



# triangulum

DEMONSTRATE · DISSEMINATE · REPLICATE

***D5.7 Communication and  
participation at city level  
Stavanger***

***WP 5, Del 5.7***

***January, 2018 (M36)***

H2020-SCC-2014-2015/H2020-SCC-2014: "Smart Cities and Communities solutions integrating energy, transport, ICT sectors through lighthouse (large scale demonstration - first of the kind) projects"

Collaborative Project – GRANT AGREEMENT No. 646578

Project Acronym	TRIANGULUM		
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Project Coordinator	Damian Wagner ( Damian.Wagner@iao.fraunhofer.de) Fraunhofer IAO		
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DoA	Aggregation of a varied set of communication tools in digital and print format, including the project's portal, a brochure, newsletters, animated films and any other solution which may generate awareness, especially to citizens, and is in line with the project scope and objectives.		
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# 1. Introduction

Deliverable 5.6: *Communication and dissemination at city level* concerns the “*Aggregation of a varied set of communication tools in digital and print format, including the project’s portal, a brochure, newsletters, animated films and any other solution which may generate awareness, especially to citizens, and is in line with the project scope and objectives*”.

The following report will describe activities and plans to implement this deliverable in Stavanger.

The main focus of the third year has been to create communication tools, movies and events.

The purpose is to create awareness about smart city and sustainable solutions among local citizens and local authorities, and disseminate the Triangulum solutions to the Stavanger region for possible replication.

The content of the website, brochures, newsletters etc. is based on the internal deliverables of Triangulum in Stavanger, and developed in close cooperation with local partners.



## 2. Tools/Channels/Mechanism

### **Organization**

Greater Stavanger (P15) is in charge of the communication work in WP5 of Triangulum in Stavanger, and cooperates closely with the city management team on communication and dissemination. The communication team in Greater Stavanger is composed by

- May Endresen, Opportunity Manager, International relations
- Svanhild Sondresen, Opportunity Manager, PR and Communication

To support both the overall communication work on Triangulum and the communication regarding the different internal deliverables of the local partners, a communication group has been established, with representatives from each local partner. The communication group works in close collaboration with the TRI team and has an advisory function for the local partners. The group consists of communication staff from each local partner:

- May Endresen and Svanhild Sondresen, Greater Stavanger
- Leiv Gunnar Lie, Communication Department, University of Stavanger
- Kristin Støle Kalgraff, Communication Department, Lyse
- Frank Michael Mortensen, Communication Department, Rogaland County Council
- Marianne Jørgensen and Inger Hanne Vikshåland, Communication Department, City of Stavanger.
- Katelien van Den Berge, City Coordinator Team, City of Stavanger

The local dissemination and communication coordinators work closely together with WP7 by delivering input to the global newsletter, social media and participate at telecom meetings. The so-called "D&C Secretariat" is responsible for all dissemination and communication within the Triangulum project on an overall and a local level.

The secretariat involves:

- Hans van Amelsvoort, Dissemination and Communication Eindhoven
- Sophie Sheil, Dissemination and Communication Manchester
- May Endresen and Svanhild Sondresen, Dissemination and Communication Stavanger
- Bettina Remmele, WP 7-Leader

The overall corporate identity of the project has been developed together and can be used for all local purposes (e.g. flyer layout, rollup layout).

Furthermore, there have been local dissemination and communication meetings every third month where the next steps at the communication plan have been discussed. There has also been a monthly telephone conference with the global communication team.

### **Communication tools**

This subtask has focused on the design and implementation of communication tools that are used to create awareness of the Triangulum project in Stavanger. The videos have been published on the partner's websites, social media channels and newsletters. To maximize reach of the communication, all partners published the videos simultaneously, same date and time. These tools have been embedded



within the project's central communication and dissemination portal within WP7, 'Dissemination and Communication'.

The aim is that the communication tools will contribute to the interest in replication of the Triangulum solutions and create better awareness among our citizens regarding the smart city solutions.

