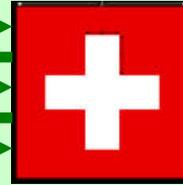
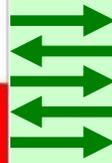


Chile



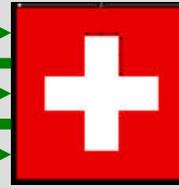
Switzerland

Hotel Santiago Park Plaza
07 November 2007

Residuos electrónicos y responsabilidad extendida del Productor en Chile



Chile



Switzerland



16 Mio. inhabitants
756 000 km²
21 inhabitants per km²

Germany



France

Austria

Italy

Waste in Switzerland



**2,4 Mio t
Incineration
(28 incinerators)**

**5 Mio. t
Municipal waste
(no landfill)**

660 kg per capita

**2,6 Mio t
Recycling**



+ construction waste	11,9 Mio t
+ special waste	1,3 Mio t
+ trade/industry waste*	1,4 Mio t
Total waste	19,6 Mio t
	2,6 t per capita
* Iron scrap	0,9 Mio t
* Cars/metal objects	0,3 Mio t

48% paper	
30% compostable waste	
11% glass bottles	
4% electronics (100 000 t)	
7% various >	2 360 t batteries
>	31 600 t PET
>	45 000 t textiles

System development

- 1988	1989 - 1993	1993/1994	1994 - 2007
<p>Incineration Shredder</p> <p>Expensive!</p>	<p>Individual producer systems</p> <p>Pressure from customers</p>	<p>SWICO Study</p> <p>Producer responsibility Nationwide acceptance Secured financing Controlled recycling</p>	 <p>Collective system for IT and Office Equipment</p> <p>1999 Mobile phones 2000 Graphical equipment 2001 Telephone equipment 2002 Consumer electronics 2002 Photo 2003 Dental equipment 2005 Medical & measuring equipment</p>



> 400 members
> 46'000 employees
> US\$ 15 billion revenue

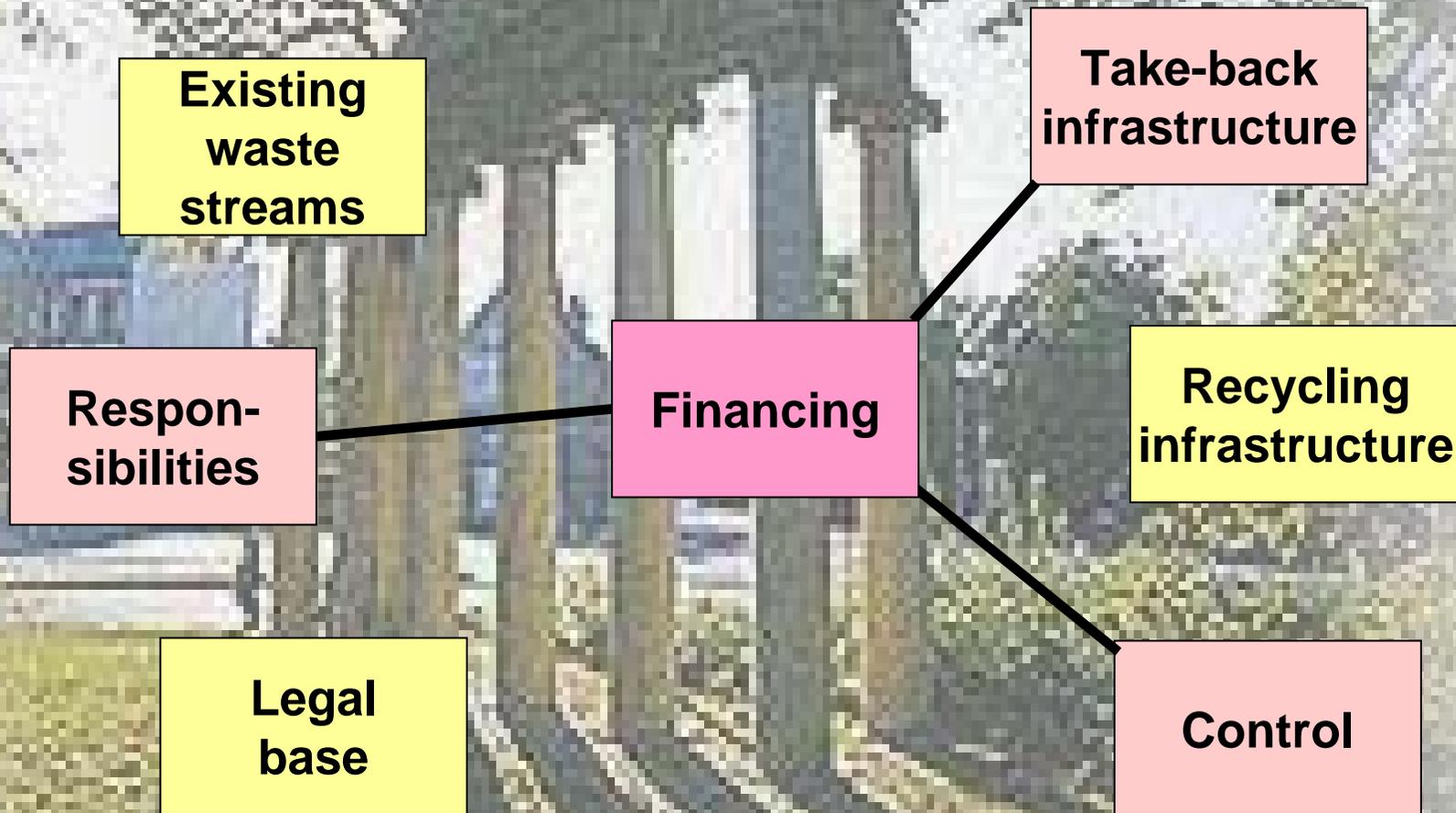
Industries:

IT and Telecom
Office equipment
Consumer electronics
Software and services
Graphical industry

Services to members:

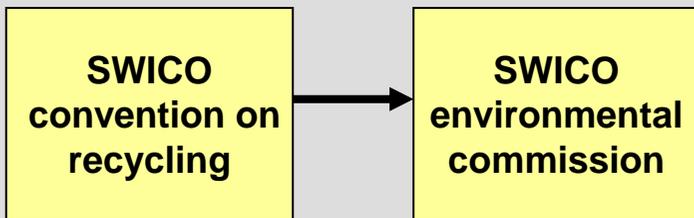
1. Communication platform
2. Co-partner for trade fairs
3. Training/Education programmes
4. Legal support
5. Safety and security programmes
6. Complete sets of ICT-contracts
7. Intellectual property
- 8. SWICO Recycling**
9. etc.

Seven pillars of recycling systems



Extended producer responsibility

The ten WEEE categories:



500 members

30 with own recycling activities (individual)

