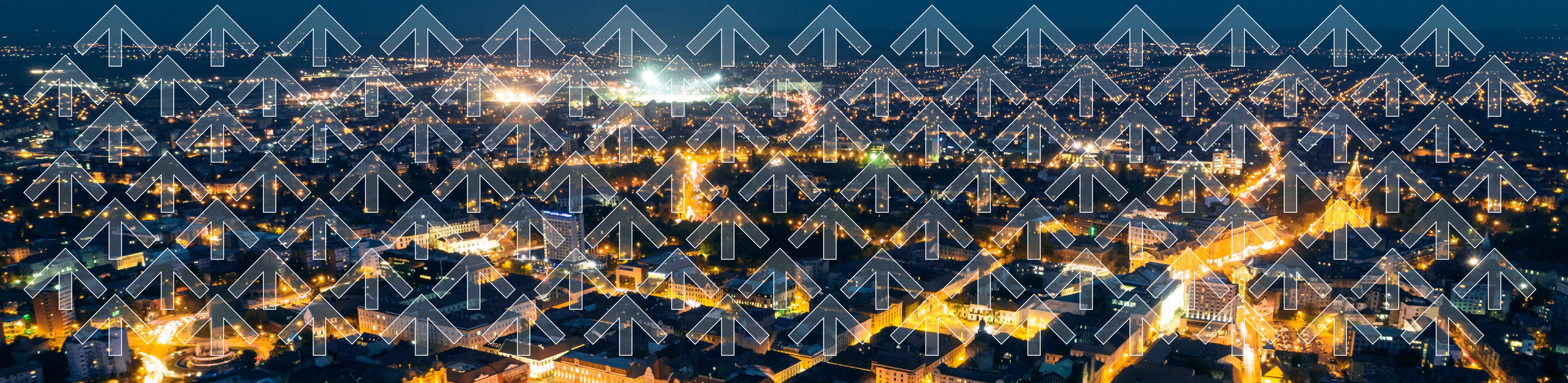
Smart City and Digital Transformation Strategy Timișoara 2022-2027



MAP OF THE STRATEGY

The Process of Co-Design

Arguments in Favour of the Smart Cities

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

Strategic Impulse

- Motto, Vision, Mission
- 7 Ambitions

Operational Impulse

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

The opportunity created by the *accelerating global digital transformation*, and therefore by the **existence of supporting tools for cities** to seize this opportunity

Favourable context of *EU policies for sustainability and digitalisation*, accompanied by **EU funding** for cities

The chance to prepare and implement *significant* and **decisive** *investment projects* for the development of the city

Launching and piloting *participatory consultation and decision-making tools* for citizens, which will subsequently become **a constant in the life of the city**

Envisioning a *gradual, structured and inclusive digital transformation*, during which, through digital education, the vast majority of citizens will be able to become **users**

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Why Timișoara Smart City?

Governance and Implementation

Operational Impulse

Strategic Impulse

Why Timisoara Smart City?

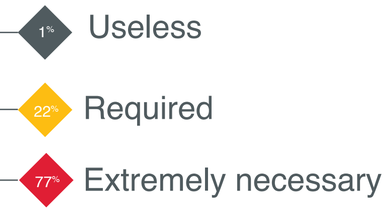
Arguments in Favour of the Smart Cities

The Process of Co-Design

From your point of view, how necessary is a

Smart City

strategy for Timisoara?



77% **Consider a Smart City and Digital Transformation Strategy for Timișoara to be *extremely necessary.***
(First Smart City consultation, September 2021, 305 respondents)

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The 5 Categories of Dysfunctions to be Addressed by the Strategy

Governance and Implementation

Operational Impulse

Strategic Impulse

Why Timisoara Smart City?

Arguments in Favour of the Smart Cities

The Process of Co-Design

Categories of city level dysfunctions to which the strategy should respond
(% calculated from 457 open answers)

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The Smart City Value Proposition, for Enterprises and Organisations

Governance and Implementation

Operational Impulse

Strategic Impulse

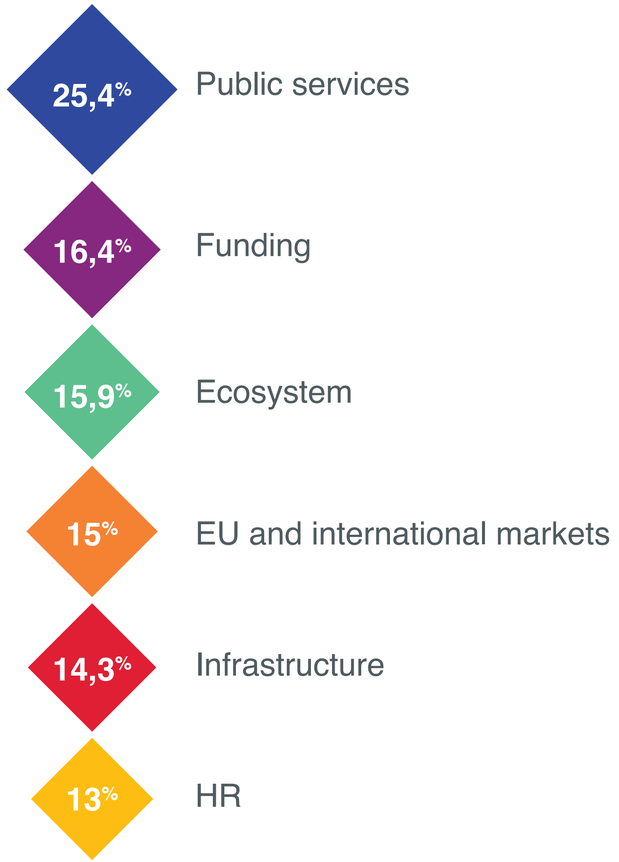
Why Timisoara Smart City?

Arguments in Favour of the Smart Cities

The Process of Co-Design

6 Categories of Needs, Coming from Enterprises and Organisations

(% of 3196 votes)



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Strategic Impulse

Governance and Implementation

Operational Impulse

Strategic Impulse

Why Timisoara Smart City?

Arguments in Favour of the Smart Cities

The Process of Co-Design

MOTTO

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.**

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Strategic Impulse

Governance and Implementation

Operational Impulse

Strategic Impulse

Why Timisoara Smart City?

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VISION

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 Timișoara 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.

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Adequate Premises
Use of ICT in households and at individual level

Governance and Implementation

Operational Impulse

Strategic Impulse

Why Timisoara Smart City?

Arguments in Favour of the Smart Cities

The Process of Co-Design

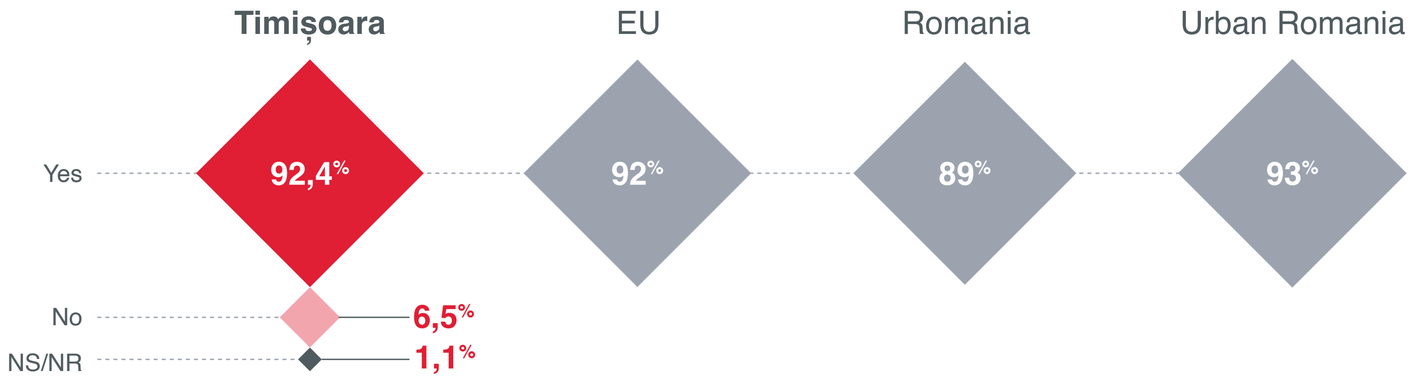
First DESI survey for Timișoara – Digital Economy and Society Index – undertaken by the West University of Timișoara, as part of the Barometer of the Quality of Life

1.413 respondents

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 !



