BRIDGES project, 5th call, additional activities: policy instrument improvement recommendations, PP6 Soča Valley Development Centre

June – July – August 2022

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1. Background

1.1 Objective

The policy instrument improvement recommendations are final deliverables of the additional activities of the BRIDGES project approved under the 5th call of the Interreg EUROPE (IE) programme, on 31.5.2021. As a result of the relatively limited time (12 months) allocated to the additional activities, actual policy impact was not possible to achieve. Nevertheless, during these 12 months, it has been possible to test a value chain mapping methodology in five (5) regions, reach conclusions relating to re-shoring, in-shoring and near-shoring of value chain segments, identify and select good practices, and develop interregional relatedness opportunities and profiles. The purpose of the policy instrument recommendations is to prepare regions for mainstreaming these findings during the forthcoming RIS3 update period in 2023.

1.2 The BRIDGES project 5th call, additional activities

The objective and content of the 'additional activities' should be understood as an extension (partially), a deepening and a systematisation of the BRIDGES project insights gained during Phase 1 (2016-2019), aiming at improved RIS3 implementation through interregional collaboration. The starting argument of the BRIDGES project was addressing mismatches between the economic and knowledge bases of the partner regions as a precondition for more effective & more visible RIS3 results. During Phases 1 & 2 of the project, interregional complementarities were further tested through the BRIDGES pilot action. The pilot action tested the conditions and contexts in which interregional complementarities would be/are essential for the RIS3 implementation of the respective regions. The pilot action findings indicate that addressing interregional complementarities is an essential dimension of the RIS3 -provided regions are prepared to understand the potential for addressing contextual advantages and structural barriers, i.e. they go beyond conjectural opportunities and corresponding gaps/challenges.

The BRIDGES project additional activities focus on interregional complementarities as a RIS3 tool based on value chain policies. This is done by re-shoring, inshoring & near-shoring productive activities based on value chain (VC) analysis selected by the regions. Linking interregional complementarities to VC-based development and to regional resilience, was inspired by the EC's New Industrial Strategy[1] and the EPRS, PE

[1] Updating the 2020 New Industrial Strategy: Building a stronger Single Market for Europe's recovery, COM (2021) 350 final. "In the areas of common dependencies with its partners, the EU may choose to pool resources and build stronger and more diverse alternative supply chains with our closest allies and partners", p13. https://ec.europa.eu/info/sites/default/files/communication-industrial-strategy-update-2020_en.pdf.

653.626 – March 2021 study[2], arguing how geographically diversified production structures result in reinforced regional clusters, contributing to the resilience of economies[3]. VC re-, in- & near- shoring drivers are identified as[4]: product design, innovation (R&D), flexibility, quality, market proximity & addressing VC weaknesses (e.g. Green Deal gaps). These arguments, favouring VC-based policy measures were further reinforced: we became increasingly aware that (1) value-chain based policies are and will be more and more important strategic & diversification tools; (2) the impacts of the Ukraine war on the EU productive space. OECD[5] notes that "The substantial economic costs of the war, elevated uncertainty (p13)" and later on that "Exports will continue to benefit from deep integration into value chains (p181)". Re-localisation has various dimensions. For example, OECD[6] notes that while through re-localisation countries have less exposure to external shocks, at the same time they risk becoming less efficient and stable in their production models. Therefore, it is important that re-localisation is combined with updated business & production models. These considerations allow scope for governments to "join efforts with businesses to improve risk preparedness" (page 8). In the BRIDGES project additional activities, two (2) good practice (GP) themes are dedicated to these issues[7],[8], and eight (8) GPs have been identified, mostly from the EU and the USA (Good practices)

[2] Post Covid-19 value chains: options for reshoring production back to Europe in a globalised economy. https://www.europarl.europa.eu/thinktank/en/document/EXPO_STU(2021)653626.

[3] According to the EC, for example, the COVID-19 crisis affected the EU economy, across eco systems but not homogenously. The crisis exposed the interdependence of global value chains and demonstrated the critical role of a globally integrated and well-functioning Single Market. The key issues highlighted by the crisis are: Borders restricting free movement of people, goods and services; Interrupted global supply chains affecting availability of essential products; Disruption of demand; 6.3% decline of EU economy; 60% of SMEs reported a fall in turnover in 2020; 24% fall in intra-EU trade in Q2 & Q3 2020; 1.7% SME employment decrease in 2020 - 1.4 million jobs; 45% of firms expected to reduce investment in 2021. https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/european-industrial-strategy_en .

[4] The European Re-shoring Monitor [REM] (2018). https://www.eurofound.europa.eu/publications/report/2019/reshoring-in-europe-overview-2015-2018 .

[5] OECD (2022), OECD Economic Outlook, Volume 2022 Issue 1: Preliminary version, OECD Publishing, Paris, https://doi.org/10.1787/62d0ca31-en. https://www.oecd-ilibrary.org/sites/62d0ca31-en/index.html?itemId=/content/publication/62d0ca31-en.

[6] Arriola, C., S. Guilloux-Nefussi, S. Koh, P. Kowalski, E. Rusticelli and F. Van Tongeren (2020), "Efficiency and Risks in Global Value Chains in the context of COVID-19", OECD Economics Department Working Papers, No. 1637, OECD Publishing, Paris. https://www.oecd-ilibrary.org/docserver/3e4b7ecf-en.pdf?expires=1656179716&id=id&accname=guest&checksum=F42775C8A630F30A6106D8D2567733CA.

[7] **GP Theme 1** Good practices about value chain mapping, identification of competitive advantage and decision-making criteria related to value chain re-shoring and nearshoring. **GP Theme 2** Good practices for anticipating interregional complementarities and including them into their S3 have not yet been addressed sufficiently (Balland and Boschma 2021.

[8] Balland P-A, and Boschma R. (2021). Complementary interregional linkages and Smart Specialisation: an empirical study on European regions. Article in Regional Studies · January 2021 DOI: 10.1080/00343404.2020.1861240. https://www.researchgate.net/publication/348587340 .

Project partners (PP) from Phases 1 & 2 participate in the additional activities except for PP1 (restructured as a result of municipal decisions) and PP3 (internal adjustment processes). All partner regions focus on RIS3: (i) the selected value chains are part of partner regions' RIS3 prioritised sectors. They were selected with the intention to explore and strengthen innovation-based growth; (ii) the RIS3, through the SF 2021-2027 Policy Objective 1 (PO1) 7th enabling condition on 'interregional innovation investments', provides the / an operational context.

