Chapter 13

Meso-analysis of Cross-innovation between Tourism and Audiovisual Media: The Case of the Public Sector's Driving Role

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Abstract

This chapter focuses on clarifying the cooperation and convergence between tourism and audiovisual (AV) sectors in Hamburg and Riga. In light of increasingly easier and more accessible travel, the tourism sector is a growing trend in most countries and regions. To what extent does this affect cooperation with the AV sector? The chapter gives an overview of different types of cooperation in these regions and brings out the main obstacles for innovation. When describing the innovation systems, focus is put on institutional frameworks in these two regions. We end by arguing that raising the demand for innovation in the tourism sector is a real challenge and demonstrating that the public sector plays an important role in driving the cross-innovation processes between the observed sectors.

Keywords: Cross-innovation; tourism sector; plaformisation; Riga; Hamburg; innovation systems

Introduction

This chapter carries out a meso-level analysis on how two sectors – specifically audiovisual (AV) media and tourism sectors – cooperate, co-innovate and converge. By 'meso', we refer to a level between micro and macro – an analytic look at specific industries and economic sectors and their operations. To carry out such an analysis, we have carried out 34 interviews in two case cities – the

Hamburg region in Germany and the Riga Metropolitan area in Latvia. These two case studies were selected due to their notable differences, as well as their complementarities. The first one represents a Western city in a large country with long trading and business traditions; the second one is an Eastern European capital city of a small country, where the development of a trading centre was disrupted for 50 years by Soviet occupation.

Hamburg has long traditions as an important trading city in Germany and today, the city is dominated by the maritime industry. But the media industries also play a large role – Hamburg is called Germany's media capital. Besides the long-established publishing houses, such as Gruner + Jahr, Axel Springer, Spiegel, Die Zeit and dpa, Hamburg is also a major hub in the digital-media industry. The global players, such as Google, Facebook, Twitter and Yelp, have set up offices there. Also, the startup scene is vivid – a new booming branch is game development.

According to a representative of Hamburg Tourismus GmbH, the tourism sector in Hamburg is strong. Hamburg is one of the fastest growing tourism destinations in Europe. The tourism has grown from 10% to 12% per year for more than 10 years. The main drivers have been culture tourism, including people travelling to attend musical plays (recently boosted by the opening of the *Elbphilharmonie*); and cruise tourism, which has grown from 250,000 to 800,000 visitors per year within the last 10 years. However, international tourism is not developing as dynamically as domestic tourism; the largest numbers of visitors come from the rest of Germany, as well as Austria and Switzerland. Compared to Berlin or Munich, the number of international tourists is small.

Riga, on the contrary, is the main destination of international tourists travelling to Latvia. In 2017, more than 2 million foreigners visited Latvia, and the majority of them visited Riga.[1] The tourism has increased slowly, but steadily. Yet, in Riga, the development of the tourism industry is still considered to be in its early growth phase. But, more and more businesses see possibilities of attracting more tourists by offering them new kinds of services.

As for the AV media industries, Riga is the main centre for the companies in this sector within Latvia. The main TV channels (both public and private ones) and film companies are in Riga, as well as main publishing houses, advertising companies and the majority of the gaming companies.

Forms of Cooperation

The following section focuses on describing the forms of cooperation between AV and tourism sectors in our two case regions. The study identified several forms that we adapted for a classification of innovations via their objects – the results that the innovations will lead to (OECD, 2002; OECD/Eurostat, 2005).

[1]Latvia's population on the 1st of January 2018 was 1,934,000 – one-third of that population lives in Riga (the Central Statistical Bureau of Latvia).

Table 13.1. Cooperation Forms and Innovation Types.

Form of Cooperation	**Type of Innovation**
AV content for tourism products	Product innovation
AV tools for tourism product development	Product/service innovation
AV tools for tourism promotion and sales	Marketing innovation
Tourism added value to AV sector	Product/service innovation
Mutual knowledge and skills sharing	Organisational innovation

Most of these forms fall into product-and-service innovation categories and some fall into the marketing innovation category. In general, the tourism sector should benefit more from cooperation with AV sector (see Table 13.1).

AV media, more specifically film and TV productions, has a lot to offer for tourism product[2] development. Popular content has been used for decades to market tourist destinations, even sometimes accidentally – for example, the fake 'Baker Street' of Soviet 'Sherlock Holmes' movies, which were shot in Riga, increased the city's attraction to Soviet and Eastern Block tourists. The unintentional effects, however, proved the emergent trend. As described in Chapter 12, there are a lot of film- or TV-series-based tourism products available in Europe. This was also the case in Hamburg region, our other case study area. Also, next to Riga is the open-air Film Park 'Cinevilla'[3], which is used for shooting films, but is also open for tourists.

