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Panel Discussion – Strategic importance of Big Data for SDGs

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 @SpatialHannes



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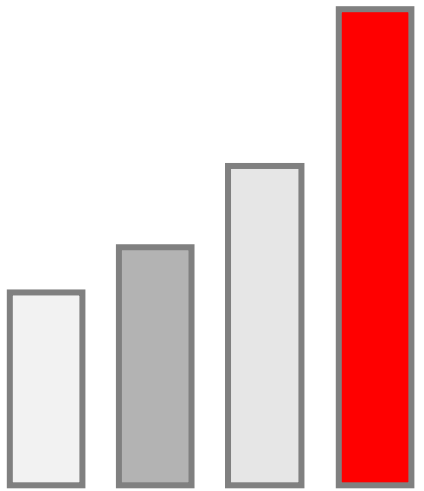


„To fully implement and monitor progress on the SDGs, decision makers need data and statistics that are accurate, timely, sufficiently disaggregated, relevant, accessible and easy to use.“

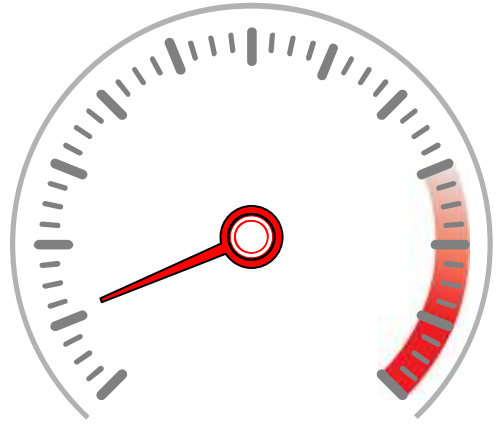
– The Sustainable Development Goals Report 2017

Big Data is more than large data volumes

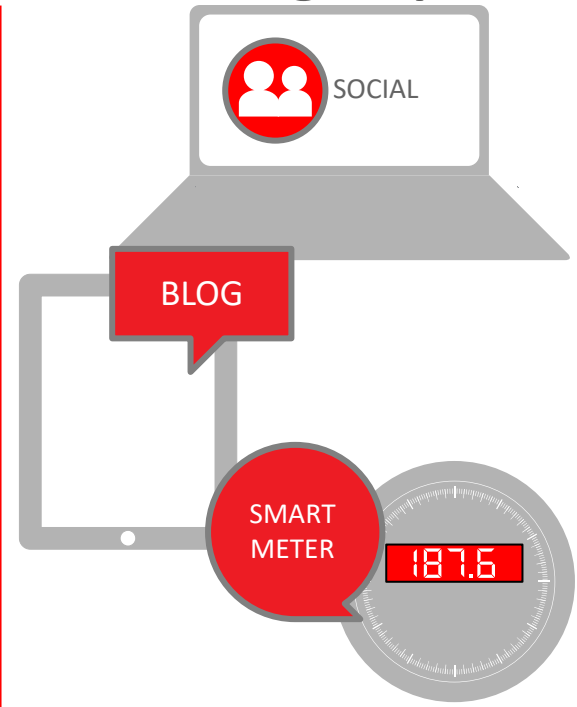
Typical use cases in the context of SDG data related to geospatial data



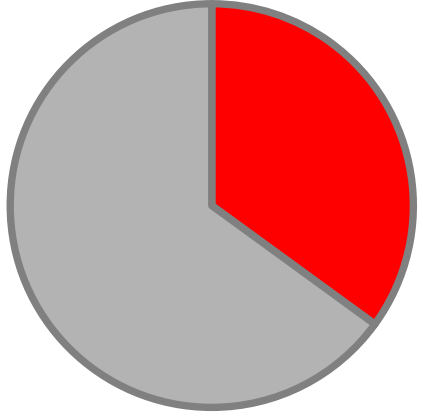
VOLUME
Satellite Imagery



VELOCITY
GPS Location Data



VARIETY
Social Media Data



VERACITY
Weather Data

Benefits and Challenges of Big Data Technologies

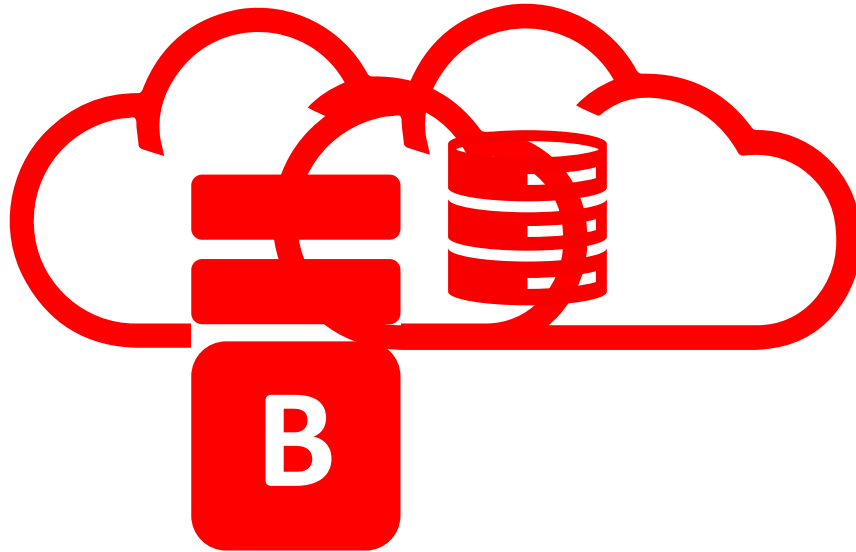
- Low cost and high horizontal scalability infrastructure
- Allowing storage of more data, more details over longer periods of time
- Cost-effective way to analyse huge amounts of data
- Dealing with variable data by means of „schema-on-read“ capability
- Complementary to existing data warehouse technologies

