

Exploration Activities and Initiatives Offshore Ireland

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**Department of Communications, Climate Action and Environment
IRELAND**

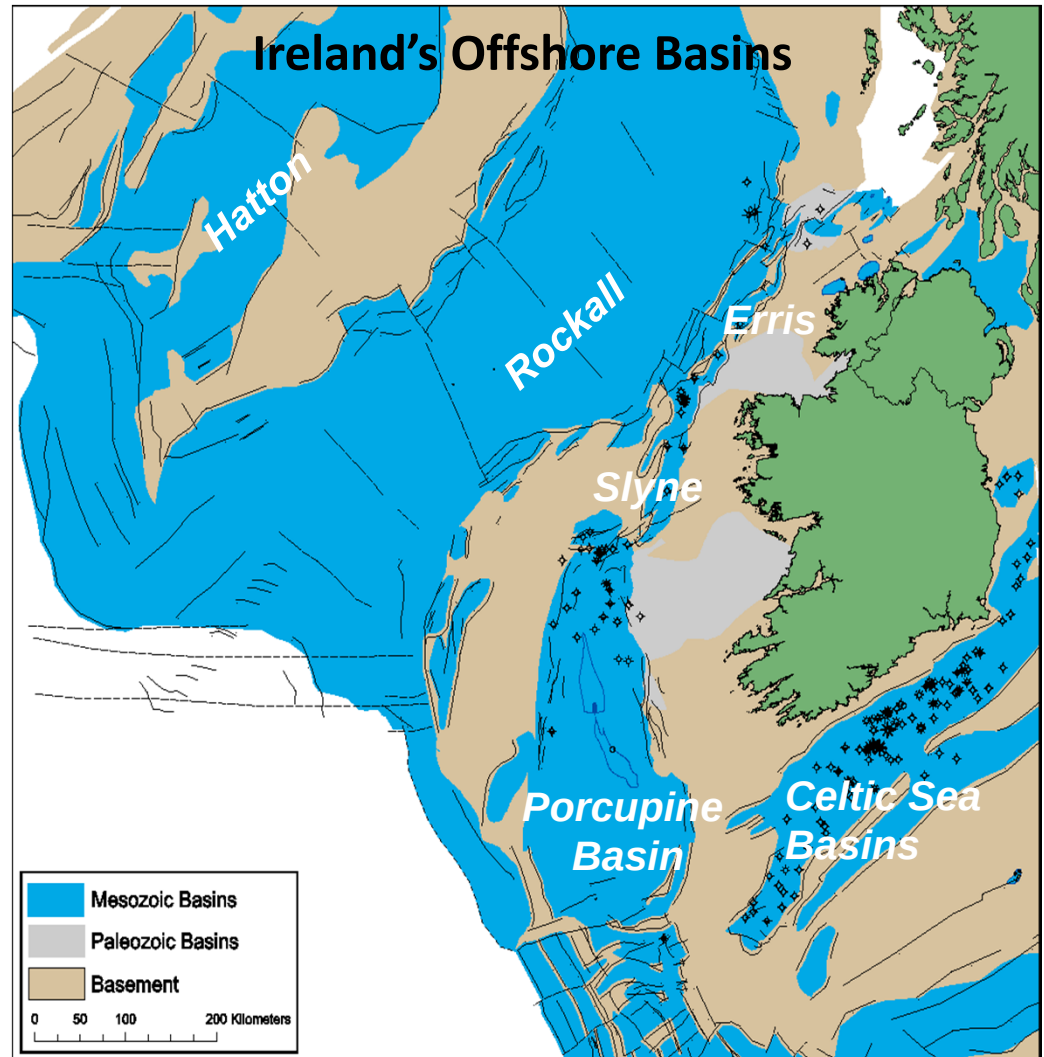
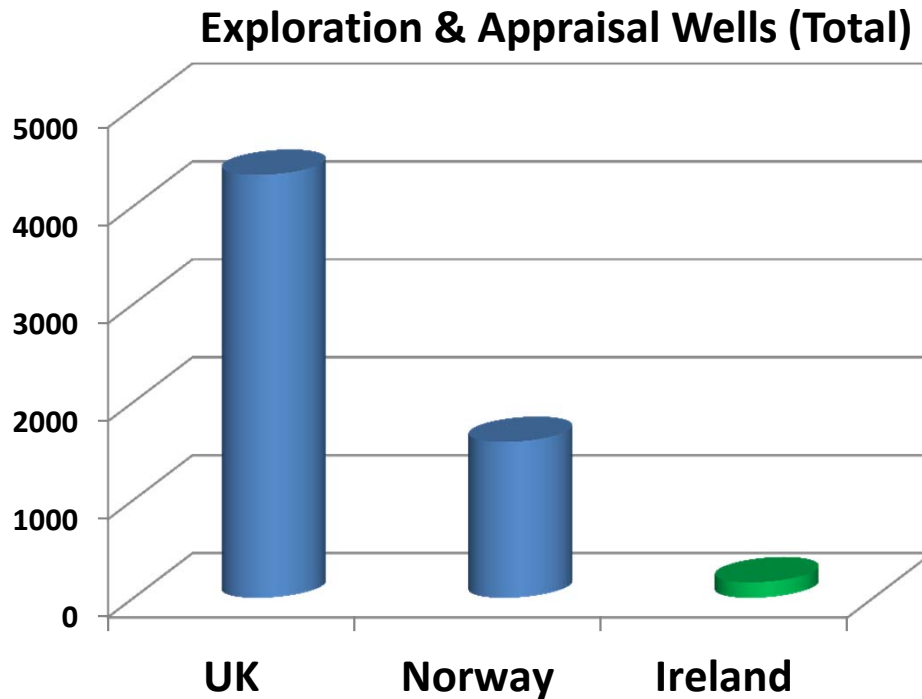
APPEX, February 28th, 2017



**Roinn Cumarsáide, Gníomhaíthe
ar son na hAeráide & Comhshaoil**
Department of Communications,
Climate Action & Environment

Exploration Offshore Ireland

- Under explored Atlantic Margin
- Lower historical drilling compared to neighbours

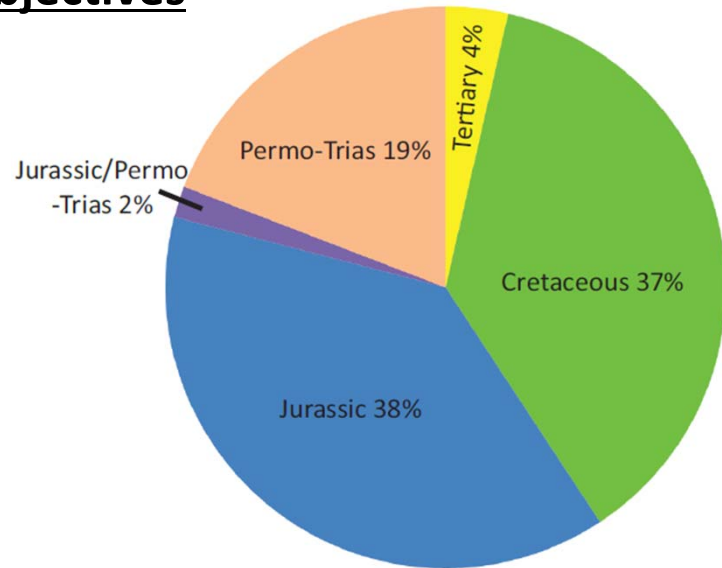


Ireland:

Exploration wells:	131
Appraisal wells:	28
Total:	159

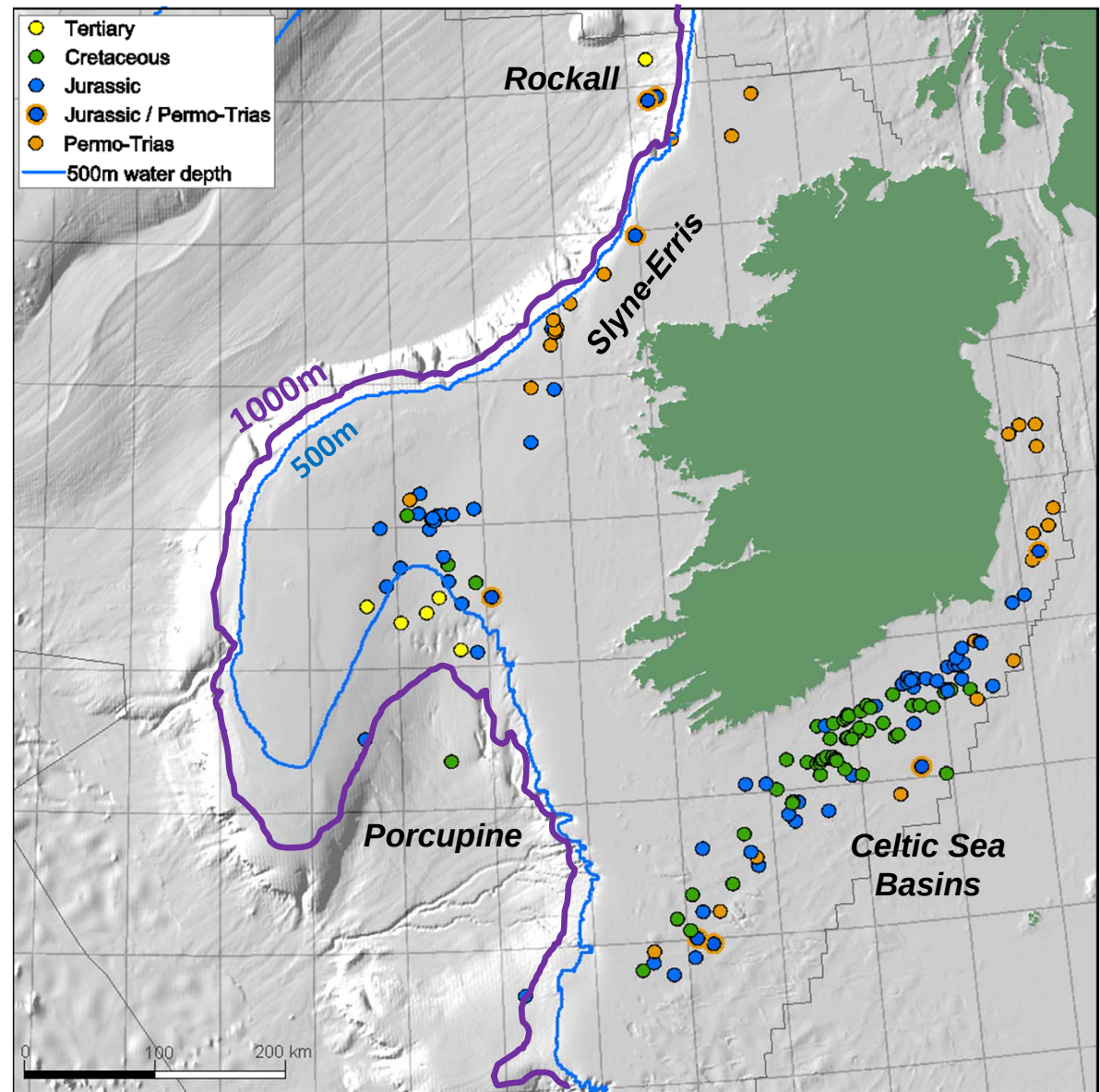
Exploration & Appraisal Wells

Objectives



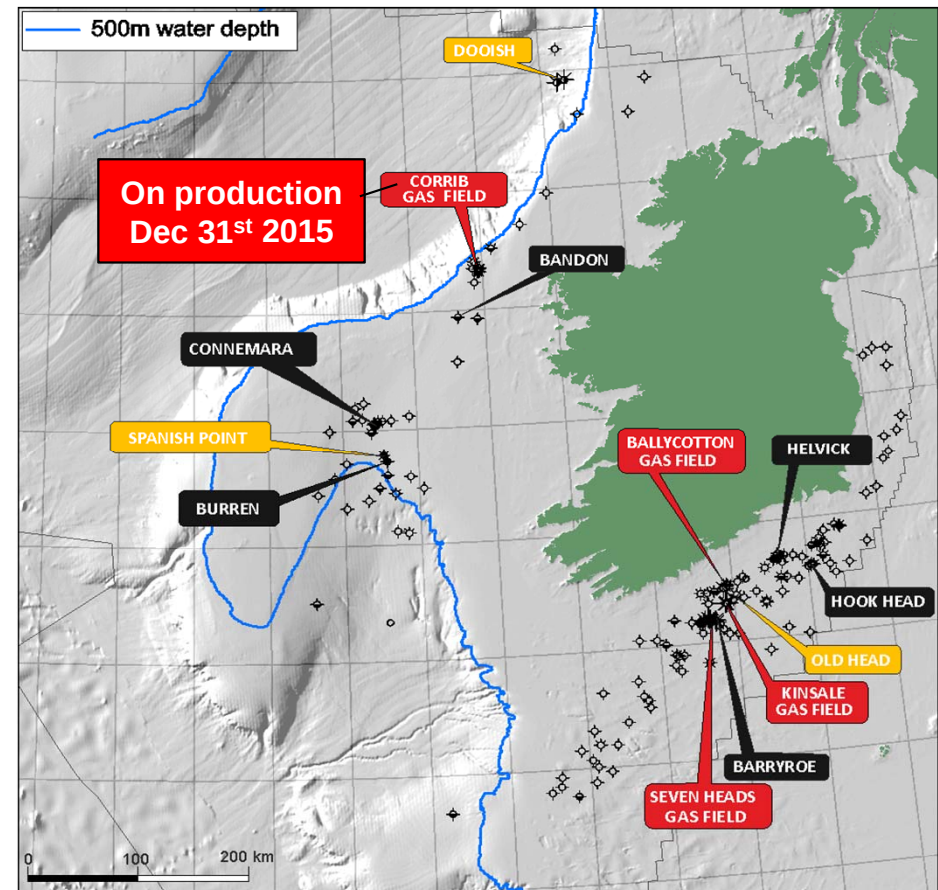
Total 131 exploration wells (1970-2016)

- Only 4 wells >1 km water depths
= *1 discovery*
- Only 10 wells drilled on 3D
= *2 discoveries*
= *1 well in Porcupine drilled on 3D*
- 2 wells drilled on post-2000 2D seismic



Producing Fields and Discoveries

- **~2.5 BBOE* in place discovered to date**
 - *Operator P₅₀ estimates
 - 4 commercial gas discoveries
- **Atlantic Margin :**
 - 41 wells in 40 years – underexplored
- **Celtic Sea:**
 - Gas, high-quality oil, waxy and degraded oils



