

# Challenges for cities in the context of the Green Deal

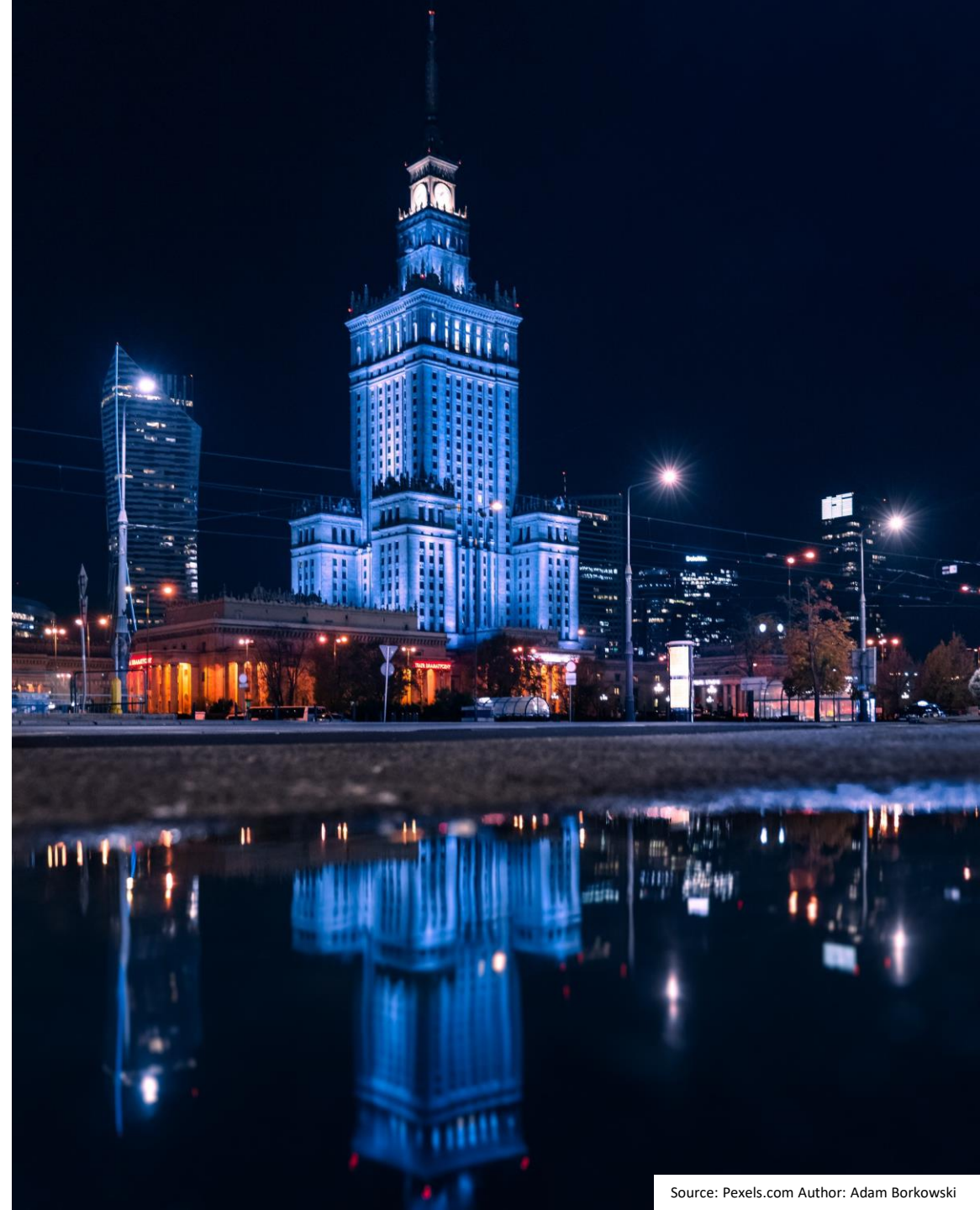
13. Dec. 2021



# Challenges

**The UN estimates that 55% of the global population lives in urban areas – a figure that is projected to rise to 68% by 2050\***

