

# **JASPERS Advisory Support In Pursuit of More Sustainable Cities and Communities in the V4**

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# Overview

- **About JASPERS**
- **8 cities & regions in transition**
- **2 deep-dives, best practices: Debrecen & Presov**
- **JASPERS support for smart cities & regions**
- **URBIS** contribution



*Smart technologies improving quality of life of citizens*

# 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

# Enabling Cities to use ERDF-CF

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- **Joint Assistance to Support Projects in European Regions**
- 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



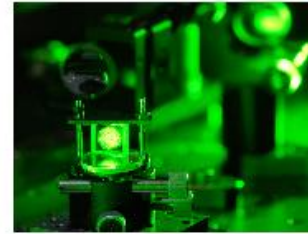
Energy and  
Solid Waste



Rail, Air and  
Maritime



Roads



Smart  
Development



Water and  
Wastewater



# Towards Smart Cities





# EU Smart Regions Evaluation: The Gap

## Key smart regions indicators



Smart Economy



Smart Mobility



Smart Environment



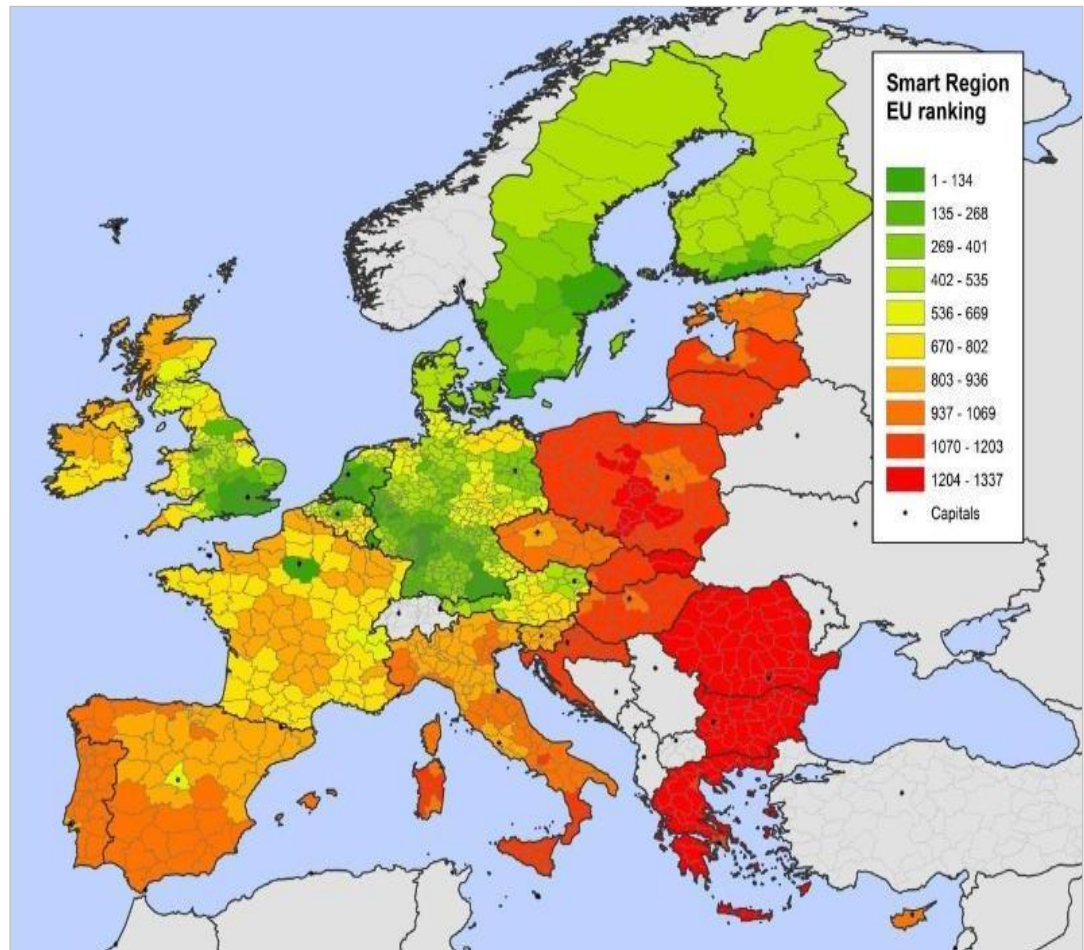
Smart Living



Smart Governance



Smart Society



# 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

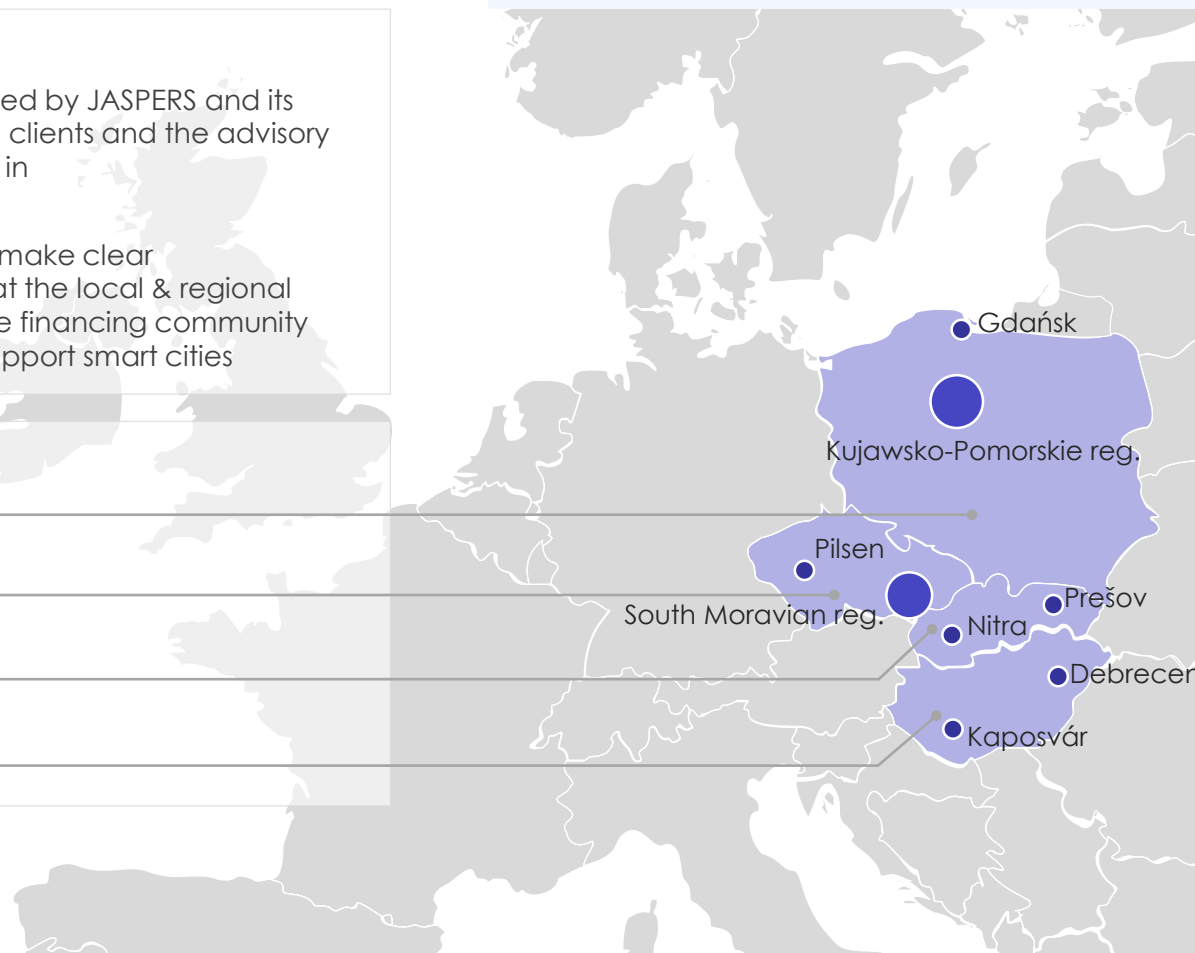


Poland

Slovakia

Czech Republic

Hungary





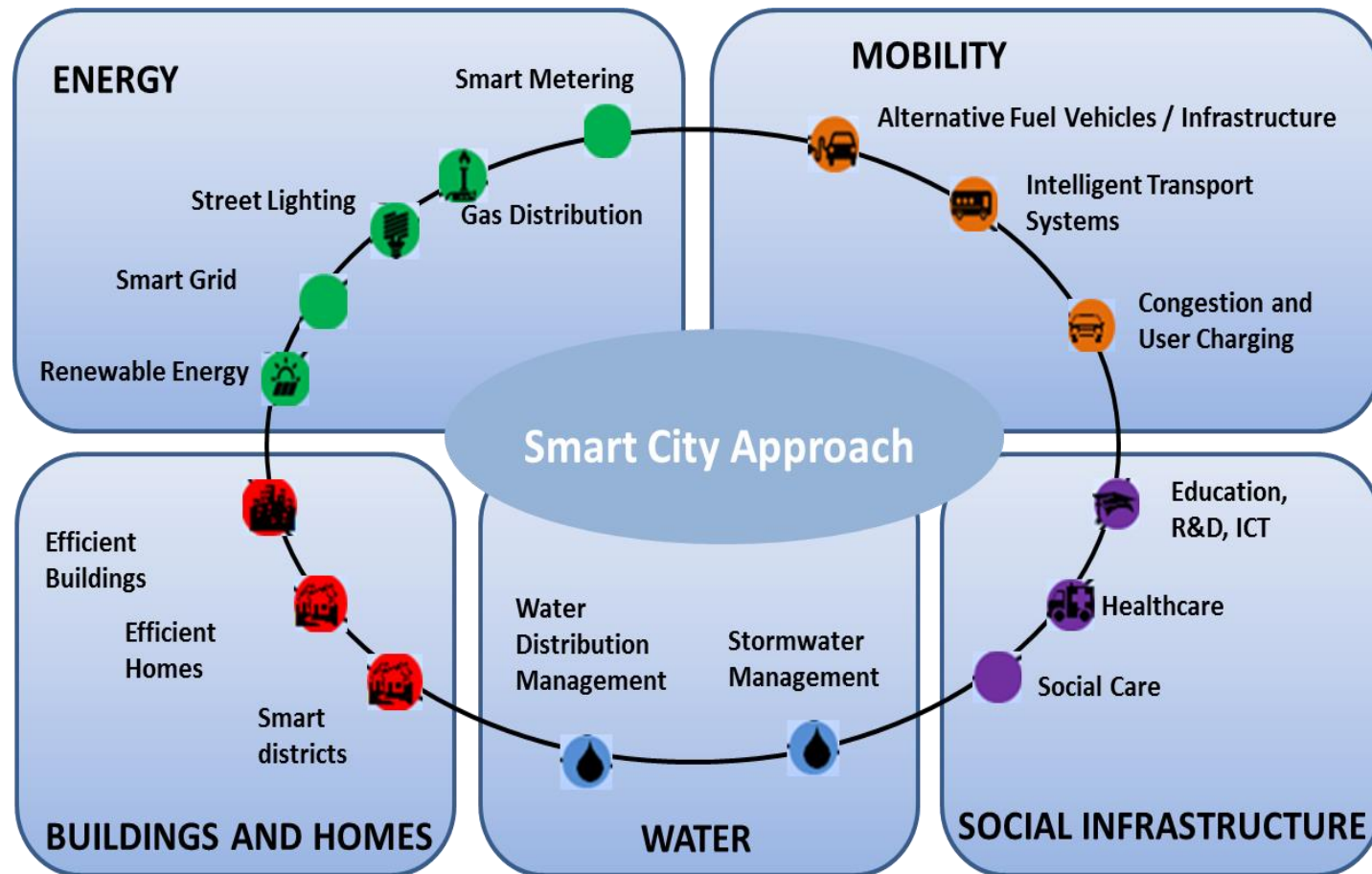
# 8 learning partners

<i>Presov</i>	94k	Catching up Region (with Kosice), <b>Functional Region</b>
<i>Nitra</i>	86k	Single city with a large <b>FDI</b> from JLR
<i>Debrecen</i>	203k	Cross-border aspects with Slovakia (Kosice) and Romania FDI focus
<i>Kaposvar</i>	63k	<b>Sustainability, ambitious green goals</b>
<i>Gdansk</i>	463k	Gdansk-Gdynia-Sopot "tri-city area", <b>focus on social innovation</b>
<i>Kujawsko Pomorskie (Torun-Bydgoszcz)</i>	Over 2Mio	Smart Specialisation (to boost low innovation), address unemployment, specific emphasis on data management, green & recreational goals as well as energy efficiency
<i>Southern Moravia (Brno)</i>	Over 1,2 Mio	Smart specialisation (high innovation), tech transfer between driving city Brno & other municipalities in region, integrated transport
<i>Pilzen</i>	170k	<b>Data management &amp; impact reporting according to EU categories</b>





