

AKEP

AUTORITETI I KOMUNIKIMEVE
ELEKTRONIKE DHE POSTARE

MAPPING OF BROADBAND INFRASTRUCTURE IN ALBANIA

ITU Regional Regulatory Forum for Europe
Regulation supporting the Digital Transformation

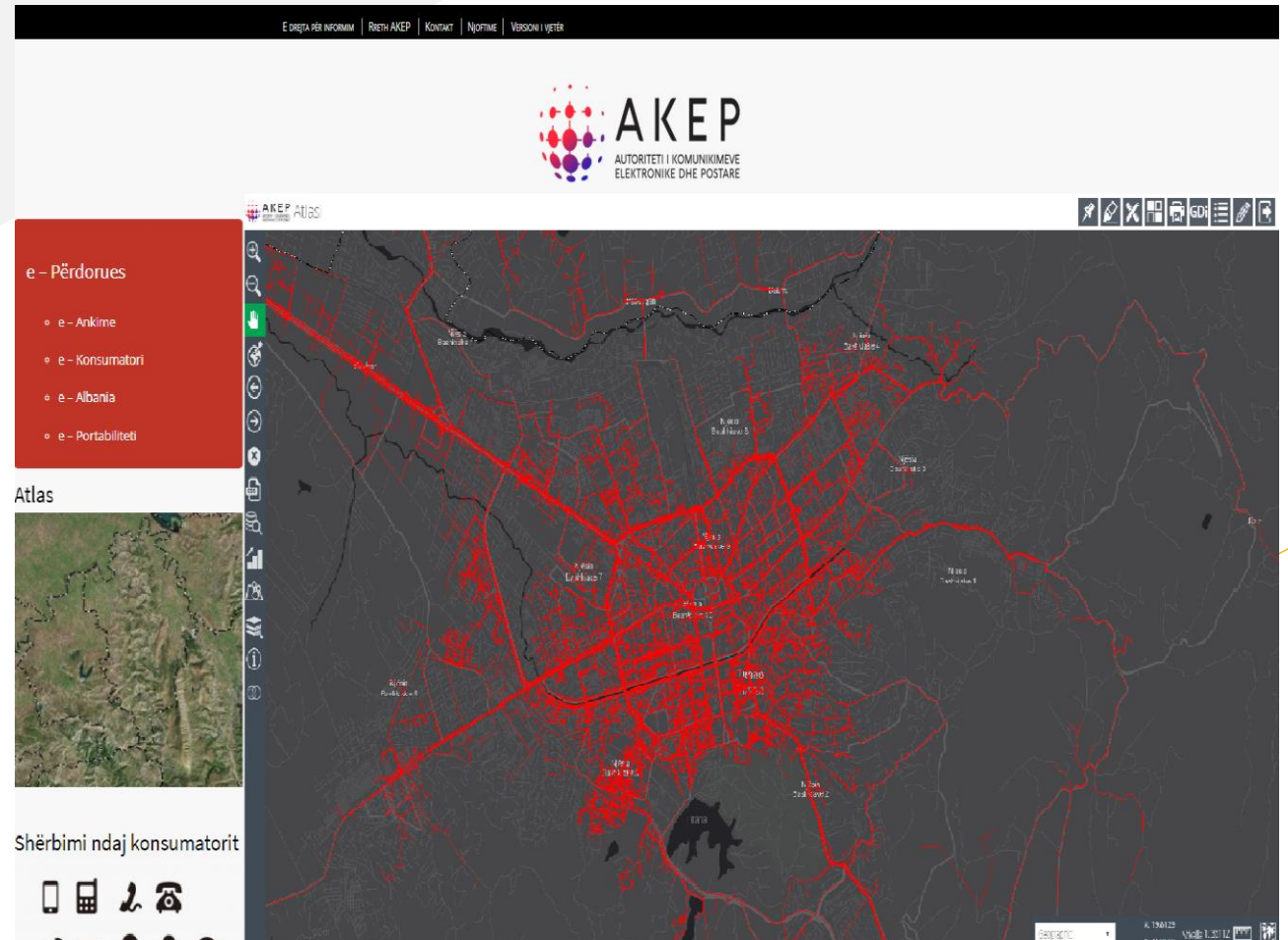
30th November – 1st December 2020

Regulatory measures in Albania

- Law No. 9918, dated 19.5.2008 "On electronic communications in the Republic of Albania"
- Law no. 120/2016, "For the development of high speed electronic communications networks and the provision of the right of way"
- Regulation No. 26 dated 16.08.2012 for "Content, form and functioning of Electronic Registry of public electronic communications networks in the Republic of Albania"
- Regulation No. 22 dated 24.06.2011 "On Technical Requirements for Construction of Urban Infrastructure and cable networks, fiber optics, suburban networks of Electronic Communications" (amended).

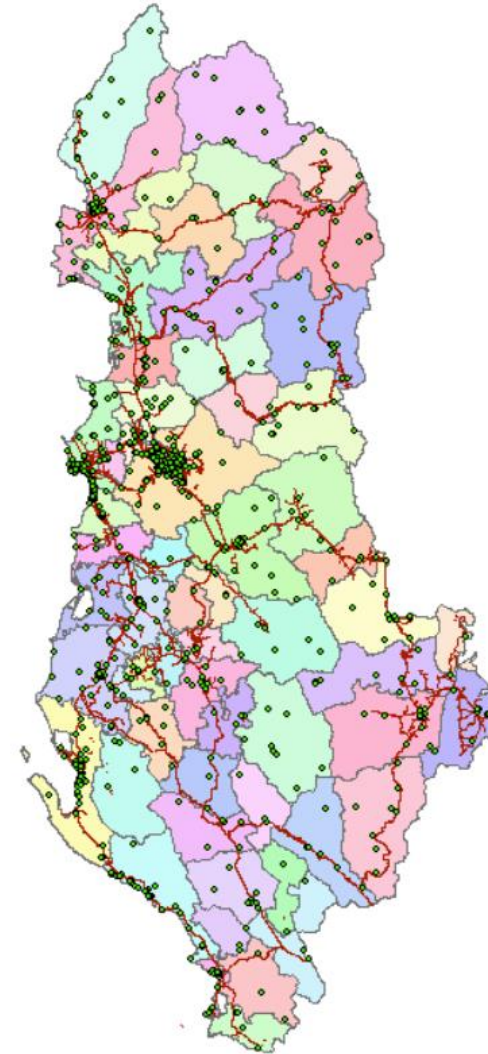
Atlas Mapping System

- System is built as a multiuser system which offers the possibility to manage different roles for every user.
- There are 3 Webservices, Public, Management, and for Operators.
- Mapping system offer the possibility to the Operators and Administrative Unit to update and create their own communication maps.



Atlas Mapping System

- Integration of all information and establishing Mapping Infrastructure for electronic communications systems is in GIS and enables AKEP a fast decision in: managing policy, monitoring, control, reporting etc.
- Transparency for fixed and mobile network availability
- Which network providers are active within the area



Internet/Broadband Infrastructure

- At the beginning of 2018, the new system ATLAS was upgraded, all operators were given access to the new system.
- 220 Services Providers
- 3 Mobile Operators
- Standards for data collection
- All operators have 2 ways to record data in the system, one with IMPORT (AKEP has defined new DATAMODEL), and the other by drawing the online map on Atlas System.
- Data collection from network operators are based on unique datamodel with defined attributes
- According to regulations operator are obligated to submit their network map:
 - Twice a year reports
 - Within 30 days to reflect new installations

Internet/Broadband Infrastructure

Broadband access services are provided through a variety of electronic communications networks:

➤ **Cable networks:**

- FTTx - networks based on optical fiber cables
- Networks based on coaxial cables

xDSL - networks based on copper cables

HFC (Hybrid optical-coaxial networks).

