

LBG INNOVATOR'S ROAD

TAILOR MADE SUPPORT FOR ACADEMIC FOUNDERS

FROM PROTOTYPE TO (FIRST) PRODUCT
WITH SUSTAINABLE BUSINESS MODEL

initiated by:



developed by:



WHY?

Technology patents and spin-offs being realised by university research or the overall scientific environment have a significant impact on regional and social development. In recognizing the importance of academic spin-offs, the field of science and entrepreneurship got increasing attention and support in recent years.



In Europe, the ETH Zurich with 30 spin-offs in 2019 and the University of Cambridge with 258 granted patents, 127 commercial licences and over 25 million pounds in funding and investment in spin-offs in 2018 are leading in this area. Austria's spin-off figures have not yet reached the same level with 23 spin-offs out of all 22 universities in 2016. According to the Austrian Startup Monitor in 2019 out of the total amount of Austrian startups, 14% were academic spin-offs.

Studies* show that one major success factor for spin-offs out of universities is the entrepreneurial knowledge of the founder. Scientists are experts in their field of research, but most times have insufficient market knowledge to develop a proficient roadmap until market entry.

In 2019, the Innovator's Road Programme kicked off, based on the overall aim to support scientists in becoming successful entrepreneurs. Initiated by the Ludwig Boltzmann Gesellschaft, the programme was developed and implemented by New Venture Scouting and I.E.C.T. – Hermann Hauser. The Innovator's Road Programme is intended to expand the instruments in the direction of an entrepreneurial skillset in science. The programme addresses the particularities of start-ups from the academic environment and follows the life cycle of a start-up. This means that tailor-made contents support the development of the founder and start-up idea at the proper time given.

* https://timreview.ca/sites/default/files/article_PDF/PattnaikPandey_TIMReview_December2014.pdfw

HOW?

Within a duration of ten months the founders are mentored and trained based on the Triple Chasm Method, which was further developed and adapted by the programme partners. A range of training sessions build the framework of the programme, allowing to zoom out regularly and see the big picture of the whole start-up journey. Thirty hours of individual mentoring sessions with a dedicated team of mentors provide a solid foundation in order to work with the founders on their challenges. Through the vast network of the programme partners the founders gain access to experts, investors and corporates across the UK-DACH region and have the possibility to establish resourceful relationships. Building on the advantages of a strong peer-to-peer connection diverse initiatives take place.



WHAT?

The Innovators Road is developed for spin-offs coming from a scientific environment, mainly from the area of STEM, tackling the pearls and pitfalls of commercializing research-based projects. It is about supporting entrepreneurs to successfully master the transition from prototype to an early product or service with a sustainable business model. The maturity level of the projects evolves around the TRL/cTRL 3-5. The founders / entrepreneurs do not necessarily need to have a team, or a formally founded company.



PROGRAMME PARTNERS

Initiated by the Ludwig Boltzmann Gesellschaft and its Career Center
Developed by I.E.C.T. – Hermann Hauser and New Venture Scouting

An outstanding feature of this programme is the collaboration between diverse partners shown in the intensive one-on-one mentorings.

LBG – Ludwig Boltzmann Gesellschaft



INITIATED AND KICK-STARTED BY THE LUDWIG BOLTZMANN GESELLSCHAFT AND ITS CAREER CENTER

The LBG Career Center is the first point of contact for all questions concerning career development in and outside of academia that pre- and post-docs as well as institute directors may have. It is the responsibility of the LBG Career Center to provide confidential advice and guide its young researchers in the selection and implementation of individual services as well as develop concepts for institutional services such as career events and special programs.

The Ludwig Boltzmann Gesellschaft (LBG) is one of the most important Austrian non-university research institutions. For decades, the LBG has positioned itself at the frontier of research innovation, acting as an incubator

to inject new ideas into the Austrian research landscape and working to bridge the ever-existing gaps between science and society. Together with partners from academia and industry, the LBG develops and tests new forms of cooperation between science and non-scientific actors by establishing Ludwig Boltzmann Institutes, explores new topics and creates achievements that change and renew the scientific community. By initiating the LBG Innovator's Road, a scalable programme for the commercialization of research-based ideas in the form of entrepreneurial ventures, the LBG once again moves boundaries, connecting science and innovation to foster sustainable economic development in Austria.