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Adequate Premises
Use of ICT in households and at individual level

Governance and Implementation

Operational Impulse

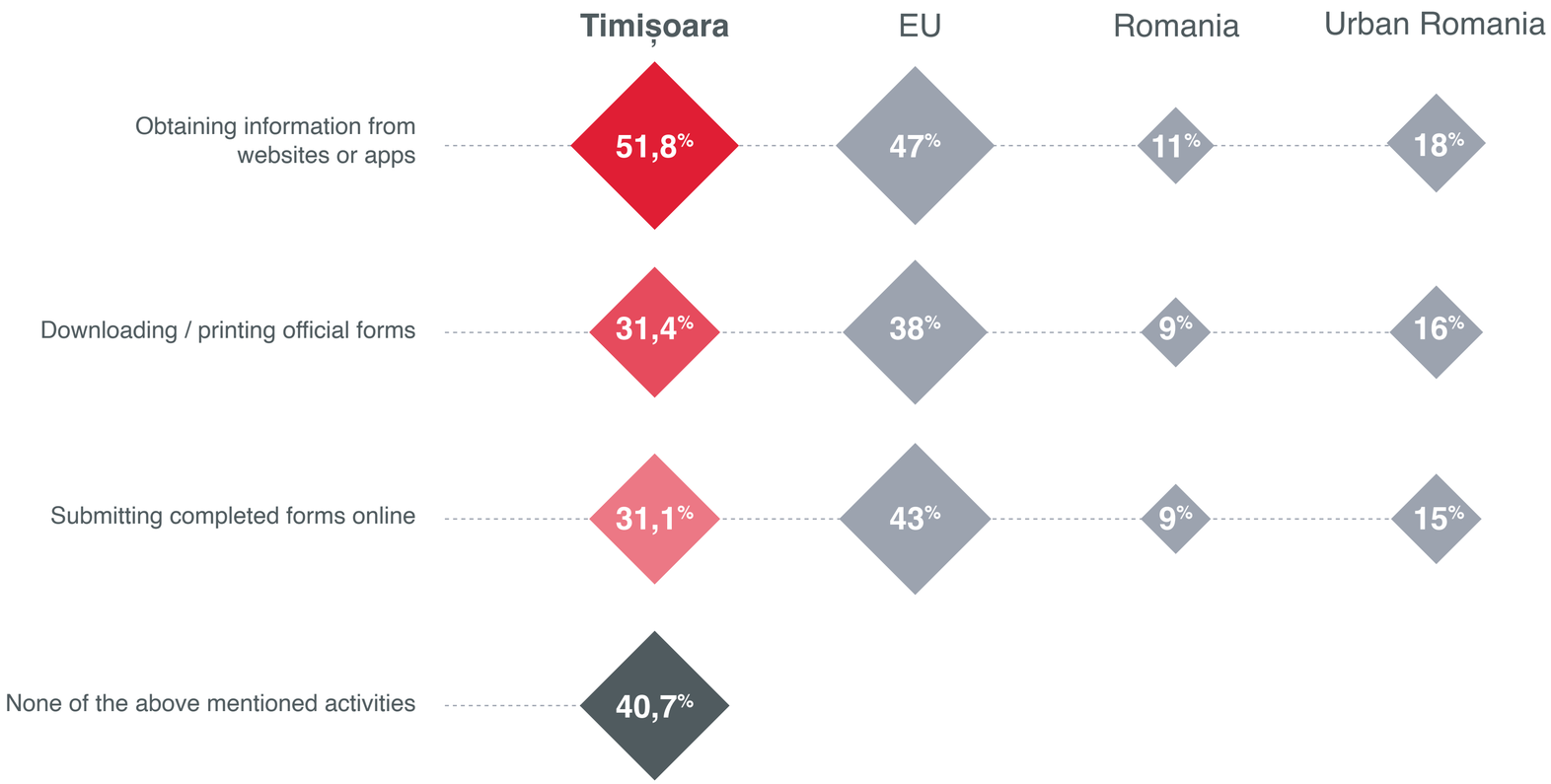
Strategic Impulse

Why Timisoara Smart City?

Arguments in Favour of the Smart Cities

The Process of Co-Design

Did you interact with public authorities for over the internet?



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Levels of engagement

Governance and Implementation

Operational Impulse

Strategic Impulse

Why Timisoara Smart City?

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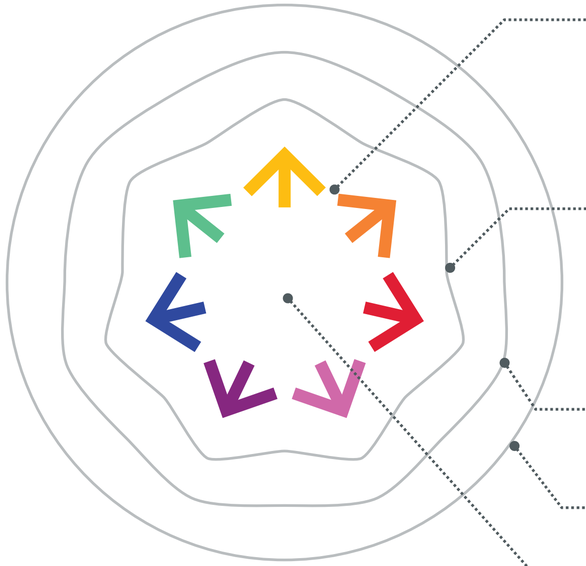
The Process of Co-Design



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

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Roadmap

Governance and Implementation

Operational Impulse

Strategic Impulse

Why Timisoara Smart City?

Arguments in Favour of the Smart Cities

The Process of Co-Design

Workshop 1 with the Steering Group (13 August 2021)
Focus: issues, vision, objectives, actions

Consultation 1 with stakeholders (16-20 September 2021)
Validation and expansion of vision and objective assumptions, expression of needs

Workshop 2 with the Steering Group (16 September 2021)
Focus: projects, partnerships, target groups

Consultation 2 with stakeholders (6-27 October 2021)
Prioritising the smart city areas, presentating the ideas, validating and expanding projects

Ideation event (4 November 2021)
Proposal and prioritisation of open actions, outlining the value network of the strategy - local actors

DESI Timișoara (November 2021 – January 2022)
Interviews with citizens according to the European method "Digital Economy and Society Index"

Workshop 3 with the Steering Group (18 November 2021)
Focus: open actions and strategic projects

Consultation 3 with stakeholders (December 2021 – January 2022)
Strategic project versus open actions, as well as expression of interest for partnership

International conference to promote the strategy and initiate partnerships (27 January 2027)

Start of strategy implementation (February 2022)

The 7 Ambitions of the Strategy

Governance and Implementation

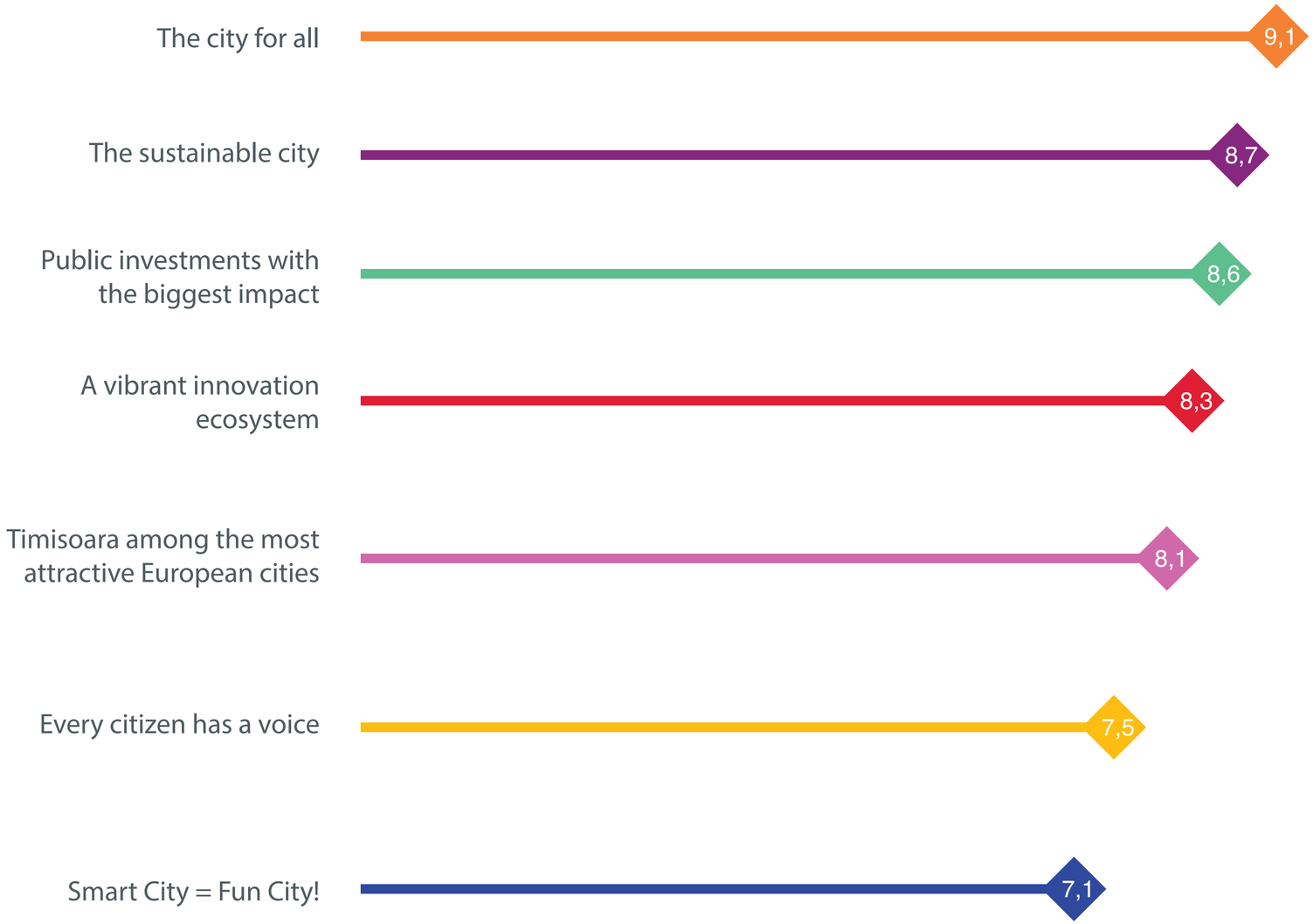
Operational Impulse

Strategic Impulse

Why Timisoara Smart City?

Arguments in Favour of the Smart Cities

The Process of Co-Design



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The 7 Ambitions of the Strategy

Governance and Implementation

Operational Impulse

Strategic Impulse

Why Timisoara Smart City?

