Czech Organic Farming Structure And Production In FADN 2011-2017(18)

IAEI INSTITUTE OF AGRICULTURAL ECONOMICS AND INFORMATION

FADN FARM ACCOUNTANCY DATA NETWORK CZ
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Content

Czech organic farming structure and production development

- **agricultural land** in organic farming, **number** of farms 1990 - 2018
- **organic farms** in the Czech Republic **by FADN typology** – basic file OF 2017
- **organic production**, share on total agricultural production in 2011 – 2018
- **crops** output, **livestock** and **other** output **per hectare**, total output **per AWU**
- **Farm Net Value Added** and **operating subsidies**, 2011-2018

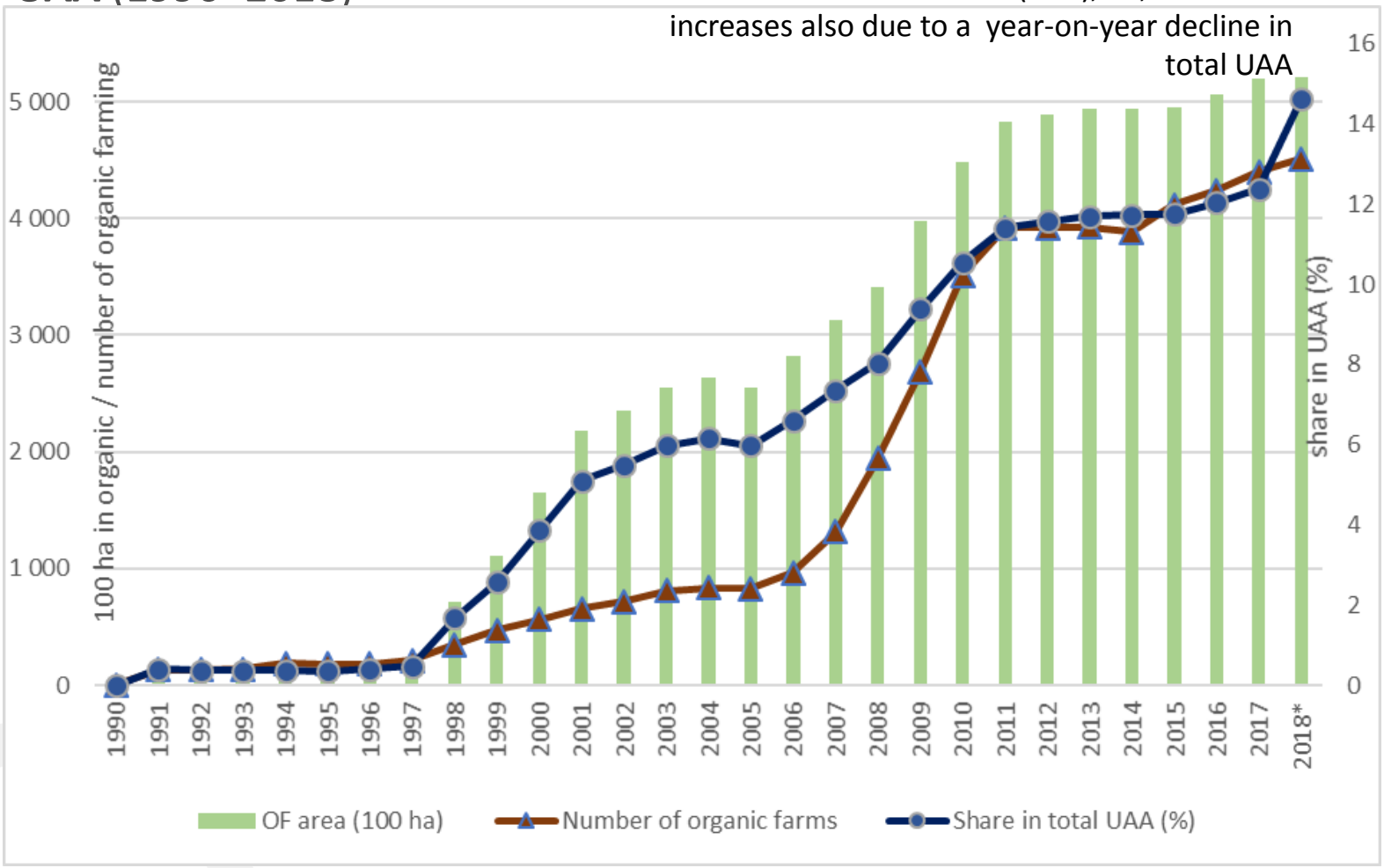
Technical efficiency and its determinants for Czech livestock farms 2011 – 2016

