

MAP OF THE STRATEGY

The Process of Co-Design

Why Timisoara Smart City?

- 5 categories of dysfunctions as perceived by the professionals, that the strategy will address
- 6 categories of needs coming from enterprises and organisations, that the strategy will address
- 9 smart city value propositions, in response to the dysfunctions and needs
- Adequate premises use of ICT in households and at individual level

Operational Impulse

Arguments in Favour of the Smart Cities

Strategic Impulse

- Motto, Vision, Mission
- **7** Ambitions

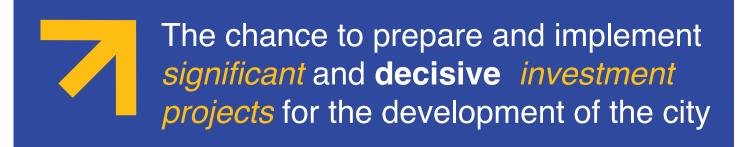
Governance and Implementation

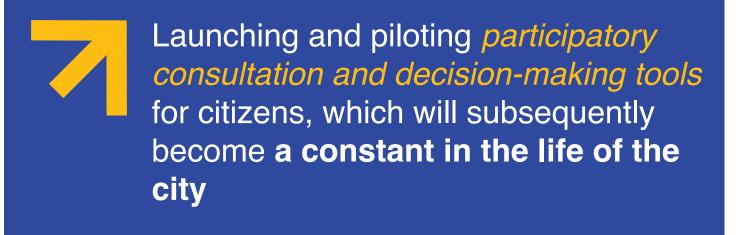
▼ Each of the 7 Ambitions: current situation in the city, SWOT analysis, impact targeted by the Ambition, strategic objectives and projects, open actions, digital enablers and relevant local actors

TRIGGER POINTS FOR THE STRATEGY













Objectives



- **Bottom-up approach** in constructing the strategic intervention, both in terms of participatory features and internal logic of the process;
- Ensuring the widest consultation possible with the stakeholders from the city, especially professionals from various domains and organisational contexts;
- Deployment of a process roadmap that allows for an "organic" evolution of the strategic document, guided by the internal logic, the necessary steps and the mix of methods provided;
- Striking a balance between various types of activities and information included and collected during the process, namely: research, workshop facilitation, rollout of consultations, surveying of citizens and organising events;



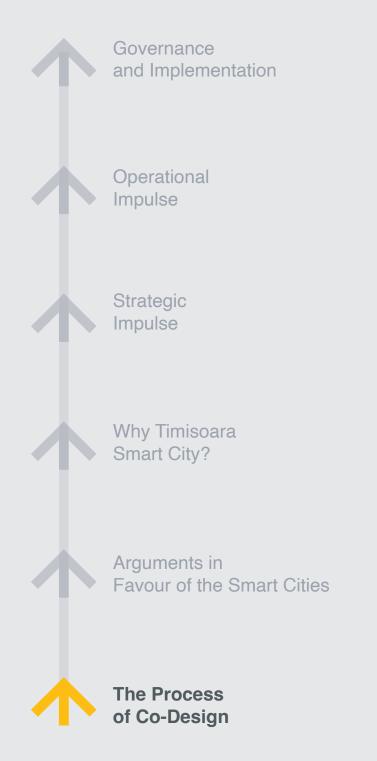
Objectives



- Designing of a strategic document which contains the prerequisites for a straightforward implementation, leading with no delay to strategic projects;
- Onboarding of the state-of-the-art trends and means to operate used in the international arena, in terms of practical instruments for public policy design, engagement of local actors, as well as mobilising of knowledge, resources and experience of the professionals from the city;
- Defining, from the beginning, of the **cross-border and international dimension** of the strategy, by means of attracting 4 "peer review" experts, who bring their own contribution, from the process design, smart city and digital transformation experiences of Singapore, The Netherlands, Hungary and Ireland.



Methodology

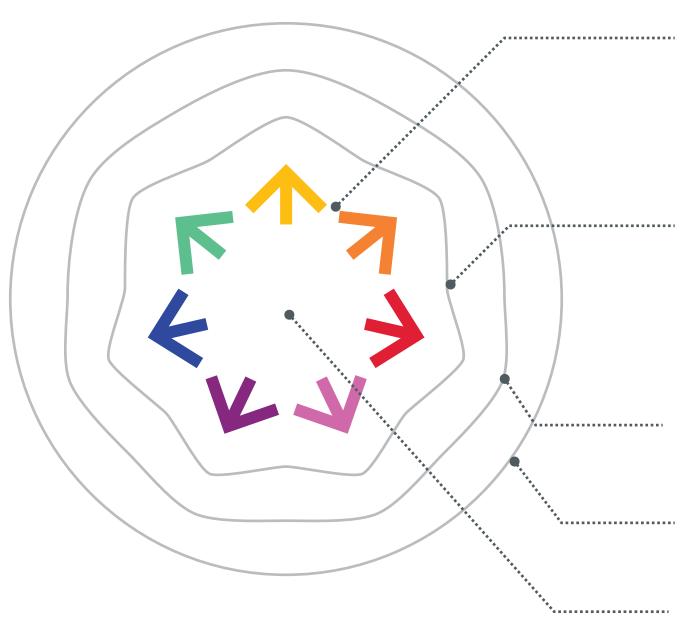


- Theoretical foundations of the **smart city concept**, as defined by Boyd Cohen;
- Instruments recommended by the Internal Market Directorate General of the European Commission, for the acceleration of the digital transformation;
- Smart specialization strategies of the European Union;
- The approach designed by Kerney IMP3rove Germany, in view of the design of the innovation strategies within companies, including Open Innovation tools;
- Facilitation of the "Goal Oriented Planning" sessions, effective instruments in economic policy-making throughout the world.



Levels of engagement





Steering group consisting of experts with knowledge and expertise in areas directly related to the theme of smart cities: participatory processes for citizens, urban development, environment, quality of life, transparency and open data, information technology, mobility and innovation

Extended stakeholder group - professionals (<=500) from business, academia, finance, research, public administration, business support organisations, civil society and freelancers

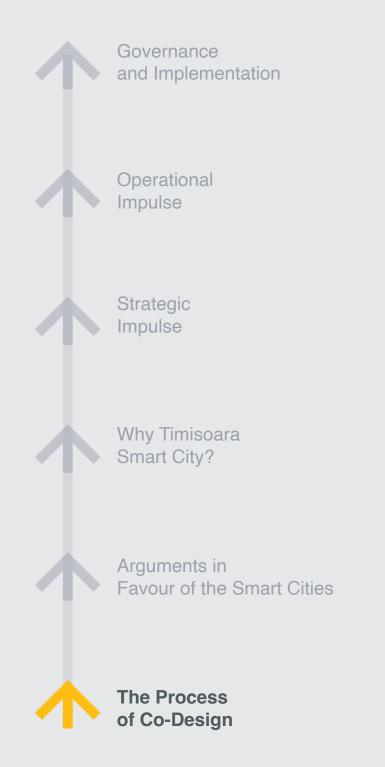
Citizens – DESI Timișoara, for the first time as a component of the yearly *Barometer of the Quality of Life*

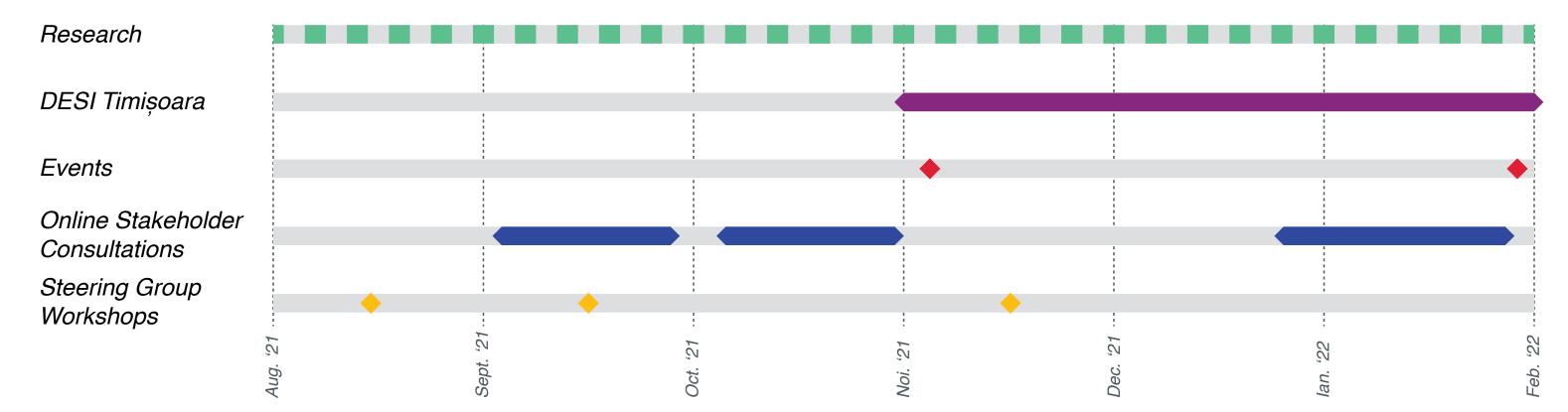
International experts from Singapore, Ireland, the Netherlands and Hungary, involved by the Facilitator

Facilitator with the role of process design, full orchestration, research and drafting the document



Activities







Facilitation of the workshops with the Steering Group

First workshop with the Steering Group – Vision, opportunities, objectives and actions (August 13, 2021)

Second workshop with the Steering Group – Strategic projects (September 16, 2021)

Third workshop with the Steering Group – Strategic and operational framework (November 18, 2021)



Rollout of online stakeholder consultations (citizens and professionals from various sectors)

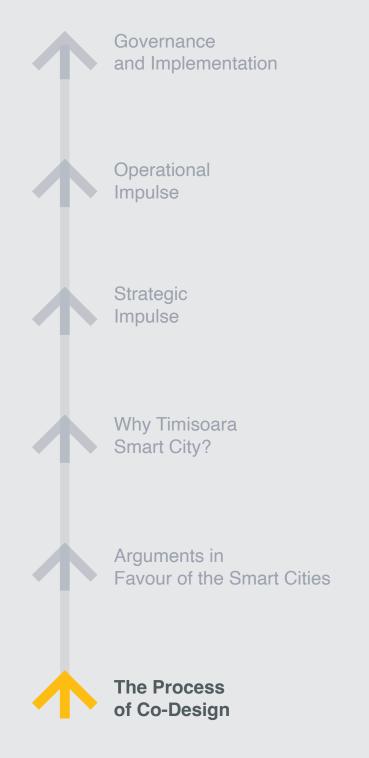
First consultation with local actors – Problems and needs, validation of the vision and objectives (September 6-20, 2021)

Second consultation with local actors – Open actions, validation of strategic projects (October 6-27, 2021)

Third consultation with local actors – Validation of the strategic and operational framework, expressions of interest for getting involved in partnerships (December 31, 2021 – January 24, 2022)



Activities





Research

Design of the process framework, working principles, roadmap and full internal logic;

Choice and preparation of the **methodological instruments**;

Documentation from official sources;

Data and information analysis, processing and content presentation, within the specific context of this strategic document;

Statistical analysis;

Elaboration of the structure and content of **online consultations**, as well as processing of the results;

Complete facilitation of all workshops and events during the process;

Drawing up of the internal reports of the workshops with the Steering Group;

Organising **events** and preparing all the relevant background materials: presentations, communication documents, invitations etc.;

Permanent communication with the coordinator from the City Hall of Timisoara, as well as with the members of the Steering Group and other local actors;

Adapting the public policy, smart city and innovation management methodological instruments to the specific needs and objectives of each stage of the process;

Bringing onboard the international "peer review" and ensuring the translation in English of all relevant documents, so that the experts could contribute directly to the content of the strategy;

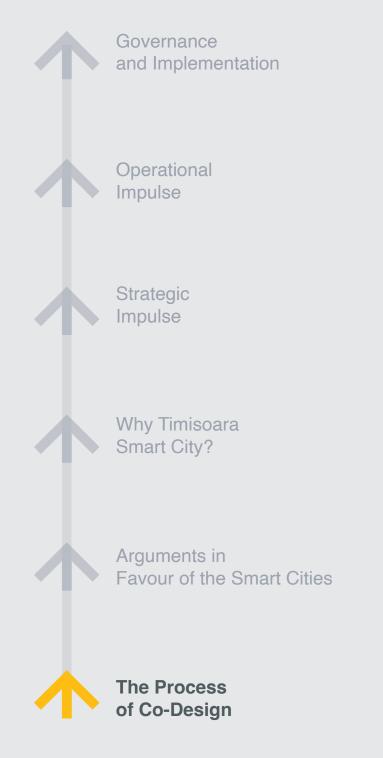
Design of the structure of the strategy, in accordance with the objectives of the entire endeavour;

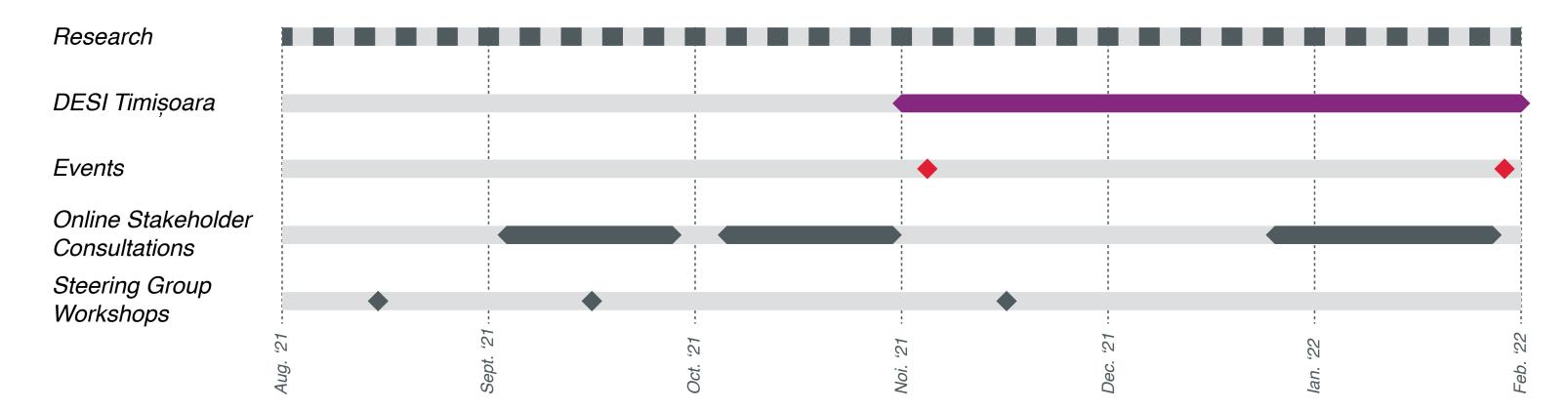
Integration of the collected and processed data and information, in a structured mannered, prioritised and optimised, within the structure and content of the strategy;

Complete drawing up of the strategic document.



Activities







Events

Ideation event around the 7 Ambitions of the strategy's Vision (November 4, 2021) International event for the strategy presentation and "Peer Review" (January 27, 2022)

Dominic Fritz, Mayor of Timișoara

Valentin Mureşan, Advisor of the Mayor for Smart city and Digital Transformation

Oesha Takoerdin, Singapore – Co-Founder, Director and Board Member of WEnergy Global, and Expert with the World Bank Group and the Asian Development Bank

Tamas Gyulai, Ungaria – Smart City expert for industrial clusters at Szombathely and President of the Regional Innovation Agency of South Great Plain

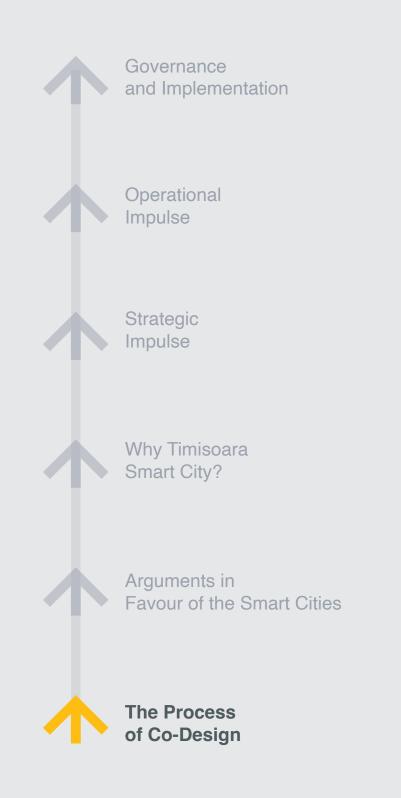
Colm McColgan, Irlanda – Director at Donegal Digital Innovation Company and General Manager of ERNACT – European Regions Network for the Application of Communications Technology



Public survey with regard to the use of Information and Communication Technology – DESI Timişoara, part of the yearly Barometer of the Quality of Life in Timisoara (November 2021 – January 2022)

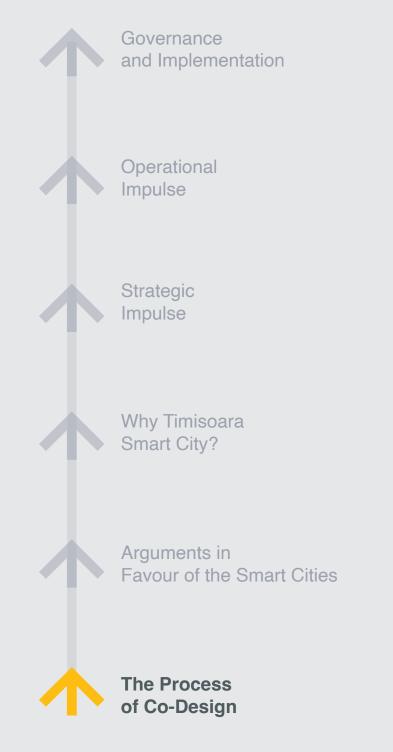


Roadmap





Internal Logic of the Strategy



LOCAL ACTORS	Types of local actors	Types of local actors	Types of local actors	Types of local actors	Types of local actors	Types of local actors	Types of local actors	IDEATION EVENT RESEARCH
DIGITAL ENABLERS	Digital enablers	Digital enablers	Digital enablers	Digital enablers	Digital enablers	Digital enablers	Digital enablers	IDEATION EVENT RESEARCH
OPEN ACTIONS	Open actions	Open actions	Open actions	WORKSHOP 1 IDEATION EVENT CONSULTATION 2 AND 3				
IMPACT	KPIs to be targeted by the Ambition 1	KPIs to be targeted by the Ambition 2	KPIs to be targeted by the Ambition 3	KPIs to be targeted by the Ambition 4	KPIs to be targeted by the Ambition 5	KPIs to be targeted by the Ambition 6	KPIs to be targeted by the Ambition 7	RESEARCH
PROJECTS	Strategic projects	Strategic projects	Strategic projects	Strategic projects	Strategic projects	Strategic projects	Strategic projects	WORKSHOP 2 CONSULTATION 2 AND 3
VISION, MISSION, MOTTO								WORKSHOP 3 RESEARCH
AMBITIONS	Ambition 1 – Every Citizen Has a Voice	Ambition 2 – The City for All	Ambition 3 – Vibrant Innovation Ecosystem	Ambition 4 – An Attractive City for International Talent	Ambition 5 – The Sustainable City	Ambition 6 – Smart City is Fun City	Ambition 7 – Intelligent and Impactful Investments	WORKSHOP 1 CONSULTATION 1
OBJECTIVES	Strategic Objectives (3)	Strategic Objectives (3)	Strategic Objectives (3)	Strategic Objectives (3)	Strategic Objectives (3)	Strategic Objectives (3)	Strategic Objectives (4)	WORKSHOP 1 CONSULTATION 1
EXISTING CONDITION Data analysis (source: statistics and public institutions)	Present situation, as starting point for the Ambition 1, and SWOT	Present situation, as starting point for the Ambition 2, and SWOT	Present situation, as starting point for the Ambition 3, and SWOT	Present situation, as starting point for the Ambition 4, and SWOT	Present situation, as starting point for the Ambition 5, and SWOT	Present situation, as starting point for the Ambition 6, and SWOT	Present situation, as starting point for the Ambition 7, and SWOT	RESEARCH
VALUE PROPOSITIONS OF THE SMART CITY	Boost citizen centric decision making, and a participatory culture	Complete digitalisation of interactions with public institutions	Create the framework where talents and enterprises can thrive and innovate	Create a multi- sector educational hub Valorise international networks for the	Monitor, manage and optimise the environment factors	Create the conditions for a wide range of leisure and outdoor activities	Developing Private-Public partnerships for the Smart City Attract various financial	WORKSHOP 1 CONSULTATION 1 RESEARCH
NEEDS OF ENTERPRISES AND ORGANISATIONS		Complete digitalisation of interactions with public institutions	Information about the ecosystem resources	Access to better trained HR Access to international networks			Needs in terms of infrastructure – installation, relocation Optimised access to EU funds	CONSULTATION 1 RESEARCH
CLUSTERS OF DYSFUNCTIONS	Communication with citizens	Digitalisation process and tools	Strategic vision and action plan		Environmental factors		Interconnected urban infrastructure	WORKSHOP 1 CONSULTATION 1 RESEARCH



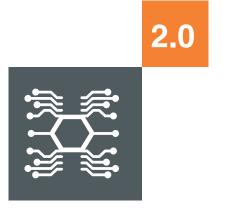
Arguments in Favour of Smart Cities



Three stages in the evolution of the cities which adopted and implemented the smart city model (by Boyd Cohen, founder of the smart city concept):



Smart cities 1.0, focused on technology, and characterised by the presence of technology providers who encouraged cities to adopt their solutions, without being aware of the impact that these technologies will have on the citizens;



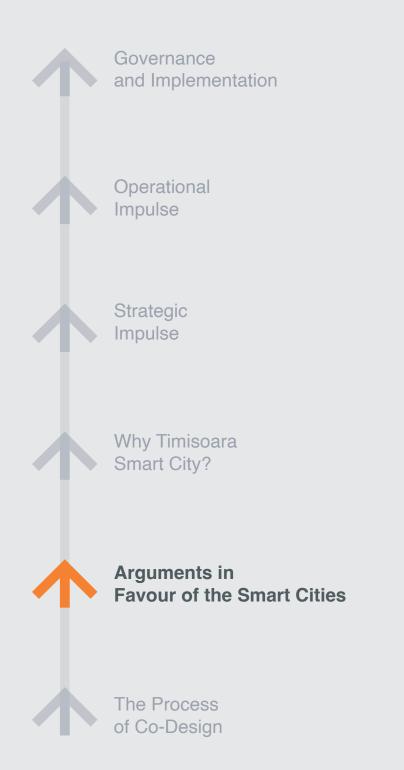
Smart cities 2.0, led by the cities and facilitated by technology, within which the local decision-makers choose the technologies with the aim to create a better quality of life for the citizens. This is the category to which most of the smart cities of the world belong;



Smart cities 3.0, co-created by the citizens, representing the new generation of smart cities, concerned by social equity and inclusion, as well as the extensive involvement of citizens in the prioritisation of investments.



Arguments in Favour of Smart Cities



Top 3 ingredients of the smart city:

sustainability, innovation ecosystem and citizens who co-create.

Technology represents a means to these ends, an enabler and a differentiator, which

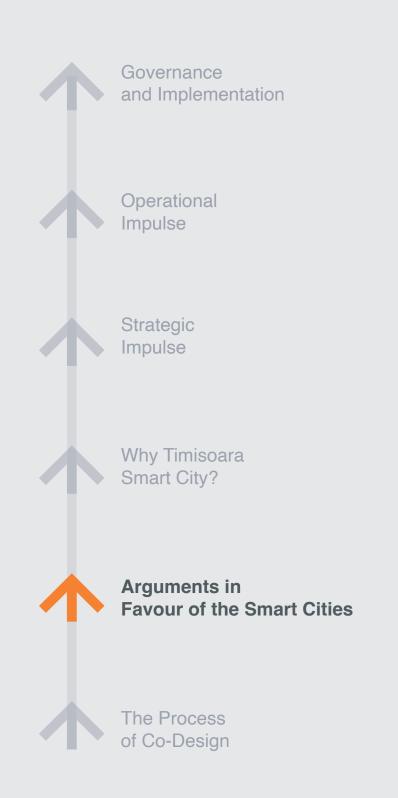
supports us in counterbalancing the weak points and consolidating the strong points of the city.

The six dimensions of the smart city provide guidance to the public administrations in the design of the smart city strategies, as well as an instrument for decision-making and planning of investments:

ENVIRONMENT, MOBILITY, GOVERNANCE, ECONOMY, PEOPLE AND LIVING



What Do the Smart City Champions of the World Teach Us?



Each city defined the smart city profile based on its own historical, urban, economic, cultural and social distinctiveness.









SINGAPORE

officially starting in 2014, the "smart nation" proposes a revolution of the way of life, where technology supports people in achieving their highest aspirations, and living a better life together

Vienna

the city targeting the highest quality of life in the world by 2050, and European capital of digitalisation

Barcelona

the Catalan recipe for an urban creative and effervescent community, built on participative democracy and policies which tap into the collective intelligence of the citizens

Lund

the Swedish mark of open innovation invests constantly in boosting the vibrant entrepreneurial culture of the city



How Does Digital Transformation Empower us to Become More United and Innovative?



- Digital transformation conquers all types of territories
- The role of cities = **launchpads for digital transformation**, leaders in accelerating the digital transformation and exploiting it for the benefit of citizens, enterprises, organisations and public administration
- The RELATIONAL CAPITAL is key to innovation and renewal, as it is also for digital transformation, and it includes three components: human capital, at individual level, as professional and creator; structural capital, at the level of organisations, as well as the way they are interconnected and generate exchange of knowledge; and the intelligence capital, at the level of society, showing the degree of networking within the society
- The "entrepreneur", in a larger sense, is a critical factor for digital transformation = the professional from the community who takes the initiative, in order to attain one or more development objectives. Hence, the cities can benefit from business entrepreneurs, social entrepreneurs, political entrepreneurs, academic entrepreneurs and cultural entrepreneurs!



How Does Digital Transformation Empower us to Become More United and Innovative?

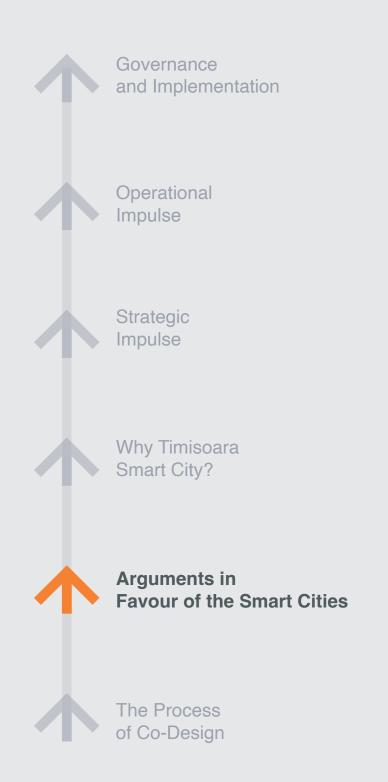


The four key factors for cities to attain success in digital transformation (Forum for Digital Entrepreneurship Strategic, setup at the initiative of the European Commission):

- Leadership and collaboration for the smart governance of the local digital ecosystem active and visionary professionals, who are able to "draw a picture" of the future for the entire community, and who challenge the status-quo
 - Generosity, especially in terms of communicating ideas
 - Inovation, accompanied by an open innovation mechanism
 - Feeling attached to a common purpose, and capacity to create together
 - Decisiveness to learn constantly
- **Digital skills and entrepreneurs**, who accelerate the digital transformation process the capacity of companies, but also of the public administration, to attract talents who would contribute to the faster adoption of digitalisation
- Acces to data and technologies for solutions in response to local challenges within each organisation, at any level, the digital solutions may replace an obsolete or suboptimal way of management
- Infrastructures and key investments for city digital launchpads physical and digital infrastructures for optimising the use of resources and increase the quality go life.



