



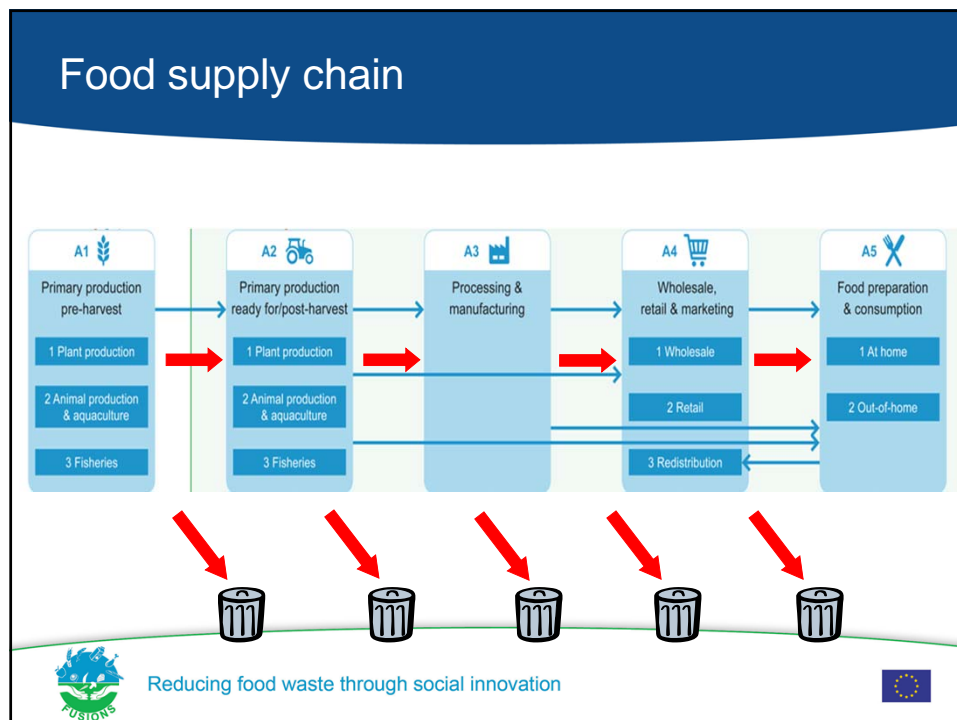
FUSIONS:

Environmental impacts of food waste

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FUSIONS aim

- documentation for the existing knowledge base
- baseline assessment
 - impacts of food waste on health and nutrition
 - socio-economic impacts of food waste
 - social impacts from food redistribution organisations, such as food banks
 - environmental impacts of food waste
- Test a common methodology for food waste along the entire value chain in Europe



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Goal and scope

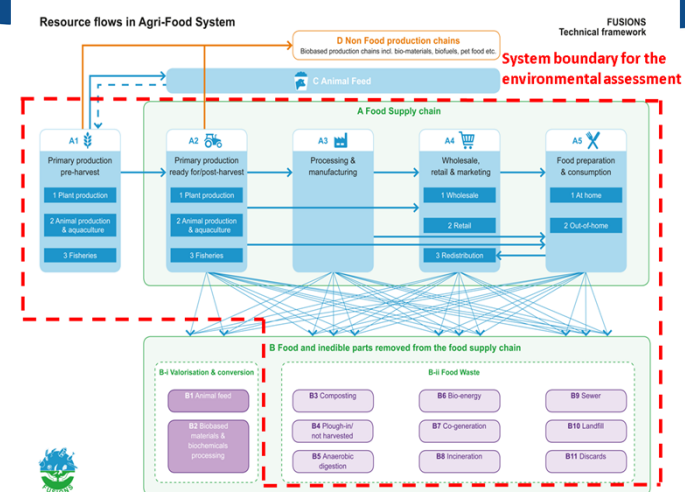
- to go beyond existing studies
- to enable testing and comparison of different approaches (e.g. bottom up and top down)
- to consider information gathered in other tasks of FUSIONS
- to be reproducible, expandable and adaptable
- to be as simple as possible and detailed as necessary
- to enable the work with existing data from literature whenever possible
- to identify data gaps and data uncertainty which have to be improved in the future for more precise results



