

# SNC Lavalin – the leading engineering solution partner

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# Driving Question

How to achieve digital growth to become the premier engineering solution partner?

Challenges

Changing design engineering business model

Less need for services | billable hours due to innovations

Low construction productivity

# Solution Preview

Alignment of digital transformation and your core value

Recommendations

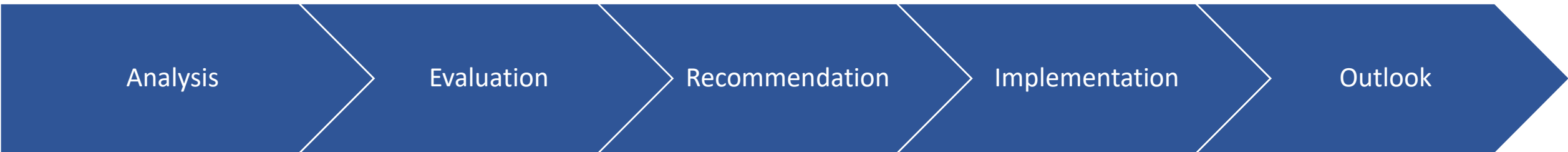
Robotical support

AI and engineer collaboration

Real time solutions

# Agenda

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## Products

- Variety of businesses served
- EDPM is biggest growing sector with 32%
- One of world's most respected design engineers & project man.

## USP

- All in one service solution of engineering and fulfillment
- Globally distributed  
Safety | Integrity |  
Collaboration | Innovation

## Why customers need you

- Retain best people with greatest experience

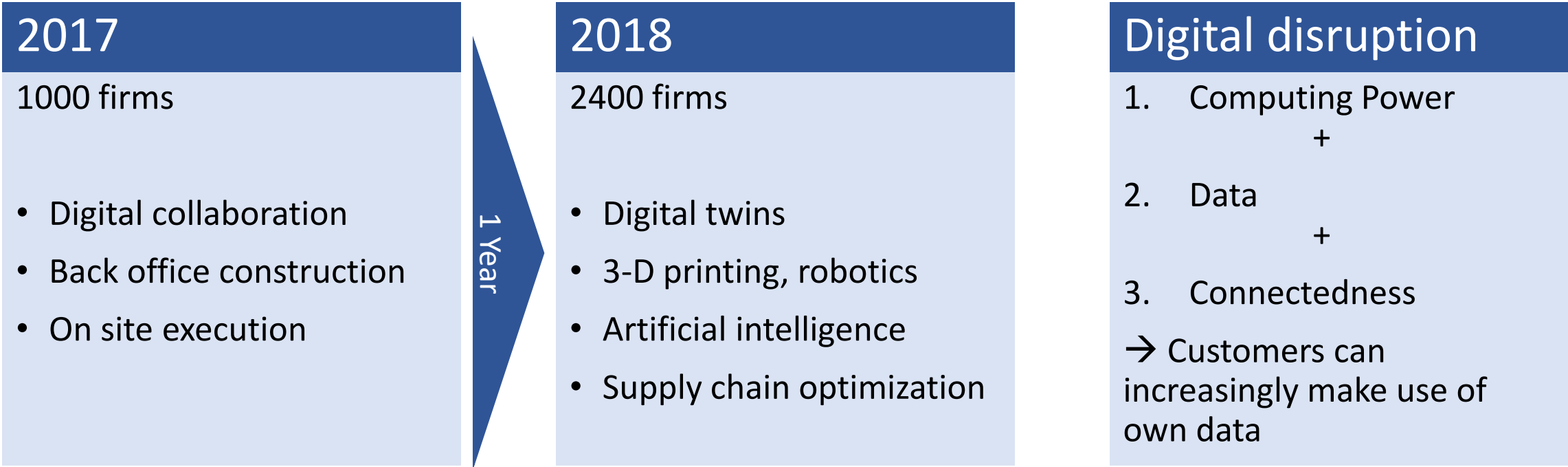
Invest further

Advantage against online disruptors

Must be further educated to stay ahead

# Construction Technology Landscape

Low construction productivity  
Population growth → need for buildings & infrastructure



▶ Adapt engineering model to effective technologies

# Acquiring Atkins

## – Affecting employed engineers

### Acquiring Atkins

- Strategically important for construction sector
  - Good in Construction, digitalization, AI
- Top 100 big businesses to work in 2017
  - Now cutting half of jobs
  - Frustration, fear

### Effected engineers

- Work partially overtaken by machines, AI
  - Atkins acquirement effected work distribution
    - Frustration and expectation to cut half of the engineers (186 → 94)
    - Good engineers look out for other jobs
- Address them

Huge part of workforce is not used for construction → could be taken to action otherwise

# Vision 2020 and goals to reach

Top, global fully integrated, professional services and project management company  
in **profitability and growth**

