

**Deloitte.**



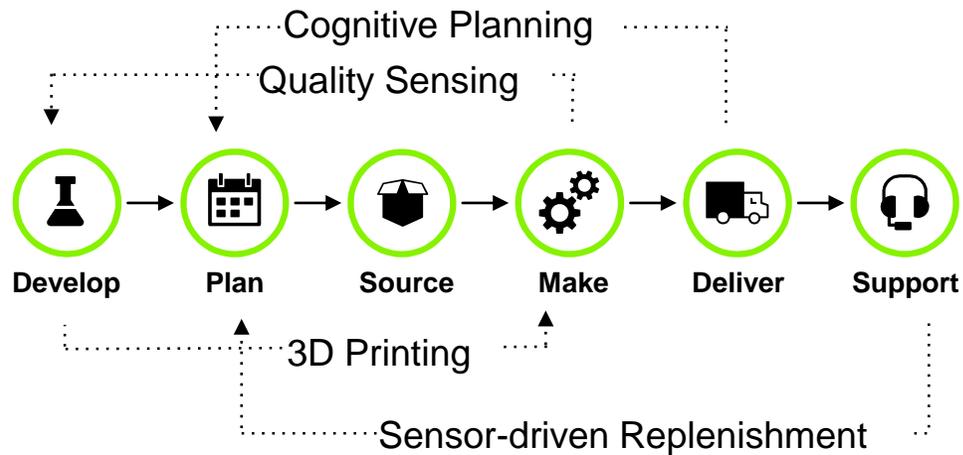
**SEV Industrial Conference  
19<sup>th</sup> December 2019**



# Industry 4.0 and its impact for industry

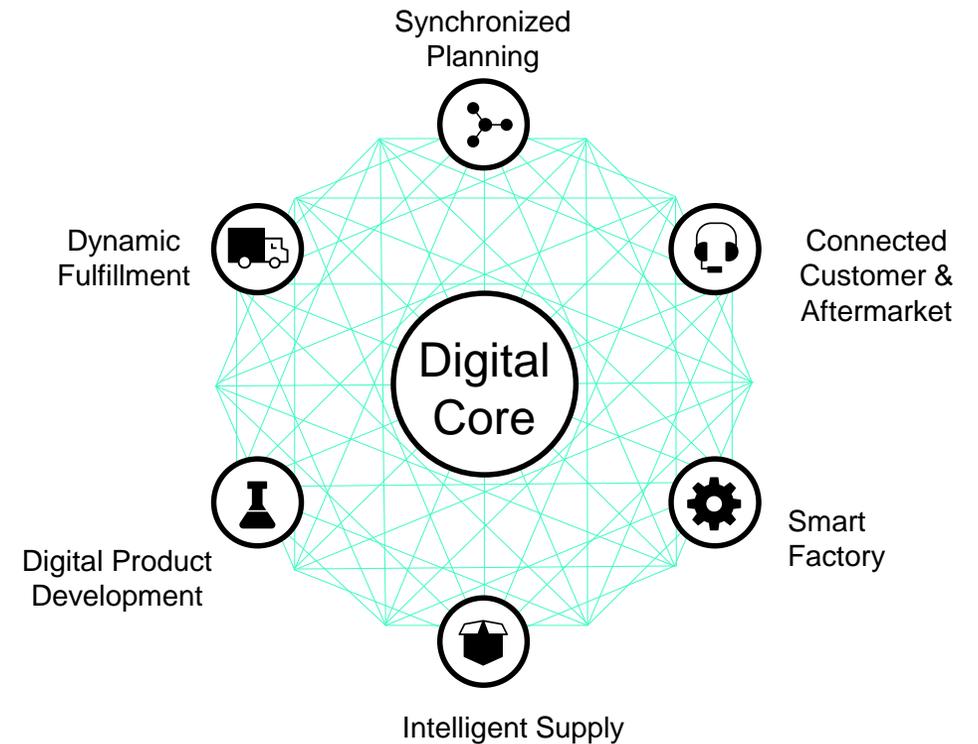
## TRADITIONAL SUPPLY CHAINS

Linear & sequential flow of product & information where each step is dependent on the preceding step

