

DITCOM

Centre for Digital
Transformation in Cities
and Communities

Annual Report 2019



School of Communication and Culture
Aarhus University

TABLE OF CONTENTS

What is DITCOM? 4

Get a short introduction to our research centre

6 Looking Back at 2019

Look back at 2019 with Centre Leader, Martin Brynskov

Meet the Centre 8

Meet the people working in DITCOM

10 DITCOM Highlights & Numbers

Take a look at the overview of our main achievements in 2019

14 Projects

Learn more about our main EU projects SynchroniCity, NGIoT and SCORE

Events 22

Discover our main events organised or co-hosted by DITCOM in the past year

30 Networks and Partnerships

Get an overview of our networks and partnerships

A Look Into the Future 34

Learn about the projects we have in the pipeline

36 Annex

See a full list of activities, publications and reports

What is DITCOM?

The Centre for Digital Transformation in Cities and Communities is working with research and innovation projects and partnerships that address the digitalisation that is increasingly shaping our cities and communities. Located at Aarhus University's IT campus, the centre has a human-centric approach to digitalisation and technology applications.

The centre is based on a multiple helix model and has a strong cross-disciplinary and international profile with an office in Brussels. We collaborate with numerous stakeholders in Europe and beyond and coordinate several large, European research and innovation projects, such as SynchroniCity, opening a global market, where cities and businesses develop IoT- and AI-enabled services to improve the lives of citizens and to grow local economies and Next Generation Internet of Things, developing the roadmap for IoT in Europe for the period of 2020-2027. We lead communications in the Interreg project, SCORE, and are founding member of the global smart city network, Open & Agile Smart Cities and the Creative Ring.

Research, Innovation, Implementation

The Centre for Digital Transformation in Cities and Communities conducts research on the complex field of smart cities and communities, where humans and digital technologies come together. Our take on the topic of digital transformation in cities and communities is human-centric, highlighting the importance of ethics, trust, security, and above all, co-creation.

With the increasing urbanisation come challenges such as overburdened infrastructure, increased energy consumption, air pollution, etc. An endless list of challenges that digital technologies can help overcome. We, at the Centre for Digital Transformation in Cities and Communities, strive to enrich our understanding of how the development and deployment of new technologies in urban and rural settings and communities can contribute to creating sustainable societies. Our research revolves around the UN's Sustainable Development Goals, in particular SDG 11 "Sustainable Cities and Communities" and SDG 13 "Climate Action".

Creating smart and sustainable cities and communities is an important step to fight climate change and build a better future, but more knowledge is needed to achieve this. Our research on the digital landscape is diverse but is primarily organised around four different themes: Smart Cities & Communities, Internet of Things (IoT), Living Labs and Standards.

Smart Cities
& Communities

Internet of
Things

Living Labs

Standards

“DITCOM is a global centre of gravity for AI- and IoT-enabled services for cities and communities”



Looking Back at 2019

with Martin Brynskov

In 2019, DITCOM has entered a phase of scale-up and consolidation. It is in many ways the natural evolution of the ambitions in the original strategy for AU Smart Cities: moving from a highly siloed and sectorized legacy situation to a holistic approach to digital development in cities and communities.

From being centred around individual projects, the DITCOM strategy and team now embodies a portfolio-based capacity to deliver on key AU missions: research, education and societal impact – on a global scale as well as locally.

DITCOM is perceived as one of the key hotspots in the world where burning issues surrounding digitalisation are being addressed in an ambitious, holistic and balanced manner. Working directly with institutions such as the European Commission, United Nations, World Economic Forum and G20, DITCOM is a conversation partner globally, from shaping policy to bringing practical experience on the ground.

The definition of Smart Cities and Communities as agreed among the global standards giants ISO and the United Nations International Telecommunications Union (ITU) reads as follows:

“Effective integration of physical, digital and human systems in the built environment to deliver a sustainable, prosperous and inclusive future for its citizens.”

The United Nations Sustainable Development Goals, the European values are guiding those who are seeking to achieve this vision. Some call it a third way, *distancing itself from the de-regulated approach from the United States and the more authoritarian Chinese way.*

In the recent digital strategy for Europe, this European way is called for, both in terms of Artificial Intelligence, flow of data, and more generally A Europe fit for the Digital Age. DITCOM has not only delivered on this since years. Through actions that we coordinate and lead as well as our other contributions, DITCOM and Aarhus University has been connecting the research of decades, sometimes centuries and millennia, to the urgent needs of today, including directly to Horizon Europe and the Digital Europe Programme.

Within ecosystems of actors, from academia, government, business and civil society, we are bridging the gap between research and society.

This would not have been possible without many strong and diverse partners, internally at AU, in Aarhus and Denmark, in Europe and beyond. It is my hope that we can turn this unique position – insisting on a rich, sensitive and humanistic view on cities and communities – into a mature centre of gravity also in the decades to come. Not just to the benefit for those directly involved, but for a very large part of the world.

