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### ► To cite this version:

Tatiana Stoica, Paul Muller, Bérangère L. Szostak. Mechanisms for Value Creation and Capture in Ecosystems. Colloque GT Innovation : De la créativité à l'innovation: paradoxes, enjeux théoriques, pédagogie et défis managériaux, Association Internationale de Management Stratégique, Oct 2019, Grenoble, France. ⟨hal-03041856⟩

**HAL Id: hal-03041856**

**<https://hal.science/hal-03041856v1>**

Submitted on 5 Dec 2020

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# Mechanisms for Value Creation and Capture in Ecosystems

September, 2019, work in progress

*This paper has been presented at the GT AIMS, October 17-18, 2019, Grenoble, France*

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## **Abstract:**

The aim of this article is to propose an analysis framework for better identifying the value creation and capture mechanisms in innovation ecosystems, their coordination and the factors determining the transition between the two. We start our questioning with investigating the literature on ecosystems and what they are, continue then with the one about what is value, what are the difficulties in defining what value creation stands for, and the one on mechanisms for value creation and capture, pointing out to the fact that the majority of literature is focusing on economic value. We end by presenting the objectives of this research project and why it is of interest for researchers, practitioners and regulatory bodies. This article aims at defining a conceptual framework to be used for investigating the mobility ecosystem in Lorraine.

**Key words:** value creation, value capture, ecosystems, innovation, mobility

# Mechanisms for Value Creation and Capture in Ecosystems

## Introduction

If the usual paradigm to manage R&D of leading industrial facilities after the World War II was “The Closed Innovation Paradigm”(Henry William Chesbrough, 2003) through vertical integration, towards the end of the XX century, we can talk about a new paradigm that occurred, but that was coined only after the beginning of the XXI century – “The Open Innovation Paradigm” (Henry William Chesbrough, 2003), involving the fact that innovation activities are carried out in an open manner. Therefore, the philosophy organisations used to adhere to, that “successful innovation requires control” (H. Chesbrough, 2003), is challenged. A fundamental change in the way innovation is happening occurs and organisations are more and more interested to develop relationship with the various actors around them for the purpose of creating and capturing value. Therefore, innovations of "complex" products and technologies occur nowadays within the framework of "ecosystems", defined as the sets of “actors with varying degree of multilateral, non-generic complementarities that are not fully hierarchically controlled” (Jacobides, Cennamo, & Gawer, 2018). Thus an ecosystem is often developed around a product or a fundamental technology, for example a computer, a mobile phone operating system or a Barbie doll accompanied by the development of a set of products and services that will only be usable with the key product (e.g., software, applications, or other compatible products, clothing, accessories, toys or books) (Adner & Kapoor, 2010a; Gawer & Cusumano, 2014; Marco Iansiti & Levien, 2004; Moore, 1993).

A major challenge in these ecosystems is the value creation and capture (Adner, 2006; Adner & Kapoor, 2010b; Bowman & Ambrosini, 2000; Kapoor & Lee, 2013; Lepak, Smith, & Taylor, 2007; Pisano & Teece, 2007; Ritala, Agouridas, Assimakopoulos, & Gies, 2013; Van der Borgh, Cloudt, & Romme, 2012). If the value created and captured by an enterprise has traditionally been seen as the result of its activity, the question occurring in the new context is how would the value creation activities be organized between the various stakeholders in case of being carried out in ecosystem framework and how would the value be distributed inside the ecosystem. The question arises particularly when one seeks to extract economic value from the company. However, the economic value, also defined as profit (Bowman & Ambrosini, 2000), is not the only meaning the concept "value" has.

