WS	Title	Summary
1	Industry Challenges for Robotics - Towards Co-Creating Solutions - Large organisations	This interactive workshop brings industry, robotics researchers and technology providers together to present real-world industrial challenges, exchange ideas, build collaborations and co-create practical robotics solutions, accelerating knowledge transfer from industry needs into research, innovation and future deployment opportunities.
2	Industry Challenges for Robotics - Towards Co-Creating Solutions - SMEs	This interactive workshop brings industry, robotics researchers and technology providers together to present real-world industrial challenges, exchange ideas, build collaborations and co-create practical robotics solutions, accelerating knowledge transfer from industry needs into research, innovation and future deployment opportunities.
3	Bridging the gap: Robotics Founders and Investors	Explore how robotics founders and investors can better understand each other's priorities, funding models and decision-making to bridge the gap between promising technologies and investment-ready ventures.
4	Innovation Translation - journey from idea to reality	Discussing the translation of (research) ideas into products. Listen to start-ups, their journey, the highlights and pitfalls.
5	The Power of Robotics Clusters: Do They Drive Growth and Adoption?	To discuss the benefits of Clusters, particularly their impact on innovation and adoption, and to consider how European clusters and networks could be strengthened to enhance collaboration and drive greater impact.
6	Managing for Unknowns: Rethinking Compliance for Autonomous Systems	As AI-driven autonomous systems outpace regulation, businesses must map risk, governance, and compliance now, this workshop surveys current initiatives—licensing for highly variable environments, sandboxes, EU AI Act—via a panel and groups discussing the regulatory foundations needed.
7	Solving the Adoption Challenge: From Market Validation to Scaled Deployment	This workshop explores accelerating responsible robotics adoption through market receptiveness, commercial validation and whole-system readiness. Participants will examine how human-centred design, workforce culture and regulatory collaboration can build trust, overcome deployment barriers and enable successful adoption at scale.
8	From Acceptance to Impact: Building Trust in Robotics	This workshop explores the factors that shape public and workforce acceptance of robotics. Drawing on lessons from successful deployments and challenges experienced across sectors, the discussion will identify practical approaches to building trust, overcoming resistance to change, and ensuring robotics delivers value for people, organisations and society.
9	Robotics Infrastructure - for Translation and Adoption	Robot Test and Validation Infrastructure: How to Go From Prototype to 24/7 Operations
10	Building the Future Robotics Workforce: Skills, Infrastructure and Research Environments	How can robotics education, workforce development & Research labs evolve together to equip people with skills, infrastructure and Practical experience needed for next-gen robotics innovation?
11	Hybrid Production Systems 14: Rethinking Manufacturing through Robotics and Physical AI	This workshop unites industry and research to identify manufacturing bottlenecks and reconfiguration challenges, then showcases robotics, Physical AI, and automation innovations—culminating in a roadmap for flexible, resilient, future-ready production systems.
12	Digital Twins for Manufacturing and Robotics	Discussing the adoption of digital twins in manufacturing: 1) how they relate to robotics, 2) how digital twin and robotics can boost each other to improve efficiency, 3) how to de-risk using simulation and digital twins.
14	People and Production: Design of Human-Centric Robotic Systems	Exploring the intersection of technology and humans, this workshop presents tools for designing purposeful jobs, ensuring people are not simply left with what robotics and AI cannot do, while examining what should be automated, rather than what could be automated.
15	From Autonomy to Teaming: Hybrid Human–Robot Systems in Practice	Because hybrid human–robot teams promise more than automation alone yet rarely reach deployment, this workshop examines European use cases, interaction protocols for shared perception and control, and validation needs, producing a jointly prioritised set of barriers.
16	Robotics in healthcare : Towards minimally invasive surgery	From existing tele-manipulation systems to AI-guided or autonomous systems, passing through microbotics, this workshop offers an overview of recent innovations in the field of healthcare robotics.

WS	Title	Summary
17	Additive Manufacturing for Mechatronic and Robotic Systems	This workshop brings together robotics, AI, materials, and additive manufacturing experts to define a European roadmap for autonomous production cells capable of manufacturing, inspecting, and finishing complex mechatronic and robotic systems, identifying priorities, collaboration opportunities, and future actions.
18	Scaling Inspection & Intervention Robotics: Across Manufacturing and Critical Infrastructure	Learn from and engage with end-users, R&D; organizations and solution suppliers on the topic of key success factors and barriers to scaling robotics solutions for high-value inspection and maintenance use cases.
19	Observing the Unobservable: Robotic Inspection and Digital Twins under Partial Observability	Robots cannot inspect everything; this workshop explores what observations robotic systems should acquire, what AI and digital twins can reliably infer from incomplete evidence, and how those inferences can be validated and trusted.
20	Autonomy levels framework for pathway to autonomous mobile machine	The workshop introduces and validates a shared autonomy-level framework for field robotics and mobile machines, supporting safer deployment, cross-industry collaboration, human–machine cooperation, and business value assessment.
21	Cybersecurity in ubiquitous intelligent robotics: regulatory, technological and societal aspects	This workshop gathers AI, Data and Robotics practitioners, entrepreneurs, policy makers and researchers to discuss the tremendous opportunities and issues raised by the coming ubiquitous presence of smart systems, robots and AI agents in our close future society.
22	Dexterous Objects Manipulation in Dynamic Environment: From Research to Industry	This workshop explores robust robotic manipulation in uncertain environments by integrating advances in end-effectors, multimodal perception, physics-based reasoning, and data-driven learning to enable reliable interaction with rigid, deformable, and mechanically variable objects across real-world industrial and agricultural applications.
23	Mobile Robotics and Manipulation: Bridging Research and Industry	Building on ERF2026 “Coupling Mobile Robotics & Manipulation”, this interactive workshop bridges the gap between academic innovation and industrial deployment across the entire mobile manipulation chain, uniting researchers, end-users, and robotics manufacturers.
24	Benchmarking Dexterous Robot Manipulation: Performance Evaluation as a Key Enabler to Transition	This workshop will present varying perspectives on how effective characterization and benchmarking of dexterous robot manipulation – ranging from hardware robustness, algorithm performance, and definitions of success criteria – are key enablers to maturing and transitioning these technologies.
25	Humanoid robots beyond hype: which applications will scale first?	This interactive workshop identifies and prioritizes the most promising near- and long-term use cases for humanoid robots across industry and public sectors. Comparing humanoids with alternative robotic solutions, participants will assess feasibility, value, barriers and expected adoption timelines to develop a humanoid deployment roadmap.
26	Humanoid Safety, Benchmarking and Validation	We address safety and basic abilities of humanoid robots and ways to measure and validate feasibility and regulatory compliance in an interactive workshop.
27	Robotics for Sustainable Circularity: Overcoming the Technology, Regulatory and Business Challenges	The transition to a circular economy presents significant opportunities for robotics in disassembly, decommissioning, remanufacturing and critical material recovery. This workshop brings together stakeholders to explore technology, regulation and business case barriers and collectively identify practical routes to implementation.
28	The Humanoid Boom: Are We Ready for the Afterlife?	As humanoid robot production accelerates, so does an overlooked question: what happens at end-of-life? This workshop explores repair, self-repair, reuse, and robotic scavenging, asking how retired robots and components could become resources for future systems rather than electronic waste.
29	Closing the Battery Loop: Robotics for Safe and Adaptive EV Battery Disassembly and Recovery	From battery pack to second life: the workshop brings European projects together to tackle shared bottlenecks in safe, intelligent and scalable robotic EV battery dismantling and define common benchmarks, research priorities and pathways toward industrial deployment.
30	Robots in the Wild: Advancing Environmental Monitoring	Robotics is opening new possibilities for monitoring our changing environment, from remote ecosystems to complex landscapes. This workshop explores the opportunities, challenges, and responsible use of robotic technologies for environmental monitoring, bringing together perspectives from robotics, ecology, conservation, and related fields.

WS	Title	Summary
31	Your next teammate is a robot - do you feel safe?	A robot can be certified safe and still feel unsafe to work with. In this workshop we address the technical challenges and human factors shaping real and perceived safety in human-robot collaboration, from shared manufacturing tasks to social interactions.
32	Safety Beyond the Standard: What Robotics Research Knows That ISO Doesn't (Yet)	Are European safety standards protecting us or holding us back? This workshop challenges the status quo, asks what robotics and automation research already knows that standards don't reflect, and explores what a future-ready safety framework should look like.
33	Robotics and AI for SMEs From Pilots to Impact: Robotics and AI for SMEs Accelerating Robotics and AI Adoption in European SMEs	An interactive workshop connecting real SMES through robotics experiments coming of Open Calls with AI-enabled autonomy, human-robot collaboration and practical strategies for turning successful pilots into scalable, flexible, trustworthy and economically viable industrial solutions. An interactive workshop connecting real-world SME robotics experiments funded through European open calls with AI-enabled autonomy, human-robot collaboration and practical pathways for turning successful pilots into scalable, flexible, trustworthy and economically viable industrial solutions.
34	Rethinking the V-Cycle for AI-Driven Robotics and Automation	This workshop explores how rethinking the V-cycle can embed safety, assurance, verification, validation, and certification throughout the development of AI-driven robotics and automation, while enabling innovation, productivity, system integration, and trustworthy industrial adoption across Europe at scale with reliable deployment.
35	Human - Humanoids Co-existence for Service Industry	How can Europe turn advances in humanoid and service robotics into sustainable real-world impact? This workshop explores deployment challenges, human-centered co-existence, heterogeneous robot ecosystems, and emerging business opportunities across hospitality, tourism, and service industries, shaping priorities for scalable adoption.
36	Leveraging Data for Robotics: From Data Spaces and AI Factories to Real-World Deployment	This workshop explores how data spaces can address data availability for AI and robotics at scale, from data collection, lifecycle management, governance, IPR and interoperability to synthetic data, AI Factories and TEFs, enabling trustworthy AI development, testing and deployment across domains.
37	Engineering Robust, Adaptive and Autonomous Robotic Systems	As robotic systems become more autonomous and adaptive, new engineering challenges arise. This workshop explores engineering approaches to robust design, integration, runtime decision-making, and resilience, and gathers concrete use cases for the upcoming Systems and Software Engineering TG white paper.
38	Robot teams and swarms -	
39	Beyond the Demo: Grounded, Trustworthy and Deployable Physical AI for Robotics	How can Europe move from impressive Generative AI and foundation-model robot demos to grounded, physically reliable and deployable systems? This workshop will identify shared challenges, validation needs and priorities for trustworthy Physical AI.
40	Quantum Robotics Standardization: Challenges and Roadmap	Bringing together industry, researchers and policy stakeholders to develop a shared roadmap towards standardization of quantum robotics by identifying and prioritizing the terminology, interfaces, benchmarks, and evaluation practices needed to harmonize quantum-enabled robotic systems.
41	Embodied AI at Scale: Interoperability, Lifecycle Management and Governance.	This workshop explores the interoperability, lifecycle, assurance, and governance challenges limiting scalable deployment of embodied AI across robotics, industry, and space, developing a cross-sector roadmap and white paper for trustworthy, resilient, and governable embodied AI systems.
42	Robotics for a World in Polycrisis	Geopolitical tensions, technological competition, climate pressures, and shifting global dependencies are reshaping the environment for robotics. This workshop explores how these interconnected challenges affect the robotics community, and how robotics can contribute to resilience in an increasingly complex and uncertain world.
43	Closing the deployment Gap in Physical AI for pose estimation and quality inspection	The workshop brings research and industry together to close the deployment gap in 6D pose estimation and quality inspection for physical AI, through talks, guiding questions, and a panel discussion.

WS	Title	Summary
44	From Capability to Care: Trusted and Deployable Robotics for Resilient Healthcare	An interactive workshop on turning AI, robotics, drones and autonomous systems into trusted, scalable healthcare solutions that support caregivers, strengthen care for older and frail people, and improve resilience in everyday practice and crises.
45	From New Robots to Real-World Deployment: Challenges for Robotics Adoption in Construction	This workshop explores recent advances in construction robotics and the challenges limiting their widespread adoption. Through presentations and discussion with researchers and industry experts, it aims to identify key barriers and opportunities for bringing emerging robotic solutions from successful demonstrations to routine construction practice.
46	Robotic Handling of viscous, hazardous, and complex materials in Segregated environments (Isolators, Cleanrooms, and Gloveboxes)	This workshop explores how telerobotics and adaptive automation can enable safe, effective manipulation of viscous pastes, slurries, adhesives and battery materials, bringing together industrial, R&D; and academic perspectives to address key technical bottlenecks.
47	Effectiveness and Safety of Robotic Systems with Higher Intelligence and AI in Nuclear and other Harsh Environments	WS will try to answer the question of how to achieve a reliable and safe robotic system using AI in conservative nuclear and other harsh applications, to persuade investors about its safety even in unstructured environment and reaching TRL8-9.
48	Unlocking Robotics Adoption in Food and Drink Manufacturing: From Business Case to Deployment	An industry-led workshop exploring how food and drink manufacturers can overcome commercial, financial and workforce barriers to robotics adoption, learn from successful deployments, and identify practical actions and collaboration opportunities to accelerate adoption at scale.
49	From Lab to Farm: Closing the Gaps for Robust, Usable and Scalable Agricultural Robotics	Bridging the gap from lab to farm, this interactive workshop addresses technical robustness, human-robot collaboration, and business models to define a European roadmap for scalable agricultural robotics.
50	Rethinking Space Robotics: From Assembly to Sustainability	This interactive workshop explores how autonomous multi-robot systems and human-robot collaboration can enable sustainable in-orbit assembly, servicing, manufacturing and waste management, accelerating the transition from promising research to scalable, real-world space infrastructure.
51	Aerial Robots beyond the lab	Drawing on many years of experience and evolving industry trends, this workshop explores how Europe can bridge the gap between world-class aerial robotics research and industrial adoption by aligning innovation with operational, regulatory, and market needs.
52	Dual-Use Defense Robotics Beyond the Buzz	Drawing on lessons from ERF26, this interactive workshop brings defense, research, industry, and policymakers together to explore how dual-use robotics can move beyond the buzz toward scalable solutions that bridge civilian value, defense readiness, rapid innovation, and evolving operational needs.
53	Unlocking the Value of Robotics Statistics: Building Reliable Data for Industry, Research & Policy	This workshop brings together industry, academia and robotics organisations to identify practical, collaborative approaches for improving robotics statistics in Europe through best practices, harmonised data frameworks, and better market visibility for service and mobile robotics.
54	Towards Marine Robotics for Critical Maritime Infrastructure: Inspection, Maintenance and Protection	This workshop explores how autonomous marine robots can enable safer, more efficient inspection, maintenance and protection of critical subsea assets, bringing together experts from research and industry to address deployment challenges and accelerate adoption across energy and communications infrastructure.
55	6G empowering Physical AI: Architectures, Governance, Deployment	Bringing together researchers, industry, and standards leaders, this workshop maps how 6G architectures, governance frameworks, and deployment pathways will make Physical AI and connected robotics scalable and reliable — and what standardisation must deliver next.
56	Robot Companions: Character, Trust, and the Human Future	This workshop brings together robotics, engineering, design, and humanities perspectives to examine the emergence of robot companions — humanoid, wearable, and autonomous — and to co-develop practical principles for character-based interaction design and trust that can guide responsible deployment in healthcare, domestic, and workplace settings.

WS	Title	Summary
57	The Donut Paradox: Why Belonging in Robotics Is Still Not the Default	This workshop moves past acknowledging the diversity gap in robotics. It asks the specific, practical questions about recruitment, retention, visibility, and mentoring that actually make belonging the default, not the exception.
58	Beyond Control: Co-Design for Intelligent Robot Bodies	This workshop explores how optimisation- and learning-based approaches, that have transformed robot control over the past decade, can be applied to the fundamental question of the design of the physical robot body through computational co-design.
59	From Principles to Practice: Embedding Ethical and Responsible Considerations in the Design, Integration and Deployment of Robotics Systems	This workshop explores how ethics, responsible AI principles and governance can be translated into practical approaches for designing, integrating and deploying safe, trustworthy and socially responsible robotics systems.
60	Urban Robots: Getting ready for an innovative Era	As robotic devices increasingly roam public spaces, delivering takeaways, gardening, maintaining and more, this workshop advances new understanding for the governance required: licensing, performance criteria, testing and assurance, alongside the urban infrastructure rules that can underpin safe, sensible deployment.
61	Robotics & AI for Science: Accelerating Scientific Discovery through Autonomous Systems	This workshop will bring together roboticists and leading experts in AI, structural biology, biotechnology, materials science and chemistry to explore how robotics, autonomous laboratories and AI-driven experimentation can accelerate scientific discovery and enable the next generation of breakthrough advances.
62	Robotics in the world - linking to robotics outside Europe	
63	Exploring robot co-design and deployment principles for ethical, inclusive and sustainable innovation.	This workshop will explore expert and user experience to develop principles for the (co)design and deployment of ethical, inclusive and sustainable robotic systems to enhance adoption, and longer term economic and societal impact.
64	Trustworthy human-centric robotics in Industry 5.0: design for oversight, safety, and acceptance	This workshop explores how human-centric robotics in Industry 5.0 can earn user trust, showing through industrial use cases and an academia-industry panel how meaningful oversight, safety, and acceptance together build collaborative systems people are willing to work alongside.
65	Robotics Innovation Instruments evaluation	Impact of instruments to support innovation in robotics in the EU and the Member States
66	EC Success stories	
67	Apply AI in Robotics	
68	From Research to Real-World Impact: Shaping the Future of Robotics	With the rapidly evolving robotics landscape, this workshop aims to give early-career researchers the tools to drive innovation through policy, ethics, and entrepreneurship to deliver meaningful impact on wider society and address technical challenges in industry.
105	Feedback Session – Please join!	We'd like to get feedback on the questions: What worked well and should be continued in future editions? Which aspects can be improved, from programme to organisation and format? What new ideas, formats, topics would the community like to see?
150	Renaud Champion Entrepreneurship Award	Watch innovative startups compete for this prestigious euRobotics prize, pitching groundbreaking robotics ideas to expert tech investors to build high-value interest and launch the market's next big thing.
151	Georges Giralt PhD Award	Discover Europe's brightest robotics minds as top PhD graduates compete for this prestigious euRobotics prize. Delivered at the European Robotics Forum, the Georges Giralt award celebrates extraordinary PhD dissertations driving cross-disciplinary innovation, scientific progress, and the next generation of pioneers in the robotics field.
152	euRobotics TechTransfer Award	Selected finalists pitch market-ready innovations at the European Robotics Forum, showcasing outstanding research-to-industry transfer. See how research becomes impactful applications that strengthen Europe's leadership

WS	Title	Summary
153	Sustainability Leadership Recognition in Robotics 2027	The Sustainability Leadership Recognition in Robotics celebrates outstanding efforts to advance sustainability across the robotics community. It highlights initiatives that use robotics to address sustainability challenges and promote more responsible practices in the development, deployment and lifecycle of robotic technologies.
170	Publishing in High-Impact Research Journals: Tools, Ethics & Best Practices	A comprehensive introduction to publishing in leading research journals, covering editorial evaluation, peer review strategy, manuscript development, publication ethics, research dissemination, and emerging considerations surrounding the use of artificial intelligence in scientific publishing.
172	Ideal-IST NCP WS	
185	B2B Matchmaking Session 1	The aim of the Matchmaking is to encourage 1:1 contacts and generate meaningful business opportunities among attending participants.
400	General Assembly	General Assembly (euRobotics members only)

WS1

Industry Challenges for Robotics - Towards Co-Creating Solutions - Large organisations

This interactive workshop brings industry, robotics researchers and technology providers together to present real-world industrial challenges, exchange ideas, build collaborations and co-create practical robotics solutions, accelerating knowledge transfer from industry needs into research, innovation and future deployment opportunities.

Agenda

Time	Activity	Speaker / Moderator / Lead

Main organiser

Johannes Kurth, Robuen

Additional organisers

- Mike Wilson, The MTC

WS2

Industry Challenges for Robotics - Towards Co-Creating Solutions - SMEs

This interactive workshop brings industry, robotics researchers and technology providers together to present real-world industrial challenges, exchange ideas, build collaborations and co-create practical robotics solutions, accelerating knowledge transfer from industry needs into research, innovation and future deployment opportunities.

Agenda

Time	Activity	Speaker / Moderator / Lead

WS3

Bridging the gap: Robotics Founders and Investors

Explore how robotics founders and investors can better understand each other's priorities, funding models and decision-making to bridge the gap between promising technologies and investment-ready ventures.

Description

Europe has world-class robotics research, technical talent and emerging ventures, yet too many promising ideas struggle to secure the investment needed to reach industrial deployment and scale. Strengthening Europe's competitiveness and strategic autonomy requires a better bridge between robotics founders developing frontier technologies and investors assessing commercial opportunity, risk and readiness.

This workshop will explore that gap through interactive roundtable shaped around different journeys, championed by robotics start-ups, investors and ecosystem stakeholders invited to discuss what makes a venture investable, what barriers slow adoption, and how founders can better evidence market need, technical credibility, routes to deployment and scale-up potential.

