



**European
Recycling
Platform**



@DFB_EE
#pv_umwelt



Deutsch-französisches Büro für
erneuerbare Energien (DFBEE)

Programm

Umweltbilanz und Umweltauswirkungen von Photovoltaikanlagen

Dienstag, 12. April 2016
Ministère de l'Environnement, de l'Énergie et de la Mer (MEEM)
Tour Séquoia
1 place Carpeaux
92055 La Défense/Paris

The EU WEEE directive and its national transpositions

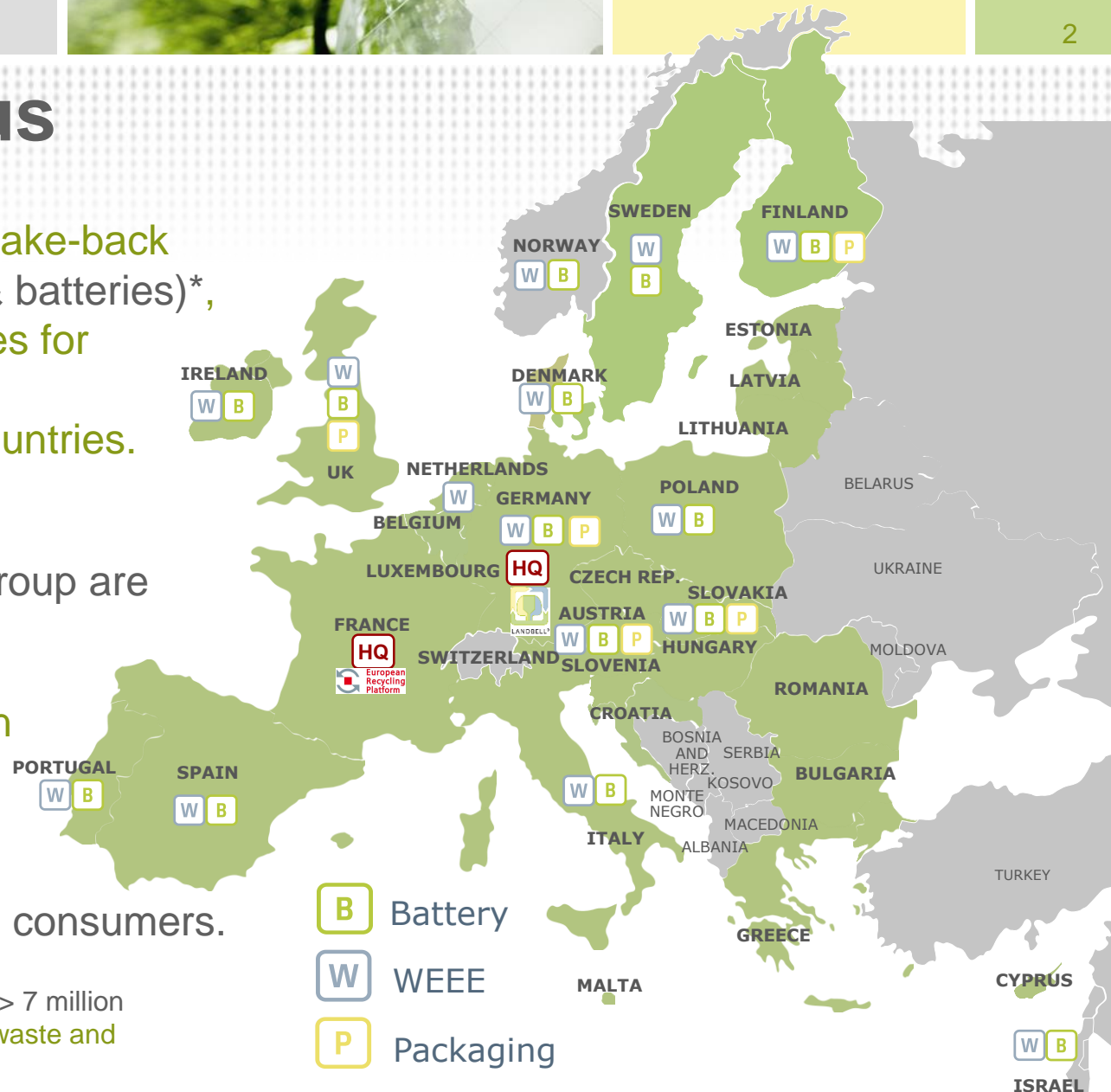
Obligations regarding the take-back of PV
components

Thomas Fischer

Landbell AG, Head of Market Intelligence

One slide about us

- The Landbell group is offering take-back services (e-waste, packaging & batteries)*, consulting and software services for all Europe and beyond having own operations in 15 countries.
- The take-back services (compliance schemes) of the group are typically branded “ERP”.
- The group stands for innovation in the waste market by competition leading to high collection rates, high quality treatment at reasonable cost to consumers.



