



University of *Ljubljana*  
Faculty of Civil and  
Geodetic Engineering

# Framework of spatial planning

ASSIST. PROF. ALMA ZAVODNIK LAMOVŠEK, PH.D.

# Content

- Global context
- Planning systems
- Spatial planning principles
- Policy development to strategic phase

# Global context

# Starting points - urbanisation

- ▶ today we are experiencing a steady increase in the number of cities, which was particularly intense in the second half of the 20th century
- ▶ the number of people living in cities has exceeded 50% of the world's population
- ▶ the cities are getting bigger and more densely populated every year

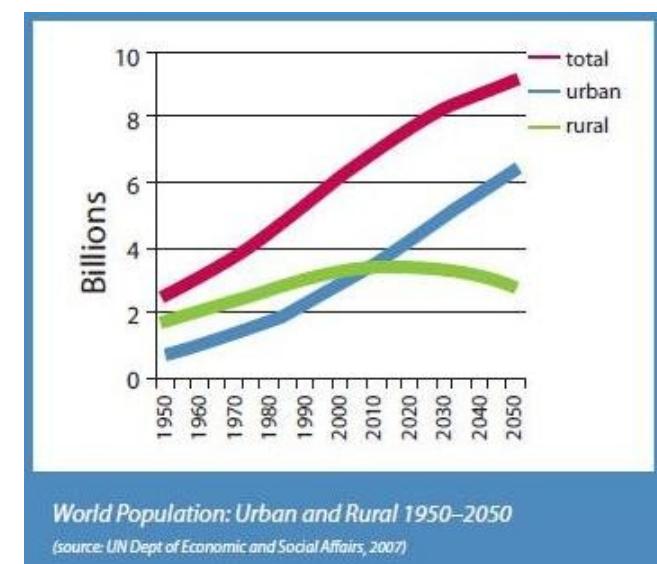


[Maputo](#), Capital of [Mozambique](#),  
[http://en.wikipedia.org/wiki/List\\_of\\_cities\\_in\\_Mozambique](http://en.wikipedia.org/wiki/List_of_cities_in_Mozambique)

# Starting points – „endless“ growth

- ▶ In 1975 there were 11 cities in the world with more than 8 million inhabitants (most of them in the developed world)
- ▶ In 2000 there were 24 such cities (6 of which were in developing countries)
- ▶ The forecasts of UN from 2015 were as follows: 30 major cities, 24 of them in developing countries

The top 20 mega cities by 2025 will be:



## Starting points – global climate change

### ► DEFINITION OF CLIMATE CHANGE:

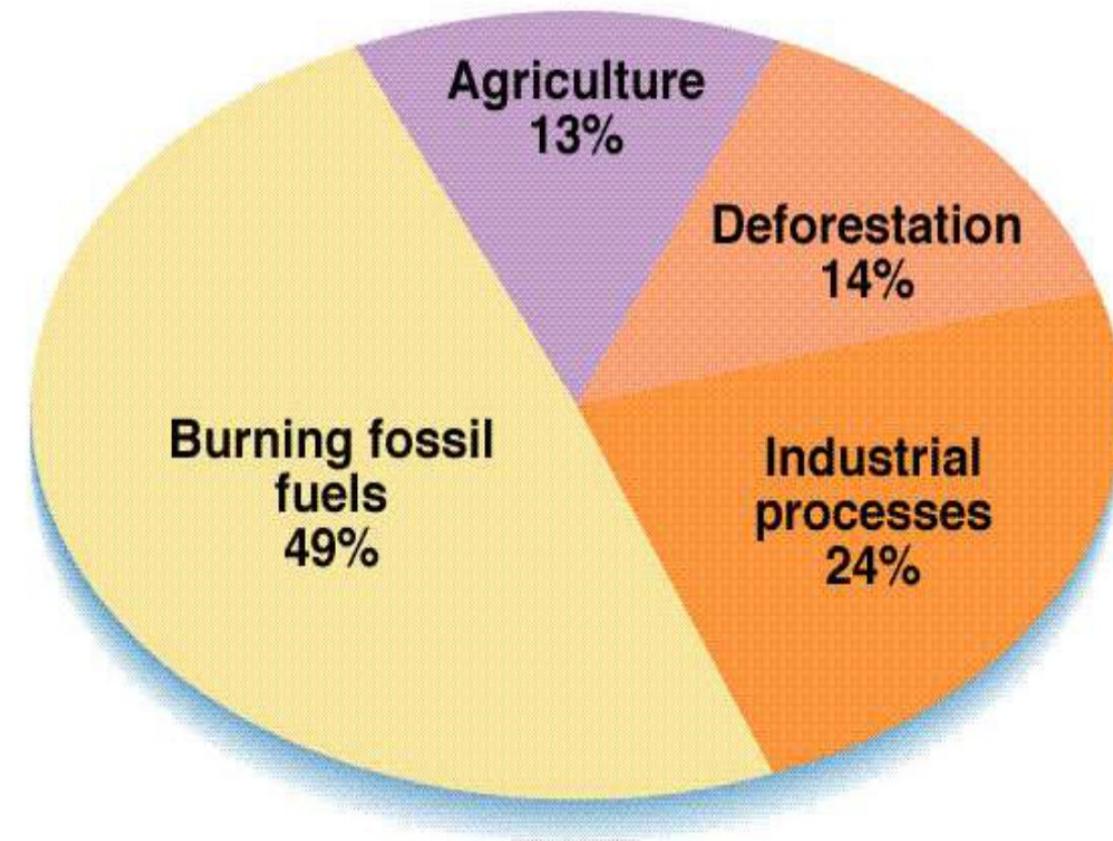
► “ It is a change which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparative time periods”

