The background of the cover is a scenic landscape featuring a body of water in the foreground, a dense line of green trees in the middle ground, and a bright blue sky with scattered white clouds. In the bottom left corner, there are tall green reeds.

RESEARCH, EXPERIMENTAL
DEVELOPMENT & KNOWLEDGE
TRANSFER ACTIVITIES

Report 2023

Dear reader,

AGES acts as an independent research institution and cooperates with numerous national and international authorities, private businesses and other research institutions as a partner in a wide variety of research and development projects. One of our main priorities is to make the findings of our research and development activities accessible to a wider public. Thus, our experts share their knowledge via the writing of specialist articles, public speaking activities and their participation in different event formats organised by the AGES Academy. Topics such as climate change, antibiotic resistance, food security, zoonoses and other emerging disease threats are vital to our future.

Current projects promoting better human health include UNICOM, SHARP, MoInGe and RadoNorm. The **UNICOM** project strives to improve patient safety and optimise healthcare through unified EU regulations. Project **SHARP** was initiated to strengthen the collaboration between EU Member States regarding cross-border health hazards. **MoInGe** investigates the spread and control of invasive mosquito species, while **RadoNorm** analyses the effects of radioactivity on the body.

Food security and the environment are also high on the AGES agenda. The project **FoodSafeR** explores how food system safety can be improved. The goal of **ReduktionPSM** is to reduce the use of specific types of plant protection products. **FUTURESOIL** works together with school children to look at the relationship between our own food and different agricultural farming systems. **ADAPT** seeks to improve the control of foot-and-mouth disease, while **ANTIVERSA** examines whether high biodiversity could reduce levels of antimicrobial resistance.

We take a holistic approach to health issues, focusing on the interdependencies between humans, animals, plants and the environment. This is reflected in **OneHealth EJP**, for instance. This project underlines the significance and efficiency of closer, interdisciplinary collaboration between different European institutions to improve the prevention, detection and control of zoonoses and of antimicrobial resistance in Europe.

We are going to introduce all these projects in further detail in this research report and hope you will enjoy your read!



**Priv.-Doz. Dr. Johannes
Pleiner-Duxneuner**
Managing Director



Dr. Anton Reinl
Managing Director

About Us

We are constantly involved in dealing with and containing potential risks to humans, animals and plants and ensuring better consumer safety in Austria, as part of the One Health philosophy, whether because of pathogens present in humans, animals and plants, counterfeit drugs, resistance to antibiotics, residues in foods, soil and seed examinations or radiation and climate protection. This means we analyse, monitor, evaluate, research, and communicate 365 days a year.

Our Locations

We can be found throughout Austria: our headquarters and three additional locations are in Vienna. We also have sites in Graz, Innsbruck, Linz, Mödling, and Salzburg and operate test stations in Carinthia, Styria, Lower Austria, and Upper Austria.



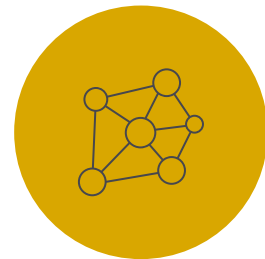
We inform

consumers and companies



We consult

politicians and authorities



We work

regionally, nationally,
and internationally

Our Research



We act professionally and independently using scientific expertise in line with the tasks stated in Art. 8 of the Austrian Health and Food Safety Act. Our official mandate and the extensive task spectrum in our mandate require us to carry out applied research and impart relevant scientific knowledge to the public via our knowledge transfer activities.

Applied Research

AGES employs highly qualified experts and employees, who carry out a vast range of examination and test activities on behalf of the Austrian public and represent the country in national and EU committees, all with the utmost diligence and in line with the legal framework. AGES staff members are active in almost 800 national and international committees.



“The research activities of our experts allow us to assess risks better, react appropriately in crises, and react to new professional challenges in a timely way. This work also secures our position as an independent, objective expert agency in Austria.”

- DI Mag. DDr. Alois Leidwein, Head of Knowledge Transfer, Applied Research and AGES Academy

We share information selectively with specialists and interact with national and regional authorities/agencies (national, EU, international) at professional levels, also in the form of capacity building projects. Knowledge transfer projects promote the sharing of information and support the EU-wide networking activities of AGES experts beyond our committee work. Our consulting activities for authorities and government institutions have been expanding at both national and international levels. Young scientists and experts are recruited via projects and given opportunities to develop their careers. Knowledge is shared by our experts with the public via publications and presentations. We are also involved in a wide range of nationwide projects.

