

The 30th International Electric Vehicle Symposium & Exhibition

October 9–11, 2017 Messe Stuttgart, Germany



Conference Program

SUPPORTERS

CONTENT

GOLD SPONSORS			
	BOSCH Invented for life	GROUPE REN	AULT
ILVER SPONSOR			
	m	AHLE	
3RONZE SPONSORS		CRI ST	
-	EnB	U 💱	
		PORSCH	
PARTNERS			
PARTNERS	warco	e.on	8
PARTNERS MEDIA PARTNERS	ATZ elektronik		Beschaffung
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PARTNERS MEDIA PARTNERS CATZ CHARGED ELECTRIC VEHICLES MAGAZINE	CitiesToday Creage of words water CitiesToday Creating of words water Creating of words water Creating of words water Creating of words water Creating of words water		Beschaffung WERCIAS RENOVABLES Le Journal de Marcolas
PARTNERS	CICICOUSION CONSTRUCTION CICICOUSION CONSTRUCTION CONSTRU		Beschaffung
	CitiesToday CitiesToday CitiesToday CitiesToday CitiesToday CitiesToday CitiesToday CitiesToday		<section-header><section-header><section-header><section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header>

Supporters	S
Welcome Notes	S
About	S
Speaker Information	S
Program Overview	S
Side Events and Exhibition	S
Plenaries	S
Conference Program Monday	S
Dialogue Session Monday	S
Conference Program Tuesday	S
Dialogue Session Tuesday	S
Conference Program Wednesday	S
EVS30 Program Board	S
EVS30 Scientific Program Committee	S
Notes	S
Overview Dialogue Session	S
Room Overview ICS	S
Venue map	S

Seite	02
Seite	04
Seite	10
Seite	11
Seite	13
Seite	14
Seite	18
Seite	24
Seite	29
Seite	37
Seite	43
Seite	51
Seite	56
Seite	56
Seite	62
Seite	64
Seite	65
Seite	66

HOST OF EVS30



Dear friends,

I am very proud to welcome you to the 30th International Electric Vehicle Symposium and Exhibition (EVS) in Stuttgart. The World Electric Vehicle Association (WEVA), with our partners of AVERE, EDTA and EVAAP upholds an almost 50 year old tradition to annually gather academics, industry, students, NGOs, policymakers and anyone interested for a 3-day event. EVS is the place to discuss trends and innovation and think about the future forms of mobility. There is no other EV conference that can compare to this long lasting tradition and spirit.

The EVS participants have always given me hope, and now more and more people understand the importance of EVS. Your job is important, because you, the EVS participants, are the people who will make a strong contribution to saving our climate and improving the air quality of our cities. With transport being the second biggest greenhouse gas emitting sector, we need to implement new technical developments and mobility concepts to reach set goals.

Espen Hauge WEVA President

With the topic becoming more significant for industry, politics and science, we continue to grow in size and quality, at the same time we want to maintain the sense of togetherness and I hope that EVS will continue to be an arena where life-long ties are made between colleagues and friends.

Let me say thanks to the local team bringing EVS30 to life: Messe Stuttgart, Peter Sauber Agentur, e-mobil BW, bw-i, WRS, and of course BSM - Bundesverband Solare Mobilität, the German chapter of AVERE. Together with our sponsors and partners they have done a great job, and been responsible for an excellent collaboration.

I am happy, that we could bring EVS30 to the innovative and economically powerful State of Baden-Württemberg, and the, for anyone interested in cars, historic location of Stuttgart. Now, we see that Stuttgart is ready to grab the opportunity to positively impact also the next chapter of mobility history.

We all see a future with big and fast changes coming, let us keep in mind that the best way to predict the future is to invent it.

Enjoy EVS30!

AMBASSADOR EVS30

Winfried Kretschmann Minister President of the State of Baden-Württemberg

As Minister President of the State of Baden-Württem-The task is to regard this change as an overall opportunity berg and patron of EVS30 I am honoured to welcome and to make the transformation in the car industry into a you all here today. Baden-Württemberg is the birthplace success in two respects: firstly a success for the climate and health protection and secondly a success for companies of the car – a good 130 years ago, the automobile was invented here and today the aim is no less than to reinvent and employees. With the "Automotive Industry Strategy the car and rethink mobility. Electrification and digitali-Dialogue BW" we have created a format which allows all sation (i.e. networking and automation) imply a profound the players involved to collaborate in accompanying and change - and not only from the aspect of technology. developing this process. The important factor for us here Climate-change, new mobility concepts and social changes is the collaboration with other federal states and the are resulting in a new global situation which the autofederal government as we can only meet the requirements mobile industry must face up to. The car of the future if we stand together. will drive emission-free and this will make a vital contribution towards protecting the climate. As a result EVS30 is the industry meeting point which will supply

we must rethink and redesign mobility. new ideas and provide valuable impulses. This is where The future will see cars with electric motors and manufacturers, users and decision-makers have the other low-emission drive systems on the roads. opportunity to obtain up-to-date information about all These innovations will also be accompanied by a change forms of electromobility and to make and discuss new in customer behaviour as well as in market demand. This trends. Let us harness the inspirations that EVS30 offers will entail a fundamental change to the traffic system, not to develop the thematic field with enthusiasm and energy. Therefore I am delighted that you are all using EVS30 to mention the social, cultural and economic aspects of mobility. Demand for intermodal mobility also requires as a platform for international exchange to present new solutions, such as the intelligent networking of your own product portfolios and maintain contacts. public and private transport.





AMBASSADOR EVS30



Rethinking mobility

Dear readers, we are going through one of the most exciting times since the invention of the automobile by Gottlieb Daimler and Carl Benz. In the future, our understanding of mobility will change even more fundamentally than has been the case over the last 131 years. Connectivity, Autonomous Driving, Shared Mobility and Electric Mobility – or as we call it: CASE. These are the topics with which we at Daimler will continue to rethink and improve mobility into the future. The focus will as always be on our customers and their very individual mobility needs.

Vehicles from Mercedes-Benz have always been trailblazers when it comes to technical innovation. No other manufacturer offers a comparable vehicle portfolio. This ranges from the city runabout smart to the Mercedes-Benz passenger car models and right up to buses and trucks. Accordingly our drivetrain systems are also technologically wide-ranging. In the interests of our customers, and with a view to our extensive vehicle portfolio, we are following a three-lane drivetrain strategy on the way to locally emission-free driving: highly efficient high-tech combustion engines, systematic hybridisation and battery-electric or fuel cell drive.

Ola Källenius Member of the Board of Management of Daimler AG, Group Research & Mercedes Benz Cars Development

Concerning E-Mobility, we literally flipped the switch last year and consolidated our activities related to electric driving under our new EQ brand. We expect that in the year 2025, up to one quarter of our worldwide unit sales will be accounted for by electric vehicles. To this end we are investing more than 10 billion euros in the expansion of the EQ vehicle portfolio alone.

Dear readers, I believe that alternative drivetrain systems must above all be attractive. For me this means that the overall package of driving pleasure, operating range and short charging times must be convincing for our customers. We at Daimler are working on all these aspects – and many more besides – with a strong passion and therefore are very happy to invite you to our booth F44 in Hall 1.

We are not waiting for the mobility of tomorrow – we are already constantly rethinking it now!

AMBASSADOR EVS30

Henning Kagermann President of the National Platform Electromobility

In the face of climate change and scarcity of resources, This is why I am very happy to warmly welcome you we need to ensure resource-efficient and, where possible, to the Electrical Vehicle Symposium in Stuttgart. This zero-emission mobility. Electric Mobility is key in achieving conference will give policy makers, scientists and business a sustainable change of mobility: It has the potential to representatives from all over the world the opportunireplace fossil fuels for mobility applications in the long ty to exchange their knowledge and experiences about term and thus to make an active contribution to the technological advances as well as to discuss the global protection of climate and environment - particularly in market development or business models. In addition, combination with renewable energies. As electric vehicles the exhibition will provide insights into technological travel locally free from emissions, they can contribute to development – from charging infrastructure to production a higher quality of life especially in large cities. technologies. Further information programs and the possibility for all guests to go for a spin in an electric From an international point of view we can therefore vehicle on their own demonstrate that electric mobility is recognize a high level of dynamism: Today there are fit for everyday use. I wish you some interesting insights, already more than two million electric vehicles driving inspirations and discussions at this year's Electrical on the streets worldwide. According to various studies, Vehicle Symposium.

From an international point of view we can therefore recognize a high level of dynamism: Today there are already more than two million electric vehicles driving on the streets worldwide. According to various studies, this number is expected to increase to around 70 million electric vehicles until 2025. Currently, governments all over the world are supporting electric mobility in various ways. This also applies to Germany: More than 30 electric vehicle models from German companies are already on the market and their number will grow to 100 models available by the year 2020. The Federal Government has taken several measures to further boost the market, for example the environment bonus, a grant for the purchase of an electric vehicle, and a funding program for the expansion of public charging infrastructure.



ORGANIZERS



Ulrich Kromer von Baerle, Management Representative of Landesmesse Stuttgart

The anniversary of EVS30 is taking place at exactly the right time at the right place. Here in the city where the automobile was born, the theme of electromobility is being discussed as intensively as never before. Our economy is undergoing a period of transition to provide the right offers for the megatrends of mobility and digitalisation. We are delighted to provide an attractive platform for the new technical developments at our trade fair, as well as an international meeting place for the exchange of ideas and opinions between researchers, government representatives and industry experts. We are very proud to host, together with the event organizers and sponsors, the biggest and most important event in the field of electromobility.



Franz Loogen, President of e-mobil BW

Baden-Württemberg – Germany's south-west – a place to create and design innovative mobility solutions of the future. We are home to national and international experts working in technology companies, from well-known global players to many small and medium-sized hidden champions, as well as internationally renowned universities and research institutes. I'm convinced that our international visitors to EVS30 will feel the spirit of engineering and innovation that shapes our region. We are happy to welcome you to Baden-Württemberg and are looking forward to develop and discuss new ideas for the future of mobility with you. Let's make EVS30 to an important step in the development of future mobility technologies by creating new international partnerships.



Peter Sauber, CEO of Peter Sauber Agentur

2017's double-bill is extremely exciting - not only for us as host of f-cell and BATTERY+STORAGE and co-organizer of EVS30. We received a record number of submissions for the EVS30 conference which allowed us to compose a rewarding program for every delegate. We demonstrate to be in line with the latest developments in the automotive and non-automotive sectors: Ever thought about the nuts and bolts of combining zero-emission cars with zero-emission housing and offshore wind farms? The f-cell and BATTERY+STORAGE conference complements the EVS30 focus on electric cars with the crucial perspective on non-automotive technologies for clean transportation, smart grids, storage and sector coupling.

OTHER ORGANIZING PARTNERS:



≋ bw-i Baden-Württemberg International



Our large model range with

#switchtoEQ

C 350 e Saloon/Estate, E 350 e, GLC 350 e 4MATIC SUV/Coupé, GLE 500 e 4MATIC -Fuel consumption combined: 2.1–3.3 I/100 km; combined CO₂ emissions: 48–84 g/km; Power consumption combined: 11.0-16.7 kWh/100 km. Efficiency classes: A+.

WELCOME



ABOUT ...

.... EVS

The International Electric Vehicle Symposium & Exhibition (EVS) is recognized as the longest-standing event for all stakeholders involved in electric drive technologies. The EVS series began in 1969 as an academic forum for global networking and the exchange of technical information.

As electric drive technologies progressed from the classrooms and laboratories into the marketplace, EVS expanded into an event both academic and business oriented, rotating between Europe, Asia and America.

Following the motto "Industrialization and market - the sustainable path to electromobility", EVS30 will be a place of sharing latest technology advances and a forum to discuss how electromobility and new mobility technologies can contribute to the solution of recent climate challenges. EVS30 will bring together leading experts from around the globe. What makes EVS30 special in 2017: f-cell and BATTERY+STORAGE are co-located to EVS and complement the world's largest international event for electromobility with energy-specific dimensions.



... f-cell and BATTERY+STORAGE

f-cell and BATTERY+STORAGE complement the mobile topics of EVS30 perfectly by highlighting stationary storage solutions, fuel cell and battery materials, aircrafts, ships, ports and rail topics as well as hydrogen as one of the most important large scale storage solutions of the "Energiewende".

f-cell has a long lasting tradition. In 2001 it started as local event for producers and users. It grew to one of the biggest events for hydrogen and fuel cell technologies worldwide. In 2012 battery topics completed the outlook and network to an efficient and practicable energy and transport transition.

f-cell

GENERAL INFORMATION

Date: October 9 - 11, 2017 Venue: International Congress Center Stuttgart (ICS) and Hall 1, Messe Stuttgart

OPENING HOURS:

Conference EVS

Monday, Tuesday: 8:00 - 18:00 Wednesday: 8:00 - 13:45

Conference f-cell and BATTERY+STORAGE

Tuesday:	8:00 - 18:00
Wednesday:	8:00 - 16:45

loint exhibition: daily 9:00 - 17:00

PRICES CONFERENCE TICKETS: (excluding 19% VAT)

	Delegate	Student
3-Day Ticket	1.050,00 EUR	500,00 EUR
2-Day Ticket	950,00 EUR	400,00 EUR

Conference tickets can be purchased in the Check-in area, ICS. The tickets give access to both conferences as well as the joint exhibition.

Catering Area: The catering area for exhibitors and conference participants is located on the Gallery in Hall 1.

Conference Proceedings: Conference proceedings will be available online from the first day of the conference. Each delegate will receive an email with their login details. Should you not have received this email by the end of the first day, please come to the Info Point in the Check-in area, ICS.

Exhibition Catalogues: are available at the Entrance of Hall 1

Press Center: Contact person:

1st floor, Entrance East Wolfram Huonker. +49 711 18560-2629

Visitor Parking Electric Vehicles:

Electric vehicles can be parked and charged at no cost in carpark P33, which can be accessed through Gate 1, Messe Stuttgart. Please ask at the Info Point in the Check-in area, ICS for more information.

INFORMATION FOR SPEAKERS

Speaker Check-in

The speaker Check-in is the first port of call for all speakers 9, 2017. You can pick up your power strips and get help to collect their badge and conference bags. Here we will in finding the location of your poster wall at the Dialogue also assist with any questions or queries you might have. Info Desk, located in the Dialogue Session area. Don't forget to take down your poster after 17:00 on Wednesday, Speaker Room October 11.

All speakers are entitled to use the Speaker Room at C4.1, ICS. The room offers space to prepare for your talk or finalize your presentation if required.

If you have been assigned a lecture slot in a parallel session, please make your way to the speaker room straight after collecting your badge. The conference IT Team will welcome you and take your final presentation, to make it available for the session and the conference proceedings. Please don't hesitate to ask them for assistance if required.

Dialogue Session

The area of the Dialogue Session is located in in Hall 1, K40 and K50. Please ensure that your poster has been hung before the start of the event on Monday, October

HELPFUL INFORMATION

WHERE TO GET HELP:

First aid: at the elevated section between Hall 1 and Hall 3, Phone +49 711-18560-7777

Fire service:

There are fire alarms and fire extinguishers in every hall. Emergency no. in case of fire: +49 711 18560-7777 Main fire station: +49 711 18560-3500

Police: Emergency number: 110 Esslingen Police Station: Agnespromenade 4, 73728 Esslingen, phone +49 711 3990-02

Pharmacy: Airport

SERVICE DESKS:

Businesscenter: Entrance East, Atrium Photocopy, Fax, Telephone
Info Point: Check-in area, ICS
Organizers office conference: Room C8.1, ICS
Sandra Bilz, +49 711 656960-5704
Organizers office exhibition: Room 1.2, Hall 1
Railway and flight information:
Info Point, Check-in area, ICS

Poster printing service

There is a poster printing service available onsite (at cost) if you need to (re-)print your poster. Please ask at the Speaker Check-in desk for more information.

Session Chairs

If you are a session chair, we strongly recommend that you come to the Speaker Room before your session as this offers you the opportunity to meet your co-chair and the speakers in your session upfront.

Every session has two co-chairs. If a co-chair has not turned up to their session, please let the room staff or the IT team in the speaker room know.

Stuttgart Messe Service: Service center Entrance East, lower level, Phone: +49 711 18560-7101

Touristic program: Stuttgart Marketing offers a variety of tours and visits in the wider area. For more information, please visit the Info Point in the Check-in area, ICS.

GENERAL SERVICES

Cash-Dispenser: Entrance East, Atrium

Church facilities: Entrance East, lower level Church information and meeting point, Room for encounters, phone +49 711 18560-3220, Prayer room (opposite cloakroom) at 12.45: short ecumenical services, Place for prayer for guests of Jewish faith (MIZ-RACH) and Muslim faith (QIBLA)

Cloakrooms: Entrance East, lower level

Shopping center: Entrance East, lower lever

Smoking areas: The Stuttgart Trade Fair Centre is a non-smoking area. Smoking is only permitted in the designated areas.

Taxi ranks: directly at the Messepiazza, Entrance East Phone: +49 711 8888 8888, Phone: +49 711 566061 Phone: +49 711 557728

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Porsche E-Performance.

Welcome to the Porsche E-Performance family. Built with hybrid technology, born on the race track and optimised for the road. Discover impressive performance at porsche.com/e-performance.