Products/services/knowledge produced within ecosystems can also have a social value, through the impact of social innovations (e.g., contribute to the development of local social links/connections or for the creation of jobs, improve the life quality of the inhabitants of a community), an environmental one (e.g., reduce polluting emissions), or another type. If from an economic perspective it is easy to understand that a distribution of the created value may happen, from a social and environmental point of view, the subject is not understood in a similar way, as this created value might be a common good, in the sense of being "collective, non-rival and non-exclusive" (Muller, Szostak, Fagbohoun, & Yahiaoui, 2019, p. 4), or benefit everyone without discrimination, or be accessible to all. This is, for example applicable to academic knowledge (Clarysse, Wright, Bruneel, & Mahajan, 2014; Hess & Ostrom, 2007). The project involves investigating the concept of "value" in all its dimensions: economic, social, environmental. Indeed, if adopting an ecosystem perspective on organisation, it becomes more difficult to clearly characterize its contribution to the creation of different types of value. While a better understanding about the creation and capture of different types of value is a

fundamental strategy issue for companies, it is also important from a public policies perspective. Understanding value creation and capture in ecosystems is also important for figuring out how markets are created and how ecosystem stakeholders can achieve their own and common business objectives (Ritala et al., 2013). Although they may refer to sectors as diverse as IT, Internet, mobility, renewable energies, agriculture and biotechnology or trade, all ecosystems have in common the fact that they must be based on development and exploitation of resources and, in most of cases, of digital networks [e.g. of an exception – a non-digital ecosystem – the one developed by Novo Nordiak around diabetes in China (Fuller, Jacobides, & Reeves, 2019)]. This can eventually lead to the emergence of dominant players (Barabási, 2003; Barabási & Albert, 1999; Cusumano, Gawer, & Yoffie, 2019; Gawer & Cusumano, 2014), controlling large parts of the global economy, with many implications, in both economic and social terms, and even with impact on the sovereignty of the states.

This paper therefore considers addressing in particular the theme of the creation and capture of different types of value in ecosystems. It is not, however, about classifying ecosystems as other researchers have already done (de Vasconcelos Gomes, Facin, Salerno, & Ikenami, 2018; Scaringella & Radziwon, 2018; Valkokari, 2015), nor about characterizing the relationships established in these ecosystems (Jacobides et al., 2018), or understanding their management (Adner, 2006; Iansiti & Levien, 2004; Pierce, 2009; Rohrbeck, Hölzle, & Gemünden, 2009). This work is questioning what the mechanisms for value creation and capture in ecosystems are, what are the factors that determine the transition between one to the other. It will lead us to identify whether certain mechanisms are more conducive to the value creation and / or capture, and whether some favour the transition between creation and capture or vice-versa. A reason why this is important is because for an organisation to survive it needs to both create and capture value in a repetitive way.

The research project shows in the first part why ecosystems are socio-economic spaces that are relevant for approaching organisations nowadays, despite the known limits at the conceptual level. It addresses the concept of “value” and its various meanings across literature. In the second part, the project shows how the issue of value creation and capture in these ecosystems is approached, existing gaps and how we came to our research question concerning the mechanisms allowing or impeding value creation and capture in ecosystems. Afterwards we present some conceptual frameworks to approach value creation and capture mechanisms in innovation ecosystems that are present in the literature. We try to understand how various value creation and capture mechanisms relate to each other. In a third part, it will detail the objectives of our research project, further steps to be taken in the research project, the empirical orientations and expected contributions to literature.

The conceptual framework of this research project will be studied in the context of mobility in France. The reason we chose mobility is because this ecosystem became more and more complex given the occurrence of a large variety of actors beside the classic transport services providers and regulators (Muller et al., 2019). The project is aiming to understand the mechanisms for value creation and capture in mobility ecosystem in France, particularly in Lorraine region.

## **Part 1 - Ecosystems as socio-economic spaces: definitions and issues<sup>1</sup>.**

### **1.1. Definitions**

Ecosystem is a new phenomenon depicting a “dynamic, multicompany” system used as a new way for organizing economic activity (Fuller et al., 2019, p. 2; Jacobides et al., 2018, p. 2264).

The pioneering author who introduced the concept of ecosystems applied to business was Moore (Moore, 1993). Nowadays there is a misalignment concerning what an ecosystem is, as well as related to types of ecosystems. Various scholars use different concepts: *business ecosystems* (Marco Iansiti & Levien, 2004; Moore, 1993; Teece, 2007), *business networks* (Iansiti & Levien, 2004), *innovation ecosystems* (Autio & Thomas, 2014; Jacobides et al., 2018), *entrepreneurial ecosystems* (Prahalad, 2009) and *knowledge ecosystems* (Valkokari, 2015), *knowledge based business ecosystems* (Van der Borgh et al., 2012), *platform ecosystems* (Gawer, 2014; Gawer & Cusumano, 2014). However, we consider that in fact, all approach more or less the same phenomenon, but from complementary angles (Scaringella and Radziwon, 2018). Thus, the work will consider the concept of ecosystems, without falling into categories.

