

# SAGE NEWSLETTER

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## EDITORIAL

### DEAR READER,

With this last issue of the SAGE newsletter we would like to share with you some of the great results of our project. SAGE as a FP7 project ends at the last of October this year, but SAGE as a consortium lives on. A Memorandum of Understanding between the participating clusters was signed at the final conference in Gothenburg on the 22nd of October. In this memorandum the partners commit to continue the successful cooperation with a strong focus on project development, transnational mobility and share of experiences and information.



Proud signatories of the SAGE MoU.

The European Commission strongly points to clusters and other innovation hubs such as science parks when it comes to implementing the European Innovation Union. SAGE welcomes this approach and believes that clusters will continue to play an increasingly important role in European transport research and innovation. Thus, the SAGE journey continues.

The articles in this newsletter aim to show the main results of SAGE in each participating region. In some regions strong cluster structures existed already going in to the project, in others they have been built during the project. But true for all regions is that we have learned from each other and that we are stronger now than three years back. The Regions of Knowledge program was created to increase regional capacity in research and innovation – and for us it sure has.

On a transnational level the following results stand out:

- Successful project teams within SAGE have created a number of transnational R&I projects accepted for funding (or submitted for funding) in FP7 and Horizon 2020. The topics include urban mobility, HMI, electric vehicles and alternative fuels.
- SAGE universities have signed bi-lateral agreements for future mobility of students and researchers (Erasmus) and several exchanges have already been carried out.
- The consortium of the five core clusters still remain but during the project cooperation has been initiated with four emerging European clusters in Spain (CEAGA), Italy (IAM), Romania (Auto Muntenia) and Turkey (Bursa region). Workshops on cluster management have been carried out in all four associated clusters and this way SAGE has contributed to strengthening European competitiveness.
- Outside Europe SAGE has built successful cooperation with automotive clusters in Asia, namely Shanghai (SIAC) in China, Daejeon (KAIST) in Korea and Nagoya (GREMO) in Japan. Study tours were carried out in all three regions which has resulted in both projects and letters of understanding.
- SAGE has been able to influence regional policy on sustainable transport on several occasions. Not at least has SAGE results fed into the regional processes of drafting the European Regional Development Fund programs and the appurtenant smart specialization strategies.
- Through the SAGE project each region was able to perform a solid analysis of their competences, weaknesses and strengths, providing a unique material for future actions, but also future communication of the clusters.
- A vast number of communication activities have been carried out on regional, national and European level.

The SAGE consortium would like to thank all people that have taken part in our activities or in other ways have supported our project. SAGE lives on – and you are most welcome to join us in our future endeavors.

HANNA BLOMDAHL  
SAGE COORDINATOR

**SAGE**   
Safe and Green Road Vehicles Europe



## SAGE BOOSTED THE INTERNATIONAL EXPANSION OF MOV'EO

SAGE was a real opportunity for Mov'eo, in phase with the international expansion of the cluster. Thanks to SAGE, Mov'eo has established strong relationships with partners which allowed concrete collaborations. By challenging the mission, priorities and organization of Mov'eo, the project also contributed to develop the new strategic plan "IMAGINE MOBILITY!" going from 2013 to 2018.

### PROJECT-BUILDING

The cluster got a better understanding of the European ecosystem of innovation with SAGE and increased the role of Mov'eo and its members in European projects in relation with H2020 perspectives. All the cluster's members were made aware of the European project thanks to SAGE workshops and network within the project. Some fruitful cooperations were born, for example, with the TOMORROW project, the cluster built a consortium with SAGE partners in order to apply for a H2020 call. Indeed, Mov'eo gathered on the urban mobility aspects 18 partners of which 6 was SAGE partners and 9 from SAGE areas. The consortium was invited to be submitted to step two of the H2020 process.

### INTER-CLUSTERING ACTION

The project enhanced the activity of inter-clustering which is directly in line with the cluster strategy. Lasting relationships and trust have been established between partners. Furthermore SAGE contributed to initiate new cooperation between Mov'eo and clusters like CEAGA in Spain and Auto Muntenia in Romania, with which a MOU was signed recently. There are currently discussions about the opportunity to apply for a H2020 call dedicated to cluster management.

### NEW STAKEHOLDERS' INVOLVEMENT

The SAGE project allowed Mov'eo to belong to a renowned network of competences where future challenges facing the automotive industry are discussed. Some very good speakers gave talks on the different SAGE workshops and gave rise to interesting discussion. Different stakeholders from Paris/Normandy were invited to the workshops and were introduced into the network thanks to introduction's pitches. This networking's opportunity strengthened directly the cooperation between different actors. The strong territorial anchoring of the action also deserves to be mentioned. Two workshops were organized in Mov'eo territories (Rouen and Versailles) and through study visits the advanced research infrastructures were highlighted.



