

Reporting tool for annual change studies by using survey data

Alina Sinisalo and Arto Latukka

Background (FADN data)



- The Farm Accountancy Data Network (FADN) is an instrument for evaluating the income of agricultural holdings and the impacts of the Common Agricultural Policy¹.
- FADN data is collected every year from a sample of the agricultural holdings in the European Union.
- Natural Resources Institute Finland (Luke) is responsible of organizing the delivery of survey results to the EU from Finland.
- Every year microeconomic data is collected from approximately 900 voluntary agricultural holdings.
- Using the weight factors the data are used to describe the results of all Finnish farms.

¹ CAP at glance: https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/cap-glance_en

Background (Economy Doctor)



- Economy Doctor¹ is a reporting service for publishing time series of business activities and income of Finnish agricultural holdings.
- Due to data confidentiality decrees the results are published at average level by region, economic size and type of holding.
- Year-to-year changes are often of interest when studying economic performance and comparing the previous results present situation.
- To calculate the changes it may be needed to gather information from various sources and then subtract the results.

¹ Economy Doctor: www.luke.fi/economydoctor

Objectives



- We developed a new feature in Economy Doctor internet reporting service.
- A routine programmed in Economy Doctor calculates for any economic report the differences between selected years of interest.
- The objective of this project was to implement automated calculation routines for more effective utilization of sample survey results without compromising data privacy.
- The overall target is to develop Economy Doctor reporting service to produce more concrete help for researchers, decision makers and the public audience.

Economy Doctor Internet-service www.luke.fi/economydoctor



Language selection:








Suomeksi

På svenska

In English

-  **FADN Standard Results (SO)** ▶
Results of EU member countries 2004-2016p
Results published 20.05.2018
-  **FADN Advanced Results (SO)** ▶
Key ratios calculated of EU results by member countries 2004-2016p
Results published 20.05.2018
-  **FADN Standard Results (SGM)** ▶
Results of EU member countries 1989-2009
Results updated 20.05.2018
-  **FADN Advanced Results (SGM)** ▶
Key ratios calculated of EU results by member countries 1989-2009
Results updated 20.05.2018
-  **Reindeer farming** ▶
Results 2015/16 published 05.06.2017
-  **Unit cost of the reindeer husbandry** ▶
Results 2015/16 published 05.06.2017
-  **Beekeeping** ▶
Results 2015 published 30.06.2017
-  **Unit Costs of Beekeeping** ▶
Service published 27.08.2015
Results 2015 published 05.09.2017
-  **Fur farming** ▶
Results of accounting year 2006
-  **Coastal Fishing** ▶
Service published 27.05.2015
Results 2015 updated 22.06.2017
Results 2016 published 30.11.2017
-  **Marine Fishery** ▶
Service published 03.11.2015
Results 2015 published 22.06.2017
-  **Aquaculture** ▶
Service published 07.10.2016
Results 2015 published 05.10.2017
-  **Fish processing and fish trade** ▶
Service published 02.11.2016
Results 2015 published 22.06.2017

-  **Agriculture and horticulture** ▶
Results 2016 updated 06.04.2018
Forecasts 2017E published 06.04.2018
-  **Total Calculation** ▶
Results 2011-2015 updated 18.10.2017
Results 2016 published 23.02.2018
-  **Unit costs of agricultural products** ▶
Service published 19.12.2014
Results updated 19.01.2015
-  **Farm Productivity** ▶
To be published ...
-  **Direct selling** ▶
To be published ...
-  **The Structural Development of Agriculture** ▶
Structure Development 2000-2016
Results updated 23.02.2018
-  **Production Structure** ▶
To be published ...
-  **Concentration of Production** ▶
To be published ...
-  **Forecast of Structural Development** ▶
Structure Development 2000-2025E
Results updated 22.02.2018
-  **Soil class information** ▶
Results published 11.03.2014
Results updated 10.04.2017
-  **Greenhouse gas emission** ▶
To be published ...

-  **Agricultural profits continue to decline in 2016** ▶
30.11.17 [Profitability of coastal fishing remained unchanged](#)
-  **Fishery industry income took a downward turn after a long while** ▶
17.10.17 [Rain washes out the profitability of agriculture](#)
-  **Rain washes out the profitability of agriculture** ▶
16.10.17 [Profitability of reindeer meat falls](#)
-  **Profitability of reindeer meat falls** ▶
06.06.17 [The profitability of agriculture continued to decline in 2015](#)
-  **Organic production is more profitable than conventional agricultural production** ▶
15.02.17 [Profits from the fishery industry are increasing](#)
-  **Profits from the fishery industry are increasing** ▶
02.11.16 [The profitability of agricultural production nearing crisis point](#)
-  **The profitability of agricultural production nearing crisis point** ▶
21.03.16

