Working group synthesis

DIGITAL AND INCLUSIVE TRANSITION

2019 - 2020

EDITORIAL

Cities have entered the digital age. First approached from of the technologic evolution and from that smart city angles, the territories' digital transition now comes forward as a new paradigm to be understood holistically, from its political, economic, environmental and social aspects. The main challenges to achieve a sustainable transition are governance and inclusion to facilitate innovation and to decrease social and territorial divides caused by technology.

Digital data are at the heart of the transition of city governance. Today, big data produced by public and private actors and by individuals themselves is a digital skin that wraps up the city and a digital sap that irrigates territories. People's capacity to own these technologies implies to identify the structures adequate to each territorial context, through a digital mediation which facilitates their uses for and by all, and through the constitution of a digital ecosystem, in particular of data and services, which needs to be interoperable, guarantees the general interest and everyone's development. A right to the digital environment appears as one of the key tools of a right to the city.

During the Abu Dhabi World Urban Forum, UN-Habitat launches a program meant to facilitate an inclusive digital transition, named "Building smart sustainable and inclusive cities from the ground up". This document, built with French actors in their diversity, presents inspiring digital practices and formulates propositions for an inclusive digital transition.

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PART 1
DEFINITION AND APPRAOCH

Make digital transition a chance for cities and their inhabitants

Omnipresent in our daily lives, digital technologies present as many opportunities as they present challenges to be able to design, manage and experience cities and territories in an inclusive way. The multiplication of digital tools results in exponential data and infrastructures production, in the creation of new services and new uses and the emergence of new actors and of new economic models that deeply transform the urban development.

Born from the idea of a city managed and optimized by digital technologies, the concept of smart cities is being questioned today due to its shortcomings: inequalities between connected and non-connected territories and populations, overly technical solutions sometimes disconnected from the local contexts and local needs, lack of appropriation by the inhabitants and by the citizens, data capture at the expense of the general interest, etc.

The digital transition, however, offers huge opportunities in terms of sustainable urban development, service efficiency and successful ecological and climatic transition, innovation and economic development of territories, transparency of local governments and the participation and inclusion of the inhabitants and citizens.

The digital environment can be a powerful tool on the territories to answer environmental challenges. Using the digital environment to serve the ecologic transition implies to use its changing potential and its capacity to shake up current actors to transform the prevailing models rather than just optimize their operation.

The digital transition appears as a major leverage of a successful implementation of the New Urban Agenda and of the SDG (Sustainable Development Goals). *"We commit ourselves to adopting a smart-city approach that makes use of opportunities from digitalization, clean energy and technologies, as well as innovative transport technologies, thus providing options for inhabitants to make more environmentally friendly choices and boost sustainable economic growth and enabling cities to improve their service delivery."* New Urban Agenda - 66 (Quito 2016).

This implies to not only rely on technology but to consider the latter as a tool. Even though essential, technology must serve citizens, so that tomorrow's sustainable city doesn't become just a connected space, potentially triggering new digital exclusions or dominations.

To implement an inclusive digital transition, we must thus ensure a regulation by public authorities and an appropriation by citizens, to avoid that the ultra-connection of cities becomes the end goal. It is also the use of the leverages that digital technologies and networks provide to build more responsible, enjoyable cities, more in line with citizens' aspirations. It opens huge possibilities to achieve the mutualization, sharing and optimization of resources, services and spaces; better comprehension of the uses and wishes of citizens and screening of existing practices; opportunity to provide offers and services that boost the transition and behaviors' change. The environmental cause as well as inclusion will thus evolve quicker if they rely on the transformative power of digital technologies, provided citizens are placed at the heart of such transformations at all territorial levels.

PART 2
RECOMMENDATIONS AND EXAMPLES

Recommendation 1

Public authorities are responsible for a good governance; to ensure it, they must come up with digital strategies adapted to their context.

Bringing together the public sector, the private sector and the population : key in achieving the digital transition

According to their prerogatives, public authorities must guarantee that all actors - citizens, local communities and companies - can access the resources that the digital environment provides and can thereby develop innovations, in a perspective of inclusion.

