Contents

Paper presentations

IMPACT of AI

P1 - A semiotic perspective of AI in R&D Management

1. IMPACT of AI

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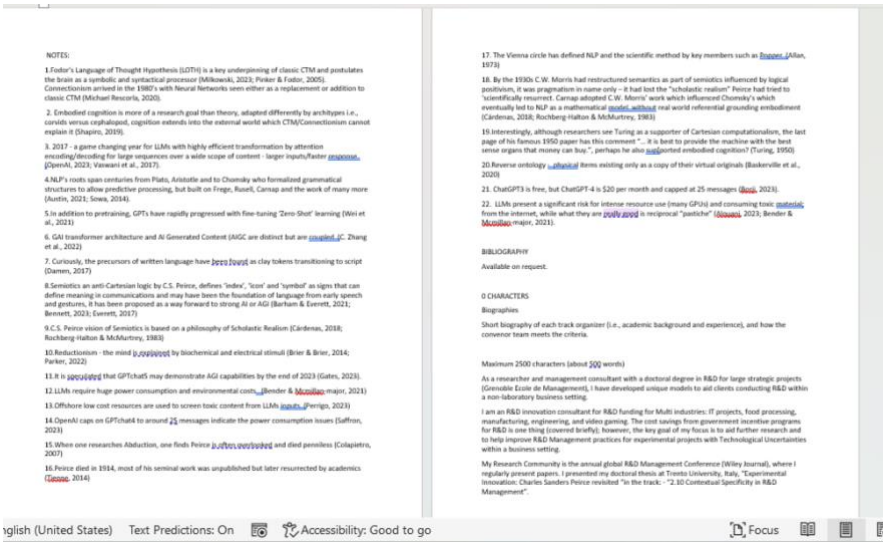
Track summary: Greenspan's coined expression "irrational exuberance" might also describe the rapid uptake of Generative AI (GenAI). This track takes a critical view of GenAI and its evolution from the philosophical roots of Natural Language Processing (NLP), which using Large Language Models (LLMs) only predict semantic probabilities. Because semantics is only one part of communications, GenAI cannot be aware of the interpreter's (human or otherwise) sensemaking models of the relationship between object and sign, as described by triadic Peircean semiotics - the study of signs. Despite trends of LLM products like Google NotebookLM to "ground" LLMs from user content, multiagent 'society of minds,' more guard-rails - 'Claude,' more efficient techniques than transformers - RETNET, semantic analysis remains GenAI's fundamental constraint.

This track invites papers which can put the evolution of NLP and GenAI in perspective, compared to Artificial General Intelligence (AGI) or strong AI, which strives for, but which has not yet realized a fully enabled semiotic strong AI. Each submission should focus on R&D management for a particular industrial or service sector, analyzing the sector's top ten or so R&D Chatbot and AI offerings. The literature review should link AI articles and studies to semiotics and NLP's evolution, and about the sector's AI implementations and challenges that ungrounded GenAI Chatbots and LLMs raise. Practically, for the selected AI offerings, the findings and recommendations sections should focus on how to apply human procedural, or other workarounds for what a "digital twin" representation can and cannot do within the current limits of GenAI LLMs.



P2 - Creativity and its Management driven by Generative Artificial Intelligence

1. IMPACT of AI

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Track summary: This track aims to explore the relationship between creativity, its management and the transformative power of generative artificial intelligence (GenAI). In recent years, computer science development led to a set of tools such as ChatGPT, GitHub Copilot, Midjourney, Bard, DeepMind and DALL-E, which are all examples of GenAI. They form "a class of machine learning technologies that can generate new content - such as text, images, music, or video – by analyzing patterns in existing data" (Brynjolfsson et al. 2023). Furthermore, in addition to the named tools, "there are also applications closer to R&D in science and design. Autodesk has, for many years, incorporated features into its design software that use goals and constraints set by users to generate and test physical designs. Some of the tests include strength testing and modelling of thermal flows" (Euchner 2023). We invite researchers to delve into the multifaceted intersection of GenAI, creativity and innovation, exploring not only the impact of AI on individual and organizational innovative behaviour, but also the intricate dynamics of motivation, and evolving work environments.

This track is connected to the special issue "Creativity and its Management driven by Generative Artificial Intelligence" of the journal *Creativity and Innovation Management*, guest-edited by the track chairs. Authors in the track are encouraged to submit their papers to this special issue.

Brynjolfsson, E., Li, D., Raymond, L. R. (2023). Generative AI at work. *NBER working paper series*, working paper 31161, http://www.nber.org/papers/w31161.

Euchner, J. (2023). Generative AI. *Research-Technology Management*, 66(3), 1-4.

P3 - Unveiling the Future of Creativity and Innovation Management in the era of Generative Artificial Intelligence

1. IMPACT of AI

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Track summary: We are witnessing a technological shift as Generative Artificial Intelligence (Gen-AI) reshapes the limits of creativity and innovation. This emerging technology, capable of creating new content, is gaining momentum due to its transformative effects on multiple sectors. Historically, certain creative human tasks were considered unautomatable. Yet, tools like ChatGPT challenge this belief. Gen-AI's reach spans various tasks, such as music production, writing assistance, personalized suggestions, and algorithmic programming. These advancements are revolutionizing global industries, introducing novel human-AI business models, new enterprises, and unique roles like prompt engineering. Companies are adapting by reimagining innovation approaches, developing new skills, and adopting these technologies to thrive. This changing scenario has drastically altered how industries innovate. The move towards an AI-centric business world necessitates a reevaluation of conventional models, signifying a major shift in innovation management. Now is the ideal moment to examine its influence on diverse innovation aspects. We invite submissions that delve into Gen-AI's extensive effects on creativity and innovation management, aiming to provide a holistic view of the changes it brings and its implications for future business and research, centered on three primary domains.

DIGITAL TRANSFORMATION of ORGANIZATIONS and INDUSTRIES

P4 - Cybersecurity in the tourism and hospitality industry. Critical issues and possible scenarios

2. DIGITAL TRANSFORMATION of ORGANIZATIONS and INDUSTRIES

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Track summary: The spread of digital innovations such as cloud integration, customer analytics, connected devices, online transactions, and digital payment technology reveals that, by growing their digital footprint, hospitality and tourism (H&T) organizations are increasingly exposed to cyber threats commensurate with cyber-security as a critical contemporary issue. Problems range from data breach incidents that can potentially harm the companies' reputation and raise questions about consumers' privacy rights with the organizations to severe Information Technology infrastructure breakdowns.
For a clearer understanding of the extent of the phenomenon, consider that the average total cost of a data breach in the hospitality industry from 2021 to 2022 was $2.94 million (Ponemon and IBM Security's 2022 global case study report).
Cybersecurity is not just about technology: it involves people and information, systems and processes, culture, and physical surroundings. The implication is that H&T organizations need to create a secure cyberspace for their employees, partners, suppliers, and customers and develop policies and practices that adequately manage threats or vulnerabilities.
Despite the significant concern about cyber-attacks in the H&T industry and the number of cybersecurity issues arising in both public and private organizations, there are surprisingly few studies addressing information security in the H&T management literature.
The scope of the Track is to advance the research of cybersecurity in the H&T industry creating a fertile arena for the theoretical advancement helpful to enhance academic understanding of this issue as well as for supporting stakeholders operating in this sector with new and helpful knowledge.

P5 - Digital Innovation in Disruptive Times: Exploring Strategies across Teams, Technology, Firms, and Industry levels

2. DIGITAL TRANSFORMATION of ORGANIZATIONS and INDUSTRIES

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Track summary: In the fast-paced technological era, emerging digital technologies both challenge and offer new opportunities to established firms. To harness these opportunities and navigate challenges, many firms undergo "digital transformation", adapting in terms of technology, market dynamics, and organizational innovation. Yet, managing digital innovations remains complex for these firms. This sub-track invites researchers to explore digital innovation strategies within R&D departments, across firms, and industries.

We predominantly encourage empirical and methodological studies, ranging from micro-level explorations of individual or group dynamics influencing digital innovation to macro analyses centered on organizations, networks, or entire industries. Contributions are particularly sought on the following themes but are not limited to:

1. What capabilities and strategies are being employed by organizations to navigate the challenges and opportunities of digital innovation?
2. How do methods utilized in digital innovation differ from or align with those used in traditional innovation activities?
3. How do existing technological, organizational, and marketing paths enable or hinder digital innovations?
4. Which areas or types of digital innovations are being prioritized by organizations as they undergo digital transformation?
5. What selection criteria, decision-making processes, and operational frameworks are managers and firms deploying for their digital innovations?
6. Through what methodologies and metrics are firms evaluating the performance and impact of their digital innovations?
7. How are ethical values and infrastructures shaping the trajectory of digital innovation advancements?
8. How are organizations leveraging digital innovations to address broader global challenges, particularly the transition to sustainability?

P6 - Digitalization, innovation and sustainability: the triple helix of the Industrial Revolution (IR4.0)

2. DIGITAL TRANSFORMATION of ORGANIZATIONS and INDUSTRIES

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Track summary: Nowadays humanity may face a major series of challenges related to the effects of the climate change, the scarcity of natural resources, the population growth, the industrialization, urbanization and globalization like never before. Sustainability has gained more attention in all the social spheres since the publication of the Sustainable Development Goals (SDGs) in 2015 for the adoption of the 2023 Agenda. In the industrial context, SDG-7 (Affordable and Clean Energy), SDG-12 (Responsible Consumption and Production), and SDG-13 (Urgent Action to Combat Climate Change and its Impacts) are of special interest exhibiting a strong interconnectedness. The digitalization of productions models together with innovation allow firms and industries transitioning to environmentally friendly paradigm which improves the production efficiency reducing wastes and environmental impacts, thus, transforming industrial activity into a more sustainable one. Although the interlink between innovation, sustainability and digitalization in the Industrial Revolution (IR4.0) context has been previously suggested there still exists a lack of studies about the influence of both digitalization and sustainability on innovation, as well as about the interaction between them for fostering innovation. Along this line, the following key topics should be addressed:

1. How do the relations between innovation, digitalization and sustainability can facilitate the transition to IR4.0?
2. Understanding the interaction between innovation, digitalization and sustainability in the context of SMEs and family firms
3. The role of green digitalization in the IR4.0
4. Digital technologies and sustainability as drivers of innovation: individual and combined effects
5. Digitalization and innovation for SDGs

P7 - Exploring the Intersection of Digital Transformation and Business Model Innovation: Insights and Opportunities

2. DIGITAL TRANSFORMATION of ORGANIZATIONS and INDUSTRIES

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Track summary: In a rapidly evolving business landscape, the intersection of Digital Transformation (DT) and Business Model Innovations (BMIs) has emerged as a key point for organizations aiming to remain competitive into an increasingly digital-driven world.

