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Authors: Högler, Tamara, with contributions from CWC, PREDa, SUAS, ZMVA, WIC, SFI, UB FF, PROWOOD, BFC

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LIST OF ABBREVIATIONS

CN = Collaboration Network

DTP = Danube Transnational Programme

FBI = Forest-based Industries

FORESDA = Project "Forest-based cross-sectoral value chains fostering innovation and competitiveness in the Danube region"

IP = Innovation Project

LAP = Local Action Plan (Project Deliverable 6.2.4 Local Action Plan)

LIAP = Local Innovation Action Plan (Project Output 3.2 Local Innovation Action Plans)

MH = Methodology Handbook

PA = Priority Area

PP = Project Partner

RIS = Regional Innovation System

TS = Transnational Strategy (Project output 3.1 Transnational Strategy on Cross-sectoral Level)

TTO/KTO = Technology transfer office/Knowledge transfer office

1. EXECUTIVE SUMMARY

FORESDA's main objective is to support the transformation of traditional forest-based industries into sustainable manufacturing areas. To achieve this goal, an innovative cross-sectoral and transnational approach was chosen. In this framework, cross-sectoral Collaborative Networks (CNs) and Innovation Projects (IPs) were developed as idea generation engines and supported by different means by the FORESDA consortium. In addition, cross-sectoral Pilot Innovation Environments (PIEs) as physical or virtual collaboration spaces were implemented, and necessary supportive capacities in clusters, intermediaries, research organisations and policy makers were built up.

One of these supportive capacities was the provision of trainings to CNs based on their identified needs. Each CN received at least 2 trainings dedicated to specific technological or methodological issues (e.g. related to the joint innovation agendas), while each IP received 1 training and additional innovation support (e.g. joint testing, piloting). In the framework of FORESDA, the following seven trainings were developed and implemented to support CNs:

1. Analysis of the FBI sector, best practices and innovations
2. Why building with wood? / LISI – The house: From the planning to the construction of the building / Service life of wood and wooden buildings
3. Cluster Services for SMEs
4. Create and Grow!
5. How to support SMEs in the Development of Innovations?
6. Innovation Management
7. Proposal Writing

Output 5.2 *Trainings and innovation support* contributes to foster cross-sectoral, transnational innovation (specific objective 2) in the project countries and beyond. It describes the trainings for CNs and PIEs, their outcomes / lessons learned and provides recommendations for future activities.

2. BACKGROUND OF TRAININGS AND INNOVATION SUPPORT

2.1 OBJECTIVES

FORESDA's main objective is to support the transformation of traditional forest-based industries into sustainable manufacturing areas. To achieve this goal, an innovative cross-sectoral and transnational approach was chosen and cross-sectoral Collaborative Networks (CNs) and Innovation Projects (IPs) as idea generation engines were developed and supported by the FORESDA consortium. Cross-sectoral Pilot Innovation Environments (PIEs) as physical and virtual collaboration spaces were implemented, and necessary supportive capacities in clusters, intermediaries, research organisations and policy makers were built up.

The specific objective of Work Package 5 (WP5) New Value Chains is to generate and validate cross-sectoral, transnational innovation activities in the strategic innovation areas

- smart and sustainable construction and furniture,
- innovative bio-based products and
- materials and energy efficiency.

One important aim in the framework of WP5 was to support at least 90 SMEs (Small and Medium Sized Enterprises) to establish cooperation with R&Ds. The FORESDA consortium supported SMEs through CNs and IPs. CNs are defined as international, cross-sectoral networks of SMEs, large companies and research organisations and IPs are defined as projects bringing together cross-sectorial consortia of SMEs, large companies and research organisations to develop new products, processes or services. According to identified needs, each CN has received at least 2 trainings dedicated to specific technological or methodological issues, e.g. related to the joint innovation agendas. Each IP received 1 training and additional innovation support (e.g. joint testing, piloting).

Consequently, by strengthening the innovation capacity of the involved stakeholders, particularly SMEs, Output 5.2 *Trainings and innovation support* contributes to foster cross-sectoral, transnational innovation (specific objective 2) in the project countries and beyond. This document describes how FORESDA approached the provision of the trainings and innovation support for SMEs.

2.2 APPROACH

WP5 aimed at supporting the formal establishment and extension of the CNs (seeded in the previous activity) across different sectors and countries, targeting at increasing their capacity to generate new added-value activities based on the innovation potential and requirements of SMEs. In order to reach this objective, each network was provided with a Network Manager and a further specialist who coordinated the trainings to be provided to each Collaborative Network.

The Network Manager supported the CN and PIE to identify their needs for trainings; and according to the identified needs of each CN, at least two specific trainings per CN were prepared and provided by the FORESDA project partners or related institutions in the framework of a virtual or physical workshop. The trainings were dedicated to specific technological and/or methodological issues related to the joint innovation agenda of the respective CN and aimed at strengthening the innovation capacity of the involved stakeholders, with the accent on SMEs. Its purpose was to contribute to the fostering of cross-sectoral, transnational innovation in the project countries and beyond. Training materials were developed in the framework of the support delivered to the CNs (cf. D.5.2.4).

The Pilot Environments were also used for the delivery of training as well as further support measures according to the nature of each Pilot.

In order to achieve synergies between the CNs, all trainings were open to all CN and PIE members. Following training workshops were implemented:

Training title	CN participating in training		
	Building with Wood	Creative Hubs	Socially responsible use of Forests
Analysis of the FBI sector, best practices and innovations			x
1. Why building with wood?			
2. LISI – The house: From the planning to the construction of the building	x		
3. Service life of wood and wooden buildings			
Cluster Services for SMEs	x	x	x
Create and Grow!		x	
How to support SMEs in the Development of Innovations?	x	x	x



Innovation Management	x	x	x
Proposal Writing	x	x	x

3. TRAINING FOR THE COLLABORATIVE NETWORKS

3.1 CN "BUILDING WITH WOOD"

The following subsections describe the training activities developed and implemented in the collaborative network "Building with Wood". The trainings were dedicated to specific technological and/or methodological issues related to the joint innovation agenda of the respective CN. The following content provides an overview of the challenges related to the development of the training content and implementation as well as monitoring results.

3.1.1 NEEDS AND CHALLENGES

Buildings are responsible for approximately 40 % of energy consumption and for 36 % of CO₂ emissions in the EU (see EPBD, DIRECTIVE 2010/31/EU). Building with wood could be one option for dealing with the current and up-coming challenges (e.g. scarcity of fossil fuels, changes in housing). Wood and other biogenic materials are regionally available and lightweight as well as easy to re-use materials. In addition, they have less effects on societal, natural and cultural heritage by connecting people with nature through the built environment. However, there is a lack of this knowledge of the good wood properties and the possible processes and applications of timber constructions (e.g. constructional expansion) in many regions in the Danube area. Based on these results, the FORESDA partners established a collaborative network in this area and supported it by different activities (e.g. trainings).

3.1.2 DEVELOPMENT OF THE TRAINING TOPICS

The collaborative network (CN) is led by the Department of Forest Products Technology and Timber Constructions at Salzburg University of Applied Sciences. Partners of the "Building with Wood" network are at least twenty-nine SMEs, technology parks and cluster organisations from Austria, Bosnia Herzegovina, Hungary, Slovenia and Austria. Furthermore, twelve partners of the FORESDA project (Research and Academia, Cluster organisations, regional economic development agencies and Business support units) support the CN and signed the CN agreement.

The collaborative network was developed according the current needs of SMEs and all other CN members (e.g. information about the advantage of building with wood) in the framework of FORESDA's work package (WP) 5. It is based on national and international strategies, which can

be read in detail in the deliverable D.5.2.3 Joint Innovation Agenda of the CN Building with wood. D.5.2.3 mentions five different trends in this topic, which have different potential for innovations. The training materials were developed based on this document (D.5.2.3):

Training 1: 1. Why building with wood?

2. LISI – The house: From the planning to the construction of the building

3. Service life of wood and wooden buildings

Training 2:

Cluster Services for SMEs

Training 3:

How to support SMEs in the Development of Innovations?

Training 4:

Innovation Management

Training 5:

Proposal Writing

The trainings present the current state of the art and include also an overview of possible new trends and innovative ideas in this area.

3.1.3 MONITORING

Through the transnational bilateral cooperation of partners (e.g., FORESDA members, SMEs and research institutes) good framework conditions for innovation are set. Innovations and best practice examples increase the positive image of timber constructions and promote the use of bio-based materials for building, which includes according to the Application Form (AF) of the FORESDA project, the support of developing a joint innovation roadmap with the potential for the emergence of new products, services and business models (cf. deliverable D.5.2.5).

Building with wood could be one option for dealing with the up-coming challenges (e.g. scarcity of fossil fuels, changes in housing). Wood and other biogenic materials are regionally available and lightweight as well as easy to re-use materials and have less effects on societal, natural and cultural heritage (connect people with nature through the build environment). However, there is a lack

of this knowledge of the good wood properties and the possible processes and applications of timber constructions (e.g. constructional expansion) in many regions in the Danube area. Based on these results, the FORESDA partners established a collaborative network (CN) in this area and supported it by different activities. The detailed results of the monitoring can be found in deliverable D.5.2.5.

3.1.4 CONCLUSIONS AND RECOMMENDATIONS

The collaboration at regional level between SMEs and different organisation was very good within the CN. The FORESDA members worked also quite well together at international level. The implementation of international collaboration between SMEs and other organisation was difficult due to following reasons:

- the barriers for the participation to international workshops, trainings and webinars seemed too high for the involved SMEs
- It is impossible to start processes for the development of new products or processes without deeper trust between the CN partners.
- The participation of local small and medium enterprises at a webinar in a foreign language seemed to be difficult due to lacking language skills.
- The needed coverage of the CN partners (i.e. number of the CN members), which was defined in the AF, was too high: The inclusion of all partners was not possible in the training process. Even organising a webinar with all partners participating was not possible. However, the participators of the webinar were able to train and inform the other involved partners in each region as all training material was made available.

