

**Green infrastructure in Central, Eastern, and South-Eastern Europe:
Is there a universal solution to environmental and spatial challenges?**

A2 – Green infrastructure and policy

GREEN INFRASTRUCTURE: GOVERNANCE, PLANNING, PROVISION

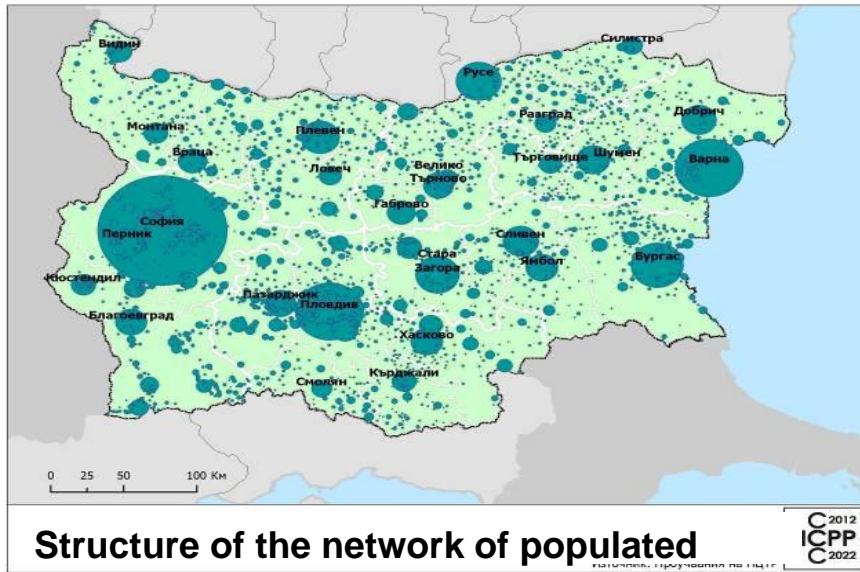
Milena Tasheva-Petrova

University of Architecture, Civil Engineering and Geodesy

BULGARIA

GENERAL INFORMATION

- Area: 111 000.9 sq. km
- Population: 7 364 570 people (by 01.02.2011)
- Urban population: 5 338 261 people (72.5%)
- Transport: road network density 0.18 km/sq. km
- Mineral springs: 148 deposits
- Nature protected areas: 5% of the national territory
- NATURA 2000 sites: 35% of the national territory
- World natural heritage sites: 2
- World cultural heritage sites: 7
- Administrative division:
 - 6 NUTS2 regions
 - 28 districts
 - 264 unicipalities
 - 5 302 settlements (by 01.02.2011)
 - 255 cities, 5 047 villages



Structure of the network of populated areas



БЛАГОВЕГРАД	ВИДИН	КЪРДЖАЛИ	ПАЗАРДЖИК	РАЗГРАД	СМОЛЯН	ТЪРГОВИЩЕ
БУРГАС	ВРАЦА	КЮСТЕНДИЛ	ПЕРНИК	РУСЕ	СОФИЯ	ХАСКОВО
ВАРНА	ГАБРОВО	ЛОВЕЧ	ПЛОВДИВ	СИЛИСТРА	СОФИЯ (столица)	ШУМЕН
ВЕЛИКО ТЪРНОВО	ДОБРИЧ	МОНТАНА	ПЛОВДИВ	СЛИВЕН	СТАР ЗАГОРА	ЯМБОЛ