**Client-centric** delivery focused

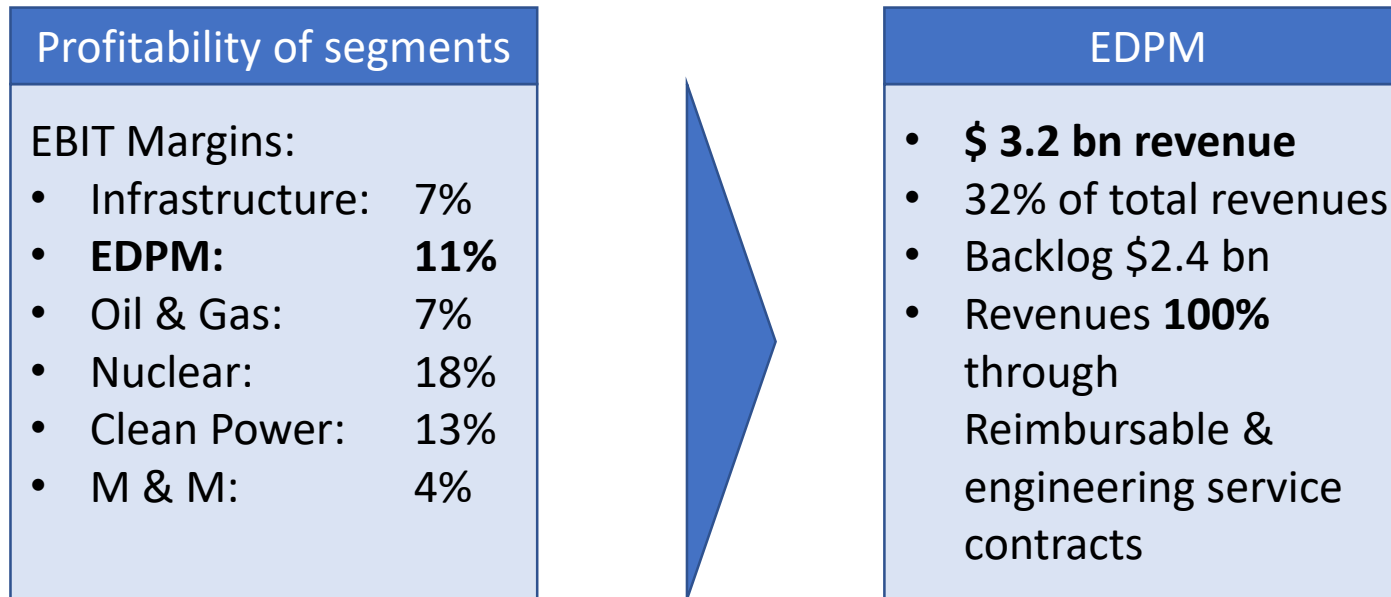
**Strong, performance driven culture**, operational excellence

**Strong, performance driven culture**

Make projects **less cost intensive, more efficient** and **predictable** → **smarter ways to work**

▶ Adapt engineering model to effective technologies → become premier engineering solution partner

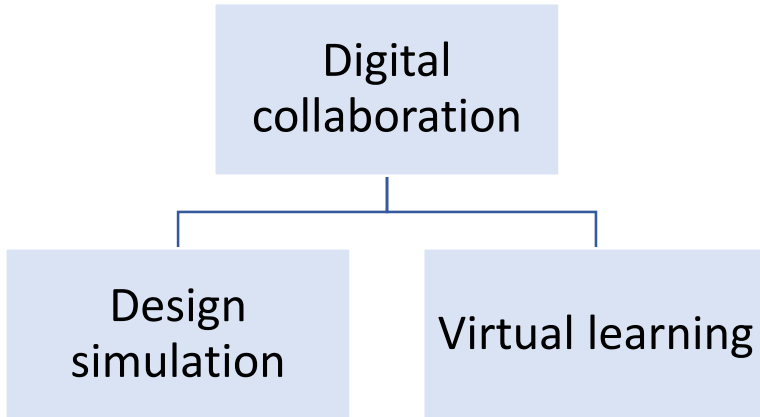




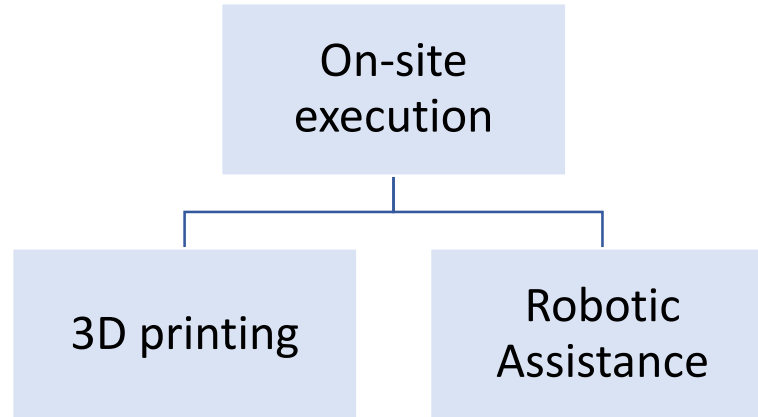
Investors are needed to be convinced in order to invest in the EDPM business

