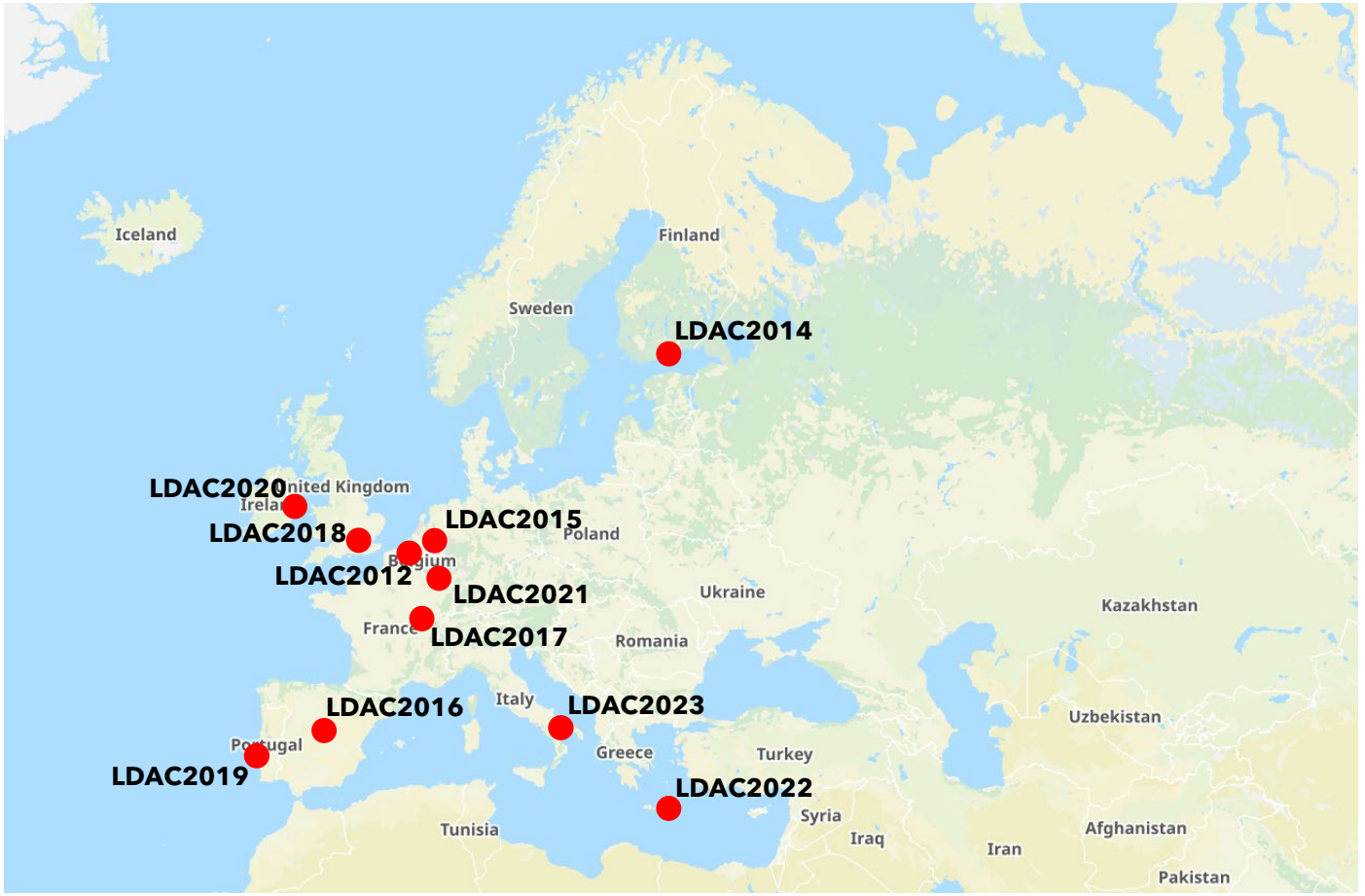
SSoLDAC
3rd Summer School on Linked Data in Architecture and Construction

Pieter Pauwels, María Poveda Villalón, Walter Terkaj
Madhumitha Senthilvel, Jeroen Werbrouck, Alex Donkers

LDAC

- LDAC2012 Ghent
- LDAC2014 Helsinki
- LDAC2015 Eindhoven
- LDAC2016 Madrid
- LDAC2017 Dijon
- LDAC2018 London
- LDAC2019 Lisbon
- LDAC2020 Dublin
- LDAC2021 Luxembourg
- LDAC2022 Hersonissos
- LDAC2023 Matera