- **technical efficiency** by **type of farming**,
  farms with livestock production 2011 - 2016

Summary

Development in **organic agricultural land**, **number of farms** and **share in total UAA** (1990–2018)

OF area 520 832 ha in 2018 (LPIS), 14,63 % share increases also due to a year-on-year decline in total UAA



Source: MoA and REP (data as at 31.12. of given year); compiled by IAEI YEARBOOK 2017 Organic Farming in the Czech Republic

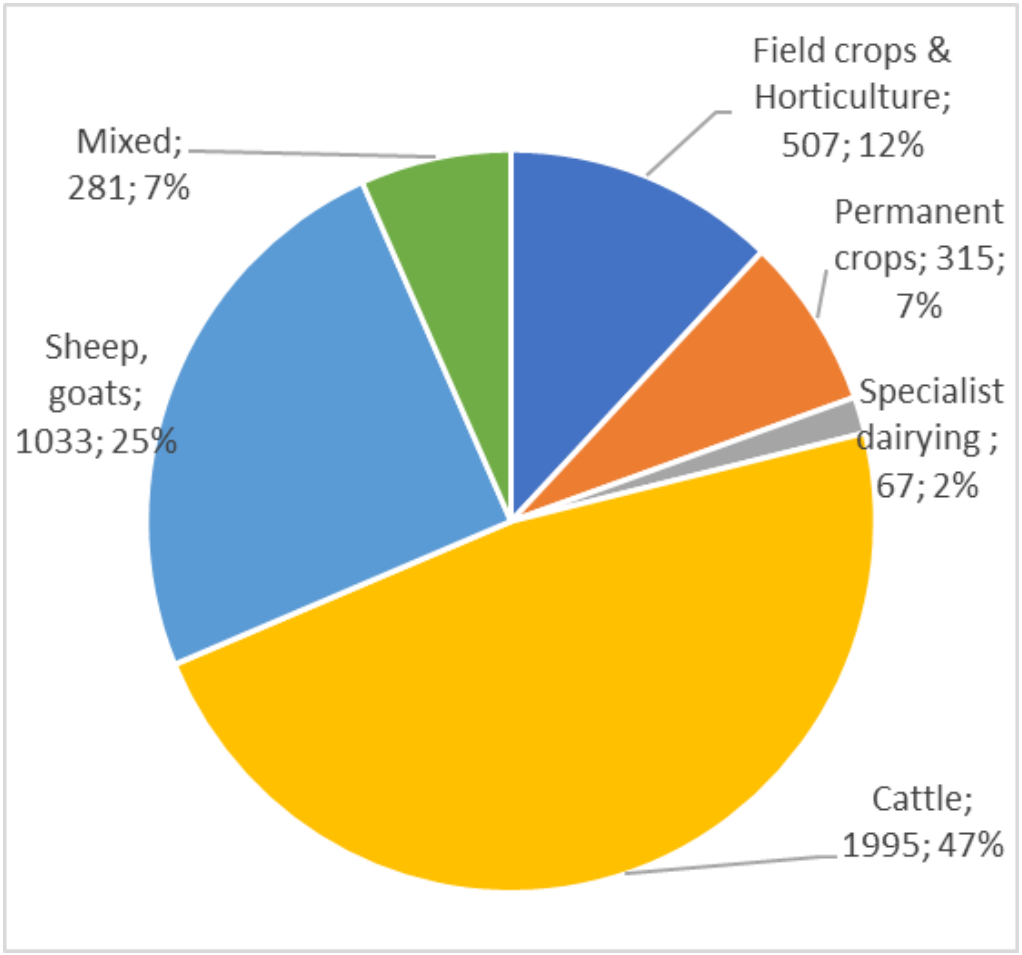
* LPIS_2018 (EKO)