The European Union Endorses Smart Cities and Digital Transformation

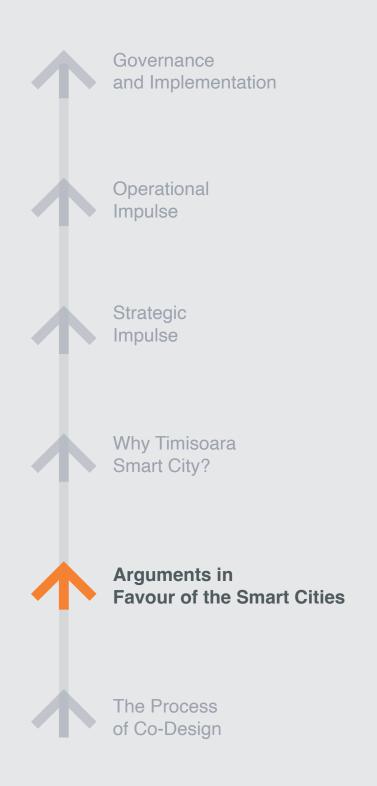


"Twin Transition" – Sustainability and Digitalisation DIGITAL COMPONENT

- Strategy "A Europe Ready for the Digital Age", with two areas: "Europe's Digital Decade" and "Shaping Europe's Digital Future"
 - Digital skills (for at least 80% of the citizens), safe and sustainable digital infrastructures, digital transformation of businesses (at least 90% of SMEs should have a basic level of digital intensity) and digitalisation of public services (100% of key services)
 - Provide control over the digital transformation, to citizens, enterprises and governments
- "DESI Digital Economy and Society Index" monitors on an annual basis the overall European digital performance, as well as the progress of each Member State in terms of digital competitiveness
- "ICC The Intelligent Cities Challenge", successor of "Digital Cities Challenge", supports 136 cities in view of using state-of-the-art technologies for the benefit of smart, green and socially responsible economic recovery Timişoara: parking strategy and digital mobility platform.
- LIVING-IN-EU Large scale EU Declaration on digitalisation for citizens, signed by Timisoara in 2021



The European Union Endorses Smart Cities and Digital Transformation



"Twin Transition" – Sustainability and Digitalisation SUSTAINABILITY COMPONENT

- "EU Green Deal" ambition to transform the EU into a modern, competitive and efficient economy, in terms of use of resources, leading, by 2050, to Zero net greenhouse emissions, economic growth dissociated from the use of resources, and no person "to be left behind"
- New European Bauhaus, creative and interdisciplinary initiative, aiming at designing new ways of life at the intersection of arts, culture, social inclusion, science and technology
- "Horizon Europe Missions", with the vision to create a stronger connection between EU research innovation and the needs of citizens. One of the 5 missions is titled "Climate Neutral Smart Cities" and aims at creating 100 climate neutral cities by 2030, while incentivising these cities to act as hubs for experimentation and innovation, boosting the engagement of citizens in co-design and co-creation of smart solutions for the city



The European Union Endorses Smart Cities and Digital Transformation



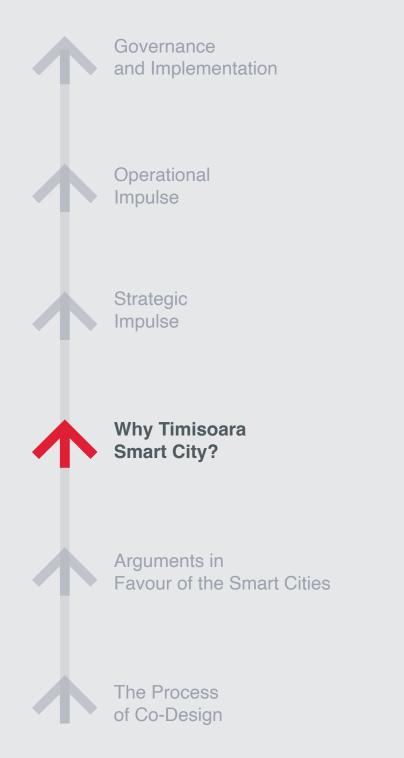
MULTINATIONAL INITIATIVES FOR SMART CITIES AND DIGITAL TRANSFORMATION

- Large scale interventions, involving many Member States, and supporting the interconnected, interoperable and safe European digital single market. The key domains approached by the multinational initiatives are: 5G, high performance computing, quantum secured communication, blockchain, digital innovation hubs, digital competences and public administration.
- "Smart Cities Marketplace", the public-private approach in supporting smart city investments

 -"matching" component with the currently 17 international investors, members of the platform. Until now, they invested almost 600 MEUR in smart city projects
- Smart cities have the advantage to reap the benefits of the combined effect of several EU sector policies, and their legal and financial incentives, among which the most prominent are urban development, energy, transport and mobility.



Why Timișoara Smart City?



From your point of view, how necessary is a



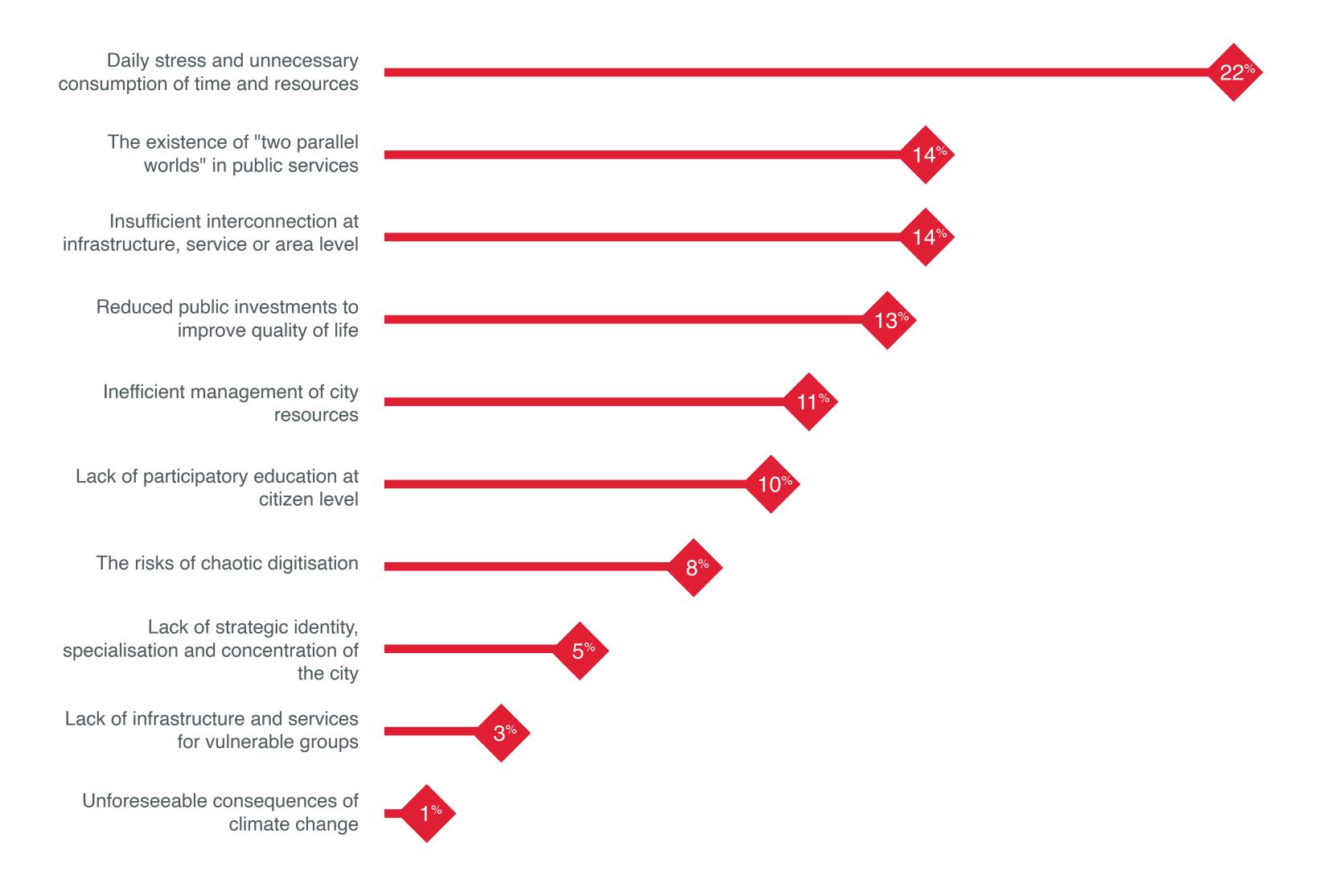
Consider a Smart City and Digital Transformation Strategy for Timișoara to be extremely necessary.

(First Smart City consultation, September 2021, 305 respondents)



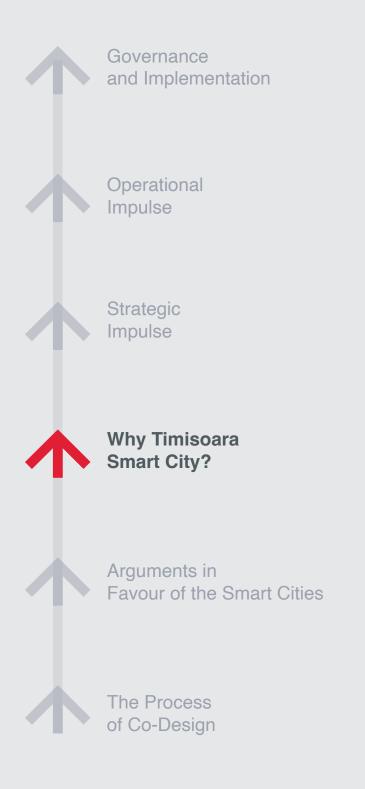
Top 10 City Level Dysfunctions as Perceived by the Inhabitants







The 5 Categories of Dysfunctions to be Addressed by the Strategy



Categories of city level dysfunctions to which the strategy should respond

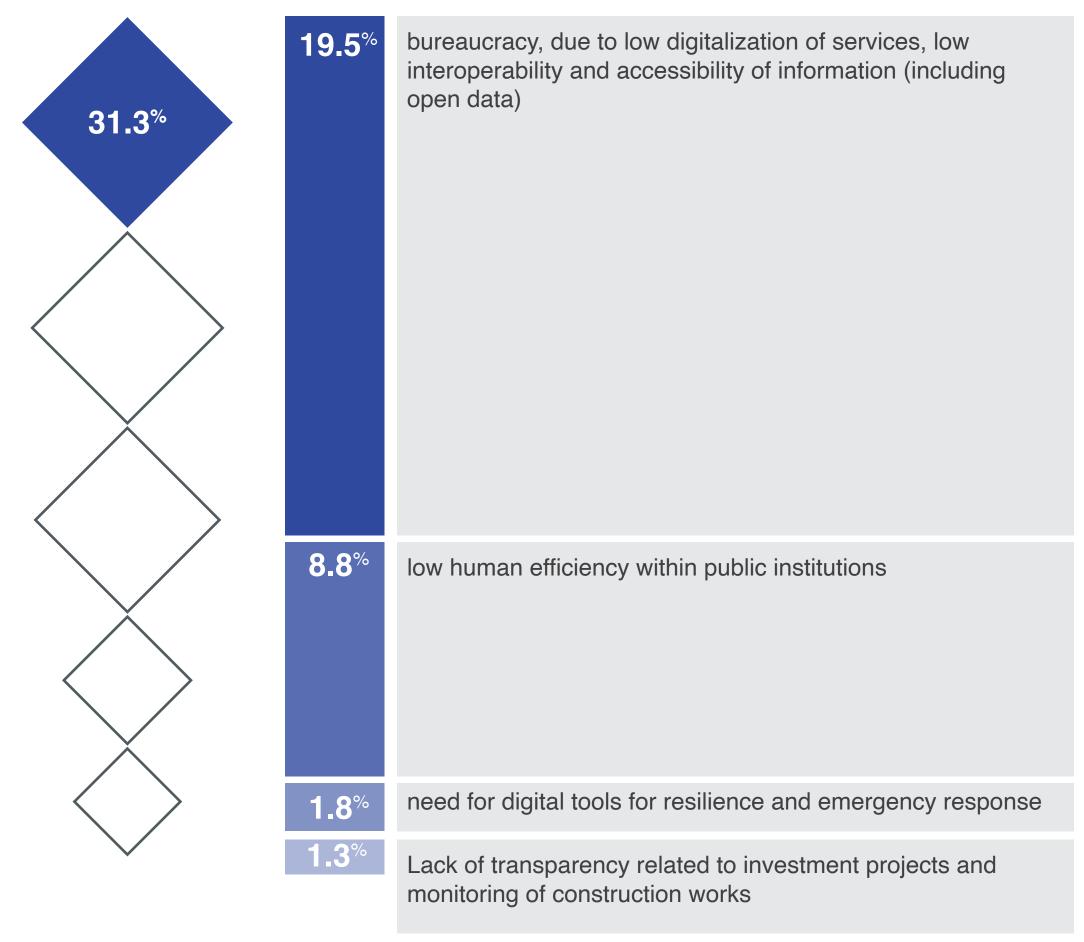
(% calculated from 457 open answers)





Cluster 1: Digitalisation Process and Tools for the Administration



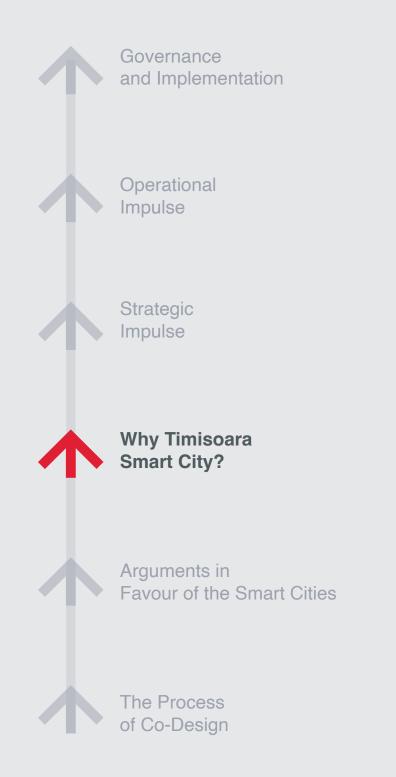


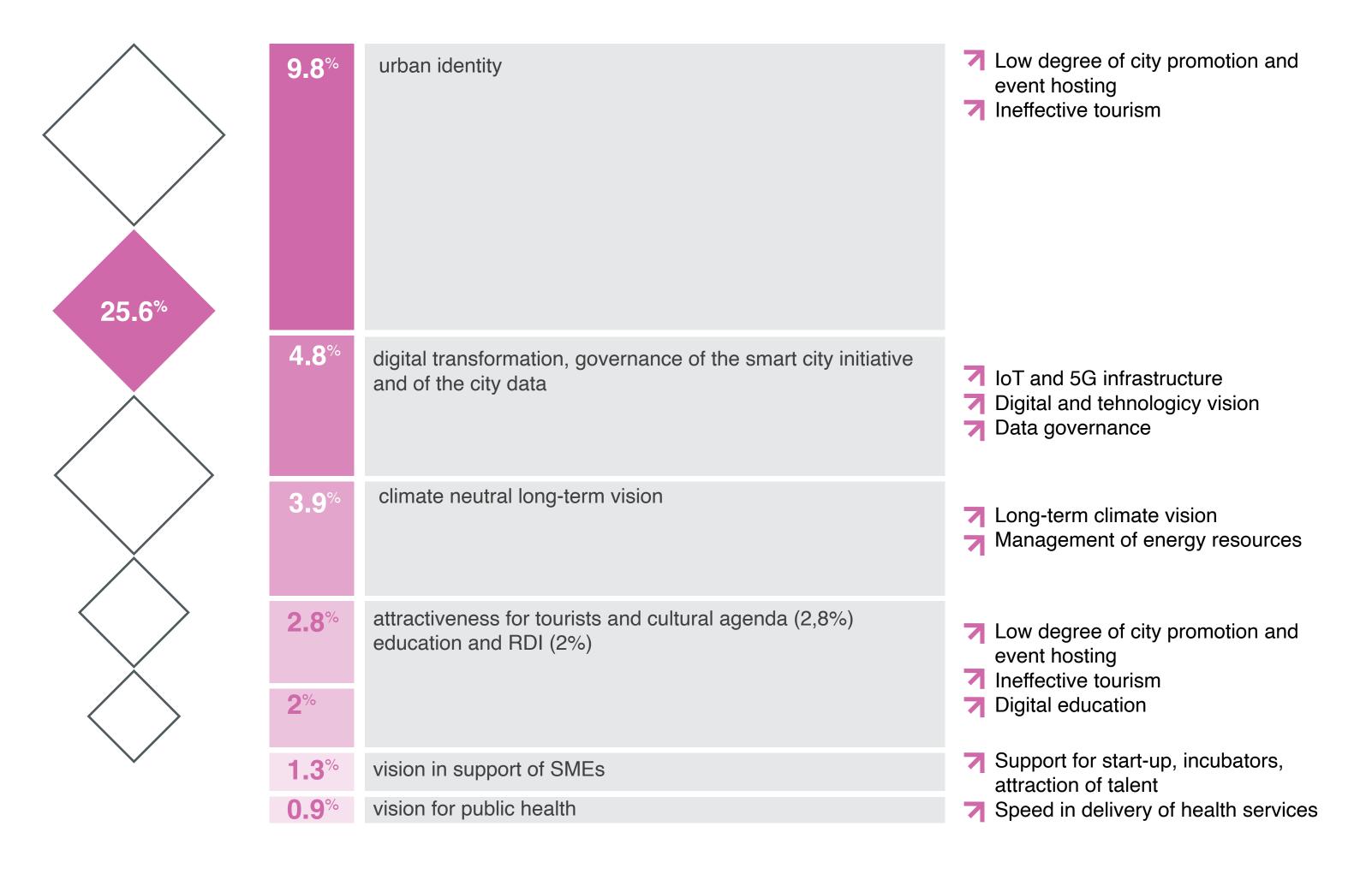
- Digitalisation of public services
- Interoperability (local-national)
- Quality of works
- Digitalisation in schools

- Inefficiency, rigidity, obsolete mindset, too long deadlines for resolution of requests, need to train the employees
- Citizens' safety
- Safety of information systems
- Response to emergencies and disasters
- Homeless people
- Lack of control over illegal construction works
- Transparency of urban planning and public investment process



Cluster 2: Strategic Vision and Action Plan

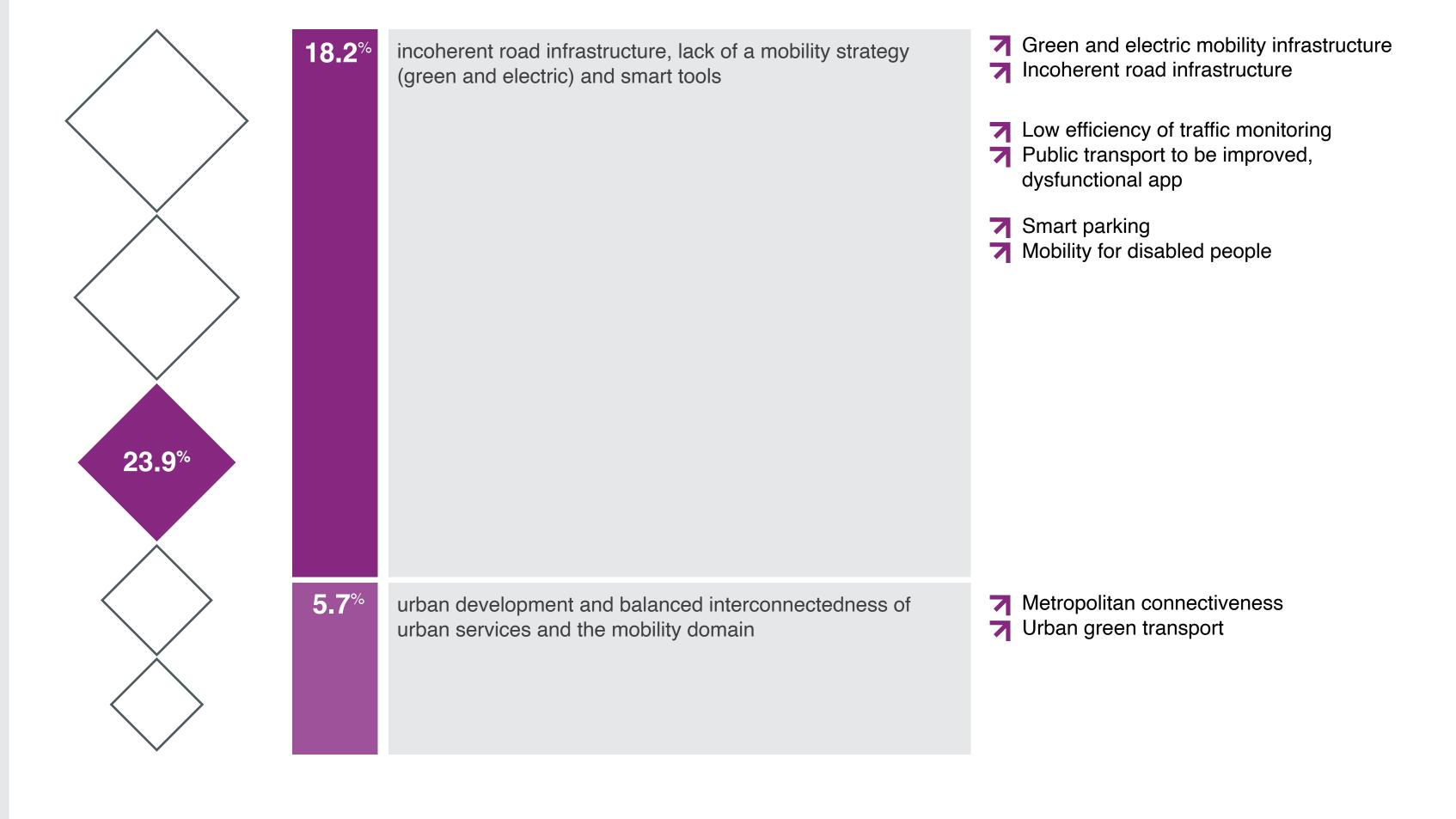






Cluster 3: Urban Interconnected Infrastructure and Mobility







Cluster 4:

Environment Factors, Green Areas and Outdoor Activities







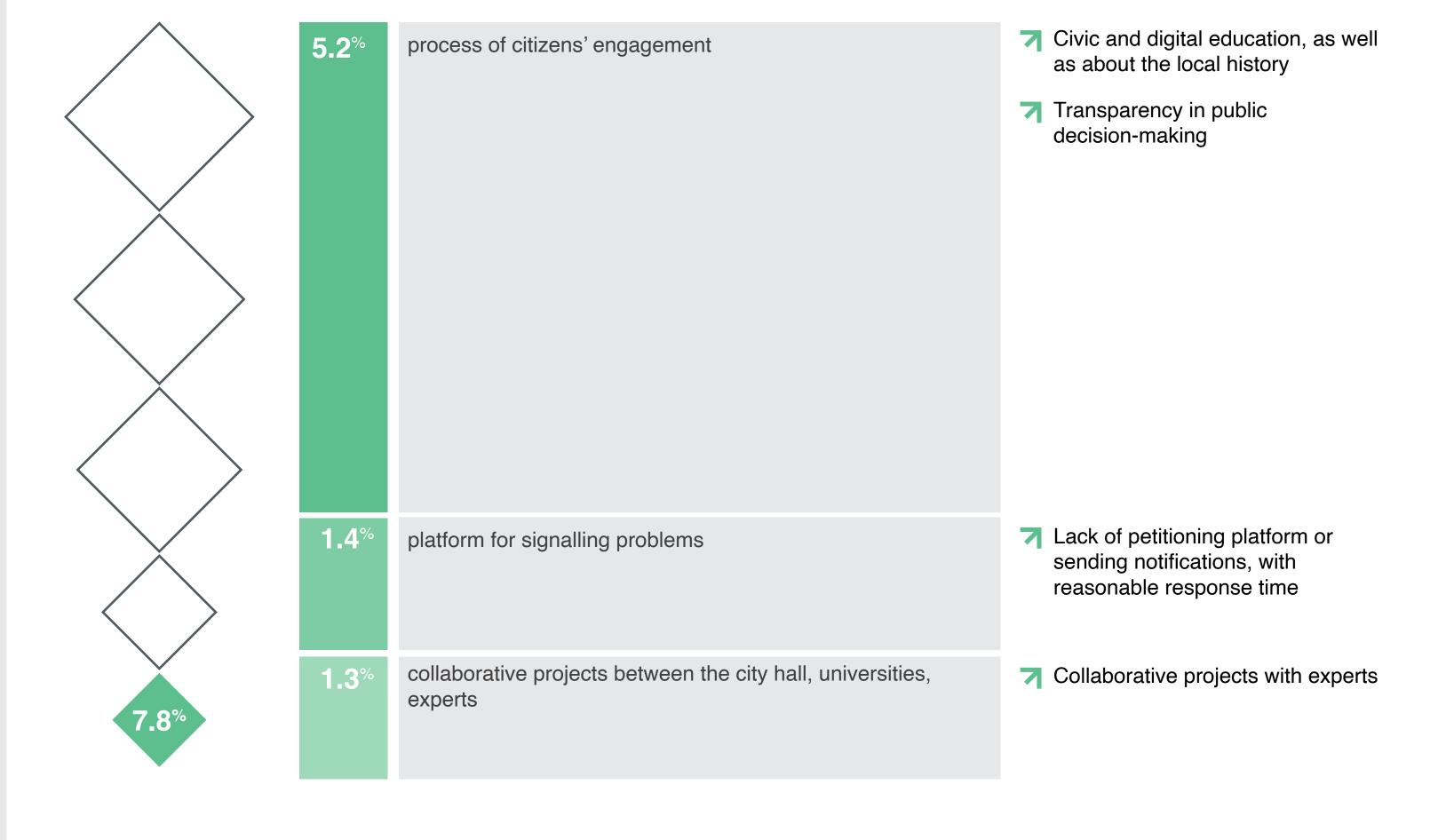
Cluster 5:

Communication with Citizens and Their Participation to Decision-Making



Favour of the Smart Cities

The Process of Co-Design

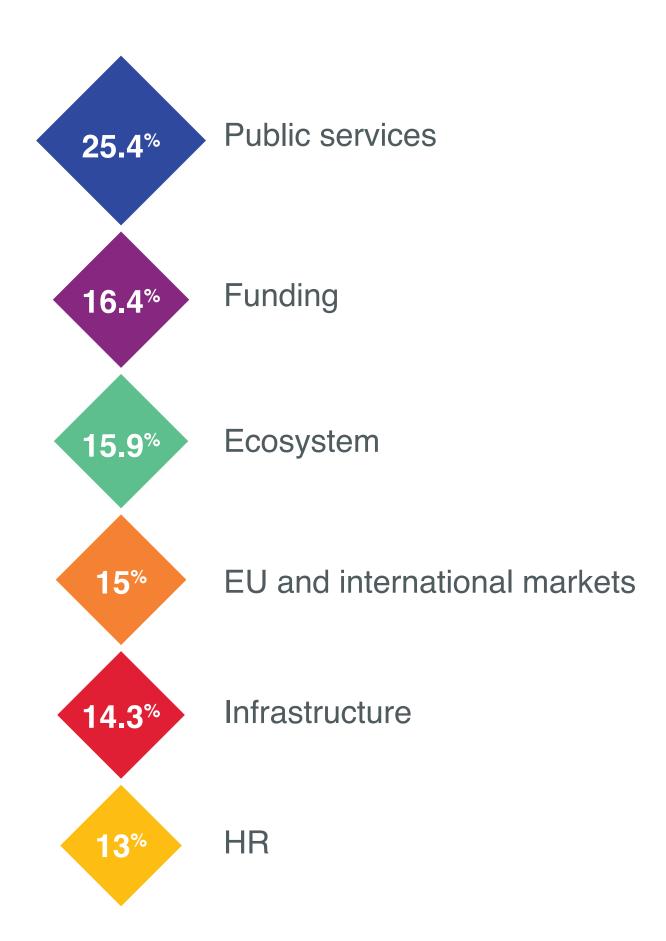




The Smart City Value Proposition, for Enterprises and Organisations



6 Categories of Needs, Coming from Enterprises and Organisations (% of 3,196 votes)

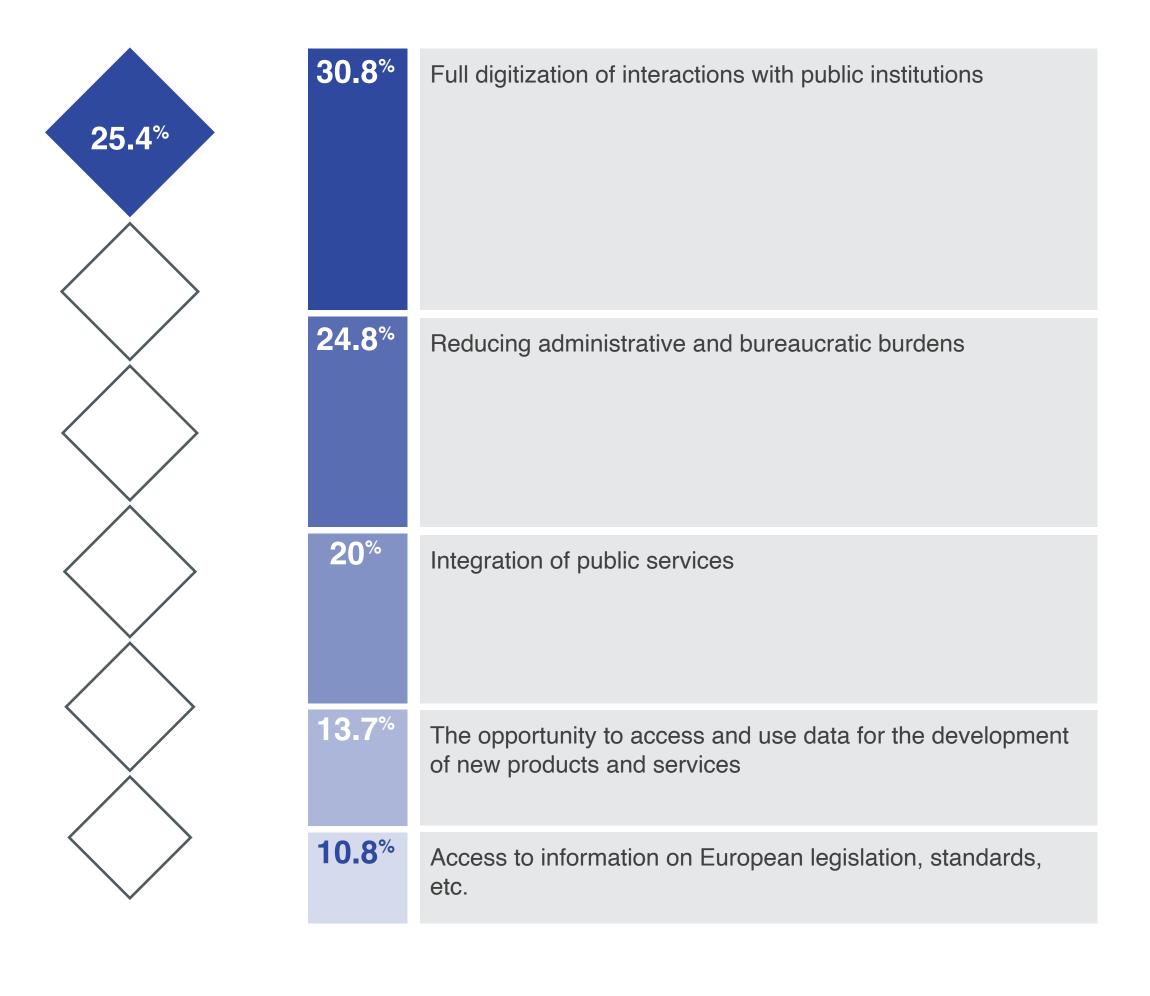




Cluster 1:

Needs in Terms of Interaction with Public Services

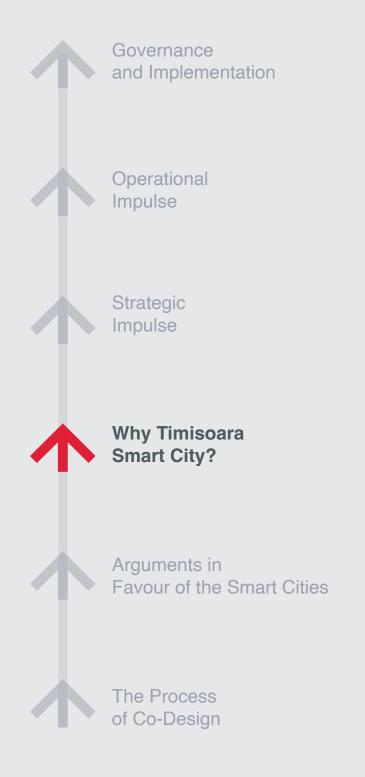


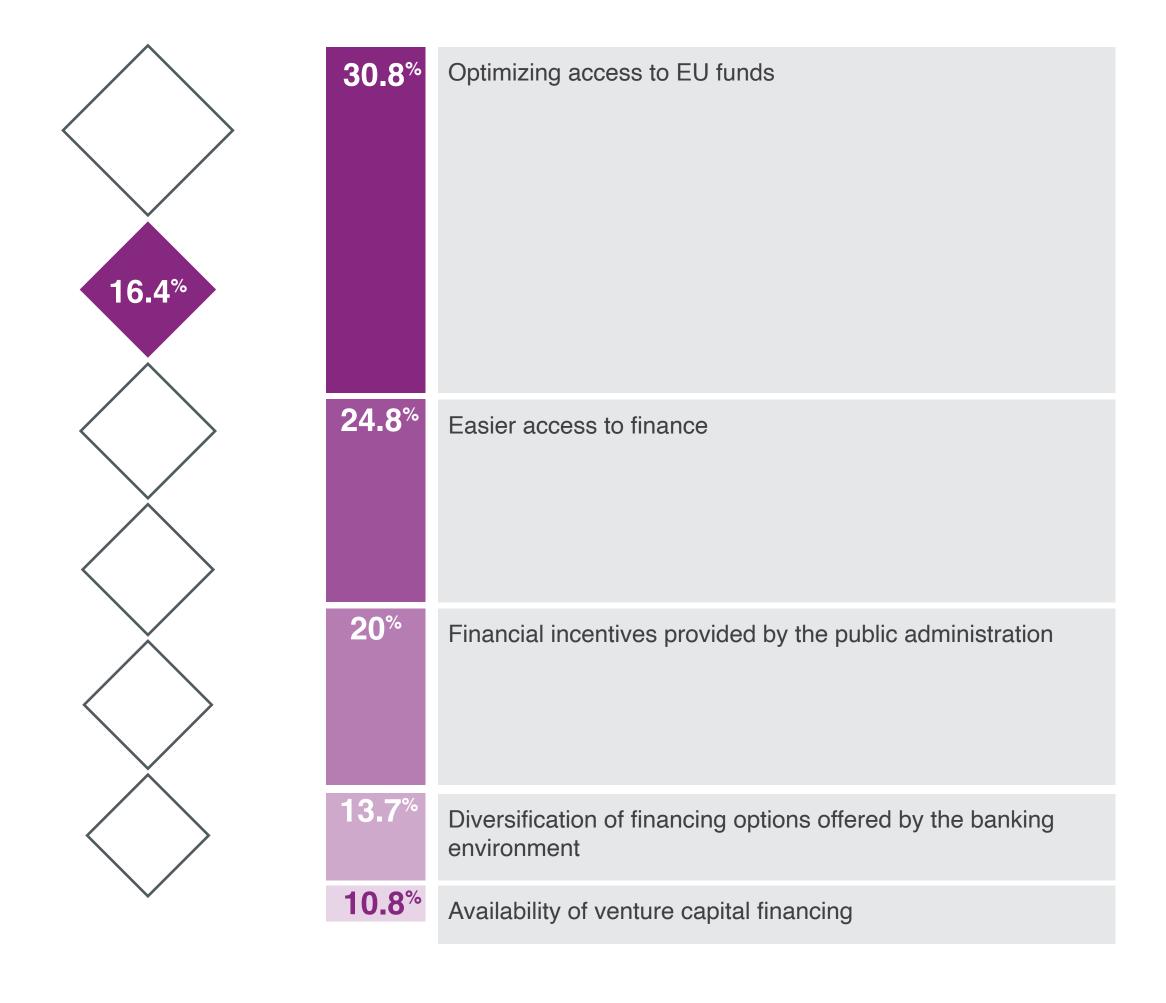




Cluster 2:

Needs in Terms of Access to Finance

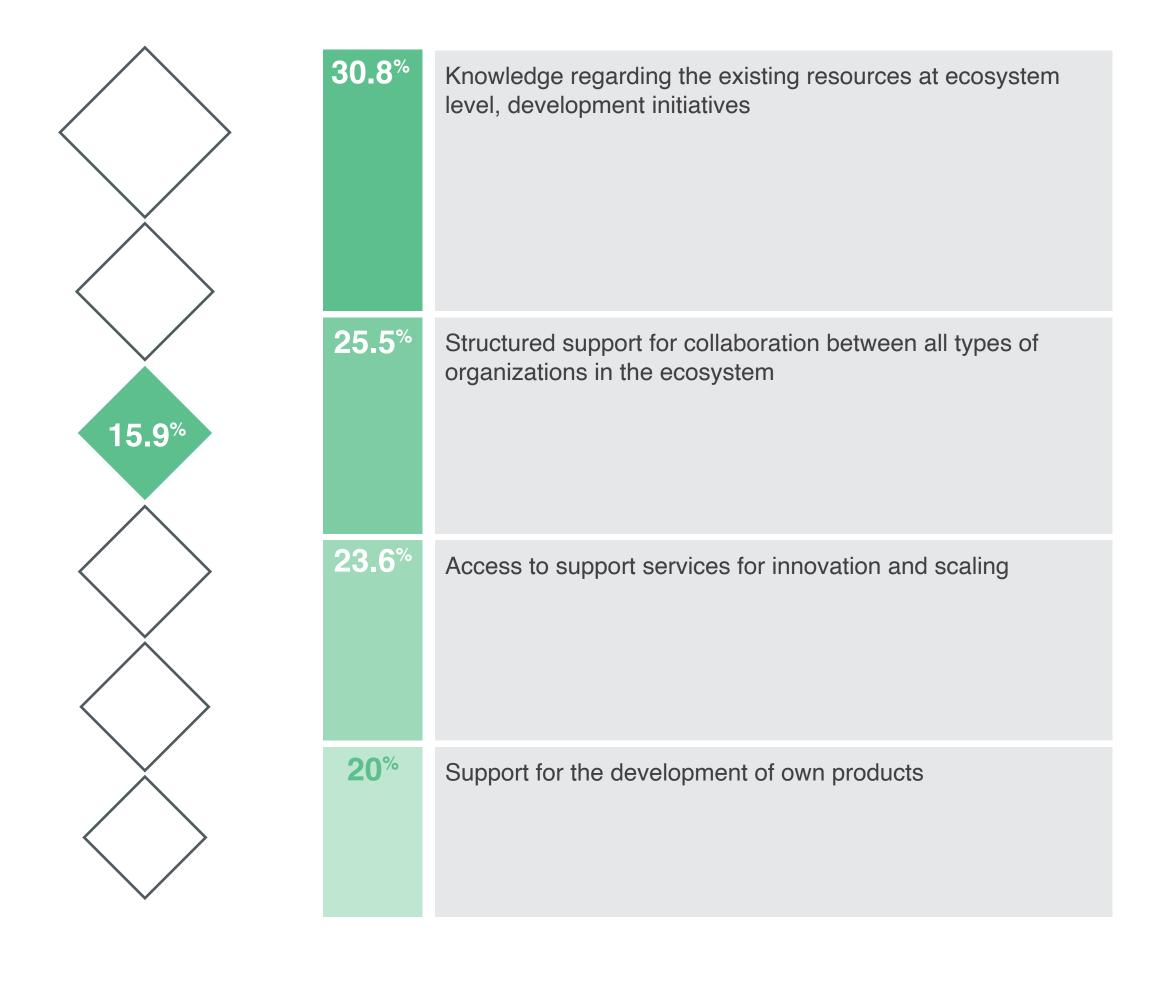






Cluster 3: Needs in Terms of Innovation Ecosystem



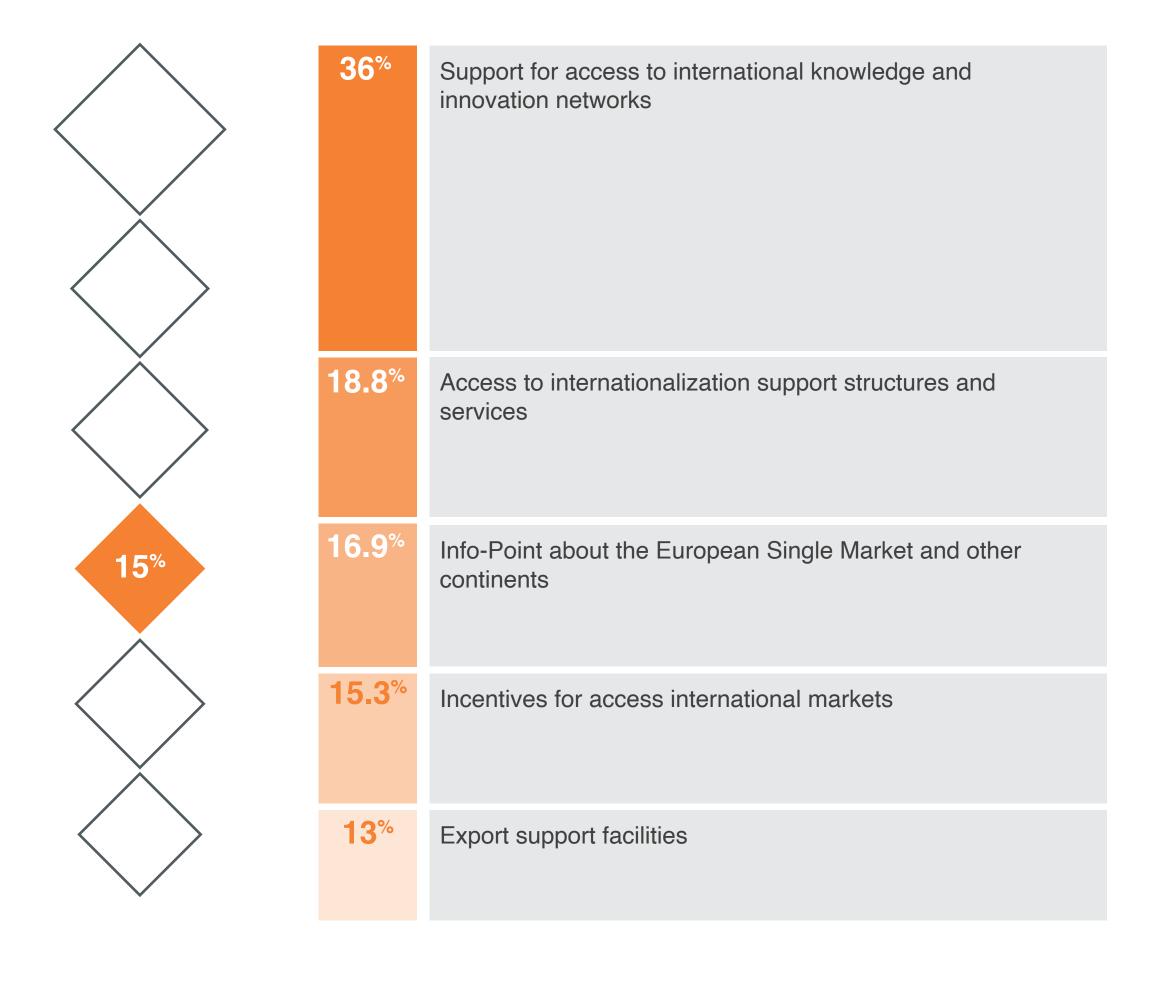




Cluster 4:

Needs in Terms of Internationalisation



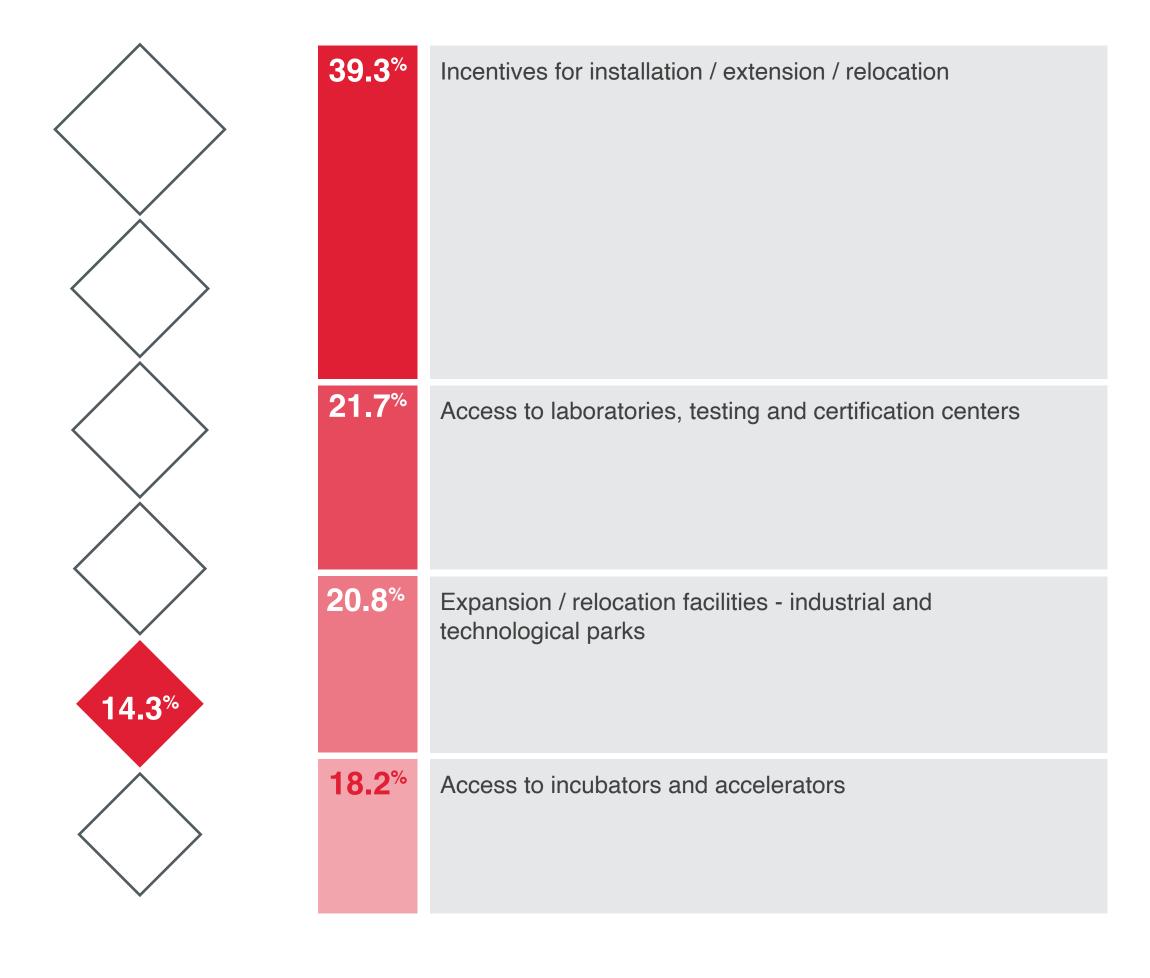




Cluster 5:

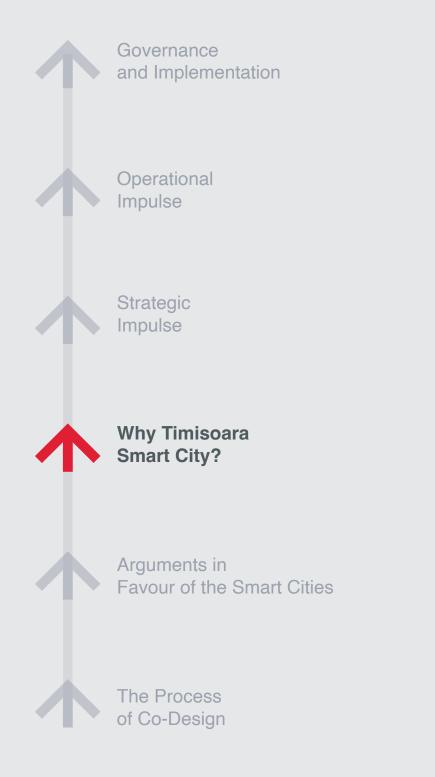
Needs in Terms of Innovation Support Infrastructure







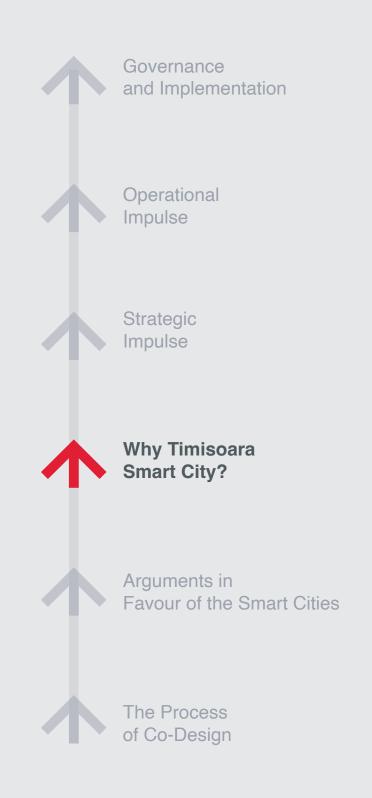
Cluster 6: Needs in Terms of Human Resources







The Smart City Value Proposition, for Enterprises and Organisations





City as a company

Collecting information and obtain feedback from "end-users" – citizens and enterprises / organisations

Developing, prototypeing and delivering smart city products, services and processes

Operate on open innovation principles



Tapping into latent resources of the city

Boost the structural capital within the city

Creating the "missing links" in between ecosystem actors

Bring structure, value and impact from collaboration



Adequate Premises Use of ICT in households and at individual level



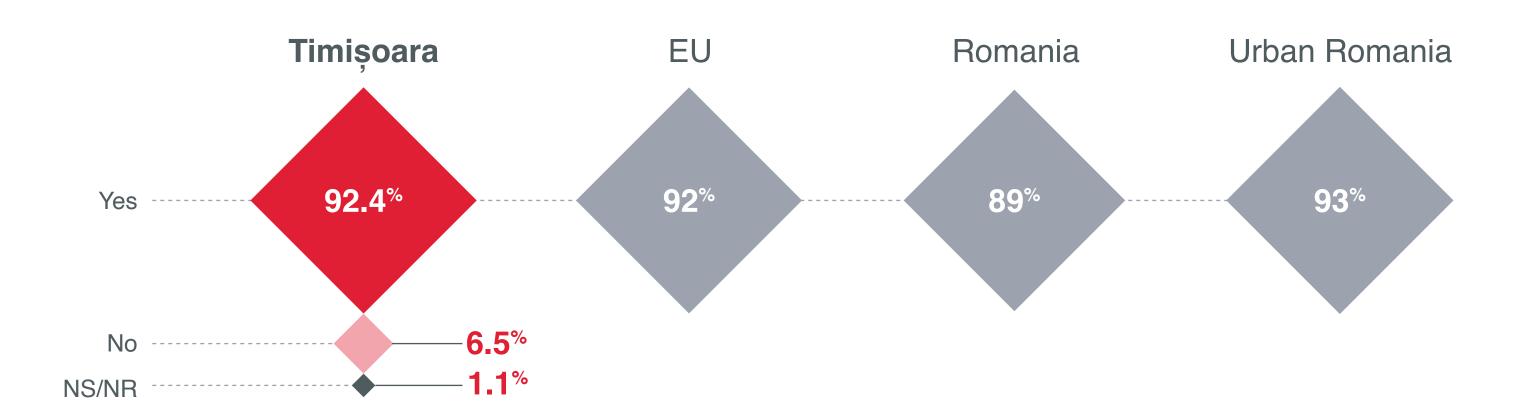
First DESI survey for Timișoara – Digital Economy and Society Index – undertaken by the West University of Timișoara, as part of the Barometer of the Quality of Life

1,413 Nov. 2021 — Jan. 2022 survey period



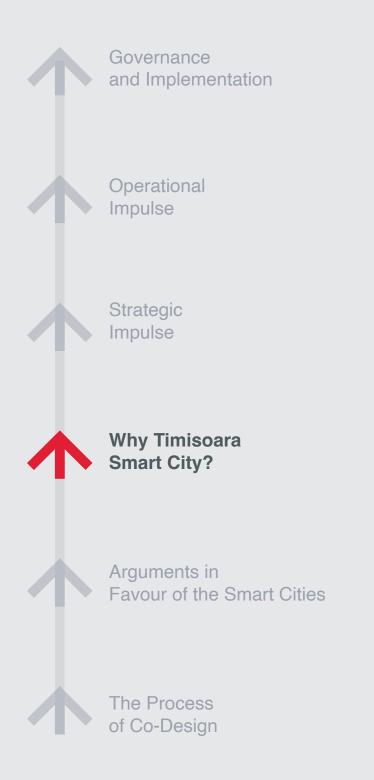
Do you or anyone in your household have access to the internet at home?

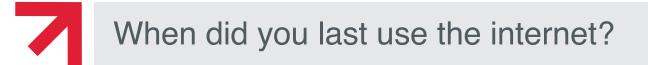
Timișoara exceeds the EU average!

