

**Copenhagen Business School**  
MBA Program

SYLLABUS

**Regenerative Sustainability – from net zero to net positive**  
**March 2018**

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**Overview:**

Historically, most approaches to sustainability have focused strongly on the concept of biophysical limits and the need to reduce damage or harm to the environment, often by means of strong restrictions on human activities. More recently, an approach to sustainability has emerged that departs from this harm reduction and damage limitation agenda and focuses on the potential for the development of human activity that can simultaneously improve both human and environmental wellbeing. This “net positive” approach to sustainability—known as regenerative sustainability—is the one adopted by CBS. The two key attributes of regenerative sustainability are the search for net positive outcomes and the requirement that we focus at one and the same time on human and environmental outcomes. While harm reduction and damage limitation activities will continue to be needed in many contexts, the emphasis in regenerative sustainability is on looking first for ways to contribute positively to such outcomes. Such a net positive approach not only goes further than net zero approaches focused on reducing harm, but is much more engaging to most stakeholders, which is a critical factor in building the partnerships and social support needed to achieve a more sustainable world.

This five-day course explores how managers can show leadership and contribute to the development of regenerative sustainability. It explores the individual, organizational and communicative aspects of sustainability and how the role of the firm is critical in this sustainability transition. Our unit of inquiry is at the city/urban setting. Firms have a critical role in partnering with government and utility companies to support ambitious sustainability benchmarks.

While the course has a strong emphasis on the practical/operational aspects of CSR and regenerative sustainability, it also allows participants to familiarize themselves with cutting edge re-

search in the field and how theoretical models and concepts can contribute to a better understanding of the mechanisms underlying recent developments. In order to give participants a strong sense of the richness, diversity and complexity of the field, the course is presented by an international team of academic experts and practitioners.

**Access to Materials:**

All readings, cases and other materials will be made available prior to the start of the course. Please consider the environment before printing.

**Learning Objectives:**

The aim of this course is to gain an in-depth understanding of the different factors that shape – enable and constrain – corporate responsibility and regenerative sustainability. The course introduces students to a variety of analytical and practical perspectives on leadership, organization and communication and discusses in what ways these tools can enable responsible corporate conduct.

**Teaching Style and Methods:**

This course blends a variety of pedagogical methods. You learn through interactive lectures combined with case study discussions. We will also use some short video supplements to explore selected issues more in depth. It is important that you read case studies *prior* to the lecture in which they are discussed. Please think about answers to the case questions, which are listed in this syllabus, as these will form the basis of class discussion.

**Assessment:**

The evaluation will be based on an individually written project exploring the findings from the five-day course. The project will be based a student selected case from the presented session, critically looking at the concept of regenerative sustainability. Students are asked to analyze and challenge the concept using some of the analytical frameworks discussed in class and to come up with well-reasoned recommendations for future development.

## Teaching Faculty:

**Kristjan Jespersen (KJ)** is an Assistant Professor in Sustainable Innovation and Entrepreneurship at the Copenhagen Business School (CBS). As a primary area of focus, he studies the growing development and management of Ecosystem Services in developing countries. Within the field, Kristjan focuses his attention on the institutional legitimacy of such initiatives and the overall compensation tools used to ensure compliance. He has a background in International Relations and Economics. Kristjan is one of the founding partners for the Nordic Rainforest Research Network, a research consortium that was granted the last remaining one million hectares of first growth forest in Borneo, Malaysia. Kristjan has formed close relationships with the Malaysian and Indonesian Associations, and consults on issues of sustainability in the commodity sector. Kristjan was most recently appointed by the Copenhagen Business School, as the principal author to coordinate the sustainability components and management of the proposed 35,000 square meter campus construction project. Kristjan was most recently appointed by the Copenhagen Business School, as the principal author to define the sustainability vision and mission for CBS.

**John Robinson (JR)** was the Associate Provost, Sustainability at the University of British Columbia (UBC) and is a professor with UBC's Institute for Resources, Environment & Sustainability and with the Department of Geography. Most recently, John has been appointed as Professor at the Munk School of Global Affairs and the School of the Environment at the University of Toronto. In 2015, John was also made an Adjunct Professor at the Copenhagen Business School. Presently, John is one of the key project leaders for the new CBS Campus Redevelopment project. He works closely with Denmark's municipal governments, utilities and businesses. John's research focuses on the intersection of sustainability, social and technological change, behavioral change, and community engagement processes.

