



Action plan of Western Transdanubia, Hungary

I Profile of the Action Plan

| | |
|---------------------------------------|----------------------------------|
| Project: | BRIDGES |
| Partner organisation: | Pannon Business Association, PP7 |
| Other partner organisations involved: | |
| Country: | Hungary |
| NUTS 2: | HU22 |
| Region: | Nyugat-Dunántúl |
| Contact person: | Renáta Csabai |
| email address: | renata.csabai@pbn.hu |
| phone number: | +36305843728 |

II Policy context

Table 1 The Action Plan aims to impact

| | | |
|------------------------------------------------------------------------------------|---|---|
| Investment for Growth and Jobs programme, name of policy instrument here | | X |
| Type 1: Implementation of new projects | X | |
| Type 2: Change in the management of the policy instrument (improved governance) | | |
| Type 3: Change in the strategic focus of the policy instrument (structural change) | | |
| Other improvements not corresponding to types 1-3 (please comment) | | |
| European Territorial Cooperation programme | | |
| Other regional development policy instrument | | |

- Name of policy instrument: Economic Development and Innovation Operational Programme (EDIOP) (Gazdaságfejlesztési és Innovatív Operatív Program) 2014HU16M0OP001. The BRIDGES project is aligned with Priority Axis 2, Improving knowledge Economy; Thematic priority 1 Research & technology development, & effectiveness of innovation; Investment priority 1a, specific objective, 2.1. Improved participation in H2020 with strengthening of R&D capacities.
- Improvement needs: The industry focus needs to be focused on innovations, & tailored tools improved.

Table of contents

| | |
|-------------------------------------------------------------------------------------------|-----------|
| Action plan of Western Transdanubia, Hungary | 1 |
| I Profile of the Action Plan | 1 |
| II Policy context..... | 1 |
| List of figures..... | 2 |
| List of tables..... | 2 |
| III Policy learning | 3 |
| IV Action plan..... | 3 |
| IV.1 The feasibility study | 4 |
| IV.2 Good practice transfer..... | 5 |
| IV.3 Action plan details..... | 6 |
| Action 1 Centre of competence for the digitalisation of the wood furniture industry | 6 |
| Activity 1.1 Regional platform | 7 |
| Activity 1.2 Adaptation and application of the AUTODIAGNOSTIC TOOL..... | 9 |
| Activity 1.3 Masterplan formulation and implementation | 9 |
| Action 1, costs and funding | 10 |
| Action 1, implementation timetable | 11 |
| Action 1, impact on the region | 11 |
| V Endorsements..... | 12 |

List of figures

| | |
|------------------------------------------------------|---|
| Figure 1 Action plan PP7..... | 4 |
| Figure 2 Rationale of the structure of Action 1..... | 7 |

List of tables

| | |
|-----------------------------------------------|----|
| Table 1 The Action Plan aims to impact | 1 |
| Table 2 Action 1 budget..... | 10 |
| Table 3 Timetable & outputs of Action 1 | 11 |

III Policy learning

The most important thing that the Pannon Business Network Association learnt from the BRIDGES project in relation to the action plan was to create a stable group of regional stakeholders and consolidate it as a long-term regional development platform supporting the digitalisation of the wood furniture industry. All representatives of the quadruple helix were invited to the stakeholder group which was a unique approach and boosted the communication, idea & project generation -and above all a regional consensus building tool. After sharing these experiences and becoming aware of the needs and experiences of all level of stakeholders a tailored tool was developed which is not just a theoretical approach but also based on real needs of wood & furniture industry.

Further, the introduction of an intermediate step towards assessing the innovation absorptive capacity of businesses is essential in targeting the new project generation to realistic but upscale goals.

IV Action plan

The action plan of PP7 PBN is part of a larger effort in Hungary for economic renewal through re-industrialization. Digitization is a priority and the Digital Welfare Programme, at the heart of the development objectives, aims at digital infrastructure – e.g. 5G – and its diffusion to and absorption by the entire economy.

