

April 2019

Dear Triangulum Enthusiast,

Smart city events and awards in our Lighthouse Cities, new international projects and city units in our Follower Cities – when you look at our demo sites, you can really see how far we have come in the last five years and that Triangulum has had a tremendous impact on our lives and our cities.

Now, it is 2019 and we are in the last year of our project. As one of the first three Smart Cities and Communities projects funded by the EU's Framework Programme for Research and Innovation *Horizon2020*, we are proud to demonstrate now our first monitoring results. They prove that public funds play an important role in improving life in cities, leading to a more sustainable future for all of us.

But let's not get sentimental: there are still a lot of activities planned for the upcoming months! Eindhoven is hosting a Smart City event in May, Stavanger is getting ready for our final "big bang" (more about this in our next newsletter issue) and Leipzig is pushing forward in its ambitions towards becoming a smart city.

Behind the curtains, we have to say goodbye to our long-time project coordinator Damian Wagner who will now proceed towards new (smart city) adventures. Thank you, Damian, for all that you have done for Triangulum! Starting in May, I, Trinidad Fernandez, have the honor of taking over this incredible project to continue the great work. I am looking forward to this journey and plenty of productive meetings with everyone involved!

Trinidad Femandez

Trinidad Fernandez Project Coordinator

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Triangulum ID

Title

Triangulum Demonstrate, Disseminate, Replicate

Programme

European Union's Horizon 2020 Researched 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





Progress in Lighthouse City Eindhoven

Clean solution in Eindhoven: Energy supply by soil sanitation

For decades, demo site Strijp-S was home to the Philips factories. This caused contamination of the soil which had to be cleaned up when it came to developing the area. Therefore, the municipality of Eindhoven and VolkerWessels developed a system that purifies the soil while at the same time extracting energy from ground water.



The Strijp-S area with the new developments on the right and the former Philips factories on the left. (Credits: Eindhoven municipality)

The system is based on water pumps that circulate the soil water while bacteria demolish the detrimental components in the soil. The main disadvantage is that it takes about 30 years to complete but until then, the area can be developed. The main advantage is that it is five to ten times less expensive than removing the soil and purifying it the conventional way.

Smart Cities Event: Shaping cities based on living labs

Professionals from several countries and cities meet up in the "Brainport Region" of Eindhoven to experience how Brainport partners could collaborate to achieve their ambitious goals. During this day and a half, there will be numerous keynote speakers, interactive workshops, field trips and plenty of time for networking.

The event is taking place on 21-22 May 2019 in Eindhoven and Helmond (NL).

What can you expect from the Smart Cities Event?

- Introduction of the topics Smart City and Smart Society in the region.
- Visit to Brainport Smart District
- Visit to Strijp-S: Introduction and visit to Helmond Automotive campus
- Introduction of the Dutch Technology Week
- Discussions and Networking

Costs: Participation fee is 99 € for admission, transport and meals.

To register, please click here

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Read more

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Progress in Lighthouse City Manchester

Manchester Triangulum partners win Energy Award

Triangulum project partners Manchester Metropolitan University, Siemens UK and Manchester City Council have recently won the 2018 Energy Award in the category Public Building Energy Project! Triangulum funded the installation of solar panels and electrical energy storage, an innovative demand side response platform and a micro-grid controller at Birley Fields Campus. These working togetherer technologies will significantly reduce demand at peak times.

Read more

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Workshop: "Impact Monitoring and Assessment Exchange"

The University of Manchester was hosting a workshop on 7 March to exchange approaches to monitoring and assessing impacts, discussing challenges and sharing best practices. The event was aimed at colleagues responsible for monitoring and assessing impacts in the European Smart Cities and Communities Lighthouse projects (SCC1) in order to provide evidence that will support wider uptake and replication.

Read more

Russian delegation visit to Manchester

The Department for International Trade Russia and representatives from Russian companies visited Manchester on 19 February as part of the week-long business mission "Innovative Technologies in Urban Infrastructure" to the UK. The objective of the mission was to showcase UK expertise and experience in the area of sustainable construction and infrastructure, proposing advanced technologies and solutions to Russian businesses and authorities.

The visit to Manchester started with a tour of the MMU Energy Centre (demonstrating the Triangulum Solar PV and Battery installations), followed by presentations from Manchester City Siemens, Universitv Council. of Manchester and Manchester Bike Hire on each organisation's involvement in the Triangulum project.



Russian delegation visiting MMU Energy Centre (Picture: Manchester City Council)

Read more







Progress in Lighthouse City Stavanger/Follower Cities

Stavanger Triangulum event

How does Triangulum impact the Stavanger region?

