



European Union  
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**DigiBEST**  
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## ATTACHMENT 2

### DIGIBEST PEER REVIEW FEEDBACK FOR SENDING PARTNER

***PR EXPERT: KPMG BALTICS AS***  
***DATE: 15/06/2021/***

PR Feedback template,  
Version 1  
Date: 15/06/2021  
DigiBEST(PGI05981)

## Introduction

This template is designed for Peer Review (PR) expert to provide feedback for Sending Partner (SP) about findings during the PR relevant for SP. We kindly ask **each PR expert to complete** this form after the PR and submit to the SP **not later than one month after the PR event**. The objective of provided feedback is to compare the situation in SP and Hosting Partner's (HP) country/regions, as well as to identify Good Practices (GP) having a potential to be transferred from HP to SP and to provide relevant conclusions and recommendations.

The PR expert's work is based on the **desk research** (literature and data analysis) and **field research** (PR event).<sup>1</sup> The desk research is based on comparing the information included in Regional Studies and other relevant materials and information provided by SP and HP. During the PR event the PR expert should take notes and collect information that could also be useful for SP. If necessary and/or required by SP, the PR expert requests additional online interviews with HP stakeholders.

### GENERAL INFORMATION

<b>Sending partner</b>	<i>Ministry of Environmental Protection and Regional Development, Latvia</i>
<b>Hosting partner</b>	<i>Intermunicipal Community of Tamega and Sousa, Portugal</i>
<b>Date of the PR event</b>	18/05/2021-20/05/2021
<b>Specific tasks of the PR expert assigned by the SP according to the work contract<sup>2</sup>.</b>	Provide suggestions to SP about good practices of HP that could be taken over.  Prepare suggestions for SP digitalisation strategy road map and action plan development.

### List of documents/information reviewed during the desk research, which were particularly useful to provide the feedback to SP.

#### Studies/research papers/documents:

1. DigiBEST REGIONAL STUDY ON THE STATE OF DIGITAL TRANSFORMATION AND ITS IMPACT ON THE REGIONAL BUSINESSES IN LATVIA  
*Date of issue: 29 January 2021*  
*Author: The Ministry of Regional Development and Environmental Protection*  
*Source: Provided by DigiBEST SP*
2. DigiBEST Regional analyses, of Tâmega e Sousa, Portugal  
*Date of issue: 2021*  
*Author: Tâmega e Sousa*  
*Source: Provided by DigiBEST SP*

<sup>1</sup> Please, also see the information in the PRR.

<sup>2</sup> Please, insert a list of tasks to be fulfilled for the SP during the PR according to your work contract and technical specification.



3. DIGIBEST STUDY ON THE STATE OF DIGITAL TRANSFORMATION AND ITS IMPACT ON THE REGIONAL BUSINESSES: Joint Report (Draft)  
*Date of issue: Unknown*  
*Author: DigiBest project partners*  
*Source: Provided by DigiBEST SP*
4. GOING DIGITAL INTEGRATED POLICY FRAMEWORK  
*Date of issue: February 2020*  
*Author: OECD*  
*Source: <https://www.oecd-ilibrary.org/docserver/dc930adc-en.pdf?expires=1619165991&id=id&accname=guest&checksum=379243321E45D53FB582FE785B64C93A>*
5. OECD Reviews of digital transformation: Going digital in Latvia  
*Date of issue: 10 February 2020*  
*Author: European Commission*  
*Source: <https://www.oecd-ilibrary.org/docserver/8eec1828-en.pdf?expires=1619166249&id=id&accname=guest&checksum=6C7DD870E1CC7340001E5FB11C7A0AA2>*
6. COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS: An SME Strategy for a sustainable and digital Europe  
*Date of issue: 10 March 2020*  
*Author: OECD*  
*Source: [https://ec.europa.eu/info/sites/info/files/communication-sme-strategy-march-2020\\_en.pdf](https://ec.europa.eu/info/sites/info/files/communication-sme-strategy-march-2020_en.pdf)*
7. NATIONAL DEVELOPMENT PLAN OF LATVIA FOR 2021-2027  
*Date of issue: 2 July 2020*  
*Author: Cross-Sectoral Coordination Center*  
*Source: [https://www.pkc.gov.lv/sites/default/files/inline-files/NAP2027\\_ENG.pdf](https://www.pkc.gov.lv/sites/default/files/inline-files/NAP2027_ENG.pdf)*
8. National Development Plan of Latvia for 2014–2020  
*Date of issue: 20 December 2012*  
*Author: European Commission*  
*Source: [https://ec.europa.eu/info/sites/default/files/file\\_import/2019-european-semester-country-report-portugal\\_en\\_0.pdf](https://ec.europa.eu/info/sites/default/files/file_import/2019-european-semester-country-report-portugal_en_0.pdf)*
9. Norte2020: Synthesis of Programme  
*Date of issue: Unknown*  
*Author: Comissao de Coordenacao e Desenvolvimento Regional do Norte*  
*Source: [https://www.norte2020.pt/sites/default/files/public/uploads/programa/CCDR-N\\_brochura\\_Ingles\\_FINAL\\_NOVO.pdf](https://www.norte2020.pt/sites/default/files/public/uploads/programa/CCDR-N_brochura_Ingles_FINAL_NOVO.pdf)*
10. NORTE REGION SMART SPECIALISATION STRATEGY SYNTHESIS OF THE MONITORING REPORT  
*Date of issue: October 2019*  
*Author: Comissao de Coordenacao e Desenvolvimento Regional do Norte*



Source: [https://www.ccdn.pt/storage/app/media/files/ficheiros\\_ccdrn/ficheiros\\_RegNorte/s3norte\\_-\\_norte\\_region\\_smart\\_specialisation\\_strategy\\_1.pdf](https://www.ccdn.pt/storage/app/media/files/ficheiros_ccdrn/ficheiros_RegNorte/s3norte_-_norte_region_smart_specialisation_strategy_1.pdf)

**Web pages:**

11. Shaping Europe's digital future | European Commission (europa.eu)
  12. The European Digital Strategy | Shaping Europe's digital future (europa.eu)
  13. Europe's Digital Decade: digital targets for 2030 | European Commission (europa.eu)
  14. Growth and Employment - Regional Policy - European Commission (europa.eu)
  15. Digital Agenda for Europe | Fact Sheets on the European Union | European Parliament (europa.eu)
  16. Policy planning documents | Vides aizsardzības un reģionālās attīstības ministrija (varam.gov.lv)
  17. SME strategy | Internal Market, Industry, Entrepreneurship and SMEs (europa.eu)
  18. LV\_SHs updated • SHs in Latvia • Kumu
  19. VARAM sadarbosies ar LU un RTU digitālo prasmju integrācijai akadēmiskajā vidē | Vides aizsardzības un reģionālās attīstības ministrija
  20. Pakalpojumi | Latvijas Investīciju un attīstības aģentūra (liaa.gov.lv)
  21. ecfm\_forecast\_summer\_2020\_pt\_en.pdf (europa.eu)
  22. UPDATE 2-Portugal's economy fell 7.6% in 2020, biggest drop since 1936 | Reuters
  23. Tâmega e Sousa - PT11C - Employment Institute (iz.sk)
  24. Destaques (compete2020.gov.pt)
  25. Espaço Empresa - ePortugal.gov.pt
  26. Capacitação Digital | #PortugalDigital – Moving Forward. Moving With a Purpose.
  27. ACTIVITIES / INCLUSION | Portugal INCoDe.2030 (incode2030.gov.pt)
  28. Cooperation » Centro Nacional de Cibersegurança EN (cnsc.gov.pt)
  29. Portugal is in mid-league in the 'digital maturity' index of companies (algarvedailynews.com)
  30. Operational Programmes (europa.eu)
- Statistics:**
31. Bezdarbs 2019. gada 3. ceturksnī | Centrālā statistikas pārvalde (csb.gov.lv)
  32. Bezdarba līmenis 2021. gada janvārī | Centrālā statistikas pārvalde (csb.gov.lv)
  33. DESI — Digital Scoreboard - Data & Indicators (digital-agenda-data.eu)
  34. Vai Covid-19 krīze palielinās emigrāciju no Latvijas? (makroekonomika.lv)

**Meetings, interviews – during the PR event<sup>3</sup>, which were particularly useful to provide the feedback to SP.**

All meetings during PR event were relevant to gain more practical understanding and insight about the digital transformation of SMEs in the region.

