



Tools & services to achieve more sustainable packaging and best practices

**Nicolas Egri**  
**Sustainability & Prevention Manager**  
**[nicolas.egri@fostplus.be](mailto:nicolas.egri@fostplus.be)**

03 octobre 218

# Agenda

1

## **Sustainable Packaging**

- **What is Ecodesign for Fost Plus ?**
- **Packaging optimization – Greener Packaging – EXAMPLES**

2

## **Optimization tools & services**

- **Preventpack**
- **Pack4recycling**
- **Pack4ecodesign**
- **Packaging diagnosis**

3

## **Design 4 recycling guidelines**

- **Extension of the blue PMC bag to all plastics**
- **3 first step messages for more recycling**
- **Evolution of the green dot fee to encourage more recycling**
- **Recyclable packaging challenge**

# Agenda

1

## Sustainable Packaging

- What is Ecodesign for Fost Plus ?
- Packaging optimization – Greener Packaging – EXAMPLES

2

## Optimization tools & services

- Preventpack
- Pack4recycling
- Pack4ecodesign
- Packaging diagnosis

3

## Design 4 recycling guidelines

- Extension of the blue PMC bag to all plastics
- 3 first step messages for more recycling
- Evolution of the green dot fee to encourage more recycling
- Recyclable packaging challenge



# ECODesign?

[www. Preventpack.be](http://www.Preventpack.be)

## 1. Reduce weight & volume

- Remove what's useless
- Reduce what's not necessary
- Optimize volumes

## 2. Circular Economy

- Origin of materials: Renewable, Recycled Content, etc..
- End of life: Reuse, Recyclable (collected & recyclable)
- Redesigned to avoid littering

## 3. Reduce product waste

### 5R:

**R**educe

**R**edesign

**R**euse

**R**ecycle

**R**enewable

# Packaging optimization, some examples

## 1. Reduce weight & volume

- Reduce what's not necessary
- Optimize volumes



Bundling paper or plastic



Replace plastic bag by a sticker or a bundle



Laser printing, no more film



10 → 20 per pack  
+ no individual wrapping



Optimize paletization



remove carton



remove lid



1971: 56,6g    1978: 48,8g    1988: 47,3g    1990: 45,6g    1993: 42,3g    2000: 37,3g    2010: 29g

-49% packaging



No more shrink pack  
Only adhesive dots



# Packaging optimization, some examples

## 2. Circular Economy

- Origin of materials: Renewable, Recycled Content, etc..
- End of life: Reuse, Recyclable (collected & recyclable)
- Redesigned to avoid littering



Reusable

Plant PET



Plant HDPE



Cardboard



Wist u dat deze verpakking milieubewust is gekozen?

- De folie is te scheiden van het karton
- Het karton is compleet weer in te zetten als volwaardige grondstof
- De folie mag zonder te reinigen bij het restafval

Slim bedacht. (h)eerlijk verpakt!

Renewable material + recyclable



Reusable



Reusable



Avoid littering



Recycled content + recyclable

# Packaging optimization, some examples

## 3. Reduce food waste, extend shelf life



Reclosable



Precise dosing



Vacuum pack



Reclosable



Duo - compartment



Modified atmosphere

# Agenda

1

## Sustainable Packaging

- What is Ecodesign for Fost Plus ?
- Packaging optimization – Greener Packaging – EXAMPLES

2

## Optimization tools & services

- Preventpack
- Pack4recycling
- Pack4ecodesign
- Packaging diagnosis

3

## Design 4 recycling guidelines

- Extension of the blue PMC bag to all plastics
- 3 first step messages for more recycling
- Evolution of the green dot fee to encourage more recycling
- Recyclable packaging challenge



# Spreading the word

## Prevention tools at the service of our members



**Packaging  
diagnose**



[www.preventpack.be](http://www.preventpack.be)  
[www.pack4recycling.be](http://www.pack4recycling.be)  
[www.pack4ecodesign.org](http://www.pack4ecodesign.org)



