



ES/EC/IB 347 CIRCULAR ECONOMY IN A GLOBAL AND EUROPEAN CONTEXT: FROM MAKE-TAKE-WASTE TO A VISIONARY SYSTEM WITHIN PLANETARY BOUNDARIES

IES Abroad Madrid

DESCRIPTION:

The world is now facing a severe environmental crisis. The rising consumption needs in advanced countries as well as in emerging and fast-growing economies, are harming the whole planet. The “take-make-dispose” model of production and consumption is no longer sustainable. Many natural resources are finite, and an environmentally and economically sustainable way of using them must be found. A global shift towards more sustainable production and consumption paradigms is urgently needed.

This course focuses on the concept of the circular economy (CE) – which is defined as “an industrial economy that is restorative or regenerative by intention and design” (Ellen MacArthur Foundation, 2013, p.14) – and it is considered a possible path towards more sustainable consumption and production patterns. CE distinguishes itself from the traditional linear economy as it aims to narrow, slow, and close the resource loops. Further, it represents a systemic shift that builds long-term resilience, generates business and economic opportunities, and provides environmental and societal benefits. Starting from defining the concept of CE and framing it within the EU Circular Economy Package, the course will then focus on sustainable/circular entrepreneurship, on circular business models and then on five specific thematic areas (agriculture, food, textile, plastics, cities). This course is particularly valuable for students of entrepreneurship and environmental studies with an interest in start-ups and EU policy affairs and covers the following subjects: Entrepreneurship; Business; Management; EU Policies.

CREDITS: 3

CONTACT HOURS: 45

LANGUAGE OF INSTRUCTION: English

PREREQUISITES: none

METHOD OF PRESENTATION:

Lectures, class discussion of the required readings, videos, course-related trip. Lectures will be based on frontal lessons, stimulating discussions and teamwork to foster debates and encourage critical thinking. A field trip will allow the students to engage with the course material in a real-world context.

REQUIRED WORK AND FORM OF ASSESSMENT:

- a) Course participation and attendance – 10%
- b) Midterm Exam – 30%
- c) Assignments (challenge and report) – 20%
- d) Final Exam (teamwork and individual exam) – 40%

COURSE PARTICIPATION

A significant amount of class time will involve discussion of videos, papers, case studies, as well as individual and group exercises that introduce and reinforce key topics. Therefore, students’ participation in class is essential and will be assessed. Students are expected to have an active role in class, participating in class discussions and fulfilling the required work for each session. In order to successfully meet this requirement, students should be prepared to devote significant time outside of class to reading and critical

Global brilliance begins here.®

Institute for the International Education of Students

Africa | Asia Pacific | Europe | Latin America
Africa | Asia Pacific | Europe | Latin America



thinking. This course is fully integrated with Moodle, the IES online learning platform. Students will be required to actively access and interact with resources on this platform.

For a better understanding of course participation, please see the following grading rubric for student participation:

A – Excellent Participation

The student's contributions reflect an active reading of the assigned bibliography. Skillfully synthesizes the main ideas of the readings and raises questions about the applications and implications of the material. Demonstrates, through questions and comments, that he or she has been capable of relating the main ideas in the readings to the other information discussed in the course, and with his or her own life experience. The student makes informed judgments about the readings and other ideas discussed in class, providing evidence and reasons. The student respectfully states their reactions about other classmates' opinions, and is capable of contributing to the inquiry spiral with other questions. The student gets fully involved in the completion of the class activities.

B – Very Good Participation

The student's contributions show that the assigned materials are usually read. Most of the time the main ideas are identified, even though sometimes it seems that applications and implications of the information read were not properly reflected upon. The student is able to construct over others' contributions, but sometimes seems to interrupt the shared construction to go over tangents. They are respectful of others' ideas. Regularly involved in the activities but occasionally loses concentration or energy.

C – Regular Participation

The participant evidences a regular reading of the bibliography, but in a superficial way. He/she tries to construct over others' ideas, but commonly provides comments that indicate lack of preparation about the material. Frequently, contributions are shallow or unarticulated with the discussion in hand.

