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Title: The geography of the multimedia industry in the French Rhône-Alpes Region

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Introduction

In France, the Paris region is the traditional centre for decision-making and creative functions. Unsurprisingly, it concentrates most cultural industries – cinema, multimedia, TV, etc. The aim of this paper is to study how other French cities, and more specifically regional medium-sized cities, can develop this type of activities. We will take the example of the multimedia industry in the French Rhône-Alpes region. Rhône-Alpes is a French administrative region which includes eight *départements* and Lyon, its largest city. Rhône-Alpes is the second French metropolitan region in terms of population and economy, Île de France being the first. It approximately represents 10% of France. The Rhône-Alpes region is the second multimedia production centre after Paris, accounting for about 40% of French video game production. It seems to be the only French region able to compete with Paris and its surroundings, which is the heart of the multimedia industry.

We can see that the regional productive system is dominated by a main centre, the Lyon metropolitan area, which, building on know-how and strong legacies (Lyon is the birthplace of the film industry), has rapidly developed a policy favourable to the image and multimedia sector. Recognizing the true potential of the city (and region), actors from different sectors have joined together in associations to facilitate the development of social networks such as *Lyon Game* (video game), *Lyon Infocité* (digital industry), *Images Rhône-Alpes* (cinema, audiovisual) and the *CITIA* (animation). Together, these associations have created the *Imaginove* structure, which was labelled as a competitiveness cluster in 2005 by the French government. *Imaginove* now structures the entire Rhône-Alpes multimedia industry. Despite an unquestionable voluntarism on the part of industrial and public actors, the cluster is still emerging: collaborations are limited and social networks remain incomplete.

1. Regional assets: between knowledge and high-quality training facilities

Today, there is a general consensus on the importance of human capital for regional development, but there is still a debate around two key issues. The first involves the role of education and/or creativity, while the second revolves around the factors that affect its distribution. Since we know that talent, associated with economic development, is spread unevenly, it is important to understand the factors that account for this varied geography.

Most economists conceptualize talent as a stock or endowment, which belongs to a place in the same way that a natural resource might. The key question then becomes: what factors shape this flow and determine the divergent levels of human capital and the distribution of the creative class – in terms of education and skill – across the Rhône-Alpes region?

1.1 Recognized training facilities

The Rhône-Alpes region offers a very favourable ground for the development of creativity: it counts 124,000 students and 10,000 researchers working in 530 research units. In the IT field, the environment is extremely good. Indeed, the region concentrates 6,000 researchers and 50 research units, which allowed for the emergence of 2,000 companies and created 30,000 jobs. As for the image sector as a cultural industry, it accounts for only 23 research units and 28 research training structures, in areas as diverse as the audiovisual arts (*ARFIS* Lyon, a film school, and Lyon 2 University), documentary films (the documentary school of Lussas and *Cinedoc films* in Annecy), animation (*La Poudrière* in Valence and a branch of the *Gobelins* Parisian school in Annecy), video games (*Gamagora*, Lyon 2 and Lyon 3 Universities), computer graphics (the *Emile Cohl* graphic arts school in Lyon), as well as more technical or technological schools (Stendhal University in Grenoble, the Center for Research and Application in Image Processing and Signal – CREATIS – in Lyon)... This easily explains why the Rhône-Alpes region represents 40% of French video games production and is the second French city in the field of audiovisual production.

1.2 A dynamic media industry and the birthplace of cinema

The Rhône-Alpes region has a very dynamic media industry, dating back to the nineteenth century, when major newspapers which enjoy regional diffusion were founded. Typical examples are *Le Progrès* which was founded in Lyon in 1859 or *Le Dauphiné Libéré* which was founded in Grenoble in 1945. Although these papers are held by national newspaper groups, they have favoured the development of the media industry in Lyon and Grenoble. It is not surprising that the Rhône-Alpes region is one of the few French regions to have a complete regional network of local TV channels. They are more numerous in the heart of the Lyon metropolitan area (*Lyon TV*, *Olympique Lyonnais TV*, *Télé Lyon Métropole*), although they exist in other cities of the region as well. Examples are *TéléGrenoble*, founded in 2002 in Grenoble, or the web TV created in Annecy in 2006, *TV Annecy*. These TV channels are often developed by local industrialists or contractors who wish to promote their own products or services. This was the case of Roger Caille, the founder of *Télé Lyon Metropole* in 1988. Furthermore, the establishment of the European TV channel *Euronews* in Lyon in 1992, at the expense of Munich, Bologna or Valencia, has helped to strengthen the position of Lyon in the media industry.

