#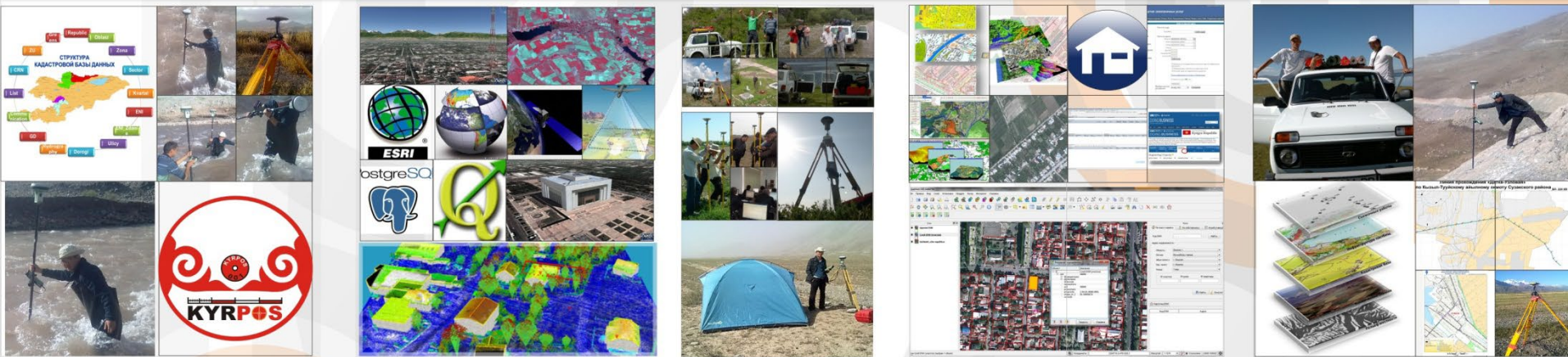 National impetus and considerations for improving and strengthening arrangements in geospatial information management and capacities

Almaz Abdiev
State agency on land resources under the Government of the Kyrgyz Republic
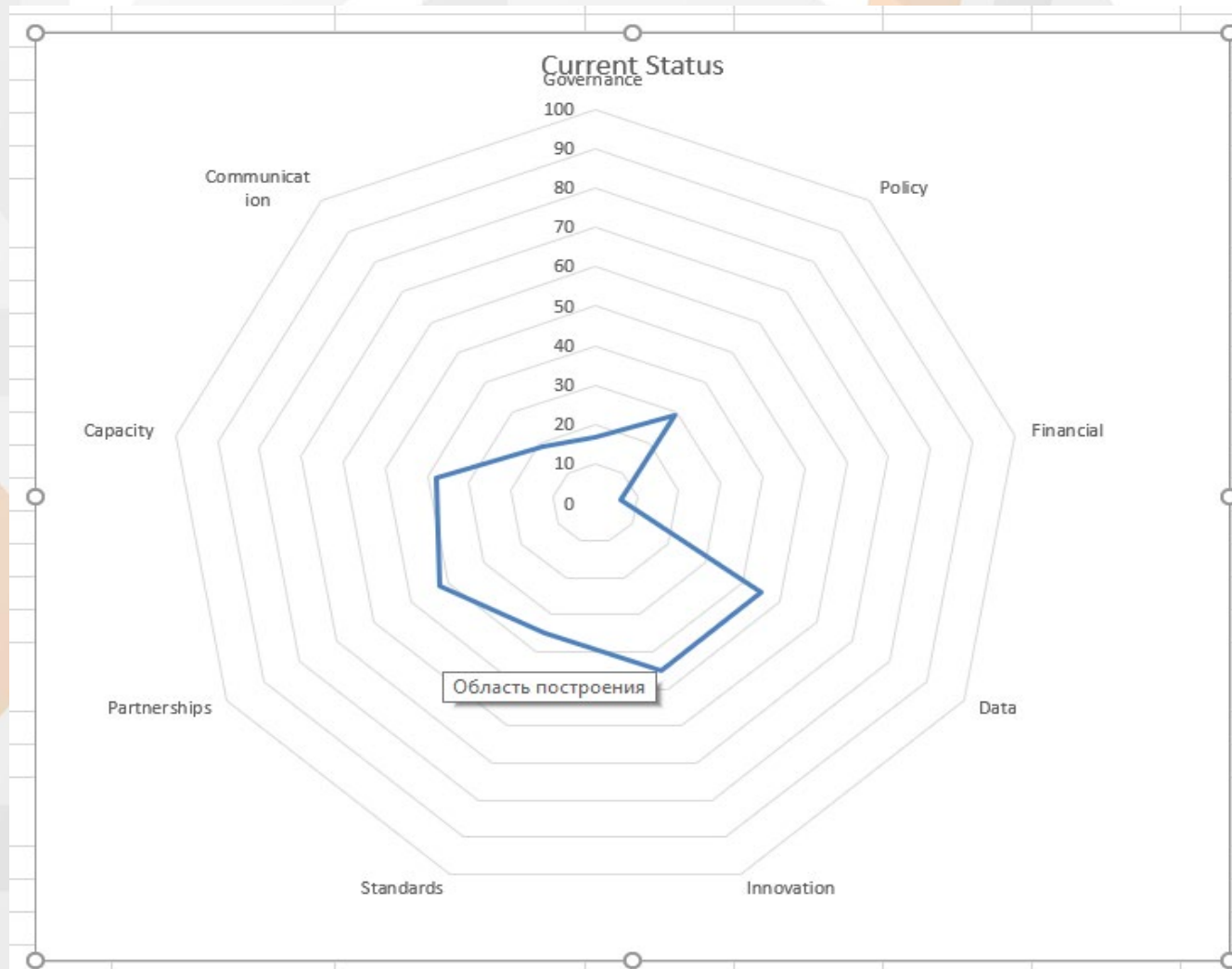
Operationalization of the IGIF

