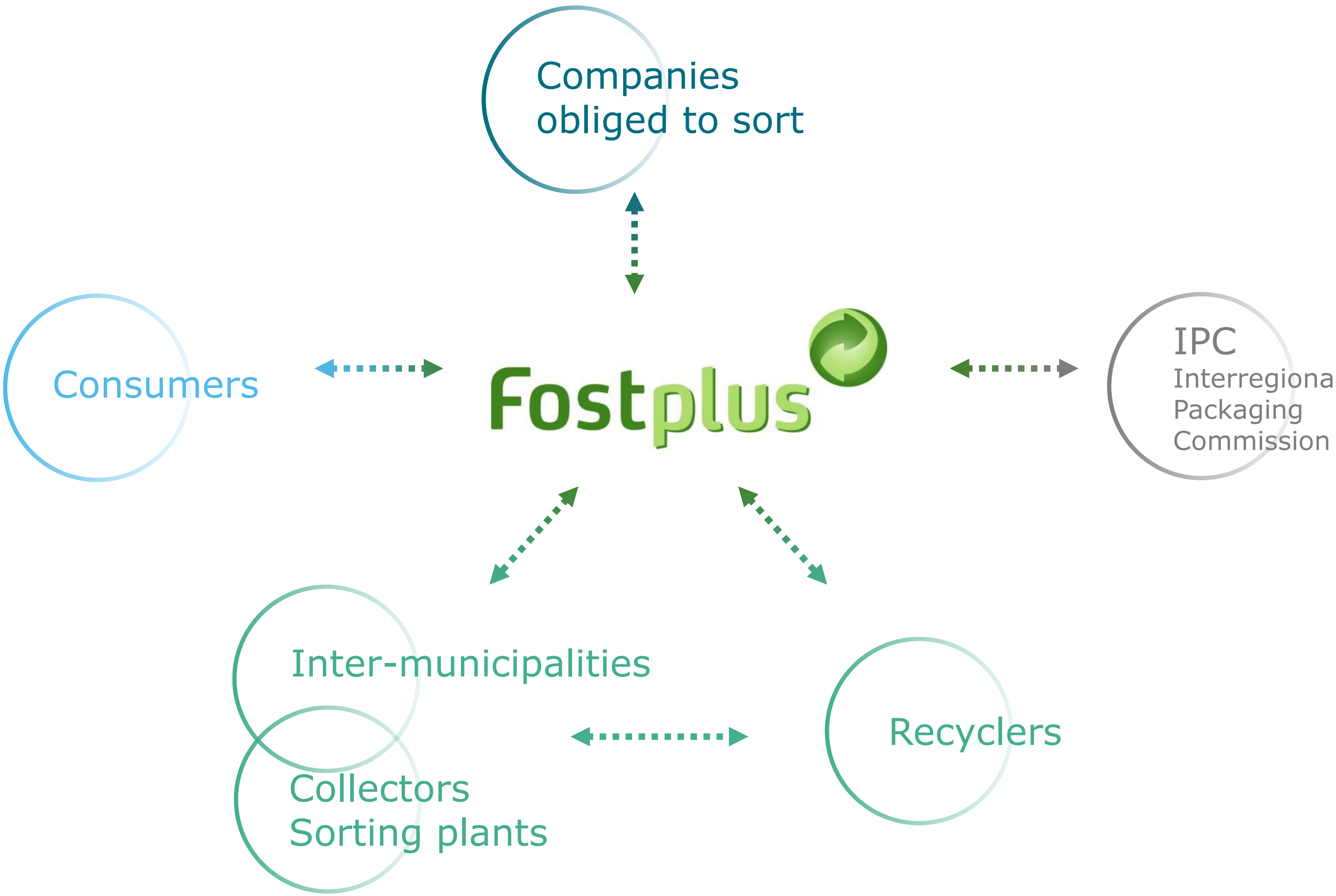
Getting consumers to collect more; countries learning from each other

