

# WPT4

## D.T4.1.6

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Transnational industrial innovation roadmap WS for  
the Energy and Environment sector

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Version 2  
9.2021





<b>Project information</b>	
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Website:	<a href="https://www.interreg-central.eu/Content.Node/CHAIN-REACTIONS.html">https://www.interreg-central.eu/Content.Node/CHAIN-REACTIONS.html</a>
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Responsible PP duo:	PP2 – Styrian Technology Park PP10 R-Tech
Authors:	[Please include the names of the authors of the document according to the following options: <ul style="list-style-type: none"> <li>- Dr. Manfred Binder (R-Tech)</li> <li>- Mag. Matjaž Fras (STP)</li> <li>- Mag. Borut Jurišić (STP)</li> </ul>
Contractual Delivery Date:	30.09.2020 – 31.03.2022
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## 1 INTRODUCTION

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 Energy and Environment both project partners carried out the following activities:

**PP2 STP** - 5 sector individual transnational industrial innovation roadmap workshops were implemented with key organisations within the Styria region and beyond, 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. The workshops were carried out in 5 individual meetings with key organisations that have taken place in July and August of 2021.

**PP10 R-Tech** - Two (2) transnational industrial innovation roadmap workshops will be implemented, 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.

## 2 WORKSHOP SUMMARY

Ref.:	<input type="checkbox"/>	Meeting / workshop	<input type="checkbox"/>	WPT2
	<input checked="" type="checkbox"/>	Online meeting / workshop	<input type="checkbox"/>	WPT3
	<input type="checkbox"/>	Other	<input checked="" type="checkbox"/>	WPT4
Date:	19.04.2021; 21.07. – 23.08.2021			
Place:	Online, GoTo Meeting, In person			
Attachments:	Screenshots / Attendance lists			

### 2.1 Agenda: Sectoral trends

As the activity for **PP2 took place on 5 different days**, with 5 different key stakeholders (IGA members), it was imperial that they always followed the same format and had the same agenda in order to combine them into a single analysis. Thus, the agenda consisted of the same 4 points each time:

- Identification of existing trends in Energy, Environment and Digitalization,
- Foresight of future developments in the sector,
- Anticipating on future needs and opportunities,

Planning and predicting short-term (up to 2-5 years) and mid-term (3-10 years) activities



**PP10** on the other hand **organised an event** with the following agenda:

Hy2ZERO Network Kick-Off Meeting

09:00 | Reception (Uwe Pfeil, Clustermanager E-Mobilitätscluster)

09:05 | How does the Innovation Network work? (Dr. Manfred Binder, Projektmanager E-Mobilitätscluster)

09:20 | Workshop 1: Introduction: All participants (goals, interests, expectations)

10:00 | Workshop 2: Collaborations in the HY2ZERO Network (Ann-Kathrin Roßner, Michael Strobel, Projektmanager E-Mobilitätscluster)

10:30 | Perspective and future steps – R&D-Projects / Marketing activities (Uwe Pfeil, Clustermanager E-Mobilitätscluster)

10:45 | Questions, discussion, miscellaneous

## 2.2 Participants

At each of the events there were representatives of the Styria Technology Park. For a full list, refer to the annex, where all 5 attendance sheets are included.

PP no.	Name of organisation	Name of person, position
2	Styria Technology Park	Matjaž Fras, CEO
2	Styria Technology Park	Tanja Senekovič, Project Manager
2	Styria Technology Park	Borut Jurišič, Project Manager
2	Regional Development Agency for Ljubljana Urban Region	Miha Leskovar, Project Manager
2	Communications of the Future	Matej Borko, CEO
2	Regional Development Agency for Podravje – Maribor	Uroš Rozman, CEO
2	Institute Wcycle Maribor	Igor Kos, project manager
2	Regional Development Agency for Posavje	Nataša Šterban Bezjak, project manager

The event of PP10 had a participation of various stakeholders, with screenshots of the online event being added as an annex.

