

WELCOME AND SCOPE OF THE REFLEX PROJECT

TU Dresden
Project Coordinator
Prof. Dr. Dominik Möst

REFLEX Stakeholder Workshop
Brussels, 3rd April 2019

REFLEX - Analysis of the European energy system under the aspects of flexibility and technological progress

1 Project Overview

2 Scenario Framework

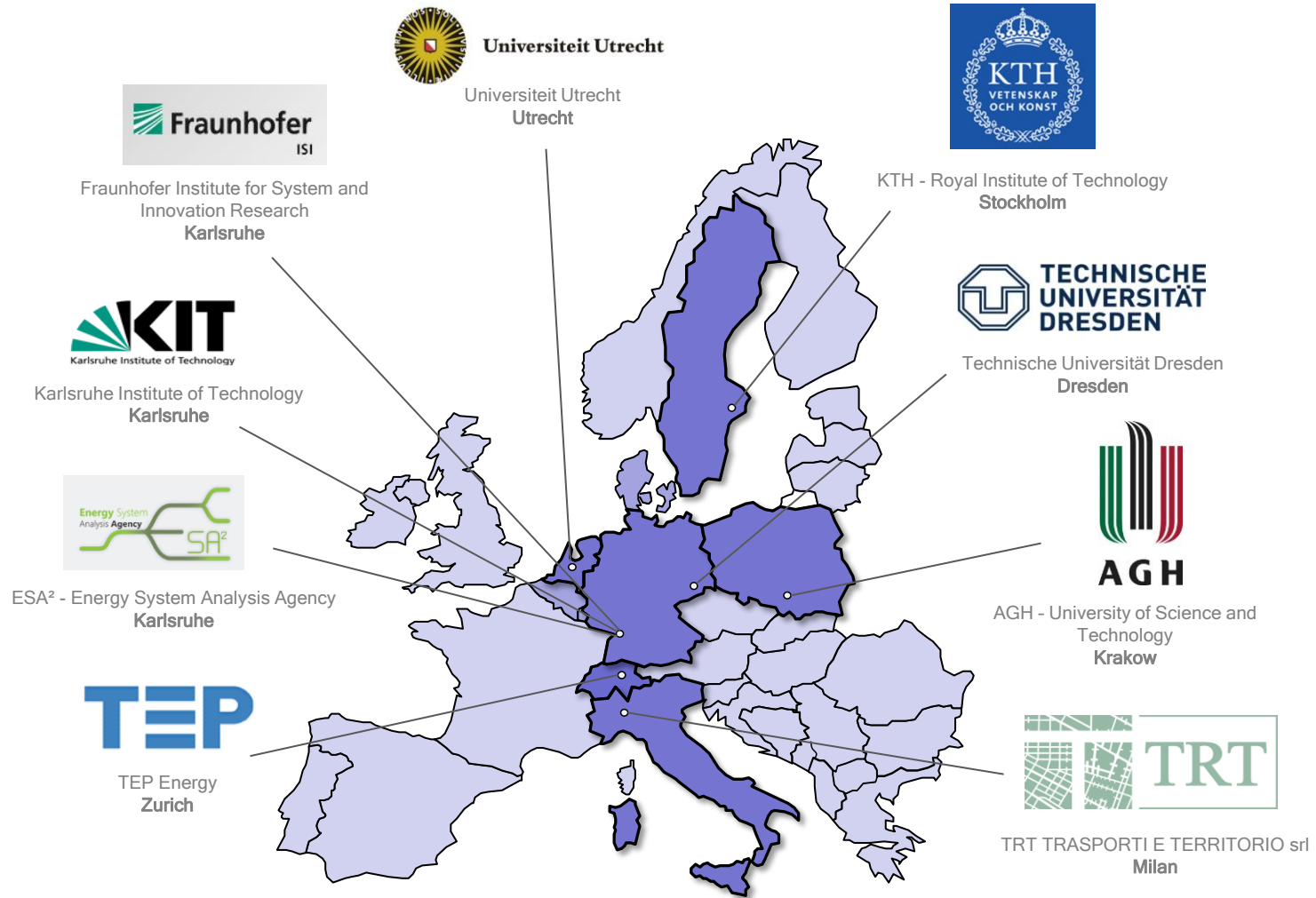


REFLEX - Analysis of the European energy system under the aspects of flexibility and technological progress

