

PRESS RELEASE

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European robotics: From excellent research to innovative products tackling societal challenges

Västerås, 8th April 2011 – „Europe’s most urgent societal challenges – from ageing society to sustainable manufacturing and increasing security threats – offer excellent business opportunities for the European robotics industry. To become a world leader we have to increase the pace of innovation to bring Europe’s excellent robotics research to the market”, says Bernd Liepert, CTO of KUKA AG, CEO of KUKA Laboratories GmbH and EUROP President on the occasion of the European Robotics Forum 2011. Supported by the European Commission through the euRobotics Coordination Action, more than 340 robotics researchers from industry and academia, as well as entrepreneurs and public investors met from 6-8 April 2011 in Sweden to discuss the latest developments, research challenges and business opportunities for European robotics. The theme of the forum was “Enabling innovation: from research to products”. The Swedish robotics initiative Robotdalen hosted the event.

Robotics – a market for the future

According to Bernd Liepert we will in the near future find robots and devices with robotic functions employed almost everywhere. Robots will naturally interact with people both physically and cognitively based on advanced communication and information processing – in all areas of our lives. For Bernd Liepert robotics will be a key element for dealing with societal challenges like the ageing of society, the creation and retention of equal-opportunity and high-quality employment, protection against external and internal threats to security and for keeping manufacturing and production in Europe. It is through robotics and automation that companies can compensate the competitive disadvantage of higher labour costs in Europe.

European robotics – almost as strong as before the crisis

2010 was a very good year for the European robotics industry. According to the IFR Statistical Department, about 30,000 industrial robots were sold in Europe, 45%

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<http://www.eurobotics-project.eu>

more than in 2009. This is still about 15% lower than the peak levels of 2007 and 2008, but Europe is catching up. Europe has a global industrial robotics market share of approximately 30 percent. In 2010 more than 115,000 industrial robots were sold worldwide. The automotive industry is going to broaden its product portfolio which will require new manufacturing lines. The application of robots in other industries, i.e. the chemical, electronics, food and mechanical engineering industries will further increase. Ola Svanström, Head of Product Management at ABB's Business Unit Robotics, foresees a growing demand in alternative energy sources and an increased willingness to invest within this area. "This will likely increase the rate of robot installations, e.g. in the production of solar cells and wind turbines", says Ola Svanström. Improvements in safety, flexibility and usability of robots will further facilitate access to new markets.

The European Robotics Forum 2011 – a success story

More than 340 European robotic researchers from industry and academia responded positively to the invitation of EUROP (European Robotics Technology Platform) and EURON (European Robotics Research Network) to participate in the European Robotics Forum in Västerås. For the second time, the two European robotics sister networks have organised their annual meetings together. The huge number of participants confirms the decision of EUROP and EURON to join forces and grow together. "The Who-is-Who of European robotics has come to the Forum which has become the biggest think tank for robotics in Europe," says Herman Bruyninckx. He sees the reason for the success in the Forum's format. Most of the 42 workshops of the Forum have been proposed and organised by the members of the European robotics community. "Everybody is eager to show the latest results of research and discuss where it leads", states Herman Bruyninckx.

High level of public funding

The European Commission spent 536 M€ in the period 2007-2012 for cognitive and robotics related research, bringing it into a leadership position. This funding is gratefully acknowledged by the European robotics community. Finishing the event Bernd Liepert and Herman Bruyninckx both agree that now the time is ripe to significantly accelerate innovation by strengthening the ties between academia and industry and by making public funding available for testing and validating the excellent research results in industrial settings.

About EUROP:

The European Robotics Technology Platform (EUROP) is an industry-driven platform comprising the main stakeholders in robotics. Its goal is to strengthen Europe's competitiveness in robotics research and development and global markets, as well as to improve the quality of life of European citizens. EUROP is one of several European Technology Platforms (ETPs) supported by the European Commission.

Further information at <http://www.robotics-platform.eu>

About EURON:

The European Robotics Research Platform (EURON) is a community of more than 220 academic and industrial groups in Europe with a common interest in advanced research in the field of robotics. The network was founded in 2000 and was supported by the European Commission for 8 years.

Further information at <http://www.euron.org>

About euRobotics Coordination Action

The euRobotics Coordination Action targets two main objectives: the improvement of cooperation between industry and academia and the enhancement of public perception of (European) robotics.

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Background Information – Product Visions

Product Visions – Robotics Co-workers

The robotics industry works towards enabling industrial robots to work in closer cooperation with humans. In manufacturing, for example, robots will support workers in manual assembly tasks. The requirements here are simple installation, programming and operation. This will make robot technologies viable for flexible small-series production and thus convince companies to implement them and overcome their disinclination to date to shoulder the outlay of introducing robot technologies. Overall, you will be able to use robots flexibly and make the factory of the future adaptable to manufacture all sorts of customer-oriented products of high quality at cost-effective prices, as we already know from large-series production today.

Product Visions – Robots as personal assistants

According to experts service robots will be implemented increasingly as personal assistants in the domestic field. They will be used in physiotherapy and provide support in the care of old and handicapped people. Your advantage: they are on the spot 24/7 and can handle many tasks and obstacles completely independently. They can remind people to take their medication and even find a lost key. To have robots taken seriously as fully-fledged assistants, robotics must focus on technologies that can interpret, adopt and simulate gestures and movements and all their associated emotions.

Independent and clever

The robot of the future will learn about itself and its environment and will be more autonomous. It will not only gather data as before, but will also process, evaluate and interpret the said data. Bruno Tranchero, CTO of Alenia Aeronautica and leader of the EUROP Working Group Security Robotics, sees great potential for autonomous robots in the fields of surveillance and intervention on land, on and under water and in the air. In the next few years to come robots will be able to react to unexpected changes during their missions and identify activities outside the normal run of affairs. With cognitive capabilities and a controlled degree of independence, they will evaluate situations, make decisions and at the same time keep the human operators informed - before, during and after the task. Users of public transport are already familiar with driverless vehicles. Autonomous robots with cognitive capabilities will free people from tiresome and even dangerous situations and working conditions.