mobile hyperplaces

A City on the Move Institute / VEDECOM project

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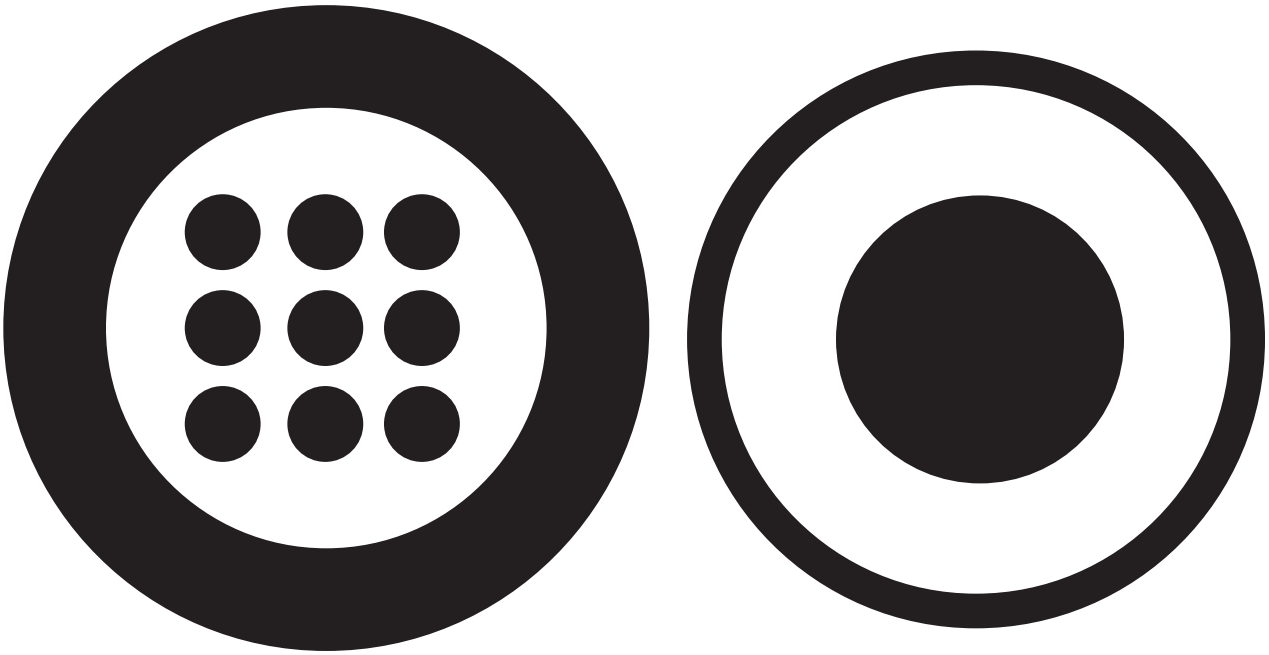
INSTITUT VEDECOM
DU VÉHICULE DÉCARBONÉ ET COMMUNICANT ET DE SA MOBILITÉ



mobile hyperplaces

The itinerant life and activities on the move are embodied in history by universal figures such as the vagabond, the pilgrim, the street trader, the tinker and the peddler, circus and theatre troupes, the itinerant scribe. They are present in the imaginative pictures of the world conveyed by science fiction, cinema, architecture, and urban design.

Here and now, these activities are still present: the vagabond has given way to the motorhome enthusiast or the serial cruise passenger; architects and urban designers have dreamt, and still dream, of mobile cities (e.g. the plug-in city), and temporary gatherings of thousands of individuals for festivals or religious and cultural events, whether in the city or in the middle of nowhere, give a certain reality to this dream.

For their part, mobile activities are proliferating in new and enriched forms. The food truck is one that comes immediately to mind. But it is just one example among many: a huge diversity of nomadic, or itinerant, or on-demand activities, can be found crisscrossing the most varied areas and even contributing to the making of regions, of cities, of milieus. They are present in the developed world and in the emerging world, in rustic, informal, and makeshift versions, as well as in sophisticated and luxury guises. They may provide no more than small compensations for poverty or isolation, or conversely contribute to the production of the hyperplaces that Michel Lussault names for their capacity to combine urban quality, intensity of co-presence, and power of connections, and by the here and the numerous elsewheres that are linked to them.

The international team headed by the City on the Move Institute (IVM) has explored the

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greatest variety of territories on different continents. It has listed no fewer than 250 cases of mobile activities and studied a few dozen of them in depth. Services, trades, and activities of this kind may be developed equally by individuals and by companies, voluntary organizations, or public bodies. Sometimes they require no more than street smarts, but increasingly often they combine traditional makeshift approaches and the use of modern tools (mobile phones, Internet, social media, real-time GPS apps) which play the role of accelerators for the development of flexible systems, what we might call flashmobs on wheels.

The cases have been studied from a variety of viewpoints and cultural perspectives – experts in transportation, logistics, and telecommunications, urbanists, artists, industrialists, designers, sociologists, mobile professionals – and take account of the diversity of the spatial and temporal situations they occupy.

Many of these systems would seem to be precursors of a possible upheaval in our mobile practices, linked with our "hyper-connectivity" and the forthcoming arrival of the autonomous vehicle. By releasing us from the task of driving, the autonomous and connected vehicle will lead to a radical rethink in our relationship to travel time (which will no longer be "wasted" time), and our relationship to space in these new kinds of vehicles (whose interior layout will have to be rethought as well).

Transportation and logistics experts have already envisaged the potential impact on mobility conditions and the incorporation of these vehicles into new transportation options. Designers are already imagining office-vehicles or games room-vehicles. Is it not also time to imagine vehicles that are places for mobile services, with hybridized functions and multiple uses, which would produce temporary mobile micro-spaces connected to the world, and would become the mobile hyperplaces of the nomadic city?

Where might these hyperplaces end up? Who will benefit and how?

The objective of the second phase of the project (2019-2020) is to conceive new services and to develop projects for mobile activities enriched, augmented, and expanded by the autonomous and connected vehicle (ACV). The aim will also be, where possible, to test these systems in partnership with local actors and territories, and to create scenarios around the urban situations, the urban micro-spaces, and the mobile hyperplaces that would result.

The arrival of the autonomous vehicle: a new catalyst for change?

Almost universally taken for granted, the ACV is now attracting the attention of major players in the world economy. Some forecasts anticipate the first sales as soon as 2030, or even earlier. The convergence of advances around the electric vehicle, the Internet of things, artificial intelligence, on-board systems, real-time mapping and big data, seem to confirm the hypothesis of a technological breakthrough. This is happening at a time when society is becoming aware of the need for a permanent change in the way we travel in the city, in order to overcome both environmental problems and energy and congestion problems.

To this end, authorities in a number of cities and countries have been persuaded to conduct prototype operations with a variety of objectives. Beyond public authorities and the research community, the subject has attracted the interest of the business world, prompting the emergence of new players, in particular from the digital economy. So, ideas that only yesterday appeared utopian – self-driving vehicles, delivery by drone, and objects that form part of the resurgent myths around the mobile city – now seem possible. Nevertheless, most forecasts remain conservative about the concept of mobility, still seeing it as about travelling as efficiently as possible from A to B. They are equally conservative with respect to territorial spaces, which they see as largely passive recipients of this mobility.