Information and communication technology (ICT) development has brought new tools for AV media production and new technical platforms for content distribution, including more recently the virtual reality (VR) and augmented reality (AR) technologies. These new technologies are starting to find their way into tourism products. Mainly, we can see these tools used for developing attractions – innovative stands at museums, AR solutions at historical sites, etc. For instance, *Riga Motormuseum*, after its recent renovation, had novel AV stands and exhibitions installed which used AR technology in innovative ways (for example, looking at a car through a tablet computer, one could see the activated motor and its movements) (Figure 13.1). In Hamburg, this type of example is an old historic site – Hammaburg, the first ring-shaped fortification of the eighth century. The city's business centre is brought back to life through the means of an innovative AR application (Figure 13.2). At the time of writing this chapter, this is an

[2]A 'tourism product' is generally understood as a complete travel stall that consists of a variety of different services, such as the physical environment, the atmosphere, the hospitality of workers, the local people and many other factors. Tourism services, in turn, are accommodation, catering, transport, travel-agency services and tour-guide services.

[3]See http://cinevilla.lv/?lang=en

Figure 13.1. Riga Motormuseum – How the Engine Works.

Figure 13.2. Hamburg Today Meets the Eighth Century Hammaburg Fortress. *Source*: © Weiss (2018).

ongoing cooperation project between *Archäologisches Museum Hamburg, HafenCity University Hamburg* and ICT cluster *Hamburg@work* companies. A result of the previous thematic cooperation with Google, a virtual exhibition of the site, titled 'Hammaburg and the Beginnings of Hamburg', is already available as a bilingual app for Android smartphones. This experience shows that the institutions of the tourism sector that have collaborated with the AV media sector are trying to find opportunities for new collaborative projects. A similar positive attitude was shared by the representatives of other memory institutions in both research areas.

VR and AR tools, together, with 360-degree videos are also increasingly used for tourism marketing purposes. Production of commercials and other marketing videos have been the main line of cooperation between tourism and AV companies for decades, but now new tools are being tried out. Both in Riga and Hamburg, the local tourism offices have commissioned 360-degree videos for their city and region's promotion. Also, bigger local hotels have some promotional material in this format, and even some tourism brochures or fliers have AR functionalities. The VR solutions have been used to a much smaller extent – for providing immersive examples used in tourism-trade fairs. Also, different social media channels are used for promotion, including blogs and vlogs.

The previous sections mainly described how the tourism sector can benefit from cooperation with the AV sector. But the opposite direction can be also recognised – the tourism sector can provide services that help to boost AV sector. For instance, in Hamburg, an initiative by Hamburg Film Commission together with the hotels, sought to develop the concept of film-friendly hotels. These specific hotels learned the special needs of film crews and can now offer suitable accommodation services. This way, the tourism sector attracts film or TV productions to Hamburg as a good location for shooting. This shooting-location promotion is also active in Riga (and in wider Latvia), but it is not yet acknowledged as a special form of tourism that needs special services. There are some other examples in world – for example, in Jamaica, where the film crews are considered as a special type of business tourism (Martens, 2018). In Europe, business tourism is mainly developed through conference locations, although the numbers of professionals traveling for AV content production may equal those of conference tourism. Film-location promotion is more often seen as serving the development of the local AV sector, and not so much as a development of the tourism sector yet.

When analysing the cooperation forms described by the respondents, one more type of innovation can be recognised in the tourism sector – organisational innovation. Cooperation in product development usually leads to interactive learning about each other's practices (Christensen & Lundvall, 2004). This has happened in our case's regions too – for example, Riga Tourism Promotion Agency created a new post for a marketing person, who deals with bloggers, vloggers and other social media influencers. Museums in Hamburg have changed their communication strategy with audiences due to online collections and exhibitions. Museums in Riga have changed their working methods because of cooperation with the AV sector – for example, they have instituted a new form of brainstorming meetings as the normal museum working method, which is a format that they adapted from their cooperation partner, an AV content production company. 'Cinevilla', a production company, in turn, had to learn how to deal with the tourists/visitors and make some organisational changes in their operational and business models. So, the cooperation with the other sector has opened new ways of doing things and enabled companies/organisations to innovate their organisational structures and operations, not only their products and services.

In short, cross-innovation, as a practice, has spread and taken multiple forms in tourism marketing. Many tourism businesses and organisations have also embraced social-media-related tasks as part of the day-to-day work of their organisation. New products that combine AV tools and methods were noticed more in the tourism attraction's development than in core tourism subfields, such as tour operators and hotels.

