

First Workshop of EUT+ Sustainability Lab

This online workshop aims at developing collaborations in the field of sustainability sciences in the broad sense amongst the partners of the EUT+.

The first day focusses on introducing active research in the field. Each presentation will consist of a onepager.

The second day focusses on identifying common interests and collaboration possibilities.

Program 14. - 15. June 2021 All times given are CEST.

Place: Online via Zoom <https://h-da-de.zoom.us/j/92559140063>

Overview:

14. June	14.00 hrs.	Plenary Session: Sustainable Transition (6)	
		Track 1	Track 2
14. June	14.45 hrs.	Renewable energies (12)	Landuse, agriculture, food (13)
14. June	15.45 hrs.	Energy and resources efficiency (9)	Water and water management (9)
14. June	16.30 hrs.	Circular economy, material recycling, economy (16)	Smart cities, urban planning, mobility, buildings (17)
14. June	17.30 hrs.	Wrap-up of day	
15. June	14.00 hrs.	Decision makers, risk, crisis management (15)	Monitoring, IT, telecommunication, sensors (15)
15. June	15.15 hrs.	Roundtables on opportunities and cooperation possibilities	
15. June	17.00 hrs.	Closing (1)	

Organisational information:

- Request for access to Sustainability Lab community on Whaller: <https://ethercalc.h-da.de/6s4lwifis6w9>

- Preparation for roundtables: based on Europe Work Programme 2021-2022, 8. Climate, Energy and Mobility

DAY 1 14. June 2021

14:00	Nicole Saenger: Welcome and introduction
14:10	Plenary session: Sustainable Transition - Chair: Nicole Saenger
14:10	Jan Cornelius Schmidt: The Precursor of the Concept of Sustainable Development: On Hans Jonas' Foundation of Environmental and Sustainability Ethics
14:15	Bertrand Guillaume: The Anthropocene as a Technocene, and the Future of Knowledge
14:20	Tatiana Reyes: The evolution of the values of the actors of sustainable design
14:25	Nadège Troussier: Design for sustainability: from weak to strong sustainability
14:30	Eric Châtelet: Sustainable transition of social-technical-ecological systems in hazardous contexts with a multicultural approach: a framework for sustainability lab researches
14:35	Nicos Souleles: Embedding competencies in sustainability in Higher Education (HE) curricula

14.45 – 15:30	Track 1: Session 1 Renewable energies - Chair: Mircea Giurgiu
14:45	A. Breicher, M. Löw, M. D. Geyer: Experimental Investigation on laminar Bunsen flame configurations of methane/hydrogen and partially dissociated ammonia compositions
14:48	S. Peratikou, A.G. Charalambides: PREDICTING CLEAR-SKY PV PRODUCTION USING ONLY PV ENERGY OUTPUT
14:51	Gatis Bazbauers, Andra Blumberga, Dagnija Blumberga: Simulator for transition to sustainable energy systems
14:54	Kaspars Kroičs: DC-DC Converter based Supercapacitor Braking Energy Recovery System
14:57	Bogdan VARGA, Nicolae BURNETE, Florin MARIAȘIU, Calin ICLODEAN, Nicolae CORDOȘ, Nicolae Vlad BURNETE, Dan MOLDOVANU: Automotive Engineering Research Team
15:00	Dan D. Micu, A. Ceclan, D. Stet, M. Cretu, L. Darabant, L. Czumbil, S. Cirstea, C. Darab, T. Farkas, D. Jurj, A. Muresan, C. Muresan: Energy Transition Research Center - research results from Horizon 2020 Projects implementation
15:03	Loránd Szabó, Daniel Fodorean, Dan-Cristian Popa: Research interests for sustainability at the Centre of Applied Researches in Electrical Engineering and Sustainable Development (CAREESD)
15:06	Dorin Petreus, Toma Patarau, Radu Ețz, Eniko Szilagyi, Andreea Ignat: Renewable energy microgrid using hardware-in-the-loop emulators for energy management testing
15:09	Rositsa Velichkova: Utilization of wave energy with hybrid system
15:12	Antonio Viguera-Rodríguez, Juan T. García, José M Carrillo, F.J. Pérez de la Cruz, Luis G. Castillo: Integration of water and renewable energy systems
15:15	J.J. Lopez Cascales, A.J. Navarro, M.A. Gómez: Improved Gas Diffusion Layers for a greener future
15:18	A. Molina-García, F. Vera-García: Integration of renewable resources for the treatment of brines in a zero discharge process (Life-Desirows)
	Short break