Moreover, Lyon is the birthplace of cinema. In fact, it was in Lyon that the Lumière brothers filed the patent for the cinematograph in 1895. With this first camera, they shot *La Sortie des Usines Lumière,* which was screened in Paris, the same year as the brothers invented cinema. The city of Lyon has maintained this reputation thanks to a consistent policy favourable to the cinema: the foundation of the *Lyonnaise Film Company* (*CLC*) in 1936 to produce films for cinema and television, the creation of the *Lumière Institute* in 1982 and the *Lumière Museum* in 2002. Furthering the policy initiated by the city of Lyon, the Rhône-Alpes region was among the first in France to establish a new and ambitious film policy. Created in 1990 by

Roger Planchon so as to decentralize cultural activities concentrated in the Parisian region, the *Rhône-Alpes European Film Centre* nowadays continues its development around three activities:

- *Rhône-Alpes Cinema*, a 4 million euros regional coproduction fund designed to finance films shot in the Rhône-Alpes region. Then, each film is subsidized upon release by a release grant.
- *Rhône-Alpes Studio* offers three film sets for rent: Studio 24 (900 m²), which was created in 2002, Studio Lumière 1 (860 m²) and Studio Lumière 2 (380 m²), which both opened in 2008 in the *Pixel* business park. The park also offers extensive office space for firms.
- *The Rhône-Alpes Film Commission*, an office which assists film crews by facilitating the search for film sets and by providing logistical support.

With the help of France 3's regional branch (*France 3 Rhône-Alpes Auvergne*), *Rhône-Alpes Cinema* has co-produced more than 200 films since 1990, an average of 10 to 15 films per year. It is the second largest regional fund (after Île de France) supporting art creation and film production in France. It co-produced genuine box office hits, such as *Le Hussard sur le Toit* by Jean-Paul Rappeneau (with 2.7 million admissions in 1995, it was distributed in over 50 countries), *Les Enfants du Marais* by Jean Becker in 1999, *Une hirondelle a fait le printemps* by Christian Carion in 2001 (2.3 million admissions), or *La première étoile* by Lucien Jean-Baptiste in 2007 (1.7 million admissions). The Rhône-Alpes region became the second French region in terms of audiovisual activities and programme production, after the Paris metropolitan area which concentrates the bulk of employment in this sector (44% of television programmes filmed outside Île-de-France are shot in the Rhône-Alpes region).

1.3 Powerful multimedia and digital industries

The image sector relies on a powerful and comprehensive regional IT industry sector: electronic components, microsystems, systems integrators, telecommunications, software, video games, internet service providers, electronic documents management providers, web agencies, monitoring tools and knowledge management, software companies, audiovisual actors... This dynamism is largely due to the presence of technological neighbouring industries (chemistry in Lyon, optics in Saint-Etienne, nuclear physics in Grenoble). Moreover, the presence in the region of entrepreneurs and of highly skilled labour coupled with decentralisation policies has facilitated conversions: after suffering a decline of its industrial activities (including hydropower), Grenoble underwent a phase of renewal. Indeed, Louis Neel, Nobel Prize of Physics in 1970, created a nuclear research centre in Grenoble in 1950, a prelude to the establishment of the synchrotron in the 1980s, making the city an important centre for scientific research. This facilitates the establishment of French and foreign investors such as HP, STMicroelectronics, Sun Microsystems, Hewlett-Packard, Schneider Electric, France Telecom R&D…

Rhône-Alpes is among the first regions in France and Europe for electronic components, with over one fifth of the national production capacity. The Rhône-Alpes workforce in this sector increased by more than 30% between late 2001 and 2005. Computer systems advice is also showing significant growth (+87.5% between 1997 and 2005 and +9.6% since 2001). This industry plays a key role in the development and renewal of regional economies, despite a difficult situation for some activities in recent years, as in the case of computer equipment manufacturing (although the region still represents nearly 20% of the national workforce) or insulated cables manufacturing (16% of the national workforce)… However, other sectors are particularly dynamic and have seen their workforce growing significantly between late 2001 and late 2005: electronics manufacturing, processing/databases, computer systems consulting.

