



4th International Conference on Smart and Sustainable Planning for Cities and Regions 2022

Bolzano/Bozen (Italy), 19-22 July 2022

HANDBOOK



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Workshop: Planning a human-centric Positive Energy District
Sharing the experiences on positive energy districts: lessons from Annex 8334
Digitalisation of energy systems through the lens of energy democracy and social inclusion: the Trento case study

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WELCOME TO SSPCR 2022

SSPCR Team – Eurac Research

The last edition of SSPCR was in December 2019, on the eve of the pandemic. After a 3-year break, mainly dictated by the health emergency, SSPCR offers a meeting place to discuss and verify the solutions that the world of academics and practicioners is developing and testing to limit the consequences of a major systemic crisis that is overwhelming the paradigms of the past.

Energy, climate and health crises are interconnected and are pressurising urban and regional systems as never before in human history. The concomitance of these pressures is certainly not coincidental but dictated by demographic and urbanisation trends, but above all by our lifestyle, which requires more and more resources to maintain the levels of 'quality standards' to which we have become accustomed. Goods and services are taken for granted without even asking where they come from, whether this level of standards causes the uncontrolled exploitation of non-renewable or non-substitutable resources, and whether this trend, taken to extremes, will define the definitive crisis of urban and regional systems as we have conceived, designed, planned, and managed them until now. In these three years, many new research questions have emerged, mainly dictated by necessity. In this context, the political and industrial worlds are finally taking a serious look at research as provider of solutions to the problems afflicting economy and society. Probably for the first time, the scientific world is seeing not only its own credit increase, but also its responsibility to provide quick, immediate and safe answers to an unprecedented need for a "socioecological transformation".

This year, SSPCR places a strong focus on issues of dimensions, size and scale. We will investigate together whether the dimension of the climate-neutral city at its spatial, economic and social scale is still compatible with smart and sustainable planning and how it can interact with the scales of community (energy) and district (energypositive). We will explore together how to promote a local dimension of energy selfconsumption, while promoting awareness of the origins of resources and the socioeconomic spin-offs these can have in local contexts such as reducing energy poverty. We will work around the concepts of multiple benefits and co-benefits related to both energy transition, climate change and socio-ecological transformation. We will explore possible integrations between active and passive technology, between the artificial and the natural, and we will also be guided by Nature Based Solutions to improve the conditions of social inclusion in cities. We will question new ethical principles, starting with the concept of climate justice and exploring planning and design solutions that reduce the social gap between population groups. Finally, we will explore new ways of conceiving space: beautiful, sustainable, collaborative, also from the point of view of mobility in its spatial-temporal dimension linked to human being.

We decided to postpone the 4th edition of the conference twice, waiting until we had the right conditions to be able to invite you in presence in Bolzano (this required finally



organising a summer edition of the conference!). Indeed, we are convinced that there is a need to return to meet in person, with due caution, and to discuss new ideas and projects face-to-face in an atmosphere of 'full-immersion' collaboration.

We would like to thank the organisers of the special sessions and the international working groups, projects and entities that chose SSPCR 2022 as a platform for discussion: IEA-EBC ANNEX 83 on Positive Energy Districts, COST Action PED-EU-NET, SMARTBEEJS (H2020 Marie Curie Project), ROLES (JPI Project), POCITYF (H2020 Project), GRETA (H2020 Project), EVA (ERA-Net SES project), RINA, JEAN MONNET Centre of Excellence, Change your street, and the more than 200 registrants who contributed in various ways to enriching this edition of SSPCR. Finally, we are convinced, and we will promote it by all possible means, that the dissemination of the conference results is of the utmost importance. Therefore, the conference will not end with the 22nd of July 2022, but will continue with the publication of the proceedings and the thematic special issues promoted by the competent and motivated scientific panels of the sessions.

We wish all of you a fruitful time at the SSPCR 2022 conference and a pleasant stay in Bolzano/Bozen.

SSPCR Team

EURAC RESEARCH

Our research addresses the greatest challenges of the future: keeping societies healthy, fostering intact environments, promoting sustainable energy and developing well-functioning political and social systems. Seeking answers through interaction between a variety of disciplines, we develop concrete solutions for regional problems which can then be applied globally. We continually strive to open new paths with science and innovation, by responding to society's complex questions with answers geared to the needs of people.

Who we work with

We are linked to research networks all over the world with partners in more than 50 countries, on five continents. The research centre collaborates with international organisations such as the Alpine and Carpathian Conventions, the United Nations Environment Programme (UNEP) and the European Space Agency (ESA) along with several other space agencies. It is also an official duty station of the United Nations and the only Italian headquarter of UNU (the United Nations University). Eurac Research furthermore cooperates with the Council of Europe and other European institutions.

Our history

Eurac Research was founded in 1992 as an association under private law with just twelve members of staff undertaking research in the areas of Language and Law, Minorities and Autonomous Regions as well as the Alpine Environment. The centre gradually expanded its activities into new areas, attracted scientists from all over the world, and introduced new structures. Today, over 500 collaborators from over 35 countries conduct their research at Eurac Research.

Our goals

Our research is concerned with three major themes: regions fit for living in, a healthy society, and diversity as a life–enhancing factor.

We pursue these objectives with determination:

- □ Mitigate and adapt to climate change
- Manage resources responsibly
- Reduce risks associated with natural hazards
- Understand and prevent illnesses, towards personalised medicine
- Prevent accidents and optimise rescue operations
- Understand better the development of humankind
- Preserve biodiversity
- Encourage political participation and social integration
- Promote multilingualism
- Take advantage of the opportunities created by the digital transformation

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KEYNOTE SPEAKERS

MARINE CORNELIS

Executive Director. Next Energy Consumer

Citizen-centric energy systems



With soaring prices and geopolitical concerns, energy is an issue of growing concern to all of us, both as consumers and as citizens of democratic Western European countries. How can we adapt our energy use to our current needs and those we will have in 10, 20, and 30 years? How can we do better with limited resources? How can we reconcile concerns about end-of-month budgets with the (perceived) risk of the end of the world?

These questions, if they are now very visible in the media, are the ones that have been occupying researchers, policymakers, and planners almost everywhere in the world for years.

Policymakers have been adopting many measures to moderate the current price increase, for example, through one-shot bonuses or VAT reductions. But while these solutions provide temporary relief, they seem unsustainable in the long run. Their impact on the fight against climate change may also be worrying. These measures must therefore be complemented by more structural solutions that also act on energy demand, i.e., the energy used by households. Concrete long-term solutions must focus on energy production and the networks, which must be modernised and made flexible to adapt better to supply and demand. Energy efficiency must also be at the core, to moderate our energy consumption while maintaining (or even improving) our comfort level. But there is no one size-fits-all, we all have our own set of permanent or temporary personal circumstances that affect our relationship with energy.

However, whoever we are, comfort and quality of life remain fundamental. And for many, it is not a new subject to make trade-offs between the needs of heating, cooling, or cooking. In Europe, before the COVID-19 crisis, more than 34 million families were already affected by energy poverty, i.e., the inability of a household to meet its energy needs. In Africa, while nearly half of the continent still has no access to electricity at all, the other half suffers from a deficit in the quality of electricity supplied. The electricity they get is insufficient to meet the real needs of populations to access food, education, health care, work, and move around. Hence, if we want to put the needs of citizens at the centre, we need holistic and intersectional perspectives. Otherwise, we risk creating even more inequalities.



GIULIA ULPIANI

Project Officer for the European Commission Joint Research Centre Directorate C - Energy, Transport

"Walking through the challenges of climate neutrality at city level: aims and progress of the 100 Climate-Neutral and Smart Cities Mission"



The EU Missions are a novelty of the Horizon Europe research and innovation programme for the years 2021-2027, meant to deliver impact by putting research and innovation into a new role, combined with new forms of governance and collaboration, as well as by engaging citizens.

The Cities Mission has two highly ambitious objectives: 1) deliver at least 100 climate-neutral and smart cities by 2030, and 2)

ensure that these cities act as experimentation and innovation hubs to enable all European cities to follow suit by 2050. The added value of the Cities Mission is that it takes a cross-sectoral and demand-led approach, creating synergies between sectors and existing initiatives and capitalising on best practices and lessons learnt (e.g., from the Covenant of Mayors). This talk will focus on the current status and timeline of the Cities Mission and illustrates the resources made available to cities as well as some initial insights on the challenges behind reaching climate neutrality identified by cities in their Expressions of Interest.