PP no.	Name of organisation	Name of person, position
10	Ceramic Precision GmbH	Bernhard Kühn, CEO
10	EDV & Elektrotechnik Hardy Barth GmbH	Hardy Barth, CEO
10	enders GmbH	Riccardo Princiotta. B. Eng.
10	Hoerath GmbH	Thomas Hörath, CEO
10	Hyperthermics GmbH	Stefan Miller, CEO
10	SD Performance GmbH	Andreas Schüßler, CEO
10	e-trofit GmbH	Matthias Kerler, Chief Technology Officer



**CHAIN REACTIONS**

10	AVL Software Functions GmbH	Dr. Thomas Frey, Head of Product Line E-Drive
10	Ostbayerische Technische Hochschule Amberg-Weiden	Dr. Raphael Lechner, Managing director competence center for combined heat and power
10	Ostbayerische Technische Hochschule Amberg-Weiden	Max Becker, M. Eng.
10	Technische Hochschule Deggendorf	Prof. Otto Kreutzer, Center of Applied Sciences
10	DB (Deutsche Bahn) Regio Bus	Michael Bloos, Engineer
10	DB (Deutsche Bahn) Regio Bus	Sven Rosenkranz, Senior Manager
10	DB (Deutsche Bahn) Regio Bus	Philipp Pitsch, Branch Manager Marketing
10	Grob-Werke GmbH & Co. KG	Patrick Hierl, B. Eng.
10	Grob-Werke GmbH & Co. KG	Christoph Reiter, B. Eng.
10	Mühlbauer GmbH	Peter Kröniger, Head of sales
10	HyFuture GmbH	Harald Zwander, CEO
10	HyFuture GmbH	Willi Holzapfel, CEO
10	REWAG, das Stadtwerk	Marcel Rautter, Innovation manager
10	Wasserstoffregion Landshut e.V.	Uli Dirr, Management
10	Fraunhofer-Institut für Integrierte Systeme und Bauelementetechnologie IISB	Johannes Geiling, Scientist
10	Technische Hochschule Nürnberg Georg Simon Ohm	Nico Karg, Scientist
10	E-Mobilitätscluster Regensburg	Uwe Pfeil, Cluster Manager
10	E-Mobilitätscluster Regensburg	Dr. Manfred Binder, Project Manager
10	IT-Logistikcluster Regensburg	Michael Strobel, Project Manager
10	IT-Logistikcluster Regensburg	Ann-Kathrin Roßner, Project Manager
10	E-Mobilitätscluster Regensburg	Anne Häner, Project Manager
10	Évolution Synergétique GmbH	Petr Micek, Area Manager



### 2.3 Summary of discussions

Maribor has got a history of being an industrial centre before becoming a green city and it has maintained over time a certain technical know-how linked to automobile, rail vehicles and railroad carts manufacture. Back then, Maribor was already using some ecology friendly renewable energy such as hydro powerplants and that anticipated in a certain way its transformation into a green city, with initiatives aiming at reducing carbon emission, switching to more environment friendly resources, making a more efficient use of it and improving waste management. In particular, in recent years the number of charging stations and usage of electrical personal vehicles have arisen and in the field of waste management the bulk of waste production and energy used for its manipulation have been reduced while construction waste has been set out to be recycled. In general, we can say that there are several opportunities for further development of currently tested activities and the most promising opportunities would include:

PP	Suggested innovation action	Description	Timeframe	
			From	To
2	Proposed activity 1	New city regulative, forbidding fossil fuel delivery vehicles in city centre	9/2022	9/2024
2	Proposed activity 2	Monitoring energy use in public transport e-vehicles, for the purpose of optimisation	9/2022	9/2025
2	Proposed activity 3	Introduction of online self-weighing trash containers, for optimization of their emptying	9/2022	9/2026

Regensburg represents a perfect example of sustainable model for a region. It has developed over time an excellent transport and supply infrastructure, together with a close cooperation between companies, universities and municipal institutions. As a consequence, this excellent networking of business, administration and science has offered attractive location conditions for investments, in particular for the mobility sector. Now, up to 65 % of the energy demand of the area is covered by regionally generated, green electricity, which is well above the national average, through the use of photovoltaics, wind power, hydropower and biomass. In addition, in order to respond to the need of a flexible source of energy, first steps have been already moved in the field of hydrogen and fuel cell technology through the establishment, for example, of the largest hydrogen network in Bavaria.

