



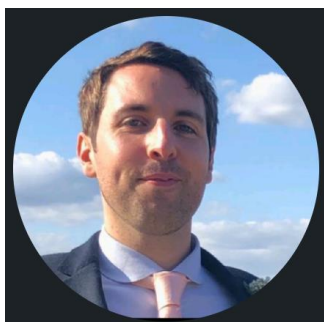
Start-up company networking event

31st March 2021 (Wednesday)

1800 – 2000

Online (MS Teams)





IChemE start-up company networking event

Aims:

- Build a community of chem-eng-related start-ups for sharing information and experience
- Inspire students/researchers about the application of chem eng knowledge and possible career paths

Event details:

- Anticipated participants:
 - 13 start-ups
 - 1 government grant expert
 - ~20 IChemE members (spectators)

Schedule

- 1800 – 1830: Introduction by start-up representatives
 - 3 min each (10 start-ups: CMCL Innovations / Manchester Biogel / Octeract / Carbon Sink LLC / Accelerated Materials / Dye Recycle / Olwg / Nanomox / Solveteq / Greenr)
- 1830 – 1910: Talks by **Professor Nigel Brandon**, **Mr Phil Caldwell** & **Dr David Hodgson**
 - 10 min each --- > start-up journey + key learning points
 - 10 min Q & A for all three speakers
- 1910 – 1930: Talk by **Dr Mat Westergreen-Thorne**
 - 10 min --- > application of government grants
 - 10 min Q & A
- 1930 – 2000: Panel discussions
 - Topics:
 - Personal development for start-up founders with technical background
 - Early-stage development: common mistakes, major milestones, resources available



- **Website:** <https://www.rfcpower.com/>
- **Founded:** 2017
- **Product:** Novel hydrogen-manganese reversible fuel cell for grid scale energy storage.
- RFC Power specializes in developing novel flow battery chemistries for energy storage systems. The company was spun out from Imperial College's Departments of Earth Science & Engineering and Chemistry in 2017, underpinned by a number of scientific breakthroughs and patents from the labs of Nigel Brandon, Anthony Kucernak, Javier Rubio Garcia and Vladimir Yufit over the prior 8 years.



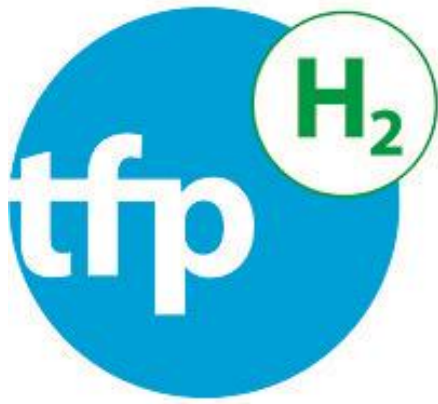
Prof. Nigel Brandon (Director & co-founder)

- <https://www.imperial.ac.uk/people/n.brandon>
- **Email:** n.brandon@imperial.ac.uk
- Dean of the Faculty of Engineering and Chair in Sustainable Development in Energy, Imperial College London.
- BSc(Eng) in Minerals Technology and PhD in electrochemical engineering from Imperial College London, followed by a 14 year research career in industry with BP and Rolls-Royce.
- Returned to Imperial College as an academic in 1998. Co-founder of Ceres Power in 2001.



Phil Caldwell (CEO)

- **Website:** <https://www.ceres.tech/>
 - **Founded:** 2001
 - **Product:** SteelCell® Solid Oxide Fuel Cell
 - Strong partnerships with global engineering and technology players
 - Unique IP ~50 patent families + know-how and trade secrets
 - 350+ highly skilled scientists and engineers based in UK
 - £108m cash, £100m+ order book/pipeline
 - AIM listed ~£2.5 bn market cap
- **LinkedIn:** <https://www.linkedin.com/in/phil-caldwell-58121226/>
 - **Email:** phil.caldwell@cerespower.com
 - Master's degree in Chemical Engineering from Imperial College and an MBA from IESE Barcelona
 - 17 years experience in H2 fuel cells, starting at Electrochemical Technology Business within ICI
 - Joined Ceres Power in September 2013 as CEO
 - Established high-margin, capital light technology licensing business model at Ceres