PIETRO ELISEI

ISOCARP President, Executive Committee Member

Urban planners' ideas and tools for regenerative economies



The contemporary city is increasingly being characterized as a place of transition and contradiction. On the one hand, we see how the phenomenon of urbanisation will ace in the next ten years, on the other hand we see that earth overshoot day is being reached already at the beginning of summer. For some time, cities have had ecological footprints that exceed the bearing capacity of their reference territories. It is essential to start

thinking about forms of development, planning tools and urban policies that know how to intercept the needs of a just transition and build the key elements around which to structure a relaunch of sustainable development.

SHORT PROGRAMME

Time	Seminar 1	Seminar 2	Seminar 3	Seminar 4	Foyer
9.00-11.00	SMARTBEEJS Workshop				Poster exhibition
		Cc.	Coffee break		
11.30-13.00	SMARTBEEJS Workshop				Poster exhibition
		Lu	_unch break		
14.00-16.00	IEA-EBC Annex83 Event				Poster exhibition
		Cc	Coffee break		
16.30-18.00	IEA-EBC Annex83 Event				Poster exhibition

Tuesday, 19th July 2022 – Pre-Conference PED Day

16.30-18.00 Trac Spe		14.00-16.00 ROL		11.30-13.00 Plen Ulpi		9.00-11.00 Plenary : <u>Comelis</u>	Time
Track4 Special Session1		ROLES Event		OPENING Plenary session <u>Ulpiani</u>		OPENING Plenary session <u>Cornelis</u>	Seminar 1
Track1 Special Session1-A	Co	Track2 Special Session2	Lu		C		Seminar 2
Track3 Special Session2	Coffee break	Track3 Special Session2	Lunch break		Coffee break		Seminar 3
Track1 Special Session2		Track1 Regular Session1					Seminar 4
Poster exhibition		Poster exhibition		Poster exhibition		Poster exhibition	Foyer

Wednesday, 20th July 2022

Time	Seminar 1	Seminar 2	Seminar 3	Seminar 4	Foyer
9.00-11.00	RINA Event	POCITYF Event	Track1 Special Session1-B	Track2 Special Session1	Poster exhibition
		Cof	Coffee break		
11.30-13.00	Track6 Regular Session1	POCITYF Event	Track4 Special Session4	Track2 Special Session1	Poster exhibition
		Lur	Lunch break		
14.00-16.00	Track5 Special Session4	JEAN MONNET Event	Track4 Special Session4	Track5 Regular Session1	Poster exhibition
		Cof	Coffee break		
16.30-18.00	CHANGE YOUR STREET Event	Track7 Special Session1	Track4 Special Session3	Track5 Special Session3	Poster exhibition

Thursday, 21st July 2022

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Time	Seminar 1	Seminar 2	Seminar 3	Seminar 4	Foyer
9.00-11.00	GRETA Event	Track4 Special Session2	Track2 Regular Session1	Track3 Special Session1	Poster exhibition
		Co	Coffee break		
11.30-13.00	Track3 Regular Session1	EVA Event	Track7 Regular Session1		Poster exhibition
		Lu	Lunch break		
14.00-16.00	Plenary Session <u>Elisei</u> Closing remarks				Poster exhibition

Friday, 22nd July 2022



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PLENARY SESSIONS

P1 - SSPCR 2022 Opening Plenary

Wednesday, 20th July from 9:00 to 11:00 | Seminar room 1

Psenner, Roland (President, Eurac) – Institutional welcome message

Sparber, Wolfram (Head of the Institute for Renewable Energy, Eurac) – Institutional welcome message

Vettorato, Daniele (Urban and Regional Energy Systems, Group Leader) – Urban energy trends and projects

Bisello, Adriano (Senior researcher and SSPCR conference coordinator) – Introducing SSPCR 2022

Marine Cornelis (Next Energy Consumer, Executive Director) – "Citizencentric energy systems?"

P2 – SSPCR 2022 Plenary

Wednesday, 20th July from 11:30 to 13:00 / Seminar room 1

Vettorato, Daniele - Introducing ISOCARP

SSPCR 2022 Moderators – Introducing thematic tracks, special sessions and events

Giulia Ulpiani (Project Officer for the European Commission Joint Research Centre Directorate C - Energy, Transport) - "Walking through the challenges of climate neutrality at city level: aims and progress of the 100 Climate-Neutral and Smart Cities Mission"

P3 - SSPCR 2022 Closing Plenary

Friday, 22nd July from 14:00 to 16:00 / Seminar room 1

SSPCR 2022 best poster award cerimony

Pietro Elisei (ISOCARP, President) – Urban planners' ideas and tools for regenerative economies

SSPCR 2022 Moderators – Highlights and take home messages from thematic tracks and special session presentation

SSPCR 2022 Scientific Committee & SSPCR delegates - fish-bowl discussion

THEMATIC TRACK 1

Keywords: Positive Energy Districts (PEDs), PED Characteristics and Technologies, Stakeholder engagement, Methods and Processes, Regulations, Community energy selfgeneration, Distributed storage, Aggregation & optimization of consumption, storage & self-generation, Digitalization & remote monitoring & management of energy, Peer-to-peer (P2P) energy trading.

Track Coordinators:

Daniele Vettorato (Eurac Research, Institute for Renewable Energy)

Silvia Croce (Eurac Research, Institute for Renewable Energy)

Track 1. Regular session 1: "Will the climate-neutral city please stand up"

Wednesday, 20th July 2022 from 14:00 to 16:00 | Seminar room 4

514	Wendorff, Jannik	Making the smart city perceptible
535	Van der Roest, Els	Blue-Green roofs with solar PV – A win-win-win situation
545	Pietrapertosa, Filomena	Energy-saving strategies in public buildings: prioritization of measures for the improvement of energy performances in southern Europe
594	Codemo, Anna	Towards integrated and accepted energy transition: sustainable energy planning in urban areas
642	Salvia, Monica	Comparing climate emergency declarations and local climate plans: An analysis of Italian municipalities
666	Fonteyn, Pieter	In plain sight: green views and urbanites' neighborhood satisfaction
659	Haase, Matthias	Energy Master Planning for regions, cities and districts

Session chaired by: Daniele Vettorato (Eurac Research - Institute for Renewable Energy), Silvia Croce (Eurac Research - Institute for Renewable Energy)

Track 1. Special Session 1 - A: "Planning and Implementing Positive Energy Districts"

Wednesday, 20th July 2022 from 16:30 to 18:00 | Seminar room 2

540	Alpagut, Beril	Technical design of PEDs in six European cities
541	Standardi, Laura	The potential of predictive control for operating PEDs
553	Shah, Juveria	An in-depth learning of positive energy districts (PED) for their characterization by word embedding methods
564	Vicky Albert- Seifried	Energy balance calculation for positive energy districts: A Review of the status quo and challenges
566	Albert-Seifried, Vicky	Development of archetypes for positive energy districts: concept and key characteristics
716	Borsboom-van Beurden, Judith	Use of non-technical tools for planning and implementing Positive Energy Districts

Session chaired by: Vicky Albert-Seifried (Fraunhofer Institute for Solar Energy Systems), Caroline Cheng (SINTEF), Xingxing Zhang (Dalarna University), Andrea Gabaldon Moreno (CARTIF), Ursula Eicker (Concordia University), Genku Kayo (Tokyo City University), Daniele Vettorato (Eurac Research)

Track 1. Special Session 1 - B: "Planning and Implementing Positive Energy Districts"

Thursday, 21st July 2022 from 9:00 to 11:00 | Seminar room 3

573	Gabaldon Moreno, Andrea	Energy planning using OEMOF as a tool for the urban energy transition. A case study in Valladolid, Spain.
574	Van Wees, Mark	Energy Citizenship in Energy Positive Districts
575	Reda, Francesco	Positive Energy District (PEDs) archetypes: methodology for cataloging and analysis of the results of the first identified archetypal models
586	Alpagut, Beril	Supporting the decision-making processes towards Positive Energy Districts implementation: Overarching Concept for PED Database
599	Rezaei, Abolfazl	Development of the data model for an automatic energy system modeling framework



603	Han Vandevyvere	Do you want to live in a Positive Energy District? A review of Quality-of-Life indicators from existing PED projects
552	Yoo, Han Kyul	Addressing and overcoming silo thinking to facilitate fair Positive Energy Districts (PEDs) design and development.

