

GOOD PRACTICES AND TOOLS FOR TRANSFERRING KNOWLEDGE ON DIGITALIZATION TO SMEs

How can research centres and innovation hubs help SMEs in their digitalization efforts?

OVERVIEW: The Smart SMEs project aims to find solutions to overcome existing digitalization barriers and focuses on enterprises in natural fiber-based value chains that produce, process and apply natural fiber-based materials, both cultivated and recycled from biological waste. The project is therefore tackling the idea of **sustainable transformation in the Alpine region through the bio-economy concept**. The relatively low level of digitalization of SMEs in the natural fiber-based value chains in the Alpine space is the result of several

factors. There are some good practices and examples of successful SME digitalization initiatives in natural fiber-based VCs from this area; however, in some regions/countries, the number of these good practices is more limited than in others. Throughout project activities, the project partners analyzed the current level of digitalization in the following regions/countries:

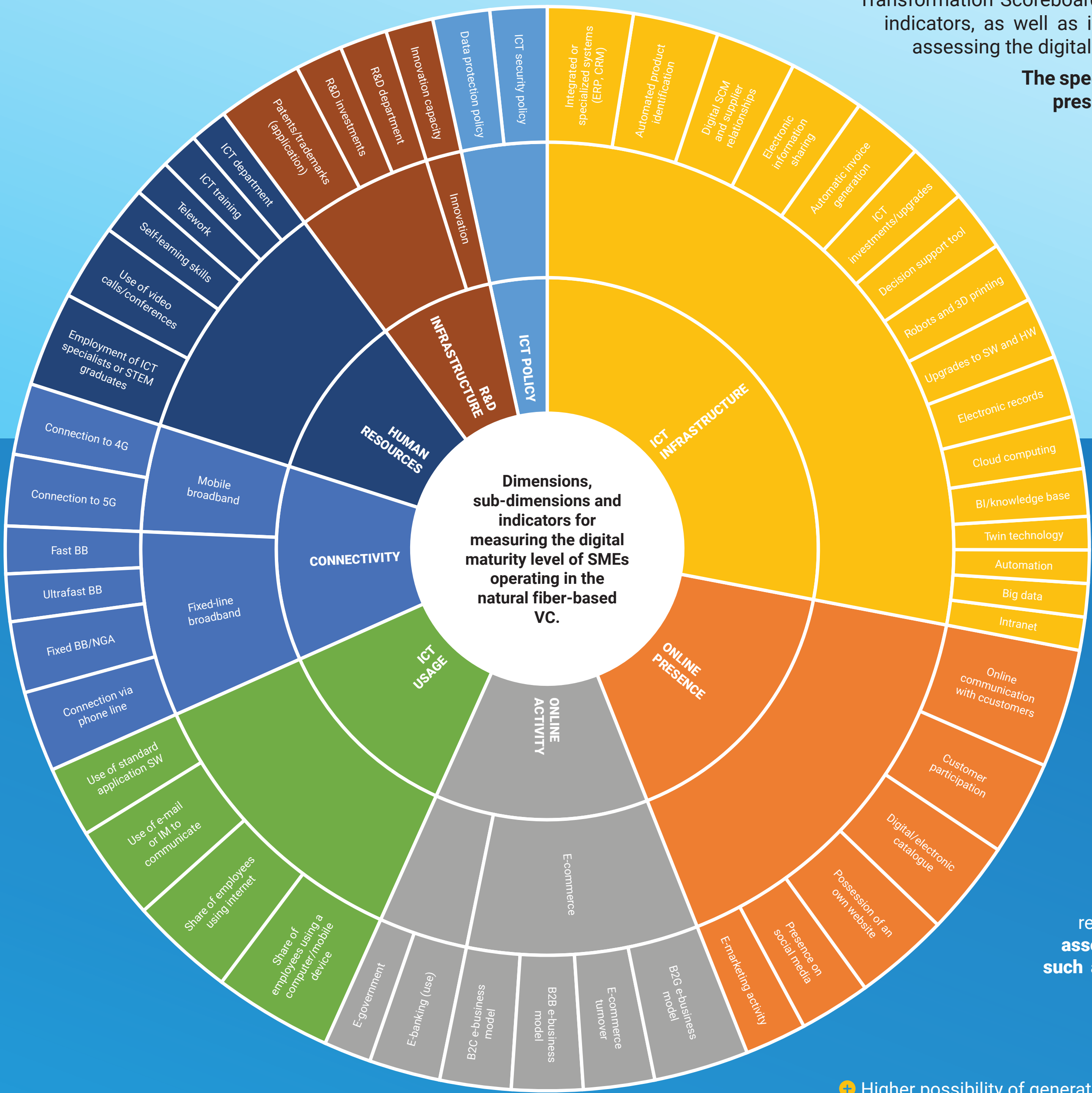
- Baden-Württemberg (Germany)
- Lower Austria
- Trentino (Italy)
- Slovenia

The data and conclusions are derived from the report titled "WP3 Collection of good practices and existing tools", the synthesis report of the Smart SMEs project co-financed by the European Parliament through the Alpine Region Preparatory Action Fund (ARPAF) (2019-2021). The SMEs included in this research refer to farmers or any form of non-government business units formed with intention of making economic activity or producing the raw material for bio-based value chains within the Alpine space.

MEASURING THE DIGITAL MATURITY LEVEL OF SMEs:

Based on the Digital Maturity and Society Index (DESI), Regional Innovation Scoreboard (RIS), Digital Transformation Scoreboard (DTS), Eurostat digital economy and OECD innovation and technology indicators, as well as indicators proposed in the scientific literature, a new methodology for assessing the digital maturity level of natural fiber-based value chains of SMEs is established.

