

WPT4

D.T4.1.10

Transnational industrial innovation roadmap for the
health sector

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Table of content

1	INTRODUCTION	1
2	a ROAD TO TRANSNATIONAL INDUSTRIAL INNOVATION ROADMAP	2
3	transnational industrial innovation roadmap	2
3.1	Trends.....	2
3.2	Priority Innovation Actions.....	2
3.3	Conclusions and recommendations	3
	Annex: TRANSNATIONAL INDUSTRIAL INNOVATION ROADMAP	5



1 INTRODUCTION

CHAIN REACTIONS project addresses the challenge for industrial regions not benefitting from innovation activities from large leading corporations to increase regional capacity to absorb new knowledge and turn it into competitiveness edge and business value.

New products and services, as well as new industrial sectors are not always the result of breakthrough innovation; they can be the result of value chain innovation, e.g. the transformation of 'traditional' value chains into new ones - emerging industries - through cross-border and cross-sectoral collaboration. The analysis of those emerging value chains shows that beyond their specificities, they have in common some key drivers: Key Enabling Technologies, Resource efficiency, Digital transformation and Service innovation. For many businesses, integrating durably the complexity of value chain innovation processes represents a challenge hampering sustained growth.

There is a strong need to help SMEs to overcome capacity shortages for innovation and integration into transnational value chains. The project aims at empowering regional ecosystems with the knowledge and tools to help businesses overcome those barriers and generate sustained growth through value chain innovation. CHAIN REACTIONS project builds thereby on modern approaches considering value chains and their complex developments rather than linear technology transfer approaches. The focus is on key sectors: advanced manufacturing, ICT and electronics, energy and environment, health and bioeconomy.

The objective of WPT4 is to create truly transnational open spaces for collaboration (e.g. value chain based) for RIS3 implementation. Ensure the sustainability of the project outputs beyond the project.

The following activities shall be performed:

1. Building on the regional IGAs (WPT2), the models and instruments (WPT1) tested in pilots (WPT3), the PPS will set-up transnational networks of relevant innovations stakeholders in each of the selected industrial sectors, which will perform jointly a foresight exercise (workshops) and develop the previous results into industrial innovation roadmaps, i.e. trends and expected innovations over time (5-10 years) for each of the selected industrial sectors. The roadmaps shall include necessary developments (in general) to make the expected innovation happen. Lead: STP, all PPs
2. Each industrial roadmap will be then further developed into transnational industrial innovation agendas, i.e. concrete innovation activities to be performed in the project regions and transnationally in order to realize the necessary development identified in the roadmaps and ensure industrial leadership in the selected industrial sectors. Those agendas shall be coherent with S3 in the project regions and provide the basis for potential future joint activities and transnational investments. Lead: STP, all PPs
3. Finally, PPs will define in parallel to the roadmaps transregional exploitation plans for the time beyond the project, aiming at providing guidance with respect to:
 - The use of the knowledge collected and developed during the project lifetime;
 - The implementation of innovation activities as identified by the members of the transnational networks; Establishment of durable transnational open spaces for collaboration in the selected industrial sectors.



2 A ROAD TO TRANSNATIONAL INDUSTRIAL INNOVATION ROADMAP

Following the regional IGAs' actions of the support and implementation of transnational pilots aiming at supporting value chain innovation (WPT3) and establishment of transnational networks of innovations stakeholders as the kick-off activity to develop transregional innovation networks and agendas (WPT4) in selected industrial sectors (WPT4), the main activity of the sectoral partner duo is to contribute to the project output O.T4.1 Thematic industrial innovation roadmaps (TIIR).

For the purposes of TIIR development of the health sector two (2) transnational industrial innovation roadmap workshops were planned for implementation, with the main objective to collect relevant inputs for elaboration of TIIR and later on the transnational industrial innovation agenda for the target sector, in order to perform a foresight exercise and identify relevant sectoral trends and to present the possible evolution paths of the considered value chains and innovations within the target sector over a period of 5-10 years.

3 TRANSNATIONAL INDUSTRIAL INNOVATION ROADMAP

3.1 Trends

The biggest trends that will shape and propel the industry growth in the forecast period is the rise of geriatric population, the growing prevalence of chronic condition, along with growth in surgical procedure, and complex surgeries. Moreover, there are serious difficulties faced by health institutions in most countries. They are related to ageing infrastructure and medical equipment which must be replaced by modern devices. At the same time, telemedicine is proving to be the key technology to get medical consultations. Increasing number of people are turning towards virtual visits for health check-ups, thus fostering market demand.

