

**5th SPIRE
Brokerage event**

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Confidential

**UK INTERESTS IN SPIRE 2018 CALL
TOPICS**

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□ **Who we are:**

- Not-for-profit SME, Innovate UK's (UK funding agency for business innovation) networking partner
- We help businesses get the best out of creativity, ideas and the latest discoveries, to strengthen the UK economy and improve people's lives.
- From agri-food to autonomous systems and from energy to design, KTN combines in-depth knowledge in all sectors with the ability to cross boundaries – 109 sector experts

□ **What we do:**

- We connect people and provide access to funding & finance support (over 2,800 B2B introductions, over 300 events, over 51,000 newsletter subscribers)
- We support national strategy development & manage stakeholder councils
- We partner in EU projects: exploitation, communication & dissemination, expert advice, network building, knowledge transfer
- We engage at ETP level, e.g. SusChem, EuMat, etc.





Spiro Control Ltd

□ Who we are:

- UK based SME specialising in advanced analytics and closed-loop control solutions for the continuous process industries.
- Extremely knowledgeable in the underlying mathematical principles of industrial control, as well as having a strong-track record in leading large scale Advanced Process Control projects, particularly in ethylene production and gas processing.
- Our technology includes analytic tools that make use of machine learning, and predictive closed-loop control technology that facilitates optimisation of processes.

□ What is unique about us:

- Where other solutions are remote from the main control network, our technology is integrated into existing control hardware. This facilitates 'plug & play' deployments that scale effectively, are more reliable, and easily serviceable. Other advantages include that an integrated approach vastly increases system security and makes more data interface options available such as Fieldbus, Modbus, and OPC UA.



Spiro Control Ltd

CE-SPIRE-03-2018: Energy and resource flexibility in highly energy intensive industries

□ Opportunity:

- In energy intensive industries, savings can be made by utilising more efficient energy streams, heat recovery, and raw materials flows with variable properties. The difficulty is the variability of the energy source and achieving integration among different production sectors.

□ What Spiro Control can contribute:

- Novel solution for implementing an integrated control scheme that will enable cooperation between different unit processes to solve a plant-wide objective function.



Spiro Control Ltd

DT-SPIRE-06-2019: Digital technologies for improved performance in cognitive production plants

□ Opportunity:

- Increased capability to perform “control at the edge”; microprocessor-based devices at the edge are smart enough to invoke actions—to solve logic or do closed-loop control—without having to “phone home” to a central host or human operator.

□ What Spiro Control can contribute:

- Platform for deploying APC and advanced analytics applications on an edge device able to collect, filter, and relay data close to industrial processes.
- Toolset, process insight, and capability to develop machine learning and AI models of industrial processes. As mentioned above we also have an edge device designed for deployment of those AI models.

Who we are (www.recyclingtechnologies.co.uk)

- A UK based SME, that has developed a machine - RT7000 - to recycle residual mixed plastic waste into a valuable, quality hydrocarbon, Plaxx®
- Plaxx has three fractions – a polymer feedstock to be used by plastic manufacturers, oil and slack wax to be used by wax refiners.
- The RT7000 offers a '*circular economy*' pathway for residual mixed plastic waste, which currently ends up in landfills or energy from waste incinerators

What we do

- Plan to manufacture and then own or license RT7000 machines globally to recycle residual mixed plastic waste
- Offer Plaxx to plastic manufacturers, base oil users and wax refiners as a substitute for virgin products
- Have built and demonstrated a beta plant for the RT7000, UK patent secured



Fig.1 RT7000 beta plant



Seeking partners - upstream (waste management, councils), technology (distillation, fluidised beds, gas cleaning, instrumentation) and downstream (Plaxx customers) - to collaborate in demonstrating our full scale machine and Plaxx use.

CE-SPIRE-10-2018: Efficient recycling processes for plastic containing materials (IA)

Opportunity

- Global plastics demand has reached 322mt p.a. and is growing exponentially. 90% of plastic is currently **not** recycled
- Existing mechanical recycling technologies limited to single polymer types; with high-cost barrier to treating lower-value, mixed plastic materials
- RT7000 is a viable solution for recycling heterogeneous plastic waste.
- RT7000 is mass producible in a factory and easily transported on waste operators' sites where plastic wastes accumulate. The solution can be rapidly deployed
- Plaxx produced can bring the plastics back into the circular economy through the feedstock recycling route
- Each tonne of plastic waste processed through RT7000 saves 1.8 tonnes of CO₂ when compared with energy from waste



LEARNING PLANNERS | TOOL MAKERS | HABIT CHANGERS

www.limetools.biz

- **Who we are:**

- LIMETOOLS Ltd is an SME established in 2014 from predecessor and sister company EUCONNECT Ltd (set up on 2003)
- Provider of a range of communication and capacity building services based on Social Cognitive Theory to enable behaviour change, operational capacity building and decision making
- Long-standing experience in EU and international collaborations – trusted networks

- **What we do:**

- Utilise innovative digital media to explain complex science, technology and economic themes typically to policy makers, business leaders and informed citizens
- Specialist development of online learning tools depicting behaviour, e.g. interactive digital media training packages, videos, etc.



Seeking to be a partner or sub-contractor in H2020 projects

- **Project Examples**

- **Six part TV series for Discovery Channel's South Asia** - funded by the Foreign & Commonwealth Office and the British Council. Showcased around 30 UK ground-breaking innovative researchers and companies in fields as varied as Fuel Cells, Formula 1, Robotic Surgery and Criminal Profiling. Seen by around 40 million people across South Asia.
- **Economic Impact of Climate Change in SE Asia** – turned a 360 page very data intensive report from the Asian Development Bank, into a 25min documentary. Seen by over 3,000 business leaders across SE Asia. Training package for SE Asian policy makers in the lead up to COP 15 in 8 SE Asian languages.
- **Blended learning programme with the World Bank & Online learning package for Equator Principles Association**
- **Interactive learning modules** to demonstrate energy efficient behaviours and affect behaviour change in H2020 project **FEEdBACK** (Nov '17, EE 2016-17)
- Projects delivered for DG Enterprise & Industry, DG Research, DG Education & Culture

CONTACT DETAILS

Upcoming: H2020 UK Information & Brokerage Events
(including Consortia Building)

NMBP - 10 October 2017, London



Further details at <http://tinyurl.com/ycpee7ng>

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Innovate UK
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