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**Smart SME's**

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**WP 5 Capitalisation and policy recommendations**

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**Report on Policy recommendations based on findings**

**Policy interventions and measures to lower the barriers for non-tech SMEs to successfully apply digital tools in the Alpine Region**

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### 1 Background and Rationale

The project Smart SMEs aims to improve the use of digital solutions to increase the competitiveness of SMEs in natural fibre value chains in the Alpine region (e.g., wood, hemp, organic waste etc.). One of the objectives of the project is to prepare a report on policy recommendations based on feedback from the Policy Forum. The road map was presented at the Digital Alps conference on 27 May 2021, and feedback was incorporated in the final document.

The Road Map build on inputs from all the WPs of the project. The final version was elaborated in close cooperation with the WP6, which pave the way for the future SMART SME network. This network builds on the interests and needs of bioeconomy and digital transformation experts in the Alpine Region.

COVID 19 accelerated the adoption of digital tools and shows that businesses, SMEs in particular, struggle to really take advantage of a digitalised business for various reasons. The Smart SMEs project aims to find solutions to overcome existing digitalisation barriers and focuses on enterprises in natural fibre-based value chains that produce, process, and apply natural fibre-based materials, both cultivated and recycled from biological waste. The project is therefore tackling the idea of a sustainable transformation in the Alpine region through the bio-economy concept.



## 2 The Importance of the Natural Fibre Sector for the Alpine Region

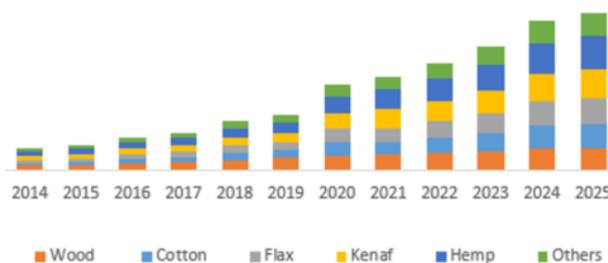
The global natural fibre sector was valued at \$5.3 billion in 2017 and is forecast to grow at a modest rate between 2018 and 2025, culminating in 2025 global sales of \$14.7 billion.<sup>1</sup> Natural fibre products and composites are used in various applications, like industrial textiles, automotive (like decking, headliners, dashboards) and construction (doors, windows, thermal isolation). In the electronics industry, it is used in laptop cases, mobile cases and many other electronic products cases that dominate the market which leads the natural fibres composites market over the forecast period. The construction industry is also a key sector that took more than half the market share for natural fibre products in 2015, including the production of decking, railing, and frames.

Figure 1: Global natural fibre market share by application 2018.



As shown in Figure 2, five different raw materials for natural fibre products dominate the current market. Most of them are readily available in the Alpine Region.

Figure 2: Global natural fibre composite market by raw material categories (2014 – 2025, in million US\$).



The natural fibre sector also plays an important role in the Alpine Region. For example, in Baden-Württemberg, maize as a raw material for natural fibre represents the second most important field crop in the region, after wheat. In 2019, 192.800 ha of maize were cultivated. In Lower Austria, hemp is one of the most important agricultural plants. Hemp-based fibres are interesting for Austrian producers of paper,

<sup>1</sup> Ameri Research (2018) <<https://www.ameriresearch.com/product/natural-fiber-composites-market/>> accessed 25 May 2021



textiles, thermal insulation materials, plastic composites for cars, etc. In Slovenia, wood and its by-products are the core source for biomass and related natural fibre products. In 2018, the export of unprocessed wood reached 2,6 million m<sup>3</sup>, and the export of timber products amounted to 51% of the total amount of timber products manufactured. Wood as biomass is mostly used in the energy sector (wood chips and pellets for heating) and the pulp and paper industry.

Regardless of what source is used, there is an increasing number of ongoing R&D efforts by partners from the Alpine Region, intended to open new application fields for natural fibre-based material that further demonstrates its high potential. These include: (i) Natural fibre-based material can be used as implant material in the future. Titanium implants can be replaced by a new thin-walled fibre-based ceramic material.<sup>2</sup> (ii) Elastic three-dimensional fibre meshes with low density for use as upholstery in vehicle seats are close to commercial use. Such fibre-based products are price-compatible with existing PUR foam but are a much lighter alternative that is also environmentally friendly and recyclable.

### 3 Digitalisation in the Natural Fibre Sector Matters

#### 3.1 Digitalisation

Digitalisation refers to using digital technologies to change a business model and, as a result, provide new revenue and value-producing opportunities. This can refer to a company, region, or country that adopts or increases the use of digital or computer technology. Digitalisation has significant economic, environmental, and social benefits. Digitalisation through connectivity and digital services can be the answer to the critical challenges in the Alpine regions have to face in terms of depopulation, brain drain, physical barriers, accessibility to welfare and economic growth.<sup>3</sup> This is especially true in rural and mountain communities.

