NIVA

NEW IACS VISION IN ACTION

Farm data: potential for monitoring

This project has received funding from the european union's horizon 2020 research and innovation programme under grant agreement no. 842009

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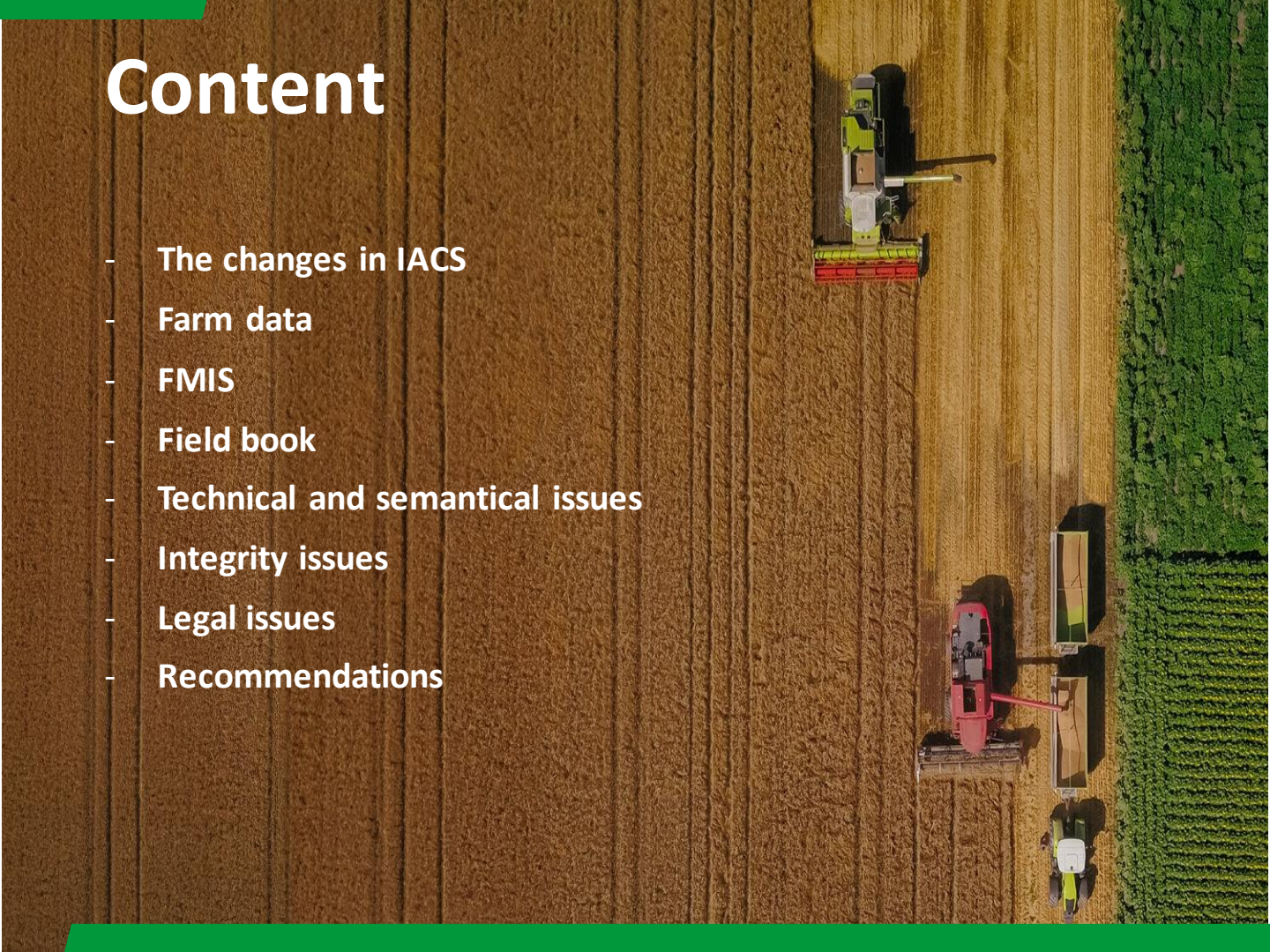
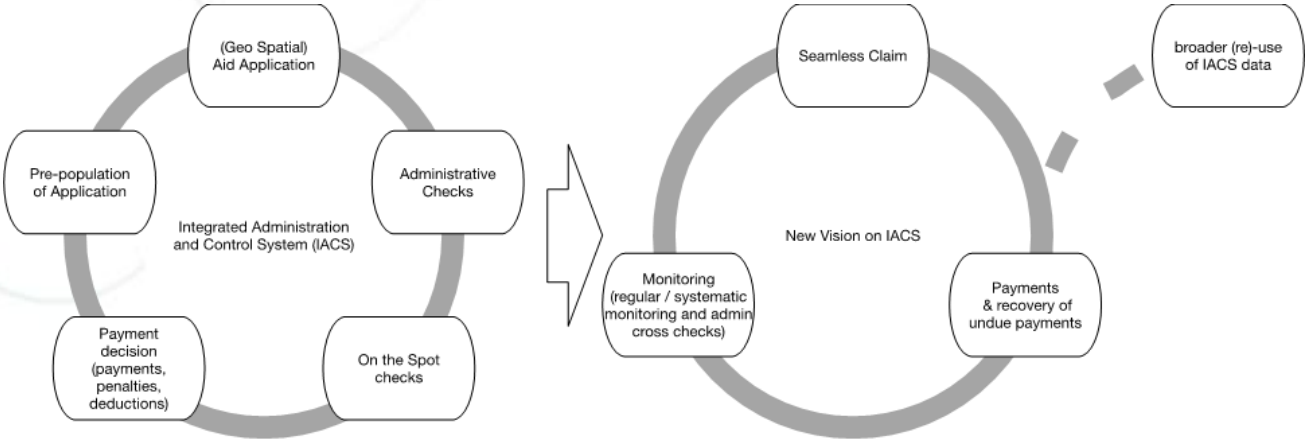
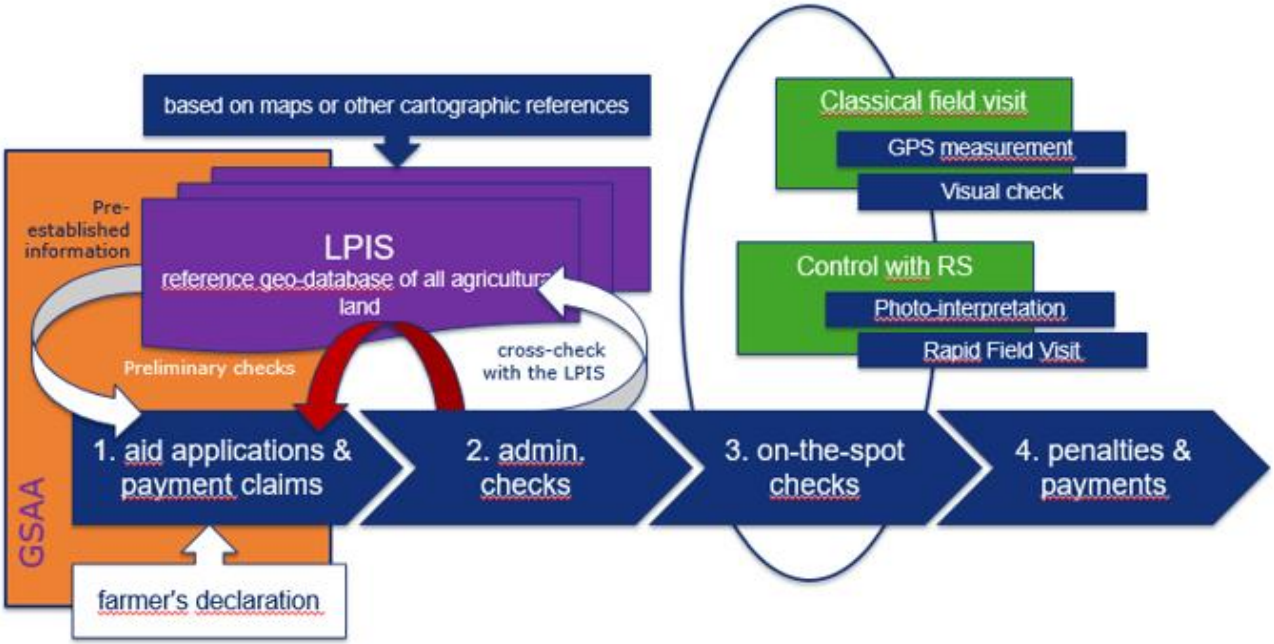