The ICT sector is marked by strong local specializations. Electronics manufacturing is concentrated in the Isère *département* and particularly in the Grenoble area which hosts two-thirds of industrial activity in electronic components. The nanotechnology and microelectronics R&D complex named *Crolles 2* is the product of a record investment by three major global firms from the semiconductor industry (STMicroelectronics, Philips and Motorola Semi-Conductors) between 2002 and 2007. Located near Grenoble, *Crolles 2* was created 10 years after the *Crolles 1* complex. The evolution of the industry alliance which financed this investment raises the question of the future direction of this major European research site. The *LETI*, a CEA (Atomic Energy Commission) research unit, is a powerful R&D research centre in micro- and nano-technology. The Grenoble metropolitan area, traditionally more oriented towards hardware, hopes to become the first European centre for smart miniaturised chips. It is the largest ICT employment centre in the region.

Design activities – that is to say, production of software and consulting systems – are mainly located in the major regional cities of Lyon, Grenoble, Saint Etienne, Annecy, and Chambéry: these cities host universities, research units, skilled labour, important transport infrastructures, etc. The Lyon metropolitan area is the largest regional centre of employment for "ICT-digital-audiovisual" activities. The Lyon metropolitan area is specialized in the field of digital entertainment software (40% of the French video games industry) and more generally software publishing. Lyon claims to be the European Capital of video games, with many developers, advertising agencies and distributors. The Lyon metropolitan area also numbers a great many actors in the software publishing sector (more than 400 companies representing 7,000 jobs). The creation of a "software publishers" cluster was formalized in 2007 with the foundation of the *Cluster Edit* association. Lyon focuses on telecommunications operators, electronic document management activities and online services. All these activities have enabled the region to become an important pole in the image sector.

1.4 The main areas of the image sector in the Rhône-Alpes region

The image sector, understood as a cultural industry, is built around four distinct and specialised regional clusters. However, owing to the process of metropolitanisation, the main cluster is located in Lyon, with three secondary, more specialized clusters in Annecy, Valence and Lussas. Thus, the Lyon metropolitan area is the heart of the system, concentrating the command structures of the industry (for example, the headquarters of the *Imaginove* competitiveness cluster) as well as the design functions, the research units and the most prestigious training facilities. The audiovisual and multimedia sectors have nevertheless been segmented into two distinct poles: the *Lyon Vaise* digital cluster, focusing primarily on digital technologies, including serious games, and the *Pixel* project, which is more multifunctional in that it accommodates three film studios and office space for multimedia companies. The geographical heart formed by the Lyon metropolitan area must coordinate with the other regional clusters standing in a complementary position.

Model of the Pixel image cluster in Lyon-Villeurbanne

Source: http://www.grandlyon.com

The Annecy cluster, also known as *The City of Moving Images in Annecy* (*CITIA*), based on the name of the association which locally structures this sector, is specialized in animation. This cluster has gradually grown around the famous *International Cartoon Film Festival of Annecy* (*FIFA*), established in 1960. But thanks to the arrival in 2001 of the *Gobelins* Parisian school, which offers multimedia and animation training, the sector has really taken off, with the establishment of such groups as Alcatel or Schneider Electric and especially one of the three Ubisoft studios, the French company developing and distributing video games. Indeed, young graduates are recruited by Ubisoft or create their own start-up, such as, for example, Net Design, Megalo, or Callitoon Limpid Animation. In early 2007, the cartoon sector in Annecy represented over 30 companies and 230 jobs.

