Coping With the Pace of Technological Change

National Mapping & Geospatial Agencies – To Change is to Prosper
Brett Dixon – General Manager - Asia
Interconnected Information, Processes, and Workflows . . .
. . . All Happening at the Same Time
Technology Is Advancing Rapidly
Integrating and Leveraging Many Innovations

Promises of efficiency & cost-savings

Web GIS

Easier, Open, and Accessible
CLEAR ORGANISATIONAL VISION & PURPOSE

DIGITAL TRANSFORMATION

Drives
SOCIAL CONFLICTS
BIODIVERSITY
HOMELESSNESS
DEMOGRAPHIC SHIFTS

JOB LOSS
ECONOMIC PRESSURES
TRANSPORTATION
EPIDEMICS

DISASTERS
CLIMATE CHANGE
DROUGHT
FLOODING

National Mapping Agencies – Contributing to National Objectives
National aspirations are translated into actionable, real-world Initiatives

- Safe
- Well-Run
- Livable
- Healthy
- Prosperous
- Sustainable

Aspirations

Initiatives

- Implement Performance Management
- Increase Recreation Opportunities
- Improve Emergency Response Times
- Create More Jobs
- Improve Water Conservation
- Use Less Energy
- Reduce Homelessness
- Address maritime biodiversity
- Encourage Startups
- Improve Earthquake Preparedness
- Automate national mapping production
- Reduce Traffic Congestion

Innovate Startups
- Use Less Energy

Improve Water Conservation

Address maritime biodiversity

Reduce Homelessness

Implement Performance Management

Increase Recreation Opportunities

Improve Emergency Response Times
Building Bridges to Information Infrastructure

Inform

Listen

Monitor

Government Homepage

Engagement & Collaboration

Portal / Catalogue
Ireland’s Life on Land

What is the status of Ireland’s Protected Areas?

The Shannon region highlighted above contains a diverse range of habitats and species. Many of the protected sites in this region are water bodies or water dependent habitats. The status of water bodies in this area provide some insight into the condition of the habitats it contains.

This map represents the proportion of rivers that have not achieved at least Good status, 2015 at European Union level. The data supports SDG 6.3.2: Proportion of Rivers Achieving at Least Good Ambient Quality. Zoom in to the East Shannon region.

Do all youth not at school or in training and unemployed, are idle?

Coastal Vulnerability Index

Faced with growing intensity of human activities and climate change, coastal zones and their ecosystems need better understanding of how modifications to the biological and physical environment can affect their exposure to disasters, erosion and flooding. By analyzing the current status of landscape protection services provided by coastal/marine habitats, we can assess their role as future protective of coastal settlements. This information can be used to assist decision-making, the national need to mitigate and local needs. The role of habitats can be useful metric towards designing coastal plans and developing specific recommendations for development, rehabilitation and restoration strategies in the UAE's coastal zones.
National Mapping Agencies are reorientating themselves

- Relevant: Contributing to National Objectives
- Responsive: Actively engaging other agencies & citizens
- Authoritative: Producing quality, safe, trusted, timely information
- Efficient: Aligning people, processes & technology
Enterprise Architecture driven by Business Outcomes

Not driven by product outputs

System of Record
Data Management and Integration
- Automated production workflows
- Production management
- Near-real time updates

System of Insight
Analytics, Models, and Data Exploration
- Focused analytics
- Exploiting big data / AI
- Multi-agency efforts

System of Engagement
Sharing, Collaboration, and Dissemination
- App culture
- Citizen engagement
- Field mobility

Leveraging technology to deliver real outcomes
Ideas on how to be the master of technology...

- Set a vision that defines organisational purpose beyond just “making maps”
- Create an Agile organisation
  - Initiative-driven projects – form a rallying point
  - Proactive engagement of customers & stakeholders
  - Incrementally grow capabilities – fail early, fail often
- Create a culture of Innovation & “Need to Share”
  - Breakdown human & technology silos
- Define Open architectures. Configure technology. Avoid customisation.
- Leverage the expertise of others who have walked the path
  - Establish partnerships with industry (new & old) & other government agencies