PERISCOPE
FUNDED BY ERASMUS+

Project Purchasing Education and Research with an Innovative Sustainability Scope

Intellectual Output 4

White Paper 4

COURSE DESIGN

http://eu-periscope.essca.fr/

This research is part of Project PERISCOPE (eu-periscope.essca.fr), co-funded by the Erasmus+ Programme of the European Union, with project number 2019-1-FR01-KA203-062990.

Erasmus+

Contents

Executive Summary

The course design is the fourth intellectual output (IO4) for Project PERISCOPE (Purchasing Education and Research with an Innovative Sustainability Scope).

The Erasmus+ Project PERISCOPE aims to identify future Purchasing and Supply Management (PSM) skills and key competences for innovative and sustainable solutions. Transfer into a Massive Open Online Course (MOOC) for PSM in innovation and sustainability.

This White Paper presents the results of the course design, based upon three previous steps: literature review and job advertisement research in IO1, World Café and interviews outcomes in IO2 (or IO3) and the Delphi study outcomes, which were carried out to explore future competence requirements for PSM managers towards innovative and sustainability solutions.

The design of the MOOC PSM in innovation and sustainability consists of an introductory course, four modules of purchasing innovation, four modules of sustainable purchasing, a closing lecture and an instruction “train the trainer”.

In PERISCOPE, several skills and competencies are found: knowledge items (e.g. legal compliance), professional skills (e.g. change management activities), interpersonal skills (e.g. communication) and many personal character traits (e.g., resulting in intended learning outcomes (IlOs). The ILOs are aligned with didactical approaches and assessment measures in the educational design. The train-the-trainer part instructs lecturers to apply several didactics. For instance, the advice is to connect with PSM professionals in private purchasing or public procurement to obtain a real-life case from sustainable innovation sourcing.

Figure 1 – Erasmus+ project PERISCOPE info sheet

Introduction – freedom of choice with a "cafeteria model"

In a fast-changing world, PSM employers need to keep pace with developments as they occur. Institutes for higher education must stay ahead of the employer needs of the future while facing this future themselves and preparing their students for the upcoming developments, i.e. innovation and sustainable developments. Strong demand for directions on managing this change in general and educating and training the purchasing workforce is visible in education and industry.

Higher education institutions have been assigned as fosterers of societal innovations and are urged to incorporate sustainability and innovation into education and curricula (Leuven/Louvain-la-Neuve Communiqué, 2009). However, little is known about how PSM educators incorporate sustainability and innovation in their programmes.

Therefore, this question was debated and raised during an educator's workshop at the IPSERA International Conference in purchasing and supply management. Surprisingly, more educators explained the difficulties in incorporating sustainability issues in PSM activities. A lack of framework in the evolution of PSM activities for teaching today's and future skills needed has already been noted by Bäckstrand, Suurmond, van Raaij, and Chen (2019).

Our study is innovative because it seeks to extend the current skills of our students in PSM by offering them innovative solutions that enable them to integrate current concerns about innovation and sustainability.

In this White Paper, we illustrate the design of the didactical materials we plan to apply in the final phase of project PERISCOPE.

Educators might use this White Paper as a guide to introduce innovation and sustainability-related topics in their PSM courses or curriculum. They are encouraged to apply all our findings and materials. However, they do not have to copy-paste the complete didactical set of learning materials.

The PERISCOPE outcomes can be used as an inspiration and as what we call a "cafeteria" model. Customers can choose their food and beverage from a display behind the counter in cafeterias. One can choose from multiple dishes and drinks—the same counts for the PERISCOPE project. Educators can freely choose which parts they would like to introduce to their students.