IACS Evolution towards AMS and beyond



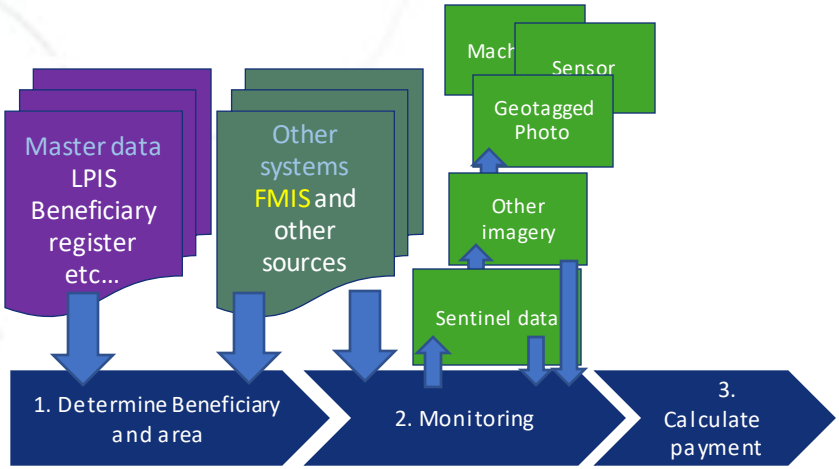
->IACS

Integrated Administration and Control System



Data oriented IACS->seamless claim

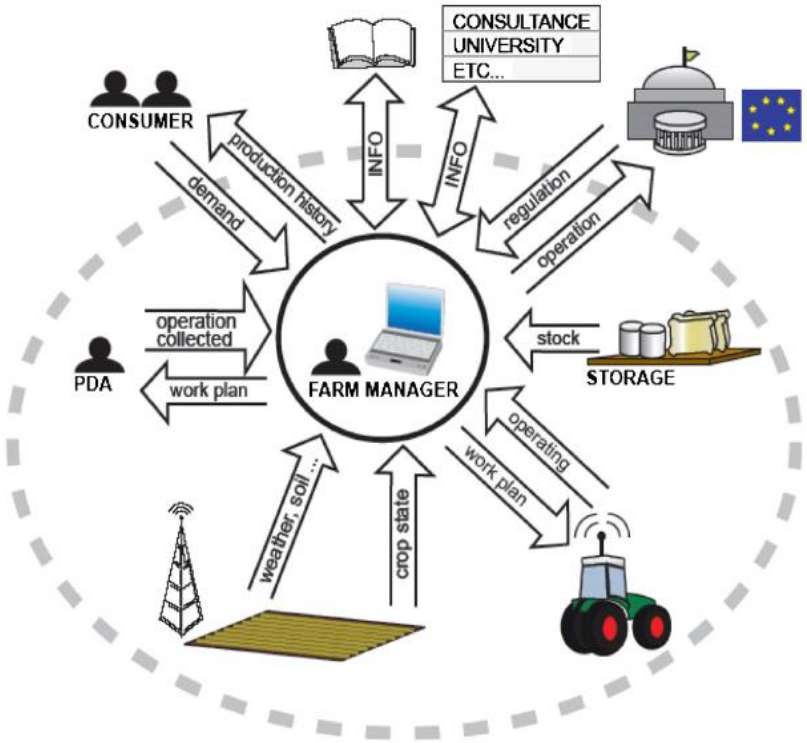
Seamless Claim - Integrated Administration and Control System



Farm data

- *Farmer data:* The personal and professional data
- *Field data*: Data on the crop and field activities
- *Animal data*: Data on the animals and the animal related data
- *Value chain partner generated data*: Data generated by suppliers and clients of the farm.

