

JKU

**JOHANNES KEPLER
UNIVERSITÄT LINZ**



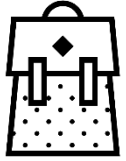
9. Pro²Future Partner Conference

Welcome and Introduction



Rektor Univ.-Prof. Dr. Stefan Koch

JKU Linz. Facts & Figures.



~ 25,000
students



~ 176 professors
at 140 institutes



~ 100
Academic degree
programs, 4 faculties and
4 schools



~ € 614 million
Budget for the
2022-2024 performance
agreement period



~ 4,000 employees

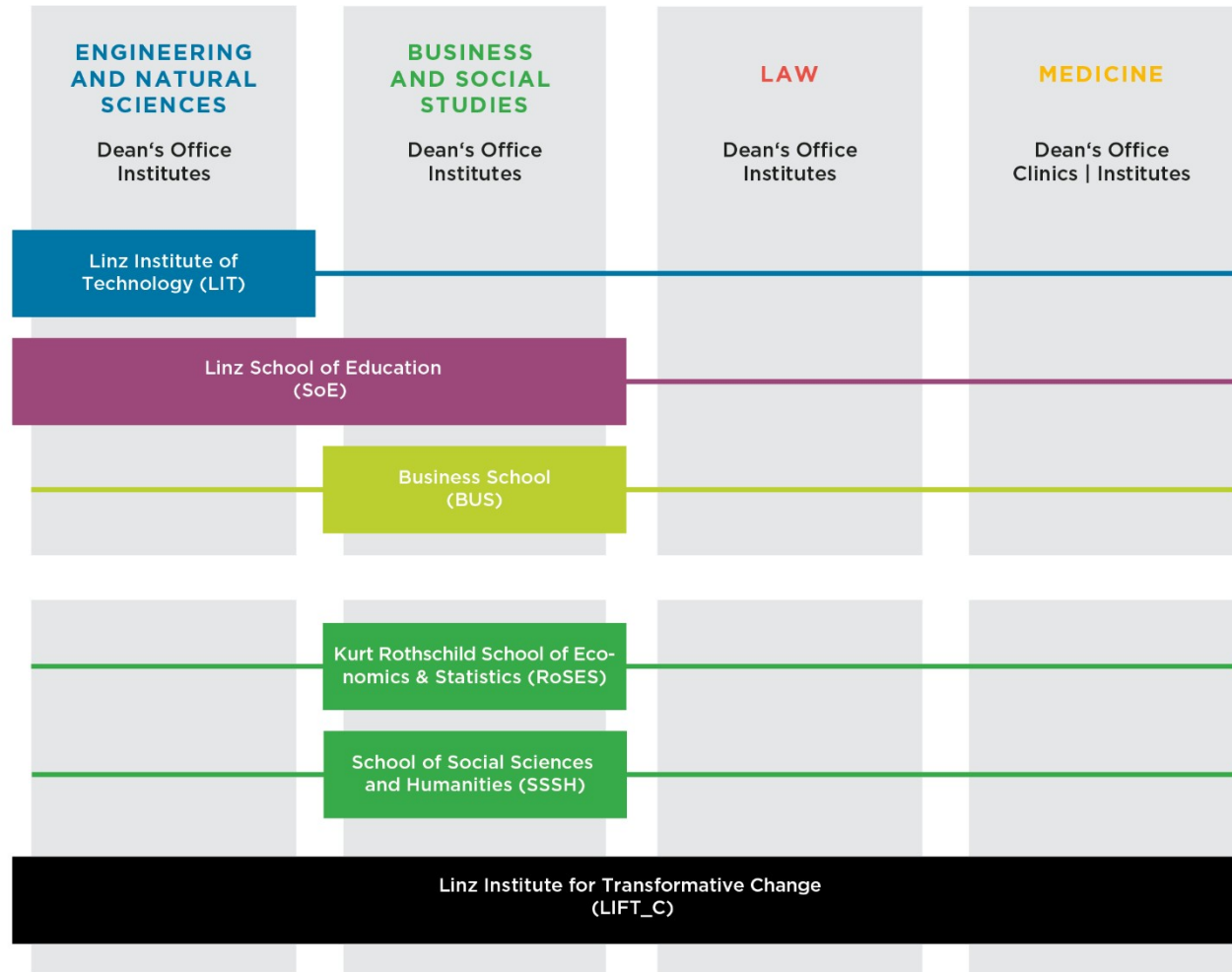


364,000m²
of space



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Organization.