3.2 CN "CREATIVE HUBS"

The following subsections describe the training activities developed and implemented in the collaborative network "Creative Hubs". The trainings were dedicated to specific technological and/or methodological issues related to the joint innovation agenda of the respective CN. The following content provides an overview of the challenges related to the development of the training content and implementation as well as monitoring results.

3.2.1 NEEDS AND CHALLENGES

Roots of creative industries are in individual creativity, skills and talent, and have the potential for wealth and job creation through the generation and exploitation of intellectual property. Currently, creative industries are considered as an excellent way to develop business activity. Most often they are associated with advertising, architecture, art, and antique, craft, design, fashion, film and video industries, music, performing arts, publishing, software production, radio and television and video and computer games. Some estimations confirm that creative industry is an integral part of every product and service that comes to the market and to the buyer, with the presence in 99% of all products and services, and significant share of add-value in the final price. Yet, access to creative industries in the Danube region is not promising. Environment is not supportive, with deficiency of know-how and supporting services to start-up ventures. New technology which dictates trends on the market is not available to interested groups even on the commercial base. This makes the gap of underdeveloped regions larger and creates negative economic and social impact, resulting in economic migrations, low income, unemployment, etc.

Traditional sectors are still considered as the pillars of economy. Low labour costs and availability of natural raw materials are crucial competitiveness points. Companies are focused to get business contracts which will bring them status of reliable supplier. This kind of business environment does not provide opportunities for added value creation. The need for innovative approaches and for the introduction of new business models are underestimated and the supporting infrastructure is missing. In the same time, the Danube region is getting increasingly aware of the booming of creative sector, which is basically an overspill of the global trends. Latest data on creative industries are confirming the figure of up to 12 million jobs in EU, depending from the exact definition used. Growth of creative industries exceeds the growth in traditional industries and the number of business registered makes 8% of the economy. Consequently, the growth and intensity in creative industries becomes increasingly visible. However, its size and current potential needs to be revealed and treated accordingly with supportive policies, measures, infrastructure and instruments.

3.2.2 DEVELOPMENT OF THE TRAINING TOPICS

Collaborative Network Creative HUBs is established within FORESDA. Core membership is made of dedicated FORESDA project partners, which are engaged on targeted development issues on a long term basis. Within the framework of FORESDA, basic understanding of targeted subject is reached, with pin pointed project partners and network members with relevant capacities and in-

terest to pursue identified challenges in the next period of 5 years. CN Creative HUBs involves 28 subjects, including: business supporting organizations (9 members), knowledge (R&D) partners (6 members) and SMEs (13 members).

FORESDA project partners are the backbone of the network, configuring main actions in the initial period, including capacity building as well as upgrade of know-how and understanding of the cross-sectoral potential and market trends. In the Joint Innovation Agenda of CN Creative HUBs, specific influence on the market of forest-based industries has been identified, including: application of IT tools and new technology devices; increase of significance of creative industries; digitalization of production processes; cross-sectoral aspect of forest-based industries and co-working/free-lancing.

Considering the limited resources and scope, following training topics were selected to be realized in the form of webinar sessions:

Training 1: Proposal writing

Training 2: Innovation Management

Training 3: Create and Grow!

In addition, this CN joined the webinars “Cluster services for SMEs” and “How to support SMEs in the Development of Innovations?”.

3.2.3 MONITORING

Three webinar sessions on the level of Collaborative Network Creative HUBs were organized within the framework of FORESDA:

- “Proposal writing” on March, 5th 2019, organized by CyberForum, with the learning objective to provide participants with an in-depth understanding of the theoretical and practical dynamics of the proposal writing process and by doing so to maximize the chances of success in competing for funding. General estimation of the CN is that the topic of collaboration between the Creative/IT and traditional industries will emerge in context of future funding for development and competitiveness. The training provided general insights required by the applicant before (and during) the proposal preparation phase and followed the approach of Goal Oriented Project Planning.
- “Innovation Management” on April, 16th 2019, organized by CyberForum, focused on innovation management in clusters, which is considered to be highly relevant as innovative

firms have their base in dynamic clusters. The central thesis is that clusters offer the soil where ideas are turned into successful commercial services and products. Innovation is central for all organisations, but not to be understood as a linear process mastered by a few, but as a discipline practiced by many. The training tackled the following topics in particular:

- Clusters and innovation: why?
- Innovation Intelligence, collective Intelligence, cluster intelligence
- Recommendations of how to approach innovation management

An important part of the training were the hands-on recommendations for how to overcome typical gaps (research gaps, educational gaps, capital gaps, firm-to-firm gaps, government gaps, cluster to cluster gaps, global market gaps) and how to conduct a competence analysis, environment analysis as well as road mapping processes.

- “Create and Grow” on May, 23rd 2019, organized by the Bulgarian Furniture Cluster, with the thematic focus on creative hubs and how to foster cross-sectoral innovations and collaborations by setting up activities enabling a strong interface between traditional FBI sector with creative industries. Another topic that the training addressed was the integration of wood and creative industries into competitive innovative new value chains and developing business solutions and regional createch culture. The need of bringing together multiple stakeholders, including public policy and administration, businesses, research and education, intermediary organisations and end users, contributing jointly to the development of new products, processes and services, regarding creative industries was discussed among the participants in the training.

3.2.4 CONCLUSIONS AND RECOMMENDATIONS

Organization of training sessions/webinars has revealed the importance and gaps in the current level of understanding of the potential of creative industries in context of competitiveness of Forest-based industries and other traditional industrial sectors. Within the Joint Innovation Agenda, specific training topics have been identified as a subject of training sessions, which would be organized in the near future on the level of CN Creative HUBs and beyond. They will address:

- Application of IT tools and new technology devices and the potential for innovation in Introduction of 3D, VR and AR development processes in product design and marketing and expansion of the group of users in product design features.

- Increase of significance of creative industries with the potential for innovation in establishing of functional connections and supporting joint ventures of creative and traditional industries.
- Digitalization of production processes with the potential for innovation in increase of productivity and development of “SMART” solutions.
- Cross-sectoral aspect of forest-based industries, with the potential for innovation in development of new products with new features and innovative characteristics.
- Co-working/Free-lancing, with the potential for innovation in facilitation of interactions in development of new business models.

3.3 CN "SOCIALLY RESPONSIBLE USE OF FORESTS"

The following subsections describe the training activities developed and implemented in the collaborative network "Socially Responsible Use of Forests". The trainings were dedicated to specific technological and/or methodological issues related to the joint innovation agenda of the respective CN. The following content provides an overview of the challenges related to the development of the training content and implementation as well as monitoring results.

3.3.1 NEEDS AND CHALLENGES

Forests provide a wide range of economic and social benefits to the society. These include contributions to the economy through the processing and trade of forest/wood products and energy. The contributions such as hosting and protection of landscapes of high cultural, spiritual or recreational value, and maintaining and enhancing these functions is an integral part of sustainable forest management. Socially responsible use of forests should encompass both benefits, economic and social, representing the ultimate concept to ensure that wood is used to foster a better state of the world's forests and societies. The trainings and innovation support activities offered to the CN members focused on topics related to raising awareness on this concept in order to initiate projects and initiatives for ensuring a socially responsible use of forests.

3.3.2 DEVELOPMENT OF THE TRAINING TOPICS

The aim of the training action was to strengthen the innovation capacity of the involved stakeholders, with the accent on SMEs. Its purpose was to contribute to the fostering of cross-sectoral, transnational innovation in the project countries and beyond. The training topics were developed according to the needs of the CN and capacities of the FORESDA PPs and their relevant stakeholders and partners:

Topic / Training	Reasons (Gaps)	Objective
Cluster services for SMEs	Lack of knowledge/information about functioning of the cluster	To offer information how clusters function in order to better understand the Joint Innovation Agenda (D.5.2.3) and methods and activities of CNs
Innovation Management	Lack of knowledge/information on innovation management in clusters which is not to be understood as a linear process but as a discipline practiced by many	To educate CN members on how to overcome typical gaps (research gaps, educational gaps, capital gaps, firm-to-firm gaps, government gaps, cluster to cluster gaps, global market gaps) and how to conduct a competence analysis, environment analysis as well as road mapping processes in order to be able to contribute to the CN as an active member
Proposal writing	Lack of knowledge/information and experience on how to develop a successful project proposal	To raise awareness on the competencies and focus needed to develop a successful project proposal
Building with wood	Lack of knowledge/information on the benefits of building with wood and its impact on the sustainable wood management	To raise awareness on the opportunities for socially responsible use of forests and to encourage development of the project ideas within CN in terms of related topics, with an accent on the products developed for physically disabled and elderly people

3.3.3 MONITORING

The monitoring process is implemented in three categories: (1) Intensity of collaboration, (2) New potential products, processes and services, and (3) Durability of CN beyond the project. The rating (1-5) refers to the overall success achieved in each of the category, and the total result reflects the sum of the rates of each category showing the overall success achieved by establishment and implementation of the activities within the respective CN. The monitoring and evaluation report (D.5.2.5) also includes information about the lessons learned during the implementation process, and gives recommendations on how to improve some of the processes and activities in case the similar CN would be established again. Accordingly, given the fact that CN is established to be active also beyond the project, it would be recommendable to continue with the trainings and innovation support activities and to include them in the monitoring report.