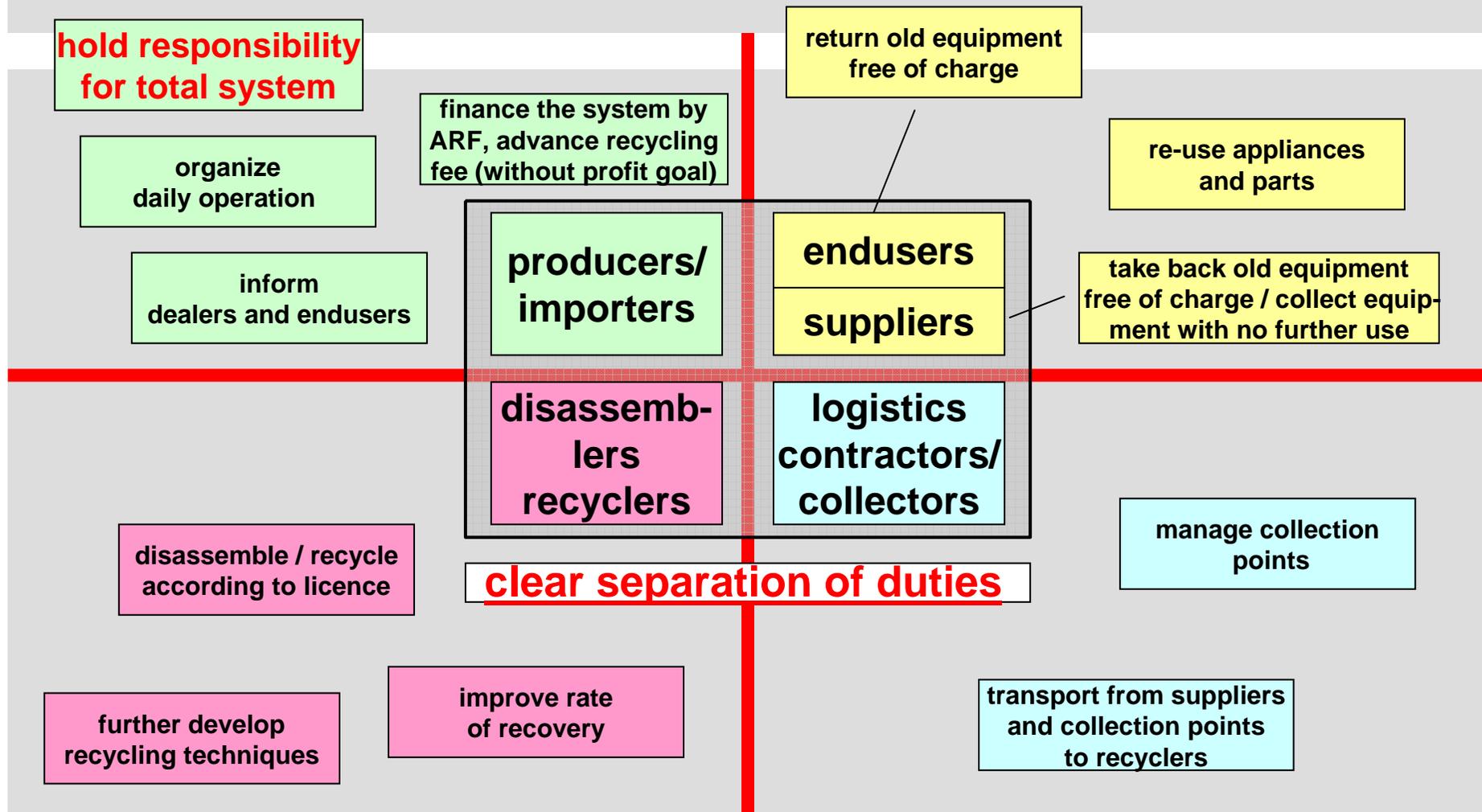
- Agfa
- Canon
- Esag
- HP
- IBM
- Motorola
- Philips
- Siemens
- Sun
- Xerox

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



SENS/SLRS	7 kg
SWICO	6 kg
Total	13 kg
Inhabitant/year	

Separation of duties



Producers in SWICO Commissions

Environmental Commission



Subcommissions



Organization

ORIS = Overall Recycling Info System (Administration)
2RE:ACT = Review Recycling Activities (Material Flow)
PERFECT = Performance Evaluation and Comparison Tool

Subcommissions:

Telecom
 Consumer electronics

Environmental Commission (EC)
 Chairman: Peter Bornand

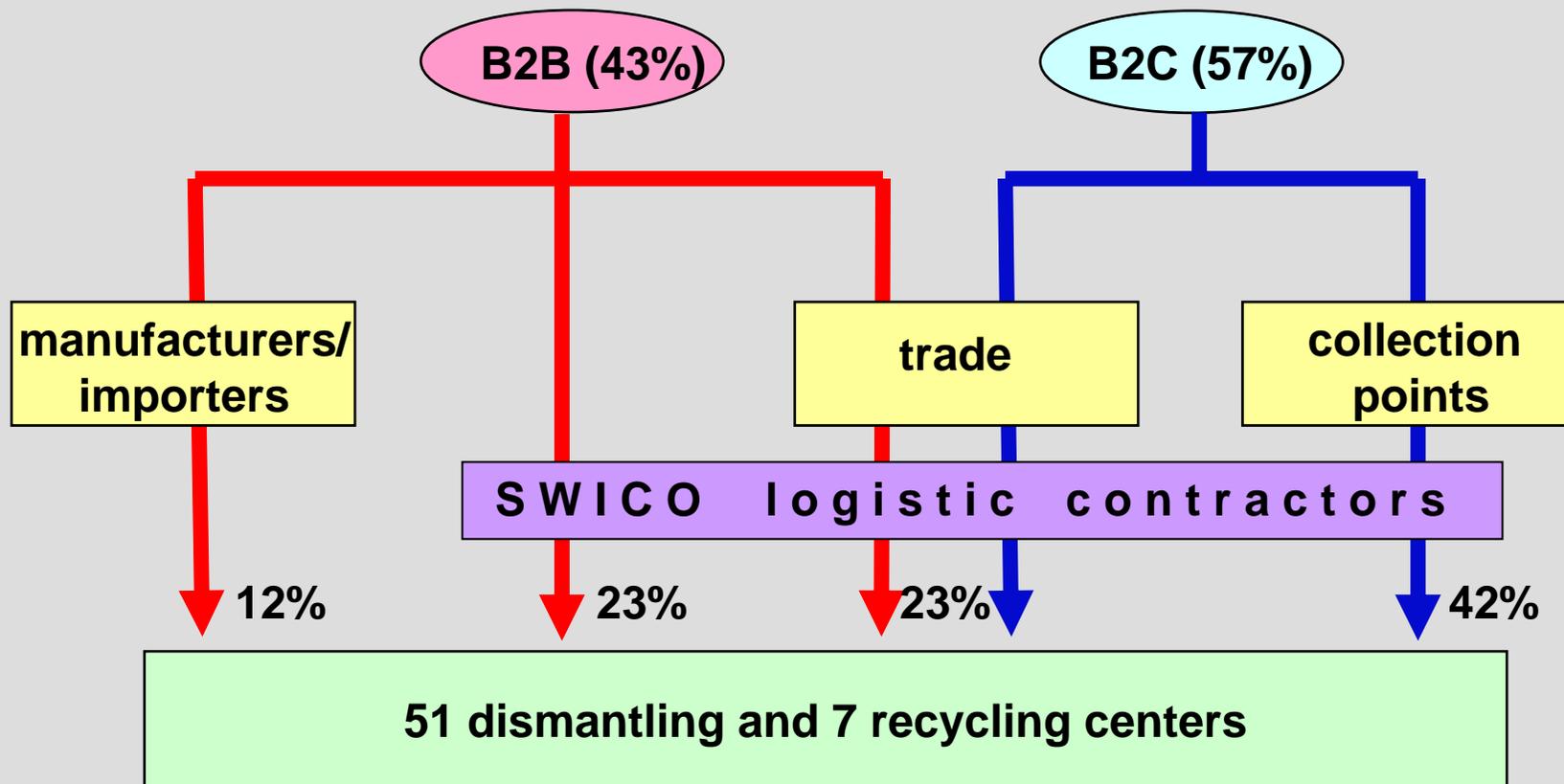
4 IT
 2 Office equipment
 1 Consumer electronics
 1 Graphical industry / Medical
 1 Mobile phones
 1 Telephone equipment

EC Operations

Paul Brändli - Director - Ext. relations	Dennis Lackovic - Controlling - IT systems - Ext. relations	Maria Stumpo Administration	Sibylle Gaudy Finance	Hans Schmid 30% Control of Collection points	Paul Langlotz 40% - Acquisition - Chairman CE	Roland Habermacher 50% Inputcontrol (2Re:act)
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- Administration collection points - Transport coordination - Recycling	Outsourcing	- Technical control (EMPA) - Accounting - Auditing
---	--------------------	--