The new spacetimes of mobility

And yet, the development of transit centers – intermodal hubs, airports, station concourses, ports – suggests that their primary function of facilitating the transition from one mode to another is constantly being enriched with new activities: they generate a specific and intense urban quality both in and around themselves, with new sociabilities and new practices developing within them: these hyperplaces are characterized by all the mobilities of individuals, of goods, and of services that transit through them, take form inside them.

Among other things, the connected individuals of the “hypertext society” defined by François Ascher interact in these places not only physically, but also remotely, via our fast expanding communication technologies.
Moreover, the ultra-rapid development of a new object, the smartphone, demonstrates that an object’s primary function (making phone calls) can become almost incidental compared with the development of “apps”. More generally, there are countless new technologies that are used primarily for purposes other than those they were designed for.

Designing apps for the connected autonomous vehicle, beyond transportation

Will it be used for more than carrying people and goods? Will the connectivity potential of vehicles, individuals, and territories be exploited to develop and implement multiple mobile activities, both traditional and new? The challenge is also to imagine the places where these activities will be practiced. How will they be changed as a result? Will they become *“these partly new urban places, these hyperplaces produced by a society where individuals move in all directions, at every hour of the day and night, a hypertext society where individuals shift rapidly from one social milieu to another, where sequences of activities overlap and intertwine, where social bonds are chosen, are formed, are made more freely, but also more freely unmade”*, foreseen by François Ascher. For this to happen, innovation and societal factors need to match the concerns and interests of two other protagonists: the user and the territory. This means that the ACV should be seen not only as a technical object, but as a social object.
For this, innovation needs to be incorporated into sustainable business models, and public authorities need to see its benefits for their citizens, for their regions, and for the societal challenges they have to tackle. From this perspective, the ACV is no longer just a technical object whose performance – particularly in terms of safety – needs to be demonstrated in its future conditions of operation, but a social object that stands at the intersection of private or public logics of service provision, and public priorities for territories and the environment.

Diversity of situations, diversity of activities

In the many cases identified, some activities take place on the move, and seek to use time that would otherwise be wasted. The possibility of working or enjoying leisure activities in a private vehicle is the example most often imagined. What was already

possible in certain transit modes, such as the train or coach, becomes possible in the private car. It is a huge challenge for transit operators to compete with the personal use of a self-driving vehicle as a private space for activities, by devising activities that are augmented by a collective service. The vehicle thus becomes a destination in its own right, a place that makes links.

Activity on the move

This is already happening in some ordinary coaches, which may be specially equipped for educational activities or cardio training, or as workplaces, as in the case of Google's Wi-Fi fitted shuttle buses. Increased connection capacities and freedom – at least partial – from the need to drive, raises the possibility of many more such activities. With real-time logistics, a document can be generated and delivered almost the moment it is ordered. Agile maintenance and repair services may emerge, with out of order objects (or vehicles) capable of diagnosing the cause of their problems and repairers able to produce the missing or damaged parts using on-board 3D printers. More globally, the prospect of convoys of self-driving freight wagons on freeways will make it desirable to transfer certain production phases to the vehicles, to be performed while on the move. Beyond these few examples, the elimination of driving costs, together with increased connection possibilities, opens the way to multiple initiatives of this kind. Although carried out inside a private vehicle, these activities cannot escape public oversight: the safety rules applicable to moving vehicles (passengers must be sitting down, possibly with a safety belt) may be an obstacle to some of them. The change in working practices must be enacted, if not by government, at least by branch or company agreements.

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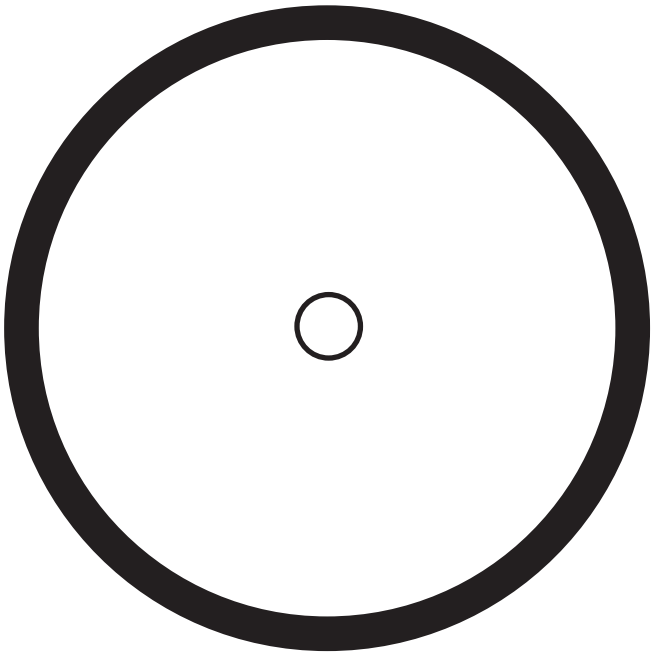

When an activity produces temporary densities

Other activities “overflow” from the vehicle and create temporary densities, such as the street markets of long tradition. Examples include food trucks, vehicles equipped to perform street concerts, the bicycles fitted with solar panels which, in Africa, provide electricity for recharging mobile phones, along with Wi-Fi access to link people instantly to the world. In these cases, the rights of occupancy of public space must be negotiated with those who manage it, and with local businesses that may potentially be in competition (e.g. restaurants).

Finally, these activities may plug into each other, or combine with a dominant activity, such as a festival. If there are enough of them, they may help to create a form of “complete” public space, similar to a city center, augmented, but temporary. So the traditional food truck can plug almost instantaneously into an event, a festival, a work site, even a traffic jam!

Itinerant activity

Other activities are carried out with specially equipped but stationary vehicles. They also depend on connections: the timetable of the mobile library needs to be posted on a website or on social media; it is preferable if the book or type of book is known in advance. The customer needs to make an appointment to try on the new suit in the van designed for the purpose, and similarly for the mobile bicycle repair workshop. These activities can be performed with the means of communication already available everywhere. Other activities require significantly greater communication capabilities. For example, the itinerant medical lab or radiology center not only needs to collect patient data, but to be able to send that information securely to the hospital for interpretation and treatment instructions.

Augmenting the city

All these practices form part of a culture of nomadic services, but are augmented and enriched by the use of information technologies (universality of smartphones, spread of Wi-Fi into public spaces, forthcoming arrival of 5G, etc.). They constitute an earning opportunity for people unable to find employment, and a reorganization opportunity for companies and certain public services in low-density areas, where a permanent presence is not viable. In some cases, these practices may contribute to a strategy of frugality, for example when a vehicle replaces buildings that would be underused.

Challenges and risks

Though these practices are growing fast, they also present challenges:
--challenges for individuals, who will have to protect the time gained to ensure that it is genuinely chosen;
--challenges for employers, who will have to negotiate changes in jobs and skills;
--challenges for transit companies, who will no longer be the only providers offering passengers opportunities for on the move activities;
--multiple challenges for the managers of public space: rapid identification of discreet activities, semi-legitimate traders, “back of the wagon” operations; negotiation over the presence of mobile activities with multiple stakeholders, choices that will vary between activity-intense zones and underequipped rural areas, management and safeguarding of the temporary micro-spaces that these activities produce.

