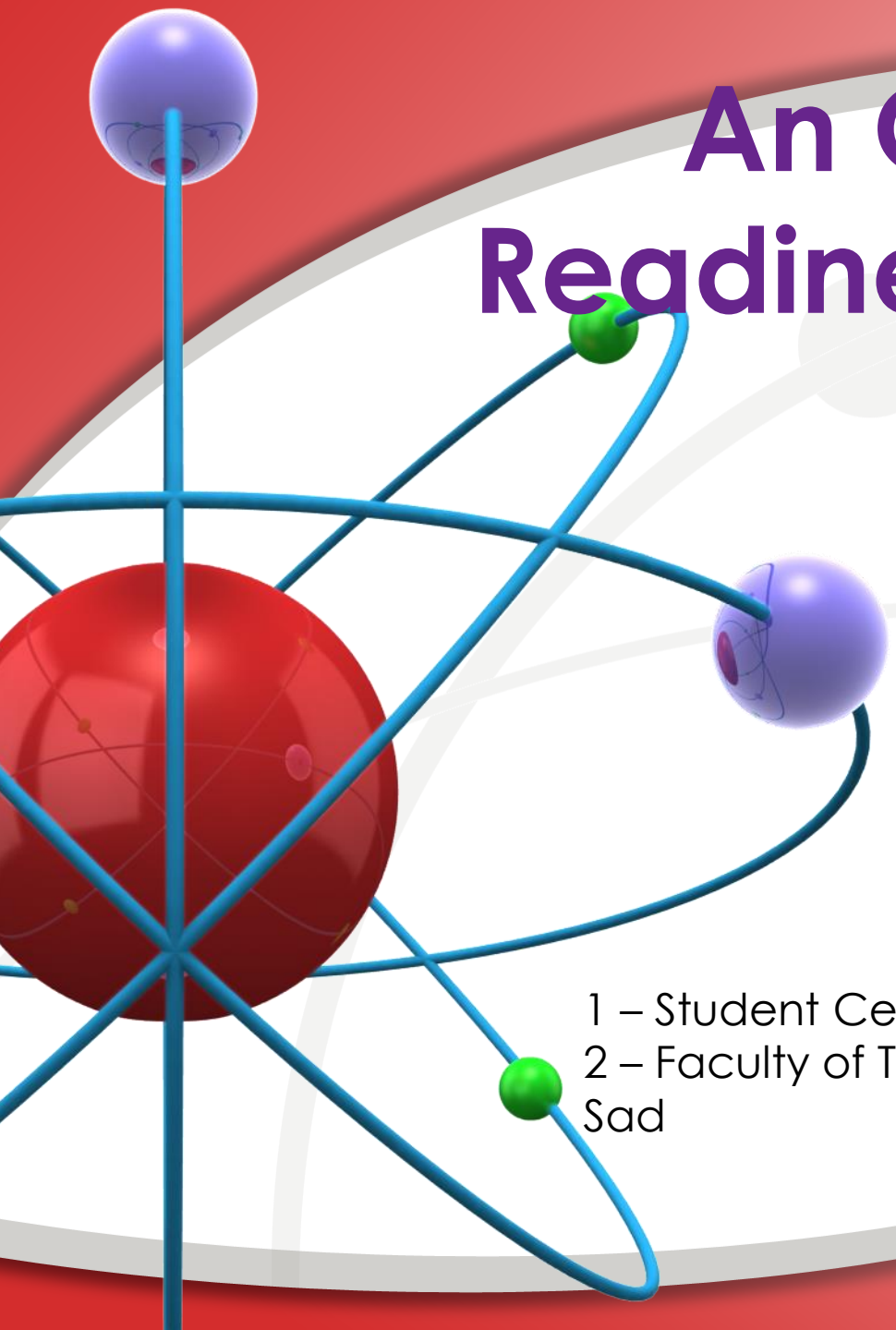

An Overview of IoT Readiness Assessment Methods

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IoT implementation obstacles