Session chaired by: Vicky Albert-Seifried (Fraunhofer Institute for Solar Energy Systems), Caroline Cheng (SINTEF), Xingxing Zhang (Dalarna University), Andrea Gabaldon Moreno (CARTIF), Ursula Eicker (Concordia University), Genku Kayo (Tokyo City University), Daniele Vettorato (Eurac Research)

Track 1. Special Session 2 "Smart Aggregation & Optimization"

Wednesday, 20th July 2022 from 16:30 to 18:00 | Seminar room 4

510	Menke, Christoph	A community-based biomethane heat network: Case study from Trier
668	Swens, Job	Sustainable Energy Regions under Dutch Energy Legislation
678	Romanchenko, Dmytro	Unlocking flexibility potential in district heating systems
544	Regener, Vincenz	New Business Models and Grid Stability: Empowering Electric Vehicles in the Context of Energy Communities
705	Rossetto, Nicolò	Unleashing the potential of collectivities in energy: between old and new energy communities
578	Koltunov.	Energy communities: literature review and research

Session chaired by: Fereidoon Sioshansi (Menlo Energy Economics), Sabine Löbbe (University of Reutlingen)

THEMATIC TRACK 2

Keywords: ESG, Real estate, Impact investing, Urban projects, Smart buildings, Sustainable living, Positive energy districts, Sustainability assessment, Carbon neutrality.

Track Coordinator:

Adriano Bisello (Eurac Research, Institute for Renewable Energy)

<u>Track 2. Regular session 1: "The Hidden Potential: Untapping the Benefits of Urban</u> <u>Transformations"</u>

Friday, 22nd July 2022 from 9:00 to 11:00 / Seminar room 3

523	Stratmann, Antonia	Tapping into hidden potentials in the neighborhood through flexibility: a flexibility assessment tool
528	Bieseman, Helena and Strosse, Veerle	Reducing soil sealing in Flanders through mapping and assessing opportunities
533	Pisman, Ann	The evolution of urban and rural areas in Flanders between 2013 and 2019. Is Flanders really more sprawled?
708	Melis, Barbara	Brownfield areas toward carbon negative

Session chaired by: Adriano Bisello (Eurac Research, Institute for Renewable Energy)

Track 2. Special session 1: "ESG Criteria as Innovation Drivers"

Thursday, 21st July 2022 from 9:00 to 13:00 / Seminar room 4

618	Sdino, Leopoldo	How to invest in the "Market of Sustainability": Evaluate impacts of a Real Estate investment across ESG criteria
662	Cavana, Giulio	Quantifying quality: monetization of performance of office buildings – the STAR project case
697	D'Alpaos, Chiara	On the potential of ESG criteria and green bonds in driving innovation in the real estate industry
590	Binda, Tiziana	Urban regeneration through a neighborhood green certification: A literature review.
587	Gasperi, Francesco	From sustainability to ESG: Real Estate best practices, KPIs and benchmarking

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707	Negri, Maurizio	ESG: the new drivers of value in Real Estate
710	Calvi, Cinzia	ESG in Real Estate field for Affordable Housing: measure impacts and show them
567	Santana Tovar, Daniela	ESG protocols and sustainability non-financial reporting tools in the private sector at the European level: a critical review.

Session chaired by: Paolo Rosato (University of Trieste and SIEV President), Marta Bottero (Politecnico di Torino), Chiara D'Alpaos (Università degli Studi di Padova), Adriano Bisello (Eurac Research), Inger Andresen (NTNU)

<u>Track 2. Special session 2: "Towards a Sustainability Assessment of Positive Energy</u> <u>Districts"</u>

Wednesday, 20th July 2022 from 14:00 to 16:00 | Seminar room 2

654	Haase, Matthias	Planetary boundaries as framework for the transformation towards positive energy districts
532	Binda, Tiziana	Multicriterial spatial economic decision support system analysis to support energy transition: Literature review
619	Guarino, Francesco	Positive Energy Districts: A Case Study In The Mediterranean Area
631	Saeed, Muhammad Hafeez	Identifying technically-feasible and effective solutions towards Positive Energy Districts (PEDs)
670	Brugnetti, Ennio	An innovative approach to achieve positive energy districts in Italy

Session chaired by: Francesco Guarino (University of Palermo), Aapo Huovila (VTT), Oscar Seco Calvo (Ciemat), Adriano Bisello (Eurac Research)

THEMATIC TRACK 3

Keywords: Urban sustainability, Sustainable Smart City, Sustainable Mobility, Sustainable Urban Regeneration, Climate Neutral Smart City, Nature-based Solutions, Green Technologies, Co-creation, Citizen Science, Citizen participation, Internet of Nature

Track Coordinator:

Joana Bastos (Eurac Research, Institute for Renewable Energy)

<u>Track 3. Regular session 1: "Tackling what Remains to Be Done: Environmental</u> <u>Sustainability in C&R"</u>

Friday, 22nd July 2022 from 11:30 to 13:00 / Seminar room 1

534	Jreij, Abdallah	Mega-events as a catalyzer for the sustainability transition in cities and regions
621	Svanda, Nina	Planning and organizing space for climate-friendly spatial development
626	Heidenreich, Michael	Interreg Central Europe "Store4huc"
646	Wang, Qiancheng	Green recovery? - An scenario analysis of city-scale energy impact of remote working in Guangzhou, China
579	Bastos, Joana	Regional metabolism: A material and product flow accounting model for Trentino, Italy

Session chaired by: Joana Bastos (Eurac Research, Institute for Renewable Energy)

Track 3. Special Session 1: "The Future of Smart Cities in a Climate Neutral Scenario"

Friday, 22nd July 2022 from 9:00 to 11:00 | Seminar room 4

515	Conte, Veronica	Platform urbanism: regulation, monopoly and the tech/finance nexus
576	Caiello, Simone	Future Sustainable Mobilities: Theory, Research and Policies
588	Rimondi, Tommaso and Landi, Alessandra	Investigating the urban texture. Neighbourhood frame for socio.ecological innovation



609Bernardi,
MonicaBeyond Climate-Neutral and Smart Cities: reflections
on strategies and governance models

Session chaired by: Monica Bernardi (University of Milan-Bicocca), Luca Bottini (University of Milan-Bicocca)

Track 3. Special Session 2: "Augmented Nature Based Solutions (NBS) for Cities"

Wednesday, 20th July 2022 from 14:00 to 18:00 | Seminar room 3

562	Bagnasco, Anna Maria	The Digital Platform Ecosystem of the Urban Observatory for profiling the deprived areas in the Cities
584	Borsari, Alice	A step by step guide to support cities in transforming Nature-based and digital ideas into feasible Visionary Solutions
593	Pace, Rocco	Mapping the impact of tree cover on heat wave and rainfall runoff mitigation in the city of Karlsruhe, Germany
601	Vasiliu, Elisa- Elena	A Social Return on Investment (SROI) analysis of Visionary Solutions (VSs) planning
663	Kogler, Martha	Monetization & valuation of ecosystem services
684	Ogut, Ozge	Vertical Greenery in Frame of Urban Transformation: How to Take Advantage of Smart Technologies?
706	Fava, Stefano and Melis, Barbara	Environmental smart solutions for Real Estate interventions
597	Farinea, Chiara	CO-mida: 3D Printed Biophotovoltaic Vertical Garden

Session chaired by: Israa Mahmoud (Politecnico di Milano), Eugenio Morello (Politecnico di Milano), Adriano Bisello (Eurac Research), Denia Kolokotsa (Technical University of Crete)

THEMATIC TRACK 4

Keywords: Energy Poverty, Energy Justice, Inequality, Energy Policy, Inclusive Transition, Energy transition, Community, Socio-technical Innovation, Energy democracy, Energy transition, Participatory democracy, Deliberative democracy, Just Transition, Social and Environmental Impact, Territorial/Urban Governance, Energy Communities, Social Innovation.

Track Coordinators:

Jessica Balest (Eurac Research, Institute for Renewable Energy)

Silvia Tomasi (Eurac Research, Institute for Renewable Energy)

Sonia Gantioler (Eurac Research, Institute for Renewable Energy)

Track 4. Special Session 1: "Economics Perspective and Policy Implications on Energy Justice"

Wednesday, 20th July 2022 from 16:30 to 18:00 | Seminar room 1

655	Caballero, Nicolas	The short and long-term impact of social comparison interventions in social housing contexts
692	Chersoni, Giulia	Distributional Justice in Energy Communities: An agent-based modeling approach
615	Mahoney, Katherine	Exploring regional injustices in the Portuguese energy transition

Session chaired by: Silvia Tomasi (Eurac Research), Nicolas Caballero (Eurac Research), Giulia Chersoni (Eurac Research)

Track 4. Special Session 2: "Renewable Energy Communities Between Theories, Practices, and New Regulations"

Friday, 22nd July 2022 from 9:00 to 11:00 | Seminar room 2

- 632 Bolognesi, Monica
 521 Coleandro, Giada Filippa Paola and
 Energy community: the opportunity of an energy transition characterized by a return to the territory
 521 To energy communities and beyond: rethinking energy systems through a mutual aid approach
 - Paola a Ruggeri, Beatrice



525	Cittati, Valentina- Miriam	Combining the Multilevel Perspective and Socio- Technical Imaginaries in the Study of Community Energy
558	Pezzutto, Simon	Mapping and Analysis of Energy Communities in Europe
604	De Vidovich, Lorenzo and Zulinello Matteo	How can we frame energy communities' organizational models? Insights from the research Community Energy Map in the Italian context
637	Scotti, Ivano	Socio-environmental innovation: the energy community of San Giovanni a Teduccio, Naples.

