



Newsletter

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Dear Reader

We are pleased to present the latest SCCER Mobility news to you. This issue communicates major advances and events of our research platform. Enjoy reading!

News & Highlights



New “Transfer” tab on the SCCER Mobility website

The new tab called “transfer” on the SCCER Mobility website gives information about all things related to Knowledge and Technology Transfer (KTT). In particular, it is geared towards companies and institutions that could contribute to the implementation or application of the technologies and knowledge resulting from the SCCER Mobility research activities. Furthermore, there is information and news for start-up companies and young entrepreneurs.

[More information](#)



Lighter and more energy efficient on-board batteries

SBB intends to phase out its heavy rail car batteries gradually to lower energy demand and resulting costs. To this end, the project “New battery technology SBB” was initiated in 2014 in collaboration with the BFH Energy Storage Research Centre (ESReC). It developed a functional prototype that is lighter, smaller, more durable and equipped with a system for optimal charging so that energy efficiency and lifetime were increased substantially.

[Read more](#)

Photograph: SBB



Photograph: SBB

SBB launches new Green Class combined mobility

Based on the success of the first pilot project "SBB Green Class E-Car", SBB has now developed a new Green Class combined mobility package. With this new offer, users can take advantage of using mobility services in combination. SBB Green Class pilot projects are part of a research collaboration with ETH Zurich and involved research groups are active in SCCER Mobility.

[Read more](#)



Hypes about energy carriers have come and gone – what's here to stay?

Konstantinos Boulouchos and Peter de Haan elaborate on this topic in an ecofriendly article that appeared recently. They maintain that regardless of the energy carrier, it is important to consider the energy input and CO₂ emissions not only of operating the vehicle (tank-to-wheel), but also of producing its energy carrier (well-to-wheel).

[Read more](#)



Mobility Platform to reduce ETH carbon footprint

The ETH Mobility Platform is the main point of contact for everything surrounding mobility at ETH Zurich. Its principal goal is to reduce energy consumption and resulting CO₂ emissions from mobility related to the daily business of ETH. This includes trips to, from ETH and between its locations, ETH business travel, barrier-free mobility as well as delivery and distribution of goods.

[Read more](#)

[More news highlights](#)

MAS | CAS ETH "Future Transport Systems" News



MAS goes into its second round

The MAS ETH "Future Transport Systems" will restart in January 2019 with the CAS "System Aspects". The first round started in Spring 2017 and will conclude at the end of 2018 with an Integration Module and the Master theses. The modular MAS program currently consists of three CAS courses covering systemic, technological and business aspects of future mobility. All CAS courses can also be visited individually. Since its introduction the program welcomed about 25 students. MAS and CAS registration will open in July 2018.

[More information](#)

[Contact](#)

Interview Prof. Dominique Foray – perspectives from an innovation economist part IV



Dominique Foray is Full Professor at EPFL and leads the Chair of Economics and Management of Innovation (CEMI). He is also responsible for the content and design of the module dealing with innovation in mobility systems in the CAS "System Aspects". To get a glimpse of how an innovation economist assesses current and future developments in the transport sector, we will be featuring excerpts from an interview with Dominique Foray.

Disruptive innovation creates new markets and values and thus ultimately disturbs existing markets along with their central companies, products and networks. What innovations have the potential to disrupt the mobility sector? Do you think they can support the transition to a more sustainable transport system?

D.F.: Several innovations have a clear disruption potential in the domain of transportation. The candidates are obvious: autonomous driving is one, the development of platforms for sharing or trading mobility capacities is another. Electric vehicle is of course an important innovation. It is not clear however that it is disruptive (an innovation can be radical or major while not being disruptive).

Nothing is very much predictable in terms of the effect of disruptive innovations on the sustainability of our mobility patterns. For example, it seems to me that Uber, which was clearly a disruptive innovation, is not increasing sustainability. Some other disruptive innovations – which can damage the business or social model of public transport companies – could be not sustainable at all! At the end of the day the relationships between disruption and sustainability depend very much of the mode of usage of the new technology.

