



## Editorial

Dear SmartEnCity Enthusiast,

SmartEnCity Project has reached month 44 (out of 66) and the implementation phase is soon coming to an end. We have had our ups and downs: E.g. a successful review meeting in Brussels, some partners have changed, and plans had to be corrected. In projects like SmartEnCity, when reality turns out to be different from its original vision, changes have to be implemented in the project's work plan, agreed within the Consortium. And that is what was happening during the first half of 2019, with the adoption of some better fitting solutions for our Lighthouse Cities: In Sonderborg, it was decided to replace the originally planned heat pump with a new PV and battery scheme that has now been developed. In Tartu, the timeline for retrofitting works had to be extended. In Vitoria-Gasteiz, the combination of joint retrofitting and district heating deployment requested numerous adjustments of the original scheme. These small detours aside, we have already achieved a lot and are really proud of our impressive solutions! And it seems that the rest of the world is too: all three of our Lighthouse Cities have been recently awarded with several prizes as you can read in this present newsletter.

When all our solutions have been realised, tested and evaluated in the Lighthouse Cities, SmartEnCity will pave the way for replication. Our SmartEnCity Network is constantly growing and has reached the impressive number of 49 member cities which are highly interested in our solutions and replication methodology developed within the project. A new webinar training course is starting next year, helping municipalities to start their transition towards smart zero carbon cities.

And last but not least our Horizon 2020 Smart City family is getting bigger and bigger with the 3 new projects ATELIER, SPARC's and POCITYF. Welcome!

And now, find out more and enjoy reading the 7<sup>th</sup> SmartEnCity Newsletter.

Sincerely yours,

**Francisco Rodríguez Pérez-Curiel and Silvia Urra Uriarte**

Project Coordinators of SmartEnCity, TECNALIA Research & Innovation

## Progress in the SmartEnCity Lighthouse Cities

### Sonderborg:

Due to changing partners and related challenges, Sonderborg had to modify its mobility measures such as the number of [biogas buses in the fleet](#) that has been raised to 44. The seven intelligent electric vehicle chargers are now being complemented by 24 conventional ones; thus [31 EV chargers](#) located in public spaces are now forming an effective charging network for the city.

Also, a complete [new energy storage scheme](#) has been developed, where instead of selling the excess energy to the public grid, the produced solar electricity is being stored in batteries on top of several of the housing association buildings, ready to be used at a later stage when needed.

Sonderborg's long term vision to build a Digital Ecosystem for city data and services by integrating various data inputs and sensor systems together into one [city ICT platform](#) is becoming a reality. Project Partner Telia has delivered an ICT solution for a smart city service for Lighthouse City Tartu, which has now been replicated to Sonderborg city's needs. The ICT solution consists of multiple separate modules compiling a City Information Open Platform (CIOP) and including another platform "My Data" which enables energy producers and consumers to share one platform at the same time with intelligent gatekeepers securing and controlling all authentications of the data.

Sonderborg efforts on becoming a zero carbon city by 2029 have again been recognized and rewarded with this year's Euro-China Green and Smart Cities [Award](#) on 26.-28. September in Nanning, China.



Pictures: PV-panels and energy storage scheme on renovated buildings in Sonderborg.  
Credits: Sonderborg Municipality.

## Tartu:



Pictures: Examples of wall paintings on renovated ex Khrushchev-era buildings in Tartu.  
Credits: City of Tartu

Tartu is further striving towards smart public transport and has reached two outstanding milestones: On 8 June, Tartu launched the first [public bike sharing system](#) in the Baltic countries. The new sharing system consists of 750 bikes – 510 electric and 240 regular bikes – and 69 rental points all across town. The interest of citizens is exceeding all expectations. In the first 24 hours, 15,000 people have signed up for the system, 16,797 rides were booked, which translates to 42,000 km which adds up to more kilometers than it takes to ride around the planet.

Only one month later, on 1 July, the [new public transport route](#) was launched in Tartu with a fleet of 64 new environmentally friendly biogas buses, all equipped with air-conditioning, low floors for better access and new validators, which allow passengers to purchase tickets with their contactless bank cards. The new bus route was developed by involving citizens in the planning discussions. People were invited to leave their expectations via an interactive map. During the feedback period, thousands of comments, emails and calls were received and analysed.

In addition, the renovation of the ex Khrushchev-era buildings is moving on. Already 10 of the 17 apartment buildings built in the 1960s have completed the reconstruction works comprising insulation, solar panels, utility systems and smart home devices, which allow the residents to monitor and regulate their energy consumption. As a specific feature, each building renovated within SmartEnCity project will be decorated by a [wall painting](#) or sculptures in the near surrounding. The artworks are ranging from traditional [Baltic motives](#) over [natural designs](#) to [cartoon style](#) and are functioning as real eye catchers to underline the renovation process and are very well received by citizens and passengers.

## Vitoria-Gasteiz:



Presentation of the new smart electric bus and retrofitted building in demo district Coronación.  
Credits: VISESA

After the [first round of retrofitting works](#) has been completed in demo district Coronación, the [monitoring](#) is starting to proof the reduced energy consumption. Now the district is again marked by scaffolds, initiating the [second phase of retrofitting](#) works. Another nine buildings will receive new envelopes and roofs to improve the thermal performance. We are looking forward to see the results.

Also, the preparation of the 3<sup>rd</sup> and last phase of retrofitting has already started. Project Partner VISESA has organised another [info day](#) to explain the forthcoming tender on the remaining eleven buildings, which shall be renovated within the next year.