Farm Management Information Systems



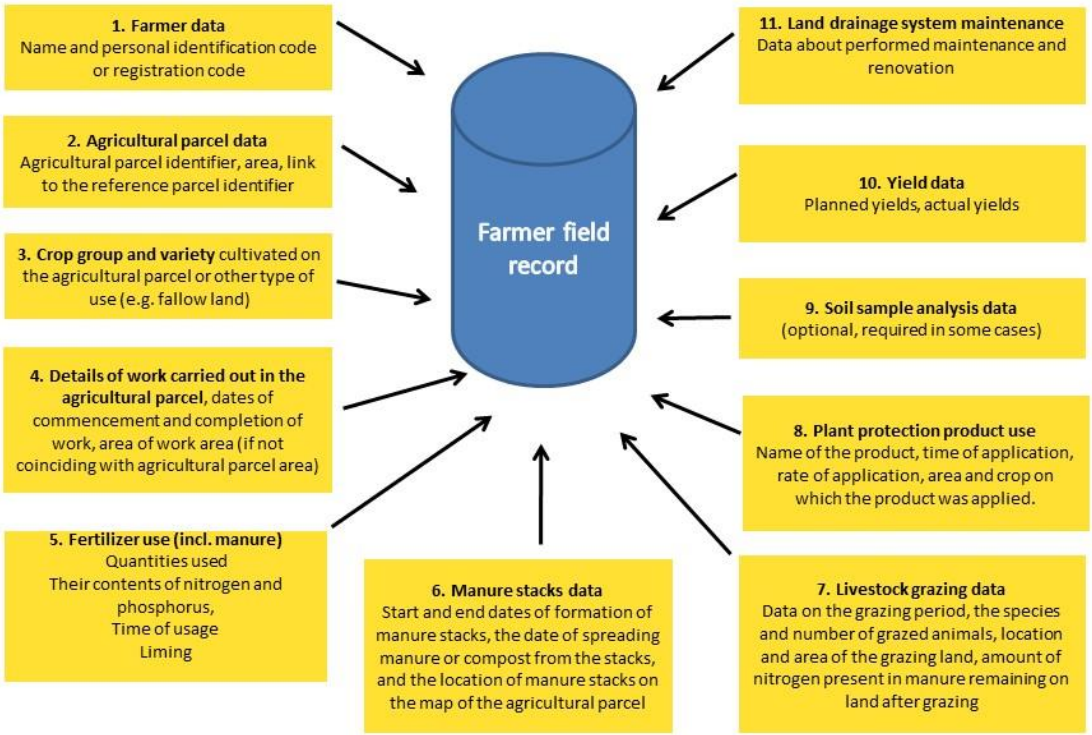
Adopted from Burlacu et al 2016

Functionality of FMIS

- Field Operations Management
- Best practice (incl yield estimation)
- Finance
- Inventory
- Traceability
- Reporting
- Site Specific
- Sales
- Machinery Management
- Human Resource Management
- Quality Assurance

Adopted from: Fountas (2015)

Field book

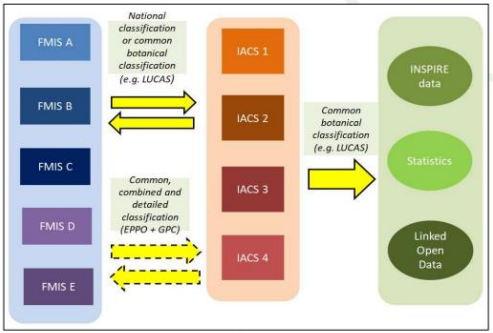


Other relevant data related to agricultural activities may be captured in field record. Data on performed work must be entered within 10 calendar days after the completion of the work. Data must be stored for 10 years after the entry of the data in the field record. Field record (in paper or electronic format) is mandatory in Estonia.

