

SMART CZECHIA

Summary of the document 'SMART Czechia' produced by the Czech
Ministry of Regional Development

Authors: EUKN Secretariat, Czech Ministry of Regional Development

European Urban
Knowledge Network



MINISTRY
OF REGIONAL
DEVELOPMENT CZ

Motivation and Vision

In February 2019, the **Innovation Strategy of the Czech Republic 2030**: The Country for the Future was launched, promoting the Czech Republic as a country of the future, active in the field of innovation and able to compete economically on the world stage while ensuring the wellbeing of its citizens. The strategic goals for 2030 were conceived with the idea of promoting continuous development, based on the collective effort of all sectors of society. These were to be achieved through a gradual transition, not foreseeing any abrupt change or major societal shock. If strategy envisages that possibility of extreme situations requiring extreme solutions, the consequences brought by the COVID-19 crisis were, nevertheless, unexpected.

Restoring a country whose economy is heavily reliant upon industry will be difficult. Indeed, Czechia continues to be highly dependent on the automotive industry, a sector which contributes to the still high consumption of energy and raw materials, as well as to the strong dependence on foreign capital and executive decisions. The current state of emergency highlights the need to focus on **resilience and self-sufficiency**. This is critical for Czech economic stability not to depend solely on having open borders - that is, on energy and raw materials imported from abroad.

The SMART Czechia concept fulfils the Innovation Strategy of the Czech Republic 2030 from the point of view of municipalities, cities and regions. It offers proposals for **innovative solutions that could improve the wellbeing of Czech citizens and their economic prosperity going forward**. The goal is to apply innovation not to 'score in the rankings', but rather to ensure high living standards for Czech citizens, and be seen as an attractive country for visitors and a good partner in the European and global context.

Strategic Goals

SMART Czechia has three central goals:

1. **To ensure the well-being** of citizens in Czech municipalities, cities and regions;
2. To create a **healthy and enjoyable environment** for both nature and people;
3. To strengthen Czechia's role in the **international political and economic stage**.

These goals should be achieved by using the potential of the Czech people and their surrounding environment (the 'territory'), as well as by capitalising on new technological tools and innovative solutions.

The year 2030 is the end-goal, timewise, for SMART Czechia, coinciding with the timeline of the Innovation Strategy of the Czech Republic. It is also exactly when support from the next EU programming period (2021-27) will end. Given that progress towards **carbon neutrality** is a key aspect of the SMART Czechia concept, a longer-term perspective - looking ahead to 2050 - should be considered where relevant.

The potential benefits of **digitisation**, understood as the application of ICT to different areas of life, call for immediate action.

The **very dispersed settlement structure** of Czechia poses some challenges when looking at, for instance, the changing age structure of the population or the distribution of services and infrastructure to more remote areas. Nonetheless, the COVID-19 crisis has shown change is possible, and, indeed beneficial. In fact, if equipped with proper information and access to digital infrastructure, residents can live well in different municipalities and cities, without necessarily having to commute for work or services. In this sense, the peculiar structure of Czechia can be seen as a **challenging opportunity** for designing a post-COVID-19 future.

Key Principles

SMART solutions should always meet the following principles on which the SMART Czechia concept is based:

- **Resilience** - of people and communities, the local economy, the environment as well as of territorial cohesion.
- **'Short distances'** - everything that can be provided locally must be provided locally.
- **Cooperation for effective solutions** - cooperation with all stakeholders in the area via (so-called) participatory design.
- **One solution with multiple effects** - solving multiple needs at once through a holistic approach.
- **Integration and complementarity** - the new solution leads to greater equality of opportunities, reduces tensions and unlocks new solutions.
- **Changing direction** - services and work go to people, and not vice-versa.
- **Horizontal and vertical cooperation** - cooperation at all levels is a basic prerequisite for achieving resilience and integration.
- **Evaluating solutions** - strengthening resilience and carbon neutrality - the solution is evaluated according to its ability to contribute to building the resilience of people, communities and territories; and to its use of new technologies, innovative solutions and research in order to achieve carbon neutrality.

