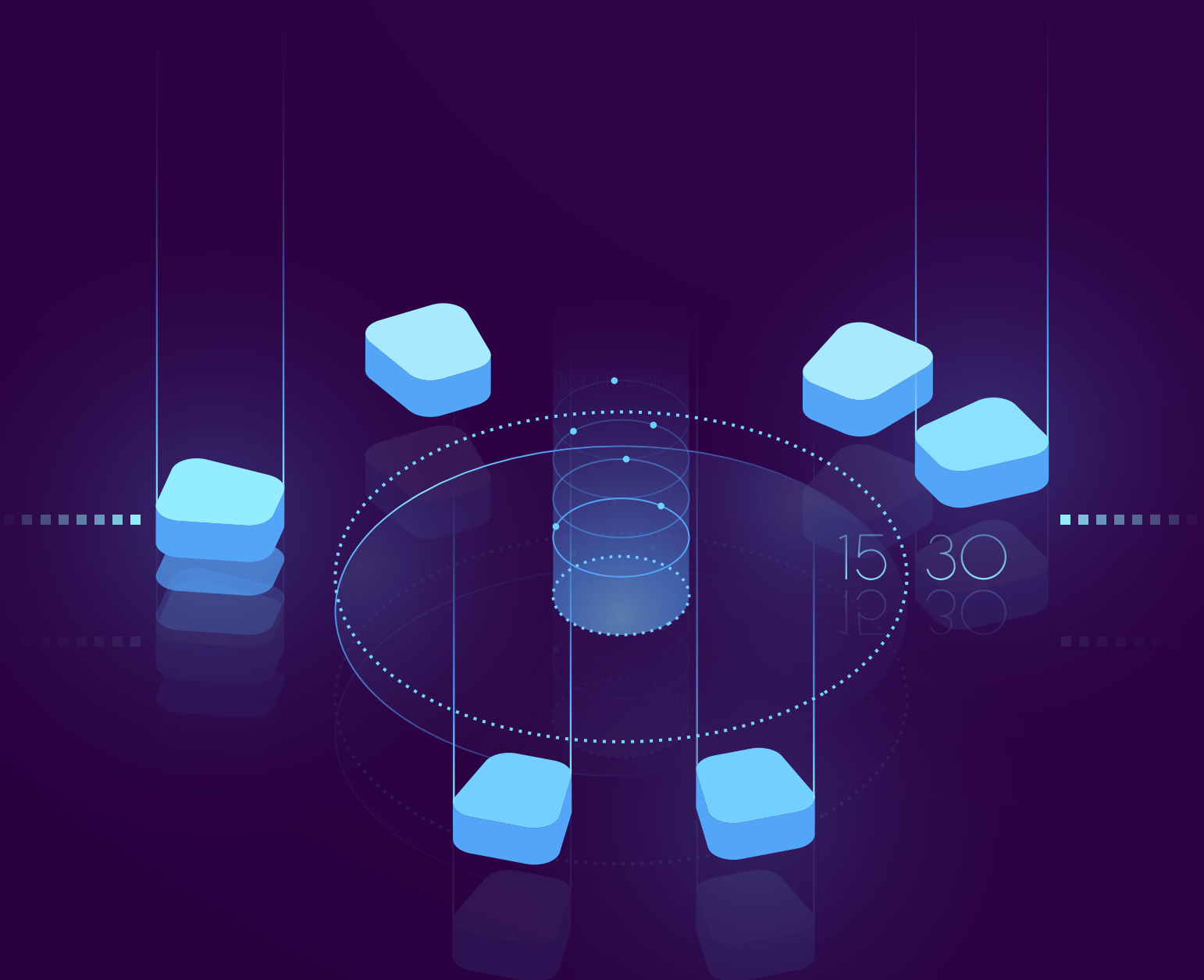

WHITE PAPER

Paris Northgates Project
15 min. city - 30 min. territory

Urban and Territorial Transitions





WHAT DRIVES US

The world is changing. The convergence of an urbanized world with hyper connectivity came to upset both way of life and style of entrepreneurship in our territories.

In this world in transition, complex and interdependent, we have to **rethink the links between economy, territory and society.**

Disruptions, servicisation, dematerialization, ecosystems, inclusive innovation, sustainability, collaborative economy, ubiquity, social reputation, are so many realities that should be mastered to build the change.

RETHINK THE PLACES OF INNOVATION AND ENTREPRENEURSHIP IN OUR TERRITORIES IN THREE KEY AREAS

Innovate

Re-imagine the practices and the places of innovation and entrepreneurship within organizations, cultivate creative dynamics and inclusive innovation

Entrepreneurship

Regenerate, co-build one's environment, rethink one's business model and its functioning

Territory

Support decision-makers in developing their territorial attractiveness through creative friction with high-performance ecosystems of entrepreneurship, innovation and lifestyles



WE AIM

To help organizations - companies, local authorities or institutions - to decode these revolutions: to anticipate future changes, to control their impacts, to regenerate their economy or service models, to revitalize processes and social skills.

The Chair is intended to be a place of meeting, prospective and collective reflection, but also of feedback and of sharing of experiences. It aims to develop new ways of undertaking to fertilize our territories. It is designed to be a source of innovation, disruption, new ideas, and of disciplinary, scientific and cultural interactions. It seeks to encourage the convergence of experiences and new practices. It is dedicated to contribute to renew the culture of innovation in territories.

TABLE OF CONTENTS

Foreword by Pr. Carlos Moreno, Scientific Director - ETI Chair

The digital city, a word from Lionel Bry - GFI Director of the Smart City Division

Part 1 - Introduction

Background information

The city of short distances : what is that about?

Part 2 - Methodology

Scope of action

Implementation of the High Quality of Social Life matrix

Personas

Indicators

Data collection process

Part 3 - How the platform works

Data model

The platform: a tool for the decision-making process

The platform: a tool for citizen participation

Potential uses

Flashlight: a closer look at the persona in a situation

Part 4 - Perspectives

Value creation levers acting for the territory

Project challenges

Contributors

Acknowledgements

PREFACE

Fifteen minute city, half hour territory: towards a city of short distances

World cities all over the globe still concentrate most of human activity, but they are still driven by the paradigm of the oil era and its impacts on roads and urban planning in general. The era of the omnipresent car, associated with a lifestyle based on the ownership of one's vehicle as an element of social status, is still present, but it is faltering. At a time where the effects of climate impact are highly visible in our urban lives, there is fortunately a growing awareness of the triple effect of emissions from buildings, heating and cooling networks, and all-round gasoline-powered transport in our cities that have become unbreathable. How then can the irreversible development of an urban world be reconciled with the imperative needs linked to a real quality of life?

The energy transition, with the paradigm shift towards low-carbon and renewable sources, is certainly a priority, but will be quite derisory if not accompanied by an ambitious urban convergence policy, and a radical transformation of our lifestyles. At a time when transport has become the main CO₂ emitter, the goal is to reconcile the requirements of the sustainable city in terms of energy, but far beyond that, the goal is above all to challenge our urban living patterns.

Yes, the city of short distances must be at the heart of our roadmap for the coming years. Yes, we must be creative and imagine, put forward, build other rhythms of life, other ways of occupying urban space to transform its use, to access essential urban social functions.

Yes, to preserve our quality of life, we need new relationships between these two essential components of urban life: time and space. To live differently is above all to change our relationship with time, essentially that of mobility, which has greatly degraded the quality of life through commute that is costly in every respect. How can we offer urban dwellers a peaceful city by satisfying its essential urban social functions?

It is time stray from urban planning and move towards developing urban life. The aim is to transform the urban space, which is still highly mono-functional, with the central city and its various specialisations, and go towards a polycentric city, driven by 4 major components: proximity, diversity, density, ubiquity. The objective is to offer this quality of life within short distances, a quality of life comprised of the six essential urban social functions that are: living, working, supplying, caring, learning and enjoying. It is the fifteen minute city, in a compact zone (or the half territory in a semi-dense or sparsely populated zone), of hyper-proximity, where everything is accessible to everyone at any time... The one where, within less than fifteen minutes, an urban inhabitant – or within thirty minutes, a territorial inhabitant – can access his essential living needs.

PREFACE

It is a challenge that concerns all the actors of urban life and territories and which requires everyone to reconsider their role in this urban life in order to open up to other horizons, bringing a high quality of social life. The aim is then to bring the demand of the inhabitant closer to the offer proposed to him, to ensure a functional mix by developing social, economic and cultural interactions, to ensure a significant densification, while increasing the spaces of public meetings and mixing, to optimize the range of services thanks to digital technology and collaborative and sharing models, to make the streets become low-carbon mobility spaces through discovery on foot or by bike, to reinvent new hyper-proximities, to rediscover biodiversity in our living space by encouraging short circuits.

Let us then do so in such a way that digital technology is a factor of social cohesion, inclusion and not a factor of exclusion or an incentive for a generation of "zombie-geeks", aka those who are massively connected and socially disconnected, with the corollary of bubbles and fakes, taken as "a priori truths". We also need to link our hyper-proximities so that we can coexist in our cities with new generation public services, multimodal and shared services. We must also face the challenge of reinventing urban communities. More than ever, this hyper-proximity will be the source of new economic and social models in our cities, and they are now emerging. Returning to local urban life means leaving the mobility that we endure for the mobility that we choose.

It is another way of living in the city, so that the social bond that exists in the vicinity is part of this high quality of life. It is giving back to the city what makes it so precious, turning it into a pool of life, restoring its metabolism, like any living organism, in one word: it is making the city alive and accessible for all. Yes, in this approach, plants and biodiversity, which are also living organisms, are essential. They capture carbon, and also participate in the metabolism of all urban life. But plants are also a factor of attractiveness and quality in human relationships in the city. Beyond the fact that they can fix the carbon level, plants can also fix humans.

All studies show that the city which is compact, even very dense, the city which has managed to integrate plants into our daily life, is a city in which its inhabitants reduce the so-called "escape routes" to go to greener places. This also has a direct effect on mobility, and contributes to improving the city of short distances, allowing us to benefit from a high quality of social life, as fifteen minutes away from home is as far as we need to go. Vegetation and hydrology go hand in hand. Managing water resources is one of the concerns that must be at the heart of urban life today.