Technical and semantical issues

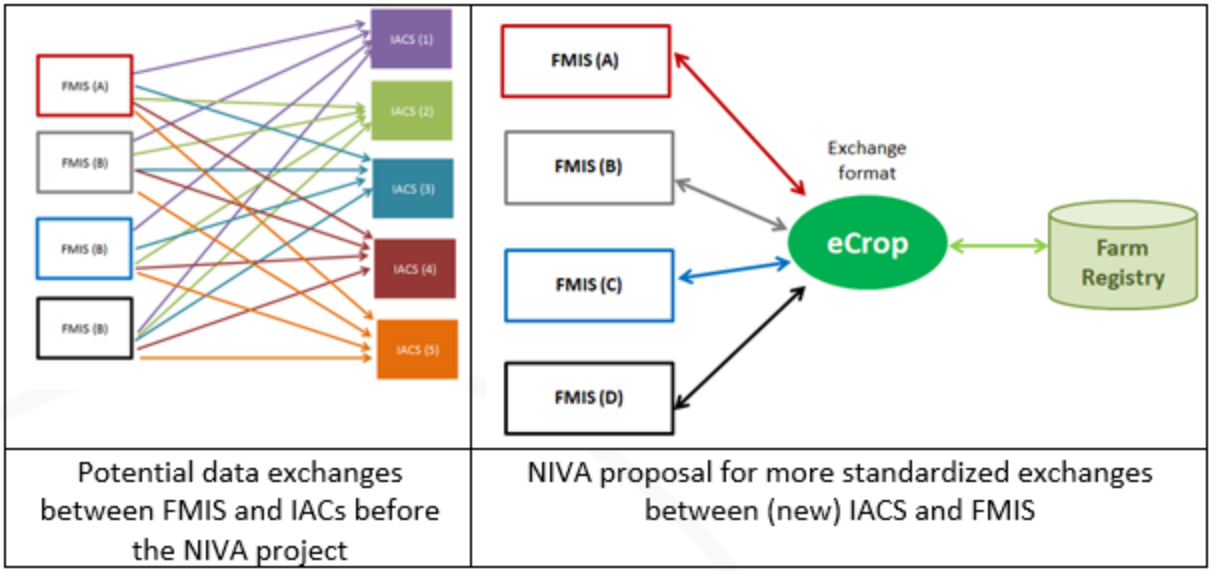
Agreement on common values:

- Crop types
- Plant Protection Products
- Fertilizers
- Etc…



	Denmark	Estonia	France	Greece	Ireland	Italy	Lituania	Netherlands	Spain	Finland	Sweden	Saxony (Germany)	Cataluña (Spain)
number	322 main crops, 29 catch crop codes	502	around 300	45 crop types, 3326 varieties	191 (including 37 non eligible)	about 500	156	375	322 (in 2019)	150	99- ish or almost 200	185	around 200

Technical and semantical issues



Potential data exchanges between FMIS and IACs before the NIVA project

NIVA proposal for more standardized exchanges between (new) IACS and FMIS

Machine ->FMIS ISOXML is dominant (closed) standard

SHAPE is also used

ADAPT has been explored as a potential conversion method

Integrity issues

- FMIS providers must have a standardised authentication and authorisation, connecting to API-s
- A common list of values must be available **as a service and updated regularly**
- How to ensure the data authenticity?

Legal/policy issues

Can FMIS data be added to non-Sentinel input data sources **Area Monitoring System** (regular, systematic and non-discriminatory) ?

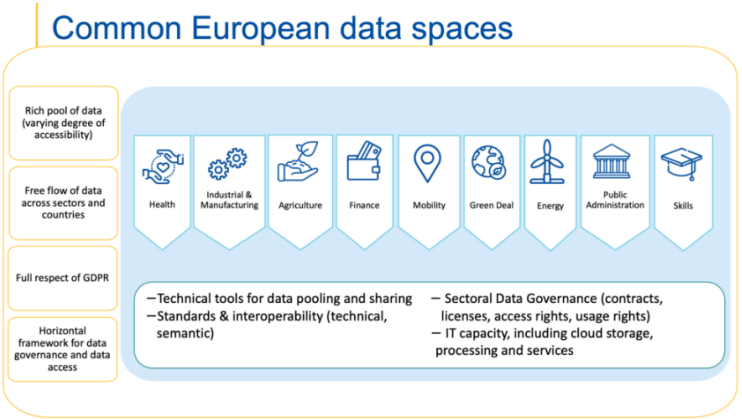
Green deal measures (NL: circular agriculture) has similar issues and an even higher diversified data need.

Does a farmer feel safe to share? How to encourage data sharing...

Opportunities

- European data act helps to protect farmers -> feel more safe
- Data Spaces architecture focusses on interoperability
- Agriculture of Data project is coming up
- Increasingly more farmers are using FMIS

- NL 54% of the farmers use FMIS.
- DK 95 % of the area is managed in FMIS



Recommendations

- Acknowledge Farm Management Information Systems' data as **acceptable in CAP** context.
- **Encourage data sharing** agricultural software (like FMIS) and information systems used by government agencies (like IACS).
- Promote benefits of data sharing like:
  - **Administrative burden reduction**,
  - Possibility to develop and offer more **advanced advisory services.**
- Continue to develop and agree upon semantic and technical **standards**.
- Make use the **European Strategy for Data** to further develop the use of FMIS data

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E-CROP message (UN CEFACT)