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ASSOCIATION
OF CITIES
AND REGIONS
FOR RECYCLING
AND SUSTAINABLE
RESOURCE
MANAGEMENT

Waste prevention good practices for cities and regions

To help you prepare or improve your local waste prevention plan

Philippe Micheaux Naudet, ACR+, Tuesday 29 January 2013



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- 1. European and local stakes**
- 2. Reducing waste is possible**
- 3. Bio-waste prevention**
- 4. Packaging waste prevention**
- 5. Paper waste prevention**
- 6. Bulky waste prevention**



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1. European and local stakes



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A little bit of context: What is waste prevention?

Directive EC/2008/98 (“Waste Framework Directive”)

Article 3:

“Waste Prevention” means ...measures taken before waste is created
...including the re-use of products that reduce:

- a) the quantity of waste
- b) the adverse impacts of generated waste
- c) the content of harmful substances in the waste

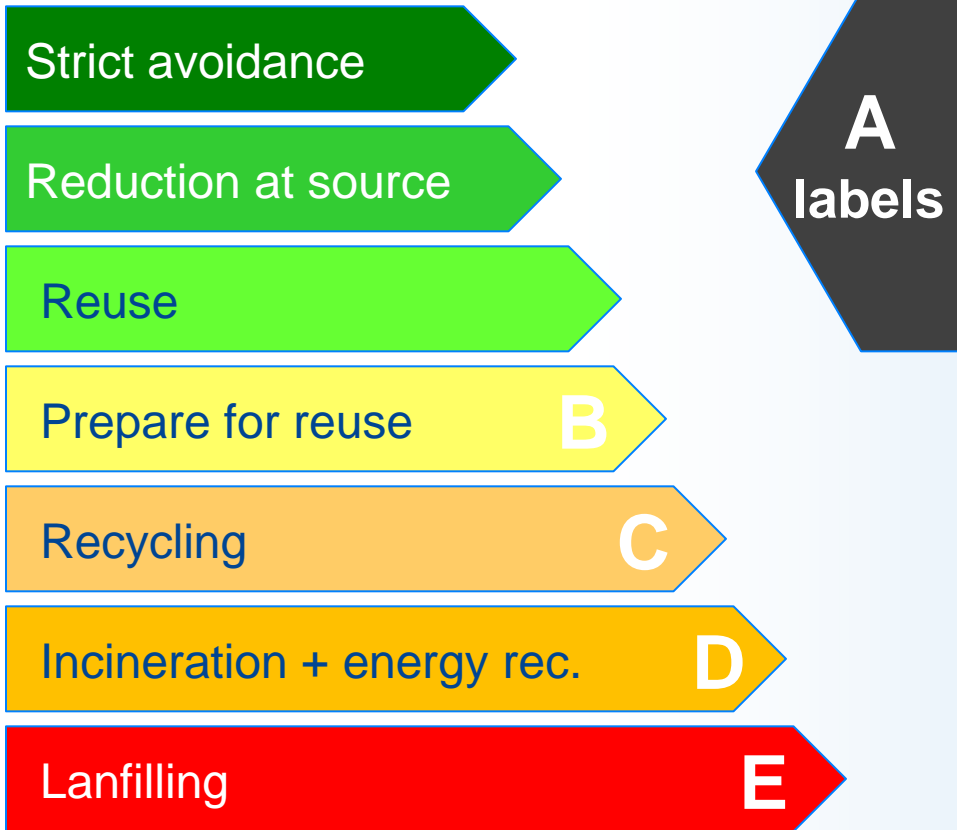




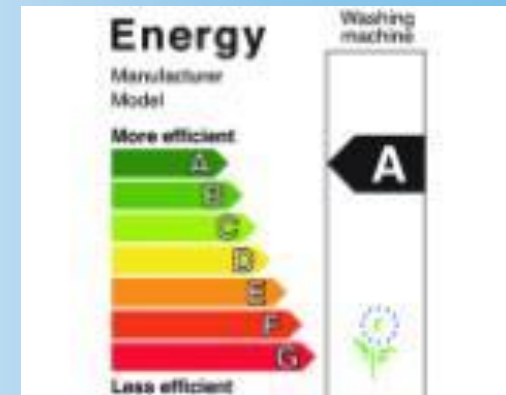
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Waste hierarchy?

