



ENRD Thematic Group on „Sustainable Management of Water and Soils”
15 December 2017 Brussels, Belgium

OPTIMIZED SOIL NUTRIENT MANAGEMENT

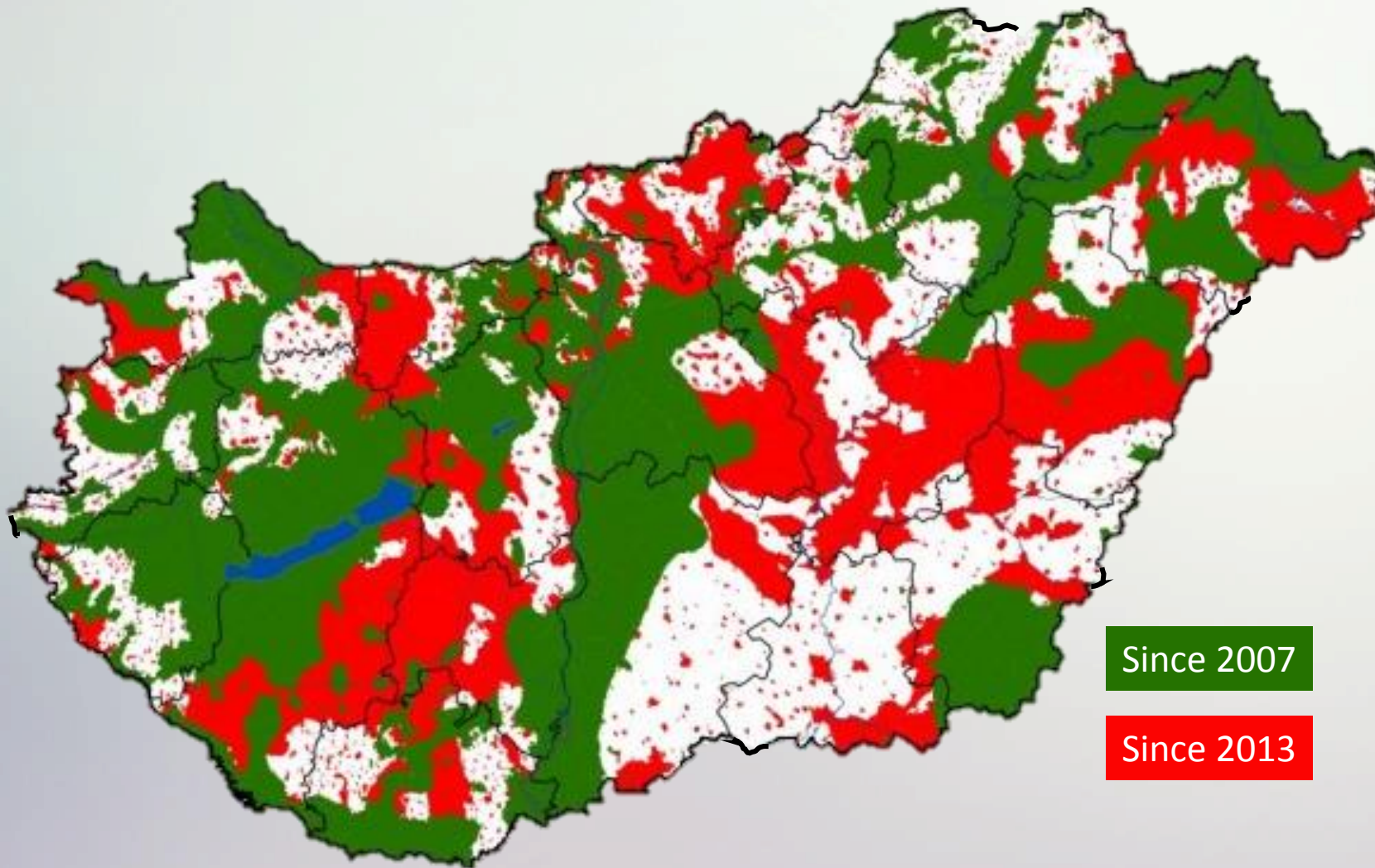
Site specific input application

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Nitrate sensitive areas in Hungary



