



RANNALLA – BY THE WATER

Social Ecological Systems Studio Course 2024

Introduction, 12.1.2024

Schedule today

9.15 Introduction of the course and teachers

9.45 Lecture about social ecological systems

11.00 Lecture about systems in green structures

12.00 Lunch break

13.00 Pre-assignment presented by students

14.30 Introduction of the first assignments

14.45 Practical matters

Teachers of the course

- Assistant professor Elisa Lähde
- Lecturer Riikka Äärelä
- Landscape architect Sofia Kangas
- Landscape architect Ella Prokkola



The course schedule

19.1. Coastal and marital planning

26.1. Kymenlaakso region

2.2. Systems thinking

8.-9.2. Fieldtrip Kouvola - Kotka

16.2. Multispecies workshop

23.2. midterm week

1.3. Mid review I "the site"

8.3. Regenerative planning and design

15.3. Participatory planning and design

22.3. Readings I

29.3. Eastern break

5.4. Readings II

12.4. Preparations for the workshop

19.4. Mid review II "workshop" (Kouvola)

26.4. supervision

3.5. supervision

10.5. no activities

17.5. Final review I

24.5. Final review II

Course aim

The theme of the studio course is dynamic river and coastal areas and the interaction of human and natural processes in these areas.

From a methodological perspective, the course provides scientific basic methods for assessing the connections and interactions between abiotic, biotic, and human factors in various ecosystems, biotopes, or habitats, as well as for understanding their spatial and temporal development in the landscape.

12 study credits, grading 1 to 5 (evaluation criteria can be found in MyCo and will be studied together before the mid review).

Course sites

The course sites are the coastal areas of Kymenlaakso, i.e. Kymijoki and Kotka and Pyhtää regions.

The task of the studio course participants is to create visions of the future development of these areas, based on systems thinking, especially taking into account the regional planning designations and the renewed national coastal strategy.

The vision for the sites will be developed through six assignments during the course.



Kymi river

- Kymijoki (also simply Kymi) is a 204 kilometer long river flowing in the provinces of Päijät-Häme, Kymenlaakso and Uusimaa in Finland, which is a tributary of the Kymijoki watershed.
- The river starts from the water body's main lake, Päijänte, and flows into the Gulf of Suomen in five mouth branches. There are many hydropower plants in Kymijoki and it used to be an important timber transport route.