30.03.2017 | Arn Malef

Samen > Goed sorteren > Beter recycleren

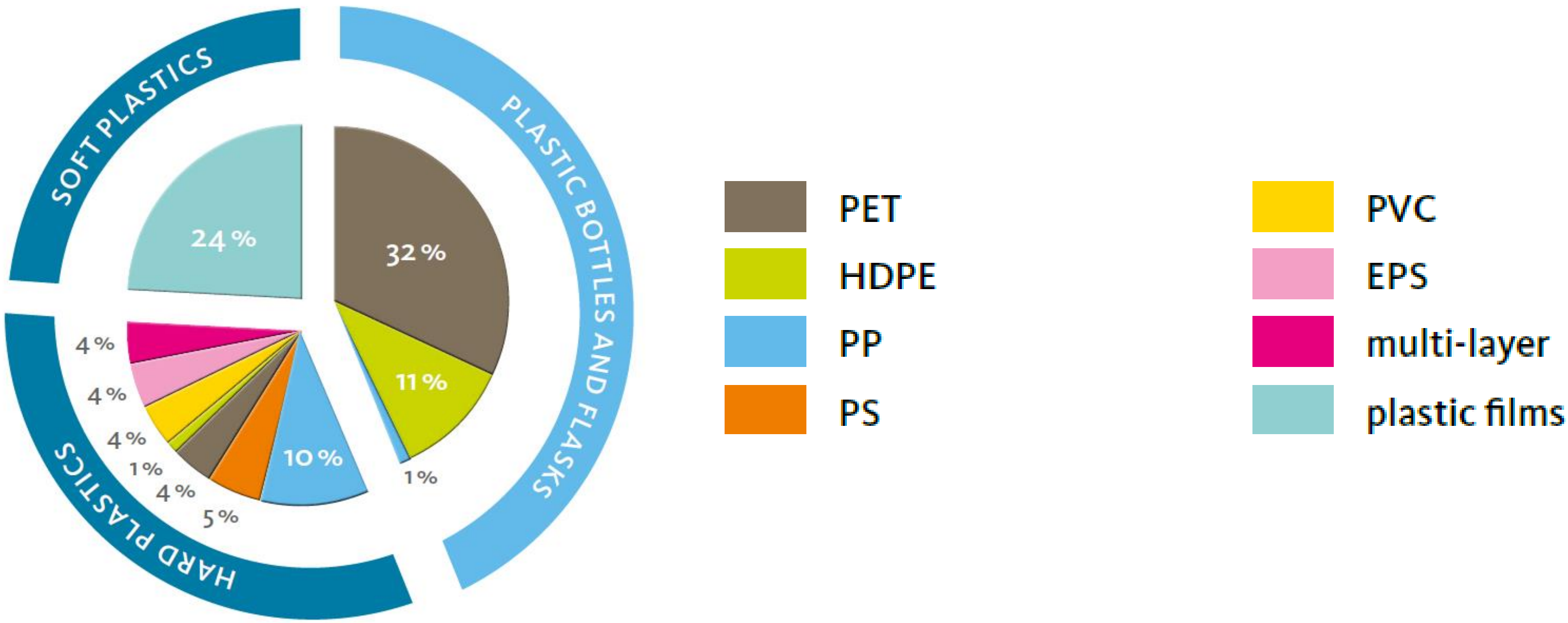
Fostplus

Fost Plus, the beating heart of a successful cooperation



Household Plastic Packaging in Belgium

Household plastic packaging	230 kT
Bottles and flasks	101 (44%)
Hard plastics	74 (32%)
Soft plastics	55 (24%)



Recycling of household plastic packaging in Belgium: AS IS

Blue bag (PMD)

- organised by Fost Plus
- curbside collection
- full cost coverage
- 67 ktons recycled (5,8 kg/inh)

Other plastic streams

- organised by local autorities
- mainly bring method
- partly financed by Fost Plus
- 14,3 ktons recycled

→ 2015: 81,3 ktons household plastic packaging recycled (38,4%)