**COMPARATIVE ANALYSIS ON SMEs COMPETITIVENESS PROMOTION THROUGH DIGITAL TRANSFORMATION OF SENDING/HOSTING PARTNERS**

**Similarities and differences in the socio-economic development. Impact of the COVID-19 and its consequences.**

<sup>3</sup> Meetings, interviews and/or visits will take place online or onsite depending on the situation with the Covid-19 and local restrictions.



<b>Similarities</b>	<b>Differences</b>
<p>In both Latvia and Portugal specially designed financial support programs have been implemented to limit impact that the COVID-19 pandemic has caused for the overall economy. The measures include EU funding and national funding programs. The support mechanisms are targeting both business environment by providing grants, loans and credit lines, and also employees, by providing grants for those who are pushed out of job market.</p> <p>Both countries have experienced significant decrease in real GDP growth due to Covid-19, however, according to International Monetary Fund in both countries projected real GDP growth for 2021 is 3.9%</p>	<p>COVID 19 pandemic has impacted economy of Portugal harder than Latvian economy. The Q3-2020 year-on-year real GDP growth in Latvia was -3.1%, however in Portugal in 2<sup>nd</sup> quarter of 2020 the GDP decrease was 16.3% in comparison with the previous year.</p>
<b>Similarities and differences in the context of The Digital economy and society index (DESI)<sup>4</sup> key indicators.</b>	
<b>Similarities</b>	<b>Differences</b>
<p>Both Portugal and Latvia in 2020 showed similar overall DESI scores. Latvia was ranked 18<sup>th</sup> in EU (50.7) and Portugal 19<sup>th</sup> (49.6).</p> <p>Similar results were also in DESI Human capital/digital skills indicator, where Latvia scored 35 and Portugal 37.8.</p>	<p>Main differences are in such DESI categories as “Connectivity”, “Digital public services”, “Integration of digital technology”.</p> <p>In “Connectivity” Latvia scores 61.8, which is way above the EU average of 50.1, however Portugal scores 53.9 that is still above EU average.</p> <p>Both countries also score above EU average (72) in “Digital public services” category, however Latvia scores significantly higher (85.1) than Portugal (75.1).</p> <p>At the same time both countries score below the EU average of 58 in use of “Internet services by citizens” category of DESI, however Latvia scores slightly higher (54) than Portugal (48.1). Portugal, however, has significantly higher score (40.9) than Latvia (28.3) in “Integration of digital technology” by business category of DESI, however both countries score below EU average of 41.4.</p> <p>Disregarding the DESI of 2020, the main difference between two countries is that Latvia during last 5 years has stagnated in overall DESI score growth as in 2016 it was 49, and in 2020 it was 50.7, while for Portugal it has been increasing steadily since 2014 when it was 44.</p>

<sup>4</sup> <https://ec.europa.eu/digital-single-market/en/digital-economy-and-society-index-desi>



<b>Common problems for the digitalization of SMEs and microenterprises identified.</b>	
<b>Common problems</b>	<b>Specific problems of SP</b>
<ol style="list-style-type: none"> <li>1) <b>SMEs are not aware about what benefits</b> digitalization of processes could provide, as well as they are often not aware what digital solutions exist, that could streamline their business actions</li> <li>2) <b>Lack of resources</b> in terms of extra <b>time resource</b> that could be devoted to adopt new digital solutions besides core business activities, financial resources, and human capital resources</li> <li>3) There is a <b>lack of qualified ICT specialists</b> in the market, that could shape digital transformation.</li> <li>4) There is a <b>lack of ICT skills</b> among SME managers, employees and population in general, that prevents successful digital solution introduction and maintenance in SME business activities.</li> <li>5) SMEs <b>struggle to identify the</b> most suitable digital solutions for their business practices as they are not completely aware of available digital solutions and how they could be applied to address SME business needs.</li> <li>6) <b>Low usage of</b> such digital solutions as <b>e-commerce</b>.</li> <li>7) <b>Big gap</b> between sophisticated SMEs and digitally immature companies.</li> </ol>	<p>Latvian is experiencing aging population, which is a significant obstacle for successful digital transformation, however North of Portugal, where Tâmega e Sousa is located, is a region with one of the youngest population in the country therefore providing positive circumstances for future growth regarding digital processes.</p>
<b>Possible solutions for promoting the digitalization of SMEs and microenterprises of the SP country/region that could be taken over from the HP country/region.</b>	
<p>Please, describe shortly problems of the SP country/region identified by PR expert during the PR.<sup>5</sup></p> <ol style="list-style-type: none"> <li>1. There is a <b>lack of awareness about the need for digitalisation and potential benefits</b>, that goes hand in hand with lack of skills to operate and introduce new technologies in SMEs.</li> <li>2. At the same time adoption of new technologies requires <b>stepping out of SME comfort zone both in terms of learning new things and required time and capital resources</b>. Very often SMEs does not have enough resources, both in terms of human</li> </ol>	<p>Solutions that are used or proposed by the HP that could be considered for transferring by the SP to solve existing problems.<sup>6</sup></p> <ol style="list-style-type: none"> <li>1. <b>Application and wider usage of maturity tests</b> as THEIA in Portugal that ensures evaluation on the SMEs digital maturity and thus identification of potential improvements. In Latvia there is a similar tool “Smart Latvia &amp; Digital Maturity Test”, however, as understood during the field research, in Portugal THEIA<sup>8</sup> works also as a data collecting tool for overall country wide digital maturity assessment and weak point identification for further</li> </ol>

<sup>5</sup> The main source of information for PR experts is the Regional Study of the SP. However, there can be other problems, which PR experts may identify during additional desk research, as well as interviews with the SP.

<sup>6</sup> The main source of information for PR experts is the Regional Study of the HP. However, there can be other problems, which PR experts may identify during desk research and field research, as well as during interviews with the HP.

<sup>8</sup> <https://theia.cotec.pt/pt>



<p>capital and financial resources, that could be distributed to implement new solutions.</p> <ol style="list-style-type: none"> <li>3. Latvia has relatively good infrastructure for digitalisation, but <b>low willingness and skillset for SMEs</b> to exploit it. SMEs lack internal digitalisation strategy and structured future vision just as well as cyber security awareness and financial resources to implement new digital solutions.</li> <li>4. With global and local ICT sector development and great demand for ICT employees globally and country-wide and attraction of them to the ICT sector, enterprises in other sectors and particularly SMEs have <b>great challenge to attract skilled ICT employees</b>.</li> <li>5. In Latvia, <b>the benefits of using standard digital technology solutions by SMEs are not fully realized</b>. In line with OECD data - websites, social media, CR, cloud computing, SCM, Big Data solutions and E-sales in Latvia are used nearly the least among selected OECD countries, while ERP solutions – below OECD average.<sup>7</sup> This data aligns with DESI index category “Integration of Digital Technology” where Latvia significantly lags the EU average. During the field research it was noted that also standardized tool usage in Tâmega e Sousa region could be increased, potentially in manufacturing industry by using such platforms as e-commerce and potentially other solutions.</li> <li>6. In Latvia it is <b>not quite clear how provided support instruments and policies are designed on profiling of SMEs and their unique business needs</b>, based on the industry where they operate, region, size and other SME characteristics.</li> </ol>	<p>policy planning and implementation purposes.</p> <ol style="list-style-type: none"> <li>2. <b>Implementation of similar practice as Citizen’s Shops</b><sup>9</sup>. Citizen’s Shop operates as physical locations across Portugal where people and SMEs can get an assistance on different public services in one point, therefore saving time on accessing services of different public administration organizations separately. It works as a one-stop-shop concept for public service in Portugal. Available public services are organized according to companies day-to-day affairs (e.g. changing data in several documents simultaneously, creating companies or buying a house).</li> <li>3. <b>Implementation of similar practice as Business Space</b><sup>10</sup> operates similarly as a Citizen’s Shops but just in one municipality (Paços de Ferreira). In the Business Space SME entrepreneurs and future SMEs can receive information, advice and support adjusted to the needs of their company in a timely manner. The provided services are: General information regarding entrepreneurship related questions, support (legal and economical) and advice for SME companies; Intermediation and facilitation (interface with Central Public Administration services); and Assisted digital service - support for the realization of online services provided by the public administration.</li> <li>4. <b>Implementation of such practice as B.Box @ Tâmega e Sousa</b>, that is an intensive, pre-acceleration and skills development program for Tâmega e Sousa entrepreneurs and business persons, promoted by the Tâmega e Sousa Intermunicipal Community, with the scientific coordination of the Higher School of Technology and Management of the Polytechnic of Porto.</li> <li>5. To address and promote the digital transformation a <b>similar program like DES AGRO 4.0</b><sup>11</sup> organised by Business association DOLMEN could be considered. The program tries to spot and perform</li> </ol>
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<sup>7</sup> Business use of advanced digital technologies in selected OECD countries, 2017 of latest available year. Going Digital in Latvia, OECD Reviews of Digital Transformation, OECD, 2021.