Ahvenkoski, Pyhtää

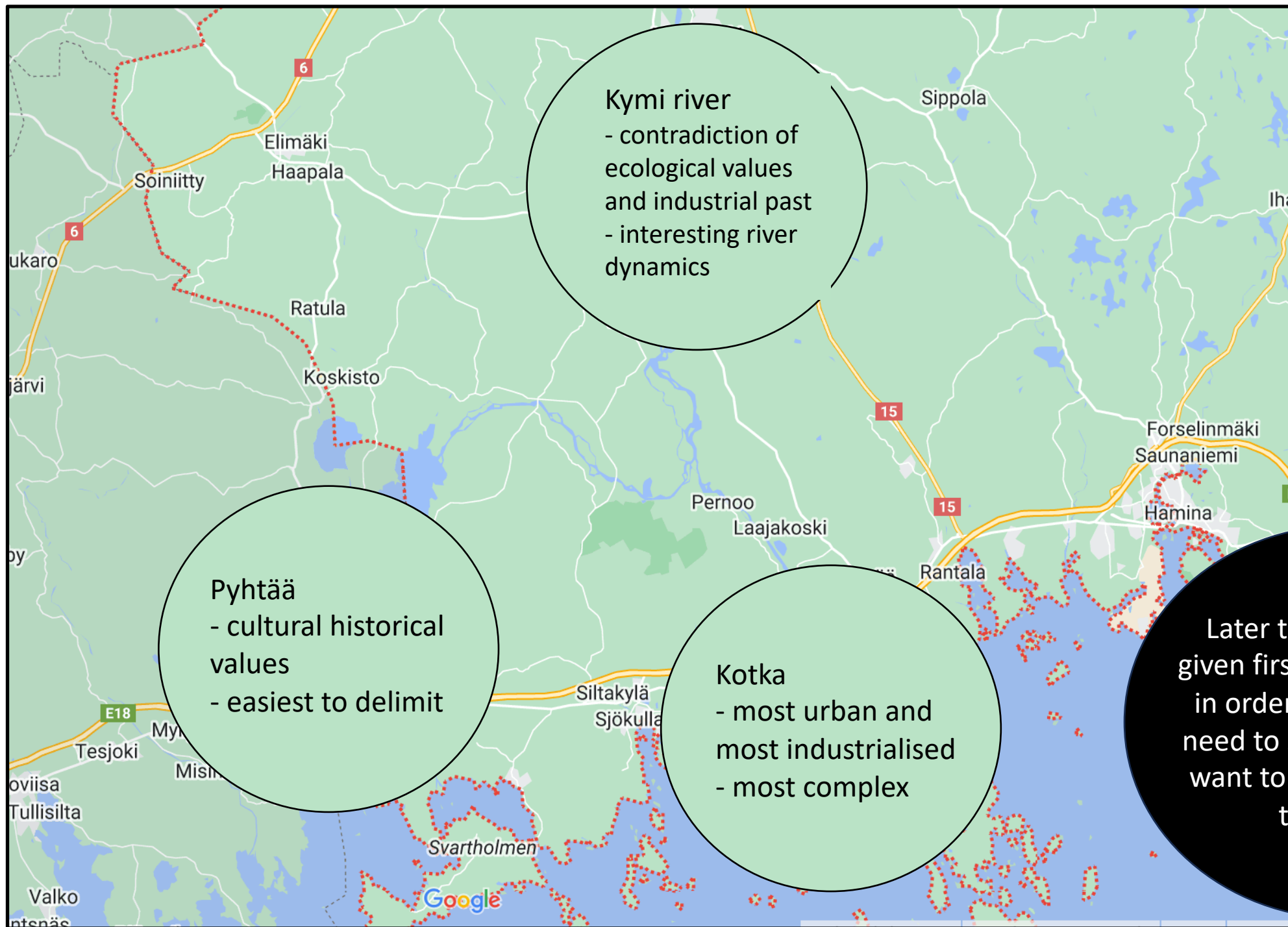
- Ahvenkoski is a historical environment located along the Kymijoki's Ahvenkoskenhaara, which includes the village of Loviisa Vähä-Ahvenkoski on the west side of the river and Pyhtään Ahvenkoski on the eastern side.
- The four-lane E18 and regional road 170 pass through it, crossing Kymijoki along the Ahvenkoski bridges. Ahvenkoski also has the Savukoski museum bridge, completed in 1928, and the Ahvenkoski power plant, built in 1933, located at the mouth of Ahvenkoskenhaara in Merikoski.



City of Kotka

- Kotka is a Finnish city in the southern part of Kymenlaakso province on the shores of the Gulf of Finland. Along with Kouvola, it is another of the centers of Kymenlaakso province.
- Kotka is an important port and industrial city. Two paper mills, one cardboard mill and two pulp mills have operated in Kotka, which have had a significant impact on the development of the area.



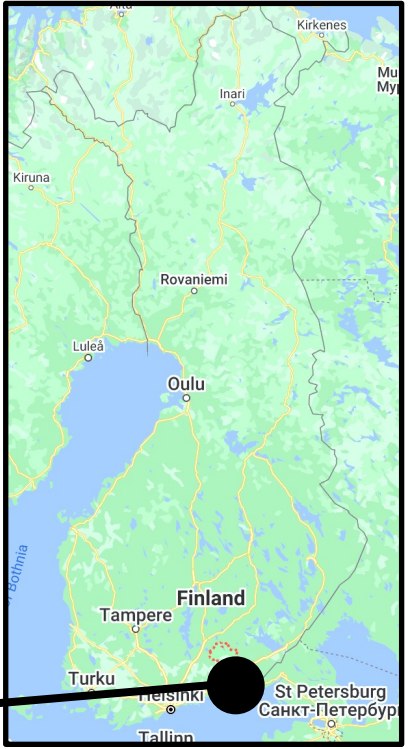


Kymi river
- contradiction of ecological values and industrial past
- interesting river dynamics

Pyhtää
- cultural historical values
- easiest to delimit

Kotka
- most urban and most industrialised
- most complex

Later today you will be given first assignments and in order to do them, you need to select the site you want to work with during the course.



