Geospatial convergence in Kosovo

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Republic of Kosovo is undergoing political, cultural and social transformation

Increasing recognition of the importance of geospatial information underpinning effective decision-making

Republic of Kosovo interested to become member of EU
-> a high priority given on the integration with the European Directives including the INSPIRE Directive

Recognising the importance of developing a National Spatial Data Infrastructure -> Kosovo Cadastral Agency given responsibility
Strategy

Initiative
- Developing a strategy for NSDI of Republic of Kosovo

Aim
- To transform the way geospatial data is shared within Kosovo so it may underpin national social and economic development to the benefit of all

Duration
- February 2014 – June 2015

Funding
- World Bank
Introduction

Outcomes of the Strategy for NSDI
Outcomes for stakeholders

Strategic Actions
- Knowing what data we have and avoiding duplication
- Common geospatial reference data
- Establishing an infrastructure for sharing information
- Skills and Knowledge
- Governance and Leadership

Costs and Benefits
Content Strategy report II

Appendices
1. Background to the creation of the NSDI Strategy
2. Development of the NSDI-Strategy and list of stakeholders
3. Summary of operational changes that the implementation of NSDI-strategy will facilitate
4. EU INSPIRE Directive and Core reference geographies
5. Proposed governance structure for implementing strategy
6. NSDI-implementation cost estimates
Highlight I

Overview of Stakeholders involved:
- 7 NSDI Stakeholders Group meetings
- 90 persons
- 35 public and private entities
Highlight II

Proposed governance structure

- NSDI-Partners (Operational)
  - KCA
- NSDI Council (Executive)
  - Proposals
  - Policies, Decisions
- NSDI Committee (Managerial)
  - Proposals
  - Policies, Decisions
- Working Groups (Advisory)
  - WG Technology
  - WG PR, Comms Capacity
  - WG Business Model
  - WG Institutional Legal
- Responsible Minister
- NSDI Management unit
### NSDI-Implementation Cost Estimates

<table>
<thead>
<tr>
<th>Activity</th>
<th>One-time Set-up Cost (in Euros)</th>
<th>Ongoing Cost per year (in Euros)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. METADATA</td>
<td>11,800</td>
<td>4200</td>
</tr>
<tr>
<td>2. DATA</td>
<td>231,000</td>
<td>7200</td>
</tr>
<tr>
<td>3. SERVICES</td>
<td>87,000</td>
<td>54,200</td>
</tr>
<tr>
<td>4. INFORMATION TECHNOLOGY</td>
<td>760,000</td>
<td>235,000</td>
</tr>
<tr>
<td>5. STANDARDISATION</td>
<td>5000</td>
<td>1800</td>
</tr>
<tr>
<td>6. GOVERNANCE</td>
<td></td>
<td>74,600</td>
</tr>
<tr>
<td>7. DATA SHARING</td>
<td>25,000</td>
<td>5000</td>
</tr>
<tr>
<td>8. CAPACITY BUILDING</td>
<td>15,000</td>
<td>10,000</td>
</tr>
<tr>
<td>9. APPLICATIONS</td>
<td>106,800</td>
<td></td>
</tr>
<tr>
<td>10. OUTREACH</td>
<td>5700</td>
<td>10,700</td>
</tr>
<tr>
<td>11. PERFORMANCE MANAGEMENT</td>
<td>2400</td>
<td>1200</td>
</tr>
<tr>
<td>12. RESEARCH</td>
<td></td>
<td>25,000</td>
</tr>
<tr>
<td>13. UNFORESEEN</td>
<td>50,300</td>
<td>21,100</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1,300,000</strong></td>
<td><strong>450,000</strong></td>
</tr>
</tbody>
</table>
## Highlight IV

### Overview of existing geospatial datasets in Rep. of Kosovo

<table>
<thead>
<tr>
<th>Theme</th>
<th>Data set</th>
<th>Scale/resolution</th>
<th>Organisation responsible (Producer)</th>
<th>Metadata (N/Y/ISO)</th>
<th>Can be discovered, viewed, downloaded</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-1 Coordinate Reference Systems</td>
<td>Kosovo REF 0.1</td>
<td></td>
<td>Kosovo Cadastral Agency</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>I-2 Geographical grid systems (harmonised multi-resolution grid)</td>
<td>Kosovo REF 0.1</td>
<td>Various Scales</td>
<td>Kosovo Cadastral Agency</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>I-3 Geographical names</td>
<td>Place names - Toponyms</td>
<td>Several scales</td>
<td>Kosovo Cadastral Agency</td>
<td>N</td>
<td>2</td>
</tr>
<tr>
<td>I-4 Administrative units (local, regional and national boundaries)</td>
<td>Cadastral zones</td>
<td>Depends</td>
<td>Kosovo Cadastral Agency</td>
<td>Y</td>
<td>Y Y</td>
</tr>
<tr>
<td>I-5 Addresses</td>
<td>Address Registry</td>
<td></td>
<td>Kosovo Cadastral Agency</td>
<td>Y - ISO</td>
<td>2</td>
</tr>
<tr>
<td>I-6 Cadastral parcels</td>
<td>Cadastral parcel registry</td>
<td>Any scale</td>
<td>Kosovo Cadastral Agency</td>
<td>Y - ISO</td>
<td>2</td>
</tr>
<tr>
<td>I-7 Transport networks (road, rail, air, water and links between networks)</td>
<td>Road / Train / Air Roads</td>
<td>Various</td>
<td>Ministry of Infrastructure Association of Municipalities Kosovo Cadastral Agency</td>
<td>N</td>
<td>2</td>
</tr>
<tr>
<td>I-8 Hydrography (including marine areas, all water bodies, river basins, etc.)</td>
<td>Hydrography Surface water, Rivers with branch Lakes Rivers</td>
<td>Various</td>
<td>Hydrometeorological Institution of Kosovo/ Environmental Protection Agency of Kosovo</td>
<td>N</td>
<td>2</td>
</tr>
<tr>
<td>I-9 Protected sites (designated by national, EU or international legislation)</td>
<td>Protected sites polygon and points</td>
<td>Various</td>
<td>Institute for Protection of Nature in Kosovo/ Environmental Protection Agency of Kosovo</td>
<td>N</td>
<td>2</td>
</tr>
</tbody>
</table>
Highlight V

