The Concept
Bringing together semiconductor and advanced materials platforms and processes to deliver new technologies and products. Helping to create the skills and talent to keep our industry at the leading edge.

Providing a range of services from blue-sky research to applied R&D, prototyping and process development, specialist services, incubation, engagement, training and access to the UK and EU innovation grants portfolio.

Manufacturing meets research and development

**CISM – will deliver a bespoke, integrated facility for semiconductor research and technology development on Swansea University’s new Bay Campus containing:**

- Manufacturing grade, ISO-qualified clean rooms for process development
- Backend materials integration and packaging capability
- Advanced NING research laboratories
- III/V MOCVD growth facility
- Customer Bays for SME incubation
- Access to advanced characterisation and analysis (microscopy, surface analysis, chemical, optical, electrical)
- Access to state-of-the-art materials and device-level theory and simulation

**The Partnership**

The concept has been developed in partnership with our main partners over the last 12 months via our CISM Programme Board, who meet on a monthly basis to progress concepts and the overall programme. The CISM Design Sub-committee is made up of representatives from our main industry partners, Swansea University including our Estates team and architects and technical advisors.

The Building

The proposed Centre for Integrative Semiconductor Materials (CISM) building will be located at the heart of Swansea University Bay Campus within the existing engineering quarter. The location will allow for collaborative and shared facilities with the existing surrounding engineering buildings.

The proposed building will be three stories covering 4000 m² of clean room, research and office facilities. The mass has been developed to be appropriately scaled to the surrounding buildings and aligned to the existing campus development master plan within an existing development site.

The building will use sustainable, energy efficient building techniques and renewable energy technology including solar PV and heat recovery. We aim to achieve a minimum assessment of BREEAM ‘Excellent’.

Concept designs of the facility, along with building massing can be found below.

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