

ITU KALEIDOSCOPE

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TOWARD A TYPOLOGY OF “GOING DIGITAL”

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Session 1:

The path towards digital transformation

Paper S1.1



A microscopic image of a virus particle, likely a coronavirus, showing its characteristic spherical shape and surface spikes. The image is rendered in shades of teal and cyan against a dark background. A semi-transparent teal rounded rectangle is overlaid on the center of the image, containing white text.

When you use **digital transformation** interchangeably with **digitalization** to describe various strategic and organizing activities, it's like you treat a **pandemic** as an **epidemic**.

Pressing Issues of Digital Transformation

Time and Money Investment

- Through 2021, DT initiatives will take large traditional enterprises, on average **twice as long** and **cost twice** as much as anticipated (Gartner, 2019).
- DT spending will reach **\$2.3 trillion** by 2023 (IDC, 2020).

Success Rate <30%

Digitally savvy industry < 26%

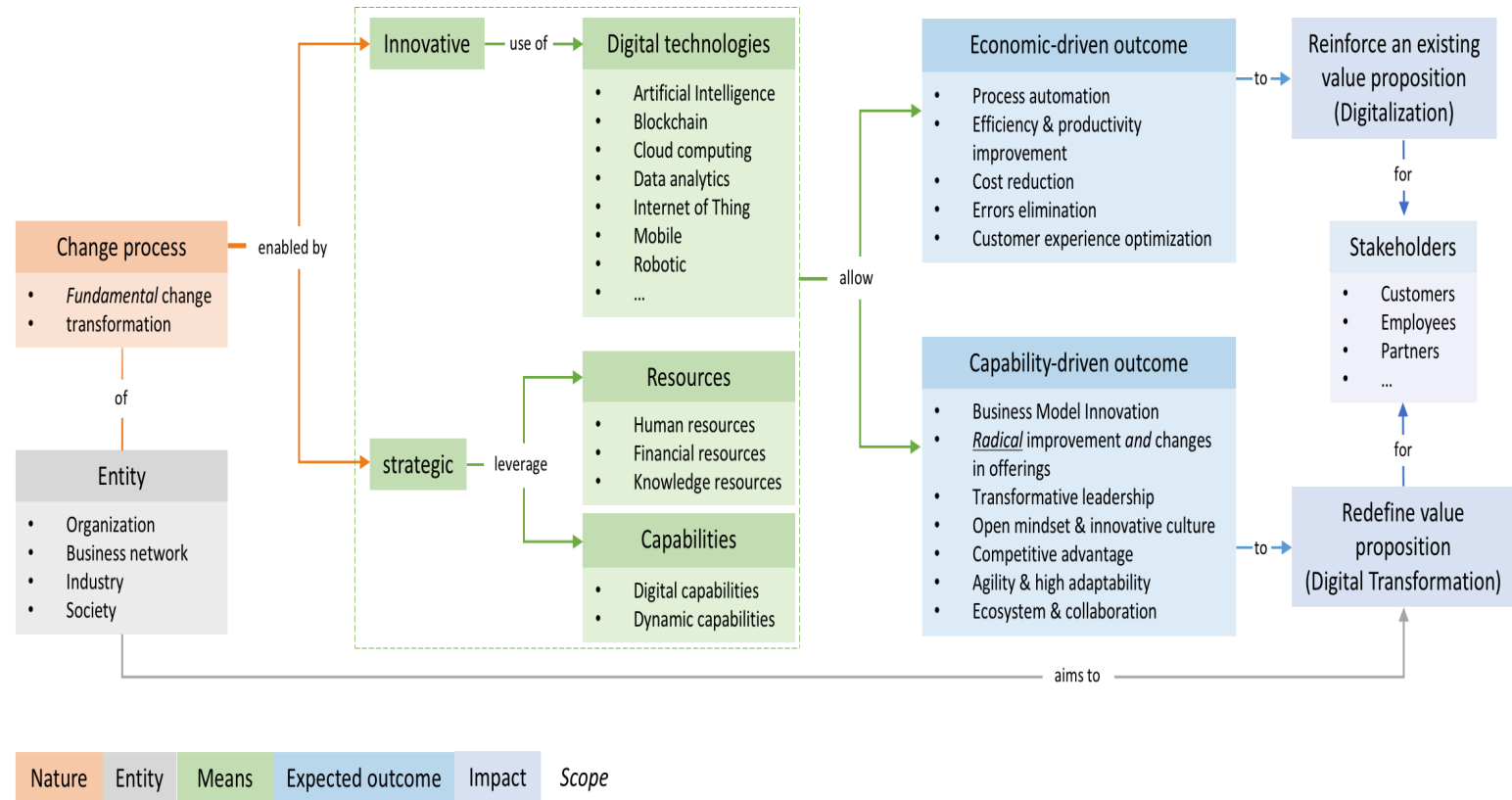
Traditional industry 4-11%

A Unified Definition of Digital Transformation (DT)

“A **fundamental change process**, enabled by the **innovative use of digital technologies** accompanied by the **strategic leverage of key resources and capabilities**, aiming to **radically improve an entity*** and **redefine its value proposition** for its stakeholders.”

