9th International Workshop on Linked Data in Architecture and Construction

Belval, Luxembourg, 2021

Sylvain Kubicki, Pieter Pauwels, Calin Boje

http://linkedbuildingdata.net/ldac2021/

#LDAC2021

Welcome


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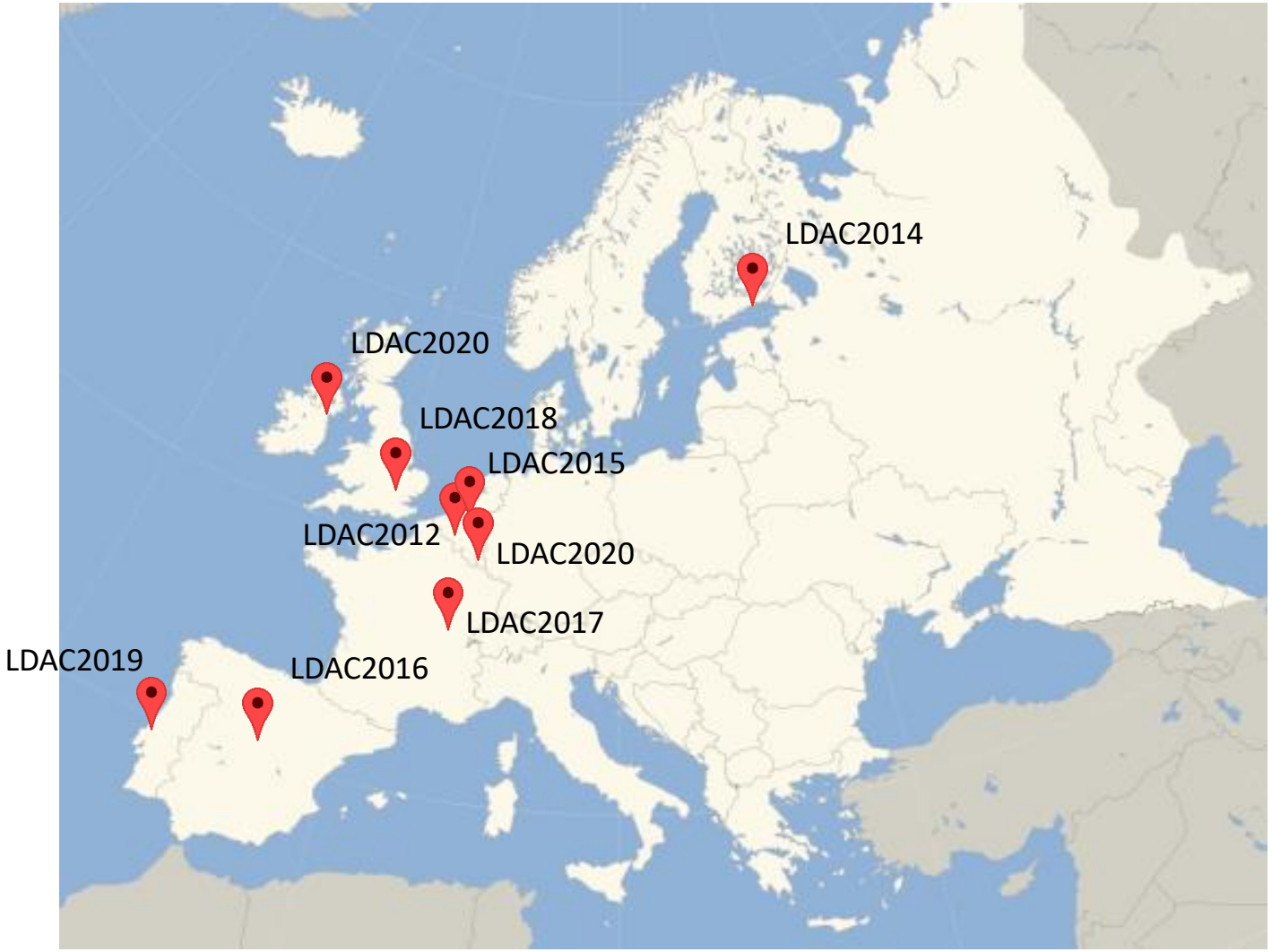
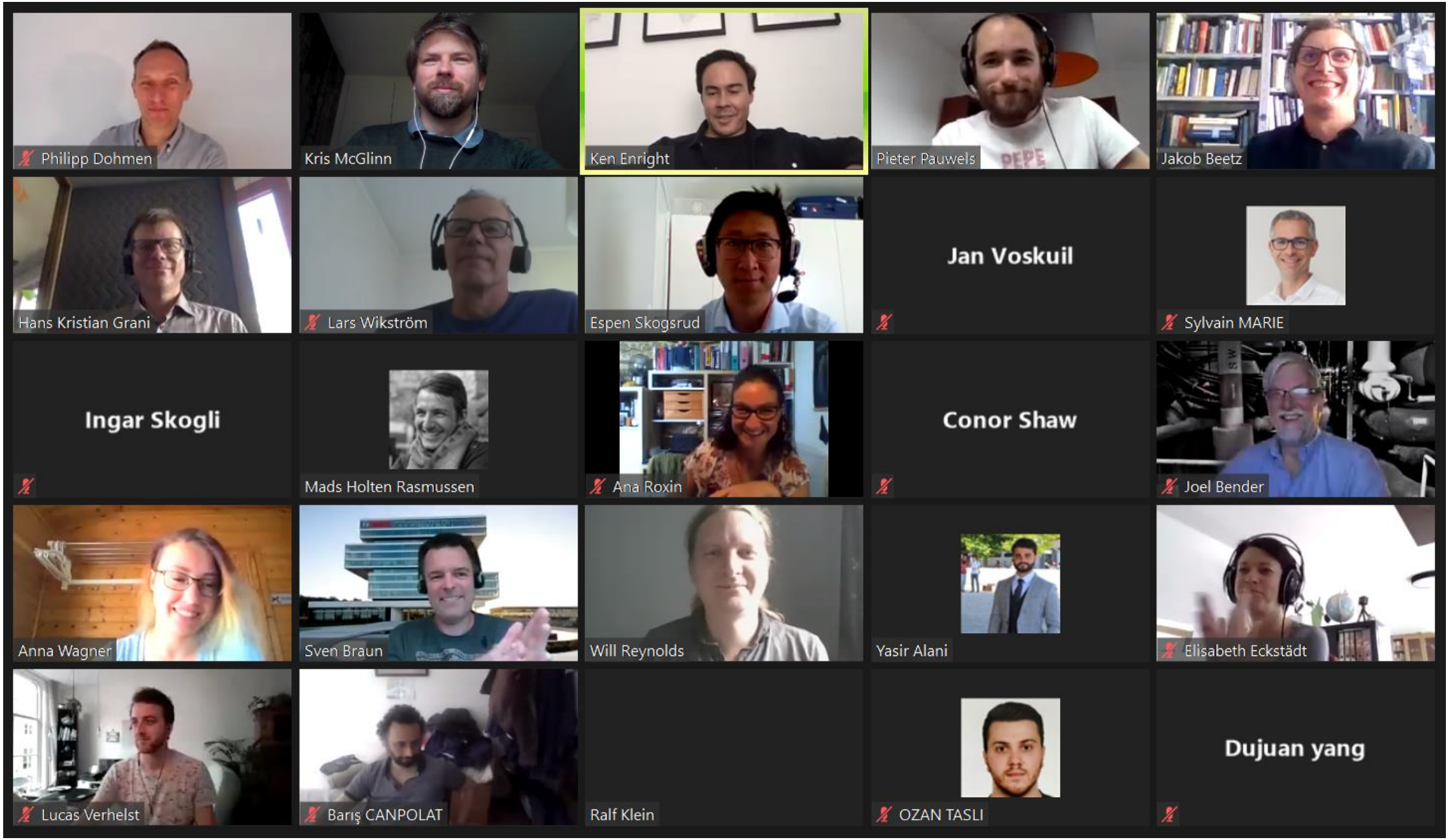
LDAC BreadCrumbTrail