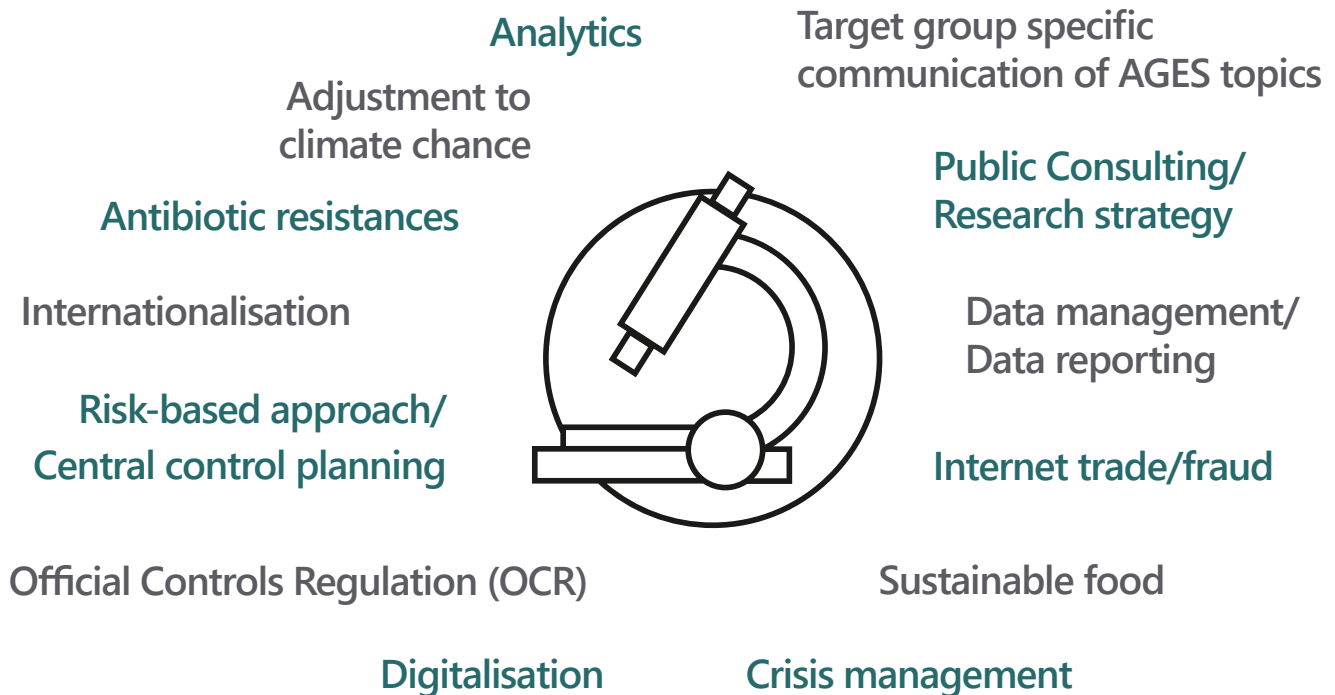
Research Cooperation

We carry out research projects together with external partner organisations in all our fields of activity - from food safety, medicine and medical market surveillance to animal health, public health, food security and radiation protection.

Our work in research networks help us in fields ranging from professional networking, knowledge transfer and the establishment of strategic partnerships for joint project submissions and project execution, to cooperation in crisis situations, among others. Research collaborations exist with universities and other research institutions at both national and international levels.

Our successful scientific work and research projects are based on cooperation agreements and partnerships with, for example, the Federal Ministry of Agriculture, Forestry, Regions and Water Management, the Federal Ministry of Social Affairs, Health, Care and Consumer Protection, the University of Natural Resources and Life Sciences (BOKU) or the University of Veterinary Medicine Vienna (Vetmeduni) at a national level. Additionally, we co-publish the journal: Die Bodenkultur – Journal for Land Management, Food and Environment. We also have cooperation agreements at international levels, such as with the German Federal Institute for Risk Assessment and the German Agency for International Cooperation GmbH.

Our Core Topics



Our Fields of Activity

AGES is owned by the Republic of Austria. We work on behalf of the Federal Ministry of Social Affairs, Health, Care and Consumer Protection and the Federal Ministry of Agriculture, Forestry, Regions, and Water Management. Our six fields of activity cover a wide range of topics relevant to health and the environment:



Food Security

Bee health, plant protection, seed, soil health ...



Food Safety

Mycotoxins, heavy metals, and other contaminants, farm to fork ...



Medical Market Surveillance

Drug licensing, clinical tests, reports of side effects...



Public Health

Influenza, gonococci, tuberculosis, Ebola, cholera, polio ...



Radiation Protection

Radon, drinking water, disposal ...



Animal Health

Animal diseases, zoonoses, parasites ...

The following six fields of activity are supported by our units and our three specialist departments:



**Integrative Risk Assessment,
Data & Statistics**



Risk communications



**Knowledge Transfer &
Research**

Our Projects

Sustainability-oriented research at AGES strives to contribute to sustainable development and the 17 SDGs (Sustainable Development Goals of the United Nations). It is designed to create understanding, analyse connections, identify problem areas, and create solutions for today's challenges. Furthermore, our research encourages innovation and brings new impulses into society by developing new methods and tools for broader use.

All 193 member states of the United Nations have set themselves 17 goals for sustainable development to improve economic, social, and ecological conditions worldwide. The experts at AGES work actively towards achieving all these goals, bar the first ("no poverty").



Research and science can make vital contributions during the transformation to sustainable development by generating new knowledge and making it useful at a social level, as well as helping to create and use innovative methods to combine theory and practice and encourage broader participation.

Thus, we would like to present some of our current projects to give you a representative view of our research activities. We contribute to achieving key goals for sustainable development through our projects.

Project: ReduktionPSM



Current significance and possibilities for reducing the use of plant protection products with higher risks in agriculture



Plant protection products (PPP) are used to reduce harvest losses caused by pests, diseases and weeds, as well as to ensure quality. Plant protection products are subject to a science-based, two-tier licencing process. A national licence for such a product can only be applied for, following the approval of an active substance by the EU.

A new category of active substances - so-called substitution candidates - was created following the introduction of the substitution principle in the field of plant protection in 2011. These are approved active substances with undesired properties, which are intended to be replaced successively by low-risk equivalents or alternative processes and methods. The European Commission formulated the objective of cutting the use of such substances by 50% by 2030 in the field of plant protection, as part of its farm-to-fork strategy. A total of 51 active substances were classified as candidates for substitution in the EU in 2023. Thirty-seven of these substances were contained in plant protection products licenced in Austria. The total volume of substances classed as candidates for substitution on the Austrian market stood at 536 tons in 2021 (9% of the overall volume). The eight most common active substances (aclonifen, chlortoluron, flufenacet, copper hydroxide, copper oxychloride, pendimethalin, tebuconazole, ziram) make up around 80% of the total volume.



“We tested the current significance of PPP with candidates for substitution for Austrian agriculture in the project ReduktionPSM. The tests should also show whether plant protection products with candidates for substitution could be replaced by other PPP equivalents and/or other plant protection measures.”