Design of the modules: Innovative and Sustainable PSM

Introduction module

MODULES "PURCHASING IN INNOVATION" (MPI)

2 ECTS

MPI 1 Innovation Management

MPI 2 Supplier Involvement in NPD

MPI 3 Purchasing Contribution to Innovation

MPI 4 Partnering with Start-ups for Sourcing Innovation

*Competences: Creativity and curiosity**, cross-functional teamwork***, critical thinking *, leadership and communication***, strategic thinking***, stakeholder relationship mgmt.***., holistic supply chain thinking***, digitalisation skills****

MODULES "SUSTAINABLE PURCHASING" (MSP)

2 ECTS

MSP 1 Ecological & Social Challenges to Procurement

MSP 2 Sustainable Sourcing

MSP 3 Accountability in Supply Chain

MSP 4 Circular supply chain

*Competences: Risk management ***, analytical skills**, legal compliance skills*, cross-functional teamwork***, stakeholders relationship mgmt.***., holistic supply chain thinking***, negotiation skills***

MODULES "PURCHASING IN INNOVATION AND SUSTAINABILITY" (MISP)

1 ECTS

MISP 1 Achieving sustainability through purchasing innovation	**MISP 2 Innovative and sustainable purchasing and supply management**

*Strategic thinking, cross-functional teamwork***, critical thinking, digitalization skills*, analytical skills, stakeholders' relationship mgmt.***., holistic supply chain thinking***, risk management ****

Train trainer
Transferable skills
Challenge based project

Delphi results: High WA across scenarios and important overall ***, High WA across some scenarios and important overall ** and High WA across some scenarios and important but not high overall importance skills *

Learning goals and learning activities in the respective modules

PERISCOPE MOOC Intended learning outcomes

This course's primary intended learning outcome is to allow participants to identify, assess, apply, and integrate existing scientific knowledge to analyse problems and design solutions in innovation sourcing, challenge contemporary business models, and evaluate sustainable supply chain practices**.**

Upon successful completion of the course, participants should be able to :

- Describe how technological innovations might affect different fields of our economy and society
- Describe and evaluate Early Supplier Involvement practices and tools in New Product Development
- Evaluate the main stages of purchasing's involvement in the innovation process and the tools
- Discuss managerial challenges of each stage of purchasing's involvement in technical innovation when sourcing from start-ups is concerned
- Critical reflect on global warming, as one of the planetary boundaries, and supply chain actions
- Explain the sustainability risks associated with different sourcing situations and how to manage these
- Understand the company in its extended business environment and stakeholder theory for implementing actions that enhance accountability, as the collaboration with stakeholders
- Describe different circular supply chain strategies and apply them to specific company contexts

MODULES PURCHASING IN INNOVATION (MPI) 2 ECTS (+50 learning hours)			
Managing innovation	**Supplier involvement in New Product Development**	**Purchasing contribution to innovation exploration**	**Partnering with start-ups for sourcing innovation**
At the end of this module, participants should be able to understand different strategic approaches to innovation management and processes and how technological innovations might affect them. <u>Learning objectives :</u> ○ Get to know definitions and different types of innovation ○ Understanding which factors can affect the innovation process ○ Become familiar with different strategic approaches to innovation management ○ Acquire knowledge of upcoming technologies, how they work and in which fields they can be implemented	At the end of this module, participants should be able to understand the involvement of suppliers in product innovations and describe supplier involvement in managerial processes and tools applied in companies. <u>Learning objectives :</u> ○ Understand the key ingredients of supplier involvement in NPD contribution to technical innovations ○ Identify different types of adaptation needed to facilitate supplier involvement in NPD Skills covered: Curiosity and critical thinking.	At the end of this module, participants should be able to evaluate the main stages of purchasing's involvement in the innovation process and the tools. <u>Learning objectives :</u> ○ To infuse curiosity about the new role purchasing has in sourcing innovation from the supply network. ○ To critically analyse the maturity of a purchasing organisation Skills covered: Curiosity and strategic thinking	At the end of this module, participants should be able to discuss the managerial challenges of each stage of purchasing's involvement in technical innovation when sourcing from start-ups is concerned. <u>Learning objectives :</u> ○ To infuse curiosity about the new role purchasing has in sourcing from start-ups. ○ To critically analyse the maturity of a purchasing organisation Skills covered: External stakeholder relationship management and strategic thinking,