**Training on  
Ecodesign**



**Exhibition  
Packstory**

[www.packstory.org](http://www.packstory.org)



**Greener  
Packaging Award  
& Seminar**



**Educational  
movie**

Behind the scenes of  
recycling


# 1. www.pack4recycling.be


## Do the Test : Recyclability of packaging


- Decision Tree : Material / Form / Colour / Mono vs Multilayer
- Guidelines available to optimize recyclability (label, dop, etc)

DO THE TEST INDUSTRIAL PACKAGING LIMITS OF RECYCLABILITY PREVENTION


Do the test

Plastics 

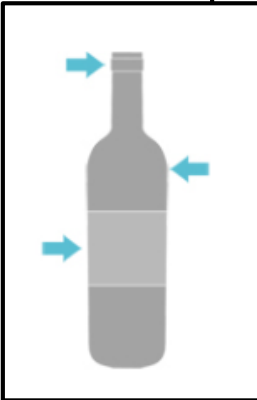
Steel 

Aluminium 

Paper-cardboard 

Glass 

Other

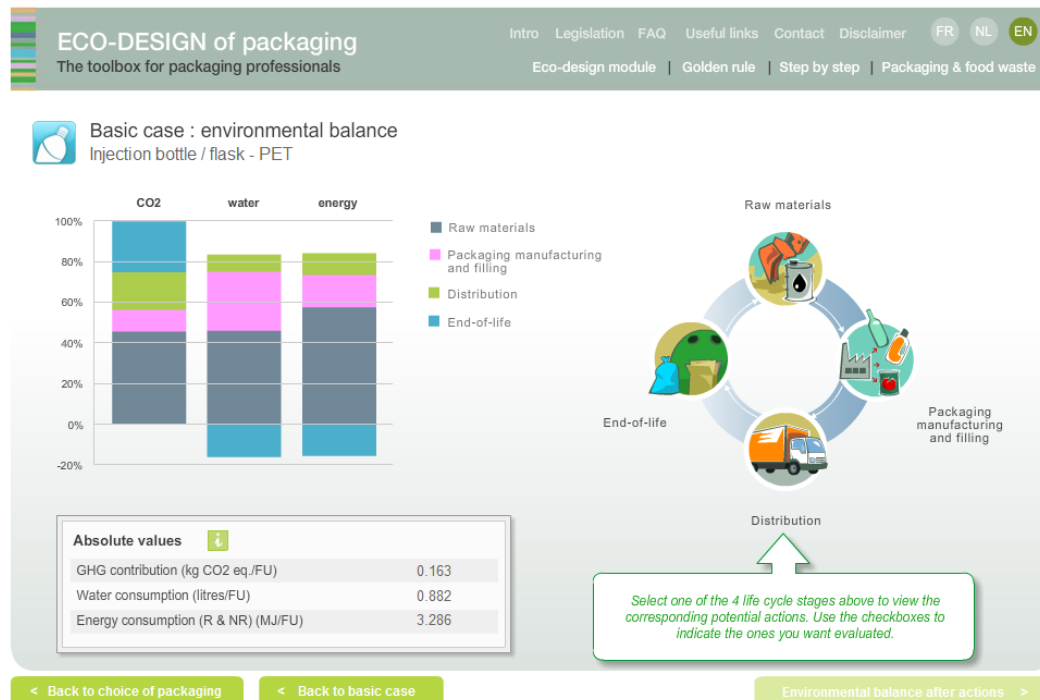


	YES Full compatibility – materials that passed the testing protocols with no negative impact OR materials that have not been tested (yet), but are known to be acceptable in PET recycling	CONDITIONAL Limited compatibility – materials that passed the testing protocols if certain conditions are met OR materials that have not been tested (yet), but pose a low risk of interfering with PET recycling	NO Low compatibility – materials that failed the testing protocols OR materials that have not been tested (yet), but pose a high risk of interfering with PET recycling
Container	PET		PLA; PVC; PS; PETG
Size			
Colours	transparent clear; transparent light blue	..	other transparent colours; opaque; metallic
Barrier	SiOx plasma-coating	carbon plasma-coating; PA multilayer with <5 wt% PA and no tie layers; PGA multilayer; PTN alloy	PA multilayer with >5 wt% PA or tie layers; monolayer PA blend; EVOH
