

Newsletter



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Dear Reader

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

Dr. Gloria Romera, Managing Director SCCER Mobility

Management Office News

Fourth Annual Conference

In September, the 4th SCCER Mobility Annual Conference welcomed over 120 participants including about 40 external guests. Running under the motto of "cross-cutting" research, experts from SCCER Mobility and other institutes and companies (i.a. DLR, VW, ARE, BFE, SBB Cargo, Alpiq) had the chance to exchange about challenges and strategies in the fields of logistics, passenger mobility and energy for transport. Forty poster contributions and selected poster pitches highlighted other research foci of the SCCER Mobility community. Congratulations to Merla Kubli from HSG, who won the Best Poster Award. In case you want to find out more or missed the conference, all presentations and posters are available for [download](#).

First year of second funding phase draws to an end

The yearly CTI evaluation, which took place at Empa this November, concludes the monitoring process of the first year of SCCER phase II. Overall, the feedback from the Evaluation Panel was very positive, especially commending SCCER Mobility's team formation, industry cooperation, KTT (knowledge & technology transfer) and communication efforts. Detailed recommendations and requirements for next year will follow in January. Thank you for your excellent performance and cooperation this year, which was much appreciated by the Evaluation Panel.

MAS|CAS in "Future Transport Systems" News

Registration for the next CAS "New Business Models"

Registration for the next CAS "New Business Models" is still open until **4 December**. This course offers participants a deep insight into business models in transport systems. They will learn first-hand from international business leaders how to develop, evaluate and implement a successful new business model. For more information and registration, please visit the [program website](#) or contact [Maria Youssefzadeh](#).

Interview series with Prof. Dominique Foray – perspectives from an innovation economist Part II

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 "Systemic Aspects of Future Transport". 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.

There is a distinction between technological inventions, which are a product of scientific discovery, and innovations, which are tested, validated and adopted in the economy. With respect to the transportation sector, can you give us an (some) example(s) of inventions, which have failed to innovate this sector? In your opinion, what were the reasons for this?



D.F.: This is a key definition: unlike invention, innovation is an economic phenomenon. There is an innovation only if the new (or improved) idea materializes in a product or a process AND is tested and experimented in the economy. This is what we call an economic discovery process (discovering whether the idea and its materialization work economically). If the new idea and its materialization are not “adopted” in the economy, it is not an innovation. In that sense – innovation as entering in the economy mainly produces economic knowledge and the technological revolutions mentioned above are always characterized by an explosion of economic knowledge.

There are plenty of examples in the transportation sector of great technological achievements that never entered the economy to be tested and experimented. The most popular example is of course the Concorde – a great technological object, which never went to the “laboratory of economic knowledge”. Contrasting with such case, the low cost phenomenon is a radical innovation, whose creation mobilized very few science and technology (unlike Concorde) and which originated primarily from a process of economic discovery. The macroeconomic importance and productivity impact of the latter having been extraordinarily greater than those of the aeronautic gem.

Upcoming Events

Seminar Prof. Takafumi Koseki, Electrical Engineering Dept., University of Tokyo

In this SCCER Mobility seminar, taking place on **7 December** at **ETH Zurich**, Prof. Koseki will share insights on scheduling and automatic train operation technology to optimize train energy efficiency. The talk will highlight two mathematical approaches to determine energy-saving running profiles and their application to a first case study at a metro line in Japan. [Register](#) and join the lecture to find out more!

Decarbonizing the transport sector – a special session at the ETSAP workshop

The [ETSAP](#) (Energy Technology Systems Analysis Program) promotes open source solutions for energy scenario modeling. This year’s autumn workshop will be held **11-12 December** at **ETH Zurich**. The special session on transport, organized in cooperation with SCCER Mobility, will focus on future developments of the sector including available technological options and solutions. [More information](#) and [registration](#).

Public lecture event “Batterien für die E-Mobilität”

Organized by SCCER Mobility, BFH, ETHZ and inspire, this event deals with the role of e-mobility in boosting the Swiss energy transition. While electric cars are becoming more competitive, their charging speed, weight and lifetime still need improvement. Moreover, consumer doubts about safety and reliability need be to addressed. Join this [event](#) on **1 February** at **ETH Zurich** to discuss these issues with experts from science, industry, public offices as well as with users.

Please visit the SCCER Mobility website for more [upcoming events](#).

