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SYMPOSIUM ON SUSTAINABLE PROCUREMENT

SPP practices – consistency with the principle of "best value for money": national perspectives/experiences

Geneve 22-02-2017

MEF

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Street lighting – Definition

- Street lighting: fixed lighting installation intended to provide good visibility to users of outdoor public traffic areas during the hours of darkness to support traffic safety, traffic flow and public security

LPS
Low Pressure Sodium
6%

HPS
High Pressure Sodium
53%

HPM
High Pressure Mercury
23%

FL
Fluorescent
6%

LED
Light Emitting Diode
4%

MH
Metal Halide
8%

Street lighting – Which is the best solution?

HPS

LED

TECHNOLOGY NEUTRALITY

Street lighting – Which is the best solution?

Technical parameters on **luminaires**

- Service life: 60.000 – 80.000 hours
- Luminaire Efficiency: 105 – 120 lm/W

LED

100%

Street lighting – Which is the best solution?

Technical parameters on **whole service**

- IPEA: ratio between the whole efficiency of the luminaire and the reference efficiency
- IPEI: ratio between the power density of the installation and the reference power density

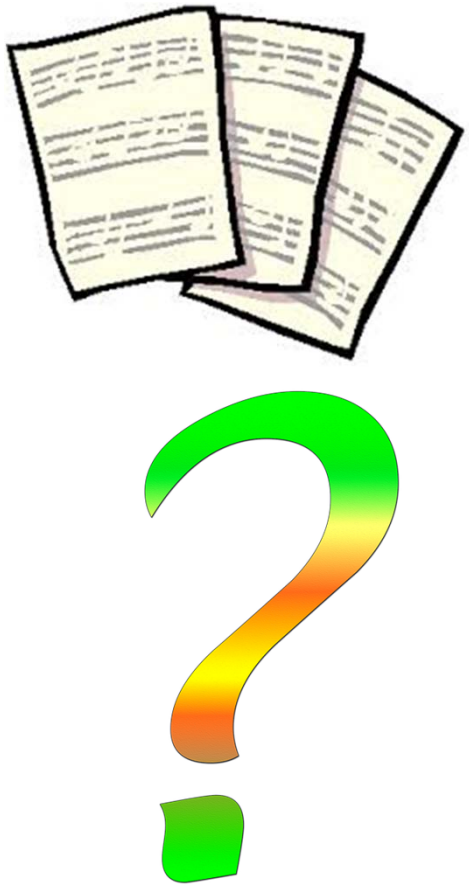
HPS

10-20%

LED

80-90%

Printing systems– Which is the best solution?



TECHNOLOGY NEUTRALITY

Award green criterion – Quality /Price Ratio –

Indoor emissions, hazardous substances to health

(All Values in mg/h, Except for Particle Emissions)		Monochrome Printing	Colour Printing
Pre-operating Phase	TVOC*	1 (Desktop Devices) 2 (Floor-mounted Devices, Device Volume >250 l)	1 (Desktop Devices) 2 (Floor-mounted Devices, Device Volume >250 l)
Print Phase (= Pre-operating + Print Phase)	TVOC*	10	18
	Benzene	<0.05	<0.05
	Styrene	1.0	1.8
	Unidentified Single Substances VOC	0.9	0.9
	Ozone	1.5	3.0
	Dust	4.0	4.0
Print Phase	$PER_{10\ PW}$ [Particles/10 min]	$3.5 * 10^{11}$	$3.5 * 10^{11}$

* Please see the list of volatile organic compounds which must be considered when measuring emissions from office equipment with printing function (please see Appendix S-M, para. 4.5 VOCs).

