production process, which corresponds to an innovation in the organization of the industry itself. This includes the entrance in new markets, the building of alliance, the modification in one firm’s market situation, etc. – as long as it can be considered as innovative. More generally this includes any successful new feature of a business model (see notably Ballon, 2007).

Therefore, in our model of the value chain of media production it is useful to add a surrounding element labelled ‘business model’, which allows taking into account all innovation processes that are not part of the value chain.

Figure 2: A model of the value chain of media production (based on Ranaivoson, 2010)
The product vs. process typology of innovation in the media

Based on the above we propose a typology of innovation in the media sector, which summarizes the distinctions made before and suggests in addition some groupings in order not to keep too many categories (see Table 1). Creation, (re)production, aggregation, distribution and exhibition were grouped because they all concern process innovations, which generally have a source in a firm and are not perceptible by the consumers. In contrast, innovations in business models often concern several firms, if not an entire ecosystem of firms. In addition, they are more global and not related to one step of the value chain.

One form of innovation is between process and product innovation. This includes all innovations related to consumption and media. On the one hand it deals with how the product is marketed and made available to the consumer. On the other hand it is often directly linked to the product itself and most of all it is perceptible by the consumer and not separable in terms of consumer experience. Hente et al. (2004) seem to distinguish billing and marketing innovations from product or process innovation. With our proposed first typology we re-introduce such innovations in this intermediary category because they are part of the process and at the same time of the consumer’s experience.

<table>
<thead>
<tr>
<th>Business Model</th>
<th>Production &amp; Distribution</th>
<th>Consumption / Media</th>
<th>Inner form</th>
<th>Core</th>
</tr>
</thead>
<tbody>
<tr>
<td>A successful new feature of a business model, including a new organization of an industry</td>
<td>A successful new means of creating, producing, reproducing, distributing or marketing a content</td>
<td>A successful new way of consuming a content, or a related service</td>
<td>A successful new stylistic feature</td>
<td>A successful new theme or message</td>
</tr>
</tbody>
</table>

Table 1: The product vs. process typology of innovation in the media

2.4. A typology based on the scale of use

Our second typology of innovation consists in classifying innovations according to their scale of use. We included in our definition of innovation the fact that the product or the process should be used. However the extent of the use – as well as the rapidity of adoption – will differ among innovations. We relate this to the kind of solution brought by the innovation, notably whether the solution is explicit and whether it is replicable.

The knowledge funnel

Our starting point is the knowledge funnel, as described by Martin (2009), to describe how innovation consists in selecting a new and more efficient way of solving a problem (see next figure). Martin (2009) distinguishes three different forms of knowledge. In the first stage, a broad and multi-faceted topic is under scrutiny, which is called mystery, e.g. a content producer may wonder which
content young people want to watch on the television. There can be some solutions found, which Martin names hunches. They are based on implicit knowledge and hardly replicable. In the second stage, there is a first solution to what was previously unknown. Such solution remains imperfect in that it remains vague and does not guarantee success, that is why Martin (2009) calls this stage heuristics. On the other hand, such a solution is at least explicit. In the third and final stage, solutions to the problems are like recipes, i.e. they are clearly identified and to some extent replicable. Martin (2009) calls them algorithms.

Martin’s (2009) approach is focused on intra-organizational innovation, thus rejoining models of product or process development such as Wheelwright and Clark’s (1992). We adapt this model to the media sector and in doing so we include all cases when innovation is the result of inter-organizational cooperation. In other words, we are looking beyond innovation as it may be developed inside (the R&D department of) a big player. In fact the original idea may appear in one place (e.g. a research lab) and be developed in another (e.g. a broadcaster). Then it can be adopted, and adapted, by another organization, be it a more established one, or one based in another country or active in another sector.

![Figure 3: The knowledge funnel (based on Martin, 2009)](image)

**Innovation as a solution-driven process**

In this setting, innovation can be described as any move down along the knowledge funnel, *i.e.* any move on a knowledge path that goes from mystery to algorithm. As is suggested by the use of the term 'move', an important notion here is dynamics since we consider that innovation is about progressing from some unidentified problem to a precise and easily replicable solution. Therefore we use vectors (represented by arrows) to identify innovation, which are always directed from top to bottom.

