

JASPERS Advisory Support

Gwendolyn Carpenter *Smart Cities Expert*

JASPERS Smart Development Division, European Investment Bank

ITAPA, Bratislava, November 2018

Overview

- Introduction to **JASPERS**
- Towards **Smart Cities**
- **EU Smart Regions – the GAP**
- **The EIBs V4 study**
- **Tale of two Slovak cities: Nitra & Presov**
- **Jaspers support for smart cities & regions**
- **URBIS** contribution



Smart technologies improving quality of life of citizens

- **J**oint **A**ssistance to **S**upport **P**rojects in **E**uropean **R**egions
- Partnership between the European Commission (EC) and the European Investment Bank (EIB)
- **Independent advice to beneficiaries** to help prepare high quality major projects as well as non-major projects and programmes to be co-financed by EU Structural and Investment Funds (ERDF and CF)

JASPERS Areas of Activity



Energy and
Solid Waste



Rail, Air and
Maritime



Roads



Smart
Development



Water and
Wastewater

Towards Smart Cities



Supporting sustainable (smart) cities

- A **Sustainable Urban Development Strategy** to set the strategic intent and framework for development
- **Action Plans** to establish the short-medium term priorities and actions
- **Investment programme and effective implementation mechanism**

Vision: Integrated Territorial/Urban Development

Smarter
Europe

Greener,
Low Carbon
Europe

Connected
Europe

Social
Europe

Europe
closer to
citizens

EU Smart Regions Evaluation: The Gap

Key smart regions indicators



Smart Economy



Smart Mobility



Smart Environment



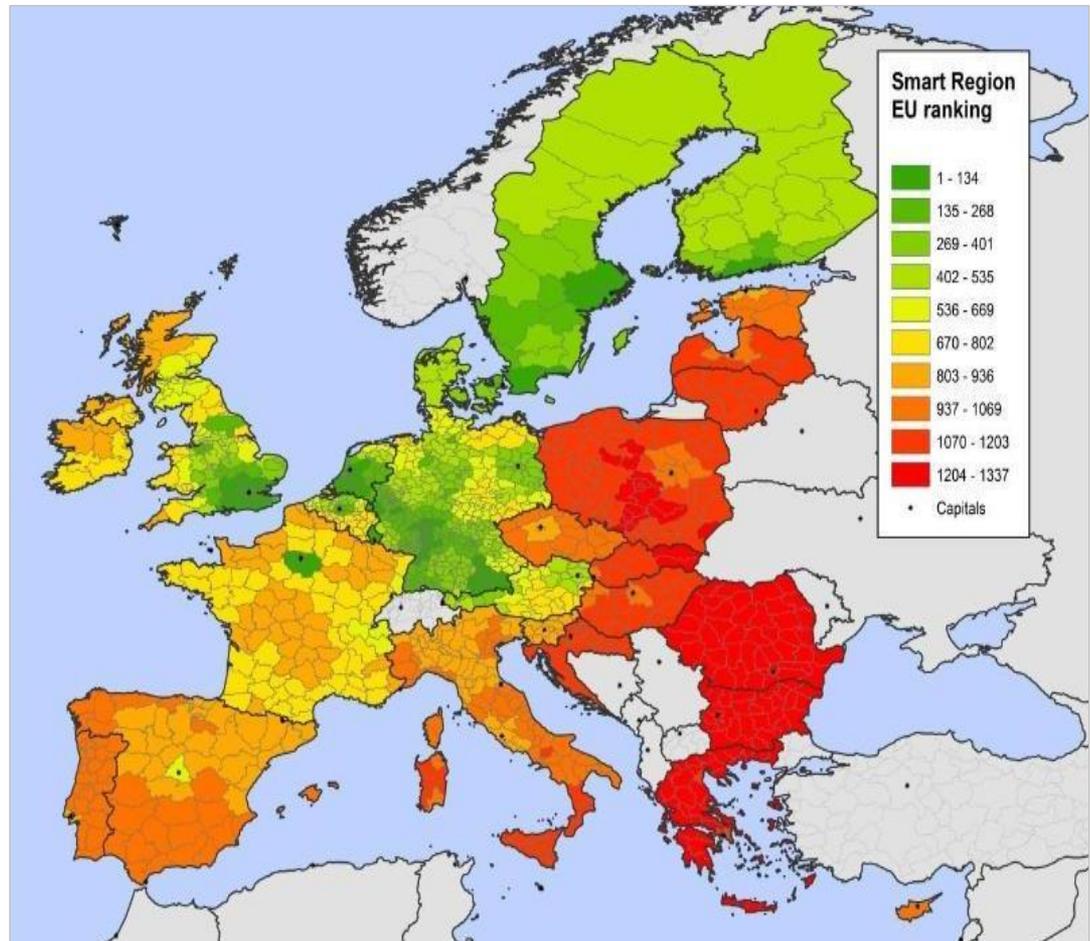
Smart Living



Smart Governance



Smart Society



JASPERS Technical Assistance Assessment Study – Smart Cities & Regions in the V4 region (2018)

Project's context and objectives



The study was commissioned by JASPERS and its purpose is to add value to clients and the advisory context JASPERS operates in

The study's objective is to make clear recommendations on what the local & regional stakeholders, as well as the financing community can improve in order to support smart cities