Additives		UV stabilisers; AA blockers; optical brighteners; oxygen scavengers	bio-/oxo-/photodegradable additives; nanocomposites
Closure Systems	PE; PP, all with density <1 g/cm <sup>3</sup>		materials with density >1 g/cm <sup>3</sup> (e.g. highly filled PE; metals; non-detaching or welded closures)
Liners, Seals and Valves	PE; PE+EVA; PP; foamed PET; all with density <1 g/cm <sup>3</sup>	silicone with density <0,95 g/cm <sup>3</sup>	materials with density >1 g/cm <sup>3</sup> (e.g. PVC; silicone; metals)
Labels	PE; PP; OPP; EPS; foamed PET or PETG; all with density <1 g/cm <sup>3</sup>	lightly metallised labels (density <1 g/cm <sup>3</sup> ); paper	materials with density >1 g/cm <sup>3</sup> (e.g. PVC; PS; PET; PETG; PLA); metallised materials; non-detaching or welded labels
Sleeves	sleeves with partial bottle coverage in PE; PP; OPP; EPS; foamed PET or PETG; all with density <1 g/cm <sup>3</sup>	sleeves transparent for IR detection in PE; PP; OPP; EPS; foamed PET or PETG; all with density <1 g/cm <sup>3</sup>	materials with density >1 g/cm <sup>3</sup> (e.g. PVC; PS; PET; PETG); metallised materials; heavily inked sleeves; full body sleeves

# 2. Pack4ecodesign.org

## Indicative idea of the environmental impact of packaging

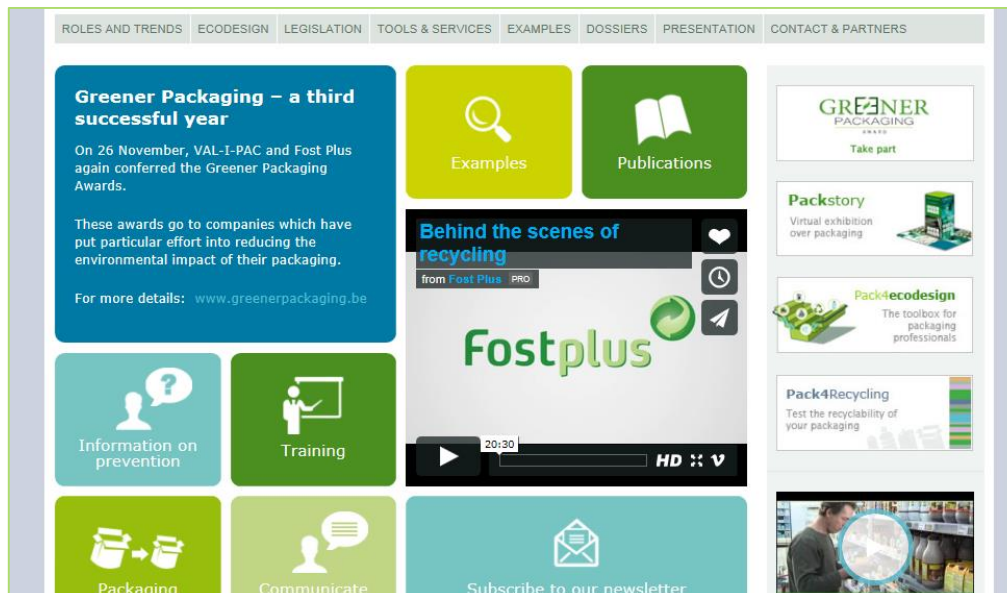
- Figures on CO2 / Energy / Water use → LCA methodology
- Advice to reduce those impacts