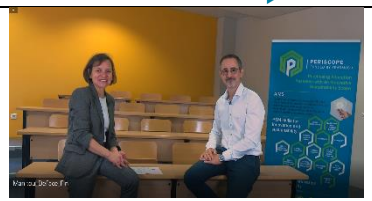
○ Assess new technologies, e.g. Gartner's Hype Cycle Skills covered: Curiosity, creativity and digitalisation skills.			
Description Why is innovation important to a company? Unforeseen challenges are inevitable in business. Innovation can help companies stay ahead of the curve and grow their company in the process. Innovation allows companies to adapt and overcome the challenges of change. Innovation fosters organisational and economic growth, and innovation allows companies to distinguish their business from others - so it separates businesses from their competition. Several contemporary technological innovations are discussed based on the latest edition of Gartner's Hype Cycle and/or DHL's Trend Radar. This could include innovations such	Description New product development (NPD) time and cost can significantly reduce early supplier involvement (ESI). We explore some practical models and tools for assessing and implementing ESI.	Description We discuss the meaning of purchasing's contribution to innovation. We explore how procurement can add value to a company beyond cost savings, especially by contributing to innovation. One of the specific objectives of this module is to explain the new role purchasing has in sourcing innovation.	Description This module overviews the buyer–start-up relationship, which is naturally asymmetric. It is considered a new type of relationship, which requires buying firms to adapt conventional supplier management processes and practices to achieve desired relationship outcomes. The importance of sourcing innovative technologies and knowledge from suppliers is well-established. A more recent challenge concerns how to scout innovations from non-traditional suppliers, including suppliers from outside existing supply networks. In this context, sourcing from innovative start-up companies is emerging as an opportunity but presents new challenges

as machine learning, self-driving vehicles, drones, blockchain, and 3D printing. Videos are used to illustrate these innovations. The students are then asked to select one of these innovations or choose another innovation to use as a starting point to discuss a new business model for supply chain management.			and, therefore, new ways of managing the sourcing process. This is rapidly becoming a key challenge in purchasing and innovation.
 TU GRAZ Dr Volker Koch	 ESSCA Dr Katia Picaud Bello	 AUDENCIA Dr François Constant	 AUDENCIA Dr François Constant

MODULES SUSTAINABLE PURCHASING (MSP) 2 ECTS (+50 learning hours)			
Ecological and Social challenges to Procurement	**Sustainable Sourcing**	**Accountability in Supply Chain**	**Circular supply chain**
At the end of this module, participants should be able to critically reflect on global warming as one of the planetary boundaries and supply chain actions. <u>Learning objectives :</u> • Basic understanding of global warming as one of the planetary boundaries • understanding the contradicting goals between material growth and planetary boundaries, with a focus on our heating planet • understanding of how emissions contribute to global heating, and the consequences thereof for the survival of humankind • explain the importance of sustainability in the supply chain (scope 3) • being able to discuss how supply chain decisions can contribute to harmful emissions • being able to discuss how supply chain activities are an essential source of ecological and social challenges	At the end of this module, students should be able to explain the sustainability risks associated with different sourcing situations and how to manage these. <u>Learning objectives:</u> ○ To identify the drivers of sustainability sourcing ○ To evaluate how to manage supplier sustainability compliance risks through supplier monitoring ○ To analyse different sourcing situations from a sustainability risk management perspective and develop appropriate strategies for managing these Skills covered: Risk management, cross-functional teamwork and negotiation skills	At the end of this Module, participants should be able to define accountability, and against whom companies should be accountable in the business environment. Moreover, understanding how to engage with stakeholders to enhance and manage accountability <u>Learning objectives :</u> • Describe the interlinkages between companies' actions and the extended business environment • Understanding the stakeholder theory and frameworks to identify and classify relevant stakeholder groups • Collaborating with stakeholders to enhance accountability Skills covered: Holistic supply chain, strategic thinking and analytical skills	At the end of this Module, participants should be able to describe different circular supply chain strategies and apply them to specific company contexts. <u>Learning objectives:</u> ○ Understanding the core principles of the circular economy ○ Get to know how a circular economy can be implemented ○ Understand the different strategies in the R framework ○ Identify different circular strategies in the supply chain Skills covered: Holistic supply chain and creativity

