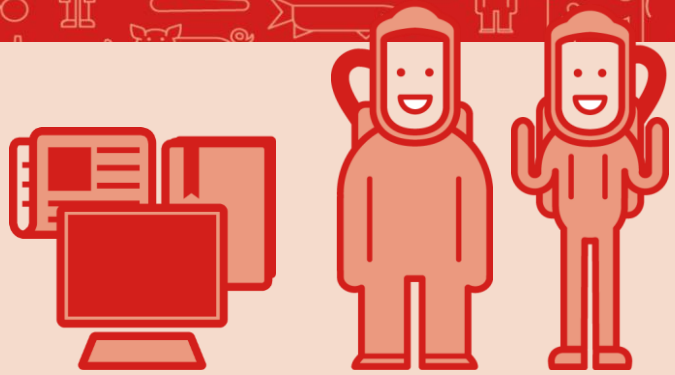
From *syndromic surveillance* towards *data-driven surveillance*

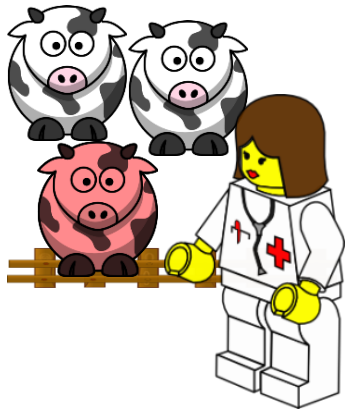
Fernanda C. Dórea

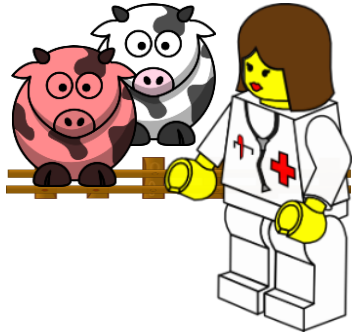


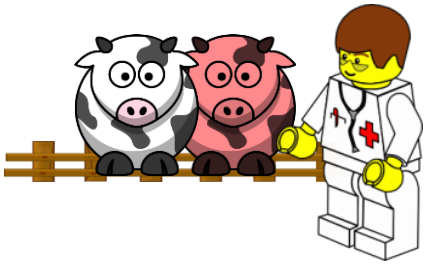
SVA

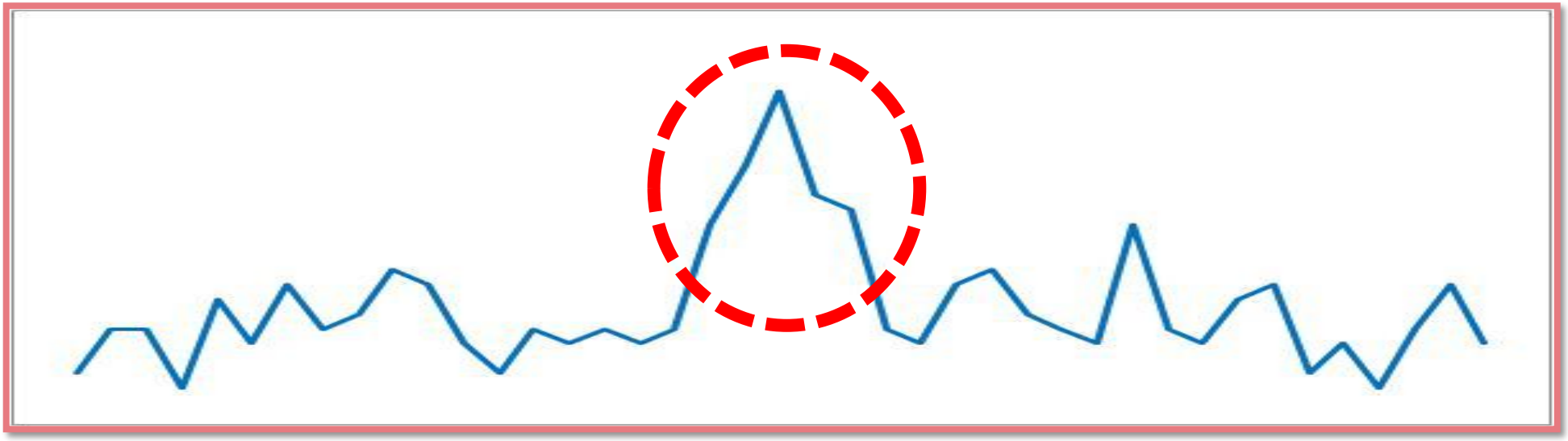
WHAT IS ”SYNDROMIC SURVEILLANCE”

