



Introductory note on the call for proposals

**"Resilient cities: towards inclusive and sustainable urban development"**

Wehubit

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# Table of Contents

<b>1</b>	<b>General Context</b> .....	<b>3</b>
<b>2</b>	<b>Resilient cities</b> .....	<b>4</b>
2.1	The concept of urban resilience .....	4
2.2	Resilient African cities.....	6
<b>3</b>	<b>Digital in the city</b> .....	<b>7</b>
<b>4</b>	<b>Example of urban resilience facilitated by digital tools</b> .....	<b>8</b>
4.1	Participatory urban governance and citizen engagement .....	9
4.2	Provision of quality public services for all .....	9
4.3	Safe and supportive cities.....	10
<b>5</b>	<b>Main focus of the call for proposals</b> .....	<b>11</b>
5.1	General and specific objectives of the call for proposals .....	11
5.2	Identification of the target group.....	11
5.3	Guiding principles of the Wehubit Programme .....	11
5.4	Eligibility criteria.....	12
5.5	Evaluation criteria.....	12

# 1 General Context

In an increasingly urban world (by 2050, 70% of the world's population will live in cities), cities are more than ever at the centre of sustainable development issues and objectives. Agenda 2030 reaffirms the essential role of cities in achieving these goals, in particular with the SDG 11 "*make cities and human settlements inclusive, safe, resilient and sustainable*".

**Faced with today's global risks and challenges, cities are on the front line.** Given the impacts of climate change, increasing human mobility, population growth, growing social inequalities, etc., it is necessary, at a local level, to take the measure of these challenges and act with a long-term vision while responding to emergencies.

The Covid-19 pandemic confirms that reality. Whether it is to support health services and local authorities in managing the health crisis, to provide data and mapping for decision-making, to develop community networks, or to encourage economic recovery, cities are at the forefront. The Covid-19 pandemic has thus **(re)affirmed the need for coherent emergency management in urban areas and for sustainable and resilient urban development strategies worldwide.**

This is particularly the case for Africa, where urban growth, combined with the transformation of the rural world and rapid population growth, is confronting cities with major socio-economic and environmental challenges. The resilience of secondary cities in particular will be one of the major urban challenges of tomorrow.

**In such a context, digital technologies can leverage the resilience of cities in many ways.** They help improve data collection and even the planning and management of cities and urban infrastructure. They contribute to increasing access to services and improving their efficiency. They also help organise citizen participation and control in public life. Finally, they are a source of opportunity for the business world and to stimulate the development of innovative companies. But they also represent a risk of reinforcing the digital divide, widening socio-economic disparities and 'disempowering' citizens from their cities. Furthermore, the implementation of digital technologies increases the risk of (un)intentionally misusing personal data. Hence, it is important to acknowledge and address privacy and data security issues. In supporting smart cities, special attention should be paid to promoting "smart" citizens who play an active role in the development of their city and make the best use of data and technological tools.

In particular through their potential to help people think differently, facilitate exchange, and the space they leave for innovation and co-creation, digital technologies offer significant potential for building inclusive resilience.

Within the framework of the priorities of the Belgian governmental cooperation, and through its 2030 strategy, Enabel supports the development of inclusive and sustainable cities<sup>1</sup>. **This call for proposals aims to promote the digital tool as a lever for urban resilience. Enhanced resilience will contribute to the ultimate objective of strengthening the sustainability of cities and promoting economic and social inclusion.**

## 2 Resilient cities

### 2.1 The concept of urban resilience

Resilience can be defined as the **ability of an object, a person or a system to resist and adapt to a shock in order to return to a state of equilibrium**. This concept stems from mechanical physics (*resistance to a shock*), has crossed the field of psychology (*ability to get up after individual or collective traumas*), then ecology (*ability of an ecosystem to rebuild itself and regain equilibrium after having been disturbed*). It is from ecology that the notion of "resilience" has been applied over the last twenty years to complex ecosystems such as that of the city.

