

# Empowering H2-ready regions in Central Europe

H2CE

CE0100055  
H2CE project

H2CE Partner Meeting in Bologna  
Study visit to Fores Engineering, Forlì  
20/11/2024

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# H2CE in a glance

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- The H2CE project overview
- Common challenges
- Mission, main objective
- H2CE in numbers
- Project partnership
- Activities and outcomes, pilot actions
- Website



# Empowering H2-ready regions in Central Europe

- Transitioning to green energy is key to tackling climate change and creating sustainable economies.
- Green hydrogen holds significant promise but accounts for less than 2 percent of Europe's current energy consumption.



# Common challenges

- The common challenge H2CE is tackling is a smart integration of hydrogen solutions & renewable energies into the regional energy transition to reduce GHG emissions from different sectors. **The project focuses on transferable energy planning at local & regional levels for EU regions.**



# Mission

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- The H2CE project helps regions in central Europe to boost the integration of hydrogen in their local and regional energy planning.
- The project develops and tests new planning tools for public authorities and creates a network of hydrogen-ready regions for good practice exchanges.



H2CE

## H2CE in numbers

2,38<sup>m €</sup>  
Project Budget

80%  
of the Budget is funded  
by ERDF

7  
Countries

9  
Regions

12  
Partners

2  
Pilots

Duration: 04.2023-03.2026



# H2CE Work packages and outcomes

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H2-ready for European and regional spatial planning and development

- Strategy for H2-ready regions
- Action plan for H2-ready regions

H2-ready regions: Support mechanisms for energy system transition and participation

- Tool for strategic decision support and planning
- Pilot actions
- Testing of setting up regional H2 Competence
- Centres

Developing Central Europe Hydrogen network and Collaboration Platform

- 28 Organisations cooperating across borders
- H2CE Solutions



# WP1: H2-ready for European and regional spatial planning and development



# WP1 -H2-ready for European and regional spatial planning and development

## Overview

The main goal is to **analyse and identify common challenges & solutions** in planning and governance processes for H2-ready regions from a **regional, transregional & transnational perspective** to **develop joint strategies and action plans.**

# WP1 - Overview

## A.1.1: Planning the transition in European regions: challenges and solutions in H2-ready regions

D.1.1.1: Fact sheet common indicators - PP 1

Regional analyses  
PP 1,2,3,4,5,6,7,8,9,10,12



D.1.1.2: Summary of transferable regional results - PP 1

## A.1.2: Strategy and action plan development

D.1.2.1: Guidelines - PP 1

- Strategy Guideline
- Action Plan Guideline

D.1.2.2: Strategies

D.1.2.3: Action Plans

### 3 Strategies

1. Transnational (PP1 + AO13)
2. Interregional (PP10, PP12)
3. Regional (PP9)

### 2 Action Plans

1. Action Plan PP2
2. Action Plan PP8

# WP1 - Activity 1.1

## Planning the transition in European regions: challenges and solutions in H2-ready regions

Period 1, 1-6 until Period 6, 31-36

Deliverables		
D.1.1.1	Fact sheets of common indicators for regional H2-readiness in planning and development processes	<b>Period 1, 1-6</b>
D.1.1.2	Summary of regional results transferable to European regions-challenges, best-practices a. solutions	Period 4, 19-24

# WP1 - Activity 1.2

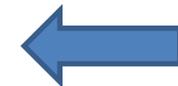
## Strategy and action plan development - upscaling into a regional, transregional and transnational perspective

Period 3, 13-18 until Period 6, 31-36

Deliverables		
D.1.2.1	Guidelines for the development of a strategy or action plan	Period 4, 19-24
D.1.2.2	Strategies for H2-ready regions	Period 6, 31-36
D.1.2.3	Action plans for H2-ready regions	Period 6, 31-36
Outputs		
Output 1.1	Strategy for H2-ready regions	Period 6, 31-36
Output 1.2	Action plan for H2-ready regions	Period 6, 31-36



