

# **MEDIA RELEASE**

**NEWS FROM THE UNIVERSITY OF TASMANIA**

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ATTENTION: Chiefs of Staff, News Directors

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## **New network senses Tassie's potential**

A world-first online sensor network is set to drive economic, social and environmental benefits for Tasmania.

The Sensing Tasmania (SenseT) network will mesh together historical, spatial and real-time data and make it available through the web to the community.

An investment of \$3.6 million was announced today by the Federal Minister for Regional Australia, Regional Development and Local Government, Mr Simon Crean, and the Premier, Ms Lara Giddings as part of the Tasmanian Forests Intergovernmental Agreement (IGA).

The funding will help SenseT become a sustainable infrastructure operating across Tasmania within five years, with the aim of operating as an independent, self-financing body within 10 years.

Vice-Chancellor Professor Peter Rathjen said Tasmania is the ideal place for such a network.

“SenseT will help us realise the true economic and productivity potential of the NBN,” he said. “Through its collection and analysis of data, SenseT will help us tackle the complex challenges facing modern society, whether that is improving harvest yields, responding to natural disasters, delivering more effective energy usage, or enabling governments to deliver more effective services.

“It will do this by analysing information collected from the real-world, and making that available in an understandable way.

“The University of Tasmania is proud to be partnering with organisations locally, nationally and internationally in SenseT to deliver a project of unprecedented scale and ambition.”

The island state has a spread of urban, World Heritage wilderness and rural areas enclosing waterways and infrastructure. Never before has the potential to create a future with geo-located, real-time information been demonstrated on this scale.

Deputy Vice-Chancellor (Research), Professor Paddy Nixon said sensors can be distributed across the island, measuring all aspects of activity, including energy, carbon, water, population and transport flow. The data can be

accumulated through the broadband network to make meaningful deductions. Solutions can then be delivered which change the way the island and its society operate.

“Tasmania is small enough to make SenseT achievable and big enough to make it worth doing. SenseT success will rapidly scale to regional and national projects,” he said.

“The use of sensors is not new - what *is* new is bringing together different sensors into a single, large-scale, open-access system.

“A single sensor from the SenseT network located on a farm may be utilised for improved irrigation or fertiliser application. But when networked with other sensors, data from the same sensor could also provide supermarket customers with information on the origins of their food,” Prof Nixon said.

“On a wider scale, this information could be used to monitor temperature or rainfall, or for flood and fire alerts. When integrated with maps and historical records this can be used to predict changes in the environment.

“It is the open access to information in a single system which will create opportunities for innovation and economies of scale,” Prof Nixon said.

SenseT has been initiated by UTAS, Tasmanian Government and CSIRO (through the Australian Centre for Broadband Innovation) in collaboration with National ICT Australia (NICTA), IBM, and the Institute for a Broadband Enabled Society (University of Melbourne).

*See attached briefing note for further detail on SenseT's intended outcomes.*

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# BRIEFING NOTE

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## SenseT's three intended outcomes

SenseT is designed around delivering three outcomes:

**Outcome 1: Core infrastructure** - The digital repository to allow the integration of the historical and real-time data from the sensor networks is at the heart of the SenseT. A web-based application platform will be the interface for the community and SenseT. The application platform allows community, government agencies and the private sector to create applications and help us solve problems.

**Outcome 2** is to design, implement and maintain practical projects including:

- **Agricultural optimisation** – A microclimate, water and soil sensor network will support enterprises to utilise Tasmania's investment in irrigation, adapt to climate change and monitor environmental impacts. This will be focused in the northwest and the northeast regions.
- **Aquaculture optimisation** – SenseT will deploy sensors to augment weather and river observations from government agencies. The higher resolution awareness of weather and river flow will vastly improve measurement and control of water quality crucial to production. Focus: the Huon Valley and East Coast regions.
- **Fruit and viticulture optimisation** – Localised weather observations and decision support tools to minimise weather related risk such as frost and support disease management. Focus: Huon Valley and East Coast regions.
- **Flood and catchment management** - SenseT will build upon the CSIRO South Esk Catchment Hydrological Sensor Web project to improve coverage of the 40+ sub-catchments of the South Esk leading to improved real-time flow forecasts.

Outcome 2 also includes studies to assess the feasibility of future implementation projects:

- **Food logistics** – SenseT seeks input from food producers and others in the supply chain to determine what information consumers need,

how to improve logistics efficiency and make it easier to trace food contamination.

- **Carbon markets** – A scoping study of requirements to quantify carbon emissions will leverage early SenseT deployments and existing sensor networks.
- **Timber products traceability and production optimisation** – A scoping study of methods to improve productivity and trace the movement of wood products along the supply chain.

**Outcome 3: Maximising Community Benefit** – This includes governance, stakeholder communication, continuous monitoring and evaluation of the impact of SenseT. Analysis of business models will be conducted to ensure the operation of SenseT is sustainable into the future.

## Participating organisations

Organisations participating in the SenseT reference group are:

The University of Tasmania

The Tasmanian Government (Department of Premier and Cabinet, Department of Economic Development, Tourism and the Arts, Department of Infrastructure, Energy and Resources and Department of Primary Industries, Parks, Water and Environment)

CSIRO

Australian Bureau of Statistics

NRM North

NRM South

Aurora Energy

Pitt & Sherry

National ICT Australia