



18th IFAC Symposium on Information Control Problems in Manufacturing (INCOM 2024)

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“Sustainable transformation towards autonomous manufacturing systems”

Invited Session:

Unintended environmental, social, and economic effects of the Physical Internet and possible solutions

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This session is concerned with the impact the Physical Internet can have on sustainability development, in that specific case, considering the medium time horizon.

Currently, to promote the implementation of the Physical Internet, its partially proven positive aspects are of interest in scientific discourse and are underlined when discussing with the relevant stakeholders: reduction of GHG emissions, delivery times and costs due to optimised fill rates, improvement of working conditions for employees in the transport sector, and a reduction of traffic in urban areas and hence, wear and tear of infrastructure, to name a few.

However, where there is light, there is also shadow: We ask what unintended environmental, social, and economic effects of the Physical Internet there are. Join us on a thought experiment! Imagine the year 2040 and imagine the full implementation of the PI. What might we have not thought of that could have a negative impact on all of us?

Think out of the box, think critically, and allow the PI to be analysed from all sides. Any aspect related to the PI, might it be ecological, technical, organizational, social, or economic, is welcome.

Naturally, we ask for solution approaches to come up with identified unintended (potentially negative) effects, for a sustainable transformation of the system.

Keywords: Physical Internet, sustainable impact, solution, unintended effects

Track topics: The track chairs invite scientists, engineers, policy-makers, and decision-makers from government, industry and academia to contribute with theoretical (and

applied, if applicable) research papers. The session will cover all aspects of the mobility transformation to the full implementation of the Physical Internet.

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Submission

- All contributions must be electronically submitted through the PaperPlaza Conference Manuscript Management System:
<https://ifac.papercept.net/conferences/scripts/start.pl>
- Guidelines for the preparation of manuscripts are provided on the IFAC website <https://www.ifac-control.org/conferences/authors-guide> .
- You can find templates on the Author guide: <https://www.ifac-control.org/conferences/author-guide>
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