LBG
Career
Center
We care for
Pre- & Post-Docs!

Contact:

Simone Fürst ■ simone.fuerst@lbg.ac.at ■ cc.lbg.ac.at

I.E.C.T. – Hermann Hauser



DEVELOPED BY I.E.C.T. – HERMANN HAUSER

I.E.C.T. – Hermann Hauser creates networks across all industries – be it ecosystems, serial entrepreneurs, investors, business angels, start-ups, universities or established companies. We generate new knowledge and successful new projects on a national and international level. After all, we invest in the most promising ideas in research, science and technology. The umbrella brand I.E.C.T. (Institute for Entrepreneurship Cambridge – Tyrol) consists of two companies, I.E.C.T. – Hermann Hauser Management GmbH and Hermann Hauser Investment GmbH. As a private institution it supports innovative start-ups with high market potential in building and scaling up. The focus of investments is on start-ups

from the deep tech sector with scalable technologies. The I.E.C.T. promotes ideas from science and research and offers programmes for researchers, students, entrepreneurs and start-up companies to successfully develop and implement their visions. The programmes are conducted together with partners from the national and international network (e.g. University of Cambridge and Cranfield, European Forum Alpbach etc.). The flagship programme of the I.E.C.T. is the Summer School on Entrepreneurship with more than 120 alumni from more than 25 countries from the science and technology sector.

We invest in successful entrepreneurs.

Contact:

Klara Brandstätter ■ kb@iect.at ■ iect.at

New Venture Scouting (NVS)



DEVELOPED BY NEW VENTURE SCOUTING

New Venture Scouting (NVS) was founded in 2013 by Werner Wutscher as a private consulting firm and operates at the interface between companies and start-ups.

NVS offers the following services:

1. Innovation and strategy consulting/startup scouting: NVS is looking for startups for established companies with open innovation methods to support the innovation process within the companies and to make it more efficient. Based on the customer's problem, start-ups for potential cooperations are identified through a systematic and structured search process. The NVS methodology ensures that solutions are developed across industries and sectors. The NVS team has acquired comprehensive market knowledge in a wide range of industries and sectors (trade, energy industry, real estate and facility management, industry 4.0, telecommunications, etc.)

2. Start-up coaching: Through NVS' own start-up coaching program and through cooperation with various programs (e.g. GIN Go Austria, WU Garage Business Model Development, Startup Salzburg Factory, aws-first, build! Klagenfurt), Werner Wutscher and his team have accompanied numerous start-ups in various stages of maturity (pre-seed to 2nd stage), specializing in market development and investor readiness.

3. Accelerator-Facilitation: NVS has made a name for itself in the conception and operational support of public sector accelerator programs (Startup Salzburg Factory, Pulldock Kärnten, FH Technikum Wien) and has established itself as a contact point for start-up ecosystem development.

Support for spin-offs: Carried out both for well-known Austrian industrial companies and in the university sector.

Contact:

Werner Wutscher ■ w.wutscher@nvs.co.at ■ nvs.co.at

PROGRAMME DESIGN

The Innovator's Road Programme focuses on the specific issues of start-ups from the academic environment and follows the life cycle of a start-up company. Tailor-made content supports the development of the founder and the project idea. Hence during the programme founders with academic backgrounds will acquire the entrepreneurial knowledge and skills necessary for founding and scaling new businesses. For the modular approach, the Triple Chasms Principle, a scientific method from the Cambridge cluster, was further developed, adapted and success-proven by the programme partners. The structure

applied in the Innovator's Road Programme is based on the combination of 12 vectors (major topics that affect the commercialisation journey) and the modified TRL system (characterising maturity). This unified framework provides a powerful tool to identify the key vectors that need to be in the focus of the founder's attention at certain levels of the journey. Additionally, the I.E.C.T. – Network acts as supporting resource in order to show the comprehensive assessment of each project, enabling mentors, experts and start-ups to maintain a structured and open discussion grounded on a common language.

