Developing Interactive Applications for Data-Driven Decision-Making in the Swedish Cattle Sector
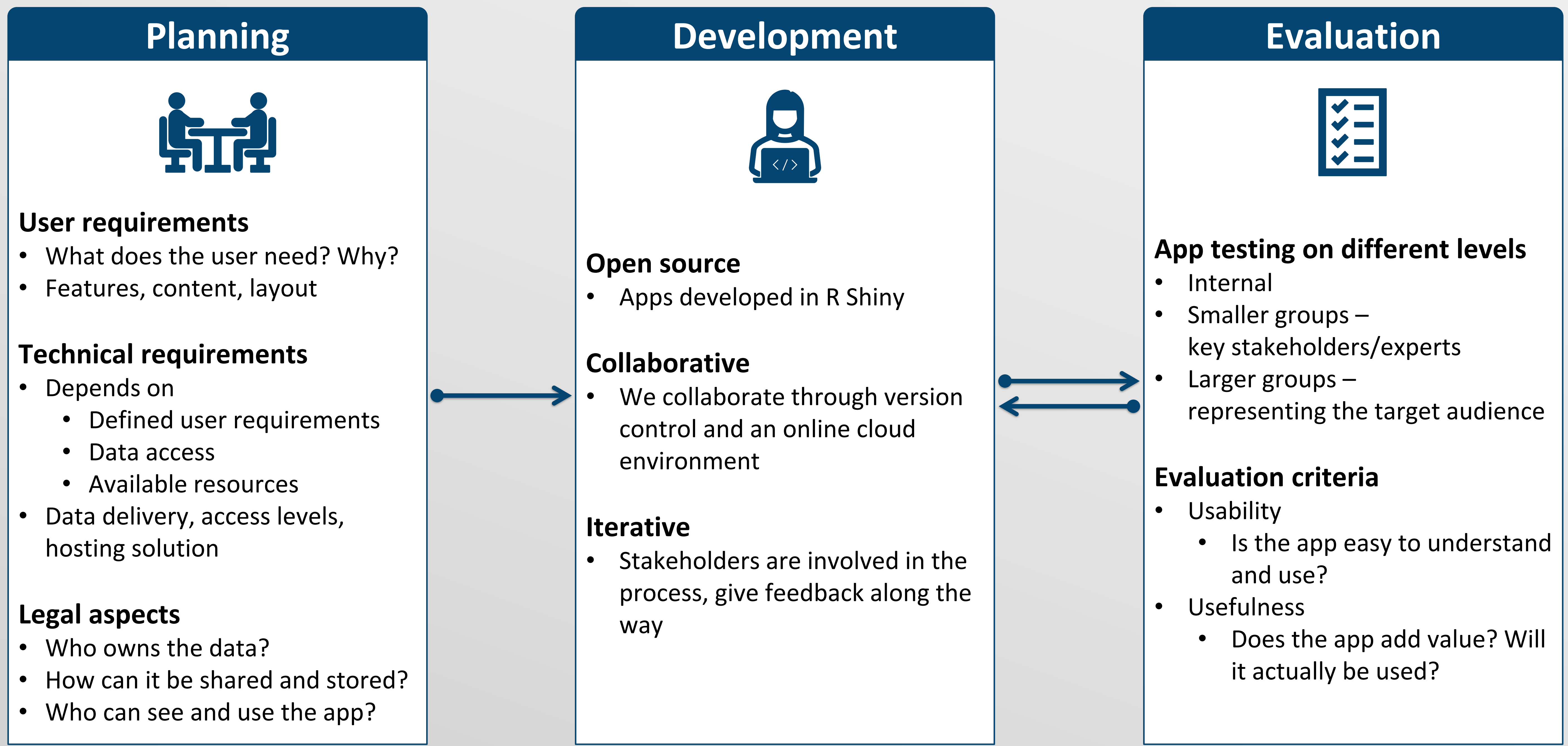
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The Process

Planning

User requirements
- What does the user need? Why?
- Features, content, layout

Technical requirements
- Depends on
  - Defined user requirements
  - Data access
  - Available resources
- Data delivery, access levels, hosting solution

Legal aspects
- Who owns the data?
- How can it be shared and stored?
- Who can see and use the app?

Development

Open source
- Apps developed in R Shiny

Collaborative
- We collaborate through version control and an online cloud environment

Iterative
- Stakeholders are involved in the process, give feedback along the way

Evaluation

App testing on different levels
- Internal
- Smaller groups – key stakeholders/experts
- Larger groups – representing the target audience

Evaluation criteria
- Usability
  - Is the app easy to understand and use?
- Usefulness
  - Does the app add value? Will it actually be used?