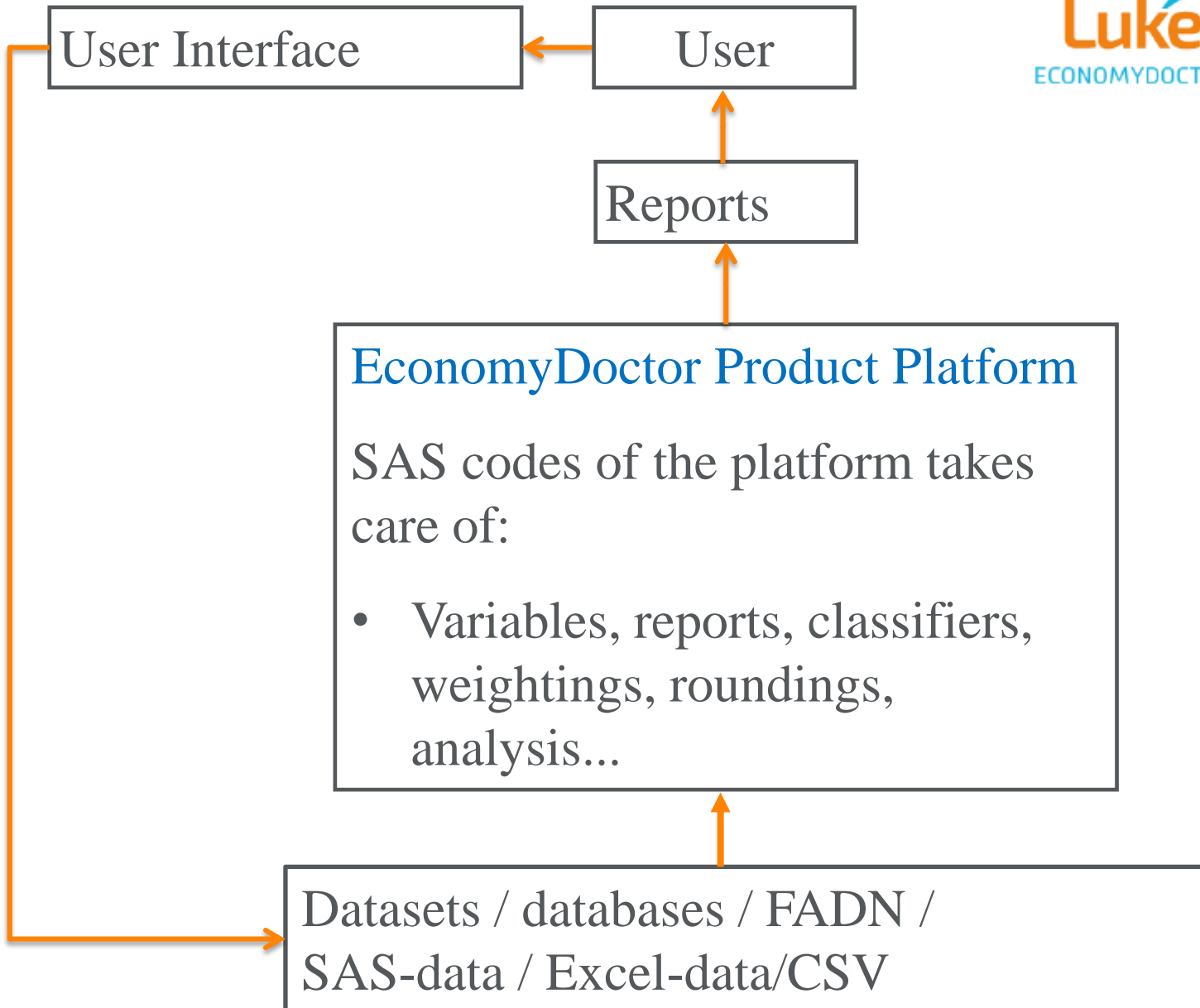
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Reporting tool in Economy Doctor



- A new feature to calculate the differences in Economy Doctor Agriculture and horticulture services was programmed.
- User can get reports between any selected years by classes of interest.
- The system produces automatically the differences reported in table format.
- Before the result table presented to user the system calculates first weighted annual averages and further differences between years.
- It is not obligatory to study consecutive years, but any period of change can be reported.
- The results are calculated in real time by automated calculation routine.

The EconomyDoctor Analysis service



Reporting tool and results

Production Costs	Dairy Farms				
	2011_2010	2012_2011	2013_2012	2014_2013	2015_2014
Farms represented	9 520	8 950	8 430	8 040	7 680
Farms in sample	330<n<340	320<n<330	310<n<320	300<n<310	280<n<290
Arable land	3,1	4,5	0,5	3,6	3,8
Livestock Units	1,6	4,2	1	3,2	3,1
PRODUCTION COSTS	18 056	39 255	8 036	14 275	6 868
Material costs	8 175	9 668	4 246	1 893	1 813
Fertilizer. Lime	504	1 627	162	1 006	-486
Other crop production costs	776	914	226	583	528
Fuel and lubricants	1 465	1 784	70	-286	-170
Electricity	710	481	66	-13	381
Forage costs	4 721	4 862	3 723	603	1 560
Farm use	5 052	9 153	1 131	-107	1 559
Livestock costs	388	2 328	78	1 113	809
Livestock purchasing	-313	603	-329	-154	32
Other livestock costs	701	1 725	407	1 267	777
Machinery cost	3 287	3 924	2 332	3 893	411
Depreciation of machines	1 169	1 235	674	919	934
Other machinery costs	2 118	2 688	1 658	2 975	-523
Buildings costs	594	1 603	898	2 018	-423
Depreciation of Buildings	287	1 373	1 042	746	595
Other buildings costs	308	230	-145	1 272	-1 018

- Example printout:
- differences for the dairy farms' production costs in 2010–2015

Conclusion

- The utilization of collected datasets can be promoted by automated calculation routines without compromising the data privacy.
- The aim is to develop Economy Doctor online portal even more user-friendly and to offer more versatile possibilities to study key indicators and economic results based on the need of users.
- Future work is to add a visual reporting environment.

Thank you!

alina.sinisalo@luke.fi
arto.latukka@luke.fi