70% of total agricultural area

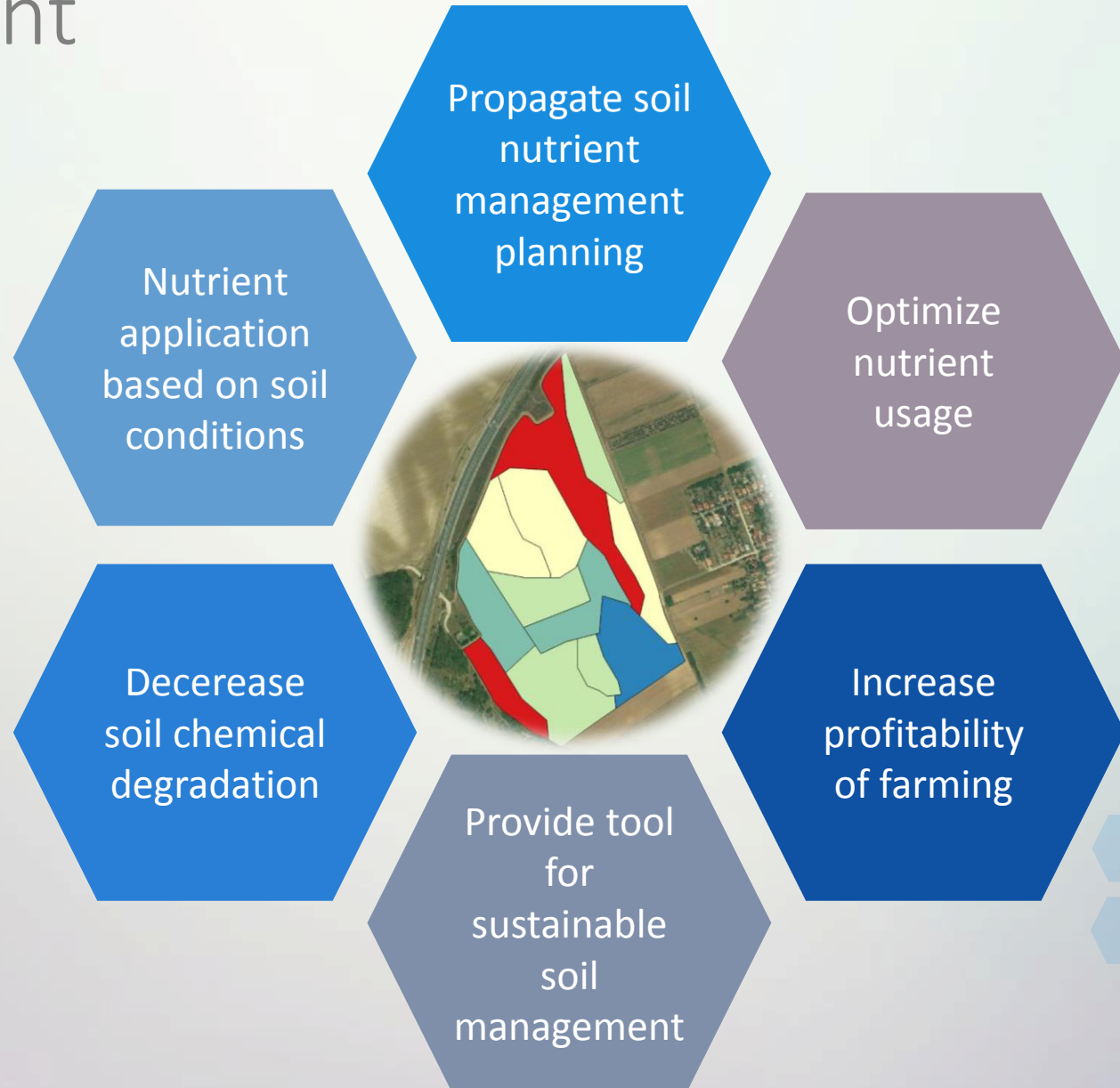
Mandatory:

- soil sampling and
- lab analysis in every 5 years
- nutrient management planning every year

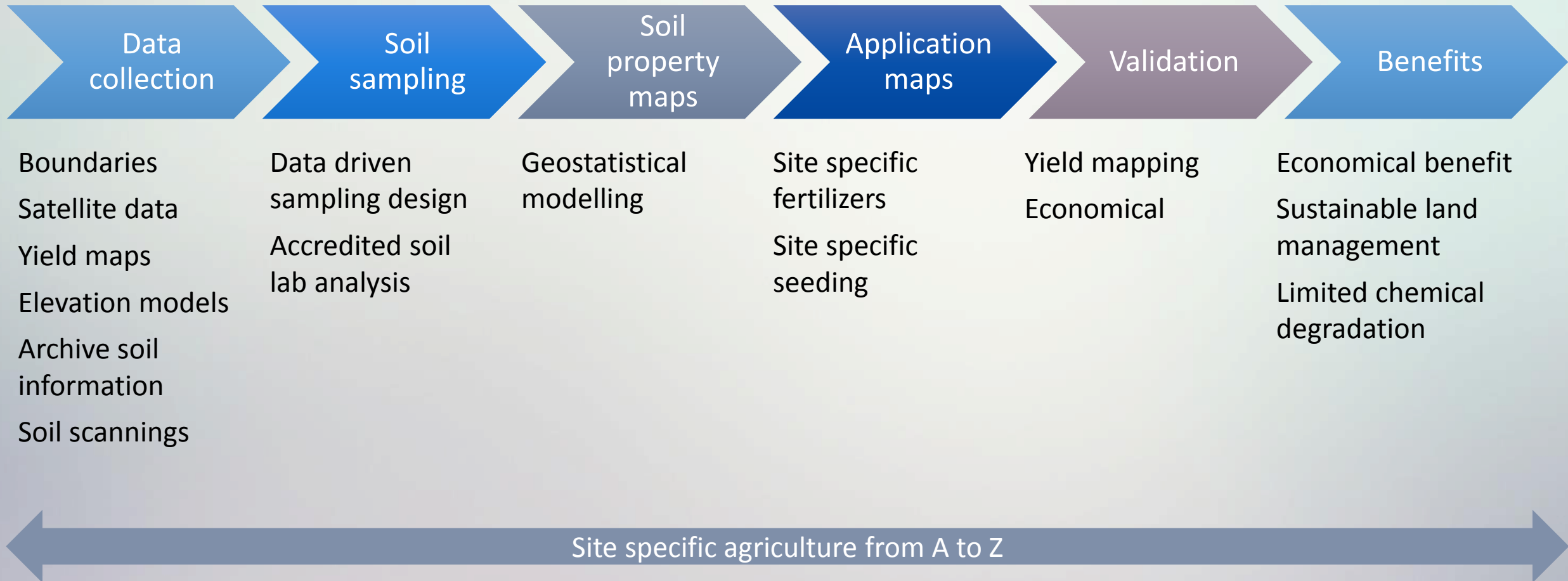
Reality:

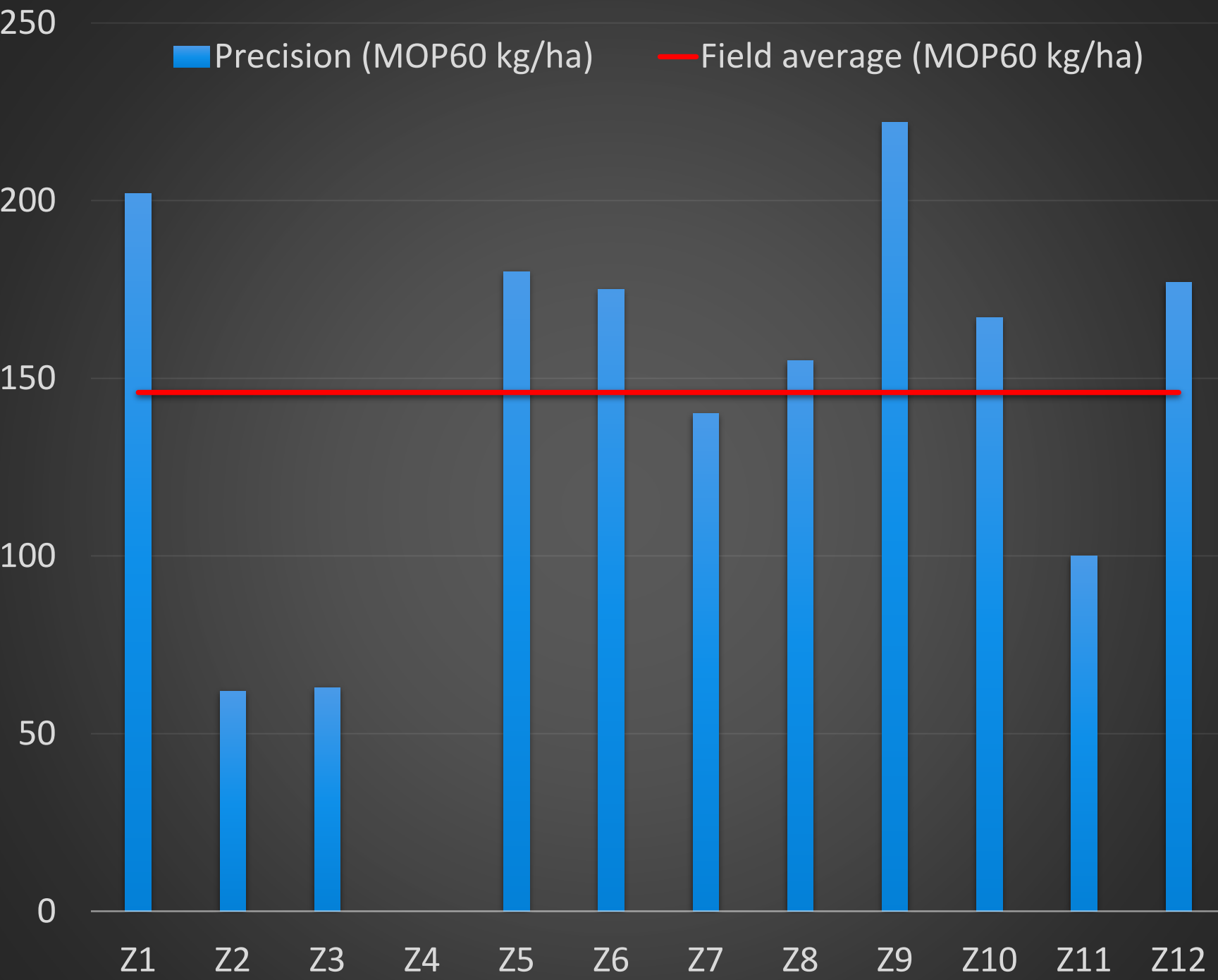
- Sampling quality is often questionable
- Management plans only to avoid fines

