



ACCESS NEW TECHNIQUES IN PLANT PROTECTION

LOWER AUSTRIA
THE UP-AND-COMING REGION

Welcome to the future and
to Tulln Technopol.

Discover innovative ways of using microorganisms to manage plant diseases and pests in practice. Learn about the real potential of secondary metabolites that are both bioactive and eco-friendly. Become a partner of our biotechnology hub in Tulln and benefit from our unique know-how in the fields of plant and soil research.

With our more than 1200 workplaces in R&D, Tulln Technopol is one of the leading biobased technology research centres. Not only that, but we are also a global player in the sectors of human and animal foodstuff safety, process design for biobased products and agricultural biotechnology. Some of the world's most frequently cited researchers are based here while 30 businesses – among which are global leaders in their fields – together with research and educational institutes that are renowned at the EU level make Tulln Technopol an unparalleled biotechnology ecosystem.

We bring together what belongs together! ecoplus, the business agency of Lower Austria, will provide you with help and support free of charge in all phases of your project if you are planning to enter into a collaboration with or establish a research facility at Tulln Technopol in Lower Austria. I will act as your personal contact and look forward to addressing your needs. I will be quite happy to discuss matters at your convenience. Simply contact me at invest@ecoplus.at or telephone +43 2742 9000 19721, +43 664 601 19721

Best wishes

Ing. Slavisa Milanovic, MA
Business Location Consultant Lower Austria





THIS IS WHAT WE CALL FERTILE SOIL

LOWER AUSTRIA AT EUROPE'S CUTTING EDGE

Welcome to Tulln.

Benefit from Tulln's central location in Lower Austria, the largest province of the Republic of Austria. Vienna, the capital of Austria, is just 40 km distant and the fast-growing markets of Eastern Europe are in close proximity. There are also advantages in terms of the infrastructure – such as the high-speed rail link to Vienna Airport (VIE) – that make Tulln a dynamic centre and hub of the Central and Eastern European Region.

Tulln..

is now synonymous with state-of-the-art developments in the areas of agricultural products and global leaders in this sector, such as AGRANA, have chosen to locate here. In addition to acting as a business and research focus for biotechnology, Tulln is in addition also known as the garden capital of Austria and frequently hosts international ecological horticultural trade fairs. Active water landscapes and the meadows and fields in Tulln and its surroundings mean that Tulln is a green oasis and one of the most popular places to live in Austria.

Business location.
And a place to live.

Safety and security, a unique natural landscape, an array of cultural attractions: Lower Austria is somewhere that it is good to live. There are very excellent reasons why Austria rates No. 1 in the Quality of Life Index (IMD 2020), above even Norway and Switzerland. And this represents a particular asset when it comes to recruiting and ensuring the loyalty of the best qualified personnel.

»The emphasis on agricultural biotechnology at Tulln Technopol provides our business group with an important basis for targeted and efficient product development. The synergy generated by the combination of teaching, academic and application-orientated and industrial research provides highly qualified personnel with the ability to produce outstanding results that have international visibility.«

Dr. Eva Maria Binder,
Managing Director, DSM Austria GmbH





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GAIN THE TECHNOLOGICAL EDGE

TECHNOPOL TULLN DESIGN THE FUTURE

Working together to promote healthy crop development.