Results A1.1



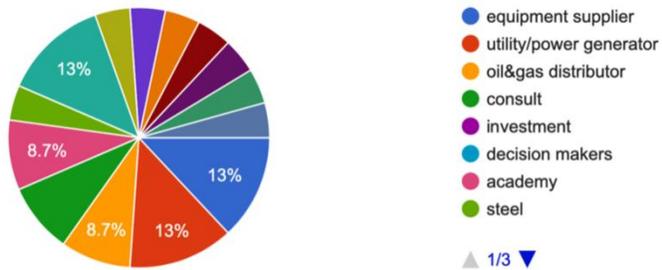
Results WP2

# WP1: Mapping Hydrogen Potential in The City of Zagreb, Zagreb County, and Krapina-Zagorje County

## Results of the analysis

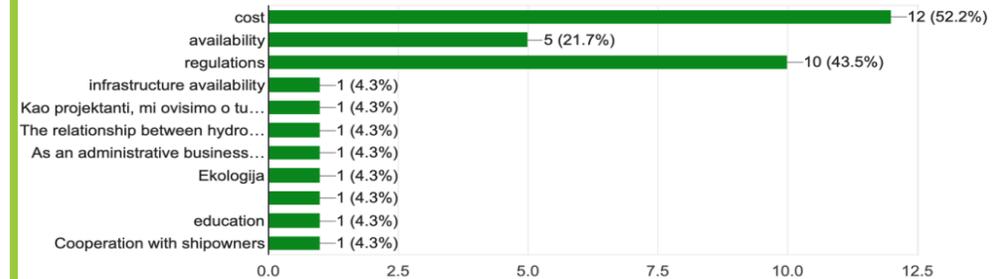
Type of the company/institution

23 responses



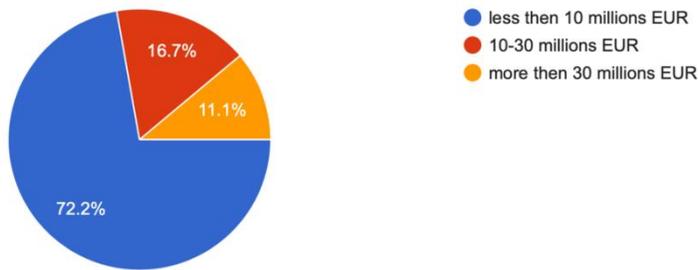
What factors are influencing your decision to adopt hydrogen technology? (multiple answers possible)

23 responses



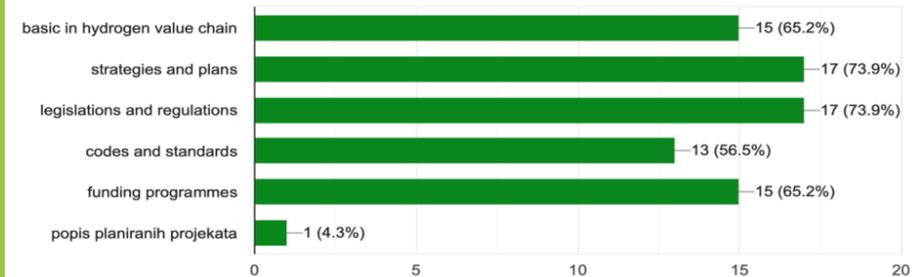
How much roughly you plan to invest in hydrogen projects in the next 5 years?

