



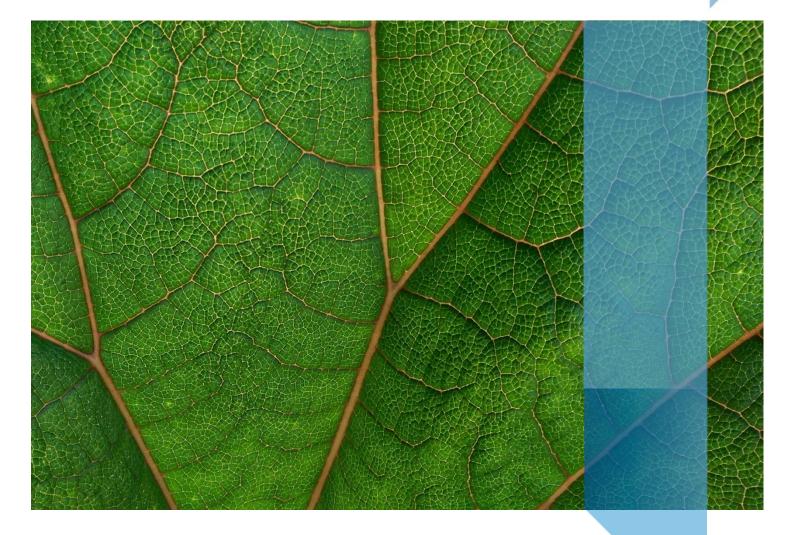
# WIP RENEWABLE ENERGIES

YOUR PARTNER IN THE FIELD OF RENEWABLE ENERGIES









### OUR MISSION



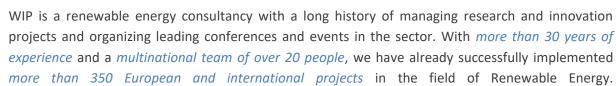
The current energy infrastructure worldwide must be transformed with the objective to reduce fossil energy related conflicts, mitigate climate change, and avoid other negative impacts of nuclear and fossil energy systems.

Our mission is to contribute to this goal by *facilitating research, innovation and market integration of renewable energy systems* through collaborative efforts across all sectors of society.





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### **OUR CONSULTANCY SERVICES**

Research, Consultancy, Communication and Exploitation Services

## Research & Consultancy

We have a long track record of carrying out *high-quality studies* in all areas where our company is active. The type of work ranges from *economic assessments and market research to policy analysis and Life Cycle Assessments*.

### Comms, dissemination and exploitation

We have a team of experts who develop *communication campaigns*, Stakeholder workshops as well as *strategies for the exploitation of R&I project results*, targeting either the general public or selected target groups.

### Event Organisation

WIP's expertise with event organization includes the conception, pre-financing, preparation, organisation and management of highlevel and large-scale international conferences, workshops, seminars and exhibitions in the field of RES.





*"BY DEVELOPING OUR BIO-ECONOMY – THE RENEWABLE SEGMENT OF THE CIRCULAR ECONOMY – WE CAN FIND NEW AND INNOVATIVE WAYS OF PROVIDING FOOD, PRODUCTS AND ENERGY, WITHOUT EXHAUSTING OUR PLANET'S LIMITED BIOLOGICAL RESOURCES"* 

JYRKI KATAINEN, FORMER EUROPEAN COMMISSION VICE-PRESIDENT FOR JOBS, GROWTH, INVESTMENT AND COMPETITIVENESS





### IN THE FOCUS: BIOENERGY & BIOECONOMY

Today, bioenergy is the EU's largest renewable energy source, and it is expected to remain a key component of the energy mix in 2030 and beyond, thus making an important contribution to the renewable energy target of the European Union. Representing an innovative solution for the heat, electricity and transport sector, sustainably managed biomass is thus a main driver of the development of a European bioeconomy.

For this reason, WIP is engaged in projects enhancing the development of bioenergy solutions and the uptake of a circular and sustainable bioeconomy in Europe.

### OTHER THEMATIC AREAS AT WIP:

### Renewable Energy Technologies

- Solar energy
- Bioenergy & bioeconomy
- Wind energy
- Hydropower
- Other Renewable Energy Technologies

Energy System Integration

- Energy storage and grid integration
- Energy efficiency
- Smart cities and networks
- Sector coupling

#### Market Uptake

- Social Innovation
- Policy development
- Sustainability analysis
- Training and capacity building
- Communication and Exploitation

...and many more!





### IN THE FOCUS: WIP'S PROJECTS ON BIOENERGY & BIOECONOMY

### DiBiCoo



### **Digital Global Biogas Cooperation**

DiBiCoo supports the development of the European biogas/biomethane industry by preparing markets for the export of related technologies from Europe to developing and emerging countries across Africa, Latin America and South East Asia. It develops support tools, both digital and non-digital, to enable knowledge transfer and capacity building. (European Commission, 2019-2022, www.dibicoo.org).