Possible further actions might be:

PP	Suggested innovation action	Description	Timeframe	
			From	To
10	Development line 1	Development and improvement of technologies for the production of fuel cells	04/2021	03/2024
10	Development line 2	Developing new system components for fuel cells	04/2021	03/2024
10	Development line 3	New technologies for the on-site generation of hydrogen	04/2021	03/2024



PP 2 STP summary:

The Styria region is not among the biggest, nor does it have its own budget to divert into research and development, therefore forming networks of relevant stakeholders to support activities is the key feature to successful project planning.

Maribor was an industrial city, which has been transforming into a green city with a high quality of life in the past 30 years. It has historically been connected to ecology friendly renewable energy (hydro powerplants), and was the first Slovenian city connected by a railroad. The industry of Maribor was closely connected to automobile and rail vehicles, with TAM (producer of busses and trucks) and TVT Boris Kidrič producing railroad carts and the tertiary education was also closely linked to the city's industry, which still results in a technical know-how. Therefore, the university studies and other research and education facilities are closely linked to vehicles, some have already transformed into post-fossil fuel optimisation of energy use.

Cooperation between both Slovenian cities that have a population above 100.000 citizens, is also an emerging trend, as both cities are looking on transfer of knowledge and especially on tailor made solutions for knowledge transferred from abroad into the Slovenian environment.

The key stakeholders (IGA members) have presented their specific activities connected to circular economy, but most specifically in the field of energy and environment sector, which can be divided into the following fields:

- E-mobility,
- Digitalisation
- Energy efficiency

The projects already taking place have the goal of reducing the impact upon the nature and use of resources, by more efficient use of resources and using resources that are friendlier to the environment. These were used to identify the sectorial trends.

One of the innovations prepared by local knowhow is the optimisation device for reduction of energy usage of electrical vehicles. Apart from this, the city is in the phase of transformation into a smart city with reduced carbon emissions. Therefore, an increase in setting up charging stations and usage of electrical personal vehicles has arisen.

Within the initiatives for smart city additional activities of efficient resource use are also in place, especially in the field of waste management, reducing both the bulk of waste production and energy used for manipulation of waste. Also, reuse of construction waste.

There are several opportunities for further development of currently tested activities.

The most promising opportunities include:

- Energy use optimisation of electric vehicles in public transport,
- Boosting e-mobility transformation,
- Smart waste management.





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PP	Suggested innovation action	Description	Timeframe	
			From	To
2	Proposed activity 1	New city regulative, forbidding fossil fuel delivery vehicles in city centre	9/2022	9/2024
2	Proposed activity 2	Monitoring energy use in public transport e-vehicles, for the purpose of optimisation	9/2022	9/2025
2	Proposed activity 3	Introduction of online self-weighing trash containers, for optimization of their emptying	9/2022	9/2026

PP 10 R-Tech summary:

The advancing climate change, the finiteness of fossil fuels and rising energy costs require a fundamental change in the use and generation of energy. The availability and affordability of energy is essential for the creation of industrial, commercial and social prosperity as well as for private prosperity and mobility. Nevertheless, their production and consumption pose significant environmental pressures: greenhouse gas and air pollutant emissions, land use, waste generation and other environmental damage. These pressures contribute to climate change, damage natural ecosystems and man-made landscapes, and have adverse effects on human health. For this reason, one of the greatest challenges of the 21st century is to master the development towards sustainable energy use. However, for this overarching goal is no fully developed roadmap that offers a guaranteed solution while at the same time securing the level of prosperity. A package of different measures and use cases must be bundled to enable a successful energy transition. Due to its special properties, hydrogen is an essential component here. Whether as a storage medium for sustainably generated electricity, as a fuel substitute in mobility or as a green alternative in industry. The possibilities for use are almost endless. However, dealing with hydrogen is not yet without problems from a technical as well as a strategic point of view. In order to give the chemical element the decisive role that it can potentially play in the future, continuous further development in the research, production and application of hydrogen solutions is required. The Regensburg location has mastered the first step with its numerous projects in this area and is making an active contribution to efficient sector coupling. By networking and optimizing the three energy sectors electricity, heat and transport through the energy carrier hydrogen, synergies extended and the potential of renewable energies will be used in a wide range of applications.