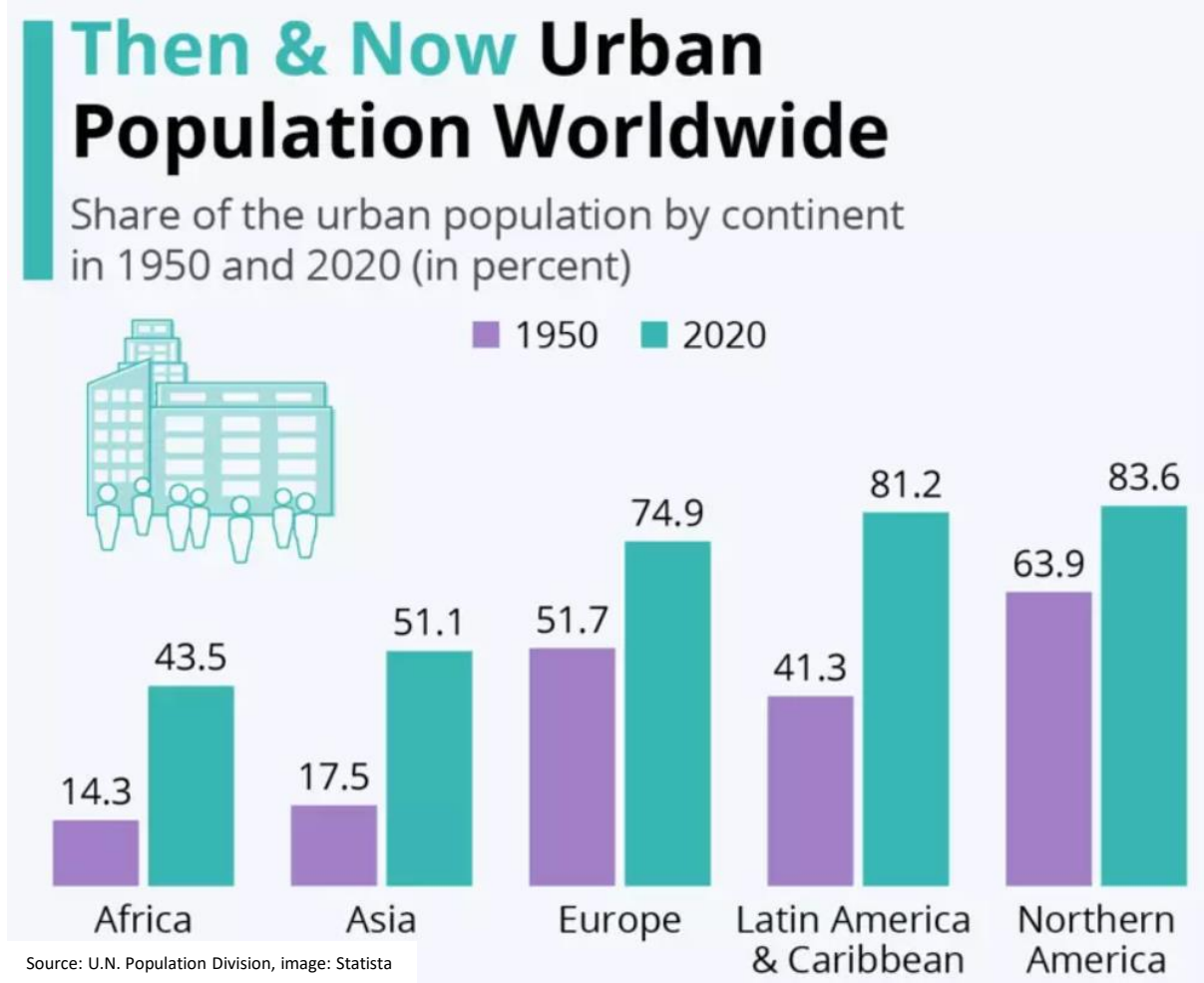
*\*2018 Revision of World Urbanization Prospects*





# Environmental threats

- rapid urbanization
- more frequent and extreme weather events





# Limited resources

- water, food and energy
- reduction of green spaces





# Inequality

- increased numbers of urban poor



Source: Pexels.com Author: Suliman Sallehi



Source: Pexels.com Author: Abhishek Goel



Source: Pexels.com Author: Ahmed Akacha

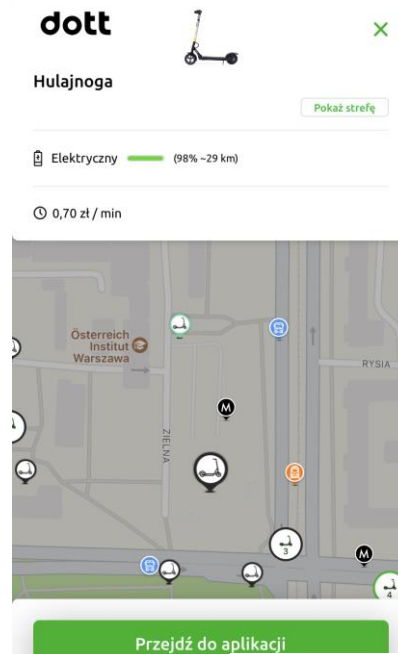


# Technology

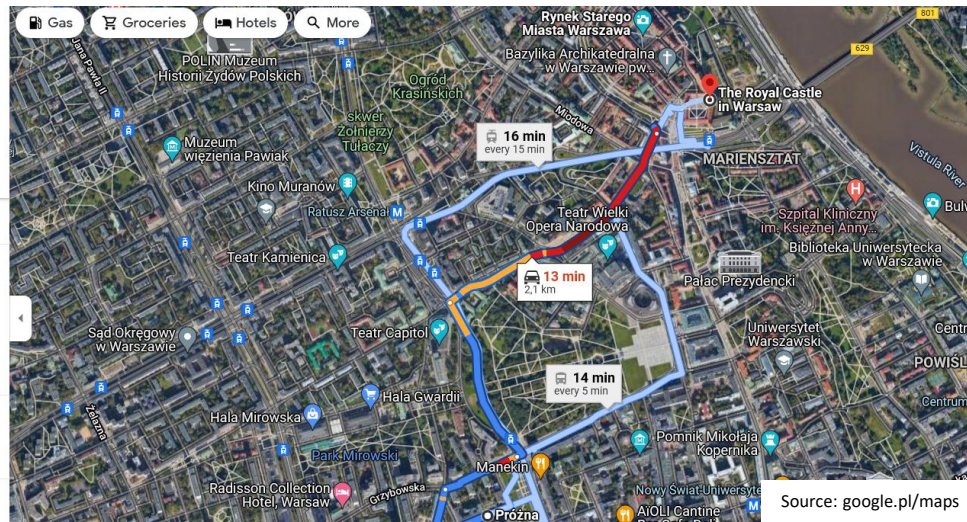
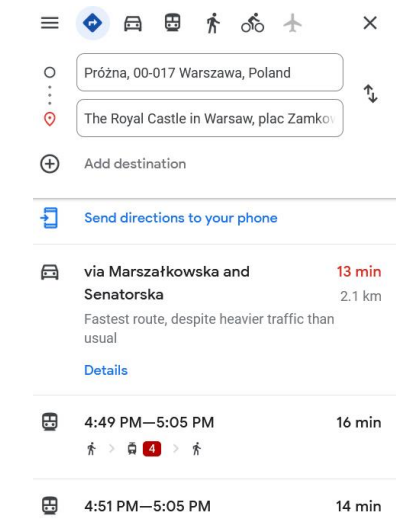
- smart planning
- smart mobility
- environmental technologies



