

# Strategic Research Agenda (SRA) for Intelligent Energy Networks

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## **Objectives**

- Identification and screening of relevant international surveys and SRA's
- Trans-sectoral analyses of energy infrastructure related research topics in Austria
- Implementing a foresight process with relevant research actors and providing an Austrian "research map"
- Definition and description of interaction (bidirectional) and interfaces with international activities (SET-Plan: EIIs, EERA; ISGAN; D-A-CH)
- Description of the long term research needs according to the phases of the innovation chain (fundamental research, applied research, industrial research and demonstration) with time horizon 2035



#### Contributors

- The SRA is initiated and financed by the Federal Ministry for Transport, Innovation and Technology
- Main contribution from Austrian research actors
  - Universities
  - Universities for applied sciences
  - non-university research institutes
- Coordination and consolidation of the topics with stakeholders from
  - Industry
  - Energy industry
  - Special interest groups
  - Ministries and authorities
- Alignment with the technology roadmap
- Austrian Institute of Technology is the process facilitator



#### SRA – The Process

Screening of SRA's, Stakeholder Identification Workshops "Big Picture": SRA **Intelligent Energy Networks** Topic 1: Trans-sectoral and region-specific infrastructure planning and optimisation including storage and interaction (ICT) Topic 2: Topic 3: **Electricity Networks** District heating and gas networks Topic 4: Society aspects Consolidation with stakeholders SRA **Intelligent Energy Networks** 

November – December 2013

December 2013 – February 2014

April – August 2014

September 2014

September – November 2014

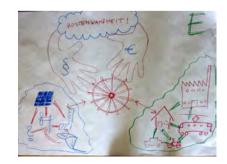


#### Intermediate Results

- Workshop for defining the thematic and strategic frame
  - Process introduction
  - Strategic frame for 2050
  - Influencing factors
  - Development of story lines and scenarios in different strategic topics



- Joint vision
- Identification of thematic fields an main questions
- Establishment of thematic working groups











#### Intermediate Results

- Thematic working groups
  - Infrastructure planning and optimisation including storage and interaction (ICT)
  - Electricity networks
  - District heating and gas networks
  - Society





# Next steps

- Working within the individual thematic groups
- Regular alignment meetings between the groups
- Consolidation workshop with the stakeholder (23<sup>rd</sup> of September)
- Publication of SRA planned in November 2014





## Summary and Differentiation to Technology Roadmap

- Strategic Research Agenda Intelligent Energy Networks
  - Focus on different energy infrastructures
  - Time horizon 2035+
  - Medium to long term research questions
  - Publication planned in November 2014
- Technology Roadmap Smart Grids Austria
  - Focus on electricity networks
  - Time horizon 2020
  - Short to mid-term needs toward commercialization of Smart Grid technologies
  - Publication planned in October 2014



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