Digitalisation has the potential to decisively contribute to Europe's efforts to reduce carbon emissions and preserve the natural environment. According to the World Economic Forum (WEF), digital technologies could help reduce global carbon emissions by as much as 15%. This would account for one-third of the reduction required by 2030. This means digitalisation would save the equivalent of the total carbon emissions of the EU and USA combined.<sup>4</sup> Digitalisation in the agricultural sector would lead to better conservation of water resources, less spillage, and energy savings of over two gigatons of carbon dioxide each year.<sup>5</sup>

Digitalisation also has the potential to generate significant economic benefits. The European Parliament Research Service (EPRS) estimates that a fully functioning digitalised Single Market in the 2014-2019 period would have added €450 billion per year to the economy and provided 350,000 jobs.<sup>6</sup> An updated estimate by the European Parliament estimates that in the 2019-2024 period, digitalisation could provide economic gains ranging from €85 billion per year to €256 billion per year.

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<sup>2</sup> Allianz Faserbasierte Werkstoffe Baden-Württemberg, <[www.afbw.eu](http://www.afbw.eu)> accessed 25 May 2021

<sup>3</sup> Macro-regional strategy of the Alpine Region, <<https://www.alpine-region.eu/>> accessed 25 May 2021

<sup>4</sup> 'World Economic Forum Annual Meeting' (Switzerland, 22-25 January 2019) <<https://www.weforum.org/events/worldeconomic-forum-annual-meeting-2019>> accessed 25 May 2021

<sup>5</sup> 'Digital Europe', <<https://www.digitaleurope.org/>> accessed 25 May 2021

<sup>6</sup> 'European Parliament Research Service (EPRS)' (2019) <<https://www.europarl.europa.eu/at-your-service/en/stay-informed/research-and-analysis>> accessed 25 May 2021



### 3.2 SMEs in the Natural Fibre Sector

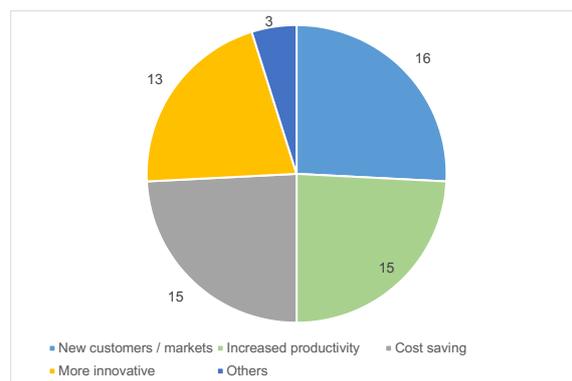
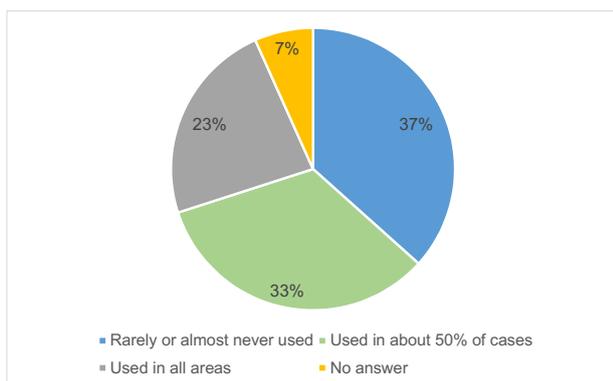
There is a growing influence of digitalisation on SMEs (Small and Medium-Sized Enterprises) operating in various natural fibre domains. However, appropriate research that considers the influence of digitalisation on the natural fibre sector as a whole are still rare.<sup>7</sup> There are some studies focusing on digitalisation of wood<sup>8</sup> as well as the textile sector. The latter is experiencing very strong effects of digitalisation, like increasing individualisation, networking of devices and people, as well as progressive automation of production and logistics processes. This is also combined with changing customer expectations that require new business models and organisational principles in the textile industry.<sup>9</sup>

Within the Smart SME project, 30 firms from the natural fibre sector participated in an Alpine Region-wide survey aiming to assess their degree of using digitalisation tools (Figure 3). 37% of the respondents confirmed that they did not use or only rarely used digitalisation tools, whereas only 23% use such tools in all areas. Despite the fact that this survey is not fully representative, it still confirms many other experiences or studies in different industrial sectors. To fully contextualise these findings, it is important to know that the majority of the respondents mainly operate in their domestic market. At the same time, for operating more globally, there is a strong need to implement more digital tools on various levels.

Further discussions with the respondents revealed that the main goals which these SMEs associate with the advancing digitalisation are attracting new customers / new markets, increasing productivity and level of innovation, as well as the reduction of costs. These factors play the most important role for the interviewees. Among the answers for the option “other”, responses included comments related to the importance of the reduction of mistakes, increased organisation and advancing digitalisation itself.

Figure 3: Degree of the use of digitalization tools.<sup>10</sup>

Figure 4: Goals associated with the advancing digitalization.<sup>11</sup>



<sup>7</sup> Aida Kamišalić, Martina Šestak and Tina Beranič, ‘Supporting the Sustainability of Natural Fiber-Based Value Chains of SMEs through Digitalization’ (Sustainability Vol. 12 Issue 19, 1 October 2020) <file:///Users/aljazurbanc/Downloads/sustainability-12-08121-v2.pdf> accessed 25 May 2021

<sup>8</sup> Fabian Müller, Dirk Jaeger and Marc Hanewinkel, ‘Digitization in wood supply – A review on how Industry 4.0 will change the forest value chain’ [2019] 1(162) Computers and Electronics in Agriculture p 206–218