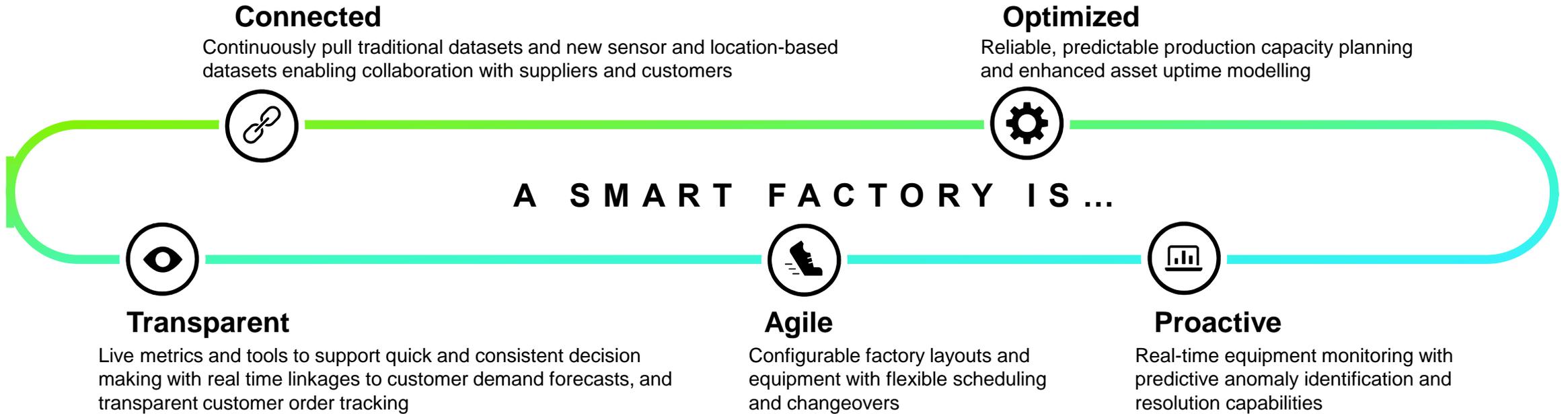


## DIGITAL SUPPLY NETWORKS

Real-time visibility into each node of the supply chain network powered by an interconnected flow of information



# Industry 4.0 and the Smart Factory



## ... AND ENABLES



**Improved asset efficiency, OEE and reduced downtime** via real time and predictive maintenance



Cost efficient processes with **improved quality compliance, throughput and productivity**



**Accurate tracking of inventory** from raw materials to customer delivery



**Historical and real time reporting** of production status, and **analytics** to pin point root causes of failures

# The increasing importance of Smart Factory initiatives



**86%**

*of manufacturers believe*

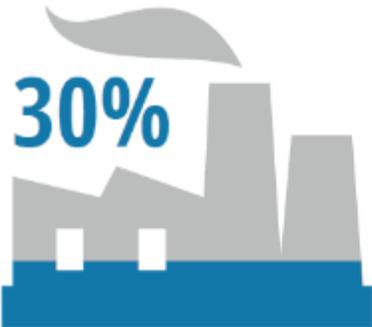
Smart factory initiatives will be the **main driver of manufacturing competitiveness** in 5 years



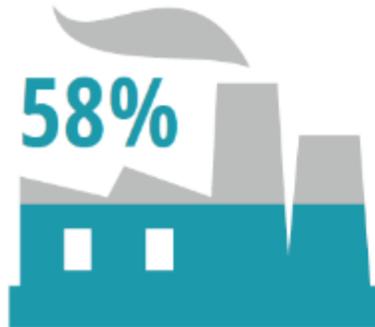
**83%**

*of manufacturers believe*

Smart factory initiatives will **transform the way products are made** in 5 years



