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ESPON seminar

Ensuring quality services for all people and places

6-7 November 2024 in Budapest, Hungary

Non-standard functional territories

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ESPON NoStaGeo

- Exploratory project
- Non-standard functional area in response to emerging trends
- Focus on four themes:
  - Water provision in metropolitan regions
  - Ecological connectivity
  - Brown to Green energy provision
  - Energy saving
- Currently reviewing national governance frameworks
- Initial focus on delineations

Traditional approaches

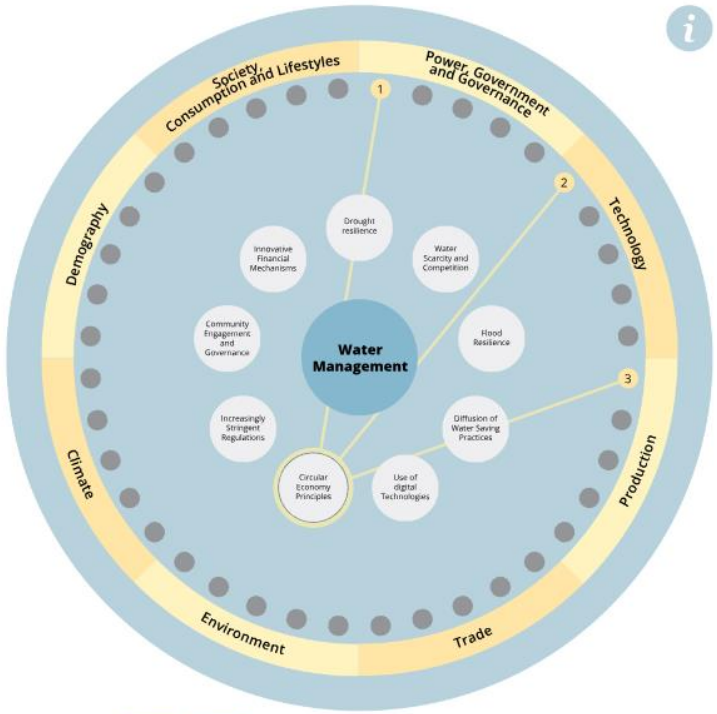
- Alternative to administrative geographies
- Economic relations, flows of goods and people
- Either
  - Core based
  - Multidirectional
- Help compare socio-economic patterns and trends
- Basis for the identification of adapted territorial governance

Functional integration as a project

- Through
  - Cooperation and coordination,
  - Identity building, branding,
  - Infrastructure investments.
- Objectives:
  - Reach critical mass, capitalise on economies of scale and agglomeration,
  - Overcome border obstacles
  - Generate synergies

Emerging trends

Water management



Spatial Foresight, 2023

Biodiversity Preservation | Energy Transitions | Health and Aging | Industrial Transitions | Water Management

Circular Economy Principles

International bodies are pushing for the application of circular economy principles to water management. The World Bank has developed the Water in Circular Economy and Resilience (WICER) Framework, which is designed to support to support water policy design and implementation. The United Nations have identified Wastewater as a global untapped resource.

A circular economy perspective on water management is based on an adapted version of the 10 R Strategy, with a focus reduction of water consumption, removal of pollutants from wastewater, reuse of wastewater (non-potable uses), recycling of wastewater by applying processing methods to produce potable water and recovery of resources such as nutrients and energy from water-based waste.

The EU Urban Wastewater Treatment Directive was adopted in 1991. The European Commission proposed an update in 2022. The Council adopted a position in October 2023, but trilogue negotiations are still ongoing. This Directive provides a framework for the implementation of circular economy principles in water management.