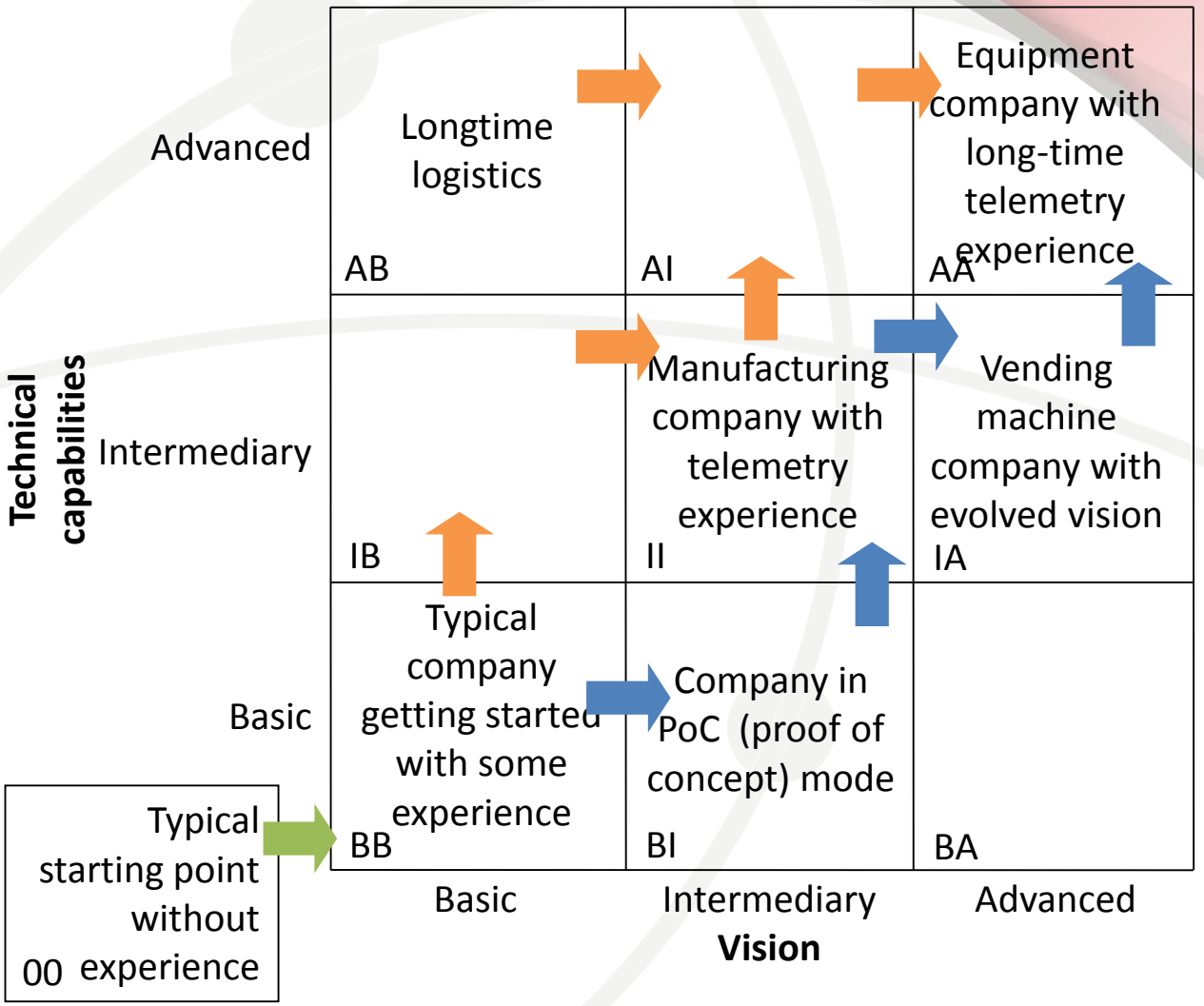
- In May, 2017 Cisco's survey: "close to 75% of IoT projects are failing"
- HCL Global Systems' "Global IoT Report 2017": 6 out of 10 surveyed are in early phases of exploration and defining IoT strategy
- IoT – disruptive, ubiquitous, new business models, technologically complex and advanced
- IoT implementation – missing standards and best practices concerning implementation