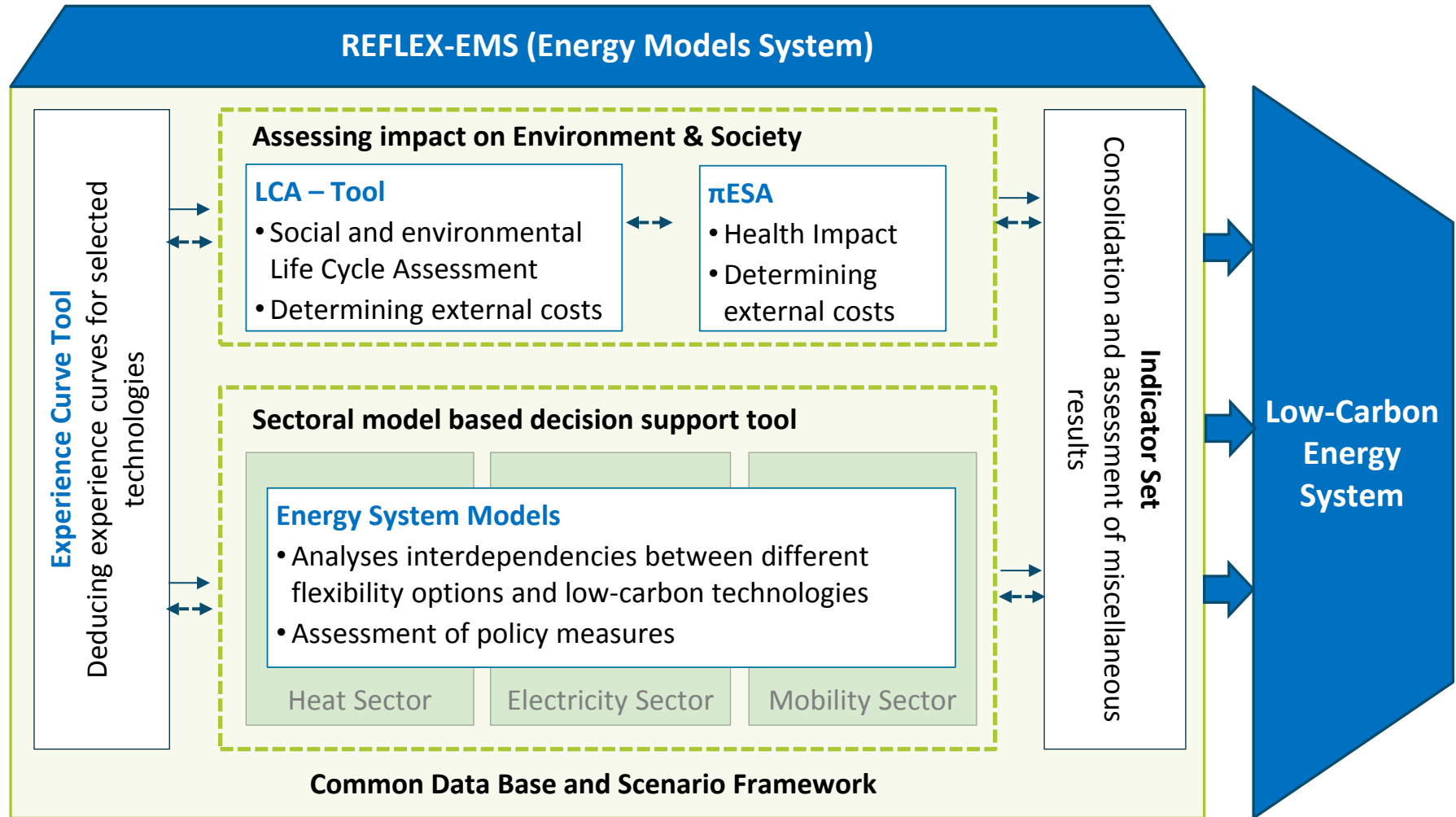
- Objective:** Analyzing and evaluating the development towards a low-carbon energy system with focus on technological progress and flexibility options in the European Union
- Methodology:** Combining three different research fields: Experience Curves, Energy System Modelling and Life Cycle Assessment (social and environmental)
- Duration:** May 2016 – April 2019
- Financing:** European Union's Horizon 2020 research and innovation program under grant agreement No 691685
- Website:** www.reflex-project.eu



