



September 2019

Dear Friends and Followers of Triangulum,

It's almost fall again and we all know, that this is the favorite season of Smart City enthusiasts. For us, fall stands for fantastic conferences, fruitful workshops, fabulous project meetings and fresh collaborations. We enjoy this time of the year because it means that there will be activity and (knowledge) exchange, within Triangulum and with other projects, cities, businesses and politicians.

This year there's even more, as you know, 2019 means the final of our project. We look back on five productive and innovative years of smart city developments and we are proud of contributing to make a difference in this world.

"What differences", you may wonder? Join us at one of the many festivities of the season to learn from Triangulum, its six cities and its ripple effects:

- [International Triangulum Conference](#) on 23 Sept
- [Nordic Edge Expo & Conference](#) on 24 Sept
- [Joint Session at EUREG](#) on 8 Oct
- [Smart City Expo World Congress](#) on 19-21 Nov

Before, after and in-between, we will feed you with news and updates from our Lighthouse- and Follower Cities, from monitoring, evaluation and replication at our [website](#), our [Twitter](#) channel and [YouTube](#) account, via [webinars](#) and much more. We might be ending soon, but the end for sure is not here for long!

We look forward to taking you with us on these last steps of the journey.

Trinidad Fernandez
Project Coordinator

Trinidad Fernandez

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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
30 million Euro overall budget
25 million Euro funding from H2020

Project management
Fraunhofer Institute for Industrial
Engineering (IAO), Universität Stuttgart,
Steinbeis-Europa-Zentrum



Triangulum International Conference & Nordic Edge 2019

Fall is festive! Fall is fierce. Join us this season in Stavanger to celebrate our international conference "Energising Cities: Innovations, Challenges & Solutions" and participate in the [Nordic Edge 2019](#), the largest Smart City event in the Nordics, to learn from us at our [joint Smart City session](#).

Having started in February 2015, Triangulum is one of the first three projects completing its journey as a Horizon 2020 SCC1 project. To showcase our numerous outcomes and lessons learnt to the smart city community, we invite you to our international conference "Energising Cities: Innovations, challenges & solutions" in Stavanger, Norway on 23.-24.09.2019. [Registration](#) and more information can be found [here](#).

On Tuesday, 24.09., we are merging into the official Nordic Edge by co-organising the session "[On a Mission for the European Cities of the Future – Achievements, Challenges, Opportunities](#)" together with Nordic Edge, the European Commission, EIP-SCC, SCIS & Stavanger Region European Office.



Impressions from Nordic Edge 2018
(Credits: Steinbeis-Europa-Zentrum)

Monday, 23.09.2019 at Atlantic Hall, Stavanger:
(free attendance)

- Welcome & Presentation about Major Outcomes of Triangulum
- Presentation by European Commission
- Two Key Note Presentations: Martin Brynskov, Steve Turner
- Interactive Sessions: Climate Change, Governance, Citizen Engagement, Replication & Investment
- Innovation Marketplace

Tuesday, 24.09.2019 at Nordic Edge Conference, Stavanger: (ticket required)
"Being a European Lighthouse Project – A Journey from the Beginning to the End"

- Joint Session with Nordic Edge, European Commission, EIP-SCC, SCIS & Stavanger Region European Office
- Meet MAKING-CITY and +CityXChange
- Meet Triangulum and learn from us about Monitoring & Evaluation
- Learn about Horizon Europe - A Mission to deliver the Cities of the Future



„From Dream to Reality“ with GrowSmarter and Remourban

Join us at our session with [GrowSmarter](#) and [Remourban](#) at the European Week of Regions and Cities (EUREG) in Brussels.

On 8 October 2019, from 14:30-17:00, being one of the first three Smart Cities and Communities projects, we invite you to our joint session with [GrowSmarter](#) and [Remourban](#), “From dream to reality: sharing experiences from leading European Smart Cities”, at the European Week of Regions and Cities, dedicated to share our key lessons learnt.

