

WPT4

D.T4.2.5

Transnational industrial innovation agenda for
Energy and environment

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Abbreviations

IGA – Innovation and Growth Alliance

TIA – Transnational Innovation Activities

TIAW – Transnational Innovation Agenda Workshop

TIIA - Transnational industrial innovation Agenda

TIIR – Transnational Industrial Innovation Roadmap

TNIS – Transnational networks of innovations stakeholders



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. 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.

In order to create transnational open spaces for collaboration (e.g. value chain based) the activities for Building open collaboration spaces for transnational RIS3 implementation (WPT4), were based on previous project activities, mostly IGAs established in each of the target regions (O.T2.1) and Value chain innovation models and instruments implemented in each target region as a driver to S3 (O.T3.2).

More specifically, the activities for preparation of Transnational industrial innovation agendas (A.T4.2) were based on Thematic industrial innovation roadmaps (O.T4.1), which had been developed in each of the selected industrial sectors by transnational networks of relevant innovations stakeholders and built on identified technological and societal trends of potential innovative developments (technologies, processes, business models and their interactions).

Each **transnational industrial innovation agenda**, i.e. concrete innovation activities to be performed in the project regions and transnationally in order to realise the necessary development identified in the roadmaps and ensure industrial leadership in the selected industrial sectors, was based on the outcomes of the 2nd TIAW.

The agendas are coherent with S3 in the project regions and provided the basis for potential future joint activities and transnational investments.

Overall, the thematic innovation agendas are one of the three outputs within the WPT4, linking the identified potential with plans for transnational exploitation:

- O.T4.1 Thematic industrial innovation roadmaps;
- **O.T4.2 Thematic innovation agendas;**
- O.T4.3 Thematic transnational exploitation plans and open collaboration spaces.



2 TIIA for the Energy and Environment sector

2.1 Background

The TIIA is based on the previous project activities:

- D.T4.1.2 - establishing transnational networks of innovations stakeholders for the Energy and Environment sector,
- D.T4.1.6 - transnational industrial innovation roadmap workshop,
- D.T4.1.8 - transnational industrial innovation roadmap for the Energy and Environment sector
- D.T4.1.17 - industrial innovation workshop for the Energy and Environment sector in the regions of Podravje (Styria) and Regensburg
- D.T4.2.1 - transnational innovation agenda workshop 1, and
- D.T4.2.2 - Transnational innovation agenda workshop 2.

During the TIAW #2 the following three TIAs were proposed:

Name of TIA
Energy monitoring of e-vehicles
As part of the implementation of the Smart City Maribor strategy, Maribor will improve the energy efficiency and environment protection by optimization of the e-busses in the public transport of Maribor.
2022-2026
350.000 EUR
The funding of the operation will be ensured within the strategy for the implementation of Smart City Maribor, adopted by the City council of Maribor and by additional EU project funding (optional).

2.2 Expected impact

Within the partnership of the project Chain Reaction STP and R-Tech have prepared the Transnational Innovation Agenda for the Energy and Environment sector. The main impact that will be reached is the collection of data about the energy usage of electrical busses used in the public transport. Based upon those data the optimisation will be prepared in order to reduce the energy usage. For this purpose the members of the Cluster Mobility & Logistics from Regensburg and members of the SME network in Styria will cooperate with their expertise.



2.3 TIIA overview

Transnational industrial innovation agenda for the energy and environment sector in Styria and Regensburg region

Name of TIA	Timeframe	Partners involved	Expected impact	Estimated costs	Source of founding	Geographical scope
Optimization of public transport	2022-2026	Municipality of Maribor (Strategy for Smart City Maribor) Regional Development Agency for Podravje – Maribor (technical support for implementation of the strategy)	Reduced energy consumption in public transport due to implementation of smart technologies	350.000 EUR	Municipal budget, national funding in Slovenia	Region of Podravje (Styria) in Slovenia, Municipality of Maribor



2.4 TIA description

2.4.1 Reduction of energy consumption by optimising the e-mobility of the public transport

<p>Our TIA focuses on supporting optimization of energy use in electric vehicles used for public transport. This action will take place in Maribor as part of the Smart City Strategy of Maribor. The first step is to monitor the energy usage in order to prepare the optimization.</p>
<p>Municipality of Maribor – adopting the Smart City Strategy, which includes the increased use of e-buses in order to reduce the environmental impact of public transport Regional Development Agency for Podravje – Maribor – implementing the Smart City Strategy of Maribor, implementing the monitoring of energy usage for public transport STP (network of SMEs) and R-Tech (Closter Mobility and Logistic) provide expertise in optimization of energy usage.</p>
<p>[proposed starting date] December 2022 (after the local election)</p>
<p>[duration] December 2022 – July 2026</p>
<p>[region of implementation] Podravje (East Slovenia), with transregional cooperation</p>
<p>[estimated cost] 350.000 EUR for equipment, monitoring, optimization</p>
<p>[external needs]</p>
<p>[describe how the proposed activity will contribute to the expected impact] The monitoring of energy consumption of the public transport system will provide data, which will be further used for optimization of public transport lines, charging, possible alternative sources (feasibility of photovoltaic cells on busses) and similar, to lower the consumption of energy. In the next step the optimisation will be piloted and based on the results of piloting the optimisation of the entire system of public transport in Maribor will be optimised.</p>
<p>[how are the expected impacts linked to the regional/national policies or strategy documents of one or more regions of implementation, or EU level documents] The impacts are in line with the Smart City Maribor strategy that is in the concluding preparation phase (to be adopted by the city council in summer of 2022). Furthermore, it is also in line with the Strategy for Smart Specialization of Slovenia, which also involves the reduction of impact on nature through digitalization and e-mobility.</p>



