

## **I4FUTURE DOCTORAL PROGRAMME – NOVEL IMAGING AND CHARACTERIZATION METHODS IN BIO, MEDICAL, AND ENVIRONMENTAL RESEARCH AND TECHNOLOGY INNOVATIONS**

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I4Future programme is a novel international, interdisciplinary and inter-sectoral doctoral programme hosted at the University of Oulu and co-funded by European Commission Marie Skłodowska-Curie COFUND action (2.1M€). The programme is based on full exploitation of the possibilities of modern imaging and characterisation methods in cross-disciplinary work.

I4Future brings together the complementary and supplementary expertise of world-class researchers in training researchers with interdisciplinary visions in highly relevant socio-economic research areas and state-of-the-art techniques. I4Future combines five faculties and 17 research groups of UOULU, driven together with nine international universities and eleven private companies from the paper, steel, mining and medical industries as well as appliances manufacturing and four multidisciplinary public sector organisations.

The programme will train 20 international researchers in the fields of environmental science, bioeconomy, engineering and material science, as well as medicine and biosciences. The Call for the programme will open in May 2016. The programme will educate researchers with a modern understanding of how research develops from fundamental scientific findings to interdisciplinary innovations and commercially valuable applications. The research projects in the doctoral programme will be designed in close collaboration between the researchers and the programme partners. The projects in the programme will be aimed for example towards innovation of new high technology materials, development of cleaner and more efficient industrial processes, improved diagnostics, novel therapies and a better understanding of the world we live in.

The research in the programme will exploit the cutting edge local and European research infrastructures (e.g. the shortly opening MAX IV) and state-of-the-art spectroscopic characterization methods and aims to bring their benefits beyond the traditional barriers of research fields. The deep understanding of the modern imaging and characterisation methods and their capabilities gained by the researchers in the programme combined with the inter-sectoral and interdisciplinary collaboration with the programme partners will provide a fruitful ground for new knowledge and innovations.