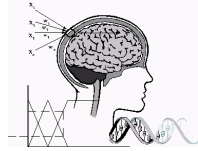




International

Innovation in Knowledge Based and Intelligent
Engineering Systems



INVITED SESSION SUMMARY

Title of Session:

Transforming Industries

Name, Title and Affiliation of Chair:

Professor Rossi Setchi, Professor in High-Value Manufacturing at Cardiff University, UK, Chair of the KES Sustainable Design and Manufacturing Society and TransFire Lead for the Metals Sector

Professor Peter Ball, Professor of Operations Management at University of York, UK, TransFIRE Lead for Working with Communities.

Professor Mark Joly, Professor of Manufacturing and Director of the Manufacturing Theme at Cranfield University, UK, Director of TransFIRE.

Details of Session (including aim and scope):

This Invited Session brings together academic researchers and industrialists interested in interdisciplinary research for sustainable solutions. Of particular interest are solutions that can be rapidly deployed within the foundation industries – which include the cement, glass, ceramics, paper, metals and bulk chemicals sectors.

Our focus is on:

- (i) processes that support resource efficiency, productivity, and competitiveness, reduce environmental impact, and can be transferred between the foundation industries,
- (ii) best practices that promote minimising of resource use, lowering energy use and emissions, and using by-products,
- (iii) working with communities to co-develop new businesses.

The scope of the invited session includes but is not limited to the following topics:

- circular economy,
- energy mapping,
- energy modelling,
- industrial eco-efficiency,
- industrial symbiosis.
- life cycle and sustainability,
- performance improvement,
- process modelling,
- resource efficiency,
- stakeholder and community engagement.
- supply chain practice diffusion,
- sustainable manufacturing practices,
- sustainable manufacturing processes,
- systematic and transformative change.

Main Contributing Researchers / Research Centres (tentative, if known at this stage):

TransFIRE is Transforming the Foundation Industries Research and Innovation Hub funded by EPSRC through the UK's Industrial Strategy Challenge Fund. It involves 12 research organisations based in the UK and more than 70 project partners from across the foundation industries, trade associations, professional membership bodies, civic sector and government organisations.

<https://transfire-hub.org/>
<https://gow.epsrc.ukri.org/NGBOViewGrant.aspx?GrantRef=EP/V054627/1>.

The Processes4Planet (P4Planet) Partnership aim is to transform the European process industries to achieve circularity and overall climate neutrality at the EU level by 2050 while enhancing their global competitiveness. P4Planet is a European co-programmed public-private Partnership established between A.SPIRE – as the private entity – and the European Commission in the context of the Cluster 4 (Digital, Industry and Space) of Horizon Europe funding programme.

<https://www.aspire2050.eu/p4planet/about-p4planet>

Website URL of Call for Papers (if any):**Email & Contact Details:**

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