<sup>9</sup> <https://www.interregeurope.eu/policylearning/good-practices/item/3926/loja-do-cidadao-citizen-s-shop/>

<sup>10</sup> <https://www.interregeurope.eu/policylearning/good-practices/item/3924/espaco-empresa-business-space/>

<sup>11</sup> <https://desagro-iot.pt/>



	<p>mapping for technological innovations in field of agriculture. In the scope of the program study visits and good practice presentations are organised, therefore facilitating digitalization also in rural areas and rising awareness among SMEs from these areas.</p>
<p><b>Comparison of the policy framework<sup>12</sup>, including main involved institutions and stakeholders, as well as policy documents and tools being instrumental for promoting the digitalization of SMEs and microenterprises.</b></p>	
<p>Policy framework of the SP that is instrumental for digitization of SMEs</p>	<p>Policy framework of the HP that is instrumental for digitization of SMEs</p>
<p>EU digitalisation policy framework is supported by national level planning and policy framework. There are three development planning levels with corresponding documentation.</p> <ol style="list-style-type: none"> <li>1. Political guidance documents</li> <li>2. Spatial planning documents</li> <li>3. Policy planning documents</li> </ol> <p>Planning documents support visions of long term (25 years), medium-term (up to 7 years) and short term (up to 3 years).</p> <p>The main national long-term planning document is “<b>Sustainable Development Strategy of Latvia until 2030</b>”<sup>13</sup>. The document is divided in 7 general priorities, with a focus on overall development of Latvia from different perspectives.</p> <p>This strategy is supported by medium-term comprehensive plan “<b>National Development Plan 2021-2027</b>”<sup>14 15</sup> which also covers several areas of digitalisation regarding e-commerce, R&amp;D, connectivity, etc. with the aim to facilitate a balanced and sustainable development of Latvia and focuses on main goals such as competitiveness of business and material well-being, promoting the increased use of digital technologies in business, smart specialisation, supporting innovation and investments.</p> <p>“National industrial policy guidelines 2021-2021” set smart specialization strategy and</p>	<p>In Portugal, the digital transformation is considered essential by the Portuguese government. There is no directly specialised sub-regional strategy, however digital transformation is fostered through the national and regional policy documents and support programmes.</p> <p>Currently, as the main policy document is regarded a national strategy <b>Indústria 4.0</b><sup>21</sup>, as a part of the National Strategy for the Digitisation of the Economy, to promote innovation and digitalisation in key strategic sectors across the country (60-point action plan with 3 strategic lines – digitalisation, innovation and training). There are also other policies in place such as, the “<b>National Initiative for Digital Competences e.2030</b>”<sup>22</sup> to tackle a problem of low digital literacy in the country. The <b>National AI Strategy 2030</b> (2019) was also defined to strengthen the basic ICT skills of the population preparing it for emerging and digital-based employment opportunities.</p>

<sup>12</sup> This source could help to gather ideas for describing the policy framework and its main elements: <https://www.oecd-ilibrary.org/docserver/dc930adc-en.pdf?expires=1611262136&id=id&accname=guest&checksum=DEB2E5D80FC93D914C343A581FA81E2>

<sup>13</sup> [LIAS 2030 en 0.pdf \(pkc.gov.lv\)](https://pkc.gov.lv/IAS_2030_en_0.pdf)

<sup>14</sup> [The Latvian National Development Plan 2021-2027 - Summary pdf 1.pdf \(pkc.gov.lv\)](https://pkc.gov.lv/The%20Latvian%20National%20Development%20Plan%202021-2027%20-%20Summary%20pdf%201.pdf)

<sup>15</sup> [Nacionālā attīstības plāna 2014.-2020.gadam sākotnējā redakcija \(pkc.gov.lv\)](https://pkc.gov.lv/Nacionala_attistibas_plana_2014.-2020.gadam_sakotnaja_redakcija)

<sup>21</sup> <https://www.iapmei.pt/getattachment/PRODUTOS-E-SERVICOS/Incentivos-Financiamento/Sistemas-de-Incentivos/Industria-4-0/GuiaIndustria40-pdf.pdf.aspx?lang=pt-PT>

<sup>22</sup> <https://www.incode2030.gov.pt/>





policy action areas (incl. human capital, infrastructure innovation, business environment, access to finance)<sup>16</sup> and even though cover strategy also for SMEs – their needs are not separately addressed in the strategy and policy action areas.

“Regional policy guidelines 2021-2027” set regional policy goals in the areas of regional development, increase in efficiency of services, as well address smart solutions<sup>17</sup> as part of the guidelines, but as well do not address specifically SME needs.

The main document attributed particularly to digitalisation by expanding the settings of “National Development Plan 2021-2027” is supposed to be “**Digital Transformation Guidelines for 2021-2027**”<sup>18</sup>. Guidelines provides five action directions: digital skills and education; digital security and credibility, access to telecommunications services, digital transformation of the economy (so-called “public administration”); innovation, ICT industry and ICT science.

The main stakeholders in Latvia are various national and regional level institutions, regional and local authorities, associations, NGOs.

Policy objectives are supported by EU funding programs, such as an “Growth and Employment” with is a single multi-fund Operational Programme, that combines various EU funds, and channels significant part of them to SME supportive projects. Several other programs are in place to support SMEs digitalisation, like competence centre program enacted by the Ministry of Economics to support R&D, Digital Innovation Hubs, and various LIAA<sup>19</sup> programs, as well as LIKTA<sup>20</sup> training programs. LIKTA also provides digital maturity assessment tool. It is worth mentioning, that initiatives are provided by various public and non-government institutions and therefore are relatively fragmented and possibly overlapping.

## CHECKLIST OF MEASURES IMPORTANT FOR DIGITALIZATION OF BUSINESESS

<sup>16</sup> National industrial policy guidelines 2021-2027, The Cabinet of Ministers regulation Nr.93, 16th of February, 2021.

<sup>17</sup> Regional policy guidaleins 2021-2027. The Cabinet of Ministers regulation Nr.587, 26th of November, 2019.

<sup>18</sup> <https://www.varam.gov.lv/lv/digitalas-transformacijas-pamatnostadnes-2021-2027gadam>

<sup>19</sup> [Sākumlapa | Latvijas Investīciju un attīstības aģentūra \(liaa.gov.lv\)](http://sakumlapa.liaa.gov.lv)

<sup>20</sup> [LIKTA - IKT/IT Asociācija, Latvija. Telekomunikācijas un Izglītība](http://likta.gov.lv)

Please, provide a short information - 1-3 sentences for each question that characterises the situation in PP countries/regions and can be compared. Please, also include links or sources, where additional information can be found. If possible, please, also include examples that illustrate the situation in PP regions/countries.