Nationwide acceptance

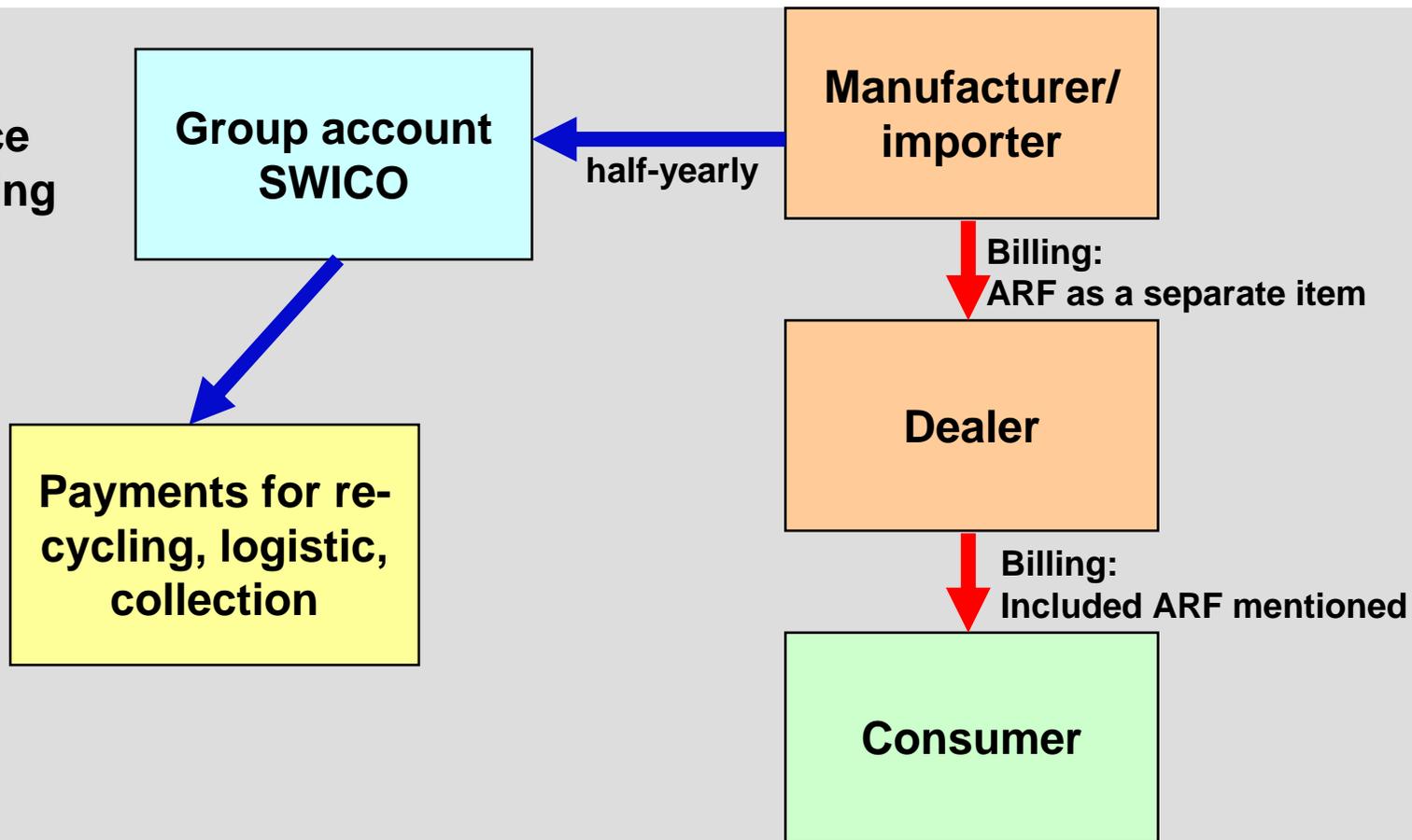


Choosing the financing system

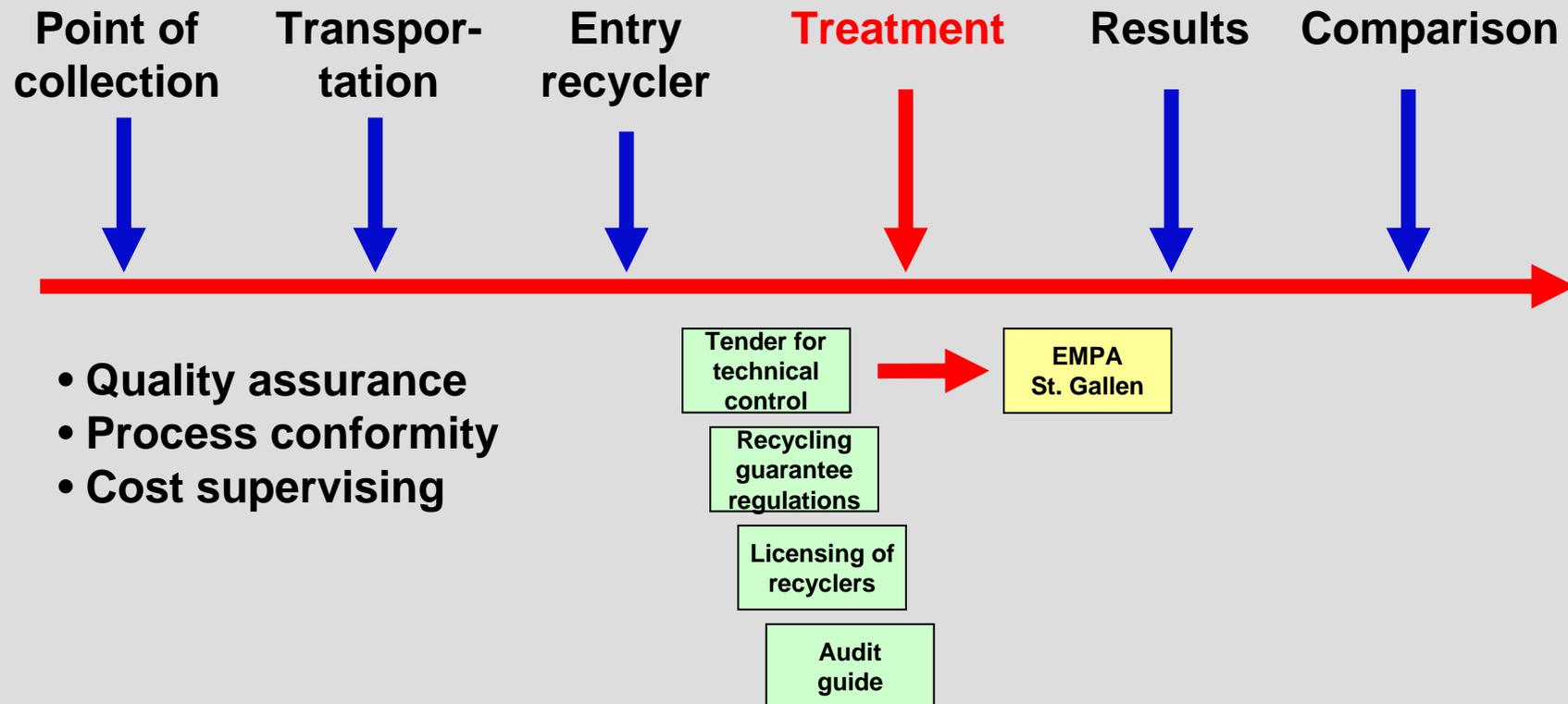
	Consumer	Producer	Trade	Government
advance fee (visible fee)				
take-back fee				
not visible producer fee				