Organic farming in FADN CR

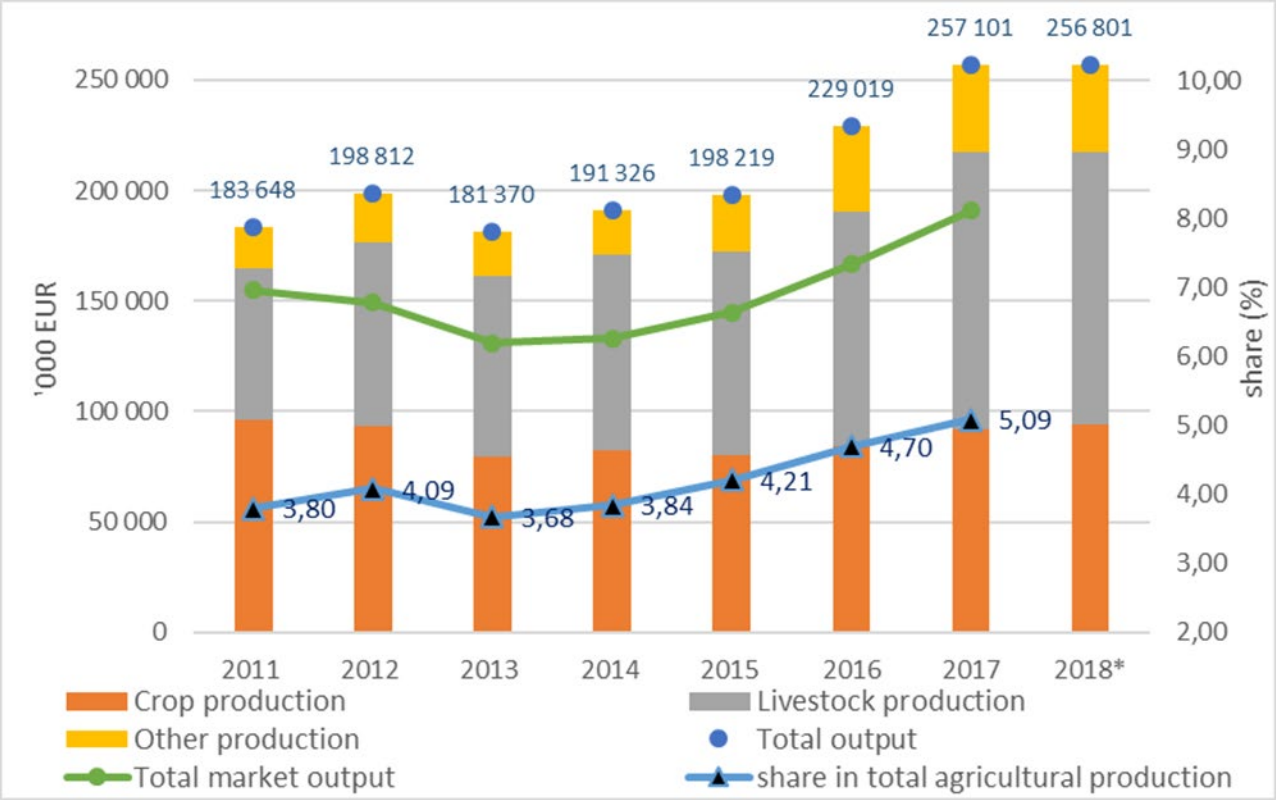
- Special task for the Ministry of Agriculture (since 2012)
- **Aim**: economic evaluation, estimation of the financial value of organic production in the Czech Republic

