

New business models 4.0

April 2020

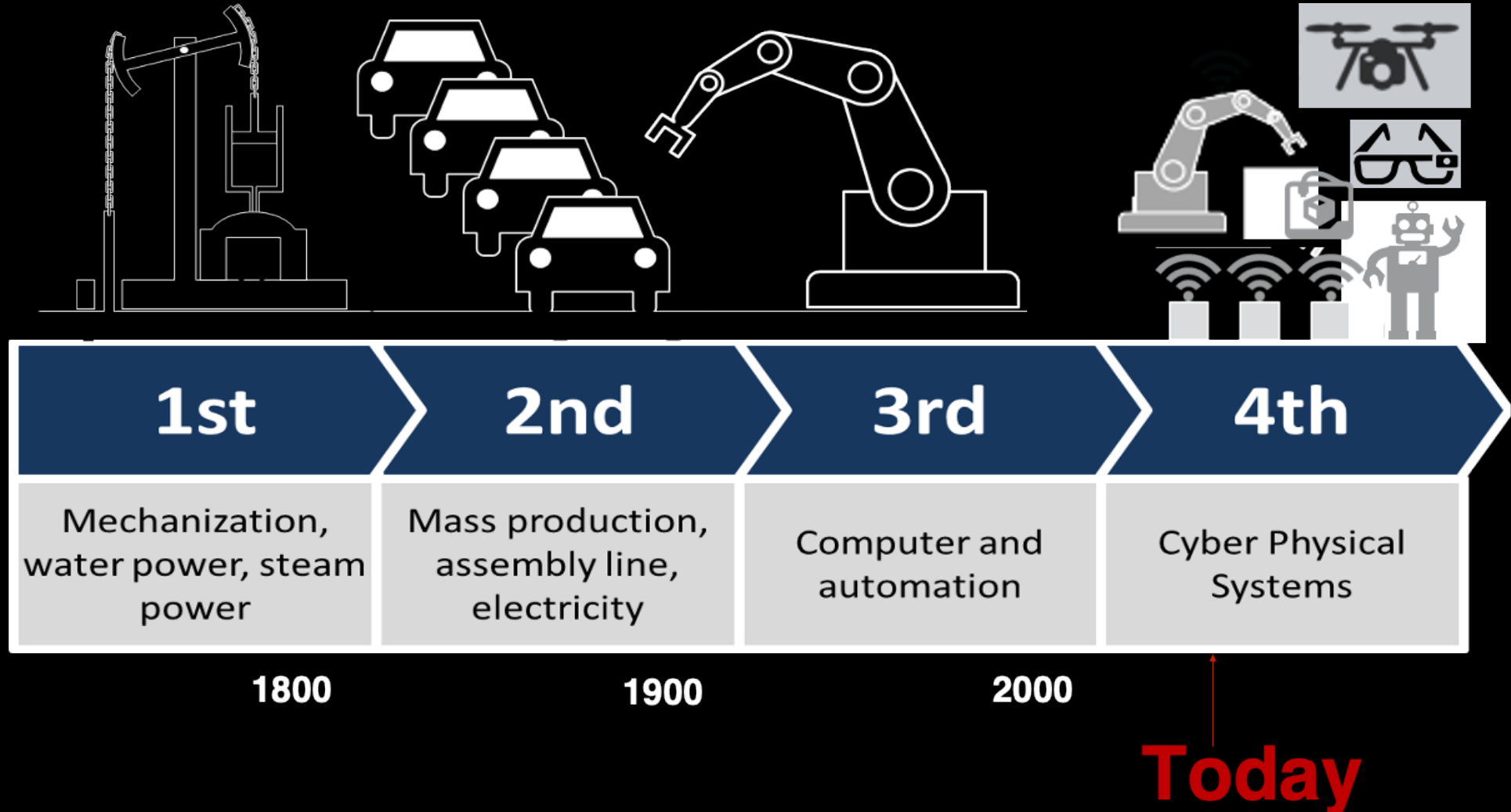
IBM

- Founded 1911 – 100+ years
- 1928 - Punch cards used for next 50 years
- 1952 – The inception of digital storage
- 1956 – AI before AI – IBM 704 playing chess
- 1969 – IBM helps land the Apollo missions
- 1970 – The magnetic stripe – 1973 – The bar code was invented by IBM
- ... 2011 – First AI to understand fluid language
- 2019 – Quantum computing system for Commercial use.
- 2019 - IBM top patent list for last 27 years – 9262 patents

