EIP-AGRI follows several different aspects related to **innovation in forestry**:

- Forest monitoring through remote sensing
- Multifunctional forests – incl. agroforestry
- Value chains – support for forest owners, decision support, opportunities in the bioeconomy
- Adapting forests to climate change – adapting species and varieties
<table>
<thead>
<tr>
<th>EIP-AGRI Focus Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agroforestry: woody vegetation</td>
</tr>
<tr>
<td>Animal husbandry</td>
</tr>
<tr>
<td>Benchmarking farm performance</td>
</tr>
<tr>
<td>Carbon storage in arable farming</td>
</tr>
<tr>
<td>Circular horticulture</td>
</tr>
<tr>
<td>Dairy production systems</td>
</tr>
<tr>
<td>Diseases and pests in viticulture</td>
</tr>
<tr>
<td>Ecological Focus Areas</td>
</tr>
<tr>
<td>Fertiliser efficiency</td>
</tr>
<tr>
<td>Forest biomass</td>
</tr>
<tr>
<td>Forest practices &amp; climate change</td>
</tr>
<tr>
<td>Frost damage</td>
</tr>
<tr>
<td>Genetic resources</td>
</tr>
<tr>
<td>Grazing for Carbon</td>
</tr>
<tr>
<td>High Nature Value</td>
</tr>
<tr>
<td>IPM for Brassica</td>
</tr>
<tr>
<td>Livestock emissions</td>
</tr>
<tr>
<td>Mixed farming systems</td>
</tr>
<tr>
<td>New entrants into farming</td>
</tr>
<tr>
<td>Nutrient recycling</td>
</tr>
<tr>
<td>Organic farming</td>
</tr>
<tr>
<td>Permanent grassland</td>
</tr>
<tr>
<td>Precision farming</td>
</tr>
<tr>
<td>Protein crops</td>
</tr>
<tr>
<td>Reducing food loss on the farm</td>
</tr>
<tr>
<td>Renewable energy on the farm</td>
</tr>
<tr>
<td>Short food supply chains</td>
</tr>
<tr>
<td>Soil organic matter</td>
</tr>
<tr>
<td>Soil-borne diseases</td>
</tr>
<tr>
<td>Water &amp; agriculture</td>
</tr>
</tbody>
</table>
EIP-AGRI Focus Groups

- 20 participants, varied types of actors
- Short duration, focused
- 30 Focus Groups so far
Scope of Focus Group
Sustainable mobilisation of forest biomass (SMFB)

FG "SMFB" focused on...
» Innovation in mobilising different types of forest biomass for all potential markets and better interlinking supply and demand.
» Economic, environmental and social functions of forests are the basis of the work.
Objectives of FG
Sustainable mobilisation of forest biomass (SMFB)

- Identify success and fail factors and explore the role of innovation and knowledge exchange in addressing them.
- Identify, describe the cooperation of small-scale forest owners and barriers to implementation. Provide examples of best practices.
- Analyse supply and demand factors, and the means to provide a link between the two (e.g. electronic marketing tools).
- Propose potential innovative actions to stimulate the knowledge and use of management practices and strategies in mobilising forest biomass.
- Identify research and innovation needs coming from practice
- Provide ideas for Operational Groups and other innovative projects.
The eight “Mini Papers” of FG Sustainable mobilisation of forest biomass (SMFB)

» The content work of was structured into eight key themes to address best the complexity of SMFB.

» For each key theme a so-called Mini Paper (MP) has been produced jointly:
  MP1: Involvement of actors/stakeholders in regional initiatives for forest biomass mobilisation
  MP2: Forest ownership types
  MP3: Markets
  MP4: Decision support tools
  MP5: Harvesting and transportation technologies
  MP6: Contribution to environmental issues
  MP7: Incentives for mobilisation of forest biomass
  MP8: European map of the regional forest-based sector
Focus Group
Forest Practices & Climate Change

- Increasing awareness on Climate Change and Adaptation, Mitigation
- Smart and sustainable silviculture & genetic resources
- Small scale forest management
- Techniques and practices to manage fire risk in the forest
- Landscape management to diversify strategies
- Knowledge exchange between research, practitioners, industry and forest owners
- Implementing adaptation strategies through economic incentives
- Innovative Value Chains that generate material and energy use
- Prevention, early warning and innovative risk monitoring
- Regional experiences with Decision Support Systems
Examples of Innovation

Swedish Forest Agency conducted extensive extension services in relation to climate change during 2009-2015 (Eriksson et al. 2017)

Effective Communication for Mitigation of Climate Change and Adaptation to its impacts – good practices

- Integrate knowledge on how the local environment is affected by climate change into evidence-based communication
- Build climate adaptation and mitigation capacity of the decision-making agents (including forest owners)
- Provide flexible effects on decision making which is crucial for successful decision-making in a changing world
- Help to design effective climate change policies.
Examples of Innovation (2)

UK’s Woodland Carbon Code

- voluntary government-backed standard for woodland creation projects, launched in 2011
- allows project developers to quantify and account for the carbon dioxide sequestered, using best available scientific knowledge
- third-party validation and verification process
- By the end of 2016, 243 projects were registered, creating over 16,000 hectares of woodland.