Table 1 BRIDGES project, additional activities, policy instruments per region

Partner organisation		Region	Policy instrument	Timetable
PP 2 /LP	Regional Council of Kainuu	Kainuu, FI	RIS3 2021-2027; revision 2023	Revision in 2023
PP4	Regional Council of Helsinki - Uusimaa	Helsinki-Uusimaa, FI	RIS3 2021-2027; revision 2023	Revision in 2023
PP5	ANKO	Western Macedonia, GR	RIS3 2021-2027; revision 2023	
PP6	SVDC	Western Slovenia, SI	CLLD	2021-2027
PP7	PBN	Western Transdanubia, HU	EDIOP +	2021-2027

1.3 Structure of the document

In addition to this introductory part, this document is organised into

- 1.- Background (1.1 Objective, 1.2 The BRIDGES project 5th call, additional activities, 1.3 Structure of the document)
- 2. Policy instrument improvement recommendations methodology
- 3.- The region and its RIS3 2021-2027 (3.1 Western Slovenia region, 3.2 Slovenia 2021-2027 RIS3, 3.3 Western Slovenia CLLD 2021, 2027)
- 4.- Good practices (4.1 Good practice identification, 4.2 Good practice selection)
- 5.- Value chain mapping (5.1 Value chain mapping methodology, 5.2 Value chain mapping results)
- 6.- Policy instrument improvement recommendations
- 7.- Conclusions

2. Policy instrument improvement recommendations methodology

The value chain mapping was expected to generate regional and interregional initiatives (Figure 1) which strengthen re-shoring and in-shoring relevant activities and coherently position/align such activities together with near-shoring (=off shoring), with the aim to reach VC-based strong and solid development paths. These initiatives are either new types of projects (Type 1 policy instrument impact according to the Interreg Europe terminology) or / and activities that strengthen the evidence base of the RIS3 and through that, the range of possible collaborations (Type 2 policy instrument impact according to the Interreg Europe terminology). For example, good practices 1, 4,5,9,10,11 are examples of potential Type 1 initiatives, while good practices 2,3,6,7 and 8 are examples of potential Type 2 initiatives (Figure 1 and Table 2 BRIDGES project additional activities, good practices (GP)).

The policy instrument improvement is intended to serve three purposes: (1) strengthen the regional productive base by inshoring and reshoring parts of segments of the selected value chains; (2) support interregional innovation investments and collaborations through value chain nearshoring opportunities; (3) support integrating value chain "thinking", value chain management as a development approach to be included into the range of RIS3 tools and development channels of the partner regions. The process for reaching the policy improvement recommendations is mapped in Figure 1 below. In the roadmap proposed in Figure 1, in additional to the expected regional stakeholder group meetings (RSG:s) there have been also formally included internal meetings, integrating the administration and decision making of the partner-organisations. Experience from several Interreg Europe and Interreg IV C projects, indicated that clear provisions for including such meetings are both needed and essential.

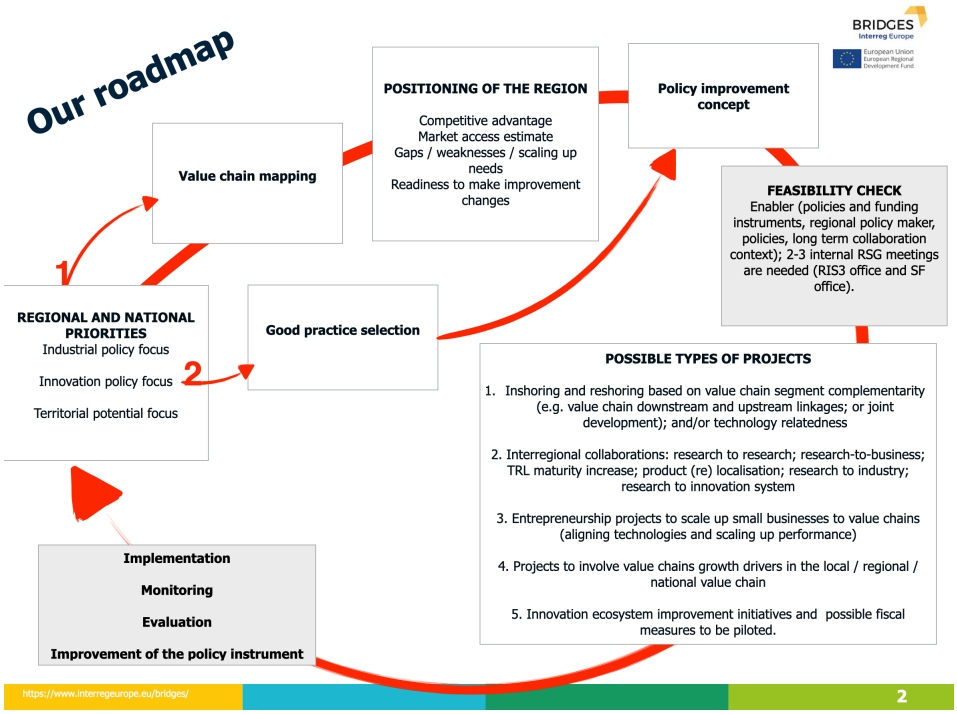
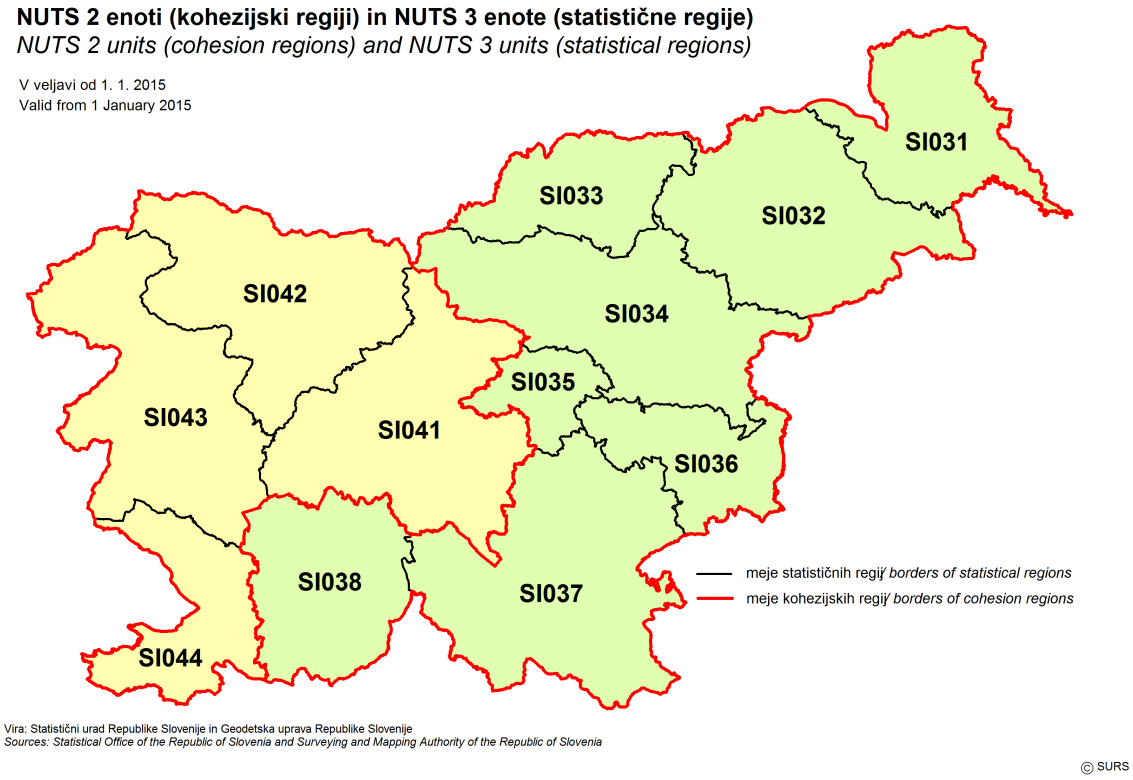