Session chaired by: Natalia Magnani (University of Trento), Giovanni Carrosio (University of Trieste)

Track 4. Special Session 3: "The Concept of Energy Democracy and Its Applications"

Thursday, 21st July 2022 from 16:30 to 18:00 / Seminar room 3

610	Scharnigg, Renee	Governance promoting democracy in energy transitions: Implications of cultural and gender aspects of energy production in a financially constrained context
660	Hansen, Lillian	Conditions for localized whole-systems change: linking community energy generation and use
560	Castillo- Calzadilla, Tony	Co-generation of Bilbao ATELIER Data Commons: a democratic and sustainable approach in Zorrotzaurre.

Session chaired by: Jessica Balest (Eurac Research), Federico Voltolini (Eurac Research), Valentina Miriam Cittati (Eurac Research)

<u>Track 4. Special Session 4: "The Territorial Dimension of ESG Challenges in Energy</u> <u>Communities</u>"

Thursday, 21st July 2022 from 11:30 to 16:00 / Seminar room 3

551	Gerli, Francesco	When just means capable: investigating the capacities of local public actors for green and just transitions
585	De Vidovich, Lorenzo	Eco-welfare and the pathway towards eco-social policies: some first insights from a research focus on energy poverty in Trieste
591	Bonifazi, Alessandro	Community building in local energy transitions in Italy
536	Ruggieri, Gianluca	Key economic drivers enabling municipal energy communities' benefits
617	Realini, Anna	Energy poverty, health and home renovation
549	D'Herbemont, Stanislas	Adapting public procurement procedures to support the development of community initiatives at the municipal level.
689	Rotondo, Federica	Urban energy transition: actors, processes and policies in public housing neighbourhoods. The case of Bologna

Session chaired by: Luca Tricarico (Luiss University), Matteo Zulianello (RSE), Francesca Bragaglia (Politecnico di Torino), Federica Rotondo (Politecnico di Torino)

THEMATIC TRACK 5

Keywords: Socio-ecological transition, Uncovered rural resources, Governance, Local value chains, Territorial development models, Spatial Planning, Ecological Connectivity, Protected Areas, Open Spaces, Mainstreaming, Community Led Local Development processes, Social Innovation and community led innovation, Sustainability transitions, Citizens Engagement and Partecipation, Socio-ecological transition, Societal challenges, Long-distance and historical-cultural walking routes, Landscape ecology, Eco-Tourism, Socio-Economic rural development, Multi-actor and inter-scalar approaches.

Track Coordinator:

Elisa Ravazzoli (Eurac Research, Institute for Regional Development)

<u>Track 5. Regular session 1: "Leave No Place Behind: Policy Making for Smart and</u> Sustainable Regions"

Thursday, 21st July 2022 from 14:00 to 16:00 | Seminar room 4

589	Escobar, Stefania D	Are Smart Cities truly inclusive? A study on the role of tourism in European Smart Cities
673	Pedersen, Anders Branth	Transitioning to local energy systems: a systematic review of enablers and barriers for local governance
600	Laner, Peter	Planning principles and priority criteria for safeguarding open spaces in the Alps
711	Díaz de Garayo, Sergio	Management tool of highly efficient social housing to provide healthy indoor conditions and fight energy poverty
Session	n chaired by:	Elisa Ravazzoli (Eurac Research, Institute for Regior

Session chaired by: Elisa Ravazzoli (Eurac Research, Institute for Regional Development)

Track 5. Special Session 3: "Narratives of Collective Socio-ecological Transitions <u>Practices</u>"

Thursday, 21st July 2022 from 16:30 to 18:00 / Seminar room 4

661	Escorcia	Assessment of Urban Resilience for Vulnerable	
	Hernandez, Jhon Ricardo	Communities: The Repercussions of the COVID-19 Pandemic	

686 Ravazzoli, Elisa Commoning practices and streetscapes: what contributions to the socio-ecological transition?



627	Da Re, Riccardo	What future for the mountains of Belluno after Vaia storm?
685	Margherita Pasquali	Exploration and co-design processes for Sustainable Development of Inner Territories: the thermal landscape of Val di Sole (Italy)

Session chaired by: Elisa Ravazzoli (Eurac Research), Federica Maino (Eurac Research)

Track 5. Special Session 4: "New approaches and methods to preserve and enhance long-distance walking routes"

Thursday, 21st July 2022 from 14:00 to 16:00 / Seminar room 1

571	Bertocchi, Dario	Uncovering walking routes. The role of community participation to develop walking tourism
620	Rovigatti, Pietro	Looking for Tratturo Celano - Foggia, 1 - 8 october 2021, a teaching and a third university mission experience
656	Milano, Antonella Marlene	Historical investigation as a methodological approach for the design of interventions for the enhancement of ancient tracks: the case of the transhumance routes (tratturi) of Apulia Region in Southern Italy.
676	Melilli, Giulia	The role of long-distance walking routes in fostering post-experience Environmentally Responsible Behaviours: opportunities for nature conservation
719	Motta Zanin, Giulia	Via Egnatia: developing a new sustainable walking route in eastern Europe
720	Incarnato, Luigi	The Coast of Sirens: from Paestum to Palinuro and Policastro

Session chaired by: Giulia Motta Zanin (Polytechnic University of Bari), Daniele Vettorato (Eurac Research), Francesco Bruzzone (IUAV, Polytechnic of Torino), Andrea Omizzolo (Eurac Research), Fuorivia Cultural Association

THEMATIC TRACK 6

Keywords: Energy transition, electric mobility, sustainability, resilience, mobility, participation, cooperation smart grids, transport Network, GIS, land use.

Track Coordinator:

Alyona Zubaryeva (Eurac Research, Institute for Renewable Energy)

Track 6. Regular session 1: "Planning for Ever-changing Mobility: Mind the Gap!"

Thursday, 21st July 2022 from 11:30 to 13:00 | Seminar room 1

605	Maase, Simone	Data-driven Urban Smart Charging of Electric Vehicles - avoiding grid congestion, improving EV charging experience
651	Nava, Alessandro	Investments for greening last-mile logistics: a case study
677	Realini, Anna	Evaluation of sustainable scenarios on extra-urban passenger mobility in Italy
683	Brunetti, Ennio	Tools and strategies for e-mobility development in a challenging territory

Session chaired by: Alyona Zubaryeva (Eurac Research, Institute for Renewable Energy)

THEMATIC TRACK 7

Keywords: Climate justice, Climate resilience and adaptation, GIScience, Sustainable urban development, Inclusive cities

Track Coordinators:

Roberto Monsorno (Eurac Research, Center for Sensing Solutions)

Valentina D'Alonzo (Eurac Research, Institute for Renewable Energy)

Track 7. Regular session 1: "Discover the Internet of Cities: from Data to Knowledge"

Friday, 22nd July 2022 from 11:30 to 13:00 | Seminar room 3

529	Morello, Eugenio	Co-shaping the Future of Urban Ambiance: for an integrated governance of air quality, from data sensing to Cities and citizens' agency and empowerment. A case study in Ferrara
581	Bottecchia, Luigi	The impact of the horizon in evaluating the potential of solar power
665	Eusebio, Allegra	Urban Digital Twin for climate resilient urban planning
682	Pozzi, Marianna	Open data for energy knowledge

Session chaired by: Roberto Monsorno (Eurac Research, Center for Sensing Solutions), Valentina D'Alonzo (Eurac Research, Institute for Renewable Energy)

Track 7. Special Session 1: "Climate Justice in Future Cities: GIS-based Approaches"

Thursday, 21st July 2022 from 16:30 to 18:00 | Seminar room 2

561	Mohtat, Niloofar and Khirfan, Luna	Advancing climate justice through participatory mapping: green and blue infrastructure planning for adaptation to climate-induced floods in Thorncliffe Park, Toronto
606	Masoni, Sonny	Borning cities in the climate crisis: mapping refugee camps by an open GIS-based workflow
616	Bonati, Sara	The Coast isn't Clear: Climate Justice Implications of Communicating Urban Flood Risk in Affluent Vulnerable Communities

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643	Pappalardo, Salvatore	Monitoring Heat Waves and Urban Heat Islands for Inclusive Mitigation Strategies: A Case Study in the Municipality of Padua (Italy)
650	Benetti, Stefania	Relational values of urban green spaces in Milan
674	Bayón Jiménez, Manuel	A climate justice approach to urbanisation processes in the South
687	Facchinelli, Francesco	Extreme Citizen Science for Climate Justice: mapping populated centers affected from gas flaring in the Ecuadorian Amazon Region
695	De Marchi, Massimo and Codato, Daniele	Oil development and urban jungles in Ecuadorian Amazon: expansion and territorial changes in "El Coca"

Session chaired by: Francesca Peroni (University of Padua), Salvatore Pappalardo (University of Padua), Massimo De Marchi (University of Padua)

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POSTER EXIBITHION

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The posters will be exhibited in the Foyer for all days of the conference.

