



# SweGRIDS

## Security of Electricity Supply in Power Distribution System

**PhD student:** Sanja Duvnjak Žarković, sanjadz@kth.se

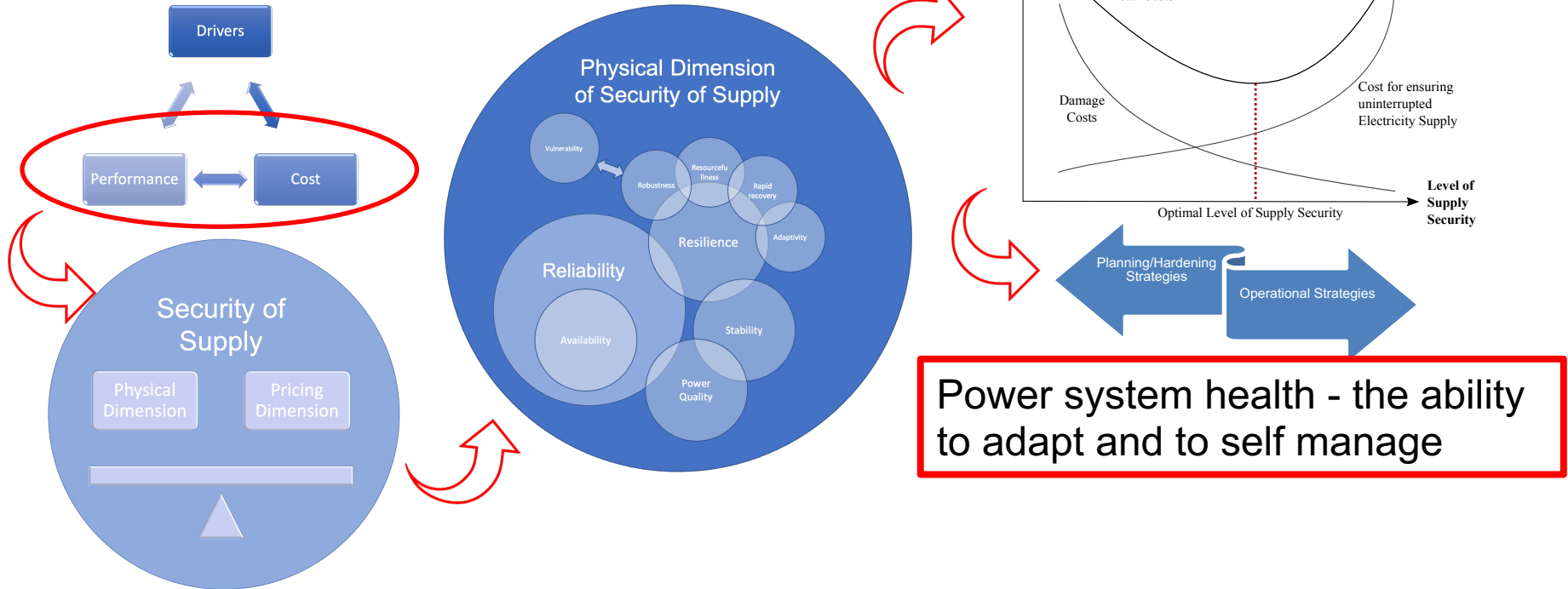
**Supervisors:** Patrik Hilber (KTH), Ebrahim Shayesteh (SvK)

**Project funded by:**



# Background - What defines power system health?

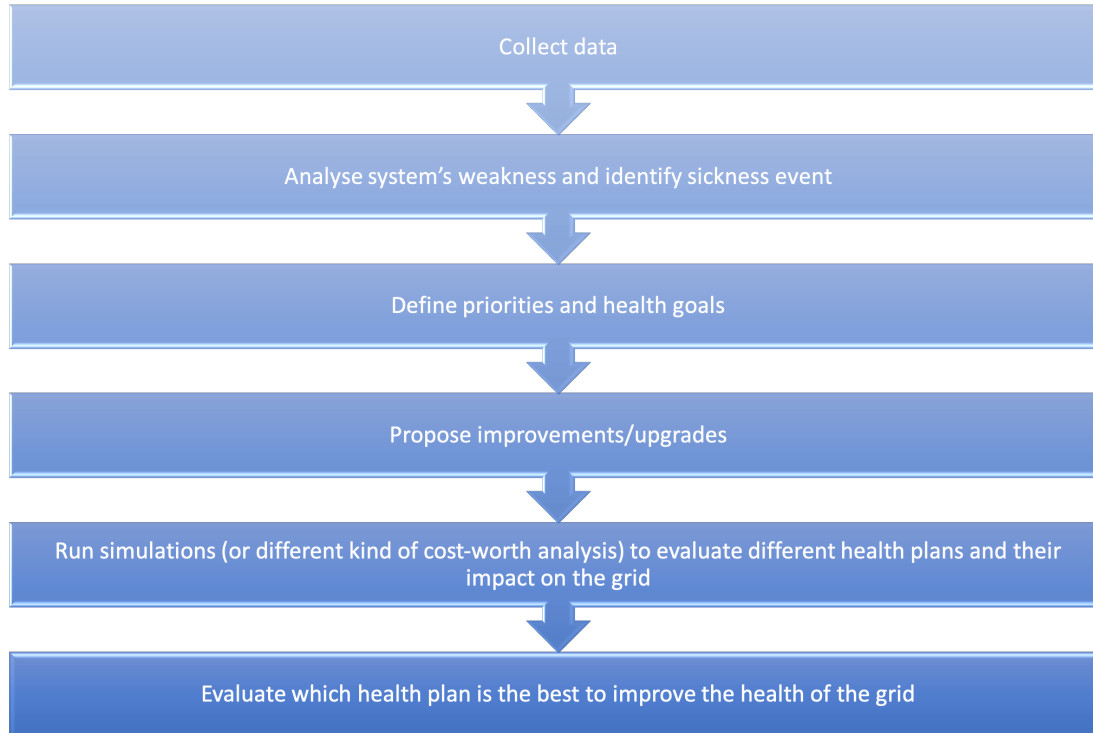
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# Health plan algorithm - process towards a system health index

