Key Indicators for Evidence-based Spatial Planning
Presenting & Disseminating Spatial Data

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Overview – Presenting and Disseminating Spatial Data

- Census Toolkits – Improving evidence informed planning
  - Republic of Ireland
- Cross Border / All-Island Mapping Systems
  - All-Island Accessibility
  - All-Island Deprivation Index
- MyPlan.ie (DECLG)
  - Land Use Planning Toolkit
- KITCASP
  - Indicators Selection
  - Interactive Dashboards (examples from Iceland and Scotland)
  - Embedding within websites
All-Island Research Observatory (AIRO)

- AIRO is a research unit and spatial data portal focused on improving evidence informed planning in Ireland
  - Collects, analyses and provides evidence and tools to support better planning and decision making
    - Maps, data, policy advice, research and training
  - Maximise the usage and benefit of publically funded and readily available datasets
  - Highlight the benefit of proper collection, management and dissemination of datasets
- Who do we work with?
  - Government Departments
  - Semi-State bodies
  - Regional Authorities, Local Authorities, Local Partnerships, Charities etc
  - Academics, Researchers, Public
  - Funding Bodies (ESPON, SEUPB, INTERREG)
Mapping Resources: Census Toolkits

- Mapping Modules – Socio-Demographic Toolkit
  - Mapping partners with the Central Statistics Office (CSO) to improve the dissemination of Census 2011 results
  - Public sector reform, important collaboration between public sector bodies to improve access to publically funded data
- Individual Local Authority (34) and Regional Authority (8) Census mapping tools available on the AIRO site
  - InstantAtlas (GeoWise) software
  - Full set of variables for 2006 and 2011 at ED and SA level
  - 15 themes
    - Population, Nationality, Religion, Economic Status, Industry, Housing, Transport, Internet Access etc
    - Additional research output now included: accessibility scores to public facilities/retail, Deprivation Indices
- Let’s have a look
Mapping Resources: Census Toolkits

- Invitation to LA and RA to embed these tools within corporate website
  - Planning sections, Community and Enterprise etc
  - No requirement for dependence on GIS/IS staff
  - 10 minute job for IT technician to create i-frame and embed link
    - It’s a toolkit for planners, policy makers and researchers
Mapping Resources: Census Toolkits

- Planning reform in Republic of Ireland
  - 3 new Regional Assemblies
    - Connacht-Ulster Region
    - Southern Region
    - Eastern-Midland Region
Mapping Resources: Census Toolkits

- Planning reform in Northern Ireland
- 11 new Districts in Northern Ireland (2015)
Mapping Resources: Census Toolkits

- National Census Mapping Viewer
  - Requirement to display all 18k boundaries
  - Published maps to ArcGIS for Server and displayed through ArcGIS Viewer for Flex
    - 260+ maps on all census themes
  - Counts, percentages and ratios
  - Let’s have a look (http://airomaps.nuim.ie/census2011)
Mapping Resources: Census Toolkits

- **POWSCAR**
  - Place of Work, School or College Census of Anonymised Records
  - 2.78m O-D trips
    - 1.01m students
    - 1.77m workers
  - Commuting catchments
  - Destinations in NI (6,419)
    - 250m grid/OA/WARD
      - Derry/Londonderry 40%
      - Newry City 6%
      - Enniskillen 4%
      - Strabane 4%
      - Belfast City 7.5%
All-Island Mapping – Access to Services
All-Island Mapping – All-Island Deprivation Index
All-Island Mapping – All-Island Deprivation Index

[Map showing deprivation indices with a legend indicating Extremely Disadvantaged, Very Disadvantaged, Disadvantaged, Marginal Below Average, Marginal Above Average, Affluent, Very Affluent, and Extremely Affluent.]
MyPlan.ie: Development and Local Area Planning System
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KITCASP Indicators