By bringing both sides into a practical, open discussion, the workshop will generate shared insights on how Europe can turn robotics innovation into stronger companies, faster adoption and greater industrial impact.

Agenda

Time	Activity	Speaker / Moderator / Lead
5	Workshop Introduction	Agata
20	Introductions (each presenter - two minutes telling about their Journey (guided by questions shared before about "highest highlight" and "deepest pitfall", etc. This will give the audience an idea on which roundtable to join.	Representatives
40	The Start-up Journey - Roundtable	A table per start-up/investor;
15	Plenary Wrap-up	One designated person per table

Main organiser

Agata Suwala, MTC, Technology Manager

Additional organisers

- First Name Last Name, Organisation, Job Title
- Sam Kremer, BDF
- Jenny/ Radhika, ARIA

WS4

Innovation Translation - journey from idea to reality

Discussing the translation of (research) ideas into products. Listen to start-ups, their journey, the highlights and pitfalls.

Description

To strengthen Europe's competitiveness and strategic autonomy, faster and more effective transfer of emerging technologies from ideas to industry is essential. The workshop will focus on two types of journeys: those departing from academia and those that have a "Eureka-moment" outside academia.

This workshop explores the "gap" to be bridged between (research) ideas and industrial uptake through a set of roundtables. The roundtables focus on different types of journeys, challenges, etc., these will be championed by approx. 6 start-ups with diverse backgrounds that will moderate/encourage the discussion at the table. These experts might learn, inspire, and inform others on what it takes to translate ideas, what hurdles are faced and what makes them pull through.

Outcomes of the discussions will be gathered during the workshop and afterwards consolidated into articles published by the workshop organiser(s).

Agenda

Time	Activity	Speaker / Moderator / Lead
5	Workshop Introduction	
20	Start-up Introductions (each presenter/start-up can pitch "their idea"/product/company in two minutes) + two minutes telling about their Journey (guided by questions shared before about "highest highlight" and "deepest pitfall", etc. This will give the audience an idea on which roundtable to join.	Start-up Representative
40	The Start-up Journey - Roundtable (the start-ups will distribute over roundtables where interested members of the audience can join the discussion; if necessary, guided by questions from the moderator).	A table per start-up; start-up representative is the moderator.
15	Plenary Wrap-up	By start-up representative

Main organiser

Agata Suwala, MTC, Technology Manager

Additional organisers

- Wouter Kuijpers, Eindhoven University of Technology - Robotics Technology Center, Co-founder
- Tolu Ojo, University of Nottingham, PhD Researcher

WS5

The Power of Robotics Clusters: Do They Drive Growth and Adoption?

To discuss the benefits of Clusters, particularly their impact on innovation and adoption, and to consider how European clusters and networks could be strengthened to enhance collaboration and drive greater impact.

Description

The session will review the existing cluster structure in Europe, challenges and benefits as well as some of the newer clusters being created. The focus will be their impact on innovation and adoption. A discussion between the speakers and the audience will be facilitated to explore how European clusters and networks could be strengthened to enhance collaboration and drive greater impact as well as considering how euRobotics could play a strategic role. We are looking to understand how existing networks could be enhanced to drive greater impact for the benefit of Europe, not only robotics and industrial businesses but also wider society.

Agenda

Time	Activity	Speaker / Moderator / Lead
10 mins	Review of established clusters	David Bissett
5 mins 10mins	Conclusions from MTC clusters study	Mike Wilson
5 mins 8 mins	Cumbrian Robotics cluster	Miranda Kirschel
5 mins 8 mins	Barcelona cluster activity	Daniel Serrano
5 mins 8 mins	Robotics Scotland	Steve Maclaren
5 mins	West Midlands RAS Cluster	Mike Wilson
40 mins	Discussion (panel & audience)	Radhika Gudipati
5 mins	Wrap-up	Mike Wilson

Main organiser

Mike Wilson, MTC, Chief Automation Officer

Additional organisers

- Daniel Serrano, EURECAT, Head of Robotics
- Miranda Kirschel, ISH, Programme Director
- Radhika Gudipati, ARIA, Science and Technology Lead - Robotics

Speakers / panelists

- Mike Wilson, MTC, Chief Automation Officer
- Miranda Kirschel, ISH, Programme Director

WS6

Managing for Unknowns: Rethinking Compliance for Autonomous Systems

As AI-driven autonomous systems outpace regulation, businesses must map risk, governance, and compliance now, this workshop surveys current initiatives—licensing for highly variable environments, sandboxes, EU AI Act—via a panel and groups discussing the regulatory foundations needed.

Description

As AI-driven autonomous systems increasingly outpace the regulatory frameworks meant to govern them, businesses are under growing pressure to map risk, governance, and compliance now rather than waiting for certainty to arrive. This workshop takes stock of the regulatory foundations currently being built to manage that uncertainty — from licensing regimes designed for highly variable operating environments, to regulatory sandboxes, to the EU AI Act's evolving requirements.

The session opens with three short talks offering perspectives from the National Committee for Robotics Regulation and Standards (NCRRS) and Scuola Superiore Sant'Anna focused on the EU AI Act. These set up a moderated panel and audience discussion structured around three central questions: which requirements apply and when (sandboxing), what challenges existing regulation creates (the interaction between the EU AI Act and the Machinery Directive), and how assurance of autonomous systems can practically be managed. The session will leave ample room for debate and will involve participants in a discussion, also aimed at understanding the priorities of the community in addressing relevant regulatory compliance issues. Relevant takeaways will be used, when relevant for policy statements on this matter.

Agenda

Time	Activity	Speaker / Moderator / Lead
Part A - 30 minutes	Part A: Speakers/Presentations covering the EU AI Act and the Machinery DIrective, Sandboxing and Assurance of Autonomy	Speakers: 1) David Bisset 2) Dr Dr Andrea Bertolini 3) Dr Paolo Picca
Part B - 45 minutes	Part B: Interactive feedback from the audience + Panel Discussions	Moderator (Vaibhav Puri OBE) + the three Speakers
Part C - 5 minutes	Part C: Concluding observations	Moderator (Vaibhav Puri OBE)

Main organiser

Vaibhav Puri, UK National Committee for Robotics Regulation and Standards (NCRRS), Co-Chair NCRRS Director of Sector Strategy - Rail Safety and Standards Board

Additional organisers

- Marta Mariolina Mollicone, Sant’Anna School of Advanced Studies, Postdoctoral Research Fellow
- Kateryna Portman, Anybotics, Senior Product Manager

WS7

Solving the Adoption Challenge: From Market Validation to Scaled Deployment

This workshop explores accelerating responsible robotics adoption through market receptiveness, commercial validation and whole-system readiness. Participants will examine how human-centred design, workforce culture and regulatory collaboration can build trust, overcome deployment barriers and enable successful adoption at scale.

Description

Robotics has the potential to address some of the world's most pressing challenges, from improving productivity in manufacturing and logistics to supporting healthcare delivery, public services and an ageing population. But successful adoption depends on more than technological capability. It requires market confidence, commercial viability, regulatory alignment and a clear understanding of the needs of the people who will work with, use and be affected by robotic systems.

The workshop will begin with an interactive roundtable discussion. Participants will explore the factors that influence adoption in different sectors, sharing experiences of both successful deployments and ongoing challenges. Discussions will focus on topics such as market receptiveness, workforce readiness, trust and transparency, commercial validation, regulation and the role of human-centred design in creating solutions that people are willing to adopt.

Insights from the roundtable discussions will then be explored further through an expert panel, featuring speakers from across the robotics ecosystem. Panellists will reflect on the themes raised by delegates and discuss practical approaches to overcoming deployment barriers, building organisational and societal confidence, and creating the conditions for responsible adoption at scale.

The session will conclude with an audience Q&A, providing an opportunity for delegates to engage directly with the panel and identify the actions needed to accelerate robotics adoption. Together, the workshop will explore how industry, policymakers, researchers and end users can build whole-system readiness and unlock the full potential of robotics for people, organisations and society.

Agenda

Time	Activity	Speaker / Moderator / Lead
5 minute	introduction	Lead
20 minute	Round table discussion	Participants
15 minute	Round table feedback	Lead
25 minute	Panel	Speakers
10 minute	Q&A	Audience
5 minute	Wrap up	Lead

Main organiser

Gurpreet Ghataore-Khera, MTC, Business Development Manager

WS8

From Acceptance to Impact: Building Trust in Robotics

This workshop explores the factors that shape public and workforce acceptance of robotics. Drawing on lessons from successful deployments and challenges experienced across sectors, the discussion will identify practical approaches to building trust, overcoming resistance to change, and ensuring robotics delivers value for people, organisations and society.

Description

Robotics is becoming an increasingly visible part of our daily lives, transforming industries such as manufacturing, healthcare, logistics, agriculture, public services and even consumer environments. While advances in technology continue to expand the potential applications of robotics, successful adoption depends on more than technical capability alone. Public trust, workforce confidence, ethical considerations and perceptions of value all play a critical role in determining whether robotics is embraced or resisted.

This workshop will begin with a keynote presentation from a leading expert in robotics adoption, exploring how attitudes towards robotics differ across sectors, highlighting lessons from real-world deployments and barriers that still need to be overcome. We will explore the opportunities robotics presents for addressing challenges such as productivity, workforce shortages, safety and quality of life, while also considering the concerns that can accompany adoption.

The session will then move to a panel discussion featuring representatives from across industry, academia and policy. Panellists will share perspectives on what drives acceptance in different contexts, exploring topics such as workforce engagement, human-robot collaboration, transparency, skills development and the societal impact of robotics.

The workshop will conclude with an interactive audience Q&A, providing delegates with the opportunity to engage directly with speakers, challenge assumptions and discuss practical approaches to building trust and ensuring robotics delivers positive outcomes for people, organisations and society.

Agenda

Time	Activity	Speaker / Moderator / Lead
5 minutes	introduction	Lead
10 minutes	Interactive mentimeter session	Lead
15 minutes	Keynote	Speaker
5 minutes	Q&A	Lead
30 minutes	Panel session	Moderator & speakers
10 minutes	Q&A	Moderator
5 minutes	Wrap up	Lead

Main organiser

Gurpreet Ghataore-Khera, MTC, Business Development Manager

Additional organisers

- First Name Last Name, Organisation, Job Title

WS9

Robotics Infrastructure - for Translation and Adoption

Robot Test and Validation Infrastructure: How to Go From Prototype to 24/7 Operations

Description

How do you get your robots into 24/7 operations in harsh environments, either as a supplier or an end-user? This workshop tackles this question with examples from single organisation to national level that adopt different approaches. The aim is also to find the gaps – what's missing in the European landscape and what can we do to address this? This workshop brings together researchers, engineers, and facility operators to discuss robotic systems for inspection, maintenance, and intervention in areas such as manufacturing, energy supplier and large-scale science organisations where hazards such as access restrictions, dirty environments, radiation and limited communication are present. Through case studies and discussion, participants will identify common challenges, benchmarks, and future opportunities.

Agenda

Note: Not clear how long a workshop should be…going with 80 minutes based on previous ERF workshops, but if we can have longer then better □

Time	Activity	Speaker / Moderator / Lead
15 minutes	Intro and Icebreaker	Eloise Matheson (confirmed)
10 minutes	Presentation: Organisation Case Study: CERN	Christopher Mcgreavy or colleague (confirmed)
10 minutes	Presentation: National Case Study: UKAEA	Rob Skilton or colleague (confirmed)
10 minutes	Presentation: National/Industry Case Study: ROBDEKON	ROBDEKON - Dr. Janko Petereit (invited)
10 minutes	Presentation: National Industry Case Study: The MTC	Stuart Bailey or colleague (confirmed)
25 minutes	Audience Q&A with mentimeter	Eloise Matheson

Main organiser

Eloise Matheson, CERN, Robotic Engineer

Additional organisers

- Stuart Bailey, The MTC

Speakers / panelists

- Eloise Matheson, CERN, Robotics Engineer
- Chris Mcgreavy, CERN, Robotics Engineer
- Stuart Bailey, The MTC
- Rob Skilton, UKAEA, Robotics Engineer
- Janko Petereit, ROBDEKON, 1st Vice Chairman and Head of Annual Program

WS10

Building the Future Robotics Workforce: Skills, Infrastructure and Research Environments

How can robotics education, workforce development & Research labs evolve together to equip people with skills, infrastructure and Practical experience needed for next-gen robotics innovation?

Description

Robotics today is evolving rapidly, but the environments where people learn, research, build, and deploy robotic systems must evolve with it.

This workshop will bring together researchers, Research Technical Professionals, educators, industry and facility leaders to explore how skills development, education, technical expertise and research infrastructure can work together to build a future-ready robotics workforce.

So rather than focusing on a particular technology, the workshop will examine practical challenges such as developing relevant skills, maintaining technical capability, providing access to appropriate equipment and facilities, supporting interdisciplinary teams, and connecting education with real-world robotics practice.

I believe that through short contributions, facilitated discussion, and collaborative activities, participants will identify common challenges, share approaches that work across different environments, and develop priorities for strengthening the robotics workforce and the environments that support it. The workshop will aim to produce a concise set of shared recommendations and practical questions for the robotics community to take forward beyond ERF2027.

Agenda

Time	Activity	Speaker / Moderator / Lead

Additional organisers

- Devashish Tambade, Bristol Robotics Laboratory, Research Support Engineer (Robotics)

WS11

Hybrid Production Systems 14: Rethinking Manufacturing through Robotics and Physical AI

This workshop unites industry and research to identify manufacturing bottlenecks and reconfiguration challenges, then showcases robotics, Physical AI, and automation innovations—culminating in a roadmap for flexible, resilient, future-ready production systems.

Description

This workshop explores the future of flexible manufacturing through advances in robotics, automation, and hybrid human–machine production systems, following a push–pull structure that connects industrial needs with emerging technologies. Subsessions in both stages are run as interactive mini-workshops — using breakout discussions and collaborative tools — organized around three thematic tracks: **Flexible Automation**, **Collaborative Production Systems**, and **Digital Technologies**.

"Pull" stage — industry, research, and academia work together in facilitated mini-workshops to surface operational needs, bottlenecks, and best practices from high-TRL applications:

• *Flexible Automation:* reconfiguration speed, shorter product lifecycles, plug-and-play deployment at scale

• *Collaborative Production Systems:* human-robot task allocation, safety, workforce integration challenges

• *Digital Technologies:* system integration, interoperability, data readiness for AI/perception/digital twins

"Push" stage — experts join interactive sessions to map innovations onto the identified gaps:

• *Flexible Automation:* modular and reconfigurable robotic systems, intelligent automation architectures

• *Collaborative Production Systems:* trustworthy human-robot collaboration, human-centred design, human augmentation

• *Digital Technologies:* foundation models for robotics, Physical AI, digital twins, adaptive autonomy

The workshop concludes with a roadmap linking industrial requirements to future research and innovation priorities, supporting resilient, future-ready manufacturing across the UK and Europe.

Agenda

Time	Activity	Speaker / Moderator / Lead
10 mins	Welcome, framing & scene-setting — introduces the workshop, push–pull structure, the three thematic tracks and how the pull/push stages connect	Prof. George Michalos, LMS
22 min	"Pull" stage — parallel mini-workshops — 3 breakout groups (one per track) using post-its/interactive tools to surface operational needs, bottlenecks, and best practices from high-TRL applications	Facilitators (1 per group): Christos Gkournelos, LMS Themis Anastasiou, LMS Zoi Arkouli, LMS Moderators (1 per group) Damien Salle, TECNALIA Nikos Dimitropoulos, LMS Jade Le Maitre, PROXINNOV
10 min	Pull stage report-back — each group shares top 2–3 findings; facilitator clusters key bottlenecks on a shared board	Moderators of Pull Stage

Time	Activity	Speaker / Moderator / Lead
18 min	"Push" stage — parallel mini-workshops — groups reconvene (same or mixed) to map emerging technologies/innovations against the identified gaps per track	Facilitators (1 per group): Ander, TEKNIKER Anirudha.Sengupta, MTC Dr. Niki Kousi, TF-CC Moderators (1 per group) Christos Gkournelos, LMS Zoi Arkouli, LMS Nestor Garcia Hidalgo, EURECAT
10 min	Push stage report-back — groups present proposed solutions/innovations addressing each gap	Moderators of Push Stage
8 min	Roadmap synthesis (or follow up plan if time does not allow)	Prof. Sotiris Makris, LMS
2 min	Wrap up and conclusion	Prof. George Michalos, LMS

Main organiser

George Michalos, LMS, Assistant Professor

Additional organisers

- Sotiris Makris, LMS, Professor
- Jade Le Maitre, Proxinnov, Managing Director
- Anirudha Sengupta, MTC, Senior Research Engineer

Speakers / panelists

- Alfio Minissale, COMAU, EU Project Manager
- Nikos Dimitropoulos, LMS, Senior Researchers
- Themis Anastasiou, LMS, Research Engineer
- Christos Gkournelos, LMS, Research Engineer
- Ander Iriondo, TEKNIKER, Research Engineer
- Assia Aguedach, PROXINNOV, R&D Project Manager

WS12

Digital Twins for Manufacturing and Robotics

Discussing the adoption of digital twins in manufacturing: 1) how they relate to robotics, 2) how digital twin and robotics can boost each other to improve efficiency, 3) how to de-risk using simulation and digital twins.

Description

The objective of the workshop is to discuss the adoption of digital twins in manufacturing and how they relate to robotics technologies. How both visions (digital twin and robotics) can boost each other to improve efficiency in manufacturing. The involvement of simulation, AI, autonomous robots, would be presented. We aim to discuss how digital twins can validate processes before installation, and improve manufacturing efficiency, productivity and quality. As well as the challenges and opportunities that emerge from these synergies in logistics, assembly and other activities.

We aim to involve around 5 panelists providing different insights (end users, technology providers, live demos, research, etc). They would introduce the topic with short presentations. Afterwards a roundtable would explore business value, collaboration, performance and sustainability outcomes, as well as how digital twins help meet key business priorities and KPIs. The round table will use questions from the attendees, gathered using different participation methods.

The WS is related to the ADRA WG “Digital Twin Automation and Logistics for the Factory”. The WS results will inspire next activities in the WG.

Agenda

Time	Activity	Speaker / Moderator / Lead
9.00h – 9:08h (8’)	Welcome & Introduction	Angel Dacal – moderates, welcome to the WS. Participation means for the audience. Introduction to the workshop, background, some initial ideas.
9:08h – 9:16h (8’)	Panelist P1	PANELIST 1/5: Iria Galiñanes (CTAG) Coordinator of the Digital Twin Group, objectives and trajectory of the WG. Coordinator of project PRIME.
9:16h – 9:24h (8’)	Panelist P2	PANELIST 2/5: RTO / ACADEMIA Vision from research. MTC (confirmed, one representative pending to be decided)
9:24h – 9:32h (8’)	Panelist P3	PANELIST 3/5: Alexandru Al-Shehari & James Tailby (SCHNEIDER ELECTRIC) Technology provider – Live Demo
9:32h – 9:40h (8’)	Panelist P4	PANELIST 4/5: End user Ben Whitford (CEO, Prologik Vision Technologies)

Time	Activity	Speaker / Moderator / Lead
9:40h – 9:48h (8’)	Panelist P5	PANELIST 5/5: End user LEONARDO (pending to confirm, one representative).
9:48 – 10:08h (20’)	Roundtable	ROUNDTABLE with all the above. Moderates Gema Antequera (CTAG) 1/2 questions for each panelist.
10:08h – 10:26h (18’)	Participation	Questions from the audience to the panelists. Moderates Gema Antequera. (using the agreed method such as Mentimeter. Questions gathered through the previous activities).
10:26 – 10:30h (4’)	Conclusions & Farewell	Angel Dacal - Summary of conclusions of the WS. Farewell.

Main organiser

Angel Dacal-Nieto, CTAG, Innovation and Impact in Manufacturing Head of Department

Additional organisers

- Liv Cameron-Davies, Schneider Electric, OEM & SI Channel Marketing Manager Europe Operations
- Gema Antequera, CTAG, Head of Future Industry EU Projects Area

WS14

People and Production: Design of Human-Centric Robotic Systems

Exploring the intersection of technology and humans, this workshop presents tools for designing purposeful jobs, ensuring people are not simply left with what robotics and AI cannot do, while examining what should be automated, rather than what could be automated.

Description

As technology evolves, integrating AI and robotics into the workplace requires thoughtful design of human roles. Rather than leaving workers with tasks that automation cannot handle, this workshop focuses on why human centred design matters, exploring challenges and boundaries for human-centric technology.

We start with an opening presentation on why human centred design is essential for future work. Next, technical presentations show how tools translate from research into industry. We will look at methods like NASA TLX for measuring cognitive load, capturing human data, digitalising human states, change management, and co design workflows. Attendees will also use live polling to highlight and vote on key implementation challenges.

Building on these insights, participants will be given scenarios, and join a interactive flipchart session to run though how they would approach adopting a new technology.

The workshop ends with a presentation on standardisation, showing how attendees can get involved in developing standards through bodies like BSI, ISO, and European standards groups.

Outputs from the interactive exercises and live polling will be collected by the organisers to help write papers and shape industry guidelines.

