

## Export of E-Scrap and Int. PGM Recycling

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# Results of Two Studies on Behalf of UBA Germany



3rd International PGM Round Table  
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# Project: Export of E-Waste

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## Project

**“Transboundary shipment of waste electrical/  
electronic equipment / electronic scrap –  
Optimization of material flows and control”**

By Ökopol, Hamburg, Germany. March 2010.

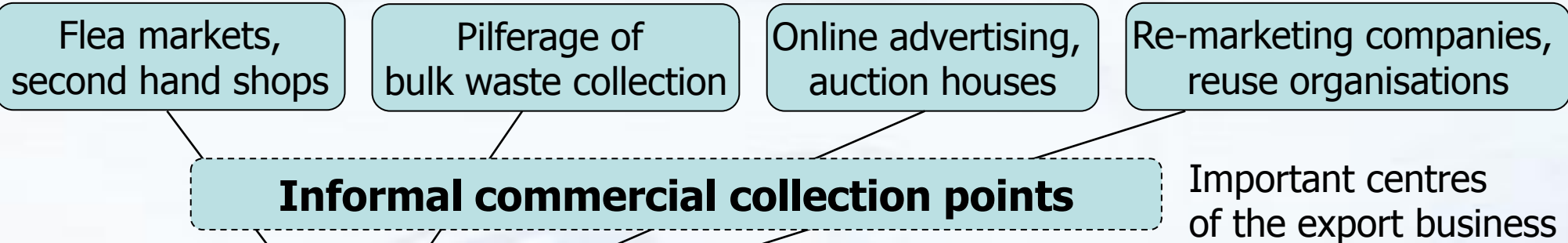
[http://www.umweltbundesamt.de/uba-info-  
medien/mysql\\_medien.php?anfrage=Kennnummer&Suchwort=3769](http://www.umweltbundesamt.de/uba-info-medien/mysql_medien.php?anfrage=Kennnummer&Suchwort=3769)

## Aim

- **Extensive statistical analysis** to quantify exports of used EEE/ WEEE via the Port of Hamburg
- Develop measures and regulation structures to optimise material flows

# Export of E-Waste: Results

## Sources of origin of the exported EEE



**Export of new/ used /waste EEE (2008)**

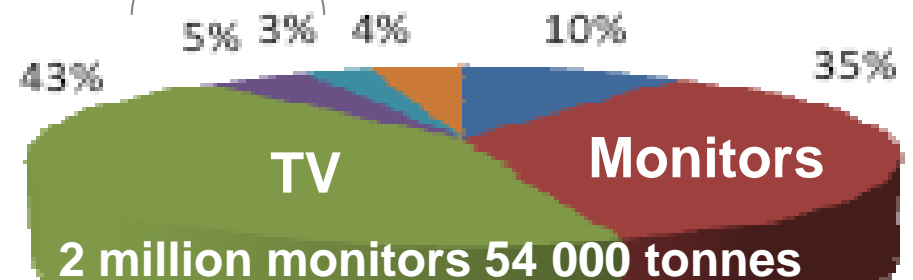
**> 150 000 tonnes**

**Export of resources**

≈ 1 200 kg Ag,  
≈ 300 kg Au,  
≈ **120 kg Pd**

**Non-EU countries**

Small and other household equipment    Computer    Refrigerators and freezers



# Export of E-Waste: Measures

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## Measures to optimize the control and monitoring of transboundary flows of electrical equipment

### 1. Statistics, Enforcement of Waste Shipment Control

- Better access to export data for waste export authorities, evaluation routines.
- Differentiation of used and new equipment in EU export statistics nomenclature
- Risk profiles for used and waste EEE

### 2. Sources of exported equipment

- Systematic survey of the informal “collection points”
- Collection of bulky waste: protect WEEE against pilferage

### 3. Non-export of non-functional equipment to non-EU states

- Re-marketing companies: Quality label for export.
- Manufacturers: Corporate export policies and voluntary self binding agreement
- WEEE recast: Distinction waste/non-waste EEE

### 4. Cooperation with countries of destination

- Re-export of disassembled fractions, support for waste infrastructure

# Project: Int. PGM Recycling

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## Project

### "Material Efficiency and Resource Conservation" (MaRes)

### Task 2.2: International Recycling of PGM Flows

By Wuppertal Institut, Germany. 2008-2010

*== Preliminary results ==*

## Aim

- Analysis of relevant PGM export streams and losses, recycling potentials:  
a) automotive catalysts, b) EEE - examples: mobile phones and monitors.
- Strategies and measures to improve the international PGM cycle.

## Measures to improve PGM recycling from catalytic converters (preliminary proposals)

### 1. Determination of quality standards for catalytic converters logistics and dismantling

- Inhomogeneous collection and treatment practice of used catalysts causes PGM losses.
- Proposal: “Good Practice Guidelines” for the collection, decanning and recycling of automotive catalysts.
- Commitment of involved actors (collectors, dismantlers, refiners) to include the “Guidelines” in contracts between refiners and preceding service providers.
- Certified by independent expert.

#### Questions

→ Effective?

→ Initiator?

# Int. PGM Recycling: Measures (2)

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## 2. Installation of an international system of redistribution

- Producer responsibility. Strategic procurement with raw material.
- Proposal: Self commitment of vehicle producers and/or catalyst producers: **collection/recycling targets** for used catalysts.
- To promote collection:  
Labelling of catalysts, deposit on catalysts.

### Open questions, e.g.

- Labelling? RFID feasible?
- Management of global deposit schemes feasible?

## 3. ELV export guidelines

- EU level: ELV guidelines under preparation (definition used vehicle/ ELV)  
→ draft: in case of concern: certification “vehicle is repairable”.

## 4. Promote knowledge and technology transfer

- Programmes like EU-Twinning-Programme or German initiatives, e.g. BMU advisory assistance programme and export initiative for recycling technologies (RETech).

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# Thank you for your attention!



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