DT involves integrating digital technology into all aspects of a business, resulting in profound changes in operations and customer value creation. It leverages technologies like Artificial Intelligence (AI) Cloud Computing, Internet of Things (IoT), and Big Data Analytics to streamline processes, enhance customer experiences, and boost efficiency. DT also impacts customer experiences and value propositions, while also transforming firms' managerial and entrepreneurial approaches, thereby creating new revenue streams and boosting BMIs. Moreover, DT results into a wealth of data from automated processes, customer interactions and a widespread use of IoT, which can be leverage for business operation optimizations, leading to improved decision-making processes and increased efficiency. Moreover, data analytics has opened up new business opportunities, like targeted advertising and value creation strategies, at three different levels-internal, external and holistic- thereby prompting digital-driven BMIs in unexpected directions.

We invite submissions that delve into the link between DT and BMIs, to gain a better understanding of characteristics and common patterns related to the digital-enabled BMI strategies and architectures as well as to gain insights on how DT might directly or indirectly affect the interrelationship among BM components- in a more systemic perspective- and to unravel how DT may help or challenge specific phases of the BMI processes, impacting on different managerial and entrepreneurial approaches.

P8 - Holistic Digital Transformation

2. DIGITAL TRANSFORMATION of ORGANIZATIONS and INDUSTRIES

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Track summary: The progress in digitalization and the correlation between digitalization and value creation have driven digital transformation (DT). The interplay between information and communication technologies through DT has altered business processes and workflows. Thus, this transformation was described as a trend introducing significant alterations in "traditional ways of doing business by redefining processes and relationships" (Dehning, Richardson, & Zmud, 2003). Based on this approach, DT encompasses technological and software products that allow for advances in strategy and business models, processes, and customer contact (Vial, 2019). DT intersects with the discipline of Information Systems (IS) (Wessel, Baiyere, Ologeanu-Taddei, Cha, & Blegind Jensen, 2021).

Through a combination of smart products and services, DT allows for enhanced servitization. Developing digital platforms and facilities to capture real-time data optimizes processes and leads to new business models (Benlian, Hilkert, & Hess, 2015). Accordingly, corporate DT expectations are high due to efficiency, productivity, competition, and customer relations opportunities. DT alters workplace settings, improving employee functions and competencies. Thus, DT is the base for competitive advantages. It accelerates the growth of digital pioneers, creating more value and profit for stakeholders (Gnamm, Kalmbach, & Schertler, 2018).

However, the realization of these expectations is not easy. Corporations experience hindrances in grasping the potential of DT (Hess, Matt, Benlian, & Wiesböck, 2016). The DT process encounters several barriers (Hirsch-Kreinsen, 2016).

To come to a holistic view, we call for papers that, to some extent, intersect between digital investments, data security, digital competence, technological needs, supply chain integration, customer centrism, effective digital usage, and sustainability.

P9 - SkillsXInnovation: The Evolution of Skill in the Era of the Digital Transformation

2. DIGITAL TRANSFORMATION of ORGANIZATIONS and INDUSTRIES

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Track summary: This special track addresses the pivotal role of skills in the age of digital transformation. The call for contributions comes from a growing skills mismatch already identified and discussed in the previous decades, accentuated by the rise in the adoption of Generative AI and other digital technologies, e.g. Big Data, Cloud Computing, Additive Manufacturing or IoT. The focus of this session is to discuss the opportunities and challenges firms have to recruit employees and equip them with the right skills to leverage the benefits of using these technologies .

The track acknowledges the rich body of research on skills and innovation but recognizes a gap in the current literature's ability to capture the intricacies of skills management amid the digital transition. It calls for papers that delve into the evolution of skills in this transformative era.

Submissions can discuss topics such as the interaction between innovation and skills, probing the reshaping of essential skills, the disruption caused by digital technologies, the impact of skills shortages on innovation process, and the competencies crucial for future innovation landscapes. The track seeks insights into how digital skillsets influence firms' dynamic capabilities and their management at individual and ecosystem levels.

Welcoming multidisciplinary perspectives, the track emphasizes the need for contributions that merge academic rigor with practical applicability, helping stakeholders strike a balance between technology investments and the evolution of skills essential for harnessing digital potentials. Papers employing diverse research methodologies are encouraged, underscoring the track's commitment to comprehensive insights into this critical facet of transformation.

P10 - The limits of digital transformation.

2. DIGITAL TRANSFORMATION of ORGANIZATIONS and INDUSTRIES

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Track summary: The notion that digital technology, in the form of the automation of processes, robotics, planning, monitoring and decision-support will transform industry is widely accepted. Digital technology change is viewed as inevitable and one directional. The future, it is assumed, is inescapably digital.

In this track we aim to unpack and to critique this view. We are interested, not in what claimed miracles or efficiencies that digital technology might deliver, but instead in what its' limits might be. Thus, the track will focus on the instances in which digitalization fails to produce expected value, where it disappoints, fails outright and in which the analogue and the human re-assert themselves. There are other effects that are of interest. The very performativity of the promise of a 'digital future' has diverted a generation of workers away from industry; at the same time a new generation seeks to avoid the surveilled, rational and metricized embrace of corporate life – seeking instead the pleasures of craft and other 'traditional' work.

The industrial world we wish to engage with is a joyously messy one. A world in which old machines, humans, digital systems, robots and other automation entangle with one another in uneasy alliances. A place where robots themselves become unemployed, in which digital and analogue displays jostle for attention and in which humans prove a surprisingly obstinate and indispensable presence in the workplace.

INNOVATION for SUSTAINABILITY

P11 - A Capability-based Approach for Circular Business Model Innovation

5. INNOVATION for SUSTAINABILITY

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Track summary: Companies willing to embrace Circular Economy (CE) are called to innovate their business models coherently with CE principles. Except for a few very recent studies (see for example, Bocken et al., 2016, Fraccascia et al. 2021, Franzò et al. 2021) no theories and/or managerial guidelines are currently available to strategically design and practically implement circular business model innovation. Accordingly, scientific research requires more in-depth investigation about the CE strategies and the attendant managerial practices, which allow for maximizing the creation and capture of value in circular business model innovation.

This track calls for papers addressing this under-researched management issue by adopting a capability-based approach. We are especially interested to papers investigating the relationships between CE strategies and practices, as well as the (dynamic) capabilities useful for the R&D, design and implementation of circularity in different contexts and economic sectors. We are also interested to identify which skills (e.g., technical, managerial, behavioral, etc.) that companies should possess or endow themselves to pursue circular business model innovation. The proposal of innovative macro and micro theories concerning the effect of contextual environmental conditions and companies-related attributes on the effectiveness of the specific CE strategies and practices to create and capture value are more than welcome.

P12 - Digital Innovation and Environmental Sustainability: the intersection between Emerging Technologies and Open Innovation

5. INNOVATION for SUSTAINABILITY

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Track summary: In recent decades, technological innovation, especially in the realms of Artificial Intelligence (AI), Augmented Reality (AR), and Virtual Reality (VR), has profoundly impacted the business landscape and broader society. These technologies present unparalleled opportunities to advance environmental sustainability and achieve ESG objectives. However, many organizations, particularly SMEs, grapple with harnessing these technologies due to barriers such as skill deficits and comprehension challenges.

This track aims to delve into how organizations can overcome these hurdles through the adoption of Open Innovation (OI) models. Furthermore, it will critically examine the role of digital technologies and open innovation in either fostering or hindering the development and implementation of green transition. A particular emphasis will be placed on the pivotal role innovation intermediaries can play in facilitating this process, assisting firms in navigating the complexities of global networks, technological knowledge sharing, and knowledge-based service provision to champion environmental sustainability.

Objectives of the Track:

- Explore the role of emerging technologies in advancing environmental sustainability.
- Analyze the challenges and opportunities associated with harnessing these technologies, with a special focus on SMEs.
- Investigate the influence of Open Innovation models in promoting sustainable technological advancements.
- Discuss the crucial role of innovation intermediaries in bridging the gap between technology, policy, and sustainability.

P13 - Enabling innovation in the agri-food sector

5. INNOVATION for SUSTAINABILITY

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Track summary: Despite the increasingly urgent need of the agri-food industry to become more innovative, there are surprisingly few empirical studies addressing this challenging phenomenon. The objective of this track is to gather researchers in the field of innovation to discuss the specific challenges and opportunities of the food sector and encourage more research that can develop knowledge relevant to much needed transformation of this sector.

P14 - Impact of Environmental Targets on Corporate Innovation

5. INNOVATION for SUSTAINABILITY

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Track summary: This panel invites papers submissions exploring the relationship between sustainability reporting and firms' innovation strategies. Paper presentations and discussoins will explore how sustainability targets lead companies to push for innovations and strategy changes in an effort to meet their climate goals. See below for track description section for further explanation.

P15 - Innovation under resource constraints

5. INNOVATION for SUSTAINABILITY

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Track summary: This research track targets research that focus on innovation under resource constraints. The track aim to foster discussion and share insights on how to innovate effectively when resources are limited. It adopts a broad lens, acknowledging that resource constraints can manifest in various forms—financial, material, human capital—and impact diverse sectors and communities worldwide.

By bringing together researchers and practitioners from diverse contexts, the track seeks to uncover strategies, frameworks, and real-world examples that highlight resilience and ingenuity in the face of scarcity. Research that explore how limited resources can sometimes act as a catalyst for creativity and encouraging unconventional problem-solving approaches to address complex societal or grand challenges are particularly emphasized.

The track will scrutinize both the challenges and opportunities that arise when resource reduction and conservation is the driving force, aiming to identify transferable lessons and scalable solutions. Through case studies, and empirical research, presenters will shed light on innovative practices that have emerged in various fields such as healthcare, education, agriculture, and energy.

The ultimate goal is to cultivate a rich repository of knowledge and to foster a community committed to advancing innovation in the context of resource constraints, contributing valuable insights and methodologies to navigate these complex challenges. In doing so, the track aspires to inspire actionable change, encouraging stakeholders across sectors to embrace resource limitations as a unique driver for innovation.