Individual localities and regions engage in discussions on the implementation of circular economy principles in this context, and in response to a series of global drivers,

- First, pressures to 'reduce' water consumption and 'reuse' water when possible, e.g. coming from international bodies such as the World Bank and the United Nations (as described above). This encourages functional area approaches aligned on the

TREND	FUNCTIONAL AREA IMPLICATIONS
Circular Economy Principles	*Challenge of delineating functional areas based on the respective geographies of "producers" and "users" of wastewater*

KEY EXTERNAL DRIVERS

Power, Government and Governance	1	Pressures to 'reduce' water consumption and 'reuse' water when possible
Technology	2	Innovative water treatment and recycling systems
Production	3	Water reuse in manufacturing and agriculture

Functional responses to uncertainty

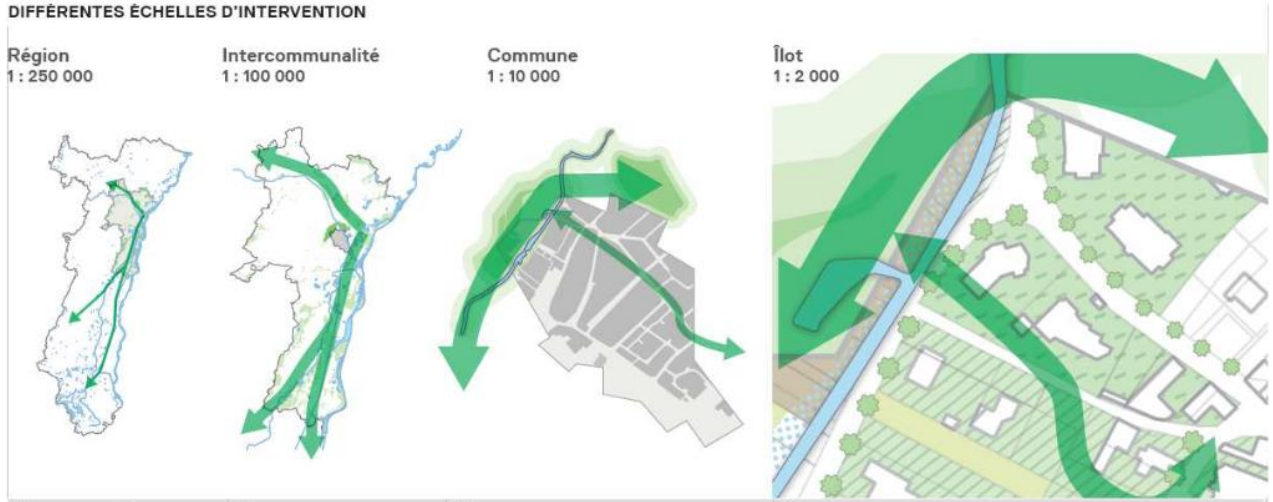
- Increasing attention to global shocks, systemic risks and vulnerabilities, and recovery and shock mitigation mechanisms,
- Need to make public policies more effective, “do more with less”,
- Establish governance frameworks that can be adapted to changing framework conditions,
- Functional area approaches combined with inter-sectoral cooperation, and broad stakeholder involvement.
- Increased importance of coherent multi-level governance frameworks.

→ Pragmatic, result-oriented approaches,

→ Logics of functional interaction and interdependence may be more important than delineations.

Example of ecological connectivity

- Scale of observation matters,
- Need to balance regional/national consistency and local knowledge,
- Mobility of species is complex, evolving, largely unknown,
- Policies may be more efficient when combined with other objectives, e.g. access to nature, nature tourism