### ► CAUSES OF CLIMATE CHANGE:

► Natural cases (vulcanic eruptions, ocean currents, earth orbital change, solar variation, cooler summer&milder winter, solar variation...)

► Human causes (Greenhouse gases, Deforestation, Coal mining, Burning of fossil fuels Industrial processes, Agriculture...)

# Global Warming & Humans



- Burning of Fossil Fuels



- Deforestation



# Effects of climate change

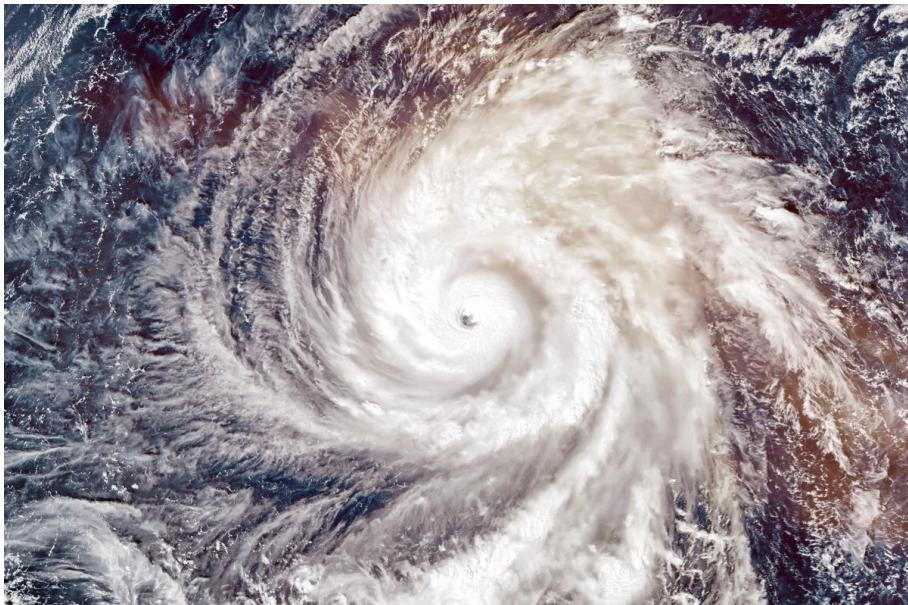
- ▶ **melting ice sheets - rise in sea level**
- ▶ **heavy rainfall across the globe**
- ▶ **extreme drought**
- ▶ decline in crop productivity
- ▶ ecosystems are changing
- ▶ **hurricanes**
- ▶ rise in temperature



EXTREME DROUGHT



# Storm



Source:  
<https://www.forbes.com/sites/benjaminkomlos/2020/06/15/it-may-seem-like-this-is-over-but-were-in-the-eye-of-the-storm-whats-your-plan/>

Source. <https://www.nytimes.com/2020/02/10/world/europe/storm-ciara-sabine-germany.html>

# Flooding: all over the world



► In Japan...



in Slovenija...

# Planning systems

AN INTERNATIONAL SPATIAL PLANNING FRAMEWORK

## 1976: Habitat I Conference

- ▶ Vancouver Declaration on Human Settlements, adopted at the United Nations Conference on Human Settlements:
- ▶ :The central role of spatial planning for future urban development is defined:

*“...It is the responsibility of Governments to prepare spatial strategy plans and adopt human settlement policies to guide the socio-economic development efforts.* Such policies must be an essential component of an overall development strategy, linking and harmonizing them with policies on industrialization, agriculture, social welfare, and environmental and cultural preservation so that each supports the other in a progressive improvement in well-being of all mankind. A human settlement policy must seek harmonious integration or coordination of a wide variety of components, including, for example, population growth and distribution, employment, shelter, land use, infrastructure and services. *Governments must create mechanisms and institutions to develop and implement such a policy.”*