IoT Readiness Assessment

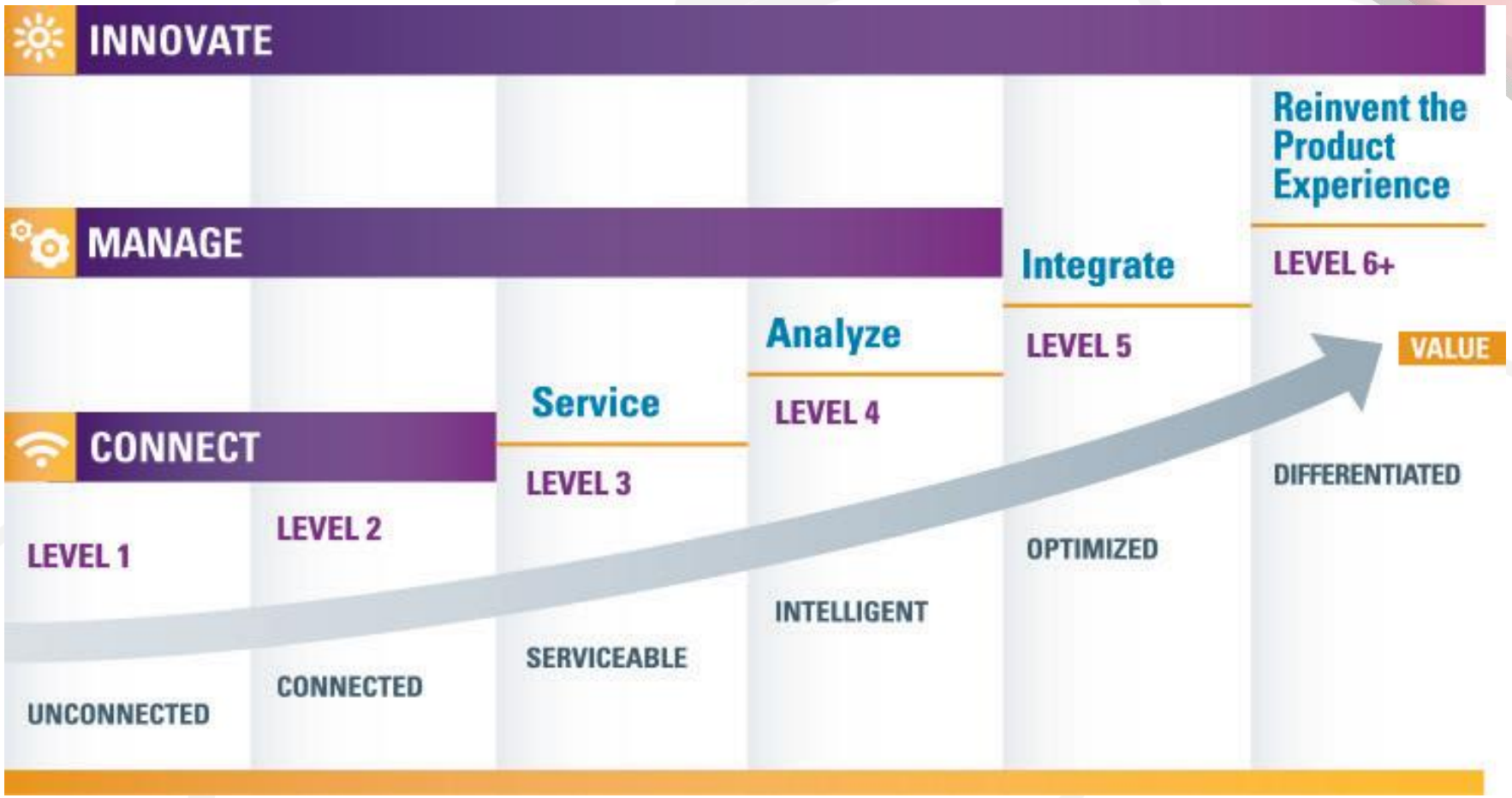
- Readiness assessment methods or Maturity models – structured way of introducing changes relating: *strategy – desired position, current position and gap between them.*
- IoT Readiness assessment is subject of interest for: *consulting companies* (TDWI, Gartner, McKinsey etc.), IoT *equipment manufacturing companies* (Intel, IBM, Cisco etc.), *professional committies and academic institutions*.
- Methodology – narrative literature review – due to small number of results that satisfied searched criterion and are well documented and public.
- Selected methods.

Gartner's IoT Maturity Assessment

- Identify Your IoT Readiness by Performing an IoT Maturity Assessment
- Refine the Vision Component Iteratively
- Assess Where You Need to Be
- Invest in Ideation to Further Develop the IoT Vision
- Produce an IoT Roadmap Based on Your Current IoT Maturity and Vision
- Ensure the IoT Strategy Work Is Part of a Digital Business Strategy Initiative



Axeda's Connected Product Maturity Model



Description, Requirements and Implementation are given for each level.

