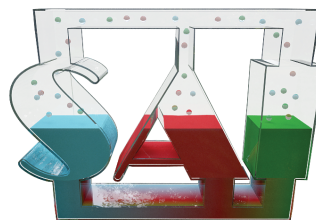




Serbia for Excell

The background of the slide is a composite image. The top portion shows a bright blue sky with scattered white clouds. A white, wavy line separates this from the middle section, which features a close-up of an open book lying on a green lawn. Two white daisy flowers with dark centers are in sharp focus in the foreground, growing from the grass. The bottom of the slide is a solid dark green band containing the title text.

# PROJECT RESULTS COOPERATION



Title: Serbian-Austrian-Italian (SAI) partnership Forcing Excellence in ecosystem research

Acronym: SERBIA FOR EXCELL

Grant number: 691998

Coordinator: Prof dr Branislava Lalic

Coordinator institution: Faculty of Agriculture, University of Novi Sad, Novi Sad, Serbia

Call number: H2020-TWINN-2015(CSA)

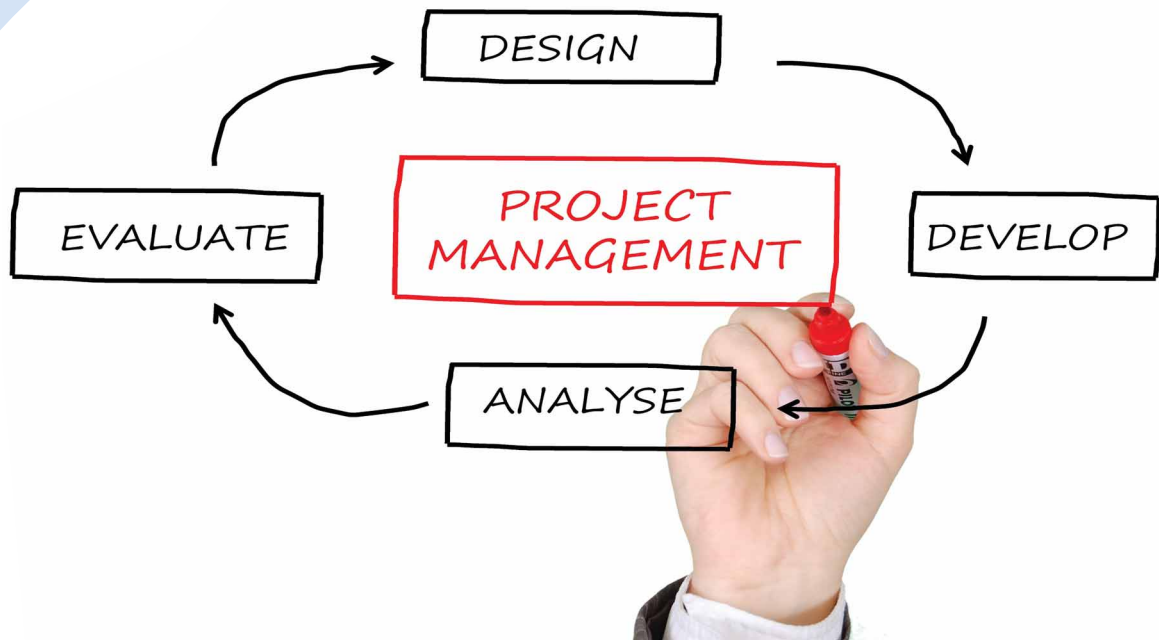
Start date: 01.01.2016

End date: 31.12.2018

The aim of the SERBIA FOR EXCELL is the upgrade of knowledge, skills and social capacity of PFNS in the field of environmental sciences, with special focus on agrometeorology and related ecosystem sciences (such as plant physiology, crop management).

The main tool for reaching that aim is establishment of the AgMnet+ research network at PFNS in collaboration with leading international research institutions BOKU and UNIFI. As a strategy to improve S&T capacities of PFNS, AgMnet+ is introducing the concepts of small study groups of PFNS, BOKU and UNIFI students and joint study teaching material in English and native languages. BOKU and UNIFI partners are implementing goal-driven measurement, modelling training and project writing in the selected research fields for AgMnet+ members. Intensive exchange of short term scientific visits, guest lectures and students visits among partner institutions are contributing to improve eligibility of AgMnet+ members for participation on EU projects, increased number of papers in peer-review journals and increased citation.