Drivers and Barriers of (Cross-)Innovation

Next, we provide an overview of innovation drivers on the one hand and the obstacles that hinder the innovation activities on the other. The global trends, as described in Chapter 1 of this book, have certainly influenced the tourism sector. Personalisation of services have formed one of the rationales for tourism innovation. After digitisation conditioned the emergence of online-booking platforms as, in effect, a form of radical-process innovation for the tourism industry (both with regard to travelling and accommodation services), there has been a lot of discussion about the end of the tourism agencies' core-business lines. If people can find information on all services on their own and can also make all their decisions and bookings on their own, then the agencies' business may be threatened. Yet, as respondents suggested, these innovations have only changed the nature of the business:

> It is a bit similar as with the story with the internet and the books. So, now 20 years have past and books are still here, they have changed maybe their content and their purpose, but as such they are still here. And, I think it is similar with travel. There used to be the conversation, I don't know, 2003–2004, when the e-commerce started in tourism, that this is the end of the business, but, in reality, the curve has been that it has lead to customisation, as an opposite to the mass tourism.
>
> (Riga tourism company representative)

> All the companies have faced this change. So, they offer more individual Hamburg products. They offer more flexible ones, smaller packages, not the four days with three nights and whatever services. That would not work anymore. So, it is more about finding very individual approaches to the customers. And, that affects all of the industry, for sure.
>
> (Hamburg tourism agency representative)

In the study, we asked the interviewees what the main drivers were that push them to innovate. There were three main factors that were mentioned most often: demand, technology and competition.

Most of the respondents see the changes in demand. Today's tourists, especially the younger generation, use new technology to travel and, generally, represent a different type of consumption behaviour. They travel independently using different apps, which enables them to consume places and experience cities/countries in their own customised way. A respondent representing a tourism promotion agency described the change as follows:

> People change the ways they book and the ways they travel, and we have been feeling that change for years now [...] We try to face the digital developments in providing an alternative Hamburg experience. So, all the apps and our 360-degree virtual projects are developing very nicely and are to become some of the core services we provide to visitors.
>
> (Hamburg tourism agency representative)

These changes in demand are enabled by development in digital technologies and by the general platformisation of services. The online-booking platforms have educated the people in how they can plan their trips themselves, just as they would like. In addition, different tourism apps are expected to further feed the demand for these opportunities by users. The AR technologies have been generally recognised by the industry as the tools that could have lot to offer for tourism-experience development. Still, the VR and AR technologies are seen among the tourist-service providers as not yet ready for mass production, as they are too expensive to develop and, for mass consumption today, there is a rather small audience. But, the digitisation has not only impacted tourist-product and tourist-service development; it has also changed the way of organising the work inside the companies and the cooperation between the companies and other stakeholders. The emergence of 'social network markets' as a form of market structuration, described by Potts, Cunningham, Hartley, and Ormerod (2008) and elaborated on in Chapter 2, is increasingly visible in tourism sector. It is quite vividly described by one Riga tourism promotion agency's representative:

> We do work a lot with Instagram influencers, since everybody, now, is [a] multimedia-content developer. Then, we actually have one position in marketing division, where one girl constantly works with bloggers and Instagrammers – how to get them here, how to get the best content out of them.

The 'word of mouth' marketing strategies have long been used by the tourism sector to recommend the best hotels and the most interesting sites to visit. But, with digitisation, these practices have changed and, with the rise of 'viral marketing strategies', its significance has increased rather notably. However, it means that every company should have the basic skills of online marketing, including the skills of visual and AV storytelling. Yet, this may appear as challenge, as we will be discussing below.

The third driver that was highlighted by respondents was competition. To keep a profitable market share in a very tense business area – especially if we take the core of the tourism business in of the case cities, Hamburg and Riga, such as hotels, restaurants and tourism agencies – one has to be better than competitors, and this forces companies to seek new solutions for customising their services or to provide additional services or solutions. This competition drives hotel businesses to find new ways for marketing – for example, 360-degree videos.

Further, we identified that some innovations in the field are policy or public-sector driven. In the case of Riga, the public sector's support for tourism development takes the form of the supply of creative digital tools and trainings (web design, content development in web, etc.) aimed at improving the skills of digital-content production by the tourism companies, the quality of their content and their visibility in the web. These kinds of activities lead to cross-innovation in the form of spill over. According to Raven and Verbong (2007), spill over is a kind of intersectoral interaction that involves the transfer of rules (in this case, skills and knowledge) from one sector to another.

The role of the public sector in driving innovation is very much visible in Riga. In recent years, the innovation of cultural objects and creative industries (including the AV sector) has been influenced by several major events of national significance, such as the European Capital of Culture 2014, Latvian Presidency of the Council of European Union in 2015 and the Republic of Latvia Centenary celebrations in 2018. Such major projects have brought additional resources to the creative industries sector. Several museums have been renovated and found innovative solutions in partnership with digital-media companies. The reopened Latvian National Museum of Art offered visitors a mobile-interactive guide to the museum's exhibitions. Riga Motor Museum changed the whole concept of presenting their objects – new solutions include storyboards, interactive screens and AR applications.

In Hamburg cross-innovation processes have similarly been driven by a different kind of public-sector institutions – those working with the AV sector, such as the local Film Foundation. They have initiated cooperation with hotels to compile the above-mentioned list of film-friendly hotels in Hamburg. Film Foundation has also initiated cooperation projects with TV-series producers to develop tourism products, such as mobile apps for fans that enable them to discover locations in Hamburg where well-known films have been shot (described in detail in Chapter 14). So, we can see that the public sector in both regions has had an important role in facilitating sectoral cooperation and knowledge spill over from one sector to another.