Built around the *Folimage* production studio, the *La Poudrière* European School of Cartoons and *L'Équipée*, an association for film promotion and diffusion, the Valence cartoon studio, *La Cartoucherie*, hopes to become an animated pictures cluster. Animated picture is one of the emergent specialisations which Valence wants to develop by integrating the *Imaginove* competitiveness cluster. To achieve this aim, the city intends to draw on its substantial know-how in electronics.

The Valence cartoon studio, *La Cartoucherie*

Source : B. Lusso, 2009

Finally, the documentary film cluster in the village of Lussas (Ardèche, 929 inhabitants) has developed thanks to an association founded in 1979, *Ardèche Images*, which sought to produce and distribute films in reaction to the centralisation of French creation. The association has quickly structured the sector by creating a festival called *Cinema of Regions* (in French, *Cinéma des Pays et Régions*), where documentary films produced and directed outside Paris are shown. This festival has boosted production, as evidenced by the establishment of one of the few production companies located outside Île de France, the *Image Ardèche* firm in June 1983, which has produced two documentaries per year since 1986. In parallel, from 1982 to 1984, film training courses were organized. To put it in a nutshell, the Rhône-Alpes region comes across as an image industry based around clusters with clearly defined specialties and animated by the *Imaginove* competitiveness cluster.

2. A development sustained by the Imaginove competitiveness cluster

Since the mid-2000s, the development of the image sector in the Rhône-Alpes region has been encouraged by several associations, including the most recent *Imaginove*, which was labelled as a competitiveness cluster.

2.1 Number and distribution of members

Many of the activities related to the image sector in the Rhône-Alpes region are grouped in the *Imaginove* association, which received the label of competitiveness cluster in July 2005, following the call for projects launched in November 2004 by the DATAR (now DIACT), an agency responsible for conducting national policy planning. In early 2010, the association had 209 members distributed as follows:

Distribution of Imaginove members

Types of trades	Number of members
Audiovisual	42
Animation	32
Non-cultural digital contents	42
Video games	35
Indirect memberships	39 La Cour des Images : 9 CITIA : 30
Training	12
Research	7
Total	**209**

Source : http://www.imaginove.fr/

Imaginove comprises 170 direct members. This professional association reaches the number of 209 adherents, if we add the indirect membership of two structures which are *Imaginove* members while being located outside the metropolitan area of Lyon: the *La Cartoucherie*

Studio in Valence (*La Cour des Images* association) and the G 147 business club formed around the *City of Moving Images* (*CITIA*) in Annecy. If we count direct and indirect memberships, the cluster amounts to 186 companies (97% of which are SMEs), 12 training facilities, 7 research centres and 4 associations (*Ardeche Images*, *CITIA*, *La Cour des Images* and *Rhône-Alpes Cinema*). The association's goal is to recruit members across the region.

However, the geographical origin of members highlights the overwhelming weight of the Lyon metropolitan area, which concentrates more than 60% of *Imaginove* members, the rest being shared between secondary centres such as Grenoble, Annecy and Valence. This finding is the direct result of the metropolitanisation process, which is characterized by a high concentration of creative activities in the main urban centres. The members of this association come from diverse sectors, with their own culture and approach of the creative economy. Producers, technicians and distributors of motion, television or animation pictures are especially numerous: they make up more than half the members of *Imaginove*. Indeed, the audiovisual sector is mainly composed of small independent producers who encounter serious difficulties to distribute their works. Their projets are relatively long (18 months on average) and involve very diverse know-how (a screenwriter, assistant-director, cameraman, editor, etc.). A single person cannot control the integration of the production process. These small independent producers have often been forced into partnerships so as to complete their work, especially since *Rhône-Alpes Cinema* has promoted the establishment of regional networks. Then come the video game companies that are much less represented (16% of *Imaginove* members). Faced with stiffer competition, the video game industry is more logically made up of companies which do not necessarily want to develop networks, especially since these are less numerous. Furthermore, we see a significant number of non-cultural digital producers: they are essentially communication firms, marketing agencies or companies designing web sites for commercial firms, food companies or hotels. They join this type of association to improve their market visibility, but also to find potential customers.