Producing Fields

■ Gas

Discoveries

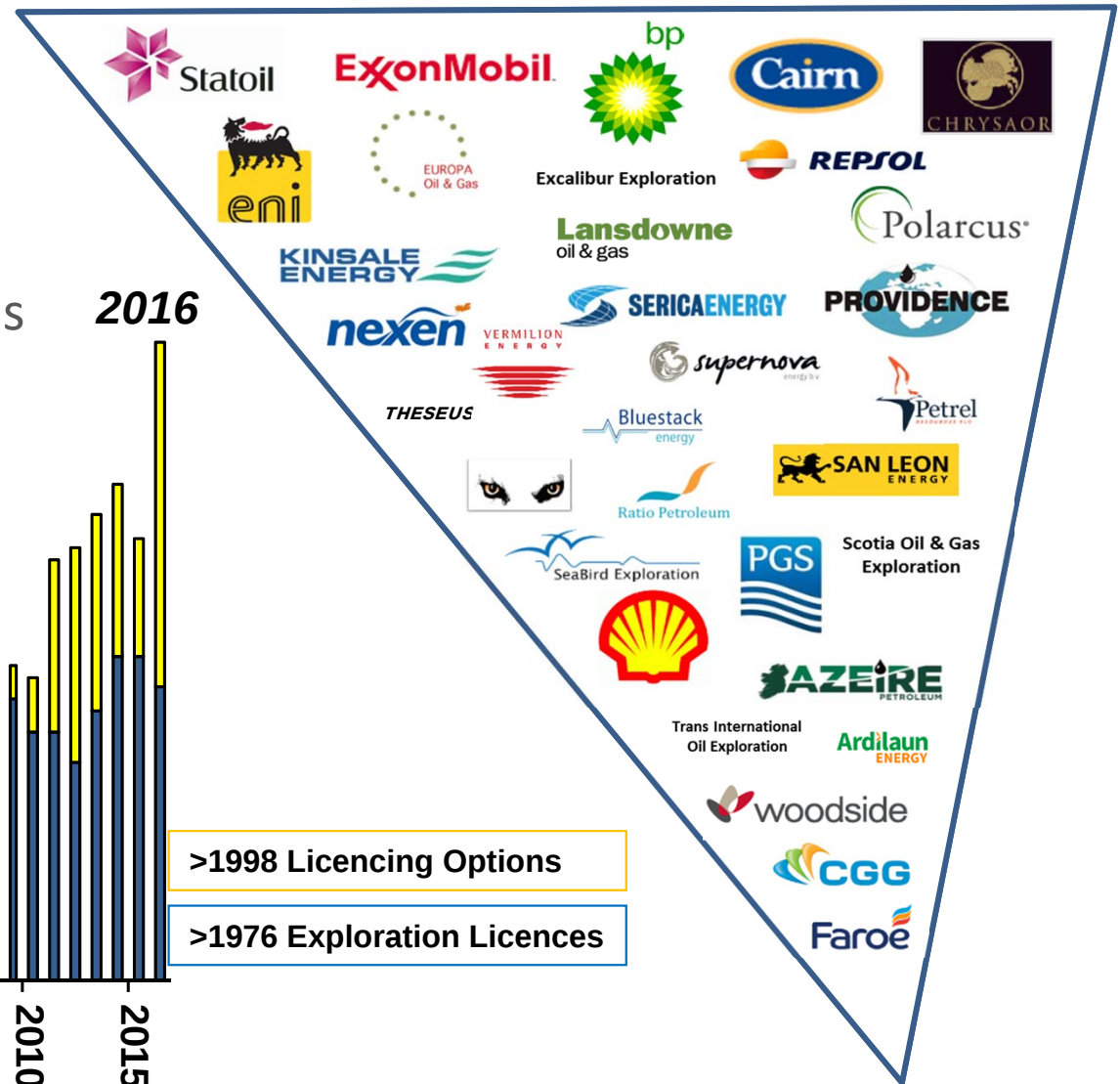
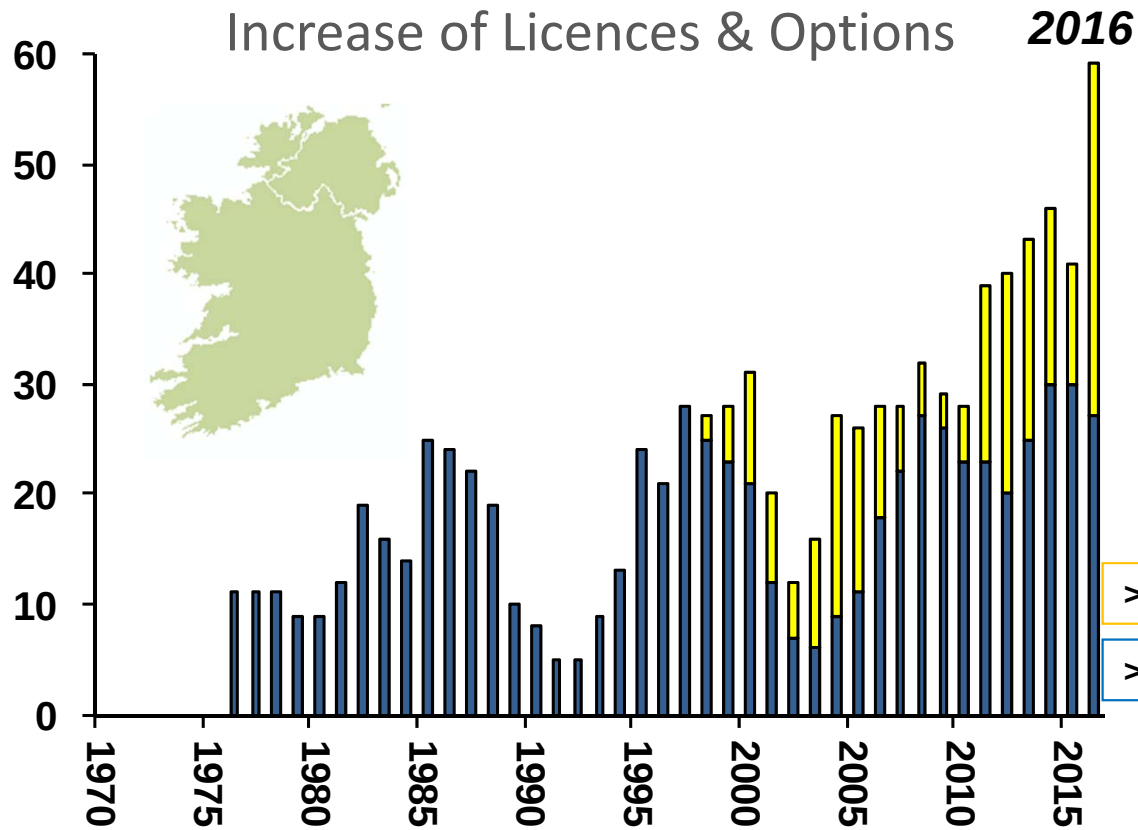
■ Gas / gas-condensate

