

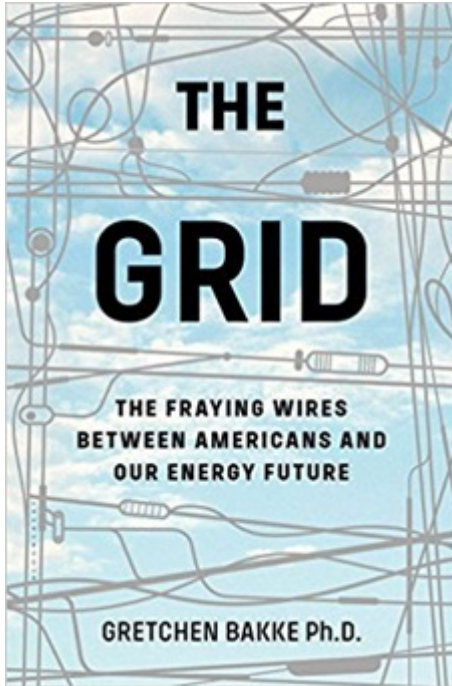


HEIMDALL
POWER

MAX POWER MAX CONTROL

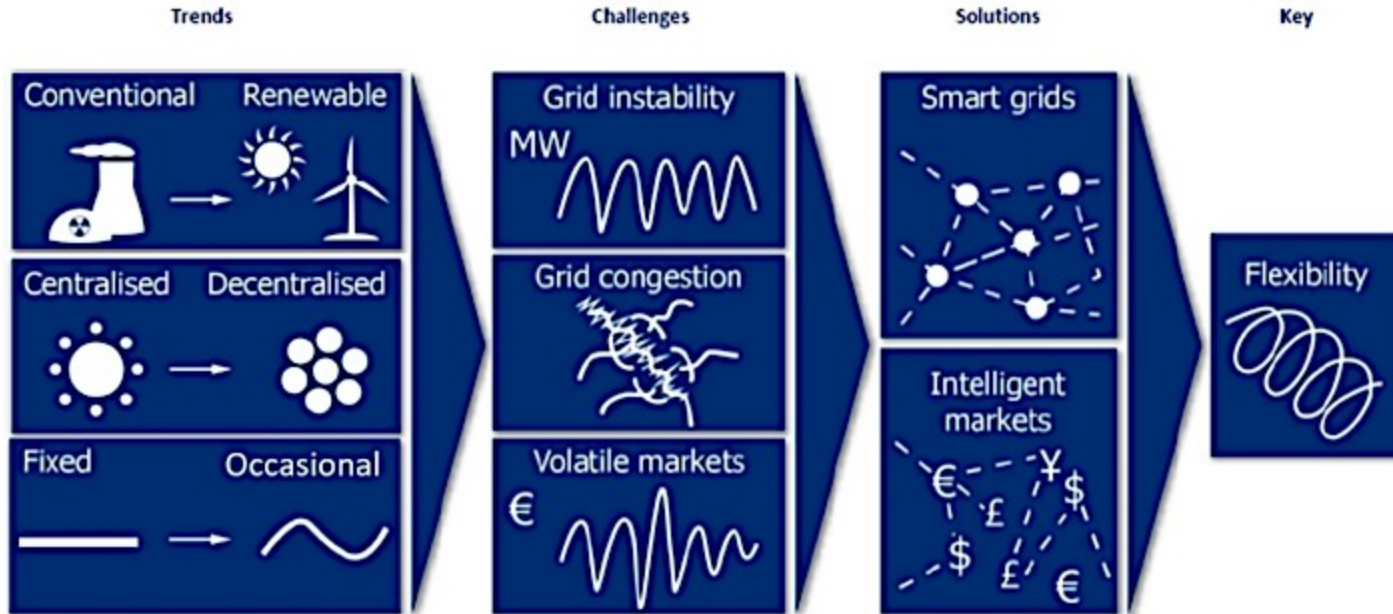
Brage W. Johansen, CEO
February 2018

The power grid has major challenges



"America's electrical grid, an engineering triumph of the twentieth century, is turning out to be a poor fit for the present. It's not just that the grid has grown old and is now in dire need of basic repair. Today, as we invest great hope in new energy sources--solar, wind, and other alternatives - **the grid is what stands most firmly in the way of a brighter energy future.** If we hope to realize this future, we need to re-imagine the grid according to 21st century values."