F – Insufficient Participation

Consistently, the participant reads in a shallow way or does not read at all. Does not participate in an informed way, and shows lack of interest in constructing over others' ideas.

b) Midterm Exam

The midterm exam will be taken in-class (before the Spring Break) and it will consist of open-ended questions (long and short answers required). Those topics and materials that have been covered before the midterm will make up this exam.

Assignments

- **CHALLENGE (10%):** Students will have to work in teams to perform a group project assigned by the circular entrepreneur Stefano Fraioli. The group project thus requires students to solve a specific real-world challenge. They are asked to act as real entrepreneurs. Students will have 2 hours in class to work on the project and they need to dedicate some time as home assignment. Students are then asked to present their group project through a PowerPoint presentation. More details will be provided during the course.

- **REPORT (10%):** Students will have to prepare an individual report regarding the study field trip (maximum 3 pages, Times New Roman, 12). Evaluation criteria: 1. Critical thinking, 2. Innovation and creativity, 3. Expressive quality. More details will be given during the course.

Final Exam

The final exam will be split into two parts:

- **groupwork "business plan" (20%)** – all group members receive the same mark. Evaluation criteria: 1. Accuracy and coherence (level of details and adherence to the presented topics), 2. Innovation and creativity, 3. Presentation.

Global brilliance begins here.®

Institute for the International Education of Students

Africa | Asia Pacific | Europe | Latin America
Africa | Asia Pacific | Europe | Latin America



- **Individual: open-ended questions (20%)** concerning the topics presented in class and discussed during the lectures (after the midterm exam).

Please note:

Students will be given additional information regarding the requirements of each assignment and about deadlines after the course has started.

LEARNING OUTCOMES:

By the end of the course students will be able to:

- Explain the difference between linear and circular economy and understand the environmental limits business and society are currently facing
- Describe the European Union's Circular Economy Action Plan and European Green Deal
- Understand the concept of circular economy and circular business models
- Acquire background and context knowledge about Sustainable Development
- Learn the basics of entrepreneurship and international entrepreneurship
- Understand what sustainable and circular entrepreneurship is and learn from some European case studies
- Learn about circular startups and get the chance to talk and discuss with a circular entrepreneur
- Learn the concept of sustainable/circular value proposition and how to concretely implement it
- Concretely develop a business plan for a circular start-up
- Demonstrate a deep knowledge of circular economy in different thematic areas, i.e., agriculture, textile, food, plastics, circular cities.

ATTENDANCE POLICY:

Attendance is mandatory for IES Abroad Madrid classes, including course-related field trips. Please read our attendance policy posted in Moodle and in IES Abroad Madrid Student Handbook.

CONTENT:

Week	Content	Assignments
Week 1 <i>Session 1</i> <i>(19th September)</i>	Introduction to the Course I Why the circular economy? <ul style="list-style-type: none">• Professor's presentation of the course• Expectations of students• Learning Outcomes• Introducing Circular Economy (CE)	<u>Readings:</u> <ul style="list-style-type: none">• Stahel, W.R., The circular economy (2016). Nature, 531, 435–438.• EllenMacArthur Foundation, Towards the Circular Economy. Economic and business rationale for an accelerated transition. Chapters 1, 2, and 3. <u>OPTIONAL:</u> <ul style="list-style-type: none">• Zero waste life – TED Talk: https://www.youtube.com/watch?v=pF72px2R3Hg• World Economic Forum: “Surprising Facts About the Circular Economy”