- DI Gottfried Besenhofer, Institute for Plant Protection Products

The project proceeded as follows: the substances classified as candidates for substitution were listed and the local licencing situation of plant protection products assessed in detail. The significance of the active substances for agriculture was estimated based on the total area to which they were applied (based on the quantity of active substance per hectare) and their use in farming cultures. A total of 448 fungicides, 191 insecticides, 66 herbicides and two other types of products were assessed for their substitutability. The highest potential for candidates for substitution was found in fungicides, followed by herbicides. There were very few substitution possibilities for insecticides and other types of products. The focus is now on increasing levels of awareness in farmers, consulting stakeholders (associations, organisations) and, especially, giving general recommendations on how to handle candidates for substitution in farming by including the concrete results of this project in our discussions.

Project management AGES: DI Gottfried Besenhofer

Project coordination: AGES

Project: FUTURESOLS

FUTURESOLS – Let's find out!

The **FUTURESOLS** project was set up together with schoolchildren to explore the relationship between our own food and various agricultural farming systems and jointly investigate the advantages and disadvantages of horizontal and vertical farming.

The term horizontal farming describes conventional farming, while vertical farming produces plant and animal-based products on several, vertically arranged levels. Vertical farming is especially practicable in locations where there is little space for agricultural activity, such as major cities. It provides new ways of developing spaces (e.g. high-rise buildings) that were not accessible for farming before, cutting the use of open areas. This project helped spark the interest of students in the natural sciences, research and similar professional fields.



“Children and teenagers were sensitised to the topics soil, land and nutrition, as well as related professions in school workshops and as part of experimentation days.”

- Julia Miloczki MSc, Sustainable Plant Production

“The focus was on our own nutrition, the space required to produce our food, the significance and properties of the soil, and different farming systems - especially vertical farming.”

- DI Dr. Anna Wawra, Sustainable Plant Production

Five school classes were responsible for one vertical patch and one hydroponics system each (cultivation of plants in water-based nutrient solutions instead of soil) for three months. The research done by the students and the active care of the plants enabled them to develop an understanding of the effects of our own actions on yields. The innovative vertical farming patches and hydroponics systems showcased how ecosystem cycles and innovative food production work and how we can contribute to the fight against climate change even in limited spaces. The use of peer-teaching at schools facilitated knowledge retention, enabled new perspectives and the transfer of the content generated to society. In addition, visits to business partners (an organic farm, aquaponics farm, garden centre) provided insights into the practice of food production, with the children took an active role in the production themselves. Moreover, they could ask experts about their education and jobs.

Project management AGES: DI Dr. Anna Wawra

Project coordination: Environment Agency Austria



Project: RadoNorm



Towards effective radiation protection based on improved scientific evidence and social considerations – focus on radon and NORM

People are exposed to radon and other naturally occurring radioactive material (NORM). The radiation emitted from these materials can have negative effects on our health. Radon, for example, can get into a house via the ground beneath it and into people's lungs through breathing. Radon is one of the major causes of lung cancer.

As a result, some questions need to be explored further, given that radon and NORM have a major impact on the human body:

- How exactly does radiation affect our health?
- How can we manage protection from radon and NORM efficiently?
- What are the best methods for measuring radon and NORM?
- How can higher radiation levels be lowered?
- How can we create greater awareness about this health risk in the public?

The **RadoNorm** project was initiated to answer these questions and, thus, ensure more effective protection from radiation, based on improved scientific evidence and sociological considerations. The project explores all the essential questions relating to the exposition and impact of radon and NORM, as well as measures to reduce exposure and increase risk awareness. A total of 57 organisations from 22 European countries are participating in this project. The project duration is set for five years.



“Radon is a radioactive noble gas that is generated in the ground as a by-product in the decay chain of naturally occurring uranium. Radon makes its way from the ground into building foundations via cracks and crevices and from there into the ambient air. Inhaling higher concentrations over longer periods of time will increase the risk of developing lung cancer. However, there are proven methods to cut radon concentration levels in buildings.”

- DI Dr. Wolfgang Ringer MSc, Radon and Radioecology

RadoNorm has been designed to cut scientific, technical and social uncertainties via research and technical development, education and further training at scientific institutions and through the disseminating of the project's results to the public, interest groups and regulatory authorities.

Project management AGES: DI Dr. Wolfgang Ringer MSc

Project coordination: Federal Office for Radiation Protection, Germany

Project: ANTIVERSA

Biodiversity: A Barrier for Antibiotic Resistance?

Microorganisms that have developed resistance to antimicrobial substances not only pose a problem in hospitals. A steady increase in levels of contamination with organisms with antimicrobial resistance can be observed in surface waters and, especially, soils. These organisms are often released into the environment via wastewater or agricultural plants. Antimicrobial resistance poses a serious health hazard to humans as it can weaken the effectiveness of medicines. Thus, it is crucial to research the ways antimicrobial resistance spreads.

The **ANTIVERSA** project explores whether a natural environment with a high diversity of bacteria and fungi - basically high biodiversity - could form a barrier to the spread of antibiotic resistance or, at least, could reduce its expansion. Soil, river water and sediment samples across Europe were collected and their biodiversity and contamination with resistance genes examined and compared. We were able to show that there is a strong correlation between high biodiversity and low levels of contamination with antibiotic resistance, especially in stationary, stable ecosystems, such as soil. It seems that "healthy", highly biodiverse soils could provide a barrier to antibiotic resistance.

"Antimicrobial resistance can spread via the environment, such as soils, surface waters or wastewater and, as a result, find its way into human or animal pathogenic bacteria via the food and feed chain. The goal is to drastically reduce this spread of antibiotic resistance across ecosystem borders."