For the purpose of this research project we will define ecosystem as a network of “actors with varying degree of multilateral, non-generic complementarities that are not fully hierarchically controlled” (Jacobides et al., 2018), including or not a leader organization<sup>i</sup>, containing both production and use side participants (Autio & Thomas, 2014), both complementors (Adner & Kapoor, 2010b) and end customers, creating and appropriating value, under the form of service, product or knowledge, through innovation. They are “the collaborative arrangements through which firms combine their individual offerings into a coherent, customer-facing solution” (Adner, 2006). We consider that ecosystems are network-centric constructs (Autio & Thomas, 2014) with a modular structure (Baldwin & Clark, 2000; Jacobides et al., 2018) and varying degrees of multilateral, non-generic complementarities that are non-hierarchically managed and require alignment for value creation (Jacobides et al., 2018). They might include complementors, suppliers, regulatory authorities, standard-setting bodies, the judiciary, and educational and research institutions (Teece, 2007).

As related to defining value creation and capture, we will consider for the purpose of this research projects that value creation refers to “collaborative processes and activities of creating value for customers and other stakeholders” (Ritala et al., 2013), while value capture refers to the individual organisation-level actualized profit-taking activity; that is, how firms eventually pursue to reach their own competitive advantages and to reap related profit” (Ritala et al., 2013).

## **1.2. Issues**

An important issue in ecosystem research is that of “value”. However, when speaking about it, one needs to consider the fact that there are more types of value, including economic, social, ecological, etc., and that it is complex to define what value is.

In economics, according to utility theory, “value” stands for “the quality of a thing based on its objective or subjective utility”, two opposed terms being used: “use value” and “exchange value” (Bowman & Ambrosini, 2000; Van der Borgh et al., 2012). “Perceived use value” (Bowman & Ambrosini, 2000) is subjective and it is defined by customers, both person or organisation, based on the usefulness of the product/service. Total monetary value represents the amount the customer is prepared to pay for the product. “Exchange value” is “realized when the product is sold, being the amount paid by the buyer to the producer for the perceived use value” (Van der Borgh et al., 2012).

However, in social innovation, value may have a different meaning and specific unit measures are applied, as for example the impact indicators developed by Godin Institute<sup>ii</sup>.

In conclusion, there is misalignment on “what value creation is or on how it can be achieved” (Lepak et al., 2007).

This research project considers further investigation into other types of value generated in ecosystems. Besides the economic value, ecosystems generate knowledge, including tacit one that at some point in time may transform into a different type, as well as social value or other types.

As a result, considering the fact that value creation and capture are vital for both building and managing ecosystems, from both firm level and network or industry level perspectives, this topic represents a major challenge in the literature dedicated to ecosystems. Connecting value creation with value capturing in the context of innovation ecosystem was not done extensively (Autio & Thomas, 2014). Among the authors who did that are Adner and Kapoor (2010b), Ritala et al. (2013). Therefore, we are “lacking an integrated understanding of the mechanisms for value creation and capture in innovation ecosystem context” (Ritala et al., 2013). However, value creation and capture have been researched extensively either separately or together as related to other concepts, as for example in network literature (Adner & Kapoor, 2010b; D. J. Teece, 2007), where the value have been considered to have a more important role as compared to value capture, or in strategy literature related to resource-based theory (Bowman & Ambrosini, 2000), platform literature (Gawer, 2014). In the management and organisation literature value creation is a key concept for both microlevel (individual and group) and macro-level (organization theory, strategic management) (Lepak et al., 2007). Value capture at the enterprise level has been researched as related to Intellectual Property and industry architecture in the context of management of innovation for profit literature (Pisano & Teece, 2007). And if it is difficult to measure economic value generated in an innovation ecosystem, it is even more challenging to measure the non-economic one. Considering the above, the issue we focus on in our research project is the mechanisms allowing value creation and capture in ecosystems, what are the factors that determine the

transition between one to the other, whether certain mechanisms are more conducive to the value creation and / or capture, and whether some favour the transition between creation and capture or vice-versa.