REFLEX partners - known experts from 6 European countries

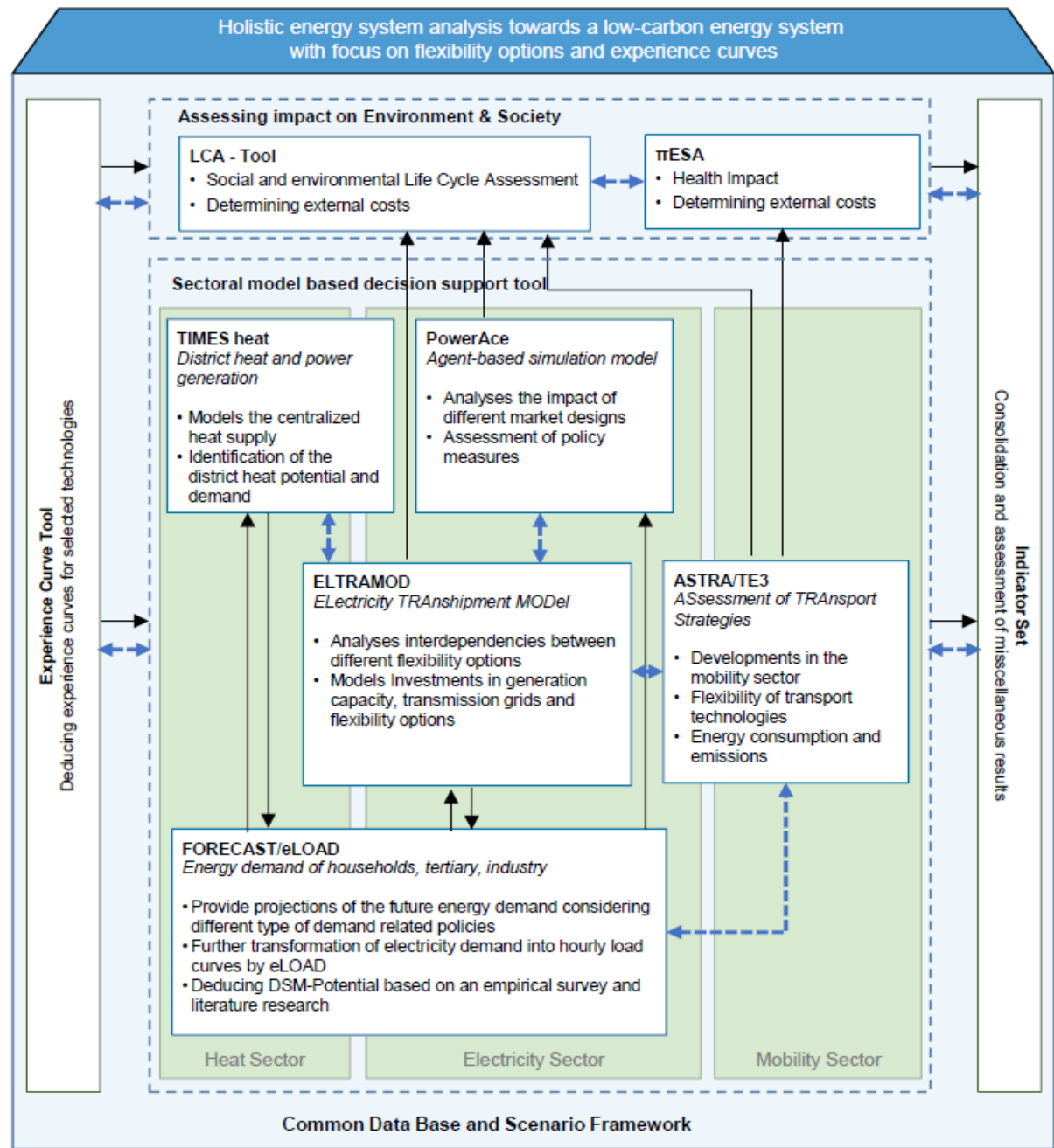


The Energy Models System (EMS) provides model based decision support tools for different actors and sectors