John was a Fellow of the Trudeau Foundation from 2008-10. In 2010, he won BC Hydro's inaugural Larry Bell Award for advancing energy conservation in British Columbia. In 2011 he won the Education Leadership Award of the Canada Green Building Council, and in 2012 he received the Metro Vancouver Architecture Canada Architecture Advocacy Award and was named Environmental Scientist of the Year by Canadian Geographic magazine. As a Lead Author, he contributed to the 1995, 2001 and 2007 Assessment Reports of the Intergovernmental Panel on Climate Change, which shared the Nobel Peace Prize in 2007 with Al Gore.

## **PROGRAM**

**March 11th**

**Introduction Meeting – 17.00**

**Team Dinner – 18.30**

## DAY 1 – March 12, 2018

Classroom: TBA

### Regenerative Sustainability and Extensions – A Case for Ambition

This session will provide an introduction to the course and an overview of its different sessions and faculty. Participants will discuss their respective starting points with regard to regenerative sustainability and sustainability in groups, and there will be a plenary where we collect the different experiences that the participants have had with this subject matter. Students will also have the opportunity to learn about Copenhagen ambitious plans to become carbon neutral by 2025. Participants will also have a chance to voice and discuss their expectations for the course.

9.00-9.15		Introduction (KJ)
9.15-10.15		Introduction – Challenging Environmental Management ( <b>Kristjan Jespersen</b> )
10.15-10.30		break
10.30-11.40		Regenerative Sustainability a Motivating Lenz ( <b>John Robinson</b> )
11.40-12.10		<b>Discussion Jørgen Abilgaard - Project Director for the 2025 Carbon Neutral strategy)</b>
12.10-13.15		Lunch
13.15-14.00		Transportation – House of Green - <b>Address:</b> Vesterbrogade 1, 1620 København V <b>Phone:</b> <a href="tel:72100179">72 10 01 79</a>
14.00-15.45		Tour of House of Green ( <b>Dan Howis Lauritsen - Head of Communications - State of Green</b> )
15.15-15.45		Post COP 21 – A Scandinavian Context ( <b>Dan Howis Lauritsen - Head of Communications - State of Green</b> )
15.45-16.15		New Tools for Visualizing Sustainability Solutions - <b>C2E2 - Pedro Puentes</b>
16.15-16.45		Plenary discussion and wrap-up

### Readings:

Robinson, J., & Cole, R. J. (2015). Theoretical underpinnings of regenerative sustainability. *Building Research & Information*, 43(2), 133-143.

Miller, T. R. (2013). Constructing sustainability science: emerging perspectives and research trajectories. *Sustainability science*, 8(2), 279-293.

Robinson, J. (2004). Squaring the circle? Some thoughts on the idea of sustainable development. *Ecological economics*, 48(4), 369-384.

**DAY 2 – March 13<sup>th</sup>, 2018**  
**Classroom: TBA**  
**Building for Human Well-Being**

Strategic investment in sustainable buildings and infrastructure is rendered more difficult without reliable and consistent data associated with environmental, social, and other impacts. It is unclear which impact measures are the most meaningful, and which methodologies are appropriate to accurately collect and report these data and processes for the purposes of transparently tracking, establishing evidence-based strategies, and further incentivizing action toward sustainable development. The proposed session will explore efforts to design and quantify the efforts of building sustainability.

8.15-9.15		Travel to COWI Lyngby
9.15-10.15		Per Monby - Discounted Cash Value and Human Well-Being
10.15-10.30		break
10.30-11.40		Findings and Responses to Sustainable Building Challenges – The Case of CIRS <b>(John Robinson)</b>
11.40-12.30		<b>Return to CBS</b>
12.30-13.30		Lunch
13.15-14.00		Travel and Tour - Nordhavn
14.00-15.45		Presentation from the Green Building Council – The application of DGNB Building Standard

**Readings**

Cole, R. J., Robinson, J., Brown, Z., & O'shea, M. (2008). Re-contextualizing the notion of comfort. *Building Research & Information*, 36(4), 323-336.

Devine, A., & Kok, N. (2015). Green certification and building performance: Implications for tangibles and intangibles. *The Journal of Portfolio Management*, 41(6), 151-163.