<sup>9</sup> LEAD Innovation Management (2021) <https://www.lead-innovation.com/en/> accessed 25 May 2021

<sup>10</sup> Smart SME Project (2020) <https://www.alpine-region.eu/projects/smart-smes> accessed 25 May 2021

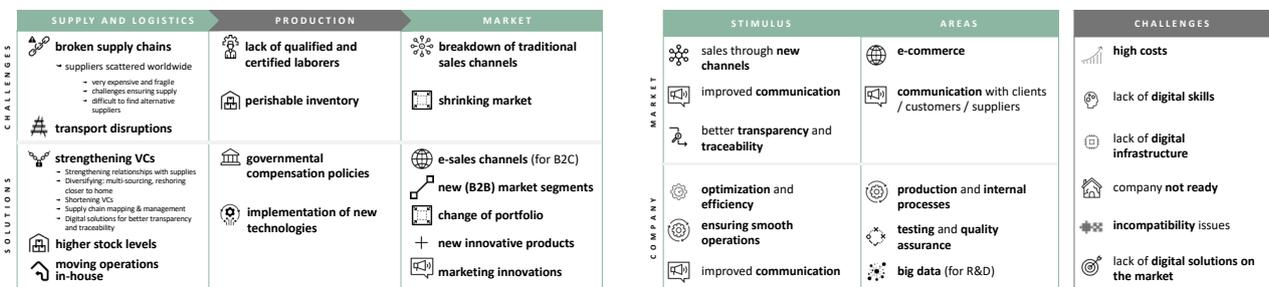
<sup>11</sup> Smart SME Project (2020) <https://www.alpine-region.eu/projects/smart-smes> accessed 25 May 2021



### 3.3 Digitalisation in Times of COVID-19

Recent studies point out several impacts of COVID 19 and on the increased need for digital tools.<sup>12</sup> The impact of COVID 19 on natural fibre value chains was also discussed at the Policy Forum and is summarised below. Due to COVID 19, many companies from the natural fibre as well from the entire bioeconomic sector faced two major market-related problems – lower demand and breakdown of traditional sales channels. Covid-19 raised the importance of working on preventative measures to strengthen their supply chains and make them more resilient and efficient. The most commonly mentioned strategies are: strengthening the relationships with suppliers, multi-sourcing, sourcing from more reliable suppliers, reshoring closer to home, and shortening value chains.<sup>13</sup> Companies that sell directly to the end consumers (B<sub>2</sub>C) went online or strengthened their online channels. The table below summarises the impact of COVID 19.

Figure 5: COVID 19 challenges and solutions for VCs resilience      Figure 6: Areas of digitalization accelerated by COVID-19



Source: Meta Arh, Mateja Dermastia, Godanubio March 2021

COVID-19 has accelerated digitalization, since market was forced to adapt quickly: developing sales through new channels, improving communication, transparency and traceability across value chains. For companies themselves, digitalisation during COVID-19 came in the form of optimization and raising efficiency standards, ensuring smooth operations, and improving communication in areas such as production and internal processes, improving testing and quality assurance, and expanding the use of big data (R&D). Still, rapid digitalization did not come without challenges for both the market and companies. These include high costs of digitalization, general lack of digital skills of employees, issues with attracting digitally skilled workers, lack of digital infrastructure and lack of digital solutions on the market. Companies find it hard to adopt ready-made digital solutions for some of their business processes, such as R&D, quality assurance systems, clinical trials and transparency. Furthermore, often the companies are not fully ready and face incompatibility problems (with different internal departments of suppliers – some from less developed countries are not digitalized at all).<sup>14</sup>

<sup>12</sup> Susan Lund et al, 'Risk, resilience, and rebalancing in global value chains' (McKinsey Institute, 6 August 2020) <<https://www.mckinsey.com/business-functions/operations/our-insights/risk-resilience-and-rebalancing-in-global-value-chains>> accessed 25 May 2021; see also Anteja, 'Value Chain Resilience and Sustainability Study' (February 2021); see also 'Resilient Supply Chain' (Accenture) <<https://www.accenture.com/id-en/services/supply-chain-operations/resilient-supply-chain>> accessed 25 May 2021; see Paul Shallard and Scott White, 'It's time to optimise supply chains for a post-COVID-19 future' (Deloitte, 2 March 2021)

<sup>13</sup> GoDanuBio, 'Value Chain Resilience and Sustainability Study' (2021)

<sup>14</sup> GoDanuBio, 'Value Chain Resilience and Sustainability Study' (2021)



## 4 Challenges and Opportunities of Digitalisation of non-tech SMEs in the Alpine Region

The digitalisation of SMEs in the natural fibres sector has huge potential. There is a strong belief that SMEs will benefit from a fairer, more transparent and dynamic environment to do business and grow. The use of digital technologies to connect and manage value chains cannot be postponed anymore in a more globalised world and due to the increasing complexity of value chains in terms of network, processes, products, demands and organisation capacity. Discussion with related SMEs indicated several advantages as illustrated below. There are many examples that SMEs in the natural fibre sector, often bigger and technologically advanced firms, benefited from in an above-mentioned way.