Training facilities and research units represent about 10% of *Imaginove* members. However, only 12 of the 28 regional training facilities are members. Training facilities are not particularly active members of the association and therefore develop a wait-and-see strategy: their goal is to observe how skills develop so as to adapt their offer, to lure contractors into intervening in their training courses or to present their students and thus increase their employability.

2.2 History of the creation of the competitiveness cluster

The *Imaginove* competitiveness cluster was founded by three major associations from the video game industry (*Lyon Game*), the audiovisual and cinematographic industry (*Images Rhône-Alpes*), and the digital and animation industry (*CITIA*) in the Rhône-Alpes region. The grouping of three different sectors which are not used to working together accounts for originality of this cluster when compared to the system that preceded it. The birth of *Imaginove* in its current configuration happened through a series of steps. At its inception, the cluster included only the video game industry, the universities and the research units gathered in the *Lyon Game* association. Founded in 1999 by industrialists from Lyon wishing to set up a collective stand at the E3, the annual video game exhibition, this association has supported the video game industry in many ways, by accompanying Lyon's video games firms to major industry events, like the *Tokyo Game Show*, by creating a video games school in 2004 (*Gamagora*), or by organizing events (*Game Connection* in 2002, *Serious Games Sessions*

Europe in 2005)... These activities explain why, in 2002, *Lyon Game* received the support of the Rhône-Alpes Regional Council as part of its strategy for supporting regional clusters by granting them the “digital entertainment” regional cluster label.

The competitiveness cluster labelled by the government in July 2005 was actually the “digital entertainment” regional cluster. In 2006, under the leadership of the Rhône-Alpes Regional Council and of the main actors of the “moving pictures” sector, the *Imaginove* cluster took its present form. This reconfiguration was the result of the evolving strategic vision for clusters of the regional executive that called into question the concentration of the cluster around the sole video game industry and considered that it was necessary to expand the cluster to others image industrialists present in the Rhône-Alpes region, including the cinema, audiovisual, animation and multimedia industries. Considering that these actors increasingly operate in the same markets, it is essential that they should work together to anticipate the changes which they will face, an idea which was not widely shared at that time.

In March 2006, the Regional Council defined the new perimeter of the “digital entertainment” cluster indicating that it was to be “present in three markets: the video game and edutainment market; the cinema and the audiovisual and animation market; the multimedia and interactivity market. These markets are respectively animated by *Lyon Game*, *Images Rhône-Alpes* and *CITIA*.” This strategic vision has led to the gradual integration of *Images Rhône-Alpes* and *Lyon Game*. *CITIA*, created in February 2006, has become a Public Establishment for Cultural Cooperation. In early 2007, the “digital entertainment” cluster became *Imaginove*, which meant the expansion of the video game industry to the other two sectors. Until then, the cluster had been hosted by the *Lyon Game* association, after which it organised itself independently as a 1901 Act Association. *Imaginove* integrated *CITIA*, which remains a separate entity, while *Images Rhône Alpes* and *Lyon Game* were dissolved.

2.3 Imaginove’s strategy and actions

The *Imaginove* founders have given the competitiveness cluster a mandate to develop synergies between the image sectors by encouraging anticipation and stimulating innovation. The cluster, which is dedicated to the manufacture and distribution of cross-media content, aims at becoming a European reference within 5 years. Since 2005, *Imaginove* has anticipated international competition, changes in media use (dematerialization, mobility), and the cross-media strategies of international groups in the image sector. The aim of the cluster is to assist Rhône-Alpes actors facing the dynamics of change, market and trade with simple and concrete support in the field of innovation, business and skills. To meet these challenges, *Imaginove* has launched concrete operations since May 2006:

- *Support for Innovation*: aid for setting up projects, search for industrial and academic partners, help in seeking funding.
- *Imaginove Commercial*: support to firms willing to try out innovative business approaches. The purpose is to test a new sales model for an existing activity (online broadcasting, direct/indirect, derivatives…). To do this, companies receive financial support and/or coaching support.
- *Imaginove International*: support programme for companies seeking to compete internationally. The programme bears the associated costs and finances the training/action (individual and group coaching).