The Utility and Grid System



The future grid



Today

Static
Slow
Stupid
Fossile
Weak



Tomorrow

Dynamic
Fast
Smart
Green
Powerful

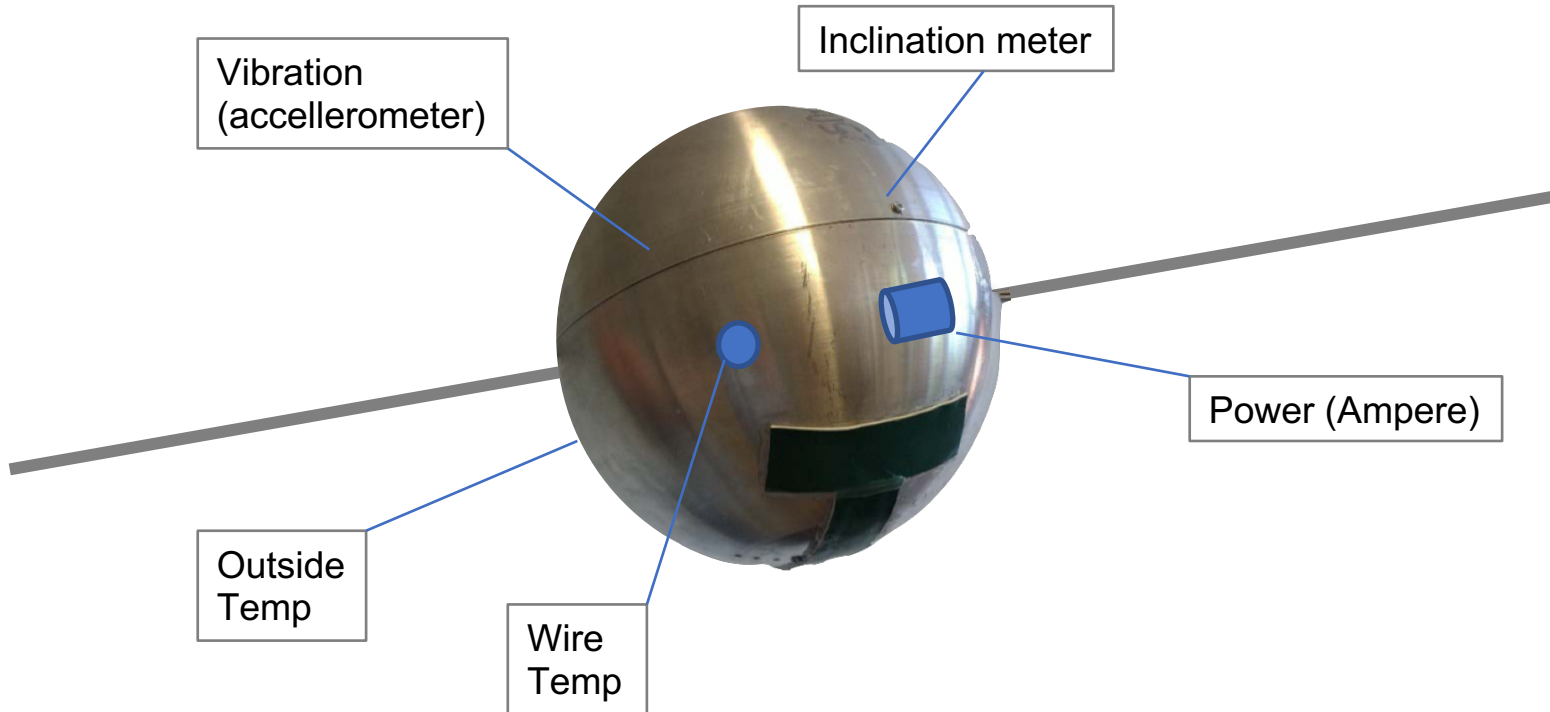
MAX POWER. MAX CONTROL. Max flexibility.

We put sensors on the grid
and make the grid
intelligent,
Dynamic,
Live longer,
and Ready for the **green** shift.

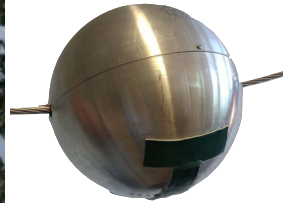


HEIMDALL
POWER

The NEURON



Pilot system Installed



What grid owners can do with grid 2.0



reduce the electrical losses in the grid.



run the grid more dynamically, manage bottlenecks and optimize throughput



optimize investments in the grid.



