



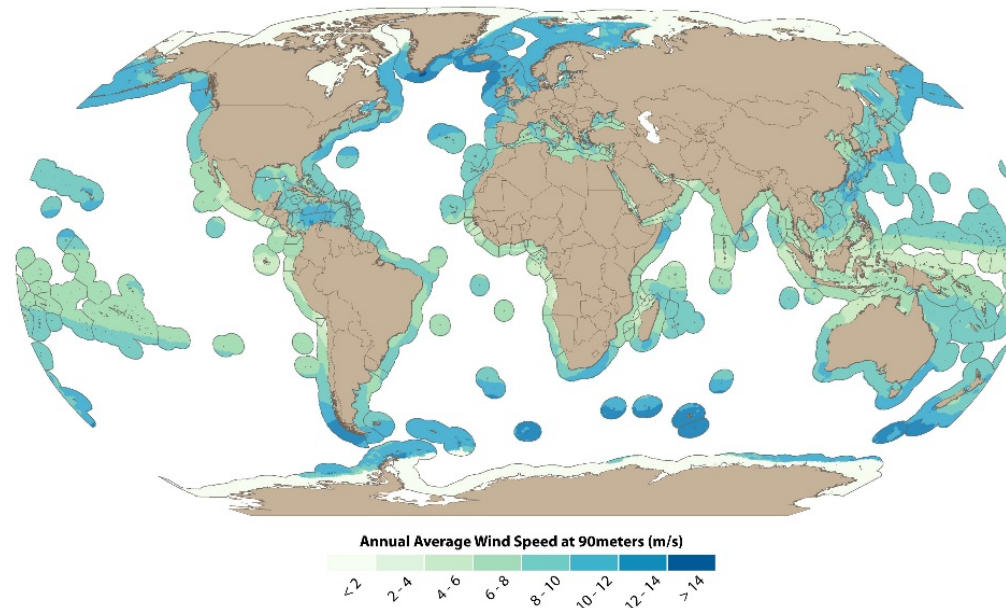
# **EERA Deepwind 2019**

***Mission: Accelerate deployment of large scale offshore wind parks***

# Offshore wind is vital for reaching climate targets

- ✓ Currently small compared to onshore wind, but in strong growth
- ✓ Potential to supply 192 800 TWh/y, i.e. ~8 times the global el generation in 2014
- ✓ Can be deployed in proximity to big urban centres
- ✓ Provide long-term security of supply of clean energy
- ✓ Create new employment and industries
- ✓ Low negative environmental impact (WWF)

