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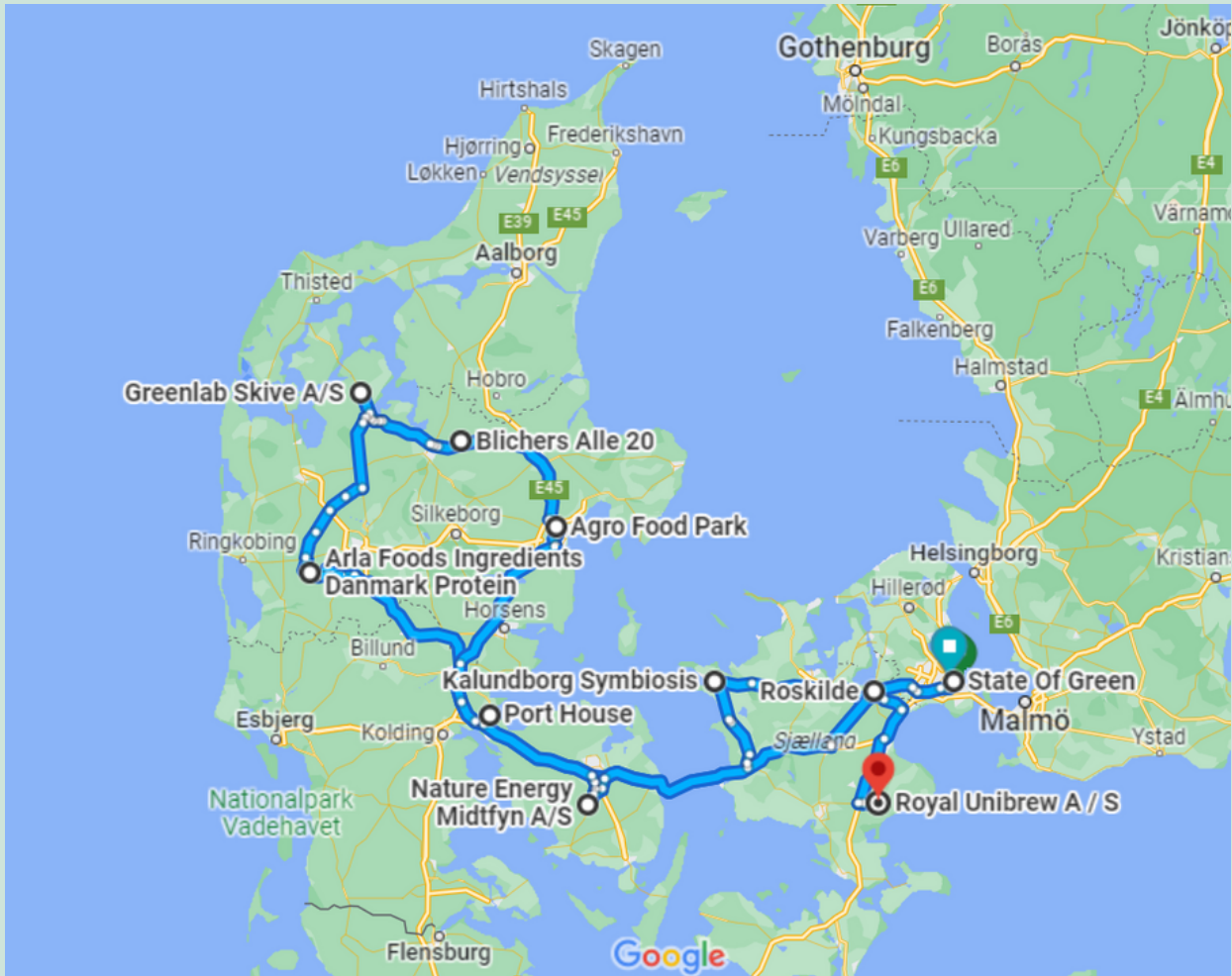
Washington-Denmark Agricultural Symbiosis Study Tour

Exploring resource efficiency solutions
in the Danish Food and Beverage Sector

September 10 – 15, 2023



Exploring the Danish Approach to Symbiosis in the Agricultural Sector



Resource efficiency has been an embedded part of Denmark's mindset for decades as it has been proved that decoupling economic growth from an increase in resource consumption is possible. Danish food and beverage producers have been refining their methods to produce more with less for a number of years now. The Danish industry as a whole has reduced energy intensity in production by more than 50 percent from 1990 to 2018 and decreased by approximately 40 percent in the EU. We hope that Danish lessons that you will encounter on your trip will inspire and instigate an even greater appetite for resource-efficient measures.

