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To Ally Technology, Nature and Society for integrated urban water management ATeNaS

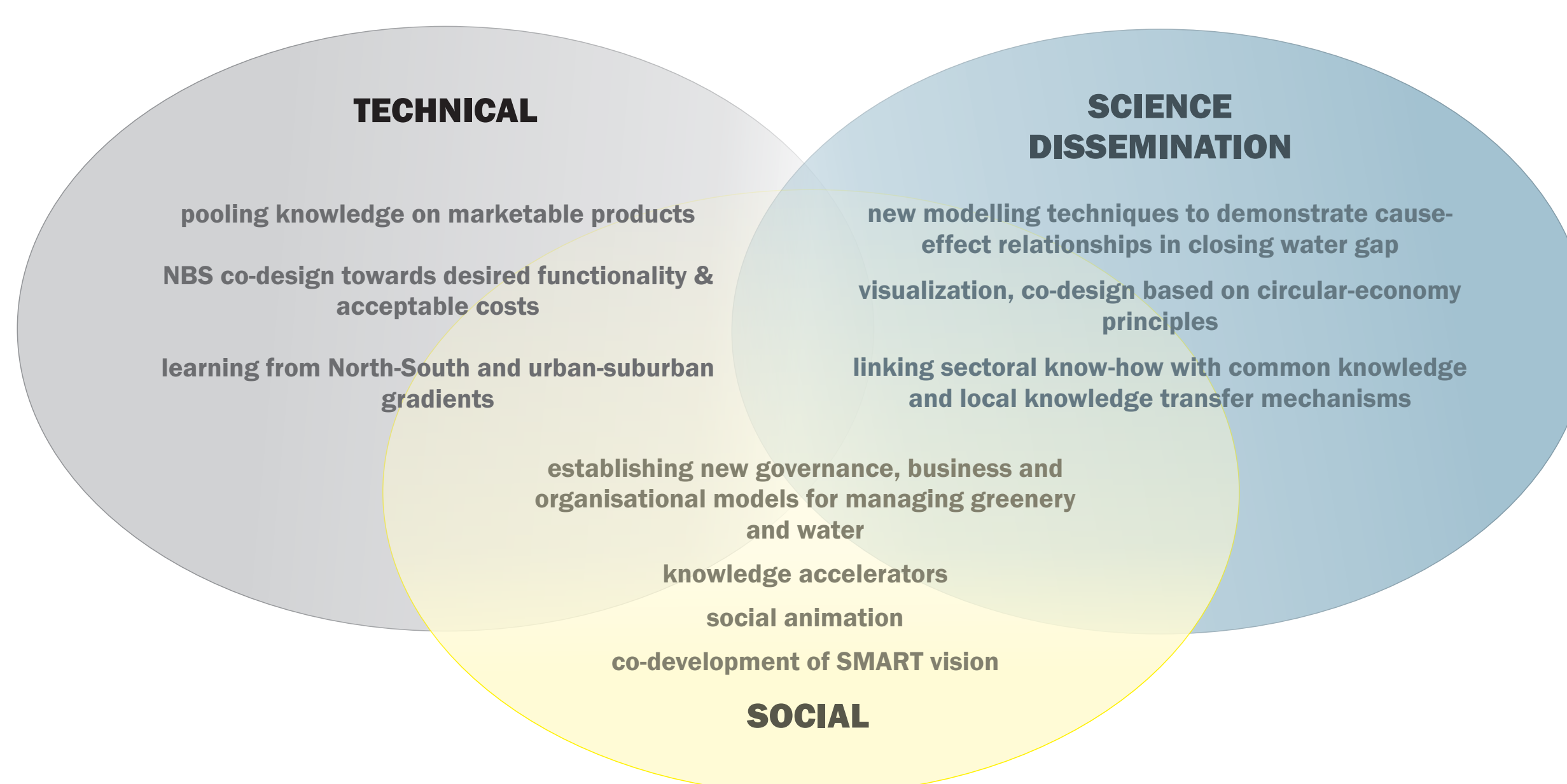


ERCE PAS, Poland; FppEnviro, Poland; SYKE, Finland; IRSTEa, France

AIMS

- To overview, select, co-design and re-design NBS able to address two aspects of water gap – quantity and quality - in the context of city gradients (reflecting density of population and infrastructure);
- To develop scenarios for implementation of NBS in partner demonstration sites, based on running pilot projects, and modelling their effect based on upscaling, diversification and replication;
- To secure the continuation of the approach beyond ATeNaS lifetime by identifying, supporting and building the capacity of local leaders in mutual learning process.

INNOVATION IN ATeNaS



LIVING LABS - SITE-SPECIFIC OUTCOMES



LODZ, POLAND

Challenge: Permanent river turned into temporary stream due to limited urban runoff restitution amplified by geological conditions; pluvial flooding and drought; stewardship.

- Participatory implementations of 1-3 small NBS using innovative ecohydrological biotechnologies;
- Overview of local / regional companies engaged in green business: „who is who“ guideline available to citizens and decision makers;
- Translated guideline on NBS role and implementation;
- Report: Needs and possibilities to apply NBS in the upper Lodka catchment for improved water cycling;
- Overview of needs and options for setting up an integrated monitoring system for water resources as a contribution to LTER-Eu Ri ESFRI project to set up monitoring master sites across Europe.



phot. Fundacja Sendzimira; <http://www.elektronik.lodz.pl>



VANTAA & HELSINKI REGION, FINLAND

Challenge: Stormwater flood risks aggravated by climate change, increased soil sealing, runoff from traffic areas polluting brooks, modified channels of rivers decreasing ecological values.