The arrow carries different meanings according to where it is located in the knowledge funnel, and more precisely where the head of the arrow is located in the funnel (see previous figure). Arrows that remain in the first stage correspond to what Martin (2009) calls hunches (*a*). When the head of the arrow is in the second stage, the arrow represents a heuristic (*b*, *c*, and *d*). When the head of the arrow is in the third stage, the arrow represents an algorithm (*e*, *g* and *h*).
An important assumption here is that the further down the funnel is the head of the arrow, the larger the scale of use. This does not mean that the further down the innovation is, the better. Indeed, innovations that belong to the algorithm category are likely to be the most profitable because they are useful to more users than other types of innovation. However, some innovations can be useful for a limited number of users but these users might be ready to spend a lot to get them (e.g., some works of visual art). Most of all, the building up of knowledge is a cumulative process. Therefore, any algorithm (innovation) is made possible because there have been heuristic(s) (innovation) made before, and then hunch(es) (innovation) before these heuristic(s). The funnel could be used to represent innovative paths, i.e., how innovations or adoptions have to follow one another before becoming available or useful for people at large (this is the case here for $f$ and $h$).

It derives from this that different actors are going to produce different kinds of innovation. As long as it remains in the first stage, innovation might be the result of processes driven by researchers – and rather directed towards other researchers. Mystery might thus be seen as the common place for fundamental research. When innovation reaches the second stage, it becomes marketable and more readily useful in production processes. That is because knowledge is made explicit and thus somewhat replicable. Finally, innovation in the third and final stage corresponds to mass-scale exploitation, as a product to be sold or a process to be implemented. At this stage, there is a more systematic standardization process under way. Profit-making organizations are more likely to be found in the second and most of all the third stage.

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Explicit?</th>
<th>Replicable?</th>
<th>Stage</th>
<th>Scale of use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hunch</td>
<td>Intuitive solution to a mystery</td>
<td>No</td>
<td>No</td>
<td>First</td>
<td>Small</td>
</tr>
<tr>
<td>Heuristic</td>
<td>Explicit solution</td>
<td>Yes</td>
<td>No</td>
<td>Second</td>
<td>Medium</td>
</tr>
<tr>
<td>Algorithm</td>
<td>Explicit and replicable solution</td>
<td>Yes</td>
<td>Yes</td>
<td>Third</td>
<td>Large</td>
</tr>
</tbody>
</table>

Table 2: A typology of innovation based on the scale of use

2.5. The mapping of innovation in the media
To conclude we propose a mapping of innovation in the media. To do so we combine both previous typologies. The result is a framework that allows classifying all innovations in the media. It will be used in this study to consider the impact of different ways of organizing innovation policy in the media sector, i.e. which kind of innovation gets favoured by which scenario.
Before applying this mapping of innovation in the media to the case of the Flemish audiovisual market, it is necessary to describe this market.

3. Specificities of the Flemish AV market

While innovation is a consensual notion, it is necessary to explain why it may require specific measures to promote it, notably in the case of the Flemish audiovisual sector. On the one hand media innovation is specific, on the other hand the Flemish market is rather small.

3.1. Why promoting innovation in a small media market

There are many arguments, either general or specific to a sector, to promote innovation. They can in general be summed to this one: promoting innovation is beneficial for the innovator and for society as a whole. Since it is sometimes beneficial for the society, but not for the innovator (at least not immediately), it may require public intervention in order to promote it (ref). In addition innovation may be very risky or take some time to produce benefits. While analyzing the reasons why innovation should be promoted, we will point to arguments that are specific to the media sector and to innovation in small markets.

Innovation, what for?

Innovation has in general two aims for the innovator: reducing costs and affecting the behaviour of users. Cost reduction is generally associated with process innovation (Cave and Frinking, 2007). Process innovation is actually not directly perceptible by customers. Its main aim is to reduce costs of production, e.g. through the introduction of new machines or a new division of labour. In more general terms, process innovation aims at gaining efficiency, i.e. to allow objectives to be reached using fewer means.