- **Website:** <https://www.tfphydrogen.com/>
- **Founded:** 2011 as PV3 Technologies
- Joined the Technical Fibre Products Group in 2021
- **Products:** Coatings for PEM Water Electrolysers, MMO Electrodes, Electrocatalyst Powders, GDL Substrate
- Collaborate with customers to provide materials and solutions for a range of electrochemical applications
- Built on decades of knowledge and expertise in both electrochemical and nano materials
- Strong focus on sustainability, specialising in the development of materials for the hydrogen economy

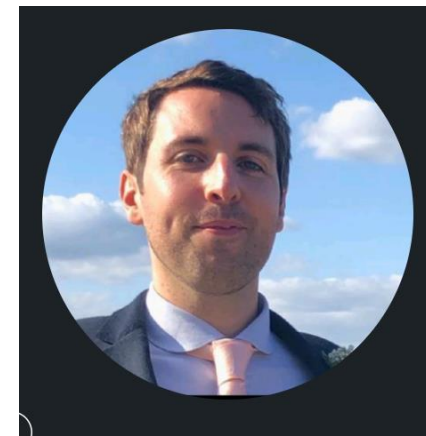


Dr David Hodgson

- LinkedIn: <https://www.linkedin.com/in/david-hodgson-3a86134/>
- **Email:** david.hodgson@tfphydrogen.com
- With over 35 years' experience in the electrochemistry industry, working in development and CXO roles
- Founded PV3 Technologies in 2011 as CEO
- Recently worked on a consultancy basis helping clients understand the UK energy sector and in the area of innovation to commercialisation



- **Website:** www.grantify.io
- **Founded:** 2019
- **Product:** Grant Consultancy Services
- We help businesses apply for grant funding in the most effective and quickest way possible. In 2020, 55% of companies won the grant they were aiming for via Grantify, raising tens of millions for tech SMEs. Grantify has now expanded to the arts sector and will be helping with Horizon Europe towards the end of the year. We also have an exceptional R&D tax credit and creative industry tax scheme service.



Dr Mat Westergreen-Thorne (Co-CEO)

- **LinkedIn:** <https://www.linkedin.com/in/dr-mat-westergreen-thorne-7723a63a/>
- **Email:** mat@grantify.io



iDMT

Innovation Centre
in Digital Molecular
Technologies

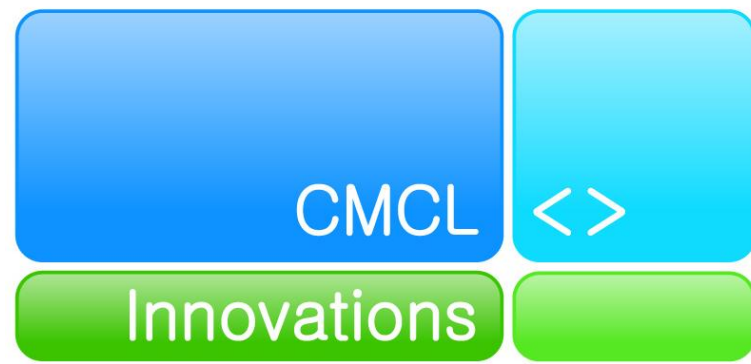
Innovation Centre in Digital Molecular Technologies

- **Website:** www.idmt.online
- **Established:** 2020
- **Provides:** Support for SMEs in three main areas:
 - AI for synthesis
 - Robotic equipment for chemical synthesis
 - New algorithms for chemical process development
- £5M project co-funded by the University of Cambridge, the European Regional Development Fund (ERDF), AstraZeneca and Shionogi.
- The University of Cambridge has committed significant academic resources and recruited a team consisting of industrial and research specialists to support the delivery of projects, all fully funded to eligible SME's
- Facilities include refurbished laboratories, equipped with robotic and automation equipment for chemical synthesis and high-throughput analytical equipment, space for communication and computational facilities.



Dr Celeste van den Bosch (Project Manager)

- **LinkedIn:** <https://www.linkedin.com/in/cvdbosch/>
- **Email:** cv363@cam.ac.uk
- Joined iDMT in 2021
- Part of the Department of Chemical Engineering & Biotechnology, University of Cambridge
- PhD in Materials Science & Engineering, Imperial College London
- MSci (Chemistry), Imperial College London



Dr Amit Bhawe (CEO and co-founder)

- **Website:** cmclinnovations.com
- **Founded:** 2008, spun out of Cambridge University
- Award-winning, R&D-driven company offering digital engineering solutions for solving industrial problems
- Software | Consulting | Research | Training

• **Software:**



MoDS



kinetics



SRM Engine Suite



CMCL Explorer

- **Research:** Semantic Knowledge Graphs
- Cross-domain digitalisation: energy conversion, emissions reduction, air quality, materials and process design, smart infrastructure and mobility.

