Over 60 students participate in the Robotech Hackathon to innovate in beach cleaning using advanced digital technologies

- **The competition, held at the School of Engineering of the Rovira i Virgili University (URV) in Tarragona, tackled the challenge of beach cleaning with advanced and sustainable digital technologies over two intensive days of work.**
- **The activity is part of 'Àrees Digitals', driven by the Government of Catalonia through the Secretariat for Digital Policies, with the support of Mobile World Capital Barcelona and the i2CAT research centre.**
- **The event featured the participation of the Clúster TIC Catalunya Sud and the Associació d'Empreses Químiques de Tarragona, which helped define the challenge.**
- **At the same time, over 300 students from the Sescelades Campus experienced immersive proposals from the 'Remember the Future' exhibition, first presented at MWC Barcelona 2024.**

Barcelona, 23 December 2024. - Over 60 young people, divided into six teams, took part in the Robotech Hackathon, held on the 19th and 20th of December at the School of Engineering of the Rovira i Virgili University (URV) in Tarragona. The event challenged students to develop innovative robotic systems to optimise the sustainability and versatility of beach cleaning machines, aiming to strengthen coastal environmental management.

The event combined technology and creativity to offer solutions to the challenges of

managing visible waste and collecting pellets on beaches. After attending various training sessions with professionals and researchers from the fields of robotics and marine sciences, participants worked in teams to create their proposals for robotic systems to address the challenge.

The Robotech Hackathon, promoted within the framework of the Tarragona Digital Area and organised by the Rovira i Virgili University (URV), is part of 'Àrees Digitals'. This initiative disseminates and promotes Advanced Digital Technologies (ADT) across the region, led by the Government of Catalonia through the Secretariat for Digital Policies under the Department of Business and Work and supported by Mobile World Capital Barcelona and i2CAT. Among its objectives are fostering and complementing multi-technology training for local talent and driving initiatives that can promote entrepreneurship in this field.

The hackathon also counted with the collaboration of local entities such as the el Clúster TIC Catalunya Sud and the Associació d'Empreses Químiques de Tarragona (AEQT), as well as institutions such as the Tarragona Provincial Council, the City Council of Tarragona, and the City Council of Reus, all local partners of the Tarragona Digital Area.

In this context, the URV Rector, Josep Pallarès; the coordinator of 'Àrees Digitals' project of the Secretary for Digital Policies of the Government of Catalonia, Xavier Flores; the Head of the Tech Lab at MWCapital, Tomeu Sabater; the director of the Strategy and Innovation Department in the Public Sector at the i2CAT research centre, Rosa Paradell; and the manager of the Clúster TIC Catalunya Sud , Sergi Novo, inaugurated and officially launched the activity.

Sustainability and technology for beach management

The starting point for the challenge was the analysis of two beach cleaning machines currently used on Tarragona beaches: the BeachTech Sweepy Hydro, employed at La Pineda, and the UNICORN Thronos 1.0, at Miracle Beach. Both machines are noted for their versatility but present opportunities for improvement in areas such as autonomy and sustainability. In this context, the hackathon was designed as a space to generate new ideas and solutions, aiming to optimise the effectiveness of this task through the application of advanced digital technologies such as advanced manufacturing, robotics, or artificial intelligence.

The results were evaluated by a specialised jury following a presentation round by the six teams, which took place early Friday afternoon after over 14 hours of work. The experts, who assessed the proposals across three prize categories, awarded the technological innovation recognition to the 'PS' proposal. This project leverages existing 5G technology towers along the Catalan coastline to control a fleet of GPS-equipped robots. The sustainability award was shared between the 'TARRRAGO' and '4erres' proposals, while the best functional prototype prize went to the 'CODEWALKER' project.

Over 300 university students visit the MWC Barcelona 2024 exhibition

In addition to the hackathon, over the two days, the URV hosted an exhibition of some experiences from 'Remember the Future,' an exhibition by MWCapital that, with the support of the Government of Catalonia, showcases to the public some of the content presented at MWC Barcelona 2024. The immersive experience offered a journey through time, revealing how the major advances of yesterday are the pillars of tomorrow's revolutions. Specifically, visitors were able to:

Travel from the past to the future of the tech industry: This visual and auditory experience showcased how the four major industrial revolutions have impacted not only the industry but also our daily lives, humanising technology and everything surrounding it.

Drive into the future: Visitors could get behind the wheel of the car representing the future of sustainable automotive technology and drive the Hispano Suiza Carmen Boulogne, a 1,114-horsepower, 100% electric supercar, along the legendary Montjuïc circuit in a hyper-realistic immersive experience.

For further information:

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