

# GLOMOS United Nations International Workshop "Global Mountain Safeguard Research"

## Joint Working Group "Mountain Infrastructures" & "Mountain Livelihood and Sustainable Development"

18.10.2018, NOI Techpark

### **Background and Challenges**

#### **WG "Mountain Infrastructure: Smart, Sustainable & Resilient"**

Workshop Moderators:

Wolfram Sparber, Silvia Tomasi, Adriano Bisello, Nives Della Valle, Simone Sandholz

Major infrastructures have been considered for a long time the backbone of mountain territories development. Grid infrastructures such as railroads and roads (with their tunnels, viaducts, etc.) or power lines and big dams providing and distributing electricity were initially welcomed by local communities, in order to solve accessibility issues, fostering local labor market, developing economic opportunities. As time passes, people living in mountain regions started feeling their territories overexploited and injured by such infrastructures. The side effects caused by some of these interventions (e.g. alteration of the landscape, landslides, air pollution, etc.) have given rise to the "Nimbyism" phenomenon, and are calling for innovative solutions. Mediation, development benefits sharing, and an active involvement of the local population are becoming crucial elements as well. To make the population engaged and having an active commitment from the citizens for contributing to sustainable development in their region, smart communication channels (e.g. apps, bottom-up processes) become powerful tools.

Moreover, to ensure long-term sustainability, smart development and to cope with rural divide, mountain territories are asking a more integrated approach, better synergies with surrounding flatland regions, and new or next-generation infrastructures. As for urban areas, a smart approach that relies only on ICT components and sensors has proved to be not the right answer.

Energy, mobility, telecommunication and ICT components need to be tailor-made for the local needs and specific situations, including local population ambitions. The future sustainability, smartness, and resilience to climate change of our mountain regions, their infrastructures and systems are calling for community-oriented adaptable and adjustable solutions. Only by enabling new behavioral and value models, our mountains will be able to have flourishing local communities, shifting the perspective from adaptation and mitigation costs to smart low carbon development opportunities.

Insights on the ongoing energy systems transition in the Alps will be presented by local experts to the audience, to stimulate the following discussion (e.g. EUSALP Energy Survey - status quo and targets; Sustainable Energy Scenarios 2050 in South Tyrol – costs and benefits; EV purchase - barriers and drivers towards market penetration, etc.).

Additional practical experiences, best practices and inspiring case studies provided by participants coming from mountain regions all around the world are highly welcomed (10 min short speeches, possibly with supporting materials as video/slides). Participants should address more than technicalities, overall implications under the strategic planning dimension and socio-economic-environmental perspectives.

Workshop attendees will be also invited to debate around following topics, in order to answer detailed research questions:

1. How to develop “smart mountain villages” - with a particular focus on spatial planning, digital innovation and advanced energy services (eg. EV charging points, distributed generation systems)?
2. How to ensure long-term competitiveness and provide smart energy and digital services (ICT – broadband, teleworking, and teleservice - digital PA) to mountain communities?
3. How to plan and design new and/or next-generation infrastructures and systems for mountain regions? How to allow rural development, ensure security, energy savings and traffic/pollution reduction, land protection and infrastructure maintenance (both in the energy sector and urban planning in general)?
4. New frontiers for mountain energy sustainability & energy communities. How to foster benefits sharing among mountain areas and industrial initiatives (with regard to mountain infrastructures)? What is the role of social media initiatives, local cooperatives, dialogue processes, and volunteer activities for reducing energy poverty and enhancing access to clean energy?

## **WG “Mountain Livelihood and Sustainable Development”**

Workshop Moderators:

Elisa Ravazzoli, Christian Hoffman, Anna Scuttari

Mountain regions are vulnerable and fragile social-ecological systems. They have to be attentive to anticipate and adapt to the consequences of a variety of external and internal drivers, ranging from natural risks to socio-demographic and economic changes, which are directly or indirectly affecting people’s living standards and the development of rural mountain areas.

Against this background, the WG “Mountain livelihood and Sustainable Development” aims at discussing how to increase the quality of life for the people living in mountain regions. In the WG we will seek for new progressive pathways that can be adapted or can substitute traditional structures/systems and help creating a new vision for a “smart living in mountain villages”, which considers a balanced interrelation between economic performance, social inclusion and resilient environment.

The WG will discuss new solutions - digital and social innovations - for the delivering of good quality services necessary to fulfill people’s basic demands, and prevent livelihoods of local communities from de-population, de-growth or natural disasters. The WG will work on scenarios, how expectable trends (e.g. digitalization, climate changes, bio- or circular economy strategies) may affect the societal structure and change the scope of the local industry, the handicraft-service and the agricultural sector. This opens up discussions on how new types of business models can generate novel opportunities to cope with the demands for recreation, welfare, digital and technical solutions and offer new income-options for mountain dwellers. Within this framework, a balanced development of tourism is rewarded as an agent of change that can support local economies, offer employment opportunities and help preserve heritage.

The WG “Mountain livelihood and Sustainable Development” plans to address the following key questions:

1. How to create an enabling environment for a smart living in mountain villages?
2. How social innovative approaches can better address societal challenges faced by mountain communities? How digital innovation can interlink small towns and cities in order to further promote rural development?
3. How can we attract entrepreneurs, convince them to adapt their business models, motivate new-comers to create their Start Up, welcome re-turners, offer secondary homes or amenity-homes to new residents, or build on smart mountain tourism?
4. How can we convince the mountain population to consider in this transformation process the endogenous potentials of all societal groups without objecting migrants or excluding the needs and requirements of any other social week group like retirees, ill or disabled people?
5. How can we plan and develop tourism as an agent of change towards sustainable and resilient mountain societies?