

## Position Description

### 1. General Information

Name of the position	Exploring agentic AI systems in organizations
Foreseen enrolment date	September 2025
Position is funded by	<ul style="list-style-type: none"> <li>• COFUND, Marie Skłodowska-Curie Actions (MSCA), Horizon Europe, European Union</li> <li>• Kaunas University of Technology (KTU)</li> <li>• RMIT University</li> </ul>
Research Host	Kaunas University of Technology (KTU)
PhD awarding institutions	Kaunas University of Technology (KTU) & RMIT University
Locations	Primary: Kaunas, Lithuania Secondary: Melbourne, Australia
Salary	36,336 EUR annual <b>gross</b> salary (incl. paid vacation) (3,028 monthly gross salary)
Supervisors	<ul style="list-style-type: none"> <li>• Mantas Vilkas, Professor, KTU</li> <li>• Andrius Grybauskas, Associate Professor, KTU</li> <li>• Kok-Leong Ong, Professor, RMIT</li> <li>• RMIT Associated Supervisor TBC</li> </ul>
Group of discipline	Management, Data Science, Machine Learning, Artificial Intelligence

### 2. Research topics (only one of these projects will be funded)

#### Project 1: Exploring Agentic AI Systems in Organizations: Enhancing Autonomy, Adaptability, and Innovation

Agentic AI systems refer to algorithmic systems exhibiting high degrees of agenticness. They are enabled by Foundation Models such as GPT, customized foundational models, or machine learning algorithms-enabled solutions designed by organizations for custom use cases. The degree of agenticness constitute the extent to which a system can adaptably achieve complex goals in complex environments with limited direct supervision. Agentic AI systems in organizational settings function as autonomous, purpose-driven artificial intelligence frameworks that operate dynamically within the organization to support decision-making, problem-solving, and goal achievement. These systems integrate AI's capability to analyze datasets, learn from interactions, and adapt to changing environments, making them highly relevant in complex and adaptive organizational settings. The technology-facilitated agentic systems have been explored in a variety of research traditions, ranging from socio-technical systems, socio-materiality, multi-agent systems and Artificial Intelligence. These studies were predominately concerned with AI agentic systems characterized by a considerably low extent of agency. The



AI agentic systems exhibiting moderate-to-high agency levels raise new challenges in organizational settings. This research is intended to answer the following research questions: How do agentic systems influence the processes of innovation in organizations? To what extent do Agentic AI systems contribute to substantive and dynamic capabilities? The research aims to shed light on the effects of Agentic AI systems on innovation and agility of organizations. This study employs a design science research framework to design, implement, and evaluate an agentic system within a business organization. This approach enables both the creation of a novel system and the generation of knowledge about its impact on organizational processes and outcomes. The research contributes theoretically by proposing a multi-level explanation of agentic AI systems' effects on substantive and dynamic organizational capabilities.

**Supervisors:** Mantas Vilkas (KTU), Andrius Grybauskas (KTU), Kok-Leong Ong (RMIT)

**Research Fields:** Digital Transformation, Artificial Intelligence and Organizational Innovation

### Project 2: *High-Agentic AI Systems in Organizations to foster continued innovation*

High-agentic AI systems represent advanced algorithmic frameworks characterized by their capacity to autonomously and adaptively achieve complex goals in dynamic environments with minimal supervision. Enabled by foundational models such as GPT, customized AI frameworks, or tailored machine learning algorithms, these systems extend traditional AI capabilities by exhibiting high levels of agency. In organizational contexts, they function as purpose-driven, dynamic systems that enhance decision-making, problem-solving, and goal attainment through advanced data analysis, iterative learning, and environmental adaptability. While earlier research has explored low-agency AI systems within socio-technical systems, socio-materiality, and multi-agent paradigms, the emergence of moderate-to-high agentic systems introduces novel challenges. These systems raise critical questions about their influence on organizational innovation, agility, and dynamic capabilities. This research addresses two key questions: (1) How do high-agentic systems shape innovation processes within organizations? (2) To what extent do they contribute to enhancing substantive and dynamic organizational capabilities? Using a design science research framework, the study aims to design, implement, and evaluate a high-agentic AI system within a business organization. This dual approach will generate practical insights into the deployment of such systems while contributing theoretical advancements by offering a multi-level explanation of their effects on organizational capabilities. Ultimately, the research seeks to illuminate how high-agentic systems can drive innovation, enhance agility, and redefine organizational potential in complex environments.

