



Pal O Stormorken, VP, Yara Digital Farming

Pal Øystein Stormorken is a VP in Partnership Strategy for Yara Digital Farming.

He has more than 20 years of experience from International Executive positions held in various Industrial verticals, in particular from Agriculture representing Yara International within Strategy, Business Development and Operational Regional and Country Management.

For the last 3 years, Stormorken has been executing an Executive position in Yara International's initiative building the Global Digital Leader within Crop Nutrition.





Knowledge grows

Industry impulse

Pal O Stormorken
VP Partnership Strategy
Yara Digital Farming



Our Mission

*Responsibly feed
the world and
protect the planet.*

Our Vision

*A collaborative society;
a world without hunger;
a planet respected.*

Yara approach on the fundamentals of the ag digitalization

Step change in productivity and environmental performance of crop processes is possible and realistic

- Processes still not data based and limited industrialization
- Still under-utilized or immature technologies and services
- Requires a holistic, synergic approach combining different technologies

Data is the foundation for the change

- no data > potentials of AI, machine learning, technology development remains “locked”

Data is owned by the farmer

- used by Yara to deliver value > can be withdrawn by the farmer
- data is combined with the generic data such as weather data

Valio-Yara partnership

Developing profitable partnerships along the value chain



- Valio-Yara partnership (Milk2020) to develop competitiveness of Finnish dairy by **improving grass silage yields**

What is the value chain really looking for?

