



Dear Reader,

2017, as our third year of the implementation phase, has already proven to be productive and continues to be busy with many Triangulum activities and events coming up. This edition of the newsletter provides you with the latest news from our Lighthouse and Follower Cities on topics including new battery-operated buses, worldwide city networks, intelligent street lighting as well as a video presenting Triangulum solutions.

Replication is also at the core of the project, as the Follower Cities should benefit from the experience of the three Lighthouse Cities. Read on to find out more information about the latest training missions.

Close cooperation between the nine European Smart City Lighthouse Projects is essential. Learn more here about how they are continuously enhancing their collaboration.

We hope that you enjoy reading this newsletter and we kindly invite you to visit our website at [www.triangulum-project.eu](http://www.triangulum-project.eu) where you can stay up to date about all of Triangulum's present and upcoming activities.

Yours sincerely,

Project coordinator of Triangulum

## 5<sup>th</sup> Triangulum Newsletter May 2017

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### Triangulum ID

#### Title

Triangulum  
Demonstrate, Disseminate,  
Replicate

#### Programme

European Union's Horizon 2020  
Research and Innovation  
Programme

#### Duration

01/02/2015-31/01/2020

#### Budget

29.5 million Euro overall budget  
25.4 million Euro funding from  
H2020

#### Project management

Fraunhofer Institute for Industrial  
Engineering (IAO)  
Steinbeis-Europa-Zentrum



## News

### Triangulum SC meets in Prague

From 25th to 26th April 2017, the Triangulum Follower City Prague hosted the project's Steering Committee Meeting, where the project partners took the opportunity to exchange experiences and present the latest developments in the Triangulum cities and work packages. On this basis, the next steps were discussed and planned.

New electric vans, university courses on power management, an app on how to save energy in office buildings and a sewer tunnel to provide energy for three buildings – these were just some of the many recent achievements and developments in the three Triangulum Lighthouse Cities. Also, replication activities and on site assessments in the project's Follower Cities Prague, Leipzig and Sabadell were another focus of the last project months.

A visit to the University Center for Energy Efficient Buildings and its smart home rounded off the programme.



### Battery buses are now part of Stavanger's cityscape

Hundreds of people celebrated in Stavanger city on 11th February, when the three battery buses funded by the Triangulum project were unveiled. The design of the buses was part of a high school design competition and the inhabitants of Stavanger were asked to vote for their favourites.

At the event, the county mayor gave a speech presenting the project and introducing the high school student who won the competition and created the bus design.

[Read more](#)



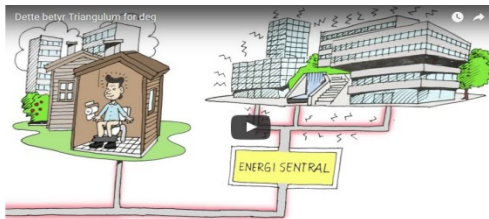


## News

### Stavanger released cartoon on Triangulum solutions

The animated film was very well received and instantly clicked some 27,000 times! It therefore forms a powerful means to spread the Triangulum idea widely. The film is currently only available in Norwegian but subtitles in English will be added soon. Get an impression and watch the video:

[Watch the video](#)



### Manchester broadens its networks

Earlier this year, Manchester received an invitation from DG REGIO to submit a proposal to participate in an EU pilot project. The invitation forms a fantastic opportunity to share Manchester's Smart City project experience, including Triangulum, beyond Europe.

"World Cities" ([www.world-cities.eu](http://www.world-cities.eu)) is focused on sustainable urban development and is promoting the exchange of experience and best practice between EU and non-EU countries. The project is being piloted with cities within five non-EU countries (South Korea, South Africa, Australia, Indonesia and Vietnam). Manchester is building on a strong relationship with Adelaide in Australia. The initial visit to Adelaide took place in May 2017.

At the end of March 2017, around 45 delegates from the City-Zen Project, an EC funded FP7 project, visited Manchester for two days of Smart City experiences. During this time, Triangulum presented its work to date, and visitors enjoyed a trip to the Manchester Metropolitan University, the site of a number of the planned interventions in Manchester. These include Solar photovoltaic and a battery, which will work alongside the University's existing CHP to demonstrate ways in which peak demand can be reduced.