# How to achieve digital growth?

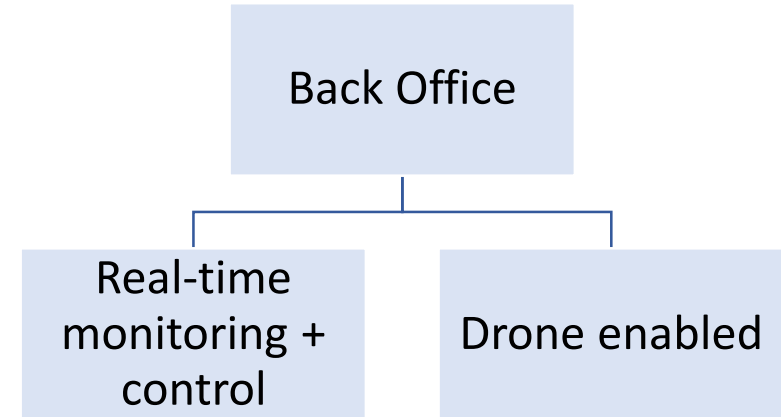
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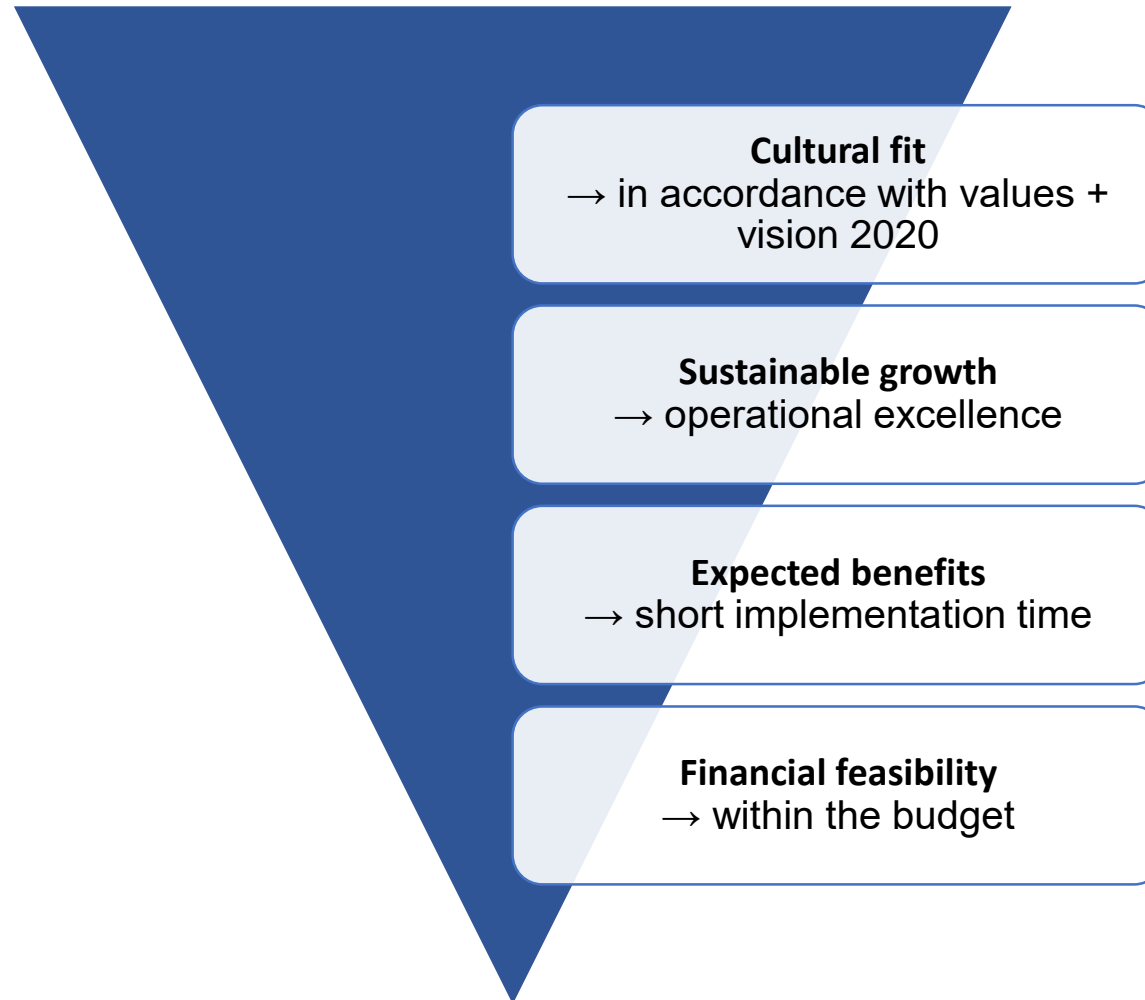
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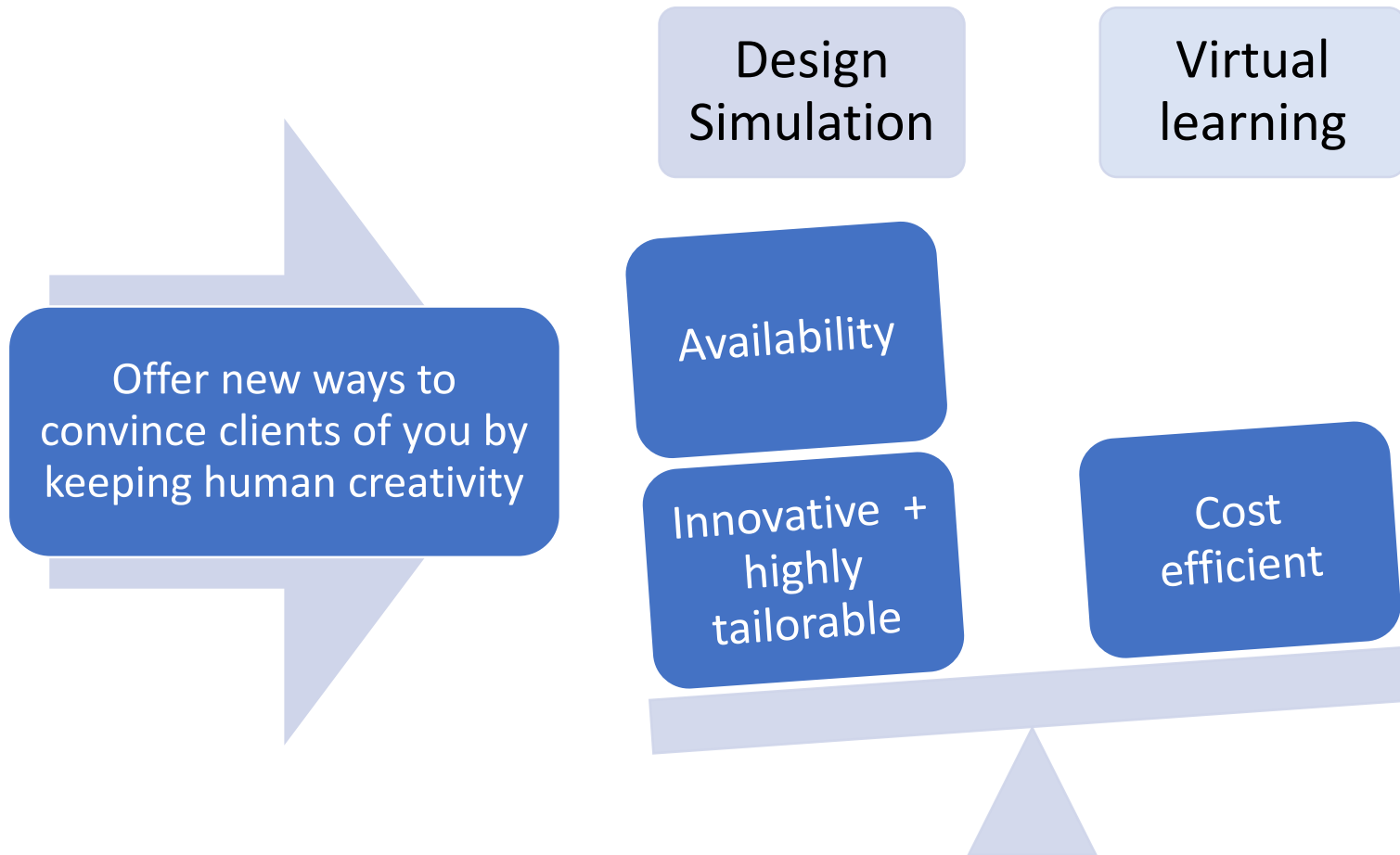
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# Decision Criteria