Title of measure/partners	Sending partner	Hosting partner
<p><b>Strategy</b></p> <p>There is a clear strategy or measures for SMEs and microenterprises digitalization, supported by specific objectives and indicators:</p> <ul style="list-style-type: none"> <li>- EU level<sup>23</sup></li> <li>- national level<sup>24</sup></li> <li>- regional level<sup>25</sup></li> <li>- business level<sup>26</sup></li> </ul>	<p>Based on information from national policies, PR Experts see that national policies follow objectives of EU policies regarding digitalisation and highlight the same priorities. From “Digital Transformation Guidelines for 2021-2027” PR Experts see that there are specific goals identified for digital transformation and certain co-responsible institution are assigned to their execution. At regional level spatial planning regions have their own planning documents that address general strategy from different angles of the region. Local municipalities also have their own local government development programs. In theory local planning documents and regional planning documents should be aligned with goals of national policies, however in practice, they do not address digital transformation in detail. It is hard to evaluate how the measures and strategy is brought on to business level as</p>	<p>Portugal in its digital transformation follows EU policy guidelines and objectives. Currently at national level the main policy document is regarded the national strategy Industry 4.0<sup>27</sup>. The Industry 4.0 strategy is top-down implemented also in regional and local municipal region. The strategy has 60-point action plan with 3 strategic lines – digitalisation, innovation and training.</p> <p>The objectives of national strategy are supported by national financing instruments like – Operational Programme, “Growth and Employment 2014 - 2020”, that channels funds to regional programs.</p> <p>Different business associations like COTEC Portugal in national level, as well as regional business associations that are close to actual business environment work together in order to identify the best strategies and action points for successful Industry 4.0 implementation.</p>

<sup>23</sup> European Union level digitalization strategies or other relevant documents, such as DESI, “Digital Europe Programme”, “SME Strategy for a sustainable and digital Europe”, “White Paper on Artificial Intelligence” etc. Please, indicate, if and how these EU level strategies and/or measures are reflected in national, regional and local level strategies.

<sup>24</sup> National level digitalization strategy or other relevant document clearly stating objectives of digitalization. Other documents, such as RIS3 or OP, addressing digitalization targets on the national level. (Please, name documents and provide links).

<sup>25</sup> Regional level digitalization strategy or other relevant document clearly stating objectives of digitalization. Other documents, such as RIS3 or OP, addressing digitalization targets on the national level. (Please, name documents and provide links).

<sup>26</sup> Business (company) level digitalization strategies and digitalization plans. (Please, estimate, how many companies (%) in PP country/region have a digitalization strategy.)

<sup>27</sup> <https://www.iapmei.pt/getattachment/PRODUTOS-E-SERVICOS/Incentivos-Financiamento/Sistemas-de-Incentivos/Industria-4-0/GuiaIndustria40-pdf.pdf.aspx?lang=pt-PT>



	<p>there are NGOs that provide support to SMEs, and therefore the provided initiatives are often fragmented and possibly overlapping.</p> <p>“Digital Transformation Guidelines for 2021-2027” also are supposed to provide a list of indicators that should be accomplished during time period from 2021 until 2027.</p>	
<p>Country/region has clearly defined its targets for improving SMEs competitiveness, including the uptake and integration of modern ICT tools.</p>	<p>Country has defined main focus areas in relation to targets for overall competitiveness as well targets for ICT uptake and integration in SMEs (e.g., “Digital Transformation Guidelines for 2021-2027”).</p> <p>Planning regions have “Sustainable Development Strategies until 2030” and a 7-year Development Programs (currently are working on planning documents for 2021-2027), which also includes activities promoting digitalisation and entrepreneurship.</p> <p>Clearly ICT tool integration is a priority according to national and regional level policies, however in regional level planning documents these objectives are very often broadly described and do not address SME digitalisation into details.</p>	<p>Both country and Tâmega e Sousa has defined its priorities in scope of digital transformation. The digital transformation is built around national strategy of Industry 4.0, that is oriented on innovative and modern ICT tool adoption, talent nurturing by SMEs, in order to increase competitiveness and sustainability of SMEs.</p>
<p>Progress of SMEs and microenterprises digitalization is regularly assessed against its objectives and measured outcomes. Please describe the process established and/or tools in use for that.</p>	<p>“Smart Latvia &amp; Digital Maturity Test”<sup>28</sup> tool provides SMEs with an opportunity to test their digital maturity in individual business level, however the maturity assessment is not applied to evaluate progress of SMEs in digitalization at state/regional level.</p> <p>Digital maturity assessment and other methods could be</p>	<p>It is not known how frequently the digitalization is assessed, but based on information from field research, it is understood, that the approach of Industry 4.0 implementation includes consistent assessment of SME maturity and their digital need identification with a help of specially designed maturity tests, like THEIA<sup>29</sup>, and other regional level surveys. THEIA is a maturity</p>

<sup>28</sup> <https://www.interregeurope.eu/policylearning/good-practices/item/4119/smart-latvia-digital-maturity-test/>

<sup>29</sup> <https://theia.cotec.pt/pt>



	<p>applied to monitor progress and measure outcomes systematically and regularly more widely at state/regional (incl. specific industry) level.</p>	<p>assessment tool designed by Portuguese business association COTEC Portugal<sup>30</sup>, to test the maturity of Portuguese companies, and overall digitalization level and problem areas in scope of Industry 4.0. COTEC Portugal is collaborating with other business association of Portugal in order to popularize the tool among SMEs and gain more responses. Unfortunately during field research, it was identified that SMEs are not very responsive in taking participation in these surveys and maturity testing.</p>
<p>Different sources of funding are available to support the digitalization of SMEs and microenterprises. Please name, what are the most important ones.</p>	<p>There are several initiatives to support SMEs with financing in place that rely on EU funds, for example “Growth and Employment” operational program.</p> <p>Various financing attraction programs are provided by investment and Development Agency of Latvia (LIAA)<sup>31</sup>.</p> <p>Regional planning institutions also provide several grants and financial aid programs. However, information on funding opportunities is rather scarce and could be consolidated under one information platform.</p>	<p>The most important funding comes from EU funds, like Operational Programme, Growth and Employment 2014 - 2020<sup>32</sup>. Part of the funds from this program is allocated to Norte region through regional program “North Portugal Regional Operational Programme 2020”<sup>3334</sup>. EUR 2 811 635 749 comes from ERDF and EUR 567 134 982 from ESF.</p> <p>37% from total regional funding are allocated to support the competitiveness and innovation in SMEs. Part of funds from the “North Portugal Regional Operational Programme 2020” are distributed to Job and entrepreneurship Incentives System (SIE)<sup>35</sup>.</p> <p>The program aims to stimulate small businesses in the Tâmega e Sousa region, to rise investment in low-density areas, to the creation of micro and small enterprises or the expansion and modernization</p>

<sup>30</sup> <https://cotecportugal.pt/en/>

<sup>31</sup> [Pakalpojumi | Latvijas Investīciju un attīstības aģentūra \(liaa.gov.lv\)](https://www.liaa.gov.lv)

<sup>32</sup> <https://ec.europa.eu/esf/main.jsp?catId=576&langId=en>

<sup>33</sup> [https://www.norte2020.pt/sites/default/files/public/uploads/programa/CCDR-N\\_brochura\\_Ingles\\_FINAL\\_NOVO.pdf](https://www.norte2020.pt/sites/default/files/public/uploads/programa/CCDR-N_brochura_Ingles_FINAL_NOVO.pdf)

<sup>34</sup> <https://ec.europa.eu/esf/main.jsp?catId=576&langId=en>

<sup>35</sup> <https://www.norte2020.pt/si2e>



		of existing micro and small companies.
<p>There are different tools for promoting the digitalisation of SMEs and microenterprises designed and used (please, shortly describe these tools if any).</p>	<p>As described previously “Growth and Employment 2014 - 2020” operational program is one of the tools how to allocate funding and promote digitalisation, just as LIAA provides access to business incubators and other support programs. There are also several public and private technical and knowledge support programs as “Consultancy on business support” by Zemgale Region Human Resource and Competences Development Centre.</p> <p>Digital Innovation Hub offers a set of support measures for SMEs to acquire knowledge on the actual digital solutions and improve problem-solving skills.</p> <p>Latvian Information and Communications Technology Association provides “Smart Latvia &amp; Digital Maturity Test” that helps to assess their digital maturity and weak points of their digitalisation status. Digitalisation is also promoted through “Competence Centre Programme”, “Digital Innovation Hubs”, “The Technology Transfer programme”.</p> <p>Several other programs coordinated by different organisations are in place to support training for example LIKTA training program that is EU co-funded and has organises 3 900 training activities for 1 200 companies. Several support programs provided by regional planning institutions and regional universities are also provided,</p>	<p>Previously mentioned North Portugal Regional Operational Programme 2020” is one of the tools, that provide funding to SMEs in scope of digital transformation strategy. Industry 4.0 itself has a 60-point action plan with 3 strategic lines – digitalisation, innovation and training.</p> <p>To raise awareness about digitalization and monitor the maturity of the SME digitalization, as well as to point out areas for potential improvements of SMEs, the previously mentioned tool THEIA is used in national level.</p>