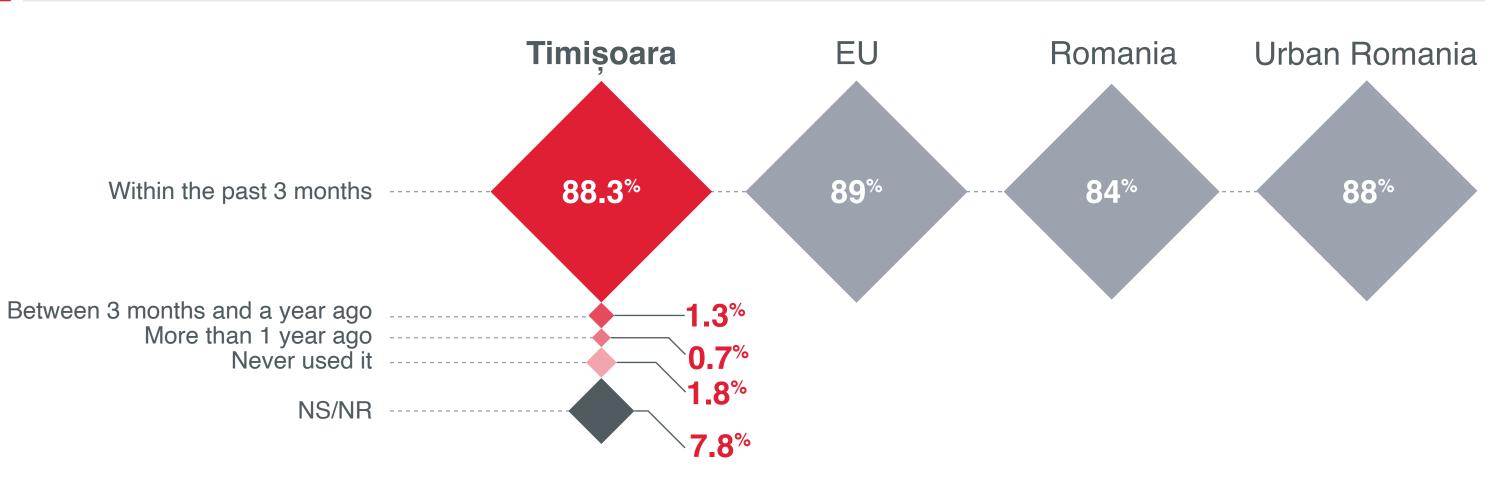


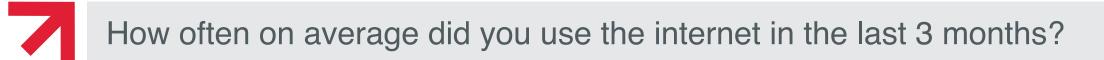


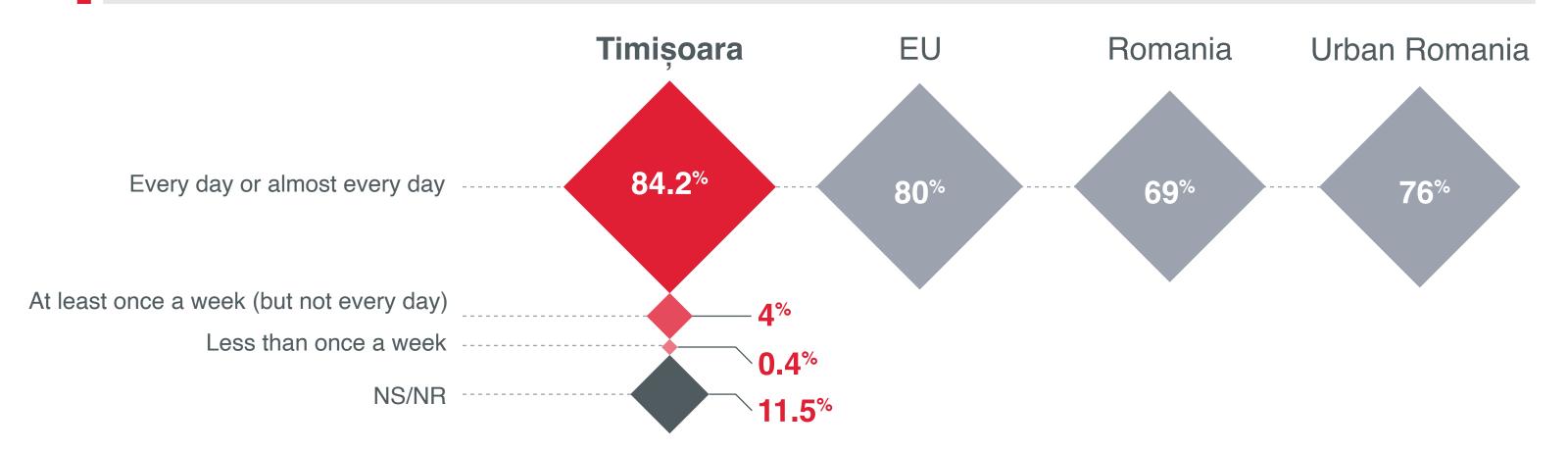
Adequate Premises Use of ICT in households and at individual level







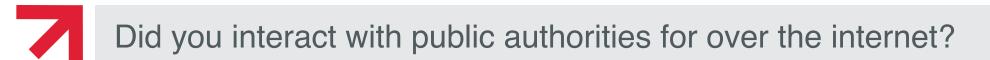


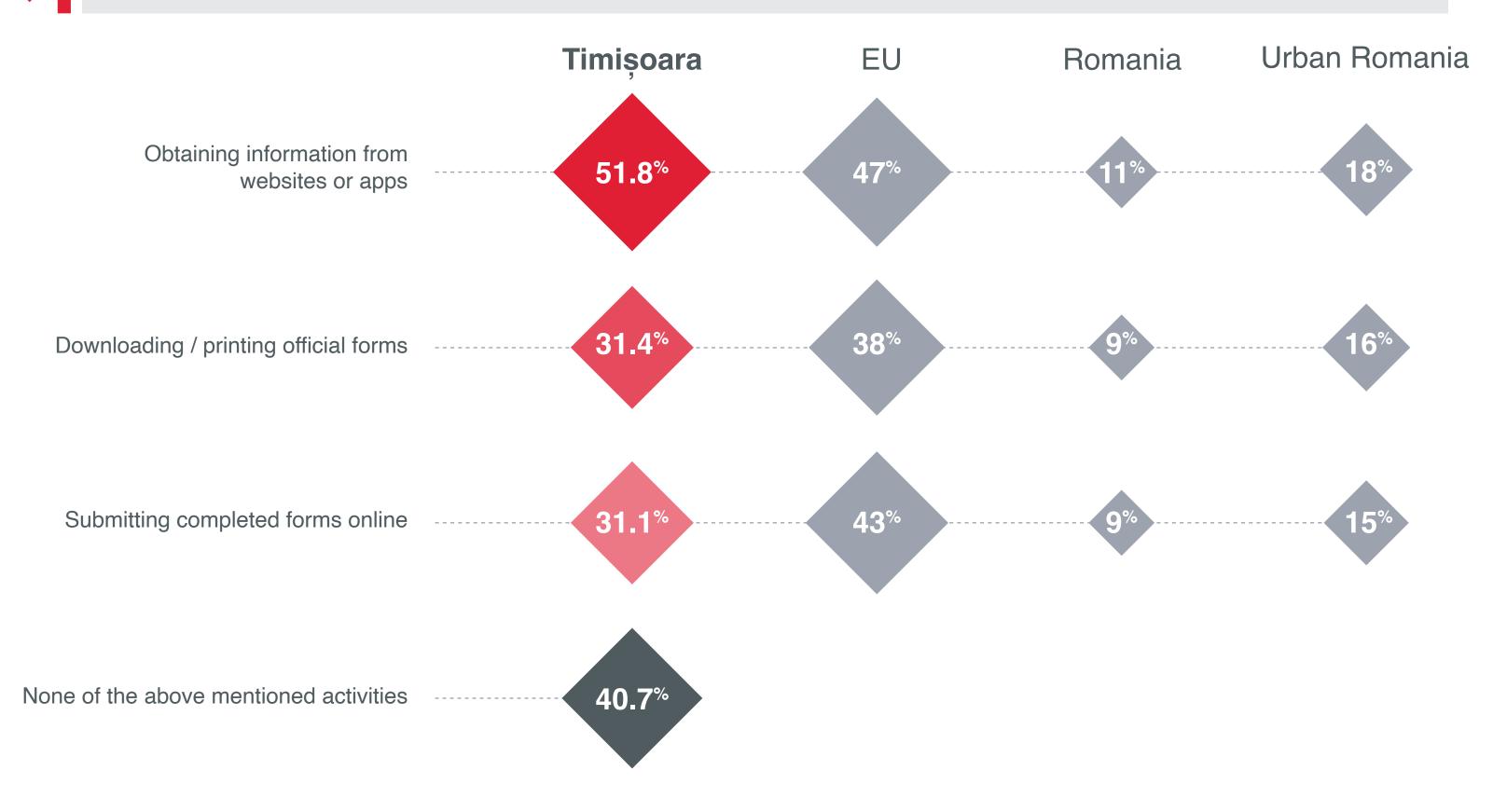




Adequate Premises Use of ICT in households and at individual level

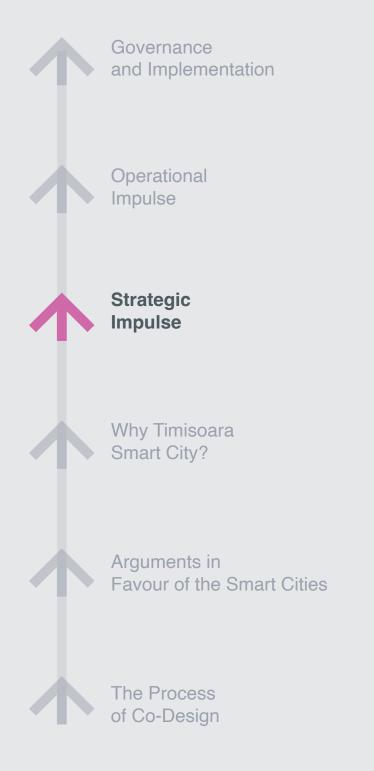








Strategic Impulse



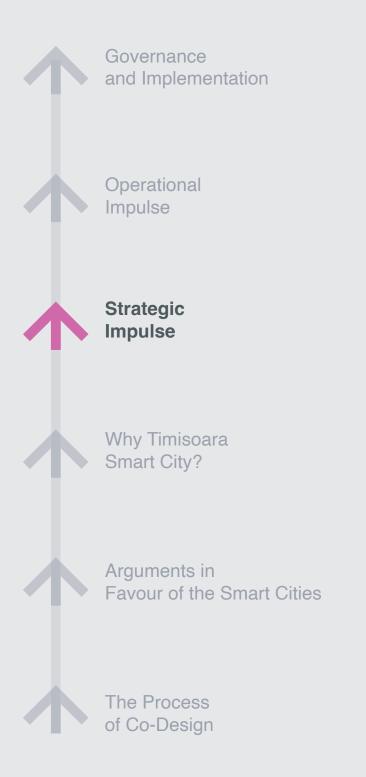
of the Smart City and Digital Transformation Strategy Timisoara 2022-2027:

INNOVATION MADE ACCESSIBLE TO EVERYONE!

- The wide majority of smart city and digital transformation interventions are based on innovation, be it about tangible products, services for citizens, or processes to optimise the flow of resources at city level.
- Through the Motto "Innovation Made Accessible to Everyone!" we aim at adapting innovation to citizens' and organisations' needs so that they can get the best value.



Strategic Impulse



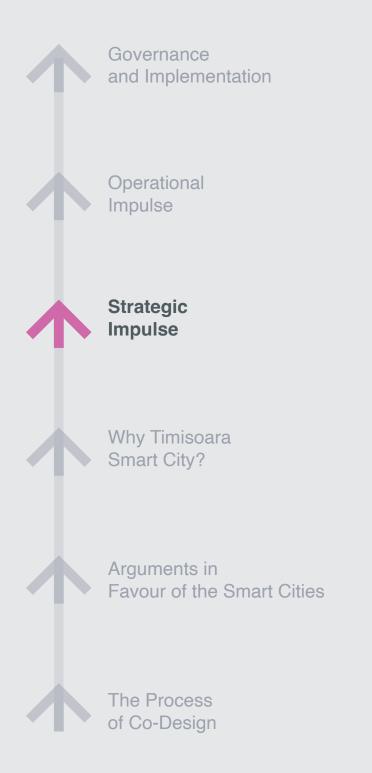
of the Smart City and Digital Transformation Strategy Timisoara 2022-2027:

TIMIȘOARA 2027: EUROPEAN LOCATION OF CHOICE FOR HUMAN RESOURCES ENGAGED IN DEVELOPING INNOVATIVE PRODUCTS

- We are familiar with the ethos of Timişoara as a city of technology, urban and cultural premieres, in Romania, as well as in Central and South-Eastern Europe, sometimes even at European level. By boosting the structural and innovation capital of the city, around the smart city strategy, we have the opportunity to create the premises for an attractive city for talents, providing to them a platform for research, development, testing, prototyping, piloting and launch of innovative solutions.
- The structural capital of the city refers to collaboration, interconnectedness and exchange between organisations.



Strategic Impulse



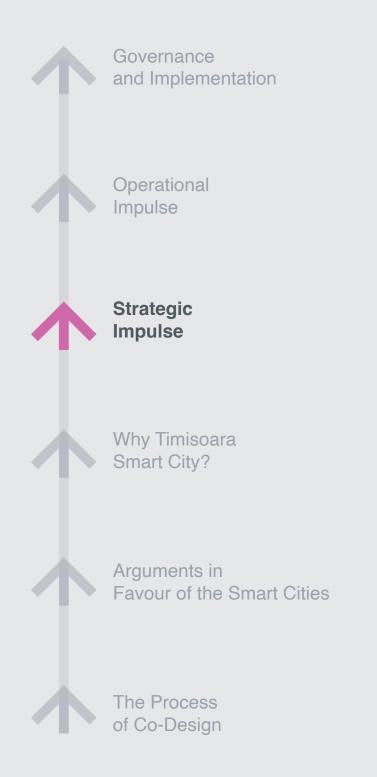
of the Smart City and Digital Transformation Strategy Timisoara 2022-2027:

BOOSTING THE CITY'S EVOLUTION BY TAPPING INTO THE CITIZENS' COLLECTIVE INTELLIGENCE

We are proposing a citizen-centric approach, where the resource of collective intelligence is understood and exploited, in view of better city decisions. The participatory mode of the strategy design will be extended into the implementation phase.



The 7 Ambitions of the Strategy







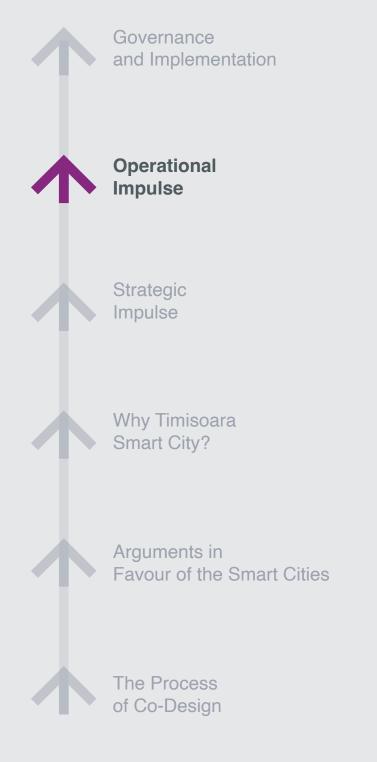
The 7 Ambitions of the Strategy



- "The City for All", "The Sustainable City" and "Intelligent and Impactful Public Investments" represent the foundation of the Smart City Timişoara, the access to appropriate RESOURCES, in terms of favourable environment conditions, effortless interactions between the city and its inhabitants, and public investments that are positively perceived during everyday life
- "Every Citizen Has a Voice" and "Smart City is Fun City Timişoara" represent the capacity of the Smart City Timişoara to create rapport and fellowship with the inhabitants, the HUMAN-CENTRIC approach. As public decisions will rely more and more on citizens' consultation, the city will become the favourite place for work and fun, and especially for the feeling of "home" and "belonging".
- "Vibrant Innovation Ecosystem" and "Timişoara An Attractive City for International Talents" represent the upper level of the Smart City Timişoara, the authentic capacity to generate value and innovation, and to COLLABORATE, which would count in the benchmarking with other European cities. These two Ambitions target the setting-up of the internal conditions for competitiveness, as well as the city's ability to become a "magnet" for talents, beyond the national borders.



Operational Impulse



Each Ambition is presented in detail, following the internal logic, starting from the current situation and leading to the proposed interventions:



Present status-quo and starting point for the Ambition (all data at reference year 2020, except for those with the mentioning "2019" or "2021");



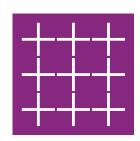
SWOT Analysis;



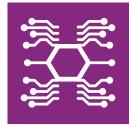
Impact targeted by the Ambition, and quantified by one "key" indicator, followed by outcome and output indicators. These KPIs are tightly connected to the strategic objectives and projects, thus during the implementation phase and following the creation of project working groups and project concept notes, **the list of KPIs will be extended**;



Strategic objectives = sub-categories of the Ambition, while strategic projects are those selected and committed to be implemented during 2022-2027;



Open actions = future initiatives or projects, not committed to be implemented by the strategy owners, but which can be taken over by interested third parties, with the support of the City Hall. The open actions are grouped into 5 categories: infrastructure / hardware, platform / software, capacity building / consolidation, research, (non)financial incentives and events;



Digital enablers = types of digital technologies, processes and solutions which come in as enablers during the deployment of smart city interventions;



Types of local actors are those that the strategy assumes to engage during the implementation.



SMART CITY KEY
DIMENSION:
GOVERNANCE



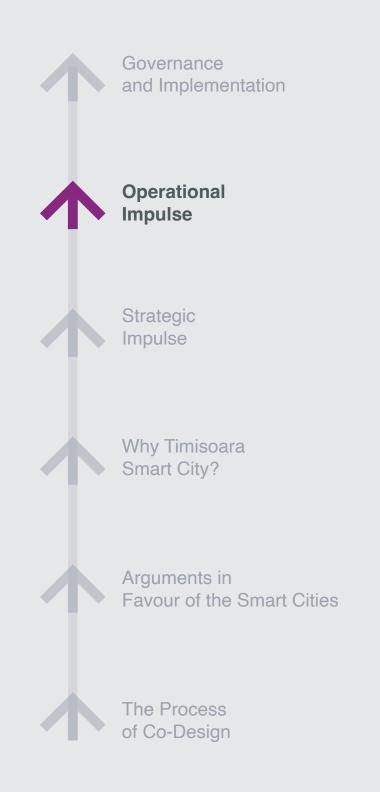
SUSTAINABLE DEVELOPMENT GOAL



With a city population over 325k, and a metropolitan area population over 440k, Timişoara has the premises for a cohesive urban community.

Automation, transparentising and traceability of the consultation process through digital means, can contribute to reviving the civic and participatory spirit.

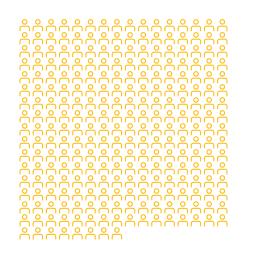




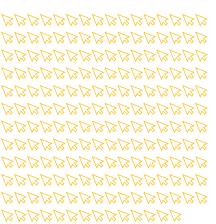
93,468

Number of participants to the local elections 2020

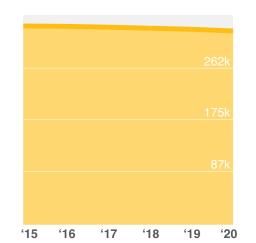




DECIDEM – number of visualisations during the first month after launch (4 noiembrie 2021)



325,522
Overall population



441,335
Population within the Timisoara
Metropolitan Area

1,413

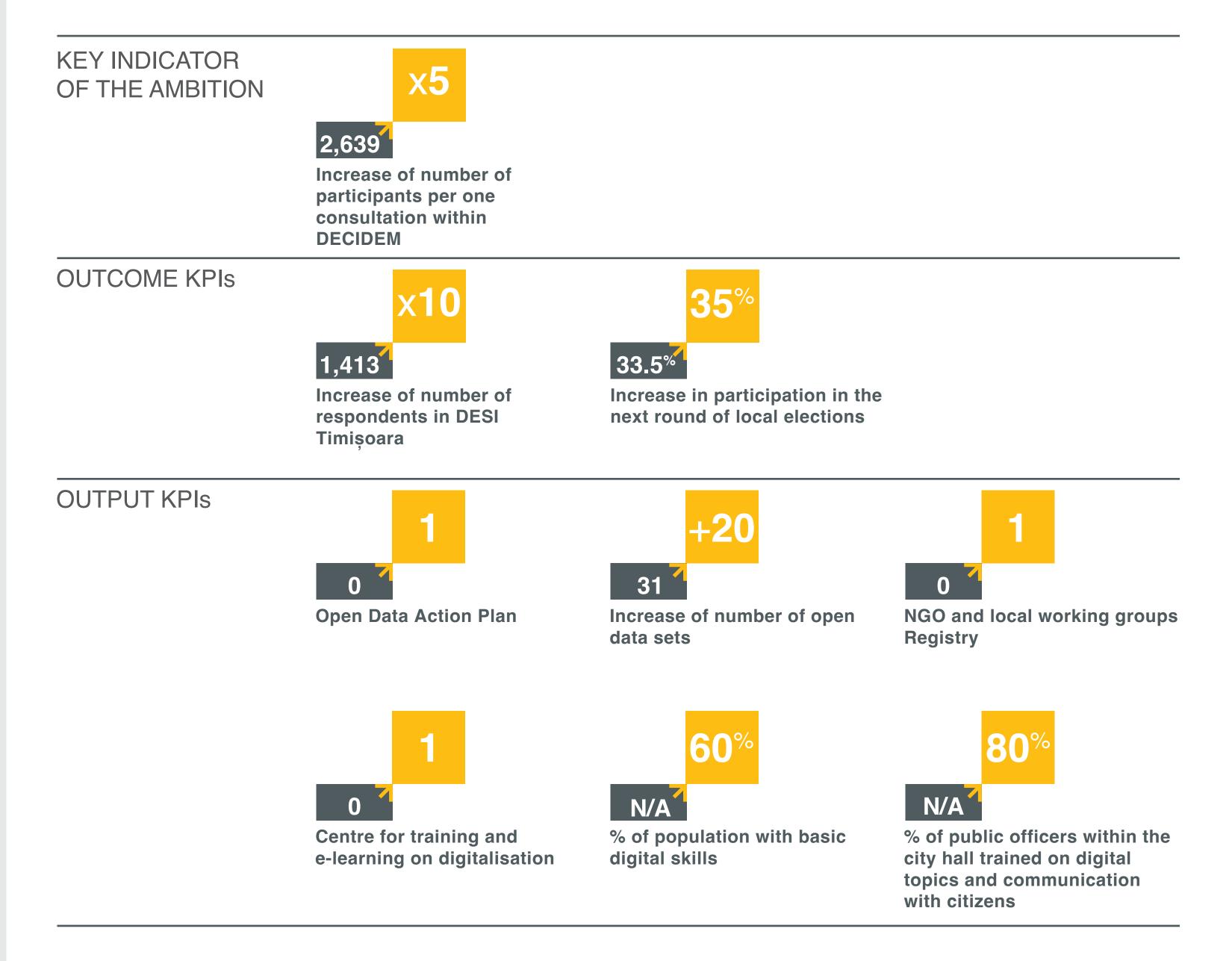
DESI Timișoara
(number of respondents
2021)

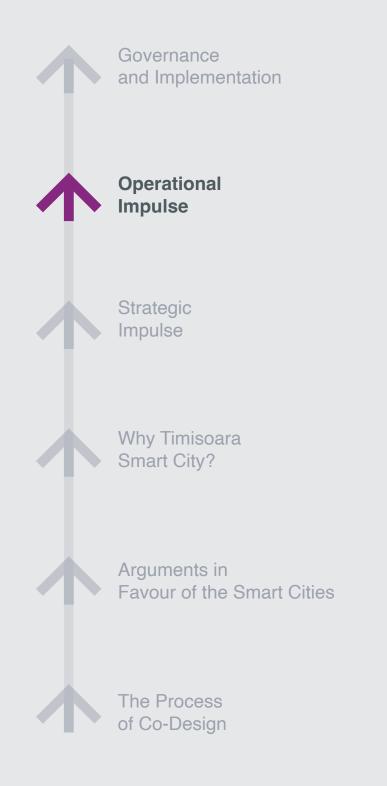


Open Data portal number of data sets









OBJECTIVES

Creating a participatory culture and diversifying the opportunities and tools for citizens and the private sector to get involved in public life

STRATEGIC PROJECTS

- The Collective Intelligent City Timișoara the new paradigm of city-wide
- involvement, decision-making and action
- Smart solutions for social inclusion through education and creativity
- NGO Registry, including working groups within the city

Timișoara Open Data Action Plan

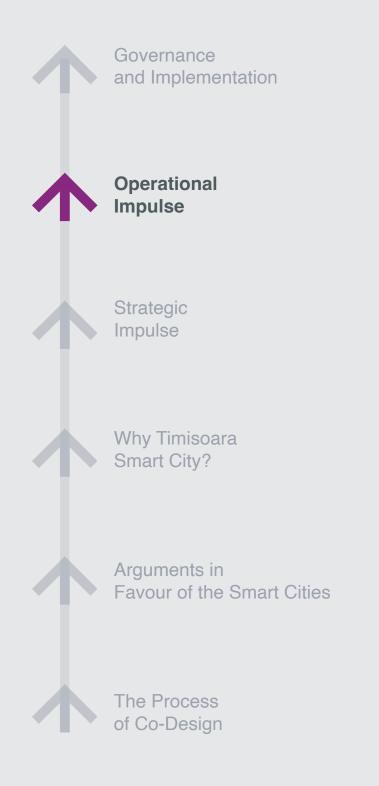
Presenting information about a project in which citizens are invited to participate in a structured way, with clarity about the course and purpose

KEY

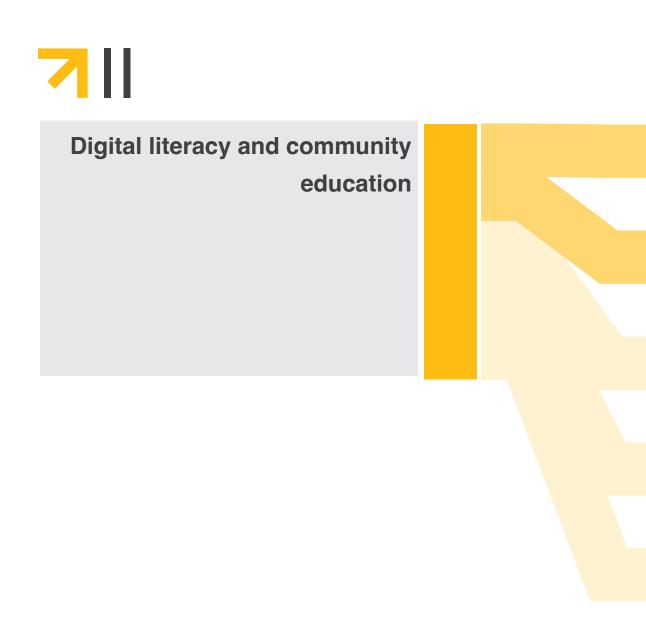
Planned 7

In progress





OBJECTIVES



STRATEGIC PROJECTS

Centre for Digital Education Timișoara: Permanent and adapted support to the citizens' needs, in view of gradual and intuitive use of digital instruments created at city level

Smart City Citizens Onboarding: Educational process for citizens who want to get involved in the smart city approach or another participatory approach related to the digital transformation (e.g. platforms and solutions already in operation or being implemented)

"Make your voice heard": education in schools with digital tools on civic participation and city history

Educating civil servants to communicate effectively with the citizens and to use new tools for information, consultation and collaboration with the citizens

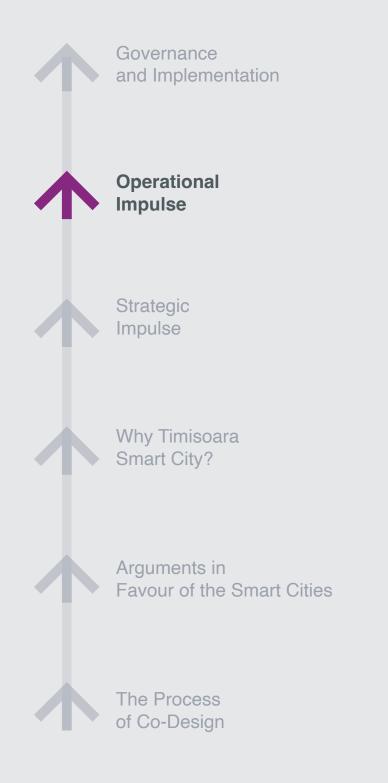
Civic education: Attracting local partners - civic groups, NGOs - to educate citizens on how to get involved

KEY

Planned 7

In progress >





OBJECTIVES



Transparency and access for citizens to public decisions, so that they feel they have knowledge and control

STRATEGIC PROJECTS

- The public participatory platform DECIDEM: Local governance system and citizens' consultation (https://decidem.primariatm.ro/)
- Transparent platform for reporting specific problems (e.g. garbage, potholes, etc.)
- Department for **interacting with the citizens** in the City hall
- Mechanism for listening to the inhabitants of each neighbourhood
- Facilitating the creation of "local management / communication groups" with local citizens
- Implementing the participatory budgeting process
- Generating Open Data for a transparent and digital administration

