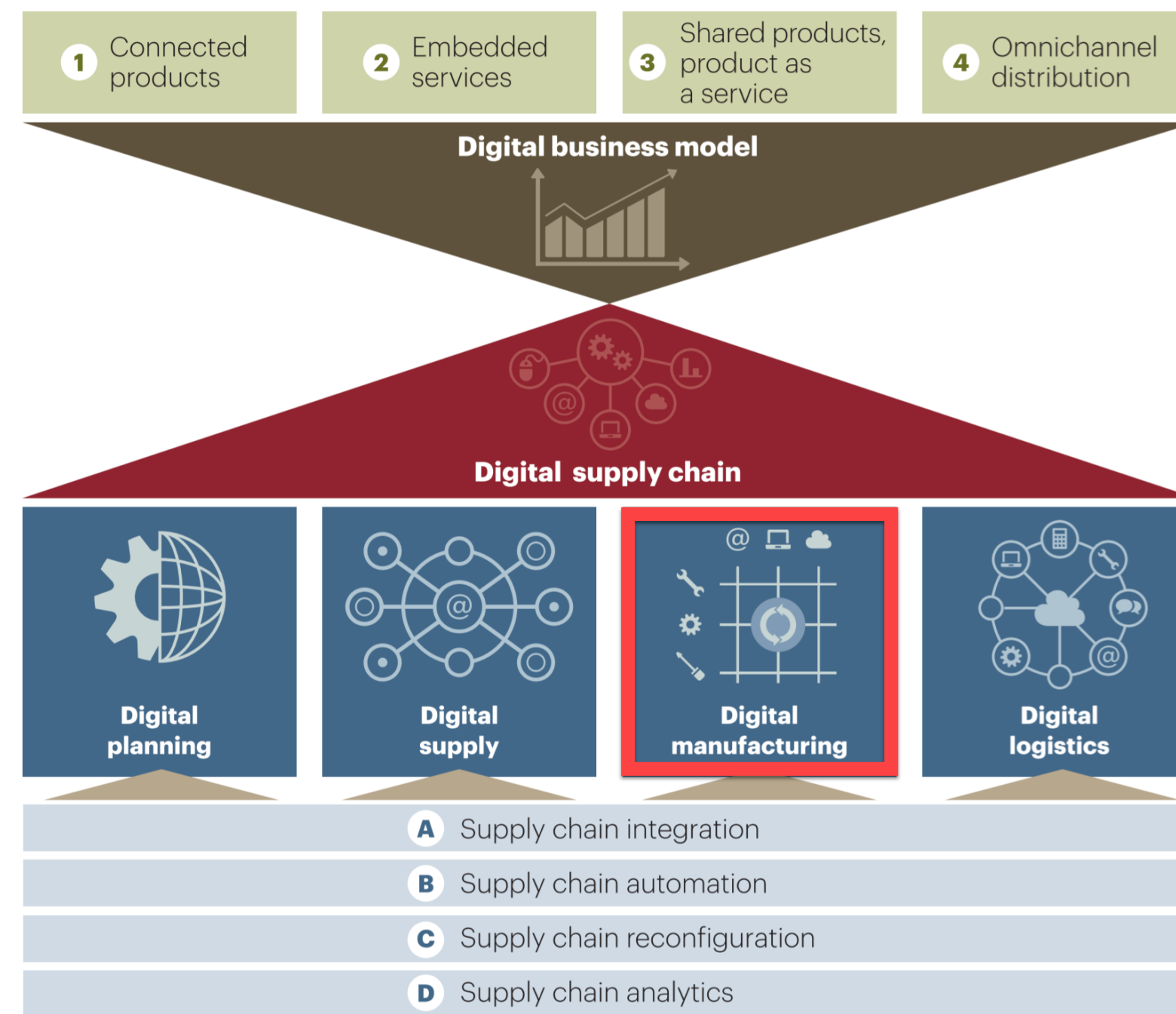


## Motivation / Background



Industries strive for agility, for fast adaptation to innovations. Concepts are defined, implementation started - Industry 4.0, Smart Factory, GE Brilliant Factory

