

# ORP

## Organicacion Responsabilidad Productor



# Extended Producer Responsibility (EPR)

Integration of environmental costs into the market price of the product



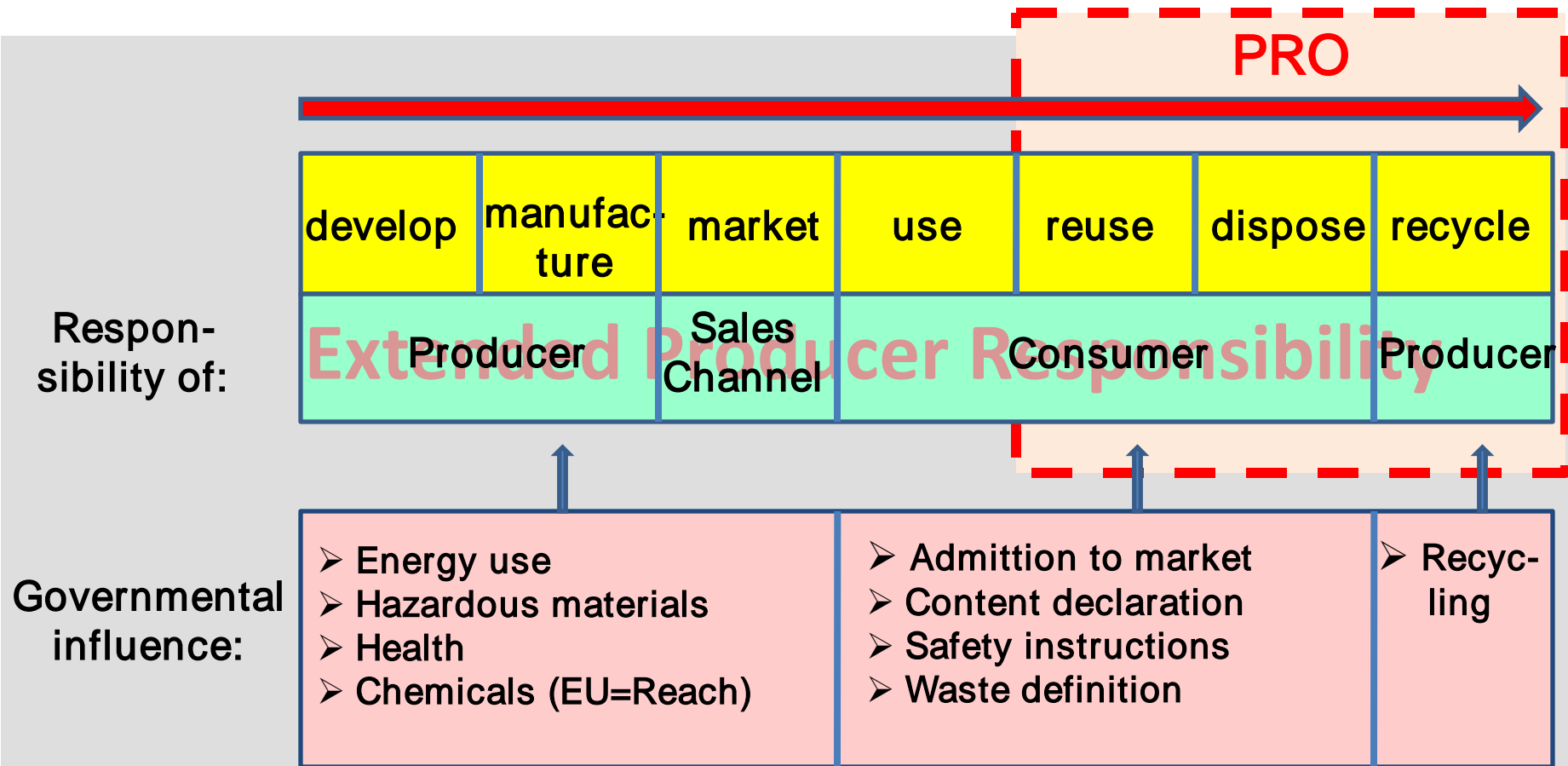
Manufacturer, importer or point of sale are financially or physically responsible



Take back of products and manage them through reuse, recycling or energy production

Delegate responsibility to a producer responsibility organization (**PRO**)

# EPR and the product life cycle of EEE



# Possible solutions for e-waste



**Individual  
producer  
solutions**

**< 1994 in Switzerland**

**Industry  
solutions  
through  
associations**

**Important  
Producers are  
founding a new  
company**

**Collaboration  
between some  
producers**

**Governmental  
solution**

# Waste in Europe

Public authorities



1

Public authorities



2



Public authorities  
and PRO's



with energy  
recovery



3

Polluter-pays-principle  
Extended producer responsibility

Volumes  
Toxity

# Total waste stream and e-waste

## Example Switzerland

5 Mio. t municipal waste  
(660 kg per capita)

50% incineration  
(energy recovery)



50% recycling  
(material recovery)

48% paper/carton  
30% compostable waste  
11% glass  
**4% e-waste**  
7% various (batteries, PET,  
textiles, beverage cans)

