

Industry initiatives to reduce food waste

**Driving towards zero waste
in the potato processing supply chain**

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2014: EUPPA survey – collecting initiatives

- In 2014 EUPPA surveyed its members to understand the initiatives that were being employed to reduce food losses and waste in the potato processing supply chain.
- The results reveal that **the processing sector is taking responsibility for waste reduction by adopting a total chain approach to reducing food waste** and is working with their supply chains to reduce food losses starting on the farm.

Potato Processing Industry – good practice to prevent food waste	% of businesses currently adopting this best practice
Programme of new variety development, to improve disease resistance, reduce input requirements (water, fertiliser, plant protection products) and increase the usable portion of the potato for processing	80-100
Better understanding of soil type, plant spacing and soil nutrition resulting in improving marketable yield per hectare	80-100
De-stoning soil before planting	40-50
Limit mechanical potato damage during harvesting and minimising drop heights at unloading, post-harvest	100
Effective sprout control and air quality management to reduce losses during long term potato storage	100



Valorisation of by-products & waste streams

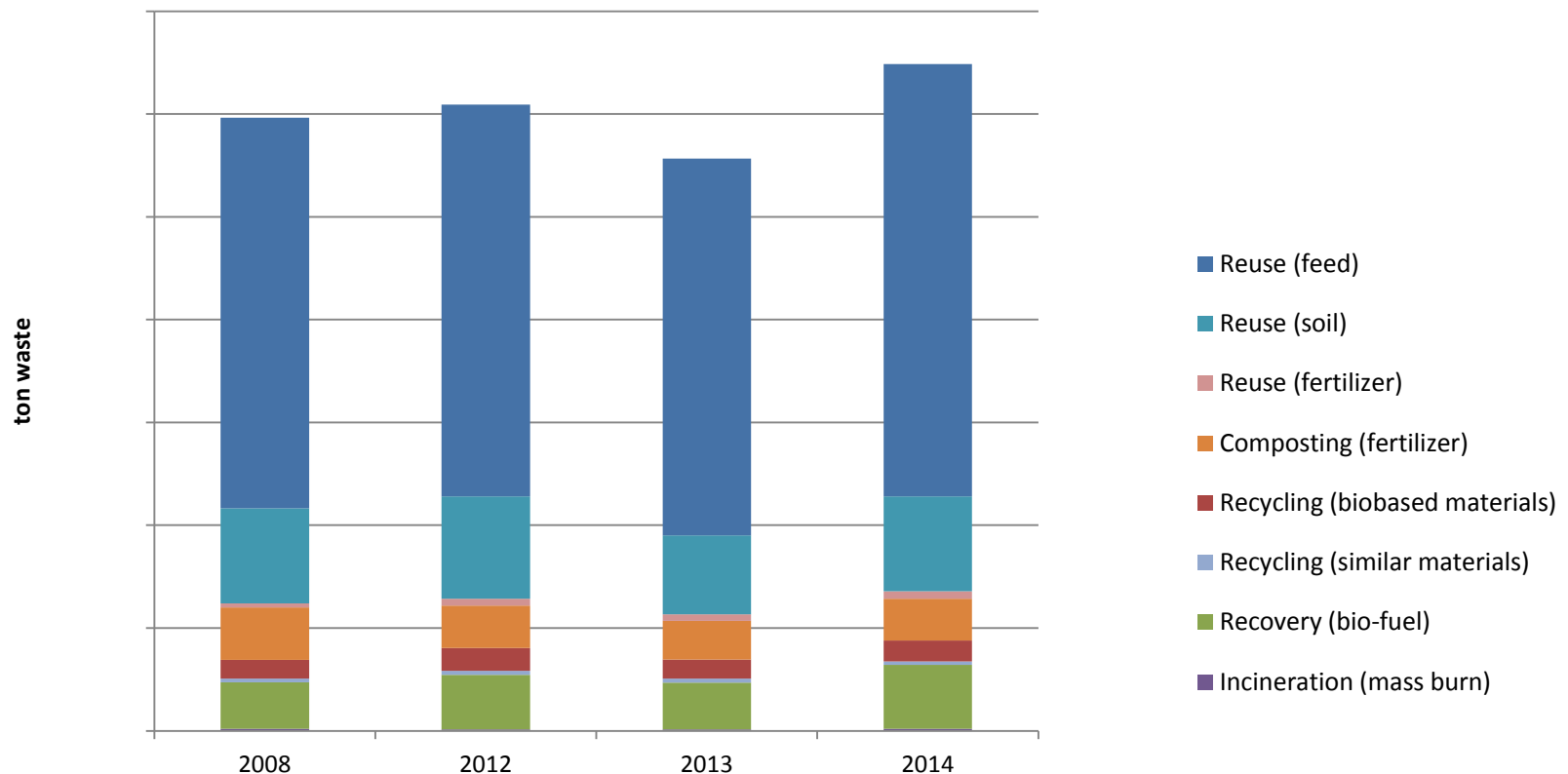
examples of EUPPA members *(with multi sites)*