Accreditation Fost Plus 2014-2018

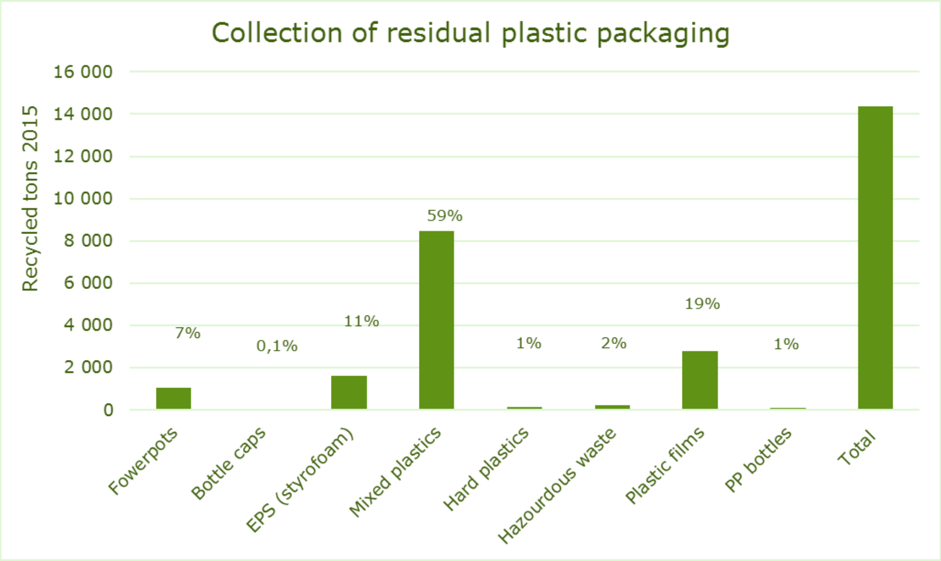
- Actively promote the collection of residual plastics
  - Financing ↗
  - Expertise on recycling market available for local autorities
  - Assist local autorities in organising project and tenders for recycling collected plastics
  - Develop a more harmonised system
- Organise and finance projects to test expansion of P fraction in PMD
  - at least 0,5% of the Belgian population
  - implemented within two years of being approved by the region
  - assessed by the end of 2017

Test projects P^+MD

- 2 x 3 P^+MD test projects launched in early 2016
  - Scenario 1: P^+ = rigid and soft plastic packaging
  - Scenario 2: P^+ = rigid plastic packaging + soft plastics in a separate (transparent) bag
  - Scenario 3: P^+ = rigid plastic packaging

- ‘M’ and ‘D’ definitions remain unchanged
- Blue PMD bag replaced by purple P+MD bag
- 6 municipalities, 120.000 inhabitants
- Collection door to door + containerpark
- Evaluation: end of 2017