Meet the Centre



Martin Brynskov
Associate Professor
Centre Leader



Adriënné Heijnen
Senior Scientific
Advisor



Marianne Ping Huang
Associate Professor



Søren Pold
Associate Professor



Christoph Raetzsch
Associate Professor



Kata Börönte
Assistant Project
Coordinator



Benoît Dalbert
Project Manager



Janne Rasmussen
Communications
Manager



Margrete Rolighed
Student Assistant



Rina Vijayasundaram
Research Assistant



Ph.D. Students



5

Ph.D. Students
See the list on page 39



Eva Horáková
Visiting Ph.D. Student



Past Members



Victor Mattioni
Research Intern



Julie Neel
Student Assistant



Kseniia Kalugina
Project Manager



Magnus Johansen
Student Assistant

DITCOM Highlights

17 January



Roberto Viola, Director General, European Commission DG CONNECT, opens Connected Smart Cities & Communities Conference 2019

10 April



Smart City Cluster Denmark officially launches

18-20 June



IoT Week Public Expo 2019 in Aarhus welcomes 2000+ visitors

2-3 October



The SynchroniCity Scale-up Workshop in Milan presents 50 successful deployments of AI- and IoT-enabled services in 21 cities

11 October



The NGIoT Scoping Paper is published, building a roadmap for next generation IoT

19-21 November



Smart City Expo World Congress 2019 in Barcelona is a great success for the third time in a row

6 Jan

The first day of DITCOM

6-7 February



The SynchroniCity London Bootcamp kicks off 16 pilot projects

22 January



DITCOM hires Janne Rasmussen, Communication Manager

1 June



DITCOM hires Benoît Dalbert, Project Manager

29 June



Martin Brynskov presents at G20 Super City Smart City Forum 2019

28-29 October



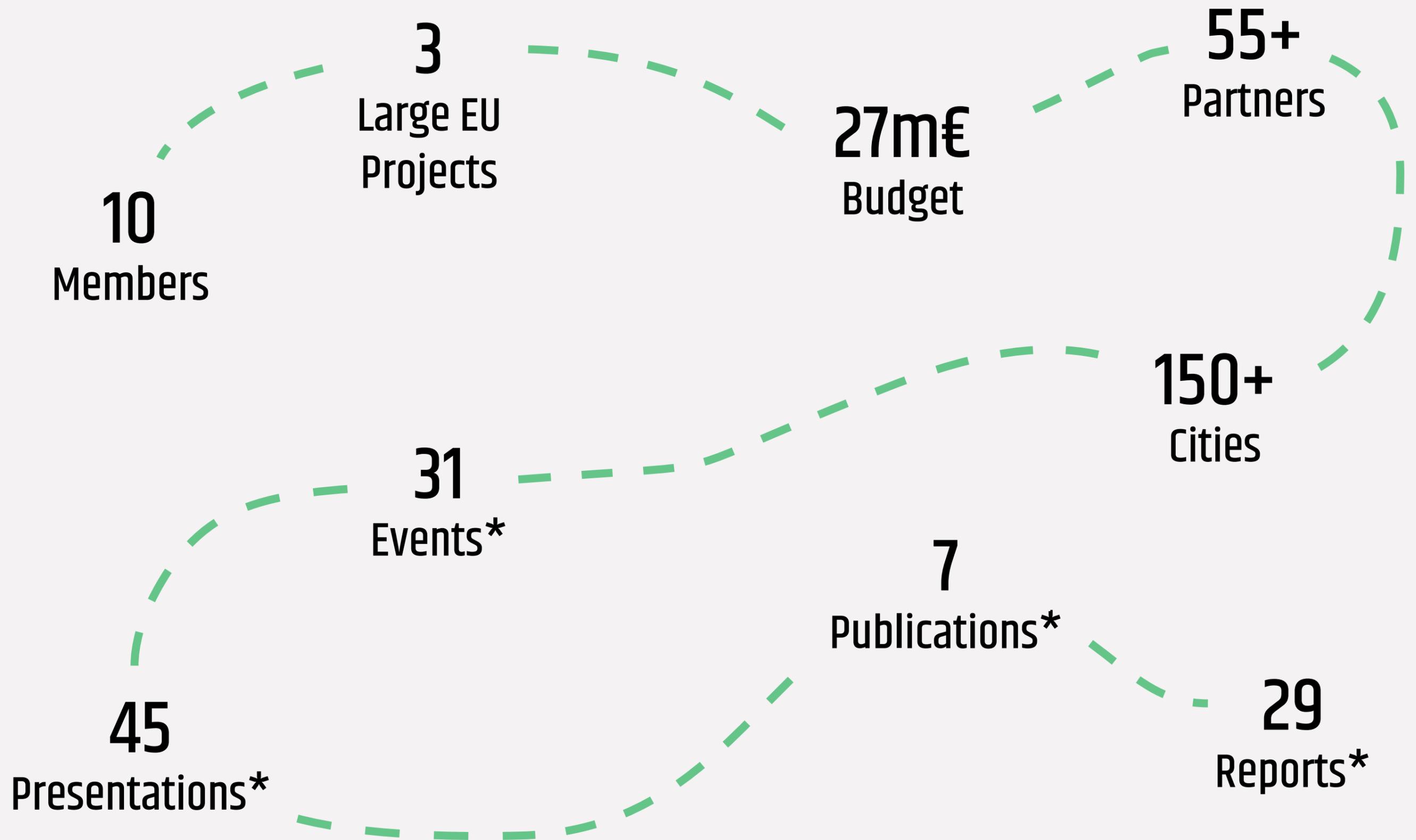
DITCOM gives its first masterclass in the Municipality of Thisted