IBM

- Dedication to client success
- Innovation that matters - for IBM and the world
- Trust and personal responsibility in all relationships

Industrial Revolutions



Key technologies

- Internet of Things
- AI – Artificial intelligence
- Cloud, Connectors (API,s) and Data

Skills and roles

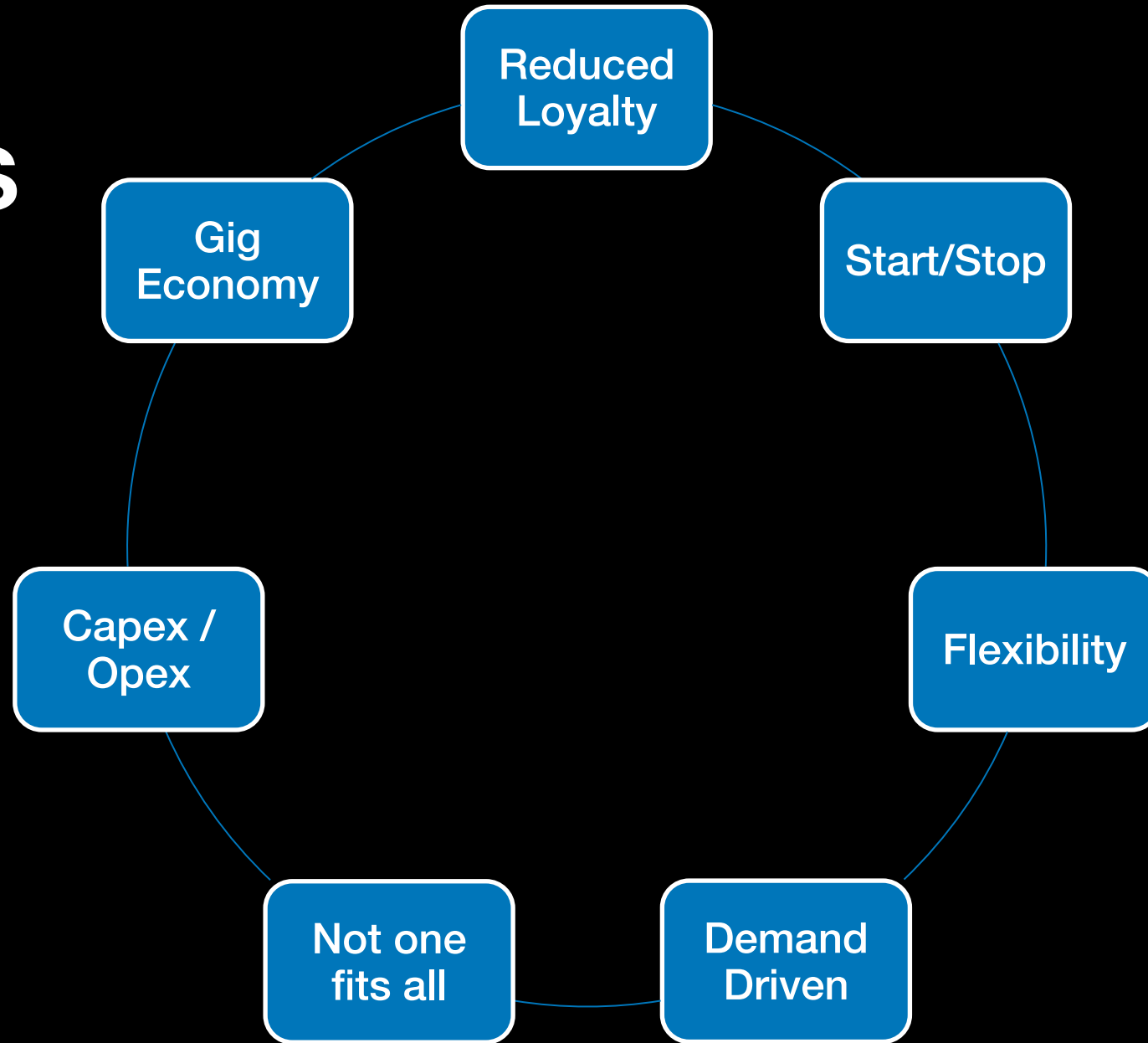
- Cognitive flexibility
- Negotiation
- Service orientation
- Coordinating
- People management
- Creativity
- Critical thinking

