

# National Report of Northern Ireland

Geoff Bell, Michael Aiken, Peter Downie

Presentation to PosKEN workshop, 26<sup>th</sup> April 2018  
Brussels, Belgium



## National Report of Northern Ireland

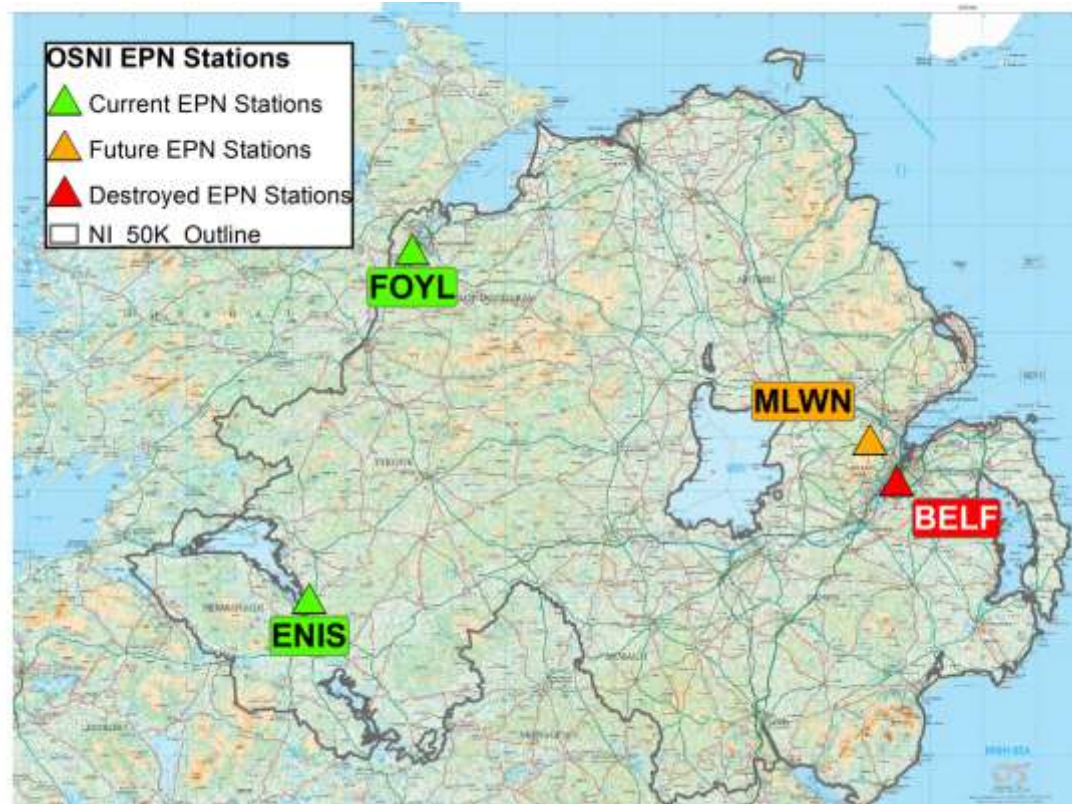
### Position at start of 2016

- GNSS network of 9 stations with data contribution to:
  - EPN Permanent GNSS Network (3 stations)
  - EPN Real-Time Analysis (3 stations)
  - Met Office UK (EUMETNET E-GVAP)
  - British Isles GPS Archive facility BIGF (hosted by IESSG at the University of Nottingham)
  - any NI Government department as part of NIMA
- Station coordinates in ETRS89 either computed in 2002 or subsequently derived from those computed in 2002 but not submitted to EUREF for ratification.
- Vertical datums of MSL Belfast and MSL Malin realised through GNSS observations and OSGM02 “Geoid Model”.

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### GNSS network 2016 to present

- Planned replacement of the destroyed EPN BELF station with a new rock-anchored station NW of Belfast.



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### GNSS network 2016 to present

- Installation of new station BNGR to replace the network RTK function of BELF.
- Implementation of the EUREF IE/UK 2009 campaign realisation of ETRS89 as the official positioning framework in Northern Ireland on 26<sup>th</sup> August 2016.
- Agreement to install a new centrally positioned station to densify the network and provide added redundancy.
- Installation of an offsite back up system of the OSNI RTK network IT hardware and software.
- Agreement in principle to take over rental lease of the EPN station ENIS compound.

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### Other work 2016 to present

- New height model for Great Britain & Ireland, OSGM15, released on 26<sup>th</sup> August 2016.
- Agreed policy to replace obsolete height datum MSL Belfast.
- Joint project with OSi to install an absolute gravity network in Ireland.
- Joint project for a 200 year anniversary commemoration of the Principle Triangulation in Ireland.



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## Planned Future Developments

- Relocation of one GNSS station from the SW to the SE to densify the RTK network.
- Galileo capable equipment at all stations.
- Compute dense velocity fields.
- Complete the long term project to install an absolute gravity network in Ireland, in conjunction with our Dublin colleagues at OSi.
- Move to a global height datum.
- Continued renovation of some historic survey monuments and the Lough Foyle Basetowers.



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**Thank you for your attention**

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# GNSS network 2016 to present



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