Consumables

Original cartridges

Remanufactured cartridges

TECHNOLOGY NEUTRALITY

Yield:

Toner: ISO/IEC 19752

Cartridges: ISO/IEC 19798, ISO/IEC 24711:2007

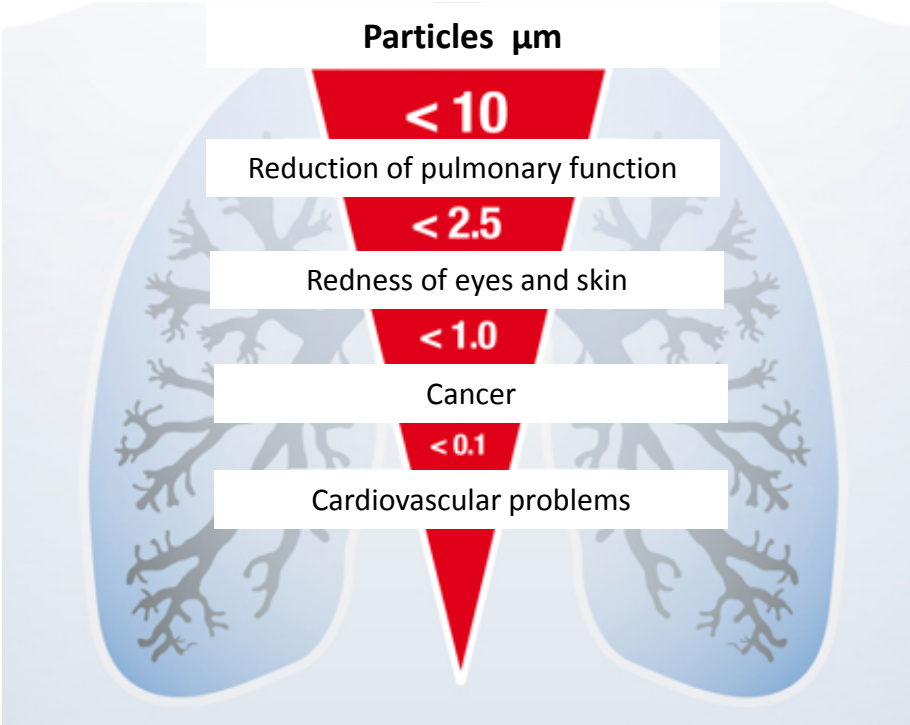
Quality:

Toner: DIN 33870-1; DIN 33870-2; DIN Technical report No. 155:2007-09; ASTM F: 2036