The mobile language of the street

A new landscape is emerging, where the proliferation of these activities affects the sensory perception of the spaces that they temporarily occupy: the often vibrant semantics of the mobile language of the street (festival of colors, of graphic innovations, of shapes, of converted vehicles).

Joyful vision or apocalyptic prospect?

A joyful vision of activities that come to us, of augmented and high-quality public services in the most remote villages, or an apocalyptic vision of a hyper-occupied spacetime, leading to further loss of individual autonomy and unlimited urban sprawl?
There is no doubt that this will depend on our collective capacity to anticipate and debate the arrival of these mobile hyperplaces.

Points of View

Replacing the fixed with the mobile: the regular production of temporary densities --Jean-Pierre Orfeuil

Over the course of history, innovation has resulted from the need to overcome contradictions that seemed unavoidable within the status quo. In our era too, there is no shortage of contradictions. The imperative of metropolization is in contradiction with the failure of big cities to appeal to citizens. The need to make the capital a source of profit, exemplified by the success of platforms such as Airbnb or BlaBlacar, is in contradiction with the underuse of office space and scattered footfall in shopping centers. The need for shared experiences and shared spaces has not dissolved, whether into the sociability of the digital world or into the remoteness of the suburbs. The aspiration for territorial equity in access to public services remains strong, despite the obvious difficulty of fulfilling it under current modes of organization. The pressure to dump the automobile is diluted by the frequent absence of credible alternatives, as well as the paucity of activities in many residential areas.

Answers to these questions are emerging, with more fluid occupancy of the urban fabric: development of pop-up stores, co-working spaces, use of schools by voluntary organizations, etc. What if the next logical step were to be the replacement of fixed structures with mobile structures, the use of vehicles for purposes other than travel alone? What if an answer to the problems of low densities were the production of temporary densities? Recent technological developments suggest the possibility of vehicles becoming tools for the creation of mobile hyperplaces, but we need to be wary of technological determinism. The way is narrow, real estate can be converted, there are competing, more individualized trajectories, such as tele-activities. It is because the way is narrow that it needs to be explored in depth.

Autonomous vehicles announce a mobility revolution: they will be real living spaces on wheels --Yann Leriche

Autonomous vehicles are slated to bring a revolution in mobility that at present is hard to grasp in its potential scale. If they fulfil all their promise in terms of performance (no more need for driving, therefore no more steering wheel or pedals) and of cost (comparable with or slightly more expensive than traditional vehicles), they will become genuine living spaces on wheels. Totally customized, they could be self-driving offices, gymnasiums, bedrooms, video game units, etc. Connected to the Internet, their occupants will be able to enjoy the possibility of surfing the virtual world while remaining on the move in the real world. These “mobile hyperplaces” will change the way we live, if for no other reason than that travel time will cease – at least in part – to be wasted time.

In circumstances where the boundary between mobile and immobile is disappearing, it is important for a public transport and mobility service operator like Transdev to understand why and how we may travel in the future, so that it is well-placed to devise and develop the transport solutions – and the associated business models – of tomorrow. The goal is also to anticipate the territorial consequences of these new solutions, so that they can support local authorities in the coming transition, and work with them to develop the services that best meet their priorities. The first step to achieving that ambition is to consider the probable future uses of autonomous vehicles. It is these uses that IVM’s work seeks to explore, to imagine. Rather than starting with a blank sheet, the decision was made to work on existing nomadic, ambulatory, or mobile activities, whether well entrenched or emerging, and to consider how they might evolve and shape the mobility and the city of tomorrow.

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The mobile hyperplace as a possibility for radical transformation in the planning of territories of dispersal --Carles Llop

The city is not only the traditional, centralized, and compact structure we tend to think of. The contemporary city is also the kind of scattered and sprawling fabric we find in all the big metropolitan regions around the world. The main challenge of this heterogeneous urban morphology is guaranteeing fair access to services information, goods, and activities, developing urban intensities regardless of degrees of density.

The mobile hyperplace has the potential to bring about a radical transformation of territorial space by intensifying areas that need greater intensity, whether because of a lack of services, a lack of urban amenities, or a lack of equity, by using a mobile system to offset these deficiencies.

THE CONNECTED AUTONOMOUS VEHICLE AS A HYPERLINK, A CATALYST FOR ACTIVITIES

Connected to multiple information and mobility management networks, individuals will be able to use their travel time to carry out activities on the move, in the flow, through new social networks.

THE MOBILE HYPER PLACE AS A HYPER-ENVIRONMENT

Augmented activity not only enhances sociality within vehicles while on the move, but can also generate new kinds of spaces, at stopovers, in intermodal and transitional locations, at the destination. The condition of civic intensity then become something more than a place or a space bounded by the tools of the traditional city and by buildings. The mobility system generates its own place, facilitating social relations first in one place, then another, in an ephemeral way.

MOBILE HYPERPLACES AS AN ECOLOGICAL RESPONSE TO URBAN SPRAWL?

Instead of thinking of city making as a high-cost and energy intensive construction process (potentially ill-matched to evolutions in needs and lifestyles), the aim is to explore how it is possible, by managing mobility, to provide services while diversifying spaces and their resources, and to create multiple possibilities for interactions between the near and far, between activities and social interactions, by restoring quality to the spaces of transition, i.e. by making places in a different way.

A PRIORITY FOR AN EQUITABLE AND DEMOCRATIC CITY

The emergence of these autonomous vehicles and of connected and mobile activities can, if we are not careful, also result in new forms of privatization of these spaces of flow, and limit access to them for some people on grounds of capacity or resources. It is here that the role of public policies is crucial, in order to ensure that these innovations contribute to democratic access to urban amenities, so that the right to mobility – the right of entrance into the flows – opens up a right to the city.

