



## Making Infrastructure Development Location Intelligent

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### Concepts

- // Spatial literacy is growing
- // Data is growing from expanding sources.



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## Why is GIS important ?

### // Improve Risk Management

- / Better understanding of factors in planning and design
- / Share common project management tools

### // Increase Collaboration

- / Single source for all project information
- / Share knowledge through geography – intuitive maps

### // Allow for Complete Transparency

- / Access to same information from executive level down
- / Continuous Visibility and Monitoring throughout Project

### // Offers a Comprehensive Approach

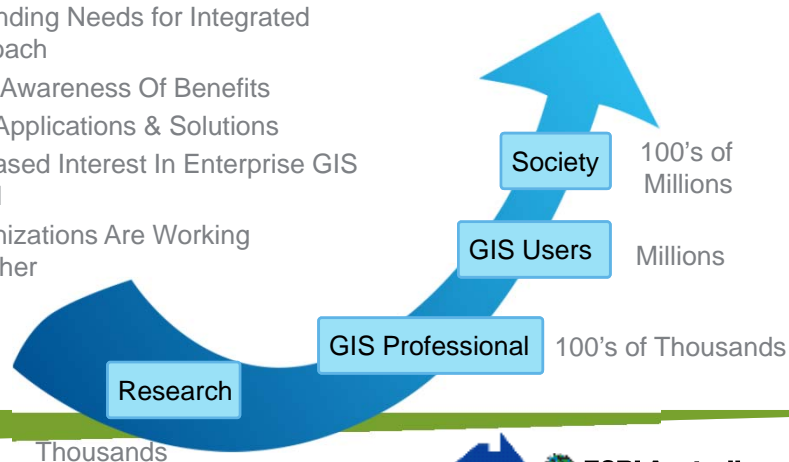
- / All information and data formats integrated
- / Easily integrate multi-disciplinary information



## GIS and the Geographic Approach Is Expanding . . .

Why?

- Clear Business Value
- Expanding Needs for Integrated Approach
- More Awareness Of Benefits
- New Applications & Solutions
- Increased Interest In Enterprise GIS & SDI
- Organizations Are Working Together




## Example

// Brisbane to Gladstone Yacht Race

- High volume site
- 14.5 million hits in two and a half days
- Live data delivered to the public



## Computing platforms change

- 
- // Mainframe computing
  - // Departmental and scientific computing
  - // Workstations and networks
  - // Personal computers
  - // Database and enterprise servers
  - // The web connecting the systems
  - // Devices and networks
  - // The web IS the system
  - // ...



## Our fundamental work remains constant

- // Resource and landscape inventory
- // Facility management
- // Planning
- // Government operations
- // Science
- // Land information and management
- // Public / Private access to information
- // ...

But technology change  
allow for new approaches...



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## Data... data... data

- // Key to any information or decision initiative
- // Good data practices lead to good decisions
- // Seamless storage and access improves the process



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## Crowd Sourcing (VGI)

- // Next frontier of data capture
- // Not accurate
- // Helps define the areas we need to focus on
- // Political implications could skew efforts



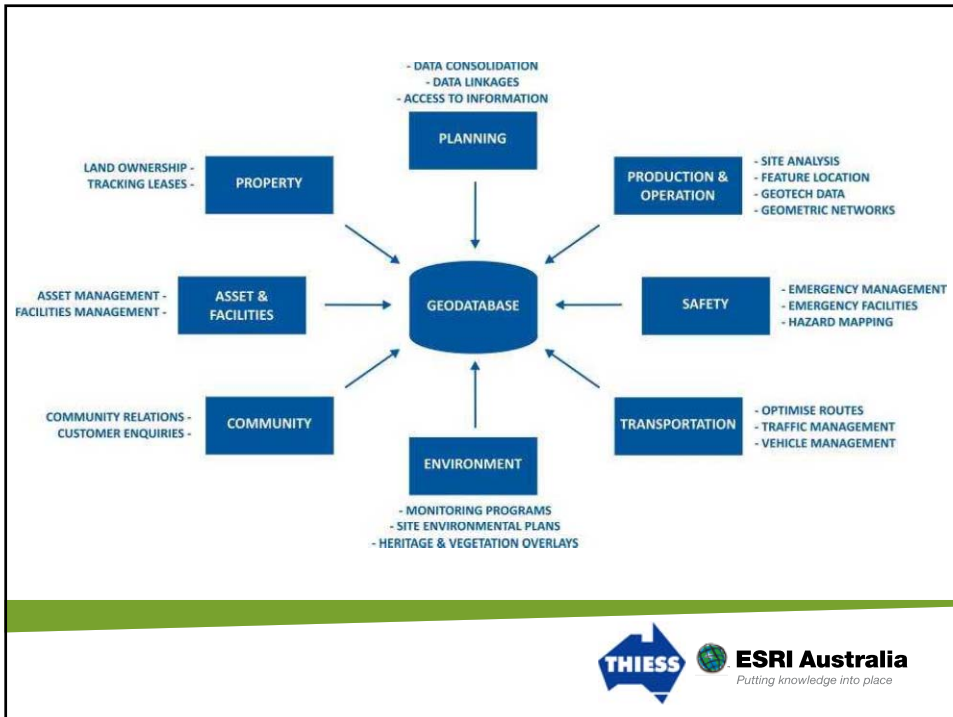
## Examples

- // Koala Diaries
  - Volunteered information
  - Demonstrates the public's commitment to the cause
  - Will help infrastructure companies such as Thies with CSR





- EVERY ASPECT OF THIESS' WORK IS RELATED TO GEOGRAPHY & IS THEREFORE SPATIAL
- CONSTRUCTION & INFRASTRUCTURE PROJECTS CONTAIN LARGE AMOUNTS OF SPATIAL DATA IN THE FORM OF:
  - PROJECT SCHEDULES
  - CAD DRAWINGS
  - AERIAL PHOTOGRAPHY
  - PROJECT DOCUMENTS
- GIS INTEGRATES AND INTERPRETS THIS INFORMATION
- ALLOWS FOR A DEEPER UNDERSTANDING OF CONSTRUCTION PROJECT





- **PROJECT LIFECYCLE INVOLVES MANY ASPECTS OF PROBLEM SOLVING**
- **GEO-INTELLIGENCE IS A PROBLEM SOLVING TOOL**
- **GIS CAN SUPPORT ALL PHASES OF A PROJECT LIFECYCLE**
- **CAN HOST MYRIAD OF LOCATION-BASED AND TEXTUAL DATA PRODUCED BY LARGE PROJECTS**
- **MAXIMISE ROI TO PROJECT BY USING GIS AT EVERY STAGE**



- **VIEWING PLATFORMS**
  - ARCGIS SERVER
  - FLEX API
- **SYSTEM INTEGRATION**
  - ASSET MANAGEMENT & PLANNING
  - PROPERTY & STAKEHOLDER
  - ENVIRONMENT
  - DOCUMENT MANAGEMENT & QUALITY
- **DATA TRANSFER TOOLS**
  - CAD & SURVEY
- **FIELD DATA COLLECTION**
  - MOBILE, TABLET & PEN DEVICES





**AS A MINIMUM:**

- **STREAMLINES WIDE RANGE OF PROJECT ACTIVITIES:**
  - FIELD DATA COLLECTION
  - ANALYSIS
  - DESIGN
  - PROJECT MANAGEMENT
- **SIGNIFICANTLY INCREASES DATA ACCURACY**
- **PROJECT STAFF CAN EASILY SHARE AND ANALYSE DATA**