Administrative division

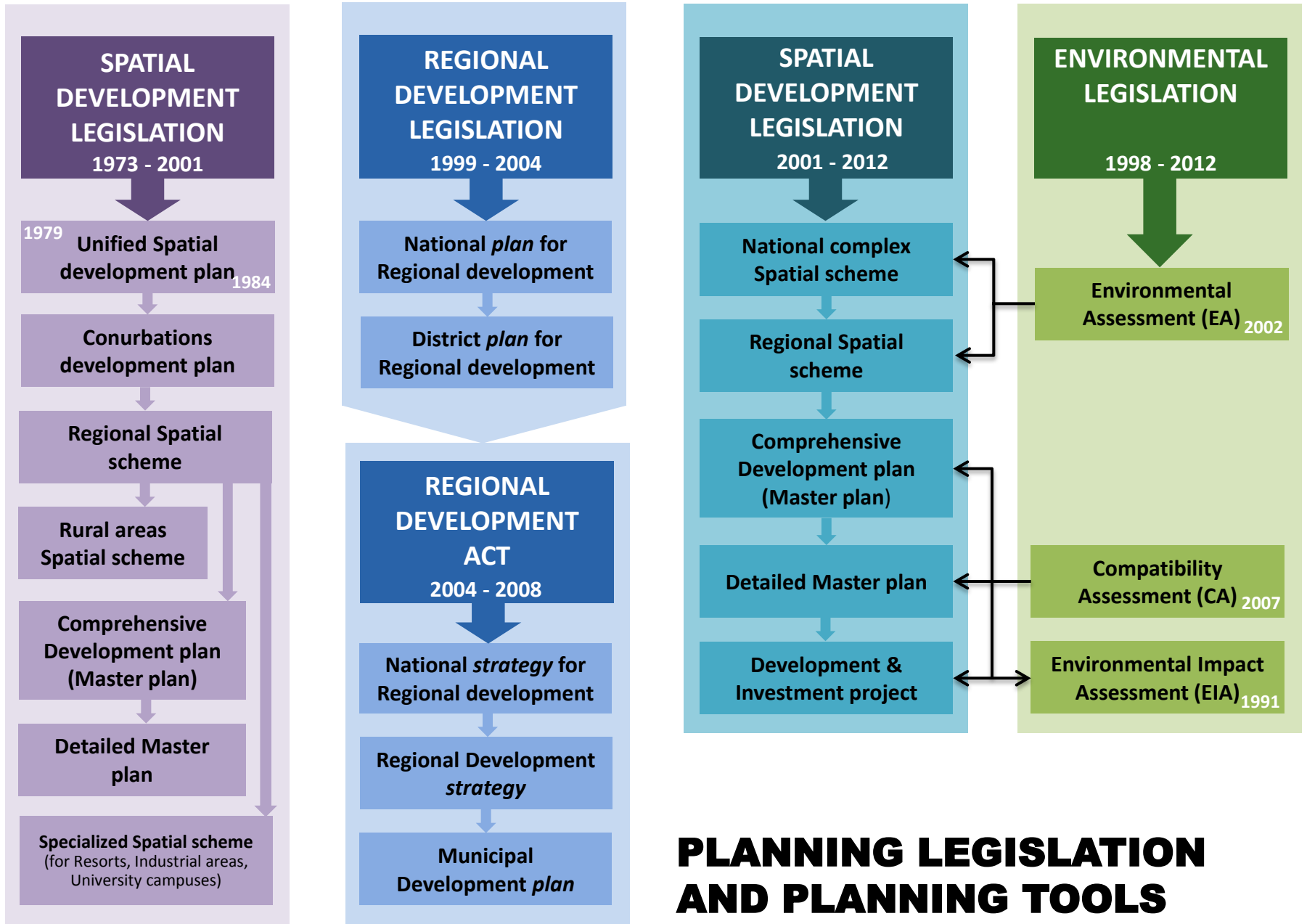
GREEN INFRASTRUCTURE ADDRESSES VARIOUS DEVELOPMENT ISSUES

PROVISIONING - Renewable resources, food and water, raw materials, genetic resources.