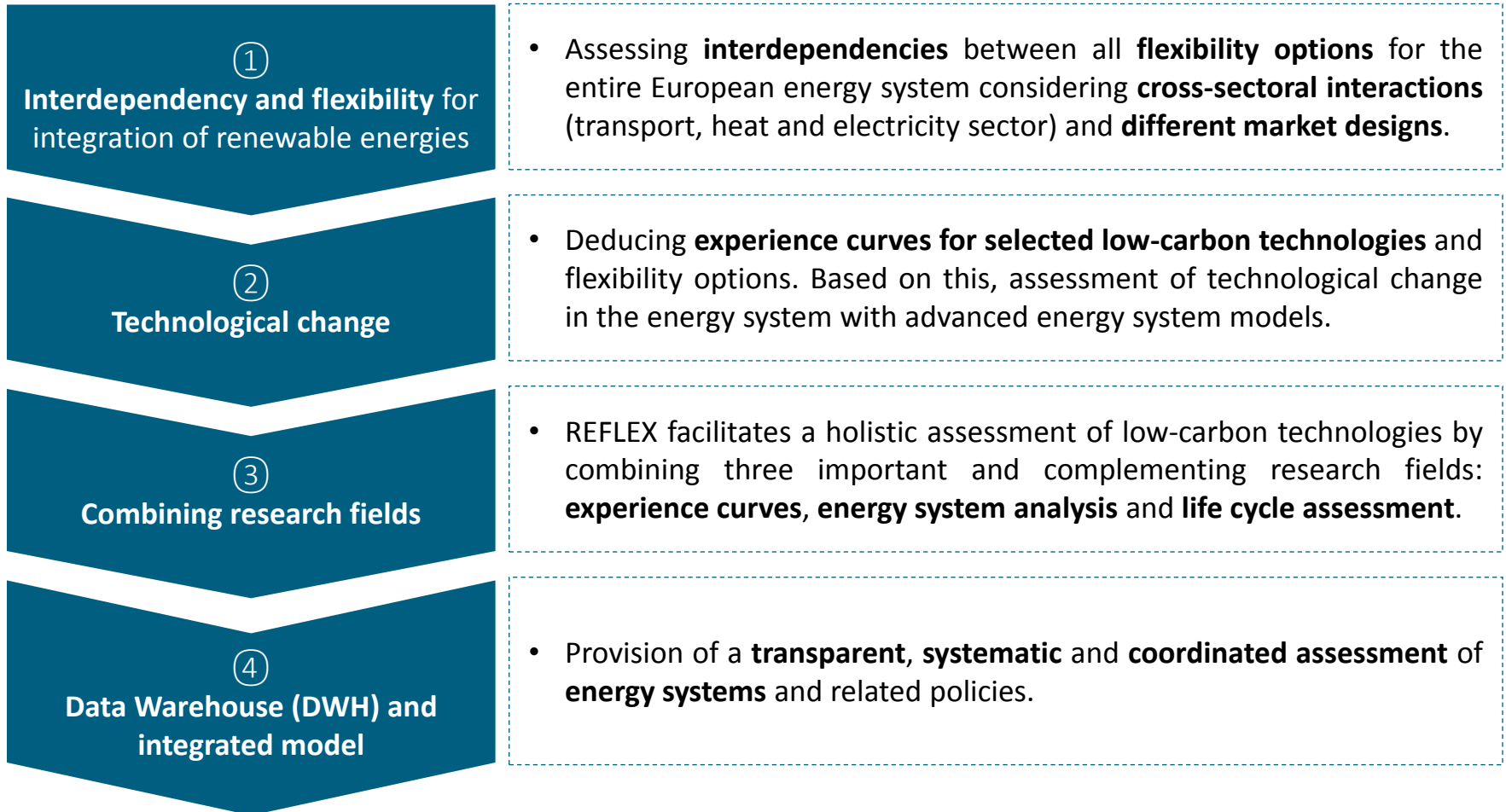


Detailed overview

- Models and tools applied in REFLEX, their role in the project and interlinking (Energy Models System)
- Model coupling** of 10 different models/tools as an innovative aspect of REFLEX



