SUSTAINABLE **PLACES2020** October 27-30, 2020 **Digital Event**

Closing Keynotes & Workshop Rollups

proceedings

www.sustainableplaces.eu











I think we broke the internet!





000 W

What an insightful workshop earlier today at Asustainableplaces! It was great to see such a variety of approaches to integration of #renewables into the #districtheating and cooling networks, #decarbonisation of the European heating



SDIA - Sustainable Digital Infrastructure Alliance e.V. 672 followers 1h . 3

Deborah Andrews & Beth Whitehead, Ali Fenn and Sophia Flucker at 10 am at today's Hardware Session at the #sustainableplaces conference!

...see more





Andrew Barney, Opensia University SWSheating @SWSheating + 16h Relevant points and challenges were shared with other #h2020 projects in

Sophie Ocurters-Guarante

Renewable H&C for for and workshop at @sustainplaces. Our colleague @ ClaudiaFabiani @Ingegneria_PG presented the innovation potential of @SWSheating to face those challenges. #ThermalEnergyStorage @inea_eu



Sustainable Places conference @sustainplaces - 3h Starting soon: Sustainable Housing Supporting Health and Well-being Workshop | 09.00 - 12.30 A 19 .--Broke County and

Carina Dantas @dantas carina - 2m Questions and answers in a great mood 😵



ece.

SV/S



It would have been easier to skip this year....

...but we're glad we're all here

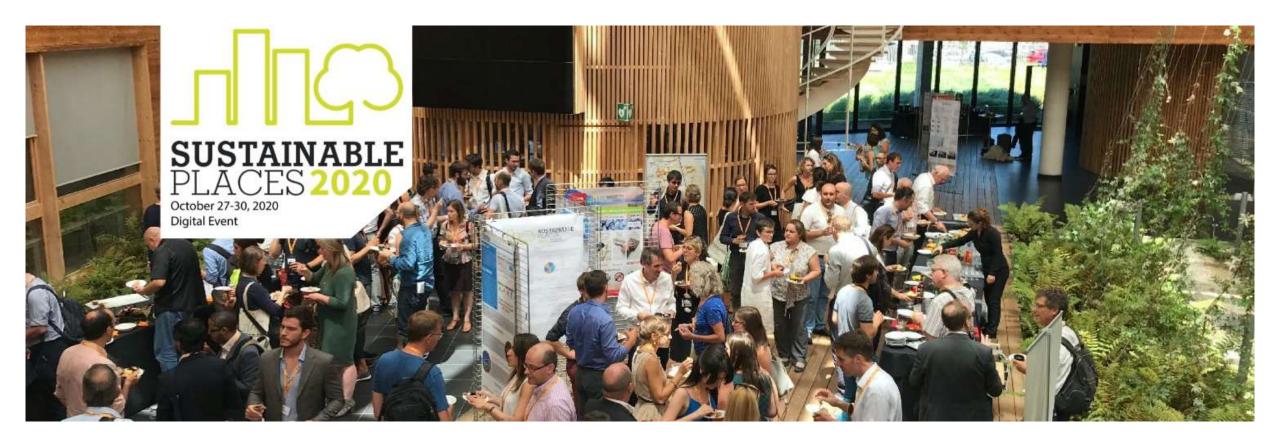
600!! 400 attendees 100 projects 32 sessions & workshops 4 Sponsorships

> Green Deal New EU Bauhaus





Follow each other!



Workshop Rollups





Session Round-up

01 Session 1 - Finance Young-jin Choi, Pierre Alexandre Hughes-Daly <u>http://sdia.io/spfinance</u>

02 Session 2 - Technology Progressors

Anna Lyubina, Trevor Hinkle, Chris Adams, Gunnar Schomaker http://sdia.io/sptech

03 Session 3 - Heat Recovery

Karl Rabe, Dr. Jens Struckmeier, Dr.-Ing. Birger Ober http://sdia.io/spheat

04 Session 4 - SDIA Initiatives Mohan Gandhi, John Laban, Max Schulze, Lasse Schneppenheim http://sdia.io/spsdia

05 Session 5 - Hardware Design

Deborah Andrews & Beth Whitehead, Ali Fenn, Sophia Flucker

http://sdia.io/sphardware



At SP2020 we launched our Roadmap Check it out at: <u>https://sdialliance.org/road</u> <u>map</u>

Thank you to all who helped launch the Roadmap

Today

Em (CC 80 M

SDI

The Roadmap to Sustainable Digital Infrastructure by 2030

To reach our Sustainability Goals by 2030 we need to systematically embed sustainability across the sector. This roadmap enables every industrial actor to connect, benchmark and deliver sustainability within their segment of Digital Infrastructure value chain. Through the universal reporting regimen, and the industry led action plan, the roadmap is simultaneously the reporting vehicle, and the collaboration vehicle that will ensure we hit sustainable digital infrastructure by 2030.