Skills covered: Holistic Supply Chain and Curiosity.			
Climate science has often been excluded from management courses. To fill this gap, in this module, a short overview of climate science is provided to the students. This includes concepts such as planetary boundaries, tipping points, and carbon budget. Essential figures are presented (e.g., emission, temperature, sea-ice-level curves). The module ends by demonstrating how different supply chain processes contribute to the emission of GHG.	This module examines sourcing as part of purchasing and supply management. The module takes a sustainability perspective on sourcing, evaluating environmental and social sustainability risks associated with different sourcing strategies. The module examines how sustainability risks are affected by different global sourcing strategies and what managers can do to mitigate these.	The session will introduce various standards, certificates and auditing schemes which enable procurement professionals to make informed decisions about materials, suppliers and product selections. These can include FSC, RSPO, ISO 14000, CO2 Neutral label etc. Among others, the session will cover the development process of a certificate as well as a critical reflection on certificates in general and indications on assessing individual certificates in terms of their potential for creating higher accountability in the supply chain or being misused for greenwashing.	Circular approaches are often reduced to “recycling”. However, circularity is much more! This module presents core principles of the circular economy, how the transition from a linear economy towards a circular economy can be implemented, and their application to specific company situations. The strategies of the “R-Framework” are described, and the differences between linear and circular supply chains are explained. Furthermore, key purchasing questions regarding a circular supply chain are discussed.
 CBS Dr Andreas Wieland UTwente Prof dr habil Holger Schiele	 TU Graz Dr Volker Koch	 CBS Dr Philip Beske-Janssen	 AUDENCIA Dr Thomas Johnsen

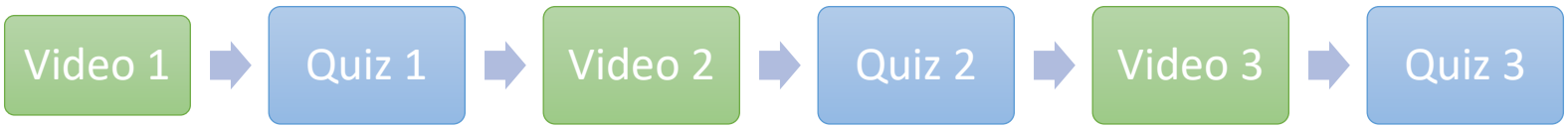
MODULES "Purchasing in innovation and Sustainability" (MISP) 1 ECTS (+25 learning hours)		**Train trainer** Educators' guide
MISP 1 Achieving sustainability through purchasing innovation	**MISP 2 Purchasing in innovation and sustainability**	**Transferable skills**
At the end of this module, participants should be able to understand the benefits of combining purchasing innovation and sustainability goals. <u>Learning objectives :</u> • Evaluate the benefit of combining sustainability and innovation goals (justify the decision), • Understand options to integrate purchasing and innovation in the sourcing process (explain ideas and concepts) Skills covered: Cross-functional teamwork, analytical skills and risk management	At the end of this module, participants should be able to describe real-life examples of purchasing practices in innovation and sustainability. <u>Learning objectives:</u> • Illustrate the involvement of purchasing and sourcing process in innovation and sustainability with a real-life example • Understand a company's actual situation and challenges for implementing purchasing and supply management actions that enhance sustainability in collaboration with stakeholders Skills covered: Curiosity, cross-functional teamwork and strategic thinking.	Understanding how to use the course or how to use just single modules of the course in the own curriculum
Evaluate the benefit of combining sustainability and innovation goals (justify the decision), understand options to integrate purchasing and innovation in the sourcing process (explain ideas and concepts)	The session introduces a practical example of purchasing involvement in innovation and sustainability projects from a purchasing manager, professional and expert. Emmanuel Galliot from Manitou explains how purchasing managers in contribute to the innovation and sustainability requirements. He answers questions seen in the variety of lessons proposed in this MOOC, such as How does purchasing contribute to innovation sourcing in Manitou?, How is sustainability implemented in Manitou purchasing processes?	

