EIP-AGRI Focus Group
Forest Practices & Climate Change

MINIPAPER 6: Knowledge exchange through platforms, networks, or competence centres that link research, practitioners, industry and forest owners
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Introduction

This mini paper #6 is one in a series of ten mini papers produced by the EIP-AGRI Focus Group on New forest practices and tools for adaptation and mitigation of climate change. The scope of the focus group is elaborated on in a starting paper (Lindner 2017). *Knowledge exchange through platforms/networks/competence centres that link research, practitioners, industry and forest owners* was identified as one of the key topics at the first meeting of the Focus Group held in Ljubljana, Slovenia, 20-21 June 2017.

The aim of this mini paper is on the one hand to provide an overview of best-practice examples of platforms, networks or competence centres around Europe (and what they have in common making them pest practice examples) and on the other hand to present research needs in the field of knowledge exchange.

Background

Climate change will bring manifold changes to European forests and forest practitioners will need to navigate these in the coming decades. There are problems, which have to be resolved alongside opportunities, yet to be discovered. The IPCC[1] stated that we have made progress in creating science based knowledge about climate change; however, there is a deficiency of adaptation action (IPPC, 2012) which only can be overcome by operational science-practice-interfaces. Scientist are not usually implementing adaptation or mitigation measures into practice. Practitioners, on the other hand, may be lacking some of the scientific understanding to make sense of often complex or even confusing, or even worse: conflicting scientific findings.

Foresters have already witnessed changes in their forests and whilst many call for robust evidence and attribution to climate change before starting adaptive action, some are more willing to test new practices. Researchers have developed a comprehensive knowledge of adaptation and mitigation of the forest in response to climate change, which could benefit forest practitioners. However, dissemination requires effective translation and effective, organised dissemination. Platforms and networks can facilitate such knowledge exchange and make it easier to share findings.

Local foresters need guidance and information in their native language, presented in a way, which is practical and user friendly. Researchers are forced by their sources of funding to build projects limited in time and as innovative as possible. Therefore, as soon as they start to explore an innovative scientific lead, usually they cannot afford an extra time for the development and the communication of their findings to the broader audience. They must continue exploring new paths. However, it requires a longer time to digest raw scientific knowledge in order to put it into practice in real local conditions. Like any sustainable action or practice that would need to be disseminated, the first step is to be accepted by the final user; it is even more profitable if the purpose of the action is well understood. Especially, if the final users such as foresters and practitioners have to change their habits and open up to other types of forest management. Knowledge exchange among users – be it through platforms, networks or by other means – could help building practical knowledge from local, empirical and scientific data.

Already, throughout Europe there are many existing information and cooperation platforms as well as networks and competence centres with thematically different foci. The following chapter gives an overview of some of those in the countries of the contributors of this minipaper.

[1] Intergovernmental Panel on Climate Change

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Good practices – starting points for innovation

For many foresters and forest owners, if new practices and ideas should be adopted successfully, it is important to see examples of good practice, e.g. in forests in their neighbourhood and to learn from peers.

There are already different approaches throughout the EU, all of them using the positive effects of social learning; of learning from each other's knowledge and experiences.
Following, you will find boxes, which show examples of these different approaches. These examples can be seen as examples of good practice in their respective countries and/or fields of interest. They vary from very specific courses, workshops and trainings (Box 1) over competence centres (Box 2) as well as regional and national networks (Box 3) to projects, initiatives and networks on a European level (Box 4).

Box 1. Training and capacity building
Spain
• course on free Apps to manage forests • a powerful and innovative tool to transfer the importance of including climate change in management
Portugal
• workshops under initiative **Forests: Sustainability and Soil Mobilization** • organized by Terras Dentro Association with collaboration of Évora University- ICAAM, ICNF, Municipalities and Farmers' Associations. • Targets relation between soil and carbon sequestration
United Kingdoms (UK)
• Training course in **'Ecological Site Assessment' (ESC)** as Decision Support Tool which can inform species suitability based on site characteristics and climate change projections. • These courses have been running for over a decade and training is integrated into Forestry Degree Courses • ESC is demonstrated at land management events and shows and video tutorials are available. • Web site: https://www.forestry.gov.uk/esc