3.3.4 CONCLUSIONS AND RECOMMENDATIONS

The development of socially responsible forest management, besides achieving direct benefits for vulnerable groups, also directly affects the economy as it seeks the development of new and innovative products and services. However, the involvement of SMEs in the first period showed several challenges since they are mostly focused on the direct benefits related to their daily business and incomes generated by the company sales. This fact also affects their interest for the trainings and/or innovation support activities offered by FORESDA consortium. In addition, the trainings were offered as one-time webinars which affects the opportunity to develop an interactive discussion. Accordingly, the following recommendations are proposed:

- 1) To develop trainings and innovation support as a series of sessions;
- 2) To consider possibilities to offer the sessions online but also as physical events;
- 3) To conduct survey among members about their interest and needs in terms of the training and innovation support activities;
- 4) To offer different forms of the training and innovation support activities: lectures, workshops, innovation camps, B2B sessions, study tours etc.
- 5) To identify possible funding opportunities for the future training and innovation support activities;
- 6) To encourage CN members to actively involve in the training and innovation support activities in the roles of mentors since FORESDA consortium achieved good results with mutual mentoring activities among consortium members.

4. TRAINING AND INNOVATION SUPPORT TO INNOVATION PROJECTS

The training and innovation support to Innovation Projects is targeting at the second specific objective of FORESDA: To support cross-sectoral, transnational innovation through Collaborative Networks and Innovation Projects. These activities address the challenge of rather low innovation capacity and competitiveness of SMEs and contribute to internationalisation, technology transfer and qualification of the workforce. They are aiming at enhancing existing and fostering new products, processes, business concepts while showcasing the possibilities of wood and fibre in tomorrow's society.

Innovation projects (IPs) in the context of FORESDA are collaborations of SMEs, R&D organisations and intermediary organisations which received support of different kinds from FORESDA such as trainings, technical support or access to external expertise and facilities. IPs were bringing together cross-sectoral consortia of SMEs, large companies and research organisations in order to develop new products, processes or services. It was planned to implement in total 30 cross-sectoral IPs, each involving at least two SMEs and one research and development institution. During the runtime of the FORESDA project, 33 cross-sectoral IPs were launched (10% more than planned!).

As support measures different trainings (e.g. innovation management), provision of expertise, supporting of partner search, internationalisation and access to finance, but also access to testing facilities were offered. In total, 33 trainings were arranged to support the implementation of IPs, all of them with specific, IP-related contents, mirroring the needs identified in the IPs.

The provided training and innovation support to IPs contributes as follows to the objectives of FORESDA:

1. The implemented trainings and support measures support the transformation of traditional forest-based areas into innovative, modern and sustainable manufacturing areas by providing insights into current research topics and funding schemes; they thus foster the development of innovation-friendly ecosystems.
2. The chosen approach of cross-sectoral, transnational cooperation strengthens collaboration in the quadruple helix and enables implementing new ways of collaboration in the Danube area.
3. The provided trainings have been able to enhance innovation activities and specifically improve the innovation culture in SMEs unfolding the potential of forest based value chains, which was also proven by D.5.3.2.

4.1 PROJECT COUNTRY: GERMANY (LP)

The following sections describe activities related to the trainings and innovation support to the innovation projects within the project country Germany.

4.1.1 OVERVIEW

Topics of the Training/ Innovation Support	Type (Training and/or Innovation Support)	Objectives	Expected Results
How to conduct a SWOT-Analysis	Training	A SWOT Analysis is a study undertaken by an organization to identify its internal strengths and weaknesses, as well as its external opportunities and threats. Especially in the beginning of a new business, such self-assessment is important to take the right steps. The SWOT Analysis lays the ground for any further measures that have to be taken to be prosperous and secure in the long run. Therefore, it is an important tool to be used by any young company and training companies in this regard aims at helping them to sharpen their profile and understanding of themselves.	Due to the training material, SoftwareCantina can use the tool to systematise their understanding of their own internal and external strengths, weaknesses, opportunities and threats. By using the SWOT analysis over and over in their business, they can explore new opportunities and improve their decision-making process.
Introduction to the business model canvas	Training	The training aims at presenting the business model canvas developed by Osterwald. The Business Model Canvas is a strategic management and lean startup template for developing new or documenting existing business models. It is a visual chart with elements describing a firm's or product's value proposition, infrastructure, customers, and finances. Training companies about the business model canvas hence assists them in aligning their activities by illustrating potential trade-offs. The nine fields of the canvas are being discussed and presented in detail during the training. After that, the participants are able to fill out and use the canvas for their own	The training helps SMEs or start ups to apply the business model canvas for their business ideas and to further develop their ideas. It supports decision making processes and ensures that all team members are on the same page concerning the goals of the venture.



		innovation project idea.	
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4.1.2 RESULTS AND CONCLUSIONS

In line with FORESDA's main objective to support the transformation of traditional forest-based industries into sustainable manufacturing areas by an innovative cross-sectoral and transnational approach based on the real market needs of business sectors, the region of Baden-Württemberg benefits from FORESDA through the awareness raising of these topics. Baden-Württemberg is thanks to the richness of the forest and the proximity to the raw material a very important location for the forest-based industry. The wood processing industry in the Federal State of Baden-Württemberg is characterized by a highly staggered value chain and a medium-sized structure with a high proportion of small and mid-sized companies, predominantly in rural areas. The development in the sectors involving the processing and finishing of the raw material wood is important especially for the development of the rural areas. Accordingly, sensitising the whole ecosystem for the need to act transnational and cross-sectoral is important for the region and its competitiveness. By supporting the two IPs (IWOofurn and SoftwareCantina) which are building up their businesses cross-sectorally, CyberForum contributes to the expansion of networks between various branches to boost the economic and innovative power in Baden-Württemberg.

4.2 PROJECT COUNTRY: SLOVENIA (ERDF PP3, PP4)

The following sections describe activities related to the trainings and innovation support to the innovation projects within the project country Slovenia.

4.2.1 OVERVIEW

Topics of the Training /Innovation Support	Type (Training and/or Innovation Support)	Objectives	Expected Results
How to start door production? Support in preparing	Training	The project idea is focused on the development and industrialization of fire resisting doors (the whole compo-	With the training we have summarized the evaluation criteria for a winning appli-

the implementation of the project - Feasibility study (Guardian IP)		sition – door leaf and door frame) made from natural, ecological or/and recycled materials, like cork, mineral based materials and others. The objective of the training was about how to start door production (feasibility study) and about the topic of applying for a new project.	cation. The SME has found the training successful. Through meeting company has met new ways of thinking to write international cross-sectorial project concept.
Brainstorming on Influence of colours, lights and shapes to human (IQ HOME IP)	Training	Objective of the training was to learn how to form an idea of a new innovative product and about brainstorming in way how to develop emotional furniture. First part was dedicated to learning about cause-effect methodology and make an exercise related to the project idea. Further one we discussed about human perception and role of our senses at setting up our perception of environment and consequently our mood. We touch also some aspects of the market research which could show us which values have different target groups of consumers and which are motivators for starting the buying process.	The training was important for the company, because they want to add in their assortment furniture with added value for end users. They were thinking in a way how can furniture influence user's mood. Through the training SMEs got a confirmation that this topic is very interesting and should be developing in the mature project idea preparing for realization and applying for public funds within cross-sectorial consortium..
Project idea presentation: Play with Wood	Training	There is a strong need for improvement of technical deficiencies and reliability in the planning phase regarding material selection and construction process of wooden playground and outdoor recreational equipment. Production of high quality and durable wood materials, knowledge-based selection of suitable wood material and construction systems, proper construction procedures, good design, correctly executed detailing and an adapted life-long maintenance regime will facilitate major increases in the longevity of the equipment. At the training idea was presented and potential calls for funding were discussed.	The training was organized for project partner Silvaprodukt. They have a long tradition in the development and manufacturing products for wood protection. At the training a project idea was presented. We discussed about potential wood material and protection materials that could be used. Through the training the company recognized an opportunity to test and present their product as also opportunity to establish contact with foreign institutions and companies.
OUTWOOD -	Training	Softwood has been scarcely used to	Training was important to

Interreg V-A Italia Slovenia		operate in direct contact with estuarine or seawater due to its low resistance. Therefore, it would be useful to propose test several techniques to increase the durability of softwood in estuarine and sea water. The training was organized for partners on the project OUTWOOD who are involved in the testing of wood performance treated with novel procedure exposed in the sea water.	bring together all involved partners and present them. Emphasis was put on the presentation of the working process. The organization of workshops for stakeholders in Slovenia and Italia was discussed as also how to demonstrate performance of the developed materials to the stakeholders.
Future of wood and wood products lifetime (WOOLF)	Training	Main topics of the training was to present the idea of development project FLOOW as a follow-up project. There is a need to find alternative wood sources such as alien wood species, wood from plantations and discharged wood. Additionally, development of intelligent and multifunctional furniture is crucial.	All participants recognized importance of the project idea and its relevance for the priority area of the Smart buildings and homes, including wood chain and subarea Wood and wood chain. Through the training participants were discussing development of prototypes that would combine into a final wooden modular building.
Adding value to our wood - Mountain Wood	Training	Slovenian mountain wood is generally sold below the price because its quality properties are not evaluated and scientifically proven. Therefore, mountain farmers, forest owners and other stakeholders are losing competitiveness and potential incomes.	The training was organised in order to discuss state-of-the-art of innovative project ideas. Participants gained knowledge how to prepare a project proposal to apply for grants within the call "1. Public tender for sub measure 16.2: Support for pilot projects and the development of new products, practices, processes and technologies". Emphasis was put on explanation of the structure of the project, explanation of eligible costs and also discussion on pros and cons of the application.

4.2.2 RESULTS AND CONCLUSIONS

Trainings were conducted to support verification and development of project ideas. In addition, through trainings, we have provided companies with the skills to prepare successful project proposals for cross-sectoral projects. Both project ideas continued following the suggestions of the FORESDA partners and formulated proposals for (international) cross-sectoral development projects aimed at implementing knowledge in competing products.

4.3 PROJECT COUNTRY: AUSTRIA (ERDF PP5)

The following sections describe activities related to the trainings to the innovation projects within the project country Austria.

The training material and the training itself were included a special topic for the project preparation or for the innovative project development and implementation. For example, the project members were trained in various areas (e.g. research funding, development of new materials and products, and implementation of projects). These training contents was based on different case studies of innovative research topics, development of new products and possible support for implementation of innovations from laboratory to industry.