SSoLDAC

- SSoLDAC2019 Lisbon
- SSoLDAC2022 Cercedilla
- SSoLDAC2023 Matera

SSoLDAC2022 Cercedilla

SSoLDAC2022 Cercedilla

Strong connection with the LDAC WS

LDAC2022 Hersonissos

LDAC2021 Belval, Luxembourg

SSoLDAC2023 Statements

- Emphasis on intensive student-student and student-group interaction
  - Hence limited number of places (40 students)
- Short, intensive academic sessions covering a wide range of topics
- Hackathon
- Social program, because having fun and building a community is explicitly part of this summer school

SSoLDAC2023

WhatsApp-groep

SSoLDAC2023 Program

Sunday 11 June			
20:00-22:30	Welcome cocktail		

Monday 12 June			
08:30-09:00	Registration at Casa delle Tecnologie Emergenti (CTE) in Matera		Reception desk
09:00-09:30	Opening session	J.Werbrouck, M.Senthilvel, A.Donkers	Conference room on 4th floor (CR4)
09:30-11:00	Lecture session: Basics of Linked Data	P.Pauwels	CR4
11:00-11:30	Coffee break		
11:30-12:30	Lecture session: Ontologies	M.Bonduel	CR4
12:30-13:00	Hackathon: Introducing the challenges	Champions of challenges	CR4
13:00-14:30	Lunch break and hackathon group formation		
14:30-15:30	Lecture session: ETL procedures & querying	V.Alexiev	CR4
15:30-16:30	Lecture session: Interaction and querying	M.H.Rasmussen	CR4
16:30-17:00	Coffee break		
17:00-19:00	Ready to rumble: the hackathon starts!		Rooms 23, 27, 29, 31
19:00-20:30	Guided tour to the Sassi		

Tuesday 13 June			
09:00-09:30	Opening session	J.Werbrouck, M.Senthilvel, A.Donkers	CR4
09:30-10:30	Keynote session: Shape and Semantics for urban modelling – the role of geometry in city digital twins	M.Mortara	CR4
10:30-11:00	Coffee break		
11:00-12:00	Lecture session: Advanced ontologies and reasoning	M.Poveda-Villalón	CR4
	Lecture session: Validation using SHACL	M.Senthilvel	Room 27
12:00-13:00	Lecture session: Heterogeneous knowledge graphs	M.Argyris	CR4
	Lecture session: Building products and properties	M.Bonduel	Room 27
13:00-14:30	Lunch		
14:30-16:30	Hackathon		Rooms 23, 27, 29, 31
16:30-17:00	Coffee break		
17:00-23:00	Hackathon with dinner		Rooms 23, 27, 29, 31

Wednesday 14 June			
09:00-09:30	Opening session	J.Werbrouck, M.Senthilvel, A.Donkers	CR4
09:30-10:30	Hackathon		Rooms 23, 27, 29, 31
10:30-11:00	Coffee break		
11:00-12:00	Lecture session: Geospatial linked data	E.Folmer	CR4
	Lecture session: Frontend development using linked data	J.Werbrouck, A.Donkers	Room 27
12:00-13:00	Lecture session: Federated knowledge graphs	J.Werbrouck	CR4
	Lecture session: Sensors and linked building data	A.Donkers	Room 27
13:00-14:30	Lunch		
14:30-16:30	Hackathon		Rooms 23, 27, 29, 31
	bSDD session		CR4
16:30-17:00	Coffee break		
17:00-19:00	Presentations	Hackathon groups	CR4
19:00-19:30	Closing session	J.Werbrouck, M.Senthilvel, A.Donkers	CR4
20:00-23:00	Dinner at Ristorante Pizzeria Annunziata 1735		

SSoLDAC2023 Keynote

Michela Mortara

imati

Shape and Semantics for urban modelling – the role of geometry in city digital twins

This talk will describe the current computer graphics approaches to construct a digital 3D representation of an urban context from real data. The geometric model is a set of undifferentiated elements, but represents specific urban entities with attributes, relations, functionality and meaning. Identifying the salient elements and linking semantic information to their geometric counterpart leverages automatic reasoning (multi-disciplinary optimization, monitoring, planning, simulation, prediction) on the city and its processes, as far as knowledge about land and urban morphology is concerned. The main focus will be on the acquisition of real 3D data, the reconstruction process and the semantic annotation of the 3D digital model. Examples of use cases that the geometric layer of the urban digital twin can answer to will be discussed from ongoing projects with Matera and Catania. Challenges and future directions will conclude the talk.