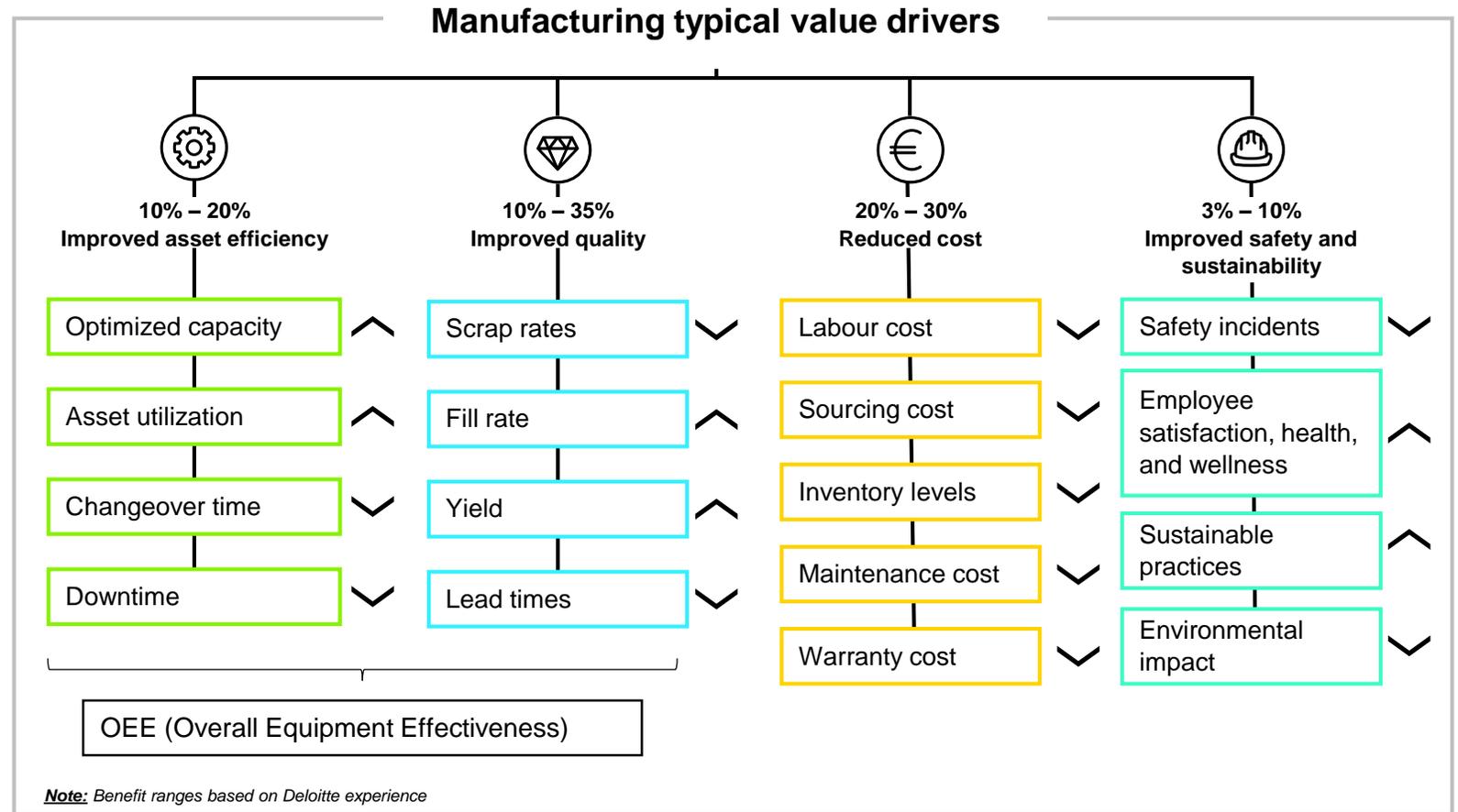
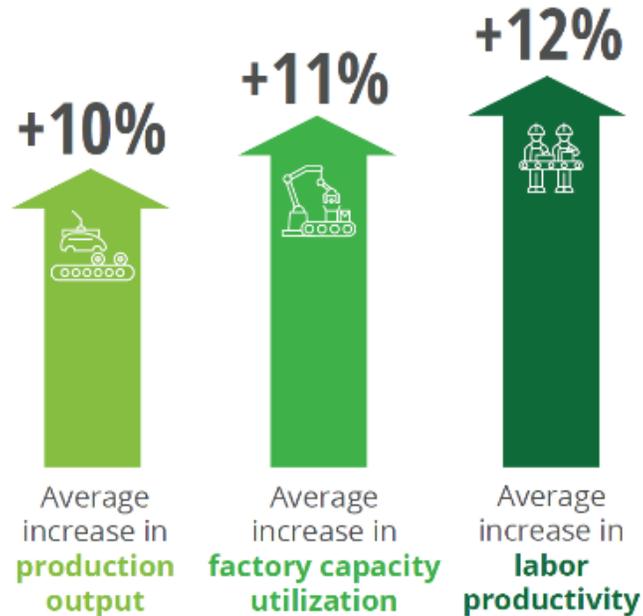
Share of global factory budget earmarked for **smart factory initiatives**



