SCelecTRA

Electromobility+ - Launching seminar – September 13th 2012

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Plan of the presentation

- Objectives & Partners
- Methodology of the project
- Work packages
- Budgets
- Appendix : description of the work packages

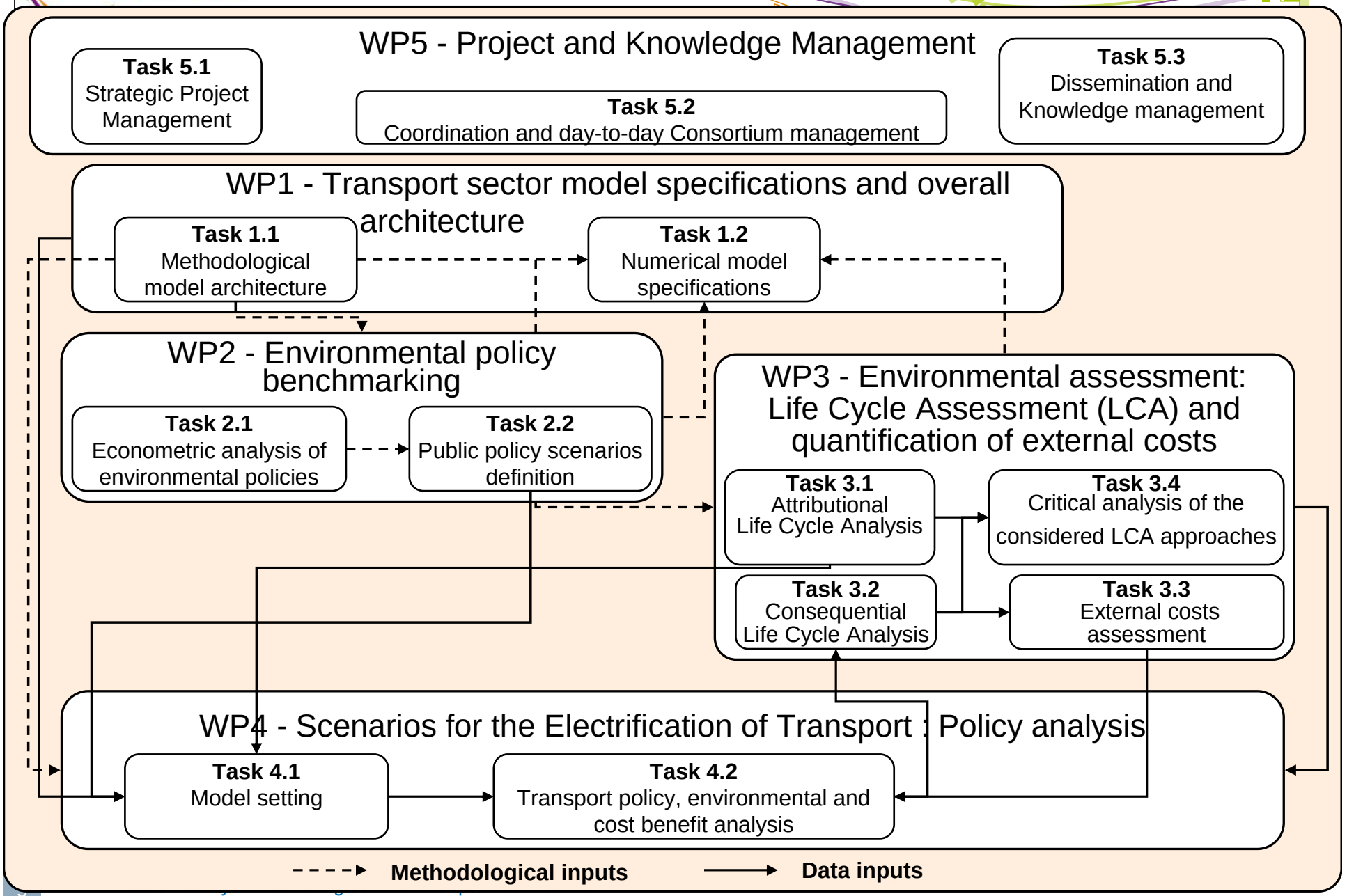
Objective & Partners

- Global objective of SCelecTRA (Scenarios for the Electrification of Transports)
  - The initiative aims at identifying the long-lasting conditions for the development of electric mobility in Europe for 2025-2030.
- Duration : 3 years / started September 2012
- Key dimensions
  - 1. Energy and environmental policy approach
  - 2. Usage patterns, economic models, actors involved
  - 3. Technical dimensions of the recharging systems
  - 4. Testing, trials and normative standards
  - 5. Technology based Innovation
- Partners involved

