PROJEKTNE PONUDBE

Sodelavci SBRA se bodo konec maja in junija udeležili nekaj dogodkov za izmenjavo projektnih idej, kjer bodo zastopali interese Univerze v Ljubljani.

Dogodek za izmenjavo projektnih idej s področja Bioekonomije Bruselj, 31. Maj 2016

Teme, o katerih se bo podrobneje debatiralo:

<u>SFS-07-2016-2017</u>: Organic breeding – Increasing the competitiveness of the organic breeding and farming sectors

SFS-08-2017: Organic inputs – contentious inputs in organic farming

SFS-27-2017: Permanent grassland – farming systems and policies

SFS-35-2017: Innovative solutions for sustainable food packaging

BB-03-2017: Adaptive tree breeding strategies and tools for forest production systems resilient to climate change and natural disturbances

RUR-03-2017: Towards 2030 - policies and decision tools for an integrated management of natural resources

Projektne ideje

> SFS-35-2017: Innovative solutions for sustainable food packaging

Short description of the project idea (Max. 15 lines): In the proposed project we will attempt to originally use mixed plastic wastes (MPW) as low cost carbon sources for biopolymer production. Further value will be added by using of the resulting biopolymers for the synthesis of conjugated bioactive species with wide packaging applications. Recent advances in the field of polymeric controlled-release delivery systems of bioactive compounds have opened new opportunities for food packaging. Innovation in active packaging concerns the controlled release of e.g. antimicrobials incorporated into biodegradable packaging that could extend shelf life of products by preventing bacterial growth and spoilage. The results will have important potential industrial application in the area of waste valorisation through a bioconversion. An ambitious and speculative multidisciplinary project of this nature requires collaboration at a transnational level within EU. Management and disposal of MPW is a critical challenge facing each country. It may be expected, that the project will be of great importance to realize green plastics in a future sustainable society.

Main objectives: This multi-disciplinary proposal focuses on the conversion of mixed plastic waste (MPW) into value-added bioactive and biodegradable (co)polymers and oligomers of polyhydroxyalkanoates (PHA), targeting at controlled delivery systems of bioactive compounds for modern bioactive food packing materials.

Specific objectives: Adjustment and characterization of wax derived from MPW pyrolysis process to be used as carbon source in fermentations for biopolymers production. Transformation of biodegradable (co)polymers into bioactive oligomers, with which bioactive molecules are conjugated, for controlled delivery of antioxidants. Evaluation of the relationships between structure, properties and behavior before, during and after practical applications as bioactive and biodegradable food packaging system.

List of potential activities: Development of fermentation process (WP1) • Development of bioactive polymer and oligomeric products (WP2) • Processing and evaluation of bioactive blends (WP3) • Analysis and characterisation (WP4).

List of expected project outputs: An original and systematic research in microbial production of PHAs using mixed wax from plastic recycling industry. Establishment of an exchange platform for chemical modulation and derivation of PHAs, enabling transformation of crude biopolymers into high-value bioactive products for food packing. Initiation of a whole value chain from industrial wastes to bioactive and biodegradable thermoplastic products by involving upstream plastic processing industry and downstream plastic recycling industry.

> SFS-08-2017: Organic inputs – contentious inputs in organic farming

Short description of the project idea (Max. 15 lines):

Reduction of inputs in organic agriculture

Some products used in organic agriculture do not fully comply with the organic principles, in particular copper, mineral oils, wide spectrum botanical insecticides, manure from non organic farms and synthetic vitamins.

The project will focus on developing viable alternatives to such contentious inputs, including preventive farm-management methods and analysing the socio-economic conditions required for their adoption. The alternatives will be tested in different pedo-climatic and farming conditions allowing for wide geographical coverage within Europe, associated countries (Austria and Israel?) and relevant third countries (Morocco, Egypt,

The alternatives are identified in this proposal are the results of previous EU projects and are currently at TRL7 minimum. The goal is to bring them at TRL9 by the end of the project- For plant protection products the goal is to have at least the registration process started by the end of the project.

The results will also support policies as phasing out of the PPPs of concern for organic agriculture.