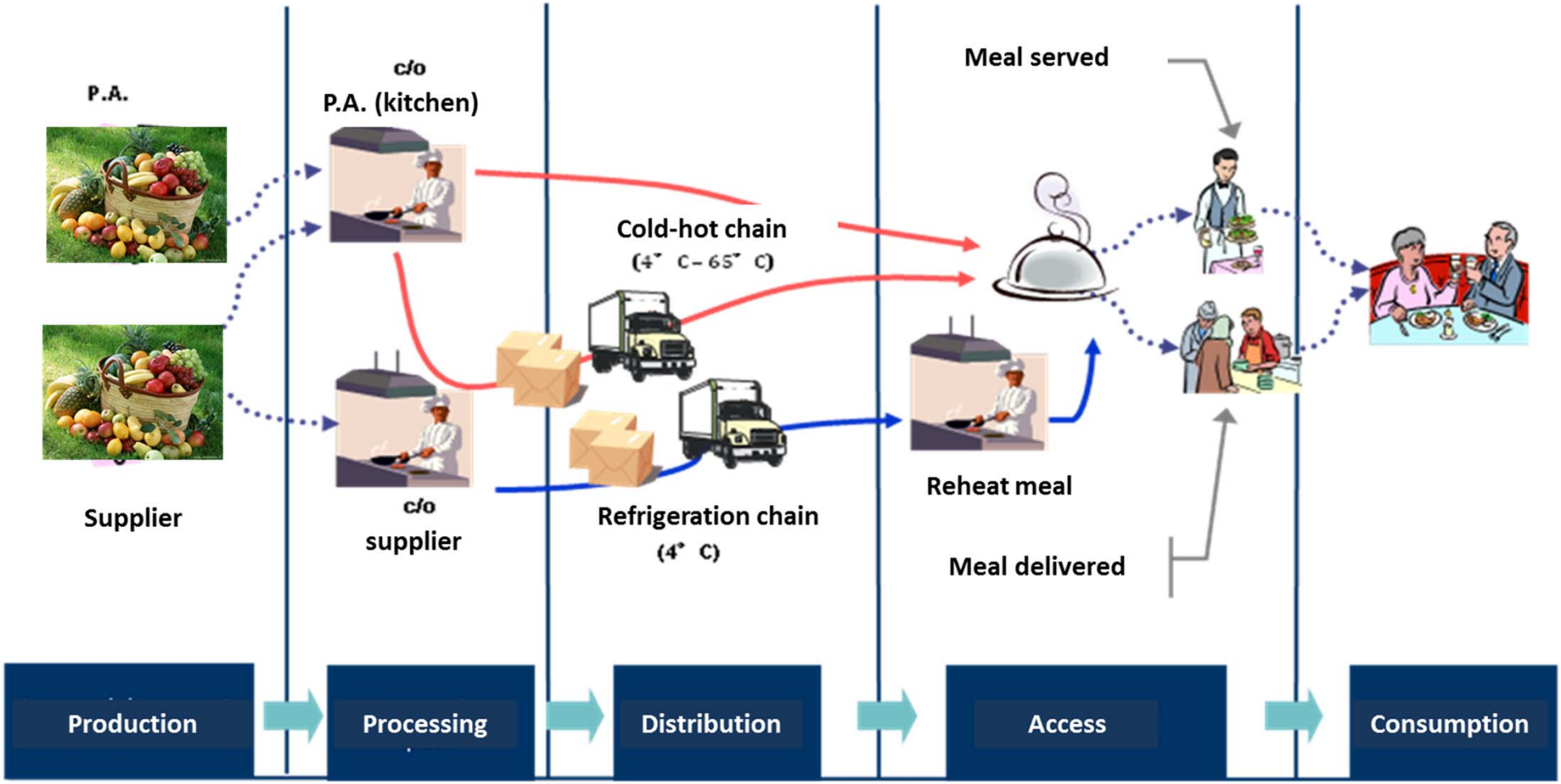
Cartridges: DIN 33871-1 DIN 33871-2

Could we use LCC instead of Price/Quality ratio?

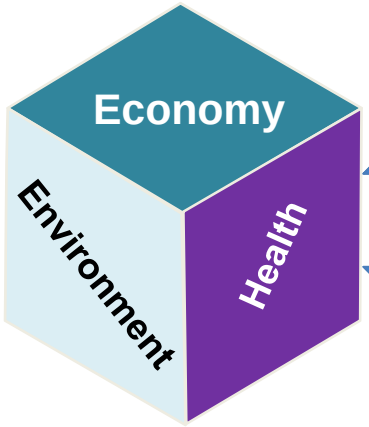
Yes, if we were able to transform in Euro health damages related to hazardous substances



Food Services – Supply Chain



Food Services – Production phase as priority



The primary production of food stands for the major environmental impact (Baldwin et al., 2011; Calderón et al., 2010)

The food service costs are:
Food **procurement costs**: 30%
Labour costs: 60%
Other costs (Utilities, Financial, Insurance;…): 10%

Around one third of deaths from cancer are due to behavioral and dietary risks , for example unhealthy diet with low fruit and vegetable intake (WHO 2017)

Many pesticides have been linked to causing cancer and having endocrine disruptor activity and the two most commonly applied herbicides in the US are suspected endocrine disruptors (Horrigan et al 2002).