Share of manufacturers who expect the **smart factory budget to increase** in 2020

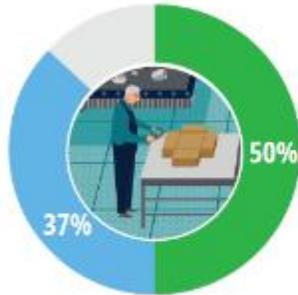
These manufacturers expect their 2019 **budget to increase by 13 percent** in 2020

# Companies are pursuing real business value



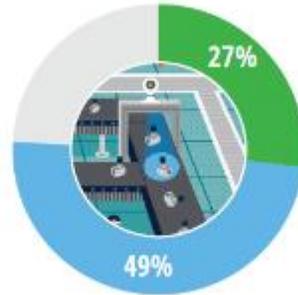
# There is no shortage of use cases – here are just a few

Quality sensing and detecting



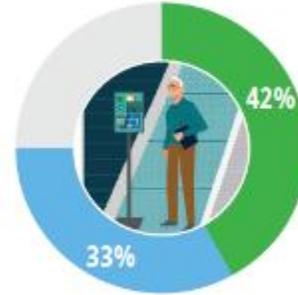
Key benefit experienced:  
*Operational*

Factory asset intelligence



Key benefit experienced:  
*Operational*

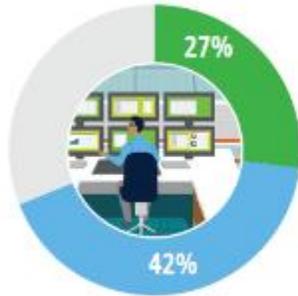
Plant consumption and energy management



Key benefit experienced:  
*Financial*

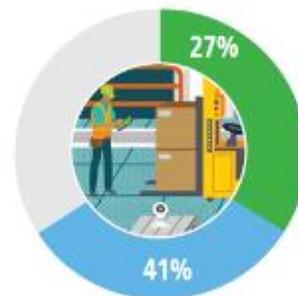
■ In use ■ Piloting

Command center



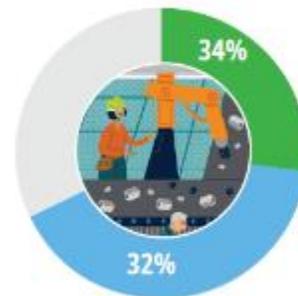
Key benefit experienced:  
*Financial*

Factory synchronization and real-time asset tracking



Key benefit experienced:  
*Financial*

Smart conveyance



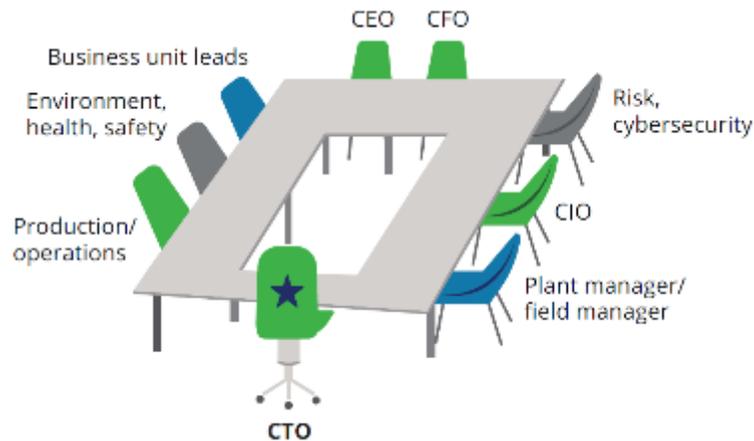
Key benefit experienced:  
*Operational*

