FLEX BASED TIMBER FORECAST APPLICATION

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Objectives

• Develop a web Application which integrates: private sector inventory and management data, forest growth and yield parameter databases and environmental spatial constraints

• Web Application generates: real-time reliable forest inventory estimates and 25 year timber supply forecasts at all spatial scales through an interactive web based interface and is designed to provide database security and access to forest owners.
National forest inventory plot distribution

- NFI_plots
- Ownership
  - Private (grant-aided)
  - Private (non grant-aided)
  - Public

Total area of Ireland Landuse:
- Forest Area 90%
- Non Forest Area 10%
- Private (grant-aided) 45%
- Private (other) 55%

Maps showing distribution of plots across Ireland with emphasis on specific regions.
FORECAST Program

- Analyses NFI plot data and private sector data and produces forest inventory and forecast estimates on the fly.

- Computes subplot, plot, species, sub-compartment, stratum and stratified estimates and associated 95% confidence intervals.

- Computes mean dbh, mean basal area, mean volume and associated 95% confidence intervals to produce reliable forest inventory estimates.

- Computes stand level forecast estimates for top height, cumulative volume production $m^3ha^{-1}$, average growing stock $m^3ha^{-1}$, thinning and clearfell volume $m^3ha^{-1}$ and volume assortments for 25 years with and without geospatial reduction factors.

- The forest inventory and forecast estimates are exported to a zip folder, where they can be saved by the user within the Flex application.
ArcGIS Viewer for Flex web application for forest inventory and timber supply forecasting
Forest inventory widgets for real-time estimation of mean volume ($m^3$) and or general yield class ($m^3ha^{-1}a^{-1}$)
Location of NFI sampling units in Kerry
Forest inventory - management data interface
Location of potential sampling units for private sector
Online submission of forest inventory - management data
Interactive data NFI and private data extraction and analysis
Forest inventory estimates and 25 year forecasts
Results from FORECAST program embedded within Flex

- **Forest Inventory 2012**
- **Forecast Estimates 2012-37**
- **Forecast Assortments 2012-37**
- **Forecast Present Value 2012-37**
Quantify environmental spatial constraints
Environmental spatial constraints
THANK YOU
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