Arguments in Favour of the Smart Cities

The Process of Co-Design

”The City for All”, ”The Sustainable City” and ”Intelligent and Impactful Public Investments” represent the foundation of the Smart City Timișoara, 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 Timișoara” represent the capacity of the Smart City Timișoara 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 ”Timișoara – An Attractive City for International Talents” represent the upper level of the Smart City Timișoara, 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.

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Ambition 1:
Every Citizen Has a Voice

SMART CITY KEY DIMENSION:
GOVERNANCE

SUSTAINABLE DEVELOPMENT GOAL

With a city population over 325k, and a metropolitan area population over 440k, Timișoara 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.

Ambition 1:
Every Citizen Has a Voice

Governance and Implementation

Operational Impulse

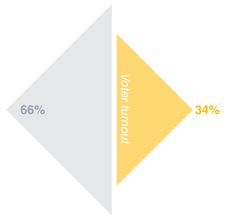
Strategic Impulse

Why Timisoara Smart City?

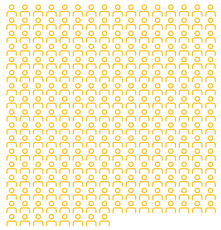
Arguments in Favour of the Smart Cities

The Process of Co-Design

93.468
Number of participants to the local elections 2020

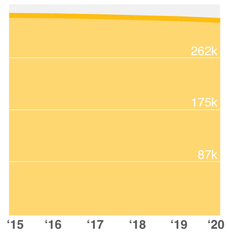


2.639
Number of participants to the first consultation hosted on DECIDEM (2021)



1.900
DECIDEM – number of visualisations during the first month after launch
(4 noiembrie 2021)

325.522
Overall population

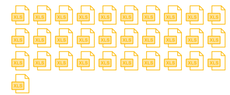


441.335
Population within the Timisoara Metropolitan Area

1.413
DESI Timișoara
(number of respondents 2021)

20
Neighbourhood Councils

31
Open Data portal number of data sets



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Ambition 1:
Every Citizen Has a Voice

Governance and Implementation

Operational Impulse

Strategic Impulse

Why Timisoara Smart City?

Arguments in Favour of the Smart Cities

The Process of Co-Design

KEY INDICATOR OF THE AMBITION

x5

2.639

Increase of number of participants per one consultation within DECIDEM

OUTCOME KPIs

x10

1.413

Increase of number of respondents in DESI Timișoara

35%

33,5%

Increase in participation in the next round of local elections

OUTPUT KPIs

1

0

Open Data Action Plan

+20

31

Increase of number of open data sets

1

0

NGO and local working groups Registry

1

0

Centre for training and e-learning on digitalisation

60%

N/A

% of population with basic digital skills

80%

N/A

% of public officers within the city hall trained on digital topics and communication with citizens

Ambition 1:
Every Citizen Has a Voice

Governance and Implementation

Operational Impulse

Strategic Impulse

Why Timisoara Smart City?

Arguments in Favour of the Smart Cities

The Process of Co-Design

KEY

Planned

In progress

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Ambition 1:
Every Citizen Has a Voice

Governance and Implementation

Operational Impulse

Strategic Impulse

Why Timisoara Smart City?

Arguments in Favour of the Smart Cities

The Process of Co-Design

OBJECTIVES

STRATEGIC PROJECTS

Digital literacy and community education

- **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

In progress

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Ambition 1:
Every Citizen Has a Voice

Governance and Implementation

Operational Impulse

Strategic Impulse

Why Timisoara Smart City?

Arguments in Favour of the Smart Cities

The Process of Co-Design

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 r**eporting 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

In progress

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Ambition 1:
Every Citizen Has a Voice

Governance and Implementation

Operational Impulse

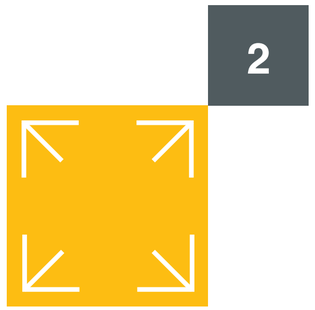
Strategic Impulse

Why Timisoara Smart City?

Arguments in Favour of the Smart Cities

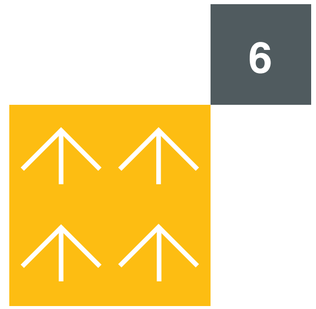
The Process of Co-Design

OPEN ACTIONS

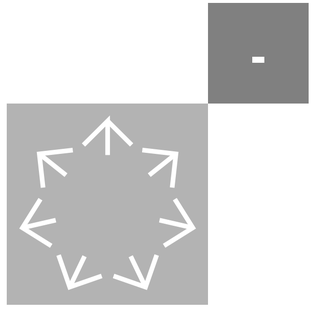


Infrastructure/ Hardware

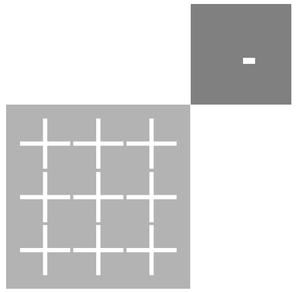
Platform/ Software



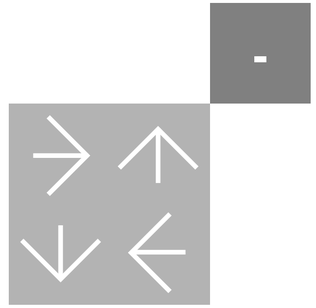
Capacity Building/ Consolidation



Research



(Non)financial Incentives



Events

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Ambition 1:
Every Citizen Has a Voice

Governance and Implementation

Operational Impulse

Strategic Impulse

Why Timisoara Smart City?

Arguments in Favour of the Smart Cities

The Process of Co-Design

RELEVANT LOCAL ACTORS

DIGITAL ENABLERS

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Ambition 2:
The City for All

SMART CITY KEY DIMENSION:
PEOPLE

SUSTAINABLE DEVELOPMENT GOAL

8 DECENT WORK AND ECONOMIC GROWTH

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.

Ambition 2:
The City for All

Governance and Implementation

Operational Impulse

Strategic Impulse

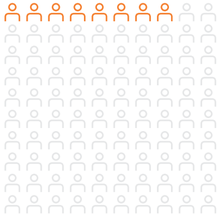
Why Timisoara Smart City?

Arguments in Favour of the Smart Cities

The Process of Co-Design

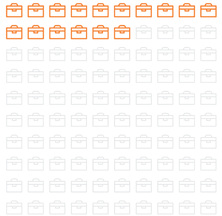
8,04%

Natural persons who undertake online payments via Atlas (DFMT 2021)



15,76%

Juridical persons who undertake online payments via Atlas (DFMT 2021)

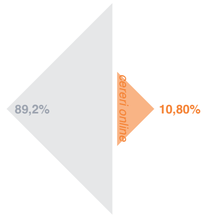


74,30%

% online requests at Timișoara Registry of inhabitants (2021)

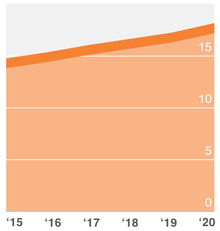
10.80%

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



17,70%

Population over 65 years old



2

City hall Apps: STPT and signalling

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Ambition 2:
The City for All

Governance and Implementation

Operational Impulse

Strategic Impulse

Why Timisoara Smart City?

Arguments in Favour of the Smart Cities

The Process of Co-Design

KEY INDICATOR OF THE AMBITION

60%

10,8%

Increase of % of online requests at Room no.12 at City hall

OUTCOME KPIs

30%

8,04%

Increase of % of natural persons undertaking online payments via Atlas (DFMT)

+5

2

Increase of number of City Hall apps relevant for citizens

70%

N/A

% of public institutions involved in platforms and apps for integrated public services

OUTPUT KPIs

1

0

Software for integrated databases and information flow between public institutions

1

0

Single file for the citizens in relation with all local public institutions

1

0

Online platform/page for the local support initiatives for the labour market

150

0

Digital Ambassadors

5

0

Face2face Info-kiosks for non-digital citizens

Ambition 2:
The City for All

Governance and Implementation

Operational Impulse

Strategic Impulse

Why Timisoara Smart City?