Workshop for the project proposal Tomorrow, invited to be submitted to stage two of the H2020 process.

### CLUSTER'S INTERNATIONALIZATION

The actions on International collaboration allowed Mov'eo to initiate interesting contacts in Asia and provide a relevant benchmarking on cluster organization. The workshop organized by Mov'eo in Daejeon was a great opportunity to meet representatives from the triple helix in Korea, to discover the technologies developed, to exchange on future mobility challenges and to initiate cooperation. A next meeting is planned during the ITS world congress 2015 in Bordeaux.

Furthermore, thanks to SAGE, Mov'eo was able to internationalize some initiatives. In 2011, a French HMI network was created within the cluster. The network consists of more than 75 persons and aims to bring together experts from several areas around HMI. In 2014, the French HMI network would like to extend to the European level. This proposition got a warm welcome within SAGE and different HMI experts from the SAGE network have decided to build a European network and to apply to the COST program. The project will be submitted in March 2015 and a call for experts is open.



## SAGE STRENGTHENED THE SUCCESSFUL TRIPLE HELIX APPROACH IN REGENSBURG



Electric cars in Regensburg show the way to the future.

The e-mobility cluster Regensburg operates in the eastern part of Bavaria. The economical and scientific center of the region is the City of Regensburg, a high-tech location in the fields of automotive, electrical engineering, information technology and energy. Continental, a worldwide leading automotive supplier, the OTH Regensburg, an established university partner in Automotive Engineering and the City of Regensburg represent the triple helix in the SAGE project.

The e-mobility cluster Regensburg, managed by the City of Regensburg, has more than 40 active members – global players, mid-size enterprises, SME and universities – who are committed to cooperate in the field of e-mobility and green automotive applications. The e-mobility cluster is a distinct supplier network. The activities are centered on three strategic domains along the value-chain of e-mobility: Electric vehicle, intelligent charging infrastructure and smart-grid.

The most important objective of the e-mobility cluster is collaboration in innovative projects on a regional, national and international basis. A great emphasis is also put on linkage to other regional, European and international clusters. The results of SAGE are reported continuously at regional cluster events and to a wider audience.

### PART OF TOP-CLASS EUROPEAN NETWORK

The participation in the SAGE network of top-class cluster regions has inspired the regional cluster. Together with Continental, OTH Regensburg and the City of Regensburg cluster members were actively involved in next stage cluster development. Assessment of the capacity and subsequent SWOT analysis as well as active involvement in the discussion of project ideas have strengthened the regional capacity and increased the pace of regional cluster development.

Several projects in the fields of intelligent charging and smart-grid integration of e-vehicles were started. Continental and OTH Regensburg are important partners of the regional projects. Innovative SMEs could successfully be integrated in nearly all of the regional collaboration projects.

The combination of existing regional experience in cluster development (e.g. from Bavarian Sensor Cluster based in Regensburg) and the opportunity to learn from mature cluster organizations in the automotive field as (e.g. the large French automotive cluster MOVEO) supported a focused cluster development.

### ELABORATION OF JOINT COOPERATION TOPICS

The initiation of R&D projects between European partners was a major objective of SAGE. The four thematic focus groups Green, Safe, Connectivity and Mobility elaborated the relevant innovative topics. A great success is the participation of the City of Regensburg, OTH Regensburg and cluster member Technical University of Applied Science Deggendorf in project proposal on the topic of mobility solutions for reduced emissions, led by Mov'eo. Both universities are also taking part in forming a European network of HMI experts. Furthermore a great achievement is the signed agreement between OTH Regensburg and Politecnico di Torino for future cooperation in research and education in the fields of Automotive and Mechatronics covering students and faculty exchange.

The involvement of the regional stakeholders in SAGE workshops, annual conferences and regular meetings has triggered many business contacts and scientific dialogues between SAGE partners. An active scientific dialogue between OTH Regensburg and Politecnico Torino and also Chalmers University of Technology on control theory for

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green vehicles has developed. Contacts to the University of Pisa led to a further R&D project proposal in the HORIZON 2020 context.

Further markets have been investigated in the frame of the international SAGE activities. Discussions with relevant players in Turkey and South Korea (e.g. KAIST)

are ongoing with a possibility for future international cooperation in e-mobility and automated driving.

### SUCCESSFUL COOPERATION CONTINUES

SAGE pushed the development of a stable partnership between the cluster organizations in the different European regions. The implementation of further joint initiatives and cooperative projects between the cluster actors will continue.