KEY

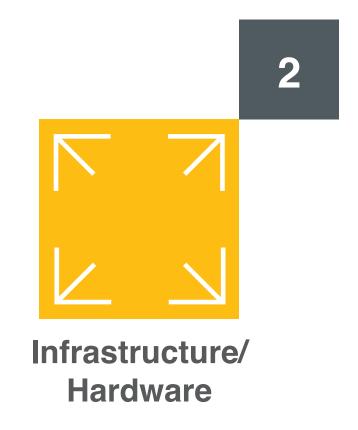
Planned 7

In progress



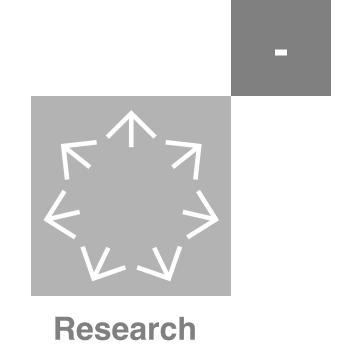


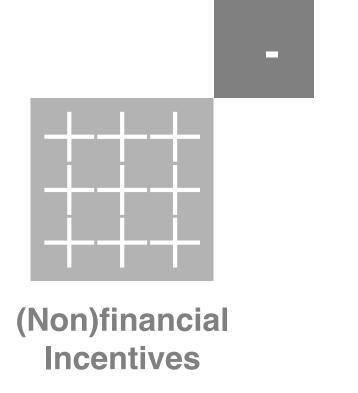
OPEN ACTIONS

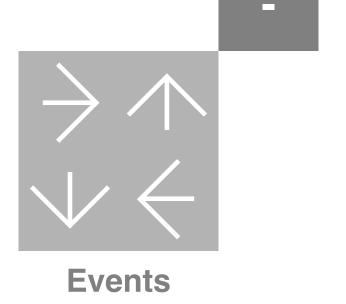




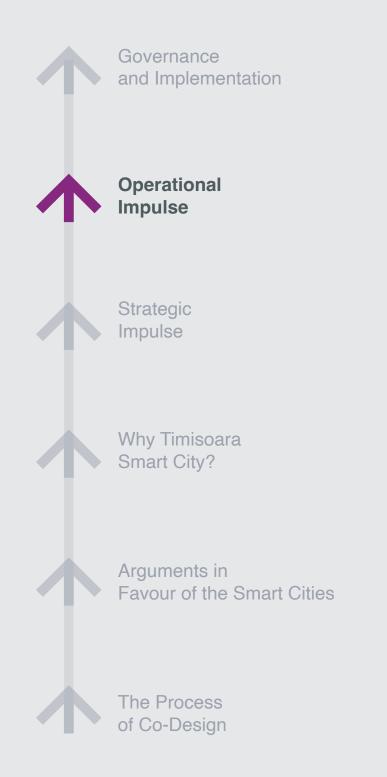




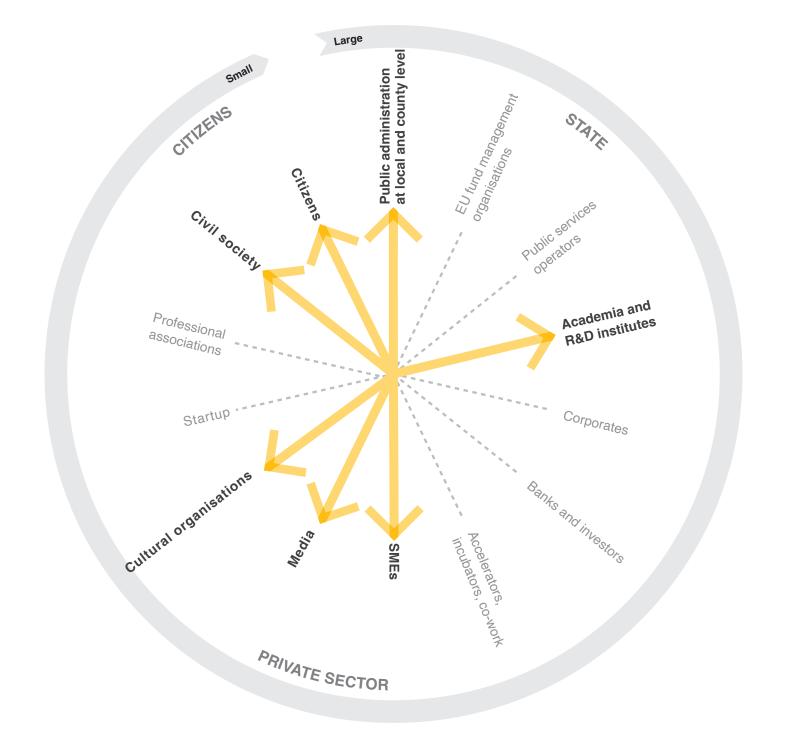








RELEVANT LOCAL ACTORS



DIGITAL ENABLERS





SMART CITY KEY
DIMENSION:
PEOPLE



SUSTAINABLE DEVELOPMENT GOAL

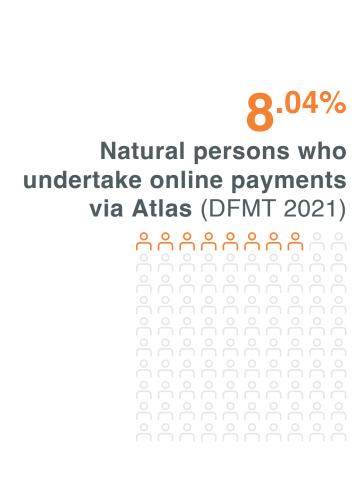


The accessibility of public services through state-of-the-art technologies, might stand as a challenge, given that 17,7% of the population is over 65 years old.

The technology to interact with citizens is into place, yet under-used, as the payment of taxes and submission of requests takes place in written / physical format.



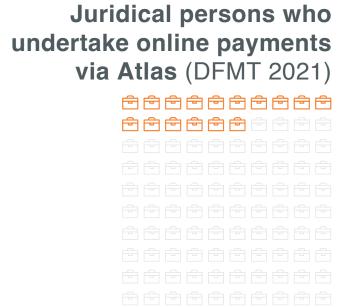




17.70%

Population over 65 years

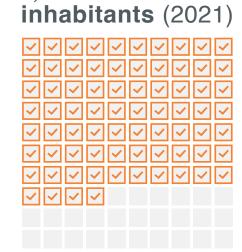
'15 '16 '17 '18 '19 '20



15.76%





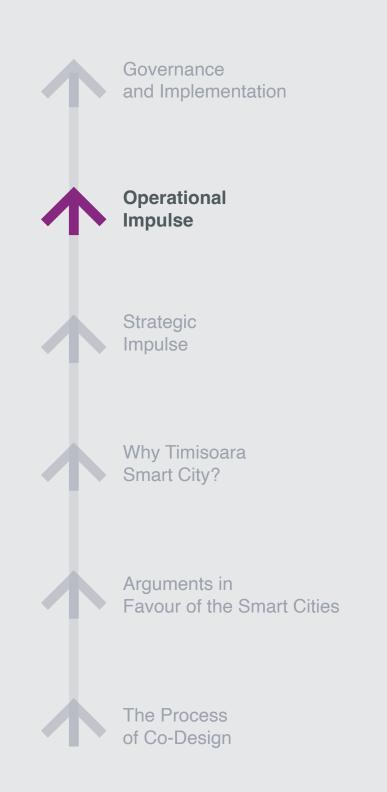


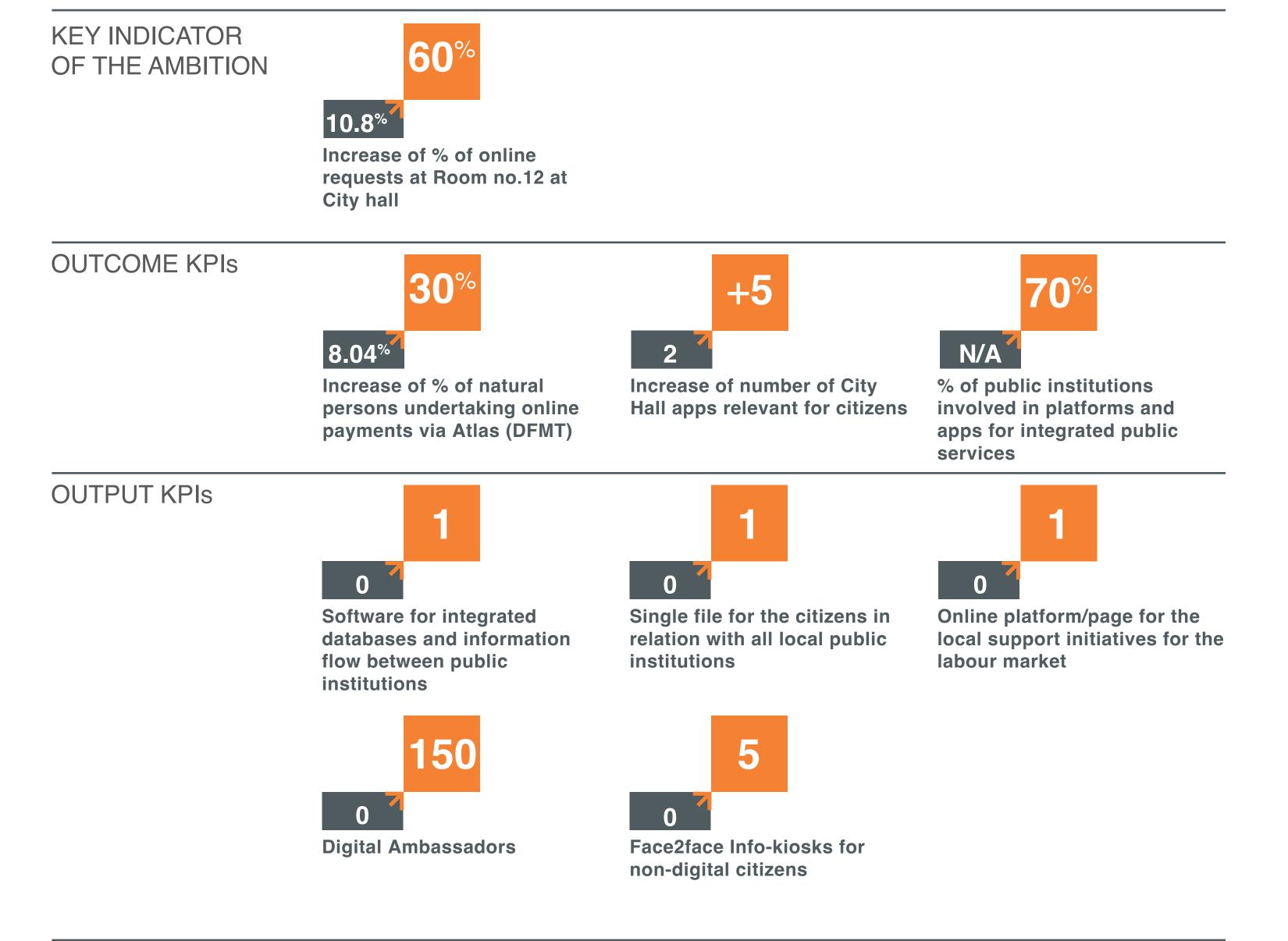
10.80%

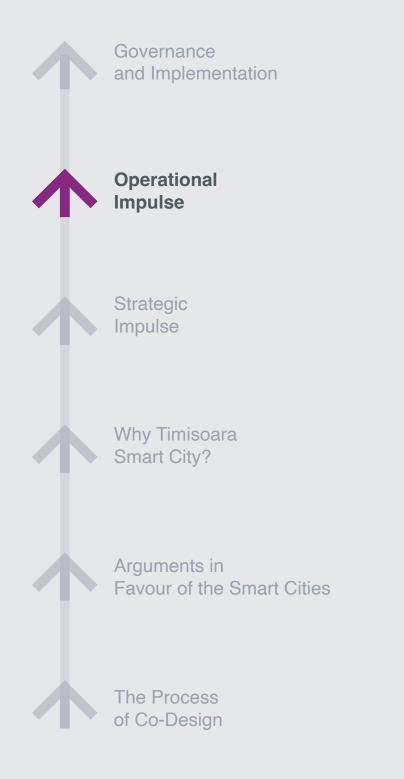
% online requests at the City hall of Timișoara (Room 12)











OBJECTIVES

ll .

Integration of public services at city level through interdisciplinary collaboration and negotiation

STRATEGIC PROJECTS

- **Digital local administration**: Creating software support for integrated databases and information flow between public institutions
- Integrated data generation and standardization platform at local level: integrated management software, common APIs, similar data structure, Open API and encouragement of entrepreneurship / volunteering
- App for obtaining the entire package of documents in view of construction works
- Creation of an integrated database and information flow between public institutions at local level (e.g. maternity hospital town hall labour chamber / social insurance)
- Interconnection of local public administration land register urban planning, including digital general urban management plan/zone urban management plan
- Single citizen file in relation to all local public institutions
- Digitization of local public services (elimination of hard copies of documents for passports and ID cards)

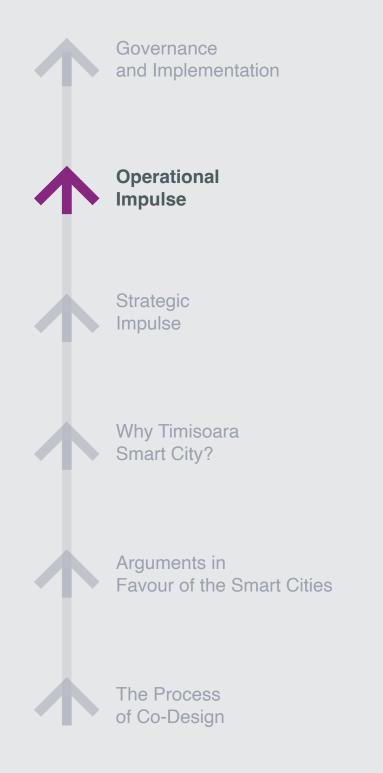


KEY

Planned 7

In progress >





OBJECTIVES

STRATEGIC PROJECTS



Easy, clear, and effective interaction with city institutions by optimising public and private administrative processes

Electronic identity card

Individual digital token: digitizing personal data and linking it to a digital token

Talent and matching for a balanced local labour market: Platform to facilitate people's access to the labour market, services and opportunities, including for vulnerable groups

App for submitting complaints

App to provide citizens with useful information about local administration activity (e.g. street closures, breakdowns)

Digital solutions in interacting with the local public administration - e.g. pre-filled online forms

Centralized notifications from local services via email/sms/app

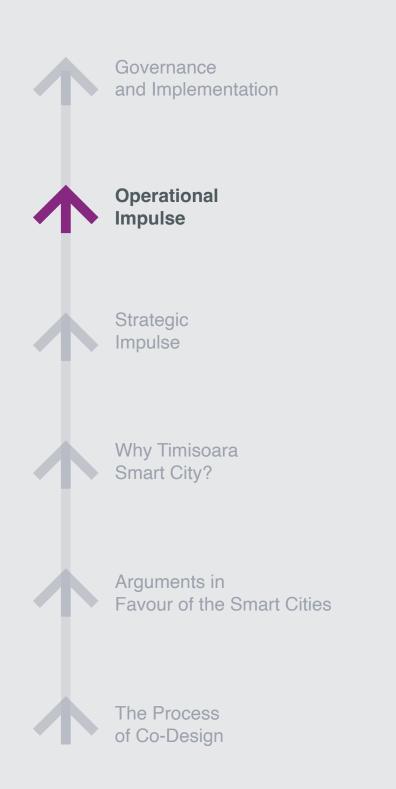
Local public administration call centre with extended opening hours, including evenings and weekends

KEY

Planned 7

In progress >





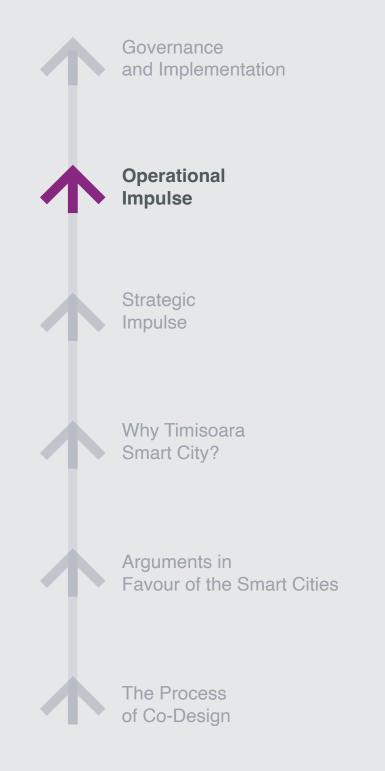
OBJECTIVES

STRATEGIC PROJECTS

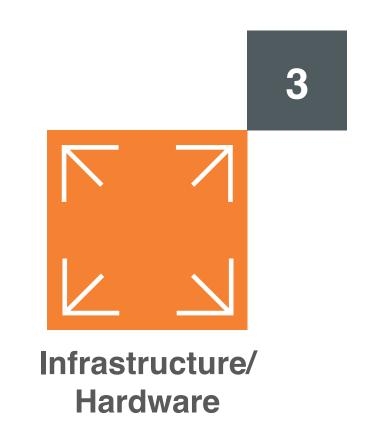




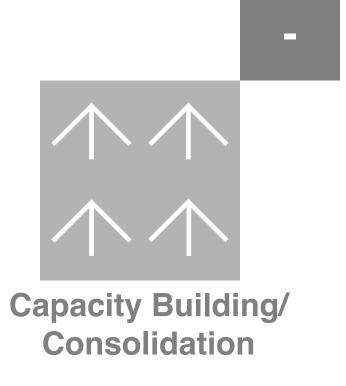


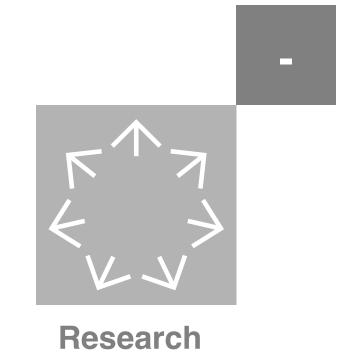


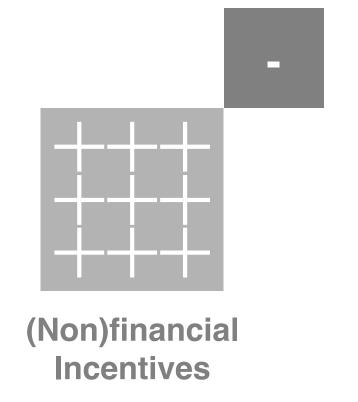
OPEN ACTIONS

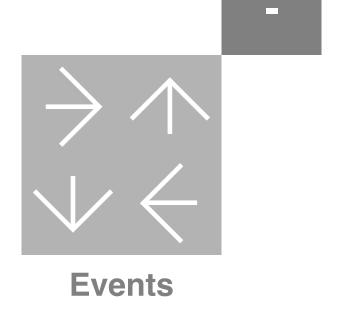




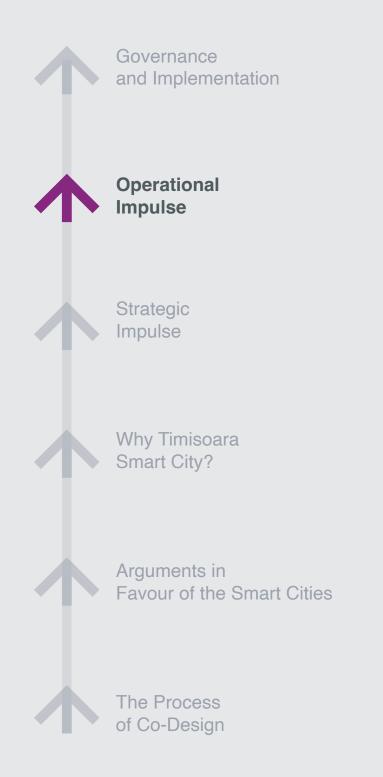












RELEVANT LOCAL ACTORS



DIGITAL ENABLERS





SMART CITY KEY
DIMENSION:
ECONOMY



SUSTAINABLE DEVELOPMENT GOAL

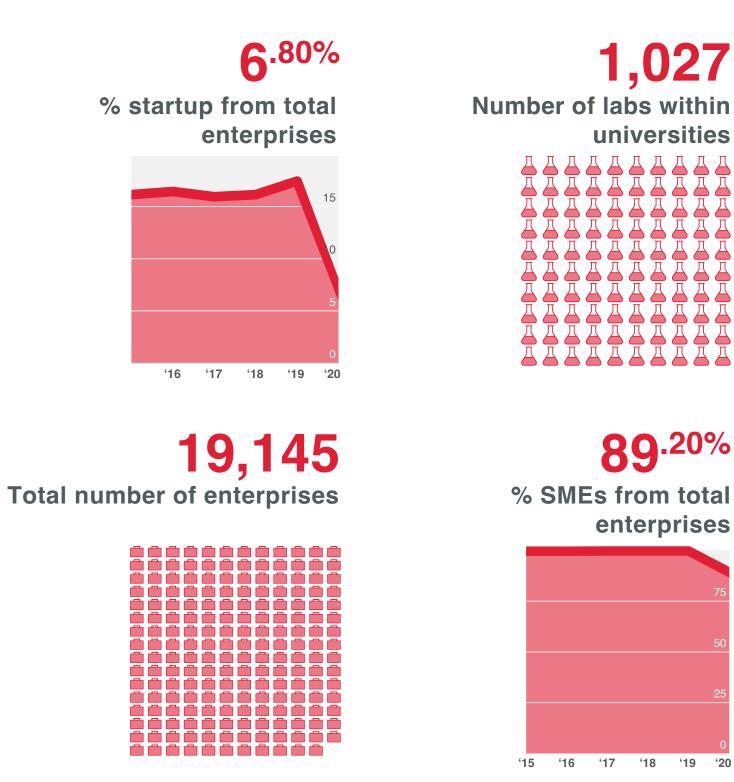


In Timişoara there are the ingredients for an innovation ecosystem – universities, R&D institutes, corporations, startups, intermediaries etc. – but these are barely exploited at the level of structure, collaboration and exchange of knowledge.





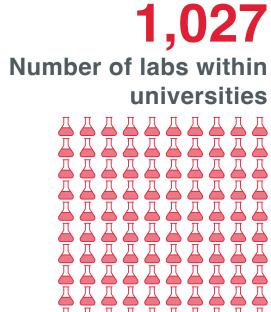


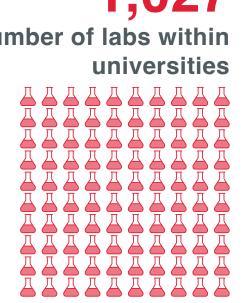




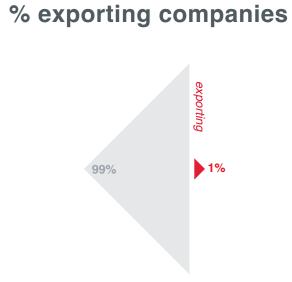
77777

39.8% % turnover generated by exporting companies, from total turnover





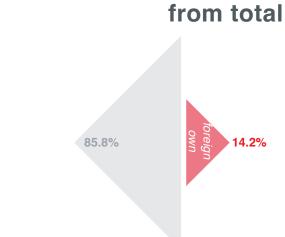


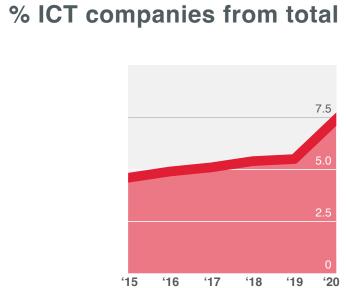


1.00%

7.40%



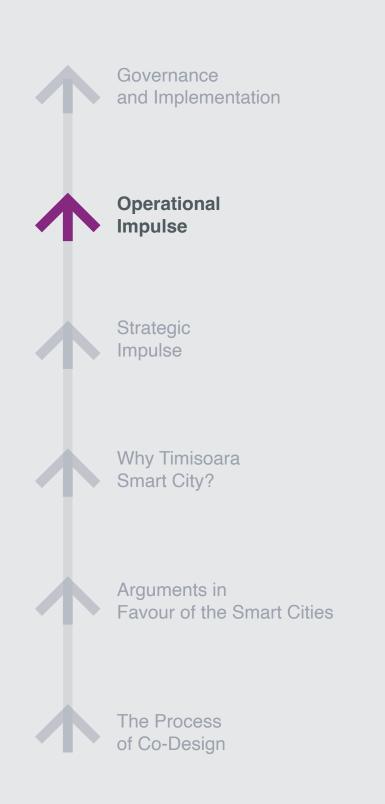


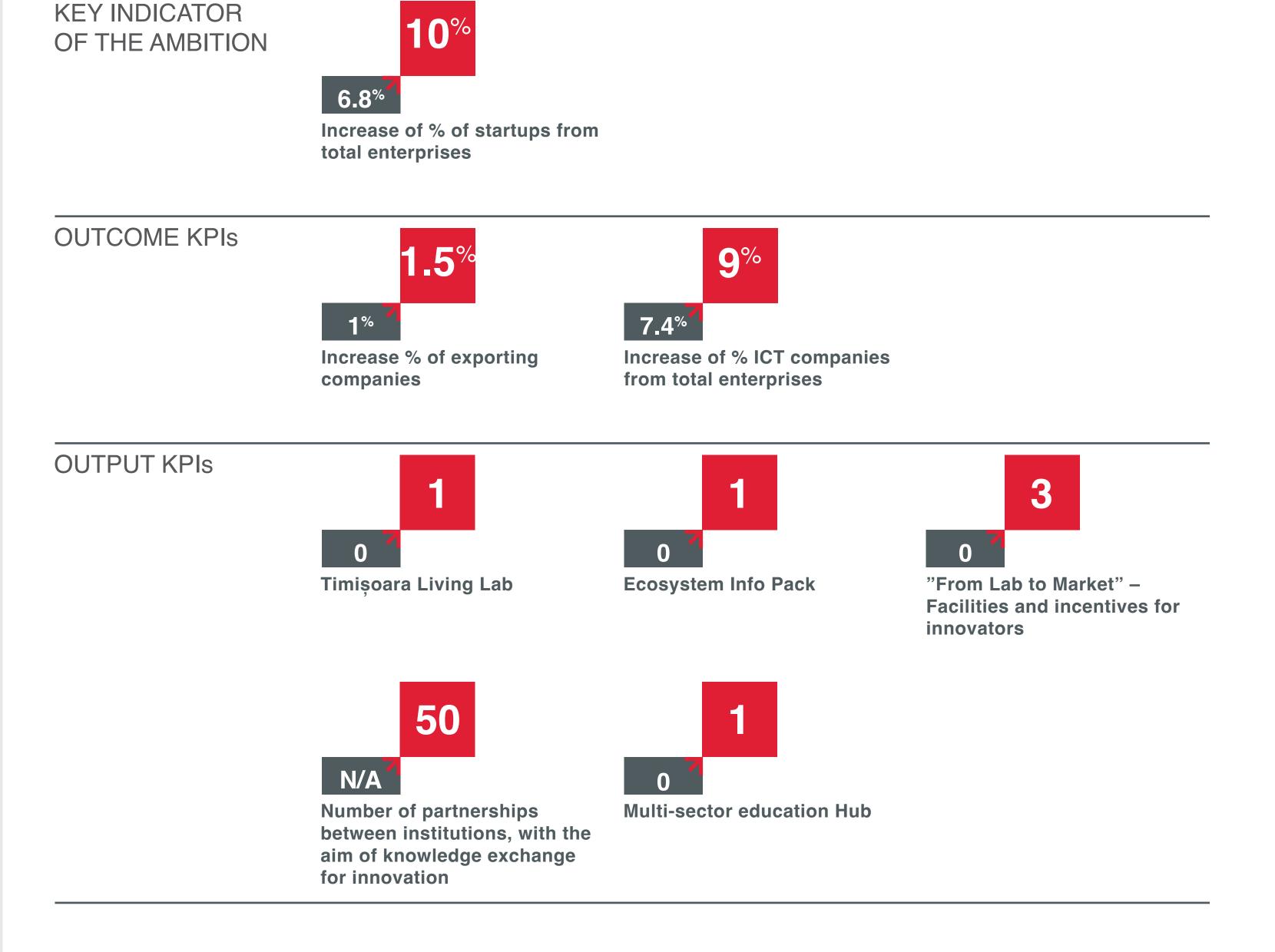


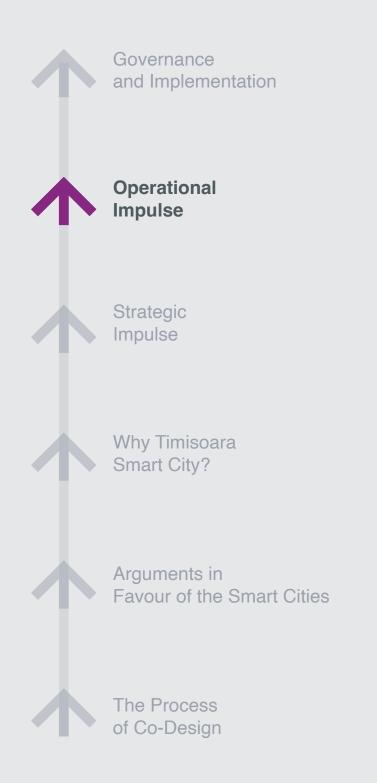












OBJECTIVES



STRATEGIC PROJECTS

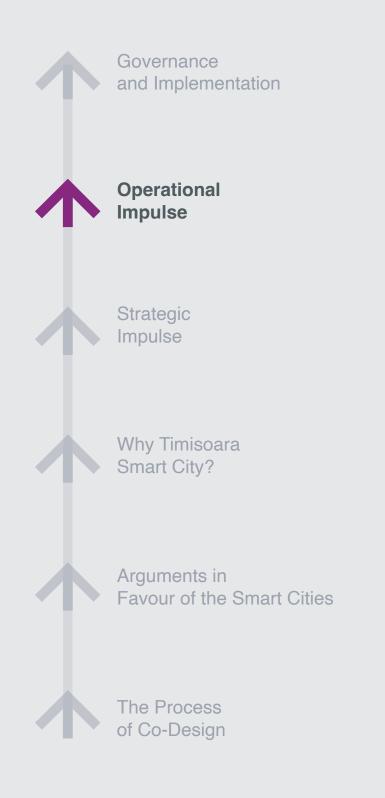
- **Timișoara Living Lab**: City innovation centre, generating and piloting new projects and initiatives on an ongoing basis
- Map of abandoned spaces for temporary use to support entrepreneurship (office space, events, maker space, etc.)
- **Ecosystem for the full innovation cycle**: research and development, testing, prototyping and market validation
- Defining **an innovation district** where international investors, specialists, researchers and technology companies will be invited
- Appointing a representative from the City Hall responsible for dialogue and interaction with ecosystem actors, as well as the creation of an entity to facilitate the coagulation of the entire ecosystem