- All partners have Triangulum as part of the content of their website, with links to the H2020 and project website.
- In the year 2017 (M25 – M36), videos were made and published of
  - The unveiling of the battery buses with the winning design (subtask 5.3.1 Rogfk). This took place at the city centre. The event was filmed and published on social media and was broadcast on the National news (NRK Rogaland). On Facebook, the video had 37.000 views.
  - As part of the attempt to create knowledge about the project among the citizens of Stavanger, an animated video was made to illustrate its impact and involvement in March 2017 (M27). The video was simultaneously published on social media by all 5 local partners. At Facebook, it had more than 80.000 views.
  - A video was made by the municipality of Stavanger about building the CEP for heating and cooling of 3 municipality buildings in June 2017 (M30) (task 5.2.2)
- All 7 videos made by the Stavanger Triangulum partners during the project period until January 2018 (M36) can be seen on the Triangulum [YouTube channel](https://www.youtube.com/channel/UCW8lxWYdWxynkUL_6nDRnfg/videos):  
[https://www.youtube.com/channel/UCW8lxWYdWxynkUL\\_6nDRnfg/videos](https://www.youtube.com/channel/UCW8lxWYdWxynkUL_6nDRnfg/videos)

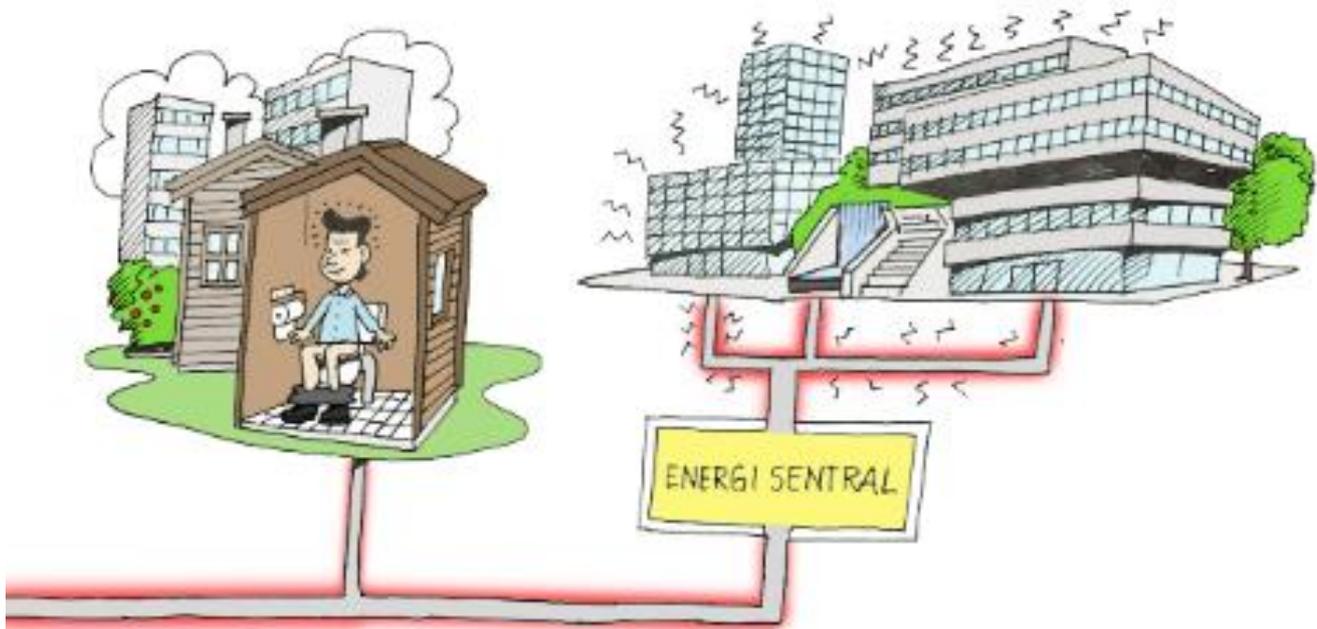


Figure 1. Glimps from the cartoon movie



### **Communication events**

Communication events are used to disseminate and showcase the solutions and results of Triangulum in Stavanger. The purpose is to encourage other regional actors to replicate the solutions and to thereby create business opportunities and contribute to more sustainable solutions locally.