Figure 1 Policy improvement recommendations roadmap

3. The region and its RIS3 2021-2027

3.1 Western Slovenia region

Figure 2 The Western Slovenia region



3.2 Slovenia 2021-2027 RIS3

In the programming period 2021-2027, the new Smart Specialisation Strategy in Slovenia has set as its objective a green transition, which is understood as "an innovative, low-carbon, digital and knowledge-based transformation of the economy and society". This gives the smart specialisation a sustainable character and is promoted under the acronym S5 (Slovenian Sustainable Smart Specialisation Strategy) and constitutes a comprehensive and central basis for part of the allocation of funds under the European Regional Development Fund within the Smart Europe objective.

The key variable pursued by S5 is thus productivity, while reducing the pressure on natural resources, in the context of the green transition. After years of decline, the strengthening of scientific research and innovation activity has also been linked to the implementation of S4. Since 2016, more than 100 calls for tenders and programmes have been implemented, with a total value of more than 1 billion EUR, and almost half of these

funds have been earmarked for the R&D&I programme. In order to maintain productivity and innovation and to remain competitive and integrated in national and international value chains, it is essential to ensure consistency and complementarity of financial instruments, both in terms of content and financial volumes.

Strategic objective S5 is the Green Transition, understood as "an innovative, low-carbon, digital and knowledge-based economy".

The S5 umbrella structure is composed of 10 priority areas (first prioritisation level): Smart Cities and Communities, Horizontal Network of Information and Communication Technologies (HOM ICT), Health-Medicine, Smart Buildings and Home with Wood Chain, Sustainable Food Production, Networks for the Transition to a Circular Economy, Sustainable Tourism, Mobility, Factories of the Future, Materials as final products.

3.3 Western Slovenia CLLD 2021 – 2027

In order to prepare and implement the joint LEADER/CLLD approach, an Inter-Ministerial CLLD 2021-2027 Working Group has been established to work together and find appropriate synergies between the Funds, including representatives of the Managing Authorities of the three Funds involved in CLLD, the Paying Agency and the Intermediate Body. The CLLD 2021-2027 Inter-Ministerial Working Group will be the coordinating body between the Funds and will actively cooperate with the Local Action Groups (LAGs) in order to monitor and coordinate the implementation of the CLLD approach on the ground.

Community-led local development will be implemented "bottom-up" through the LAGs. The latter will be set up to complement actions under the Common Agricultural Policy (EAFRD) and the Cohesion Policy (ERDF) and the Common Fisheries Policy (CFP). During the programming period 2021-2027, CLLD will be implemented on a "2+1" basis. Under ERDF and EAFRD, a joint LEADER/CLLD approach will be applied throughout the country. The LAS areas will be linked into a homogeneous geographical and functional unit with common local needs and challenges, which will be addressed in joint Local Development Strategies (LDS). In view of ensuring continuity of implementation with the 2014-2020 period, the joint CLLD approach will be implemented without a Master Fund.

CLLD is the only mechanism that is tailored to the needs of local/regional stakeholders and gives advantage to geographical before sectorial measures. It bridges a gap to other (EU) funding instruments where small scale stakeholders or initiatives can’t apply.

4. Good practices

4.1 Good practice identification

According to the BRIDGES project additional activities, Good Practices (GPs) explore five (5) GP themes: (1) Tools for targeting value chain reshoring & nearshoring segments; (2) instruments for identifying interregional complementarities related to value chain re- and near- shoring priorities; (3) Targeted, VC related science-based entrepreneurship programmes and TRL[9] 5-8 promotion; (4) Integration of Green Deal & Digital Transformation into VC; (5) Benefitting from EDIHs.

The purpose of the good practice exercise is to identify good practices that can become policy tools for supporting re-, in- shoring and near-shoring initiatives of the partner areas, namely into the regional S3 of Helsinki-Uusimaa, Kainuu, (both FI) and Western Macedonia (GR); the CLLD of Western Slovenia (SI), and the national S3 of Western Transdanubia (HU)[10]. The exercise foresees near-shoring to be based on interregional complementarities mostly within the partnership, but it is not excluding more extensive collaboration schemes and networks.

The good practice identification took place between 1.10.2021 – 31.3.2022. It proved very challenging to identify good practices for all five themes. Finally, eleven (11) GPs were identified. Three come from BRIDGES project regions (2 come from Greece and 1 comes from Spain), 1 was identified during the Policy Learning matchmaking session organised by the PLP and the BRIDGES project on 30.3.2022, three from the USA, two are European Parliament initiatives, and two come from European Commission studies.

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[9] **TRL = Technology readiness level = TRL= Technology Readiness Level.** Technology readiness levels (TRLs) are a method for estimating the maturity of technologies during the acquisition phase of a program, developed at NASA during the 1970s. The use of TRLs enables consistent, uniform discussions of technical maturity across different types of technology [Mihaly, Heder (September 2017). "From NASA to EU: the evolution of the TRL scale in Public Sector Innovation" (PDF). The Innovation Journal. 22: 1–23*]*. A technology's TRL is determined during a Technology Readiness Assessment (TRA) that examines program concepts, technology requirements, and demonstrated technology capabilities. The European Commission advised EU-funded research and innovation projects to adopt the scale in 2010. TRLs were consequently used in 2014 in the EU Horizon 2020. In 2013, the TRL scale was further canonised by the ISO 16290:2013 standard. "Technology readiness levels (TRL); Extract from Part 19 - Commission Decision C(2014)4995" PDF). *ec.europa.eu*. 20149]. https://en.wikipedia.org/wiki/Technology_readiness_level . MORE:

https://www.ic.gc.ca/eic/site/080.nsf/eng/00002.html; https://www.nasa.gov/directorates/heo/scan/engineering/technology/technology_readiness_level .

