



## Sustainability is the new normal in high-volume semiconductor frontend production: Balancing WIP flow for energy availability, cost and peak consumption

Hajo Terbrack<sup>1,3</sup>, Holger Brandl<sup>1</sup>, Tobias Sprogies<sup>2</sup>, Karlheinz Leonardi<sup>2</sup>

<sup>1</sup> SYSTEMA GmbH, Dresden, Germany; <sup>2</sup> NEXPERIA Germany GmbH, Hamburg, Germany; <sup>3</sup> TU Dresden, Dresden, Germany

## **Motivation**

green production



rising energy costs



volatile supply of renewable energies



lack of sufficent storage solutions



need for action towards climate neutrality

## Short-term adjustments enabled by scheduling and simulation load adjustment request: 15min to 24h in advance

## Solution

balancing of partially conflicting production objectives