Source: ADEME

Methodology of the project (1/2)

- To define how to support Electromobility by:
  - studying economic models and environmental policies
  - analyzing their potential environmental impacts
  - providing detailed and analyzed scenarios for the uptake of Electromobility based on technical, economical and environmental data
  - analyzing the broad environmental impacts of such scenarios
  - analyzing the best public policy instruments for a quick development of electromobility


WP5 - Project and Knowledge Management
Task 5.1
Strategic Project Management
Task 5.2
Coordination and day-to-day Consortium management
Task 5.3
Dissemination and Knowledge management
WP1 - Transport sector model specifications and overall architecture
Task 1.1
Methodological model architecture
Task 1.2
Numerical model specifications
WP2 - Environmental policy benchmarking
Task 2.1
Econometric analysis of environmental policies
Task 2.2
Public policy scenarios definition
WP3 - Environmental assessment: Life Cycle Assessment (LCA) and quantification of external costs
Task 3.1
Attributional Life Cycle Analysis
Task 3.4
Critical analysis of the considered LCA approaches
Task 3.2
Consequential Life Cycle Analysis
Task 3.3
External costs assessment
WP4 - Scenarios for the Electrification of Transport : Policy analysis
Task 4.1
Model setting
Task 4.2
Transport policy, environmental and cost benefit analysis
Methodological inputs
Data inputs

WP1: Transport sector model specifications and overall architecture

From an existing modeling tool of European Energy system (PET36),

- The objective is to :
  - implement new technical parameters to get a better description of the European transport sector
  - describe interactions with other energetic sectors
  - lead the work on different ways to test public policy actions
  - define data requirements for model implementation
  - specify the outputs of WP2 and WP3 towards the integration in WP4
  - implement simple "smart grids" capabilities into the PET model
- Deliverables :
  - A guideline report for WP2&3 outputs
  - A calibrated model tool
- Partners: KANLO, IFPEN, IFSTTAR, PE CEE, EIFER

WP2: Environmental policy benchmarking

- The objective is to :
  - investigate what kind of existing environmental regulations and fiscal legislations may facilitate business / household consumer adoption of low carbon vehicles in European countries.
  - define different prospective scenarios of policy measures aiming at inciting passengers to adopt low-carbon vehicles.
- ...and to provide inputs for the scenarios (WP4).
- Deliverables:
  - An “Econometric analysis report” will analyse and quantify the sensibility of fleet structures to environmental policies in various countries.
  - A "Policy scenario definition report" will define the scenarios to be used in SCelecTRA.
- Main partners: IFSTTAR, IFPEN.

WP3: Environmental assessment: Life Cycle Assessment and quantification of external costs

- **LCA of PHEV and EV pathways following 2 approaches**
  - Classical (attributional) LCA: boundaries restricted to WTW steps
  - Broader environmental assessments -> consequential LCAs (specially relevant for prospective analysis / impacts associated to a policy decision)
    - PET model will be developed and used (WP1 & 4) to provide corresponding results
    - Quantification of the CO_2 , GHG emissions and energy balances, etc. for various public policies implementation scenarios with the same mobility demand
  - Assessments will NOT be limited to GHG emissions and energy consumption
- **... to compare corresponding results in order to provide**
  - analysis on relevance of each methodology for answering specific questions;
  - recommendations for the possible standardization of GHG emissions and energy consumption assessments of EV and PHEV.
- **Assessment of external costs**
  - At least : from pollutant and climate change-related emissions + noise
  - Additional effort on costs resulting from changes in safety characteristics, infrastructure and congestion
- **Deliverables :**
  - Attributional LCA report
  - Report on the critical analysis of the 2 LCA approaches [...]
  - Consequential LCA report
  - Externality report
- **Partners: IFPEN, PE CEE, EIFER**