In contrast, the aim of a product innovation is to affect the behaviour of users (Kamprath and Mietzner, 2009). When the innovator has commercial objectives, it comes to expanding the markets reached by the producer (Cave and Frinking, 2007), i.e. by expanding a customer base or by allowing charging more for the existing customers. In the case of broadcasting channels, this means respectively having higher rating rates or higher incomes coming from subscriptions. Beyond, and notably for public service broadcasters, this may mean having people

<table>
<thead>
<tr>
<th>Hunch</th>
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<th>Consumption / Media</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Heuristic</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Algorithm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3: The mapping of innovation in the media
watching the public channels for a longer time, or getting new viewers (Bakhshi and Throsby, 2010)\textsuperscript{vi} or even having the current viewers being more satisfied after having watched television. Let us note that the users concerned here may not be those who pay for the innovative product. This is notably the case for advertising-based broadcasting: the users should be pleased with the innovative content but advertisers are funding the content.

A third aim could be distinguished in the case of media production: \textit{innovation for innovation’s sake}. Just like one incentive from the artists’ point of view is the so-called “\textit{art for art’s sake}” (Caves, 2000, p.4), some innovators innovate because they want to, \textit{e.g.} because they want to avoid routine or to fulfil some taste for novelty or they think some innovation is appropriate to express something new. This motivation for innovation is specific to the media and cultural sectors.

Whatever the direct benefit enjoyed by the innovator, \textit{i.e.} the private value of the innovations, all these innovations also induce private costs. As long as the innovation’s private value is superior to its private costs, innovators are induced to innovate.

Innovations also create externalities. Such externalities are positive, \textit{i.e.} innovations are also profitable for people beyond the innovator and the users of the innovation (Bakhshi and Throsby, 2010). In other words, they may also have a social value, \textit{i.e.} “\textit{the benefits over and above those received by the direct consumer of the product or service, [that is to say] the benefits of society as a whole arising from the development, application and use of this new product or service}” (Flew et al., 2008, p.10).\textsuperscript{vii} This includes for example the reduction of pollution or the production of cultural goods that will become part of heritage. Of course, there are also social costs, \textit{i.e.} negative externalities, which include all kinds of costs endured by the rest of the society to produce such innovation.

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|c|}
\hline
Benefits & Beneficiaries & Innovator(s) & Users & Society \\
\hline
In general & Cost reduction & Affecting the behaviour of users & & Social value \\
Specific to the media sector & Innovation for innovation’s sake & - & & \\
\hline
\end{tabular}
\caption{The benefits of innovation}
\end{table}

\textbf{Rationale for public intervention}

Public intervention is needed when on the one hand private value is inferior to private costs while on the other hand social and private values taken together are superior to private costs (and social costs). In addition, the production of innovation is a risky activity in the sense that it is not possible to ensure the amount and the value of resulting innovation.\textsuperscript{viii} This may make any economic agent reluctant to invest time or money in innovating and reinforce the need for public intervention.

This public intervention may be even more important in a context where innovation does not necessarily come from R&D departments in huge, easily
identifiable, incumbent players. On the one hand, innovation in the media sector, like other service sectors, is less likely to be done in a department whose only or primary activity consists in research and development (Djellal et al., 2003). Also as we recalled before, creative or aesthetic innovation plays a major role in the media sector. Such innovation requires less financial investment, allowing even end-users to be involved in the innovation process. This at least questions how public intervention can best promote innovation in such sectors.

3.2. The Flemish audiovisual market: innovation as a public broadcast prerogative?

Broadcasting in Flanders

In Belgium, there are two separate audiovisual markets. The country is characterized by a complicated structure in which regions, communities and the federal state share competencies. The Flemish, Walloon and German-speaking communities are competent in the field of culture, media and also innovation (Voorhoof, 1995: 198). This political situation is reflected in market reality as well. Coppens (2003: 148) indeed notes: “in effect, there are no such things as Belgian media” as “newspapers, magazines, radio and television stations are either Flemish or Walloon though some media in one community have links with media in the other linguistic community”.

The Flemish audiovisual market is ‘traditional’ in the sense that broadcasting, which is still the dominant mode of aggregating audiovisual content, is catered for through a dual, public-private, system. This dual order emerged in the 1980s and 1990s. It is characteristic of European broadcasting markets (Levy, 2001; Harcourt, 2005; Michalis, 2007) and a highly relevant element to be taken into account when discussing about innovation.