4.3.1 OVERVIEW

Topics of the Training/ Innovation Support	Type (Training and/or Innovation Support)	Objectives	Expected Results
Research funding	Training	The involved SME has an innovative idea for the usability of its residue material. However, no organisation was able to fulfil the requirements of this complex topic about the taste of persons and the flavour of different wood species and/or has interest to support this new idea. The main issue at first was to find an appropriate research funding programme for this special topic that the company was supported in a proper way.	This innovation project idea could be supported in the framework of the FORESDA project. The innovation character is very high and it is a new topic in the FBI (forest-based industry). However, the requirements of the involved SME are very high, therefore, the implementation of this project is difficult and can be only transferred from the idea to

			research based results if an appropriate research funding programme is found which overtakes the research costs. Finally, this project idea was submitted to the Austrian Research Promotion Agency and was approved by this organisation for funding.
Research funding	Training	By limiting the available resources of the project partners, the project could only be carried out to a significantly reduced extent in the case of self-financing or would have to be rejected for time reasons. Both options are extremely unfavourable, because the area of virtual reality with a realistic representation of wooden surfaces is also a promising research approach internationally and interesting for further research groups or companies. Therefore, research funding is very important for this topic and to meet the requirement of the SMEs and research institutes.	The research proposal and work programme have to be developed within the collaborations between research institutes, SMEs and other organisations. Therefore, this project idea was submitted to the Austrian Research Promotion Agency.
Wood modification and research funding	Training	The main objective of this project was to analyse the project idea of implementation and find the right research funding programme. Funding for different innovation ideas and projects are very important for SMEs. For this project idea for possible national funding programmes were screened.	The implementation of this project is difficult and can be only transferred from the idea to research based results if an appropriate research funding programme is found which overtakes the research costs. Finally, this project idea was submitted to the Austrian Research Promotion Agency and was approved by this organisation for funding.
Research proposal Dämmwolle	Training	The main idea of SME was that wood extractives can be used for the improvements of thermal insulation materials.	This project idea was submitted to the Austrian Research Promotion Agency and was approved by this organisation for funding.
Form the idea to a product: Case study – Salzburg University of Applied Sciences	Training	The main objective of this project is the promotion of the circular and bio-economy approach in the Alpine space.	This innovative project idea was a transnational approach for a general research topic with a high influence in different countries (e.g., Alpine region). The EUSALP Action groups encouraged to implement the idea in a research based study. The research

			proposal and work programme have to developed within the timber value chain by different cross-sectoral actors in various countries. The proposal was submitted to the first call of the Alpine Region Preparatory Action Fund (ARPAF).
Brandverhalten vs. Feuerwiderstand	Training	The aim of this project was to analyse the fire behaviour of different materials and in different application.	The training session was held to show the differences between various fire tests for considering the suitable test methods.
Project proposal CLT	Training	The functional integration of wood in the activation of building components is technically and economically still rare. The functions of heating, insulation and sound insulation in one element is a new idea and can also be integrated into buildings at a later date, and the façade system is therefore also suitable for building renovations.	The innovation character is very high and it is a new topic in the FBI (forest-based industry). This project has one main objective to use wood as innovative façade system for heating and cooling. The FORESDA partner was forced to implement the idea in a research based study. Therefore, this project idea was submitted to the innovation and research programme Wiss 2025 at the government Salzburg.

4.3.2 RESULTS AND CONCLUSIONS

Based on the innovative project ideas the training materials were developed according the needs of the involved actors (e.g. SME or research institute or business support unit).

The training material and the training itself were included a special topic for the project preparation or for the project development and implementation. For example, the project members were trained in various areas (e.g. research funding, development of new materials and products, and implementation of projects). After the training session there was a discussion about the presentations to develop the further steps for the implementation of the innovative project ideas.

The involved SMEs were located in Austria or Germany and the other actors were from Germany, Italy and Slovenia.

For six of the seven projects, research funding for different innovation ideas and projects are very important for SMEs. However, SMEs (small and medium enterprises) have no or limited access to

information on research funding (see results WP 3 - FORESDA). Furthermore, it is difficult to plan, implement or carry out the necessary research and development work from an innovative idea to a prototype. Therefore, a training session on this research funding topic can help the SME for increasing the innovation capacity, it is a trust-building activity and foster the collaboration between SME and research institutes, which is necessary for successful project development and implementation.

4.4 PROJECT COUNTRY: HUNGARY (ERDF PP6)

The following sections describe activities related to the trainings and innovation support to the innovation projects within the project country Hungary. We did one training in the project period. First of all we had to focus on situation analysis, collect information. Our aim was to show possible ways for Hungarian SMEs in wood sector especially in the field of bio-composites. But we recognized very early, that they were not prepared for this, what's more we suffered from their unconcern. After these experiences we had to put higher emphasize to activate companies in wood segment. Parallel with these we looked for good training materials or examples from real life for them. Finally we found the way of reaching their attention, and we were able to make a training in an innovative company.

4.4.1 OVERVIEW

Topics of the Training/ Innovation Support	Type (Training and/or Innovation Support)	Objectives	Expected Results
Network and innovation cooperation between small and medium-sized entrepreneurs in the wood structure and furniture	Training	We focus on two main field. One is furniture and other is wood structures. In this training we represent innovative ways and best practices in wood construction. Participants visited a Hungarian company, called Németh-Fa Kft. László Németh CEO, shared his own experiences in cross-border cooperation, and common innovations. His company has business activities and market experiences in Austria and Hungary. It has office in Wien and Budapest. Members	How to start selling wood structure product in abroad. How can a company find a partner in a cross-border cooperation, or common innovation. Best practices were shown in the mentioned topics.

industry in the Austrian-Hungarian border region		of the training team can compare domestic and foreign practices in this day.	
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4.4.2 RESULTS AND CONCLUSIONS

We organized our training in a company, called Nemeth Fa Ltd. This company produces wood structures, preproduced wood houses, modular flats. It works together with other suppliers from different segments. These segments are IT, electronics, other subsegments of building industries. It has live collaboration with University and research institute in West-Hungary. This company is a good sample for Hungarian SMEs in FBI. It shared its own experiences and practices about daily operation as well as innovation and strategical decisions.

Participants listened some presentation about the mentioned themes, and they also gained practical experiences in the training day. Very important point was the factory visit, because all visitors were able to see interfaces of other sectors and research organizations in the production.

These concrete examples and experiences confirmed the need for innovation and cooperation. They were shown what new opportunities they could open up.

Challenges for us were activating SMEs, to convince them to participate. The challenges of the SMEs and the participants of the training were, finding the place of transnational, and cross-sectoral activities in their daily business, and in their production. They were not sure, that they had enough resources (human, financial, technological, etc.). Governmental side or Clusters have to generate programmes supporting this process, and to help answering these questions.

4.5 PROJECT COUNTRY: CROATIA (ERDF PP7)

The following sections describe activities related to the trainings and innovation support to the innovation projects within the project country Croatia.

4.5.1 OVERVIEW

Topics of the Training/ Innovation Support	Type (Training and/or Innovation Support)	Objectives	Expected Results
<ul style="list-style-type: none"> • EU innovation scoreboard • Roles of clusters and competence centres at regional and S3 level 	Training	To support the initiators of the project in the further development of the activities and projects of the Centre of Competencies (CEKOM Spin) given the fact that they have a business background and no experience with R&D activities in the framework of leading R&D organization	<ul style="list-style-type: none"> • Management of the Centre better prepared for the application process • Raised awareness on the need for continuous education of the management of the Centre in terms of transfer of knowledge as a key part of the improvement of the manufacturing process
<ul style="list-style-type: none"> • Branding and brand • Co-branding and regional development 	Training	To support the Croatian Forests Ltd. management in the intention to create added value for a valuable natural resource such as Slavonian Oak	<ul style="list-style-type: none"> • Improved knowledge about the branding process of the natural resource • Raised awareness on the numerous opportunities how to support SMEs in creating added value of their Slavonian Oak products • Raised awareness on the need to mobilize all key stakeholders in the value chain of forest-based industries, as well as how to gain support from the relevant institutions in order to develop a successful brand

4.5.2 RESULTS AND CONCLUSIONS

In the framework of the innovation support, CWC focused its activities on trainings, and bilateral meetings as less formal knowledge transfer process. Both IP projects were specific since CWC's role was to provide knowledge and relevant information needed for more successful development of the projects. The training activities of both projects had two-fold roles in terms of goals: (1) To transfer relevant knowledge and information regarding the respective projects, and (2) To raise

awareness about related project topics. The whole innovation support process resulted with the following conclusions:

- 1) There is a lack of facilities and opportunities for forest-based industries companies to gain additional and specific knowledge regarding possible directions of future development of the sector, especially on the regional level;
- 2) There is a lack of the awareness on the need for life-long learning activities among employers and employees within forest-based industries;
- 3) The innovation activity of FBI enterprises is below the level of the countries of the European Union.

Accordingly, CWC will invest efforts to support relevant national and regional stakeholders in the development of opportunities needed to provide specific knowledge for the forest-based industries, and continue to work on the awareness on the need for life-long learning in terms of innovation activity needed to ensure sustainable development of the forest-based industries in Croatia and beyond.

4.6 PROJECT COUNTRY: ROMANIA (ERDF PP8)

The following sections describe activities related to the trainings and innovation support to the innovation projects within the project country Romania.

The trainings were prepared and provided by PRO WOOD cluster manager, while the participants were mostly SMEs. The trainings were organized with cross-sectoral perspective, by involvement of stakeholders from different sectors, such as design, furniture producers, manufacturers, electronics, experts from IT.

The objective of the trainings in INNO WOOD was to share general and detail information among SMEs about importance of innovation, online marketing, cross-sectoral business collaboration, contributing to the increase of competitiveness and level of innovation among the members; strengthening of cooperation, creation of new, innovative products with high added-value and increasing the level of internationalization a training session for involved stakeholders.