- **Structure of the organic farms** according to type of farming in **2017:**

  3207 (ES 4-14) farms, fully organic;
  266 in **FADN 2017** OF selection



Organic production and share in total agricultural production in 2011 – 2018*



*2018 estimates

the total production of organic farms is growing up permanently from **4.5bn** CZK in 2011 (3.80 % of total) to **6.8bn** CZK in 2017 (5.09 %)

Ways of using organic farms production in 2016 (OF YEARBOOK 2017, IAEI Survey)

3280 farms with BIO certification

74% sell some or all of their organic produce on the conventional market

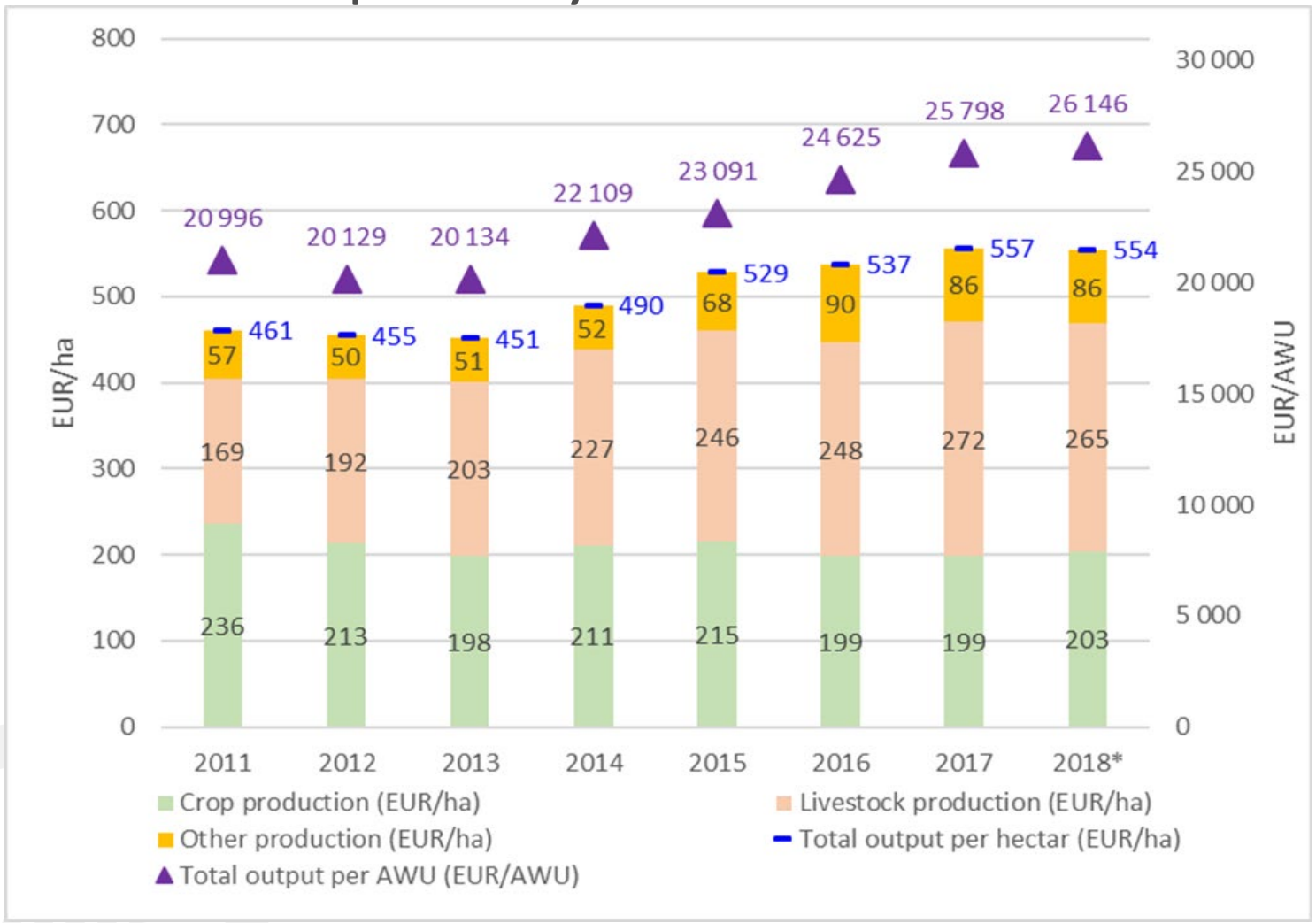
(52% of OF stated that produced exclusively on conventional production market)