■ Oil



Status of Licensing

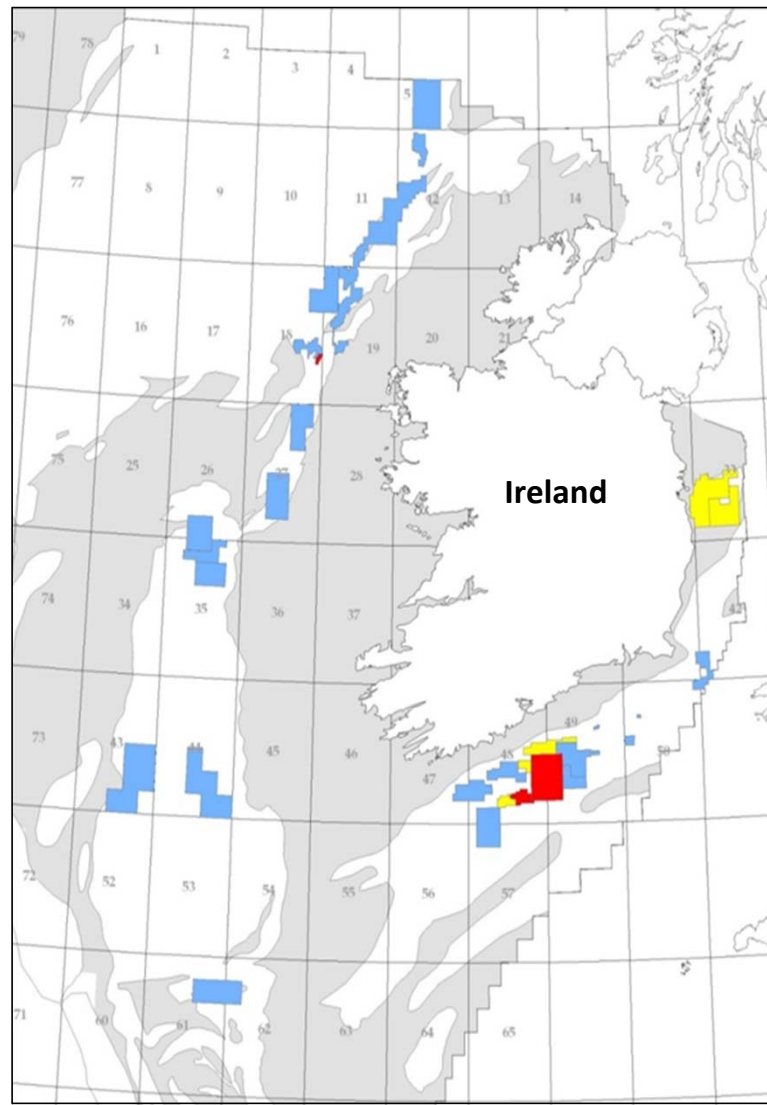
- Successful 2015 Licensing Round
- Highest number of exploration authorisations since the 1970s



Who will be next?