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718	Liwen, Li	Empowerment into Zero-Net Carbon Transformation
669	Cocchioni, Francesco	Optimal management of HVAC plants using Artificial Intelligence algorithms and Advance Control Systems
526	Van der Roest, Els	A nexus approach to energy and water in neighborhoods
572	Abdulnabi Ali, Abeer	Transformative Solutions in the Global South: Addressing Solid Waste Management Challenges in Jakarta
509	Alexandra, Beldiman	Shrinking cities – A specific phenomenon of urban dynamics
635	Cosmi, Carmelina	The IBIS ECO project: a holistic approach for improving energy efficiency, building comfort and health in public buildings
554	Gorrini, Andrea	Nature-based Approach to Mitigate Vehicular Traffic and Air Pollution Beyond SUMPs
570	Lilli, Aikaterini	Enhancing Nature Based Solutions by incorporating digital innovation and infrastructure in Chania
614	Rivas, Silvia	Global Covenant of Mayors: world-wide implementation comparative analysis
700	Ernsteins, Raimonds	Municipal pro-environmental behaviour governance: multi-sector approach studies and energy citizenship developments in Latvia
712	Díaz de Garayo, Sergio	Next generation of individual heat pumps for passive houses based on thermoelectricity integrated with smart grids
596	Farinea, Chiara	Digital technologies for the co-design of public space: SuperBARRIO in Nantes
680	Visetti, Pietro	Encyclopenergy: A trojan horse for the renovation wave
657	Karakislak, Irmak	A cooperative of their own: Gender implications on renewable energy cooperatives in Germany
679	Trevisan, Riccardo	A Governance Framework For Local Energy Communities

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- 690 Ghiani, Emilio Energy communities as an opportunity for the regeneration of small and depopulated villages. The case of Masullas
- **636** Sassenou, Louise-Nour University Energy Community: Promoting a participative, local and decarbonized urban energy transition from the Universidad Politécnica de Madrid
- 542 López-Nores, Martín rurAllure: Personalized trips through points of interest in the rural surroundings of European pilgrimage routes
- 701
 Ernsteins, Raimonds
 Sustainable urban mobility governance system development practice: complementary governance content, stakeholders and instruments
- 522
 Sepe, Marichela
 New technologies and public spaces: supporting sustainable urban policies
- 693Ferreira
Crispim,
SamaraDesign for territories and green economy: a strategic
approach to sustainable tourism and local
development in Italian inner areas
- 722 Dudka, Aurore Are shareholders actively involved in Energy Communities? Insights from two large European projects

SPECIAL EVENTS

Alongside scientific sessions, SSPCR 2022 gives attendants the opportunity to participate in special events organised by partner institutions and projects.

19th July 2022

- Workshop: Planning a human-centric Positive Energy District Organiser: SMARTBEEJS (H2020 Marie Curie Project)
- Sharing the experiences on Positive Energy Districts: Lessons learned from Annex 83 Organiser: IEA-EBC Annex 83

20th July 2022

Digitalisation of energy systems through the lens of energy democracy and social inclusion: the Trento case study Organiser: ROLES (JPI Project)

21st July 2022

- Pushing e-mobility forward Organiser: RINA
- Heritage cities' energy transformation: lessons and experiences on legal and regulatory restrictions, new technological solutions and digitalisation Organiser: POCITYF (H2020 Project)
- Climate justice in future cities: geographical perspectives for inclusive urban resilience and adaptation Organiser: JEAN MONNET Centre of Excellence
- The Power of Suggestion: Grassroots City Imaging to Inspire Change Organiser: Change your Street

22nd July 2022

- You got the power! Energy Citizenship for Europe in Transition in the **GRETA** project experience Organiser: GRETA (H2020 Project)
- Batteries on wheels for the regional energy systems of the future -Decarbonisation and automation vehicle mobility as support of the energy transition

Organiser: EVA Project



Workshop: Planning a human-centric Positive Energy District

Organised by: SMARTBEEJS (H2020 Marie Curie Project)

Tuesday, 19th July 2022 –9.00h -13.00h (Seminar 1+2)

Description:

The MSCA-ITN project Smart-BEEjS aims to find new human-centric solutions to the implementation of Positive Energy districts. In this workshop that can simulate the process of planning a PED. The goal of this workshop will be to allow participants to engage and work on challenges related to reaching PED objectives, with the ultimate goal of planning together a holistic PED project.

Programme:

Part 1 – Speaker presentations

The first part of the event will see the keynote speakers present their experiences working with PED case studies and the energy transition in general. We will explore these issues with a multi-disciplinary perspective. In particular we will discuss techno-economic aspects of PED implementation, energy poverty and how PED interventions may alleviate it, citizen engagement in the energy transition, and aspects related to Energy Communities.

The speakers will end their presentations talking about challenges in their work, leading us to Part 2 of the workshop after the coffee break.

Part 2 – Workshop

Based on their own research and experiences, participants will be split into small groups of 8-10 people to elaborate more on the challenges presented by the speakers. Participants will then present back to the speakers how their research could contribute to tackling the issues highlighted by the speakers.

Moderators:

Nicolas Caballero (Eurac Research) - Early-Stage Researcher

Pietro Zambelli (Eurac Research) – Senior Researcher

Sharing the experiences on positive energy districts: lessons from Annex 83

Organised by: IEA-EBC Annex 83

Tuesday, 19th July 2022 - 14.00h -18.00h (Seminar 1+2)

Description:

Positive Energy Districts (PEDs) are viewed as urban areas capable of generating a surplus of net renewable energy and achieving net zero carbon emissions. The design of PEDs includes a variety of aspects to be taken into consideration, ranging from technological to flexibility and smart control issues, sustainability assessment implications and guidelines for PED planning and implementation. In this framework the activities of the International Energy Agency –Energy in Buildings and Communities IEA-EBC Annex

83 "Positive Energy Districts", aim at creating a shared in-depth framework for PED definition, design, and applications (annex83.iea-ebc.org/).

research

Programme:

The idea of the event is based on the presentation of the Annex 83 main outcomes and results to be shared among stakeholders organised in small breakout groups, in which participants will rotate. Group discussions will be organised to foster the discussion and encourage for a fruitful exchange of ideas.

Presentations:

- The main outcomes and results of Subtask A "Definitions and context"
- The main outcomes and results of Subtask B "Methods, Tools and Technologies for Realizing Positive Energy Districts"
- The main outcomes and results of Subtask C "Organizing principles and impact assessment"
- The main outcomes and results of Subtask D "Demos, implementation and dissemination"

Moderators:

Francesco Guarino, University of Palermo

Francesco Reda, VTT Technical Research Centre of Finland

Digitalisation of energy systems through the lens of energy democracy and social inclusion: the Trento case study

Organised by: ROLES project

Wednesday, 20th July 2022 – 14:00-16:00 (Seminar 1)

Description:

Digitalisation of energy infrastructure is supposed to enable electric mobility, smart charging, residential energy monitoring and renewable energy integration for a transition to low-carbon energy systems. It is expected to play a key role to achieve a deep decarbonisation and enhancing efficient and affordable energy use for all at the same time. However, whether it delivers what it promises is open to discussion. Digitalisation may rise or exacerbate certain problems or injustices, for example related to data privacy, governance processes, democratic processes, outcomes, and goals. The JPI Climate SOLSTICE funded project ROLES analyses how ongoing digitalisation of energy infrastructure in three mid-sized European cities intends to accelerate the decarbonisation, avoiding new inequalities and vulnerabilities and reducing old ones. ROLES is finally intended to identify pathways to Digitalise for Deep Decarbonisation (DDD) in socially and environmentally just ways.

By now, ROLES has analysed the digitalisation processes in three cities and sectors: the diffusion of smart energy meter 2.0 in the residential sector in Trento (IT); the changes in public electric mobility system in Bergen (NO); and the management and organisation of



solar neighbourhood in Brighton (UK). About 30 interviews with experts and 30 interviews with citizens have been carried out and analysed in each case study, while a process composed by deliberation events is kicking off for identifying and visualising how power dynamics across stakeholders' impact pathways for DDD.