10% sold all their certified organic products

16% did not sell and consumed all on the farm

Land and labour productivity

2011 – 2018*



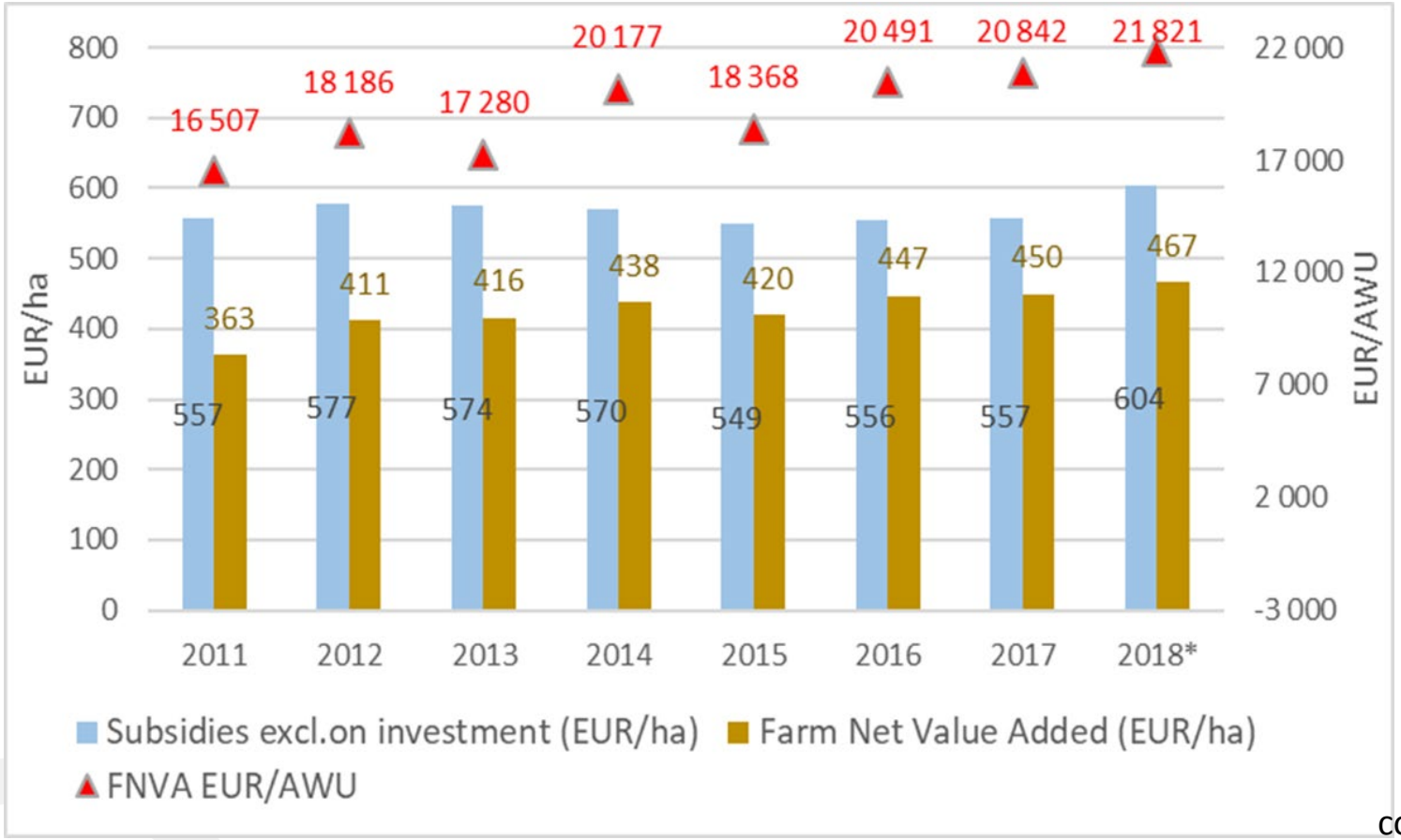
*2018 estimates

total output / ha
[OF|CF]
30 % in 2013
36 % in 2017

total output / AWU
[OF|CF]
38 % in 2013
44 % in 2017

Application of Organic principles and LFA management → lower yields and productivity

