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INTERNATIONAL FEDERATION OF SURVEYORS

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STATUS AND PROSPECT OF CRIATION PUBLIC GEOSPATIAL DATA OF THE RUSSIAN FEDERATION

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Main directions in the field of geospatial information management:

- **collection and updating geospatial data performed by national agencies working with geospatial information;**
- **use of geospatial data by public and private sectors of the economy through market mechanisms.**

The need for State authorities of the state topographic maps and plans:

order No	Kinds of Geospatial materials and data	Needs of power authorities (amount of authorities)	
		Bodies of Executive power of the Subjects of the Russian Federation	Federal Bodies of Executive Power (FBEP)
1.	Topographic maps in scale 1:10 000	43	17
	including total object content (as well as state secret information)	31	9
2.	Topographic maps in scale 1:25 000 – 1:50 000	39	14
	including total object content (as well as state secret information)	26	9
3.	Topographic maps in scale 1:100 000 – 1:200 000	37	15
4.	Topographic maps in scale 1:1 000 000	19	11
5.	Unified cartographic basis	44	15
6.	Topographic plans of settlements in scale 1:2 000 – 1:10 000	47	15
7.	Materials of remote sensing (medium and high resolution) and derived products (orthophotos, etc.)	40	15

The need for State authorities:

in the up-dating period:

- from 1 to 5 years for the state topographic maps the scale of 1:10 000 – 1: 25 000;
- from 3 to 15 years for the state topographic maps the scale 1:50 000 – 1:1 000 000;
- from 1 to 3 years for topographic maps of settlements;
- from 0,5 to 5 years for materials remote sensing of medium and high resolution.

at the time of access to obtain:

- cartographic materials from 1 to 30 days;
 - materials remote sensing of medium and high resolution and derived products (orthophotos, etc.) from 1 to 30 days .
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The need for State authorities of the state topographic maps and plans:

- 80% State authorities need the state topographic maps scale of 1:10 000 - 1:200 000, both in full object composition and not containing information classified as a state secret;
- 50% State authorities need the state topographic maps and plans in digital form only but in an and analog format (limited prints edition).

Federal Fund for spatial data (FFSD)

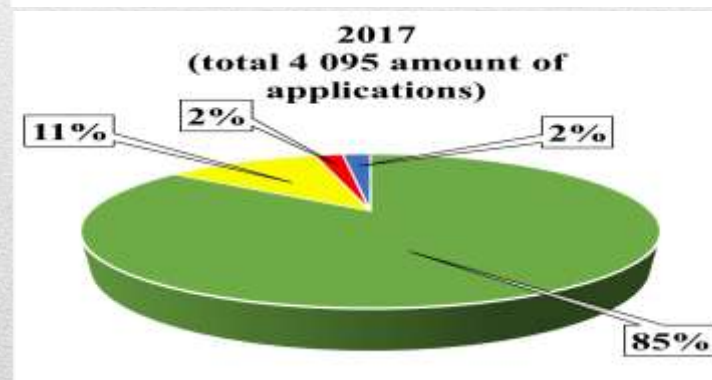
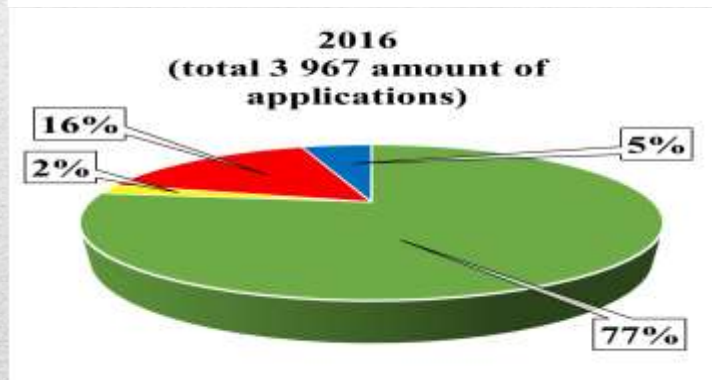
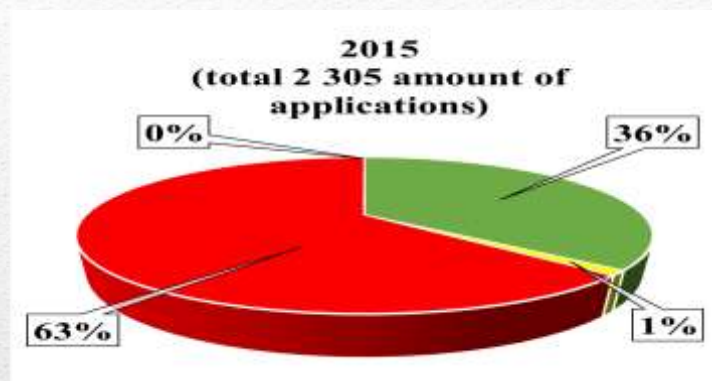
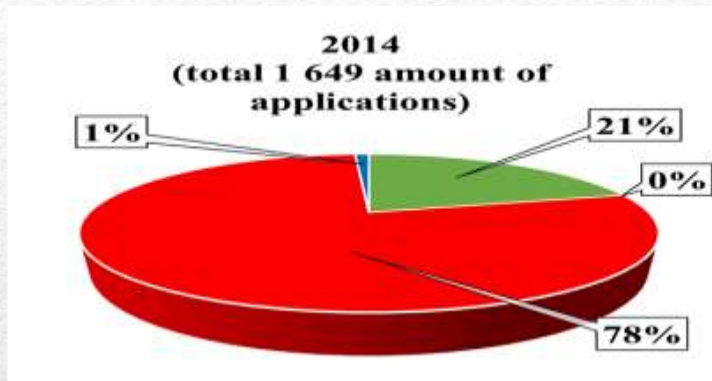
Total in FFSD - 86,7 million units, including:





- **84,9 million units in analog form;**
- **1,8 million units in digital form;**
- **82,3 million units - materials and data containing information constituting a state secret.**

The main consumers of materials and data of FFSD:

- **business structures;**
- **state authorities and local self-governments;**
- **individuals.**

The dynamics of the handling of spatial data from the FFSD in 2014 – 2017



-  business structures
-  individuals
-  Federal bodies of executive power
-  Bodies of executive power of the subjects of the Russian Federation and self-executive bodies

Satisfaction of the needs of consumers in the state geospatial data

- The state topographic maps of the scale:
1:25 000 - 1:1 000 000 – coverage is 100% of the territory of the country;
1:10 000 – coverage is 30 % of the territory of the country (for economically developed regions);
- Fully complies with the formatives ensuring the state topographic maps of the scale 1:50 000 и 1:100 000 only;
- The state topographic plans at scale 1:2 000 for most of the settlements of the country;
- Total volume of state topographic maps of scales 1:10 000 - 1:1 000 000 which do not meet the regulatory deadlines for updating is 334.9 thousand map sheets;
- Every year it becomes obsolete (no longer compliant with norms) 21.7 thousand map sheets.

To conform the state topographic maps to the norms up to 2030, we have to renew at least 44 thousand map sheets per year.

The geodetic support of the Russian Federation

- The state system of coordinates 2011 (SSC 2011) established by resolutions of the Government is valid in the Russian Federation;
- **Satellite network:**
 - Fundamental astronomic-geodetic network (FAGN) – 50 points,
 - Precision geodetic network (PGN) – 350 points,
 - Special geodetic network of the First order 1 (SGN-1) – 6000 points;
- The state geodetic network, ensuring the availability of the system of coordinates of SSC 2011 for use by consumers, also includes networks of triangulation, trilateration and poligonometry of 1-4 orders (about 283 000 points), adjusted with the based points of satellite network FAGN, PGN and SGN–1, which provides the possibility of using inside the coordinate system of the SSC 2011 the large number of geodetic, topographic and cartographic materials, previously obtained by traditional methods and technologies.

