

# Workshop: Solution approaches of artificial intelligence in agriculture and forestry

June 06, 2023

Participating scientists from the following institutions:

- Bulgarian Academy of Sciences (Institute of Information and Communication Technologies)
- Berlin School of Economics and Law (Department of Cooperative Studies – System Development)

## Content of the workshop:

Prof. Dr. Stanimir Stojanov

Title: Projects and Technologies

Smart crop production (agriculture)

National Information Network GenBank –  
Plant genetic resources

Platform ZEMELA:

- Agriculture Models library,
- Vegetation Control Table,
- Integrated Technologies,
- ...

Ontology and rule based knowledge base  
(VisiRule - A visual tool for building decision  
tree structured expert systems, ...)



Prof. Dr. Andreas Schmietendorf:

Title: Trustworthiness in domain-driven ad hoc AI solutions (Project TAHAI)

Generic Usage pattern of AI-Web-APIs

Possibilities and Risks of AI-Web-APIs

AI scenarios under investigation:

- Traffic Management,
- Professional Research,
- Forestry,
- ...

Trustworthiness and Explainability

### Results of the workshop:

- Similar AI scenarios were identified in the discourse on agriculture and forestry (Measurement of soil quality, Weather data, pest infestation, disease patterns of plants or trees).
- Associated partner in the TAHAI project (discussion of AI conception approaches, exchange of domain specific data, common interpretation of reached AI results and exchange of experiences).
- Preparation of a further workshop to deepen the cooperation in the field of AI solutions for agriculture and forestry.



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