# The seven pillars for building a Producer Responsibility Organization



# Goal: Closing material cycles

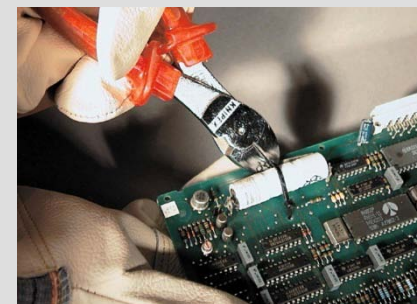
**use/reuse**



**recollection**

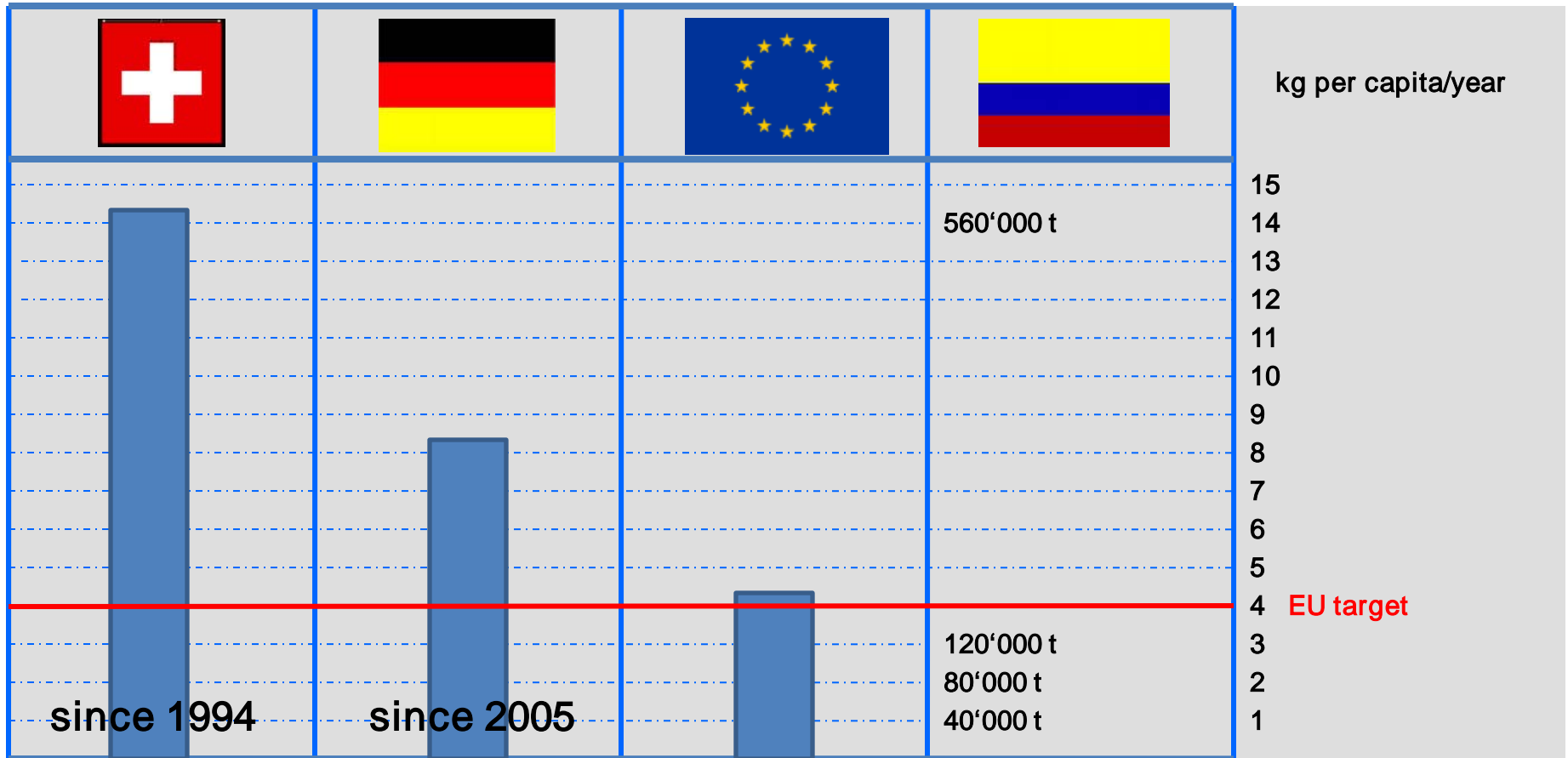


**materials recovery/  
remanufacture**

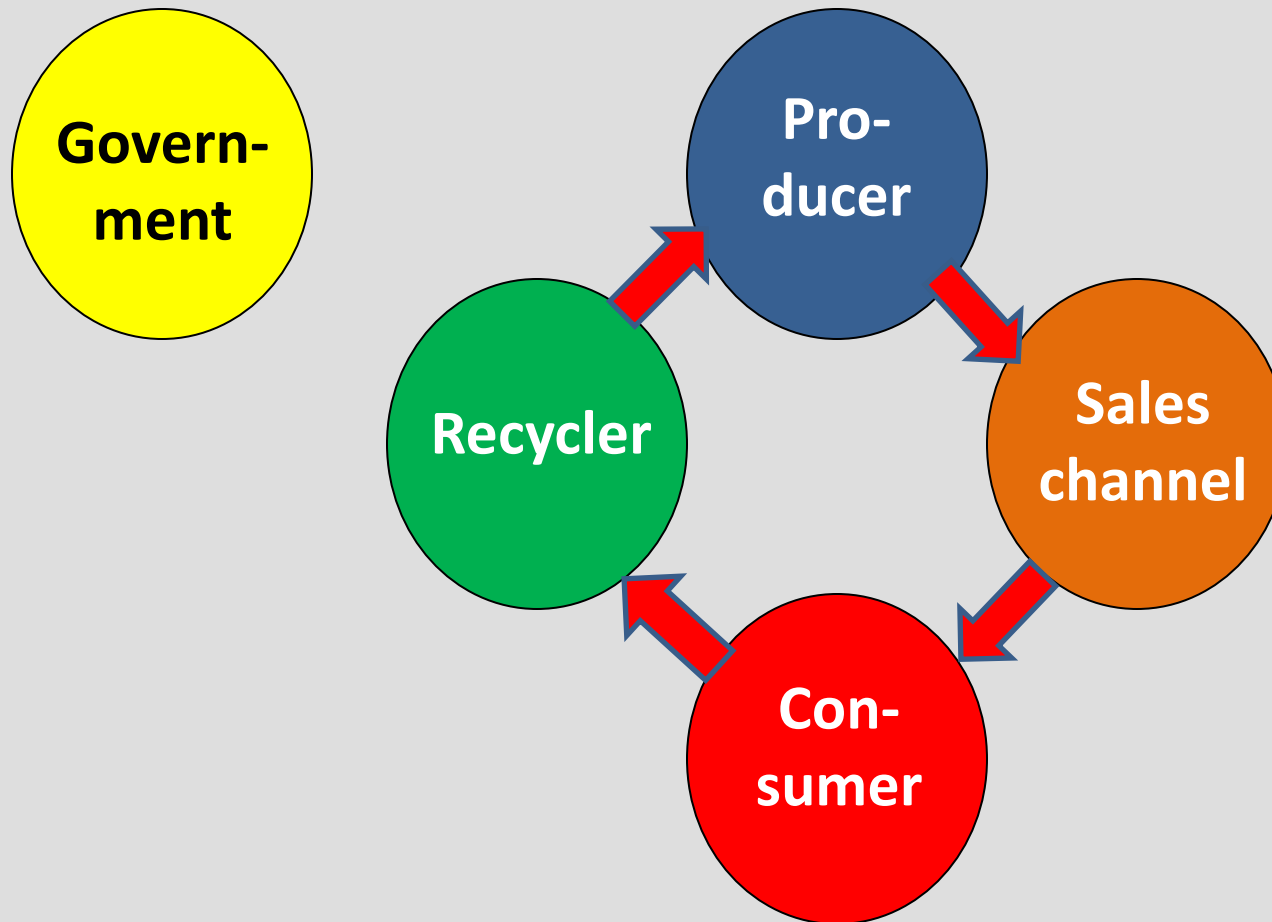


**dismantling**

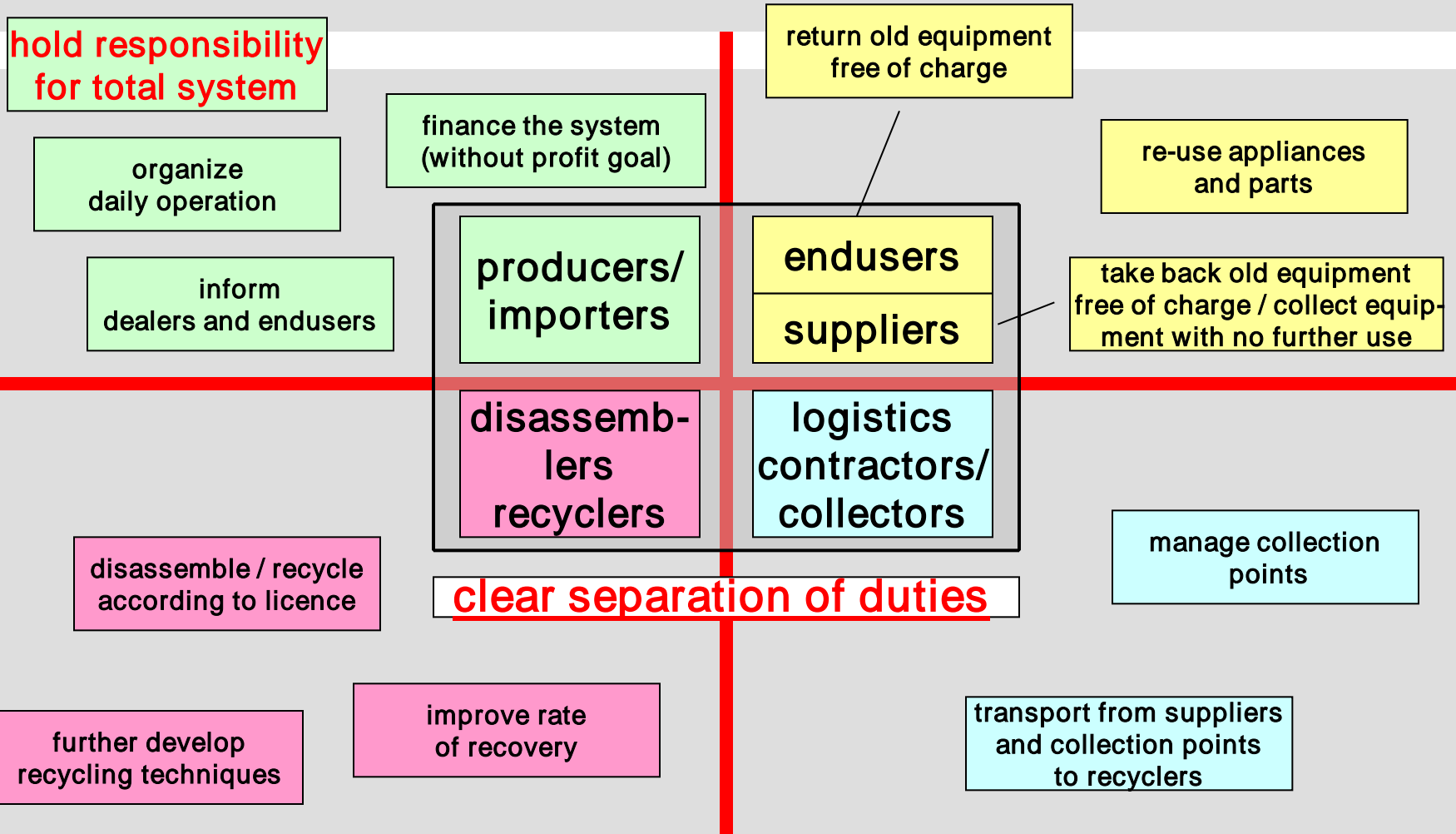
# E-waste per capita



# PRO Stakeholders



# Separation of duties (example SWICO)



# Balanced situation

## Government

- No landfilling