### MUSIC

### Market Uptake Support for Intermediate Bioenergy Carriers



The MUSIC project aims to facilitate market uptake of Intermediate Bioenergy Carriers (IBC) by developing feedstock mobilisation strategies, improved logistics and IBC trade centres. The three-year project develops strategies to mobilise the use of non-food biomass, determine the most costeffective logistics and facilitate the trade of IBCs. (European Commission, 2019 – 2022, www.music-h2020.eu)

### **BE-Rural**



## Bio-based strategies and roadmaps for enhanced rural and regional development in the EU

The BE-Rural project supports the establishment of regional and local biobased economies by involving relevant actors in the development of bioeconomy strategies and roadmaps. The target regions of BE-Rural are in Eastern and South-eastern Europe. (European Commission, 2019 – 2022, www.be-rural.eu)

### BIOPLAT-EU

### Promoting sustainable use of underutilized lands for bioenergy production through a web-based Platform for Europe



The overall objective of the project is to promote the market uptake of sustainable bioenergy in Europe using marginal, underutilized, and contaminated lands for non-food biomass production through the provision of a web-based platform that serves as decision support tool. (European Commission, 2018-2021, www.bioplat.eu)



### BABET-REAL5 New Technology and Strategy for a Large and Sustainable Deployment of Second Generation Biofuel in Rural Areas



The main aim of BABET-REAL5 is to develop an alternative solution for the production of second-generation ethanol based on smaller industrial scale than the already realised plants of first-generation ethanol. Such plants of small industrial scale shall be applicable to a large number of countries, rural areas and feedstock. (European Commission, 2016-2020, www.babet-real5.eu)

### BioVill

### Increasing the Market Uptake of Sustainable Bioenergy



The objective of the BioVill project was to transfer and adapt experiences gained in countries where bioenergy villages already exists (Germany and Austira) to countries with less examples in this sector (Slovenia, Serbia, Croatia, Macedonia and Romania). (European Commission, 2016 – 2019, www.biovill.eu)

### BIOREFLY

### Industrial scale demonstration biorefinery on lignin-based aviation fuels



The aviation industry considers aviation biofuels to be one of the primary means to reduce the carbon footprint of the industry. In this context, the BIOREFLY project developed and builds the first industrial pre-commercial lignin-to-jet fuel facility in Italy. (European Commission, 2015-2018, www.biorefly.eu)

### Study for GIZ Assessment of New Fuels and Technologies for the Use of Renewable Energies in the Greek Transport Sector



The aim of this study was to provide assistance to the Greek Ministry of Environment and Energy for improving the framework conditions for the development of new and innovative fuels and technologies for the use of renewable energy sources (RES) in the Greek transport sector and thus contribute to the achievement of the national RES targets for 2020 and 2030. (GIZ, 2019)



### BIOFIT



The overall aim of the BIOFIT project is to facilitate the introduction of bioenergy retrofitting in the following five industry sectors: first-generation biofuels, pulp and paper, fossil refineries, fossil firing power and combined heat and power plants. (European Commission, 2018-2021, www.biofit-h2020.eu)

**Bioenergy Retrofits for Europe's Industry** 

### BioSTEP

## BIOSTEP

BioSTEP applied a three-tier approach which aimed at reaching all relevant actors in the bioeconomy domain, particularly policy makers, various stakeholder groups (scientists, business, non-governmental organisations,

Promoting stakeholder engagement and public awareness for a

participative governance of the European bioeconomy

etc.), and citizens, with the objective to enable extensive dialogues processes on the future development of the bioeconomy. (European Commission, 2015-2018, www.bio-step.eu)

### FORBIO

## Fostering Sustainable Feedstock Production for Advanced Biofuels on underutilised land in Europe

FOR BIO

FORBIO demonstrated the viability of using land in EU Member States for sustainable bioenergy feedstock production that does not affect the supply of food and feed, in addition to not interfering with land currently used for recreational and/or conservation purposes. (European Commission, 2016 – 2018, www.forbio-project.eu)

### Bin2Grid

## Turning unexploited food waste into biomethane for local filling station networks

Bin GRID

The objective of the Bin2Grid project was to promote segregated food waste collection from the food and beverage industry, catering services, and from households in order to produce biomethane. This can be distributed through local filling stations networks. (European Commission, 2015-2017, www.bin2grid.eu)



### The main



The main aim of the SMIBIO Project was to develop small-scale integrated biorefinery units capable of processing different kinds of biomass produced in short radius catchments rural and small urban areas, both in Europe and in CELAC (Community of Latin American and Caribbean States). (BMBF/DLR, 2015-2018, www.smibio.net)