- Lack of experienced staff, even in



database technologies

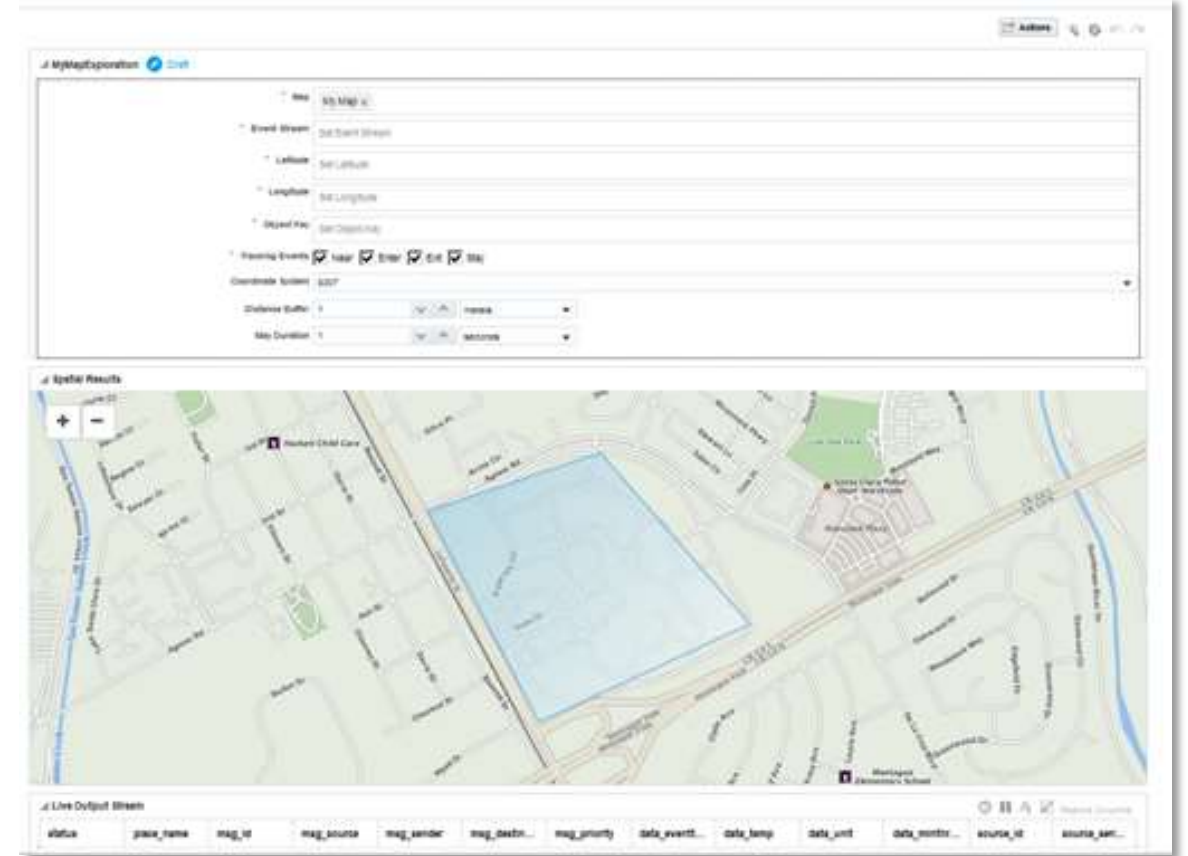
Using Cloud Services to focus on the real work



- Highly automated services
 - Not simply IaaS
- High performance, balanced systems
- Elastic workloads
- Comprehensive tooling + security
- Geospatial technologies built-in
- Integrated with other services
 - Unified queries across Big Data platform and database

Example: Oracle Internet of Things (IoT) Cloud Service

- Event-driven Architecture for Streaming Data
- Simplified application development, no coding required
 - Support for different sensor types
 - Comprehensive analytics
 - Application integration
- Geospatial design patterns included
 - Location-related events pre-defined (enter, exit, near, stay)
- Useful for many SDG-related use cases (transportation, health, water, ...)



See a demo on the MapmyIndia booth!



Cloud Services as Linked Data Platform

Opening up new opportunities for Statistics Agencies

- Concept of publishing and interlinking structured data on the web
 - Fundamental idea behind SDG Interface Ontology
- Linked Data allow to
 - Associate data with metadata (or meaning) – helping with data literacy and a major step towards AI
 - Use a common vocabulary
 - Refer to data owner/authoritative datasource or other 3rd party datasets
- Based on W3C standards
 - Resource Description Framework (RDF), OWL, SPARQL, GeoSPARQL ...
- Helping derive SDG indicators from heterogeneous source data
- Making SDG indicators and statistics more widely useable

Integrated Cloud

Applications & Platform Services

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