Increased demand for acreage – offshore Ireland

January 2011

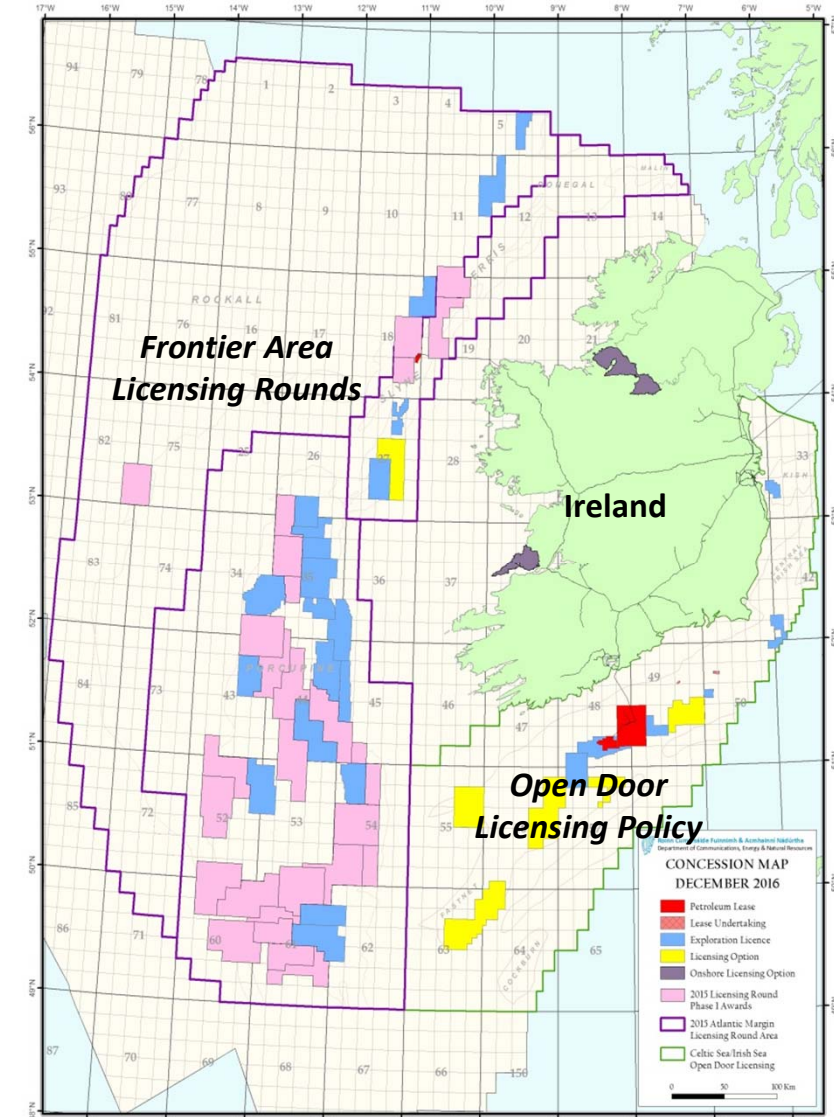


Exploration Licence

Licence Option



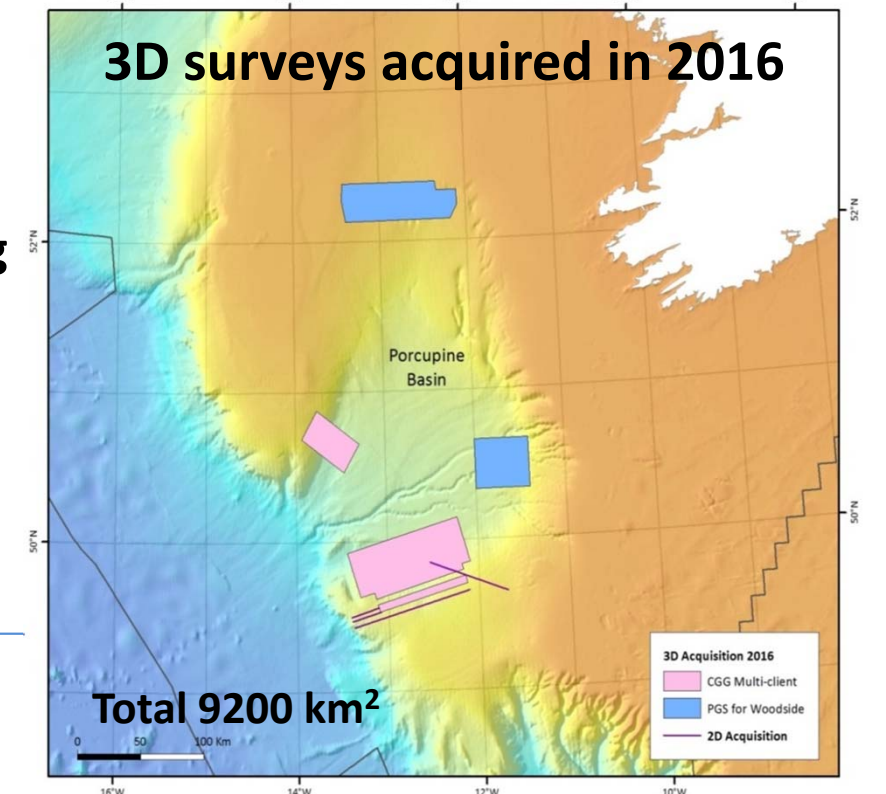
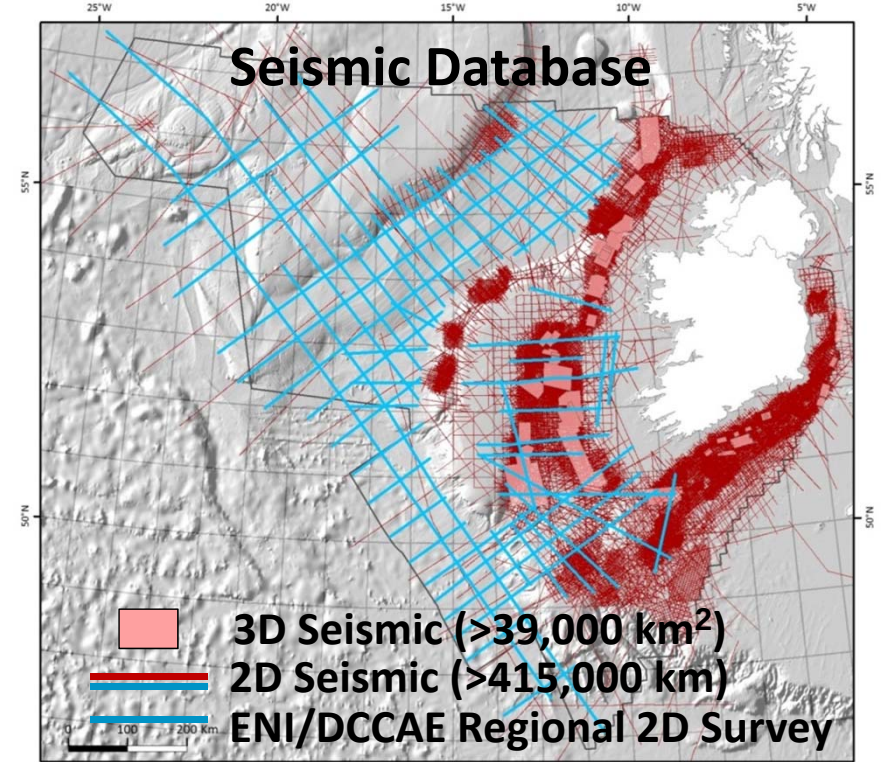
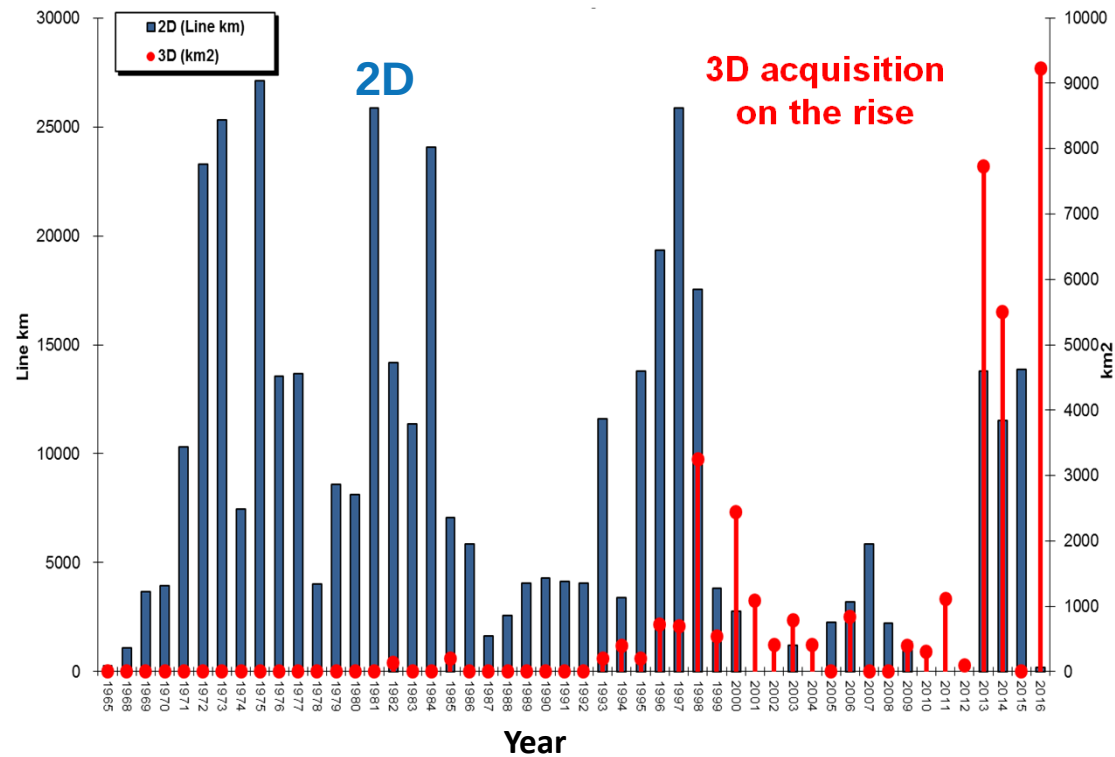
December 2016