<p><i>Session 2</i> (21st September)</p>	<p>SDGs, CSR, and the creation of shared value</p> <ul style="list-style-type: none"> • Agenda 2030 and its Sustainable Development Goals/SDGs • The link between UN's Sustainable Development Goals and Circular Economy 	<p><u>Readings:</u></p> <ul style="list-style-type: none"> • Porter, M. E., & Kramer, M. R. (2011). Creating Shared Value: Harvard Business Review. From the Magazine (January–February 2011). • Sustainable Development Goals Overview: https://www.undp.org/sustainable-development-goals • The Sustainable Development Goals report 2022 (pages 1-25). <p><u>OPTIONAL:</u></p> <ul style="list-style-type: none"> • Parmar, B. L., Freeman, R. E., Harrison, J. S., Wicks, A. C., Purnell, L., & De Colle, S. (2010). Stakeholder theory: The state of the art. Academy of Management Annals, 4(1), 403-445. • Schroeder, P., Anggraeni, K., & Weber, U. (2019). The relevance of circular economy practices to the sustainable development goals. Journal of Industrial Ecology, 23(1), 77-95.
<p>Week 2 <i>Session 3</i> (26th September)</p>	<p>Global framework on CE</p> <ul style="list-style-type: none"> • A global gaze on CE • COP26 • Focus on the EU • Closer look at the EU's Circular Economy Package 	<p><u>Readings:</u></p> <ul style="list-style-type: none"> • COP26, the Glasgow climate pact • The Circularity Gap Report (2022) • European Circular Economy Action Plan <p><u>OPTIONAL:</u></p> <ul style="list-style-type: none"> • COP26 in 10 minutes: https://www.youtube.com/watch?v=qmkJ8QqFIU4
<p><i>Session 4</i> (28th September)</p>	<p>CE and European Union I - Policies</p> <ul style="list-style-type: none"> • Closer look at the EU's Resource efficiency and CE policy and at the European Green Deal. • Getting ready for Session 5: What is sustainable and circular entrepreneurship? Definitions. 	<p><u>Readings:</u></p> <ul style="list-style-type: none"> • EU resource efficiency and the circular economy: https://www.europarl.europa.eu/factsheets/en/sheet/76/resource-efficiency-and-the-circular-economy • The European Deal Post Covid https://ellenmacarthurfoundation.org/articles/the-european-green-deal-and-a-post-covid-19-prosperity • The European Green Deal: https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en <p><u>OPTIONAL:</u></p> <ul style="list-style-type: none"> • Video: How to be a sustainable entrepreneur (Part 1, 2, 3 and 4): https://www.youtube.com/watch?v=iBCxg-MeLI0

Week 3 <i>Session 5</i> (3 rd October)	Circular Entrepreneurship: frameworks and tools for designing opportunities	Readings: <ul style="list-style-type: none"> The value proposition canvas: https://www.youtube.com/watch?v=ReM1uqmVfP0 The business model canvas: https://www.youtube.com/watch?v=QoAOzMTLP5s Empathy Maps: https://www.youtube.com/watch?v=Qz7EwkprvFE Jobs to be done: https://www.youtube.com/watch?v=RQjBawcU_qg&t=208s
<i>Session 6</i> (5 th October)	Sustainable and circular entrepreneurship <ul style="list-style-type: none"> Definitions How to design a sustainable/circular value proposition Case studies 	Readings: <ul style="list-style-type: none"> Greco, A., & de Jong, G. (2017). Sustainable entrepreneurship: Definitions, themes and research gaps. University of Groningen. Working Paper series. «Let's help SMEs to go circular», KPMG and European Commission, https://ec.europa.eu/environment/sme/pdf/Training%20materials_English.pdf
Week 4 <i>Session 7</i> (10 th October)	International Entrepreneurship	Optional Reading: <ul style="list-style-type: none"> Zucchella, A., Magnani, G. (2016). International entrepreneurship. Theoretical foundations and practices. Second Edition. Palgrave Macmillan, ISBN: 9781137520012.
<i>Session 8</i> (12 th October)	Circular entrepreneurship: a case study The founder of the circular start-up PCup will introduce its venture and launch a <u>challenge</u> for students.	Have a look at these websites: <ul style="list-style-type: none"> https://www.pcup.info https://blum.vision/pcup/?lang=en Further material provided by Stefano will be uploaded on Moodle.
Week 5 <i>Session 9</i> (17 th October)	Follow-up PCup: CHALLENGE <ul style="list-style-type: none"> Students work on challenge launched by Stefano Fraioli 	Time given to work on the challenge supervised by the instructor
<i>Session 10</i> (19 th October)	Circular business models <ul style="list-style-type: none"> Circular business models: taxonomies Case studies 	Readings: <ul style="list-style-type: none"> Geissdoerfer, M., Pieroni, M. P., Pigosso, D. C., & Soufani, K. (2020). Circular business models: A review. Journal of Cleaner Production, 277, 123741. Zucchella & Urban (2019), Circular Entrepreneurship, Chapter 3, pag. 75-86. Adidas For Parley: https://www.finchandbeak.com/1333/value-proposition-