Join the Roadmap

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		2021				2022				2023				2024				2025				2026				2027	
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Integrated Home Renovation Service workshop

- Acceleration of the renovation rate (currently around 1%) is needed in order to meet the EU climate and energy goals
- Renovation process is complex (lack of information on existing solutions, lack of services to coordinate all required market actors..)
- To bring together several projects which aim to create or replicate innovative "Integrated Home Renovation services" throughout Europe to simplify the renovation process
- These services aim to **cover the whole "customer journey"** from technical and social diagnosis, technical offer, contracting of works, structuring and provision of finance, to the monitoring of works and quality assurance.













6 H2020 projects presented:

- Turnkey Retrofit, TURNKEY solution for home RETROFITting
- **PadovaFIT:** Expanding PadovaFIT! Home Solutions
- **HAPPEN**: Holistic AProach and Platform for the deep renovation of the med residential built Environment
- **Save The Homes:** One-Stop Shops as Citizens' Hubs to support the decision-making process for integrated renovations
- **Re-MODULEES**: the Retrofitting Market Activation Platform based on the generation of standard modules for energy efficiency and clean energy solutions
- I-HEROS: Integrated Home Energy RenOvation Service



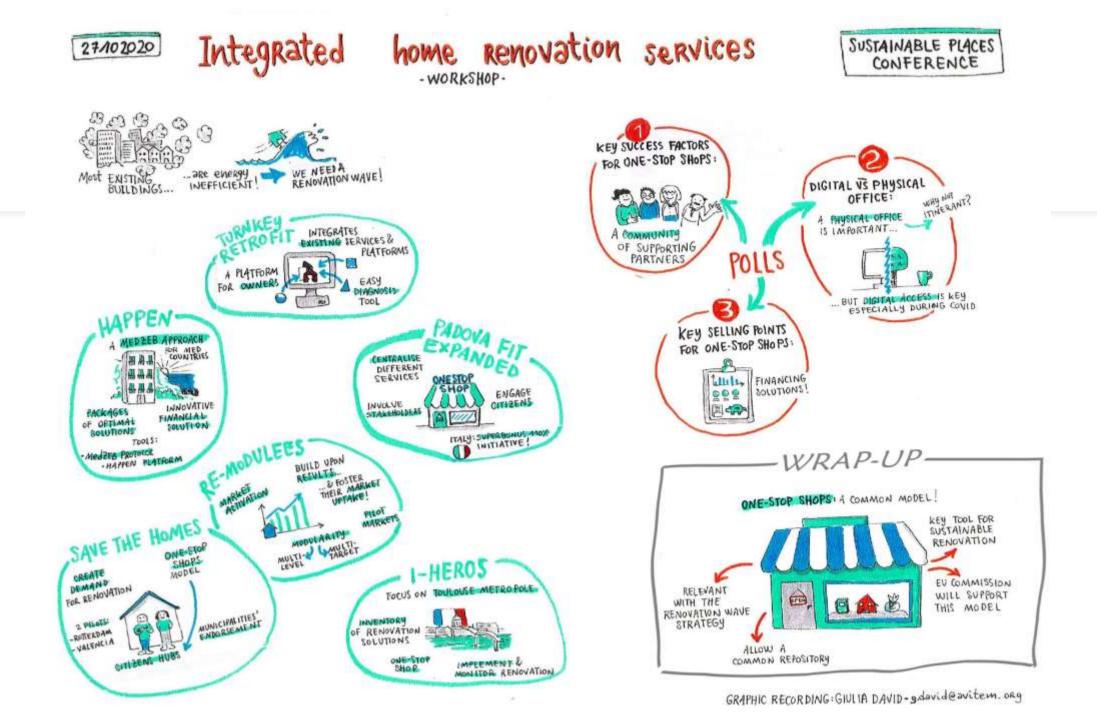








I-HEROS



Thank you!