18 responses

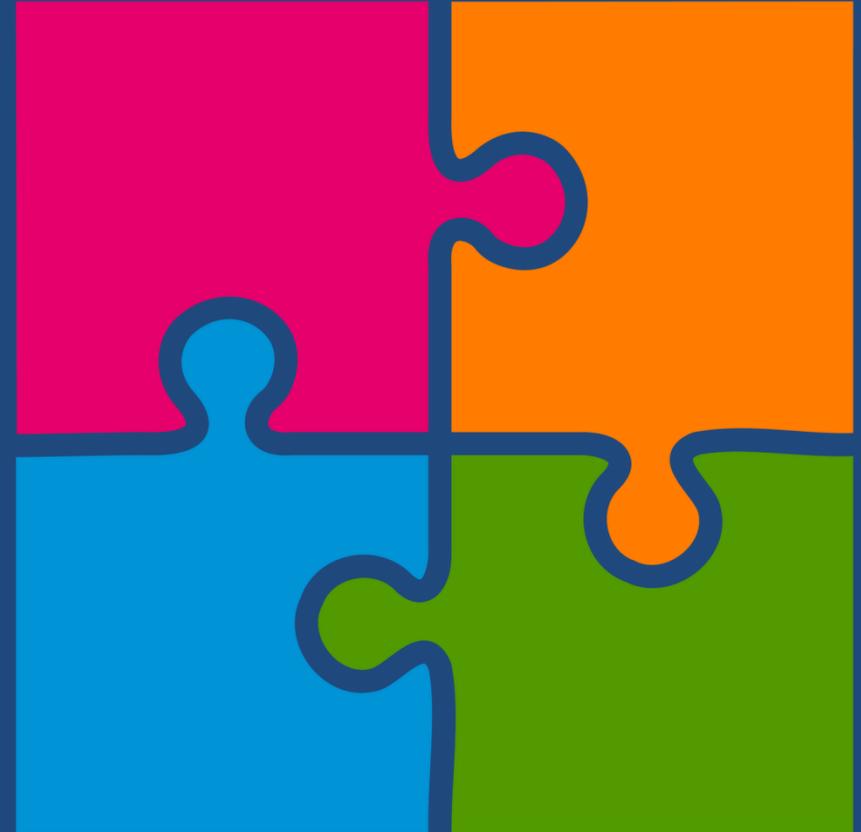


What additional information or resources would you like to have access regarding hydrogen technology? (multiple answers possible)

23 responses



# WP2: H2-ready regions: Support mechanisms for energy system transition and participation



# WP2 H2-ready regions: Support mechanisms for energy system transition and participation

## Overview

The main goal is to **develop an energy system model to identify a cost-efficient hydrogen infrastructure set-up and link it to a GIS-based tool** aligning cross-regional hydrogen transition projects and activities to identify gaps and avoid overcapacities.

Additionally, we will identify a common framework for **setting up regional H2 competence centres for capacity building of regional and local public and private stakeholders** to accompany the hydrogen-based energy transition in each region.

Developed **H2 vouchers** will represent a possible “ready-to-use” option for financial support of projects related to the hydrogen economy / hydrogen value chain.

# WP2 - Overview

## A.T2.1 Support mechanisms I: mapping and modelling regional H2 energy systems

2.1.1 Digital GIS database: methodology, prototype and evaluation results

2.1.2 Energy cells model: results of modelling and evaluation

2.1.3 Report on the testing of a strategic decision-support tool



## A.T2.2. Support mechanisms I: regional capacity building

2.2.1 Report on the testing of training course capacity building at public & private organisations

2.2.2 H2 voucher mechanism for hydrogen utilisation in Usti

2.2.3 Report on the testing of regional H2 Competence Centres

2.2.4 Peer review document of pilots' results and mainstreaming at the EU and national levels



# WP2 - Activity 2.1

## Support mechanisms I: mapping and modelling regional H2 energy systems

Period 1, 1-6 until Period 5, 25-30

Deliverables		
D.2.1.1	Report on the testing of a digital GIS database: methodology, prototype and evaluation results	Period 4, 19-24
D.2.1.2	Report on the testing of energy cells model: results of the modelling and evaluation	Period 4, 19-24
D.2.1.3	Report on the testing of a strategic decision-support tool	Period 4, 19-24

# WP2 - Activity 2.2

## Support mechanisms II: regional capacity building

Period 1, 1-6 until Period 5, 25-30

Deliverables		
D.2.2.1	Report on the testing of training course capacity building at public & private organisations	Period 3, 13-18
D.2.2.2	Report on the testing of the methodology H2 voucher mechanism for hydrogen utilisation in Usti	Period 4, 19-24
D.2.2.3	Report on the testing of regional H2 Competence Centres	Period 4, 19-24

# WP2 - Activity 2.2

## Support mechanisms II: regional capacity building

Period 1, 1-6 until Period 5, 25-30

D.2.2.4	Peer review document of pilots' results and mainstreaming at the EU and national levels	Period 5, 25-30
<b>Outputs</b>		
Output 2.1	Tool for strategic decision support and planning	Period 4, 19-24
Output 2.2	Testing of setting up regional H2 Competence Centres	Period 4, 19-24