A comprehensive approach and discussion of TRLs has been published by the European Association of Research and Technology Organisations (EARTO) [The TRL Scale as a Research & Innovation Policy Tool, EARTO Recommendations (PDF). European Association of Research & Technology Organisations. 30 April 2014].

[10] Besides the BRIDGES project partners, the good practices contribute to the methodological tools of the BERRY+ S3 partnership (BERRY https://s3platform.jrc.ec.europa.eu/berry), and to any region & their networks that are interested in institutionalising value chain-based policies and initiatives into their RIS3.

More than half of the good practices identified concern the 1st Theme (6 GPs), while the 2nd theme has two GPs, the 3rd theme 1 GP, and the 4th theme 2 GPs. No satisfactory GPs were identified for the 5th theme on EDIH contributions to value chains. One of the challenges of the 5th thematic area, the EDIHs, is that often, there is a tendency to apply the term "digital innovation hub" or even "innovation hub" in a somewhat general way, often denoting a concentration of activities without specification of qualifications, functionalities, or results. Table 3 provides summary information the identified GPs according to their thematic domain and focus. Detailed descriptions of the GPs are included in the document *BRIDGES project, 5th call, additional activities: good practices; url*, while more information can be found also directly from the web, see cited url:s in Table 2.

Table 2 BRIDGES project additional activities, good practices (GP)

GP number and name	Theme	Focus
Good practice 1 The future of manufacturing in Europe (FOME) pilot project.	1	Pilot project of the European Parliament, 2015-2018. https://europa.eu/european-union/about-eu/agencies/eurofound_en. Study investigating re-shoring industries, priorities, practices.
Good practice 2 Reshoring advanced manufacturing supply chains to generate good jobs (Brookings)	1	Brookings Metropolitan Policy Programme (2020). Reshoring advanced manufacturing supply chains to generate good jobs. July 2020. https://www.brookings.edu/interactives/metro-recovery-watch/ . Policy recommendations for re-shoring, 6 measures, fiscal, financial, and guaranteed contracting are proposed.
Good practice 3 Post Covid-19 value chains: options for reshoring production back to Europe in a globalised economy.	1	European Parliament (2021). Post Covid-19 value chains: options for reshoring production back to Europe in a globalised economy. European Parliament, Policy Department for External Relations Directorate General for External Policies of the Union PE 653.626 – March 2021. Near/off shoring and re-shoring decisions are required to be based on *multi-dimensional optimisation approaches*, while policies supporting re-shoring, should take into account the specific characteristics of the GVC under consideration, i.e.,"no general policy approach to re-shoring exists". Policy recommendations for re-shoring; reshoring decision framework. ACCESS: https://www.europarl.europa.eu/thinktank/en/document/EXPO_STU(2021)653626 SECTORIAL: https://www.europarl.europa.eu/RegData/etudes/STUD/2021/659437/EPRS_STU(2021)659437_EN.pdf OLDER: https://www.europarl.europa.eu/EPRS/140791REV1-Reshoring-of-EU-manufacturing-FINAL.pdf
Good practice 4 The use of 3D printing in manufacturing: the case of Inertia Racing Technology.	1	Reshoring Institute (https://reshoringinstitute.org/), in collaboration with the University of San Diego Supply Chain Management Institute. Re-shoring case study. Gives ides for business-based projects preparatory funding for re-defining business model in view of re-shoring interests.
Good practice 5 Increased innovation and service level in fashion: the case of Ted Shelton.	1	Reshoring Institute (https://reshoringinstitute.org/), in collaboration with the University of San Diego Supply Chain Management Institute. Re-shoring case study. Gives ideas for business-based projects preparatory funding for re-defining the business model in view of re-shoring interests.
Good practice 6 BILAKATU programme (direct incentives to promote re-location and near-shoring; includes measures on	1	Policy Learning Platform session, 30.3.2022 Policy initiative for re-location associated with value chains, three types of incentives / policy measures are proposed: direct incentives,

GP number and name	Theme	Focus
direct incentives, collaboration with clusters and thriving companies needs)		collaboration with clusters, thriving companies needs (direct subsidies to strengthen embeddedness). https://www.spri.eus/es/ayudas/bilakatu/ https://www.fundacioncarmengandarias.com/contenidos.php?seccion=3&categoria=14&subcategoria=5&lang=en
Good practice 7 Exploring the impact of interregional linkages on regional diversification in Europe, in the context of smart specialisation	**2**	European Commission, report by Baland & Boschma 2019 https://ec.europa.eu/regional_policy/sources/docgener/brochure/impact_ir_linkages_en.pdf
Good practice 8 Mapping the potential of EU regions to contribute to Industry 4.0	**2**	European Union, Balland, P.A. and Boschma, R. (2021). Mapping the potentials of regions in Europe to contribute to new knowledge production in Industry 4.0 technologies. Regional Studies, 55:10-11, 1652-1666, DOI: 10.1080/00343404.2021.1900557
Good practice 9 DEFINE network	**3**	ePlatform for the development of fashion networks. *https://www.define-network.eu/*
Good practice 10 Symbiotic networks of bio-waste sustainable management	**4**	*https://symbiosisproject.eu/* Applying digital tools to develop symbiotic networks, to improve cross industry resource efficiency through waste, by-products and raw material trading and sharing assets in an environmentally sustainable way.
Good practice 11 SYMBIOICT	**4**	*https://apps.symbiolabs.gr/symbio/* A digital platform to collect and analyse datasets relating to industrial facilities, regional waste production and supply chain economics with the aim to detect and visualize geographic areas and industrial sectors with high Industrial Symbiosis potential. GP 11 has complementarities with GP 8.
Good practice 12 Value chain mapping methodology For more information see Table 5**Error! Reference source not found.**	**1**	GP12 is currently under evaluation by Interreg Europe Policy Learning Platform innovation experts. It is the instrument that has been used for the value chain mapping reports under the 5th call additional activities. The methodology focuses on identifying and exploring (0 building initiatives) for re-shoring, in-shoring and near-shoring value chain potential related to products and services, including access to markets. Competitive advantage is calculated according to different types of concentrations, sometimes absolute (like location quotient) and sometimes relative, reflecting potential of regional concentrations. The methodology is aligned with GP2 and GP7. Its advantage is that it can reflect even baseline competitive advantage in regions and propose also better suited diversification strategies. At the same time, it is a tool that can build on interregionalities and on long term collaborations.