Fuel consumption (in I/100 km) combined 2.5; CO2 emissions combined 59 g/km; electricity consumption (combined in kWh/100 km) 15.9



PROGRAM OVERVIEW

MONDAY, OCTOBER 9

08:00 - 09:00	Conference Registration	
09:00 - 10:30	A1 – A5 Parallel Sessions	
10:30 - 10:45	Coffee break	
10:45 - 12:00	P1 Opening Ceremony EVS30	
12:00 - 12:15	P2 Scene-setting Keynote	
12:15 - 13:15	Lunch break	
13:15 - 14:45	DS1 Dialogue Session	
14:45 - 16:15	B1 – B5 Parallel Sessions	
16:15 - 16:30	Coffee break	
16:30 - 18:00	D1 – D5 Parallel Sessions	
17:00 - 19:00	Get togehter – Gallery, Hall 1, sponso	

TUESDAY, OCTOBER 10

08:00 - 09:00	Conference Registration
09:00 - 10:30	P3 Plenary Session with panel discussion
10:30 - 10:45	Coffee break
10:45 - 12:15	E1 – E5 Parallel Sessions
12:15 - 13:15	Lunch break
13:15 - 14:45	DS2 Dialogue Session
13:30 - 14:30	
14:30 - 14:45	
14:45 - 16:15	F1 – F5 Parallel Sessions
16:15 - 16:30	Coffee break
16:30 - 18:00	G1 – G5 Parallel Sessions
18:00 -23:00	Evening event with f-cell award ceremor

WEDNESDAY, OCTOBER 11

08:00 - 09:00	Conference Registration		
09:00 - 10:30	H1 – H5 Parallel Sessions		
10:30 - 10:45	Coffee break		
10:45 - 12:15	J1 – J5 Parallel Sessions		
12:15 - 12:30	Coffee break		
12:15 - 13:30			
12:30 - 13:45	P6 Closing Ceremony EVS30		
12:30 - 13:45 13:30 - 15:00	P6 Closing Ceremony EVS30 Lunch break		
12:30 - 13:45 13:30 - 15:00 15:00 - 19:00	P6 Closing Ceremony EVS30 Lunch break TecTours / Sight Seeing Tours		
12:30 - 13:45 13:30 - 15:00 15:00 - 19:00 15:00 - 15:15	P6 Closing Ceremony EVS30 Lunch break TecTours / Sight Seeing Tours		
12:30 - 13:45 13:30 - 15:00 15:00 - 19:00 15:00 - 15:15 15:15 - 16:45	P6 Closing Ceremony EVS30 Lunch break TecTours / Sight Seeing Tours		

THURSDAY, OCTOBER 12

09:00 - 15:00

TecTours / Sight Seeing Tours

EVS sessions

f-cell/BATTERY + STORAGE sessions

		09:00 - 17:00
		Exhibition
		-
		Match- making
		- Dida 9 Driva
		Ride & Drive
d by	E.ON	
		09:00 - 17:00
n		
	E6 – E7 Parallel Sessions	Exhibition
		- Match-
		making -
	P4 Plenary	Ride & Drive
	Coffee break	
	F6 – F7 Parallel Sessions	
	G6 – G7 Parallel Sessions	
y		
		09:00 - 17:00
	P5 Plenary	2,100
	J6 – J7 Parallel Sessions	Exhibition
		- Match-
	Lunch break	making
	K1 – K2 Parallel Sessions	Ride & Drive
	Coffee break	
	P7 Closing plenary f-cell,	
	BATTERY+STORAGE	

MATCHMAKING AND EVENING EVENT

GET IN TOUCH WITH INTERNATIONAL EXPERTS ON ELECTRIC MOBILITY **AND ENERGY STORAGE**

You want to benefit the best as possible from EVS30, f-cell and BATTERY+STORAGE and want to get in touch with international experts from all around the globe? Attending our matchmaking will give you easy access to key industry drivers and researchers, interested in shaping the sustainable energy and transport economy of tomorrow. Take this chance and become active in the different matchmaking opportunities offered on all three days during our big event.

Come and join international B2B meetings to meet potential cooperation partners and participate to our round tables to discuss challenging topics with experts! For more information: www.b2match.eu/evs30

You didn't have the time to register in time? Don't worry! Last minute registration is possible during the symposium. So, just come along and check-in at our matchmaking area on site!

We look forward to welcome you at the matchmaking area in hall 1, booth 1A02.











EVENING EVENT - TUESDAY, OCTOBER 10

The Evening Event of EVS30, incorporating the f-cell awards, will be held on Tuesday, October 10, 2017 at Messe Stuttgart. Admission starts at 17.30, with the program starting at 18.30.

The Evening Event is free to attend for all conference delegates, however, pre-registration is required as the

number of participants is limited. If you haven't registered for the Evening Event as part of your conference registration already, please go to the Conference Checkin, ICS to get your ticket, subject to availability. Guests can purchase a ticket for €45 + VAT.

TECTOURS

The technology location of Baden-Württemberg has a high concentration of key players in the field of electric mobility: they include world-renowned vehicle manufacturers, large automotive component suppliers and many innovative small and medium-sized enterprises from the key industries of motor vehicle manufacturing, energy, production, and information and communication technology. The region is also home to a large number of excellent research institutions and universities.

During the TecTours Baden-Württemberg International and e-mobil BW enable conference participants to visit different companies and research institutions involved in the field of electric mobility. More details on the tours:

www.messe-stuttgart.de/en/evs30/visitors/conference/side-program/tectours/ (Please note: The TecTours are booked)

WEDNESDAY, OCTOBER 11, 2017		
Tour 1:	Factory tour - Porsche	
Tour 2:	Factory tour – Bosch	
Tour 3:	Lab tour - University of Stuttgart,	
	Institute of Electrical Energy Conversion	
Tour e:	Factory tour - Lapp Systems	



International visitors in conversation with a representative of Lapp Systems. - Foto: (c) e-mobil BW / KD Busch



THURSDAY, OCTOBER 12, 2017

Tour 1: Drivetrain technologies - Heilbronn Region

- GETRAG
- AUDI AG

Tour 2: Battery technology – Ulm Region

- Center for Solar Energy and Hydrogen Research Baden-Württemberg (ZSW)
- ADS-TEC

Tour 3: Connected and automated driving -**Karlsruhe Region**

- Research Center for Information Technology (FZI) and Karlsruhe Institute of Technology (KIT)
- IBM Lab Böblingen

Tour 4: Production technology – Stuttgart Region

- Festo Technology Plant Scharnhausen
- Esslingen University

RIDE & DRIVE

The Ride & Drive gives visitors the opportunity to find out more about current models and technologies, while driving Battery Electric Vehicles and Fuel Cell Vehicles under real conditions on a route along local roads.

There are 40 vehicles available, including the following brands and models:

- Audi Q7 e-tron
- G4 by Goupil
- Renault Zoe
- Renault Twizy
- Share 'ngo D2
- smart fortwo electric drive
- smart cabrio electric drive
- smart forfour electric drive
- Toyota MIRAI

Book your driving slot at the Ride & Drive Check-in in Hall 1.

Light Electric Vehicles are also available to take for a spin, with the starting point situated in the back of Hall 1. Try one of the following LEVs – no pre-booking required:

- E-Scooters by Bosch and MAHLE
- M-Trike from Metazet

The Battery Electric Vehicles will get powered by charging stations of Swarco, Mennekes, EnBW as well as high power chargers with up to 150kW from GoFast and Delta Energy Systems.

Another highlight at display in the Ride & Drive area is the Station-I by ZUWESO.

EXHIBITION

The exhibition is taking place in the L-Bank Forum (hall 1). It is directly opposite of the conference center (ICS) and easy to reach through the Entrance East. The hall space is around 20,000 m² and has a gallery in addition.

THE COMPLETE RANGE OF ELECTROMOBILITY

The exhibition will focus on electromobility and electric power transmission.

In addition to the focal areas:

- Charging infrastructure
- System suppliers
- Components and accessories for the automotive industry
- Mobility concepts
- Mobility as a service

The full index of exhibitors is available with our Messe Stuttgart App or online at www.evs30.org/exhibitors

Travel & Accommodation

Messe Stuttgart is easy to reach by plane, with public transport or by car. Visitors with electric vehicles are invited to park at the special charging infrastructure directly at the L-Bank Forum (hall 1). Please register online for the EVS conference or exhibition and bring your ticket with you. Follow the sings to the gate "Tor 1/Anlieferung". From there you can drive to the parking area P33, where you will find the charging infrastructure.





the exhibition will present:

- Regulations and standards
- Energy management systems
- Software solutions for networked and
- autonomous driving

MONDAY, OCTOBER 10 - PLENARIES

10:45 - 12:00

P1 EVS30 OPENING CEREMONY

Room C1.1	Session Chair: Espen Hauge, WEVA, NO		
10:55 - 11:10	From inventing to re-inventing the car - impulses from Baden-Württemberg	Winfried Kretschmann, Minister-President of Baden-Württemberg, DE	
11:10 - 11:25	Research for tomorrow's mobility	Dr. Georg Schütte, State Secretary, Federal Ministry of Education and Research, DE	
11:25 - 11:40	European mobility - accelerating into the future	Maroš Šefčovič, Commission Vice-President for Energy Union, European Comission, SK	
11:40 - 11:55	EQ – Electric Intelligence by Mercedes-Benz	Ola Källenius, Daimler AG, DE	

KEYNOTE SPEAKER



Winfried Kretschmann, Minister-President of Baden-Württemberg

Winfried Kretschmann has been politically active since his student days. After graduating from university, qualified to become a teacher, he became a co-founder of the Green party (Die Grünen) in 1979. A year later, Kretschmann was a member of the first Green political party group in the state parliament of Baden-Württemberg. After being a member of the Landtag 1980-1984 and 1988-1992, he has been a member of parliament of the Landtag since 1996. In 2002 he became the caucus leader of his party. In 2016, the Landtag re-elected Winfried Kretschmann as Prime Minister of the State of Baden-Württemberg for his second term.



Dr. Georg Schütte, State Secretary, Federal Ministry of Education and Research Georg Schütte has been State Secretary at the Federal Ministry of Education and Research (BMBF) since December

2009. Prior to this, he had been Secretary General of the Alexander von Humboldt Foundation in Bonn since 2004, an organization which helps foreign scientists and scholars to spend research periods in Germany. From 2001 to 2003, he worked as Executive Director of the German-American Fulbright Commission in Berlin and in this capacity was able to contribute to academic exchange and a better understanding between Germany and the United States.



Maroš Šefčovič, Comission Vice President for Energy Union, European Commission

Maroš Šefčovič is a Slovak career diplomat and since 1 November 2014 Vice President of the European Commission in charge of the Energy Union. In this capacity, he leads the "Energy Union" Project Team within the Commission. In 2014 he was elected as the Member of the European Parliament. From 2010 - 2014 he was Vice President of the European Commission in charge of Inter-Institutional Relations and Administration. In 2009-2010, he was European Commissioner for Education, Training, Culture and Youth. From 2004 -2009, he was the Permanent Representative of the Slovak Republic to the European Union. As diplomat by profession he served between 1992 and 2004 in Zimbabwe and Canada and as Ambassador to Israel.



Ola Källenius, Daimler AG

Ola Källenius, Member of the Board of Management of Daimler AG, Group Research & Mercedes-Benz Cars Development: We're flipping the switch with electromobility! Electromobility at Daimler follows an integrated approach: we are electrifying our cars, vans, trucks and buses, and are also creating an extensive electromobile ecosystem with our EQ brand. In addition to the products themselves, this includes batteries, wall boxes, charging services and stationary energy storage systems.

12:00 - 12:15

P2 SCENE-SETTING KEYNOTE

Room C1.1 The global electric vehicle market: where to next?

Colin McKerracher, Bloomberg New Energy Finance, UK

KEYNOTE SPEAKER



Colin McKerracher, Bloomberg New Energy Finance

Colin McKerracher manages coverage of the transport sector at Bloomberg New Energy Finance. Colin's team covers the technology, policy and economic factors influencing the evolution of the transport sector. Colin previously managed BNEF's coverage of the global smart grid industry. He presents regularly at industry events and his work has been featured on Bloomberg TV, in The Economist and in other media sources. Colin has over 10 years of experience in the clean energy sector. Colin's past roles include Director of Sales and Marketing for Neurio, a smart grid technology company, and Business Development Manager for a Canadian biofuel company. He holds degrees from the London School of Economics and the Sauder School of Business at UBC.

TUESDAY, OCTOBER 10 - PLENARIES

09:00 - 10:30

P3 EVS30	PLENARY: THE FUTURE OF ELECTRIFICATIO	N
Room C1.1	Moderator: Birgit Priemer, Editor-in-Chief, auto motor sp	ort, DE
09:05 - 09:20	A tier1 supplier's perspective on e-mobility	Dr. Mathias Pillin, Bosch, DE
09:20 - 09:35	Renault, at the forefront of the electric revolution	Gilles Normand, Renault Groupe, FR
09:35 - 09:50	Electric mobility in China - developments, opportuni- ties, challenges	Prof. Dr. Qing Zhou, Tsinghua University, CN
09:50 - 10:30	PANEL DISCUSSION: GLOBAL OUTLOOK - TRANSITION TO MASS MAR- KET Europe, Asia and America - how will the different markets and industries be transformed by electrification? Will local markets and policy mainly influence local industry or also global? And how for example will strong incentives lead to a strong EV industry? What are efficient policies and incentives?	Prof. Dr. C.C.Chan, University of Hong Kong, HK John Gartner, Navigant, US Gilles Normand, Renault Groupe, FR Dr. Mathias Pillin, Bosch, DE Prof. Dr. Qing Zhou, Tsinghua University, CN

KEYNOTE SPEAKER

Prof. C.C. Chan, University of Hong Kong



Prof. C. C. Chan holds BSc, MSc, PhD, HonDSc, HonDTech degrees. He is Honorary Professor and former Head of Department of Electrical and Electronic Engineering at the University of Hong Kong. He is founder of the World Electric Vehicle Association and senior consultant to governments. He collected numerous accolades and has been dubbed the "Father of Asian Electric Vehicles" by Magazine Global View and "Pitamaha (Grandfather) of Electric Vehicle Technology" in India. His major research field includes new energy vehicles, smart energy and smart information systems; he published 11 books, over 300 technical papers and holds 9 patents.

John Gartner, Navigant Research



John Gartner is a senior research director leading Navigant Research's Transportation Efficiencies and Data Services programs. He has overseen custom research and consulting engagements for the world's leading automotive companies, technology vendors, and infrastructure providers. Gartner's key areas of expertise include electric vehicles, EV charging infrastructure and integration into the grid, vehicle-to-grid (V2G) technology, and advanced batteries. Gartner has 29 years of experience in technology evaluation, market research, and consulting. He has contributed to many leading IT and business publications, including Wired, Windows Magazine, Technology Review, Inc., and McKinsey Quarterly. Gartner also founded and edited Wired's automotive website, Autopia.

Dr. Gilles Normand, Renault Groupe





Dr. Mathias Pillin, a member of the Divisional Board for Gasoline Systems with responsibility there for drive train electrification: Bosch is replacing more and more of its own car pool so that employees can personally experience the feeling and the benefits of driving electric cars, and therefore become ambassadors themselves. We are also carrying out intensive research on the technical side, for example in semiconductor technology. This also creates a positive feeling for all users of electric cars.

Prof. Dr. Qing Zhou, Tsinghua University



Prof. Dr. Qing ZHOU is Volkswagen Chair Professor of Vehicle Safety at Department of Automotive Engineering, Tsinghua University. He also serves as Director of Vehicle Safety Committee of Chinese Society of Automotive Engineers, Associate Editor of International Journal of Impact Engineering, and Council Member of International Research Council on Biomechanics of Injury (IRCOBI). Prior to joining Tsinghua University in 2003, Prof. Zhou worked at Volpe National Transportation Systems Center of US Department of Transportation from 1999 to 2003, and at R&D Center of General Motors from 1994 to 1999. Prof. Zhou's research areas include vehicle crash safety, human body impact protection, large deformation failure of lightweight materials and structures under impact loading, and crash safety of battery.

Since 1988, Gilles Normand has built a strong expertise in the automotive market within the Renault-Nissan Alliance in both companies. He took his role as Senior Vice President for the Electric Vehicle Business Unit in the beginning of 2017 after having chaired the Asia-Pacific region - the most dynamic region in terms of EV-market -

TUESDAY, OCTOBER 10 - PLENARIES

13:30 - 14:30

P4 F-CELL AND BATTERY+STORAGE PLENARY Plenary Chair: Thorsten Herbert, NOW Nationale Organisation Wasserstoff- und Brennstoffzellentechnologie Room C1.1 GmbH, DE

13:30-14:00	Infrastructure for zero emission mobility. What does	Nikolas Iwan, H2 MOBILITY Deutschland GmbH & Co.
	it cost?	KG, DE
14:00-14:30	The role of hydrogen in sector coupling	Dr. Graham Cooley, ITM Power plc, UK

KEYNOTE SPEAKER

Dr. Graham Cooley, ITM Power plc

Dr. Graham Cooley joined ITM Power as CEO in 2009. He has focused the company on two key areas of industry; energy storage Power-to-Gas and clean fuel for fuel cell electric vehicles. This addresses the market requirements for grid balancing due to an increase of renewables and the push for more hydrogen stations, which generate the gas onsite, eliminating fuel deliveries. Before ITM, Graham was BDM at National Power plc and spent 11 years in the power industry developing energy storage and generation technologies. Before joining ITM Power Graham was CEO of Sensortec Ltd, founding CEO of Metalysis Ltd, a spin out of Cambridge University and founding CEO of Antenova Ltd.



Nikolas Iwan, H2 MOBILITY Deutschland GmbH & Co. KG

Nikolas Iwan started his career with Shell. In his last position, he was responsible for the Retail business in Austria. Managing a network of 260 stations with 100,000 customer transactions a day he learned a lot about customers and infrastructure. Nikolas was always passionate about pushing the Energiewende and has now found the perfect task: building up hydrogen infrastructure in Germany. Since April 2016 he is CEO of the joint venture H2 MOBILITY Deutschland GmbH & Co. KG. The mission: Running 100 hydrogen stations by the end of 2018 and up to 400 by 2023.



WEDNESDAY, OCTOBER 11 - PLENARIES

09:00 - 10:30

P5 F-CELL AND BATTERY+STORAGE PLENARY			
Room C1.1	Plenary Chair: Werner Diwald, DWV Deutscher Wasserstoff- und Brennstoffzellenverband e.V., DE		
09:00-09:20	HyLAW: Hydrogen law and removal of legal barriers to the deployment of fuel cells and hydrogen applications	Dennitsa Nozharova, Deutscher Wasserstoff- und Brennstoffzellenverband e.V., DE	
09:20-09:40	Contribution of FCH JU to EU energy and electricity market directives	Nikolaos Lymperopoulos, Fuel Cells and Hydrogen Joint Undertaking, BE	
09:40-10:00	Clean energy and mobility package - EU strategy on hydrogen	Jorgo Chatzimarkakis, Hydrogen Europe, BE	
10:00-10:10	Summary and lead over from EU to US matters	Werner Diwald, DWV Deutscher Wasserstoff- u. Brennstoffzellen- verband e.V., DE	
10:10-10:30	Overview of U.S. Department of Energy hydrogen and fuel cell activities	Dr. Dimitrios Papageorgopoulos, U.S. Department of Energy, US	

KEYNOTE SPEAKER

Jorgo Chatzimarkakis, Hydrogen Europe



As pupil he was thrilled from the bestseller "In the beginning there was hydrogen", as a student he promoted "Power-to-Hydrogen" and joined a political party on this subject. As Member of the European Parliament he helped to lay the cornerstone for the technology platform "Fuel Cell and Hydrogen Joint Undertaking". Today, as Secretary General of the industry association "Hydrogen Europe" he works for the energy transition, which he believes can only be achieved with an energy vector serving as a game changer called hydrogen.



Werner Diwald, Deutscher Wasserstoff- und Brennstoffzellenverband e.V. Mr. Werner Diwald is the speaker of the Board of Deutscher Wasserstoff- und Brennstoffzellen-Verband (DWV) e.V., spokesman of the think tank "performing energy", member of the Federal Expert Committee on Climate, Environment and Energy Policy of the CDU, member of the Federal Expert Commission on Energy Policy of the Economic Council Germany and a member of the Board of European Hydrogen Association (EHA). In addition, he is the shareholder and CEO of the consulting company ENCON.Europe GmbH. The company advises energy companies, electrolyser manufacture or research institutions in project management of Hydrogen Power Plants and Power to Gas Projects. Also advises the company policy makers in matters relating to power to gas and sector coupling of renewable energies.