SUSTAINABLE PLACES 2020 October 27-30, 2020 Digital Event

Margaux Barrett, BPIE: <u>margaux.barrett@bpie.eu</u>

Dominique Caccavelli, CSTB: <u>dominique.caccavelli@cstb.fr</u>

Rachel Desmaris, R2M: <u>Rachel.Desmaris@r2msolution.com</u>











I-HEROS



Sustainable Housing supporting Health and Well-being

October 30th , 2020





Keeping the ageing population independent for longer at their own home, combining house adaptation and local ecosystem for ageing population.

Improving their quality of life and quality of their surrounding environment (services, public space...).

Promote actions in order to develop social links.

TeNDER will develop an **integrated care model** to manage **multi-morbidity in patients** with **Alzheimer**'s disease (and other forms of dementia), **Parkinson**'s disease, and **cardiovascular** disease.





The **SmartWork** project builds a **Worker-Centric AI System** for work ability sustainability. SmartWork aims **to design and create age-friendly living and working spaces**. For **workers aged 55-65** to maintain an **active professional life and independent living**, despite the ageing process and the potential functional limitations, health conditions and/or care needs that this process frequently entails.



The objective of **PHArA-ON** is to provide **support** for Europe's ageing population by **integrating digital services**, **devices**, **and tools into open platforms** that can be readily deployed while **maintaining the dignity of older adults and enhancing their independence**, **safety**, **and capabilities**

Homes4Life , certified smart and integrated living environments for ageing well

- a home that fosters people's autonomy, as well as helping us to stay active and healthy as we age.
- respects people's lifestyle choices, needs, and preferences regardless of age throughout life.
- and allows access to all areas of community life, thus promoting inclusion and commitment.





If people should **age at their own homes**, how to align technological development with the building industry for smart environments in terms of **POLICY** and **FUNDING**, enhancing a more efficient health care system that may add better quality for less investment?



Hands-on SHAFE is a project that aims to deliver informal learning experiences and hands-on tools to implement SMART and HEALTHY BUILT environments or to develop BUSINESS in this area.

The main approach of **NET4AGE-FRIENDLY** is the establishment of local or regional ecosystems in each **COST** country involved, to work on health and well-being in an age-friendly digital world.



Sustainable living environments are relevant for all citizens and have a tremendous influence on our health and wellbeing, our social interactions and our capacity to participate in community life.



October 27-30, 2020 DIGITAL EVENT

Horizon 2020 European Union funding for Research & Innovation

Sustainable Mobility: e-Mobility Workshop











Mobility Environmentally-friendly, Integrated and economically Sustainable Through innovative Electromobility Recharging infrastructure and new business models



E-Mobility Workhop summary







Key info



- Discussion on digital tools, services, and approaches to boost smart electric mobility (e-mobility) that covers EU demands with scalable solutions.
- Panelists: MEISTER, GreenCharge, UserChi, eCharge4Drivers and University of Peloponnese.
- Speakers presented:
 - How three major barriers for the deployment of electric vehicles in the EU the high cost of vehicles, the low level of consumer acceptance, and the lack of recharging stations – can be pull down.
 - Designing, validating and promoting new approaches and solutions to make it more attractive for operators to install charging Electric Vehicle Supply Equipments and for potential customers to use this infrastructure.



Conclusions

 Interoperability for charging is an issue that concerns EV drivers all around EU

Charging experience of the user should be improved

 Charging policies based on price incentives and constraints can be used to reshape power load profiles



NS

THANK YOU!







Patricia Bellver

Project Manager, ETRA I+D

USER-CH



This project has received funding from the European Union's Horizon 2020 research and innovation programme under the grant agreement No 769052.