## **Part 2 - Mechanisms allowing value creation and capture in ecosystems**

### **2.1. Value creation and capture**

It would be important to mention that the concepts of value creation and value capture frequently overlap or are confounded. For the purpose of this project we will consider them separately also because of the “value slippage (Lepak et al., 2007). The reason why value creation and capture topics are a challenge in ecosystem literature is also because there is no agreement related to what value creation is (Scaringella and Radziwon, 2018), the process by which it is created, and mechanisms allowing the creator of value to capture it (Lepak et al., 2007). Then, the difficulty of answering the question of how value is created is determined, firstly, by the diversity in terms of source of value, targets of value and level of analysis (individual, organisational/firm level or societal/industrial/network level) and, secondly, because it refers to both content and process (Lepak et al., 2007). Despite the above-mentioned limitations, as it is generally accepted, we consider that value creation is a precursor of value capture (Adner & Zemsky, 2006; Brandenburger & Stuart Jr, 1996).

We take into account several important aspects when speaking about value creation and capture in ecosystems:

- co-creation of value (Adner & Kapoor, 2010b; Autio & Thomas, 2014; Ritala et al., 2013; D. J. Teece, 2007; David J Teece, 1986) ;

- ecosystems allow firms to create value that no single firm could have created alone (Adner, 2006) ;
- value distribution: ecosystems being more inclined to distribution of value across the ecosystem as compared to hierarchical structures (Kapoor & Lee, 2013). However the last one is done frequently in the favour of the focal firm (see the examples of Google with Google Play, or Apple with Apple Store). Some authors argue that value creation and its fair distribution across the ecosystem is essential for the ecosystem existence (Kapoor & Lee, 2013) ;
- the role of complementors in value creation (the capacity of a leader company to create value from an innovation/new technology depends on the capacity of a complementor (Adner and Kapoor, 2009) to face an innovation challenge and do the required investments. They also need to adjust their activity to the focal company (Adner & Kapoor, 2010b; D. J. Teece, 2007) ;
- When speaking about innovation ecosystems and value creation we should also consider how decision makers perceive levels of risk in interdependent processes (Adner & Feiler, 2019).

It is worth mentioning that value creation has been frequently associated with the innovation side of an ecosystem, while the value capture with the business side of an innovation ecosystem (de Vasconcelos Gomes et al., 2018).

Given the above issues, and the fact that an organisation needs to relaunch value creation and value capturing cycles in order to stay on the market, for the purpose of this project we will, firstly, determine what value creation and capture mean in ecosystem. Secondly, we will investigate the transition between one and the other in order to explore what are the factors

that facilitate or impede this transition. We have noticed several conceptual results about our research question. The aim of the paper is to go further.

## **2.2. Value creation and value capture mechanisms in innovation ecosystems and the relationship among them**

In terms of mechanism for value creation, we retain that the collaboration between ecosystem partners is important and value is created through the combination of the capabilities and core competences each partner is putting at stake (Autio & Thomas, 2014). And this perspective of value creation in a network is in contrast with the linear perspective of value chain theory of Porter (1980). Teece (2007), referring to the role of complementarities, argues that Porter's Five Forces Model ignores many aspects of the competitive environment given its rather static nature (complementarities, path dependencies, and supporting institutions). Moreover, concerning value creating elements of the ecosystem's business model, Van der Borgh (2012) extrapolates the analysis model of Amit and Zott to ecosystems (2001), speaking about four sources of value creation: novelty, complementarities, efficiency, and lock-in.