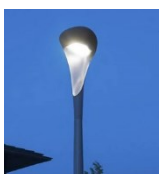
## News

### Eindhoven presents Smart City solutions and smart lighting

In 2016, Eindhoven issued the I-City tender, encouraging start-up companies to apply with their ideas on how to make the city smarter. 20 firms competed with innovative ideas, seven of them have now been selected to receive €20,000 each. The award-winning ideas target all sectors of daily life, ranging from mobile photovoltaic power sources for e-bikes, IT security solutions for connected devices, 24/7 interactive billboards for residents, real-time monitoring solutions to optimise occupation and comfort and intelligent cameras to smart platforms for smart cities.

Also, the city is following new paths in terms of Smart City lighting. Eindhoven's intelligent lampposts allow customisation to individual purposes and react depending on personal requirements. Therefore, a smart light system is guiding different ways for joggers and walkers in different colours. The user can choose according to his pace and will be lead by the new smart lighting system.

[Read more...](#)



### Leipzig engages with Smart City partners

During the past months, Leipzig has intensified its networking efforts with local and national partners to foster Smart City processes in the city:

“Zukunftsforum” is an established event where city leaders and CEOs of local utilities come together to discuss future strategies for Leipzig. With the sixth meeting taking place in March 2017, it was time to leave theoretical aspects behind and focus on more practical actions, such as smart mobility.

Besides that, the evening lecture “HOT SPOTS DER STADTENTWICKLUNG” is being continued during the summer semester at Leipzig University, focusing on digitisation and urban development.

The Leipzig Graduate School of Management focused on Triangulum topics during a lecture in April 2017 with participating students being part of a semester project called “Corporate Innovation”, focusing on the Smart City transformation processes in Leipzig. The results will be presented at the end of June this year.

Seeking contact with local and national enterprises, Triangulum was presented at the DELL Smart Cities Roundtable at the SpinLab in Leipzig in March 2017.

[Read more...](#)



## News

### Training Mission Workshops at Fraunhofer IAO

The Lighthouse City partners together with TÜV Süd and Fraunhofer are currently supporting the Triangulum Follower Cities to replicate solutions and write their respective Implementation Strategies. This takes place within a series of sessions called the “Follower City Training Mission”. The mission started successfully at the end of February 2017 with the first workshop “Implementation Strategies”, followed by a second event in April 2017, focusing on the subject “Smart Grids, Energy Storage and Renewable Energies”. We can happily announce that more training sessions are to be organised!



### Training Mission: Webinars

Within the Training Mission, webinars are an additional measure to transfer valuable knowledge among cities.

During the course of seven webinars with a duration of two hours each, partners from several cities come together for an exchange of information, experience and a discussion. These sessions are also open to interested persons outside of Triangulum. The first three webinars have already successfully taken place in April (“Smart City Policies and Governance” and “ICT Reference Architecture”) and May 2017 (“Smart Business Services and Innovation Management”).



#### Registration

Workshops: Only open to Triangulum partners and their business partners.

Webinars: [http://www.morgenstadt.de/en/registration\\_webinar.html](http://www.morgenstadt.de/en/registration_webinar.html)



## News

### Closer cooperation among EU Lighthouse Projects

In dedication to the Smart City targets, the EU's nine Lighthouse projects formally signed a Cooperation Manifesto in Nottingham (UK) on 23th March 2017 – among them Damian Wagner, project coordinator of Triangulum.

The signing ceremony was held at the Conference Centre of the Nottingham Trent University and saw Councillor Sam Webster (Nottingham City Council) and Pro Vice-Chancellor Michael Carr (Nottingham Trent University) hosting representatives of projects that, altogether, span over 50 towns and cities across Europe. The signing of the manifesto seals the cooperation that is already a reality within the Lighthouse project community. However, the manifesto is being seen as a further crucial step in the EU's endeavours to optimise project outcomes and ensure these become mainstream beyond the projects themselves.