10-11 December



The first signatures are put on the declaration 'Join, Boost, Sustain' for upscaling digital solutions in cities and communities in Europe

DITCOM in Numbers



*See the list of events, presentations, publications and reports on page 36-39

Projects

In the name of human-centric IoT research & innovation, development and deployment

DITCOM is engaged in many different projects and activities, working towards understanding and facilitating the ongoing digital transformation in cities and communities, working with them and for them.

We are coordinating SynchroniCity, one of the IoT European Large-Scale Pilots, opening up a global market, where cities and businesses develop IoT- and AI-enabled services and Next Generation Internet of Things (NGIoT), building a roadmap for the next generation internet, and leading communications in Smart Cities and Open Data Re-use (SCORE).

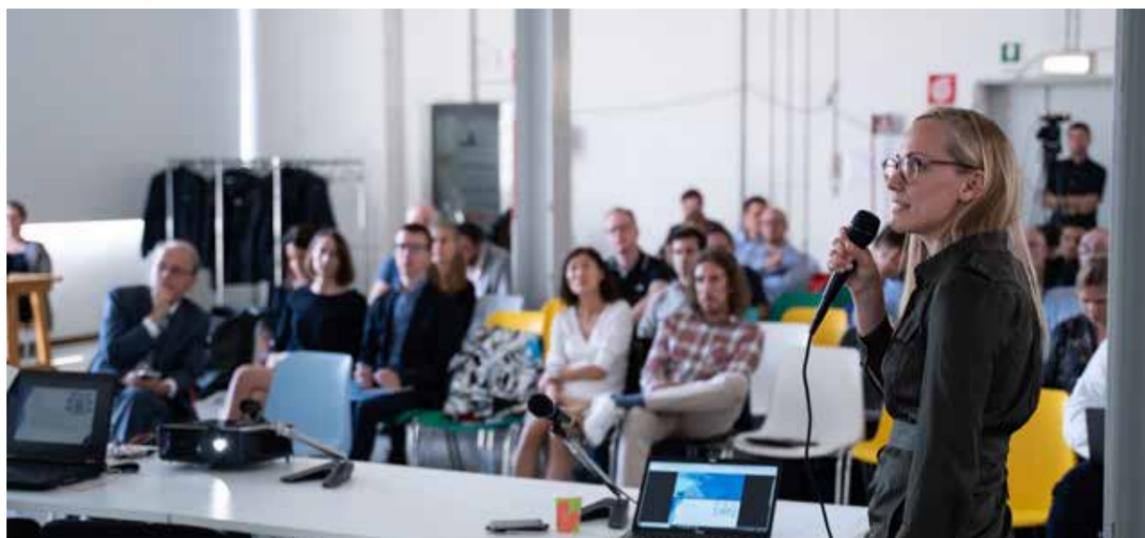
Fostering our trusty network, through research, innovation and implementation activities, is high priority of our team, and with our projects, come many opportunities to engage in and organise events, to offer masterclasses and talks and to lead and contribute to research activities. On the following pages, you can learn more about our projects and connected initiatives.

SYNCHRONICITY

SynchroniCity is a European IoT Large-Scale Pilot (LSP) funded by the European Commission. It aims to open up a global market for IoT-enabled services for cities and communities, where public authorities and businesses develop and deploy services using new technologies in agile partnerships to sustain and improve the lives of citizens, and to ensure sustainable local economic development.

The SynchroniCity project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 732240, and it is part of 104m€ Large Scale Pilots Programme. 34 partners worldwide from business, academia, municipalities and NGOs have contributed to the project that ended in 2019 and was coordinated by the Centre for Digital Transformation in Cities and Communities.

Budget: 20.000.000 €



Scale-up Workshop in Milan

SynchroniCity: How might cities help one another with digital transformation?
A first step towards an inclusive, digital Europe.



In collaboration with Open and Agile Smart Cities (OASC), SynchroniCity conducted a scale-up workshop with the participating organisations of the project and external pilots, including new cities and SMEs to look at how the municipalities involved might extend the value of their collaboration beyond the EU funded activities.

SynchroniCity has been a very successful collaboration between 34 global partners, 21 cities delivering 50 deployments of innovative connected technologies in under three years. As part of this, "Cities Forum" was a place of trust and collaboration within the project, with monthly calls and sharing of expertise, experiences, challenges, and solutions between those at the coalface of deploying and evaluating technology to solve urban challenges.

Milan has been a final milestone for the pilots within the project, but the first important step towards the European way of digital transformation in cities and communities, formulated in the Join, Boost, Sustain Declaration.

You can read more about the declaration on the coming pages.





OPEN & AGILE SMART CITIES

SynchroniCity helped identify the minimum technical requirements needed to provide sustainable, scalable and efficient IoT- and AI-enabled services, called Minimal Interoperability Mechanism (MIMs), developed by the Open & Agile Smart Cities network (OASC).

