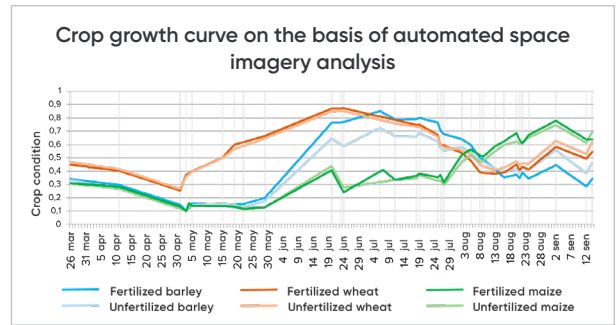# AGRICULTURE

ERS data allows to perform an integrated operational monitoring in an agricultural sector, assess structure and composition of sown areas, analyze efficiency of land use and forecast crop yield:

- agro-climatic monitoring

- actual crop condition monitoring

- distant monitoring of field operations

- certification of fields and other assets of an agricultural company

- precise farming

- development of recommendations on differential applications of fertilizers, plant protection agents, seeds.
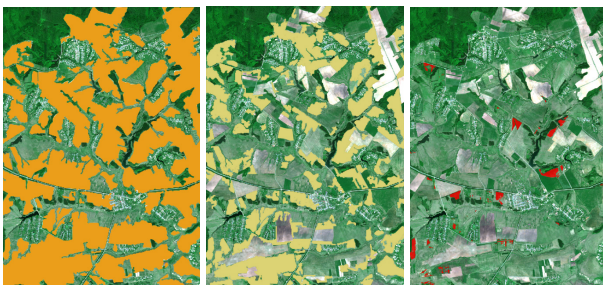
🌾 Crop conditions

- stock-taking and certification of croplands

- display and control of information on the current condition of crops, vegetation index (NDVI)

- analysis of crop condition changes upon implementation of planned activities

- establishment of fertilizer application needs

- monitoring efficiency of fertilizer applications

- forecast of field crop yield

- assessment of climate and weather condition impact.

Assessment of land use efficiency

Crop growth curve on the basis of automated space imagery analysis

Legend:
- Fertilized barley
- Unfertilized barley
- Fertilized wheat
- Unfertilized wheat
- Fertilized maize
- Unfertilized maize

- 1 grade - excellent
- 2 grade
- 3 grade
- 4 grade
- 5 grade
- 6 grade
- 7 grade - very poor

- Agricultural lands cultivated from 1980s
- Uncultivated arable lands (deposits)
- Overgrowing with trees and shrubs

🌱 Efficient land use

- assessment of land conditions favorable for organic farming

- monitoring crop rotation and comparison of crop planting plans with an actual condition on the basis of ERS data

- tracking harmful process dynamics (overgrowing, swamping and others)

📚 Precise farming

Application of current technologies in crop yield management enables farmers to precisely calculate the required quantity of seeds, fertilizers and other resources for each plot of land as well as to automatically steer agricultural machinery and equipment.

The bank of agricultural indices based on geoanalysis allows to perform multi-factor crop yield analysis fast.

- Maize
- Sunflower
- Wheat

NDVI — 0.53

Temperature — 21.80
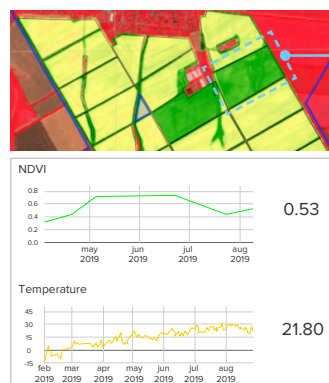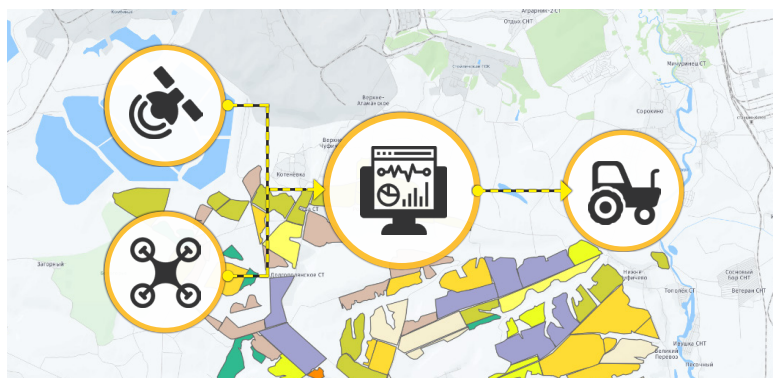
Fertilizer application monitoring

Status:	In progress
Time frames:	29.06 - 30.06.2019
Fuel, unit:	10
Type of fuel:	Diesel
Num. of shifts:	15
Num. of persons in a shift:	12
Shiftoutput, unit:	10