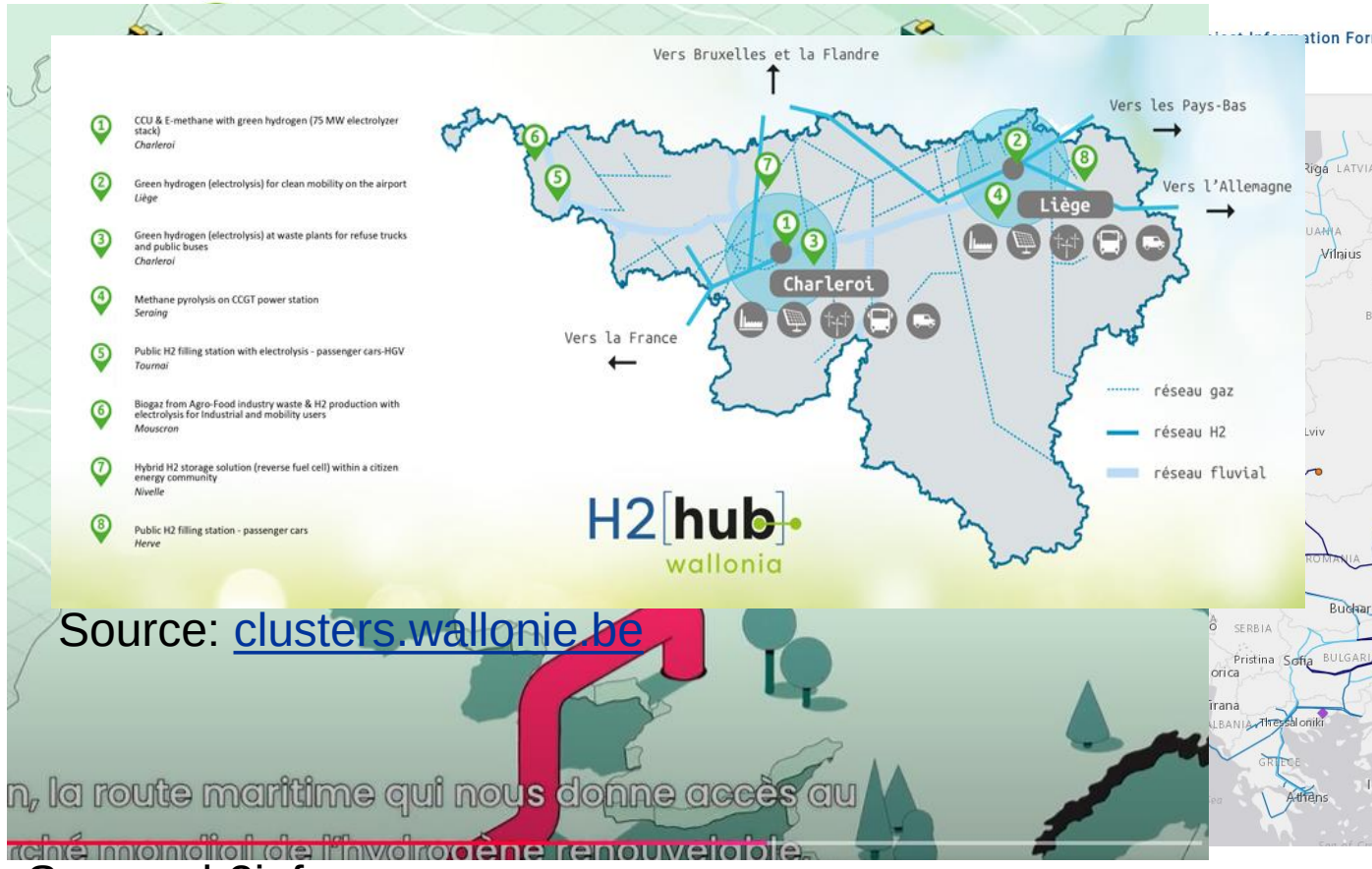


ÉCHELLE RÉGIONALE	ÉCHELLE INTERCOMMUNALE	ÉCHELLE COMMUNALE	ÉCHELLE QUARTIER / ILOT
Action : Mise en place du SRCE, coordination interrégionale et internationale	Action : Affinement des enjeux régionaux dans le SCoT	Action : Déclinaison cartographique locale dans le PLU, mise en œuvre, gestion	Action : Intégration dans les projets d'aménagement, gestion, sensibilisation du public
Acteurs : **État :** DREAL **Collectivités :** Conseil régional	Acteurs : **État :** DREAL, DDT **Collectivités :** Conseil régional, Conseil général **Organisme parapublic :** Syndicat mixte de SCoT, Agence d'urbanisme	Acteurs : **Collectivités :** Conseil municipal **Organisme parapublic :** Agence d'urbanisme **Associations :** Alsace Nature, Odonat... **Chambre consulaire :** Chambre d'agriculture	Acteurs : **Collectivités :** Conseil municipal **Associations :** Alsace Nature, Odonat, Conservatoire des sites alsaciens... **Chambre consulaire :** Chambre d'agriculture

Source: ADEUS (2013), reproduced in Rauel (2024)

Functional geographies of Green Hydrogen

- Numerous projects across Europe
- Regional positioning in this evolving framework, e.g. Belgium (Federal level) and Wallonia
- Component of transnational value chains
- Inter-regional competition



