



**Maintaining a sustainable Future
for IT in Higher Education**

Thursday 16th June 2011

Time: 12:00 - 12:30

NREN Best Common Practice - Can We Make Our Academic Networks Greener?

Speaker: Mike Norris, HEAnet Ltd

Abstract:

GN3 is a pan-European project, part-funded under the EU's Framework Programme. It includes an array of research and service activities, centred on the GÉANT data network, dedicated to the European research and education communities. One of the tasks of GN3 is to assess the environmental impact of pan-European networking, and this is undertaken by the Green GÉANT team of people from five national research and education networks (NRENs). The team has started by taking baseline measurements of the carbon footprint of their national networks (including data centres), and of GÉANT itself, which interconnects 37 national networks. Using the ISO 14064 standard, an accounting tool was developed (adaptable for use at campus level) and used to measure the net greenhouse gas (GHG) emissions of their networks. Areas where real reductions in GHG emissions can be made have been identified and are being addressed. In parallel, the team has quantified some of the positive aspects of networking and IT. In a number of case studies, and using the global projections of the SMART 2020 report, it has measured the local benefits of practices such as teleworking and videoconferencing, as used and supported by many campuses. These have been scaled and compared favourably with the predicted mitigating effects that IT can have on climate change. Members of the team are also trialling the use of sustainable energy to power data centres and network nodes. Research is being carried out to see how such green nodes can be dynamically commissioned whenever sustainable energy is available.