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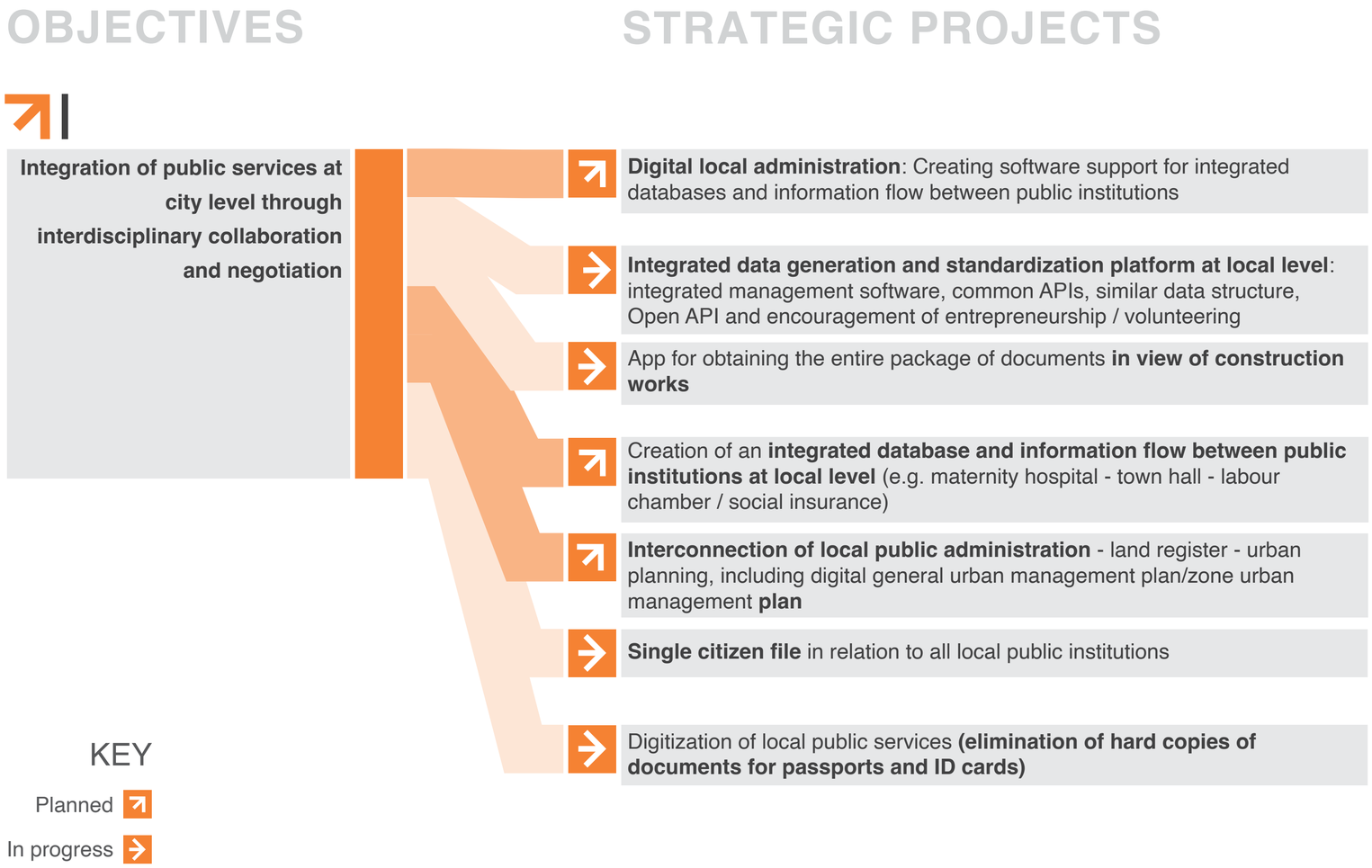
The Process of Co-Design



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Ambition 2:
The City for All

Governance and Implementation

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Why Timisoara Smart City?

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The Process of Co-Design

OBJECTIVES

STRATEGIC PROJECTS

II

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

In progress

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Ambition 2:
The City for All

Governance and Implementation

Operational Impulse

Strategic Impulse

Why Timisoara Smart City?

Arguments in Favour of the Smart Cities

The Process of Co-Design

OBJECTIVES

STRATEGIC PROJECTS

Accessible public infrastructure and services for people belonging to vulnerable groups

- **Digital Ambassadors** - Volunteer guides supporting the adoption of digitisation at citizen level
- **Info kiosks** for non-digital citizens
- Making services **accessible to older and disabled people**

KEY

Planned

In progress

SmarTM

Ambition 2:
The City for All

Governance and Implementation

Operational Impulse

Strategic Impulse

Why Timisoara Smart City?

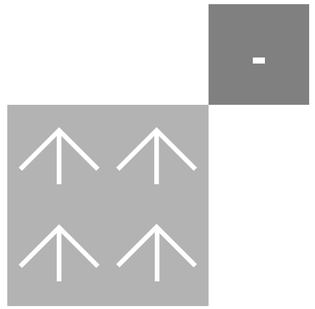
Arguments in Favour of the Smart Cities

The Process of Co-Design

OPEN ACTIONS

Infrastructure/ Hardware

Platform/ Software



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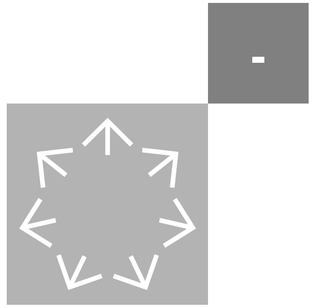

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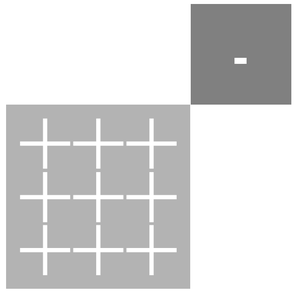
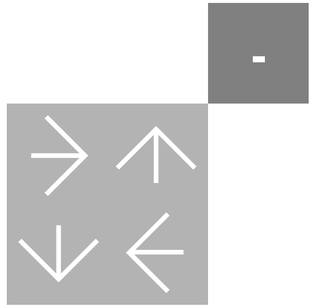


(Non)financial Incentives



Events

SmarTM

Ambition 2:
The City for All

Governance and Implementation

Operational Impulse

Strategic Impulse

Why Timisoara Smart City?

Arguments in Favour of the Smart Cities

The Process of Co-Design

RELEVANT LOCAL ACTORS

DIGITAL ENABLERS

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Ambition 3:
Vibrant Innovation Ecosystem

SMART CITY KEY DIMENSION:
ECONOMY

SUSTAINABLE DEVELOPMENT GOAL

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

In Timișoara 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.

Ambition 3:
Vibrant Innovation Ecosystem

Governance and Implementation

Operational Impulse

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Why Timisoara Smart City?

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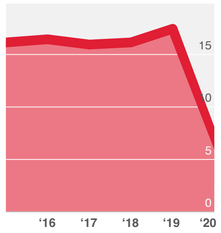
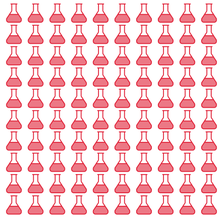
6,80%
% startup from total enterprises



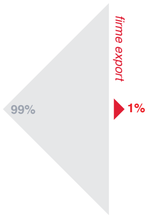
1.027
Number of labs within universities



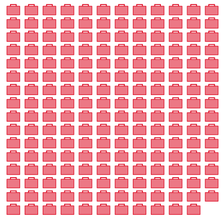
2
High Performance Computing infrastructure

Blue Gene (Universitatea de Vest din Timișoara) + Cloud (Universitatea Politehnica Timișoara)

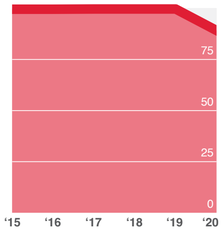
1,00%
% exporting companies



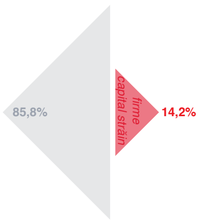
19.145
Total number of enterprises



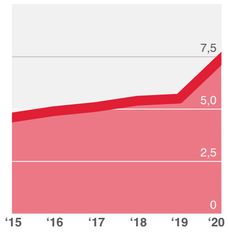
89,20%
% SMEs from total enterprises



14,20%
% foreign owned companies from total



7,40%
% ICT companies from total



5
Number of incubators

0
Number of accelerators

1
Number Business Angel funds

0
Number equity / VC funds

39,8%
% turnover generated by exporting companies, from total turnover

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Ambition 3:
Vibrant Innovation Ecosystem

Governance and Implementation

Operational Impulse

Strategic Impulse

Why Timisoara Smart City?

Arguments in Favour of the Smart Cities

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KEY INDICATOR OF THE AMBITION

10% / 6,8%

Increase of % of startups from total enterprises

OUTCOME KPIs

1,5% / 1%

Increase % of exporting companies

9% / 7,4%

Increase of % ICT companies from total enterprises

OUTPUT KPIs

1 / 0

Timișoara Living Lab

1 / 0

Ecosystem Info Pack

3 / 0

”From Lab to Market” – Facilities and incentives for innovators

50 / N/A

Number of partnerships between institutions, with the aim of knowledge exchange for innovation

1 / 0

Multi-sector education Hub

Ambition 3:
Vibrant Innovation Ecosystem

Governance and Implementation

Operational Impulse

Strategic Impulse

Why Timisoara Smart City?

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The Process of Co-Design

OBJECTIVES

Creating the conditions for a cohesive, interconnected, and transparent innovation ecosystem that provides co-creation and innovation opportunities for all types of stakeholders

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

In progress

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Ambition 3:
Vibrant Innovation Ecosystem

Governance and Implementation

Operational Impulse

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Why Timisoara Smart City?

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OBJECTIVES

STRATEGIC PROJECTS

II

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

- **”From Lab to Market”** – support package to attract innovators and startups from around the world
- **Information package for "newcomers" to the ecosystem**: human resources, facilities, knowledge, specialisations, local actors, etc.
- **International Innovation / Local Smart City Strategic Projects Fair**

III

Raising the quality of education, at all levels, through meaningful and structured involvement of business professionals

- **Multi-industry and multi-education hub**
- **Smart City technology Specialisation pole**: defining the specific domain of intelligent development of the city
- **Knowledge transfer between the tech companies** from Timișoara
- **Partnerships for innovation** between local authorities, the entrepreneurial environment, and the education environment (pre-university - university - post-university - technological - vocational), **on the "smart city” theme**

KEY

Planned

In progress

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Ambition 3:
Vibrant Innovation Ecosystem

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Why Timisoara Smart City?