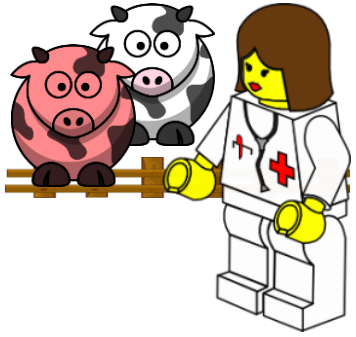
- Syndromic surveillance, CDC, 2006
  - ***approaches*** *which make use of “health-related data that* ***precede diagnosis*** *and signal with sufficient probability of a case or an outbreak to warrant further public health response*”

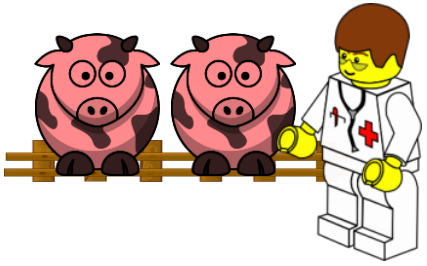




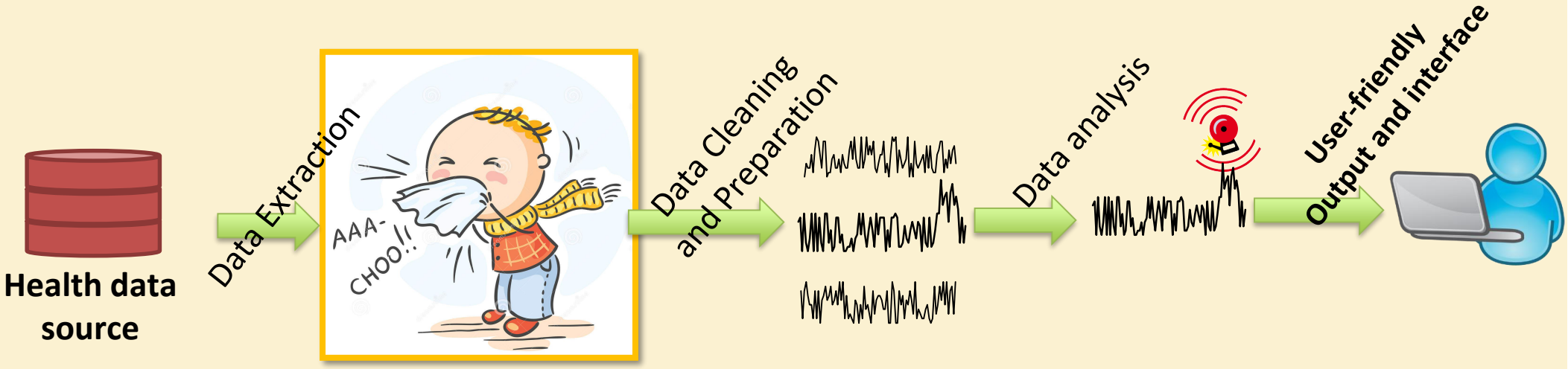




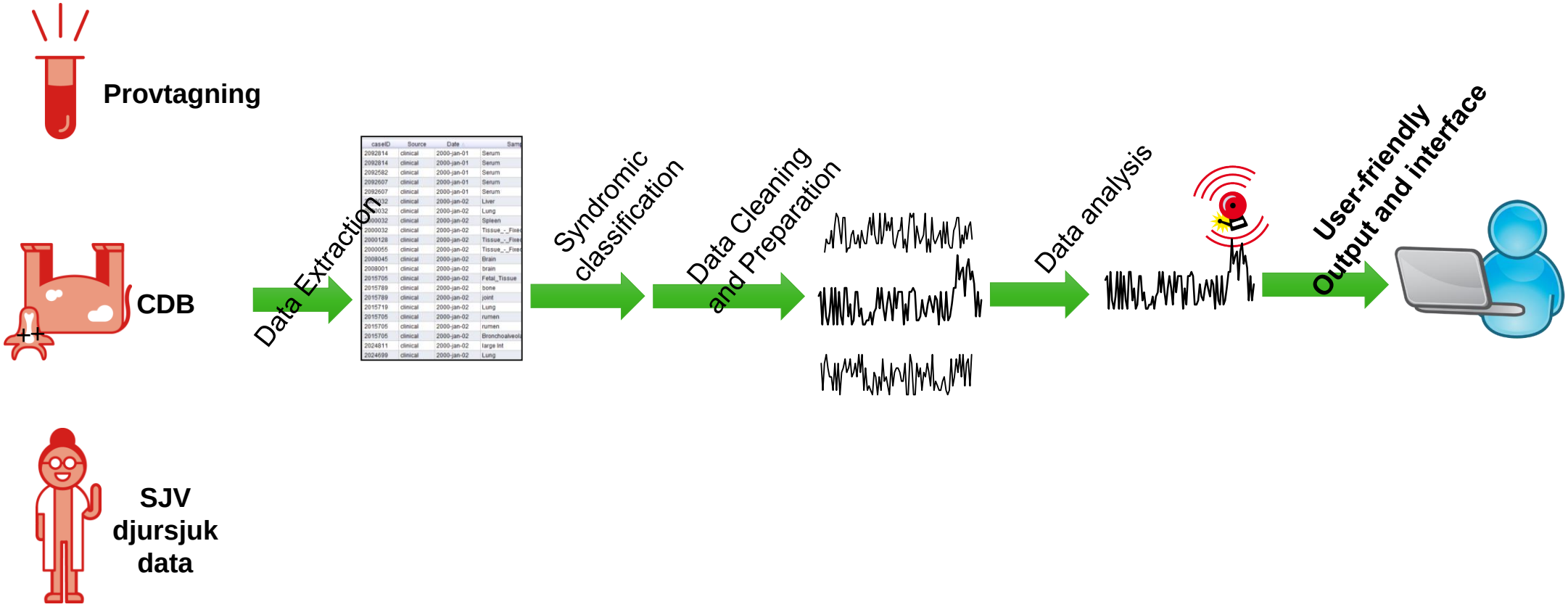




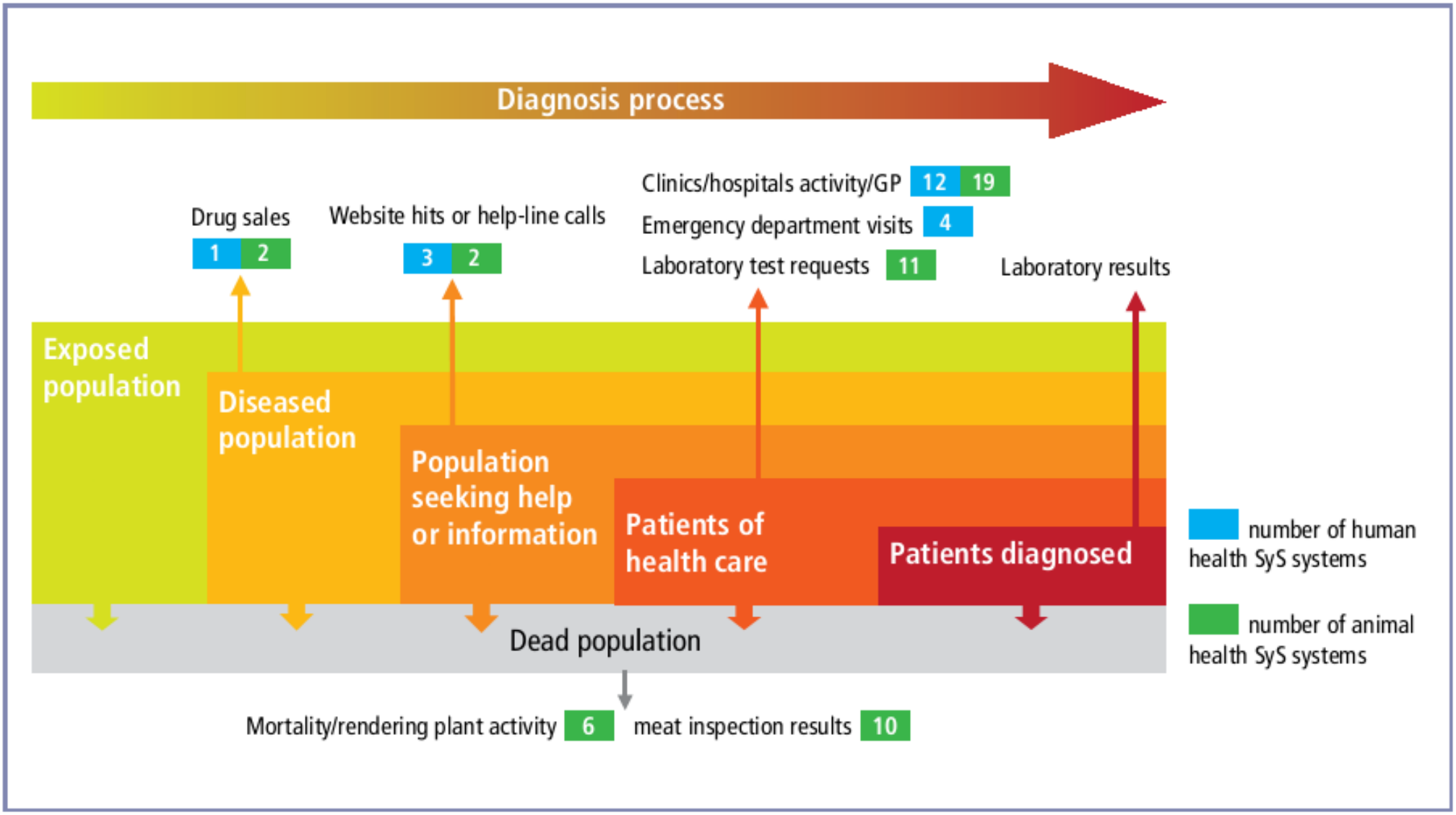
How it is done



SYNDROMIC SURVEILLANCE AT SVA



European human and animal SyS systems by data source



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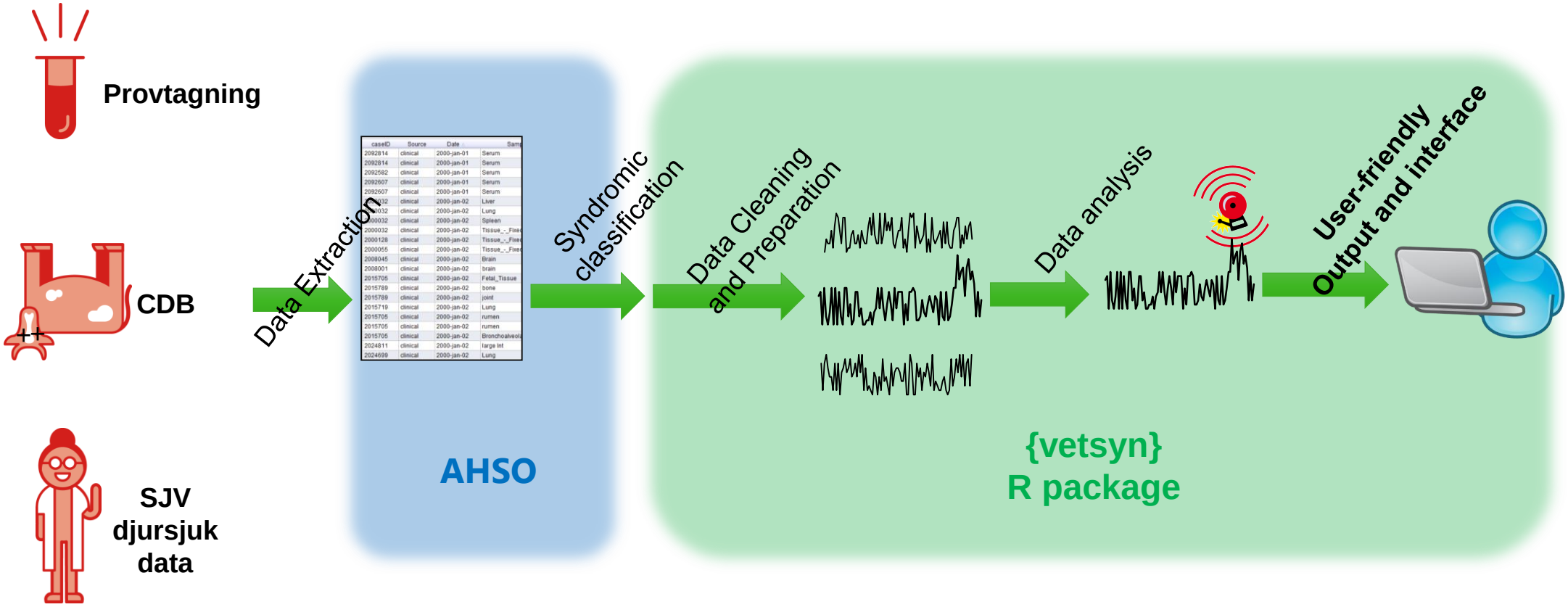
- Syndromic surveillance, Triple-S, 2013
  - *the* ***real-time (or near real-time)*** *collection, analysis, interpretation and dissemination of* ***health-related data*** *to enable the early identification of the impact (or absence of impact) of potential human or veterinary public-health threats which require effective public health action*