LDAC Track

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

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LDAC 2020, Dublin

LDAC 2019, Lisbon

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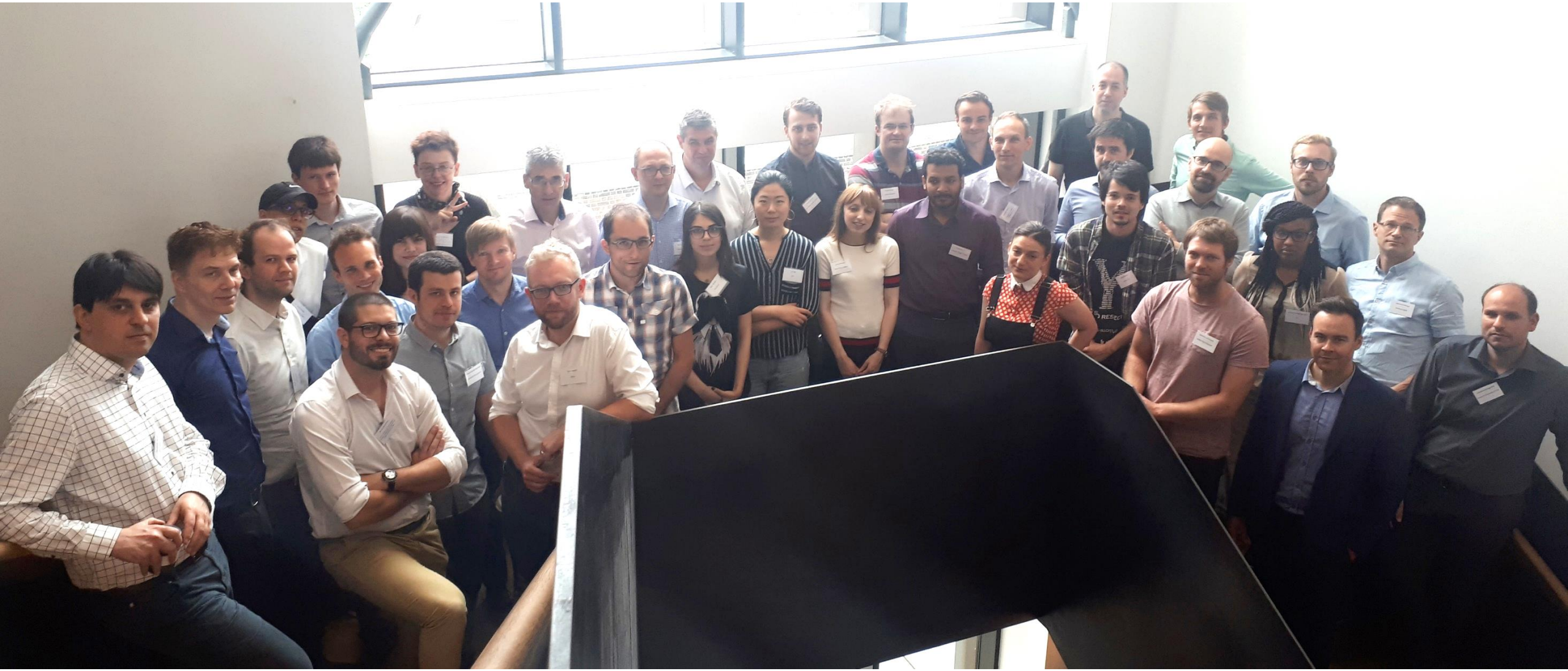