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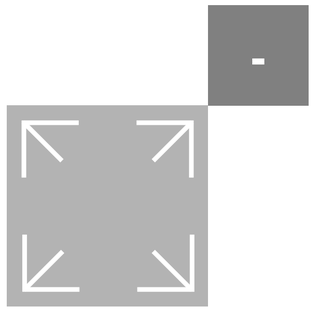
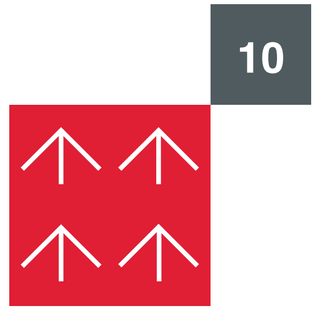
OPEN ACTIONS

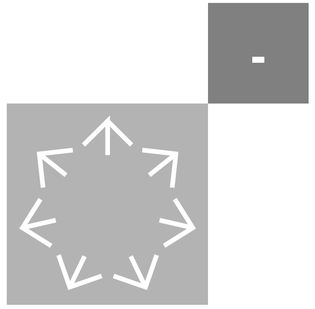


Infrastructure/ Hardware

Platform/ Software

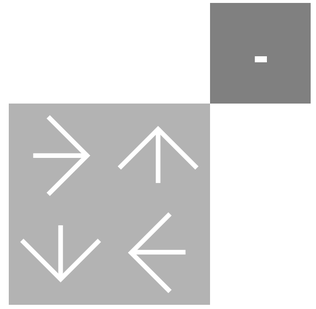


Capacity Building/ Consolidation



Research

(Non)financial Incentives



Events

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Vibrant Innovation Ecosystem

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Why Timisoara Smart City?

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RELEVANT LOCAL ACTORS

DIGITAL ENABLERS

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Ambition 4:
Timișoara: An Attractive City for International Talent

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.

Ambition 4:
Timișoara: An Attractive City for International Talent

Governance and Implementation

Operational Impulse

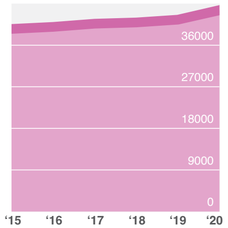
Strategic Impulse

Why Timisoara Smart City?

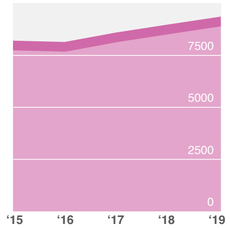
Arguments in Favour of the Smart Cities

The Process of Co-Design

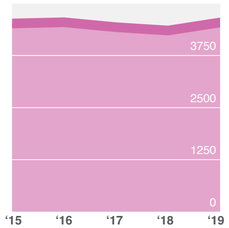
43.582
Students and trainees in university and postgraduate cycle



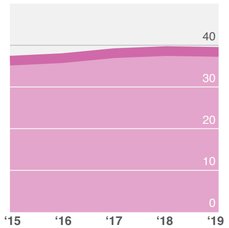
9.133
University and postgraduate cycle graduates



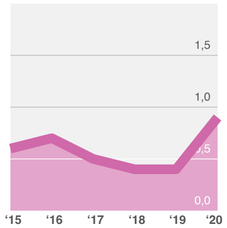
4.543
Highschool graduates (2019)



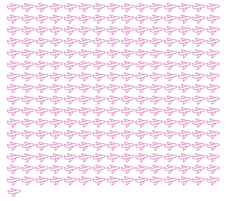
38,30%
% of employees from total population (2019)



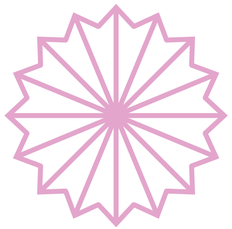
0,90%
% of unemployed population in December (2020)



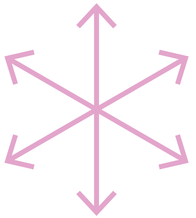
470.631
Passangers in airfares (national and international)



16
Twinnings with European cities



6
Number of European network memberships



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Ambition 4:
Timișoara: An Attractive City for International Talent

Governance and Implementation

Operational Impulse

Strategic Impulse

Why Timisoara Smart City?

Arguments in Favour of the Smart Cities

The Process of Co-Design

KEY INDICATOR OF THE AMBITION

0,5%

N/A

% of population attracted from the diaspora

OUTCOME KPIs

x3

6

Increase of number of City Hall's networks

15%

N/A

% of total startups, with international (co)founders

OUTPUT KPIs

1

0

City Brand

3

0

"Diaspora Back Home" – Facilities and incentives for attracting talents from diaspora

1

0

Cross-border platform for entrepreneurship and tourism

1

0

Mapping of city resources

Ambition 4:
Timișoara: An Attractive City for International Talent

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Why Timisoara Smart City?

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OBJECTIVES

STRATEGIC PROJECTS

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

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Timișoara: An Attractive City for International Talent

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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

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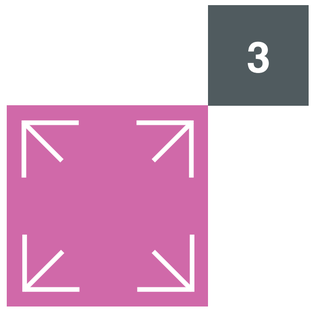
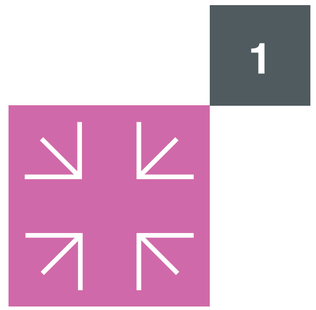


Infrastructure/ Hardware



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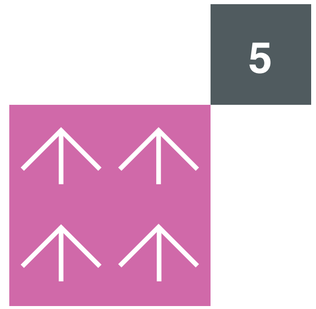

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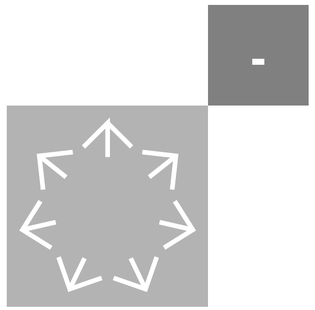
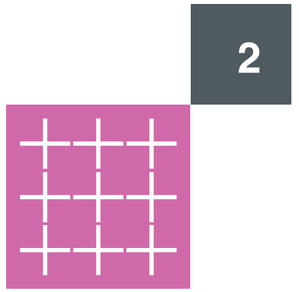


Research



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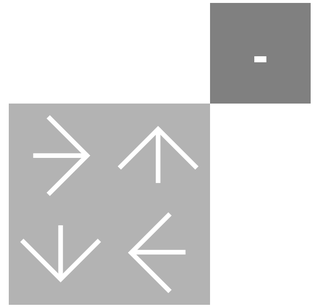

Events

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Ambition 4:
Timișoara: An Attractive City for International Talent

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Why Timisoara Smart City?

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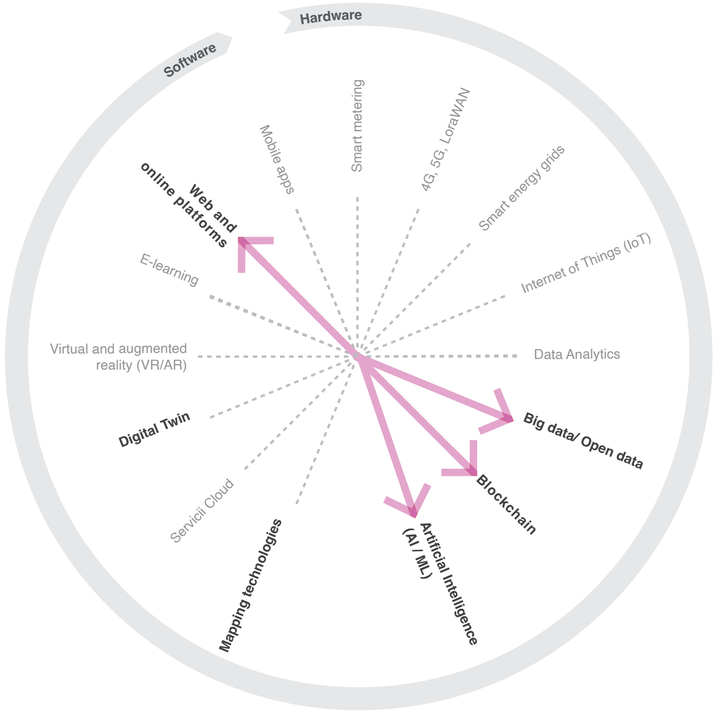
RELEVANT LOCAL ACTORS

DIGITAL ENABLERS



SmarTM

Ambition 5:
The Sustainable City

SMART CITY KEY DIMENSION:
ENVIRONMENT

SUSTAINABLE DEVELOPMENT GOAL

7 AFFORDABLE AND CLEAN ENERGY

Timișoara, 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.

Ambition 5:
The Sustainable City

Governance and Implementation

Operational Impulse

Strategic Impulse

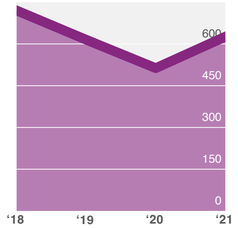
Why Timisoara Smart City?

