# The future of IBP decision making

Niels van Hove, December 2024



Customer engagement lead APAC



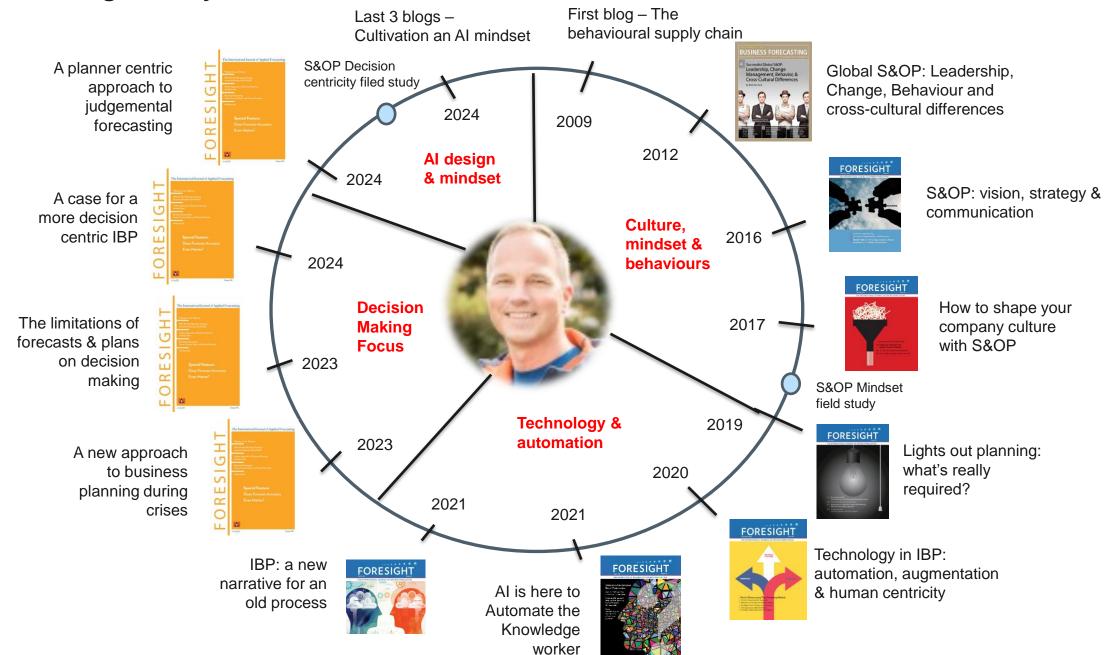
Blogging since 2009



IBP / Decision Intelligence editor



#### **My Publishing Journey**



## New Technology to Support Planners has Emerged

Niels van Hove, Foresight 2019, Autonomous or "Lights Out" Supply-Chain Planning: What New Technology Is Required



**Apple Macintosh** 



Systems of Record for master & transactional data. Insights, reports & analytics



Apple I-Mac

Wave 2: APS as designed in the late 90's

Systems of Record for forecast plans, probabilities, gaps, assumptions



**Iphone 16** 

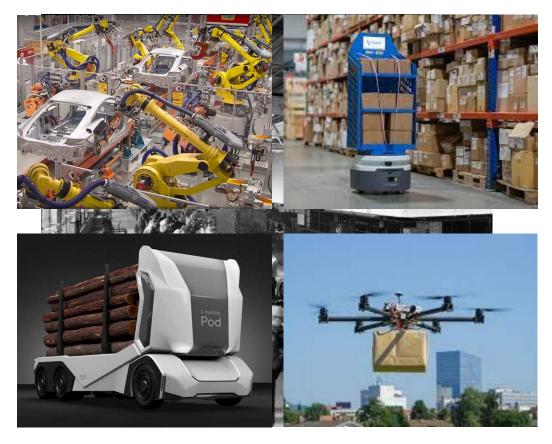
Wave 3: Systems of Intelligence – Now!