15:45 – 16:15	Track 1: Session 2 Energy and resources efficiency - Chair: Nicole Saenger
15:45	Frank Schael: More sustainable continuous flow chemistry with milli/microreactors
15:48	Stylianios Yiatros: Bio-inspired structural Design and Circular Economy in the construction sector
15:51	Yuri Dekhtyar, Sanda Kronberga: Nanostructured Polymer Composite Destruction Identification because of electron emission

15:54	Florin DOMNIȚA, Carmen MĂRZA, Ancuța ABRUDAN, Tania RUS, Gelu CHISĂLIȚĂ, Roxana MARE, Raluca MOLDOVAN, Georgiana CORSIUC, Octavian POP, Constantin CILIBIU: SYSTEMS FOR PROVIDING INDOOR COMFORT IN ENERGY EFFICIENT BUILDINGS RESEARCH GROUP
15:57	Mihai Dragomir: Deep Decarbonization Study in Resource Intensive Industries
16:00	Silviya Boycheva, Denitza Zgureva: Resource recovery of solid by-products from fuel combustion for sustainable environmental applications: a waste-to-zeolite utilization approach
16:03	Sergio Sánchez-Segado, Víctor Manuel Ortíz-Martínez, María José Salar-García, Luis Javier Lozano Blanco, Carlos Godínez Seoane: CHEMICAL & PROCESS ENGINEERING RESEARCH GROUP
16:06	Ruth Herrero Martín, Juan Pedro Sanz Alarcón, Fernando Illán Gómez: Higher Education for Accomplishing the SDGs-SDG9-Sustainable Energy for all
16:09	Julien Proust, Jérôme Plain: Towards sustainable materials for Nano-optics
	Break

16:30 – 17:30	Track 1: Session 3 Circular economy, material recycling, economy - Chair: Nadège Troussier; Junbeum Kim
16:30	Sandra Hartl, Maximilian Dorscht, Dirk Geyer: Thermodynamic-mathematical process and system analysis of iron as energy source for a climate-neutral circular economy
16:33	Rebecca Niebler, Julian Schenten, Marin Führ: Transformative research paving the way for Digital Product Passports enabling actors' behavioral contributions to a non-toxic Circular Economy
16:36	Julian Schenten: More sustainable chemistry in the leather supply chains
16:39	Iris Steinberg, Kyra Atessa Vogt: Innovative treatment technologies of organic waste
16:42	Michalis Koutinas: Biochemical Systems & Environmental Biotechnology: Waste and Biomass Valorisation for Production of Value-Added Biomolecules
16:45	Ioannis Vyrides: Conversion of CO ₂ to products using zero-valent metals and anaerobic microorganisms
16:48	Claudiu Aciu, Elena Jumate, Florin Babota, Luminița Pleșa, Razvan Iernuțan, Dana-Adriana Iluțiu-Varvara, Daniela Lucia Manea: New building materials made from recycled waste materials
16:51	Stelian Brad: Blue-Green Design for Resilient Economy
16:54	Dilyana Gospodinova, Metody Georgiev, Kostadin Milanov, Todorka Vladkova, Peter Dineff, Margarita Neznakomova: Sustainability Research Aspects in TU-Sofia
16:57	Rafael Pérez Campos, José Fayos Fernández, Juan Monzó Cabrera: Recycling technology to introduce rubber from End-of-Life Tires into production lines as virgin rubbers substitute
17:00	José Antonio Fernández-López, José Manuel Moreno Angosto, José María Obón de Castro, Mercedes Alacid Cárceles, María José Roca Hernández: Sustainability and circularity in the reuse of agri-food waste. Removal by bioadsorption of specific pollutants in aqueous effluents (emerging pollutants, heavy metals, nitrate,..)
17:03	Junbeum Kim: Waste and Material Flow Analysis (MFA) of End-of-life Products and Systems (E-waste, LED lamp, batteries, wind turbine, and PV panels)
17:06	Lofti Benmamas, G. Housset, Antoine Bresch, Ioan Laplanche, P. Leclerc, L. Blanchard, L. Clerget, K. NOmenyo, Y. Bouzidi, G. Lerondel: Sustainability in lighting: Towards the recycling of very low energy consumption LED based lighting
17:09	Patrice Behan, Fionn Ó Fearghail, Christine O'Connor, Michelle Giltrap: Exploring Shellfish By-Products as Sustainable Sources of Blue Bioactivities
17:12	Camila D' Bastiani; David Kennedy; Anthony Reynolds: Anaerobic Granular Reactors - Computational Fluid Dynamics Modelling and Validation -
17:15	Dana Ilutiu: Environmental Quality Analysis and Industrial Wastes Recycling
17:30	End of day 1