P16 - Inter-organisational collaborations for a better and "circular" future

5. INNOVATION for SUSTAINABILITY

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Track summary: This track calls for papers investigating the relationship between inter-organisational collaborations and circular economy (CE) initiatives. The papers should address how inter-organisational collaborations (e.g., open innovation initiatives, ecosystems, platforms) can influence the implementation of CE initiatives and how CE initiatives can favour or hinder inter-organisational collaborations. Progress in implementing CE initiatives has been slow so far, with the global economy becoming less rather than more "circular". A relevant element influencing the progress toward a CE is the collaboration among the actors involved. Understanding the dynamics underlying the link between CE and inter-organisational collaboration is crucial. On the one hand, inter-organisational collaboration could be a cornerstone for implementing CE initiatives, potentially speeding up CE implementation. On the other hand, CE initiatives could trigger inter-organisational collaboration and open innovation projects, ultimately representing an opportunity to harness the related advantages, such as faster time-to-market, reduced development risks, and organisational learning. Furthermore, it would be important to understand how companies can move from bilateral collaborations to networks, and ultimately to platform and ecosystem models that promote circularity and are economically viable. Remarkably, despite the growing interest in both CE initiatives and inter-organisational collaboration by policymakers, academics and practitioners, the research about their relationship is still in its early stages. Therefore, this track invites papers investigating the link between inter-organisational collaborations and CE initiatives. The scope of this call is left open intentionally to promote comprehensive and diversified research tackling such an exciting stream of research.

P17 - Open Innovation and Sustainability: Opportunities and Challenges in the Digital Age

5. INNOVATION for SUSTAINABILITY

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Track summary: Open Innovation (OI) in the digital age can drive sustainable innovation and bring several benefits to the organizations (McGahan et al., 2020; Urbinati et al., 2023). OI practices can influence more sustainable business models and innovation processes, enabling firms to compete and stay up-to-date with the latest trends in technological innovations (Obradović et al., 2021). OI should be seen as imperative to achieve sustainable development and success in today's digital environment. As highlighted by Kimpimäki et al. (2022), despite the recent emergence of concepts that try to connect openness to sustainability, such as ‘sustainable open innovation’ (Bogers et al., 2020), ‘open sustainable innovation’ (Collevecchio et al., 2023) and ‘open social innovation’ (Chesbrough and Di Minin, 2014), a broader and more general understanding of this area of research has been overlooked so far. By leveraging OI in the digital age, organizations can address Grand Challenges and contribute to the greater good of society, while also ensuring their long-term success and competitiveness. Consequently this topic is of great interest for managers of private and public organizations, as well as for policymakers.

CHALLENGE-DRIVEN AND RESPONSIBLE INNOVATION

P18 - Advanced Technologies: Transforming Businesses and Society for Diverse Goals

7. CHALLENGE-DRIVEN AND RESPONSIBLE INNOVATION

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Track summary: This special track underscores the pivotal role of advanced technologies in shaping economic growth and societal evolution. Technologies such as artificial intelligence, machine learning, additive manufacturing, augmented and virtual reality, digital biology, nanotechnologies, robotics, and autonomous vehicles, among others, are continuously expanding and transforming the landscape (Haenlein & Kaplan, 2021).

These advancements have brought many competitive advantages for businesses (Arifin, 2019; Denning, 2022). This special track places a distinct focus on the societal dimension, delving into what enhances or diminishes societal well-being in the face of multifaceted challenges, from post-Covid-19 recovery to resource conservation and climate change. The track invites researchers to explore the profound impact of advanced technologies on economic, social, and environmental matters, investigate the influence of social issues on organizations' technology adoption decisions, and shed light on the methods and motivations behind the utilization of advanced technologies to address societal challenges.

Furthermore, this special track is part of a larger special issue, titled "NEW TECHNOLOGIES FOR BUSINESS AND SOCIETY: ACHIEVING MULTIPLE GOALS WITH MULTIPLE TYPES OF ORGANIZATIONS," in Business & Society, with a paper submission deadline of June 30, 2024, and guest editors Valentina Cucino, Giovanni Battista Dagnino, Giulio Ferrigno, Andreas Kaplan, and Paavo Ritala. For more details and specific themes, please refer to the full call for papers available here: https://journals.sagepub.com/pb-assets/PDF/BS%20Special%20issue_Exponential%20technologies%202151023-1697714909.pdf

P19 - Purpose-driven innovation: New Technologies, Strategies, and Processes to Create Impact

7. CHALLENGE-DRIVEN AND RESPONSIBLE INNOVATION

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Track summary: In an era marked by unprecedented technological advances and growing global challenges, companies are increasingly recognizing the importance of aligning innovation efforts with a meaningful and shared corporate purpose. This paper track aims to explore the intersection of purpose-driven innovation to drive positive impact for stakeholders, people and the planet. By investigating how corporate purpose influences the adoption of innovative strategies, the integration of cutting-edge technologies, and the development of transformative processes, this track seeks to provide valuable insights for companies striving to create sustainable value.

In particular, the evolving landscape of corporate purpose demands a profound understanding of its implications on strategic decision-making and innovation pursuits. This paper track endeavours to address critical research questions, such as:

- How does a clearly defined and internalized corporate purpose influence the prioritization and selection of **new strategies** within organizations that contribute for the common good?
- What are the underlying mechanisms through which purpose-driven companies identify, evaluate, and seamlessly integrate **new technologies** to effect purpose implementation?
- What are the **new transformational processes** that purpose-driven companies employ to drive innovation in alignment with their corporate purpose, and how do these processes contribute to creating sustainable value?

By providing actionable insights for businesses striving to integrate purpose into their innovation agenda, this paper track aims to shed light on the critical interplay between corporate purpose and its impact creation. Through rigorous research and practical case studies, this track aims to contribute to a more sustainable and socially responsible approach to corporate innovation.

SUSTAINABILITY TRANSITIONS

P20 - Delving into the nexus of digitalisation and circular economy in businesses: overlapping and implications

8. SUSTAINABILITY TRANSITIONS

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Track summary: In an era defined by rampant digital transformation, which reshapes people's lives and redefines businesses and industries, the world is facing a series of grand challenges triggered by the industrial legacy of the past two centuries. In response to resource depletion and environmental corruption, among others, the Circular Economy (CE) paradigm has emerged as a beacon of hope for addressing environmental and sustainable challenges and has modified businesses and societies as well. In this realm, the role of Digital Technologies (DTs) is key and integral to the circular transition. On the one hand, DTs such as the IoT, additive manufacturing, big data analytics, and artificial intelligence enable businesses' translation towards CE principles, resulting in circular products, processes, and practices. DTs offer solutions for resource optimization, transparency, stakeholder engagement, and circular-driven innovation. On the other hand, the adoption of practices afferent to the CE inherently triggers DTs adoption by businesses. Employing CE strategies may lead businesses to overcome barriers to digitalization, like management commitment, openness to change, poor infrastructure, employee skills, stakeholder collaborative posture, and market uncertainties, among others.
A question arises: how do digitalisation and circular economy converge in businesses? In this resource-constrained business environment, this track aims to stimulate the debate about these discussed phenomena in terms of their links, overlaps, synergies, and implications. As a result, the track chairs seek to discuss how these two phenomena can contribute to forming a virtuous circle within companies to leverage digital transformation and circular paradigms to address sustainability challenges.

P21 - Digital and sustainable transition in R&D processes: Bridging technologies and practices

8. SUSTAINABILITY TRANSITIONS

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Track summary: Nowadays, organisations are devoting great effort towards integrating sustainable and digital perspectives into their processes, as a consequence of Industry 4.0 (Centobelli et al., 2022). Specifically, the research and development function (R&D) assumes a central role in such a realm (Gusmao Caiado et al., 2018; Varela et al., 2019; Del Río Castro et al., 2021).

The convergence of sustainable and digital transitions in R&D has the potential to reinforce one another, thus leading to innovative dynamics to enhance the sustainable production of goods and services while optimising costs and quality (Foster-McGregor et al., 2021; Napoleão et al., 2021; Stornelli et al., 2021). In this evolving scenario, knowledge management (KM) has the potential to significantly influence the achievement of sustainable development goals, including work conditions, organisations' processes and the promotion of innovation (Lateef & Keikhosrokiani, 2022). Indeed, Industry 4.0 has led to the emergence of managing an abundance of digital data, that can be used to improve decision-making (Cerchione et al., 2023).

Given these considerations, the track aims to shed light on the sustainable and digital transition in R&D processes with a focus on the crucial role of cutting-edge technologies and practices to achieve sustainable development goals (Del Río Castro et al., 2021). Additionally, it seeks to identify suitable reference frameworks and impact indicators that may effectively monitor and evaluate practices in businesses that strive for sustainable and digital advancements.

P22 - Organizing for Sustainability: a multilevel challenge

8. SUSTAINABILITY TRANSITIONS

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Track summary: The urgency to take action on broad societal challenges is influencing today market scenario. To understand how these challenges are addressed is relevant to investigate sustainability transitions at different levels of analysis: organizational, inter-organizational or ecosystem and societal levels.

In the last decades, external stakeholder pressures boosted companies' awareness and sense of responsibility in solving both societal and planetary challenges. Therefore, some established organizations (firms but also value chains and clusters), pressured by the need to reconsider their established structures, strategies and business models, progressively started to shape their transition.

While organizations alone seem to be less effective when it comes to tackle grand societal challenges, wider stakeholder collaborations around sustainability are contributing to the sustainable transition of established industries and markets. The need of different interests and actors to collaborate for sustainability-oriented purposes may create resilient organizational architectures transcending organizational boundaries, such as sustainable supply chains, sustainable digital platform ecosystems, sustainable business networks, etc.

Therefore, there is the need to investigate sustainability transitions at different levels, thus addressing challenges and opportunities taking place at organizational, inter-organizational or ecosystem, and societal levels. The track welcomes both empirical and theoretical advanced work-in-progress and full research papers based on qualitative, quantitative, or mixed methods investigating the multilevel challenge of organizing for sustainability.