		<p>design-for-the-circular.htm (Download the report and watch the video)</p> <ul style="list-style-type: none"> • https://www.youtube.com/watch?v=gVimMEI2u2w <p><i>Optional Reading:</i></p> <ul style="list-style-type: none"> • Re, B., Magnani, G., & Andreozzi, C. (2021). The Communication of Circular Value Propositions: The Role of Digital Touchpoints in the Customer Decision Journey. <i>Micro & Macro Marketing</i>, 30(2), 279-304.
Week 6 <i>Session 11</i> <i>(24th October)</i>	Challenge presentation <ul style="list-style-type: none"> • Students present their group work about the challenge launched by Stefano Fraioli Midterm Recap <ul style="list-style-type: none"> • Q&A Session before the exam 	<p><u>Assignment:</u></p> <ul style="list-style-type: none"> • Finalize presentation
<i>Session 12</i> <i>(26th October)</i>	Midterm Exam	
<i>31st October</i>	NO CLASS at IES	
Week 7 <i>Session 13</i> <i>(2nd November)</i>	Thematic Area 1: Circular Economy & Agriculture <ul style="list-style-type: none"> • how agriculture can innovate to be more sustainable and to secure food supply for the future. • Case studies: Acqua & Sole, Smartisland 	<p><u>Readings:</u></p> <ul style="list-style-type: none"> • https://www.un.org/development/desa/dpad/publication/un-des-policy-brief-105-circular-agriculture-for-sustainable-rural-development/ • Zucchella, A., & Previtali, P. (2019). Circular business models for sustainable development: A “waste is food” restorative ecosystem. <i>Business Strategy and the Environment</i>, 28(2), 274-285. • SmartIsland case study • Agro-food and circular economy: https://www.youtube.com/watch?v=CzR_ArBQXi0 <p><i>OPTIONAL:</i></p> <ul style="list-style-type: none"> • Urban Farming: https://www.veolia.com/en/solution/urban-farming-solution-helping-feed-cities • https://www.smartgreenpost.com/2020/07/02/urban-farming-poty-the-vertical-vegetable-garden-that-you-can-grow-on-your-home-balcony/

Session 14 (7 th November)	Thematic Area 2: Circular economy and the food industry <ul style="list-style-type: none"> Case study: TooGoodToGo 	Readings: <ul style="list-style-type: none"> https://archive.ellenmacarthurfoundation.org/explore/food-cities-the-circular-economy (read and watch the videos) View: https://toogoodtogo.org/en OPTIONAL: <ul style="list-style-type: none"> https://food.ec.europa.eu/system/files/2021-05/fs_eu-actions_action_platform_key-rcmnd_en.pdf The role of insects in a circular economy for food: https://www.youtube.com/watch?v=s9CgE12QMKQ
Week 8 Session 15 (9 th November)	Thematic Area 3: Circular economy and the textile industry <ul style="list-style-type: none"> Case studies: Rifò and Petit Pli 	Readings: <ul style="list-style-type: none"> https://archive.ellenmacarthurfoundation.org/explore/fashion-and-the-circular-economy (read and watch the videos) Napier, Elizabeth and Sanguineti, Francesca, Fashion Merchandisers' Slash and Burn Dilemma: A Consequence of Over Production and Excessive Waste? (November 1, 2018). https://ssrn.com/abstract=3289411 View these websites: https://rifo-lab.com/en https://shop.petitpli.com
Session 16 (14 th November)	Thematic Area 4: Redesigning Plastics <ul style="list-style-type: none"> What happens to our waste plastic? Is recycling plastics really that effective? Case study: Projectcircleg 	Readings: <ul style="list-style-type: none"> New Plastics Economy: https://ellenmacarthurfoundation.org/topics/plastics/overview A European strategy for plastics in the circular economy: https://www.europarc.org/wp-content/uploads/2018/01/Eu-plastics-strategy-brochure.pdf Video: https://www.youtube.com/watch?v=p3T5WWvJgcw Website: https://projectcircleg.com