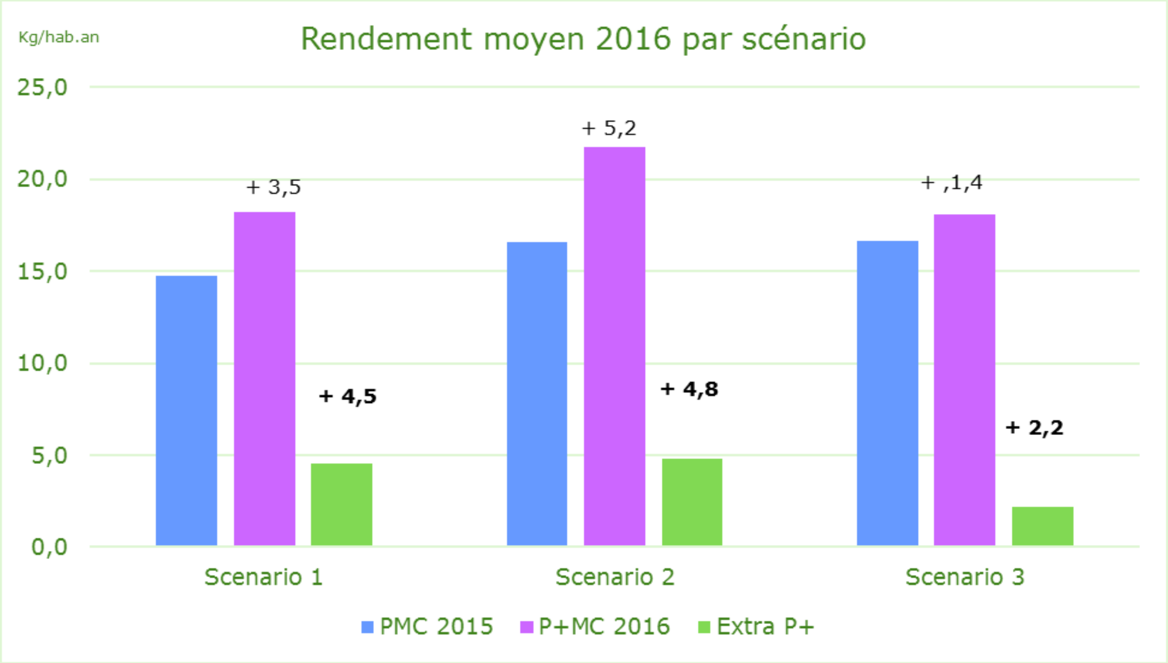
Other scenarios for residual plastics collection



- Mixed plastic collection
  - 2 mio inhabitants, next to PMD
  - Mixed plastic recycling application
  - Average of 3,4 kg/inh/y plastic packaging recycled
  - If door to door collection : >6 kg/inh/y → >60 % plastic recycling
- Alternative scenarios will be evaluated together with P+MD scenarios

Preliminary results P+MD - *collection*

- Good participation among population
- Sorting instructions generally followed (error < 5%)
- Tonnages collected lower than expected (little new plastic packaging, other than bottles and flasks)*
- Appreciation by citizens : scenario 1 > 3 > 2



** 2/3 of P+ still found in household waste => significant improvement margin*

Preliminary results P^{+}MD - *sorting*

- Actual sorting lines defined for PMD
- Loss of materials ↗
- Sorting speed ↘
- Quality M&D = OK
- Quality P+ = variable
  - PET: bottles vs trays
  - HDPE & PP: little impact compared to actual scenario
  - PS: very small quantity of PS fraction, hard to sort
  - Films: presence of trays and small films
  - Other challenges: black trays? opaque PET, mono-/multilayer…

➔ Investments in existing / construction of new sorting plants necessary
➔ Garantuee tonnages / stable composition / long term contracts

Preliminary results P+MD - *recycling*

- PET
  - Trays/punnets/blisters among PET bottles : higher yield losses, lower quality of flakes ➔ need for separation? uncertain outlet market
- HDPE & PP
  - Minimal effects on the process, enough outlet markets available
- Films
  - Limited effects on the process (if high %PE), uncertain outlet market
- PS
  - No recycling tests, low quantity and quality, no outlet market
- Other
  - No economically viable recycling market at this moment for complex packaging, PET opaque, alu-laminated packaging & small packaging

➔ Need for a distinction between well-established markets (e.g. PET bottles, HDPE and PP) and developing markets (e.g. plastic film and PET trays).
➔ Investments in existing / construction of new recycling lines necessary

Challenges

- New accreditation Fost Plus
- Deposit scheme on bottles and cans
- Interconnection all stakeholders
- Collecting schemes
- Sorting plants
- Outlet markets
- Costs en benefits (financial & environmental)
- …

ON THE VERGE OF A NEW ERA

Timing

- Dec 2016
- Sep 2017 — Evaluation (internal) test projects P+MD & other scenario
- Déc — Evaluation (external) test projects
- Jan — Proposal P+ scenario
- Jun 2018 — Demand accreditation 2019-2023 with P+ !
- Oct
- Jan 2019 — Start accreditation 2019-2023
- Mai

Thank you!

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