There is one S3 strategy in Hungary, at national level. Competence Centre (CC), in the form of industrially-defined innovation hubs, are emphasized as tools for reinforcing innovation and economic renewal. The S3 states that the infrastructure of competence Centres should be developed, ensuring strategic partnership between academia and the business sector – Thematic Objective Support of Research, Innovation; Policy Priority Competence Centres; Funding Program EDIOP. For example, a CC focusing on digitization, serves two key purposes (at least): translating digitization for business value and acting as intermediary between academia and companies.

The furniture industry based on wood processing, is a traditionally important sector of the Hungarian economy, and one among those prioritized for economic renewal. It includes an extensive SME base as well as FDIs. However, as indicated also in the innovation map, the economic and innovation performance of the wood processing industry should improve.

The feasibility study of PBN, PP7 in the BRIDGES project partnership, identified that one of the channels by which the renewal of the wood processing furniture industry can be achieved is by digitalisation of businesses including, eventually, additive manufacturing applications. It enables new structures, new technologies and new characteristics. The biggest challenge is how to use the technology in the right manner.

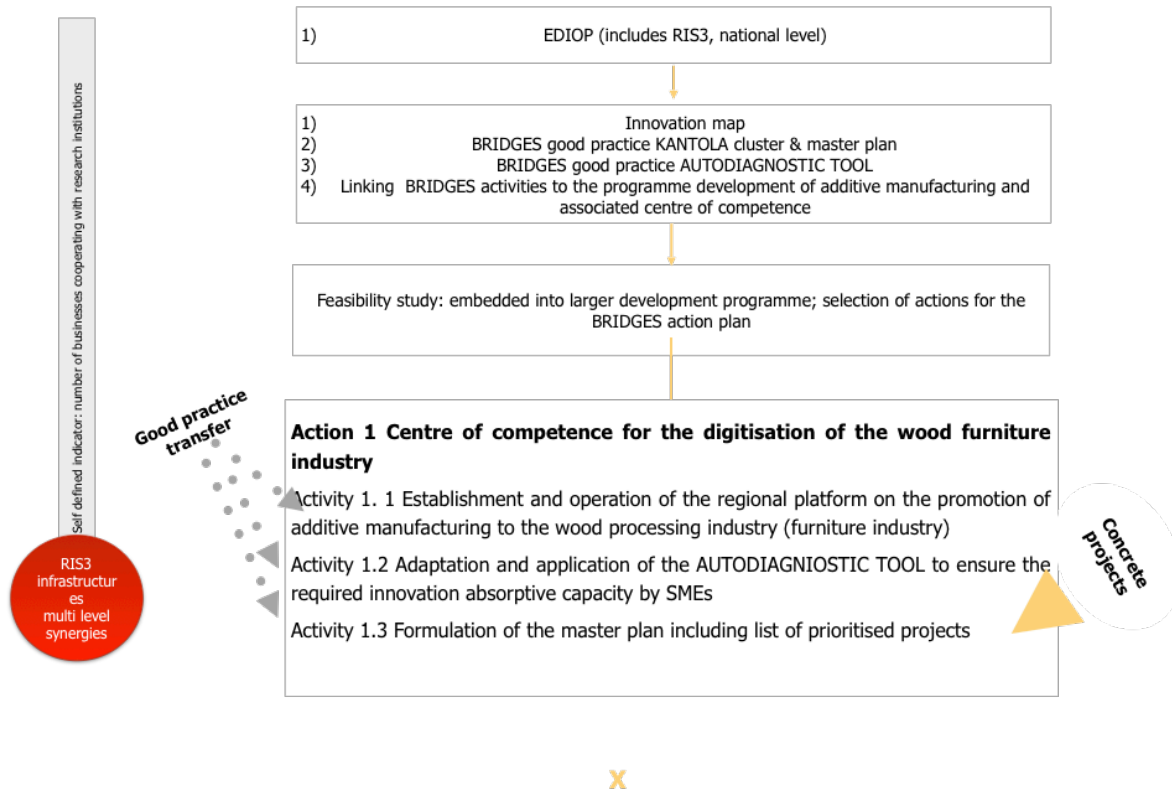
Figure 1 Action plan PP7**Action plan PP7, PBN Centre of competence for additive manufacturing in wood processing**

Figure 1 is our intention, however, based on the current status of nearly spent EDIOP funds, at the moment it is not certain that it will be fully realized.

