

# EUROMAT 2021

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## Area H

### Symposium H7

<b>Title</b>		
<b><i>Materials to address the 3R (Reduce, Reuse, Recycle) challenges</i></b>		
<b>Organizer</b>	<b>Institution</b>	<b>Contact email</b>
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<b>Abstract</b>		
<p>The ever-growing problem of global waste, environmental legislative pressures such as the plastic packaging tax to be introduced in April 2022, the EU end-of-life vehicle (2000/53/EC) and landfill of waste (1999/31/EC) directives, as well as consumers' growing demand for more environmental friendlier products have triggered fresh interest in renewable materials. At the heart of this is the need to move away from the fossil-based linear resource consumption model (i.e. "take-make-dispose") and move towards a circular bioeconomy model. Whilst manufacturers have attempted to improve the resource efficiency of their products by integrating renewable energy into their manufacturing chains, less thought has been given to the materials used and their disposal after the products' useful life comes to an end. Manufacturing processes based on consumption instead of the restorative use of resources will ultimately negatively affect the supply chain of many consumer products. As a result, the 7th EU Environmental Action Programme stressed the importance of transforming the EU into a resource-efficient and low carbon economy zone, with a particular focus on turning waste into a resource, with more prevention, re-use and recycling by 2020, e.g. a circular bio-economy model. This symposium will discuss recent advances in the development of materials and material technologies that address the reduce, reuse and recycle of materials challenge.</p>		