On 23 May, the communication group of our Lighthouse City Stavanger invites key stakeholders, politicians, partner employees and citizens to promote Triangulum project and its achievements.

The goal of the event is to give insights into which innovative solutions have been developed in the city and what significance they have for the Stavanger region.

Since citizens are playing a key role in the city transition process, a brand-new movie will be launched in the course of this event, together with the new local website, highlighting the implications of the Triangulum project from a citizen's point of view.

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	DEMONSTRATE-DISSEMINATE-REPLICATE
Hva	er Triangulum og hvilken
bety	dning har det hatt for regionen?
innovasjor Stavanger	4 har Stevanger vært med i Europas største forsknings- og sprogram, horisont 2020. Semmen med Menchester og Eindhoven er fyrdinnby i Trängslum-protejeket og har demonstrert het nye løsninger mebiltet og energi.
Hvordan I	har det gått?
	er deg til et seminar som gir innblikk i hvilke løsninger som er utviklet iangulum har betydd for Stavanger-regionen.

Invitation letter in Norwegian (Picture: Stavanger Kommune)

Successful start for replication in Sabadell

On 28 March, Stavanger partner Lyse successfully replicated the Blink service in the headquarters of AVAN in Sabadell and made pilot installations in the home of three different users. AVAN is an organization that does rehabilitation for patients that suffer from different neurophysiological diseases, and the organization has by themselves done the last two of a total of five pilot installations in the patients homes.

The Blink service brings Full-HD video conference service to end user's TVs, as well as Android and iOS based smart phones and tablets. Smartphones and tablets is typically used by mobile health personnel or family and friends



Dagfinn Wåge interviewing Nacho Perrote, an occupational therapist at AVAN. (Picture: Lyse)

Read more







Progress in our Follower Cities

Demonstration of Triangulum at Sabadell High School

At the request of the Sabadell High School "Institut Sabadell", around 100 students around 13 years-old received a presentation on Triangulum on 8 and 9 April. First, a general presentation on the Sabadell Follower City Implementation Strategy (FCIS) was given, describing the ten actions under implementation and the philosophy of replication from Lighthouse Cities.

Moreover, there was a focus on two of them that were more related to education centres: "Green mobility to schools" and "Maker spaces". Students could give their view on how to improve green mobility to schools, making specific suggestions related to favouring the use of soft mobility means.



Municipal fleet of sustainable vehicles (Picture: Ajuntament de Sabadell)

Read more

Replication of videoconferencing technologies in Sabadell

A videoconferencing room has been installed at the Industrial Business Centre of Can Roqueta, to be used by the companies located in this centre, as well as companies and entities throughout the city.

This technology, mostly used in medium or large meetings, offers a high quality and comfort and facilitates exchange between local companies and other partners. It furthermore enables face-toface meetings and presentations in their own space, and allows them to disseminate content through streaming systems to a wide public.



Videoconferencing Room (Picture: Ajuntament de Sabadell)

The space is already operational and can be booked in two formats.

Read more



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Progress in our Follower Cities

3D Model of Prague

Since 2001, 3D data has been an elementary part of the data platform of the City of Prague. The core value of the 3D model is its supporting function for decision makers of urban and strategic planning. Therefore, it is utilised as a data input, e.g. for environmental analyses. 3D models in general can also serve as a communication tool in participatory planning processes for new developments or for revitalisation processes in parts of the city.

Prague's 3D data is applicable on various fields and therefore, the city needs reliable tools to export 3D data into different formats without losing quality. To use 3D data for planning and analytical as well as participatory projects, data such as the topologically data has to be precise, reliable and constantly updated.



3D model of Prague (Picture: IPR Praha)

Read more

UNaLab project consortium meeting in Prague

IPR Prague is co-hosting the UNaLab (Urban Nature Labs) Project Meeting and General Assembly in May 2019. The consortium comprises 28 partners from ten cities across Europe and beyond, includina municipalities, research institutes. **businesses** and industry partner representatives. The cities address the challenges that today's cities are facing by focusing on climate and water related issues, within an innovative and citizen-driven paradigm.



Three demonstration cities, five replication cities and several observers aim to develop smarter, more inclusive, more resilient and increasingly sustainable societies through innovative nature-based solutions. These topics are strongly correlating with Triangulum project's targets. Therefore, our Follower City Prague and our Lighthouse Cities Eindhoven (as Frontrunner City) and Stavanger (as Follower City) are part of the UNaLaB project ...