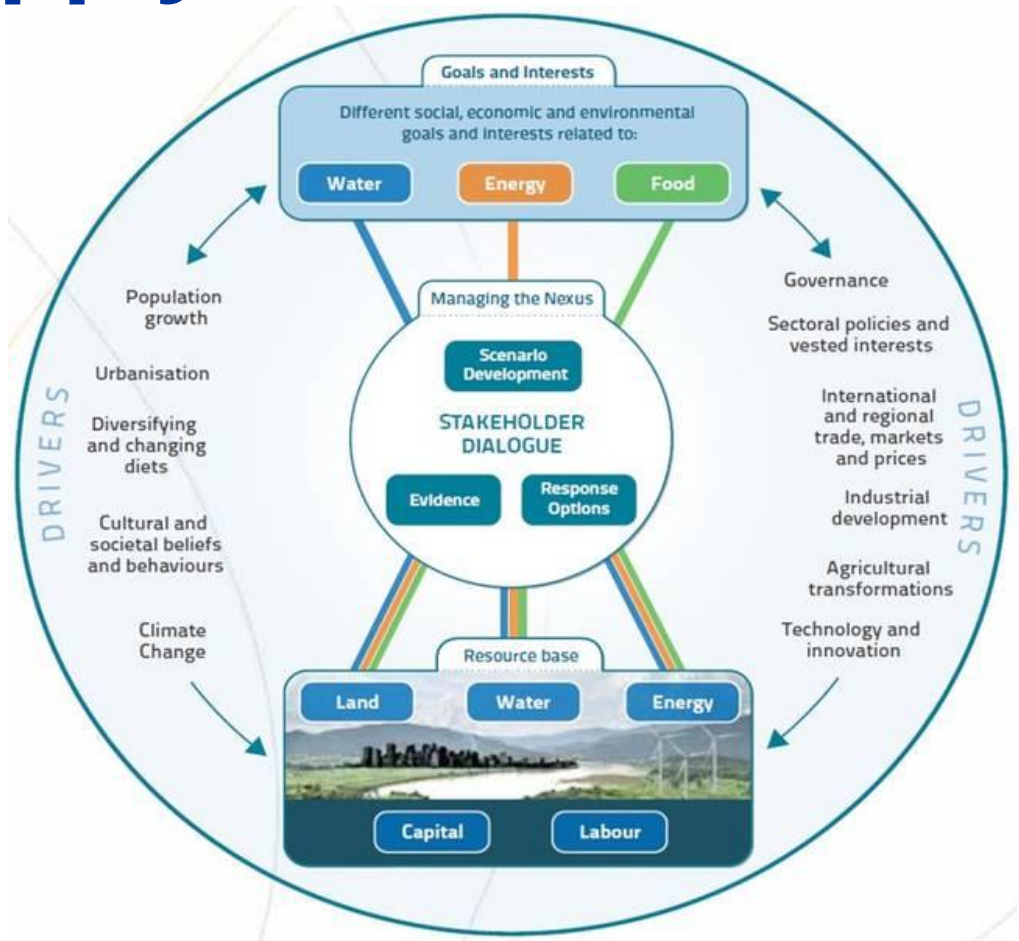
Source: clusters.wallonie.be

Source: h2inframan.eu

Source: SP4 Economie

Example of Water Supply

- Different functional areas: Hydrographic, infrastructure supply and consumption
- Different conceptual frameworks:
  - Integrated Regional Water Management,
  - Water Food Energy Nexus.
- Vulnerabilities: drought, floods, pollution, sabotage,
- Challenges: population growth, urban sprawl, conflicts, investment needs,
- Partnerships between consumption and abstraction areas.



Source: FAO

Next steps

- Comparative analysis of national governance frameworks,
- Case studies,
- Identification of relevant data and maps, available evidence,
- Narratives of emerging geographies and non-standard functional areas using interactive maps and figures.

Questions for Alpine, Carpathian and Atlantic areas

- Contribution of macro-regional / transnational level to resilient governance of non-standard functional areas?
- Emerging trends and fields of analysis of particular relevance in each of them?
- Implementation of principles of soft territorial governance in each of these areas?

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Thank you!