Program

Sunday 10 September

14:00 - 18:00 Check in to ProfilHotels Richmond

Vester Farimagsgade
33 1606 Copenhagen
V

18:00 - 18:45 Gather in Lobby
Prepare to walk to dinner

19:00 - 20:30 Dinner at Corsa Vesterbro

Vesterbrogade 44
1620 Copenhagen



Scan the QR-code to learn more about some of Denmark's resource-efficient industries.

Program

Monday, 11 September

07:00 - 08:00 Breakfast at Hotel: ProfilHotels Richmond

Vester Farimagsgade
33 1606 Copenhagen
V

08:00 - 08:45 Welcome and Orientation

9.00 – 12.00 Morning welcome session in House of Green

House of Green
Vesterbrogade 1E,
1620 CPH V

Introduction to the Danish green transition.

By:

Gry Klitmose Holm, Senior Project Manager, State of Green
Fabian Buehler, Advisor, Danish Energy Agency
Lise Walbom, CEO, Food Nation Denmark

12:00 – 12.30 Lunch in House of Green

12:40 – 13:50 Walk to the Danish Agriculture and Food Council

13:00 - 14:30 Visit to Danish Agriculture and Food Council

Axelborg,
Axeltorv 3,
1609 CPH V

Introduction to the Danish agriculture and food sector.

Contact person:

Ole Vangsted Ellefsen,
Head of Sector, Danish Agriculture and Food Council
+45 6120 9057 - ovel@lf.dk

14:30-17:45 Free time in Copenhagen

17:45 - 20:00 Welcome Dinner at Vækst

Sankt Peders
Stæde
34,1453
Kobenhavn

20:00- Overnight stay at ProfilHotels Richmond

Suggestions for an afternoon in Copenhagen

- The Green Walk: Take our interactive audio walk to explore Copenhagen's energy-efficient buildings and architectural marvels, while listening to insights from Denmark's green transition.
- A visit to the Tivoli Gardens is just next to the Danish Agriculture and Food Council. It is the oldest amusement park in the world and truly one of Copenhagen's charming treasures.
- Take a canal trip from Nyhavn and get a tour of Copenhagen from the ocean view. A perfect way to view the main architectural sights and get a breath of fresh air.
- Visit the former industrial district Refshaleøen and grab a snack at the popular street food market Reffen.
- Amalienborg Palace: Witness the changing of the guard at the royal residence of the Danish monarchy.



House of Green



Danish Agriculture and Food Council



The Green Walk



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Program

Tuesday, 12. September

07:00 - 08:00 Breakfast at Hotel and check out

08:00 - 09:30 Transport from Copenhagen to Kalundborg

09:45 - 11:00 Introduction to Kalundborg Symbiosis

At the premises of
Meliora Bio:
Asnæsvej 16A,
DK-4400
Kalundborg,

In Kalundborg Symbiosis, the city's biggest industrial companies work together across sectors to share excess energy, water, and materials, so less goes to waste. As public and private companies are physically connected, one company's surplus of resources adds value to another. Today, more than 20 different streams of excess resources flow between the companies, creating a symbiosis of resource exchange, adding more resilience and profit to the partners.

Contact person: Lisbeth Randers
Head of Section, Kalundborg Symbiosis
+45 5953 4500 | irs@kalundborg.dk

11:00 - 11:45 Introduction to Meliora Bio

Meliora Bio is a modern state of the art biorefinery upcycling straw for bioethanol, prebiotics, and lignin. The refinery was built by Ørsted in 2009, and since 2020 it has been a part of Karsten Ree Holding. Under the current ownership, the plant has seen very significant reconstruction and expansion to meet demands and ambitions for continuous innovation.

11:45- 15:30 Transport to Videbæk

15:30 - 17:30 Site visit to Denmark Protein (Arla Foods)

Sønderupvej
26, 6920
Videbæk

Danmark Protein is the worlds largest whey protein and lactose factory, producing protein from the leftovers of cheese production.

Contact person: Thomas Østergaard Lauritsen
Project Manager, Arla Foods
+45 7217 7803 | thlau@arlafoods.com

17:30 - 18:10 Transport to Herning

18:10 - Overnight Stay at Hotel: Scandic Regina

Fonnesbechsgade 20
7400 Herning

Kalundborg Symbiosis



Meliora Bio



Arla Food Ingredients: Denmark Protein



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Wednesday, 13. September

07:30-08:30 Breakfast at Hotel and check-out

8:30-9:20 Transport to Skive

9:30 - 11:30 Presentation and Site Visit to GreenLab Skive

Næstildvej
10A, 7860
Spøttrup

GreenLab is a circular energy park for businesses that want to contribute to the green transition. The businesses located here are supplied with sustainable energy from multiple energy sources in the form that best suits their production. Moreover, they will all be connected to the SymbiosisNet™ – a unique smart grid solution that will let them share their surplus energy resources with each other.