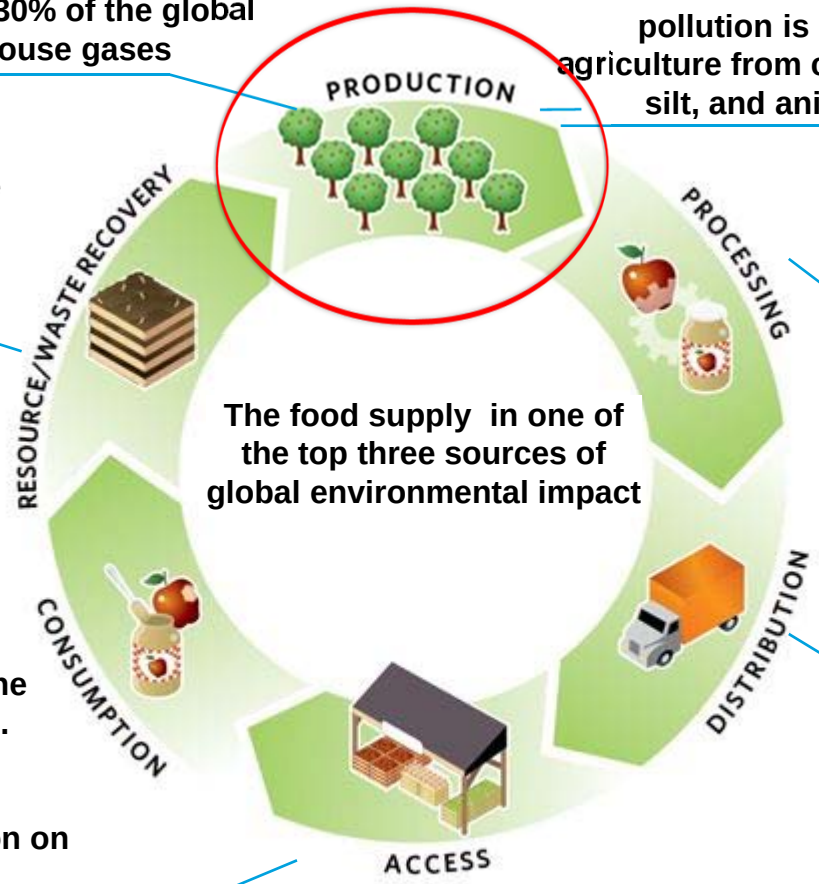
*source: JRC 2017, GreenSeal

Food Services – Focus on environmental impact

About 30% of the global greenhouse gases

70% of river and stream pollution is caused by agriculture from chemicals, silt, and animal waste

Landfilling of organic waste is responsible for large GHG emissions and the non-organic waste for other environmental impacts (eg leaching…)



The food supply in one of the top three sources of global environmental impact

The energy use in kitchen operations has an impact on fossil fuels, carcinogens and eco-toxicity

Food waste accounts between 4 and 10% of their food procurement .

