
# SIG 01 - B4S - Business for Society

We invite you to submit your research to explore the theme of ***The Business of Now: the future starts here*** for the EURAM 20th Conference.
We look forward to receiving your submissions.

## T01_05 - Environmental sustainability and Industry 4.0

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**Short description:**
The Industry 4.0. paradigm, that refers to the digital dimension of future industrial structures (Schroeder, 2016), does not only affect the manufacturing activities of the companies but implies a whole change in the companies' way of facing the market and their competitors. Existing studies tend to be largely focused on the positive side of this fascinating development, neglecting that some technologies and innovations may also impose unpredictable costs on environment and society.

Management scholars are invited to reflect and enhance the understanding on both positive and negative environmental effects of Industry 4.0.

**Long description:**
Until now, the management and business literature has mainly addressed new commercial, organizational and operational possibilities associated with these technologies. The Industry 4.0. paradigm does not only affect the manufacturing activities of the companies but implies a whole change in the companies' way of facing the market and their competitors, thus generating a real "strategic revolution".

Industry 4.0 may, however, also affect the companies' environmental strategy and performance. Some observers have proposed that this industrial paradigm can be an important step forward towards more sustainable industrial value creation: the allocation of resources - products, materials, energy and water - may be realized in a more efficient way based on intelligent cross-linked value creation modules (Stock and Seliger, 2016).

Moreover, Industry 4.0 tools have recently been considered potentially to further environmental sustainability decisions since they enable a better strategic alignment between the employed information technologies and the organizational goals (de Sousa Jabbour et al., 2018).

Still, many scholars discuss the potentialities of specific Industry 4.0 technologies without considering the generic positive (or negative) effects that they may have on the companies'


environmental strategy and performance. Despite an emerging interest in these important dimensions (Bonilla et al., 2018; de Sousa Jabbour et al., 2018; Luthra, S., & Mangla, 2018; Müller et al., 2018), the effect of Industry 4.0. technologies on companies' environmental strategy remains significantly understudied.

This track calls encourage both conceptual and empirical contributions that may address, but are not restricted to, the following topics:

Innovation design and implementation. Authors are invited to analyse how green innovation in Industry 4.0 domain are developed in non-green industries, focusing on the need of complementary assets.

Private and public innovation policies. Submission could investigate if and how environmental policies can affect the development and diffusion of Industry 4.0 technology

Environmental sustainability. Papers about the environmentally 'dark aspects' of Industry 4.0 technologies are particularly welcomed.

Corporate environmental strategy. particular authors could analyse the critical factors of companies' successful adoption of Industry 4.0 technologies for their environmental strategies; new business model to improve corporate environmental strategy.

Metrics and Indicators. Definition of environmental and economic KPI of the industry 4.0 technologies. Innovative and tested metrics are especially encouraged.

**Keywords:**
Industry 4.0
Environmental Sustainability
Innovation

**UN Sustainable Development Goals (SDG):**
Goal 6: Clean water and sanitation,Goal 7: Affordable and clean energy,Goal 9: Industry, Innovation, and Infrastructure,Goal 11: Sustainable cities and communities,Goal 12: Responsible consumption and production,Goal 17: Partnerships for the goals.

**Publication Outlet:**
Journal of Cleaner Production - CFP proposal submitted

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