- A basis for a planning tool to reconcile infill development targets and with sustainable water management, based on forecasted: land use, soil sealing, surface flows and floods;
- Model for mainstreaming stormwater retention measures and other NBS in urban planning;
- Guidelines for how to integrate biofiltration of runoff waters in street planning practices;
- Organized events and web publications focusing on river and brook restoration and multiple benefits received;
- Online publication on new social innovations for NBS use, e.g. new practices to take advantage of restored water ecosystems by different users, such as elderly inhabitants or immigrants;

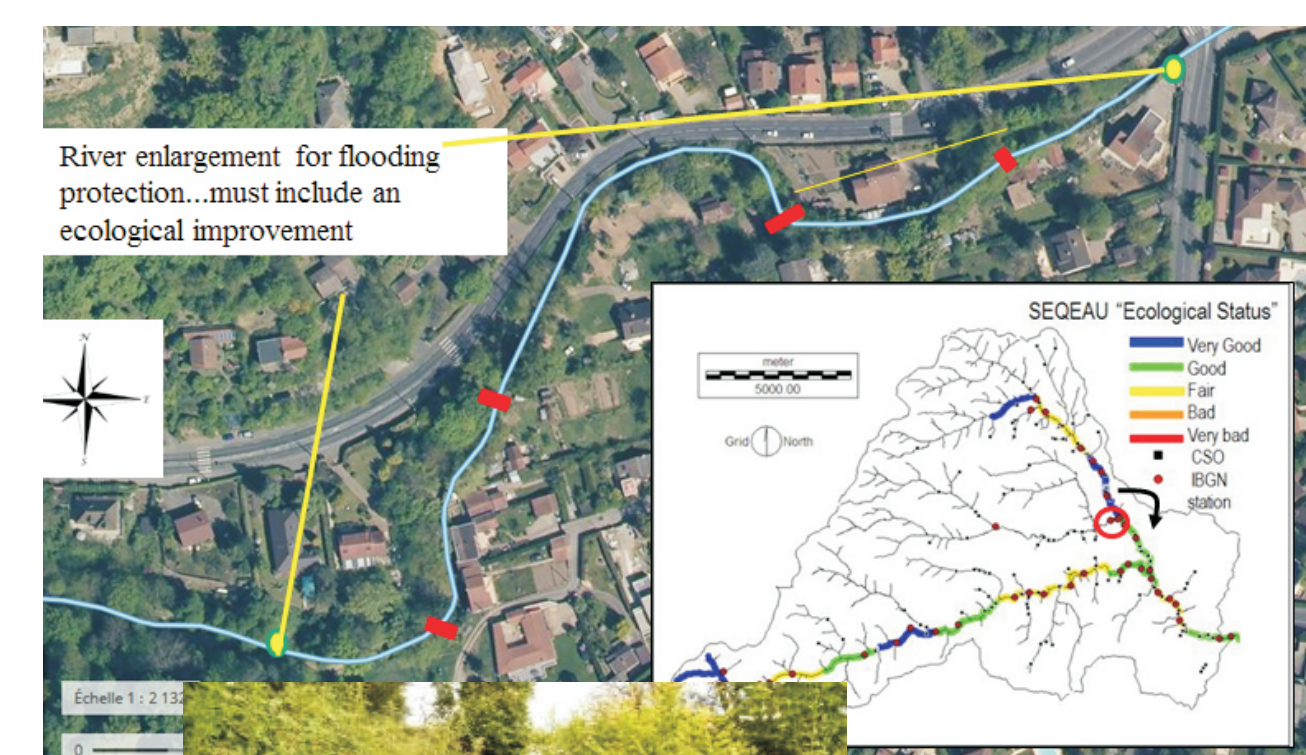
phot. Jukka Jormola, SYKE



WEST LYON, FRANCE

Challenge: Degradation of ecosystem services such as self-purification provided by small rivers.

- Construction of 3 new NBS with innovative principles adapted to intermittent rivers;
- Report on co-building method with stakeholders and private companies with capacity for replication;
- Coorganisation of EcoHydroEco 2020, Faro, Portugal) where to issue experience gained and decision support guidelines;
- Definition of indicators and monitoring of new constructed NBS efficiency;



phot. Pascal Breil



RETURN ON INVESTMENT

ATeNaS will guarantee the return of investment in threefold way:

1. Application of models in different contexts will allow their testing and improvement towards better decision support and thus will increase the TRL;
2. Living lab and BioBiz approach will provide space for innovative thinking about existing and possible NBS structures and implementations, and wherever applicable the new idea will be translated into new projects and/or prototypes/pilot studies (TRL 1-3);
3. A holistic approach including: analysis of institutional and contextual barriers, implementation of knowledge accelerators, and collaborative work on the SMART visions for demonstration sites, will contribute know-how to two global networks focused on R&D and socio-ecological studies: ILTER and UNESCO IHP Ecohydrology Demonstration Sites, advancing their interdisciplinary and cross-sectoral methodologies.