

a water secure world

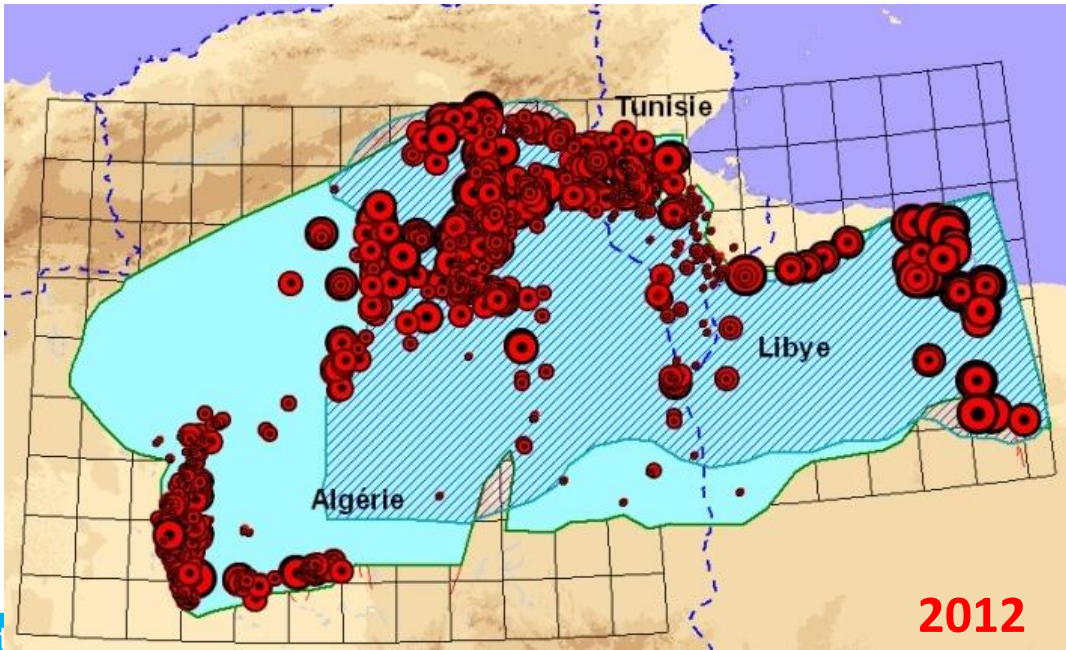
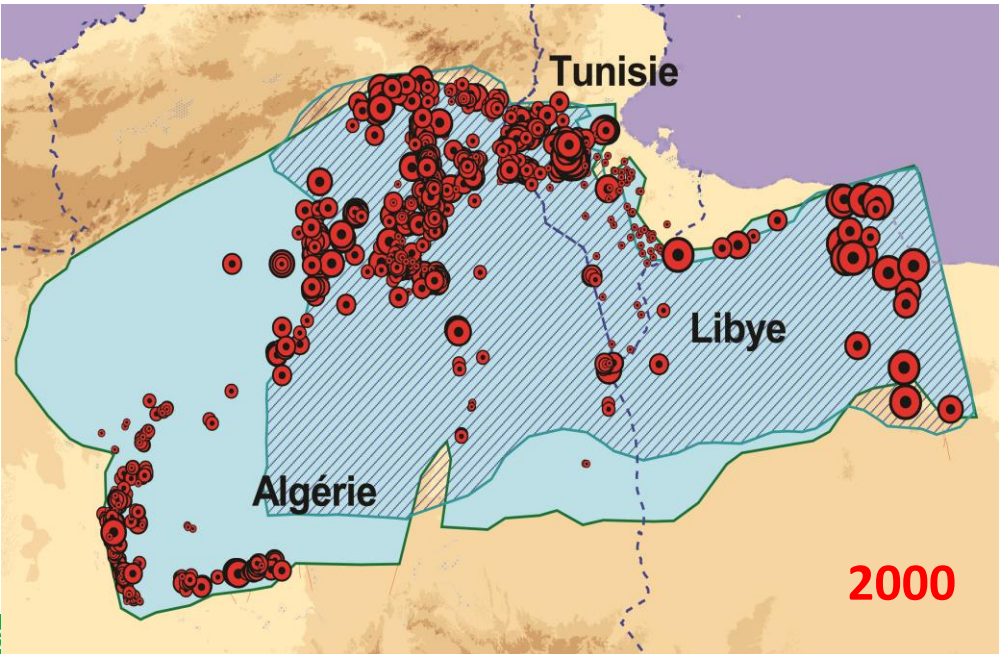
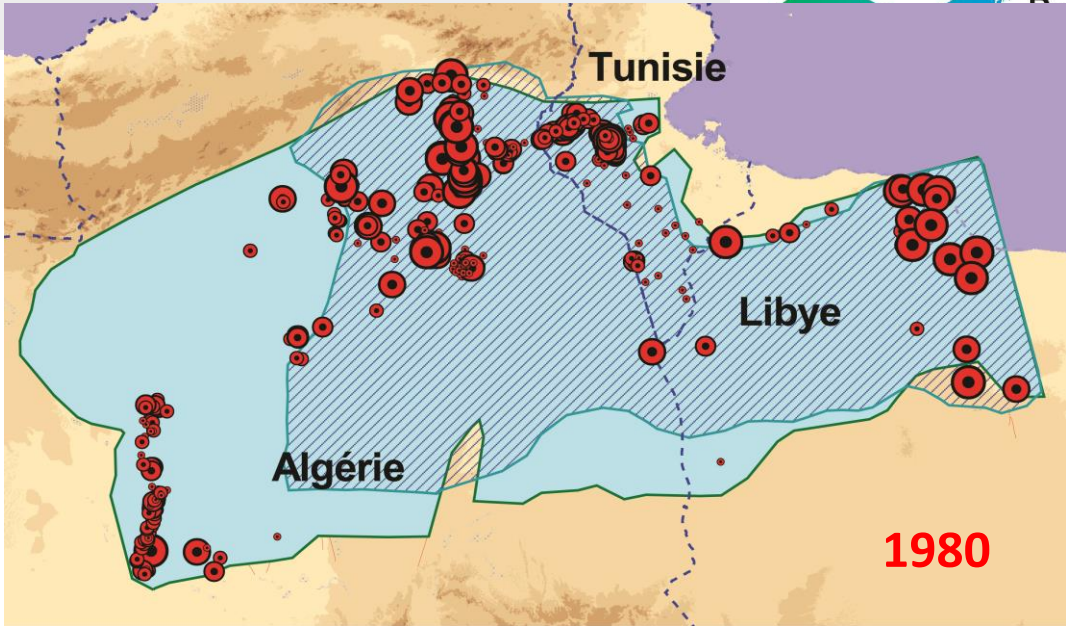