Contact Person: Camilla Høegh Nicolett
Team Assistant, GreenLab
+45 4112 7569 | cahn@greenlab.dk

11:30-12:30 Transport to Tjele

12:30-14:00 Visit to Aarhus University's Food and Agricultural Research Center

Blichers Allé 20,
8830 Tjele

12:30 - 13:15 : Visit to Biorefinery

Presentation of the machinery for extraction of protein from green biomass, for pig, poultry and cattle feed. E.g. Green protein, Knudsen (2019) extraction of protein, Ambye-Jensen (2019). Discussion of the potential, perspectives and obstacles.

Burrehøjvej 49,
8830 Tjele.

13:15 - 14:00 Danish Cattle Research Centre

Tour in the Cattle barn and talk about climate effect of milk production and the research on how to reduce the methane production from the Rumen.

Remember to dress according to the weather.

Contact Person: Steen Henrik Møller
Senior Researcher, Aarhus University
+45 61 18 63 46 / +45 87 15 79 26 | steen.h.moller@anivet.au.dk

14:00-15:00 Transport to Aarhus

15:00-17:00 Visit to Agro Food Park

Agro Food Park
13. 15 and 26
8200 Aarhus

15:00 - 15:30: Organic Denmark Home

From niche to World leader in 30 years by International Market Director, Dennis Hvam and Project Manager & Market Consultant, Peter Rasmussen

15:30 - 16:00: Arla Innovation Centre

Presentation of Arla Foods by Technology Director, Mads Aamann.

16:00 - 16:30: SEGES Innovation

Introduction to SEGES Innovation SEGES - sustainable farming of tomorrow by Director for Centre for Climate and Sustainability, Peter Langborg Wejse

16:30 - 17:00: Agro Food Park

Presentation of Agro Food Park by Community Manager, Søren Madsen

Contact Person: Søren Madsen
Community Manager, Agro Food Park
+45 2163 8846 | srna@agrofoodpark.dk

17:30-18:30 Transport and overnight in Vejle. Hotel: Scandic Jacob Gade

Flegborg 8-10
7100 Vejle

19:30-21:00

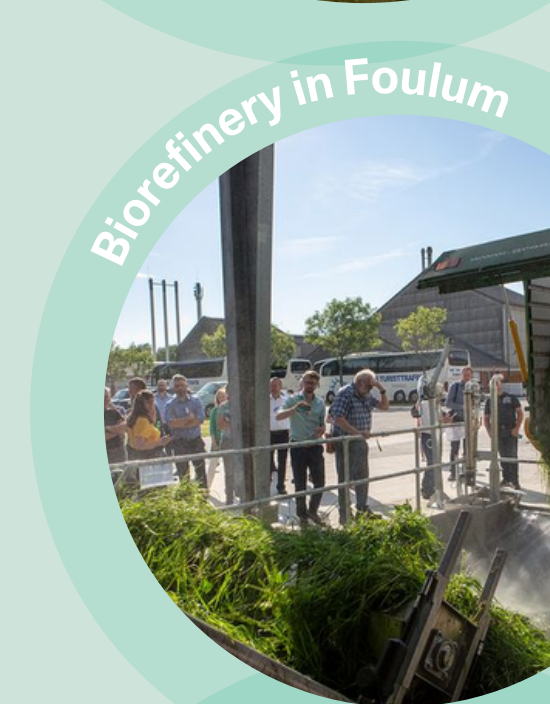
Havnøen 4
7100 Vejle

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GreenLab Skive



Biorefinery in Foulum



Agro Food Park



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Thursday, 14. September

08:00-09:00 Breakfast at hotel

09:00-09:45 Transport from Vejle to Fredericia

10:00-12:00 Visit to Triangle Energy Alliance

v/ Port House
Vendersgade 74
7000 Fredericia

The specific aim of TEA's collaboration is to establish even more Power-To-X production facilities in industrial scale in the seven municipalities of the Triangle Area.

Power production from sustainable sources will be refined through the process of electrolysis to be stored as green fuels, for instance green hydrogen, e-methanol, green aviation fuels, or even green fertilizers for the farming industry.

Contact person: Lars Ankersen
Special consultant, Triangle Energy Alliance
+45 3183 945 | lja@trena.dk

12:00 - 13:00 Transport to Odense

13:30 - 16:00 Site visit to Nature Energy

Nature Energy,
Ørbækvej 260,
Odense SØ

Nature Energy is a market-leader in turning these many million tonnes of biomass into green, CO₂-neutral gas as effectively as possible. We collect and deliver biomass from businesses, agriculture and households and return the degassed biomass to the agriculture that recycles nutrients.