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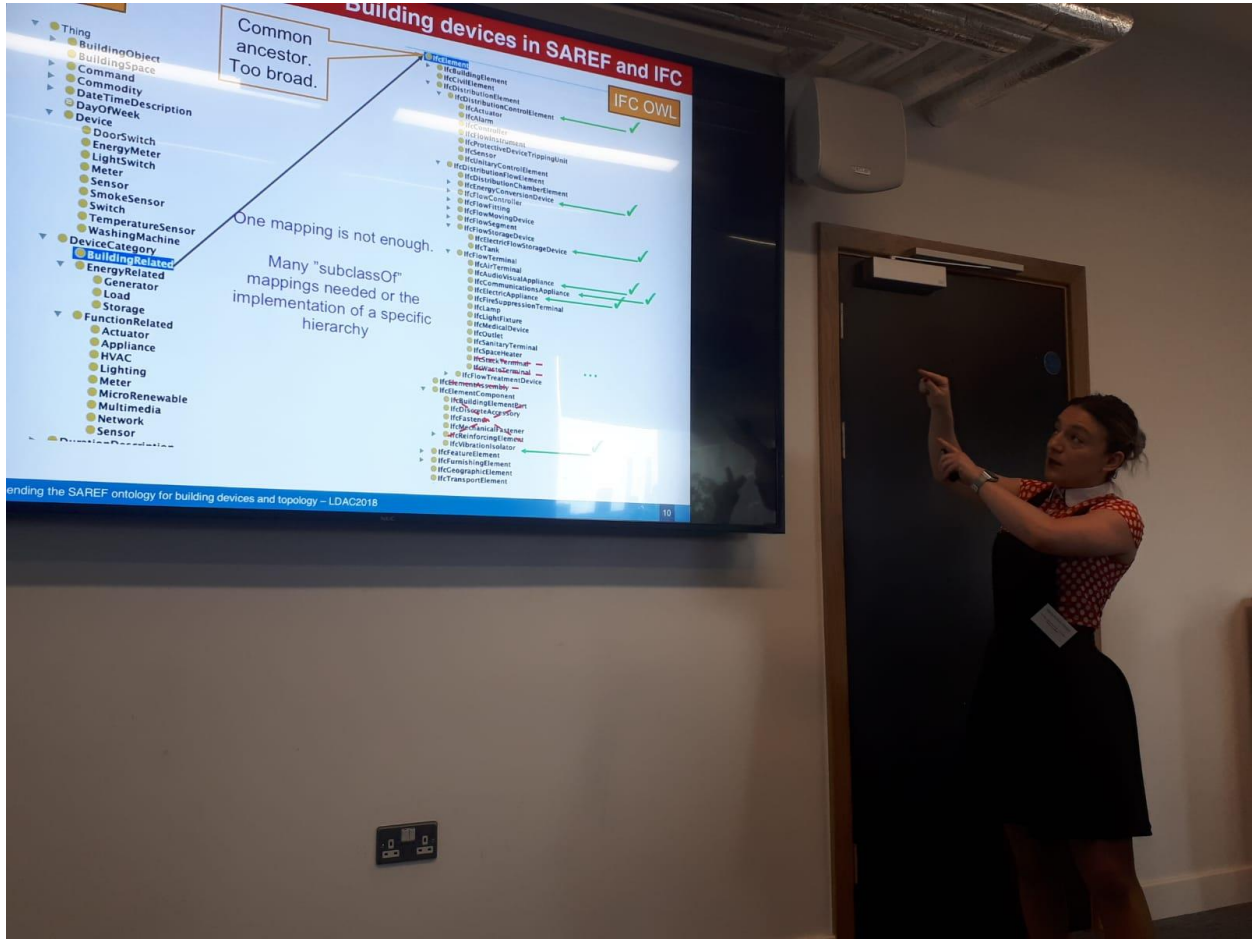