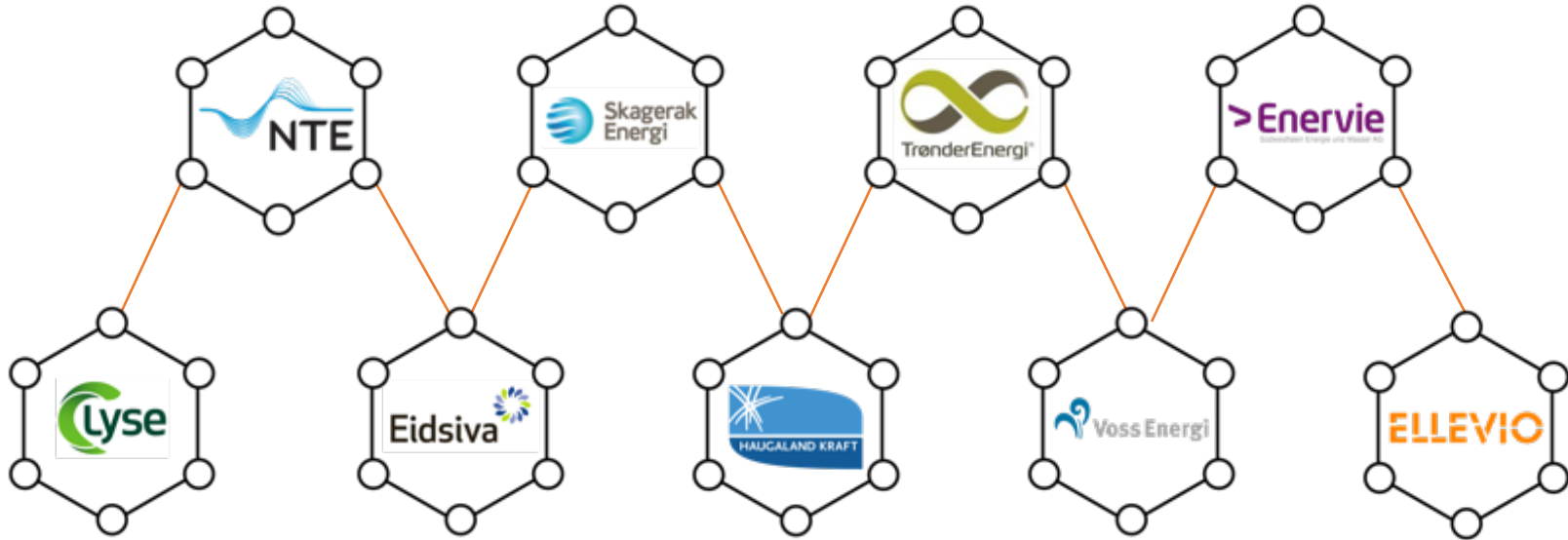
detect and locate errors in the grid instantly.



improve security of the supply to critical customers.

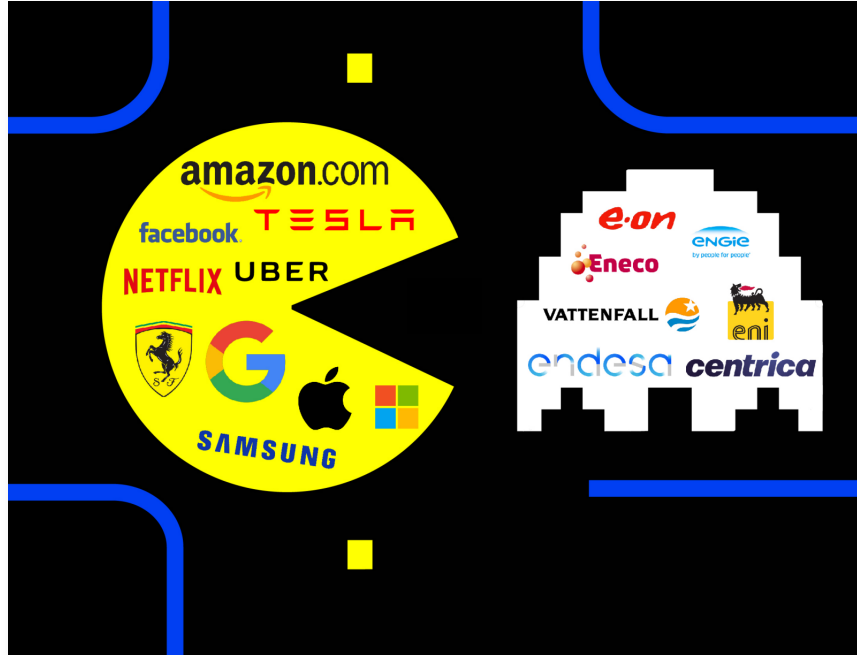
Which is also termed
Thermal Management or
DynamicLineRating

signed partners/pilot customers



In dialogue with big utilities in Germany, France, Russia, India...