Source: Pexels.com Author: Kindel Media



Source: take&drive



Source: google.pl/maps



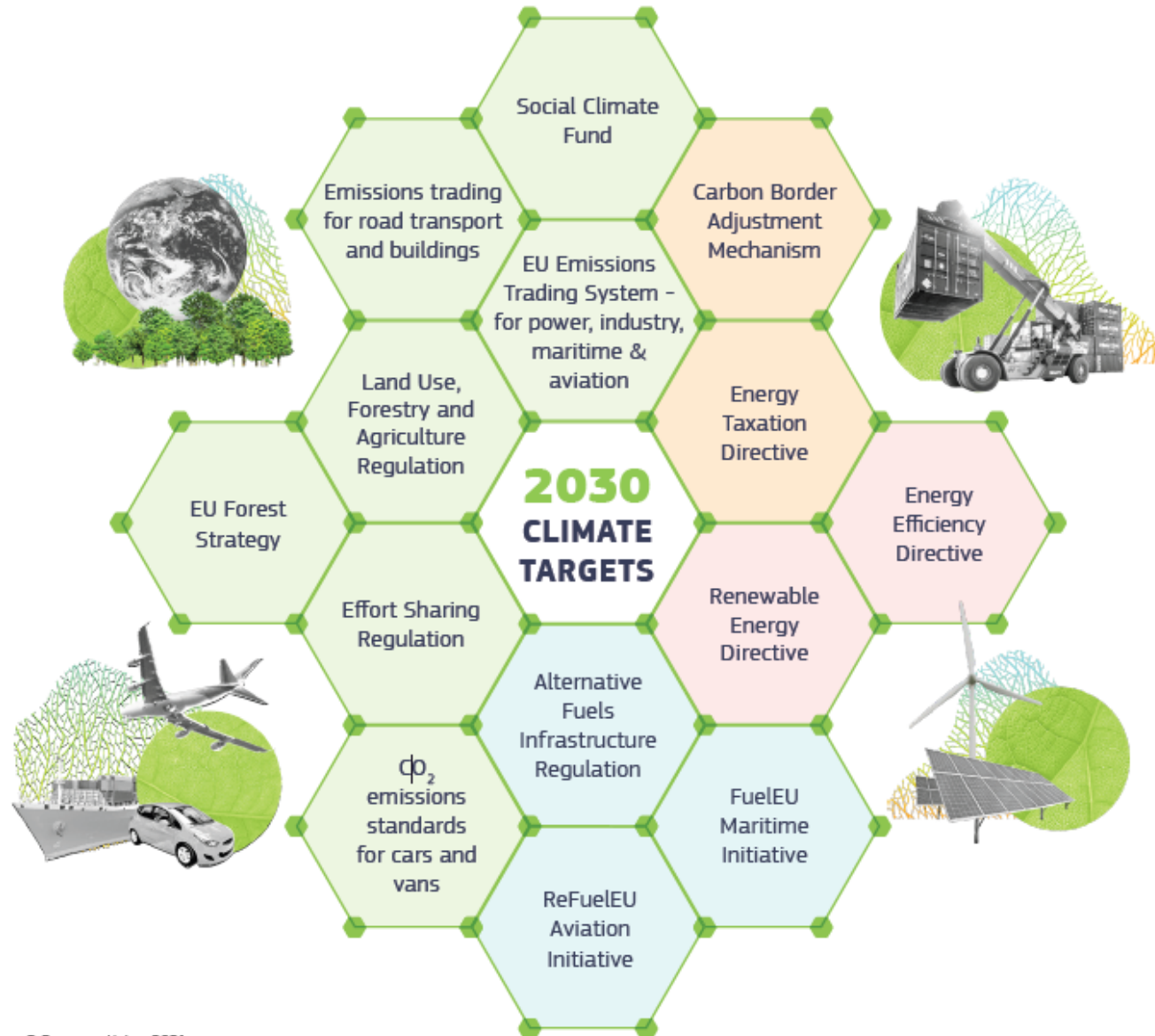
Source: panekcs.com



Source: Pexels.com Author: Magda Ehlers

# Cities in the European Green Deal – chance or challenge?

- Key goal - **turning the EU into the first climate neutral continent by 2050**
- Reduction of emissions by at least 55% by 2030, compared to 1990 levels





# The European Green Deal

## - Transport



Recharging pools for cars and vans



Hydrogen refuelling stations



Recharging points for heavy duty vehicles

**55%**

reduction of emissions from cars by 2030

**50%**

reduction of emissions from vans by 2030

**0**

emissions from new cars by 2035

**2025**

**1 million**



**2030**

**3.5 million**



**2040**

**11.4 million**



**2050**

**16.3 million**



\*according to Commission Impact Assessment of vehicle uptake following the 'Fit for 55' proposals and assuming an average power output of approx. 15kW per recharging station



Source: Pexels.com Author: Mike



Source: mza.waw.pl

Source: ec.europa.eu



# The European Green Deal

## - Industries

**35 million**

buildings could be renovated by 2030



Setting a binding target for EU countries to renovate at least **3%** of all public buildings per year – giving a big **boost to local employment and construction industries**.

