



Analysing **T**ransition Planning and Systemic **E**nergy Planning **T**ools for the implementation of the Energy Technology Information **S**ystem



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Background

The transition to a low carbon future should, on one hand, prioritize the improvement of the European innovation system on energy technologies by creating at first the framework conditions and incentives for the development of new energy technologies. In order to achieve this, a formulation of a **coherent strategy is necessary**, coordinating the efforts of all Member States.

On the other hand, effective strategic planning requires regular and **reliable information and data**. Essential components to provide this information are **tools or methods** that offer a better insight in **technology transition analysis** and planning, along with tools that focus on **energy systems modelling**.

Background

The aim of the project is to enhance SETIS with tools and methodologies for transition analysis and planning by the joint effort of European research institutes and the JRC, the implementing body of SETIS.

This will be achieved by creating a platform in which techniques and data are collected, harmonized and shared.

The project aims to create an initial framework as well as the roadmap for its future development for the necessary tools.

Objectives

The Objectives of the project are to:

- **Review models/tools** used in the European Countries, taking in mind what is used outside Europe, and what are the requirements of the SETPlan.
- **Identify and recommend common tools** and/or methods to be used in the MS and in the Energy Technology Information System (SETIS), and gain consensus on these models.
- **Identify and recommend existing sets of data** (on technologies, energy resources, statistics etc.), and provide a roadmap for the development of these data on a European and on a regional level.
- **Identify the roadmap for the improvement** and development of the tools and methods in order to cover the needs of the SETPlan implementation.

Objectives

Objective 1: Review of models/tools

The first key point of the project consists of the evaluation of the existing tools, gaining insight on their architectural methodologies and assessment of their efficiency. Last but not least these tools will offer the possibility of expanding the capacity to model the restructuring of the European Energy System towards a low carbon future, according to the vision of the European Community.

Objectives

Objective 2: Identification and recommendation of common tools

In the process of planning for the future, given the vision for the low carbon economy and the requirements for moving forward in new directions, it is important to have common tools, transparent, accessible by all, and also broadly accepted between the Member States.

Having this in mind, the project will identify and recommend tools that fulfil the requirements of the SETplan, and can be used in common by all the interested parties (MS, Industry, Associations, EC, etc). Consensus on the tools is vital for the wider acceptance and understanding of the analysis results that will come out of the application of these tools, and the acceptance of the policies that will be derived from this analysis.

Objectives

Objective 3: Identification and recommendation of existing sets of data

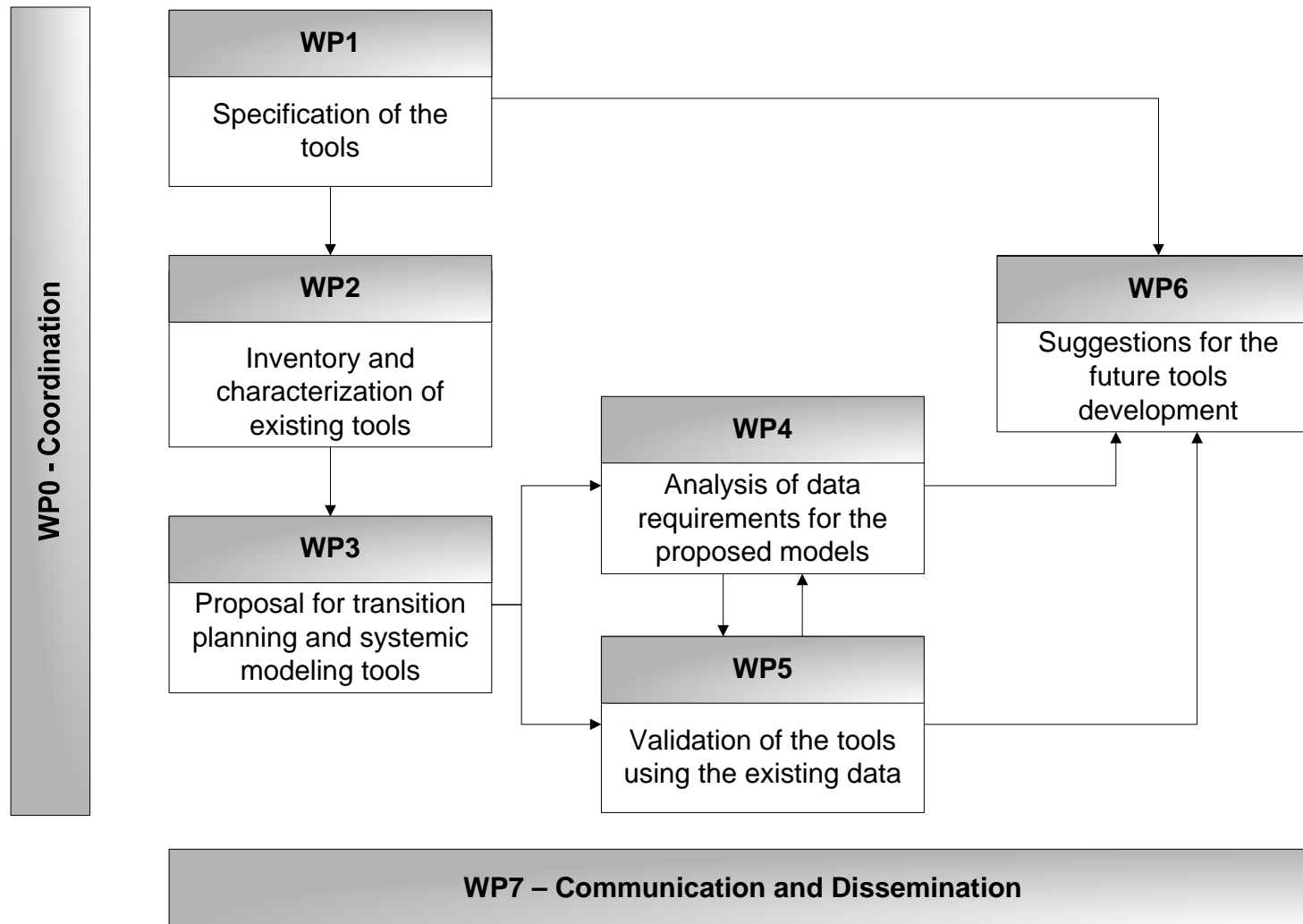
It is common knowledge that the input data to any kind of methodology and model, is the most important factor for the quality of the results. The use of the common, transparent tools requires the input of common, transparently acquired and consistent data. In this direction the existing databases will be reviewed and the project team will suggest a roadmap for their improvement and the development of new data according to the specialised needs of the tools selected.