Arguments in Favour of the Smart Cities

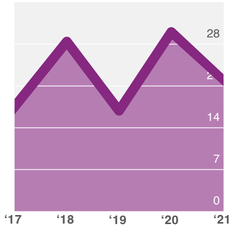
The Process of Co-Design

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

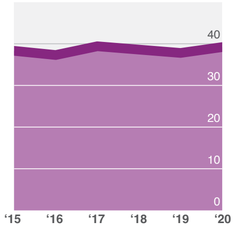
626
CO2 emissions PPM (2021)



22,04
Particulate matter PM2.5 mg/m3 (2019)

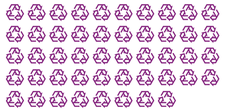


39,20
Water consumption per capita (m3)

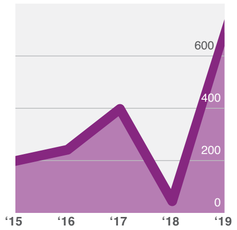


16
Parks, green spaces (sqm/inhabitant)

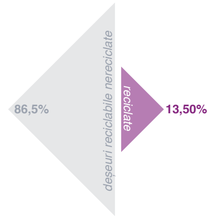
475
Number of waste collection points



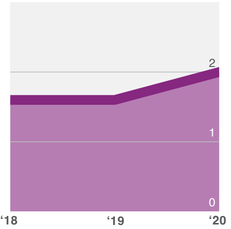
691
Amount of household waste kg per capita(2019)



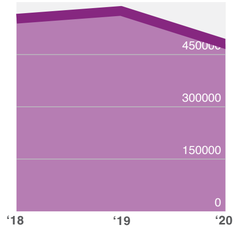
13,50%
% recycling from recyclable waste



1,90
Parity: Thermal energy produced (MWh) versus Thermal energy delivered

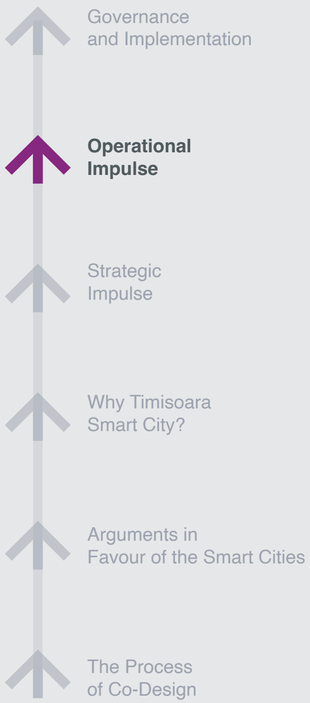


480.482
Natural gas consumption (MWh)



SmarTM

Ambition 5:
The Sustainable City



KEY INDICATOR OF THE AMBITION

10 µg/m3
22,04
Decrease of average concentration of particulate matter (PM 2,5)

OUTCOME KPIs

450 PPM
626
Decrease of average CO2 emmissions

60 %
13,5 %
Increase of % of recycled waste from total recyclable waste

15 %
N/A
Decrease % of losses in water, heat and electric networks

OUTPUT KPIs

1
0
Circular economy Action Plan

50
N/A
Number of public institutions' building endowed with smart meters

x3
55
Increase of number of equipments used in measuring In real time the environment and human factors

1
0
Platform and technologies for the management and protection of green areas

5
0
Creating biodiversity corridors in the city

1
0
Full digitalisation of waste data

1
0
Procedure with sustainability conditionalities for factories locating within the city

1
0
App for reducing waste from food value chain at city level

Ambition 5:
The Sustainable City

Governance and Implementation

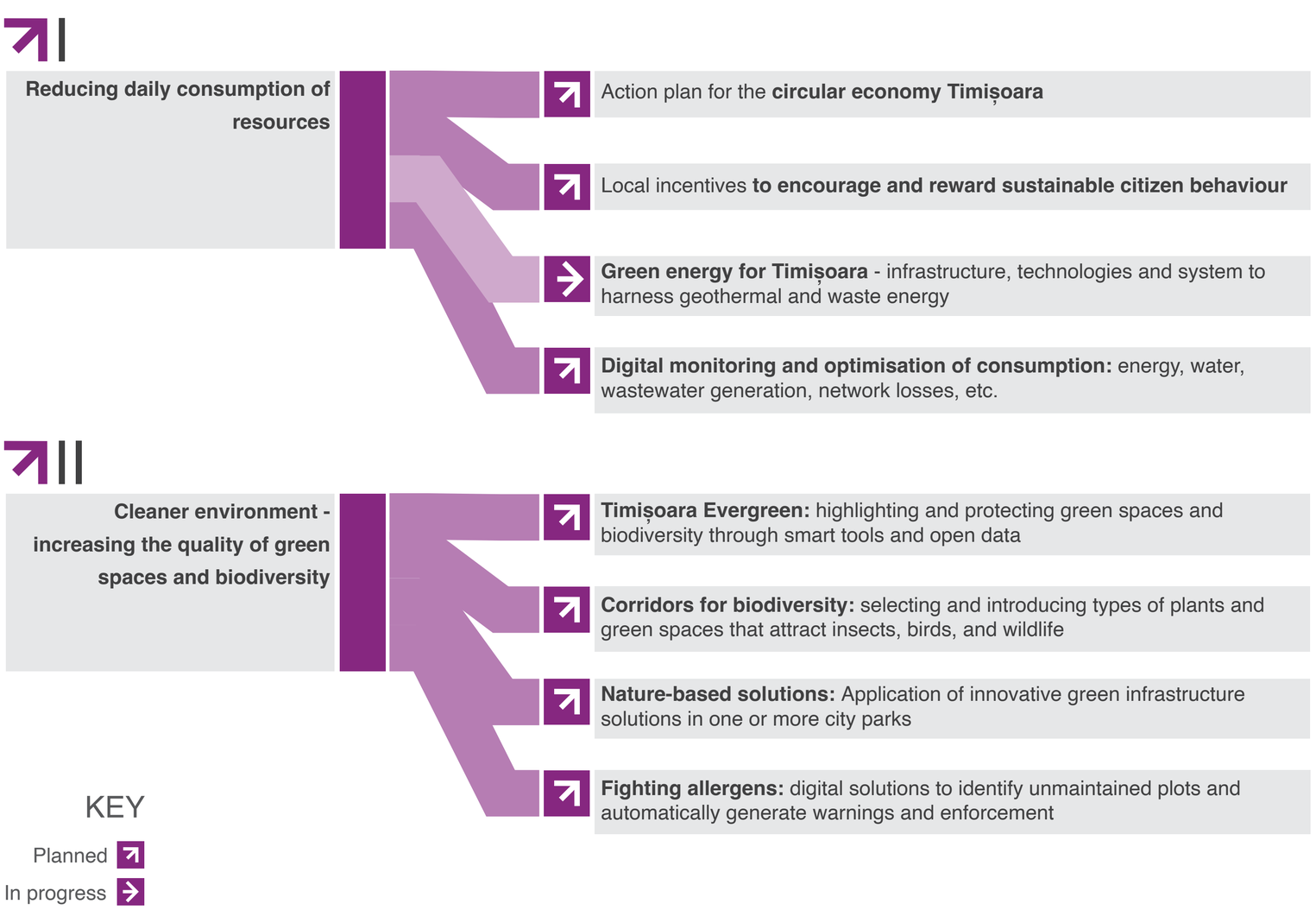
Operational Impulse

Strategic Impulse

Why Timisoara Smart City?

Arguments in Favour of the Smart Cities

The Process of Co-Design



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Ambition 5:
The Sustainable City

Governance and Implementation

Operational Impulse

Strategic Impulse

Why Timisoara Smart City?

Arguments in Favour of the Smart Cities

The Process of Co-Design

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

In progress

SmarTM

Ambition 5:
The Sustainable City

Governance and Implementation

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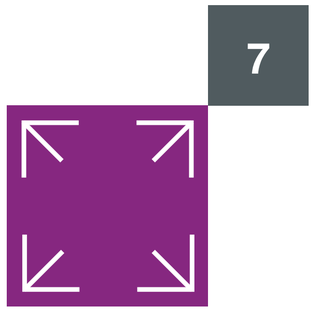
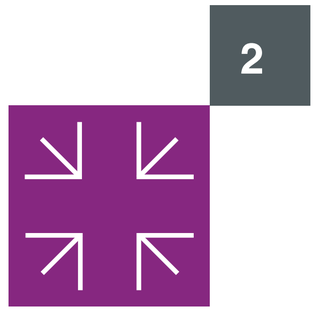
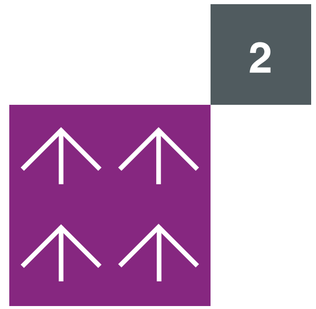
OPEN ACTIONS



Infrastructure/ Hardware

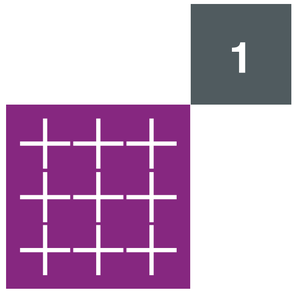


Platform/ Software

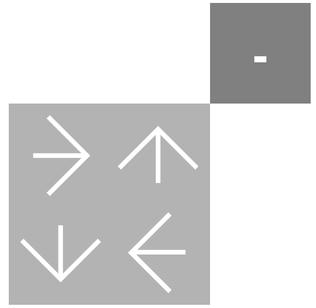


Capacity Building/ Consolidation

Research



(Non)financial Incentives



Events

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Ambition 5:
The Sustainable City