Secured financing

ARF
Advance
Recycling
Fee

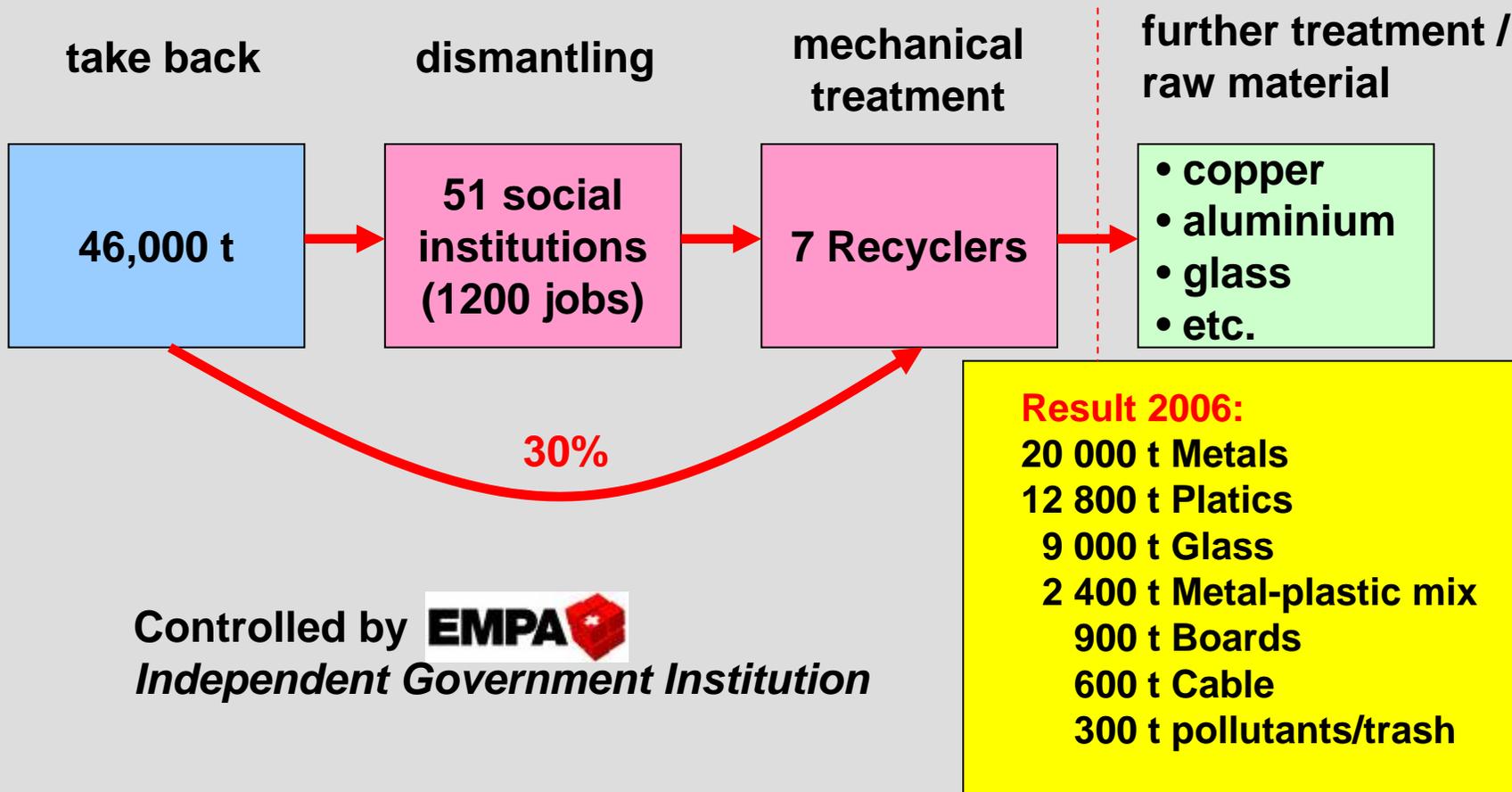


Independent controlling



Controlled recycling

Treatment in Switzerland
(as far as possible)



Legal base

Revised Swiss environmental law (1995)



Collaboration with industry associations

1994:
System without legal base

1998:
ORDEE



Ordinance on the return, the taking back and the disposal of electrical and electronic equipment

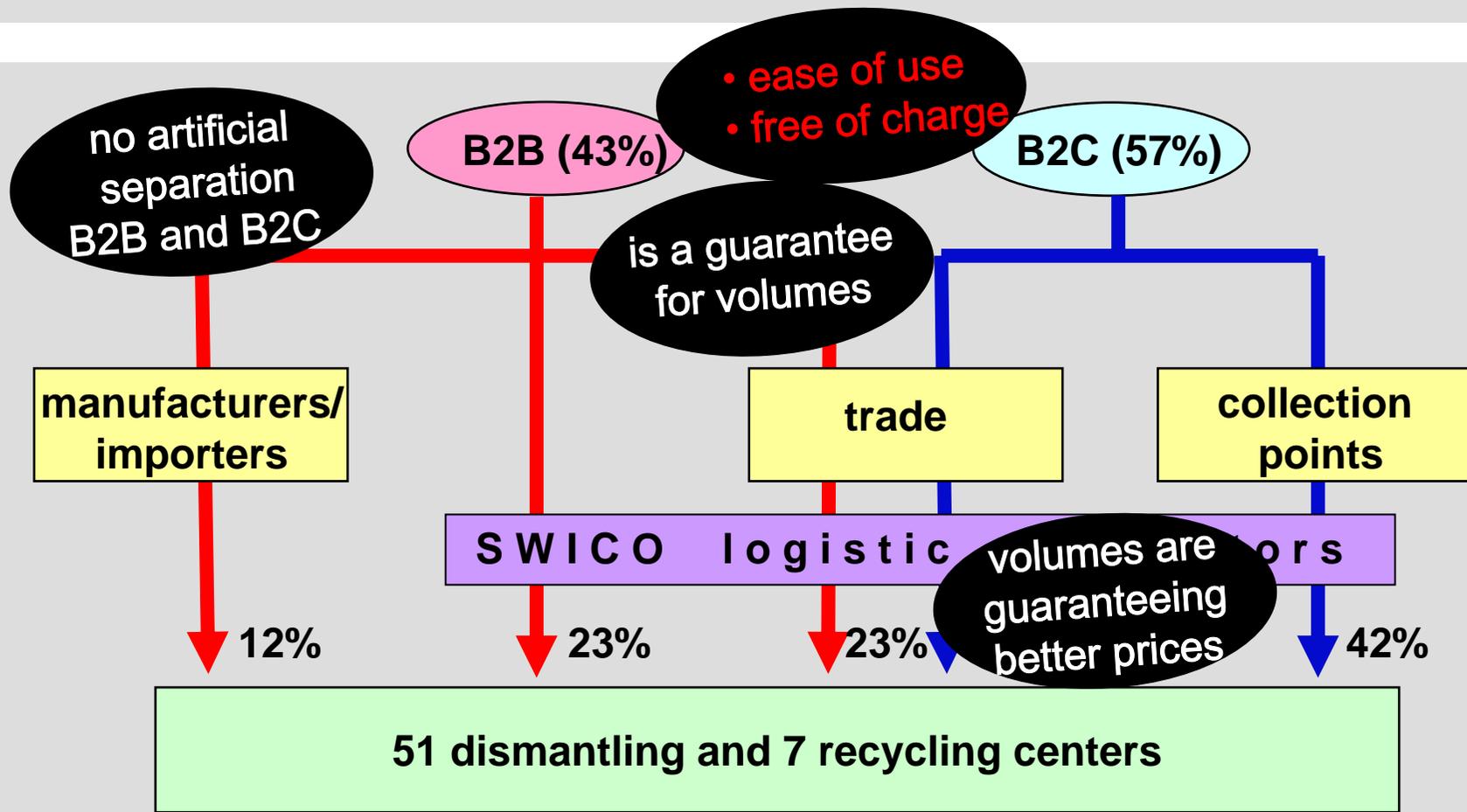
2000:
ORDEE
Guidelines

- no historical waste
- no marking
- no B2B / B2C
- no financial guarantees
- no financing rules
- no recovery rates

Experience 1

Take-back organization

success factor number 1!



Experience 2

Separation of duties

Responsibilities
are defined

hold responsibility
for total system

organize
daily operation

inform
dealers and endusers

finance the system by
ARF, advance recycling
fee (without profit goal)

return old equipment
free of charge

re-use appliances
and parts

producers/
importers

endusers
suppliers

take back old equipment
free of charge / collect equip-
ment with no further use

disassemb-
lers
recyclers

logistics
contractors/
collectors

manage collection
points

disassemble / recycle
according to licence

enables
competition
(tenders)

further develop
recycling techniques

improve rate
of recovery

transport from suppliers
and collection points
to recyclers

Experience 3

Data security

guarantee
for consumers

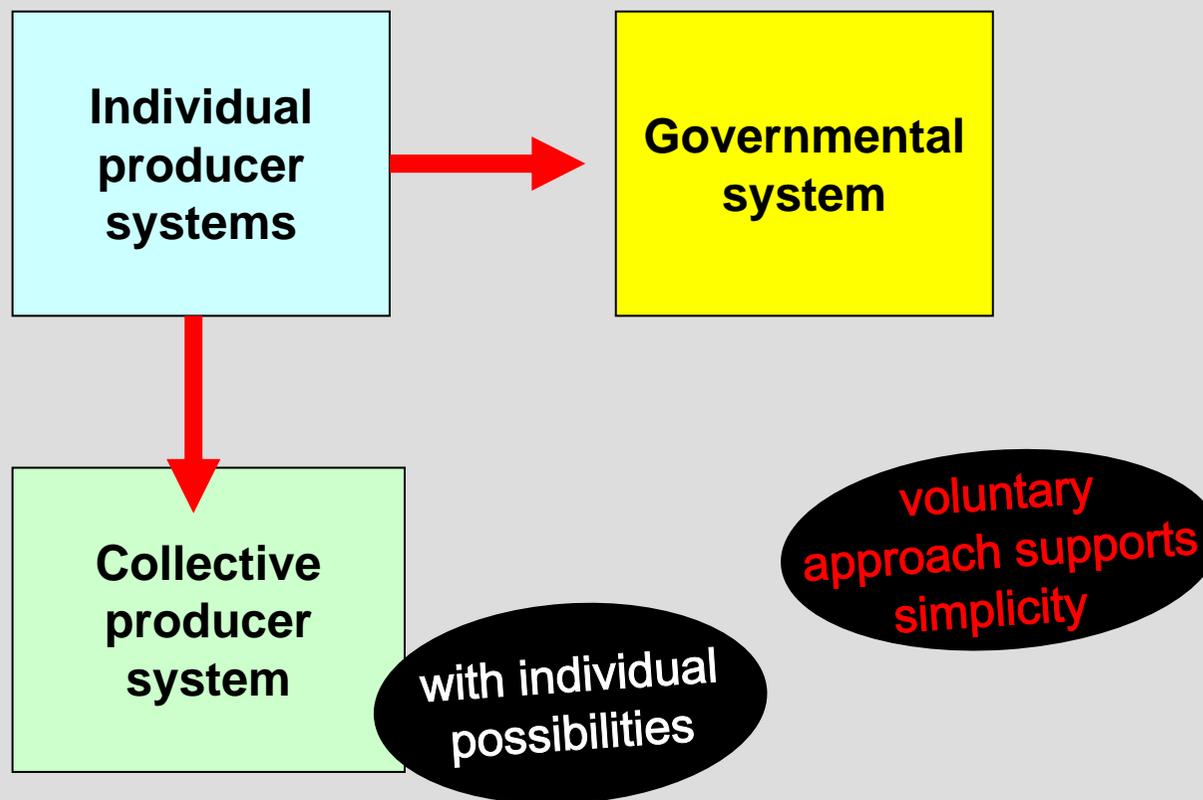
material
ownership?