The specific indicators were gathered into eight dimensions: **connectivity, online presence, online activity, ICT infrastructure, ICT policy, ICT usage, human resources, and research and development (R&D) infrastructure**.



GOOD RESEARCH CENTRE-LEVEL PRACTICES FOR KNOWLEDGE TRANSFER ON DIGITALIZATION:

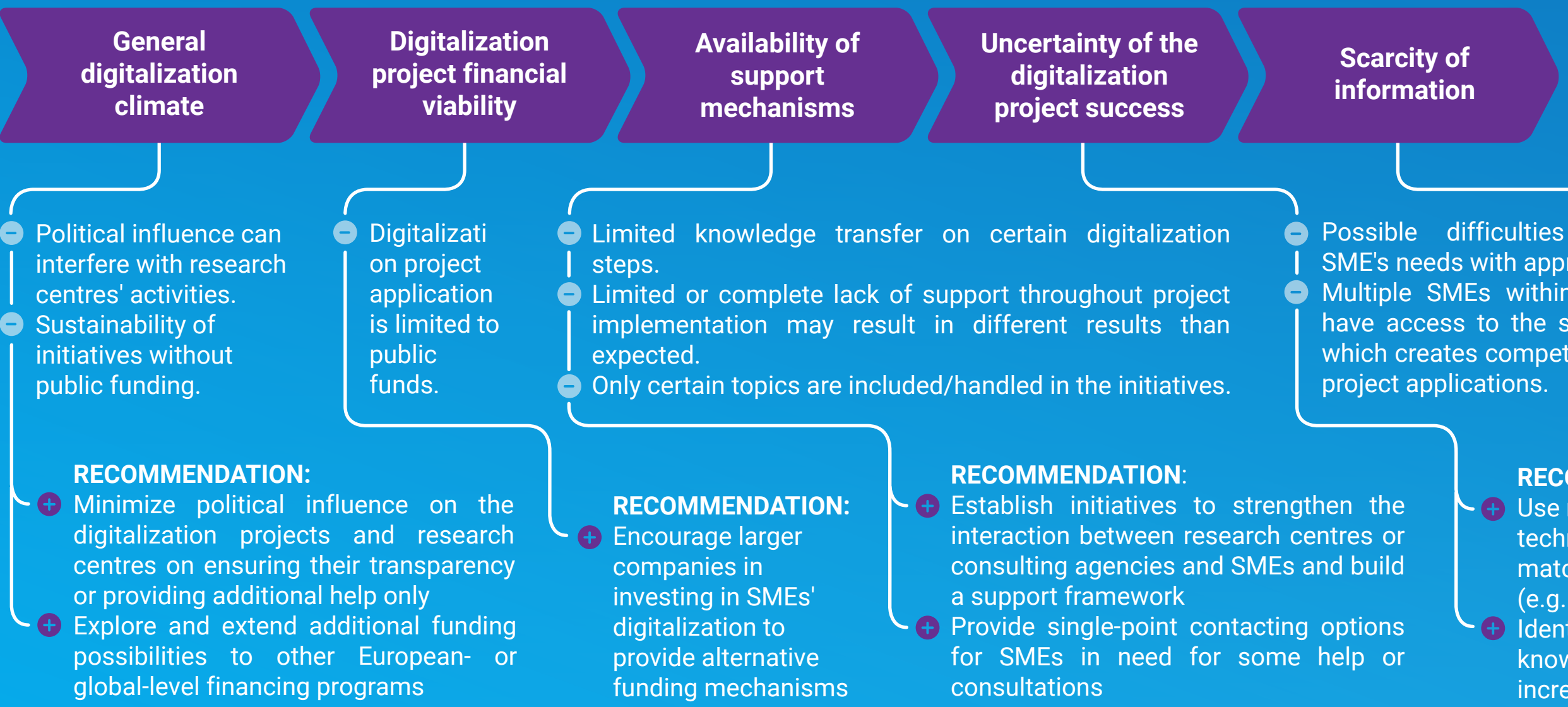
One of the biggest hurdles to increase the digital maturity level of a given region/country's SMEs is their limited access to the relevant information regarding digitalization opportunities. To deal with this challenge, regions/countries within the Alpine space developed a series of mechanisms and practices aimed at their SMEs in given value chains to help facilitate the transfer of knowledge in terms of the **skills of the staff, methods, technologies and tools and new value generation** from research institutions and universities to the private sector. One category of these practices encompasses solutions that are provided by publicly funded or non-profit organizations, such as innovation hubs or research centres. **These research and development (R&D)-oriented associations assist SMEs in their digitalization-related projects in several ways, such as providing assessments, guidance in applying for funding opportunities, connections or networks with HE institutions and other experts, etc.**

BENEFITS FOR SMEs:

- Quick and easy access to experts, which creates new contacts for SMEs
- Support for digitalization projects (consultant and other services)
- Higher possibility of generating new value and innovative products in combination with experts' knowledge
- Free-of-charge support during project funding application process
- Possibility to evaluate the performance of developed technical solutions within a test environment
- Wide range of collaboration opportunities
- Possibility of staff trainings and workshops
- Increasing SME's competitiveness and expanding to foreign markets

CONSTRAINTS AND RECOMMENDATIONS:

Research centre-level practices and initiatives can bring certain risks and constraints into the digitalization process of SMEs. These bottlenecks and constraints can be grouped into five categories.



Nevertheless, through the collaboration with research institutions (centres, innovation hubs, academia) and private sector SMEs, the influence of these constraints can be minimized for the welfare of SMEs' digital maturity level.