SMART Czechia Structure

The main cross-cutting concept at the heart of this concept is resilience of municipalities, cities and regions, with digitisation as an underlying thread. The central assumption is that **resilience** can be built through the integrated use of technological tools and innovative solutions, which are here referred to as SMART solutions.

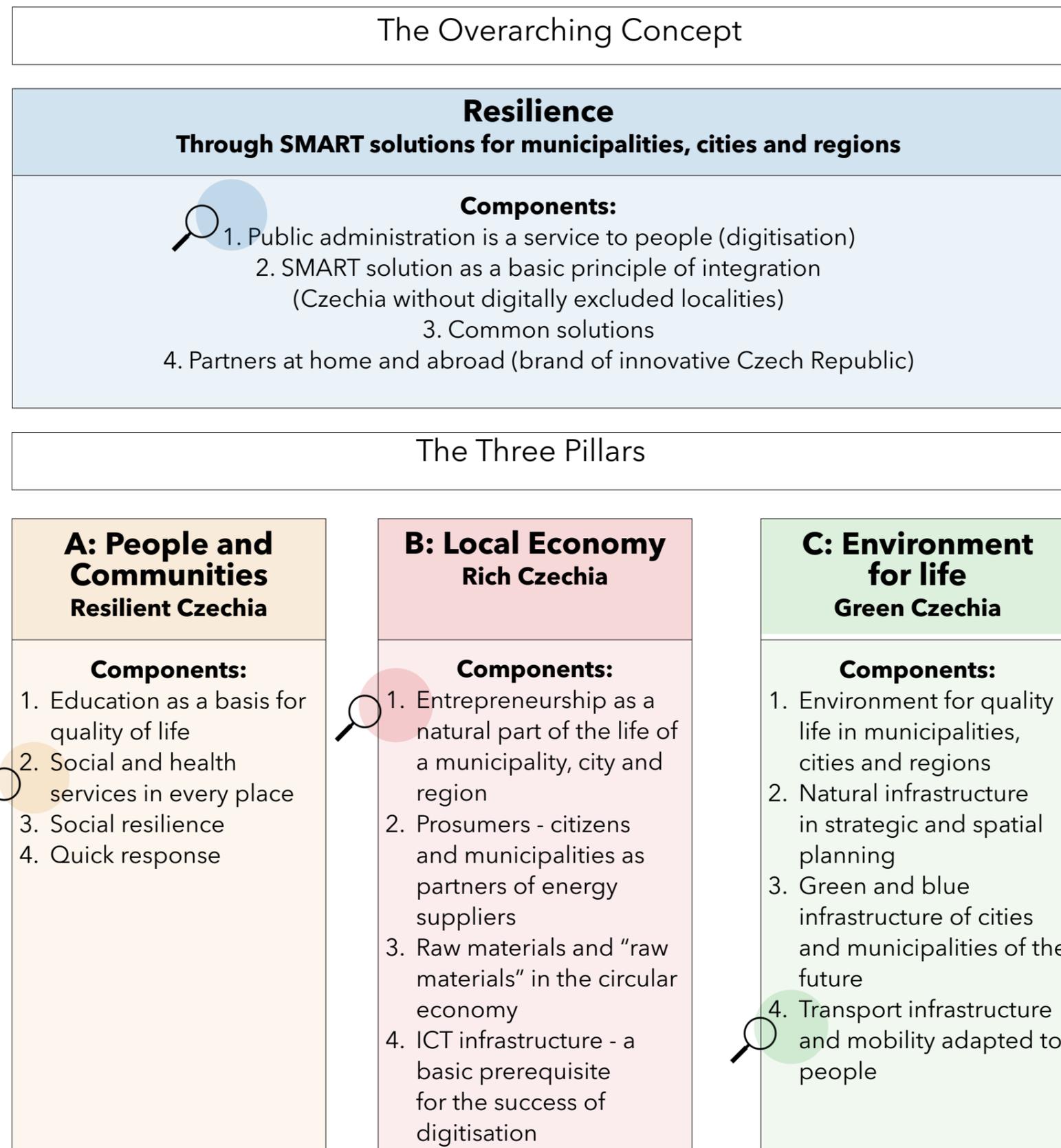
As an overarching concept, resilience is constituted by **four cross-sectional components**. Similarly, the concept rests on **three pillars**, which represent the three dimensions of sustainable development and their connection to sustainable territorial development for the benefit of people and communities. In turn, each pillar is divided into **four components**. Each pillar component contemplates different pathways towards promoting wellbeing, including the ultimate institutional ownership, the current context, the objectives to be achieved and the key measures to achieve them.