Petroleum Lease

Licence Award 2016

Seismic Acquisition Offshore Ireland



Data acquisition of 3D and modern 2D data increasing

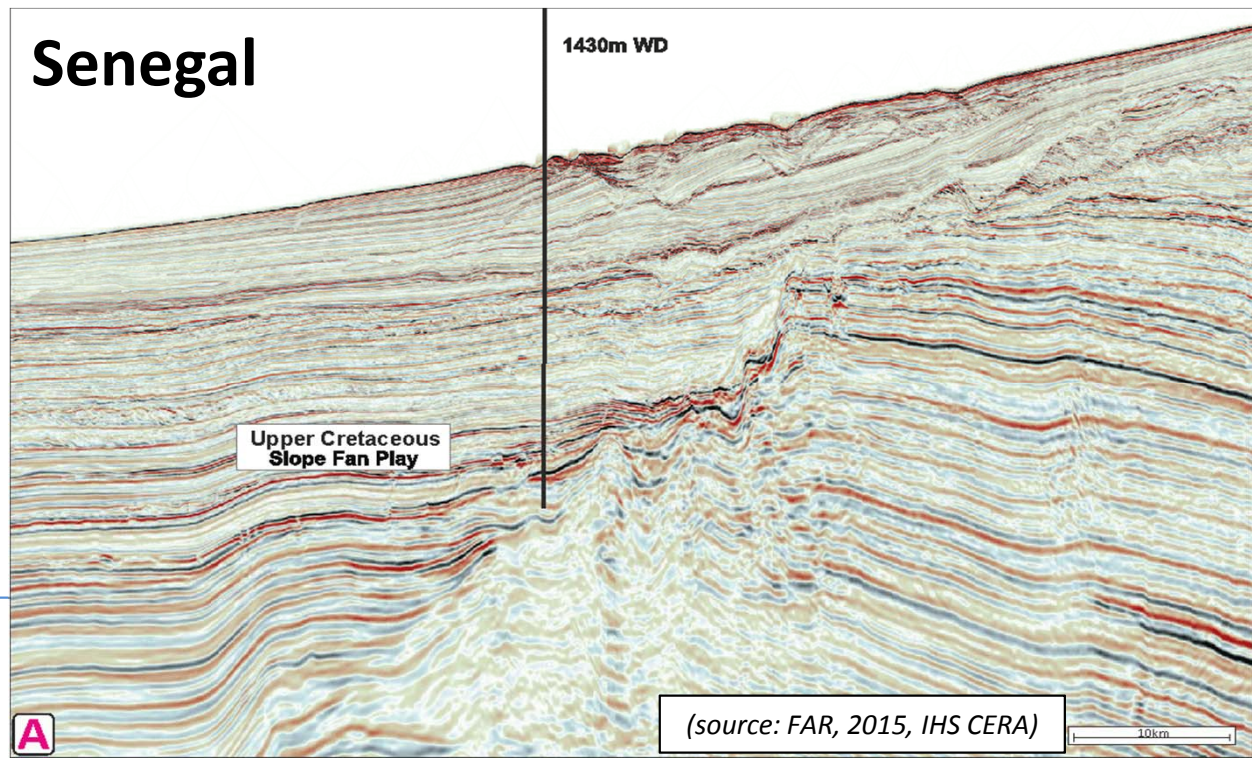
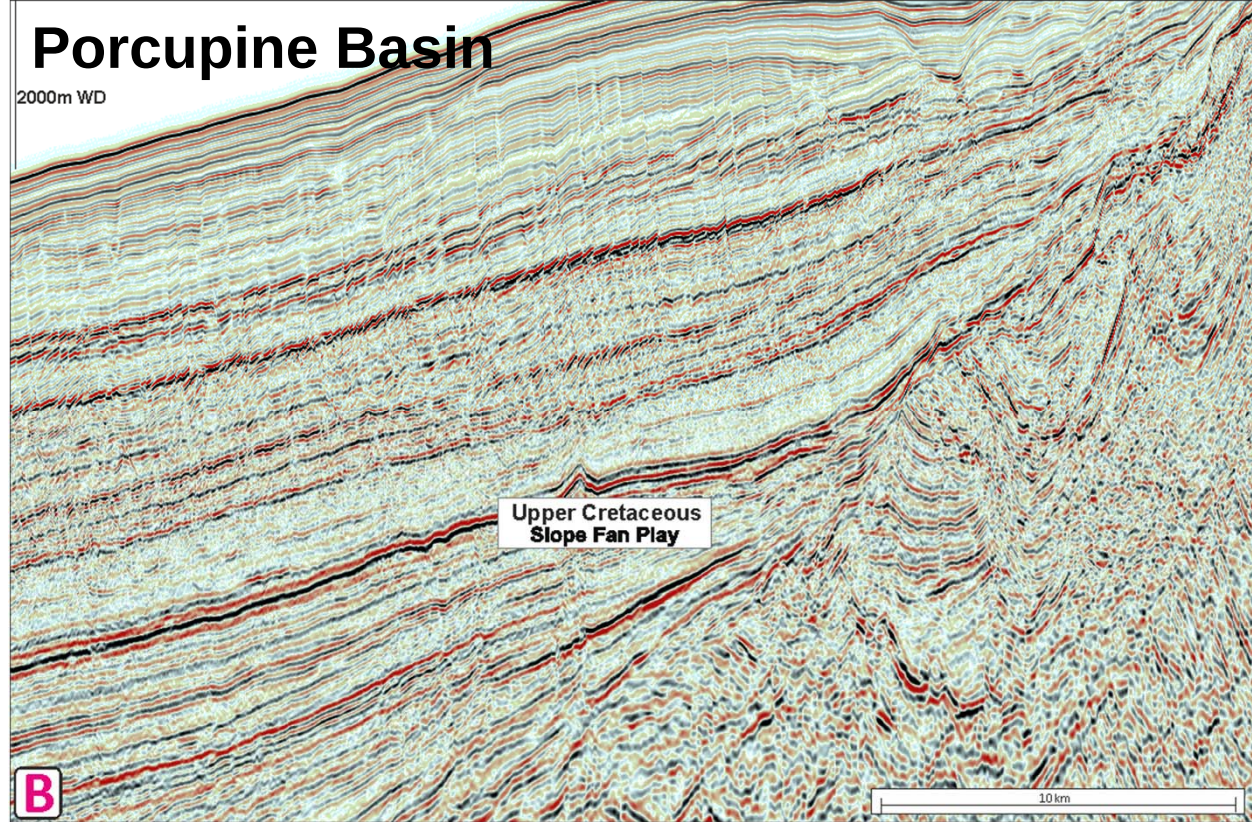
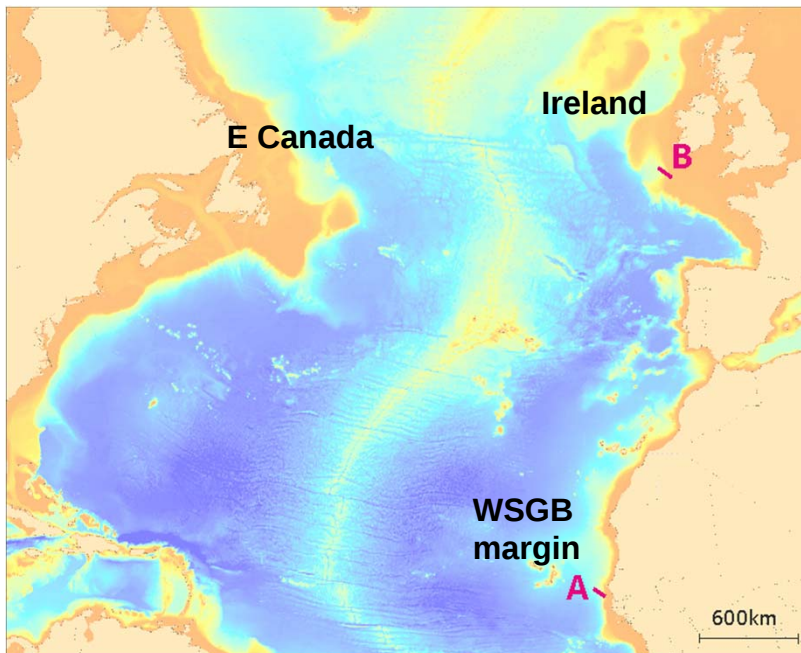
Recent new seismic acquisition includes:

- In 2016, 4 large 3D surveys carried out in the Porcupine Basin
- Further 2D and 3D surveys planned in 2017