➤ **Radio networks:**

- LTE
- GSM/GPRS/EDGE

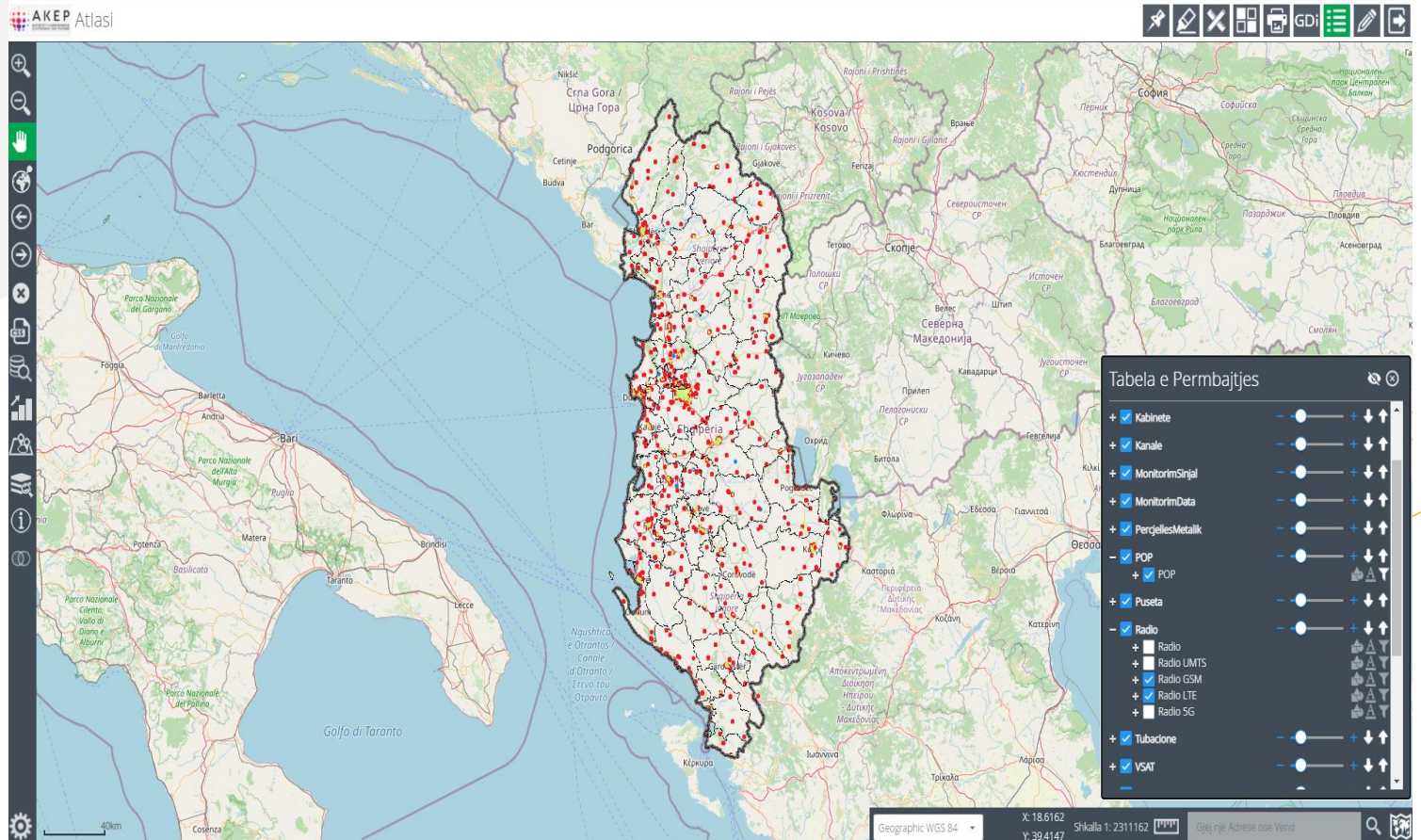
UMTS / HSDPA / HSPA