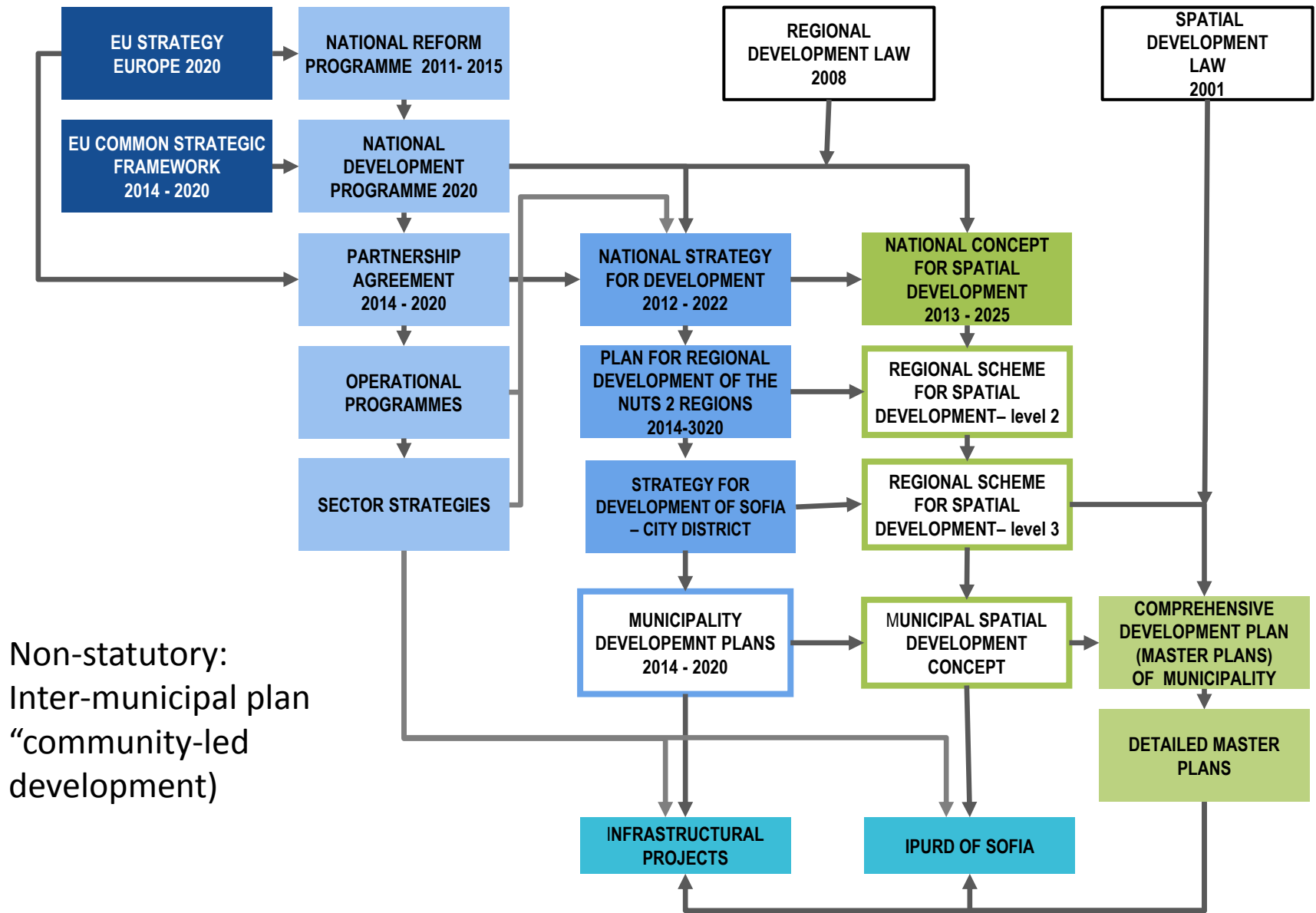
REGULATING - Biological control, soil fertility maintenance, erosion prevention, waste treatment, air quality and climate, extreme events moderation, water flows

HABITAT - Maintenance of genetic diversity, lifestyles of migratory species

CULTURAL – Aesthetic, recreation and tourism, inspiration for art and design, spiritual experience, cognitive development