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Component's health index



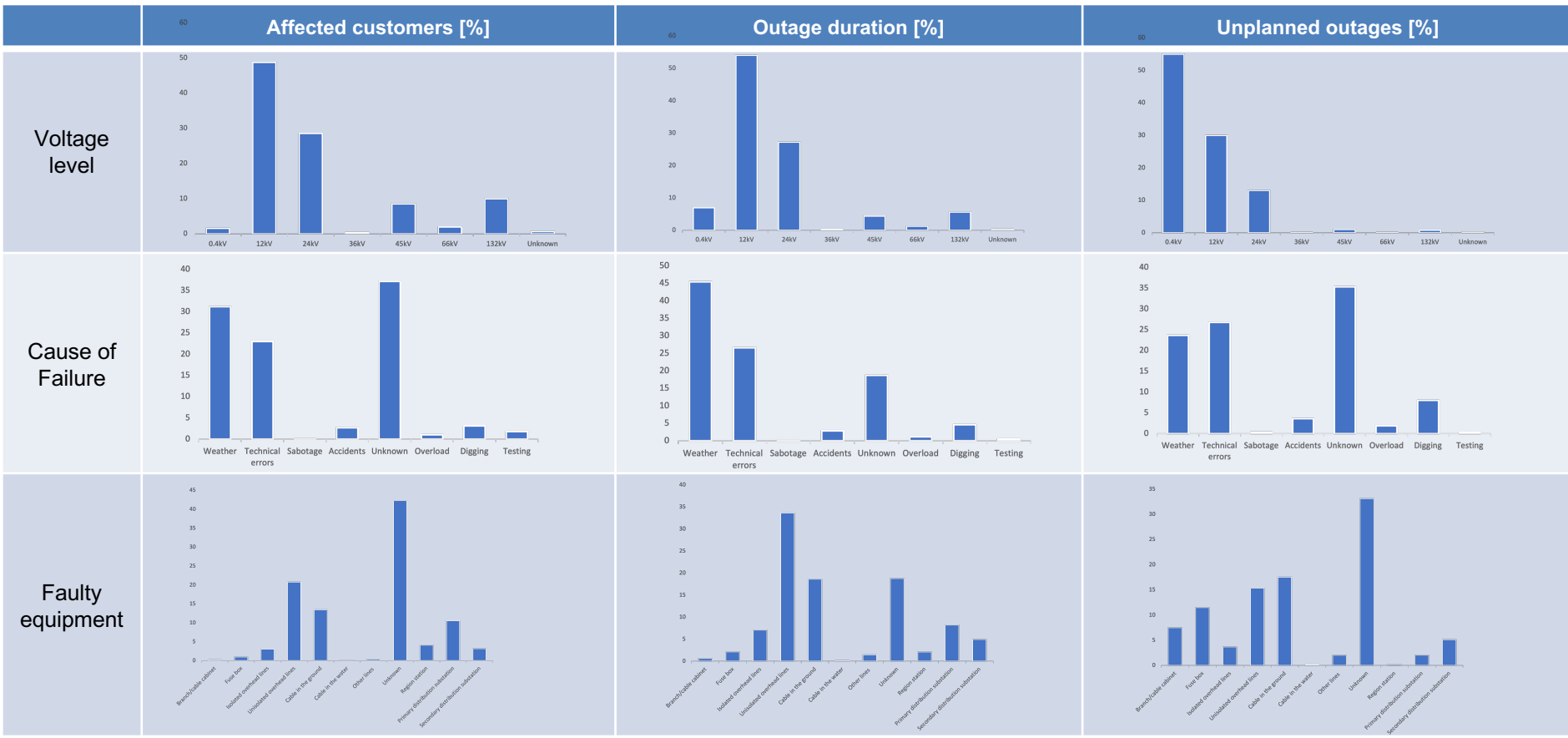
A system health index

- Outage statistics and outage reports that could give insight into the physical dimension of the security of supply (reliability, resilience, power quality and stability).
- A map of all assets in the system and the status of their condition, preferably through a component health index.



# Case study – Outage statistic in Swedish power system 2009-2019

- Input data are obtained from the Swedish energy companies (Energiföretagen Sverige) – DARWIN reporting system
- The input data include unplanned outage reports provided by all 171 distribution companies within Sweden
- Overall – 663 250 unplanned outages!





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Thank you for your attention!

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