All Triangulum project partners in Stavanger use events in existing networks and projects to showcase the Lighthouse project.

- As part of the innovation festival in Stavanger, “Impact week”, a safari for the local public was conducted to see the implemented demonstrations. The event was called “Tour de Triangulum” and took place on June 15, 2017 (M30). The event had 56 participants.

The tour started at Lyse's headquarters. The Mayor of Stavanger gave an opening speech and a short introduction to the Triangulum project. Afterwards, the smart home solutions from Lyse (P18) were presented to the public in Lyse's demo apartment.

After the visit at Lyse, the participants were transported to the University of Stavanger (P17, UiS) in one of the Triangulum battery buses (P16, Rogfk). At the University of Stavanger, there was a presentation about the data UiS collects in the Triangulum project, and how the data can be of benefit to the residents of the city. Hereafter, the battery bus took the participants to the Stavanger cinema where the CEP video was launched following a sort introduction by its project manager. The county Mayor of Rogaland closed the event.

Film from “Tour de Triangulum”: <https://www.youtube.com/watch?v=KQbR07cACNM>

- Furthermore, Triangulum has been presented at around 34 various National and International arenas and so far in 3 publications.
- The city coordinator and members of the partnership have presented the project on several occasions locally and internationally, raising awareness, giving inspiration, strengthen connections and expanding the network (see list in the report “Communication and Dissemination at City level Stavanger, (D5.6, M36))
- The smart city conference Nordic Edge Expo 2017 took place from 26th through-28th of September (M32). Nordic Edge Expo is developing and confirming its place as one of the Nordic's main smart city events and has grown from 500 participants in 2015 (M9), to 2100 in 2016 (21), and 4500 in 2017 (M32). It has also grown to 200 exhibitors.
- The Stavanger partners contributed to present Triangulum as part of the LHC stand, including the joint touchscreen, at the exhibition at the Nordic Edge Expo. The exhibition had a total of 200 exhibitors.
- City of Stavanger, Greater Stavanger and Rogaland county participated at the stand of EIP-SCC and in a panel to discuss experiences on inhabitant's involvement at the Smart City Expo in Barcelona in November 2017 (M34)





Figure 2. Stavanger partners (here May Endresen from Greater Stavanger) and the Mayor of Eindhoven shaking hands to celebrate the partnership between the two cities.

Furthermore, Triangulum has been presented at various national and regional arenas:

Year	Month	Day	Speaker	Event
2017	February		Russel Wolff / UiS	Attended a meeting at RFK Central Administration on the topic of Big Data Mobility Management. At the meeting, Russel gave a 10-15 min presentation on what UiS is doing in terms of data handling in Triangulum.
2017	February	11	County Mayor Solveig Ege Tengesdal / Rogfk.	Presentation about the bus project / design contest and Triangulum at the Unveiling the Battery buses event. Main square Stavanger, 150-200 participants.
2017	March	6	Birger	Demo for members of the European network organization Eurelectric in one of the Triangulum



			Clementsén/Lyse	pilot homes.
2017	March	22	Chunming Rong / UiS	Presented Triangulum during a meeting in Guangzhou, China to professors from 3 Chinese Universities and several local municipality leaders in the context of ongoing research at UiS and how it fits into big data analysis. The group was participating in the kick-off meeting for another project UiS is a part of.
2017	April	5-7	Gerd Seehuus / SK Russel Wolff / UiS May Endressen / GS Per Fjeld / Lyse Joachim Weisser / Rogfk Leidulf Skjørestad / SK	Members from the US Embassy met at SK to discuss ongoing Triangulum work. Triangulum partners discussed their roles.
2017	May	31	Gerd Seehuus/SK	Presentation about Triangulum and Smart City for an Austrian delegation of business leaders and politicians, 26 participants
2017	June	2	Gerd Seehuus/SK	Presentation for MBA students of the Business Economy University of Stavanger.
2017	June	8	Gerd Seehuus/SK Per Erling Fjeld/Lyse	DG Energy Winter package study Tour for Trainees. Organizing conference/Triangulum briefing and discussion. 9 Trainees
2017	June	15	Mayor Christine Sagen Helgø / SK County Mayor Ege Tengesdal / Rogfk.	Tour de Triangulum, opening speech of the tour, at Lyse. 56 participants  Closing speech of Tour de Triangulum at the Cinema, 56 participants
2017	June	15	Per Erling Fjeld / Lyse Russel Wolff and Aryan Taheri Monfared / UiS Leiv Gunnar Lie, UiS Joachim Weisser/ Rogfk Ernst Olsen / SK: CEP	Impact Week Tour de Triangulum. Presented the ongoing work for the project from Lyse, Rogfk, CEP/SK and UiS. Various locations. 56 participants