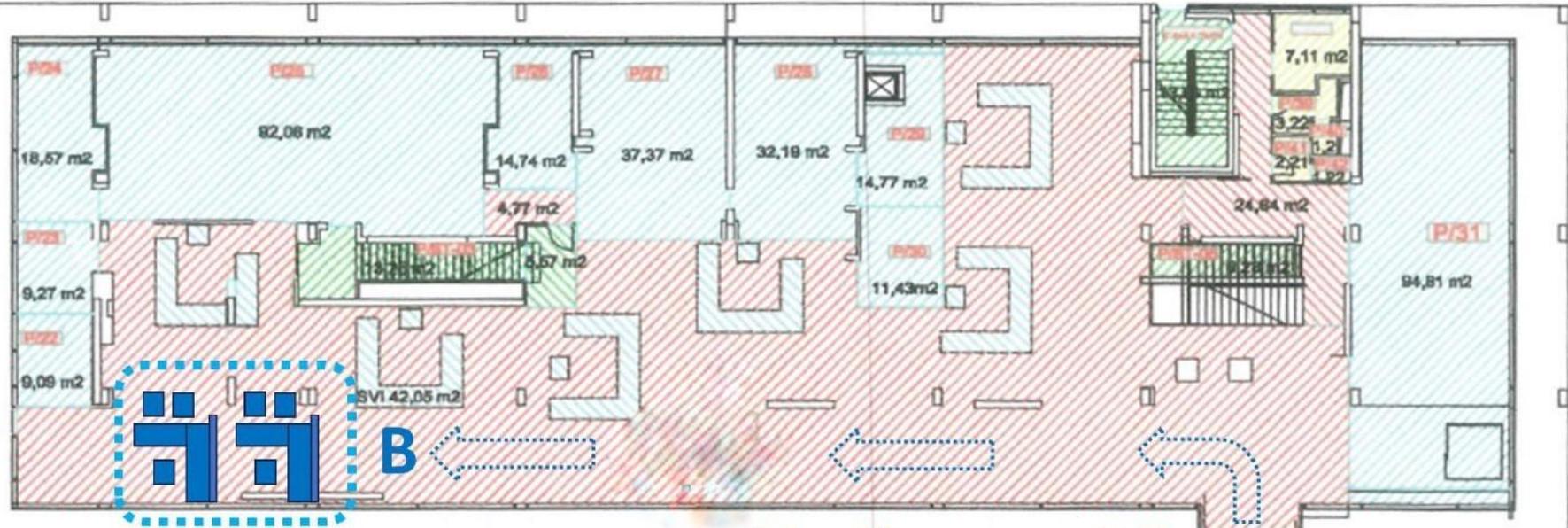
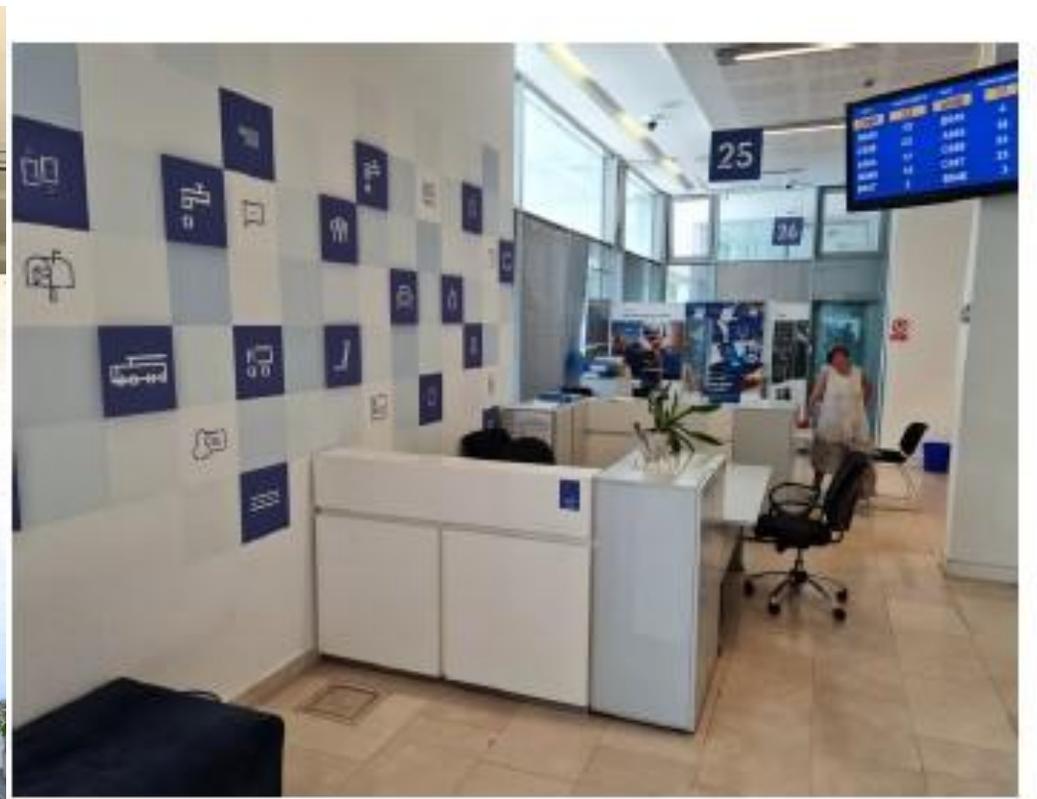
