

The emergence of the Smart City: stakes, challenges, practices and impacts for public governance?

Workshop 1-A - Interopérabilité et intégration des données territoriales et personnelles dans les Smart Cities

« SMART RENNES »

Actors and management of the Smart City project on Rennes' metropolis territory



TERRITOIRES
VILLES
ENVIRONNEMENT
& SOCIÉTÉ
EA 4477



Research team



Scientific board:



Field team :

Hélène Bailleul, UMR ESO, senior lecturer in Urban and Regional planning

Marie-Anaïs Le Breton, UMR ESO, PhD student

Mathilde Girardeau, PREFics, research engineer

Designing a “field-research”

Main line of research :

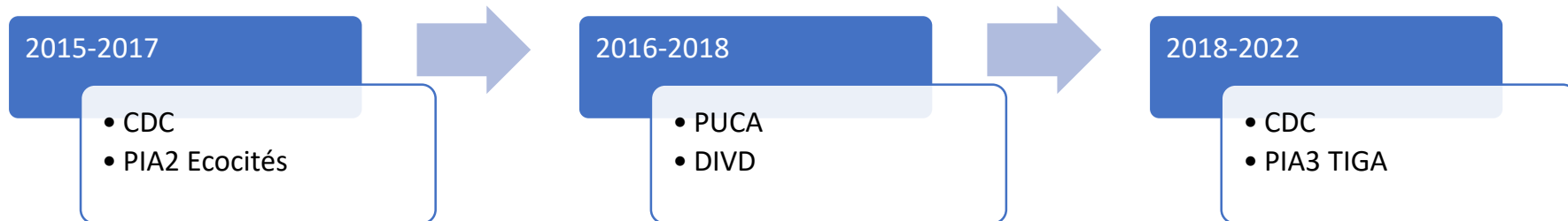
Which forms do innovations embody ?

→ From a **governance** point of view

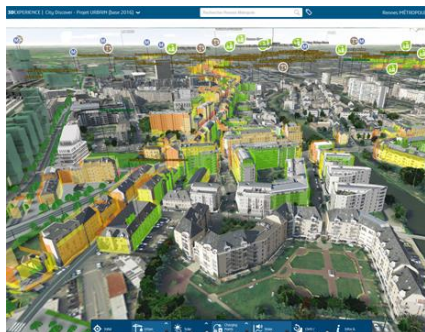
→ From an **organizational** point of view

Do **Co-construction of innovation** between State and the local authorities exist ?
What are the respective share of local trajectory and national policy incentives in the supporting of territorial innovation?

Research context



Contractualization with Dassault Systems for the 3DExperiencity-Virtual Rennes platform.

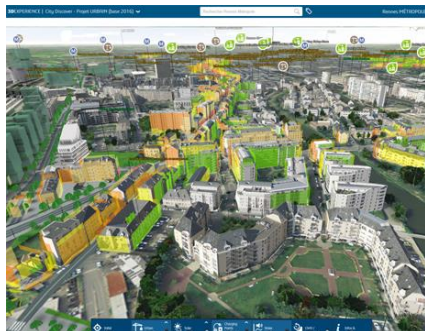


Research context

2015-2017

- CDC
- PIA2 Ecocités

Contractualization with Dassault systems for the 3DExperiencity-Virtual Rennes platform.



2016-2018

- PUCA
- DIVD

SME challenge organized by Competitiveness cluster 'Images & networks' to "feed" the platform.



2018-2022

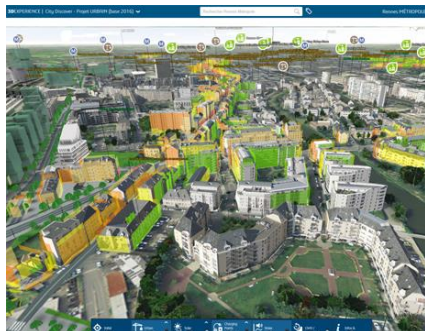
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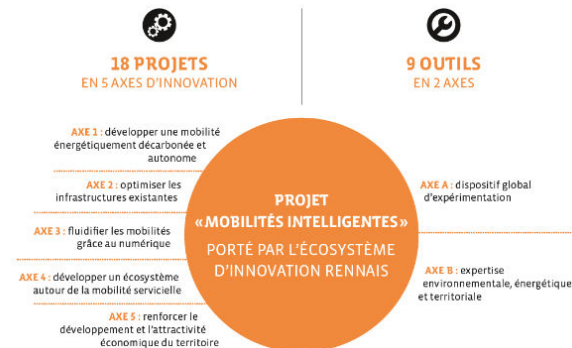
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2018-2022