Project's geographical scope

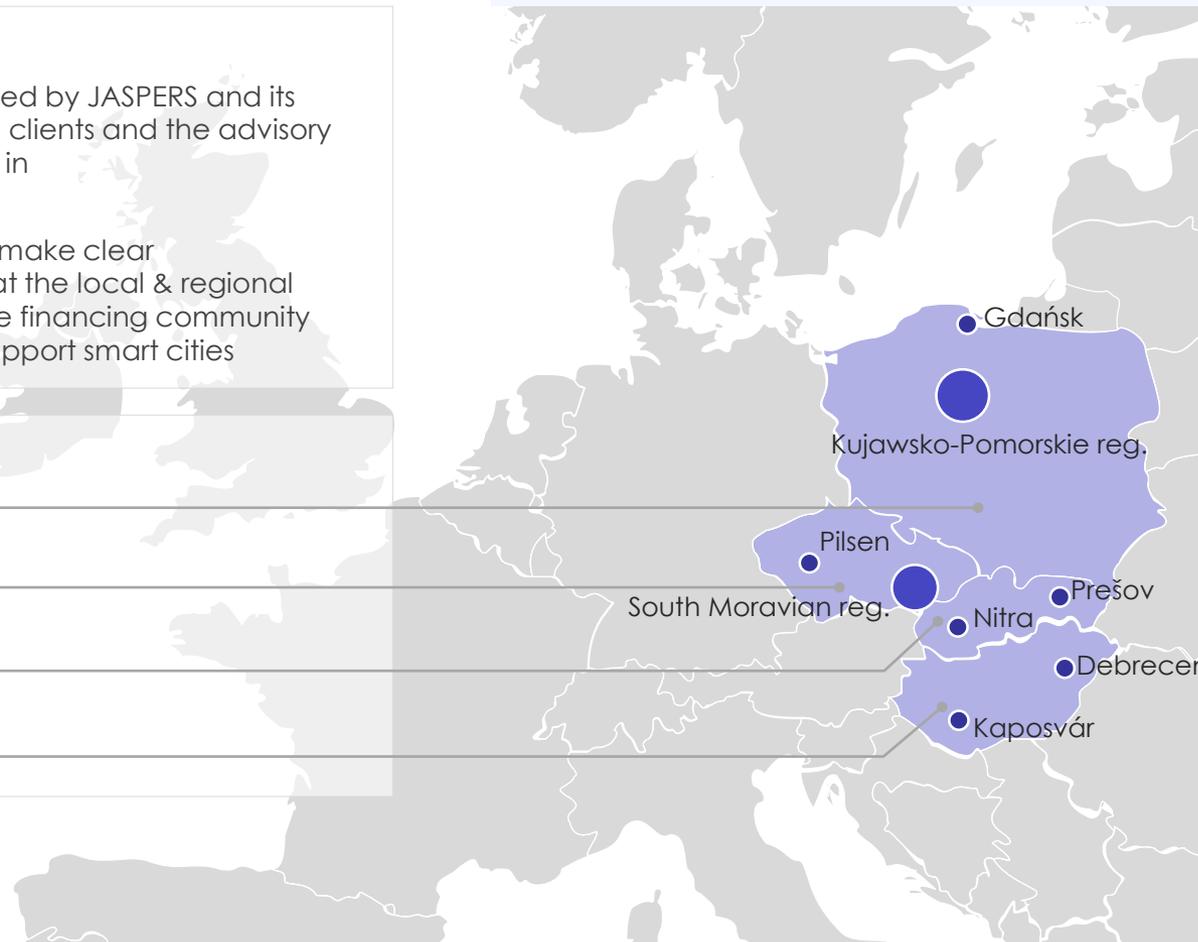


Poland

Slovakia

Czech Republic

Hungary





Identified Needs Driving V4 Smart Cities & Regions



- Comprehensive and integrated development approach led by a smart city strategy
- Cross-departmental, multistakeholder cooperation and public participation
- Institutional capacity to effectively collect, manage and use data
- Increased capacities and capabilities of public administration



- High speed internet
- Implement IoT to gather data
- Data analytics
- Expand open data sets
- Cyber security



- Decreasing pollution and CO2 emissions
- Efficient buildings
- Heating system quality
- Smart grids



- Integrated and multi modal transport
- Intelligent traffic solutions
- Address popularity of personal cars
- Green and alternative modes



- Waste and water mgmt. effectiveness
- Water retention
- Sustainable modes of waste treatment
- Smart solutions
- Circular economy – reuse & recycling



- E-Health solutions
- Digital literacy
- Entrepreneurship
- Smart Specialisation
- Support startups and SMEs



- Diversify financing sources and combining structural funds across OPs
- Attract & manage private funding
- Capacity and capability building to understand financial instruments
- Greater capacity concerning procurement (including innovation procurement)

Nitra key smart indicators

Possible cooperation with Bratislava

- Bratislava is home to several universities focusing on technology with strong research – possible synergies regarding smart solutions
- The biggest innovation hubs are located in the capital – possible partnerships



Slovakia's national smart specialisation²

