



UPPSALA
UNIVERSITET

INNOVATION

THE YEAR IN BRIEF – 2018

FACTS & FIGURES ON THE INNOVATIVE SPIRIT SUPPORTED
BY UPPSALA UNIVERSITY INNOVATION.



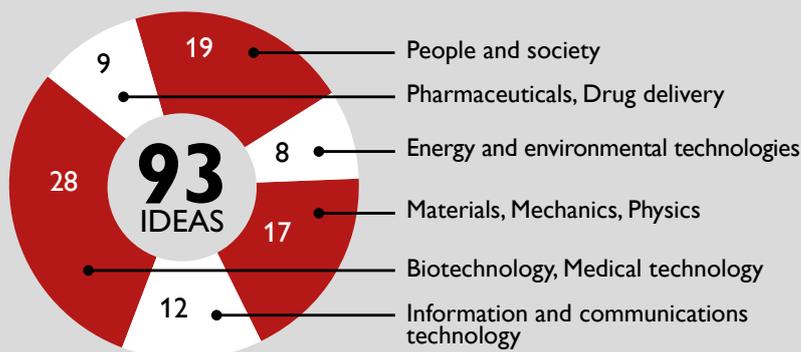
SUPPORTING NATIONAL INITIATIVES FOR INCREASED SWEDISH COMPETITIVENESS

▶ **Testa Center** – state-of-the-art facility for testing biology and technology for the production of biological products.

▶ **IoT Sweden** – strategic innovation program supporting the development of sustainable communities using Internet-of-Things technology.

▶ **Big Science Sweden** – the official Swedish ILO-organization helping Swedish companies do business with Big Science facilities across the world.

EVALUATING A BROAD RANGE OF NEW IDEAS



44

INSPIRATION
AND EDUCATION
SESSIONS ON
COLLABORATION,
INNOVATION
AND IPR

BROADEN YOUR HORIZONS

Try something new!

More and more researchers want to join **Mentor4Research** to expand their links with the business community. This in-house program connects researchers from all disciplines with experienced business people to explore ways for transforming research results into concrete benefits for society.

! Next application deadline is 15 October 2019



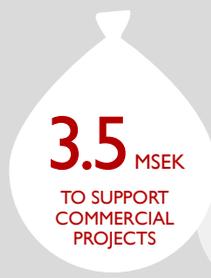
VALUE CREATION



73 Novelty searches for patents and trademarks

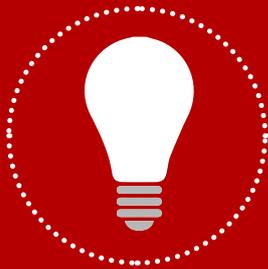
32 Patentability evaluations

28 Patent and trademark applications

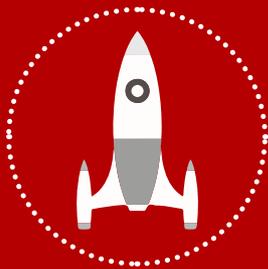


EARLY-STAGE
FINANCIAL SUPPORT
HELPS SECURE
LARGER FUNDING
LATER ON

BOOSTING STUDENT ENTREPRENEURSHIP



88 BUSINESS IDEAS



33 NEW COMPANIES

Drivhuset Uppsala is our collaborative partner for supporting students' ideas.

ACCELERATED DEVELOPMENT IN BUSINESS INCUBATORS

The number of Uppsala University affiliated projects admitted to different incubator programs:

23

UPPSALA INNOVATION CENTRE, UIC



Ranked the world's **4th best** university-affiliated business incubator by UBI Global.

1

ESA BUSINESS INCUBATION
CENTRE SWEDEN

2

EIT INNOENERGY



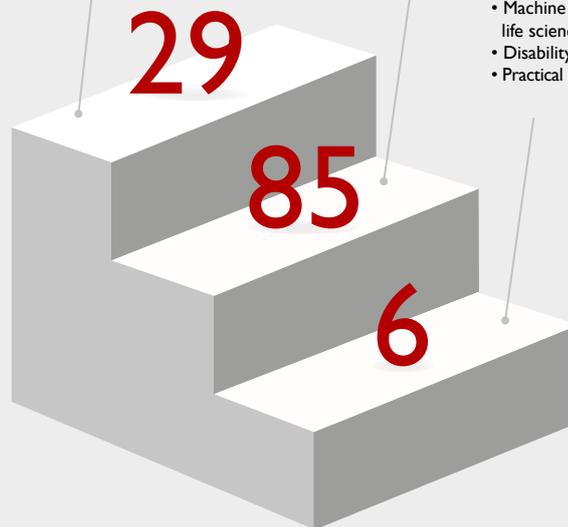
– ACADEMIC-INDUSTRY KNOWLEDGE EXCHANGE THAT REALLY WORKS

85 workshops involving 176 academic researchers and 156 representatives from 67 companies and organizations.