On the other hand, the study revealed several interrelated and amplifying obstacles, which are described in the following paragraphs. Interviews suggested that our chosen sectors are different when it comes to their readiness for innovation and cooperation. Tourism sector representatives pointed out the need for new developments and new approaches in business development and new tools to be used in developing products and services (e.g. more mobile-based services, etc.). They pointed to several cooperation projects and developments, together, with the AV sector. Still, they admit that sector is not very eager to innovate.

Also, the AV sector interviewees suggested that the tourism sector has not come along fast enough and that it is rather modest and not ready to take risks and try out new things.

One obstacle that became apparent was a lack of coordination of informational resources that are needed to develop convergence applications. An example of this was the perceptions on the availability of necessary data resources. Professionals who were engaged with games or mobile-app development argued that there is not enough suitable data for developing, for instance, a location-based mobile application for promoting film-related sites as tourism attractions. Their argument was that this information is not systemised, if there is any data at all. Yet, the respondents in the tourism sector saw that there is, instead, a lot of unused databases with data on travelling, accommodations, tour registrations, etc. Therefore, figuring out how to collect, systemise and share relevant data between sectors, and develop new open data protocols for such sharing, would be necessary to undo the existing obstacles for cooperation and cross-innovation.

A similar obstacle suffering from the lack of communication are intellectual property rights. With new kinds of convergent solutions, many of the exchange relationships, including the exchange of rights, are unsettled. In the process of developing various kinds of AR applications, questions on the ownership of copyrights and their settlement are common. Who owns the rights of films' 'making-of' pictures? What is the appropriate settlement fee when film clippings are used in an AR app? How should these clippings be used to avoid undermining the author's original intent? Who owns the data collected on tour bookings? Who owns the photos and videos shot at museum premises by museum visitors and, then, uploaded to museum's Facebook wall or museum's web page? How can these data and materials be used? Such questions are a delicate matter. Especially in instances when popular film and TV productions have been cooperating with local tourism agencies, the settlements of relevant agreements have taken time as there are no established ways to do things – also, the value production in the process is unclear and, therefore, especially TV and film industries see a risk to their brand value and to their established ways to exploit their rights.

Yet, the main obstacle of the innovation in tourism sector is classical small and medium-sized enterprise (SME)-innovation bottleneck – resource scarcity. While there are, of course, several multinational travel agencies, as well as platforms/intermediaries servicing the sector, still, most local tourism sector companies are small. These small companies do not have enough resources to invest in innovation. They lack both financial and human resources. The financial resources could be applied from different national or local innovation support programmes, but usually, these programmes finance only very technology-intensive projects – something that the tourism innovation projects rarely are. These programmes, usually also mean a lot of bureaucracy for a company, for which they, again, do not have resources. The lack in human resources means a lack of people to carry out all the necessary tasks, and also a lack of skills inside the company. Very often, the small tourism companies do not have relevant digital competences. Even if they have managed to publish a web page, they may not have the skills or they do not find time to update it regularly, as described by one tourism policy development representative:

> If you look from the perspective of businesses and small enterprises, then sometimes even the web page is terrible. And, they don't even have a web presence for example. So, if you want to find a location of the guesthouse, they have this terrible web page with a few pictures from 2007. And, no matter how you say that, it is important to be [consistent], maybe just one picture a month telling that you are alive and look good […] But, it still doesn't work in many, many cases.

Another major obstacle to innovation that the interviewees mentioned is technology. Although the technological development is an important driver of cross-innovation between other sectors, it can also challenge the most innovative product developments at the same time. The newest hardware is expensive and new platforms, in general, are quite expensive to develop. Technologies are also necessitating constant investments by updating. As they age too quickly, it is difficult to earn back the investments, as described by one development officer at museum:

> This app is nearly […] we started 2009. So, the iPhone 3 was on a market and we thought what can we do with all our ideas? A good friend of mine works in the IT scene as a developer. We had an illustrator who made these comic figures. It was really [emphasising] expensive and we had lot of time to develop this app and, now, we have the problem – it's too old for the next generation. Next, we have to work with companies because the maintenance of these problems. It's too expensive for us and we don't have the competence to develop the next generation of this app.