* Cumulated and as of today the group collected > 7 million tonnes of packaging, > 2.7 million tonnes of e-waste and > 39,000 tonnes of batteries

EU Circular Economy Package

- The EU Commission published its Communication “Closing the loop - An EU action plan for the Circular Economy“ together with four legislative proposals (waste law review) on 2nd December 2015.
- **Major objectives:**
 - EU Strategy to transform Europe into a more competitive **resource-efficient economy**
 - Covers the entire value chain of products: extraction of raw materials, product design, production, labelling, trade, reparation and **recycling**
 - Addresses a range of economic sectors: **waste**, food, energy, water etc.
- The **concrete measures and targets** that derive from the Commission’s Circular Economy Action Plan will be **incorporated in four revised legislative proposals:**
 - Waste Framework Directive
 - Packaging Waste Directive
 - Landfill Directive
 - **WEEE Directive**



The WEEE directive

Why

The WEEE directive has been implemented to:

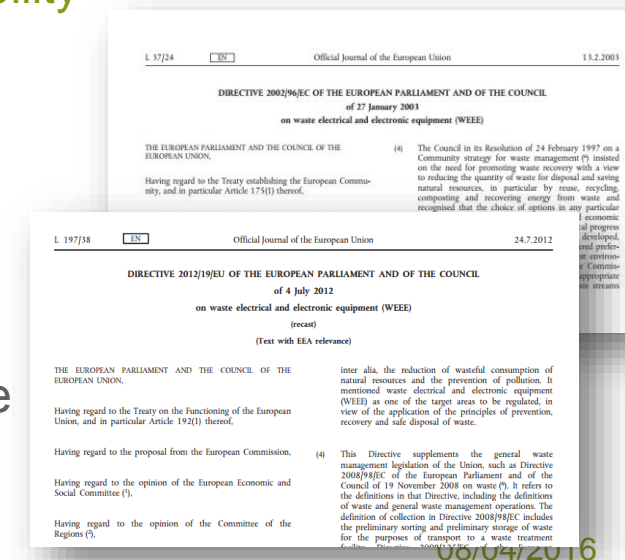
- Reduction of waste
- Promotion of re-use of EEE
- Promotion of recycling (material level)

by introducing the principle of “Extended Producer Responsibility (EPR)” to e-waste



History

- Directive 2002/96/EC (“WEEE 1”) to be implemented by member states by 13th August 2004
- Directive 2012/19/EU („WEEE 2“) replacing „WEEE 1“ to be implemented by member states by 14th February 2014



Major changes WEEE 1 to WEEE 2

- Less **product categories** 10-> 6
- Open **product scope** (“non-exhaustive list”)
- Higher **collection targets**
 - WEEE1:
 - >4 kg per inhabitant/a
 - WEEE 2:
 - 2016: 45% of put on market (POM),
 - 2019: 65 % (POM) or 85 % of WEEE generated

- **Photovoltaic Panels** put into the scope
- Take-back obligation for **retail shops with sales areas relating to EEE of at least 400 m² and “1:0”**
- Obligation to assign **“authorized representatives”** for distance sellers

Categories of EEE covered by this Directive during the transitional period as provided for in Article 2(1)(a)

1. Large household appliances
2. Small household appliances
3. IT and telecommunications equipment
4. Consumer equipment and photovoltaic panels
5. Lighting equipment
6. Electrical and electronic tools (with the exception of large-scale stationary industrial tools)
7. Toys, leisure and sports equipment
8. Medical devices (with the exception of all implanted and infected products)
9. Monitors
10. Automatic

Note: 13 August 2012 to 14 August 2018

CATEGORIES OF EEE COVERED BY THIS DIRECTIVE

1. Temperature exchange equipment
2. Screens, monitors, and equipment containing screens having a surface greater than 100 cm²
3. Lamps
4. Large equipment (any external dimension more than 50 cm) including, but not limited to:

Household appliances; IT and telecommunication equipment; consumer equipment; luminaires; equipment reproducing sound or images, musical equipment; electrical and electronic tools; toys, leisure and sports equipment; medical devices; monitoring and control instruments; automatic dispensers; equipment for the generation of electric currents. This category does not include equipment included in categories 1 to 3.