### *BOX 1: SMEs advantages of digitalization*

- Digitalisation can lead to more flexible processes (administration, production, sales etc.),
- As a result of more flexible production processes, products can also be better customised according to individual needs,
- Higher efficiency due to online monitoring of processes is often the result of increased use of digital technologies,
- Improved business process and product development efficiency can reduce operational costs,
- Better market visibility and availability to customers can be used by digital marketing efforts
- Improved and better-paid jobs due to increased knowledge and skills requirements to use digital technologies on the job.

Despite all the advantages connected with an increased level of digitalisation, reality shows that SMEs, often struggle to really take advantage of a digitalised business for various reasons. Interviews conducted within the Smart SME project confirmed that SMEs in this sector have found it difficult to embrace and optimise the potential gains from digitalisation. If this situation persists, there will be negative consequences at the economic, environmental, and social levels. Regional authorities will be at risk because of low economic growth and fewer jobs if SMEs are left behind and outside the digitalisation of the supply chain.

Digital adaptation is accelerating amongst Tier 1 suppliers, but SMEs lag further behind. This poses the threat of a "dual economy", i.e., SMEs left behind and outside a new digitalised economy with a negative impact on local governments in terms of employment and economic growth. The inability of SMEs to harness digitalisation would also ultimately begin to undermine larger companies with smaller suppliers. Increasingly complex supply and value chains mean a postponement is no longer an option. Consequently, it is in the interests of a larger business, smaller businesses, and local governments to remedy this.

### *BOX 2: Commonly Mentioned Obstacles to Digitalisation for SMEs in Natural Fibre Sector <sup>15</sup>*

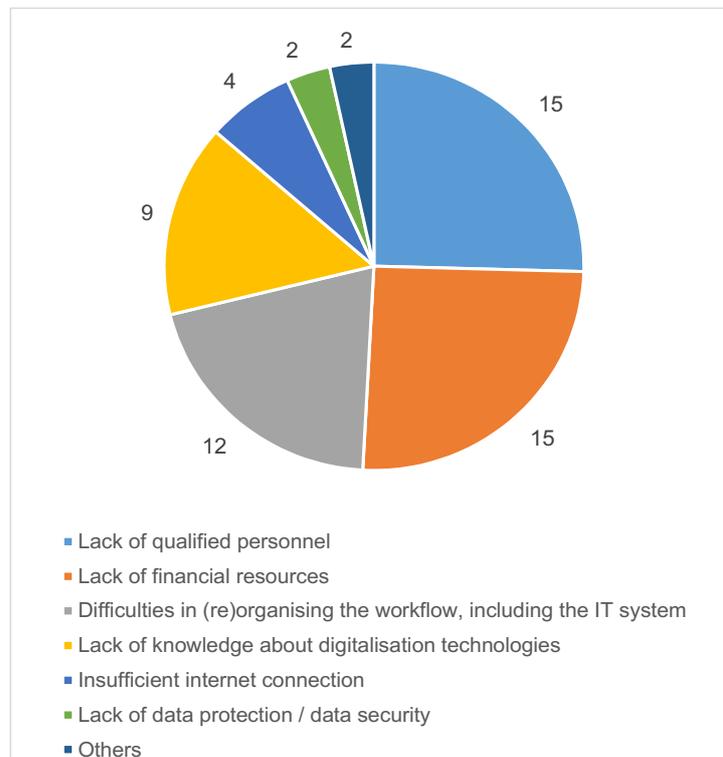
- Missing awareness about the topic of digitalisation.
- Missing appropriate digital infrastructure, e.g., broadband mobile communications, reliable internet connection, especially in rural and mountain areas. Primary requirements to enable new technology such as Broadband coverage and good internet connection not evenly distributed within Europe.

<sup>15</sup> Smart SME Project (2020) <<https://www.alpine-region.eu/projects/smart-smes>> accessed 25 May 2021



- Missing competence where to start the digitalisation efforts and how to proceed best. Lack of knowledge of digitalisation technologies may inhibit the company's efforts. SMEs have a cultural aversion to digitalisation. They lack the money and have concerns about the need to do it. Digitalisation creates anxiety for the workforce, who fear having to learn new skills or being replaced. The benefits of digitalisation are clear but not always presented to employees well.
- Lack of capacity to meet challenges of digitalisation requirements and assure the ability to value, assimilate, and commercialise the knowledge generated by its potentials. Digitalisation efforts may be too specific and focus only on a subset of processes while ignoring others, despite being connected.
- Complex regulation of the data protection, security, and sovereignty, as well as the establishment of further starting conditions (e.g., air traffic regulations for the use of drones).

Figure 7: Prevailing barriers on the way to become more digitalized. .<sup>16</sup>



In the frame of the survey conducted, the respondents mentioned various reasons why they struggle to advance with digitalisation within their firms. In order to spread digital technologies more widely among the industries producing and applying natural bio-based fibres, the following constraints were identified by the respondent to be overcome resp. The requirements must be met:

**BOX 3: Constraints for spreading digital technologies in natural bio based fibres industry**

- Sustainable expansion of the digital infrastructure, e.g., broadband mobile communications, reliable internet connection, especially in rural and mountain areas

<sup>16</sup> Smart SME project, 2020; several answers allowed, in total 30 respondents, several answers allowed