Farm Net Value Added/ha, **Subsidies**/ha, **FNVA**/AWU **2011-2018**



*2018 estimates

Subsidies per ha excluding on investment with minimal changes in 2011 to 2017.
decreasing the share of subsidies in FNVA, from 1.38 to 1.24, i.e. by 10%
FNVA / AWU is growing rapidly, 16 507 (2011) → 20 842 (2017), by 30%

Subsidies compensate farm income and are decisive factor in the profitability of the Organic sector

Technical efficiency and its determinants for Czech livestock farms, 2011-16

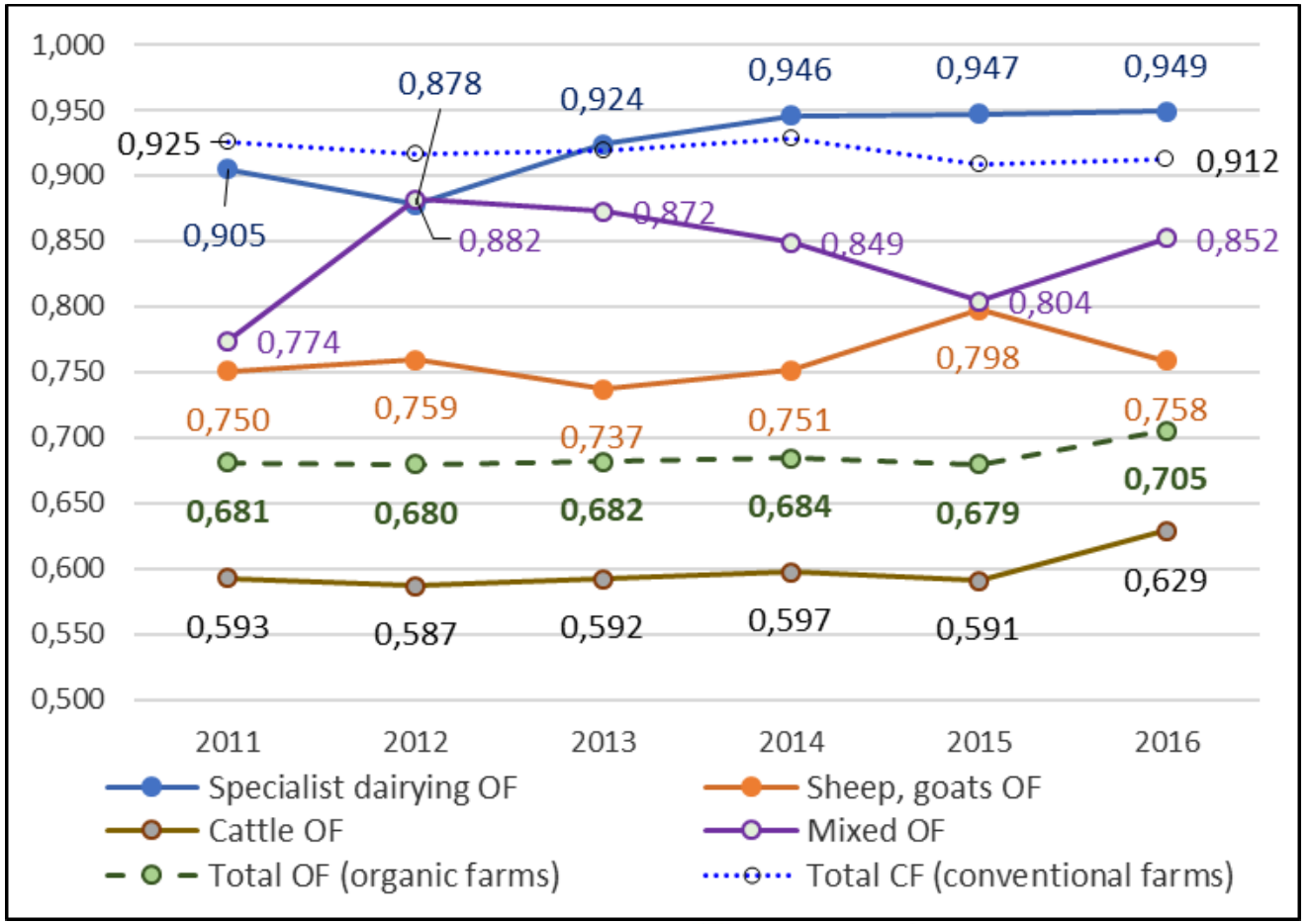
FADN 2011–2016 panel of 440 farms (114 OF, 326 CF)