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Real-size test, SME challenge for urban services.
Setting up of the MDS*.



*MDS : metropolitan data service

Designing a “field-research”

A double objective :

Participate in academic
knowledge about the smart city

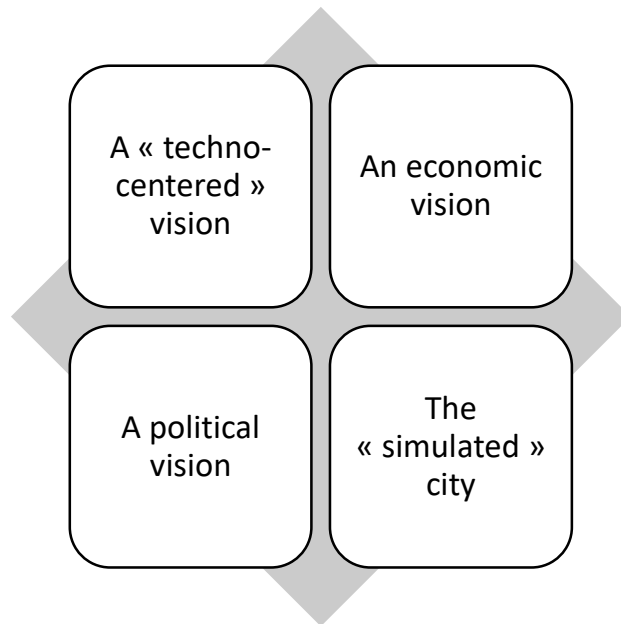


Participate in the transformation
of urban *praxis*



Case study outlines

Four smart city definition-fields identified :

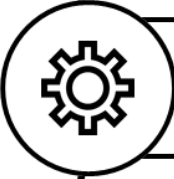


Case study outlines


The "technological" smart city :



Making the city more efficient



Improved real-time monitoring and infrastructure management



Sensors, databases, management centers

Key words :

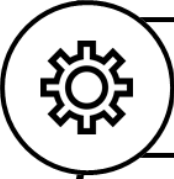
- Industries
- Sensors
- Internet of Objects (IoT)
- Data
- Systems
- Management

Case study outlines


The "economic" smart city :



Developing a knowledge economy



Better quality of life
Improved experience of the city



IoT, urban marketing, experiential economy

Key words :

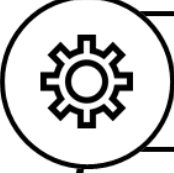
- Competitivity
- Consumers
- Performance
- Deals
- Services
- Commercialization
- Metropolitan areas

Case study outlines


The “political” smart city :