- Sufficient internal capacities to
- meet the challenges of digitalisation requirements, incl. the ability to value, assimilate and commercialise the knowledge generated by its potentials.
- The digital infrastructure is not established equally well in the regions companies operate in,
- Lack of knowledge on digitalisation technologies may inhibit the company's efforts.
- Digitalisation efforts may be too specific and focus only on a subset of processes while ignoring others, which are connected to each other.
- IT business is too sophisticated, dynamic and complex for the organisations that are not IT-orientated to develop independent IT systems that will be competitive enough.
- Further regulation of data protection, security and sovereignty, as well as establishment of further starting conditions (e.g., air traffic regulations for the use of drones);
- Funding requirements might not be feasible for many SMEs. A large number of conditions and can demotivate SMEs to apply for funding. The amount of funding is time- or finance-limited.
- Funding schemes are not adapted to the specific needs of SMEs from the natural fibre-based sector. These schemes are often the same for all SMEs in given regions regardless of their size and financial possibilities.

**Most companies are constrained by a lack of resources, a lack of talent, the pull of other priorities, and the lack of ability to focus their resources on the digital transformation, while hoping that it will eventually happen spontaneously.**



## 5 Fields of Actions to Facilitate Digitalisation of non-tech SMEs

When considering the various options and constraints concerning digitalisation of SMEs from the natural fibre sector within the Alpine Region, three main action fields can be identified, as given in Table 1. These actions fields set the proper framework conditions for the Action Plan developed within the Smart SME Project that further details dedicated actions needed to digitalise key value chains of the natural fibre sectors.<sup>17</sup>

Table 1: Field of actions to promote digitalisation of natural fibre actors within the Alpine Region

Action filed 1 Setting up practitioners network	Action filed 2 Promotion of digital tools	Action filed 3 Improved access to finance
<ul style="list-style-type: none"> <li>• Lack of qualified personnel</li> <li>• Difficulties in reorganizing internal workflow</li> <li>• Lack of knowledge about digitalization and tools</li> <li>• Lack of data protection</li> </ul>	<ul style="list-style-type: none"> <li>• Difficulties in reorganizing internal workflow</li> <li>• Lack of knowledge about digitalization and tools</li> <li>• Lack of data protection</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of financial resources</li> <li>• Access to internet</li> </ul>

### 5.1 Action Field 1: Setting up Practitioners Networks

Table above reveals that many of the barriers and obstacles mentioned by the actors from the natural fibre sectors are connected with a lack of knowledge or even access to knowledge. Digitalisation is still a very recent phenomenon compared to others, like globalisation. Thus, SMEs, even if they are ready and interested in getting access to missing knowledge and skill, struggle to find appropriate sources.

On the contrary, networks have proven in the past that they are ideal platforms for knowledge and information exchange. Well managed networks often succeeded in the past in creating trust and openness among the network partners as well as stimulating mutual knowledge spill overs. This is especially the case in the field of natural fibres, where technologies, application fields and customer requirements are changing quickly. The network AFBW<sup>18</sup> in Baden-Württemberg gathers 156 actors along different natural fibre value chains.<sup>19</sup>

<sup>17</sup> Elisa Morganti, Silvio Antonioni and Luca Mion, 'Smart SME: WP 4 Action plan for digitalisation of value chains' (*Synthesis Report*, 28 April 2021) <[https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKewj5hrrnq-TwAhWL-6QKHxIsB\\_EQFjAAegQIBhAD&url=https%3A%2F%2Fwww.alpine-region.eu%2Ffile%2F7040%2Fdownload%3Ftoken%3DoE8urwdw&usg=AOvVaw3eF1ocPlhjJOrV68Xt6Prj](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKewj5hrrnq-TwAhWL-6QKHxIsB_EQFjAAegQIBhAD&url=https%3A%2F%2Fwww.alpine-region.eu%2Ffile%2F7040%2Fdownload%3Ftoken%3DoE8urwdw&usg=AOvVaw3eF1ocPlhjJOrV68Xt6Prj)> accessed 25 May 2021

<sup>18</sup> 'Arbeitsgemeinschaft Faserbasierte Werkstoffe Baden-Württemberg (AFBW)' <[www.afbw.eu](http://www.afbw.eu)> accessed 25 May 2021

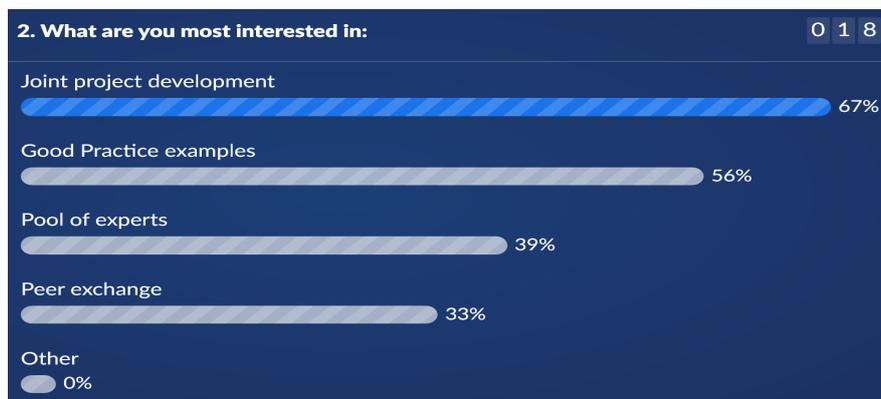
<sup>19</sup> According to information provided by AFBW in May 2021



**Action 1.1: Setting-up Alpine Region-wide practitioner networks dealing with dedicated topics and challenges around natural fibre and digitalisation**

The interest in setting up an Alpine Region-wide practitioner network was confirmed during the Smart SME workshop “Building a Sustainable Network for Smart SMEs in the Alpine Region” on 3 November 2020, where the majority of the participants expressed the need for such a network to better develop **joint projects (67%) as well as to share** good practices (56%).