IV.1 The feasibility study

- **Optimization question:** the quality of the enabling environment and absorptive capacity of the local and national contexts towards the development of additive manufacturing in the region.
- **Overall context:** 2.1) Rising demand (market segment growth from 350 billion Euro (2008) to 455 billion Euro (2015)), competition through cheaper solutions coming from China and South East Asia, growing concentration of the raw materials locations, and growing concentration of the distribution (retail) chains which, too, influences the supply side by dictating types of demand; 2.2) -diversification of demand into new market segments through integration of consumer behaviour including new market segments, such as older or disabled persons; 2.3) production techniques improvement through digitization, smartification of production; 2.4) requirements for sustainable development.

IV.2 Good practice transfer

PP7 is transferring two good practices: The Kantola¹ good practice and the AUTODIAGNOSTIC TOOL². The former as a structuring tool of the centre of competence the latter as a tool integrated into the processes of the centre of competence.

Kantola cluster, with Woodpolis centre of competence and master plan. Kantola is a good practice that was identified in Kainuu region in Finland. It is based on scaling up and diversifying the saw mill industry, into advanced wooden processing activities, especially focusing on elements of sustainable wooden production. Kantola is a development initiative initiated in 2006 and ongoing. It involves businesses in the industry, the municipal government as well as regional, national and international knowledge actors, and a specialized business development Centre (Woodpolis). A regularly renewed (every 2-3 years) masterplan (Kantola masterplan) confirms/evaluates/renews the strategic vision and the prioritized development actions of the initiative. Kantola was established as knowledge-intensive initiative, aiming at linking excellence results to product applications and associated business services. It adopted the demand-led approach from the beginning, utilizing excellent research, as a proxy and the channel for responding to the demand. Development actions are largely co funded by the regional ERDF & ESF. Thus, the role of the structural funds as policy maker and co funder is essential. Innovation actions by individual businesses are co-funded by the national innovation fund (TEKES, part of Business Finland). The Kantola cluster is centrally managed by a network of municipal actors and participants, coordinated and strongly supported by the City of Kuhmo and the Regional Council of Kainuu. The Interreg Europe experts evaluated the Kantola GP and accepted it to the database of the Interreg Europe programme.

PP7 selected to transfer the Kantola GP among other GP theme 1 options early in the project. However, this selection was confirmed finally with the site visit of PP7 to Kainuu (and Kantola) in mid-April 2017. Based on the learnings representatives of the Hungarian team could understand how a new technological development could be transformed into a business opportunity, how co-operation could be established and operated in a sustainable way. Moreover, the two regions (GP origin and destination) face comparable challenges and pressures, e.g. both regions face the pressure on the business players to identify a unique selling proposition and the need to reposition the wood industrial players themselves on the market. It also requires a new way of co-operation between research and business sector, irrespective of the size of the companies; c) there is economic Smart specialization management of the Centre of competence with clear linkages to decision making organizations), which facilitate the GP transfer; d) finally, transferable elements of the Kantola GP are coherent with the Centre of Competence concept and propose suitable answers.

The **transferable elements** of the Kantola GP to the Centre of Competence include:

¹ Kantola industrial estate and Woodpolis centre of competence, <https://www.interregeurope.eu/policylearning/good-practices/item/136/kantola-industrial-estate-and-woodpolis-centre-of-competence/>.