Dennitsa Nozharova, Deutscher Wasserstoff- und Brennstoffzellenverband e.V. Dennitsa Nozharova is Master in Law with 19 years' experience in the field of renewable energies and energy efficiency. Since August 2008 she has worked as CEO for development of wind energy projects and their integration into the electricity grid.

Since January 2017 she has supported the German Hydrogen and Fuel Cells Association (DWV e.V.) by the implementation of the HyLaw Project especially by the identifying and assessment of the applicable EU legislation and legal and administrative requirements and procedures for multiple fuel cells and hydrogen applications.

Dr. Dimitrios Papageorgopoulos, U.S. Department of Energy



Dimitrios Papageorgopoulos is the Program Manager for Fuel Cells in the U.S. Department of Energy's (DOE's) Fuel Cell Technologies Office, where he oversees efforts focused on the development of fuel cells and fuel cell systems for transportation, stationary and early market applications. He has 20 years of combined experience in research, technology development and management in areas related to surface science, catalysis, and fuel cell technologies. Prior to joining DOE in 2009, Dimitrios was Head of Catalyst Development at CMR Fuel Cells. Previous positions include those at the Energy Research Centre of the Netherlands (ECN), the FOM Institute for Atomic and Molecular Physics (AMOLF) Amsterdam, and at the Ecole Polytechnique Fédérale de Lausanne (EPFL).

Nikolaos Lymperopoulos, Fuel Cells and Hydrogen Joint Undertaking

Dr. N. Lymperopoulos is a Project Manager at the Fuel Cells and Hydrogen Joint Undertaking (FCH JU). He is a Mechanical Engineer actively involved in the field of energy and the environment for more than 30 years. For the last 18 years he has been working on Hydrogen energy technologies, initially leading a section at the Greek national Centre for Renewable Energy Sources and then as Director for Projects at the UNIDO International Centre for Hydrogen Energy Technologies in Istanbul that addressed Developing World Countries. In 2013 he joined the FCH JU putting his experience to good use in supporting European R&D in sustainable Hydrogen

WEDNESDAY, OCTOBER 11 - PLENARIES

12:30 - 13:45

P6 EVS30 CLOSING CEREMONY WITH KEYNOTE			
Room C1.1	Session Chair: Joeri van Mierlo, AVERE/Vrije Universiteit Brussel - MOBI, BE		
12:35 - 13:05	The future of urban mobility	Christoph Weigler, UBER, DE	
13:05 - 13:20	E-Visionary Awards	Espen Hauge, AVERE, NO; Genevieve Cullen, EDTA, US and Prof. Dr. Yoichi Hori EVAAP, JP	
13:20 - 13:25	EVS30 in numbers	Joeri van Mierlo, AVERE/Vrije Universiteit Brussel - MOBI, BE	
13:25 - 13:30	Best Paper and Best Poster Award	Joeri van Mierlo, AVERE/Vrije Universiteit Brussel - MOBI BE and Prof. Dr. Hans-Christian Reuss, FKFS, DE	
13:30 - 13:35	EVS30 impressions and outlook	Franz Loogen, e-mobil BW, DE	
13:35 - 13:40	Passing of the baton to EVS31	Espen Hauge, AVERE, NO and Prof. Dr. Yoichi Hori, EVAAP, JP	
13:40 - 13:45	Closing Remarks	Joeri van Mierlo, AVERE/Vrije Universiteit Brussel - MOBI, BE	

KEYNOTE SPEAKER

PLENARIES





Franz Loogen, the president of e-mobil BW, Baden-Württemberg's regional agency for electric vehicles and fuel cell technology, studied mechanical engineering at RWTH University Aachen and has more than twenty years of professional experience in executive positions in the automotive industry. e-mobil BW aims at promoting the industrialisation of electric mobility to position the State of Baden-Württemberg as a leading region for sustainable and intelligent mobility solutions.



Prof. Dr. Hans-Christian Reuss, FKFS, Stuttgart University/Co-Chair Scientific Program Committee EVS30 Hans-Christian Reuss is chair of Automotive Mechatronics at the Institute of Internal Combustion Engines and

Automotive Engineering (IVK) at University of Stuttgart and a member of the management board of the Research Institute of Automotive Engineering and Vehicle Engines Stuttgart (FKFS). His present teaching and research interests include autoelectrical systems, electronic control units, optimization of power trains, hybrid vehicles, electromobility, function and software development, and test and diagnosis of mechatronic systems. He was previously professor at Dresden University of Technology, where he held the first professorship in Automotive Electronics at a German University. In 2001 he was involved in the establishment of the DaimlerChrysler Competence Center of Electrical and Electronic Architecture and in 2002 he established the Institute of Automotive Mechatronics GmbH Dresden.



Prof. Dr. Joeri Van Mierlo, AVERE/Vrije Universiteit Brussel – MOBI/Co-chair Scientific Program Committee EVS30

Prof. Dr. Joeri Van Mierlo is a key player in the electromobility scene. He is a professor at Vrije Universiteit Brussels where he leads the MOBI - Mobility, Logistics and Automotive Technology Research Centre. He is expert in the field of electric and hybrid vehicles (batteries, power converters, energy management simulations) as well as to the environmental and economical comparison of vehicles with different drive trains and fuels (LCA, TCO). Prof. Van Mierlo is Vice-president of AVERE and its Belgian section ASBE. He chairs the EPE chapter "Hybrid and electric vehicles" and is an active member of EARPA (European Automotive Research Partner Association) and EGVIA (European Green Vehicle Initiative Association). He is director of Flanders Make department "Power electronics, actuators and energy storage".



Christoph Wiegler, UBER

Christoph Weigler (born 1983) joined Uber in October 2015 and has been running the German business as General Manager of Uber Germany since August 2016. Before, he worked as a Senior Manager at Bain & Company in Munich and San Francisco. He consulted numerous automotive OEMs in several projects ranging from strategic repositioning to holistic mobility services. He also specialized on successful market entries of German automobile producers in China. Weigler spent two years in China and one year in Silicon Valley. He studied Business Administration at the European Business School in Oestrich-Winkel and at Tsinghua University in Peking.

WEDNESDAY, OCTOBER 11 - PLENARIES

15:15 - 16:45

P7 CLOSING PLENARY F-CELL AND BATTERY+STORAGE			
Room C1.1	Plenary Chair: Dr. Manuel C. Schaloske, e-mobil BW GmbH, DE		
15:15-15:45	The Canadian cleantech landscape and innovations in hydrogen storage	Grace Quan, Hydrogen In Motion Inc. (H2M), CA	
15:45-16:15	Hydrogen – gaining momentum in Norway	Björn Simonsen, nel hydrogen, NO	
16:15-16:45	20 years personal retrospective on hydrogen and fuel cells - Outlook on the future - Farewell Dr. Menzen	Dr. Klaus Bonhoff, NOW Nationale Organisation Wasser- stoff- und Brennstoffzellentechnologie GmbH, DE Dr. Georg Menzen, BMWi Bundesministerium für Wirt- schaft und Energie, DE	

KEYNOTE SPEAKER



Klaus Bonhoff, NOW Nationale Organisation Wasserstoff- und Brennstoffzellentechnologie GmbH Dr.-Ing. Klaus Bonhoff is managing director (chair) of NOW GmbH National Organisation Hydrogen and Fuel Cell Technology, which was established to run the German National Innovation Program Hydrogen and Fuel Cell Technologies (NIP) as a public-private-partnership. Today NOW is managing the NIP as well as large publicly funded demonstration programmes on battery-electric mobility. Dr. Bonhoff is a member of the advisory boards of Fraunhofer ISE (Institute for Solar Energy Systems), Next Energy Institute, erdgas mobil and ZSW (Centre for Solar Energy and Hydrogen Research).

Dr. Georg Menzen is Head of Division, Energy Research - Project Funding and International Affairs at the Federal Ministry of Economic Affairs and Energy in Germany. He was the project lead on numerous projects and programmes in the field of renewable energy and especially fuel cells, hydrogen, energy storage and grids.



Grace Quan, Hydrogen In Motion Inc. (H2M) Grace Quan has a strong financial and strategic background as the Senior Advisor to the CFO of the Treasury Board of Canada, the department responsible for managing Canada's \$250B dollar annual budget. Her career in the federal government also includes working in foreign aid at the Canadian International Development Agency and in the Foreign Service (DFAIT). This varied experience gives Grace an insider understanding of the functioning of business and government. This knowledge is effectively leveraged in fundraising, advocacy, policy development, and contracting with government and other institutions on behalf of Hydrogen In Motion Inc. (H2M). Grace has established at H2M a culture that fosters innovation to develop ground breaking new products

Bjørn Simonsen, nel hydrogen



Bjørn Simonsen has been working within the hydrogen sector for 9 years, both within research, as well as various key positions in the Norwegian hydrogen arena. In 2014 he joined Nel Hydrogen, where he holds the position as Vice President Market Development and Public Relations. Nel's vision is "empowering generations with clean energy forever". Bjørn is optimistic about this vision, and gets his main inspiration from nature, in addition to working with the exciting task itself.

22

Dr. Georg Menzen, Federal Ministry for Economic Affairs and Energy

MONDAY, OCTOBER 9 – SESSION OVERVIEW

09:00 - 10:30	09:00 - 10:30	09:00 - 10:30	09:00 - 10:30	09:00 - 10:30	
A1: Connected	A2: Setting up	A3: Battery systems for	A4: Predicting	A5: Electric power trains	
and autonomous vehicles - concepts and applications	an efficient charging system	electric vehicles	the total cost of ownership for electric vehicles	- Innovation and developments	
Room C7.1	Room C1.1	Room C1.2.1	Room C1.2.2	Room C5.1	
		Coffee break – 15 mi	n		
		10:45 - 12:00			
	P1: O	Ppening Ceremnoy E	VS30		
		KUUIII CI.I			09:00 - 17:00
		12:00 - 12:15			Exhibition
	P2: Scene	e-setting keynote, R Lunch break – 60 mir	oom C1.1 າ		- Match- making
		13:15 - 14:45			- Ride & Drive
	D	S1: Dialogue Sessio	n		Hall 1
		1K40 + K50, Hall 1			
14:45 - 16:15	14:45 - 16:15	14:45 - 16:15	14:45 - 16:15	14:45 - 16:15	
B1: Fuel cell vehicle concepts	B2: Successful management of charging infrastructure	B3: Battery ageing processes - monitoring and prognosis	B4: Aiding EV market growth with incentive models	B5: Improving driving dynamics	
Room C7.1	Room C1.1	Room C1.2.1	Room C1.2.2	Room C5.1	
		Coffee break – 15 mi	n		
16:30 - 18:00	16:30 - 18:00	16:30 - 18:00	16:30 - 18:00	16:30 - 18:00	
D1:	D2:	D3:	D4:	D5:	
Hydrogen infrastructure and H2 purification	Implementation of a charging network	Inermal and life cycle management of batteries	Opportunities for EV market development	Iesting processes for electric vehicles	
Room C7.1	Room C1.1	Room C1.2.1	Room C1.2.2	Room C5.1	
	17:00 - 19:00 "	Get Together", sponso	ored by E.ON Gallery	, Hall 1	

08:00 - 09:00 Conference registration, ICS Messe Stuttgart

MONDAY, OCTOBER 9 – PARALLEL SESSIONS

09:00 - 10:30

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	Session Chairs: Dr. Ulrich Köhler, Hella, DE and Dr. Mic	hael Nicholas International Council on Clean
00111 C7.1	Transport, US	nuel Micholas, international Council on Clean
)9:05-09:25	Dimensioning of power net for automated driving	Tunan Shen, Dr. Ahmet Kilic, Robert Bosch GmbH, DE
)9:25-09:45	Optimization of an all-electric connected taxi fleet	Pascal Blouin, IVI, CA
)9:45-10:05	Intralog - towards an autonomous system for hand- ling inter-terminal container transport	Adrie Spruijt, Hogeschool Rotterdam, NL
10:05-10:25	Electrochemical capacitor powered automated gui- ded vehicles (AGVs)	Toshihiko Furukawa, United Chemi-Con, US
A2 SETTI	NG UP AN EFFICIENT CHARGING SYSTEM	
Room C1.1	Session Chairs: Sebastien Albertus, Renault, FR and Cha	arles Botsford, AeroVironment, US
)9:05-09:25	The influence of investment costs on the develop- ment of fast charging infrastructure	Denis Horn, University of Stuttgart, IAT, DE
)9:25-09:45	Energy management of second-life electric vehicle batteries for supporting a microgrid	Dr. Cristina Corchero, IREC, ES
19:45-10:05	Charging infrastructure experiences in Norway - the worlds most advanced EV market	Erik Lorentzen, Norwegian EV Association, NO
.0:05-10:25	Priming the US grid for high-powered electric vehicle charging	Paul Stith, Black & Veatch, US
<mark>АЗ</mark> ватт	ERY SYSTEMS FOR ELECTRIC VEHICLES	
loom C1.2.1	Session Chairs: Thomas Blank, KIT, DE and James Miller	r, Argonne National Laboratory, US
9:05-09:25	Cycle life evaluation for Lithium-Ion capacitors	Mahdi Soltani, Vrije Universiteit Brussel - MOBI, BE
9:25-09:45	Dimensioning and optimization of hybrid Li-Ionen batteries for EVs	Jan Becker, RWTH Aachen University - Institute for Powe Electronics and Electrical Drives, DE
9:45-10:05	Assessing battery safety using a combined simulati- on approach from cell to vehicle level	Bernhard Brunnsteiner, AVL, AT
0:05-10:25	Investigations on a hybrid energy storage system for an all-wheel driven motorcycle	Dr. Michael Buchholz, Ulm University, DE
44 pred	ICTING THE TOTAL COST OF OWNERSHIP	FOR ELECTRIC VEHICLES
oom C1.2.2	Session Chairs: Bert Witkamp, AEFO, BE and Sven Lierz	er, BridgingIT, DE
9:05-09:25	Smart Charging - an efficient instrument to optimise the Total Cost of Ownership of EVs	Dr. Yasmine Assef, Renault, FR
9:25-09:45	Predicting the future manufacturing cost of batte- ries for plug-in vehicles for the U.S. EPA 2017-2025 Light-Duty Greenhouse Gas Standards	Dr. Michael Safoutin, US Environmental Protection Agenc US
9:45-10:05	Modelling the total cost of ownership of electric vehicles in the Netherlands	Auke Hoekstra, TU Eindhoven, NL
.0:05-10:25	BEV consumer household travel behavior decisions in multi-vehicle household: Do they get the maximum, out of their Nissan LEAF?	Dr. Gil Tal, University of California Davis, US
45 ELEC	TRIC POWER TRAINS - INNOVATION AND	DEVELOPMENTS
coom C5.1	Session Chairs: Prof. Dr. Nejila Parspour, Institute of Ele Olivier Bernatchez, TM4, CA	ectrical Energy Conversion, University of Stuttgart, DE an
9:05-09:25	Big Batteries: Solution for the future?	Dr. Otmar Scharrer, Mahle, DE
9:25-09:45	Driving the green revolution: Technology advance- ments enable new efficiencies in electric cars	Karl-Heinz Steinmetz, Texas Instruments, DE
9:45-10:05	Multi-speed transmissions for electric drives	David Gagliardi, Oerlikon Drive Systems, DE

ller,	, Argonne National Laboratory, US
	Mahdi Soltani, Vrije Universiteit Brussel - MOBI, BE
	Jan Becker, RWTH Aachen University - Institute for Power Electronics and Electrical Drives, DE
i-	Bernhard Brunnsteiner, AVL, AT
r	Dr. Michael Buchholz, Ulm University, DE

MONDAY, OCTOBER 9 – PARALLEL SESSIONS

14:45 - 16:15

B1 FUEL CELL VEHICLE CONCEPTS

Room C7.1	Session Chairs: Dr. Manuel C. Schaloske, e-mobil BW, DE and Xiao-Zi Yuan, National Research Council Canada, CA		
14:50-15:10	The future of fuel cell vehicles	Yukihiro Sonoda, Toyota Motor Europe, BE	
15:10-15:30	A European approach for the commercialisation of fuel cell buses in public transport	Dr. Frank Koch, EE Energy Engineers GmbH, DE	
15:30-15:50	The fuel cell engine of the new Mercedes-Benz GLC F-CELL	Prof. Dr. Christian Mohrdieck, Daimler AG, DE	
15:50-16:10	Hyundai ix35 fuel cell electric vehicles: degradation analysis for driving and vehicle-to-grid usage	Vincent Oldenbroek, TU Delft, NL	

B2 SUCCESSFUL MANAGEMENT OF CHARGING INFRASTRUCTURE

Room C1.1	Session Chairs: Prof. Dr. Michael Schlick, Hochschule Ulm, DE and Robert Gell, GELCOservices Pty. Ltd., AU		
14:50-15:10	Emerging best practices for electric vehicle char- ging infrastructure	Dr. Nic Lutsey, International Council on Clean Transporta- tion, US	
15:10-15:30	Predicting charging infrastructure availability based on a space-time series model	Quentin De Clerck, Vrije Universiteit Brussel - MOBI, BE	
15:30-15:50	Development of Japanese model plan for a quick-charging infrastructure network based on traffic simulation for promoting EVs	Dr. Tomohiko Ikeya, Central Research Institute of Electric Power Industry, JP	
15:50-16:10	Estimating the charging profile of individual charge sessions of electric vehicles in the Netherlands	Jurjen Helmus, Amsterdam University of Applied Sciences, NL	

B3 BATTERY AGEING PROCESSES - MONITORING AND PROGNOSIS

Room C1.2.1	Session Chairs: Prof. Dr. Joeri van Mierlo, Vrije Universiteit Brussel - MOBI, BE and Li Sun, Special Committee of Electric Vehicle, China Electrochemical Society, CN		
14:50-15:10	Battery health monitoring and degradation progno- sis in fleet management systems	Adnan Nuhic, Deutsche ACCUmotive GmbH ଢୁ Co. KG, DE	
15:10-15:30	Online and BMS implementable SoH estimation for battery packs	Maitane Berecibar, IK4-IKERLAN & Vrije Universiteit Brussel, BE	
15:30-15:50	Analysing the influence of driver behaviour and tun- ing measures on battery aging and residual value of electric vehicles	Werner Schmid, Institute of Automotive Technology, Technical University of Munich, DE	
15:50-16:10	Evaluation of cyclic battery ageing for railway vehicle application	Sebastian Sigle, DLR e.V., DE	

B4 AIDING EV MARKET GROWTH WITH INCENTIVE MODELS

Room C1.2.2	Session Chairs: Erik Lorentzen, Norwegian Electric Vehicle Association, NO and Jeff Allen, Forth, US		
14:50-15:10	The Electric Vehicle Policy Report Card Prof. Dr. Jonn Axsen, START @ Simon Fraser University		
15:10-15:30	Financial purchase incentives for battery electric vehicles - a systematic review of the evidence	Dr. Scott Hardman, UC Davis, US	
15:30-15:50	I-CVUE: Incentives for Cleaner Vehicles in Urban Europe, final results	Harm Weken, FIER Automotive, NL	
15:50-16:10	Incentives for electric vehicles: A case study of Den- mark and Norway	Jens Christian Morell Lodberg Hoj, Insero A/S, DK	