**Stern Review (2006):**  
**..strong, early action on climate change far outweigh the costs of not acting.**

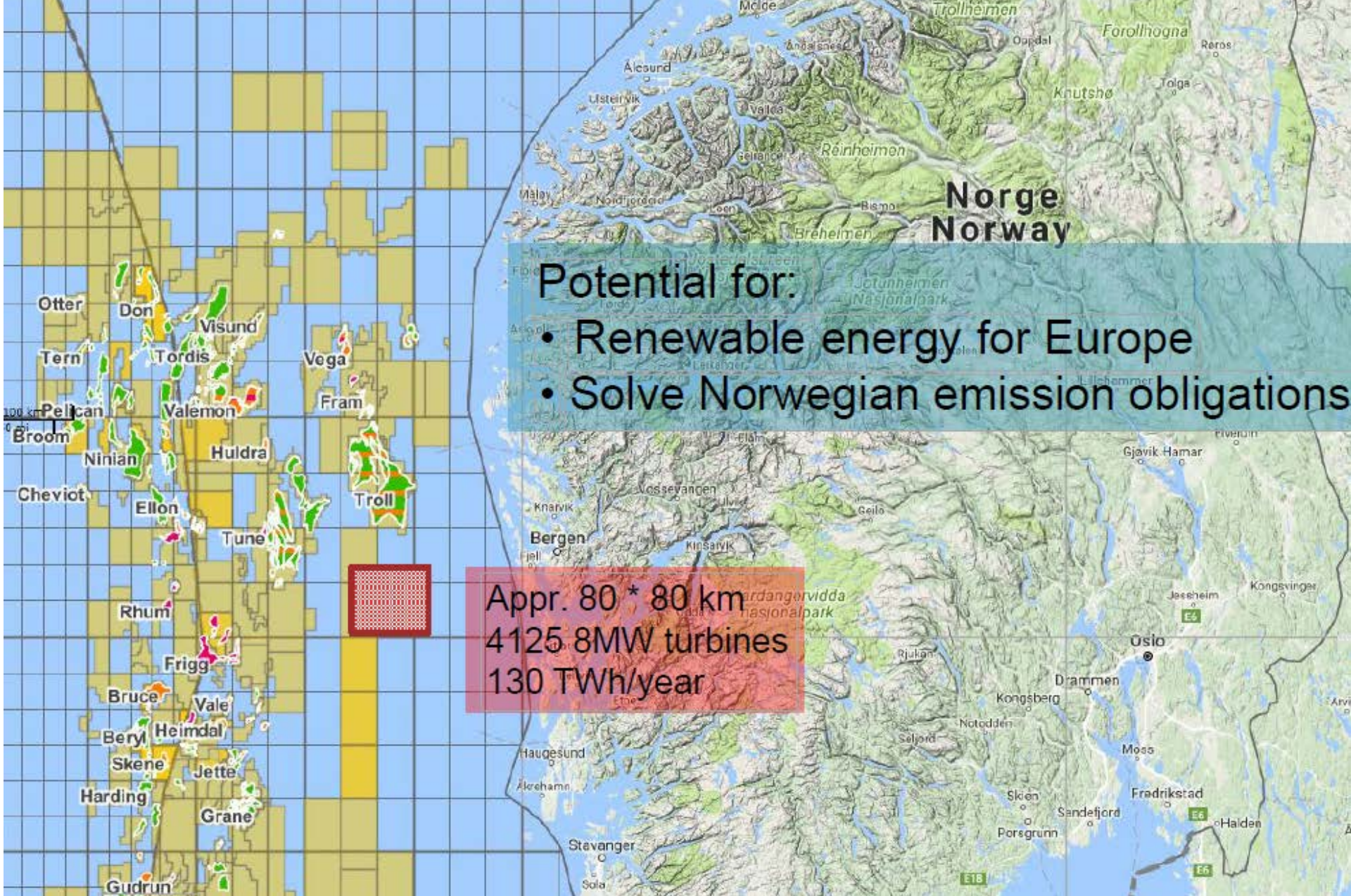


Arent, D. et al (2012) Improved Offshore Wind Resource Assessment in Global Climate Stabilization Scenarios. Technical Report. NREL/TP-6A20-55049