DESIGN & STRUCTURE

SUPPORTING MODULES

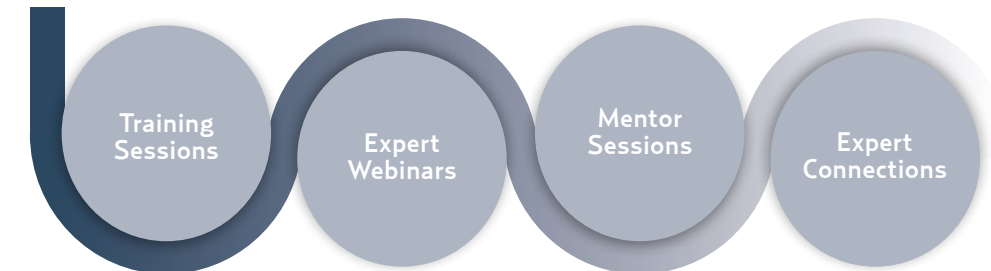
SUPPORTING TOOL

TRIPLE CHASM METHOD

- Systematic approach based on 12 vectors and their relevance depending on the maturity level of the project
- The modules and tools enable the participants to build up strong social capital as well as to foster entrepreneurial capability building and provide a longlastig methodological sparring tool (PathGraph).



Big picture



Individual on spot support

PATHGRAPH

- Enabling system for self-assessments
- Awareness about big picture, future resources, experts etc.

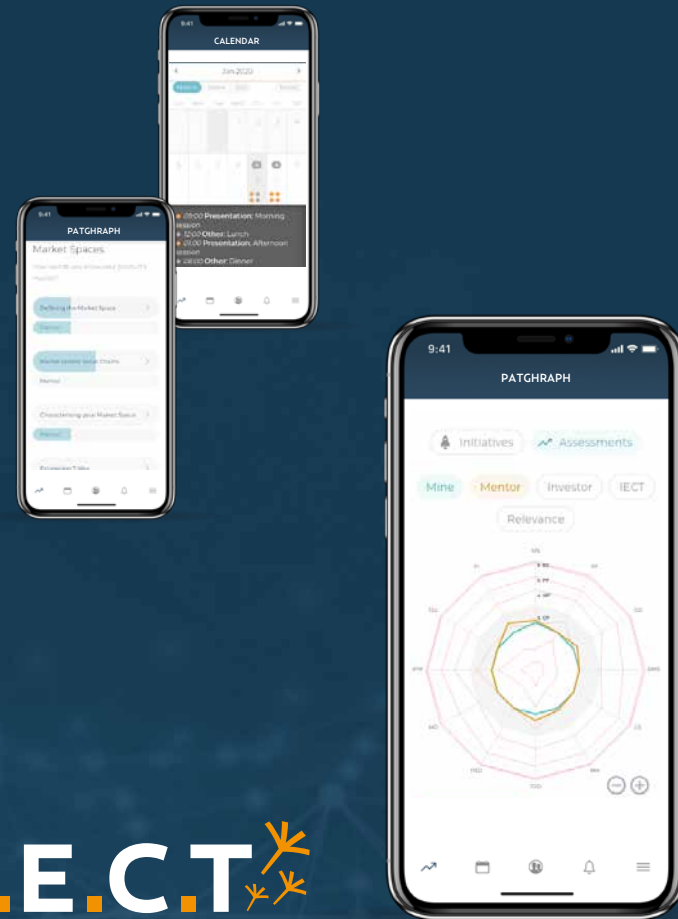


METHOD & TOOL

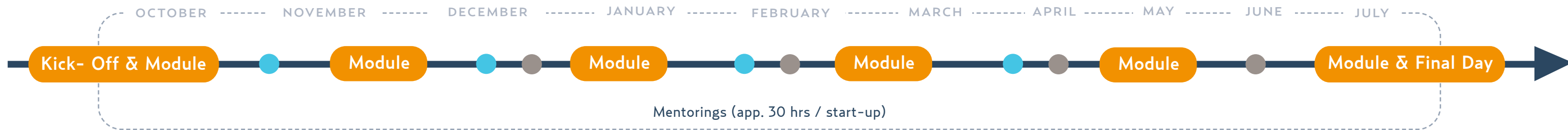
AN ONLINE ECOSYSTEM FOR
FOUNDING, SCALING AND
INNOVATING BUSINESSES.