LDAC 2018, London

LDAC 2017, Dijon

LDAC 2016, Madrid


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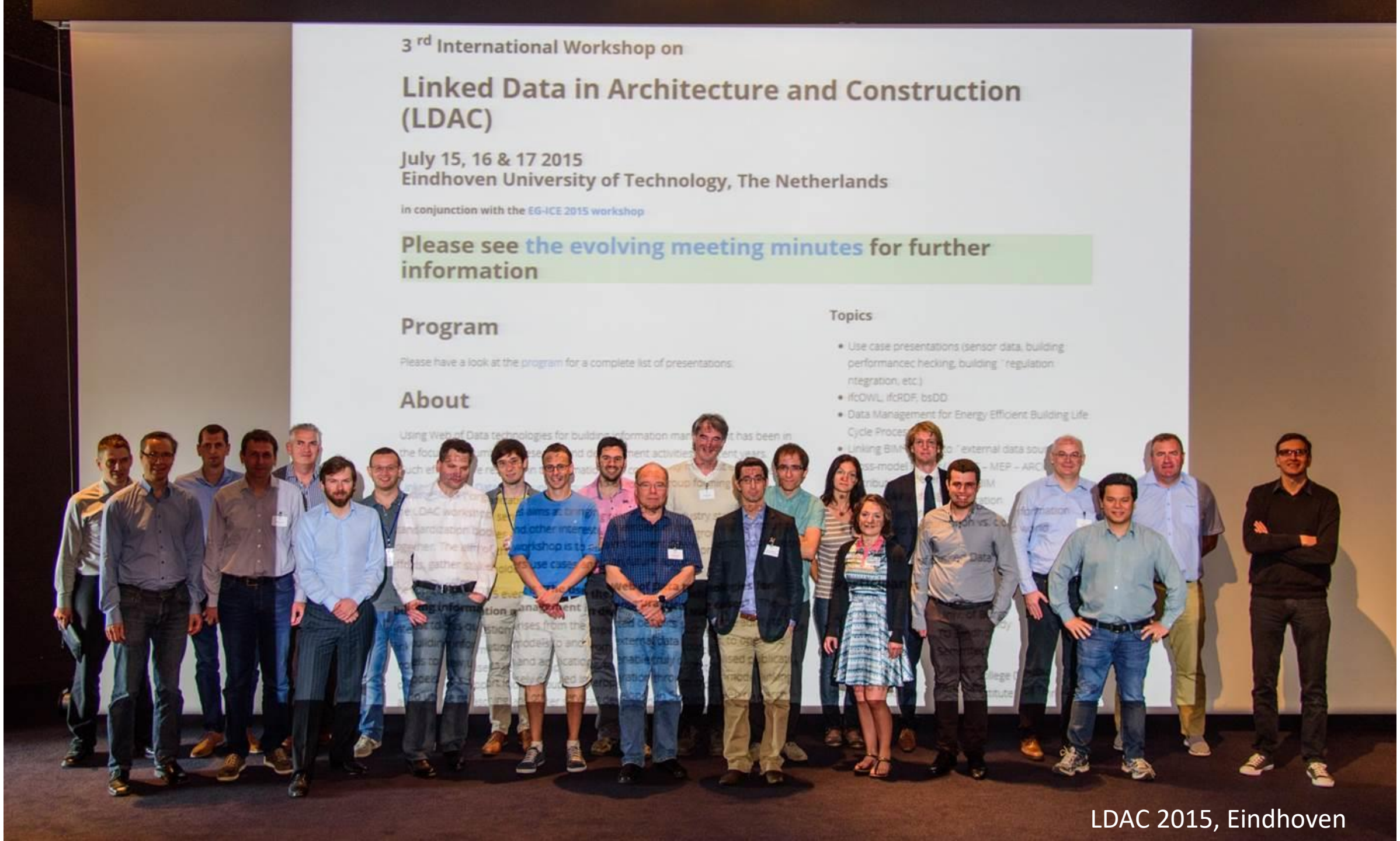

LDAC 2015, Eindhoven

Technical sessions, 2015, 2016

LDAC 2015, Eindhoven

LDAC 2014, Helsinki

LDAC 2012, Ghent


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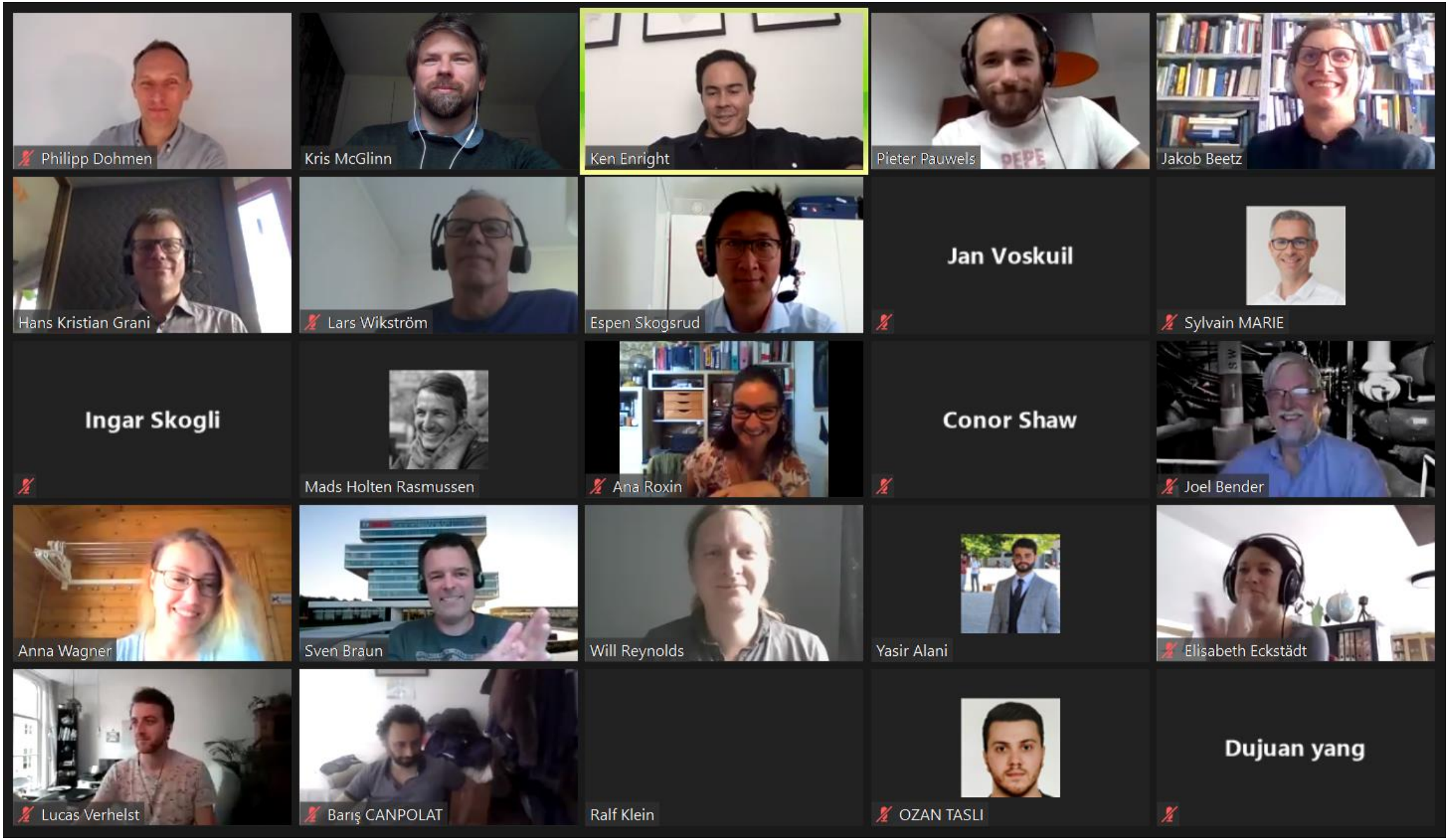
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June 18th, 2020