Difference to
other e-waste

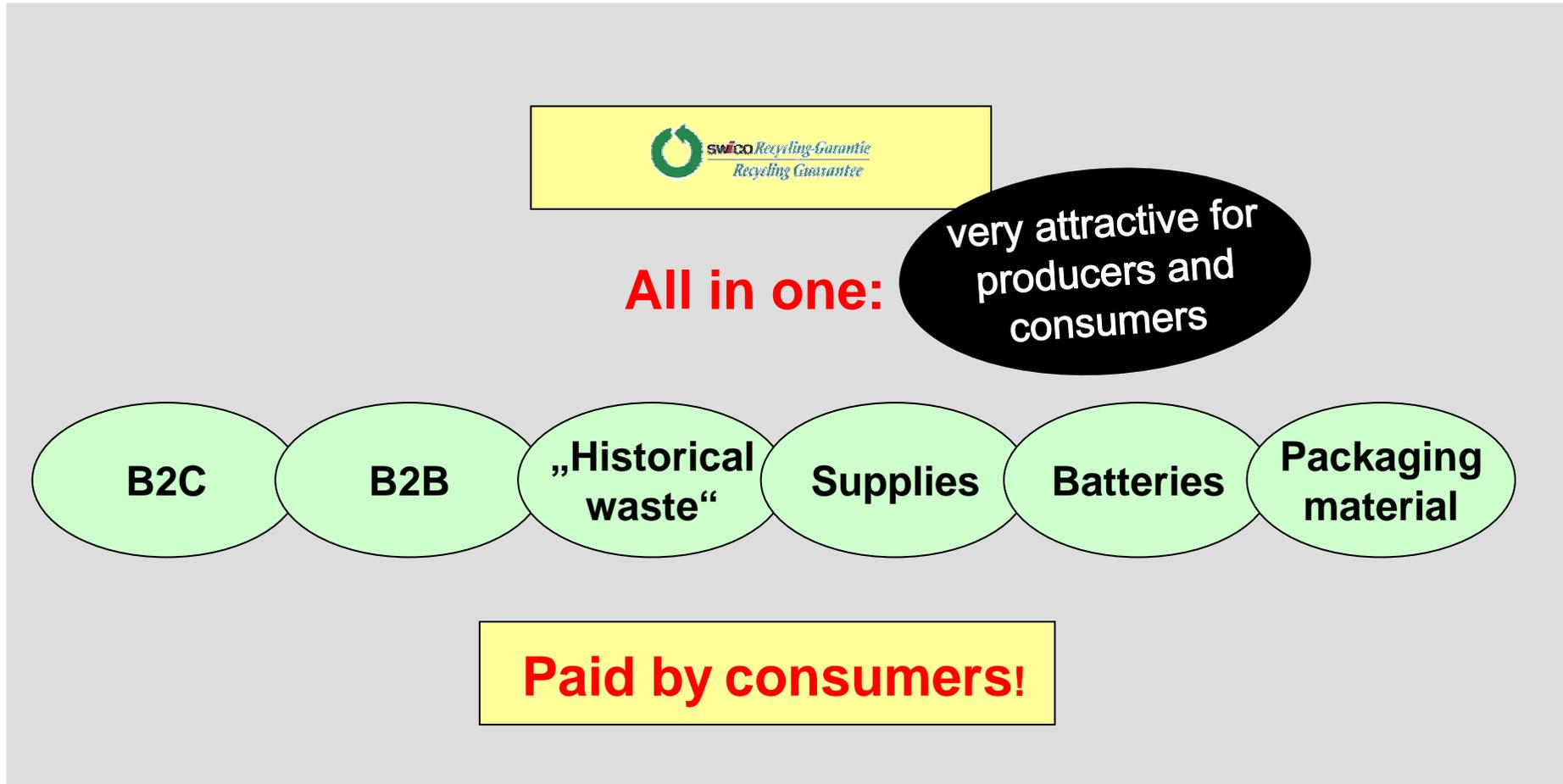
Experience 4

Individual and common systems



Experience 5

All-in-one solution

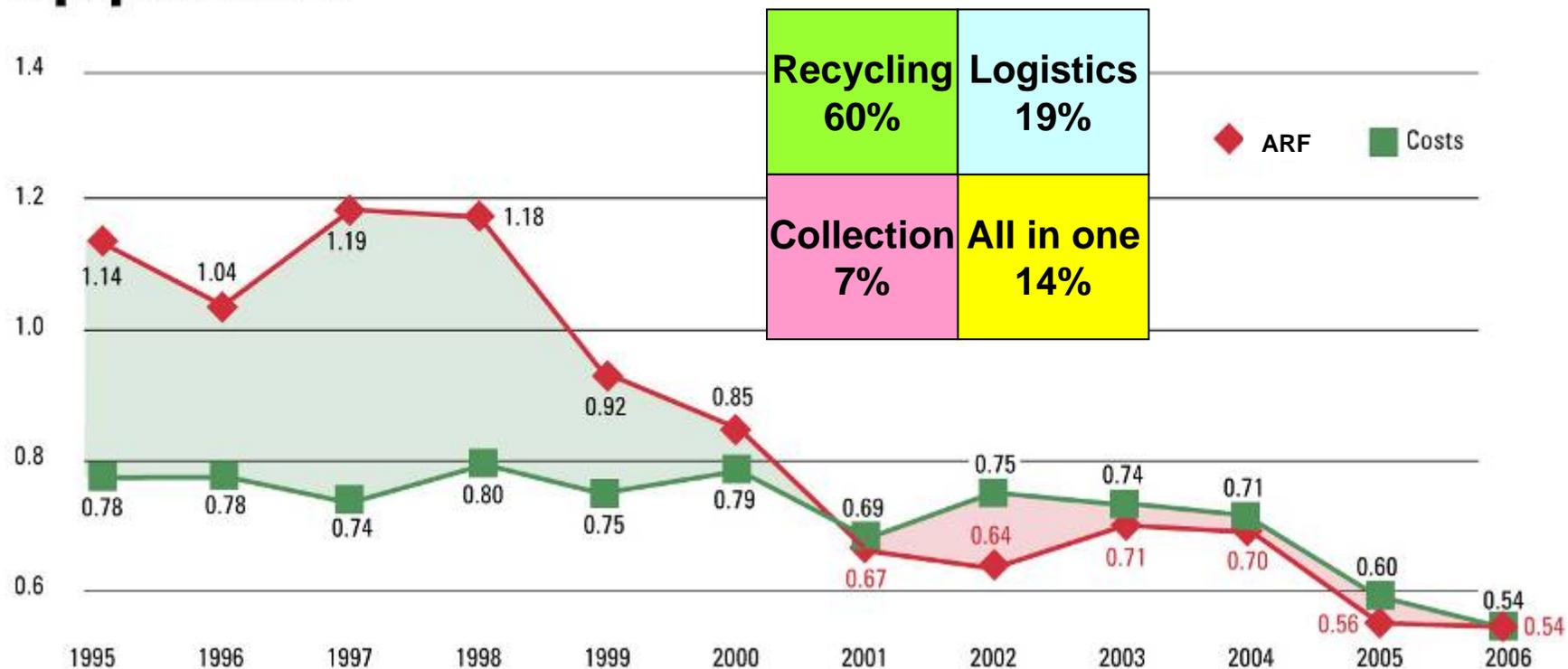


Experience 6

Costs of recycling

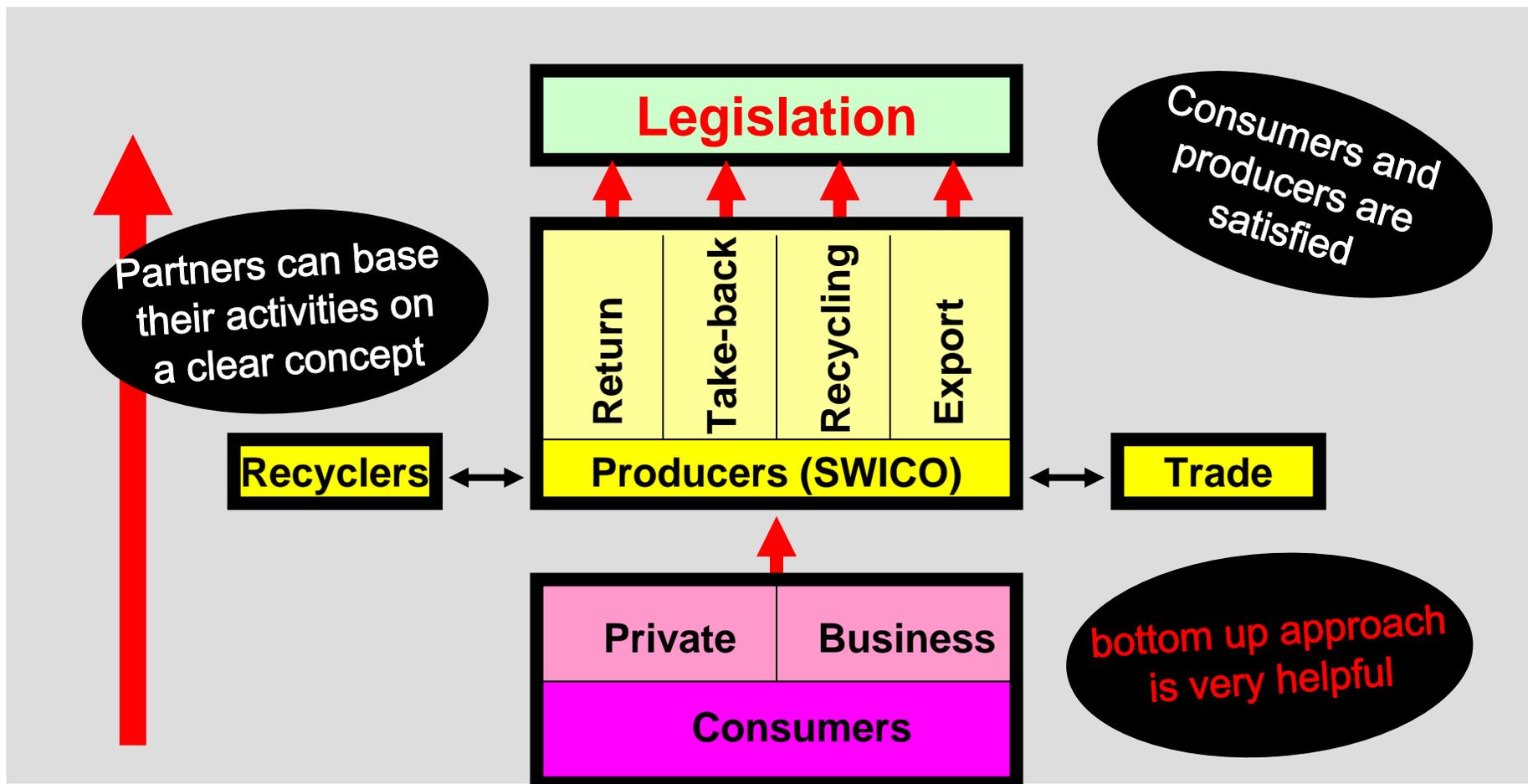
are also depending on quality, material prices and recycling technologies

Advance recycling fees versus total costs per kilogram of recycled equipment in €