Establishing new models of urban governance



Opening of decision procedures to new audiences



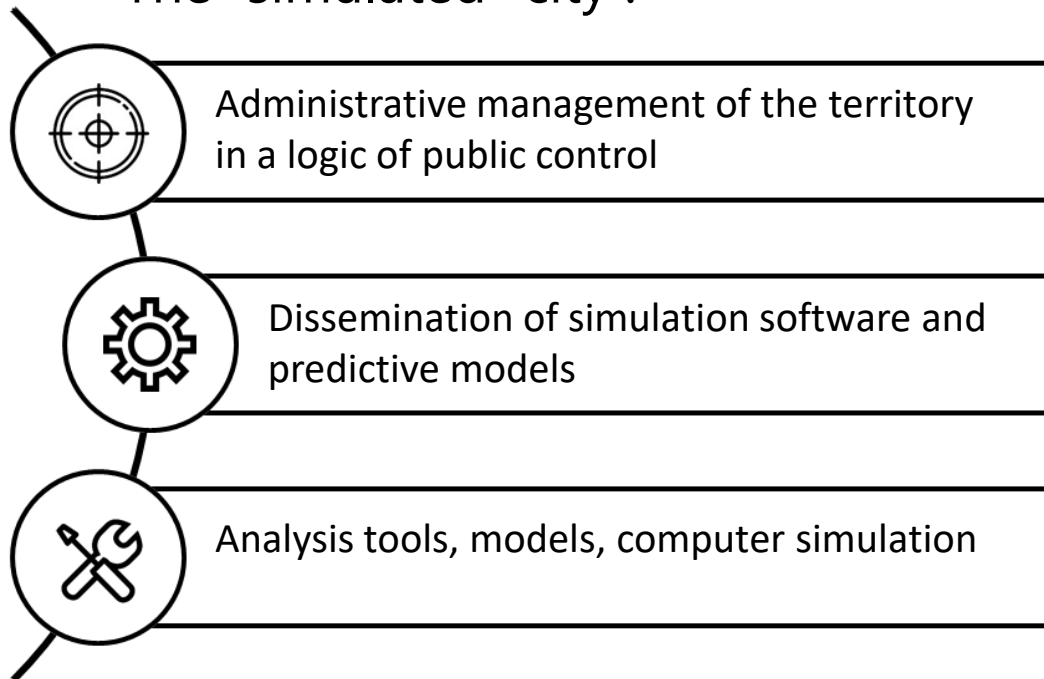
“Resident-expertise”, “e-democracy”, participation

Key words :

- Innovation
- Distribution
- Transparency
- Social
- Citizens
- Inclusion
- Transversality
- Sharing

Case study outlines

The "simulated" city :



Key words :

- Concertation
- Sustainability
- Visualization
- Modelization
- City planning

Research' assumptions

Innovation governance actions and actors studied through **three dimensions**

Temporal	<ul style="list-style-type: none">Analyzing the trajectory of innovation
Organizational	<ul style="list-style-type: none">Structuring the conduct of innovation
Distributed	<ul style="list-style-type: none">Strategical portage or "step by step"

Methodology

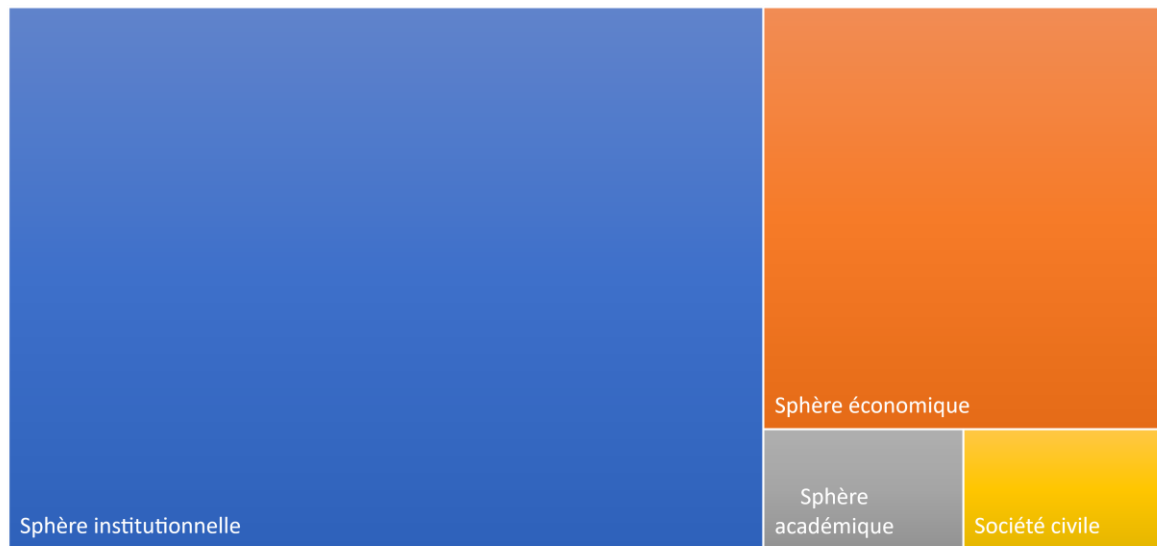
Interview grid :