MONDAY, OCTOBER 9 – PARALLEL SESSIONS

B5 IMPROVING DRIVING DYNAMICS

Session Chairs: Prof. Dr. Burghard Voss, IAV, DE and Prof. Dr. Yoichi Hori, University of Tokyo, JP		
A method for quantification of powertrain electrifi- cation impacts on driving dynamics	Markus Kraft, Robert Bosch GmbH, DE	
Smart torque vectoring functionality for an AWD electric vehicle	Dr. Michael Stapelbroek, FEV Europe GmbH, DE	
Investigation on the mechanical and electromag- netical performance of a special fabricated squirrel cage copper rotor for induction machines	Volker Voggeser, Wieland Werke AG, DE	
Fuel cell plug-in hybrids: long-distance emobility with batteries and fuel cells	Dr. Joerg Karstedt, ZBT GmbH, DE	
	Session Chairs: Prof. Dr. Burghard Voss, IAV, DE and Pro A method for quantification of powertrain electrifi- cation impacts on driving dynamics Smart torque vectoring functionality for an AWD electric vehicle Investigation on the mechanical and electromag- netical performance of a special fabricated squirrel cage copper rotor for induction machines Fuel cell plug-in hybrids: long-distance emobility with batteries and fuel cells	

16:30 - 18:00

D1 HYDROGEN INFRASTRUCTURE AND H2 PURIFICATION Room C7.1 Session Chairs: Reinhold Wurster, Ludwig-Bölkow-Systemtechnik GmbH, DE and Dr. Michael Nicholas, International Council on Clean Transport, US 16:35-16:55 Techno-economic evaluation of hydrogen refueling stations with trucked-in gaseous or liquid hydroger 16:55-17:15 NewBusFuel - Large scale hydrogen refueling infrastructure for fuel cell bus fleets 17:15-17:35 Onsite hydrogen generation and hydrogen recyclin for refueling FCEVs using an electrochemical hydrogen compressor 17:35-17:55 Contamination control for LT PEM fuel cell systems

D2 IMPLEMENTATION OF A CHARGING NETWOR

Room C1.1	Session Chairs: Andreas-Michael Reinhardt, BSM e.V., DE and Scott Miller, Chargepoint, US	
16:35-16:55	Integrated mobility and energy infrastructures - assessing centralized and decentralized grid integration of EVs	Sven Lierzer, BridgingIT GmbH, DE
16:55-17:15	Holistic methodology for generating customer- related testing profiles for electrified powertrains	Michael Friedmann, APL Automobilprüftechnik Landau GmbH, DE
17:15-17:35	Challenges at the construction of a comprehensive AC and DC charging infrastructure in Baden- Wuerttemberg	Amadeus Regerbis, EnBW, DE
17:35-17:55	EV infrastructure in the UK - plugging the gaps	Rosalind Marshall, Office For Low Emission Vehicles, UK

D3 THERMAL AND LIFE CYCLE MANAGEMENT OF BATTERIES

Room C1.2.1	Session Chairs: Dr. Michael Buchholz, Universität Ulm, DE and Shmuel de Leon, Shmuel de-Leon Energy Ltd, IL	
16:35-16:55	Sustainability assessment of second life application of automotive batteries (SASLAB): ageing of Li-Ion battery cells in automotive and grid-scale applications	Dr. Andreas Pfrang, European Commission, Joint Research Centre, NL
16:55-17:15	Capacity recovery effect in Lithium Sulphur batteries for electric vehicles	Christian Maurer, Hochschule Ulm, DE
17:15-17:35	Liquid thermal management of a Lithium-ion capacitor module	Dr. Joris Jaguemont, Vrije Universiteit Brussel - MOBI, BE
17:35-17:55	Joining technologies for automotive battery systems manufacturing	Dr. Abhishek Das, WMG, The University of Warwick, UK

5	Thomas Mayer, Daimler AG, DE
n	
	Dr. Benjamin Reuter, thinkstep AG, DE
g	Linda Schorer, DHBW Mannheim, DE
	Stefan Diersch, MANN+HUMMEL GMBH, DE
RK	

MONDAY, OCTOBER 9 – PARALLEL SESSIONS

16:30 - 18:00

D4 OPPORTUNITIES FOR EV MARKET DEVELOPMENT

Room C1.2.2	Session Chairs: Paulo Pereirinha, Polytechnic Institute of Coimbra/INESC Coimbra/APVE, PT and Mark Simon, NYC Department of Transport, US	
16:35-16:55	Stable and sustainable supply of cathode materials for LIB	Dominic Homberger, Umicore, BE
16:55-17:15	DOE Electrification Systems R&D Overview for FY 2016-2017	Dr. James Miller, Argonne National Laboratory, US
17:15-17:35	Taxation of electric vehicles in Europe: A methodolo- gy for comparison	Dr. Karin Hauff, Daimler AG, DE
17:35-17:55	Turning municipalities into focal points for electric mobility - the 5SEK-model	Manfred Schmid, Institut Stadt Mobilität Energie, DE

D5 TESTING PROCESSES FOR ELECTRIC VEHICLES

Room C5.1	Session Chairs: Thierry Coosemans, Vrije Universiteit Brussel, BE and Prof. Dr. Yutao Luo, South China University of Technology, CN	
16:35-16:55	New power electronics technologies for the market evolution of EVs ?	Dr. Jochen Langheim, STMicroelectronics, FR
16:55-17:15	XiL-BW-e - Laboratory Network Baden- Wuerttemberg for Electric Mobility	Prof. Dr. Albert Albers, IPEK - Institute of Product Enginee- ring at Karlsruhe Institute of Technology (KIT), DE
17:15-17:35	Innovative testing process for electric powertrains	David Nickel, AVL Deutschland GmbH, DE
17:35-17:55	Winter testing of electric in-wheel motors	Dr. Gotovac Gorazd, Elaphe Propulsion Technologies, SI



MONDAY, OCTOBER 9 – DIALOGUE SESSION DS1

13:15 - 14:45

slots for in-depth discussions with the presenting specialists from around the globe.

1 VEHICLES AND TRANSPORTA	TION SYSTEMS	
Bestebreurtje, Edwin, FIER Automotive, NL	Comparing Battery Electric and Fuel Cell Vehicles as replacement for conventional cars in company fleets	1/127
Bonic, Laurent, VEDECOM, FR	Identification of Real World Driving Scenarios for the Functional Safe- ty of Autonomous Vehicles	1/129
Dunckley, Dr. Jamie, Electric Power Research Institute, US	Understanding EV charging behavior	1/131
Easley, Ron, HPEV LLC, US	Modeling of EV Performance for Drag Racing Optimization	1/133
Eckloff, Udo and Engelmann, Danilo, Unternehmensberatung Udo Eckloff, DE	LT3 Line Traction Drive (Following the Theoretical Tracking Line of a Wheel) for Substitution of the Differential Technique and Increase in the Traction and performance in Wheeled Vehicles with Axle Drives	1/135
Eckstein, Julian, Hella KGaA Hueck & Co., DE	Energy Management Optimization Using Predictive Control - A Simu- lative Study	1/137
Faltenbacher, Michael, thinkstep AG, DE	Zero Emission Commercial Vehicles	1/144
Fockers, Andreas, Bombardier Primove GmbH, DE	PRIMOVE: First Affordable Automotive Wireless Charging System Starts Serial Production	1/122
Frank, Pawlitschek, ubitricity Gesellschaft fuer verteilte Energiesysteme mbH, DE	Shaping a Clean Future with the 'Internet of Energy Things': ubitricity's MobileCharging System	1/170
Gabele, Prof. Hugo, Hochschule Esslingen, DE	Ultra-Light Vehicle (ULV) heading to become a lifestyle product	1/139
Goehlich, Prof. Dietmar, Technische Univer- sitaet Berlin, DE	TCO assessment of fuel versus electric heating for urban electric bus systems	1/142
Haag, Michael, Fraunhofer IAO, DE	Strategic electrification and optimisation of commercial vehicle fleets	1/150
Hubner, Markus, German Aerospace Center, DE	A new commuter vehicle concept based on a high temperature PEM fuel cell range extender	1/148
Johnsen, Stephen, HPEV LLC, US	Creating a 12-Ton BEV Refrigerated Delivery Truck Capable of 200 Miles Range per Charge	1/146
Jungmeier, Gerfried, JOANNEUM RESE- ARCH, AT	Challenges of Battery Electric Busses - Assessment of Demonstration Activities in the IEA Technology Collaboration Program on Hybrid&Electric Vehicles	1/152
Kim, Bill Insup, AVL Powertrain UK, UK	Iterative Markov Chain Future Speed Prediction with Connected Vehicle technology	1/154
Kohs, Alexander, CTC cartech company GmbH, DE	LionTelligence - Battery Life Cycle Management	1/160
Kumle, Julian, Technical University of Eind- hoven, DE	Dynamic Optimization of an Operation Strategy for Hybridand Battery Electric Vehicles	1/158
Lusiewicz, Anna, Uni Stuttgart, IEW, DE	Wireless Power Transfer for Railway Vehicles	1/156
Manthey, Andreas, BSM Bundesverband Solare Mobilität e.V., DE	Swappable GreenPack batteries for lightweight vehicles as a new worldwide standard	1/161
Minami, Prof. Shigeyuki, Osaka City University, JP	Toward the Successful Development of Small Size Plug-in Hybrid Boat	1/163
Mizuno, Keita, Tokyo R&D Co., Ltd, JP	"Visual M2M"? Monitoring and analysis tool for vehicle	1/166
Ortenzi, Dr. Fernando, ENEA, IT	Technical and economical evalutation of Hybrid fast-charging stations for electric public transport	1/168
Ploetz, Dr. Patrick, Fraunhofer Institute for Systems and Innovation Research ISI, DE	What is the best alternative drive train for heavy road transport?	1/171
Saraiva Panik, Monica,, BR	Hydrogen Fuel Cell Buses for Urban Transportation in Brazil - Results	1/173
Sari, Buelent, ZF Friedrichshafen AG, DE	Fail-operational Safety Architecture for Domain-ECUs with Multicore Processors	1/175
Schiefer, Ulrich W., AtTrack GmbH, DE	ТЕ700	1/176

The Dialogue Sessions depict the poster exhibition and form part of the EVS30 conference program. Use the dedicated time

MONDAY

MONDAY, OCTOBER 9 – DIALOGUE SESSION DS1

13:15 - 14:45

1 VEHICLES AND TRANSPORTATION SYSTEMS

Schmutzler, Jens, TU Dortmund, Communica- tion Networks Institute (CNI), DE	Lessons Learned from Combined Charging System and ISO/IEC 15118 Interop Testing by organizing, hosting and participating at CCS Testing Symposia	1/178
Stefanut, Paul, Opticsvalley, FR	The autonomous and connected vehicle: photonic technologies are paving the future of intelligent mobility	1/180
Stuetz, Dr. Sebastian, Fraunhofer IML, DE	Insights into Real-World Energy Consumption of Medium-Duty Electric Vehicles	1/185
Tomoki, Emmei, the University of Tokyo, JP	Fundamental Research on Collision Force Reduction Control for In- wheel-motor EVs	1/183
Veenhuizen, Dr. Bram, HAN University of Applied Science, NL	On road evaluation of three Hyundai ix35 Fuel Cell Electric Vehicles	1/181
Wang, Molin, Bremer Institut fuer Produktion und Logistik GmbH, University of Bremen, DE	Selecting an Appropriate Type of Electric Commercial Vehicles for the Sustainable Urban Freight Transport	1/186
Wilhelm, Dr. Erik, Kyburz Switzerland, CH	Autonomous Electric Race Car Design	1/188
Yaohua, Li, Chang'an University, CN	Development of Driving Cycle of Single-shaft Parallel Hybrid Electric Bus and its Key Components	1/124
Yaohua, Li, Chang'an University, CN	Optimization of Control Strategy of Single-shaft Parallel Hybrid Electric Bus Based on Driving Cycle	1/125
Youn, Heesu, Hangyang Univ., KR	Developing eco-driving algorithm at the signalized intersection using traffic information	1/190



MONDAY, OCTOBER 9 – DIALOGUE SESSION DS1

13:15 - 14:45

2 ELECTRIC POWER TRAIN AND	APPLICATION	
Brix, Arne, Technische Universitaet Dresden, DE	Fundamental Research on the Operating Strategy for a Hybrid Energy Storage System in the Electric Powertrain of Autonomous Vehicles	2/192
Engelhardt, Tobias, Porsche AG, DE	Derating-Strategies for Electric Sports Cars	2/196
Harenbrock, Dr. Michael, MANN+HUMMEL GmbH, DE	Humidity Control for HV Battery Systems	2/198
Hyeon-seop, Dr. Yi, Korea Construction Equipment Technology Institute, KR	Optimal Control Strategy According to the Workload of a Fuel Cell-Battery Hybrid Excavator	2/204
Islam, Ehsan Sabri, Argonne National Laboratories, US	Prediction of Electrified Vehicles' Energy Consumption and Cost Based on U.S. Department of Energy Targets	2/194
Jeong, Ho-Un, Sungkyunkwan University, KR	Simulation of Mileage and Fuel Efficiency of Plug-in Hybrid Electric Vehicle with Dual Clutch Transmission Considering Temperature Condition	2/206
Jeong, Kiyun, Korea Automotive Technology Institute, KR	Electric Load Simulation for 48V DC Converter Using HIL Simulator	2/208
Jiuyu, Dr. Du, Tsinghua University, CN	A Cost-Effective Self-Heating Battery Method for Electric Vehicles Operating in Cold Region	2/210
Jussani, Dr. Ailton, University of Sao Paulo, BR	Battery Global Value Chain and Its Technological Opportunities for Electric Vehicle in Brazil	2/212
Keller, Stefan, Fraunhofer ISE, DE	A modular fuel cell battery hybrid propulsion system for powering small utility vehicles	2/214
Kyuhyun, Sim, Sungkyunkwan University, KR	Control Algorithm for Drivability and Energy Efficiency of Plug-in Hybrid Electric Vehicle	2/216
Miller, Dr. James, Argonne National Laboratory, US	Studying the spread - which future electric drive vehicles would do best under what circumstances?	2/218
Nam, Kanghyun, Yeungnam University, KR	Advanced Torque Vectoring for Yaw Stability Enhancement of a Four Wheel Drive Electric Vehicle	2/220
Piechottka, Hendrik, Audi AG, DE	Optimal Powertrain Design through a Virtual Development Process	2/260
Rousseau, Aymeric, Argonne National Labo- ratory, US	Effectiveness of engine start stop systems for real world driving condi- tions in United States	2/258
Ruoff, Sebastian, IPEK - Institute of Product Engineering at KIT, DE	Topology synthesis of hybrid electric vehicle drivetrains in the context of the integrated Product engineering Model	2/256
Seiler, Sebastian, IAV, DE	Battery electric vehicle requirements and legal standards	2/262
Shi, Ruoyun, University of Toronto, CA	Energy Storage Sizing of Hybrid Electric Vehicles with Power Efficiency Considerations	2/264
Soya, Ryuichi, Hino Motors, Ltd., JP	Green Driving Assistance System for Heavy-Duty Hybrid Electric Vehicle	2/266
Speers, Dr. Peter, Cenex, UK	Hydrogen Mobility Europe (H2ME)vehicle and hydrogen refuelling station deployment results	2/268
Terenchenko, Alexey, NAMI Russian State Research Center, RU	The specificity of the popularization of hybrid and electric vehicle in the Russian Federation	2/270
Zhang, Prof. Jianwu, Shanghaijiaotong University, CN	Shift Process Control of a Novel Two Speed Automatic Transmission for Battery Electric Vehicle	2/202

MONDAY

MONDAY, OCTOBER 9 – DIALOGUE SESSION DS1

13:15 - 14:45

3 COMPONENT TECHNOLOGIES	5	
Bruell, Dr. Martin, Continental, DE	Avoid the DC charging trap - high power everywhere charging	3/063
Burke, Dr. Andrew, University of California, Davis, US	Cycle Life of Lithium-ion Batteries in Combination with Supercapacitors	3/065
Edel, Fabian, Fraunhofer IAO, DE	Portable battery concept for light electric vehicles	3/067
Eisele, Martin, Karlsruher Institut fuer Technologie KIT - IPEK Institut fuer Produktentwicklung, DE	Validation of a Cooling System for Temperature Conditioning of Cylindrical Battery Cells	3/069
Gago-Calderon, Alfonso, Universidad de Malaga, ES	Smart-Cities urban mobility management architecture for electric vehicles	3/071
Grandjean, Dr. Thomas, WMG, UK	Sizing calculator tool for rapid optimisation of pack configuration at early-stage automotive product development	3/073
Hegazy, Omar, Vrije Universiteit Brussel - MOBI, BE	Control Design, Analysis and Comparative study of Different Control Strategies of a Bidirectional DCDC Multiport Converter for Electric Vehicles	3/075
Kayser, Alexander U., FKFS / IVK University of Stuttgart, DE	Systematic Approach for the Cooling System Optimization of a Battery Electric Sports-Car	3/077
Kerspe, Dr. Jobst, TEB Dr. Kerspe, DE	Multifunctional Battery Housing and their Application at a small, full electric Truck	3/079
Kim, Prof. Jonghoon, Chungnam National University, KR	Systematic Approach of High-Power NCA 18650 Cylindrical Cells considering Vibration and Shock Tests for Electric-Powered Application	3/081
Luthardt, Sven, Porsche AG, DE	Comparison of Continuous Performance of a Traction Drive for Different Steel Sheet Measurement Methods	3/083
Maurer, Dr. Arno, Polytec PT GmbH, DE	Smart Design of Electric Vehicle Batteries and Power Electronics Using Thermal Interface Materials	3/085
Mikael, Askerdal, Swedish Electromobiliy Centre/ Chalemer's University of Technology, SE	Vehicle Independent Road Section Resistance Estimation	3/087
Naegelkraemer, Jan, Dr. Ing. h.c. F. Porsche AG, DE	Multi-Objective Optimization of the Rotor Design to Improve the Acoustic Behavior of High Power Density Interior Permanent Magnet Synchronous Machines	3/089
Naoki, Kamiya, Tokyo University, JP	Reduction of Vertical Vibration for Improvement of Ride Comfort Using In-Wheel Motors	3/091
Neupert, Steven, Technische Universitaet Berlin, DE	Inhomogeneities in Battery Packs	3/093
Pedroso, Samuel, Transport Canada, CA	Impacts of Mileage Accumulation and Fast Charging on EV Range and Energy Usage	3/095
Rotthier, Bram, KU Leuven, BE	Predicting the remaining cycling range for speed pedelecs and its relevance on pedal assistance control strategies	3/061
Seboe, Peter, Quarzwerke GmbH, DE	Optimized Thermomanagement with Mineral filled plastics	3/099
Sierszynski, Michal, Solaris Bus & Coach SA, PL	Lithium batteries from electric busses for stationary storage applications	3/102
Stewart, Alex, Element Energy, UK	Creating the European Vision for Hydrogen Transportation	3/097
Sun Dr., Dong-Zhi, Fraunhofer IWM, DE	Testing and simplified modelling of deformation behaviour of battery cells	3/107
Wang, Feng and Luo, Yutao, South China University of Technology, CN	Research on Integrated Multi-function Power Converter for Electric Vehicles	3/109
Weiler, Christian, Industrie-Partner GmbH, DE	Economical and ecological production of Li-ion pouch cells by effective automatization and climatic engineering	3/112
Wilkins, Dr. Steven, TNO, NL	Characterisation for Thermal Modelling of a Battery Pack	3/114
Yuan, Dr. Xiao-Zi, National Research council Canada, CA	Development of standard methods and devices for measuring GDL properties	3/104