13:30 - 14:15: Introduction to Nature Energy at NE HQ
Introduction by Simon Crook, SVP, Head of Business Development US

14:15 - 14:45: Drive to Nature Energy Midtfyn

Lervangsvej 2,
5672 Broby

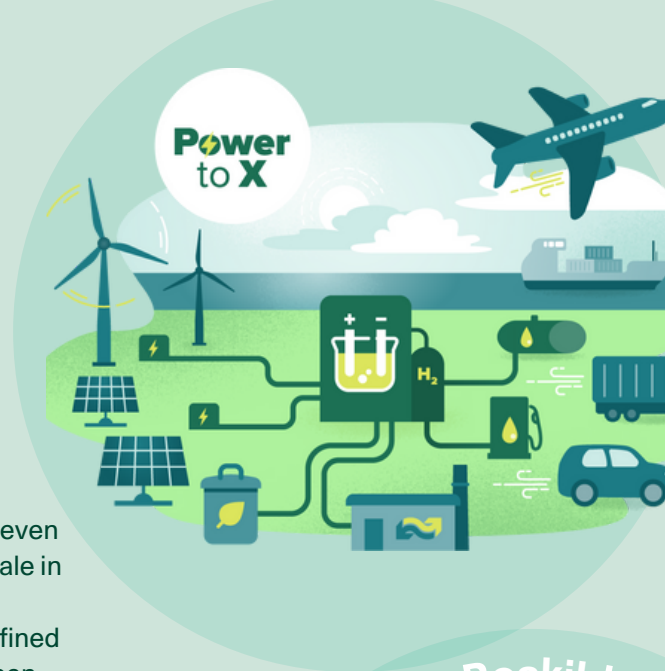
14:45 - 16:00: Tour at Energy Midtfyn
By Tore Dehli, VP, Business Development US

Contact Person: Tore Dehli
VP, Business Development US, Nature Energy
+45 32 26 53 57 | tjde@nature-energy.com

16:15-18:15 Transport to Roskilde

18:15 - Overnight Stay at Hotel: Scandic Roskilde Park

Ved Ringen 2
4000 Roskilde



Program

Friday, 15. September

07:45-08:45 Breakfast at Hotel and check-out

08:45 - 09:45 Transport from Roskilde to Faxe

10:00 - 12:00 Visit to Royal Unibrew

Faxe Allé 1
DK-4640 Faxe

Site visit at Royal Unibrew.

Royal Unibrew has succeeded in lowering the carbon intensity of our production year-on-year. From 2015 to 2021, we have had a decrease of 28% kgCO₂/hl while having a volume increase of 32%. Our success is a combination of our keen focus on energy efficiency projects at our production sites and change in product mix from 2019 to 2020 to less energy consuming soft drinks production.

Contact Person: Henriette Øllgaard
Vice President Sustainability, Royal Unibrew
Henriette.Ollgaard@Royalunibrew.com

12:00 - 13:30 Transport to Copenhagen & box lunch

Atlas Agro Presentation at hotel

13:45 - 15:15

The Atlas Agro Pacific Green Fertilizer Plant (PGF) is a pioneering initiative by Atlas Agro North America Corp. to revolutionize the fertilizer industry in Richland, Washington. The project aims to increase the domestic availability of nitrogen fertilizer while significantly reducing the industry's carbon footprint.

15:15-18:00 Free time in Copenhagen

18:00 - 19:00 Celebratory closing dinner

19.00 - Overnight stay in ProfilHotels: Richmond

Vester Farimagsgade
33 1606 Copenhagen V

Amalienborg Palace



Tivoli Gardens



Royal Unibrew



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Meet the team in Denmark



Gry Klitmose Holm

Senior Project Manager, State of Green

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Sima Charlotte Rasmussen

Project Assistant, State of Green

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State of Green is your one-stop-shop to more than 600 Danish businesses, agencies, academic institutions, experts and researchers. State of Green connects you with leading Danish players working to drive the global transition to a sustainable, low-carbon, resource-efficient society.



Christina Østergaard

Event planner, Østergaard Event

 + 45 28 69 82 48  christina@ostergaardevent.dk

østergaard event

Christina Østergaard runs a professional event planning team and is responsible for planning the logistics around the delegation's trip to Denmark.

Meet the team from CSI



Rhys Roth

Executive Director, Center for Sustainable Infrastructure

 +1 360-480-6749  rhys@centerforsi.org



Terry Carroll


Operations Manager, Center for Sustainable Infrastructure

 +1 206 941 4799  terry@centerforsi.org



Alexa Martin Del Campo

Knowledge Exchange Coordinator, Center for Sustainable Infrastructure

 alexa@centerforsi.org +1 702 630 2338



CSI is the trusted Pacific Northwest-based non-profit with a mission to catalyze state-of-the-art sustainable infrastructure solutions that help communities of every kind thrive economically, socially and environmentally.