Semi-structured interviews organized in three times :

1. **Social graphs** of the actors involved with the structure (or the service if institution) in the treatment of innovation issues or projects
2. **The historical relation** with smart city's projects and Rennes' territory
3. **What about tomorrow?** Future prospects in the short and medium terms

Latest developments

Interviews carried out (dec. 2018-feb.2019)



■ Sphère institutionnelle ■ Sphère économique ■ Sphère académique ■ Société civile

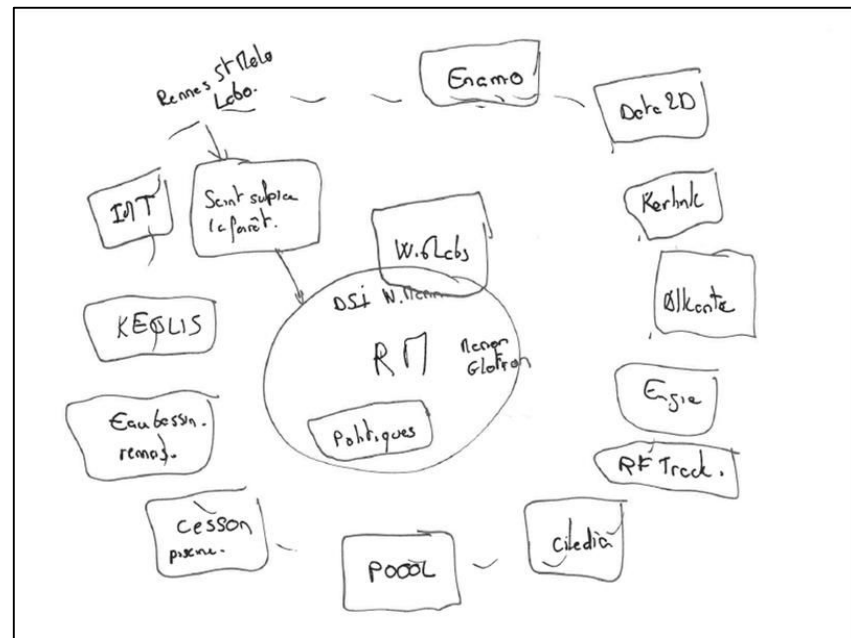
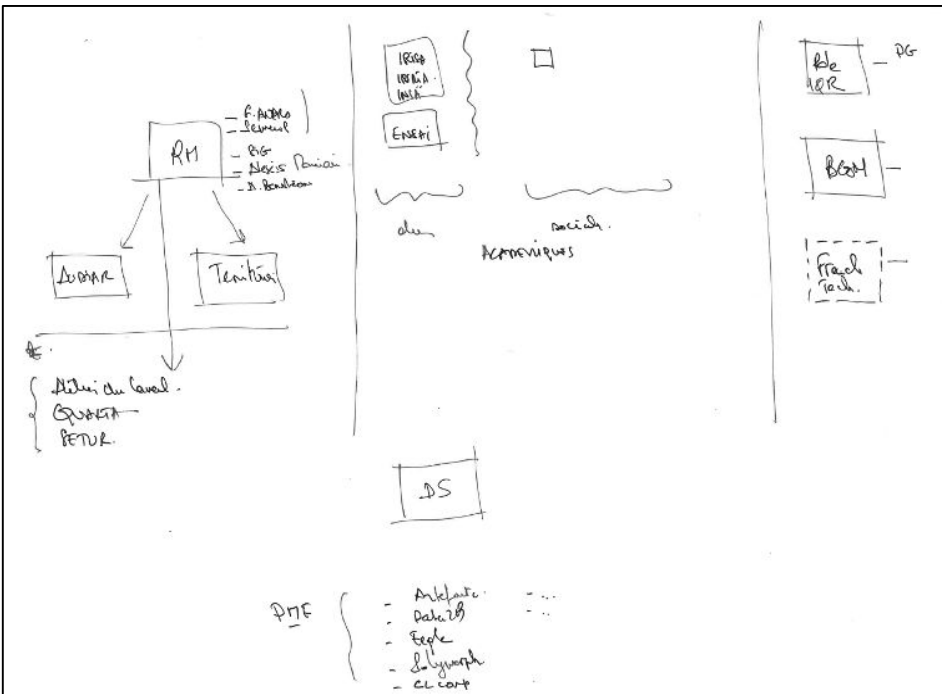


