Improving sustainability standards through cooperation – Innovators perspective

2nd meeting of the Forum on Best Practices in the Agri-Food Supply Chain

NTT DATA

November 10th, 2022

FUTURE AT HEART

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1 Introduce the The EU Carbon+ Farming Coalition

2 Share main coalition findings

3 Discussion

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The 14 coalition partners set out to identify the challenges farmers face when it comes to the adoption and scale-up of climate-smart farming practices

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Survey results[1] and an analysis of relevant EU policy have pointed us towards pain points from across five main areas

The large-scale adoption of climate-smart practices is inhibited by pain points across:

| Farmer Economics | Awareness & Knowledge | Data & Technology | Policy | Farmer diversity |

Today's focus:
- Precision farming: adoption and barriers
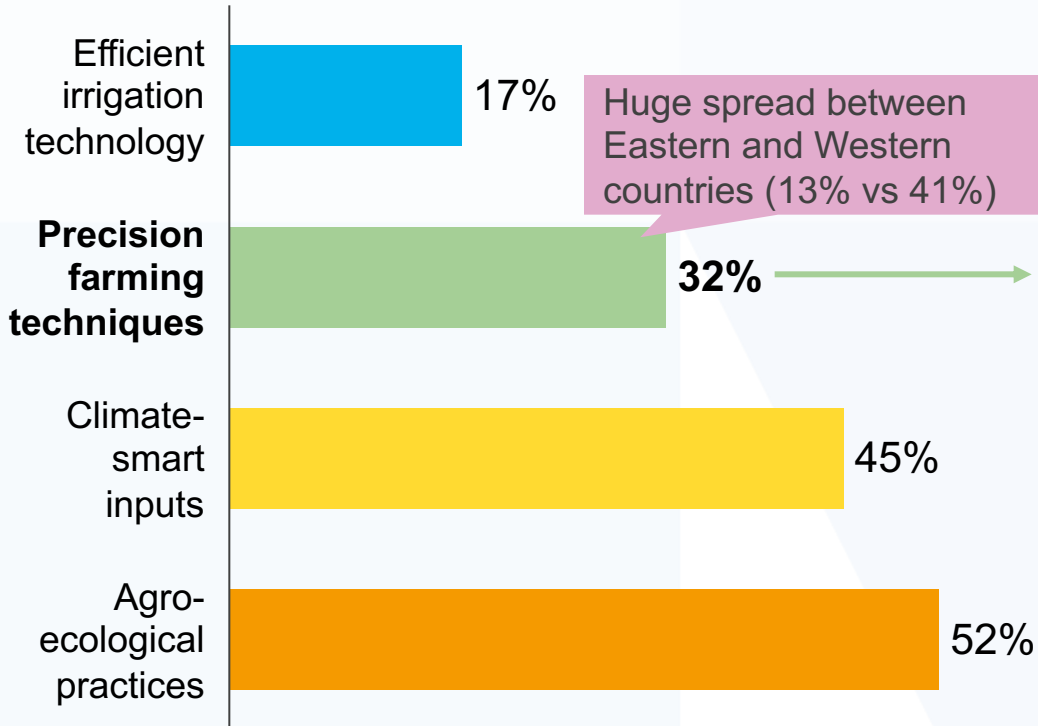- Measurement and reporting
- Impact of farmer's age

This is an extract of the EU Carbon+ Farming Coalition final report published on April 4th by the World Economic Forum detailing the Coalition's work: *Transforming Food Systems with Farmers: A Pathway for the EU*