TECHNOLOGY and INNOVATION POLICY

P23 - A new management of Big Science: Science and Technology, Sustainable Development Goals and the Leave No One Behind principle

10. TECHNOLOGY and INNOVATION POLICY

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Track summary: In recent years growing attention was devoted to the contribution of science, research, entrepreneurial and innovation ecosystem in addressing social social grand Challenges (Block et al., 2021; Ferreira et al., 2023) and in achieving the UN Sustainable Development Goals (SDGs) (Allen et al., 2021; Chankseliani and McCowan, 2021; De Silva and Wright, 2019; Serafini et al., 2022).

This research track aims at investigating the role of Big Science, Higher Education, and, more in general, open science and research ecosystems (Johnson et al., 2023; Smart et al., 2019), in supporting the achievement of SDGs. Examples of possible research questions are:

- How to manage the process of collaboration between science-based institutions and industry to support SDGs and equal development?
- How to direct knowledge and technological transfer to underdeveloped and marginal areas?
- What is impact of the privatization/commercialization/corporatization of science on societies at large (i.e., citizens, education, environment, finance, politics)?
- Which are the barriers that hinder knowledge and technological transfer in certain sectors or technological domains?
- How to support the open-science paradigm in the light of the “Leave No One Behind” principle?
- Which methodologies and evaluation framework could be used/proposed to assess the contribution of science and research to the SDGs (e.g., social cost/benefit analysis, ….)?
- Which evidence-based policies could be designed to strengthen the role of science in achieving SDGs?

P24 - Governance of user-inspired basic research through collaborative PhD projects in engineering

10. TECHNOLOGY and INNOVATION POLICY

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Track summary: A classic dilemna for R&D managers, which is highly relevant in today's turbulent times characterized by digitalization, artificial intelligence, and the sustainability crisis, is to find the balance between attending to the known needs of today and preparing for the unknown needs of tomorrow. From an organizational perspective, scholars have viewed these two conflicting demands of today and tomorrow, either as separate processes, e.g. as exploration and exploitation, or else as special attributes which can be combined at the individual and organizational levels through ambidexterity, dynamic capabilties, or boundary spanning.

In parallel similar distinctions have been made in the ongoing discussion among scholars about the role of science for industrial development. On the one hand, there is basic research, which is concerned with basic understanding that may, or may not, be useful in the long term, and, on the other hand, there is applied research, which is concerned with solving current problems and is therefore useful in the short term. These two separate processes have been combined into the notion of user-inspired basic research where the considerations of use are the main guidance in the quest for fundamental understanding.

This track is concerned with the governance of user-inspired basic research, with a focus on collaborative PhD projects in the engineering sciences. We invite both conceptual and empirical papers and especially welcome papers that concerned with how firms are responding to contemporary challenges, including, but not limited to, digitalization, artificial intelligence, and sustainability.

P25 - Sociocultural factors in Smart city development: Prospects and Retrospect

10. TECHNOLOGY and INNOVATION POLICY

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Track summary: Smart cities, while widely recognized for utilizing information communication technologies (ICTs) to amplify urban efficiency, face challenges given the varied local interests and factors that influence their effective implementation. Existing urban divides further complicate the understanding of how smart city technologies truly function. While technological advancements and the drive of innovation policies in cities are steering the development of smart cities, contributing positively to sustainability, efficiency, and urban organization, the actual implementation of this technology and its benefits remain central topics of academic and political debate. Specifically, a critical view on smart cities highlights issues like entrepreneurial urbanism, neoliberal agendas, and the gap between technology's rapid development and its slower adoption (Datta, 2015; Grossi & Pianezzi, 2017; Kummitha, 2018; Marchesani et al., 2023). Although these studies have spurred debate, there remains a pressing need to discern how smart city ICTs are put into practice and how they might either intensify or bridge urban divides. This track calls for research exploring the origins, effects, and implications of digital technology adoption in urban scenarios. It seeks insights on a range of topics, from the smart perspective in urban development to the socio-cultural influences on technology implementation. Both empirical and theoretical submissions, offering managerial and policy insights, are invited.

P26 - Steering the Green Transition: STI Policy for Sustainable Innovation

10. TECHNOLOGY and INNOVATION POLICY

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Track summary: In light of escalating global concerns regarding biodiversity loss, environmental degradation, and the imperative for sustainable development, this conference track delves into the pivotal role of STI policies. These issues transcend environmental boundaries, profoundly impacting economies, societies, and ethical obligations. Nevertheless, the relationship between STI policies and socio-technical transitions remains inadequately explored, necessitating a harmonization of policy, innovation, and R&D literature to navigate the sustainability transition effectively.
This conference track unites a diverse audience in the exploration of innovative STI policies and their potential to reshape R&D management to support ambitious endeavors. Both conceptual and empirical papers are welcomed. Themes examples are:

1. **STI Strategies for Sustainable Development and Biodiversity Conservation:** Investigating how STI strategies, tools, and approaches advance the sustainable biodiversity moonshot agenda, with a focus on the roles of digital innovation, biotechnology, and data-driven approaches.

2. **Policy Frameworks and Governance Models:** Exploring the design of STI policy frameworks that foster collaboration, ensure ethical research practices, and promote sustainable innovation.

3. **R&D Management and the Green Challenge:** Analyzing how organizations and industries adapt R&D strategies to align with green challenges and the role of STI policy in this transformation.

4. **Capacity Building and Skills:** Examining the roles of education, skill development, and capacity building in preparing the workforce for the green transition, with a focus on how STI policy can address these imperatives.

5. **Local vs. Global Impacts of STI Policy:** Evaluating the spatial and global implications of STI policies on biodiversity preservation and the green transition, encompassing both local and international contexts

TECHNOLOGY, R&D and INNOVATION STRATEGIES

P27 - Enhance Imagination in R&D, Innovation and Strategy

11. TECHNOLOGY, R&D and INNOVATION STRATEGIES

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Track summary: In this Track, we would like to discuss approaches, that enhance imagination for R&D, Innovation, and Strategy. The objective is to bring together insights and approaches on how stakeholders can broaden their perspective toward aspects beyond linear development paths and beyond developments that are evaluated as being possible. This track is about a future that is hardly imaginable - but might happen. We would be happy to receive contributions that deal with the borderline between R&D, Innovation, and Strategy planning and the unimaginable.
Special interest in forms of art e.g. (science) fiction and retrofutures raising questions on how these imaginations and narratives may be methodologically approached, how they influence and have influenced human societies/progress, and how they may be utilised in a responsible way (via and beyond science fiction prototyping or artistic intervention).

P28 - Fail it till you make it: learning by failure and innovative activities

11. TECHNOLOGY, R&D and INNOVATION STRATEGIES

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Track summary: The relationship between failure and innovation is complex, with innovation endeavors often plagued by uncertainty and the potential for failure at various stages of development. However, existing literature predominantly focuses on successful innovation projects, preventing a comprehensive understanding of the determinants and consequences of innovation failures. This conference track seeks to shed light on this understudied innovation management area by examining various forms of innovation failures, including discontinued patents, project abandonments, new product recalls, and the broader concept of the "dark side of innovation".

The objectives of the track include investigating the determinants and consequences of innovation failures across the entire innovation development process. This track aims to present papers deepening the relationship between innovation failures and the characteristics of the inventions (e.g. novelty and scope), of the innovation process (e.g., the composition of the inventive team, the innovation management approaches), and of the innovator (e.g., the firm's strategy). Furthermore, this track aims to shed light on how innovation failures may dynamically affect these factors by enacting different feedback mechanisms. In particular, the track will show different aspects of "learning by failure", such as drivers, obstacles, and possible implementation, at both the team and the firm levels. In any case, the analysis of the feedback generated by innovation failures will also be extended to the possible strategic reorientation adopted by the firm, which may imply a change in the search strategies, and in the establishment of R&D collaborations.

P29 - Outside the Box: Exploring Unconventional Paradigms in Innovation

11. TECHNOLOGY, R&D and INNOVATION STRATEGIES

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Track summary: In the dynamic landscape of contemporary innovation, the idea that innovation relies exclusively on groundbreaking ideas and radical thinking is evolving into a new perspective. Hence, the belief that abundant resources are a prerequisite for original ideas is giving way to alternative approaches. Constraints are now perceived as catalysts, transforming limitations into fertile ground for innovation. This shift underscores the significance of tapping into the "creativity of the here and now" by making the most of current resources. This transition emphasizes the application of models like "Exaptation," where existing resources are repurposed for unexpected uses, "Reverse Innovation," where solutions from resource-scarce settings inspire advances in affluent contexts, and "Retrovation," which leverages historical knowledge to address current challenges. "Frugal Innovation" promotes value-driven solutions under resource-limited conditions, while "Bricolage" encourages improvisational innovation by using available resources creatively. While these models have been individually explored, a research gap exists in comprehending their synergies and distinctions. Exploring the intersections, commonalities, and differences between these paradigms is a timely challenge for scholars.

We invite scholars to contribute to this growing discourse on innovative models. We welcome submissions that offer a deep dive into Exaptation, Reverse Innovation, Retrovation, Frugal Innovation, Bricolage, or any emergent innovative framework in constrained contexts. Papers exploring the intersections of these models, unraveling their interdependencies, synergies, and contrasts, are particularly encouraged. New contributions will play a pivotal role in shaping this narrative, adding depth to our collective understanding, and offering nuanced perspectives on how these models can be applied, integrated, or contrasted.

TECHNOLOGY-BASED ENTREPRENEURSHIP

P30 - Corporate-startup collaborations: Motivations, challenges, and success factors

13. TECHNOLOGY-BASED ENTREPRENEURSHIP

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Track summary: Partnerships between large, established organizations and emerging startups are now well recognized in the entrepreneurship and innovation literature. This is a mutually beneficial relationship: startups bring speed, ideas, and technologies whereas corporations provide access to capital, expertise, and infrastructure. However, misconceptions abound about the motivations, rewards, and challenges associated with these types of partnerships. Recognizing the potential benefits and the clearly asymmetric nature of these relations, this track aims to advance the current discourse on corporate-startup collaborations and, in particular, on: (1) how corporations can better engage with their external startup ecosystem; (2) how are these collaborations initiated, managed, and monitored over time, and (3) what is the role of intermediaries (e.g., accelerators, incubators, and science parks) in facilitating their formation. We expect contributions to this track not only to enhance our conceptual understanding and/or provide empirical evidence on the dynamics of corporate-startup collaborations, but also to inform practice on how startups and corporations can effectively work together to address emerging business and societal challenges, such as digital transformation, automation, and sustainability.