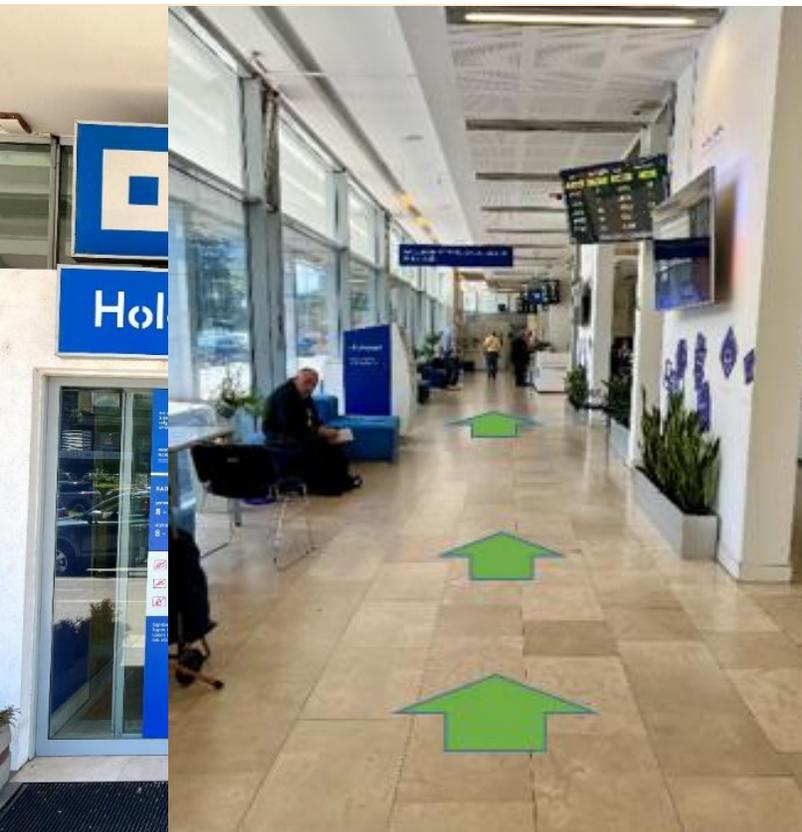
# WP2 Pilot actions - ONE STOP SHOP Zagreb