Initially, focusing on land use and urban planning issues, a "resilient city" was what a city was known as, that has the capacity to adapt in order to limit the effects of environmental disasters and return to normal functioning as quickly as possible. Gradually a more holistic approach to urban resilience has developed, thinking not only in terms of environmental and infrastructure risks but also in terms of social and societal risks. Urban risks have evolved. First of all, it is to be noted the risks associated with climate change. The latter have a direct impact in many respects: increased flood risks, whether as a result of more intense precipitation and/or the rise of the seas, increased effects of heat islands, risks related to landslides, etc. The risks induced by climate change push us to go further and to contribute by all means to limit its perverse effects by limiting the production of greenhouse gases (GHG). We cannot therefore ignore efforts related to mitigation, including in countries of the South, which nevertheless contribute the least to the production of GHGs. Here too, digital can be useful, for example, by supporting the sharing and optimisation of means of transport, by contributing to the energy efficiency of buildings, infrastructures

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<sup>1</sup> In its Strategy 2030, Enabel identifies five Global Challenges on which it chooses to focus: peace and security, climate change, urbanisation, human mobility and social and economic inequalities.

and equipment that make up the city, by ensuring more sustainable management of goods and services, even by encouraging the emergence of a new so-called green and circular economy, in particular short circuits which bring producers and consumers together. Urban resilience also increasingly extends to other types of risks (technological risks, terrorist risks, food security, inter-community violence, etc.) but also to longer-term tensions (demographic transition, migration, etc.) or new, more systemic risks due to the pervasive interconnectedness of globalisation.

As the Covid-19 crisis illustrates once again, urban resilience requires the emergence of new ways of living, working, producing and consuming in the city. It involves other ways of planning, of making decisions, of engaging city stakeholders. It includes a diversified urban economy based on the optimisation of local physical and human resources. It is the sum of all these energies that enables cities to recover or continue to develop in situations of shock or longer-term tensions.

The resilient city will be seen as a city that continually reinvents itself in order to:

- ✓ anticipate disturbances (whether short-term shocks or longer-term tensions);
- ✓ mitigate the effects of these disturbances;
- ✓ recover through learning, adaptation and innovation;
- ✓ and evolve towards a new state of equilibrium while preserving its essential functionalities.

Another important development today is to consider the resilient city no longer as the result of a strategy defined by public stakeholders alone, but as the result of interactions between urban citizens who (self-)organise and become resilient citizens. It is also part of a holistic and integrated approach to urban development in all its components, aimed at mobilising a large number of stakeholders.

Resilience thus brings a new lease of life to the sustainable city, in particular on how to make the population a stakeholder in the future of a territory where it lives, works and flourishes.

Resilience will necessarily be based on an analysis of the strengths and weaknesses of a city and a territory and on the definition of priority issues. Thus, the parameters of resilience and the tools to be mobilised to strengthen it will be intimately dependent on the specific context of the city and its environment<sup>2</sup>.

## 2.2 Resilient African cities

In sub-Saharan Africa, populations already face chronic daily tensions due to the failure of city services.

Faced with poor infrastructure and planning, precarious housing conditions, limited public and private sector capacity, high youth unemployment in fragile and mostly informal economies, these cities are at the crossroads of today's major global challenges such as climate change, growing economic and social inequalities, instability and insecurity, tensions linked to human mobility, etc.

But the youthfulness of these cities (it is estimated that 60% of the urban population will be under 18 by 2030) and the diversity of the populations they house also make them places of diverse talents, bearers of creativity and innovation, and represent tremendous opportunities for socio-economic development. *The future of African cities will largely depend on their ability to invest in these young people and promote the development of their talents*<sup>3</sup>

African cities carry within them both the challenges and risks of tomorrow, as well as the capacity for action and change. Cities, for example, are key stakeholders in climate change. They are the main source of GHG emissions but also the places where mitigation activities, through the creation of a low-carbon society and adaptation activities have the greatest impact. They are drivers of economic activity as hubs for skills, innovation, enterprise and employment, but they also carry significant socio-economic risks because of the inequalities they create. These urban inequalities particularly affect access to essential services including housing and basic services (a third of urban dwellers in emerging countries today live in slums).

Urban planning and management are a major challenge for African secondary cities in the coming decades to build an inclusive and sustainable society. The capacity for monitoring and forecasting in relation to urban risks will be a determining factor here, as will the mobilisation of stakeholders. To mobilise the energies of all stakeholders and strengthen the resilience of cities, social cohesion is essential.

