New indicator: Standard Earning Capacity

Presentation Pacioli, Dublin.

September 28 – October 1

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Overview

- Typology and farm size classes
- Need for new indicator
- Background of new indicator
- Development of new indicator
- Defenitions and use
- Some results

Typology and farm size classes

- Wide variety of production structures and systems
- To analyse structural developments and economic results a classification of farm types and economic size classes has been developed, used in
    - Publication of results
    - Stratification for data collection

Typology and farm size: indicators in NL

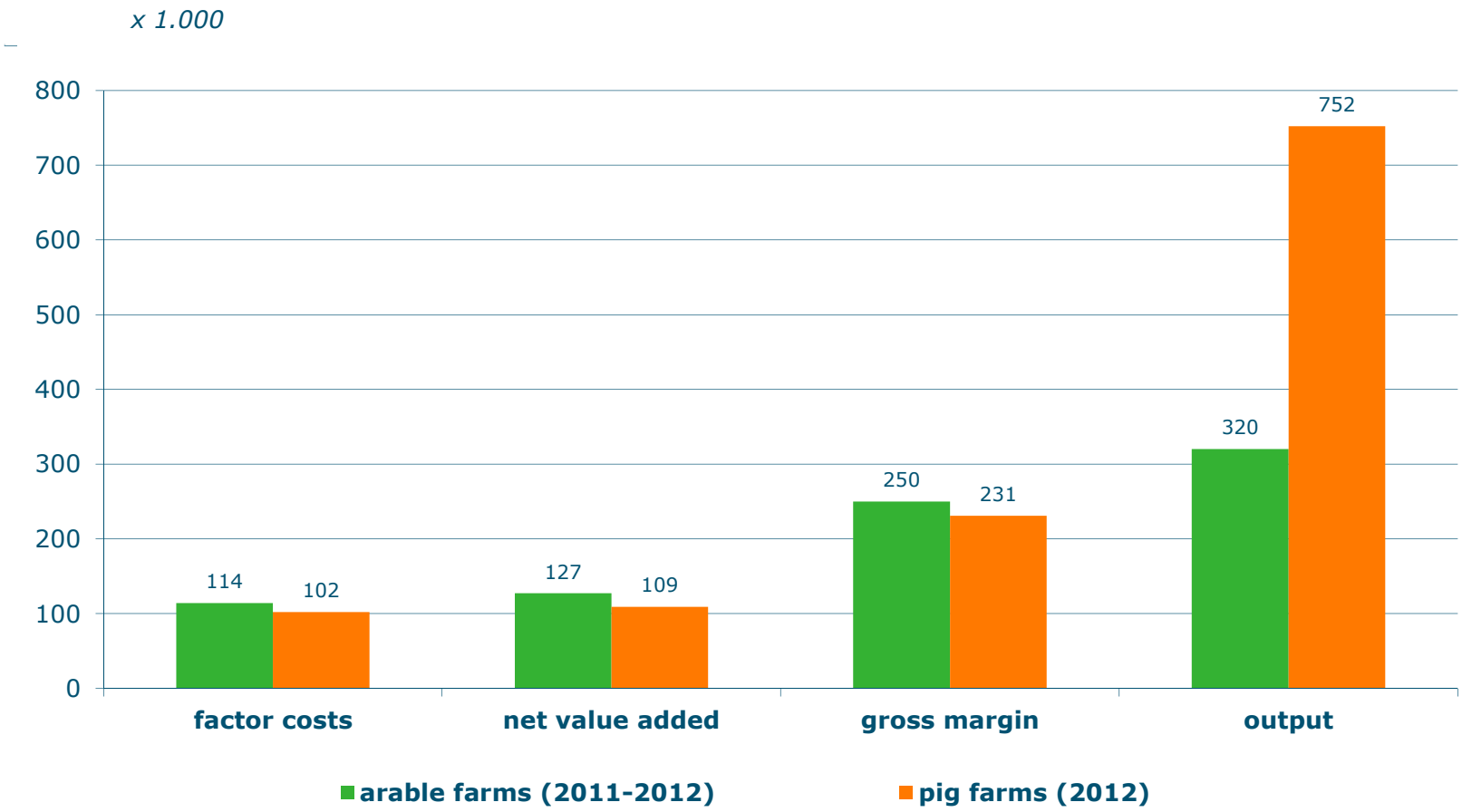
- 1970 – 1990: Standard farm unit
  - 1 sfu = 550 guilders net value added
- 1990 – 2010: Dutch size unit
  - 1 dsu = 1.400 euro standard gross margin (sgm)
  - Output (subsidies included) minus direct costs
- 2000 – xxx: Standard output
  - Output (subsidies and OGA excluded)

