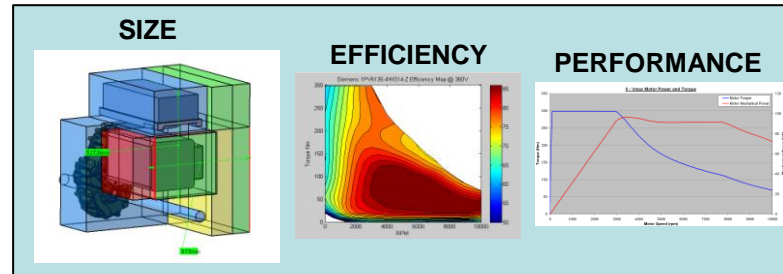


Mission:

Develop a novel electric drive system for EVs, free of rare-earth magnets, which meets EV performance requirements (efficiency, power density) and that is feasible for mass-production

Research Topics and results:

WP2: Electric Drive Specifications (DONE)



WP3: Design of the electric drive

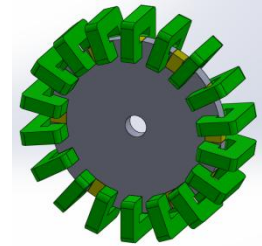
Ongoing tasks/objectives:

- Development of electromagnetic design tools for the electric machine
- First pre-design of SR electrical machine
- First pre-design of SynR electrical machine
- Thermal analysis of ongoing pre-designs

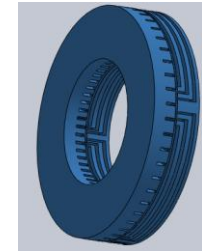
Upcoming milestones/deliverables:

- Selection of SRM or SynRM solution

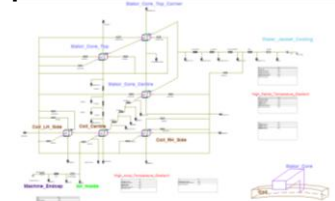
SR Motor Pre-design



SynR Motor Pre-design



Lumped Circuit Model in Portunus



Integration Vehicle



Focus:

- Design and manufacture an axial-flux variable-reluctance machine, SRM or PMSynRM
- Demonstrate and validate the capabilities of the developed electric drive system by integrating it into a vehicle

Website: <http://www.venusmotorproject.eu>

Coordinator: Jon Madariaga
Total costs: 2,939,899 €
EC contribution: 1,999,491 €
Start date: 1st November 2013
Duration: 36 months