They must also guarantee balanced servicing of the territories by digital infrastructures (very high speed internet, mobile coverage, control of data centers' location) and the protection of personal and territorial data. They also have to ensure open data and the open inter-operability of the used systems, especially in regard to basic services and public markets.

At the local level, cities and local authorities are the spearhead of the organization of smart cities' governance

Faced with the complexity of the digital transition - and even though bigger cities benefit from more solid strategies and management tools - most local authorities in the world must reinforce their capacity to organize the local governance: know how to activate actors and resources, how to organize the digitalization of their services, how to structure urban data, how to organize relations between private actors and their inhabitants. Without this, the risk exists that cities lose their sovereignty and disconnect from their citizens and from big urban service providers, with who they must be able to communicate and negotiate.

At the national and international scale, States are on the front row

At the national and international scales, States are responsible for the creation of reglementary work frame and tools, of programs and of funding to guarantee equal access to infrastructures, the protection of personal data and the sharing of data of general interest (open data), but also to boost economic growth and local policies that foster the digital transition on local territories, to the benefit of the general interest.

Local authorities at all levels are also responsible for the assessment of the environmental impact of the digital transition

Digital infrastructures weight on resources, especially on energy, and they are the cause of various forms of pollution. Their contribution to the degradation of biodiversity, of living conditions, or their significant energy consumption, must be assessed to identify solution.

"France numérique" national program

It relies on 3 pillars: ensuring the development of infrastructures on the territory ("France très haut débit" program), facilitating economic innovation through digital technologies (French tech program), and facilitating access for all to digital technologies ("Société numérique" program). (FRANCE)

www.societenumerique.gouv.fr

French tech

The French Tech program provides a work frame for the development of tech start-ups. Supported by the State, it intends to create innovation ecosystems in the cities to bring together public and private actors and promote French digital companies internationally and under one unique banner: the French Tech. (FRANCE)

www.lafrenchtech.com/en/

National Indian program, Smart Cities Mission

This program aims to turn a hundred Indian cities into 'smart cities', around projects of urban renewal and in the context of growth of their urban areas.
The objectives are to make what already exist more livable and more functional by collecting the inhabitants' expectations, but also to densify and to plan urban extensions while keeping in mind a perspective of sustainable city and of implementation of smart solutions. (INDIA)

www.smartcities.gov.in

Spatial and energetic impact of data centers on the territories

This report by ADEME agency studies the territorial mutations caused by the presence of data centers in France and in the United States in dense, peripheric and rural areas.
Through a thorough analysis of the structuring aspect of data centers, it sheds a light on the need to imagine new digital territories with a greater energy cohesion and with alliances between actors.
(FRANCE - UNITED STATES)

https://www.ademe.fr/en/

Recommendation 2

Smart cities approaches must start from local practices and local issues to bring pragmatic answers, adapted to each context technically and organizationally.

Take into consideration the local realities and the populations' needs

The experiences of the first smart cities that focused on technology showed their limits and the need to start from local realities and from the population's needs to avoid boilerplate solutions.

In this perspective, local authorities must first and foremost:

- Clarify expectations, identify challenges and concrete projects and establish priorities;
- identify and bring together key actors of a territory and involve the local ecosystem (companies, start-ups, universities, associations) to create conditions suitable to the emergence of collaborative projects;
- implement concrete, quick and simple actions with proven utility (resource management, mobility, dematerialization of administrative processes) and start from test actions to envision an implementation at a greater scale, in case of success;
- assess the service improvement and the users' experience.

Accra Mobile

A mapping project was started based on the observation that 70% of the home-work commute gets done with "tro tro". The goal of the project was to quickly and cheaply collect information about informal transportation services (roads, information and service levels about circuits). A smart phone application and investigators on the field collected data. This experience presents a strong reproducibility potential.
(Accra - GHANA)

Accra

www.sites.digitaltransport.io/accramobility/

Manual: Smart cities and local authorities: leading a digital transition

The French development agency wants to provide local authorities, in particular those in developing and emerging countries, with tools to control their digital transition and to have methods and tools adapted to their circumstances.