PREFACE

Changing attitudes about the life cycle of urban water is one of the major needs to be addressed in the next decade. With the fifteen minute city or the half hour territory, hyper-proximity and the re-invention of the city of short distances make complete sense and become of strategic importance when the convergence of vegetation, nature and water are projected in the urban transition towards this high quality of social life. Yes, with climate change, heat waves, increasingly visible water stress, air pollution with serious consequences on urban health, the place of urban living space, time well lived and the role of digital technology are essential new challenges for the years to come. It is a new way to explore this universe of transformation of life, which consists of the urban commons of the social functions essential to territorialize in multi-centralities with short distances: living, working, supplying, caring, learning, enjoying. Yes, because the awareness of the widening struggle for our urban commons is at the heart of our future choices: with water, air, shade, space, time and silence, they will be at the heart of the new urban battles. So let us fight to make them accessible for all!



Pr. Carlos MORENO
Scientific Director - ETI Chair

DIGITAL CITY

The division of the administrative and technical organisation of the city, that stems from Haussmann, has been achieved. Roads, transport, public buildings, housing, green spaces, childcare, social action... These activities, which were dealt with "vertically" in the past, must collaborate today and tomorrow on neighbourhood development or transformation projects. How?

By collecting and sharing data for projects that minimize commute and carbon impact, bringing nature and freshness to urban areas, reducing energy consumption, promote social inclusion and economic development and capitalizing on solidarity and local identity.

Digital technology is there to help us to encourage dialogue between stakeholders, particularly users of the territory, and decision-makers at all stages of projects. By visualizing the evolution of needs and resources over time, we aim to provide communities, major urban service operators, developers and residents with tools to diagnose, simulate, participate and decide.

Territorial data is at the heart of this transformation, a wealth to be developed for more efficient infrastructures and public policies, and a better quality of life for its users in urban, peri-urban and rural areas.

Digital tomorrow will also be a service provider (tele-medicine, access to local eServices and media, eReservation, short cycle supplies, etc.) to help diversify the use of existing infrastructures and bring proximity and ubiquity by hybridising material and digital services within fifteen minute and half hour away from the place of residence.



Lionel Bry

Director of Smart City offers,
Gfi



PART 1

INTRODUCTION

BACKGROUND INFORMATION

How can we respond to all these urban changes? The city of short distances must be at the heart of our roadmap for the coming years. It is about preserving our quality of life through new relationships between these two essential components of urban life: time and space.

With an approach based on the exploration of chronotopy, putting forward another coupling of urban and territorial temporal and spatial proximity, we approach the city of short distances as a response that is at odds with the state of the art.

To live differently means, above all, to change our relationship with time, essentially that of mobility, which has greatly degraded the quality of life through commute that is costly in every respect. How can we offer urban dwellers a peaceful city by satisfying its essential urban social functions? It is time stray from urban planning and move towards developing urban life. The aim is to transform the urban space, which is still highly mono-functional, with the central city and its various specialisations, and go towards a polycentric city, driven by 4 major components: proximity, diversity, density, ubiquity. The objective is to offer this quality of life within short distances, a quality of life comprised of the six essential urban social functions that are: living, working, supplying, caring, learning and enjoying.

The temporal dimension has been neglected by city councillors and planners alike, although it is an essential aspect of urban dynamics. Until now, the main focus has been on space planning to find out how to make better use of our time (Gwiazdzinski, 2014). The opposite approach, which consists in arranging time in order to have an effect on the use of space, is less common. In urban research, much work has been devoted to space and very little to time, to the space-time relationship and its representation.

The city of short distances seeks to promote a greater spatial mix of housing, workplaces, shopping and leisure. This concept is based on maintaining essential services in the local area. In Germany, efforts are being made to develop the residential function in city centers invested by tertiary activities. In Barcelona, the city wants to develop certain blocks or islets, in order to make them almost entirely pedestrian by limiting as much possible the place of the car.

In France, a study was conducted in 2017 by Chronos to identify current practices and measures that citizens would like to see:

- **16% of Parisians partake in food self-production practices,**
- **59% of French people would use an autonomous shuttle service if it were to be developed close to their habitat,**
- **63% of French people are said to use neighbourhood service kiosks,**
- **35% of French people would be interested in shared facilities among neighbours,**
- **11% of French people currently use applications that allow them to participate in citizen dialogue,**
- **64% would like their municipality to propose a participatory budget.**

Urban transformation is dictated by several actors who intervene at different times: the planner coordinates actors in order to build strategies to better understand the conditions of a system that is always in motion, while the inhabitant is concerned about the use they will make of the various services offered, they are concerned about their movements, their living environment, the safety of their environment, the accessibility of the various services within a limited time slot. It is therefore important to consider solutions by adopting a double prism.

The vision of a city centred on urban planning through uses, which we promote with conviction, with the improvement of the citizen's quality of life at its heart, is now at the core of the debates on the essence of the individual, their sociability and their daily environmental well-being. Many indicators have emerged in recent decades:

- **air quality index (Airparif, 2010),**
- **a sustainable well-being index to replace GDP (OECD, 2017),**
- **a "better living" index defined by the OECD (OECD, 2017),**

BACKGROUND INFORMATION

The latter indicator is based on 11 criteria considered essential to our well-being (income, housing, employment, health, safety, community life, governance, education, environment, sense of personal satisfaction, work/life balance), and allows individuals to compare countries with each other.

To our knowledge and to date, there is no social quality of life index that would make it possible, in the same way as the latter indicator, to compare neighbourhoods within the same city.

It is in the continuation of this reflection that Professor Carlos Moreno imagined the development of urban life around the High Quality of Social Life (HQSL) concept. This approach will lead to a demonstrator of this HQSL around the "Fifteen minute city", where the essential functions of the city are accessible within fifteen minutes or thirty minutes on a territorial scale, using soft mobility, within the territory of the Paris City Gates.

To do this, the HQSL Traceability Matrix will be applied, organized around the 6 functions of the city (living, working, supplying, caring, learning and enjoying), cross-referenced with 3 urban states (well-being, sociability, sustainable planet).

The main objective of our research is to put forward a methodology and tools, including digital tools, to bring the demand of the inhabitant closer to the supply intended for them, thus contributing to ensuring a functional mix by developing social, economic and cultural interactions, while increasing the spaces for local meetings and mixing. Through this approach, we want to optimize the range of services thanks to digital and collaborative and sharing models, to reinvent new hyper-proximities and to rediscover our living spaces by encouraging all kinds of short circuits.

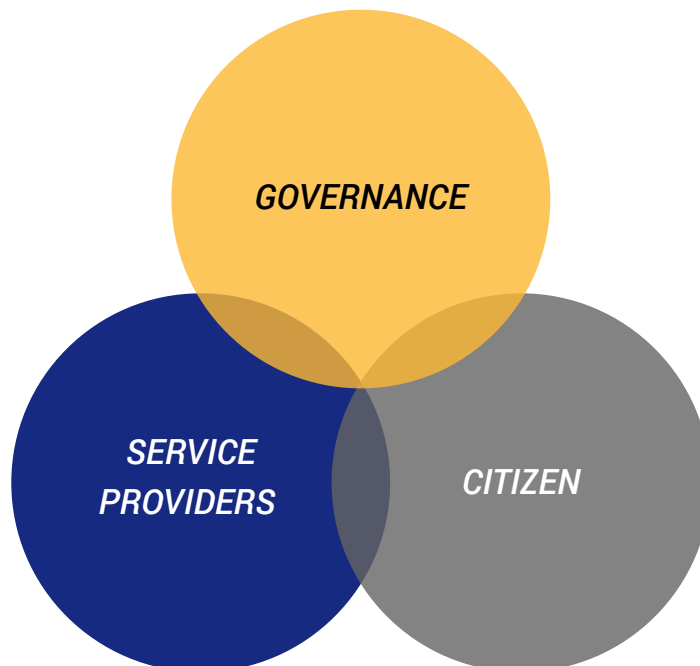
The construction of a digital data aggregation platform is one of the key tools to imagine the optimal transformations of a territory based on a High Quality of Social Life index.

THE CITY OF SHORT DISTANCES

DEFINITION

Chronotopy is becoming a major issue in the management of cities and territories. Making it so that a network of places can offer several living spaces in the vicinity so that our time is better used and better lived : here is a new way of reinventing urban and territorial life. This reinvention must offer another way of life to the inhabitants, and rethink our way of getting around. The functions, users and customers of each existing equipment will thus be changed according to the day and time of day. This vision thus implies a new conception of public spaces to tend towards the city of short distances, a city of hyper-proximity, a fifteen minute city and a half hour territory.

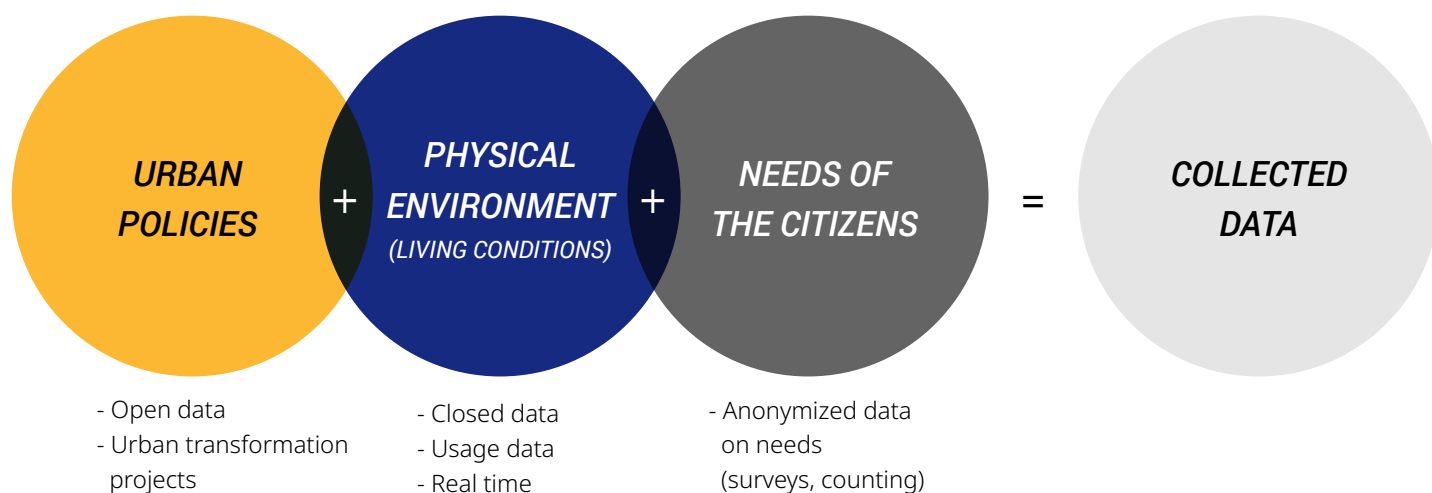
The Paris City Gates project consists of an implementation of the fifteen minute city, in which citizens will have access to six urban social functions within fifteen minutes (on foot, by bike, by public transport) or in thirty minutes on a territorial scale. The success of the fifteen minute city lies in the reduction of the number of kilometers traveled, which means the extra time can be put to better use. To this end, the development of hyper-proximity services relating to urban social functions is essential, as it would make it possible to limit commute while promoting the use of active mobility.