## 1992: Agenda 21 action plan

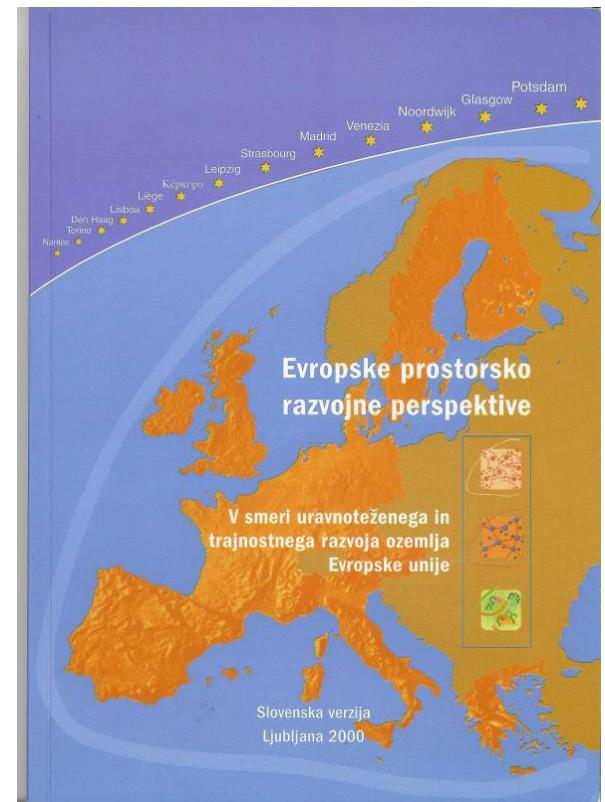
- ▶ It has been adopted by more than 178 governments on the United Nations Conference on Environment and Development (UNCED)
- ▶ Chapter 10 is entirely devoted to spatial planning and resource management:
  - ▶ *“By examining all uses of land in an integrated manner, it makes it possible to minimize conflicts, to make the most efficient trade-offs and to link social and economic development with environmental protection and enhancement, thus helping to achieve the objectives of sustainable development.* The essence of the integrated approach finds expression in the coordination of the sectoral planning and management activities concerned with the various aspects of land use and land resources.”

## 1999: The European Spatial Development Perspective (ESDP)

- ▶ Adopted at the informal meeting of the EU Spatial Planning Ministers with the following findings:
  - ▶ Spatial development policy can promote sustainable development through balanced spatial structures.
  - ▶ Close cooperation between the institutions responsible for sectoral policies, including those responsible for spatial planning at all levels of decision-making, is required (horizontal cooperation)
  - ▶ Cooperation between different decision-making levels and local stakeholders (vertical cooperation) should also be ensured.

# The European Spatial Development Perspective (ESDP, 1999)

- ▶ Spatial orientation of policies
- ▶ Polycentric spatial development and the new urban-rural relationship (polycentric and balanced spatial development of the EU, dynamic, attractive and competitive cities and urbanized regions, indigenous development, diverse and productive agricultural areas, relations between urban and agricultural areas)
- ▶ Equal access to infrastructure and knowledge (integrated approach for better transport connections and access to knowledge, polycentric development model: basis for better accessibility, efficient and sustainable use of infrastructure, dissemination of innovation and knowledge)
- ▶ Responsible management of natural and cultural heritage ((natural and cultural heritage as a development advantage, protection and development of natural heritage, water resources management, creative management of cultural landscapes and cultural heritage))



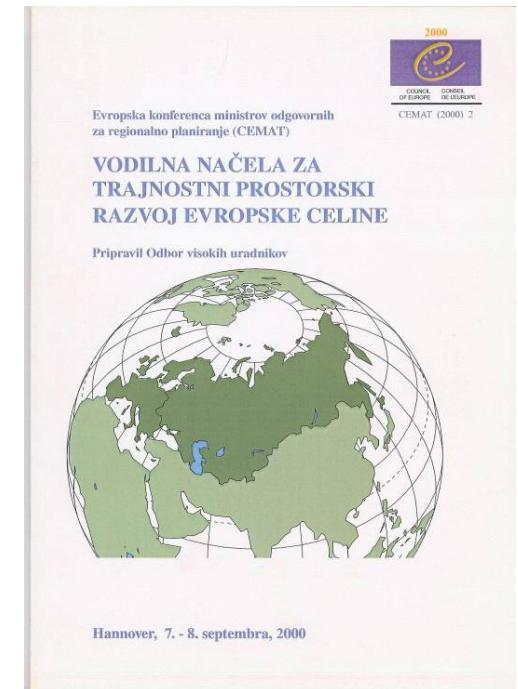
2000/02: CEMAT

Guiding principles for sustainable spatial development of the European  
Continent

- ▶ Adopted by the Council of Europe ( Ministers responsible for Regional Development)
- ▶ A number of key principles for a sustainable spatial development policy and key recommendations for the development of spatial planning were adopted
- ▶ The document was created under the influence of Torremolino Charter and the ESDP and therefore also contains recommendations for:
  - ▶ Cooperation at horizontal level
  - ▶ Cooperation on the vertical level
  - ▶ Public involvement in the spatial planning process

## Guiding principles for sustainable spatial development of the European Continent (CEMAT)

- ▶ Promoting territorial cohesion through a more balanced socio-economic development of the regions and increased competitiveness
- ▶ Promoting development resulting from urban functions and improving urban-rural relations
- ▶ Promoting more balanced accessibility
- ▶ Development of access to information and knowledge
- ▶ Reduction of negative environmental impacts
- ▶ Increase and protect natural resources and heritage
- ▶ Increasing the cultural heritage fund as a factor for the development
- ▶ Developing energy sources while ensuring safety
- ▶ Promoting the development of sustainable and high-quality tourism
- ▶ Limiting the impact of natural disasters



- ▶ What challenges do you see as advantages or disadvantages for spatial development at the global level?

