

## Partners

Across the borders, the partners were selected according to their competences on the sector of solid oxide fuel cells.

It was important to find a demanding partner for every workpackage. Next to specialized research facilities, partners from the industry were also tied.

### Partners



### Sponsor Partner

With the financial support from



grant agreement n°303429



Microstructure Details > Impregnated Current Collector > 1000°C

100 µm

EVOLVE // 2014\_05 // Gestaltung: www.horizontale.de

# WORKSHOP Towards the Next Generation SOFC



October 6th - 7th, 2014  
Stuttgart, Germany

## The Project

EVOLVE aims at the development, up scaling and demonstration of new SOFC architecture for stationery and mobile application.

This architecture, based on a composite anode substrate tolerant towards redox cycles aims at combining benefits of both existing Anode and Metal supported cell architecture, and limit the issue of carbon coking and sulphur tolerance thanks to improved anode materials.

Evolve focuses on an innovative concept for SOFC, particularly for the anode compartment, incorporating advanced materials with an approach in which each material performs only one function and enables cell operation at reduced temperature of 750°C. This concept is expected to enhance the durability and reliability of SOFC while exhibiting performance level equivalent to main-stream anode-supported cells.

For more Information please visit:

[WWW.EVOLVE-FCCELL.EU](http://WWW.EVOLVE-FCCELL.EU) 

### Project

**EVOLVE – Fuel Cell**  
Materials and design for high performance solid oxide fuel cell

### Project Coordinator

**German Aerospace Center (DLR)**  
Technical Thermodynamics  
Pfaffenwaldring 38-40  
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**EVOLVE**  
FUEL CELL



Major european players of the industry and the international scientific community will exchange on visions and identify challenges for the development and the deployment of SOFCs.

**Date:**

October 6th-7th, 2014

**Place of Venue:**

Trade Fair Centre Stuttgart at the airport Stuttgart. The trade fair World of Energy Solution ([www.world-of-energy-solutions.de/en/](http://www.world-of-energy-solutions.de/en/)) can be visited as well.

**Online registration:**

You will find detailed informations on the program and the registration file here:

<https://dlr-tt.meetingmasters.de/>

**Registration Fee:**

€ 120 [including lunch & evening event]

**Contact:**

*Scientific & Technical coordination:*  
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*Local organization:*  
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book your hotel here:

**Stuttgart Marketing GmbH**

**Phone: +49 711 2228-100 (Monday to Friday 9:00-17:00)**

**Fax: +49 711 2228-251**

**E-Mail: [hotels@stuttgart-tourist.de](mailto:hotels@stuttgart-tourist.de)**

**Password: WES2014**

**Changings or cancellations can only made by Stuttgart Marketing GmbH.**

**Monday, October 6, 2014**

- 09:00 a.m. Welcome & Opening
- 09:15 a.m. Towards the next generation of SOFC & Objective of the workshop  
*Remi Costa, DLR [Germany]*
- 09:30 a.m. Presentation of Consortium Members EVOLVE
- 10:00 a.m. Speakers of the Day
- 10:15 a.m. COFFEE BREAK
- 10:45 a.m. EU Project METSAPP [tentative]  
*Niels Christiansen [Denmark]*
- 11:15 a.m. Saan Energi's Eco Cells - new approach to solid oxide fuel cells  
*Dr. Asif Ansar, Saan Energi AS [Sweden]*
- 11:30 a.m. Sunfire's vision on SOCs - future improvements and markets  
*Christian Walter, Sunfire GmbH [Germany]*
- 12:00 p.m. SOFC development status and future work in RIST  
*Hong-Youl Bae, RIST [Korea]*
- 12:30 p.m. LUNCH

**PROGRAM**

**Visions & Challenges for SOFCs**

- 13:30 p.m. The FCH JU Program achievement and prospects for SOFCs under H2020  
*Bert de Colvenaer, FCH JU [Belgium]*
- 02:00 p.m. Solid Oxide Fuel Cell development at DTU  
*Søren Højgaard Jensen, DTU [Denmark]*
- 02:30 p.m. Towards novel applications of solid oxide fuel cells  
*Daniel Röhrens, FZJ [Germany]*
- 03:00 p.m. COFFEE BREAK
- 03:30 p.m. Solid Oxide Cell developments and activities at CEA : recent results and future trends  
*Julie Mougín, CEA [France]*
- 04:00 p.m. SOCs activities at German Aerospace Center: present and future  
*Günter Schiller, DLR [Germany]*
- 04:30 p.m. Discussion: Challenges for the Future

**EVENING EVENT**

07:00 p.m.-10:00 p.m. Come Together & Poster Session

DLR, Pfaffenwaldring 38-40, 70569 Stuttgart-Vaihingen

**Tuesday, October 7, 2014**

- 09:00 a.m. Opening
- 09:15 a.m. **SESSION 1: "ALTERNATIVE ELECTRODE MATERIALS FOR SOFCs"**
- 09:20 a.m. Perovskites as anode materials for SOFCs  
*John Irvine, University of St Andrews [UK]*
- 09:50 a.m. Alternative Oxygen Electrode Materials: The Oxygen Over-Stoichiometric Nickelates  
*Jean Marc Bassat, CNRS [France]*
- 10:20 a.m. Discussion
- 10:50 a.m. COFFEE BREAK
- 11:20 a.m. **SESSION 2: " STRATEGY FOR THIN AND DENSE ELECTROLYTE"**
- 11:25 a.m. Fabrication of Thin SOFC Electrolyte Layers by Inkjet Printing  
*Søren Højgaard Jensen, DTU [Denmark]*
- 11:55 p.m. Development of Bi-layer structures as Electrolyte with PVD  
*Feng Han, DLR [Germany]*
- 12:25 p.m. Discussion
- 01:00 p.m. LUNCH
- 01:30 p.m. **SESSION 3: " MODELING TOOL FOR SOFC UNDERSTANDING AND DEVELOPMENT"**
- 02:35 p.m. Synergy of experimentation and simulation of SOFC stack behaviour  
*Michael Lang, DLR [Germany]*
- 03:05 p.m. Evaluation of SOFC Anode Performance & Degradation Considering Carbon Formation  
*Vitaliy Yurkiv, DLR [Germany]*
- 03:35 p.m. N.N.
- 04:05 p.m. COFFEE BREAK
- 04:35 p.m. Summary & Final Words