# 3. Preventpack.be

## Main platform on Prevention & Sustainable Packaging

- Information : Recycling, Prevention, Sustainable Packaging
- Inspiration : Many examples from industry
- Learning : Expert articles / Publications

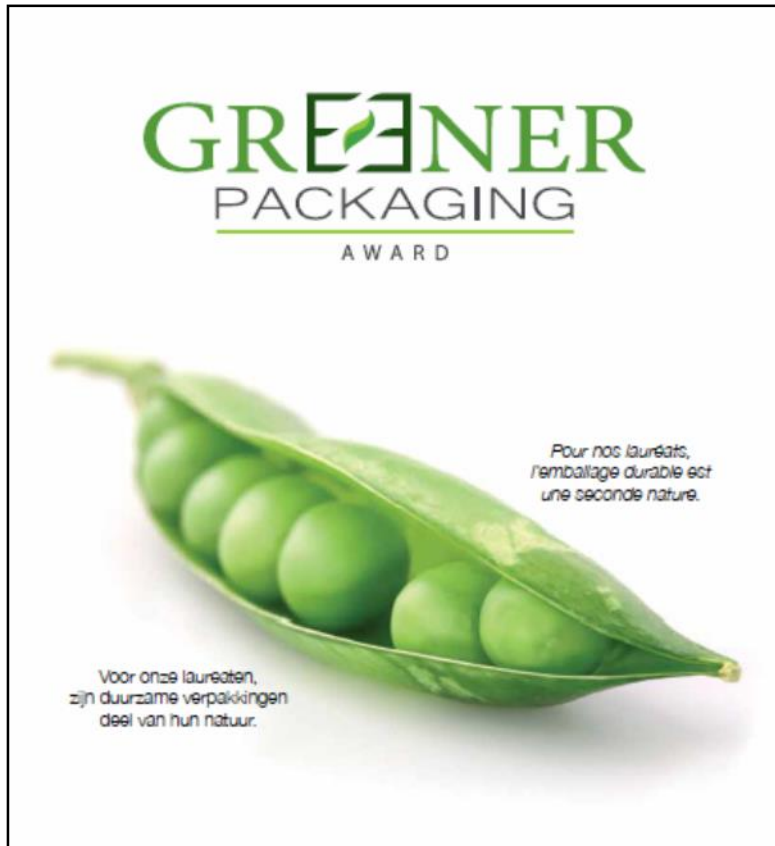


Subscribe to newsletter

# 4. [www.greenerpackaging.be](http://www.greenerpackaging.be)

Award & Seminar to promote greener sustainable packaging

Fost Plus & VAL-I-PAC





# Agenda

1

## Sustainable Packaging

- What is Ecodesign for Fost Plus ?
- Packaging optimization – Greener Packaging – EXAMPLES

2

## Optimization tools & services

- Preventpack
- Pack4recycling
- Pack4ecodesign
- Packaging diagnosis

3

## Design 4 recycling guidelines

- Extension of the blue PMC bag to all plastics
- 3 first step messages for more recycling
- Evolution of the green dot fee to encourage more recycling
- Recyclable packaging challenge

# Sorting message P+MC to the citizens

## • To be sorted in the P+ bag

- All the P+MC packaging, clean and empty

- **P**lastic bottles and flasks
- **P**lastic trays and tubs
- **P**lastic films
- **M**étallic packaging
- **D**rink cartons

## • Not to be sorted in the P+ bag

- DSM-KGA  
Incl. motor oil, silicon tubes, painting, pesticides,...
- Bottles and flasks with security cap
- Packaging having the following pictograms :



- Complex – multimaterial packaging
- Expanded polystyrene EPS (frigo-lite – isomo)
- Non-packaging
  - > Electronic device
  - > Textiles
  - > Toys