PROJECT'S OBJECTIVE

Our project's objective is to develop a prospective evaluation and diagnosis action, in order to formulate hypotheses on urban and territorial transformation.

The aim is to create a tool with the ambition of supporting policy makers and service operators in their urban planning decisions. Based on a very thorough exploration of territorial resources, the construction of a digital platform for data aggregation will make it possible to develop simulations and algorithms to imagine scenarios for the transformation of a territory.



This project targets the actors of the city as a whole. In an age of massive ubiquity and hyper-connectivity, they are both creators and consumers of information.

Understanding their interactions with urban and territorial spaces through the information analysed will make it possible to move towards a modeling of the services and uses of the fifteen minute city, within our target area, Paris City Gates.

PART 2

METHODOLOGY

SCOPE OF ACTION

The scope of the study was defined as part of the implementation of this project in consultation with all our partners. It focuses on part of the 18th and 19th arrondissements of Paris, and part of the communes of Pantin, Aubervilliers and Saint-Denis, on the outskirts of the city of Paris, at the city gates of Paris; hence the name of the project.

This perimeter was chosen because it is a contrasting territory. At the confluence of important transport networks, sources of urban divisions, but also opportunities for rebirth. It is also a pivotal territory for Paris, at the crossroads of two departments and three municipalities. Finally, it is a territory in which many future projects (JO, Parc Chapelle-Charbon...) make way for new perspectives.

With this first experiment, we want to explore this new way of reasoning through use. We want to understand how to ensure a better urban functional completeness by optimizing existing resources including "hidden" resources, those that are little used and leave room so that we can come up with other uses.

We want to investigate how polymorphism, multi-purpose and open local services contribute to a peaceful city climate that promotes new urbanities.

Finally, we wish to contribute to proposing a global approach that makes it possible to fight for a complete territoriality that restores pride among the inhabitants. The meshed city, the re-discovery of proximity, the power of social cohesion and functional polycentrism are the new urban frameworks, and are essential in the face of economic, ecological and social challenges. Reinventing proximity is our priority.



PARIS

Aubervilliers

Saint-Denis

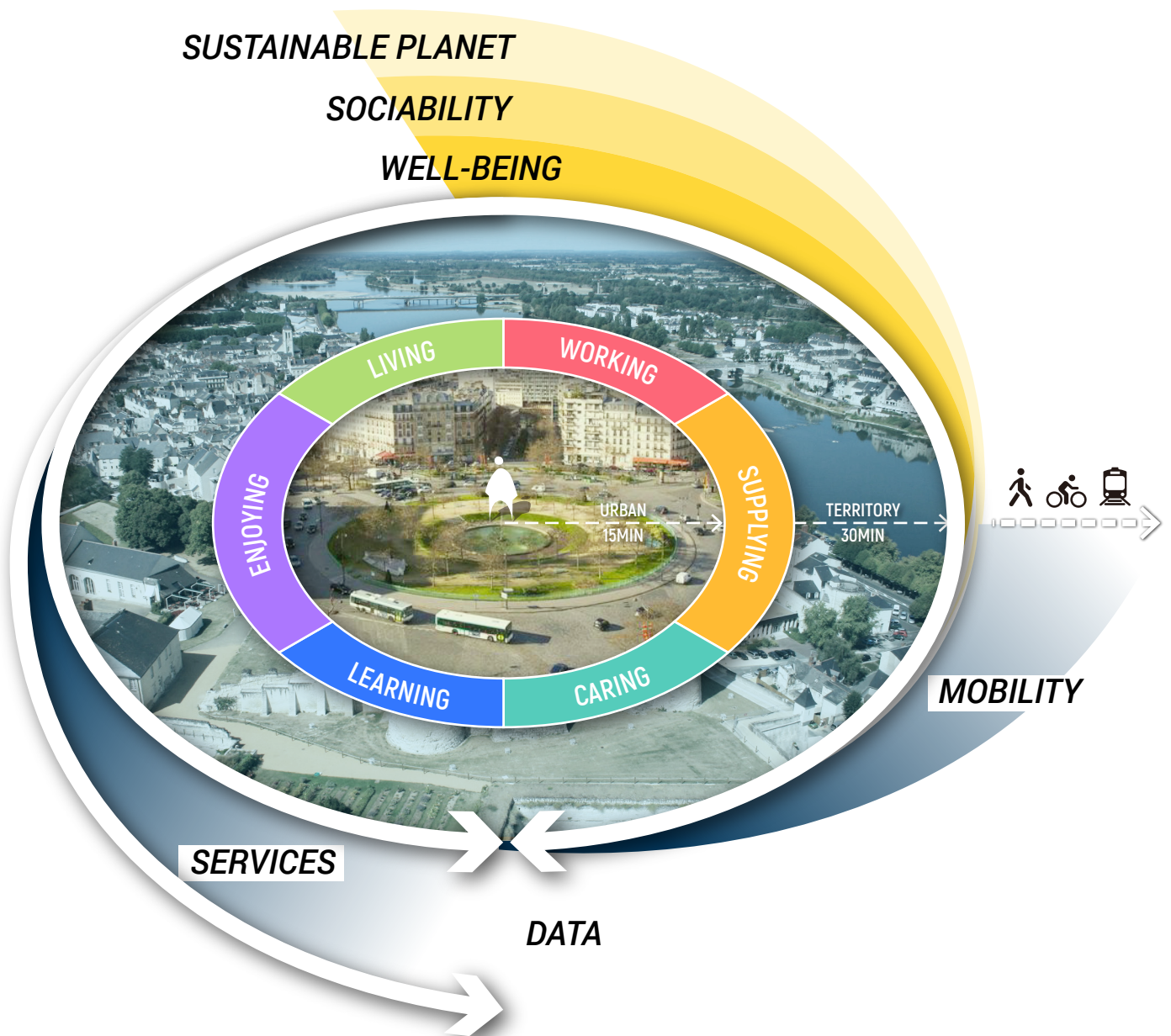
Pantin

18th arr.

19th arr.

IMPLEMENTATION OF THE “HIGH QUALITY SOCIAL LIFE” MATRIX

Reading grid and revealing the dynamics of territories



Designing the fifteen minute city means designing the development of the city or territory around the High Quality of Social Life (HQSL) concept supported by Professor Moreno's research. The aim is to spatialize the gaps through perimeters which are fifteen minute wide within the city and a half hour wide within a sparsely populated territory, and to develop local services relating to the 6 urban social functions:

- **Living,**
- **Working,**
- **Supplying,**
- **Caring,**
- **Learning,**
- **Enjoying.**

This approach will lead to a demonstration of the fifteen minute city, highlighting the accessibility of the city's essential functions within the Paris City Gates area, cross-referenced with 3 urban states:

- **Well-being,**
- **Sociability,**
- **Sustainable planet.**

USERS AND ACTORS OF THE TERRITORY

A tool to help you understand the project

To better embody an approach that aims to serve the inhabitants, we initially defined persons with social and psychological attributes and characteristics, which enabled us to define two target groups: one comprised of users and one comprised of actors at the service of users.

1. UNDERSTANDING THE NEEDS OF THE TERRITORY

These persons express qualitative needs that make it possible to better define each social function in terms of facilities and are an addition to the quantitative needs obtained from territorial statistics. User path scenarios have been devised in order to refine our understanding of their needs.



JAMES

TOURIST
24 YEARS OLD

Coming from Baltimore and coming to Paris for a seminar



LUCIE

ENTREPRENEUR
43 YEARS OLD

Entrepreneur, would like to set up a "Day by Day" franchise



CLAIRE

FUTURE INHABITANT
34 YEARS OLD

5 months pregnant, bank account manager, lives in Aubervilliers



ULYSSE

INHABITANT
29 YEARS OLD

Looking for work, lives in Saint Denis

USERS

2. DATA TO BETTER UNDERSTAND THE TERRITORY

- Quantitative data
- Geographic data

3. UNDERSTANDING THE NEEDS OF THE PLATFORM USERS

Interviews were conducted with 4 potential users of the fifteen minute city observatory to understand their needs in the exercise of their duties as city builders and enable them to better meet the needs of the territory. The main needs that were expressed were:



AMBRE
URBAN PLANNER
32 YEARS OLD



SOPHIE
PARIS 19TH ARRONDISSEMENT
MAYOR 54 YEARS OLD



XAVIER
URBAN DEVELOPER
45 YEARS OLD

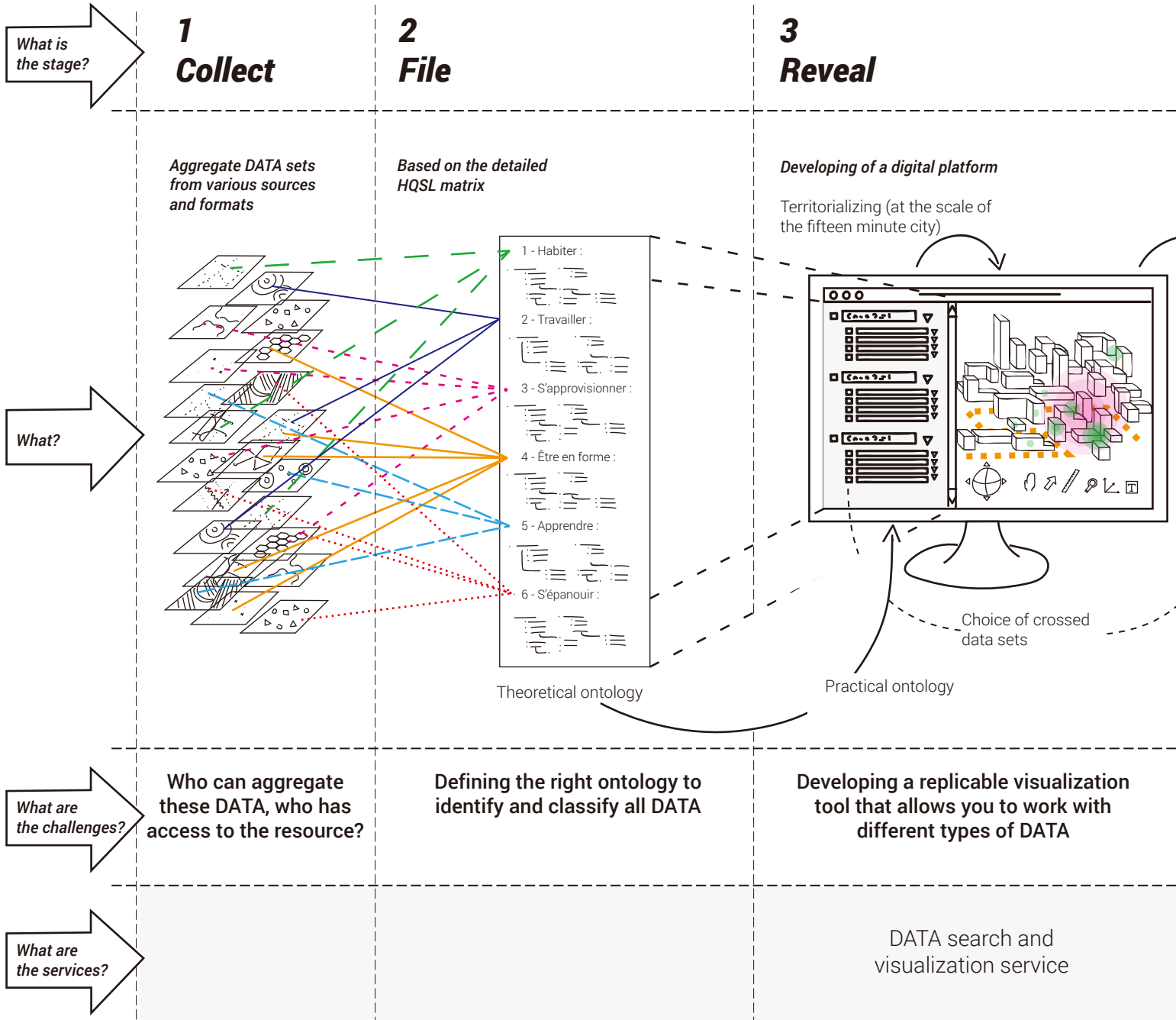


JÉRÔME
REAL ESTATE DEVELOPER
37 YEARS OLD

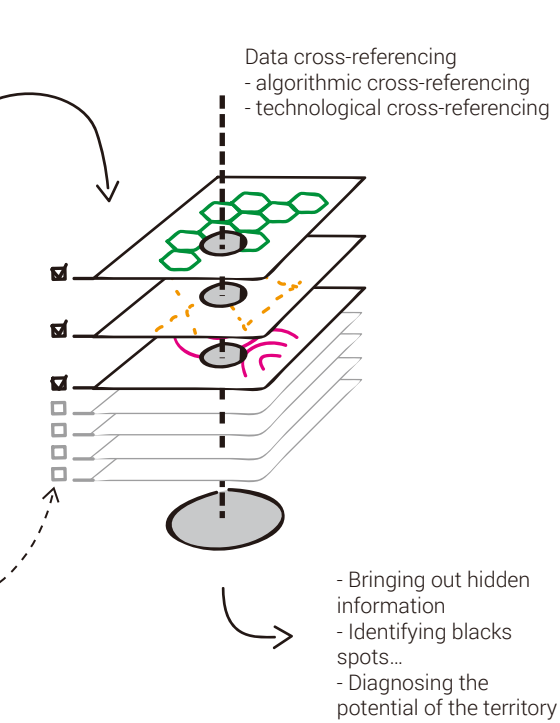
ACTORS AT THE SERVICE OF USERS

DATA COLLECTION PROCESS

Projecting in the city



4 Project



Which crossing methodology to use?
(algorithm, manual...)

Who is this tool for?
How, why, in what context is it used?

Assistance with data cross-referencing and information creation

Developing a projection tool
Decision / service development support tool

INDICATORS

Characterizing the six urban social functions

A field survey was conducted by a group of HETIC school students in the study area to identify citizens' needs. From these needs, a set of variables could be deduced to qualify each of the urban social functions, as shown in the table below.

Table: Extraction from the database (see Appendices)

<i>Social urban function</i>	<i>Characteristic variables</i>
<i>Living</i>	<i>Housing</i>
	<i>High environmental quality housing</i>
	<i>Social housing</i>
	<i>Parks and gardens</i>
<i>Supplying</i>	<i>Markets, businesses</i>
<i>Working</i>	<i>Number of employees and self-employed workers</i>
	<i>Share of unemployed population</i>
	<i>Public transport nearby: bus, subway, tram</i>
<i>Caring</i>	<i>General practitioner</i>
	<i>Swimming pools and sports centers</i>
<i>Learning</i>	<i>Preschool, private and public school</i>
<i>Enjoying</i>	<i>Media libraries</i>
	<i>Movie theaters</i>
	<i>Cultural centers</i>
	<i>Associations</i>
	<i>Shows</i>
	<i>Coffee shops/restaurants</i>

The project calls for a dynamic reading of the territory in the prism of the equipment on the one hand and that of the offer on the other hand. Two main indicators were developed from this perspective:

- **number of inhabitants 500 meters away from a facility,**
- **number of facilities per inhabitant within a 500 meters perimeter.**

The choice of these indicators allows us to be part of the extension of the vision of the elected representative and the citizen, while keeping in mind our main objective. Using such indicators will allow us to highlight the territory in such a way that we can move from a decentralized to a centralized view. The latter will highlight the emergence of projects and new services and uses in existing places, in order to ultimately move towards an optimization at several scales responding to the fifteen minute city.

SOCIAL QUALITY OF LIFE INDICATOR

Composite index

The success of the platform is based on the development of a social quality of life index that corresponds to a composite index which is currently under consideration and development. The following are the first steps in our reflection.

Taking into account the six urban social functions, which constitute our 6 parameters, we can express the overall social quality of life index as follows:

$$Q = aL + bS + cW + dC + eT + fE + G2$$

- *Q : Quality of life in society*
- *L : Living*
- *S : Supplying*
- *W : Working*
- *C : Caring*
- *T : Learning (the T stands for Tutoring, to differentiate it from Living)*
- *E : Enjoying*
- *a, b, c, d, e, f: weighting coefficients*
- *G: a constant allowing the index to be varied from 1 to X (X to be defined)*

The objective is thus to obtain a system of equations with several unknowns that will allow us to define between which values each parameter will stand (L, S, W, C, T, E). The next step will be to create several sub-indexes characterizing each social function in order to move towards a global social quality of life index that will thus give a "value" to a neighbourhood on the scale of a small neighborhood.

Choice of dimension weighting

This approach requires solving several questions, and developing sets of hypotheses. An essential step is to choose the weighting method:

- **classical weighting**

Example: enjoying (E) has less weight than the importance of having a home (L), a job (W) and supplies (S) for example. Therefore, the sum of the weighting coefficients of (L), (W) and (S) will be considered as equal to the coefficient (E), such that: $f = a + b + c$.

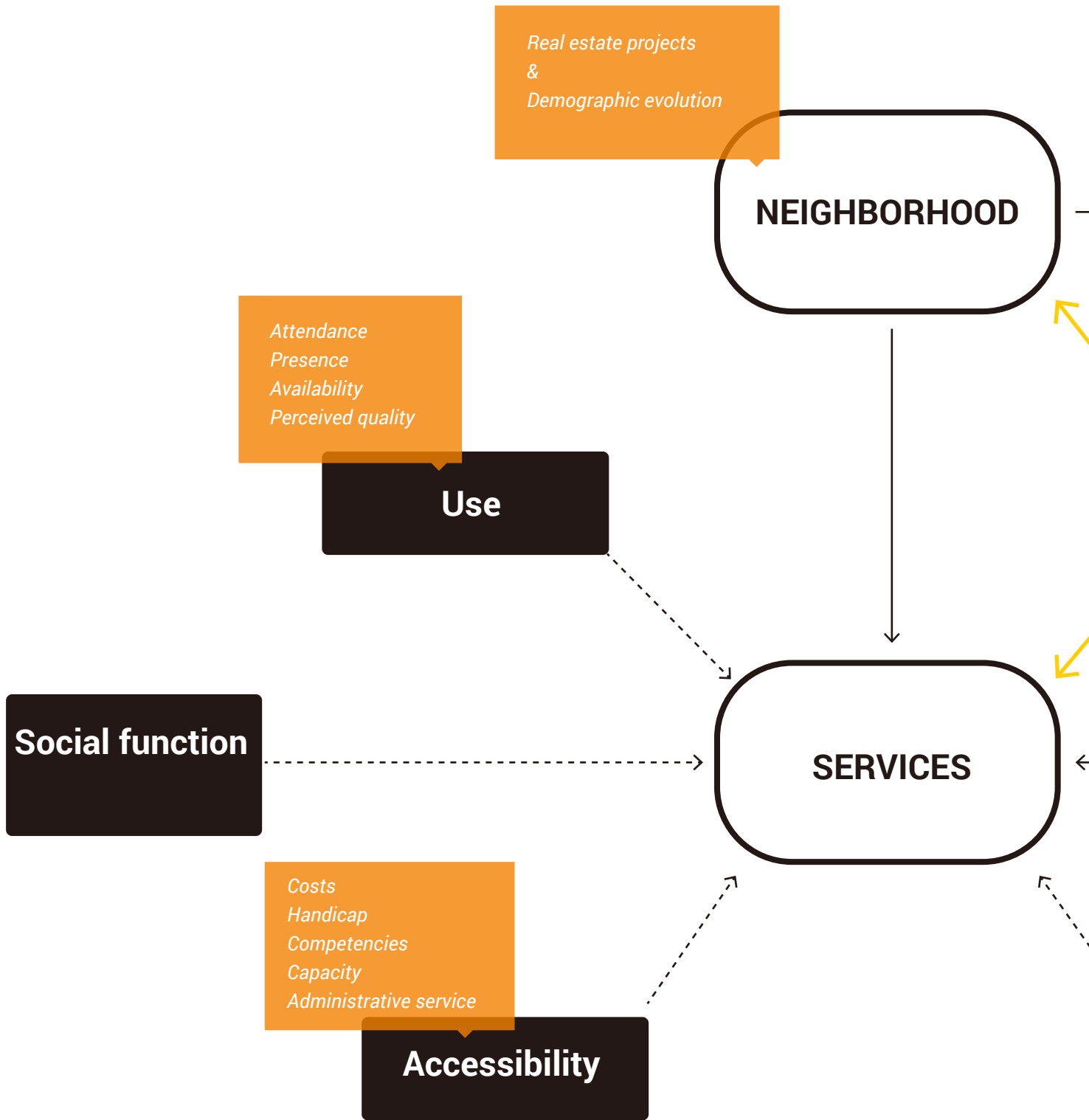
In addition, some services are more or less diffuse by nature (e. g. shops / school or medical practice, etc.) and collect many geographical points, which may require defining density thresholds above which the maximum number of points in a social function is reached, thus avoiding unbalancing an overall rating of an HQSL:

- **implementation of a survey by declared preference (Pons, 2011),**
- **discrete choice model (Berchi et al, 2007),**
- **ELECTRE method, multi-criteria analysis (Mayag, 2016)**

PART 3

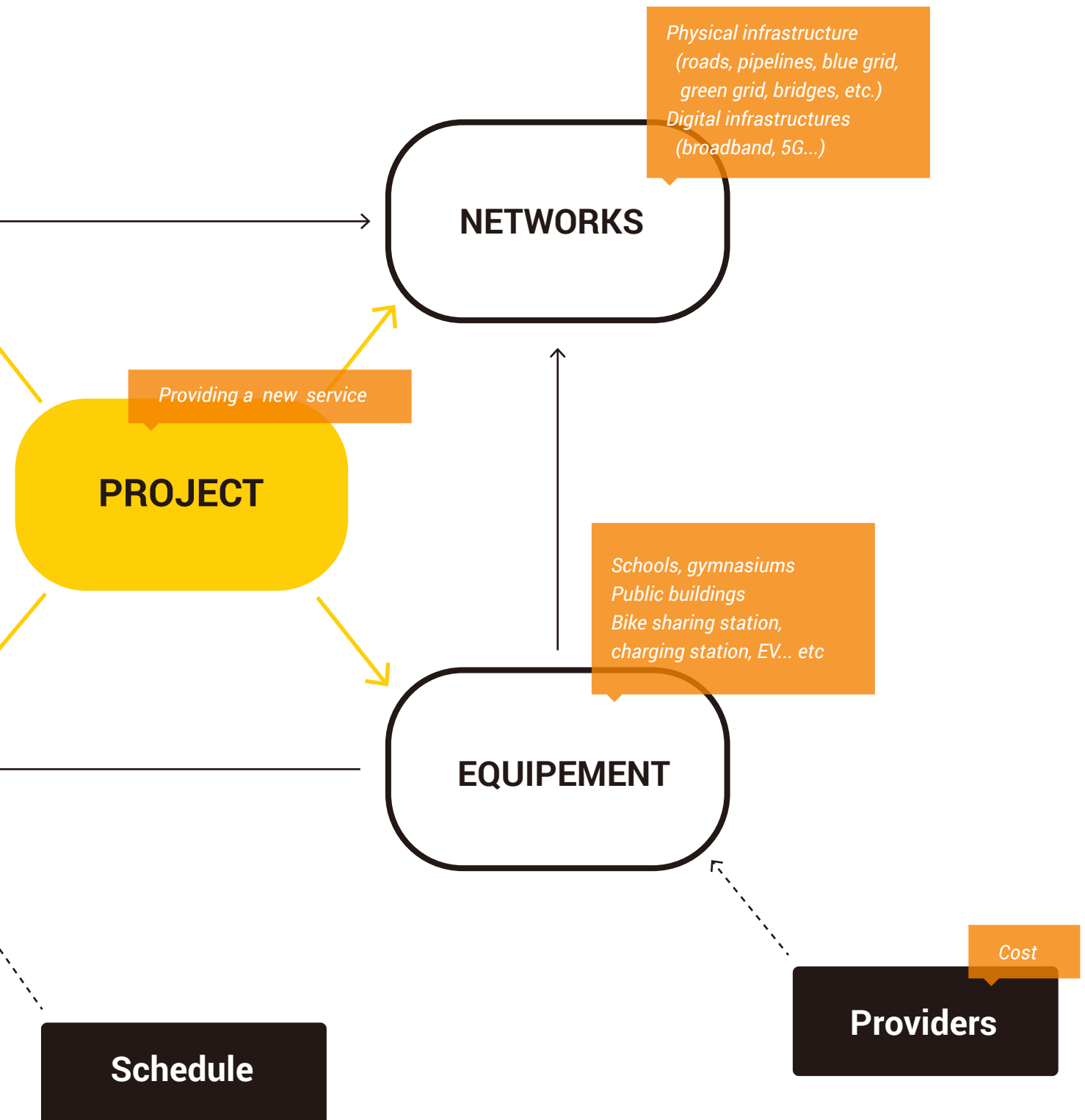
HOW THE PLATFORM WORKS

DATA MODEL



"Our current administrative organisation on the issue of cities stems from what Haussmann had put in place. The division of services into roads, buildings and green spaces has been confirmed by the urban division of the CIAMs (International Congresses of Modern Architecture) of Le Corbusier. (...) The development of the territory is divided into geographical areas and themes, whereas it would be necessary to have a project-based approach with everyone around the table."

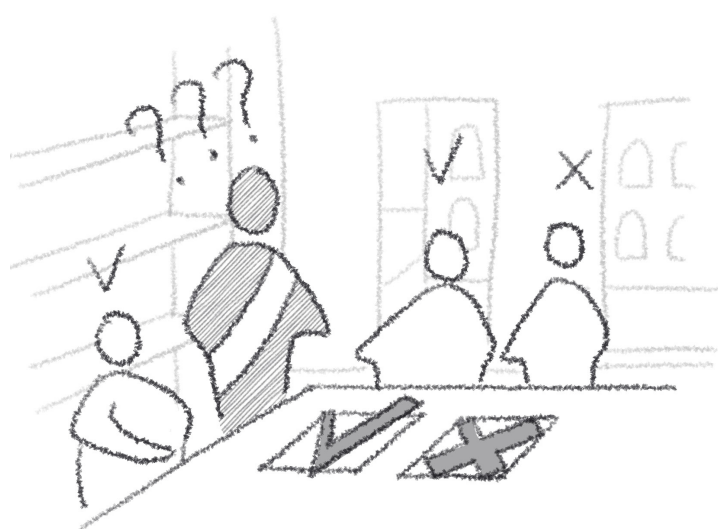
Antoine Grumbach



THE PLATFORM

A tool for the decision-making process

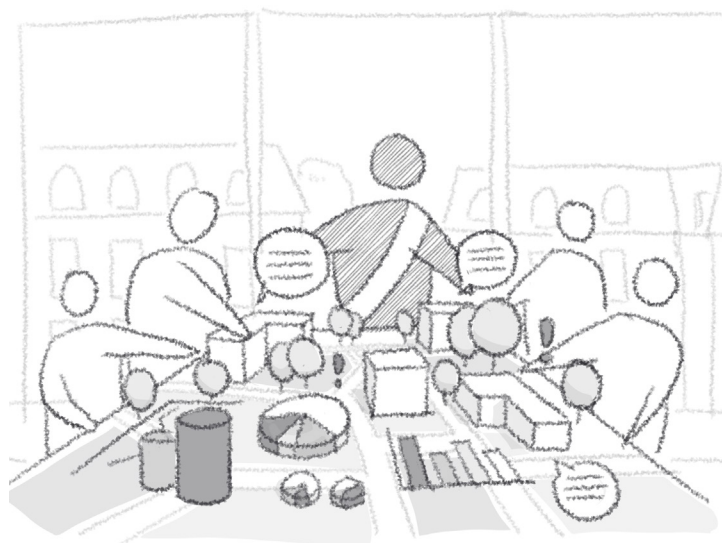
Journey of the Mayor and public authorities



1

DECISION-MAKING BY ELECTED OFFICIALS

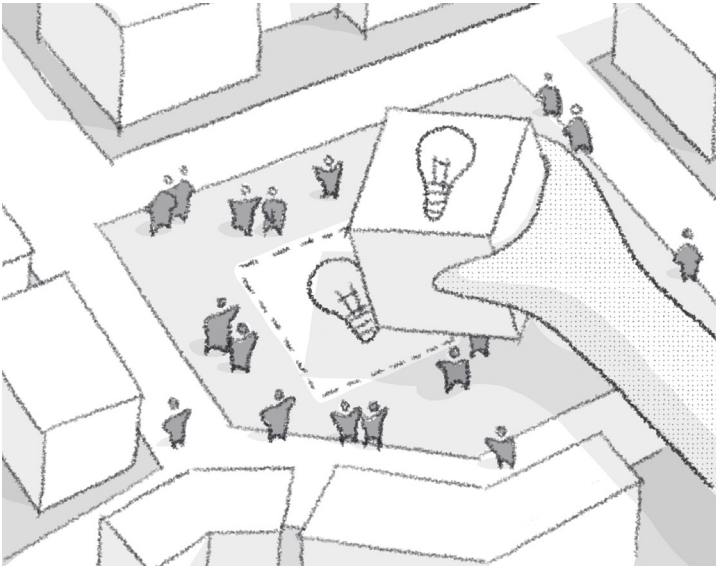
Does "deciding" mean make a decision? It means choosing among several possible and feasible options the one that seems the most appropriate, the most relevant in order to achieve and fulfill one or even several set objectives (How to host the 2024 Olympic Games? Building creation or renovation? Where to do so?...). Under some circumstances, this is one of the most difficult tasks to implement. During the preliminary study of a project, the Mayor relies on a whole team so that all can take part in this decision-making process.