MONDAY, OCTOBER 9 – DIALOGUE SESSION DS1

13:15 - 14:45

4 CHARGING/FUELING INFRAS	TRUCTURE	
Bowermaster, Dan, Electric Power Research Institute, US	Vision for and Implementation of a National High Power DC Fast Charging Network	4/049
Bracklo, Claas, CharIN e.V., DE	The path to a global EV charging system - How to harmonize the customer interface	4/003
Branimir, Dr. Škugor, Faculty of Mechanical Engineering and Naval Architecture, University of Zagreb, Croatia, HR	Synthetic Driving Cycles-based Modelling of Extended Range Electric Vehicle Fleet Energy Demand	4/005
Braun, Harald, University of Applied Science Esslingen, DE	Investigation on public eMobility grids - consequences on urban infrastructure	4/011
Corneille, Marcel, EMCEL GmbH, DE	Hydrogen quality measurement according to SAE J2719 at hydrogen refueling stations (HRS) using ion mobility spectrometry	4/007
Guillemot, Anne, CIRED/Ecole des Ponts ParisTech, FR	European harmonisation in the transition towards electromobility - the example of the charging infrastructure	4/009
Hata, Katsuhiro, The University of Tokyo, JP	Dynamic Wireless Power Transfer System for Electric Vehicles to Simplify Ground Facilities - Sensorless Vehicle Detection and Power Control Strategy -	4/013
Jaboeuf, Rémi, EIFER European Institute for Energy Research, DE	Model on charging infrastructure planning and its integration in the electric grid	4/015
Jochem, Patrick, Karlsruhe Institute of Technology (KIT), DE	How Many Fast Charging Stations Do We Need Along the German Highway Network?	4/017
Kim, Yong Eun, katech, KR	The Method of Charging for Electric Vehicles Using Power System of Gasoline Vehicles	4/019
Lopes, Mario, Ceiia, PT	Smart Charging Impact on Consumer and Environment	4/021
Mahajan, Akshay, Fraunhofer Institute for Solar Energy Systems, DE	Dimensioning and comparison of circular and double D coil geometries for inductive charging of electric vehicles	4/023
Meroth, Prof. Ansgar, Hochschule Heilbronn (Heilbronn Univ), DE	Crowd Charging - An Approach To Shared Services In Charging Electric Vehicles	4/025
Mittelsdorf, Marco, Fraunhofer-Institut fuer Solare Energiesysteme ISE, DE	Potential and Limitation of Controlled Charging of Electric Vehicle for PV Self-Consumption Maximisation in Private Households	4/027
Mora, Arnaud, Freshmile, FR	Interoperability of electric vehicle charging infrastructure	4/029
Mueller, Dirk, UL LLC, US	Electric Vehicle Infrastructure Standardization	4/031
Nicholas, Michael, University of California, Davis, US	Survey and Data Observations on Consumer Motivations to DC Fast Charge	4/033
Pettersson. Prof. Stefan, Viktoria Swedish ICT, SE	Parking support for inductive charging	4/035
Ribberink, Hajo, Natural Resources Canada, CA	Impact of Clusters of DC Fast Charging Stations on the Electricity Distribution Grid in Ottawa, Canada	4/037
Schrader, Soeren, P3 Energy & Storage GmbH, DE	Smart integration of electric vehicles	4/039
Trumpold, Jan, DLR e.V. Institut fuer Verkehrssystemtechnik, DE	MENDEL: Minimum load of electrical networks caused by charging operations of electric buses	4/041
van Eijsden, Bram, ElaadNL, NL	Public Wireless Charging in the City of Rotterdam	4/043
van Zante, Annabel, APPM management consultants, NL	Driving transitions on the local level	4/045

MONDAY, OCTOBER 9 – DIALOGUE SESSION DS1

13:15 - 14:45

5 ENTERING MASS MARKET AN	D DEMAND ISSUES	
Beeton, Dr. David, Urban Foresight, UK	Smart Ultra Low Emission Mobility in Dundee	5/319
Figenbaum, Erik, Institute of Transport Economics, NO	Norwegian user and usage profiles for BEVs and PHEVs - Results from a Norwegian survey of vehicle owners	5/316
Fricke, Volker, IBM Deutschland GmbH, DE	How to increase the charging network for EV drivers? A Community-based Charging solution for EV drivers.	5/312
Grasselt, Dr. Nico, eMO, DE	Market development strategies for Smart Cities: How can innovation policy make Berlin a testbed for automated, connected and electrified passenger transport?	5/314
Greenleaf, James, Energy and Environmental Economics, US	Engaging Utilities in Transportation Electrification in The US, Europe and China	5/309
Guth, Daniel, Karlsruhe Institute of Techno- logy, DE	Electric Vehicle Procurement Decisions in Fleets: Results of a Case Study in South-Western Germany	5/307
Hara, Dr. Takuya, Toyota Central R&D Labs., Inc., JP	Comprehensive comparison of hybrid and electric vehicles using a multi-dimensional techno-economic assessment diagram	5/304
Helms, Hinrich, Institute for Energy and Environmental Research Heidelberg, DE	My eDrive - Simulating Electric Vehicles Using a Smartphone	5/292
Hiep, Ellen, HiePRactief, NL	Adventures 2 a smarter world	5/302
Hoekstra, Auke, TU Eindhoven, NL	Characteristics of Dutch EV drivers	5/297
Idema, Harm-Jan, APPM management consultants, NL	PEV policy study in California	5/294
Jenn, Dr. Alan, Institute of Transportation Studies, UC Davis, US	Forecasting the future of international electric vehicle adoption	5/299
Jenn, Dr. Alan, Institute of Transportation Studies, UC Davis, US	Incentivizing electric vehicles in the United States	5/300
Kato, Dr. Hideki, Toyota Transportation Research Institute, JP	Wide-spreading situations and factors of HEVs in Japan	5/290
Kruger, Adriaan, 2Life NEV Manufacturers, ZA	Africa's need for education and training on technology	5/288
Kwon, Yeongmin, KAIST, KR	The Relationship between Satisfaction of Electric Vehicle Owners and Their Intentions for Repurchase and Recommendation	5/286
Lewers, Brent, Ministry of Transport, NZ	electric vehicles in New Zealand - opportunities, challenges, and responses	5/284
Luccarelli, Prof. Martin, Hochschule Reutlingen, DE	Material perception in alternative fuel car interiors. Increasing marketability through green design cues.	5/282
Manthey, Andreas, BSM Bundesverband Solare Mobilität e.V., DE	Education about energy and mobility transition from TU Berlin and business partners about German Energiewende with electric vehicles	5/278
Mink, Andreas, Daimler AG, DE	Zero Emission Strategy Daimler Buses	5/276
Olausson, Ellen, RISE Viktoria, SE	Public Policies for Charging of Electric Vehicles in Multifamily Dwellings - A Case Study in Gothenburg	5/274
Priessner, Alfons, Alpen-Adria Universitaet, AT	How to trigger mass-market adoption for electric vehicles? An analysis of potential electric vehicle drivers in Austria	5/254
Prochazka, Ben, Electrification Coalition, US	Electric vehicle (EV) Group Buy: Applying a bulk purchase model to EV sales	5/272
Rambow-Höschele, Kira, Robert Bosch GmbH, DE	A Survey on Customer Needs With Regard to an Innovative Business Model	5/250
Roeckle, Felix, Fraunhofer IAO, DE	Integration of roles vs. specialization: What is the best business model for fast charging?	5/252

MONDAY, OCTOBER 9 – DIALOGUE SESSION DS1

13:15 - 14:45

5 ENTERING MASS MARKET AND DEMAND ISSUES		
Schmidt, Hannah, University of Applied Sciences Esslingen, DE	Economic Viability of Second Life Applications of Lithium-ion Traction Batteries	5/248
Simon, Mark, NYC DOT, US	Vehicle Electrification in New York City; Success and Challenges	5/246
Stanek, Robert, P3 group, DE	European Battery Manufacturing - Feasibility and Profitability	5/244
Tait, Maggie, Energy Efficiency & Conservation Authority, NZ	Jump-starting New Zealand's EV future - touching hearts to drive change	5/280
Wolbertus, Rick, Amsterdam University of applied Sciences, NL	Charging station hogging: A data-driven analysis	5/242

6 ENERGY AND ENVIRONMENT	AL ANALYSIS	
Arnoldt, Alexander, Fraunhofer IOSB-AST, DE	Impact of Electrical Vehicle Charging in Low Voltage Grid Structures	6/052
Badreddine,, Yasmina, RENAULT, FR	How to Develop an Energy Storage System using Electric Vehicle Second Life Batteries	6/054
Baumann, Michael, University of Stuttgart - Dept. GaBi, DE	Reducing the environmental impacts of electric vehicles and electricity supply: How Hourly Defined Life Cycle Assessment and smart charging can contribute	6/057
Duschek, Daniel, csi entwicklungstechnik GmbH, DE	Approach to an Agile Development of a Sustainable, Customer-specific Mobility Concept	6/059
Raab, Andreas F., Technische Universitaet Berlin (TU Berlin), DE	Implementation Schemes for Electrified Bus Fleets at Intra-Urban Depots with Optimized Energy Procurements in Virtual Power Plant Operations	6/119
Ratej, Jure, Etrel d.o.o., SI	INCH - INteractive CHarging of Electric Vehicles	6/117

7 MOBILITY CONCEPTS		
Beeton, Dr. David, Urban Foresight, UK	Lessons Learned in Designing Integrated Low Carbon Transport Hubs	7/222
Camacho Alcocer, David, Universitaet Stuttgart (IEV), DE	Electric vehicles in rural demand-responsive systems: requirements and challenges for an efficient service provision	7/224
Genovese, Antonino, ENEA, IT	Distribution of fast charge stations in urban environment	7/226
Golub, Michael, Indiana University Purdue University Indianapolis, US	Hybrid-Electric Snowmobile - Design and Development	7/228
Heilig, Michael, KIT-/IfV, DE	Do plug-in electric vehicles cause a change in travel behavior?	7/230
Henkin, Zach, Drive Oregon, US	E-Mobility for Unrepresented Communities	7/235
Kleiner, Florian, DLR e.V., DE	Development, Implementation (Pilot) and Evaluation of a Demand Responsive Transport System	7/233
Kubaisi, Rayad, Karlsruhe Institute of Technology, DE	Concept of an electric inner city transport aid	7/231
Lin, Yu-hung, ITRI, TW	Automatic Energy Supply Docking System for Electric Scooter	7/237
Mielzarek, Janine, Stadtwerke Offenbach Holding GmbH, DE	Urban Mobile Pioneering: The City of Offenbach and its Electric Mobility Service	7/239
Roemer, Felix, TUMCREATE, SG	New Approach for an Easily Detachable Electric Drive Unit for Off-the- shelf Bicycles	7/240

Key to Markets

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TUESDAY, OCTOBER 10 – SESSION OVERVIEW							
	08:00 - 09:00 Conference registration, ICS Messe Stuttgart						
		P3: Plena the fut	9:00 - 10:30 ry with panel d cure of electrif Room C1.1	iscussion: ication			
		Cof	fee break – 15 r	min			
10:45 - 12:15	10:45 - 12:15	10:45 - 12:15	10:45 - 12:15	10:45 - 12:15	10:45 - 12:15	10:45 - 12:15	
E1: Electrifying heavy duty transport	E2: Charging standardi- zation	E3: Industrializa- tion of electric mobility	E4: Implementing electromobility into daily life	E5: Crash safety in electric vehicles	E6: Hydrogen generation	E7: Battery materials and recycling	9:00 - 17:00
Room C1.1	Room C1.2.1	Room C1.2.2	Room C7.1	Room C5.1	Room C4.3	Room C5.3	
		Lur	nch break – 30 r	nin			Exhibition -
	DS2: Di К	13:15 - 14:45 alogue Sessior 40 + K50, Hall	1 EVS30 1		13:30 · P4: Plenary Room	• 14:30 / f-cell/B+S C1.1	Match- making - Ride & Drive Hall 1
					Coffee brea	ak – 15 min	
14:45 - 16:15	14:45 - 16:15	14:45 - 16:15	14:45 - 16:15	14:45 - 16:15	14:45 - 16:15	14:45 - 16:15	
F1: Electric buses in public transpor	F2: Wireless charging concepts	F3: Life cycle as- sessment of electric vehicles	F4: F4: Regional examples of EV adoption	F5: Advances in PHEV technologies	F6: The role of hydrogen and fuel cells in the energy economy	F7: Stationary batteries	
Room C1.1	Room C1.2.1	Room C1.2.2	Room C7.1	Room C5.1	Room C4.3	Room C5.3	
Coffee break – 15 min							
16:30 - 18:00 G1: Innovation in special vehicle technology	16:30 - 18:00 G2: Latest wireless charging tech- nology	16:30 - 18:00 G3: Smart grid: how can EVs contribute?	16:30 - 18:00 G4: EV market development around the globe	16:30 - 18:00 G5: Latest electric motor techno- logies	16:30 - 18:00 G6: Electric aircrafts and rail	16:30 - 18:00 G7: Battery management systems	
Room C1.1	Room C1.2.1	Room C1.2.2	Room C7.1	Room C5.1	Room C4.3	Room C5.3	

	TUESDAY, OCTOBER 10 – SESSION OVERVIEW							
	08:00 - 09:00 Conference registration, ICS Messe Stuttgart							
				9:00 - 10:30				
			P3: Plena	ry with panel d	liscussion:			
			the fut	ure of electrif	ication			
				Room C1.1				
			Cof	fee break – 15 i	min			
	10:45 - 12:15	10:45 - 12:15	10:45 - 12:15	10:45 - 12:15	10:45 - 12:15	10:45 - 12:15	10:45 - 12:15	
	E1: Electrifying heavy duty transport	E2: Charging standardi- zation	E3: Industrializa- tion of electric mobility	E4: Implementing electromobility into daily life	E5: Crash safety in electric vehicles	E6: Hydrogen generation	E7: Battery materials and recycling	0.00 17.00
	Room C1.1	Room C1.2.1	Room C1.2.2	Room C7.1	Room C5.1	Room C4.3	Room C5.3	9:00 - 17:00
			Lur	nch break – 30 i	nin			Exhibition
			13:15 - 14:45			13.30	- 1/-30	Match- making
		DS2: Di	alogue Sessior	1 EVS30		P4· Plenary	rf-cell/B+S	- Ride &
		к	40 + K50, Hall	1		Room	C1.1	Drive
						Coffee brea	ak – 15 min	Hall 1
	14.45 16.15	14.45 16.15	14.45 16.15	14.45 16.15	14.45 16.15	14.45 16.15	14.45 16.15	
	14:45 - 16:15	14:45 - 16:15 E2.	14:45 - 16:15	14:45 - 16:15 E4.	14:45 - 16:15 Ec.	14:45 - 16:15	14:45 - 16:15 E7.	
o date version.	F1: Electric buses in public transpor	F2: Wireless charging concepts	Life cycle as- sessment of electric vehicles	F4: F4: Regional examples of EV adoption	Advances in PHEV technologies	The role of hydrogen and fuel cells in the energy economy	F7: Stationary batteries	
for up t	Room C1.1	Room C1.2.1	Room C1.2.2	Room C7.1	Room C5.1	Room C4.3	Room C5.3	
ignage			Cor	tee break – 15 l	min			
onsite s	16:30 - 18:00	16:30 - 18:00	16:30 - 18:00	16:30 - 18:00	16:30 - 18:00	16:30 - 18:00	16:30 - 18:00	
e. Check website and	G1: Innovation in special vehicle technology	G2: Latest wireless charging tech- nology	G3: Smart grid: how can EVs contribute?	G4: EV market development around the globe	G5: Latest electric motor techno- logies	G6: Electric aircrafts and rail	G7: Battery management systems	
o chang	Room C1.1	Room C1.2.1	Room C1.2.2	Room C7.1	Room C5.1	Room C4.3	Room C5.3	
ogram subject t	Evening Event with f-cell awards Gallery, Hall1							



Exhibition & Conference

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EVS sessions

TUESDAY

TUESDAY, OCTOBER 10 – PARALLEL SESSIONS

10:45 - 12:15

E1

C L ELECT	RIFYING HEAVY DUTY TRANSPORT	
Room C1.1	Session Chairs: Joseph Beretta, AVERE France, FR and N	1oataz Mohamed, McMaster University, CA
10:50-11:10	Electro mobility for heavy duty commercial vehicles	Nicolas Du Bois, Daimler AG, DE
11:10-11:30	The fuel economy of MD/HD Trucks - 2015-2050	Dr. Andrew Burke, University of California, Davis, US
11:30-11:50	Electric heavy duty trucks in Europe more and more upcoming	Edwin Bestebreurtje, FIER Automotive, NL
11:50-12:10	Auxiliary model review for design analysis of hybrid electric heavy-duty long-haul vehicles	Frans Verbruggen, University of Technology Eindhoven, NL
E2 CHAR	GING STANDARDIZATION	
Room C1.2.1	Session Chairs: Lonneke Driessen-Mutters, Enexis/Elaad	INL, NL and Robert Gell, GELCOservices Pty. Ltd., AU
10:50-11:10	International standardization of charging infra- structure: achievements and new developments	Prof. Dr. Peter Van den Bossche, Vrije Universiteit Brussel - MOBI, BE
11:10-11:30	Mode 2 charging testing and certification for an international market access	Dieter Hanauer, VDE Prüf- und Zertifizierungsinstitut GmbH, DE
11:30-11:50	The ISO standard 15118 enables simple and intel- ligent charging and represents an integral part for the digital interconnection of electric vehicles	Christian Hahn, Hubject GmbH, DE
11:50-12:10	Introducing hardware security modules to embedded systems for smart charging (ISO/IEC 15118)	Fabian Eisele, Vector Informatik GmbH, DE
E2		
E J INDUS	STRIALIZATION OF ELECTRIC MOBILITY	
Room C1.2.2	Session Chair: Florian Herrmann, Fraunhofer IAO, DE	
10:50-11:10	Measuring charging infrastructure development in selected countries: metrics and comparison	Dr. Feiqi Liu, Tsinghua University, CN
11:10-11:30	Internationalisation as a component for successful industrialisation of electric mobility within Cluster Electric Mobility South-West	Stefan Buechele, e-mobil BW GmbH, DE
11:30-11:50	The new Opel-Ampera-e. Battery, propulsion sys- tem and their operation	Manfred Herrmann, Opel Automotive GmbH, DE
11:50-12:10	ARENA2036	Peter Froeschle, Max Hossfeld, ARENA2036 e.V., DE

