

Technology Platform SMART CITIES Austria

Contribution to the Public Consultation on the Smart Cities and Communities Initiative

Abstract

- The members of the Technology Platform SMART CITIES Austria wholeheartedly welcome the establishment of the European Smart Cities and Communities Initiative as an important and positive step towards enabling a transformation to smarter cities.
- The different technologies mentioned in the consultation document all have a contribution to make towards smarter cities. One important focus, however, should also be on how to harness the benefits from the interaction of these technologies and systems to make the whole urban system more efficient.
- Concrete demonstration projects are an important component of the initiative, as they enable technology providers as well as city administrations to test and receive feedback on new technologies, concepts and business models and the way city dwellers and users respond to them.
- The Smart Cities and Communities Initiative should enable the participation of cities of different types and sizes.
- While similarities in conditions regarding characteristics such as those mentioned in the consultation questionnaire can be conducive to collaboration, successful collaborations can also be possible among cities that are different with respect to those characteristics, and the replication potential of projects can be enhanced by having experiences from cities of different types. Therefore, such criteria should not be used to limit the possible combinations of cities working together in demonstration projects.
- Austrian businesses, communities/regions and research organisations already possess considerable know-how and experience in areas related to smart cities, not least thanks to the longstanding tradition of public support for research, development, innovation, and demonstration projects in relevant fields.
- The members of the Platform are eager to share this experience and contribute further to the development of the European Initiative.

Introduction

Urbanization is a global megatrend, and cities – due to their size in terms of population and economic power – will be the crystallization points where the impacts of some of the global Grand Challenges such as demographic change, climate change and globalization will be felt most intensely. In addition, the increasing energy consumption of urban areas must be tackled as part of policies to mitigate greenhouse gas emissions and improve energy security.

Making cities and communities smarter, that is enabling them to offer excellent quality of life for their inhabitants as well as an attractive business environment, while continuously improving energy and resource efficiency is a major challenge already today and will remain

important for the decades to come, not only for cities in Europe but even more so for the fast growing urban agglomerations world-wide.

The members of the Technology Platform SMART CITIES Austria are convinced that the establishment of the European Smart Cities and Communities Initiative as part of the activities in the framework of the SET-Plan is an important and timely step in this direction.

Gathering together the large variety of actors from different domains involved in topics relevant for cities will foster exchange and joint learning in order to spark innovative processes, looking not at the optimization of every technology or network on its own, but on how to harness the benefits from their interaction to make the whole urban system more efficient. Combined with concrete demonstration projects, which enable technology providers as well as city administrations to test and receive feedback on new technologies, concepts and business models and the way city dwellers and users respond to them, this will be a major impetus for the development towards smarter cities in Europe.

The Austrian Technology Platform therefore aspires to being closely associated to the European Smart Cities and Communities Initiative and offers active involvement in its activities. Our contributions can draw on a range of experiences and pilot initiatives already under way in Austria, which are briefly described in the next section.

The context in Austria: Existing Experiences and Starting Points for SMART CITIES

Industry and research associations as well as cities and communities in Austria already build on existing knowledge and practical experience in many of the areas that are relevant for smart cities.

To name but a few, Austrian companies are among the world leaders in technologies for passive houses and energy efficient buildings, they possess strong expertise in renewable heating and cooling technologies (e.g. solar thermal, biomass, and heat pumps), innovative mobility solutions, and they can already draw on the experiences from several model regions where smart grid and e-mobility concepts are being implemented and tested.

Last, but not least, many businesses already participate in technology platforms at national and/or EU level and have thus demonstrated their ability and willingness to contribute to the achievement of common European goals.

Important advances have not only been made on the technological side, but also in the awareness of decision makers and the local population of energy related topics. Energy and/or environmental aspects have been integrated as important issues in the management of cities, towns and urban regions. An increasing number of Austrian cities and communities have already elaborated and started to implement energy and/or climate strategies and action plans within the last decade. Many participate in networks of cities striving for more energy efficiency and the use of renewable energies (eg. [“e5 – Programme for energy efficient communities”](#), which is linked to the [European Energy Award](#)), or the reduction of greenhouse gas emissions (eg. communities in the [“Climate Alliance”](#)).

While the inventiveness, creativity and commitment of business and city representatives are the main driving force behind these positive developments, European support programmes

(such as CONCERTO) as well as programmes on national level have contributed significantly to making them possible.

Austria has a long tradition in supporting research and demonstration as well as market uptake of energy efficiency solutions and technologies to harness renewable energy sources. In addition to promoting research on specific technologies, the strategy of the past few years has been to shift the focus of the programmes more and more towards solutions integrating several technologies and focusing on specific use cases, combined with comprehensive monitoring activities to ensure the generation of tangible results and their communication to the expert community as well as the interested public:

For example, the [Austrian Programme on Technologies for Sustainable Development](#), an initiative developed by the Austrian Federal Ministry of Transport, Innovation and Technology, has been supporting and continues to support trendsetting research and development projects and the implementation of exemplary pilot projects in its sub-programmes “HAUS der Zukunft Plus/Building of Tomorrow”, “ENERGIESYSTEME der Zukunft/Energy Systems of Tomorrow” and “FABRIK der Zukunft/Factory of Tomorrow”. Complementary to this, programmes of the Climate and Energy Fund have supported climate and energy model regions as well as e-mobility model regions and a smart grid model region, which not only contribute to technological progress but also increase awareness for these topics and co-operation among regional and municipal decision makers and the local population.