For more information visit: <u>https://meisterproject.eu/</u>



Mobility Environmentally-friendly, Integrated and economically Sustainable Through innovative Electromobility Recharging infrastructure and new business models





October 27-30, 2020 DIGITAL EVENT

Horizon 2020 European Union funding for Research & Innovation

Sustainable digital tools for all energy actors











Energy for life PETROL (PETROL)







INTEGRATED ENERGY SOLUTIONS AND NEW MARKET MECHANISMS FOR AN EXTENDED FLEXIBILITY OF THE EUROPEAN GRID



INSTITUTE OF COMMUNICATION & COMPUT ER SYSTEMS (ICCS)















Integrated energy solutions and new market mechanisms for an eXtended FLEXibility of the European grid

Sustainable Digital Tools for All-Energy Actors

Conclusions of the workshop

Lola Alacreu ETRA I+D MOTIVATION

- 25

- Digitalisation is helping to improve the safety, productivity, accessibility and sustainability of energy systems around Europe.
- 5 H2020 projects (X-FLEX, FLEXCoop, Holisder, Synergy, and Flexgrid) have presented a set of complementary digital tools to provide ICT services and functionalities to all the energy actors, to create a more connected, intelligent, efficient, and sustainable European energy ecosystem.









CONCLUSSIONS

 5 projects with different but complementary approaches, have shown the best way to enable all the energy actors to control and manage their part of the grid and actively participate in the energy market.

 The end-users of these tools are citizens, cooperatives, DSO, TSO, Market Operator, etc. with the aim to create a all-win situation, building a greener and more liveable Europe.







--FLEXGRID



Thank you!



For more information visit:

http://xflexproject.eu/



Motivation

- To show the **broad range** of multi-agent demand side responsiveness
- To identify key characteristics of typical 'energy prosumer' forecasting
- To understand how grid simulations are used to widen project results
- To become familiar with typical stakeholders within DR value chains
- To compare use cases and business models used for dynamic pricing
- To demonstrate building load optimisation with algorithmic control
- To assess market rules and current status of European countries
- To understand how single buildings lead to smart energy districts
- To see a variety of flexible technologies integrated into LV grids
- To learn the path towards interoperability in future energy markets
- To explore the balance between implicit vs. explicit DR requests

Key points

- ebalanceplus follows the "eBalance" project to support DSO-TSO interaction through providing flexibility using "negotiation management units"
- eDREAM & DELTA leverage blockchain to provide smart contracts that relieve aggregators and consumers from resource-intensive tasks through virtual nodes, providing access to small and medium customers
- TABEDE is commercializing a hardware-based "building management systemextender" solution that connects 90% of devices regardless of protocol (TRL-7)
- DRIvE uses digital twins to simulate the unlocking of flexibility potential
- HOLISDER Energy system impact assessment for active voltage control demonstrated using a "co-simulation" framework
- NOVICE & AmBIENCe use an ESCo/EPC approach to focus on non-residential buildings becoming active in reducing energy losses & costs of self-consumption

Calls to action

Project websites	Timeline	Socials	Key publications / upcoming events / highlights
<u>eBalance+</u>	2020 - 2023	<u>Twitter</u> <u>LinkedIn</u>	Energy management in smart grids video D5.1 Networking layer specification
<u>eDREAM</u>	2018 - 2021	<u>Twitter</u> <u>LinkedIn</u>	Blockchain whitepaper Webinar recording: "New DR technologies and services"
TABEDE	2017 - 2021	<u>Twitter</u> <u>LinkedIn</u>	Join the TABEDE stakeholder community Webinar 20 Nov: Real case applications of the BMS-Extender system for DR
<u>DRiVE</u>	2017 - 2020	<u>Twitter</u> <u>LinkedIn</u>	<u>OA repository</u> <u>Media</u>
HOLISDER	2017 - 2021	<u>Twitter</u> <u>LinkedIn</u>	Public deliverables Newsreel
NOVICE	2017 - 2020	<u>Twitter</u> <u>LinkedIn</u>	Webinar recording: Accelerating the transition to a low carbon future Final publishable report
<u>AmBIENCe</u>	2019 - 2021	<u>Twitter</u> <u>LinkedIn</u>	Join the AmBIENCe stakeholder community Webinar 25 Nov: Innovative Business Models for EeB in the EU and Korea
DELTA	2018 - 2021	<u>Twitter</u> <u>LinkedIn</u>	Webinar 19 Nov: DR in the EU- Market Perspectives & Business Opportunities Publication repository & YouTube channel