SYNDROMIC SURVEILLANCE AT SVA



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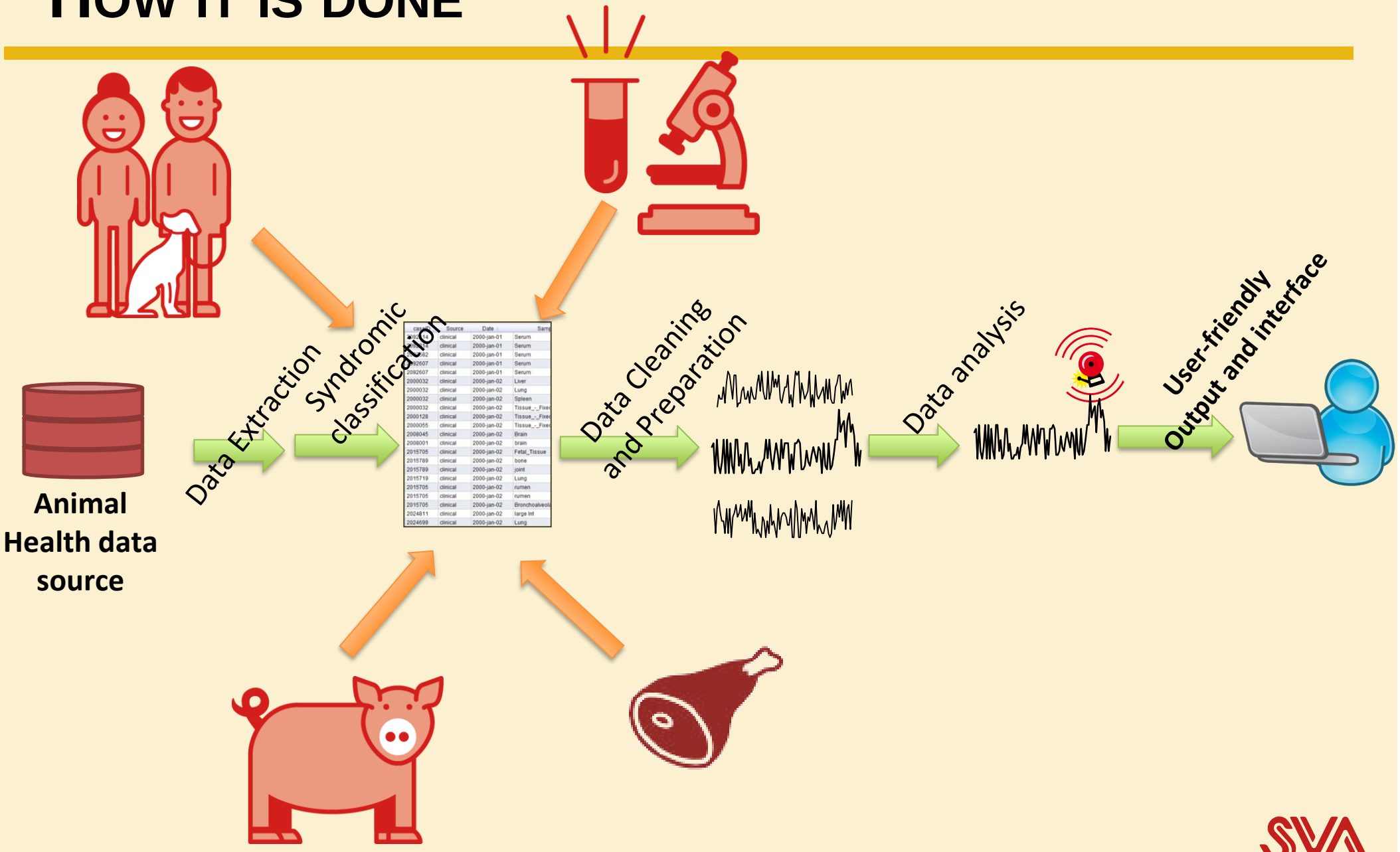
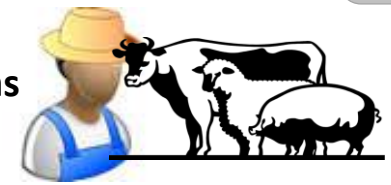


