InnoSys 2030 – Innovations in System Operation up to 2030

The InnoSys 2030 research project showed how innovative system operation can enable the grid in 2030 will be able to transport even more power while maintaining system security. This can make an important contribution to reducing costly grid interventions. At the same time, the transport capacity of the grid is better utilised, which helps to ensure that more renewable energy can be fed into the grid.

A core result from InnoSys 2030 is:

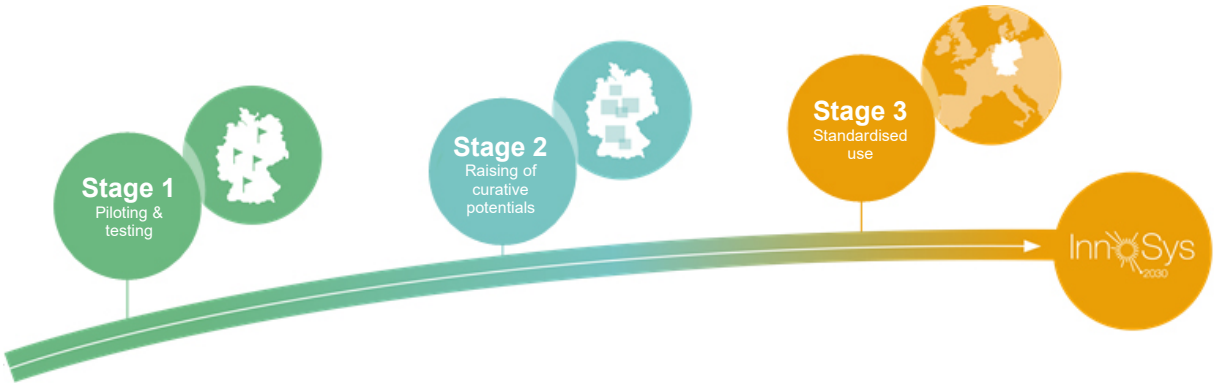
Grid operators, **politicians**, **manufacturers** and **researchers** must pull together to implement the InnoSys solutions.

How this can be achieved together is explained in more detail below.

Factsheet – InnoSys Roadmap

InnoSys 2030 analysed how to increase the utilisation of our electricity grid by applying *curative congestion management* and implementing the *InnoSys system operation process*[1]. The InnoSys roadmap describes how the implementation can be designed. This requires technical, regulatory and procedural preparations, some of which involve very extensive developments. Furthermore, various stakeholders must be involved to create the necessary conditions and make the development steps possible. Due to the complexity of our energy supply system and the importance of high reliability, a three-stage implementation is envisaged. In this way, significant experience can be gained in the ***first stage*** through the implementation of individual curative measures and initial local potentials can be tested. With the ***second stage***, further potential for higher capacity utilisation can be exploited through new curative degrees of freedom in grid operations management. The ***third stage*** will enable the standardised use of curative measures from 2030 at the earliest and thus the extensive unleashing of the potential.

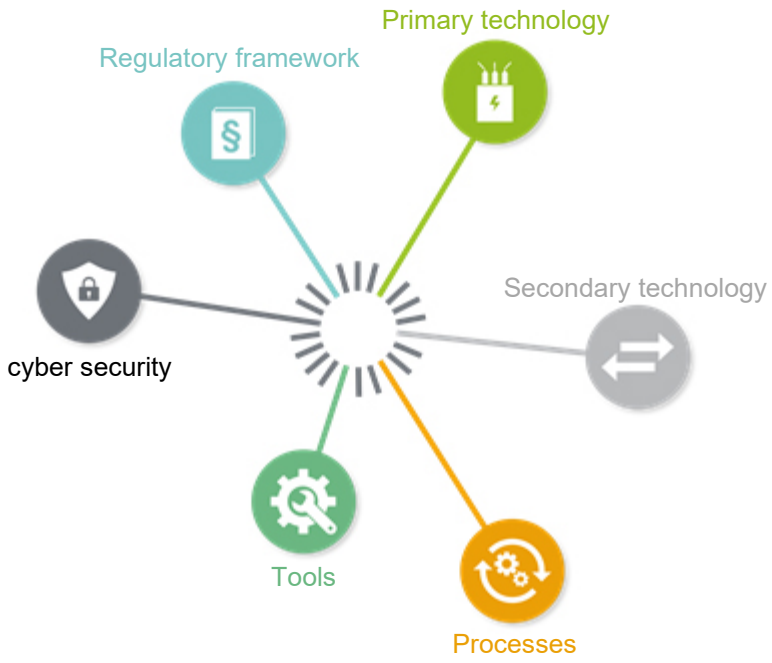
The three evolutionary stages of the InnoSys roadmap



The six fields of action for the implementation of curative congestion management

The development and realisation require the involvement and support of many stakeholders. This includes above all the grid operators who adapt the systems and implement the concepts (***tools*** and **system operation processes**). This applies both to the transmission system operators and partly to the distribution system operators. Coordination is required not only at the national but also at the international level, as the concepts have cross-border impacts.

But manufacturers are also needed to drive developments and ensure that the required level of technological maturity is reached. This refers not only to the systems of system operation, but also to the areas of ***primary technology***, ***secondary technology*** and ***cyber security***. Policymakers, institutions and associations must create the necessary framework conditions so that curative remdedial actions can be integrated into the congestion management process and the necessary information is available from the plant operators for this purpose (***regulatory framework***).



Further information at www.InnoSys2030.de

[1] see also “InnoSys Factsheet – Mechanism of Curative Remedial Actions“ and “InnoSys Factsheet – InnoSys System Operation Process”