That is, both media and tourism sector SMEs a facing investment or development decisions where a promising technology is expensive and, therefore, not used much. It is, thus, risky to develop new solutions and products for these technologies as people are not used to consuming them. The problem is explained by one interviewee as follows:

> The biggest bottleneck of augmented reality is actually technology. Like the phones […] actually the phone is just like the same as computer. But, it's still not enough for augmented reality, and that's the biggest bottleneck. You see, you have like this iPhone X with ultra-mega cameras in front of it, we were waiting for that like for four years. […] the bottleneck is technology, we need better cameras, we need more cameras, we need bigger processing power, we need everything stronger, bigger and etc. So, that augmented reality could be in good quality that people can use it. But, the biggest turning point will be in five to ten years. When, and I really believe

> in this, we are going to change phones to something wearable. Like wearable augmented-reality glasses or something like that, and that's going to be the biggest changing point. Because, then, people are going to start to using them more, and it's going to be just natural. So, I think, for AR to fully go mainstream, 10 years.
>
> (CEO of an AV-media company)

The reason for tourism sector being quite static and slow in developments could also be the fact that the first wave of digitalisation has already created online-booking systems, web pages and web 2.0 solutions – social networks of various kinds. With all the global web infrastructure and platforms available, local SMEs tend not to see the necessity or demand for additional digital developments, especially if we think about hotels, restaurants, tour operators, etc. The perceived low demand could also be a generational issue – contemporary customers are happy with available solutions, as described by one tourism company representative:

> I think that the tourism itself, in the backbone, still remains [a] fairly conservative industry, and I always admire the fact that the most used promotion material in [the] tourism industry are still the printed brochures. We still print them! Because the end-consumer still demands it. And, there are a lot of initiatives to replace it with something intangible, but the situation shows that the companies who stop doing that [will] lose the business.

Another explanation of low demand might lie in the nature of tourism, vividly described by a tourism company representative:

> You need to dig a bit into [the] origins of tourism, where it all started. Because tourism started at the moment when you wanted to escape your daily routine, including [a] physical place. You wanted to move. […] If the existing form of tourism could be completely replaced, I'm not so sure about it. Just for that reason – that it is a bit more than just a sense, these measurable senses (touching, seeing). It is that something [more] is happening […] to you once you travel.

Being a tourist means experiencing new and different places, and not just seeing them on screens. This explanation does not apply to the providers of attractions, such as museums, because their collections are often not touchable and, therefore, different interactive screens and solutions enable visitors to get a more immersive experience and develop a better understanding of the objects or phenomena.

To conclude, the study suggests that the main drivers for cross-innovations between the AV media and tourism sectors are the changing expectations of tourists that relate to further personalisation and customisation of their tourism experiences. The main bottlenecks were described eloquently by a university representative:

> Main bottlenecks seem to be the company cultures in established companies and a lack of venture capital for new companies. Also,

> legacy media, as well as established tourism companies, still earn enough revenue from their traditional business models, making it expensive, in terms of cost to invest in new and uncertain ventures.

That is, in terms of business rationales, the perceived low demand and resource scarcities hinder cross-innovation processes between these two sectors.

Institutional Landscape Supporting Cross-innovations

In the following section, we will discuss, in more detail, the specificities of the tourism sector that affect its cooperation with the AV sector in our case cities. We will give also an overview of the institutional system that is shaping the processes of (cross-)innovation.

When talking about the tourism sector, everyone thinks about hospitality (e.g. accommodation and restaurants), transportation (e.g. airlines and car rental), travel facilitation and information (e.g. tour operators, travel agents and tourist information centres). These are the core subfields that first come to people's minds, including the respondents of this study. But the tourism sector also includes attractions and entertainment (e.g. heritage sites and theme, national and wildlife parks), which operate quite differently from the core fields – mainly because they are often public institutions and are cultural objects/institutions, and only then are tourist attractions. Therefore, the innovation patterns of these two halves of the tourism sector are quite different. The core subfields are foremost driven by business logic – the operations of cultural institutions depend on public-policy rationales and decisions. In addition, the broader public sector often has a central role in coordinating and driving place (country, city and region) marketing. And this, too, has direct implications for the tourism sector in general.

The tourism sector is growing in both case regions, as already described above. The private core subfields favour day-to-day incremental product development. Potentially disruptive co-innovation endeavours tend to stay in the background, according to the interviewees. If we look at attraction sites, theme parks or museums, then these institutions are more open to developing novel products. As cultural institutions, they do not compete only as tourist destinations or attractions, but also in the local market for cultural entertainment and education. However, museums are very often the 'poor' public institutions, who cannot afford expensive developments. That is, they need to apply for extra public funding every time they want to develop something new.

Comparing the two case study regions – Riga and Hamburg – we might say that, in both regions, the AV media sector is a bit more active in seeking cooperation with the tourism sector than other way round. Especially, digital-media agencies are interested in cooperation with the cultural institutions, as museums have a lot of interesting content which enables the agencies to work on attractive novel solutions on how to communicate and present all the content. The exceptions to the general trend are public tourism promotion offices that seek to use new AV solutions for promoting tourism attractions and, therefore, to have good relations with the AV sector companies. But, these public offices are foremost concerned with developing new forms of place marketing and not with motivating the sectoral companies to innovate their products or services.