- **LinkedIn:** <https://www.linkedin.com/in/amit-bhave-5403ba2/>
- **Email:** anbhave@cmclinnovations.com
- 17 years experience in software and services business development
- PhD, Chemical Engineering, Cambridge
- Led several projects focused on digitalisation applied to emissions reduction in vehicles, nanomaterials production, and carbon-negative energy technologies
- Associate at Hughes Hall, University of Cambridge



Manchester
BIOGEL



Prof. Aline Miller (CEO & Founding Director)

- **Website:** www.manchesterbiogel.com
- **Founded:** 2013
- **Product:** Peptide hydrogels (PeptiGels® & Peptilinks®) for 3D cell culture, 3D bioprinting & drug discovery
- Patent & know-how licenced from The University of Manchester
- Company is based at Alderley Park in Cheshire with 9 FTEs
- Hold 11 CASE PhD studentships & 2 Innovate grants
- Revenue generation has doubled over the past 3 financial years
- **LinkedIn:** <https://www.linkedin.com/in/alinemiller/>
- **Email:** a.miller@manchesterbiogel.com
- Professor of Chemical Engineering & Associate Dean for Business Engagement and Innovation, University of Manchester
- Proven senior manager and strategic leader with over 20 years of experience leading commercial and academic R&D teams in the Biomaterials sector.
- Strong track record of raising funds and translating academic research into the commercial and clinical setting.



- **Website:** www.octeract.com
- **Founded:** 2017
- **Products:** Octeract Engine, Octeract Reformulator
- The mission of Octeract is to transform optimisation technology, from an enterprise-only solution into an ubiquitous commodity such as Python or machine learning.

This is catalysed by the company's innovative solver technology, which Octeract has made available free of charge, for any purpose.

Unique, world-class technology and a disruptive business model enable the company to grow much faster than its competitors and tap into demographics of a \$30billion market that no other company can access.



Dr Nikos Kazazakis (CEO & co-founder)

- **LinkedIn:** <https://www.linkedin.com/in/nikos-kazazakis-79b35929/>
- **Email:** nikos@octeract.com
- Nikos is an aeronautical engineer by training. He completed his PhD in deterministic global optimisation at Imperial in 2016.
- As the CEO of Octeract he has:
 - closed 4 funding rounds
 - released two products and numerous services
 - grown the company to 14 employees
 - grown the company's user base to 100+ universities
 - secured channels for enterprise sales

Carbon Sink^{LLC}

- **Website:** <https://carbonsinkllc.com>
- **Founded:** 2019
- **Product:** renewable methanol
- U.S. based low-cost, scalable e-fuels & chemicals platform leveraging abundant and economical biogenic CO₂ and renewable electricity
- IP focused on process and methods related to integrating renewable electricity, methanol synthesis and bioethanol production (in the future w/DAC)
- Team of six highly experienced people
- Early stage, looking for A round capital providers



Henry Aszklar (Chief Strategy Officer)

- **LinkedIn:** <https://www.linkedin.com/in/henryaszklar/>
- **Email:** henry@carbonsinkllc.com
- 30+ years career in the energy industry developing and acquiring projects in the U.S., Latin America, and Africa
- Founded Carbon Sink with three other colleagues
- BS in Aerospace Engineering from U.S. Naval Academy, MS in Management from M.I.T, Qualified Navy Nuclear Engineer, PhD student @ Cambridge
- Member of the former U.S. DoE Hydrogen and Fuel Cell Technology Advisory Committee



- **Website:** www.acceleratedmaterials.co.uk
- **Founded:** 2020
- **Product:** Scale-up services for advanced materials and functional additives
- Aimed to close the scale-up gap that limits many laboratory nanomaterials from reaching industrial scale production
- Utilizing intensified processes, machine learning and a rapid development methodology
- First product range are anisotropic nano-ZnO additives for functional coatings



Nicholas Jose (Founder)

- **LinkedIn:** www.linkedin.com/in/nicholas-jose-21726235
- **Email:** nicholas.jose@acceleratedmaterials.co.uk
- B.S. in Materials Science and Chemical Engineering from the University of California, Berkeley (2013)
- Ph.D. in Chemical Engineering from the University of Cambridge (2019)
- Inventor on patents for high shear microreactor technology, materials in filtration and energy storage