- Connecting start-ups, investors, mentors and corporates
- Aggregated assessment for a holistic picture of the product's maturity based on the vectors
- Integration of programmes, initiatives and relevant information
- Exclusive communication within the ecosystem
- Online portal on all devices as stand-alone software and browser application
- Closed, trusting communication system with GDPR & NDA integration

I.E.C.T.
NETWORK ALPHA



BUILDING BLOCKS



AT A GLANCE

- Comprehensive support for start-ups on the way to marketability
- Individual evaluation on the respective degree of commercialization of a start-up including the creation of a roadmap for the further process
- Tailor-made workshops that use state-of-the-art start-up methods
- Individually tailored 1-to-1 coaching and mentorings including a key contact person
- Participation in events, access to markets, financing and expertise as well as concrete matchings with established companies
- Peer-2-Peer Learning within the participants and with other founders
- NVS and I.E.C.T. are embedded in the scientific and economic environment and thus offer the advantages of both worlds
- Access to the I.E.C.T. – Network in order to track progress, assess the project and establish an online expert network

- **6 Modules / Training Sessions**
(timing dep. on final programme)
- **Peer2Peer session**
- **Expert Sessions (Webinars)***

* Optional / depending on participant's needs



Facts & Figures from cohort one: Oct 2019 – Jul 2020

The participants of the first cohort show a broad variety of different institutional backgrounds from the scientific environment as well as different fields of research. This compilation allows all involved players – be it the participants, mentors, experts – to benefit from a highly interactive learning environment and fosters a steep learning curve.

INSTITUTIONS

- AIT
- BOKU
- IST Austria
- Universität Klagenfurt (Lakeside Labs)
- LBG
- Universität Graz (Science Park)
- VetMed Vienna
- TU Graz
- TU Wien

FIELD OF RESEARCH

- Medical Biotechnology
- Life science
- Molecular Diagnostics
- Process Automation
- Robotics
- Cloud
- Semiconductors
- Hardware

MENTORS

- Anna Winklehner – *New Venture Scouting*
- Arun Muthirulan – *Innovation Advisor Cambridge*
- Klara Brandstätter – *I.E.C.T. – Hermann Hauser*
- Shai Vyakarnam – *Educative Mentor Cambridge*
- Werner Wutscher – *New Venture Scouting*





ALUMNI COHORT ONE

Neurolentech

Pharma/Biotech

PROJECT

Autism & Epilepsy are devastating genetic neurodevelopmental disorders affecting 2% of the population. Understanding the roots of each patient's disorder is exceptionally challenging and treatment options are very limited. By analyzing the patient's own derived brain cells our novel approach allows precisely diagnosing the disorder type as well as generating in-vitro disorder models to develop personalized medicines. The resulting comprehensive datasets permit advanced computational analytics to identify novel molecular drug targets and the corresponding patient-specific disorder models enable high-throughput drug screening. Precision disorder diagnostics combined with personalized drug development creates an optimistic future for patients with Autism & Epilepsy.

„Together with the mentors we created a business concept and devised a plan to put it into practice.“

CARSTEN PFEFFER



E-Mail: cpfeffer10@gmail.com
University/Institute: IST Austria

Personalized Medicine for Autism
& Epilepsy



NovoArc

Life-science / Biotech / Pharma

PROJECT

Many drugs have to be administered to patients via injections. NovoArc's technology makes it possible to deliver many of those drugs orally via a pill and makes existing pills much more efficient. NovoArc developed and patented a biotechnological production process for special lipids, for encapsulating drugs, which protects the drugs from acid and enzymes in the stomach and allows efficient uptake in the colon. NovoArc already has a potential customer and their prototype will be ready by the end of 2020. They are currently incorporated in TU Wien, have funding until 2021 and will found the spin-off NovoArc GmbH next year.