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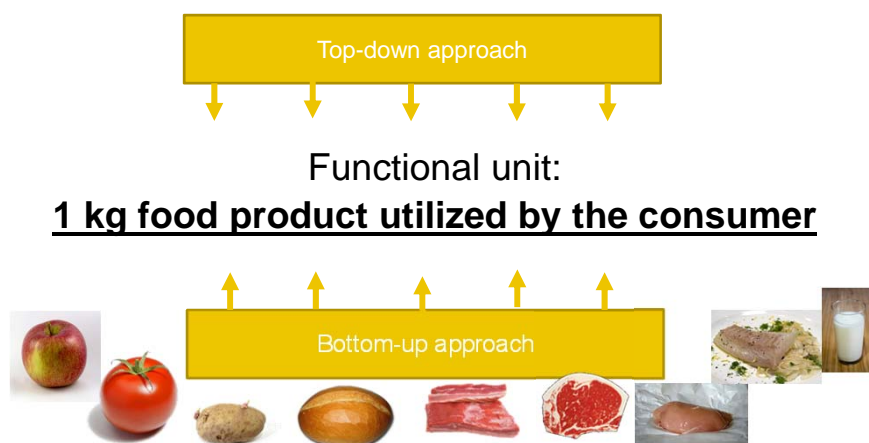
System boundaries



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Methodology



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Environmental impact categories

Attribute	Food product									
	Apples (non-organic)	Tomatoes, loose (non-organic)	Potatoes (non-organic)	Bread (non-organic)	Milk (conventional non-organic)	Pork (conventional non-organic)	Beef (conventional non-organic)	Chicken (conventional non-organic)	White fish (wild caught)	
GWP										
EP										
AP										
POCP										
ODP										
HTP										
ETP										
ARD										
BRD										
RE										
LU										
BD										
WU										



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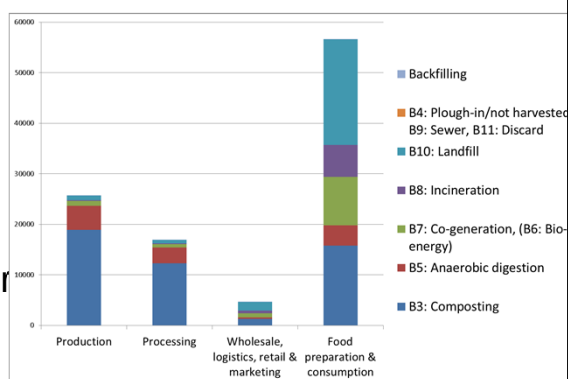
Life Cycle Inventory (LCI)

- GWP-database of

- Each of the indicator products
- Each of the life cycle stages

- Consumption data (cooking behaviour, consumer travel)