² AUTODIAGNOSTIC tool: <https://www.interregeurope.eu/policylearning/good-practices/item/157/autodiagnostic-tool-for-agro-smes/>.

<http://www.interregeurope.eu/bridges/>

- The adoption of a comparable definition, renewal, & coordination approach consolidated by a master plan.
- The excellence links to the industrial cluster and the agreements with state-of-the-art knowledge institutions for accessing research and interpretation into development projects.
- The alignment with the RIS3 of the region / country.
- The definition of the Centre of competence in terms of the required functions serving the continued development of businesses (functions, skills, education, services, equipment).

The **AUTODIAGNOSTIC TOOL**: Tool for assessing the innovation absorptive capacity of SMEs. The AUTODIAGNOSTIC TOOL FOR AGRO-SME³ is approved to the Interreg Europe data base. Its implementation requires adjustment to the wood furniture industry; however, it provides a straightforward, operational approach that can be enhanced once industry-specific priorities are integrated.

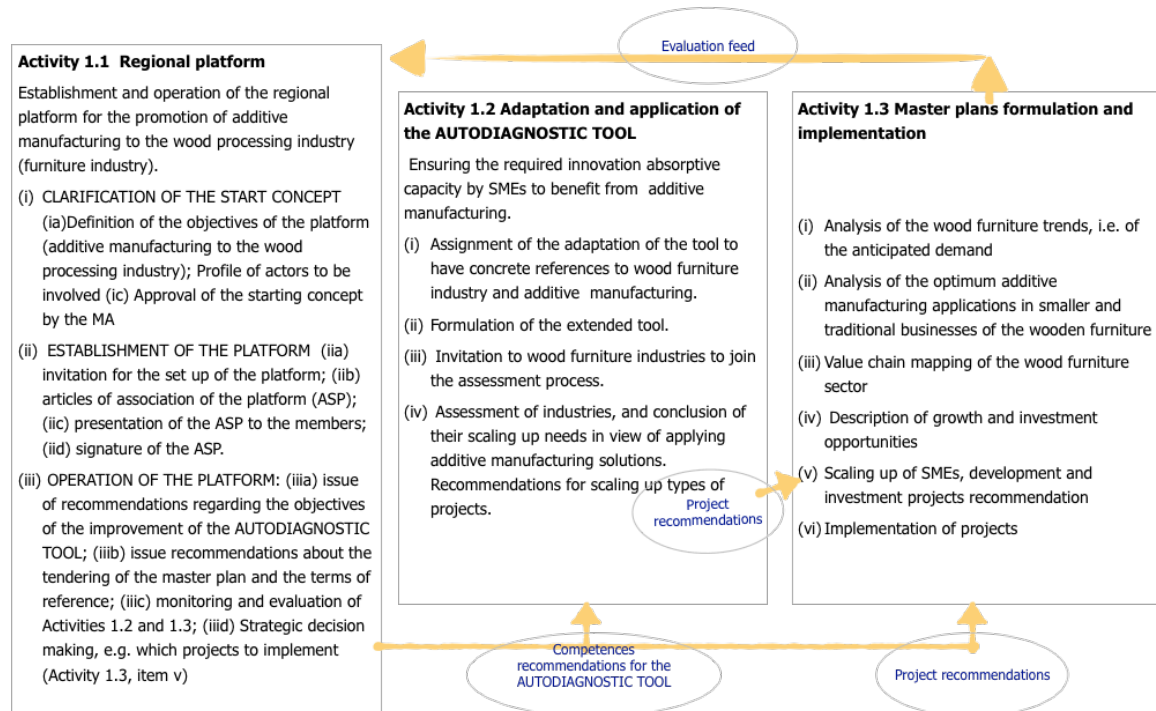
IV.3 Action plan details

Action 1 Centre of competence for the digitalisation of the wood furniture industry