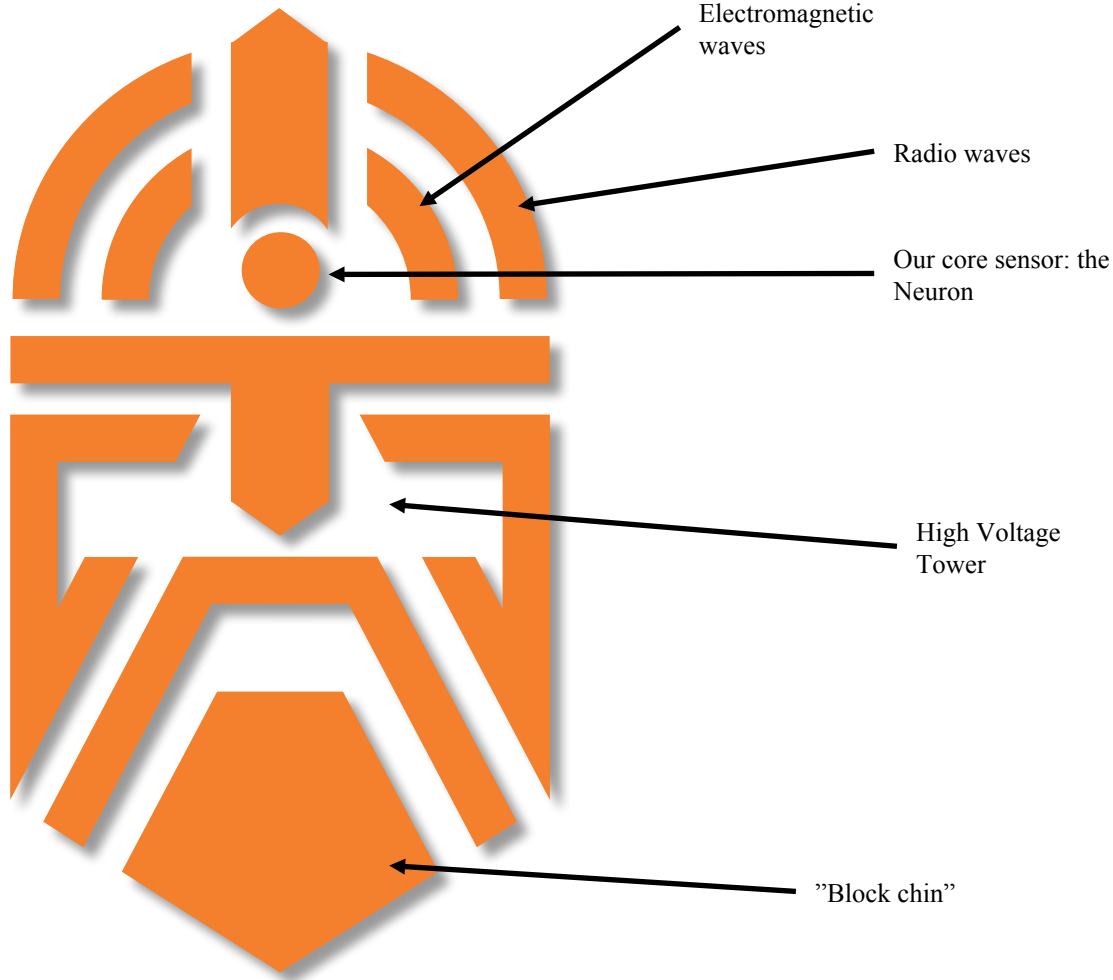
The space invaders ?



A logo with meaning



The face of Heimdall
the Norse Viking God
- The guardian of
asgard.



Electromagnetic
waves

Radio waves

Our core sensor: the
Neuron

High Voltage
Tower

"Block chin"