P31 - Science-based University Spin-off Ventures: People, Processes, Policy

13. TECHNOLOGY-BASED ENTREPRENEURSHIP

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Track summary: Governments across the globe support university research as a catalyst for innovation. However, international innovation researchers continually note the difficulties in converting public funding into science-based innovation. Consequently, the technology management literature has placed growing emphasis on university spin-offs (USOs) as a pivotal avenue for science-based innovation. These entities play a crucial role in fostering economic and social development by generating innovative products and services, attracting skilled professionals, and enhancing regional and national innovation ecosystems. Relatedly, science-based ventures, which often trace their origins back to the university, have significant potential to positively impact economic and societal outcomes but often have to contend with heightened technical and commercialization uncertainty, and thus are characterized by high start-up and survival costs and long commercialization timelines. Much of the extant literature has employed quantifiable metrics to evaluate the success of science-based university spin-offs, including independent variables such as venture capital funding, and dependent variables such as the number of firms spun off from a university in a regional ecosystem. However, there is an emerging body of work that investigates more nuanced, less quantifiable variables such as entrepreneurial capabilities and the influence of innovation processes and policy. In this track, we invite authors to submit new empirical and theoretical submissions that address issues related to the contribution of people, processes, and policy in the development, survival, and success of science-based university spin-offs. We encourage submissions from a variety of industries and contexts, and those that deploy a broad range of empirical and methodological approaches.

P32 - The role of accelerators on startup innovation and success

13. TECHNOLOGY-BASED ENTREPRENEURSHIP

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Track summary: This track continues the discussion of the new generation of entrepreneurship, initiated in Seville R&D Management Conference 2023, and focuses on one particular business incubator model: the accelerator. Nowadays, accelerators are already considered a research topic in themselves. The first studies were aimed at proposing a definition, identifying the distinctive characteristics of accelerators compared to incubators. Subsequently, it tends to focus on the design elements of the acceleration program, as well as establishing typologies of accelerators based on their stakeholders, objectives, services offered, etc. Despite the increasing interest and efforts on research, there are still many unanswered questions and several research streams emerge. This track welcomes contributions that will investigate, in the context of accelerators, issues related to entrepreneurship and innovation, new business models, technological change, open innovation, entrepreneurial ecosystems, mechanisms in accelerator programs that influence startups outcomes, cross-industry innovation, social accelerators...

P33 - Understanding Entrepreneurial Experimentation in Context: Contingencies, Processes, and Outcomes

13. TECHNOLOGY-BASED ENTREPRENEURSHIP

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Track summary: This track aims to address the gap in the existing literature on entrepreneurial experimentation by introducing different perspectives to examine entrepreneurial experimentation that considers experiments as part of a larger entrepreneurial ecosystem. We seek papers that address the following topics. First, the track seeks papers that aim to explore how different strategic choices support entrepreneurial experimentation. Such choices include but not limited to, organizational decision-making processes, management of internal and external key stakeholders, and the adoption of a scientific approach for opportunity creation. Second, the track expects that the submitted papers draw upon different theoretical lenses to enrich our understanding of experimentation. Finally, the track aims to attract papers that consider experimentation as "part of a larger system," investigating different factors and processes that underpin a focal venture's experimentation. Collectively, the papers to be presented in this track should highlight different pathways that entrepreneurs might undertake to better manage experimentation as a source of innovation, addressing and exploiting internal and external contingencies.

ORGANIZING R&D

P34 - Fostering Strategic Innovation Management in an ever-changing world

15. ORGANIZING R&D

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Track summary: Advancing the discussion on the grand challenges and strategic innovation that guided this track at the last conference, the goal of the track for the 2024 Conference focuses on the challenge faced by companies in adapting to an uncertain environment characterized by crises (natural disasters, pandemic, recessions) and persistent grand challenges faced by our society (climate change, poverty, societal inequality). Specifically, it seeks to understand adaptations related to organizing and managing strategic innovations driven by technological, social, environmental and market changes.

Strategic innovation management is a top issue for scholars and practitioners. It is related to innovation with significant impact since it is related to the firm's long-term growth and associated with meeting ambitious sustainability targets via green transition and cleaner production. Research on innovation has progressed in understanding how to systematize innovation. However, the constantly changing nature of the environment, with challenges of significant impact on society demands a deeper understanding of adaptations in innovation management in response to this context. For example, recent research discusses the role of cognitive frames to respond to crises, suggesting that actors in crisis have an urgent dual mission: to simultaneously destroy and construct frames. How does that resonate in an innovation management context? Or, how is the strategic innovation management system flexible to adaptations?

Therefore, this track welcomes submissions that help to advance the knowledge of the organization and management of innovation activities in any company, specially focusing on adaptations driven by technological, social, and market changes and environmental challenges.

P35 - New forms of organizing for innovation in uncertain times

15. ORGANIZING R&D

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Track summary: Traditional organizational forms, promoting hierarchies and formal structures, are increasingly deemed unsuitable in the face of radical uncertainty. New organizational forms are emerging to better respond to the increasing uncertainty. New forms of organizing are often driven by an innovation ambition, but their understanding of innovation, and their innovation practices typically differ substantially from established innovation models. They use labels such as self-managed organizations (Lee and Edmondson, 2017), less hierarchical (Billinger and Workeiewicz, 2019) or flat organizations (Puranam, 2022), and agile organizations (Lewis et al. 2014). In this track we want to invite research on new forms of organizing for innovation in uncertain times

P36 - systems approach to innovation management

15. ORGANIZING R&D

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Track summary: This track aims to build the research framework of a systems approach to innovation management through related research on systems language, theories, and methodologies that employ or support innovation management. It calls for both theoretical and practical papers covering research topics including the influence of such approaches on the generation of different innovation management models and then affects innovation efficiency and effectiveness (Karsson and Magnusson, 2019). Studies on the development and application as well as the effectiveness of information systems approaches and standards to support innovation management are also good fits. Thus, this track will synergize the conference theme on innovation management systems, ISO 56000, and other related topics about innovation for sustainability.

The topics are ((but not exclusively) as bellows:

- How are the system approaches related to the generation of an innovation management model or paradigm?
- How do different innovation management models or paradigms influence innovation efficiency and effectiveness?
- How does a digital management system support the building, managing, and improving the innovation management system?
- What are the benefits and future of standards of innovation management and how to apply ISO56002 to help companies to build an innovation management system?

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P37 - The Technology Dimension of R&D Management

15. ORGANIZING R&D

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Track summary: Building on similar tracks at the 2019, 2021, 2022 and 2023 R&D Management Conferences, this track highlights the technology dimension of R&D management theory and practice. The search for general-purpose R&D management concepts and frameworks – analogous to general-purpose technologies – has dominated the R&D management field. Yet, with their own characteristics and internal logics, individual technologies set the context for innovation and influence many dimensions of the innovation process, for example: timescales, research methods, skills requirements, capital intensity, IP strategy, financing requirements, risks, international topologies and information flows. So, the intention of this theme is to promote discussion about the role of technologies in the formation of R&D management practices and theories.

An emergent theme in this track is the central role of 'projects' in real-world R&D, particularly where they are shaped by the technologies involved. For example, the debates around the applicability of Agile project management outside software have been covered in this track. While R&D activity is almost always conducted through projects, there is relatively little contemporary analysis at project level, Thus the track welcomes original contributions in this area.

P38 - University-industry engagement: Impact and the rise of competency transfer partnerships

15. ORGANIZING R&D

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Track summary: The track aims to extend our understanding of the opportunities, potentialities, and limits of the new turn to university-industry engagement and impact, how they are managed and their implications for on regions, nations, and society as a whole. Therefore, we invite rigorous contributions, including conceptual and theoretical papers, state-of-the-art reviews, empirical research (quantitative and qualitative), and case studies from academics and policy experts to advance research on University-industry engagement from multidisciplinary perspectives.

INTELLECTUAL PROPERTY MANAGEMENT

P39 - Innovation and Intellectual Property Management Strategies for Digital Futures

18. INTELLECTUAL PROPERTY MANAGEMENT

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Track summary: Digital technologies (DTs) promise to enable more rapid and effective innovation processes and outcome, foster increased novelty and revenues, and heighten transparency and openness, as well as data sharing. At the same time, DTs pose a set of complex challenges for innovation processes, for instance: blurring boundaries between innovation processes and outcomes, tensions related to competing demands in organizations, synchronizing analog and digital innovation processes simultaneously, or causing rapid shifts in innovation ecosystems. Additionally, innovation – and intellectual property (IP) management are not always coordinated at organizational as well as interorganizational levels, leading to a potential chasm. It thus becomes of particular interest to better understand how firms organize for innovation in the era of DTs and how benefits and challenges related to innovation and IP are balanced in a digital transformation context, shaping new strategies and approaches.

P40 - Intellectual Property (IP) Management: How the management of IP is influencing the transformation of industries through technology

18. INTELLECTUAL PROPERTY MANAGEMENT

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Track summary: Intellectual Property (IP) Management is generally considered as part of innovation management. In this track, we focus on the interface/links between IP management and R&D and innovation management so to improve the understanding of how IP issues can be better integrated within innovation management. More specifically, we want – in line with the general theme of the conference – to capture ways how IP management can support technology and innovation management when transforming industries towards responsible and responsive innovation for society and a better future.

IP-focused research questions should also cross-sectionally contribute to the other conference topics, such as but are not limited to:

- Digital Innovation
- AI and automation in R&D
- Innovation for sustainability
- R&D for circular economy
- Challenge-driven innovation
- Technology and innovation policy
- Technology, R&D and innovation strategies
- Technology-based entrepreneurship
- Corporate venturing

During the last four R&D Management conferences, a full track with high quality papers in the field of IP management could be established.

The *Journal World Patent Information (WPI), Elsevier*, would again support with a special issue on this theme.

ECOSYSTEMS ALLIANCES AND COLLABORATIONS

P41 - Complex Firm Partnerships -not just Ecosystems

21. ECOSYSTEMS ALLIANCES AND COLLABORATIONS

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Track summary: In today's business landscape, strategic partnerships are key, with 49% of CEOs planning new alliances (PwC, 2020). These collaborations go beyond mere transactions, forming complex networks for shared goals across various sectors and cultures. They focus on leveraging strengths, entering new markets, and innovating through resource pooling. At the same time, the rise in business ecosystems has brought attention to their dynamics and the role of digital technology in their emergence and operations. This has, however, in recnt years slightly overshadowed the exploration of new, non-ecosystem types of partnerships that focus on real-time data, increased integration, cross-industry collaboration, and collective value creation.