UTwente, Prof dr habil Holger Schiele		ESSCA Dr Katia Picaud Bello	UTwente, Dr Klaas Stek – PDF and video with instructions for the lecturer

MPI 1 Innovation Management: content and activities

Name of the Module	Innovation management
Learning goal	After this course, students should understand how technical innovations, such as blockchain technology, machine learning or drones, might affect different fields of our economy and society.
Learning objectives	Basic knowledge of upcoming technologies, how they work, and which fields they can be implemented. Assessment of new technologies (e.g. Gartner's Hype Cycle) (Creativity and future-oriented thinking, Applicability of the learned facts to practice-related examples, Digitalisation skills)
Learning activities	The MOOC contains three quizzes Three PowerPoint presentations Links to videos are shown during the presentation to illustrate some technical innovations. Internet links are shown during the presentation and serve as a prompt for students to conduct further research. Book recommendations Group exercise
Description	Several contemporary technological innovations are discussed based on the latest edition of Gartner's Hype Cycle and/or DHL's Trend Radar. This could include innovations such as machine learning, self-driving vehicles, drones, blockchain, and 3D printing. Videos are used to illustrate these innovations. The students are then asked to select one of these innovations or choose another innovation to use as a starting point to discuss a new business model for supply chain management.
Institution Person in charge	TU Graz Dr Volker Koch

1. PDF Powerpoint presentation
2. Primary online educational learning materials:

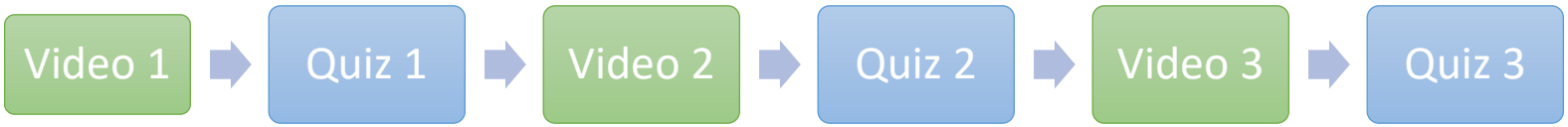


3. Other online educational materials: cases/games/suggestions links

MPI 2 Supplier involvement in NPD

Name of the Module	Supplier involvement in NPD & technical innovation
Learning goal	• Understand the key ingredients of supplier involvement in NPD contribution to technical innovations • Identify different types of adaptation needed to facilitate supplier involvement in NPD
Learning objectives	This module gives an overview of
Learning activities	The MOOC contains three videos. One case study is included in this module, to be done at home. It illustrates how companies adapt to the new role of purchasing to scout innovations in the supply network. Learning materials: PDF learning materials, Internet links, academic articles.
Description	VIDEO 1: Students will investigate new challenges related to purchasing's contribution to the firm's innovation capabilities. They unpack concepts like supply network-enabled innovation. They discover how new product development (NPD) time and cost can be reduced significantly through early supplier involvement (ESI). We explore some practical models and tools for assessing and implementing ESI. VIDEO 2: Students discover processes used in purchasing to manage innovation exploration and innovation scouting. They investigate how to adapt purchasing's organisation design to implement "champions" to support the innovation exploration/scouting phase. All these new activities are part of the Purchasing function enlargement adopted by the most advanced companies.
Institution Person in charge	ESSCA Dr Katia Picaud Bello