KEY

Planned 7

In progress >



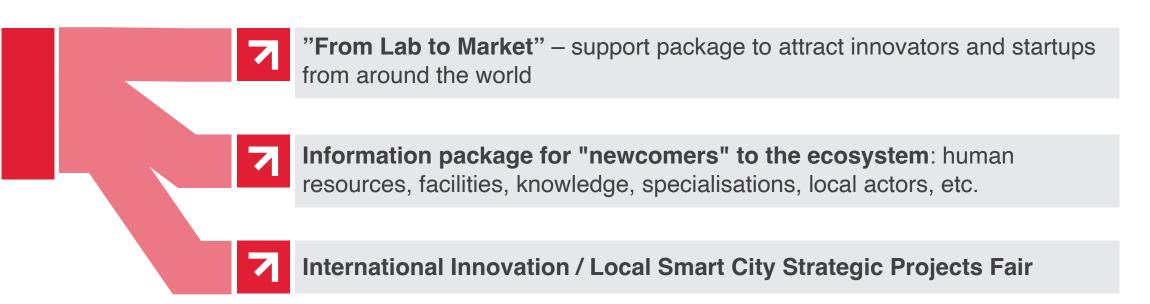


OBJECTIVES

STRATEGIC PROJECTS

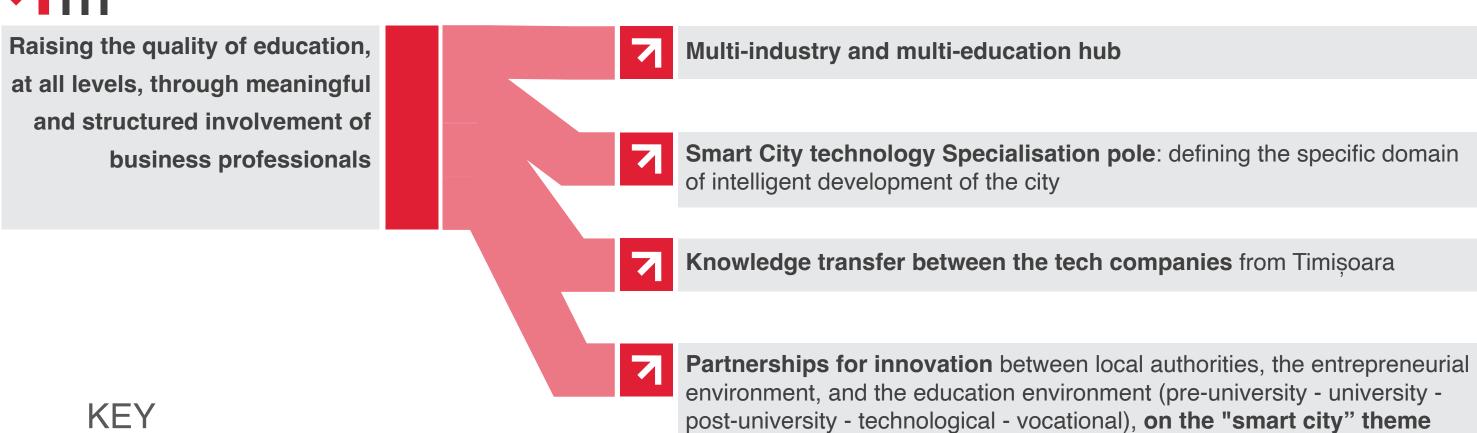


Stimulating the entrepreneurial culture, based on thematic and sectoral differentiators of competitiveness for Timișoara at international level, in terms of research-development -innovation, knowledge or human resources





at all levels, through meaningful

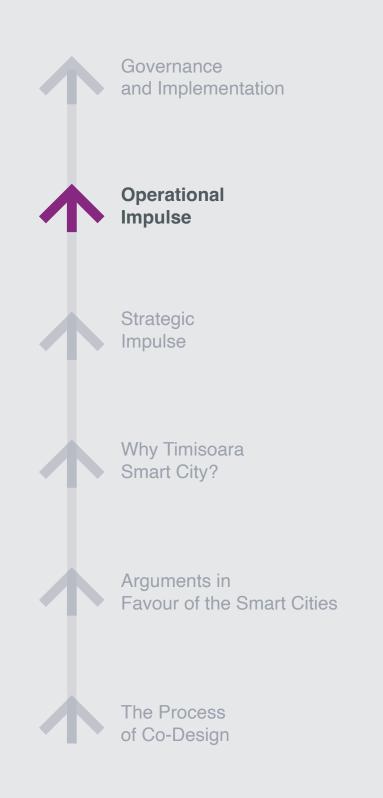


KEY

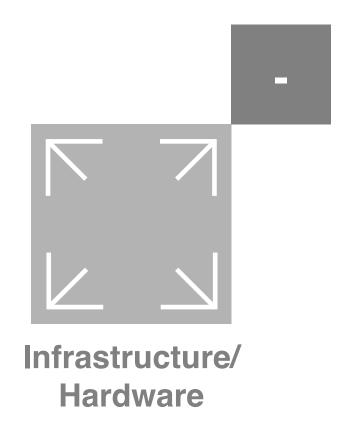
Planned 7

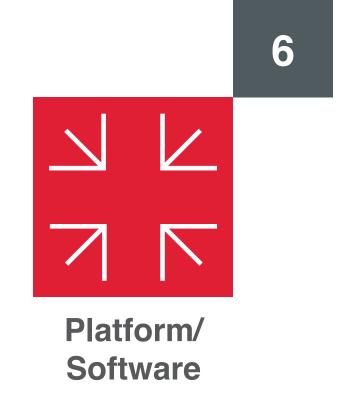
In progress >



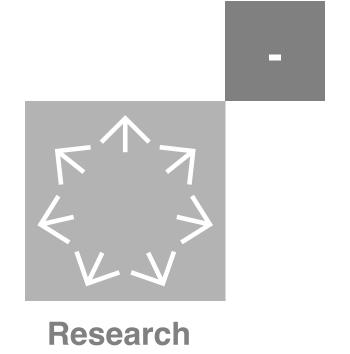


OPEN ACTIONS

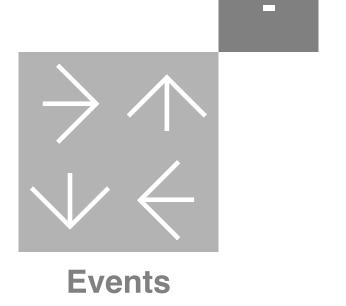




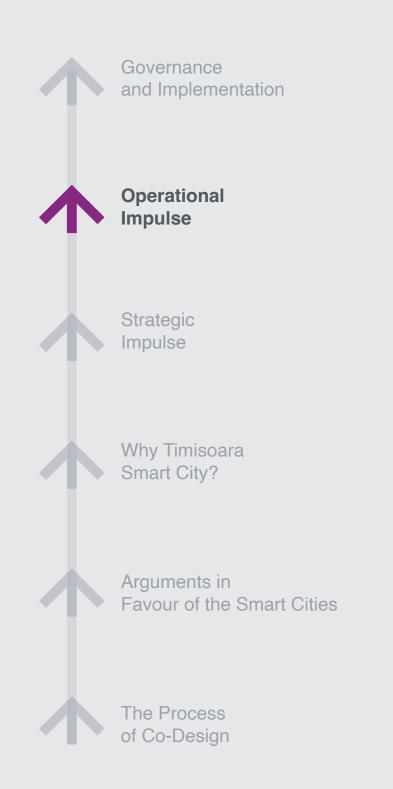












RELEVANT LOCAL ACTORS



DIGITAL ENABLERS





SMART CITY KEY
DIMENSION:
ECONOMY

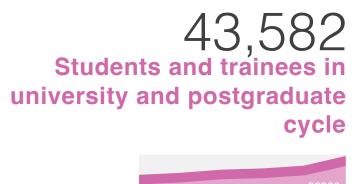


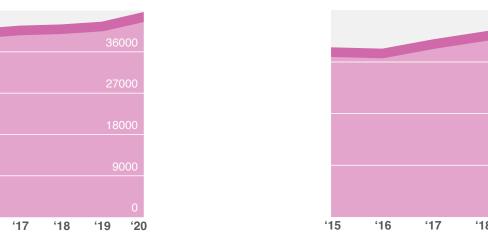
SUSTAINABLE DEVELOPMENT GOAL

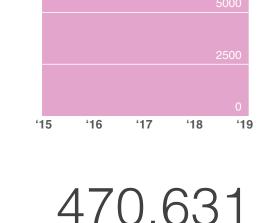
The highly qualified human capital, so relevant for the smart city, is provided by the universities, yet the volume is insufficient by comparison to the demand from industry.







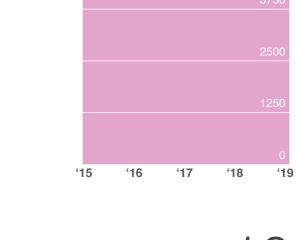




University and postgraduate

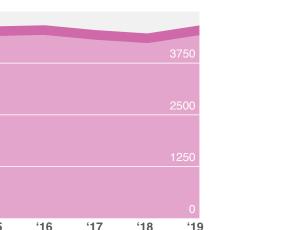
9,133

cycle graduates



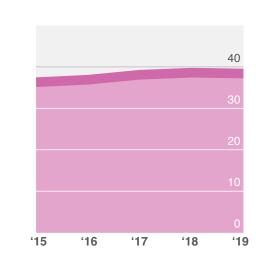
Highschool graduates



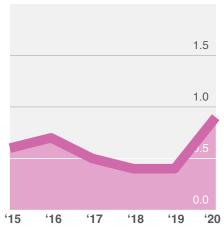


(2019)

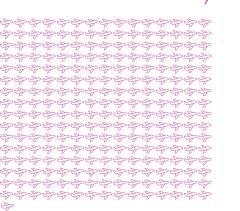
4,543



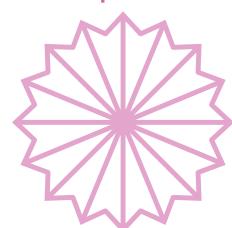




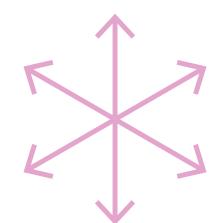
470,631
Passangers in airfares (national and international)



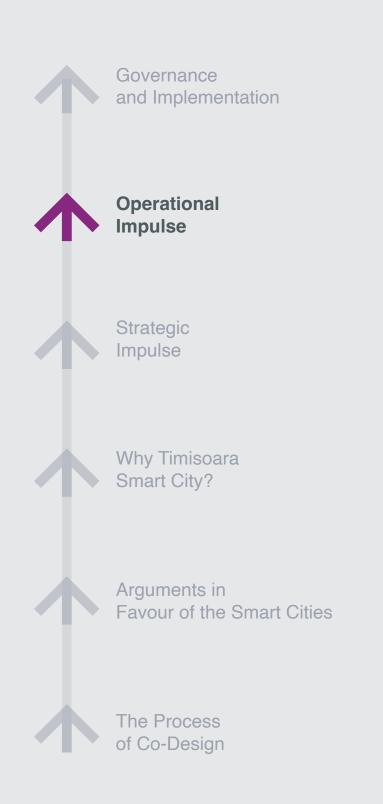
16 **Twinnings with European cities**

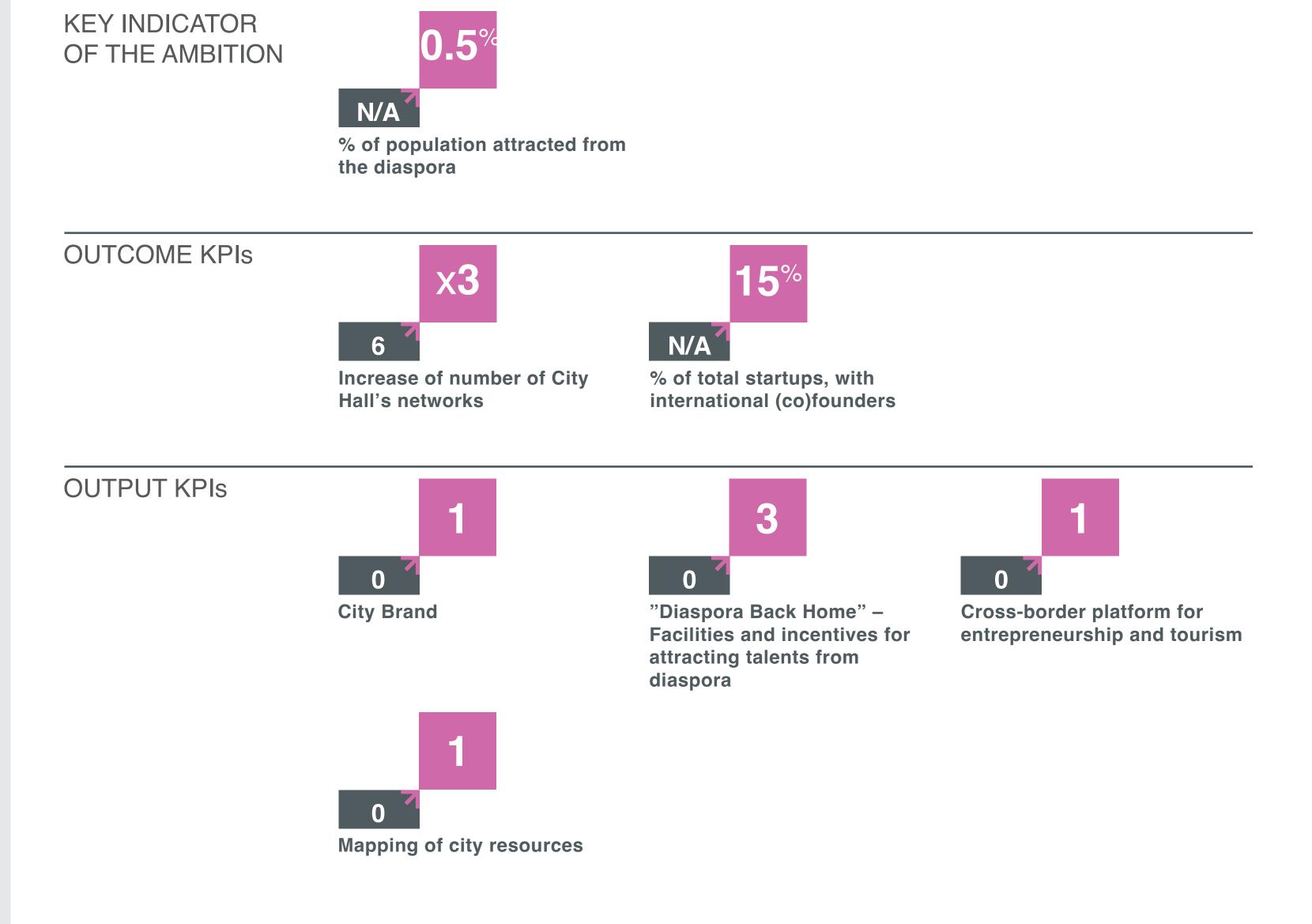


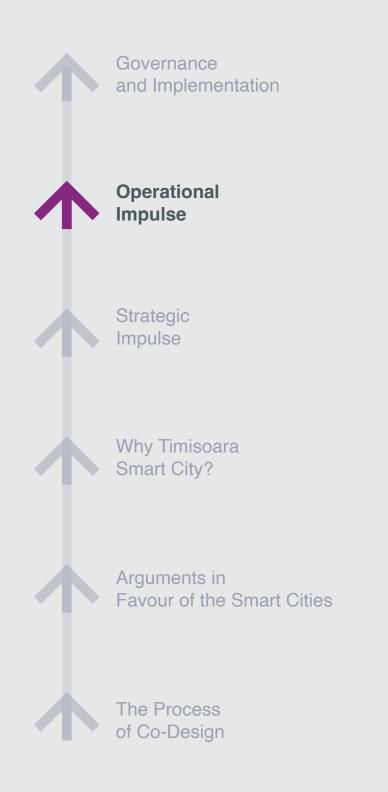
Number of European network memberships











OBJECTIVES

Creating the city brand around the smart concept and creating the prerequisites for positioning

Timişoara in the top 25 of attractive European cities in the corresponding size class

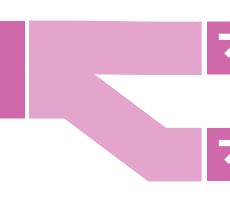


MAGNETimișoara: City brand to increase Timișoara's attractiveness at European level

Diaspora "back home": Programme to attract diaspora experts to work on key city development projects and initiatives



Opening up to other communities in European cities, fostering mutual learning, and connecting Timişoara citizens directly with citizens of other cities



Timișoara in a pan-European context: Knowledge sharing and networking between administrations, regarding the movement of people, health, study or work opportunities

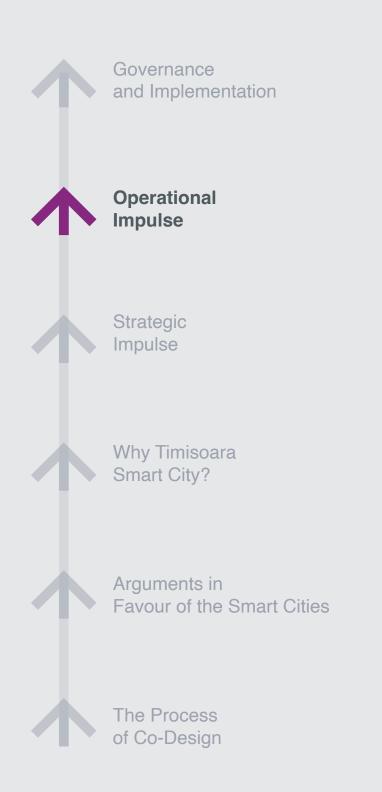
Cross-border digital interconnection to support entrepreneurship and tourism, with Hungary and Serbia

KEY

Planned 7



Ambition 4: Timișoara: An Attractive City for International Talent



OBJECTIVES



Creating digital products and services that will make it easier for foreign tourists to discover the city

STRATEGIC PROJECTS

Map of resources at city level: Platform to highlight and aggregate information about organisations, projects, funds, etc.

Digital tourist guides - tools to make the most of historical values, architecture, museums, etc.

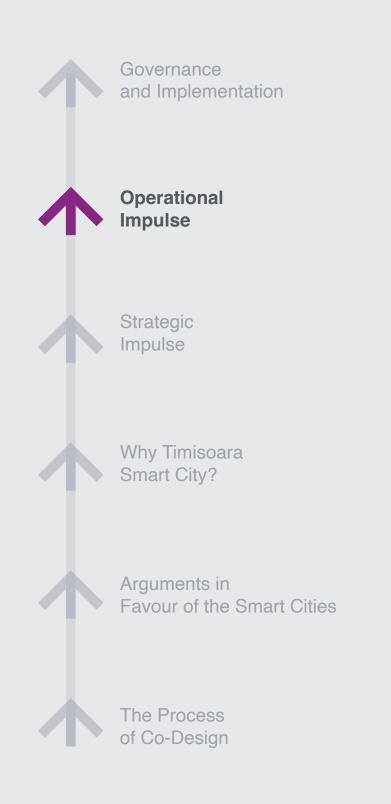
Democratising and making innovation accessible - "Anyone can generate innovation for an attractive city": tool for collecting citizen/community science initiatives

KEY

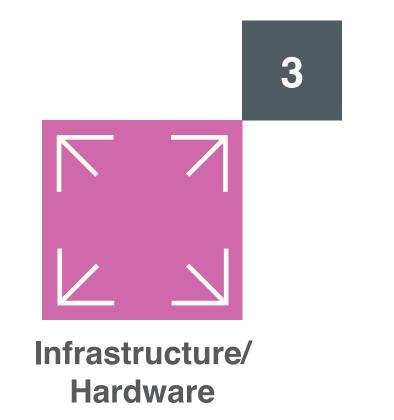
Planned 7

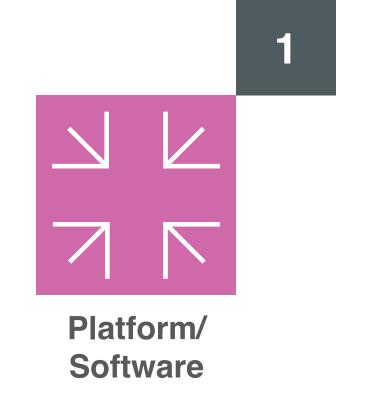


Ambition 4: Timișoara: An Attractive City for International Talent

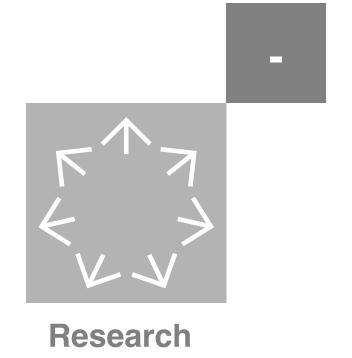


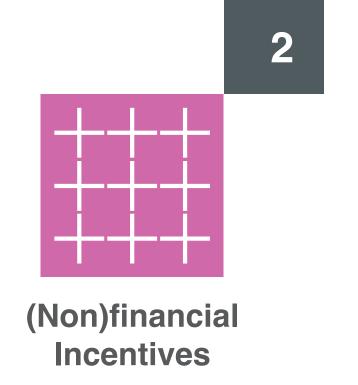
OPEN ACTIONS

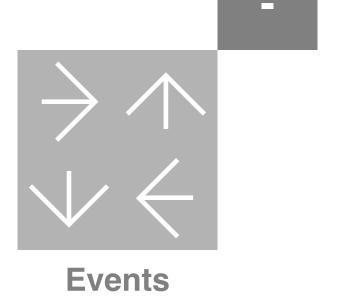






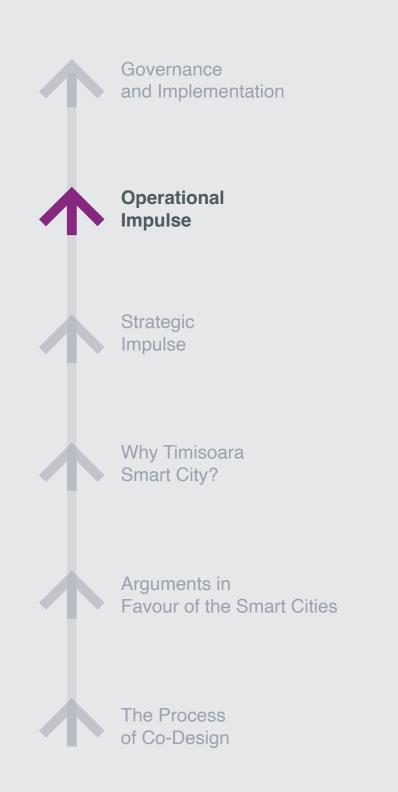




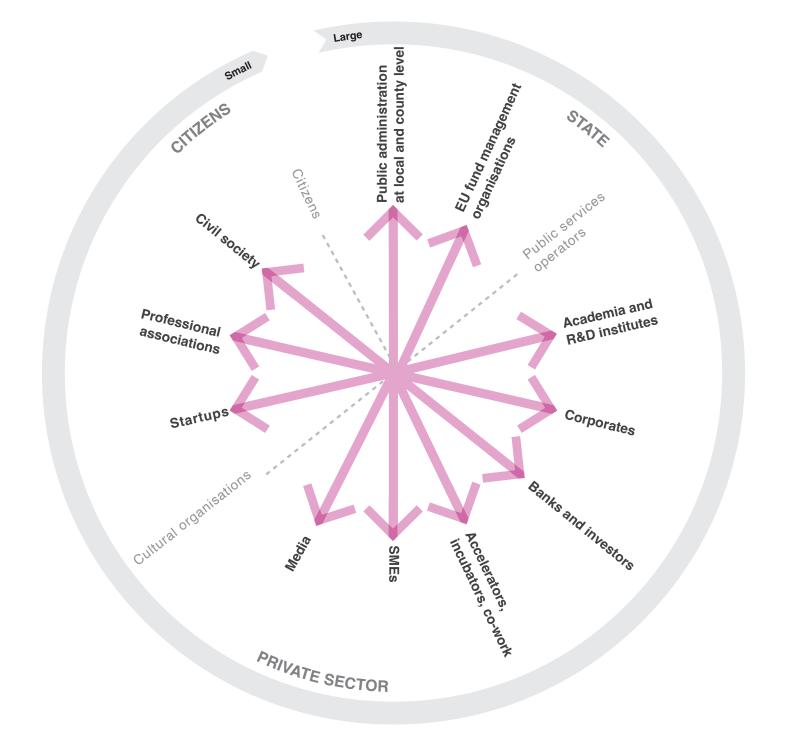




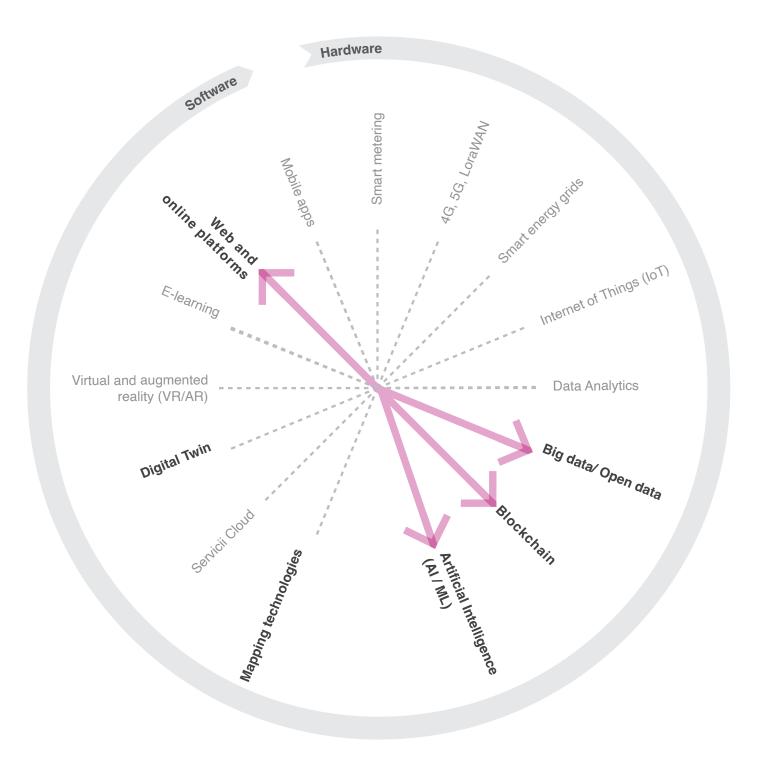
Ambition 4: Timișoara: An Attractive City for International Talent



RELEVANT LOCAL ACTORS



DIGITAL ENABLERS





SMART CITY KEY
DIMENSION:
ENVIRONMENT

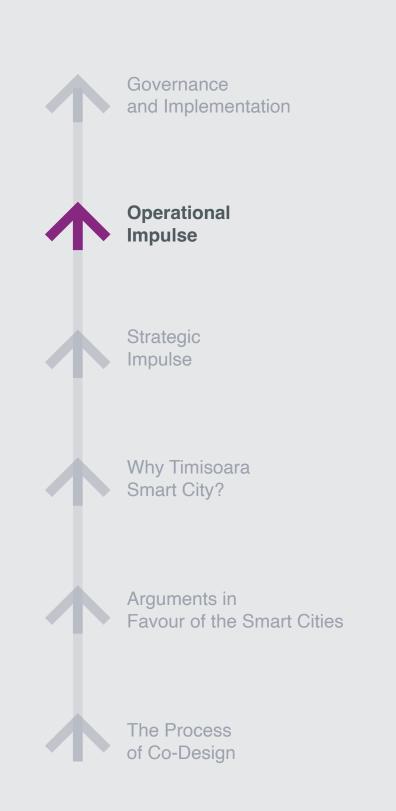


SUSTAINABLE DEVELOPMENT GOAL

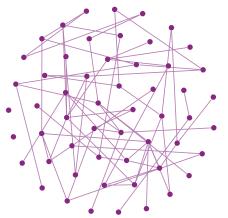


Timişoara, although known as a city of parks and green space, could not keep the quality of the environment, hand-in-hand with the increase of population and industrial development.