Farm size and results

- Relation to labour input and farm income:
  - **SFU: very strong**
    - Indicators: sfu/a.w.u; hours/sfu
  - **DSU: reasonable strong**
    - Indicators: dsu/a.w.u.
  - **SO: weak**
    - A general measure of ‘economic size’ is not applicable over all farm types

Example of farm results / indicators

(1,000 euro per farm; Source: FADN LEI Wageningen UR)



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SO: Need for new indicator

- Compared to SGM, SO is less related to farm value added, farm result and labour input
- Farm size based on SO less comparable then based on SGM
- Many questions on farm labour input and whether a farm is big enough to provide a living for farmer
    - Important in tax and local regulations
    - Before these questions were answered based on SGM, SO not useful

Development new indicator

- Definition of indicator: Net value added? Labour input? Income? Margin?
    - Need for indicator for expected efficient labour input
    - Economic indicator because of relation with SO and less dependent on technical efficiency of labour input (less discussion)
- Method:
    - Related to SO and SO groups
    - Re-use SO-groups from typology
    - Coefficient based on 5 year period (SO years)

Development new indicator (2)

- Determination of coefficients
  - Dependent variable: net value added
  - Independent variable: total SO per product category (group)
  - Parameters result in the earning coefficient per SO group
  - Lower threshold coefficient (0.05)
  - Standard Earning Capacity = $\sum$ coefficient$_i$ * SO$_i$
    - i = SO group
- Determination of update:
  - new SO value (2007 – 2010 – 2013), new coefficients