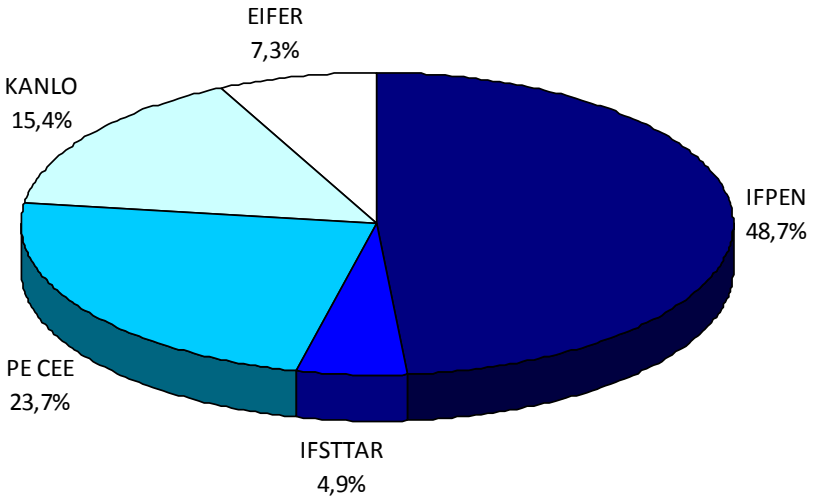
WP 4: Scenarios for the Electrification of Transport: Policy analysis

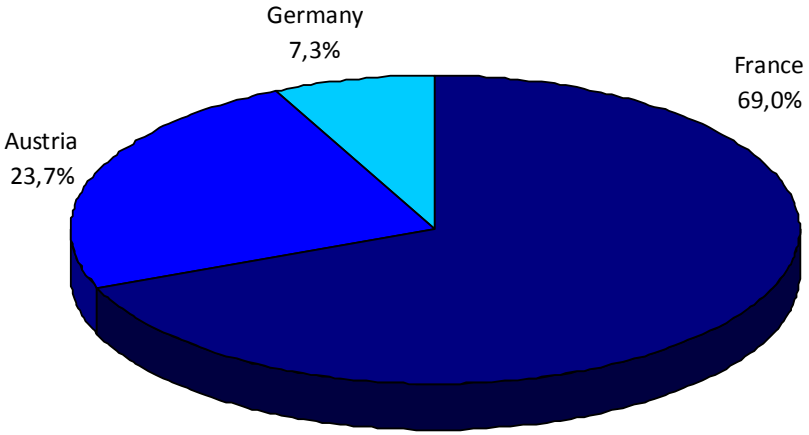
- The objective is to
  - integrate the outputs of WP2 and WP3 into a consistent set of parameters describing technologies, legislations and environmental impacts
    - optimize the vehicle technologies penetration regarding mobility demand and energetic resource availabilities
    - test the efficiency of incentive measures on EV, PHV and FEV market penetration
    - analyze the effects on electricity demand and the need in transmission technologies and on the overall European energy sector
    - compare environmental impacts of contrasted mobility scenarios
- Deliverables:
  - Operational modeling tool
  - Transport policy, environmental and cost benefit analysis report
- Partners: IFPEN, KANLO, PE CEE, IFSTTAR, EIFER

WP 5: Project Management and dissemination

- The objective is to
  - Provide a secure management structure for the decisions to be taken;
  - Conduct the overall legal and administrative management;
  - Ensure an efficient dissemination of the project work and results to the scientific community,and the wider public
  - Achieve the knowledge management (including its protection), also when disseminating the project results beyond the consortium.
- Deliverables:
  - SCelecTRA project website for management, communication and dissemination purposes
  - Intermediate (half-year) progress reports
  - Annual progress reports
  - Project final report
- Partners: IFPEN (with support of all partners)