Wi-Fi - wireless local area networks,

Network Radio infrastructure map

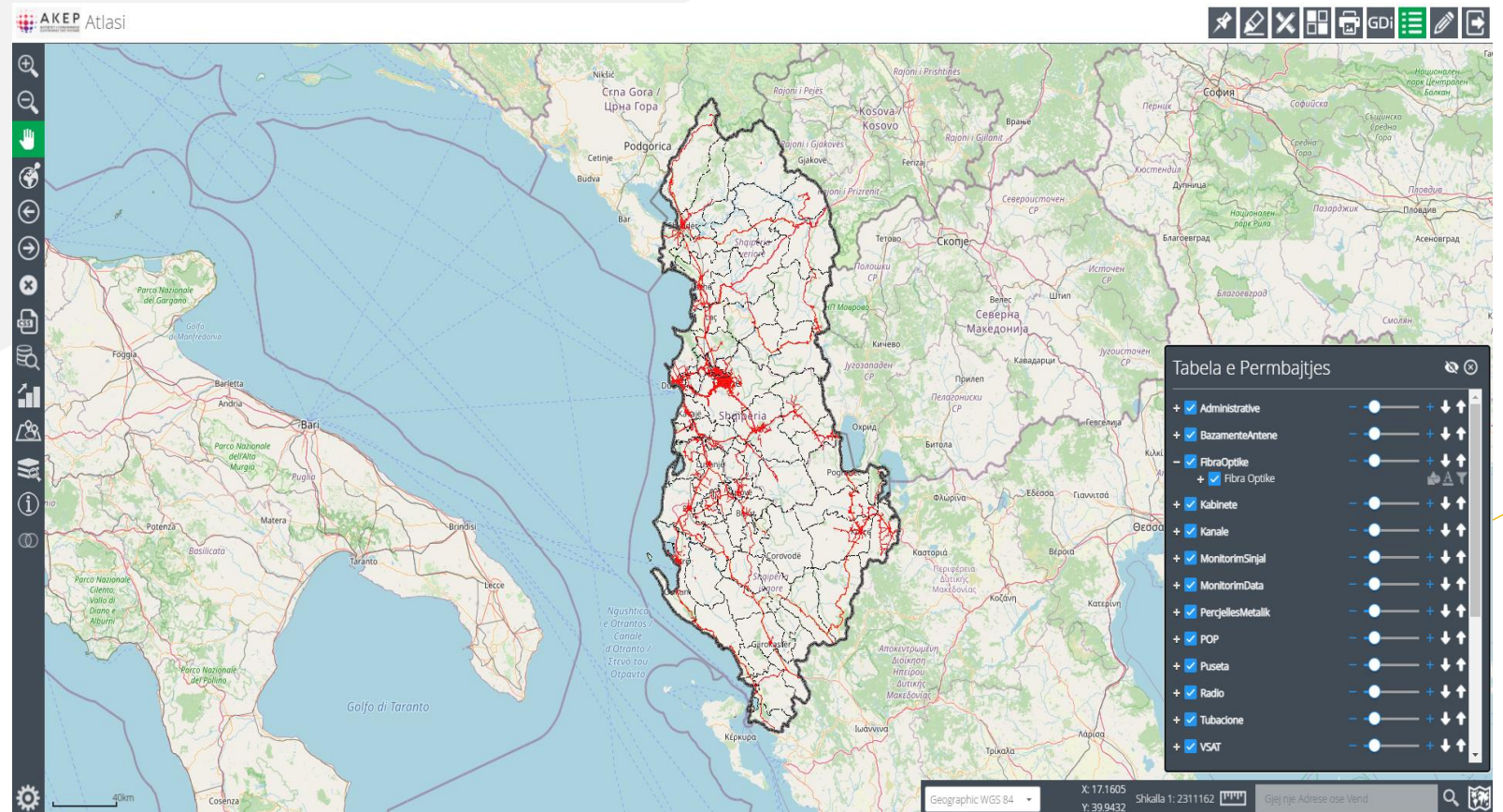
➤ Coverage of Radio networks:

- LTE
- UMTS
- GSM
- Wi-Fi - wireless local area networks



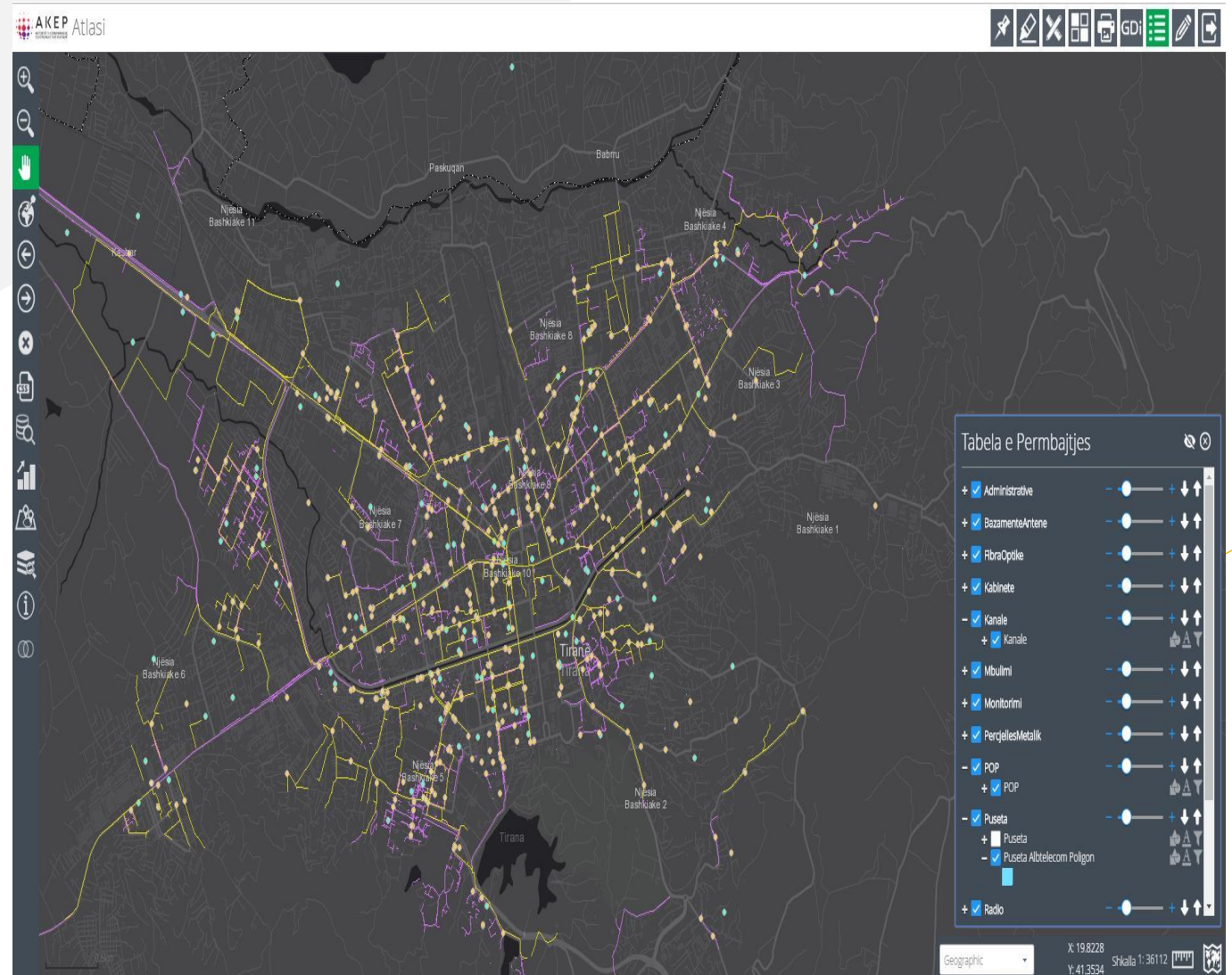
Fiber Optic Map

- Coverage of Fiber Optic in Albania.
- Akep in cooperation with all electronic communications operators, is gathering all the necessary information for the National Backbone Network.
- AKEP in collaboration with ITU, will update all the necessary information on ITU Interactive Transmission Map.