[More information MAS](#)

Upcoming events

SCCER Mobility Annual Conference 2018

The 5th SCCER Mobility Annual Conference will take place on **11 September** at ETH Zurich. The cross-cutting session in the morning will deal with "non-propulsive vehicle technology potentials" and include a keynote by Prof. Leif Asp (Chalmers University) as well as short talks from industry and SCCER Mobility. The afternoon session is themed "European and Swiss mobility research landscape" and the invited keynote speaker Prof. Anja Schulze (University of Zurich) and the other inputs will provide an overview of the evolution of the market and strategies in mobility research within Switzerland and at the European level. Continuously updated information can be found [here](#). Registration will open on **18 June**.

[More upcoming events](#)

SCCERs



5th SCCER CREST Annual Conference "The Future of Energy"

How will we use energy in 2050? How will it be supplied? What is needed to get our society there? The 5th SCCER CREST Annual Conference, taking place in Basel on **12 September**, is dedicated to finding answers to these questions. In addition to the plenary program, researchers from the different CREST work packages and joint activities will present their current research and discuss the results. [Registration](#) is open now.

"Energiezukunft Schweiz - Wohin führt der Weg?"

This public SCCER CREST event (in German) will be held **11 September** at the University of Basel. Following inputs by experts from science, industry and politics, participants will discuss what type of energy future is desirable and if the chosen path will lead us to this goal. More information is available on the [CREST website](#).

Registration for the 5th SCCER-SoE Annual Conference open now!

The SCCER-SoE conference "Hydropower and Geo-Energy in Switzerland: Challenges and Perspectives" will be held on **13 & 14 September** in Horw (LU), Lucerne University of Applied Sciences and Arts. [Registration](#) is open now. For detailed information visit the [SoE website](#).



5th SCCER-FURIES Annual Conference

The SCCER-FURIES Annual Conference 2018 "The future of the Swiss electrical infrastructure" will take place **22 October** at the SwissTech Convention Center in Lausanne. This event will bring together 180 experts working on power grids from the academic, private and public sector in Switzerland. Attendance is free of charge but [registration](#) is required.

SCCER Mobility Glossary

This section intends to widen the common ground between all SCCER Mobility partners. Contributions from our members are welcome. To make suggestions for this section, please contact the [Management Office](#).

The **MAS | CAS ETH "Future Transport Systems"** is a continuing education program, which was developed within the SCCER Mobility framework and was launched in Spring 2017. It consists of three interdisciplinary [Certificates of Advanced Studies](#) (CAS) and after completion of all three, participants can obtain the [Master of Advanced Studies](#) (MAS). As the title implies, it imparts knowledge and skills to develop marketable products and services in a practical working environment that promote sustainable and resource-efficient future mobility.

The first **CAS "System Aspects"** focuses on the mobility system as a whole, its dynamics and future developments. Students learn how to develop and analyze mobility scenarios and gain a sound foundation for designing innovation and change processes in mobility systems.

The **CAS "Technology Potentials"** deals with potentials in the areas of powertrain, vehicle and energy carrier technology. Along with this emphasis on hardware, it also focuses on the upcoming advancements in spatial, information and communication technology. Furthermore, participants learn how to assess new technologies in an integrative manner, for example by considering lifecycle emissions.

In the third and final **CAS "New Business Models"**, the emphasis is on developing and implementing new business solutions and strategies for future mobility. To devise marketable and sustainable business ideas, participants learn about boundary conditions of the mobility system and the behavior of its users.

At the end of each CAS and MAS, students elaborate a final project. Then they present and defend their work in front of an audience consisting of the lecturers, project supervisors and invited experts from the private sector or public offices. Several SCCER Mobility researchers are involved in lecturing and students are usually experienced professionals in the transportation sector and related fields. More information is available on the [program website](#).

Quiz

SBB Green Class pilot customers reduced their individual CO₂ emissions by what amount? The first 10 people to send the correct answer to [Fiorella Meyer](#) will enter the final drawing and have a chance to win (e-mail subject: QUIZ).

Solution of the previous quiz: Regenerative braking recharges the eDumper batteries. The winner was Martin K uchler, Zugerland Verkehrsbetriebe and participant CAS "System Aspects" & "New Business Models". Congratulations!

This information is provided by the Management Office of SCCER Mobility. Our newsletter is issued 4 times per year. If you have information that you would like to share, please contact [Kirsten Oswald](#).

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