Urban resilience will thus affect both the opportunities to improve the management and operation of urban infrastructures and to think about new economic models and new ways of collaboration between public, private and associative stakeholders, and thus improve the match between demand and supply of public services.

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<sup>3</sup> Mamphela Ramphela - Member of the Foresight Committee of the Institut Veolia, Resilient Cities, the Institut Veolia Review,

### 3 Digital in the city

Cities are the ideal level at which to think about resilience, and today they have new tools at their disposal to create the sustainable cities and territories of tomorrow. Among these there are the digital technologies.

Digital technology is having an increasing impact in almost all areas of human activity: politics, economics, finance, culture, transport, modes of expression, well-being, social relations, etc. The effect of digital technologies is reflected in a global and instantaneous networking of individuals, uses and modes of expression, as well as in the amplification of individual and collective cognitive capacities.

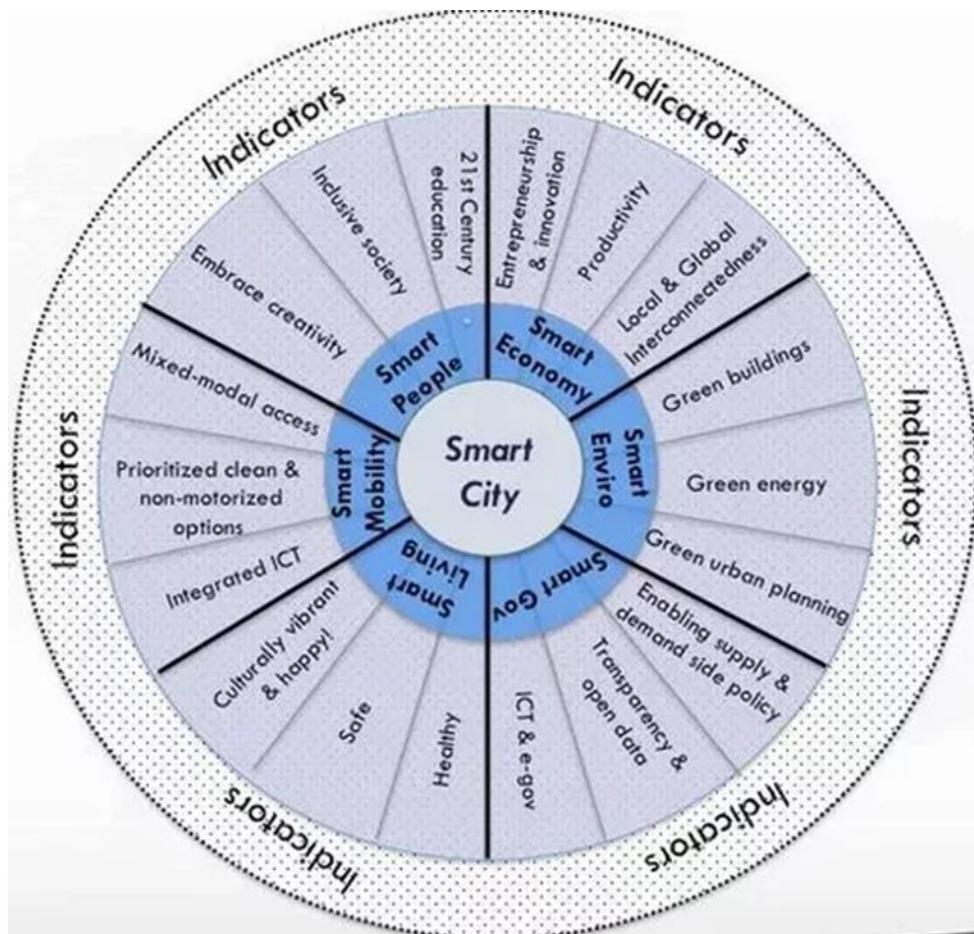
Digital technologies provide a set of tools to meet an increasingly wide range of needs: telecommunications networks with high quality of service capable of absorbing rapidly growing volumes; tools for broadcasting and sharing information to optimise exchanges (Cloud, social networks, etc.); data produced continuously on a large scale (big data, mobile telephony, consumption of digital services, social networks, etc.); standardisation/alignment of data (management) in order to increase the level of interoperability among public services, both horizontally and vertically; modelling and simulation resources (algorithms, high-performance computing, augmented reality, 3D, etc.) to assist manufacturers and designers in their new product design activities; smartphone applications to simplify the lives of users, particularly in terms of mobility; regulation, management and forecasting tools adapted to the needs of territories, etc.