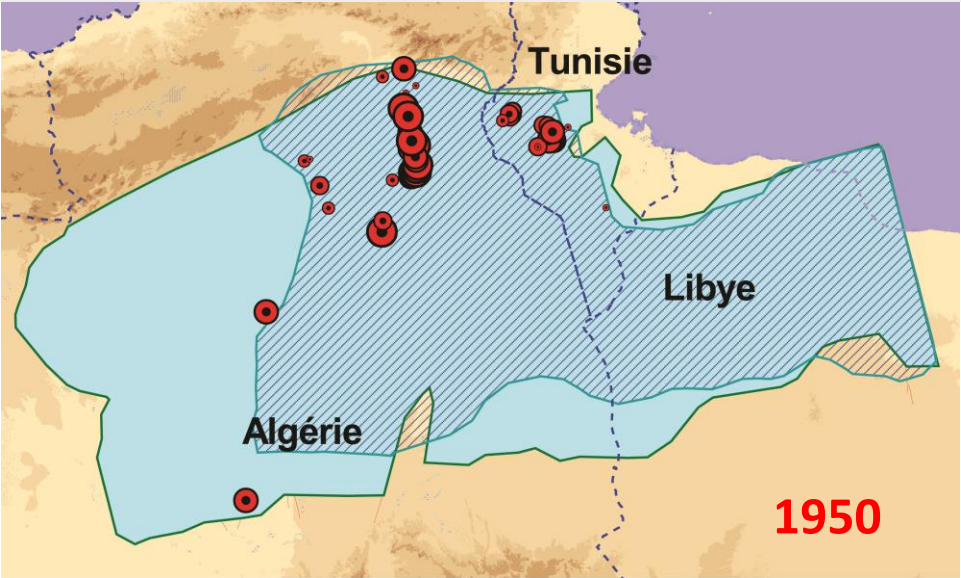
Enhance transboundary cooperation mechanisms and governance to boost funds mobilization : lessons from North Africa

