

# SSoLDAC - 2nd Summer School on Linked Data in Architecture and Construction

María Poveda-Villalón, Pieter Pauwels, Raúl García-Castro, Dimitrios Rovas, James O'Donnell

Opening session



# LDAC Track

- ▶ LDAC2012, Ghent
- ▶ LDAC2014, Helsinki
- ▶ LDAC2015, Eindhoven
- ▶ LDAC2016, Madrid
- ▶ LDAC2017, Dijon
- ▶ LDAC2018, London
- ▶ LDAC2019, Lisbon
- ▶ LDAC2020, Dublin
- ▶ LDAC2021, Luxembourg
- ▶ LDAC2022, Greece
- ▶ LDAC2023, Italy





LDAC 2015, Eindhoven



LDAC 2014, Helsinki



LDAC 2012, Ghent



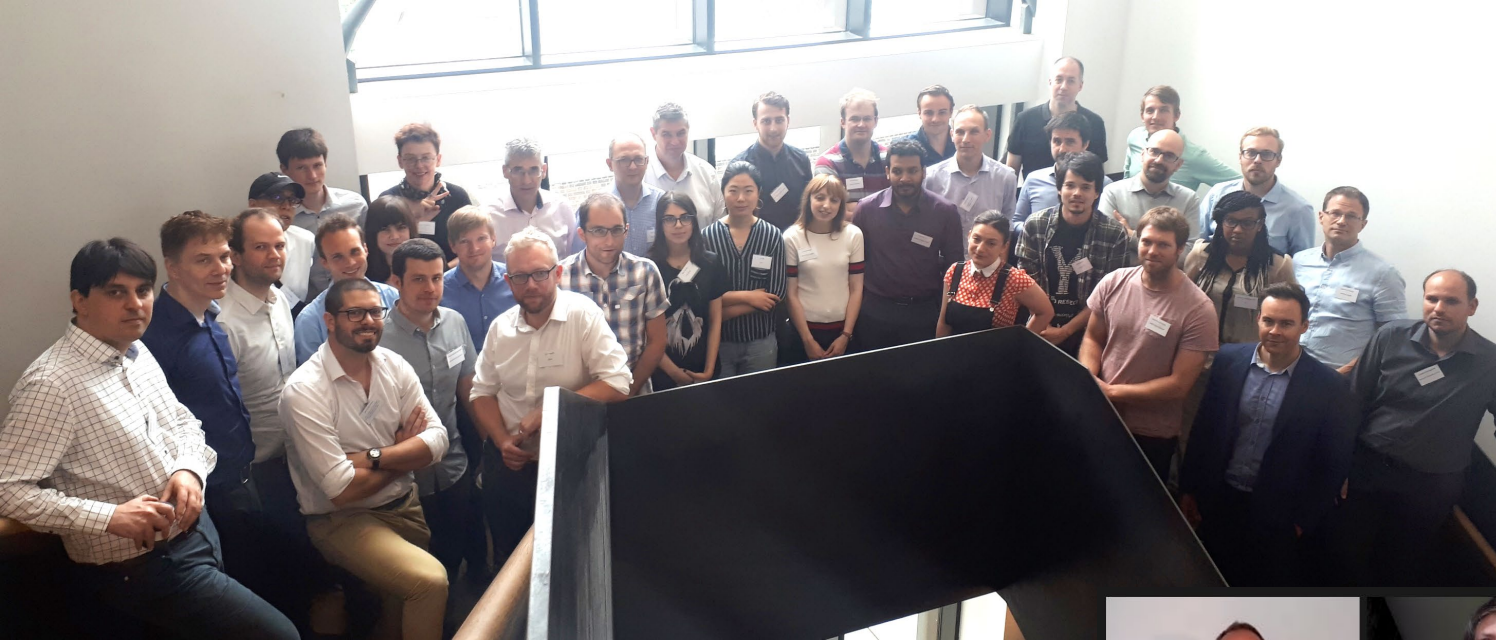


LDAC 2017, Dijon

LDAC 2016, Madrid

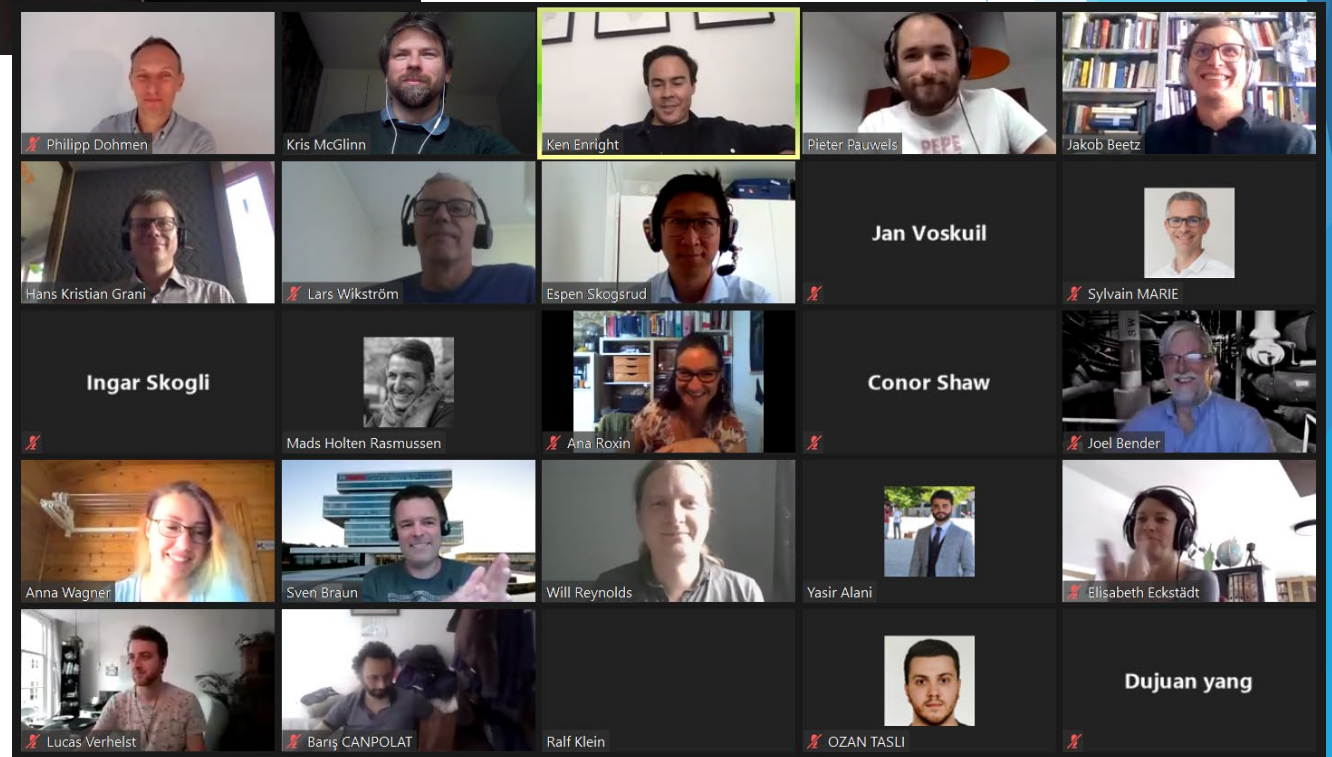






LDAC 2018, London

LDAC 2019, Lisbon



LDAC 2020, Dublin

# LDAC Summer School

1<sup>st</sup> edition at Lisbon 2019

	Monday, 17 June	Tuesday, 18 June
09:00	Opening	Administration and Recap of Day 1
10:00	Linked Data and the Semantic Web: Basics	Triple Stores: Introduction
11:00	Coffee & Discussions	Coffee & Discussions
12:00	Ontology Development	Geometry Coding with Linked Data: Jena Coding with Linked Data: NodeRED Coding with Linked Data: RDFlib
13:00	Lunch	Lunch
14:00	Introduction to Querying Linked Data	Geospatial Linked Building Product Data
15:00	Coffee & Discussions	Hackathon
16:00	Linked Building Data: Examples & Tools	
17:00	Kickoff Coding Challenge	
18:00	Hackathon on Coding Challenge	
19:00		

## LECTURERS



**Jakob Beetz**  
(RWTH Aachen)



**Pieter Pauwels**  
(Ghent University)



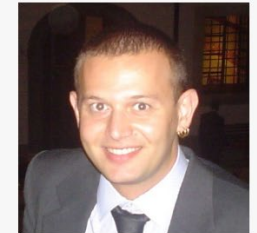
**María Poveda**  
(Universidad Politécnica de Madrid)