Novelty and innovative aspects of REFLEX



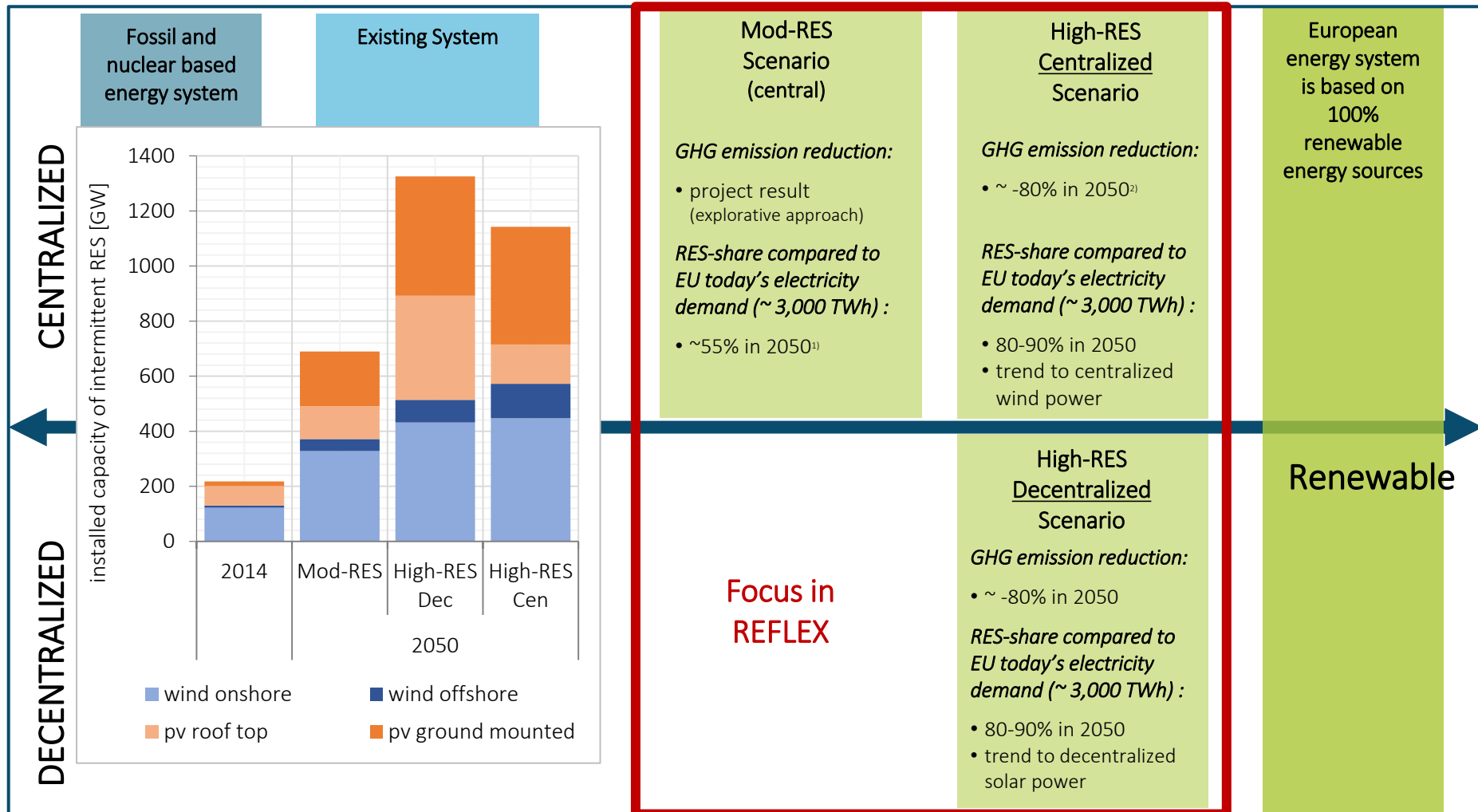