More efficient



Less efficient





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The need to address waste prevention

European (and national) legal provisions

- Waste management hierarchy
- National waste prevention programmes
- Promotion of re-use of products and preparation for re-use



Economic and environmental costs

- Waste collection and management costs
- Greenhouse gas emissions in the whole life cycle
- Resource depletion





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Waste prevention in the products loop

Resources

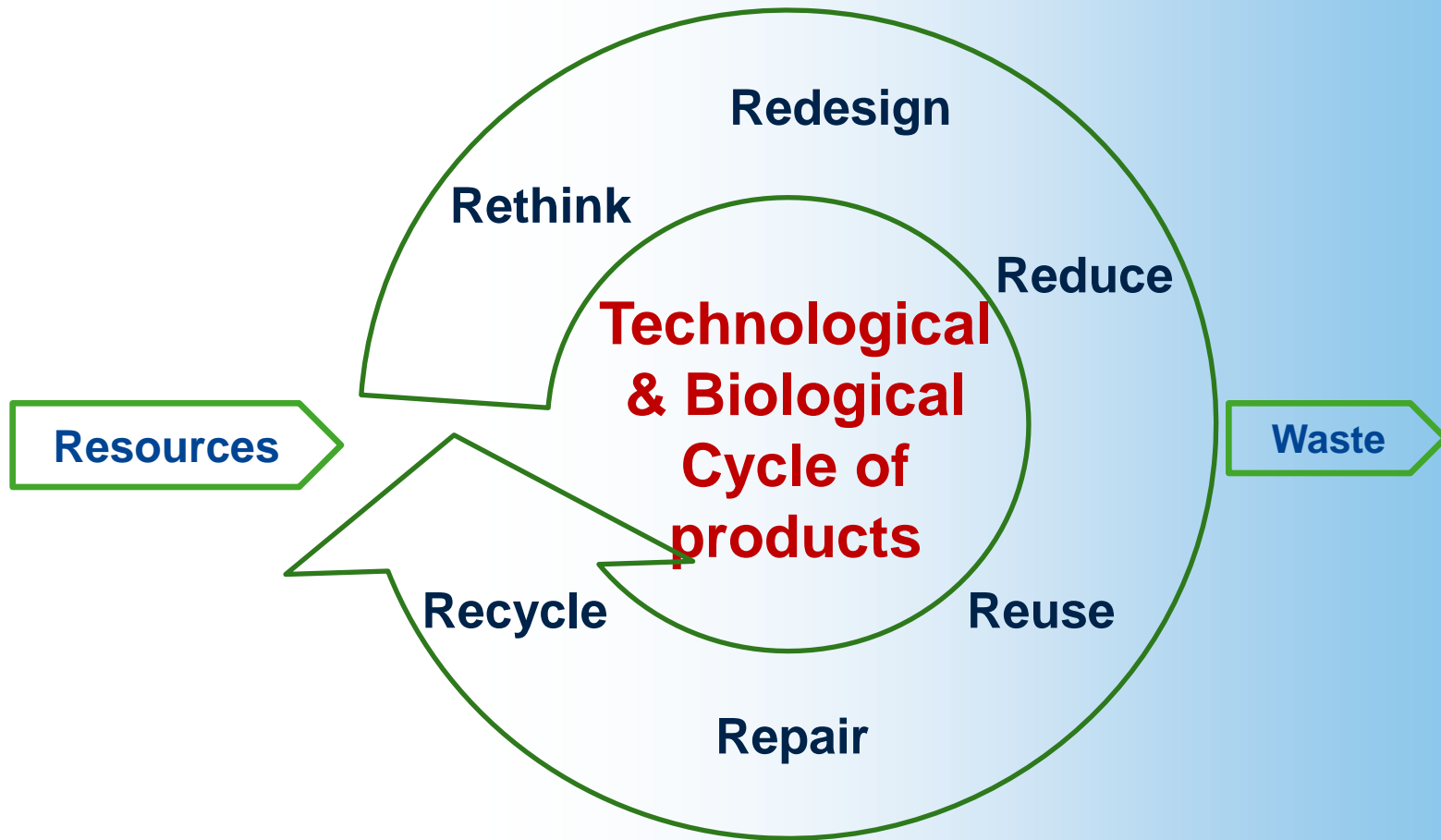
Products

Waste



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Waste prevention in the products loop