SSoLDAC2023 Lecturers

Mathias Bonduel **María Poveda Villalón** **Manos Argyris** **Pieter Pauwels** **Madhumitha Senthilvel**





Erwin Folmer **Vladimir Alexiev** **Jeroen Werbrouck** **Mads Holten Rasmussen** **Alex Donkers**





SSoLDAC2023 Organizers

Pieter Pauwels

María Poveda Villalón

Walter Terkaj

Madhumitha Senthilvel

Jeroen Werbrouck

Alex Donkers

SSoLDAC2023 Local organizers

Lucio Tommaso de Paolis

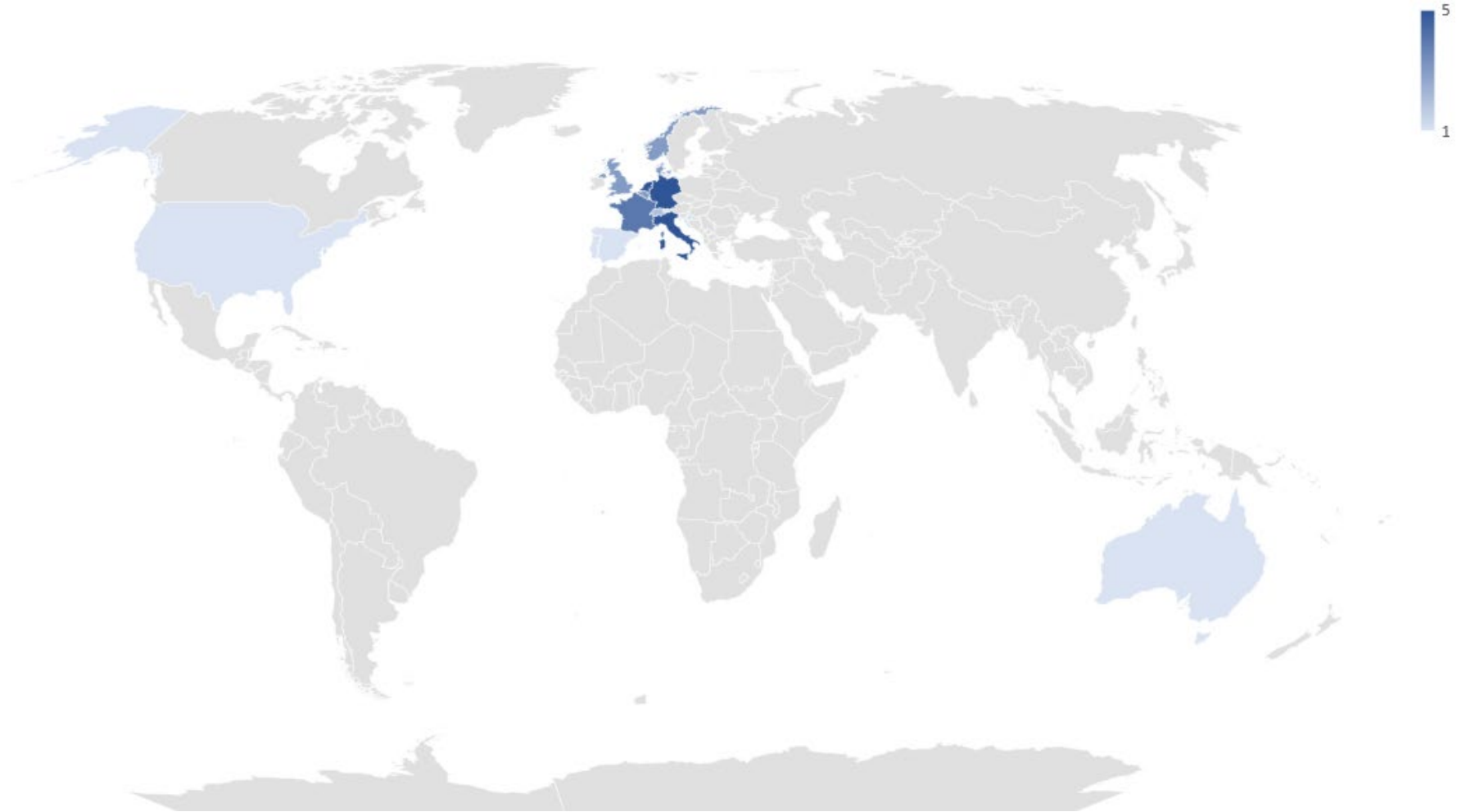
Ugo Erra

Walter Terkaj

Sara Arlati

SSoLDAC2023 Participants

Australia
Belgium
Croatia
Denmark
France
Germany
Italy
Luxembourg
Norway
Palestine
Portugal
Spain
Switzerland
The Netherlands
United Kingdom
United States



SSoLDAC2023 Diamond sponsors

- Free service from buildingSMART for distributing data dictionaries describing the built environment.
- Common reference library with definitions and attributes to enrich IFC models and IDS requirements.
- Neutral solution to drive the digital transformation of the AECO industry.

bSDD® a service by buildingSMART International

SSoLDAC2023 Diamond sponsors

Pallas is the new medical isotope reactor that will replace the aging High Flux Reactor (HFR) in Petten. With the arrival of the PALLAS-reactor, the Netherlands can continue to help millions of people over the next 50 years. PALLAS focuses on the production of isotopes for diagnosis and therapy and nuclear research.

