

Earth observation Centre of Excellence: turning Earth data into information

A SERIES of workshops held in Stanley this week marked the creation of an Earth Observation Centre of Excellence. The centre aims to pool together resources in the promotion and application of earth observation data; that is, data about the earth's surface (including the sea and seabed) gathered using remote sensing tools, such as: satellite imagery, drone imagery, sonar, and tracking tags on animals, for example.

The workshops brought together a number of earth observation specialists from several disciplines, including researchers from three Chilean universities, the UK Joint Nature Conservation Committee, as well as the Falklands.

Referring to the regional focus of the centre, Dr Paul Brickle, of the South Atlantic Research Institute (SAERI), highlighted the value of collaboration with Chilean institutions in earth observation: "we all live and work in areas which have a large landmass, big seascapes, low population densities and limited financial and human resources to collect data and manage our environments... Using tools and applications through remote sensing data is a way of reducing those costs and be less reliant on putting people in the field."

"On a wider regional scale, there are issues that we have in common that could be addressed together," says Dr Megan Tierney, JNCC South Atlantic Territories Adviser, "but also it doesn't negate looking at things on a more



Centre of Excellence workshop delegates in Stanley this week

local scale. So it seems a natural fit to work with our partners across south America," she adds.

A key aim of the Centre of Excellence will be to turn what can be highly complex and technical data into accessible information. That information, says Fabio Labra from the Universidad Santo Tomás, can be used to bridge the gap between end users or decision-makers, and the data, "once you bridge that gap, and [decision-makers] know what it means, and what decision should be taken if it's red or brown, then they will be empowered to start using that information in the decision-making process."

Sharing that data and making it accessible, says Dr Gwawr Jones, Earth Observation Evidence specialist for JNCC, opens the door

for it to be used for a number of applications other than the original intended use, "it's not about creating a product for one problem, it's about creating a product that can solve problems across multi-disciplinary areas."

One example of how earth observation data can be used for different problems was stumbled upon in a workshop with government departments: habitat maps created by SAERI for other projects could be used to work out the extent of stone runs and ponds for instance, and feed into stock area density calculations.

The approach, adds Dr Labra lends itself well to innovation too, "sometimes questions will come from the end user", he says, and then the task becomes, "figuring out ways in which it can be pro-

cessed to answer these questions but in a way that will give a lot of value to end users."

For Dr Jones, however, it's not all about scientific analysis, there is value for the general public too. That value can arise from simply knowing what technology is available, Google Earth for example, and how that can be used in everyday decisions, such as where to go for a walk, "we're not just looking at analytical components... It's quite important that the visual aspect is included as well."

For the time being, the Centre will only be a virtual one, and will initially focus on identifying common thematic ideas, projects and funding streams. The priority, says Dr Tierney, "is really about developing that community of users and data providers and whoever might have a need for using earth observation data."

Also attending the workshops were: Dr Maximo Frangopolus, from the Universidad de Magallanes and Dr Alejandro Leon from the Universidad de Chile, and Sarah Harrison from JNCC, in addition to several researchers based at SAERI.

The visit of the Chilean researchers is partly funded and facilitated by the British Embassy in Santiago in a bid to foster closer links and cooperation between the Falklands and Chile. The Embassy was represented in the workshops by Catherine Taylor, head of Economic Affairs and Sustainable Development.