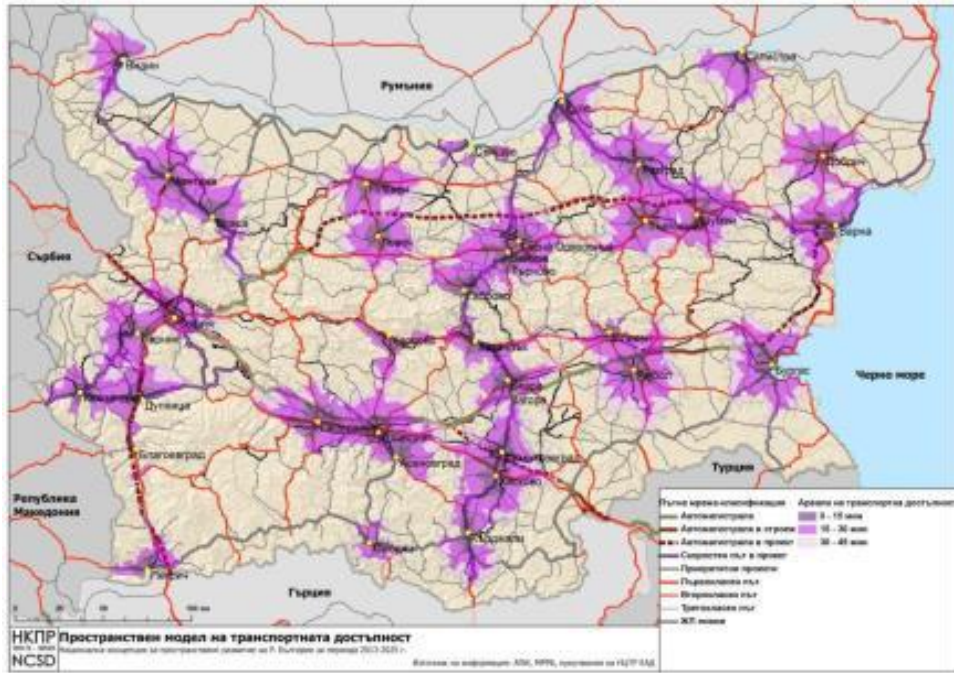


BULGARIAN PLANNING SYSTEM . INSTRUMENTS

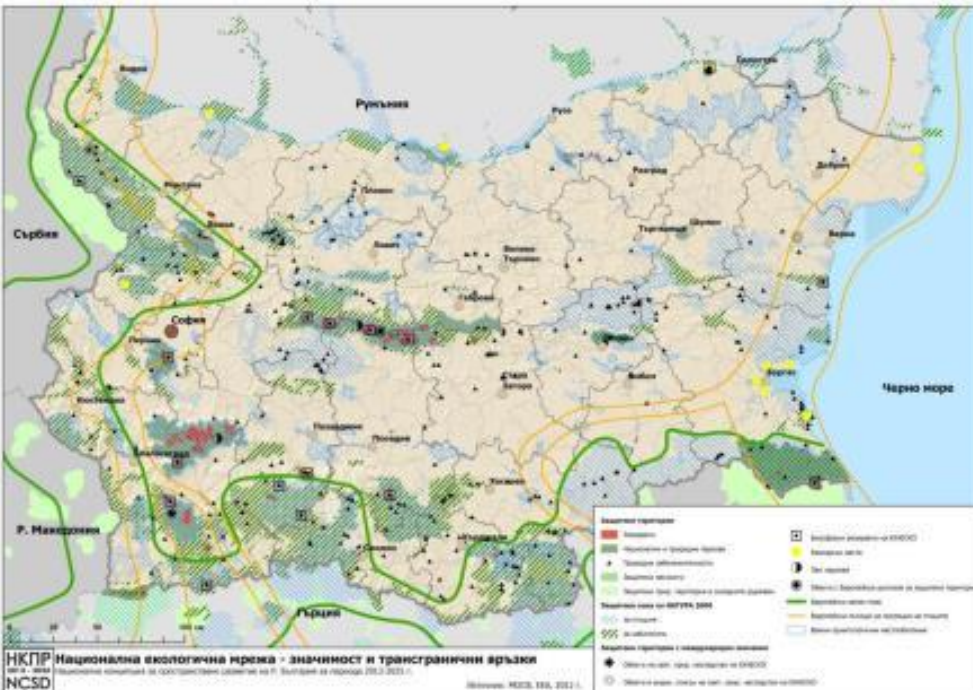


SPATIAL COHESION AND ACCESS TO SERVICES

Spatial model of transport accessibility



ECOLOGICAL NETWORK— SIGNIFICANCE AND TRANS-BORDER LINKS



INSTITUTIONS INVOLVED IN PLANNING AND MANAGEMENT OF GREEN INFRASTRUCTURE

- **Ministries: Ministry of regional development and public works**
- **Ministry of Agriculture and forestry**
- **Ministry of environment and water**
- **Ministry of transport and energy**
- **Ministry of Economics (concessions)**
- **Public agencies as:**
 - **National emergency management authority: Fire safety and Civil protection**
 - **Water basins directorates**
 - **.....many others**

MEASURES IN SUPPORT OF GREEN INFRASTRUCTURE PROVISION

- **Restrictive regimes (construction regimes, or changes of landuse – agricultural land)**
- **Land-use parameters (intensity of build-up area)**
- **Prevention regimes – along the riverbeds (not clearly defined yet)**
- **Ecological, archeological, riverside and landscape parks (Municipal comprehensive development plans)**
- **Ecological protection of the sanitary areas from the 1- 4 belt;**