Flemish public broadcaster VRT and the two most important private broadcasters (VMMa and SBS Belgium) hold a joint average market share of over 80% (EAO, 2009). VRT accounts for half of this market share and is, hence, still very powerful. The public broadcaster’s position has provoked criticism on many occasions. Private competitors, also in the publishing sector, have criticized it for being too dominant and market distortive. In particular, the public broadcaster’s activities on the Internet and mobile platforms are of concern for publishers and private broadcasters alike (Donders and Pauwels, 2010; Van Den Bulck and Moe, 2010).

Although private broadcasters and publishers share their concerns about the VRT, new entrants have shaken up previous dichotomies to some extent. For example, distributors have become increasingly important, expanding activities to the aggregation of content and being a gatekeeper to broadcasters’ content. Especially, this gatekeeping role and distributors’ refusal to increase compensations to Flemish broadcasters for their content have triggered more cooperation between the harsh broadcast competitors (Donders and Evens, 2010). The three main broadcasters have, for example, written a joint letter to the main distributors, protesting against their refusal to pay broadcasters for the offer of services like flexible viewing. Broadcasters fear they will loose their
Institutes like the Flemish Agency for Science and Technology in Flanders (IBBT) is created as well. It is a virtual cooperation between knowledge like, for example, media. Innovation becomes stimulated across policy domains. Until 2000, innovation policy was seen as technological policy. It is only from 2000 onwards that a more horizontal conception of innovation policy emerges. Innovation becomes stimulated across policy domains (Lengrand et al., 2002) like, for example, media. Innovation becomes also more inclusive, focussing on cooperation between knowledge centres, companies and government funding institutions like the Flemish Agency for Science and Technology in Flanders (IWT). Setting out from a spirit of cooperation, the Flemish Interdisciplinary Institute for Broadband Technology (IBBT) is created as well. It is a virtual research centre that brings together all knowledge on media, ICT and telecommunications in the different Flemish universities.

In short, the Flemish broadcasting was organized as a monopoly until 1989 and remained fairly stable with a government-enforced duopoly until the end of the 1990s. A stable environment, in which all Flemish players (also publishers) were represented, and a focus on the creation of original, Flemish content dominated Flemish media policies.

**Promoting innovation in the Flemish broadcasting market**

The specific organization and development of broadcasting in Flanders had a tremendous impact on the ways in which innovation in the sector was conceived. Until 2000, innovation policy was seen as technological policy. It is only from 2000 onwards that a more horizontal conception of innovation policy emerges. Innovation becomes stimulated across policy domains (Lengrand et al., 2002) like, for example, media. Innovation becomes also more inclusive, focussing on cooperation between knowledge centres, companies and government funding institutions like the Flemish Agency for Science and Technology in Flanders (IWT). Setting out from a spirit of cooperation, the Flemish Interdisciplinary Institute for Broadband Technology (IBBT) is created as well. It is a virtual research centre that brings together all knowledge on media, ICT and telecommunications in the different Flemish universities.
Innovation in the broadcasting sector becomes an action point in 2001 when Van Mechelen, the former Flemish Minister of Media from the liberal party, creates e-VRT: an innovation unit inside the VRT. The idea is that the Flemish government can enforce innovation within its public broadcaster, asking it to engage in R&D activities. The latter are focused on the development of new technologies, standards and backbone processes. VMMa and also several Flemish publishers criticize e-VRT for being overly focused on technological inventions and for spending money on the renewal of the public broadcaster’s own technological infrastructure, instead of investing in ‘genuine’ innovation to the benefit of the entire sector (Donders et al., 2010).

Confronted with private sector criticism, e-VRT is re-formed in 2006 and becomes VRT-medialab. VRT-medialab is more independent from the public broadcaster and should conduct research that benefits the entire sector and not only the VRT. The budget of VRT-medialab (approx. €4 million) is smaller than the budget of its predecessor (VRT, 2002). This shows that the choice for innovation coming from the public broadcaster receives considerably less political support than was the case in 2001 (Ballon et al., 2010; Donders, 2010). The task of VRT-medialab, enshrined in the public broadcaster’s management contract and a separate agreement with the Flemish government (both for the period 2007-2011), is to follow all technological evolutions and be a centre of excellence at the level of research.