	<p>like business incubators and other events.</p>	
<p>Regional SMEs and microenterprises digitalization strategies/measures are clearly coordinated, also with national and other levels. What are the mechanisms in place?</p>	<p>As PR Experts understood there is top-down development planning approach including long-term, medium-term and short-term strategies.</p> <p>Several overarching national level policy documents are in place, that sets general long-term strategy, however when it comes to short/medium term policies, action plans at regional level targeted specifically at SMEs, the strategies/measures are fragmented and the coordination with state level strategies/measures could be more aligned.</p> <p>Some measures are organised by Planning regions, however many support programs are provided by independent organisations and therefore there is not jointly coordinated approach in place.</p> <p>At regional level there are spatial planning documents that address different planning objectives and are individual for different spatial planning regions. These regional planning documents are supposed to complement national guidelines.</p> <p>Similarly at local municipality level, municipalities have their individual local government documents. However, they are relatively broad and do not specifically address SME development, especially with respect to their digitalisation. Specific targets are also not described in these documents into details</p>	<p>At regional level, the strategies and measures are the same as at national level as they are formed by the national level strategies and policy planning documents like Industria 4.0. Thus, the strategies and measures are aligned.</p> <p>Possibly most important funding program for Norte region is North Portugal Regional Operational Programme 2014–2020 which is also a part of national financial instrument – Operational Programme, “Growth and Employment 2014 - 2020”, that can be considered as one of the main measures for digital development in Norte region.</p>



<p>Reduced bureaucracy in applying documents for calls of the EU Funds' projects related to the digitalization of SMEs.</p>	<p>The application process for EU funds and requirement fulfilment requires significant resources and might be bureaucratic<sup>36</sup> and availability of information about available funding programs often is limited for SMEs.</p>	<p>After conversations with SHs during field research it was discovered that one of the main reasons why SMEs do not apply to EU funding is bureaucracy in applying process. SMEs often do not have knowledge to draft the applications.</p>
<p><b>Awareness rising</b></p>		
<p>There are awareness rising campaigns and measures organized by responsible authorities to inform SMEs and microenterprises about digitalization (please, shortly describe these tools if any).</p>	<p>Awareness rising campaigns are organised through such initiatives like “Digital Innovation Hub” and their organised awareness events, hackathons, conferences and workshops.</p> <p>Awareness rising events are also organised through such organisations like LATA and LIKTA, etc. Thus, these stakeholders are significant part of the ecosystem of digital transformation promotion for SMEs.</p> <p>Nevertheless, awareness raising strategy/measures could be address more centralized also at state level to have a common overarching vision to address SMEs challenge to understand and identify the benefits of digitalization.</p>	<p>As understood from PR field research a part of awareness raising activities are carried out by local business associations. They organize such events as conferences and seminars.</p>
<p><b>Education and human resources</b></p>		
<p>There is an appropriate connection between universities and business environment: companies can find employees they need, and students find the job they want.</p>	<p>Due to high demand of ICT employees, there is not a problem for students studying ICT related programs to find jobs.</p> <p>The problem is for ICT sector companies and SMEs to find enough ICT skilled employees as there is a high competition for labour force in this area.</p>	<p>There is not large concentration of universities in the region, and as it was discovered during the field research the connection with universities is not very strong.</p> <p>There is also not a large concentration of ICT companies in the region, the majority of SMEs operate in manufacturing sector, therefore they are eager to find good specialists in manufacturing</p>

<sup>36</sup> [https://ec.europa.eu/regional\\_policy/lv/newsroom/news/2017/03/17-03-2017-in-your-own-words-eu-structural-funds-have-to-support-self-management](https://ec.europa.eu/regional_policy/lv/newsroom/news/2017/03/17-03-2017-in-your-own-words-eu-structural-funds-have-to-support-self-management)



		field, that are not specialized in ICT, as most of the companies are still exploiting manual labour force.
Country/region provides instruments to support STEM <sup>37</sup> and ICT in particular. Please describe them.	<p>There is an available program co-financed by ERDF with an aim to implement more STEM study programs in universities of Latvia<sup>38</sup>.</p> <p>The funding for the program is available since 2017, and is expected to last until 2022.</p> <p>Latvian universities such as the University of Latvia, Riga Technical University and other universities currently take part in this program.</p>	<p>Not enough information to make any conclusions regarding this topic, as there were no SHs from universities involved in the field research.</p> <p>As PR Experts understood during field research, academic environment is not widely represented in Tâmega e Sousa.</p>
Demand and supply correspond to needs of the ICT market (workers find jobs and companies find employees on national or regional levels) that reduces the “brain drain” problem.	<p>Similarly, as in various other EU countries there is a mismatch in labour market between supply of labour force that is skilled in ICT and demand of such labour force. There is a lack of skilled professionals in the labour market at the moment.</p> <p>Latvia in past decade has also experienced significant brain drain due to migration to other EU countries with more competitive salaries, however at the moment situation has stabilised but is still an important challenge.</p> <p>Also, Latvian population is declining fast due to ageing and migration, having an effect on</p>	<p>ICT market is not widely represented in Tâmega e Sousa, therefore it is hard to evaluate if demand of labour force match the supply in ICT market. The market is represented mainly by manufacturing companies, as understood from the Regional study and field research.</p> <p>Based on interviews with SHs there is a lack of qualified manual labour force, as SMEs tend to use manual labour instead of manufacturing process automation due to low labour costs, that still allow SMEs to remain competitive without streamlining their businesses.</p>

<sup>37</sup> According to the U.S. National Science Teachers Association (NSTA), “A common definition of STEM education [...] is an interdisciplinary approach to learning where rigorous academic concepts are coupled with real-world lessons as students apply science, technology, engineering, and mathematics in contexts that make connections between school, community, work, and the global enterprise enabling the development of STEM literacy and with it the ability to compete in the new economy.”

<sup>38</sup> [https://www.esfondi.lv/es-fondu-projektu-mekletajs?form\\_name=projects-search-form&order\\_field=&order\\_dir=&ProjektaNosaukums=&ProjektaNumurs=8.1.1&EsFonds=Visi+fondi&IesniedzejaNosaukums=&pSamNosaukums=&ProjektaStatuss=Visi+projekti&IstenosanasVietasAdrese=&IstenosanasVietasRegions=Visa+Latvija&IntervencesKategorijasNosaukums=](https://www.esfondi.lv/es-fondu-projektu-mekletajs?form_name=projects-search-form&order_field=&order_dir=&ProjektaNosaukums=&ProjektaNumurs=8.1.1&EsFonds=Visi+fondi&IesniedzejaNosaukums=&pSamNosaukums=&ProjektaStatuss=Visi+projekti&IstenosanasVietasAdrese=&IstenosanasVietasRegions=Visa+Latvija&IntervencesKategorijasNosaukums=)





	labour force, skills shortage and overall economic growth.	
Measures have been set up to limit the migration of the necessary workforce out of the regional territory.	<p>There is a separate ministry (The Ministry of Environmental protection and Regional Development) whose one area of activity is regional development<sup>39</sup>.</p> <p>Regional Policy 2021-2027 sets goals and tools for regional development.<sup>40</sup> There is also available EU funding to facilitate business creation in rural areas<sup>41</sup>, therefore potentially preventing people migration to large cities.</p>	During the field research and desk research no measures designed to limit migration from the region were identified. It was not identified by SHs as a particularly big problem in Tâmega e Sousa, although it was said, that young professionals often choose to migrate to more developed cities like Porto and Lisbon.
Specially tailored trainings, on-demand training or educational tutorials for enterprises (SMEs) on how to use specific digital solutions and/or how to make digital transformation in SMEs.	<p>In “<b>Sustainable Development Strategy of Latvia until 2030</b>” one of the priorities is human capital and lifelong education.</p> <p>Also “<b>Education Development Guidelines 2014-2020</b>” included lifelong education as top priorities together with vocational programs that would address labour market changing trends.</p> <p>“<b>Education Development Guidelines 2021-2027</b>” also sets Latvian National Skills Strategy goals such as improving study outcomes for learners, promoting a culture of lifelong learning, reducing skills mismatches in the labour market and strengthening skills system management.</p> <p>The State Employment Agency provides trainings to unemployed that include such qualifications and skills as computer technician, agile</p>	<p>As Tâmega e Sousa is highly dependent on manufacturing industry there are strong vocational schools like Vocational Training Centre for shoe industry<sup>43</sup> and Vocational Training Centre of the Metal Industry<sup>44</sup> present in the region.</p> <p>Both previously mentioned vocational training centres are also part of SHs team of Tâmega e Sousa.</p> <p>Based on field research information from interviews with main stakeholders it is understood that the training centres provide education programs that aim to facilitate digitalization in manufacturing industry, by providing courses related to manufacturing automation, robotic solutions and similar solutions in scope of Industry 4.0.</p> <p>There also exist intensive, pre-acceleration and skills development program “B.Box @</p>