- Deepening integration and embeddedness of key major industries that increases local value added through the cooperation of local supply chains and turns local supply chains into **embedded clusters**
- Increased contribution of research to the economic growth via global excellence and local relevance
- Creating a **dynamic, open, and inclusive innovative society** as one of the preconditions for the increase in the standard of living
- Improving the **quality of human resources** for an innovative Slovakia

Nitra region's smart specialisation³

- Stimulating innovation ecosystem
- Innovation-based SMEs
- Innovation infrastructure and advisory services
- Innovation-focused education

Nitra vs. Slovakia smart indicators¹

	Nitra	Slovakia
• Students per 100,000 inhabitants	14,019	2,064
• New companies in the knowledge sector / 100,000 inh.	29.5	227
• Unemployment rate	3.73%	5.95 %
• Share of households with internet connection	79%	81%

Opportunities for smart development in Nitra

- JLR plant – great potential for economic development of entire region
- Smart waste management
- Energy efficiency enabled by smart solutions

Prešov key smart indicators

Key recommendations:

- Develop integrated data capacity
- Build capacity to support smart governance (internal & multi stakeholder)
- Co-design with citizens
- Multi-modal transport incl shift to alternative transport
- Tackle Climate Change & flooding
- Geospatial data to support integrated planning
- Circular Economy in waste & water management

Catching-up Regions initiative for Prešov region³

- Prešov self-governing region participates in the European Commission/World Bank initiative, that provides technical assistance to less developed regions, where Prešov city can find synergies with the region.