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June 19th, 2020

Gonzalo Gil 10:02 AM
Hi everyone, it was a pleasure to attend the LDAC this year. Just in case you want to see the presentation in more detail, I attach it to you. It is also available at https://linkedbuildingdata.net/ldac2020/#programme

PDF

LDAC_20200617_GonzaloGil_IkerEsnaola_Towards defining Data Usage Restrictions in the Built...
1 MB PDF

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All submissions are reviewed by at least two members of the Program Committee, which consists of the following members:

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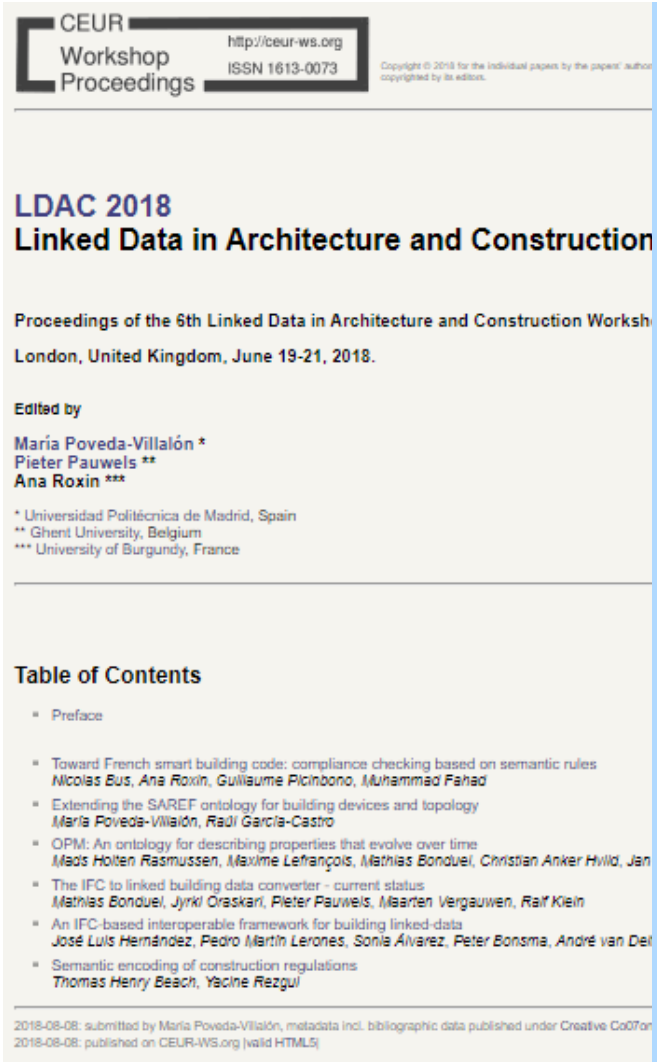

CEUR Workshop Proceedings
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LDAC 2018
Linked Data in Architecture and Construction

Proceedings of the 6th Linked Data in Architecture and Construction Worksh

London, United Kingdom, June 19-21, 2018.

Edited by

María Poveda-Villalón *
Pieter Pauwels **
Ana Roxin ***

* Universidad Politécnica de Madrid, Spain
** Ghent University, Belgium
*** University of Burgundy, France

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LDAC 2019
Linked Data in Architecture and Construction

Proceedings of the 7th Linked Data in Architecture and Construction Workshop

Lisbon, Portugal, June 19-21, 2019.

Edited by

María Poveda-Villalón *
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LDAC 2020
Linked Data in Architecture and Construction

Proceedings of the 8th Linked Data in Architecture and Construction Workshop

Dublin, Ireland, June 17-19, 2020 (virtually hosted).