- **Good integration with heritage protection and conservation (archeological and architectural) – protected areas and areas safeguarding traditional landscapes and heritage**
- **Urban regeneration (incl. provision of new parks, local gardens, green...)**
- **Regeneration and renewal of abandoned land – technical crops and urban agriculture;**
- **Regeneration of non used agricultural land (rice production);**
- **Reconstruction without increasing the capacity of the transport infrastructure connecting the urbanized areas to the recreational, protected, heritage and natural areas**
- **Implementing temporary use strategies**

CHALLENGES IN SUPPORT OF GREEN INFRASTRUCTURE PROVISION

- **Landscape restoration – traditions and culture**
- **Unrealized potentials of temporary use**
- **Need of regulation of land for different types of urban agriculture**
- **Better integration of spatial planning and flood risk and water management planning**
- **Too many documents (planning instruments) and underestimation of the risk of not taking into consideration the prescriptions and suggested measures**
- **Urban sprawl, shrinkage and depopulation – what kind of approach?**
- **Landscape restoration (property rights, planning and professional culture)**

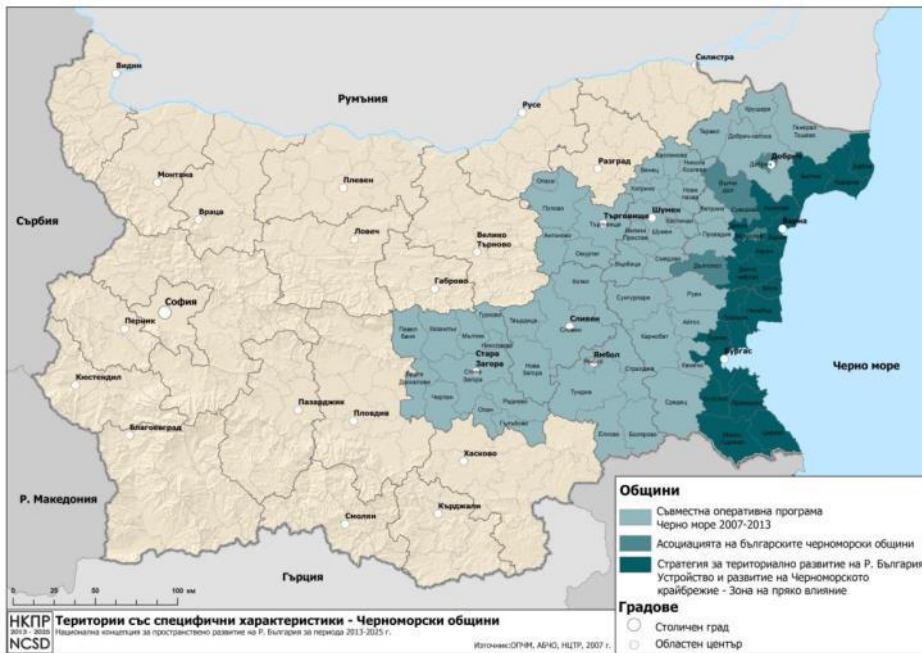
FROM “DE FACTO” TOWARDS “DE JURE”