Week 9 <i>Session 17</i> <i>(16th November)</i>	Thematic Area 5: Circular economy and cities <ul style="list-style-type: none"> Major innovations and trends in modern cities Case study: city of Milan <p>Explanation of the assignment – due by 30th November (to be sent). Presentations 2nd December. Develop a sustainable/circular business model for a start-up in one of the five thematic areas</p>	Readings: <ul style="list-style-type: none"> Bolger, K., & Doyon, A. (2019). Circular cities: exploring local government strategies to facilitate a circular economy. <i>European planning studies</i>, 27(11), 2184-2205. Milan Circular Economy Strategy: https://www.iuc-asia.eu/wp-content/uploads/2020/08/Milan-Circular-economy.pdf Video: https://www.youtube.com/watch?v=zpi7C3H8lmw <p>OPTIONAL:</p> <ul style="list-style-type: none"> https://ellenmacarthurfoundation.org/circular-economy-in-cities https://ellenmacarthurfoundation.org/topics/cities/overview https://www.circularcityfundingguide.eu/case-studies/making-milan-circular-from-food-to-fashion/ <p>Assignment:</p> <ul style="list-style-type: none"> Create a short business model for a sustainable/circular start-up (maximum 10 slides pptx). Structure: <ol style="list-style-type: none"> Develop an entrepreneurial idea, based on one of the five thematic areas. Explain the sustainable/circular value proposition. Illustrate the SDG(s) addressed by the business and the problem it helps to tackle Illustrate and explain the pillars of its sustainable/circular business model You will be required to present the business model in class orally in teams. A visual presentation tool is required (PowerPoint, Prezi, etc.).
<i>Session 18</i> <i>(21st November)</i>	Field Study Trip	<hr/>
Week 10 <i>Session 19</i> <i>(23rd November)</i>	Field Study Trip	Workshop Report (maximum 3 pages, Times New Roman, 12). More details to be provided ongoing.
<i>Session 20</i> <i>(28th November)</i>	BCorp and Hybrid corporations <ul style="list-style-type: none"> Provide knowledge regarding the emerging BCorp and hybrid organizations Case studies (Seay and Patagonia) 	Readings: <ul style="list-style-type: none"> https://www.bcorporation.net/en-us/certification https://hbr.org/2016/06/why-companies-are-becoming-b-corporations Battilana, J., & Lee, M. (2014). Advancing research on hybrid organizing-Insights from the study of social

		<p>enterprises. Academy of Management Annals, 8(1), 397-441.</p> <ul style="list-style-type: none"> • Video: “The B Corp Movement: Transforming the global economy to benefit all people, communities, and planet” https://www.youtube.com/watch?v=GP69PNzOQ1U • Case studies: https://soseaty.com; https://eu.patagonia.com/ie/en/b-lab.html <p><i>OPTIONAL</i></p> <ul style="list-style-type: none"> • https://sustainable-business.guide/2022/02/23/is-b-corp-certification-right-for-your-business/ • https://hbr.org/2016/12/it-pays-to-become-a-b-corporation
Week 11 (30 th November)	Business model is due – via mail	
<i>Session 21</i> (2 nd December)	Student group presentations (20% of the final exam)	
<i>Session 22</i> (5 th December)	Final exam review <ul style="list-style-type: none"> • Q&A session 	
Week 12 (12 th -14 th December)	Final exam (20%)	

The instructor’s presentations, articles, and class materials will be available online on the Moodle webpage after each lecture.