These evolving partnership models pose challenges such as goal misalignment, dependency risks, and uneven value distribution, issues also present in ecosystem-structured firms. Topics like organizational identity, leadership, governance, and the impact of digitalization, previously examined in partnership literature, are now prominent in ecosystem discussions as well.

This overlap between ecosystems and partnerships underscores the need for a more nuanced understanding of their differences and similarities. Therefore, it is essential to identify when and where one type of governance model is most effective than the othre and why, considering the evolving nature of business collaborations more holistically.

P42 - Coopetition, Ecosystems, Networks and Alliances (CENA)

21. ECOSYSTEMS ALLIANCES AND COLLABORATIONS

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Track summary: To face today's grand challenges like uncertainty, digitalization and sustainability concerns, and to achieve higher levels of performance, companies widely rely on innovation. To do so, they cooperate with other firms by creating alliances with partners or collaborating with competitors (i.e., coopetition) in their ecosystems and networks.

To ensure firm survival and success, it is essential to understand how companies can adequately implement alliances and coopetition strategies, especially in specific configurations i.e., networks, clusters, ecosystems, platforms. These strategies and configurations can be explored at several levels (inter-organizational, intra-organizational, inter-individual) in different types of organizations (multinationals, associations, public companies, SMEs etc.) and in different industries (high-tech, low-tech, services, creative, etc.).

Finally, grand challenges increasingly drive companies into changing their business model for more sustainability, by pushing them to collaborate to create (green) innovations, to digitalize processes and to deal with uncertainty. This leads us to wonder what are the specificities of the interplay between innovation and coopetition, alliances, networks and ecosystems.

All these issues are investigated in the CENA (Coopetition, Ecosystems, Networks and Alliances) track.

P43 - Digital technologies, ecosystem and industry transformation

21. ECOSYSTEMS ALLIANCES AND COLLABORATIONS

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Track summary: In recent years, digital technologies have radically changed industries and the way organisations collaborate and compete. The introduction of digital technologies (AI, Cloud computing, BigData, IoT..) in industries creates a high level of complexity and interactions between firms, people, machines and infrastructures, and brings about major changes in the traditional production system and business models of companies (De Propris and Bailey, 2021). The diffusion of such technologies challenges traditional frameworks and requires a fundamental shift towards new collaborative organisational designs and more sophisticated frameworks such as the ecosystem (Baumann, 2022). Furthermore, ecosystems are often organised around digital platforms, which are concomitant and consubstantial to the development of digital technologies (Pauli et. al., 2021). These organisational forms are increasingly changing the dominant view of industry. However, theoretical and empirical studies on how an ecosystem-based approach facilitates the transformation of industries through digital technologies and ecosystem-based methodologies (e.g. data-driven approaches) allow a better understanding of these phenomena are still lacking in the literature.

The track welcomes conceptual, empirical and methodological papers using qualitative or quantitative approaches on the following topics:

- How does an ecosystem-based approach facilitate the transformation of industries through technologies?
- How does an ecosystem-based approach facilitate the transformation of business models in order to better adopt technologies in industries?
- How do new technologies reinforce and accelerate co-evolution between actors within ecosystems?
- Role of technologies in the building of ecosystems or other forms of ecosystems such as data ecosystem
- New methodological approaches for studying business ecosystems

P44 - Innovation Dilemmas for SMEs and Family Businesses: Navigating the New Platform Economy

21. ECOSYSTEMS ALLIANCES AND COLLABORATIONS

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Track summary: The emergence of platform economies has unleashed unprecedented disruptions across industries, presenting a paradigm shift for businesses worldwide. For SMEs and family businesses, this transformation introduces a pivotal decision point: whether to establish their own platforms or engage as partners within existing ecosystems. On one hand, these businesses must decide whether to invest resources and efforts in establishing their own platforms. This entails creating and managing a digital infrastructure that can connect various stakeholders, such as customers, suppliers, and partners. On the other hand, they also have the option to collaborate with existing platform ecosystems, which can provide immediate access to a broader customer base and established networks.

The dilemma arises because both options have their own set of advantages and risks. Establishing their own platform gives SMEs and family businesses more control and customization but demands significant investments and entails higher uncertainties. Partnering with existing platforms offers quicker market access and reduced implementation costs, but it may involve relinquishing some degree of control and potentially facing competition within the ecosystem.

This track aims to shed light on this complex decision-making process, exploring the strategic factors, best practices, and potential challenges that SMEs and family businesses encounter in navigating the dynamic landscape of platform-driven economies. By addressing this dilemma, this track seeks to illuminate the strategic considerations, best practices, and potential stumbling blocks encountered by SMEs and family businesses in the dynamic arena of platform-driven economies.

P45 - Orchestration of ecosystems to address grand challenges

21. ECOSYSTEMS ALLIANCES AND COLLABORATIONS

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Track summary: The orchestration of ecosystems to foster innovation might be crucial to addressing grand
challenges. Poverty, inequality, and health are illustrative examples of grand challenges and access might require solutions from multiple, dispersed actors from different locations and organisations. Organisations face the challenge of building new, unique capabilities to create, integrate, and align ecosystems. These ecosystems might not be confined to innovation ecosystems but might encompass knowledge ecosystems, entrepreneurial ecosystems, circular ecosystems, and social ecosystems, which possess unique features and governance structures. However, the literature on capabilities strategies to orchestrate ecosystems to address grand challenges
remains scant. We still need more grounded theories and theoretical frameworks that explain how firms build and organise internal and inter-organisational capabilities to orchestrate ecosystems to leverage innovative outputs and outcomes. We also need to increase our understanding of the contextual nature of ecosystem orchestration to address grand challenges.

P46 - Panarchic pulse: tuning into digital platforms' resilient rhythms

21. ECOSYSTEMS ALLIANCES AND COLLABORATIONS

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Track summary: Dear Colleagues,

digital platforms are integral to modern economy serving as crucial conduits for multifaceted interactions among individuals, businesses, and communities. Technologically, digital platforms are extensible code bases enriched by third-party modules; from a sociotechnical point of view, they are intersections of technical elements, knowledge, and organizational processes. This comprehensive understanding unfolds digital platforms as complex digital infrastructures embodying software, hardware, operations, complementors, and networks. Operating within a landscape in rapid technological evolution, and robust competition, platforms are exposed to both intrinsic and extrinsic fluctuations, potentially threatening their viability. With this premises, resilient thought becomes a key element to understand how platforms adapt, respond to, and even mediate unforeseen challenges across multiple levels of analysis. However, despite this relevance, extant digital platforms' literature only partially addressed resilience issues. In particular, panarchy – among the most explicative resilience properties – has not been taken into the right consideration. This is surprising given the role panarchy, i.e., the attitude of a system to influence and be influenced by states and dynamics at higher and lower scales, has in shaping the whole socio-ecological landscape. Moreover, this aligns and integrates with the microfoundations perspective, shedding light on platforms as interdependent microentities within a broader socioecological network, giving rise to a metaorganizational understanding of platform ecosystems. Accordingly, rooting in microfoundations perspective, this track aims to delve into digital platforms' panarchy, bridging a relevant gap along digital platforms and resilience literature, and fostering a nuanced debate examining digital platforms as socioeconomic microfoundations themselves.

P47 - Unveiling ecosystem dynamics: bridging gaps between Entrepreneurial and Innovation Ecosystems

21. ECOSYSTEMS ALLIANCES AND COLLABORATIONS

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Track summary: Nowadays, the entrepreneurial and innovation processes have shifted from traditional individualistic perspectives toward a greater emphasis on the social, cultural, economic, and technological elements affecting them at the ecosystem level. Consequently, the concepts of entrepreneurial ecosystems (EEs) and innovation ecosystems (IEs) have gained increasing attention. Most of the existing literature has focused on the main differences between EEs and IEs, treating them as unrelated constructs. However, recent studies started exploring them as complementary concepts, focusing on their commonalities and interdependencies.

Both EEs and IEs are influenced by a complex interplay of industrial and technological factors, organizational elements, institutional frameworks, and socio-temporal-spatial characteristics. Specifically, when considering their dynamic evolution, intriguing aspects may emerge. Ecosystems are characterized by non-linearity and typically evolve through chaotic processes. However, while the development of EEs is shaped by economic crises and policy changes, IEs exhibit chaos especially during their emergence.

Therefore, shedding light on the entire lifecycle of EEs and IEs, including their emergence, growth, adaptation, and resilience, can provide relevant insights into their internal and external dynamics, and help clarify the links between different ecosystems and possible transitions from one type to another. A better understanding of ecosystems' dynamics can also contribute to designing novel methods of performance measurement, potentially leveraging data analytics and AI-driven approaches.

Thus, we invite contributions on EEs and IEs which focus on their evolutionary processes, interactions between different ecosystem types, governance dynamics, robustness and resilience, performance measurement, and the transformative role of data analytics and AI in these ecosystems.

OPEN INNOVATION AND CROWD SOURCING

P48 - Beyond the hype: shedding light on Open Innovation

23. OPEN INNOVATION AND CROWD SOURCING
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Track summary: The Open Innovation paradigm calls for a pragmatic approach, moving beyond mere hype. Traditionally defined as firms utilizing both internal and external ideas to advance technology, Open Innovation aims to create shared value through mutually beneficial relationships. However, not every initiative labelled as Open Innovation ensures mutual benefit, leading to hidden failures. We argue that this "dark side" of Open Innovation, where failures emerge as likely as successes, needs further exploration.