The manual presents recommendations, methods and concrete examples of local communities, notably in emerging and developing countries.

www.smartcity-guide.afd.fr/?lang=en

Cities, digital environment and social innovation, French experiences

Published by France urbaine, this document intends to show how the use of new technology can help to live better in the city, and lays out a panel of initiatives taken by many French urban centers. Even though the digital environment relies on technical capacities, it must nonetheless serve the general interest and contribute to the improvement of daily life. This publication thus brings forward the digital environment matter, not so much to think about "more digital tools", but to answer the question of "better digital tools". The objectives are, among others, to improve public policies, maintain public services, or contribute to the efficiency of the relation with citizens.

www.franceurbaine.org

Recommendation 3

Territorial data are a common good: local authorities must build a pool of knowledge accessible to all, to improve knowledge about the territory and about urban management, to foster transparency and to stimulate economic innovation.

Local authorities: major actors to turn territorial data into a common good

To build this common ground, cities must develop and coordinate different actions:

- Create a service and rely on a trusted entity or third-party to manage data of general interest;
- create a chief digital officer position which would be an organizational coordination role rather than just technical;
- grant access to cities data to companies, NGOs, universities, in order to know the territory and to develop digital services while familiarizing teams with the challenges and possibilities that data offers, and with the need for quality data;
- ensure the transmission of data of general interest through service providing companies, in particular by making mention of it on the public markets;
- encourage crowdsourcing activities by relying on users to produce data and develop knowledge;
- gather and structure territorial data on partnering platforms accessible to all local actors.

Digital ecosystem and data system of metropolitan interest

The digital ecosystem of Rennes currently counts 35 000 jobs in the Ille-et-Vilaine region, divided between 4 200 companies.
The city of Rennes has now a data service that mobilizes, organizes and provides digital data of metropolitan territorial interest. It is backed up by the European Union.
(Rennes - FRANCE)

Rennes

www.audiar.org

Wexity, mapping tool

Wexity is a startup specialized in mapping tools and digital data. The company offers the possibility, thanks to an easy training, to handle in a simple way a mapping tool for local authorities that do not have geomatic experts. Data can then be handled to make projections about all urban components. The local authority involved registers data itself and remains in control of its usage and diffusion.

www.wexity.fr/en/

© Pixabay - 2014

Recommendation 4

The digital environment is a leverage to enhance local actors' participation to the management and becoming of the cities.

The popularity of smart phones and the access to other digital tools and to social networks open up the way to the development of new information means and of concertation means with the general public.

Include citizens thanks to the digital environment and new technologies

Civic tech enables the information, activation and involvement of actors, inhabitants and local communities in more massive and interactive ways than the classic methods (public reunions, information support). Beyond the diffusion of information, these new e-citizenship ways allow to collect information for a better knowledge of the territory (crowdsourcing) and a greater implication of the parties involved in the decision-making process (platforms of collective concertation or of concertation about urban projects, participative budgets).

Improve the identification of needs to improve users' experience

By improving the cities' capacities to know their needs and to assess the related levels of satisfaction, digital tools push local authorities to more transparency and accountability in their decision-making. Regular assessments must be implemented to reveal the earned benefits on the one hand and the priority points to be improved on the other, in a logic of constant progression, to improve users' experience.

Si La Ville: for a big-scale concertation with all users

Île-de-France

At the scale of the 44 cities located on the East of Paris around Disney park, the EPA develops a concertation tool offering users (inhabitants, employees, tourists) to develop their territory to face long-term challenges of general interest. This "serious game" aims to raise awareness among the general public while allowing them to alter the specificities of urban projects and, thanks to numerous urban data, to simulate the territory's evolution based on users' decisions.
(Ile-de-France Region - FRANCE)