# #1 Digital collaboration



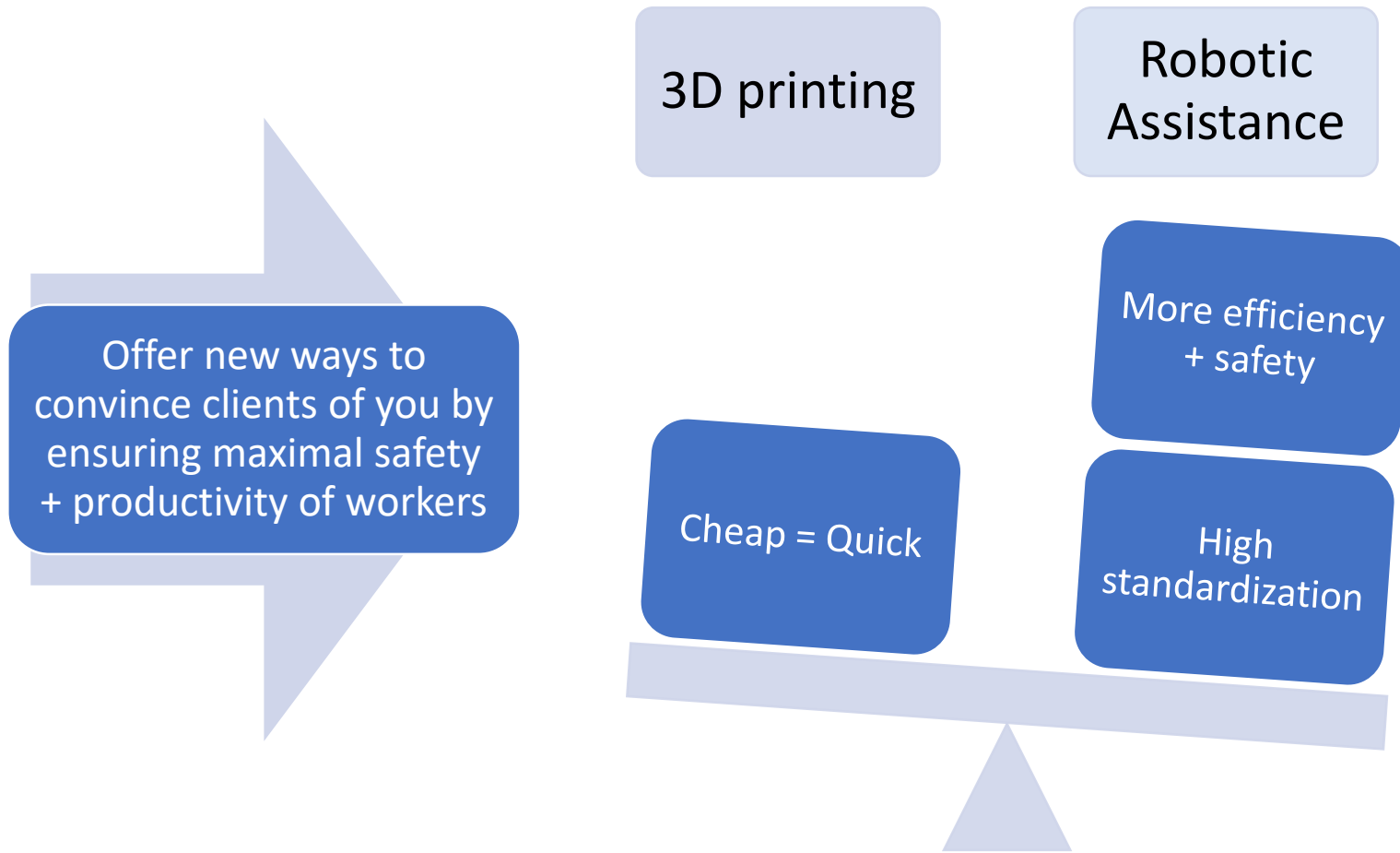
# Decision Matrix - #1 Digital collaboration

	Cultural fit	Sustainable growth	Expected benefits	Financial feasibility
Design simulation	Green	Green	Green	Green
Virtual learning	Green	Green	Yellow	Yellow

# Decision Matrix - #1 Digital collaboration

	Cultural fit	Sustainable growth	Expected benefits	Financial feasibility
Design simulation	Green	Green	Green	Green
Virtual learning	Green	Green	Yellow	Yellow