Strategic Development

- University with a broad spectrum of disciplines with an inter- and transdisciplinary orientation to provide relevant contributions for transformation and resilience through research and teaching
- University-wide research focus areas of Digital Transformation and Sustainable Development
- Strategic projects (selection)
 - LIFT_C and LIT
 - House of Research and Innovation
 - Art x Science
 - Medical faculty and transformation
 - Didactics of higher education in the face of AI
 - Linz Academy of Design

DIGITAL TRANSFORMATION

- Researchers and practitioners have been using the term “digital transformation” to characterize phenomena related to the changes caused by increased use of digital technologies
- Exemplary definitions
 - A process that aims to improve an entity by triggering significant changes to its properties through combinations of information, computing, communication, and connectivity technologies (Vial, 2019)
 - Using digital technology in order to (re)define a value proposition and to change the identity of the firm (Wessel et al., 2021)
 - A change in how a firm employs digital technologies to develop a new digital business model that helps to create and appropriate more value for the firm (Verhoef et al., 2021)

DIGITAL TRANSFORMATION

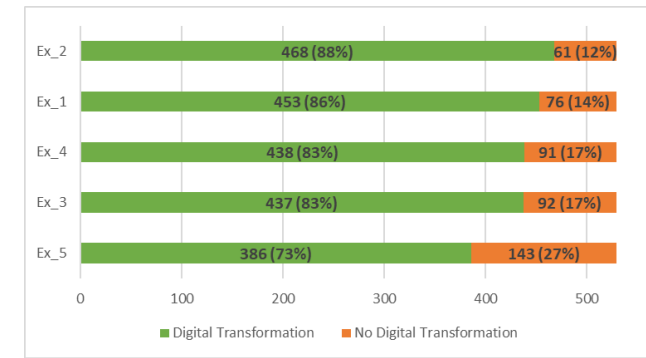
- How do managers actually use and perceive digital transformation?

Riedl, R., Stieninger, M., Muehlburger, M., Koch, S., & Hess, T. (to appear). What is digital transformation? A survey on the perceptions of decision-makers in business. *Information Systems and e-Business Management*.

- Empirical study with 529 business decision-makers: presentation of 16 definitions and 5 examples - yes / no decisions and text snippets that led to decision
- Results
 - Significant discrepancy between science and practice
 - Decision to classify concrete examples largely independent of the degree of organizational change caused by the use of digital technologies
 - Remarkable number consider a digitalization initiative as DT based on the mere occurrence of specific buzzwords related to digital technologies

DIGITAL TRANSFORMATION

- Ex_1 and Ex_2 reflect evolutionary IT-induced changes, terms from Ex_5 representing the extent of business scope redefinition led participants to decide that Ex_5 was *not* an example of DT
- Certain degree of innovativeness in the technologies no precondition for DT, mention of technology terms (e.g., automation, autonomous, laser, sensor, integrated database, CAD/CAM) frequently led participants to classify an example scenario as DT
- For definitions, part related to means was relevant to 34% of all assessments, part related to impact was relevant to only 15%



DIGITAL TRANSFORMATION STRATEGIES

- Scenarios for potential positioning of strategies within organizations in transformative situations like digital transformation

