

NATALIE Project at 2024 Danube Water Forum (posters session)

(Accelerating and mainstreaming transformative **NATure-bAsed** solutions to enhance **resiLIence** to climate change for diverse bio-geographical European regions)

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Abstract:

NATALIE addresses the risks posed by climate change and its impacts and proposes to advance the concepts of “ecosystem-based adaptation” in Europe combined with climate resilient development pathways, as the means for impact driven Nature-Based Solutions (NBS), to accelerate and mainstreaming the adoption of NBS for resilience to climate change, which is also the cornerstone identified in the recent IPCC AR6 WGII Report. NATALIE will deliver innovative and practical innovations in co-creation of solutions and stakeholder engagement, modelling, testing, monitoring and validation mechanisms that will support regions and municipalities to plan and develop adaptation actions bringing along valuable knowledge and experience as actionable knowledge for adaptation and impact-driven NBS.

Keywords: climatechange adaptation; nature based solutions; waterinnovation

According to the “EU Adaptation Strategy, the progress on innovative local solution is slow and therefore, there is an urgent need to **empower local communities and regionalities to adopt and share adaptation solutions across EU, specifically from less to most vulnerable ones**. This empowerment will permit to **reduce the adaptation finance-gap [1]** towards the **elaboration of newer policy interventions** but also, to **reduce the public finance dependency** by adopting newer economic frameworks such as ESIF (European Structural and Investment funds) or the Recovery and Resilience Facility. Despite the fact that climate change is affecting our communities, we are in a transformative process that requires consensus and social participation to not worsen social inequalities, support accountability and put at risk our future cultural heritage.

NATALIE is strengthening the collaboration and knowledge sharing among flagship and most vulnerable regions in the acceleration of transformative solutions, economy, citizens and social empowerment towards the co-design and establish consensus in the elaboration of climate resilient development pathways (CRDPs). NATALIE will engage local communities in the adoption of adaptation solutions including methodological, technological (including digital), governance, awareness, behavioural, economic and financial components. Specifically, NATALIE will focus the transformative solutions in the demonstration of nature-based-solutions (NBS) as an innovation package centered on ecosystem based adaptation, to address the multiple-hazards and cascading and compounded risks from climate change (Portner et al, 2022). Thus these solutions will impact on the ecological connectivity, restoration of ecosystem services, testing newer business models, protecting food services and water allocation. All in the pursuit of more resilient regions and communities.

The strength of NATALIE lies in the fact that transformative solutions have to be: **(i)** co-designed and co-created with quintuple helix stakeholders at multiple governance levels; **(ii)** “low-regret” and scalable, depending on the evolution of climate change and other drivers; and **(iii)** cost-

effective and environmentally, economic and socially sustainable and **(iv)** up scaled and replicated from advanced to most vulnerable regions;