IT IS TIME FOR PROOF AND MEASUREMENT

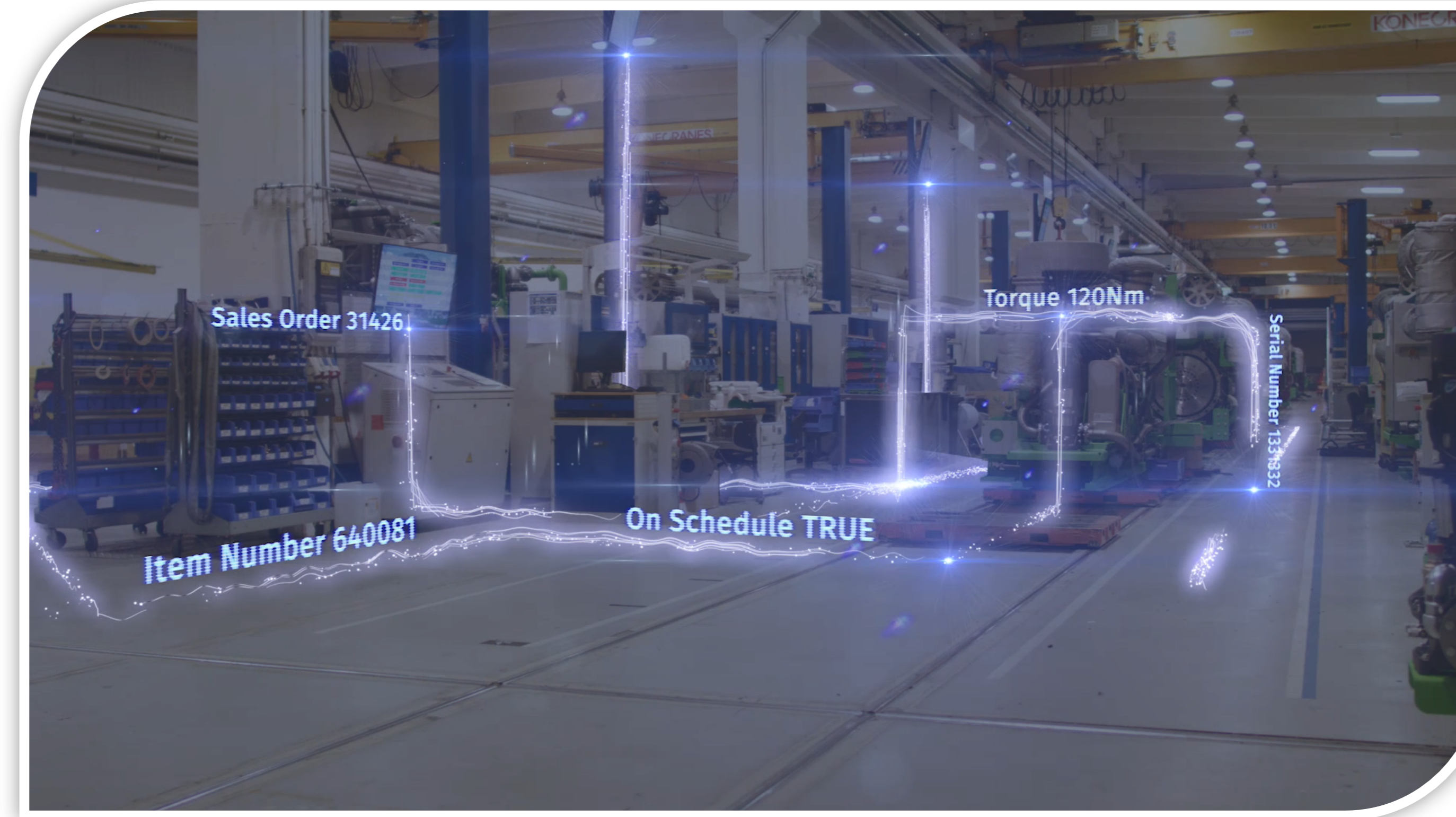
Source: A.T. Kearney analysis

## Key Question / Hypothesis

1. Digitalization → manufacturing SC = which impact?
2. Digital initiative X → manufacturing SC outcome Y = link measurable?
3. SC performance outcome Y = development trend?