The action plan of PP7 proposed in the context of the BRIDGES project is part of the overall objective of PP7 to develop a Centre of competence as documented in the feasibility study. Conforming to the BRIDGES project aim to prioritise research-to-business solutions, the action plan is about establishing components of a centre of competence supporting the scaling up of the wood furniture industry by investing in additive manufacturing. Additive manufacturing is part of the ex-ante conditionality of RIS3, as it is part of the key enabling technologies (KET). The action plan comprises just one action (Action 1 Centre of competence for the digitalisation of the wood furniture industry) structured into three activities: *Activity 1.1 Regional platform* (transfer from the Kantola good practice), *Activity 1.2 Adaptation and application of the AUTODIAGNOSTIC TOOL good practice*, and *Activity 1.3 Masterplan formulation and implementation* (transfer from the Kantola good practice).

Activities 1.1, 1.2 and 1.3 are interconnected: Activity 1.1 is the overall enabling framework of the action plan. It ensures, through the systematised participation of relevant actors, access to the excellence and global market trends relevant to the main focus of the platform (scaling up of the wood furniture by up-taking additive manufacturing solutions) as well as inputs and recommendations for localised development projects. Activity 1.2 is about closing the innovation absorptiveness gap of wood furniture SMEs and getting them to benefit from additive manufacturing solutions. Activity 1.3 is about formulating an industrial renewal concept and implementing recommended projects leading to the scaling up of the wood furniture industry through the uptake of additive manufacturing. **Figure 2** Rationale of the structure of Action 1 is mapping these interconnections, including indicative steps of implementation of each one of the Activities.

³ <https://www.interregeurope.eu/policylearning/good-practices/item/157/autodiagnostic-tool-for-agro-smes/>

Figure 2 Rationale of the structure of Action 1

Activity 1.1 Regional platform

This is direct transfer of the Kantola good practice. The purpose of Activity 1.1 is to establish a regional platform focusing on digitising the wood and furniture industry, aiming at, eventually, uptake of additive manufacturing. The overriding objective of the platform is to function as an effective bridge between excellence & forthcoming related research agendas in digitalisation of the wood furniture industry, which tends to become a field in its own right⁴. It is this kind of interdisciplinary knowledge the regional platform is seeking to access. The other role of the regional platform is to support the identification of a tailored industrial agenda, valorising the research available and benefitting the regional relevant businesses.

Implementation approach of Activity 1.1

- CLARIFICATION OF THE START CONCEPT: Definition of the objectives of the platform (Centre of Competence promoting additive manufacturing to the wood and furniture industry); profile of actors to be involved; a basic costs plan of running the platform are clarified; approval of the starting concept by the MA.

⁴ The issue of Industry 4.0 applied to wood processing is central to several projects, e.g.: <http://www.metsateho.fi/wp-content/uploads/S1.5.-Hujala.pdf>, <https://www.webandmagazine.com/liqna-2019-industry-4-0-tech-for-product-individualization-in-the-woodworking-and-furniture-industries/>, <https://www.woodworkingnetwork.com/production-woodworking/woodworking-machinery-technology/Wood-Industry-4point0-The-Fourth-Industrial-Revolution-300287101.html>, <https://pdfs.semanticscholar.org/4d47/135e895d456fc2dd07345a07657ff89f8ff4.pdf>, <https://www.researchgate.net/publication/322385958> Digitalisation in the forest-based sector State of technology and opportunities for innovation .