www.epamarne-epafrance.fr

Citizens' participation platform in Africa: Code 4 Kenya

Designed and implemented by the African Media Initiative and the Open institute, this project aims to foster the Kenyan people's knowledge and capacity to understand and use Open Data. It also aims for a reinforcement of civic engagement, for citizens' digital participation and for the transparency of public policies. Information, awareness and education actions about big data and its challenge are being implemented. (KENYA)

www.africanmediainitiative.org

TOOL

Open urban approach in Geneva: Unlimited Cities

The approach is free and open source and relies on a digital tool of collective visual intelligence. Supported by UN-Habitat, it is used by many thinkers, local authorities and universities in Europe, Asia, South America and Africa. The approach allows for the inclusion of civil society into the territorial transformation process. It is developed through workshops and programs of digital mediation in public spaces.

Recommendation 5

Implement digital rights for all and reduce digital inequalities.

The digital environment, creator of opportunities but also of divides

The digitalization of the economy and of urban services offers tremendous opportunities for the connected population and actors, but they also create exclusion for those who have no access to such technologies: because they don't have access to digital infrastructures, or because they don't know how to use them.

Facilitate the development of digital tolls including on territories with low density

The penetration rate of mobile phones in Southern countries is significant, which helps against isolation and helps with the develop of new services (for example, payments with mobile phones). The broader deployment of digital infrastructures remains unequal, in particular in more densely populated territories thus less profitable for private investors, and which as a result require public funding to ensure their development.

Insist on digital technology trainings

Unequal access to digital tools also concerns certain categories of the population. Even in a well-equipped country like France, close to 25% of the population doesn't know or not well enough how to use digital technologies (elderlies, underprivileged, foreigners, etc.). This figure is much higher in developing countries. This is referred to as "information-illiteracy". It is an obstacle to access dematerialized information and to use connected public services, and very often to achieve social integration.

It is of primary importance to train the public on how to use digital technologies, to foster equal access for all to digital technologies, in particular the youth, women, elderlies, disabled people but also entrepreneurs.

The development of digital mediation through dedicated trainings and programs is essential to reinforce the appropriation of these tools. These approaches can rely on the creation of tech schools or resource centers, and on the presence of third-party's spaces where guidance and tutoring sessions can be organized, especially in poor neighborhoods.

Rely on adequate tools, easy to access and easy to use

In terms of tools, the access to adapted and easily accessible tools such as Google maps or open street map can help to reach a broad public, especially in poor neighborhoods, to thus contribute to improving this public's knowledge about their own neighborhoods and about the way they use it.

PROJECT

Société numérique (digital society) and digital check

Société numérique, a digital program powered by the French state experiments with local authorities a system of digital check that enables people with limited access to digital tools to benefit from trainings and guidance. The goal is to rely on intermediaries as non-profit organizations. (FRANCE)

www.societenumerique.gouv.fr

RECODE association in Brazil

Since 1995, the Center for digital inclusion, which became Recode, trains Brazilians on how to use digital technologies to open their employment horizons.

The students who follow the training are supervised by an educator. Learnings are focused on the development of personal capacities and on the development of the community as a whole. (BRASIL)

www.recode.org.br/en/

Smart Favela program (Toolz)

Toolz, a project of digital studio, is a prototype created in the context of a call for proposals by the Ile-de-France Région and the City of Rio. It is a collaborative application with the mission to restore democracy in the decision-making process about urban projects.
It allows a visualization of Rio's favelas, fully modelized, to draw in it the envisioned urban projects and to establish costs projections, benefits projection and other cartographic analysis. (BRASIL and FRANCE)

https://www.toolz.fr/uk/index.php

PROJECT

Cities for digital rights association

This non-profit organization brings together cities that work together on the idea of digital rights, with the goal is to protect and defend digital rights at the local and global levels.
Initiated by the cities of Barcelona, Amsterdam and New York with the support of UN-Habitat, Eurocities and CGLU, this association gathers 35 cities today, 2 of them being French: Lyon and Bordeaux, committed to use technologic opportunities and propose secure digital infrastructures to improve the living conditions of their inhabitants.

www.citiesfordigitalrights.org

Recommendation 6

A partnership between public, and private actors and population to implement the territorial digital transition.