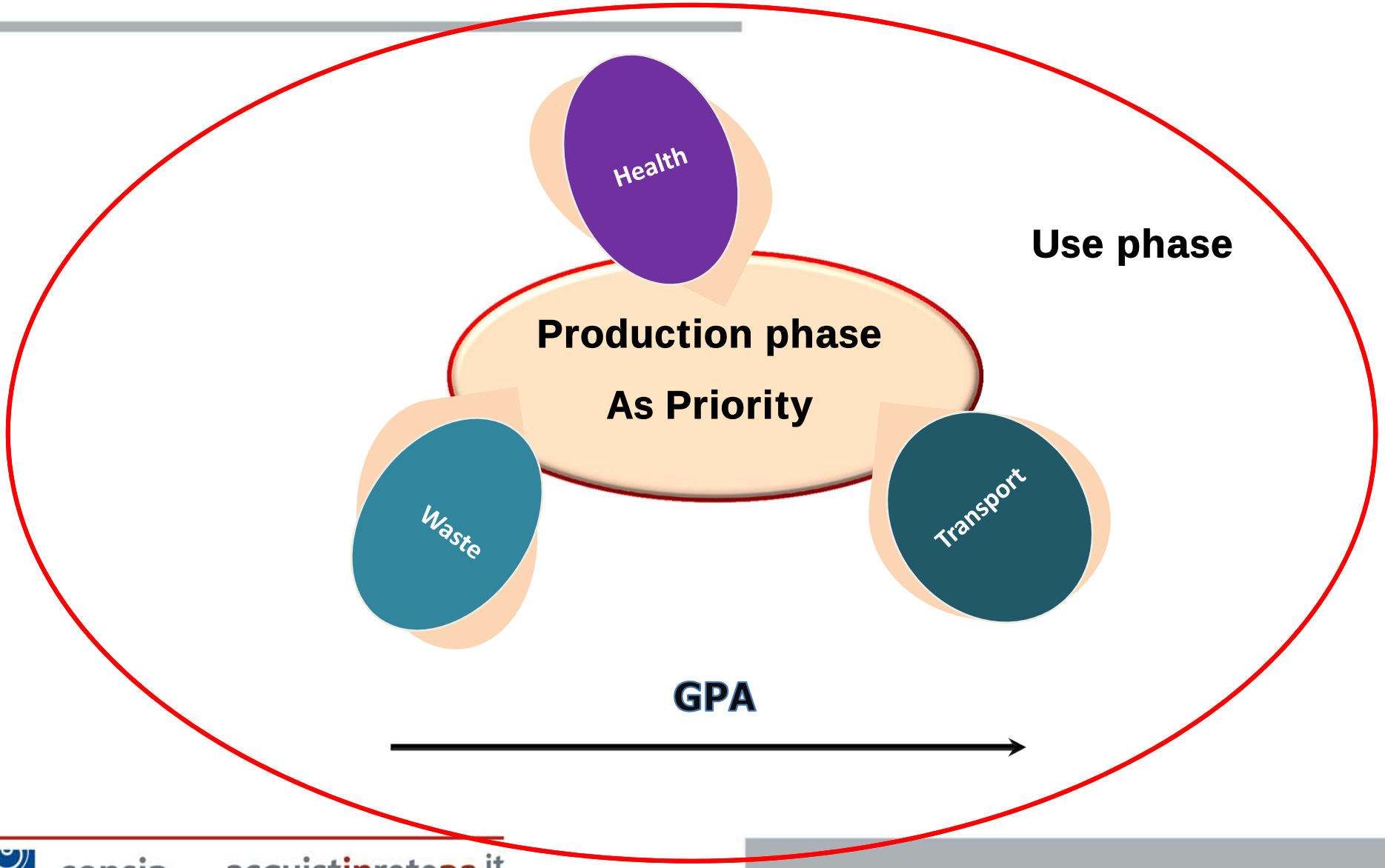
Menu planning:
Meat production accounts for almost one fifth of the world's total GHG emissions.

The substitution with chicken or pig products could conflict with the criterion on animal welfare