<http://www.interregeurope.eu/bridges/>

- ESTABLISHMENT OF THE PLATFORM: Invitation to stakeholders for the set-up of the platform; articles of association of the platform (ASP) are formulated; presentation of the ASP to the members; signature of the ASP. Some 20 members are expected to become members.
- OPERATION OF THE PLATFORM: issue of recommendations regarding the objectives of the improvement of the AUTODIAGNOSTIC TOOL; recommendations about the tendering of the master plan and the terms of reference; monitoring and evaluation of Activities 1.2 and 1.3; strategic decision making, e.g. which projects to implement (Activity 1.3, item v). This list is not exhaustive, it will be completed

State of play

During Phase 1 the concept of the platform was introduced and some very introductory discussions with stakeholders took place. These discussions will be renewed and consolidate once the action plan starts its implementation. During Phase 1, the concept of the action plan was also introduced to SMEs participating in projects under the EDIOP, measures -1.1.4.-16 High Growth Company Program (co-led by PBN) who were invited to attend. 16 SMEs were identified from the wood and furniture sector. PBN explained them the importance of Bridges project and the planned actions, in special attention to the AUTODIAGNOSTIC TOOL. Furthermore, 2 Universities, namely the University of Sopron and the ELTE University were also invited to be part of the regional platform agreement. In order to present the quadruple helix approach, PANFA Cluster and Falco Cluster were invited, too. As the knowledge transfer is more effective if it is cross-border, actors from Austria were contacted and on a personal meeting an agreement was done for further cooperation and they possible membership of the regional platform, as knowledge owners.

In Phase 2 new stakeholders will be involved in Bridges project and the whole essence of the regional platform is identified.

Outputs

The main output of Activity 1.1 is a jointly agreed and undersigned document of a regional platform comprising. The members of the platform include:

- Institutions with excellence and technology transfer competences especially in the interdisciplinary field of the digitalisation of the wood processing industry. The platform adopts a distributed knowledge base including national and cross border resources.
- Regional wood processing and ICT clusters.
- Representatives of the Managing Authority.
- Representatives of existing projects relevant to the thematic priority of the regional platform.
- Financing and funding instruments representatives relevant for the implementation of the objectives of Activities 1.2 and 1.3.
- Facilitators from the Bridges project.

Activity 1.2 Adaptation and application of the AUTODIAGNOSTIC TOOL

Activity 1.2 has two components: extension of the AUTODIAGNOSTIC TOOL and application of the extended tool to SMEs.

The existing AUTODIAGNOSTIC TOOL will be further developed with wood and furniture digitalisation-specific evaluation criteria. This will be done by an expert who will be subcontracted for this purpose. The additional criteria will take into account recommendations made by the regional platform research members relating to the competences that would be needed by SMEs in order to benefit from comprehensive digitalisation solutions.

Once the AUTODIAGNOSTIC TOOL PP7 will organise a call to invite businesses to join workshops in which they will be trained to the application of the extended AUTODIAGNOSTIC TOOL.

Implementation approach of Activity 1.2:

- Assignment of the task of the adaptation of the AUTODIAGNOSTIC TOOL to include innovation assessment questions referring to the wood & furniture industry and additive manufacturing.
- Formulation of the extended tool.
- Invitation to wood furniture industries to join the assessment process.
- Analysis of the results of the AUTODIAGNOSTIC TOOL application.

Outputs

- AUTODIAGNOSTIC TOOL extended
- Assessment of the digitalisation absorptive capacity of 60 wood furniture SMEs by applying the adjusted AUTODIAGNOSTIC TOOL
- 1 report analysing the findings from the assessment of the SMEs

Activity 1.3 Masterplan formulation and implementation

The purpose of the Masterplan is to implement the industrial development plan leading to the scaling up of the wood furniture branch and start adopting additive manufacturing solutions.

Implementation approach of Activity 1.3:

- Master plan formulation including value chain mapping of the wood furniture sector, description of growth and investment opportunities, list of prioritised projects in terms of additive manufacturing uptake.
- Scaling up of SMEs, and investment projects recommendation; integration of project recommendations from Activity 1.2. Such projects include, indicatively:
- awareness raising of digitalization and innovative solutions among wood and furniture SMES. Awareness raising will be done through complex regional events for promoting digitalization and innovation in wood

<http://www.interregeurope.eu/bridges/>

and furniture industry. These events will be organized with the support of already identified stakeholders.