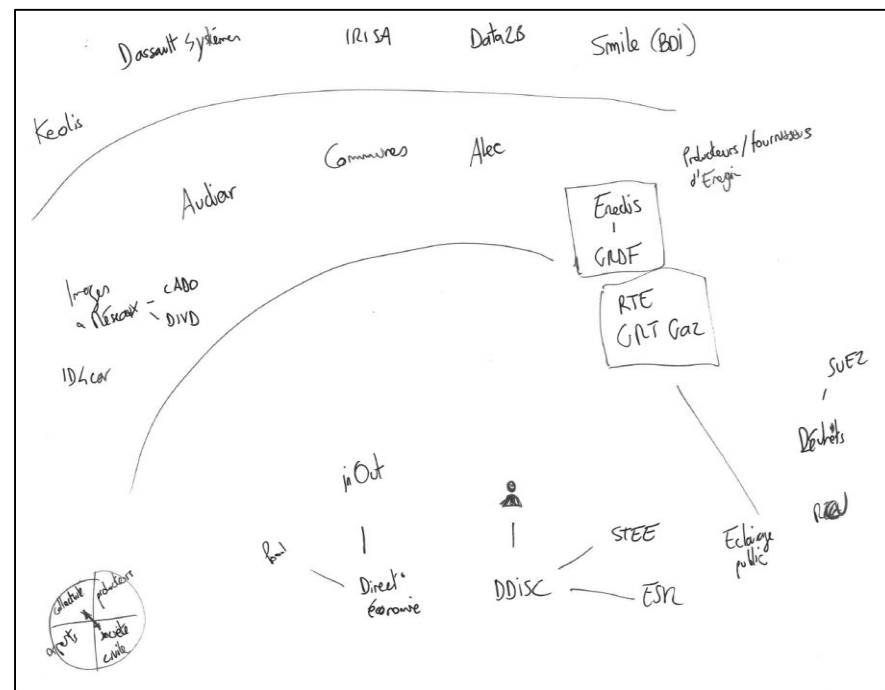
27 interviews



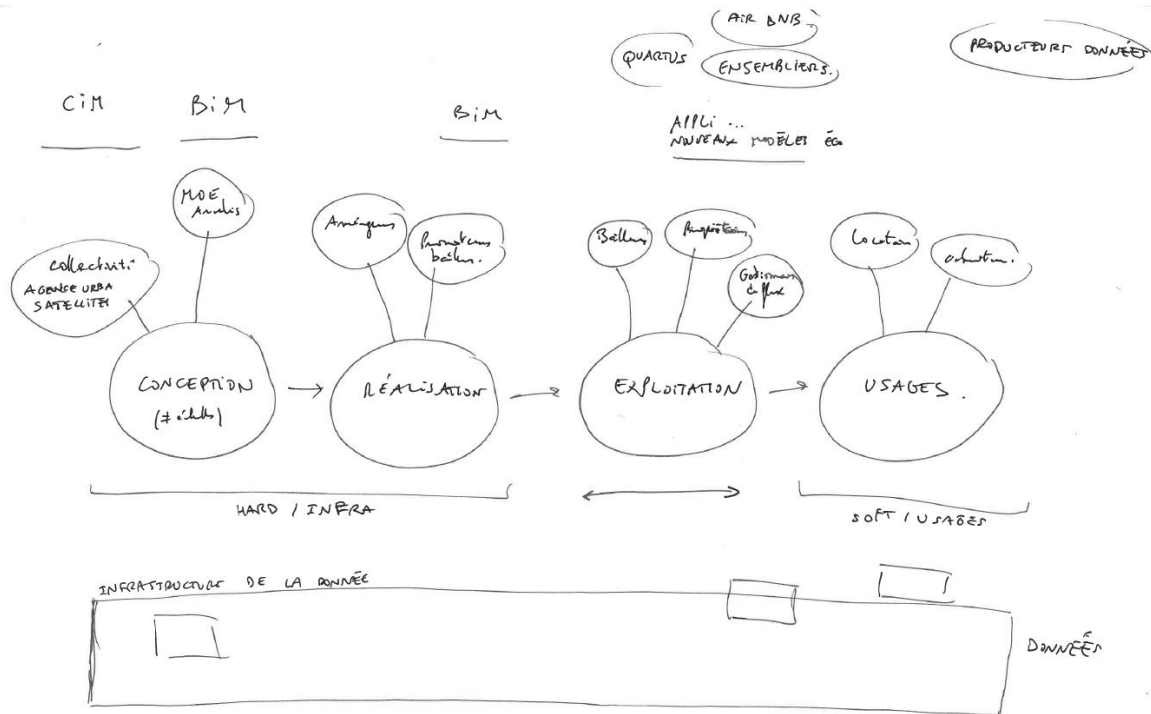
± 1 hour

From siloed vision to horizontal governance

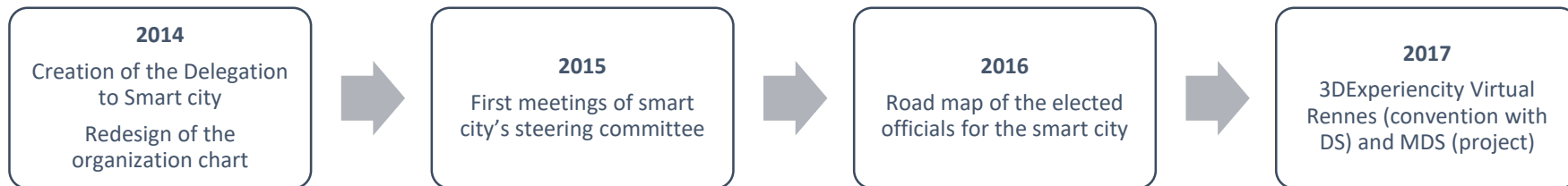








Governing by project



First findings



Inhibiting partnerships :

-  Difficult **acculturation** between economic and institutional sphere (language, organization, temporalities...)
-  Near **absence of civil society** (information/adhesion to co-construction)
-  **Complexity** of internal organization
-  Difficulty in **defining roles** (public-private partnerships).

Analysis trails

	Trajectory of innovation	Structuring the conduct of innovation	Smart city governance