**160,000**

additional green jobs could be created in the construction sector by 2030



Set a binding annual target for Member States to **increase renewables in heating and cooling by 1.1 percentage points**.



Set an indicative target to **increase renewable energy use in industry by 1.1 percentage points** per year.



**37%**

of the €723.8 billion recovery and resilience facility for climate action



**30%**

of the EU's budget for climate action

## BOOSTING THE INNOVATION FUND

The Innovation Fund is financed by allowances auctioned under the EU ETS and funds innovative low-carbon technologies. The new proposal represents a doubling of the fund.

# The European Green Deal

## - Renovating buildings

**40%**

new renewable energy target for 2030

**36-39%**

new 2030 energy efficiency targets for final and primary energy consumption

- Introduce a **legal requirement to put energy efficiency first** in planning and investment decisions
- Establish a new target for Member States to **reduce energy use in the public sector** by **1.7%** every year
- Encourage public bodies to use **Energy Performance Contracts for renovation** of large non-residential buildings



Set a new EU-level target of **40%** renewables in the energy mix



Set a benchmark of **49%** of renewables in buildings



Increase the use of renewable energy in heating and cooling by **1.1 percentage point** every year



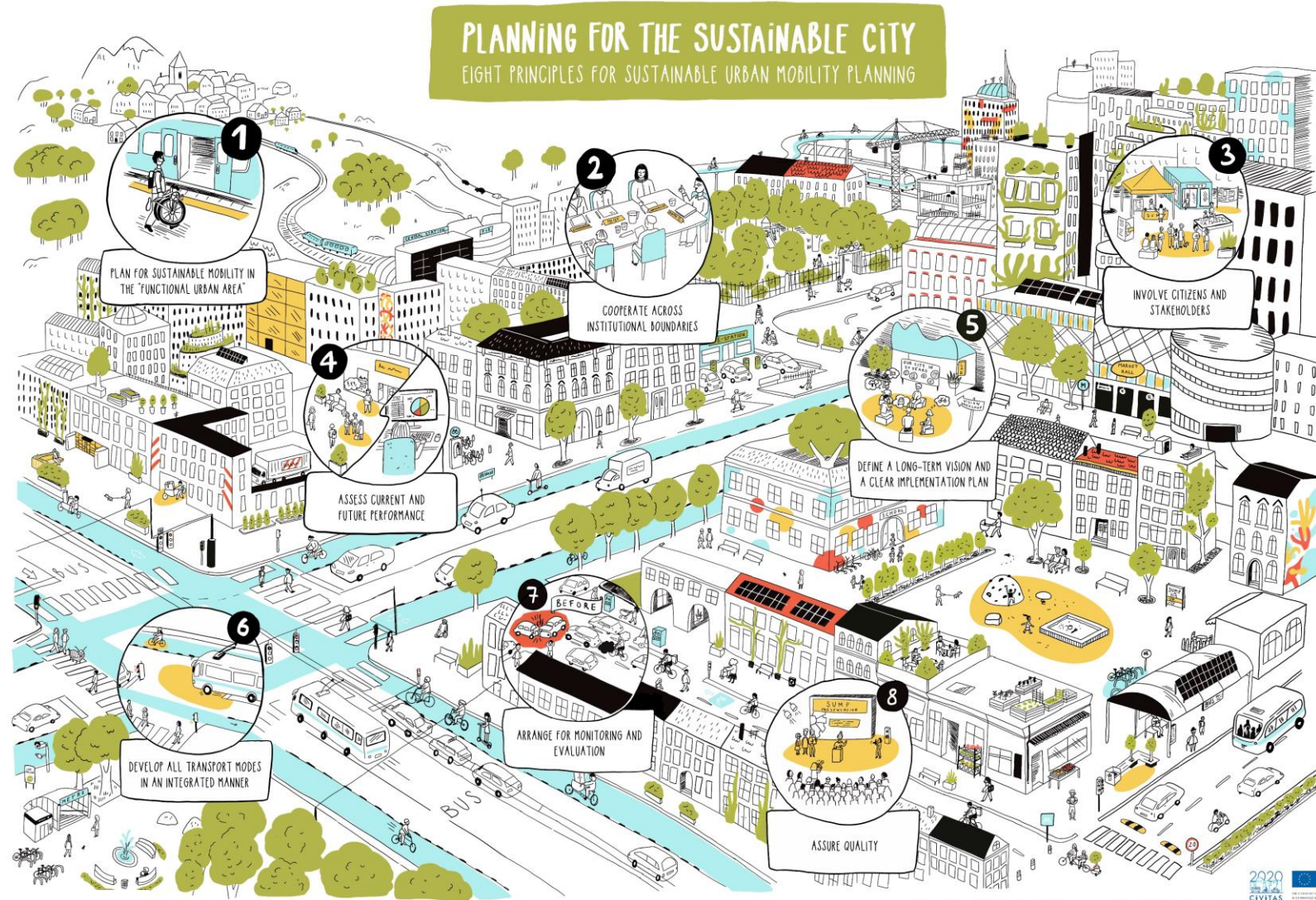
Raise the use of renewable energy in district heating and cooling by **2.1 percentage points** every year





