Powerfull Advanced N-Level Digitalization Architecture for models of electrified vehicles and their components

Fact Sheet

Project Information

PANDA
Grant agreement ID: 824256
Funded under
H2020-EU.3.4.

Start date
1 December 2018
End date
31 May 2022
Overall budget
€ 3 488 671,25
EU contribution
€ 3 488 671,25
Coordinated by
UNIVERSITE DE LILLE
France

Objective

To face the climate change, tens of millions of electrified vehicles need to be deployed in the next decade. To meet this challenge, the automotive industry must shift mass production from thermal to electrified vehicles. The challenge is further complicated by electrified vehicles having more components and architectures than thermal vehicles. Realizing this paradigm shift is only possible if there are innovative methods to significantly reduce their development and testing time.

The main goal of PANDA is to provide a unified organisation of digital models to seamlessly integrate virtual and real testing of all types of electrified vehicles and their components. The complexity of developing electrified vehicles becomes manageable by delivering a modular simulation framework. Development partners can share models (in open or in black-box form), avoiding sensitive IP issues and
greatly increasing the development flexibility. The proposed method will enable 1) an easy reuse of models for different development tasks, 2) a replacement of real tests by virtual tests and 3) real-time testing on vehicle level. This method will be integrated in a multi-power open platform based on existing industrial software, enabling Stand-Alone or Cloud Computing. The method will be validated using two existing vehicles (a BEV and a FCV). Also, real and virtual tests of the integrated electrical subsystems of an innovative P-HEV will be performed.

PANDA will reduce the time-to-market of electrified vehicles by 20%, by harmonizing the interaction between the models. In addition, the seamless integration will give developers access to other subsystem models, which will decrease the correlation efforts on components by 20%. The open platform will 1) make it easier for OEMs, suppliers, SMEs and research institutions to interact and 2) enable a fair competition. These innovations will make the European market more flexible, more open to innovation and ultimately more competitive.

**Fields of science**

> > >

**Programme(s)**

**Topic(s)**

**Call for proposal**

H2020-LC-GV-2018

**Funding Scheme**

RIA - Research and Innovation action

**Coordinator**

UNIVERSITE DE LILLE

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<td>Higher or Secondary</td>
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Address

42 Rue Paul Duez
59800 Lille
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Contact the organisation
Participants (11)

**SIEMENS INDUSTRY SOFTWARE SRL**
- **Romania**
- EU contribution: € 373 500
- **Address**: Bulevardul Garii 13A Et 7, 500203 Brasov
- Activity type: Private for-profit entities (excluding Higher or Secondary Education Establishments)

**VRIJE UNIVERSITEIT BRUSSEL**
- **Belgium**
- EU contribution: € 365 375
- **Address**: Pleinlaan 2, 1050 Brussel
- Activity type: Higher or Secondary Education Establishments

**VALEO EQUIPEMENTS ELECTRIQUES MOTEUR SAS**
- **France**
- EU contribution: € 402 000
- **Address**: 2 Rue Andre Boulle, 94000 Creteil
- Activity type: Private for-profit entities (excluding Higher or Secondary Education Establishments)

**UNIVERSITATEA TEHNICA CLUJ-NAPOCA**
- **Romania**
- EU contribution: € 325 858,75
- **Address**: Str Memorandumului 28
- Activity type: Higher or Secondary
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<td>COMMUNAUTE D' UNIVERSITES ET ETABLISSEMENTS UNIVERSITE BOURGOGNE - FRANCHE - COMTE</td>
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<td>UNIRESEARCH BV</td>
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€ 180 125

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RENault TechnologicIE RouMANie SRL

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€ 240 000

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BLUEWAYS International BVBA

Belgium
EU contribution
€ 267 500

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TUV Sud Battery Testing GmbH

Germany
EU contribution
€ 256 812,50

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