

A Talk on Circular System Design

Speaker

Prof. Marco Aurisicchio

Associate Professor in Engineering Design

Dyson School of Design Engineering

Imperial College London

Date & Time

Tuesday, December 17, 2024

10:00 to 11:30 AM

Location

Aula Magna di Ingegneria, Complesso Donghi

Via Leonardo Loredan, 20, 35131 Padova



Event Overview

Resource flows are generated by integrating production, consumption and end-of-life systems. To achieve circular flows, manufacturers are increasingly collaborating with their stakeholders. Nevertheless, in these collaborations they typically focus on the interfaces between systems rather than on a more comprehensive implementation of systems thinking principles to achieve deeper integration. In this talk, the speaker will propose to conceptualise a system called the Resource Flow System (RFS), whose boundaries are defined based on the operational requirement to flow resources circularly. The RFS is intended to be designed by stakeholders through a top-down collaborative approach. To model the RFS, a tool called the Flow Mapper will be introduced to the audience using a case study from the fast-moving consumer goods industry. The tool aims to guide product development teams to collaboratively develop a visual model of the RFS.

Biography

Marco Aurisicchio is an Associate Professor in Engineering Design in the Dyson School of Design Engineering at Imperial College London. He is also a Tutor in the Innovation Design Engineering programme run jointly by Imperial and the Royal College of Art, Co-Leader of the Ocean Plastic Solutions Network, and Imperial Leader for the Ellen MacArthur Foundation university programme. Marco is a founding member of the Dyson School of Design Engineering. He joined the School from the Mechanical Engineering Department at Imperial. During his time in the College, he was awarded a Royal Academy of Engineering (RAEng) Industrial Fellowship with Procter & Gamble and a Design Fellowship funded by the Arts and Humanities Research Council. Prior to joining Imperial, Marco was a Research Associate in the Engineering Design Centre at the University of Cambridge where he undertook his PhD in Engineering Design. During his doctoral and postdoctoral research, he worked within BAE Systems and Rolls-Royce University Technology Partnership for Design. He received a Laurea in Mechanical Engineering from the Università degli Studi di Roma "La Sapienza".

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