

WP6 - Integrated Assessment

***Gustav Resch, Gerhard Totschnig,
Sebastian Busch, Andre Ortner
Energy Economics Group (EEG),
Vienna University of Technology
(TU Wien)***

Contact: resch@eeg.tuwien.ac.at



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WP Leader: TU Wien

Outline



- ❑ **WP6 Objectives**
- ❑ **Approach: Tasks & Timeline**
- ❑ **Expected Results**
- ❑ **Open Questions**

WP6 Objectives

**A complementing* integrated assessment from the
“EU plus third countries” perspective**



The core aim is to conduct a (model-based) analysis to what extent the cooperation mechanisms with third countries can help Europe achieve its RES targets in 2020 and beyond, trigger the deployment of RES electricity projects in third countries and create synergies for all involved parties.

Related objectives are:

- ✓ Conducting a model based analysis in an integrative manner (linkage of 3 models with complementing skills & strengths)
- ✓ Highlighting the prospects for cooperation with 3rd countries
- ✓ Revealing potential synergies, co-effects and barriers with regards to implementation
- ✓ Forming of a solid basis for derivation of policy conclusions and the preparation of detailed action plans (WP 7)

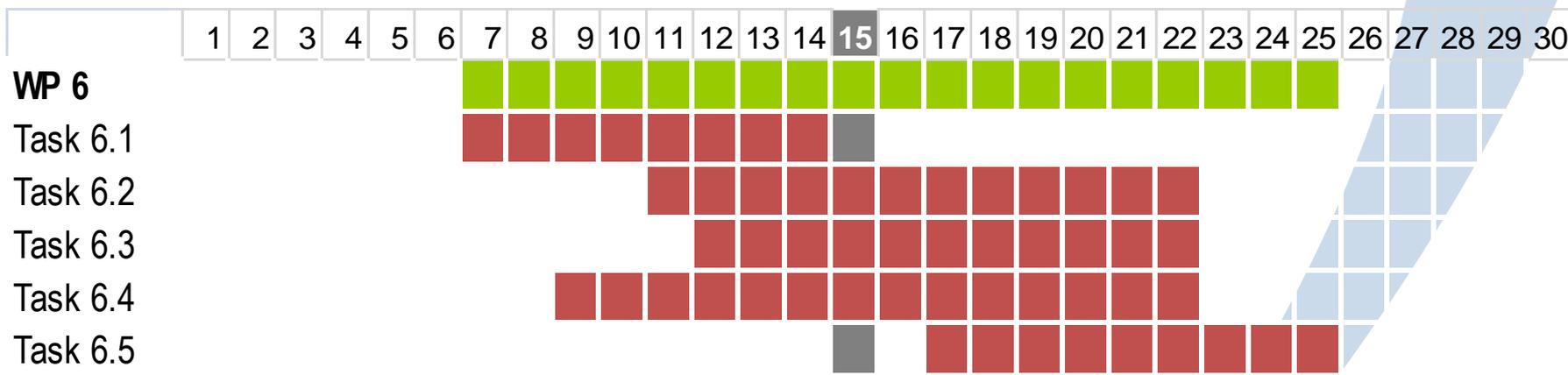
**Complementary to the bottom-up assessment by case region (WP3-5)*