Local actors, at the heart of the process

Local actors are involved in the digital transition to complement each other, whether it is to develop new activities for NGOs, big company or start-ups, to expand knowledge or to develop trainings or mediation systems.

Network and actors' cooperation

The development of networks and territorial ecosystems of digital actors (local authorities, universities, companies, non-profits, artists, etc.) must be encouraged to facilitate endogenous economic growth by creating suitable conditions for the emergence of collaborative projects.

A co—developed digital transition

The co-construction of the digital transition is often concretized with coworking spaces, fab-lab or digital mediation, to enhance cooperation and trigger innovations born from experimentations, hackathons or call for projects.

These collaborative platforms can arise from public, private or non-profit initiatives. They are places for urban innovation that play a structuring role in the urban space, add a renewed value to some territories and create development and social cohesion in informal neighborhoods.

PROJECT

WoeLab of Lome

Lomé

Self-proclaimed first African space for digital democracy, WoeLab is a collaborative space for shared innovation, where digital projects are designed to answer needs specifically related to the African context. It is made out of a resource center and of a business incubator. (Lomé - TOGO)

www.woelabo.com

TUBA platform

Lyon

This space dedicated to innovation and experimentation for the city of tomorrow, is led by Lyon urban center association. A place for encounters between local authorities, big companies, small-to-medium size companies, startups, researchers and citizens, it enables the implementation of collective and participative approaches to design and experience innovating urban solutions. (Lyon - FRANCE)

www.tuba-lyon.com

PROJECT

NUMA platform, to guide the digital transition of companies

Originally a co-working space, NUMA (Paris) now supports companies in their digital transition by providing them with trainings. (Paris - FRANCE)

Paris

Casablanca

In Casablanca, a Moroccan sister-organization offers a year-long incubation program for startups, to train them based on their needs. They also offer necessary resources for the success of entrepreneurs: workspace, funding… (Casablanca - MAROCCO)

www.new-york.numa.co/

Recommendation 7

Build the new economic models of the digital transition.

The digital economy has become the main indicator of technologic and organizational innovation. It stirs up current economic models and brings up new actors in urban policies who affect the classic economy of cities. Several economic systems co-exist: big international firms structured in networks providers of urban services (energy, water, sanitation, construction), big phone and Internet providers (GAFAM), new providers (Uber, Airbnb), more traditional local companies and very local, cooperative and citizen-led systems.

In this context, we must explore and help with the organization of new funding and urban management models.

Renew the funding models of public authorities

Classic funding modalities of the states' and of the local authorities' public actions are seriously brought into question by digital evolutions.

Classic systems of public-private partnerships showed their limits, both in developed countries and in developing countries, with oftentimes ill-adapted ready-to-use offers that didn't take into account management, in particular of urban services. They must be reformulated according to more innovating approaches, such performance contracts. Those contracts favor an approach based on objectives, consumption, equipment, penetration rate and encourage a resource management focused on a moderate use of energy and land.

Secure the resources of local authorities and of providers thanks to a better tax collection system

The use of digital tools can reinforce the tax collection system.

In cities where the absence of land register slows down the local tax collection, the implementation of digital land register relying on open data mapping can help to mobilize other income sources for the territory. Likewise, dematerialized payments with smartphones can help to improve the mobilization of local resources.

For private actors, the use of digital tools allows a simplification of the invoicing and payment systems especially for urban services providers and in certain cases, allows to favor pre-payment to ensure the viability of the economic model.

Other funding sources can also be activated to implement specific projects, whether it is crowdfunding - crowdlending - made possible thanks to an Internet access.

Give priority to open source on the platforms and software intended for the development and management of the territories

We also preconize to use free software to encourage a non-rival economy, favorable to different actors, public and private.

Open source software today relies on secure grounds, as it is funded by big players of the software world and endowed with comparable ergonomics to that of the proprietary software. Additionally, it allows local authorities to save the knowledge that their agents acquire.