E4 IMPLEMENTING ELECTROMOBILITY INTO DAILY LIFE

Room C7.1	Session Chairs: Prof. Dr. Frank Rieck, AVERE, NL and D	r. Wolfgang Fischer, e-mobil BW GmbH, DE
10:50-11:10	E-mobility: challenging the human sensory system	Prof. Dr. Ulrich Schiefer, Judith Ungewiss, Aalen University of Applied Sciences, DE
11:10-11:30	e-Mobility tour Gothenburg Sweden	Per Osterstrom, Business Region Gothenburg, SE
11:30-11:50	Lessons learned from electric cars in daily taxi ope- ration in Gothenburg	Prof. Dr. Stefan Pettersson, RISE Viktoria, SE
11:50-12:10	eTourEurope - EV rally and community event	Werner Hillebrand-Hansen, eProjekt TNS GmbH, DE

E5 CRASH SAFETY IN ELECTRIC VEHICLES

Room C5.1	Session Chairs: Jochen Feese, Daimler AG, DE and Prof. Dr. Quing Zhou, Tsinghua University, CN		
10:50-11:10	How to build a battery case	Dr. Alexander Betz, Daimler AG, DE	
11:10-11:30	Introducing an approach to predict the time-depen- dent mechanical, electrical and thermal behaviour of Li-ion batteries due to crash loads	Simon Franz Heindl, Vehicle Safety Institute / Graz Univer- sity of Technology, AT	
11:30-11:50	Battery safety evaluation of electric driven mo- torcycles from the perspective of accident research	Alessio Sevarin, Vehicle Safety Institute/Graz University of Technology, AT	
11:50-12:10	Crash safety of fuel cell electric vehicles	Rainer Justen, Daimler AG, DE	

TUESDAY, OCTOBER 10 – PARALLEL SESSIONS

LO HIDROGEN GENERATION					
Room C4.3	C4.3 Session Chair: Jürgen Mergel, Consultant electrolysis and fuel cells, DE				
10:45-11:05	Current state of water electrolysis in Germany	Dr. Geert Tjarks, NOW Nationale Organisation Wasser- stoff- und Brennstoffzellentechnologie GmbH, DE			
11:05-11:25	PEM electrolysis: A techno-economical approach from stack-design to hydrogen applications from renewable energy sources	Marian Hieke, H-TEC Systems GmbH, DE			
11:25-11:45	High-current variable-voltage chopper rectifier for hydrogen generation	Dr. Zhiyu Cao, AEG Power Solutions GmbH, DE			
11:45-12:05	Hydrogen quality measurement according to SAE J2719 using ion mobility spectrometry	Marcel Corneille, EMCEL GmbH, DE			
E7 BATTE	RY MATERIALS AND RECYCLING				

Room C5.3	Session Chair: Dr. Tobias Placke, Westfälische Wilhelms-U	Iniversität Münster MEET Batterieforschungszentrum, DE
10:45-11:05	How does the micro-structure of the cathode mate- rial influence the performance of batteries? An investigation using the simulation software packages GeoDict and BEST	Dr. Ilona Glatt, Math2Market GmbH, DE
11:05-11:25	Solid state batteries – the battery technology of tomorrow?(!)	Dr. Henning Lorrmann, ISC Fraunhofer-Institut für Silicatforschung, DE
11:25-11:45	Coal derived carbon materials with enhanced performance properties for grid storage and electric vehicle applications	Dr. John P. Lemmon, National Institute for Clean and Low Carbon Energy, Beijing, CN
11:45-12:05	Recycling lithium-ion batteries from xEV: Challenges, hurdles and solutions for a circular economy by Umicore	Ghislain Van Damme, Umicore Battery Recycling, BE

14:45 - 16:15

F1 ELECTRIC BUSES IN PUBLIC TRANSPORT

Room C1.1	1.1 Session Chairs: Francois Badin, IFP Energies Nouvelles, FR and Harm Weken, FIER, NL		
14:50-15:10	The future of urban buses is electric	Umberto Guida, UITP, BE	
15:10-15:30	A new predictive electric bus neural model using big data for estimating battery pack capacity	Irmak Umut, temsa global A.S., TR	
15:30-15:50	Public transport of tomorrow: zero emissions ve- hicles including electric buses and buses with fuel cell range extenders	Michal Sierszynski, Solaris Bus & Coach SA, PL	
15:50-16:10	Electric buses: Who's in charge	Roos van der Ploeg, EVConsult, NL	

	LESS CHARGING CONCEPTS	
Room C1.2.1	Session Chair: Robert Stanek, P3 Group, DE and Julieta	Francis, Allegheny Science Technology, US
14:50-15:10	Basic study on power-management of wireless in- wheel motor with dynamic wireless power transfer	Takuma Takeuchi, University of Tokyo, JP
15:10-15:30	Standardization of wireless power transfer for PH- EV - technology, alignment and testing, SAE J2954	Jesse Schneider, BMW AG, DE
15:30-15:50	STILLE Standardization of Inductive Charging Sys- tems Framework for interoperable wireless charging solutions	Johanna Heckmann, P3 Automotive GmbH, DE
15:50-16:10	User acceptance of wireless charging for electric vehicles	Daniel Fett, Karlsruhe Institute of Technology, DE

TUESDAY, OCTOBER 10 – PARALLEL SESSIONS

14:45 - 16:15

F3 LIFE CYCLE ASSESSMENT OF ELECTRIC VEHICLES

Room C1.2.2	Session Chairs: Maarten Messagie, Vrije Universiteit Brussel, BE and Prof. Dr. Yutao Luo, South China University of Technology, CN	
14:50-15:10	Life cycle assessment of electric vehicles - The influ- ence of geographical and temporal aspects	Selin Erkisi-Arici, TU Braunschweig - Institute of Machine Tools and Production Technology, DE
15:10-15:30	Environmental assessment of current and future urban buses with different energy sources	Brian Cox, Paul Scherrer Institute, CH
15:30-15:50	Life cycle assessment of electric vehicles in shuttle traffic - field test results of the project RheinMobil	Dr. Michael Held, Fraunhofer IBP, DE
15:50-16:10	Life-cycle based environmental effects of 1.5 mio. electric vehicles on the road in 35 countries - facts and figures from the IEA Technology Collaboration Program on Hybrid & Electric Vehicles	Gerfried Jungmeier, JOANNEUM RESEARCH, AT

F4 REGIONAL EXAMPLES OF EV ADOPTION

Room C7.1	Session Chairs: David Beeton, Urban Foresight, UK and Mark Simon, NYC Department of Transport, US	
14:50-15:10	German Showcase Programme E-Mobility 2013 - 2017 - results, perspectives, legal framework	Dr. Bertram Harendt, Deutsches Dialog Institut, DE
15:10-15:30	Measures supporting the transition to efficient mobility in the Free State of Saxony	Martin Grismajer, Saechsische Energieagentur - SAENA GmbH, DE
15:30-15:50	The Dutch approach to EV	Irene Mouthaan, Ministry of Economic Affairs, NL
15:50-16:10	Early-adoption experience and upcoming challenges from the San Francisco Bay Area	Karen Schkolnick, Jack Broadbent, Damian Breen, Bay Area Air Quality Management District, US

F5 ADVANCES IN PHEV TECHNOLOGIES

Room C5.1	Session Chairs: Bram Veenhuizen, HAN University of Applied Science, NL and Aymeric Rousseau, Argonne National Laboratory, US	
14:50-15:10	Vehicle level control analysis for voltec powertrain	Namdoo Kim, Argonne National Laboratory, US
15:10-15:30	Development of an integrated power control algo- rithm for a series-parallel type PHEV	Junbeom Wi, Sungkyunkwan University, KR
15:30-15:50	Route based energy management for plug in hybrid electric vehicles	Dr. Joonyoung Park, Hyundai Motor Company, KR
15:50-16:10	Comparative analysis of power split characteristics for Volt PHEV considering drivetrain losses	Hyunhwa Kim, Sungkyunkwan University, KR

F6 THE ROLE OF HYDROGEN AND FUEL CELLS IN THE ENERGY ECONOMY

Room C4.3	Session Chair: Dr. Christopher Hebling, Fraunhofer ISE, DE	
14:45-15:05	Renewable hydrogen: Enabling a clean energy economy	Wido Westbroek , Hydrogenics Corporation, CA
15:05-15:25	Building industrial supply chains for fuel cells - where will the value be created?	Franz Lehner, E4tech Sarl, CH
15:25-15:45	Sectoral integration – an important aspect of "Energiewende 2.0"	Dr. Ulrich Bünger, LBST Ludwig-Bölkow-Systemtechnik GmbH, DE
15:45-16:05	ENTREE100 - The research and demonstration cluster for multi-MW-application in hydrogen and flexibility	Martin Eckhard, Entwicklungsagentur Region Heide, DE

TUESDAY, OCTOBER 10 – PARALLEL SESSIONS

F7 STATIONARY BATTERIES

Room C5.3	Session Chair: Alfons Westgeest, EUROBAT, BE	
14:45-15:05	Battery storage systems on the market - characteri- stics and distinguishing features	Franziska Materne, C.A.R.M.E.N. e.V., DE
15:05-15:25	Grid services with stationary battery storage systems	Dr. Jens Kistner, ads-tec GmbH, DE
15:25-15:45	Novel power controls and data management struc- tures towards the highly distributed energy grid of the future	Dr. John P. Lemmon, National Institute for Clean and Low Carbon Energy, CN
15:45-16:05	2017 in energy storage: an update from the field. Emerging markets and players	Dr. Michael Salomon, Clean Horizon Consulting, FR

16:30 - 18:00

G1 INNOVATION IN SPECIAL VEHICLE TECHNOLOGY

Room C1.1	Session Chairs: Dr. Davor Gospodarić, TEAMOBILITY GmbH, DE and Prof. Dr. Hans-Christian Reuss, FKFS, Stuttgart University, DE	
16:35-16:55	Personal EV answering mega-cities transportation challenges	Dan Hermann, Afeka Academic College of Engineering, IL
16:55-17:15	The EnergyTube System - A module based, scalable energy system, with battery and fuel cell for portab- le, mobility and stationary applications	Dr. Joerg Dieter Weigl, Unicorn Engineering, DE
17:15-17:35	How far can you get without a friction brake on rear axle? – The RABBIT project	Egor Sawazki, Continental, DE
17:35-17:55	The MAHLE Range Extender Engine	Dr. Michael Bassett, MAHLE Powertrain Limited, UK

G2 LATEST WIRELESS CHARGING TECHNOLOGY

Room C1.2.1	. Session Chair: Prof. Dr. Omar Hegazy, Vrije Universiteit Brussel - MOBI, BE and Julieta Francis, Allegheny Science Technology, US	
16:35-16:55	Contactless energy transfer for charging electric and hybrid electric vehicles	Prof. Dr. Nejila Parspour, IEW University of Stuttgart, DE
16:55-17:15	A study of electric vehicle wireless charging system integration and vehicle alignment optimization	Seong JaeYong, Gyeonggi-do, KR
17:15-17:35	Coil topologies for inductive power transfer in auto- motive applications	Dr. Markus Springmann, Karlsruhe Institute of Technology, DE
17:35-17:55	Simple relative positioning 3-axis alignment sensors for wireless power transfer for electric vehicles	Dr. Thomas Stout, Evatran, US

C2 CHART CRID. HOW CAN EVE CONTRIB

SMART GRID: HOW CAN EVS CONTRIBUTE?		
Room C1.2.2	Session Chair: Laurent de Vroey, ENGIE, BE and John Gartner, Navigant, US	
16:35-16:55	Implementation of e-mobility architecture for provi- ding smart grid services using EVs	Sergejus Martinenas, Technical University of Denmark, DK
16:55-17:15	Market place based energy management for PEV grid integration	Barry Sole, Dr. Ing. h.c. F. Porsche AG, DE
17:15-17:35	Building a smart charging ecosystem in Amsterdam - getting ready for mass market of (next generation) EVs	Frank Geerts, ElaadNL, NL
17:35-17:55	System architecture for electric vehicles used as a distributed energy resource - Perspective and vision of an EV market leader	Sebastien Gouraud, Thomas Dreumont, RENAULT, FR

TUESDAY, OCTOBER 10 – PARALLEL SESSIONS

16:30 - 18:00

G4 EV MARKET DEVELOPMENT AROUND THE GLOBE

Room C7.1	Session Chairs: Lieselot Vanhaverbeke, Vrije Universiteit Brussel, BE and Jeff Allen, Forth, US	
16:35-16:55	What is driving the U.S. electric vehicle market?	Dr. Nic Lutsey, International Council on Clean Transporta- tion, US
16:55-17:15	From early adopters to mass market: is the French population ready for electric mobility?	Marie Castelli, AVERE FRANCE, FR
17:15-17:35	Automotive the future of mobility	Prof. Dr. Frank Rieck, Rotterdam University of Applied Science, NL
17:35-17:55	Electrifying emerging markets: the case of Costa Rica	Bjorn Utgard, ESCOIA, NO

G5 LATEST ELECTRIC MOTOR TECHNOLOGIES

Room C5.1	5.1 Session Chairs: Gorazd Lampic, Elaphe Propulsion Technologies Ltd, SI and Wen Xuhui, Institute of Electrical Engineer Chinese Academy of Sciences, CN	
16:35-16:55	Design of a gearless wheel hub motor for BEV based on a switched reluctance machine	Martin Vosswinkel, Cologne University of Applied Sciences, DE
16:55-17:15	Operating point adaptation for NVH-optimization of induction machines	Wolfgang Bischof, Robert Bosch GmbH, DE
17:15-17:35	Cost optimised integrated electric powertrain containing the first silent switched reluctance motor for passenger vehicles	Steven Bervoets, Fabien Chauvicourt, Punch Powertrain N.V., BE
17:35-17:55	Iron loss modelling of a PMSM traction motor, including the magnetic degradation due to lamination cutting	Sigrid Jacobs, ArcelorMittal, BE

G6 ELECTRIC AIRCRAFTS AND RAIL

Room 4.3	Session Chair: Dr. Peter Beckhaus, ZBT Zentrum für BrennstoffzellenTechnik GmbH, DE	
16:30-16:50	Battery requirements coming from aviation	Dr. Agnieszka Makowska, Siemens AG Corporate
	· · · · · · · · · · · · · · · · · · ·	Technology, DE
16:50-17:10	The high flier Volocopter 2X	Jan-Hendrik Boelens, Volocopter, DE
17:10-17:30	Jupiter-H2	Intelligent Energy, tbc
17:30-17:50	Zero-emission fuel cell solutions for rail applications	Oben Uluc, Ballard Power Systems Inc., DE

G7 BATTERY MANAGEMENT SYSTEMS

Room C5.3	Session Chair: Matthias Puchta, Fraunhofer-Institut für Windenergie und Energiesystemtechnik IWES, DE	
16:30-16:50	End-of-life prediction of lithium-ion batteries based on mechanistic ageing models	Prof. Dr. Wolfgang Bessler, Hochschule Offenburg, DE
16:50-17:10	High-precision, high-dynamic emulation of lithium-ion cells for the entire life cycle	Franz Dengler, MicroNova AG Software und Systeme, DE
17:10-17:30	LionTelligence - Intelligent battery life cycle management	Alexander Kohs, CTC cartech company GmbH, DE
17:30-17:50	ebc - effective battery control	Hans Harjung, e-moove gmbh, AT

TUESDAY, OCTOBER 10 – DIALOGUE SESSION DS2

13:15 - 14:45

slots for in-depth discussions with the presenting specialists from around the globe.

L VEHICLES AND TRANSPORTAT	FION SYSTEMS	
Akkaya, Filiz, Porsche AG, DE	Holistic testing strategies for electrified vehicle power trains in the product engineering process	1/123
Batailley, Nicolas, SOLVAY, FR	Benefits of material Science in Electrical Vehicle Applications	1/130
Boersma, Reanne, TU Delft & Hogeschool Rotterdam, NL	Application of Driverless Electric Automated Shuttles for Public Transport in Villages: the case of Appelscha	1/128
Boonstra, Steven, NL	Analysis of a fictive active e-trailer	1/126
Chang, Chih-Ming, Taiwan Automotive Research Consortium, TW	The Development of the Green Safe Smart Light Vehicle Running Chassis for the Urban Multi-purpose Mobility	1/132
Chanho, Park, SKKU, KR	Fuzzy Logic Algorithm for Determining Driver's Intention to Change Lanes Based on the Speed of the Surrounding Vehicles	1/134
Dando-Ladenis, Leo, Office for Low Emission Vehicles UK Government, UK	Hydrogen for Transport Advancement Program: expanding hydrogen fuel use in the UK	1/136
Duong, Minh-Trung, Korea Electrotechnology Research Institute, KR	Improvement of Tubular Permanent Magnet Machine Performance by Using Dual-Segment Halbach Array	1/138
Faltenbacher, Dr. Michael, thinkstep AG, DE	Bus 4.0:zero tailpipe emissions, low noise and highly energy efficient experiences and results from the operation of public transport buses with electric drivetrains in Germany and Europe	1/145
Fukuda, Takuya, The University of Tokyo, JP	Range Extension Autonomous Driving of Electric Vehicle Considering Maximum Jerk Constraint	1/140
Hietalahti, Lauri, Tampere University of Applied Sciences, FI	eTRUCK - Electric truck innovation platform operating in daily use in Finland	1/141
Hogt, Roeland, Rotterdam University of Applied Sciences, NL	Designing Light Electric Vehicles for urban freight transport	1/143
Kisters, Thomas, Fraunhofer EMI, DE	Dynamic abuse testing of Li-ion cells	1/147
Lajunen, Dr. Antti, Aalto University, Fl	Energy consumption of electric vehicles in different climate and driving conditions	1/149
Lange, Pascal, German Aerospace Center (DLR), DE	Assessment of thermal comfort and energy efficiency of alternative ventilation concepts	1/151
Liebig, Dr. Sebastian, SET Power Systems GmbH, DE	E-Motor Emulator - Testing Power Electronics without an E-Motor	1/153
Lindner, Stefan, Outokumpu Nirosta GmbH, DE	Austenitic high-strength TWIP steels for e-mobility applications	1/155
Louw, Andries, Futran Limited, ZA	The Futran Mass Transit System	1/159
Mohamed, Dr. Moataz, McMaster Institute for Transportation & Logistics, CA	The Adoption of Electric Buses in Transit; A Multi-Criteria Analysis of Transit Providers Preference	1/157
Nyman, Dr. Joakim, RISE Viktoria, SE	A user-friendly method to analyze cost effectiveness of different electric bus systems	1/162
Petersohn, Ronny, HOPPECKE ABT, DE	Benefits of Lithium-Titanate Based Batteries for Heavy-Duty Vehicles	1/164
Pichl, Michael, Bertrandt Technologie GmbH, DE	Automated Package and Design of Fuse Boxes and Cable Channels for Electric Vehicles	1/169
Pihlatie, Mikko, VTT Technical Research Centre of Finland, FI	Analysis of Key Performance Indicators of Electric Bus Systems in Helsinki and Comparison to Simulated Results	1/167
Rupp, Matthias, FH Aachen, University of Applied Sciences, DE	Comparative life cycle analysis of conventional and hybrid heavy-duty trucks	1/172
Shen, Daliang, Argonne National Laboratory, US	Energy-Efficient Cruise Control Using Optimal Control for a Hybrid Electric Vehicle	1/174

