

# Developing statistical food waste data collection on the primary production of fruits and vegetables

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# Background

- UN Sustainable development goal 12.3:  
*“By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses”*



- Feasible monitoring methods to verify the impacts of reduction measures are needed!

# Methodological framework – What is foodwaste?

	Parts produced for food		Non-food parts (peels etc.)
	Edible yield	Inedible yield (spoiled or damaged)	
Unharvested yield			
Other use			
Composting/ biowaste			
Energy use			
Use in high-value products			
Feed use			
Food use			



Hartikainen et al. 2018



Hartikainen et al. 2014



FUSIONS 2014



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# Materials and methods

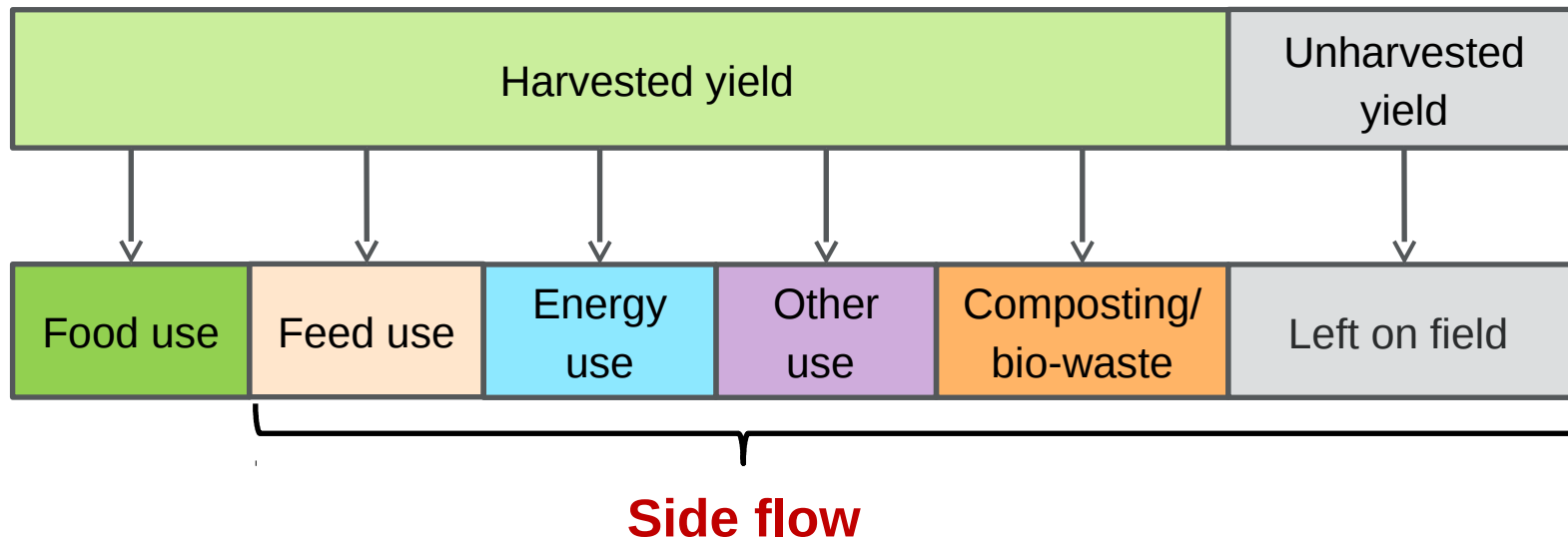
- A questionnaire was developed to collect statistical food waste data from horticultural producers
- The crop species that were included in this pilot study were food potatoes, carrots, white cabbage and strawberries



- The goal is to obtain data that is applicable when using different food waste definitions