# #2 On-site execution



# Decision Matrix - #2 On-site execution

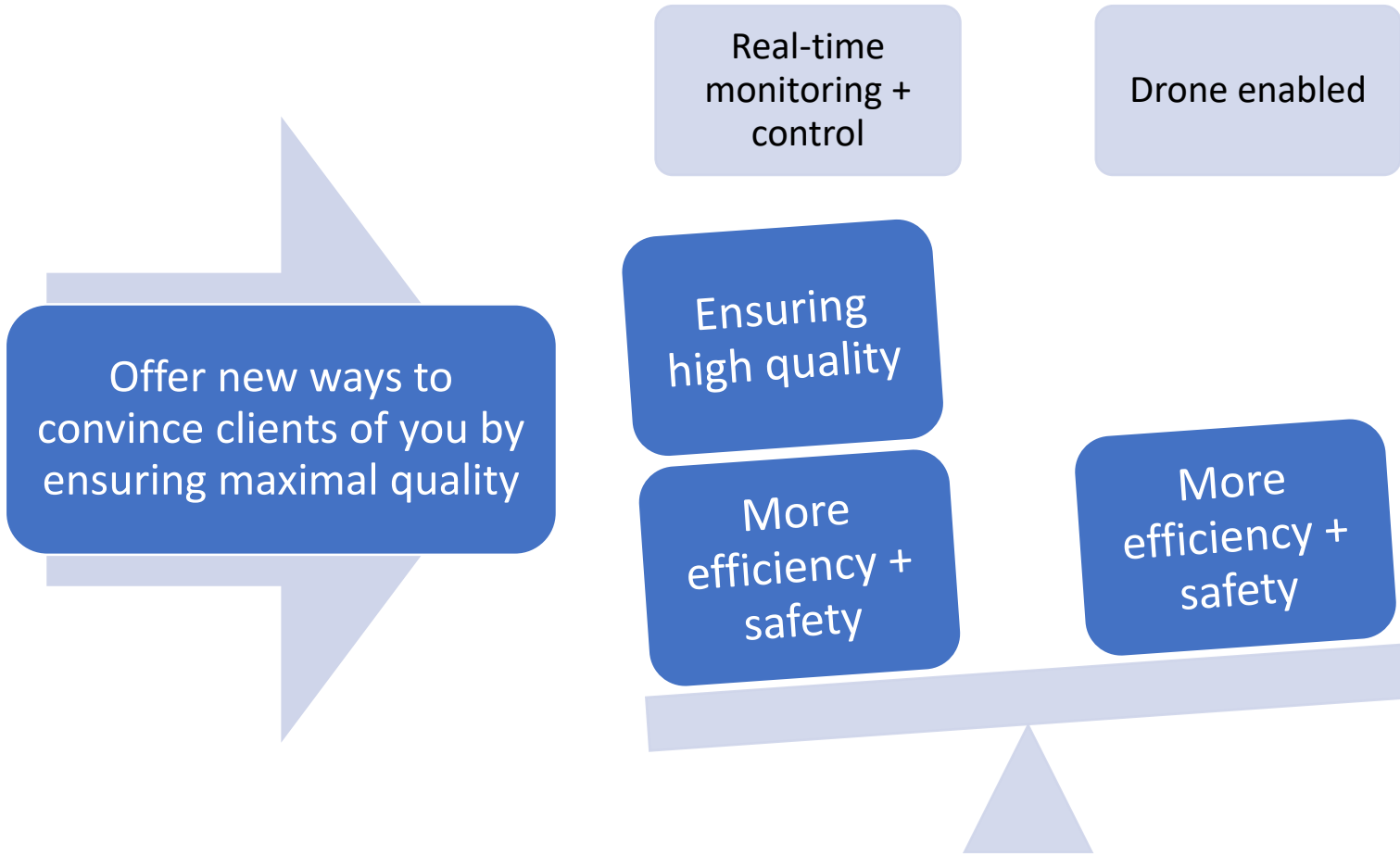
	Cultural fit	Sustainable growth	Expected benefits	Financial feasibility
3D printing	Yellow	Yellow	Yellow	Green
Robotic Assistance	Green	Green	Green	Green



# Decision Matrix - #2 On-site execution

	Cultural fit	Sustainable growth	Expected benefits	Financial feasibility
3D printing	Yellow	Yellow	Yellow	Green
Robotic Assistance	Green	Green	Yellow	Green

# Back Office



# Decision Matrix - #3 Onsite execution

	Cultural fit	Sustainable growth	Expected benefits	Financial feasibility
Real-time monitoring + control	Green	Green	Green	Green
Drone enabled	Green	Yellow	Green	Green

# Decision Matrix - #3 Onsite execution

	Cultural fit	Sustainable growth	Expected benefits	Financial feasibility
Real-time monitoring + control	Green	Green	Green	Green
Drone enabled	Green	Yellow	Green	Green

# Recommendations

Alignment of digital transformation and your core value

Robotical support

AI and engineer collaboration

Real time solutions

# How to achieve digital growth?

#1

Digital  
collaboration

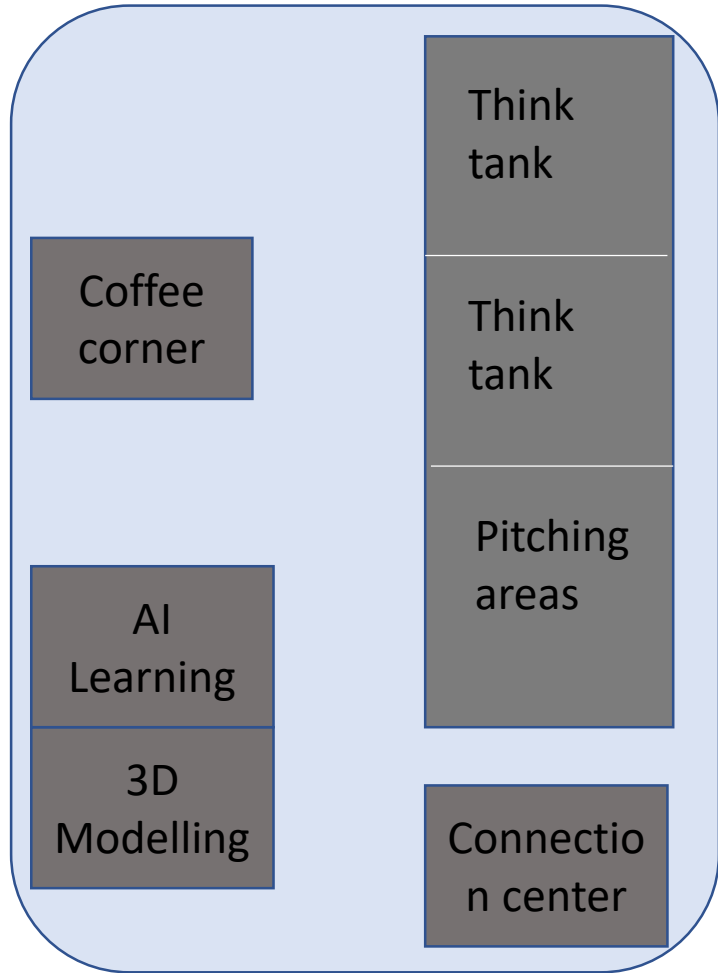
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On-site  
execution