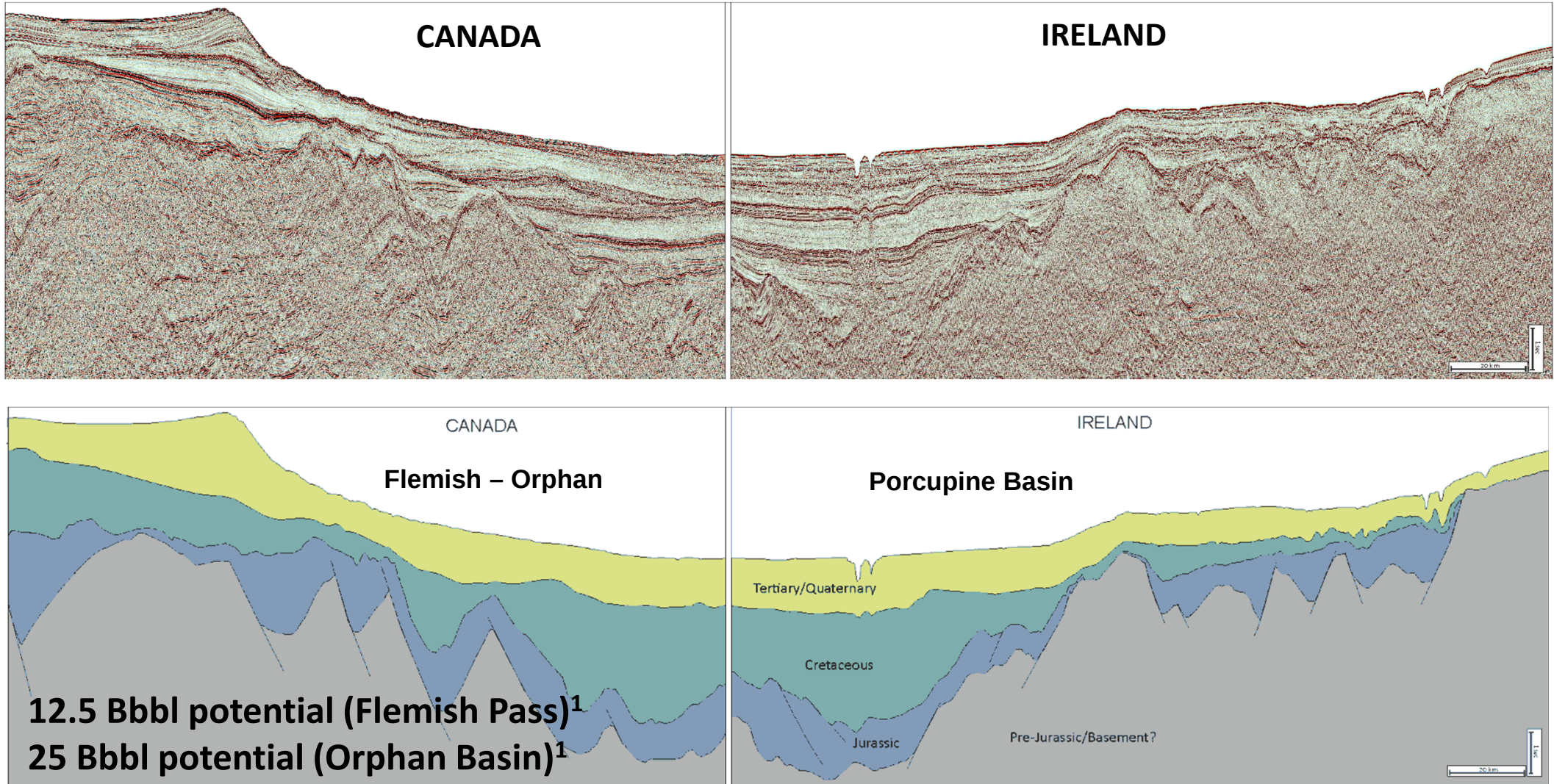
Atlantic Margin: Analogues

- Prospective play types
- Tertiary- Cretaceous stratigraphic plays
- Mesozoic rift basins