# An international spatial planning framework

## Common principles of spatial planning

- democracy
- subsidiarity
- integration (geographical and sectoral)
- cooperation (horizontal - sectors, vertical - different levels)
- proportionality between binding and flexible
- caution (restraint)
- publicity
- participation

## Challenges and objectives for spatial planning



- Evropska konferenca ministrov odgovornih za prostorsko razvojno perspektivo (CEMAT) globalization
- sustainable development
- EU integration and market economy reform
- demographic change (aging, migration)
- GOALS:
- mixed (land) use
- urban renovation
- renovation of residential buildings
- public participation
- water supply and communal system
- transport system

## Common values

- ▶ Enforce democratic spatial planning in accordance with the needs of local communities
- ▶ Improving the urban environment
- ▶ Promoting social cohesion and security
- ▶ Implementation of housing and urban development reforms
- ▶ Improving the real estate market and provide legal certainty for land and property owners

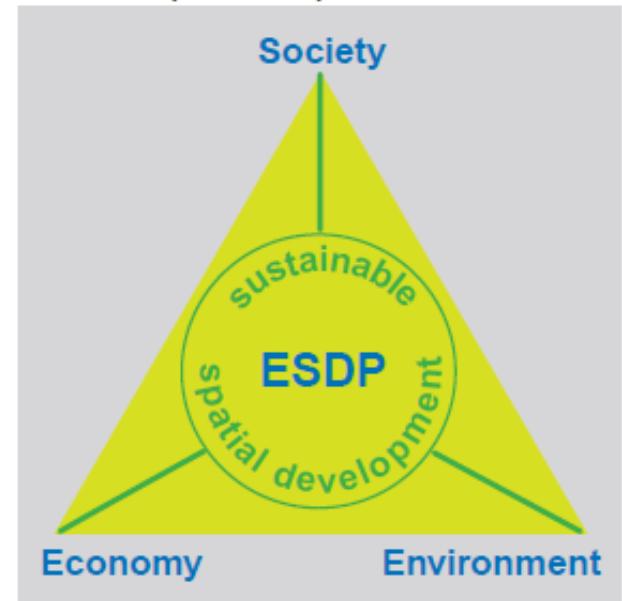
# EU spatial planning framework

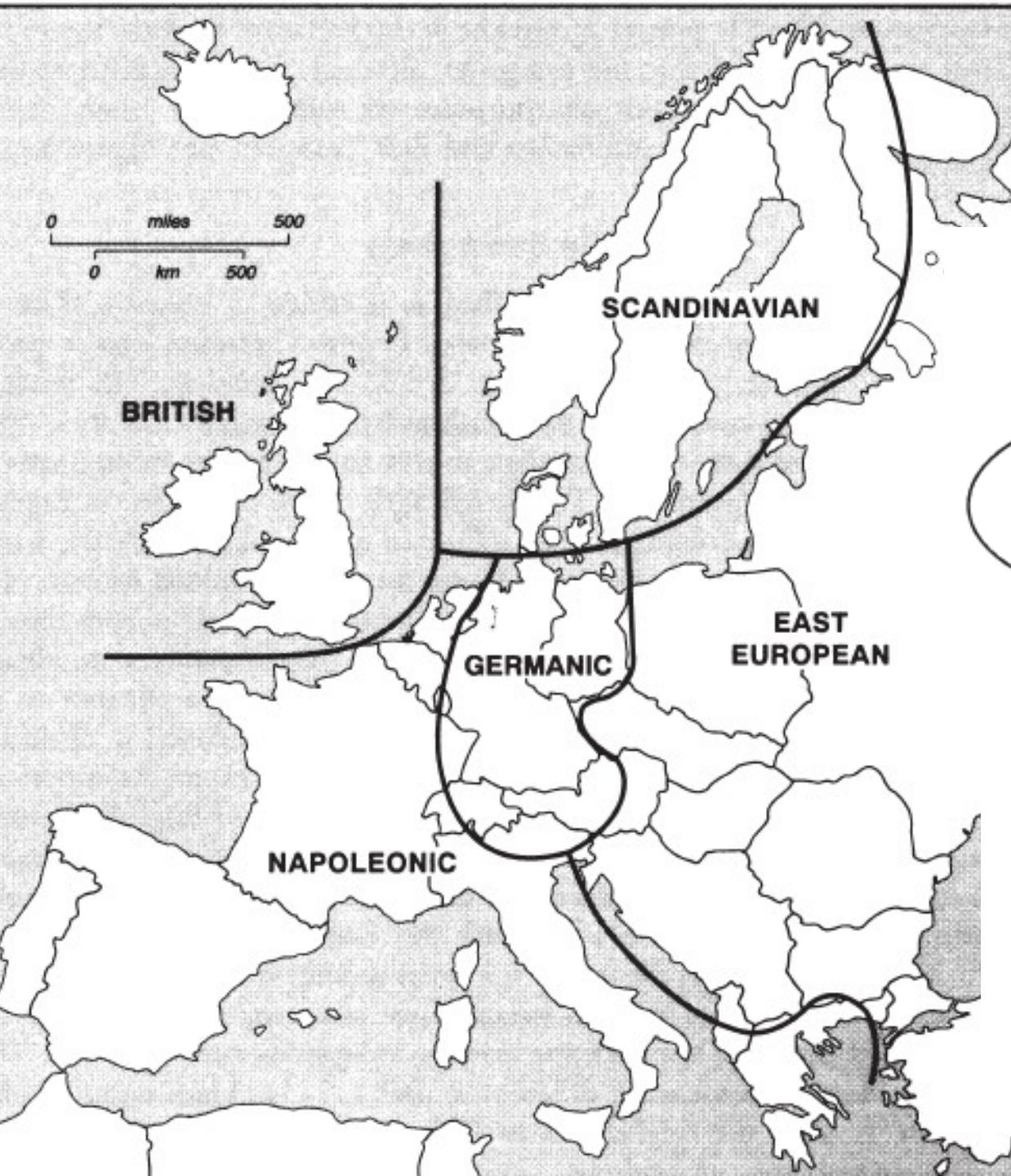