- training programmes: During the trainings qualified expert explains the digitalisation aspects and benefits, including basic and advanced training about digitalisation (aspects, benefits, digital transformation good practices).
- international study visits: International study visits give the possibility for participating SMEs to gain new knowledge and identify new business opportunities.
- product development
- additive manufacturing uptake including organisational adjustments and investments

Action 1, costs and funding

Table 2 Action 1 budget

| Cost | Costs & funding | | Activity |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------------|------------------------------|
| | Cost estimate | Funding sources | |
| Coordination costs (PBN) [staff, administration], all three Activities | n/a | PBN own contribution | Activities 1.1, 1.2, and 1.3 |
| Meeting costs (meetings of the regional platform; workshops with SMEs; ad hoc meetings with stakeholders) | 2.500 EUR | EDIOP | Activities 1.1, 1.2, and 1.3 |
| Experts fees (legal advice to make the articles of association) | 1.200 EUR | EDIOP | Activity 1.1 |
| Experts fees (expert to make the extended AUTODIAGNOSTIC TOOL) | 3.000 EUR | EDIOP | Activity 1.2 |
| Expert fees for assessment of the digitalisation absorptive capacity of 60 wood furniture SMEs by applying the adjusted AUTODIAGNOSTIC TOOL | 18.000 EUR | EDIOP | Activity 1.2 |
| Experts fees for the formulation of the master plan | 3.000 EUR | EDIOP | Activity 1.2 |
| Implementation costs of the master plan (awareness raising, training and international study visits) | 35.000 EUR | EDIOP | Activity 1.3 |
| Implementation costs of the projects generated through the master plan (product development). The financial support of the Masterplan implementation is from EDIOP. Project implementation is done through open calls issued by the EDIOP. | 30.000 EUR | EDIOP | Activity 1.3 |
| TOTAL COSTS | 92.700 EUR | | |

Action 1, implementation timetable

Table 3 Timetable & outputs of Action 1

| ACTION 1 | Timetable | Outputs |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------------------------------------------------------------------------------------------------------|
| ACTIVITY 1 REGIONAL PLATFORM (for the digitalisation of the wood furniture industry) | 2020 | 1 operating regional platform (research -to-business group) |
| Set up of the regional platform (recruitment of members) | 2020 Q1 | |
| Drawing of the regional platform protocol | 2020 Q1 | 1 platform protocol document |
| Endorsement of the regional platform document by all members | 2020 Q3 | 1 Letter of Commitment |
| Meetings of the regional platform | 2020 Q1-2021 Q1 | 3 meetings |
| ACTIVITY 2 Adaptation and implementation of the AUTODIAGNOSTIC TOOL | | 1 adapted AUTODIAGNOSTIC TOOL |
| Formulation of the extended AUTODIAGNOSTIC TOOL | 2020 Q1-Q2 | 1 extended questionnaire |
| Assessment of the digitalisation absorptive capacity of 60 wood furniture SMEs by applying the adjusted AUTODIAGNOSTIC TOOL | 2020Q3-2020Q4 | 60 SMEs who applied for the adjusted AUTODIAGNOSTIC TOOL |
| ACTIVITY 3 Masterplan formulation & implementation | 2020 – 2021 | 1 implemented masterplan |
| Master plan formulation (Value chain mapping of the wood furniture sector, Description of growth and investment opportunities, list of recommended projects) | 2020 Q1 | 1 document with field and desk research data |
| Scaling up of SMEs, and investment projects recommendation | 2021 Q1 | 2 awareness raising events 3 trainings for 3 SMEs 2 international study visits 2 product developments |

Action 1, impact on the region

- **Self-defined indicator:** number of businesses cooperating with research institutions, total of 60 businesses

V Endorsements

Approval of the action plan for PP7 PBN

Date: _____

Signature: _____

Stamp of the organisation (if available): _____

Endorsement of the PP7 PBN action plan by the MA

Date: _____

Signature: _____

Stamp of the organisation (if available): _____