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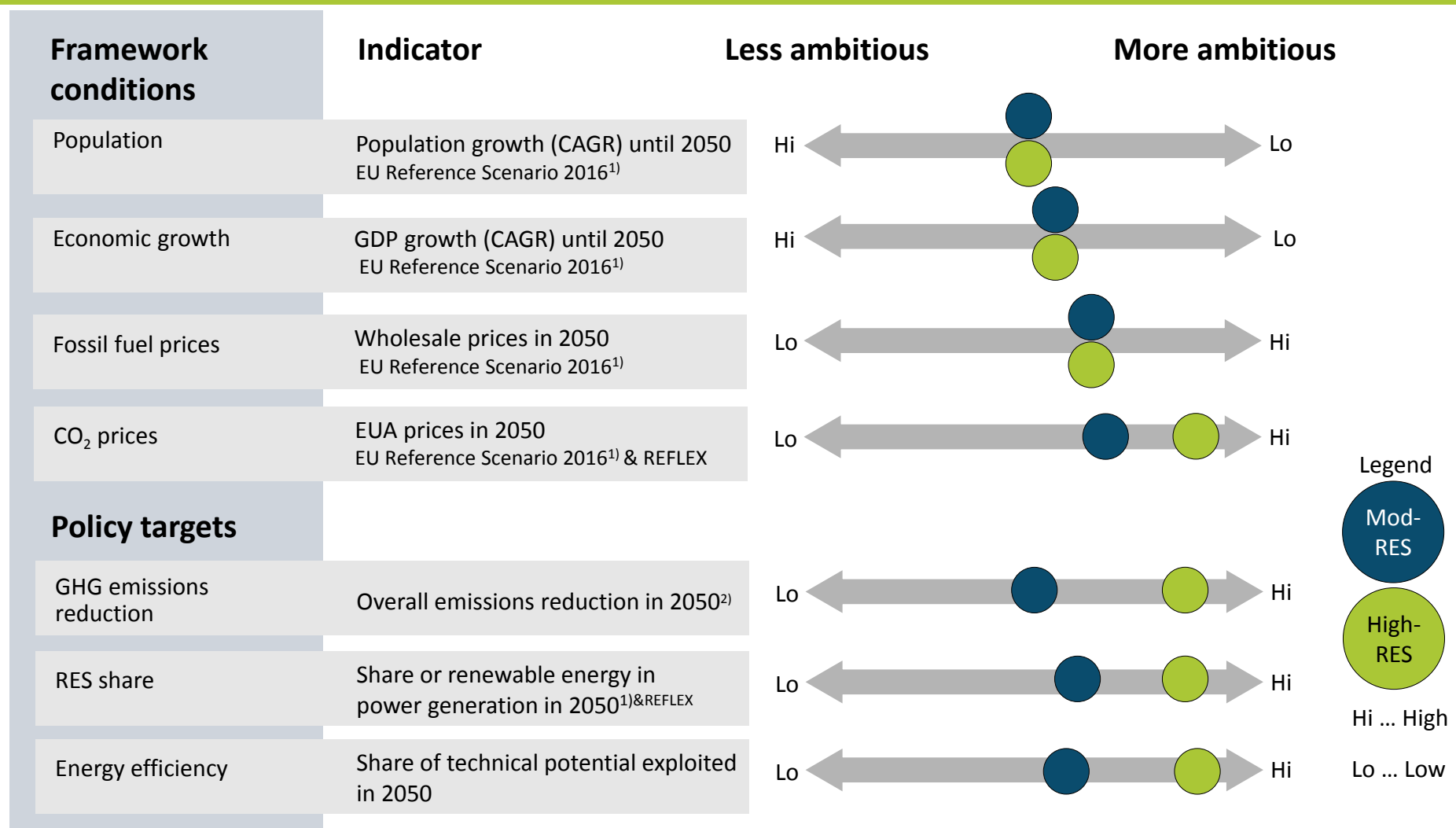