## THE LAUNCH OF SAGE-TORINO

Skills, competences and know-how relevant to SAGE are well represented in Piemonte whether at industrial, research and educational level. Nevertheless a distinctive over-arching actor able to boost the coordination and interaction amongst the several stakeholders involved has been missing. An important lesson learned from the SAGE project is that this is needed in order to agree on a joint strategy, to put in place a system for decision-making at high level and to promote – also at international level – the attractiveness, the competitiveness and the competences of the local sustainable automotive sector. In this perspective the SAGE partnership in Piemonte (Region Piemonte, Politecnico di Torino, Centro Ricerche Fiat) tried to overcome the gap acting as a facilitator, creating active involvement of stakeholders potentially interested and fostering collaborations and exchange of information between them. This approach was particularly fruitful in

the following contexts:

- To extend the network of stakeholders in the Piemonte cluster, facilitating the effective collaboration between academia, industries and public authorities
- To contribute in defining the Smart Specialization Strategy for ERDF, in which the automotive sector is recognized as an industrial priority area of innovation on which Piemonte focuses its future strategy
- To establish and enhance a strong and cross-cutting collaboration within Region Piemonte offices on “sustainable automotive issues” that - in august 2014 - was formally defined as “Regional task force dedicated to Electric and Smart Mobility” involving five directorates
- To strengthen relations with emerging clusters both at national level (IAM, Abruzzo) and international (CEAGA in Spain, Bursa in Turkey, Muntenia in Romania)
- To support Piemonte cluster participation to regional, national and European calls



SAGE-Torino unites stakeholders within the transport sector and promotes international competitiveness.

### SUCCESSFUL PROJECT DEVELOPMENT

One example of the last point is that Region Piemonte participated to the call issued by the Italian Ministry of Infrastructures and Transports addressed to regions to finance charging infrastructures dedicated to electric vehicles, in which – as announced on July 2014 – Piemonte project placed in third position.

Another example is that stakeholders of the Piemonte cluster together with others jointly applied to a Horizon 2020 call about innovative concepts and methods for alternative fuels infrastructure to facilitate its deployment. Thanks to the coordination of the Politecnico di Torino, and to the important experience of the SAGE project, the Italian partners have launched the SAGE-Torino initiative with the final aim to strengthen cooperation within the Turin cluster and maintain a territorial coordination.

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### TAKING COOPERATION ONE STEP FURTHER

SAGE-Torino focuses on four main areas: green vehicles, safety, connectivity and mobility services and the idea is to continue to launch new projects within demonstration, innovation, research and education.

SAGE-Torino brings together two different approaches: Bottom up - integration of skills in a general framework, acting as a showcase for the cluster members and promoting new projects. Top down - search for solutions to the problems of the territory by using the expertise and

competencies available inside the cluster.

The main objectives of the SAGE-Torino are to:

- Analyze and map the skills and expertise in the area, without modifying the existing relations
- Promote international competitiveness
- Facilitate European and international networking by exploiting the link with SAGE Europe
- Promote research and development projects between partners
- Contribute to the expansion of activities related to mobility on the territory

### THE YOUNG WARSAW CLUSTER HAS LEARNED AS WELL AS CONTRIBUTED



Warsaw University of Technology represents the Warsaw E-Mobil Cluster.

The Warsaw E-Mobil Cluster was established in July 2011 by Warsaw University of Technology and Warsaw City Hall. The cluster is a joint initiative by scientific institutions, local government, agencies, associations, funds, and companies which are dedicated to education, research, implementation, and business in the field of electromobility, mainly located in (but not limited to) the Warsaw area. The cluster is young and small, but it unites major Polish national research resources within green and safe road transportation; WUT, CLAIo, PiMOT, ITS, and KOMEL. The objectives of the Warsaw

E-Mobil Cluster are:

- Introducing CNG buses to public transport in Warsaw
- Introducing HEV & EV buses to public transport in Warsaw
- Introducing an EV fleet to public or private transportation
- Developing ultra-light niche EVs for urban transportation
- Developing infrastructure and solutions for a smart grid together with local government and Polish energy companies

### MENTORING

It was a great opportunity for Warsaw E-Mobil Cluster to join SAGE at the same time as the cluster was created. The cluster, mainly through its coordinator and SAGE partner Warsaw University of Technology, has been able to learn from more mature European automotive clusters and in this way accelerate the development in Warsaw.

An important event for this mentoring was the cluster management workshop and cluster seminar in Warsaw in May 2013. One day was devoted for the workshop where members of the E-Mobil cluster received face-to-face mentoring from Mov'eo representatives. The other day a larger seminar was organized with many representatives from different parts of Warsaw society and a larger group of SAGE members. Other important activities include study tours from Warsaw to Gothenburg and to Torino. Warsaw University of Technology has also taken part in all SAGE meetings and conferences with the result that they are important contributors in many of the project proposals created by SAGE.