WP6 Tasks and timeline

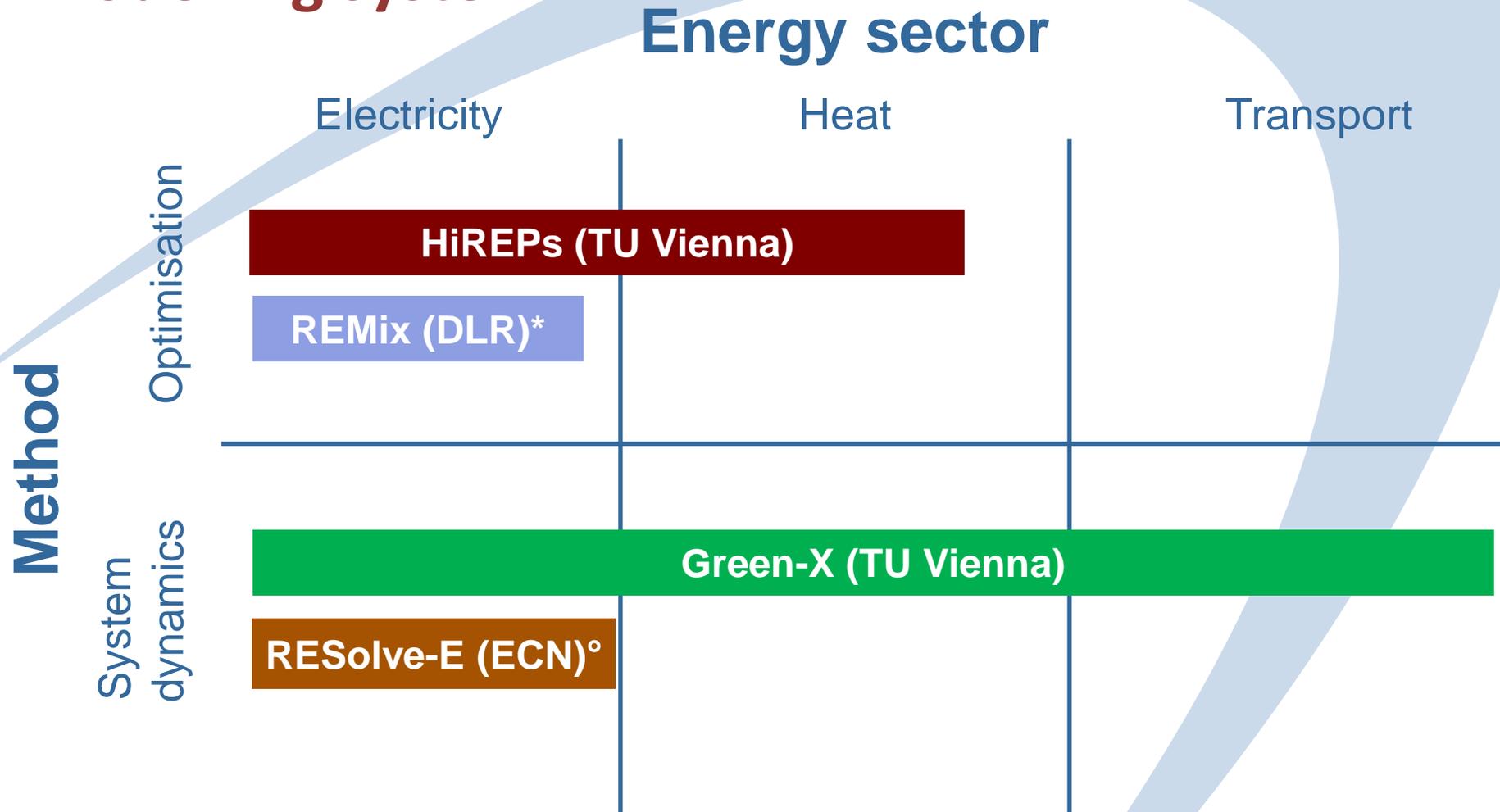


Tasks

- (6.1) Model and database extension
- (6.2) Res policy assessment in the 2020 context (*EU plus third countries*)
- (6.3) Long-term prospects for cooperation with third countries beyond 2020
- (6.4) Complementary assessment of co-effects
- (6.5) Integrated assessment of investigated policy cases



Overview on the BETTER modelling system



*applied only within the bottom-up assessment of North Africa (WP3)
°used for the analysis of EU-Turkey cooperation

WP6 Expected results & deliverables (forthcoming)



- ✓ Evaluation of the prospects for the cooperation with 3rd countries from a systems perspective and complementary policy evaluation.
- ✓ Integrated assessment of policy options: Based on the quantitative & qualitative outcomes, i.e. the derivation of feasible scenarios and the complementary assessment of co-effects
- ✓ Comprehensive power system inventory for the combined “EU plus third countries” region (incl. system and RES integration cost, grid aspects, impacts on power system stability and supply security)
- ✓ Identification of the most beneficial ways to use cooperation mechanism in the context of cooperation between EU and third countries.