# Shifts at the Top Floor: different roles, different voices

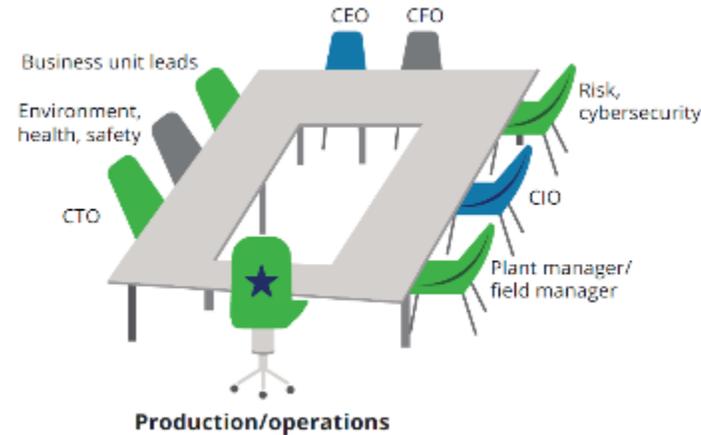
## The smart factory boardroom: Different roles, different voices

★ Primary smart factory leader   ■ Top five active stakeholders   ■ Moderately active stakeholders   ■ Least active stakeholders

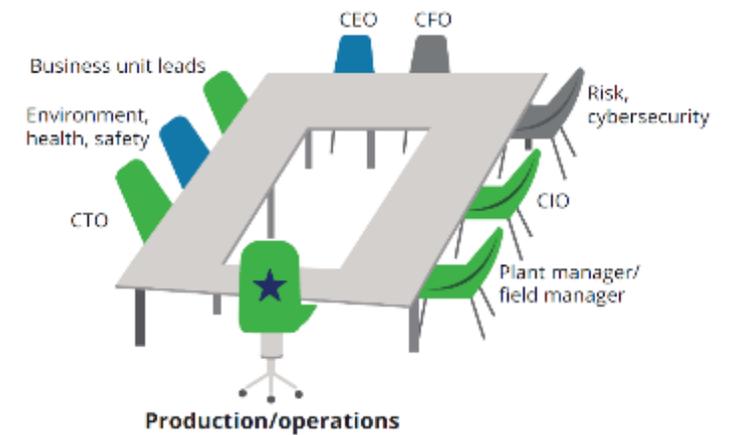
### TRAILBLAZER'S BOARDROOM



### EXPLORER'S BOARDROOM



### FOLLOWER'S BOARDROOM



# Shifts at the Shopfloor: new skills and ways of working

## New Ways of Working

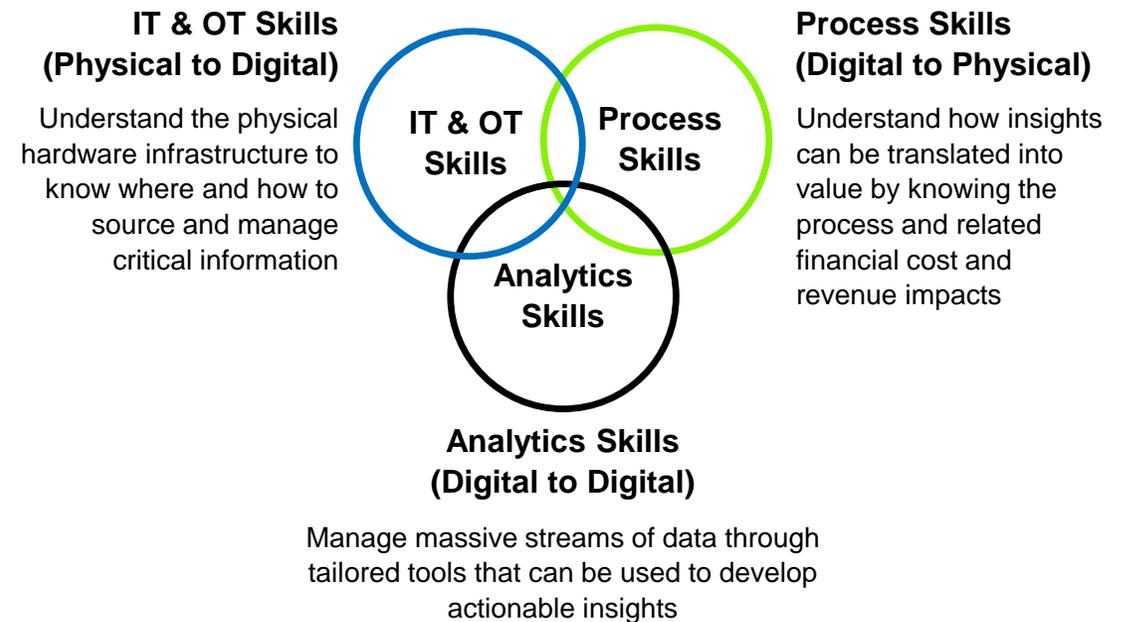
*Plant leaders and personnel will need to adopt new ways of working and act on data insights to realize the full business benefits of the technology.*

