VInnovate Call 2025 – Brief Overview Project Ideas Expressed (June 2025)

- The present document provides a **brief description** of the project ideas presented during the various webinars organised and/or described on the Gateway.
- The aim of the present document is to **maximize outreach and matchmaking opportunities**, offering interested organisations a single document where project ideas are described.
- If you have an interest in teaming up with one of the organisations listed below, **please contact them directly** (please contact VInnovate vinnovate@s3vanguardinitiative.eu should you face issues entering in contact with the organisations).

Name Organisation (type)	Region	Project idea description	Complementary expertise (partnering requests)	Contact details
Cardiff Metropolitan University	Wales	3D printed structures made of a bio-ink containing fungal spores for incubation into tailored myco-material structures for various applications.	Expertise in material analysis and characterisation. Applications in materials, biomedical devices, agriculture, anti-fungals, etc.	cwallis@cardiffmet.ac.uk
SmartFAB	Lombardy	AI Industrial Analytics: Optimization, What if simulation, Dynamic Scheduling	End Users	ann@smartfab.ai
AAC (AEROSPACE & ADVANCED COMPOSITES GMBH)	Lower Austria	Deployment of "AAC 2000 EC", a low friction and easy to clean surface coating	Looking for organisations willing to investigate the use of the AAC 2000 EC coating. E.g. - Industrial Mold (easy release of plastics, rubber, etc.) - Machinery parts (against industrial contaminants, dirt) - Marine Industry (against salt) - Exterior walls and windows (dirt repellency, anti-graffiti) - Automotive industry (water and dirt repellency) - Conveyor Belts	office@aac-research.at

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Everyware Computing SRL	North East Romania	Have technologies at **TRL 6–8** applicable to smart public environments (hardware, sensors, platforms, CMS, or analytics). Can enable technology transfer toward validation of **Displify's model in real-world conditions**.	Complementary competencies in design, sensors, or citizen-facing mobile tools. Are open to collaborative prototyping, piloting, and co-innovation. Operate in domains such as: • Smart cities / mobility, • Health communication systems • Retail media / digital signage networks	constantin.taivan.dev@gmail.com
Agcurate (SME)	East Netherlands (East NL)	**Title:** Regional Testing & Validation of AI-Powered Agricultural Operations and Supply Chain Management Platform **Goal:** Prototype, test, and validate FieldOps™ in real-world agricultural settings (crop fields) with regional partners across Europe. TRL 6 (starting point) to TRL8 (end goal) via field validation.	We are looking for one or more partners **(ideally one large food-beverage company and one university & research institute)** located in eligible VInnovate regions to co-develop and host testing and demonstration pilots in open-field active croplands.	Ahmet Rasim Demirtas +905424341088 ardemirtas@agcurate.com
Simplifhy Srl	Lombardy	We are supporting a distributed approach to hydrogen refuelling, allowing light, portable, mobile refuelling systems to be associated with standard high pressure hydrogen trailers.	We are looking for: - university and research partners to develop modelization of the solution and optimization of the ecosystem - hydrogen storage companies looking to test innovative trailer solutions - user having need of distributed hydrogen refueling	Contact here or VInnovate Secretariat

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		We have an innovative concept of dispenser, to be associate with one user and a trailer manufacturer		
Institute for Research and Innovation in Health	NORTE	We have developed a multifunctional porous membrane for spine fusion, which is already tested as a proof of concept in animal model. The aim of the project is to push up the current technology to TRL7, which provides the completion of preclinical validation and technology transfer stage. Such project will contribute to a more autonomous/less dependent industry, providing the manufacture of advanced therapeutic solutions to lombalgy, a problem that currently affects 80% of world population.	We seek a partner to perform the product scale-up in an ISO Class 7 cleanroom following to medical device regulations. The aim is to produce the pilot scale prototypes for conclusion of the preclinical evaluation phase. Product and production process validation will be also important for successful accomplishment of technology transfer. We also seek a partner, which should be a certified laboratory or similar, to perform the biological evaluation tests according to ISO10993-1 following GLP procedures. Partners who can give support on medical devices regulations are also needed for the successful implementation of the developed technology. Possible industrial partners, such as medical device industries interested in the technology, are also welcome to the project.	Contact here or VInnovate Secretariat
Faculty of Engineering of the University of Porto (Academic)	Norte	Microalgae for Circular Bioeconomy Solutions - This project aims to develop an integrated microalgal bioprocess for CO_2 capture, wastewater treatment, and biomass valorisation. By cultivating microalgae using CO_2-rich industrial gas	Industrial partners; R&D units with photobioreactors at pilot scale.	jcpires@fe.up.pt

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		streams and nutrient-laden wastewaters (e.g., municipal, agro-industrial, and food industry effluents), we will simultaneously reduce environmental burdens and produce high-value biomass. The harvested biomass will be evaluated for conversion into biofuels and other bio-based products, promoting a circular and low-carbon bioeconomy.		
Brainport Development	Noord Brabant	**Digital tools to boost productivity in 3D printing** • Generative Design Tools AI-driven part optimization and consolidation for AM And/or • Smart In-Process QC Real-time defect detection in metal and polymer printing. And/or • Predictive Maintenance Sensor-based monitoring of key AM components. And/or • Digital Twin Simulation Virtual optimization of orientation, supports, and thermal behaviour. And/or • Automated Post-Processing	• 3DP users with openness to experiment with digital technologies in their manufacturing workflows • Providers of complimentary technologies and/or services to 3DP (post-processing, recycling, design, QC, material development, etc.) that are similarly open to experimentation with these technologies Automation + AI solutions providers, preferably with experience in applications with manufacturing technology and hardware	Samuel Tonneslan (s.tonneslan@brainportdevelopment.nl)