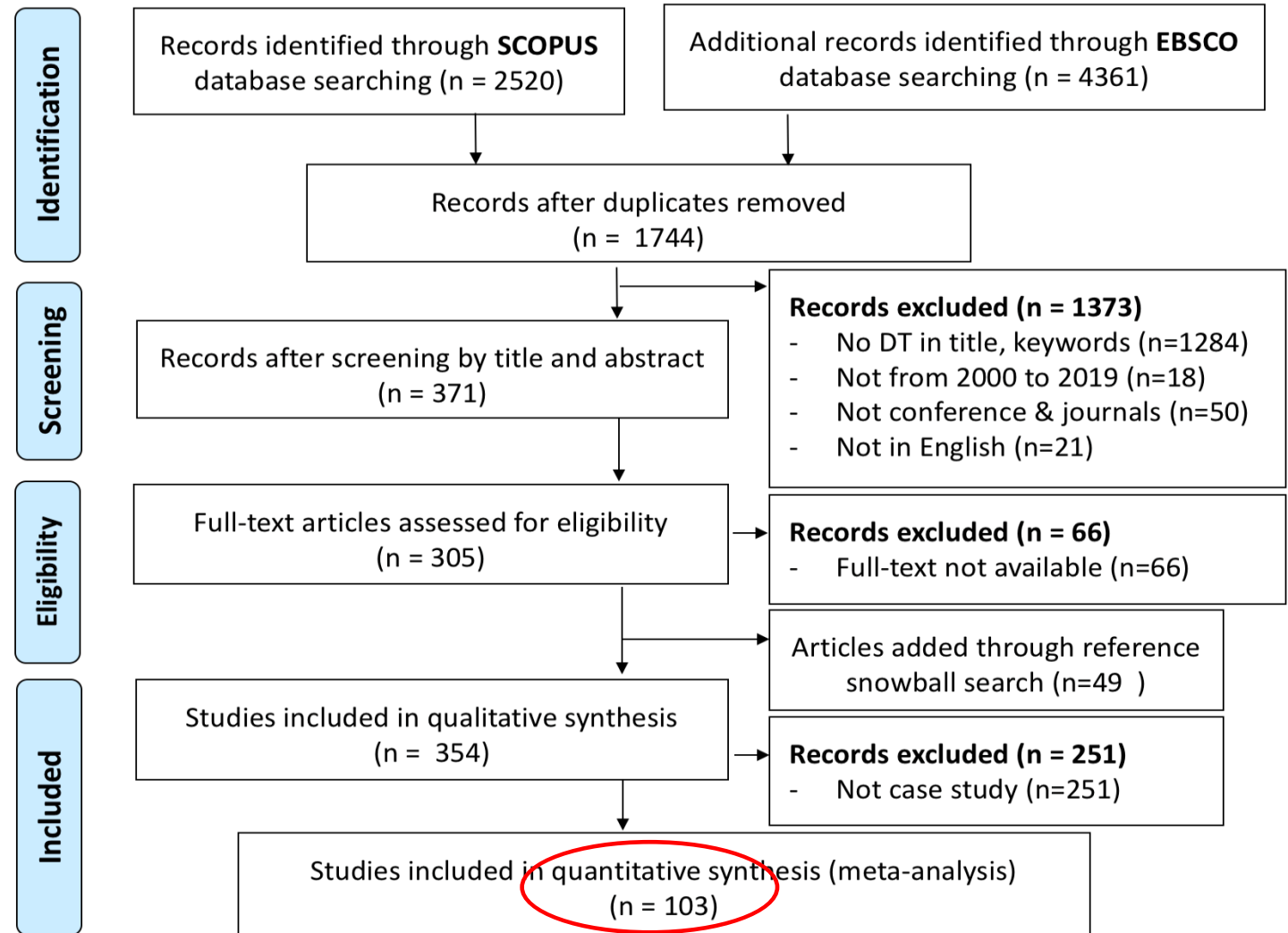
**An entity could be:*

an organization, a business network, an industry, or society



Systematic Review Process (PRISMA)

