

# Contents

## Part I Sustainability Assessment

<b>1</b>	<b>Introduction</b> . . . . .	<b>3</b>
	James Clark	
<b>2</b>	<b>Cutting Through the Challenge of Improving the Consumer Experience of Foods by Enabling the Preparation of Sustainable Meals and the Reduction of Food Waste</b> . . . . .	<b>7</b>
	Wayne Martindale	
<b>3</b>	<b>The Economic Case for the Circular Economy: From Food Waste to Resource</b> . . . . .	<b>25</b>
	Corrado Topi and Magdalena Bilinska	
<b>4</b>	<b>Decreasing Greenhouse Gas Emissions of Meat Products Through Food Waste Reduction. A Framework for a Sustainability Assessment Approach</b> . . . . .	<b>43</b>
	Thomas Winkler and Ralf Aschemann	
<b>5</b>	<b>Fodder Legumes for Green Biorefineries: A Perspective for Sustainable Agricultural Production Systems</b> . . . . .	<b>69</b>
	Franka Papendiek	
<b>6</b>	<b>Municipal Waste Treatment, Technological Scale up and Commercial Exploitation: The Case of Bio-waste Lignin to Soluble Lignin-like Polymers</b> . . . . .	<b>79</b>
	Enzo Montoneri	
<b>7</b>	<b>Techno-Economic Study and Environmental Assessment of Food Waste Based Biorefinery</b> . . . . .	<b>121</b>
	Aude Pommeret, Xiaofeng Yang, Tsz Him Kwan, Elias A. Christoforou, Paris A. Fokaides and Carol Sze Ki Lin	

<b>8</b>	<b>Techno-Economic Evaluation of Refining of Food Supply Chain Wastes for the Production of Chemicals and Biopolymers.....</b>	<b>147</b>
	Anestis Vlysidis, Apostolis Koutinas and Ioannis Kookos	
<b>Part II Regulation and Policy Analysis</b>		
<b>9</b>	<b>Bio-Based Economy: Policy Framework and Foresight Thinking.....</b>	<b>167</b>
	Luana Ladu and Rainer Quitzow	
<b>10</b>	<b>Bringing a Sharing Economy Approach into the Food Sector: The Potential of Food Sharing for Reducing Food Waste.....</b>	<b>197</b>
	Pasquale Marcello Falcone and Enrica Imbert	
<b>11</b>	<b>Defining the Meaning of Food Waste as a Matter of Urgency.....</b>	<b>215</b>
	Monica Delsignore, Margherita Ramajoli and Carola Ricci	
<b>12</b>	<b>Waste Reduction in Fresh Food Supply Chains: An Operations Research Approach.....</b>	<b>235</b>
	Gabriella Dellino, Renato Mari and Carlo Meloni	
<b>13</b>	<b>Participatory Planning in Organic Solid Waste Management: A Backcasting Approach.....</b>	<b>261</b>
	Roberta Sisto, Edgardo Sica, Mariarosaria Lombardi and Maurizio Prospero	
<b>14</b>	<b>The Role of Social Networks in the Diffusion of Bio-Waste Products: The Case of Mulching Films Derived from Organic Waste in Province of Foggia.....</b>	<b>279</b>
	Angela Barbuto, Antonio Lopolito, Myriam Anna Scaringelli and Giacomo Giannoccaro	
<b>15</b>	<b>Grassroots Innovations and the Transition Towards Sustainability: Tackling the Food Waste Challenge.....</b>	<b>303</b>
	Valentina Elena Tartiu and Piergiuseppe Morone	