October 28-30, 2020 Aix-les-Bains, France



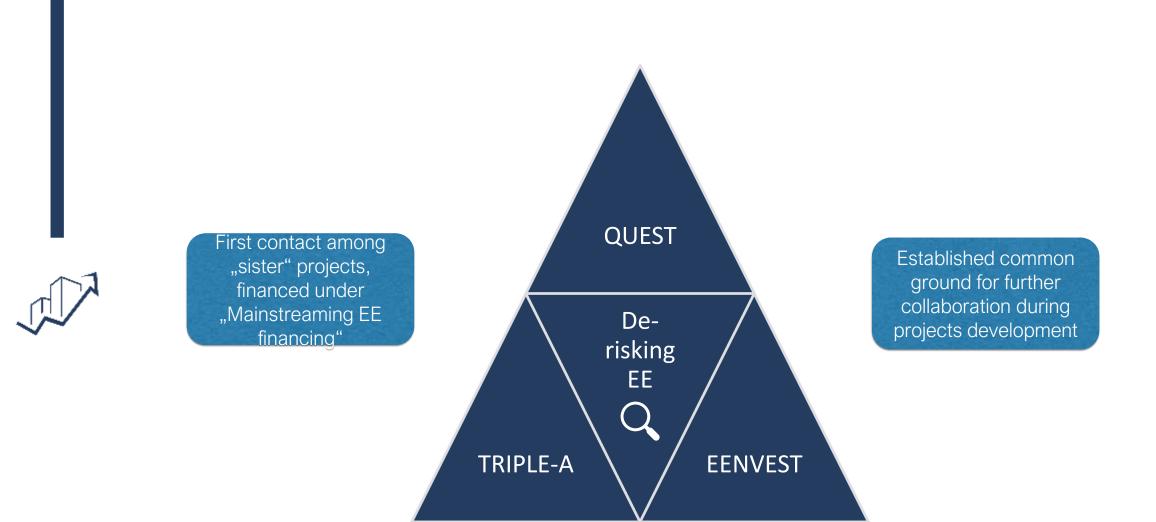
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Workshop De-risking Energy Efficiency Investments





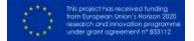




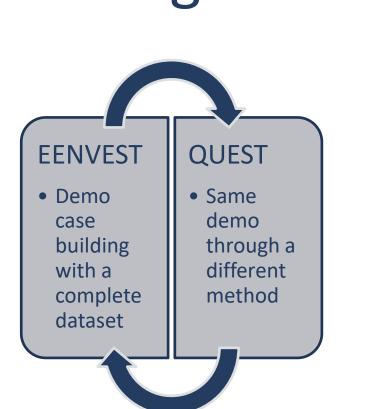




There is only one shot for renovation – we must hit to target Strengthen the community of stakeholders for the renovation wave Methodologies test, validation and systemic thinking



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A tangible example

Optimizing data collection effort

Initiating an incremental feedback loop

Ensuring smooth interaction and data flow



3

6

Thank you

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BIM based fast toolkit for Efficient rEnovation in Buildings

www.bim4eeb-project.eu

WORKSHOP **The BIM4EEB Project:** a mid-term presentation of the BIM based tools for efficient renovation of buildings