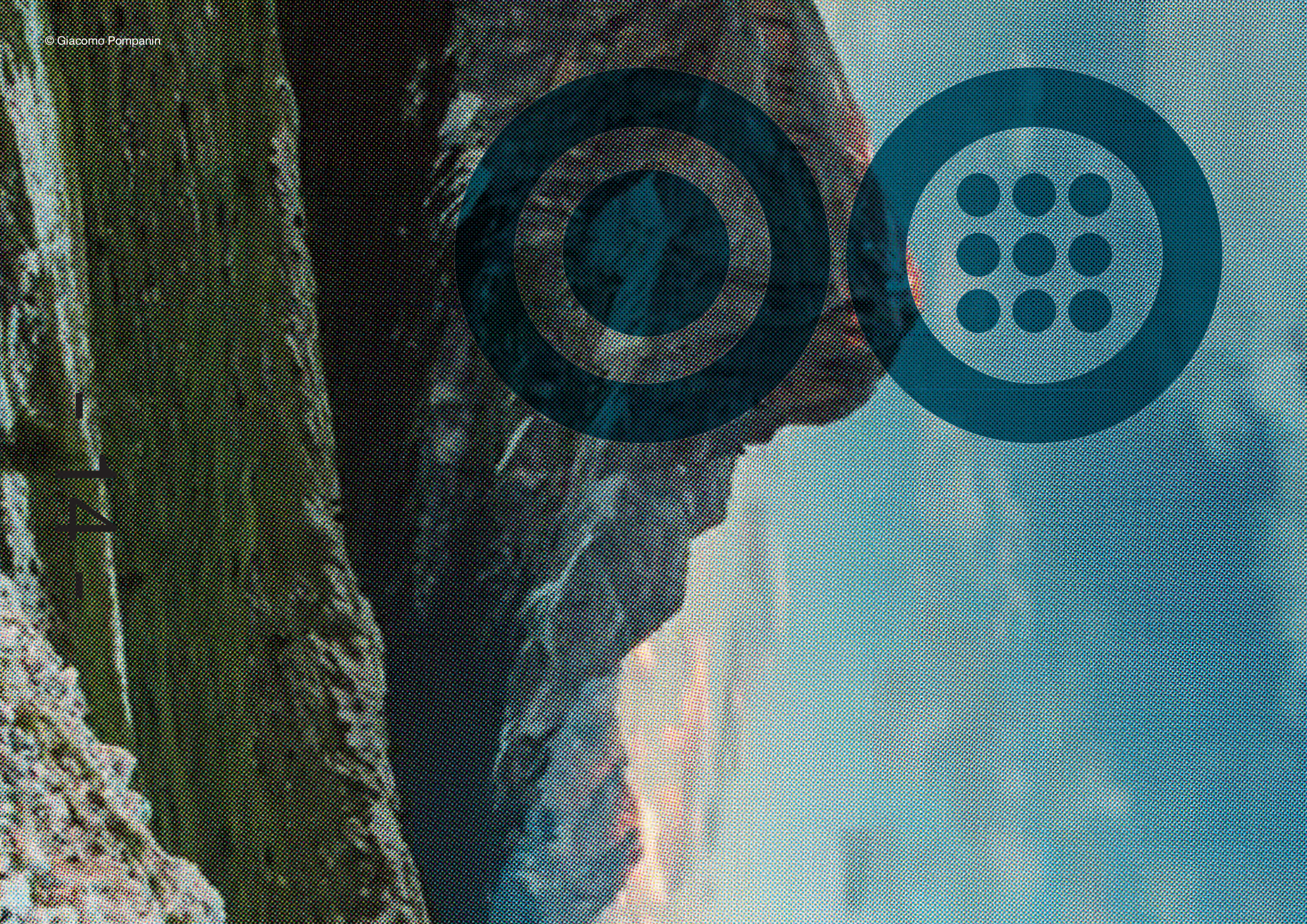
From mobile activities to the mobility of activities --Nicolas Louvet

Individuals don't move for the sake of moving, but to carry out an activity (work, shopping, administrative or health procedures, visiting friends, etc.). The rise of virtual mobility makes it possible for individuals to reverse the direction of movement by having the objects and services necessary to their activities brought to them. This is the framework in which the "Mobile Hyperplaces" research project is embedded. By providing a novel perspective on the interactions between physical mobility, virtual mobility, and the movement of goods, "Mobile Hyperplaces" invites us to explore the mobility of activities in an entirely new way.

Examining the mobility of activities is therefore an opportunity to consider questions regarding the technological and economic implications of tomorrow's mobility.

First, the research project undertakes an exploration of the future applications of autonomous vehicles. To what extent will autonomy change the function of the vehicle from a transportation object to a production object, and what impact will this have on the surrounding space?

Second, it provides an arena for the exploration of the economic issues, the increased responsiveness and flexibility developed to meet the growing individuation of demand. Ultimately, the mobile hyperplace is an opportunity to explore what might become the generation 3.0 business model.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ITALY

Devices adapted to circumstances --Christian Licoppe

NEW TYPES OF NEGOTIATIONS FOR DIFFERENT DEVICES

Mobile hyperplaces take the form of augmented spaces, capable of providing services or on-demand opportunities for action through mobile and connected service providers. One way of understanding them is to see them as heterogeneous assemblages, and therefore as processes, based on activities that need to be practiced in order to give them consistency and solidity. Assembling an on-demand service in a given place entails first of all negotiating temporary residence with respect to institutional and neighborly restrictions (the rights and constraints concerning the possibility of settling somewhere). The lighter the system is, the easier it is to accommodate the different claims and demands that constitute the normative framework that governs a particular place: in this respect, there is a big difference between a delivery tricycle and an autonomous bus. Secondly, the service – and the mobile vehicles that provide it – must be prepared in a way that is adapted to the places, times, and durations of residence. Finally, the less regular or periodic the mobile service that the hyperplace offers, the more it relies on the connectivity between its different components, in particular between the mobile service and the potential users/ passers-by/inhabitants. This connectivity, which is increasingly digital, therefore implies personal relations: the hyperplace is more a place characterized by encounters founded on a variable degree of mutual familiarity, than an anonymous passing place.

THE RISK OF NEW EXCLUSIONS

To conceive of the hyperplace in this way is also to reveal the work needed to keep these assemblages together. The hyperplace requires maintenance, service, and repair infrastructures that are specific (in particular because they will need dedicated mobile response teams), in general proportional to its size and technical sophistication. These maintenance and service infrastructures are generally glossed over in promotional materials, which are usually content to show users in the process of “consuming” a hyperplace. Finally, the approach in terms of devices and assemblages provides a way to think differently about the issues of exclusion and discrimination. Mobile services can not only be discriminatory because they are aimed at particular populations (e.g. because of the type of service offered or the forms of spatial segregation that operate in their environment), but they also generate forms of exclusion that are intrinsic to the way they are assembled and maintained. For example, an automatic supermarket contained in an autonomous vehicle that travels to customers on request will exclude people who have no smartphones or lack software that is sufficiently advanced to locate the service, to identify the products, and to pay.

The new mobile logistics hyperplaces --Laetitia Dablanc

The term logistics covers both transportation activities and much more sedentary operations such as lifting, storage, packing, and warehouse-based order preparation. However, the boundaries have become blurred and innovation in logistics has sharpened. We are seeing the emergence of mobile warehouses, where logistics activities take place while goods are on the move. In 2014, the firm Vert Chez Vous had the idea of preparing cargo-bike rounds on a river barge moving through the center of Paris. Today, the method is being tested with self-driving trucks, where an on-board picker will prepare packages for delivery, including deliveries by drone.

At the same time, the sharing economy is creating opportunities individuals to transport and deliver items as part of their personal mobility patterns. With the DHL MyWays app, people living in Stockholm have been able to “augment” their car journeys with multiple parcel deliveries. The “Fill up my luggage” service does the same thing for plane rides.

Logistics real estate itself is changing fast: networks of urban logistics “micro-hubs” that encourage delivery on foot, by bicycle, or by robot; temporary warehousing; conversion of old industrial buildings into “logistics hotels” with multiple floors and functions... In these ways too, connected logistics hyperplaces are adopting new forms in the world’s big cities.

From “the home” to mobile hyperplaces --Eric Gauthier

As part of its strategic plan for 2020, the La Poste Group is seeking to conquer the most lucrative markets through two key growth sectors, e-commerce and the “Silver Economy”. La Poste needs to respond to the new modes of consumption and continue to develop social ties.

For us, the “Mobile Hyperplaces” project is a way to understand the changes going on in society, the new modes of consumption and the added value that on-the-move or mobile activities can generate.