- Dr. Markus Wögerbauer, Risk Assessment



Laboratory experiments were conducted to test whether different biodiverse soils can form a barrier to the spread of artificially introduced bacteria carrying a resistance gene. To do this, highly pressurised ecosystems, such as intensively cultivated farmland (fields fertilised with or without liquid manure) were compared to natural ecosystems (forest soils, conservation areas). Hundreds of soil microcosms were generated from these four sources and contaminated with resistant enterococcus or E. coli strains. Then, it was observed how long these strains would survive inside the microcosm over a period of seven months and what happened to the resistance gene over this period.

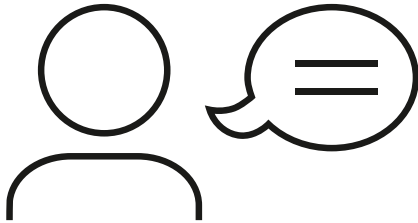
The invaders died within a short period of time in microcosms that featured a healthy bacterial flora, and the concentration of the resistance gene introduced fell drastically. The gene was not spread any further. An overall analysis of the data showed: a higher level of biodiversity reduces the spread of the resistance gene. Intact stationary ecosystems, such as soils, can therefore play a crucial role in containing antimicrobial resistance in the "One Health" system.

Project management AGES: Dr. Markus Wögerbauer

Project coordination: Dresden University of Technology, Germany



Presentations and Publications in 2023



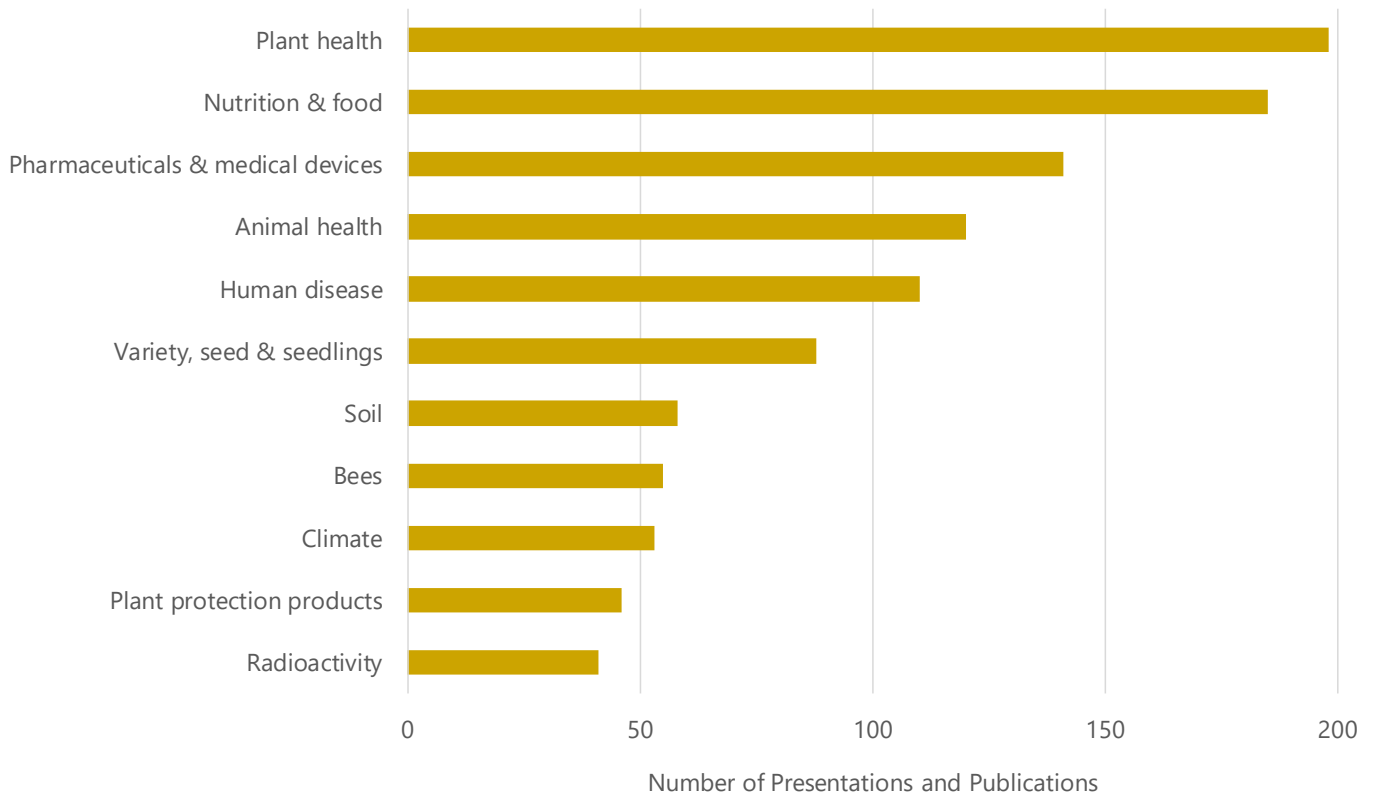
592 Presentations

76 Scientific Publications

101 Popular Science Publications

118 other Publications (posters, contributions to conference transcripts...)