By analysing the eleven (11) GPs, we found thirteen (13) policy measures proposed by them. We notice that the same policy measures can be found in more than one GPs (**Error! Reference source not found.**), i.e. there is convergence of understanding and optimisation approaches.

Table 3 Policy measures proposed by the identified good practices (GP12 is not included as it is currently under evaluation)

Proposed policy measures	Relevant GPs (*)										
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
1. **Tools for the Identification of interregional complementarities**							X	X			
2. **Financial & fiscal incentives**[11] Investment (subsidies) support, for example, for technological upgrading to Industry 4.0 / additive manufacturing, research centres and academic programmes for workforce upgrading; Interest rates, provisions oriented to facilitate re-shoring, i.e. a way of directing investments.	X		X			X					
3. **Monetary policies, financial measures, subsidies.** Interest rates, provisions oriented to facilitate re-shoring, i.e. a way of directing investments.		X	X			X					
4. **Innovation policies** Financial incentives for mission oriented, technological upgrading / investments, upskilling of workforce, research centres-university synergies.			X								
5. **Industrial policies** Identification of grand challenges, missions, strategic sectors, industrial clusters, etc. to channel investment into strategic areas, Industrial clusters / smart spec.	X	X	X	X	X	X	(x)	(x)			
6. **Trade policies** Anti-dumping / countervailing duty orders; Tariffs / quotas; Patent / copyright enforcement.	X		X								
7. **Environment policies** Lower energy cost; Lower tax on energy use; Lower environmental standards.			X								
8. **Public procurement** (including defence policies), including guaranteed contracting.		X	X	X	X			X			
9. **Competitive advantage; crash test** Map most important industries locally and assess their performance ("crash test"); identify competitive advantage for re-shoring and in-shoring.	X	X	X	X	X	X	X	X			

[11] Financial, fiscal and monetary: **financial** (relating to finance, which is the commercial activity of providing funds and capital, or to put it the other way, the ways in which individuals and organizations raise money); **fiscal** (relating to financial matters, especially government tax revenues and government expenditure and debt); **monetary** (relating to the money supply: the amount of money in circulation, its rate of growth, and interest rates). https://difference-between.com/finance/financial-fiscal-monetary/.

Proposed policy measures	Relevant GPs (*)										
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
10. **Connect to and leverage regional talent generators and workforce development providers.** With the labour demand of many manufacturers shifting from low-skill, low-cost labour to mid- to high-skill engineering and technical capabilities, U.S. educational institutions are well positioned to produce the very talent that will increasingly be in demand from these sectors. Connect to the need for a digitally fluent workforce, massive disruption is underway in manufacturing, with an increased reliance on technology as opposed to low-cost labour.	X	X		X	X	X					
11. **Take advantage of Opportunity Zones** https://eig.org/opportunityzones		X		X	X	X					
12. **Invest in regionally based soft-landing services** Companies setting up new operations in any community will need assistance with site selection, permits and local approvals, and optimizing their processes.		X		X	X						
13. **E-Platforms facilitating value chain cooperation**									X	X	X
LEGEND: GP 1 FOME; GP 2 BROOKINGS; GP3 EPRS; gp4 & GP5 RESHORING INSTITUTE; GP 6 Basque Country; GP 7 & 8 identification of interregional complementarities as a tool to focus reshoring, in shoring and near-shoring initiatives; GP 9, 10, 11: e-platforms as tools supporting the implementation of thematic interregional complementarities.											

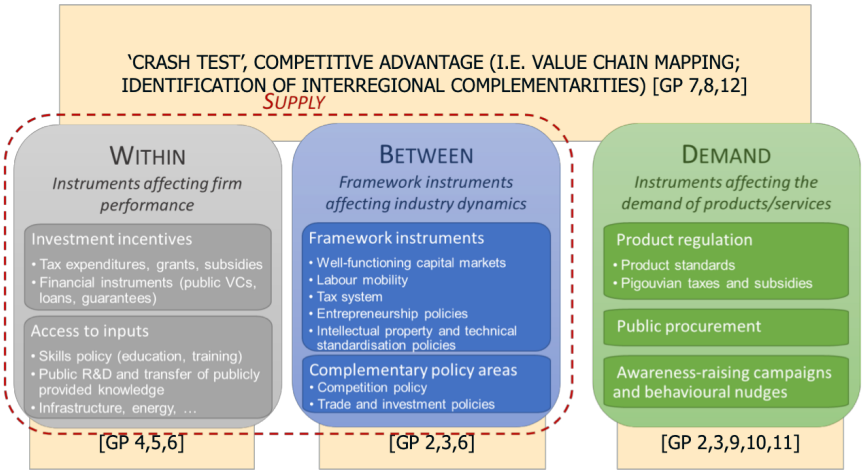
The proposed policy measures cover a wide range of interventions, some of which go beyond regional jurisdictions. They reveal a well-structured, multi-dimensional, optimisation approach that appears to rely on the complementarity between and among policy instruments. For example, instruments affecting firm performance, industrial dynamics and demand for products & services are all present among the 13 measures included in Table 3. It is worth mentioning that these 13 measures, appear to be aligned with the OECD taxonomy of policy instruments. The OECD (OECD 2022[1][12] and OECD 2022[2][13], page 19) proposes a new taxonomy of industrial strategy policy instruments, which "allows identifying the channels through which

[12] Criscuolo, C. et al. (2022), "Are industrial policy instruments effective? A review of the evidence in OECD countries", *OECD Science, Technology and Industry Policy Papers*, No. 128, OECD Publishing, Paris. Accessed at https://www.oecd-ilibrary.org/docserver/57b3dae2-en.pdf?expires=1656421972&id=id&accname=guest&checksum=15E3AF775AC84757C3AFF89F02F402CA .

[13] Criscuolo, C., et al. (2022), "An industrial policy framework for OECD countries: Old debates, new perspectives", OECD Science, Technology and Industry Policy Papers, No. 127, OECD Publishing, Paris, https://doi.org/10.1787/0002217c-en. Accessed at https://www.oecd-ilibrary.org/docserver/0002217c-en.pdf?expires=1656418796&id=id&accname=guest&checksum=102441FCC1D46A6B1629CA71A29C0220 .

instruments operate and potential complementarities". … In addition to keeping with the traditional distinction between horizontal and targeted policies, the taxonomy distinguishes between demand-pull instruments and two types of supply-push instruments: those that improve firm performance ("within" instruments) and those that affect industry dynamics ("between" or framework instruments) [OECD 2022[2], page 19]. The 13 measures & the associated GPs go beyond the alignment with the OECD policy instrument taxonomy. They reveal an implementation path, an optimal re- and in-shoring potential decision making. In this path, the notion of the 'crash test', of competitive advantage' is predominant and it is this concept that is supported by the policies (Figure 3).