3 Conclusions

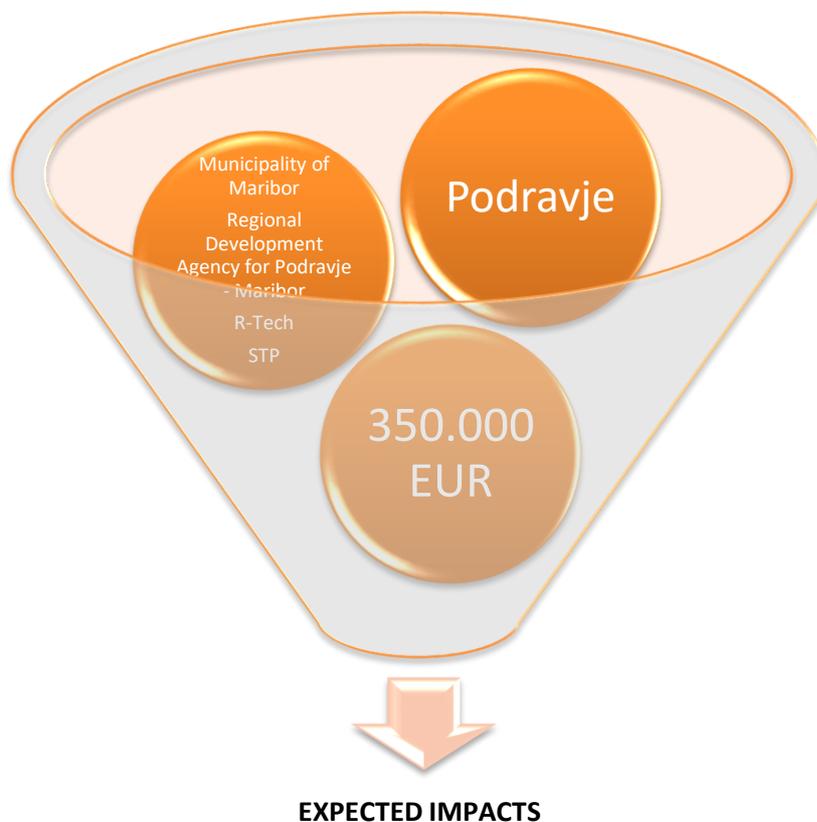
By implementing the Transnational industrial innovation agenda for the Energy and Environment sector STP and R-Tech expect to achieve:

- 1) Transregional cooperation lead by the project partners PP2 and PP10 in the post project implementation period.
- 2) Achieve the transfer of knowledge through the Transnational Open Space of Collaboration, where various experts from the SME network of Styria and Cluster Mobility & Logistics from Regensburg will cooperate.
- 3) Reduce the environmental impact of the public transport system in Maribor.

The total cost of foreseen activities is 350.000 EUR, which are foreseen in the Smart City Maribor strategy.



Annex 1: TIIA Graphical presentation



- Transregional cooperation lead by the project partners PP2 and PP10 in the post project implementation period;
- Achieve the transfer of knowledge through the Transnational Open Space of Collaboration, where various experts from the SME network of Styria and Cluster Mobility & Logistics from Regensburg will cooperate;
- Reduce the environmental impact of the public transport system in Maribor.



Annex 2: Participating TNIS members

Activity participant	Short description of the participant
Municipality of Maribor	Second largest municipality of Slovenia, the center of the region of Podravje (NUTS3). As the regional center it has high demand for improvement in the public transport system, which needs to be optimized and modernized in various ways – the energy consumption is only one part of it. With the Smart City Maribor strategy, the city will lay the basis for such optimization.
Regional Development Agency for Podravje – Maribor	RDAPM was established in 1993 to support the regional development and development of the city of Maribor. It is responsible for the preparation and implementation of the Smart City Maribor strategy.
R-Tech	R-Tech is a project partner in Chain Reactions project and the coordinator of the Cluster for Mobility and Logistics in Regensburg, connecting companies and research institutions that will provide the needed expertise for the implementation of the Transnational Innovative Action.
STP	STP is a project partner in Chain Reactions project and the coordinator of the SME Network in Podravje, connecting innovative SMEs that will support the implementation of the Transnational Innovative Action.