# Potential put into context

Norwegian hydropower: 130 TWh/year

Courtesy: Finn G. Nielsen, UiB

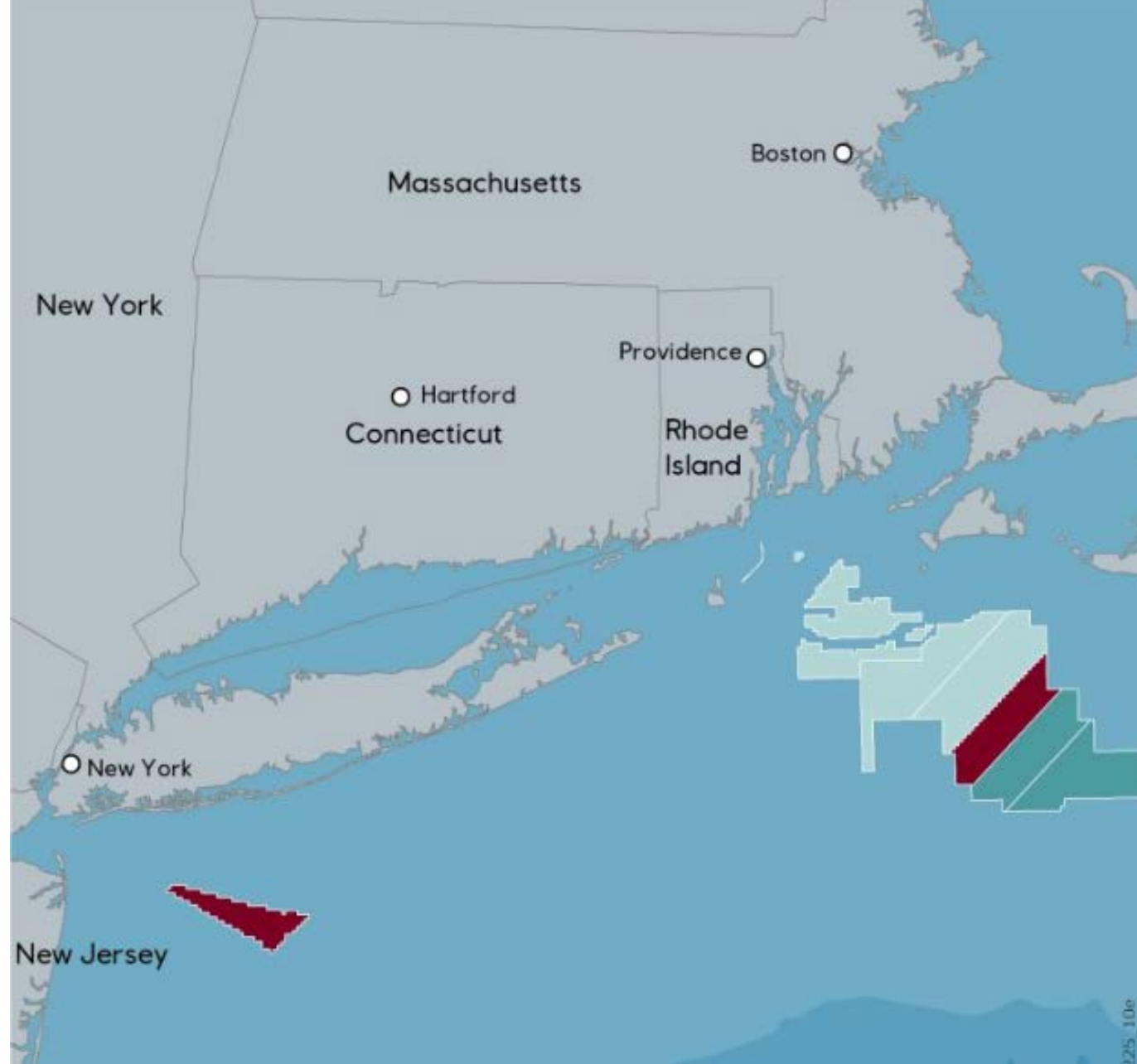


# Update since last EERA Deepwind

# Equinor US OW-Licenses

2017: Empire Wind (\$43 M)  
2018: OCS-A (\$135 M)