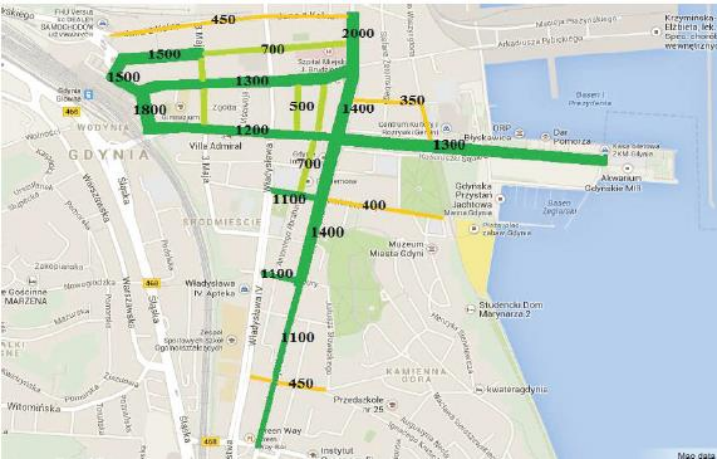
# Response to the challenges - transport

**Sustainable Urban Mobility Plans (SUMP)** – the long-term strategy aimed at ensuring satisfactory access to travel destinations and services, also including an implementation plan





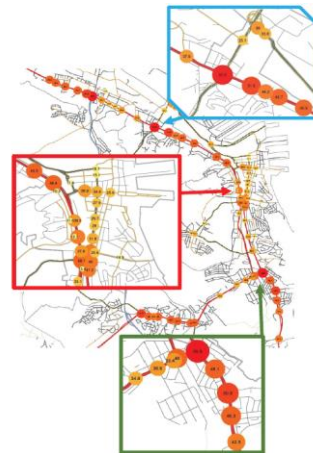
# Response to the challenges - transport



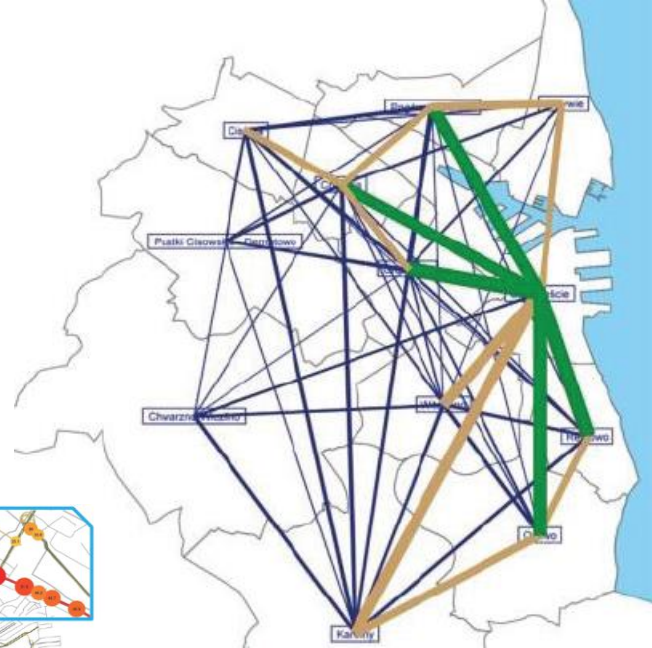
Pedestrian traffic



Bicycles paths



Road crossings – most congested



Public transport traffic

Why we need SUMPs:

- transport is a **interconnected** system
- the different modes of transport should be **compatible** with each other
- separate plans for development of public transport, railways, roads not lead to success
- necessary integration of investment activities with organisational efforts and legal approach
- strong 'suggestion' of the European Court of Auditors



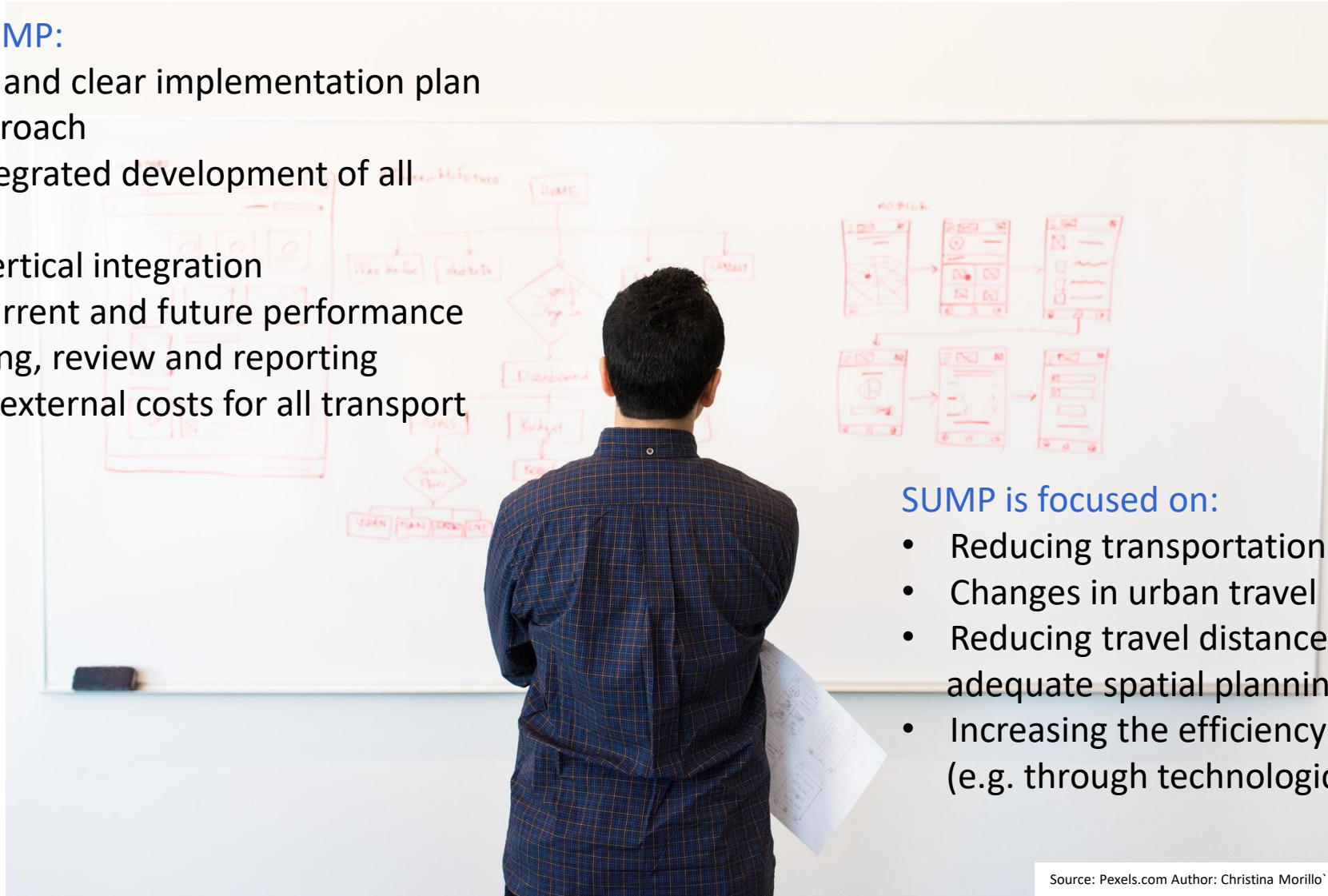
„believe me, one more lane will fix it (...)”