➤ BB-03-2017: Adaptive tree breeding strategies and tools for forest production systems resilient to climate change and natural disturbances

Short description of the project idea (Max. 15 lines):

The project aims to improve adaptive capacity of forests of spruce, white spruce and beech that vegetate today in good conditions and in the future may incurr in serious adaptation problems due to climate change. Several recent studies and researches indicate that the populations located on the borders of the native ranges of species, may have different genotypic characters developed to deal with the difficult climatic conditions in which they are found to evolve.

The project will develop a work plan that will allow to map the target species identified that have higher adaptive potential than the populations foud in the central native ranges. It will also set up a working strategy to achieve the movement of the gene pools of populations with higher adaptive capacity, to the populations located inside the distribution areal.

These activities will be conducted on the basis of a joint distribution areas in sub biogeographic areas.

A significant part of the project will be devoted to the establishment of a network of arboreta for the conservation of provenances and the establishment of a network of nursery companies operating in the production of seedlings for reforestation.

Specific objectives:

Create an European network for the conservation of genetic resources in-situ and ex-situ obtained from provenances of Spruce, Silver fir and Beech, with higher adaptive capacity to climate and pedology.

To put in place demonstration plots for adaptive management (controlled migration + adaptive silviculture) of forests to climate change in Europe

Implement the replication protocols for the forest nursery sector

List of potential activities:

Mapping of european bioregions, of most probable scenarios of Climate Change impacting on critical areas for forest formations with Spruce, Spruce and Beech. The map indicates those areas having in the future significant change.

Identification of target population for each bioregional area (spruce, white spruce and beech) that are placed on extreme areas of adaptation (southern location of the distribution, low-altitude training, etc.)

Genetic analysis of the most significant populations (choices for the population size, position, bibliographic data, etc.) Designed to assess the level of genetic biodiversity

Study of phenological behavior and growth in the different pilot areas, studied genetically, aimed at identifying the most adaptable mother plants to climate changes

Creation of trial plot with mother plants (former site) distributed in the European territories in conservation arboretums. This activity is designed to maintain under controlled environment different parent plants in order to have genetic material more user-friendly and at the same time to have the

repeated plots in different European environmental conditions as permanent areas of study on good weather adaptive capabilities.

Implementation, in the various countries of the project application, of reproduction by vegetative (grafting) of mothers selected plants for each specific biogeographical area

Inserting micro arboretums within semi-natural forests in critical areas for the future climate scenario, (assisted migration)

Monitoring activities

Dissemination activities

List of expected project outputs:

Identification of natural forest areas with good genetic biodiversity and extreme adaptive conditions (border populations) and data collection

Assisted migration protocols (playback and translocation techniques in the target forest stations)

Dogodek za izmenjavo projektnih idej za področje ZDRAVJE 21. in 22. Junij 2016, Bruselj

Razpisi Obzorje 2020 s področja zdravja so:

SC1-HCO-03-2017: Implementing the Strategic Research Agenda on Personalised Medicine

SC1-HCO-07-2017: Global Alliance for Chronic Diseases (GACD)

SC1-HCO-08-2017: Actions to bridge the divide in European health research and innovation

SC1-PM-02-2017: New concepts in patient stratification

SC1-PM-03-2017: Diagnostic characterisation of rare diseases

SC1-PM-07-2017: Promoting mental health and well-being in the young

SC1-PM-08-2017: New therapies for rare diseases

SC1-PM-10-2017: Comparing the effectiveness of existing healthcare interventions in the adult population

SC1-PM-15-2017: Personalised coaching for well-being and care of people as they age

SC1-PM-16-2017: In-silico trials for developing and assessing biomedical products

SC1-PM-17-2017: Personalised computer models and in-silico systems for well-being

SC1-PM-19-2017: PPI for uptake of standards for the exchange of digitalised healthcare records

<u>SC1-PM-20-2017: Development of new methods and measures for improved economic evaluation</u> and efficiency measures in the health sector

Dogodek za izmenjavo projektnih idej za Obzorje 2020 – nanotehnologija in ICT 21. junij 2016, Bruselj

Prosimo izberite teme, ki vas zanimajo, ter opišite kako bi v projektu sodelovali.