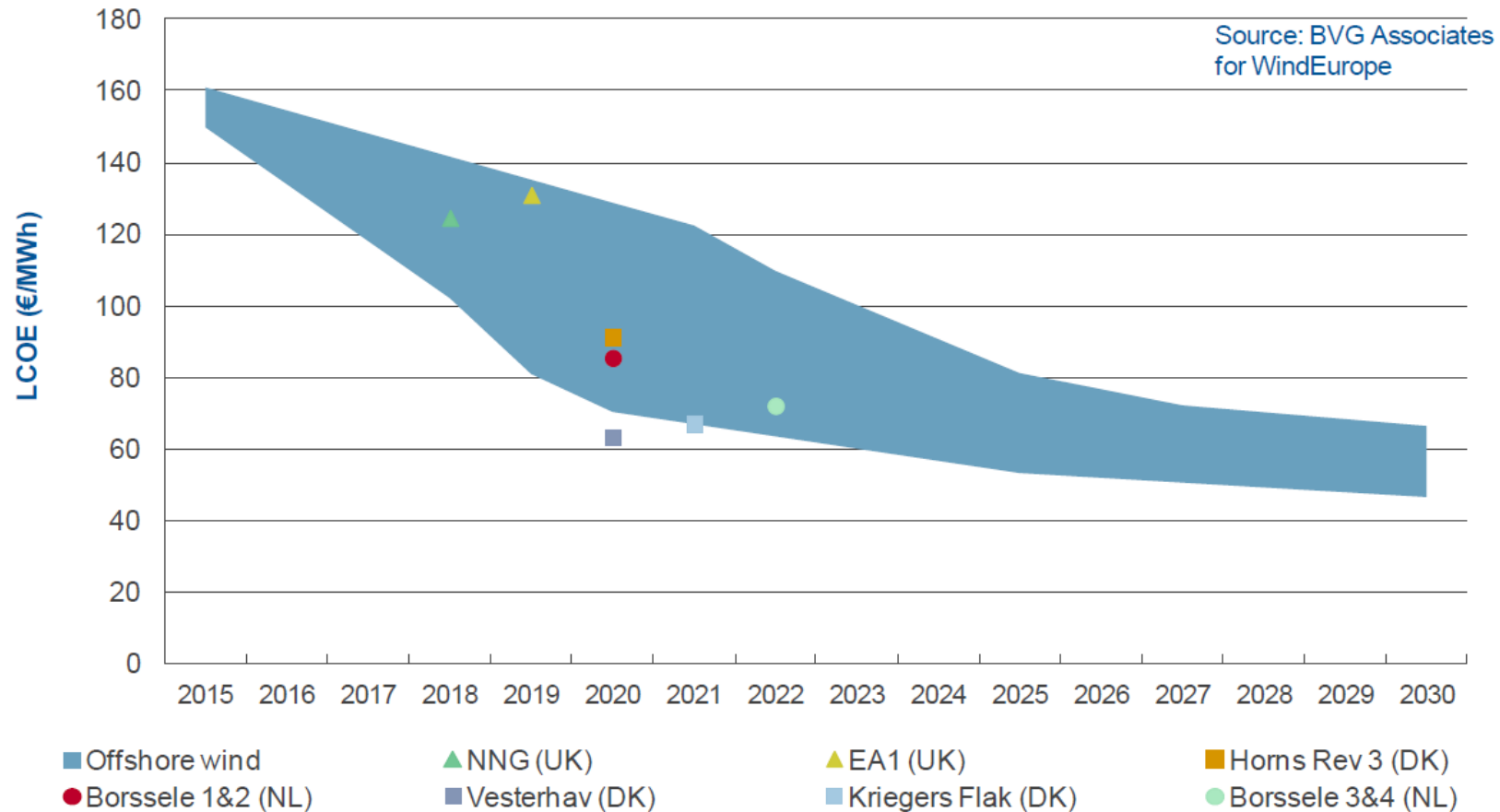
Power to 2 million homes



## Legend

- Equinor wind lease
- BOEM Lease Sale
- Existing BOEM Leases
- City

# Offshore wind is in an exciting development



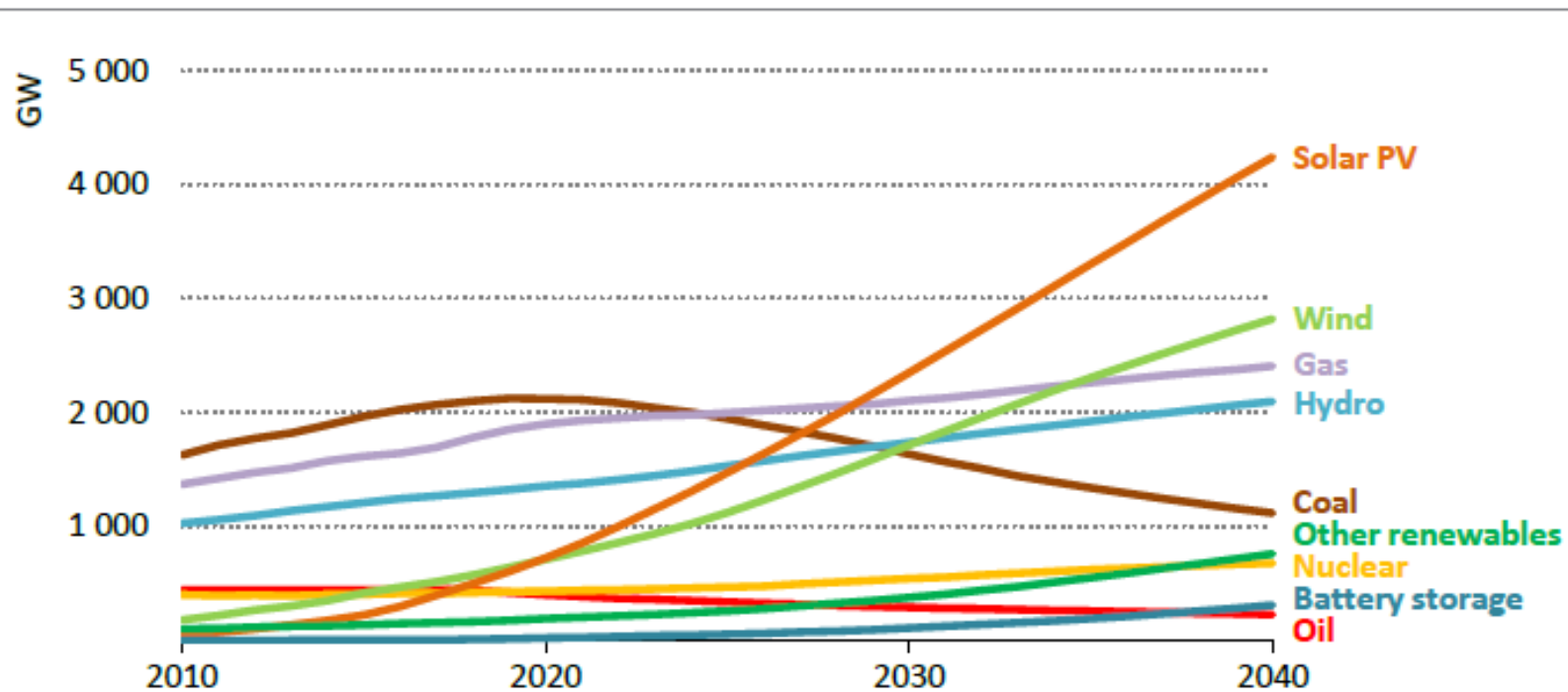
ETIPWind Update  
Strategic Research  
Agenda 2018

Figure 6. Projected evolution of the LCoE of offshore wind energy in Europe from 2015 to 2030.

# Wind power largest energy provider in 2040

Wind power (onshore and offshore) becomes the second-largest technology in terms of capacity, with more than 2 800 GW in 2040.

**Figure 9.23** ▶ Total power generation capacity in the Sustainable Development Scenario



IEA World Energy Outlook, 2018

# Deployment of large scale offshore wind parks: A great science and engineering challenge!