- Preservation of resources
- Apply EPR (Extended producer responsibility)



## Industry

- Entrepreneurship
- Freedom of scope
- Industry solutions

# Convention and Regulations

- **Convention between Producers and System**
- **Regulation between System and Dismantlers / Recyclers**
- **Regulation between System and Collection Points**
- **Regulation between System and Logistician**
- **Contracts with control bodys**

# Challenges and benefits for the industry

1. EPR (yes, we can...) ➤ sitting in the driver's seat

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2. partnership with government ➤ reasonable legislation

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3. organizing PRO's ➤ self-determination instead of heteronomy

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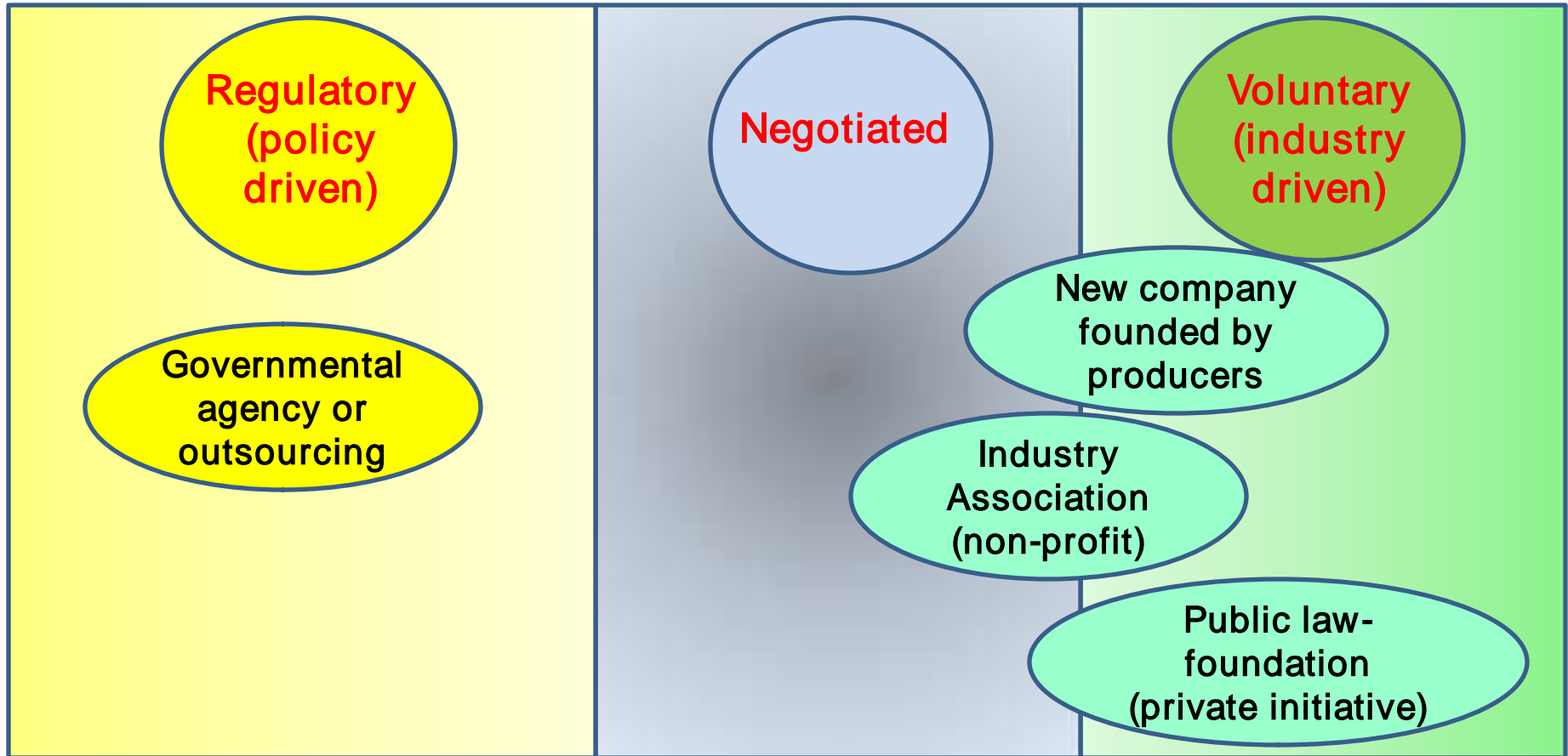
4. financing ➤ best and cheapest solution