As the management contract of the public broadcaster is being re-negotiated in Spring 2011, innovation is a point of discussion as well. The private sector, herein supported by some political parties, contends that there is no need to invest in innovation within the VRT. In the current market place, so they argue, private initiative is the best guarantee for innovation. Private broadcasters and publishers argue that they are in fact much more innovative than the VRT (Donders et al., 2010) – a standpoint which is not passionately counterargued by the public broadcaster (Donders, forthcoming). The latter has faced severe budget cuts the last years and, as content lures viewers, innovation does not seem to be a priority for the public broadcaster itself.

Nevertheless, some scholars like Cunningham (2009) claim public broadcasters remain the most reliable stakeholder for governments to rely on when striving after more innovation in the media sector. Firstly, they are embedded in the local context, which is very often not the case for private conglomerates. Secondly, public broadcasters have built up expertise on innovation. They have an internal innovation architecture that is fundamental, also when pursuing more concrete projects on innovation. Thirdly, their budget is more or less certain, which makes it possible for them to take risks where private broadcasters and publishers would not. Finally, public broadcasters have the objective to be experimental (Cunningham, 2009: 85). It is in particular this last aspect that leads Murdock (2007: 195) to the conclusion that public broadcasters have a definite role to play with regard to innovation, certainly at the levels of content and services innovation.
In the midst of this stands the Flemish Minister of Media, who is – and this is not the case in each government – also responsible for innovation in the media sector (or in general?). In 2009, she confirmed that the VRT should continue to play a role in R&D and this to the benefit of the entire media sector (Lieten, 2009: 18). At the end of 2010, however, she acknowledged the shaky basis for continuing VRT-medialab as it is today, arguing for a re-evaluation of the entire system and launching the idea of a Flemish medialab in which the entire sector can participate on equal footing (Lieten, 2010: p.27-28).

4. Possible futures for innovation in the Flemish broadcast sector

On the basis of the interviews and document analysis, four scenarios for the evolution of innovation policy in the media sector were distinguished. They are briefly described and finally compared in terms of their impact on the type of innovation promoted and how such promotion is organized.

4.1. Continuation of (VRT-)medialab

As a first scenario, government could opt to continue the centralized focus of current innovation policies in the media sector. The VRT-medialab could be kept in place or, in a slightly alternative scenario, one could re-orient it and turn it into the so-called “Flemish medialab”, like suggested by the Flemish minister for media (cf. supra). In the latter case, the formal relation between the public broadcaster and the innovation lab would be broken although the lab would be mainly publicly funded. This could reinforce the cooperation between the medialab on the one hand and the public broadcaster, publishers and private broadcasters on the other hand. Together with key stakeholders in the sector a common innovation programme would be defined, in which more specific projects could be identified. In other words: the medialab would be inspired by a long-term mission, but meet more short-term expectations in the sector as well. Therefore such organization aims at favouring heuristics.

At present, the current Flemish media decree foresees an innovation role for the VRT. It is rather vague, however, providing only that the public broadcaster has to closely monitor technological evolutions in order to ensure that its delivery of programmes is as wide as possible (Flemish Government, 2009: Article 6, §2.5). For the creation of a Flemish medialab, no change of the media decree is necessary. Yet, the management contract of the public broadcaster, which will expire at the end of 2011, would necessitate certain amendments. The current management contract entitled ‘the mission of the public broadcaster in the digital age’ entrusts rather elaborate innovation goals to the public broadcaster. First, it should closely monitor technological developments in e-media and study possible implementations of these developments in Flanders. Second, VRT-medialab has to consolidate built-up knowledge of previous innovation projects. Third, the public broadcaster has to participate in larger, demand-driven research programmes and projects outside of the VRT (VRT, 2006: chapter 3). More specific agreements are outlined in a management contract between the IWT, VRT-medialab and the Flemish government (VRT, 2006).
In case, the Flemish government would opt to continue the medialab as it is today, which will not be supported by private partners at all and which is also not desired by the VRT itself, the management contract will have to be updated and made more specific. In case, and this is more likely, some sort of Flemish medialab is created, a management contract for that institute will be necessary as well. A transparent framework for cooperation between the medialab and other parties (including the public broadcaster) is to be developed. Receiving government funding, the medialab would have to disclose its built-up knowledge to other parties free of charge, which implies an open processing of intellectual property rights (which is one of the characteristics of a more open innovation system, see Chesbrough, 2003: 56-57).

