PigPeaks: Collaborative Development of a Data-Driven Pig Production Dashboard

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Wiktor Gustafsson
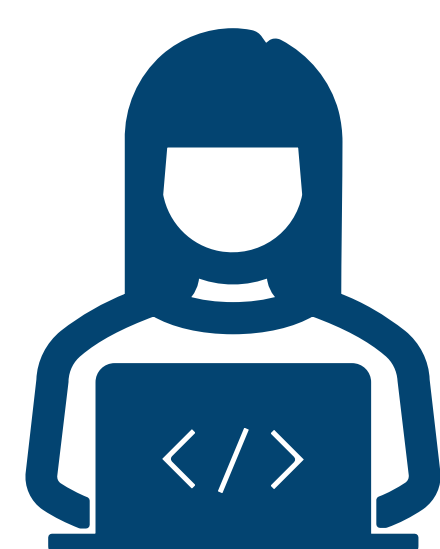wiktor.gustafsson@sva.se

Our co-creation process

Co-creation is an iterative design process where the target user is involved from start to finish.

Planning
- Identify user needs
- Technical requirements
- Legal aspects

Development
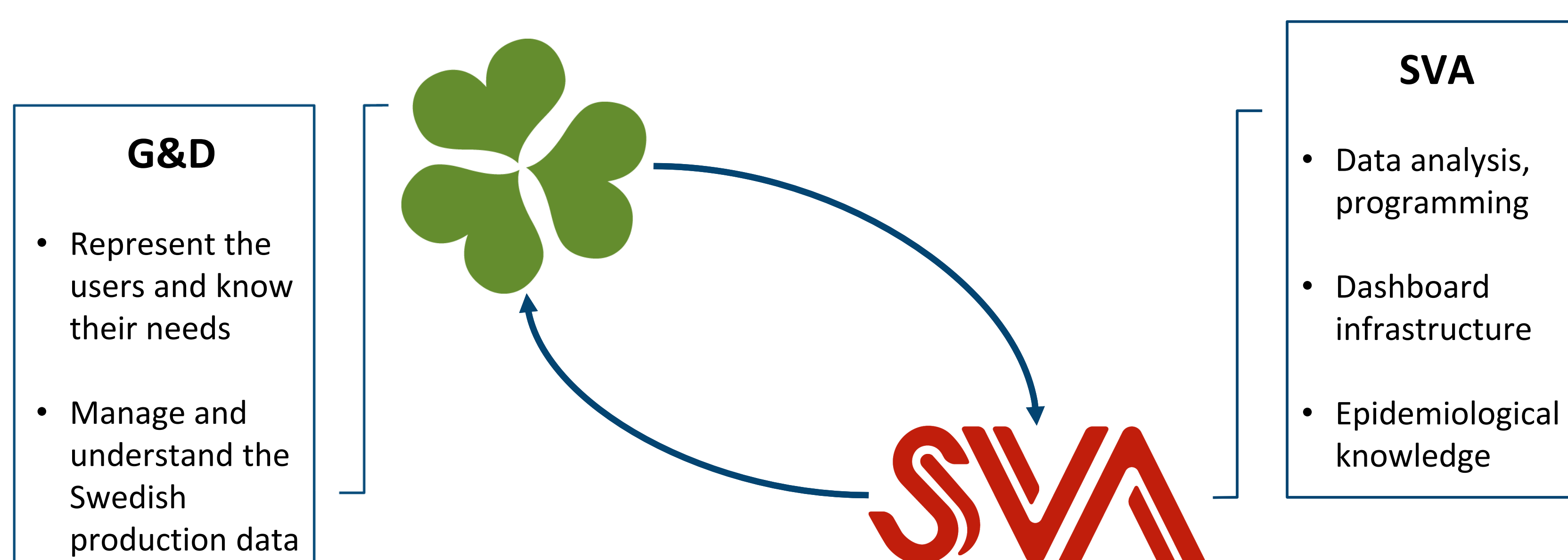- Open-source development in R Shiny
- Version control
- Prototyping

Evaluation
- Testing on individual and group-level
- Usability / user-friendliness
- Usefulness – does it add value?

Planning PigPeaks

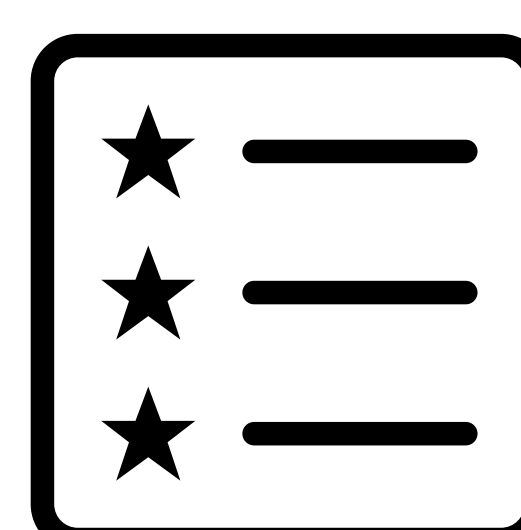*Planning is done in collaboration between SVA and G&D (animal health organisation)*

G&D
- Represent the users and know their needs
- Manage and understand the Swedish production data

SVA
- Data analysis, programming
- Dashboard infrastructure
- Epidemiological knowledge

Developing PigPeaks

Two main sections: population-level benchmarking and a farm-level "control room".

Population – benchmarking
- Summaries of production statistics on monthly/quarterly/annual basis.
- Allows the user to compare their results against national averages and top performers.
- Based on existing G&D reports – familiarity.

Farm – real-time surveillance
- Local performance tracking of selected indicators.
- Data updated continuously (daily).
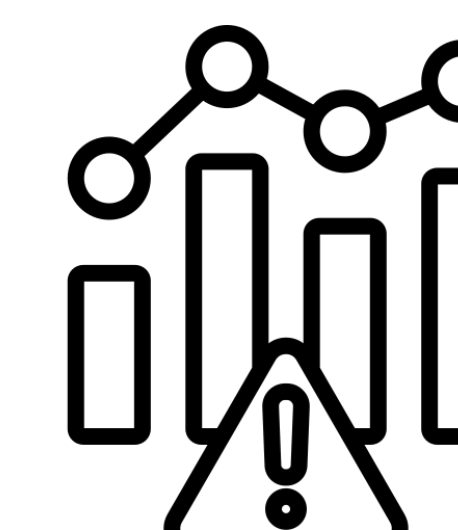- Syndromic surveillance and alert systems allow the user to benchmark against themselves.

Evaluating PigPeaks

Hands-on testing
- Prototype will be showcased at annual industry meeting
- Spontaneous reactions and recruitment to focused evaluations

Focused evaluation workshops
- Evaluation through task completion tests and/or group discussions
- Detailed feedback on usability and usefulness

Data sources

Now
- Pig production data from PigVision system (AgroVision B.V.)
- Meat inspection data from slaughterhouses

Potential extensions
- Medication and antimicrobial usage
- Diagnostic test results
- Economical benchmarking / disease burden

Photo: Farm & Animal Health

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