## Teaching material

# Gender and digitalization in the bioeconomy

Nordic Agri Research (NKJ) · SNS Nordic Forest Research · Nordic Council of Ministers

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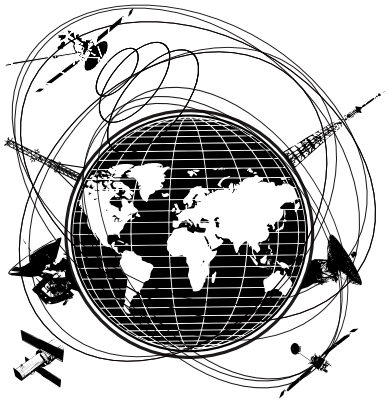


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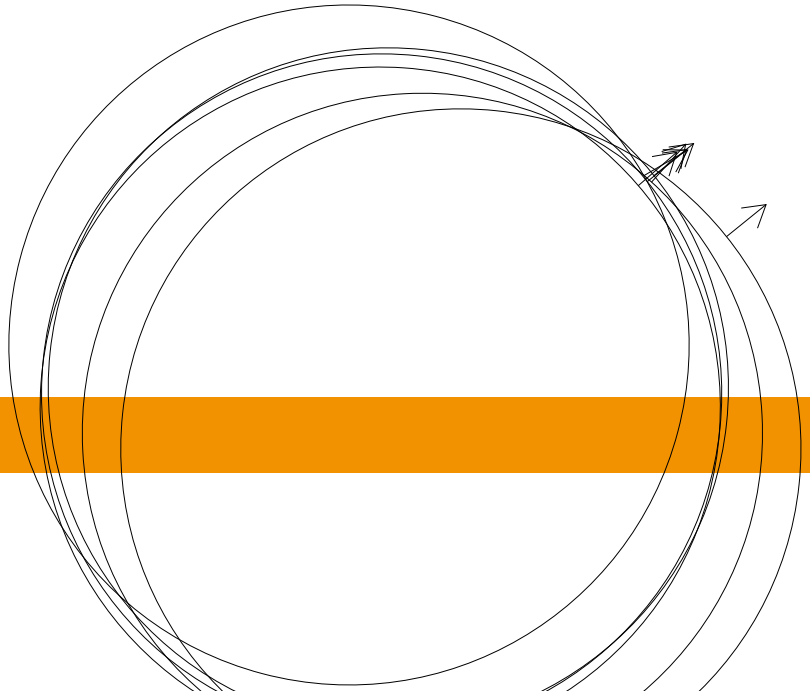
# Introduction

This document provides you as a teacher with a practical handbook on how to focus on digitalization and gender equality within the Nordic bioeconomy in your teaching. We provide you with three different packages to choose from depending on time and knowledge constraints.

Feel free to adjust anything you want to meet your and your classes' needs. For example, you may want to translate the instructions to the students' main language. See this handbook as a guide that we think will work, but make sure you reflect on whether it will work in your class.

On the next page we provide a quick guide of what package to choose depending on different time constraints.