Experience 7

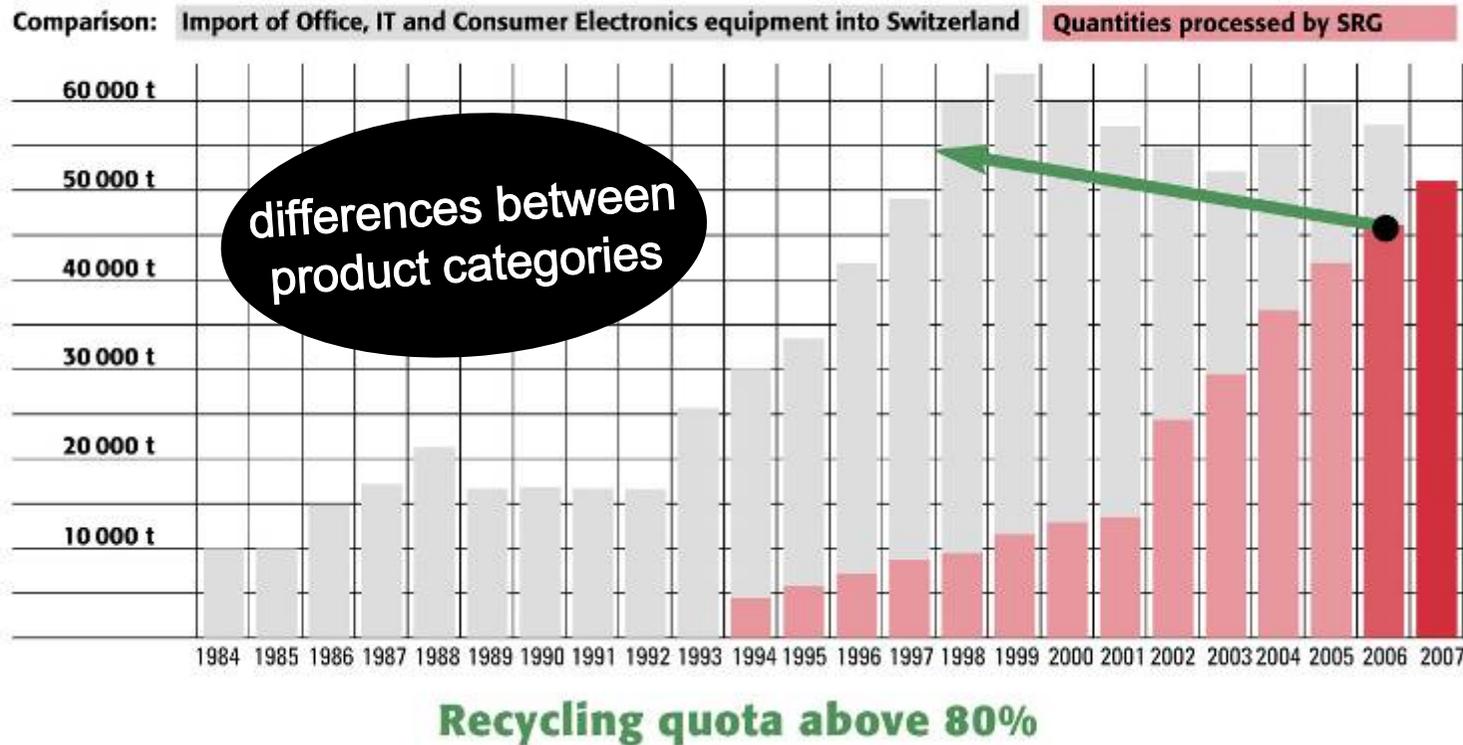
Customer satisfaction



Experience 8

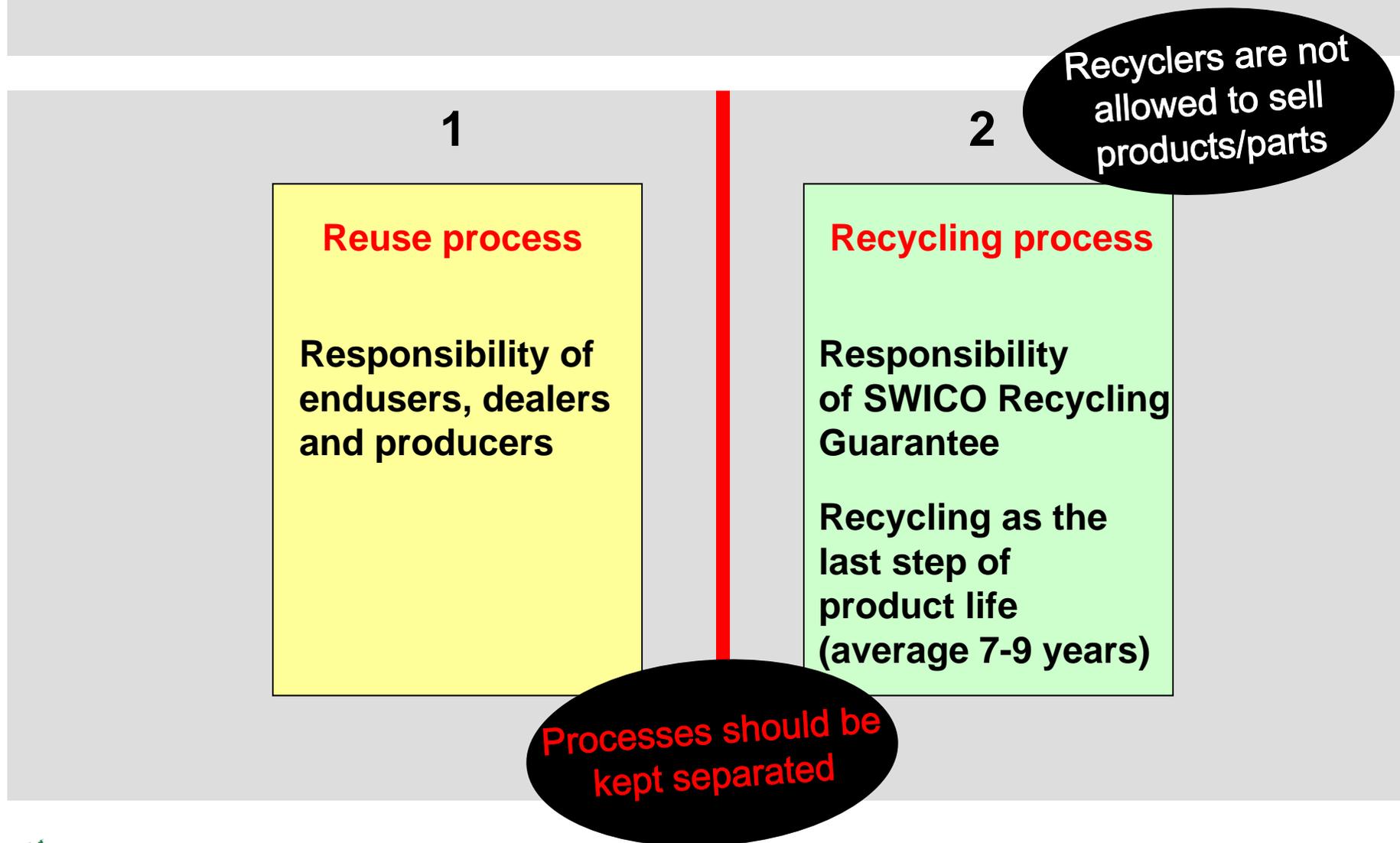
Recycled volumes

Comparison of imports with recycled quantity



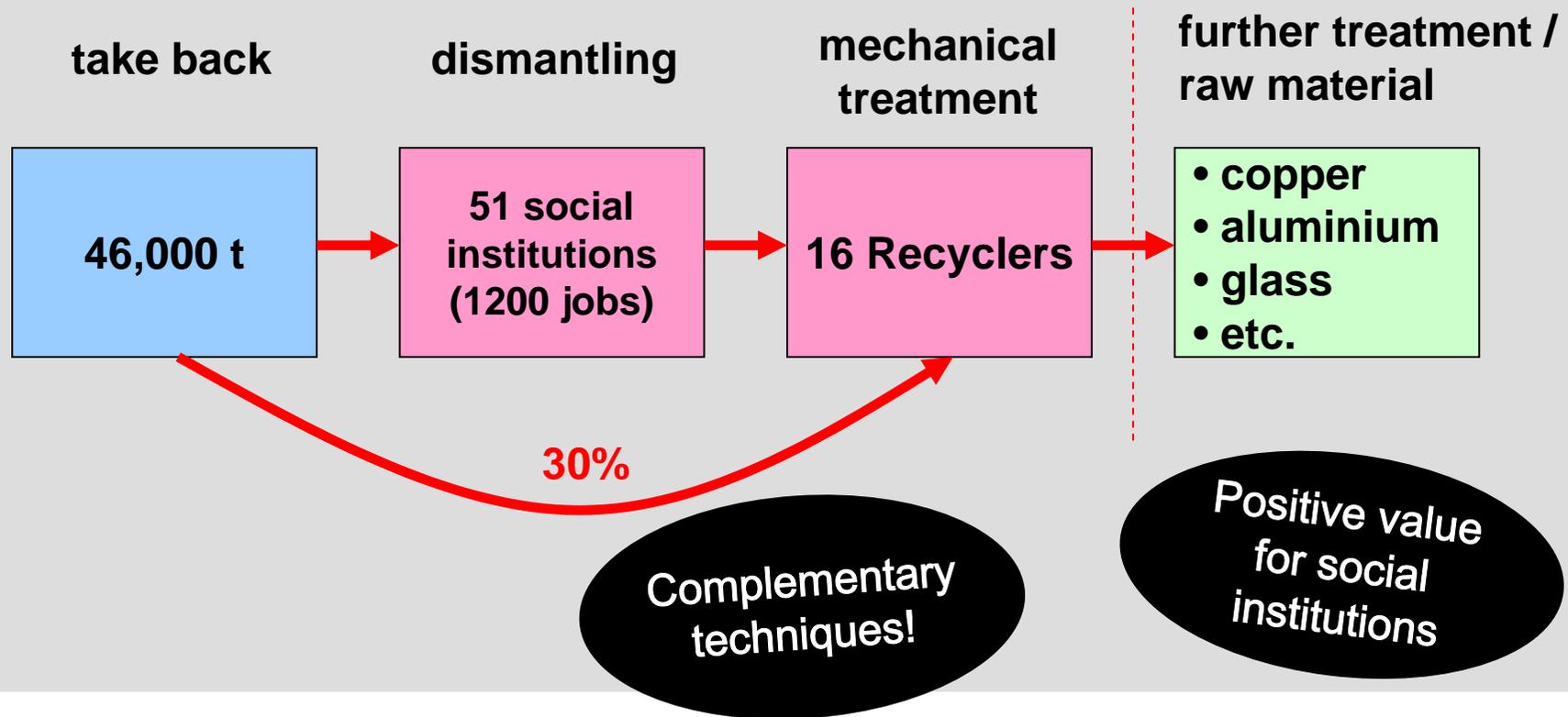