Apps in Development
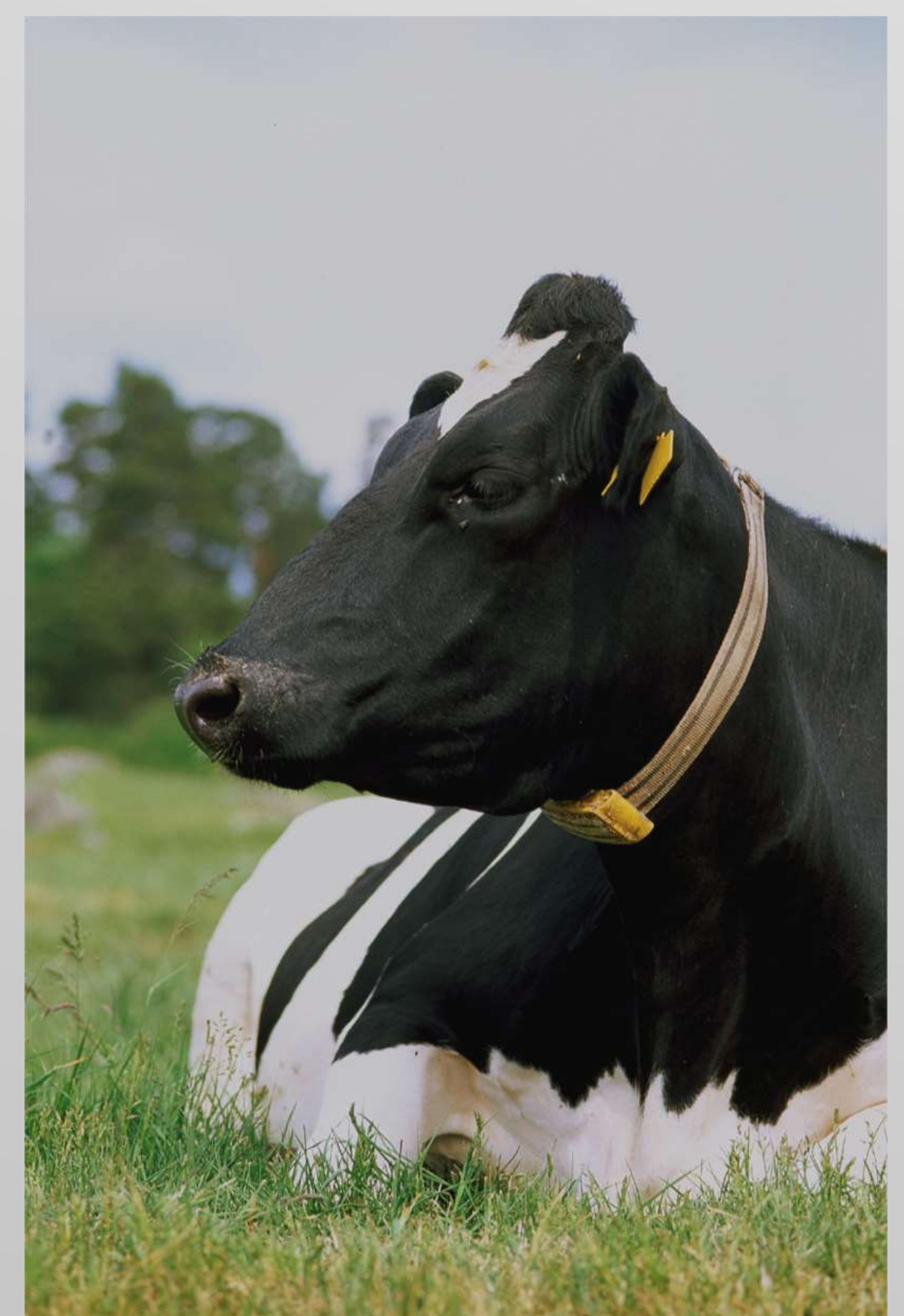
FriskKo – Risk assessment in animal trading

FriskKo is a dairy cattle testing programme by Växa (animal health organisation). Farmers subscribe to regular bulk milk testing for select pathogens. Farms that are safe to trade with are put on a "green list".

Farmers should see their own test results and green list status of others.
Login level dictates information access.

R Shiny app deployed on public server. Progress meetings with stakeholders every 2 months.

Usability and usefulness will be evaluated using surveys and interviews (larger groups).

Kalvpaketet – Tool for improved calf health

Kalvpaketet is a calf testing service offered to farmers by Gård & Djurhälsan (animal health organisation). It helps them improve routines and choose the right treatments by identifying the cause of disease.

The app should facilitate analysis and visualization of test results from Kalvpaketet.

R Shiny app deployed on closed-access server (login required).

Usability and usefulness will be evaluated using surveys and interviews (smaller groups).

DECIDE Consortium

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