



THOTH2

1° SAB Meeting

Presentation of the Consortium and General overview

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Agenda

1. Welcome and opening

(10:00-10:15)

2. Presentation of the Consortium and General overview

(10:15-10:35)

3. Technical Work Packages presentation

(10:35-11:20)

4. Dissemination & Communication Work Packages presentation

(11:20-11:30)

5. Time for Q&A

(11:30-12:00)

THOTH2 project

novel meTHOds of Testing for measurement of natural gas and H₂ mixtures

HORIZON-JTI-CLEANH₂-2022-05-04:

Development of validated test methods and requirements for measuring devices intended for measuring NG/H₂ mixtures

From THOTH...to THOTH2



A long time ago, in the in ancient Egypt...

THOTH was a Moon god. The Moon not only provides light at night, allowing time to still be measured without the sun, but its phases and prominence gave it a significant importance in early astrology/astronomy. The perceived cycles of the Moon also organized much of Egyptian society's rituals and events, both civil and religious. Consequently, Thoth gradually became seen as a god of wisdom, magic, and the measurement and regulation of events and of time."

...nowadays, in Europe

THOTH2 consortium focuses on energy measurement value chain and instruments' ability to accurately measure physical parameters of H2NG mixtures with increasing H2percentages, up to 100%, in order to make NG infrastructure resilient to the challenges of tomorrow.

THOTH2 Partners



Project context



- **H2 blending** in existing gas infrastructure can play a central role in unlocking the green transition.
- To date, H2 blending is limited also due to **uncertainties on the impact of new mixtures on the already installed devices** in the gas value chain, such as measuring instruments.
- The **normative framework**, including testing methodologies for Hydrogen and Natural Gas (H2NG) mixtures, is still under-construction.
- **Validated protocols** are required to define the H2 limits and tolerances of the measuring devices installed in the NG grids.

Project objectives

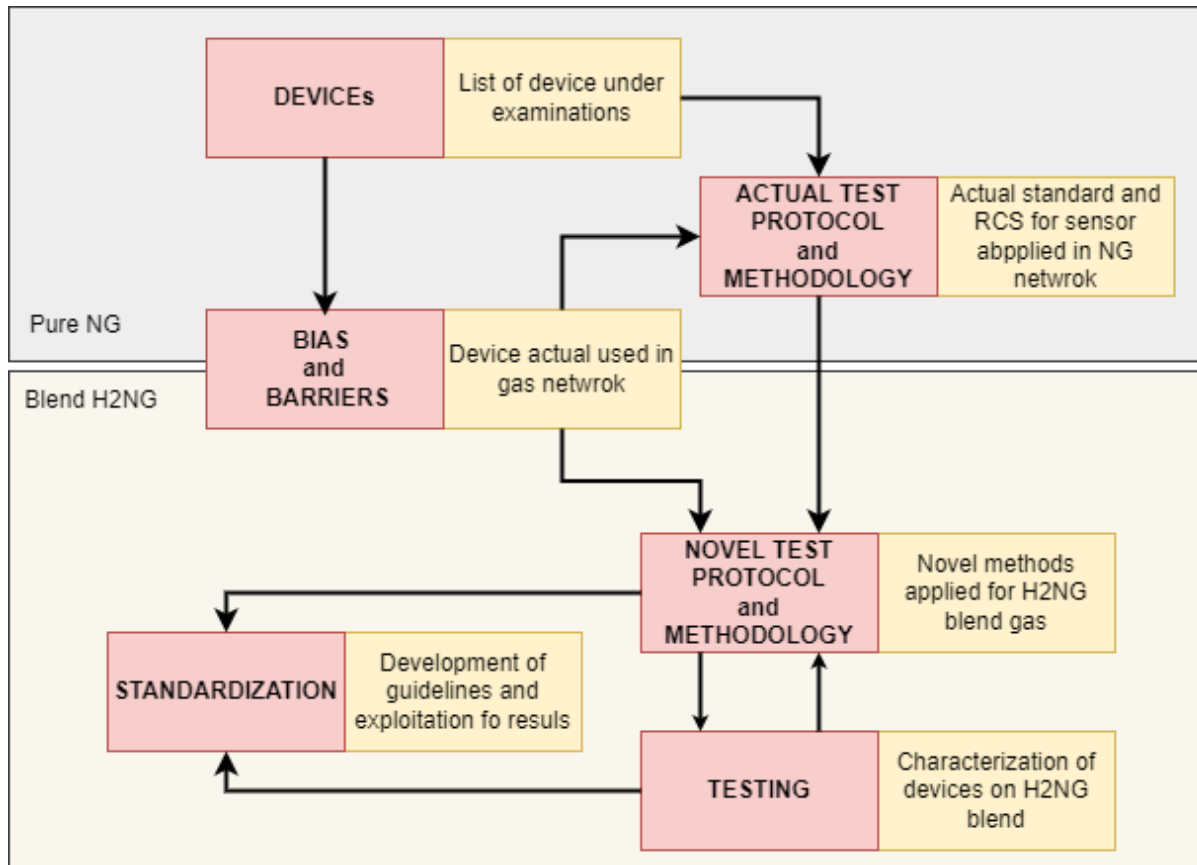
THOTH2 will focus on the **energy measurement value chain and the instruments' ability to accurately measure physical parameters of H2NG mixtures** with increasing H2 percentages, up to 100%

Cover the normative and standards gaps relating to methodologies and protocols for measuring devices with H2NG mixtures or pure H2.

Design dedicated methodologies to test different types of measuring devices installed, at different operative conditions

Provide recommendations to International Standard Bodies, gas TSOs and DSOs), measuring devices' manufacturers, and the R&D community.

Project methodology



With a focus on **H2NG mixtures**, the THOTH2's pragmatic approach is based on:

- **SoA analysis**: identification of barrier and bias on metering devices
- Development and definition of **test's methodology** and protocol
- **Testing** and characterization
- **Standardization** and exploitation of results

Project activities

WP1: SoA, Barriers
and bias on metering
devices for NG blend

WP2: Methodology
and test protocols

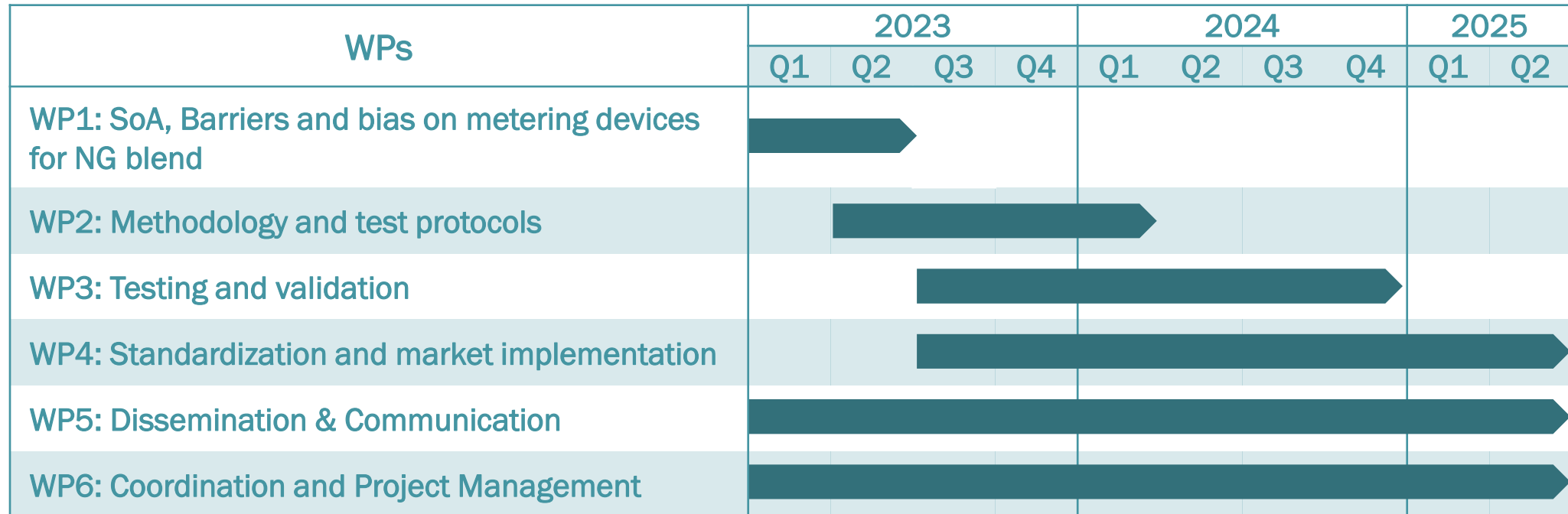
WP3: Testing and
validation

WP4: Standardization
and market
implementation

WP5: Dissemination
& Communication

WP6: Coordination &
Project management

Project Gantt





Thank you

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