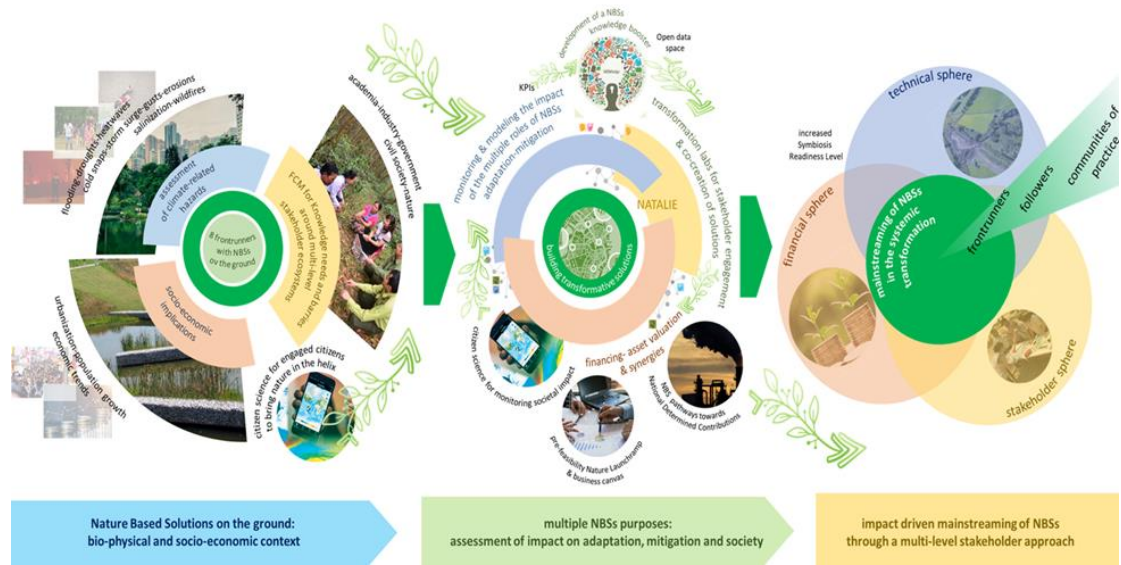


Figure 1.1. NATALIE Project Concept

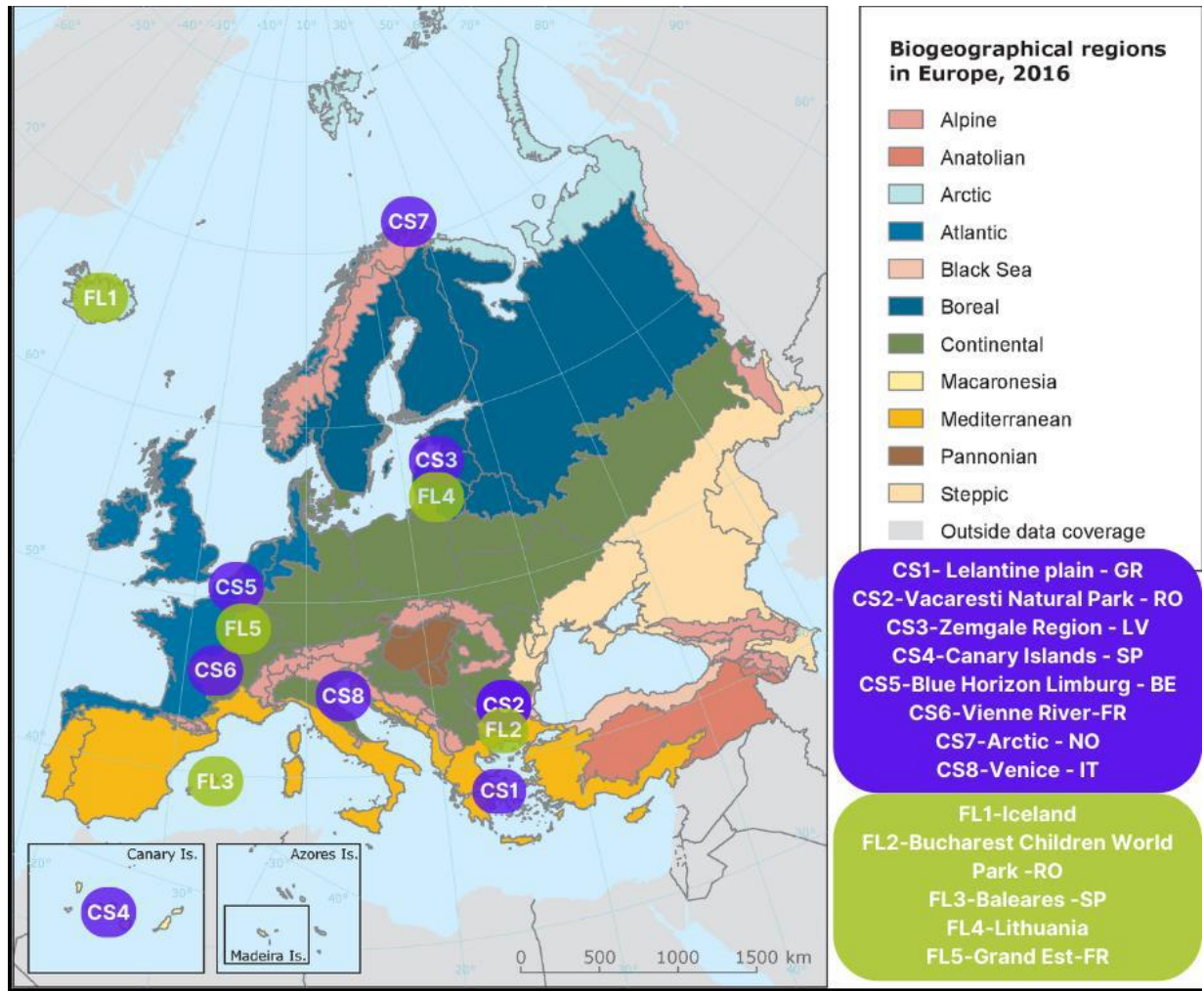


Figure 1.2 Natalie Case Studies (CS) within Europe.

REFERENCES

Report: (1) Portner et al (2022) Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 37–118, doi:10.1017/9781009325844.002