Agenda

Time	Activity	Speaker / Moderator / Lead
10 min	Opening presentation on why human centred design matters and deciding what we should automate versus what we could automate.	
15 min	Demonstrating real world human augmentation, digital human models, and joint tasks.	
10 min	Presentations covering NASA TLX for cognitive load, measuring and digitalising human physical and cognitive states, change management, and job design.	AMRC, Loughborough
30 min	5-board rotational group exercise using a shared scenario: teams rotate across boards to brainstorm barriers → group them into categories → co-create practical solutions, ending with dot voting.	University of Nottingham

Time	Activity	Speaker / Moderator / Lead
10 min	Presentation on international standardisation pathways such as BSI, ISO, and European national bodies.	ISO
5 min	Wrap Up and Key Takeaways. Summary of votes.	

Main organiser

Sharanjeet Kaur, AMRC, Cognitive Robotics and Automation lead

Additional organisers

- First Name Last Name, Organisation, Job Title

WS15

From Autonomy to Teaming: Hybrid Human–Robot Systems in Practice

Because hybrid human–robot teams promise more than automation alone yet rarely reach deployment, this workshop examines European use cases, interaction protocols for shared perception and control, and validation needs, producing a jointly prioritised set of barriers.

Agenda

Time	Activity	Speaker / Moderator / Lead

Main organiser

Niels Lohse, University of Birmingham, Professor of Manufacturing Automation and Robotics

Additional organisers

- First Name Last Name, Organisation, Job Title

WS16

Robotics in healthcare : Towards minimally invasive surgery

From existing tele-manipulation systems to AI-guided or autonomous systems, passing through microbotics, this workshop offers an overview of recent innovations in the field of healthcare robotics.

Description

Minimally invasive surgery addresses many challenges, such as reducing patient harm, diminishing bleeding risks and accelerating recovery time. Robotics has been introduced in the surgical procedures to improve performances, such as increasing precision in the interventions and permitting access to particular parts in the human body.

Although research and innovation in robotics have led to significant advances in the field over the past years, there are still some issues to be resolved to improve accessibility and assistance for surgeons. The ambition of the workshop is to discuss how robotics can help to overcome some challenges and bring new technical solutions to minimally invasive surgery.

Agenda

Time	Activity	Speaker / Moderator / Lead
10 min	Introduction / Welcome	
20 min	AI-Enabled Visual Feedback for Biomedical Microrobotics	Ferhat SADAK
20 min		
20 min		
10 min	Conclusions, future outlook and closing remarks	

Main organiser

Maxime ETIEVANT, Percipio Robotics, R&D Manager

Deena HARJI, NHS, Associate Professor of Surgery

Additional organisers

- Maxime ZERBIB, Percipio Robotics, R&D Engineer

Speakers / panelists

- Ferhat Sadak, Aston University, Assistant professor in Applied AI & Robotics

WS17

Additive Manufacturing for Mechatronic and Robotic Systems

This workshop brings together robotics, AI, materials, and additive manufacturing experts to define a European roadmap for autonomous production cells capable of manufacturing, inspecting, and finishing complex mechatronic and robotic systems, identifying priorities, collaboration opportunities, and future actions.

Description

This workshop explores how additive manufacturing can enable the next generation of mechatronic and robotic systems, while robotics and AI make additive production more accurate, adaptive and autonomous. It connects industrial, aerial and mobile robotics with materials, process monitoring and qualification. Short expert contributions will address high-accuracy robot control and dual-encoder architectures; closed-loop robotic deposition, in-process inspection and finishing; additive manufacturing for aerial robots; lightweight and functionally integrated mobile robots; and self-configuring production cells able to manufacture and integrate their own tooling, end effectors and functional modules. The interactive session will identify the main research gaps, industrial barriers and enabling technologies required to progress from promising demonstrations to repeatable, qualified and scalable production. The intended outcome is a shared European roadmap, including collaboration opportunities, priorities for future R&D and potential joint actions across the Mechatronics, Industrial Robotics and Aerial Robotics communities.

Agenda

Time	Activity	Speaker / Moderator / Lead
00:00-00:05	Welcome, objectives and expected workshop outcome	Miguel Ángel Trujillo, CATEC
00:05-00:12	High-Accuracy Industrial Robots for Additive Manufacturing of Mechatronic Systems	Possible speaker TBC: Ilaria Frate, COMAU
00:12-00:19	From Deposition to Qualified Components: Closed-Loop Robotic Additive Manufacturing for High-Value Systems	CATEC speaker, to be confirmed
00:19-00:26	Aerial Robots for Additive Manufacturing	Speaker to be confirmed from University of Seville
00:26-00:33	Lightweight and Functionally Integrated Additive Manufacturing for Mobile Robots	Speaker to be confirmed
00:33-00:40	From Self-Configuring to Self-Extending Production Cells: Manufacturing the Tools and Robots of the Future	Speaker to be confirmed
00:40-00:55	Moderated panel: research gaps, industrial barriers and enabling technologies	Workshop organisers and invited speakers
00:55-01:25	Interactive roadmap discussion: priorities, collaborations and future European actions	Moderated by the organising team

Time	Activity	Speaker / Moderator / Lead
01:25-01:30	Conclusions, agreed actions and next steps	Miguel Ángel Trujillo, CATEC

Main organiser

Miguel Ángel Trujillo, CATEC, Smart Industry Director

Additional organisers

- Wesley Roozing, University of Twente, Assistant Professor
- José Francisco Saenz, Fraunhofer IFF, To be confirmed
- Aníbal Ollero Baturone, CATEC / University of Seville, To be confirmed

Speakers / panelists

- Antonio Periñan, CATEC, Head of Aditive Manufacturing Unit at CATEC

WS18

Scaling Inspection & Intervention Robotics: Across Manufacturing and Critical Infrastructure

Learn from and engage with end-users, R&D organizations and solution suppliers on the topic of key success factors and barriers to scaling robotics solutions for high-value inspection and maintenance use cases.

Description

Inspection and maintenance (I&M) are critical across manufacturing, energy, utility networks and other critical infrastructure, with many AI- and robotics-based solutions being developed and field tested. Yet, scaling delivery of such solutions remains slow. In the workshop, we will address this gap by exploring:

• What are success stories in scaling, and what were the main factors that led to success?

• What are the barriers to scaling?

• What main challenges remain to solve current and next high-value use cases?

The workshop will address aspects such as technical, R&D, organizational, regulatory, efficiency, implementation, commercialisation, cost and skills through short position statements from end-users, R&D organizations and service/technology suppliers followed by a plenary brainstorming and discussion. Use cases both for inspection and intervention-based operations will be covered. The main findings of the workshop will be summarized and made available to the euRobotics community.

Agenda

Time	Activity	Speaker / Moderator / Lead
00:00-00:05	Introduction to the workshop	Workshop organizers
00:05-00:50	Six to seven short pitches addressing the key questions of the workshop and highlighting insights from real use cases and relevant technologies.	End-users, suppliers
00:50-01:20	Active plenary discussions among all workshop participants (speakers and attendees). In parallel, we use online tools (e.g., Slido or Google Drive) to gather further inputs.	Moderated by workshop organizers.

Main organiser

Aksel Transeth, SINTEF, Senior research scientist

Additional organisers

- Vanessa Staderini, AIT Austrian Institute of Technology, Scientist
- Jon Wakeling, Wakeling Advisory, Founder
- Stephen Hallam-Bowles, AMRC, Senior Theme Lead

Speakers / panelists

- Violeta Novakovic, BT Research, Senior Manager, Physical Infrastructure Research
- Svein Ivar Sagatun, Equinor, Advisor robotics – Head of Robotics and Drones

WS19

Observing the Unobservable: Robotic Inspection and Digital Twins under Partial Observability

Robots cannot inspect everything; this workshop explores what observations robotic systems should acquire, what AI and digital twins can reliably infer from incomplete evidence, and how those inferences can be validated and trusted.

Description

Critical infrastructure is often too large, complex, hazardous or inaccessible to be observed completely. Robotics can extend inspection reach and sensing capability, but geometry, access, safety, time and cost inevitably leave parts of an asset unobserved.

This creates a fundamental challenge spanning robotics, sensing and AI: what evidence should robotic systems acquire when inspection opportunities are limited; how can heterogeneous observations be combined to infer the condition and future behaviour of the unobserved asset; and how can the reliability and limits of those inferences be established?

The workshop will bring together infrastructure owners, robotics and NDT researchers, digital-twin and AI specialists, technology providers and European research initiatives. Short challenge-led presentations will introduce representative infrastructure problems and emerging approaches. Participants will then explore four connected questions: what can be observed, what should be observed, what can be inferred, and when should that inference be trusted.

The discussion will identify common requirements, benchmark needs, methodological gaps and transferable research directions, producing a shared roadmap for robotic inspection and trustworthy digital twins under partial observability.

Agenda

Time	Activity	Speaker / Moderator / Lead

Main organiser

Mario Gianni, University of Liverpool, Senior Lecturer

Additional organisers

- Robert Skilton, UKAEA
- Antonio M. Ortiz, NORCE Research AS, Norway, Senior Researcher
- Carlos Bernad, NORCE Research AS, Norway

WS20

Autonomy levels framework for pathway to autonomous mobile machine

The workshop introduces and validates a shared autonomy-level framework for field robotics and mobile machines, supporting safer deployment, cross-industry collaboration, human–machine cooperation, and business value assessment.

Description

This workshop presents and further develops a shared framework for autonomy levels in field robotics and heavy mobile machines. It aims to establish common definitions and language for autonomy across OEMs, SMEs, research, regulation, and standardization actors. The framework supports the assessment of autonomous solutions from basic automation to full autonomy, covering individual machines, fleets, and wider operational processes. Particular attention is given to safety, human–machine collaboration, system requirements, fleet management, resilience, interoperability, communications, cybersecurity, and business value. Through short expert presentations and an interactive open café session, participants will discuss the relevance of autonomy dimensions, provide feedback on the framework, and explore how it can be applied in construction, logistics, defense, rescue, humanitarian, and industrial contexts. The workshop contributes to validating and refining a white paper on autonomy levels for heavy mobile robotics, supporting safer, more efficient, and more sustainable deployment of autonomous systems.

Agenda

Time	Activity	Speaker / Moderator / Lead

Main organiser

Juha Röning, University of Oulu, Professor

Additional organisers

- Johannes Hynynen, VTT, Research Manager
- Veli-Mikko Mäkelä, Tamlink, Project Manager

WS21

Cybersecurity in ubiquitous intelligent robotics: regulatory, technological and societal aspects

This workshop gathers AI, Data and Robotics practitioners, entrepreneurs, policy makers and researchers to discuss the tremendous opportunities and issues raised by the coming ubiquitous presence of smart systems, robots and AI agents in our close future society.

Description

With an emphasis on the continuous digitalization of the European economy and the creation of a human-centered, "made in Europe" physical AI, this workshop will tackle fundamental topics in AI, DATA, and robotics.

Participants will gain knowledge about centralized and decentralised data and agentic technologies and how they relate to robotics and artificial intelligence in the context of smart cities, smart lands, smart logistics, and smart X in general.

It will enable us to talk about how it would be possible to create open, distributed, scalable, and privacy-preserving digital architecture for the future digital economy and society, heavily depending on AI, data, and robotics. We'll talk about different strategies for European digital sovereignty..

Would Open Source and Open Weight AI help? Which are the most promising centralized and decentralised data and agentic technologies for those objectives?

Agenda

Time	Activity	Speaker / Moderator / Lead
00:00-00:15	Round 1 -Framing - The organizers, along with representatives from euRobotics, ADRA, and the EU commission, will give three to five brief framing remarks, each lasting five minutes.	
00:15-00:35	Round 2 - Character Exploration - Small-group scenario exercises	
00:35 - 00:55	Round 2 - Trust perspectives - Small-group conversations are rotated, with each group examining a different perspective (regulatory, engineering/testing, business, policy makers, cultural and societal).	
00:55 - 01:15	Synthesis & co-creation - Plenary Discussion	
01:15 - 01:20	An overview of the results, recommendations for the future, and an offer to stay on the community platform.	

Main organiser

Fabio Bonsignorio

Additional organisers

- Fabio Bonsignorio, University of Zagreb FER and Heron Robots, ERA Chair AI for Robotics & CEO and founder Heron Robots
- TBC

WS22

Dexterous Objects Manipulation in Dynamic Environment: From Research to Industry

This workshop explores robust robotic manipulation in uncertain environments by integrating advances in end-effectors, multimodal perception, physics-based reasoning, and data-driven learning to enable reliable interaction with rigid, deformable, and mechanically variable objects across real-world industrial and agricultural applications.

Description

Robotic manipulation has achieved remarkable progress in structured settings, yet reliable operation in real-world environments remains an open challenge. This workshop focuses on manipulation under uncertainty, where robots must interact with previously unseen rigid and deformable objects exhibiting diverse and changing physical properties. We invite contributions spanning advances in robotic hands, grippers, and compliant end-effectors, as well as multimodal sensing and perception for estimating object geometry, contact, and material characteristics.

The workshop emphasizes approaches to improve transparency, robustness, and generalization. These include model-based control, physics-informed learning, probabilistic reasoning, hybrid planning, and methods that explicitly exploit physical priors rather than relying solely on end-to-end black-box models. Attention will be given to solutions that combine analytical models with data-driven techniques to enhance reliability and interpretability.

The workshop aims to bridge research and deployment by highlighting applications such as wiring harness assembly, textile handling, automated recycling, and manipulation of a wide variety of products, including but not limited to deformable objects. By bringing together researchers from robotics, machine learning, control, and perception, the workshop seeks to identify key challenges and promising directions toward robust, adaptable, and deployable manipulation systems, and at the same time highlights real industrial problems to inspire researchers.

Agenda

Time	Activity	Speaker / Moderator / Lead
00:00 - 00:05	Welcome	Organizers
00:05 - 00:45	Speakers Presentation	Speakers
00:45 - 01:15	Panel Discussion	Moderator
01:15 - 01:20	Closing and Farewell	Organizers

Main organiser

Kevin Galassi, EURECAT, Researcher

Additional organisers

- Alessio Caporali, University of Bologna, Junior Assistant Professor
- Dimitra Triantafyllou, Center for Research and Technology Hellas - Information Technology Institute, Postdoctoral research associate
- Boris Meden, Commissariat à l'énergie atomique et aux énergies alternatives
- Mahesh Dissanayake, Manufacturing Technology Centre
- Haroon Alvi, Manufacturing Technology Centre, Research Engineer

Speakers / panelists

- Dimitrios Giakoumis, CERTH, Researcher Grade B
- Antonios Porichis, University of Essex
- Mathieu Grossard, CEA, Research Director at CEA
- Liza Konstantinova, OCADO, Research Engineering Manager
- Adam Norton, University of Massachussetts Lowell

WS23

Mobile Robotics and Manipulation: Bridging Research and Industry

Building on ERF2026 “Coupling Mobile Robotics & Manipulation”, this interactive workshop bridges the gap between academic innovation and industrial deployment across the entire mobile manipulation chain, uniting researchers, end-users, and robotics manufacturers.

Description

Mobile robots and manipulators are well established technologies in different applications, including autonomous guided vehicles in warehouse logistics, fixed and mobile manipulators in production line assembly, and service robots in healthcare and household domains. More recently, the potential of combining both systems into a more capable robot has attracted attention from both the academic world and industries. This growing interest is driven by several factors: a) hardware is becoming increasingly affordable, even for small businesses, b) human labor in logistics and on production floors is getting more scarce in Europe (and elsewhere), c) the demand for household robotics is becoming real, d) logistics are becoming more and more automated, and e) faster product cycles require faster changing production lines making statically mounted manipulators less cost-effective.

This workshop will bring together researchers from the academic world to present their break-through research results on the coupling of mobile robots and manipulators and industry representatives to lay out their technological needs and applications for mobile robots. Topics discussed will include (depending on the speakers) robot perception and localization in changing environments, motion planning, task assignment and scheduling and mobile robot and manipulator synergies.

Agenda

Time	Activity	Speaker / Moderator / Lead
00:00 - 00:05	Welcome and Introduction	Marco Rosa?
00:05 - 00:12	Research Perspective and Current Status	Richard Duro - Universidad de Coruna
00:12 - 00:19	Research Perspective and Current Status	Gianluca Palli - Università di Bologna
00:19 - 00:26	Industry Perspective and Existing Gaps for Deployment	Francesco Ferro - CEO PAL Robotics
00:26 - 00:33	Industry Perspective and Existing Gaps for Deployment	XITASO
00:33 - 00:39	Industry Perspective and Existing Gaps for Deployment	TBC
00:39 - 00:46	Industry Perspective and Existing Gaps for Deployment	TBC
00:46 - 01:30	Panel Discussion and Debate with the Audience	Moderator?

Main organiser

Marco Rosa, PAL Robotics, Senior Project Manager

Additional organisers

- Max Spahn, ABB
- Lei Wan, Xitaso

Speakers / panelists

- Richard Duro, Universidad de Coruna, Professor
- Gianluca Palli, Università di Bologna, Professor
- Francesco Ferro, PAL Robotics, CEO
- TBC TBC, Xitaso

WS24

Benchmarking Dexterous Robot Manipulation: Performance Evaluation as a Key Enabler to Transition

This workshop will present varying perspectives on how effective characterization and benchmarking of dexterous robot manipulation – ranging from hardware robustness, algorithm performance, and definitions of success criteria – are key enablers to maturing and transitioning these technologies.

Description

This workshop will present varying perspectives on how effective characterization and benchmarking of dexterous robot manipulation – ranging from hardware robustness, algorithm performance, and definitions of success criteria – are key enablers to maturing and transitioning these technologies.

The workshop will feature four invited talks (10-12 mins presentation, 3-5 mins Q&A) from thought leaders in this domain covering industry and research perspectives, focusing on their experiences and lessons learned for advancing how dexterity has been evaluated to date and, more importantly, how it should be. During each invited talk, speakers will provide an assessment of TRL for dexterous manipulation – either for a specific technical solution or a more broad analysis as a state of the field.

The session will end with a roundtable panel discussion that will include the invited speakers and the audience, evaluating the justifications for each TRL assessment, debating as needed, and determining the appropriate criteria used or needed to make these evaluations.

Takeaways will include insight into current gaps in performance evaluation of dexterous manipulation and how improvements made in this area will serve as a key enabler to transition and commercialize this technology into real-world impacts.

Agenda

Time	Activity	Speaker / Moderator / Lead
5	Introduction and overview of workshop goals	Adam Norton
15	Invited talk: Zaki Hussein from TouchLab, reviewing the development, deployment, and evaluation of tactile sensing technology that drives advanced dexterity capabilities	Zaki Hussein
15	Invited talk: Peter So from TUM, reviewing the use of reproducible and automated objective benchmarking tools to advance research and evaluate dexterity capabilities	Peter So

Time	Activity	Speaker / Moderator / Lead
15	Invited talk: Jelizaveta Konstantinova from Ocado Technology, reviewing applications of dexterity in logistics including delicate object manipulation of food products	Jelizaveta Konstantinova
15	Invited talk: Ingo Keller from The National Robotarium, reviewing efforts to translate and harden research advancements to meet relevant industry needs and increase adoption of dexterity	Ingo Keller
15	Roundtable panel discussion: What is the current TRL of robot dexterity, how is it currently evaluated, how should it be evaluated, and what are we missing to enable more effective TRL assessments/transitions of this technology?	Moderated by Adam, all speakers and audience members to participate

Main organiser

Adam Norton, University of Massachusetts Lowell, Co-Director, NEVE Center

Speakers / panelists

- Zaki Hussein, TouchLab, Founder, CEO, and Director
- Peter So, Technical University of Munich (TUM), Research Associate
- Jelizaveta Konstantinova, Ocado Technology, Lead Research Engineering Manager
- Ingo Keller, The National Robotarium, Head of Robotics

WS25

Humanoid robots beyond hype: which applications will scale first?

This interactive workshop identifies and prioritizes the most promising near- and long-term use cases for humanoid robots across industry and public sectors. Comparing humanoids with alternative robotic solutions, participants will assess feasibility, value, barriers and expected adoption timelines to develop a humanoid deployment roadmap.

Description

Humanoid robots are attracting unprecedented attention, but where will they create practical value first—and when are wheeled mobile manipulators, cobots or other robotic solutions the better choice? This interactive workshop will identify and prioritise high-value near-term and longer-term use cases for humanoid robots in manufacturing, logistics, inspection and maintenance, energy, security, public services and healthcare.

Short contributions from end users, technology providers and researchers will set the scene with current pilots, market signals and adoption pathways in Europe and internationally. Participants will then use Slido-based paired comparisons to assess representative applications against feasibility, expected return on investment, operational value, maturity, safety and regulatory requirements. The discussion will explicitly distinguish brownfield from greenfield environments and compare humanoid embodiments—including legged and wheeled systems—with alternative automation concepts.

The workshop will examine the technical, economic, organisational and regulatory barriers that may hinder real-world deployment and scale-up. Its outputs will be a ranked portfolio of promising applications, an indicative adoption timeline from pilots to broader uptake, and a consolidated list of critical barriers and actions. These results will inform a practical European roadmap for humanoid-robot deployment and future R&D, industry and policy priorities.