Strategic partnership with BOKU and UNIFI, initiated by this project is significantly enhancing the research and innovations capacities of PFNS and upgrading the knowledge and skills of both of its students and researchers.



# PROJECTS

Project title: Evolvable platform for designing cancel treatment strategies using nanoparticles



Acronym: **EVO-NANO**

Grant agreement: No 800983

Type/financed by: RIA-H2020-FET-OPEN

Objective: EVO-NANO aims to create an integrated platform for the artificial evolution and validation of nanoparticle-based drug delivery systems.

EVO-NANO is organised around two research hubs: computing sciences and modelling (PFNS, UB, UWE and AAU) and experimental in vitro and in vivo cancer and nanoparticle research (IMDEA, VHIR and PCS).

<http://evonano.eu/>

Lead partner: PFNS



University of Novi Sad (PFNS)  
Faculty of Agriculture  
Novi Sad, Serbia

Dr. Igor Balaz

Partners:



University of Bristol  
Department of Engineering Mathematics  
Bristol Robotics Laboratory.  
Life sciences, Bristol, UK

Dr. Sabine Hauert



IMDEA  
IMDEA Nanociencia,  
Madrid, Spain

Prof. Isabel Rodriguez Fernández



ProChimia Surfaces (PCS)  
ProChimia Surfaces  
Sopot, Poland

Dr. Piotr Barski (CEO)



Åbo Akademi University (AAU)  
The Embedded Systems Laboratory  
Åbo, Finland

Dr. Sébastien Lafond



Vall d'Hebron Resersch Institute (VHIR)  
Vall d'Hebron Resersch Institute  
Barcelona, Spain

MD, PhD, Simó Schwartz Jr



University of the West of England (UWE)  
The Unconventional Computing Group,  
Bristol, UK

Prof. Andrew Adamatzky

Project title: **Assessment of climate change effects on agricultural soil and water environment in the Loess Plateau of China and Serbia and corresponding solutions**

Number of the proposal: YS2017YFGH000553

Type/financed by: College of Natural Resources and Environment, Northwest A&F University

Objective: Analysis of mechanism how agricultural soil and water respond to climate change, Impact assessment of historical climate change on agricultural soil and water, Scenario analysis of future climate change impacts on agricultural soil and water, Adaptation of agricultural soil and water to climate change

Lead partner: College of Natural Resources and Environment, Northwest A&F University



Partner: University of Novi Sad, Faculty of Agriculture



Project title: **Drought Risk in Danube Region**

Acronym: **DRIDANUBE**

Type/financed by: INTERREG Danube  
Transnational Programme

Objective: The main objective of DriDanube project is to increase the capacity of the Danube region to manage drought related risks. The project aims at helping all stakeholders involved in drought management become more efficient during drought emergency response and prepare better for the next drought.

One of the main products of the project will be Drought User Service, which will enable more accurate and efficient drought monitoring and timely early warning.

Lead partner: Slovenian Environment Agency  
(PFNS+21)



Project title: **COMBI**ned weather related **RISK** assessment monitor for tailoring climate change adaptation in Austrian crop production

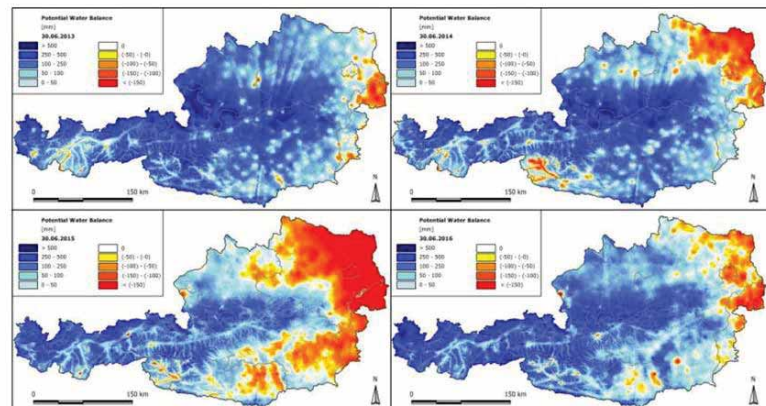
Acronym: **COMBIRISK**

Type/financed by: Austrian Climate Research Programme (ACRP) – Individual Project



Objective: Developing crop risk algorithms for operational monitoring. As a main outcome an indicator model of combined abiotic and biotic weather related risks will be established and applied on current conditions over Austria and ensemble climate change scenarios in two main crop production regions in Austria.