Edited by

María Poveda-Villalón *
Ana Roxin **
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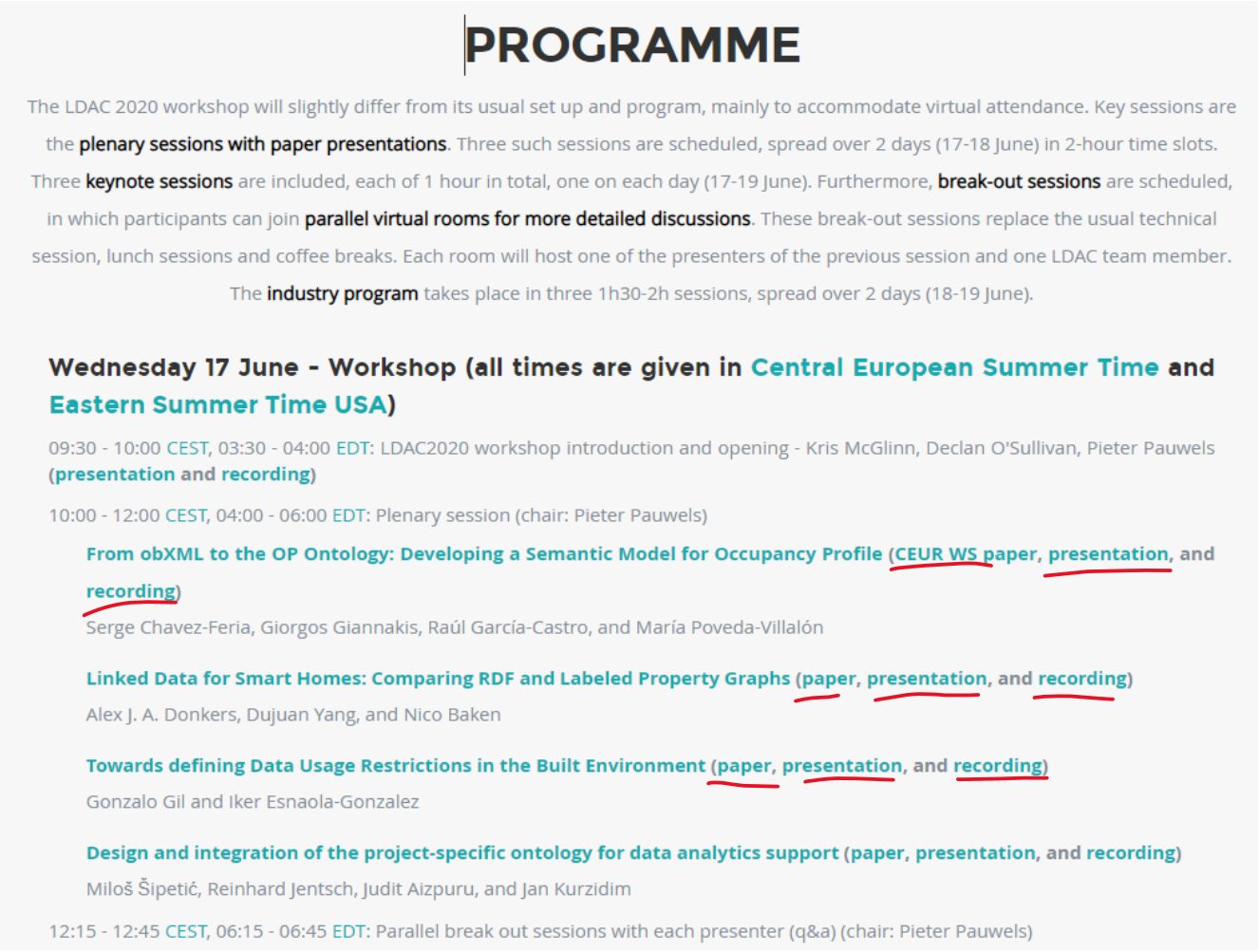


PROGRAMME

The LDAC 2020 workshop will slightly differ from its usual set up and program, mainly to accommodate virtual attendance. Key sessions are the **plenary sessions with paper presentations**. Three such sessions are scheduled, spread over 2 days (17-18 June) in 2-hour time slots. Three **keynote sessions** are included, each of 1 hour in total, one on each day (17-19 June). Furthermore, **break-out sessions** are scheduled, in which participants can join **parallel virtual rooms for more detailed discussions**. These break-out sessions replace the usual technical session, lunch sessions and coffee breaks. Each room will host one of the presenters of the previous session and one LDAC team member. The **industry program** takes place in three 1h30-2h sessions, spread over 2 days (18-19 June).

Wednesday 17 June - Workshop (all times are given in Central European Summer Time and Eastern Summer Time USA)

09:30 - 10:00 CEST, 03:30 - 04:00 EDT: LDAC2020 workshop introduction and opening - Kris McGlinn, Declan O'Sullivan, Pieter Pauwels (**presentation and recording**)

10:00 - 12:00 CEST, 04:00 - 06:00 EDT: Plenary session (chair: Pieter Pauwels)

From obXML to the OP Ontology: Developing a Semantic Model for Occupancy Profile (CEUR WS paper, presentation, and recording)
Serge Chavez-Feria, Giorgos Giannakis, Raúl García-Castro, and María Poveda-Villalón

Linked Data for Smart Homes: Comparing RDF and Labeled Property Graphs (paper, presentation, and recording)
Alex J. A. Donkers, Dujuan Yang, and Nico Baken

Towards defining Data Usage Restrictions in the Built Environment (paper, presentation, and recording)
Gonzalo Gil and Iker Esnaola-Gonzalez