Building on the existing expertise of various city offices and departments as well as existing networks of hydrogen stakeholders , **Zagreb will develop a regional H2 competence center ( Activity 2.2) that will be a part of the "Zagreb Green Office" - a dedicated one stop shop (OSS) currently under development within the city with support for PV rollout as its first building block .**

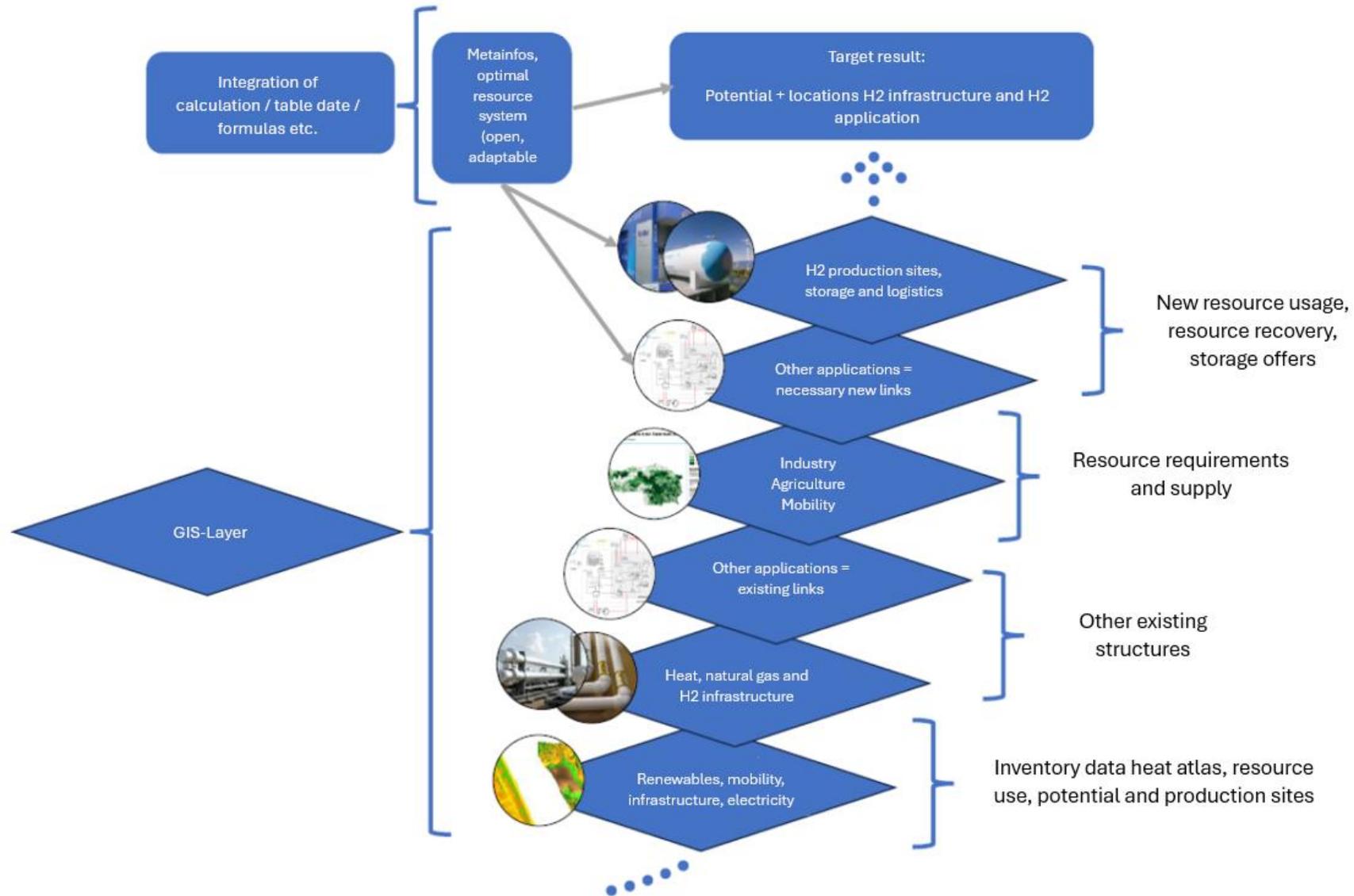
**Here are some of the main activities that will be carried out in the One stop shop:**

1. Information and education
2. Support for project development
3. Cooperation and networking
4. Development of projects (H2 etc.)
5. Access to financing