4.2. Innovation projects in IBBT

In the second scenario presented in this study, the Interdisciplinary Center for Broadband Technology (IBBT) plays a key role. Within IBBT, which consists of several university research groups, a separate centre for innovation in the media sector would be created. Like other groups within IBBT (which acts as a unifying actor), this group needs to attract funding on a project basis. This scenario allows for more sectorial steering, cooperation, as well as for competition as it is rare that direct competitors participate in one and the same project. Projects indeed often serve the goal of intellectual property rights creation and, subsequent, valorisation. Investing in innovation through scenario 2 would imply the pursuit of rather short-term goals on the basis of traditional R&D activities. In that sense, it would be contrary to the previous scenario in which intellectual property rights are shared in an open way and a more long-term programme determines the selection of projects. In the IBBT scenario, projects are selected on the basis of stakeholder preferences. The medialab would act as a research group, looking for business partners to cooperate in largely research-driven projects.

The IBBT is also bound by a management contract with the Flemish government. It pursues two strategic goals. Its first aim is to gain national and international recognition as a multi-disciplinary research institute in ICT. Its second objective is to contribute to the development and exploitation of new ICT products and services in strategic economic sectors in Flanders (IBBT, 2007). These goals have been made explicit through key performance indicators, like the number of publications, number of projects executed and spin-offs.

In the IBBT-scenario, the medialab would not have a special status. It would be added to the other research groups and compelled to oblige with the same organizational and performance criteria. It would be largely research-driven, which could meet some sector opposition. Such focus on research shows that the scenario aims at favouring hunches and to a lesser extent heuristics.

4.3. Public-Private Partnership

Guinet (2005: 3-4) defines a public-private partnership in the area of research and innovation as:

*Any formal relationship or arrangement over a fixed-term/indefinite period of time, between public and private actors, where both sides interact in the decision-making process, and co-invest scarce
resources such as money, personnel, facility, and information in order to achieve specific objectives in the area of the area of science, technology, and innovation.”

The third possible future for innovation policy in the Flemish media sector, following the construction of a public-private partnership, is the most revolutionary. Responsibilities to come to innovation are completely transferred to the media sector itself. Both at the organizational level, but even more importantly, at the financial level, media companies would have to take their responsibility to make structural things happen. This scenario also implies a distributed form of innovation, instead of a centralized one.

At present, there is no intentional policy of fostering such structural public-private partnerships in the area of innovation in the Flemish media sector. Essentially, this is due to the attachment of Western-European governments to intervention in the media sector (Donders, 2010). For economic, political and cultural reasons, there was a firm belief in government steering through a number of policies, among others in the area of innovation. Whereas from the 1990s onwards the idea of public-private partnerships gained ground, it never really took off in the area of innovation in the media sector. This is probably due to the different interests pursued by government bodies and companies in this area.

The public-private partnership scenario implies ad hoc cooperations, between a most likely limited number of stakeholders in the sector. The Flemish government could participate in projects, possibly withdrawing once successful. They would have to agree upon a specific project with immediate and mutually beneficial outcomes. Therefore such organization aims at favouring algorithms.

In case this scenario would be opted for by stakeholders and government, a mentality shift is necessary. Indeed, IWT and IBBT already foresee in shared models in which government is mainly funding research projects. But ‘making things work together’ in a public-private partnership implies investments from both sides and substantive involvement of both sides. Especially, at the level of funding this might appear to be problematic as private partners always point in the direction of the Flemish government for funding.

4.4. Innovation projects in IWT

Finally, innovation in media could be driven entirely through the Government Agency for Innovation by Science and Technology (IWT). Since the end of 2008 the government agency launched a new programme for innovative media projects (called PIM), which aims to trigger innovation in the media sector. It is a project-driven programme, foreseeing in collaborations between companies and research centres with the explicit aim of ‘valorization’ for the sector.\textsuperscript{10} In 2009, IWT approved the first two PIM projects, being ARCHIPEL (a project on the sustainable digitization of archives)\textsuperscript{4} and VLIB\textsuperscript{5}. In 2010, another project has been approved (\textit{i.e.} SMIF).