2

TAKING NEEDS INTO ACCOUNT

The Mayor could thus directly take into consideration the needs and demands of citizens in the political decision-making processes, and relaunch a project study with these new data.



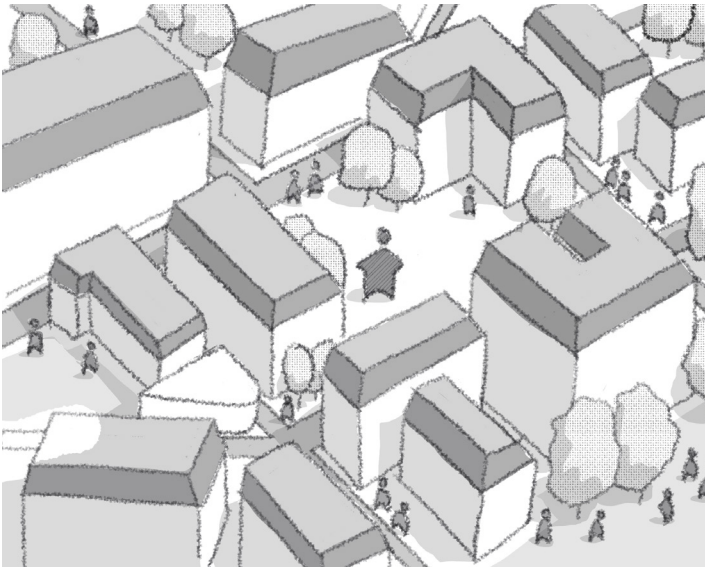
3

PROJECT DISCUSSION

Following this study, the project that will be launched will be in line with the needs of citizens, and will make it possible to improve the quality of life as initially desired by the town hall.

THE PLATFORM

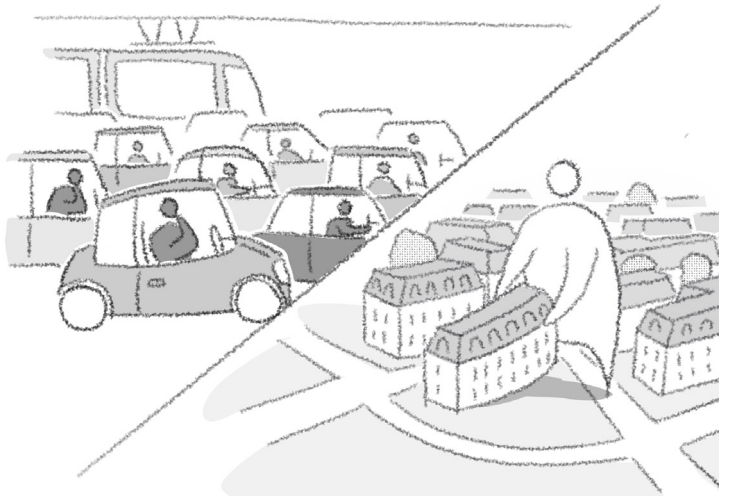
A tool for citizen participation



1

COMPLEXITY OF THE CITY

Dense city, compact city, complex city – Whatever expression is used to describe the city and its periphery, it offers us a wide range of options and services (the monofunctionality of the facilities leads to their multiplicity and dispersion).

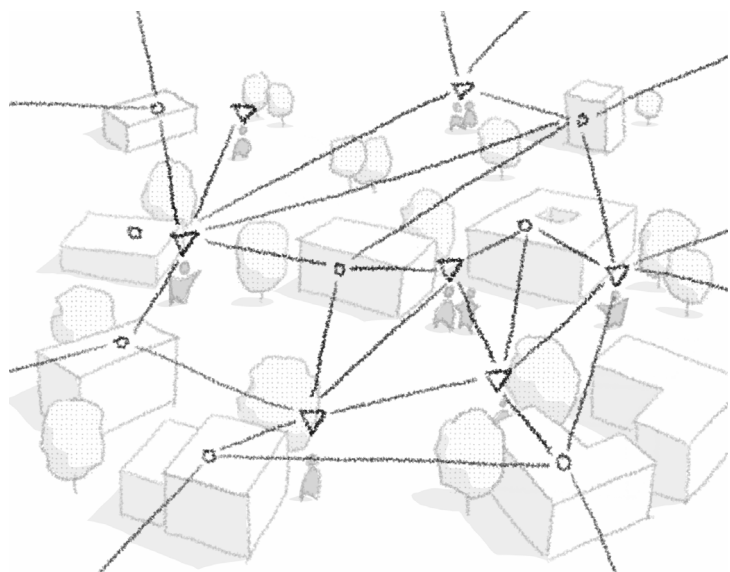


2

MULTIPLICITY OF MEANS OF TRANSPORT

At a time when soft mobility is being promoted, and when the planet is being honoured, means of transport are often a major issue. On a daily basis, citizens are guided by economic, ecological or personal convictions: should I live close to my work or work close to where I live?

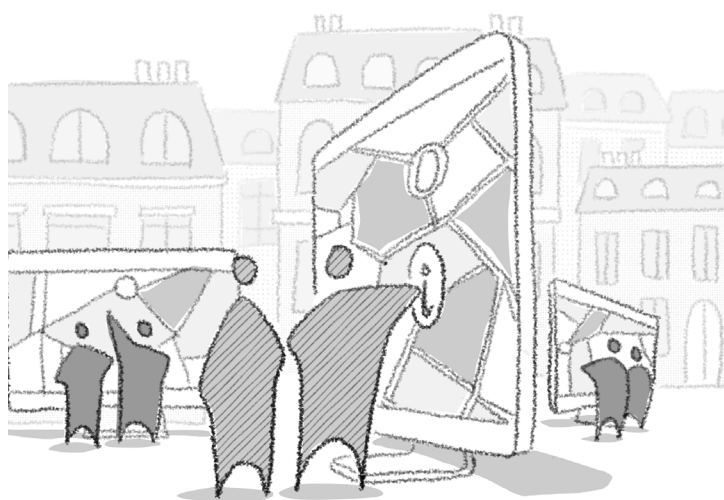
This leads to a need to use means of transport and a dilemma in choosing a place to live.



3

THANKS TO AN EFFICIENT AND EASY TO USE TOOL

What if there was a simple and easy way to identify all these functions within a 15-minute radius depending on the location of each one, in order to define a route or a pool corresponding to everyone's needs thanks to multifunctional equipment?



4

VISUALIZATION OF THE SERVICES OF THE TERRITORY

A simple and easy to use way of visualizing, within the territory and depending on the position, the location of these various functions, will help each and every citizen make informed decisions on their future place of residence and daily itinerary.

THE PLATFORM

Three potential uses for the platform

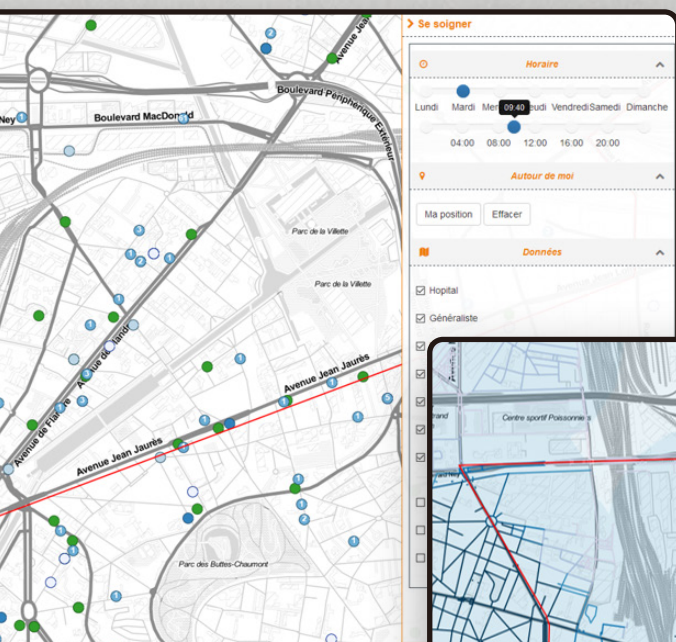
TERRITORIAL GRID

Understanding of a specific territory through its division into islands.



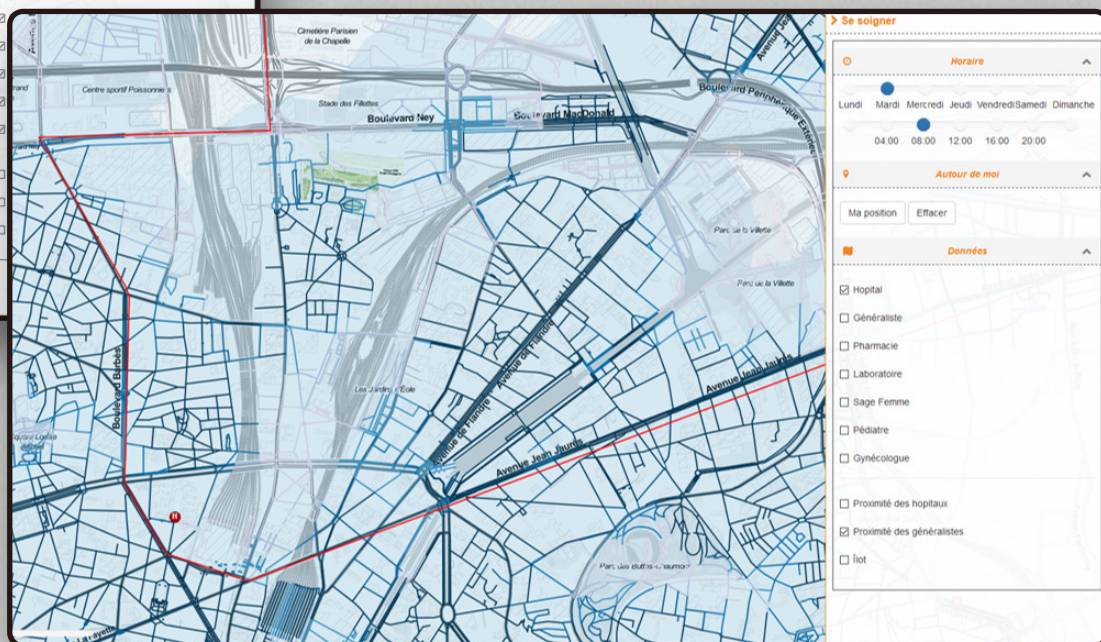
CUSTOM SEARCH

Clarifying opening and closing times and the availability of the various services to respond more specifically to demand.