# Smart Territorial Development Framework



Smart = VfM, meeting location specific demand



# Identified Needs



- Comprehensive and integrated development approach led by a smart city strategy
- Cross-departmental, multi-stakeholder 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)

# Deep dive: Presov

## 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 region<sup>3</sup>

- 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 indicators<sup>4</sup>

	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 %

# Deep dive: South Moravia Region

## Regional trends



### R&D expenditures

20.3 % of R&D expenditures in the Czech Republic are spent in the South Moravian Region. Brno plays a crucial role due to a high density of universities, research institutions and companies investing in R&D. The number of companies with their own R&D capacities is second highest within the Czech Republic.<sup>1</sup>

1



### Jobs & job creation

The unemployment rate in the South Moravian Region was 3.7% in 2018 (3rd highest unemployment among Czech regions, mainly due to the situation in the peripheral and rural areas).<sup>2</sup>

2



### Key social trends

A lower proportion of working-age population (65.5%) and a high proportion of people who are over 64 years old (19.9%). The average age of the population is 42.9 years.<sup>3</sup>



### Commuting for work

Almost 50% of the population aged 15-64 from municipalities within the **Brno Metropolitan Area** commutes for work, mainly to Brno.<sup>4</sup>

### High Innovation Region:

- Regional planning to support regional development & harmonization
- Region as a hub to drive integrated mobility, energy efficiency, tech transfer & capacity building for smaller municipalities
- Support of major smart city projects BRNO drives





# Key Recommendations



- 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

# Rules for building smart cities

## Have a multisector sustainable development strategy

- Smart Cities are those planning and executing investments and/or investment programmes in their territories on the basis of medium-long term integrated strategies (“planning-led”), which target the sustainable development (“sustainability”) of the city/region.

## Set investment priorities taking into account their comparative advantage

- Smart Cities ensure the efficient use of human capital, economic/financial resources and material or immaterial assets, so as to optimise the city/region’s comparative advantages (“place-based”).

## Take into account the opinions of their stakeholders

- Smart Cities take into account the views of the city/region stakeholders, among them their citizens directly or through their associations, as well as the representatives of economic, social, cultural and political organisations undertaking their organisations activities within the city/region (“inclusive”) through appropriate governance structures.

## Adopt a comprehensive approach in the making of investment decisions

- Smart Cities make decisions to implement investments in view of the:
  - Analysis of costs and benefits, sustainability over their life-cycle, integration within the urban system and other planned investments/interventions (“integrated”), as well as overall consistency with the city/region development strategy (“planning-led”).

## Make use of skills, innovation and new technologies

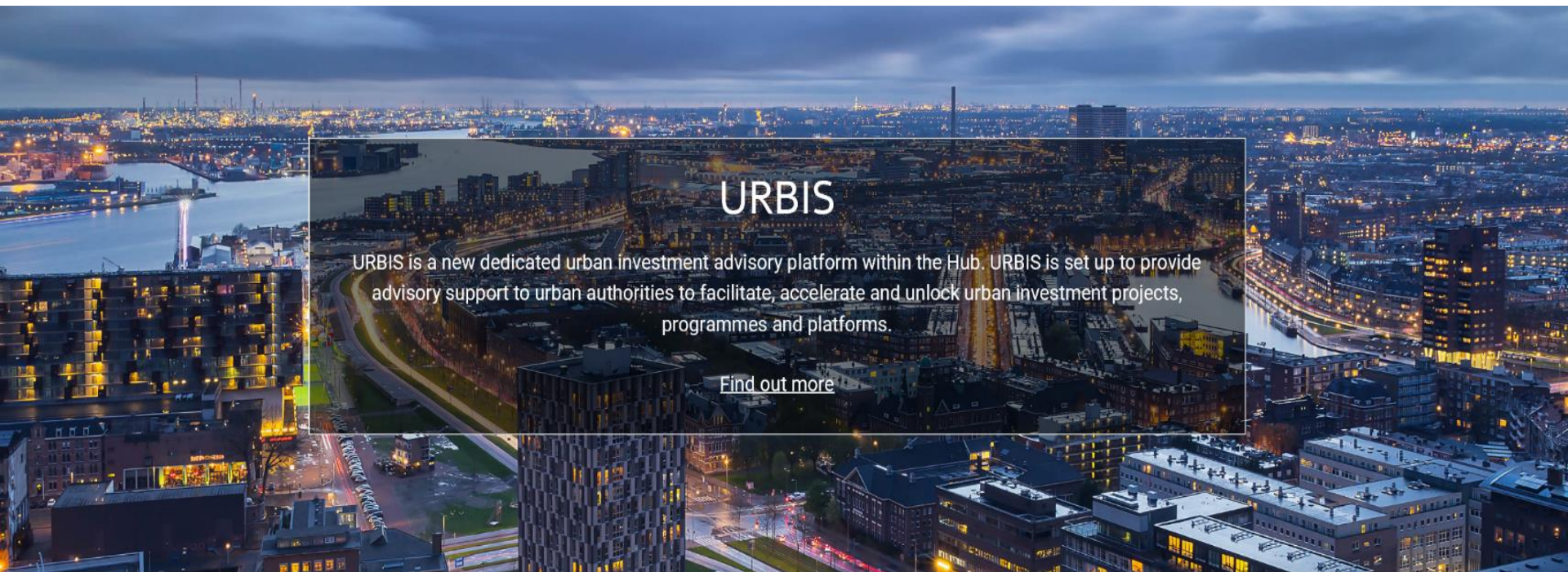
- Smart Cities include a substantial portion of their overall capital programmes oriented to investments which apply advanced technologies (“innovation”), in particular information and communication technologies (ICT).

