## **Copernicus Land Services**

## Pan-European and Local Components

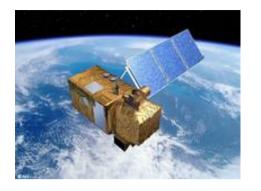
Geoff Smith











#### Sentinels





Services



In-situ data



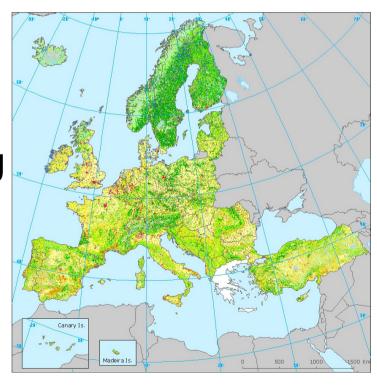






### Land: Pan-European Component

- High spatial Resolution Layers (HRLs)
  - Basic surface properties
  - 20 m pixels
  - 3 year update cycle
  - Commercially produced
- CORINE Land Cover (CLC)
  - Land cover land use mapping
  - 25 ha (5 ha) MMU
  - 6 year update cycle
  - Member State produced











## Land: HRL Imperviousness (Cambridge)



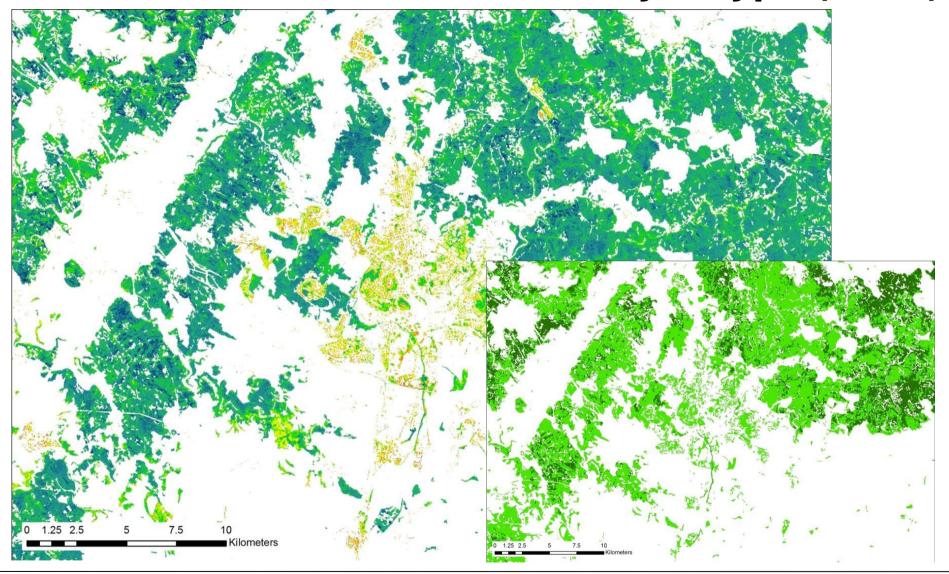








## Land: HRL Forest cover density & type (Brno)



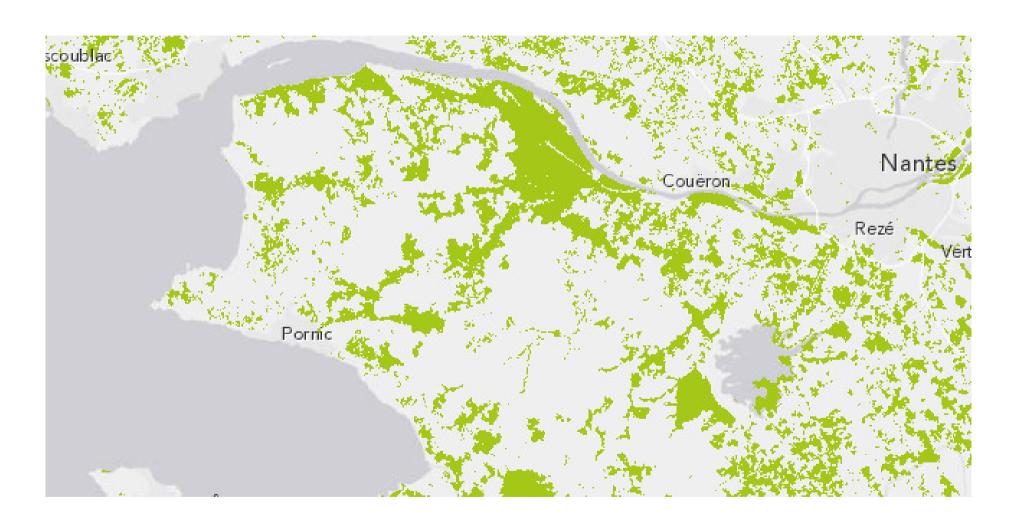








### Land: HRL Permanent Grasslands (Nantes)



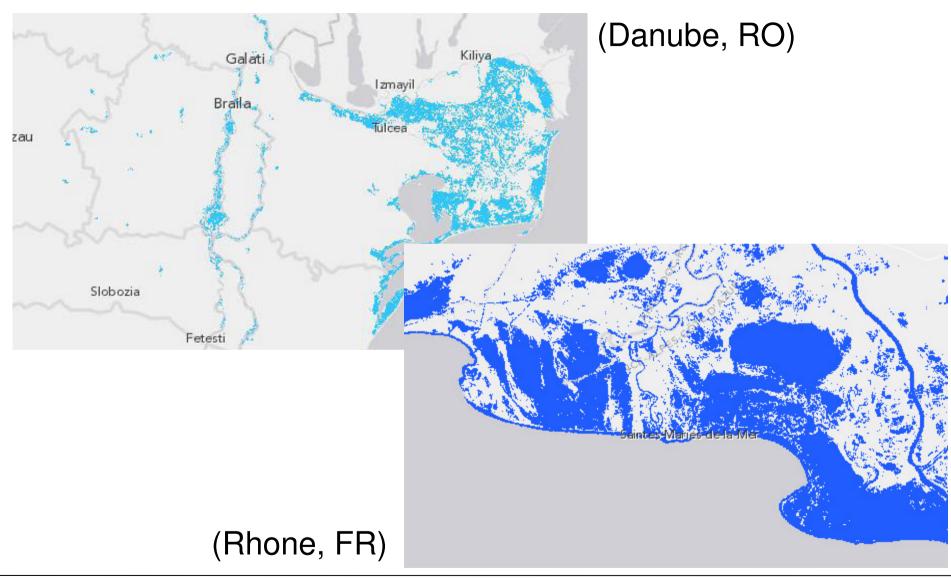








#### Land: HRL Wetlands & Permanent Water











### **Land: Local component**

- Urban Atlas
  - Sample-based
  - -LUZ > 50,000 population