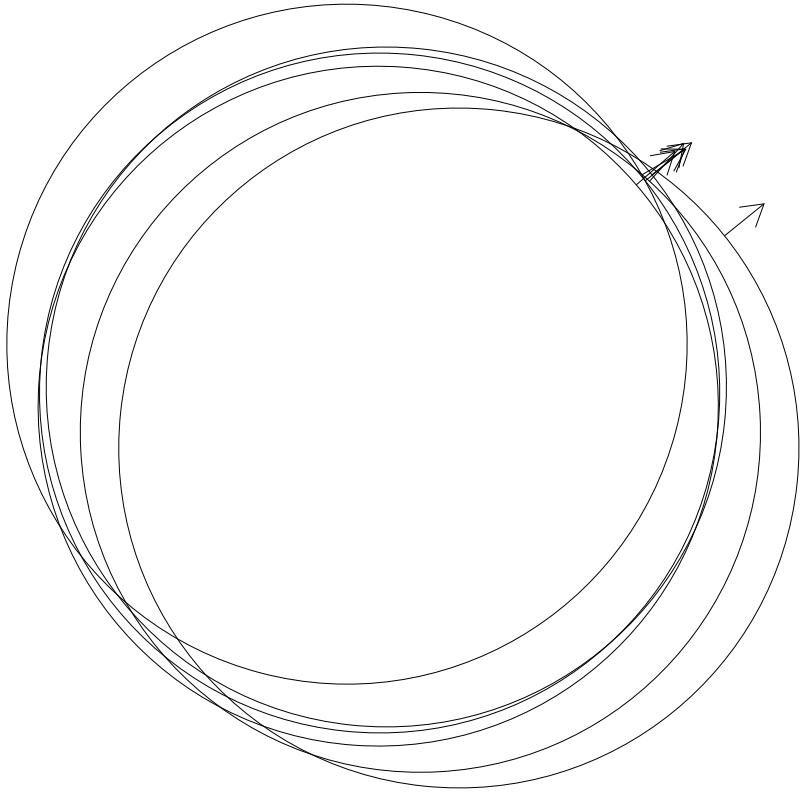
| | Package 1 | Package 2 | Package 3 |
|---|---|---|---|
| **Time in the classroom** | 0 | 6 h (2 lectures) | 8-14 h (2 lectures and a seminar) |
| **Time for the teacher** | 30 minutes | 15 h | 20-? (Depends on number of students in the class) |
| **Teacher's knowledge** | No prior knowledge on the concepts of gender and digitalisation is required | Basic knowledge on the concepts of gender and digitalization | Basic knowledge on the concepts and skills to lead a seminar |
| **Students' knowledge** | None | None | None |
| **Focus** | Practical tools | Knowledge raising and practical tools | Student's own awareness, knowledge raising and practical tools |
| **Content** | • Checklists | • Package 1<br>• Your own lecture<br>• Guest lecture<br>• Exam questions | • Package 1<br>• Package 2<br>• Seminar |

# Package 1

In package 1 we provide checklists of things to consider when trying to raise awareness of gender and digitalization issues in the bioeconomy.

■ We provide the following two checklists:

- Things to consider when inviting guest lectures
- Things to keep in mind when discussing gender issues in the digitalized bioeconomy



# Package 2

In package 2 the students are getting hands-on focus of gender equality and digitalization in the Nordic bioeconomy.

This package consists of the following elements:

- The checklists in package 1:
  - Things to consider when inviting guest lectures
  - Things to keep in mind when discussing gender issues in the digitalized bioeconomy
- Analysis
- Your own lecture
- A guest lecture
- Exam questions

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# Package 2 Analysis – reflection of class knowledge level

Before moving on to package 2 and 3 it may be a good idea to reflect a bit with your class. What is their knowledge and needs?

Below we give a link to a mentimeter template with eight slides to show to your students before the first activity in class.

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# Package 2 Your own lecture

Use the following article to base your lecture on:

Annie Roos, Mimmi Blomquist, Riina Bhatia, Katarina Ekegren, Jonas Rönnberg, Lovisa Torfgård & Maria Tunberg (2021) The digitalisation of the Nordic bioeconomy and its effect on gender equality, Scandinavian Journal of Forest Research, 36:7-8, 639-654

You can also use any of the suggested literature in this provided document. Just be aware that you might have to change the exam questions or seminar questions (in package 3) if you change the literature.

Find examples in your own area to include in your lecture. If you want some tips and tricks on how to do a pedagogical lecture, take a look here.

# Package 2 A guest lecture

Invite a guest lecturer to talk about gender and digitalization in the Nordic bioeconomy.

This differs from package 1 as your course will have a guest lecture targeting these issues more directly.

A list of possible places to start looking is found here.

Take an extra look at the checklist provided for guest lecturers.

# Package 2 Exam questions (1/2)

Based on the article linked we propose these exam questions:

Multiple answers:

**The current state of knowledge on how the digital transformation affects the gender balance in the Nordic bioeconomy focuses on two different aspects, what two aspects of the following are these?**

- How history affects today's situation ***(CORRECT)***
- The importance of male involvement in gender equality work
- Gender inequality as a women's issue ***(CORRECT)***
- How gender equality looks like in the agriculture sector
- The importance of a sustainability perspective in the debate

# Package 2 Exam questions (2/2)

**Short answer question:**
The current state of knowledge on how the digital transformation affects the gender balance in the Nordic bioeconomy focuses on two different aspects, explain these two different aspects.