Type of by-product / waste stream	Percentage of total weight company 1 (2014 data)	Percentage of total weight company 2 (2013 data)	Destination by-product / waste stream
By-products (peels, raw slivers, frozen shorts, batter crumbs, outdated products)*	64.8%	53.2%	Reused as certified cattle feed, daily collected on-site by dedicated animal feed companies / farmers
White (native) potato starch*	3.2%	1.2%	Recycled into bio-based materials for technical industry (wall paper glue, drilling mud, bio-plastics)
Organic waste digested ** <i>(partly not suitable for certified cattle feed)</i>	9.4%	16.3%	Recovered in onsite bio-digester (producing biogas as renewable energy for own plant or sold to grid)
Organic waste composted ** <i>(not suitable for certified cattle feed)</i>	1.7%	0%	Recovered / recycled into compost (by external companies OR fermented in onsite bio-digesters)
Used / spilled cooking oil ** <i>(not suitable for certified cattle feed)</i>	0.2%	0.3%	Recovered, used as bio-fuel (e.g. for steam boilers in local horticulture, or biofuels for transport)
Struvite <i>(minerals recovered from wastewater)</i>	1.1%	n.a.	Reused as natural fertilizer <i>(suitable for horticulture and arboriculture)</i>
Wastewater treatment sludge	4.6%	7.4%	Recycled into natural fertilizer though composting
Clean (tare) soil from potatoes	14.2%	20.4%	Reused as soil on local land (at approved area's)
Paper/ Cardboard	0.3%	0.5%	Recycled into cardboard
Plastic / PE film	0.1%	0.1%	Recycled into lower grade plastics
Metals	0.1%	0.1%	Recycled into metals
Mixed company waste <i>(non food)</i>	0.3%	0.3%	Incinerated by dedicated waste companies
* NOT considered food waste according to the proposed European definition (WFD)			
** would be considered food waste according to the proposed European definition (WFD)			
Other categories are <u>non-food</u> and therefore to be excluded before calculating food waste volume or percentages			

Valorisation of by-products & waste streams

example of EUPPA member (*with multi sites*)

Disposal method by-products and waste streams



Reduce, reuse, recycle or recover

EUPPA members have a long tradition of valorisation of potato processing by-products into food, feed, bio-based materials, fertilizer and fuel.

- **Continuous process improvements and product innovations:**
 - ✓ Co-product lines to produce dehydrated potato flakes and/or chopped & formed products (made from small parts and whole potatoes not suitable for frozen potato products);
 - ✓ Potato specialties (like potato wedges or slices), from undersized potatoes not suitable for French fries. This is mainstream practice throughout the industry.
- Efficient cooking techniques, together with sophisticated **oil recovery** systems enable over 98% utilization of the cooking oil. When no longer usable - turned into biofuel for local purposes.
- Inedible raw potato waste such as peels and slivers are directed to **animal feed, composted into natural fertilizer or digested to produce biogas** (onsite anaerobic digesters).
- **Tare soil** - arriving with potato deliveries at the factories - is cleaned (stones and small potatoes removed) and reused to increase heights of lower level fields or improve local soil quality.
- **Surplus products** – donated to local food banks and other charities.



EUPPA members are committed to redirecting and recycling by-products of potato processing and treating the wastewater with a target across EU of zero waste to landfill

What policy makers and other stakeholders can do?

The shared responsibly approach involving all relevant actors in waste management shall be recognized and the responsibility of municipalities and waste operators shall be reflected in the European legislation, therefore we call for changing the '*minimum requirements*' for Extended Producer Responsibility into recommendations instead of requirements to the Member States ('may' instead of 'shall' in the EC proposal on WFD).

- Consumer education in relation to proper food storage, recycling and composting
- Unified across EU policy in relation to domestic food waste collection – currently inconsistent consumer attitudes to food waste and its reduction in the household
- Consistency between different policy goals and policy making – e.g. considering consequences of stimulating green energy production versus the proposed European definition of food waste
- Legislation change to 'use by' term as opposed to 'best before' date
- No need for additional taxation – EUPPA members prove that goals can be achieved without extra administrative and fiscal burden

THANK YOU!