14.45 – 16:00	Track 2: Session 1 Landuse, agriculture, food - Chair: Maria Nazaret González Alcaraz
14:45	Menelaos Stavrinides, Vassilis Litskas, Nikolaos Tzortzakakis, Ioannis Vogiatzakis, Athanasia Mandoulaki, Andri Varnava: Sustainable Food from Farm to Fork
14:48	Dimitris Tsaltas: From Farm to Fork via Microbes: A circular sustainable route

14:51	Armands Auziņš: Values-led spatial development planning and value capture instruments for sustainable management of land-related resources
14:57	Anca Mihaly Cozmuta, Anca Peter, Camelia Nicula, Leonard Mihaly Cozmuta, Dania Racolta: Overview on the research of CENTER OF SCIENTIFIC RESEARCH OF ENVIRONMENT, FOOD AND HEALTH SAFETY- PHYSICAL-CHEMICAL ANALYSIS GROUP- CCESMAS
15:00	R. Zornoza, V. Sánchez-Navarro, E. Lloret, D. Soto, J.A. Acosta, S. Martínez-Martínez, MD. Gómez-López: Competitive, resilient and sustainable cropping systems through crop diversification and suitable management of soil
15:03	González-Alcaraz, M.N., Conesa, H.M., Peñalver-Alcalá, A., Risueño, Y., Jiménez-Cárceles, F.J., Álvarez-Rogel, J.: Nature-based solutions of ecological engineering for restoration of polluted and eutrophic ecosystems and agroecosystems
15:06	Mariem Somrani, Pablo Fernández Escámez, Alfredo Palop: Use of nanoemulsions of essential oils to reduce the intensity of food preservation processes
15:09	Gregorio García Fernández: Comprehensive analysis of degraded ecosystems, particularly those affected by metal mining activities, as a preliminary step to the implementation of risk and impact reduction strategies
15:12	B. Gallego-Elvira ¹ , B. Martín-Gorriz, J.F. Maestre-Valero, M. Soto-García, V. Martínez-Alvarez: Improving the environmental footprint and the agro-economic viability of Mediterranean crops irrigated with a combination of conventional and non-conventional resources
15:15	J.A. Fernández, P.A. Gómez, M.D. De Miguel, M.D. Cano, J. Ochoa, C. Egea-Gilbert: Innovation and sustainability in urban agriculture
15:18	Julia Weiss, Marcos Egea-Cortines: Coordination of floral scent emission by the circadian clock
15:21	Theofilos Papadopoulos, Ana Allende, Jose A. Egea, Alfredo Palop Gómez, Pablo S. Fernandez: Water reuse in agricultural irrigation of commercial fields producing leafy greens in South-east Spain
15:24	Francesco S. Giordano, Jesus M. Frias, Lorraine Foley: Food Waste and Sustainability
	Short break

15:45 – 16:15	Track 2: Session 2 Water and water management - Chair: Marlen Vasquez
15:45	Michalis Michaelides: STEAM Project: Sea Traffic Management in the Eastern Mediterranean
15:48	Marlen I. Vasquez: Increasing resilience of blue spaces and their sustainable use
14:54	Arturs Aboltins, Anna Litvinenko, Dmitrijs Pikulins: Smart electronics for agriculture, aquaculture, and fishery
15:51	Juan T. García, José M Carrillo, Antonio Viguera-Rodríguez, Luis G. Castillo: Sustainable urban drainage systems: flood reduction and environmental protection
15:54	José M Carrillo, Juan T. García, Antonio Viguera-Rodríguez, Luis G. Castillo: Analysis of Eco-hydraulic in fluvial systems
15:57	Martínez-Sánchez, J.J., González-Alcaraz, M.N., Gómez-Cerezo, R., Ortigosa, J., Díaz-García, C., Franco, J.A., Guerrero-Brotos, M.M., Arce, M.I., Maxwell, B., Álvarez-Rogel, J.: Bioreactors and wetlands: resilient nature-based environmental engineering systems for water management and sustainable development in areas with intensive use of the territory
16:00	Kevin J Kurian, John F Cassidy and Anthony J Betts: Rapid Electrochemical Detection of Low Levels of Pharmaceutical Compounds in Water Using Ferrocene Carboxylate Mediators
16:03	Lucía Morales: Assessing the Economic Risks of Climate Change - The Greatest Economic Externality
16:06	Maria Antoniou: Water Treatment Laboratory -AQUA: Working towards safeguarding surface water quality
	Break