29 financed pre-study projects from 33 applications.

6 AIMday events organized by Uppsala University on the following themes:

- Cancer
- Materials
- Sustainable Cities
- Machine learning in life science & medicine
- Disability
- Practical research in schools



EXPLORING SOLUTIONS TO TODAY'S CHALLENGES

AIMday® has one objective: to match the need of organizations for new knowledge with academic expertise. Its unique, highly-effective meeting format – one question, one hour, one group of experts – helps attendees forge key academic-industry collaborations, find faster ways of solving challenges, and boost the impact of innovation on individuals and society. Pre-study funding is an additional tool to help kick-start collaboration after AIMday.

INTENSIFIED UK EXPANSION

AIMday, developed and trademarked by Uppsala University, enjoys a strong reputation among leading universities in other parts of the world. It is available to other academic institutions via licensing and we support implementing the concept locally. For example, in 2018, AIMday continued its successful expansion across the UK with the help of our partner the University of Edinburgh that introduced the concept in 2014.

www.aimday.se



2018 AWARD WINNERS Attractive Innovation Project

- ✓ High innovation potential
- ✓ Support from UU Innovation
- ✓ External funding



EMPLICURE – SAFER, MORE EFFECTIVE DRUG DELIVERY WITH LESS RISK OF ABUSE

Emplicure has developed a ceramic-based transdermal patch to combat chronic pain. By gradually releasing strong opioids under the skin, the company's treatment is not only safer and less painful for patients, it also reduces the risk of drug abuse via smoking or oral intake.



CARTANA – PROVIDING MORE INFORMATION ABOUT THE BRAIN IN SITU

Cartana's first product, a new way to sequence genes directly in tissues, is aimed at brain researchers and ready for launch. The technique provides information on both the type and function of individual brain cells as well as their location in relation to each other.



DEEP FORESTRY – SENSOR SYSTEMS ACCURATELY MAP FOREST RESOURCES

Deep Forestry has developed powerful sensor systems for building 3D models of forest stocks to help generate volume calculations and highly accurate maps with georeferences. The company's prototype drone can navigate under the tree canopy in commercial forest plantations.



STABLE LITHIUM METAL ELECTRODES – SAFER CHARGING AND DISCHARGING

Lithium-based batteries are common but recharging them can be problematic due to metal threads known as dendrites growing between the electrodes. Leif Nyholm and David Rehnlund have found a way to prevent this, thus improving performance and reducing the risk of short circuiting.



FEMALE ENTREPRENEURS – SURVEYING CO-WORKING SPACES TO ENCOURAGE SUSTAINABLE ENTREPRENEURSHIP

Co-working concept Hera Hub offers female entrepreneurs a shared workplace. Together with our gender researchers, it aims to investigate how such hubs can encourage women to start businesses and increase our knowledge of what they perceive as decent and sustainable work.



VIRUS REMOVAL FILTER – SAFER, COST-EFFECTIVE BIOLOGICAL DRUG MANUFACTURING

Albert Mhraryan's research team has developed a cost-effective Mille-feuille filter paper for viral filtration, a key step in biological drug manufacture. Their filter, which separates all types of microorganisms from water or protein solutions, has shown promising performance.



PEAFOWL SOLAR POWER – NOVEL SOLAR CELL TECHNOLOGY FOR NEW APPLICATIONS

Peafowl Solar Power has developed a very thin, transparent and cost-effective solar cell. Its key competitive advantage, however, is that the technology allows coating surfaces with solar cells without altering their appearance, thus opening up a vast array of new applications.



SOCCERMATICS – EXPERT HELP IN UNDERSTANDING FOOTBALL USING MATHEMATICS

Soccermatics' digital expert David the bot, an algorithm created by Professor David Sumpter, uses statistics and machine learning to analyze real-time games. Intended to make football more fun and engaging to watch, David also assists professional football clubs understand matches.