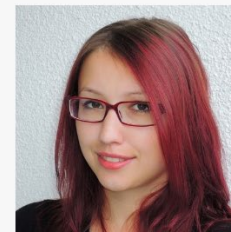
**Georg Ferdinand Schneider**  
(Fraunhofer IBP)



**Mads Rasmussen**  
(NIRAS)



**Walter Terkaj**  
(CNR-STIIMA)



**Anna Wagner**  
(Technische Universität Darmstadt)



**Kris McGlinn**  
(Trinity College Dublin)



**Mathias Bonduel**  
(KU Leuven)



# SSoLDAC22

## SALÓN DE ACTOS

	Monday 6 june	Tuesday 7	Wednesday 8	Thursday 9	Friday 10
9:00 - 9:30		Introduction			Hackathon: development
9:30 - 10:30		Hackathon presentation and team formation	Keynote: Mads Holten Rasmussen	Keynote: Dimitrios Rovas	Coffee
10:30 - 11:00		Coffee	Coffee	Coffee	
11:00 - 13:00		Lesson: Linked Data foundations, RDF and SPARQL Pieter Pauwels	Lesson: Ontologies María Poveda Villalón	Lesson: Generation and linking Andrea Cimmino	Hackathon: presentations
13:00 - 14:30		Lunch	Lunch	Lunch	Lunch
14:30 - 16:30		Lesson: Publication and use Jakob Beetz	Hackathon: development	Hackathon: development	Closing
16:30 - 17:00		Coffee	Coffee	Coffee	
17:00 - 19:00	Registration	Hackathon: development	Hackathon: development	Social activity:	
19:00 - 20:00	(17:00 - 20:30)	Social activity: hike	Social activity	Trip to Segovia	
20:00 - 20:30					
20:30			Dinner		

**HACKATHON DEVELOPMENT:**  
CLASSROOM 1, CLASSROOM 2,  
PORCH, DINING ROOM

**NOT IN THE LIVING ROOM!**

# SSoLDAC22 - Statements

- ▶ Emphasis on intensive student-student and student-group interaction
  - ▶ Hence limited number of places (30 students)
  - ▶ Focus on specific topics
  - ▶ Characteristics of chosen location also facilitates intensive interaction
- ▶ Intensive academic sessions followed by intensive social programme
- ▶ Community building also an explicit goal



# SSoLDAC22 - Keynotes



**Mads Holten Rasmussen**

(NIRAS)



**Dimitrios Rovas**

(University College London)



# SSoLDAC22 - Lecturers



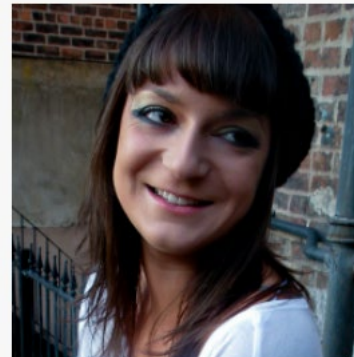
**Pieter Pauwels**

(Eindhoven University of Technology)



**Jakob Beetz**

(RWTH Aachen)



**María Poveda**

(Universidad Politécnica de Madrid)



**Andrea Cimmino**

(Universidad Politécnica de Madrid)



**POLITÉCNICA**



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# SSoLDAC22 – Hackathon supporters



**Cathal Hoare**

(University College Dublin)



**Jeroen Werbrouck**

(Ghent University)



**Pieter Pauwels**

(Eindhoven University of Technology)



**Andrea Cimmino**

(Universidad Politécnica de Madrid)



**POLITÉCNICA**



# SSoLDAC22 - Organizers



POLITÉCNICA



**María Poveda Villalón**  
(Director)

Universidad Politécnica de Madrid



**Pieter Pauwels**  
(Co-Director)

Eindhoven University of Technology



**Raúl García-Castro**  
(Local Organizer)

Universidad Politécnica de Madrid



POLITÉCNICA



**Dimitrios Rovas**  
(Hackaton Organizer)

University College London



**James O'Donnell**  
(Hackaton Organizer)

University College Dublin (UCD)