  - 19 thematic classes,
  - Vector-based (MMU 0.25 / 1 ha)
  - 3 year repeat cycle
- Biodiversity
  - Currently under development
  - Similar specification to UA, semi-natural
  - Focus on riparian zones, coasts and Natura 2000 sites

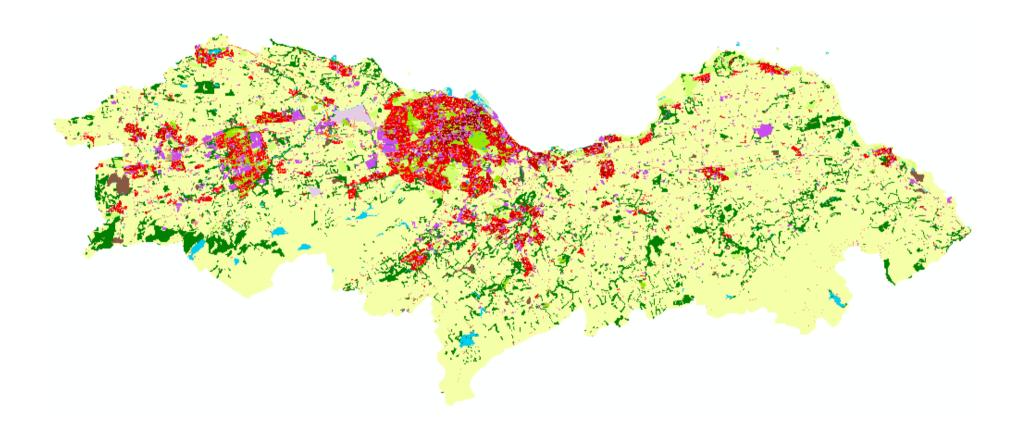








# Land: Urban Atlas (Edinburgh)



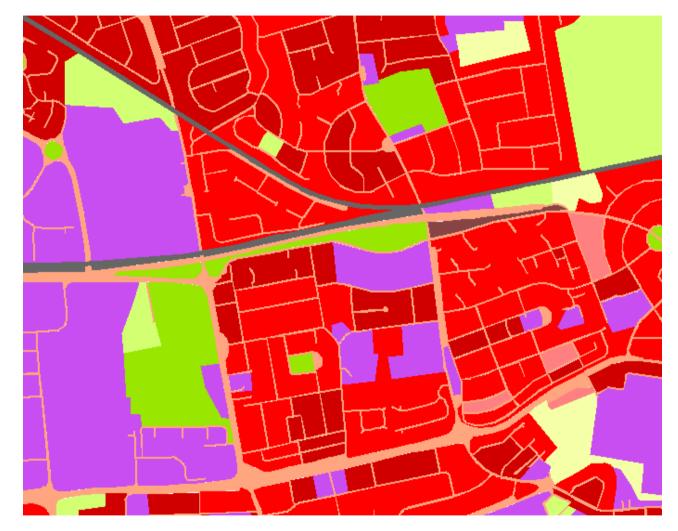








## Land: Urban Atlas (Edinburgh)













### Take home messages....

- Copernicus Space Component
  - First Sentinel about to be launched.
  - Free and open access to data.
  - Sentinel-2, similar to Landsat, A & B systems, large swath, rapid repeat, always on.
- Copernicus Land Services
  - European focus, but applicable at MS and below.
  - Consider them as support layer
  - Opportunities to refine and enhance layers if sufficient user feedback
  - UK HRLs likely to be available late 2014









### **QUESTIONS?**

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