

"INFORM-PRIORITIZE-COLLABORATE: COOPERATION OF REGIONS ON INNOVATION IN FOREST MANAGEMENT, USE OF WOOD AND FOREST-RELATED SERVICES" – 20 May 2014

**Brief outline of the proposed innovation challenges to be discussed at the workshop**

**Instructions**

*The workshop is intended to focus on the most relevant innovation challenges (including opportunities for innovation) of the European forest sector and to allow highly interactive contributions of participants. Due to limited time it is impossible to cover all relevant aspects. Therefore, we ask registering participants to provide the organizers with a feedback on the most relevant challenges which should be debated during the workshop. Please select up to 4 innovation challenges out of the 10 challenges outlined below during your registration. Thereby you help to define in a participative way the 4 main challenges to be debated in more detail during the workshop session 3. This interactive session will identify the most relevant innovative actions/tools for each of the selected challenges, and will prepare session 4 that is a brokerage event to facilitate cooperation on specific actions/tools.*

Deadline for selection is set at 9 May 2014.

**The ten preselected innovation challenges (the list is not in a priority order):**

**1 - Managing Impacts related to Climate Change**

Climate change will alter, with regional differences, the growing conditions of forests in Europe. Consequently, forest management has to adapt to these changes to sustain the productive capacities of forests as well as the generation of other ecosystem services, including contributions to climate change mitigation. Harnessing in the best way the potential benefits of climate change impacts, and minimizing the risks related to them, will need innovation in management approaches, silvicultural concepts and decision-support tools, specifically supporting forest owners and managers.

**2 - Improving Productivity on Wood and Biomass**

Sufficient wood and biomass supply is required to meet the growing raw material demand for an increasing variety of uses, while maintaining functional and resilient forest ecosystems. New approaches to improve yield (volume as well as mechanical, chemical and fibre properties) are needed (e.g. genetics, selection of provenances, quality of propagating material, silviculture) as well as improved resilience to impacts of climate change and invasive species, pests and diseases (risk monitoring, preventive and control measures). The establishment of short-term rotation and agro-forestry systems could also offer means to improve productivity in some regions.

**3 - Supporting Wood and Biomass Mobilization**

Sustainable supply of high quality raw material is an indispensable precondition to maintain and strengthen the competitiveness of the forest-based sector and to further develop the bioeconomy in the EU. Wood demand is forecast to grow in the future. A clear potential to increase forest utilisation exists in most EU countries, mainly in small private holdings. Mobilizing this potential will need innovative models of awareness raising, cooperation and organization of forest owners, adapted to their different attitudes on forest management. In addition, there is demand for improved forest operations, more efficient supply chain logistics and better market information at local, regional and global scales.

**4 - Strengthening the Supply of Non-wood Forest Products**

Beside wood, cork and biomass, forests also provide society with many other products: edible plant products (berries, mushrooms and truffles, nuts,...), medical plant and health care products (herbs, aromatherapy oil,...), animal products (game meat and entrails, honey, fur,...) and other plant products (resins, decorative materials,...). They also support grazing of farm animals. Societal demand on and economic importance of these products vary in the European regions. In some parts of the Mediterranean they are more important than wood production. Improved and sustainable supply of non-wood forest products needs innovation in adapted forest management approaches, business models and efficiency of markets.

### **5 - Supporting the Provision of Ecosystem Services**

Forests provide society with a multitude of ecosystem services, essential for our survival, wealth, health and well-being. In most cases, forest owners get no compensation for related costs or no incentive to improve supply of services. Given the growing demand on them and climate change impacts, the challenge is to maintain or further enhance the provision of such services. Innovative approaches are needed to raise the social and political acceptance of valuing ecosystem services and to establish payment schemes. This also comprises better integration of wood production and generation of ecosystem services in forest management and an improved fundamental understanding of ecological processes in relation to them.

### **6 - Mitigating the Risks of Forest Fires**

Fires are threatening the existence and basic functioning of forests in large areas of Europe, in particular the Mediterranean region. Due to climate change, the forest area affected by uncontrolled fires will expand. Integrated strategies and policies are strongly needed that promote intelligent handling of risks related to forest fire disturbance as an integral part of sustainable management of resilient forest landscapes. Innovation is needed in the assessment of forest fire risks, adapted silvicultural concepts, landscape and forest management as well as a better understanding of species and forest ecosystems responses to changing climate regimes with respect to forest fire.

### **7 - Improving Sustainable Forest Management Approaches and Tools**

Today, management of forests faces two important challenges: (1) changing natural production conditions due to climate change and increasingly diverse forest stand characteristics; (2) growing and changing profile of multiple, sometimes conflicting demands from owners, industry and society. Innovative management approaches and tools are needed to handle the growing diversity of ecosystem conditions and of socioeconomic requirements. In sustainable forest management, the integration of provision of various ecosystem services and secured qualitative and quantitative supply of raw material, as well as the solid assessment of trade-offs between various management goals have to be strengthened. For this, forest owners and managers need balanced spatial segregative and integrative strategies and improved decision-support tools.

### **8 - Promoting Wood Products and Wood-based Businesses in Rural Regions**

Processing of wood, the design and fabrication of wooden products and construction with local timber offer business opportunities in rural areas for land owners and local craftsmen, contributing to employment, income and the economic prosperity of a region. To some extent this is also valid for local wood-based bioenergy networks. The empowerment of land owners to better use these options in diversifying their income needs awareness raising, support in the establishment of businesses and the strengthening of markets. Innovative designs and construction approaches as well as up-to-date marketing tools are needed.

### **9 - Improving Public Understanding of Forest Management and Use of Wood**

Increased harvesting of forests and use of wood will be needed to reach EU policy goals, in particular regarding the reduction of greenhouse gas emissions, mitigating dependency on fossil based material and energy, the establishment of a green economy, and sustainable energy supply. The progressively urbanized societies in the EU lose the understanding of managing and harvesting a renewable natural resource like forests. Consequently, the acceptance of forest utilization in the public and at policy level is weakening. New communication strategies and participative approaches are needed to explain and clarify the rationale of sustainable forest management and to raise awareness on the dependency on wooden products in daily life.

### **10 - Improving Governance of the Forest Sector and Cross-sectoral Integration at Regional Level**

Cohesion of forest related policies and the effectiveness of forest-based sector governance systems vary across Europe, with cross-sectoral coordination lacking in most cases. The concept of smart specialisation offers new opportunities to strengthen the contribution of the forest-based sector to the sustainable development of a region, provided sufficient vertical sectoral and cross-sectoral integration. Also growing competition between different land use interests on the limited resource of fertile soil will need better integration of various sectors. At regional level, enhanced organisation, cooperation and communication models between the various stake-holders and policy makers inside and outside (tourism, water management, industry, energy, waste,...) the forest value chain are needed.