Call for Commitment EIP on Raw Materials

Enhancing the cascade us of wood by integrating an intensified mobilsation of forest resources

Acronym: ECAMOB

Owner(s): EOS-OES / EPF / CEI-Bois

Coordinator:

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Objectives of the commitment (maximum 900 characters)

Novel models define a **cascade-use-of-wood concept** and **intensification of wood mobilisation –including recycling solutions** for ensuring an **enhanced sustainable supply of raw materials** to the European forest-based industry, thus **creating more job** opportunities and revenues in Europe. This RMC will **define and pilot "zero waste" solutions** proving proposals for increasing wood mobilization, and maximising reutilisation of wood. The **Cascade-use-wood-tool** will be developed based on **LCA, logistical, regional, and environmental and profitability criteria**. Its accuracy level will guarantee that wood resources are used most efficiently and the climate change mitigation potential is maximised. Reducing the gap between supply and demand of wood (short - to medium-term), this RMC will investigate and propose ***solutions for increasing the potential supply of wood from European forests in a holistic approach while securing environmental and social demands on the ecosystems.***

Description of the activities (maximum 3600 characters)

The revised **Strategic Research Agenda of the European forest-based sector address with its Strategic Theme 2: Responsible management of forest resources, the sub-themes multi-purpose management of forests; forest ecology and ecosystem services; enhanced biomass production; secured wood supply; forest operations and logistics; and cascade use, reuse and recycling.**

Manifold business models, incentive schemas are developed and RTDI projects are carried out in order to enhance the supply and utilisation of wood. **The majority of these projects are funded on national or regional level.** Wood and wood-waste are the main sources for renewable energy.

According to the National Renewable Energy Action Plans, biomass used for heating, cooling and electricity would supply about 42% of the 20% renewable energy target for 2020. This amount of wood used for energy purposes in the EU would be equivalent to today's total wood harvest.

Description of the activities (maximum 3600 characters)

There will be a conflict of interest for Europe due to the lack of sufficient raw material supply to be used for both, forest- based industries and renewable energy use. A new comprehensive and well balanced approach is needed, e.g. the raw material for wood pellets are various by-products of sawmill and wood working industries, as well as from the recycled wood. Consequently, mobilizing the existing forest resources widely will enhance the cascade concept.

This **RMC is elaborated by a strong European Research community and industrial network aiming at carrying out jointly major RTDI activities:**

Analysing, studying existing best practices and technologies for mobilizing forest resources taking existing EU and Member State policies and legislations on this principle into consideration and piloting the proposed models on a corporate level. Defining a holistic concept of cascade-use-of-wood, including re-use and recycling solutions.

Description of the activities (maximum 3600 characters)

Developing clear and efficient a**ssessment models and tools for assessing the cascading impacts.** These holistic, dynamic, simplified (simulation) tools can deliver recommendations and guidelines for policy-makers and value chain stakeholders and will allow them to **analyse most of the feasible cascade value chains based on forests.** Adapting the developed solutions on a national level while taking regional differences into consideration **(from resource to end of life of a product**). **Aiming at incorporate recovery, recycling and reusing throughout the construction dismantling phases, innovative transports and collection systems will be an integral part of a new waste management philosophy.** Testing flexible novel sustainable forestry technologies and management practices with respect to climate change, industry needs and multi-functional societal demands in all European countries. Development of efficient supply chain concepts integrating harvesting, forwarding, transportation, logistics and trading for reducing and eliminating resource mobilisation bottlenecks while satisfying the needs of both the woody biomass suppliers and users like the woodworking industries (sawmilling, panel and board production, pulp for paper, bioenergy, ...).

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Description of the activities (maximum 3600 characters)

Testing flexible novel sustainable forestry technologies and management practices with respect to climate change, industry needs and multi-functional societal demands in all European countries.

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Description of the activities (maximum 3600 characters)

New strategies for organisational innovations for forest operations in specific contexts (**local, regional aspects**) while focusing on **infrastructure and proximity of downstream industries** and **improved valorisation approaches that provide best performance** via the development of a **fully integrated system (downstream use)** are needed. **Defining the potential use for different roundwood qualities (softwood/hardwood) and grades (sawing, veneering, etc) including selecting and allocating methodologies**. Compiling existing and/or new data to enhance the characterisation of domestic wood species with respect to mechanical properties. These efforts and results support forest-based investments and in particular, their raw material supply. Key words: climate change, forest management, quantity, quality, time, delivery, logistics, harvesting technologies, grading – sorting, re-use, recycling, building with wood, living with wood, wood-based materials, biorefinery, societal demands, socio-economic aspects.