Regensburg is a historically and culturally significant region that has developed into one of the most important economic centers and innovation drivers in Germany in recent years. The foundation of this development, in addition to the excellent transport and supply infrastructure that covers and brings together the urban area and the district equally, a wide range of skilled workers and excellent production conditions, above all, the close cooperation between companies, universities and municipal institutions. This strong cooperation has been built up and promoted over the years through an active network policy and now forms the heart of the business location. Due to these attractive location conditions, Regensburg not only has an extremely flourishing start-up and start-up scene, but many large, multinational companies are also based in the area. With BMW AG, Continental AG and Infineon Technologies, three leading companies in the mobility sector are located here. In order to secure the energy demand for the strongly growing electro mobility sector and to be able to serve it



**CHAIN REACTIONS**

sustainably, great efforts are made in the region to cover the demand through local, sustainable energy generation. As a result, an annual average of around 65% can be covered by regionally generated, green electricity, which is well above the national average. The main sources of generation are photovoltaics, wind power, hydropower and biomass. Above all, photovoltaic systems are already an essential part of power generation in the Regensburg region. Especially in the summer months, this already leads to significant surpluses and clearly shows the urgent need for a flexible energy source such as hydrogen. With this missing piece of the puzzle, the sector coupling in the region can be pushed even further and the excellent electrical infrastructure can be used even more sustainably.

The results of value chain innovation analyses and the first two transnational pilot workshops strongly suggest that the region is well positioned to achieve a high significance in the field of hydrogen and fuel cell technology. Regensburg offers ideal conditions for this project, which is characterized by a strong mixture of sustainability and innovation. Thanks to the excellent infrastructure and innovative concepts in the field of energy and mobility, the entire Regensburg economic area - the urban area and the district - is a sustainable model region. Thanks to the excellent networking of business, administration and science, the first projects in the field of hydrogen have already been implemented. A particular success was achieved through the establishment of the largest hydrogen network in Bavaria, Hy2ZERO. R-Tech GmbH's e-mobility cluster is in the lead here. R-Tech GmbH is a company of the City of Regensburg, which was initiated to organize thematic clusters and to promote technology-driven innovative start-ups and companies from Regensburg and the Upper Palatinate region. The ZIM network HY2ZERO aims to support the industrialization of hydrogen and fuel cell technologies through new innovative solutions and thus to support the market ramp-up. The network includes various R&D consortium projects planned, which make it possible to manufacture core components of the fuel cell, such as bipolar plates, more cost-effectively, and to increase the efficiency of the fuel cell through innovative power electronics. The project develops and improves technologies for the production of fuel cells (development line 1), system components for fuel cells (development line 2) and technologies for the on-site generation of hydrogen (development line 3). In addition, the solutions developed in the network will be tested in real laboratories. In order to achieve these ambitious goals, a strong consortium from business and science was founded under the leadership of the Regensburg E-Mobility Cluster. Through the cooperation of the cooperation partners in the network, all partners can benefit from the excellent structures of the location and the technology transfer and exchange of experience in the field of hydrogen is actively promoted. New Working Groups will be established based on experience of the partners according to the development lines.

PP	Suggested innovation action	Description	Timeframe	
			From	To
10	Development line 1	Development and improvement of technologies for the production of fuel cells	04/2021	03/2024
10	Development line 2	Developing new system components for fuel cells	04/2021	03/2024
10	Development line 3	New technologies for the on-site generation of hydrogen	04/2021	03/2024



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## 2.4 Next steps

For PP2, the proposed roadmap will still be validated, at a joint event with all the IGA members and other stakeholders, but it will still be updated along the process of its implementation.

The proposed action plan consists of two phases, where the first phase is the preparatory phase for implementation, while the second phase is the actual implementation and depends on the success of the first phase.

### Phase 1 (09/2021 – 9/2022)

- Development of project ideas and outlines
- Scouting for subsidies
- Networking and setting up an operative partnership
- Securing funding for implementation of activities (own sources)

Accompanying marketing and awareness raising (network identity, blogs, in person presentations)

### Phase 2 (09/2022 – 9/2026)

- Preparation of funding applications
- Start of R&D projects and demonstration projects
- Knowledge and technology transfers

Accompanying marketing and awareness raising (network identity, blogs, in person presentations)

For PP10, the following roadmap will become active and updated along the process after the Working Groups are in place.

