



Ireland Array: A new broadband seismic network targets the structure, evolution and seismicity of Ireland and surroundings

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Ireland Array is a new array of broadband seismic stations deployed across Ireland. The backbone component of the array is formed by 20 stations, equipped with Trillium 120PA seismometers and distributed uniformly across Ireland. These 20 stations have been installed in 2010-2012 and will be deployed for 5 years. Deployments of additional 10 stations (each with a Guralp 40T seismometer) will be used to complement the backbone-component coverage and to target fine structure of the subsurface in specific target areas.

Ireland Array is a major new geophysical facility, producing abundant seismic data. It will reveal Ireland's deep structure and evolution in unprecedented detail. Ireland Array will also underpin geothermal energy research by illuminating in detail the physical structure of Ireland's crust and entire lithosphere. New insight into 3-D regional lithospheric structure and evolution will also benefit basin-evolution research, relevant for hydrocarbon exploration. Yet another target of Ireland Array will be Ireland's seismicity, modest but insufficiently understood at present.

Ireland Array is generating important new data for research on both regional and North-Atlantic scale problems and is aimed to benefit the entire Earth science community. Web: http://www.dias.ie/ireland_array