Discursive analysis	History of innovation and Smart city in Rennes Métropole	Portage : strategical or opportunist ?	Short and medium term visions (expectations, levers and blocking points)
Network analysis	Integration/exclusion of actors	Place of actors (institutional, economic, civil sphere)	Role of the metropolitan government (perceived and/or expected)

Analysis trails

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Analysis trails – exemple

Interrogating the leadership of metropolitan government

Step 1 : establishing a typology from a few selected types of networks

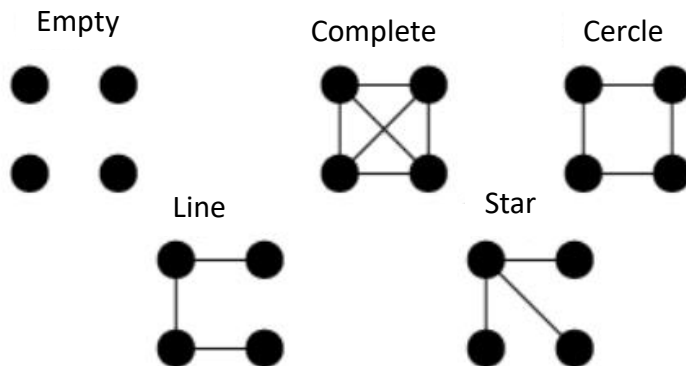


Figure 1. Quelques idéaux-types de réseaux (d'après Beauguitte, 2016*)