Figure 8: Potential focus of the objectives of an Alpine Region-wide practitioner network for natural fibre and digitalisation, multiple choices allowed.<sup>20</sup>



From the current project findings, it also became obvious that a “nucleus” of such a network of actors already exists from other initiatives or programmes, like INTERREG, such as AlplinkBioEco, CAESAR<sup>21</sup> or European Resource Efficiency Knowledge Network <sup>22</sup> etc. Thus, it is worth evaluating to what extent such networks can be used to further develop the idea of an Alpine Region-wide network for natural fibre and digitalisation. If so, the core partners of these projects could take the lead in developing further project ideas and enlarge the group of participants from the natural fibre sector.

Five main **topics should be addressed** via the network in order to assure a clear focus on creating value for companies: development of smart value chains, identify and develop business opportunities in circular economy etc. This information was obtained through surveying 44 participants in the framework of the Smart SME, 44 respondents, March – April 2021 in which key topics were addressed by an Alpine Region-wide network for natural fibre and digitalisation, multiple choices allowed.<sup>23</sup>

<sup>20</sup> Smart SME Project (2020) <<https://www.alpine-region.eu/projects/smart-smes>> accessed 25 May 2021

<sup>21</sup> ‘Capacitating Energy efficiency in Small Alpine Enterprises (Project Caesar)’ <[www.project-caesar.eu](http://www.project-caesar.eu)> accessed 25 May 2021

<sup>22</sup> ‘EREK’ <<https://resourceefficient.eu/en>> accessed 25 May 2021

<sup>23</sup> Smart SME Project (2020) <<https://www.alpine-region.eu/projects/smart-smes>> accessed 25 May 2021



**Action 1.2: Setting-up close linkages to other networks to promote natural fibre-based innovation**

There is a well-matured network landscape in Europe that covers various topics in the broader field of Bioeconomy. However, the topics around natural fibre are rarely considered within these networks. Thus, setting up good relationships with some of these networks can be used to promote the potential of natural fibre innovation:

Table 2: Examples of Networks for promotion of natural fibre innovation

European level	Alpine region
ECCP <sup>24</sup> , The European Bioeconomy Network <sup>25</sup> , S3Platform on Agri-Food <sup>26</sup> , DIHNET.EU, EIT Digital <sup>27</sup> , EuropaBio <sup>28</sup> and European Network for Rural Development <sup>29</sup> .	EUSALP Action Group 2 subgroups for Bioeconomy or for Digital Industry. <sup>30</sup>

**5.2 Action Field 2: Promotion of Tools for Digitalisation**

Increasing the level of digitalisation within companies is quite complex. It can target internal processes, like administration or internal communication, or production processes or even marketing and sales activities. Furthermore, value chains significantly transformed over the past since digitalisation allowed new actors to enter existing value chains or new business models emerged that transformed existing ones. Customer demands and requests changed and set new rules for winners. Thus, finding new (strategic) partners along existing value chains or getting involved in the creation of entirely new value chains became key success factors. Particularly for actors from various nature fibre value chains, this is a prevailing topic since increasing technological progress opens new applications and markets for such companies. Increasing concerns related to the environment and climate change also offers new options for actors from the natural fibre sector. However, for non-technologically driven SMEs, this remains a huge challenge. Increased use of digital tools can be an option for such SMEs to turn the challenges related to digital transformation into a competitive advantage.

**Action 2.1: Support SMEs in using digital tools**

SMEs are often unaware of the potential new digital tools could offer for improving their business, or they consider the upfront costs of upgrading towards more sophisticated digital technologies as too high. Even if there is a sufficient readiness to invest, digitalisation is multi-faceted. It involves the use and applications of a broad range of technologies or software for different purposes. As a consequence, it is often hard for SMEs even to figure out where and how to start.

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<sup>24</sup> 'European Cluster Collaboration Platform (ECCP)' <<https://clustercollaboration.eu/>> accessed 25 May 2021  
<sup>25</sup> 'European Bioeconomy Network (EuBioNet)' <<https://eubionet.eu/>> accessed 25 May  
<sup>26</sup> 'The Smart Specialisation Platform for Agri-Food (S3P Agri-Food)' <<https://s3platform.jrc.ec.europa.eu/en/agri-food>> accessed 25 May 2021  
<sup>27</sup> 'Digital Innovation Hub Networks (DIHNET)' <<https://dihnet.eu/>> accessed 25 May 2021  
<sup>28</sup> 'EuropaBio' <<https://www.europabio.org/>> accessed 25 May 2021  
<sup>29</sup> 'European Network for Rural Development (ENRD)' <<https://enrd.ec.europa.eu/>> accessed 25 May 2021  
<sup>30</sup> 'Action Group 2' (EU Strategy for the Alpine Region) <<https://www.alpine-region.eu/action-group-2>> accessed 25 May 2021



Thus, supporting SME in using digital tools is an important activity to lower the entry barriers to successfully deal with this issue, but also to avoid wrong or costly investments. E. g. whereas using Customer Relationship Management (CRM) software that helps to enhance front-office integration and supply chain operations appears to be almost a must for all SMEs operating in the natural fibre sectors, Enterprise resource planning (ERP) software that enhances strategic planning is mainly intended for those SMEs. They are matured enough to manage and integrate internal and external information flows from material and human resources to finance, accounting and sales, and automates planning, inventory, purchasing and other business functions. There is no one-size-fits-all model on how to do it right, but based on proper support, the most suitable decision can be made.