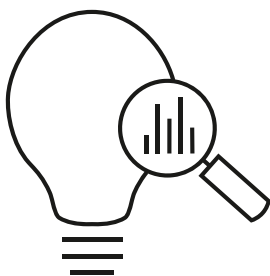
Most Frequent Research Topics 2023



Most Frequent Goals for Sustainable Development 2023

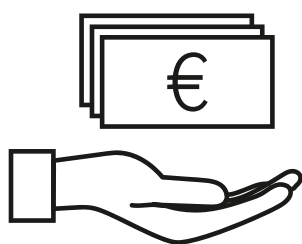


Research Projects in 2023



131 current Research and development (R&D) projects

59 completed Research and development (R&D) projects

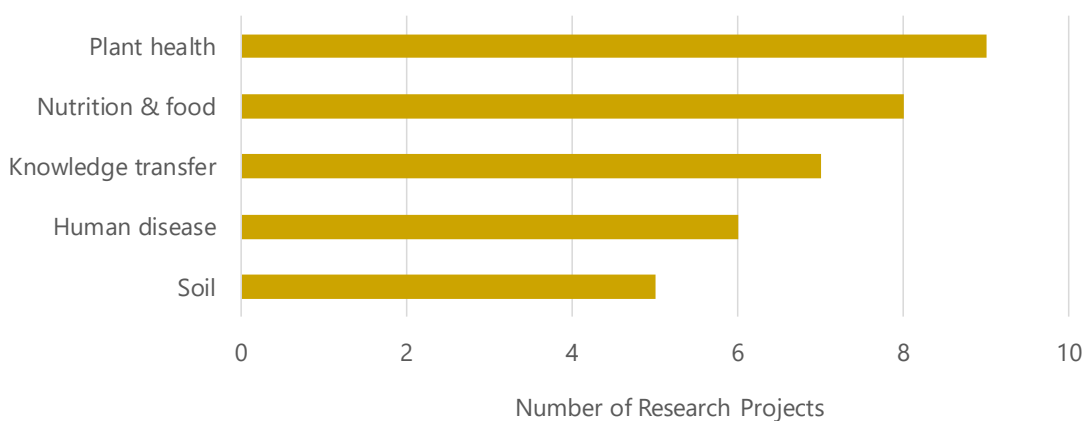


8,7 % Research quota

€ 18.76 million for R&D and knowledge transfer activities

€ 6.93 million of third-party funding for R&D and knowledge transfer activities

Most Frequent Project Topics 2023



Most Frequent Goals for Sustainable Development 2023



15
Research
Projects



14
Research
Projects



9
Research
Projects



8
Research
Projects

Project: SHARP



Strengthened International Health Regulations and Preparedness in the EU

The preparedness to overcome health-related emergencies is at a very high level across Europe. However, there is room for improvement when it comes to coordination between the EU Member States, as well as with the rest of Europe. The SARS epidemic of 2002 previously showed that countries respond mostly individually to new threats. Joint EU-wide measures were not undertaken. This demonstrated that the EU needs to strengthen its joint efforts. As a result, project **SHARP** was initiated to improve the EU's strategic framework for health, in line with Decision 1082/2013/EU on serious cross-border threats to health, and avoid the problems encountered prior the COVID-19 pandemic.



“The SHARP project helped the EU Member States to become stronger in avoiding, detecting and responding to biological disease outbreaks, chemical contamination and environment-related threats to human health.”

- Dr. med. univ. Bernhard Benka MSc, Public Health

SHARP was divided in several work packages that covered the core capacities of public health, in line with the IHR 2005 (International Health Regulations). The IHR are binding international rules issued by the World Health Organization (WHO), designed to control the cross-border spreading of diseases.

The mission was to strengthen preparedness by fostering IHR core capacities and assisting the EU Member States in the development of a standardised response plan. Thus, the coordination of the EU Member States regarding different global initiatives was improved, and the core capacities of public health laboratories strengthened to ensure that systems were put into place that guarantee a safe transfer of clinical samples for the early detection and observation of outbreaks. A total of 30 countries (24 EU Member States, three EEA/EFTA countries and three other European countries) took part in this project.

Project management AGES: Dr. med. univ. Bernhard Benka MSc

Project coordination: Finnish Institute for Health and Welfare (THL), Finland

Project: UNICOM

Up-scaling the global univocal identification of medicines

All EU/EEA states have IT systems and public registry data on medicines that have passed all the licensing processes required to be sold on the market. Up to now, there has been no unified standard on how this data is identified and stored in IT systems. This prevents efficient electronic data transfer and makes numerous applications in the field of public health more difficult (e.g. cross-border prescriptions; registering electronic health files; managing shortages; quality defects; recalls etc.).

“The ongoing digitalisation of the health sector can make a significant contribution to guaranteeing the safety of patients. It is necessary to implement joint standards to identify and provide unified, complete, high-quality data on all the medicines available in the respective national and European markets to exploit the benefits to the full.”

- DI Georg Neuwirther, Medical Market Surveillance, Information Management



The EU-financed, H2020-project **UNICOM** was designed to improve patient safety and healthcare safety at a general level. It should also focus on the increasing challenges faced in medicine dispensing because of patient cross-border mobility. Health service providers should be able to find suitable medicines, for example, that correspond to the therapeutic specifications of the medicine prescribed in a patient's country of origin. **UNICOM** seeks to accelerate the introduction of the new ISO-IDMP (Identification of Medicinal Products) standards. These standards provide the baseline for the unified identification of medicine data (e.g. substances, composition, packaging etc.). The need for this standardisation is also mentioned in EU regulations (e.g. Commission Implementing Regulation (EU) No 520/2012), highlighting the strategic significance of this objective.

A total of 41 partners from 19 countries, including 21 national medicine and eHealth agencies, are working together in the project consortium. AGES plays an important, leading role in this project. One of the project tasks is the upscaling of the core IT system “PHAROS” to ISO-IDMP standards. The development of Europe-wide, ISO-IDMP request forms for the role of product owner is being carried out at EU level. Additionally, we are working closely with ELGA and other eHealth organisations to implement the project for cross-border prescriptions.