Design and integration of the project-specific ontology for data analytics support (paper, presentation, and recording)
Miloš Šipetić, Reinhard Jentsch, Judit Aizpuru, and Jan Kurzidim

12:15 - 12:45 CEST, 06:15 - 06:45 EDT: Parallel break out sessions with each presenter (q&a) (chair: Pieter Pauwels)

- maintained over time
- single location: linkedbuildingdata.net
- updated throughout workshop(s)

http://linkedbuildingdata.net/ldac2021/#programme

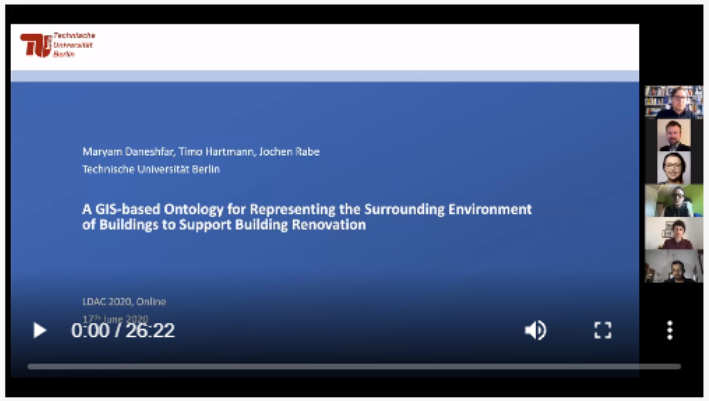
Online book of abstracts

Wednesday 17 June (14:00 - 16:00)

A GIS-based Ontology for Representing the Surrounding Environment of Buildings to Support Building Renovation

Maryam Daneshfar, Timo Hartmann, and Jochen Rabe

Abstract: This research focuses on developing an ontology for representing knowledge about the surrounding environment of a building in an urban context, considering the geospatial objects and processes such as built environment, vegetation, population and so on. The ontology can be useful to create a knowledge management system for different experts involved in the process of the building renovation, to extend the information and stretch the domain from the individual building to the environment. Knowledge about what entities and attributes to select is captured based on literature and investigating the pilot demonstration sites. Such an ontology can help to structure the surrounding data to support processes in different stages of the renovation. The final goal is to support planners in decision making process namely in site planning and pre-data collection phase, energy modeling, comfort analysis and so on to control cost and quality. Moreover, it can be valuable in further studies of integrating data of various sources for construction purposes.



http://linkedbuildingdata.net/ldac2021/abstracts.html

LDAC2021 Programme and Practicals

Program Monday

13:30 - 14:00: LDAC 2021 introduction and opening

14:00 - 15:30: plenary session 1 (Kris McGlinn)

- Ontology-based anamnesis and diagnosis of natural stone damage for retrofitting
  Al-Hakam Hamdan, Peter Katranuschkov and Raimar Scherer
- Conversion of legacy domain models into ontologies for infrastructure maintenance
  Anne Göbels and Jakob Beetz
- Queries on Semantic Building Digital Twins for Robot Navigation
  Rens de Koning, Elena Torta, Pieter Pauwels, Bob Hendrikx and Marinus van de Molengraft

15:30 - 16:00: coffee break

16:00 - 17:00: plenary session 2 (Maria Poveda Villalon)

- TUBES System Ontology: Digitalization of building service systems
  Nicolas Pauen, Dominik Schlütter, Jérôme Frisch and Christoph van Treeck
- Real-Time Building Performance Monitoring using Semantic Digital Twins
  Alex Donkers, Dujuan Yang, Bauke de Vries and Nico Baken

[18:00 - 19:00: LDAC Committee meeting (closed)]

Program Tuesday

09:00 - 10:00: keynote by Ed Curry, Maynooth Univ & BDVA: From Data Platforms to Dataspaces: Enabling Data Ecosystems for Intelligent Systems

10:00 - 10:30: coffee break

10:30 - 12:30: plenary session 3 (Ana Roxin)

- A Linked Building Data Approach to Site Planning and Managing Temporary Construction Items
  Alexander Schlachter
- A Minimal Workflow for interacting with Federated Linked Building Data
  Jeroen Werbrouck, Pieter Pauwels, Jakob Beetz and Erik Mannens
- BPMN-related Ontology for Modeling the Construction Information Delivery of Linked Building Data
  Philipp Hagedorn and Markus König
- Ontological approach for LOD-based BIM-data management
  Janakiram Karlapudi, Prathap Valluru and Karsten Menzel

12:30 - 14:00: lunch

14:00 - 16:00: plenary session 4 (Jakob Beetz)

- Interoperability between BIM and GIS through open data standards: An overview of current literature
  Eyosias Guyo, Timo Hartmann and Lucian Ungureanu
- BIM Format conversion as alignment
  Pierre Bourreau and Jyrki Oraskari
- bcfOWL: A BIM collaboration ontology
  Oliver Schulz, Jyrki Oraskari and Jakob Beetz
- Evaluation of the strict semantics of owl:sameAs in the field of BIM GIS Integration
  Fritz Beck, Jimmy Abualdenien and André Borrmann

17:00 - 23:00: Social gathering and Guided Tour in Belval

Program Wednesday – Industry Track

09:00 - 10:15: CIB opening and keynotes

10:15 - 10:45: coffee break

10:45 - 12:30: LDAC Industry track 1 (Mads Holten Rasmussen)