Some mechanisms of value creation and capture in and across ecosystems can be underlined by assessing how the different types of complementarity develop (Jacobides, Cennamo, & Gawer, 2018). If the "role of directionality of co-specialisation" is considered, fungibility<sup>iii</sup> is a factor that affects the behaviour of ecosystems actors and recruitment of new members (Jacobides et al., 2018, p. 2268). It can be one-way or bilateral, symmetric or stronger in one direction. Therefore, ecosystem actors can prefer to create value or capture value. In an ecosystem thing that make it easy to capture value, make it harder to attract new stakeholders or vice-versa (Jacobides et al., 2018). For example, the legal provisions adopted by the

Californian Senate on September 10, 2019, that should be implemented by Jan 1st, 2020 to reclassify independent contractors as employees for such companies as Uber and Lyft, will be a mechanism to diminish the value captured by the respective companies while encouraging more drivers to register as ecosystem stakeholders given the social protection that they could benefit from following the implementation of adopted legal provision (Escande, 2019).

The more an ecosystem dynamics is driven by supermodular complementarities, the more the leaders in the respective ecosystems will focus on recruitment of members, as this helps to become established and capture value based on network effects (Jacobides et al., 2018).

Another phenomenon investigated by the literature dedicated to the topic is the effect of innovation challenges created by companies situated upstream and downstream of a focal firm. The main conclusion is that, if an innovation challenge is situated upstream the focal company, it has a positive effect on firm's ability to capture value and transform it into competitive advantage while situated downstream it has a negative effect on the respective ability (Adner & Kapoor, 2010a).

In terms of value capture, also called "value appropriation", we retain that it is determined by the bargaining relationships (Bowman & Ambrosini, 2000), among the mechanisms mentioned by the literature being competition and isolating ones (Lepak et al., 2007). The three levels of analysis (individual, organisational and societal) are considered for both value creation and capture (Lepak et al., 2007). Besides, we consider as relevant for our research topic the network effects studied in both management and networks sciences (Barabási, 2003; Barabási & Albert, 1999), that explain also the phenomenon of big hubs in complex networks getting even bigger and acquiring even more vertices as a result of power laws. Finally, we believe that ambidexterity, with both exploration and exploitation (Ferrary, 2011; Tushman & O'Reilly, 1996) and the idea of outsourcing exploration as a mechanism to source value outside



the organisation mainly via the strategy of acquisition (Ferrary, 2011) is a concept that should also be considered for this project.

Ritala (2013) mentions that literature presents two frameworks of how innovation and business ecosystems are built and managed. And he concludes that there are two types of insights:

- a) those that help understanding the phases in the ecosystem lifecycle.
- b) those that help analysing ecosystem management mechanisms, capabilities and practices.

In his conceptual framework Ritala considered two phases of the innovation ecosystem life cycle: ecosystem building phase and ecosystem management phase (2013), splitting the types of value creation and capture mechanisms into tangible (i.e. concrete, contractual) and intangible (i.e. relational).

**Table 1 Value creation and capture mechanisms - conceptual framework (Ritala et al., 2013)**

Mechanisms in innovation ecosystem building phase		Mechanisms in innovation ecosystem management phase
Facilitating the premises of value creation <ul style="list-style-type: none"> <li>• tangible mechanisms and structures</li> <li>• intangible mechanisms and structures</li> </ul>		Maintaining value creation <ul style="list-style-type: none"> <li>• tangible mechanisms and structures</li> <li>• intangible mechanisms and structures</li> </ul>
Defining the premises for value capture <ul style="list-style-type: none"> <li>• tangible mechanisms and structures</li> <li>• intangible mechanisms and structures</li> </ul>		Realizing value capture <ul style="list-style-type: none"> <li>• tangible mechanisms and structures</li> <li>• intangible mechanisms and structures</li> </ul>

In a study on innovation ecosystem for renewable energy via social entrepreneurship run in India, Surie (2017) classified the value creation mechanisms considering the level of analysis and not the ecosystem life cycle, in the following way:

**Table 2 Value creation mechanisms in innovation ecosystem for renewable energy via social entrepreneurship (Surie, 2017)**