- Economic Competitiveness and Resilience
  - GDP/GVA
  - Employment Rate 20-64
  - Total R&D as % of GDP
  - SMEs and Innovation
  - FDI and Trade
- Managed (Integrated) Spatial Development
  - Pop density and Pop Change
  - House Completions
  - Modal Split (Transport)
  - Land Use Change
  - Service (access to hospitals and schools)
- Social Cohesion and Quality of Life
  - Pop aged 30-34 with tertiary education
  - Population at risk of poverty
  - Green Spaces (access to)
  - Well Being Index
  - Dependency Ratio
- Environmental Resource Management
  - Renewable Energy Production
  - Green house Gas Emissions
  - Population At Risk of Flooding
  - Protected European Habitats and Species
  - Municipal Waste Recycled
  - Water Quality Status
Gathering indicators via National Statistics or Other Research Projects

- What do we do if it’s not in ESPON Database?
  - Cross reference indicator list with National Statistics Agency
    - Yes/No/Partly
      - If Partly, can it be re-classified by Agency?
    - Create a database with the indicators for the relevant spatial scales
      - National, NUTS II, NUTS III, LAU I/II
      - Spatial Boundaries
Gathering indicators via National Statistics or Other Research Projects

- What do we do if it’s not in ESPON Database or National Statistics?
  - The results of some indicators may be available through other research projects
  - If it’s an indicator you require then you may need to undertake/commission the research/analysis

- Potential for specific research / analysis
  - Land Use Change - CORINE
  - Service (access to hospitals and schools)
    - Network Analysis of services and population
  - Population At Risk of Flooding
    - Flooding boundaries and housing
## KITCASP Indicators –
Data availability and spatial scale determines method of visualisation

<table>
<thead>
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Regional Planning Guidelines Indicators initiative developed by Regional Planners Network (RPN)

Need for a monitoring framework to measure progress of (RPGs) 2010-2022
  • Input from KITCASP project was key to this process

Proposed Regional Indicators
  • Economic Prosperity
  • People and Place
  • Environment and Infrastructure

Methodology
  • RPG Aim and Objective
  • Proposed Indicators
  • Unit of Measurement
  • Target
  • Data Source
  • Presentation of Data: Mapping, Tables, Text

KITCASP Indicators feeding into National Monitoring and Spatial Planning Systems in Ireland
- Move from static reports to live monitoring systems
  - Annual, Quarterly updates
  - Time-series data
- Planners, Elected Members, Public
  - Share data, information through email, blogs, websites
  - Evidence to be used as basis for discussion and decision making
- Interactive Graphics
  - Unemployment (Monthly, Quarterly)
  - Commuting (Census)
Beta KITCASP Indicator System

• Partners were encouraged to supply the full datasets where possible to Irish partner to progress this work
  • Not necessarily a project output but we are willing to develop something useful to display indicators
  • Still a beta tool to be migrated and hosted on new AIRO website in December
• Developed using in-house software at NIRSA
  • Tableau
  • ESRI ArcGIS
  • Instant Atlas
• Tools developed to date are stored in All-Island Research Observatory website
  • Large selection of KITCASP indicators included in composite dashboards
  • [http://www.airo.ie/spatial-indicators](http://www.airo.ie/spatial-indicators)
Beta KITCASP Indicator System (http://www.airo.ie/spatial-indicators)

Spatial Indicators

Strategic Performance Indicators - View and Download Data via Interactive Tables

The AIRO Indicator section contains links to our interactive data visualisations. Data visualisations provide access to data in an interactive, selectable and accessible manner. In this section you can view, select, filter, visualise and download data to suit your needs.

Browse our Data Viz archive or explore AIROs work on the Regional Planning Guideline (RPG) Indicators or view the working example that is the Europe 2020 sustainable growth strategy, an example of how a long term strategic planning can be performance monitored.

Note: All data visible is available for download by selecting the table and selecting the “Export” icon at the bottom if the Interactive table. The entire worksheet may be exported as a jpeg or pdf also.
Beta KITCASP Indicator System

Select Number Format
- Number
- Tenke
- Max
- Toli

Select Gender
- Female
- Male

View by Age Group or Total:
- Age Groups
- Total

Go to Local Map

Colour Legend
- Total

Number, Total Population

Age Group: Total

2007: 311,396

Keep Only
Exclude

Dependency Ratio

2000: 281,564
2001: 287,559
2002: 289,272
2003: 292,007
2004: 295,924
2005: 304,334
2006: 311,396
2007: 311,396
2008: 311,396
2009: 311,396
2010: 311,396
2011: 311,396
2012: 311,396

Dependency Ratios

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THANKS

Questions?

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