Digital technologies therefore produce tools that can help make the city "smarter", more "efficient" and also more "resilient", as well as less dependent on fossil fuels:

- Anticipation of the impacts of climate change by collecting and processing information (e.g. by modelling the magnitude and impact of heat islands or hydrological modelling at basin level to predict floods);
- Monitoring of the evolution of the paving of the city and the measures for increased greening through the processing of satellite images;
- Optimisation of the city's management/supervision thanks to the processing of real-time information, for managing personal car transport for example;
- Simplification of mobility within a metropolitan area (intermodality, real-time information, signage, lighting, consideration of disability situations, etc.);
- Optimisation of the consumption of water resources, energy, etc.;
- Access to information for city dwellers and users (public transit, air quality, network incidents or breakdowns, level of security in certain neighbourhoods, etc.);

- Citizens' contribution to urban development strategies and plans, feedback on the quality of services, strengthening of local democracy tools;
- Creation of platforms for exchange and co-creation of urban projects;
- Optimisation of the service offer at the request of its users, in particular through the analysis of the data produced by them (e.g. public transport);
- Promotion of the emergence of short circuits by bringing local producers together with their consumers.

Boyd Cohen's proposed diagram in the form of the Smart Cities Wheel provides a functional vision of the six key areas of the Smart City.



## 4 Example of urban resilience facilitated by digital tools

Through the use of digital technologies urban resilience can be supported from different angles. A few examples are given below, which are not exhaustive.

**It is always the specific context of the city and its environment** that will determine the choice of the most appropriate priorities, stakeholders and tools.

As the ultimate objective is to contribute to sustainable and inclusive urban development, both aspects will need to be given cross-cutting attention within the projects submitted.

The aspect of **sustainability** specifically takes into account respect for the environment and measures for mitigation and adaptation to climate change

The aspect of economic and social **inclusion** refers to access for all, to services and to public and economic life, in accordance with a human rights-based approach. In order not to leave anyone out, special attention is given to specific groups, such as women and young people.

## **4.1 Participatory urban governance and citizen engagement**

Digital technology can help improve urban governance and increase the intensity of citizen participation. The initiative can come from institutional stakeholders through administrative simplification and dematerialisation of services or citizen consultation platforms for exchanging opinions on general strategies or urban projects under consideration.

Digital technology also strengthens the transparency and accountability of elected officials on their commitments through portals and platforms offering online access to open data, systems for evaluating public authorities' action plans and their implementation, etc. Open data allow citizens to check, for example, air pollution levels measured at different points in a city, and to demand binding measures from authorities if these are repeatedly exceeded.

Initiatives can also come from civil society itself to promote citizen participation and engagement through digital technologies via tools for developing and co-constructing projects with all stakeholders (citizens, researchers, companies, associations, public agents, etc.) through hackatons, city labs, etc.

## **4.2 Provision of quality public services for all**

Thanks to its ability to collect and exchange information almost instantaneously, digital technology can optimise network management and the quality of public services (whether managed directly or delegated to private operators) while reducing their negative impact on the environment. This could be:

- Water or gas leak detectors;
- Road traffic optimisation systems via traffic light inter-connectivity;
- Intelligent water, gas or electricity meters allow users to better control their consumption, and therefore their bill, but also their ecological footprint;
- Remote GPS tracking systems for waste collection trucks can help to optimise a collection system;
- Intelligent management systems for decentralised electricity production networks (e.g. solar installations) to better meet demand.

The applications are endless. All of these can contribute not only to improving the quality of services, bringing customers closer to operators, making systems more transparent, but also to reducing the environmental footprint of its services and ensuring greater resilience of society in the face of any form of disaster, whether natural or not. This includes early warning systems for floods, for example.

### **4.3 Safe and supportive cities**

Digital technologies strengthen the capacity of cities to provide safe and inclusive environments for their citizens, including vulnerable groups. One example is the applications or platforms that allow the exchange of information on urban violence or gender-based violence in particular.

