

ESRF USER ORGANISATION COMMITTEE (UOC)

Election November 2020

CANDIDATES to represent the scientific community of

INDUSTRY

Sophie Bouat, sophie.bouat@wanadoo.fr

Engineer Material Science & Imaging – Senior Expert and Founder of Science-SAVED, Saint-Martin d’Uriage (FR)

After receiving her PhD in Physics at the Université Joseph Fourier in Grenoble in 1997, Dr. Sophie Bouat has worked for more than 20 years in the domain of Research and Development (R&D) at the CEA, in companies and start-up companies. In 2019 she created “Science-SAVED”, a start-up that aims to developing industries access to Large Scale Facilities.

As a synchrotron scientist, she is an expert of non-destructive analysis, 2D/3D imaging, metallurgy, additive manufacturing, and analysis of interfaces, cracks, surfaces and welding. In her research, she has used ID19 at the ESRF for micro-imaging of defects inside hundreds of harvesting devices, following the micro-cracks number with device lifetime. Micro-cracks evolution was related with crystallization state of the heart material of devices, and, in the upper layer, link is evidenced between strain and dislocation displacement.

Barbara Fayard, barbara.fayard@novitom.com

CEO of Novitom, Grenoble (FR)

Barbara Fayard is the director and co-founder of Novitom (www.novitom.com), a pioneering service company, specialized in 3D material characterisation, non-destructive testing and microanalysis based on advanced imaging techniques including synchrotron technology. It is an independent French company founded in 2011 to provide complete solutions - customized or standardized analysis, R&D support, *in situ* testing, software development, training...- to meet industry needs. The company is now settled in 2 sites in France, and the team gathers more than 15 highly-skilled and enthusiastic staff. When she started this innovative activity, Barbara Fayard used to be a junior academic Researcher at the French National Centre for Research (CNRS) with expertise in the development and transfer of synchrotron imaging techniques towards biological applications. She had been tenured by the CNRS in 2003, right after her post-doctoral work performed at the ESRF, in the X-ray microscopy group. She holds a Ph. D in Fundamental Physics, from the University of Paris (France).

Barbara Fayard has now more than 15 years of experience in the development and transfer of synchrotron X-ray imaging techniques including X-ray microscopy, X-ray spectroscopy, X-ray micro-tomography to applied science topics. She is the author or co-author of more than 60 publications in this field. She’s also been a scientific visitor at the ESRF since 2003.

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Stephen Price, stephen@finden.co.uk

Finden, Harwell Campus, Oxfordshire, Didcot (UK)

Stephen Price obtained his PhD at University of Southampton and Johnson Matthey Technology Centre, Sonning Common (Industrial Case Award) with Prof Andrea Russell in 2011 on the topic of “Enhanced Structural Characterisation of Supported Catalysts”. There, he continued his studies on the incorporation of molecular dynamics outputs to fitting EXAFS data, and further in situ synchrotron studies of core-shell electrocatalyst preparation, together with developing a bifunctional oxygen electrocatalyst in collaboration with industrial partners. Between 2013 and 2017, Dr. Price was postdoctoral research assistant at Beamline I18 of the Diamond Light Source for the development of 3D imaging of in situ of catalyst particles using micro x-ray diffraction tomography and micro x-ray fluorescence tomography. He was responsible for the design and construction of novel sample environments, data collection methodologies and analysis techniques, including XRF, XRD and XANES computed tomography, of industrially relevant catalysts and implementing them on the beamline. The project involved heavy collaboration with industry and the development of collaborations with academics from the UK and Europe.

Dr. Stephen Price is currently a Senior Scientist at Finden Ltd, responsible for both full time research projects and shorter commissioned scientific studies covering differing material systems from a range of industrial clients. As main point of contact and project manager for several of Finden’s clients, he is involved at every level from project management, data collection, analysis, and report writing. His work involves a plethora of materials characterisation approaches covering spectroscopy, diffraction and imaging, with development of new approaches to both data collection and analysis including high throughput. Dr. Price has been a regular use of large-scale facilities throughout his career.