Analogues - Canada – Ireland Conjugate Margin

- Pre and Syn Rift plays

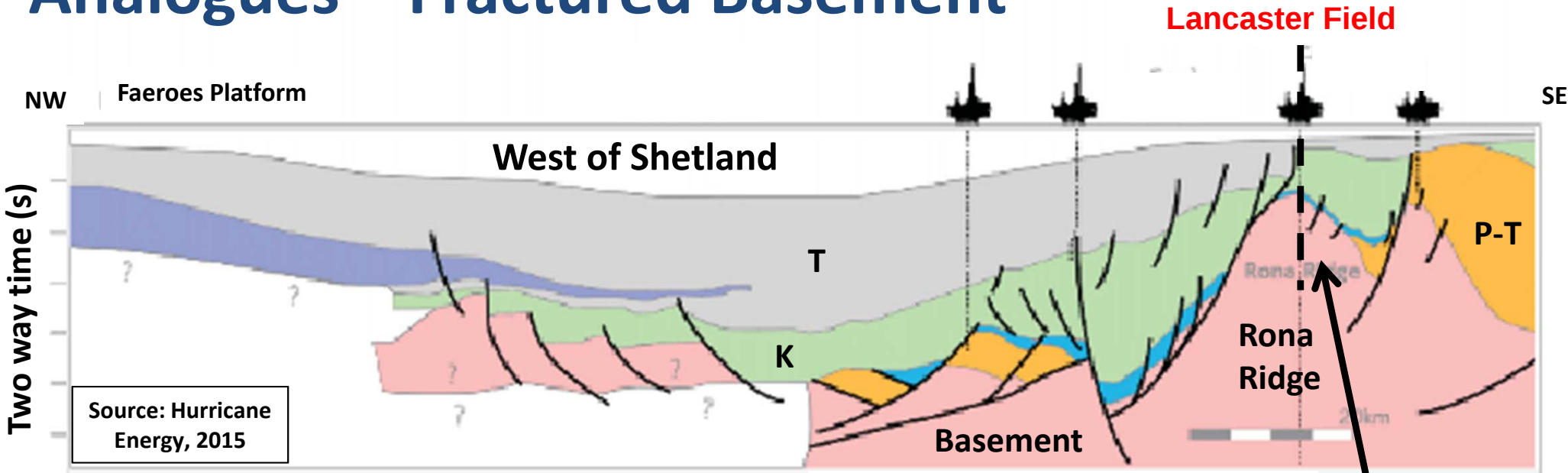


¹Nalcor website, 2016

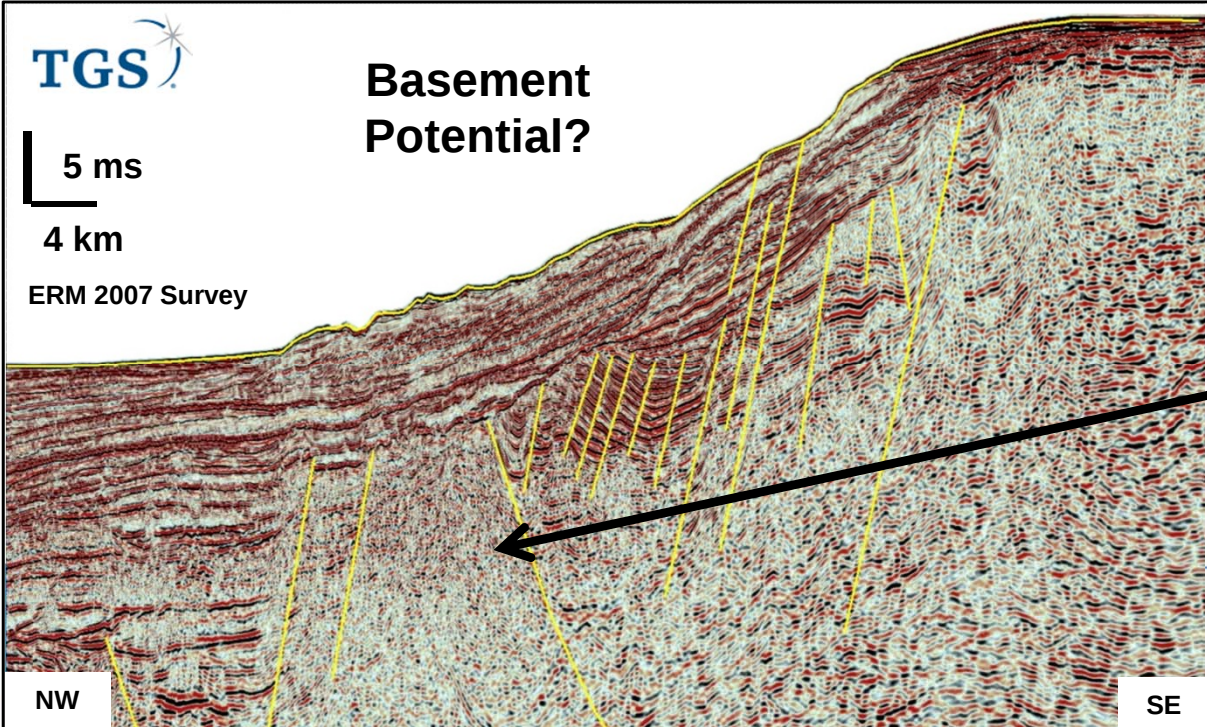
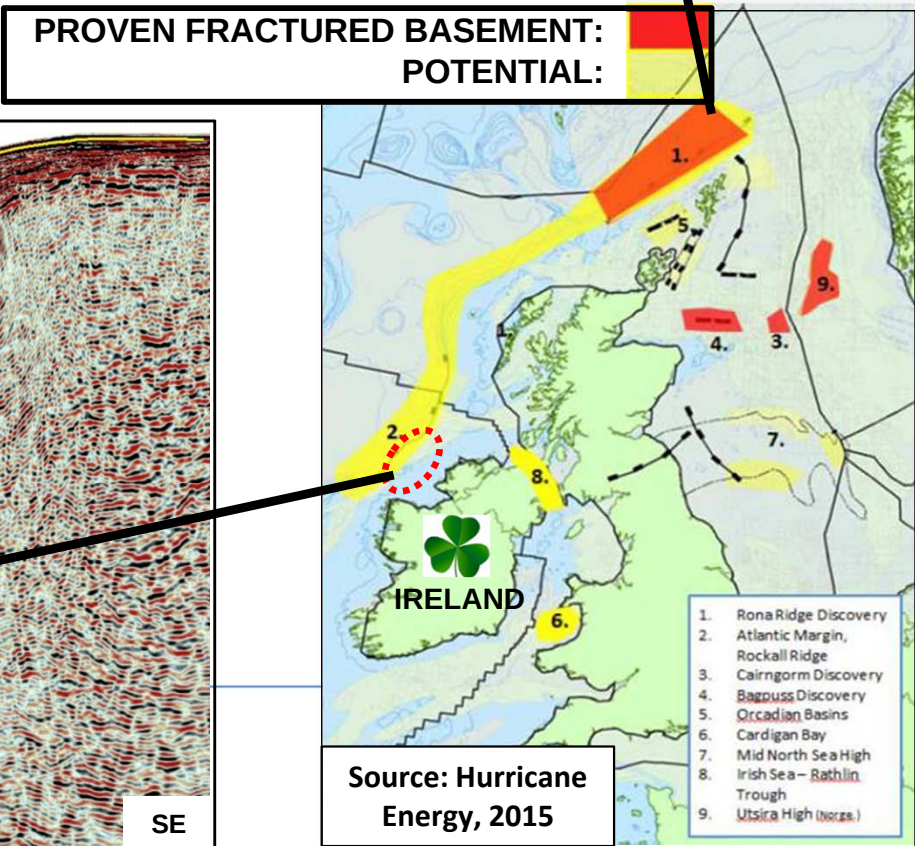


Reconstruction Pre-Atlantic Spreading

Analogue – Fractured Basement



Irish Rockall Basin



Active in Research Initiatives

Regional Seismic Survey (2013-2014)

- 16,800 km of 2D seismic in frontier basins

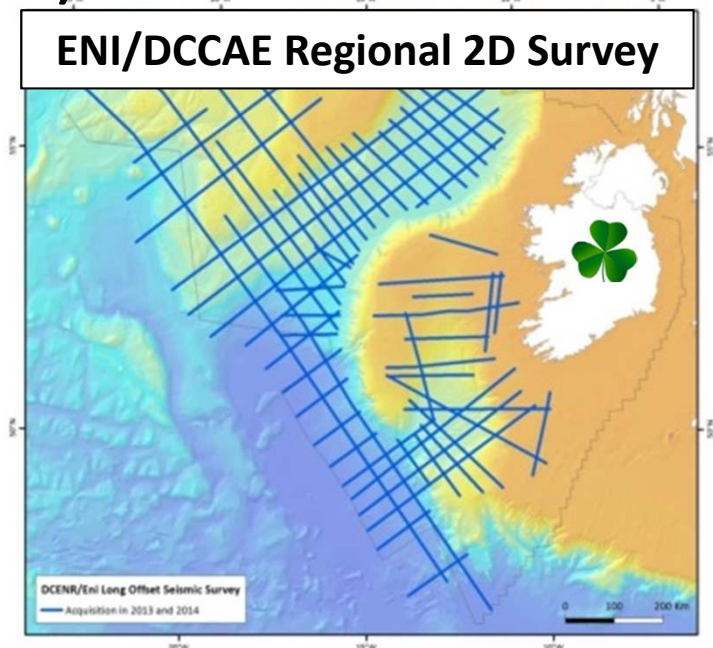
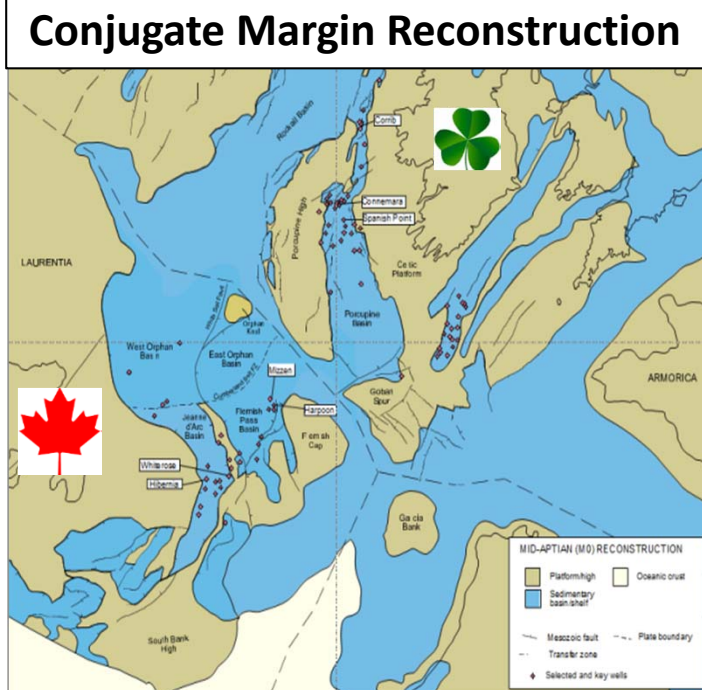
Conjugate Margin Source Rock Correlation (2015-2017)

- Source rock and oil correlation of Jurassic source rocks

Stratigraphic Framework for Offshore Ireland (2016-2018)

ObSERVE (2014-2018)

- Acoustic and aerial environmental baseline programme of marine wildlife



An Roinn Ealaíon, Oidhreachta,
Gnóthaí Réigiúnacha, Tuaithe agus Gaeltachta
Department of Arts, Heritage,
Regional, Rural and Gaeltacht Affairs

Conclusions : Opportunity Offshore Ireland

- Petroleum Affairs Division (PAD) aims to encourage growth, investment and research in Ireland's hydrocarbon exploration industry
- The number of Authorisations is at a record high
- Substantial increase in seismic data acquisition and drilling anticipating throughout the coming years
- Exciting opportunities in an emerging region



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