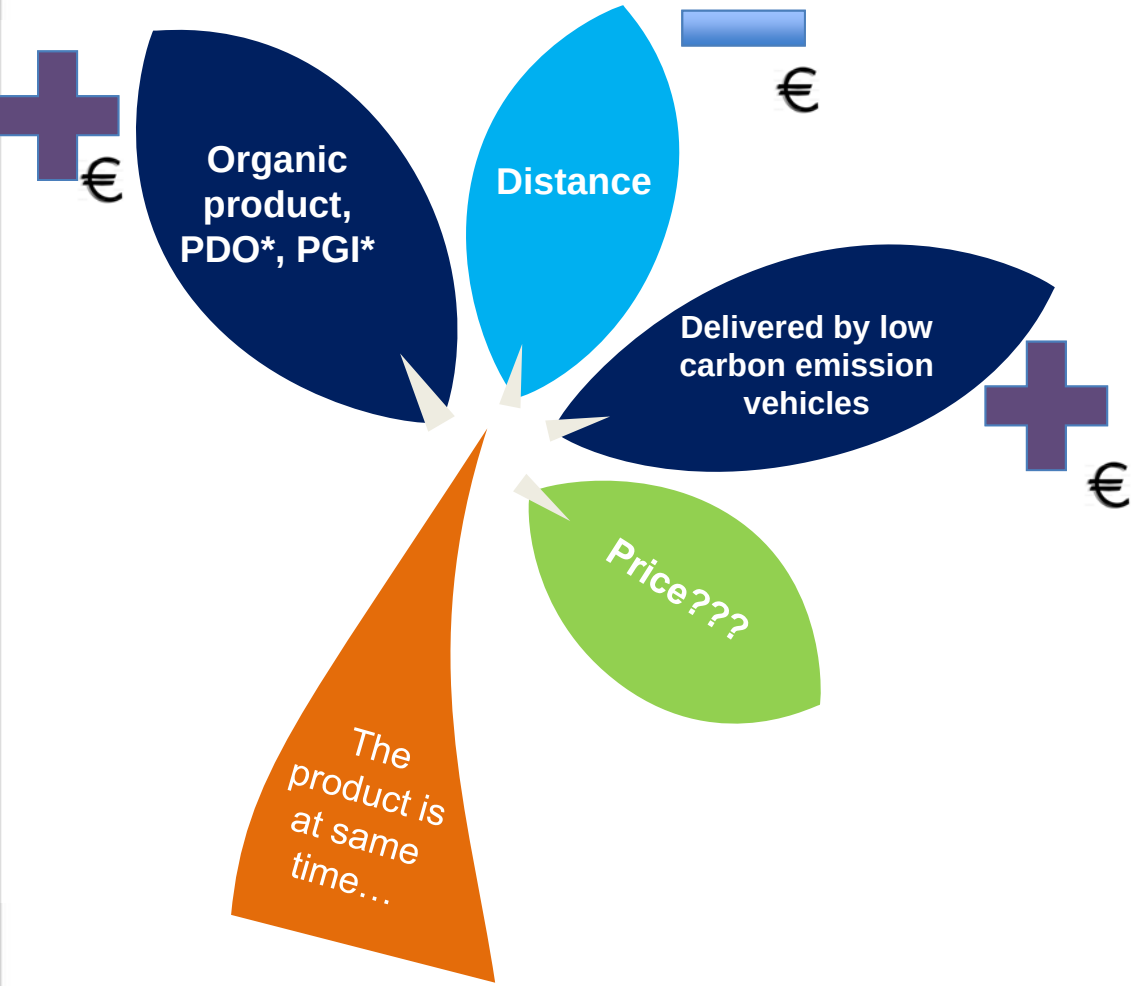
School catering service: (24–28% of the total CF)

*source: JRC 2017, GreenSeal

Prelimirary Analisys to define a green criterion



Proposal of award green criterion- Quality/Price Ratio -



More costs

(Reducing meat and animal proteins according to OMS recommendation can lead to lower organic meal cost)

Health, Environmental goals achieved

Less costs

(Quality refers to more controlled supply chain in terms of production, storage and transport conditions, transport lower costs, biodiversity protection and bigger variety of agricultural products offered, seasonal products, …)

Health, Environmental goals achieved

*Protected Designation of Origin, Protected Geographical indication

Could we use LCC instead of Price/Quality ratio?

Exemple of LCC (JRC 2017)

Table 24: Concluding summary table.

Newly proposed GPP criteria	% difference applying criteria vs standard	Estimated significance at LCC level		% difference at catering level
Organic food products	+ 2% to +200%	61% of the food procurement	33.2% of the overall catering cost due to food procurement	+ 0.4% to + 40%
Integrated production				
Marine and aquaculture food products	+5% to +20%	15% of the food procurement		+ 0.2% to + 0.9%
Animal welfare	+15% to + 50%	22% of the food procurement		+ 1.0% to + 3.6%
Fairly traded products	+2% to + 120%	--		
Promotion of vegetarian menus	0 to -10%			+ 0% to – 1.3%
Avoidable food waste				Approx.. - 5.9%
Energy and water consumption in the kitchen	- 42% replacing combi -19% efficient ovens - 25% efficient refriger.	1.1% of the overall catering cost	due to utilities cost	- 0.01% better equipment*
		5.5% of the overall catering cost	due to amortizations	

<u>Yes, if</u> we were able to transform in Euro health damages and environmental damages related to food chain.

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