IEA INTERNATIONAL ENERGY AGENCY
HYBRID & ELECTRIC VEHICLE TECHNOLOGY COLLABORATION PROGRAMME

IA-HEV

Task 26 Extension Proposal

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Task Objective

Operating Agent: ORNL (USA)
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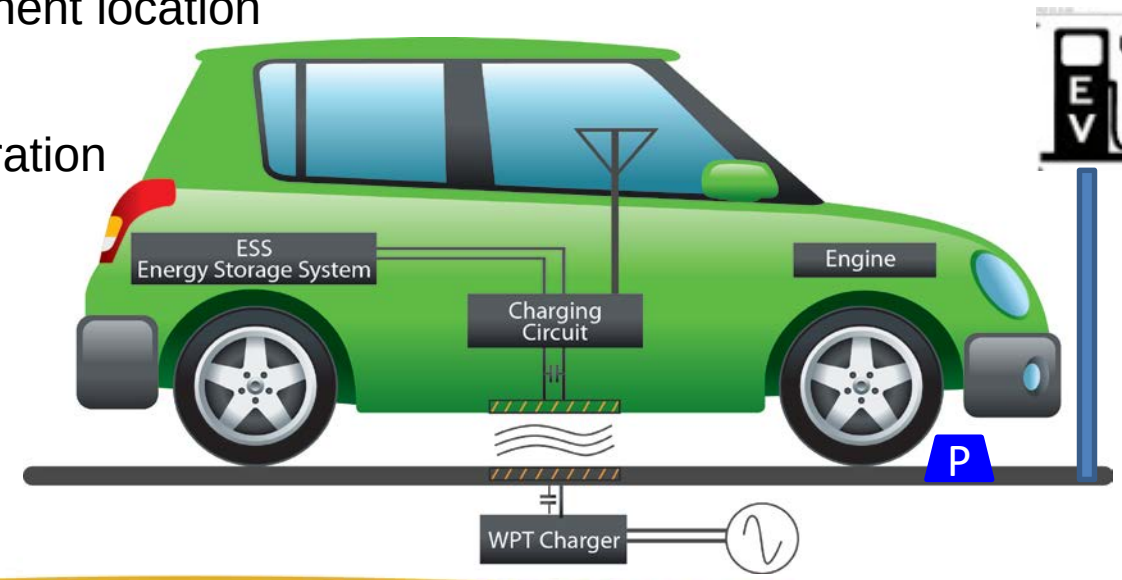
The **objective** of this task on WPT for EVs:

- **Address interoperability and comparison of standards** in various countries (JARI, SAE, ISO/IEC) which may include:
  - Alignment and component location
  - Power transfer levels
  - Center frequency operation
  - Safety issues
  - Communications
  - Data security



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Introduction of Participants

Countries

- Denmark
- France
- Germany
- Spain
- Sweden
- Switzerland
- The Netherlands
- United Kingdom
- United States

Companies / Labs

BRUSA
CIRCE
DTU
ORNL
Proov
Qualcomm
Schneider electric
TRL
Viktoria

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Task Objective (Additional information)

- Develop an understanding of what challenges are faced in different countries or markets and what it takes to put this technology into the field in these markets.
- Compare the characteristics of WPT systems being developed in the participating countries and interoperability concerns.
  - Simple listing of all deployment activities as reference placed on Task #26 SharePoint site.
- Catalog, discuss, and compare standards for WPT in different countries (JARI, SAE, ISO/IEC, etc.)
- Discuss safety issues in regards to misalignment, leakage fields, and debris tolerance and response