Systems of Record for human cognition, decisions, actions, learning and automation

# Wave 3 Will Change the Future of Knowledge Work

Niels van Hove, Foresight 2021, Commentary: Al Is Here to Automate the Knowledge Worker

From



**Automating physical labor** 



**Automating & Augmenting the Knowledge Worker** 

## Automating short-term Decisions Becomes the Norm...



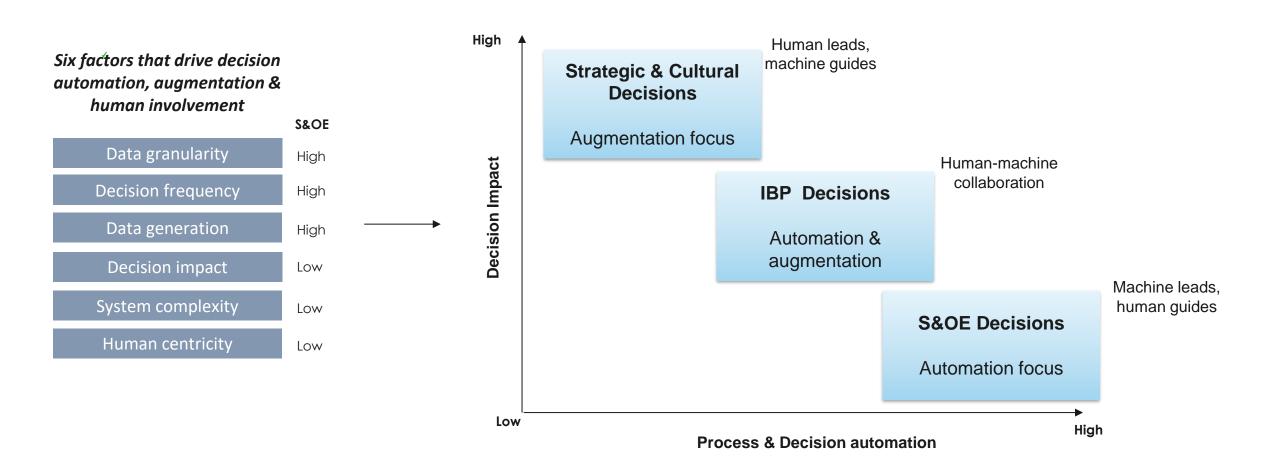
Most decisions in the supply chain are short term operational or executional decisions.

These (S&OE) decisions:

- are too many and too frequent for humans to address across a supply chain network
- are most impacted by disruptions
- are often repetitive week in week out, requiring similar data inputs
- can be digitized, highly automated, or by choice recommended to a human

#### ...But there Are Limits to Decision Automation

Niels van Hove, Foresight 2020, Technology Support in Business Planning: Automation, Augmentation, and Human Centricity



## IBP Decisions will be Split between Human and Machine

Foresight 2021, Hein Regeer, Niels van Hove, Integrated Business Planning: A New Narrative for an Old Process

**Decision Intelligence** digitizes & record decisions, learns from decisions, improves decision quality **S&OE** - *Machine Centric* Decisions **IBP** – Low Touch Planning Processes, Human Centric Decisions, Guided by human Augmented by the Machine Execute & React Re-Balance the Plan Protect the Plan Set the Plan **Intelligent Agents** Augmented strategic & risks Order allocation Shipment / deployment Alternative sourcing Low touch forecasting & choices/decisions scenarios decisions decisions planning FG & Raw stock out P&L simulations and **Production &** Demand, supply & Automated gap detection, prevention scenario planning schedule changes inventory balancing augmented gap closure Automated master data Automated ESG trade-Automated planning Digital marketing & Promotion & pricing strategy parameter decisions maintenance offs inventory alignment augmentation

## **Human-Machine Decision Design Becomes Critical**

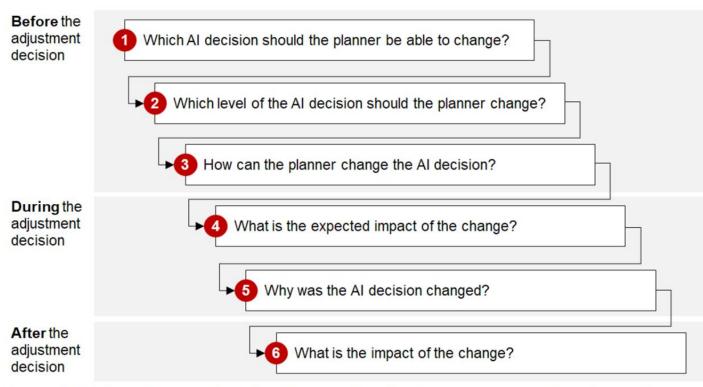
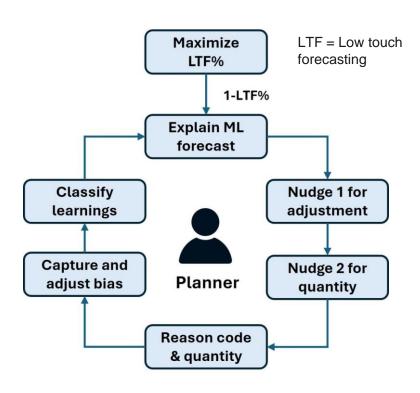