The Dialogue Sessions depict the poster exhibition and form part of the EVS30 conference program. Use the dedicated time

TUESDAY, OCTOBER 10 – DIALOGUE SESSION DS2

13:15 - 14:45

1 VEHICLES AND TRANSPORTATION SYSTEMS

Staub, Hannah, Heilbronn university of applied science, DE	Mastering the last mile - the Commercial Segway approach	1/179
van Wijk, Thijs, ElaadNL, NL	Testing and certification of EVs and charging infra	1/177
Wiedemann, Markus, SSB AG, DE	Semi-automated bus depot Gaisburg	1/182
Wu, Ming-Xuan, Industrial Technology Research Institute, OT	A Novel Decision Making Technique at the Intersection Based on Perception Navigation	1/184
Yang, Prof. Yee-Pien, National Taiwan University, TW	Coupled Energy Saving and Safe Driving Strategy for an Electric Vehicle Driven by Multiple Motors	1/189
Yang, Liunan, Politecnico di Milano, IT	Contribution of inerter and relaxation spring to the electric vehicle passive suspension with in-wheel motors	1/187





TUESDAY, OCTOBER 10 – DIALOGUE SESSION DS2

13:15 - 14:45

2 ELECTRIC POWER TRAIN AND	APPLICATION
Bachheibl, Florian, volabo GmbH, DE	48 V - the Future of A
Bause, Katharina, IPEK - Institute of Product Engineering at KIT, DE	The development of e challenges
Burke, Dr. Andrew, University of California, Davis, US	Thermal Managemen Supercapacitors
Dehn, Dr. Steffen, NuCellSys GmbH, DE	Optimization of Fuel Technology, Cost and
Diwakar, Dr. Vinten, Mahindra Electric Vehicles Limited, IN	A Visual Tool for the A Vehicle Battery Packs
Douzane, Khaled, Silicon Mobility, FR	Software bottleneck frequency control of l
Eom, Byeongjin, MyongJi University, KR	Dual Fuel Cell Mounto Strategy
Geng, Stefan, Hochschule Ostwestfalen- Lippe - University of Applied Sciences, DE	Model-Based Optimiz with Multimode Trans
Grauers, Anders, Swedish Electromobility Centre, SE and Pohl, Hans, Rise Viktoria Swedish ICT AB	Comparing fuel cells a applications
Hanho, Son, Sungkyunkwan University, KR	Performance Analysis
Heckmann, Ralph, teamtechnik, DE	E-Drive End of Line Te
Islam, Ehsan Sabri, Argonne National Laboratories, US	Fuel Displacement an Based on U.S. Depart
Lee, Kyungmin, Myongji University, KR	Power Distribution O Ultracapacitor
Lee, Seung Jun, Kyung-Shin, KR	Development of GaN
Loiselle-Lapointe, Aaron, Environment and Climate Change Canada, CA	Effects of Ambient Te and Battery Temperat
Marinescu, Danut, University of Pitesti, Au- tomotive Engineering Research Centre, RO	An Electric Crossover
Ottan Soares de Souza Lima, Victor, HAN, NL	Electric Vehicle Energ mum Speed Control
Quinger, Daniel, LION Smart GmbH, DE	Demonstrating a Wire a BMW i3
Roemer, Felix, TUMCREATE, SG	Modelling and Evalua Paralleled Cells
Roemer, Juergen, Schaeffler Technologies AG & Co. KG, DE	Reducing energy cons individual electric dri
Yaohua, Li, Chang'an University, CN	Simulation Study on S
Zhang Prof., Jianwu, Shanghai Jiao Tong University, CN	Control Development Power-split Hybrid El

utomotive Traction	2/191
lectric drive systems - How to deal with the	2/193
of Lithium Batteries in PHEVs Using	2/197
Cell Powertrain within the Triangle of Customer Requirements	2/199
nalysis of Transient Behaviour of Electric	2/203
emoval and design issues solving for high ybrid and electric powertrain	2/205
d FCEV Using Minimum Efficiency Power Control	2/207
ation of a Plug-in Hybrid Electric Powertrain mission	2/209
nd other powertrains for different vehicle	2/211
of Multi-mode Synchro Type PHEV	2/213
sting in production	2/215
d Cost Feasibility Study of Fuel Cell Vehicles nent of Energy Targets	2/195
otimization in Series Hybrid Electric Bus Using	2/219
ET-based Bidirectional 12V/48V Converter	2/217
nperature on 2016 Chevrolet Volt Performance ure	2/259
Concept Car	2/257
y Efficiency Through Route Analysis and Maxi-	2/261
less Automotive Battery Management System in	2/263
ion of Battery Packs with Different Number of	2/265
umption of a power steering system using wheel /es and an optimized chassis concept	2/267
ingle-shaft Parallel Hybrid Electric Bus	2/269
to Reduce the Driveline Vibrations of a ectric Vehicle during the Engine Start	2/201

TUESDAY

TUESDAY, OCTOBER 10 – DIALOGUE SESSION DS2

13:15 - 14:45

3	сомро	FECHN	OLOGIES

Arrinda, Mikel, IK4-CIDETEC, ES	Prognosis of the remaining useful life of a Lithium Battery based on a data-driven method and Gaussian processes	3/062
Buch, Elizaveta, Daimler AG, DE	The Solid Frontier – The Future of Solid State Batteries in the Automotive Industry	3/064
Chan, Prof. C. C., Massachusetts Institute of Technology, US	Design and Analysis of Partitioned-Stator Flux-Switching Hybrid- Excitation Machine for Hybrid Electric Vehicles	3/066
De Sutter, Lysander, Vrije Universiteit Brussel - MOBI, BE	Online multi chemistry SoC estimation technique using adaptive battery model parameter estimation	3/068
Dieterich, Mila, German Aerospace Center, DE	Next Generation Car – Coupled Thermochemical Reactions for Preheating Vehicle Components	3/070
Doninger, Dr. Joseph, Focus Graphite Inc., CA	Electrochemical Performance of Lac Knife Natural Crystalline Flake Graphite from Quebec, Canada in Lithium Ion Batteries	3/072
Egoitz, Martinez-Laserna, Ik4-Ikerlan, ES and Gandiaga , Inigo, IK4-IKERLAN & Vrije Universiteit Brussel	Li-ion Battery Lifetime Model Influence on the Economic Assessment of Hybrid Electric Bus Operation	3/074
GARNIER, Laurent, CEA Tech, FR	Comparison of power electronics solutions to exchange energy between high voltage batteries	3/076
Goetz Prof., Stefan, Porsche, DE	Highly Dynamic Multiphase Gallium-Nitride DC-DC Converter for 48 V Systems	3/078
Hamiti, Dr. Tahar, Institut VEDECOM, FR	Is multispeed gear train a competitive solution for C-segment EV powertrain?	3/080
IWei, Lan, Industrial Technology Research Institute, TW	Design and analysis method for reducing motor NVH and electric vehicle noise validation	3/082
Jing, YingChen, North China University of Technology, CN	Household Small Solar Energy Storage Device	3/113
Joerissen, Ludwig, ZSW, DE	AutoStack-CORE: Development of PEM-Fuel Cell Stack Platform for Automotive Applications	3/084
Kabza, Dr. Alexander, ZSW Ulm, DE	Challenges of automotive fuel cell stack testing	3/086
Mandery, Dirk, Eberspächer Controls Landau GmbH & Co. KG, DE	Safety Switches for xHEV and Autonomous Driving Vehicles	3/106
Nasri, Mounir, German Aerospace Center (DLR), DE	A/C-APU - Innovative air conditioning unit based on hydrogen to extend the driving range of EVs and FCEVs	3/088
Oechslen, Stefan, Dr. Ing. h.c. F. Porsche AG, DE	An Improved Thermal Model for Electric Motors	3/090
Ortenzi, Dr. Fernando, ENEA, IT	Ageing effects on batteries of high discharge current rate	3/092
Pfrang, Dr. Andreas, European Commission, Joint Research Centre, NL	Battery Safety Testing Methods Assessed from a Policy-Making Perspective	3/094
Puchta, Matthias, Fraunhofer-Institut fuer Windenergie und Energiesystemtechnik (IWES), DE	Accelerated Development and Test of BMS Using an Emulation Based HIL	3/098
Schneeweiss, Hartmut, Continental, DE	Highly Integrated Axle Drive for EV Traction and Charging	3/100
Stewart, Alex, Element Energy, UK	Hydrogen Mobility France – De-risking the rollout of hydrogen vehicles and infrastructure in France	3/096
Sun, Li, North China University of Technology, CN	The Simulation of Ni-MH Battery Based on Optimized Thevenin Model	3/101
Tamas, Anton, MACCON GmbH, DE	Optimized model based control for an outer rotor surface permanent magnet machine with temperature influence	3/103
Vellucci, Francesco,, ENEA, IT	Fast charge life cycle test on a lithium-ion battery module	3/105
Wilhelm, Dr. Erik, Kyburz Switzerland, CH	Efficiency Gains from Using Telematics Data Analysis on Large-scale Electric Postal Fleets	3/108

TUESDAY, OCTOBER 10 – DIALOGUE SESSION DS2

13:15 - 14:45

3 COMPONENT TECHNOLOGIE	S	
Yaohua, Li, Chang'an University, CN	Voltage Vector Selection Strategy of the DTC for SPMSM used in Elec- trical Vehicle Based on Predictive Control	3/110
Yi, Li, Vrije Universiteit Brussel - MOBI, BE	Degradation analysis and state of health estimation on lithium nickel manganese cobalt oxide (NMC) battery	3/111
Ziebert, Dr. Carlos, Karlsruhe Institute of Technology, IAM-AWP, DE	Thermal abuse of Lithium-ion batteries: Combined study by experiments and simulation	3/115

+ CHARGING/FUELING INFRAS		
Abrahamsson, Philip, LU, SE	Thermal Design of an Electric Road System	4/002
Boehler , Lukas, BRUSA Elektronik AG, CH	Taking Inductive Charging to mass production	4/004
Braeuchle, Moritz, Robert Bosch GmbH, DE	New approach of ultrasonic sensor system in inductive charging infrastructure for living object protection	4/006
Chabaan, Dr. Rakan, Hyundai America Technical Center (HATCI), US	Laboratory Performance and Safety Test Results of the Hyundai / Mojo Mobility 7.0 kW WPT System	4/008
Epps, Darren, Southern Company Services, Inc, US	Next-Generation Electric Vehicle Charging Station	4/010
Ferwerda, Roland, NKL, NL	Advancing eRoaming in Europe: towards a single "language" for the European charging infrastructure	4/012
Francis, Julieta, former Director EV, US DOE, US	Challenges and Opportunities of Grid Modernization and Electric Transportation	4/014
Frémont, Aurélie, SyDEV, FR and Guerrier, Yann, SyDEV Vendée	The Vendée area, a rural territory of excellence for the French electric mobility	4/018
Fricke, Volker, IBM Deutschland GmbH, DE	On the road towards seamless electromobility services in Europe: NeMo Hyper-Network project and challenges	4/020
Gnann, Till, Fraunhofer ISI, DE	How much charging infrastructure is needed and how does it affect the load shift potential of electric vehicles?	4/022
Gustavsson, Dr. Martin, RISE Viktoria, SE	Automatic conductive charging of electric cars	4/024
Idema, Harm-Jan, APPM management consultants, NL	The Dutch revolution in smart charging electric vehicles	4/026
Jochem, Patrick, Fraunhofer Institute for Systems and Innovation Research ISI, DE	Combining the demand for interim and opportunity charging - a case study from Stuttgart	4/016
Jochum, Alexander Karl Friedrich, Charge- lounge GmbH, DE	Public Multi-Charger 150kW DC: viable public charging infrastructure	4/028
Mathiasin, Herve, Smart Green Batteries EV Chargers & Sol, FR	SmartGreenCharge an off-grid mini-grid to charge till 24 electric vehicles simultaneously with 100% local renewable electricity	4/030
Neven, Heuberger, ParkHere GmbH, DE	ParkHere's first self-powered parking sensor for EV-charging stations	4/032
Piene, Egil Falch, NO	Managing risk for unbalanced load situations of three-phase supply systems in charging facilities providing one-phase charging for electric vehicles	4/034
Pulimera, Kanakadurga, Daimler AG, DE	A study on the influence of Electric Vehicle (EV) Battery parameters on EV Customer wishes	4/036
Suonsivu, Heikki, Parking Energy Ltd, Fl	Resource Efficient EV Charging Infrastructure in Real Estate Environ- ment	4/038
Theodoropoulos, Theodoros, ICCS, GR	Dynamic wireless EV charging system design for efficient e-mobility	4/040
Van den Brink, Harm, ElaadNL, NL	The need for cybersecurity within the electric vehicle infrastructure - A study on the use of digital signatures	4/042
Weken, Harm, FIER Automotive, NL	How local storage of renewables accelerates e-car sharing utilization and market adoption	4/044
Wilkins, Dr. Steven, TNO, NL	Optimisation of Electric Vehicles within a Dynamic Inductive Charging Infrastructure	4/050

TUESDAY, OCTOBER 10 – DIALOGUE SESSION DS2

13:15 - 14:45

5 ENTERING MASS MARKET AN	D DEMAND ISSUES	
Bird, Natalie andGreenleaf, James, Baringa Partners, UK	Consumers, Vehicles and Energy Integration Project: Market Design and System Integration	5/241
Bunch, Prof. David, University of California, Davis, US	Investigation of Consumer Preference and Dynamic Effects in the Emerging US Market for New Vehicle Energy Technologies using Longitudinal Consumer Survey Data	5/243
Fandrich, Mark, Electric Excitement (i.G.), DE	Education of mass market- and demand issues	5/245
Farley, Blair, Southern Company Services, Inc, US	Revolutionizing Plug-in Electric Vehicle Education	5/247
Gago-Calderon, Alfonso, Universidad de Malaga, ES	Consolidation of an EVs Project Based Learning program integrated within a complete Bachelor Engineering Degree	5/249
Henkin, Zach, Drive Oregon, US	Pacific Northwest Electric Vehicle Showcase	5/253
Heydkamp, Constanze, Universitaet Stuttgart IAT, DE	User Types for Sustainable Mobility Incentive Models	5/255
Hoekstra, Auke, TU Eindhoven, NL	Agent-based Model for the Adoption and Impact of Electric Vehicles in Dutch Neighborhoods	5/298
Horn, Denis, University of Stuttgart, IAT, DE	Establishment of fast-charging stations: false assumption or right decision?	5/271
Kandasamy, Selvam, Mahindra Reva Electric Vehicles Limited, IN	e2o plus – An energy efficient and smart urban mobility solution for India	5/275
Karlsson Prof., Sten, Chalmers University of Technology, SE	BEV range management in two-car households	5/277
Kim, Bill Insup, AVL Powertrain UK, UK	Dynamic business model for electric vehicles (EV) over the product life cycle	5/279
Kleiner, Florian, German Aerospace Center, DE	Maintenance and repair cost calculation and assessment of resale value for different alternative commercial vehicle powertrain technologies	5/318
Kleiner, Florian, German Aerospace Center, DE	Scenario analyses for the techno-economic evaluation of the market diffusion of future commercial vehicle concepts	5/317
Kramer, Corinna, SAP SE, DE	The role of IT in future mobility	5/285
Kuehl, Niklas, Karlsruhe Institute of Technology (KIT), DE	White spots in business and IT: An explorative study for e-mobility services	5/283
Maase, Simone, Amsterdam University of Applied Sciences, NL	Performance of EV Charging Infrastructure: a decision support tool based on charging data.	5/281
Matthies, Gregor, Bain&Company, DE	The Network Orchestrator of Charging Station Infrastructure - The PlugSurfing Case Explained	5/287
Miller, Dr. James, Argonne National Laboratory, US	International Cooperation on Hybrid & Electric Vehicles under the International Energy Agency's Energy Technology Network	5/289
Neidl, Tobias, Webasto, DE	Establishing a comprehensive residential/workplace charging solution provider	5/291
Ploetz, Patrick, Fraunhofer ISI, DE	Can Models Predict Electric Vehicle Users?	5/293
Prochazka, Bena, Electrification Coalition, US	Smart City Collaborative: Exchange and EV Transition	5/273
Roeckle, Felix, Fraunhofer IAO, DE	Current and potential future EV driver charging needs	5/251
Rousseau, Aymeric, Argonne National Laboratory, US	Factors Influencing Energy Consumption and Cost-Competiveness of Plug-in Vehicles in U.S. and Germany	5/295
Sanghoon Son, Sanghoon, Jeju Development Institute, KR	,Carbon-free island Jeju by 2030' Plan and its Progress from the Perspectives of EV	5/305
Schreiber, Stephan, ITK Engineering AG, DE	Autonomous Equipment in the Public City Setting – An Economic Consideration	5/296
Schumann, Detlef, BridgingIT GmbH, DE	How to scale up German Infrastructure	5/301
Shenhar, Gabriel, CONSUMER REPORTS, US	Comparing Range between the Tesla Model S and the Chevrolet Bolt	5/303
Stratton, Sara, PNM, US	Strategic Marketing Plan to Help Facilitate the Development of the Electric Vehicle Market	5/306

TUESDAY, OCTOBER 10 – DIALOGUE SESSION DS2

13:15 - 14:45

5 ENTERING MASS MARKET AND DEMAND ISSUES			
Tal, Dr. Gil, University of California Davis, US	First Look at the Growing Plug-In Vehicle Secondary Market in California	5/308	
Turel, Thijs, Alliander, NL	Designing a Transparent Smart Charge Point	5/310	
Ubogui, Matias, Argentine Association of Electric and Alternative Vehicles - AAVEA, AR	Impact Assessment of Electro Mobility development in Buenos Aires City on GHG emissions, energy efficiency and noise levels	5/311	
Utz, Dr. Tilman, European Patent Office, NL	Monitoring Patenting Strategies in the Electric Vehicle Market	5/313	
Vogt, Matthias, BridgingIT GmbH, DE	The customer perspective of a user-oriented public charging infrastructure	5/315	
Wolf, Dr. Sarah, Global Climate Forum, DE	Electric mobility in view of Green Growth	5/320	

6 ENERGY AND ENVIRONMENTAL ANALYSIS

	AL ANALISIS	
Dittus, Holger, DLR, DE	Economic and Environmental Viability of using a PV plant as an energy source for battery electric vehicles	6/116
Figenbaum, Erik, Institute of Transport Economics, NO	Estimating real-world emissions of PHEVs in Norway by combining laboratory measurement with user surveys	6/118
Gabba, Giorgio, Protoscar SA, CH	SUN2WHEEL: an autarchic concept for EV charging	6/120
Hooftman, Nils, Vrije Universiteit Brussel - MOBI, BE	The environmental potential of an electric vehicle with an in-life modular range extension	6/056
Jenn, Dr. Alan, Institute of Transportation Studies, UC Davis, US	Evaluating future emissions from electric vehicles across the United States with a changing electric grid mix under the Clean Power Plan	6/058
Jiuyu, Dr. Du, Tsinghua University, CN	Tracing global lithium trade: implications for securing lithium supply for electric vehicle batteries	6/060
Kudoh, Dr. Yuki, National Institute of Advanced Industrial Science and Technology, JP	Real-World Fuel Consumption Performance of Hybrid Vehicles in Japan	6/055
Manthey, Andreas, BSM Bundesverband Solare Mobilität e.V., DE	25 years of experience with Park&Charge-charging stations	6/053
Meiborg, Henk, Emodz BV, NL	#Vehicle2HollandHouse	6/051
Speers, Dr. Peter, Cenex, UK	Evaluating the Benefits of Vehicle-to-Grid in a Domestic Scenario	6/046
Will, Christian, Daimler AG, DE	Economic and sustainability-potential of carbon-neutral charging ser- vices for electric vehicle customers	6/047

7 MOBILITY CONCEPTS		
Breust, Matthias, Bundesverband Solare Mobilitaet e.V., DE	Commuting with Pedelecs - ELECTWOCITY	7/225
Domingues, Gabriel, Lund University, SE	Societal Cost of Electrifying All Danish Road Transport	7/229
Hoerer, Daniel, car2go Europe GmbH, DE and Sobe, Thorsten, Quarzwerke GmbH, DE	Fully electric free-floating car sharing - challenges, chances and solutions identified by car2go with Stuttgart, Amsterdam and Madrid as examples	7/227
Hoffmann, Ilko, Fraunhofer-Institut fuer Arbeitswirtschaft und Organisation IAO Anwendungszentrum KEIM, DE	Microservice-Architecture - a Practical Approach to Developing a Distributed Hybrid-Fleet-Management-Platform	7/232
Lamberth-Cocca, Sabrina, Fraunhofer IAO, DE	Service Empathy Board: A Method for the Agile Development of Mobility as a Service	7/223
Lopes, Mario, CEiiA, PT	Electric Vehicles Route Planning using Best Route Optimizer	7/234
Roldao, Pedro, ERSE, PT	Electric Mobility in Portugal: 2 Case Studies	7/238

TUESDAY



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The spheres of industry, science and politics have realised this and within a strategic alliance, are working to prepare the market for these technologies.