How will the European energy system look like? How much flexibility is required? – possible scenarios for shaping the European energy system



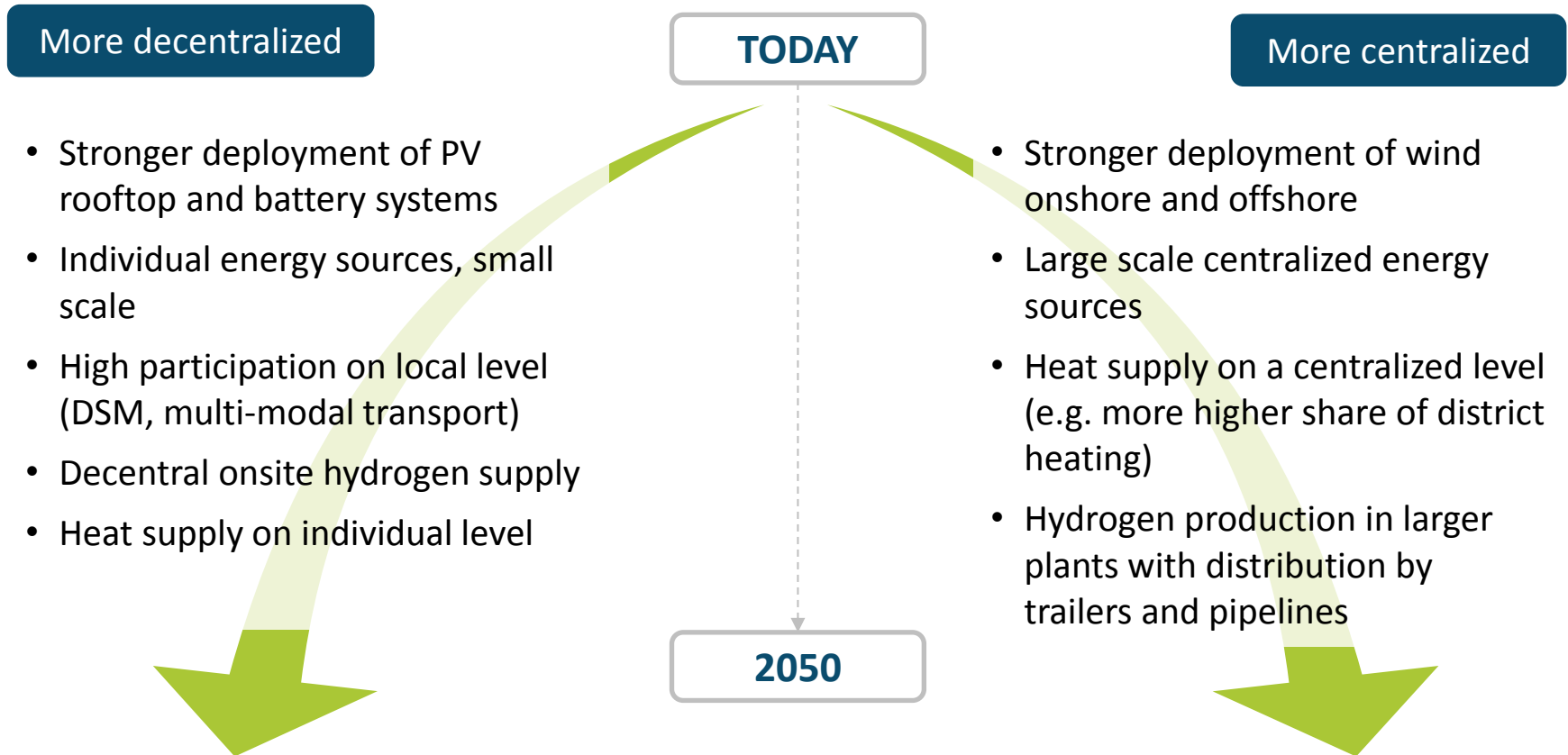
1) EU Reference Scenario 2016 (Capros et al. 2016) 2) EC Roadmap for moving to a competitive low carbon economy in 2050 (COM 2011/0112)