## Foster a pro-innovation environment

- Smart cities foster an innovative ecosystem through investment and by encouraging and collaborating with universities, industry and other partners to put in place the infrastructure, services and skills needed to support and nurture innovation.

# 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

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)

# Recent and Ongoing JASPERS urban projects

## Krakov Metropolitan Area Development

- **Target:** Prepare a long-term development plan for the Krakow Metropolitan Area (City of Krakow + 15 districts around the city of Krakow)
- **Multi-sector programme:** spatial planning, urban mobility, low-carbon economy, energy efficiency, social inclusion, creation and integration of databases, smart, governance and revitalization.
- **Purpose:** Objective setting for the metropolitan region and identification of investments needs to boost metropolitan development post-2020.
- **JASPERS Smart Development** provides guidance and advisory in the planning and drafting process, as well as coordinates inclusion of sectoral experts for each multi-sector programme.



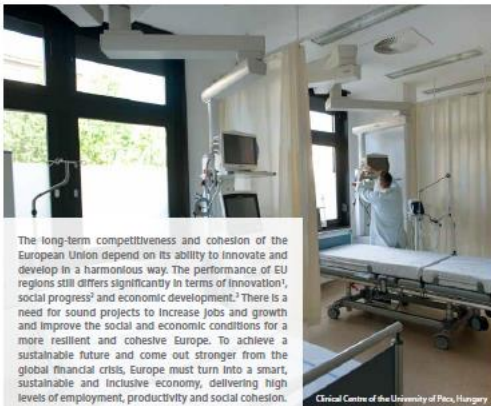
## Integrated Urban Strategy, Valletta, Malta

- **Target:** Deprived neighbourhood in Lower Valletta
- **Investment:** EUR 24m (80% ERDF, article 7)
- **Multi-sector programme:** social housing, cultural heritage, transport, entrepreneurship/business, skills
- **Challenge:** Bundling of different schemes into one urban regeneration programme in line with OP including place-specific needs
- **JASPERS Smart Development** advised the Maltese on the development and use of a multi-criteria analysis (MCA) tool, which is an aid to decision-making and inherently reflects prevailing priorities across sectors, enabling an integrated approach





## Smart development for a smart Europe



<sup>1</sup> [http://ec.europa.eu/growth/index/innovation/en/index/regional\\_en](http://ec.europa.eu/growth/index/innovation/en/index/regional_en)  
<sup>2</sup> [http://ec.europa.eu/regional\\_policy/en/index/innovation/regional\\_policy\\_en](http://ec.europa.eu/regional_policy/en/index/innovation/regional_policy_en)  
<sup>3</sup> [http://ec.europa.eu/regional\\_policy/en/index/innovation/regional\\_policy\\_en](http://ec.europa.eu/regional_policy/en/index/innovation/regional_policy_en)

# Thank you!

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More information:

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