			Gerd Seehuus / SK	
2017	June	21	Per Erling Fjeld / Lyse	Intelligent and connected communities, Presentation during Workshop. Eindhoven. WP6 Workshop
2017	June	26	May Endressen / GS	Webinar presentation 'Citizen Engagement & Living Labs' WP6
2017	June	26	Gerd Seehuus / SK Per Erling Fjeld/Lyse	Smart City tour of Stavanger by Evje & Hornnes municipality, presentations on Triangulum and H2020 from local coordinator and on industrial perspective as seen from Lyse. 35 participants
2017	July	17	Mayor Christine Sagen Helgø/SK	Meeting with the Norwegian EU minister
2017	August	18	Gunnar E. Crawford/SK	Arendalsuka - Smart cities Norway. Network for smart cities: Oslo, Trondheim, Kristiansand and Stavanger
2017	September	9	Wenche Myrland / Rogfk Gerd Seehuus / SK	Webinar presentation 'Financing the Smart City' WP6
2017	September	15	Trond Linjordet / UiS Inger Bjørkum Leigvold / SK	Gave a webinar as part of a 2-day Triangulum Open Data and eGovernance workshop held in Stuttgart. WP6 workshop
2017	September	20	May Endresen / GS Iver Jan Leren / Rogfk.	Panel discussion at Triangulum stand during Smart City World Expo
2017	September	19-21	Gerd Seehuus / SK Dagfinn Wåge / Lyse Chunming Rong / UiS Katelien van den Berge / SK	Presentations and discussions during Smart City Summit 40-75 pers. Per session.
2017	September	27	Mayor Christine Sagen Helgø/SK	Opening of Nordic Edge Expo (NEE)
2017	September	28	Gerd Seehuus	NEE Parallel Panel session 'Presenting the new SCC projects' 50-60 participants
2017	September	28	Gunnar E. Crawford/SK	NEE: Oslo Municipality's parallel session, "Smart City Strategy".50 - 100 participants from public,



				private and academia
2017	October	10	Gunnar E. Crawford/SK	Handelshøyskolen BI: Service and innovations. 20 students.
2017	October	19	Gunnar E. Crawford/SK	European Capital of Innovation: Case Study on the city of Stavanger College of Europe field visit to Stavanger. Arranged by the Stavanger Region European Office
2017	October	20	Gunnar E. Crawford/SK	Kick off Horizon 2020 at UiS
2017	November	2	Signe Stahl Kvandal / SK	Presentation of CEP to Water Industry Award public: Haugesund, 200 participants.
2017	November	15	Tone Grindland/SK May Endresen /GS Svanhild Sondresen /GS	Smart City Expo World Congress: Meet the Nordic Cities: Copenhagen, Stavanger, Tampere
2017	November	15	Gunnar E. Crawford/SK	Smart City Expo World Congress. Participant at the conference. Ca 100 participants
2017	November	15	May Endresen / GS Iver Jan Leren / Rogfk	EIP-SCC- joint stand at Smart City Expo World Congress, Barcelona  Panel discussion on citizen involvement
2017	November	14-16	Katelien van den Berge Gerd Seehuus / SK	EIP-SCC- joint stand at Smart City Expo World Congress, Barcelona
2017	November	17	Gunnar E. Crawford/SK	UiS: Verdiskapningsforum. Students and private companies. 100 participants
2017	November	23	Gerd Seehuus / SK Ernst Olsen / SK	Rogaland Urban 'Smart Society'. 45 participants
2017	November	30	Kyrre Aas, EC-unit / UiS	H2020 info on next calls, Randaberg Municipality
2017	December	6	Gunnar E. Crawford/SK	KnowIt: Presentation of Stavanger Smart City to employees in KnowIt. About 8 participants



### Study tours and visits for local participants

The study tour was conducted as part of the “Tour de Triangulum” event in June 2017 (M29).