# Questionnaire structure

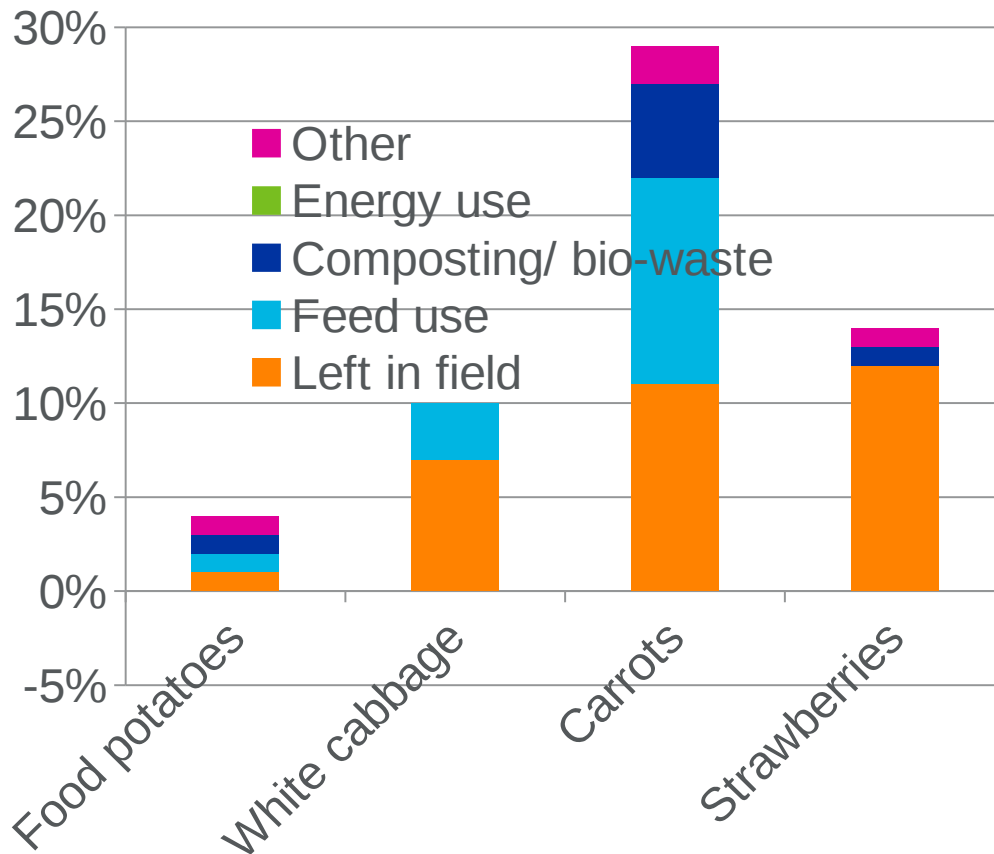
- Harvested yield:
  - Uses of the harvested yield
  - Reasons why part of the yield is not used as food
- Unharvested yield
  - Reasons for not harvesting



# Respondents in the pilot data collection

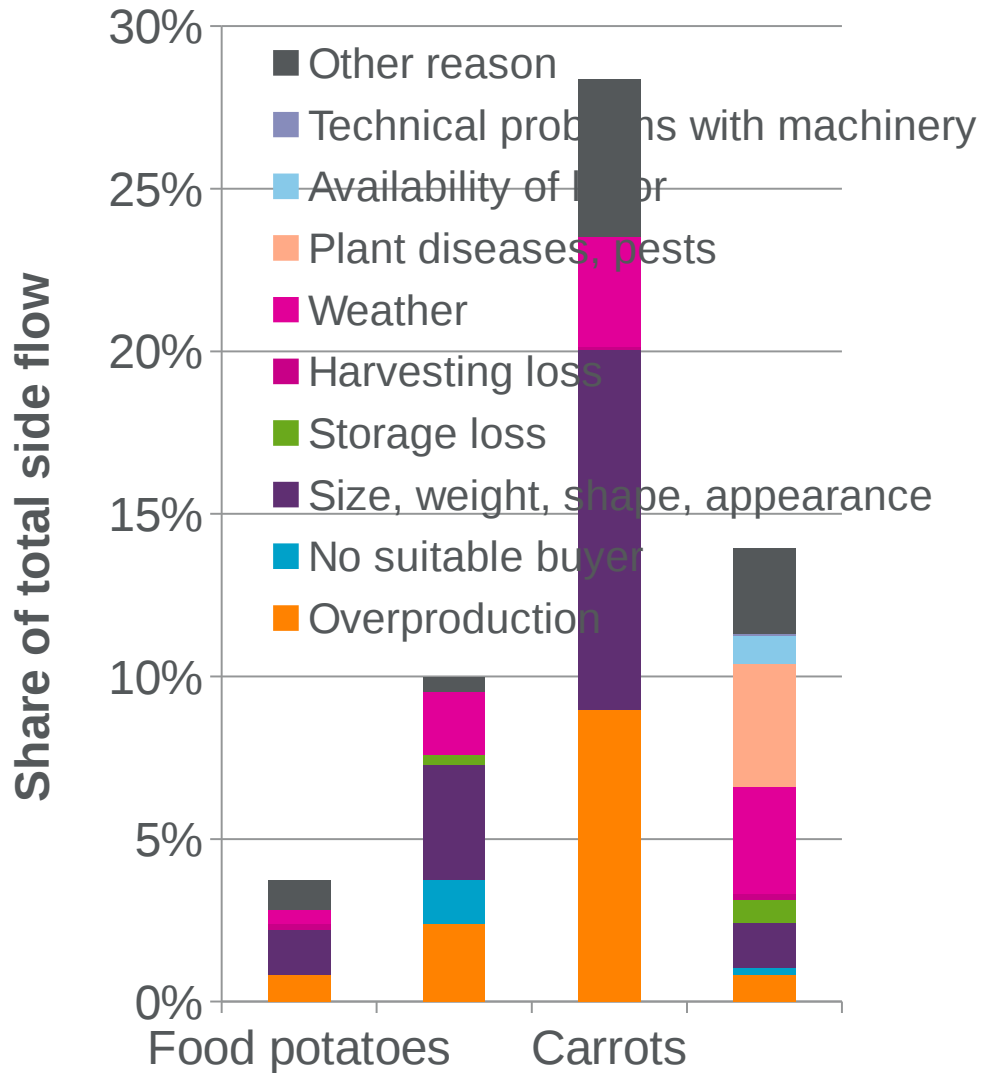
Product	Response rate, % (accepted responses)	Number of questionnaires sent	Share of final total yield of the crop, %
Carrots	25	58	14
Food potatoes	23	133	10
White cabbage	38	37	18
Strawberries	34	350	21