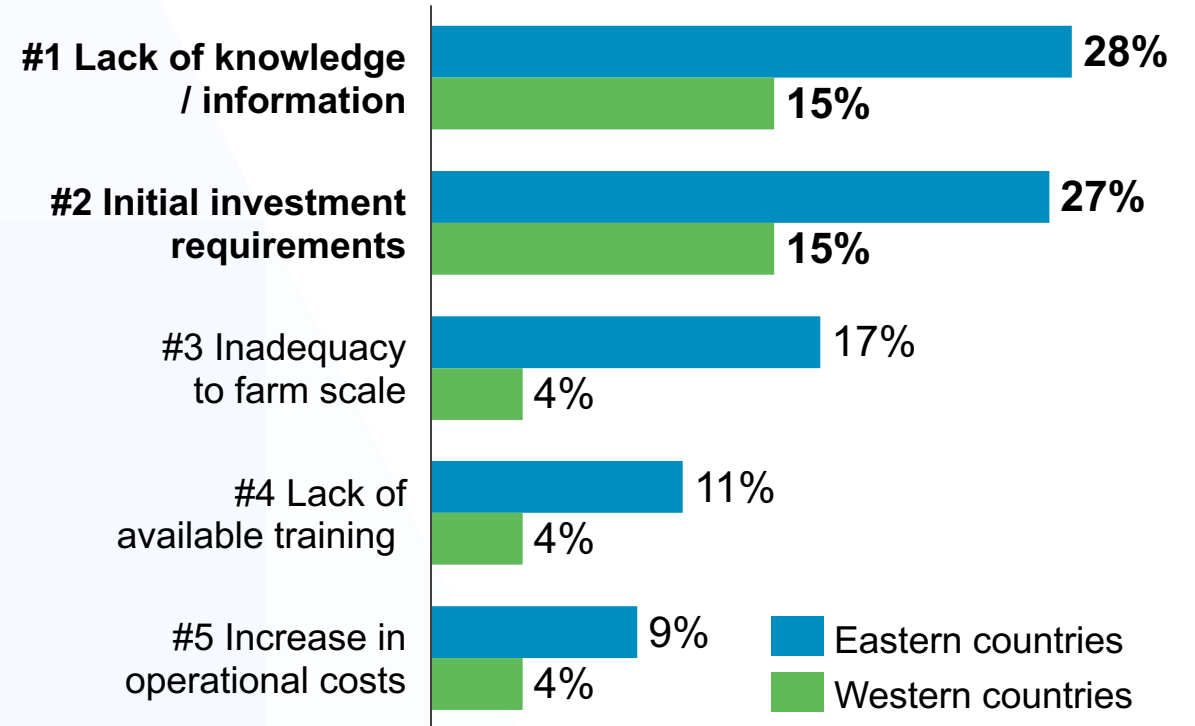(1)   The results reflect the views of **1.600 farmers** across the following **10 crop-country-combinations**: France – Wheat & Corn, Germany – Wheat and Potato, Netherlands – Potato, Poland – Apple and Carrot, Romania – Corn, Italy – Tomato, Spain – Carrot

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Tech-enabled climate-smart practices have lower adoption levels due to limited farmer knowledge and high initial investment requirements

**Average adoption rate of climate-smart practices by category**

- Efficient irrigation technology — 17%
- **Precision farming techniques** — **32%**
- Climate-smart inputs — 45%
- Agro-ecological practices — 52%

Huge spread between Eastern and Western countries (13% vs 41%)

Stated barriers to the adoption of precision farming techniques (Top 5)

- **#1 Lack of knowledge / information** — **28%** (Eastern), **15%** (Western)
- **#2 Initial investment requirements** — **27%** (Eastern), **15%** (Western)
- #3 Inadequacy to farm scale — 17% (Eastern), 4% (Western)
- #4 Lack of available training — 11% (Eastern), 4% (Western)
- #5 Increase in operational costs — 9% (Eastern), 4% (Western)

Eastern countries
Western countries

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There is a significant gap in terms of adoption of measurement practices in all countries (e.g., SOC[0]) and reporting technologies in some countries
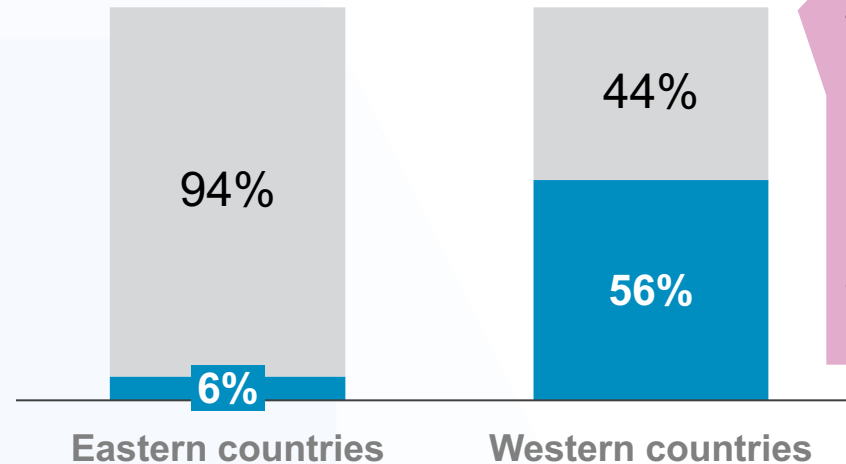
Measuring of soil organic carbon[1]

- Measuring
- Planning to measure
- Not measuring

3%
11%
86%
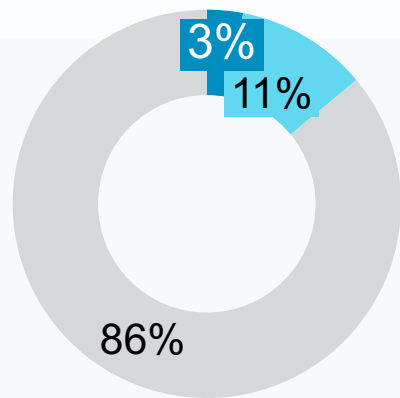
Key for participation in carbon farming projects and other ecosystem services new business models

Adoption of digital farm management tools[2]