**Essay question:**
What practical outcomes do you think digitalization will have on gender equality in the Nordic bioeconomy sector? Base your answer on the perspectives provided in the course literature.

# Package 3

This package consists of a full week's course. If your course does not run full time, just move around the days that best suits your course. You know your course best!

**Package 3 consists of the following elements:**

- The checklists from package 1
  - Things to consider when inviting guest lectures
  - Things to keep in mind when discussing gender issues in the digitalized bioeconomy
- Your own lecture from package 2
- The guest lecture from package 2
- The exam questions from package 2
- One seminar
  - The seminar is to be scheduled after the lecture and the guest lecture.
  - Preparation time can be scheduled for half a day for individual preparation and half a day for group discussions before the seminar.

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# Package 3 Student preparation for the seminar

The preparations for the student before the seminar consist of individual work and group work.

A document to give to the student can be downloaded here.

In short, the students are to listen to two podcasts individually, reflect on some questions and then meet in groups to discuss additional questions.

In the document we have added an assignment for the students to do – basically to hand in their group reflection. This will get the students motivated for the seminar and get everyone on the same page for the seminar.

The idea is that the reflection should be very easily graded – if they have handed in or not. In this way the examination will not take up too much time.

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# Package 3 Planning for the seminar

The time needed for the seminar depends on the number of students and what you as a teacher prefer in the class but here are some examples:

| Number of students in class | Group size when preparing for the seminar | Number of groups at each seminar | Number of students at each seminar | Time each seminar | Total time |
|---|---|---|---|---|---|
| 10 | 3-4 | 3 | 10 | 2 hours | 2 hours |
| 15 | 4-5 | 4 | 15 | 2 hours | 2 hours |
| 20 | 4 | 5 | 20 | 2 hours | 2 hours |
| 50 | 5 | 5 | 25 | 2 hours | 4 hours |
| 80 | 4 | 5 | 20 | 2 hours | 8 hours |

Please note that the students either need to arrange their own groups or you as a teacher needs to divide them into groups in the beginning of the week so they are able to do their preparatory work. If you are arranging the groups, make sure that no one has to be ”a token” of their own sex, i.e no one should be the only female student or male student in a group. Either mix them so there is always two of each sex in a group, or if that is not possible (for example if a group is three or the class is not 50/50) let some groups be just female students and some just male students.

# Package 3 Running the seminar (1/3)

The seminar will be divided into two parts. One part being cross-section groups and one part being in full class.

This seminar can be run either in classroom or online with the same arrangement.

## Classroom seminar

- Ask the students to sit with their group they had when preparing for the seminar. Give a short introduction on how the seminar will be organized. Divide students into cross-section groups by simply counting from 1 to how many students that was in each preparatory group.

## Online seminar

- Give a short introduction on how the seminar will be organized. Open up a sufficient number of rooms (for example break-out rooms in Zoom) and make sure that there are students in each one. Ask students to join a room and if another group member from the same preparatory group is already in that room, ask them to join another room. In the end, each room will have a member from each preparatory group.

# Package 3 Running the seminar (2/3)

Hand out the following questions, either print them or project them. Students can take photos of the questions or write them down.

- What the basis of the preparatory material, what norms do you identify in the bioeconomy sector?
- Look at the film clips with the people from the bioeconomy sector. What argument do you find most compelling and convincing and why?
- Make a mind map covering the stakeholders involved in the digitalization of the bioeconomy.
  - What could be the incentives for gender equality for the different stakeholders?
  - How could these stakeholders work with gender equality? Would you say that the work differs short term and long term?
  - Be prepared to present your mind map orally in class. Make sure that all group members are prepared to contribute to the presentation.

Give students around an hour for this exercise.

