

FOREWORD

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The principal goal of Infotech Oulu is to create an environment for the development of world-class research groups by promoting long-term research, researcher training, and international cooperation. An independent international panel evaluates the research groups that apply for membership of Infotech Oulu, using criteria similar to those used by the Academy of Finland. With such regular external evaluation, and with our internal quality control, we can help our research groups succeed and give them the valuable Infotech label.

Our research is held in high esteem by external funders. The total external annual research funding increased by 16.5% from the previous year to about EUR 17.5 million. Our most significant funding source is Tekes (the Finnish Funding Agency for Technology and Innovation) with its 47.2% portion. We have been pleased to notice that the greatest increase during the last few years has been in funding from the Academy of Finland, which currently represent well over 20% of our total external funding. Direct annual support from the University to Infotech Oulu was EUR 400 000 in 2013.

The University of Oulu has been experiencing organizational changes, including the formation of a new faculty in our research area; the Faculty of Information Technology and Electrical Engineering started its operations at the beginning of 2014. Other important changes have been in doctoral education. The University of Oulu had an internal application for doctoral student positions for doctoral programs in the spring 2013, and an international application for these positions followed in the autumn. The director of our doctoral program during 2010–2013, Professor Markku Juntti was selected as Dean of the University of Oulu Graduate School (UniOGS) starting from the beginning of 2014. Professor Timo Rahkonen was selected as the new Infotech Oulu Doctoral Program Director.

The number of doctoral dissertations within Infotech has grown during the past few years. In 2014, the output was 21 dissertations from the research groups of Infotech Oulu. Our doctoral program had funding for 25 doctoral student positions granted by the Academy of Finland and the Ministry of Education and Culture. Infotech Oulu research groups has obtained almost as many positions from other, national programs during the last few years. The continuation for these positions was secured as the Infotech Oulu Doctoral Program obtained 20 four-year and 14 two-year doctoral student positions from the University of Oulu, starting from the beginning of 2014. This was extremely important to Infotech Oulu, because funding for doctoral students supports most efficiently the current and future long term research that we value most. The new doctoral positions represent over one million Euros annually for research in our area. From these 34 positions, 25 are al-

located only for research groups selected into Infotech Oulu for 2014–2017, and the rest for all in the research fields of Infotech Oulu. In the international call arranged by UniOGS, our doctoral program received 293 applications for these positions.

One of the principal goals of Infotech Oulu is to promote international collaboration. Both bilateral cooperation between research groups, and participation in EU and other international research programs are important. Also the value the Wireless Innovation between Finland and U.S. (WiFiUS) platform for building long-term research and education collaboration in the field of wireless networking has been recognized. We have promoted international activities by providing financial support for organizing workshops, and arranging courses and lectures given by visiting experts. We have also sponsored the mobility of doctoral students. The main funding for these activities has been obtained from the Academy of Finland, EUR 430 000 for the years 2010–2013. By the end of 2013, 34.1% of our whole staff, and as much as 37.3% of the doctoral students were from abroad. Based on these figures, our research is more international than ever. Direct strategic funding from the University of Oulu helps us in achieving our goals; one tenure track position in the Center for Machine Vision Research (CMV) and one in the Biomedical Engineering Research Group (BME) started at the beginning of 2014. In addition, a record number of four Academy Research Fellow posts were granted to Infotech Oulu research groups in 2013.

One milestone in achieving the highest level in research is the Finnish Centres of Excellence (CoE) research program by the Academy of Finland. Academy Professor Juha Kostamovaara's group, as a part of a joint unit *Centre of Excellence in Laser Scanning Research*, won CoE status for the years 2014–2019. An international Research Assessment Exercise (RAE 2013) was performed in 2013 for research communities of the University of Oulu in order to classify their scientific quality. Two Infotech groups, CMV, and BME as a part of a larger unit, both belonged to a very small number of research groups that reached the highest possible score in the most competitive category.

In 2013, the current four-year period of Infotech Oulu membership ended, and new groups were selected for the period 2014–2017. An independent international panel evaluated the applications, and nine groups were selected for the next four-year period. The six best groups receive direct funding from Infotech Oulu, but doctoral students in all the nine groups can apply for the doctoral student positions allocated to Infotech Oulu research groups. With this kind of continuous quality control procedure, we can be certain that the excellent progress of Infotech Oulu will continue.