Controls, J. (2011). Green building asset valuation: Trends and data. *Do green buildings translate to higher asset value?*

## DAY 3 – March 14<sup>th</sup>, 2018

### I. Industrial Symbiosis – The Case for New Business Partnerships

The concept of Industrial Symbiosis was an incredibly dynamic and exciting concept fifteen years ago. Everyone heard about Kalundborg and the linked industrial processes taking place in Denmark. From the early glimmer, the concept fell from common interest and parlance. With a new management team in place Kalundborg Forsyning is working to change this perception. With new forms of investment, dynamic business partners and a new leader, the Kalundborg team believe they have found anew a critical industrial process that should be resurrected and better studied and applied.

8.00-9.15		Bus Travel to Kalundborg Forsyning
9.00-9.20		Driving Tour around the Kalenborg Site with representatives from the Symbiosis Centre
9.30-11.00		At Novozymes – Presentation from the Symbiosis Centre – The benefits of industrial symbiosis and new business models
11.00-12.00		Presentation from Novozymes representatives
12.00-12.30		Tour of Novozymes
<b>TRANSPORT to Kalundborg Forsyning</b>		
13.00-15.00		<u>Lunch and Presentation from the Director of Kalunborg Forsyning - Hans-Martin Friis Møller</u>
15.00-16.00		Tour Algae Facility: tour / presentation and closing remarks

### Core readings:

Jacobsen, N. B. (2006). Industrial symbiosis in Kalundborg, Denmark: a quantitative assessment of economic and environmental aspects. *Journal of industrial ecology*, 10(1-2), 239-255.

Chertow, M. R. (2000). Industrial symbiosis: literature and taxonomy. *Annual review of energy and the environment*, 25(1), 313-337.

Lombardi, D. R., & Laybourn, P. (2012). Redefining industrial symbiosis. *Journal of Industrial Ecology*, 16(1), 28-37.

**Day 4 – March 15<sup>th</sup>, 2018**  
**Classroom: : TBA**

### **Blockchain and Sustainable Digital Infrastructures for Business**

In 2008 an anonymous person or group under the pseudonym Satoshi Nakamoto unleashed the Bitcoin protocol on the Internet, which allows for peer-to-peer exchange of digital cash without the need for a trusted third party. The technical underpinning of this system, known as Blockchain has uses that extend far beyond the realm of cryptocurrency and finance, and well into the domain of sustainability broadly defined. In fact, it is argued that Blockchain can be seen as an emerging open protocol layer on the internet on which a whole range of innovative solutions can be created ranging from supply chain, trade finance, sustainability reporting, and crowdfunding, to distributed energy production, digital carbon markets, and local exchange platforms. There is almost not a day without a new use case for blockchain being announced: Blockchain is indeed the new black! ... or is it simply at the stage of overinflated expectations?

9.00-9.15		Introduction (KJ)
9.15-12.30		Introduction to Blockchain and the Opportunities for Sustainable Infrastructures for Business
12.30-13.30		Lunch
		Afternoon TBA

### **Readings:**

Tapscott, D., & Tapscott, A. (2016). *Blockchain Revolution: How the technology behind Bitcoin is changing money, business, and the world*. Penguin.

MacDonald, T. J., Allen, D. W., & Potts, J. (2016). Blockchains and the boundaries of self-organized economies: predictions for the future of banking. In *Banking Beyond Banks and Money* (pp. 279-296). Springer International Publishing



**DAY 5 – March 16<sup>th</sup>, 2018****Classroom: : TBA****Impact Investing – New forms of Sustainability Investing**

The concepts of responsible investing and impact investing have caught the imagination of investors, recipients, and the general public alike. Generally, firms have a critical role to support ambitious sustainability benchmarks. Yet, from the onset, the field is still formalizing the metrics and success criteria they use to illustrate performance. The session explores the perceptions, efforts, and ultimately the impact that investment houses in the Scandinavian region are having within the region and around the world.

9.00-9.15		Introduction (KJ)
9.15-10.00		Rasmus Juhl Pedersen - PBU - The Pension Fund of Early Childhood Teachers
10		
10.00-10.30		Pelle Pedersen – PKA - Responsible Investment Analyst
10.30-10.45		Opening comments and questions from <b>(SV) (JR)</b>
10.45-11.10		Plenary discussion
12.15-14.00		Lunch
15.00-16.30		Boat Tour – Windmill Farm - Leaving from Norhavn

**Reading:**

Fatemi, A. M., & Fooladi, I. J. (2013). Sustainable finance: A new paradigm. *Global Finance Journal*, 24(2), 101-113.

Scholtens, B. (2006). Finance as a driver of corporate social responsibility. *Journal of business ethics*, 68(1), 19-33.