# Results, uses of side flow in the pilot data collection



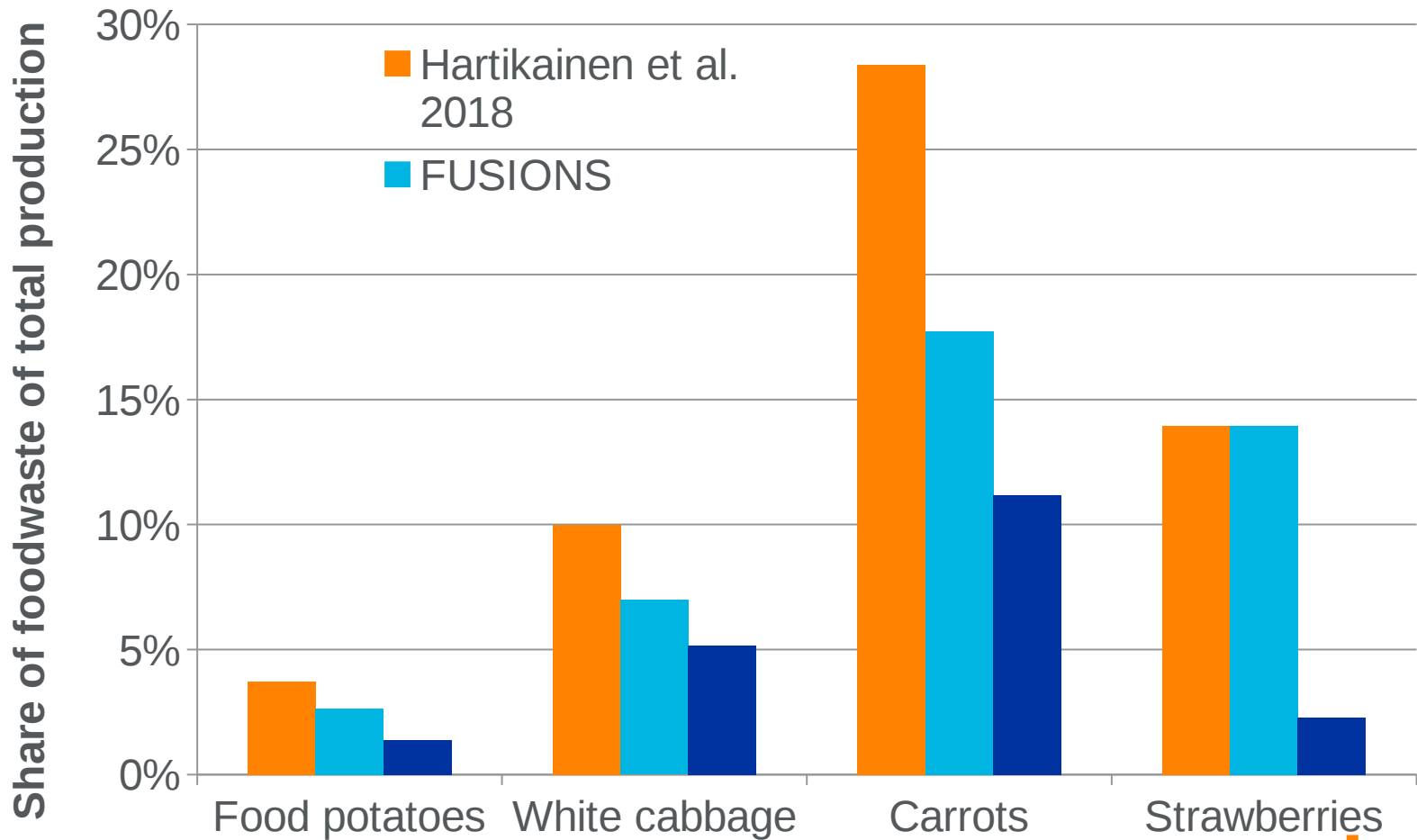
Standard deviations up to 23 %, variation from 0-100 %

# Results, side flow reasons in the pilot data collection





# Results, shares of food waste in the pilot data collection



# Discussion and recommendations for further steps

- Questionnaires vs. measurements
- Representativeness
- Easiness of answering
- Crop-specific answering instructions
- Applicability of the results when using different food waste definitions
- Questionnaires as part of statistical crop production surveys

Thank you!