- 103 DT case studies for a cross-case analysis
- Journal articles and conference proceedings
- Qualitative/quantitative methods
- SCOPUS & EBSCO databases
- “Digital Transformation”

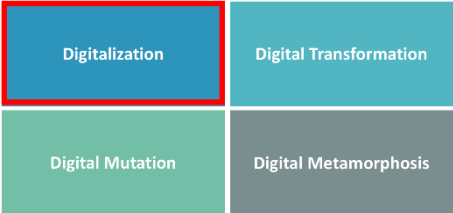


A Typology of “Going Digital”

		End Result of “Going Digital”	
		Realignment	Transformation
Sources of Change	External Reactive	Exogenous Realignment	Exogenous Transformation
	Internal Proactive	Endogenous Realignment	Endogenous Transformation

A Typology of “Going Digital”

		End Result of “Going Digital”	
		Realignment	Transformation
Sources of Change	Exogenous	Digitalization	Digital Transformation
	Endogenous	Digital Mutation	Digital Metamorphosis

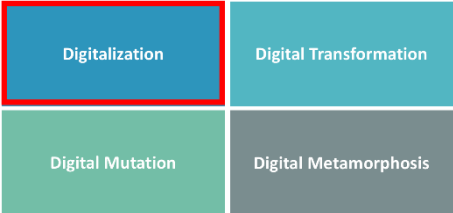


Digitalization

(Non-fundamental exogenous change)



- ✗ Doing things in fundamentally different ways
- ✗ Fundamentally different things
- ✓ Keeping pace with emergent digital technologies
- Reactive initiatives do not change the **organization's identity**
- ★ Economic-driven outcomes:
 - Digitize problematic processes in operations
 - Automation of inefficient processes
 - Optimize workflow efficiency & cost reduction & productivity



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Digitalization	Digital Transformation
Digital Mutation	Digital Metamorphosis

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MAERSK



thyssenkrupp

Digitalization	Digital Transformation
Digital Mutation	Digital Metamorphosis

Digital Mutation

(Non-fundamental endogenous change)



- Proactive initiatives & Internal motivation
- Alter operational activities in the organization while maintaining alignment with its **original identity**
- ✓ No immediate requirement to change
- ✓ Most common, least intense, less risky
- ✓ Internally visible only in some cases
- ★ Critical success factors:
 - Training employees with required skills and competencies

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Audi Business Innovation GmbH

Volvo Innovation Hub





Digital Metamorphosis

(Fundamental endogenous change)

- Proactive initiatives & Internal motivation
- ✓ First-mover or early adopter advantages
- ✓ Redefine strategic vision
- ★ Critical success factors:
 - To actively sense & seize the opportunities associated with digital technologies
 - To avoid problems rather than passively waiting for things to go wrong or decline before taking action

Digitalization

Digital Transformation

Digital Mutation

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Conversion



NETFLIX



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Conversion

Reorientation



NETFLIX





Digital Transformation

(Fundamental exogenous change)



- ✓ Redefine value proposition
- ✓ Organizational frame-breaking
- Reactive initiatives initiated **after** the improved performance is needed
- ★ Capability-driven outcomes:
 - Business model innovation
 - Produce dramatic changes in offerings
 - Achieve competitiveness
 - Radical performance

Digital Transformation

(Fundamental exogenous change)