IWT projects are more development and less research oriented than IBBT projects (\textit{cf. supra}). They are more short-term and less concerned with the
building up of knowledge. Therefore such organization aims at favouring algorithms and to a lesser extent heuristics.

In case the Flemish government would opt for this scenario, it would abolish VRT-medialab and provide for an additional funding of the IWT’s PIM programme. The programme seems to be well-received by private stakeholders – precisely because of its valorisation-oriented character. However, it is not concerned with more long-term innovation goals of innovation policy.

4.5. Different scenarios to promote different kinds of innovation through various organizations

Having analyzed the current state of innovation policy in the Flemish audiovisual sector and the set of four possible futures for such policy, we sum up and discuss what this would mean in terms of the kind of innovation that would be promoted and the kind of organization of the innovation policy.

Openness and integration of the organization of innovation

Put in a somewhat generalizing fashion, there are two main points of debate on the future organization of innovation policy in the media sector. First of all, there is debate on the acquired openness of the model. Should one stick to the rather centralized model, following which the entire process of innovation is captured within one company? This has been the dominant model in the media, telecommunications and transport sectors (Miles, 2006: 445). Or should the Flemish government opt for a more decentralized, open model (Chesbrough, 2003), giving initiative to the sector itself and pleading for more cooperation?

The second point of discussion relates to whether innovation should be led through projects or through a programme. In the case of project-driven innovation, the output will be more scattered but may better fit to the needs of the various actors. In the case of programme-driven innovation, the output will be more consistent but with the risk that, as in the current case, it does not reflect the interests of the various actors.

Setting out from these two main points of divergence, it is possible to distinguish among the four possible futures for innovation policy in the sector have been outlined (see next table).

<table>
<thead>
<tr>
<th></th>
<th>Centralized with one actor</th>
<th>Distributed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Programme-driven</strong></td>
<td>(VRT-)medialab</td>
<td>Public-Private Partnership</td>
</tr>
<tr>
<td><strong>Project-driven</strong></td>
<td>Innovation projects in IBBT</td>
<td>Innovation projects in IWT</td>
</tr>
</tbody>
</table>

Table 5: Four possible scenarios for innovation policy in the Flemish media sector
**Not all product and process innovations**

In none of the possible future, all kinds of product and process innovations will be promoted by the chosen policy. First no policy in any scenario will aim to promote content innovation, i.e. innovation related to Core or Inner Form. Actually such innovation concerns above all the broadcasters and the producers. In particular the television channels, either public or private, compete directly through the content they propose. Therefore they are unlikely to collaborate to innovate in these fields.

On the contrary, all scenarios aim at promoting Production & Distribution innovations as well as Consumption / Media innovations. They can actually benefit the whole Flemish media sector (and beyond) and as such be promoted by the Flemish government. On the other hand they may not be perceived as fields of direct competition among media players. On the contrary they have an interest in collaborating to share the possibly huge expenses.

Finally, innovation at the level of business model seems unlikely considering that business model is broader than other process innovations. However two scenarios (medialab and IBBT) lead to the promotion of more collaborative innovations, which should have an impact on business model innovation.

**Different scales of use are aimed by the different scenarios**

The four scenarios differ in that they aim at promoting scenarios that differ in terms of their scale of use. As stated before, we distinguish three kinds of innovation, based on Martin (2009): hunches, heuristics and algorithms.

On the other hand it derives from our analysis of the current promotion of innovation in the Flemish broadcasting sector that every scenario should favour different types of innovation. The private sector is more interested by innovations that are largely used in the short run because it corresponds e.g. to large incomes or massive savings. This is the case for algorithms. Policy-makers should also favour innovations that have a small scale of use because they may lead in the long run to innovations that will trigger an even greater impact, e.g. on the market. This is the case for hunches. Heuristics stand somewhere between algorithms and hunches. The policy-makers’ position is also influenced by the European rules on State aid for innovation. These are more rigid the more intrusive aid is in the market. Aid for programmes that are pre-competitive – as is the case for most innovations classified as hunches – in nature faces less stringent European conditions (European Commission, 2006).