# Package 3 Running the seminar (3/3)

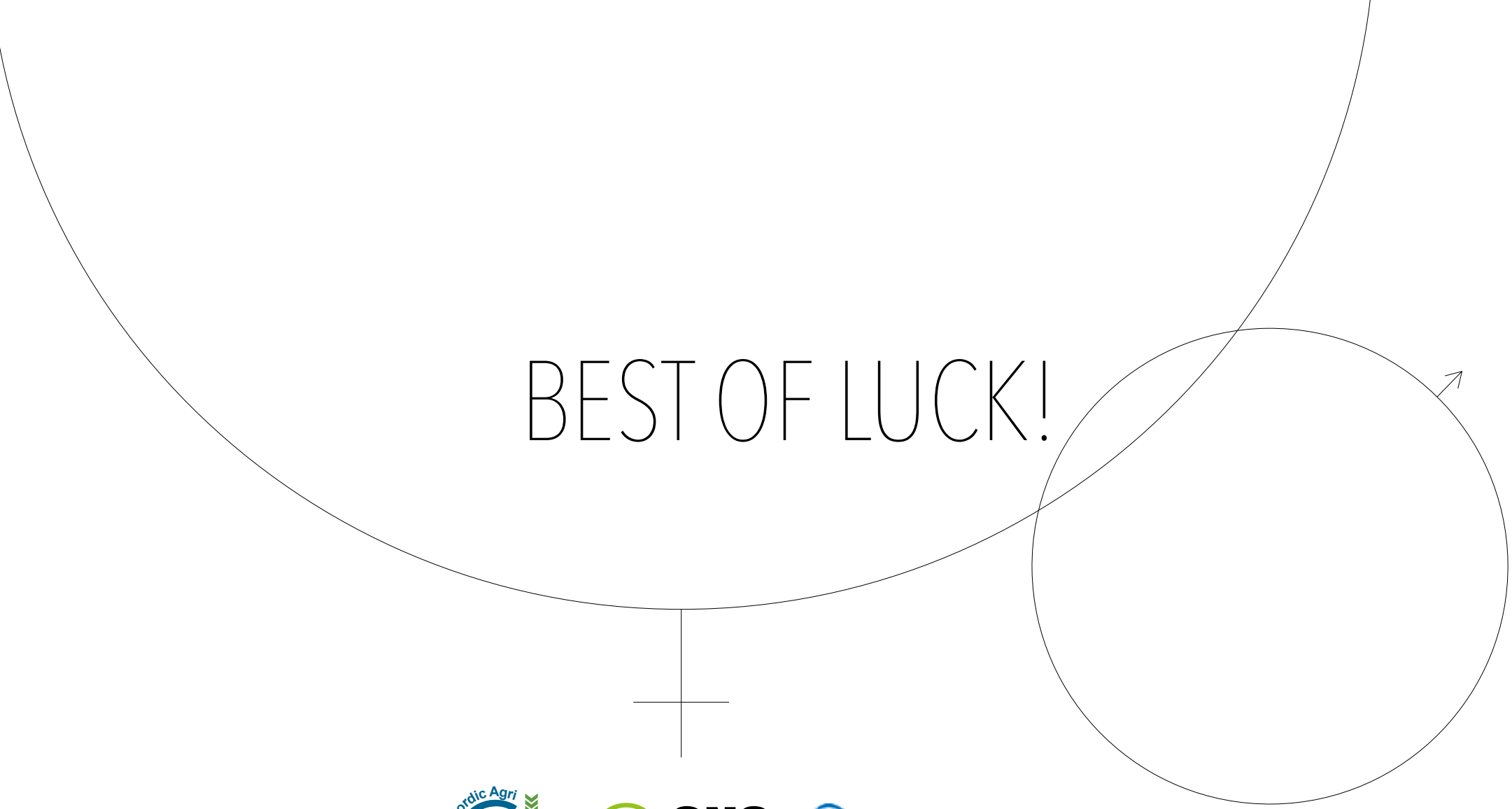
After a short break, reunite the class again. Start by doing a round where the different groups present their mind maps.

After, pose the following questions, one at a time, and give the word to either those who will speak up or distribute the word.

- Is the current situation on gender equality and digitalization something unique for the bioeconomy, or do you think the same kind of situations are evident in other sectors as well?
- What could you as a student, or soon an alumnus, do for gender equality in the transition to a more digitalized bioeconomy?
- Whose responsibility is it to work for more gender equality? How can this work be achieved?
- What effect do you think digitalization will have on gender equality in the Nordic bioeconomy sector?

If you would like to get some tips and tricks on how to run a seminar, this link is very handy. Do feel free to run the seminar in accordance with your own values and knowledge.

# BEST OF LUCK!



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