3.2 Priority Innovation Actions

It is worth investing in building initiatives that provide common goals and values conducive to the development of new links. These structures provide highest performance outputs on condition they are deep-rooted in networking efforts. The success and development of networks do not depend solely on bilateral transactions between persons and organisations but must go significantly beyond the specific interests or individual success indicators.

Therefore, we target two innovation actions. The first one highlights the collaborative opportunities of cross-sectoral initiatives to be developed in the form of transnational medtech-biomed observatory. The need to strengthen collaboration of Polish and Italian SMEs and business-support organisations underpins this innovation action. The second one is built around a learning / facilitation action leading to set-up of a strong competence center, seen as powerful innovation support center for the med-tech ecosystem in Silesia. Both soft and hard infrastructures should be focused here.

PP	Suggested innovation action	Description	Timeframe	
			From	To



CHAIN REACTIONS

11/3	Powering the transnational MedTech-biomed observatory as trend watch and collaboration platform	<p>It is a phase one of a longer process leading to upgrading the innovation value chains of the med-tech and biomed ecosystems in Polish and Italian regions. This phase should allow the smooth institutional set-up of governance processes in both ecosystems to finally allow for the establishing of strong collaborative and supportive frameworks (phase two).</p> <p>The innovation should be seen first of all by means of building the new collaborative perspective for the SMEs, RTOs and other stakeholders. Secondly, it will open up the internationalisation of local ecosystems and focus on new service / product domains including cross-industry cooperative efforts. It should be continued in the following phases (growth / maturity) during years 2022-2025 to reach its fully operational status.</p>	10/2021	12/2025
11/3	Preparing for MedSilesia competence center set-up with the support of Health-Tech Network established in Veneto Region	<p>This innovation action is a multi-step action that needs at its first stage a knowledgeable transnational learning process with study visits and identification of success factors. Agreements of cooperation have been established with the parallel body located in Padova</p> <p>Second step required should allow the negotiating of a collaborative learning environment locally that would be mature enough to enter into the building effort.</p> <p>Finally, in order to build the competence center, the new innovation-easing infrastructures are needed with particular focus on high competence of the staff and forward-looking / visionary focus of the cross-domain stakeholders.</p> <p>Transnational effort is needed on at least on stage one (and possibly, stage two) to boost the capacity and initiating potential.</p>	10/2021	12/2025

3.3 Conclusions and recommendations

To conclude, the key actions required in order to boost the innovative capacity of med-tech and biomed sectors as well as their ecosystems described above need first of all high expertise and competence of dedicated actors. Thus, multifaced learning process should be launched and it should be followed by building institutional capacity of the ecosystems to grow into strong transnational innovative value chains and leaders of change.

Both Polish and Italian SMEs working in the sector need to increase their innovation processes and attitude to digitalisation, considering the market's demand and the large relationship established with Big Pharmaceutical and Biomedical transnational Groups.



CHAIN REACTIONS

A more detailed view on the activities described hereby is highly needed, including Innovation Agendas and Exploitation Plans. Specific measures and results should be clearly defined together with stakeholders' tasks.



Annex: TRANSNATIONAL INDUSTRIAL INNOVATION ROADMAP

Inno acton #	Name of the inno action	2021	2022	2023	2024	2025
1	Powering the transnational medtech-biomed observatory as trend watch and collaboration platform	institutional set-up of governance processes in med-tech and biomed observatories' ecosystems	institutional set-up of governance processes in med-tech and biomed observatories' ecosystems / the establishing of strong collaborative and supportive frameworks	the establishing of strong collaborative and supportive frameworks	building the new collaborative perspective for the SMEs, RTOs and other stakeholders / open up the internationalisation of local ecosystems and focus on new service / product domains including cross-industry cooperative efforts	open up the internationalisation of local ecosystems and focus on new service / product domains including cross-industry cooperative efforts
2	Preparing for Med-Silesia competence center set-up	knowledgeable transnational learning process with study visits and identification of success factors	knowledgeable transnational learning process with study visits and identification of success factors / negotiating of a collaborative learning environment locally that would be mature enough to enter into the building effort	negotiating of a collaborative learning environment locally that would be mature enough to enter into the building effort / new innovation-easing infrastructures creation	new innovation-easing infrastructures full use and implementation / evaluation / knowledgeable transnational learning process	new innovation-easing infrastructures full use and implementation / revision of actions