Figure 3 Policy instruments taxonomy and the BRIDGES project good practices (source: adjusted from OECD 2022[2], page 19).



4.2 Good practice selection

Partners analysed the good practices and selected those that were most relevant to them. The selection process 1.4.4044 – 30.6.2022, included interregional, national (in some cases) and regional stakeholder as well as administrative meetings, with date marking the final decision making, the 17th ISC (Interregional Steering Committee), organised online on 14.6.2022. To make the good practice selection, GPs were analysed according to approaches, measures [see the proposed thirteen (13) measures already discussed (**Error! Reference source not found.**)] and intervention Types (IE taxonomy). **Error! Reference source not found.** below, summarises the GP selection including also the types of policy instrument improvements according to the taxonomy proposed by the Interreg EUROPE programme.

Partner regions made their GP and measure selection according to their interests (development priorities and absorptive capacity). However, certain cross – cutting observations deserve more attention: (i) value chain mapping, as operational as well as strategic tool appears to be relevant for all partners; (ii) building on competitive advantage and associated (and localised) eco-system, is a shared priority among all partners; (iii) industry-related business and innovation services & collaboration with cluster units appear to be relevant to all partners as well; (iv) branch-related preparatory projects like feasibility studies and business plans for

re-shoring have been important to two partners; (v) measures supporting competitive advantage of value chains (such as targeted development projects to large or medium size businesses, are also important to all regions; (vi) bilateral value chain mapping, for the establishment of interregional collaboration contexts and then implementing relevant activities.

Table 4 Good practice selection, Western Slovenia

Type of policy impact (Type 1 = new projects; Type 2= improvement of the policy instrument management; Type 3= new policy instrument)		**PP6**
Good practice 1 The Future of Manufacturing in Europe (FOME) pilot project.		
Good practice 2 Reshoring decision framework (Brookings)		
Type 2	Value chain mapping / competitive advantage for in-shoring and re-shoring	X
Type 2	Guaranteed contracting (requires negotiations with national level, too)	
Good practice 3 Reshoring decision framework (EPRS)		
Type 2	Regionally based soft landing services (competence building and specialisation of intermediaries to effectively support re-shoring and in-shoring)	X
Good practice 4 The use of 3D printing in manufacturing: The case of Inertia Racing Technology		
Type 1	Branch-based feasibility studies helping businesses re-define their business concept to re-shoring. As preconditions for res-shoring business and research projects, for the sports equipment sector and stressing utilisation of 3D printing.	
Type 1	Business plans implementing primarily re-shoring and in-shoring business plans based on the respective feasibility studies; for the sports equipment sector and stressing utilisation of 3D printing.	
Good practice 5 Increased innovation and service level in fashion: The case of Todd Shelton		
Type 1	Branch-based feasibility studies helping businesses re-define their business concept to re-shoring. As preconditions for res-shoring business and research projects, for the textiles sector.	
Type 1	Business plans implementing primarily re-shoring and in-shoring business plans based on the respective feasibility studies; for the textiles sector, and especially renewable and re-cyclable textiles.	
Good practice 6 BILAKATU programme (direct incentives to promote re-location and near-shoring)		
Type 3	Direct incentives	
Type 1	Collaboration with clusters (this is aligned with GP3)	
Type 2	Thriving companies' needs (this is aligned with GP2, option 1)	
Good practice 7 Exploring the impact of inter-regional linkages on regional diversification in Europe in the context of smart specialisation.		
Type 2	Network (at least 3) feasibility studies to identify complementary technologies for joint development; important for coordinated near-shoring with in-shoring	X
Good practice 8 Mapping the potential of EU regions to contribute to Industry 4.0		
Type 2	Network (at least 3) feasibility studies to identify complementary technologies for joint development	
Good practice 9 DEFINE network		
Type 1	e-Platform for the development of fashion networks.	
Good practice 10 Symbiotic networks of bio-waste sustainable management		
Type 1	Applying digital tools to develop symbiotic networks, to improve cross industry resource efficiency through waste, by-products and raw material trading and sharing assets in an environmentally sustainable way.	
Good practice 11 SYMBIOICT		
Type 1	A digital platform to collect and analyse datasets relating to industrial facilities, regional waste production and supply chain economics with the aim to detect and visualize geographic areas and industrial sectors with high Industrial Symbiosis potential.	

5. Value chain mapping

5.1 Value chain mapping methodology

The following value chains were selected to be mapped: forest industry side-streams (Kainuu, FI), recyclable and recyclable (Helsinki-Uusimaa, FI), dairy industry side-streams (Western Macedonia, GR and Western Slovenia, SI), and e-health equipment (Western Transdanubia).

The value chain mapping was done by applying a methodology devised by the BRIDGES project partners. The purpose is to map the selected value chains to identify localised strengths (peaks, competitive advantage), valleys (weaker points) as well as industrial and regional interactions within the same value chains. Value chains' competitive advantage is assessed according to five (5) parametres: business activities & products, research solutions (TRL 5+), knowledge and research (TRL 0-4), labour skills, and policies. These parametres were selected to mark regional concentrations reflecting the current 'VC smiling curve'[14] references, as listed in the horizontal axis in Table 1 below. Table 1, furthermore, proposes indicators for identifying value chain segments' competitive advantage. The relative advantage of this value chain mapping approach is that it can be tailored to all types of regions, innovation leaders or leaders + to innovation modest regions, according to the identified regional concentrations. This methodology has been conceived as a complementary approach to that introduced by GP7 (Balland & Boschma 2019) which identifies interregional linkages based on the technologies present in patents. To identify interregional complementarities, requires that two regions interested in the same value chain, are making in parallel the value chain mapping or, that thanks to known performance of the region and / or the RIS3 planning studies, such complementarities are indicated.

Table 5 Summary of the value chain mapping approach.

VC mapping parametres	Value chain mapping components and proxies.								
	Raw materials	Technologies / R&D	Design	Production	Products	Branding	Funding	Distribution	After sales service
Business	Turnover for the total of		Turnover for the total of the sector	Turnover for the total of the sector	Range and added value of the	Projects funded of the sector as a whole		Range and turnover from sales	Turnover

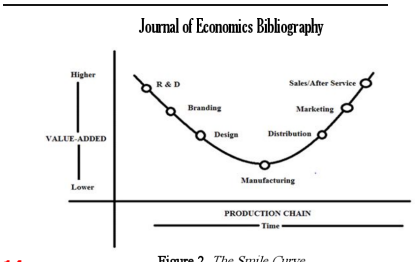


Figure 2. *The Smile Curve*
Source: Mudambi (2008)

[14] Aggarwal, S. (2017). Smile Curve and its linkages with Global Value Chains. Page 4; https://mpra.ub.uni-muenchen.de/79324/1/MPRA_paper_79324.pdf .