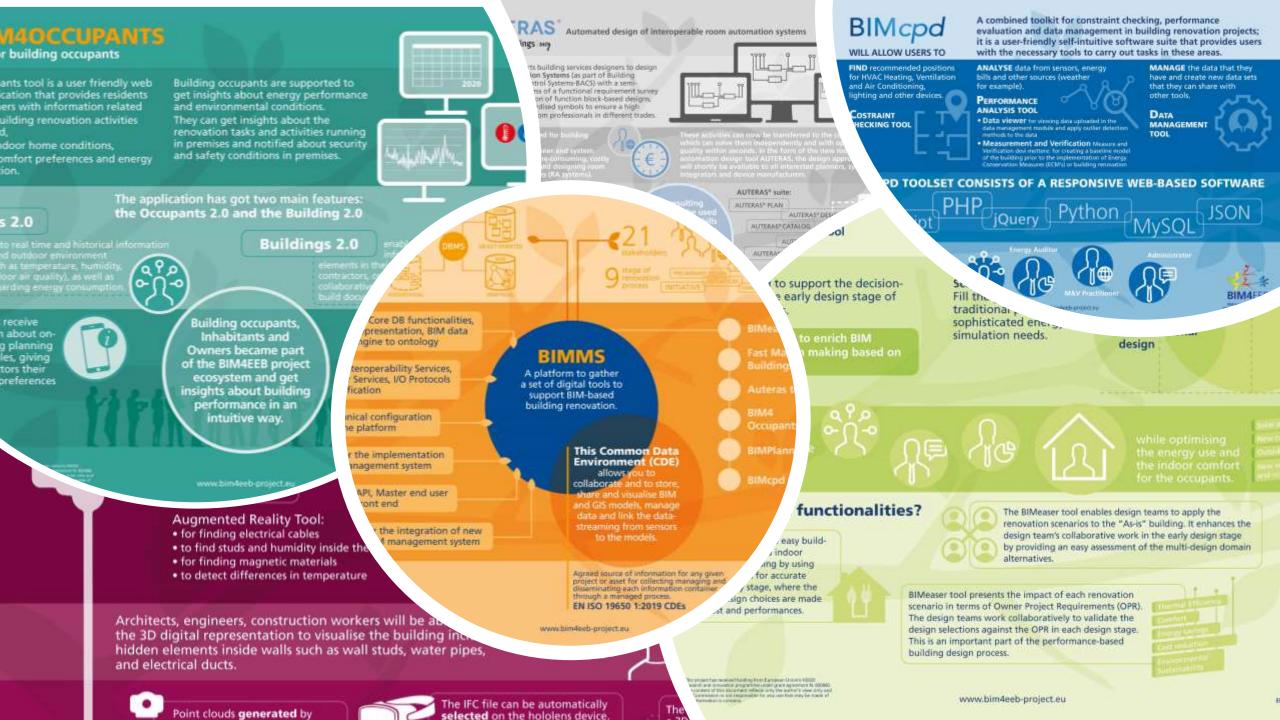


BIM based fast toolkit for Efficient rEnovation in Buildir

• BIM4EEB?

• An EU-funded project supporting the renovation industry in retrofitting existing residential buildings with a complete **BIM-based toolkit to make the flow** of information efficient and decrease intervention working time, while improving building performances, quality and comfort for inhabitants.

• These tools will allow to **rapidly reconstruct 3D digital models of existing buildings** and to seamlessly integrate **semantic data** in order to perform advanced evaluations of design options for renovations.





BIM based fast toolkit for Efficient rEnovation in Build^{ir}

Tool developer Industry

- One Team (SME)
- Suite5 (SME)
- Visualyink (SME)
- CGI

Research center

- VTT
- RI.SE
- IERC
- University
- PoliMi
- TUD
- UCC

https://www.bim4eeb-project.eu/

https://www.linkedin.com/company/bim4eeb/?viewAsMember=true

https://twitter.com/bim4eeb



October 27-30, 2020 DIGITAL EVENT



Horizon 2020 European Union funding for Research & Innovation



European Technology and Innovation Platform

WORKSHOP ON RENEWABLE HEATING AND COOLING SOLUTIONS FOR BUILDINGS AND INDUSTRY





Award of the biggest SP20 workshop with **15 sister-projects**

RENEWABLE HEATING AND COOLING SOLUTIONS FOR BUILDINGS AND INDUSTRY





SHIP2FAIR



RHC for industrial applications:

We need to promote RHC as feasible solution for industries:

Reliable, easy to install and highly efficient



SWS heating



SCORES

We need to increase the collaboration in the development of novel storage solutions for RHC

Reaching high TRL in the coming years also investing on the social acceptance of the technologies







RES⁷ BUILD

Innovative solutions for RHC deployment in buildings Digitalization can support the promotion of RHC technologies market uptake (e.g. supporting EPC adoption)