In our logistics processes, it is the goods that travel to the customer. “Home delivery” is something that people really want, but on the other hand the nature of “home” can correspond to different places, depending on the day and on individual mobility patterns. It is these temporary or mobile places that we need to be able to identify throughout the day.

In this respect, the study of “mobile hyperplaces” should help us to identify the convergences between the nature of the services that people expecting these places and the associated mobile solutions that will help to drive neighborhood dynamics throughout the day

finally, thanks to the strong public trust it has earned, La Poste can be useful to everyone in helping to make digital technologies socially acceptable. We devise these technologies to make people’s lives simpler. Applied to autonomous vehicles, knowing about these “hyperplaces” could help us to adapt our delivery routes and to facilitate the provision of local services.

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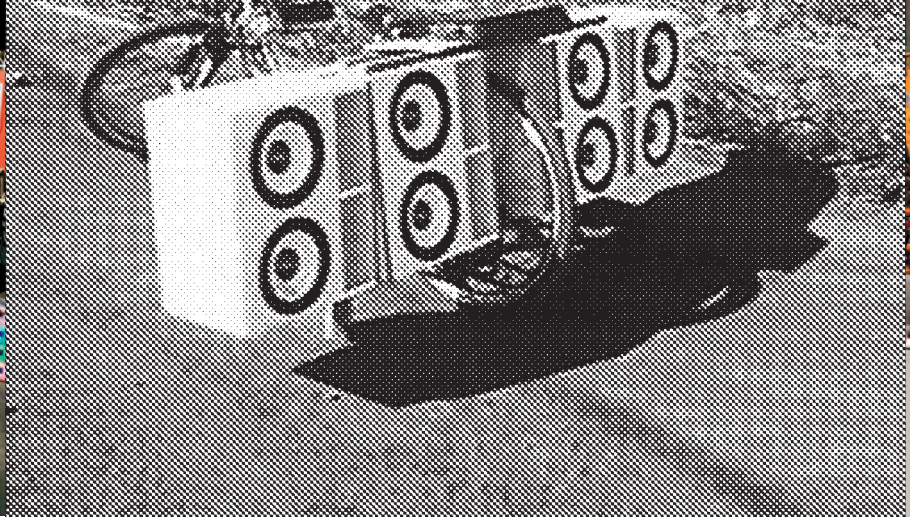

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Other facets of mobility --Pauline Beaugé de la Roque

Because Michelin has set itself the goal of offering everyone a better way to make progress, the company is engaged in developing new forms of mobility, making the necessary changes to anticipate their direction, and to do so. At the same time, Michelin is increasingly convinced of the importance of working in ecosystems in order to acquire the most comprehensive possible vision of mobility. Already very involved in this collaborative format, in particular as the initiator of the Movin'On Lab, the Strategic Anticipation Department wanted to join an outside community in order to benefit from methods and ways of doing things different from its own. It was therefore a quite natural decision for us to join IVM's "Mobile Hyperplaces" community. As well as a structured methodology, it gave us the opportunity to think about another facet of mobility with partners from a broad spectrum of backgrounds: companies, academics, consultants. These different perspectives force us to examine the problems on short, medium and long timescales, while at the same time considering their industrial, business, regulatory, and societal implications. Finally, "Mobile Hyperplaces" is a topic that we could not possibly ignore. In identifying and studying the existing and emerging practices in activities conducted on the move, the "Mobile Hyperplaces" community contributes to our own thinking about the radical changes that are taking place in mobile activities and to our understanding of the upheavals that are on their way.

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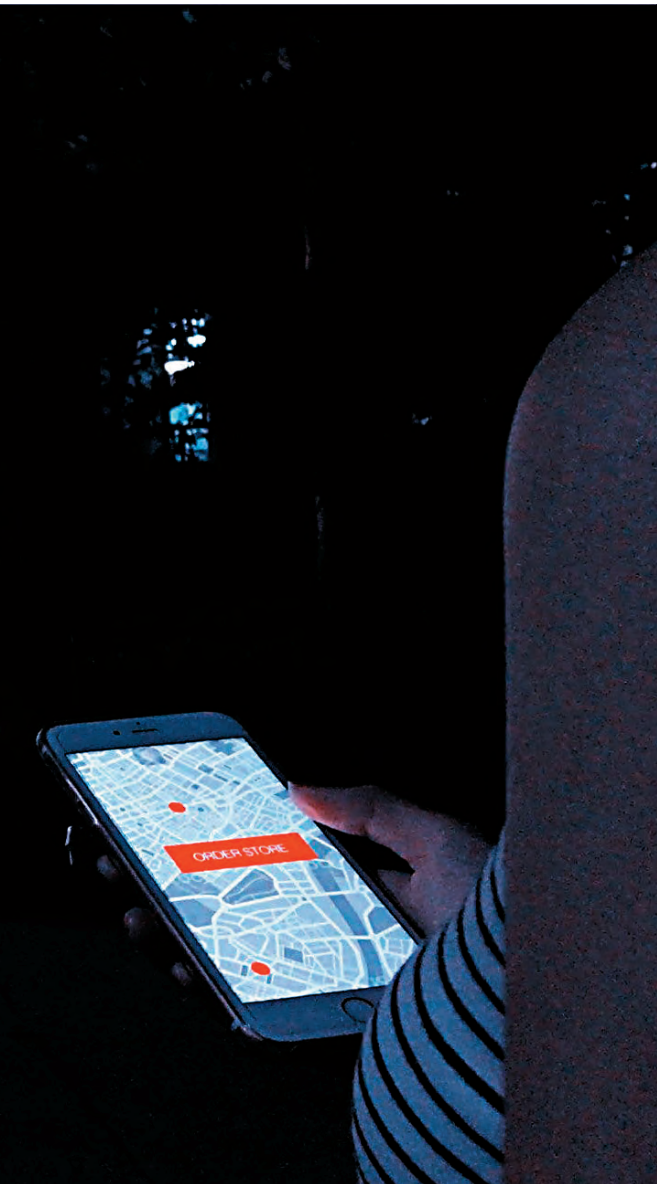
Latin America: multiple and increasingly connected activities --Andrés Borthagaray

Latin America is a place of “MacGyverism” and innovation. For better and sometimes for worse, mobile activities – in immense or low-density areas – are common and are employed in different sectors. For example in public services, in particular education, where the traditional concept of teaching hours in a fixed classroom is changing. So sterile travel time is being converted into learning time, classrooms are moving out of the school and access to specialized interactive facilities is becoming democratized. Profound change is similarly occurring in the health sphere, with the possibility of remote access in places where high quality care is hard to access or where there are simply no fixed health structures. The world of commerce, with the growth and spread of digital technology, is contributing to profound changes in times, spaces, and micro-urban conditions. This mutation is manifested by two simultaneous trends: the development of jobs linked with information flows and the exponential spread of consumer goods.
The workspace is also evolving: increasingly varied and changing, the office broadly understood (offices, workshops, rehearsal rooms…) is extending beyond the walls,w into cafés, transit spaces, at home. We can carry it with us, on our smartphones, our computers, and soon offices and their amenities themselves will become mobile.
In the sphere of farming, tractors are

already no longer tractors, but high-tech command centers on wheels, equipped with algorithms to manage satellite weather data used to regulate watering patterns and pesticide spreading.

