START UP
INDUSTRIAL
RESEARCH

CAROTS

Pooling Expertise:
The Joint Venture Uppsala Synchrotronix AB

Mårten Edwards, Innovation and R&D consultant at Edwards Science & Technology AB (left) founded Uppsala Synchrotronix AB together with **Robert Moberg, Director Romo Scientific AB**, in 2018. (photo: Uppsala Synchrotronix)

What motivated you to start Uppsala Synchrotronix?
We wanted to match our competence about synchrotron facilities, X-ray photoelectron spectroscopy (XPS) and industrial materials analysis services in response to inquiries for using hard X-ray photoelectron spectroscopy (HAXPES) at synchrotron facilities for the characterization of metal processes. Separately we each own and manage a company, but we decided to create a joint venture in which we contribute different skills and know-how.

How much time passed between having the idea for your start up and your launch?
Around half a year. It is quite easy to start a company; actually, it is not a big problem *(laughs)*. The problem is to make it profitable.

Who helped you getting started? For example friends and family, incubators, investors or mentors?
No one.

What was your biggest problem in the startup process? And what was your biggest mistake?
It is hard to convince members of the top management of companies about the industrial usefulness of synchrotron radiation for research and development (R&D). R&D managers are usually more interested. We think that you have to work for one or two years in a new start up to give industry enough time to realize that what they are getting from us is really worth its price. Also, there is still a competition between us

Company Facts

Uppsala Synchrotronix AB, registered in 2018
Number of employees (2019): 2
Business area: Industrial research consulting at synchrotron-radiation facilities:

- R&D management
- Materials analyses
- Using a broad range of techniques such as XPS, tomography, and SAXS/WAXS
- Beam-time and funding proposals
- Specializing in hard materials, layered structures and devices
- Partnering with leading university scientists

Project funding and beam-time proposals, Industrial research partnerships, Project coordination, Photon spectroscopy, Photon imaging, Photon scattering, Metals, Ceramics, Devices, PES, XPS, HAXPES, and APPES

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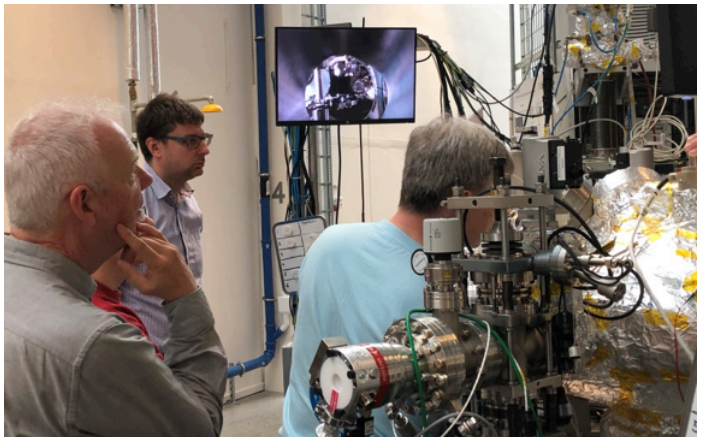
intermediaries and the universities as they are often approached by the companies directly. Other potential competitors are non-profit industrial research institutes like RISE in Sweden or Fraunhofer Institute in Germany. We haven't made any big mistakes so far, but we are still in the startup phase with many challenges to overcome.

What kind of structures would have helped you to cope better?
If the role of intermediates was understood better, it would be easier. But the field is very new and therefore it is natural that things are not in place yet.

What has been your most interesting company case so far?
We are working together tightly with an aluminium producer on failure mechanisms in heat exchangers and reaction mechanisms during brazing of aluminium. It is work in progress and we have got some good results so far. We are also applying a wide range of techniques together with university experts like tomography, 3D diffractive methods or ambient pressure XPS.



Mårten Edwards (right), Dr. Andrey Shavorskiy, beamline manager at HIPPIE at MAX IV (centre) and Robert Moberg (left), working on the system. (photo: Uppsala Synchrotronix)

CAROTS (Commercial Analytical Research Organisations Transnational Strategy) is an international project that aims to establish a new type of private or public-private company in the Baltic Sea Region: Commercial Analytical Research Organisations (CAROs). CAROs, as intermediary bodies between industry and academia, provide enterprises with much quicker yet complete assistance in analytical research in areas like New Materials, NanoTech or Life Sciences. The project is led by DESY, Deutsches Elektronen-Synchrotron, in dialogue with ten project partners and twelve associated organisations from across the Baltic Sea Region.

For further information visit
www.carots.eu

What would help you most right now to reduce costs, increase your visibility and to co-operate with other intermediaries?
Teaming up with complementary intermediaries to be able to provide complete and more attractive services would help, for example a match between broader R&D management type intermediaries and data analysis and measurement experts for certain techniques. In the long term, possibly to form joint business alliances would be helpful as well as concretizing the role of intermediaries and the needs for them. Also to create awareness about it in the industrial synchrotron radiation community: university scientists, synchrotron radiation facilities, large national research organizations, industrial potential customers. If we all worked together we could steer some of the public funding for industrial synchrotron research to intermediaries.

What is your number one advice for a new founder of an intermediary?
Be prepared to work hard on the business model together with other players and partners in this emerging and largely unexplored market. ■

Uppsala Synchrotronix AB is a joint venture between two Swedish companies. ROMO Scientific AB is a sales consultancy company, which supports companies with their sales activities to the research communities in physics and materials research. Edwards Science & Technology AB is a company at the interface between universities and industry, which specializes in helping smaller companies in electronics, materials technology, life science, and chemical processing market their own solutions and leverage research results as well as new technologies. In 2018 their respective founders, Robert Moberg and Mårten Edwards, founded Uppsala Synchrotronix AB in response to the growing industrial interest in materials research at synchrotron radiation facilities. By working closely together with synchrotron facilities, university scientists, and mechanical workshops, the company covers the complete chain in an industrial research and development project. Uppsala Synchrotronix AB specializes in hard materials, layered structures, and devices. It offers synchrotron research consulting, powerful materials analyses, management of industrial projects and experiments, beam-time planning and proposals as well as EU and national research funding proposals.

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