### S2Biom

### Delivery of sustainable supply of non-food biomass to support a "resourceefficient" bio-economy in Europe

S2Biom

The S2Biom project supported the sustainable delivery of non-food biomass feedstock at local, regional and pan European level through developing strategies, and roadmaps that will be informed by a "computerized and easy to use" toolset (and respective databases) with updated harmonised datasets at local, regional, national and pan European level for EU28, Western Balkans, Moldova, Turkey and Ukraine. (European Commission, 2013-2016, <u>www.s2biom.eu</u>)

### BiogasHeat Development of sustainable heat markets for biogas plants

**Small Scale Integrated Biorefinery Units** 

BIGASHEAT

BiogasHeat supported the development of a sustainable heat market for existing and new biogas plants. It specifically addresses appropriate solutions, business models, strategies and promising services on sustainable biogas heat use, especially from excess heat of combined heat and power (CHP) plants (European Commission, 2012-2015, <u>www.biogasheat.org</u>)

### Conference organisation in Colombia and Mozambique



Two regional workshops on Sustainable Biomass Production have been organised in Bogota, Colombia and Maputo, Mozambique on behalf of the Netherlands Enterprise Agency. (RVO, 2012-2013)

SRC+

## Short Rotation Woody Crops Plantations for Local Supply Chains and Heat Use



The SRC+ project supported the development of short rotation coppice (SRC) by removing non-technological barriers, especially through capacitybuilding, awareness raising and exchanges of experience. It addresseed land owners, farmers, municipalities and decision makers. (European Commission, 2014-2017, www.srcplus.eu)



## BIOREFINE-2G Development of advanced biorefineries for the production of dicarboxylic acids and bio-based polymers



Existing biorefineries utilize less than 20% of the biomass feedstock for ethanol production and generate major side-streams such as pentose and lignin that are mainly used for biogas and enegry production. BioREFINE-2G aimed at developing commercially attractive processes for efficient conversion of pentose-rich sidestreams from biorefineries into dicarboxylic acids, which can be used as precursors for bio-based polymers including biodegradable polymers. (European Commission, 2013-2017, www.biorefine2g.eu)

### NEMO

## Novel high performance enzymes and micro-organisms for conversion of lignocellulosic biomass to bioethanol generation



The project NEMO focused on the development of novel high-performance enzymes for hydrolysis of lignocellulose raw materials as well as of robust and efficient yeasts that can conferment pentose and hexose sugars for the production of second-generation bioethanol. (European Commission, 2010-2013, <u>www.virtual.vtt.fi/virtual/nemo/</u>)

### BIOLYFE

## Demonstrating large-scale bioethanol production from lignocellulosic feedstocks



BIOLYFE demonstrated the use of second-generation ethanol from lignocellulosic material at industrial level. In this project, the production and supply chain were demonstrated. The ethanol was tested in a vehicle fleet programme. WIP was project partner in the field of dissemination and sustainability assessment. (European Commission, 2010-2013, www.biolyfe.eu)

### BioTrade2020+ Supporting a Sustainable European Bioenergy Trade Strategy



The main aim of the project was to provide guidelines for the development of a European Bioenergy Trade Strategy that ensures that imported lignocellulosic bio-resources are sustainably sourced and used in an efficient way, while avoiding distortion of other (non-energy) markets. (European Commission, 2014-2016, www.biotrade2020plus.eu)



### Global-Bio-Pact Global Assessment of Biomass and Bioproducts Impacts on Sustainability



WIP coordinated the Global Assessment of Biomass and Bioproducts Impacts on Sustainability (Global-Bio-Pact). Global-Bio-Pact contributed to the development of global sustainability certification systems for biomass production, conversion systems and trade in order to prevent negative impacts. (European Commission, 2009-2012, www.globalbiopact.eu)

### ВіоТор



BioTop identified technical opportunities and research needs for biofuels in

**Biofuel Research Cooperation between Europe and Latin America** 

Latin America and supported specific RTD cooperation between Latin America and the European Union. BioTop was coordinated by WIP. (European Commission, 2008-2010)

### COMPETE



WIP coordinated the network COMPETE with the objective to stimulate bioenergy implementation in arid and semi-arid regions in Africa. COMPETE is a platform for policy dialogue, capacity building, research and demonstration exchange. The network involves important organisations for Europe, Africa, Latin America and Asia. (European Commission, 2007-2009, www.compete-bioafrica.net)

### Urban Biogas Urban waste for biomethane grid injection and transport in urban areas



Biogas production from waste has the potential to contribute to the European waste and renewable energy targets. Adjacent upgrading to biomethane quality and grid injection in the natural gas distribution network is an opportunity to efficiently use renewable energy in urban areas. This approach, Waste-to-Biomethane (WtB), was promoted by the UrbanBiogas project in 5 European target cities (European Commission, 2011-2014, www.urbanbiogas.eu)





### GET IN TOUCH WITH US

### **Consultancy services**

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