Nationale Organisation



ĝ subject

WEDNESDAY, OCTOBER 11 - SESSION OVERVIEW

08:00 - 09:00 Conference registration, ICS Messe Stuttgart

	· 10:30	09:00 -	09:00 - 10:30	09:00 - 10:30	09:00 - 10:30-	09:00 - 10:30	09:00 - 10:30
	enary ell	P5: Pl	H5: Barriers and	H4: Mobility as	H3: Electrification	H2: V2G as	H1: Thermal
	STORAGE	BATTERY+	opportunities for an intelligent	a Service	of the supply chain	enabling technology for	management of electric vehicles
	n C1.1	Room	infrastructure			integration	stations
			Room C7.1	Room C5.1	RoomC4.3	Room C1.2.2	Room C1.2.1
			min	tee break – 15	Cot		
	10:45 - 12:15	10:45 - 12:15	10:45 - 12:15	10:45 - 12:15	10:45 - 12:15	10:45 - 12:15	10:45 - 12:15
09:00 - 17:00	J7: Electric ships, ports and operations	J6: Fuel cell materials and components	J5: Entering the mass market with electric mobility	J4: Evaluating consumer experience and increasing acceptance	J3: Renewable energy and electromobility - synergies and obstacles	J2: Charging infrastructure: access and location management	J1: Developments in LEV technology
	Room C5.3	Room C4.3	Room C7.1	Room C5.1	Room C1.1	Room C1.2.2	Room C1.2.1
Exhibition	- 13:30	12:15		min	ffee break – 15	Co	
Match- making	break	Lunch			12:30 - 13:45		
Ride & Drive				y EVS30	sing Ceremony	P6: Clo	
Hall 1					Room C1.1		
	13:30 - 15:00	13:30 - 15:00					
	K2: Sector coupling – Potential	K1: Stationary fuel cells			13:45 - 15:00		
	markets for fuel cells and batteries	D 642			Lunch break		
	ROOM C5.3	Room C4.3					
	ak – 15 min	Coffee brea			15:00 - 19:00		
	16:45	15:15 -					
	ng plenary ell, •STORAGE	P7: Closir f-c BATTERY+		s Irs	rechnical Tour - ght Seeing Tou	Si	
	n C1.1	Room					

09:00 - 10:30	09:00 - 10:30	09:00 - 10:30-	09:00 - 10:30	09:00 - 10:30	09:00	- 10:30	
H1: Thermal management of	H2: V2G as enabling	H3: Electrification of the supply	H4: Mobility as a Service	H5: Barriers and opportunities	P5: Pl f-c BATTERY+	lenary ell, •STORAGE	
electric vehicles and charging stations	technology for smarter EV grid integration	chain		for an intelligent charging infrastructure	Room	n C1.1	
Room C1.2.1	Room C1.2.2	RoomC4.3	Room C5.1	Room C7.1			
		Cof	fee break – 15 i	min			
10:45 - 12:15	10:45 - 12:15	10:45 - 12:15	10:45 - 12:15	10:45 - 12:15	10:45 - 12:15	10:45 - 12:15	
J1: Developments in LEV technology	J2: Charging infrastructure: access and location management	J3: Renewable energy and electromobility - synergies and obstacles	J4: Evaluating consumer experience and increasing acceptance	J5: Entering the mass market with electric mobility	J6: Fuel cell materials and components	J7: Electric ships, ports and operations	09:00 - 17:00
Room C1.2.1	Room C1.2.2	Room C1.1	Room C5.1	Room C7.1	Room C4.3	Room C5.3	
	Cot	ffee break – 15	min		12:15	- 13:30	Exhibition
		12:30 - 13:45			Lunch	break	Match- making
	P6: Clos	sing Ceremony	vEVS30				Ride & Drive
		Room C1.1					Hall 1
		12.45 15.00			13:30 - 15:00	13:30 - 15:00	
		Lunch break			K1: Stationary fuel cells	K2: Sector coupling – Potential markets for fuel cells and batteries	
					Room C4.3	Room C5.3	
		15:00 - 19:00			Coffee brea	ak – 15 min	
					15:15	- 16:45	
	I	Fechnical Tours	5		P7: Closir	ng plenary	
	Si	ght Seeing Tou	irs		f-c BATTERY+	ell, •STORAGE	
					Room	n C1.1	

EVS sessions

WEDNESDAY

WEDNESDAY, OCTOBER 11 – PARALLEL SESSIONS

09:00 - 10:30

H1 THERMAL MANAGEMENT OF ELECTRIC VEHICLES AND CHARGING STATIONS

Room C1.2.1	Session Chairs: Dr. Joris Jaguemont, Vrije Universiteit Bro and Climate Change Canada, CA	ussel, BE and Aaron Loiselle-Lapointe, Environment
09:05-09:25	Using liquid cooling to minimize temperature impact in high power charging (HPC) systems	Ralf Glocker, ITT Cannon, UK
09:25-09:45	Efficient cabin preconditioning for EVs with a compact heat pump system	Dr. Andres Caldevilla, DENSO AUTOMOTIVE Deutschland GmbH, DE
09:45-10:05	Next generation car thermal energy storage systems: Power-to-Heat concept in solid media storage for high storage densities	Sergej Belik, DLR, DE
10:05-10:25	A method to analyze thermal comfort and energy consumption of heating systems for electric cars	Eva-Maria Knoch, Karlsruhe Institute of Technology, DE

H2 V2G AS ENABLING TECHNOLOGY FOR SMARTER EV GRID INTEGRATION

Room C1.2.2	Session Chairs: Manel Sanmarti, Catalonia Institute for I University, KR	Energy Research, ES and Prof. Dr. Ocktaeck Lim, Ulsan
09:05-09:25	CHAdeMO V2X protocol: design concept, benefits and world-wide applications	Tomoko Blech, CHAdeMO Association Europe, FR
09:25-09:45	Vehicle-to-everything (V2X) technology insights	Dr. Cristina Corchero, IREC, ES
09:45-10:05	Smart solar charging: bi-directional AC charging (V2G) in the Netherlands	Bram van Eijsden, Baerte de Brey, ElaadNL, NL
10:05-10:25	V2G - An economic gamechanger in e-mobility?	Jens Christian Morell Lodberg Hoj, Insero A/S, DK

H3 ELECTRIFICATION OF THE SUPPLY CHAIN

Room C4.3	Session Chair: Garry Wilson, APC, UK	
09:05-09:25	EV R&D - a key pillar of a modern industrial strategy	Dr. Bob Moran, Office for Low Emission Vehicles, UK
09:25-09:45	Modular battery design for automated battery ma- nufacturing in niche applications: AMPLiFII Project	Mark Ellis, WMG - University of Warwick, UK
09:45-10:05	EV transmissions - lessons learnt	Alex Tylee-Birdsall, Drive System Design Ltd., UK
10:05-10:25	Borderless world: 2.0	Prof. Dr. Peter Wells, Cardiff Business School, UK

H4 MOBILITY AS A SERVICE

Room C5.1	Session Chairs: Uwe Seidel, VDI/VDE, DE and Lisa Jerra	m, Navigant, US
09:05-09:25	Charging free floating shared cars in metropolitan areas	Robert van den Hoed, Over Morgen, NL
09:25-09:45	MobilitySchool - How to act multi - mobile daily?	Andreas-Michael Reinhardt, BSM e.V., DE
9:45-10:05	Statistical data for free-floating car sharing versus public transport	Prof. Dr. Stefan Pettersson, RISE Viktoria, SE
10:05-10:25	Development mode for integrating electric car-sha- ring into different types of Chinese cities	Prof. Dr. Xiaoyuan Wu, Tongji University, CN

H5 BARRIERS AND OPPORTUNITIES FOR AN INTELLIGENT CHARGING INFRASTRUCTURE

Room C7.1	Session Chairs: Prof. Dr. Peter Van den Bossche, Vrije Universiteit Brussel - MOBI, BE and Charles Botsford, AeroVironment, US	
09:05-09:25	Tax barriers and smart charging	Baerte De Brey, ElaadNL, NL
09:25-09:45	The positive effects of workplace charging on electric vehicle ownership and utilization	Steven Henderson, Ford Motor Company, US
09:45-10:05	Success of electromobility in France: strong political invol- vement and effects	Joseph Beretta, Avere-France, FR
10:05-10:25	Impact of charging infrastructure growth on EV mar- ket in India	Sreejakumar Nair, Mahindra Electric, IN

WEDNESDAY, OCTOBER 11 - PAR

10:45 - 12:15

J1 DEVEL	OPMENTS IN LEV TECHNOLOGY
Room C1.2.1	Session Chair: Andreas Manthey, BSM e.V., DE
10:50-11:10	An intelligent energy management system for an electric bicycle
11:10-11:30	The rise of the speed pedelec, restrained by legislation?
11:30-11:50	A booming development of electric scooters in Taiwan
11:50-12:10	Low voltage and low cost interior permanent mage (IPM) motor for Indian EV applications
13	
JZ CHARG	SING INFRASTRUCTURE: ACCESS AND L
Room C1.2.2	Session Chairs: Martina Wikström, Swedish Energy
10:50-11:10	EV related protocol study
11:10-11:30	Method for the definition of the optimal sites for fast chargers
11:30-11:50	Perceived usage potential of fast-charging locatio
11:50-12:10	Implementation of interoperability solutions for public charging infrastructure in Europe
J3 RENEW	ABLE ENERGY AND ELECTROMOBILITY
Room C1.1	Session Chair: Detlef Schumann, BridgingIT GmbH,
10:50-11:10	Electrification of transport by renewables
11:10-11:30	Useful mobility service derived from renewable electricity: a comparison between battery electric and hydrogen fuel cell vehicles infrastructure
11:30-11:50	Intelligent photovoltaic-grid system for electric vehicles charging station
11:50-12:10	Synergies and conflicts of integrating electromob ty and renewable energies into the urban micro g at train station Berlin Suedkreuz
J4 EVALU	ATING CONSUMER EXPERIENCE AND IN
Room C5.1	Session Chairs: Prof. Dr. Anna Nagl, Aalen Universit
10:50-11:10	The 2017 ZEV consumer survey: Understanding latent consumer demand

RAL	LEL	SESS	IONS

	Stefan Sterkenburg, HAN University of Applied Sciences, NL
	Bram Rotthier, KU Leuven, BE
	Theresa Suen, Industrial Technology Research Institute, TW
et	Prabhu Shanmugam, Mahindra Reva Electric Vehicles Ltd, IN

LOCATION MANAGEMENT

Ager	ncy, SE and Zach Henkin, Forth, US
	Arjan Wargers, ElaadNL, NL
	Giorgio Gabba, Protoscar, CH
ns	Julia Krause, Institute for Automotive Engineering, RWTH Aachen University, DE

Dr. Sebastien Albertus, RENAULT, FR

- SYNERGIES AND OBSTACLES

I, DE	
	Dr. Frank Mayer, ENERCON, DE
ic	Yorick Ligen, EPFL Valais, CH
	Abdelilah Hassoune, Hassan II University of Casablanca, ENSEM, MA
bili- grid	Norman Pieniak, Reiner Lemoine Institut, DE

NCREASING ACCEPTANCE

Room C5.1	Session Chairs: Prof. Dr. Anna Nagl, Aalen University, DE and John Gartner, Navigant, US	
10:50-11:10	The 2017 ZEV consumer survey: Understanding latent consumer demand	Prof. Dr. Jonn Axsen, START @ Simon Fraser University, CA
11:10-11:30	Put a price on carbon to fund EV incentives - Norwe- gian EV policy success	Petter Haugneland, Norwegian Electric Vehicle Association, NO
11:30-11:50	A customer's view on policy measures to promote electric vehicles	Dr. Ulrike Kugler, Deutsches Zentrum für Luft- und Raum- fahrt e.V., DE
11:50-12:10	Understanding demand for hybrid and electric ve- hicles using large-scale consumer profile data	Dr. Rubal Dua, KAPSARC, SA

WEDNESDAY, OCTOBER 11 – PARALLEL SESSIONS

J5 ENTERING THE MASS MARKET WITH ELECTRIC MOBILITY

Room C7.1	Session Chairs: Robert Evans, CENEX, UK and Sang-kyu Hwang, The Korea Transport Institute, KR	
10:50-11:10	Overcoming the barriers of mass EV introduction	Rob Winkel, Ecofys Netherlands BV, NL
11:10-11:30	The Green Electric Mobility Tool: An ex-ante assess- ment tool contributing to the advancement of e-mo- bility in urban areas in middle-income countries	Dr. Roland Steinmetz, EVConsult, NL
11:30-11:50	European strategic processes towards competitive, sustainable and user-friendly road transport	Dr. Gereon Meyer, VDI/VDE-IT, DE
11:50-12:10	Building the electric mobility market through pub- lic-private partnerships: the Oregon case study	Jeff Allen, Forth, US

6 FUEL CELL MATERIALS AND COMPONENTS

Room C4.3	Session Chair: Prof. Dr. Josef Kallo, Deutsches Zentrum für Luft- und Raumfahrt e.V., Stuttgart/Universität Ulm, DE	
10:45-11:05	Cost efficient manufacturing of bipolar plates	Dr. Martin Skrikerud, Cell Impact AB, SE
11:05-11:25	Sealing, coating and quality control of bipolar plates: scaling up for mass production	Dr. Jörg Karstedt, ZBT Zentrum für Brennstoffzellen Technik GmbH, DE
11:25-11:45	Computer based design of porous transport layers of PEM fuel cells	Dr. Jürgen Becker, Math2Market GmbH, DE
11:45-12:05	In-Situ testing methods for membrane electrode assemblies	Ulf Groos, ISE Fraunhofer-Institut für Solare Energiesysteme, DE

J7 ELECTRIC SHIPS, PORTS AND OPERATIONS

Room C5.3	Session Chair: Erik Schumacher, NOW Nationale Organisation für Wasserstoff- und Brennstoffzellentechnologie, DE	
10:45-11:05	IMO/CESNI – International codes and standards for fuel cells in ship applications	Lars Langfeldt, DNV GL - Maritime, DE
11:05-11:25	Powercell: Maranda and other marine fuel cell applications	Per Ekdunge, PowerCell, SE
11:25-11:45	Maritime development on hydrogen & fuel cell applications in Norway – ferries and passenger vessels	Kristian E. Vik, Norwegian Hydrogen Association, NO
11:45-12:05	Fuel cell electric trucks for ports: Operational, economic & societal benefits	Giampaolo Sibilia, Nuvera, IT

13:30 - 15:00

K1 STATIONARY FUEL CELLS

R00m C4.3	Session Chair: Alexander Dauensteiner, initiative Brennstoffzeile (IBZ), DE	
13:30-13:50	FCH JU support to stationary fuel cells development and application	Nikolaos Lymperopoulos, Fuel Cells and Hydrogen Joint Undertaking, BE
13:50-14:10	Fuel cell 1.4 MW stationary power plant in industrial application	Michael Schäfer, Friatec AG, DE Christoph Hiesgen, E.ON Connecting Energies GmbH, DE
14:10-14:30	Renewable energy projects of the future – From Surf 'n' Turf to Big Hit – from stationary to mobile	Uwe Halbmeier, Proton Motor Fuel Cell GmbH, DE
14:30-14:50	Fuel cell Vitovalor from Viessmann - Heat and power supply for residential application	Andre Vollmer, Hexis AG, CH

K2 SECTOR COUPLING - POTENTIAL MARKETS FOR FUEL CELLS AND BATTERIES

Room C5.3	Session Chair: Jan Frederik Sieper, Ernst & Young, DE	
13:30-13:50	Offshore wind crossing sectors - Cost effective renewables pushing into new markets	Holger Grubel, ONP Management GmbH, DE
13:50-14:10	Urban mobility – Opportunities and challenges for fuel cell and battery powered vehicles	Reinhold Wurster, Ludwig-Bölkow-Systemtechnik GmbH, DE
14:10-14:30	Sector coupling – the pathway to 95% Greenhousegas-Reduction	Maike Schmidt, ZSW Zentrum für Sonnenenergie- und Wasserstoff-Forschung, DE
14:30-14:50	A clean switch to clean energy – World's first energy autonomous multi-family home	Rohit Prasad, Proton Motor Fuel Cell GmbH, DE

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