Since the SMEs are characterized by traditional wood manufacturing approach, low added value products are produced, the training session was relevant.

In terms of UPS4Industry the training materials the importance of innovation was the main topic, which is also the most crucial ways to ensure competitiveness for an SME. Other topics such as

product design, market uptake, market analysis for new products and online marketing were also tackled. In the same time, the needs and expectations of targeted potential customers were also discussed. Finally, the financing mechanisms to support product innovation at SMEs had great interest, therefore this topic was also discussed among the stakeholders.

4.6.1 OVERVIEW

Topics of the Training/ Innovation Support	Type (Training and/or Innovation Support)	Objectives	Expected Results
Importance of innovation	Training	The innovation in SMEs is one of the most crucial ways to ensure competitiveness, while innovative solutions, products, services can offer possibility to growth for a new startup. These topics were disseminated and discussed during the training	Get new knowledge about the newest trends at final costumers, understand the importance of innovation at SMEs, develop collaborative approach among the SMEs
Online marketing	Training	Digital marketing is the most important tool for marketing of products or services. The topics such as introduction in digital marketing, following industry experts, role of influencers, blogs, advertisings, videos, pictures, and other tools, etc. were discussed.	Identification of target costumers, the most suitable channels to final costumers, understand of costumers' behaviour
Cross-sectoral business collaboration	Training	Domestic and international market, Cross-sectorial business opportunities Development of transnational business	New skills for cross-sectorial thinking Knowledge about the set-up of transnational business collaborations
Competitiveness of SMEs	Training	The main objective was creating of long term sustainable business model for strengthening competitiveness of wood processing sector by encouraging the activities in the field of research, development of technology, applying and commercialisation of innovation and encouraging of investments.	To be able to elaborate a long term business model, Identification of research and development project ideas, Understand the importance of innovation
New and innovative products	Training	The training was organized for SMEs with the main objective to elaborate a swot analysis of the FBI, dissemination of best-practices and innovations in East-European FBI. The core idea was to provide an actual	Understand new opportunities for innovation through the dissemination of best-practice, Identification of new business opportunities in FBI

		picture of the forestry and wood landscape in the East-Europe region. On the other hand, the importance of the SWOT analysis was to determine the regional wood mobilisation potential on the basis of the analysis' results and to select best practice and innovative measures that may encourage unlocking this potential.	
Internationalization	Training	The objective was to disseminate the supporting programs for internationalization of SMEs,	Identification of SMEs and application for internationalization

4.6.2 RESULTS AND CONCLUSIONS

During the trainings for PRO WOOD cluster members was elaborated a swot analysis of the FBI, dissemination of best-practices and innovations in East-European FBI. The SWOT analysis provided a very clear and actual picture about the forestry and wood landscape in FBI. Therefore, new potentials but also weaknesses were identified.

According to the feedbacks from participants the innovation is considered as key factor in ensuring sustainable economic growth, competitiveness and stability for SMEs.

In this perspective elaboration of new products is importance but also the implementation of new and innovative technologies in manufacturing processes is essential. The role of product design, the importance of internationalization and several other topics were disseminated. According to professionals in these areas, design is often the deciding factor in the success of a product, but very often this point is not considered by the manufacturer.

During the training the main challenge was discussed, namely how can a SME foster effective innovation. Innovation in product design or new innovative product can be done if a market need is clearly identified or the stakeholders within SMEs have capacity to develop their products/services opening a new market for the product. According to the SMEs from Romania this is difficult to be financially supported. The SMEs are facing with unpredictable legislations, market fluctuation, in this framework their size and resources are limited. They are unable to develop new technologies or to make vital changes in the existing ones. The aim of training was to identify the most important challenges of small and medium businesses in exploitation of innovation opportunities and to scan the actual financial support programs for innovation at SMEs.

As conclusion it was stated that in order to increase the market uptake of the newly developed product the needs and expectations of targeted costumers has to be well discovered, and according to outcomes the whole business and manufacturing activities have to be reshaped.

4.7 PROJECT COUNTRY: BULGARIA (ERDF PP9)

Bulgarian Furniture Cluster, with the support and experience from FORESDA, elaborated a new innovation project, aiming to elaborate the innovative strategy for the FBI sector in the region, as well as to bring together technology and creative industries, to offer networking with R&D entities, to provide mentoring programmes, to elaborate new innovative projects or innovative wooden based products etc.. Based on this project idea, a training was organized with cross-sectoral perspective, by involvement of stakeholders from different sectors, such as design, furniture production, manufacturing, electronics, IT. BFC also conducted a webinar among the FORESDA partners with specific thematic focus on creative hubs. The objective of the training and the webinar was to share general and detailed information among the stakeholders about the objectives of the IP and the importance of innovation, creative design thinking, cross-sectoral business collaboration, contributing to the increase of competitiveness and level of innovation among the members of the hub.

4.7.1 OVERVIEW

Topics of the Training/ Innovation Support	Type (Training and/or Innovation Support)	Objectives	Expected Results
Create and Grow	Webinar	Within the framework of FORESDA a collaborative network (CN) with thematic focus on creative hubs has been established. It aims at elaborating the innovative strategy for the FBI sector in the region, as well as to bring together technology and creative industries, to offer networking with R&D entities, to provide mentoring programmes, to elaborate new innovative projects or innovative wooden based products etc.. A CN training was organized by the Bulgarian Furniture Cluster with a transnational perspective, by	The topics of the training were connected to the objective of the IP, regarding fostering cross-sectoral innovations and collaborations by setting up activities enabling a strong interface between traditional FBI sector with creative industries. Another topic that the training addressed was the integration of wood and creative industries into competitive innovative new value chain and developing business solutions and regional createch culture.

		involvement of PPs from the FORESDA Project and CN members, such as design, furniture production, manufacturing, electronics, IT. The training was realized through a webinar with specific thematic focus on creative hubs. The webinar was conducted by BFC. The objective of the training was to share general and detailed information among the stakeholders about the importance of innovation, creative design thinking, cross-sectoral business collaboration, contributing to the increase of competitiveness and level of innovation among the members of the hub.	
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4.7.2 RESULTS AND CONCLUSIONS

The need of bringing together multiple stakeholders, including public policy and administration, businesses, research and education, intermediary organisations and end users, contributing jointly to the development of new products, processes and services, regarding creative industries was discussed among the participants in the training.

Nowadays, in the world of innovative ideas, the key skill is how to turn them into successful businesses. Therefore, another objective of the IP is fostering the activities, related to the establishment of strong collaborative network between the people from the creative industries and the traditional FBI sector.

It's of huge importance to establish these strong collaborative networks on transnational level in order to ensure the successful implementation and outcomes of the objectives of future projects.

4.8 PROJECT COUNTRY: SERBIA (IPA PP1)

The following sections describe activities related to the trainings and innovation support to the innovation projects within the project country Serbia.

4.8.1 OVERVIEW

Topics of the Training/ Innovation Support	Type (Training and/or Innovation Support)	Objectives	Expected Results
BORWood - Novel techniques for the chemical wood modification, Creating of IT database, Influence of wood modification agents on wood borers, Comparing of wood properties before and after modifications	Training	To apply a new modification method to improve wood quality and wood durability	<p>The main goal of this project is to obtain new knowledge about the influence of wood modification agents on wood-borers and the interaction between wood modification agents, wood and the marine environment. The new knowledge about the influence of wood modification agents on wood borers and interactions between wood modification agents, wood and the marine environment will be presented at scientific conferences. The result of this cooperation can be the basis for further development of innovative techniques in improving the quality of wood for use under specific conditions.</p> <p>The main expected results are:</p> <ol style="list-style-type: none"> 1. Better use of wood in specific conditions 2. Better cooperation between scientific institutions at the transnational level. 3. New IT-supported databases with new information about short and long term effects of modification agents on wood
Chabros - The main topics were: Conventional hardwood drying, Conventional softwood drying, Defects and problems in convention-	Training	The main objective of this project is to improve the quality of the wood after drying and to reduce the drying time as well as energy consumption during drying	The main objective of the project is to analyze and improve the quality of wood drying in primary wood processing. The company "Chabros Wood Industry" is engaged in the production and sales of wood timber for the foreign market. In order to obtain a higher quality final product, it is necessary to determine the quality of timber after the technological pro-

<p>al wood drying, The defining optimal drying regimes from the aspect of energy consumption, drying process duration and sawn wood quality</p>			<p>cess of wood drying. The research consists of defining optimal drying regimes from the aspect of energy consumption, drying process duration and sawn wood quality. A long time of the wood drying process (thickness of 25 and 50 mm) and poor quality of the dried wood were obtained during the analysis of the existing regimes of wood drying. The main expected results are:</p> <ol style="list-style-type: none"> 1. Reduced wood deformations after drying. 2. Faster drying process. 3. Better energy efficiency.
<p>MS&Wood - The main topics of the training were: determine of physical and mechanical properties of wood (better dimensional stability, better mechanical properties for furniture production and better quality of timber after wood drying).</p>	<p>Training</p>	<p>Improvement of wood quality in primary wood processing</p>	<p>The main objective of this project is to improve the quality of wood products in primary wood processing. The application of new industrial treatments to improve the quality of wood (such as thermal modifications) has been discussed. A special topic of the training was the determination of the quality of wooden floors. New standards for quality testing of parquet were presented and compare with the EU standards. Also, new methods for determining the hardness of wood (by Brinells method) in industrial conditions are explained. The main expected results are:</p> <ol style="list-style-type: none"> 1. Better dimensional stability of wood 2. Better mechanical properties for furniture and wood flooring production 3. Better quality of timber after wood drying
<p>LignoLink - Development of a European research and innovation network, Transformation and adaptation</p>	<p>Training</p>	<p>Transform the largely fossil-fuel-dependent European economy into a bio-based, circular economy.</p>	<p>The focus of LignoLink is on the initiation and development of European research and innovation projects in the field of wood-based bioeconomy. LignoLink brings together existing clusters as well as regional networks with high corporate participation and application-oriented research facilities in Central and Eastern Europe with actors from the Bioeconomy</p>

processes in the wood industry, New approaches in wood processing, Developing a network with partners from various sectors of the FBI.			Cluster of Central Germany. The main expected results are: 1. Better cross-sectoral cooperation 2. Better cooperation between R&D institutions and clusters and SEMs
Wood Net - New innovation projects in the field of wood science and technology	Training	The focus of WoodNet is on the initiation and development of European research and innovation projects in the field of wood science and technology	The main expected results are: 1. The development of common wood research strategies, 2. A facility catalogue and an interactive webpage of all wood research devices and methods of each partner to optimize and strengthen the common wood research potential, 3. A combination and exchange of the investigation potential to overcome gaps in the research equipment of single partners, 4. To initiate joint research activities

4.8.2 RESULTS AND CONCLUSIONS

BORWood: The main goal of this project is to obtain new knowledge about the influence of wood modification agents on wood-borers and the interaction between wood modification agents, wood and the marine environment. The result of this cooperation can be the basis for further development of innovative techniques in improving the quality of wood for use under specific conditions.