Figure 4: Six-stage framework on the design and evaluation of human-machine interaction

2022, Kai Hoberg, Christina Imdahl. How to Design Human-machine Interaction in Next-generation Supply Chain Planning



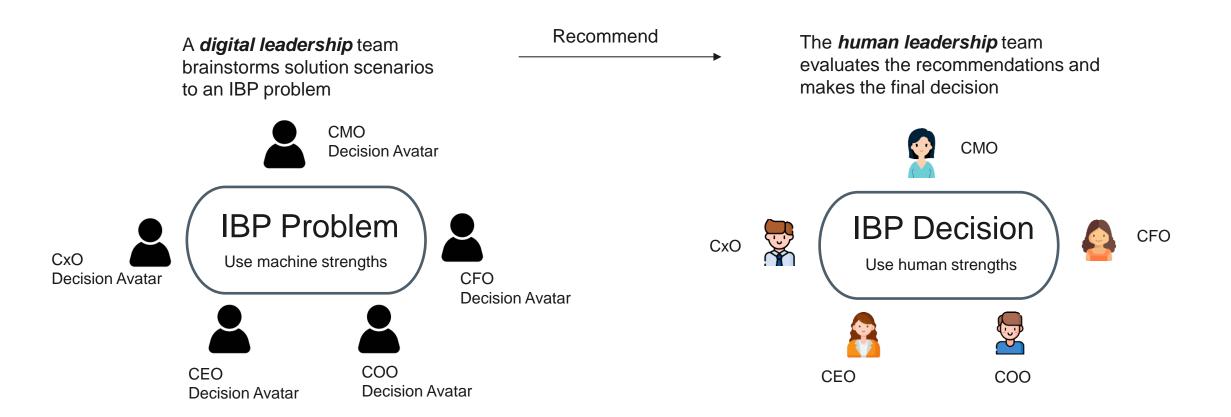
Niels van Hove, <u>Foresight 2024</u>, A Planner Centric Approach to Judgmental Forecasting

#### IBP Decision Making with LLM (in the not-so-distant future)

A **DECISION AVATAR**<sup>TM</sup> is a digital 'copy' of the decision-making behaviour of an individual (Roger Moser, 2017). With LLM's, decision avatar's have become a reality.

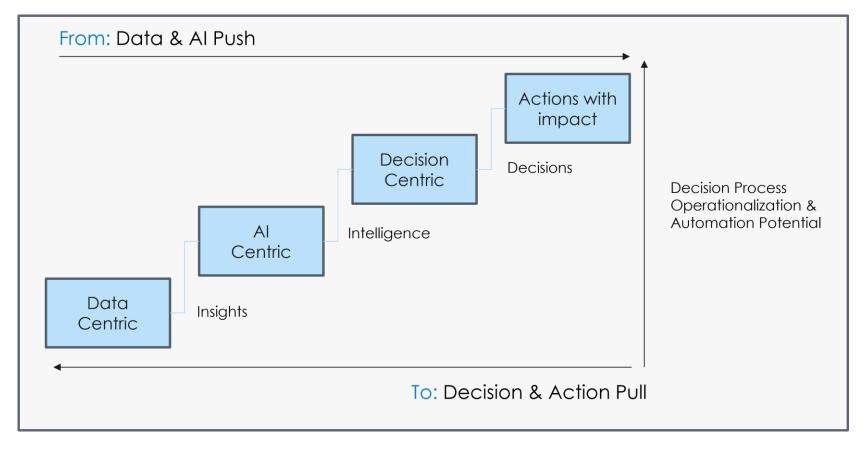


**Digital Niels**: my knowledge avatar



## First, we Need to Shift Our Thinking

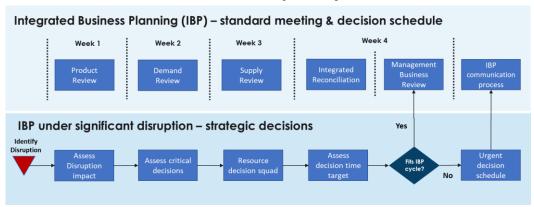
"Data, technology, and AI must *take a back seat* to diligent understanding of *the decisions* that they support" Dr. Lorien Pratt, Decision Intelligence co-inventor