Selling the rights to the carbon captured by Woodland Carbon Code certified woodlands can provide new income for landowners, supplementing other income streams from timber, woodfuel and sporting activities
Examples of Innovation (3)

Early Warning and Innovative Risk Management

Multicopter detecting bark beetle infestation in Thuringia, Germany

Photo: Carmen Rudolph
Examples of Innovation (3)

Early Warning and Innovative Risk Management

Automated Forest Fire Monitoring System "Fire Watch". Sectors and images are shown on a monitor; the detected fire location is identified on a topographical map. (Source: IQ wireless Ltd)
Ideas for Operational Groups

- Methods to increase the use of broadleaves in forest regeneration
- Adopt local adaptation in forest management through DSS, recommendations, guidelines and awareness raising
- Methods to improve assisted regeneration/afforestation in dry areas
- Development of early warning system applied to forests (related pests, vitality loss) mainly based on remote sensing techniques
- Landscape management and governance for the individuals
- Adaptive forest management plans addressing climate change risks and opportunities
- Collaborative analysis of mitigation options along specific value chains
Main Research Needs from Practice (1)

- Future local/ regional guidelines for the implementation of innovative silvicultural practices towards adaptation
  
  a) What to do and where?
  
  b) Demonstration plots network of silvicultural practices (with intense monitoring and data analysis to produce information for landowners forest management)
  
  c) DSS at the local scale (farm) (how is the forest today and what will be expected in the future in the farm with a risk assessment tool regarding changing species, practices and economics)
Main Research Needs from Practice (2+3)

- Climate change adaptation incentives should be user-oriented:
  - Under which conditions (social, political, and economic) do forest owners initiate changes?
  - What kind of incentives are there/are needed for different owners?
  - How to set-up long term commitments and funding for integrated forest management adaptation in small landownership?

- Study carbon dynamics (biomass/fuel) related to the fire regime as these are affected by forest species, land uses, and management options
Results

• All outcomes at the Focus Group webpage
  • https://ec.europa.eu/eip/agriculture/en/content/focus-groups/new-forest-practices-and-tools-adaptation-and
  • Presentation
  • Factsheets
  • Minipapers

• Research needs and ideas for operational groups at the EIP-AGRI database
  • EIP-AGRI > Meeting point > Needs for research from practice
  • EIP-AGRI > Meeting point > Projects
State of play of the Operational Groups

- 1000+ Operational Groups funded RDP Measure 16
- **Forestry + Forestry related: 10%** (DE, ES, FR, IT, IR,...)
- Topics covered:
  - Forest management, inventory
  - Forest products and services (wood and others)
  - Land management
  - Biodiversity, Nature conservation
  - Climate change, ecosystem services
  - Agroforestry (Silvipastoralism)

- Diversity of approaches on RDP: No “one fits all”
State of play of the Operational Groups

Forestry/Forest related per country
Only source: SFC - EIP AGRI database

<table>
<thead>
<tr>
<th>Country</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT</td>
<td>20</td>
<td>50%</td>
</tr>
<tr>
<td>ES</td>
<td>9</td>
<td>23%</td>
</tr>
<tr>
<td>IT</td>
<td>4</td>
<td>10%</td>
</tr>
<tr>
<td>FR</td>
<td>3</td>
<td>8%</td>
</tr>
<tr>
<td>NL</td>
<td>2</td>
<td>5%</td>
</tr>
<tr>
<td>IE</td>
<td>1</td>
<td>3%</td>
</tr>
<tr>
<td>DE</td>
<td>1</td>
<td>3%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>40</td>
<td>100%</td>
</tr>
</tbody>
</table>
Towards a unique database:
EIP AGRI Database of Operational Groups

- EIP-AGRI > My EIP-AGRI > Operational Groups
- Database of Operational Groups
- Contacts of country/region
- ....

Projects - Operational groups

<table>
<thead>
<tr>
<th>Title</th>
<th>Keywords</th>
<th>Geographical location</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Forestry</td>
<td>Choose some options</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Language</th>
<th>Agricultural sectors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choose some options</td>
<td>Choose some options</td>
</tr>
</tbody>
</table>

Partner's categories

Choose some options

Search Reset