1	Macro level mechanisms	Building institutional infrastructure to catalyse entrepreneurship and social entrepreneurship <ul style="list-style-type: none"> <li>• a) new institutions</li> <li>• b) new policies and regulations to generate demand</li> </ul> c) institutional support for linkages to build capabilities
2	Micro-level mechanisms	Diffusing renewable energy technologies through social entrepreneurship <ul style="list-style-type: none"> <li>• a) entry of social entrepreneurs and social entrepreneurship organizations</li> <li>• b) technology platforms</li> </ul> c) external linkages for additional resources

Speaking about the relationship between various mechanisms, for example the tangible and intangible mechanisms complement each other (Ritala et al., 2013). Some value capturing mechanisms impede attracting new ecosystem stakeholders, therefore value creation, as there is the above-mentioned case of Uber keeping independent contractors instead of employees makes it easy for the company to capture value. Considering network effect, we assume that the number of stakeholders is positively correlated with the created value. Some appropriability regime related mechanism of legal nature, like contracts, patents, copyrights, would made stakeholders to stay aside being aware that the value it is able to capture is not significant enough to justify the investment of resources.

When approaching value creation mechanisms, we conclude that there are more frameworks of analysis, considering either the level of analysis (Surie, 2017), ecosystem life cycle phases, ecosystem management mechanisms, capabilities and practices (Ritala et al., 2013), value chain (Adner & Kapoor, 2010b). More than that in the literature at times there is a confusion between sources, factors and mechanisms allowing value creation and capture, the concepts being used interchangeably. At times both terms of “ecosystem building and management

mechanisms” and “value creation and capture mechanisms” are used to describe the same things (Ritala et al., 2013).

Nevertheless we conclude this part by observing that the majority of studies addressing the issue of value creation and capture in innovation ecosystems (Bowman & Ambrosini, 2000; Kapoor & Lee, 2013; Lepak et al., 2007), consider exclusively economic value and that there is space for investigating the topic in the context of ecosystems given the fact that the created value also has to include social or environmental components. Thus, the mechanisms allowing value creation and capture are focusing on this type of value (Teece, 2007). We wonder if they are similar for a different type of value (social, environmental, etc.), for instance in social economy (Surie, 2017) or scientific field (Corbel, Chomienne, & Serfati, 2011).

### **Part 3 – Case study – mobility**

The aim of this research project is to propose a conceptual model for studying the mechanisms of value creation and capture in ecosystems and to identify factors (or invariants) determining the transition from one to the other, that would be useful for both theoreticians and practitioners, be they managers or public policy designers or implementers. That’s why we suggest a conceptual model that we will explore in the context of the mobility ecosystem in France, particularly in Lorraine. This project considers focussing on mobility given the fact that in case of mobility ecosystem we have complex forms of innovation, with both economic (technological, organisational and service) and non-economic components (Muller et al., 2019).

This ecosystem is a case in point, not only because it impacts every citizen’s everyday life, but also because it has become a key environmental and social issue. For example, the French

Office of the Commissioner General for Sustainable Development (Commissariat général au développement durable, 2019) indicates that in 2017, there were the equivalent of 941 billion passenger-kilometres and 359 billion tonne-kilometres of goods. Since 2006, the number of road vehicles has increased by 6.5% and the number of metro and tramway trains - by 16% in Île-de-France compared with 61% in other regions. Since 2007, the passenger car fleet has increased by 32% (Commissariat général au développement durable, 2018). The number of electric scooters, scooters and bicycles in free floating in Paris should be about 40,000 by the end of 2019. While for a very long time, in France, the regulatory authority and the major transport manufacturers and operators (road, rail, air, sea, etc.) were the main players, their positioning is nowadays being disrupted by the emergence of new players basing their business models on digital technology, such as intermediary platforms (Uber, Lyft, Lime, BlaBlaCar, etc.) or Google (mapping and independent vehicles). Given the importance of the topic, a new law of mobility (Projet de loi d'orientation des mobilités (TRET1821032L, n.d.) is currently under discussion, in order "to improve the governance of mobility to better respond to the daily needs of citizens, territories and companies". The importance of the subject is supported also by the fact that European Parliament is also discussing currently a mobility package (September 2019).

This research project is focusing exclusively on the mobility of persons.