Niels van Hove, Supply Chain Trend 2024, How to overcome the supply chain decision gap

#### IBP Must Become More Decision Centric

#### 1. Increase Decision Frequency – IBP on demand



Niels van Hove, Foresight 2023, A new approach to Business Planning during crisis

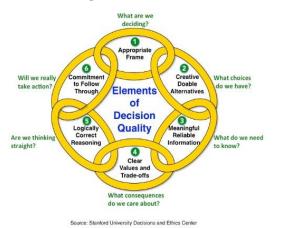
**2%** of managers apply regular best practices when making decisions

Erik Larson, HBR, 2017

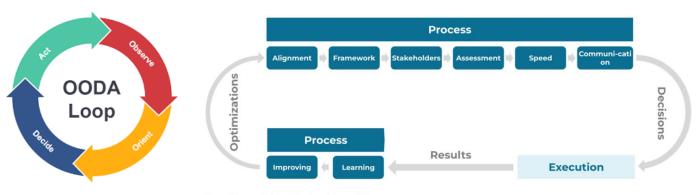
#### **Opportunity:**

- Decide twice as fast
- In *half* the meetings
- Increased engagement
- Reduced IBP decision bias

#### 2. Integrate Decision Quality



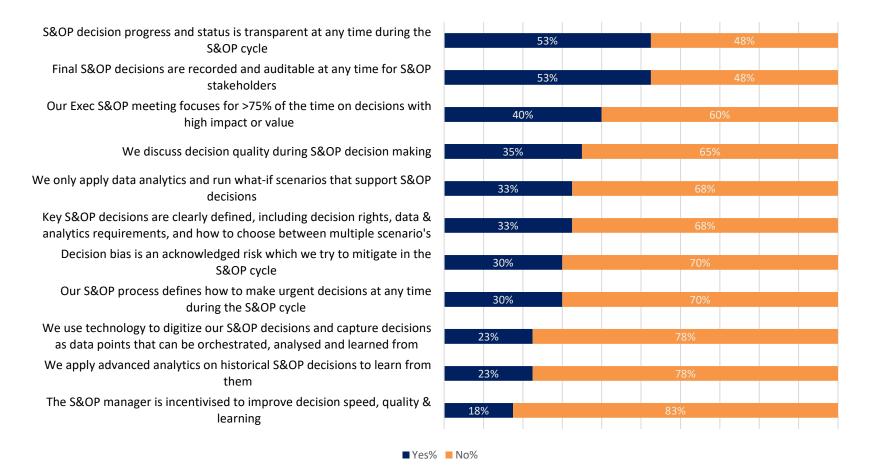
#### 3. Apply Decision Frameworks & Learning



Source: Cloverpop Decision IQ Benchmark Survey, 2023.

## Decision Centricity Field Study (1/2)

In my field study, over **50**% of survey participants score low levels of decision centricity. **5**% score high levels of decision centricity



Decision Centric IBP - Check List

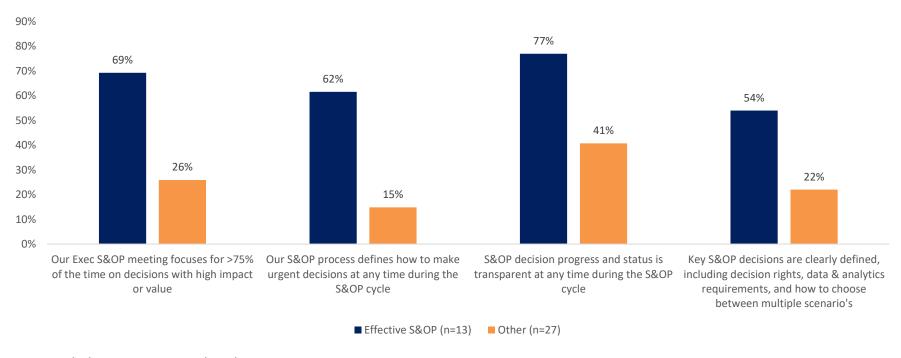
10 questions about Decision Centric IBP

55CP and its successor IBP were both referred at an executive occusion making board that he decisions control is your IBP process and two decisions making a market of the executive of t

Decision Centric IBP checklist

# Decision Centricity Field Study (2/2)

Four Decision Centric differentiators stand-out in more mature S&OP/IBP processes



Questions (11) answered with Yes (n=40) Source: S&OP decision centricity survey 2024



**Decision Centric IBP checklist**