Poprad

- Smart City with energy sustainability focus
- **Prešov**
- **Košice**
 - IT Valley (ICT)
 - AT+R cluster (automotive, robotics)
 - Eastcubator (software)

Prešov vs. Slovakia smart indicators⁴

	Prešov	Slovakia
• Students per 100,000 inhabitants	9,006	2,064
• Employment in knowledge – intensive sector	3%	10.8%
• Unemployment rate	6.74 %	5.95 %
• Share of households with internet connection	83 %	81 %

JASPERS - TA - SUPPORT OF THE SMART CITIES & REGIONS INITIATIVE

NEEDS

- Weak link of smart city strategies to overall development framework
- Need to shift towards a planning- based approach but lack of capacity / skills
- Need to embed projects & project components into integrated programmes to support smart development
- Need to look at multiple financial sources & sustainable business cases

GAPs

- Capacity to support integrated governance & strategy making process
- Design & development of smarter projects
- Integrated governance of smart city
- Data management
- Role of regions to drive regional development / integration

FI – Smart Cities Platform

Readiness for Smart Cities Platform:

- Long project list (700), most ideas
- Approx 500 Mio investment
- 25-35 investment ready projects

**Watch this space:
! Work in progress !**

Key Recommendations to Accelerate Smart City Development



- Introduce strategic approach to smart development
- Ensure appropriate governance structure
- Develop operational capacity to manage smart city
- Engage citizens and communities



- Move towards integrated center of city operations
- Invest in key ICT infrastructure and cyber security
- Provide public and private stakeholders access to open data



- Improve energy efficiency of the built environment
- Introduce measures to lower air pollution from heating
- Implement strategy to address climate change



- Support integrated and multi modal transport at regional level
- Implement intelligent traffic solutions
- Support green and alternative modes of transport



- Foster smart and sustainable water management
- Waste management to circular economy – support reuse & recycling
- Develop climate change adaptation and crisis mgmt.



- Support partnerships in innovation economy and smart specialization
- Empower local community for utilizing digital age
- Smart health solutions and smart tourism



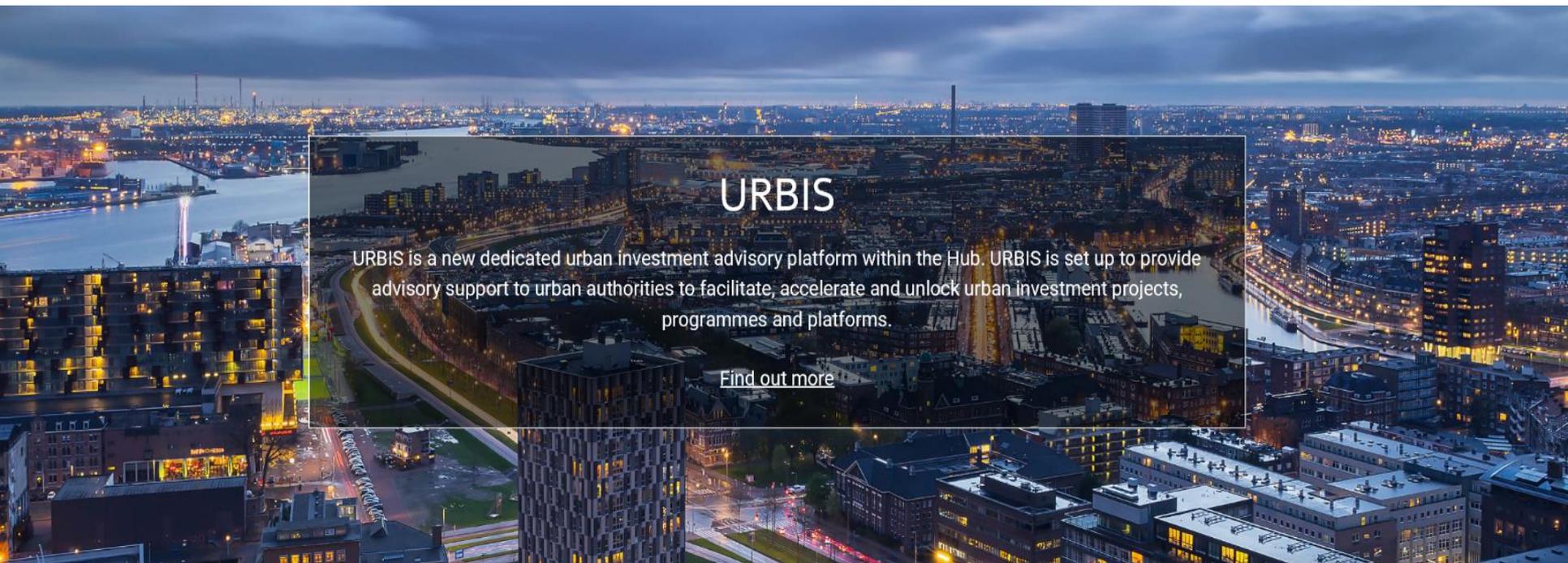
- Build capabilities to tap into a portfolio of financing instruments
- Use existing and future opportunities created by ESIF to support smart city development
- Build self-sustainable smart cities and regions using innovative financing and procurement models