As part of the European Lighthouse community, consisting of 40 Lighthouse- and 50 Fellow Cities, private and academic partners work on implementing innovative solutions in the fields of energy, ICT and mobility. After five years, we are now coming to an end and will thus share our results with the public. Political representatives from major European cities and technical experts from the projects will share their smart city experiences.



After a short welcome and introduction by Gustaf Landahl (Project Coordinator GrowSmarter) and Georg Houben (DG ENER), the session will start with a political panel, focusing on new governance approaches. Stijn Steenbakkens, Alderman for Digital Transformation of the City of Eindhoven, will represent Triangulum.

In the second part, the Project Coordinators of all three projects will discuss results from their projects, main impacts achieved after large-scale demonstration actions and their replication potential. As Project Coordinator of Triangulum, Trinidad Fernandez, of course, will speak as well!

The third part gives stage to the site managers of the project’s Lighthouse Cities to talk about their key success stories as well as unavoidable failures. Triangulum speakers will be Gerd Seehuus (City of Stavanger) and Mark Duncan (City of Manchester).

To wrap up, we invite all participants to engage in an interactive Question and Answer session and our subsequent networking event with finger food and drinks. Don’t miss this opportunity to interact with the policy makers, project coordinators and site managers, to exchange ideas and learn from their experiences!

When: 08.10.2019, 14:30-17:00

Where: Building CoR – VM building, Room VM 3. Address: Rue Van Maerlant, 1040 Brussels

[More information and registration](#)



Progress in Lighthouse City Eindhoven

Triangulum at ICT Congress

From 3-6 June, Eindhoven hosted the [13th ITS European Congress](#), the largest event in Europe entirely dedicated to smart mobility and digitalisation of transport. Approximately 3,500 participants attended lectures, exhibitions, workshops and visits on the future of mobility. The Triangulum partners City of Eindhoven and VolkerWessels organised two tours at the living lab area Strijp-S to showcase the Triangulum mobility projects.

The participants of the tours were introduced to the development of Strijp-S and to the Triangulum mobility projects like the parking management information system, way finders and the indoor and outdoor ICT facilities based on the Backbone infrastructure.

ITS was organised by [ERTICO](#) that also produced a video with highlights of the event.



ITS European Congress
(Credits: ITS Congress YouTube)

Triangulum as Co-Host of Smart Cities Event

More than 50 professionals from several countries and cities met up in the Brainport region Eindhoven at the end of May 2019. During a two-day Smart Cities event, visitors experienced how Brainport partners collaborate to achieve their ambitious goals.

Highlights in the program were the visits to the Automotive Campus Helmond, lectures at the Technical University Eindhoven (TU/e), the visits to the Triangulum Living Lab Strijp-S and the Living Lab Stratumseind in Eindhoven as well as the Dutch Technology Week.

The event was organised by TU/e Smart Cities program, Brainport Smart District, Triangulum, City of Eindhoven, Dutch Technology Week.



Smart Cities Event
(Credits: Municipality of Eindhoven)

[Read more](#)

Click [here](#) to watch the video



Progress in Lighthouse City Manchester

Get Involved: Manchester Innovation Challenge

As a next step in the Triangulum project, our Lighthouse City Manchester is offering an exciting opportunity to explore ways to visualise city information, alongside data generated by the project.

For this, Manchester City Council is working with the Open Geospatial Consortium (OGC) and Ordnance Survey (responsible for mapping in the UK) to create a challenge using CityGML, an open data model, and XML-based format for the storage and exchange of virtual 3D city models.

The challenge is aimed at groups / companies that have expertise and experience in geospatial data.



Manchester
(Credits: OGC)

[Read more](#)

Cargo Bike Success Story

As part of Manchester's mobility package within Triangulum, Manchester City Council has an arrangement with Manchester Bike Hire, whereby SMEs are able to try out different models and setups of electric-assist cargo bikes, and access advice around logistics. Support is available to assist future purchases and business integration. This has led to the SME 'Lunch Brakes' purchasing a 'Carla' trailer with a lightweight aluminum frame specially created for them by Manchester Bike Hire, our Triangulum delivery partner.