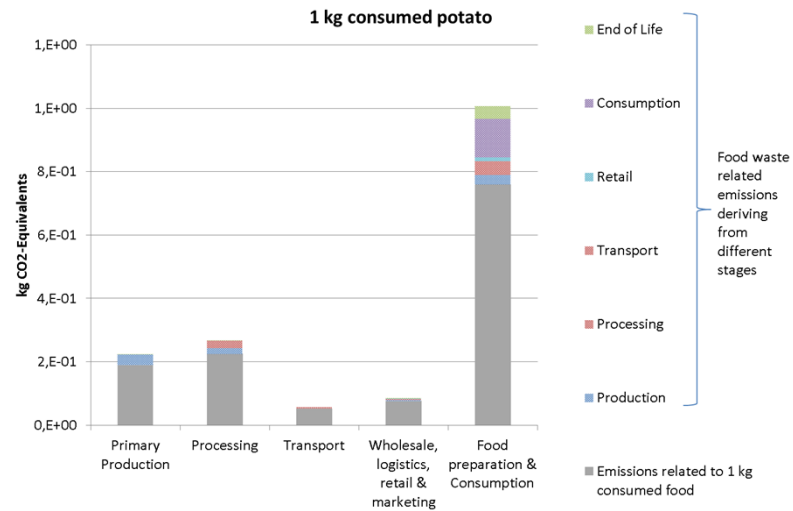
- EoL data



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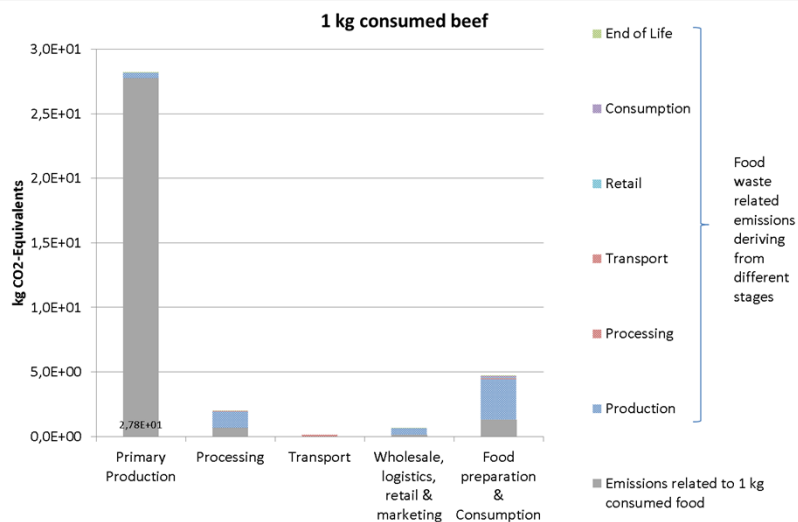
GWP results - Differences in products



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GWP results - Differences in products

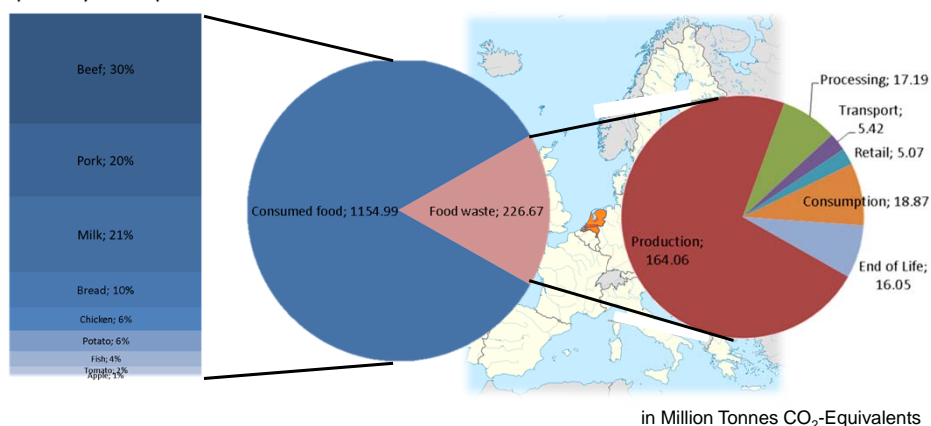


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GWP results - Extrapolation of results

Disposition by indicator products



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Conclusions

- Approximated assessment of food waste based on FUSIONS data set
- A top-down approach appears to offer a rapid way of approximating the GWP
- A bottom-up approach can give valuable background information for setting detailed and specified waste prevention strategies and also predict the possible effect of such strategies



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Requirements

- Deepened knowledge about food waste amounts on product level (at least on product category level)
- Regular and more detailed data sets (national statistics)
- Inclusion of food waste valorisation
- A deeper understanding of the EoL step of the supply chain (data gaps)
- Harmonization of methodologies (also in regard to economic assessment)



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Results are published within

- FUSIONS Report:
- „Criteria for and baseline assessment of environmental and socio-economic impacts”
- November, 2015
- ISBN : 978-3-900932-32-9
- Download at
- <http://www.eu-fusions.org/index.php/publications>



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Thank you!



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