Chabros: The main objective of this project is to analyze and improve the quality of wood drying in primary wood processing. Research will be performed by UBFF and the obtained results will have application in all enterprises dealing with primary wood processing and drying of wood. As a platform to develop innovative ideas, definitely offers a great potential for the building of new industrial value chains.

LignoLink: The focus of LignoLink is on the initiation and development of European research and innovation projects in the field of wood-based bioeconomy. Fraunhofer IMW, together with UBFF

and other partners within the LignoLink network, will develop innovative ideas for participation in European projects. The network consists of clusters and R&D institutions from several countries in Europe.

MS&Wood: The main objective of this project is to analyze and improve the quality of wood and wood products in primary wood processing. The project is a platform for the development of new technological processes for improving wood quality, and for better cooperation between R&D institution and SMEs.

Wood Net – is a new innovation projects in the field of wood science and technology. The main objectives of this cooperation are: the development of common wood research strategies, a facility catalogue and an interactive webpage of all wood research devices and methods of each partner to optimize and strengthen the common wood research potential and a combination and exchange of the investigation potential to overcome gaps in the research equipment of single partners.

4.9 PROJECT COUNTRY: BOSNIA AND HERZEGOVINA (IPA PP2, PP3)

In Prijedor Region, Agency “PREDA-PD” was engaged on support to local cross-sectoral innovation project activities through the organization of thematic trainings. Purpose of the training sessions were promotion of the “proof-of-concept” regarding the potential for cooperation of Creative/IT sector and Forest-based industries, and technical capacity building in digital marketing activities of local companies.

4.9.1 OVERVIEW

Topics of the Training/ Innovation Support	Type (Training and/or Innovation Support)	Objectives	Expected Results
Innovative business model for design and development of products in wood working and creative industries	Training	To create favourable environment for development of Creative industries and cross-sectoral linkages with forest-based industries.	<ul style="list-style-type: none"> - Concentration of local and regional Creative and IT sector, - Facilitation of the process of development of new value chains, - Promotion of the best practices of the targeted concept.
Application of	Training	To create favourable environment for	- Presentation of Best practic-

digital marketing tools		development of Creative industries and cross-sectoral linkages with forest-based industries.	es and practical examples of social network campaigns for commercial purposes are presented, including necessary tools and skills, - Capacity building of local companies to work individually on development and management of digital marketing content and tools.
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4.9.2 RESULTS AND CONCLUSIONS

In the process of development of local economy, throughout the last 20 years, traditional businesses, including forest-based industries became most relevant income and employment generators. However, as a consequence of the booming of informatic society and creative industries, existing value chains, business models and traditional business processes are changing rapidly. There is a growing need for innovative approaches and introduction of new business models and practices in traditional sectors, including forest-based industries. Current potentials for local economy has to be revealed and treated accordingly with supportive policies, measures, infrastructure and instruments. This implies investment of significant efforts in capacity building of local actors.

In order to demonstrate opportunities for the development of new value chains, based on cross-sectoral cooperation, local actors need to be presented with the practices of new (innovative) business model based on cooperation of forestry and woodworking and „creative“ industries.

Following themes are considered as emerging in the context of future capacity building actions:

- Innovative business model – creative connection of design, marketing and production,
- Innovative business model – advantages and weaknesses of application in local environment (furniture industry, creative industries, IT sector),
- Innovativeness of the concept and networking potential,
- Methodology of the design process from the aspect of furniture industry and creative and IT sector,
- Valorisation of the design,
- Study cases – experiences of designers in development of original products.

4.10 SUMMARY

The only reported support measures for IPs were trainings, organised in the framework of FORESDA and implemented by FORESDA PPs, their stakeholders or external experts. Bulgaria and Hungary implemented only 1 training each. While Hungary focused on supporting network and innovation cooperation between small and medium-sized entrepreneurs in the Austrian-Hungarian border region, Bulgaria focused on supporting the establishment of creative hubs. Croatia, Germany and Bosnia and Herzegovina implemented all two trainings. While the trainings in Germany focused on methodological trainings (SWOT-analysis and business model canvas), the trainings in Croatia were providing insights into the role of clusters and the importance of branding on regional level. Also one of Bosnia and Herzegovina's training focused on a marketing topic, the other one on the development of business models. Serbia implemented in total five trainings, with topics ranging from techniques for wood processing (e.g. novel techniques for the chemical wood modification and conventional wood drying) to new innovation projects for boosting wood science and technology. Romania, Austria and Slovenia implemented six workshops each. While Slovenia presented best practices from research and innovation projects, the trainings in Austria focused mainly on research funding and correlating topics. Romania implemented trainings with core focus on innovation, marketing, internalisation and collaboration.

As the IPs and consequently also the trainings vary to a great extent, a clustering of topics seems to be unuseful. Nevertheless, two topics seem to be relevant for most of the countries: How to support innovation at SMEs (including financing)? How to learn from other projects (best practices)? But also topics like marketing / branding and the importance of clusters have been part of the trainings in several countries. The following table summarizes the trainings implemented in the FORESDA PP's countries:

Topic	Country
How to conduct a SWOT-Analysis	Germany
Introduction to the business model canvas	Germany
How to start door production? Support in preparing the implementation of the project - Feasibility study (Guardian IP)	Slovenia
Brainstorming on Influence of colours, lights and shapes to human (IQ HOME IP)	Slovenia
Project idea presentation: Play with Wood	Slovenia

OUTWOOD - Interreg V-A Italia Slovenia	Slovenia
Future of wood and wood products lifetime (WOOLF)	Slovenia
Adding value to our wood - Mountain Wood	Slovenia
Research funding (2x)	Austria
Wood modification and research funding	Austria
Research proposal Dämmwolle	Austria
Form the idea to a product: Case study – Salzburg University of Applied Sciences	Austria
Brandverhalten vs. Feuerwiderstand	Austria
Project proposal CLT	Austria
Network and innovation cooperation between small and medium-sized entrepreneurs in the wood structure and furniture industry in the Austrian-Hungarian border region	Hungary
EU innovation scoreboard Roles of clusters and competence centres at regional and S3 level	Croatia
Branding and brand Co-branding and regional development	Croatia
Importance of innovation	Romania
Online marketing	Romania
Cross-sectoral business collaboration	Romania
Competitiveness of SMEs	Romania
New and innovative products	Romania
Internationalization	Romania
Create and Grow / Creative hubs - how creativity meets technology?	Bulgaria
BORWood - Novel techniques for the chemical wood modification, Creating of IT database, Influence of wood modification agents on wood borers, Comparing of wood properties before and after modifications	Serbia
Chabros - The main topics were: Conventional hardwood drying, Conventional softwood drying, Defects and problems in conventional wood drying, The defining optimal drying regimes from the aspect of energy consumption, drying process duration and sawn wood quality	Serbia
MS&Wood - The main topics of the training were: determine of physical and mechanical properties of wood (better dimensional stability, better mechanical properties for furniture production and better quality of timber after wood drying).	Serbia
LignoLink - Development of a European research and innovation network, Transformation and adaptation processes in the wood industry, New approaches in wood processing, Developing a network with partners from various sectors of the FBI.	Serbia
Wood Net - New innovation projects in the field of wood science and technology	Serbia

Innovative business model for design and development of products in wood working and creative industries	Bosnia and Herzegovina
Application of digital marketing tools	Bosnia and Herzegovina

5. SUSTAINABILITY OF THE TRAININGS AND INNOVATION SUPPORT ACTIVITIES

5.1 SUSTAINABILITY OF THE TRAININGS AND INNOVATION SUPPORT ACTIVITIES TO COLLABORATIVE NETWORKS

CN	Sustainability of the Trainings and Innovation Support Activities
"Building with Wood"	Collaborative Network (CN), defined as international, cross-sectoral networks of SMEs, large enterprises and research organisations as well as clusters and business support organisations was set up to develop new products, processes and services in the topic Building with wood. The developed training materials in the framework of FORESDA supported the innovation and knowledge based capacities of the involved SMEs and other organisations in the field of Building with wood. Furthermore, the CN members know the different research and innovation topics of the CN and also the CN members. The trainings were used to build the trust basement of further collaborations. In the case of new challenges of CN members, they know the contact persons and can discuss the topic with them.
"Creative Hubs"	FORESDA Project partners agreed to provide follow-up activities with the purpose of further development of Collaboration network. In favor of this process is the cooperation experienced in the process of drafting of two project concepts submitted within the 3 rd Call for proposals of DTP. It is expected that the collaboration on future calls for proposals for various EU development schemes will be the backbone of the Collaborative network Creative HUBs. However, in order to expand the focus of cooperation, more detailed and closer communication need to be established. Communication channels have to be improved to strengthen connections within the Network. Drafting of the Communication strategy is one possible option for follow up, as planned by the Joint Innovation Agenda of CN.
"Socially Responsible Use of Forests"	As a CN FORDIS coordinator, CWC will continue to identify opportunities to offer further training and innovation support activities to the CN members according to the CWC capacities and future interest of the members. Accordingly CWC will invest efforts to ensure the sustainability of the training and innovation support activities through the future project development and application, and will continue to raise awareness among CN members on the opportunities to gain knowledge out of mutual mentoring and sharing information and knowledge via different channels on the transnational level by involving further CN members.