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BUILDING DIGITAL TWIN ASSOCIATION

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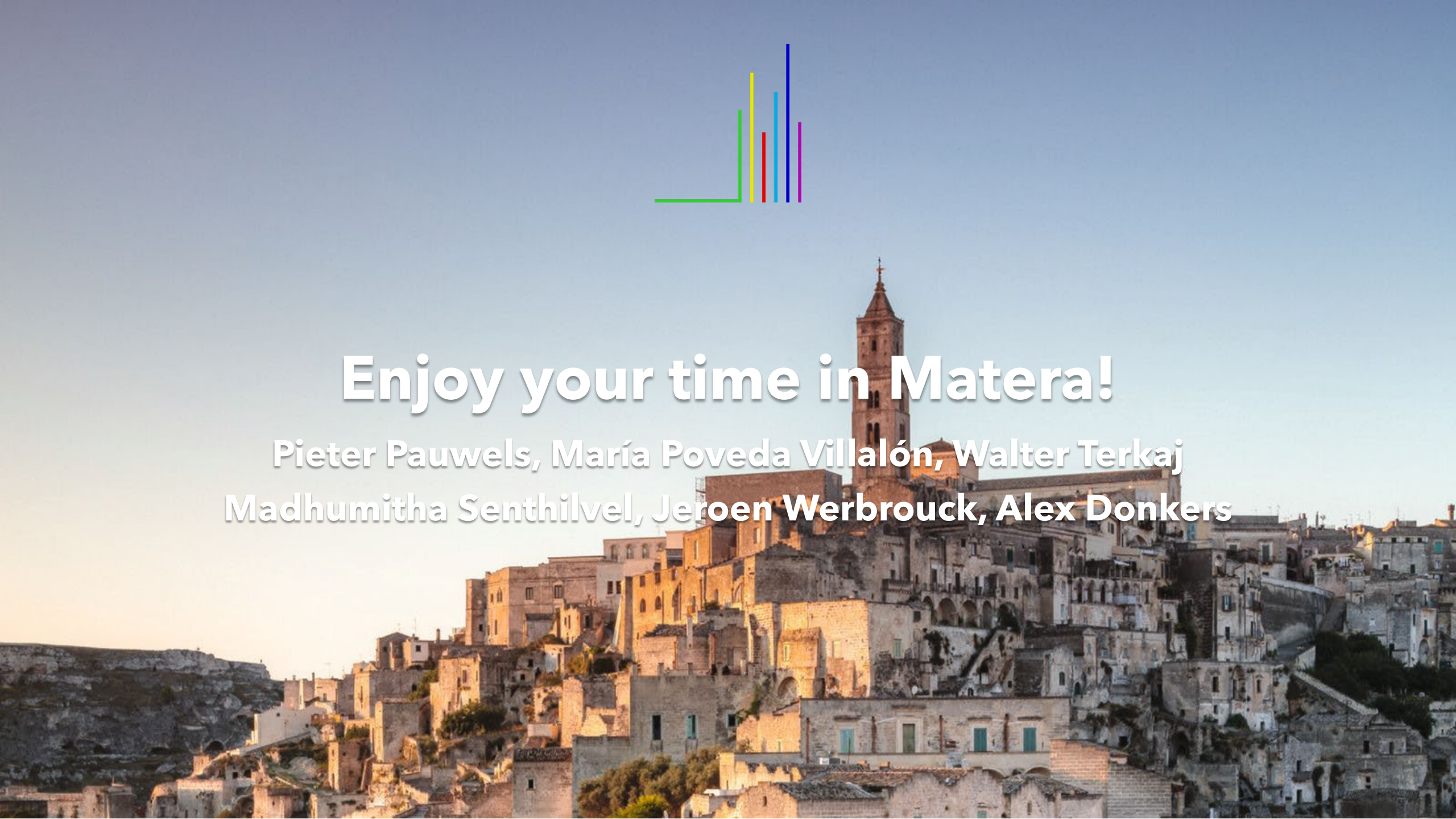
SSoLDAC2023 Organizational support

SSoLDAC2023 Our host

Special thanks to the Casa delle Tecnologie Emergenti in Matera for hosting us

Don’t forget to explore Matera!


Enjoy your time in Matera!
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