

#### building trust and dependability in the cloud



# overview

The Irish Centre for Cloud Computing & Commerce (IC<sup>4</sup>) is a multi-disciplinary, multi-institutional research centre located at Dublin City University (DCU) and includes researchers from University College Cork (UCC) and Athlone Institute of Technology (AIT). IC<sup>4</sup> is one of a number of Technology Centres, funded by Enterprise Ireland and the IDA, whose mandate is to carry out applied research in areas that are chosen by its industrial members and that are strategically important for the future growth in the Irish economy.

# mission

IC<sup>4</sup> is focused on carrying out leading edge, applied technical and business research in the area of cloud computing and its mission is;

- i) to generate and transfer knowledge and technology to industry, in areas that can be commercialised by industry,
- ii) to accelerate the rate at which businesses adopt cloud computing,
- iii) to facilitate SMEs in developing anddeploying software applications on cloudplatforms, and
- iv) to showcase Ireland's capabilities in cloud computing.

### organizational structure

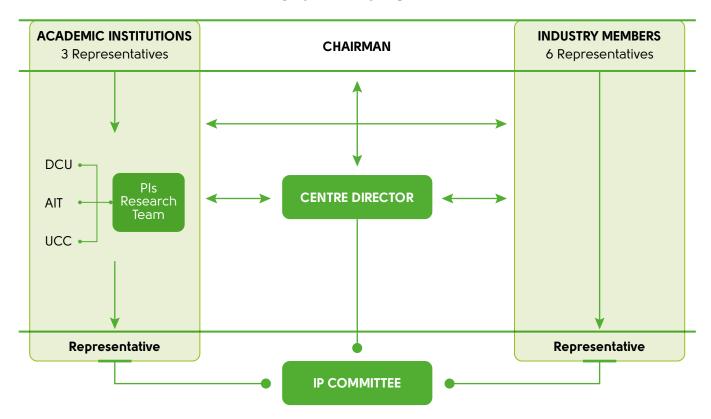
The Centre is structured to conduct agile, fast-turnaround, business and technical research projects on topics that are chosen by its members. All IP generated is made available to members on commercially-friendly terms.

The industry-led **Steering Board** is responsible for governing the activities of the Centre while the **Centre Director** is responsible for setting and administering the strategic direction and overall business plan.

Each project, conducted at the Centre, is led by a **Principal Investigator (PI)** who is responsible for the scientific direction and management of the project. The **Research Team** working, under the guidance of the PIs, are predominantly post doctoral researchers who are experts in their respective areas of cloud computing.

industry members and academic institutions working together to create a centre of excellence in cloud computing that can become a powerful engine for innovation and economic growth

#### **IC⁴ STEERING BOARD**



#### research methodology

All research projects are structured to provide an output that can be validated and be used by its proposing members within a six to nine month timeframe. Selected projects need to fulfil a minimum viable research output of;

- i) meeting an industry or market demand
- ii) addressing an actionable technical or business problem, and
- iii) providing interesting research that makes a theoretical contribution to the state of the art

These applied research projects can be fully funded by the Centre so long as they meet the above criteria and are supported by a minimum of two member companies. The output of these projects is generally a report or case study on the findings and, where applicable, a prototype that can be trialled or evaluated by members.

The applied research conducted at the Centre is complemented by other research support mechanisms where IC<sup>4</sup> can target its research resources at member-specific projects. These 'targeted' projects can be up to 80% funded by IC<sup>4</sup> and can be tailored to a company's particular technical and business needs. In many cases the research output from the applied research projects can be used as background know-how for a targeted project.

Through IC4's collaboration with international research centres, members may get the opportunity to participate in other national and international research funding programmes, which provide access to additional funding, partnership and networking opportunities.

continuous collaboration with industry members on research projects results in research output delivered at the speed that industry wants



#### research themes

Four core research themes have been identified as the basis for the technology centre;

- i) Architecture,
- ii) Service Lifecycle,
- iii) Business research and
- iv) Cloud Security.

These themes are necessarily broad and are intended to underpin the research direction of the Centre in the long term. They allow projects to be either generic or focused at the needs of particular industry sectors or market segments.

# centre activities

The Centre's activites are focused at helping all players in the cloud ecosystem, including technology innovators and technology consumers, irrespective of their size.



# building trust in the cloud

IC4's main research priority is

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and its goal is to generate knowledge and technology that addresses the need for compliance to standards, quality-of-service, service level agreements (SLAs), data privacy, auditability and reliability of service. These issues permeate the cloud ecosystem and are relevant to cloud platform or application developers, cloud service providers, cloud solution resellers and to end users who are migrating data from onpremise systems to the cloud or from one cloud platform to another.

### knowledge dissemination

The knowledge and technology generated through this research is transferred to IC4's members through a variety of; workshops, conferences, cloud clinics and seminars. Members can also access research output from the IC4 website.

many years of experience in collaborating with industry on research projects.

They understand the importance of having a research team that can think and act across the cultural divide between academia and industry. Many have worked in industry and understand the challenges in developing commercially successful software products and services

### membership benefits

 $IC^4$  is targeting members who have an interest in leading industry-focused applied research or who have an interest in validating or consuming the research work it produces. Members benefit from the multi-disciplinary research approach, which addresses both the business and technical challenges of making a commercial impact as well as the agile, output driven benefits of the sprint research methodology. More information on joining  $IC^4$  is available at www.ic4.ie.

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