Agenda

Time	Activity	Speaker / Moderator / Lead
00:00 - 00:05	Welcome	
00:05 - 00:20	Setting the stage with existing studies	Werner
	End user presentation (Logistics / retail)	ZARA (ES), Decathlon, DM
	End user presentation (Automotive)	BMW. Mercedes, Renault
	Tech presentation	Humanoids (UK) or, generativ bionic
	Tech presentation	
00:45 - 00:75	Interactive part with slido	
00:75 - 00:80	Closing	

Todos:

Sarah, Lucrezia: Check end user in energy or public sector

Werner: reach out to Renault (euRobin contact) regarding use case pitch

Sarah: reach out to ZARA (ES) regarding use case pitch

Werner: reach out humanoids (UK)

Sarah: reach out to generative bionics

→ ask Feedback by end of next week = Sep 11

Main organiser

Werner Kraus, Fraunhofer IPA, Head of Research Division Automation and Robotics

Additional organisers

- Sarah Terreri, PAL
- Aksel Transeth, SINTEF
- Lucrezia Morabito, COMAU

WS26

Humanoid Safety, Benchmarking and Validation

We address safety and basic abilities of humanoid robots and ways to measure and validate feasibility and regulatory compliance in an interactive workshop.

Description

What are safety and other regulatory issues that humanoid robots are currently facing and what solutions (e.g. safety standards) are in sight?

What basic skills do humanoid robots need to operate in realistic applications and how can we validate and measure them?

In this interactive workshop we address the issue of safety, benchmarking and validation of humanoid robots with several impulse presentations that demonstrate the hype and the genuine progress in this field. Then we switch to an interactive workshop format with discussion rounds.

Our goal is to discuss recent technological advancements and research results as well as to collect and prioritize requirements from humanoid integrators and end users that can be fed back into research initiatives and standardization committees.

Agenda

Time	Activity	Speaker / Moderator / Lead
0:00 - 0:10	Introduction	Moderator: Mathias Brandstötter
0:10 - 0:35	3-5 impulse presentations	Speaker: tbd
0:35 - 0:65	Splitting into groups on different topics, e.g. in world café format	Moderators: Mathias Brandstötter Theo Jacobs Abeje Mersha
0:65 - 0:80	Presentation and discussion of results	Moderator: Mathias Brandstötter

Main organiser

Mathias Brandstötter, Carinthia University of Applied Sciences, Prof. for Robotics and Mechatronic Systems

Additional organisers

- Theo Jacobs, Fraunhofer IPA, Research Team Manager Robot Safety and Cobots
- Abeje Mersha, Saxion University of Applied Sciences, Professor Smart Mechatronics and Robotics

Speakers / panelists

- Abeje Mersha, Saxion University of Applied Sciences, Professor Smart Mechatronics and Robotics
- Theo Jacobs, Fraunhofer IPA, Research Team Manager Robot Safety and Cobots

WS27

Robotics for Sustainable Circularity: Overcoming the Technology, Regulatory and Business Challenges

The transition to a circular economy presents significant opportunities for robotics in disassembly, decommissioning, remanufacturing and critical material recovery. This workshop brings together stakeholders to explore technology, regulation and business case barriers and collectively identify practical routes to implementation.

Description

The transition to a circular economy presents significant opportunities for robotics automation and AI, from disassembly, decommissioning and remanufacturing to the recovery and reuse of critical materials. However, turning these opportunities into practical, scalable solutions requires overcoming significant technological, regulatory and business challenges.

This interactive workshop brings together researchers, industry representatives, technology providers, end-users and policymakers to explore these barriers and identify practical routes towards implementation. Short, spotlight talks will provide perspectives on technology, regulation and business cases, highlighting the challenges faced when transferring robotics from research and demonstration into real-world circular economy applications. The workshop will also feature an industry perspective focussing on best practices for successfully implementing circularity.

Thereafter, the participants will work in focused breakout groups to explore these challenges, share experiences and analyse practical solutions. Discussions will address the development and deployment of appropriate technologies, regulation and the commercialisation of research to inform future research and innovation landscapes.

A draft Circular Economy Robotics Roadmap will provide a starting point for discussion, with participants invited to challenge and contribute to its development.

Agenda

Time	Activity	Speaker / Moderator / Lead
00:00-00:10	Introduction and Perspective	Samia Nefti-Meziani
00:10-00:25	Presentations (3 x 5 mins) The RESCu-M2 Manufacturing Hub Presentation 2 Presentation 3	Speakers Steve Davis Michael Müller, Robotextile GmbH (approached) Industry 2
00:25-00:35	Success Story Presentation (10 mins)	Xavier Kohll, R3robotics (approached)
00:35-00:45	Presentation of Draft Roadmap	Mini Rai
00:45-01:15	Breakout Groups Theme 1 - Research and Technology Innovation Theme 2 - Translation of Research into Innovative Products and Services	Moderators Theme 1 - Saskia Ziemann Theme 2 - Oswald Bratu
01:15-01:20	Group feedback from theme moderators	Moderators Theme 1 - Saskia Ziemann Theme 2 - Oswald Bratu
01:20	Close	Samia Nefti-Meziani

Main organiser

Steve Davis, University of Birmingham, Senior Research Fellow in Robotics

Additional organisers

- Samia Nefti-Meziani, University of Birmingham, Director of Robotics
- Mini Rai, Orbit Rise Ltd, Director
- Oswald Bratu, PROFACTOR GmbH, Robotic and Automation Systems
- Christian Wögerer, PROFACTOR GmbH, Robotic and Automation Systems
- Saskia Ziemann, Project Management Agency Karlsruhe, Programme manager Digital GreenTech Robotics

Speakers / panelists

- Steve Davis, University of Birmingham, Senior Research Fellow in Robotics
- Michael Müller,, Robotextile GmbH, Managing Director
- Xavier Kohll,, R3robotics

WS28

The Humanoid Boom: Are We Ready for the Afterlife?

As humanoid robot production accelerates, so does an overlooked question: what happens at end-of-life? This workshop explores repair, self-repair, reuse, and robotic scavenging, asking how retired robots and components could become resources for future systems rather than electronic waste.

Description

Robotics is entering a new era of scale, with the current humanoid boom bringing questions of longevity, obsolescence, and end-of-life into sharper focus. Yet what happens to robots once they fail or reach the end of their intended lives remains largely overlooked.

This interactive workshop invites researchers, industry practitioners, designers, policymakers, and students to explore circularity and end-of-life in robotics, using humanoids as a prominent case. Rather than treating retired robots as electronic waste, we will examine how their motors, sensors, batteries, controllers, structural parts, software, data, and embodied knowledge could become valuable resources for repairing, upgrading, or building future robotic systems.

Inspired by circular-economy principles, scavengers in nature, and the self-repairing robots imagined in *WALL·E*, the workshop asks whether robots could diagnose faults, identify compatible components from retired robots, assess their condition, assist with disassembly, and eventually repair themselves or one another. It will also explore the essential role of humans in supervising repairs, evaluating unconventional substitutes, and ensuring safety and trust.

Through inspiring talks, interdisciplinary discussions, and an interactive poster session, participants will investigate repair, self-repair, reuse, remanufacturing, compatibility, digital product passports, certification, and new circular business models.

Join us to rethink robot retirement - not as an ending, but the beginning of another robot's life.

Agenda

The workshop will last for 80 minutes in total:

Time	Activity	Speaker / Moderator / Lead
0-10 minutes	Introduction	TBC
10-20 minutes	Keynote 1	TBC
20-30 minutes	Keynote 2	TBC
30-40 minutes	Keynote 3	TBC
40-70 minutes	Panel discussion	TBC
70-80 minutes	Posters (TBC)	TBC
	Closure remarks	TBC

Main organiser

Erhui Sun, Loughborough University, Research Fellow of Digital Through-life Engineering

Additional organisers

- Tamas Haidegger, Obuda University, Group Leader, University Research and Innovation Center
- Franziska Kirstein, Three Robotics, Founder
- Rajkumar Roy, Loughborough University, Professor of Through-life Engineering Dean of Wolfson School of Mechanical, Electrical and Manufacturing Engineering

Speakers / panelists

- Sina Sareh, Royal College of Art, Professor of Robotics and Design Intelligence
- Franziska Kirstein, Three Robotics, Founder

WS29

Closing the Battery Loop: Robotics for Safe and Adaptive EV Battery Disassembly and Recovery

From battery pack to second life: the workshop brings European projects together to tackle shared bottlenecks in safe, intelligent and scalable robotic EV battery dismantling and define common benchmarks, research priorities and pathways toward industrial deployment.

Description

Handling EV batteries pushes robotic manipulation to its limits. Systems must cope with product variability, permanent adhesives, welded joints, deformable wiring, corroded fasteners and active high-voltage components while maintaining safe and reliable operation.

This workshop translates these challenges into actionable research priorities for adaptive robotic disassembly, component recovery and reuse. It connects European R&D activities, including **Remanufacturing-X, BATTEREVERSE, RECIRCULATE, REBELION and REINFORCE**, to identify shared technical bottlenecks, transferable methods, benchmark needs and opportunities for collaboration.

Following short technical problem statements, participants will work in interactive roundtables on 3D component localisation, adaptive tool use and unfastening, bonded-component separation, compliant cable and connector handling, and human-robot task allocation. Real-time polling will help prioritise the most pressing challenges.

Key research questions include:

• How can robots robustly perceive components, fasteners, joints and hazards in variable or damaged batteries?

• How can disassembly strategies, tool use and force/contact control adapt online to changing conditions?

• How should tasks be allocated between robots and humans for safe and scalable recovery?

The outcome will be a community-driven roadmap for benchmarks, shared datasets and research priorities toward safe, adaptive and scalable battery disassembly, recovery and second-life processing.

Agenda

Time	Activity	Speaker / Moderator / Lead
0 - 5	Shaping the workshop	Sharath Chandra Akkaladevi
5 - 30	3 Impulse talks (5+2 mins each) Speaker time 5 minutes + 2 minutes for mentimeter	3 Speakers
30 - 35	Group work explanation	Óscar Palacín
35 - 65	Group work (3 groups)	Audience
65 - 75	Outcome (3 minutes each)	3 Speakers
75 - 80	Conclusion	Iñaki Diaz

Main organiser

Sharath Akkaladevi, PROFACTOR GmbH, Research Scientist

Additional organisers

• Óscar Palacín, EURECAT, Program Manager Manipulation & Cognitve Robotics

- Iñaki Diaz, CEIT, Managing Director

WS30

Robots in the Wild: Advancing Environmental Monitoring

Robotics is opening new possibilities for monitoring our changing environment, from remote ecosystems to complex landscapes. This workshop explores the opportunities, challenges, and responsible use of robotic technologies for environmental monitoring, bringing together perspectives from robotics, ecology, conservation, and related fields.

Description

Environmental monitoring is moving beyond static sensors and occasional field surveys. From tracking wildlife and mapping changing landscapes to observing forests, oceans, and other hard-to-reach ecosystems, robotics can provide new ways to collect data at spatial and temporal scales that were previously difficult to achieve.

Yet taking robots out of controlled environments and into the wild raises a different set of challenges. Systems must operate reliably in dynamic and unpredictable conditions, often with limited energy, connectivity, or human supervision. Their presence can also affect the environments they are intended to observe: noise, movement, light, or physical interaction may disturb wildlife and habitats, potentially altering behaviour and even influencing the validity of the data collected. Understanding and minimizing these impacts therefore needs to become part of how environmental robotic systems are designed and evaluated.

Bringing together perspectives from robotics, environmental science, conservation, and geospatial monitoring, the workshop will explore emerging applications and shared challenges across this growing field. Together, we will map current activities, identify emerging research priorities and connections, and discuss what is needed to advance useful, scalable, and responsible environmental robotics.

Agenda

Time	Activity	Speaker / Moderator / Lead
0-10min	Opening and framing	TBC
10-40min	Impulse presentations incl. Q&A	TBC
40-55min	Mapping Environmental Robotics	TBC
55-75min	Panel and audience discussion	TBC
75-80min	Closing and next steps	TBC

Main organiser

Franziska Kirstein, Three Robotics, Founder

Additional organisers

- Gabriela Wagner, NIBIO, Researcher

WS31

Your next teammate is a robot - do you feel safe?

A robot can be certified safe and still feel unsafe to work with. In this workshop we address the technical challenges and human factors shaping real and perceived safety in human-robot collaboration, from shared manufacturing tasks to social interactions.

Description

A robot can be certified safe and still feel unsafe to work with. This workshop examines the gap between technical safety and perceived safety in human-robot collaboration: from shared tasks on the factory floor to robots sharing our streets, hospitals and homes.

The goal is to sensitise participants to this gap and to collect concrete, real-world input. The trade-offs people actually make, the features that build trust, the moments trust breaks – that will feed into a community white paper.

The session opens with live polls exploring participants' own gut reactions to robots (self-driving cars, delivery drones, robot pets, humanoid helpers), followed by four short "impulse" talks introducing real human-robot collaboration scenarios (industrial cobots, public delivery robots, hospital mobile robots, and the standards perspective). Participants then split into four groups and rotate through all four scenarios in facilitated roundtable discussions, guided by provocative questions ("an accident happened – what was it?", "pick three features that would make you feel safer"). Each scenario is hosted throughout by its moderator, who captures the discussion on a flipchart and later helps distill it into the white paper.

Technical Requirements

• WiFi connection for all participants

• projector/screen with HDMI connection for presentations

• 4x flipcharts incl. flipchart markers (if flipcharts are not available, we can also just put flipchart paper on a large table each)

Agenda

Time	Activity	Speaker / Moderator / Lead
5 mins	Ice breaker / Framing We will use an interactive poll (kahoot/mentimeter) to frame the topic and start making people think about how they perceive safety/comfort when interacting with various robots. Questions are e.g.: o How comfortable would you feel being passenger in a self-driving car? o How happy would you be to receive a parcel from an Amazon drone? o Did you ever work collaboratively with a robot? o Would you let your kid play with a robot dog? o Would you let a humanoid robot clean your house?	Martin Rudorfer

Time	Activity	Speaker / Moderator / Lead
20 mins	4 spotlight presentations of invited speakers, each introducing use cases where humans and robots share the same space, or addressing technical challenges. E.g. Daniela on human robot collaboration with a big industrial robot; Stuart on public delivery robots, Didun from a standards perspective	Daniela Kirchberger Didun Obilanade Tbc Tbc
45 mins	Based on the four spotlights, we will have “discussion stations”. The crowd will be divided into four groups, and each group will spend about 10 minutes at each station. This way, they can discuss all aspects and get a good overview. The discussion is guided by specific provocative questions, e.g.: “You worked with this robot and an accident happened. What was it?”	Four discussion leads, either from the organisers or the speakers
5-10 min	Conclusions Discussion leads summarise highlights: What was the funniest answer to question 1? What was the most surprising answer to question 2? Sharing final thoughts and let participants know how we will follow up. → digitalise flipcharts from discussions, whitepaper, distribute through ERF channels	Martin Rudorfer

Main organiser

Martin Rudorfer, Aston University, Lecturer

Additional organisers

- Daniela Kirchberger, Profactor, Researcher, Project manager
- Zhuangzhuang Dai, Aston University, Lecturer
- Luis Manso, Aston University, Senior Lecturer

WS32

Safety Beyond the Standard: What Robotics Research Knows That ISO Doesn't (Yet)

Are European safety standards protecting us or holding us back? This workshop challenges the status quo, asks what robotics and automation research already knows that standards don't reflect, and explores what a future-ready safety framework should look like.

Description

Safety standards in robotics and automation were built for a different era. As research and technology race ahead, the question is no longer just whether our systems are safe, but whether our standards are smart enough to keep up. This workshop brings together researchers, industry representatives, and policymakers to confront the uncomfortable questions: Are current European safety standards a bottleneck for robotics and automation development? What is research already doing that standards don't yet reflect? What are the gaps - and what would it take to close them? We will explore whether it is possible to design frameworks that deliver genuine safety, data privacy, and innovation opportunities at the same time, or whether these goals are fundamentally in tension. We will ask what the one rule is that robotics and automation needs most, that no standard has yet captured. We will examine whether the lag in European standardization is one of the reasons the continent is falling behind in robotics development - and what can be done about it. And we will ask whether AI is the answer to smarter safety, or simply the next frontier of the same unresolved problem.

Expected Outcome: A prioritized list of the five most critical gaps between existing safety standards and the current state of robotics research and industry practice.

Agenda

Time	Activity	Speaker / Moderator / Lead
5 min	Welcoming	Moderator - Natalia O.
10 min	Impulse	Speaker 1
10 min	Impulse	Speaker 2
10 min	Impulse	Speaker 3
40 min	Fishbowl Discussion with audience	Moderator - Natalia O.
5 min	Closing	Moderator - Natalia O.

Main organiser

Natalia Ogorelysheva, TU Dortmund University, Researcher

Additional organisers

- Michael Rathmair, JOANNEUM RESEARCH, Institute for Robotics and Flexible Production, Head of Research Group

Speakers / panelists

- David Brandt, Universal Robots
- Bruno Siciliano, Uni Napoli
- Didun Obilanade, ASTM International

WS33

Robotics and AI for SMEs From Pilots to Impact: Robotics and AI for SMEs Accelerating Robotics and AI Adoption in European SMEs

An interactive workshop connecting real SMES through robotics experiments coming of Open Calls with AI-enabled autonomy, human-robot collaboration and practical strategies for turning successful pilots into scalable, flexible, trustworthy and economically viable industrial solutions.
An interactive workshop connecting real-world SME robotics experiments funded through European open calls with AI-enabled autonomy, human-robot collaboration and practical pathways for turning successful pilots into scalable, flexible, trustworthy and economically viable industrial solutions.

Description

SMEs face persistent barriers when adopting robotics and AI: limited resources and expertise, complex integration, uncertain return on investment, safety and trust concerns, and the need for solutions suited to low-volume, high-mix production.

This workshop brings together researchers, technology providers, SMEs and end users to examine how AI-enabled autonomy and human-robot collaboration can address these challenges. It combines technical perspectives on multimodal human-machine interfaces, cognitive robotics, intuitive programming and reusable modules with evidence from EU projects ARISE, FORTIS and JARVIS, involving more than 64 SMEs and start-ups and 42 funded human-robot interaction experiments.

The workshop will be structured in three parts:

1. **Opening:** Organisers will frame the SME adoption challenge, introduce evidence from the projects and explain the workshop objectives and expected outcomes.

2. **Short talks** will distinguish what TRL5-7 pilots have demonstrated from what still prevents wider uptake.

3. **Participant**s will then work in facilitated groups, discussion in two groups around following topics

• A. What prevents a successful robotics/AI pilot from becoming a repeatable SME solution?

• B. What should each stakeholder do differently to make adoption easier, faster and less risky?

Agenda

80min max

Time	Activity	Speaker / Moderator / Lead
15min	Opening	Organizers (Mireya de Diego, Markus Ikeda and Francisco Meléndez)
10min	ARISE - Open Call beneficiary	SME representative/end user
10min	FORTIS or Open Call beneficiary	Coordinator or SME representative/end user
10min	JARVIS or Open Call beneficiary	Coordinator or SME representative/end user

Time	Activity	Speaker / Moderator / Lead
25 mins	Facilitated group discussion on technical, organisational and business adoption barriers (2 discussion groups with a convenient slido prepared beforehand, group moderators lead the discussion and attendees may contribute live online to the open questions)	All organisers and audience
10 mins	Consolidation of the SME robotics adoption roadmap and closing remarks	Organisers

Main organiser

Mireya De Diego, CARTIF, Coordinator

Additional organisers

- Markus Ikeda, PROFACTOR
- Francisco Meléndez, SEAMWARE

WS34

Rethinking the V-Cycle for AI-Driven Robotics and Automation

This workshop explores how rethinking the V-cycle can embed safety, assurance, verification, validation, and certification throughout the development of AI-driven robotics and automation, while enabling innovation, productivity, system integration, and trustworthy industrial adoption across Europe at scale with reliable deployment.

Description

This workshop brings together two complementary perspectives on AI-driven robotics and automation: the opportunities created by rapidly advancing AI technologies, and the need to design systems that are safe, reliable, and certifiable.

At its core, the workshop examines how the traditional V-cycle must evolve for robotics incorporating autonomous decision-making, generative AI, adaptive control, and other AI-enabled functions. AI agents are evolving from mere assistants into active collaborators supporting engineers throughout the entire robot lifecycle from configuration, application design, and programming to commissioning and continuous optimization. Participants will explore how assurance, verification, and validation can be embedded throughout the V-cycle, linking early requirements and system design to integration, testing, certification, and real-world deployment.

The workshop will consider the role of modular architectures, standardised middleware, digital twins, and simulation in accelerating development while supporting traceability and certification readiness.Through concrete industrial use cases, participants will discover how AI-powered agents simplify application development by automating engineering tasks, guiding setup, generating code, and validating configurations. It will also address key opportunities across European industry, including increased productivity, mass customisation, improved system integration,shortened time-to-market, lowered skill barriers and broader robotics adoption across diverse industrial sectors.