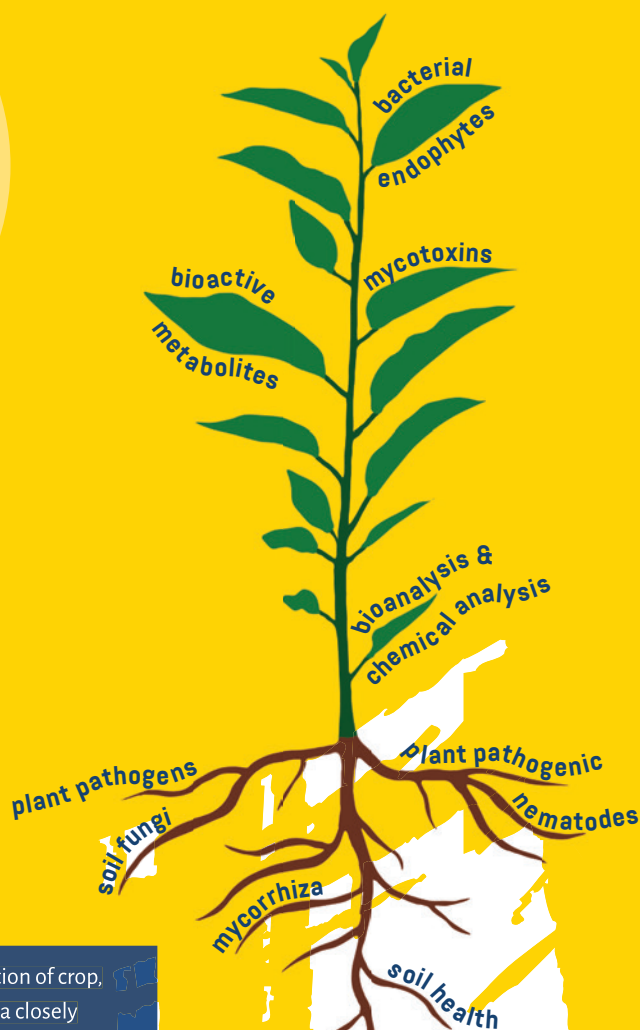
The unique synergies generated here have made Tulln Technopol one of the leading hubs of biotechnology in Europe. Interconnected and holistic research combined with a dedicated specialised focus on microorganisms and soil protection will enable you to break new ground in crop protection.

From accurate bioanalysis through to a wide range of methodological research approaches – an experienced, local, ideally designed research network will provide you with the technological edge over your international rivals. In addition, ecoplus is continually working on the development of the site; the independent management structure of the Technopol actively links all stakeholders and promotes new trends in research and innovation. Tulln Technopol has trailblazing expertise at its disposal (see image):

TECHNOPOL TULLN FACTS & FIGURES

- Some **1200** personnel employed on site
- 30** biotech businesses located here, including DSM Austria GmbH, Agrana, Capricorn
- 15** university and research institutes:

- Crop cultivation
- Crop protection
- Plant breeding
- Wine and fruit growing
- Soil research
- Biotechnology for crop production
- Bioanalysis and agricultural metabolomics
- Biotechnology for livestock farming
- Timber technology and renewable raw materials
- Natural materials technology
- Environmental biotechnology
- Animal nutrition, animal foodstuffs and nutritional physiology
- Agricultural technology
- Chemistry of renewable raw materials
- Applied genetics and cellular biology



» At Tulln Technopol there is the ideal combination of crop, microorganism and soil research together with a closely linked campus environment with its exceptional expertise in the use of mycorrhiza fungi and how to deal with plant-pathogenic soil fungi and plant-parasitic nematodes.«

Univ. Prof. Dipl.-Ing. Dr. Siegrid Steinkellner, Head of the Institute of Plant Protection, University of Natural Resources and Life Sciences, Vienna (BOKU)



EXPERTISE & KNOWLEDGE POOLED AT A SINGLE SITE

THE PLANT MICROBIOME AND CONTEMPORARY AGRICULTURE

Healthy plant performance in association with microbes.

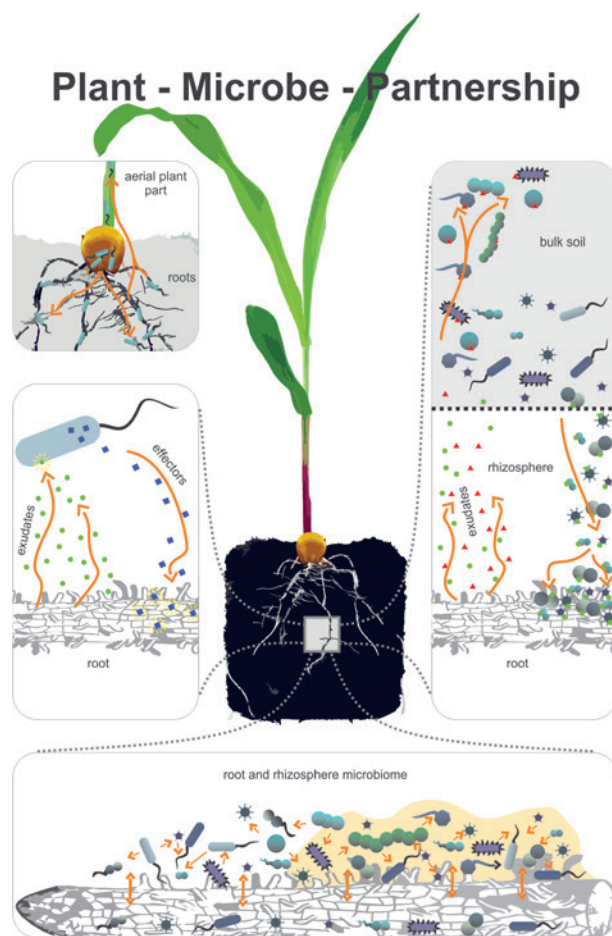
An understanding of plant microbiomes has become an essential tool of today's agriculture. The diversity of microbial endosymbionts (endophytes) that colonise the surfaces and the internal structures of plants forming communities with these (microbiomes) and their metabolic and functional capabilities determine both plant growth and health and provide a starting point for the development of applications for use in contemporary, sustainable agriculture.