TRI-HP PROJECT





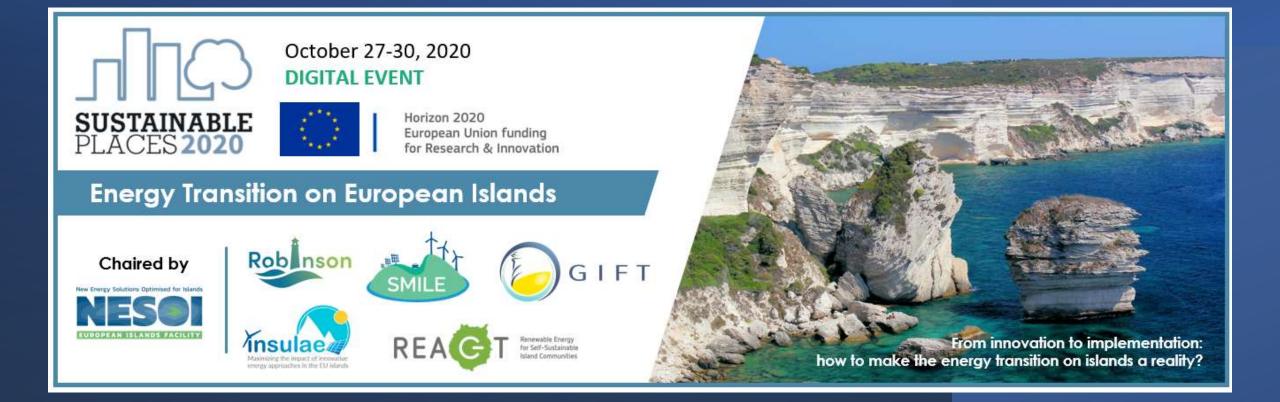


Demonstration actions for RHC in buildings

Demonstration is the crucial step to raise awareness about RHC solutions in buildings

Novel design tools and controls approach can trigger wide deployment in different buildings' sectors





13:10 SESSION 1. THE CLEAN ENERGY ISLANDS INITIATIVE

- A few words about the Clean Energy Islands initiative
- The EU Islands Facility NESOI

Sophie Dourlens-Quaranta, R2M Solution

13:30 SESSION 2. SELECTED TOPICS ADDRESSED BY ONGOING RESEARCH & INNOVATION PROJECTS



NESOI

- PV and BESS integration on islands The INSULAE project Stefano Barberis, RINA Consulting
- Storage concepts and interoperability The GIFT project Sašo Brus, INEA



REAC

GIFT

- Utilisation of local renewable resources The ROBINSON project
 Ugo Simeoni, European Turbine Network
- Sustainable mobility on islands The SMILE project
 - Stefano Barberis, RINA Consulting
- Citizen engagement The REACT project

Thomas Messervey, R2M Solution and Andrew Barney, Uppsala University

14:30 SESSION 3. ROUNDTABLE DISCUSSION

- Theme 1: How to engage islanders in the energy transition?
- Theme 2: How to stimulate islands' long-term energy strategy?



A few words about the Clean Energy Islands initiative

• Part of the 'Clean energy for all Europeans' package

"Many of Europe's 2400 islands are small isolated systems and small markets. However these islands, where 15 million Europeans live, have the potential to be frontrunners in the clean energy transition by adopting new technologies and implementing innovative solutions"

- Launched in 2017: the European Commission and 14 EU countries (Croatia, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Malta, Portugal, Spain, and Sweden) signed a <u>political declaration</u>
- Reinforced in June 2020 with the signature of a <u>Memorandum of</u> <u>Understanding</u> (MoU) to support cooperation to identify common solutions and best practices helping islands facing common challenges



The initiative provides a long term framework to help islands generate their own sustainable, low-cost energy. Its aims are:

- Reduced energy costs
- Greatly increased production of renewable energy
 - Construction of energy storage facilities
 - Development of demand response systems
- Better energy security for islands, which will be less reliant on imports
- Improved air quality, lower CO_2 emissions, and less impact on environment
 - Creation of new jobs and business opportunities



A few words about the Clean Energy Islands initiative

Three instruments:





New Energy Solutions Optimised for Islands



Clean energy for EU islands secretariat

To facilitate the clean energy transition, the Commission launched in 2018 the '<u>Clean energy for EU islands secretariat</u>', which offers support and assistance on project preparation to Europe's islands communities

Clean energy for EU islands forums

The <u>forums</u> are regularly organised since 2017. They provide EU islands and other EU initiatives the opportunity to share best practices and showcase innovative projects in the areas of renewable energy, energy efficiency and research and innovation

The European Islands Facility – NESOI

NESOI aims to fund 60 successful energy transition projects, mobilising more than €100 million of investment by 2023.