In open source, these platforms, software and civic technology become a part of the informational estate for the management of data of territorial interest and for the management of basic services of a local territory. The structural informational sovereignty can be mutualized with other territories.

The energetic performance contract of Grand Dijon

The performance contract adopted in Dijon regards the energetic renovation of many buildings. Agreed upon by the project manager and the provider, these contracts define goals and defines way to make sure these goals get reached in accordance with the contract terms. The expected results are quantified and regularly assessed to measure how they get reached. In the case where the objectives set aren't reached, the provider can be financially sanctioned.
(Dijon - FRANCE)

Dijon

www.suez.com/en/

Townpay: facilitating tax collection in Senegal

Project initiated by Sudpay, startup that develops service platforms and electronic payment platforms that suit the African economy.
The Townpay application is, on the other hand, intended for Senegalese cities to facilitate the collection of local taxes with businesses.
It is designed to facilitate the follow-up of the tax collection process, on the cities' side, and to facilitate payment, on the businesses' side.
(SENEGAL)

www.sudpay.com/en/

Recommendation 8

Create cooperation networks to empower actors and to turn the digital transition into a common good.

Global and local cooperation to build smart and inclusive cities

The digital transition calls out for both global and local collaboration to build smart and inclusive cities :

-   Establish platforms and centers for resources and knowledges, prospective and innovation about the digital transition at all level, from local to international ;

-   create networks and peer-to-peer exchange communities to share experiences based on concrete projects ;

-   define leading directions at the international level about the digital transition and about actions to boost developing cities, which the UN could initiate though its program Building smart sustainable and inclusive cities.

PROJECT

Digital observer 4 Africa, digital platform

Created by Tactis and Smart Africa, this digital platform registers a great number of African digital initiatives in order to know them better and to give them more visibility. It shows the abundances of digital initiatives led by African actors.

www.do4africa.org/en/

Project of cooperation ASTON pilot by URBACT with AFD

Aston is an european project supported by AFD is a project of capitalization exchange and of dissemination of good practices about the digital transition, based on concrete local projects led by 12 African cities.

www.urbact.eu

UN Habitat – Frontier technologies Program

The digital transition is a favored and key topic of Antonia Guttierez, UN General Secretary.
As part of its strategic plan, UN-Habitat launches an ambitious program in Abu Dhabi, "Building smart sustainable and inclusive cities", to boost inclusive digital development, in particular meant to decrease the inequalities between developed and developing countries. It should include a part about orientations, networking of actors and operational programs.

www.unhabitat.org

Cluster Cap Digital : digital actors network

"Cap Digital" is a network that brings together all the actors involved in digital innovation in the Paris area: startups, research labs, small, medium and big companies, investors, but which all work in networks at a European and international scale.
The network offers services to support innovation, to help members and partners to successfully lead their project, prototypes, digital technologies or any other services that benefit the digital economy and sustainable development. (FRANCE)

www.capdigital.com/en/

PART 3
CONTROVERSIES

Although the digital environment undoubtedly offers opportunities for the cities, the tools themselves aren't neutral and the way they're being used brings up many questions..

How to integrate challenges of inclusion and rights in the digital transition?

CSome technologies relate to the exercise of participative democracy. The possibility to express oneself on social network and to be able to participate more actively to the local decision-making process represent a step forward in terms of democracy. But the risks of appropriation of this tool by certain groups at the costs of the general interest raises questions. We must also be aware that in certain countries, participative democracy is subject a level of control and watch which seriously threaten individual freedom. It is therefore necessary for us to resituate e-citizenship within the political and institutional context where it gets deployed.
The constitution and access to a pool of territorial data enhances a better knowledge of the territory and an optimization of urban management. But a city isn't just a collection of data. A good urban governance must also take into consideration more subjective factors. Data must be rightly positioned in the decision-making process and remain a tool to help decision-making. A balance must be found between using objectively quantified data and considering cultural and social dimensions that can't be quantified or modelized.

