



Workshop fee:
350€ incl. VAT

Register on
www.ines-solaire.org/fr/evenements/eco-pv2020/

Access & parking

- **Tram Lyon Express** : «Rhône Express» joins Lyon city center to the airport in 30 minutes
- **Train** : the train station «Lyon Saint-Exupéry» is directly connected to the airport and situated in the Square (between Terminal 2 and Terminal 1).
- **Parkings P0, P2 or P4**. Take a ticket on your arrival and be careful to remove your electronic toll.

Meet us at Terminal 2, Espace Horizon

Organise a stress-free meeting
with your contacts at the heart of the airport
and at the crossroads of all the transport networks.

ORGANISE

your meeting
in the business centre

ACCESS TO BUSINESS CENTRE

RECOMMENDED CAR PARKS
(preferential rates):

- P0 COVERED CAR PARK
- P2 CAR PARK (opposite T2)
- P4 CAR PARK (TGV station)

MAP OF THE MEETING ROOMS

www.ines-solaire.org



WORKSHOP

ECO-PV

"Photovoltaics: towards a sustainable industry"

March 16th & 17th 2020

Lyon Saint-Exupéry airport, France

A conference organized by



With the support of



www.ines-solaire.org

Monday March 16th - 8:45 Welcome coffee

9:45 – Introduction – INES – CEA - Claire Agraffeil

1st session - 9:50 Sustainability

Chair : Andreas Wade – First Solar – *IEA-PVPS Task12*

NREL - OA IEA-PVPS Task12 - Garvin Heath - Sustainability of PV – Overview and Trends

- **Solar Power Europe - Aurélie Beauvais** - Up to the challenge - Solar's contribution to environmental, social and economic sustainability goals
- **PV Cycle - Jan Clyncke** - State of play of PV Recycling in Europe
- **ZSI - Gorazd Weiss** - The Rain Model - A Regional Circular Living Lab Business Concept

2nd session - 11:05 Industry best practices

Chair : Pierre-Emmanuel Hicel – Total

ENEL GREEN POWER - Fabrizio Bizzarri - Best practices / PV module manufacturing

- **LONGI - Chen Zhu** - Hi-MO 4 – Innovation of LCOE solution
- **Fraunhofer-ISE - Karl-Anders Weiss** - Green Manufacturing initiative / project
- **RESITEC - Terje Halvorsen** - Kerf-Si recycling: Technology, Market and Overview

12:30 – 14:00 - Lunch break

3rd session - 14:00 Life Cycle Assessment – Life Cycle Costing

Chair : Garvin Heath - NREL - *OA IEA-PVPS Task12*

Bifa Umweltinstitut GmbH - Karsten Wambach - Life Cycle Approach And Circular Economy of Photovoltaics Covering the Full Value Chain

- **CEA - Nouha Gazbour** - Eco-design toward Eco-efficient PV technologies: Impact of environmental regulations on the degree of innovation
- **UNSW - Rong Deng** - Comparative economic assessment of silicon photovoltaic module recycling by glass recycling, mechanical recycling and thermal recycling
- **Research performed at EC JRC- Fulvio Ardente** - Recovery of critical and precious metals from silicon PV panel recycling

15:05 – 15:25 - Coffee Break

4th session - 16:25 Quality & reliability

Chair : Eric Gerritsen – CEA

OFI - Gabriele Eder - Failure analysis of backsheets

- **DNV-GL - Stéphane Lebeau** - What separates sustainability leaders from the rest ?
- **CYBRID - Stephen Gong** - MoPro - Revolution in Solar PV Industry

Tuesday March 17th - 8:30 Welcome coffee

1st session - 9:00 Eco-design

Chair : Raffaele Rossi - Solar Power Europe

EC-DG GROW - Davide Polverini – Eco-design directive - Decisions & perspectives

- **Trinity College Dublin - John Gallagher** - Eco-design: it all starts with design
- **EXXERGY - Thomas Sauer** - The inconvenient truth: How to separate chaff from wheat in the PV ecosystem

2nd session - 10:00 Recycling

CEA - Claire Agraffeil - The challenges of PV recycling

- **LuxChemtech - Wolfram Palitzsch** - Photovoltaic Recycling – the long way to circular economy
- **TIALPI - Lodovico Ramon** - FRELP By Sun - Full Recovery End of Life Photovoltaic by the energy from the sun
- **NPC - Taisuke Doi** - NPC new equipment for PV module recycling and status of recycling in Japan
- **CEA - Béatrice Drevet** - Kerf-Si recycling: SELISI project

11:30 – 11:50 - Coffee Break

3rd session – 11:50 Experiences from other fields

Chair : Fulvio Ardente – *Independent researcher*

WEEE forum - Pascal Leroy - The WEEE Forum, tackling the e-waste problem, in Europe and beyond

- **Votechnik - Lisa O'Donoghue** - Application of robotics as a disruptive technology for LCD recycling
- **JH Glass & Consulting - Jean Hardy, GRConsult Recycling Solutions - Jean-Pierre Delande** - What fate for poor quality cullet : curse or opportunities ? Alternative uses for recycled glass

13:00 – 14:15 - Lunch break

4th session -14:15 Circular Economy

Chair : Thomas C. Sauer - EXXERGY GmbH

PACE - Ke Wang - Circular electronics – a systemic view from PACE

- **First Solar - IEA-PVPS Task 12- Andreas Wade** - Circularity - a pre-requisite for terawatt scale Photovoltaics
- **VITO - Tom Rommens** - Circular business models for the solar power industry - Circusol project
- **ECOCHEM -Thomas Wattez** - Circular Economy in Civil Engineering: ECOCHEM's waste upcycling approach