<sup>39</sup> [Areas of activities | Vides aizsardzības un reģionālās attīstības ministrija \(varam.gov.lv\)](https://varam.gov.lv)

<sup>40</sup> [VARAM-info-15-10-zalsh UPDATE2](https://varam.gov.lv)

<sup>41</sup> [https://latvija.lv/DzivesSituacijas/2261/NEW\\_Eiropas\\_Savienibas\\_fondi#show1](https://latvija.lv/DzivesSituacijas/2261/NEW_Eiropas_Savienibas_fondi#show1)

<sup>43</sup> <http://www.cfpic.pt/>

<sup>44</sup> [http://www.cenfim.pt/default\\_v2\\_en.asp#topo](http://www.cenfim.pt/default_v2_en.asp#topo)



	<p>project management, e-commerce, data analysis, IT data security and other.<sup>42</sup></p> <p>Organisations like LIKTA support training programmes that boost the uptake of digital tools, particularly by SMEs. In particular, the EU co-funded “SMEs trainings for digital technologies and innovation development“ project (launched in 2016) was aimed at entrepreneurs, managers and SMEs employees.</p>	<p>Tâmega e Sousa<sup>45</sup> for Tâmega e Sousa entrepreneurs and business persons, promoted by the Tâmega e Sousa Intermunicipal Community and the municipal company Qualidade de Basto, with the support of Felgueiras Municipality and with the scientific coordination of the Higher School of Technology and Management of the Polytechnic of Porto, through the Entrepreneur Support Office.</p> <p>During the field research SHs stated, that there are many education programs that facilitate technology development and ICT knowledge training to SMEs.</p>
<p>Mentoring for SMEs, which support and assist in the process of implementing digital solutions/in process of SME digital transformation (supported by EU funds/government).</p>	<p>There are successful mentorship programs - such as consultancy on business support provided by Zemgale Region Human Resource and Competences Development Centre<sup>46</sup>, Also LIKTA provides mentorship through trainings<sup>47</sup> for SMEs regarding digital solutions and business digital transformation. At the same time SMEs can obtain mentorship from business accelerators organised by LIAA<sup>48</sup></p>	<p>As understood from the field research, SMEs can receive consultations and advice from business associations and vocational centres, as well as from other independent consultants if needed, however there were not identified specific practices or programs, that provide individual mentoring to SMEs.</p>
<b>Innovative environment for digital development</b>		
<p>Country/region has clearly identified business digitalization priorities. Please list them (in descending order).</p>	<p>According to “Digital Transformation Guidelines for 2021-2027” there are 5 prioritised action directions:</p> <ol style="list-style-type: none"> <li>1) Digital skills and education;</li> <li>2) Digital security and credibility;</li> </ol>	<p>According to Industry 4.0 the main priorities of the country and also Tâmega e Sousa are:</p> <ol style="list-style-type: none"> <li>1) Accelerate the adoption of technologies and concepts of Industry 4.0 in the Portuguese enterprise sector;</li> </ol>

<sup>42</sup> [Apmācību jomu un profesiju saraksts | Nodarbinātības valsts aģentūra \(nva.gov.lv\)](https://www.apmacibu.gov.lv/jomu-un-profesiju-saraksts-nodarbinatibas-valsts-agentura-nva.gov.lv)

<sup>45</sup> <https://www.estg.ipp.pt/noticias/b-box-business-in-a-box>

<sup>46</sup> <https://www.zrkac.lv/en/>

<sup>47</sup> <https://likta.lv/mmu-kursi/>

<sup>48</sup> <https://www.liaa.gov.lv/lv/programmas/biznesa-inkubatori>



	<p>3) Availability of telecommunications and computing;</p> <p>4) Digital transformation of the economy;</p> <p>5) Innovation, ICT industry and ICT science.</p> <p>Based on DigiBEST Regional study of Latvia, PR Experts understood, that the main priorities of digital transformation regarding SMEs is to raise awareness among SMEs about the need of digitalisation and possible digitalisation solutions, as well as to increase digital literacy among SMEs and population in general.</p>	<p>2) Promote Portuguese technological companies at an international level;</p> <p>3) Make Portugal an attractive hub for investment in the Industry 4.0 context.</p> <p>However, based on interaction with SH during field research the impression was that probably the main priority in order to succeed in previously mentioned objectives is to raise an awareness among SMEs about necessity of digital transformation.</p>
<p>Clusters, accelerators, science parks, digitalisation and other innovation hubs are present and act as support instruments. What do they offer?</p>	<p>Support instruments are provided by such organizations as <b>Latvian IT cluster</b><sup>49</sup>, <b>2 Digital Innovation Hubs</b>, and other organizations such as Latvia Technology Park<sup>50</sup> and Ventspils High Technology Park<sup>51</sup>.</p> <p>Latvian IT cluster for example provides “Cross-industry collaboration, networking and knowledge sharing services” program.</p> <p>Digital Innovation Hub provides Hackathons, workshops and other digitalisation promoting events for SMEs as well as work as one-stop-shops for digital transformation.</p> <p>Most of Latvian universities also have their own business accelerators. For example University of Latvia has the largest university business</p>	<p>During the field research Experts did not have a chance to meet with organizations that directly function as an innovation hubs or science parks therefore it is hard to conclude what is such organization involvement in digitalization process of Tâmega e Sousa. However, based on desk research Experts are aware that there are such organizations as <b>MOVELTEX</b><sup>56</sup> that is a centre for Competence and incubation for companies in Paços de Ferreira (municipality in Norte region)</p>

<sup>49</sup> <https://www.itbaltic.com/>

<sup>50</sup> <http://www.ltp.lv/?lang=en>

<sup>51</sup> <https://www.vatp.lv/par-mums>

<sup>56</sup> [Moveltex – Incubadora de empresas em Paços de Ferreira](#)



	<p>accelerator in Latvia<sup>52</sup>, but at the same time universities such as Riga Technical University<sup>53</sup>, University of Applied Sciences<sup>54</sup> and Vidzeme University<sup>55</sup> has their own business accelerators.</p>	
<p>Intermediary organisations (such as Chambers of Commerce, Business Associations, development agencies ...) play an active role in fostering the business digitalization on the territory. What are their responsibilities?</p>	<p>Such organisation as the Chamber of Commerce and Industry is representing SME and business organisation interests, as described previously.</p> <p>Latvian Information and Communication Technology Association (LIKTA)<sup>57</sup>, Latvian Open Technology Association (LATA)<sup>58</sup> as well as LIAA provide various digital awareness raising activities, including seminars, hackathons, training courses and financial support schemes.</p> <p><b>Latvian Open Technology Association</b> promotes cooperation between technology suppliers and consumers, including public, municipal authorities, educational and scientific institutions.</p> <p>LIKTA provides training and awareness raising programs, as well as other initiatives related to SME digitalisation support.</p>	<p>Both in national and regional level business associations are organizations that play significant role in fostering the business digitalization among SMEs.</p> <p>Industry 4.0 strategy is promoted by business association COTEC Portugal. COTEC Portugal actively collaborates with national government in digital transformation strategy analyses and implementation in Portugal. It also collaborates with other regional business associations.</p> <p>Regional business associations organize awareness raising events, actively communicate with SMEs in order to understand their problems and needs. There are also Entrepreneurs associations like APPICAPS, that help SMEs to apply for EU funding, making the application process easier and less bureaucratic.</p> <p>As understood by PR experts, business associations also collaborate with vocational centres in business environment facilitation.</p>
<p>Knowledge providers (universities, research and innovation centres) cooperate/network efficiently with companies.</p>	<p>Most of the universities have their own business accelerators, through which they can promote new company creation and business development. For example University of Latvia</p>	<p>As understood during the field research, there is not very active university involvement in Tâmega e Sousa, as main universities are located in other regions.</p>