Objectives

Objective 4: Development of a roadmap for the improvement of the tools

An important key point of the project will be the development of a roadmap of the activities that will finally provide the set of methods/tools that are required for the planning and the development of infrastructure, transition and policy in the European Energy Sector.

Work plan



Work plan

WP1 Specifications of the tools

The objective of this WP is to define the specifications of the models/tools that are needed in order to address the policy questions in the context of the SET-plan. The transition planning framework has to provide the relevant data to SETIS. This work package aims to determine the kind of answers that the models will have to provide (specification of the transition planning framework).

Work plan

WP1 Specifications of the tools

Today's workshop is held in order to discuss the specifications.

Work plan

WP2 Inventory and characterization of existing tools

Work package 1 will provide the specifications, the needs that the models will have to satisfy. It is the work of WP2 to look for the existing models and classify them according to the needs of the SETPlan. This is an important point that must be kept in mind since the objective of ATeST is to contribute to the implementation of the SETIS and not perform a general benchmark of available models.

Work plan

WP3 Proposal for transition planning and systemic modelling tools

The main objective of the WP is to propose, through an evaluation process, tools and/or necessary methods for transition planning and systemic modelling. These tools will eventually be integrated into SETIS.

At the same time the WP will pinpoint the main shortfalls of existing modelling approaches in both areas and will designate the barriers needed to overcome and the potential to maximize.

Work plan

WP4 Analysis of data requirements for the proposed models

Identification of existing data and development of a roadmap for the continuous improvement of data in the future.

Work plan

WP5 Validation of the tools using the existing data

In parallel with the data analysis of WP4, an attempt will be made in running the tools, soft-linking them and using the existing data.

To validate the selected tools using the data identified by WP4 includes a high degree of uncertainty, mainly because a soft linking of the tools selected may end up to be quite challenging for the time provided. But, on the other hand, the attempt for integration of the tools in this WP will provide better input for WP6.

Work plan

WP6 Suggestions for the future tools development

Create a framework for tools necessary to plan and develop future energy systems and policies.

Based on the output of WP4 and WP5 a number of suggestions and requirements will be put forward for the tools development. A recommendation of the energy system management and transition planning framework will be given based on the information gathered and results of the work packages 1 to 5.

Timeframe

- **Workshop 1:** January 2010 – Specification Report
- Models Inventory and Characterization – September 2010
- **Workshop 2:** February 2011 Initial proposal of the models – Feedback
- Final Proposal for tools April 2011

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