P49 - Harnessing The Power of Crowds in the Era of Technological Transformations and Digitalisation

23. OPEN INNOVATION AND CROWD SOURCING

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Track summary: In the past decade, crowds gained considerable attention in context of innovation and entrepreneurship in management literature and practice (Bartl et al. 2012; Bilgram et al. 2008; Afuah & Tucci, 2012). Technological transformations and digitalisation, such as platform ecosystems, helped the crowds to interact with ventures and organizations in new ways. Organizations have used technological transformations to their benefit to access critical ecosystem participants to co-create products and services (von Hippel 2005; Chesbrough 2003; Cui and Wu 2016). In this process, the traditional entrepreneurship, R&D, and innovation paradigms have evolved significantly from closed innovation and traditional venture funding models, which rely on closed borders of an organisation and internal sources, to a combination of internal and external (open and collaborative) innovations for firms and entrepreneurial ventures (Cobben, Ooms, Roijakkers, & Radziwon, 2022; Radziwon, Bogers, Chesbrough, & Minssen, 2022). Specifically, crowdsourcing and crowdfunding gained popularity outlining how to integrate "the crowd" into innovation, new product development, and entrepreneurial activities. Effectively leveraging open platforms, including crowdfunding and crowdsourcing platforms, for development and implementation of innovations and entrepreneurial ideas does not come without risks. Mechanisms of how to interact with platforms, especially crowdfunding and crowdsourcing, should be systematically analysed (Giustiziero, Kretschmer, Somaya, & Wu, 2021; Han, Zhou, Lowik, & de WeerdNederhof, 2022) with careful attention to aspects that stimulate the outcomes and performance of a firm on these platforms, especially for innovations, crowdfunding, and crowdsourcing. This track focuses on showcasing research on crowds in technological innovations and R&D in digital era from diverse theoretical perspectives.

P50 - Reviving the relevance of Open Innovation in an era of platforms, ecosystems and digitalization

23. OPEN INNOVATION AND CROWD SOURCING

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Track summary: 20 years ago, the concept of open innovation was introduced. Since then the topic has proliferated in both R&D practice and academic research communities. The open innovation agenda pointed to, among other things, aspects of modularity, connectedness and interdependencies of technological architectures in relation to strategic and operational R&D management considerations for entrepreneurial, corporate and policy activities. At the same time, technological and organizational prospects did not stand still during two decades. In recent years, the business landscape has witnessed a transformative shift characterized by the rise of platforms, the emergence of ecosystems, and the pervasive influence of digitalization. Such transitions have profound implications for the practice of R&D Management, particularly in the context of open innovation. In this theme, we seek to foster a comprehensive understanding of how open innovation can adapt, thrive, and drive value creation amid the dynamic forces of platforms, ecosystems, and digitalization.

Topics of interest for this track include, but are not limited to:

- Open Innovation in platform-based economies: Examining the role of open innovation in platforms and understanding its impact on business models.

- Strategies for leveraging platform ecosystems to enhance open innovation practices.

- Ecosystem dynamics and Open Innovation: Exploring the interplay between innovation ecosystems and open innovation processes.

- Digitalization and Open Innovation: Assessing the influence of digital technologies and platforms on open innovation strategies.

- Open Innovation and R&D Strategy: Examining the challenges and opportunities of aligning open innovation with strategic objectives.

- Collaborative models and partnerships: Assessing the role of cross-industry collaborations in driving open innovation in platform industries and innovation ecosystems.

- Open Innovation metrics and evaluation: Developing metrics to measure the effectiveness of open innovation initiatives during digital transformation.

- Managing and navigating Open innovation initiatives and projects in digital platform and ecosystems settings.

TECHNOLOGICAL CHANGE and BUSINESS MODEL INNOVATION

P51 - Exploring The Metaverse: Barriers, Enablers and Expected Outcomes

24. TECHNOLOGICAL CHANGE and BUSINESS MODEL INNOVATION

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Track summary: The Metaverse is one of the most interesting emerging technological paradigm of the current technological era. Its deployment will require elevated efforts from businesses as it requires the simultaneous consideration of several different technological layers altogether (i.e., Artificial Intelligence, Internet of Things, Augment Reality, Virtual Reality and Blockchain). Additionally, as of today a unitarian Metaverse does not exist, and many different alternative metaverses are (mostly) unsuccessfully popping-out. The demise of many of these large scale initiatives is represented by the lack of interoperability between them and managers negative perceptions related to high costs and uncertain returns.

What is striking in such a context is that some businesses are befitting from the existence of private metaverses (or virtual worlds) for a plethora of different purposes such as new employees onboarding, supply chain management, new product development, and sales to customers.

The need to explore how these business explored The Metaverse as a paradigm or a metaverse is starting to emerge. While a one-size-fits-all approach may be misleading, an in depth observation of the micro and meso traits allowing these companies to successfully explore (and eventually exploit) these digital environments is required.

In doing so, implications for theory and suggestions for skeptical managers may be drawn.

The track thus aim to provide scholars working on this topic a platform to share emerging ideas on the topic, and to investigate why and how some businesses are succeeding in Metaverse exploration, which capacities may be fundamental, and which outcomes they are expecting.

P52 - Technologies And Business Model Innovations: Emergence, Evolution, Exaptation And Entanglement

24. TECHNOLOGICAL CHANGE and BUSINESS MODEL INNOVATION

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Track summary: This is a call for papers that advance our understanding on the relationships between technology and business model innovation (henceforth BMI). The interplay between technology defined as "the incorporation of knowledge into artifacts that can be used to solve problems" (Grodal, et al., 2023, p. 142) and BMI understood as, the discovery or creation of fundamentally novel "design or architecture of the value creation, delivery, and capture mechanisms [a firm] employs" (Teece, 2018, p. 41), has begun to pique scholarly attention in recent years (Spieth, et al., 2023; Ancillai, et al., 2023; Foss & Saebi, 2017; Massa, et al., 2017; Demil, et al., 2015; Baden-Fuller & Haefliger, 2013). However, despite acknowledgement of the reciprocal relationship that binds technology and BMI, the relationship between the two concepts has received very little theoretical or empirical scrutiny. Contributors to this track may choose to focus on the role of technology in BMI or on the role of BMI in technology development and commercialization. Equally, we welcome contributions that examine the interplay between these two perspectives and propose emergence (MacKay, et al., 2021), evolution (Grodal, et al., 2023), exaptation (Andriani & Cattani, 2016) and entanglement (Scott & Orlikowski, 2014) to categorize the intricate relationship between technology and BMI. In line with the overall theme for this year's conference - "Transforming industries through technology" - we are interested in research contributions that are either conceptual, empirical or methodological that related to multiple industries including, but not limited to, manufacturing, telecom, healthcare, pharmaceutical, energy, automation, industrial digital technologies (IDTs) and knowledge-intensive services.

Theme	Refers to	Potential Research Questions
Emergence	How technologies and BMI take shape rooted "in both progress and setbacks" (Kapoor & Klueter, 2020, p. 1)	1. Why do firms choose sustaining or disruptive technologies for BMI? 2. How do new technologies enable business model experimentation in organizations? 3. What challenges do new technologies pose that hinder business model (re)configuration processes in established organizations and how can such challenges be overcome? 4. How are technological or business model uncertainties defined and overcome in BMI?
Evolution	How technologies and business models change over time (Grodal, et al., 2023; Demil & Lecocq, 2010)	1. How does BMI change sustainability management approaches? 2. How does technology evolution impact BMI? 3. How does technology and business model innovation lead to new institutional arrangements or the emergence of novel institutional infrastructures that gain legitimacy? 4. What mechanisms are used to maintain organizational stability during technology evolution and business model change?
Exaptation	How existing technologies and business models are coopted "for emergent functions" (Andriani & Carignani, 2014, p. 1608)	1. How are technologies for processing big data shaping business model (re)configuration? 2. How does technology or business model exaptation lead to innovation? 3. Under which conditions are exaptation a more promising mechanism for BMI? 4. What are the performance implications of incremental, radical, or disruptive technology and/or business model exaptation?
Entanglement	How technologies and BMI are ongoingly performed in practice (Scott & Orlikowski, 2014)	1. How easily are BMI transferable from one industry to another, considering that consistency and fit are essential? 2. What processes and practices do firms use to exploit technologies using BMI? 3. How does the adoption of business model frameworks and conceptualization influence how technology is thought about? 4. To what extent do the mechanisms used to create and capture value from BMI change under the effect of digital transformation?

P53 - Transformation in Business Model Ecosystems to Achieve Climate-Neutral Electrification with Smart Technologies

24. TECHNOLOGICAL CHANGE and BUSINESS MODEL INNOVATION

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Track summary: In an era marked by digitalization, electrification, and the imperative of a circular economy, industries are undergoing profound structural changes that are reshaping traditional approaches to product development, services, production, and technology. These shifts have prompted a fundamental transformation in how industries operate, adapt, and innovate. In response, this special track focuses on examining the pivotal role of business model ecosystems to drive climate-neutral electrification. The track centers its attention on electric vehicles, batteries, charging/energy infrastructure, and the overarching goal of achieving climate neutrality. The core objective of this special track is to explore innovative strategies, transformative approaches, and dynamic business models that can propel the transition towards climate-neutral electrification within industries. With a distinct emphasis on the integration of smart and digital technologies, we seek a deeper understanding of the management challenges in these domains and aspire to uncover cutting-edge solutions that will pave the way for a sustainable, electrified future. Authors are encouraged to submit papers that: 1) Investigate how business models can be digitally transformed to expedite the adoption of electric vehicles and achieve climate neutrality, 2) Explore the pivotal role of batteries in realizing climate-neutral electrification, particularly focusing on the synergy between batteries and smart technologies, 3) Examine how smart and digital technologies are revolutionizing the development, accessibility, and business models surrounding charging and energy infrastructure, with an emphasis on climate neutrality. We eagerly anticipate submissions of empirical studies, case analyses, conceptual papers, and interdisciplinary research that address the multifaceted challenges and opportunities within this domain.

INNOVATION THEORY AND PRACTICE

P54 - The use of theory in technological innovation mananagement practice

25. INNOVATION THEORY AND PRACTICE

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Track summary: Management theory and practice remain two different domains despite of bridging efforts from both sides. Practitioners, in the field of management in general and technology and innovation management in particular, are continuously facing problems in their search of useful frameworks and tools for analysis and decision-making in a world that is constantly being transformed by new technologies. Existing theories are often not seen as useful in these cases as they tend to be too abstract and not easily transferable to new set of problems, such as the current twin challenges of digitalization and sustainability. Previous academic research on this topic has mostly focused on how the research community can change, i.e., generate theories, frameworks, and tools that are more relevant for practitioners. In this session we want to start from a different perspective, namely from the perspective of the practitioner, and call for papers that increase our understanding of how practitioners create, adopt, use, and adapt frameworks and tools based on existing and emerging theories when facing an ever-changing world transformed by new technologies. We invite both conceptual and empirical papers and especially welcome papers concerned with how practitioners are responding to contemporary challenges, including, but not limited to, digitalization, artificial intelligence, and sustainability.