Participants will discuss opportunities such as increased productivity, mass customisation, faster system integration, reduced time-to-market, lower skill barriers, and wider robotics adoption. They will also address reliability, functional safety, ethics, workforce impact, and regulatory compliance, identifying priorities for research, technology development, and policy.

Agenda

Time	Activity	Speaker / Moderator / Lead
00:00 – 00:10	Welcome & Introduction (Objectives, agenda, and key questions)	
00:10 – 00:07	University Perspective	TU/e
00:20 – 00:30	RTO Perspective:Industrial Adoption & Validation Perspective	THe MTC
00:30 – 00:40	RTO Perspective:Systems Engineering, Safety & Trustworthiness Perspective	Ikerlan
00:40 – 00:50	Industry Perspective	Comau
00:50 – 01:00	SMEs/Spin-off Perspective	?
01:00 – 01:25	Interactive Panel Discussion	Speakers and and audience Q&A

Time	Activity	Speaker / Moderator / Lead
01:25 – 01:30	Wrap-up & Next Steps (Summary, takeaways, and link sharing)	

Main organiser

Hala Elrofai, Eindhoven University of Technology, Program manager Robotics

Additional organisers

- Mahesh Dissanayake, The MTC
- Giuseppe Parlato, Comau

Speakers / panelists

- Mahesh Dissanayake, The MTC, Technical Specialist
- Giuseppe Parlato, Comau, Product Manager
- Wouter Kuijpers, TU/e, co-founder of Technology Robotics Center
- Carlos Calleja, Ikerlan, Team leader, control and Robotics Team

WS35

Human - Humanoids Co-existence for Service Industry

How can Europe turn advances in humanoid and service robotics into sustainable real-world impact? This workshop explores deployment challenges, human-centered co-existence, heterogeneous robot ecosystems, and emerging business opportunities across hospitality, tourism, and service industries, shaping priorities for scalable adoption.

Description

Service industries such as hospitality and tourism continue to face workforce challenges while adapting to rising customer expectations and highly variable operating environments. Advances in humanoid service robotics, artificial intelligence, and intelligent automation may create new opportunities to support staff, improve guest experiences, and increase operational resilience.

This workshop brings together two complementary perspectives: concrete service-robotics needs in hospitality and tourism, and the wider challenge of building potentially humanoid sustainable heterogeneous robot ecosystems. It will examine how humanoid robots, mobile platforms, specialised manipulators, and software services can share intelligence, coordinate tasks, and co-deploy with people in real-world settings, in particular public spaces.

The workshop will focus on:

• Humanoid and specialised robot systems with sensitive perception and human-robot interaction mechanisms

• Co-Existance and orchestration across complementary robots, digital services, and human teams

• AI-powered decision-making, and service personalisation

• Sustainable deployment: inclusion, safety, maintainability, circularity, and viable operating models

Technical impulse presentations and deployment examples will be combined with an interactive fishbowl discussion. Researchers, technology providers, operators, end users, and policy stakeholders will jointly identify what is needed to progress from narrow pilots to robust ecosystems that deliver lasting value. Hospitality and tourism will serve as an application domain while lessons are connected to other human-centred environments.

Agenda

Time	Activity	Speaker / Moderator / Lead
10 min	Introduction and shared challenge	Amir, Wesley , Michael
25 min	Technical and deployment impulses	TBD
15 min	Ecosystem mapping exercise	TBD
25 min	Fishbowl discussion and audience engagement	TBD
5 min	Community building and next steps	Amir, Wesley , Michael

The workshop will use an interactive 80-minute format, combining concise expert inputs with ecosystem mapping and a moderated fishbowl discussion. The design prioritises exchange between robotics

researchers, AI and technology providers, hospitality and tourism operators, end users, and policy stakeholders.

1. Introduction and shared challenge (10 min)

The organisers will introduce, establish the link between sector needs and heterogeneous robot ecosystems, and frame the questions and expected outcomes.

2. Technical and deployment impulses (25 min)

Three short impulse presentations of 7-8 minutes from service robotics experts, and hospitality or tourism practitioners. The presentations will connect emerging capabilities with operational experience, constraints, and transferable lessons from human-centred deployment contexts.

3. Ecosystem mapping exercise (15 min)

Participants will map representative service workflows to complementary robot roles, shared services, human responsibilities, and key interfaces. The exercise will expose where interoperability creates value and where technical or organisational gaps remain.

The mapping will consider:

• tasks that benefit from humanoid, mobile, or specialised robotic capabilities

• coordination between robots, AI services, infrastructure, staff, and guests

• safety, inclusion, data governance, maintainability, and circularity

• pilot environments, evidence needs, business models, and adoption pathways

4. Fishbowl discussion and audience engagement (25 min)

A small cross-sector group will open the discussion, with empty seats allowing onsite participants to rotate into the conversation. Remote contributions will be actively moderated. The discussion will test priorities emerging from the mapping exercise and identify shared actions for a European roadmap or white paper.

5. Community building and next steps (5 min)
The moderators will summarise the agreed priorities, invite commitments to follow-up activities, and explain how the results will be captured for a roadmap or white paper.

Main organiser

Amit Kumar Pandey

Michael Rathmair, JOANNEUM RESEARCH Forschungsgesellschaft mbH ROBOTICS – Institute for Robotics and Flexible Production, Head of Research Group

Additional organisers

- First Name Last Name, Organisation, Job Title

WS36

Leveraging Data for Robotics: From Data Spaces and AI Factories to Real-World Deployment

This workshop explores how data spaces can address data availability for AI and robotics at scale, from data collection, lifecycle management, governance, IPR and interoperability to synthetic data, AI Factories and TEFs, enabling trustworthy AI development, testing and deployment across domains.

Description

Artificial intelligence and robotics are increasingly moving from research and pilot projects towards real-world deployment across manufacturing, mobility, automotive, logistics, and other domains. However, scaling these solutions requires access to diverse, high-quality data, effective data-sharing mechanisms and the infrastructure needed to develop, test and deploy trustworthy AI.

This workshop will explore how data spaces can support the full data lifecycle, from data collection and storage to governance, interoperability and secure sharing. Particular attention will be given to practical barriers such as intellectual property rights, data ownership, access and the creation of common formats and protocols that enable data reuse across organisations and domains.

The workshop will also examine how synthetic and simulated data, world and foundation models, AI Factories, Data Labs and Testing and Experimentation Facilities (TEFs) can complement data spaces and address data scarcity while accelerating AI development and validation.

Bringing together industry, academia and relevant European initiatives, the workshop will identify common needs, practical challenges and opportunities for collaboration, with the goal of defining pathways towards scalable, trustworthy and interoperable data-driven AI and robotics ecosystems.

Agenda

Time	Activity	Speaker / Moderator / Lead
00:00 - 00:10	Introduction & Overview	
00:10 - 00:20	1st keynote talk	
00:20 - 00:30	2nd keynote talk	
00:30 - 00:40	3rd keynote talk	
00:40 - 00:50	4th keynote talk	
00:50 - 01:20	Panel discussion	

Main organiser

Kosmas Tsiakas, CERTH, Research Associate

Additional organisers

- Selma Kchir, CEA, Program Manager - Intelligent Machines
- Franziska Kirstein, OZZIE Robotics, Senior Research & Innovation Advisor

Speakers / panelists

- Dimitrios Giakoumis, CERTH, Principal Researcher (Grade B')
- Selma Kchir, CEA, Program Manager - Intelligent Machines
- Michael Suppa, Roboception GmbH, CEO

WS37

Engineering Robust, Adaptive and Autonomous Robotic Systems

As robotic systems become more autonomous and adaptive, new engineering challenges arise. This workshop explores engineering approaches to robust design, integration, runtime decision-making, and resilience, and gathers concrete use cases for the upcoming Systems and Software Engineering TG white paper.

Description

As robotic systems become increasingly autonomous and adaptive, engineering robust, reliable, and resilient solutions presents significant new challenges. This workshop brings together perspectives from industry and academia to explore these challenges and collect input for the upcoming Systems and Software Engineering Topic Group (TG) white paper.

The session opens with a series of teaser talks. These will introduce the Topic Group and its mission, before moving into the current state of research — covering engineering and validation techniques for robotic systems, robust decision making under ambiguity and uncertainty as well as approaches to runtime failure detection and recovery. Industry speakers will complement this with practical insights and lessons learned from real-world deployments. The planned white paper will also be presented, giving participants a clear picture of its goals and scope.

Building on these talks, the workshop shifts into an interactive format designed to collect real-world use cases from the participants. The workshop offers a format in which everyone is able to contribute their perspective and experience. The goal is to identify the engineering challenges practitioners face today, and to pinpoint use cases where specific techniques — such as robust design methods or runtime monitoring — provide clear, tangible benefits.

Agenda

Time	Activity	Speaker / Moderator / Lead
0:00 - 0:15	Opening – Engineering Adaptive and Autonomous Robotic Systems. Introduction to the Systems & Software Engineering TG, workshop objectives and white paper; industrial perspective on current engineering challenges.	Selma Kchir - TG Coordinator / CEA Siemens? - invitation sent
00:15 - 00:23	Engineering and Validating Complex Robotic Systems	Nico Hochgeschwender, Professor - University of Bremen
00:23 - 00:31	Robust Decision-Making under Ambiguity and Uncertainty	Gaël de Chalendar, Researcher, CEA
00:31 - 00:39	Resilience Beyond the Design	Andreas Wiedholz – XITASO
00:40 - 01:10	Interactive session 1-2-4-All. Participants identify and consolidate real-world engineering challenges, representative use cases and priority needs for robust, reliable and resilient robotic systems.	Moderators: Selma Kchir and Andreas Wiedholz

Time	Activity	Speaker / Moderator / Lead
01:10 - 01:20	Wrap-up and next steps: Consolidation of key findings and contribution to the TG white paper.	Selma Kchir and Andreas Wiedholz

Main organiser

Selma Kchir, CEA, Program Manager - Intelligent Machines

Additional organisers

- Andreas Wiedholz, XITASO, Researcher

Speakers / panelists

- Daniel Meyer-Delius, Siemens, Senior Software Robotics Engineer
- Nico Hochgeschwender, University of Bremen, Professor
- Gaël De Chalendar, CEA, Researcher

WS38

Robot teams and swarms -

Agenda

Time	Activity	Speaker / Moderator / Lead

Main organiser

First Name Last Name, Organisation, Job Title

Additional organisers

- First Name Last Name, Organisation, Job Title

WS39

Beyond the Demo: Grounded, Trustworthy and Deployable Physical AI for Robotics

How can Europe move from impressive Generative AI and foundation-model robot demos to grounded, physically reliable and deployable systems? This workshop will identify shared challenges, validation needs and priorities for trustworthy Physical AI.

Description

Generative AI and foundation models are rapidly expanding what robots can perceive, reason about and learn, yet reliable deployment in the physical world remains difficult. This workshop asks what is still missing to move from compelling demonstrations to grounded, physically reliable and deployable robot intelligence.

The discussion will connect complementary perspectives across the stack: multimodal grounding and embodied interaction; physics-informed learning, constraints, control and verification; human oversight and safety; and deployment infrastructure, edge computing, MLOps and continuous learning. Manufacturing, mobile robots, cobots and humanoids will provide concrete real-world contexts rather than limiting the discussion to a single application.

The workshop is intended for researchers, technology developers, industrial users, end users and stakeholders working on safety, standards and deployment. Short framing inputs will be followed by facilitated breakout discussions and collaborative prioritisation. Participants will identify key failure modes, missing capabilities and common validation needs.

The expected outcome is a shared challenge map and a concise set of research, benchmarking, deployment and standardisation priorities that can inform future community roadmaps and collaborations.

Agenda

Time	Activity	Speaker / Moderator / Lead
0–5 min (5 min)	Welcome & workshop framing — Introduce Beyond the Demo, the central question and expected outcome of the workshop.	Néstor García / Chen Li / Roel Pieters / Marcel Gabriel Lahoud
5–10 min (5 min)	Framing input 1 – GRAIL: From Generative AI capabilities to trustworthy Physical AI. Establish the problem: what separates impressive AI/robotics demonstrations from grounded, reliable and deployable systems?	Néstor García
10–15 min (5 min)	Framing input 2 – Conversational AI & Multimodal HRI: From Chatbots to Embodied Agents. Where fluent multimodal interaction breaks on the way to grounded, reliable and deployable embodied agents	Chen Li

Time	Activity	Speaker / Moderator / Lead
15–20 min (5 min)	Framing input 3 – Physics-informed learning: embedding dynamics and constraints into learned models for physically consistent control; what it guarantees and where it break.	Marcel Lahoud
20–60 min (40 min)	Moderated round table – From grounding to trustworthy deployment. Discussion across complementary perspectives: grounding, deployment, data, shared infrastructure, integration and safety. No presentations from panellists.	Moderators: Néstor García / Chen Li / Roel Pieters / Marcel Gabriel Lahoud Panellists: ?
60–75 min (15 min)	Open discussion and audience questions. Participants challenge the panel and contribute missing issues, priorities and deployment needs.	Moderators: Néstor García / Chen Li / Roel Pieters / Marcel Gabriel Lahoud Panellists: ?
75–80 min (5 min)	Conclusions & priorities. Synthesis of the main challenges and 3–5 priorities for moving Physical AI beyond demonstrations towards trustworthy real-world deployment.	Néstor García / Chen Li / Roel Pieters / Marcel Gabriel Lahoud Pieters

Main organiser

Néstor García, Eurecat, Head of Robotic Manipulation

Additional organisers

- Chen Li, Aalborg University, Associate Professor
- Roel Pieters, Tampere University, Professor
- Marcel Gabriel Lahoud, Istituto Italiano di Tecnologia, Postdoctoral Researcher

Speakers / panelists

- Néstor García, Eurecat, Head of Robotic Manipulation
- Chen Li, Aalborg University, Associate Professor
- Roel Pieters, Tampere University, Professor
- Marcel Gabriel Lahoud, Istituto Italiano di Tecnologia, Postdoctoral Researcher
- ZhuangZhuang Dai, Aston University, Lecturer
- Alfio Minissale, COMAU, EU project manager

WS40

Quantum Robotics Standardization: Challenges and Roadmap

Bringing together industry, researchers and policy stakeholders to develop a shared roadmap towards standardization of quantum robotics by identifying and prioritizing the terminology, interfaces, benchmarks, and evaluation practices needed to harmonize quantum-enabled robotic systems.

Description

Quantum-enabled robotics is emerging at the intersection of robotics, quantum computing, quantum machine learning, and quantum sensing, but communities use different terminology, performance metrics, and evaluation practices. This fragmentation creates potential barriers to interoperability, reproducibility, and deployment. The workshop addresses a focused challenge: what aspects of hybrid quantum-classical robotics should be standardized now, what later, and what should be designed by the developers?

Participants from robotics research, quantum computing, system integration, standards bodies, and public policy will examine this question. Robotics researchers will define system requirements, quantum experts will identify technical constraints, integrators will highlight deployment barriers, standards experts will assess feasibility, and policy experts will identify governance requirements. Participants will collaborate and discuss challenges, actions and the roadmap towards harmonization of quantum enabled robotics.

Following brief 5-minute framing inputs, attendees will engage in structured breakout exercises. Participants will first map domain terminology to identify ambiguities. Groups will then evaluate cross-cutting candidate areas using a standards-priorities matrix scored on urgency, impact, and feasibility. A final voting session will distinguish immediate priorities from areas where standardization is premature.

Outputs include the creation of a network of experts, a preliminary terminology map, a standards-priorities matrix, a list of non-standardization candidates, and a preliminary roadmap identifying actionable next steps.

For more information about the schedule of the workshop, please visit

https://sites.google.com/view/quantum-robotics-workshop

Agenda

Time	Activity	Facilitation Method & Participant Mechanics	Speaker / Moderator / Lead
0-5 min	Introduction	Brief speech	Lead: Workshop Facilitators
5-15 min	Panel Discussion	Panellists and Provocative Talk	Lead: Workshop Facilitators/Pannelists: Sajad Saeedi G. Pian Yu Daniele De Martini Paulo Jorge Sequeira Gonçalves Serggi Strelchuck Howard Li

Time	Activity	Facilitation Method & Participant Mechanics	Speaker / Moderator / Lead
15-20 min	Breakout Briefing	Framing Format: Three inputs setting context (Robotics requirements, Quantum constraints, Standards feasibility; max 1 slide each, no marketing/literature review).	Lead: Organizers & Invited Domain Experts
20-35 min	Phase 1a: Terminology Mapping	Mixed-Expertise Breakouts (5–8 people): Group forming (5 minutes). Groups sort card decks of core terms into Shared (sufficiently understood for workshop use, with a drafted 1-line definition), Ambiguous, or Conflicting categories.	Participants: All (Cross-domain mixed tables)
35-45 min	Phase 1b: Standards Priorities Assessment	Scoring Exercise: Groups negotiate scores for cross-cutting candidate areas (Interfaces, Benchmarking, System-level Verification, Safety-relevant Evaluation) on 1–5 scales: Urgency (need timing), Impact (deployment value), and Feasibility (consensus readiness).	Participants: All (Table facilitators input group scores into dashboards)
45-60 min	Phase 2a: Cross-Group Discussion - Presentation and Voting	Dashboard Discussion: Facilitators display live aggregated scores. The room actively discusses score outliers and high-disagreement areas to classify items into Standardize Now, Standardize Later, or Keep Flexible.	Lead: Facilitator-Led Discussion with All Participants

Time	Activity	Facilitation Method & Participant Mechanics	Speaker / Moderator / Lead
60-70 min	Phase 2b: Priority Voting	Individual Voting: Attendees receive 3 votes (max 1 vote per priority) to answer: "Which candidate areas should receive the highest priority for standards-related action?"	Participants: All Attendees
70-80 min	Conclusion and Action Commitments	Closing Synthesis: Mapping top priorities to proposed next actions, potential stakeholder forums (academic working groups, standards study groups, industry consortia), and community mechanisms to build the preliminary roadmap.	Lead: Workshop Facilitators/Pannelists

Tangible Workshop Artifacts Produced

1. **Preliminary Terminology Map:** Catalog of shared vocabulary alongside ambiguous terms marked for future community alignment.

2. **Standards-Priorities Matrix:** A structured, participant-scored grid ranking candidate domains by urgency, impact, and feasibility.

3. **List of Non-Standardization Candidates:** Explicit documentation of domains where early standardization may be premature or could constrain innovation.

4. **Preliminary Action Roadmap:** Mapped outline matching prioritized targets to proposed next actions and potential stakeholder forums for follow-up.

Main organiser

Howard Li, University of New Brunswick, Professor

Additional organisers

- Sajad Saeedi G., University College London, Professor
- Pian Yu, University College London, Professor
- Daniele De Martini, University of Oxford, Professor
- Mona Ghassemian, eSense ltd / King's College London, Director/Visiting Fellow
- Paulo Jorge Sequeira Gonçalves, Instituto Politécnico de Castelo Branco, Professor, Chair of IEEE Standards Association P1872.3

Speakers / panelists

- Sajad Saeedi G., University College London, Professor
- Pian Yu, University College London, Professor
- Daniele De Martini, University of Oxford, Professor

• Paulo Jorge Sequeira Gonçalves, Instituto Politécnico de Castelo Branco, Professor, Chair of IEEE Standards Association P1872.3
• Serggi Strelchuck, Quantum Research Institute at Oxford, Professor
• Howard Li, University of New Brunswick, Professor
• Paolo Barattini, Research Director at Kontor 46, Chair, ERF Standards Task Group

WS41

Embodied AI at Scale: Interoperability, Lifecycle Management and Governance.

This workshop explores the interoperability, lifecycle, assurance, and governance challenges limiting scalable deployment of embodied AI across robotics, industry, and space, developing a cross-sector roadmap and white paper for trustworthy, resilient, and governable embodied AI systems.

Description

Embodied AI capabilities are advancing faster than the infrastructures and governance mechanisms needed to deploy them. As robots, AI agents, digital twins, and edge/cloud services increasingly need to interoperate across organisational and sectoral boundaries, deployment is constrained by fragmented middleware, lifecycle mismatches between rapidly evolving AI and long-lived assets, and immature assurance and governance frameworks. This workshop brings together embodied AI researchers, distributed systems architects, industrial practitioners, standards organisations, and space-sector specialists to address these challenges through concrete industrial and emerging-sector perspectives. Examples include Comau's Integrated Robotics stacks and the modularity, interoperability, and regulatory barriers facing the emerging in-space servicing economy. Discussion will cover semantic and operational interoperability, human-robot teaming, coordination across heterogeneous computing environments, energy-aware and graceful-failure autonomy, and the standards, certification, and governance frameworks required for trustworthy, scalable deployment. Outputs: a cross-sector roadmap and white paper defining priorities for scalable, interoperable, and governable embodied AI deployment.