„In numerous 1:1 sessions with experts from the field, we learned to focus on the important things for starting a deeptech spin-off, which allowed us to boost our technology readiness level. Entering the big network of the LBG, IECT and NVS is a great asset and it was also very useful to get to know peers, who are at a similar stage and who face similar challenges. This program really helps scientist to bring the technology to the market and to learn necessary skills, which are not taught at university, but are vital to founding a successful spin-off company.“

DAVID
WURM



E-Mail: david.wurm@novoarc.at
Website: www.novoarc.at
University/Institute: TU Wien /
Institute of Chemical, Environmental
and Bioscience Engineering

Forget Injections — Just take a pill!

NovoArc

THT Biomaterials GmbH

white/red/(violet) Biotechnology

PROJECT

THT Biomaterials GmbH, a spin off from LBI Trauma, creates an affordable, personalized medicine! NOW is the time to switch from unprecise and unethical animal-materials in Tissue Engineering and Regenerative Medicine (TERM) to more efficient and safer human-material based biomaterials from placenta, that is globally available in consistent quality, without any ethical issues! THT Biomaterials GmbH will launch its first two products around July 2020 at the Vienna Biocenter Startup Labs (Vienna): hpS and COL-1/3, with many applications for TERM (2D/3D/tissue ink/Lab-on-Chip/IVD/MPs). This novel Platform Technology will soon make cell culture research more ethical, more precisely, and accelerate TERM! Human placenta: a "first aid kit", rather than „medical waste".

„Great program, 110 % fit to my current situation! Helped me through my pre-seed phase a lot! Great network, although not listed/reflected yet for the participants. Great mentoring – power hours! Great support from IECT and NVS. All milestones reached: funding (FFG Basis + small grants). Company foundation planned! Next milestone: product launch summer 2020. Most valuable thing: combination of the programme partners culture: focus & agile. I am already missing it, how will we stay in contact after July 2020?"

JOHANNES
HACKETHAL



E-Mail: office@thehumantouch.at
Website: www.TheHumanTouch.at
University/Institute: LBI Trauma/LBG

THT Biomaterials GmbH sell human material-based biomaterials (collagen-1, laminin-111, hpS) from placenta with many cell culture applications, because we want to increase the precision in cell culture and reduce the drug development time in medicine!



PreGenerate

MedTech

PROJECT

PreGenerate uses our base technology of microfluidics, to offer platform solutions in arthritis (Organ-on-Chip) and viral detection (Lab-on-Chip). We believe that these diseases can best be disrupted by focusing on the individual patients, in a scalable and relevant way.

„In this program, we were so fortunate to work with amazing facilitators and gain access to their outstanding networks in life science and entrepreneurship. We've been able to expand our asset portfolio as a company and collaborate with corporate partners much faster than we ever imagined! " "

JULIE
ROSSER



E-Mail: julie@pregenerate.net
Website: www.pregenerate.net
University/Institute: TU Wien/
Vetmeduni Wien

PreGenerate improves global well being by precise disease detection and intervention, beginning with arthritis and soon COVID-19



CellEctric Biotech

Life Science

PROJECT

CellEctric Biotech aims to advance invention into an innovative, high-throughput prototype, termed smart electrodynamic filter (smartEDF), which is suitable for industrial implementation. The first application for this smartEDF will be the fully automated, fast, and cost-effective isolation of pathogens from blood. This development, considered by the diagnostics industry as a „key enabling technology", is to become the basis for an AIT spin-off. Further patented applications, which have already been tested within the laboratory setting, will be transferred to the smartEDF, thus enabling future diversification strategies. The CellEctric Biotech project is envisioned to act as the trigger for a new generation of electrodynamic applications in biotechnology.

„The tremendous and highly professional approach of the Innovator's Road program helped me to get a clear picture of my path ahead. In-depth seminars, inspirational peer discussions and productive 1-on-1 mentor sessions in combination with the relaxed atmosphere have proven to be invaluable support when tackling the translational process from science to business. My biggest take-aways are the results gained by reflection with others, to know whom to ask when help is needed and to get my business plan locked and loaded!"

KLEMENS
WASSERMANN



E-Mail: klemens.wassermann@ait.ac.at
University/Institute: AIT Austrian
Institute of Technology GmbH

Electrodynamic Cell Manipulation.
Fast. Automated. Specific.



