



Czech  
University  
of Life Sciences  
Prague

# CZU Prague: projects and collaboration

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Czech-Bulgarian Conference on Smart Agriculture  
22-23 June 2021

# Czech University of Life Sciences Prague

- Since 1952
- Third largest public university in Prague, Czech Republic
- Teaching and research in:
  - Agriculture
  - Forestry
  - Environment
  - Engineering
  - Economy
  - Management and business
- More than 70 EU financed projects



# Department of Information Technologies

## FEATURED ACTIVITIES



AGRARIAN PORTAL



SAP UA



CERTIFICATION



SCIENTIFIC PAPERS



PRECISION AGRICULTURE



ANIMAL MONITORING



DATA ANALYTICS



PROJECT H2020



LIFE SCIENCES 4.0



EDUCATION



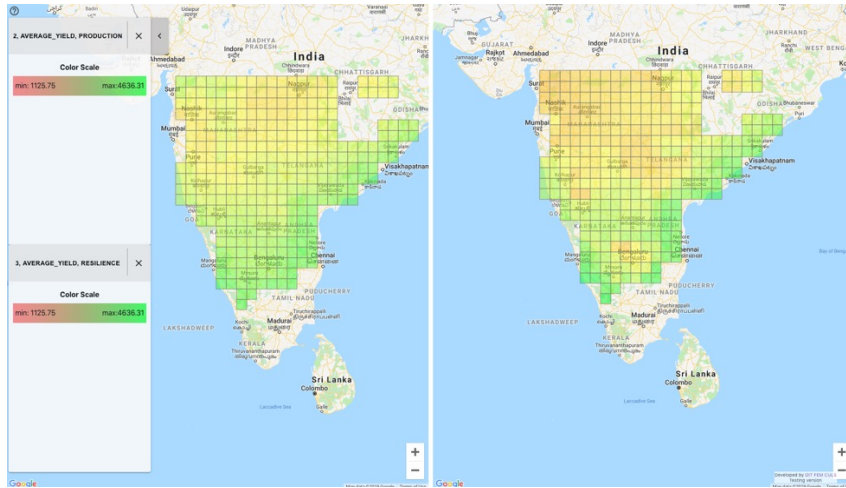
DEPARTMENT  
OF INFORMATION  
TECHNOLOGIES  
FEM CULS PRAGUE

# 3D scans of crops



- Crop factors monitoring from 3D scans
- Computer vision and machine learning algorithms
- With ICRISAT India

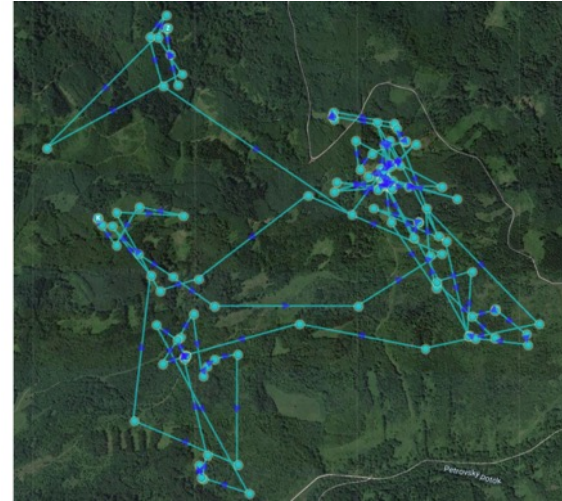
# Crop modelling for sorghum in India



- 311 square areas (50x50 km), daily weather data from NASA
- Three soil types, various other parameters
- 13,824 simulations for each area
- 15 TB of generated data
- Parallel computing on a custom developed sw (20 days)

# Game Online

- [zver.agris.cz](http://zver.agris.cz)
- Monitoring of over 160 wild animals
  - Deer, wild boar, geese
  - Some are not public
- Specialised GPS collars





# Industry Partners

**ŠKODA**



# Horizon 2020 project



Duration: 2019-2022

Coordination: CZU Prague

Consortium: 36 partners from 17 countries

Research and implementation of new approaches to rural development:

1. Issues beyond agriculture e.g., post Covid recovery, loss of biodiversity, CAP reform, limited services, etc.
2. Less centralized approached using traditional methods and big data
3. Create and implement measures in 12 regions



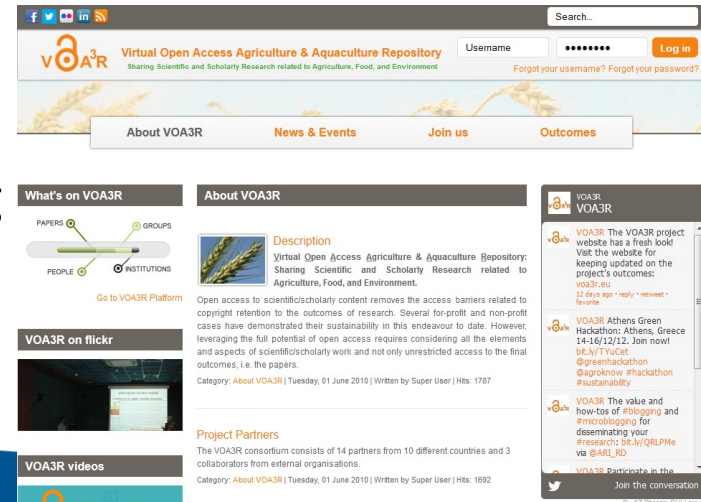
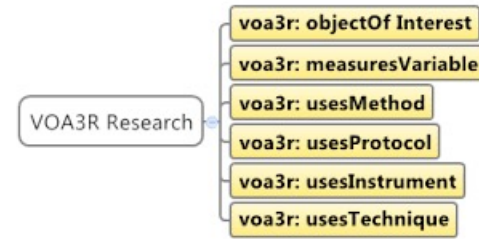
# VOA3R (Virtual Open Access Agriculture & Aquaculture Repository)

Duration: 2010-2013

Competitiveness and Innovation  
Framework Program

CZU Prague as a partner

- The VOA3R portal provides a virtual space for researchers, students and practitioners
- Integrates metadata from existing open access repositories that provides a single point



# Horizon Europe projects interest

- Climate, Energy and Mobility
- Food, Bioeconomy, Natural Resources, Agriculture and Environment
- Digital, Industry and Space



# Collaboration in Horizon Europe

We offer:

- Project coordination
- Skills in:
  - Thematic expertise (agriculture, rurality, energy, digitalisation)
  - Analysis and modelling (environment, land-use, statistical analysis, econometrics, spatial analysis, remote sensing, AI, big data, data and text mining)
  - Communication and dissemination

# Contact details



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