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### STUDENT MOBILITY AND VISITING PROFESSORS

Warsaw University of Technology has special links to Politecnico di Torino and because of SAGE this partnership has continued to grow. A special agreement for the mobility of students and researchers between the two universities was recently signed. Warsaw University of Technology also has special links to universities in Beijing which has been of great value in the cluster analysis and cooperation strategy with Asia. Both Beijing and Torino professors have been visiting professors in Warsaw as a result of SAGE. A cooperation agreement with Chalmers University of Technology is about to be signed.

Warsaw University of Technology has been able to bring many important stakeholders into the SAGE network, not at least Warsaw City, energy company Tauron and MZA (Warsaw Bus operator). MZA, supported by the E-Mobil Cluster, has an ambition plan to have 130 electric buses in the city by 2030.

A concrete result of the Warsaw participation in SAGE is that Warsaw University of Technology discovered, through visits in the other regions, that studies in hybrid- and electric vehicles need to be organized in a new manner. This partly initiated the birth of a new bachelor degree study at the university conducted over six different faculties. In 2013 and 2014 200 students, including international ones, were recruited for this H&EV bachelor.

## VÄSTRA GÖTALAND CONTINUES TO INVEST IN PUBLIC-PRIVATE PARTNERSHIPS

In Västra Götaland the participation in SAGE sparked an important discussion on how the region could increase its competitiveness by better coordination within the cluster. The analysis made in the beginning of the project showed clearly that, although there is not one single organization representing the transport cluster, many public private initiatives in different areas of strength, such as active safety, automation, alternative fuels, transport efficiency and vehicle-ICT, exist side by side. For this system to work it is important that there is coordination between the different initiatives and that there is a discussion on strategic level between the main stakeholders. Through SAGE this has now partly been achieved. The main stakeholders in the region give a strong mandate to Lindholmen Science Park as an important cluster node for transport in the region. The mandate is based on trust and an openness to all potential stakeholders. The regular cluster meetings between the SAGE partners Region Västra Götaland, Chalmers University of Technology and AB Volvo has now expanded with partners such as Innovatum and Lindholmen science parks, City of Gothenburg, Volvo Cars, the national transport authority and important research institutes.

### POLICY IMPACT

SAGE was able to feed into regional strategies for sustainable transport in several different ways. The analysis from the beginning of the project supported Region Västra Götaland to draft a sustainable transport program. Later on SAGE influenced the regional ERDF program and smart specialization strategy. But perhaps



Test and demonstration projects are important when cluster cooperation in Västra Götaland continues to develop.

most importantly, SAGE has strengthened the conviction that neutral arenas where business and academia can meet and develop common innovation projects are of vital importance for regional development. It is equally essential that there is an infrastructure for innovation in place, not at least test and demonstration facilities. The Västra Götaland cluster invest heavily in large scale public-private test and demonstration such as AstaZero (test facility for active safety), Electricity (electric buses) and Drive Me (automated driving). The six science parks in the region constitute a network of innovation hubs where a lot of the development is focused. The OECD has previously

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commended Västra Götaland for the strong innovation system surrounding the science parks and it is with great content we now see the Joint Research Centre of the European Commission initiating a discussion about the role of science parks in smart specialization strategies.

Another great result of SAGE in Västra Götaland is that the participating organizations have been able to build strong competences in regards to Horizon 2020. Västra Götaland has joined actively in the project development in SAGE and participates (and coordinates) in several initiatives. With the new competences and the international network, stakeholders in Västra Götaland are more than ready to continue to build successful European projects.

AB Volvo led the international work package that strengthened several already established contacts between Västra Götaland and Asia. Viktoria Swedish ICT

cooperates with SIAC in Shanghai and SAFER at Chalmers cooperates with GREMO in Nagoya. Other opportunities will continue to be explored.

#### URBAN MOBILITY

In order to successfully close the SAGE project a conference was organized at Lindholmen Science Park in October. European Urban Mobility 2014 was a great success and gathered around 100 participants from 10 different countries. The conference was organized in close cooperation with another consortium, led by Chalmers University of Technology. They coordinate a strategic effort to build a consortium to apply for a Knowledge and Innovation Community (EIT-KIC) in Urban Mobility in 2018 and this consortium partly overlaps with the SAGE consortium. The conference put an end to the Regions of Knowledge project SAGE but it was at the same time a launch of the future SAGE work based on the MoU and the continuing process to strive for an Urban Mobility KIC.

#### PARTNERS:



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