VALIO

☀ Competitive supply

☀ Consistent supply

☀ Sustainable supply

ANSWER AT FARM LEVEL

✓ Reduced operational costs

✓ Quality and productivity

✓ Traceability of best environmental practices

▶ **PROFITABLE GROWTH**

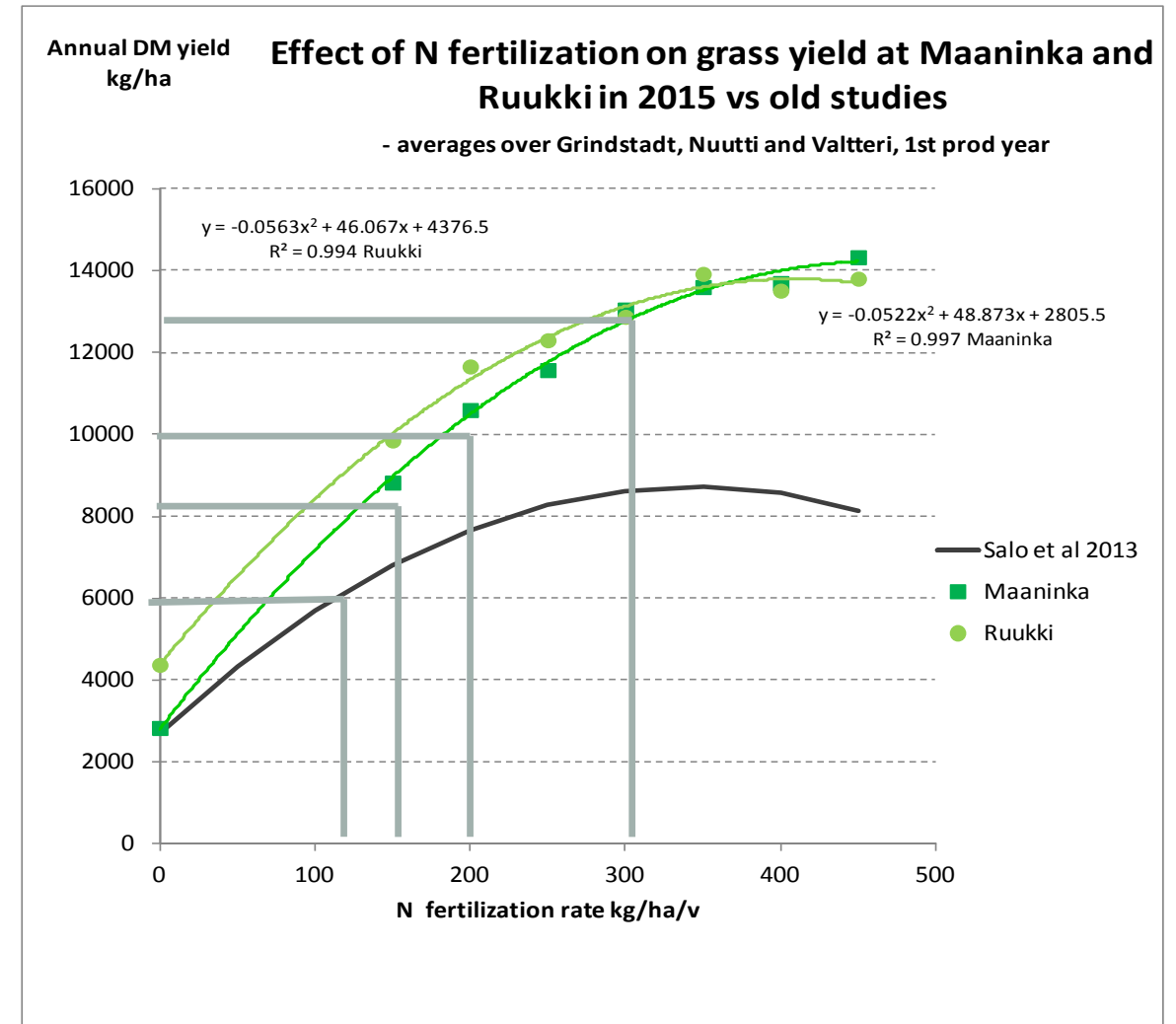


Background for the Valio-Yara partnership

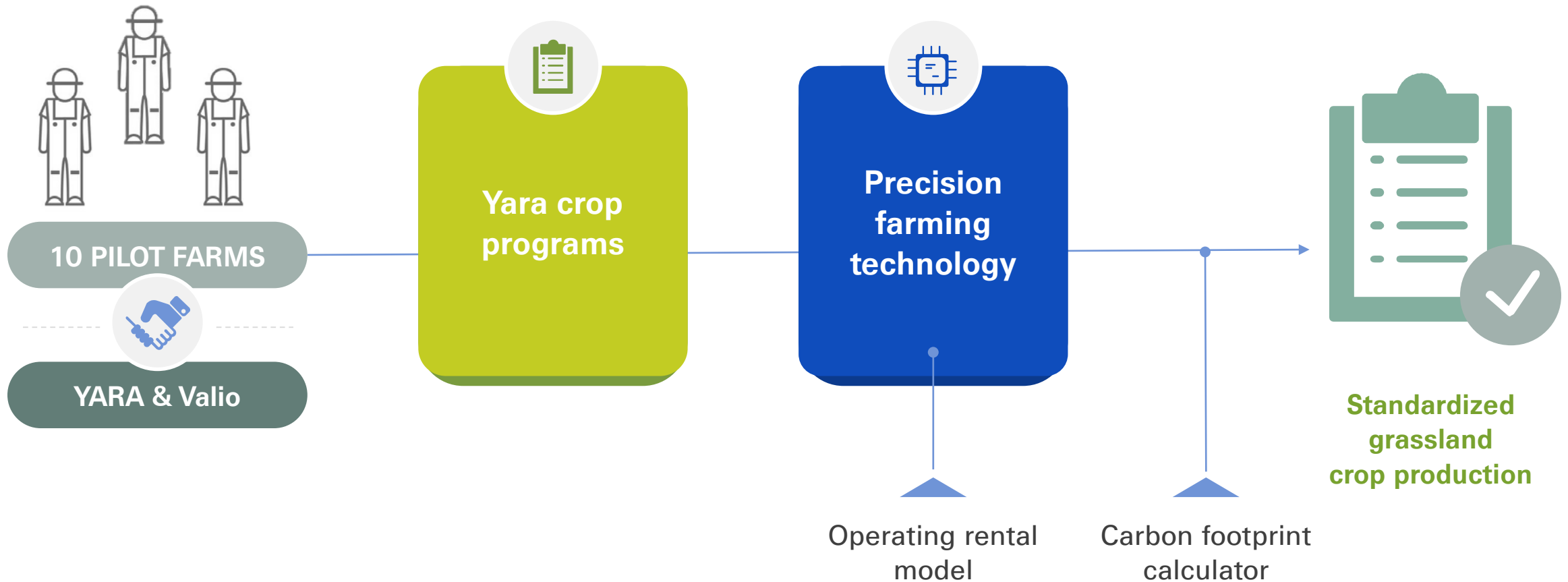
- Valio in a **transformation** mode related to future **farm structure** and **end-user driven sustainability** expectations
- Valio dairy farmers face **financial problems** due **significant reduction in milk price** due to western sanctions against Russia
- **High silage grass potential** in Finland but **slow development** of yield level
- **“Low input”** approach of research

R&D project: Leveraging productivity

- Based on the project trials, take farmer from the current yield response level (black curve) to significantly higher yield response level (two green lines)
- .35 % better nitrogen efficiency and corresponding yield response



Developing best practices protocol with the farmer



Strong value generation for dairy farmers



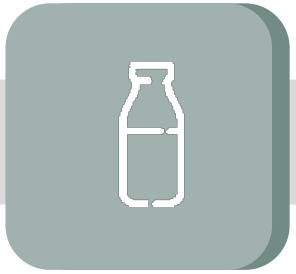
Crop nutrition :
+200 kg/ha of YaraMila



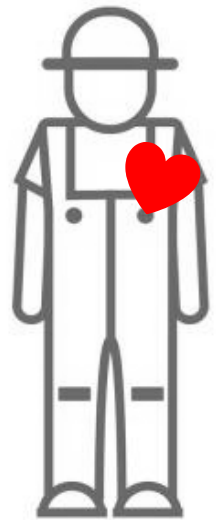
Silage yield :
+2 000 kg dm/ha



Silage production cost :
-0.6€ per kg of dry matter



Milk production cost :
-0.4€ per liter



€180 M at stake for Finnish dairy farmers

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