# Supply Chain Management and Sustainability (SCMS)

Presentation of the HA / BScB elective Supply Chain Management and Sustainability, 2021 Marcel Turkensteen (matu@econ.au.dk)



#### **Formalities**

- 5 ECTS, instruction in English
- 12 times 2 hours lectures; weekly.
- 2 times 2 hours 'case study sessions': practicing with concepts in a realistic business case setting
- 2 hours introduction to Operations Management and Supply Chain Management for those who need it.
- 3 hours written exam, most probably in December.
- Prerequisite for exam participation: write answers to a case assignment (2 pages) and provide feedback on another groups answers.
  - Purpose: go through main concepts and computations and invoke some creativity from your side.



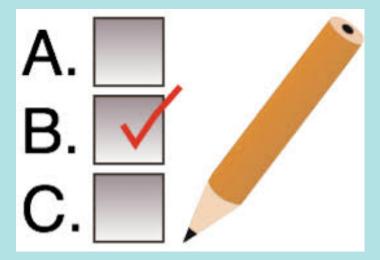
## Who's teaching?





#### What is the course about?

- Instead of telling you, why not let you find out?
- Do the 'quiz' on the next set of slides. There are 8 multiple questions in total.





## The quiz (part 1)

- Sustainability in a company is
- a) A necessity;
- b) A luxury.

Click for explanation.

Sustainability refers to the ability of a system to maintain itself over a longer time. People often equate that to the environmental impact in the short term.



#### The quiz (part 2)

- Sustainability issues are only relevant to please your customers.
- a) True;
- b) False.

The 'true' answer implies that you should have a green narrative. However, you would have to make your claims to greenness credible, which requires more actions than 'just' a story.

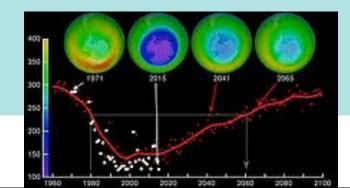
Other relevant factors for companies include cost savings – wasting resources is not good economically, legislation.



## The quiz (part 3)

- Until now, very little has happened to protect the environment.
- a) True;
- b) False.

It is true that effects to reduce greenhouse gas emissions have not been really successful. However, in the past, there have been very successful initiatives, for example to reduce chemical pollution or ozone layer degradation. This will continue in the future.







## The quiz (part 4)

The course will teach me everything on how to start a sustainable company.

- a) True,
- Ob) False.

Definitely not. There may be quite a lot to it – enginieering, biology, marketing, ... This course focuses only on part of it, namely sustainability related to Supply Chain Management, though it tries to make sense of sustainability issues and strategies first.

Besides that, you would probably need a good idea and the right attitude, which this course cannot provide...



#### The quiz (part 5)

Supply Chain Management and Sustainability, this must be about transport.

- a) True,
- Ob) False.



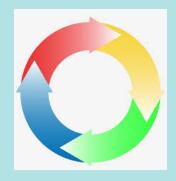
Yes, transport is important. It's a prominent and rising source of greenhouse gas emissions and other pollutants (local pollution, partially caused by road transport causes 400,000 deaths per year in the EU). However, there are more ways in which Supply Chain Management is relevant: purchasing, reverse logistics, measurements of impacts throughout the supply chain.



#### The quiz (part 6)

Would this fit in the course: collecting a waste product for creating a new product.

- a) Yes, definitely!
- b) No, it does not include any SCM.



Yes, it does! It combines logistics and SCM decisions – how to transport and how to organize the collection (called reverse logistics) – with sustanability issues – life cycle impact of the waste material, economic viability of the process.



## The quiz (part 7)

Would the following be in the course: Find sets of routes that minimize carbon emissions emitted by trucks?

- a) Yes
- O b) No

You would expect that. But the methods are highly technical, so this will be beyond the scope of the course.

We will go into some routing methods and into measurement of transport impact. About half of the course will be quantitative. However, the methods used cannot be very advanced mathematically. The focus will be on finding the right data and inputs.



## The quiz (part 8)

Are you going to choose this elective?

- a) Yes.
- b) Definitely.

Joking aside, I hope that you've gotten an impression of what the course covers.

The end!