### Examples of New Ways of Working – by Persona

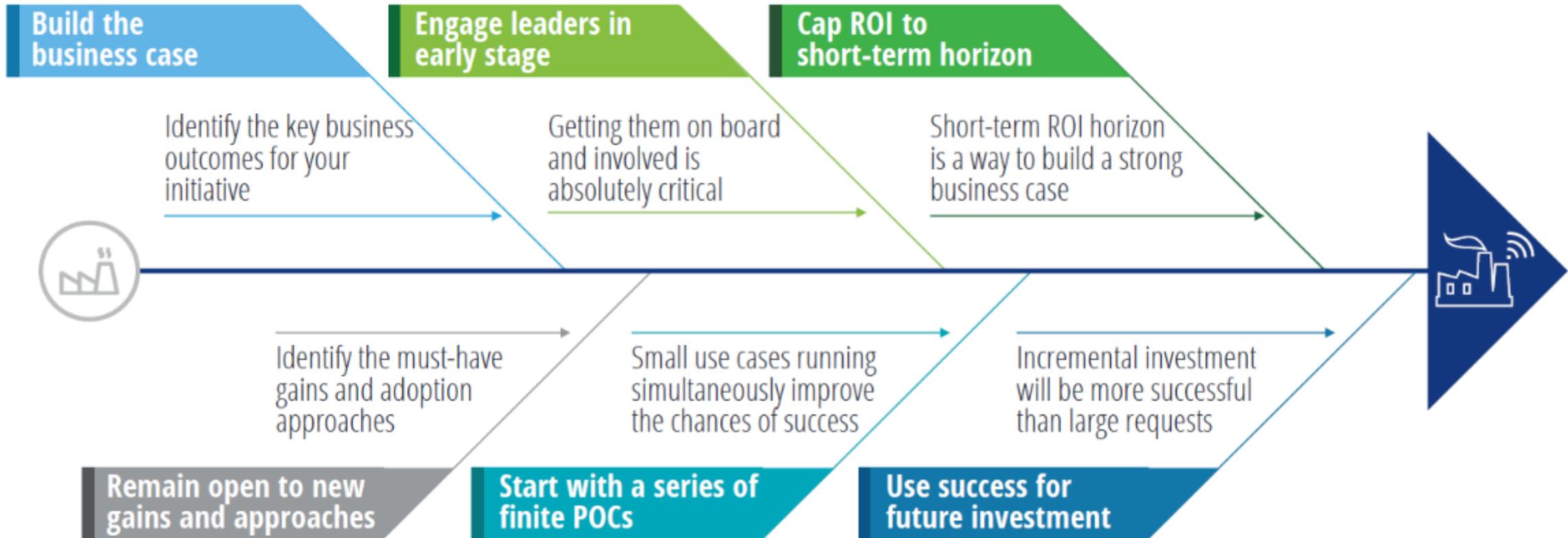
-  **Plant Leadership** Use real-time and historical data to optimize production performance and create incentives for change
-  **Shift Supervisors** Monitoring and analyzing shop floor performance through real time data flows and making informed decisions based on data-driven insights
-  **Process / Quality Leads** Preventing human errors and increasing performance by monitoring and guiding operators real-time on the shop floor
-  **Maintenance** Transition from reactive and preventative maintenance to condition-based and predictive maintenance that maximizes OEE
-  **Material Handlers** Use data to maintain material flow and blend control

## New Talent and Skills

*Sustaining the digital manufacturing transformation requires talents with a blend of IT & OT, Process, and Analytics skills.*



# Keys to success



# Obstacles along the way





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