- No adoption
- Adoption

94%
6%
Eastern countries

44%
56%
Western countries

Critical for compliance with future requirements (e.g., Sustainable Use of Pesticides Regulation), and general traceability requirements
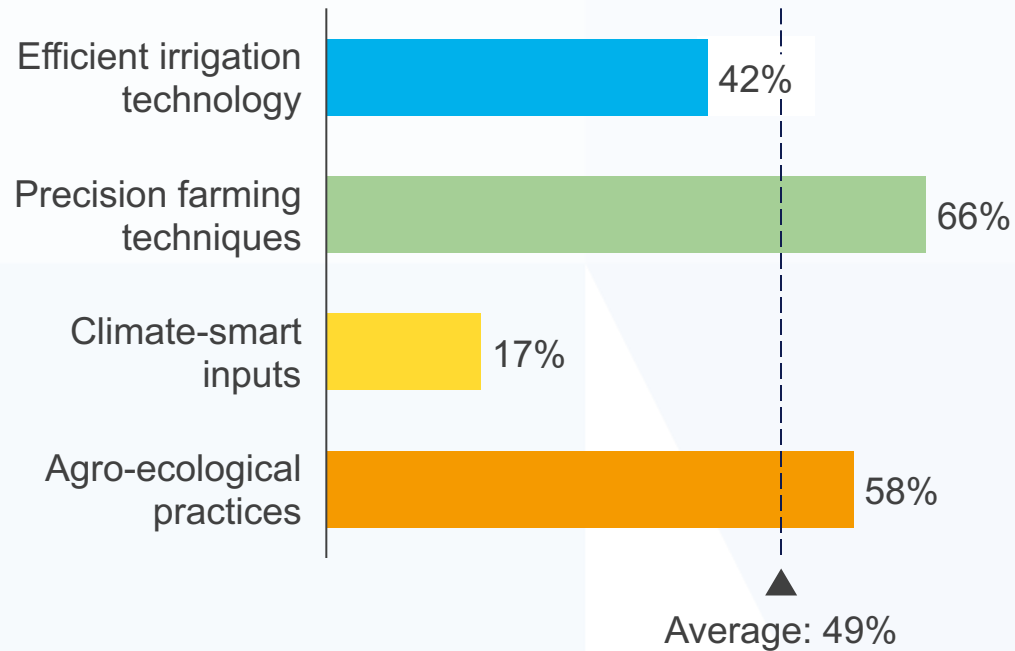
0 Soil Organic Carbon
1 Source: Qualitative Surveys conducted in Poland (Carrot and Apple), Germany (Potato and Wheat), France (Corn and Wheat), Spain (Carrot), Italy (Tomato), and Romania (Corn) – 59 farmers
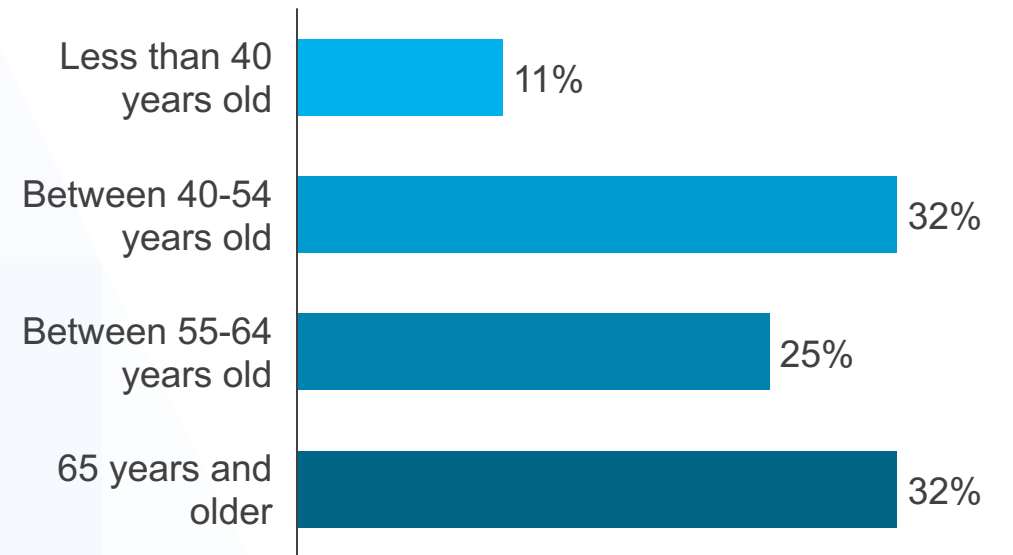2 Source: Quantitative Surveys conducted in Romania (Corn), Poland (Apple, Carrot) Germany (Potato, Wheat+OSR), Netherlands (Potato), France (Grain corn, Silage corn, Whear+OSR) and Italy (Tomato)

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Young farmers tend to be more willing to adopt climate smart practices than older farmers, but they still represent a minority of the overall collective

Increase in practice adoption of farmers younger than 36 vs. older than 51 years old

Practice	Value
Efficient irrigation technology	42%
Precision farming techniques	66%
Climate-smart inputs	17%
Agro-ecological practices	58%

Average: 49%

Age of EU farm managers, 2016[1]

Age group	Value
Less than 40 years old	11%
Between 40-54 years old	32%
Between 55-64 years old	25%
65 years and older	32%

1 Eurostat

Thank you!

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