- The first step was the Diagnostic tool and Country report- it provides the current status of where the country is with geospatial information management. It follows the IGIF structure, with a series of questions and scoring for each of the 9 IGIF strategic pathways. First IGIF Kyrgyzstan assessment was completed in August 2019

- Country Report – completed in October 2019 (template by WB).

Scores for the individual Strategic Pathways

Governance and Institutions	17
Policy and Legal	29
Financial	6
Data	45
Innovation	45
Standards	35
Partnerships	42
Capacity and Education	38
Communication and Engagement	19

Results

Strategic Pathway 1: Governance and Institutions

Government of the Kyrgyz Republic created the State Agency for Land Resources under the Government of the Kyrgyz Republic (the Resolution No. 382 July 30, 2019) on the basis of :

- Department of Cadastre and Registration of Rights to Real Estate;
- State Enterprise for Land Management;
- State Cartographic and Geodetic Service.

An inter-ministerial working group was established in 2019

Strategic Pathway 2: Policy and Legal

Kyrgyz National Spatial Data Infrastructure Status

A Draft Program has been developed to create and develop the National spatial data infrastructure of the Kyrgyz Republic and under the approval by the Governmental agencies

- "ROAD MAP" on the implementation of the Digital Transformation Concept "Digital Kyrgyzstan 2019-2023" approved by the Government of February 15, 2019 No. 20-r:

- **Paragraph 16- The National Spatial Data Infrastructure:**
- **16.1. Create a geo-information portal for the Kyrgyz Republic (September 20, 2021);**
- **16.2. Phased to create a mapping framework and a geodesic support system (December 20, 2022);**
- **16.3. Apply geospatial data for statistical purposes (20 December 2021):**
 - statistical register;
 - Population and Housing Census;
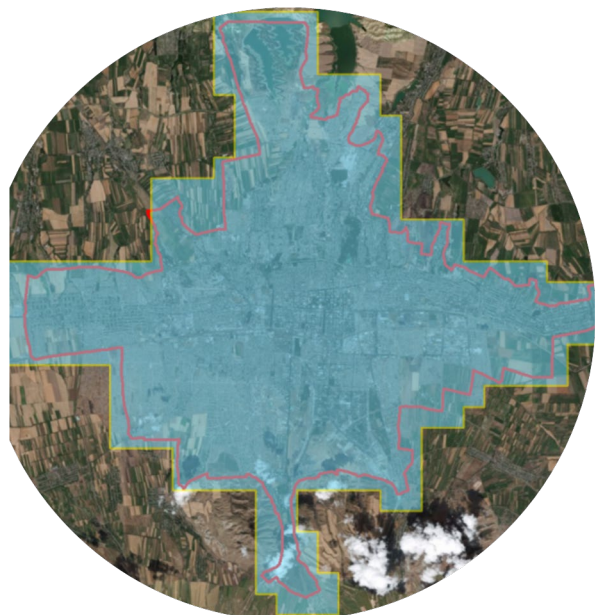 **- Statistical maps**
 - Disseminate statistical information

Spatial Data Infrastructure Status

- From 01.2018: The Kyrgyz-Norwegian project is being carried out, within the framework of which aerial photography of 23,000 km2 was carried out, including the city of Bishkek and adjacent areas, settlements around Lake Issyk-Kul and the Fergana Valley.