PROSPECTIVE MAP

Dynamic reading of space which involves (short and long term) temporal dimension, involving the recognition of urban policy projects in the process of being delivered.



FEATURES



Keyword search depending on the selected function



Date and time filter



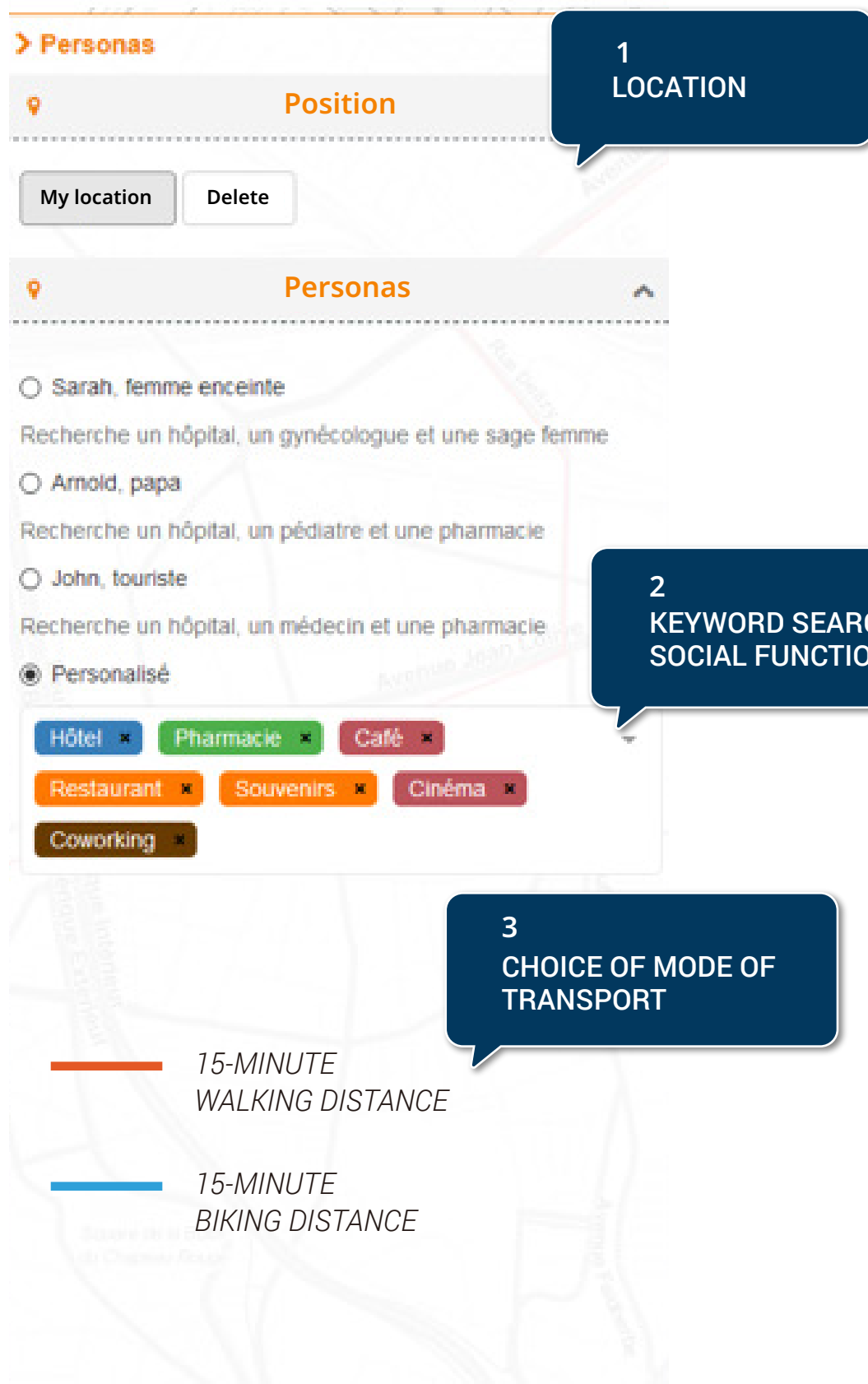
Prospective map



Qualitative information

FLASHLIGHT

Focus on the persona in the situation



Expected result



PART 4

PERSPECTIVES

VALUE CREATION LEVERS



LIVING



WORKING



SUPPLYING



CARING



LEARNING



ENJOYING

1 **IDENTIFYING BLACK SPOTS**

Identifying breaches on the territory

2 **DEVELOPING A POLYMORPHISM OF SERVICES**

Sharing infrastructures

3 **RELYING ON NEW DIGITAL INFRASTRUCTURES**

Broadband, 5G, IoT....

4 **OVERCOMING BARRIERS**

Breaking down barriers, being inclusive, creating "bridges"

5 **HIGHLIGHTING LOCAL ACTORS**

Associations, business or commercial premises, data crowdsourcing

6 **TAKING INTO ACCOUNT URBAN DEVELOPMENTS**

Integrating urban projects into the temporal projection

PROJECT CHALLENGES

Well-being Sociability

DEVELOPING SOLIDARITY

Establishing social dialogue, feedback between citizens and local elected officials, putting forward actions with a positive impact for all

PROMOTING THE TERRITORY

Promoting local products and know-how, preserving, sharing and disseminating of local heritage

Inclusive planet

PROTECTING BIODIVERSITY

Fostering the short circuit, waste management and recovery

PRESERVING NATURAL RESOURCES

Reducing or even avoiding CO2 emissions through the optimization of travel modes

Responsible economy

ECONOMICAL FUNCTIONALITY

Paying for a service or for the use of a good instead of the good itself (car sharing, collective housing, polymorphism of equipment...)

COLLABORATIVE CONSUMPTION

Sharing economy, pooling of resources (sharing, bartering, exchange, rental, crowdfunding, coworking, colunching, etc.)

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WORK TEAM

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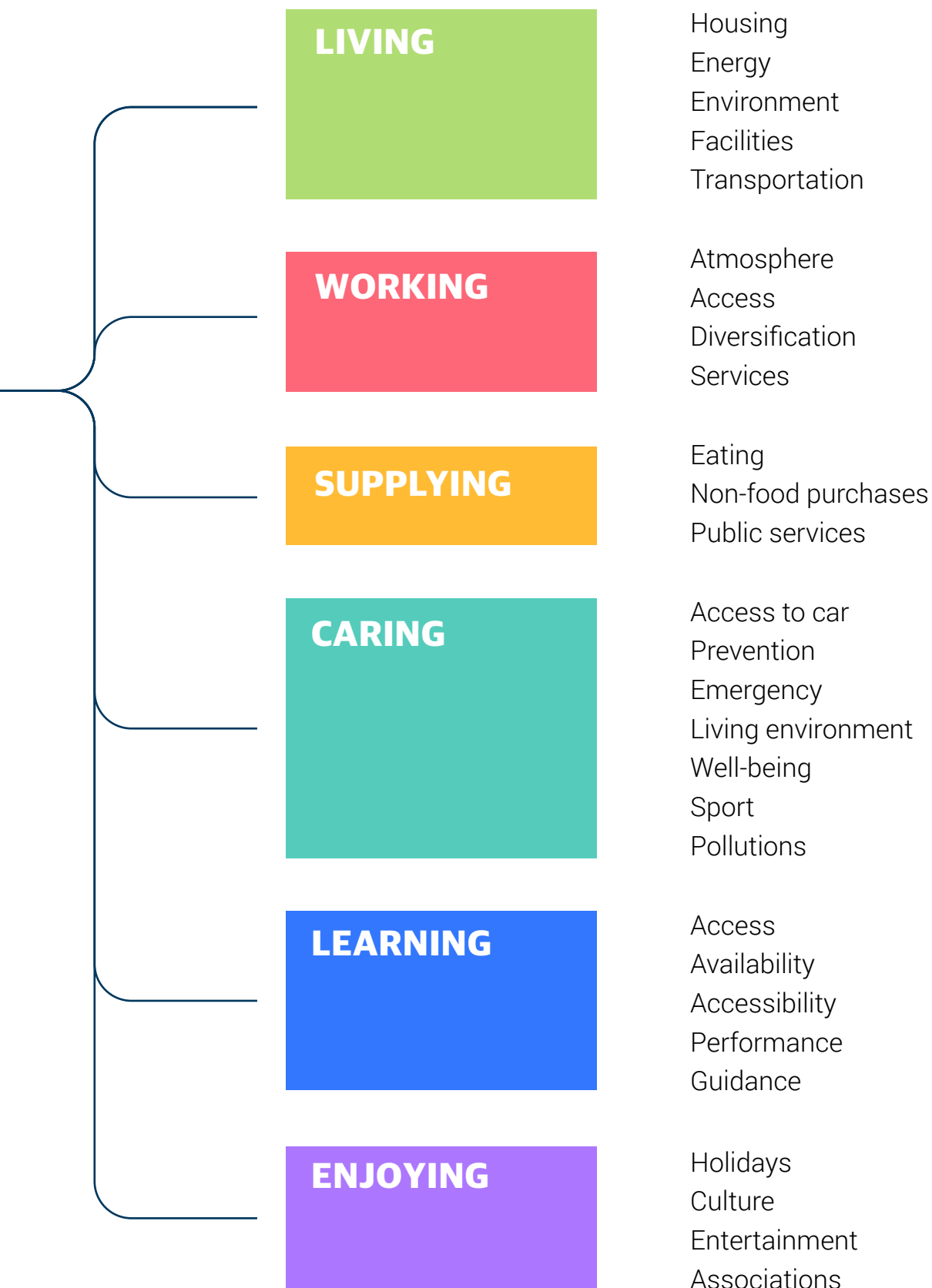