Box 2. Competence centres
Portugal
• **Cork and cork oak Competence Centre** • a formal meeting point, based in an official protocol and organisation (having some meetings per year) and congregates different kind of organisations :academia, NGOs, diverse stakeholders, public administration. • It aims to find essential issues, positive and negative aspects and needs of a specific production. • promotes that "core business" and try to influence the most important actions to be taken, in a certain period of time. • In Portugal, e.g. "Centro de Competências do Sobreiro e da Cortiça"; "Centro de Competência dos Recursos Silvestres"; "Centro de Competências do Pinheiro Manso e Pinhão" (cork oak and cork; other forest resources; pine and pine fruit). • Related web sites: https://desertrestoration.org/, http://echanges.fc.ul.pt/projetos/adaptforchange

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Box 3. Platforms and Networks
France
• **RMT AFORCE** • Supported by the French Ministry for Agriculture • Mixes different type of partners (15 partners): scientists, foresters, advisors, training, teachers, to accelerate transfer of knowledge, and to bring out innovations to adapt forest to climate change. • More than 20 projects were financed by the network to disseminate new knowledge, decision tools and diagnosis tools on vulnerability and the like. • Web site : www.reseau-aforce.fr
England, UK
• Organisational representatives (8 partners) including experts from science, forestry, land management organisations and NGO's work together to raise awareness of climate change and catalyse action across the Forestry and woodland management sector, in support of work to adapt forests to climate change. • The **Climate Change Accord**[2] is accompanied by case studies of 'adaptation in action', which describe action taken by those in the forestry, nursery and land management sectors to adapt to climate change, to inspire others to act now. • Web site **:** https://www.forestry.gov.uk/forestry/beeh-9ylghy
Germany and Austria
• The Forest Climate Fund project **KoNeKKTiW**[3] • Existing community of practice of 17 members in Germany and Austria • General approach: regionally (not thematically) determined node • Collecting (and translating) scientific knowledge and producing information material with the practitioner in mind • Community of practice ensures quality and down-to-earth/practitioner's applicability • Training for community of practice → social learning • Web site**:** www.waldwissen.net/krisenmanagement[4]

[2] More than 40 organisations have now signed the Climate Change Accord, which states: "*We believe that it is necessary to act now to provide a secure future for our forests, woods and trees, that significant changes are required to widely-accepted and practiced systems of management to make them resilient, and we are committed to help realise the vision set out in [this] Accord.*"; https://sylva.org.uk/forestryhorizons/environmental-change

3 Funded by the Federal Ministry of Food and Agriculture and the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety by a decision of the German Bundestag.

[4] English version**:** https://www.waldwissen.net/waldwirtschaft/schaden/fva_ratgeber_forstliches_krisenmanagement_startseite/index_EN

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Box 4. Projects and initiatives by multiple EU countries

LIFE FOREST CO2

- Assessment of forest-carbon sinks and promotion of compensation systems as tools for climate change mitigation
- Demonstrative project of transnational scope, developed jointly by Spanish (Region Murcie) and French partners (CNPF in France).
- The main actions are:
  - modelling of the carbon sequestration rate in different pine stands regarding different forest management (pruning, thinning, …);
  - promoting carbon sequestration projects through voluntary initiatives linking forest owners and managers.
- Web site: http://lifeforestco2.eu/life-forest-co2-project/?lang=en

FRISK-GO

- Start-Up Project ensures that core services and procedures are demonstrated to build the ground for an operational facility in the future.
- The project was jointly initiated with EFI member organizations and EFI member countries.
- The ambition of the FRISK-GO Start-Up Project is to determine how to best implement a facilitation platform where science can meet policy and practice by bringing key actors together and analyze thematic and operational needs.
- Investigating a roadmap for a fully operational risk facility
- providing a new pan-European overview strategy with transnational access to knowledge and experience while incorporating existing expertise in Europe.
- collect and distribute data for a better understanding of biotic and abiotic forest risks to support effective collaboration and coordination of relevant national bodies and facilitate the exchange of good practice.
- Web site: http://www.friskgo.org/