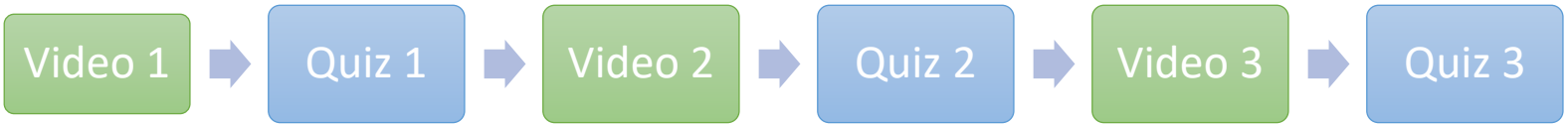
Main learning materials



MPI 3 Purchasing contribution to innovation: content and activities

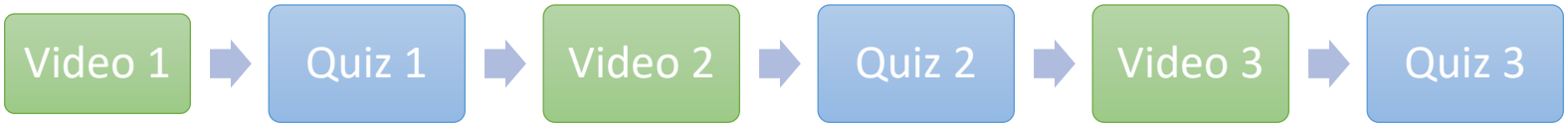
Learning goal	Evaluate the main stages of purchasing's involvement in innovation sourcing, the processes and the tools
Learning objectives	This module gives an overview of purchasing's involvement in sourcing technical innovations. We discuss the meaning of purchasing's contribution to innovation and explore why, when and how procurement can add value to a company beyond making cost savings, especially by contributing to innovation. One of the specific objectives of this module is to explain the new role purchasing has in sourcing innovation and show adaptations needed in procurement to better contribute to innovation.
Learning activities	The MOOC contains four videos. Learning materials: PDF learning materials, Internet links, academic articles.
Description	VIDEO 1: Students will discover why procurement is getting more involved in innovation in this video. VIDEO 2: This video will discover where procurement can find innovations within the supply network. We will review the different sources of innovations. VIDEO 3: In this video, we will discuss how procurement must adapt its organisation, the process and buyers' skills to improve its contribution to innovation activities. VIDEO 4: Students will learn how digital transformation can support purchasing's contribution to innovation. They will discover various information systems and processes that can facilitate innovation across supply networks or help search for a specific patent building on advanced AI-based systems.
Institution Person in charge	Audencia Dr François Constant

Structure of the Module



MPI 4 Partnering with starts-ups for sourcing innovation

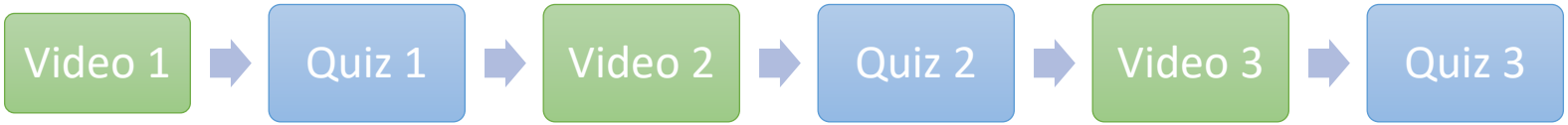
Learning goal	Explain the managerial challenges of each stage of purchasing's involvement in technical innovation, especially when sourcing from start-ups is concerned.
Learning objectives	This module gives an overview of how purchasing can embrace the challenges related to this new role, such as dealing with start-ups, contracting IP, and using open innovation or digital tools to facilitate scouting.
Learning activities	Does the MOOC contain two videos? One case study is included in this module, to be done at home. It illustrates how companies adapt to the new role of purchasing to scout innovations in the supply network. Learning materials: PDF learning materials, Internet links, academic articles. Assessment: 4 quizzes
Description	VIDEO 4: Traditional approaches to source suppliers are no longer valid when sourcing innovations from start-ups concerned. In this session, students will discover best practices for Purchasing to collaborate with start-ups, contract with start-ups (and fix IP rights issues), and manage trust or power asymmetry with start-ups.
Institution Person in charge	Audencia Dr François Constant