Technical possibilities vs ethical considerations

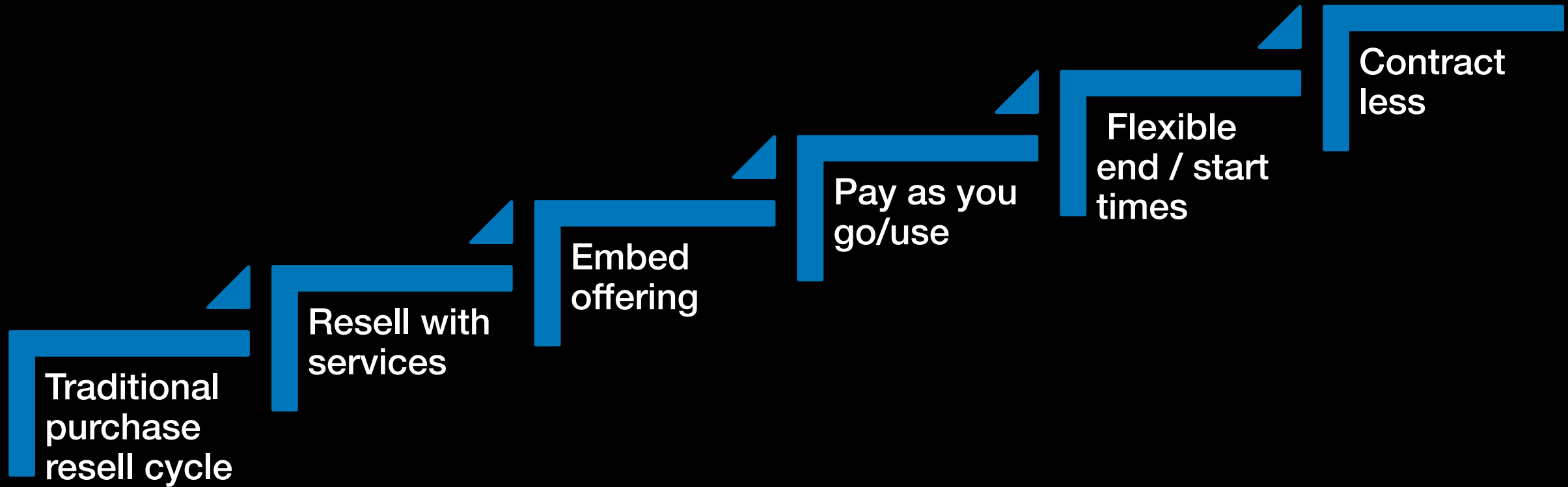
- The purpose of AI is to augment human intelligence
- Data and insights belong to their creator
- New technology, including AI systems, must be transparent and explainable.

[IBM Ethical & Trusted AI](#)