Lead partner: University of Natural Resources and Life Sciences, Institute of Meteorology, Vienna (BOKU)



Project title: **Aedes Invasive Mosquitoes**

Acronym: **AIM COST**

Number: **Action CA17108**

Type/financed by: COST Action



Objective: With increasing trade and travel, several Aedes species have been introduced into Europe and are now spreading spectacularly rapidly becoming a widespread significant public health risk which needs to be effectively addressed, as testified by recent cases of autochthonous chikungunya and dengue transmission.

Project title: **Supporting the Austrian Research Community in using recent Climate Change Projections for Climate Impact Studies**

Acronym: **STARC**

Type/financed by: Austrian Climate Research Programme (ACRP) – Individual Project

Objective: Evaluating uncertainties from downscaled climate models into crop models for climate change impact studies and developing recommendations.

Lead partner: Karl Franzens Universität Graz, Wegener Center für Klima und Globalen Wandel, Österreich

Project title: **FARM/IT – Innovative ICT for sustainable farming systems**

Acronym: **FARM/IT**

Type/financed by: Austrian Climate Research Programme (ACRP) – Individual Project



Objective: Developing remote sensing based precision farming technologies for agricultural crop production

Lead partner: Technical University Vienna

Project title: **Optimised methods for precision pest surveillance and control of vector disease**

Acronym: **MosqDyn**

Type/financed by: IWT (IWT.155010)



Objective: Forecast pest population dynamics using meteorological drivers from a data processing chain of in situ placed wireless meteorological sensors.

Lead partner: Avia-GIS nv

Subcontractors: University of Zurich (UZH), Switzerland; University of Novi Sad (UNS), Serbia; RMI (Royal Meteorological Institute), Belgium; Desert Fox Club, Egypt



Project title: **Surveillance of invasive and native mosquito vectors and pathogens they transmit in Montenegro**

Acronym: **LOVCEN**

Type/financed by: The World Bank Group

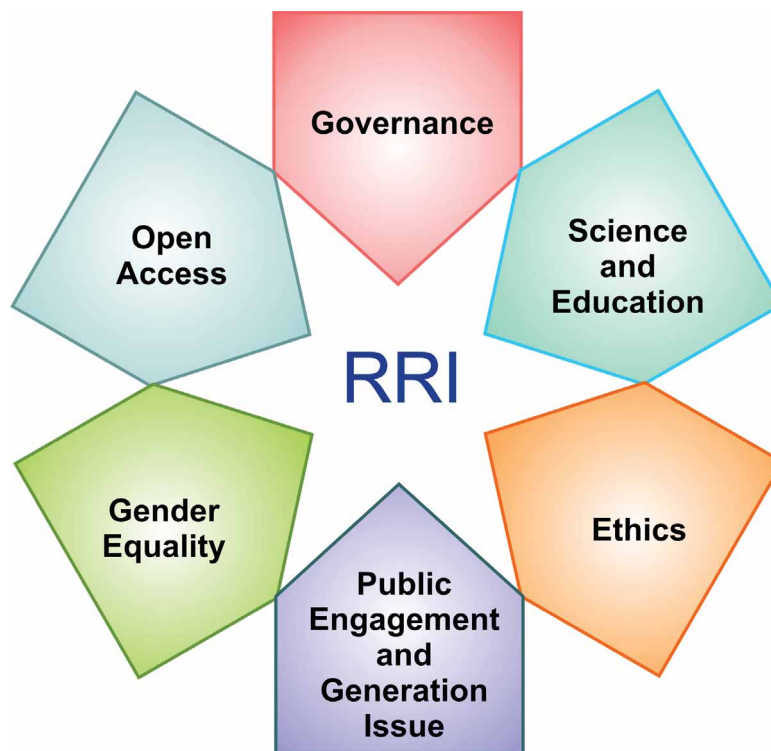
Objective: Mosquito vectors and mosquito-borne diseases are raising threat to Europe, which impact strength is difficult to predict. Their surveillance and control require efficient and appropriately standardised methods, integrated knowledge and awareness among researchers, academic educators and policy-makers.