OASC is a non-profit, international smart city network that has the goal of creating and shaping the nascent global smart city data and services market. OASC connects 150 smart cities globally organised in national networks from 30 countries and regions.

Founded by Aarhus University, imec-SMIT, Business Tampere, Connected Places Catapult in Europe, working globally with many partners.



JOIN, BOOST, SUSTAIN

Scaling up Digital Solutions in Europe

OASC, together with EURO CITIES, European Network of Living Labs, the European Commission, the European Committee of the Regions and Finland's Presidency of the Council of the EU launched a scale-up declaration for EU in 2019.

The declaration "JOIN, BOOST, SUSTAIN" for greater uptake of digital solutions and the creation of the European Way of digital transformation was kicked-off in Oulu on 10 December 2019 and the official signing ceremony took place at the CITIES Forum 2020 in Porto, Portugal on 30-31 January.

The Declaration aims at defining financial, technical, ethical and legal framework for digitalisation in Europe. The input paper of the declaration provides best practices and open technology ready to use. Among these recommendations are the OASC Minimal Interoperability Mechanisms.

Martin Brynskov, Chair, Open & Agile Smart Cities (OASC), said: *"Openness and interoperability are at the core of a responsible and agile municipality in the 21st century. By signing the scale-up declaration, cities and communities across Europe, and beyond, are now coming together to set the terms for AI- and IoT-enabled services. As the Chair of Open & Agile Smart Cities I am proud to contribute to the movement. With OASC, we already have a platform for cities to sign up and implement open technology and I invite every municipality to join, boost and sustain."*



The Next Generation Internet of Things (NGIoT) establishes a Roadmap for IoT Research, Innovation and Implementation for Europe 2021-27. It is a three-year Coordination and Support Action (CSA), started in November 2018 with the Centre for Digital Transformations in Cities and Communities as coordinator. NGIoT will consolidate Europe's leading position in creating a secure, safe, trusted and "human-centric" IoT research & innovation, development and deployment environment for the Next Generation Internet (NGI).

NGIoT will build on established strong partnerships with Europe's existing IoT Privacy/Security cluster projects and the IoT Large-Scale Pilot (LSP) Programme, both on a strategic and communication level. One of the most important outcomes of the NGIoT project will be a sound and forward-looking roadmap. The roadmap will indicate future directions that will guide European IoT research, innovation, policies and investments, while respecting core European values of openness, inclusion and participation. This is an essential strategic exercise that will inject into the broader Next Generation Internet initiative.

NGIoT's impact and ambition go beyond just creating awareness of the future IoT-deployed aspect in the NGI world. In this respect, NGIoT will serve to identify, foster, expose and facilitate good practices towards a unified strategy across Europe and worldwide.



ngiot.eu



@NGIoT4eu

Budget: 1.500.000 €

SCORE

SMART CITIES AND OPEN DATA RE-USE

SCORE (Smart Cities Open data Re-use) is a project co-financed by the Interreg North Sea Region programme that aims to increase efficiency and quality of public services in cities based on smart and open data-driven solutions.

SCORE brings together nine cities (Amsterdam, Aarhus, Aberdeen, Bergen, Bradford, Dordrecht, Ghent, Gothenburg & Hamburg) and three universities. The partner cities work on innovative solutions based upon open data: for example, for better management of sustainable mobility, air quality, flooding and crowd management. The solutions are co-developed and shared between the cities, improved and made available for other European cities.

The Centre for Digital Transformation in Cities and Communities mobilises state of the art and dissemination opportunities in the SCORE project.



northsearegion.eu/score/



@NorthSeaRegion

Budget: 5.855.000€



Events

One of the core activities at DITCOM is engaging in conferences and events. Thanks to the well-balanced expertise cumulated at the centre, members are often invited to present at conferences and to engage in co-hosting or organising events. On the following pages, we mapped the major milestones of the centre, including presentations, and other activities and responsibilities at local, national and international events, such as Internet Week Denmark, IoT Week and the Connected Smart Cities & Communities Conference.

CONNECTED SMART CITIES CONFERENCE 2019

Connected Smart Cities Conference (CSCC) is the annual conference organised by Open & Agile Smart Cities. The conference is the place for cities, policy-makers, researchers, and businesses to come together and to connect to the forefront of human-centric societal development of technologies, markets, and policy in the 21st century. CSCC 2019 brought together more than 300 participants in Brussels to discuss how to make agile the new stable and was a big success thanks to all speakers, session moderators and attendees. All live recordings, presentations, and conference photos are available for download on www.oascities.org.

Keynote speakers were:

- **Dr Roberto Viola**, Director General, European Commission DG CONNECT
- **Olli Voutilainen**, Finnish Ministry of Economic Affairs and Employment
- **Filipe Araújo**, Vice-Mayor for Innovation, City of Porto
- **Anni Sinnemäki**, Deputy Mayor for Urban Environment, City of Helsinki
- **Christophe Colinet**, City of Bordeaux & **George Beers**, IoF2020
- The panel discussion was moderated by **Kees van der Klauw**, Chair, AIOTI

The programme for the conference was put in place in close collaboration between the Open & Agile Smart Cities and the Centre for Digital Transformation in Cities and Communities which was also present with the full team throughout the conference to present, facilitate and support.