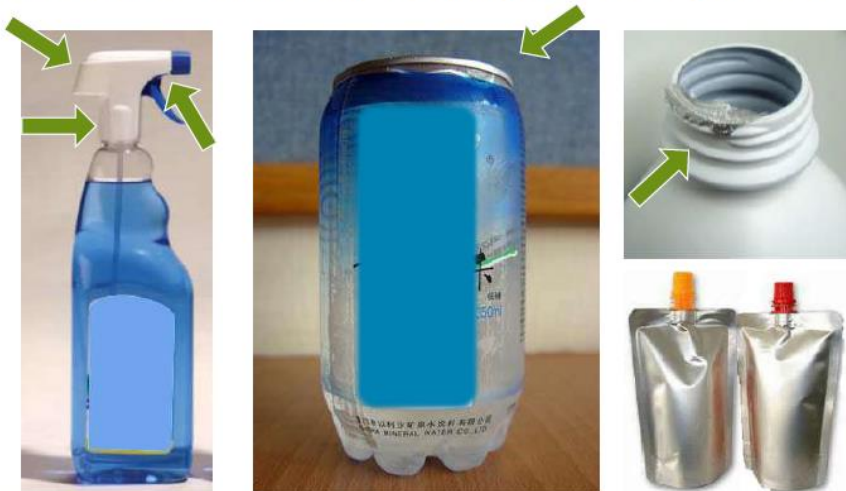
Maximum volume of 8 l

# 3 first step messages for more recycling

## 1) Avoid complex packaging

Avoid multi-material packaging

### Combinations with non-plastic parts



Multi component made of different materials



OPP / OPP metallized  
Or PET / PE metallized  
(multi-material)



OPP / OPP transparent  
(mono-material)

## 2) Avoid black or dark plastic packaging



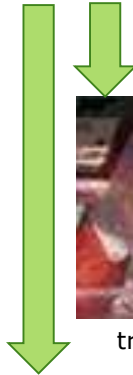
black PET



transparent PET



black PET or black PP



transparent PET or  
opaque PP



Black / brown PET or  
black / brown PP



transparent PET



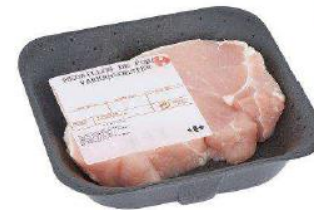
# 3) Avoid non-recyclable XPS types of plastics



XPS (all colours)



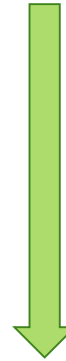
Laser printing,  
no more film



XPS (all colours)



transparent PET or  
transparent PP



molded cellulose



cardboard



# Evolution of the green dot fee to encourage more recycling

Eco-modulation consists to a higher and better differentiation of the green dot fee for various packaging materials, on basis of their easiness to sort and recycle. To achieve this, we will follow the following base principles:

- The more fraction sorted within the expanded PMC bag, the higher the number of green dot fees
- The packaging materials that are difficult to sort or that hinder the sorting process (see previous slides) will pay a green dot fee considerably higher than the packaging that are easy to sort
- More and more eco-modulation is expected to take place in the next years.

We believe that the modification of the calculation method of the green dot fee will become an important financial motivation to encourage our membres to choose packaging that are easy to recycle

# Recyclable packaging challenge

Do you want to be a market leader by improving the recyclability of 1 of the 8 following high-tonnage packaging ? Contact: [nicolas.egri@fostplus.be](mailto:nicolas.egri@fostplus.be)



A11: snacks  
Composite can



A10: dairy  
Multi-layer Paper - alu



A9 : meat & fish  
Black XPS tray



A11: snacks  
Aluminised plastic



B2: juices  
Multi-layer Paper - alu



A7: soups & ready mills  
Multi-layer Paper - alu



E1 medicine pills, tablets  
PET blister with Alu film



A4 coffee & thee  
Multi-layer plastic - alu

packaging to  
focus on