In terms of smart public transport, Vitoria-Gasteiz can proudly announce the first [ultra fast charger](#) in southern Europe, which can recharge the battery of any compatible EV in five to ten minutes, which is similar to the time for conventional refuelling! As the first of its kind, the [smart electric bus](#) has arrived in Vitoria-Gasteiz, the first of 13 planned for 2020, which require an investment of almost 35 million €, from which SmartEnCity has co-financed 375,000 €. The civil infrastructure works have started in August. The Basque Government, the Provincial Council of Álava and Vitoria – Gasteiz City Council have collaborated to make this project a reality.

Last but not least, congratulations to our Lighthouse City Vitoria-Gasteiz which was recognised with the [Global Green City Award](#), an award granted by the Global Forum on Human Settlements, sponsored by the UN. On 6 September, the prize was announced in a ceremony at the United Nations (UN) Conference Centre in Addis Abeba (Ethiopia).

## **News from the SmartEnCity Network:**



The [SmartEnCity Network](#) is constantly growing and is consisting of 49 members:

- 7 from Estonia
- 10 from Denmark
- 2 from Spain
- 7 from Bulgaria
- 10 from Italy
- 13 from other countries

In June, SmartEnCity Network hosted city representatives to a Workshop Day in the framework of the Sustainable Places Conference in Cagliari, Italy. More than 80 participants were given hands-on advice on how to become a Smart Zero Carbon City and were introduced to the Integrated Energy Planning approach of SmartEnCity. Click [here](#) for further details.

Focusing on small and medium sized cities, Network members benefit from a direct knowledge-transfer, providing real life cases, inspirations and tools and tailor-made events and information like the Network section of the SmartEnCity webpage and the monthly Network Bulletin. One of the [latest ones](#) is focusing on the Integrated Energy Planning (IEP) processes of the SmartEnCity Follower Cities – Lecce (Italy) and Asenovgrad (Bulgaria) and on the Integrated Energy Planning methodology developed within SmartEnCity project. Find all Bulletins [here](#).

Don't miss an edition of the Network Bulletin anymore and [register here](#) for free!

## News from the Follower Cities

### Lecce

- Is designing its future [energy strategy](#). Through the Foresight Methodology, developed during the project, more than 40 participants discussed the future energy scenarios, assessing the possible trends and providing project ideas for the future of Lecce in the next 10 years

### Asenovgrad

- Is proceeding in its [Integrated Energy Planning process](#) (IEP). Project partners and stakeholders discussed the local renewable energy production potential of the municipality, specifically agricultural biomass and biogas.

## Past Events (SEZ)

- [European Smart Projects Summit](#) on 26.03. in San Sebastian
- [Smart City for the Citizens 2019](#) Conference on 23.05. in Tartu
- [EU Sustainable Energy Week](#) - EUSEW 2019, 17 – 21.06. in Brussels
- [SmartEnCity at European Sustainable Week](#) on 18.06. in Donostia, San Sebastian
- [SmartEnCity General Assembly and Review Meeting](#) 2019 on 21.05. in Brussels, Belgium
- [Nordic Edge 2019](#), 24. – 26.10. in Stavanger, Norway
- [Smart Cities & Communities Lighthouse network event](#), 17.-18.10. in Lyon

## Upcoming Events (SEZ)

- Smart City Expo World Congress, 19.-21.11. in Barcelona
- SmartEnCity SC-Meeting in Lecce

In **2020**, we are organizing an **online trainings course** for cities, urban planners, decision makers, politicians and other interested stakeholders. With 5 webinars, we follow the replication methodology developed within SmartEnCity project. Do not miss this chance to make a change and see the zero carbon transition happen in your city as well!

On 23.-23.09., Triangulum celebrated its international conference “Energising Cities: Innovations, Challenges & Solutions” in Stavanger, Norway. More than 180 participants and around 20 speakers from all over Europe participated in this two-day event to learn from five years of experiences in six cities. Triangulum not only presented its major outcomes but also talked about challenges, thus sharing their knowledge with future projects and smart cities. [More info](#).

This fall, three new Smart Cities and Communities Horizon 2020 projects are starting their journeys of becoming smart cities themselves. The new projects are [ATELIER](#) (with the two Lighthouse Cities Amsterdam and Bilbao), [SPARC's](#) (with the two Lighthouse Cities Leipzig and Espoo) and [POCITYF](#) (with the two Lighthouse Cities Evora and Alkmaar). Watch out for more news at the [Smart Cities Information System](#).

## **About SmartEnCity / Project ID / Contact**

SmartEnCity, a project funded under the European Union's Horizon 2020 research and innovation programme, aims to develop a systemic approach for transforming European cities into sustainable, smart and resource-efficient urban environments. We aim to develop strategies that can be replicated throughout Europe in order to reduce energy demand and maximise renewable energy supply in urban environments. Activities include retrofitting in buildings, integration of infrastructures, developing sustainable mobility options, as well as the intelligent deployment and use of Information and Communication Technologies.

The SmartEnCity concept will be defined, planned and implemented in three Lighthouse demonstrators Vitoria-Gasteiz (Spain), Tartu (Estonia) and Sønderborg (Denmark). The process will be replicated in the two Follower cities of Lecce (Italy), and Asenovgrad (Bulgaria). We will encourage a SmartEnCity Network of further cities interested in replicating the approach elsewhere in Europe.

Under the coordination of Fundación TECNALIA Research & Innovation, 35 partners from 6 countries work together to make Smart Zero Carbon Cities a reality in Europe.

### **PROJECT ID**

Duration: 66 months (February 2016 – July 2021)

Partners: 35 partners from 6 countries (Bulgaria, Denmark, Estonia, Germany, Italy, Spain), coordinated by Fundación TECNALIA Research & Innovation

Call identifier: H2020-SCC-2015

Topic: SCC-01-2015 Smart Cities and Communities solutions integrating energy, transport, ICT sectors through lighthouse (large scale demonstration – first of the kind) projects

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