Earning coefficients, 2014

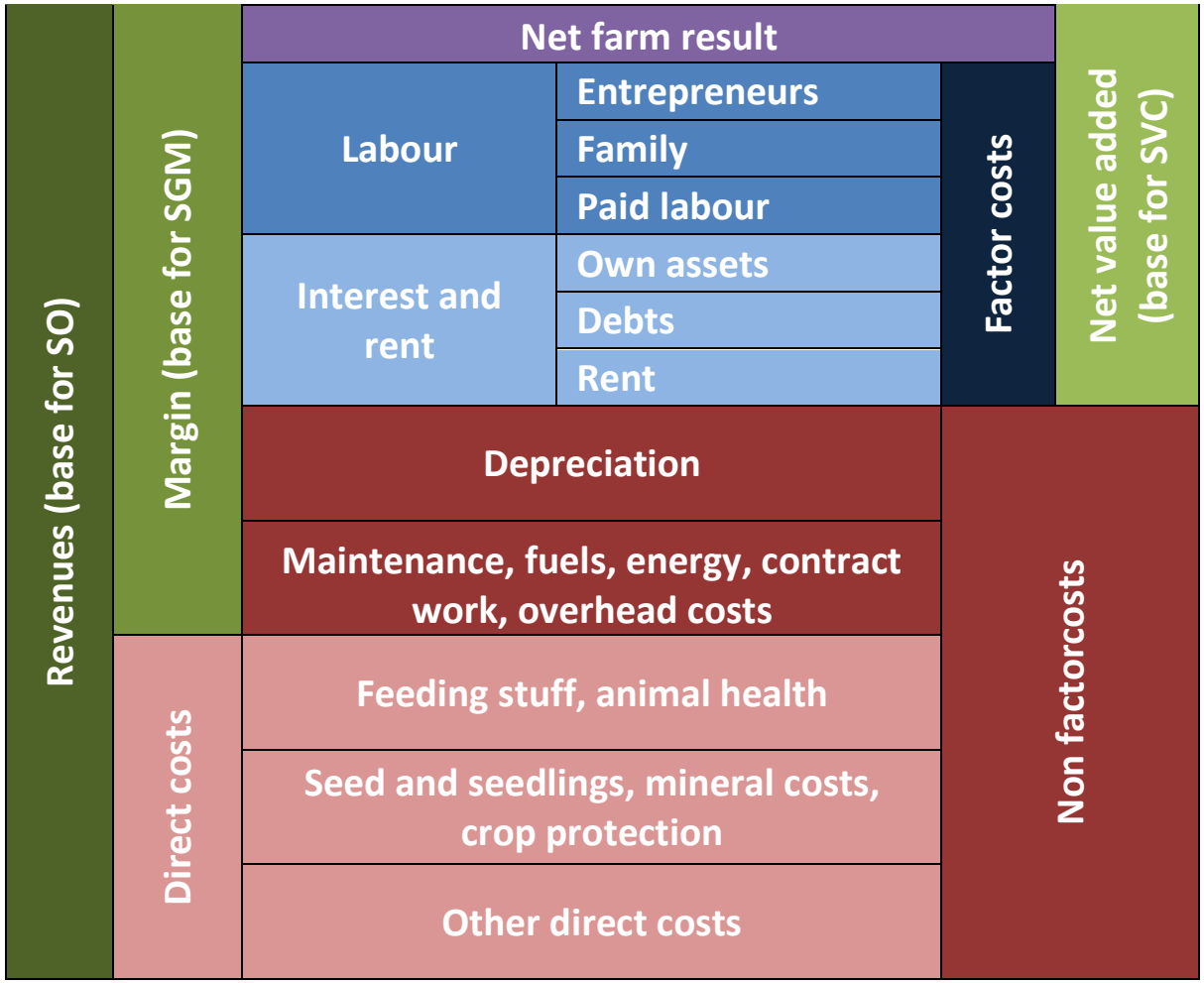
Code SO-group	Description	Earning coefficient
P1	Arable	0,401
N2111	Vegetables under glass	0,282
N2121	Flowers under glass	0,238
N2122	Plants	0,320
N2131	Other glass	0,394
N2221	Flower bulbs	0,346
2.01.07.01.02	Vegetables in the open air	0,417
2.04.05	Nurseries	0,301
2.06.01	Mushrooms	0,197
Other P2	Other horticulture	0,130
P3	Permanent crops	0,525
P45 a)	Cattle excl. Fattening calves and cows	0,261
N4611 a)	Calves	0,054
3.03.02 a)	Goats	0,213
Other P4 a)	Other grazing	0,050
N5111	Breedings pigs	0,148
N5121	Fattening pigs	0,081
N5211	Laying hen	0,172
3.05.01	Broiler	0,107
Other P5	Other livestock	0,271

Names and definitions

- Earning coefficient
  - The coefficient indicating the standard share of the Standard Output of a product (SO) as a reward for the labour and capital for a specific group of agricultural products (SO-group).