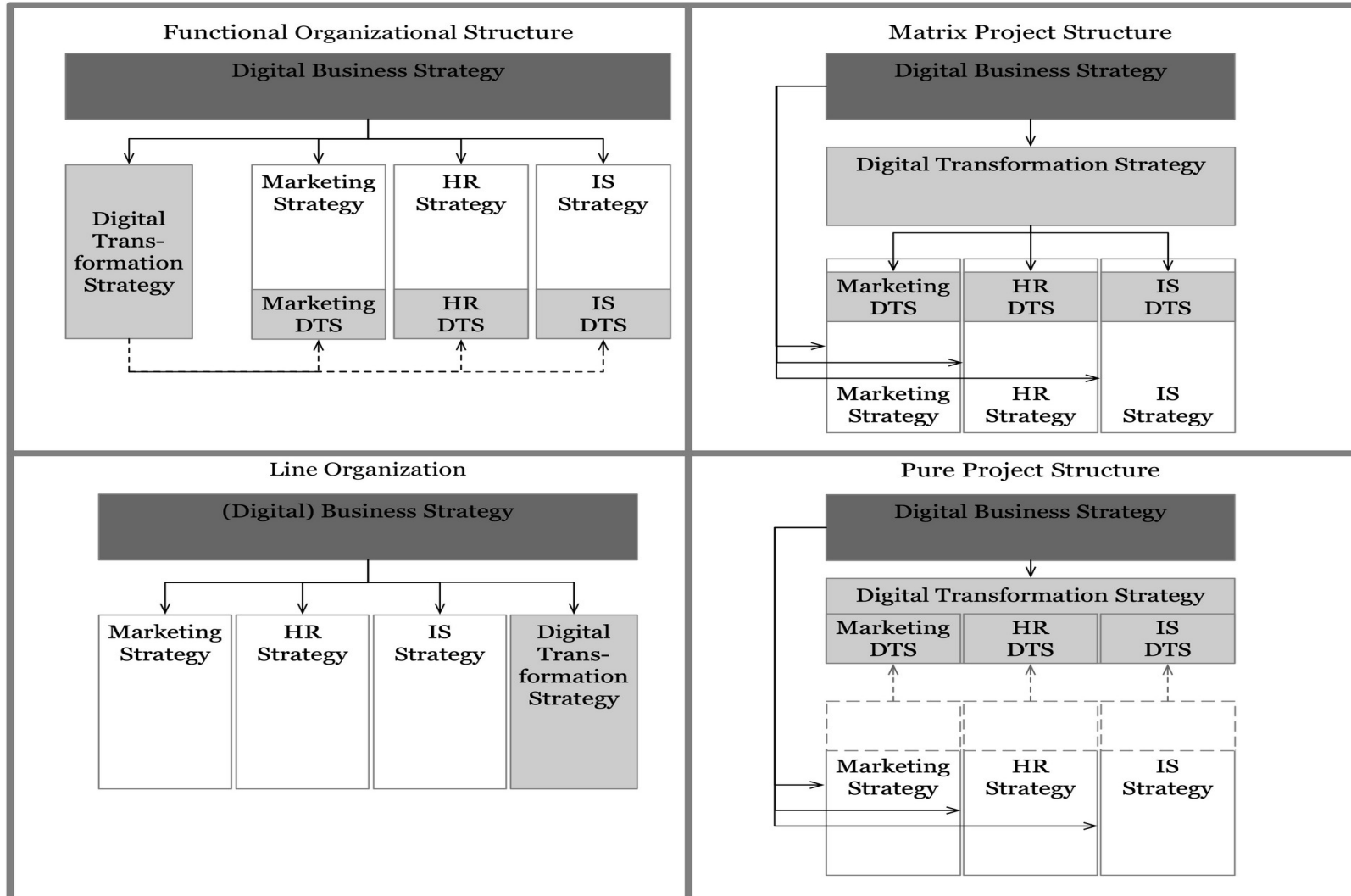
Krumay, B., Rueckel, D., & Koch, S. (2019). Model for Strategic Positioning in Transformative Situations. *Proceedings International Conference on Information Systems (ICIS)*, Munich, Germany.

- Digital Transformation Strategy as a central concept (Hess et al. 2016, Matt et al. 2015)
 - Cuts across other strategies
 - Four essential dimensions: (1) the use of technologies, (2) changes in value creation, (3) structural changes, and (4) financial aspects
- Digital Business Strategy
 - Linking IS / IT strategy with business strategy
 - Enhancement of company performance as goal

DIGITAL TRANSFORMATION STRATEGIES

- Context (company characteristics, core processes, information technology, agility) influences positioning of strategies in a company
- Positioning determines responsibilities (including budgeting) regarding the strategic process but also alignment of strategies
- Four distinct scenarios, having analogies with project structures (functional, matrix, line, pure)

STRATEGY POSITIONING SCENARIOS



CONCLUSION

- Understanding and enhancing digital transformation and sustainable development through Pro²Future in new period
 - Focusing on industry and production
 - Cognification of processes and products (esp. federated AI)
 - Human empowerment
- Research, cooperation and translation to real-world implementation to generate value
 - Prime example of role of universities
 - Communication to and with practice
 - Contribution to industry and society
 - Digital transformation strategies in companies as well as on a wider level

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