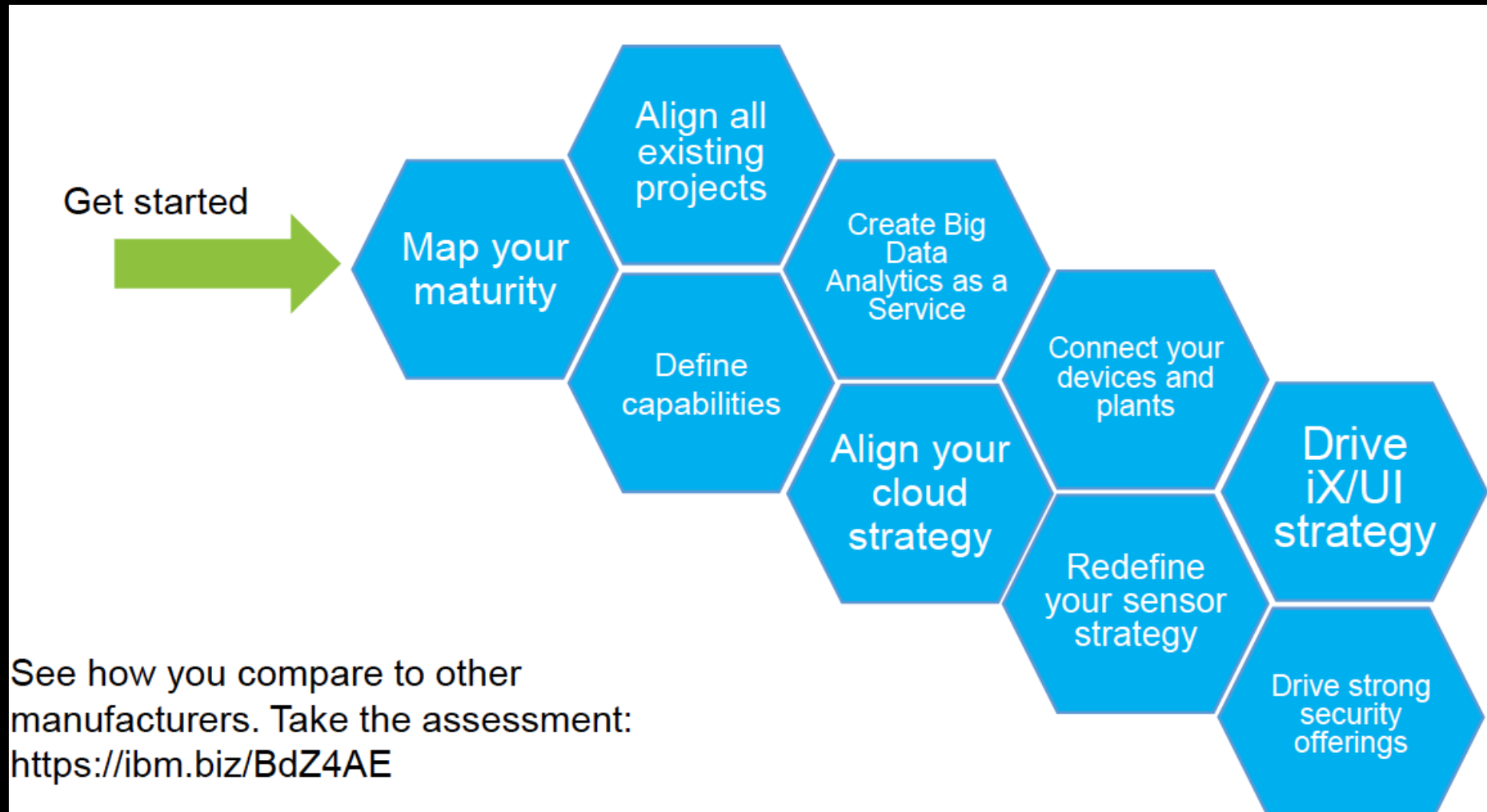
New models



Business model stairs



The Process to determine next steps



Benchmark yourself vs. other manufacturing example

<https://www.ibm.com/industries/manufacturing/industry-4.0-model-factory/quiz.html>

How do I start?

Customer engagement model

14.0 Customer engagement model

1. IT STARTS WITH OUTCOMES AND VALUE



What Are The:

- Industry dynamics
- Strategic intent
- Priority areas
 - Transformative business models
 - Operational processes
 - Customer value proposition
 - Differentiated competencies

2. I4.0 INSIGHTS DESIGN THINKING WORKSHOP



∞ RESTLESS REINVENTION
 ● SPONSORED USER
 ●● MULTI-DISCIPLINARY TEAMS

Define Opportunity Areas

- **Understand:** your company, competition, customers, industry cases
- **Explore:** potential visionary transformative ideas. Develop the experience brief.
- **Prototype:** render ideas into concept visualizations and as concrete experiences
- **Evaluate:** move forward with an idea or generate more solutions

3. PROOF OF CONCEPT (POC) / FEASIBILITY ASSESSMENT (If necessary)

Run PoC, Technical Feasibility & Business Viability

- Lab / prototyping expertise to validate technical design and performance
- Integrate emerging technologies
- Validate business feasibility & deployment model

4-6 WEEKS



6-26 WEEKS

1 YEAR +

5. EXPAND

Orchestrate the Scaling of IoT Solution Across Enterprise

- Adopt machine learning and APIs
- Align process
- Train users
- Provide support
- Lead enterprise change management

3. I4.0 STRATEGY

Transform in the Cognitive IoT world:

- Define I4.0 solution maturity (i.e. data monetization, competencies framework, enterprise readiness)
- Refresh business strategy and operating model
- Validate net benefits / business case
- Execute transformation roadmap

4. DEPLOY

Realize Outcomes Through:

- Use of semantic models, machine learning and cognitive capabilities
- Enablement of emerging technologies
- Validation of go-live processing based upon specified duration and dimensions

5. OPERATE AS-A-SERVICE

Speed to Value in Realizing Business Outcomes

- Build and run
- Ongoing support and analytics
- Pay-as-you-go operating expenses