The most recent programme “[Smart Energy Demo – FIT for SET](#)” is a logical continuation of this strategy. The vision of the Austrian Federal Ministry of Transport, Innovation and Technology, together with the Austrian Climate and Energy Fund, for this programme is the first implementation of a „smart city“, or a „smart urban region“, i.e. a district, a residential area or an urban region in Austria, which, with the use of intelligent green technologies will become a „zero emission city/urban region“. The particular focus is on mainly urban demonstration projects in which existing and already well-developed technologies and systems are integrated into interacting overall systems.

The programme is intended as a preparatory phase that will make Austrian consortia “FIT for SET”, enabling them to submit large projects together with international partners in the forthcoming calls emanating from the European Smart Cities and Communities Initiative. It encompasses two stages: The aim of the first call, which has been closed in March 2011 and is now in the evaluation stage, is to support the creation of consortia, whose partners jointly develop their “smart energy“ vision and their implementation concept as a preparation for subsequent demonstration projects. The second phase of the programme, which has been allocated a budget of about 13 million Euros, will support specific demonstration projects and is scheduled to start in September 2011, in order to be aligned with the SET-Plan activities foreseen at EU level. These projects will be presented to an international audience at the beginning of 2012 on the occasion of a “Smart Energy Day” conference.

Initial Comments on the European Smart Cities and Communities Initiative

- The members of the Technology Platform SMART CITIES Austria are convinced that the establishment of the European Smart Cities and Communities Initiative as part of the activities in the framework of the SET-Plan is an important and positive step towards enabling a transformation to smarter cities.
- Gathering together the large variety of actors from different domains involved in topics relevant for cities will foster exchange and joint learning in order to spark innovative processes and develop possible market uptake measures to support the wide-scale implementation of smart city solutions as well as a sharp increase in energy efficiency and renewable energy use. European cities will thus initiate the demonstration of technologies and tools, which can be transferred to other locations world-wide and strengthen the competitiveness of European industry.
- The different technologies mentioned in the consultation document all have a contribution to make towards smarter cities. We consider it important, however, not to focus at the optimization of each single technology on its own, but on how to harness the benefits from the interaction of technologies and systems to make the whole urban system more efficient.
- It is important to combine this with concrete demonstration projects which enable technology providers as well as city administrations to test and receive feedback on new technologies, concepts and business models and the way city dwellers and users respond to them.
- We believe that the Smart Cities and Communities Initiative should enable the participation of cities of different types and sizes.
- While similarities in conditions regarding characteristics such as those mentioned in the consultation questionnaire can be conducive to collaboration, successful collaborations can also be possible among cities that are different with respect to those characteristics, and the replication potential of projects can be enhanced by having experiences from cities of different types. Therefore, we recommend that such criteria should not be used to limit the possible combinations of cities working together in demonstration projects.
- We consider it important that the demonstration projects of participating cities should be embedded in an energy strategy and action plan in order to be considered for funding by the initiative. However, it should be avoided to stipulate criteria in such a way that existing valid energy or climate strategies – which are often the result of comprehensive stakeholder processes – have to be re-calculated and rewritten ahead of their expiry time, just in order to meet certain formalities.

The members of the Technology Platform SMART CITIES Austria herewith reiterate their willingness to contribute further to the preparation and the activities of the European Industrial Initiative, via the future stakeholder forum as well as via any other appropriate means of involvement.

The Technology Platform SMART CITIES Austria

The Technology Platform SMART CITIES Austria has been established in April 2011 by representatives of industries and stakeholders active on topics relevant to SMART CITIES with the common goal of developing and promoting innovative ways of integrating technologies as well as non-technological solutions that enable cities and communities to provide excellent quality of life for their citizens and an attractive business environment while becoming more energy and resource efficient.

The following organizations are among the founders of the platform:

Industry

- avantsmart
- A1 Telekom Austria AG
- Energie Steiermark
- General Electric Jenbacher
- IBM
- Infineon Technologies Austria AG
- Kapsch Gruppe
- Ochsner Wärmepumpen GmbH
- Philips Austria GmbH
- PORR AG
- Rhomberg Bau GmbH
- Schachnerhaus
- Siemens AG Österreich
- VERBUND AG
- voestalpine Stahl GmbH
- Wienerberger AG
- Dachverband Energie-Klima (Umbrella Organization Energy-Climate Protection)
- Federal Association Photovoltaic Austria
- IG Passivhaus Austria
- Industriellenvereinigung (Federation of Austrian Industries)
- Fachverband der Holzindustrie (Association of Austrian Wood Industries)
- Oesterreichs Energie

Cities and Research Organisations

- AEE Institute for Sustainable Technologies (AEE INTEC)
- Austrian Association of Cities and Towns
- Austrian Institute of Technology
- Energieinstitut an der Johannes Kepler Universität Linz
- Energieinstitut der Wirtschaft GmbH
- ENERGY RESEARCH AUSTRIA
- TINA VIENNA Urban Technologies & Strategies GmbH (smart city Wien)

Associations and Technology Platforms

- Association Austria Solar
- Austrian Construction Technology Platform
- Austrian Solar Thermal Technology Platform
- Austrian Technology Platform Smart Grids

The platform is open to participation from further businesses, cities, and organisations committed to the smart cities idea. As a next step, cities participating in the FIT4SET programme will be actively invited to join the platform.

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