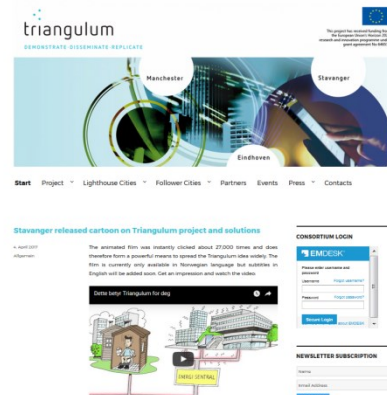
[Read more](#)



### Triangulum website is getting a new design

The Triangulum website is currently undergoing a facelift – and will appear soon with a fresher look.

Discover it soon under: <http://triangulum-project.eu>







## News

### Obituary for Joyce Hydra

The Triangulum consortium was deeply shocked to learn of the passing of Joyce Hydra, who has been working for the Eindhoven based partner Woonbedrijf. After a long illness Joyce passed away in February 2017.

As the manager of 'her' neighbourhood Woensel-Noord, Joyce was involved in this area in an inspirational way. Together with her team, residents and partners, she wanted everyone in Woensel-Noord to feel at home. Joyce stood up for a social and just world.

We are grateful to have had the pleasure to work with Joyce and to have known her as our colleague.



### News from our Sister Projects

Triangulum is one of nine European Smart Cities and Communities Lighthouse projects, currently receiving funding within the European Union's Horizon 2020 research and innovation programme.

The [Sharing Cities](#) project, in cooperation with EUROCITIES, the network of major European cities, is organising a series of webinars in June and July 2017, aimed at representatives from local authorities who wish to know more about European funding programmes, project proposal development and budget development and management.

[Read more](#)

Paying less taxes for energy efficient houses: As a result of the [SmartEnCity](#) project, the City Council of Vitoria-Gasteiz has modified the tax ordinance regulating real estate taxes in the city: the taxes for houses with a good energy rating are reduced significantly - thereby creating a strong incentive for more energy efficient houses!

[Read more](#)



## Past Events

An overview of events attended by Triangulum's project partners:

Habitat III Conference, 17.-20.10.2016, Quito (Ecuador)

[Further information](#)

REMOURBAN study tour, 02.03.2017, Nottingham (UK)

[Further information](#)

Smart City Expo Casablanca, 17.-18.05.2017, Casablanca (Morocco)

[Further information](#)



## Upcoming Events

Find Triangulum's partners at the following events:

Triangulum Tour during the Stavanger Impact Week, 15.06.2017, Stavanger (Norway)

[Further information](#)

Workshop "Smarter is cleaner — lessons learned from the SCC1 Smart City projects on grids, storage and prosumer models" during EUSEW, 22.06.2017, Brussels (Belgium)

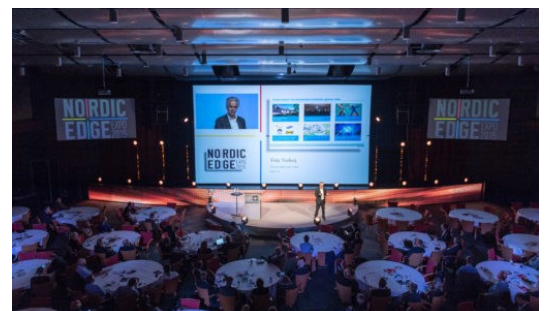
[Further information](#)

Nordic Edge Expo, 26.-28.09.2017, Stavanger (Norway)

[Further information](#)

Dutch Design Week Eindhoven, October 2017, Eindhoven (the Netherlands)

[Further information](#)







## Partners

### Project Management



### Eindhoven



### Manchester



### Stavanger



### Replication



Follow us on Twitter: [@Triangulum\\_EU](https://twitter.com/Triangulum_EU)

Picture Sources: Fraunhofer IAO, Municipality of Eindhoven, Stadt Leipzig, Woonbedrijf

Register for the newsletter under: <http://triangulum-project.eu>

If you want to unsubscribe from the newsletter, please send an e-mail to [press\\_triangulum@steinbeis-europa.de](mailto:press_triangulum@steinbeis-europa.de).

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