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5. association as operator ➤ image of the association, control of the recycling business

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# Positioning of e-waste recycling systems



# Recycling know-how is important

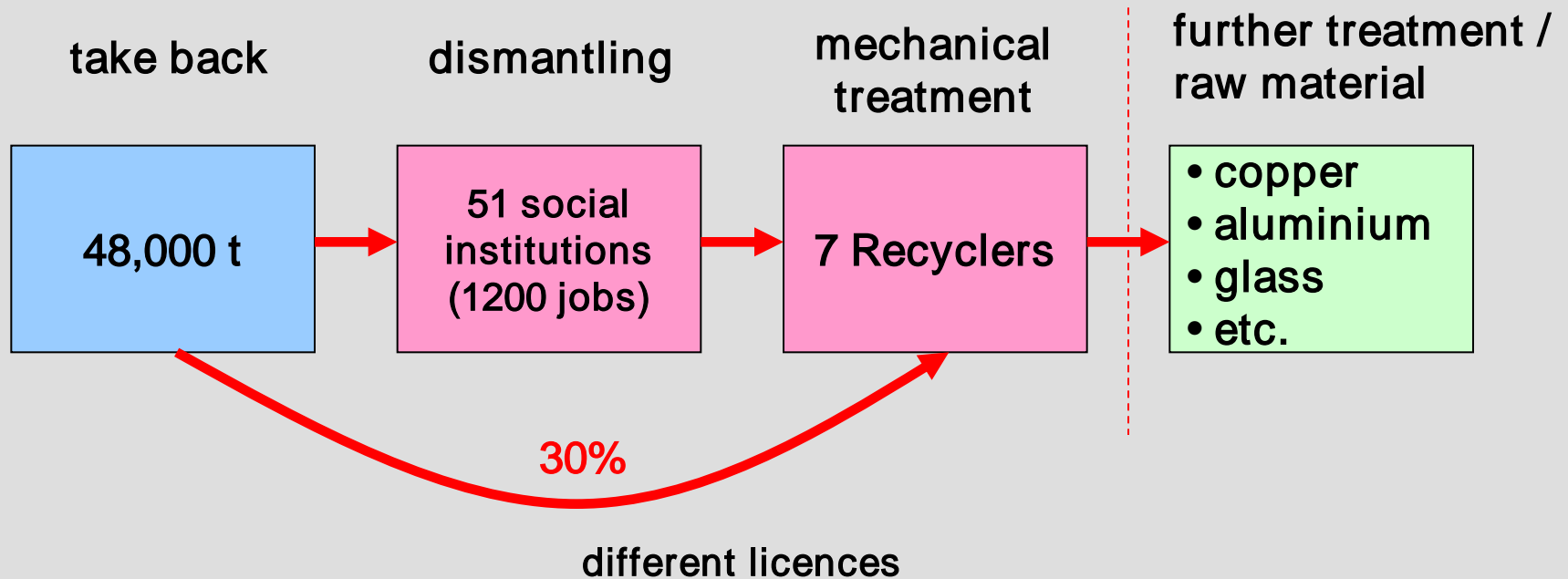


Sorting, reuse, dismantling, depollution,  
preparation for mechanical treatment

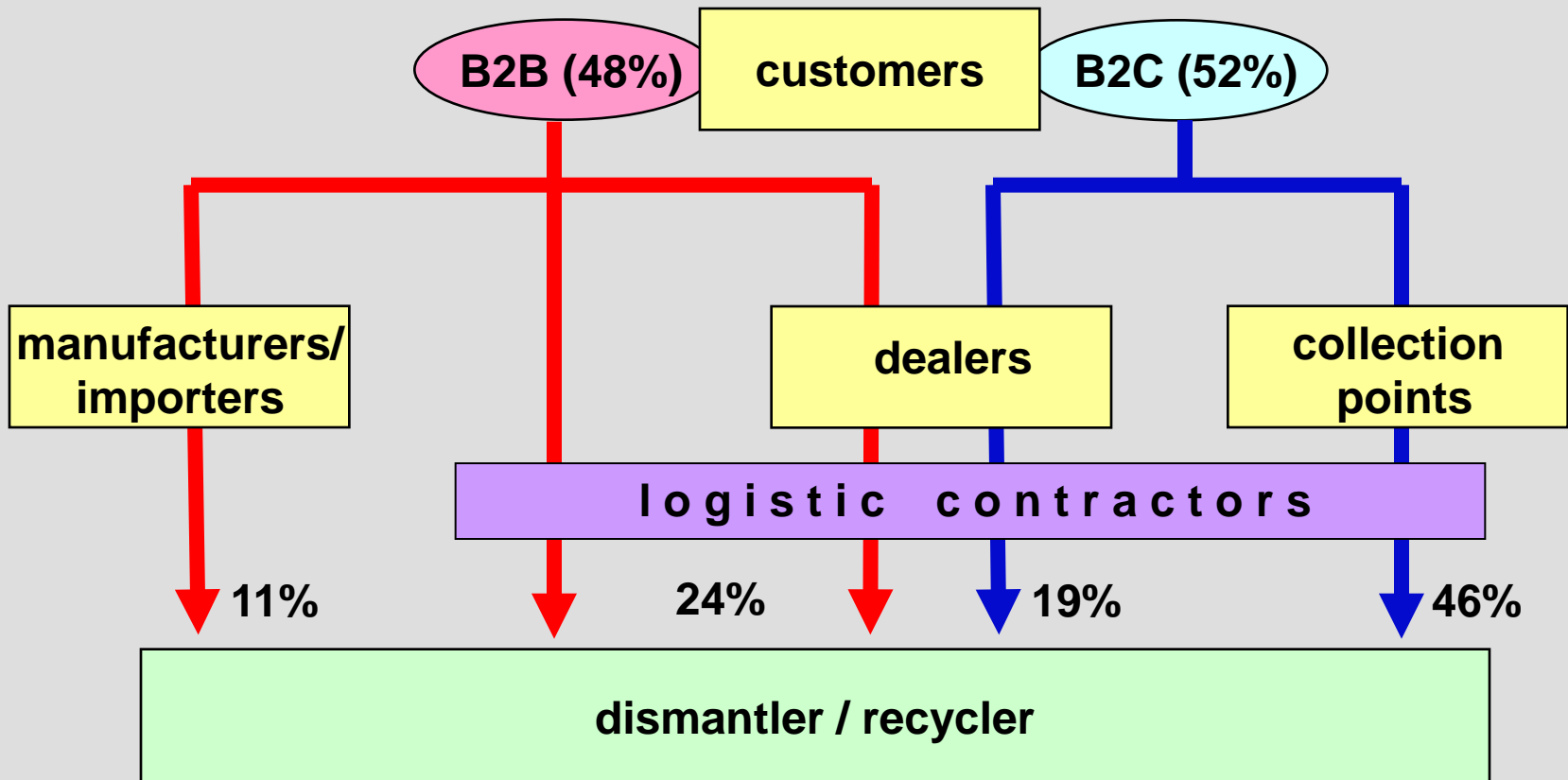


mechanical treatment

