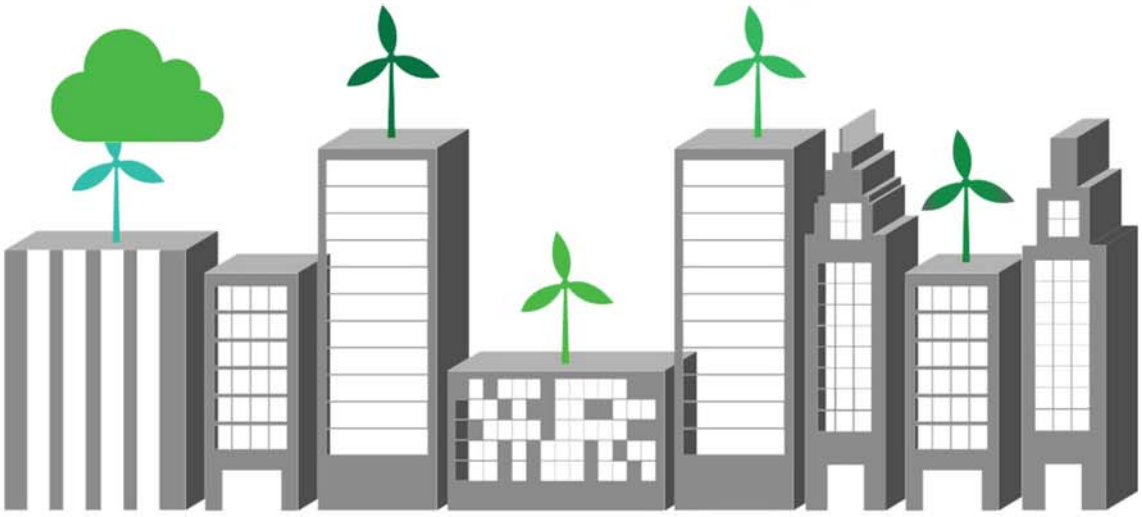
Interrelationship and Complementarities of Environmental Assessment, Industrial Ecology and Supply Chain Management - Building Robust Operational Management Systems (Introductory Level)

Dr. Ralf Aschemann

University of Graz, Austria



24-26 October 2017: 18.00 – 20.00

Room: V1.04, Civil Building, first floor

Course capacity: 30 participants

Participation is free, but registration is required

Registrations until 20 October:

CEG-IST, Ágata Marques, cegist@tecnico.ulisboa.pt, 218 417 729

APAI, Ana Roque, apai@apai.org.pt, 937 979 476

Support:

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Short course (extra-curricular)
Erasmus+ Programme between Técnico – Universidade de Lisboa and the University of Graz in the field of environmental sciences, funded by the European Commission

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(University of Graz, Austria)

Lisboa, Instituto Superior Técnico
24-26 October 2017: 18.00 – 20.00
Room: V1.04, Civil Building, first floor

Course capacity: 30 participants

The course is designed primarily to MSc and PhD students at Tecnico, ULisboa from

- Environmental Engineering
- Mechanical Engineering
- Industrial Engineering and Management
- Sustainable Energy Systems

But welcomes other interested professional participants up to the capacity limit

Participation is free, but registration is required

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Interrelationship and Complementarities of Environmental Assessment, Industrial Ecology and Supply Chain Management - Building Robust Operational Management Systems *(Introductory Level)*

Instructor: Dr. Ralf Aschemann (University of Graz, Austria)

Outline:

This short course is the first result of the new Erasmus+ agreement between Técnico – Universidade de Lisboa and the University of Graz in the field of environmental sciences and it is being funded by the European Commission.

In the course, firstly selected basic knowledge on (i) environmental assessment, (ii) industrial ecology and (iii) supply chain management is presented and discussed. Secondly, there will be a focus on their interrelationships and complementarities. Thirdly, it will be illustrated how the three approaches mentioned might be integrated into operational management systems - considering also the relevant ISO standards - in order to make them more robust.

Course description:

Participants will be introduced into the concept and application of selected environmental assessment tools - such as environmental impact assessment (EIA). Moreover, an overview of the emerging field of "Industrial Ecology" will be presented, addressing its definition, principles, and in particular areas of application - such as material flow accounting or life cycle assessment (LCA). Then, essential basic knowledge on supply chain management will be given, highlighting the complexity of globalized supply chains and the difficulty to assess their environmental implications. Afterwards, interrelationships and complementarities, but also differences of these three approaches will be illustrated in order to identify their potential contribution to build robust operational management systems. Finally, ideas on how those approaches might be integrated into operational management systems will be shown, taking into account the relevant ISO standards, too. By implementing those ideas, operational management systems should become more robust.

Learning objectives:

After the course, students should be able to explain and classify the basic concepts, ideas and tools of environmental assessment, industrial ecology and supply chain management. Furthermore, they should be aware of differences, similarities and relationships between those three fields. Moreover, they should understand their potential benefits and their usefulness in order to strengthen operational management systems in terms of their robustness.

Dr. Ralf Aschemann is Senior Lecturer at the Institute of Systems Sciences, Innovation and Sustainability Research at the University of Graz (Austria). He is the academic co-ordinator of the "Erasmus Mundus Master's Programme in Industrial Ecology" (MIND) and is also the institute's "Erasmus" co-ordinator for incoming and outgoing students.

Ralf is holding a master's degree from University of Hannover, a postgraduate diploma from University of Technology Graz and a doctoral degree from University of Graz.

His research interests are sustainability in a higher education context; environmental assessment; industrial ecology; and inter- and transdisciplinary approaches.

He is teaching numerous courses at University of Graz, examples are "Methods for inter- and transdisciplinary problem-solving"; "Environmental and Technology Assessment"; "Introduction to Industrial Ecology"; "Value Chain Management".

His newest publications are:

Aschemann, R.; Baldizzone, G.; Rega, C. (2016): Public and stakeholder engagement in strategic environmental assessment. In: Sadler, B.; Dusik, J. (eds.): European and International Experiences of Strategic Environmental Assessment - Recent progress and future prospects. Routledge, pp. 2244-269

Winkler, T.; Schopf, K.; Aschemann, R.; Winiwarter, W. (2016): From Farm to Fork - A Life Cycle Assessment of Fresh Austrian Pork. In: Journal of Cleaner Production 116, 3, pp. 80-89

Winkler, T.; Aschemann, R. (2017): Decreasing Greenhouse Gas Emissions of Meat Products Through Food Waste Reduction. A Framework for a Sustainability Assessment Approach. In: Morone, P.; Papendiek, F.; Tartiu V.E. (eds.): Food Waste Reduction and Valorisation - Sustainability Assessment and Policy Analysis. Springer, pp. 43-68