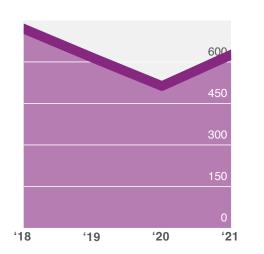




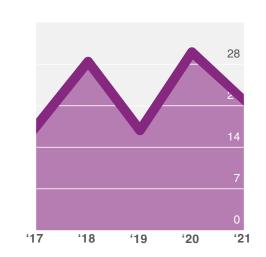
55 Number of environment sensors (air quality) public and private (Urad&ETA)



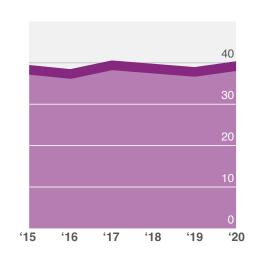
626 **CO2** emissions PPM (2021)



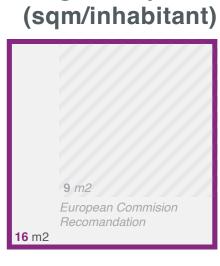
22.04 **Particulate matter PM2.5** mg/m3 (2019)



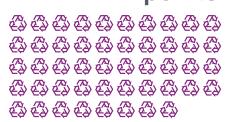
39.20 Water consumption per capita (m3)



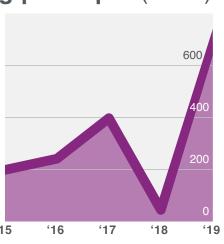
16 Parks, green spaces



475 **Number of waste collection** points



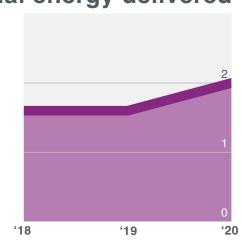
691 **Amount of household** waste kg per capita(2019)



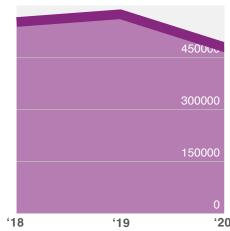
13.50% % recycling from recyclable waste

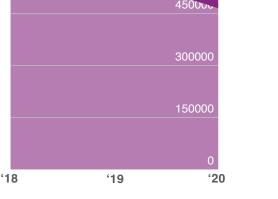


1.90 Parity: Thermal energy produced (MWh) versus Thermal energy delivered

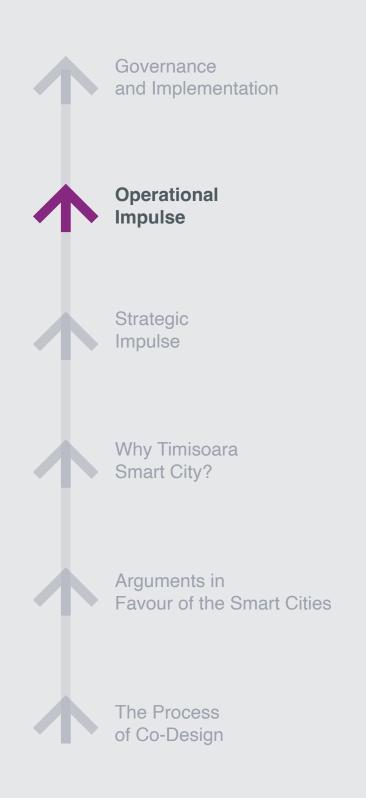


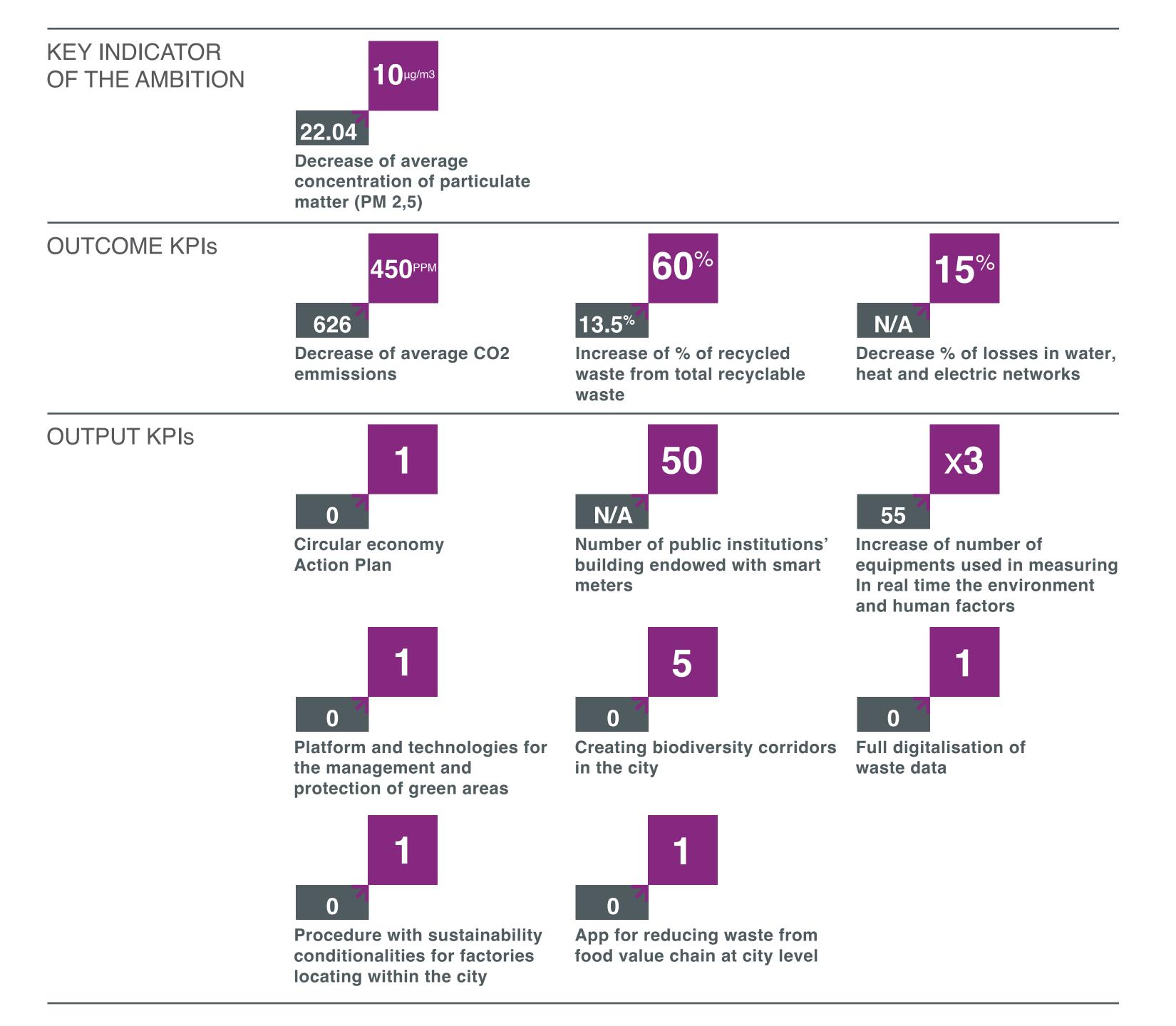
480,482
Natural gas consumption (MWh)

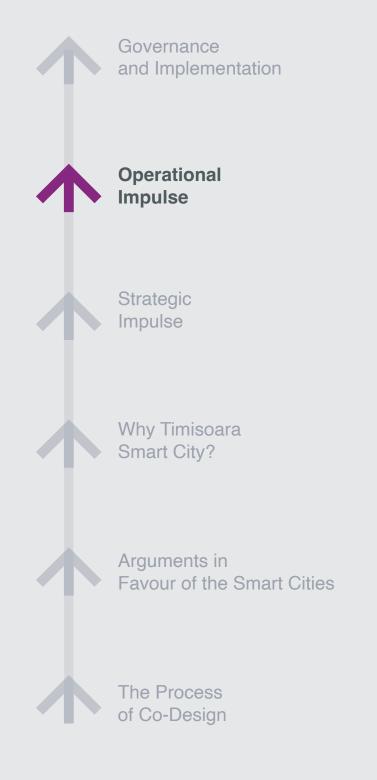












OBJECTIVES

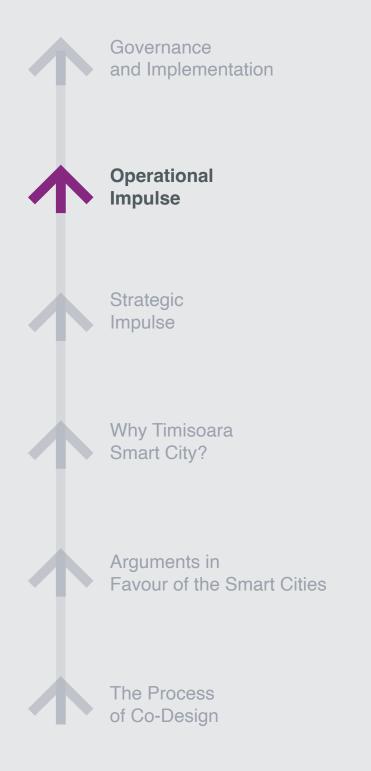
Planned 7

In progress >

STRATEGIC PROJECTS







OBJECTIVES



Improving living conditions in the city based on data collected in real time concerning human and environmental factors

STRATEGIC PROJECTS

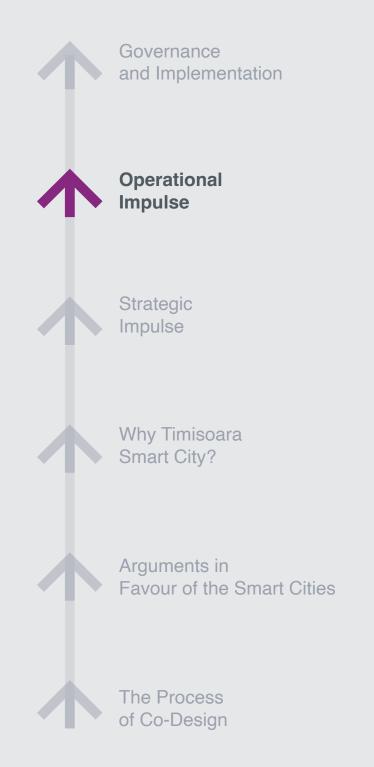
- **Scanning environmental quality:** Use of technologies drones, sensors, platforms to analyse the quality of environmental factors in real time
- Timișoara a clean city: digitization and optimization of waste collection, recycling and management processes
- New sustainability rules for the setting up of business production capacities in the city e.g. carbon footprint, greenhouse gas emissions, types of waste generated, etc.
- **Food Waste**: application to optimise food usage within shelf/life and to reduce losses in the food consumption chain

KEY

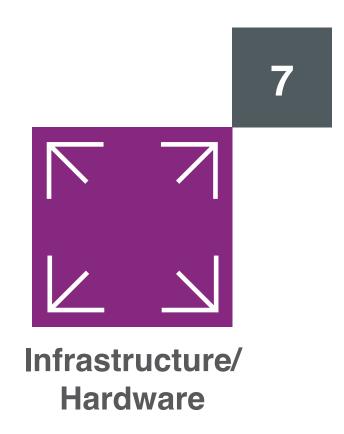
Planned 7

In progress >

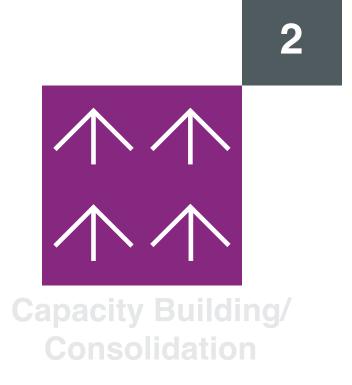




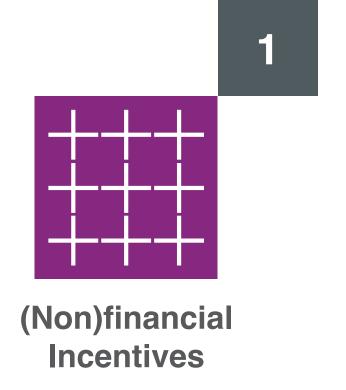
OPEN ACTIONS

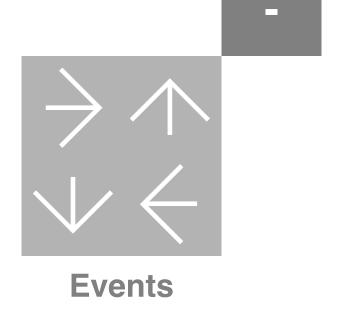




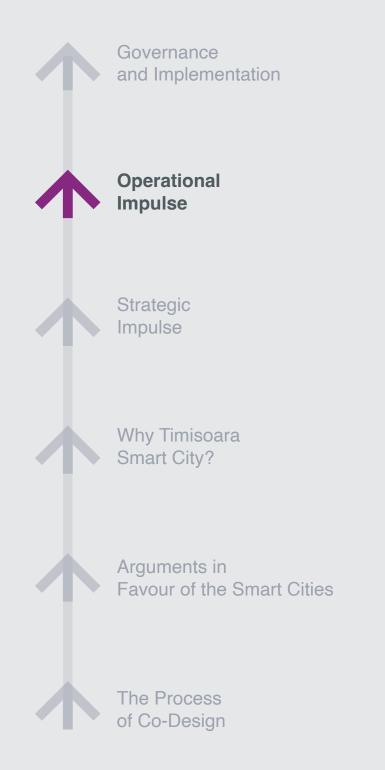








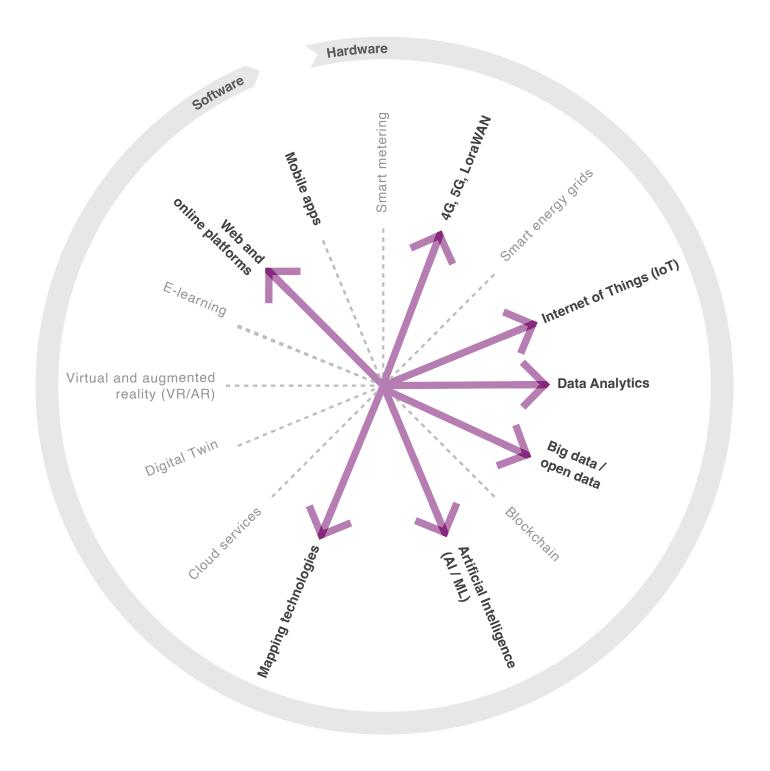




RELEVANT LOCAL ACTORS



DIGITAL ENABLERS





SMART CITY KEY DIMENSION: LIVING



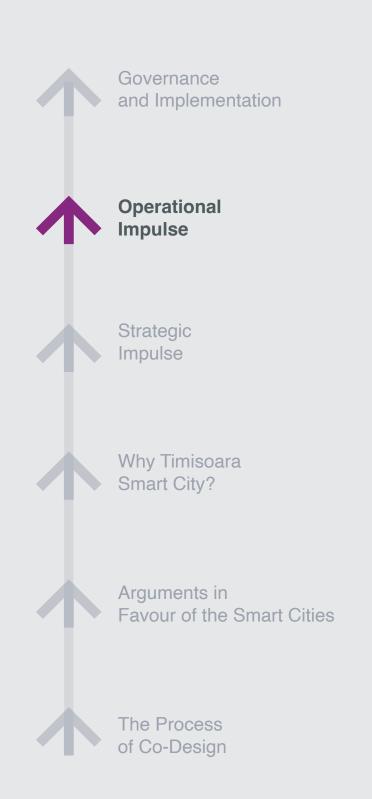
SUSTAINABLE DEVELOPMENT GOAL

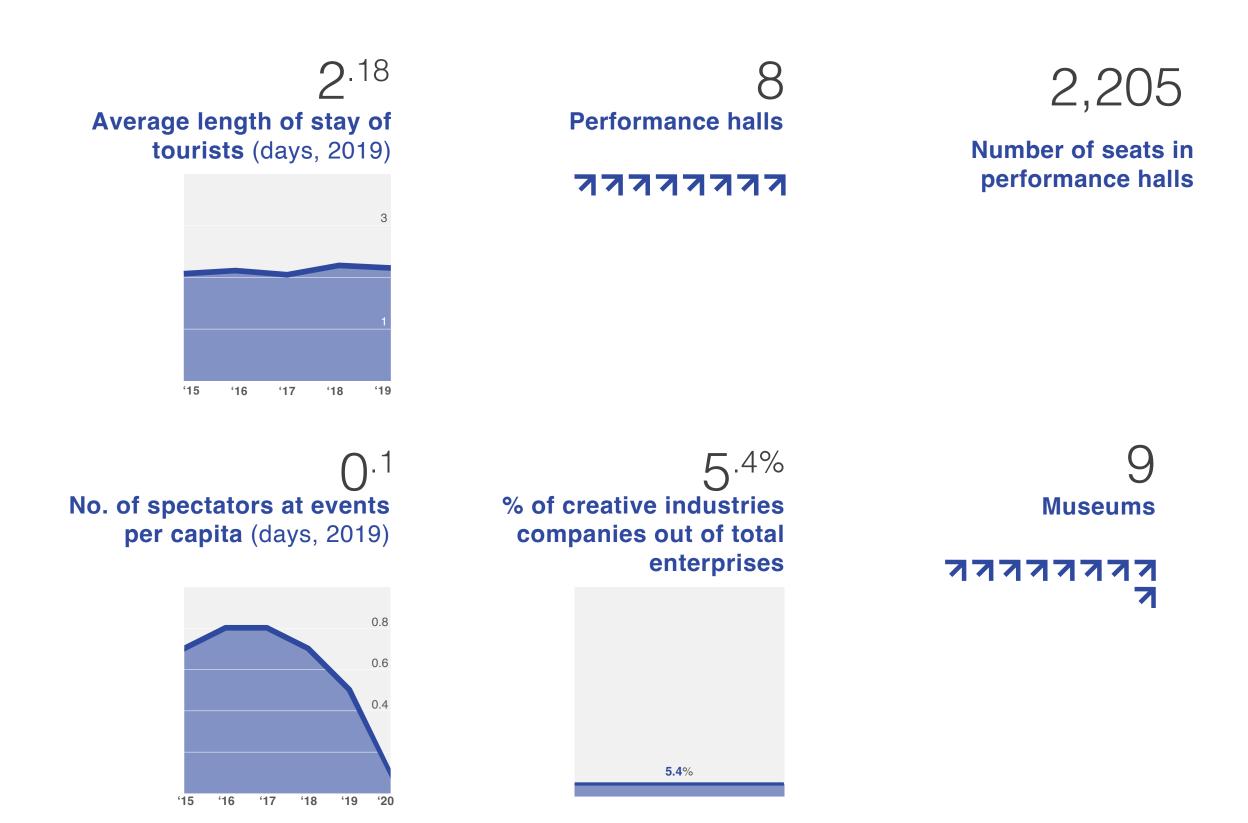


Alongside with the existing culture infrastructure, it is essential for a true "Fun City Timișoara" the contribution of the creative entrepreneurship, tech and niche events.

As an observation, Rome benefits from the same average length of stay of tourists, but with a number of 15 million tourists. In the case of Timisoara, the number of tourists is balanced with regard to the number of inhabitants.









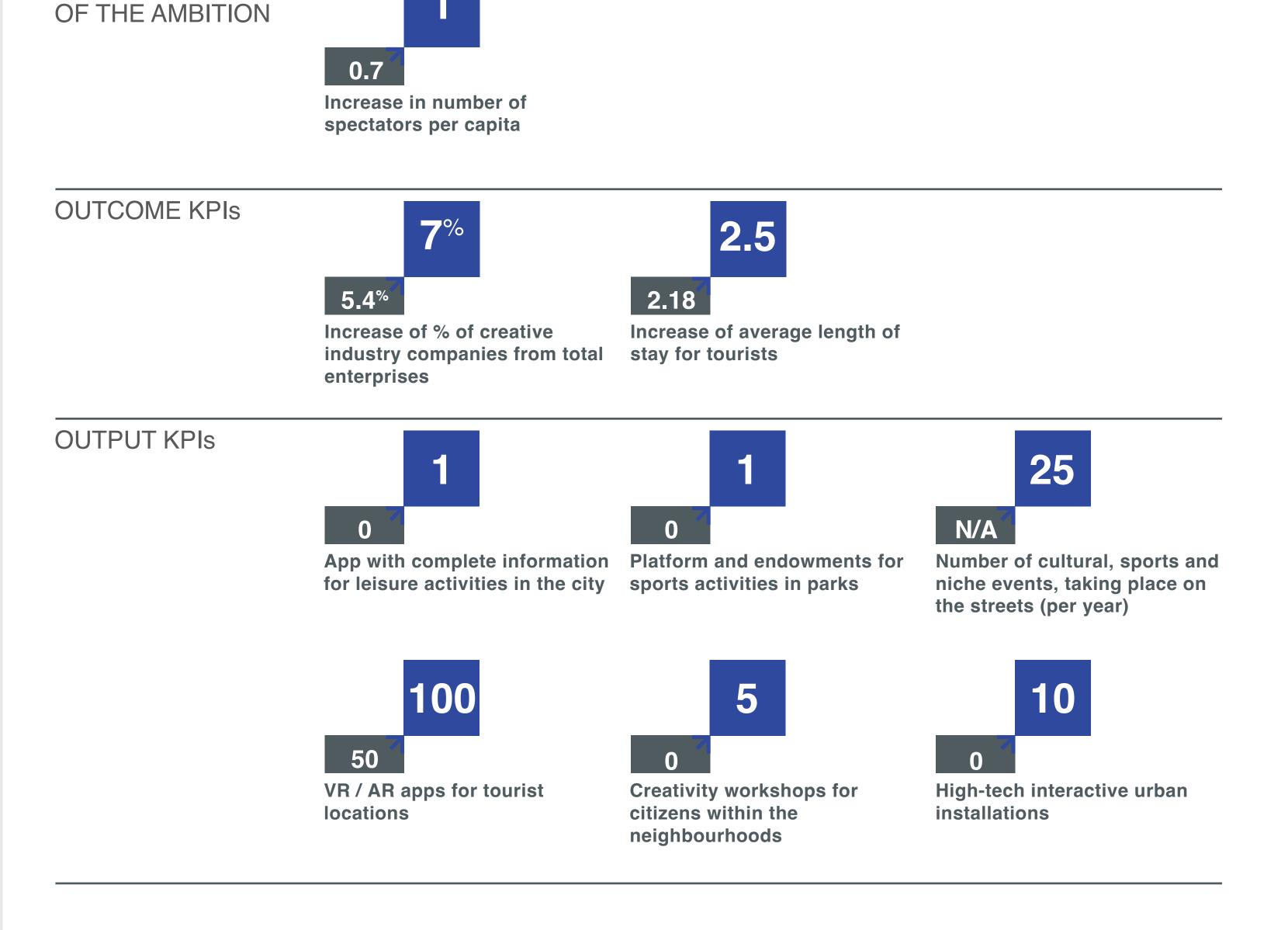
0.02

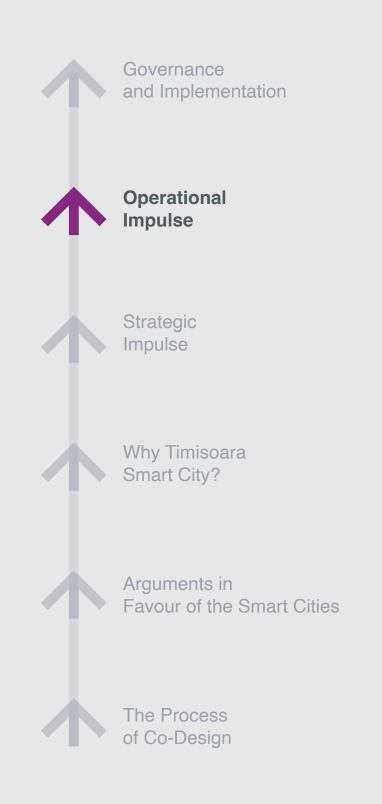
6.510

Crime per capita

KEY INDICATOR



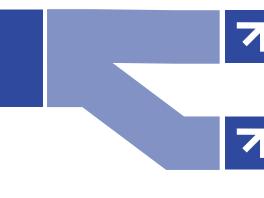




OBJECTIVES



Improved mental and physical health of citizens in a city that offers more predictability and less stress



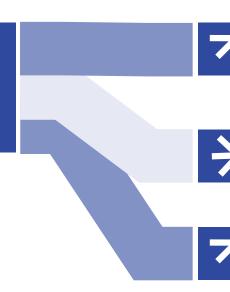
STRATEGIC PROJECTS

"TIMISOARA" Cityapp - Integrated App incorporating all useful information: entertainment, tourist attractions, HORECA, public transport routes, parking,

Sports in parks: Providing and distributing sports that can be placed in public parks/areas and promoting them digitally on the map



A dynamic and diverse cultural life of the city, based on **Timișoara Capital of Culture** 2023 rollout, vibrant creative industries and an innovatively harnessed multicultural cultural heritage



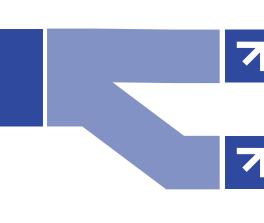
Culture in the street and local night life promoted digitally: The presence of artists from all creative spheres on the streets of Timisoara

Tourist/interest locations mapped on VR/AR apps connected to physical locations and stories in the city

Platform to support **cultural operators** to deliver high quality events



Creating the conditions for the city in which you want to grow professionally, raise your children and grow old



Creativity workshops for neighbourhood citizens: spaces with basic equipments and technologies, playshop, makerspace, exhibition, all adapted to the profile and traditions of the neighbourhood

High-tech interactive urban installations: QR codes in public spaces with information about cultural events, educational activities for children, smart parks and resting places (with wireless charging and free wifi)