Lead partner: BTF, Montenegro (PFNS, +10)

## SERBIA FOR EXCELL AND RESPONSIBLE RESEARCH AND INNOVATION (RRI)

Within the first day of Workshop in 2018 Dr. Antonia Bierwirth from Tecnalia Research and Innovation (Madrid, Spain) gave lecture “Excellence in research through Responsible Research and Innovation”

The aim of the presentation was to provide an overall understanding of RRI and its different pillars (public engagement, open access, gender equality, science education, ethics, and governance) and to prepare participants for the future Horizon Europe projects and its social-ethical requirements.



## RRI and University of Novi Sad, Faculty of Agriculture (PFNS)

The key goals of the science strategy of PFNS are the implementation of research into practice, popularization of research and research results, as well as mobility and the internationalization of research. In order to strengthen the position from which these goals are achieved a RRI group was established at the Faculty, which will work on the elaboration of six basic RRI topics and in the future will participate in their introduction in practice.

RRI goals are

- inclusion of a greater part of the society (professional and general public) in research and innovations in order to make these activities as much as possible in accordance with the needs of the society;
- to serve as a broad basis for establishing a link between scientific research community and society through: public engagement of researchers, open access to research results, gender equality, development of education for science, ethical norms and new forms of leadership;
- the common for all H2020 initiatives within the EU research and innovation program and it is almost certain that the same situation will be within the FP9 program.

The initial members of the RRI group at the PFNS are:

- 1) Science and education - Branislava Lalić
- 2) Ethics - Dejan Janković, Marina Novakov
- 3) Governance - Todor Marković
- 4) Gender equality - Mila Grahovac
- 5) Public engagement - Dragana Latković
- 6) Open access – Dejan Beuković
- 7) Generation issue - Aleksandar Potkonjak

The head of the group is Prof. Branko Čupina, Vice-dean for Science and International Cooperation.



# RESPONSIBLE RESEARCH AND INNOVATION (RRI) AT PFNS

<https://ec.europa.eu/programmes/horizon2020/en/h2020-section/responsible-research-innovation>

## Regional Hydroclimate Project (RHP) over the Pannonian Basin (PannEx)

**PannEx** is in its way to become a Regional Hydroclimate Project (**RHP**) of the World Climate Research Programme (**WCRP**) Global Energy and Water Exchanges Project (**GEWEX**). The GEWEX aims to observe, understand and model the hydrological cycle and energy fluxes in the Earth's atmosphere and at the surface. It proceeds by means of an integrated program of research, observations and science activities that focus on the atmospheric, terrestrial, radiative, hydrological, coupled processes and interactions that determine the global and regional hydrological cycle, radiation and energy transitions, and their involvement in climate change. The almost closed structure of the Pannonian basin makes it a very good natural laboratory for the study of the water and energy cycles, focusing on the physical processes of relevance.



This is the area of interest for **PannEx** (text from <https://sites.google.com/site/projectpannex/>).





## **SERBIA FOR EXCELL and Forecasting and Reporting Service of Plant Protection (Prognozno-Izveštajna Služba zaštite bilja - PIS) in Serbia**

The agrometeorological network is a part of the Forecasting and Reporting Service of Plant Protection (Prognozno-Izveštajne Službe zaštite bilja - PIS) in Serbia. The network consists of 166 AWSs with 69 in the Vojvodina region and 97 in central Serbia, placed in the field to measure micrometeorological conditions of the plant canopy (<http://www.pisvojvodina.com>).

Within the PIS network, monitoring of disease and pest appearance and development is performed daily or twice a week, depending on pathogen characteristics or favorable weather conditions for harmful organism appearance.





Serbia for Excell



The project SERBIA FOR EXCELL has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691998.