## Relevant Literature

- Bogner, E. et al. (2016) 'Study Based Analysis on the Current Digitalization Degree in the Manufacturing Industry in Germany', in Procedia CIRP, pp. 14–19.
- Wallenburg, M. et al. (2015) Digital Supply Chains: Increasingly Critical for Competitive Edge, European A.T Kearney/WHU Logistics Study 2015.



## The Problem

- Industrial digital approach lacks a structured framework for measurement of interdependencies and effectiveness
- Academic insights based on qualitative research

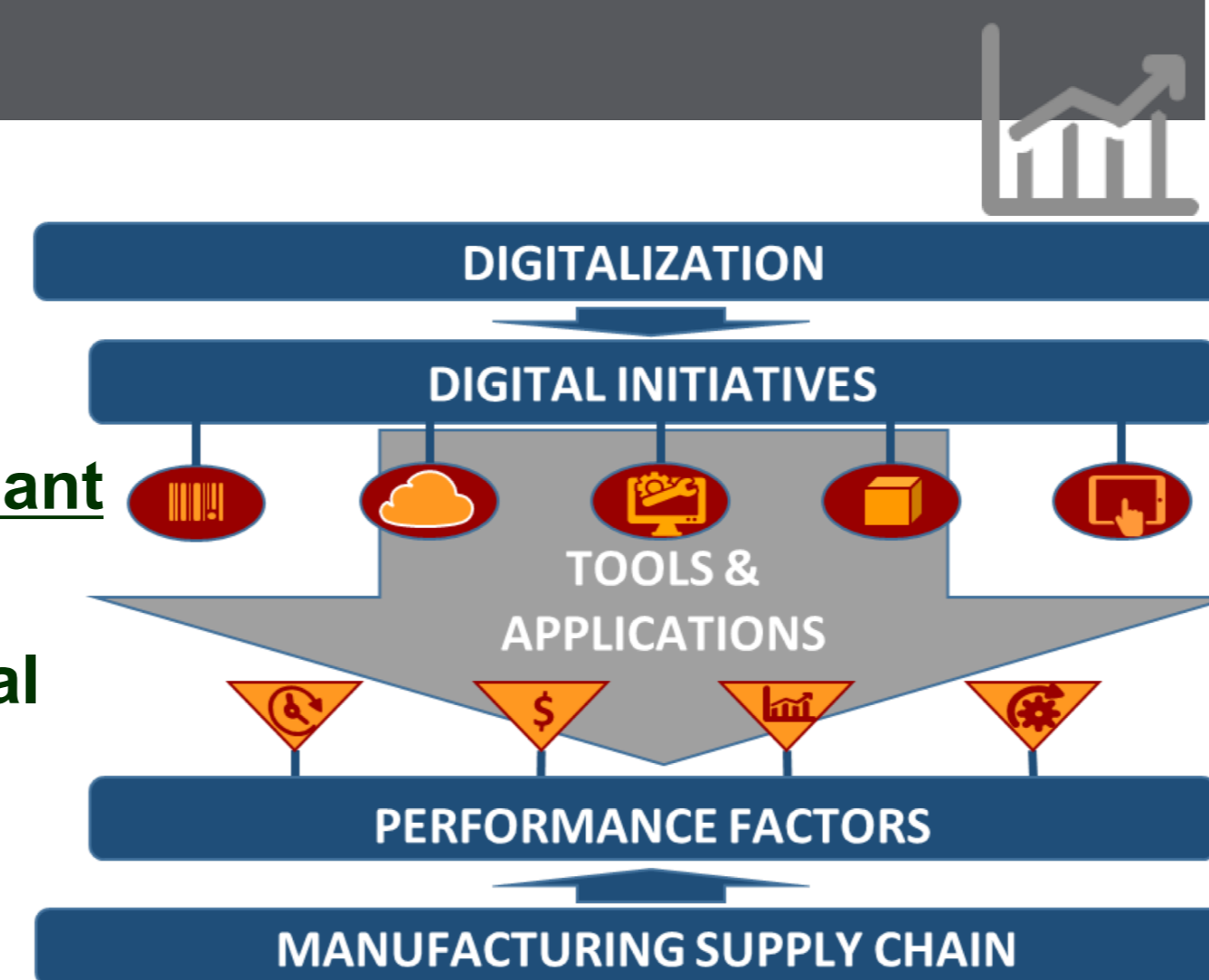
## Methodology

### Preliminary research:

- Review of academic literature
- Formulation of hypotheses

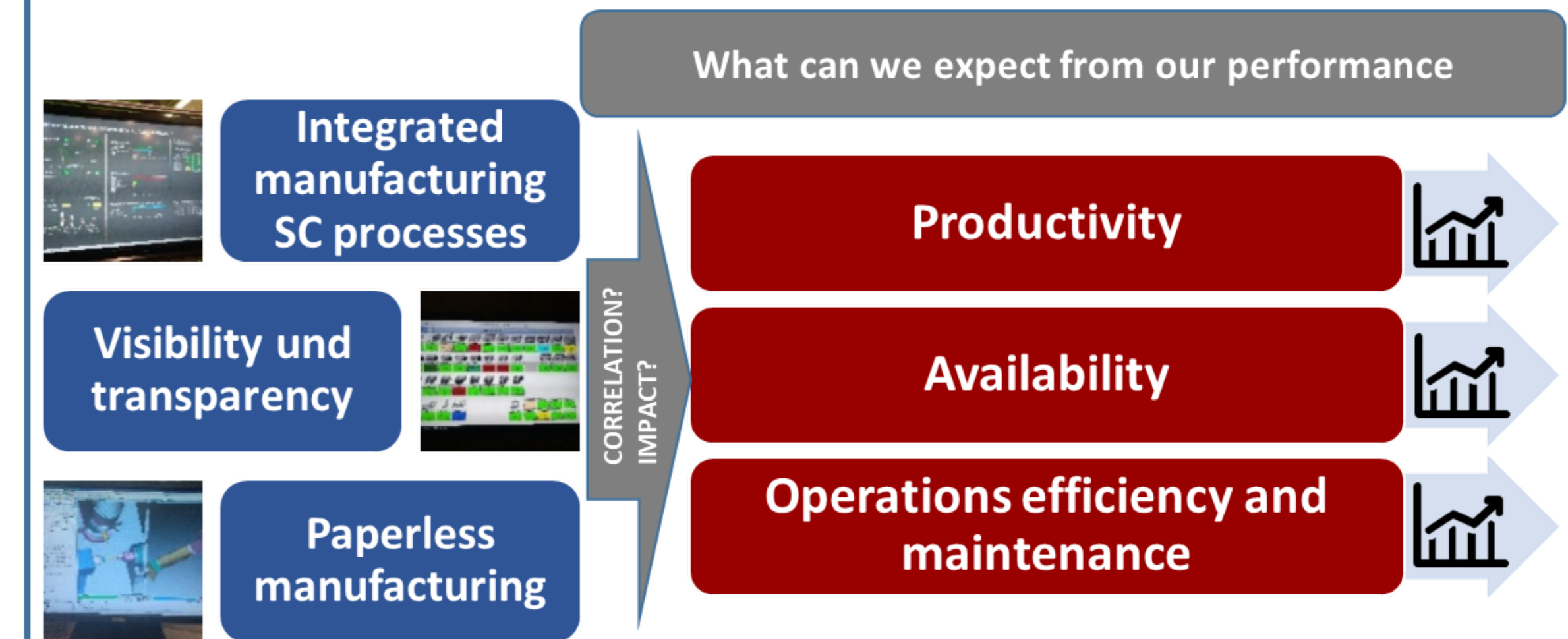
### Two-step analysis – Showcase GE Brilliant Factories:

- Multivariate statistical analysis: Digital initiative X → SC outcome Y
- Time-series analysis: Trend of SC outcome Y



## Initial Results

Framework: find methodology to quantify the digital impact on manufacturing SC



## Expected Contribution