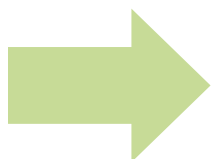
5. Small equipment (no external dimension more than 50 cm) including, but not limited to:

Household appliances; consumer equipment; luminaires; equipment reproducing sound or images, musical equipment; electrical and electronic tools; toys, leisure and sports equipment; medical devices; monitoring and control instruments; automatic dispensers; equipment for the generation of electric currents. This category does not include equipment included in categories 1 to 3 and 6.

6. Small IT and telecommunication equipment (no external dimension more than 50 cm)

Why were PV panels put into scope?

- A study contracted by the EU Commission and conducted by BIO Intelligence Service concluded in spring 2011, that PV panels shall be categorized as electronic equipment



to assure a proper take-back and recycling of those

- The wish to have an open scope definition in WEEE 2:

“electrical and electronic equipment’ or ‘EEE’ means equipment which is dependent on electric currents or electromagnetic fields in order to work properly and equipment for the generation, transfer and measurement of such currents and fields and designed for use with a voltage rating not exceeding 1 000 volts for alternating current and 1 500 volts for direct current”



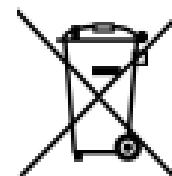
1.5. CONCLUSIONS

Assessment of the four scenarios considered leads to the conclusion that including photovoltaic panels in the WEEE Directive reduces the potential negative environmental impacts of improper disposal and generates economic benefits. Limiting the quantity of photovoltaic panels improperly disposed of has positive environmental impacts of avoiding lead and cadmium leaching and avoiding potential resource loss due to non-recovery of valuable conventional resources and rare metals in photovoltaic panels which are improperly disposed of.

General Obligations to Producers

Product Related Aspects

- Product design to facilitate easy dismantling, re-use and recycling
- Product Marking (Crossed-Wheel-Bin)
- Information for users (what to do with e-waste)
- Treatment information (to recycling facilities)



Administration

- Regular Reporting of volumes put on market
- Registration with national register (according to country)
- Financial Guarantee Provisioning (according to country)

Take-Back and Recycling

- Assure and finance take-back by joining a collective scheme or by individual take-back (actually WEEE, battery & packaging)

Focus France & Germany

France

- **French Decree** on waste Electrical and Electronic Equipment and used Electrical and Electronic Equipment (“Décret no 2014-928 du 19 août 2014 relatif aux déchets d’équipements électriques et électroniques et aux équipements électriques et électroniques usagés”) entered into force on **23rd August 2014**.
- Since this decree PV is introduced under a **new category 11**
- A **specific PV permit** for a new PV Compliance scheme valid as from 1st January 2015
- PV modules are **all considered as B2C**
- Registration with the **WEEE National Register** managed by ADEME

Germany

- **German Act** Governing the Sale, Return and Environmentally Sound Disposal of Electrical and Electronic Equipment (“Gesetz zur Neuordnung des Rechts über das Inverkehrbringen, die Rücknahme und die umweltverträgliche Entsorgung von Elektro- und Elektronikgeräten, ElektroG”) of **20th of October 2015**, entered into force on **24th of October 2015**
- § 2 Scope, (1) **includes PV Modules** into the act.
- Germany **differentiates B2B and B2C products** (B2C with higher obligations such as mandatory financial guarantee, regular take-back)
- Registration with the **WEEE national register “EAR”** (Elektro-Altgeräte-Register)

Summary

- **Photovoltaic panels** and related equipment such as inverter are **covered** by EU WEEE directive
- **Producers or their Authorized Representatives** who are putting Electrical/Electronic Equipment on the EU market **shall make sure**:
 - their **products are marked** correctly and the **user information** is delivered with the product
 - they **follow all national obligations** in all markets they sell to fulfilling their “Extended Producer Responsibility”
- In Landbell / ERP we believe in **competition in the waste market stimulating innovation** being good for the environment and the consumer



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Thank you.

LANDBELL® AG für Rückhol-Systeme
Rheinstraße 4 K-L
55116 Mainz

Internet: www.landbell.de

ERP SAS
94 rue Saint-Lazare
75009 Paris

Internet: www.erp-recycling.org

Contact:

Dr. Thomas Fischer

Head of Market Intelligence

E-Mail: t.fischer@landbell.de