Strategic priorities

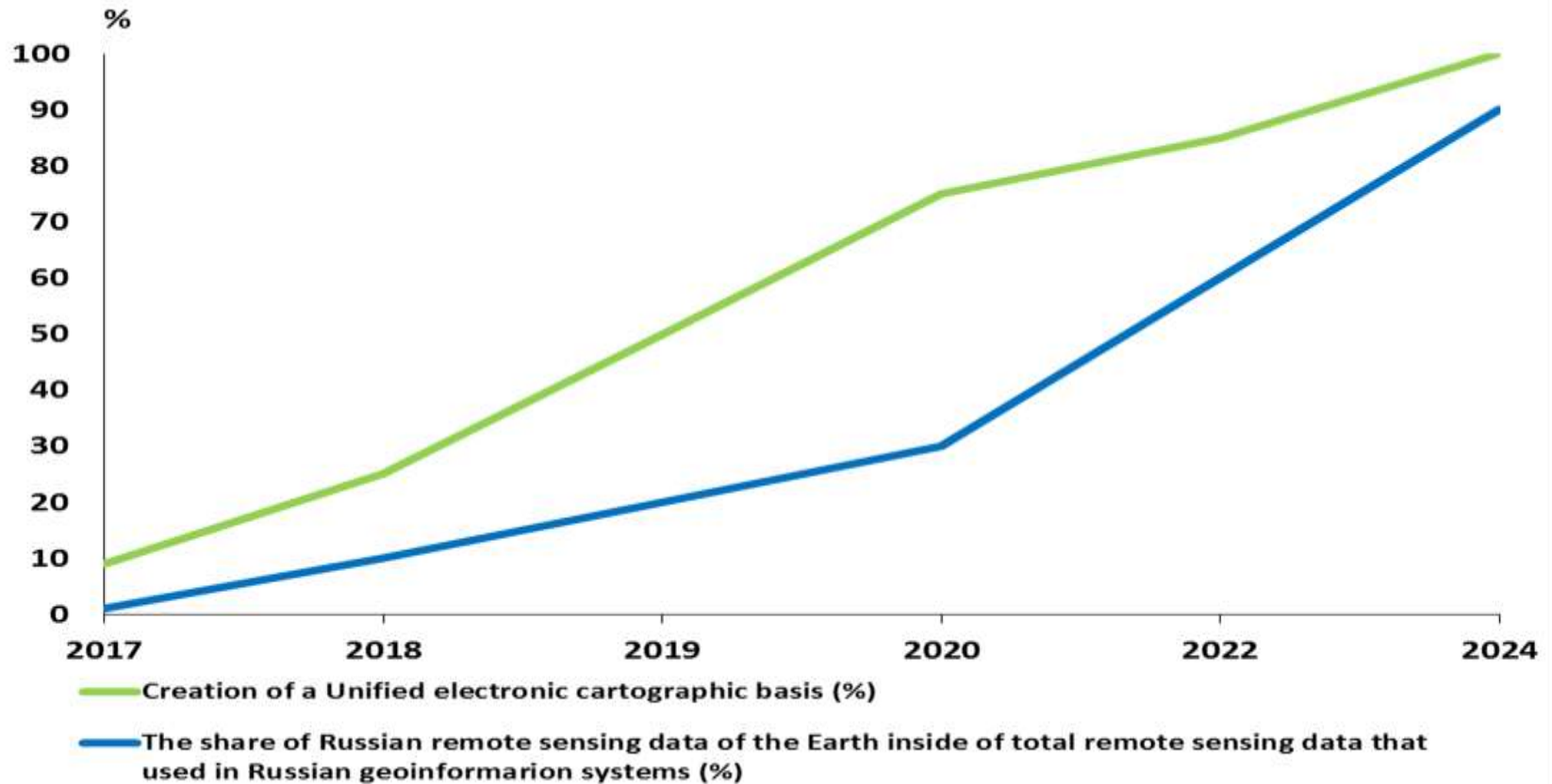
The Program of "The Digital economy of the Russian Federation"

The direction of "Information infrastructure" identified by two tasks involving spatial data creation of a national digital platforms:

- for the collection, processing and dissemination of spatial data for the needs of cartography and geodesy, ensuring the needs of citizens, business and government;
- for the collection, processing, storage and dissemination of Earth remote sensing (ERS), ensuring the needs of citizens, business and government.

Strategic priorities

The Program of "The Digital economy of the Russian Federation"



Strategic priorities

The Plan of priority measures for the medium term (2017 – 2018) approved the order of the Government of the Russian Federation

The first section provides activities in achieving the following objectives:

- definition and monitoring of geodetic parameters of Earth (Earth figure, the parameters of the geoid, quasigeoid);
- development of national geodetic, levelling and gravimetric networks;
- development of domestic hardware and software implementing the methods of space geodesy.

Strategic priorities

The Plan of priority measures for the medium term (2017 – 2018) approved the order of the Government of the Russian Federation

The second section includes activities aimed at:

- **development of methods (algorithms), software tools processing, and analysis of spatial data to ensure the implementation of geodetic and cartographic works;**
- **creation of a Unified electronic cartographic basis (UECB) in the State information systems providing its functioning, services for its use.**

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Thank you

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