By analysing the digitalisation process and defining DDD pathways, the ROLES project contributes to the study of transformative and democratic governance, with an emphasis on the distribution of power and the relevance of accountability. ROLES contributes also to the study of citizens' agency, with an emphasis on justice, social inclusion, and vulnerability.

Programme:

The side event will kick-off by presenting insights from the first year of the project. Participants are asked to critically review the activities and results of the Trento case study. The aim of the event is to open a discussion on how the themes of the ROLES project fit into the wider and current global context (COP26, Covid-19 pandemics, war etc.), emphasising the relation with the debate on climate and energy democracy.

The side event will have a hybrid format, with some experts participating via online platform.

Moderator:

Sonia Gantioler (Eurac Research) – Senior research

Pushing e-mobility forward

Organised by: RINA

Thursday, 21st July 2022 - 9.00h -11.00h (Seminar 1)

Description:

The purpose of this workshop is to provide an interactive space, where researchers, practitioners and private sector will share their experience and challenges in mainstreaming e-mobility. It aims at presenting the challenges and opportunities for electric transportation in different contexts. During the workshop several speakers will present the outcomes of different European projects (related with e-mobility) in which they are involved (STURDUST, eSMART, RESPONSE, mySMARTLife, INCIT-EV, POCITYF), tackling the problem from different angles. RINA-C, who organises this session, is involved in the RESPONSE project and aims at creating synergies with ongoing European projects and learn best practices in the e-mobility sector that can be useful for the RESPONSE project itself.

Programme:

The presentations and discussion will be articulated as follows:

Sebastian La Fleur (TNO): "An analysis on charging public transport buses using PV panels by utilizing energy flexibility"

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- eurac research
- Maurizio Arnone (LINKS): "A tool to support cities in user-centric planning of the charging infrastructure network"
- Marie Sevenet (EIFER): "Optimal location of charging point within a city"
- Marko Paakkinen (VTT): "Sharing of charging infrastructure as means to speed up electric commercial vehicle growth":
- Cristina Cavicchioli (RSE): "Tools and strategies for e-mobility development in a challenging territory"
- Alyona Zubaryeva (Eurac Research), Marco Cattani (Trentino Mobilità): "Lastmile logistics with electric vehicles, innovative business models and opportunities, Trento case study":
- Paola Astegiano (RINA-C): "Evaluation of ASSURED outputs and definition of business cases"

Moderators:

Paola Astegiano (RINA-C) – Project Manager Innovation for Energy&Mobility

Federica Fuligni (RINA-C) – Business Developer Innovation for Energy&Mobility

Heritage cities' energy transformation: lessons and experiences on legal and regulatory restrictions, new technological solutions and digitalisation

Organised by: POCITYF project and EURADA's Smart Heritage Cities Working Group (WG)

Thursday, 21st July 2022 - 9.00h - 13.00h (Seminar 2)

Description:

The side event will be held in the framework of both the POCITYF project whose major goal is to deliver a set of Positive Energy Blocks (PEBs; balance between energy consumption and production at local level) in the Lighthouse cities of Evora (PT) and Alkmaar (NL) and boost their replication in 6 fellow cities and EURADA's Smart Heritage Cities Working Group (WG) which was established to gather expertise on the topics of smart cities and communities and PEBs in cultural heritage areas.

Programme:

The side event will focus on the challenging issues heritage cities face in transforming and adapting their historic and protected sites to carve a positive energy future. It will take the format of an interactive hybrid discussion in two-parts and will last for 180 minutes.

Part 1 – Round table

- Ceciel Nieuwenhout and Laia Guitart Caritg (University of Groeningen): "Legal/regulatory framework for sustainable cities and positive energy districts"
- Niels Sijpheer (Van Alckmaer; online): "Preparing the replacement of 179 cultural-historical homes of Bloemwijk"

Other speakers:

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- Nuno Bilo (Municipality of Évora) Evora Site Manager POCITYF: "Sharing experience on the topic of Smart Cities: Evora case study"
- Susanne Nieuwenhuijs (Alkmaar municipality)- Alkmaar Site Manager POCITYF: "Sharing experience on the topic of Smart Cities: Alkmaar case study"
- Ourania Kostara (Municipality of Ioannina) Site Manager POCITYF: "Sharing experience on the topic of Smart Cities: Ioannina case study"
- □ Julia Pereira (EDP Energias de Portugal) POCITYF Project Manager: "Sharing experience on the topic of Smart Cities: Hvidovre case study"
- Tadej Vunderl (Celje Municipality)- Celje Site Manager POCITYF: "Sharing experience on the topic of Smart Cities: Celje case study"
- □ Leo Weinek (Ujpest Municipality)- Ujpest Site Manager POCITYF: "Sharing experience on the topic of Smart Cities: Ujpest case study"
- Jose Villar (Granada Municipality)- Granada Site Manager POCITYF: "Sharing experience on the topic of Smart Cities: Granada case study"
- Luigi Ranieri (Bari Municipality)- Bari Site Manager POCITYF: "Sharing experience on the topic of Smart Cities: Bari case study"

Part 2 - World café

Participants will be invited to distribute among small groups to elaborate more on subquestions related to the topic.

Andreas Jaeger (ICLEI): "Untapping the transformation potential of neighbourhood-level regeneration schemes"

Moderators:

Ivana Rae Almora (EURADA)

Julia Pereira (EDP)

Andreas Jaeger (ICLEI)

<u>Climate justice in future cities: geographical perspectives for inclusive urban</u> resilience and adaptation

Organised by: JEAN MONNET

Thursday, 21st July 2022 - 14.00h - 18.00h (Seminar 2)

Description:

The Climate Justice Jean Monnet Centre of Excellence, that has been funded with support from the European Commission, responds to the need of bringing the issues of Climate Justice and just transition recognized in the EU Green Deal framework into the dialogue between the academic world, society and policy makers. The Centre works as hub generating, exchanging and gathering scientific knowledge, practices, expertise on EU climate justice policies at International, European, National and local level among research, institutions, civil society.

Programme:

Prof., Michael Goodchild (University of Santa Barbara, US) – Role in the project, if needed: o "Climate justice in the city: perspectives from GIScience and Voluntereed Geography". He is the foremost expert in Geographic Information Science, as the science of collecting, analysing, digitising and using geographic data: from satellite navigation systems in cars and town planning to flood prevention and managing disease outbreaks, as well as the emerging IoT. He conied Voluntereed Geography and the concept of "Citizens as sensors".

Part 1

- Niloofar Mohtat (University of Waterloo): "Advancing climate justice through participatory mapping: green and blue infrastructure planning for adaptation to climate-induced floods in Thorncliffe Park, Toronto",
- Sonny Masoni (Advanced Master GIScience and UAV, Department of Civil, Environmental and Architectural Engineering (ICEA), University of Padua): "Borning cities in the climate crisis: mapping refugee camps by an open GISbased workflow"
- Sara Bonati (Università degli studi di Firenze): "The Coast isn't Clear: Climate Justice Implications of Communicating Urban Flood Risk in Affluent Vulnerable Communities"
- Valeria Todeschi (Department of Civil, Environmental and Architectural Engineering (ICEA), University of Padua): "Monitoring Heat Waves and Urban Heat Islands for Inclusive Mitigation Strategies: A Case Study in the Municipality of Padua (Italy)"

Part 2

- Stefania Benetti (Dipartimento di Sociologia e Ricerca Sociale, Università degli Studi di Milano-Bicocca): "Relational values of urban green spaces in Milan"
- Manuel Bayón Jiménez (Colectivo de Geografía Crítica del Ecuador): "A climate justice approach to urbanisation processes in the South"
- Francesco Facchinelli (Department of Historical and Geographic Sciences and the Ancient World, University of Padova): "Extreme Citizen Science for Climate Justice: mapping populated centers affected from gas flaring in the Ecuadorian Amazon Region"
- Daniele Codato (Jean Monnet Centre of Excellence on Climate Justice, Department of Civil, Environmental and Architectural Engineering, University of Padova): "Oil development and urban jungles in Ecuadorian Amazon: expansion and territorial changes in 'El Coca'"

Moderators:

Massimo De Marchi (DICEA, University of Padua and Academic Coordinator of the Climate Justice Jean Monnet Centre of Excellence)

Salvatore Pappalardo (DICEA - University of Padua, CJ Researcher and Member of Scientific Committee)

Francesca Peroni (Member of Scientific Committee of the Climate Justice Jean Monnet Centre of Excellence)

Keynote speaker:

Michael Goodchild (University of Santa Barbara, US) – Role in the project, if needed:

"Climate justice in the city: perspectives from GIScience and Voluntereed Geography". He is the foremost expert in Geographic Information Science, as the science of collecting, analysing, digitising and using geographic data: from satellite navigation systems in cars and town planning to flood prevention and managing disease outbreaks, as well as the emerging IoT. He conied Voluntereed Geography and the concept of "Citizens as sensors".

