







## THE TECHNOLOGY TRANSFER AND CAPITALIZATION OF WATER ENERGY FOOD NEXUS

GA C\_A.2.1\_0069

CALL: Call for proposals for capitalisation projects

**Topic:** A.2.1 Technological transfer and commercialisation of research results

Project start date: 01.09.2021

**Duration: 24 months** 

**Budget:** 1.1 million total budget

(90% EU co-financing)

**Project Coordinator:** Dr. Mohammed AlJafari **Project Manager:** Dr. Mohammed AlJafari



## BACKGROUND & AIMS

By 2050, food imbalance in EU-MPC is forecasted to reach 60%. Sustainable water resources management is closely related to food security as 70% of global freshwater withdrawals are driven by agriculture. Energy plays a key role in producing/distributing food as well as in extracting/treating/supplying water. Climate projections to 2050 reflect an average temperature increase of 2°C, leading to a 5–10% fall in precipitation and more frequent extreme climatic events, potentially halving agricultural production by 2100.

Beyond political uncertainty, generalized economic slowdown, and macroeconomic instability, EU-MPC region also needs societal adaptation to climate change through new cross-sectoral approaches to manage energy/water resources and efficiently produce more food for an increasing population. The region presents unbalanced growth, job deficits, youth unemployment, and acquired skills mismatches. Furthermore, the recent COVID19 pandemic exposed the fragility of supply chains, the importance of localized production, and the importance of investment in and capitalization of key enabling technologies, and the need to foster vulnerable groups.

Based on these realities, the need to foster and capitalize WEF NEXUS innovations is increasingly pivotal for social and economic growth and resilience, and towards better policies for inclusive and sustainable economic and social development.

With innovation long adopted as a driver for economic growth, numerous innovations/technologies in water, energy, and agri-food have been developed/demonstrated, backed by the EU (across most programs and priorities) as well as by others, albeit with a persistent gap between what is demonstrated and what is capitalized. To address this gap, tools enabling tech-transfer and commercialization were developed and piloted (e.g. NETKITE, 5TOI-4EWAS, MARE methodologies).

As such, WEF-CAP has identified an opportunity to efficiently capitalize WEF NEXUS practices, by consolidating a regional metacluster that fosters cooperation and tech-transfer while mainstreaming policy impact for innovation-driven growth, thus effectively supporting education, research, technological development and innovation. Past successes in the form of technologies, products, practices, policies, and methodologies will be captured, analysed, catalogued, disseminated, and mobilised towards greater resource efficiency, economic growth, and new policy development, thus multiplying impact towards fair, equitable, sustainable economic, social and territorial development. This novel multilevel approach combining innovations, clusters, and policy addresses priority A.2.1 in a holistic manner, while synergizing with many other priorities.

Efficient capitalization of several of the Selected Projects is made possible by:

- > Conducting a stocktaking of WEF NEXUS efficient practices (Selected Projects and beyond), expanding replication by smooth transfer and exploitation, overcoming limitations, increasing resilience, and achieving social and environmental sustainability through intelligent capture, analysis and benchmarking
- > Then enabling further commercialization and tech-transfer through direct support and a rich ecosystem (metacluster), while supporting a thematic observatory to reinforce and replicate more impactful innovations
- > Finally, ensuring maximum capitalization by mainstreaming continuous dialogue and feedback consultations through a schedule of flagship events that generate socially relevant territorial evidences, feeding into decision making for real policies derived from the capitalization of innovation, stocktaking and clustering outcomes and outputs

These three objectives combined will ensure rolling out past project results and successes into broader adoption, policies, strategies, and action plans at national and regional level, while broadening the audience/target groups/ stakeholders from researchers to policy makers and society at large.





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With a total budget of € 1.1 million, the project has received a contribution of € 1 million (90%)