### Press contacts, press releases for local press, websites and social media

In close cooperation with WP7, ‘Dissemination and Communication’, the local consortium is working to make the Triangulum project visible in the media by writing press releases on relevant activities.

Each partner oversees writing press releases for their deliverables and activities, and the work is supported by Greater Stavanger.

WP7, ‘Dissemination and Communication’, take care of including the activities from the cities activities in their tasks and reporting.

- Information about ongoing activities in the Triangulum project has been published in the local press and at the local partners’ websites, Facebook, Twitter and newsletters etc. on a regular basis.
- The animated film and the other videos published in the year 2017 (M25-M36) received comprehensive coverage in social media.

Substantial efforts have been made to make sure that Triangulum has been visible in social media, with a particular emphasis on Facebook:

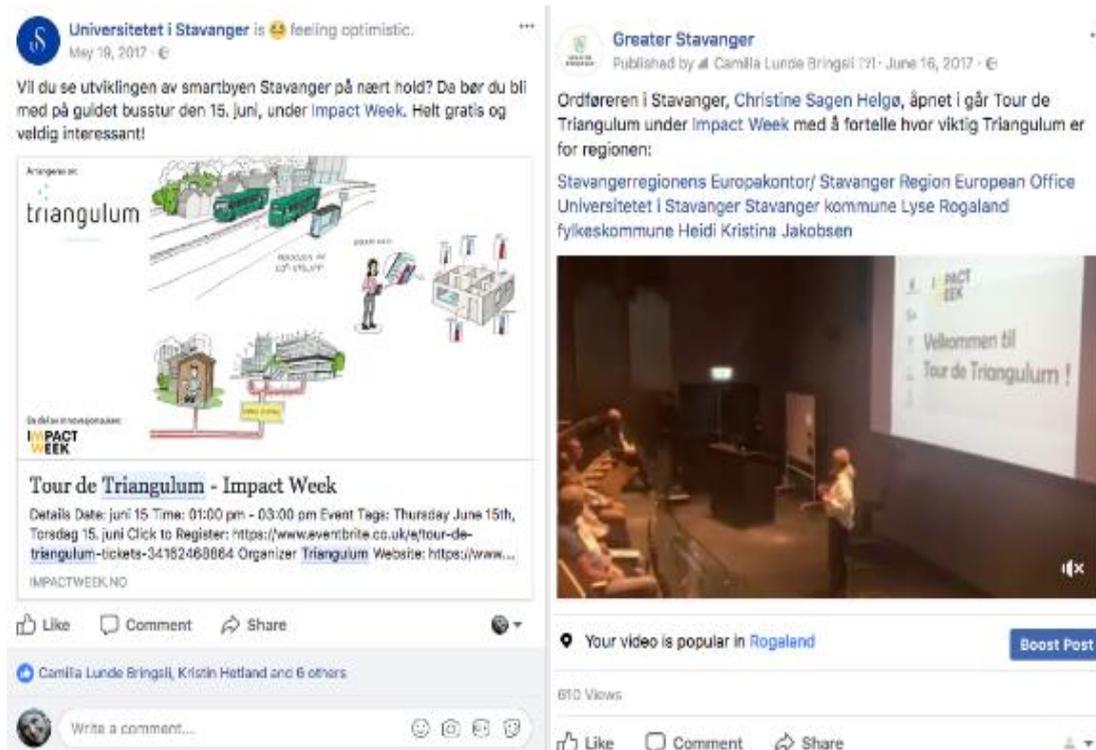


Figure 3. Facebook posts featuring the Triangulum project during Impact Week. One with Christine Sagen Helgø, Mayor of Stavanger



Information about the Triangulum project has been published in the local press and at the local partners' websites, newsletters etc.

