

Videoconferencing to cut public sector airfares and emissions



The government hopes to cut costs and greenhouse gas emissions using this high definition videoconferencing system. Cisco

In an effort to cut its annual \$280 million domestic airfare bill, the federal government will work with Telstra to deploy high-definition, large-screen videoconferencing systems across 20 sites around the country.

The Minister for Finance and Deregulation, Lindsay Tanner, says the project is expected to deliver a significant reduction in public sector travel costs, improve productivity and lower the government's carbon emissions.

The high-definition Cisco

TelePresence system will be used for inter-jurisdictional meetings, including Council of Australian Governments (COAG) and ministerial council meetings.

Installation is due to start within months at Melbourne's Treasury Place, followed by a Parliament House facility in Canberra. Full deployment is expected to be completed by the end of the year.

Cisco says the project is the largest public sector deployment of TelePresence anywhere in the world.

Breaking down herbicide residues

Farmers around the world are expected to benefit from the successful trial of an enzyme that breaks down residues of the widely used herbicide, atrazine, in farm dams and runoff water, helping reduce pollution downstream.

'When we added the enzyme to a holding dam filled with runoff contaminated with atrazine, more than 90 per cent of it was removed in less than four hours,' says CSIRO Entomology's Dr Colin Scott.

'Atrazine is a widely used and extremely useful herbicide but, depending on its use, can lead to residues that persist in water for sometime after application. Undesirable residues in water have led to restrictions on the use of atrazine in the EU and USA.'

The trial was held in the Burdekin sugar-growing region near Ayr, Queensland. If used across farms in the region, the enzyme could help reduce the pollution loads on the Great Barrier Reef.

Collaborators in the trial were the Queensland Department of Primary Industries and Fisheries (DPI&F), James Cook University and the Great Barrier Reef Marine Park Authority.

DPI&F's Rob Milla, who organised access to the trial

farms and assisted in sample collection, says the initial field test results 'are very encouraging'.

'Our next steps will be to apply the enzyme in standard operating situations to ensure there are no impediments, from a farmer perspective, to its easy and effective use,' he says.

CSIRO Entomology's Cameron Begley says the enzyme also works well against a range of other triazine herbicides and, once in commercial production, would benefit farmers and water consumers wherever triazines are used.

The CSIRO bioremediation team is now focusing on improving the production and application of the enzyme, to provide farmers and water consumers around the world with a cost-effective bioremediation product to address triazine contamination. Begley says CSIRO is seeking commercial partners.

CSIRO's search for the enzyme began with a search for bacteria that 'fed' on atrazine. Once identified, the team isolated the enzyme that broke down the chemical into non-toxic components and developed it to make it a product suitable for low-cost production and delivery into a range of situations.

Millions poured into soil carbon research

More than \$30 million has been allocated to fund research projects on soil carbon and nitrous oxide emissions in Australian agriculture under the federal government's Climate Change Research Program.

Among the projects will be creating national standards for sampling and analysing soil carbon and nitrous oxide emissions. Nitrous oxide accounts for almost

one-quarter of Australia's agricultural emissions.

Nine soil carbon research projects will sample a range of agricultural systems, including cereal crops, sheep and beef grazing, sugarcane and vegetable farming, irrigated and non-irrigated dairy, and sites that have changed from one farming system to another.

Key priorities for the soil carbon research will include:



How and how much carbon can be sequestered in soils, as well as nitrous oxide emissions from agriculture, are the subjects of new research projects funded by government. Gregory Heath, CSIRO

- measuring carbon levels in a range of agricultural systems;
 - understanding the impacts of management practices on soil carbon; and
 - understanding the role Australian soils could play in sequestering carbon dioxide from the atmosphere.
- Nine nitrous oxide research projects will monitor emissions from soils in five key farming systems: sugar cane, cotton, dairy pasture, non-irrigated and irrigated cereal cropping.