#3

Back Office

# 1. Innovation Labs for engineers



- What to do?**
- 7 innovation Labs in North America (e.g. New York, Toronto), Europe and Asia
  - Engineers and digital features together
  - 3D modelling
  - Feedback possibilities
  - Bonus payment for good ideas

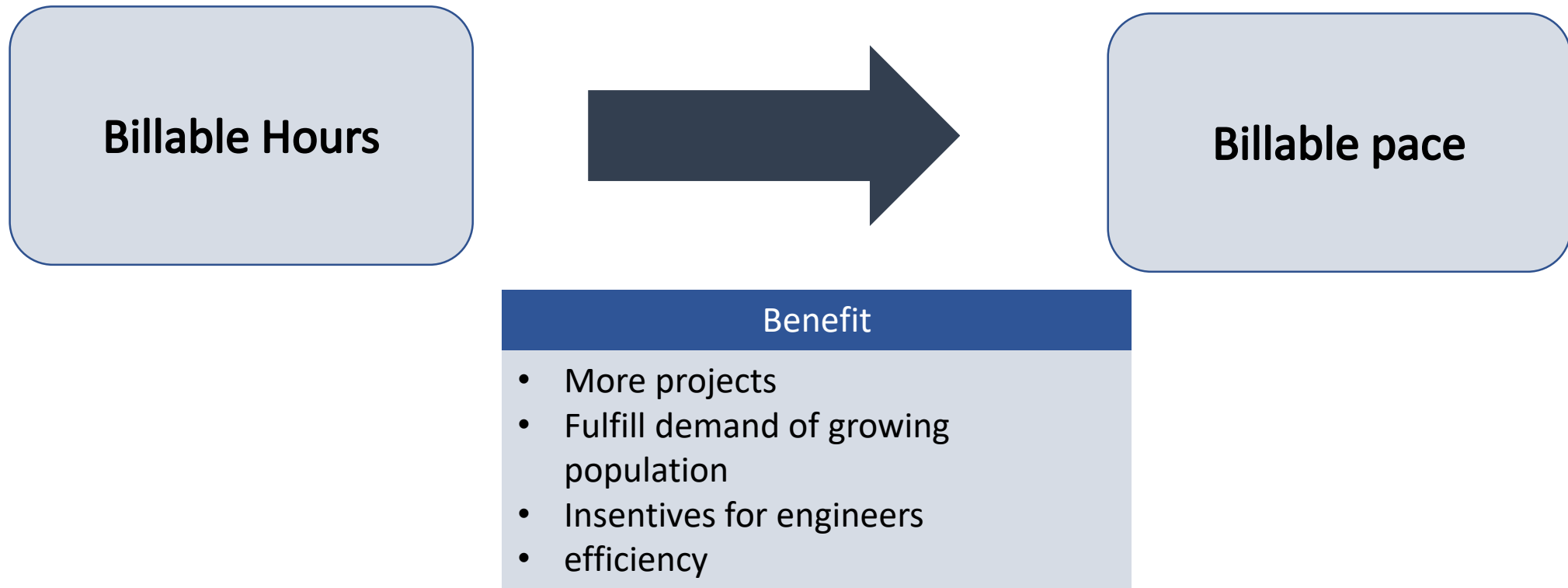


- Benefit**
- Faster project execution (5-10% up to 2020)
  - More creativity
  - AI can support with ideas from other labs

## Collaboration



# 1.1 Contract Management





# How to achieve digital growth?

#1

Digital  
collaboration

#2

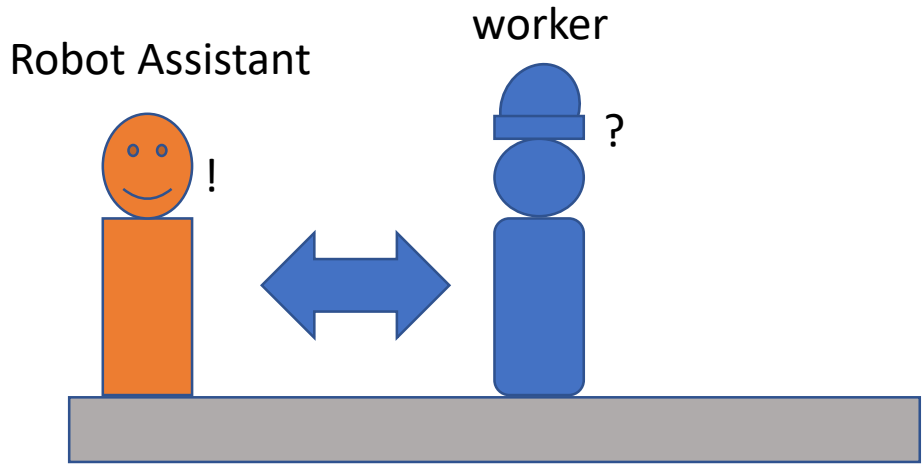
On-site  
execution

#3

Back Office

# Robotic Assistant on-site

Safety + Efficiency



**What to do?**

- 100 Robotic Assistant in 3 years
- Helps workers
  - Safety
  - Efficiency
- Material check
- Connection to IT-System

**Benefit**

- Efficiency increase by 20-25% up to 2020
- Lower safety issues
- Crash rate decrease by 10-15%