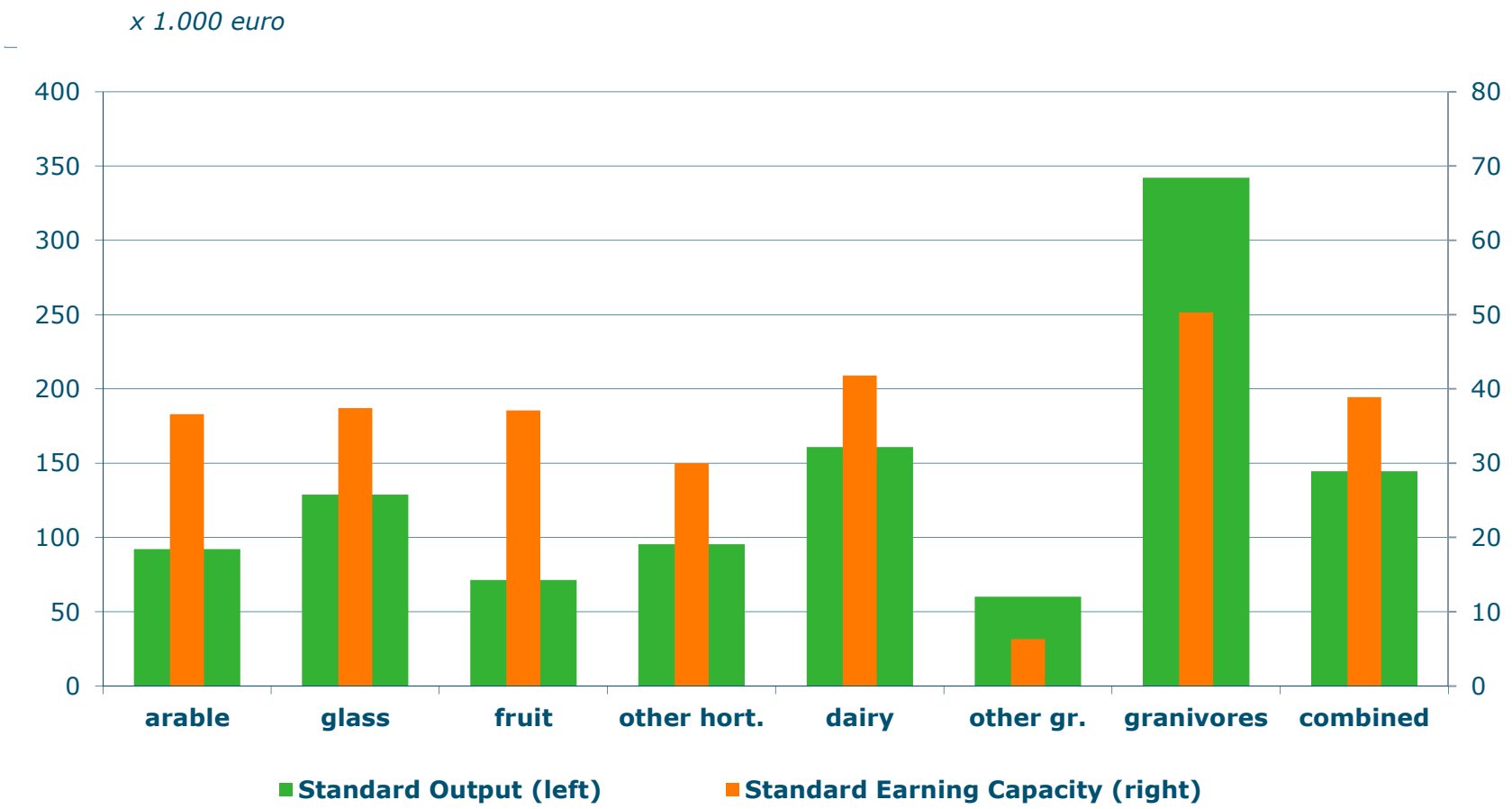
- Standard earning capacity (SEC)
  - The reward (in euro per farm) for the labour and capital input of a farm, independent of the source of labour and capital
  - OGA and subsidies not included.