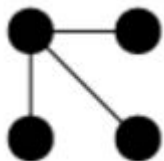
*Laurent Beauguitte. L'analyse de réseaux en sciences sociales et en histoire : Vocabulaire, principes et limites. Le réseau. Usages d'une notion polysémique en sciences humaines et sociales, Presses Universitaires de Louvain, pp.9-24, 2016

Analysis trails – exemple

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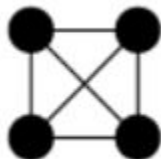
Step 2 : classifying social graphs depending on where the metropolitan government has been place on it

Guide



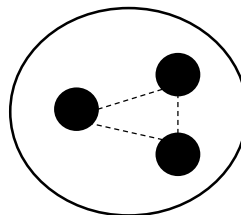
Central component
Manages interactions between actors

Coordinator



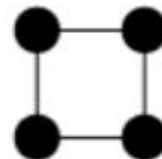
Assists and creates actors' networks

Trust capital third party



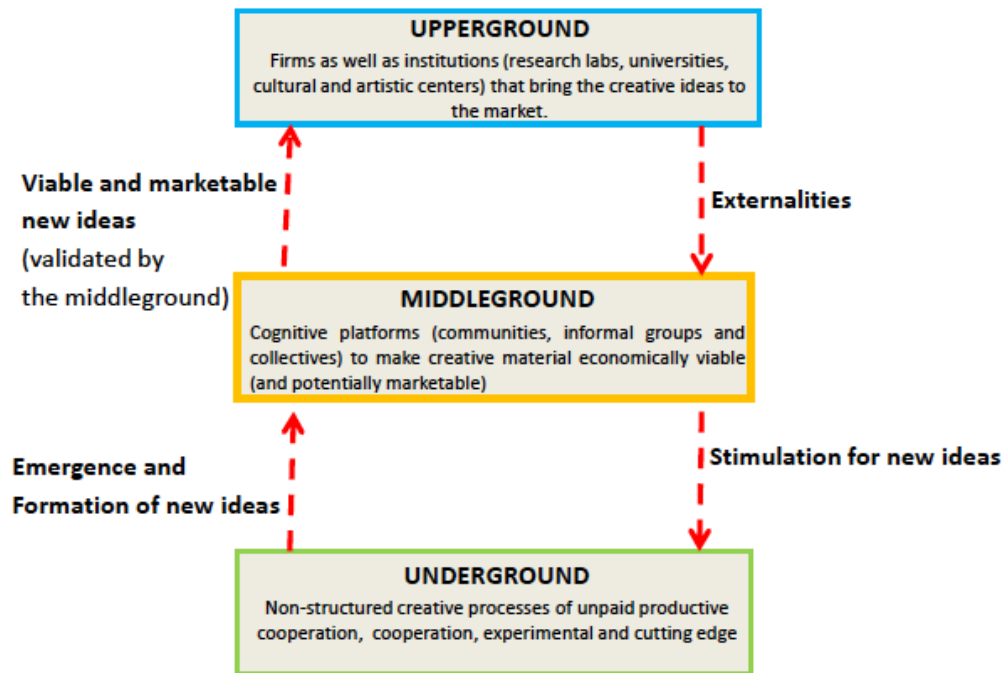
Coordinates innovation on the territory
Guaranties benefits for all and respect of requirements

Inclusive



Innovation shall be sustainable and
equally shared among all types of
actors

Confirmation of previous works on innovation



Metropolitan government as a relay between the upperground and underground actors :

Houllier-Guibert, Suire and Bailleul, Places and third places for entrepreneurship: support innovation in a French Metropole, Journal of Innovation Economics, 2017

Figure 2. Les 3 strates de l'innovation créative (d'après Cohendet et al, 2010)

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Mathilde Girardeau : mathilde.girardeau1@gmail.com