Advice is afforded at national, regional and city level

- **Upstream planning and development of projects**
 - Emphasis on participation & community building
 - Regional/city wide insights – city dashboards
- **Integrated planning** / development of programmes of projects:
 - Governance (institutional, efficiency)
 - Enablers & support, e.g. shared IT & data infrastructure
- Technical advice incl. **smart spatial planning**
- **Scaling** mechanisms for regions, countries & cross-border
- Advisory support to **innovation-oriented demonstration** projects & synergies with other EU funds (Horizon2020)

URBIS - unlocking urban investment

- Launched in Rotterdam at the Cities Forum November 2017 in partnership with EU
- Provides advice to cities and their partners
- Focuses on investment support: project development, linking strategy to investment, and innovative financial instruments and approaches
- Available via the European Investment Advisory Hub



JASPERS contribution to URBIS

JASPERS focus on Strategic & Technical Advice

URBIS focus →

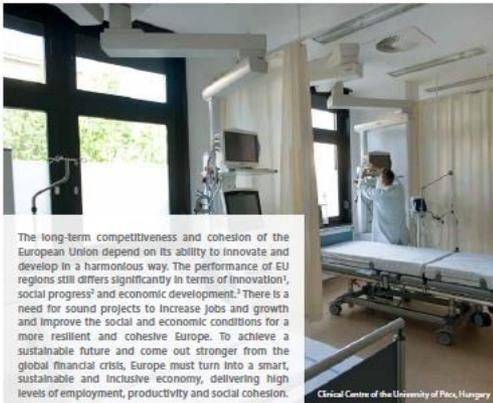
Investment/Delivery Programme(s)

3-5 years time horizon

Additionality

Blending of financial sources

Smart development for a smart Europe



The long-term competitiveness and cohesion of the European Union depend on its ability to innovate and develop in a harmonious way. The performance of EU regions still differs significantly in terms of innovation¹, social progress² and economic development.³ There is a need for sound projects to increase jobs and growth and improve the social and economic conditions for a more resilient and cohesive Europe. To achieve a sustainable future and come out stronger from the global financial crisis, Europe must turn into a smart, sustainable and inclusive economy, delivering high levels of employment, productivity and social cohesion.

Clinical Centre of the University of Pécs, Hungary

Thank you!

g.carpenter@eib.org

More information:

<http://jaspers.eib.org/>

¹ http://ec.europa.eu/growth/index/innovation-facts-figures/regions_en
² http://ec.europa.eu/regions_policy/en/indicators/regions/progress
³ http://ec.europa.eu/regions_policy/en/indicators/regions/competitiveness_en.pdf