

Next-generation cognitive cobots for smarter industries!

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ABOUT VOJEXT

VOJEXT (Value Of Joint Experimentation in digital Technologies for manufacturing and construction) is a 42-months long Horizon 2020 project, started in July 2020, which aims to provide a favourable business and technological framework for cognitive autonomous systems supporting human-robot interaction.

Under the vision Value Of Joint EXperimenttion (VOJEXT) in digital technologies, the project dynamizes science-driven industry approaches engaging human and Cyber Physical Systems (CPS) in the same loop; thus amplifying the cognitive capabilities needed to achieve more effective sociotechnical and business ecosystems. For this purpose, VOJEXT will design, develop, and demonstrate affordable, market-oriented, multipurpose and easy-to-repurpose robotic systems; to be developed as one of the main components of a smart and scalable CPS ecosystem for the manufacturing and construction industry.

You can read more about the project, its main aims and specific objectives <u>here</u>. For all the latest updates, please follow us on social media:

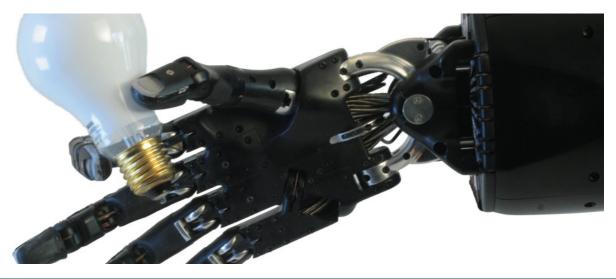












LATEST NEWS AND DEVELOPMENTS

Launching of 2nd Open Call for SMEs and mid-caps

The 2nd Open Call "Pilots" was launched on 5 October 2022. With a total funding of EUR 460 000, the call aims to extend the capacity and technology outreach of VOJEXT infrastructure by attracting tech/robot SME suppliers to integrate their units with VOJEXT APIs.

This will be achieved through the deployment of geographic and sector distributed small-scale pilots – expanding the scope of the existing use cases or deploying new ones –at DIH living labs and/or SMEs/mid-caps facilities to demonstrate the impact/potential of VOJEXT technologies and approach towards digitising and boosting European industry.

Interested candidates had to present solution to 1 of 6 technical challenges. After evaluation of the submitted applications, between 6 and 8 projects will be selected, with each of them to be funded with up to EUR 80 000.

Beneficiaries will have 3-8 months to deliver and assess their integration. VOJEXT tech partners will be assigned to support and follow up development activities, monitor progress and help on specific technological issues.

The winners will have access to a sustainable ecosystem that gathers different use-cases focused on different sectors like plastics, construction, etc.

Launching of S+T+ARTS Residency Call

The S+T+ARTS Residency Call was launched on 2 December 2022. It aims to complement VOJEXT technology development efforts by involving artists to work in collaboration with technology providers and possible use case SMEs.

Selected candidates will develop art-driven innovation experiments through the deployment of 2 challenge-driven and 1 mission-driven residencies.

Interested artists working at the intersection of art, design and robotics could apply for funding of up to EUR 30 000 per residency, with 3 artist residents to be selected.

Residents will have 10 months to deliver their challenge or mission-driven projects. Technology partners will support ideation, development and implementation. Artists will also receive mentoring support from Waag.



LATEST NEWS AND DEVELOPMENTS

Participation in I4MS Stakeholders Event

The final event of the I4MS (ICT Innovation for Manufacturing SMEs) Initiative took place in Budapest on 19 October 2022.

The event entitled "European leadership and digital game-changers of the manufacturing industry" gathered Europe's manufacturing ecosystem to exchange success stories, lessons learnt and know-how.

Participants were presented with opportunities for networking and meeting with representatives of European Digital Innovation Hubs (EDIHs), European projects, SMEs, technology providers and other stakeholders of Industry 4.0 driving innovation and technology adoption across the EU.

VOJEXT was among the exhibitors at the event where it presented the progress achieved in the implementation of the different project activities. Extend Robotics, one of the winning companies of the 1st #OpenCall, demonstrated the outcome of their project developed during VOJEXT's Acceleration Programme.

Participation at SITIS conference

Representatives of project partners from Tree Technology attended the 16th International Conference on Signal Image Technology & Internet Systems (SITIS) which was held in Dijon, France from 19 to 21 October 2022. They presented a paper entitled "Improving gesture recognition with object tracking to communicate with industrial Cobots" which proposes a workflow to take advantage of the information provided by the person tracking module to improve the performance of, and reduce the computation time required by the gesture detection module.

The approach and techniques presented in the paper are of special interest to the project because they combine two critical work areas (gesture detection and object tracking) within Work Package 3: Perceptual understanding of human-robot collaboration and contextual environment.

The conference offered a good opportunity not only to present VOJEXT and the research done within the scope of the project to a broader audience, but also to learn about the State of the Art in object detection, pose estimation and, generally, deep learning and other technologies for robotics and related areas.



CALENDAR OF UPCOMING EVENTS

- 14-16 March 2023, Odense European Robotics Forum;
- 17-21 April 2023, Hannover Hannover Messe;
- 25-27 April 2023, Stuttgart International Trade Show for Intralogistics Solutions and Process Management (<u>LogiMAT</u>);
- 29 May-2 June 2023, London IEEE International Conference on Robotics and Automation (ICRA);
- 5-7 June 2023, Berlin IEEE International Conference on Advanced Robotics and its Social Impacts (ARSO).

VOJEXT PARTNERS

Led by the Universidad Politécnica de Madrid (UPM), VOJEXT brings together a multidisciplinary and complementary consortium team consisting of 19 partners from 14 EU and associated countries. VOJEXT partners comprise 7 SMEs (Robotnik, Tree Technology, Technovative Solutions, Kontor 46, F6S Network Limited, Officina Keller Napoli, OSAI Automation Systems), a mid-cap (PEMU), two large companies (Acciona, Mercedes Benz), two universities (UPM, NEBRIJA), four research centres (Fortiss GmbH, Przemysłowy Instytut Automatyki i Pomiarów - PIAP-, Istituto Italiano di Tecnologia, Deutsches Zentrum fuer Luft- und Raumfahrt-DLR-) and three non-profit organisations (Pôle EMC2, Bulgarian Chamber of Commerce and Industry, Stichting Waag Society).

Check out a map of all participating countries and short profiles of the partners here.

GET IN TOUCH WITH US

For all the latest news, please visit VOJEXT's <u>website</u>. If you would like to contact us or subscribe for our newsletter, please drop us an email at contact@vojext.eu

Thank you for reading. Expect our 6th issue of VOJEXT's newsletter in July 2023.