Scheme revenues, costs and result



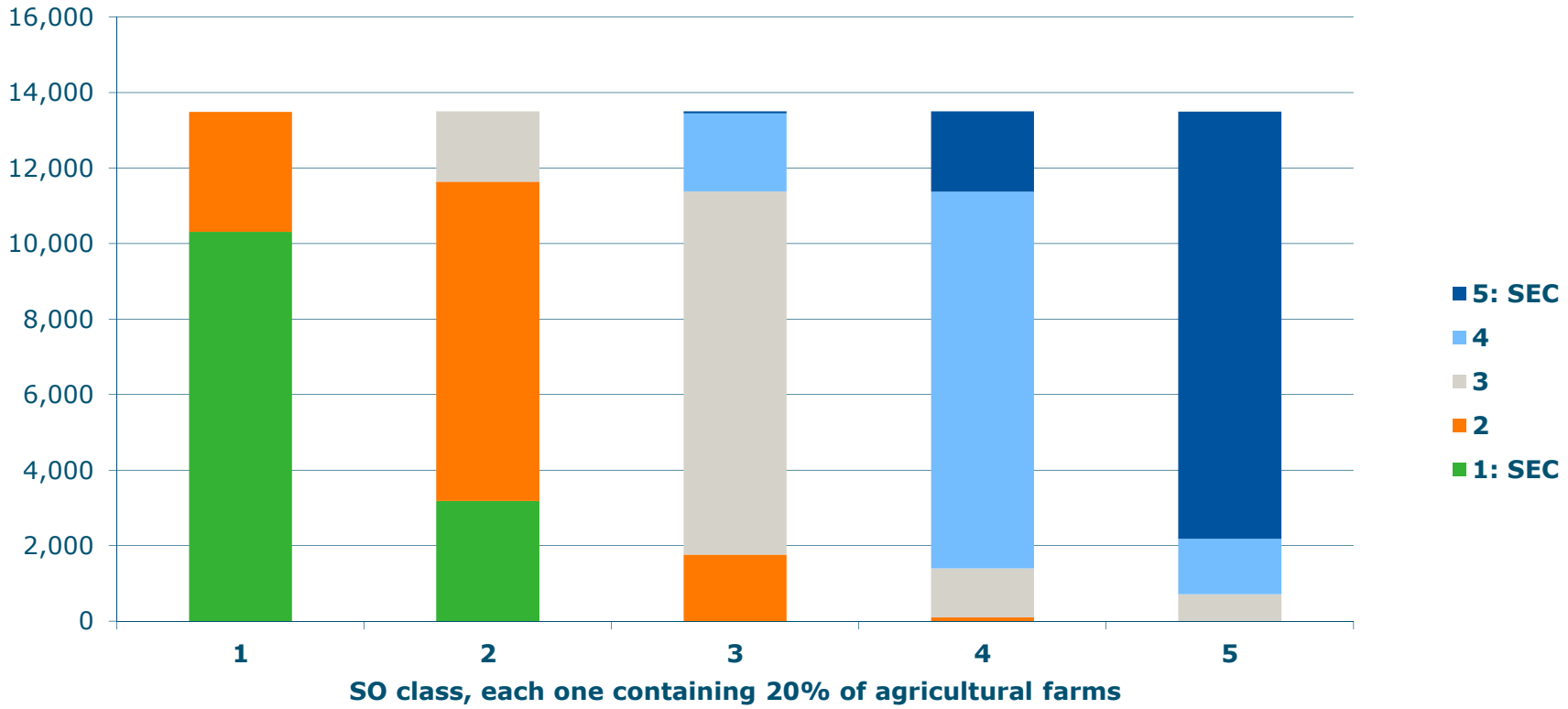
SO and SEC per a.w.u. by farm type

(Source: CBS-Landbouwtelling, editing LEI)



Size classes crossed (SO / SEC)

(Source: CBS-Landbouwtelling, editing LEI)