Project management AGES: DI Georg Neuwirther

Project coordination: empirica Communications and Technology Research, Germany



Project: MolnGe



Monitoring of invasive mosquito species in Austria

Many new, potentially invasive mosquito species have been spreading rapidly across Europe in recent years. The Asian bush mosquito (*Aedes japonicus*) has already established itself in Austria. Another neobiotic (non-indigenous) species of mosquito was detected in Carinthia: the Korean bush mosquito (*Aedes koreicus*). Additionally, the Asian tiger mosquito (*Aedes albopictus*) has been detected repeatedly in Austria: occasionally in Tyrol since 2012, in Vienna and Lower Austria since 2020, and in the City of Graz in 2021. Tiger mosquitoes were found across all Austrian provinces for the first time in 2022. Not only is the Asian tiger mosquito an unpleasant nuisance because it is active during daytime, but it is also a potential disease vector (e.g. Chikungunya fever, Dengue fever, Zika virus).



“Everyone can help stop the spread of the Asian tiger mosquito. Their breeding grounds are small or very small pools of standing water, such as rain barrels, buckets, plant pot saucers or animal drinking bowls. Covering these items, emptying them regularly or keeping them dry when not used will prevent tiger mosquitoes from breeding in your garden or on your balcony.”

- Mag. Dr. Karin Bakran-Lebl, Institute for Medical Microbiology and Hygiene

The **MolnGe** project was designed to monitor and record the incidence and spread of non-indigenous, potentially invasive mosquito species across Austria using ovitraps and unified European standards (developed by the EU project AIM-COST). Five traps are placed at 50 different locations across Austria between May and October and checked for the presence of mosquito eggs from the genus *Aedes* on a weekly basis. AGES cooperates with the public health offices of the respective provinces, who are organising the setting up and checking of the traps, during this monitoring to achieve the highest possible coverage.

Another important aspect in the early detection of the presence of non-indigenous mosquito species and controlling their spread is the help of the public. The promotion of the Mosquito Alert app (<http://www.mosquitoalert.com/en/>) will not only help record new incidences of invasive mosquitoes, but also school the public to minimise breeding grounds for such species. Additionally, measures will be introduced to create more awareness among the public about the problems caused by invasive mosquitoes.

Around 6,000 samples are analysed and about 90,000 eggs counted and identified every year as part of this project. The combination of an active and passive monitoring programme should help detect non-indigenous, potentially invasive mosquito species as early as possible to enable the taking of effective countermeasures.

Project management AGES: Mag. Dr. Karin Bakran-Lebl

Project coordination: AGES

Project: FoodSafeR

A joined-up approach to the identification, assessment and management of emerging food safety hazards and associated risks

Food-related hazards such as bacteria, parasites, bacterial toxins and allergens cause more than 20 million illnesses and thousands of fatalities in Europe every year. Chemical hazards in foods, often connected to the presence of toxins, are an additional concern. As a result, the existing management systems for European food safety need to be adapted and expanded on a regular basis to cope with new challenges (e.g. climate change, new diseases).

This Horizon Europe project is developing the conditions needed for an innovative, proactive, comprehensive alert and management system for food safety (focus: dynamics of new risks). **FoodSafeR** is using integrated approaches in the definition of hazards and in risk management in a wide range of case studies, tools, methods, strategies, models, guidelines and training materials. An accessible digital centre will be set up as a “one-stop shop” for risk assessment, food safety authorities and relevant players and interest groups in the European food system. Thus, a consortium of 18 organisations from 14 European countries is working together on this project to achieve this objective.

“The project will help prevent food safety incidents caused by biological and chemical hazards in the European food system and their related socio-economic impact. Thus, FoodSafeR will strengthen sustainable, healthy, integrative food systems. Such systems are more beneficial for climate protection, sustainability, healthy diets, safe food consumption, stronger communities and thriving food businesses.”

- Priv.-Doz. Dr. Teresa Valencak, Competence Center Food Chain



This project offers an excellent opportunity to explore innovative solutions together to further improve the safety of food systems that have come under considerable pressure because of several factors, such as global warming, which is leading to an unexpected, much stronger (co-) incidence of bacteria and natural toxins in food cultures and foods. Moreover, there is a need for better co-operation across the entire food sector and at international levels, and the introduction of innovative technologies, including big data and digital technologies.

Project management AGES: Priv.-Doz. Dr. Teresa Valencak

Project coordination: FFoQSI – Austrian Competence Centre for Feed and Food Quality, Safety & Innovation



Project: ADAPT



Development of an Analytical and Data Processing Tool for EuFMDiS Model Output to Support FMD Contingency Planning



Foot-and-mouth disease (FMD) is a notifiable, highly contagious viral disease, affecting cattle, buffaloes, goats, sheep and other cloven-hoofed animals. Typical symptoms shown by infected animals are blisters in the mouth, on the udders and the feet. This is accompanied by high fever, pain, apathy, loss of appetite and reduced milk production. The most important preventative measures to contain the spread of the pathogen are the early detection of FMD, followed by the culling of all animals at the infected farm and the large-scale restriction of animal and animal-product transportation. The last FMD outbreak in Austria was recorded in 1981.



The European Commission for the Control of Foot-and-Mouth Disease (EuFMD) has developed a random-based model to simulate cross-border outbreaks of animal epidemics, namely the European Foot-and-Mouth Disease Spread model (EuFMDiS). The simulation model supports countries in improving and reviewing their preparations to ensure effective control of FMD outbreaks. The EuFMDiS has been introduced in 14 European countries up to now and will be expanded to additional countries in the future. It also enables a comprehensive assessment of different control options and assists with contingency planning in the EuFMD Member States.



“The user-friendly app developed during the ADAPT project offers a broad range of detailed statistics and visualisations of outbreak parameters at animal, farm and national levels. ADAPT can be used by all 14 EuFMDiS Member States.”

- Mag. Dr. Ian Kopacka, Statistics

However, EuFMDiS has some features that may be challenging or limiting for users. On the one hand, the standardised analysis of the vast, extensive results obtained may prove to be an obstacle for some, and, on the other, although the EuFMDiS model calculates the number of infected herds during a simulated outbreak, it does not offer any estimate of the samples necessary and test kits required during the control phase of an outbreak. These parameters are essential for contingency planning. As a result, this project has developed a tool (ADAPT – Analytical and Data Processing Tool) that facilitates the processing of the EuFMDiS model results.

