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Round Table No 3 Industrial Solutions for Active Network Management

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THE 25TH INTERNATIONAL CONFERENCE AND EXHIBITION ON ELECTRICITY DISTRIBUTION

Active Network Management in Short

Smart modulation of generation sources, loads and storages so as to safely operate the electrical network without having to rely on significant investments in infrastructure.

Decision chain in distribution networks

The **four stages of the decision chain** for managing distribution networks:

1. Interaction models
2. Investments
3. Operational planning
4. Real-time control

Our integrated approach for designing ANM

$\mathcal{M}$: Set of possible **m**odels of interaction

$\mathcal{I}$: Set of possible **i**nvestment strategies

$\mathcal{O}$: Set of possible **o**perational planning strategies

$\mathcal{R}$: Set of possible **r**eal-time control strategies

Solve:

$$\underset{(m,i,o,r)\in\mathcal{M}\times\mathcal{I}\times\mathcal{O}\times\mathcal{R}}{\arg\max} social\_welfare(m, i, o, r)$$
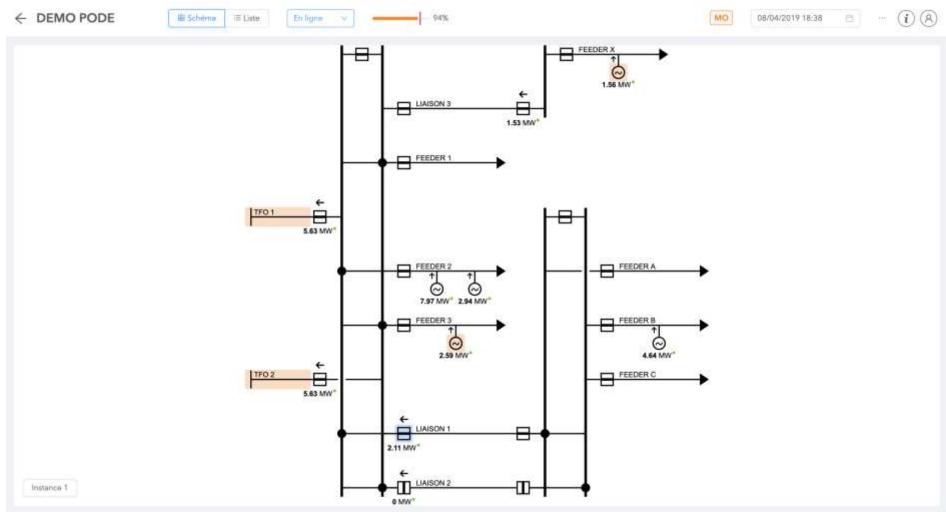
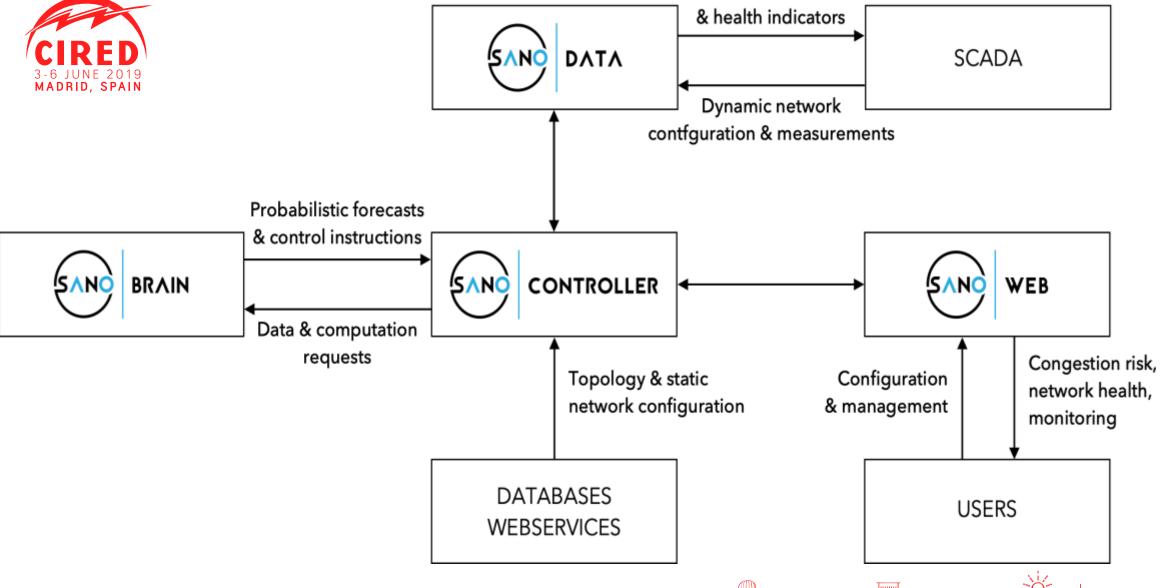Often a lack of expertise within DSOs to integrate ANM solutions in their networks, which is why we created:

a startup for commercializing intelligent software solutions for energy systems. More at www.blacklight-analytics.com

An example