The local partners inform about the Triangulum project on their respective websites:

- Online activities include ensuring a presence on partners' websites and press coverage:
  - <http://greaterstavanger.com/Hva-vi-gjoer/Nyskaping/Triangulum>
  - <http://www.lysekonsern.no/prosjekter/triangulum-article2032-321.html>
  - <http://www.stavanger.kommune.no/triangulum>
  - <http://www.lysekonsern.no/nyheter/arrangerer-tour-de-triangulum-article2445-200.html>
  - <http://www.lysekonsern.no/nyheter/50-pa-tour-de-triangulum-article2457-200.html>
  - <http://www.lysekonsern.no/nyheter/dette-betyr-triangulum-prosjektet-article2436-200.html>
  - [http://www.rogfk.no/Aktuelt/Bli-med-paa-Tour-de-Triangulum/\(language\)/nor-NO](http://www.rogfk.no/Aktuelt/Bli-med-paa-Tour-de-Triangulum/(language)/nor-NO)
  - [http://www.rogfk.no/Aktuelt/Dette-betyr-Triangulum-prosjektet-for-deg/\(language\)/nor-NO](http://www.rogfk.no/Aktuelt/Dette-betyr-Triangulum-prosjektet-for-deg/(language)/nor-NO)
  - [http://www.rogfk.no/Aktuelt/Avdukingsfest-for-tre-nye-batteribusser/\(language\)/nor-NO](http://www.rogfk.no/Aktuelt/Avdukingsfest-for-tre-nye-batteribusser/(language)/nor-NO)
  - <http://greaterstavanger.com/Om-oss/Aktuelt/Dette-betyr-Triangulum-prosjektet-for-deg>
  - <http://greaterstavanger.com/Om-oss/Aktuelt/Paa-med-paa-Tour-de-Triangulum>
  - <http://greaterstavanger.com/Om-oss/Aktuelt/Triangulum-prosjekt-vant-Vannbransjeprisen-2017>
  - <http://greaterstavanger.com/Om-oss/Aktuelt/Norsk-delegasjon-paa-Smart-City-Expo-i-Barcelona>
  - <http://www.uis.no/forskning-og-ph-d/vi-forsker-pa/informasjonsteknologi/behandling-av-store-datamengder/triangulum-prosjektet/>
  - <http://www.uis.no/forskning-og-ph-d/vi-forsker-paa/informasjonsteknologi/behandling-av-store-datamengder/>
  - <https://www.tu.no/artikler/reduserer-co2-utslipp-og-varmer-bygninger-med-byens-kloakk/366570>
  - <http://www.kommunalteknikk.no/stavanger-norges-eneste-fyrtaarnby.6066887-297922.html>



### 3. Citizen engagement strategy

In all activities within WP5, citizen engagement had a high focus in order to adapt solutions resulting from the project.

One example is the Tour de Triangulum which gave citizens the possibility of seeing the entire project in real life.

All activities on the local partner's social media platforms are also a good way to engage and communicate with the citizens of the region.

Another example are the battery buses. In the procurement of the e-buses, design students from three local high schools participated in a design competition for the decoration of the bus, in cooperation with the local street art festival NuArt.

The purpose was to create a greater awareness of the project and to demonstrate the e-buses. The competition started 12<sup>th</sup> February with a kickoff event, and the winner was announced in June 2016. In February 2017, the busses were unveiled by the County Mayor. See the video from the event (Greater Stavanger Facebook page): <https://www.facebook.com/greaterstavanger/videos/1454092654609533/>



Figure 4. Presentation of the Triangulum battery buses to the public 11<sup>th</sup> February 2017. Picture: Rogfk.



## 4. Communication Plan

A local communication strategy was developed at the beginning of the project (M-1), revised in M14 and again in M23 and M36.

The communication plan will be updated at every local communication meeting every second month to reflect the development of the project.