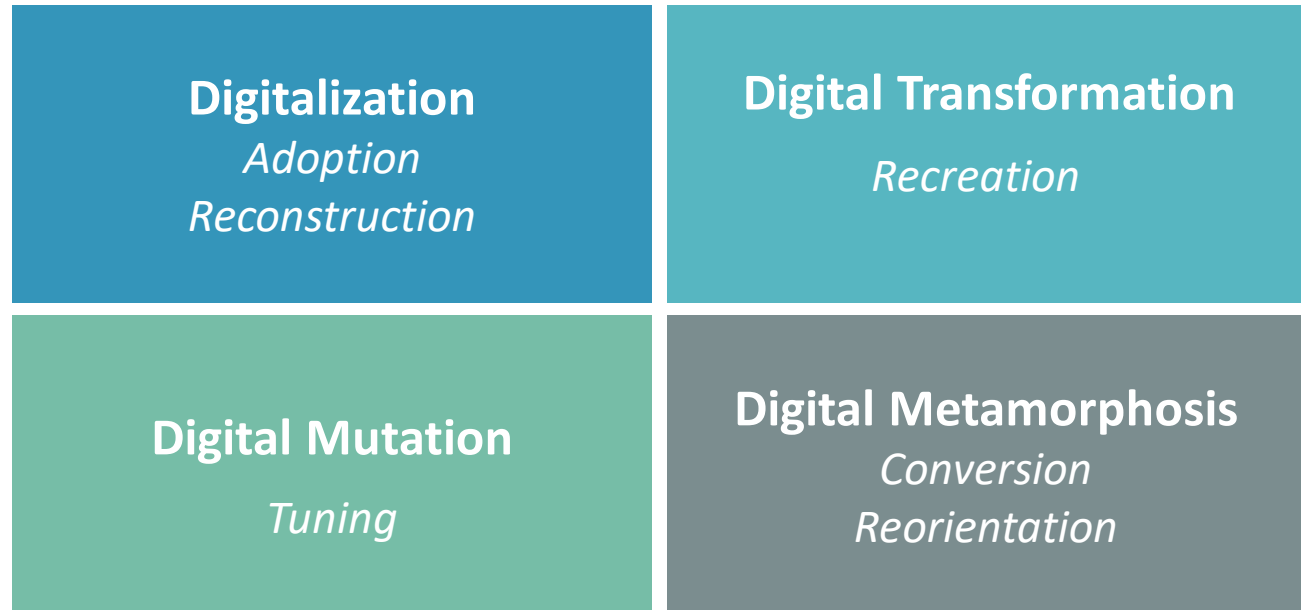
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Recreation



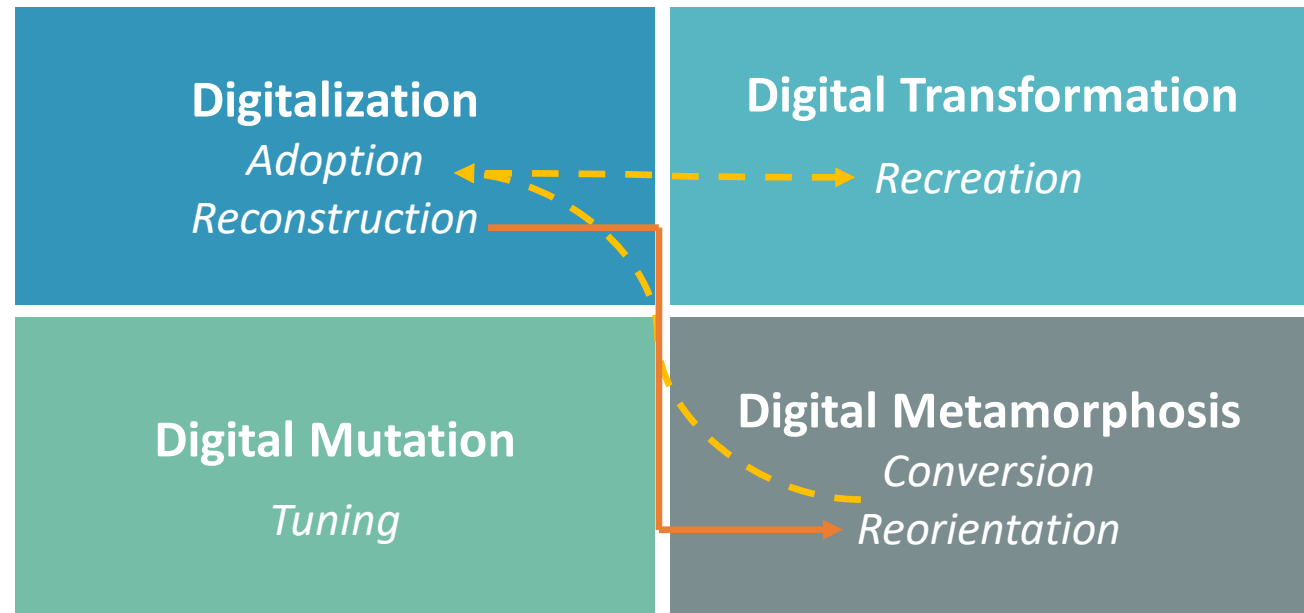
“Going Digital” Typology & Pathways



- P0: Reproduction
- P1: Adoption
- P2: Reconstruction
- P3: Tuning
- P4: Conversion
- P5: Reorientation
- P6: Recreation
- P7: Possible sequence



“Going Digital” Typology & Pathways

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 Two-direction possible sequence
 One-direction possible sequence

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Thank you!

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