5.2 SUSTAINABILITY OF THE TRAININGS AND INNOVATION SUPPORT ACTIVITIES TO INNOVATION PROJECTS

Project Country/Region	Sustainability of the Trainings and Innovation Support Activities
Germany	<p>Within FORESDA a variety of activities were conducted in the German region to contribute to train and support the actors of the regional innovation system. As CyberForum is a Hightech Business Network established more than 20 years ago, it can look back to a rather long history of experience made with regard to innovation support, fostering of cooperation activities and building up a sustainable ecosystem. This knowledge has been forwarded directly and indirectly to the activities related to FORESDA. Particularly the contact to the start-ups supported within the framework of FORESDA will be kept alive as follow up projects have been established. Forest based industries and related sectors will also profit from the existing IT knowledge in our region to make the sector more competitive.</p>
Slovenia	<p>Trainings and innovation support implemented within FORESDA contribute to establishment of the trust between partners in the new consortiums and improved cooperation between SMEs, RDI and support organisations, which are two crucial factors in ensuring sustainability. The sustainability of the trainings is supported also with the establishment of the FINCOM group, which should support durable cross-sectoral collaboration between all important stakeholders. Within the trainings new ideas on innovative use of wood were discussed and new solutions for current obstacles were provided. That will lead to further development of the proposed ideas and intense collaboration of stakeholders beyond the FORESDA timeframe. The results of the trainings might be further elaborated and presented at workshops and conferences.</p>
Austria	<p>The training material and the training itself were included a special topic for the project preparation or for the project development and implementation. For example, the project members were trained in various areas (e.g. research funding, development of new materials and products, and implementation of projects). This training content was based on different case studies of innovative research topics, development of new products and possible support for implementation of innovations from laboratory to industry, which were interested for the involved SMEs.</p> <p>The trainings were used to build the trust basement of further collaborations. Through the development and implementation of innovative projects the FORESDA partner worked together with the SMEs. These best practise examples can be used to promote this FORESDA approach and addresses through knowledge transfer activities new SMEs.</p>

Hungary	FINCOM members are involved different EU projects now, and in the future. They can share these experiences and use them in further project.
Croatia	The sustainability of the training and innovation support activities to innovation projects provided by CWC depends on the future development and financial resources of both projects. In case the projects will be implemented, CWC is ready to support them with further training and innovation support activities which will also include other tools and methods such as organization of workshops, study tours, innovation camps, and other activities which will contribute to the project implementation but also to the raising of awareness about need on the life-long learning opportunities on the national and transnational level. Accordingly, being a CN FORDIS coordinator, CWC will continue to identify opportunities to offer further training and innovation support activities to the CN members according to the CWC capacities and future interest of the members.
Romania	<p>The sustainability of the trainings and innovation support is provided by PRO WOOD Cluster management board. The cross-sectorial perspective in regional FBI is not well embedded way of thinking. However, according to the international experiences this approach is essential for long-term and sustainable development of regional SEMs.</p> <p>In this perspective, PRO WOOD cluster elaborated in 2019 a five years implementation strategy for permanent trainings for managers and business owners at different SMEs. By the support of INNO WOOD project these trainings will be continue while PRO WOOD Cluster applied and won new projects for human resource development on national level. These projects are going to be implemented in the upcoming years. Innovation among SMEs is also crucial; one of the most representative project ideas is the UPS4Industry project, catalysed by PRO WOOD Cluster.</p> <p>On the trainings stakeholders from different business sectors are involved: architects, product designers, inside designers, marketing experts, wood manufacturers, furniture producers, electrical engineers, experts on internationalization, but also IT, etc.</p> <p>By implementation of trainings the following objectives and activities going to be achieved: share general and detail information among SMEs about importance of innovation in SMEs, elaboration of innovative products, online marketing, increase of competitiveness and level of innovation among the members; strengthening of business cooperation, and increasing the level of internationalization of SMEs from FBI.</p>
Bulgaria	The sustainability of the trainings and innovation support activities to innovation project is ensured within the framework of the FINCOM Group in D.6.2.1 Memorandum of Understanding for the region of Bulgaria. FINCOM is group of stakeholders, representing policy actors, research institutions, intermediary entities (ex: clusters, associations, tech parks...) and

	<p>companies that represent the interests of the forest-based sector in respective country/region and which shall ensure the implementation of a durable cross-sectoral and collaborative process on regional and transnational level.</p> <p>The major potential risk, related to the IP "Createch hub", is the possible incompatibility between the traditional and creative industries. And to the failure to achieve an environment of cross-sectoral cooperation, regarding innovation and competitiveness of the SMEs. In order to avoid these risks, the working group has discussed the necessary solutions to the eventual problems. These solutions are connected to the strict implementation of the project working plan that was elaborated and signed through project agreement and the strong involvement of the stakeholders.</p>
Serbia	<p>According to ideas of the projects, the trainings and innovation support will contribute to:</p> <ul style="list-style-type: none"> - Better cooperation between R&D institutions and between universities and - Better use of wood in the primary wood processing and marine conditions. <p>The results in these trainings should contribute to involving the companies that have a problem with wood quality in the future projects. Also, innovation support in the frame of the projects LignoLink and Wood Net will contribute developing of new ideas for the future projects. On the other side, better cooperation between R&D institutions, clusters and SEMs are expected. Necessary the following activities to provide sustainability of trainings:</p> <ul style="list-style-type: none"> - A sound marketing about the trainings, - Participation at workshops, the science and professional conferences in the aim to inform companies and R&D institutions about the results of trainings.
Bosnia and Herzegovina	<p>Main element of the sustainability of capacity building actions undertaken within FORESDA, in case of Prijedor Region, is newly created Co-working HUB Prijedor, with set of developed services available in context of cross-sectoral cooperation between the Creative and IT sector and Forest-based industries. Facilitation of interactions between Forest-based industries and IT/Creative sector will prevail as an introduction in the development of new business models. Co-working HUB Prijedor dispose with approximately 160 m² of co-working space, equipped with basic office furniture and relevant utilities (electricity, Wi-Fi internet connections, air conditioning, security system, 10 PCs, LCD monitors and projectors, 3D printing device, audio/video devices, etc.). In physical terms, Co-working HUB capacity is 15 persons max.</p>



	<p>Agency PREDA has appointed one person responsible for co-working HUB space, with the role of IT manager and support (expert is coordination of IT and Creative industry projects and activities). However, with the prior request of the co-worker, additional staff of PREDA might be appointed to support co-workers in line with their request.</p>
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6. CONTRIBUTION OF THE TRAINING AND INNOVATION SUPPORT TO THE INSTITUTIONAL AND INFRASTRUCTURAL REGIONAL FRAMEWORK CONDITIONS FOR RESEARCH AND INNOVATION

Project Country/Region	Current State of the Training and Innovation Support of the Region	Contribution	Expected Impact
Germany	The German FORESDA PPs are in close contact with SMEs and start-ups as well as knowledge organisations and intermediary organisations in their daily business. For instance, CyberForum offers a mentoring program that is open to start-ups. With its strong regional ecosystem, matchmaking activities to foster cooperation are constantly implemented.	The trainings conducted for the IPs were focused on the particular needs of the innovation projects, but due to their transferability and replicability they can be used in every other context as well. Both trainings, Business Model Canvas and SWOT Analysis can be used in every context independent of the sector or maturity of an SME.	Using the trainings for other occasions helps SMEs to sharpen their profile and raise awareness for their own situation as well as the need to potentially get involved into cross-sectoral cooperation activities and contributes to the qualification of the workforce.
Slovenia	Within FORESDA, webinar “Building with wood “ was carried out to present important points of Service life of wood and wooden buildings. Project video on innovative usage of wood and working perspectives in this sector was projected to the students of wood science and technology. Slovenian partners prepared	By creating multidisciplinary, cross-sectoral and also international consortiums experts with specific specialized knowledge were brought together to discuss innovative ideas in forest-based sector. Proposed innovative project ideas contribute to the objectives of national action plan “Les je lep” and SRIP “Smart buildings and	Development of innovative thinking state of mind. Awareness raising on the importance of wood as a material with high potential of innovativeness. Support to using local, renewable and sustainable material in innovative way. To bring together creative, innovative, openminded experts from multiple sectors. Promotion of the FBI sector.

	and implemented 6 trainings to support innovative use of wood in the region.	home with wood chain”.	Established / improved collaboration between SMEs, RDI, support organisations and other stakeholders.
Austria	The Department of Forest Products Technology at Salzburg University of Applied Sciences educates the students. The trainings of SMEs and other organisations are not the main focus.	Within the knowledge transfer for the development and implementation of innovative project in the framework of FORESDA (WP 4 and 5) more as 20 SMEs and 20 research institutes, business support and cluster organisations were involved in the different trainings activities.	A training session on the research funding topic can help the SME for increasing the innovation capacity; it is a trust-building activity and fosters the collaboration between SME and research institutes, which is necessary for successful project development and implementation. Seven various project ideas were developed and implemented after the trainings sessions. Six projects were submitted to different research funding agencies to support these projects beyond FORESDA. In six innovative projects were involved at least one SME and fulfilled the quality requirements of the FORESDA project.
Hungary	We made only one training because our focus was quite different. This training was successful and useful for participants. Some FINCOM members were also there.	Our contribution for better regional conditions is to generate better connection between research institutes and SMEs, and between governmental side and SMEs.	Better Cluster activity, better governmental programmes for wood sector, higher popularity of wood segment between employees and students.
Croatia	There is a need to improve the institutional and infrastructural regional frame-	Raised awareness on the need to: 1) Improve and further develop RIS;	Provided training and innovation activities supported 3 strategic projects which are important