- Stahel, W.R., The circular economy (2016). Available: <https://www.nature.com/news/the-circular-economy-1.19594> Nature 531, 435–438 (4 pages).
- EllenMacArthurFoundation, Towards the Circular Economy. Economic and business rationale for an accelerated transition. <https://ellenmacarthurfoundation.org/towards-the-circular-economy-vol-1-an-economic-and-business-rationale-for-an>
- <https://ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview>
- Porter, M. E., & Kramer, M. R. (2011). Creating Shared Value: Harvard Business Review. From the Magazine (January–February 2011).
- Sustainable Development Goals Overview: <https://www.undp.org/sustainable-development-goals>
- The Sustainable Development Goals report 2022: <https://unstats.un.org/sdgs/report/2022/>
- COP26, the Glasgow climate pact: <https://ukcop26.org/the-glasgow-climate-pact/>
- The Circularity Gap Report (2022): <https://www.circularity-gap.world/2022>
- European Circular Economy Action Plan: <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1583933814386&uri=COM:2020:98:FIN>
- EU resource efficiency and the circular economy: <https://www.europarl.europa.eu/factsheets/en/sheet/76/resource-efficiency-and-the-circular-economy>
- The European Deal Post Covid: <https://ellenmacarthurfoundation.org/articles/the-european-green-deal-and-a-post-covid-19-prosperity>
- The European Green Deal: https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en
- Greco, A., & de Jong, G. (2017). Sustainable entrepreneurship: Definitions, themes and research gaps. University of Groningen. Working Paper series.
- Geissdoerfer, M., Pieroni, M. P., Pigosso, D. C., & Soufani, K. (2020). Circular business models: A review. Journal of Cleaner Production, 277, 123741.
- <https://www.finchandbeak.com/1333/value-proposition-design-for-the-circular.htm>
- <https://www.un.org/development/desa/dpad/publication/un-desa-policy-brief-105-circular-agriculture-for-sustainable-rural-development/>
- Zucchella, A., & Previtali, P. (2019). Circular business models for sustainable development: A “waste is food” restorative ecosystem. Business Strategy and the Environment, 28(2), 274-285.
- Smartisland case study: https://f.hubspotusercontent10.net/hubfs/4374869/Case%20Studies%20-%20User%20Stories%20Page/Case%20Study_smartisland_EN.pdf
- <https://archive.ellenmacarthurfoundation.org/explore/food-cities-the-circular-economy>
- <https://archive.ellenmacarthurfoundation.org/explore/fashion-and-the-circular-economy>
- Napier, Elizabeth and Sanguinetti, Francesca, Fashion Merchandisers’ Slash and Burn Dilemma: A Consequence of Over Production and Excessive Waste? (November 1, 2018). <https://ssrn.com/abstract=3289411>
- New Plastics Economy: <https://ellenmacarthurfoundation.org/topics/plastics/overview>
- A European strategy for plastics in the circular economy: <https://www.europarc.org/wp-content/uploads/2018/01/Eu-plastics-strategy-brochure.pdf>
- Bolger, K., & Doyon, A. (2019). Circular cities: exploring local government strategies to facilitate a circular economy. European planning studies, 27(11), 2184-2205.
- Milan Circular Economy Strategy: <https://www.iuc-asia.eu/wp-content/uploads/2020/08/Milan-Circular-economy.pdf>
- <https://www.bcorporation.net/en-us/certification>
- <https://hbr.org/2016/06/why-companies-are-becoming-b-corporations>
- Battilana, J., & Lee, M. (2014). Advancing research on hybrid organizing-Insights from the study of social enterprises. Academy of Management Annals, 8(1), 397-441.

Recommended (extra) readings:

- De Angelis, R. (2018). Business models in the circular economy: Concepts, examples and theory. Springer.
- Lacy, P., & Rutqvist, J. (2015). Waste to wealth: The circular economy advantage (pp. 3-18). London: Palgrave Macmillan.

- Re, B., Magnani, G., & Andreozzi, C. (2021). The Communication of Circular Value Propositions: The Role of Digital Touchpoints in the Customer Decision Journey. *Micro & Macro Marketing*, 30(2), 279-304.
- Zucchella, A., Magnani, G. (2016). *International entrepreneurship. Theoretical foundations and practices*. Second Edition. Palgrave Macmillan, ISBN: 9781137520012.