Agenda

Time	Activity	Speaker / Moderator / Lead
Welcome (5 mins)	Introduction, agenda, expected outcomes	
Framing Talk - (10 min)	Framing: interoperability, lifecycle mismatch, governance for embodied AI at scale; human-robot teaming, graceful failure, energy-aware autonomy	Speaker:
Spotlight Talk 1- (7 min)	Coordination across distributed cloud/edge/cyber-physical infrastructure; semantic/operational interoperability; digital twins	Speaker:
Spotlight Talk 2 - (7 min)	Industrial standpoint to standards, certification, and governance perspective, Comau / space examples	Speaker: Maximo Roa
Q&A (5 mins)	Questions to all speakers	Moderator:
Breakout (30 min)	Breakout into 2 rooms. Track A — Interoperability & lifecycle management: Ipek/Roberto/Giuseppe Track B — Governance, Standards, Ethics, : Mini/Manu/Didin	Track A Lead Track B Lead

Time	Activity	Speaker / Moderator / Lead
Breakout Findings (10 mins)	Track A + Track B.	Track A Lead Track B Lead
Close out (5 mins) - Short presentation, topics covered and next steps.		

Main organiser

Ipek Caliskanelli, UK Atomic Energy Authority, Principal Robotics Research Engineer

Additional organisers

- Mini Rai, Orbit Rise Ltd, Director
- Manu Nair, University of Manchester, Assistant Professor
- Giuseppe Parlato, Comau, Product Manager
- Roberto Morabito, Technical University of Denmark (DTU), Associate Professor
- Didunoluwa Obilanade, ASTM, Technical Manager

Speakers / panelists

- Urko Esnaola, TECNALIA, Head of Robotics for Industrial Flexibility

WS42

Robotics for a World in Polycrisis

Geopolitical tensions, technological competition, climate pressures, and shifting global dependencies are reshaping the environment for robotics. This workshop explores how these interconnected challenges affect the robotics community, and how robotics can contribute to resilience in an increasingly complex and uncertain world.

Description

Robotics is developing in a world characterized by multiple, interconnected disruptions: geopolitical tensions, changing supply chains, technological competition, climate and environmental pressures, workforce challenges, and rapidly evolving AI capabilities. These developments raise fundamental questions about the resilience of Europe's robotics ecosystem and its ability to anticipate, adapt, and respond to disruption.

Building on previous ERF discussions on robotics for a changing world and strategic reindustrialization, this workshop brings together perspectives from research, industry and technology development to examine resilience from different angles.

The workshop will explore questions such as: What makes robotics technologies and supply chains resilient? How can Europe maintain technological capabilities and industrial competitiveness in a rapidly changing global landscape? How can robotics support resilience in manufacturing, security, infrastructure, services and other critical domains? And how should the robotics community balance openness, interoperability and international collaboration with strategic dependencies and the need for European capabilities?

Rather than focusing on a single application domain, the workshop aims to identify common challenges, opportunities and actions for building a more resilient European robotics ecosystem.

Agenda

Time	Activity	Speaker / Moderator / Lead
0-5min	Welcome and framing: Robotics in a world of polycrisis – what do we mean by resilience and impact?	
5-25min	Impulse Talks	TBC
25-55min	Group Work	
55-75min	Group Work Reflections	
75-80min	Closing	

Main organiser

Assia Belbachir, NORCE, Senior Researcher

Additional organisers

- Franziska Kirstein, Three Robotics, Founder
- Rich Walker, Shadow Robot Company, Director
- Elisabeth Schärtl, autonox Robotics
- Jakub Główka, Łukasiewicz - PIAP, Head of department
- Amit Kumar Pandey, Socients AI and Robotics, President and CTO

- José Saenz

WS43

Closing the deployment Gap in Physical AI for pose estimation and quality inspection

The workshop brings research and industry together to close the deployment gap in 6D pose estimation and quality inspection for physical AI, through talks, guiding questions, and a panel discussion.

Description

The workshop "Closing the Deployment Gap in Physical AI for Pose Estimation and Quality Inspection," addresses the gap between research and industrial deployment of perception systems. The focus is on 6D pose estimation of known objects from calibrated RGB-D data using a zero-shot approach, i.e. without training on the exact CAD model, as well as the challenges posed by visual ambiguities and quality requirements. The workshop also clarifies the relationship between embodied AI, physical AI, and perception, and shows how pose estimation and quality inspection can be combined, for instance by treating visual ambiguities as anomalies.

After an introduction with guiding questions on realistic deployment timelines and prior hands-on experience, four ten-minute talks follow: on pose estimation, on industrial deployment, on industry expectations for embodied AI, and on the availability and robustness of perception systems. The workshop concludes with a 30-minute panel discussion with Slido audience participation and a brief summary of key takeaways.

Agenda

Time	Activity	Speaker / Moderator / Lead
0:00	Introduction and key questions	Michael Suppa
0:05	Local Symmetry Discovery for 6D Pose Benchmarking Under Visual Ambiguities	Boris Meden
0:15	Deployment Gap in Pose Estimation in Industrial AI	Michael Suppa
0:25	Expectations on embodied AI for regulated industry	Harry Burrough
0:35	AI Vision for quality inspection	Stuart McLeod
0:45	Panel with slido/mentimeter and discussion of key questions	All
1:15	Closing and take away messages	All

Main organiser

Michael Suppa, Roboception GmbH, CEO

Additional organisers

- Boris Meden, CEA

Speakers / panelists

- Michael Suppa, Roboception GmbH, CEO
- Boris Meden, CEA
- Stuart McLeod, MTC

- Harry Burrough, Rolls-Royce

WS44

From Capability to Care: Trusted and Deployable Robotics for Resilient Healthcare

An interactive workshop on turning AI, robotics, drones and autonomous systems into trusted, scalable healthcare solutions that support caregivers, strengthen care for older and frail people, and improve resilience in everyday practice and crises.

Description

Healthcare systems face mounting pressure from workforce shortages, ageing populations, pandemics, disasters, cyber incidents and geopolitical crises. Although AI, robotics, drones and autonomous systems are advancing rapidly, the gap between technical capability and real-world adoption remains wide.

This workshop connects care needs with the technologies and conditions required for useful, trusted and scalable deployment. Participants will examine how robotics can reduce caregiver workload, improve continuity of care, support the autonomy and follow-up of older and frail people, and strengthen preparedness, response and recovery. Discussion will cover user-driven requirements, acceptance, clinical and care workflow integration, interoperability, standards, modular architectures, trustworthy autonomy, multimodal perception, adaptive planning, personalisation, social intelligence, safety, explainability and meaningful human-robot interaction.

Through expert provocations, an interactive panel and multidisciplinary working groups, participants from care practice, research, industry and policy will draw lessons from existing deployments, identify priority needs, evidence gaps and adoption barriers, and formulate recommendations for European research, innovation, standardisation and investment. The outcomes will provide a basis for a position paper on trusted, deployable and resilient healthcare robotics.

Agenda

Time	Activity	Speaker / Moderator / Lead
00:00-00:05	Welcome & Framing	Françoise Siepel
00:05-00:15	Assistive robotics	Magi
00:15-00:25	From Technology to Care: Evidence from Real-World Robotics Pilots	Gizem Bozdemir
00:25-00:35	Drone delivery from pharmacy perspective	Paul Royall
00:35-00:75	Interactive Panel: What should Europe do next?	Loredana Zollo Paul Royall Randy Gomez TBC
00:75-00:80	Closing & next steps - post workshop position paper	

Main organiser

Françoise Siepel, University of Twente, Associate professor

Additional organisers

- Gizem Bozdemir, PALRobotics, Senior Project Manager
- Magí Dalmau Moreno, Eurecat, Head of Cognitive Robotics

Speakers / panelists

- Françoise Siepel, University of Twente, Associate professor
- Loredana Zollo, Campus Bio Medico University of Rome, Head of CREO Lab, Università Campus Bio-Medico di Roma
- Gizem Bozdemir, PAL Robotics, Senior Project Manager
- Paul Royall, Kings College London, Senior Lecturer
- Magí Dalmau, Eurecat, Head of Cognitive Robotics
- Randy Gomez, Honda Research Institute Japan, Chief Scientist

WS45

From New Robots to Real-World Deployment: Challenges for Robotics Adoption in Construction

This workshop explores recent advances in construction robotics and the challenges limiting their widespread adoption. Through presentations and discussion with researchers and industry experts, it aims to identify key barriers and opportunities for bringing emerging robotic solutions from successful demonstrations to routine construction practice.

Description

Construction robotics is rapidly evolving, with new robotic platforms, autonomous capabilities and collaborative solutions emerging from research, startups and industry. However, despite significant technological progress and an increasing number of successful demonstrations, widespread deployment on real construction sites remains limited. This workshop will explore both sides of this transition: the latest developments in construction robotics and the technical, operational and adoption challenges that must be addressed to bring these technologies into routine use.

The idea would be to leave room for presenting technologies, projects and ongoing developments from different areas of construction robotics, while also involving experts from the construction sector who can provide their perspective based on the presented cases (an open to other cases). The aim would be to create a discussion around the path forward and the main challenges that still need to be addressed so that these and other emerging solutions can successfully reach the market and solve real industry needs.

Agenda

Time	Activity	Speaker / Moderator / Lead
0 - 5 min	Welcome, objectives and framing of the workshop	Ali Muhammad
5 - 30 min	Short impulse cases: emerging robots and technologies for construction	3-4 speakers
30 - 70 min	Interactive session: identifying and prioritising barriers, causes and actions for real-world deployment Participants will work in thematic roundtables bringing together different perspectives from research, technology providers, construction companies and end users. Each group will identify and prioritise deployment barriers, analyse their underlying causes and propose concrete actions to overcome them.	Moderator / All participants
70 - 80 min	Conclusions and next steps	Moderatos/ Main organiser

Main organiser

David Caballero Flores, UPC

Additional organisers

- Sarah Terreri, PAL Robotics
- Ali Muhammad, SDU
- Gvantsa Gichoshvili, UPC
- Alba Perez, UPC

WS46

Robotic Handling of viscous, hazardous, and complex materials in Segregated environments (Isolators, Cleanrooms, and Gloveboxes)

This workshop explores how telerobotics and adaptive automation can enable safe, effective manipulation of viscous pastes, slurries, adhesives and battery materials, bringing together industrial, R&D and academic perspectives to address key technical bottlenecks.

Description

Automating hard-to-handle materials presents unique robotic challenges. This is especially true for viscous pastes, slurries, industrial adhesives, and battery formulations. Operating with these substances in segregated spaces, such as gloveboxes, sterile cleanrooms, or containment cells, adds significant complexity. This workshop brings together insights from industrial manufacturing, applied R&D, teleoperation, and academic chemistry. Speakers will highlight key success stories while addressing the critical manipulation bottlenecks that still need solving. Participants will explore how telerobotics and adaptive automation can safely bridge the gap between human dexterity and isolated environments.

Agenda

Time	Activity	Speaker / Moderator / Lead

Main organiser

Radhika Gudipati, ARIA, Science and Technology Lead - Robotics

Speakers / panelists

- Lynn Donlon, Centre for Process Innovation

WS47

Effectiveness and Safety of Robotic Systems with Higher Intelligence and AI in Nuclear and other Harsh Environments

WS will try to answer the question of how to achieve a reliable and safe robotic system using AI in conservative nuclear and other harsh applications, to persuade investors about its safety even in unstructured environment and reaching TRL8-9.

Description

At the beginning of the workshop, three presentations will introduce state-of-the-art concepts and approaches addressing the key challenges under discussion, including solutions within the robot–AI–human interaction triangle, AI-enhanced teleoperation, and related topics.

These presentations will provide the basis for an interactive panel discussion and an exchange of knowledge, practical experience, and different perspectives among the panellists and workshop participants.

During the discussion, emerging conceptual ideas, open questions, technological gaps, and unresolved challenges will be captured on a flipchart. These outcomes will serve as food for thought and may help identify promising directions for future research and development.

In the last minutes will be discussed following activities of our TG.

Agenda

Time	Activity	Speaker / Moderator / Lead
0 - 5	Introduction	Ladislav Vargovcik
5 – 20	Use of AI and automated systems to improve safety in radioactive waste management (Presentation)	Cesar Alan Contreras Rustam Stolkin Uni Birmingham
20 – 35	From Demonstrator to Deployment: Scaling Robotics in Nuclear Operations (Presentation)	Julian Bond Atkins Realis
35 – 50	Closing the robotics loop: connecting perception, digital twins, and actuation frameworks for harsh applications (Presentation)	Antonio M. Ortiz NORCE Research
50 – 70	Panel discussion	Speakers and audience
70 - 80	Next activities of TG Closing summary and conclusion	Ladislav Vargovcik

Main organiser

Ladislav Vargovcik, Technical University of Kosice, R&D Manager

Additional organisers

- Antonio M. Ortiz, NORCE Research AS, Norway, Senior Researcher
- Julian Bond, AtkinsRealis, Technology Manager

Speakers / panelists

- Cesar Alan Rustam Contreras Stolkin, University of Birmingham, Researcher Professor
- Antonio M. Ortiz, NORCE Research AS, Norway, Senior Researcher
- Julian Bond, AtkinsRealis, Technology Manager

WS48

Unlocking Robotics Adoption in Food and Drink Manufacturing: From Business Case to Deployment

An industry-led workshop exploring how food and drink manufacturers can overcome commercial, financial and workforce barriers to robotics adoption, learn from successful deployments, and identify practical actions and collaboration opportunities to accelerate adoption at scale.

Description

Food and drink manufacturing is one of Europe's largest manufacturing sectors, but many businesses still face significant barriers to adopting robotics. This workshop will explore how manufacturers can move from recognising the opportunity to successful deployment across production, packaging and logistics, drawing on experience from across Europe.

Led by the Food and Drink Federation in partnership with the Manufacturing Technology Centre, the session will bring together manufacturers, technology providers, researchers and innovation partners. Four short expert perspectives – from a manufacturer, technology provider, research organisation and innovation partner – will frame the commercial, technological, workforce and implementation challenges.

A moderator-led discussion will explore the connections between these challenges and the practical changes needed to overcome them. Participants will then be invited to contribute their own experiences, questions and possible solutions through a facilitated audience discussion.

The workshop aims to build a shared understanding of the barriers to adoption, explore possible recommendations for accelerating robotics adoption in UK food and drink manufacturing, and identify priorities and opportunities for future collaboration.

Agenda

Time	Activity	Speaker / Moderator / Lead

Main organiser

Tanya Barringer, Food and Drink Federation, Industry Growth Policy Manager

Additional organisers

- First Name Last Name, Organisation, Job Title

WS49

From Lab to Farm: Closing the Gaps for Robust, Usable and Scalable Agricultural Robotics

Bridging the gap from lab to farm, this interactive workshop addresses technical robustness, human-robot collaboration, and business models to define a European roadmap for scalable agricultural robotics.

Description

After a short welcome and scoping of domain, the workshop will be divided in three main parts.**Part I.** addresses the **main agritech challenges** and potential solutions. **Part II.** addresses the **convenient uptake** tools and interfaces for the farmer to operate robotic systems. **Part III** addresses the challenge and **best practices to scale** the technology (UK is used as an example). All parts include a pitch and a slot for discussion.

The workshop as a whole identifies the white spots for agricultural robotics to solve real field problems beyond promising prototypes and isolated demonstrations. It will combine a technical focus on autonomy, robustness, perception, navigation, actuation, task execution, sensing-action integration, and validation under variable crop, soil, weather and operational conditions, with a strong focus on usability and adoption. From an Agriculture 5.0 perspective, it will explore farmer–technology interaction, human capability augmentation and Extended Reality for intuitive, effective and trustworthy human–robot collaboration. Adoption and scaling will be the other part of the workshop to bridge "From Lab to Farm: Translating Agricultural Robotics Research into Real-World Impact At Scale". Building on the momentum of agricultural robotics workshops at ERF2026, this session will address the following key gaps: 1. the limited exchange of experiences on how research results are transformed into commercially viable solutions, and 2. deploying these solutions at scale globally. The expected outcome is a community-driven roadmap for Europe, defining shared challenges, requirements, validation criteria and integration needs.

Agenda

Time	Activity	Speaker / Moderator / Lead
5 Minute	Welcome and Workshop Scope	Erik Pekkeriet
27 minute (incl. 12 min pitch)	Part 1 Agritech Challenges	Team David Caballero Flores
27 minute (incl. 12 min pitch)	Part 2 Uptake and Interfaces	Team Carloz Rizzo
27 minute (incl. 12 min pitch)	Part 3 Best practices in scaling	Team Sami Deiri
1 Minute	Wrap Up and closing	Erik Pekkeriet

Main organiser

Erik Pekkeriet, Wageningen University & Research, Programme Manager Vision + Robotics

Additional organisers

- David Caballero Flores, Universitat Polytécnica De Catalunya, Head of Research in Agricultural Robotics
- Eric Pernot, Aquitane Robotics, Directeur Aquitaine Robotics
- Martina Maselli, Sant'Anna Pisa, Assistant Professor
- Ouiddad Labbani, Unilim, Full Professor
- El Houssein Chouaib Harik, Sintef, Research scientist
- Leire Bastida, Tecnalia, Head of the Visual and Multimodal Interaction Technologies
- Carlos Rizzo, Eurecat, Head of Autonomous systems & Mobile Robotics
- Sarah Terreri, PAL Robotics, Head of Collaborative Projects

- Daniel Serrano Lopez, Eurecat, Director of Robotics and Automation
- Sami Deiri, UK Agritech Centre, Robotics & Automation Lead

WS50

Rethinking Space Robotics: From Assembly to Sustainability

This interactive workshop explores how autonomous multi-robot systems and human-robot collaboration can enable sustainable in-orbit assembly, servicing, manufacturing and waste management, accelerating the transition from promising research to scalable, real-world space infrastructure.

Description

Robotics will be essential to building sustainable systems on Earth and beyond. This interactive workshop brings together two critical applications: in-orbit assembly, servicing and manufacturing (ISAM), and terrestrial and space-based waste management. It will explore how autonomous multi-robot systems and human-robot collaboration can deliver scalable space infrastructure while enabling waste reduction, reuse, recycling and resource recovery.

Through concise presentations from diverse perspectives and structured, guided discussions, participants will examine the technical, operational, regulatory and commercial challenges that currently limit deployment. The workshop will identify shared barriers, transferable technologies and opportunities for collaboration across the space, robotics, manufacturing and waste-management communities.

Attend to exchange knowledge with specialists from different sectors, contribute your own expertise and help shape priorities for future market-led research and innovation. You will gain practical insights into pathways from promising concepts to real-world implementation, while getting to know potential partners and discovering applications and commercial opportunities. By connecting challenges on Earth with emerging needs in orbit, the workshop aims to accelerate innovation, strengthen industrial uptake and demonstrate how robotics can support both a circular economy and a sustainable space economy. Whether you work in research, industry, policy or operations, your perspective will help turn ambitious ideas into deployable solutions with tangible real-world impact.

Agenda

Time	Activity	Speaker / Moderator / Lead
0 - 5 mins	Introduction	Jeremy Hadall
5 - 15 mins	Keynote from ESA on Robotics for ISAM & Sustainability in Space	Martin Azkarate (proposed)
15 - 25 mins	Industry Perspective	Elie Alouis - Airbus Defence & Space (proposed)
25 - 35 mins	Industry Perspective (SME)	Mathieu Deremetz (Space Applications Services)
35 - 75 mins	Roundtable Discussions Building trust in in-space autonomous robotics Scaling from institutional missions to mainstream applications for commercial succes Learning from other sectors	All Participants
75 - 85 mins	Table Feedback	Table Leads
85 - 90 mins	Conclusions	Workshop Organisers

Main organiser

Jeremy Hadall, Satellite Applications Catapult, Robotics Development Lead

Additional organisers

- Mini Rai, Orbit Rise Ltd, Director
- Manu Nair, University of Manchester, Assistant Professor

WS51

Aerial Robots beyond the lab

Drawing on many years of experience and evolving industry trends, this workshop explores how Europe can bridge the gap between world-class aerial robotics research and industrial adoption by aligning innovation with operational, regulatory, and market needs.

Description

Europe hosts world-class research groups developing innovative aerial robotics technologies and generating cutting-edge knowledge. However, despite this strong scientific foundation, Europe has relatively few globally leading industries in this domain. One key challenge is that many innovations remain confined to laboratory environments and do not progress beyond lower TRLs. This workshop will explore how to bridge the gap between research excellence and industrial adoption by aligning technological developments with industry needs, operational requirements, regulatory constraints, and market expectations.

Agenda

Time	Activity	Speaker / Moderator / Lead
5 min	Welcome and Attendee Mapping	
15 min	Research power pitch : Innovation vs Adoption	
15 min	Industry power pitch : Needs and reality checks	
15 min	Interactive Industry - Research Exchange	
15 min	Panel Discussion	
10 min	Wrap up and main finding	

Main organiser

Abeje Mersha, Saxion University of Applied Sciences, Professor - SMART Mechatronics and Robotics

Additional organisers

- First Name Last Name, Organisation, Job Title

WS52

Dual-Use Defense Robotics Beyond the Buzz

Drawing on lessons from ERF26, this interactive workshop brings defense, research, industry, and policymakers together to explore how dual-use robotics can move beyond the buzz toward scalable solutions that bridge civilian value, defense readiness, rapid innovation, and evolving operational needs.

Description

Dual-use technologies have gained significant attention amid growing geopolitical tensions and conflicts worldwide. While investment is accelerating across Europe, scaling dual-use robotics remains challenging, partly because the broader innovation, industrial, procurement, and deployment ecosystems have not been sufficiently developed over recent decades.

