



IMPRESS-PCP MATCHMAKING TOOL

PROFILE OF COMPANIES SEEKING PARTNERSHIPS

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Allectra GmbH

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Sector Vacuum connectivity, signals and custom manufacturing of complex projects in High Vacuum and UHV

Expertise Manufacture of TEM components: UHV

Market presence National, European, International

Short description of the company

Allectra specialises in vacuum connectivity, signals and custom manufacturing of complex projects in High Vacuum and UHV. Founded in 2002 by two physicist entrepreneurs, the aim was to bring a new approach to manufacturing high technology components to the scientific instruments market. In the last 22 years we have seen widespread adoption of our proprietary technology across multiple scientific disciplines. Allectra has three manufacturing facilities with scientific and engineering capabilities, one in the UK and two in Germany, and we ship worldwide. Product range includes electrical feedthroughs and associated cables, KAP301 radiation resistant wires, optics components and Allectra designed components.

Support/expertise the company is offering

Design and manufacturing of UHV components, such as custom UHV feedthrough and cabling solutions.

Support/expertise the company is looking for

Allectra would like to support this initiative as a subcontractor.

Role the company would like to have in a partnership with other companies

Subcontractor; To be defined

condenZero AG

Switzerland

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Denys Sutter

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Sector

cryo-TEM Sample Holders

Expertise

Manufacture of TEM components: UHV

Manufacture of TEM components: Micro-machining

Manufacture of TEM components: Cryogenics

Startup/Investor expertise

Market presence

European

Short description of the company

We develop continuous flow liquid helium cryostats, implemented in TEM sample holders.

Support/expertise the company is offering

Cryogenic and UHV expertise.

Support/expertise the company is looking for

Potential partner companies for future product developments.

Role the company would like to have in a partnership with other companies

Partner

DEMCON kryoz

The Netherlands

kryoz.demcon.com

Pieter Lerou (Managing Director)

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Sector

Cryogenics

Expertise

Manufacture of TEM components: UHV

Manufacture of TEM components: Micro-machining

Software development, electronics synchronization and remote control

Innovation partnering expertise

Startup/Investor expertise

Mechatronics, Modelling, R&D, Quality, Industrialization & Production

Market presence

International

Short description of the company

DEMCON kryoz is part of the Demcon Group (>1000 employes) and specializes in (semi)customized (cryo) cooling systems for various applications including electron microscopy. Besides our liquid nitrogen free CryoEM cryocooler, we also have much experience with Stirling/Pulse Tube type, TEC and cryogen/liquid cooling.

Support/expertise the company is offering

Cryogenic system design, analyses, modelling, (PoC) testing, realization, industrialization and production.

Support/expertise the company is looking for

DEMCON kryoz would like to be part of a consortium working on this challenge. We would like to focus on the cryogenic part using our expertise on (cryogen free) vibration free cryocooling.

Role the company would like to have in a partnership with other companies

To be defined

Insight Chips

Denmark

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Emil C.S. Jensen

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Sector

Liquid Phase Electron Microscopy

Expertise

Manufacture of TEM components: Micro-machining

Startup/Investor expertise

Microfabrication of microchips

Market presence

National; European; International

Short description of the company

Insight Chips has since 2019 been commercializing the Nanochannel chip system for liquid phase electron microscopy, making it available for global researchers to image any sample with atomic resolution while controlling experimental conditions.

Support/expertise the company is offering

Nanochannel chip systems for liquid and gas with temperature control. Soon also electrochemical control.

Support/expertise the company is looking for

Partnership in the framework of the project, new applications of our products, future product development and implementing our systems in other companies' systems.

Role the company would like to have in a partnership with other companies

Partner; Subcontractor; To be defined

OptiXs s.r.o.

Czech Republic

www.optixs.cz

Martin Klečka (Ing., CEO)

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Sector

Adaptive optics, Cameras, Detectors

Expertise

Innovation partnering expertise

Distribution for adaptive optics

Cameras; Detectors

Market presence

National

Short description of the company

OptiXs supplies and integrates lasers and instrumentation for science and industry.

Support/expertise the company is offering

Designing a functional optical solution. Design of the assembly including mechanical parts 3D visualization. Component selection. Design and manufacture of control electronics. Assembly and commissioning of the system. Preparation of control/graphical user interface. System functionality testing. Delivery and installation of the system. Supply of supporting documentation and operator training. Service and remote support.

Support/expertise the company is looking for

To be a partner in the customized solution, supplier of the customized items.

Additional information provided

One of the pillars of OptiXs' business, besides the sale of lasers and instrumentation, is the development and production of customized systems. In this way, we complement our broad portfolio of standard products with systems for which no commercial solution can be found or whose application requires an individual approach. When implementing custom systems, we draw on many years of experience gained during the installation and servicing of various products from our range. In addition to our knowledge of laser technology, our team has expertise in a wide range of areas including physical optics, fine mechanics, 3D printing, electronics and programming. As a result, we are able to provide not only simple integrations but also more complex deliveries requiring sophisticated solutions. It is up to you whether you want a complete turnkey system or whether you just want partial help with some of its parts.