Out of the four scenarios, the PPP and the IWT are the most likely to promote algorithms. The PPP aims at promoting projects with immediate outcomes, notably for the private partners that are involved in the projects. In the IWT, valorization is an aim even if it may be less short-term than in the case of PPP. The medialab scenario aims at making research that is demand-driven. However in this scenario, the consolidation of built-up knowledge is also important. Therefore in that case we are more likely to see heuristics being promoted. Finally the IBBT scenario leads to innovations that are heuristics and hunches. Hunches are likely to be obtained because innovation is produced by university
research groups that are used to deal with fundamental research. On the other hand, collaborating with business partners is needed to get funding, which might favour the development of heuristic innovations.

The following table summarizes which scenario promotes which kind of innovation through which organization. The results are discussed in the conclusion.

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Organization of innovation</th>
<th>Type of innovation</th>
</tr>
</thead>
<tbody>
<tr>
<td>(VRT-)medialab</td>
<td>Centralized Programme-driven</td>
<td>Production &amp; Distribution; Consumption / Media; Business Model</td>
</tr>
<tr>
<td>IBBT</td>
<td>Centralized Project-driven</td>
<td>Production &amp; Distribution; Consumption / Media; Business Model</td>
</tr>
<tr>
<td>Public-Private Partnership</td>
<td>Distributed Programme-driven</td>
<td>Production &amp; Distribution; Consumption / Media</td>
</tr>
<tr>
<td>IWT</td>
<td>Distributed Project-driven</td>
<td>Production &amp; Distribution; Consumption / Media</td>
</tr>
</tbody>
</table>

5. Conclusion

The innovation policy in the Flemish broadcasting sector is facing pressure to better fit the aim of promoting innovation in the whole sector. Therefore evolutions are foreseen concerning the way it is now organized. In this paper we provided a detailed analysis of current innovation policy in the media sector, its four possible evolutions and in every case the possible outcomes. The first contribution of the research consists in the large amount of empirical data, which consisted in documents analysis and numerous stakeholder interviews. The second contribution of the research consists in the providing of a mapping of innovation in the media, based on the one hand on the distinction between product and process innovations and on the other hand on the taking into account of the importance of the scale of use.

The mapping was used to provide a systematic analysis of the empirical data in terms of the kind of innovation to be promoted by every scenario, and in a related way, the impact on the organization of innovation. This could help the Flemish government and more generally all stakeholders, deciding which scenario should be favoured, according to the kind of innovation that should be promoted.

The main distinction may concern the scale of use. Private actors could favour short-term innovations, which aim at being adopted by as many users as
possible. Such innovations are called algorithms, and scenarios such as PPP and, to a lesser extent, IWT, would promote them. However, it is questionable whether promoting such kinds of innovation is sustainable, especially if players of the media sector want to build a competitive advantage. For this reason (and also due to the possible opposition of the European Commission), the Flemish government could opt for aiming at promoting innovations that have a low scale of use in the short term but have a great impact in the mid- to long terms, i.e. respectively heuristics and hunches. This corresponds to scenarios such as medialab and IBBT. In that case IBBT has two advantages: it is more related to academic research, and the private sector may perceive it less badly.

In all cases, once the aim (which kind of innovation should be promoted?) is clearly stated, the organization of innovation should be adapted so as to aim at making ‘what’ and ‘how’ fit.

6. References


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Note that media and innovation as policy competencies of the Flemish government are not always the responsibility of the same minister. Theoretically, and this has happened in the past, they can be the responsibility of different ministers (of, even, different political parties). At present, the same minister is responsible for media and innovation.

Schumpeter (1942) refers to innovation as either a new good, a new means of production, a new market, a new source of supply, or a new organization of an industry.

See also the following definition:

Financing is an important aspect of the media process. Arguably it could have been added before creation or between creation and production. It was decided that it was rather an aspect of business model.

It is possible to distinguish between arrows that remain in one stage and arrows that move across two (or three) stages. The distinction is left aside in order to simplify the mapping.

This is what Bakhshi and Throsby (2010) label as innovation in extending audience reach: audience broadening, deepening, or diversifying.

Flew et al. (2008) define innovations that produce such lasting social value as social innovations.

Cave and Frinking (2007) argue that this is notably the case for product innovation (compared to process innovation).


See http://www.archipel-project.be/

See http://www.vlaandereninbeeld.net/