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Why governance in transboundary basins matters even more in a context of CC

- CC impacts and vulnerability assessments require common data
- Adaptation actions may have adverse impacts cross borders
- Coordinated strategies to enhance the efficiency of the actions

Evolution of the wells and boreholes in the NWSAS



Resulting Challenges in the NWSAS

Abstraction volumes in the NWSAS increased from 0.3 billion m³/year in 1950 to 3.2 billions ³/year in 2016

Above the renewable capacity of the aquifer

- Decrease of the agriculture yields
- Increase of the production cost (energy consumption due to deeper water table, water treatment for brakish water,...)
- **Socio-economic difficulties**

- Water table drawdown reaching more than 2m/year in certain areas
- Water salinisation
- Marine intrusion in the Djefara (coastal part of the aquifer)
- Reduction of the artesianism
- Dying-up of the oulets and the natural springs
- Lands salinisation and degradation

- Technical cooperation (creation of a common database and elaboration of a hydrogeological model)
- In 2008, ministerial declaration for the creation of **the NWSAS Consultation Mechanism (NWSAS CM)** as the joint body for the transboundary cooperation between the 3 countries

The NWSAS CM is hosted and the secretariat is served by OSS

WACDEP : evaluation of direct (water recharge) and indirect (increase of water demand) impacts

Important lowering of the water table :

- Risk of drying up of outlets**

- Risk of inversion of the aquifer-chotts gradient**

Degradation of water quality

- Salinization of the aquifer**

In the absence of adaptation action, CC impacts leads to a loss of yields :