y – **total output**
x1 – **land** (*ha*)
*x*2 – **livestock units** (*LU*)
*x*3 – ***AWU***
*x*4 – **material**

technical efficiency factors:
*d**LFA*** – less favoured area
*d**Organic*** – organic technology
*d**405*** – subsidies on investment
*d**ES4*** – economic size
*d**TF*** – type of farming

OF even with a **lower TE** show **consistent performance** over the period under review and in the last year there was a **significant improvement**

TE development by TF groups with livestock production



Technical efficiency and its determinants for Czech livestock farms, 2011-16

Results: The farming methods and type of farming influences the TE significantly.

The economic size of farms does not have a significant influence on the economic results in OF. That is the opposite to conventional agriculture.

- **subsidies supporting investment** and **innovation** activity positively influence overall competitiveness by increasing TE
- **differences** in the TE of OF and CF are related both to the different farming methods and to the production conditions
- granted *LFA* and *AES* **subsidies compensate** these differences, and for TE, they are decisive but with negative impact on TE
- type of farming and economic size of farms **influence** the farms' profitability, economic performance and comparability with conventional farms
- FNVA/AWU indicator of profitability **confirmed** that subsidies are an important part which **compensate** farming methods and to the production conditions for organic
- farms with growing TE show a **decline in the proportion of operating subsidies to production**, irrespective of their classification in quartiles by the TE estimate

Summary

- **The representative sample of OF** in FADN CR database

  The data from this FADN survey has been **used** for

  - Organic production estimate (**EGSS**)
  - Share of total output of Agriculture calculation, compared to **CSO EAA**
  - **Czech Action plan for development of organic farming**, 2016–2020 evaluation
  - other research projects – IAEI, MoA, OECD FLA

- **Czech OF characteristics**
  - Cattle, sheep, goats and other grazing livestock are **prevailing type of organic farming**
  - **Positive** long-term trend in **productivity**
  - **Importance of specialization** in term of value added products
  - **Insufficient use** and placement of organic production on the market

- **Czech Action Plan** for development of organic farming 2016–2020
  - **Increase the share** of production income in total OF's **income compared to subsidies**
  - **Increase** the **value of organic farm production by 15%** (according to FADN method)
  - Achieve a **15% organic share of total agricultural land** in CZ
  - Achieve a **3% share of organic foods in total** food and drink **consumption**

Thank you for your attention

References:

- YEARBOOK 2017 Organic Farming in the Czech Republic (MoA, 2018), ISBN 978-80-7434-470-1
- FADN 2013..2017 Publication, Hanibal et al., FADN CR, ISBN 978-80-7271-236-6 (2014..2018)
- Czech Action plan for development of organic farming 2016–2020 (MoA, 2016), ISBN 978-80-7434-193-9
- Technical efficiency and its determinants for Czech livestock farms Vladimír Kostlivý, Zuzana Fuksová, Agric. Econ. – Czech, 65 (2019): 175-184, https://doi.org/10.17221/162/2018-AGRICECON