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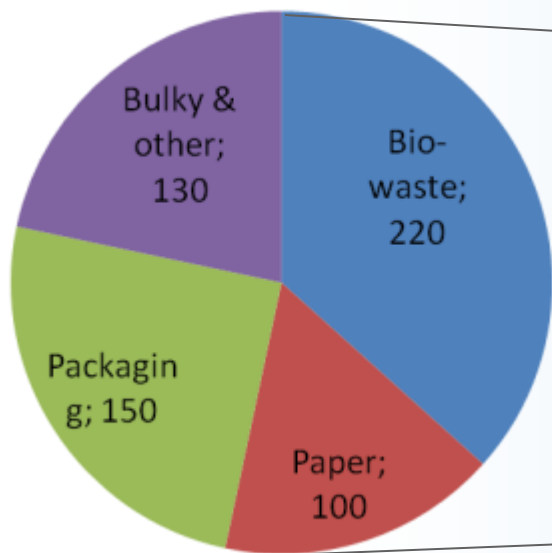
2. Reducing waste is possible



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ACR+ -100 kg benchmark: Waste prevention is possible

Waste generation EU 15 in kg/inh/y



600 kg/inh/y
in the
Netherlands,
Austria, etc.

Waste generation EU 15 in kg/inh/y (with prevention)



**-100 kg or
-15%**

600 kg/inh/y



500 kg/inh/y



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ACR+ benchmarks for bio-waste: - 40 kg

EX: GREEN SCAPING & SMART GARDENING

Province of Vlaams Brabant (Belgium)
... slow growing grass

40% less mowing,
50% less clipping

EX: ACT AGAINST FOOD WASTAGE

Oporto Region-Lipor (Portugal)
... serving the right portion

20-25kg less per
restaurant/day

EX: COMPOSTING AT SOURCE

Rennes Metropole (France)
... community composting

93kg less per hhld/year



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ACR+ benchmarks for paper waste: - 15 kg

EX: REDUCING UNWANTED MAIL

Dogliany (Italy)
...no junk mail sticker

Less than 4 kg/inh/year

EX: ENCOURAGING DEMATERIALISATION

London Boroughs (UK)
... education campaign in schools

50% less



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ACR+ benchmarks for packaging: - 25 kg

EX: ENCOURAGING REFILLABLE/RETURNABLE PACKAGING

Gipuzkoa (Spain)
... refillable glass bottles

20%
reduction

EX: PROMOTING TAP WATER

Brussels Region (Belgium)
... water fountains in schools

40%
reduction

EX: FIGHTING EXCESSIVE PACKAGING

Munich (Germany)
... ban on disposable crockery

95% reduction
during events

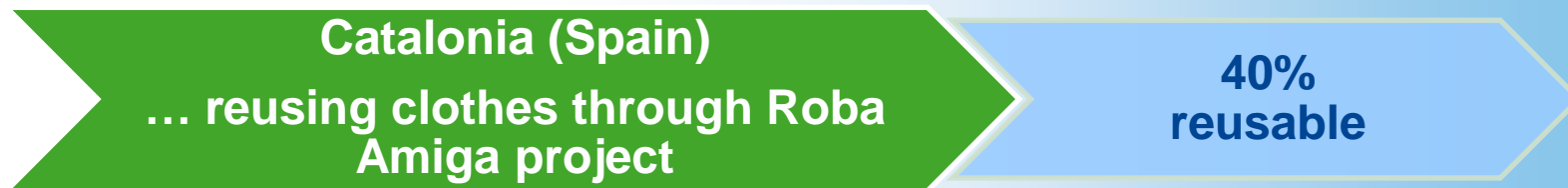


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ACR+ benchmarks for bulky waste: - 20 kg

EX: PROMOTING TEXTILE WASTE PREVENTION



EX: PROMOTING WEEE PREVENTION





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The European Week for Waste Reduction

16-24 NOVEMBER 2013 !

- ➔ **Awareness raising on waste prevention**
 - ➔ More than 10,000 actions registered in 2012
 - ➔ Ideas, tips and methodologies
 - ➔ Awards highlighting the best actions
- ➔ **Multiple levels involved**
 - ➔ LIFE+ programme (launch of EWWR in 2009), European partnership, Technical Secretariat (ACR+)
 - ➔ National, regional or local coordinators (decentralised approach)
- ➔ **For European citizens**
 - ➔ in the office, at school, in shops, etc.



www.ewwr.eu and [Facebook page](#)

ACR+ waste prevention webinar, 29 January 2013





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European projects providing tools for local and regional authorities to address waste prevention



www.prewaste.eu



focus: bio-waste



www.miniwaste.eu



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3. Bio-waste prevention



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Home and community composting: Chambéry (France)

→ Targets:

- ▶ Involve 11,000 households
- ▶ Diversion of 1,100 tonnes of bio-waste from incineration
- ▶ Decrease waste generation by 7% by 2014 (compared to 2010 figures)

→ Comprehensive strategy covering home composting, community composting (schools, buildings, parks) and proximity composting

→ Results (2008):

- ▶ 12,000 households practicing composting (27% of population)
- ▶ 1,300 tonnes diverted from incineration





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Closed loop gardening: Flanders (Belgium)

→ Targets (2015):

- ▶ 42% of citizens participate actively in home composting
- ▶ 25% of skilled citizens practicing home composting (treating at least half of their bio-waste)



→ Comprehensive approach to reduce green waste (grass cycling, greenscaping and composting)

→ Results (2006):

- ▶ 41% of population practicing composting
- ▶ 34% of people composting in a qualitative way
- ▶ 68% of population involved in one or another form of CLG



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“Love Food Hate Waste” campaign: UK (WRAP)

→ Target: Reduce the amount of food thrown away by 155,000 tonnes by 2010



and save up to
£50
a month

→ National campaign / local implementation to raise awareness on food wastage reduction (branding, cooking demonstrations, trainings, collaborative website, etc.)

→ Results: less 2.2 kg/hhd/week thrown away for people attending to the training (compared to 4.7 kg/hhd/week)





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Food waste competition in schools: Halmstad (Sweden)

- Objectives: decrease food wastage in school canteens by changing pupils behaviour
- Communication campaign (audience: pupils) and contest between schools (staff coaching), involving the weighing of food waste several times (3 times in 2009) and an ex-post control (1 year later)
- Results:
 - ▶ 6,850 pupils involved
 - ▶ Average reduction of 13% of food waste
 - ▶ Ex-post control confirmed the change in children behaviour





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And in your city/region?





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4. Packaging waste prevention

Ban on disposable food and drink containers at events: Munich (Germany)

- Objective: Reduce municipal waste generated by the use of disposable food and drink containers (packaging, cups and tableware) at events
- Local legal banning, followed by selective inspections and supported by rental services of dishes and dishwashing unit as well as communication and advisory actions
- Results (2009):
 - ▶ 95% decrease of waste generated at events
 - ▶ Reduction from 11,000 tonnes of waste in 1990 at Oktoberfest to 550 tonnes in 1999





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Comparative shopping trolleys: Sablé-sur-Sarthe (France)

- Objective: Raise awareness about the possibilities to reduce packaging waste generated when shopping at the mall
- Awareness raising action comparing shopping trolleys with similar products (with over-packaged products / with less packaged products)
- Results (2012):
 - ▶ 334 people sensitised in 2 days (3 supermarkets involved)
 - ▶ Avoided quantities (estimates): less 62% of packaging waste
 - ▶ Avoided costs (estimates): less 43%





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Bulk liquid vending machines: Castelfidardo, Piemonte, Trento (Italy)

- Objective: Reduce the use of PET and HDPE plastic bottles for water, detergent and milk
- Vending machines placed in strategic locations
- Results:
 - ▶ Castelfidardo (water): 1 dispenser; less 200,000 bottles per year (60 tonnes of PET)
 - ▶ Piemonte (detergent): 10 dispensers; reuse of bottles 780,000 times in 45 months (approximately less 208,000 bottles year)
 - ▶ Trento (milk): 25 dispensers; equivalent to 2,500 bottles per day





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Challenge waste bar: Brussels (Belgium)

- Objective: Raise awareness of children about generating less waste when having a snack break before doing their homework
- Association organising a homework school provide children with a snack where products with the least packaging possible are available (drinks in reusable beakers and returnable bottles instead of soda cans, fruits instead of individually wrapped biscuits, etc.). Children are running the bar themselves.
- Results: 20 children attending the homework school (13 households)





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5. Paper waste prevention



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Anti-advertising sticker (stop-pub) with legal backing: Brussels (Belgium)



- Objective: Reduce the amount of unwanted unaddressed junk mail distributed to households
- Sticker available for residents by which they can choose not to receive unaddressed advertisements and/or free newspapers. A regulation, entitles individuals to file a complaint if they receive unwanted advertising and/or newspapers in their mailbox despite having placed the sticker.
- Results:
 - ▶ 20% mailboxes having the sticker in 2011
 - ▶ Reduction of 10 kg/inh/year (estimation)



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Dematerialisation in offices: Brussels (BE), Torino (IT), Manresa (ES)