MSP1 Ecological and social challenges to procurement

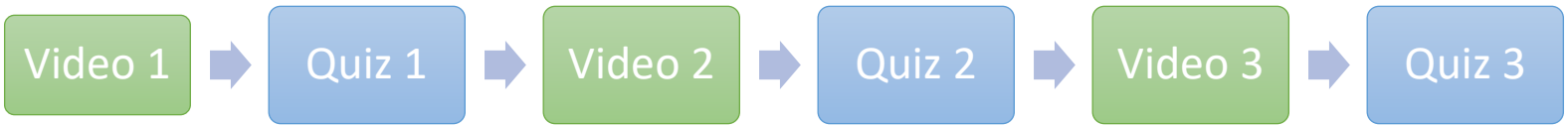
Name of the Module	Ecological and Social Challenges to Procurement
Learning goal	At the end of the course, students will gain a basic understanding of global warming as one of the planetary boundaries. They will be enabled to discuss how supply chain decisions can contribute to harmful emissions.
Learning objectives	Holistic Supply Chain Skills Curiosity Understanding the contradicting goals between material growth and planetary boundaries, focusing on our heating planet. Understanding how emissions contribute to global heating and the consequences thereof for the survival of humanity. Ability to discuss how supply chain activities are an essential source of ecological and social challenges.
Learning activities	The module mainly discusses essential research results from climate science, putting them in the context of global supply chains. This includes short group discussions based on questions raised by the teacher and short videos that illustrate and deepen the content.
Description	Climate science has often been excluded from management courses. To fill this gap, in this module, a short overview of climate science is provided to the students. The teacher presents essential recent results from climate science and related disciplines. This includes concepts such as planetary boundaries, tipping points, and carbon budget. Essential figures are presented (e.g., emission, temperature, sea-ice-level curves). The module ends by demonstrating how different supply chain processes contribute to the emission of GHG.
Institution Person in charge	CBS Dr Andreas Wieland

Structure of the Module



Name of the Module	Sustainable Sourcing
Learning goal	At the end of this module, students should be able to explain the sustainability risks associated with sourcing strategies and how to manage these risks
Learning objectives	Risk Management, cross-functional teamwork and negotiation skills To analyse different sourcing situations from a sustainability risk management perspective and develop appropriate strategies for managing these To evaluate sustainability compliance risks in the context of global sourcing and how to tackle these To evaluate sustainability implications in the sourcing process, including specification, supplier selection, negotiation, contracting and evaluation
Learning activities	This module builds on a combination of learning material, including articles, case studies, role plays, short video clips, and quizzes. Video 1: Why consider sustainability in sourcing decisions? Video 2: Applying a sustainability perspective on purchasing portfolio analysis Video 3: Getting value from a sustainable sourcing strategy Quizzes will test students learning after each video. Role play: A case study-based negotiation role play called “AfriPower” simulates a negotiation between an African buyer of an offshore wind power farm and three bidders from three different countries. Negotiation teams will take into account commercial, logistical and sustainability considerations.
Description	This module examines sourcing as part of purchasing and supply management. The module takes a sustainability perspective on sourcing, evaluating environmental and social sustainability risks associated with different sourcing strategies. The module examines how sustainability risks are affected by different global sourcing strategies and what managers can do to mitigate these.
Institution Person in charge	Audencia Prof Dr Thomas Johnsen

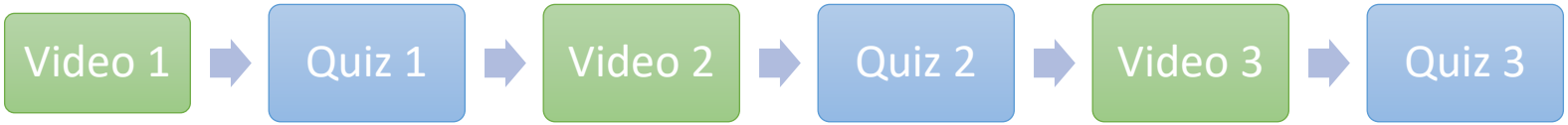
Structure of the Module



MSP3 Stakeholder Relationship Management / Accountability in Supply chain

Name of the Module	Stakeholder Relationship Management
Learning goal	Students will be able to understand the company in its extended business environment and identify relevant interest groups to interact with.
Learning objectives	Holistic supply chain perspective Critical and strategic thinking Analytical skills (Communication and Negotiation skills; Cross-functional Teamwork)
Learning activities	Video one: Explaining the interlinkages between companies´ actions and the extended business environment. Video two: Introducing stakeholder theory and frameworks to identify and classify relevant stakeholder groups. Application case: Students apply their knowledge to a case with the solution provided in a short description video. Video three: Reflection on stakeholder theory Academic literature to be included: Freeman (2010): Managing for Stakeholders; Mitchel et al. (1997): Toward a theory of stakeholder salience The MOOC contains a quiz
Description	The session will introduce stakeholder theory in general, and more specifically, the stakeholder challenge, stakeholder identification and stakeholder classification. (Based on an (internal or external) scenario, students will assume the roles of identifying stakeholders and developing strategies to pursue their different interests.)
Institution Person in charge	CBS Dr Philip Beske-Janssen