### Phase 1 (04/2021 – 03/2022)

- Development of project ideas and outlines
- Scouting for subsidies
- Knowledge and technology transfer (one workshop)
- Accompanying marketing activities (Landing page, network identity, pod casts)

### Phase 2 (04/2022 – 03/2024)

- Preparation of funding applications
- Start of R&D projects and demonstration projects
- Knowledge and technology transfer (two workshops)
- Accompanying marketing activities (publications, network reports, social media channels)




### 3 ANNEX: ATTENDANCE LISTS FOR INDIVIDUAL MEETINGS STP

<https://www.interreg-central.eu/Content.Node/CHAIN-REACTIONS.html>

#### ATTENDANCE LIST / LIST OF PARTICIPANTS

Meeting /Event: D4.1.G. – Sectoral trends meeting with RRA LUR

Date and Place: 21.7.2021, Ljubljana

Name and Surname	Organisation	Email or Phone number	Signature
MILKA LESKOVAR	RRA LUR	milka.leskovec@vubv.si	
Tanja Senekovič	STP	tanj2@stp.si	
Marija Fras	STP	marija@stp.si	

Project co-funded by the European Union funds (ERDF, IPA)


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<https://www.interreg-central.eu/Content.Node/CHAIN-REACTIONS.html>

#### ATTENDANCE LIST / LIST OF PARTICIPANTS

Meeting /Event: D4.1.G. – Sectoral trends meeting

Date and Place: 3.8.2021, Ljubljana

Name and Surname	Organisation	Email or Phone number	Signature
MATEJ BORUKO	KOMUNIKACIJSKA PRILIKOVOSTI	MATEJ.BORUKO@AMIS.NET 031-540-277	
TANJA SENEKOVIC	STP	TANJA@STP.SI	
Borut Janič	STP	borut@stp.si	
Marija Fras	STP	marija@stp.si	

Project co-funded by the European Union funds (ERDF, IPA)



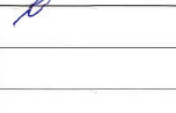
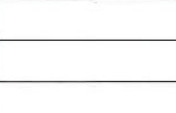
1



**ATTENDANCE LIST / LIST OF PARTICIPANTS**

Meeting /Event: D4.16 - Sectoral trends meeting

Date and Place: 5.8.2021, Maribor

Name and Surname	Organisation	Email or Phone number	Signature
Uroš Božnar	ERA PODVABJE-MARIBOR	uros.boznar@era-podvabje.si	
Matiž Fras	STP	matjaz@stp.si	
Tanja Senekarič	STP	tanja@stp.si	
Barut Janšič	STP	borut@stp.si	


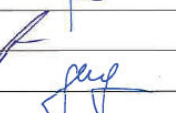
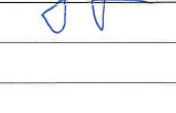

Project co-funded by the European Union funds (ERDF, IPA)

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**ATTENDANCE LIST / LIST OF PARTICIPANTS**

Meeting /Event: D4.16 - Sectoral trends meeting

Date and Place: 11.8.2021, Maribor

Name and Surname	Organisation	Email or Phone number	Signature
Igor Kos	IWN	igor.kos@wyc.be.eu	
Matiž Fras	STP	matjaz@stp.si	
Barut Janšič	STP	borut@stp.si	
Tanja Senekarič	STP	tanja@stp.si	

Project co-funded by the European Union funds (ERDF, IPA)

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**ATTENDANCE LIST / LIST OF PARTICIPANTS**

Meeting /Event: D4.1.6 – Sectoral trends meeting

Date and Place: 23.8.21, Maribor

Name and Surname	Organisation	Email or Phone number	Signature
NATAŠA ŠTERBAN BEZJAK	PPA POSAVJE	NATASA.STERBAN.BEZJAK@PPA-POSAVJE.HI	
Matjaž Fras	ŠTP	matjaz@stp.si	
Borut Janšič	ŠTP	borut@stp.si	
Tanja Sečkonč	ŠTP	tanja@stp.si	