APPENDICES

*Presentation of the 6 urban social functions
divided by category*

6 SOCIAL FUNCTIONS

OF THE “FIFTEEN MINUTES CITY”



APPENDICES

Presentation of the variables characterizing the "Living" and "Working" functions by category

LIVING

Well-being

Surface area of accommodations
Parks and gardens
Urban density
Purchase price (land value)
Rental (rental value)
Lighting (which can be modulated)
Security (police station)
Directive 96/82/EC (proximity to an industrial site...)
Sunshine (weather/urban density/built height)
Local services (laundry/dry cleaning...)
Broadband network, 4G and +
Home care services
Shared accommodation
Shared bike stations
Bike garages
Public transport station

Sociability

Neighbors' Day
Community centers
Neighborhood associations
Nursing homes
Student accommodation

Sustainable planet

High environmental quality housing
Social housing (low-cost housing, supervised rents)
Energy strainers
Energy performance of housing
Water / energy consumption
Autoconsumption of energy
Energy cheque / Energy renovation grants
LEZ (Low-emission Zone)
Safety
Noise pollution / sound insulation
Heat island control (ALBEDO)

WORKING

Well-being

Places and types of employment

Working-age adults

Active job seekers

Self-employed workers

Teleworking

Home-based professionals (home help, housekeeping, childminding)

Bank

Services

Office buildings

Warehouse

Industrial site

Sociability

Service relays

Coworking

Incubators

Associations

Workshops

Sustainable planet

CO2 footprint of daily commute

Modes of transport

Social and solidarity economy

Carpooling areas

Pay-and-ride

APPENDICES

Presentation of the variables characterizing the "Supplying" and "Caring" functions by category

SUPPLYING	
Well-being	Bakeries
	Butcheries
	Markets
	Craftsmen
	Shops / supermarkets
	Organic shops
	Professional home service
	Electrical and gas services
	Water services
	Telecoms
	District heating
Sociability	Farmers organisations
	Repair café
	Yard sales
	Departmental Registry
	Prefecture of the department
	Special taxation department of the department
	Corporate taxation department of the department
	Family allowance fund
	Town hall of the municipality
	Tobacconist
	Post office
Sustainable planet	Solidarity grocery store
	Urban agriculture
	Agricultural zone
	Solidarity grocery store
	Urban agriculture
	Agricultural zone
	Short-circuit producer
	Bulk grocery store
	Compost collection
	Collection of waste and bulky items
	Recycling

CARING

Well-being

Pharmacies
Hospital medical services
Non-hospital medical services
Non-hospital paramedical
Opticians, hearing care professionals
Vaccination center
Screening center
Health auxiliaries
Fitness rooms

Sociability

Sports associations
Swimming pools
Sports fields
Yoga (clubs, classes)
Climbing spots
Leisure bases, nautical bases
Swimming spots
Meditation (associations, centers)
Plogging
Defibrillators
Firefighters
Number of citizens trained in first aid
Fire brigade intervention
First aid centre (call centers)

Sustainable planet

Air quality
Noise / light / atmospheric pollution
Health insurance
Eco-friendly hospitals
Maternal and child protection

APPENDICES

Presentation of the variables characterizing the "Learning" and "Enjoying" functions by category

LEARNING	
Well-being	Nursery schools
	Elementary schools, middle schools, private and public high schools
	Digital institutions
	Learning center
	Distance learning
	Driving schools
	Leisure centers
	Size of middle schools and high schools
	Number of places for young children by type of care
	Number of pupils in primary and secondary schools
	Successful completion of the middle school and high school graduation exams
	Libraries
	Studies (extracurricular time)
Sociability	Parental nurseries
	Associative nurseries
	Third places
	Fab labs
	After-school sports activities
	Summer internships
	Parents' association
Sustainable planet	Adult training center/institutions
	Specialized education center (disabilities...)
	Facilities and services for disabled adults
	Priority education
	Vocational retraining center
	Municipal courses for adults
	Orientation center
	Reintegration assistance associations
	School support associations

ENJOYING

Well-being

Movie theaters
Media libraries
Game libraries
Libraries
Bookstores
Exhibitions, museums
Theatres, shows, operas, concerts
Sports events

Sociability

Coffee shops
Bars
Restaurants
Associations, humanitarian associations
Civic service
Places of worship
Green spaces and squares
Religion, spirituality
Children stays in the municipalities

Sustainable planet

Greening
Shared gardens
Urban playgrounds
Municipal adult education courses
Orientation center
Reintegration assistance associations
School support associations

Surface area of accommodations
Parks and gardens
Urban density
Purchase price (land value)
Rental (rental value)
Lighting (which can be modulated)
Security (police station)
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Local services (laundry/dry cleaning...)
Broadband network, 4G and +
Home care services
Shared accommodation
Shared bike stations
Bike garages
Public transport station

Well-being

Neighbors' Day
Community centers
Neighborhood associations
Nursing homes
Student accommodation

Sociability

High environmental quality housing
Social housing (low-cost housing, supervised rents)
Energy strainers
Energy performance of housing
Water / energy consumption
Autoconsumption of energy
Energy cheque / Energy renovation grants
LEZ (Low-emission Zone)
Safety
Noise pollution / sound insulation
Heat island control (ALBEDO)

Sustainable planet

Places and types of employment
Working-age adults
Active job seekers
Self-employed workers
Teleworking
Home-based professionals (home help, housekeeping, childminding)
Bank
Services
Office buildings
Warehouse
Industrial site

Well-being

Service relays
Coworking
Incubators
Associations
Workshops

Sociability

CO2 footprint of daily commute
Modes of transport
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Bakeries
Butcherries
Markets
Craftsmen
Shops / supermarkets
Organic shops
Professional home service
Electrical and gas services
Water services
Telecoms
District heating

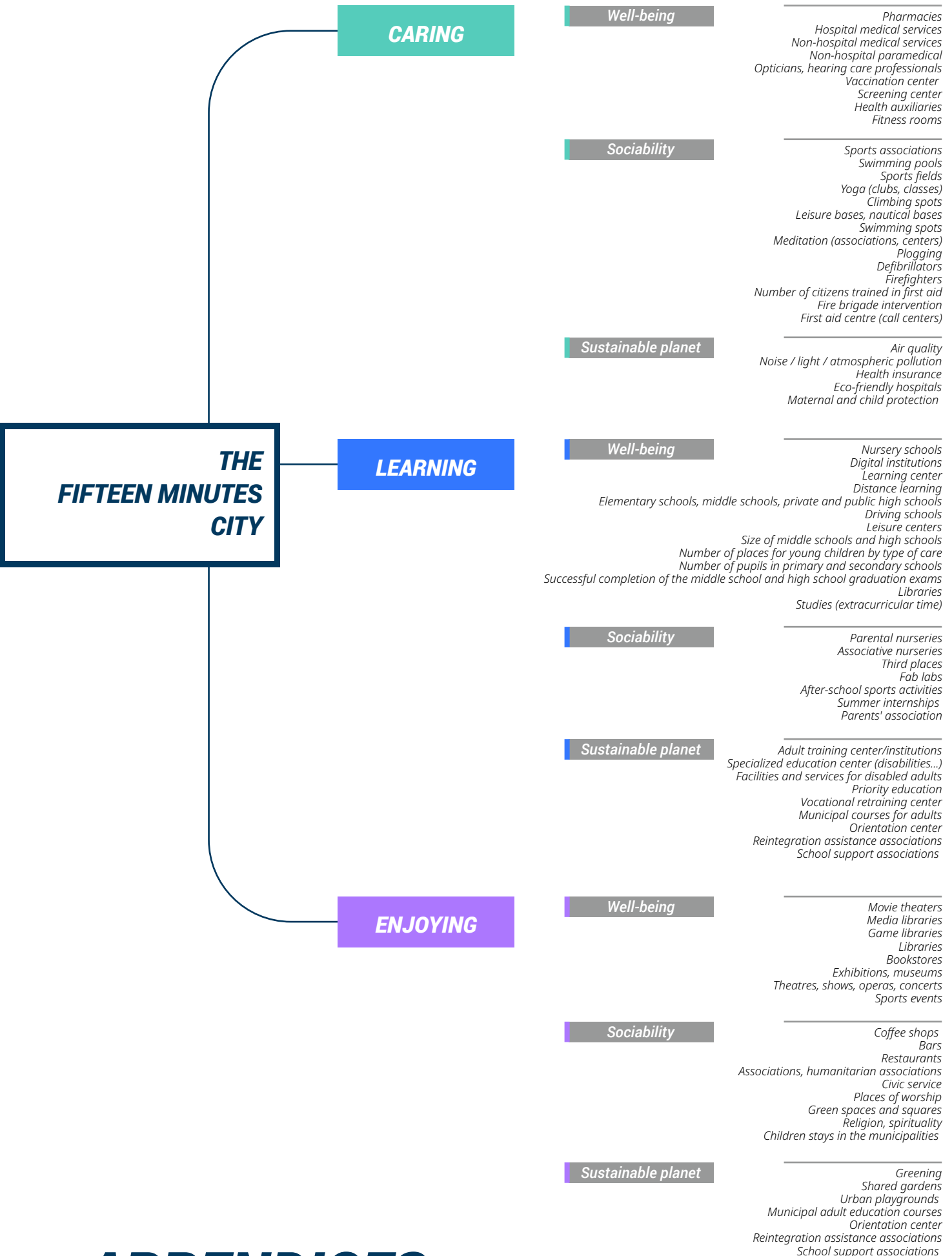
Well-being

Farmers organisations
Repair café
Yard sales
Departmental Registry
Prefecture of the department
Special taxation department of the department
Corporate taxation department of the department
Family allowance fund
Town hall of the municipality
Tobacconist
Post office

Sociability

Solidarity grocery store
Urban agriculture
Agricultural zone
Solidarity grocery store
Urban agriculture
Agricultural zone
Short-circuit producer
Bulk grocery store
Compost collection
Collection of waste and bulky items
Recycling

Sustainable planet**LIVING****WORKING****SUPPLYING****6 SOCIAL
FUNCTIONS
OF**



APPENDICES

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