Veterinary syndromic surveillance
Current framework: DATA in → ALARMS out (parallel streams)

Data providers

Animal health data

Farms



Abattoirs

Private veterinarians

Mortality

State veterinarians

Jordbruks verket

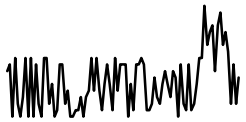
Laboratory data

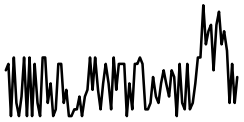
SVA

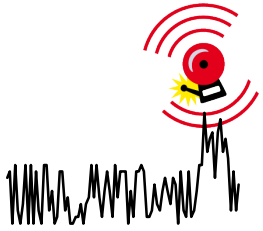
Temporal monitoring

Temporal monitoring

Temporal monitoring







Outputs not clear yet, as reporting delays have so far prevented the use for real-time alarm detection

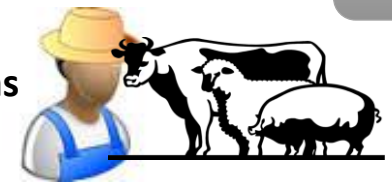
ALARMS if abnormal numbers detected

Epidemiological Intelligence Framework

Data providers

Animal health data

Farms



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Analysis at the source

Summary statistics and indicators

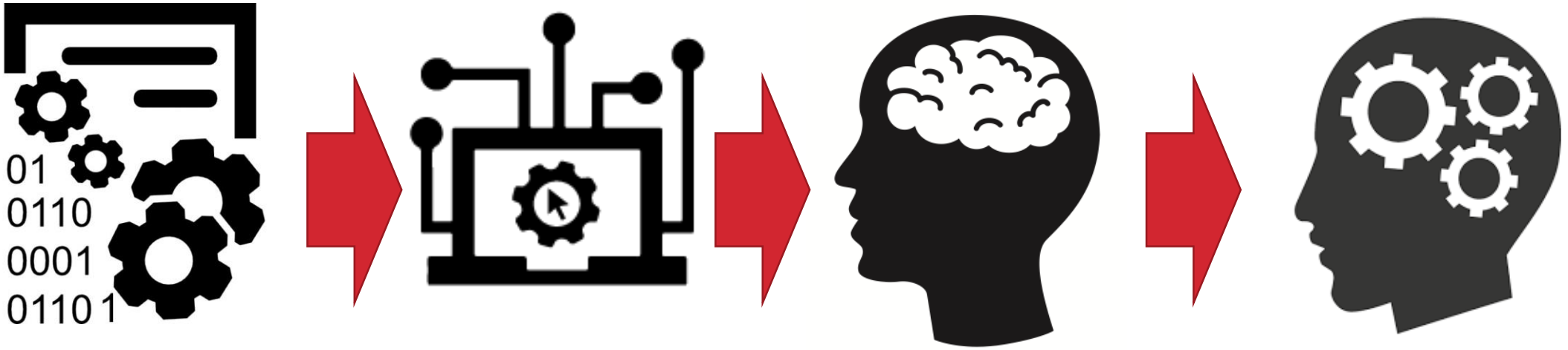
Automated integration and analyses

Combined evidence

INFORMATION and SITUATIONAL AWARENESS

Feedback to data providers

Disease prevention and control programmes



Data **Information** **Knowledge** **Understanding**

Epidemiological data collection is about technology, but effective disease surveillance is about people

People matter in animal disease surveillance: Challenges and opportunities for the aquaculture sector

Cecile Brugere
Dennis Mark Onuigbo
Kenton Ll. Morgan

SURVEILLANCE CHALLENGES

- Evolving environment
- Evolving problems

DATA-DRIVEN SURVEILLANCE

- Smarter data
- Smarter systems
- Support decision makers
  - Surveillance design
  - Contribute to evidence and outcomes from surveillance

- Situational awareness in real-time
- Evolving problems and questions

datadrivensurveillance.org

THANK YOU!

nanda@datadrivensurveillance.org

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