The SMART Czechia concept will be further developed into action plans or implementation documents, where measures will be supplemented and further refined to achieve a certain goal as its implementation progresses.

Examples

Four selected components will be presented in the following pages as concrete examples. These are:

- Resilience, component 1 (Public administration is a service to people);
- Pillar A, component 2 (Social and health services in every place);
- Pillar B, component 1 (Entrepreneurship is a natural part of community and city life);
- Pillar C, component 4 (Transport infrastructure and mobility adapted to people).





Overarching Concept: Resilience

Municipalities, cities and regions should well-function under normal conditions while also being able to cope with extreme ones. The experience of recent months has shown the extent to which the Czech Republic can function with its borders closed to external consumer goods and food. In fact, Czechia has managed to rapidly replace foreign resources and products from within. Nevertheless, it is clear that structural resilience needs to be built in order to cope with unpredicted situations, such as the COVID-19 crisis.

SMART solutions should cover several subject areas as one solution may impact multiple areas and thus constitute a multisectoral and/or multidimensional solution. They should also present interlinkages between different stakeholders as well as strong horizontal and vertical ties within public administration. An interconnected network of different infrastructures, both in terms of technical and human capital, and spanning different levels, can reduce the risk of failure and tension. This will be pivotal for the streamlining of decisions at the local level, providing a more solid ground to achieve objectives in exceptional circumstances.

Component 1: Public administration is a service to people (digitisation)

Context

In order for municipalities, cities and regions to function 'smartly', a well-organised and technically capable 'self-government' is needed. Such a government should: provide appropriate services to citizens (that are informative, interactive, and transactional); cooperate with citizens in creating local and regional solutions; have a well-operated office environment; be transparent in public procurement; and manage its own assets as efficiently as possible, on the basis of systematic data collection and using all available tools (BIM, 3D modelling).

Currently, a series of strategic governmental documents ('Digital Czechia'; Concept of Client-Oriented Public Administration) provides a framework to use EU funds for digitisation and setting up official procedures. The use of basic public administration registers has become quite common; BCO support from the Ministry of Industry and Trade is being implemented to better the adequacy of digital infrastructure. However, local governments still lack the necessary sectorial knowledge and the service of IT specialists in the public sector.

Institutions

Ministry of the Interior to be in charge of the SMART Czechia concept, in cooperation with the Ministry of Regional Development and other ministries, municipalities, cities, regions.

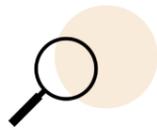
Objectives

1. Public administration is operated electronically, efficiently and transparently, as a fulfilment of the citizen's right to digital services;
2. Municipalities have sufficient knowledge (data, information) about the territory they manage and about the links in their territory, using this knowledge to optimise management through zoning plan(s);
3. Public administration works safely and competently on the basis of data collection and evaluation, striving for SMART innovative solutions, also in the management of public assets.

Measures*

- Creation of a catalogue of local government services and guidelines on how to digitise them;
- At the level of the state and large cities, public administration agendas are digitised;
- Creation of a Citizen's Portal to tailor public administration electronic services to citizens' living circumstances;
- Establishment of national standards for information systems and coordination of their implementation at the local and regional level, ensuring their appropriate use;
- Provide methodological assistance to local governments (catalogue of assistance) in the management and maintenance of ICT infrastructure and services;
- Creation of a digital technical map of the territory of the municipality/city/region as a basis for further work on the development of the territory;
- Determination of standards for collection and use of data from traffic management systems of the municipality/city/region (camera system, transport services, etc.), security standards of IT systems of town halls and regional authorities and corresponding internal regulations, ensuring independence from one supplier (vendor lock out).