# WP2 Pilot actions - Support mechanisms for energy system transition and participation Styria region



# WP2 Pilot actions - GIS Tool Veneto region

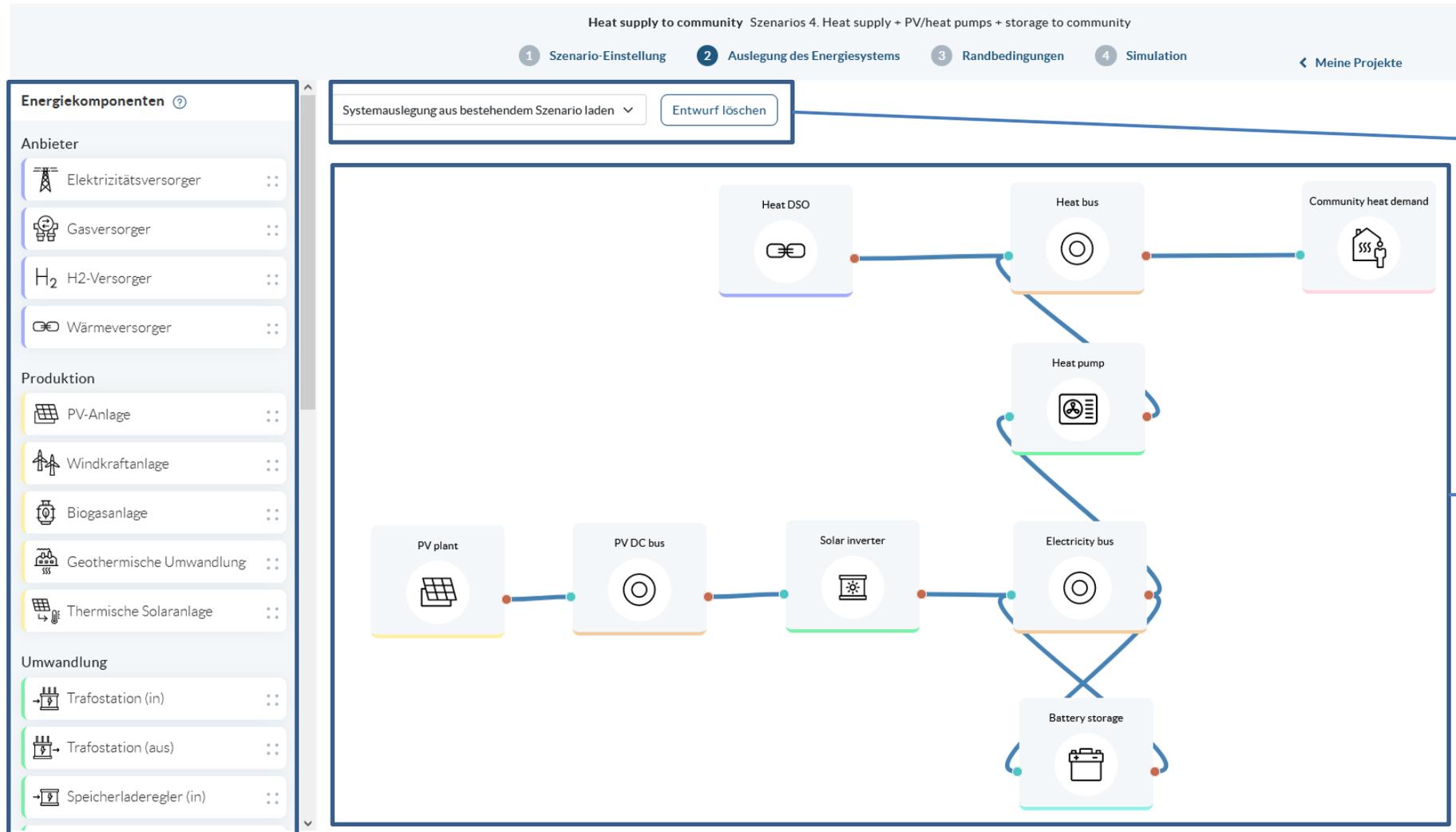
**Main Goal:** To support public decision makers in making choices to plan and monitor investments in the field of production, distribution, and consumption of hydrogen as an energy source

- Integrated with Veneto Region information service and regional charts
- Multi-disciplinary layers of information
- Easy to use queries based on dimension / typology of initiatives
- Possibility to customise specific reports

Completely and easily replicable in any context, based on open data



# WP2 Pilot actions - Online energy cells model Lübben, Germany



Import energy system from other scenario

Energy system design

Components

# WP3: Developing Central Europe Hydrogen network and collaboration Platform



# WP3 Developing Central Europe Hydrogen network and collaboration Platform

## Overview

The main goal is to establish a **network of key public and private stakeholders at local, regional and transregional levels** in 9 Central European regions to establish H2-ready regions, including an **online interactive Collaboration Platform**.

# WP3 - Activity 3.1

## Developing a transregional H2CE network

Period 1, 1-6 until Period 6, 31-36

Deliverables		
D.3.1.1	Joint mission report on establishing a sustainable collaboration network of H2-ready regions (MoU)	Period 6, 31-36
D.3.1.2	Report on network continuation after project end (MoU)	Period 6, 31-36