HYPER-MOBILE WORKSPACES AS AN ALTERNATIVE TO JOB INSECURITY?
Following a period in which company workplaces became depersonalized, we can now imagine the restoration of individuality in mobile “hyperoffices” which would offer an alternative to a dystopian vision of a world in which employees are expected to supply not only labor, but their own work tools and premises.



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Africa: mobility beyond its limitations --Yao Sagna

"N-dimensional places" offering the possibility of n-activities, these places in movement are emerging and can be observed in Africa in a very specific context, characterised by the insufficiency of basic socio-collective infrastructures, combined with the inventive coping strategies of a low-income population. As a result, we are seeing the growing spread of services delivered direct to the consumer using on-board digital applications in vehicles: these are new mobilities in the sense that they represent a shift from the old paradigm of mobility patterns. It is no longer individuals moving to gain access to services, but services moving to reach individuals. In some cases, other services become part of the journey, for example providing the individual with food or coffee along the way (mobile restaurant or café), or smartphone apps for navigation (connected taxi or bus…). In both cases, multiple temporal interactions are created between users, actors, and places, depending on the routes and stopping points, producing spontaneous spaces of attraction. The most obvious example is the bicycle kiosk fitted with a solar panel, which provides shared Wi-Fi and electricity for recharging electronic devices. This is clearly a response to the electricity problem on the continent, which paradoxically has the world's fastest growing level of smartphone ownership (highly dependent on electricity). These new mobilities are therefore shortening development processes by shifting from the deficiency of costly infrastructures or urban facilities to simplified local solutions in which small and connected models. Libraries, health centres, banks are going mobile, creating micro-places that form and dissolve, not just hyperplaces but also vectors of an "infrastructural leap".

The project 2017-2020

STARTING WITH REALITY IN ORDER TO IMAGINE THE FUTURE
Drawing on the observation of existing practices, ways of life and modes of consumption, the project's objective is to reveal the unexpected forms of urbanity that may arise from new interactions between spaces, mobilities, connectivities, and activities, and to envisage possible future disruptions linked to the spread of the ACV, since a vehicle that contains a mobile activity can, even now, contribute to a redefinition of everyday places.

INTERNATIONAL SCOPE
Exploring activities in local situations, from the richest to the poorest, the most connected to the most isolated, in Latin America, in Africa, in Europe, or in China. Revealing, through comparative monographs, the differences or inequalities between territories, as well as the multiplicity of practices.

TO DEMONSTRATE THROUGH THE PROJECT
Based on the research, the development of mobile hyperplaces demonstrators in local situations, that can take the form of social, organizational and technical experimentations, in partnership with local actors, researchers and companies.

MULTI-DISCIPLINARY APPROACH
Mobile activities and services will be explored in all their dimensions: cultural, spatial, cognitive, social, economic, marketing, historical, architectural, urban, scientific, geographical, political... The shifting interplay of actors will also be considered, from the perspective of the sociology of innovation and the history of transportation and technologies.

DELIVRABLES

--State of the art and gathering of expert viewpoints

--Survey of practices, based on an international observation of emerging mobile activities and services, the vehicles and connectivity objects through which they operate, and their interaction with urban space

--Field investigations, engaging IVM's academic chairs

--Design workshops and competitions

--Audiovisual productions of documentary surveys

--International lectures and seminars

--Publications

--Exhibitions

--Development of a mobile service demonstration prototype

The research hub

-- Work in progress as of 31/01/2019

17 countries

--STATE OF THE ART AND THE PRACTICES

--FIELD INVESTIGATIONS:
TELEMEDICINE TRUCK, MOBILE ARTISTIC UNIT, MOVIE-TRUCK
AND MOBILE BIKE REPAIR
6t Research Agency, Paris, France

--STATE OF THE EMERGING PRACTICES ON “LOGISTICS AND MOBILE HYPERPLACES”
IFSTTAR, Paris, France

--STORYBOARD ON URBAN MICRO-LOGISTICS
Neïla Saidi Architect, Paris, France

--INTERNATIONAL DESIGN WORKSHOP
Ecole de Design Nantes Atlantique
Nantes, France
with Mackenzie University, Brazil

--PARTICIPATION IN THE NATIONAL SURVEY OBSERVATORY OF THE EMERGING USES OF THE CITY
Obsoco, Cabinet Chronos
Paris, France

--SURVEY TOWARDS LOCAL AUTHORITIES ABOUT CONFLICTS OVER THE USE PUBLIC SPACE BY MOBILE ACTIVITIES (PROJECT)
IAU IdF, Paris, France

--FIELD INVESTIGATIONS IN SPAIN, SENEGAL AND CAMBODIA:

--AMBULANCE DRIVER, BICYCLE DELIVERER, PUBLIC TRANSPORT MAINTENANCE TECHNICIAN

--DENTISTS AND PLAYGROUND ON WHEELS

--THE BAMBOO TRAIN

ETSAV, Polytechnic University of Catalonia
Barcelona, Spain

--CONCEPT WORKSHOP “SMART CITY & MOBILITY”
Eindhoven University of Technology
Eindhoven, Netherlands

--FIELD INVESTIGATIONS: BIKE-WIFI-KIOSK, MOBILE BANKS LIBRARIES
University Fëlix Houphouet Boigny
Abidjan, Ivory Coast

--FIELD INVESTIGATIONS: MOBILE CLINIC AND DIGITAL CINEMA
African School of Trades Architecture and Urbanism, Lome, Togo

--FIELD INVESTIGATION: MOBILE CAR-WASH
Cosmos Architecture Agency
Cotonou, Benin

--FIELD INVESTIGATION: THE MATATUS BUSES
University of Nairobi, Nairobi, Kenya

--FIELD INVESTIGATION AND DOCUMENTARY FILM ON THE MICRO-URBANITY OF THE NEW LOGISTICS
University of Buenos Aires, Argentina

--FIELD INVESTIGATION: NOMADIC SCHOOL OF ARCHITECTURE
University of the Republic
Montevideo, Uruguay

--FIELD INVESTIGATION AND DOCUMENTARY FILM ON CHARTER BUSES “FRETADOS”
Estudio +1, São Paulo, Brazil

--FIELD SURVEY: INFORMAL STREET PARTIES “PANCADÕES”
IVM Brazil, University Mackenzie, São Paulo

--DESIGN CONTEST: MOBILE ARCHITECT OFFICES
Federal University of Rio de Janeiro with the International Union of Architects, Brazil

--FIELD INVESTIGATION: THE REINVENTION OF THE THOUSAND-YEAR-OLD PRACTICE OF THE TRAJINERAS IN XOCHIMILCO
Metropolitan Autonomous University, Mexico, Mexico

--FIELD INVESTIGATION: MOBILE CLASSROOMS AND MARKETS
National University of Colombia, Bogota

--FIELD INVESTIGATION: MOBILE HEALTH SERVICE ON CHILOE ISLAND
Pontifical Catholic University of Chile
Santiago, Chile

--STUDENT COMPETITION “NEW MOBILE PLACES, THE CHALLENGE OF CONNECTIVITY FOR TOMORROW’S HYPERPLACES”
Organized by the Tongji University, Shanghai, China

--DOCUMENTARY FILM “BUSINESS ON THE WHEEL”
Yeungnam University,
Gyeongsan-si, South Korea

Partners projects

--PROJECT “BRICHKA, INHABITING THE ROAD”
Echelle Inconnue, Rouen, France

--CREATION OF A SCIENCE AND TECHNOLOGY MOBILE UNIT FOR YOUNGSTERS
Pontifical Catholic University of Peru
Lima, Peru

Who does what?