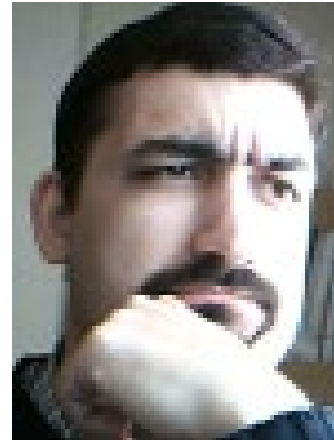


# SSoLDAC22 – Local Organizers

Laura Camacho



Jose Ángel Ramos



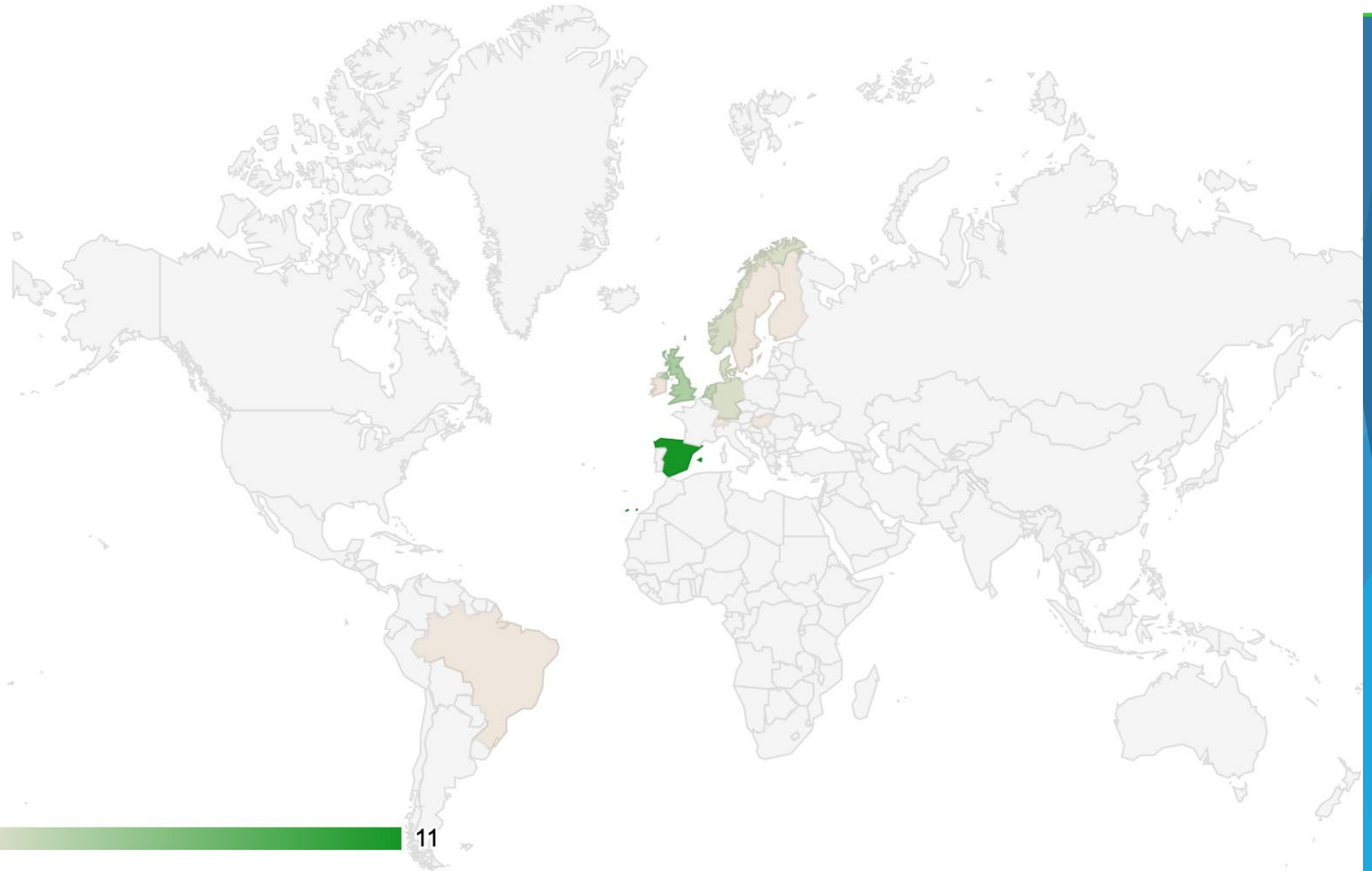
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# SSoLDAC22 – The key component