Novasign GmbH

Biotech

PROJECT

Novasign supports pharma corporates to speed up the process development process of both new drugs and biosimilars. A hybrid modeling approach is chosen which combines state of the art machine learning tools with engineering process knowledge. As a result, the process development timelines and costs are significantly reduced while consistent manufacturing quality is granted..

„Realization how others deal with the same hurdles to overcome“

MARK
DÜRKOP



E-Mail: mark.duerkop@novasign.at

Website: www.novasign.at

University/Institute: University of
Natural Resources and Life Science
Vienna

Speeding up Bioprocess Development



Evolve

AI, Hearing Aids, Automobile, Telecommunication, Consumer Electronics

PROJECT

Evolve is a chip-level AI start-up specialized in machine learning, audio and acoustics. By combining AI with low resource computations, we have created powerful technology suited for the consumer electronic-, health- and automobile sector. Evolve is technology leader in acoustic noise cancellation. By learning acoustic sound landscapes, we remove unwanted background noise, enabling a crystal-clear sound experience when using your mobile, tablet, hearing-aid or when driving a car. In particular, traffic-, and other environmental noise sources, as well as radio and overlapping speech are filtered in real time. Our technology adds a new value proposition – crystal clear communication – to your product. We help customers worldwide boosting their revenue streams, designing communication to be more effective and efficient. In particular, our cloud, edge and upcoming chip-level solutions help customers to create noise robust and echo-free consumer electronic devices enabling noise robust communication and noise robust speech recognition in adverse environments. Located in Graz, Austria/Europe, Evolve wants to position itself as market leader in noise cancellation, speech synthesis and edge ASR audio technology.

„The Innovator`s Road programme helped us to turn our vision into a realizable business case.“

MATTHIAS
ZÖHRER

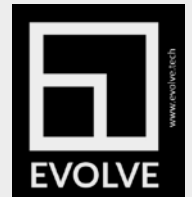


E-Mail: matthias.zoehrer@evolve.tech

Website: www.evolve.tech

University/Institute: Graz University
of Technology

Enabling crystal clear communication



Bellatrace GmbH

Large area assessment (Agriculture, Insurance etc.)

PROJECT

The company designs softwares that allow autonomous drone swarm path planning, avoiding deadlocks and collisions.

„I have learnt a lot about business planning. With the help of my mentors I was able to further clarify my idea. My mentors provided a large network of contacts in the market which was also very valuable. I was able to maneuver through the problem of lack of market interest by deciding to perform consulting jobs for the companies of interest. So far, I have been successful to acquire one such job. I am still looking for a possibility for market entry.“



E-Mail: hayat@lakeside-labs.com
Website: www.bellatrace.gmbh
University/Institute: Lakeside Labs, Klagenfurt

Autonomous multi-drone flight is one click away.



SAMIRA
HAYAT

DrainBot GmbH

PROJECT

Gathered around professionals with decades of experience in engineering, innovation and tunnel maintenance, we are making sure to deliver high quality, automated, robotic solutions for tunnel drainage maintenance. Our first product is a novel automated system that allows for more efficient and safer maintenance of tunnel drainage. It uses a combination of several novel technologies to reduce the hazard to the employees, passengers and transported goods while reducing the costs related to drainage maintenance to railway, highway and infrastructure operators. Our vision is to enable more efficient, safer and more environment-friendly maintenance of tunnels through innovative, technology-based and sustainable solutions.

„Innovator's Road equipped us with tools and network to better manage our company DrainBot through the soon anticipated growth phase. As the programme shows a strong focus on the founder`s needs I could gain input as well on CartiScaff, another project I am involved with.“

CartiScaff is an early-stage project from the Ludwig Boltzmann Institute for Experimental and Clinical Traumatology focusing on innovative methods in cartilage replacement and repair.



E-Mail: s.stekovic@drainbot.at
Website: www.drainbot.at
University/Institute: University of Cambridge, UK

Introducing intelligence and automation in tunnel drainage maintenance.