Another example is technologies that promote better urban living around environmental and solidarity issues and access to public services. Urban intelligence and the new uses brought about by social networks and new technologies make it possible for new initiatives to emerge in order to get involved in changing the living environment (neighbourhood projects, improvement of public spaces, mutual aid between neighbours, re-creation of intergenerational links, etc.). The key to this dynamic consists first of all in 'giving the public space back to the citizen'. This is the challenge of intelligent cities: to ensure that technology is not a factor of isolation, fracture, remoteness or control but, on the contrary, a tool serving to provide more exchanges, more diversity and greater responsibility for the common good that the city represents. This can occur notably via laboratories such as Living Labs, Media Labs, Fab Labs or any other innovation space.

Digital technology can be a powerful lever for social innovation, but also for innovation in the urban economy. For example, in the development of the sustainable and circular economy, and especially for young people. Faced with environmental and climate challenges, many initiatives are emerging in African cities: platforms for recycling, lending and exchange, second-hand resale, etc. These initiatives are sometimes the result of collective initiatives, and are developing in the social economy sphere (cooperatives,

associations, etc.), or come from urban entrepreneurs who embody a flourishing world of start-ups whose support structures can also make use of digital technologies.

## 5 Main focus of the call for proposals

### 5.1 General and specific objectives of the call for proposals

The **general objective** of this call for proposals is to increase the use of and access to digital solutions in order to offer better living conditions in the partner countries of the Belgian development cooperation.

The **specific objective** of the call for proposals is, **through the digital tool, to strengthen the resilience of cities for sustainable and inclusive urban development.**

The contribution to and progress towards this specific objective will be measured on the basis of the indicator of one or more of the indicators of the SDG 11: "*Make cities and human settlements inclusive, safe, resilient and sustainable*". The proposed project will need to demonstrate the extent to which it will contribute to this indicator.

### 5.2 Identification of the target group

The target group for this call for proposals is organisations from the **non-profit sector** (public bodies or non-profit organisations) that want to scale up and/or replicate their digital solutions related to the subject of this call.

### 5.3 Guiding principles of the Wehubit Programme

The **selected projects must comply with the guiding principles of the programme**<sup>4</sup>. As such, proposals must clearly demonstrate that the proposal:

- promotes the use of digital technologies as an engine for sustainable development and as a cross-cutting vector to achieve better results for more people in need;
- is aligned with the [Belgian Strategic Note D4D](#);
- integrates the [Nine Principles for Digital Development](#);
- includes digital innovation that has already gone through the "inspiration, conceptualisation and implementation"<sup>5</sup> stages and is presented for scaling up or replicating an existing business model;

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<sup>4</sup> See guidelines and <https://www.wehubit.be/en/about-us#policy-anchor>

<sup>5</sup> These steps must be described in Round 1 in Appendix A.1.

- applies the **human rights-based approach** (HRBA) by strengthening the capacities of rights holders (citizens, clients, migrants, etc.) to claim their rights and of duty bearers (elected officials, providers of basic services, etc.) to meet their obligations.

## 5.4 Eligibility criteria

The rules applicable to this call for proposals are set out in the guidelines for call for proposals BEL1707111-AP-05. These guidelines are the one and only reference document. The criteria listed below are not exhaustive and are a summary of the criteria that apply to the applicant:

In order to be eligible for a grant, the applicant must satisfy the following conditions:

- be a legal person; and
- be a public stakeholder or a private not-for-profit stakeholder; and
- your organisation (or co-applicant) must be established or represented in the country where the action will be implemented. For us, this means that the applicant (and/or co-applicant) is registered with the authorities of that country, that you employ local staff and that you are directly implementing activities in the country; and
- be directly responsible for the preparation and management of the action with the co-applicant(s) and not act as an intermediary; and
- have already managed a grant equivalent to 40% of the amount requested. A certificate of completion signed by the funding organisation is mandatory and will constitute proof of completion; and
- have financial statements certified by an independent body (auditor or statutory auditor). These statements cannot be more than 2 years old.

The applicant may act either individually or with one or more co-applicants.

## 5.5 Evaluation criteria

The guidelines and its appendices present the entire selection process, which consists of two rounds. The evaluation grids used during these two rounds are available on our website for the duration of the call for proposals.

An important **evaluation** criterion **will focus on how the project intends to respond to the specific challenges of the urban context and how it reinforces its resilience.**