The power of suggestion: grassroots city imaging to inspire change

Organised by: Change Your Street

Thursday, 21st July 2022 - 16.30h -18.00h (Seminar 1)

Description:

'Change Your Street' is an interactive project dedicated to promoting sustainable change in public space around the world, demonstrating through suggestive images, renderings and sketches the potential to create more sustainable, liveable cities. @changeyourstreet is an online portal (instagram.com/changeyourstreet) which invites designers, urbanists, planners and the general public to contribute ideas to improve the streets and public spaces of our cities. The profile serves as an archive of exemplary projects, both large and small, that have transformed or aim to transform their urban context.

Programme:

Part 1 – Presentation

Skye Sturm and Rinaldo Del Nero (Change Your Street)

"The City We Want: Visions for Urban Sustainability" - To prepare and inspire workshop participants, the speakers will present exemplary projects which demonstrate improvements to the sustainability and liveability of public space in a variety of global cities of different scales. These will include both proposed projects not yet realised as well as completed interventions with grassroots beginnings.

Part 2 – Workshop

Participants will be invited to work singularly or in pairs to brainstorm urban interventions for selected public spaces or streets in a variety of cities. Participants will use the materials provided and a variety of techniques (collage, sketch, etc.) to create images which represent the potential urban transformations at these sites. Participants will be invited to share their proposals at the conclusion of the workshop as time allows. The collective output from the workshop will be documented and shared via the @changeyourstreet portal.

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Moderators:

Skye Sturm (Studio Del Nero)

Rinaldo Del Nero (Studio Del Nero)

You got the power! Citizenship and energy transition in the GRETA Project experience

Organised by: GRETA Project

Friday, 22nd July 2022 - 9.00h - 11.00h (Seminar 1)

Description:

The project GRETA (Green Energy Transition Action), funded by the European Programme Horizon 2020 and lasting from May 2021 to October 2023, aims at understanding the conditions and barriers to the emergence of energy citizenship and at developing operative instruments to support communities in being more involved in the energy sector and in supporting the decarbonization process in their local context.

Programme:

To further explore this issue together, the workshop will be articulated in two core moments: first, keynote speakers will set the discussion framework on the topic with a multidisciplinary perspective; second, an interactive session with participants will be teased through some questions and suggestions related to energy justice and energy communities to foster the discussion.

Welcome and introduction

- Danila Longo (Department of Architecture, UniBo)
- □ Part 1 Keynote speakers (9:00-10:30)
- Carlo Alberto Nucci (National Representative of the EU Mission 'Climate Neutral and Smart Cities'. Department of Electrical, Electronic and Information Engineering, UniBo)
- Sabine Preu β (Fraunhofer Institute for Systems and Innovation Research ISI)
- Saveria Olga Murielle Boulanger and Dr. Martina Massari (Department of Architecture, UniBo)

Part 2 – Q&A with participants (10:30 – 11:15)

Once the keynote speakers have set the knowledge framework, participants will be stimulated through an interactive online tool (Mentimeter) which will tease the participants with inputs and suggestions on the topic of energy citizenship, with an operational focus on the tools and pathways that lead to inclusive decarbonization processes; the presentation will then generate a cloud collecting questions and reflections from the audience. Keynote and moderators will discuss with participants on this base.

Moderators:

Martina Massari (Department of Architecture, UniBo)

Saveria Olga Murielle Boulanger (Department of Architecture, UniBo

Batteries on wheels for the regional energy systems of the future. Decarbonisation and automation vehicle mobility as support of the energy transition

Organised by: EVA Project

Friday, 22nd July 2022 - 11.30h - 13.00h (Seminar 2)

Description:

The project EVA co-financed by ERA-Net SES and lasting from 2019 to 2022 aims to find new solutions to deal with Decarbonisation and automation vehicle mobility as support of the energy transition.

Programme:

The event will be articulated in a series of presentations which will consent to further discuss the issue:

- Wolfram Sparber (Eurac Research) Head of the Institute for Renewable Energy - General introduction: Autonomous electrical vehicles. Setting the scene: trends and forecasts for the e-mobility sector
- Andrea Grotto (Eurac Research): Mobility of tomorrow scenarios: diffusion of autonomous vehicles and their implications
- Charitha Buddhika Heendeniya, (SUPSI): Optimal charging management of autonomous and electric vehicles.
- Dimitrios A. Karras, (NKUA): Integration of EV and Grid IES profiles and relevant business models.
- Roberto Vaccaro (Eurac Research): The impact of autonomous mobility on future business models.

Moderator:

Albedo Bettini (SUPSI) - EVA's Project Manager

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SOCIAL ACTIVITIES

Social dinner - Laimburg Winery



Photo by Ivo Corrà

Laimburg Winery is part of the homonymous Laimburg Research Centre and processes grapes from 20 hectares of vineyards situated in all wine-growing zones of Alto Adige, with different soils and locations between 200-750 m above sea level. As a model company in viticulture and cellar management, the priority is to bring the special character of the Alto Adige grape varieties and its terroir into the glass and to combine it with the best tradition of a long wine-growing culture in the Dolomites region. You can have dinner in the famous rock cellar with a wine tasting and also a guided tour at the end of the evening through the cellar.

Laimburg 6, I-39040 Ora/Vadena - Phone: +39 0471 969 706

When: 20th July 2022

Meeting Point: 18:30 in front of NOI Techpark

Two buses will take us from NOI Techpark directly to the winery.

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Back to Bolzano: a shuttle will leave at 22:15 and a second one at 23:00. They will make the following stops:

- Four Points by Sheraton Hotel
- □ NOI Techpark
- □ Walter Square in the centre of Bolzano.

Summer aperitif



Don't miss the opportunity to get to know the NOI community! Enjoy drinks and beats from 18:00, Electronic Music by MIK with Toni Telefoni, DJ FedI and Lazent.

Register at the registration desk and get your voucher for an "Aperitivo" on the square of the NOI Techpark.

When: 21st July from 18:00 to 24:00

Where: NOI Techpark

TOURS AND FIELD VISITS

NOI Techpark

Don't miss the possibility to discover the NOI Techpark: register for one of our guided tours!

When:

- □ 20th July 2022 16:30 17:30
 □ 21st July 2022 10:00 11:00

Minimum number of participants: 5

Please note that the time of the visits may change. Ask at the Registration Desk for further information.

Eurac Research Labs

The laboratories of the Institute for Renewable Energy are a contact point between scientific research and private companies.

In the fields of technology, efficient building systems and solar energy, researchers support companies and industrial partners that are testing and implementing innovative energy technologies. We perform services including laboratory testing, pilot-plant monitoring, as well as simulating and optimizing energy systems. In every project, our researchers use simulations, experimental tests and creation of prototypes to turn an innovative concept into a concrete project.

With dedicated laboratories, the institute offers test services studying heat pumps, both thermally and electrically driven, and solar photovoltaic modules, and measuring the thermal properties of passive and active solar building components. Extensive dynamic simulations are performed to enhance the product development process and virtually integrate the component in an overall system.

When:

- □ 20th July 2022 16:15 17:45
- □ 21st July 2022 16:15 17:45

Minimum number of participants: 5

Maximum number of participants: 15

Eurac Research staff reserves the right to change the time of the visits. Please sign up at the Registration desk.

4th International Conference SSPCR

Smart and Sustainable Planning for Cities and Regions 2022 $\, { t research} \,$

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terraXcube

terraXcube is Eurac Research's Extreme climate simulation centre at the NOI Techpark in Bolzano (South Tyrol/ Italy).

Within our chambers, we can create all the environmental conditions of our planet, up to extreme values. We combine hypobaric and altitude technology with state-ofthe-art environmental simulation, aiming to investigate the effects of extreme climate conditions on humans, ecological processes and industrial products.

The climate chambers differ in size and equipment. They can accommodate people, plants and other living organisms even over more extended periods and offer space also for huge machines and products.

When:

□ 21st July 2022 9:00 – 10:00

Minimum number of participants: 5

Maximum number of participants: 40

Please note that all participants are required to wear a mask.