- **Website:** www.dyerecycle.com
- **Founded:** 2020
- **Product:** Dye recycling from waste textiles
- Patent-pending chemical process
- Simple, two-step process:
 1. Dye extraction into solvent, producing higher-value de-coloured fibres
 2. Dyeing of new fibres directly from the solvent
- Non-volatile, low-cost, environmentally benign solvent
- Add-in module to existing facilities



Anton Firth (Co-Founder & CTO)

- **LinkedIn:** www.linkedin.com/in/anton-firth-05b111125/
- **Email:** a.firth17@ic.ac.uk
- MEng in Engineering Science, University of Oxford
- PhD in Chemical Engineering, Imperial College
- Head of process development and customer discovery
- Led company through two start-up accelerators
- Co-founded alongside fellow PhD researcher Dr Aida Rafat, and supervisor Professor Jason Hallett



- **Website:** www.olwg.co.uk
- **Founded:** 2020
- **Product:** 'Decision shortcut' software toolkit for screening energy/ value/ carbon/ metrics across clean energy projects.
- We want to help project initiators, public agencies & investors find the most effective, impactful and science-based clean energy projects that can be delivered now.
- Currently engaged with pre-development of Hydrogen Hub in Holyhead, (with Logan Energy).
- Won a space on Imperial College's 2021 Climate Change Innovation Programme '*The Greenhouse*'.



Tony Griffiths (Tech Director, co-Founder)

- **LinkedIn:** www.linkedin.com/in/tonygriffiths
- **Email:** tony@olwg.co.uk
- Chartered Chemical Engineer for 20 years; broad global background in process engineering, operations and engineering / development mgt.
- Enjoys problem framing, decision science, collaborative working and being challenged to find simple solutions to complex problems. In 2020 completed MSc in Operational Research.
- Founded Olwg Ltd in mid 2020 with wife Rosie, we are based in Brentford (W. London).



- **Website:** www.nanomox.net
- **Founded:** 2020
- **Product:** High-performance inorganic materials, sustainably produced, for applications ranging from biotech to electronics.
- Strong and motivated technical team
- Patent filed for an innovative process to produce inorganic materials
- Part of the Greenhouse Incubator and Better Future Plus
- 2nd place (UK) in the Climate LaunchPad competition for CleanTech startups



Dr Francisco Malaret (CEO)

- **LinkedIn:** <https://www.linkedin.com/in/francisco-ios%C3%A9-malaret-3802425/>
- **Email:** f.malaret@nanomox.net
- PhD in Chemical Engineering from Imperial College London and Master's degree in Chemical Engineering from Ecole Nationale Supérieure du Pétrole et des Moteurs ENSPM (IFP School).
- Over 10 years of experience as a process engineer for oil and gas projects (LNG)
- Co-founded Nanomox Ltd in 2020



- **Website:** <https://solveteq.co.uk/>
- **Founded:** 2020
- **Product:** Solvent-based recycling of automotive batteries
- Solveteq's green technology reduces the environmental impact of lead and enables recycling companies to demonstrate savings on their energy and environmental control expenditures.
- 2 patents originating from research led by Prof. David Payne at Imperial College London
- Strong ties with industry & environmental organisations to ensure market fit at the development stage



Dr Ola Hekselman (CEO & Co-founder)

- **LinkedIn:** <https://www.linkedin.com/in/ola-hekselman/>
- **Email:** ola.hekselman@solveteq.co.uk
- Research Fellow at Imperial College London (previously Oxford, St Andrews & CSIRO)
- Battery scientist with background in Li-ion and lead-acid technologies
- Co-founded Solveteq with Prof. David Payne in March 2020

greenr



- Incorporation planned for summer 2021
- **Product:** App based service for retail energy demand management
- Financially incentivising households to use less electricity during demand peaks to tackle high CO2 emissions of short term power generation.
- Currently working on app prototype and planning to partner with electricity providers helping them avoid high peak-time costs
- Team of 4 after winning UCL Explore and UCL Launch competitions



Eugenio Lupi & Vinzenz Pfeiffer

- **LinkedIn:** [linkedin.com/in/eugeniolupi/](https://www.linkedin.com/in/eugeniolupi/)
- **Email:** eugi.lupi@gmail.com
- BSc in Economics at UCL
- **LinkedIn:** [linkedin.com/in/vinzenzpfeiffer/](https://www.linkedin.com/in/vinzenzpfeiffer/)
- **Email:** pfeiffer.vinzenz@gmail.com
- BSc & MSc in Mathematics at Humboldt University Berlin and UCL