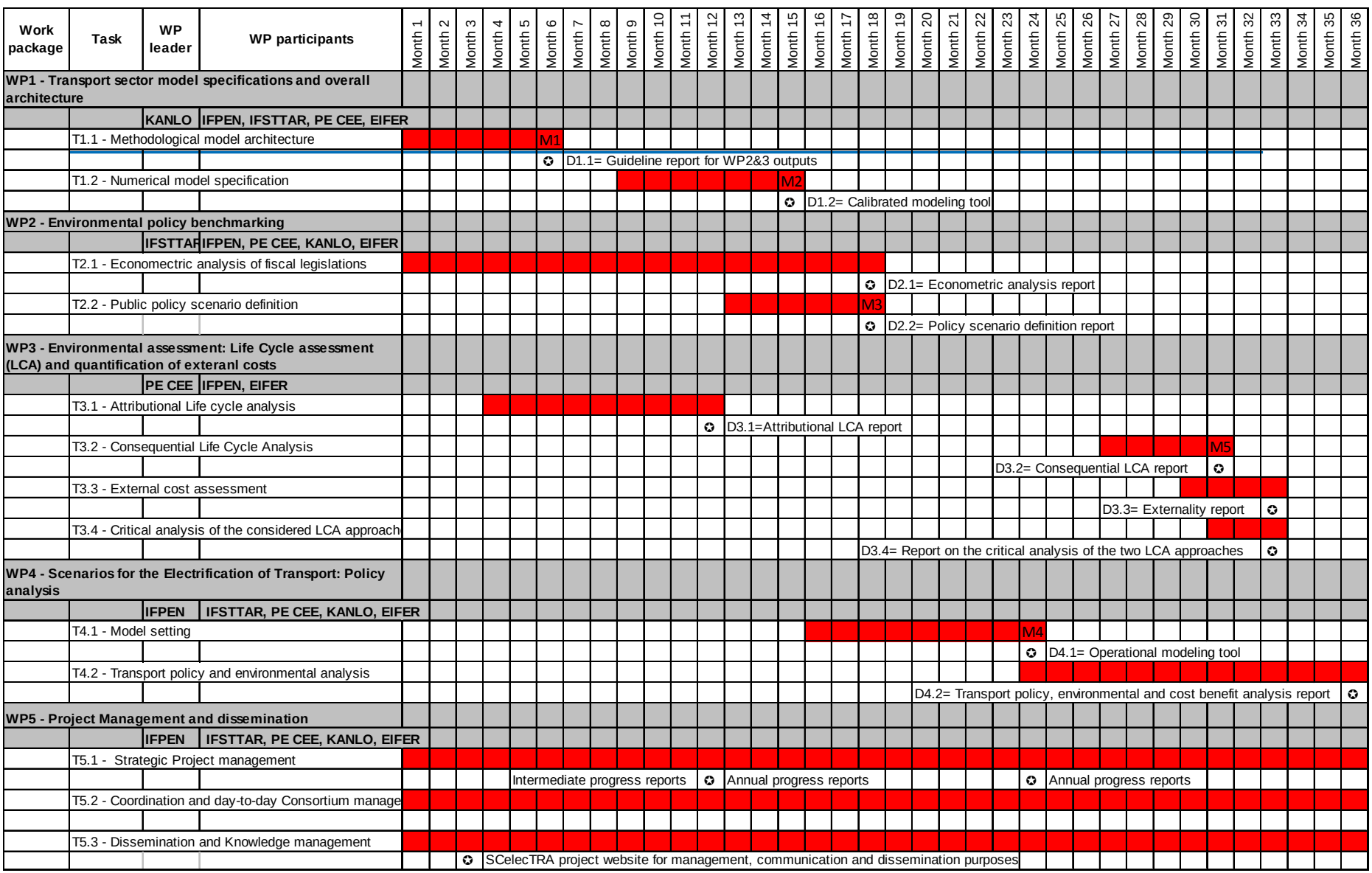
Budgets





100% = 689 k€

Appendix



Resources to be committed & requested contribution

Organisation	Type of Organisation	Country	Estimated effort / budget during the whole project		
			Effort (person months)	Total budget (€)	Requested contribution* (€)
IFPEN	Research organisation	France	15.3	355 407	231 014
IFSTTAR	Research organisation	France	5	34 050	11 310
PE CEE	SME	Austria	7,6	163 600	163 600
KANLO	SME	France	5,1	106 000	74 200
EIFER	European Economic Interest Grouping	Germany	8	50 112	45 100
Total			42,4	709 169	525 224

*** At national level**