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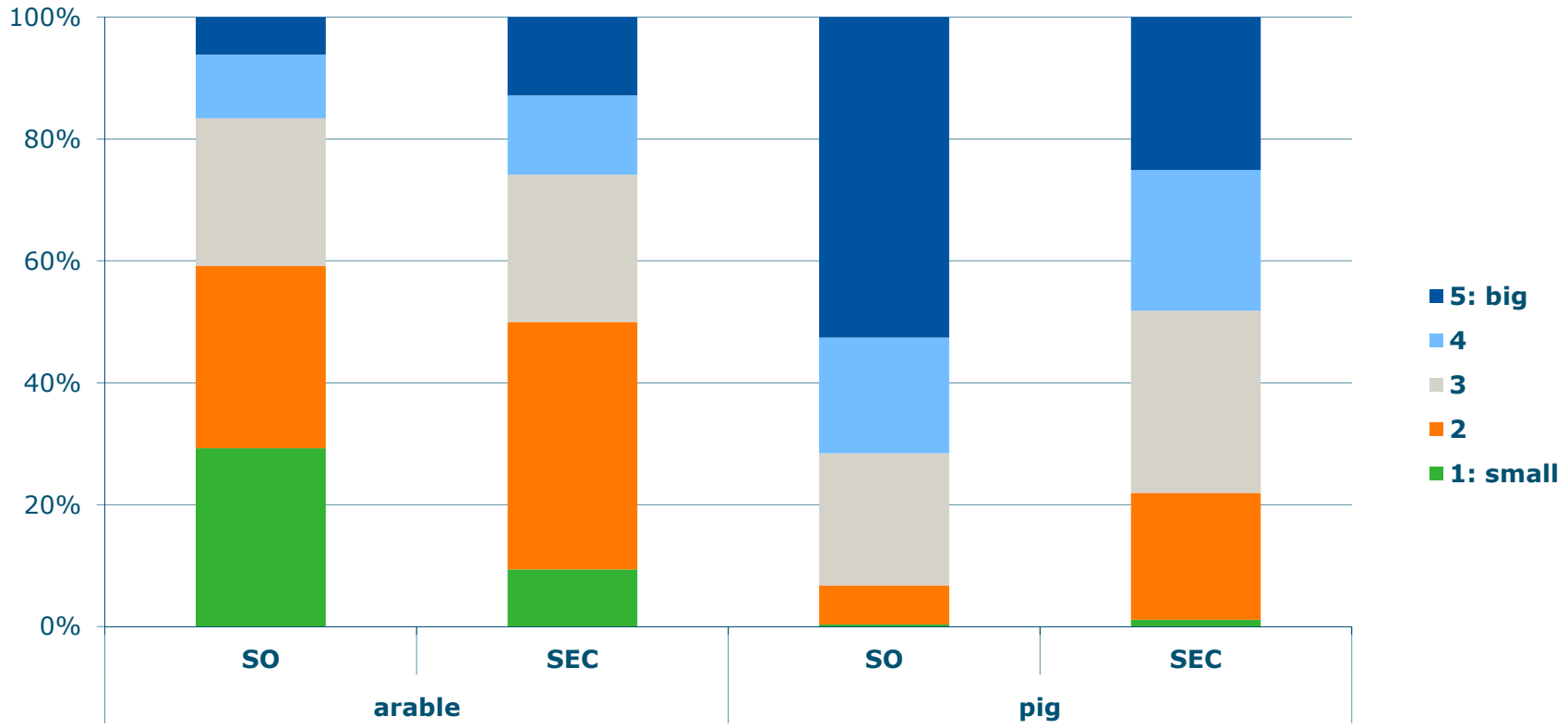
Number of farms per size class, arable / pigs

(Source: CBS-Landbouwtelling, editing LEI)



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Standard size classes in SEC

- < 25.000 euro:
  - Very small farms (< 0.75 awu)
- 25.000 – 60.000 euro:
  - Small farms (0.75-1.5 awu)
- 60.000 – 100.000 euro:
  - Middle sized farms (1.5 – 2.5 awu)
- 100.000 – 250.000 euro:
  - Large farms (2.5 – 5 awu)
- >= 250.000 euro:
  - Very large farms (> 5 awu)

Use

- Use of the new indicator
  - Inclusion in Agricultural Census: Statistics Netherlands and LEI
  - FADN: LEI
    - Average euro SEC / farm
    - SEC (1,000 euro) / a.w.u.
    - Hours / 1,000 euro SEC
  - On line SO tool: LEI
    - Average euro SEC/farm
    - Size class.

Questions

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