IOTWeek

17-21 June, 2019
Aarhus, Denmark

IoT Week is an international, traveling conference and the 2019 edition took place in Aarhus in Musikhuset. The conference brought together more than 360 speakers and 1700 participants from the research, industry, business, technology and science. Among them were representatives of the world's largest companies that are developing IoT technologies such as Grundfos, Microsoft, Siemens and Ericsson. Together with Open & Agile Smart Cities and Smart City Cluster Denmark, the Centre for Digital Transformation in Cities and Communities organised a two-day track focusing on smart cities and communities.

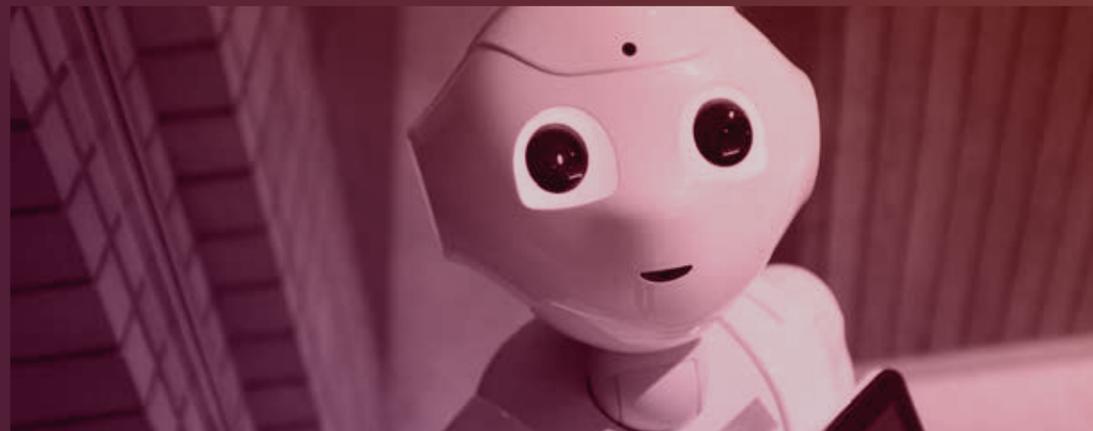


For the first time ever the conference was complimented by a Public Expo, an original idea by the local host, it-forum, and the Centre for Digital Transformation in Cities and Communities. The idea was to create an open space for the general public to get to know more about IoT. It took place in Ridehuset and Musikhusparken, where we showcased everything from smart tractors to LEGO bricks with 35 different exhibitors. The master plan for the expo was done by our visiting PhD student, Eva Horáková and more than 2000 people of which 76 percent were students came by the public expo.