- *Imaginove Strategy*: support programme for company development. *Imaginove Strategy* provides companies the means to rethink or adjust their development projects. Substantive work is undertaken on the basis of know-how, competitive advantages, market developments in order to redefine the company's strategy.
- *Support for new employment and training*: pooling of the human resources of the companies from the competitiveness cluster through *Imaginove Skills* (training programme for employees and executives), which also includes the pooling of the annual employment guide or of a hiring site.
- *Imaginove Skills*: this training programme aims at providing professional training adapted to the needs of firms seeking to maintain a high level of expertise and to anticipate changes.

3. An emergent cluster

The spatial, organizational and institutional proximity plays an important part in the geography of economic development (Boschma, 2005). It is therefore important to see what kinds of networks are being developed within the image sector between the different actors of the Triple Helix (Etzkowitz and Leydersdorff, 1997): firms, training and R&D facilities, and public authorities.

3.1 Are training structures really adapted?

Only 50% of graduates remain in the Rhône-Alpes region. The problem is equally due to a mismatch between the job supply and the real needs of companies as to poor job opportunities in the Rhône-Alpes region. Young students are trained in Rhône-Alpes and leave the region to go where conditions are more favourable (in Île de France, the United States and Canada). Paradoxically, the Rhône-Alpes region suffers from a shortage of talent in the image sector. Moreover, given the "technicisation" of the image industry (due to the quantitative and qualitative growth of technical ability and knowledge), hiring now combines the two dimensions, technical and creative, making it more difficult to find an adequate applicant. Thus, in the game industry, 70% of development studios have difficulties in hiring, particularly in the programming, computer graphics and game design sectors. In the film industry, the problem is to employ temporary workers long enough to allow them to collect their unemployment benefits. Out of the 28,750 employees having worked at least one hour in the performing arts in 2001 in the Rhône-Alpes region, 20,000 of them (70%) worked less than 500 hours and are considered as casual workers. This situation does not encourage the creation and maintenance of a sufficient pool of people with skills and experience on which production companies could "draw" when they produce a film.

The training and mobility of image professionals has become one of the main challenges for *Imaginove*. The association has thus created a guide which identifies 14 types of jobs in the region that can be useful to different industries (film, animation, video games) and for which cooperation is emerging and should be developed (3D graphic designer or sound engineer). Since 2008, a website devoted to employment and training has been developed based on this guide. The website is a hiring tool for companies (training, employment), a tool for promoting the image sector in the Rhône-Alpes region and a presentation of the training offer. This website aims at fostering links between the video game, cinema, audiovisual, animation and digital industries, by thinking in terms of jobs and not of sectors.

However, the main originality of *Imaginove* is the setting up of an unprecedented pooling of training. Based on the experience developed in the video game sector by *Gamagora, Imaginove Skills* offers training for all the sectors in the cluster. A Development Agreement for Employment and Skills (ADEC) has been signed with the Rhône-Alpes Regional Council, in partnership with AFDAS, an organization which facilitates training in the fields of culture. Over the 2007-2009 period, 56 companies and 115 trainees have been mobilised, amounting to 25 courses for 1,900 hours of training. The competitiveness cluster offers a real training plan for employees of companies from the cluster (in language, law, management, information technology, audiovisual and cinema knowledge). The challenge is to contribute, through the pooling of the offer for training courses between the different sectors of the cluster, to increasing the exchange of practices and experiences among employees and executives from various worlds between which convergence is developing more and more.

3.2 Limited networks between firms

Collaboration between different regional firms was generally low or nonexistent before the launching of *Imaginove* in 2005. If partnerships existed in the audiovisual field between producers and technical teams, it was mostly casual and limited to an 18-month project on average. As for the animation sector, the establishment of Ubisoft in Annecy, amplified by the creation of a branch of the *Les Gobelins* school, has created a production system in which Ubisoft entrusts less sophisticated tasks to small local companies. Finally, the video game industry (mainly concentrated in the Lyon metropolitan area and including 58% of development studios and 14% of publishers) is dominated by several large publishers like Infogrames, Atari or Cegid, who entrust to their subsidiaries (mainly development studios) the creation and production of finished products (as is the case between Infogrames and Eden Games) and assign to smaller subcontractors units (such as Krysalide or Gamr7) the assembling of the game. The sector is therefore organised as a lobbying system, with the parent company retaining the design functions and entrusting less skilled tasks to its subsidiaries.