- ▶ There are common values accepted by all, EU countries (ESPD, 1999)
- ▶ The EU doesn't have common spatial planning legislation: there is no tendency to harmonisation and move to a common standards

- ▶ Each European country has its own responsibility for spatial planning,
- ▶ BUT

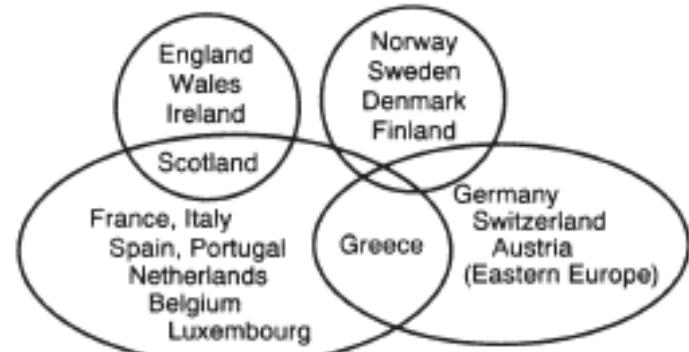


Fig. 5: Triangle of Objectives: a Balanced and Sustainable Spatial Development

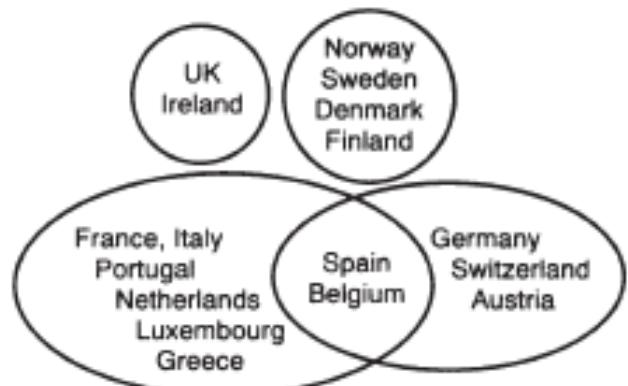




### LEGAL FAMILIES



### ADMINISTRATIVE FAMILIES



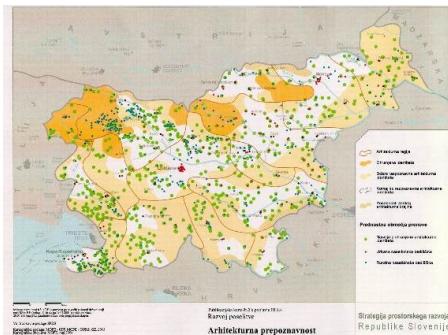
# The planning „families“ in Europe

- ▶ Planning systems in the British family (a system of case law that has gradually built up decision by decision)
- ▶ Planning systems in the Napoleonic family (has a tendency to use abstract legal norms and enjoy greater theoretical debate than the British style)
- ▶ Planning systems in the Germanic family (a feature is the importance given to the written Constitution - Basic Laws)
- ▶ Planning systems in the Scandinavian family (The links between the Scandinavian countries stem from the history of conquests over the years by the Danish and Swedish Empires)
- ▶ Planning systems in eastern Europe (after 1989 there are some legal and administrative reforms)