16:30 – 17:30	Track 2: Session 3 Smart cities, urban planning, mobility, buildings - Chair: Daniel Robles Quiñero
16:30	Albrecht Gilka-Bötzw, Markus Schmidt: New sustainable building materials
16:33	Bernd Steffensen: Changing the Mobility Behavior
16:36	Danciu Alexandra Denisa, Orban Zsolt Laszlo: The Network Arch Bridge and NEWLINE CSD design software for composite steel-concrete structures
16:39	Dorin Beu, Ciugudeanu Calin, Mircea Buzdugan, Florin Domnita: Living Building Laboratory

16:42	Traian-Nicu TOADER, Attila PUSKÁS and Jacint VIRÁG: Post-tensioned concrete slabs – a sustainability issue
16:45	Rodica D. Cadar, Ilinca M. Beca, Rozalia M. Boitor, Mihai L. Dragomir, Cristian Toşa: Transport Infrastructure Sustainability
16:48	Tudor Palade, Emanuel Puschita, Paul Dolea, Andra Pastrav: Radiocommunications Laboratory
16:51	Horatiu Vermesan: Sustainable technologies with low impact on the environment in the context of environment engineering with a multicultural approach
16:54	Jaume Blancafort, Patricia Reus: The Contemporary Habitat. Sustainability, Eco-efficiency and Architectural Quality
16:57	María Jesús Peñalver, Luca Lanzoni: Open innovation to foster sustainable integrated urban development for a new human-centred cities. Innovative action plans for the implementation of urban agendas
17:00	José Santa, Pilar Jiménez, Jesús Rubio, Andrés Ruz-Nieto, Ramón Sánchez-Iborra, Esteban Egea-López: MECANO: Eco-Efficient Mobility for Connected Citizens
17:03	Manuel A. Ródenas, Pedro García, Pedro Jiménez, Martino Peña, Adolfo Pérez: Parametric and Generative methodologies applied to Architecture, Social Housing and Urban planning
17:06	Fernando M. García Martín: Sustainable urban planning and nature-based projects to climate change adaptation
17:09	José M Carrillo, Juan T. García, Antonio Viguera-Rodríguez, Luis G. Castillo: CFD modelling of Wastewater Treatment Plants: improving the efficiency of the systems
17:12	David Ortiz Haro, Patrick Laclémence, Audrey Morel-Senatore, Guillaume Delatour: SOCIAL BONDS AND EMERGENT SUSTAINABLE COMMUNITIES FOR DISASTER RISK REDUCTION – CASE : ALEX STORM
17:15	Stella González, Rowena Hennigan(s): Co-living experiences from digital nomads and remoteworkers leading to rural sustainable development: The case of Spain
17:18	Iulia Prodan: Thermally Activated Geotechnical Structures as Green Infrastructure Solutions for heating and cooling of buildings
17:30	End of day 1

DAY 2 15. June 2021

14:00 – 14:45	Track 1: Session 4 Decision makers, risk, crisis management - Chair: Mina Daskalova; Guillaume Delatour
14:00	Daniel Hanss, Helena Müller, Charis Eisen: Psychological contributions to socio-technical transitions
14:03	Michaela Kiermeier: Applying distributed ledger technologies to engage marginalized minorities
14:06	Sven Linow: Understanding regional energy potentials and energy claims – a factual base for political decision making
14:09	Thomas Pleil, Stefan Hilser, Sandra Müller: Strategic communication and sustainability research
14:12	Jonas Rehn-Groenendijk: Design for sustainable health
14:15	Athos Agapiou, Vasiliki Lysandrou: Cultural Heritage in Changing and Dynamic Environments: the Role of Earth Observation Technologies
14:18	Pantelis Charisiadis, Xanthi Andrianou, Corina Konstantinou, Anastasia Perikkou, Thibaut Delplancke, Nadine F. Haddad, Elina I. Ioannou, Andria Constantinou, Eleni G. Kleovoulou, Stavros Oikonomou, Konstantinos C. Makris: Environmental and public health facilitates the integration of sustainable development goals into national and international plans of COVID-19 recovery and action plans
14:21	Andreas Papallas: Sustainable Urban Governance through Augmented Reality
14:24	Guillaume Delatour, Loubna Echajari: Pick up the phone to save lives: routine under uncertainty in a French emergency medical call center
14:27	Guillaume Delatour: Analysis of Local Populations' Initiatives and Integration in Crisis Management. INPLIC project – funded by the french national research agency
14:30	Michael Babin, Guillaume Delatour, Paul Henri Richard, Patrick Laclemece: Crisis cells, specific temporary organizations for specific crisis context