Trailblazing research at Tulln Technopol.

Those working at Tulln Technopol already have many years of experience in the investigation of plant-associated microbial communities. Thanks to recent research, it has been possible to classify microbiomes on a non-cultivation-related basis and to identify those factors that are responsible for the structure of these communities.

The further development of techniques such as (meta)genome and transcriptome analysis means that more detailed biological characterisation of the function of plant-associated microorganisms is now possible and the mechanisms of communication and interaction between plants and their endophytes on the molecular level can be studied.

Plant - Microbe - Partnership



Source: Mitter et al. 2016. Plant-microbe partnerships in 2020. Microbial Biotechnology 9:635-640

Sustainable crop agronomy using microbial approaches.

Here in Tulln, far-reaching insights into the beneficial interactions between plants and microbes as well as the ecology of plant-associated microbiomes have been acquired. With this specialist knowledge, continuous development of microbial-based approaches to the improvement of crop agronomy is now possible. The effects of specific microbial strains and consortia on yield and stress tolerance, seed germination and the biological control of phytopathogens are tested in greenhouse and field pilot trials.



PD Dr. Angela Sessitsch, Head of the Competence Unit Bioresources, AIT Austrian Institute of Technology

„At Tulln Technopol we work on highly innovative approaches to investigating microbiomes and their interaction with plants with the aim of developing new and sustainable applications for use in agriculture. Microbiome-based concepts allow the production of healthy foodstuffs for healthy people in a healthy environment.“

EXPLORE THE ANTAGONISTIC EFFECTS OF MYXOMYCETES AT TULLN



SLIME MOULDS WITH POTENTIAL

Myxomycetes: are these the future superstars of biocontrol?

At Tulln Technopol an entirely new class of organisms is being investigated with which the general scientific world is largely unfamiliar; these are the myxomycetes or 'slime moulds'.

They have a very promising potential when it comes to their antagonistic effects against plant pathogens. They exhibit a distinctive combination of mechanisms of action that it might prove possible to use for the biological control of unwelcome fungi and bacteria.

Research into these organisms is currently still in its infancy but methods and skills that are unique worldwide have already been developed in connection with the harvesting of myxomycetes and their identification, through the production of biomasses to the testing of antagonistic effects in the laboratory and greenhouse.

You too can join us at Tulln Technopol in exploring the (possibly) massive potential in this research field and thus gain a foothold at the very beginning.

A whole **new class of organisms** that can be used in biocontrol.

Myxomycetes have several antagonistic characteristics:

- 1) They actively hunt their prey and migrate towards them.
- 2) They can feed on phytopathogenic bacteria and fungi.
- 3) They produce secondary metabolites with bactericidal and fungicidal effects.

Due to the **three dormant stages** of myxomycetes (spores, microcysts and sclerotia) they can also be stored for longer periods for use in biocontrol when needed.

THIS IS
THE HOME
OF SPECIALISTS



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A TALENT POOL
OF PERSONNEL OF TOMORROW

Practice-orientated training. Perfect symbiosis.

Tap into the pool of talent at Tulln Technopol. This is where the specialists of today and tomorrow are at home thanks to the local educational and research facilities.

The perfect interplay between science, business and training make Tulln Technopol a centre of know-how of international magnitude. Here there is worldwide cooperation with top level research institutes and high-tech companies active throughout the globe.

Prominent universities, including the Technische Universität Wien (TU Wien), the University of Veterinary Medicine, Vienna (Vetmeduni Wien) and the University of Natural Resources and Life Sciences, Vienna (BOKU Wien), have established institutes and competence centres at Tulln Technopol where the next generation of business and science specialists are being trained.