Read more







Progress in our Follower Cities

Fit for Future: New Digital City Unit in Leipzig

The currently Citv of Leipzig is establishing a new unit for digital issues within their administration to support the digitisation process in Leipzig in different ways: It is going to develop digital projects and will start a participatory process with institutes companies, scientific and citizens about digitisation. This means that the unit is going to manage and control the funding of projects and participation processes.



New Digital City Unit with Mayor Burkhard Jung and Acting Director Dr. Beate Ginzel (Picture: Markus Korzer Fotografie)

Furthermore, the Digital City Unit will coordinate joint application processes and project implementation with public utilities as well as joint city council and shareholder resolutions. Triangulum and its representatives at the City of Leipzig encouraged this development and will therefore also move to this new unit.

Read more

Big success for Leipzig: New transnational project approved

Thanks to the experience gained during Triangulum, Leipzig's transnational project EfficienCE has been approved by the European Commission within the Interreg Central Europe programme. EfficienCE aims at increasing energy efficiency and energy usage in renewable public transport infrastructures to reach local, regional and also the EU energy targets. Leipzig is moving on from being a Triangulum Follower City and will now take over the responsibility for the project by leading a consortium of eight cities, including Budapest, Milano and Parma, companies like Wiener Linien, and scientific institutes like the University of Maribor or Gdansk University of Technology.

Partners will improve the use of renewable energy with measures like reusing brake energy of trams (Gdynia) or constructing an energy station with echarging (Maribor). Leipzig will develop an urban data platform with pilot cases in public transport and with a participatory process of all relevant stakeholders. The aim of the project is to better exploit the potentials of data-based traffic planning and organisation. The project will start in April 2019 and will last three years.

Read more

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European Smart Cities and Communities Project News

European Smart Projects Summit in San Sebastián

On 26 and 27 March, San Sebastián, Lighthouse City of Replicate, organized the European Smart Projects Summit and invited Triangulum and the other 13 European Smart Cities and Communities (Lighthouse) Projects to join as well.

The purpose of the two-day summit was to foster further collaboration opportunities between the 14 projects, to exchange knowledge and to welcome the two new projects MAKING-CITY and +CityxChange to the family of Lighthouse Cities.



Representatives from 14 projects (Picture: Steinbeis-Europa-Zentrum)

From Triangulum, the project management team from Fraunhofer IAO and University of Stuttgart including the communication lead from Steinbeis-Europa-Zentrum, as well as replication representatives (Fraunhofer IAO) attended the event.

Read more

News from our sister projects

REMOURBAN has published an article about "enthusiasm but caution on new 5G technology" in smart cities: 5G networks no doubt have the technological specs necessary to power smart cities, but without careful design and planning, the complexity of integrating everything from traffic to health care could prove overwhelming. Read more

The **SmartEnCity** Network invites city representatives across Europe to a Network Workshop Day in Cagliari, Italy on 5 June 2019. Integrated Energy Planning methods, experiences of our Lighthouse Cities and the transfer of SmartEnCity knowledge are the core topics so that cities can directly benefit from the project's outcomes and start their own journey towards a low carbon future. The workshop is linked to the Sustainable Places Conference. Read more

Smart is catching on! Sharing Cities Fellow City Burgas has unveiled its smart street with humble lampposts equipped with wifi, sensors, and charging ports. <u>Read more</u>. Moreover, their Lighthouse Cities London and Milan are clearing up morning congestion with freshly launched e-logistics and green last mile delivery. Read more here and here.

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Past Events

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

- "Investing in Local Energy" Conference 31.01.2019
- Leeds (United Kingdom)
- Further information

Impact Monitoring and Assessment Exchange (SCC Workshop)

• 07.03.2019

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- Manchester (United Kingdom)
- <u>Further information</u>

European Smart Projects Summit

- 26.-27.03.2019
- San Sebastián (Spain)
- Further information

(eng)aging! New Technologies: Opportunity or Challenge for the Aging Population? International Conference

- 27.-28.03.2019
- Prague (Czech Republic)
- Further information

Morgenstadt Conference: CO₂ Neutral Smart Cities

- 04.-05.04.2019
- Leipzig (Germany)
- Further information

Upcoming Events

Find Triangulum's partners at the following events:

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

Nordic Edge Expo & Conference 2019

- 24.-26.09.2019
- Stavanger (Norway)
- Further information

SAVE THE DATE

Triangulum Final Conference

23.+ 24.09.2019, merging into the Nordic Edge Expo & Conference 2019 in Stavanger (Norway)



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