## 4 ANNEX: SCREENSHOTS OF THE WORKSHOP



### Agenda

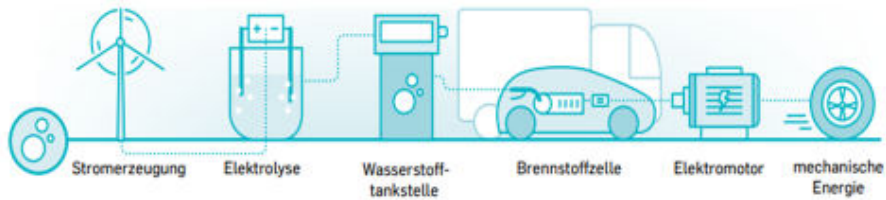
- 09:00 | Begrüßung (Uwe Pfeil, Clustermanager E-Mobilitätscluster)
- 09:05 | Wie "funktioniert" ein ZIM Innovationsnetzwerk? (Dr. Manfred Binder, Projektmanager E-Mobilitätscluster)
- 09:20 | Workshop 1: Vorstellungsrunde: Alle Teilnehmer, je Teilnehmer, ca. 1 min (Ziele und Erwartungen)
- 10:00 | Workshop 2: Zusammenarbeit im F&E-Netzwerk HYZERO
- 10:30 | Ausblick und weitere Schritte – F&E-Projekte / Marketingaktivitäten (Uwe Pfeil, Clustermanager E-Mobilitätscluster)
- 10:45 | Fragen, Diskussion, Sonstiges





## Ziel des Netzwerks

Das Ziel des Netzwerks ist die Entwicklung neuer wasserstoffbasierter Technologien für Mobilitätsanwendungen entlang einer Energiekette für klimaneutrale Mobilität.



Kick off Meeting (GoM) F&E Netzwerk HY2ZERO


20:28

Steuerung anfordern

Verlassen

### Ziele des Kick-Off Treffens

- Vorstellen wie das F&E-Netzwerk HY2ZERO funktioniert
- Ziele und Erwartungen festlegen
- Die Zusammenarbeit im Netzwerk besprechen
- Erste Schritte festlegen



Teilnehmer

Namen eingeben

Einladung teilen

In dieser Besprechung (7)

Alle stumm...

- Manfred Binder
- "Bernhard Kuhn (Gast)"
- "Thomas Frey (AVL SFR) (Ga..."
- Andreas Schüller
- Ann-Katrin Rosoner
- Anne Häner
- Ceiling, Johannes
- Hierl Patrick
- Largus
- Kerler, Matthias, Dr.
- Kröninger Peter (Mühlbauer F...
- Max Becker
- Michael Bloss
- Michael Strobel

Use Pro

WT AR SM AS WH RL HP SR

Wili Holzapfel (Gast) Raphael Lechner Hierl Patrick Sven Rosenkranz

09:50 19.04.2021





## Roadmap (April 21 – März 24)

- **Phase 1 April 21 – März 22**

- Erarbeiten von Projektideen und Projektskizzen
- Fördermittelscouting
- Technologie- und Wissenstransfer
- Begleitende Marketingaktivitäten

- **Phase 1 April 22 – März 24**

- Ausarbeiten der Fördermittelanträge
- Start von F&E-Projekten und Demonstrationsvorhaben
- Technologie- und Wissenstransfer
- Begleitende Marketingaktivitäten



## Wie "funktioniert" ein ZIM Innovations- netzwerk?

Dr. Manfred Binder, Projektmanager E-Mobilitätscluster





Kick-off Meeting (KoM) F&E Netzwerk HYZERO

32:17 Steuerung anfordern

### Vorteile Netzwerk Management

- Gemeinsamer F&E-Koordinator
- Persönliche, branchenübergreifende Kontakte, Forschungseinrichtungen, potenzielle Anwender
- Workshops, Erfahrungsaustausch – organisiert und moderiert von einem Netzwerkmanager
- Höhere Wahrscheinlichkeit für weitere Förderungen über das Netzwerk (z.B. für F&E-Kooperationsprojekte wie NiEMoB und EmDeNetz)
- Gemeinsames Marketing (Webseite, Podcasts, soziale Medien, Flyer ...)
- Teilnahmen an Messen, Foren

Danke schön und Fragen!

**ZIM**  
Zentrales Innovationsprogramm  
Mittelstand

**Teilnehmer**

Namen eingeben

Einladung teilen

In dieser Besprechung

Alle stummensch...

MFB Manfred Binder

"Bernhard Kuhn (Gast)"

"Thomas Frey (AVI, SFR) (Gu...