Razpisi za 2017:

ADVANCED MATERIALS AND NANOTECHNOLOGIES FOR HIGH ADDED VALUE PRODUCTS AND PROCESS INDUSTRIES

04-2017: Architectured /Advanced material concepts for intelligent bulk material structures

05-2017: Advanced materials and innovative design for improved functionality and aesthetics in high added value consumer goods

06-2017: Improved material durability in buildings and infrastructures, including offshore

07-2017: Systems of materials characterisation for model, product and process optimisation

ADVANCED MATERIALS AND NANOTECHNOLOGIES FOR HEALTHCARE

12-2017: Development of a reliable methodology for better risk management of engineered biomaterials in Advanced Therapy Medicinal Products and/or Medical Devices

13-2017: Cross-cutting KETs for diagnostics at the point-of-care

14-2017: Regulatory Science Framework for assessment of risk benefit ratio of Nanomedicines and Biomaterials

15-2017: Nanotechnologies for imaging cellular transplants and regenerative processes in vivo

16-2017: Mobilising the European nano-biomedical ecosystem

ADVANCED MATERIALS AND NANOTECHNOLOGIES FOR ENERGY APPLICATIONS

19-2017: Cost-effective materials for "power-to-chemical" technologies

20-2017: High-performance materials for optimizing carbon dioxide capture

ECO-DESIGN AND NEW SUSTAINABLE BUSINESS MODELS

22-2017: Business models and industrial strategies supporting novel supply chains for innovative product-services

MODELLING FOR THE DEVELOPMENT OF NANOTECHNOLOGIES AND ADVANCED MATERIALS

25-2017: Next generation system integrating tangible and intangible materials model components to support innovation in industry

SCIENCE-BASED RISK ASSESSMENT AND MANAGEMENT OF NANOTECHNOLOGIES, ADVANCED MATERIALS AND BIOTECHNOLOGIES

28-2017: Framework and strategies for nanomaterial characterisation, classification, grouping and read-across for risk analysis

29-2017: Advanced and realistic models and assays for nanomaterial hazard assessment

SCIENCE-BASED RISK ASSESSMENT AND MANAGEMENT OF NANOTECHNOLOGIES, ADVANCED MATERIALS AND BIOTECHNOLOGIES

31-2017: Presidency events

34-2017: Governing innovation of nanotechnology through enhanced societal engagement

35-2017: Innovative solutions for the conservation of 20th century cultural heritage

ICT WORK PROGRAMME

A new generation of components and systems

ICT-04-2017: Smart Anything Everywhere Initiative

Advanced Computing

ICT-05-2017: Customised and low energy computing

Future Internet

ICT-07-2017: 5G PPP Research and Validation of critical technologies and systems

ICT-08-2017: 5G PPP Convergent Technologies

ICT-09-2017: Networking research beyond 5G

ICT-11-2017: Collective Awareness Platforms for Sustainability and Social Innovation

Content technologies and information management

ICT-14-2017: Big Data PPP: cross-sectorial and cross-lingual data integration and experimentation

ICT-15-2017: Big Data PPP: Large Scale Pilot actions in sectors best benefitting from data-driven innovation

ICT-16-2017: Big data PPP: research addressing main technology challenges of the data economy

ICT-17-2017: Big data PPP: Support, industrial skills, benchmarking and evaluation

ICT-19-2017: Media and content convergence

ICT-20-2017: Tools for smart digital content in the creative industries

ICT-23-2017: Interfaces for accessibility

Robotics and Autonomous Systems

ICT-25-2017: Advanced robot capabilities research and take-up

ICT-27-2017: System abilities, SME & benchmarking actions, safety certification

ICT-28-2017: Robotics Competition, coordination and support

ICT Key Enabling Technologies

ICT-30-2017: Photonics KET 2017

ICT-31-2017: Micro- and nanoelectronics technologies

Innovation and Entrepreneurship support

ICT-32-2017: Internet of Things and Platforms for Connected Smart Objects

ICT-33-2017: Internet of Things and Platforms for Connected Smart Objects

International Cooperation actions

ICT-39-2017: International partnership building in low and middle income countries

FACTORIES OF THE FUTURE

Factories of the Future

FOF-06-2017: New product functionalities through advanced surface manufacturing processes for mass production

FOF-07-2017: Integration of unconventional technologies for multi-material processing into manufacturing systems

FOF-08-2017: In-line measurement and control for micro-/nano-enabled high-volume manufacturing for enhanced reliability

FOF-09-2017: Novel design and predictive maintenance technologies for increased operating life of production systems

FOF-10-2017:

FOF-12-2017: ICT Innovation for Manufacturing SMEs (I4MS)