The plan specifies activities and deadlines for communication and dissemination of Triangulum in the Stavanger region. The plan includes:

- *Dissemination and communication activities*
- *Objectives*
- *Target group*
- *Medium/channels*
- *Responsible partner*
- *Status*

The communication plan ensures the commitment and progress of the agreed activities among all the local stakeholders.

At the inception of the project, it was not possible to have the full picture of which communication activities would be most suitable during the duration of the project. Hence, the communication plan is revised on a regular basis, thus ensuring progress.

Having a local communication group updating the communication plan on a regular basis facilitates a process whereby all planned communication events, press releases and other events to disseminate Triangulum outcomes can be linked to other ongoing smart society and smart city developments in the region.

In January 2018, the communication group also made a *message, target group, channel and means* matrix to get a better overview of the projects overall communication messaging:

MAIN MESSAGE	Value for citizen Triangulum has made Stavanger greener	Value for the partnership/private sector Triangulum has given the region increased innovative power	Value for the city Enhanced status as a lighthouse city. Effects of the projects benefits the city and its citizens	Value for the employee How Triangulum has added value to their organization	Value for Triangulum Stavanger is an engaged partner delivering results through groundbreaking projects
TARGET GROUP	<ul style="list-style-type: none"> <li>• Citizens</li> <li>• Politicians</li> <li>• Media</li> </ul>	<ul style="list-style-type: none"> <li>• Private sector</li> <li>• Politicians</li> <li>• Media</li> </ul>	<ul style="list-style-type: none"> <li>• Employees</li> <li>• Private sector</li> <li>• Politicians</li> <li>• All the municipalities in the region</li> </ul>	<ul style="list-style-type: none"> <li>• Employees</li> <li>• Local private sector</li> <li>• All municipalities</li> </ul>	<ul style="list-style-type: none"> <li>• Other lighthouse cities</li> <li>• Following cities</li> <li>• EU</li> </ul>
CHANNEL	<ul style="list-style-type: none"> <li>• Digital channels</li> <li>• Social media</li> <li>• Press</li> <li>• Events</li> </ul>	<ul style="list-style-type: none"> <li>• Digital channels</li> <li>• Social media</li> <li>• Press</li> </ul>	<ul style="list-style-type: none"> <li>• Digital channels</li> <li>• Social media</li> <li>• Press</li> </ul>	<ul style="list-style-type: none"> <li>• Intranet</li> <li>• Trade press</li> </ul>	<ul style="list-style-type: none"> <li>• Reports</li> <li>• Newsletter</li> <li>• Triangulum social media and digital channels</li> <li>• Meetings &amp; Events</li> </ul>
MEANS	<ul style="list-style-type: none"> <li>• Infographics</li> <li>• Movie</li> </ul>	<ul style="list-style-type: none"> <li>• Seminar, meetings, events</li> </ul>		<ul style="list-style-type: none"> <li>• News stories</li> </ul>	<ul style="list-style-type: none"> <li>• News, updates</li> </ul>



## 5. Next steps the following 12 months

The local communication group in Stavanger with Lyse as project leader is going to create a video of a retirement home that uses smart heat and light control. The film will be used for information purposes during the project period, and will be published at all the local partners' websites and social media channels as well as Triangulum's online channels.

In addition, we are re-launching the animated movie around the Nordic Edge Expo in September to raise more awareness of the project amongst citizens in the region.

Stavanger Municipality and Greater Stavanger is arranging an event to showcase the energy plant. The other municipalities within Greater Stavanger (15) will be invited and the goal is that they can learn from the project and possibly replicate within their own municipality.

Triangulum will also have a role at the Nordic Edge Expo (the international Smart City event in Stavanger, September 2018). Both as an exhibitor, but the local communication team will also facilitate the Lighthouse City meetings with emphasis on providing a workshop for the communication representatives attending.

More information about the event can be found online:

- Nordic Edge Expo: <http://nordicedge.org/>

If the data from University of Stavanger is ready this fall, they will also be communicated with infographics and a movie. Current estimation is that the big data results will not be ready to be communicated before the end of 2018/start of 2019.