Collaboration with the regional council

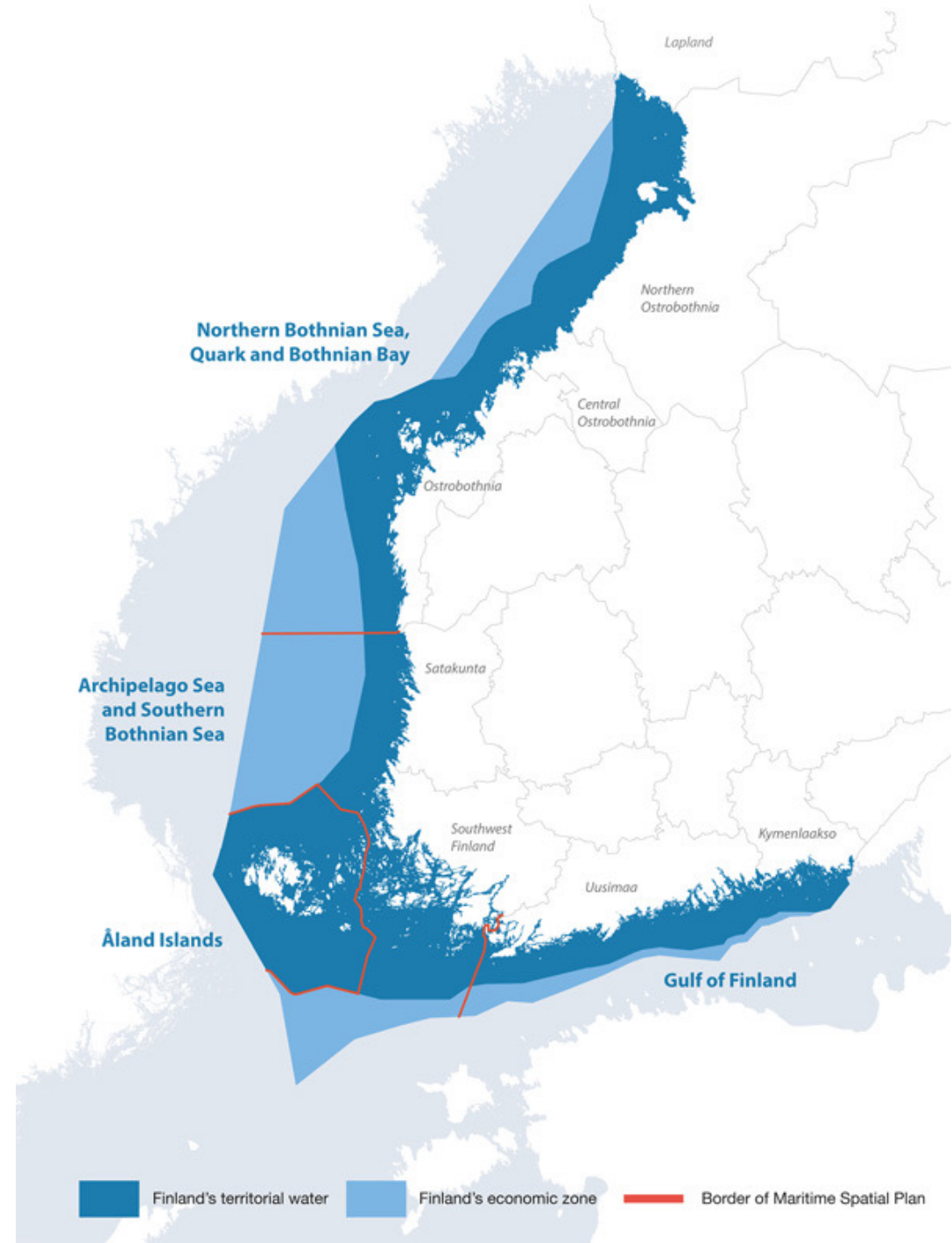
- During the course we will collaborate with Kymenlaakso regional council.
 - A regional council is a group of municipalities in Finland formed by its member municipalities, which acts as a regional development authority and is responsible for the general development of its own province and the regional planning of its region. Every municipality in Finland must be a member of one of the regional councils.
- We will get to know Kymenlaakso regional plan and utalise it as basis of the creating future visions for the sites.
- We will make a field trip to Kouvola and Kotka 8.- 9.2. and again 19.4.
- There will be experts visiting the course from Kymenlaakso regional council 26.1.

Collaboration with the Finnish marital planning coordination

- During the course we will collaborate with Finnish marital planning coordination too.
- The specific aim of the course is to get to know and implement recently renewed coastal strategy (and in addition marital spatial plan).
- There will be experts visiting the course from MSP coordination 19.1.
- In addition, the Finnish marital planning coordination will pay the expenses of the field trip
- Related to the collaboration you will need to sign a specific collaboration contract allowing your work to be showcased as model examples of future development.