Description of the activities (maximum 3600 characters)

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Description of the expected impacts (maximum 1800 characters)

…, the present **integrative and cross-disciplinary** research and innovation activities study the best practises and innovative solutions to face the ever increasing demand for biomass for existing and future value added processes. **The industry driven research and innovation work** secures a direct exploitation and piloting the RTDI results into forestry and forest-based industries. Novel integrated energy- and resource efficient primary and secondary production models emphasize an advanced European mobilisation and cascade use of forest-biomass enabling to add value from resources (logs, -wood) via consumer products (sawn timber, paper, packaging, panel, boards, construction elements, consumer products,..) to end of life use (energy) and hence creating new job opportunities and higher revenues. **The current ongoing and planned initiatives on EU member states level will be integrated to create a European knowledge-base for facilitating the communication between the raw materials community and the society at large. The active involvement of small and medium enterprises at the heart of the European forest-based sector, enhances innovations while strengthening the competitiveness.**

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Description of the expected impacts (maximum 1800 characters)

The RTDI based holistic models and concepts along the value added forestry-wood chain **generate a unique knowledge-base in Europe that will allow selecting and allocating the appropriate raw material for each end use including cascading, recycling and re-use.** Forest resource is seen as a bulk commodity, while in reality it represents a inhomogeneous biological material with individual quality and property attributes depending on geographical origin, growing conditions, etc. **Tailor made harvesting, logistic and storage concepts as well as first and secondary transformation processes have to be connected to these conditions for securing best economical and environmental performance of the forest-based sector.**

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Evaluation Summary Report

Objectives of the commitments	This RMC responds to Action area I.5 and II.10 of the EIP/SIP on Raw Materials. Novel models define a cascade-use-of-wood concept and intensification of wood mobilisation –including recycling solutions for ensuring an enhanced sustainable supply of raw materials to the European forest-based industry, thus creating more job opportunities and revenues in Europe. This RMC will define and pilot "zero waste" solutions proving proposals for increasing wood mobilization, and maximising reutilisation of wood. The cascade-use-wood-tool will be developed based on LCA, logistical, regional, and environmental and profitability criteria. Its accuracy level will guarantee that wood resources are used most efficiently and the climate change mitigation potential is maximised. Reducing the gap between supply and demand of wood (short - to medium-term), this RMC will investigate and propose solutions for increasing the potential supply of wood from European forests in a holistic approach while securing environmental and social demands on the ecosystems.

ESR : Comments (maximum 900 characters)

The holistic approach proposed in this RCM will **define new and widely replicable business model in order to optimise** the use of wood resources. A hierarchy of the use of wood will be elaborated taking into consideration the forestry value chain and the EU regional specificities. The definition of wood waste will include economic and feasibility considerations.

In order to maximise the mobilisation of wood resources and minimise the environmental impact, this RMC will collect and pilot the best sustainable forest managements existing at EU level. A common European regional guideline will be elaborated according the different region peculiarities. Solutions for engaging small forest owners will be explored. Innovative practises for collecting and recovery wood from demolished constructions will be studied. Proposals for enhancing transports facilities for the forestry-based sectors (logs and recovered/recycled wood) will be part of this RMC.

Evaluation Summary Report

Lead Partner	Institut Technologique FCBA	FR	Total No. Partners (min 3)	Yes 41	No. EU Member States (min 3)	Yes 15

Different EU regions	Yes	Non-EU	Yes 1	Private	Yes 16	SMEs	Yes 7	Suitable Composition	Yes

Geographic Composition	AT	BE	BG	CY	CZ	DE	DK	EE	EL	ES	FI	FR	HR	HU	IE	IT	LT	LU	LV	MT	NL	PL	PT	RO	SE	SI	SK	UK	EU	Non-EU
	2	3				5				6	3	2				3			1		2	1	1	1	2			1	7	1

Evaluation Summary Report

Recommendation	Accept
Comments to High Level Steering Group	All the eligibility criteria have been fulfilled. 14 out of 15 selection criteria have been met. It is clear how this commitment will make a significant contribution to meeting the overall objectives of the EIP. However, the commitment could be more concise and better structured. The advocacy strategy proposed in the commitment is commended.
Comments to proposer	It is clear how this commitment will make a significant contribution to meeting the overall objectives of the EIP. The commitment could be more concise and better structured. The commitment would benefit from clarifying the targets, the timeline and deliverables. Collaboration with Commitment SWEETSTOCK is encouraged, due to complementarity of activities.

Evaluation Summary Report

RM	Metallic minerals	No	Wood-based	Yes
	Industrial	No	Natural rubber	No
	Construction	No		
Link	Yes			
Area	II.10: Optimised materials flows along value chains II.8: EU Raw Materials Knowledge Base I.5: Recycling raw materials from products, buildings I.1 Improving R&D&I coordination in the EU I.3: Innovative extraction of raw materials			

Actions	I.1.2 Coordination of Member States and EU initiatives I.1.3 Collaboration between Raw materials community and society I.1.4 Research and innovation platforms I.3.5 Forest operations I.5.1 End-of-life products recycling I.5.2 Packaging recycling I.5.3 Construction and demolition (C&D) waste recycling II.8.6 Improvement of data collection of raw resources at national and regional level II.10.2 Cascading use of wood II.10.3 Sustainable wood mobilisation

Time line & Next steps

- Preparation for up-coming calls under **Horizon2020 – WP 2016-17**
- General Assembly with all partners on **10th of July 2014** (BXL or at FCBA in Paris)
- Election of an **ECAMOB Board** (Owners of ECAMOB plus elected partners)
- Installation of a **Task Force within ECAMOB** for structuring the next steps / parts for the production of proposals
- Preparation and set-up of consortia **based upon the partnership**
- In case it is needed and agreed upon by the GA: open call for specific expertise
- GA will select new partners for future consortia

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Thank you for your attention !

European Organization of the Sawmill industry

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Gus Verhaeghe / Innovawood

Wild reindeer centre pavilion, Norway Snohetta Architects Photo: © Diephotodesigner.de