Experience 9

Reuse of products and parts



Experience 10

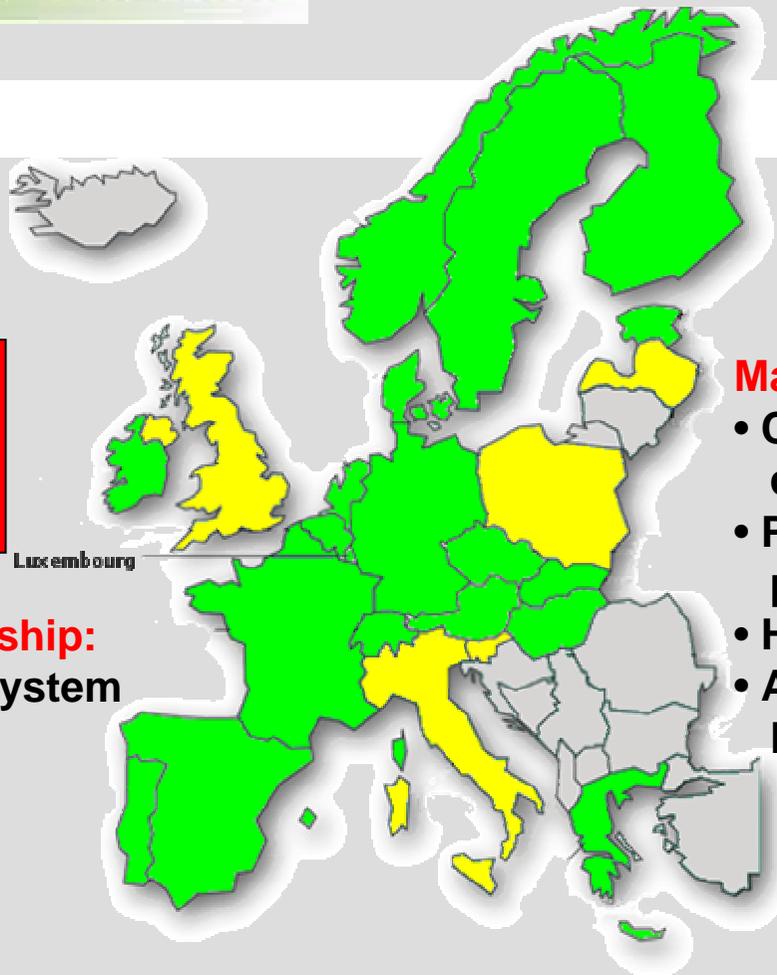
Manual disassembly and mechanical treatment



**40 Systems from
25 Countries**

Conditions for membership:

- Collective take-back system for EEE
- Fully operational
- Industry driven
- Non-profit structure



Main activities:

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

WEEE FORUM



Comparisons

WEEE FORUM

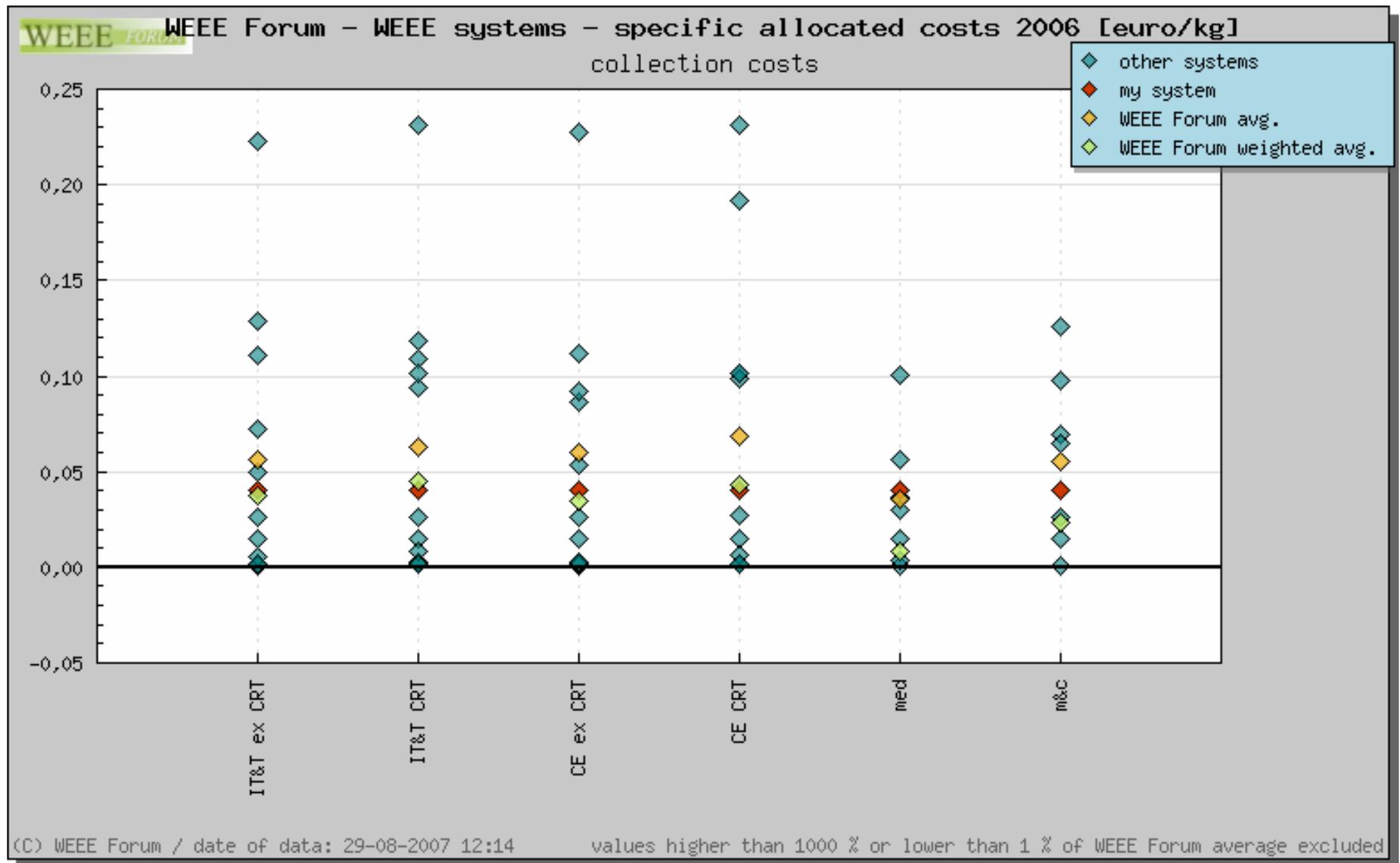
European comparison of quantities taken back in kilograms per resident in 2005

	IT equipment	CRT monitors	Consumer electronics	Television sets	Total
Lowest value	0,6	0,4	0,4	0,8	2,2
Medium value	1,5	0,9	0,6	1,3	4,3
Highest value	2,1	1,4	0,7	1,6	5,8
SWICO Recycling Guarantee	2,1	1,4	0,7	1,5	5,7

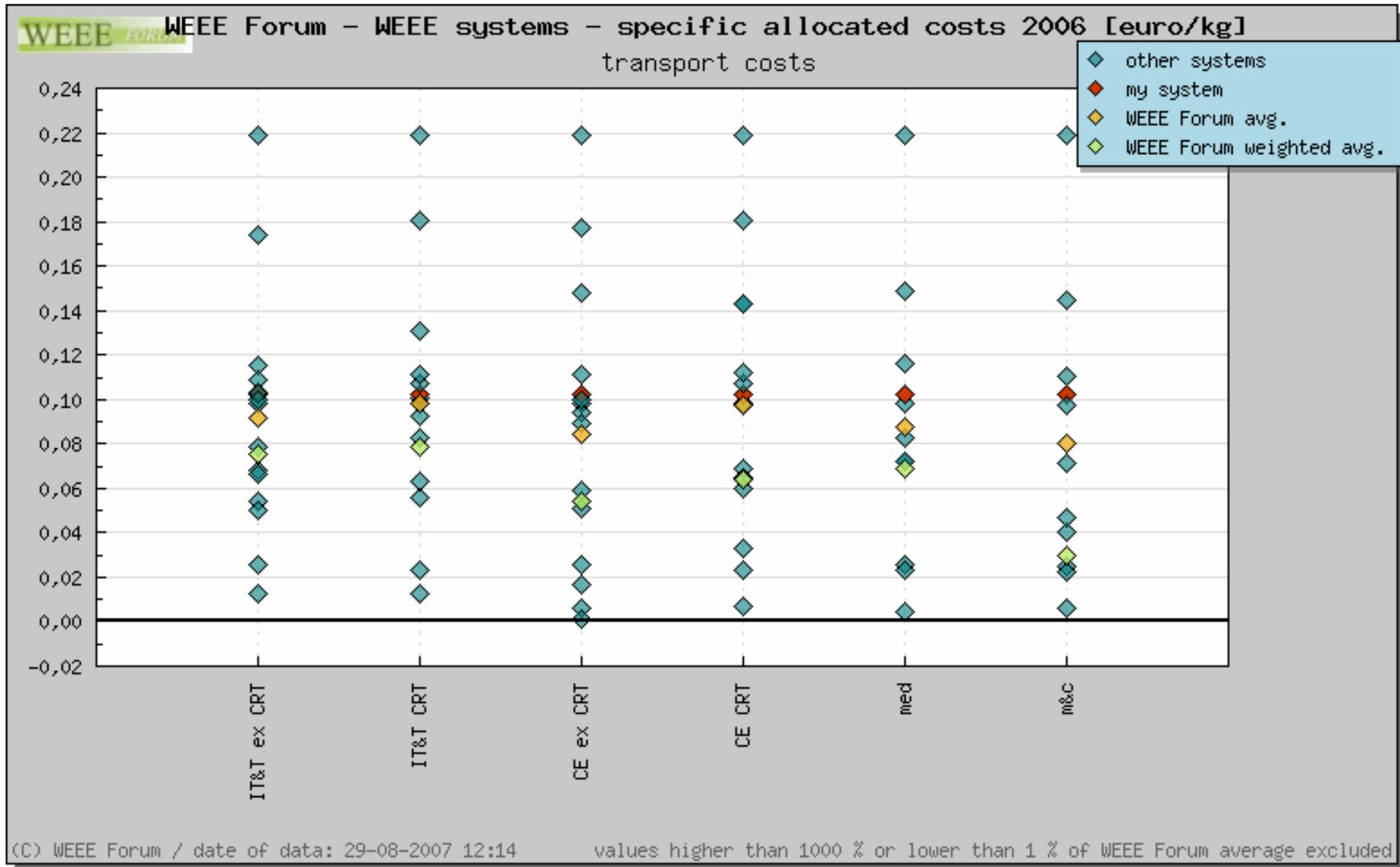
Date: WEEE Forum

2006 = 6,3 kg

Collection Cost



Transportation Cost



Thank
you



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Environmental Commission
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Tel. 0041 44 737 34 29

Member of the WEEE-Forum
(weee-forum.org)
Member of the advisory board of swiss
e-waste programme (www.e-waste.ch)

Chile, 07 November 2007