Furthermore, EU Member States are required to nominate national reference laboratories that have the infrastructure, qualified staff, and appropriate equipment and products necessary to fulfil their tasks in emergencies, pursuant to Regulation (EU) 2017/625. **ADAPT** offers a way to estimate the number of samples accrued using the EuFMDiS simulation results to plan laboratory capacities accordingly.

Project management AGES: Dr. med. vet. Annette Nigsch

Project coordination: University of Veterinary Medicine, Vienna

Project: OneHealth EJP

OHEJP TP Coord: Promoting One Health in Europe through joint actions on foodborne zoonoses, antimicrobial resistance and emerging microbiological hazards

AGES follows a One Health approach: health topics are looked into from a holistic perspective, focusing on the interdependency of humans, animals, plants and the environment. This is reflected in the **OneHealth EJP** project. The project underscores the significance and efficiency of closer transdisciplinary collaboration between different European institutions to improve the prevention, detection and control of zoonoses (diseases that can be transmitted between animals and humans) and antimicrobial resistance in Europe.

This One Health European Joint Programme is a unique, international, multidisciplinary collaboration by 43 research institutions in the fields of public health, food safety and veterinary medicine for the whole of Europe. The programme was initiated in January 2018 to apply the One-Health concept and boost research on antimicrobial resistance and the prevention and control of foodborne zoonoses.



The One Health EJP has the following objectives:

- Strengthening the link between human health, animal health and environmental aspects via the One Health approach.
- The further integration of monitoring and response capacities, preventative approaches, detection systems and preparedness and response to disease outbreaks.
- Strengthening collaboration in joint research and integrative projects, as well as in educational and further training activities via a consortium of public institutions.
- Supporting interaction between European and national authorities and interest groups.
- Communicating new findings to political decision makers to assist them in taking appropriate measures.

“The primary focus of the OH-EJP project was to strengthen collaboration between the European Institutions involved. This was achieved by improving transdisciplinary collaboration, the integration of activities via joint research projects and education and further training in the fields of foodborne zoonoses, antimicrobial resistance and emerging hazards.”

- Priv.-Doz. Dr. Burkhard Springer, Institute for Medical Microbiology and Hygiene / Center for Foodborne Infectious Diseases



Project management AGES: DI Mag. DDr. Alois Leidwein

Project coordination: Agence nationale de sécurité sanitaire de l'alimentation, de l'environnement et du travail, France

Knowledge Transfer and Exchange

AGES Academy

We organise lectures, congresses, conferences, and training courses to share new and proven knowledge about current and future hazards and risks and to debate within our capacity as a certified training institution. We teach topics along the food chain, public health and food security in our training courses, as well as courses on further development for authorities and companies.

The **AGES Academy** is responsible for planning and carrying out AGES (training) events aimed at the public. This includes:

- 1.) Events on behalf of federal agencies and stakeholder ministries.
- 2.) In-house formats such as events and further training formats in the non-profit sector (in line with legal provisions) and information and further training formats for business partners (private sector offers in the business sector) developed by the **AGES Academy** together with the experts from individual departments.
- 3.) Guided tours and delegations: AGES offers selected stakeholders (universities, colleges, delegations from international health and food agencies etc.) the opportunity to become familiar with the AGES facilities and our research methods as part of guided tours.
- 4.) Knowledge transfer projects: the **AGES Academy** manages and develops the European training programme EU-FORA in Austria on behalf of the EFSA. The programme aims to extend the pool of experts for food risk assessment in Europe. Additionally, the **AGES Academy** is the national contact point for applications for the Europe-wide, cross-spectrum training initiative Better Training for Safer Food (BTSF), and for people based in Austria participating in it.



You can find out more about our events in our event calendar on our website (QR code). Explore our diverse lecture and training offering. We look forward to your participation!

The **AGES Academy** always strives to professionalise and innovate training and further training formats for authorities, government officials and businesses along the food chain on topics such as public health and food security (also in cooperation with colleges/universities, decentralised or online).

Additionally, the **AGES Academy** supports its expert fields in expanding their stakes in capacity-building projects (BTSF, Twinning, SRSS, EU-FORA and others) and in public consulting projects for EU agencies (CHAFFEA, EFSA, ECDC, EPPO and IOBC, Health and Food Audits and Analysis (HFAA), EU Parliament etc.), as well as at international and supranational levels.

FFG internships, Wiener Ferienspiel, Wiener Töchertag & Co.

FFG internships (FEMtech and FFG talents) give students and schoolchildren the opportunity to have an internship in companies such as AGES and extramural research institutions in every field of the natural and technical science, with a special focus on climate, the environment, and species diversity. The objective is to share practice-related knowledge through active participation in research projects and guide participants towards applied research, assisted by qualified mentoring at the company involved (<https://www.ffg.at/femtech-praktika>).

We also offer younger children the opportunity to get to know new things at AGES as part of the **Wiener Ferienspiel**, in addition to our internship programme. Children can learn about types of flour and how to make bread from them. Furthermore, soil samples, insects and wild herbs are gathered during a walk through the AGES grounds and examined afterwards. Girls are offered a glimpse of how food is examined, information on plant pests and an overview of the many different professions for women at AGES, as part of the **Wiener Töchertag** (Vienna Girls' Day).



