

Integrating lifecycle thinking in semiconductor technologies

November 4th, 2025 – 4.00 PM

Sala Maxwell – Dept. of Electronics and Telecommunications, Politecnico di Torino.

Maxwell Room



DET – 5th floor



Abstract

The electronic industry is known for being a material- and energy-intensive industry, projected to account for 7% of global energy demand and relying largely on critical raw materials. Environmental impacts are largely determined at an early development stage, when product architecture and manufacturing process are set. Integrating sustainability aspects in technology development is crucial to enable true sustainable products in the future. The lesson will explain the main environmental impacts of electronics, introduce the concept of Life Cycle Thinking and discuss how its results can be used to steer technical innovation.

Sara Carniello, MBA

Sara Carniello studied materials engineering in Italy and completed an MBA at the Montanuniversität Leoben (MUL) in Austria. She worked for many years in technology and product development in industry. Since 2022, she has been working at Joanneum Research as a scientist, coordinator of the 'Environment and Sustainability' business area and contact person for projects in the field of circular economy. She is an advisor to the Circular Economy Forum Austria and a guest lecturer at various European universities.

Supported by:



GreenChips-EDU
Educate for a Sustainable Tomorrow



Co-funded by
the European Union

In collaboration with:



Politecnico
di Torino