- Objective: Reduce paper consumption in offices
- Campaign involving dissemination of good practices through training/coaching (BE) and guidelines (IT, ES)



- Results:
 - ▶ Manresa (municipal employees): reduction from 8% (internal use) to 16% (external use)
 - ▶ Brussels (employees from 25 companies): reduction from 15% (if low potential) to 25% (if high potential)
 - ▶ Torino (employees from a municipal organisation): reduction of 80%



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Travelling books: Montreuil-sur-Mer (France)

- Objective: Reduce waste generated by old books and increase the dissemination of cultural products
- Collection and free distribution of books in several places of the city (museum, school, station, public benches, etc.)
- Results: 4,000 books collected in 2010 (equivalent to 3 tonnes of waste avoided)





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6. Bulky waste prevention



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Reuse and repair networks: Flanders (BE), Vienna (AT)

→ Objective: provide a location and expertise to repair and sell second hand products

→ Various approaches:

- ▶ Flemish 'Kringwinkels': Network of 118 Flemish reuse shops in charge of collection at home, test and repair, selling second hand products
- ▶ RUSZ – RepaNet: repair center (extended to a network) focusing on WEEE and improving the energy efficiency of electrical appliances

→ Results:

- ▶ Kringwinkels: 59,600 tonnes of goods collected in 2011 (estimated at 52,000 tonnes of CO₂), 47% effectively reused (~4.5 kg/inh), over 4 million clients per year
- ▶ RUSZ – RepaNet: 1,000 tonnes of waste diverted per year, 14,000 customers, energy and water consumption reduced from 20% for washing machines





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Reuse and redesign of products: Munich (DE), Marche region (IT)

- Objective: reconditioning old products to give them a second life
- Places where furniture is refurbished in an attractive way (Ecomoebel) or where children use their creativity and become aware of reuse (Ludoteca Riù)
- Results:
 - ▶ Ecomoebel: 35 tonnes of furniture sold per year (equivalent to 32,850 kg of CO₂), between 5,000 and 10,000 customers
 - ▶ Ludoteca Riù: 5 centers in Marche Region, 9,000 children from schools, 6,000 families and 250 teachers





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“Clothes Library“ (Lånegarderoben): Stockholm (Sweden)

- Objective: To avoid overconsumption by lending out clothes like books in a library
- Membership fee of approx 60 Euros entitles to borrow **1-3 articles for three weeks**. Washing instructions are included to avoid mistakes
- Results:
 - ▶ 5 clothes libraries (Stockholm, Gothenburg, Malmö, Norrköping and Umeå)
 - ▶ Stockholm: 150 members, approx. 2,000 items (half of it lend it so far)





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Some conclusions

Quantitative targets and proper **monitoring** are needed to follow the results of the action

No magic formula but a **clear and comprehensive strategy** (local waste prevention programme) can achieve significant results

Budgets to run waste prevention schemes should not be underestimated (subsidies, pilot action going to full-scale, etc.)

Waste prevention schemes need the involvement of **relay actors** (eg: voluntary master composters) and relevant **stakeholders**

Local authorities need to show the good example

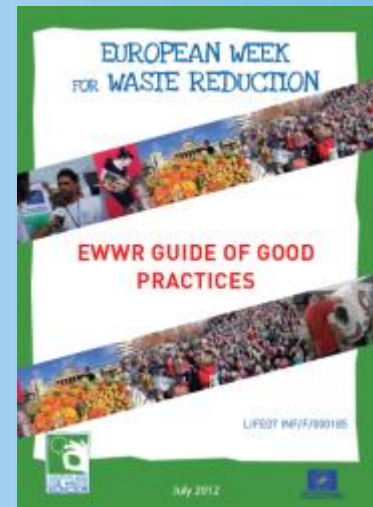
Information and sensitization is key to change citizens' behaviour



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Find out more

- ACR+ report '**Quantitative Benchmarks for Waste Prevention**' ([EN](#), [FR](#), [IT](#), [CAT](#)) www.acrplus.org/technical-reports
- **ACR+ Waste Prevention Database** ([EN](#))
- EWWR Guide of Good Practices on **Waste Prevention awareness raising actions** ([EN](#))
www.ewwr.eu/case-studies
- Miniwaste inventory on **Bio-waste Prevention practices** ([EN](#))
www.miniwaste.eu/the-good-experiences.html
- Pre-waste factsheets on **Waste Prevention good practices** ([EN](#)) www.prewaste.eu/waste-prevention-good-practices.html





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Thank you for your attention!

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