AS Andreas Schüller  
Extern

AR Ann-Katrin Rosoner

AR Anne Häner

JG Gieding, Johannes  
Extern

HP Hardy Barth (Gast)

HP Flierl Patrick  
Extern

K Kargni  
Extern

MR Kerker, Matthias, Dr.  
Extern

KP Kröninger Peter (Mühlbauer F...

MB Max Becker  
Extern

MB Michael Bloos  
Extern

Wili Holzapfel (Gast)

Raphael Lechner

Hend Patrick

Sven Rosenkranz

09:17  
19.04.2021

# Workshop 1: Vorstellungsrunde

Alle Teilnehmer, je Teilnehmer, ca. 1 min (Ziele und Erwartungen)



**Interreg**   
CENTRAL EUROPE  
**CHAIN REACTIONS**





**CHAIN REACTIONS**

Kick-off Meeting (KoM) F&E Netzwerk HYZZERO

01:13:06

Steuerung anfordern

Verlassen

miro HYZZERO - Kick-Off

https://miro.com/app/board/d9t8i\_RmfTngp/

4 Quadranten Sch...  
 Wie trägt sich die Netzwerk auf?  
 Wie gestalten wir unsere Zusammenarbeit und Koordination im Netzwerk HYZZERO?

Teilnehmer

Namen eingeben

Einladung teilen

In dieser Besprechung (26)  
 Alle stumm...  
 Manfred Binder  
 Bernhard Kuhn (Gast)  
 Thomas Frey (AVL SFR) (Ga...  
 Andreas Schüller  
 Extrem  
 Ann-Katrin Rosner  
 Anne Häner  
 Geling, Johannes  
 Extrem  
 Hardy Barth (Gast)  
 Hiert Patrick  
 Extrem  
 Kargni  
 Extrem  
 Kerler, Matthias, Dr.  
 Extrem  
 Kröninger Peter (Mühlbauer F...  
 Extrem  
 Max Becker  
 Extrem  
 Michael Bloss  
 Extrem

Ann-Katrin Rosner

Stefan Müller, SR, Sven Rosenzanz, TH, Willi Holzappel (Gast), Uwe Piel, Ann-Katrin Rosner, MB

09:58  
 19.04.2021

Kick-off Meeting (KoM) F&E Netzwerk HYZZERO

01:29:57

Steuerung anfordern

Verlassen

miro HYZZERO - Kick-Off

in Letztinstanz ist...  
 Know-How (AVL)  
 System-GRÜBE  
 gemeinsam & Anforderungsmanagement

Wie gestalten wir unsere Zusammenarbeit und Koordination?

virtuell und Präsenz: jede Art der Kooperation  
 Newsletter (monatlich)  
 Kollaborationsplattform (z.B. Teams) mit Dauerabgabe, Kanban etc.)  
 Frauenteam: kleine Gruppen bilden mit definierten Entwicklungsziele -> Austausch in diesen Gruppen dann intensivieren (zum Beispiel) synchronisiert über MS Teams)  
 Austausch nicht nur intern sondern auch mit anderen ähnlichen Netzwerken & früheren R&D Projekten

THD, Zink und Wasserstoff sind der Nutzen, in denen keine effizienteren Technologien verfügbar sind, aber zusätzlich auch gerne als Rohstoffe in der Produktion, oder auch zur großtechnischen Aufbereitung (z.B. Wasserstoff)

Teilnehmer

Namen eingeben

Einladung teilen

In dieser Besprechung (26)  
 Alle stumm...  
 Manfred Binder  
 Bernhard Kuhn (Gast)  
 Thomas Frey (AVL SFR) (Ga...  
 Andreas Schüller  
 Extrem  
 Ann-Katrin Rosner  
 Anne Häner  
 Geling, Johannes  
 Extrem  
 Hardy Barth (Gast)  
 Hiert Patrick  
 Extrem  
 Kargni  
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 Kerler, Matthias, Dr.  
 Extrem  
 Kröninger Peter (Mühlbauer F...  
 Extrem  
 Max Becker  
 Extrem  
 Michael Bloss  
 Extrem

Ann-Katrin Rosner

Willi Holzappel (Gast), Ann-Katrin Rosner, Hiert Patrick, Philipp Pitsch, Geling, Johannes, Raphael Lechner, MB

10:13  
 19.04.2021





The screenshot shows a Miro collaborative workspace titled "HYZERO - Kick-Off". The workspace contains several sticky notes and diagrams. Key sections include:

- Top Left:** A mind map with central nodes like "HYZERO - Kick-Off" and branches for "Mittelstand", "KMU", "Wirtschaftszweig", "E-Mobilitätscluster Re...", "Kalender", "TechBase", "Boards | Tello", "Wirtschaftszweig", "Mensa", "EU Login", "AMS Dashboard", "Timebutler", "timesandata.de", "Stau", "DHI Pilsen", "EmDefletz - Homepage", and "Weitere Lesestrichen".
- Top Right:** A sticky note titled "Continue collaborating using your real name. Sign up for free".
- Middle Left:** A sticky note titled "Wie gestalten wir unsere Zusammenarbeit und Kooperation?".
- Middle Right:** A sticky note titled "Gestaltung der Zusammenarbeit & Kooperation im Netzwerk (sollte bei Bedarf)".
- Bottom:** A list of participants: "Guest Pioneer", "Guest Thinker", "Guest Planner", "Guest Developer", "Guest Architect", "Guest Reseacher", "Guest Thinker", "Guest Planner", and "Guest Developer".

The screenshot shows a Zoom meeting interface titled "Kick off Meeting (KOM) FRE Netzwerk HYZERO". The meeting is in progress at 01:48:14. The interface includes:

- Video Grid:** Three video thumbnails showing participants: "Ann-Katrin Rosoner" (top left), "Uwe Pfeil" (top right), and "Bernhard Kuhn (Guest)" (bottom right).
- Participant List:** A list of participants on the right side, including: "Mandfred Binder", "Bernhard Kuhn (Guest)", "Thomas Frey (AVL SFG) (Guest)", "Andreas Schüller", "Ann-Katrin Rosoner", "Anne Hauer", "Geising, Johannes", "Hardy Barth (Guest)", "Hilf Patrick", "Largne", "Kerler, Matthias, Dr.", "Kroninger Peter (Mühlbauer F...)", "Max Becker", and "Michael Bloss".
- Bottom Bar:** A row of circular icons representing participants: "+7", "MB", "MB", "MS", "MO", "RM", "RP", "SM", "SR", "TH", "HP", "JG", "RL", "OK", "WH", "PP", and "MB".



## Ausblick und weitere Schritte

### F&E-Projekte / Marketingaktivitäten

## Nächste Schritte

- Erarbeiten von F&E-Projektideen/Skizzen entlang der definierten Entwicklungslinien
- Bildung von Konsortien
- Suche nach passenden Fördermitteln

Analog Q2, ggfs. erste Projekteinreichung(en) in Q3



- Aufbau einer Landingpage
- Erarbeiten einer Netzwerkidentität (Logo usw.)
- Planung und Start einer Podcastreihe (20 Podcasts)
- Artikel / Berichte über das Netzwerk auf der Clusterwebseite und Social Media Kanälen




Kick off Meeting (KoM) F&E Netzwerk HYZERO

01:53:23

Steuerung anfordern

Verlassen

## Kontakt



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 R-Tech GmbH Regensburg  
[uwe.pfeil@techbase.de](mailto:uwe.pfeil@techbase.de)  
 +49 941 604889-55  
[www.techbase.de](http://www.techbase.de)

Teilnehmer

Namen eingeben

Einladung teilen

In dieser Besprechung (27)

- Manfred Binder
- „Bernhard Kuhn (Gast)“
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- Hilert Patrick
- Kargni
- Kerker, Matthias, Dr.
- Kröninger Peter (Mühlbauer F...
- Max Becker
- Michael Bloss

Uwe Pfeil

TH HP JG RL OK WH PP AR MB



Raphael Lechner Otto Krietzner Wilb Hochstetel (Gast) Philipp Pitsch Ann-Katrin Rosoner Uwe Pfeil

10:38  
19.04.2021

Kick off Meeting (KoM) F&E Netzwerk HYZERO

02:00:10

Verlassen

Teilnehmer

Namen eingeben

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- Hilert Patrick
- Kargni
- Kerker, Matthias, Dr.
- Kröninger Peter (Mühlbauer F...
- Max Becker
- Michael Bloss
- Michael Strobel

Uwe Pfeil

MB MB MS MO RM RP SM SR TH HP JG OK WH AR PP MB

Raphael Lechner

10:43  
19.04.2021