# How to achieve digital growth?

#1

Digital  
collaboration

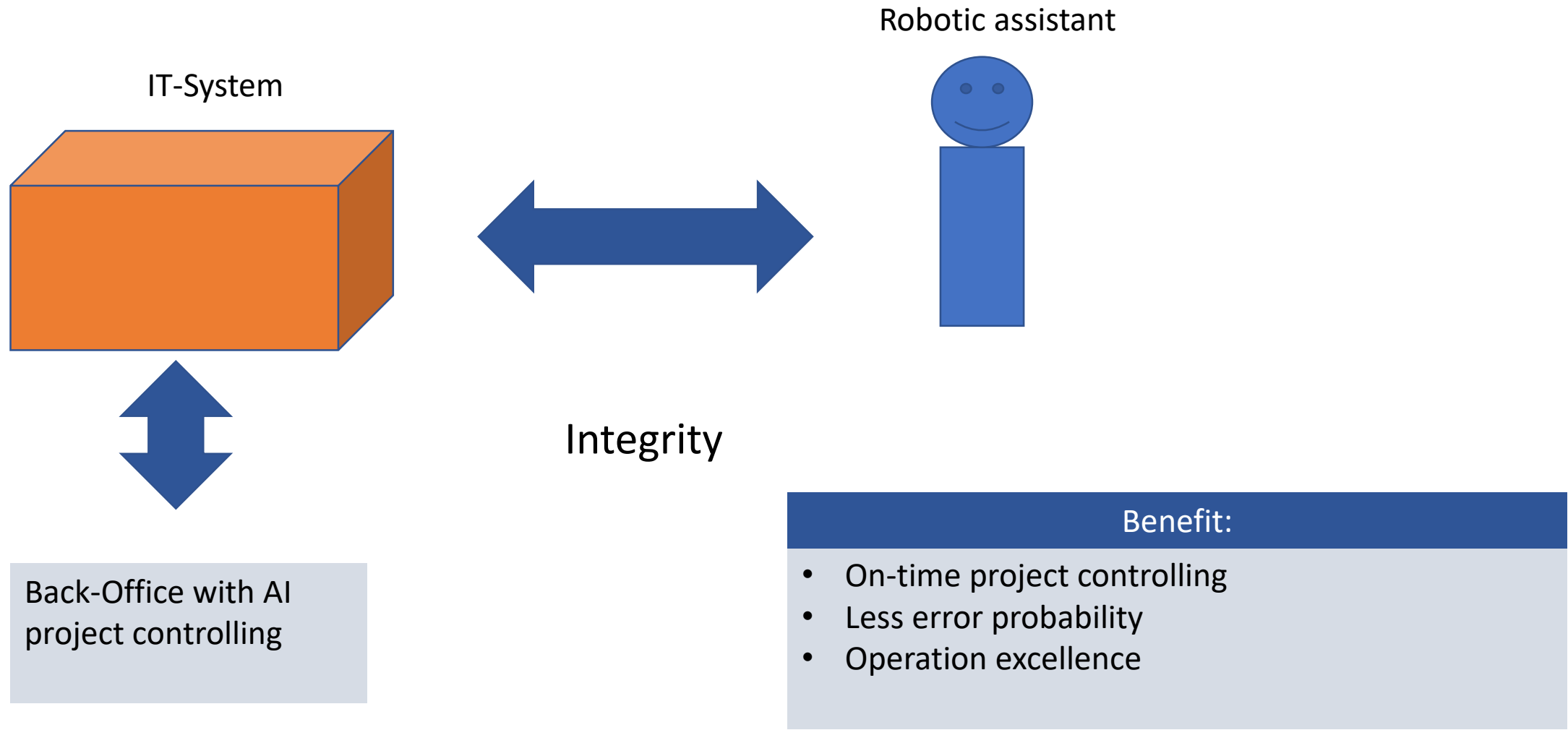
#2

On-site  
execution

#3

Back Office

# 3. Real-Time project Monitoring



# How to achieve digital growth?

#1

Digital  
collaboration

#2

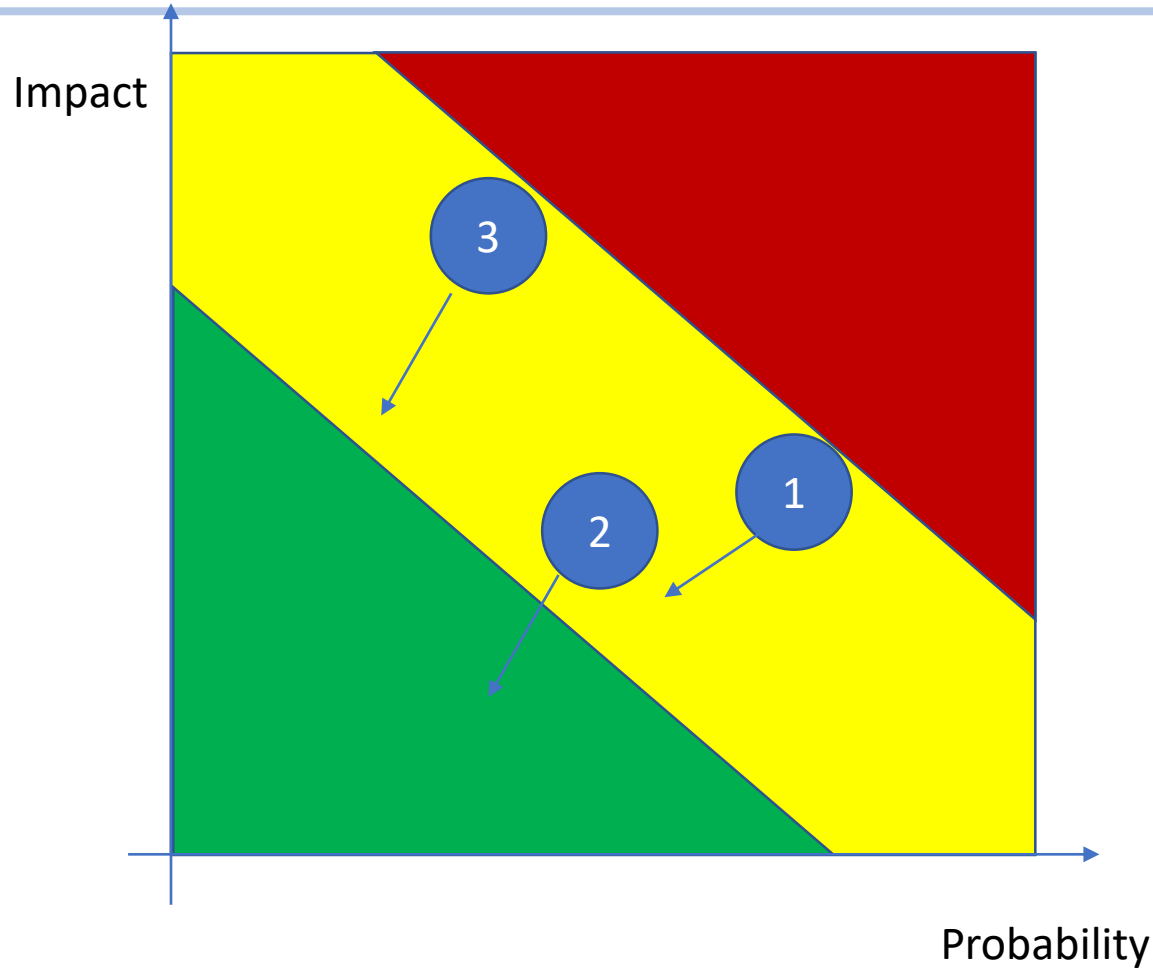
On-site  
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Back Office