14:33	Anushree Priyadarshini: Environment sustainability from a costing, management and consumer perspective
14:36	Conor Horan: Using Internship Design to Improve the Sustainability of University-Industry Relationships in Technological Universities-A Comparative Study of Practices
14:39	Noel Fitzpatrick: The work of Internation
14:42	Colm O'Kane, Pearl O'Rourke, Keith Colton: Sustainability in Product Design: a Global Imperative
	Break

14:00 – 14:45	Track 2: Session 4 Monitoring, IT, telecommunication, sensors- Chair:
14:00	Michalis Michaelides: CoronaSense Project: Indoor Air Quality Monitoring for COVID-19
14:03	Anna Litvinenko, Dmitrijs Pikulins, Arturs Aboltins: Smart electronic systems
14:06	Janis Braunfelds, Ugis Senkans, Jurgis Porins, Sandis Spolitis, Vjaceslavs Bobrovs: Fiber Bragg grating sensors for structural health monitoring of road infrastructure
14:09	Kaspars Zakis, Andis Supe, Sandis Spolitis, Sergejs Olonkins, Rihards Murnieks, Ugis Senkans, Vjaceslavs Bobrovs: Research on Cladding-Pumped Erbium/Ytterbium Co-Doped Fiber Amplifiers for Telecommunication Systems
14:12	Toms Salgals, Sandis Spolitis, Jurgis Porins, Armands Ostrovskis, Tamara Sharashidze, Laura Skladova, Rihards Murnieks, Vjaceslavs Bobrovs: Silica microsphere-based OFC sources for C-band fiber optical communication systems
14:15	Vasile DADARLAT, Emil CEBUC, Adrian PECULEA, Bogdan IANCU, Sorin BUZURA: Communications Networks and Protocols Research Lab
14:18	Tudor Cioara: Distributed Systems Research Laboratory
14:21	Eva H. DULF: Research in Advanced Control Methods Group
14:24	Juan Suardíaz Muro, Fernando Cerdán Cartagena: Smart Solutions for Sustainable Connected Industry 4.0 or "Industry4.0s"
14:27	Francisca Rosique, Dolores de Miguel, Hayet Kerras, Susana Bautista, Erasmo López, Juan Suardiaz: GREENWORAL: A training and mentorship based adult rural women empowerment in the field of green entrepreneurship
14:30	Maria-Dolores Cano: Intelligent Traffic Management and Autonomous Vehicles for Sustainable Cities
14:33	Salvador García-Ayllon Veintimilla: ANALYSIS OF URBAN, TERRITORIAL, AND ENVIRONMENTAL PHENOMENA THROUGH THE ADVANCED USE OF GIS TOOLS
14:36	Junbeum Kim: Air Pollutants, Particulate Matter, and Human Respiratory and Toxicity Impacts in Urban and Regional System
14:39	Christophe Chantereaux, Hichem Snoussi, Didier Joubert: The convergence of NBIC technologies applied to the co-production of security between the state and the private sector
14:42	Damian Gordon, Ioannis Stavrakakis, Emma Murphy, Dymna O'Sullivan: "Digital Ethics go a long way": Sustainable ICT curricula with the inclusion of digital ethics teaching
	Break

15:15	Roundtables on opportunities and cooperation possibilities
17:00	Plenary session: Sustainable Transition - Chair: Nicole Saenger
	Jan Cornelius Schmidt: Inter- and Transdisciplinarity in Sustainability Science An Approach to classify and clarify the Concepts and Meanings from the Perspective of the Philosophy of Science
17:30	Nicole SAENGER (h_da), Wrap-Up and Outlook