Appropriate support for SMEs can be provided by a broader range of intermediaries that exist in the Alpine Region. Digitalisation Hubs, cluster initiatives, but also practitioner networks, as proposed under Action Field 1, can serve accordingly. However, it is important that SMEs are more open to receiving proper help, but such intermediaries have to become more service-oriented and proactive to provide proper tailor-made support. The proposed practitioner network can provide important input in this regard.

### **Action 2.2: Usage of digital tools that support the development of new natural fibre related value chain**

Digital tools can not only help to improve internal processes to help to find new clients through e-commerce. Digital tools can also help to develop new or extend / shorten existing value chains. The Alpine Region is recognised as having huge potentials for the development of natural fibre-based value chains. But to move from opportunities to dedicated action often turns out to be a complex practical exercise. There is a huge lack of understanding of the potential of natural fibres. However, there are recent tools available that are intended to develop new value chains, especially for new bio-based material to which natural fibres belong. For example, the Value Chain Generator (VGC) provides a hands-on, data-driven approach to overcoming existing information gaps and to unearthing unexploited business opportunities for natural fibre-based value chains. The VGC is a software tool based on natural language algorithms allowing to match actors from a knowledge base into value chains. The VGC is a tool designed to embed the shift from fossil-fuel-based to natural-based or bio-based economies into a context of shared value creation. It also helps to overcome information gaps and to unearth business opportunities for the generation and expansion of natural fibre-based value chains.

### **Action 2.3: Promotion of digital tools that allow natural fibre companies to communicate transparency**

The process of disclosing information about the product, production processes, ethicality, and sustainability is of increasing relevance for clients. Transparency is a powerful tool to build trust and loyalty. 94% of consumers are more likely to be loyal to brands that commit to transparency.<sup>31</sup> According to the Harvard Business Review, "Consumer may be willing to pay 2% to 10% more for products from transparent companies". Consumers and distributors are increasingly demanding transparency and making it one of their key requirements for purchasing decisions. The new Value Chain Law requires companies to ensure basic labour and human rights standards are respected in the supply chain. Germany is among the first countries

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<sup>31</sup> Kenny Kline, 'Here's How Important Brand Transparency Is for Your Business' (*Inc.*, 7 September 2016)

<<https://www.inc.com/kenny-kline/new-study-reveals-just-how-important-brand-transparency-really-is.html>> accessed 25 May 2021



that will introduce this law obliging companies to take responsibility. Natural fibre-based products have an especially high potential to benefit from these consumer demands since they are environmentally friendly and bio-based. Promoting natural fibre companies in this regard might help them to better communicate the benefits combined with such bio-based products, the potentials as well as the added values.

### **5.3 Action Field 3: Adaptation of public support schemes**

Fast and reliable internet coverage is a mandatory precondition for all SMEs in the Alpine Region to benefit from the trend of digitalisation. Alpine Regions, also supported by structural funds, are investing in broadband coverage, but disparities still exist among regions and between urban and remote areas. The new broadband technologies, including 5G, will allow the development of new services bringing progress, welfare and jobs and new opportunities for business but also for citizens.<sup>32</sup> One of the key lessons learned so far from a governmental perspective is that traditional funding schemes do not fit the new requirements set by digitalisation. And many governments struggled in the recent past to adapt their support scheme and related administrative procedures to the new needs of the private sector to properly support digitalisation efforts. Public support in this regard addresses dedicated market failures and is intended to support the private sector in de-risking necessary investments in digitalisation. In this regard, the public sector has a unique role to play due to its unique ability to shape the regulatory climate as well as to modify or simplify funding requirements.

#### **Action 3.1: Tailor-made support schemes**

In order to better cope with the challenges of digitalisation, SMEs from the natural fibre sector, like SMEs in most other sectors, need to have access to demand-oriented support schemes. Fast and unbureaucratic access are often more important than access to huge investments. Vouchers, for example, provide a useful tool for the public sector to support SMEs in the natural fibres sector. Vouchers have a big advantage in being administratively light, and therefore time and costs linked to administration are lower than with other forms of statutory support. One voucher scheme that is worthy of being mentioned here is the scheme introduced by Baden-Württemberg recently to support SMEs to better cope with the transformation challenges. The vouchers have a value of €10,000 and cover 80% of the costs of eligible costs. For more details, please see box 2.