- Simplifying the delivery of ICDD containers based on the ISO-21597
  Manos Argyris, Amberg Group
- Enabling Multi-scale Energy Modelling through a Linked-Data Approach
  James O'Donnell, Tobias Maile, University College Dublin
- Ontology-based Building Energy System Commissioning and Monitoring
  Hervé Pruvost, Fraunhofer IIS EAS

12:30 - 13:45: lunch

13:45 - 15:15: LDAC Industry track 2 (Mads Holten Rasmussen)

- Integration of Geotechnical Investigation and Quality Control processes in the BIM methodology for Infrastructures
  Gloria Calleja-Rodríguez, CEMOSA
- Why Asset Data Must Be FAIR: The SIDO Case
  Jan Voskuil, Taxonic

Friday, 15:00-15:30: Closing and award ceremony

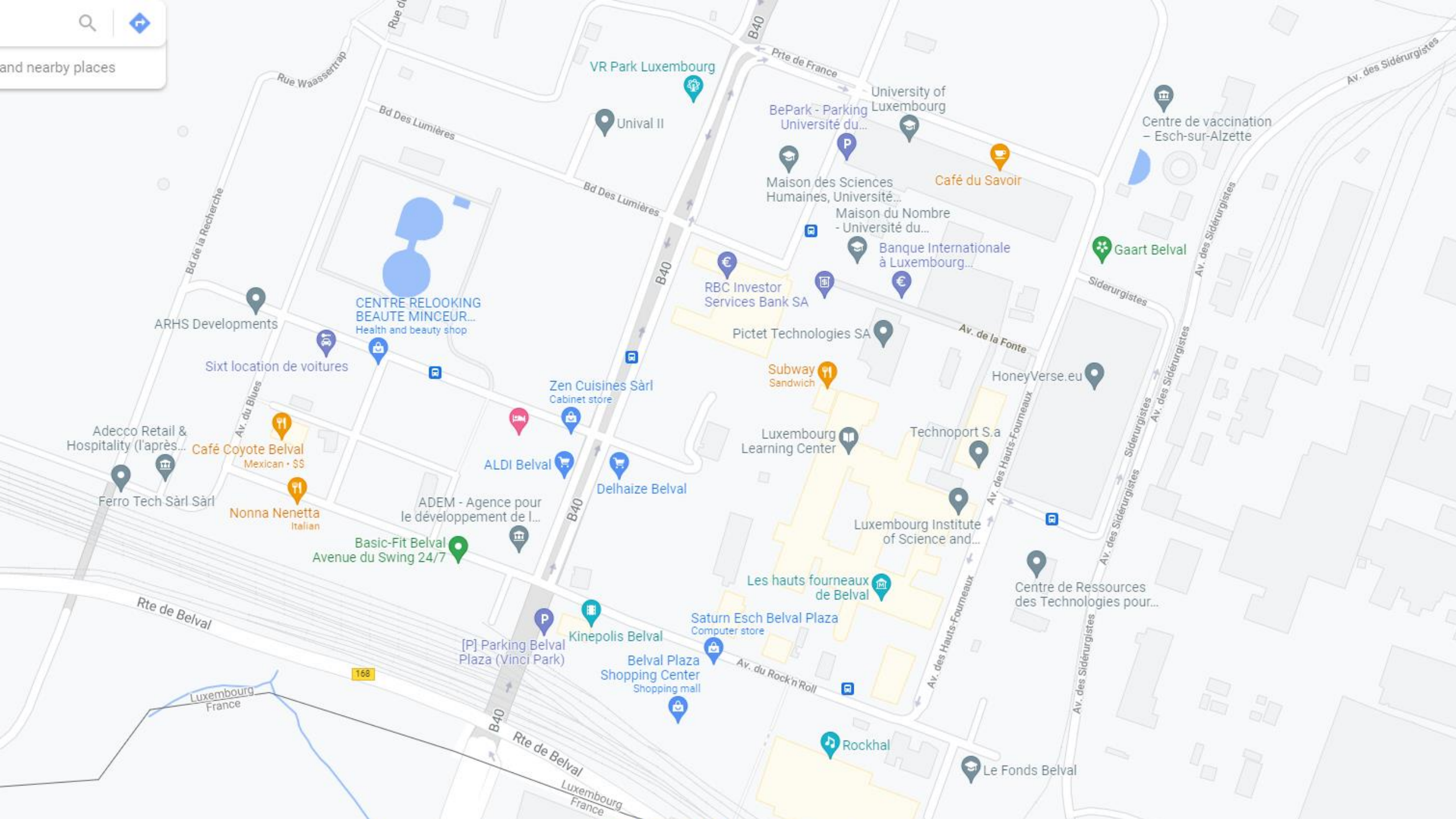
NIRAS

Keynote

Edward Curry
Maynooth University
Big Data Value Association

From Data Platforms to Dataspaces: Enabling Data Ecosystems for Intelligent Systems

Abstract: Digital transformation is driving a new wave of large-scale datafication in every aspect of our world. Today our society creates data ecosystems where data moves among actors within complex information supply chains that can form around an organization, community, sector, or smart environment. These ecosystems of data can be exploited to transform our world and present new challenges and opportunities in the design of intelligent systems. This talk presents my recent work on using the dataspace paradigm as a best-effort approach to data management within data ecosystems. The talk explores the theoretical foundations and principles of dataspaces and details a set of specialized best-effort techniques and models to enable loose administrative proximity and semantic integration of heterogeneous data sources. Finally, I share my perspectives on future dataspace research challenges, including multimedia data, data governance and the role of dataspaces to enable large-scale data sharing within Europe to power data-driven AI.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