AGES Events and Internships 2023

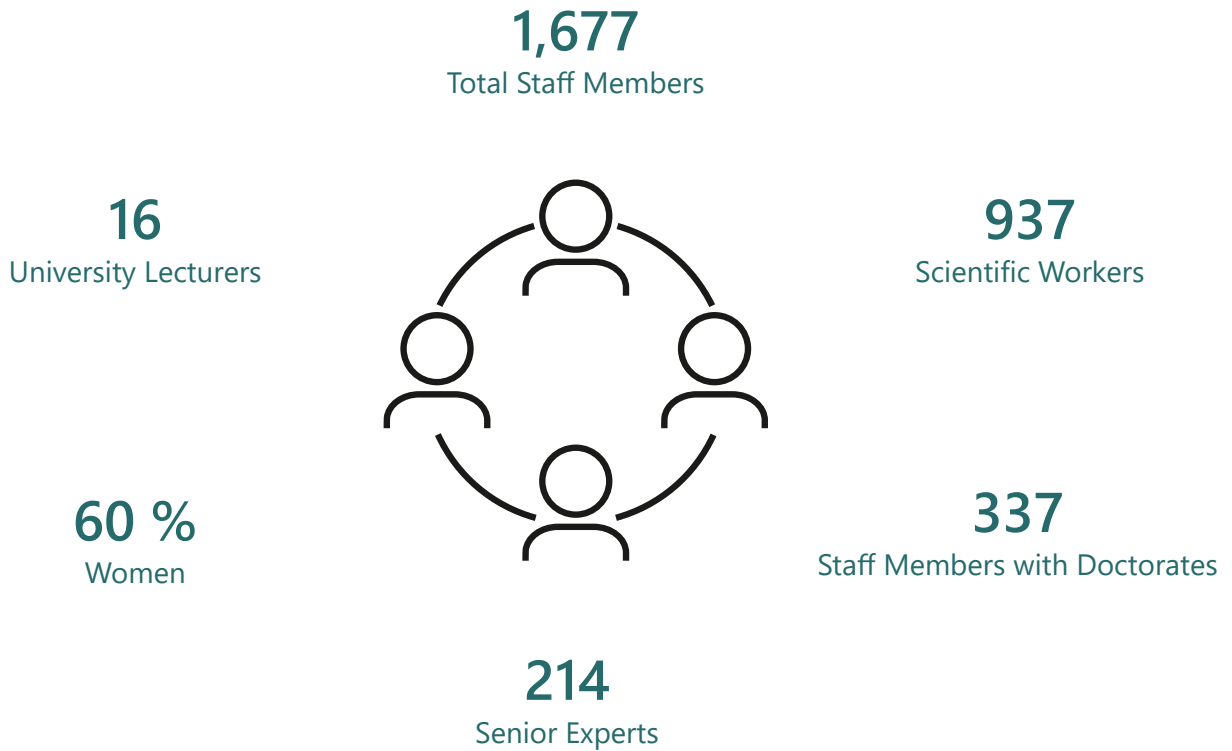
10.051
Participants

134
Events at the AGES
Academy

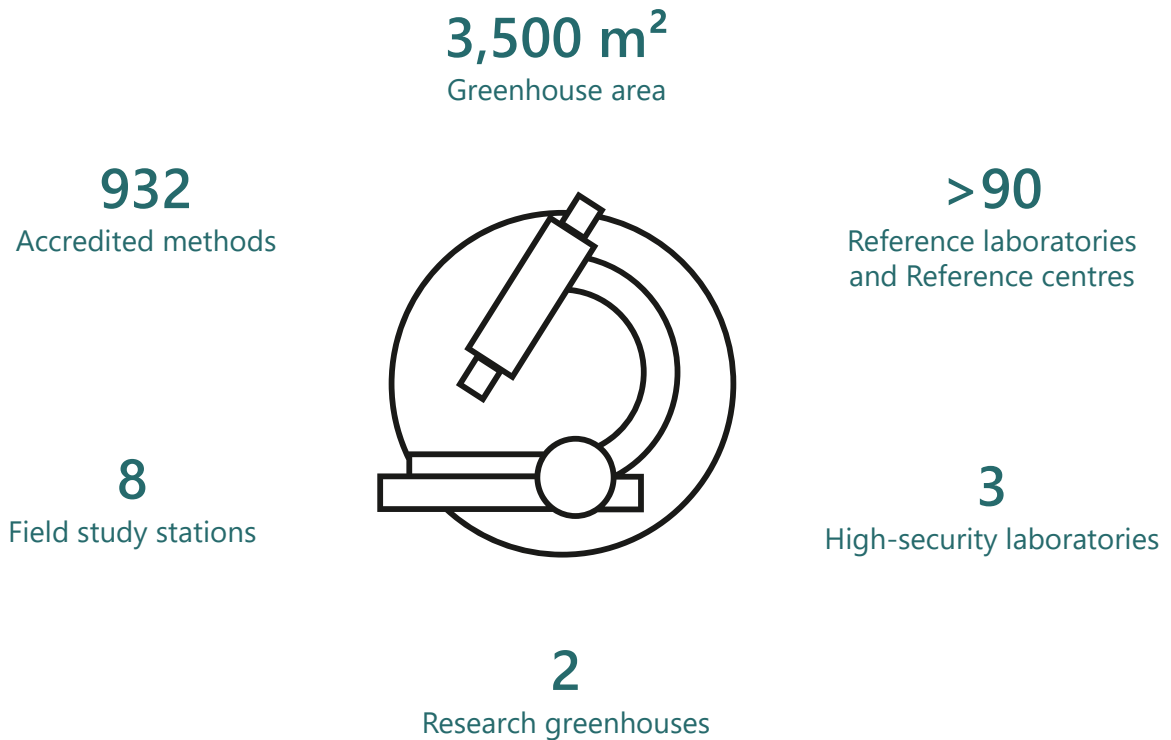
166
Months of FEMtech
Internships (female
students)

25
Months of FFG talents
(school students)

AGES Employees 2023



AGES Research Infrastructure 2023



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HEALTH FOR HUMANS,
ANIMALS AND
PLANTS



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