VC mapping parametres	Value chain mapping components and proxies.								
	Raw materials	**Technologies / R&D**	**Design**	**Production**	**Products**	**Branding**	**Funding**	**Distribution**	**After sales service**
	the sector				sector as a whole				
						Visibility of sector across the EU.			
Research solutions		Funded projects for TRL or MRL scaling up		Funded projects for TRL or MRL scaling up					
		Results of projects TRL5+		Results of projects TRL5+					
Knowledge and research base		TRL0-4 projects; University faculties)	TRL0-4 projects; University faculties; targeted entrepreneurship	University faculties; targeted entrepreneurship		University faculties; targeted entrepreneurship			
			Average educational level in businesses and skills training in the region	Average educational level in businesses and skills training in the region	Average educational level in businesses and skills training in the region				Average educational level in businesses and skills training in the region
Policies (regional and national)	Funding schemes and policy measures	Funding schemes and policy measures	Funding schemes and policy measures	Funding schemes and policy measures	Funding schemes and policy measures	Funding schemes and policy measures	Funding schemes and policy measures	Funding schemes and policy measures	Funding schemes and policy measures
							Collaboration with financing organisations for possible alignment with financial instruments.		

The value chain mapping results are summarised in **Error! Reference source not found.** below. The RIS3, the good practices selected and the value chain mapping form the base for the policy instrument improvement recommendations.

5.2 Value chain mapping results

Table 6 Summary of the value chain mapping[15], PP6 Western Slovenia

VALUE CHAINS
DAIRY INDUSTRY & SIDE-STREAMS
Region: PP6 SVDC, WESTERN SLOVENIA

Peaks (re-shoring and in-shoring potential)

Traditional dairy products

1. Cheese with European and other designations of origins and brands (Bovec cheese, Tolminc cheese)
2. Other traditional dairy products (butter, yogurt, cottage cheese …)

Due to a geographical origin of the milk as the main precondition at production of protected cheeses it is already based only in the region. With an already high anticipation of the quality of the products on the market it is however possible to extend the production.

In addition to the large dairy there are several smaller producers (farmers) that both produce and sell products on the market and are in a way creating a competitive (inshoring) environment.

Side products

1. Whey (a smaller part is used as the raw ingredient used in nutrition products and local cuisine and in production of whey drinks). The majority of whey is not used at all.

Valleys (near-shoring and in more rare cases, in-shoring potential

Traditional dairy products

The main challenges:

- Limitations in production (organic farming, summer mountain pastures, freshness of products)
- The whole Alps are known for very good cheese products

Side products

There are two main pillars of whey usage to be further developed:

- Extraction of proteins and use for nutrition of humans (partly already in progress by the dairy)
- Use of proteins for:
    - Production of (fish) food (spirulina algae) for local fish farms
    - Bio plastics

Interregionality (near shoring)

Traditional dairy products

There is potential in better positioning in the foreign markets with production staying in the region.

Side products

Dairy producers are aware of the whey challenges and are already thinking about new ways of using it. Some opportunities have been identified (both R2B and B2B) in the alpine arch neighbouring countries (Italy, Austria).

[15] REFERENCE TO THE REPORT BY THE EXPERT

6. Policy instrument improvement recommendations

For the purpose of drawing down EU cohesion funds, Slovenia is divided into two cohesion regions - Eastern Slovenia and Western Slovenia. The difference between the two regions is still significant, with the Eastern Slovenia cohesion region at 72% of the EU average and the Western Slovenia cohesion region at 105% of the EU average. The two strategic programming documents (currently in the process of approval) that both address the whole Slovenian territory are the Operational programme and Smart specialisation strategy (S5). The same principle applies to funding as it is mainly centralised and implemented on the national level. There is however a CLLD mechanism that follows a bottom-up approach and addressing of regional differences and specifics. It also builds on combining of different EU funds.

Goriška, the region of SVDC is part of Western Slovenia. The main strategic policy document is a Regional development programme that follows the same timeframe as before mentioned strategic documents.

The strategy highlights strengthening food self-sufficiency and sustainable and ecologically oriented agriculture as one of the region's development pillars. The region will work to strengthen the networking of key development actors in the region to draw up strategic and operational orientations for the development of organic farming, the establishment and strengthening of local food chains in the region.

The region currently has a higher share of GDP invested in research and development compared to the national average, which provides a platform for the development of high-tech entrepreneurial entities, the development of which will be based on green restructuring.

The CLLD is currently in preparation phase. According to the findings, some elements will be suggested to be integrated:

- Interregional cooperation projects (the EU CLLD system allows it, but it has to be in LAG strategies)
- Small scale R2B (regionally adjusted scheme to focus on selected sectors, supporting mainly SMEs)
- Support to initiatives building on side flows from processing of regional natural resources

Table 7 Policy instrument improvement recommendations related to selected value chain, Western Slovenia

Policy impact
Dairy sector (PP6)
Policy instrument (strategy + funding source to be indicated)
The policy instrument is the 2021-2027 CLLD mechanism in the area of Local action group (LAG) Soča valley. It is currently in initial stage of the preparation. Funding sources are a combination of several EU funds.
How the policy instrument is impacted (can be call criteria, content of programme, new programme content)
PP6 is facilitating the process of the new CLLD mechanism for LAG Soča valley. It is responsible also for inclusion of stakeholders and integration of identified needs of the territory. Recommendations will be integrated into the process: 1. Interregional cooperation projects within CLLD (the EU CLLD system allows it, but it has to be clearly mentioned in LAG strategies) The CLLD is a place-based funding mechanism that addresses both the LAG as an umbrella representative of the stakeholders and single stakeholders as final users of the mechanism. In terms of international cooperation, it will be highlighted as a bridge towards R&D capacities from other EU regions, giving priority on Alpine arch (dairy sector). It follows the idea of reshoring **(GP3)** for higher flexibility and competitiveness in areas with special geographical features. Diversification of local production will be supported in CLLD.

Policy impact

We foresee bilateral and multilateral initiatives for the identification of interregional complementarities. We hope to further link these findings for the implementation of prioritised initiatives with further local projects as well as with transnational Interreg options, as also discussed below.

In the case of the Alps, it is feasible to apply reshoring **(GP7)** also on cross or trans-border areas (accessibility, traditional markets, R&D hubs, …). There are other territorial funding mechanisms that are available beyond the scope of CLLD. Programming of European cooperation programmes (Interreg) is done and there are several priorities that support cooperation and inclusion of SMEs in the area of green, circular economy, focusing on natural resources. Related to the needs of the dairy sector a special focus will be given to cross border (Slovenia – Italy, Slovenia – Austria) and transnational (Alpine space) programmes. In this case implementation of the CLLD is an enabler for SMEs to access other funding mechanisms.