However, the measures taken by the *Imaginove* cluster have contributed to improving the situation: interfirm cooperation has increased and 45 projects have been identified as involving software and hardware firms (for technological reasons) and, sometimes, a research unit at the regional level. Thus, the *Genac 2* project combines the Eden Games and Widescreen Games companies and the INRIA (ARTIS and ESCAPE teams) and LIRIS research units. The purpose of this project is to adapt to the new generation of consoles such as the PS3, Xbox 360 and Wii. Funded in part by the *Imaginove* competitiveness cluster, the program aims at developing new tools to produce faster and better. *Genac 2* specifically targets three technologies: the calculation of direct and indirect lighting, the dynamic management of character movements and the generation of comprehensive environments. Nevertheless, collaborations rarely adopt a cross-media approach. These projects are often developed by a single firm, like the MMM programme (Omegame firm) which aims at creating an application to design high-end multimedia interfaces for next generation mobile phones.

3.3 Shortcomings of research

Imaginove is not very involved in research, even though getting labelled has fostered a dozen partnerships that did not exist before. It must be said that research does not involve identical stakes in the different sectors of the image sector. What explains these differences? In the case of the audiovisual sector, Lyon does not enjoy the presence of large producers like in the Parisian region. The actors of the audiovisual sector prefer to focus their efforts on high-quality production, especially as regards scenarios, rather than banking on over-the-top special effects. The only innovation that has transformed the sector is the introduction of digital technologies. Furthermore, this sector is characterised by the heavy weight of associations and professional unions. Although they have certainly facilitated the development of networking between the different actors of the sector around mainly technical aspects, this is not the case in the field of innovation. To date, two research programmes concern the Rhône-Alpes audiovisual sector: the first, represented by the Valence studio *La Cartoucherie*, aims at finding tools to rationalise film production techniques; the other programme, *Convergences*, supported by the Abell and Phoenix firms, aims at creating a new system of acquisition, treatment and restitution for interactive applications, based on the tools and skills of the cinema industry.

As for video games, the weakness of collaborations in the field of research lies more in the particular relation that firms have with R&D research units. When a development studio (there are many in the Rhône-Alpes region) does R&D, it is generally not dissociated from the production of a specific film. It applies directly to this film and ends when the production is over. Indeed, the relatively small size of companies does not allow them to develop an autonomous research activity, while larger companies such as Eden Games, a subsidiary of Atari, develop their own research programmes. Innovations are rather exogenous and appear as a technological constraint imposed by the upstream actors of the “hardware” sector, mainly located in Grenoble. It seems essential in this context that content producers make a significant effort to organize R&D internally, so as to offset the exogenous innovation constraint by building on the skills of engineers, designers and creators.

A dozen programs linking firm and research centres have been launched since the creation of the *Imaginove* competitiveness cluster. The money invested by public authorities in these collaborative research programmes is important, as illustrated by the *Garden* project developed in the Lyon metropolitan area by three local SMEs (Krysalide, Eden Games, Gamr7) and a research unit (*INRIA*). As part of Atari’s new strategy (a U.S. company bought in 2001 by the Lyon company Infogrames), who wishes to become one of the main actors in the creation and distribution of video games for the current (Wii, Xbox360, PS3, PC) or future (PS4, Xbox720, PC DirectX11 NextGen) console generations, the project aims at developing a common and evolutionary technology of video game production for the Atari Group developers, whose partners are subcontractors. This technological progress will allow Atari to get a head start on the video game market, reducing its production costs and increasing direct investment on new projects as regards performance, visual appearance and productivity. So, through this collaboration, Krysalide should have a technology able to meet the needs of publishers and to move from subcontracting activities to developing platform video games. The use of the latest programming and hardware technologies, as well as the use of networks, will be at the heart of the project, which is divided into 11 sub-projects for a total budget of 9 million euros. One third of this sum is financed by public authorities, as shown in the following table:

Financing of the Garden project

Sources of financing	Eden Games	Gamr7	Krysalide	INRIA	Requested grants
Competitivness, Industry and Services General Direction	2 003 903	0	0	406 402	2 410 305
Rhône-Alpes Regional Council	0	415 401	0	0	415 401
Rhône General Council	0	0	200 000	0	200 000
Grand Lyon urban community	0	0	200 000	0	200 000
ERDF	0	0	346 878	0	346 878
Total public funding	2 003 903	415 401	746 878	406 402	3 572 584
Cash flow	4 675 772	507 712	912 850	0	0
Research total cost	**6 679 675**	**923 113**	**1 659 728**	**406 402**	**9 668 918**

Source: B. Lusso, TVES, 2000, from the Grand Lyon Urban Community

However, financing by local authorities should become very problematic because of two local government reform projects planned by the Sarkozy government. One project is for the abolition of the professional tax which will deprive local communities of a major funding source; the other project is the suppression of decision levels like the *département* (General Council) and the merging of Regional Councils (from 22 to 15). The problem of developing a coherent innovation policy is as much due to the reluctance of many companies and research units to work together as to inconsistent government policies. The constant redefinition of the powers and responsibilities of local authorities is therefore a factor limiting the definition of a policy based on competitiveness and the emergence of innovations.

3.4 SMEs: an international development?

Rhône-Alpes companies in the image sector are mainly SMEs who have neither the means nor the culture of international development. They think that international development is reserved for the largest companies. However, these firms have undoubted know-how in this field. So *Imaginove* has launched a programme for international development which provides advice and finances 50% of their spending. The programme supported the international development of 25 companies and ten jobs were created. Thus, the *Imaginove* competitiveness cluster has encouraged the firm E-magineurs, which specialises in audiovisual, interactive and event-driven communication, to think of its business development in terms of an international dynamic. This approach relies primarily on a cultural reality. The opening of a branch of the Lyon II University in Dubai and the building of a second *Louvre* museum in Abu Dhabi is a fitting illustration. Advice from a consultancy firm allowed to cross out inadequate countries (Russia, Japan). A target territory was chosen: Dubai. The consultancy firm then created a map of potential buyers. In a second phase, these potential buyers were approached and the firm organized a series of appointments in Dubai. This prospective phase led to the identification of five major customers who now order from E-magineurs and not from national suppliers. Two trips to Dubai were needed to establish the initial commercial relations. However, this type of programme is reserved for companies which have an adequate size and financial base: such companies are a minority, to be found mainly in the area of multimedia and video games, and much more rarely in the audiovisual sector.

Conclusion

With solid know-how and a strong technology base (in the field of microelectronics and digital activities, mainly located in Grenoble), the image sector is a very important cultural industry in the Rhône-Alpes regional economy, accounting for 20 % of the national audiovisual production and 40% of video game creation. The region has large groups such as *Lyon Infogrames* which was able to expand and become an international firm. From a geographic point of view, moving pictures production mainly focuses on four areas, the most important of which is the Lyon metropolitan area, with its rich and diverse audiovisual activities, its powerful video game industry and its major decision and design centres. As such, Lyon is the heart of the image sector in Rhône-Alpes. Lyon is assisted by three secondary, more specialised areas: the animation and web marketing cluster in Annecy, the cartoon cluster in Valence, and the documentary film cluster in Lussas.

From a sectoral perspective, the entire regional industry revolves around *Imaginove*, the association which received the competitiveness cluster label in 2005 and now pursues a strategy to facilitate synergy – so far insufficient or even absent – between the various firms, schools and research centres of the sector. *Imaginove*'s ambition is also to facilitate business and international development. On these different levels, despite real progress, there is yet much progress to make, because collaborations are still very recent, rarely include a cross-media approach and hesitate to develop partnerships with research units. Similarly, the Lyon region suffers from the poor adaptation of the regional training offer, which is far too rich and diverse compared to the actual capacities of the regional moving picture economy. Companies, mainly SMEs, cannot hire many people and they hesitate to embark on international missions. However, a development dynamics has been initiated and the Rhône-Alpes region could now become a potential and dangerous competitor of the Parisian area.

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