- **Too many plans. Overlapping. Complementing each other? Different or common priorities**
- **High degree of uncertainty for the future – time horizon, level of implementation**
- **Who is responsible/involved – National and local authorities and Public Agencies, NGO-s – non formal actor**
- **Who can make things happen? Politics, professionals from different sectors, communities, interested parties**
- **Who and how coordinates the process – same level sectoral plans cover different territorial scopes**
- **Who leads the process? Who has/needs capacity to lead the process**
- **Question of interdependence between subsidiarity principle and level of decentralization**

STIMULATED DEVELOPMENT OF SPECIFIC AREAS

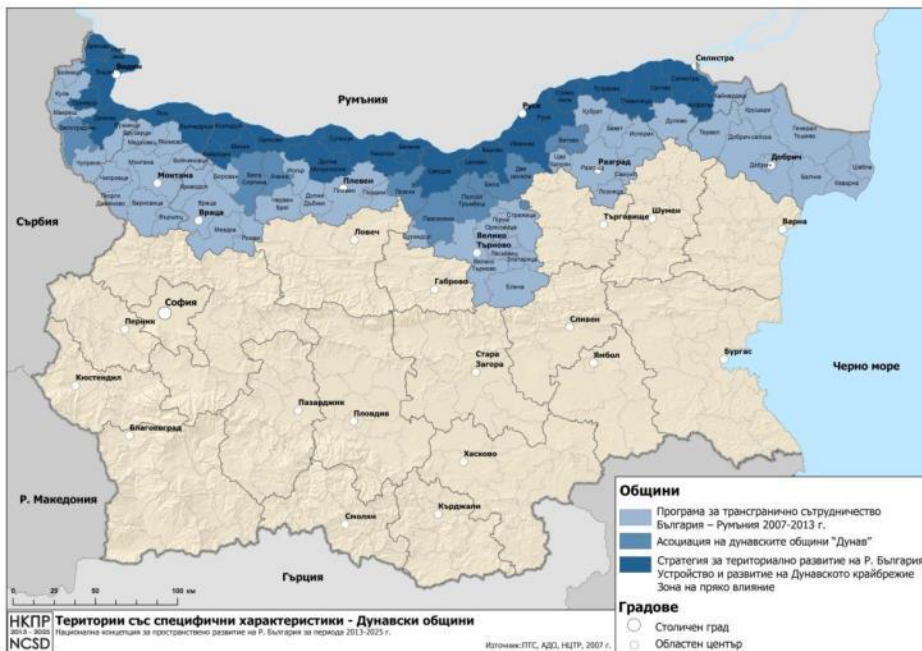
Black sea municipalities according to:

- Common Operational Programme Black sea 2007 – 2013
- Association of the Black sea municipalities
- Territorial Development Strategy for the Republic of Bulgaria (Direct Influence area)



Danube river municipalities according to:

- Danube strategy
- Association of the Danubian municipalities
- Operational Programme for trans-border cooperation Bulgaria-Romania 2007-2013



THE PROCESS OF “BUILDING GREEN INFRASTRUCTURE”

- **Coordination between institutions and interested**
- **Scaling between planning levels—vertical coordination**
- **Communication – common platform for information exchange (data) as well as best/worst practice examples**
- **Complex process needs Integrated planning and management (the Built infrastructure as well)**
- **Strategic approach to Building Green Infrastructure – allow the integration of formal policy directives and provisions and informal initiatives**
- **New type of dynamic documents, incrementally changing planning system**
- **Permanent monitoring and control on implementation**
- **Institutionalization of the planning process**
- **Teach communities and interested how to contribute, empower them**
- **Build professional capacity, New planning culture**

THANK YOU FOR YOUR ATTENTION!