



# PRO-VE 2023

24rd IFIP/SOCOLNET Working Conference on Virtual Enterprises  
Resilient and Responsible Collaborative Networks

## PRO-VE 2023 Special Session

### The adoption of emerging technologies towards circular and resilient networks

#### Scope

The introduction of circularity into the practices of companies is crucial to extend the life of products through strategies, such as reuse, repair, remanufacturing and recycling. These strategies allow for a decrease in the use of natural resources. Thus, the circular economy represents a new paradigm, defending a closed-loop supply chain with the main objective to improve resource efficiency and environmental conditions. Here strategies with higher levels of circularity, such as redesign, refuse, rethink and reduce, among others, are key to extending the life cycle of materials - keeping them in the chain for a longer period, being applied again after the product has been discarded - so that new products may demand fewer natural resources. A possible outcome from this view of the value chain is the increased use of reused materials downstream, while rethinking the design and mid-to-end uses of production components, thus increasing the collaboration between agents and enhancing the circularity of the life-cycle production.

Digital technologies, key enabling technologies and emerging technologies will be essential support for this new transparent and collaborative way of production, since data will be collected and the information will be shared among all the actors in the value chain. Leveraging on previous digitalization investments, this production paradigm shift requires companies to rethink the position and role of workers, their well-being, their capability and digital literacy. Moreover, developed machinery and systems solutions, combined with the human-centric approach, will require organisations to adapt their operations and consider the impact upstream and downstream their networks – in terms of data, material and resource flows. A human-centric approach assumes that the technology can be used to adapt processes to the needs of the workers and, at the same time, ensure that the use of new technologies does not conflict with the fundamental rights of workers, such as the right to privacy, autonomy and human dignity.

This special session welcomes all researchers and professionals, as well as students interested in any branch related to green and digital transition for digital transformation and resilient networks.

#### Session Organizers

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#### Topics/ Keywords

- Sustainability
- Resilience
- Human-centricity
- Circularity
- Emerging/digital technologies
- Skills/capabilities
- Training
- Predictive Maintenance

#### Submission procedure

Special sessions are included in the main Conference and follow the same reviewing process.

Short abstracts submission (100-150 words): March, 27<sup>th</sup>, 2023

Full papers submission: April, 24<sup>th</sup>, 2023

Acceptance Notice: June, 5<sup>th</sup>, 2023

Final version Submission: Jun 19<sup>th</sup>, 2023



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Acceptance of papers is based on the **full paper** (up to **18** pages). Each paper will be evaluated by three members of the International Program Committee.

When submitting on the web site, you have to indicate the name of the special session. Submission procedure via Easychair available on: <http://www.pro-ve.org>, with copy by email to the chairs of the special session.