- Preparation of maps for Bishkek, 160 km2.

- Geoportal for providing government and other authorities with access to photo maps.

Aerial photos for spatial data infrastructure
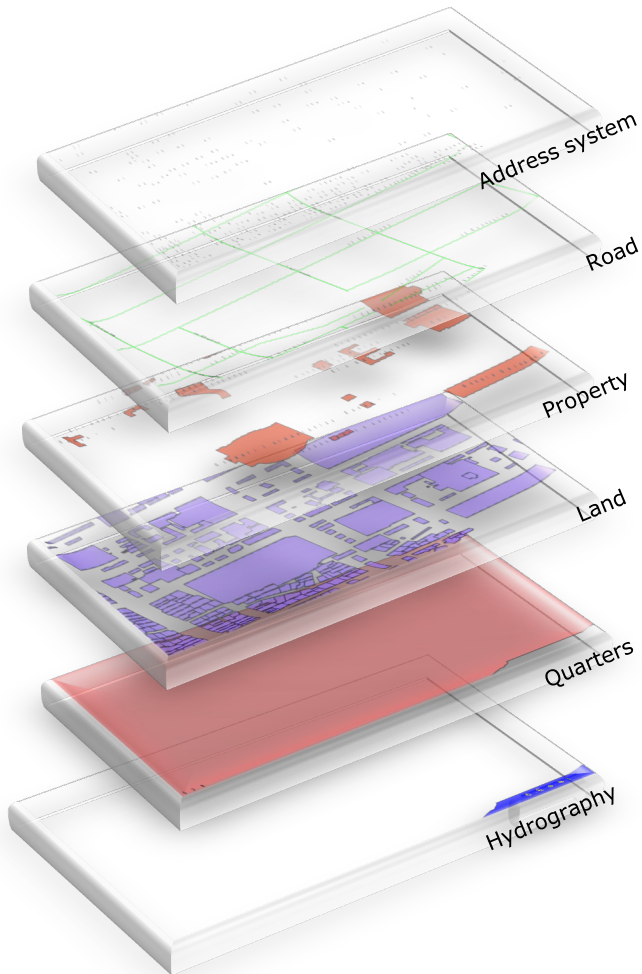
Strategic Pathway 5: Innovation

Geoportal

Kartverket

❑Within the framework of the Norwegian project " Maps and Statistics for Sustainable Development", a Geoportal has been developed to provide governm ent and other authorities with access to photo maps.

❑photomaps and line maps will support the product ion and publication of statistics in this web portal.

❑aerial photography results will be used as a basem ap in the Geoportal.
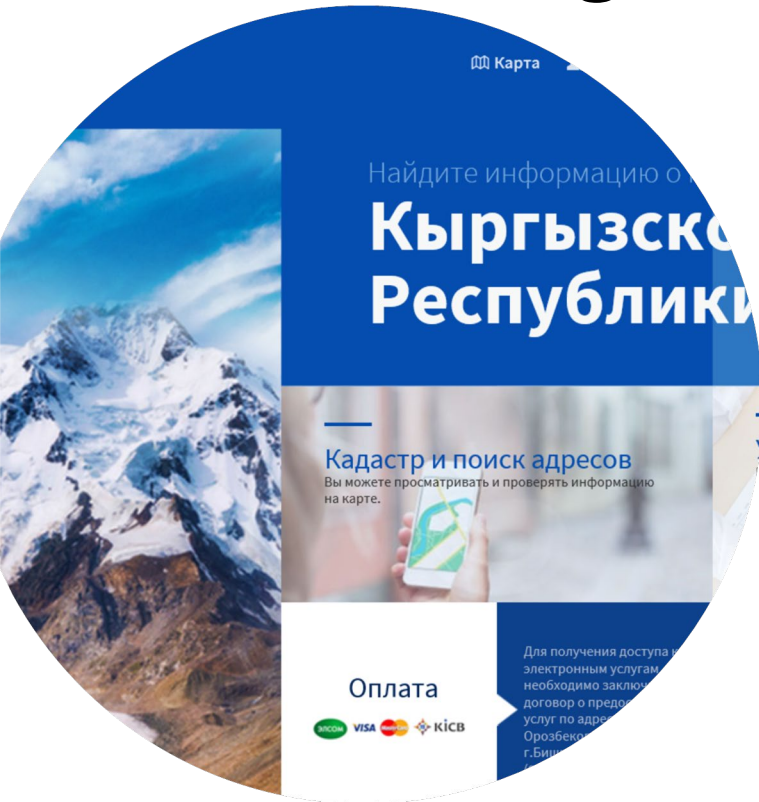
Strategic Pathway 5: Innovation

NSDI pilot project with the German Society for International Cooperation (GIZ)

- The pilot areas of Chui Tokmok and Uzgen have been identified;

- Existing data have been prepared;

- Developed ToR for digital mapping;

- A web portal for NSDI is being developed (it is planned to launch a pilot mode in March 2021);

- The base layers are prepared for the NSDI.