# Planning system principles

# System

- ▶ organized working methods and decision-making on development in space procedures and
- ▶ methods of working and decision-making leading to harmonious development (economic and social development in line with spatial and environmental possibilities)
  
- ▶ there is a general social consensus on the importance of space
- ▶ public interest - public affairs (education, health ...)
- ▶ legal framework, powers, rights



# What defines a spatial planning system?

- ▶ **legal framework:** legislation, mandatory content, procedures, participants, types of legal acts
- ▶ types of financing
- ▶ **organizational framework:** implementation of activities in practice, public services, powers, forms of organization of work
- ▶ implementation and tasks professional framework - **methodology and practice**
  
- ▶ in principle: public matter of national importance, state law, state plans most responsibilities at local level, where the measures are closest to the user
- ▶ Preparation in an open and cooperative manner, including the public subsidiary role of state
- ▶ Cross-border/regional planning
- ▶ Legal implementation vs illegal construction system

## Legal framework

- ▶ Effective coordination of sectors that have an impact on spatial development (e.g. agriculture, health, education, economy )
- ▶ Flexible spatial planning process with clear guidelines (unavoidable uncertainties)
- ▶ Increased planning responsibility at the regional and local level while ensuring quality control from the national level
- ▶ Effective participation of different stakeholders and the public
- ▶ Taking account of the effects of spatial development on the environment (reduction or replacement measures)

# Decision making process

- ▶ All levels of decision-making are involved (depending on the spatial intervention: e.g. infrastructure, housing)
- ▶ Legislation and policies must provide a criteria framework for decision-making and possible state intervention in regional or local decisions
- ▶ In general, government intervention in lower level decisions is associated with interventions of national importance in space

# Spatial development policies

- ▶ They set general (socially accepted) goals for sustainable spatial development at the national level
- ▶ The first step to policy: a report on the spatial situation and spatial development
- ▶ Spatial development policies can be adopted at all levels (national, regional, local)

# Spatial development strategies

- ▶ The purpose of the spatial strategy is to define the framework for spatial development in a given area and the framework for the coordination of interests in the area (horizontal and vertical)
  
- ▶ The spatial strategy offers substantial guidelines for the preparation of local spatial acts for the realization of public and private interests and NGOs

# Framework spatial plans

- ▶ They contain framework guidelines and criteria for spatial planning and development in a particular area
- ▶ The purpose of the spatial plan is to manage and coordinate of spatial development initiatives and guidelines for land use regulation
- ▶ In the case of very small municipalities, such a framework may be provided by the state or region
- ▶ The framework spatial plan must be drawn up with the involvement of the public and all interested parties, who must have the opportunity to submit proposals, amendments, comments on the proposals of the spatial plan.

# Land use regulation

- ▶ Most development decisions are taken at local level (under the current procedure)
- ▶ In this process, the state protects its interests and priorities through policies, strategies or framework spatial plans.
- ▶ Detailed regulation is usually determined by zoning or by the definition of land use ( mandatory spatial plans), which are difficult to update according to development needs (obstacle or protection?)
- ▶ The threat posed by bypasses and illegal constructions or interventions in space
- ▶ Works well in a situation where the public sector is the main player (initiator, investor, etc.) in spatial development

## Control and honesty

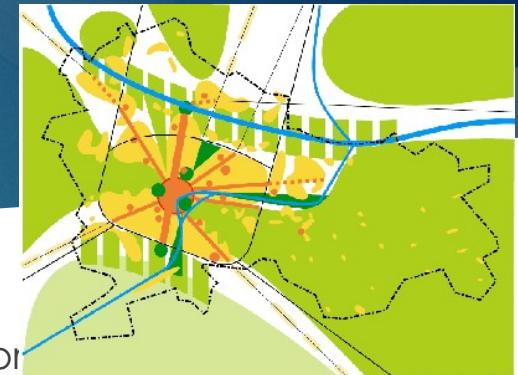
- ▶ The supervision of regional and local spatial planning acts is the responsibility of the state, which reviews them:
  - ▶ Compliance with the higher-level planning acts
  - ▶ The correctness of the process of drafting and adoption of spatial planning acts
  - ▶ Implementation of spatial planning acts
  - ▶ The adopted spatial planning acts have a direct impact on the value of land, which makes control all the more necessary, regardless of whether it is in the public or private sector.
- ▶ The implementation of an independent control of spatial planning acts is also encouraged (public and private sectors represented, NGOs and international observers).

