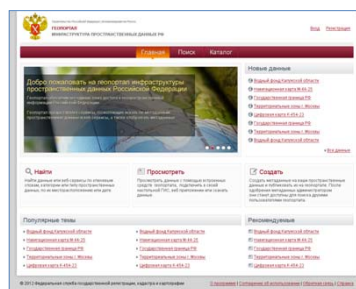


Spatial Data Infrastructure of the Russian Federation: a new paradigm of openness

Sergey Sapelnikov,
Deputy Chairman of Rosreestr



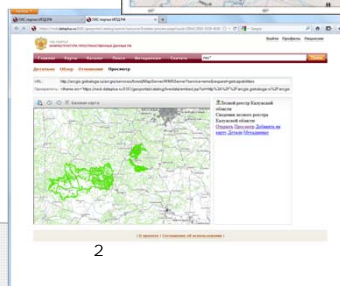
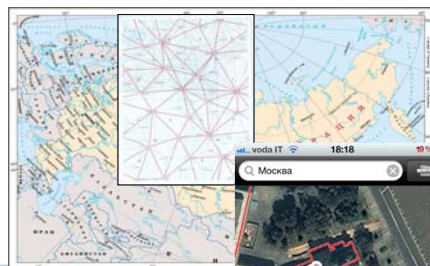
The Federal Service For State Registration, Cadaster and Cartography (ROSREESTR)

- 17 mln km² of territory
- 460 000 points of geodetic networks
- 60 mln land parcels
- 90 mln buildings and real estate objects
- 1.5 Petabytes in Data warehouse
- 6 300 branch offices
- 100 000 employees
- 45 mln transactions anually

www.rosreestr.ru

<http://maps.rosreestr.ru/>

<http://geoportal.rosreestr.ru/>



What is Russian NSDI

- Russian NSDI is the federal-level information system for gathering, publishing, searching, viewing and downloading of spatial metadata, web-services and application from many different sources
- Russian NSDI should include spatial metadata and web-services from different government bodies (>83), local authorities (>23 000) and other spatial data providers, and grants a secure access to these data/services for all kinds of users through the Internet
- Russian NSDI is based on open international standards and meets most the requirements and approaches of the INSPIRE

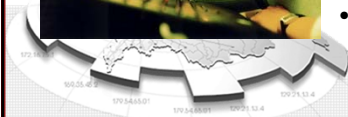


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Factors contributing to the establishing and developing Russian NSDI



- Increasing number of tasks requiring spatial data in digital or web-service format;
- GIS technologies are wide spreading in Russia and influence effective spatial data production and consumption;
- Comprehensive level of maturity of the Russian telecom infrastructure;
- Successful launch of GLONASS navigation system;
- A wide range of already published and publicly available spatial data and web-services for the whole territory of Russia:
 - Russian topo map (scales range 1:10 000 – 100 000);
 - Public Cadaster Map;
 - Hi-res satellite images (17 mln. sq. km. by the end of 2012);
 - Navigational maps
 - Dedicated regional/thematic projects.
- E-gov initiatives and The Law 210-FZ



4

The main purpose of NSDI RF development is to provide the wide access to spatial data



- to improve quality and efficiency of the state power and municipal administration ;
- to provide citizens' access to state and municipal spatial data resources;
- to promote economical development of the state by providing complete, relevant and reliable information about potential investment targets;
- to reduce budget expenditures for the production of spatial data by eliminating duplication of work on the spatial data production;
- to stimulate investments into the economy;
- to establish new forms of international cooperation in ecology, natural resources, global security and other spheres.

5

Components of the Spatial Data Infrastructure in the Russian Federation



- Spatial information resources (FCGF, Geoportal);



- Organizational structures (Federal Operator of NSDI);



- Regulations and technical normative documents which arrange relations in the sphere of formation and development of Russian NSDI, standards and regulated requirements for the production, storage and use of spatial data and metadata; (coming in 2012-2013)



- Technologies and technical means to ensure forming, updating spatial data and access to these data. (in proseses)



6

Constrains to overcome (2011)



- Lack of accessible metadata;
- Restricted access to spatial data;
- Disparity to the up-to-date level of:
 - normative regulation in the field of geodesy and cartography,
 - licensing,
 - information technology,
 - quality and efficiency of the spatial data receipt;
- Low actualite of the Federal Cartography and Geodesy Fund`s materials and data

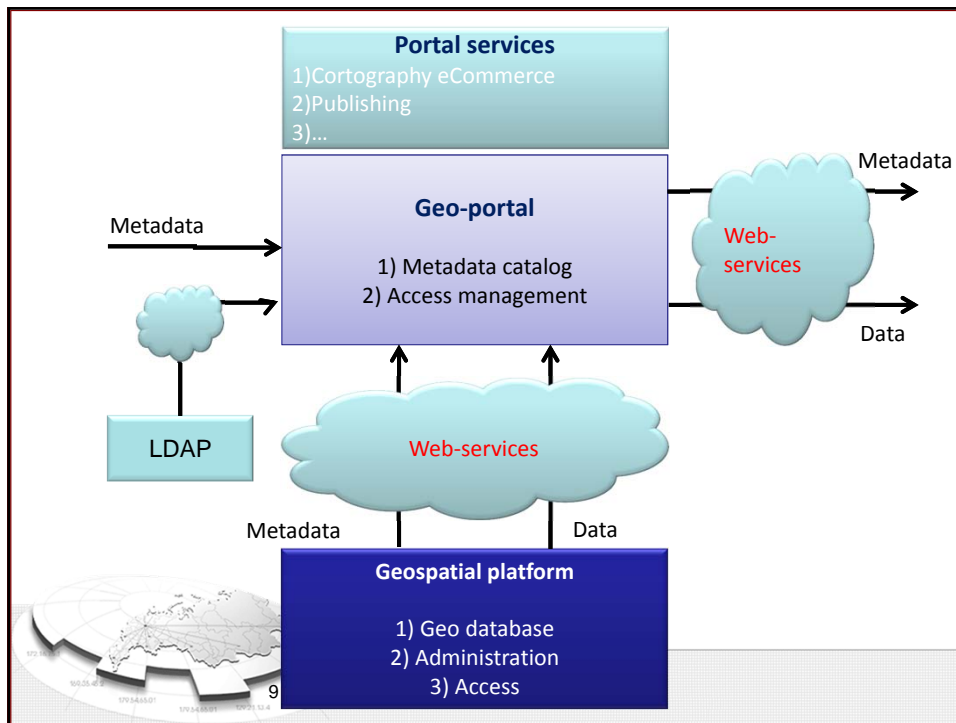
7

Short-term roadmap (2012)

- Cold engine start:
 - Give all open metadata (done);
 - Give easy access to base maps services
 - Give free or cheap base maps (partly)
 - Launch several horizontal and vertical pilot projects (partly – Tatarstan, Kaluga, Moscow, Emergency, Territorial panning, Real Estate Development, Arctic SDI)
- Develop and adopt the Law about NSDI RF (2012-2013)
- Develop and adopt the Law about Single Open Geocentric Coordinate System of RF (2012-2013)
- Sidework security limitations to coordinate provision and open maps
- Organization changes (Federal SDI operator and Cartography JSC)



8



Geoportal.rosreestr.ru The main gateway to Russian NSDI

Sample data immediately available:

- More than 300 000 metadata
- Basic web-services:
 - Russian state and region border;
 - Cadaster map more than 56 mln land parcels;
 - Base TOPO 1:100 000
 - Selected waters/forests/land zones
 - Navigation maps
 - Satellite Images



**Publicly available since
April, 2012**