# Response to the challenges - transport

## Basic features of SUMP:

- Long-term vision and clear implementation plan
- Participatory approach
- Balanced and integrated development of all transport modes
- Horizontal and vertical integration
- Assessment of current and future performance
- Regular monitoring, review and reporting
- Consideration of external costs for all transport modes



## SUMP is focused on:

- Reducing transportation needs (fewer trips)
- Changes in urban travel patterns
- Reducing travel distances (through adequate spatial planning)
- Increasing the efficiency of the transport system (e.g. through technological innovations)



# Response to the challenges - transport

## Polish approach:

- development of EU co-financed pilot project for about 30 municipalities
- support from various ministries (i.e. Funds, Transport) and EC (DG Regio)
- involvement of JASPERS (EIB)
- integrated management with cities
  - advisory part is supported through EU funds
  - cities are to deliver necessary technical, environmental, analysis etc
- further continuation in the next MFF 2021-2027 and Recovery and Resilience Facility



<https://plany.mobilnosci.pl/english/>



# Transport

**Project:** Purchase of bus fleet (130 low-floor, **low-emission buses**) with accompanying infrastructure

- beneficiary: Municipal Bus Company (Warsaw)
- 130 new electric buses (out of total 1422)
- charging stations
- eligible costs: 72 mEUR
- EU co-financing: 61 mEUR





# Transport

**Project:** Integrated system of **low-emission public transport** in Zielona Góra

- beneficiary: The City of Zielona Góra
- 43 new electric buses (of 89 in total fleet)
- 17 new diesel buses
- charging stations
- modernisation of depot, passenger information system and bus stops
- new passenger interchange
- EU co-financing: 40 mEUR





# Transport

## **Project:** Gdańsk Urban Transport Project - stage IV A

- beneficiary: The City of Gdańsk
- 15 new trams
- construction and modernisation of tramway lines
- 64 new passenger stops
- passenger information system displays
- new passenger interchange
- EU co-financing: 67 mEUR





# Response to other challenges

## - Energy



Source: Pexels.com Author: Daria Sannikova`

### Energy Performance Contracting:

*Energy performance contracting (EPC) is a mechanism for organising the **energy efficiency financing***