Governance and Implementation

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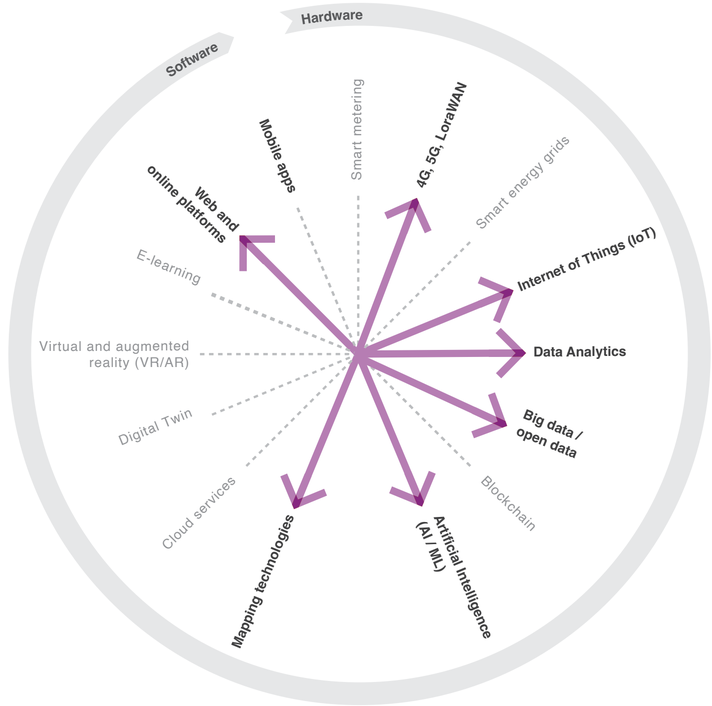
RELEVANT LOCAL ACTORS

DIGITAL ENABLERS



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Ambition 6:
Smart City is Fun City

SMART CITY KEY DIMENSION:
LIVING

SUSTAINABLE DEVELOPMENT GOAL

3 GOOD HEALTH AND WELL-BEING

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.

Ambition 6:
Smart City is Fun City

Governance and Implementation

Operational Impulse

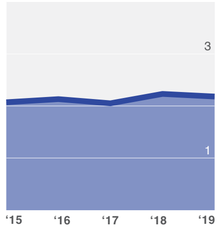
Strategic Impulse

Why Timisoara Smart City?

Arguments in Favour of the Smart Cities

The Process of Co-Design

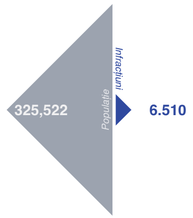
2,18
Average length of stay of tourists (days, 2019)



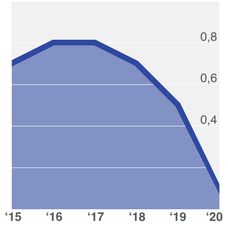
8
Performance halls

2.205
Number of seats in performance halls

0,02
Crime per capita



0,1
No. of spectators at events per capita (days, 2019)



5,4%
% of creative industries companies out of total enterprises

9
Museums

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Ambition 6:
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Why Timisoara Smart City?

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KEY INDICATOR OF THE AMBITION

1 / 0,7

Increase in number of spectators per capita

OUTCOME KPIs

7% / 5,4%

Increase of % of creative industry companies from total enterprises

2,5 / 2,18

Increase of average length of stay for tourists

OUTPUT KPIs

1 / 0

App with complete information for leisure activities in the city

1 / 0

Platform and endowments for sports activities in parks

25 / N/A

Number of cultural, sports and niche events, taking place on the streets (per year)

100 / 50

VR / AR apps for tourist locations

5 / 0

Creativity workshops for citizens within the neighbourhoods

10 / 0

High-tech interactive urban installations

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OBJECTIVES

STRATEGIC PROJECTS

I

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

- **"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

II

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 Timișoara
- **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

III

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

In progress

SmarTM

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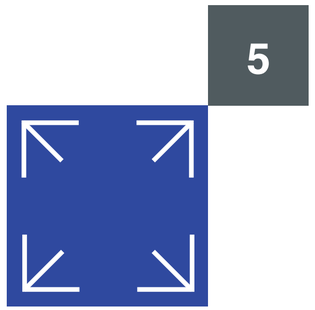
OPEN ACTIONS



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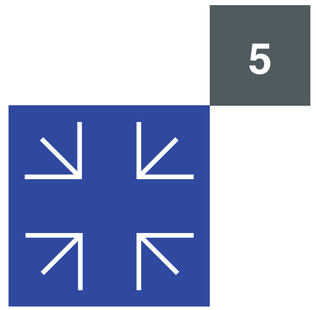

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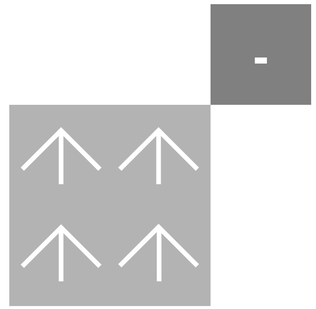
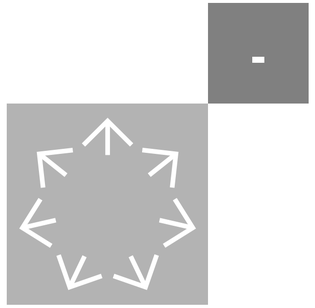
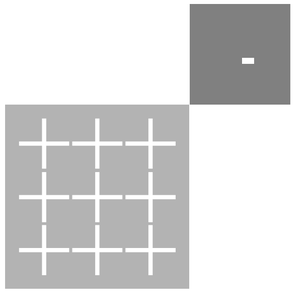


Capacity Building/ Consolidation



Research



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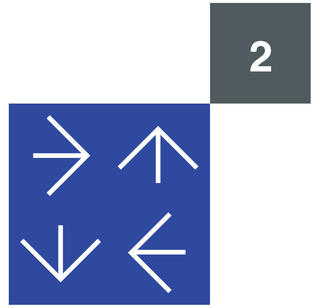

Events

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Ambition 6:
Smart City is Fun City

Governance and Implementation

Operational Impulse

Strategic Impulse

Why Timisoara Smart City?

Arguments in Favour of the Smart Cities

The Process of Co-Design

RELEVANT LOCAL ACTORS

DIGITAL ENABLERS

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Ambition 7:
Smart and Impactful Public Investments

SMART CITY KEY DIMENSION:
MOBILITY

SUSTAINABLE DEVELOPMENT GOAL

Even if the Timișoara 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.

Ambition 7:
Smart and Impactful Public Investments

Governance and Implementation

Operational Impulse

Strategic Impulse

Why Timisoara Smart City?

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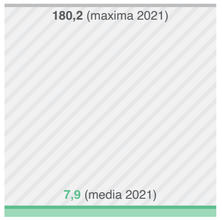
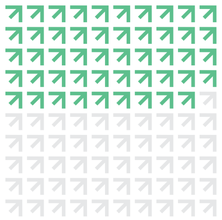
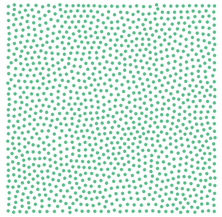
7,9
Traffic congestion index
(annual average 2021)



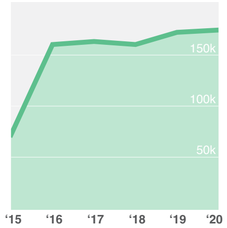
49%
Take-up of fixed broadband of at least 100 Mbps



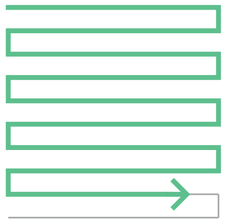
120.602
Number of internet connections



174.494
Number of passangers rides in public transport
(thou)



88,72km
Bicycle paths



434
Number of bicycles (City hall)

20
Number of charging stations for electric vehicles

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Ambition 7:
Smart and Impactful Public Investments

Governance and Implementation

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Strategic Impulse

Why Timisoara Smart City?