Strategic Pathway 5: Innovation

Integrated cadastral system for NSDI

➢ Basic datasets (cadastre and registry), new electronic services from SIS - Current data is available to users online for the whole country
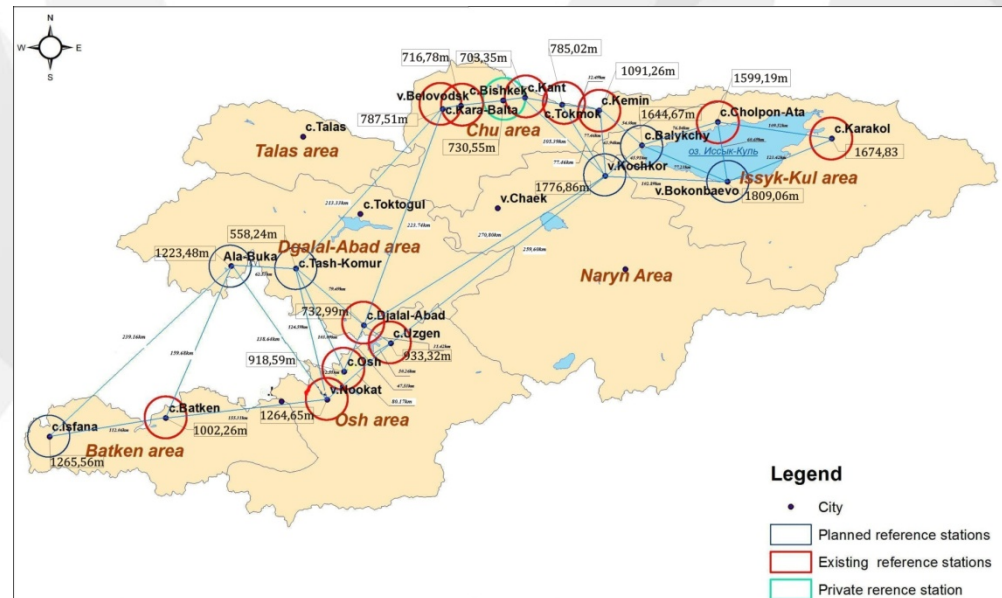
➢ Scanning archival documents in all 49 offices

Strategic Pathway 5: Innovation

Implementation of GPS technology

Established:

- **23 GNSS permanent base stations;**
- **95 first order reference points;**
- **Control Centre for GNSS network "KyrPos";**
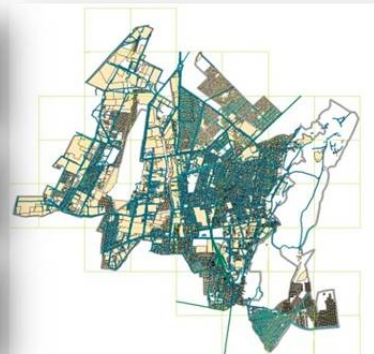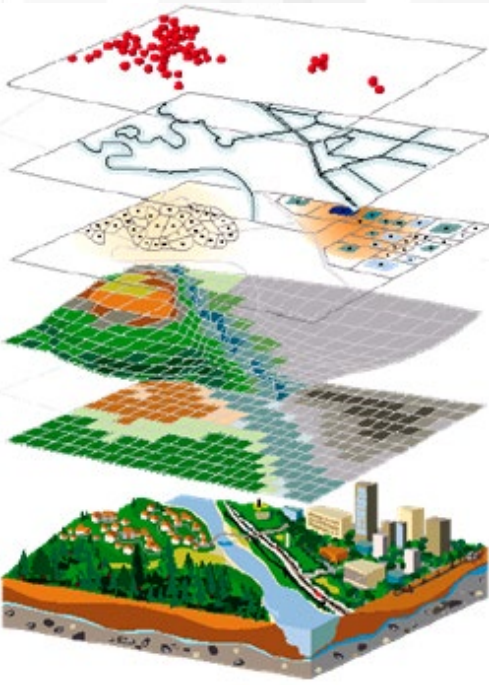
Strategic Pathway 8: Capacity and Education

☐ **4 Geo-portals in municipal level;**
☐ **5 Geo-portals in State agencies;**
☐ **3 University courses on geo-informatics;**
☐ **GIS software is installed in all LROs;**
☐ **Trainings on GIS;**
☐ **Trainings on GPS / GNSS surveys;**

Strategic Pathway 7: Partnerships

Purpose: Creating a digital index maps, which will be used in the future as the basis for the National Spatial Data Infrastructure (NSDI) .