Network passive infrastructure map

- On the Public Webservices is published minimum information to promote the joint use of active and passive infrastructure.
- Main reasons for mapping of shared infrastructure:
 - optimization of infrastructure deployment;
 - avoiding costs of setting-up new networks;
 - better planning / cost sharing;
 - Low Total Ownership Cost

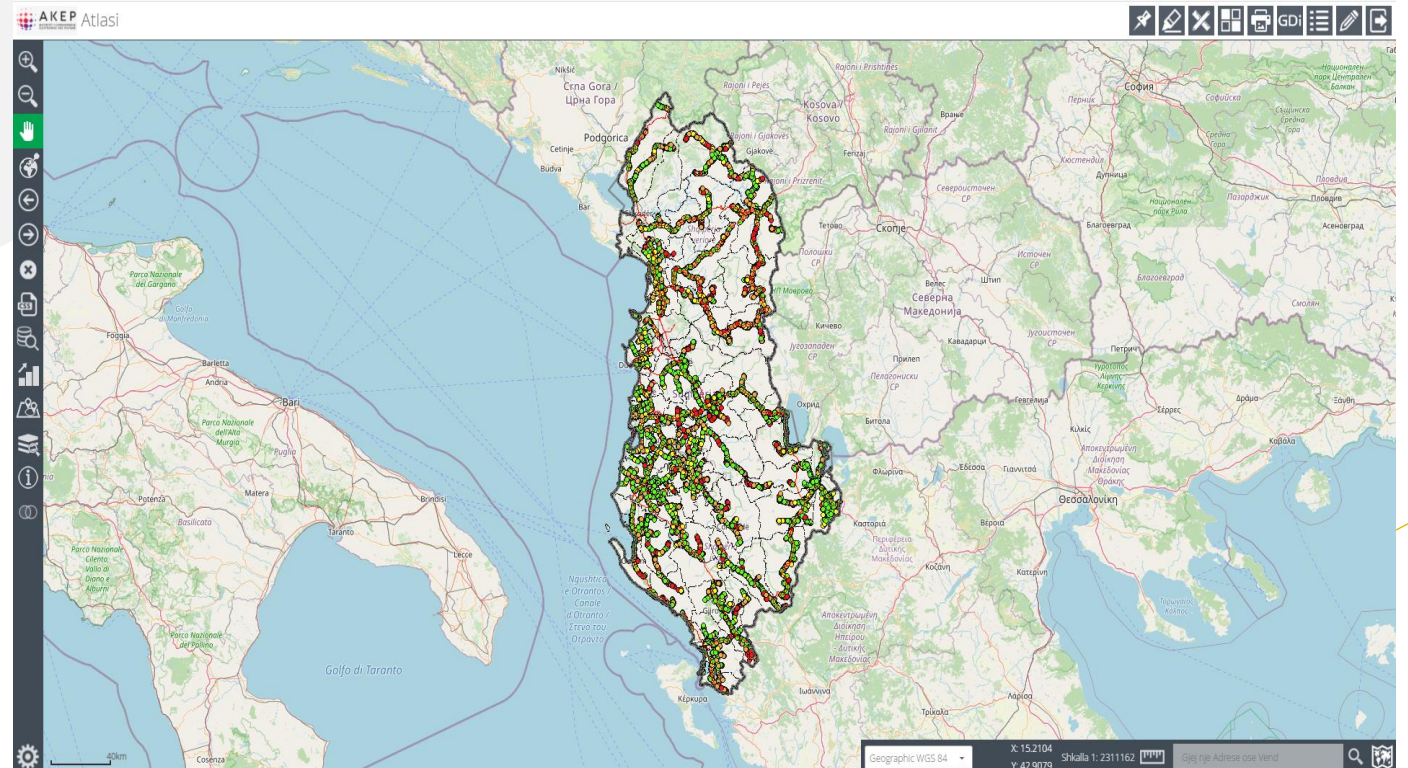


Mobile QOS Monitoring

On Atlas system, for each operator are published QOS indicators, for all technology as below:

- Signal Monitoring 2G
- Signal Monitoring 3G
- Signal Monitoring 4G

- Data Download Monitoring 3G
- Data Download Monitoring 4G





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Thank You.



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