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		Robotic finishing systems for small-batch AM. Energy-Efficient Printing AI to optimize print jobs for energy and material use.		
Techinnova S.p.A. (SME, certified incubator, private R&D and tech transfer center)	Lombardy (Italy)	**H2E – Hydrogen To Everyone**: Development of a modular, scalable, and eco-friendly hydrogen production and integration system (from ammonia/livestock waste) targeting the decarbonisation of diesel-based sectors such as agriculture and fishing.	Partners in hydrogen systems engineering and industrialisation; energy-intensive industries and mobility sectors; EU pilot sites and go-to-market experts.	Edoardo Viganò – comunicazione@techinnova.eu – www.h2e-project.eu
TEC Eurolab (SME) / Bangor University	Emilia Romagna / Wales	Development of bio-based composite components	End users (Field to be defined on a case-by-case basis)	longo@tec-eurolab.com / adam.charlton@bangor.ac.uk
In2AI (SME)	Galicia	Information Protection for AI-powered Conversational Agents	- Ability to implement proposed system in a real and challenging scenario - Interested in realizing the benefits associated with project implementation in their organization - Owning domain-expertise to help with the training process required for the agent to learn roles and topics	Rafael San Miguel Carrasco rafael.sanmiguel@in2ai.com
Minesto Ltd. (SME)	Wales	Demonstrate and validate a small-scale tidal kite system in shallow water conditions at the Marine Energy Test Area (META), Wales, with a focus on durability, modularity, and advanced manufacturing for future offshore	Expert in composite hulls, electrical (marine) drivelines, sensoring, cables and connectors Link the demo to local grid/hydrogen feasibility studies	Johannes.huffmeier@minesto.com ; louise.marsden@minesto.com

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		deployment. - **Advanced Manufacturing**: Evaluate novel kite components (blades, tether, fairings) produced via EU-based additive or composite manufacturing. - **Harsh Environment Suitability**: Test structural durability, sensor performance, and corrosion resistance in shallow tidal conditions. - **Smart Monitoring**: Integrate and test real-time sensor systems (load, fatigue, corrosion) with digital twin capability. - **Modularity**: Assess assembly and maintenance processes of modular subcomponents for easier offshore scalability. - **Cross-sector linkage**: Provides testbed data for green hydrogen production and integration in future offshore hubs.		
Romagna Tech (Research Centre)	Emilia Romagna	We offer a service of Digital Transformation for Industry 4.0 in manufacturing, ready to be applied to partner SMEs.	Partner SME(s) willing to investigate service of Digital Transformation for Industry 4.0 in manufacturing	On the Gateway
Romagna Tech - Research Institution.	Emilia-Romagna, Italy	Building on a solution (TRL 7-8) developed in its research labs, an interoperable system for real-time monitoring of plants or production lines, Romagna Tech intends to carry out a **pilot test on a production line in a manufacturing company**. The pilot will validate the **cloud-**	A manufacturing company (preferably a SME) , producing machines for industry.	valeria.rossi@romagnatech.eu; matteo.campana@romagnatech.eu

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		connected sensors and a dedicated software platform to monitor **machine efficiency**, collect **operational data**, detect **anomalies**, and enable **predictive maintenance**. The system also provides insights into how the machines are used by end customers, with the goal of improving performance, reliability, and service support.		
ASTUTE, (Swansea University)	Wales	Various projects possible. At ASTUTE, we partner with manufacturing businesses to solve complex engineering challenges and accelerate innovation through: ◇ Advanced Materials Technology ◇ Computational Engineering Modelling ◇ Manufacturing Systems Engineering	Industry leader aiming to enhance productivity, sustainability, or wellbeing through cutting-edge technology	Please reach out to us to discuss your challenge: astute@swansea.ac.uk; f.belblidia@swansea.ac.uk
High Value Manufacturing (HVM) Group- Cardiff University	Wales	Various projects possible. We conduct world class research that has valuable impacts and applications in manufacturing industry. The HVM group conducts research across a range of areas including: - Additive Manufacturing - Design and Manufacturing - Micro/Nano Manufacturing - Circular Hybrid Manufacturing - Sustainable Manufacturing - Smart Systems More information here.	Open to collaboration in areas mentioned on the left.	On the Gateway
BI-REX: BigData	Emilia-Romagna	Various projects possible. BI-REX can provide high-level expertise and	Open to collaboration, see description on the left.	On the Gateway.

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Innovation& Research Excellence		infrastructure to support Vanguard Initiative projects within the High-Performance 3D Printing (3DP) pillar. BI-REX offers access to a cutting-edge pilot line equipped with industrial additive manufacturing systems (metal powder bed fusion, FDM, hybrid CNC/AM setups), enabling rapid prototyping, design validation, and integration of smart components.		
AquaValor (Lab/Centre)	Norte	AquaValor, as a Collaborative Laboratory (CoLAB) based in Chaves, Portugal, specializes in the valorization and technological transfer of water-related resources. Its expertise spans various sectors, including health, food and beverages, cosmetics, and digital technologies. AquaValor's involvement in projects like Aquae Vitae (Fundación La Caixa) and AQUAPRED (Interreg SUDOE), and its focus on transferring knowledge and technology to interior regions demonstrate its capability to engage in interregional collaborations.	AquaValor is open to participate in a consortium for the Vanguard Initiative as a partner. It is available to offer its full expertise and multidisciplinary team. AquaValor carries a large set of associates which can be an important asset to the development of potential pilots and to ensure the participation of private companies, largely SMEs.	On the Gateway