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Towards a multi-risk, multi-sector, systemic approach to risk management

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Whilst the last decade saw huge scientific advances in understanding natural hazard risks, most research and policy still addresses risk from a single-hazard, single-sector, perspective. This presents obstacles for addressing real-world challenges faced by risk managers and other decision-makers. Firstly, multiple hazards can have interrelated effects on risk. How can risk be better managed by considering these interrelated effects? Secondly, disaster risk management (DRM) measures taken to reduce risk from one hazard may increase risk from another hazard. How can we better account for these dynamic feedbacks between risk drivers? Thirdly, these interrelated effects have impacts across sectors. How can we account for these trade-offs and synergies across sectors, regions, and hazards? The aforementioned challenges exist within the context of an increasingly interconnected world, increased pressure for space, and climate change, in which the magnitude and frequency of single and multi-hazards are changing at an unprecedented rate. A paradigm shift is needed to successfully address these kinds of complex questions and challenges.

The vision of the MYRIAD-EU team is to catalyse this paradigm shift required to move towards a multi-risk, multi-sector, systemic approach to risk management. We embark on a research programme that aims to enable policy-makers, decision-makers, and practitioners to develop forward-looking disaster risk management pathways that assess trade-offs and synergies across sectors, hazards, and scales. To do this, we will co-develop a framework for multi-hazard, multi-sector, systemic risk management, and state-of-the-art products and services to operationalise the framework. To test our framework, products and services, we plan to implement them with stakeholders in five Pilots: North Sea, Canary Islands, Scandinavia, Danube, Veneto. In this contribution, we will present the plans and vision for this ambitious research programme and look for links with existing risk multi-risk projects, networks, and activities.

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