Building on the successful dual-use workshop at ERF26 in Stavanger, Norway, this sequel will move beyond the buzz to examine lessons learned and explore how robotics technologies can be designed, developed, and deployed to serve both civilian and defense needs. The workshop will identify the technological, industrial, regulatory, and ecosystem conditions required for solutions to create value in peacetime while enabling rapid adaptation and scaling when circumstances demand it.

The workshop will be highly interactive, using provocative statements, audience engagement, and moderated discussion. Panelists will include policymakers, defense personnel, research institutes, and industry representatives ranging from SMEs to multinational companies. Together, they will confront the tensions between secrecy and open science, lengthy procurement cycles and rapid innovation, and established development processes versus dynamically changing battlefield requirements.

Agenda

Time	Activity	Speaker / Moderator / Lead
10 min	Introduction, recap of the 1st workshop in Stavanger, Norway	
10 min	Pitch 1 – Dual-Use Robotics: Opportunities & Reality	
20 min	Provocative Statements – Part 1: Hot-Chair Discussion	
10 min	Pitch 2 – From Innovation to Deployment & Scale	
20 min	Provocative Statements – Part 2: Hot-Chair Discussion	
10 min	Wrap-Up & Key Takeaways	

Main organiser

Abeje Mersha, Saxion University of Applied Sciences, Professor - SMART Mechatronics and Robotics

Additional organisers

- Jakub Główka, Łukasiewicz - PIAP, Head of department
- Francisco Javier Perez Grau, CATEC (Advanced Center for Aerospace Technologies), Head of Perception, AI and Aerial Autonomy

WS53

Unlocking the Value of Robotics Statistics: Building Reliable Data for Industry, Research & Policy

This workshop brings together industry, academia and robotics organisations to identify practical, collaborative approaches for improving robotics statistics in Europe through best practices, harmonised data frameworks, and better market visibility for service and mobile robotics.

Description

Reliable robotics statistics are essential for informed decision-making by companies, investors, researchers and policymakers. While industrial robotics benefits from well-established statistical methodologies and market reporting, service and mobile robotics continue to face challenges related to definitions, data collection, market visibility and international comparability.

This workshop will present best practices from industrial robot statistics, explore the specific challenges affecting service robotics, and discuss the value of company directories and harmonised data frameworks. Participants will also receive an exclusive overview of the key findings from the World Robotics Service Robots 2026 report, highlighting the latest market developments and trends in the global service robotics sector.

Through expert presentations and an interactive discussion involving industry representatives, academia and robotics organisations, participants will identify practical approaches and collaborative actions to strengthen robotics statistics across Europe. The workshop will further explain how companies can contribute to future editions of the World Robotics Service Robots report and become part of the global service robotics statistics initiative, helping to improve data quality, market transparency and the evidence base supporting innovation and policy development.

Agenda

Time	Activity	Speaker / Moderator / Lead
0 - 10 min	Introduction of IFR statistics (what data are we looking for, what is the process)	Anne Jurkat
10 - 20 min	Presentation of key results of WR SR 2026	Werner Kraus
20 - 25 min	What is in for companies – why should they contribute? Feedback from companies contributing to our statistics	Francesco Ferro
25 - 35 min	The value and contribution of governments to statistics	N.N.
35 - 75 min	Open discussion & Q&A How to create a “family feeling” for robotics? Collecting concerns, discussing needs	All participants Mike Wilson, Anne Jurkat & Susanne Bieller
75 - 80 min	Wrap-up	Susanne Bieller

Main organiser

Susanne Bieller, IFR, General Secretary

Additional organisers

- Anne Jurkat, IFR, Lead Editor & Statistician, World Robotics Service Robots

Speakers / panelists

- Francesco Ferro, PAL Robotics / euRobotics, CEO / President
- Anne Jurkat, IFR, Lead Editor & Statistician, World Robotics Service Robots
- Werner Kraus, Fraunhofer IPA, Head of Automation and Robotics Division
- Mike Wilson, MTC, Chief Automation Officer

WS54

Towards Marine Robotics for Critical Maritime Infrastructure: Inspection, Maintenance and Protection

This workshop explores how autonomous marine robots can enable safer, more efficient inspection, maintenance and protection of critical subsea assets, bringing together experts from research and industry to address deployment challenges and accelerate adoption across energy and communications infrastructure.

Description

As subsea infrastructure expands in scale and strategic importance, the demand for reliable, autonomous, and persistent marine robotic systems is rapidly increasing. This workshop will explore how underwater robotics can support the inspection, maintenance, and protection of critical subsea assets, including pipelines, communication cables, and the new generation of offshore renewable energy installations such as wind farms, tidal energy systems, and floating solar platforms.

Operating in harsh and remote underwater environments, robotic systems offer safer, more efficient, and cost-effective alternatives to conventional inspection and maintenance approaches while addressing the shortage of skilled personnel.

The workshop will examine emerging technologies, key technical challenges, deployment barriers, and future opportunities for underwater robotic inspection and intervention. Particular emphasis will be placed on integrating autonomous systems into broader operational ecosystems, where underwater robots collaborate with surface vessels, fixed monitoring infrastructure, and shore-based control centres to enable continuous situational awareness.

The programme will feature two keynote presentations by leading experts, followed by a roundtable discussion bringing together scientists, engineers, industry representatives, and end users to discuss future research directions and operational needs.

Agenda

Time	Activity	Speaker / Moderator / Lead

Main organiser

Gabriele Ferri, CMRE, Research Scientist

Additional organisers

- Enrico Simetti, University of Genova, Professor
- Abeje Mersha, Saxion University, Professor
- Federico Celi, CMRE, Scientist

WS55

6G empowering Physical AI: Architectures, Governance, Deployment

Bringing together researchers, industry, and standards leaders, this workshop maps how 6G architectures, governance frameworks, and deployment pathways will make Physical AI and connected robotics scalable and reliable — and what standardisation must deliver next.

Description

Physical AI is emerging as a defining paradigm for next-generation robotics, where perception, reasoning, action, and adaptation are tightly coupled with communication, compute, and cloud-edge intelligence. This workshop brings together researchers, industry leaders, and standardisation experts to examine how 6G can serve as an enabler for connected robotics and Physical AI across key technology pillars, including ultra-low latency connectivity, distributed intelligence, sensing, determinism, and interoperability.

The session will combine a provocative keynote, the release of the latest whitepaper, a high-level expert panel, and interactive breakout discussions to identify gaps, opportunities, and priorities for research, standardisation, and deployment. Particular attention will be given to the role of 6G in supporting safe, secure, and scalable robotic systems across domains such as industrial automation, healthcare, logistics, and human-robot collaboration. The workshop will conclude with a synthesis of breakout insights and a discussion of the future activities of the Connected Robotics TG and the 6G empowering robotics work item.

Agenda

Time	Activity	Speaker / Moderator / Lead
5 min	Opening and workshop framing, including Connected Robotics topic group and five technology pillars	Connected Robotics TG / one6G 6G Robotics WI
15 min	Provocation talk	Industry speaker (TBC)
10 min	6G empowering connected robotics ecosystem updates	Dr. Mona Ghassemian
35 min	Panel discussion on architectural, interoperability, & deployment priorities	Moderator: Prof. Kaspar Althoefer Panellists: Prof Ana Armada Garcia, Dr Howard Li, Prof Jehu Ronning, Dr Craig Schlenoff, Prof Davide Scaramuzza
30 min	Breakout sessions linked to panel topics	Connected Robotics TG leads
10 min	Report-back and synthesis	Prof. Kaspar Althoefer
5 min	Closing remarks and future activities	Connected Robotics TG & one6G 6G Robotics WI

Main organiser

Kaspar Althoefer, Queen Mary University of London, Professor of Robotics

Additional organisers

- Prof Alberto Jardon Huete, UC3M
- Prof Kaspar Althoefer, QMUL
- Dr Mona Ghassemian, eSense/KCL
- Prof Stefano Ghidoni, UniPa
- Dr Ali Raza, Uni of Leeds

Speakers / panelists

- Prof Kaspar Althoefer, QMUL, Professor
- Dr Mona Ghassemian, eSense/KCL, Director
- Prof Stefano Ghidoni, UniPa, Professor
- Dr Howard Li, University of Brunswick, Professor
- Prof Ana Garcia Armada, UC3M, Professor
- Prof Juha Ronning, University of Oulu, Professor

WS56

Robot Companions: Character, Trust, and the Human Future

This workshop brings together robotics, engineering, design, and humanities perspectives to examine the emergence of robot companions — humanoid, wearable, and autonomous — and to co-develop practical principles for character-based interaction design and trust that can guide responsible deployment in healthcare, domestic, and workplace settings.

Description

A new generation of robots capable of physically interacting and communicating with humans — humanoid, wearable, and autonomous — is emerging across healthcare, industry, and domestic life, shifting robots from tools to companions. This workshop examines Human-Robot Companionship (HRC) through three interlocking lenses: forms of companionship, from prosthetic integration to wearable devices to autonomous social robots, and their ethical implications especially in healthcare; character as interface, treating a robot's motion, timing, and responsiveness as deliberately designed signals of trustworthiness; and trust as a design and policy requirement, spanning ethical, legal, engineering, psychological, and HRI dimensions, with a view toward a shared European reference framework. Combining short framing input with hands-on small-group exercises and a plenary synthesis, the session is majority interactive and produces two tangible outputs: a first set of character-based interaction design principles, and a draft outline of trust principles for companion robots. The workshop is transdisciplinary by design, bringing roboticists, engineers, interaction designers, health scientists, ethicists, anthropologists, and policymakers into direct dialogue, structured so early-career and senior researchers engage as equals.

Agenda

Time	Activity	Speaker / Moderator / Lead
T+0:00 – T+0:15	Framing: robot companions landscape; character, expectation, and trust; ethical/technological outlook (3 short input statements)	Paolo Dario, Jeremiah Krage, Fabio Bonsignorio
T+0:15 – T+0:35	Round 1 — Character exploration: small-group scenario exercises examining how the character a robot projects shapes the expectations and trust it creates; plenary share-back	Jeremiah Krage (lead facilitator)
T+0:35 – T+0:55	Round 2 — Trust perspectives: rotating small-group discussions (ethical / legal / engineering-testing / HRI-data / medical / societal); each group drafts one trust-principle candidate	Fabio Bonsignorio, Paolo Dario, Jeremiah Krage (co-facilitators)
T+0:55 – T+1:15	Synthesis & co-creation: plenary discussion consolidating character-design and trust principles into a shared draft outcome	All organisers (moderated by Paolo Dario)

Time	Activity	Speaker / Moderator / Lead
T+1:15 – T+1:20	Wrap-up: summary of outcomes, next steps, invitation to continue on the community platform	Paolo Dario

Main organiser

Paolo Dario, Scuola Superiore Sant'Anna, Pisa, Italy, Professor

Additional organisers

- Fabio Bonsignorio
- Jeremiah Krage

WS57

The Donut Paradox: Why Belonging in Robotics Is Still Not the Default

This workshop moves past acknowledging the diversity gap in robotics. It asks the specific, practical questions about recruitment, retention, visibility, and mentoring that actually make belonging the default, not the exception.

Description

Imagine you walk into a robotics lab. All eyes on you:

(a) because today you brought donuts. Nobody's thinking about your background. You belong there as you are. (b) because of your gender, age, country of origin, religion, or neurodivergence. Donuts or not. Because "they" think you don't belong here. And you feel it too.

And yet, despite ample evidence that excellence in robotics knows no gender, origin, or cognitive profile, Scenario (b) remains daily life for many people in robotics: in academia, industry, and entrepreneurship.

This workshop moves past stating the gap. We know the gap exists. Instead, we ask specific, practical questions: what makes Scenario (a) the default? What concrete changes do recruitment, retention, visibility, mentoring and sponsorship need? How do we build robotics communities where diversity is structural, not accidental? Because diversity in robotics is not only "good to have." Homogeneous research teams have blind spots, making robotics suitable for only part of society, and missing the full potential of the field.

Expected Outcome: A practical DEIB assessment tool that enables robotics teams to map their current state, identify critical gaps, and prioritize actionable next steps.

Agenda

Time	Activity	Speaker / Moderator / Lead
5 min	Welcoming	Moderator - Natalia Ogorelysheva
10 min	Recap from previous workshop ERF 2026	Inge Rehorst
30 min	Bingo Discussion with winners (3)	Moderator - Natalia Ogorelysheva
5 min	Provocative Impulse Talk from an invited speaker (not about usual suspects like religion, gender, origin)	TBD
25 min	Interactive discussion with audience	Moderator - Natalia Ogorelysheva
5 min	Closing Keep the momentum With a specific hashtag to make posts on LinkedIn	Inge Rehorst

Main organiser

Natalia Ogorelysheva, TU Dortmund University, Researcher

Additional organisers

- Inge Rehorst, euRobotics, Project Manager
- Franziska Kirstein, Three Robotics
- Simona Neri, EURECAT, Innovation Manager
- Hala
- Alex Mitrevski, Chalmers University of Technology, Postdoctoral researcher

WS58

Beyond Control: Co-Design for Intelligent Robot Bodies

This workshop explores how optimisation- and learning-based approaches, that have transformed robot control over the past decade, can be applied to the fundamental question of the design of the physical robot body through computational co-design.

Agenda

Time	Activity	Speaker / Moderator / Lead

Main organiser

Navvab Kashiri, Leonardo Labs, Principal Investigator

Additional organisers

- Wesley Roozing, University of Twente, Assistant Professor

WS59

From Principles to Practice: Embedding Ethical and Responsible Considerations in the Design, Integration and Deployment of Robotics Systems

This workshop explores how ethics, responsible AI principles and governance can be translated into practical approaches for designing, integrating and deploying safe, trustworthy and socially responsible robotics systems.

Description

Robotics is increasingly moving from research and pilot projects into real-world deployment, creating new challenges around safety, fairness, transparency, accountability, privacy, workforce impact and societal acceptance. While ethical principles, standards and emerging AI and robotics regulations provide an important foundation, there remains a gap between high-level guidance and its practical application in the design and deployment of robotic systems.

This interactive workshop explores how responsible robotics can become an integral part of the development and implementation process, rather than an afterthought. Particular attention will be given to **ethics in and for design**: how ethical considerations are translated into concrete choices about system design, human–robot interaction, task allocation, autonomy, data, monitoring, responsibility and working practices. In doing so, this interactive workshop brings together researchers, industry, policymakers and other stakeholders.

The workshop will also consider the **organisational contexts in which robotic systems are developed and deployed**. Responsible robotics is shaped not only by technical design choices, but also by organisational priorities, structures, resources, capabilities and forms of governance. These factors influence how ethical principles are interpreted, prioritised and enacted in practice, and how responsibility is distributed among designers, managers, workers, technology providers and other stakeholders.

Building on the complementary perspectives of ethics-by-design and responsible AI and robotics governance, participants will examine practical challenges across the robotics lifecycle, from design and integration to deployment and scaling. Through short expert inputs and facilitated group activities, participants will identify key barriers, useful approaches, and concrete actions for embedding ethical and responsible considerations into robotics practice.

The workshop will aim to generate a set of practical recommendations and priorities **for responsible robotics design and deployment**, with potential to inform a subsequent framework or whitepaper. Particular attention will be given to identifying where responsibility needs to be located, what organisational capabilities are required, and how ethical considerations can remain meaningful as robotic systems evolve and become embedded in everyday work practices.

Agenda

Time	Activity	Speaker / Moderator / Lead
0–10 min	Welcome, introduction and workshop objectives	Organisers
10–25 min	Short expert inputs: Ethics-by-design and responsible robotics governance	Chantelle Larsen/Monika Reif
25–35 min	Connecting principles to practice: Where are the current gaps?	Organisers / Speakers / Carina Kaeser

Time	Activity	Speaker / Moderator / Lead
35–60 min	Interactive small-group activity: Identifying ethical and responsible robotics challenges across the design-to-deployment lifecycle	Facilitators
60–75 min	Group discussion and sharing of key findings	Participants / Facilitators
75–85 min	Prioritisation: What practical actions, tools or guidance are needed?	All participants
85–90 min	Conclusions, next steps and workshop outcomes	Organisers

Main organiser

Kateryna Portmann, Women in Robotics, Co-lead

Additional organisers

- Sarah Fletcher
- Tiziana C. Callari, University of Turin Department of Psychology, Associate Professor in Work & Organisational Psychology, and Systems Ergonomics

Speakers / panelists

- Monika Reif, Professor and Co-Head Safety Critical Systems Research Lab, Functional Safety, RAMS, Safe AI, https://www.linkedin.com/in/monika-reif-346349107/
- Chantelle Larsen, Women in AI Governance, https://www.linkedin.com/in/chantellelarsenhumanandaiexpert/
- Carina Kaeser, ply, Founder

WS60

Urban Robots: Getting ready for an innovative Era

As robotic devices increasingly roam public spaces, delivering takeaways, gardening, maintaining and more, this workshop advances new understanding for the governance required: licensing, performance criteria, testing and assurance, alongside the urban infrastructure rules that can underpin safe, sensible deployment.

Description

This workshop examines practical pathways for real□world adoption of mobile robots within public spaces. As these devices increasingly advance commercial services, the discussion anticipates governance and urban planning considerations for responsible integration into the fabric of society. Starting with short pitches that introduce projects from different countries working to include robots into urban environments, emerging use cases and lessons being learned are shared. This includes RoboPASS, a Milton Keynes City Council-led project to introduce a licensing framework for local government authorities, as well as TFUR, a German project working out a concept for a test field for urban robotics in Karlsruhe. The speakers will then be joined by experts with know-how about the technical, regulatory, and deployment side of the issue.

The scope covers functional expectations for urban navigation and task delivery, including requirements for safe human-robot interaction and managing unpredictable events that characterise public working environments, alongside rules that maintain respect for public rights, vulnerable populations and the social value crucial to fostering public acceptance and trust. The aim is to advance coordinated understanding of the developments needed and to discuss the establishment of testing sites and conventions in different countries to increase confidence in urban robotics.

Agenda

Time	Activity	Speaker / Moderator / Lead
10 mins	Milton Keynes and Robots presentation	Sophie Lloyd, MKCC
10 mins	Requirements for robots in public spaces	Tristan Schnell, FZI
10 mins	Experiences of deploying robots in public spaces	Thekla Stefanou, Smart City CIC
30 mins	Panel discuss, with SLIDO questions relating to: Use cases, services and missions Regulatory challenges/opportunities Robot design & operations (incl. Fleet management) Remote monitoring and intervention & Control Centres Safety & security	Moderator - Duncan Russel, SMCCL Speakers: Sophie Lloyd, MKCC Thekla Stefanou, Smart City CIC Tristan Schnell, FZI Rohail Latif, Heathrow Airport Lisa Johnson, Starship Technologies Backup speakers: Chris Holder, Browne Jacobson David Bisset, iTechnic Joe Mundy, MKCC
20 mins	Audience Q&A	

Main organiser

Joseph Mundy, Milton Keynes City Council, Transport Planner

Additional organisers

- Thekla Stefanou, Smart City CIC, Principal Robotics Engineer
- Tristan Schnell, FZI, Department Manager Intelligent Systems and Production Engineering
- Lyndsay Turley, NCRRS, Project Support

Speakers / panelists

- Tristan Schnell, FZI, Department Manager, Intelligent Systems and Production Engineering
- Thekla Stefanou, Smart City CIC, Principal Robotics Engineer

WS61

Robotics & AI for Science: Accelerating Scientific Discovery through Autonomous Systems

This workshop will bring together roboticists and leading experts in AI, structural biology, biotechnology, materials science and chemistry to explore how robotics, autonomous laboratories and AI-driven experimentation can accelerate scientific discovery and enable the next generation of breakthrough advances.

Description

This workshop will explore a pressing question for the robotics and scientific research communities: how can robotics, autonomous laboratories and AI-driven experimentation accelerate scientific discovery and help address increasingly complex challenges in biology, chemistry, biotechnology and materials science?

The goal is to create a shared understanding of the opportunities, barriers and research priorities at the intersection of robotics and scientific discovery. Participants will leave with new insights, potential collaboration opportunities and a set of recommendations for accelerating the adoption and development of AI-enabled autonomous research systems.

The workshop is intended for researchers, technology developers, laboratory scientists, industrial users, robotics and AI experts, research infrastructure providers, start-ups and policymakers. Bringing together expertise from robotics, artificial intelligence, structural biology, biotechnology, chemistry and materials science is essential to identifying common challenges and opportunities across disciplines.

Following short introductory perspectives from leading experts, participants will contribute through facilitated discussions, breakout groups and interactive prioritisation exercises. These activities will focus on identifying technical, organisational and societal challenges, sharing lessons from emerging applications and developing a collective vision for future progress.

The workshop will produce a set of community recommendations, identify key research and innovation priorities, highlight opportunities for cross-disciplinary collaboration and contribute to a roadmap for advancing robotics and AI as enabling technologies for scientific discovery.