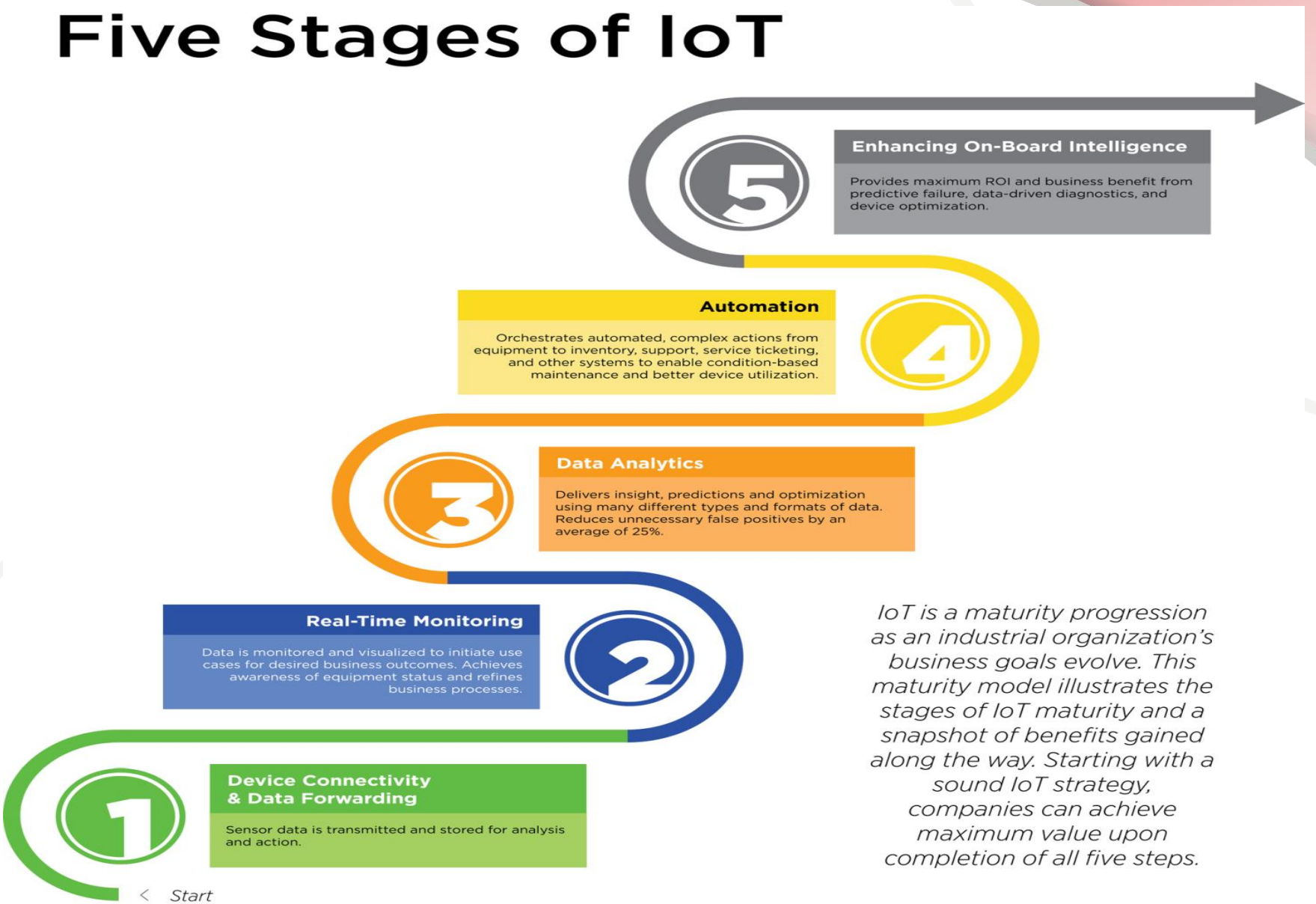
TDWI Readiness Model for IoT

Dimensions	Organizational Readiness	Data Readiness	Infrastructure Readiness	Analitycs Readiness	IT, Dev. & Op. Readiness
Metrics quantified by responses to the questionnaire	Business use cases	IoT data production	Architecture	Team expertise	Business process change
	Leadership	Data properties	IoT network technologies	Data integration	Team experience
	Strategy (business models, processes)	Data understanding	Data quality	Embeded and actionable	Team readiness
	Culture	Data manegement	Storage technologies	Delivery and deployment	
	Governance	Data sources	Security	Techniques	