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The Process of Co-Design

KEY INDICATOR OF THE AMBITION

≤100

180,2

Decrease of maximum average traffic congestion index

OUTCOME KPIs

YES

NO

Availability of a multimodal transit app with at least 3 integrated services

+100

20

Increase of number of electric vehicle charging stations

OUTPUT KPIs

1

0

Digital Twin Timișoara

1

0

Centre for urban mobility

1

0

E-car-sharing platform

5

0

Number of new technologies and solutions for urban mobility piloted in Timisoara

1

0

Single MaaS portal

SmarTM

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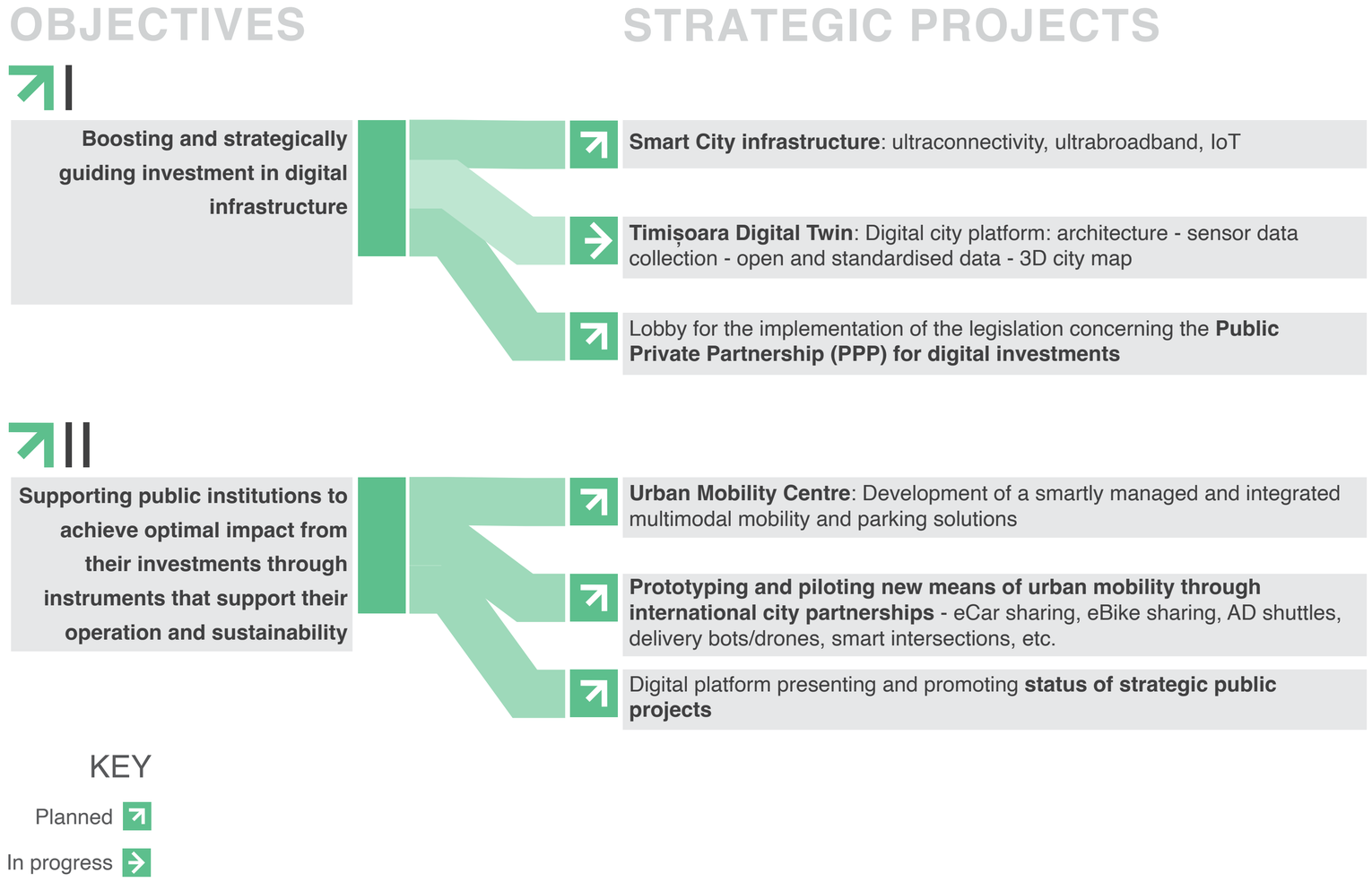

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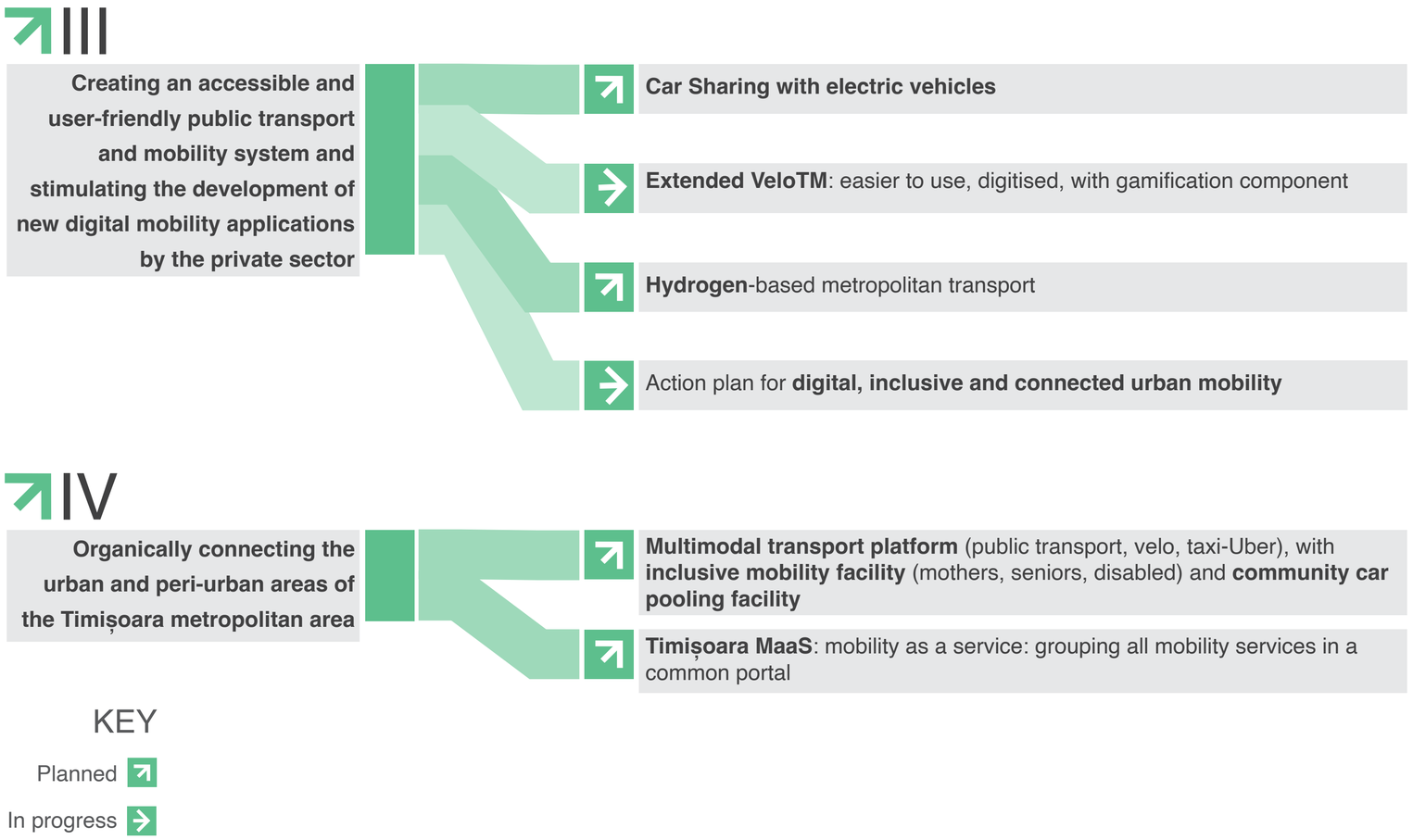

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Ambition 7:
Smart and Impactful Public Investments

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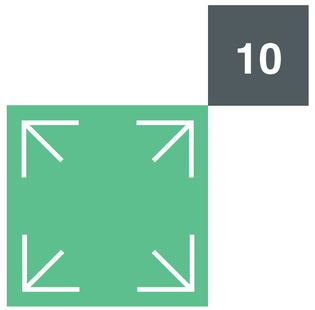
OPEN ACTIONS



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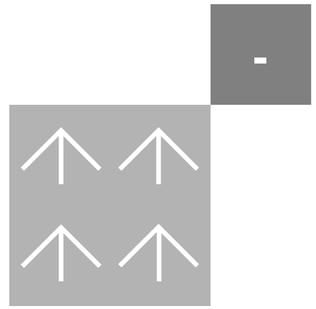

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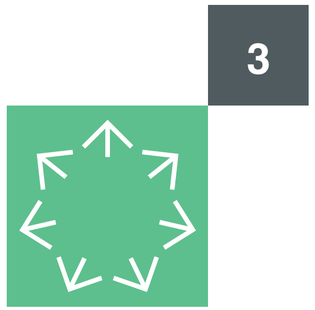

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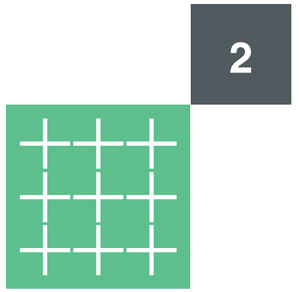

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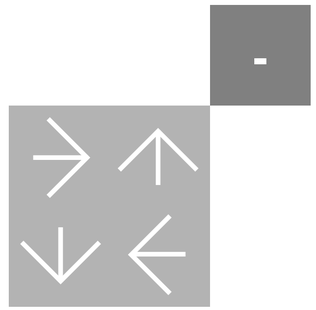

Events

SmarTM

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Smart and Impactful Public Investments

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SmarTM

Governance and Implementation – INSTITUTIONAL BUILDING

Governance and Implementation

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Strategic Impulse

Why Timisoara Smart City?

Arguments in Favour of the Smart Cities

The Process of Co-Design

City Hall of Timișoara

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

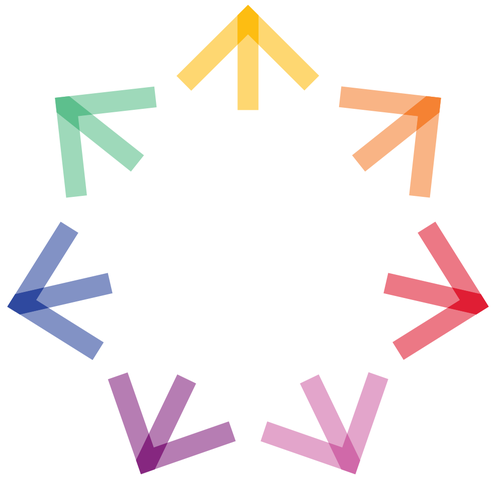
FRUIT – Foundation for Urban Redesign and Improvement of Living in Timișoara

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 Timișoara (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.

SmarTM



Call to Action !

The Smart City and Digital Transformation Strategy Timișoara 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