Deliverables

- ✓ (D6.1+6.2) Report & Scenario database “RES cooperation with third countries in the 2020 context” (interim and final) (planned for month 17 / month 25)
- ✓ (D6.3) Scenario database “Long-term prospects for RES cooperation with third countries beyond 2020” (month 25)
- ✓ (D6.4).Report “Integrative assessment of RES cooperation with third countries” (month 27)



Open Questions / Remark



Preface: RES cooperation, in particular with 3rd countries, deserves currently less political attention than in previous year(s). Within the EU the debate is focussed on reforms of the current energy policy, discussing the impacts of increasing volumes of (variable) RES on electricity markets and the overall 2030 RES strategy. In 3rd countries like Turkey or North African nations much attention is drawn (besides political instabilities in certain parts) on meeting their growing own energy needs.

Given this background, the BETTER project follows the challenging goal to draw attention on prospects, possibilities and challenges related to RES cooperation between the EU and its neighbours.

*Thus, **the following questions mainly refer to the definition of useful scenarios / storylines for the model-based assessment of RES cooperation**, aiming to provide added value to the subject investigated and to tackle the stakeholder needs in this respect in a suitable manner.*



Open Questions / Our proposal for the Scenario definition (Part 1 of 2)



RES policy assessment in the 2020 context:

For the 2020 time-frame a **limited set of scenarios** will be conducted:

- “*National perspective*” – national target fulfilment: Each member state tries to fulfil its national RES target by its own (**Limited RES cooperation**).
- “*European perspective - without cooperation with third countries*”: If a Member State would not possess sufficient potentials that can be economically exploited, cooperation mechanisms between EU countries serve as complementary option (**Strong Intra-EU RES cooperation**).
- “*European perspective - with cooperation with 3rd countries*”: In addition to above, in line with the focus of this study the need for & impact of intensified cooperation with 3rd countries will be assessed (**Strong RES cooperation**).



Open Questions / Our proposal for the Scenario definition (Part 2 of 2)



Long-term prospects for cooperation with 3rd countries beyond 2020:

- Geographical scope: EU plus 3rd countries, Timeframe: 2030 / 2050 ((brief) outlook to 2050 for key cases)
- Limited set of (key) scenarios (to make calculation efforts feasible & allow useful interpretations)

Relevant issues to address:

- **RES policy / support framework:** Beyond 2020, the scope of feasible policy action appears more undefined → policy tracks need to be consistent to 2020 discussion but “broader” in the policy scope (further policy alignment / harmonisation? ... cf. *lessons learnt from past/parallel activities: beyond2020, RES4Less*) (*Key modelling tools: Green-X, RESolve-E*)
- **Long-term RES targets / Ambition level of future RES expansion:** Need for more intensified cooperation increases if RES shall play a crucial role in the future (cf. *Re-Shaping, dii*) (Note: prejudged as **KEY ISSUE!**)
- **Subjective requirements from countries:** E.g. (3rd country) governmental requirement of X% local content, impacting costs and generation mix (*Possible drawbacks: Subjective, difficult to tackle in a model-based assessment (in a non-discriminatory manner)*)
- **(RES) Policy and political (in)stability:** how does the “optimal” solution (i.e. cost, deployment) change if political stability varies in a country or region? → Showcase a few “examples”, e.g. via modifying risk profiles (IRR) “suddenly” in a country/region or via a stop/reduction of support. (*Key modelling tool: Green-X*)
- **Grids / Infrastructural prerequisites:** Three aspects to consider: (a) Role of transit countries (b) delayed build-up of certain transit corridors, and (c) the use of different concepts to link North Africa and Europe.



Open Questions



- ✓ How would you see prospects for RES cooperation between EU and 3rd countries in the near future?
- ✓ What are from your perspective key issues to tackle? Which aspects deserve sufficient attention to conduct a sensitivity analysis, and which one would you identify as most important key issue?
- ✓ Transition countries (e.g. Spain in the case of North Africa) may play a crucial role for RES cooperation – which possibilities do you see to tackle their needs adequately and to create an enhancing environment for all involved parties?