Site specific nutrient management

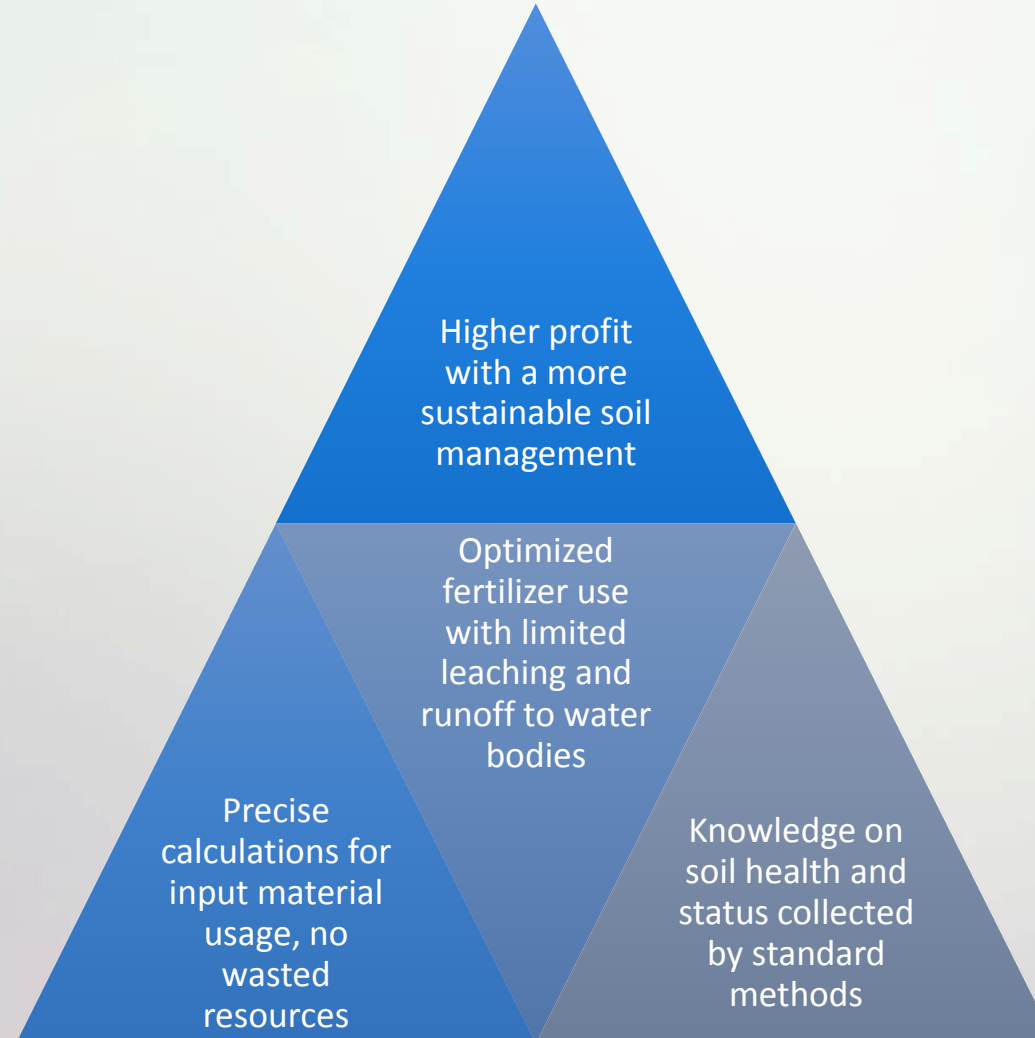


Site specific nutrient management for precision applications





Expected results of the site specific nutrient¹ management



Limitations of site specific nutrient management in combating soil degradation

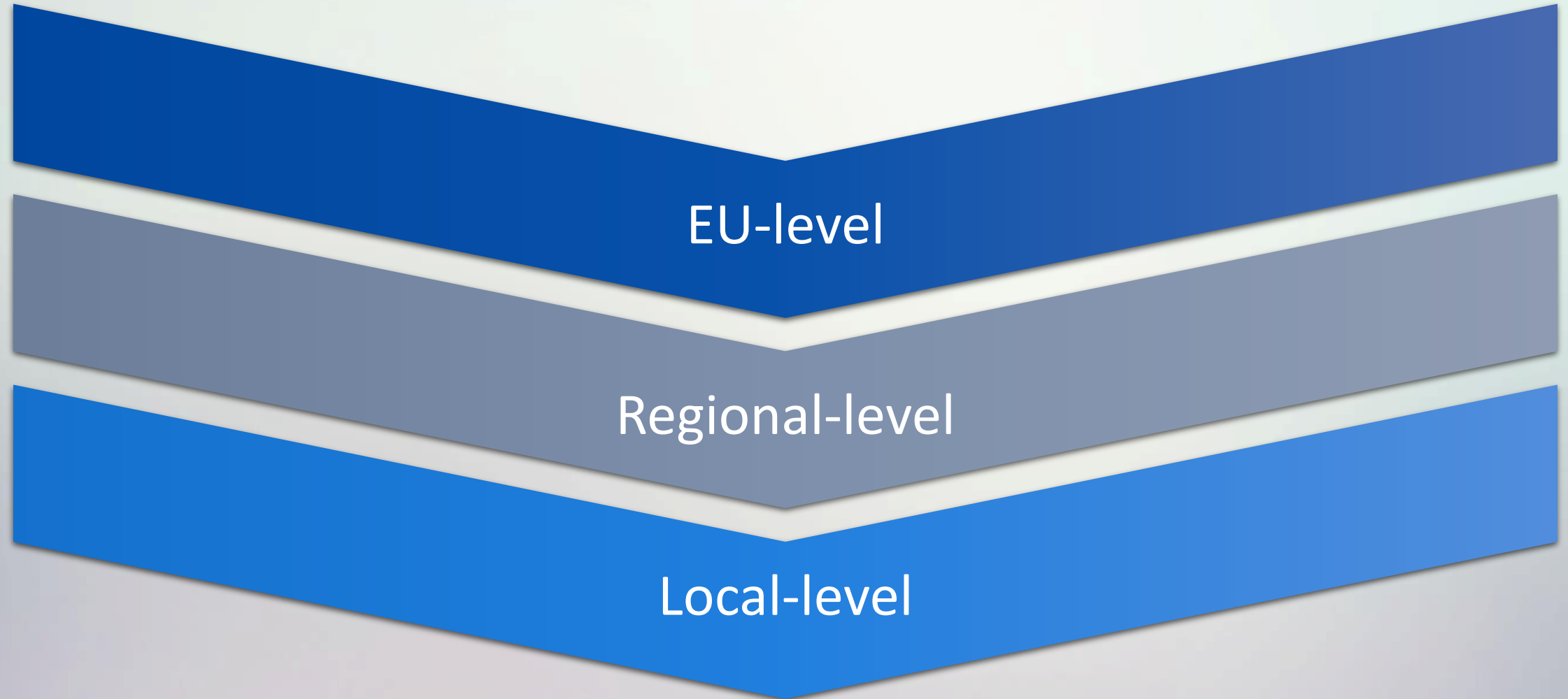


Soil chemical degradation is a consequence of physical degradation

Site specific agriculture requires a certain farm and field size

No motivational tools from the legislator

Recommendation hierarchy



EU-level recommendations

Combating soil erosion and propagating sustainable soil management

- Site specific agriculture combined with modern technology can be an answer to certain soil degradation processes, thus the propagation of the technology is proposed
- Combined with sustainable agro technology (minimum to no till) can answer major threats to sustainable soil management

Regional-level recommendations

Economic performance, restructuring and modernization

Fostering innovation co-operation, knowledge base

- Subsidy system should promote farmers willing to invest to technology suitable for sustainable soil management and site specific agriculture
- Soil information collection if done on a higher accuracy or by modern methodology should be subsidised to promote the use of actual measured information
- Collaboration of farmers and (trained) state/private consultants should be intensified for knowledge transfer and to promote new technologies

Local-level recommendations

Training

- Most farmers have a fear to technologies due to lack of trained machine operators
- Lack of up-to-date training material and instructors should be addressed with modernizing educational materials
- Training of farmers should also be addressed since another reason is their limited knowledge on IT solutions which is the basis of precision farming
- Lack of knowledge is also combined with mistrust in consultants in the region (loosing independence and decision making)

THANK YOU!

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