Use Cases

Simple Use Cases
- Kosovo Cadastral Agency
  "Geoportal supporting emergency situations/Emergency Use Case"
- Kosovo statistics Agency
  "Statistical view of Population Census/Foreign Entrepreneur"
- Independent Commission of Mines and Minerals
  "Provision of licenses for companies and mining areas/Foreign Investments"

Complex Use Case / Pilot Application
- Application to support agri-environmental policy
## Highlight VI

### Roadmap from approval NSDI strategy (Autumn 2015 - Mid 2017)

**Incremental and sustainable implementation**

<table>
<thead>
<tr>
<th>No</th>
<th>By</th>
<th>Activity</th>
<th>Outcome</th>
<th>Indicator</th>
<th>Note</th>
<th>Who</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12/2015</td>
<td>Government approval of NSDI strategy</td>
<td>Approval will allow implementation procedures to go ahead</td>
<td>Government statement published</td>
<td></td>
<td>Government of Kosovo</td>
</tr>
<tr>
<td>2</td>
<td>12/2015</td>
<td>Government statement of intent regarding NSDI</td>
<td>Policy declaration by Government of Kosovo</td>
<td>Government statement published</td>
<td>Statement to show government’s intentions including the commitment of public bodies and the reserving of budget funds for first 5 years</td>
<td>Government of Kosovo</td>
</tr>
<tr>
<td>3</td>
<td>12/2015</td>
<td>Stakeholder’s sign declaration to show their commitment</td>
<td>The signed declaration is a public statement of stakeholders commitment to put resources and energies into the NSDI</td>
<td>Stakeholder declaration signed and published</td>
<td>The stakeholder declaration could be an outcome of the 2nd Council meeting— allowing all those involved to be present and able to discuss the declaration</td>
<td>All stakeholders in the NSDI Council</td>
</tr>
<tr>
<td>4</td>
<td>12/2015</td>
<td>Data Policy agreed by government</td>
<td>Having a well communicated data policy creates clarity for all stakeholders</td>
<td>Published data policy (including metadata)</td>
<td>The data policy should be a clear statement following the topics listed in the NSDI Strategy i.e. pricing, standards, maintenance, responsibilities, licensing, sharing etc.</td>
<td>Government of Kosovo</td>
</tr>
<tr>
<td>5</td>
<td>12/2015</td>
<td>Each stakeholder (see list of Council members) to produce an NSDI implementation plan</td>
<td>A plan showing areas of responsibility, objectives, inputs, outputs, costs, timescales and resource implications</td>
<td>NSDI responsibility plan for each stakeholder</td>
<td>The plan should be drawn up to a common template and will provide each stakeholder with an indication of their inputs and obligations to the NSDI, including involved costs</td>
<td>All stakeholders in the NSDI Council</td>
</tr>
<tr>
<td>6</td>
<td>12/2015</td>
<td>Long term financial programme</td>
<td>A long-term commitment from the Ministry of Finance will provide investment certainty for the stakeholders</td>
<td>Long term financial programme and commitment from the Government of Kosovo</td>
<td>This is needed to provide confidence in the NSDI, so stakeholders can contribute resources and investment. In the knowledge that the long term viability of the NSDI is assured. See policy section above also</td>
<td>Government of Kosovo – Ministry of Finance</td>
</tr>
</tbody>
</table>
Highlight VII

And others ....
- Overview relevant policies
- Vision/Mission Statements
- List of Key objectives
- List of key stakeholders
- Funding Model
- Partnering Model
- Roles and Responsibilities
- Performance Monitoring / KPIs
- Risk Management / Register
- Meeting / Visit Reports
- STAKEHOLDER INVOLVEMENT
Link with Geospatial convergence

Addressing the need for greater coordination among policy-makers, technology providers and users to benefit the spatially enabled society of Kosovo, and to highlight geospatial workflows as an enabler by facilitating more informed decision making among the stakeholders.
Remarks / Comments / Questions

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