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Christine Chaubet, Head of Project
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TRANSLATION
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On the web

www.mobilehyperplaces.com
www.facebook.com/mobilehyperplaces
www.youtube.com/user/villeenmouvement
www.ville-en-mouvement.com
www.vedecom.fr

The partners

Companies

Transdev
B2C and Autonomous Vehicle Activity Development Department

PSA Group
Research, Innovation and Advanced Technologies Division

Michelin
Strategic Anticipation and Co-Innovation / Prospective Division

La Poste
Innovation, Prospective and Digital Transformation Division

Academic and research network

IFSTTAR, University Paris-Est (FR)

Telecom ParisTech, Department of Economics and Social Sciences (FR)

6t Research Bureau, Paris (FR)

Vallès School of Architecture, Polytechnic University of Catalonia (ES)

Faculty of Architecture and Urbanism, University of São Paulo (BR)

Mackenzie Presbyterian University, São Paulo (BR)

Tongji University, Shanghai (CN)

Federal University of Rio de Janeiro (BR)

Engineering Department, Pontifical Catholic University of Peru (PE)

IAU Idf (FR)

National University of Colombia, Bogota (CO)

Pontifical Catholic University, Santiago, Chile (CL)

University of Buenos Aires (AR)

School of Architecture of the City and Territories of Marne-la-Vallée, University Paris-Est (FR)

School of Architecture Paris-Malaquais (FR)

School of Design Nantes Atlantique (FR)

African School of Trades Architecture and Urbanism, Lome (TG)

University Félix Houphouët Boigny, Abidjan (CI)

Prospective Workshop La Vie Robomobile (FR)

Eindhoven University of Technology (NL)

The City on the move institute/ VEDECOM

The City on the Move Institute was created in 2000 in order to address the challenges posed by urban mobility. It develops action research programs and stakeholder platforms to identify, promote and bring out innovative solutions.
Because mobilities are not just about transport but a societal issue, we need to look at the whole of society to do something new.
With its offices located in France, China, Brazil and Argentina, and its academic chairs, the City on the Move Institute maintain regular academic exchanges, work with cities on issues of direct relevance, and develops social, organizational, scientific, technical and cultural experiments around its main axes of reflection:

--Fostering autonomous mobility for individuals and social groups facing specific problems

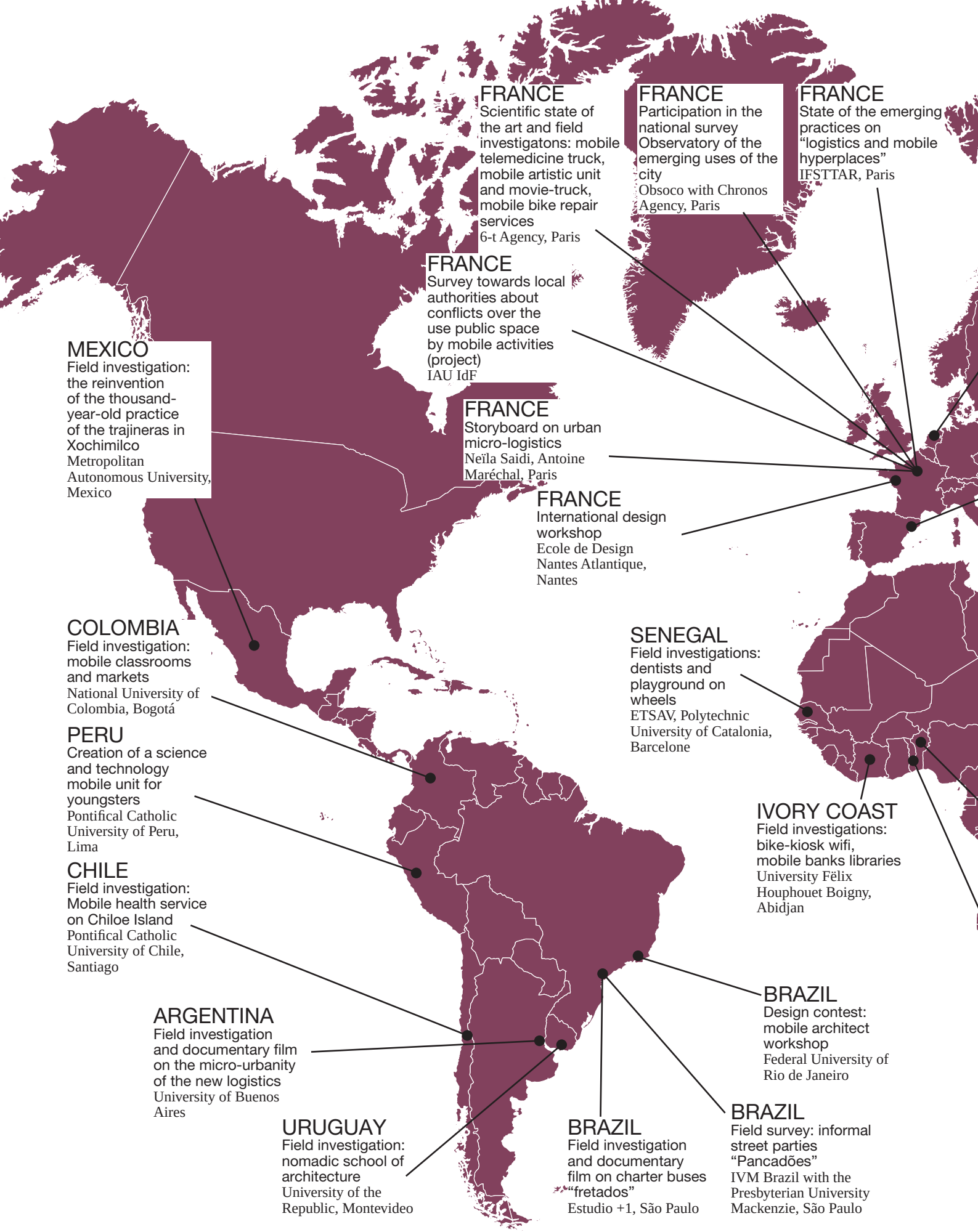
--Highlighting the quality of the places and times of movement