> We do general country marketing activities. We post, we share, we produce and, mostly, it is audio-visual content and we have the country's tourism web page. We run the country's Instagram profile, we run several Facebook profiles. Of course, we organise Instatrips that [gather] the influencers together and make […] several videos and for every region of a country. […] we […] only work in larger or semi-large scale. So, we do produce audio-visual content and marketing content for the country itself or we do produce that for the regions.
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> (Riga tourism policy representative)

As already discussed above, they also provide media-related training and tools for tourism companies to develop marketing for their products. But, on the other hand, they act as forerunners in the tourism sector. In both case regions, the public tourism departments (public–private enterprise in the case of Hamburg) are eager to use new digital and technological formats, such as different social media platforms, 360-degree videos and VR/AR solutions for promotion.

> To be honest, I think we are one of the best clients [that] media agencies could have, because we are really open minded and, if they would come with their really crazy ideas, we would probably [do them] […] If it's actually good and we like it, we would say yes. […] We are just trying to follow the newest trends, and it is getting more people satisfied, and we are pretty open about it.
>
> (Riga tourism policy representative)

These kinds of activities correlate with the emerging function of the public-service media institutions, as has been suggested by Ibrus (2016) – that these institutions can operate as important coordinators of innovation systems, as they invest in activities to create public value, which is potentially also used by private players. In the tourism sector, these public agencies promote alternative forms of tourism promotion – experimenting with new kinds of content formats. These are usually high-risk activities or product/service formats without immediate commercial value. The question, however, is if all the activities are still designed according to the real circumstances of the sector and to best support its development – occasionally their usage or maintenance may be too challenging for tourism companies. Let us keep in mind that most companies in the tourism sector are very small – often, they do not have enough resources for adopting these innovations.

Other than that, there is not much public support for the development of tourism products and services, and neither region has specific funds or programmes available for co-innovations between the AV media and the tourism sector. So, the main sectoral policy is provided with demand-side policy measures. As the proper demand was one of the main obstacles for innovation, this seems justified. According to Edler (2007), demand-side innovation policy is 'a set of public measures to increase the demand for innovations, to improve the conditions for the uptake of innovations or to improve the articulation of demand in order to spur innovations and allow their diffusion'. In addition to sectoral policies, there are also general innovation support measures[4], which are open to all the companies, whatever the sector. Regarding the tourism sector, these could be seen, however, as supply-side measures. For instance, tourism firms might get some development funds from general innovation and entrepreneurship schemes – for starting a business (incubation and consultancy schemes), innovation support schemes (innovation vouchers), sectoral development (cluster programmes) or export support (visiting fairs and producing marketing materials). So, several funds and support schemes are available for innovation and business startups, but not specifically for the tourism sector.

As the AV media sector is generally understood to fall under the creative industries umbrella policies, there is a special incubator for creative industries in Riga and there is special funding programme ran by Hamburg *Kreative Gesellshaft*[5] for boosting creative industries' cooperation with other sectors. In recent years, neither of these have hosted/financed novel solutions between the AV media and tourism industries. Tourism-related, location-based solutions have come from the business incubators/accelerators, but the boom of tourism-related startups came with such platforms as booking.com and Airbnb.com about seven years ago in Riga and is argued to be over. According to the manager of a Riga co-working space, recently, the new startups are focusing on other themes, such as block-chain, cybersecurity and education.

Sectoral funds are also available for the AV sector in the format of financing by public TV channels and film funds. But, as one respondent put it: 'the national financing is a bit, how shall I say, a bit […] not so flexible right now, because it is government financing' (Riga Film Foundation representative). The film funds are, generally, not eager to finance new film formats (such as VR films), and the support for cross-sectoral projects is largely missing. Let us quote Hamburg AV sector organisation representative: 'We also co-finance series for different distribution formats, but that's about it as far as innovation goes within

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[4]According to Aho, Cornu, Georghiou, and Subira (2006) and Edler & Georghiou (2007), the supply-side innovation measures are, for example: equity support and provision, tax reductions and incentives, support for public research, funding of training and mobility, funding of industrial R&D and non-financial support services. The demand-side innovation measures are, for example: system development, transparent regulations, supportive standards, public procurement, intellectual property, facilitation of private demand for innovations, innovative culture and implicit support.

[5]Hamburg Kreative Gesellschaft – platform for interdisciplinary cooperation and space for creatives to start their business and other projects. See https://kreativgesellschaft.org/

the Film Fund'. Hamburg city also has a small programme to support VR-sector development ran by a media cluster organisation.

Funding possibilities is only one side of innovation support. As the innovation process is also the learning process, then knowledge sharing/spreading is crucial for cross-innovations to emerge. Cluster organisations can facilitate this. Enterprises in clusters exchange and create knowledge through face-to-face interactions and with the creation of common languages and institutions. Interfirm communication and interactive learning play decisive roles in innovation and growth (Maskell & Malmberg, 1999). Therefore, clusters could be a reduced national innovation system (OECD, 2001). When compared to Hamburg and Riga, Hamburg companies are more likely to be included in clusters of different fields, and the cluster policy is active. Media cluster developments have been coordinated by an initiative called 'Next Media'[6], which is a public−private cooperation to boost digital and media industries, as well as media-related innovations both inside and outside the media sector. There is no media cluster in Riga, but a similar smaller scale initiative is taking place as a cooperation between Microsoft and the University of Riga – the Microsoft Innovation Centre, which has a main responsibility to build synergies between the digital technologies and other sectors.