- 5% by 2030**

- between 20 and 30% by 2050**

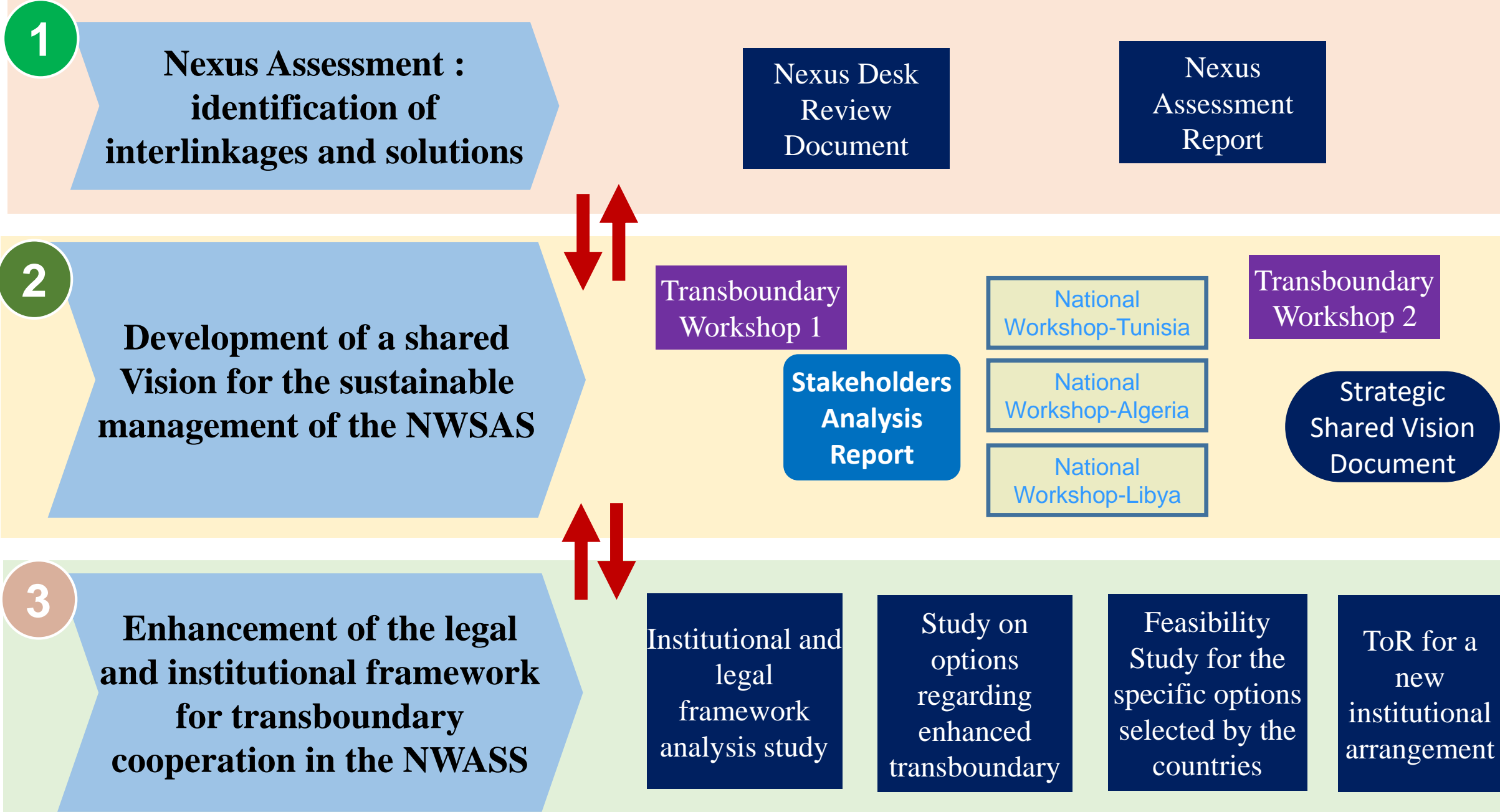
What can be the adaptation actions :

- Nexus Dialogues : identify interlinkages and the solutions

What can be the possible climate funds :

Mapping exercise : major limitation is the institutional setting

Sida match maker project : GWP-Med OSS, UNECE



- Building trust is key : start collaboration on the issues of common interest
- Institutional framework is dynamic and should evolve over time
- Enabling environment a prerequisite for investments

The Programme for Infrastructure Development in Africa (PIDA) approved in 2012 by the AU as the strategic framework for regional and continental infrastructure development

The PIDA Priority Action Plan (PIDA- PAP) 2012 to 2020 included 9 transboundary water resources management projects.

A review of the implementation of transboundary water projects under PIDA by NEPAD and AMCOW (Nov.2017) concluded that water projects showed little progress compared to projects in other PIDA focus areas.