Role the company would like to have in a partnership with other companies

Partner; Subcontractor

Registered on April 17th 2024

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Quantum Detectors Ltd

United Kingdom quantumdetectors.com
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Sector Detectors
Expertise Software development, electronics synchronization and remote control
Innovation partnering expertise
Startup/Investor expertise
Detectors
Market presence National; European; International

Short description of the company

Quantum Detectors was founded in 2007, a technology spin-out from the Science & Technology Facilities Council (STFC) and Diamond Light Source (DLS), the UK’s synchrotron radiation facility. Our core mission is to make cutting-edge technology accessible to the global science community. The company today is a market-leading provider of detector systems for X-ray detection and electron microscopy, with a customer base including large science facilities, universities and industrial R&D. We have hundreds of systems deployed worldwide.

Support/expertise the company is offering

We are interested in making direct electron detectors prioritising interoperability between column manufacturers. Key to this is being able to integrate detectors with the user facing software of the microscope such that metadata is available to the user as part of the camera data stream. QD manufactures the detector and camera systems and writes the necessary software to control the cameras and collect data. We also manufacture and deploy scan control systems and write the software required to drive those.

Support/expertise the company is looking for

Support from column manufacturers to integrate with their systems, or alternatives to the column manufacturers’ systems which are widely deployed within the global scientific community.

Role the company would like to have in a partnership with other companies

To be defined

TESCAN GROUP, a.s.

Czech Republic

www.tescan.com

Petr Mareš (Product Manager)

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Sector

SEM, FIB-SEM, TEM and micro-CT instrument manufacturer

Expertise

Innovation partnering expertise

Market presence

International

Short description of the company

TESCAN Group enables nanoscale investigation and analysis within the geosciences, materials science, life sciences and semiconductor industries. The company has a 30-year history of developing innovative electron microscopy, micro-computed tomography, and related software solutions for customers in research and industry worldwide. For example, TENSOR is the first 4D-scanning transmission electron microscope (4D-STEM) built from the ground up for a totally new level of performance and user experience. As a result, TESCOAN Group has earned a leading position in micro- and nanotechnology. TESCOAN Group is headquartered in Brno, Czech Republic, employs more than 750 people in 14 sites around the world.

Orsay Physics (member of the TESCOAN Group) develops and markets Ion Implantation Tools (FIB-based) and custom UHV systems using FIB, SEM and SIMS technologies.

Support/expertise the company is offering

We are interested in this project primarily to open new applications for our TENSOR 4D-STEM microscope. We can offer support in integration unique TEM holder prototypes for advanced 4D-STEM measurements.

Support/expertise the company is looking for

We are looking for a partner who is interested in developing pioneering TEM holders for various applications - e.g. fast 4D-STEM measurements, precession-assisted 4D-STEM, low-dose measurements, in-situ analysis or other high-end research areas.

Role the company would like to have in a partnership with other companies

Partner; To be defined

YPS Ltd

United Kingdom

www.yps-ltd.com

Omar El Gomati (Sales & Business Development Director)

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Sector Electron Microscopy

Expertise Manufacture of TEM components: UHV
Manufacture of TEM components: Electron optics

Market presence International

Short description of the company

Founded in November 1997, YPS (York Probe Sources) stands as a pioneering force in the field of electron microscopy. Our unique standing is defined by an unwavering commitment to advancing scientific exploration, and our specialised focus on thermal field emission (FE) technology sets us apart in the realm of cutting-edge microscopy.

Support/expertise the company is offering

Electron microscopy stands as a transformative technique, essential for acquiring high-resolution images, and forms the cornerstone of our expertise. At the heart of our technological prowess lies the integration of thermal field emission (FE) technology, an indispensable component enabling unrivalled high-end, high-resolution electron microscopy. This innovative approach spans various scientific and industrial domains, fostering breakthroughs and discoveries that redefine the limits of knowledge. Setting us apart from conventional technologies such as LaB6 and tungsten, thermal field emission not only meets but exceeds expectations, delivering superior image quality and performance. This technological supremacy empowers nanoscale imaging, expediting scientific discoveries and opening doors to advancements that redefine possibilities across diverse fields. YPS has introduced a groundbreaking hot-swap solution – a universal field emission gun adaptable to any column type up to 100kV. This innovation offers an affordable upgrade for Transmission Electron Microscopes (TEMs), benefiting the structural biology community and extending its applications to fields such as materials science. This upgrade holds the potential to elevate entry-level TEMs into high-performance instruments, significantly enhancing their resolution capabilities.

Support/expertise the company is looking for

Expanding on our expertise in field emission sources, field emission guns, power supplies and design, as well as our proficiency in high vacuum and ultra-high vacuum-based novel instrument designs, including spin-polarised electron sources, we are actively seeking partners to collaborate with us. Together, we aim to address challenges and pioneer innovative solutions in the field of electron microscopy. By leveraging our deep understanding and experience in these areas, we are poised to tackle complex problems and drive forward groundbreaking ideas that will shape the future of electron microscopy. We are excited to begin this journey towards unlocking new possibilities and pushing the boundaries of scientific discovery.

Role the company would like to have in a partnership with other companies

Coordinator; Partner; Subcontractor

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Registered on April 2nd 2024