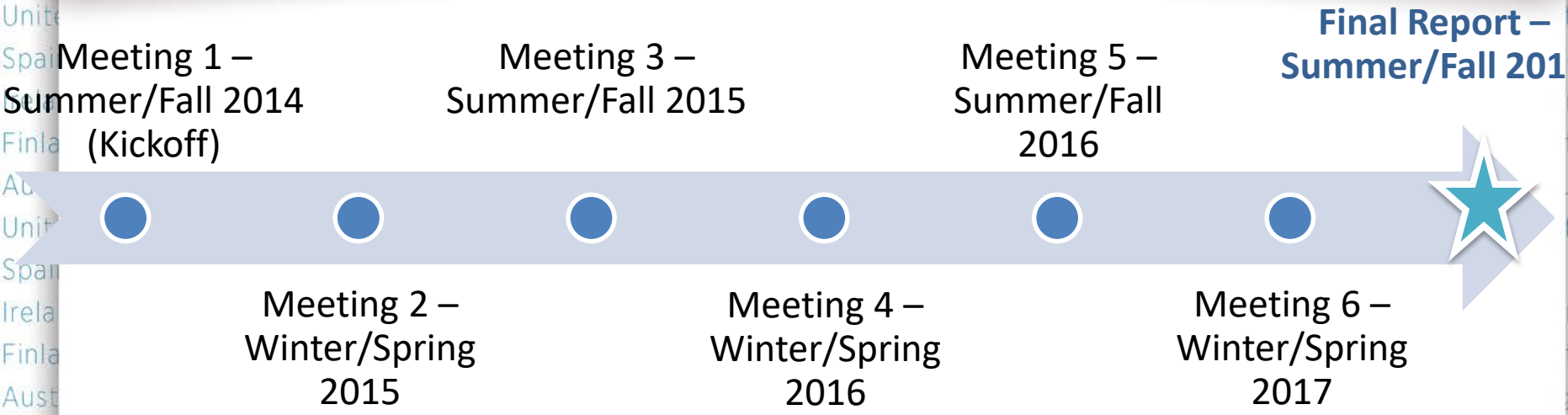
Participation

- Task is open to any member country that would like to join, and under the new IA-HEV funding structure, the task is free to join.
- For the project to be successful, the participating members are expected to set aside an appropriate amount of time to support the activities that may be required in addition to attending meetings.

Accomplishments

- Five workshop completed. Results of the workshops are summarized and shared among the participants.
- The outcome of all discussions in the workshops are documented in final reports and made available to Task participants through the SharePoint site and by email.
- The second day (Oct 5th, 2016) of the IEEE PELS Workshop on Emerging Technologies: Wireless Power (2016 WoW) was co-organized to focus on “Safety of WPT Systems” including presentations and a panel session.

Original Task 26 Schedule



- **Timing:** Two meetings per year coordinated with ExCo meetings whenever possible
- **Duration:** Between one and two days, depending on the depth of the discussion that the Task chooses to achieve
- **Coordination:** Held in member countries at venues where a technology demonstration, laboratory tour, site visit or attendance at a relevant conference is possible in conjunction with the meeting

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Topics Covered to Date

Meeting #	Month , Year	Meeting Focus	Location / Host
Meeting 1	Fall 2014	Task Scoping	Vancouver, Canada
Meeting 2	May 2015	Leading Applications	EVS28 Seoul, Korea
Meeting 3	Fall 2015	Power Levels	Göteborg, Sweden
Meeting 4	Spring 2016	Interoperability	Rotterdam, The Netherlands
Meeting 5	Fall 2016	Safety Conclusions	Knoxville, TN, USA
Meeting 6	Spring 2017	Installations and Alignment	Versailles, France

Task 26 Extension Benefits

- Broadening and deepening the expertise of automotive research organizations in WPT for EVs and related technologies.
- Will further strengthen working relationships and international collaborations.
- Access to information on research performed by other participants – with new interested countries (Italy and Korea).
- Receive updates on recent developments in other countries.
- Stay informed on the state of standards that may facilitate (or hinder) interoperability with WPT for EVs.
- Focus on topics that are more of importance today.

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New Topics to Discuss

- Dynamic charging
- Grid impacts/issues
- Communications/Autonomous
- Revisit safety/Interoperability
- Environmental impacts (public vs. private space)
- Bi-directional wireless systems

Deliverables

- Intermediate Deliverable (Spring 2017): Workshop findings and summaries
- Three more workshops. Possible host countries: UK, Italy, France, Spain, Korea, Germany
- Final Report with chapter contributions from member countries (Spring 2019)
- Present the final report as a paper or a presentation at one of the EVS, IEEE, or SAE conferences

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Planning and Finance

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