In tourism sector, there is no cluster formed in either case city. In Latvia, the effects of the cluster policy on tourism sector can be seen outside the metropolitan area, where regional companies cooperate to attract more tourists into their regions. Although tourism companies are concentrated in industry associations, the associations are more concerned about representing their members' rights and are less engaged in coordinating their respective sectoral innovation systems. Still, what such organisations do is organise conferences, seminars and networking events, where people who are active in the field can share their knowledge and learn from each other. These events bring together the sectoral value networks. These events are not open only for institutional participants, but also for individual professionals. These open formats are important as, according to holistic approaches to innovation systems, much of the knowledge transfer across the sectoral boundaries is carried out by individuals (Chaminade, Lundvall, & Haneef, 2018). The kind of networking events and formats that bring together people with different competences were also highly appreciated by most of our respondents:

> I'm part of some networks which are initiated by the city of Hamburg, and these networks, somehow, bring together new agencies and startups, like us, and more established businesses, like publishers or Hamburg's larger tourism institutions, or other larger companies. And, it's organised every two months. Sometimes, we have breakfast together and, sometimes, we meet

[6]See http://www.nextmedia-hamburg.de/en/initiative/about-us/

> for drinks in the evening. And it's just, I don't know, 30 to 40 people, just having a bit quality time together and, for networking […] I think this is something.
>
> (Hamburg audio-visual company CEO)

In addition to networking events, there is a variety of incubators, accelerators and co-working places, where interactive learning can take place. In both case regions, these entities are often managed with public money or as public–private partnerships. Again, these places are appreciated by their ability to share knowledge, especially tacit knowledge. Tacit knowledge is highly personal and difficult to formulise, as it is based on experience, know-how, ideas, feelings, etc. Tacit knowledge can be acquired through frequent face-to-face interactions (Polanyi, 1958) and these above-mentioned institutions are specialised for this through mentoring programmes, informal events and even open-office spaces. This kind of knowledge acquisition is especially relevant for young entrepreneurs and startups. Although neither region had tourism-specialised incubators or accelerators, and only Hamburg has the media accelerator, all the so-called general startup infrastructure is available in both regions. The hackathon format has been, sometimes, used to bring together the creative and tourism sectors. But, on these instances, the initiative has come from the digital-media sector – their interest is to cooperate with different sectors, and the tourism sector is one of the several. This suggests that the AV media sector is not considering the tourism sector among their first options to become a cooperation partner.

Higher-education institutions (HEI) are also often seen as the first initiators of inter-sector cooperation. Both regions have several schools where AV content production and media studies are taught. Also, tourism education is available. A representative of a tourism university in Riga described very good connections with sectoral enterprises and professionals, but they started a course on social-media marketing only recently – as a first step towards applying digital-media skills in the tourism sector. The AV media students have more possibilities for cross-sectoral projects during their studies. Yet, the major problem is lack of teachers and professors with new digital AV competences: as the sector is developing at high speed, the HEIs have difficulty engaging up-to-date educated people.

Summarising the institutional landscape in case regions, they can be considered quite similar with one big difference. Hamburg has a very strong media cluster, which is very interested in developing cooperation between AV media and other sectors. Yet, the tourism sector is not their priority partner. In Riga, the different associations and development organisations are more scattered between different subfields both in tourism sector and the AV sector. Therefore, there are no strong coordinating players on both sides who are fostering the development of the sectors and interrelations between them.

General innovation policy measures have a rather low impact to the observed sectors. As described above, the prevailing measures that could foster cross-innovations to emerge belong to demand-side, sectoral policy measures. The most important one was public procurement of (experimental) tourism marketing solutions or novel digital attractions. Important were also the measures for raising innovative culture (through creative incubators etc) and the provision of online tools to develop tourism products and place marketing. From supply-side measures, mainly non-financial support was given in the format of facilitating information sharing and networking, and some funds were given for training and export activities. The mix of policy measures, perhaps, tend to bend towards demand-side policy measures and the variety has not been very large – also an explicit focus on innovation is largely missing.

Challenges for Policymakers

In the following section, we will discuss the main challenges for public-sector policymakers in facilitating the innovation and cooperation processes between AV media and the tourism sector. The first question that policymakers, in these two regions, have is this: why should they intervene in the cooperation between the concerned sectors? Public intervention should be considered when private enterprises are unable or unwilling (because of high risks or the inability to benefit from the innovation) to achieve the policy objectives (Finnish Ministry of Employment and the Economy, 2009). In both regions, the tourism sector is growing and creative industries, including AV media, are having an upward trend. So, the growth objective gives no reason to intervene. But, to return to arguments in Chapter 2, it is the diversity within a system that must be an objective. Dialogues and interchanges across not only sectoral boundaries, but also between public and private enterprises, facilitate that a diversity of rationales and objectives are at play, and this, in turn, is expected to facilitate the emergence of a diversity in new ideas and businesses – all necessary for the healthy development of a system. As our study demonstrated, the public sector can coordinate the system, facilitate matchmaking events, hackathons, meet-ups, etc., between different sectors. It can also set examples and facilitate the demand for innovations, by commissioning novel and benchmarking projects.