ONCODIA – SOFTWARE FOR FASTER AND MORE PRECISE CANCER DIAGNOSIS

Oncodia has streamlined the clinical analysis process from DNA sequence data to cancer-specific mutation report and integrated it into a single, quality-managed solution. This will help facilitate the choice of treatment, provide better quality care and reduce costs to society.



SUSTAINABLE TOURISM – GPS TRACKING AND SURVEYS AS DEVELOPMENT TOOLS

By using GPS tracking in combination with interviews, the Sustainable Tourism project follows visitors' footsteps and discovers what drives their choices and movement. The knowledge gathered will help influence visitors, via so-called nudging, to make more sustainable choices.



SENCE RESEARCH – IMPROVED POST- MARKET FOLLOW-UP OF NEW DRUGS

Careful follow-up of drugs after launch is needed for their continued evaluation. Sence Research's statistical modelling analyzes drug benefits, side effects and cost-effectiveness using data from records, thus creating an important decision base for authorities and industry.



AUTOMATIZED FIELD WORK IN AGRICULTURE – IT AND SENSORS INCREASE PRODUCTION EFFICIENCY

IT and sensors help analyze weather, irrigation, soil and fertilization data to increase the efficiency of food production. This project aims to develop an autonomous vehicle that allows new forms of sustainable agriculture from economic, social and ecological points of view.



SYMPTOMS EUROPE

– CONNECTING PATIENT INPUT WITH MEDICAL DATA IMPROVES CARE

Symptoms Europe's decision-support system connects to existing journals and allows patients to add information about their symptoms, functions and quality of life. This helps patients and staff prioritize needs, plan healthcare, evaluate outcomes and, if necessary, make changes.



FOURTH STATE SYSTEMS

– ROBUST, HIGHLY-SENSITIVE DETECTOR WITH MANY APPLICATIONS

Fourth State Systems has developed a highly-sensitive yet robust and lightweight micro-detector that detects extremely small amounts of airborne gases. Analyzing exhaled air, measuring greenhouse gases, tracing toxic gases and detecting explosives are examples of its many uses.



SUPERGLUE FOR BROKEN BONES

– KEEPS FRAGMENTS IN PLACE AND SPEEDS UP HEALING

In collaboration with the company GPBio, a biocompatible super glue for bones so strong that surgeons can safely and successfully glue together fragments and crushed joints has been developed. Preclinical concept validation is done and steps towards CE marking can now be taken.



LEAFYMADE – PRODUCTS FROM LEAVES PROMOTE SOCIAL AND ENVIRONMENTAL SUSTAINABILITY

Leafymade's biodegradable plates and bowls are made from leaves found in the Odisha jungle in eastern India. Glue, plastic or other chemical substances are not used, and the products do not cause devastation. Local production helps ensure good working conditions for women.



MAISHABIT – E-HEALTH SOLUTIONS IMPROVE QUALITY OF LIFE FOR CHRONIC DISEASE PATIENTS

In close collaboration with patients and healthcare, MaishaBit develops e-health solutions for diabetes and other chronic diseases. The aim is to strengthen patients and make treatment more efficient. Healthcare staff can, for example, follow their patients' health conditions.

UU HOLDING WELL-POSITIONED FOR THE FUTURE

Uppsala University Holding Company invests early seed-money in business development projects and startup companies. As a for-profit, state-owned company, it works in close collaboration with UU Innovation to commercialize research results emerging from the university.

PORTFOLIO COMPANIES



INVESTMENTS IN NEW STARTUP COMPANIES

Oncodia AB,
Symptoms Europe AB

42 500 000

NET PROFIT (SEK) FROM SOLD SHARES IN PORTFOLIO COMPANIES



FOLLOW-UP INVESTMENTS

TOTAL INVESTMENT IN PORTFOLIO COMPANIES



Contacts and more information: www.holding.uu.se

UPPSALA UNIVERSITY INNOVATION – ACCELERATING THE IMPACT OF RESEARCH IN SOCIETY

As the university's central support unit for innovation and collaboration, it's our mission to help put good research to good use – for everyone's benefit. We provide the expertise, resources and networks essential for transforming ideas into exciting commercial ventures or fruitful partnerships. For researchers and students, we're right on your doorstep – just a phone call, e-mail or short walk away. For companies and organisations, we're your first stop on the road to success. To discuss collaboration opportunities, simply call or e-mail us.

FIND OUT MORE. CONTACT US TODAY.

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