KEY

Planned 7

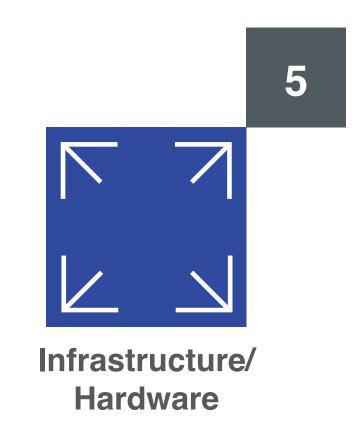
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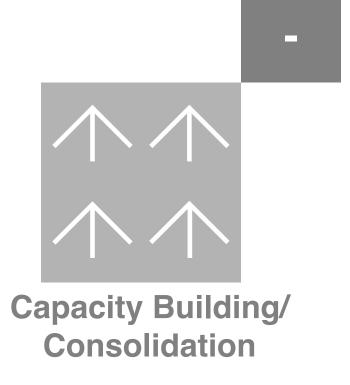


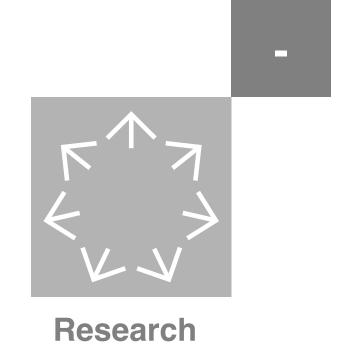


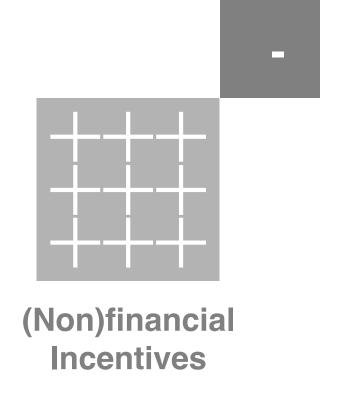
OPEN ACTIONS

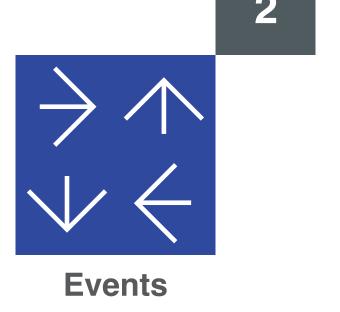




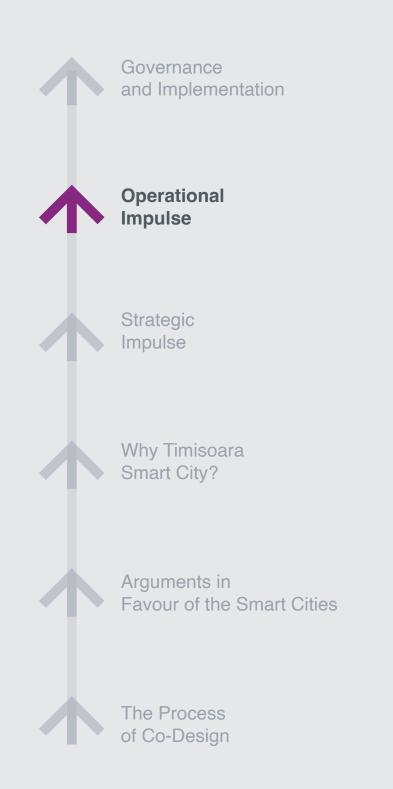








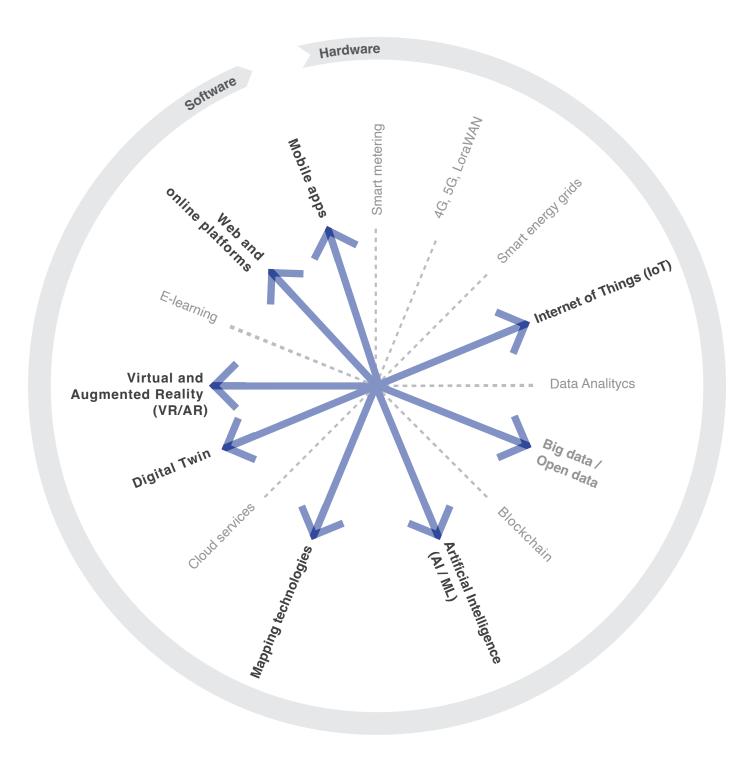




RELEVANT LOCAL ACTORS



DIGITAL ENABLERS





SMART CITY KEY
DIMENSION:
MOBILITY



SUSTAINABLE DEVELOPMENT GOAL

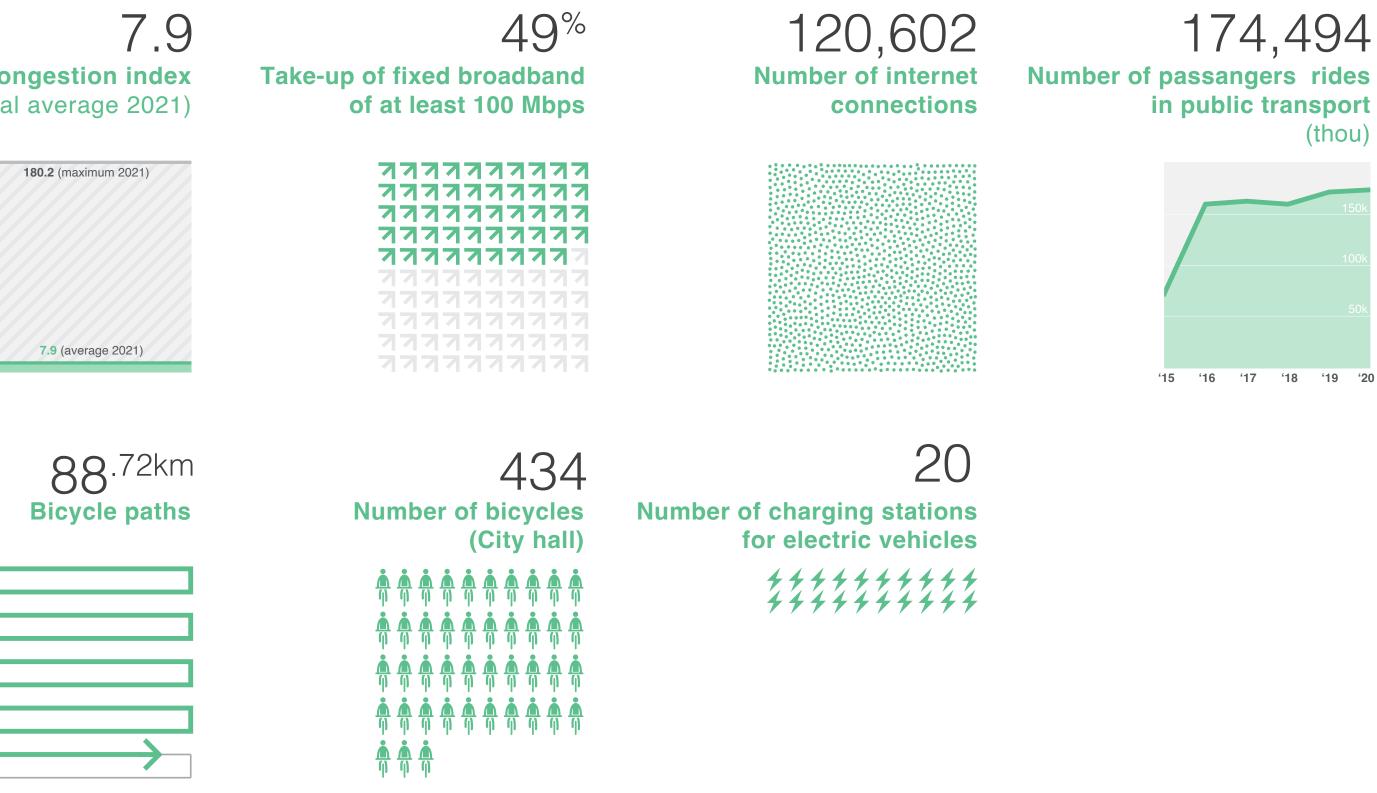


Even if the Timişoara traffic data indicate an improvement of the congestion index, the problems of accessibility and communication of the city centre with the periphery remain on the agenda.





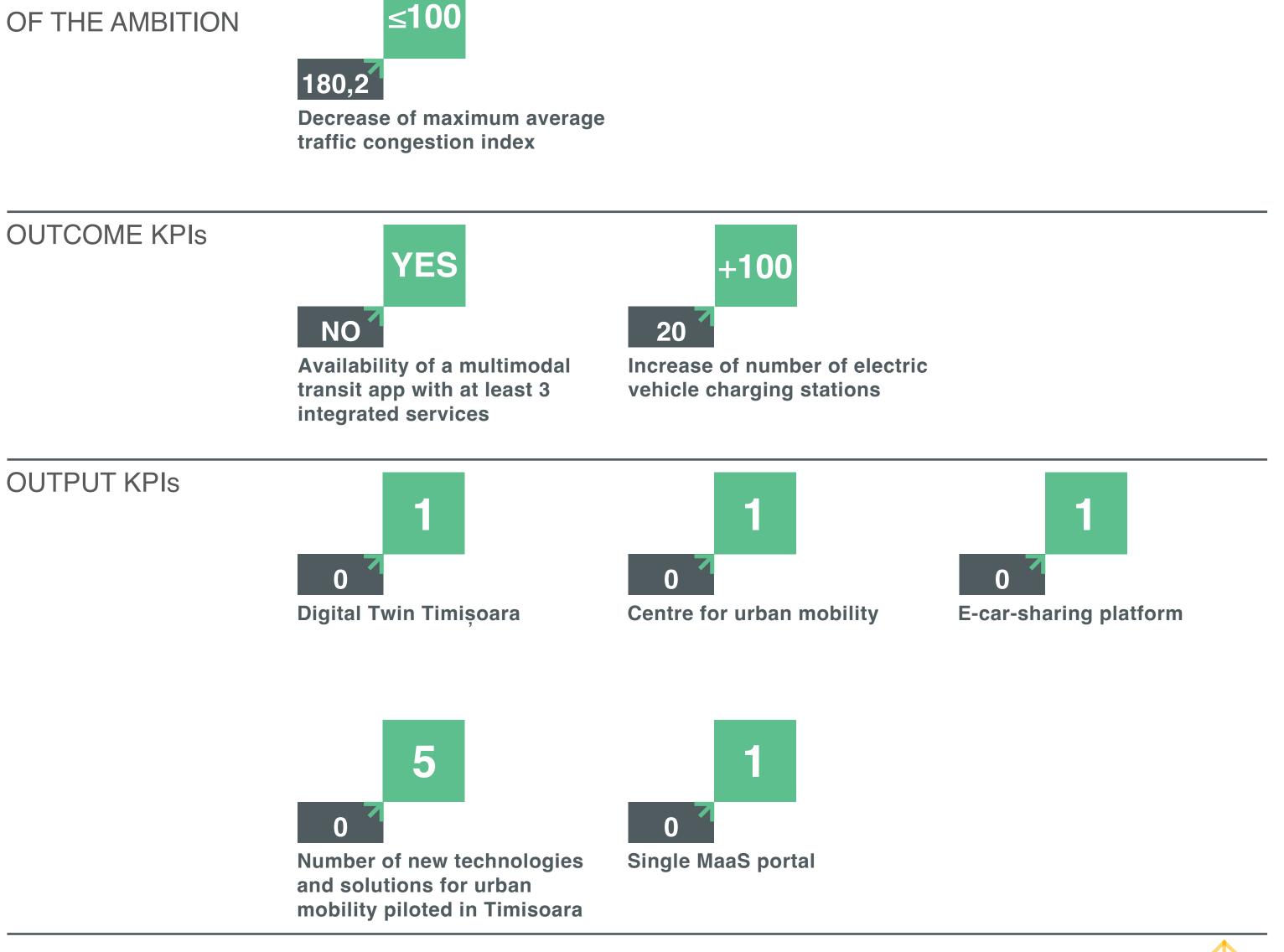




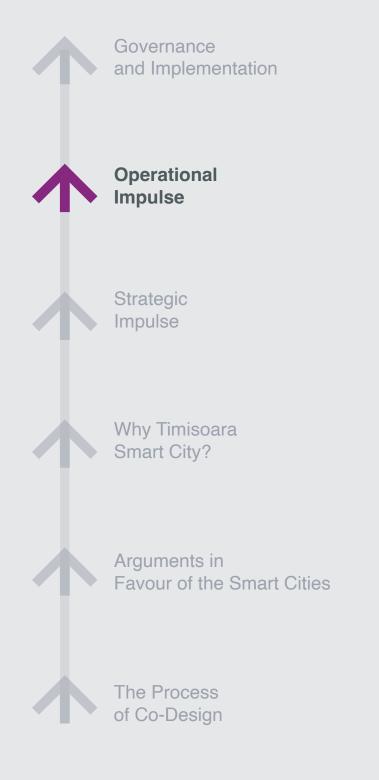


KEY INDICATOR









OBJECTIVES

Boosting and strategically guiding investment in digital infrastructure



- Smart City infrastructure: ultraconnectivity, ultrabroadband, IoT
- Timișoara Digital Twin: Digital city platform: architecture sensor data collection open and standardised data 3D city map
- Lobby for the implementation of the legislation concerning the Public Private Partnership (PPP) for digital investments

7

Supporting public institutions to achieve optimal impact from their investments through instruments that support their operation and sustainability

Urban Mobility Centre: Development of a smartly managed and integrated multimodal mobility and parking solutions

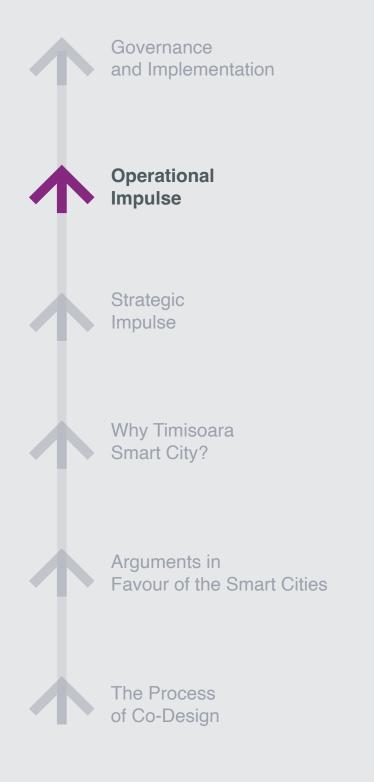
- Prototyping and piloting new means of urban mobility through international city partnerships eCar sharing, eBike sharing, AD shuttles, delivery bots/drones, smart intersections, etc.
- Digital platform presenting and promoting status of strategic public projects

KEY

Planned 7

In progress >



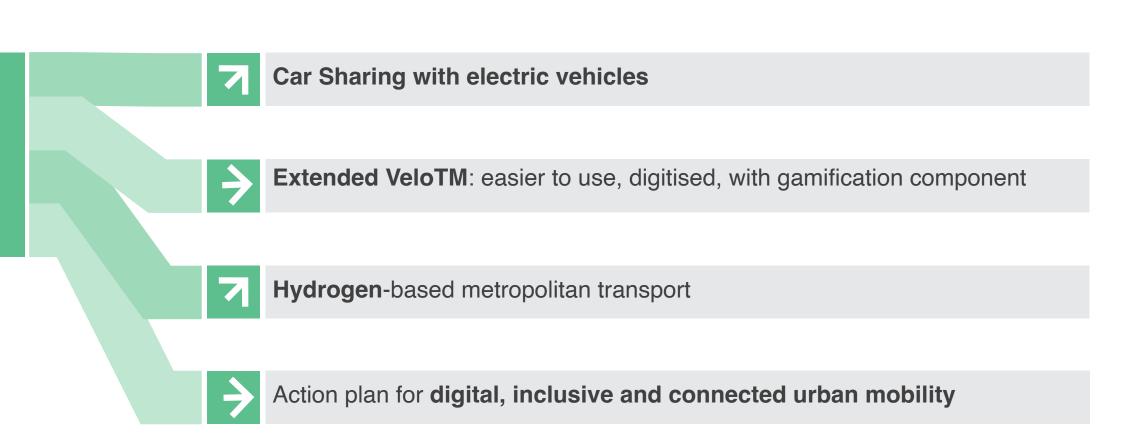


OBJECTIVES

STRATEGIC PROJECTS

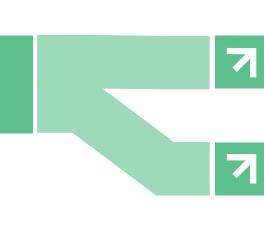


Creating an accessible and user-friendly public transport and mobility system and stimulating the development of new digital mobility applications by the private sector





Organically connecting the urban and peri-urban areas of the Timişoara metropolitan area



Multimodal transport platform (public transport, velo, taxi-Uber), with inclusive mobility facility (mothers, seniors, disabled) and community car pooling facility

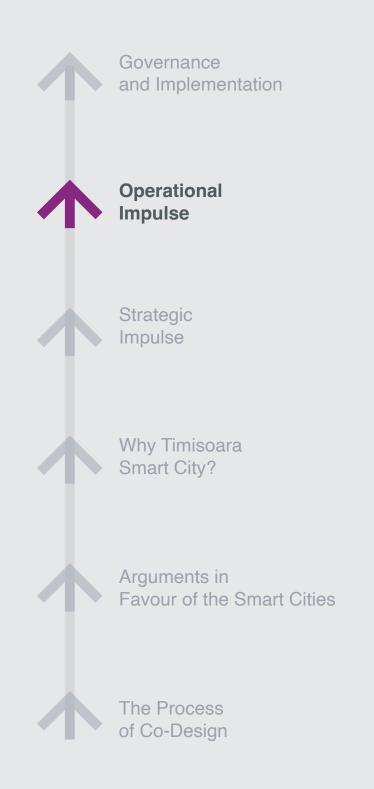
Timișoara MaaS: mobility as a service: grouping all mobility services in a common portal

KEY

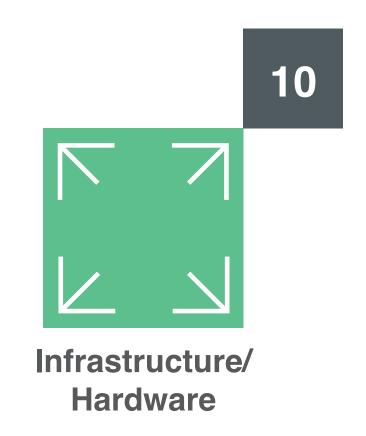
Planned 7

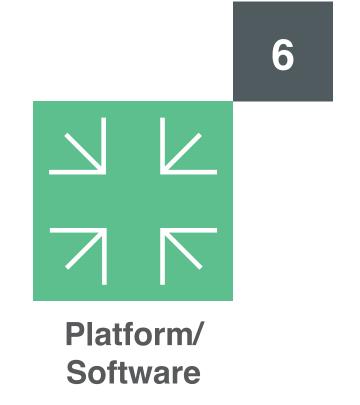
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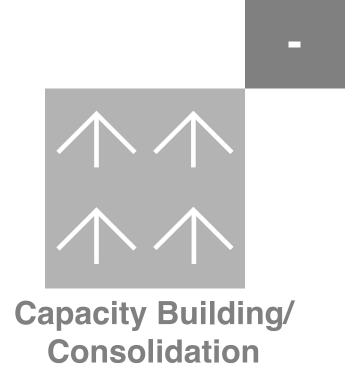




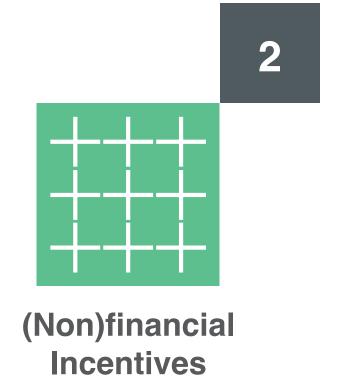
OPEN ACTIONS

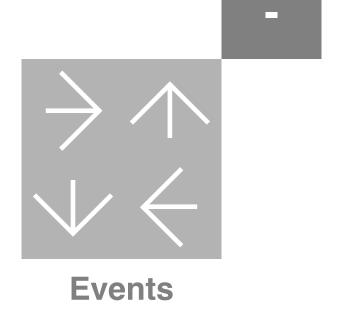




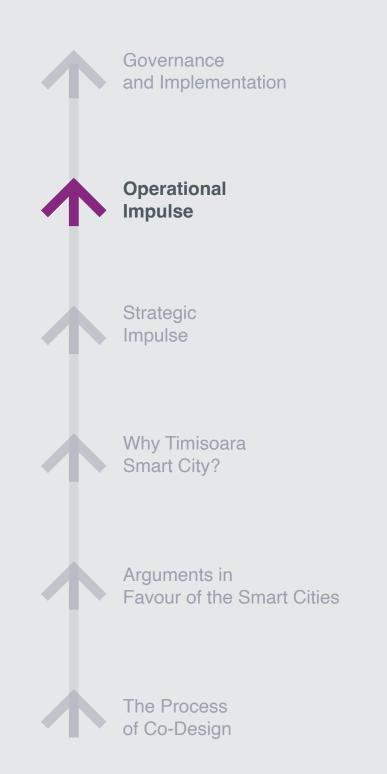












RELEVANT LOCAL ACTORS



DIGITAL ENABLERS





Process

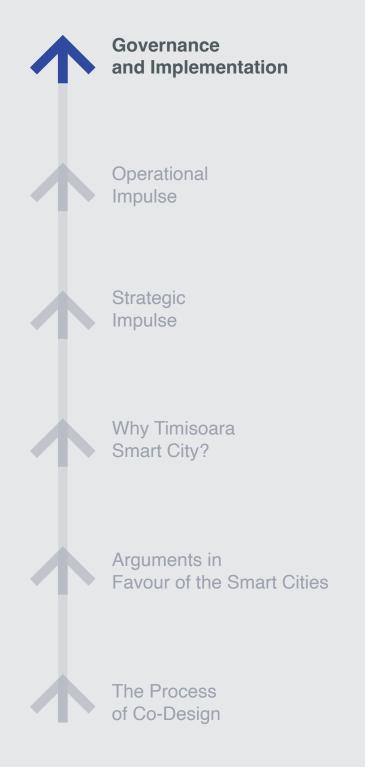


For the "pilot" phase of implementation, during the first 12 months we shall deploy a facilitation process with the following objectives:

- Coordination of the strategy implementation;
- Institutional building creating the structures and principles of governance;
- Creating the appropriate framework for large scale engagement of professionals and organisations;
- Management of the portfolio of strategic projects, through the creation of working groups, drafting of project concept notes, attracting relevant resources and start of projects' implementation;
- Facilitation of implementation of open actions by third party actors;
- Building up of a cohesive community around the strategy;
- Ensuring transparency and traceability for the entire implementation roadmap;
- Rollout of the **complete cycle of monitoring, evaluation and update** of the strategy, for the first 12 months.



Process

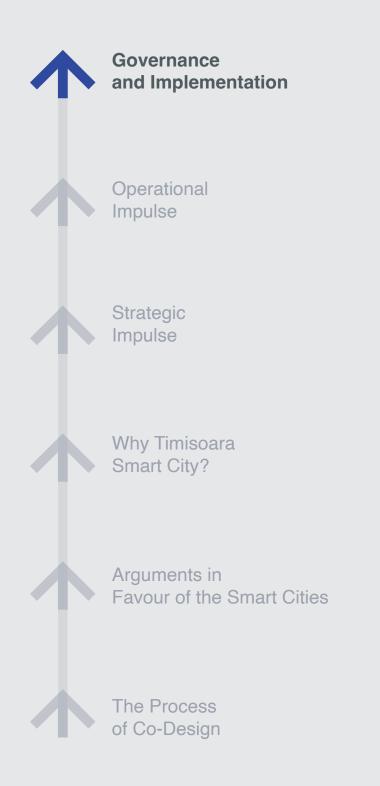


The main **instruments** which will be brought along encompass:

- Proces design
- Process facilitation
- Training on facilitation for the 7 action group and project working groups coordinators
- Institutional building define objectives, principles, resources and ways to operate, for each governance entity
- Internal guidelines and procedures (e.g. way to ensure complementarity and no overlapping among strategic projects, as well as the drawing up of new KPIs at project level etc.)
- Organising workshops and thematic / specialised workshops for various types of local actors
- Research data and information collection, processing and analysis throughout the implementation, including new KPIs to be measured at city level
- Project management per individual strategic project
- Online consultations with various target groups
- Communication and engagement platform for local actors citizens and organisations
- Monitoring platform



Institutional Building



City Hall of Timişoara

Role: Leader of the process, coordinator of the governance and implementation, promoter of strategic projects and facilitator for the open actions

SmarTM – Steering Group

Role: Deliberative, focused on the principles of governance and implementation, as well as providing support and recommendations with regard to monitoring, evaluation and update of the strategy

FRUIT – Foundation for Urban Redesign and Improvement of Living in Timişoara

Role: Executive, operational, to prototype and develop projects. FRUIT will have its own team, led by a CEO, as well as a Board led by the City hall, and with representative of each Smart City types of local actors: SME, corporates, universities, NGO, citizens etc. All decision-making and executive positions will be limited in time.

PartnerTeaM – Smart City and Digital Transformation Deal for Timişoara (currently named "Extended stakeholder group" on DECIDEM)

Role: Consultative, with 7 action groups, each for one strategic ambition – initiates project concepts, as well as technology terms of reference. Both individuals and organisations can join this non-juridical entity.



Funding Approach



- EU Grants managed at regional and national levels
 Regional Operational Programmes West, Romania
 National Plan for Recovery and Resilience
 Operational Programme Intelligent Growth, Digitalisation and Financial Instruments
 Operational Programme Technical Assistance
- EU Loans

 European Investment Bank

 European Investment Fund
- Private Investors

 E.g. Smart City Marketplace
- **EU Grants managed directly by the European Commission**InvestEU

Urban Innovative Actions

Interreg Europe

13 – Interregional Innovation Investments

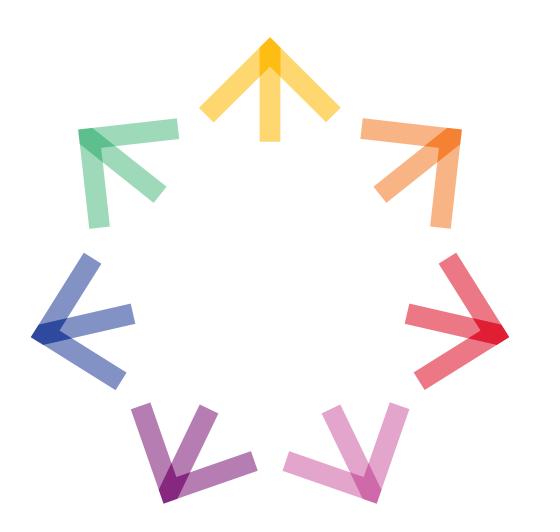
Digital Europe Programme

URBACT

Horizon Europe

Connecting Europe Facility





Call to Action!

The Smart City and Digital Transformation Strategy Timişoara 2022-2027 received *Expressions of Interest from professionals*, during the third online consultation (Dec 2021 – Jan 2022), to participate in the upcoming working groups for over 50% of the strategic projects!

THANK YOU AND STAY TUNED!

smartcity@primariatm.ro