Strategic Pathway 6: Standards

o **Guidelines on the management of digital cadastral maps in the Kyrgyz Republic;**

o **Guidelines for quality assurance and quality control;**

o **Cadastral Classification System object designation administrative-territorial units of the Kyrgyz Republic;**

o **Classification of SYMBOLS for Cadastral Structure;**

o **Instruction for fixed cadastral Points of survey.**
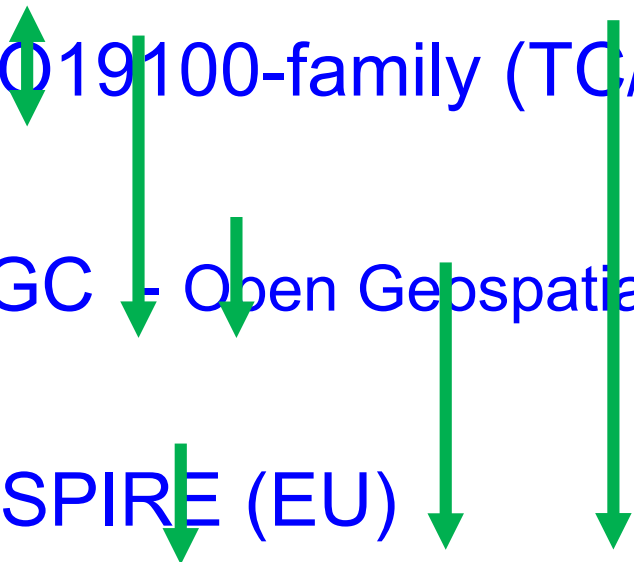
Strategic Pathway 7: Partnerships

o MoU on NSDI, signed by 12 State Institutions;

o 5 Municipalities signed agreement with State agency on land resources to connect to Geo-portal;

o 3 agreements with Universities for collaboration on NSDI

Strategic Pathway 6: Standards

International Geographical Standards

- ISO19100-family (TC/ 211) / CEN TC/ 287

- OGC – Open Geospatial Consortium

- INSPIRE (EU)

- NATIONAL data models and services

Strategic Pathway 6: Standards
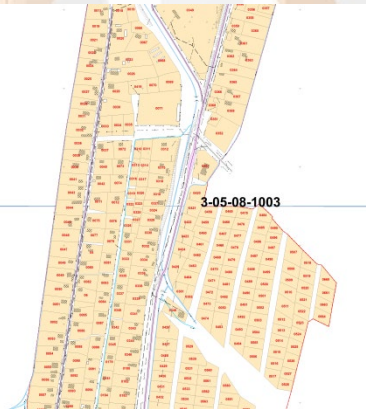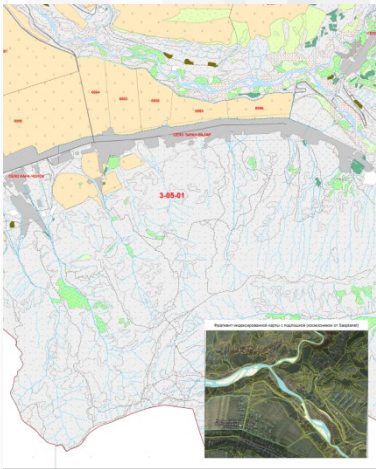
ISO 19100 Family of Standards

- ISO 19103   CSL - Conceptual schema language
- ISO 19107   Spatial schema
- ISO 19108   Temporal schema
- ISO 19109   Rules for application schema
- ISO 19110   Methodology for feature cataloguing
- ISO 19115   Metadata
- ISO 19118   Encoding
- ISO 19119   Services
- ISO 19128   WMS - Web map server interface
- ISO 19136   GML - Geography Markup Language
- ISO 19142   WFS - Web Feature Service
- ISO 19143   FE- Filter encoding
- ISO 19152   LADM
- ....

25.11.2020

Strategic Pathway 9: Communication and Engagement

FOR:

- ✓ land and real estate tax;
- ✓ statistics and population record;
- ✓ real estate market analysis;
- ✓ record on property rights;
- ✓ pasture management;
- ✓ inventory of forest lands;
- ✓ share GNSS/GPS correction data.

THANKS for your attention!!!