[Read more](#)

Electric Vehicles

The other component of Manchester City Council's work on mobility involves promoting e-mobility by subsidising departments to add e-vehicles to their fleet. With many City Council departments holding vehicles on short leases, a concrete business case could serve to increase take-up very quickly. As a result, Manchester City Council has recently leased four electric vehicles, two Citroen Berlingo vans, one Peugeot Partner van and a Nissan Leaf car. They are now proudly displaying their logo, driving around the streets of Manchester on Council duties.

[Read more](#)



Progress in Lighthouse City Stavanger

Stavanger Event: The Impact of Triangulum

On 23 May, Lighthouse City Stavanger hosted a local event called “Triangulum – what is it and what has it meant for our region?”. Seventy participants from the public and private sector such as the Mayor, politicians, researchers, directors, leaders and employees from the local partner organisations attended the half-day conference about the effects Triangulum has had on Stavanger. The key message was that Triangulum gave the city confidence to become a Smart City and that it has created European market possibilities for local solutions.

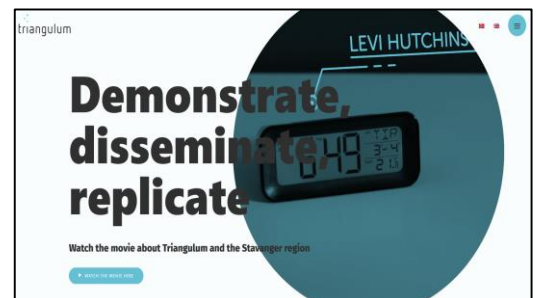
The Stavanger partners presented their demonstrations and the positive effects Triangulum has caused in their organisations. For example, Triangulum tremendously helped the municipality in turning Stavanger into a Smart City and to take more environmentally friendly decisions.



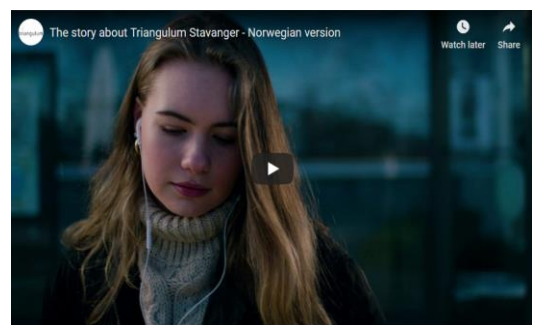
Triangulum Event in Stavanger
(Credits: Stavanger Kommune)

New Promotional Material in Stavanger

As they enter their final year as a Lighthouse City, Stavanger has developed a new website and a new movie to summarise the impacts of Triangulum on Stavanger. You can watch the movie at our Triangulum YouTube channel. Click [here](#) to watch the movie and click [here](#) to visit the Website.



New Website
(Credits: Triangulum.no)



New Movie
(Credits: Triangulum YouTube)

[Read more](#)



Progress in our Follower City Leipzig

EfficienCE Kick-Off in Leipzig

On 27 and 28 June 2019, around 30 participants from seven Central and Eastern European countries met in Leipzig for the launch of the EU funded EfficienCE project coordinated by the Digital City Unit Leipzig. Together with the Office for Geoinformation & Land Management and the LVB (public transport company), the Digital City Unit is developing applications for more energy-efficient public transport planning in connection with the development of an urban data platform.

During the meeting, the project partners from Vienna (A), Gdynia (PL), Maribor (SI), Bergamo (IT), Plzen (CZ) and Budapest (HU) discussed their different project approaches.