**Supervisors:** Mantas Vilkas (KTU), Andrius Grybauskas (KTU), Kok-Leong Ong (RMIT)

**Research Fields:** Innovation Management, Human-AI Interaction

### Project 3: *High-Agentic AI Systems for Designing Sustainable and Regenerative Solutions*

High-agentic AI systems are advanced algorithmic frameworks capable of autonomously and adaptively achieving complex goals in dynamic environments with minimal supervision. Powered by foundational models such as GPT, customized AI architectures, and machine learning algorithms tailored to organizational needs, these systems exhibit high levels of agency. In the context of sustainability and regeneration, they represent transformative tools for developing innovative solutions that align with environmental, social, and economic objectives. This research explores how high-agentic AI systems can be harnessed to design sustainable and regenerative solutions within organizations. These systems' ability to analyze complex datasets, learn iteratively, and adapt to changing environments positions them as key enablers in addressing critical challenges like resource optimization, ecosystem restoration, and circular economy practices. By integrating dynamic capabilities into decision-making and problem-solving, high-agentic AI systems drive innovation in crafting solutions that restore ecological balance, reduce waste, and build resilience. Prior research has largely focused on low-agency AI systems in socio-technical and socio-material frameworks. However, the emergence of high-agentic systems introduces new challenges and opportunities for designing solutions that go beyond



incremental improvements to achieve systemic regeneration. This study seeks to address two core questions: (1) How do high-agentic systems influence the creation of sustainable and regenerative innovations? (2) To what extent can they enhance organizational capabilities to achieve long-term sustainability goals? Employing a design science research framework, the study involves designing, implementing, and evaluating a high-agentic AI system within an organizational setting. This approach facilitates the development of practical, scalable solutions while generating theoretical insights into how such systems impact organizational processes and outcomes. By focusing on sustainability and regeneration, this research aims to provide actionable strategies for organizations to transition toward more sustainable and resilient futures, leveraging the transformative potential of high-agentic AI systems.

**Supervisors:** Mantas Vilkas (KTU), Andrius Grybauskas (KTU), Kok-Leong Ong (RMIT)

**Research Fields:** Artificial Intelligence for Sustainability, Regenerative Design

### 3. Employment Benefits and Conditions

Kaunas University of Technology (KTU) offers a 48-month full time work contract. The total working hours per week are 40.

The remuneration, in line with the European Commission rules for Marie Skłodowska-Curie grant holders, will consist of a **gross annual salary** of yearly 36,336 EUR per year (which is of monthly 3,028 EUR). Of this amount, the **estimated net salary** to be perceived by the Researcher is 1,832 EUR per month. However, the definite amount to be received by the Researcher is subject to national tax legislation.

#### Benefits include:

- Becoming a Marie Skłodowska-Curie fellow and be invited to join the Marie Curie Alumni Association
- Access to all the necessary facilities at KTU and RMIT University
- Tuition fees exemption at both PhD awarding institutions
- Travel allowance to cover flights and accommodation for participating in DREAM+PLAN events
- Up to 12 months in Australia
- 20 days paid holiday leave
- Social security coverage
- Sick leave
- Parental leave.

### 4. PhD enrolment

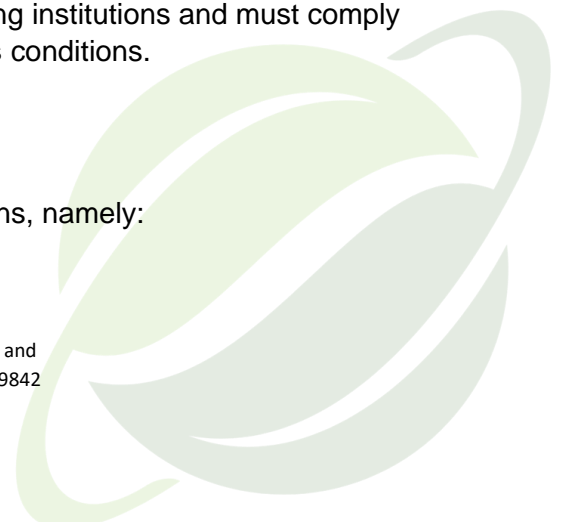
Successful candidates for this position will be enrolled by the following institutions and must comply with their specific entry requirements, in addition to DREAM+PLAN's conditions.

#### Kaunas University of Technology (KTU)

To enrol in a Doctorate program you must meet the general conditions, namely:



This project has received funding from the European Union's Horizon Europe research and innovation programme under the Marie Skłodowska-Curie grant agreement N° 101179842





- The requirements for enrolling in a doctoral program are listed here: <https://admissions.ktu.edu/phd/#application-for-the-admission>

More information: <https://admissions.ktu.edu/phd/#dates-and-deadlines-to-doctoral-studies-coordinated-by-the-KTU>

### **RMIT University**

Visit the website: <https://www.rmit.edu.au/research/research-degrees/how-to-apply>



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