

# Message from the 2021 Blockchain & the Circular Supply Chain Workshop Organizers

## Blockchain 2021

It is our great pleasure to welcome you to the Workshop on “Blockchain & the Circular Supply Chain” at the 4<sup>th</sup> IEEE Int. Conf. on Blockchain 2021 conference.

There has been a significant interest in supporting circular supply chains to improve the impact of materials reuse. At the recently held COP26 conference in Glasgow (November 2021), both political and industry leaders acknowledged the fact that transition to renewable energy is not enough, we need to rethink how we create, use and dispose of materials (World Economic Forum report on COP26), because this “take-make-waste” economic model not only damages our environment but also causes huge economical waste. For example, every year we throw away US \$62.5B worth of electronics and US \$500B of clothes.

In this half day virtual workshop, we have selected 3 papers discussing different aspects of circular economy and supply chain in context of blockchain technology. Although Blockchain technologies provide a useful basis for supporting the circular supply chain and material reuse, they also still suffer from major challenges such as:

- Scalability
- Transparency of use (especially when using permissioned, private Blockchains)
- Interoperability across different Blockchain platforms
- Energy usage in supporting the Blockchain platform itself

This workshop contains three papers, which have been reviewed by an international programme committee. The papers cover different aspects of material-based supply chains including regulatory and legal compliance issues with support of access control and smart contracts for material supply chains.

1. *Regulatory Opportunities and Challenges for Blockchain Adoption for Circular Economies*
2. *Blockchain’s role in supporting circular supply chains in the built environment*
3. *TRABAC: A Tokenized Role-Attribute Based Access Control Using Smart Contract for Supply Chain Applications*

We will also have a keynote talk, a panel discussion and Q&A session to discuss how blockchain may facilitate citizen engagement in the circular economy and how efficient recycling of non-renewable materials can be achieved with Blockchain technology. Additional information and questions to panellists are available on the workshop web site (<https://bit.ly/bc-csc-workshop2021>).

Look forward to meeting you virtually.

### Organisers:

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