REFLEX normative scenario framework conditions and policy targets



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Within the High-RES scenarios two possible development paths of the European energy system are analysed by applying different normative scenario assumptions



Today's Agenda and Highlights

3 Keynote Speeches

Policy

Dr. Andreas Zucker

Policy Officer at DG ENER,
European Commission

Industry

Dr. Kátrín Schweren

Head of Regulatory and Public
Affairs at tiko Energy Solutions AG

Science

Prof. Dr. Thierry Coosemans

Director EVERGi at MOBI, Vrije
Universiteit Brussel

8 Reflex Presentations with Project Insights

Evening Reception and Time for Networking

Flexibility and Technological Progress in a Multi-Coupled European Energy System

Date: 3rd April 2019, 13:00-19:00

Venue: Saxony Liaison Office Brussels, Av. d'Audergehm 67, B-1040 Brussels

from 13:00	Registration
13:30 - 13:50	Welcome and scope of the Reflex project <i>Prof. Dr. Dominik Möst, Project Coordinator, TU Dresden</i>
13:50 - 14:05	1st Keynote Speech: A Clean Planet for all - A European long-term strategic vision for a prosperous, modern, competitive and climate neutral economy <i>Dr. Andreas Zucker, Policy Officer at DG ENER, European Commission</i>
14:05 - 14:30	Technological learning in energy modelling – implementation of experience curves <i>Dr. Atse Louwen, Researcher at Copernicus Institute for Sustainable Development, Utrecht University</i>
14:30 - 14:45	Coffee break
14:45 - 15:05	Decarbonisation of the transport sector considering global learning and flexibility potential for the electricity system <i>Stephanie Heitel, Researcher at Fraunhofer Institute for Systems and Innovation</i>
15:05 - 15:30	The future energy demand developments and demand side flexibility in a sector coupled energy system <i>Dr. Andrea Herbst, Researcher at Fraunhofer Institute for Systems and Innovation and Dr. Ulrich Reiter, Senior Project Manager at TEP Energy GmbH</i>
15:30 - 15:45	2nd Keynote Speech: Demand side flexibility in the residential sector – the use case of tiko Energy Solutions <i>Dr. Kátrín Schweren, Head of Regulatory and Public Affairs at tiko Energy Solutions AG</i>
15:45 - 16:15	The optimal combination of flexibility options in the European electricity and heat sector <i>Steffi Schreiber, Researcher at Chair of Energy Economics, TU Dresden</i>
16:15 - 16:30	Coffee break
16:30 - 16:50	Investments in flexibility options under different electricity market designs <i>Christoph Fraunholz, Researcher at Institute of Industrial Production (IIP), Karlsruhe Institute of Technology</i>
16:50 - 17:20	Comparing a future decentral and central European energy system and the assessment of their environmental and societal impacts <i>Maryegli Fuss, Researcher at Institute for Technology Assessment and Systems Analysis (ITAS), Karlsruhe Institute of Technology</i>
17:20 - 17:35	3rd Keynote Speech: Local energy systems and communities for future mobility concepts: the need for real-life test beds <i>Prof. Dr. Thierry Coosemans, Director EVERGi at MOBI – Mobility, Logistics and Automotive Technology Research Centre, Vrije Universiteit Brussel</i>
17:35 - 18:00	Wrap-up and policy recommendations regarding the transition to a low-carbon European energy system <i>Prof. Dr. Dominik Möst, Project Coordinator, TU Dresden</i>
18:00 - 19:00	Closing and Evening Reception

Thank you! Questions?

Prof. Dr. Dominik Möst

TU Dresden, Chair of Energy Economics

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