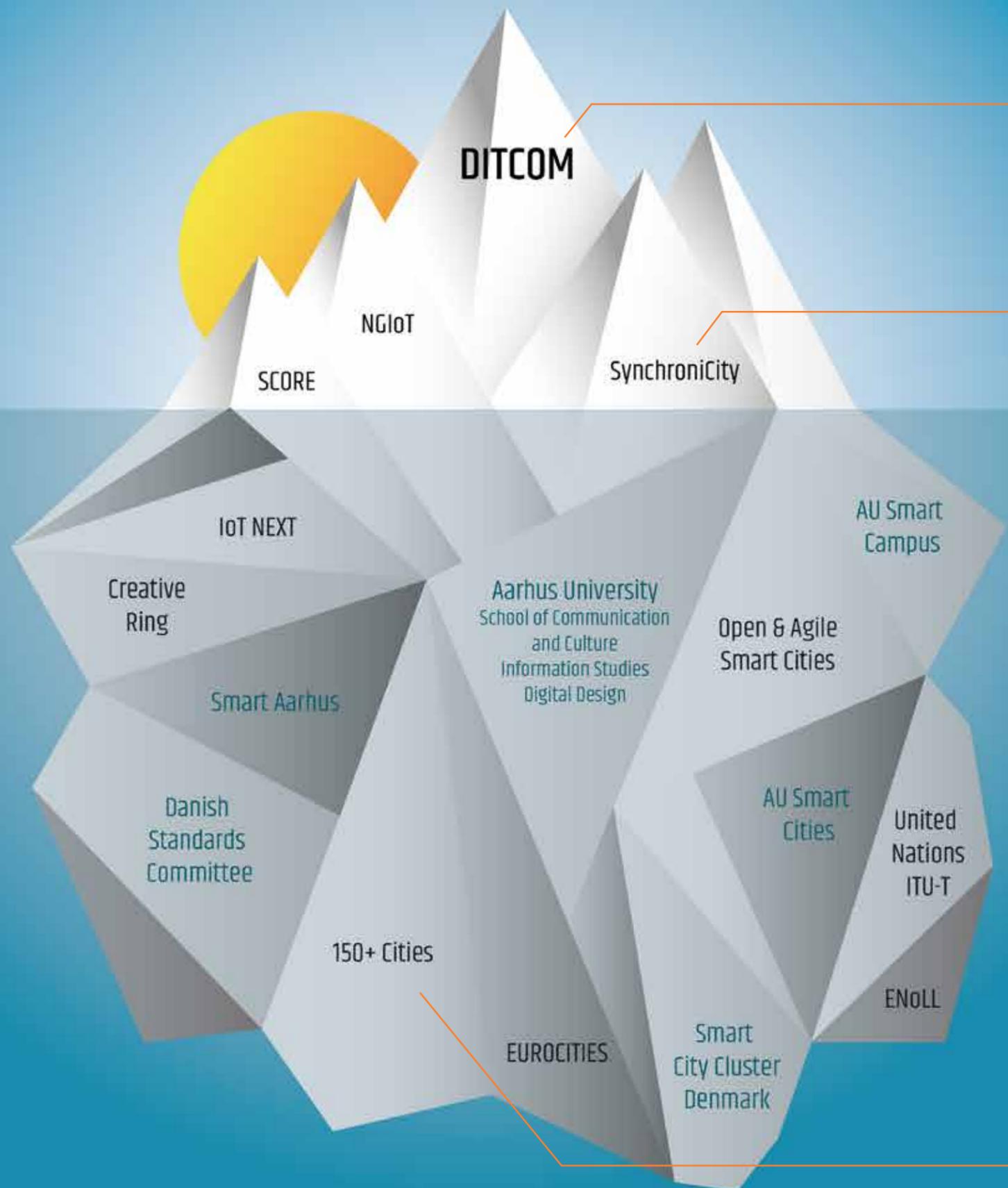
IWDK

Internet Week Denmark (IWDK) is a festival celebrating the Internet. It is a six-day digital festival with more than 7000 people participating in putting people first in the digital age and discuss the digital future. IWDK showcases the many opportunities the internet opens up for our citizens and our businesses.

The Centre for Digital Transformation in Cities and Communities was invited to organise an event focusing on smart cities and communities. This year, we co-organised it with it-forum under the theme “Next Generation Internet of Things - a game changer for businesses and communities.” It was an inspiring full-day conference, where we explored the impact of the fast-growing and ever-changing Internet of Things (IoT) in businesses and communities. The event took place at Dokk1 in Aarhus on 8 May 2019 and it was opened by Morten Løkkegaard, Member of the European Parliament.



Networks and Partnerships



Example: DITCOM Masterclass

As an example of an outcome of our network and partnerships, DITCOM is now offering a Masterclass called “Digital Transformation in Danish Municipalities and the Public Sector: Organisational Agility and Robustness in a Complex Digital World.” The Municipality of Thisted was the first to participate in the Masterclass that consists of lectures, groupwork and discussions. DITCOM offers these Masterclasses for Danish municipalities that are interested in being better equipped for the digital transformation, which is affecting a broad spectrum of tasks within municipalities and the public sector in general. As many other municipalities, Thisted is facing these challenges, and therefore wished to learn more and gain new perspectives.

The Masterclass revolves around subjects such as digitalisation, ecosystems, management, digital strategies, innovation and technology and internal case studies are a vital part of the Masterclass in order to make the subjects tangible for the specific municipality as well as to invite the participants to play an active role. The Masterclass is taught by Martin Brynskov (Associate Professor, School of Communication and Culture, Aarhus University, Director, DITCOM), Adriëne Heijnen (Senior Scientific Advisor, DITCOM) and Andrea Carugati (Professor, Department of Management, Aarhus University) and is now ready to be taught in more municipalities in 2020.

DITCOM sees the development of the Masterclass as a great opportunity to build partnerships with local authorities, which is very much in line with Aarhus University’s strategy for strengthening collaborations with the public sector.

DITCOM's Presentations in 2019

Building strong, global networks and upscaling digital solutions for cities and communities require a lot of knowledge exchange and advocacy work, locally, nationally and globally. Here is an overview of what that included in 2019.

DITCOM co-hosts the first signing ceremony of the declaration 'Join, Boost, Sustain' for upscaling digital solutions in cities and communities in Europe

Martin Brynskov presents at G20 Super City Smart City Forum 2019

Martin Brynskov opens Connected Smart Cities Conference 2019 together with Roberto Viola

DITCOM hosts the delegation from the city of Stavanger, Norway in preparation for the Nordic Edge Expo, which took place later in 2019



A Look Into the Future

We are currently developing the following international activities:

- » Horizon 2020 (Innovation Action, budget EUR 15M): PLURAL will focus on boosting rural economies through cross-sectoral digital service platforms with a view to overcoming the digital divide between rural and urban areas and developing the potential offered by increased connectivity and digitalisation of rural areas.
- » Horizon 2020 (Research and Innovation Action, budget EUR 3-4M): Battling Bias (name to be confirmed) will assess the potential benefits and risks of using disruptive technologies in public administrations incl. their ethical and legal implications, not only for public administrations but also for citizens.
- » Horizon 2020 (Coordination and Support Action, budget EUR 2M): Future IoT (name to be confirmed) will develop and demonstrate novel IoT concepts and solutions to underpin the Next Generation Internet (NGI) vision.

Smart Cities & Communities

Internet of Things

Living Labs

... and national activities:

- » AU Smart Campus: Developing Aarhus University's Campus with Internet of Things and data management capabilities, both as a living lab for researchers and students as well as enabling the AU campus to be more sustainable, efficient and liveable.
- » Danish Handbook for Smart Cities & Communities: Danish Standards, in collaboration with the Danish national government, municipalities and companies. To be delivered in October 2020.
- » Developing teaching "packages" for a number of study programmes, focused on Digital Design and Information Studies.

Standards

List of Events

- » Connected Smart Cities & Communities Conference, 17 January 2019, Brussels, Belgium
- » SynchroniCity Bootcamp, 6-7 February 2019, London, UK
- » Workshop on Large-Scale IoT & Data Marketplaces, 8 April 2019, Brussels, Belgium
- » SCORE Partner Meeting, 10-11 April 2019, Aarhus, Denmark
- » IEEE 5th World Forum on Internet of Things, 15-18 April 2019, Limerick, Ireland
- » Releasing the Power of Procurement, 2 May 2019, Brussels Belgium
- » Internet Week Denmark, 7-12 May 2019, Aarhus Denmark
- » Digital Transformation World, 14-16 May 2019, Nice, France
- » U20 Mayors Summit, 20-22 May 2019, Tokyo, Japan
- » Next Library 2019, 2-4 June, Aarhus, Denmark
- » Digital Assembly, 13-14 June 2019, Bucharest, Romania
- » IoT Week and Public Expo, 17-21 June 2019, Aarhus Denmark
- » Super City Smart City Forum 2019, official side event of the G20 Summit, 29 June 2019, Oaska, Japan
- » Fourth ITU Workshop on Data Processing and Management for IoT and Smart Cities & Communities, 19 July, Geneva, Switzerland
- » Temamøde Smart City og IoT, Dansk Standard, 28 August, Copenhagen Denmark
- » 28th International Conference on Information Systems Development, 28-30 August 2019, Toulun, France
- » Smart Cities Conference - Digitale Woche Kiel, 11 September, Kiel, Germany
- » Finnish EU Presidency Urban Development Group Meeting, 12 September 2019, Helsinki, Finland
- » NGIoT Technical Review, 18 September 2019, Brussels, Belgium
- » Nordic Edge Expo, 23-26 September 2019, Stavanger, Norway
- » Cities in the Forefront of Digitalising Europe, 1 October 2019, Brussels, Belgium
- » SynchroniCity Scale-up Workshop, 2-3 October 2019, Milan, Italy
- » European Week of Regions and Cities, 7-10 October 2019, Brussels, Belgium
- » AIOTI Signature Event, 8 October 2019, Brussels, Belgium
- » Helsinki Impact Conference, 9-10 October 2019, Helsinki, Finland
- » SCORE Partner Meeting, 22-23 October 2019, Bergen, Norway,
- » High-Tech Summit, 30-31 October 2019, Copenhagen, Denmark
- » Green Growth Dialogue, 6-7 November 2019, Torshavn, Faroe Islands
- » Smart City Expo World Congress, 19-21 November 2019, Barcelona, Spain
- » Oulu Boost Event: Upscaling Digital Solutions in Cities, 10-11 December 2019, Oulu, Finland
- » IoT: Fra fragmenterede løsninger til et globalt marked, 16 December, Aarhus, Denmark

List of DITCOM's presentations

- » Connected Smart Cities & Communities Conference, 17 January 2019, Brussels, Belgium
- » SynchroniCity Bootcamp, 6-7 February 2019, London, UK
- » Workshop on Large-Scale IoT & Data Marketplaces, 8 April 2019, Brussels, Belgium
- » IEEE 5th World Forum on Internet of Things, 15-18 April 2019, Limerick, Ireland
- » Releasing the Power of Procurement, 2 May 2019, Brussels Belgium
- » Internet Week Denmark, 7-12 May 2019, Aarhus Denmark
- » Digital Transformation World, 14-16 May 2019, Nice, France
- » U20 Mayors Summit, 20-22 May 2019, Tokyo, Japan
- » Next Library 2019, 2-4 June, Aarhus, Denmark
- » Digital Assembly, 13-14 June 2019, Bucharest, Romania
- » IoT Week and Public Expo, 17-21 June 2019, Aarhus Denmark
- » Super City Smart City Forum 2019, official side event of the G20 Summit, 29 June 2019, Oaska, Japan
- » Fourth ITU Workshop on Data Processing and Management for IoT and Smart Cities & Communities, 19 July, Geneva, Switzerland
- » Visit from City of Stavanger, 23 August, Aarhus Denmark
- » Temamøde Smart City og IoT, Dansk Standard, 28 August, Copenhagen Denmark
- » 28th International Conference on Information Systems Development, 28-30 August 2019, Toulun, France
- » Smart Cities Conference - Digitale Woche Kiel, 11 September, Kiel, Germany
- » Finnish EU Presidency Urban Development Group Meeting, 12 September 2019, Helsinki, Finland
- » NGIoT Technical Review, 18 September 2019, Brussels, Belgium
- » Nordic Edge Expo, 23-26 September 2019, Stavanger, Norway
- » Cities in the Forefront of Digitalising Europe, 1 October 2019, Brussels, Belgium
- » SynchroniCity Scale-up Workshop, 2-3 October 2019, Milan, Italy
- » European Week of Regions and Cities, 7-10 October 2019, Brussels, Belgium
- » AIOTI Signature Event, 8 October 2019, Brussels, Belgium
- » Helsinki Impact Conference, 9-10 October 2019, Helsinki, Finland
- » SCORE Partner Meeting, 22-23 October 2019, Bergen, Norway,
- » High-Tech Summit, 30-31 October 2019, Copenhagen, Denmark
- » Green Growth Dialogue, 6-7 November 2019, Torshavn, Faroe Islands
- » Smart City Expo World Congress, 19-21 November 2019, Barcelona, Spain
- » Oulu Boost Event: Upscaling Digital Solutions in Cities, 10-11 December 2019, Oulu, Finland
- » IoT: Fra fragmenterede løsninger til et globalt marked, 16 December, Aarhus, Denmark