SLAVEN
STEKOVIC

AutoMold

Software

PROJECT

AutoMold increases the productivity of industrial manufacturing with an intelligent construction software for molds. Through automated design of different types of molds, AutoMold significantly reduces both cost and time of mold design – an otherwise laborious manual process. It not only increases the financial viability of small series production and prototyping but also enables a new class of individualized products. AutoMold is a protected invention by computer science researchers at IST Austria. It is currently developed into a professional software solution together with international partners in mold-based manufacturing for various industrial sectors.

„Especially for a small technically oriented team, the program offers guidance on many aspects of startup creation. Together with the mentoring by diverse experts, this helps greatly with focusing efforts towards the things that matter.“

THOMAS AUZINGER



E-Mail: thomas@auzinger.name
University/Institute: IST Austria

AutoMold employs intelligent computer algorithms to increase the productivity of mold-based manufacturing – one of the globally prevalent methods of production.



MENTORS

Werner Wutscher *New Venture Scouting*

Werner Wutscher is the founder and CEO of New Venture Scouting, where he connects the worlds of established (global) companies and startups to generate innovation and develop new business models. His professional competence lies within the public administration, food production, trade and the green-tech sector. Werner Wutscher unites many years of experience as business angel („Austrian Business Angel of the Year 2012“) as well as leading positions in the private sector and in the Austrian federal administration, where he spent more than 14 years in Senior Management Positions in businesses like Agrana Beteiligungs AG and REWE International AG. In addition, he is currently an active member of several national and international supervisory and advisory board committees. Besides having a degree in law from the Karl-Franzens-University Graz, Werner Wutscher holds a degree from Harvard University (USA).



Arun Muthirulan *Innovation Specialist, Innovator and Mentor from Cambridge*

Arun is a Mentor and commercialisation adviser to Start-ups and SMEs. He has a detailed understanding of the commercialisation challenge having worked with 70+ technology companies in operational and advisory roles to raise funds, expand and grow in the local and international markets. He has co-founded two companies focusing on business strategy advisory and commercialisation. Prior to that, in a corporate career, Arun was responsible for delivering complex IT solutions for blue-chip clients applying digital technology to achieve strategic business objectives and managed multi-disciplinary teams, across geographies such as the UK, Europe, India and Canada. With a first degree in Computer Science and Electronics, Arun is a Cambridge Judge Business School MBA, specialising in strategy, entrepreneurship and technology commercialisation.

Klara Brandstätter *I.E.C.T. – Hermann Hauser*

Klara is part of the I.E.C.T. – Hermann Hauser team taking care of programs for entrepreneurs as well as setting up new projects on national and international level fostering science-based entrepreneurship. Prior to this she spent several years in Frankfurt as consultant within the area of strategy, marketing, branding and digital transformation. She holds a Master's Degree in Strategic Management from the University of Innsbruck, ever since keen on fostering interdisciplinary and cross-cultural collaborations, she did parts of her studies at the University of Reykjavik, the University of Stockholm and the University of Manchester.



Shai Vyakarnam *Educative Mentor Cambridge*

Dr Shai Vyakarnam is an educator, mentor and entrepreneur. He has been advising in technology entrepreneurship for over twenty years and brings his insights, experience and networks to provide mentoring to early stage entrepreneurs and businesses. He is the co-author of The Scale Up Manual, which provides the backbone of the Programme.

Anna Winklehner *New Venture Scouting*

Anna Winklehner is part of the team of New Venture Scouting, where startups receive customized support and established companies get connected with startups in a structured process in order to foster innovation. Anna took her degree in Socioeconomics and Education. In her professional career she has gathered experience in project and process management as well as extensive knowledge in training designs, groupdynamics and organizational development. She had leading positions in regional development programmes and worked for several years in adult education as programme manager.



BE PART OF THE INNOVATOR'S ROAD AND GET IN CONTACT!

THIS PROGRAMME OFFERS VARIOUS POSSIBILITIES FOR
PARTNERS TO JOIN AND ACTIVELY ENGAGE FOR SUSTAINABLE
AND LONG TERM COLLABORATIONS WITH START-UPS.

START-UP APPLICATION OPENS SOON. NEXT COHORT: Q4 2020

OFFICE@IECT.AT ■ OFFICE@NVS.CO.AT

initiated by:



developed by:

