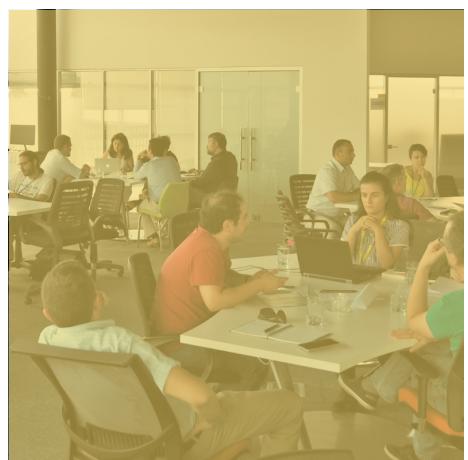
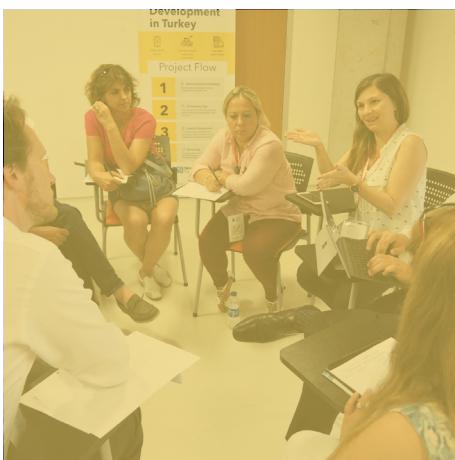




T-DEB Final Showcase

March 3rd, 2020

Business
Exchanges for
Development
in Turkey



Turkish Delights &
English Breakfast

...it works both ways!

Welcome to the T-DEB Final Business Showcase

To mark the end of the programme, we are excited to host this final business showcase event and celebrate its outcomes. The aim of this event is to provide a platform for T-DEB's successful companies and partnerships to present their work and network with a diverse audience of potential financiers, clients, and other organisations. It is our hope that this event will pave the path for new opportunities and help the participating organisations further their partnership projects beyond T-DEB.

About the Newton Fund

Innovate UK is the UK Government's innovation agency and part of UKRI. Its focus and mandate is to stimulate and support business-led innovation. To this end, Innovate UK funds, supports and connects innovative businesses to accelerate sustainable economic growth. An important responsibility for Innovate UK is to provide new support for small and medium sized enterprises (SMEs) with high growth potential to innovate faster and achieve growth, not just in the UK, but globally.

As part of its international activities, Innovate UK is a delivery partner of the Newton Fund (www.newtonfund.ac.uk). The Newton Fund is part of the UK's Official Development Assistance (ODA) and aims to promote the economic development and social welfare of partner countries, by strengthening their science and innovation capacity through partnership with UK businesses and academia.

The aim of T-DEB

To stimulate and support innovation-focussed collaborations between businesses from the UK and Turkey to result in economic development and social welfare improvements in Turkey.

T-DEB is part of Innovate UK's the Newton Fund Global Innovation Partnerships Programme. T-DEB has been designed and delivered by Tekiu Ltd. as a programme to stimulate and support innovation-focused collaborations between businesses and organisations from the UK and Turkey.

Focusing on innovation that is science and technology-driven as well as commercially-focussed T-DEB has aimed to foster economic development and social welfare improvements in Turkey, in line with Official Development Assistance (ODA) objectives. Specifically, T-DEB's objectives were to:

- Strengthen the innovation potential of businesses based in and from Turkey, by stimulating and supporting their collaboration with innovative UK businesses, and with the UK's innovation ecosystem. In particular, to strengthen the ability of selected businesses in Turkey to deliver innovative solutions to key societal and socio-economic challenges existing within Turkey.
- Deliver benefits for UK businesses and organisations as well as the UK innovation ecosystem.

About Tekiu

Tekiu is a research-intensive organisation dedicated to designing and delivering high-quality, tailored, international fact-finding and technical visits – Discovery Trips – as well as multi-year government programmes for international business partnering and R&D collaborations – Partnering Programmes. We organise Discovery Trips and Partnering Programmes in the fields of health and life sciences, research and innovation systems, social policy, engineering and environmental technology, smart cities, and the digital economy. Discovery Trips and Partnering Programmes enable clients to identify innovation gaps and answer crucial questions that help them thrive and respond to challenges in innovation and strategic planning, market expansion, socio-economic uncertainty, etc. On the basis of our expertise in designing and leading complex programmes, we also provide evaluation services to third parties for national and multinational programmes.

For more information about T-DEB please visit <https://www.tdebproject.com/>.

| | Break out Room | Grosvenor Room | Alie Room | Elizabeth Room |
|----------------|-----------------------------------|-----------------------------------|-----------------------------------|--|
| 13:30 13:50 | Registration and networking | | | 1:1 Partnering Sessions |
| 13:50 14:00 | Welcome & intro to T-DEB | | | |
| 14:00 15:00 | Open Networking with refreshments | Partnership Presentations Track A | Partnership Presentations Track B | 1:1 Partnering Sessions |
| 15:00 15:20 | | Coffee Break | | |
| 15:20 16:00 | | 1:1 Partnering Sessions | | Panel: The benefits and challenges of internationalisation and investment |
| 16:10 17:40 | Open Networking with refreshments | | 1:1 Partnering Sessions | |
| 17:40 18:00 | T-DEB Awards | | | |

Bama Technology

Healthtech, assistive solutions

SME winner at the Turkish Technology Awards, BAMA Technology is a Turkish R&D company established in 2010. With an emphasis in robotic rehabilitation, their goal is to deliver better treatments and ensure the availability of affordable devices for people with disabilities, making their lives easier. BAMA received support from KOSGEB, TUBITAK, and Ankara Development Agency. Besides, the Economist Magazine has chosen BAMA as one of the 15 Star Companies. BAMA's team has developed mechatronic solutions through collaborations with academicians and doctors at laboratories in Ankara University & Dokuz Eylul University. BAMA's innovations include RoboGait, VisioGait and FreeGait. RoboGait is a rehabilitation system which helps people learn to walk again. VisioGait is a physiotherapy rehabilitation concept to help patients with gait disorders or recovering from cerebrovascular accidents. FreeGait is an exoskeleton that aids people with mobility issues.



Hasan Murat Topçu
General Manager

Walk With Path

Healthtech, assistive solutions

Founded in 2014 with a user centered design in mind, Path is developing wearable products that reduces falling risks among vulnerable and immobile individuals caused by injury, ageing, and serious diseases. Their products reduce the risk of injury and improve the wearer's confidence when walking, allowing them to maintain independence and a longer quality of life. Path Finder and Path Feel are hardware products developed by Path. Path Finder is a shoe attachment that provides visual cues for the wearer to follow, improving their movement and gait, while Path Feel is an insole that helps the wearer to feel the ground better by providing active feedback. 1st prize winner at Social Innovation Tournament; semi-finalist of Inclusive Technology Prize; winner of "Healthy Life" category at Danish Design Awards.



Lise Pape
Founder

Integrated walking system: Therapeutic intervention and tracking integrated

Bama Technology and Walk With Path provide solutions to enhance and improve mobility. These two companies will integrate their experience and values to provide an international solution. Walk With Path's Path Feel insole tracks posture and gait, improving feet balance. BAMA's FreeGait exoskeleton allows users to learn proper weight transfer when walking, correcting their gait pattern. By combining Path Feel and FreeGait, patients with diseases and injuries that cause mobility problems can be rehabilitated.



Joint Project

Biyomod

Healthtech, elderly care, remote patient monitoring

Biyomod is an R&D company founded in 2012 at Middle East Technical University (METU). With plans for up to 5 years, the company aims to provide supportive services for people to fulfill a comfortable and peaceful life with their loved ones.

Biyomod has carried out studies on sleep apnea and respiration monitoring which acquired ample funding from the government. These studies aim to create new integrated products. Biyomod is also involved in Turkey's National Teleradiology project. Biyomod's core product is PingBit, a predictive senior care monitoring solution targeting a wide range of groups. Besides, PingBitMate is a device capable of tracking the location, position and condition of the patient. It also allows patients to directly communicate with relatives in an emergency. PingBitCloud and PingBitMobile are web and mobile interfaces for the patient and relatives to access medical archives and send reminders via PingBitMate.



Ayhan Ozan Yilmaz
Co-founder & CEO

ReMeLife

Dementia & elderly care tech

Inspired by family experiences and the lack of software that improves lives of elders and their caretakers, ReMeLife has worked with experts to develop a solution that aligns with academic care principles, supported by industry leaders and academics.

After prompting users to describe their experience of themes revolving around their lives, the ReMe app builds a structured personal profile by analysing the culture, experience and beliefs of the user. The system automatically sources engaging repository of images, video and music from the internet relevant to the user's profile.



Simon Hooper
Co-founder & CEO

Elderly life support: Tracking, healthcare and engagement integrated

Biyomod and ReMeLife provide complementary solutions for elderly and dementia community. Biyomod's elderly tracking and support solution PingBit can track emergency cases like sudden falls, no motion cases, SOS alarms, geofence breaches, abnormal daily patterns; can transfer/archive vital medical signs and can regularise medication, exercise, diet and sleep with smart reminders and activity tagging. ReMeLife provides an engagement solution ReMe, which includes games, activities, media sharing among family members and personalised content. The two companies will draw from their local and multi-national healthcare service partnerships and their products. They will bring together PingBit and ReMe to integrate their value propositions and provide an enhanced international elderly support solution.

Biokido

Medtech, AI

Biokido was founded in 2016 by 4 entrepreneurs with years of experience in the field. Biokido's mission is to improve the efficiency and effectiveness of healthcare by identifying specific problems and addressing them using artificial intelligence (AI). Biokido's main innovation is DORA Motion, an AI medical device that enables surgeons to access and modify patient's digital information without physical contact, ensuring sterility during operation. Besides, Biokido developed applications for both skeleton tracking and body pose estimation; data collection systems using a motion capture system and multiple depth cameras with deep learning models; and self-manufactured mechanical prototypes. Ranked third with DORA Motion among 482 innovative projects at TechAnkara Project Market.

**Özgür Reyhanoglu**

Co-founder & Managing Director

NIHR Brain Injury MedTech Co-operative

Health sciences, rehabilitation

Established in 2016, NIHR is the UK's largest healthcare investor. By working with many vital sectors and the community, NIHR delivers world-class research that transforms people's lives, stimulates economic growth and advances science. NIHR is mainly funded by two parties, the Department of Health and Social Care and UK Aid.

**Professor Valerie Pomeroy**Professor of Neurorehabilitation,
University of East Anglia

A novel physical therapy assistance software and motion tracking & analysis system for stroke survivors

Successful physiotherapy depends on correct therapeutic exercises, which is provided by guidance experts at physical rehabilitation centres. However, NHS staff availability, logistics and expensive equipment limit access to adequate services.

Biokido and BrainMIC will engage in a joint R&D partnership, in which Biokido's AI algorithms and BrainMIC's network of clinical expertise will be combined to develop and commercialise an analysis system to track patients' motion in hospitals and homes, ensuring consistent exercise. A physician constantly evaluates the patient during the course of therapy.

GlakoLens

Medtech, ophthalmic diagnostics

GlakoLens is a Turkish medical devices company developing biosensors with proprietary technology and cutting-edge research. Established in 2017, its first innovation is a contact lens embedded with a wireless intraocular pressure monitoring device. This device monitors changes in intraocular pressure for 24 hours without intervention, providing ophthalmologists with accurate, detailed information to manage and prevent ocular hypertension and open-angle glaucoma from deteriorating. GlakoLens was a technological spin-off from Boğaziçi University with 40 years of research experience in this particular field. Runner-up at Hello Tomorrow Turkey challenge; winner of "R&D/Innovation of the Year" at Doktorclub Awards, voted by 20k+ Turkish doctors.



Özgür Kaya

Managing Director

Northumbria University Newcastle

Medtech and micro/nanoengineering

Northumbria University was founded in 1969 and has a long-standing reputation in Mathematics, Physics and Electrical Engineering. Northumbria University attracts students worldwide, securing collaborative teaching ventures and research partnerships across Europe, Africa, Asia and the US.

Northumbria is renowned for its research outputs in Engineering, Mathematics and Statistics, supported through the Engineering and Physical Sciences Research Council (EPSRC), Science and Technologies Facilities Council (STFC), Medical Research Council (MRC), Leverhulme Trust, US Air Force, and Horizon2020.

Dr Hamdi Torun



VC Senior Fellow, Department of Mathematics, Physics and Electrical Engineering

Innovative, non-invasive device for monitoring glaucoma

As glaucoma is a chronic and incurable disease, it significantly reduces the quality of life, strains the healthcare system and is the main cause of blindness. While glaucoma may be conventionally diagnosed by measuring intraocular pressure, this method is generally insufficient and may be unreliable to evaluate the disease, worsening the symptoms among patients.

Consortium between GlakoLens, Centre for Process Innovation (CPI), Spanish National Research Council (CSIC) and the University of Northumbria at Newcastle (UNN) for the GLAKSys project (FTI, H2020) aims to develop an innovative healthcare solution based

on a non-invasive continuous intraocular pressure monitoring device to manage glaucoma.

CPI is a UK based technology and innovation centre that enables companies to create contemporary products and processes by using state-of-the-art facilities. CPI will develop the scalable fabrication process and pilot production of the sensors. CSIC is Spain's largest public research institution. The Institute of Microelectronics of Seville in CSIC will model and evaluate sensors, ensuring best performance.

Smart Materials Group at UNN will develop the integration process of sensors into the contact lenses and their surface treatments.

RS Research

Oncology, biotechnology, drug delivery platforms

RS Research was founded in 2015 by Prof Rana Sanyal, a researcher at Bogazici University, and Dr Sena Nomak, an experienced project manager, with the aim of treating cancer using 'smart chemotherapy'. Recently the company's promising R&D results have received the first clinical trial approval in Turkey and so the company hopes to meet more peers, collaborators and investors. RS-0139 is a chemotherapy agent developed by RS Research that is compatible with present chemical agents, lowering development risks. It exploits the fact that chemotherapy is effective and they plan to reduce its chemical dosage, hence reducing side effects. They have patented a new drug delivery platform that directly targets tumours in chemotherapy, which complements their chemotherapy agents. Winner of "R&D/Innovation of the Year" at Doktorclub Awards, voted by 20k+ Turkish doctors; grand winner of Hello Tomorrow Turkey challenge and the first Turkish start-up to be named as one of the Global Finalists to run for the HTChallenge.



Dr Sena Nomak

COO

Turkey's first-ever phase-1 clinical trial of a targeted chemotherapy drug

Cancer is responsible for an estimated 9.6 million deaths in 2018. Globally, 1 out of 6 deaths is caused by cancer. Side effects of chemotherapy decrease the quality of life for cancer patients, leading to limitation of chemotherapy dose to fight against cancer. RS Research is a VC-backed academic spin-off in phase-I clinical development of the lead candidate developed based on a highly flexible nanomedicine platform with reduced side effects and enhanced efficacy for cancer chemotherapy. A targeted smart chemotherapy technology has been developed - a novel drug delivery platform

Simbec Orion

Oncology, translational medicine

Simbec-Orion Group is a full-service, boutique CRO which offers specialist expertise in oncology, rare & orphan diseases, dermatology, respiratory, neurology and infectious diseases and translational medicine.



Qaisar Rafiq

Senior Director Business Development

that carries the cytotoxic until it reaches the tumor. Based on this patented solid tumors targeting platform, the leading candidate in phase-I clinical trial and 4 additional candidates in the pipeline, demonstrate improved pharmacokinetic properties and efficacy, with better toxicity profile than current medications in the clinic. Although RS Research has vast experience in drug discovery thanks to its academic background; the lack of know-how in early stage clinical development was a question in minds.

Simbec-Orion was created in 2014 by the merger of two very experienced CROs: Simbec Research, a specialist CRO in Early Stage Clinical Development and Orion Clinical, the specialist CRO in Late Stage Clinical Development to create an international, full service, boutique CRO. The core expertise is in clinical pharmacology, oncology, rare diseases and areas of unmet medical need. The CRO has already delivered studies including > 5,200 patients in the last 5 years alone with 350 employees delivering international clinical trials across 4 continents in over 35 countries from supporting clinical development plans from Phase I-IV. At the end of a series of fruitful meetings, the cooperation between RS Research and Simbec-Orion has been initiated contractually. The very first clinical trial of RS Research, which is also the first in many fields in Turkey, will be backed by the experience of Simbec-Orion. Sharing the common goal of improving patients' lives, this cooperation will be immensely helpful for RS Research as well as an excellent opportunity for Simbec-Orion as a market pioneer.

WeWalk

Accessibility tech

WeWalk was founded in 2017 by graduates of the Young Guru Academy, an international non-profit, non-governmental organisation in Turkey. Awarded by MIT and Forbes, WeWalk is a revolutionary smart cane that improves the wellbeing of visually impaired people worldwide, allowing them to move freely and safely. This technology also increases their independence and promotes their full-participation in society.

WeWalk is attached to traditional canes, transferring them into smart canes. It has three innovative features, which are the detection of obstacles by ultrasonic sensors, integration with user's mobile device via Bluetooth, and the incorporation of apps such as Call Management, Google Maps, Voice Assistant, Uber and Lyft. Selected "One of the Best Inventions" by TIME Magazine in 2019.



Gökhan Mericiler

Social Innovation &
Impact Entrepreneur



Jean Marc Feghali

R&D Lead

Imperial College London

Healthtech, assistive solutions

Professor Washington Yotto Ochieng is an academician in the Department of Civil and Environmental Engineering at Imperial College London known for his contributions to major international projects. As an elected Fellow of the Royal Academy of Engineering (FREng), he has contributed to the design of the European Geostationary Navigation Overlay Service (EGNOS), GALILEO, GNSS measurement error modelling, specification of aircraft trajectory management tools for the Single European Sky's ATM Research (SESAR) programme, and integrated positioning and navigation systems for many applications including ITS.



Professor Washington Y. Ochieng
FREng

Mitigating indoor wayfinding challenges

Wayfinding in complex urban infrastructure is a problem affecting about 285 million visually impaired people worldwide. Current solutions either require the use of specialised equipment or major alterations to the environment. Moreover, recent beacon-based navigation systems that use indoor positioning have insufficient safety integrity and availability for this critical application.

WeWalk, Imperial College London, Astra Terra and the Royal National Institute of Blind People (RNIB) are leading the mitigation of wayfinding challenges by combining their

expertise to develop an indoor navigation system for people in need. The system is integrated into existing solutions with an integrity monitoring and usability framework.

Led by Professor Ochieng, the Centre for Transport Studies at Imperial College London will collaborate with RNIB to research, test and deploy the system. This system will be compatible with WeWalk and is a cost-effective, all-in-one solution that is easily installed to benefit visually impaired people worldwide.

Astra Terra

Astra Terra provides consultations to transportation and other related industries. They strive to provide original, efficient, cost-effective solutions for government, industrial and non-governmental entities to solve problems in modern society.

Royal National Institute of Blind People

The RNIB has been a supporting pillar for blind people in the UK since 1868. With the aid of technology, the charity aims to improve the lives of visually impaired individuals, allowing them to live normal lives. RNIB provides support, information and advice for people with impaired vision, as well as related professionals. RNIB also sources, designs and supplies products to help blind and partially sighted people live an independent and convenient life.

TYT

Renewable energy, solar power

TYT was established in 2013 to develop smart and renewable technologies for a sustainable future. TYT achieved many breakthroughs which were awarded by MIT, Forbes and GCIP. Among TYT's innovations is HydroSolar, a floating solar photovoltaic system. HydroSolar covers the water's surface, which reduces evaporation and increases energy outputs via cooling. With water compliant structures and anchoring systems, HydroSolar can easily adapt to a variable water environment. The co-founders made the "Forbes 30 Under 30 Europe: Industry" list.



Sami Alhelali

Business Development
Engineer

DWR Offshore

Engineering, offshore renewable energy

DWR Offshore Ltd is a UK-based Engineering, Procurement and Construction (EPC) company which offers technical services in areas across the offshore renewable energy sector. Founded in 2009, the company specialises in the design and supply of various equipment and installations for offshore wind, wave and tidal assets.

DWR's directors have a decade of experience in this sector, with previous backgrounds in management and consultation for a wide range of industries. They have a proven track record of delivering large, complex projects.



James Diddams

Director

Developing a more durable and feasible floating solar system

TYT and DWR are working on transforming floating solar systems, a new, growing technology. Statistics from the World Bank Group have indicated that the adoption of this system is rapidly expanding and there is potential in this market. These developments are essential to the transition of renewable energy as it removes the need for land acquisition, reduces water evaporation, lowers cost, and increases efficiency.

TYT and DWR are collaborating to develop a floating solar system that overcomes present challenges such as durability in harsh weather with membrane-based PV modules. It also tackles supply and logistics challenges with comprehensive parts.



Joint Project

Lucida Solar

Renewable energy, solar energy, solar thermal, CSP

Lucida Solar was established in 2016 to contribute to nature and humanity. They have a team with decades of experience in the field and an R&D centre in Turkey. The company specialises in Concentrated Solar Thermal (CST) system for industrial heat process and production applications. Their services start from design and installation to monitoring and maintenance.

Their solar collectors track the sun along two axes to increase efficiency and performance. In addition, their modular design allows integration into new and existing facilities. The modular approach also enables many units to be combined to achieve desired outputs. Hence, this economical design benefits a wide range of industries.



Can Camci
CEO

Cranfield University

Concentrated solar power

Cranfield University was founded in 1969 as an exclusive postgraduate that creates future leaders in technology and management. Cranfield has over 1,500 close industry connections across the globe, generating partnership and R&D opportunities. This synergy developed between science, engineering and management disciplines allows leading businesses in many fields to employ solutions for their real-life problems.

Professor Sansom, The Head of Centre at the Renewable Energy Systems School of Water, Energy and Environment at Cranfield University, is currently spearheading the UK's CSP and solar technology research. His current projects are related to solar power concentration, extraction and storage for community-scale usages, water desalination, and purification.



Professor Christopher Sansom

Professor in Concentrated Solar Power,
Centre for Renewable Energy Systems

Developing a net-zero carbon option for industrial process heat applications

Lucida Solar and Cranfield University's Energy & Power Department collaborate to meet the global need for net-zero carbon industrial processes by developing reliable, durable, efficient and cost-effective concentrated solar collectors.

The two partners will work together with their capabilities and expertise in the field to develop alternative designs and optimise Lucida Solar's current product. Cranfield University's team, led by Professor Chris Sansom, will optimise the current designs while Lucida Solar conducts validation tests. Both parties will analyse results and finalise a better solution for their cause.

Biyans Biological Products R&D

Environmental science, agriculture

Biyans Biological Products was founded in 2009 at METU KOSGEB. Since then they have worked on sustainable solutions for life sciences, connecting the public with science. After winning an entrepreneurship competition, Biyans received full support by the Turkish government for its R&D projects.

Biyans developed the Laser Induced Breakdown Spectroscopy (LIBS) for in-situ element detection and measurement in soil. This is a portable, time-saving and cost-effective solution to monitor climate change and soil quality. Its ability to detect heavy metals also greatly improves food security, recycling and reduces waste for environmental sustainability. Separately, Biyans designs STEM-focused science festivals, exhibitions and workshops for the general public.



Zeynep Yurtkuran
Co-founder

Rothamsted Research

Agronomy, soil science, spectroscopy

Rothamsted Research has a long-standing reputation of providing agricultural innovations. Established in 1843, their mission is to develop environmentally and economically sustainable solutions for food and energy production.

Inspired by a challenge-led strategy, Rothamsted Research performs quality research to achieve sustainable farming practices. They can analyse complex biological, physical and chemical interactions at different scales to deliver new data, ideas and technologies with significant impact, increasing crop productivity and quality.



Stephan Haefele
Systems Agronomist,
Sustainable Agriculture Sciences

Improving LIBS machine as an analytical tool for soil analysis in the laboratory & field

Biyans developed a patented hand-held prototype that can investigate the elemental contents of unknown samples with the help of qualitative analysis and known samples. The device has a strong algorithm and precise database combined with laser induced breakdown spectroscopy to accurately detect soil elements. They are currently working on a prototype that differentiates specific elements, namely N, P, K in soil.

Stephan Haefele and his group at Rothamsted Research are working on various dry spectral methods for soil, plant and fertiliser analysis. This method is superior to existing wet-chemistry methods as they are fast, cheap and non-destructive. This is also compatible with Biyans' device, removing the need for sophisticated equipment.

The partnership between two parties aims to establish LIBS as a reliable tool in laboratory and field settings. By combining LIBS with MIR, they hope a new standard for physical and chemical soil analysis can be created, benefiting farmers in all aspects.

Biyans Biological Products R&D

Environmental science, citizen science, science education

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Zeynep Yurtkuran
Co-founder

British Science Association

Diversity and inclusivity of science

Founded in 1831, the British Science Association (BSA) is a charity focusing on creating a world with science at the heart of society and culture. They support, grow and diversify the community interested in science, strengthening their influence over society. The BSA coordinates with other organisations to deliver major regional and local initiatives across the UK, such as British Science Week, British Science Festival, the CREST Awards, Science Communication Conference and programmes targeted at young students.



Panagiota Letsou
CREST Product Manager

The promotion of CREST Awards and its STEM & enquiry based learning approach for students

These STEM-based learning programmes aim to cultivate interest among students to pursue education and careers in STEM. The programmes combine traditional classroom learning with online courses and hands-on activities. This blended approach improves students' problem-solving and learning skills in science fields, which enhances their university applications.

British Science Association's flagship programme is CREST Awards, which contains STEM projects and activities for all young people to experience enquiry-led learning. Besides gaining interest in science, students also develop skills valued by educators and employers.

Biyans has experience in STEM-based laboratory activities and science centre projects. The company has attended many science fairs and organised workshops. Some of their thematic projects are fully supported by the Turkish government.

BSA has partnered with Biyans to introduce and promote CREST Awards in Turkish schools. Training is provided to STEM teachers to perform CREST Awards experiments.

Agrovisio

Agritech, big data

Agrovisio utilises advancements in satellite imagery for agricultural efficiency. By combining soil data, models and satellite imagery with cutting edge technologies, Agrovisio successfully addresses challenges in predictability, sustainability and planning of agriculture with a SaaS solution. This risk-assessment and forecast service provides valuable and actionable insights to clients, revealing opportunities in their businesses. One of 50 startups supported by Mercedes Benz in 2017; Climate Launchpad finalist.



Emre Tunali
Co-founder

Weather Logistics

Environmental tech, agritech

Established in 2014, Weather Logistics is a scientific research and development company supported by the UK Space Agency. The company employs an algorithm for detailed, long-term weather predictions and risk-assessments for field monitoring.

These climate data, validated by the University of Cambridge and many experts, can be fed into various predictive models to help farmers make better-informed decisions, maximise crop yield and quality, minimise crop damage, maintain a fresh supply of produce and secure a future of food security and sustainability.



Christopher Nankervis
CEO

Cultivation planning, monitoring and yield forecasting for agricultural enterprises

Agrovisio and Weather Logistics provide planning, monitoring and forecasting solutions to enable productive, profitable and sustainable agriculture. They have successfully solved challenges in Turkey and the UK through years of intensive R&D. Forecasts are designed for cost-benefit based decision making, for fresh produce supply-demand management, for applying early frost protection, for advising on preventative spraying against disease and to refine variable-rate fertiliser applications.

A collaboration between these parties covering soil, weather and crop monitoring would help forecast production and financials for agricultural organisations. The accurate data provided allow clients to take necessary measures in adaptive selection of fields, risk and productivity mapping, growth tracking, yield forecasting and harvest management. The comprehensive monitoring can adapt to different climate zones, bringing potential for global expansion.

Signalton

Digital signal processing based information systems, IoT, smart home/city, industry 4.0

Signalton Technology is an R&D company focused on digital signal processing. Signalton was founded by Reyhan Ergün and Dr Nail Çadallı, who have 40 years of experience combined. The company is capable of designing and developing a system from scratch, including its hardware, software and algorithms.

Sig-Mote, Sig-ASA and Data-Mote are original creations by Signalton. Sig-Mote is a wireless signal processing sensor platform that can integrate external sensors and support edge or cloud computing. Sig-Mote's scaled-down IoT and cloud-computing model is known as Data-Mote. Sig-ASA is an audio analysis algorithm suite that uses machine learning and pattern recognition to identify sounds.



Dr Nail Çadallı
Founder & Managing Director

Ginger

Transportation, micromobility, shared transport

Ginger is a London based company that aims to transform local transport using shared, low-speed, clean, electric vehicles. The company shares data and cooperates with authorities to design future roads, build sustainable revenue. Ginger prioritises promoting and preserving high streets and community centres, active partnership with new major developments, improving and promoting better air quality and improved quality of life while working with community groups and building community cohesion.



Paul Hodgins
Director

Smart city sensing by connected innovative vehicles

Ginger and Signalton collaborate to provide wireless sensor network solutions for the smart city through connected vehicles. Ginger's electric vehicles, equipped with Signalton's IoT devices, act as a mobile sensor network for the city. The system can analyse traffic status, congestion and traffic-induced air and noise pollution. Such information can then be used by local authorities to better plan infrastructure and traffic.



Joint Project

Parabol

Smart traffic management systems,
cooperative intelligent transport systems,
big data

Established in 2011, Parabol consists of a team of engineers, designers and specialists that aims to develop and implement traffic management systems in smart cities. Parabol's latest IoT based mobility management platform, METIS, was developed with cutting-edge technologies and currently operates in 25 cities worldwide. METIS helps monitor, manage and control traffic junctions and recommend actions to drivers to make their journeys safer, efficient and comfortable.



Metin Barış

Founder & CEO

Immense

Software, predictive simulation

Founded in 2015, Immense delivers large-scale, reusable, highly detailed simulations of people, places and mobility systems. These convenient tools allow transit authorities, planners, mobility companies and fleet operators to plan, implement and operate cost-effective and efficient mobility solutions.

Immense provides a cloud-hosted SaaS platform that provides detailed, data-driven world simulations for transport stakeholders to plan strategic operations associated with the movement of people and goods.



Shaleen Srivastava

Chief Commercial Officer

Traffic scenario and strategy management

Parabol and Immense provide better understanding and insights of cities' mobility patterns that help to make better decisions in traffic & mobility management. Parabol's IoT based, interoperable traffic & mobility management platform, METIS, gathers all traffic-related data from different data sources (GPS, Bluetooth, loop detectors, sensors, cameras) and turns it into actionable insights and recommendation for local authorities, public and private enterprises along with citizens. Immense's AI-powered, SaaS agent-based simulation platform enables advanced strategic and operational decision support to plan, implement and operate cost-effective and efficient mobility solutions. It provides to test alternative scenarios in predictive simulations.

The two companies will bring together their capabilities and expertise in traffic & mobility sector to provide a scenario-based strategy management platform which will enable the road authorities and cities to (1) test the different action scenarios and assess the impacts for both strategic and operational level management (2) apply fast and effective actions with an agile and interoperable structure according to the results of the scenario analyses.

Inavitas

Smart energy management solutions

Inavitas is at the forefront of researching, developing, and delivering smart energy management solutions since 2012. Inavitas' objectives are to produce cost and time effective, efficient and resilient energy management systems with real-time monitoring. Inavitas provides quality SCADA systems, including the completion of turnkey design and installation. The company offers centralised control systems and optimization tools to solve constraints in conventional grid designs to integrate renewable energy. Their solutions are widely used by DSOs, EPCs, O&M companies.

Inavitas is highly involved in the prosumer market. Recently, they introduced a new product, Inavitas Flex, for energy management in residential locations. They also provide user-friendly and dedicated software for interaction between prosumers and system operators for better management. Among the top 250 companies in R&D expenditures in Turkey.



Dr. Şafak Baykal
R&D Director

Digital infrastructure for distributed energy systems

With established offices in Australia, Turkey, the US and India, Inavitas is at the forefront of researching, developing, and delivering smart energy management solutions for energy systems of all scales. Based in London, Electron harnesses blockchain technologies to design more efficient, resilient and flexible systems for the energy sector.

Two companies join their expertise to co-develop DIDES (Digital Infrastructure For

Electron

Blockchain, software, energy systems, digital infrastructure

Electron is a London based start-up harnessing blockchain technologies to design more efficient, resilient and flexible systems for the energy sector. The company designs platforms and services enabling the industry to address the challenges and maximise the potential of new technologies such as distributed renewable generation and storage capacity, the smart grid and connected devices.

Recognising the potential for blockchain to transform the shared virtual infrastructure of the grid, Electron takes a top down, collaborative approach to platform development and working with various stakeholders in the energy industry.



Jon Ferris
Strategy Director

Distributed Energy Systems), aiming to address problems in the sector, namely the increased curtailment of renewable generation on distribution networks that increases energy costs and carbon emissions while reducing grid resilience. Their solution is a marketplace that enables local generation and demand to be coordinated to reduce curtailment while helping the DSO manage the network.

Their innovation is supported by the peer to peer market in which generation assets can trade with other generation/consumers to avoid curtailment. Their technology is implemented in partnership with DSO systems, allowing the DSO to act as a central counterparty to each trade, or to act as a neutral market facilitator.

Signalton

Digital signal processing based information systems, IoT, smart home/city, industry 4.0

Signalton Technology is an R&D company focused on digital signal processing. Signalton was founded by Reyhan Ergün and Dr Nail Çadallı, who have 40 years of experience combined. The company is capable of designing and developing a system from scratch, including its hardware, software and algorithms.

Sig-Mote, Sig-ASA and Data-Mote are original creations by Signalton. Sig-Mote is a wireless signal processing sensor platform that can integrate external sensors and support edge or cloud computing. Sig-Mote's scaled-down IoT and cloud-computing model is known as Data-Mote. Sig-ASA is an audio analysis algorithm suite that uses machine learning and pattern recognition to identify sounds.



Dr Nail Çadallı
Founder & Managing Director

Cobalt Speech

Speech technology, cognitive computing, AI, machine learning, language learning

Cobalt was founded in 2014 by Jeff Adams, who held leadership positions at Amazon, Yap, and Nuance. Cobalt is a leading provider of customized speech and language solutions for businesses. They specialise in cognitive computing, which allows computers to mimic human speech & language. Cobalt's team consists of competent language scientists and engineers with over 50 patents. Cobalt provides accurate and precise text to speech conversion that adapts to difficult settings and filter out background noises. Their voice analysis algorithm has the ability to identify early warnings of diseases, improving medical diagnosis.



Dr Catherine Breslin
Director, Solutions Architect

Sound analysing IoT network for smart city sensing

Cobalt Speech and Signalton Technology collaborate to provide sound analysing solutions through wireless sensor networks for smart cities. Signalton's edge-computing IoT devices together with Cobalt's high-end algorithms based on sound analysis and speech recognition provide an IoT network for smart city sensing applications.

This combined system can monitor noise levels, detect unusual environmental sound events and spot specific keywords via audio surveillance. Information extracted from sound data throughout the city-wide network can be further analysed and used to alert authorities. Local authorities can benefit from such information to regulate traffic flow, improve traffic/road infrastructure, and to control crime more efficiently.

Drive Buddy

Big data, insurtech, self driving car

Drive Buddy is a mobile solution that analyses driver's driving habits via machine learning algorithms and detects car accidents using sensors on their smartphone. It is a pure smartphone solution that allows quick and easy integration. By using Drive Buddy, a driver's risk is lowered by 45%. Hence, when compared to solutions like OBD dongle and direct hardware attachment, Drive Buddy is a better and cheaper option for insurers and risk assessors alike.



Emre Yiğit Alparslan
Co-founder & CEO

Roadwise

Fleet management

Roadwise offers highly customisable well-rounded solutions to transport needs of businesses, ranging from managing systems to operational monitoring. The company has a proven track record in using technology to understand the fleets of businesses and to train and motivate drivers to become the safest and most effective they can be.

Roadwise offers only end-to-end driving performance solution on the market that combines technology, monitoring, analytics, in-vehicle assessment, training and incentivisation, all with a passion to see drivers develop and feel valued.



Ben Peters
Director

A mobile app that brings driver agencies and drivers together

Drive Buddy and Roadwise help driving agencies to acquire drivers easily and efficiently by analysing driver's driving habits and educating them to ensure safer roads. Drive Buddy's smartphone-based mobile telematics solution analyses drivers' driving habits and detects car accidents without any hardware. Roadwise's gamification-based telematics solution increases driver's adaptation and educates them to drive safer. These two companies' solutions will generate a significant result to make drivers safer and encourage younger generations to be more involved in the logistics sector.

Drive Buddy and Roadwise will combine their powers to develop a mobile app that will bring driver agencies and drivers together. This unique solution will analyse the driver's driving behaviours and improve their habits to become safer and more qualified, therefore enabling driver agencies to offer them better jobs. Correlatively, their collaboration will result in decreasing the shortage of younger generation drivers, and assuring safer roads through educating younger drivers.

Verisun

Intelligent transport, mobility

Verisun is a company focused on intelligent public transport and mobility with the aim of developing sustainable, efficient transportation. As a pioneer of smart city technologies in Turkey, Verisun provides its solution through the Smart City Platform (SCP), a cloud based mobile transport system capable of real time public transport.

SCP provides arrival times, multimodal journey planners, a personalised alert system, accessibility support and its data can be served on the web, mobile or any IoT device. SCP also integrates with Apple Siri and Amazon Alexa to provide an autonomous experience.

Verisun's innovation has won numerous prestigious awards in Turkey and has received ample investments from Vestel.



Mustafa Eren
CMO

Connexin

Smart cities, mobility

Connexin is an innovative and disruptive technology company specialising in building and operating award-winning Smart City Infrastructure to support the Internet of Things.

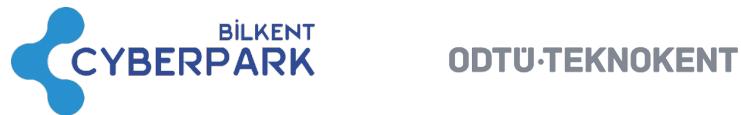
In October 2017, Connexin announced it had secured a £10m investment to rapidly scale up and expand its Smart City infrastructure as a service model for municipalities.

Connexin was recently named one of the Top 100 Fastest Growing Technology Companies in the Northern Tech Awards.



Furqan Alamgir
Founder

Our Turkish Partners



Our UK Partners



The T-DEB Advisory Board



Erman Turan

Founder & Managing Director,
Addwise



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Notes



Notes





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#Collaboration #KnowledgeTransfer