* Not all the measures presented in the document are listed. This selection was made by the EUKN Secretariat.



Pillar A: People and Communities (Resilient Czechia)

Building social resilience through SMART solutions is aimed at creating the conditions for an educated, healthy, and serviced population, which is equipped with the instruments and abilities necessary to cope with risk and crisis, whether in everyday life or extreme situations. To do this, resilience needs to be built both in the built environment and in terms of people's capacity to respond to unpredicted natural, social and economic events.

In fact, to create resilient regions/cities/municipalities is to create resilient communities. In order for communities to be resilient in the face of crisis, adequate provision of and access to quality social and health services, as well as adequate and affordable housing should be ensured as conditions for wellbeing. The question of provision of and access to these necessary services goes beyond the scope of existing laws. Local and regional authorities should ensure the wellbeing of communities even in extraordinary circumstances, such as those caused by the pandemic.

Component A2: Social and health services in every place

Context

A persisting issue at the regional and local level is the need to better connect social and health services, as well as to provide primary health care within walking distance, increasing the number of health and social workers assisting the elderly. The COVID-19 crisis has made risks and needs arising from these shortcomings even more evident. In fact, decentralised or home care services are not only welcomed by consumers, but also reduce the risks of contagion and arising from extreme situations. As physicians were able and willing to work remotely, the benefits of digital instruments such as 'e-Prescription', 'e-Inability', became apparent. Looking ahead, the application of digital means towards the prevention and management of diseases and socio-pathological phenomena, ensuring effective care for all age groups represents a major challenge.

In spite of current challenges, the Czech Republic has a high-quality healthcare and social system. Primary care is provided by public-private owned hospitals and social care is mostly paid for from public funds. In recent years, there have been disparities in care between rural areas and large cities. Overall life expectancy is rising, but healthy life expectancy less than in other countries. Moreover, the health and social care system is becoming more expensive.

Institutions

Ministry of Labour and Social Affairs and Ministry of Health in cooperation with the Ministry of Regional Development and the Ministry of the Interior, municipalities, cities, regions.

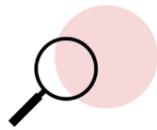
Objectives

1. A decentralised system of interconnected health and social care services is implemented at the level of the municipality, city and region;
2. Effective health and social services make full use of digital technologies;
3. Optimal conditions are created for disease prevention and healthy lifestyles (i.e. people live to a healthy old age).

Measures*

- Digitisation of medical services, records and communications;
- Support for the introduction of new technological solutions and innovative approaches in the field of health and social care (telehealth, mHealth, telemedicine);
- Ensuring access to social or health care for every inhabitant of the municipality at any age and in different life situations based on the principle of "services go to the client" as part of municipal/city/regional strategy;
- Ensuring the availability of assistance services, including the use of new technologies;
- Implementation of preventive health promotion programs for all ages (e.g. support of a healthy lifestyle and mental health care);
- Provision of services to everyone in need on the basis of effective linking of social services development plans with regional planning and networking of social services with their financing.

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Pillar B: Local Economy (Rich Czechia)

Belonging to the so-called "club of the rich" (OECD), the Czech Republic wants to innovate its economy by 2030, being among the most developed countries in Europe. To do this, both the supply of innovative products (end products and services) and the demand for innovation by consumers (citizens, the public, and the private) are needed along with the development of an appropriate production-consumption infrastructure that functions and can adapt to changing circumstances.

As a country with limited resources when it comes to raw materials, water and energy, the Czech Republic has an extraordinary potential for creativity and innovativeness. Thus, the challenge is to co-create a rich Czechia beyond material terms. Towards this direction, strengthening the local economy based on local entrepreneurship is crucial not only for the economic empowerment of communities and job creation, but also for the co-creation of domestic Czech business. This in turn helps reduce carbon footprint, ensuring a degree of energy- and resource-independence, thus contributing to the overall resilience of Czech communities and regions.

Component B1: Entrepreneurship is a natural part of community and city life

Context

The dependence of the Czech economy on foreign companies has historically determined the position of the Czech Republic as a subcontractor of producers and final products, preventing the shift to higher levels of the value chain. Nevertheless, the well-functioning of Czech small and medium-sized companies is important not only for job creation. The growing number of Czech start-ups is promising, but in order to thrive they need systemic support from cities and municipalities. Several smaller towns and municipalities rely on tourism and the valorisation of local areas, as well as on small-scale farming, local processing of raw materials, and other (new, as yet unknown) business activities.

The recent COVID-19 crisis has shown the extraordinary creativity of communities and small and medium-sized companies, finding new (IT) solutions and rapidly adapting their product portfolio. This capacity should be urgently and more structurally supported, in that their role is crucial to economic innovation, especially in relation to the changing labour market, both as a result of the pandemic or wider societal changes such as the transition to Industry 4.0.

Institutions

Ministry of Industry and Trade in cooperation with the Ministry of Regional Development and the Ministry of Labour and Social Affairs (and the Ministry of Finance), municipalities, cities, regions.

Objectives

1. Adequate infrastructure and facilities for self-employed and SME business are created in municipalities and cities;
2. Innovation and start-ups become an integral part of community and city life;
3. Conditions are created for smart business and home working.

Measures*

- Regions develop and implement a functional RIS3 strategy; municipalities and cities support local entrepreneurship through the elaboration of a strategy for business support and the local employment of citizens;
- Regeneration of small brownfields (for start-ups), support for coworking centres and the use of buildings and land owned by cities and municipalities to support small businesses;
- Municipalities and cities provide information support and incentives for local entrepreneurship, supporting different social groups in starting a business (including mothers, 50+ citizens and 'other unusual suspects');
- The zoning plan defines the appropriate space for business and start-ups;
- Local (micro-regional) innovation advisers, innovation brokers of Local Action Groups (hereinafter LAGs), innovation HUBs and innovation centres;
- Review of regulations and laws on work safety regarding home- and smart-working.

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Pillar C: Environment for life (Green Czechia)

A quality environment, which includes both the built environment of cities and towns as well as the natural environment and its ecosystems, represents an important value for people, often determining their choice of residence. Nonetheless, public opinion polls show that people have longstanding confidence in their local authorities regarding the protection of the environment, relying on elected municipal representatives to guarantee a quality environment for citizens.

In order to ensure this environment is resilient, different yet interconnected measures need to be taken not only as part of climate change adaptation, but also to mitigate and prevent soil erosion, to facilitate water retention in the landscape, to support biodiversity and territorial systems of ecological stability, and to create a 'cultural landscape' - where not much wilderness is left and a certain value of cultural elements is appreciated- with the greatest possible permeability. Increasingly improved results in these areas can be achieved by supporting new ways of monitoring the quality and pollution of environmental components and other innovative solutions.

Component C4: Transport infrastructure and mobility adapted to people

Context

To ensure transport infrastructure that works for people -not cars- is to promote the basic principle of mobility, i.e. the movement of people without barriers. Gradually, we are witnessing a change in the understanding of mobility and transport infrastructure, which reflects the aspiration of guaranteeing residents' wellbeing by creating well-designed space in Czech cities and towns. This can contribute to achieving a fundamental societal change, underscoring a 'Smart City' for people, and not for cars. Necessarily, this shift relates to the need to reconsider whether it is really necessary to commute to work and use individual car vis-à-vis public transport, as well as to reflect negative impacts associated with the transport of goods can be reduced by shortening supply chains and supporting local economies.

Currently, this people-centred approach to transport is implemented only in a small number of Czech cities and municipalities, for the most part associated with the creation of (mandatory) Sustainable Urban Mobility Plan (SUMP) and efforts to reduce air cargo transportation.

Institutions

Ministry of Transport in cooperation with the Ministry of Regional Development, municipalities, cities, regions.

Objectives

1. Development of necessary transport infrastructure as well as of infrastructure for alternative commuting and non-motorized transport;
2. Societal awareness-raising enables the adoption of environmentally friendly alternatives in the field of mobility;
3. The design of public space concerning transport infrastructure and mobility is addressed in the Sustainable Urban Mobility Plan (PUMM), which is part of the zoning plan.

Measures*

- Elaboration of Sustainable Urban Mobility Plans;
- Development of a methodology to create PUMMs for smaller towns and villages;
- Implementation of transport measures leading to traffic reduction in the city/municipality centre and in places where traffic is an obstacle to residents' wellbeing, by supporting public and non-motorised transport;
- Development of infrastructure for active mobility, including connections to public transport and B + R systems;
- Support for the 'Short Cities' concept within PUMM (big data is available for maintenance and renewal of infrastructure);
- Promoting participatory mobility planning, which includes awareness-raising campaigns based on new urban strategies of mobility and transport services in the city or municipality (including alternative modes of transport), as well as continuous involvement of citizens in the strategic planning of the city;
- SMART solutions regarding logistics and transport of goods 'at the last mile'.

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SMART CZECHIA: AN INTEGRATED APPROACH TOWARDS SMART CITIES

EUKN webinar for Czechia

Date: 28 July 2020

Time: 14:00 - 17:00 CEST

Platform: Zoom

Language: English with interpretation in Czech

Organisers: European Urban Knowledge Network (EUKN) EGTC and the Czech Ministry of Regional Development



The webinar for Czechia is part of the EUKN **'Thinking beyond the crisis'** series. The webinar series explores the impact of the coronavirus outbreak on cities in EUKN member countries and the solutions implemented in response to it.

The series asks: How can national strategies and structures **support local capacities** and (new and existing) pathways towards more just, green and productive cities in a post-COVID-19 Europe?

The goal of the webinar for Czechia is to engage representatives of Czech cities and European experts in a **discussion on the 'SMART Czechia' principles**, which have been drafted by the Czech Ministry for Regional Development in response to the pandemic and its implications for local authorities. The main cross-cutting area of these principles is the concept of **resilience** at the level of municipalities, cities and regions, which lies in the integrated use of technological tools and innovative solutions. The principles are further based on three pillars, which represent the three pillars of sustainable development. These are: **people and communities** (1), **local economy** (2), and **environment for life** (3).

The webinar will be held on Zoom with simultaneous interpretation between Czech and English. Registered participants will receive the login details and preparatory material in advance.

Programme

- 14:00 -14:15 'Reception' in Zoom and technical check
- 14:15 -14:20 Welcome on behalf of the Czech Ministry of Regional Development
Věra Karin Brázová, Head of Urban Policy and Strategies Unit
- 14:20 -14:25 Welcome by the EUKN and programme explanation
Mart Grisel, Director EUKN EGTC
- 14:25 -14:55 Keynote speech:
The role of smart cities in light of the current crisis
Dominic Weiss, Head of Smart City Agency, Urban Innovation Vienna
- 14:55 -15:05 Presentation of the 'SMART Czechia' principles
Věra Karin Brázová, Head of Urban Policy and Strategies Unit
- 15:05 -15:35 Needs and ambitions of 'smart' Czech cities
Rut Bízková, Lucie Nencková, ISFOR, Institut pro společnost 4.0
- 15:35 -15:45 Break
- 15:45 -16:50 Discussion on strategic approaches to smart cities in Europe
Alain Chateau, Smart City Project Director/Head of Metropolitan Centre of Excellence, Metropole Nice Côte d'Azur
Daniela Patti, Director of Eutropian
Dominic Weiss, Head of Smart City Agency, Urban Innovation Vienna
Petr Štěpánek, Urbanist and researcher, Czech Technical University
- 16:50 -17:00 Closure and final remarks

[Register Here](#)