26 Nov. 2018 : MoU signed between the NEPAD Agency and GWP to accelerate transboundary PIDA projects implementation

- Project preparation
- transaction management
- resource mobilization
- advocacy
- capacity development
- research and knowledge sharing
- through implementation of a nexus approach





NAPs include water related actions

- Information
- Institutions
- Infrastructure

Characteristics of Resilience		Water Management Systems That Build Resilience
Characteristics of Resilience in Water Management Systems	Preparedness to manage and cope with change and shocks	Flood forecasting, early warning systems, emergency response plans, flood protection plans, urban planning and development, storage, system operating rules, land-use management, watershed management, preservation of natural infrastructure
	Diversity and redundancy to ensure continuation of functionality	Linked water systems and regional power pools operated at different assurance, diversity in water and energy supply sources, diversity in crops and irrigations practices relevant to climate systems, excess institutional capacity, shared information systems
	Integration or connectedness to allow for optimization, benefits of scale	Coordinated hydropower generation, regional power pool, conjunctive use of surface and groundwater, basin-level or multilevel planning, multipurpose infrastructure, integration of natural and built infrastructure, water-related policy harmonization
	Robustness to withstand change and shocks	Well-designed, resilient, storage and flood protection infrastructure, appropriate operating rules, functioning ecological infrastructure, coordinated institutional systems, local community response systems, relevant information systems
Characteristics of Systemic Resilience	Adaptability of a system to change	Flexible institutional arrangements, flexible infrastructure design, responsive flood mitigation strategies, policies that facilitate technology adoption and climate smart actions, policy and support that enables livelihood adaptability
	Transformability of a current system to a better system	Flexible policy and legislation, regularly revised strategies, learning institutions that can reorganize, infrastructure systems that can be altered or operated in different ways, community and country resources to enable changes

Transboundary and regional cooperation for the NAPs is essential

- ensure the effectiveness of NAPs
- increase resilience benefits across the hydrological basin
- serve to share best practices and lessons learnt between countries
- harness benefits of scale

Level of Required Actions			
Water Management Systems	Information Systems	National	Regional
		Data monitoring and sharing systems Data collection, verification, quality control; Use of shared information for preparedness to flood, drought; Data dissemination and sharing with relevant sectors, local stakeholders, and regional entities; Harmonization of national practices with regional protocol	Agreement on data collection and sharing protocol; Regional platform/mechanisms available for exchange
	Institutional Systems	Decision-support information systems and early warning systems Provision of data for calibration; Use of analytical tools for preparedness and robustness development projects; National preparedness plans and information dissemination schemes are developed or harmonized; National plans are informed by basin-wide models and jointly developed tools	Joint development of modelling and analytical tools; Forums for dialogue that use tools for development prioritization and planning; Early warning systems implemented, information disseminated to national or local constituents
		Flexible policy and legal instruments National law enforcement, policy implementation; Agreement and execution of management actions	Regional policy implementation; Agreement on climate-informed water/benefit sharing, abstraction limits, storage and release protocols, other regional protocol
	Infrastructure Systems	Institutionally and financially sustainable water resource organizations Sub-basin organizations manage local processes, carry out sub-basin level management functions; National structures coordinate, allocate, and develop plans among sectors and ministries; Carry out information and investment functions and communicate with stakeholders for accountability purposes	Agreement on organization mandate; Capacity building within organizations; Financial sustainability measures in place; Working partnerships with national governments, other regional bodies established
		Basin-scale, resilience-targeted, investment planning Develop national plans for water management and development; Tailor and prioritize investments to local needs and norms; Coordination of national project prioritization and planning with regional agreements and processes	Basin-wide dialogue to jointly prioritize interests, evaluate cross-border and cross-sector trade-offs, agreement on regional investment plans that ensure system preparedness, robustness, redundancy, and adaptability; Regional resource mobilization
	Infrastructure Systems	Robust Infrastructure investment implementation Prepare and implement national investments in collaboration with regional counterparts to share risk, optimize benefits; Operate national infrastructure sustainably, in coordination with other users; Endeavor to restore and maintain ecosystems services and natural infrastructure; Target preparation studies to ensure robustness, adaptability to a changing climate; Carry out stakeholder consultations to ensure optimization of benefits, minimization of impacts	Transboundary coordination in investment planning, implementation, and operation; Prepare, operate, restore joint-infrastructure investments; Enable optimal operation of investments in the region

THANK YOU

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