List of Publications

- » Heijnen, Adriëne (forthcoming 2020). Informal Governance as Enabler of Creative Collaborations: Institute for X in Aarhus. In: Creative Cluster Development: Governance, Place-Making and Entrepreneurship. Taylor & Francis.
- » Baykurt, Burcu; Raetzsch, Christoph (forthcoming, 2020). "What Smartness Does in the Smart City: From Visions to Policy." Convergence. Special Issue on "Back to the Future: Telling and Taming Anticipatory Media Visions and Technologies". (includes a study of corporate IBM/CISCO visions of smart city idiom and an explanation of Living Lab approach)
- » Jones, Nathan; Carpenter, J.R.; Pold, Søren Bro; Erslev, Malthe Stavning (2019). "Literary Realism : Representing the Realities of the Post-Digital Age." 85 Abstract fra Electronic Literature Organization Conference & Media Arts Festival 2019, Cork, Irland.
- » Pold, Søren Bro. "New ways of hiding : towards metainterface realism." I: Artnodes, Bind 2019, Nr. 24, 07.2019, s. 72-82.
- » Pold, Søren (2019). "Literary Machines : Turn On Literature Evaluation."
- » Raetzsch, Christoph; Pereira, Gabriel; Vestergaard, Lasse S; Brynskov, Martin (2019). "Weaving Seams with Data: Conceptualizing City APIs as Elements of Infrastructures." Big Data & Society 6(1).<https://dx.doi.org/10.1177/2053951719827619>.
- » NGIoT Scoping Paper (September 2019). "Building a roadmap for the Next Generation Internet. Research, innovation and implementation 2021 – 2027"

List of Reports

SynchroniCity

- » D1.1 Report on the engagement activities in the reference zones
- » D1.2 Knowledge exchange hub & repository
- » D1.8 Monitoring framework template 3
- » D1.9 Monitoring framework template 4
- » D1.11 updated set of citizen-centred methods and tools
- » D2.3 Catalogue of OASC shared Data Models for Smart City domains
- » D2.5 Advanced data market place enablers
- » D2.7 Catalogue of IoT devices ready for Smart City platforms integration
- » D2.9 Report on Advanced Reference Zones platform deployment and operational plan
- » D3.3 Suite of baseline implementations - advanced
- » D3.5 Customized IoT service prototypes for lead ref. zones - basic

- » D3.6 Customized IoT service prototypes for lead ref. zones - advanced
- » D3.8 Report on reference zones IoT service deployment and operations
- » D4.2 Technical Validation (Phase 1)
- » D4.3 Technical Validation (Phase 2)
- » D4.4 Assessment on the user, stakeholder, replication and market validation
- » D4.5 Technical Validation of the SME projects
- » D5.3 Open call dissemination report
- » D5.6 Report on the selected SME projects delivery and lessons learnt
- » D6.2 IoT Standardisation Report
- » D6.5 Final Impact Assessment Report
- » D6.6 Sustainability plan - Interim: scenarios on IoT usage
- » D6.7 Sustainability plan - Final: scenarios on IoT usage
- » D6.11 2nd report on communication, dissemination and marketing activities
- » D6.12 3rd report on communication, dissemination and marketing activities
- » D7.3 Periodic activity report 2

NGIoT

- » D2.1 End-user engagement and trust building report
- » D4.1 Outreach and Impact Creation Strategy and Plan
- » D5.1 Data Management Plan

List of Ph.D. STUDENTS

Supervised by Martin Brynskov

- » Stig Møller Hansen, Aarhus University, DMJX (graduated in 2019)
- » Lasse Vestergaard, Aarhus University, Alexandra Institute
- » Thomas Hvid Spangsberg, Aarhus University, it-vest

Co-supervised by Martin Brynskov

- » Peter Lau Torst Nielsen, Aarhus University, Digital Urban Living
- » Matthew Claudel, M.I.T., DUSP
- » Eva Horáková, Brno University of Technology, Faculty of Architecture

