

## 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

Upcoming milestones/deliverables:

- Specification of EV application requirements
- Detailed definition of electric drive design parameters

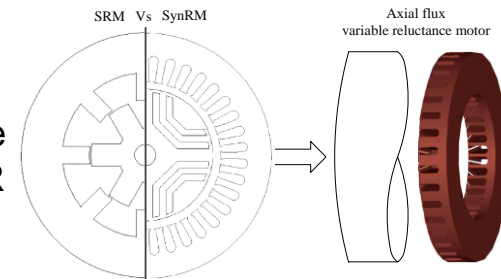
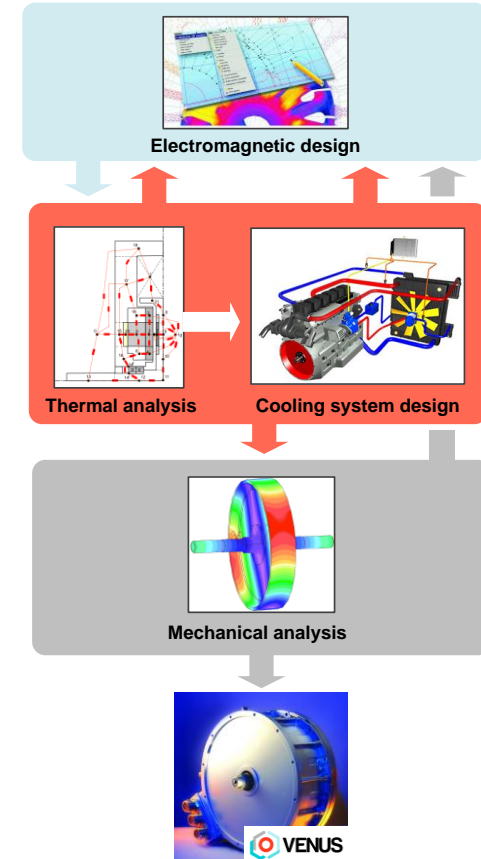
### WP3: Design of the electric drive

Ongoing tasks/objectives:

- Selection of electric machine type and configuration
- Development of electromagnetic design tools for the electric machine
- Definition of motor geometry, system architecture and cooling systems to be modeled

Upcoming milestones/deliverables:

- Definition of configuration to be analyzed for SR motor and PMSynR motor



## 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: 1<sup>st</sup> November 2013**  
**Duration: 36 months**