# WP3 - Activity 3.2

## Uptake of H2CE Solutions and Collaboration Platform

Period 2, 7-12 until Period 6, 31-36

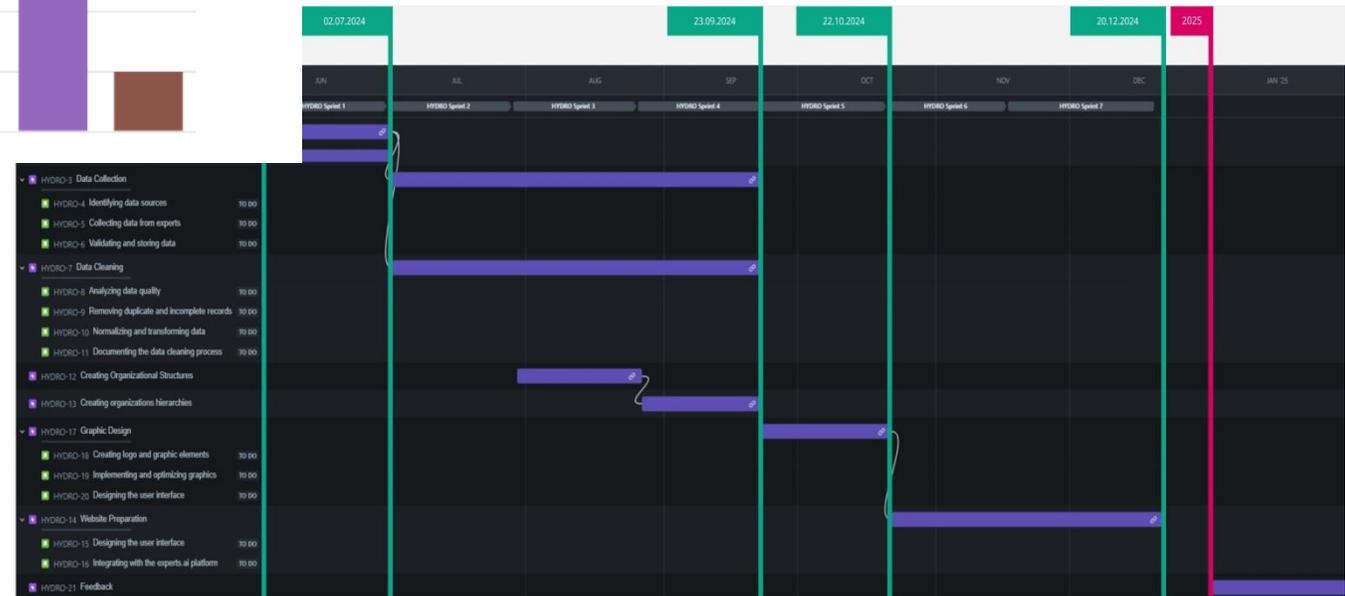
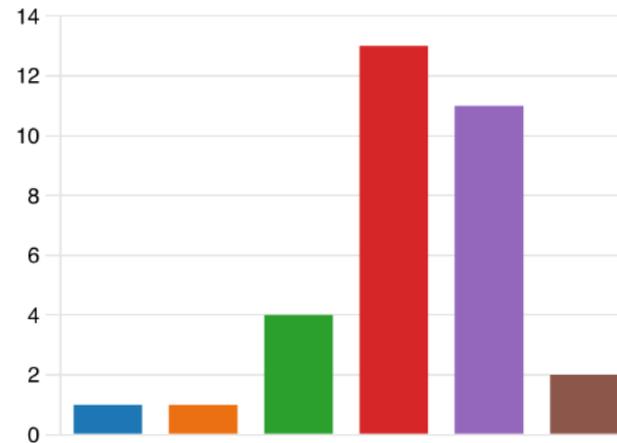
Deliverables		
D.3.2.1	Concept note on joint requirements for an interactive H2CE Collaboration Platform	Period 2, 7-12
D.3.2.2.	Report on H2CE Solutions	Period 6, 31-36
Outputs		
Output 3.1	Transregional H2CE network	Period 1, 1-6
Output 3.2	H2CE Solutions	Period 6, 31-36

# WP3 - H2CE Platform- under development

2. What do you find most interesting about the idea of developing the H2 collaboration platform, potentially the most beneficial for you?

[Další podrobnosti](#)

- Newsletters 1
- Bulletins 1
- Position papers 4
- Analytical tools and reporting 13
- Training and education 11
- Jiné 2



H2CE

# Check out our website

<https://www.interreg-central.eu/projects/h2ce>

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**P2 Green NEWS**  
19.06.2024

**H2CE Geographic Information System (GIS) under development**

H2CE is developing a GIS platform to support Central Europe's hydrogen energy transition. This tool will help public authorities plan and monitor hydrogen investments, visualize energy infrastructure, and assess hydrogen production and transport.

By H2CE

**P2 Green NEWS**  
07.06.2024

**H2CE PROJECT MEETING HIGHLIGHTS: PAVING THE WAY FOR H2-READY REGIONS**

On the 6th and 7th of June 2024, the Interreg CE co-funded H2CE project held a fruitful networking and partner meeting to discuss and bring forward the transnational cooperation on tackling a smart integration of hydrogen solutions and renewable energies into the regional energy transition.

By H2CE

**P2 Green NEWS**  
16.05.2024

**H2CE Collaboration Platform-development survey results**

Fostering collaboration among hydrogen stakeholders in the Central European Region

By H2CE



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THANK YOU