Lorraine has an area of 23547 km and a population of 2.3mln inhabitants (Similie Popa, 2011). Demographically speaking the population of the region is declining due to out-migration, especially of youth and a decrease in the birth rate ('Lorraine', n.d.). Lorraine had an unemployment rate in 2018 of 10.1% (9.1% average in France) and 24.8 % unemployment rate among youth population (20.9% average in France) (EUROSTAT, 2014).

The unemployment rate is relatively close to the average in France despite the several phases of severe deindustrialisation in coal and steel industries with an average loss of 3.6% per annum of industrial employment since 2012, given the cross-border employment (Similie Popa, 2011). The ratio of those in services sector is of 75.4% in 2016 as compared to 76.8% national average, while in agriculture there were involved 2.3% of population as compared to 2.8% which is national average. The GDP per capita in PPS was 23.300EUR in 2015, i.e. only 76.1% of the national average in France which was of 30.600EUR ('Lorraine', n.d.). The annual growth rate in the Lorraine region is significantly below the national, specifically between 2006 and 2015 being of 0.4% as compared to 1.8% at the national level (Ibidem). And at the gap between the GDP per capita in rural areas as compared to urban ones is widening.

Among the areas of specialisation of the Grand Est region is also sustainable mobility, logistics and transportation (including aeronautics and the car industry) through the digitalisation of the sector ('Lorraine', n.d.).

The reason why we consider that it would make sense to examine the mechanisms of value creation and value capturing in innovation ecosystems is that in this ecosystem there are happening disruptive challenges. In the same time the governmental central and local authorities are looking to address issues that would meet the needs of the stakeholders, be it for increasing the possibility of employment, for reducing the environmental impact. Among the arising questions for policy makers and entrepreneurs would be what the mechanisms are to create and capture value to be put in place so as for the stakeholders to be interested to invest resources. A good management of the mobility involves access to better jobs, better education, i.e. to resources. Such governmental programs as French Mobility bring in focus the acute need of governmental authorities to deliver solutions that would improve the life of people. In the same time the occurrence of such players as Uber, Lyft, Bolt, BlaBlaCar

determines us to think about the sustainability of making profit using commons, as well as about the impact such companies have in the society.

Our investigation will help address the following questions: What are the mechanisms that allow value creation and value capture in innovation ecosystems? Are the mechanisms used for creating economic value like the ones used for non-economic value (economic, social)? Are there mechanisms that generate both economic and non-economic value? What are the value creation and capture mechanisms used in innovation ecosystems that can generate both economic and non-economic value? How value creation and capture mechanisms in innovation ecosystems depend on the ecosystem structure and the way it is managed? What is the impact on value creation and capture mechanisms in innovation ecosystems if the organisation is not done by the focal company (Iansiti & Levien, 2004), but by an intermediary structure with associative status (eg. La Fabrique des Mobilites)?

What is the difference in value creation and capture mechanisms in innovation ecosystems when we have not-for-profit organisations (eg. NGOs, public structures, academic structures) as compared to the scenario with for-profit organisations? Are there differences in the way the transition from value creation to value capture and vice-versa is done in not-for-profit organisations vs. for-profit organisations? What are the factors (or invariants) determining the transition from value creation to value capture and vice-versa? If the value created and captured by an enterprise has traditionally been seen as the result of its activity, how would the value creation activities be organized between the various stakeholders in case of being carried out in ecosystem framework and how would the value be distributed inside the ecosystem?

In our research we assume that value creation and capture mechanisms have common points, some generating both economic and non-economic value.

We would like to underline that this research project requires further investigation. However, by trying to address some of the above questions, it aims to contribute to the literature about the value creation and value capture in innovation ecosystems.

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<sup>i</sup>The leader organisation is also called hub (Moore, 1993), focal firm (Teece, 2007) or shared technology platform (Gawer and Cusumano, 2002).

<sup>ii</sup> See the website of the Godin Institute at: <https://institutgodin.com/la-recherche-et-developpement/>

<sup>iii</sup>Fungibility - comes from fungible and stands for the quality of a good one part or quantity of which can be substituted for another of equal value in satisfying an obligation ('Merriam-Webster', n.d.).