4th International Conference SSPCR**EUFAC**Smart and Sustainable Planning for Cities and Regions 2022IESEAICH

THE VENUE: NOI TECHPARK – SOUTH TYROL'S INNOVATION DISTRICT



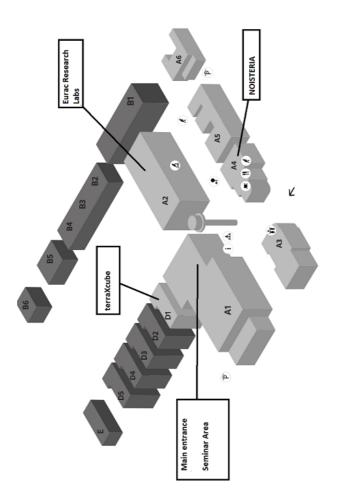
Photo by Alessandra Chemollo

NOI Techpark is South Tyrol's innovation district. A stimulating surrounding for companies, institutions, and the university to collaborate on research and development projects. The hub was opened in October 2017 and has since become a place where over 50 companies, 30 start-ups, 3 faculties of the Free University of Bozen-Bolzano as well as 3 research institutes are carrying out research. 1000 people in total are working on improving energy efficiency, living conditions, comfort and safety, as well as on developing more agreeable and more sustainable food and on automating everyday processes. For doing so, they can make full use of 45 laboratories - from specific analysis facilities for building materials and building components, to laboratories for the food sector, to fab labs for hardware and software prototyping. Research and development are promoted in the four technology fields that constitute South Tyrol's strengths: Green, Food, Digital and Automotive/Automation. Individual consultations, networking, supervision of research and development projects as well as theme-based events, all this is happening in these four areas. In special Innovation Management Workshops, companies are supported in in product development and with innovation initiatives in their daily practice. In the Start-up Incubator, start-ups receive help with setting up their company and are assisted through targeted programmes.

Further information: www.noi.bz.it

FLOOR PLAN: SSPCR ACTIVITIES @ NOI TECHPARK

NOI Techpark area



4th International Conference SSPCR**CUTAC**Smart and Sustainable Planning for Cities and Regions 2022ICSCAICh

Main building (A1) – Seminar Area

Floor: -1



HOW TO GET FROM THE CITY CENTRE TO NOI TECHPARK?

NOI Techpark is located in the industrial area of Bolzano, but it is not that far away from the city centre. You have three main possible ways to get to NOI Techpark from the city centre (and back):

BUS

NOI Techpark is directly linked to the city centre of Bolzano via several bus routes, among which there are some running every 10 minutes:

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- □ 10B □ 110 □ 111
- CAR



If you prefer to use your own car, there are many free parking lots available around the building (via A. Volta and via Ipazia) or you can opt for NOI underground car parking in Via A. Volta $17(1 \notin h)$.

There are also charging stations for electric cars.

TRAINLast but not least - the train. The city centre of Bolzano is
directly linked with the industrial area (Bolzano Sud) via a
train which only takes 5 minutes to cross the city. There are
trains to Merano and Bolzano every 30 minutes.

You can reach NOI Techpark from the train station of Bolzano Sud within 10 minutes.

Furthermore, there are also **car sharing** and **bike sharing** stations in front of the NOI Techpark. Under the following links you will find useful information and the stations in the city.

Car sharing: https://www.carsharing.bz.it/en/stations/

Bike sharing: https://www.ecospazio.it/customers/bike-sharing/bolzano/

4th International Conference SSPCR**CUTAC**Smart and Sustainable Planning for Cities and Regions 2022ICSCAICh



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INSTRUCTIONS AND PRACTICAL INFORMATION

Instructions to speakers to upload presentations onsite

Please bring your presentation on a USB pen drive and save it on the desktop of the computer in the room where you are presenting (please note that our computers work with Microsoft programs).

Please name your presentation as follows: ID of your abstract + Name + Surname.

There will be an AV technician or a staff member around to help. If you need technical support, please go to the registration desk, or call one of these two numbers:

- Maria Pruss +39 334 638 3970
- □ Stefan Wieser +39 337 126 0226

Timing

Each speaker will have 18-15 minutes for their presentation, including questions. We kindly ask you to comply with the allotted time.

With the help of timecards, the chair of the session will tell you when you have only 5 minutes left, 2 minutes left and when you have to stop. Please follow these instructions to contribute to the good and punctual running of the conference. If you overrun your time slot, the chair is entitled to stop you.

Assistance/Information

In case of technical problems during your session or any other needs please call the number: +39 3346383970 (Maria Pruss).

Practical information

Conference location NOI Techpark Via A. Volta 13/a 39100 Bolzano/Italy www.noi.bz.it

Covid-19 measures

In order to prevent the spread of COVID-19 and to ensure a safe experience for all participants, the congress organiser will strictly comply with the respective

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regulations issued by the Italian authorities. In addition, the congress organiser has the right to issue even stricter regulations.

Currently (05.07.2022) there is no mask requirement for events in Italy, but we highly recommend wearing one.

For the duration of the congress, the legal regulations in force at the time of the event will apply. By registering and attending the conference, you agree to comply with the regulations in force.

Please note that regulations may change with short notice, so please follow the instructions of the organisers on the day of the event.

Internet access

We offer open internet access to all participants. Please connect to the wireless network called "OpenAir" (no password required).

Photography

Elements of the conference may be photographed for press and future purposes. If you do not wish to be included in these images, please speak to our staff at the Registration desk.

Recycling

We are committed to reduce resources used in the Conference by sourcing supplies and food locally, using recycled and recyclable materials and reducing, reusing, and recycling conference materials to every possible extent. We kindly ask all delegates to recycle discarded materials and to help us in our efforts to sort materials.

Water

We have good drinking water in Bolzano and South Tyrol. You can bring your drinking bottle and refill it any time and nearly everywhere.

Smoking

Smoking is not allowed inside the building or in any public place, including restaurants and bars. Outside you will find smoking areas.

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Exclusion of liability

The organisers decline all liability for any losses, accidents or damages that may occur for whatever reason to persons or goods. Participants and accompanying persons take part in the conference and in social events at their own responsibility.

Security

We encourage you to keep your personal possessions with you and to be aware of security at all times. Bags and coats can be left in the cloakroom. However, the cloakroom will not be staffed and we take no responsibility for any of the items. For safekeeping, we advise you to leave your travelling bag at your accommodation, if possible.

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SSPCR 2022 SCIENTIFIC COMMITTEE

PROJECT MANAGER & SCIENTIFIC COMMITTEE COORDINATOR Adriano Bisello – Eurac Research, Institute for Renewable Energy

EURAC RESEARCH MEMBERS

Daniele Vettorato – Eurac Research, ISOCARP Institute Jessica Balest - Eurac Research, Institute for Renewable Energy Joana Bastos - Eurac Research, Institute for Renewable Energy Silvia Croce - Eurac Research, Institute for Renewable Energy Valentina D'Alonzo - Eurac Research, Institute for Renewable Energy Sonia Gantioler - Eurac Research, Institute for Renewable Energy Roberto Monsorno - Eurac Research, Center for Sensing Solutions Andrea Omizzolo - Eurac Research, Institute for Regional Development Elisa Ravazzoli - Eurac Research, Institute for Regional Development Silvia Tomasi - Eurac Research, Institute for Renewable Energy Alyona Zubayeva - Eurac Research, Institute for Renewable Energy

EXTERNAL MEMBERS

Vicky Albert-Seifried - Fraunhofer Institute for Solar Energy Systems ISE

Inger Andresen - Department of Architecture and Technology, Norwegian University of Science and Technology – NTNU

Maria Beatrice Andreucci - Sapienza University of Rome, Department of Planning, Design, Technology of Architecture

Monica Bernardi - Dept. Sociology and Social Research, Milano-Bicocca University

Marta Bottero - DIST Interuniversity Department of Regional and Urban Studies and Planning – Politecnico di Torino

Luca Bottini - Dept. Sociology and Social Research, Milano-Bicocca University

Caroline Cheng - SINTEF

Chiara D'Alpaos - Department of Civil Environmental and Architectural Engineering – University of Padova

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Pietro Elisei - ISOCARP

Francesco Guarino - Department of Engineering, University of Palermo

Denia Kolokotsa - Chemical & Environmental Eng. School, Technical University of Crete

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Oscar Seco Calvo - Ciemat

Luca Tricarico - Department of Business and Management, Luiss University

Xingxing Zhang - Department of Energy and Construction Engineering, Dalarna University

ORGANISING COMMITTEE

Maria Pruss - Eurac Research, Meeting Management

Alessandra Barbieri – Eurac Research, Institute for Renewable Energy

Alice Borsari – Eurac Research, Institute for Renewable Energy

Sarah Gunsch – Eurac Research, Institute for Renewable Energy

CONTACTS

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Partners



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ANNEX 83















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