6 INSTITUTES OF
HIGHER EDUCATION
REPRESENTED

- BOKU Wien
- TU Wien
- Vetmeduni Wien
- Uni of Applied Sciences Wiener Neustadt (Campus Tulln)
- Austrian Institute of Technology
- Danube Private University

TALENT POOL

Pupils and students at the biotech schools, universities and universities of applied sciences in the vicinity of Tulln

ROUGHLY 1200

R&D workplaces on site

MOST-CITED

Among those who work at Tulln Technopol are some of the world's most-cited scientists, such as the microbiologist Angela Sessitsch and the mycotoxin researchers Rudolf Krska and Michael Sulyok

Here you can recruit your PhD-qualified employees of tomorrow.

Organisations based in Tulln have the opportunity to cooperate with the local educational institutes and contact potential future staff from the pool of PhD students, often resulting in their participation in shared projects while still studying. This is the ideal way to get to know potential employees and to influence their study focus.



Univ.-Prof. Dr. Rudolf Krska, Deputy Head, Department for Agrobiotechnology IFA-Tulln, Member of the Senate of the University of Natural Resources and Life Sciences (BOKU)

„There is hardly any other location in the world in which the symbiosis of teaching, theoretical and applied research has been so impressively achieved as it has at Tulln Technopol.“



YOUR FUNDING ADVANTAGE

FUNDING OPPORTUNITIES FOR FINANCING IN OVERVIEW

SUPPORT FOR THE HIGH-TECH SECTOR

The research premium

Austrian businesses can claim the crediting or refund of 14% of their costs spent on external and internal research and thus recoup part of these outgoings. All businesses based in Austria are entitled to this tax 'sweetener'.

The Austrian Research Promotion Agency (FFG)

Die FFG fördert F&E-Projekte mit einem jährlichen Volumen von 685 Mio. EURO (2018). SME Paket, ein generelles FFG-Förderprogramm, Start-up-Förderung, Vorsprungsförderung, COMET, COIN Network usw.

The promotional bank of the Austrian federal government (AWS)

In addition to the standard means of providing support in the form of loans and financial guarantees, there are also special programs designed to provide financial help to start-ups and established businesses: the aws Founder Fund, aws SME Fund, aws Double Equity (assumption of a guarantee for the doubling of private capital investments) and the aws iz Business Angels.

A SELECTION OF THE MANY FINAN- CING OPTIONS AVAILABLE

Business and Tourism Fund of Lower Austria

The Province of Lower Austria also offers various funding and support options, including support for start-ups through standard financing options to environmentally-based programs, in addition to on-going invitations to tender for special technology-orientated projects. This funding can also be claimed in combination with other funding provided by the federal government.

Share participation model of NÖBEG

NÖBEG (Niederösterreichische Bürgschafts- und Beteiligungsbank): this Lower Austrian bank invests in innovative, technology-orientated businesses in Lower Austria by purchasing their shares; it acts as a silent partner and does not interfere in ownership, aims: implementation of R&D results and market launches

TECNET EQUITY

Tecnet (Niederösterreichische Technologiebeteiligungs-Invest GmbH) is a typical early stage investor and has been part of the Austrian start-up scene for many years: it provides venture capital to young technology businesses.



OUR SERVICES
ARE PROVIDED
FREE OF CHARGE

WIDE-RANGING
SUPPORT

1 FINDING A LOCATION IN
LOWER AUSTRIA

Welcome to Lower Austria!
We support you free of charge.

Like the sound of the Tulln Technopol in Lower Austria with its
unique ecosystem and many opportunities for funding of R&D
projects?

ecoplus INVEST will advise you and help you find your feet
there. And that completely free of charge. As a public non-
profit agency, we will be at your side and promote your under-
taking from the initial negotiations, through joint research
projects to your locating here.

Simply contact your personal consultant
Ing. Slavisa Milanovic, MA.
Email: invest@ecoplus.at
Tel. +43 2742 9000 19721 or +43 664 601 19721

2 ECOPLUS PROPERTY
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FUNDING

5 OFFICIAL PROCEDURES,
APPROVALS AND
PERMITS

6 SUPPORT WITH EXPORT TO
THE CEE REGION

8 ACCESS TO
EDUCATIONAL
INSTITUTES AND R&D
CENTRES

7 CONTACTS WITH
CLUSTERS AND YOUR
BUSINESS SECTOR



[investinloweraustria.at](https://www.investinloweraustria.at)

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