*Box 4: Baden-Württemberg Transformation Voucher Scheme.<sup>33</sup>*

The Ministry for Economy Baden-Württemberg implemented "Transformation Voucher" in January 2021 to support SMEs in times of industrial transformation (about €4 million). The "Transformation" voucher is mainly intended for SMEs operating in the Automotive Sector and provides support in the complex structural change of key industries of Baden-Württemberg by financially supporting strategic consulting and advice. The Voucher Programme is intended to support SMEs to kick off new types of production, service and sales processes, shorter innovation cycles of the entire value chain or business models. The value of the vouchers EUR 10,000 and covers 80% of the eligible costs. Financial support is provided for strategic consulting in fields as varied as product development, data analytics and crisis management in the context of COVID19.

<sup>32</sup> Silvia Compagnucci et al, 'Thinking the Future of European Industry Digitalization: Industry 4.0 and the Role of EU and National Policies' (*I-Com, Institute for Competitiveness*, September 2017)

<<http://digitalexperiencenter.it/sites/default/files/osservatorio/allegati/ICOM-Thinking-Future-European-Industry.pdf>> accessed 25 May 2021

<sup>33</sup> 'Transformations Wissen BW' <<https://www.transformationswissen-bw.de/>> accessed 25 May 2021



### Action 3.2: Facilitating cross-regional cooperation within the Alpine Region

Cross-regional cooperation within the Alpine Region is still not properly supported by existing funding schemes. Firms that are interested in entering any R&D or innovation-driven cooperation with firms from other regions still struggle to find proper support schemes. Horizon 2020 or Horizon Europe schemes, as well as INTERREG schemes, are not an option for most of them. Many programme owners and policymakers argue that the establishment of new funding mechanisms across borders can, of course, be a complex administrative and technical challenge and a sensitive political process. There are concepts that demonstrate the opposite and have been proven to be effective in facilitating cross-regional RDI cooperation.<sup>34</sup> Thus, cross-regional cooperation can be boosted through rather simple coordination mechanisms, based on decentralised and bottom-up decision processes and subsidiarity, without funds necessarily having to cross borders.

The recent Innovation Express 2021 Call is an excellent example of a funding instrument that aims at facilitating internationalisation, development of innovative solutions in two given scopes for projects by developing transnational linkages among SMEs, research institutions and other business organisations. The call is funded by existing national/regional funding programmes and managed by participating funding agencies to initiate, develop or enhance transnational exchange activities among applicants and their project proposals to be funded. Applications will be evaluated based on their potential to create benefits for participating applicants and in accordance with the criteria from the respective regional/national funding programmes. The Innovation Express 2021 has been launched in mid-May 2021 and invites innovation actors from Baden-Württemberg (D), Brandenburg (D), Fribourg region (CH) and Salzburg (A) to enter common R&D and innovation actions, especially in the field of digitalisation and Artificial Intelligences.<sup>35</sup>

The Innovation Express 2021 is a good example of how cross-regional cooperation can look like and shall be re-peated for a broader number of Alpine Regions and better consider the interests of the actors from the natural fibre sector in the future.

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<sup>34</sup> Michael Keller, Mateja Dermastia, Gerd Meier zu Köcker, Philip Pfaller and Jacques Bersier, 'New power for the macro-regional innovation motors - A call for a wave of new cross-regional funding schemes in Europe' (University of Applied Sciences and Arts Western Switzerland, School of Engineering and Architecture of Fribourg, July 2020) <<https://hesso.tind.io/record/6483>> accessed 25 May 2021

<sup>35</sup> 'Innovation Express' (2021) <<https://innovation-express-2021.b2match.io/>> accessed 25 May 2021



## 6 The Way Ahead

The Policy Roadmap has identified several key actions in three action fields. All are intended to support SMEs from the natural fibre sector to make better use of the potentials connected to digitalisation. The objective is that as many SMEs as possible turn digitalisation challenges into competitive advantages.

Before officially implementing the seven actions proposed, preparatory actions are proposed as follow:

- development of a database with the information of the respondents / experts who offered their consent to be contacted and invited to join the network.
- a networking support tool should be selected to share information in form of links, documents or to easily organise networking meetings.

Both actions can be considered as a first step towards the Alpine Region-wide practitioner network. For communication purposes and for enhancing the visibility of the network (also to enlarge it), the creation of a LinkedIn group could also be envisaged. However, this depends on the resources available to moderate this group and the agreed objectives among the members.

In order to make use of various synergies that exist, actions to be implemented shall contain measure reaching out to policymakers in all Smart SME regions, inviting them to the ARDIA-Net Policy Forum in November 2021 to enlarge the discussions on designing coordinated/synchronised calls in the macro-region.

Technical Support from EUSALP AG2 subgroups on Bioeconomy and digital industry shall be requested, if possible, in order to:

facilitate dialogue between policymakers and practitioners across Alpine regions to discuss project ideas/themes in line with the seven actions proposed,  
initiate technical support, e.g., to set-up an online match-making tool and event connecting bioeconomy players in the Alpine region. The subgroups could help using the ARPAF instrument to finance such basic networking infrastructure.

Furthermore, applying for interregional funding to further develop bioeconomy value chains, e.g., by expanding the Value Chain Generator, could be a good way to further develop the network of bioeconomy actors in the Alpine region. First actions in these regards have already been undertaken. Others still must be done.



## Smart SME's

Co-financed by the European Parliament through the Alpine Region  
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Figure 9: A roadmap and rough time schedule to sequencing the different actions proposed.