# Manual disassembly and mechanical treatment

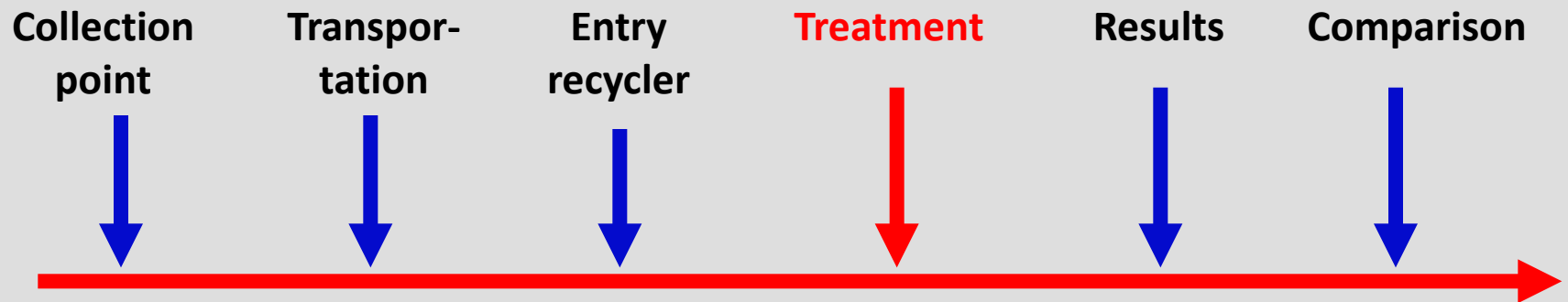


# Take-back IT and Consumer Electronics (Switzerland)















Collection days through collection points and recyclers

# Independent controlling



- Quality assurance
- Process conformity
- Cost supervising

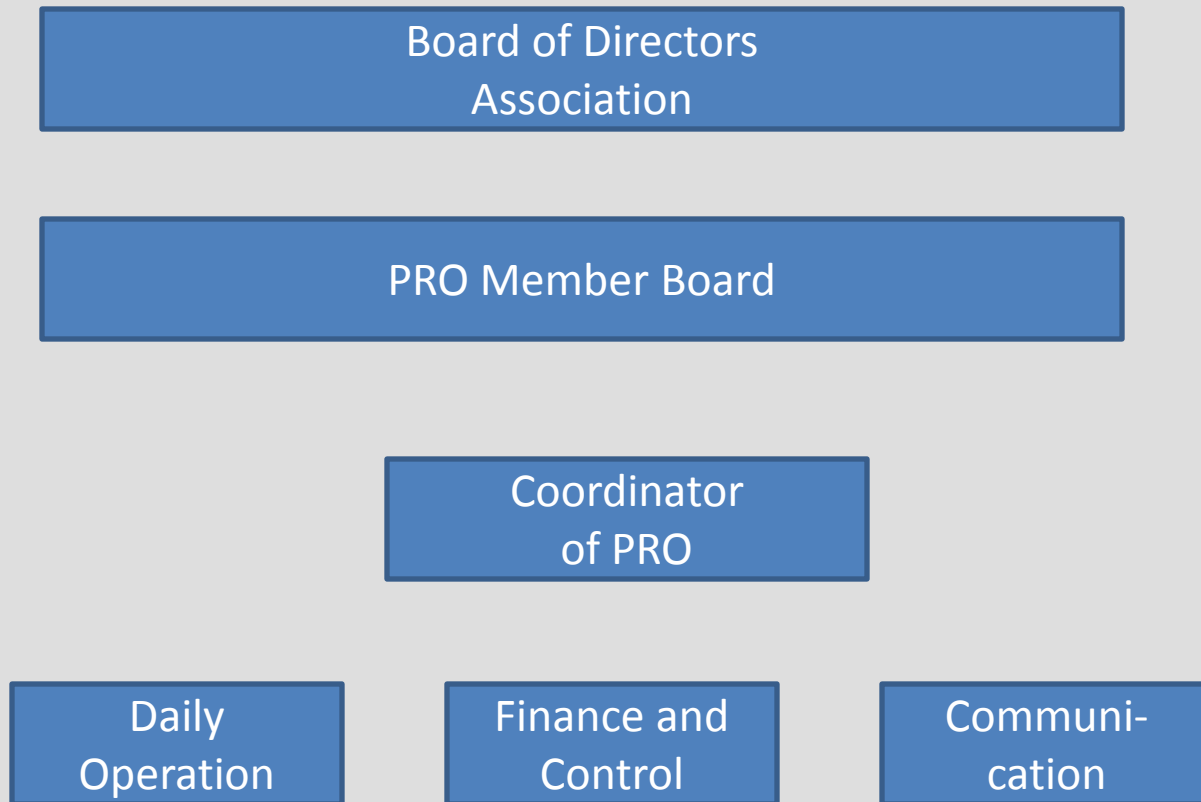
# Financing

	Consumer	Producer	Sales channels	Government
advance fee for consumers on new products				
take-back fee for consumers on old products				
producer pays fees according market input				

# Communication to Endusers

- System owner (Association), Flyers, Homepage
  - Communalities (waste calendar)
  - Events with reportage in newspapers
  - Contests for schools
  - Collection days by dealers / recyclers
  - Advance Recycling Fee
  - Flyers together with bills for new equipment
  - Special Information by producers and Sales Channels
  -
- 
- No newspaper advertisements