## Other elements of spatial planning system

- ▶ Environmental Impact Assessment
- ▶ Data and monitoring of the current situation in spatial development
- ▶ Economic instruments spatial planning (good planning vs. investment costs)
- ▶ Administrative costs (e.g. for issuing permits, location information)

# Spatial planning results

- ▶ strategies, concepts, plans, spatial acts economic, social and environmental benefits a solid, cross-sectoral, long-term basis for development
- ▶ planning costs are recouped through the efficiency achieved, the inclusion of financial strategies and the reduction of operating costs
- ▶ **Spatial planning in itself does not improve the concrete environment, the common will of those involved has an effect.**



— MEJA MCL  
— CESTE  
■ URBAVIZIRANA CERNOČJA  
■ PROGRAMSKI IN STRUKTURNI POLI  
■ PRIMARNE OSI URBANIZACIJE V RESNI  
— REKE  
■ PARKOVNI KOMP. LEKS  
■ PARKI IN ZELEN KLINI  
■ NARAVNO (HRIBOVITO) ZALEDJE  
■ NARAVNO ZALI FOLF RARIJE



## Spatial plan is:

- = graphical representation of an object, a surface; plan, drawing
- = which determines in advance nature (way), place, time for the successful completion of an action; plan or method for achieving the objectives and goals
- = which determines in advance how much work has to be done in a certain time or in a certain type of organization

Policy development to  
strategic phase

# Systematic approach

- ▶ Various templates/methods to stimulate and organize selection processes
- ▶ Tendency for rational and transparent procedures
- ▶ Win-win situations / deals
- ▶ Non-quantitative selection methods with large freedom of choice
- ▶ Primary task is to decide what to do

## What should a policy look like?

- ▶ effective and efficient
- ▶ have wide support among stakeholders
- ▶ have an acceptable risk of failure
- ▶ feasible within limited time and budget
- ▶ in line with natural processes
- ▶ are well able to be maintained and managed
- ▶ ...

**But everything is subjective!**

# How should the policy be developed?

- ▶ Sense of urgency
- ▶ Vision vs current state
- ▶ Analyzing difficulties and setting priorities together
- ▶ Justify decisions
- ▶ Organize:
  - ▶ Inception phase (problem survey)
  - ▶ Creative phase (management vision)
  - ▶ Strategic phase (package of measures)
  - ▶ Implementation

## Creative phase

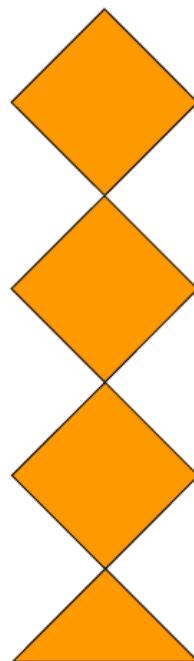
- ▶ Allow every idea (especially support unusual ones)
- ▶ Never dispute solutions
- ▶ Be aware of too many established/regular/customary solutions
- ▶ Involve as many stakeholders as possible
- ▶ Use different communication tools

## Strategic phase

- ▶ With thorough consultation of all stakeholders
- ▶ Create trust among stakeholders
- ▶ Proclaim boundary conditions (time, money, etc.)
- ▶ Organized according to certain templates:
  - ▶ Objectives (What to achieve)
  - ▶ Functionality (How should the system behave)
  - ▶ Standards (Which values have to be met)
  - ▶ Monitoring (Which methods are used)