NESOI - New Energy Solutions Optimised for Islands 401 followers



The first #NESOI's open call offers grants of up to €60k per proposal as 1 ...see more



NESOI launches first open call: over 3 million euros available to support Islands with their energy transition ambitions

nesoi.eu • 2 min read

https://www.nesoi.eu/content/nesoi-launches-first-open-call-over-3-million-euros-available-supportislands-their-energy

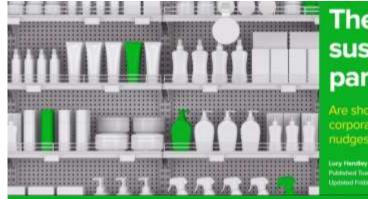
Call OPEN until 18 December €3,120,000

€60k direct financial contribution + €60k of technical assistance from the facility.

First of two calls

Value Action Gap / Deficit Hypothesis



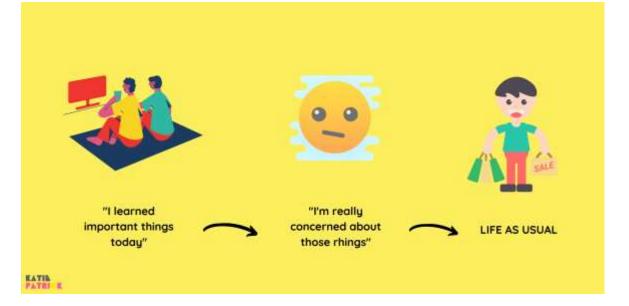


The sustainability paradox

Are shoppers the biggest hurdle to corporations going green? Behavioral nudges could help

Published Transfery, October 13, 2020 10:36 AM COT Updated Feiday, October 23, 2020 11:27 AM COT

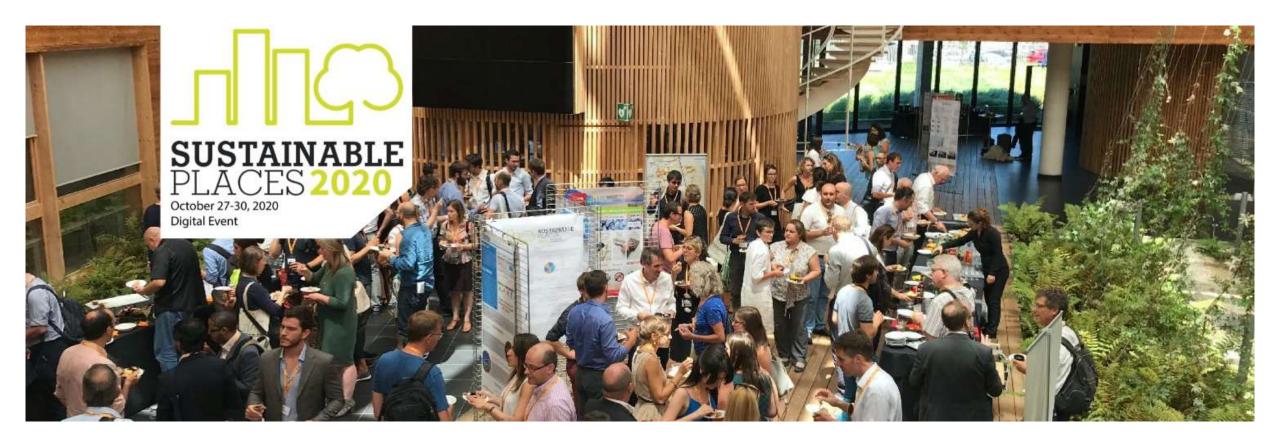
While up to 70% of consumers claim in surveys that they want to purchase more environmentally-friendly products, only 1% to 5% actually do.





How NOT to wear a mask

FLORENTINE



Closing Notes

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All of YOU. Thank you.

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SUSTAINABLE PLACES 2020



Regis Decorme

Zia Lennard

Mohi Maktabifard

Giuseppe Longo



Rachel Desmaris

Augusta Clerisse

Elena Barison

Thomas Messervey



Sustainable person of the year award!

Talk is cheap – actions matter





October 2021 See you there

Join us at the Closing Session





SUSTAINABLE PLACES 2020

4

October 27-30, 2020 Digital Event

Thanks for a Great Event!