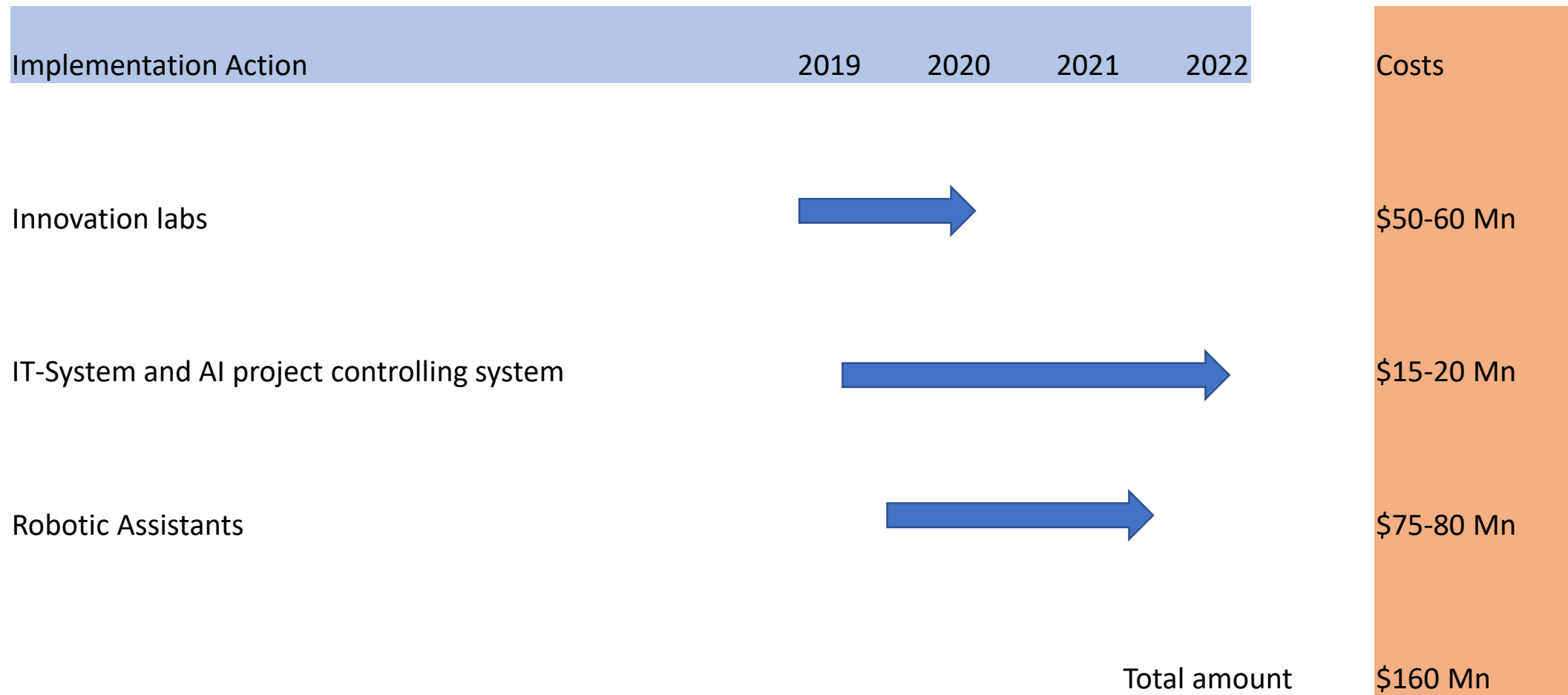
**INNOVATION**

# Risk & Mitigation



1. **Risk: Other company create innovations with disruptive potential**
  - Own labs secure innovative potential
2. **Risk: Engineers do not use the labs**
  - Activation of the engineers spirit in order to create innovations
3. **Risk: Potential Problems with the robots**
  - Long testing periods required and also a step by step implementation

# Roadmap



# Future Outlook

<b>2019</b>	Investment	-155
<b>2020</b>	Profit	50
<b>2021</b>	Profit	60
<b>2022</b>	Profit	80
<b>2023</b>	Profit	110
<b>NPV</b>		<b>\$68.43</b>
<b>IRR</b>		<b>28%</b>



# Why to invest in SNC – Lavalin?

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- Continued growth for value-added global engineering
- Digital transformation and your core values go hand in hand
- International leadership in premier engineering solutions
- Middle term: A-Rating, outlook: positive