At the end of the assessment, the Readiness Assessment Tool displays your scores per dimension (out of 20) and overall score (out of 100), plus the average dimensional and overall scores of all respondents. That way, you have a context for determining whether your organization is ahead of or behind the curve. You will also see the average for your industry and company size.

Interpretation of IoT Readiness Scores are given after assessment.

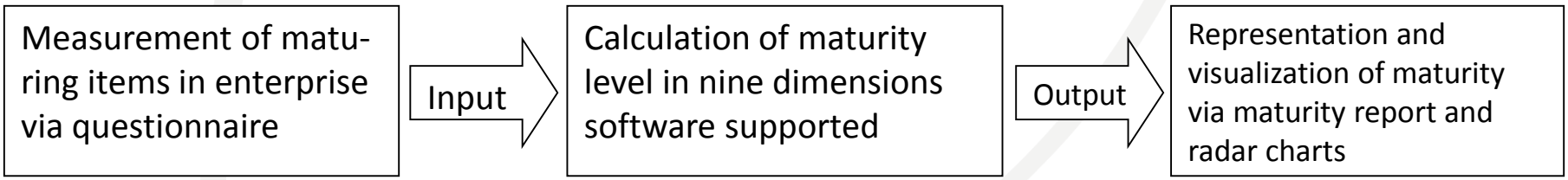
BSQUARE's Five Stages of IoT



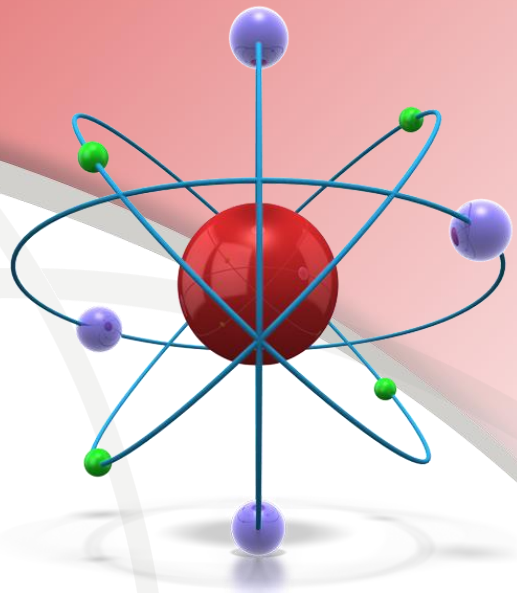
IoT is a maturity progression as an industrial organization's business goals evolve. This maturity model illustrates the stages of IoT maturity and a snapshot of benefits gained along the way. Starting with a sound IoT strategy, companies can achieve maximum value upon completion of all five steps.

Schumacher's Industry 4.0 Maturity Model

Dimension	Exemplary maturity item
Strategy	Implementation I4.0 roadmap, Available resources for realization, Adaption of business models, …
Leadership	Willingness of leaders, Management competences and methods, Existence of central coordination for I40, …
Customers	Utilization of customer data, Digitalization of sales/services, Costumer's Digital media competence,
Products	Individualization of products, Digitalization of products, Product integration into other systems, …
Operations	Decentralization of processes, Modelling and simulation, Interdisciplinary, interdepartmental collaboration, …
Culture	Knowledge sharing, Open-innovation and cross company collaboration, Value of ICT in company, …
People	ICT competences of employees, openness of employees to new technology, autonomy of employees, …
Governance	Labour regulations for I40, Suitability of technological standards, Protection of intellectual property, …
Technology	Existence of modern ICT, Utilization of mobile devices, Utilization of machine-to-machine communication,



Conclusion



- Significant obstacles in IoT project implementation
- IoT readiness assessment methods provide a structured IoT implementation approach
- The methods diversity confuses potential users
- Standard for an Architectural Framework for the Internet of Things conducted by Institute of Electrical and Electronics Engineers (IEEE) – expected in following years