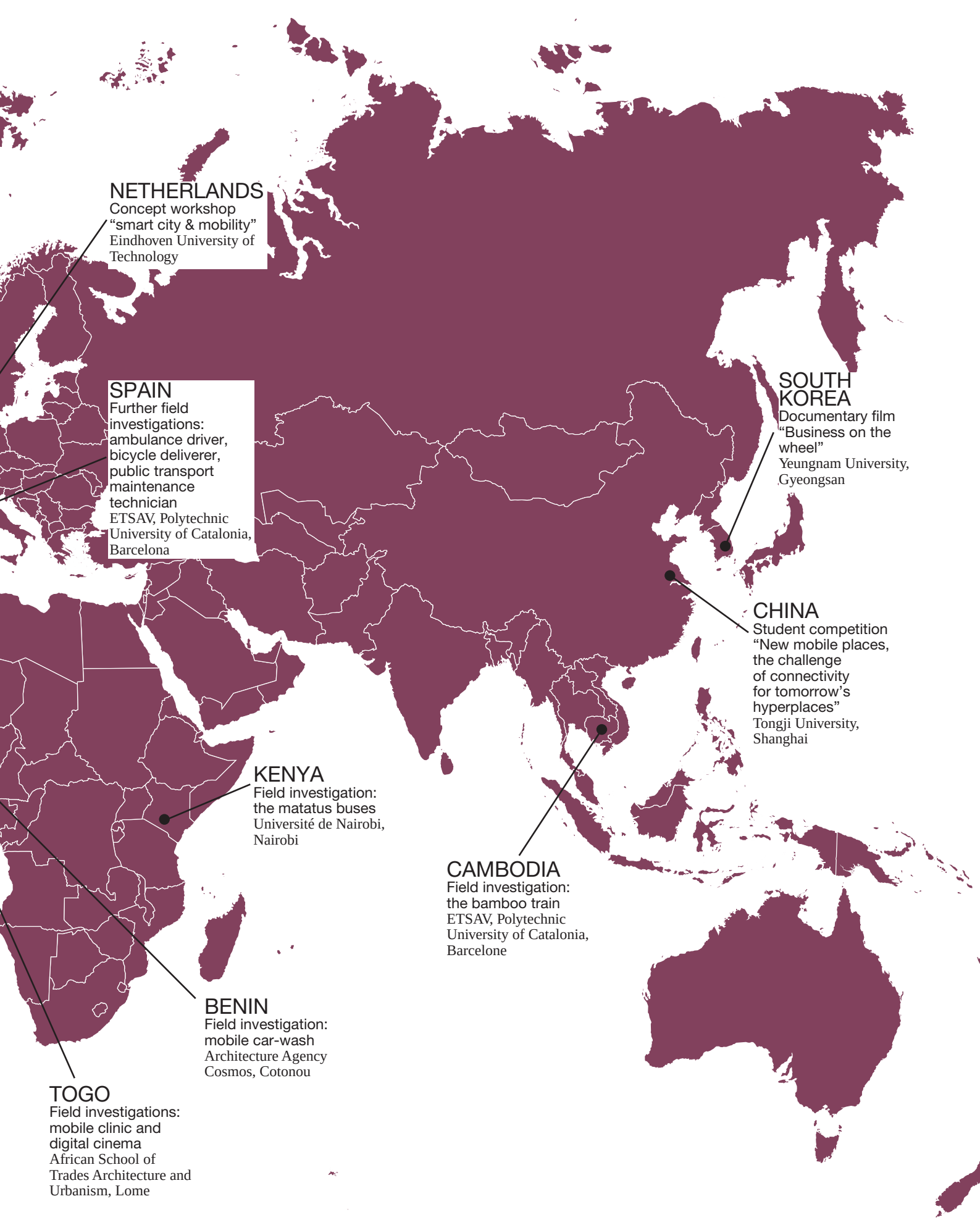
--Contributing to the development of cultures of urban mobility and civilities

Since 2016, the City on the Move Institute joined the VEDECOM Institute.

VEDECOM

Public-private French research and training institute dedicated to clean, connected and autonomous vehicles and sustainable mobility.
VEDECOM was created in February 2014 and is an Institute for Energy Transition (ITE) established as part of the French Government's 'Investment for the Future Plan' (Programme d'Investissements d'Avenir or PIA). It comes under the 'Autonomous vehicle plan' of New industrial France (NFI), become Solution for the Industry of the Future 'ecological mobility'.
With the backing of its founders and of the Mov'eo competitive cluster since 2010, VEDECOM is a partnership-based foundation belonging to Versailles Saint-Quentin-en-Yvelines University.
The Institute operates on the basis of an unprecedented collaboration that brings together firms in the automotive and aviation sectors, mobility ecosystem infrastructure and service operators, academic research bodies and Ile-de-France local authorities.
The Institute's 50 partners are all working together in a pioneering manner on three main areas of research: vehicle electrification, self-driving and connectivity, and shared mobility and energy.


FRANCE
Scientific state of the art and field investigatons: mobile telemedicine truck, mobile artistic unit and movie-truck, mobile bike repair services
6-t Agency, Paris
FRANCE
Participation in the national survey Observatory of the emerging uses of the city
Obsoco with Chronos Agency, Paris
FRANCE
State of the emerging practices on "logistics and mobile hyperplaces"
IFSTTAR, Paris
FRANCE
Survey towards local authorities about conflicts over the use public space by mobile activities (project)
IAU IdF
MEXICO
Field investigation: the reinvention of the thousand-year-old practice of the trajineras in Xochimilco
Metropolitan Autonomous University, Mexico
FRANCE
Storyboard on urban micro-logistics
Neïla Saidi, Antoine Maréchal, Paris
FRANCE
International design workshop
Ecole de Design Nantes Atlantique, Nantes
COLOMBIA
Field investigation: mobile classrooms and markets
National University of Colombia, Bogotá
SENEGAL
Field investigations: dentists and playground on wheels
ETSAV, Polytechnic University of Catalonia, Barcelone
PERU
Creation of a science and technology mobile unit for youngsters
Pontifical Catholic University of Peru, Lima
IVORY COAST
Field investigations: bike-kiosk wifi, mobile banks libraries
University Fëlix Houphouet Boigny, Abidjan
CHILE
Field investigation: Mobile health service on Chiloe Island
Pontifical Catholic University of Chile, Santiago
BRAZIL
Design contest: mobile architect workshop
Federal University of Rio de Janeiro
ARGENTINA
Field investigation and documentary film on the micro-urbanity of the new logistics
University of Buenos Aires
URUGUAY
Field investigation: nomadic school of architecture
University of the Republic, Montevideo
BRAZIL
Field investigation and documentary film on charter buses "fretados"
Estudio +1, São Paulo
BRAZIL
Field survey: informal street parties "Pancadões"
IVM Brazil with the Presbyterian University Mackenzie, São Paulo


NETHERLANDS
Concept workshop
“smart city & mobility”
Eindhoven University of
Technology
SPAIN
Further field
investigations:
ambulance driver,
bicycle deliverer,
public transport
maintenance
technician
ETSAV, Polytechnic
University of Catalonia,
Barcelona
SOUTH
KOREA
Documentary film
“Business on the
wheel”
Yeungnam University,
Gyeongsan
CHINA
Student competition
“New mobile places,
the challenge
of connectivity
for tomorrow’s
hyperplaces”
Tongji University,
Shanghai
KENYA
Field investigation:
the matatus buses
Université de Nairobi,
Nairobi
CAMBODIA
Field investigation:
the bamboo train
ETSAV, Polytechnic
University of Catalonia,
Barcelone
BENIN
Field investigation:
mobile car-wash
Architecture Agency
Cosmos, Cotonou
TOGO
Field investigations:
mobile clinic and
digital cinema
African School of
Trades Architecture and
Urbanism, Lome