NET RISK WORK

- wants to provide a platform of knowledge and best experience exchange dealing with different European forest risks and their interactions
- delivering operational guidelines for natural risk disaster reduction
- building regional/thematic networks of expertise.
- he project will perform a best practices capitalisation process on risk planning and management capabilities of wildfires, storms, avalanches and flood hazards
- crosslink assessment on how are these hazards interacting in a changing climate context all across Europe
- informal and permanent multi-actor knowledge exchange platforms will be consolidated at local/regional level by the specific hazards supported by a European scope coordination
- Web site: http://netriskwork.ctfc.cat/

As seen from the Spanish example (see Box 1), trainings were and still are an important tool to exchange knowledge in a very direct way. However, they work mostly unidirectional. In the future, it will become more and more important to implement the knowledge of many sources in such trainings: Be it the knowledge from the participants of the courses (to get e.g. examples of best practices) or from different European regions, if thematically applicable.

The above-mentioned examples are showing at least two things: i) that there will be different innovative approaches for similar problems in different regions and ii) that *social learning*, learning from each other, is a crucial element in mostly all of these projects.

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There are especially two aspects to consider, when introducing any kind of knowledge exchange network or project:

Different working scales

Scientific knowledge and prospective models are working best on national and regional scales, but the final users' needs are on a local scale. Therefore, the implication of foresters via local experiments will allow scientists to test models and calibrate them in different contexts.

Common language

The use of a common language is a prerequisite for the success of these multiple exchanges of information between various actors. Common working places where these actors can meet, exchange information, gather data and so on, are the basement for the creation of a common language and knowledge, allowing also to express needs, weaknesses, strengths, threats…

Conclusions

Adaptation is required in order to secure and enhance mitigation potential. The more adapted the forest will be, the more it will be capable of playing its part in carbon sequestration as well as providing other ecosystem services, also in the future. In addition, forests are able to mitigate climate change. Resilient and well-adapted forests will have a higher chance to mitigate climate change in a changing climate. The awareness of forest owners and practitioners of the impacts of climate change is critical for the implementation of adaptation measures to climate change in the forests.

Even though we agree on the general trends of the climate change evolution, local variations are highly uncertain and model-dependent. Therefore, adaptation must be considered with a wide range of (new) practices in mind. Both, foresters and scientists, have parts of the solutions in their possession. It is of great importance to rely on both, practical and theoretical knowledge. Uncertain local evolutions require to share and confront both data sources, from foresters and scientists, to accelerate the transfer of knowledge and allow its implementation.

The different examples of good practice in the last chapter showed that – to tackle the upcoming challenges in times of climate change – it is important to have in mind the local implementation of scientific findings as well as an exchange of knowledge (practical and scientific) on a local, regional, national and European level.

Research needs

The purpose of the minipapers is on the one hand to give an overview of the subject at hand and on the other hand to present thematically important research needs. The most important research needs for the subject of this minipaper are the following two[5]:

- Evaluation of how to best institutionalise knowledge exchange, including a forester exchange program
- Evaluation of how to best include new technologies – like VR[6] or some kind of internet interviews or social networks – influences and supports adaptation and mitigation actions

In addition, there are other research needs and questions, which are valid and should be addressed:

- What are the main barriers to communication amongst various groups? What are the best approaches to overcome those barriers?
- Considering the first *most important research need* mentioned above,

[5] During the second meeting of the EIP focus group, research needs were defined and prioritized. For every minipaper, the three most important research needs were defined, which will be also mentioned in the final report. One of the three most important research needs of this minipaper was merged with one of another minipaper. Therefore, in this minipaper only two most important research needs are presented.

[6] VR = Virtual Reality

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    - What are the needs of the final users?
    - How could final users give input in such an institutionalized knowledge exchange?
- Considering *Serious Games* as one possible option to analyse possible decision paths. They gather all the actors (foresters, scientists, owners, industrials, financiers, environmentalists) on a simulating platform with the aim of taking multiple decisions in various situations. Afterwards, the results and the decision paths that had been taken can be analysed.[7]

Further research needs coming from practice, ideas for EIP AGRI operational groups and other proposals for innovation can be found at the final report of the focus group, available at the FG webpage **https://ec.europa.eu/eip/agriculture/en/content/focus-groups/new-forest-practices-and-tools-adaptation-and**

References

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[7] This kind of logical platforms is used already on silvopastoralism in France and on climate change in Quebec.

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