# Participants

Brazil  
Denmark  
Finland  
Germany  
Hungary  
Ireland  
Luxembourg  
Netherlands  
Norway  
Spain  
Sweden  
Switzerland  
United Kingdom



# Participants



# SSoLDAC22 – Sponsors



COGITO



**CBIM - European Training Network**  
Cloud-based Building Information Modelling



# SSoLDAC22 – Diamond Sponsors



AEC3 is an international consulting company in the field of process optimisation in the building industry. For more than ten years we have been specialized in the support of planning and construction processes by integrated, model based IT solutions - today known as Building Information Modeling (BIM).

One of the independent companies operate under the roof of [AEC3 Ltd.](#) is **AEC3 UK** managed by Nicholas Nisbet

# SSoLDAC22 – Diamond Sponsors



BDTA is a non-profit association with the mission of Developing an Open & Trustworthy Techno-economic Ecosystem to advance towards full implementation of Building Digital Twin Environments across all the stakeholders and lifecycles of AECOO (Architecture, Engineering, Construction, Owner & Operator) Smart and Connected Real State and Infrastructure Assets, including occupants, through professional development and community.

Located in Antwerp (Belgium), the BDTA was founded under the umbrella of the Horizon 2020 project SPHERE, funded by the European Union's H2020 programme under Grant Agreement No. 820805). The BDTA envisions the coordination of a multicriteria efficient decision-taking across all AECOO stakeholders by digitally duplicating building stock to support the Green Deal Transition in EU and the rest of the world.

# SSoLDAC22 – Gold Sponsors



## Centros de Referência em Tecnologias Inovadoras

CERTI is a technologically-based institution that since 1984 whose purpose is to “contribute in an important manner to the competitiveness of companies and the sustainable development of Brazil, by helping to develop a consistent and dynamic ecosystem of innovation, technology, and entrepreneurship.”

CERTI, having accumulated years of experience in entrepreneurship, design, and manufacturing of hardware and software has been guided by the concepts of quality, agility, innovation, responsibility and providing value to constantly dedicate itself to innovation and R&D.



# SSoLDAC22 – Silver Sponsors



Specialists for digitizing information for the built environment. Whether you are working with BIM, Linked Data, an organization-specific Object Type Library (OTL), checking large data sets, unlocking real-time management information or linking systems, we are happy to help you. With knowledge of information technology and experience with large, extensive projects and organizations in the construction, infrastructure and energy industries, we are skilled in guiding the organizational challenge and exploiting the potential value of good data management. What do you want to achieve with your data? Be inspired to get more out of your applications and data. From data to wisdom, making data valuable!

# SSoLDAC22 – Silver Sponsors



Neanex is a tech company specialized in information technology for the urban environment. We developed a powerful web-application the Neanex Portal, as a Digital Twin Register to enable data driven asset insights for all stakeholders in the built environment. Neanex believes data driven asset insights today, enables our sustainable built environment of tomorrow.

As the built industry is responsible for more than 40% of Co2 Emission, digitalisation will be the enabler to move the industry to be more social, ecological and economical, resilient and reliable.

Neanex solution creates the bridge between engineering, design, construction and operations. As we combine data from different sources throughout the complete asset lifecycle. The tooling is based upon standardisation ( Linked Data, W3C, ...) to avoid vendor lock-in and guarantee future proof data management for our users and no dependency from software vendors, partners, and formats our processes.

Neanex was recognized in May 2022 as Key Innovator by the European Commission for its contribution to our latest Europe subsidy project on BIM enabled Digital Twins as enabler for the lowering of Co2 Emission. Neanex is founding partner of the Building Digital Twin Association.

# SSoLDAC22 – Student Award Sponsor

Started in 2000 as R&D lab within Sirma Group, a top 3 Bulgarian software company, Ontotext's technology and solutions are spread wide across the value chain of the most knowledge intensive enterprises in Financial Services, Publishing, Healthcare, Pharma, Manufacturing and Public sectors.



GraphDB™

## Get the Best RDF Database for Knowledge Graphs

GraphDB allows you to link diverse data, index it for semantic search and enrich it via text analysis to build big knowledge graphs.

**Let the SSoLDAC22 begin!**