EfficienCE Consortium
(Credits: Antal Gertheis)

[Read more](#)

iCity Tender Workshop in Leipzig with Eindhoven representatives

To learn more about the different tasks and challenges of being a Lighthouse City, the City of Leipzig is organising an internal workshop with representatives from our Lighthouse City Eindhoven on 12 September 2019. The aim of the workshop is to learn about Eindhoven's quadruple helix approach and to develop and discuss first ideas how to adapt the quadruple helix approach to the specific situation in Leipzig.

For this, Mark Cox from the Technical University of Eindhoven and Wouter Beelen from VolkerWessels will come to Leipzig. We look forward to hear more about the outcomes of this workshops and are proud of our Follower City Leipzig's endeavours.



Stadt Leipzig

TU/e Technische Universiteit
Eindhoven
University of Technology

VolkerWessels



Progress in our Follower City Prague

Inspiration for Prague from Visit in Brno

From 5 to 6 June 2019, representatives from IPR Prague joined the replication workshop “Learning from the most innovative” taking place in the exhibition centre in Brno, Follower City of the Horizon 2020 Smart Cities and Communities project RUGGEDISED, which organised the workshop. The latter consisted of several round table sessions where the Lighthouse- and Follower Cities presented some of their smart solutions and discussed them with the audience afterwards. The round table sessions focused e.g. on technical or governance aspects as well as business models, public procurement, citizen engagement and data usage. The Prague representatives learned about tenant involvement through gamification and met with Sonja Stöffler from University of Stuttgart, another Triangulum representative who joined the meeting as an expert on replication processes.



Sonja Stöffler (right) at Brno Event
(Credits: IPR Prague)

[Read more](#)

Showroom to Be Opened in Prague 7

The city district Prague 7 will soon open a showroom with medical and compensatory aids for its citizens. The project has been inspired by the European Smart City project Triangulum, when representatives of Prague 7 and IPR Prague visited the Lighthouse City Stavanger in 2018 to learn about their Smart Home Care approach. During the stay in Stavanger, the delegation also visited the showroom at the innovative social and health care department. For the realization of a similar offer in Prague, the waiting room of the Polyclinic of Prague 7 will be transformed. Currently, the Social and Health Department of the Prague 7 district is preparing the room to present various devices that can make life easier for both sick people and their peers and care takers. The aim is to inform elderly people and their peers how they can stay at home longer on their own, which devices can support them to do so and to receive an overview of all available social and health services.



Future Showroom of Prague 7
(Credits: Tomáš Obrtel)

[Read more](#)



Progress in our Follower City Sabadell

Local Sabadell Events this Fall

Sabatic, interactive exhibition of innovative technologies

- 07.09.2019
- Jardins Espai Cultura Fundació Caixa Sabadell (Carrer d'en Font, 25, Sabadell).
- [Further information](#)

Training Workshop: Public-private business acceleration initiatives in Eindhoven. The "I-city tender" contest.

- 18.09.2019
- «Can Roqueta» industrial business centre (Avinguda de Can Bordoll, 119, Sabadell).
- [Further information](#)

Workshop: Co-creation and prototyping of innovative solutions to urban challenges, with participation of the university ecosystems of Sabadell and Eindhoven

- 19.09.2019
- «Can Roqueta» industrial business centre (Avinguda de Can Bordoll, 119, Sabadell).
- [Further information](#)

Final Triangulum stakeholder workshop in Sabadell: joining efforts for the successful implementation of Sabadell's follower city strategy

- 18.-19.11.2019
- «Vapor Badia» library (Carrer Tres Creus, 202, Sabadell).
- [Further information](#)

Triangulum Follower City Sabadell Webinar

The third public webinar in our series of Triangulum webinars 2019 has taken place on 14 May at 10 AM. Whereas last year's webinar series was centered around topics from within our Lighthouse Cities, such as urban biking or data platforms, the 2019 series focuses on the needs of our Follower Cities Prague, Sabadell and Leipzig. We specifically asked them "What are you interested in?" and "Where do you need some more input?" and the answers were quite clear!