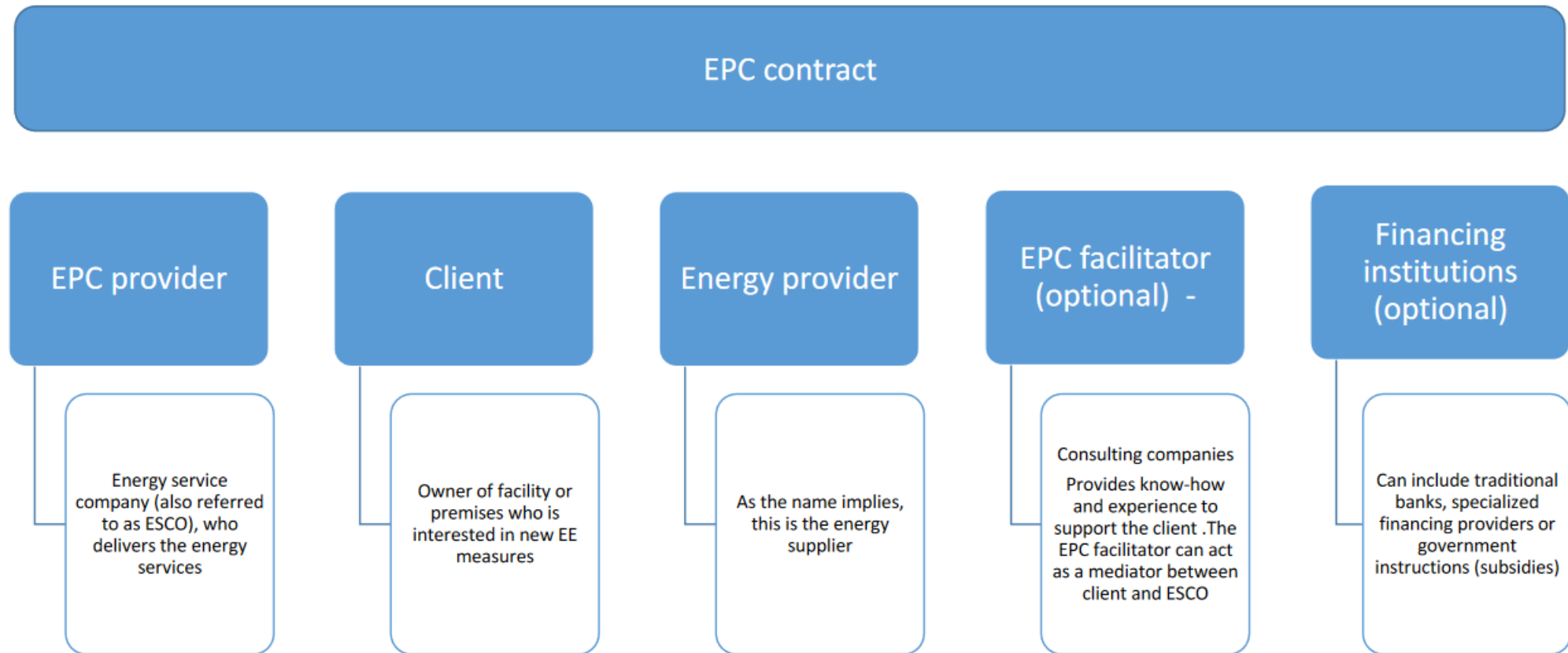


#### Features:

- modernisation of mainly public buildings/infrastructure
- possibility to use EU funds but not the requirement
- ‚low hanging fruit’ in overall energy issues
- great space for the real innovations
- support from ELENA fund for development of projects

# Response to other challenges

## - Energy





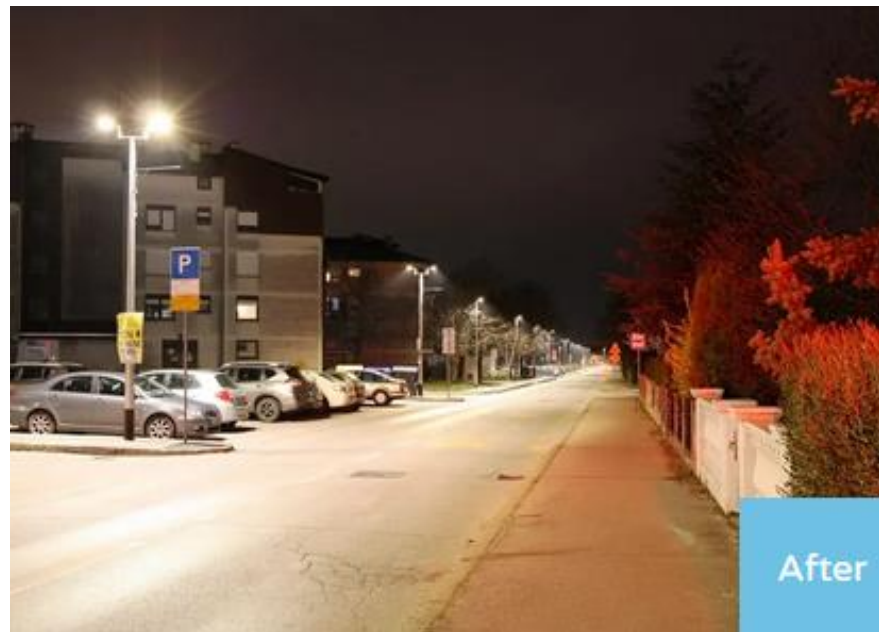
# Response to other challenges

## - Energy

### City of Zagreb, Croatia

- 790 ths inhabitants
- 51 ths luminaries
- 40 mEUR investment
- energy saving/year:  
25GWh /2,7 mEUR
- EPC for 17 years
- services:

- guaranteed energy savings
- guaranteed availability
- smart sensors
- energy management and monitoring

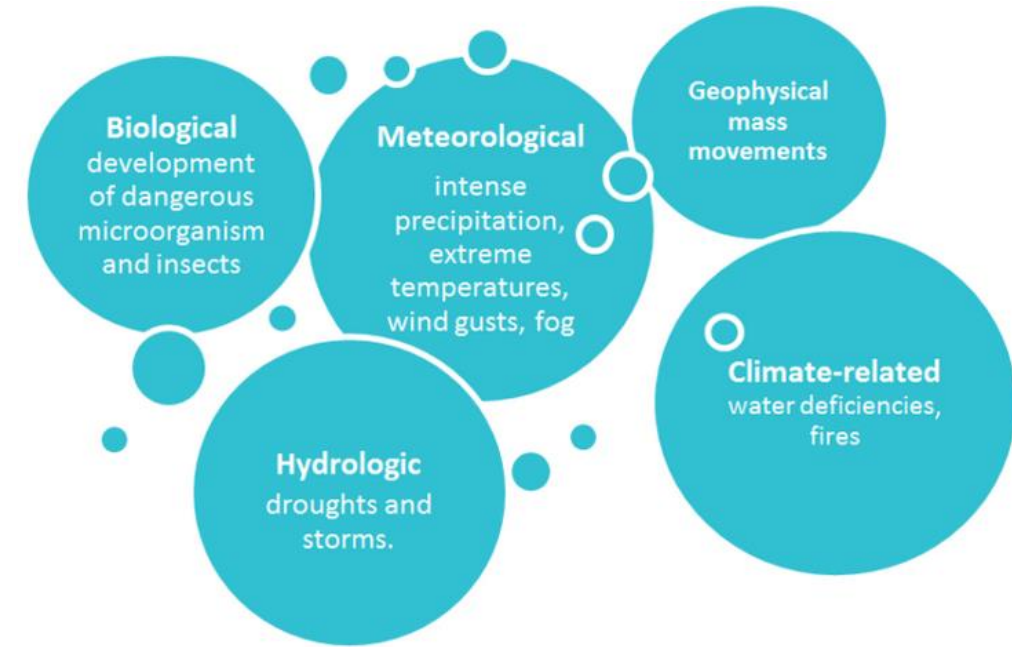


# Response to other challenges

## - Climate change

### Preventing climate change:

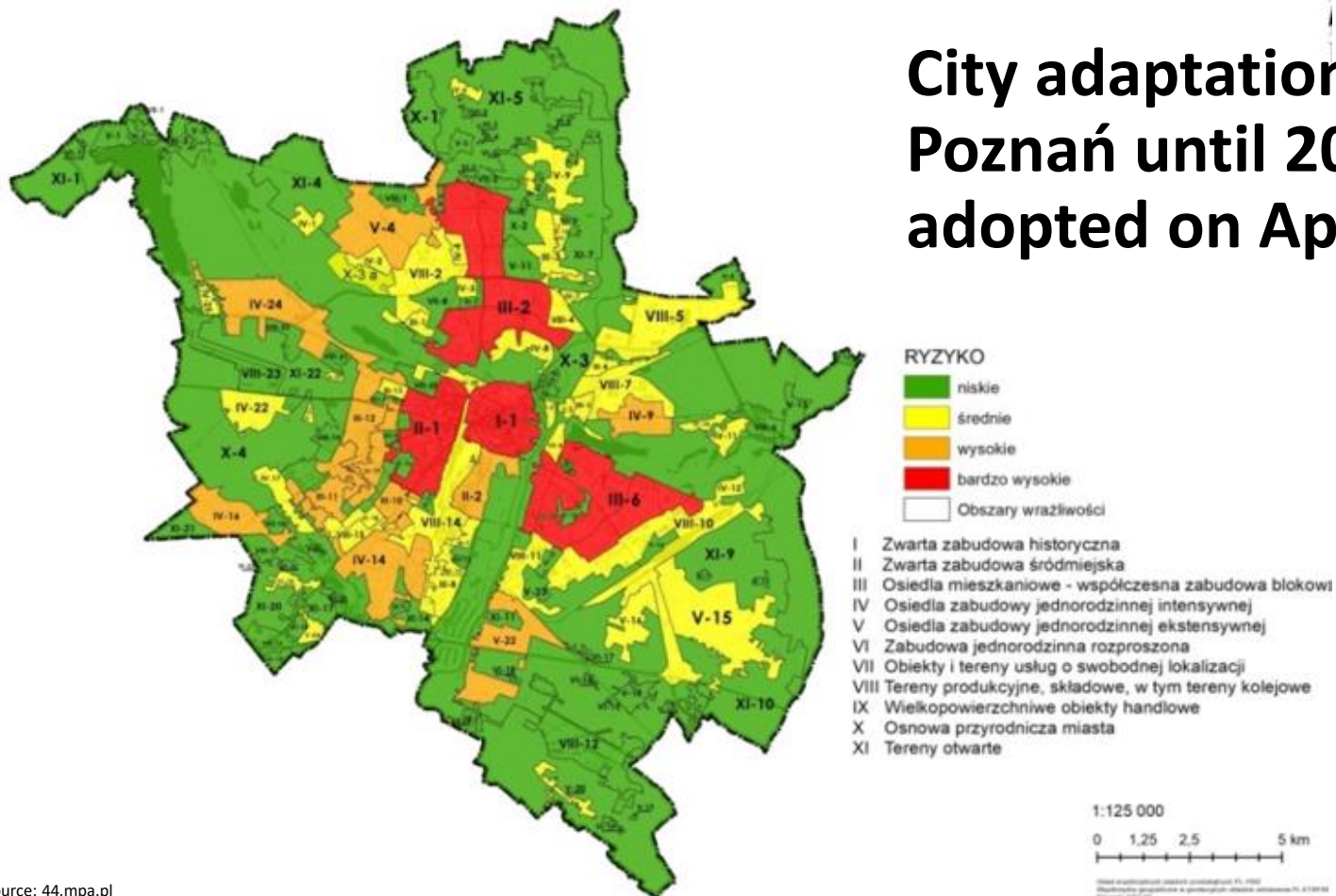
- preparation of **complex urban adaptation plans** giving the ready-to-use tool for selection the most important investments
- PL case:
  - 2017-2019: preparation of 44 urban adaptation plans for cities with over 100 ths inhabitants (30% of total inhabitants in PL)
  - project co-financed from EU funds (6,5 mEUR)
  - officially adopted documents by city's councils
  - preference in financing from the MFF 2021-2027





# Response to other challenges

## - Climate change



## City adaptation plan for Poznań until 2030 adopted on April 2019



**any comments/ideas/questions are warmly welcome**

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