

Circular supply chains: Reducing pollution and waste through cooperation

On the 10th of June 2021, over 70 attendees participated in the CIRCUSOL EU Green Week 2021 Partner Event about 'Circular supply chains: Reducing pollution and waste through cooperation' to shed light on good practice concerning collaboration in the solar PV sector.

Press release

16 June 2021

[CIRCUSOL](#) organised a Partner Event at the EU Green Week 2021 under the theme of Zero Pollution to highlight the importance of multistakeholder collaboration in reducing pollution and waste in the solar PV sector. By sharing their interdisciplinary experience, experts from the CIRCUSOL consortium discussed pollution and waste reduction in circular solar supply chains. The event was moderated by Naoko Tojo from Lund University and the panel discussion was led by Tom Rommens from VITO.

Panel discussion

As the first speaker, Anse Smeets from VITO set the scene with a presentation on the *Environmental benefits and pollution reduction potential of circularity for PV*. From the environmental point of view, Life Cycle Analysis shows that it is advantageous to (re)use and repair PV panels until they have reached their technical End-of-Life, even though it is known that new panels are becoming increasingly efficient. In conclusion, circularity in the solar power industry indeed proves worthwhile.

The Circularity of Solar PV was presented by Tadas Radavičius from SoliTek who remarked that several options were available for manufacturers to make PV modules more environmentally friendly, and to phase out some of the hazardous substances, like lead and fluorine. What's more, digitization offers opportunities to organize the PV supply chain in a more circular manner, but this requires more intensive collaboration and knowledge sharing within the value chain.

Repairing and reusing panels is, from a technical point of view, feasible under certain circumstances. However, a robust legislative framework and technical standards for the reuse of PV panels have been lacking up to now. As Arvid van der Heide from imec highlighted in his



presentation *Waste reduction: practical issues for re-use of PV modules*, the CIRCUSOL project is working on this.

Next to reuse and repair, recycling should be optimized. In his speech, *The transition from a waste society to a circular society*, Wolfram Palitzsch from Luxchemtech highlighted that there was a potential to recover more value with more advanced recycling technologies. Chemical recycling will become more and more important in the future. There is a need to evolve towards a circular mindset: inevitably, solutions will be more complex, more adaptive and more collaborative.

Lastly, *Economic perspectives on the reuse of PV modules* by Lisa Wendzich from SunCrafter showed that off-grid low-voltage applications (in low-income countries, for example) could be a valuable way to give PV panels a second life. However, this necessitates cost-efficient quality testing and rehabilitation, as well as procedures which are complying with standards and a regulatory framework.

The presentations of the panellists are [available here](#).

Key takeaways

There is a need for more cooperation in circular supply chains to reduce or avoid future pollution and waste. Circularity is more than recycling. Repair, refurbishment and remanufacturing are other circular options that should be considered and further explored.

Product and material cycles are a shared responsibility in which manufacturers, users, waste companies and several other stakeholders are involved. CIRCUSOL explores the options to make business models in the solar power industry more circular and sustainable.

The recording of the webinar is [available here](#).

About CIRCUSOL

CIRCUSOL works on the development and the demonstration of [Product-Service System \(PSS\)](#) business models for the solar power sector.

The CIRCUSOL consortium is led by [VITO](#) and comprises partners from all around Europe: [Lund University](#) (Sweden), [Bern University of Applied Science](#) (Switzerland), [IMEC](#) (Belgium), [Soli Tek R&D](#) (Lithuania), [SNAM](#) (France), [CEA Liten](#) (France), [Ecopower cvba](#) (Belgium), [PV CYCLE a.i.s.b.l.](#) (Belgium), [BKW Energie](#) AG (Switzerland), [Futech](#) (Belgium), [Daidalos Peutz](#) (Belgium), [ZABALA Innovation Europe](#) (Belgium), [SunCrafter](#) (Germany) and [LuxChemtech](#) GmbH (Germany).



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