Agenda

Time	Activity	Speaker / Moderator / Lead

Main organiser

Karol Janik, MTC, Technology Manager

Additional organisers

- Radhika Gudipati, ARIA, Science and Technology Lead

Speakers / panelists

- Maz Ahmad, Cell and Gene Therapy Catapult, Director of Automation and Digital Innovation
- Tom Erez, Google Deepmind

WS62

Robotics in the world - linking to robotics outside Europe

Agenda

Time	Activity	Speaker / Moderator / Lead

Additional organisers

- First Name Last Name, Organisation, Job Title

WS63

Exploring robot co-design and deployment principles for ethical, inclusive and sustainable innovation.

This workshop will explore expert and user experience to develop principles for the (co)design and deployment of ethical, inclusive and sustainable robotic systems to enhance adoption, and longer term economic and societal impact.

Description

This workshop aims to bring together delegates from industry and academia to explore current challenges in the design and deployment of robotics that enhance ethics, inclusivity and diversity and adoption in real world settings. Through interactive exercises and discussion we will share and compare real world experiences and examples of innovation success and failure to identify solutions and best practice. Outputs from the workshop will be collated to form a set of guiding principles for effective co-design and deployment, not only focusing on usability and user adoption but also on achieving longer term sustainable economic and societal impact.

Agenda

Time	Activity	Speaker / Moderator / Lead
0 - 5 minutes (5 minutes)	Introduction 3 minutes for an overview of the workshop 2 minutes for ‘warm-up’ mentimeter quiz and Q&A	

Time	Activity	Speaker / Moderator / Lead
5 - 45 minutes (40 minutes) (4 x 5 mins/ topic + 2*Q&A/10 mins)	Presenting the topics 4 brief presentations (with examples or a use-case) to describe each identified topic. 5 minutes for each presentation. Each presenter to align their topic with the overall questions: What are the obstacles to adoption of robotic solutions in real-world settings? What are sustainable measures for supporting and accelerating the adoption of robotic solutions in industry? Co-design approaches - how should we include users and stakeholders in design to utilise expert knowledge effectively? User inclusivity and diversity - how can we design systems that address differences in people's needs and common barriers? Q+A: (~10 mins) Invite participants to reflect on above two topics, ask questions and invite them to answer -> start populating the respective flipcharts with the discussions Accelerating adoption - how should we integrate multistakeholder needs to satisfy the needs of business, society, and users? Standards / guidance - how can we continuously address evolving guidance requirements to ensure safety and ethics? Q+A: (~10 mins) Invite participants to reflect on above two topics, ask questions and invite them to answer -> start populating the respective flipcharts with the discussions	Moderator: Topic 1: Vaishnavi Topic 2: Simona Topic 3: Abeje and Sara W Topic 4: Sarah F

Time	Activity	Speaker / Moderator / Lead
45 - 60 minutes (20 minutes)	Participation exercise Word cafe: 4 round tables (flipcharts), one per challenge - a problem that needs solution(s). Delegates move between tables as they wish to give input on discussions and share ideas to tackle develop the solution(s). [Written data collected via sticky notes that delegates return, discussions can also be recorded via flipchart?] Flipcharts, sticky notes (?), writing materials	
(60 - 75 minutes) 15 minutes	Results Share summary of results from each topic Explain our plans to use the data gathered to draft a report or paper Request further participation via follow up survey / QR code / email	

Main organiser

Vaishnavi Sashidharan, Cranfield University, Research Assistant

Additional organisers

- Sara Zi Wang, Advanced Manufacturing Technology, University of Nottingham, Assistant Professor
- Simona Neri, Eurecat Technology Center, Innovation Manager in Robotics&Automation
- Abeje Mersha, Saxion University of Applied Sciences, Professor SMART Mechatronics and Robotics
- Sarah Fletcher, Cranfield University, Head of Industrial Psychology and Human Factors (Robotics and Assembly)
- Arnau Boix Granell, Eurecat Technology Center, Researcher in Robotics and Automation

WS64

Trustworthy human-centric robotics in Industry 5.0: design for oversight, safety, and acceptance

This workshop explores how human-centric robotics in Industry 5.0 can earn user trust, showing through industrial use cases and an academia-industry panel how meaningful oversight, safety, and acceptance together build collaborative systems people are willing to work alongside.

Description

Industry 5.0 is redefining the relationship between humans and robots, placing collaboration, well-being, and inclusion at the heart of innovation – but all of this relies on the right level of trust. Trust, however, is not built in isolation: it grows through meaningful human oversight, dependable safety, and genuine operator acceptance. This workshop explores the benefits and challenges of trustworthy human-robot collaboration and helps system designers better understand how to identify and achieve ideal levels of trust in their own contexts. We will explore the latest advances in industrial human-robot collaboration through real-world use cases to show why trust has become such a critical factor in industrial robotics, and how it can enhance productivity, ergonomics, and human well-being, supported by human oversight, safety, and acceptance. We also guide system designers through practical methods for measuring trust that they can apply to analyse and adjust the design of their own systems, strengthening operator acceptance and confidence. Through short thematic pitches and an interactive panel bringing together academia and industry, the session bridges research and practice, leaving participants better equipped to design collaborative robotics that people can trust, oversee, and embrace.

Agenda

Time	Activity	Speaker / Moderator / Lead
00:00 - 00:10	Introduction	Agata Suwala – MTC, United Kingdom
00:10 - 00:40	Power pitches on trust, human oversight, safety and acceptance	Dr. Sarah Fletcher - Cranfield Univesity, United Kingdom; Dr. Tom Raulet, imec-SMIT, Vrije Universiteit Brussel & FARI, Belgium; Sophie Charlotte Keunecke - Institute of Mechanism Theory Machine Dynamics and Robotics RWTH Aachen University, Germany; Dr. Milan Wolffgramm - Saxion University of Applied Sciences, the Netherlands

Time	Activity	Speaker / Moderator / Lead
00:40 - 01:15	Moderated panel discussion	Agata Suwala - MTC, United Kingdom; Alberto Landini – STAM, Italy; Dr. Cecilia Scoccia – Università Politecnica delle Marche, ilabs, Italy; Dr. Gabriele Marchello - Istituto Italiano di Tecnologia, Italy; Dr. Sarah Fletcher - Cranfield Univesity, United Kingdom; Dr. Iveta Eimontaite - Cranfield Univesity, United Kingdom;
01:15 - 01:20	Wrap up	Agata Suwala – MTC, United Kingdom

Main organiser

Gabriele Marchello, Istituto Italiano di Tecnologia (IIT), Researcher

Additional organisers

- Milan Wolffgramm, Saxion University of Applied Sciences, Associate Professor of Applied Sciences
- Sarah Fletcher, Cranfield University, Principal Research Fellow
- Iveta Eimontaite, Cranfield University, Lecturer
- Agata Suwala, MTC
- Tom Raulet, imec-SMIT, Vrije Universiteit Brussel, FARI, AI for the Common Good Institute
- Sophie Charlotte Keunecke, Institute of Mechanism Theory, Machine Dynamics and Robotics (RWTH Aachen University, Research Assistant
- Cecilia Scoccia, Università Politecnica delle Marche (UNIVPM), Researcher
- Alberto Landini, STAM

Speakers / panelists

- Gabriele Marchello, Istituto Italiano di Tecnologia (IIT), Researcher
- Milan Wolffgramm, Saxion University of Applied Sciences, Associate Professor of Applied Sciences
- Sarah Fletcher, Cranfield University, Principal Research Fellow
- Iveta Eimontaite, Cranfield University, Lecturer
- Agata Suwala, MTC
- Sophie Charlotte Keunecke, Institute of Mechanism Theory, Machine Dynamics and Robotics (RWTH Aachen University, Research Assistant
- Cecilia Scoccia, Università Politecnica delle Marche (UNIVPM)

WS65

Robotics Innovation Instruments evaluation

Impact of instruments to support innovation in robotics in the EU and the Member States

Description

Impact on the European economy of instruments supported by the European Commission, Member States, and associated countries.

The workshop will explore the **value creation** of **DIHs, eDIHs, TEFs, EIT, and other instruments**.

It will demonstrate their **effectiveness** in terms of:

• job creation,

• development of products or services,

• fundraising,

and will highlight the **challenges faced**, particularly in **scaling up**.

The WS will conclude with a debate on the lessons learnt and recommendations.

Agenda

Time	Activity	Speaker / Moderator / Lead

Main organiser

First Name Last Name, Organisation, Job Title

Additional organisers

- First Name Last Name, Organisation, Job Title

WS66

EC Success stories

Agenda

Time	Activity	Speaker / Moderator / Lead

Main organiser

First Name Last Name, Organisation, Job Title

Additional organisers

- First Name Last Name, Organisation, Job Title

WS67

Apply AI in Robotics

Agenda

Time	Activity	Speaker / Moderator / Lead

Main organiser

First Name Last Name, Organisation, Job Title

Additional organisers

- First Name Last Name, Organisation, Job Title

WS68

From Research to Real-World Impact: Shaping the Future of Robotics

With the rapidly evolving robotics landscape, this workshop aims to give early-career researchers the tools to drive innovation through policy, ethics, and entrepreneurship to deliver meaningful impact on wider society and address technical challenges in industry.

Description

The goal of this workshop is to provide attendees with practical examples, perspectives, and a framework for thinking beyond the laboratory and considering how robotics research can create meaningful impact in wider society and industry. The workshop will introduce how robotics research can contribute beyond traditional academic pathways, with a particular focus on entrepreneurship, policymaking, and ethics, while exploring how early-career researchers can broaden the scope of their research and identify opportunities for real-world application. The expected audience is early-career robotics researchers who are looking to maximise the academic, industrial, and societal impact of their work. The workshop will feature three experts who have built careers spanning research and policymaking, entrepreneurship, and ethics. Participants will work in small groups on a practical problem case, applying the perspectives introduced during the workshop, with guidance from the experts on how these approaches can be applied to real research challenges. Participants will leave with practical tools, perspectives, and a roadmap for considering and planning the wider impact of their research.

Agenda

Time	Activity	Speaker / Moderator / Lead
5 min	Introduction to the workshop, the theme and intention for the workshop, the speakers	Tolu
10 min	Expert 1 talk	Speaker
10 min	Expert 2 talk	
10 min	Expert 3 talk	
5 min	Problem case Introduction - Speaker explains the goal for this part of the workshop. Attendees are split into groups, Each team is given a work/activity pack.	
15 min	Teams each with a problem case apply learnings from expert talks in ethics, policy making, entrepreneurship and industry. Experts advise supervise teams	
10 min	Each team gives a short pitch based on problem case. (1 question per team if time)	
10 min	Q&A Panel - opportunity to ask speakers.	

Time	Activity	Speaker / Moderator / Lead
1 min	Closing remarks, and calls for collaboration	

Main organiser

Tolu Ojo, University of Nottingham, PhD Researcher

Additional organisers

- Mohammed Ahmed, University of Nottingham, PhD Researcher
- Adriana Cabrera, University of Nottingham, PhD Researcher
- Halis Emre YALDIZ, Osmaniye Korkut Ata university, Masters Student

WS105

Feedback Session – Please join!

We'd like to get feedback on the questions: What worked well and should be continued in future editions? Which aspects can be improved, from programme to organisation and format? What new ideas, formats, topics would the community like to see?

Description

We hope that ERF is the Forum you were expecting. But we know that we can always improve it! The Feedback Session is a dedicated space for you to share your experiences, opinions, and suggestions. We take it "on the chin"! Please bring your open, constructive, and honest feedback—both positive and critical—on all aspects of ERF 2026, including the programme, workshops, networking opportunities, exhibition, and overall organisation, as well as ideas for things we can do in the future.

WS150

Renaud Champion Entrepreneurship Award

Watch innovative startups compete for this prestigious euRobotics prize, pitching groundbreaking robotics ideas to expert tech investors to build high-value interest and launch the market's next big thing.

Description

We invite all entrepreneurs and potential entrepreneurs in the robotics field to join the competition for the prestigious euRobotics Renaud Champion Entrepreneurship Award.

The euRobotics Renaud Champion Entrepreneurship Award is given each year at the European Robotics Forum (ERF) to the most promising start-up in robotics, as judged by a jury of robotic entrepreneurship pioneers and experts.

Entrants to the competition stand a chance to gain interest in their company from the robotics and investment community.

Five participants will be selected as finalists. Finalists will pitch in the open Renaud Champion Entrepreneurship Award workshop along with a robotic entrepreneurship role model, receive a finalist diploma, and be recognized at the ERF and on euRobotics social media.

Finalists will be published in February 2027.

Agenda

Time	Activity	Speaker / Moderator / Lead
00:00-10:00	Introduction to the workshop	Workshop organizers
10:00 - 70:00	Finalist pitches	Finalists (TBC)
70:00-80:00	Closing	Workshop organizers

Main organiser

Troels Oliver Pedersen, Odense Robotics

Additional organisers

- Franziska Kirstein, Three Robotics
- Jon Agirre Ibarbia

WS151

Georges Giralt PhD Award

Discover Europe's brightest robotics minds as top PhD graduates compete for this prestigious euRobotics prize. Delivered at the European Robotics Forum, the Georges Giralt award celebrates extraordinary PhD dissertations driving cross-disciplinary innovation, scientific progress, and the next generation of pioneers in the robotics field.

Description

The Georges Giralt PhD Award is a European scientific prize for extraordinary contributions in robotics. It is yearly awarded at the European Robotics Forum by euRobotics AISBL, a non-profit organisation based in Brussels with the objective to turn robotics beneficial for Europe's economy and society. Georges Giralt received his PhD in 1958, from the Paul Sabatier University, in the domain of electrical machines, and soon afterwards became a pioneer in robotics, in Europe and worldwide. He was especially instrumental in bringing in scientific foundations and methodology when the domain was still young, and a loose coupling of mechanical and electrical engineering, adopting the early results of automatic control. The high reputation of the Georges Giralt PhD Award is based on the prominent role of the awarding institution euRobotics. With more than 250 member organisations, euRobotics represents the academic and industrial robotics community in Europe. Moreover, it provides the European robotics community with a legal entity to engage in a public/private partnership with the European Commission. Entitled for participation for the Georges Giralt PhD Award are all robotics-related dissertations which have been successfully defended at a European university. The US-American counterpart is the Dick Volz Award.

Agenda

Time	Activity	Speaker / Moderator / Lead

Main organiser

Paolo Robuffo Giordano, CNRS, Research Director

Additional organisers

- First Name Last Name, Organisation, Job Title

WS152

euRobotics TechTransfer Award

Selected finalists pitch market-ready innovations at the European Robotics Forum, showcasing outstanding research-to-industry transfer. See how research becomes impactful applications that strengthen Europe's leadership

Description

Europe faces mounting challenges: an aging population, labour shortage, climate change, and the need for sustainable solutions. Robotics holds the key to addressing these issues and driving positive change. Imagine robotic assistants enhancing elderly care, automated systems optimizing resource management, and AI-enabled systems tackling complex industrial manufacturing challenges, such as High-Mix Low-Volume (HMLV) production.To realize this potential, groundbreaking research must translate into real-world applications. The euRobotics Technology Transfer Award celebrates the vital bridge between research and industry, recognizing those who transform cutting-edge robotics research into impactful products, applications and services.

Since 2004, this prestigious award has highlighted successful collaborations between research institutions and industry leaders. By honoring achievements that bridge the lab-to-market gap, euRobotics showcases how technology transfer keeps European robotics at the forefront of global competition.

Agenda

Time	Activity	Speaker / Moderator / Lead

Main organiser

Werner Kraus, Fraunhofer IPA, Head of Research Division Automation and Robotics

Additional organisers

- Fariba Khatami, VDMA Robotics + Automation, Manager European Membership Development
- Rainer Bischoff, EMEA Intrinsic, General Manager
- Georg von Wichert, Siemens, Head of Autonomous Systems & Control
- Claus Risager, Regasir ApS, CEO & Founder
- Nicola Tomatis, BlueBotics SA, CEO

WS153

Sustainability Leadership Recognition in Robotics 2027

The Sustainability Leadership Recognition in Robotics celebrates outstanding efforts to advance sustainability across the robotics community. It highlights initiatives that use robotics to address sustainability challenges and promote more responsible practices in the development, deployment and lifecycle of robotic technologies.

Description

Robots have significant potential to support sustainability, contributing to efforts such as combating climate change, improving recycling, reducing manufacturing waste, and transforming social applications. As demand for robotics grows, it becomes essential to ensure that their production and disposal are aligned with sustainable practices. Addressing the long-term sustainability of robotic technologies is complex and requires careful consideration to avoid negative environmental impacts. Sustainability, as defined by the 1987 Brundtland Report, emphasizes intergenerational equity, ensuring that current generations meet their needs without compromising future generations' ability to do the same. It also stresses the importance of balancing three core elements: economic growth, environmental protection, and social inclusion. These principles are foundational to the United Nations' 17 Sustainable Development Goals (SDGs), which address pressing global challenges and aim to create a more sustainable future for all. Integrating sustainability into robotics can drive innovation and contribute to a healthier planet and a more equitable society.

The "Sustainability Leadership Recognition in Robotics" initiative has been launched to highlight and celebrate sustainability efforts within the robotics community. This session aims to inspire others by recognizing innovations that address sustainability challenges through robotics and acknowledging those who are leading the way in integrating sustainable practices into the development and deployment of robotic technologies.

Shortlisted candidates will be announced in February 2027.

Agenda

Time	Activity	Speaker / Moderator / Lead
00:00 - 00:10	Introduction to the workshop	Workshop organizers
00:10 - 00:70	Presentation of shortlisted candidates, including panel discussions	TBC
00:70 - 00:80	Closing	Workshop organizers

Main organiser

Franziska Kirstein, Three Robotics, Founder

Additional organisers

- Sharath Chandra Akkaladevi, ProFactor GmbH, Scientist

WS170

Publishing in High-Impact Research Journals: Tools, Ethics & Best Practices

A comprehensive introduction to publishing in leading research journals, covering editorial evaluation, peer review strategy, manuscript development, publication ethics, research dissemination, and emerging considerations surrounding the use of artificial intelligence in scientific publishing.

Description

Publishing research is increasingly competitive, with thousands of articles submitted and published each year across a rapidly expanding journal landscape. This workshop provides researchers with practical insights into how manuscripts are evaluated, how editorial decisions are made, and how authors can improve their chances of publication in leading international journals.

Led by an Editor-in-Chief and experienced publishing professional, the session will demystify the editorial process from manuscript submission to final decision. Participants will gain an understanding of what editors look for during initial screening, including novelty, significance, scope, readership, and presentation. The workshop will also explore effective manuscript preparation strategies, covering titles, abstracts, cover letters, figures, references, reviewer selection, and responses to reviewer comments. A dedicated section will address the growing role of artificial intelligence in scholarly publishing. Participants will learn about the opportunities and limitations of generative AI tools, current publisher policies, ethical considerations, and best practices for responsible AI use in manuscript preparation and peer review.

Through real-world examples and editorial perspectives, attendees will leave with practical guidance to strengthen their submissions, navigate peer review more effectively, and maximize the visibility and impact of their research.

Agenda

Time	Activity	Speaker / Moderator / Lead
5 mins	Introduction/Welcome	Sneha Rhode Gupta
15 mins	How to be a good reviewer/guest editor/author	Mingchao Liu
50 mins	Publishing in High-Impact Research Journals: Tools, Ethics & Best Practices	Sneha Rhode Gupta
10 mins	Conclusions, future outlook and closing remarks	Bhadra Santhi Kumar

Main organiser

Sneha Rhode Gupta, Wiley, Editor-in-Chief

Additional organisers

- Bhadra Santhi Kumar, Wiley, Deputy Editor

Speakers / panelists

- Sneha Rhode Gupta, Wiley, Editor-in-Chief
- Mingchao Liu, University of Birmingham, Assistant Professor
- Bhadra Santhi Kumar, Wiley, Deputy Editor

WS172

Ideal-IST NCP WS

Agenda

Time	Activity	Speaker / Moderator / Lead

Main organiser

More Information Soon

Additional organisers

- First Name Last Name, Organisation, Job Title

WS185

B2B Matchmaking Session 1

The aim of the Matchmaking is to encourage 1:1 contacts and generate meaningful business opportunities among attending participants.

Description

The aim of the Matchmaking is to encourage 1:1 contacts and generate meaningful business opportunities among attending participants. You can arrange meeting-slots of 15 minutes prior to the event in order to manage your day as efficient as possible.

Why participate?

• Publish and showcase your products, projects, services or business needs to event participants

• Initiate and arrange promising pre-scheduled meetings at the event

• Generate fresh leads and meet new contacts in a time and cost-efficient way

• Stay one step ahead of your competitors by being seen and visibly present at the event

• The organizers offer you support before, during and after the event

The Top 5 objectives to make your stay a success:

• Meet Partners and Customers

• Discover New Products & Services

• Prepare Purchases or Projects

• Meet New Suppliers

• Get Information about latest's trends

Registration information will follow.

Agenda

Time	Activity	Speaker / Moderator / Lead

Main organiser

First Name Last Name, Organisation, Job Title

Additional organisers

• First Name Last Name, Organisation, Job Title

WS400

General Assembly

General Assembly (euRobotics members only)

Description

tbd

Agenda

Time	Activity	Speaker / Moderator / Lead

Main organiser

More Information Soon

Additional organisers

- First Name Last Name, Organisation, Job Title