# PRO Organigram



## PRO's in Europe

## PRO's in Switzerland for e-waste:

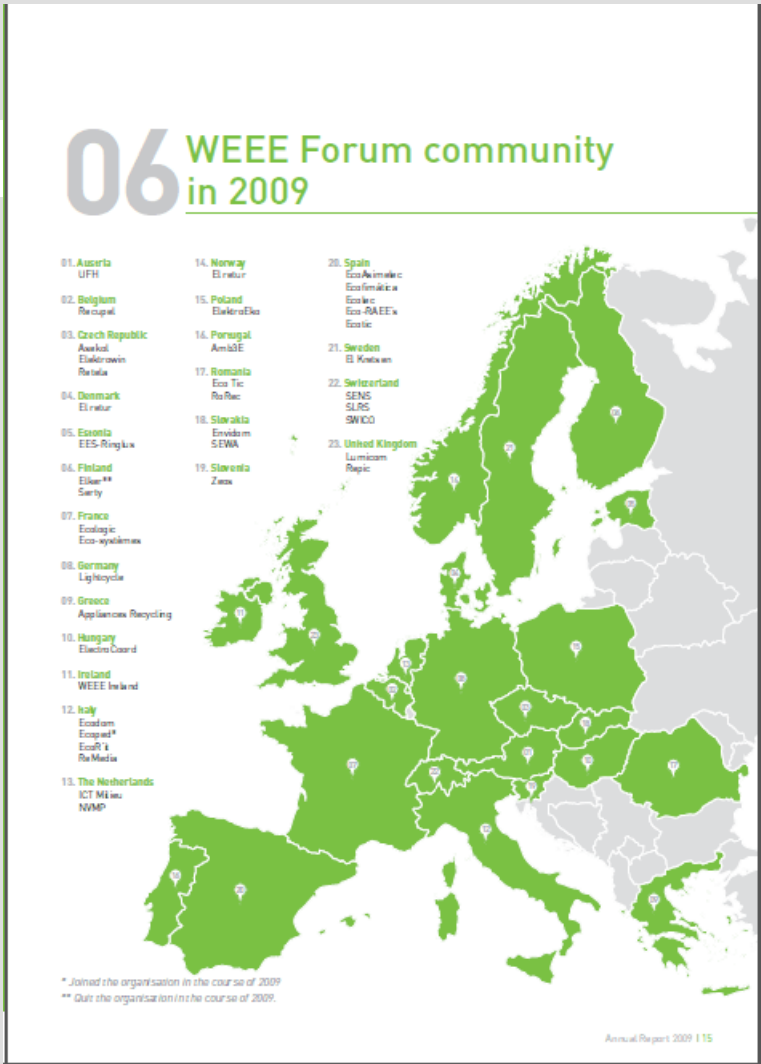


- Large household appliances
- Small household appliances
- IT and Telecom
- Consumer electronics
- Lighting equipment
- Electrical/electronic tools
- Toys and sports equipment
- Medical devices
- Monitoring/control instruments
- Automatic dispensers



- ### Other PRO's:
- Bottles
  - PET
  - Batteries
  - Textiles
  - Beverage cans

**40 PRO's from  
 25 countries  
 are covering  
 two third of  
 Europ's e-waste  
 (2 Mio tons)**



### Main activities:

- Collect, exchange and compare information
- Provide stakeholders with proper information
- Helping new systems
- Aiming towards pan European coordination

**Thank  
you**

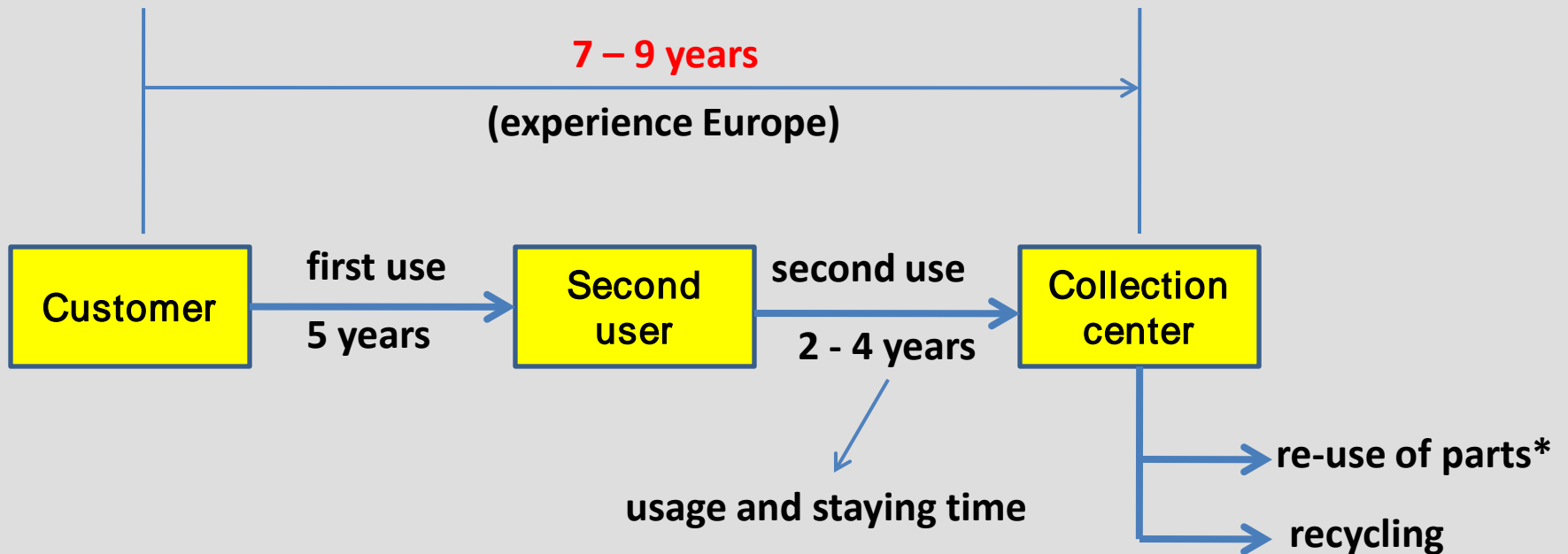


**Peter Bornand  
Consultor International  
Sonnenhof 23  
CH 8121 Benglen  
Switzerland**

**Tel. 0041 (0)44 737 34 29  
E-Mail: bornand@ggaweb.ch**



# Re-use of PC's and Printers (30% of recycling target)



\* if allowed by producers

**Conclusion:** Re-use happens ahead of collection!