In the field or urban services, although digital tools allow in many cases to improve both access and quality of the provided services, the economic model induced for this improvement is questionable. This is especially the case with the prepayment of services (water, energy, telecom); as soon as a user's account is empty, the service isn't provided anymore. It raises the issues of the continuity of basic service delivery and relativizes its improvement. Furthermore, the optimization of urban services brings them under tension, possibly leading to extreme states that weakens them and thus deteriorate the system's resilience as a whole.

How to better comprehend environmental and psycho-social impacts?

From an environmental perspective, the digital transition impacts the speed at which the urban environment evolves. The productivity gains of an urban system that are triggered by the digital environment increase the intensity and speed of the urban metabolism. If this activity isn't coupled with research about a moderate use of energy and land, this contributes to making the city an ecosystem predator, despite the stakes related to resilience.

At an individual level, the increased use of digital tools especially through the multiplication of mobile apps, brings about questions related to the level of attention and the evolution of social exchanges and can, in certain cases, trigger cognitive stress.

What regulations are needed for the digital environment's economic model?

Worried about the negative impact on housing prices on their territories, many cities (Berlin, Barcelona or Paris) implemented rules to answer the adverse effects of short-term rentals via platforms such Airbnb.

The 'uberization' of services (transportation, goods delivery) raises questions about new employment models, which can both represent huge opportunities and weaken the workers' conditions in terms of social rights and guarantees acquired through traditional models.

The risk of capture of individual and territorial data by big digital consortium for commercial use, with or without the consent of the individuals or the local authorities, will be a major challenge in guaranteeing freedom and rights. Europe thus came up with a very strict legislation about personal data protection: General data protection regulation (GDPR).

Lastly, the matter of taxes and taxation system of the big tech companies, of which the revenue for the most part escapes the tax systems imposed by the States, is a growing debate and calls out for the invention of new international regulations.

How to face the important costs

induced for local authorities?

One important limit to the implementation of the digital transition has to do with its significant cost for the local authorities and for the States, especially for the deployment of infrastructures, data management and supporting actions intended for training and for the reduction of the digital divides.
In the face of those funding needs, especially in developing countries, the creation of an international fund for the digital transition and a support from international lenders is highly preconized. It is suggested that this international fund, such as the Green Fund, be supplied by a tax set for the actors of the digital world.

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CONCLUSION

Key words

○·····Opportunities

Inclusion

Smart city

Innovation

Technologies

Digital transition·····○

Memo

The recommendations voiced by this working group identify key points to lead a digital transition guaranteeing concrete improvements in urban management and in the well-being of inhabitants. The stakes and challenges are multiple, especially in developing countries where training and funding to carry projects to completion are sometime lacking.

A successful and inclusive digital transition has the advantage of offering many evolution and development opportunities at various levels: political (governance), social (personal development), economic (encouraging entrepreneurship, company creations, development of local resources). In this context, the role of public entities is important. Thanks to a well-defined regulatory work frame, they must remain in control of the opening and of the use made of private and public data, so to ensure the protection of the general interest.

Lastly, the digital transition must be led by and for all. It shouldn't leave behind the most vulnerable populations and shouldn't ignore actors of the territory who could benefit from it. Strategies of digital development must be defined collectively to ensure that the primary expectations of the territory's actors are taken into account, and to thereby ensure the accuracy of the implemented policies.

P F V T

Started in 2011, the **French partnership for cities and territories (PFVT – Partenariat Français pour la Ville et les Territoires)** is a platform meant for the exchange and valorization of the French urban actor's expertise at the international level. It is a multi-actor partnership headed by Hubert Julien-Laferrière, Member of Parliament, supported by the Ministry of Europe and of foreign affairs, the Ministry of territorial cohesion, the Ministry of the ecologic and fair transition, and the Ministry of culture. It brings together close to 200 organizations representing the diversity of the French expertise, contributing to the construction of a shared French vision based on a capitalization of exchanges and of innovative and sustainable experiences.

Food and agriculture

Citizenship and social innovation

Informal City

Affordable housing

Mobilities

Digital and inclusive transition

Resilience and adaptation to climate change

Well-being and health

Essential serivces

Creative cities and strategic smart urban planning