<sup>52</sup> <https://www.biznesainkubators.lu.lv/par-mums/kasirinkubators/>

<sup>53</sup> <https://www.rtu.lv/lv/zinatne/dizaina-fabrika/inovaciju-granti/universitasu-inkubators>

<sup>54</sup> <https://www.augstskola.lv/index.php?parent=551&lng=lva>

<sup>55</sup> <https://ztc.va.lv/lv/blab#>

<sup>57</sup> <https://likta.lv/en/home-en/>

<sup>58</sup> <https://www.lata.org.lv/?lang=en>



	<p>has the largest university business accelerator in Latvia , but at the same time universities such as Riga Technical University , University of Applied Sciences and Vidzeme University has their own business accelerators as described already in previous paragraphs.</p> <p>Universities also have their institutes that work as a scientific research organizations. For example, University of Latvia has its Mathematics and IT institute<sup>59</sup>.</p> <p>Besides University institutes there are also other scientific institutes that are researching topics regarding ICT. One such example is Institute of Electronics and Computer Science<sup>60</sup>.</p> <p>Also, the Ministry of Economics has established 8 competency centres<sup>61</sup> that target companies of any size and promote research and industrial cooperation in new product and technology development projects. These centres have to earmark at least 25% of their funding for experimental development.</p>	<p>During field research it was noted that historically some business associations have collaborated with universities, for example by involving SMEs in student theses writing process, but it was admitted, that there is not very extensive direct university collaboration with SMEs.</p> <p>At the same time in region existing vocation training centres actively collaborate with SMEs providing them latest training programs. Probably the best example is B.Box @ Tâmega e Sousa, that is an intensive, pre-acceleration and skills development program for Tâmega e Sousa entrepreneurs and business persons, promoted by the Tâmega e Sousa Intermunicipal Community, with the scientific coordination of the Higher School of Technology and Management of the Polytechnic of Porto.</p>
<p>Business environment actively supports business digitalization. What does business environment include to support digitalization?</p>	<p>Business organisations like The Chamber of Commerce and Industry provide different support mechanisms to entrepreneurs in order to represent their business interests, particularly regarding digitalization there exist a committee responsible for</p>	<p>As understood from the field research, different regional and municipal business associations, like Penafiel Business Association<sup>63</sup> actively collaborate with SMEs by organizing awareness raising events, conferences, hackathons, and providing assistance to SMEs</p>

<sup>59</sup> <https://www.lu.lv/par-mums/struktura/instituti/lu-matematikas-un-informatikas-instituts/>

<sup>60</sup> <https://www.edi.lv/>

<sup>61</sup> DIGIBEST REGIONAL STUDY ON THE STATE OF DIGITAL TRANSFORMATION AND ITS IMPACT ON THE REGIONAL BUSINESSES IN LATVIA, (page 28)

<sup>63</sup> <https://www.aepenafiel.pt/>



	<p>transfer of technologies to business environment. LATA, however, in PR Experts opinion plays more important role in open source solution<sup>62</sup> facilitation among businesses in Latvia. It promotes collaboration between entrepreneurs, government bodies and education institutions. However, it is hard to evaluate how well SMEs, especially small SMEs are aware about their provided services and organised events. Also, Latvian IT Cluster provide ICT environment facilitating activities to support entrepreneurs. Latvian IT Cluster vision is to create a value network of Latvian companies, providing reliable IS development and application services for export. The cluster also organizes training of ICT professionals to promote innovation and industry development.</p>	<p>regarding their digitalization when SMEs approach them.  As understood during field research business associations also actively communicate with their associates one on one to understand their business needs.</p>
<p>Private financial actors (additional to commercial banks) are present and participate in business digitalisation (venture capitalist<sup>64</sup>, business angels<sup>65</sup>, seed funds<sup>66</sup>...). Which ones are the most active in promoting digitalization?</p>	<p>In addition to EU funding, “Altum” which is state development finance institution provides easier access to funding for SMEs and business start-ups than commercial banks would. Altum also provides access to venture capital.</p>	<p>As understood from the research, in Tâmega e Sousa it is not very common for SMEs to attract venture capital or business angels. Many of the SMEs are family businesses, that rely on own funding and EU funds. As noted during the field research there have been only couple of</p>

<sup>62</sup> <https://opensource.com/resources/what-open-source>

<sup>64</sup> A **venture capitalist** (VC) is a private equity investor that provides capital to companies exhibiting high growth potential in exchange for an equity stake. This could be funding startup ventures or supporting small companies that wish to expand but do not have access to equities markets. Venture capitalists are willing to risk investing in such companies because they can earn a massive return on their investments if these companies are a success. VCs experience high rates of failure due to the uncertainty that is involved with new and unproven companies. (<https://www.investopedia.com/terms/v/venturecapitalist.asp>)

<sup>65</sup> An **angel investor** (also known as a private investor, seed investor or angel funder) is a high-net-worth individual who provides financial backing for small startups or entrepreneurs, typically in exchange for ownership equity in the company. Often, angel investors are found among an entrepreneur's family and friends. The funds that angel investors provide may be a one-time investment to help the business get off the ground or an ongoing injection to support and carry the company through its difficult early stages. (<https://www.investopedia.com/terms/a/angelinvestor.asp>)

<sup>66</sup> The term **seed capital** (funds) refers to the type of financing used in the formation of a startup. Funding is provided by private investors—usually in exchange for an equity stake in the company or for a share in the profits of a product. Much of the seed capital a company raises may come from sources close to its founders including family, friends, and other acquaintances. Obtaining seed capital is the first of four funding stages required for a start-up to become an established business. (<https://www.investopedia.com/terms/s/seedcapital.asp>)



	<p>However, according to DigiBEST regional study of <b>Latvia, in general it is not easy for SMEs to access additional funding for investments in ICT</b>, due to lack of own funds and necessity to finance also other core business projects.</p>	<p>companies that have attracted venture capital.</p>
<b>Cooperation</b>		
<p>National/regional authority has an active role in fostering business digitalization in cooperation with main stakeholders (companies, clusters, innovation and research centres, universities).</p>	<p>National level strategy and policy framework is designed by various Ministries of the Republic of Latvia. As mentioned previously, The Ministry of Environmental Protection and Regional Development (MoEPRD) is primary responsible ministry for digital transformation aspect, however Ministry of Economics is also responsible for business related policies, incl. in relation to digitalization</p> <p>The Ministry of Defence is responsible for Cyber Security Strategy, and several other ministries are also responsible for digitalization topics related to their competency areas.</p> <p>At regional level regional planning regions are responsible for development of their represented regions.</p> <p>As PR Experts understood, planning region Entrepreneurship centres<sup>67 68 69</sup><sup>70</sup> are one of the main stakeholders, and actively facilitate also digitalisation in the regions by providing support to SMEs an also through collaboration with</p>	<p>The Comunidade Intermunicipal do Tâmega e Sousa as a regional body of government has active collaboration with other national, regional, and local entities, as well as in the public and private sectors.</p> <p>The Comunidade Intermunicipal do Tâmega e Sousa takes an active part in digitalization transformation process. For example, “SIE Job and entrepreneurship Incentives System” which is EU funding program, was managed by the Comunidade Intermunicipal do Tâmega e Sousa together with other local action groups.</p> <p>Also B.Box @ Tâmega e Sousa, that is an intensive, pre-acceleration and skills development program for Tâmega e Sousa entrepreneurs and business persons is promoted by the Tâmega e Sousa Intermunicipal Community and the municipal company Qualidade de Basto, with the support of Felgueiras Municipality and with the scientific coordination of the Higher School of Technology and Management of the Polytechnic of Porto, through the Entrepreneur Support Office.</p>