News and Highlights

First SCCER Mobility white paper

SCCER Mobility’s first white paper is a condensed version of the Vision Development Report. Written in German it is aimed specifically at reaching stakeholders, policy makers and opinion leaders. Like the full report, this document sketches possible development paths for future mobility, which are consistent with the Swiss Energy Strategy 2050 and the Paris Agreement on climate change. [Download](#) your copy or read the related [ETH Zukunftsblog](#) and [Schweizer Maschinenmarkt](#) articles.

SCCER Mobility at ICCM21

Material scientists from Capacity Area A3 represented SCCER Mobility at the 21st International Conference on Composite Materials (ICCM21) in Xi'an, China. Prof. Véronique Michaud (EPFL), Prof. Joanna Wong (ETHZ, now at University of Calgary), Martin Eichenhofer (ETHZ) and Christoph Schneeberger (ETHZ) presented their newest findings, which may lead to lighter and thus more fuel-efficient vehicles. [Read more](#).

SCCER Mobility at the 15th SWISSMEM Symposium

Dr. Gil Georges, active in Capacity Areas A3 and B1 and the coordinator of the Joint Activity CEDA, was an invited guest speaker at the 15th SWISSMEM Symposium about electromobility. His presentation focused on the current debate surrounding electromobility and its potential to reduce emissions. He stressed that it is important to recognize that deploying electric vehicles can only help mitigate CO₂ emissions if the electricity for charging stems from renewable resources. Find out [more](#).

Please visit the SCCER Mobility website for more [news](#) from our partners.

SCCERs

At the **SCCER School "Shaping the Energy Transition"** in Engelberg in mid-October, the first of its kind, 160 PhD students, postdocs and scientific assistants spent three days thinking and discussing about how to shape the energy transition with their research. Nearly 40 speakers from academia, industry and federal offices covering topics such as the energy market, storage, supply, consumption and distribution inspired and challenged the young scientists. Excursions to a multifunctional wastewater treatment plant, the small hydropower plant Trübsee and the Benedictine Monastery of Engelberg enriched the dense program and allowed soaking up the warm autumn sun and panoramic mountain view. [Take a look at some pictures and download the presentations](#).

The **SCCER EIP and FEEB&D joint Annual Conference 2017** will take place on **30 November** at **ETH Zurich**. Research and industry partners will provide insights on successful cooperation and implementation activities in the area of "Energy Technology and Process Engineering in Building and Industrial Sectors". Refer to the conference [flyer](#) for more information.

Together with EWZ, NFP70/71 and BFE, **SCCER CREST** is hosting the event **"Tagung Sozialwissenschaften und Praxis im Dialog: Energiezukunft von Städten und Gemeinden"** on **26 January** in **Biel**. At this congress, experts from science and practice will exchange and discuss about the energy future of cities and municipalities. [Read more](#).

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.

Strategic niche management (SNM) rests on the assumptions that (1) technological and behavioral factors are tightly interwoven and that (2) systemic transitions can only come about if new technologies are developed and tested in 'protected' spaces. Within such 'protected' spaces, users can exploit new technologies and their behavior allows for assessing the technological, economic and social suitability of these technologies. Ultimately, SNM supports designing effective policies that will increase the adoption of a new technology, expand the niche market and possibly initiate a transition.

Based on SNM, the **living lab** methodology involves users for assessing, exploring and creating innovative ideas, scenarios, concepts and technologies in their normal day-to-day life. For example, users test new energy-efficient buildings by living in them for some time. The involved users are not only observed as 'lab subjects', but can also be engaged in co-creating innovations. Thus, living labs offer a way of creating, examining and refining new solutions *in vivo* with real end-users. Considering this social realm helps to understand why and how certain technologies can be adopted at a large scale. Furthermore, by evaluating the users' interaction with the new technology, barriers to change can be identified.

Dr. Roman Rudel's group at SUPSI, active in Capacity Area B2, uses the living lab approach to analyze 'real world' response to mobility options in terms of behavior, i.e. consumer acceptance of new technologies or creation of new mobility practices. Some of the living lab projects include [e-mobiliTI](#), [SocialCar](#), [GoEco!](#) and [Bellidea](#).

Quiz

Which two media platforms published articles about SCCER Mobility and its white paper recently? 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: On average, every Swiss resident travels about 37 km by car or by public transport each day. This time we awarded two winners: Kurt Hug and Christian Voegtli from BFH. Congratulations!

This information is provided by the Management Office of SCCER Mobility. Our newsletter is issued 2-3 times per year. If you have information that you would like to share, please contact [Kirsten Oswald](#).

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