DESIGN FOR CHANGE AND TRANSITION

P55 - Elevating Sustainable Development: The Role of Systemic Design in Policy Innovation

26. DESIGN FOR CHANGE AND TRANSITION

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Track summary: In an era characterized by significant ambiguity and societal challenges, systemic design approaches are increasingly recognized as transformative drivers for the sustainable development of complex socio-technical systems. Simultaneously there is a growing interest in exploring how systemic design can support the policymaking process through methods that uncover evolving societal phenomena and address the challenges presented by new and emerging technologies. The goal of the track is to explore potential synergies and implications between systemic design and policy innovation, with a focus on promoting sustainable development. Additionally, it aims to highlight how contributions from other relevant fields can enrich the systemic design field, fostering a multidisciplinary perspective on the challenges and opportunities of policy innovation for sustainable development. We welcome submissions of both empirical and conceptual papers. This track comprises a paper session and a panel discussion. The panel will include policy makers and practitioners from the field of systemic design and policy innovation.

P56 - Role of Design in addressing the major shifts of the transition towards sustainability

26. DESIGN FOR CHANGE AND TRANSITION

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Track summary: The transitions that we have to achieve represents major shifts and raises complex problems. They are associated with wicked problems that require to be explored and framed from different perspectives through a system approach. This type of wicked problems and complex challenges cannot be addressed using analytical methods and it is argued that Design is a particularly suitable mode of exploration (Buchanan, 1992). With its focus on addressing complex issues through reframing, human focus, zooming between levels, iterative experimentation (Carlgren et al. 2016), Design approach has the potential for addressing precisely this kind of issues.

Over the past 20 years, organizations across a variety of sectors have turned to Design and implemented it as an innovation capability to come up with propositions addressing both individuals and systems (Schweitzer et al. 2023; Dell'Era et al., 2020). Design has been adopted by several organizations to complement other approaches of innovation (Verganti et al. 2022), such as agile, open innovation (Ollila &Yström, 2016), business model innovation, ecosystemic innovation (Adner, 2017), etc.. . The track welcomes contributions on the use of Design in addressing major transformation, both in terms of their application on different system levels, and challenges that arise from such efforts.

P57 - Workspace, Affect, and Creativity

26. DESIGN FOR CHANGE AND TRANSITION

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Track summary: Workspace design, affect, and creativity form a complex nexus within organizational dynamics. Studies highlight that workspace design significantly shapes individuals' affective states, which, in turn, serve as a fundamental determinant of employee creativity. This conference track aims to explore how optimized workspace design—encompassing layout, aesthetics, comfort, and functionality—not only directly influences creativity and innovation, but also the indirectly relates to employee creativity through the nuanced impact of affect across various workspace configurations.

Our goal is to foster interdisciplinary dialogues that address the question how workspace design and affect intricately relate to creativity and converge to shape the creative process in the context of R&D Management. We welcome contributions that delve into empirical research, theoretical frameworks, and practical insights exploring the impact of workspace on creativity, the influence of affect on creative processes, and the interaction between workspace and affect in shaping creative outcomes.

Workshop

W1 - Do opposites attract? When centralized systems meet decentralized digital technologies.

2. DIGITAL TRANSFORMATION of ORGANIZATIONS and INDUSTRIES

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Track summary: Several industrial systems have been governed by centralized regulations, systems, and processes but are today challenged by technologies that rely on decentralized governance structures. Two examples are energy and retail payment services. In energy, technologies for renewable energy open up for decentralized and small-scale energy production located close to energy users, which in turn enables local markets where small-scale producers can become self-sufficient or supply energy in a local market. The traditionally centralized system of large-scale production and long-distance electricity transport can potentially be replaced by small-scale production in local systems. The system must nonetheless meet the requirements of being in constant balance between supply and demand, which builds on centralized coordination. Retail payment systems is another example facing technological discontinuity. Centralized actors and systems have traditionally ensured stability and efficiency as well as national control but are now challenged by decentralized control and decentralized technologies. Blockchain protocols and decentralized ledger technologies have led to the creation of paradigmatically different systems and services for payments where Bitcoin is the prime example. There are strong tensions between centralized control via central banks and principles of decentralized technologies.

The questions for this workshop concern how businesses – in energy and in payment services - are being challenged by new actors, new technologies, and new organizing principles, and how they can act. The overarching question is whether the benefits of large-scale technologies and centralized system properties can be combined with the benefits of decentralized technologies and principles. And, if so, how?

CHALLENGE-DRIVEN AND RESPONSIBLE INNOVATION

W2 - Renewable energy tech transformation and business modelling for socially just and equitable transitions

7. CHALLENGE-DRIVEN AND RESPONSIBLE INNOVATION

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Track summary: The contemporary challenges of transitioning from fossil fuel-based to renewable energy infrastructures, coupled with the exacerbation of social disparities within and between nations, constitute two paramount concerns in the endeavor to foster a more sustainable global paradigm. Recent scholarship often posits that renewable energy tech transformations have the potential to decentralize power structures and foster positive contributions to social equity. However, empirical evidence underscores the counterargument that renewable energy infrastructure deployment may, conversely, have adverse ramifications on social equity. Among the contributing factors are current business models and market approaches that fail to support equitable and socially just tech transformation. Prior research on energy transitions underscores the risk of perpetuating social disparities, energy injustices, and passive public involvement when adhering to conventional business approaches and technocratic traditions in research and development related to energy transitions. In this track we invite papers which look at, but not limited to particularly the following topics:

- Science-based advancements for tech transformations related to energy generation, storage and delivery considering their potential impact on social equity and justice in the nearby and more faraway future.
- Implications of tech transformations and innovation processes for businesses, citizens, social justice, and societal equity.
- Business models and market approaches/strategies that fit with these changes and that can enhance social justice and social equity.

W3 - Fostering Collaboration between Academia and Industry for Challenge-Driven Innovation

7. CHALLENGE-DRIVEN AND RESPONSIBLE INNOVATION

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Track summary: In this track we aim to develop a workshop with the purpose to foster a dialogue between academia and industry stakeholders. The workshop's primary goal is to harness collective wisdom, foster mutual learning, and catalyze meaningful collaborations towards challenge-driven innovation. In essence, this workshop seeks to ignite the collective energies of academia and industry towards addressing the pressing challenges of our times. By bridging gaps and fostering a collaborative spirit, the hope is to drive innovations that are not only transformative but also sustainable for future generations.

Examples of Research Topics Connected to the Theme:

The Efficacy of Challenge-Driven Education (CDE): Studies focusing on how CDE instills real-world problem-solving skills in students and its impact on innovation.

Role of External Stakeholders in CDE: Delving into how external partnerships, from industries to civil societies, enhance the depth and breadth of learning for both students and stakeholders.

Organizational Learning and Challenge-driven Innovation: Research on the influence of organizational culture, leadership strategies, and team dynamics on fostering or hindering challenge-driven innovation in organisations.

Failures as Catalysts for Innovation: Investigations into how organizations perceive failures and the potential lessons derived from them to drive innovative solutions addressing societal challenges.

Intersection of Challenge-Driven Innovation and CDE: Exploration of how combining academic insights from CDE with learning can spur challenge-driven innovation.

Societal Impacts of Academia-Industry Innovations: Research on the broader societal implications and transformations resulting from innovations that stem from the nexus between academic institutions and industries.

ECOSYSTEMS ALLIANCES AND COLLABORATIONS

W4 - Managing and mitigating uncertainty and risk in ecosystem design enabling data-driven innovation

21. ECOSYSTEMS ALLIANCES AND COLLABORATIONS

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Track summary: When business ecosystems enabling data-driven innovation succeed, the value derived from the firms' partnership captures value which no single firm could have done so by themselves (Adner, 2006, 2013; Hornung-Prähauser et al., 2022; Thelen et al., 2023). However, ecosystem actors possess varying degrees of ecosystem dependence and ecosystem risk that they will not deliver to their share (Talmar et al., 2020). Firms must conduct an internal assessment of ecosystem uncertainties, their own performance, and their collaboration partners' performance. Thus, central to an innovation strategy is how one makes a tradeoff between the extent of the market opportunity and the size of the ecosystem risk(s) involved, and how they rank the different market opportunities (Adner, 2006).

As a result, a success factor in any ecosystem lies in its design and organization, such as whether it is open vs. closed; imposed vs. voluntary and its degree of control (Jacobides et al., 2018). Additionally, ecosystem design must consider surrounding uncertainties and knowledge distances within an ecosystem enabling technology resp. data-driven innovation (Lingens et al., 2021). Thus, capturing the optimal design and orchestration of digital innovation ecosystems is highly relevant for the R&D Management community.

This track welcomes both conceptual and empirical papers (e.g. case studies on strategies of risk assessment and mitigation; governance and orchestration of AI/IOT data-driven innovation ecosystems) and will be delivered in a workshop setting which allows exchange of theoretical and practical background in ecosystem design methods and tools.

References (see below)

W5 - Managing innovation eco-systems as complex adaptive systems: challenges, advantages and limits for research and practice

21. ECOSYSTEMS ALLIANCES AND COLLABORATIONS

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Track summary: Innovation is a dynamic, complex phenomenon. Most scholars and practitioners would agree on that, and an empirical confirmation can be found in the recent dynamic reaction of innovation eco-systems to the COVID pandemic and to the transition towards circular economy, where companies are innovating their business models and supply chains. Innovation eco-systems are actually evolving as complex adaptive systems, in which many actors are leveraging their resources and capabilities and creating new ones, by interacting one with each other at multiple levels, to allow innovative solutions to new problems emerge, in very short time.
Despite the above, the use of complexity science (and of the related methodologies) in the field of innovation management is still very limited and, hence, it is not clear yet how studying innovation eco-systems with the lens of complexity science would help a better understanding of these systems.

This track is aimed at presenting and discussing current researches that adopt the approach of the complexity science and the related methodologies to investigate innovation eco-systems anbd their organization. The objective is to understand what the potential contribution of this approach is, whether it can provide insights for new management support tools and guidelines, how it can be integrated with traditional approaches to achieve a more comprehensive and meaningful representation of innovation eco-systems.
The track is organized in a workshop format, where participants will be given the time to actively comment the presented researches and the potential (added) value of complexity science for R&D and innovation management