Amongst other topics, Sabadell asked to learn more about green mobility, especially with respect to schools. So we got Mark Cox from the City of Eindhoven to talk about this topic and to talk about how biking is done in the Netherlands (Spoiler: it's different! Children seem to learn how to ride a bike before they learn how to walk...).



Triangulum Webinar on YouTube
(Credits: Triangulum YouTube)

[Read more](#)



Further / SCC1 Project News

Triangulum Spin-Off BABLE: Smart City Training Course

In cooperation with BABLE Smart Cities, TÜV SÜD Academy will be offering Germany's first Smart City training course starting in autumn 2019. Successful participants will receive compact training to become "Smart City specialists" in two days.

During the two-day training, participants will gain an overview of the possibilities and current developments in the planning and implementation of innovative, sustainable and digital city models based on examples and experiences from pilot cities and projects worldwide. Using various instruments and models, the participants receive suggestions for the development of integrated solutions and the creation of Smart City Roadmaps and strategies. In addition, the training offers space for exchange of experience and discussion with experts who accompany, advise and support the topic of Smart City globally.

On 17 and 18 September 2019, the pilot event "Smart City - Basic Knowledge for Digital and Sustainable Urban Development" will take place as part of the Smart City Solutions trade fair at the Stuttgart Exhibition Centre.

Further dates:

27.-28.11.19 Hamburg
28.-29.01.20 Berlin
29.-30.04.20 Munich



[Read more](#)

News from our sister projects

MATCHUP Bike, bus, metro, foot: going intermodal! Intermodality is the smart future of urban mobility. More and more cities need to offer public mobility options that combine several means of transport to decrease the use of private cars. Learn more about how the Lighthouse Cities of MATCHUP project tackle this problem. [Read more](#)

+CityxChange Their report on "Enabling Regulatory Mechanism to Trial Innovation in Cities" from Lighthouse City Trondheim is now available on the [+CityxChange](#) website in the [Knowledge Base](#), together with all public deliverables. The report investigates and analyses how EU legislations and national regulations influence the process of establishing positive energy blocks (PEBs), positive energy districts (PEDs) and community grid systems – and how they could be processed and operated within the framework of a local energy market.

IRIS Assessing smart city solution performance: a methodological framework. IRIS' first open access paper is now available. In this specific study, they introduce a holistic framework for determining a repository of key performance indicators (KPIs) that are able to evaluate both business-as-usual and novel technologies and services related to smart city solutions. [Read more](#)



Past Events

Some of the events attended by Triangulum's project partners:

EIP-SCC General Assembly & Matchmaking

- 16.-17.05.2019
- Brussels (Belgium)
- [Further information](#)

Shaping Cities based on Living Labs

- 21.-22.05.2019
- Eindhoven (the Netherlands)
- [Further information](#)

Sustainable Places Conference

- 05.-07.06.2019
- Cagliari, Italy
- [Further information](#)

EU Sustainable Energy Week 2019

- 19.-21.06.2019
- Brussels, Belgium
- [Further information](#)

Upcoming Events

Find Triangulum's partners at the following events:

Smart City Solutions

- 17.-19.09.2019
- Stuttgart (Germany)
- [Further information](#)

Triangulum International Conference
„Energising Cities: Innovations, Challenges & Solutions“

- 23.09.2019
- Stavanger (Norway)
- [Further information](#)

Nordic Edge Expo & Conference 2019

- 24.-26.09.2019
- Stavanger (Norway)
- [Further information](#)

Joint Smart City Session at EU Week of Regions and Cities: “From dream to reality: sharing experiences from leading European Smart Cities“

- 08.10.2019
- Brussels (Belgium)
- [Further information](#)

Triangulum General Assembly 2019
(internal event)

- 14.-16.10.2019
- Prague (Czech Republic)

Smart City Expo World Congress 2019

- 19.-21.11.2019
- Barcelona (Spain)
- [Further information](#)



Partners

Project Management



Eindhoven



Manchester



Stavanger



Replication



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

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