	<p>work conditions for R&D activities. As a small country, Croatia is faced with the challenge of decentralizing the system on all levels. RISs are underdeveloped or not existing, as well as possible training and innovation support facilities and opportunities.</p>	<p>2) Offer continuous innovation support to FBI companies; 3) Develop opportunities and facilities which will support life-long learning</p>	<p>on the regional level: 1) Although CN FORDIS has primarily transnational character, CWC expects that this collaboration will also trigger intensified innovation activities and collaboration among Croatian stakeholders; 2) By developing the Slavonian Oak brand, a basis will be developed to support further innovation activities on the regional level since FBI companies are located in the rural areas; 3) The Centre of Competences SPIN should be located in Požega and could therefore act as a platform to support further training and innovation support activities on the regional level.</p>
Romania	<p>Regarding to the current state of the training and innovation support for SMEs in Romanian FBI is only provided by PRO WOOD Cluster. Therefore these activities are considered unique and a need in Romania. By the trainings involvement of cross-sectorial stakeholders is realized. PRO WOOD Cluster provides them to get in</p>	<p>The Training and Innovation support contribute in development of regional framework for research and innovation by:</p> <ul style="list-style-type: none"> - Increase the cross-sectorial collaboration by inviting for regular meeting the most relevant stakeholders from different business sectors - Involvement of public institutions - Active involvement 	<p>By the trainings and innovation support to FBI the following expected impact can be achieved:</p> <ul style="list-style-type: none"> - At least 5 new innovative project proposals in next 2 years - At least 2 new, innovative products on cross-sectorial basis in next 2 years - Investments in innovation at SMEs - Increase the level of internationalization at SMEs - Visit international fairs

	<p>institutional collaboration each other. Different authorities such as the state-owned forest company, regional development agencies and universities from the region are also involved, therefore the training and innovation support from PRO WOOD Cluster provides a platform where the development of regional framework conditions for research and innovation can be taken place, e.g. UPS4Industry innovation project has been developed by involvement of R&D entities, SMEs and PRO WOOD Cluster.</p>	<p>of SMEs with potentials in innovation</p> <ul style="list-style-type: none"> - Working group meeting for innovation - Involvement of university and R&D institutes 	<p>by SMEs and Start-ups in FBI</p> <ul style="list-style-type: none"> - Collaboration among SMEs, Start-ups from FBI and R&D institutes - Develop at least 2 new research and innovation projects in FBI
Bulgaria	<p>BFC conducted a webinar entitled "Create and Grow" among the FORESDA partners and other stakeholders with specific thematic focus on creative hubs. The objective of the webinar was to share general and detailed information among the stakeholders about the objectives of the IP and the importance of innovation, creative design</p>	<p>The project aim is to involve and collaborate with R&D organisations and universities, in order to establish a strong collaborative network and to ensure the educational aspects of the events, organized in the hub.</p> <p>The need of bringing together multiple stakeholders, including public policy and administration, businesses, research and education, intermediary</p>	<p>The aim is to establish a cross-sectoral collaborative network between the stakeholders, so to raise awareness of the project objectives and to strengthen their contribution.</p> <p>The IP project target group are the advanced, smart and talented people from the FBI and creative industry, who can be challenged, motivated, supported, mentored, educated and inspired in the hub. This is only pos-</p>

	thinking, cross-sectoral business collaboration, contributing to the increase of competitiveness and level of innovation among the members of the hub.	organisations and end users, contributing jointly to the development of new products, processes and services, regarding creative industries was discussed among the participants in the training.	sible through strong collaboration with R&D and other governmental institutions. Our aim is to gather creative people with innovative ideas and professionals from the FBI sector to work together and to share experience.
Serbia	Within the duration of the FORESDA project, initial trainings were held within the framework of innovation projects. We plan to further promote training results and to involve more companies and R&D institutions in future training and projects.	One of the ideas for projects is cooperation between companies, clusters and R&D institutions. It is necessary to include other stakeholders, as participants, (ministries, public enterprises, local government, etc.) in the following trainings. On this way, the results of projects and trainings can contribute to improvement regional framework conditions for research and innovation.	The main expected results of the research in the case of regional framework conditions for research and innovation are: <ul style="list-style-type: none"> - Developing a strategy for research and innovation at the regional level - Better promotion of the FBI sector, - Greater involvement of wood as a material and its better quality in the primary wood processing, - Better cooperation of companies and R&D institutions - Better cooperation between R&D institutions at the international level
Bosnia and Herzegovina	Forestry and wood industries have a special and strategic importance for the Prijedor Region. Gaps are present in terms innovation capacities of local actors. Relationships between local designers and R&D still need to be devel-	Efforts invested in development of supportive innovation environment are in line with relevant strategic documents on national (Bosnia and Herzegovina/Republika Srpska) and local level (City of Prijedor). On the national level (Strategy of development of SMEs in Re-	On the regional level (Republika Srpska): <ul style="list-style-type: none"> o Strengthening of competitiveness of SMEs (in the section dedicated to support to innovation development) o Objective 2. Creation of favorable business environment for SMEs (in section dedicated to the development of entrepreneurship infrastructure)

	<p>oped. Most of the companies do not have a department for R&D.</p>	<p>publika Srpska 2016 – 2020), activities made contribution to the achievement of main objectives.</p> <p>On the local level (Development Strategy of City of Prijedor 2014 – 2024), activities made contribution to the achievement of main objectives.</p>	<ul style="list-style-type: none"> ○ Objective 3. Stimulation of development and promotion of entrepreneurship and entrepreneurial skills (in sections dedicated to the development and promotion of entrepreneurship). <p>On the local level (City of Prijedor):</p> <ul style="list-style-type: none"> ○ Objective 1. Competitive local economy, which is using all available resources of the City and relevant surroundings, within the dedicated measure – 1.4.5.4. Support to development of wood processing industries.
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7. CONTRIBUTION TO THE PROGRAMME PRIORITY "INNOVATIVE AND SOCIALLY RESPONSIBLE DANUBE REGION"

In order to contribute to the implementation of the flagship initiative “Innovation Union of the Europe 2020 Strategy” in the Danube Region countries, the programme gives high importance to the social dimension in innovation (social innovation, educational aspects, and entrepreneurship skills)

The Specific Objectives covered by Priority 1 are:

- Improve framework conditions for innovation
- Increase competences for business and social innovation

FORESDA contributes to these objectives by:

1. Having developed and supported cross-sectoral collaborative networks and innovation projects as idea generation engines
2. Having implemented cross-sectoral pilot innovation environments as physical and virtual collaboration spaces and by
3. Having built up necessary supportive capacities in clusters, intermediaries, research organisations and policy makers

These achievements have been supported and made feasible by the provided trainings to Collaborative Networks and Innovation Projects as they increased the effectiveness of collaborative research and innovation activities to a great extent. Some of the trainings enhanced innovation management capacities of the Project Partners, but also in relevant intermediary organisations such as clusters of the respective CNs and IPs.

By providing support to at least 90 SMEs in establishing cooperation with R&D, FORESDA was able to generate cross-sectoral, transnational innovation activities in the selected strategic innovation areas. SMEs involved in the innovation activities have been provided with methodological and scientific knowledge in order to foster innovation, cross-sectoral and transnational thinking.

8. CONCLUSION

FORESDA expected to provide non-financial support to at least 90 SMEs in three Collaborative Networks, involving at least 10 SMEs each and 30 Innovation Projects involving SMEs and/or R&Ds and/or Support Organisations. By the end of the project, in sum the three established CNs supported the following number and types of organisations:

- CN Building with wood (39 members): 12 Business Support Organisations, 22 SMEs, 5 Knowledge Partners
- CN Creative Hubs (32 members): 10 Business Support Organisations, 16 SMEs, 6 Knowledge Partners
- CN Socially Responsible Use of Forests (35 members): 3 Clusters, 4 Higher Education, 6 NGO, 2 Public Institutions, 1 R&D, 2 Regional Authorities, 4 Regional Development Agencies, 13 SME.

Through the Innovation Projects, in sum 305 SMEs have been involved and accordingly supported. The support given to the SMEs has taken the form of Innovation Management, expertise in various forms, partner search, internationalization, access to finance, testing facilities or other kind of supports.

This document Output 5.2 *Training and Innovation Support* presents the results achieved by FORESDA with regard to the support given to SMEs in IPs and CNs in order to foster cross-sectoral, transnational innovation (FORESDA's specific objective 2) in the project countries and beyond. It describes the trainings for CNs and PIEs, their outcomes / lessons learned and provides recommendations for future activities.

One of the main lessons learned of these training and support activities is that it is of crucial importance to focus on the needs of SMEs and particularly considering the regional specifics. It is a long way to go in order to make SMEs cooperate, particularly on transnational level, and to take new paths towards the development of new products, processes or services. Digital transformation in the Forest-based industries can not be achieved, but well triggered and supported by projects like FORESDA, as it shows how traditional forest-based areas can be turned into innovative, modern and sustainable manufacturing areas by enabling, managing and moderating cooperation between SMEs, creating innovation-friendly ecosystems in the Danube region. Innovation becomes far-reaching if tackled by a cross-sectoral approach and supported by transnational activities. As already outlined in other deliverables and outputs of FORESDA, awareness raising for existing cross-sectoral and transnational innovation opportunities is an important aspect for SMEs within

the rather traditionally oriented forest based industries. One of the main innovation barriers identified in the FORESDA project is the lack of innovation strategies at SMEs, but also the lack of trust regarding cooperation and the “felt” lack of innovation support as many SMEs simply do not exactly know whom to ask for support. Nevertheless, or better: Due to these findings, we deem FORESDA to be an excellent basis for further development of innovative processes in the Danube region.