2. Small scale R2B (regionally adjusted scheme to focus on selected sectors, supporting mainly SMEs)

   SMEs are often lacking staff/resources to invest in R&D. (Inter)national, and regional funding schemes are often too complex for them. CLLD offers an entry point for SMEs and small clusters/networks. It will be suggested to define a priority and an indicator related to projects improving accessibility of SMEs to R&D.

3. Funding of initiatives building on side flows from processing of (regional) natural resources

   Intensive food production and industrial processing has again started to follow resource efficiency in order to optimise processes and reduce impact. There are many side streams in bioeconomy that are still not used or with a very low value added. A focus will be given to new (value chain mapping), innovative initiatives that build on traditional use of natural resources while seeking innovation in side streams. The measure foresees the value chain mapping approach identified in (**GP2)** and already successfully tested in dairy and aquaculture sectors as the initial step towards product development and higher value added.

Impact process (institutions to be involved, evidence they require, stakeholders to be involved, anticipated timetable)

The following steps have been / are being followed:
1. Mapping of stakeholder needs (online survey – July 22)
2. Mapping of stakeholder needs (interviews – autumn 22).
3. Introduction of Bridges outcomes (September 22)
4. Drafting of the strategy of the Soča valley LAG (autumn 22)
5. RSG meetings (LAG board – regular)
6. Amendments and final approval (2023)

Timetable: 1.1.2022 – 2023

7. Conclusions: benefits from the additional activities

PP6 experience can be distinguished into several groups: the impact of covid19; sectorial issues; the economic model; Driving change and the bottom-up approach; and the value chain mapping methodology.

(1) Covid19 impact: The impact of covid19 has been deeply important, as it made priorities re-interpreting & re-inventing regional economies. One of the impacts is trying to reinforce localisation while improving internal imbalances between NUTS1, 2 and 3 levels, too. This includes improvements and intensification of localisation of value chain segments. This, in turn, accentuated knowledge-based development and innovations, emphasising the implications of local limitations (e.g. critical mass), the opportunities through complementarities, and the necessity for trans-regional collaborations.

(2) Sectorial issues: Soča valley, the PP6 area, has a traditionally strong dairy sector. Traditional knowledge is more "natural" to appreciate than innovative knowledge, and the latter requires deeper understanding of what changes bring and then systematic awareness raising and exchanges among local actors. Dairy side-streams (such as whey) had to be understood as the promising growth domain it is, and this was a precondition for getting local stakeholders engaged into the value chain mapping and the new potential coming from whey.

(3) Economic model: (i) Diversifying local economies, is more about diversifying existing strengths rather than diversifying away from existing strengths. This relates also to the economic model, how to focus development funding, on economies of scale or economies of scope. We found that in most cases it will appear essential to invest in productivity improvements of economies of scale, exploit economies of scope through innovations, and ensure bridges between traditional and forthcoming, knowledge-based domains. (ii) When considering diversifications, prioritising sectorial complementarities proved an important "hint" for further conceptualising diversification. For example, exploring whey-based products, and the potential for fish-food complements the local aqua culture industry, which focuses especially to high quality, clean, natural production.

(4) Driving change and the bottom-up approach: the dairy cooperative, owned and managed by local producers, proved a critical change agent, thanks to its potential to be aware of demand led (science and market) driven options. The dairy cooperative has proved both a stabilisation, supply side unit, taking into account what local producers can do, and introducing demand led options.

(5) Value chain mapping methodology: the methodology mapping experts were asked to focus on strictly localising the mapping and avoid generalisations. The approach was explained to the regional stakeholder groups, a multilateral, demanding process. However, at the end of the day, the value chain mapping approach worked. Local and interregional exchanges on the implications of the value chain methodology, opened up also the issue of the 'value chain smiling curve'. The smiling curve indicating a classification of the added value segments of value chains, introduced in section 5.1 Value chain methodology, was re-interpreted to reflect the findings of the PP6 area exercise. It was found for example, that raw materials and their potential should also be included into the smiling curve, and a new smiling curve, adapted from the one in section 5.1 was profiled, Figure 4.

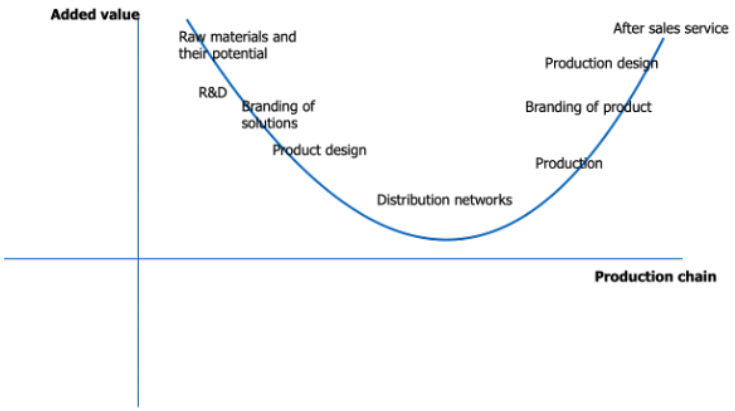


Figure 4 A re-interpretation of the value chain-based smiling curve.

8. Contributions

Soča Valley Development Centre (Miro Kristan); in collaboration with Ninetta Chaniotou, PP2/LP

Regional stakeholder group meetings

Dairy industry sidestreams (PP6)
Date 19.11.2021 and 22.11.2021
Issues Presentation of sidestream mapping
Participants Hakim El Khiar (microfiltration expert) Anka Milkavič Lipušček (director of Planika dairy company) Miro Kristan (PP6) Jana Podgornik (PP6)
Results Agreement about mapping of dairy sidestreams, participation of the dairy
Date 25.2.2022
Issues Sidestream in dairy – R2B in Slovenia
Participants Dr. Bojana Bogovič Matjašič (Institute of dairy science and probiotics, University of Ljubljana) Dr. Petra Mohar Lorbeg (Institute of dairy science and probiotics, University of Ljubljana) Miro Kristan (PP6) Jana Podgornik (PP6)
Results Presentation of status quo in Slovenia regarding R2B in dairy, identification of mapping experts.
Date 21.4.2022
Issues CLLD – policy impact

Dairy industry sidestreams (PP6)
Participants Greta Černilogar (LAG Soča valley) Miro Kristan (PP6) Jana Podgornik (PP6)
Results Integration of recommendations in the new CLLD mechanism 2021-2027.