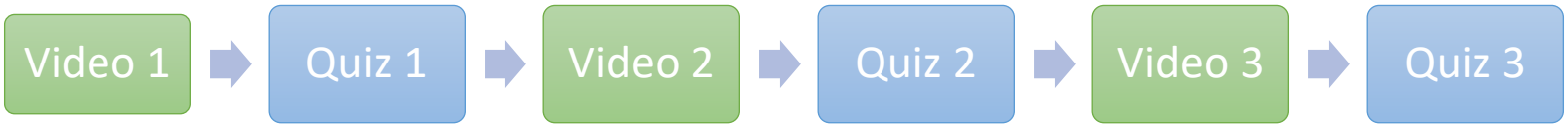
Structure of the Module



MSP4 Circular supply chain

Name of the Module	Circular Supply Chain
Learning goal	At the end of the course, students can understand different circular supply chain strategies and apply them to specific company situations and contexts.
Learning objectives	Understanding the three circular supply chain strategies in order to apply them to a specific company Implementing a creative circular supply chain strategy
Description	First video introduction: Explains Linear Supply Chain vs Circular Supply Chain definitions. Circular approaches are often reduced to "recycling". However, circularity is much more! Three circular approaches are presented. Second video: Explains and Illustrates cradle to cradle and how to put in place different existing strategies: recycle, reuse and share. Third video: Explain and illustrate performance economy and how to implement different existing strategies: recycle, reuse and share. Fourth video: Explain and illustrate biomimicry and how to implement different existing strategies: recycle, reuse and share.
Learning activities	The MOOC contains a quiz Three internet links to YouTube videos. (timing of videos), PDF articles Application to a specific case in group work: The students are then asked to discuss in a group the different ways a selected company could go to shift from a linear to a circular supply chain. PDF Discussion of results: The results are then presented and discussed in the forum
Institution Person in charge	TU GRAZ Dr Volker Koch

Structure of the Module



Train the Trainer

Name of the Module	Train the Trainer – Transferable skills
Learning goal	This module aims to train lecturers to apply transferable skills (or "soft skills") to learning objectives. The PERISCOPE project proposes several transferable skills learning objectives: creativity, curiosity, critical thinking, holistic thinking, and strategic thinking. These skills deviate from cognitive learning objectives' didactics and assessments. The lecturer will learn how to apply transferable skills objectives.
Learning objectives	*By successful completion of the module, the student (i.e. the lecturer) will be able to demonstrate:* *1.* to design the constructive alignment of transferable skills learning objectives, appropriate didactics and assessments. *2.* to apply challenge-based or project-based learning techniques for student-centred education *3.* to successfully introduce real-life cases from practice *4.* to assess transferable or soft skills development
Description	Educational literature shows that lecturers often choose classical, teacher-centred approaches to transfer knowledge. However, student-centred approaches are much more efficient. The individual student has to convert knowledge and professional skills into long-term memory, part of the sub-conscience. It is also the case for intrapersonal traits such as ways of thinking, creativity and other traits.
Learning activities	This module will instruct the lecturer via a spoken PowerPoint movie.
Institution Person in charge	UTwente Dr Klaas Stek

References

Bäckstrand, J., Suurmond, R., van Raaij, E., & Chen, C. (2019). Purchasing process models: Inspiration for teaching purchasing and supply management. *Journal of Purchasing and Supply Management, 25*(5), 100577-undefined. doi:10.1016/j.pursup.2019.100577

Leuven/Louvain-la-Neuve Communiqué. (2009). The Bologna Process 2020: the European Higher Education Area in the new decade. Communiqué of the Conference of European Ministers Responsible for Higher Education, Leuven and Louvain-la-Neuve, 28-29 April. In.