<sup>67</sup> <https://zuc.zemgale.lv/>

<sup>68</sup> <https://invest.vidzeme.lv/>

<sup>69</sup> <https://rpr.gov.lv/>

<sup>70</sup> <https://www.kurzemesregions.lv/en/kurzemes-planosanas-regions/>



	<p>local universities and other organizations.</p> <p>According to “Digital Transformation Guidelines for 2021-2027” there are identified key measures that should be done in order to increase digitalisation in the country, and for each measure there are assigned responsible organisations, such as IT Cluster, Planning regions, LIKTA, LIAA, as well as different other business associations.</p> <p>However, it is though unclear how feedback from other stakeholders (NGO’s, clusters, etc.) is gathered by government institution like MoEPRD about policy introduction in local level to identify areas of improvement.</p>	
<p>If applicable, the DigiBEST partner has an active role/is involved in the existing partnerships among innovation stakeholders (companies, clusters, innovation and research centres, universities).</p>	<p>MoEPRD is responsible for policy introduction in such areas as environment protection, regional development as well as information and digital transformation.</p> <p>It also collaborates with universities like the University of Latvia and RTU in project about digital skills integration in academic environment<sup>71</sup>.</p>	<p>Comunidade Intermunicipal do Tâmega e Sousa as a regional body of government has role in establishing partnerships with other national, regional, or local entities, as well as in the public and private sectors. From the desk research and field research it is understood that the Comunidade Intermunicipal do Tâmega e Sousa takes an active part in collaboration with other SHs when it comes to digital transformation implementation and coordination.</p>
<p>Involvement of other stakeholders, such as the Chamber of Commerce, trade unions, employment agencies in different projects, cooperation networks, etc. related to the digitalization of SMEs and microenterprises.</p>	<p>Based on information from web pages of The Latvian Chamber of Commerce and Industry PR Experts understood that it organizes seminars for entrepreneurs and provide other support services to their members. Latvian Chamber of Commerce and Industry also has a Technology Transfer</p>	<p>Unfortunately, during the field research PR Experts did not have a chance to meet with such kind of organization, therefore it is not possible to evaluate the involvement of such stakeholders in the relation to digitalization of SMEs.</p>

<sup>71</sup> <https://www.varam.gov.lv/lv/jaunums/varam-sadarbosies-ar-lu-un-rtu-digitalo-prasmju-integracijai-akademiskaja-vide>





	Committee that deals with technology facilitation among SMEs	
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## INTERREGIONAL LEARNING AND EXCHANGE

### Good practices identified in the Hosting region useful for a potential transfer to the SP's country/region. Please include, what is necessary to have them successfully implemented.<sup>72</sup>

There were 4 GPs of Tâmega e Sousa discussed during the field research, that could be considered as transferrable to the SP.

- 1) **Citizen's Shop**<sup>73</sup> is one of the initiatives that could be considered to be transferred to SP. Citizen's Shop operates as physical locations across Portugal where individual persons and SMEs can get an assistance on different public services in one point, therefore saving time on accessing services of different public administration organizations separately and as well increasing the access to the public services. It works as a one-stop-shop concept for public service in Portugal. Available public services are organized according to companies day-to-day affairs (e.g. changing data in several documents simultaneously, creating companies or buying a house).

The shops have been appearing as the main channel in the relationship of SME with the state services. In addition to providing comfort and convenience to citizens allowing them to deal with various issues in the same space, with time and travel cost savings, the shops also allow sharing resources, infrastructure and platforms, enhancing efficiency and cost reduction for the government.

- 2) **Other GP is Business Space**<sup>74</sup> which operates similarly as a Citizen's Shops but just in one municipality (Paços de Ferreira). SME entrepreneurs and future SME can receive information, advice and support adjusted to the needs of their company in a timely manner. The provided services are: general information regarding entrepreneurship related questions, support (legal and economical) and advice for SME companies; intermediation and facilitation (interface with Central Public Administration services); and assisted digital service - support for the realization of online services provided by the public administration. The ePortugal portal provides area for Business Space services which include: informative content supporting business and investment; electronic services for the fulfilment of legal formalities (related to the creation and incorporation of companies and the licensing of economic activities); forms for submitting requests for both meeting scheduling and online information from public administration bodies.

This practice similarly as Citizen's Shops is beneficial in a way that it reduces burden to SMEs caused by bureaucracy that is involved in communication with public authorities. This kind of practice could be combined with Citizen's Shops as they seem to complement each other.

- 3) Third good practice is **Portugal Industry 4.0**<sup>75</sup> which is a part of national digitalization strategy as a whole. However from the Industry 4.0. Experts would like to highlight a specific instrument – **THEIA which is a self-assessment test** for companies which shows

<sup>72</sup> Please, include sources, where further information can be found.

<sup>73</sup> <https://www.interregeurope.eu/policylearning/good-practices/item/3926/loja-do-cidadao-citizen-s-shop/>

<sup>74</sup> <https://www.interregeurope.eu/policylearning/good-practices/item/3924/espaco-empresa-business-space/>

<sup>75</sup> <https://www.interregeurope.eu/policylearning/good-practices/item/3925/programa-portugal-industria-4-0/>

where the company stands in terms of digital maturity and which are the areas for improvements. In Latvia there is a similar tool “Smart Latvia & Digital Maturity Test”, however, as understood during the field research, in Portugal THEIA works also as a data collecting tool for overall country wide digital maturity assessment and weak point identification for further policy planning and implementation purposes.

- 4) In addition to previously mentioned 3 GPs there in Portugal there is also another **practice Citizen’s Stops** that are organized by the same organization as Citizen’s Shops (Portuguese Administrative Modernization Agency). This practice works as a free space where citizens can get an access to internet, and get assistance on how to use computer and internet in case they are not experienced in it. Such practice is beneficial for people who either do not know how to use IT solutions and want to learn or to those who do not have computer or internet access. It would be probably beneficial to introduce such practice in rural areas of Latvia in order to provide access to Internet and to facilitate learning of IT solutions and provide availability of simple IT solutions in areas where digital literacy is low or where IT solutions are not widely available to society.

**What else you could recommend to the SP’s country/region to learn or take over from the HP’s country/region?**

**CONCLUSIONS AND RECOMMENDATIONS** related to enabling digital transformation of SMEs and microenterprises, providing guidance on potential solutions of existing problems and feasible improvements of the PP’s Policy instrument, transferring GPs and knowledge from other EU countries. Conclusions and recommendations should also consider the current situation with COVID-19 pandemics and possible digital solutions and tools to help SMEs and microenterprises to continue operating and succeed in long term perspective.

### **Conclusions for the SP**

Similarly, as in region of HP, in country of SP one of the main problems is awareness about need of digitalisation and possible digital solutions that could provide benefits to SMEs, as well as awareness about possible financing opportunities. At the same time digital skills level is relatively low among SME managers and employees as well as most SMEs do not have corporate digital strategy in place. Improvement of these areas are addressed in policy instruments and certain goals to be accomplished are set by policies, however actual execution is rather fragmented. Active feedback gathering could be organised between policy makers, business institutions and other organisations who provide support to SMEs in order to identify gaps in approaches how policies are implemented in real life and what is the success of the approaches. Also, similarly as in other areas of EU, in Latvia there is a gap between rural and urban areas, in terms overall economic development and therefore also in digitalisation level.

**Recommendations for the SP** following this analysis and in accordance with the requirements of the work contract and specification (list of tasks and specific requirements of SP).

### **1) Maturity assessment and SME profiling**

PR Experts encourage to assess data that can be collected by tools like “Smart Latvia & Digital Maturity Test”, and if necessary expand it/use alternative tools to collect broader range of data that could be used to profile SMEs, their needs for digitalization and digital transformation, as well to monitor progress in digitalization and digital transformation across industries. The tool could be set as a mandatory instrument to be used in cases when funding is provided to SMEs for digital technology implementation. The maturity assessment also can be used as a tool for raising awareness within SMEs about their areas of improvement in regard to digitalization and digital transformation.

### **2) One-stop-shop for citizens and SMEs**

Such practices as Citizen’s Stop, Citizens Shop and Business Space and their provided services could be evaluated to develop similar support in rural areas in Latvia. Different level of services could categorize to match the needs of specific regions – e.g. Citizen’s Stops could be more widely spread in rural areas where there are less SMEs while one-stop-shop service provider including services to business could be spread across regions with significant business activity or potential of it.