

IB9LU-15 Sustainable Innovation

24/25

Department

Warwick Business School

Level

Taught Postgraduate Level

Module leader

Pietro Micheli

Credit value

15

Module duration

2 weeks

Assessment

100% coursework

Study location

University of Warwick main campus, Coventry

Description

Introductory description

This module is designed to develop in students an appreciation and understanding of how to successfully create more sustainable products, services, and business models.

[Module web page](#)

Module aims

Develop in students an appreciation of environmental and social sustainability in relation to product and service development Provide students with an in-depth understanding of innovation methods, such as design thinking, agile, and the lean start-up, in relation to sustainability Provide insights into how to develop sustainable business models. Explore the dilemmas of the sustainability/business interface in the context of product and service innovation. Adopt a inter-organizational perspective to investigate sustainable supply chains and ecosystems of innovation.

Outline syllabus

This is an indicative module outline only to give an indication of the sort of topics that may be covered. Actual sessions held may differ.

Introduction to innovation, environmental sustainability and social responsibility Implications of the Sustainable Development Goals for the innovation of products, services, and processes Adopting a stakeholder-based approach to innovation Co-creation and user-centred approaches to innovation Integrating externally- and internally-driven approaches to sustainable development Generating and testing ideas for radically new products and services Linking agile, design thinking and lean start-up approaches to the sustainability agenda Technology and innovation for sustainability Sustainable business-model innovation Promoting a sustainability approach within and between organizations Innovation through sustainable supply chain management Creating a sustainable ecosystem of innovation How to design and implement relevant sustainability-related indicators

Learning outcomes

By the end of the module, students should be able to:

- Define the main concepts of sustainable innovation, and sustainable product and service development.
- Explain why innovation approaches, such as design thinking, agile, and the lean startup, are relevant from a sustainability point of view
- Identify the tensions that exist between financial, environmental, and social goals, particularly in relation to innovation
- Explain the difference between incremental and radical innovations (in the field of sustainable innovation)
- Critically compare the benefits and limitations of different innovation approaches and methods
- Assess the benefits and limitations of wider frameworks and concepts (e.g., cradle-to-cradle)

Indicative reading list

[Reading lists can be found in Talis](#)

Research element

Much of this module is rooted on recent and current research, also but not only from WBS faculty

Interdisciplinary

This module will connect with University-wide themes (sustainability) and design and engineering concepts covered in other departments.

International

Examples and case studies will relate to a variety of firms in different countries. External speakers will be drawn from several multinational companies too.

Subject specific skills

Compare and evaluate different approaches to New Product/Service Development Processes (e.g., Stage-Gate vs. more iterative ones) Effectively deploy innovation management tools and techniques Define and analyze the main types of innovation (radical vs. incremental; disruptive; user driven, user generated, and user / human-centred) in relation to environmental and social innovation

Transferable skills

Demonstrate written communication skills Demonstrate, leadership, team-building, project management and problem solving skills

Study

Study time

Type	Required
Lectures	9 sessions of 1 hour (6%)
Practical classes	9 sessions of 2 hours (12%)
Private study	49 hours (33%)
Assessment	74 hours (49%)
Total	150 hours

Private study description

Private Study to include pre-reading for lectures

Costs

No further costs have been identified for this module.

Assessment

You do not need to pass all assessment components to pass the module.

Assessment group A

	Weighting	Study time	Eligible for self-certification
Assessment component			
Individual Assignment (15 CATS)	80%	59 hours	Yes (extension)

Weighting Study time Eligible for self-certification

Reassessment component is the same

Assessment component

Presentation	20%	15 hours	No
Presentation			

Reassessment component

Individual Assignment	Yes (extension)
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Feedback on assessment

Assignments are graded (%) using standard University Postgraduate Marking Criteria and written feedback is provided Individual written feedback will be given on the assessed essay.

Availability

Courses

This module is Optional for:

- Year 1 of TIBS-N1N3 Postgraduate Taught Business Analytics
- Year 1 of TIBS-N1F5 Postgraduate Taught Business and Finance
- Year 1 of TIBS-N1F2 Postgraduate Taught Business with Consulting
- Year 1 of TIBS-N1F3 Postgraduate Taught Business with Marketing
- Year 1 of TIBS-N1QG Postgraduate Taught Business with Operations Management
- Year 1 of TIBS-N1F4 Postgraduate Taught International Business (MINT)
- Year 1 of TIBS-N2N3 Postgraduate Taught Management