ESAFORM Webinar Series 2022

Towards more sustainable manufacturing:
Forming as industrial symbiosis route for material recovery

Prof. Joost Duflou
Mechanical Engineering Department,
KU Leuven, Belgium

Date/time: 22 January 2024 / 15:00 CET

Registration link, in advance for this meeting:
https://videoconf-colibri.zoom.us/meeting/register/tJIod--pqzopH9BDM79tYgC8jqH9iKom0NGp

Abstract

The material efficiency in a broad spectrum of manufacturing processes is surprisingly low: large fractions of the feedstock material do not reach the final product. While conventional recycling requires substantial amounts of energy and results in significant losses due to severe oxidation, opportunities have been identified for recovery of these well-documented material streams in an industrial symbiosis framework in which well-chosen manufacturing processes can act as sinks. In this webinar the opportunities offered by industrial symbiosis in a manufacturing context will be discussed and the specific potential contribution of forming processes will be zoomed into. Practical cases will illustrate the technological viability and ecological relevance of these recycling strategies.

Biography

Prof. Dr. Ir. Joost Duflou holds master degrees in Architectural and in Electro-mechanical Engineering and a PhD in Engineering Sciences from KU Leuven, Belgium. After a number of years of industrial experience in different international companies, he has been a faculty member at the Mechanical Engineering Department of KU Leuven since 1997. He became a tenured Full Professor in 2012. As chairholder of the LVD Chair on Sheet Metal Processing, he leads a research group focussing on flexible sheet metal oriented manufacturing processes and systems. His research activities also extend into Ecodesign and Life Cycle Engineering, with special attention for Sustainable Manufacturing. He is a CIRP Fellow and has published over 400 international publications. He has been an ESAFORM board member since 2012. As chair and board member of several spin-off companies and professional associations he contributes to research valorisation and dissemination. More detailed information can be obtained via http://www.kuleuven.be/wieiswie/nl/person/00016263 .