# Example: Policy development for creating an urban water management plan

- Inception phase
- Planning phase
- Design phase
- Implementation phase

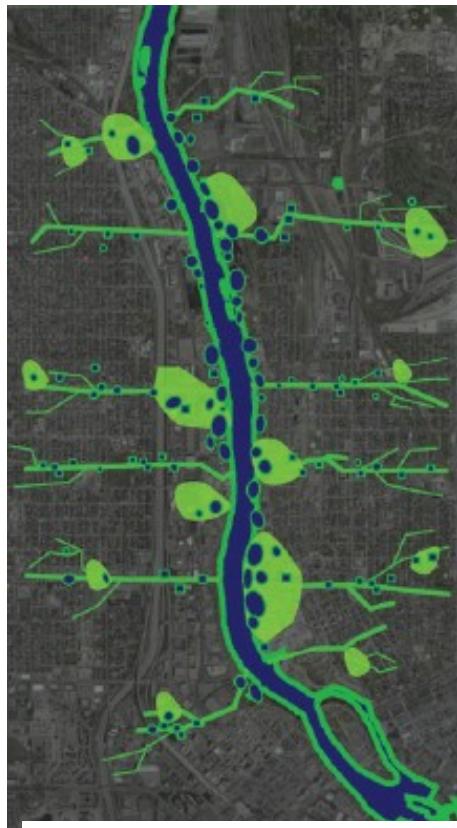


- approach
- Problem analysis
- Appropriate measures

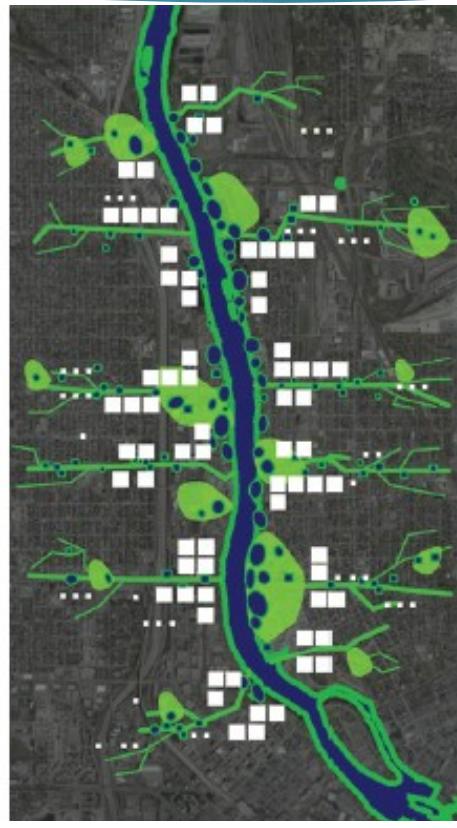
Each phase concluded with a formal agreement and contract

# Example: Three strategies for the resilient river in Minneapolis, USA

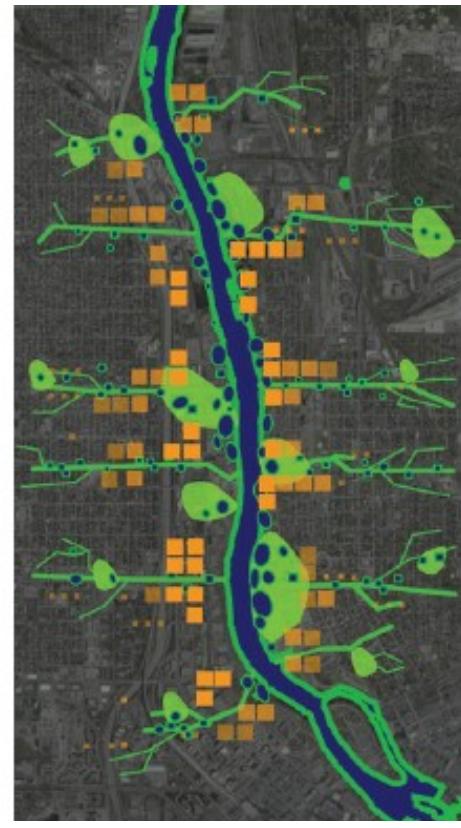
(Source: The resilient river, Turnescape team)



**1. BUILD AN ECOLOGICAL INFRASTRUCTURE**



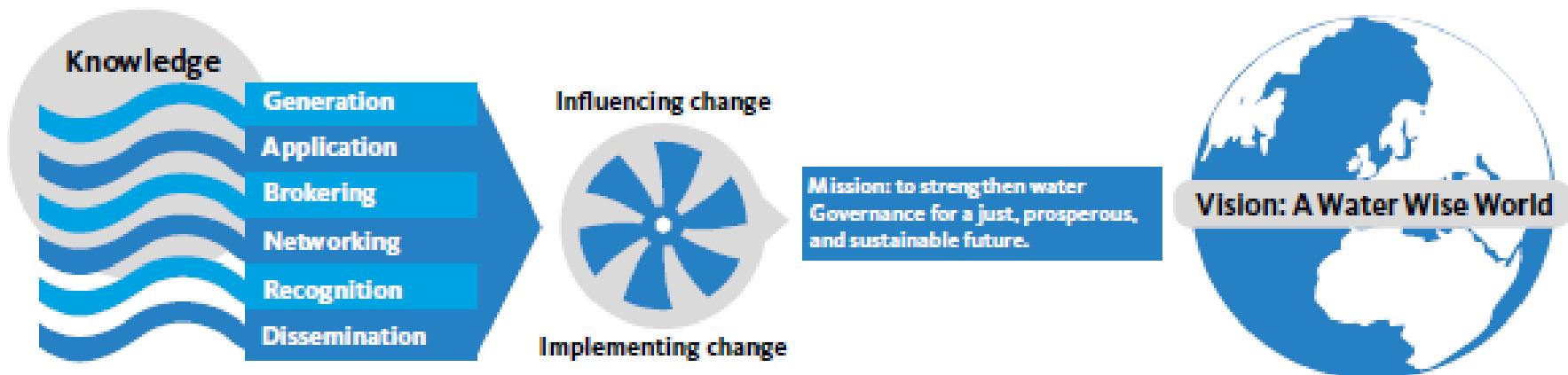
**2. REORIENT URBANISM TO THE RIVER**



**3. CURATE THE VISION THROUGH TIME**

# Example: From vision to mission

(Source. SIWI Strategy 2018-2021, SIWI, Stockholm International Water Institute, 2017)



## Vision

- Our vision is a **“Water Wise World”** – a world that recognizes the value of water and ensures that it is inclusively shared and used sustainably, equitably and efficiently for all.

## Mission

- Our mission is to **“Strengthen water governance for a just, prosperous and sustainable future”**.