Yet, there are also specific challenges when it comes to the public coordination of a potential cross-innovation system that links the two industries. First, public-development policies for tourism and the AV media sectors are under different policy streams – tourism policy and cultural/media policies. Second, the development of the tourism sector, as a whole, has been subdivided under two policy development areas. The privately-held, core tourism subfields (travel agencies, hotels, tour operators, etc.) are coordinated by ministries of economic affairs. Cultural organisations that constitute attractions for tourists (museums, heritage sites, national parks, concert halls, etc.) are the domain of the cultural policy. The AV media industry is, to an extent, also divided between two policy streams, as the business development side sometimes belongs to the economic policy area.

The general tourism policy is the task for either ministries of economic affairs or economic departments of cities, but these departments or ministries do not tend to intervene in the development in museums and heritage sites. So, the development of a large share of tourism attractions is not coordinated under tourism policy. At the same time, the coordination of interactions between museums and the AV sector is the responsibility of the makers of cultural or creative industries policies. Therefore, the convergence of these two is likely to be conditioned by these policies and is, generally, not understood within the framework of cross-innovation with the tourism sector. These two policy streams – cultural policies and tourism policies – use quite different measures to foster the development. The public-policy interventions are much deeper on the cultural policy side (funding for museums, subsidies or tax breaks for film production, etc.) than in economic policy side. If the culture-policy measures manage to innovate the museums and heritage sites, etc., does it automatically raise the innovativeness of the tourism sector? The paradox is that it does. When, say, the film industry and heritage sector are cooperating to create an AR application to introduce classic film scenes in environments where they were shot (see Chapter 14), then, indeed, these can be considered as interesting cultural innovations. But, as they could also attract fans of these films from other countries to visit the particular city or country and could provide them innovative tourism experiences, then such applications would also constitute notable innovations for the tourism industry. And, as we saw at the beginning of this chapter, there are several examples of such innovations that are crossing the more-or-less formal boundaries between different sectors and industries. The challenge for the policymakers is, therefore, to find ways to overcome the existing formal and institutionalised boundaries and work towards facilitating cross-innovation systems that match real value chains and can produce meaningful experiences that are responsive to actual cultural milieus.

Conclusions

The study revealed that the cooperation between AV media and the tourism sectors is rather traditional for most companies in these fields. The main reason is that the core nature of tourism has not changed much. Although there has been a growth in global platforms that enable customer-centric travelling opportunities, the travelling itself and the reasons for that have broadly remained the same. If the contemporary trend of increasing access (e.g. cheap flights) continues, the tourism sector faces no notable demand for disruptive innovations. It is for this reason that they are not eagerly seeking cross-industry cooperation or building new kinds of cross-innovation systems.

A notable long-term co-innovation area between tourism and AV media has been in marketing and communication. In this area, we can see a linear trajectory between classical travel-series formats on TV and contemporary social-media influencers or vloggers who are posting about their experiences on social-media platforms – all to get an understanding of the destination before making travel decisions. Another area for innovative forms of convergence, for true *amalgamations* in terms of Schulz's (2004) approach to mediatisation, is augmenting tourism attractions – cities, heritage sites, museum exhibitions, etc. As was discussed in Chapter 12, the arrival of AR as a technology and platform has been an important enabler for this. In terms of formal categorisations, this could often be considered as intra-industry convergence in creative and cultural industries. As a result of this, heritage institutions, such as museums, are increasingly moving into the field of (educational) entertainment and are competing for the free time of consumers, next to theatre, cinema and television. Yet, as these innovations could be seen to motivate new kinds of tourist activities and could affect the tourism industry operations and value chains, they have a potential to also drive the development of a new cross-innovation system.

The public sector, as the owner of different cultural institutions, such as museums and heritage sites, finances the digitalisation of heritage and new solutions to present or augment it. However, public tourism promotion offices are forerunners as procurers of new AV solutions for place marketing and using social media tools and channels. So, the cross-innovations between tourism and AV media sectors are largely driven by the public sector. It is understood that these actions – experiments, prototypes and benchmarking examples – are expected to set examples, provide experiences, create demand and demonstrate potentials in the risky market. Yet, the question remains, to what extent is the private sector convinced and is ready to follow? We realised that private tourism industries rarely look for truly innovative solutions and that, for instance, while Hamburg's strong media cluster is fostering cooperation with other sectors, the tourism sector is not among their priority partners. Therefore, in the case of these sectors, the public sector has a central role in facilitating further dialogues between sectors.

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