Marital spatial plan

- The purpose of maritime spatial planning is to promote the sustainable development and growth of different uses of the marine area, the sustainable use of natural resources, and the achievement of a good status of the marine environment
- [Maritime Spatial Plan for Finland 2030](#)



The coastal strategy 2030

- The Coastal Strategy aims to promote sustainable use of the coastline in response to threats such as biodiversity loss, climate change, and pollution. The strategy guides and directs the development and planning activities along the coastline.
- The focus of the strategy lies in establishing a common operational model: identifying key stakeholders and interaction points, collaborative spaces for action and information sharing, as well as recognizing regulatory measures. The contents and responsibilities of these common actions are specified through action cards.
- **The strategy is grounded in systems thinking, viewing the coastline as a system emerging from the interaction between humans and nature.**

The coastal strategy 2030

- The Coastal Strategy refines the vision and measures for the 2030 marine spatial plan for Finland.
- The strategy is guided by the United Nations and European Union sustainable development goals, national land-use objectives, and, among others, Finland's energy and climate strategy.
- The strategy aims towards the year 2050, with associated actions extending to 2030. It is designed for stakeholders to use as a resource, fostering collaboration among them.
- [The coastal strategy](#)

Lecture: Social Ecological Systems



Socio-ecological systems in landscape planning

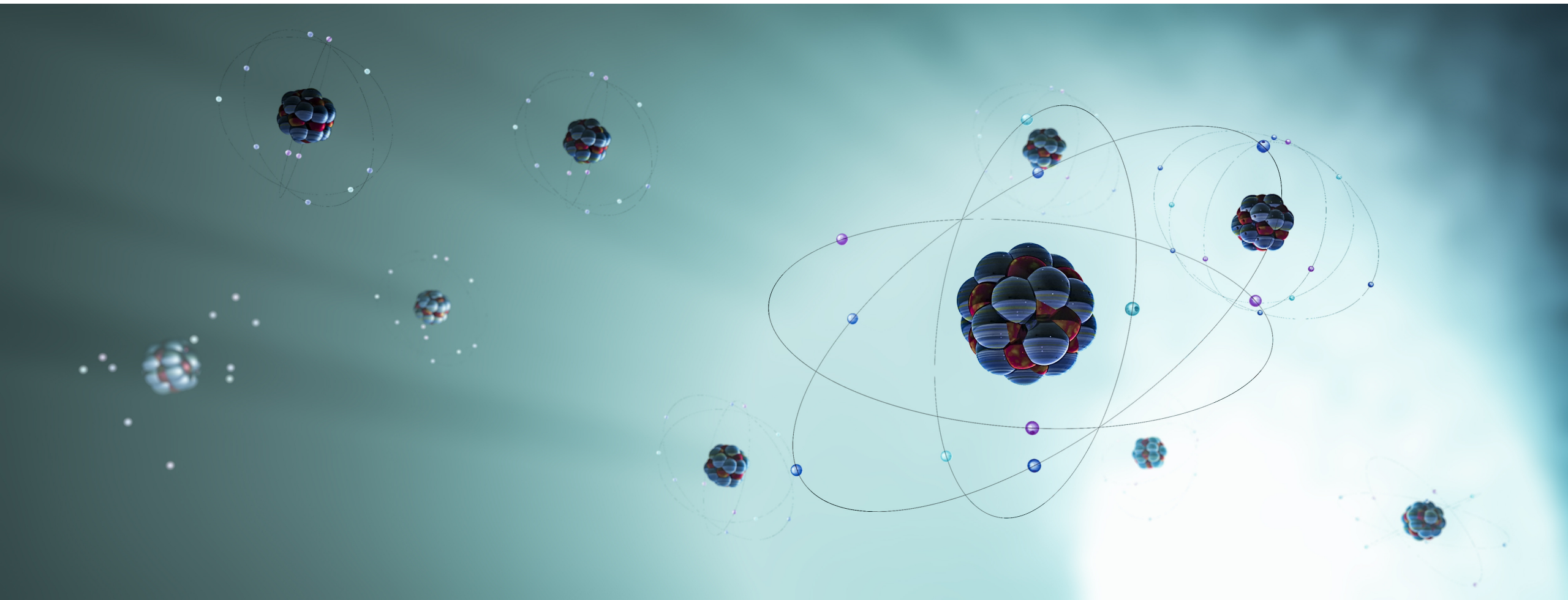
- The course introduces you to what the different systems are like. More importantly, you will get to know how and which systems can be influenced through landscape planning.
- The goal is to understand how identifying systems and influencing them through planning, i.e. systems thinking, increases overall sustainability.
- Today, in the introductory lecture, we will get to know different systems and the learning goal is to understand what kind of systems there are and how they are related to each other.

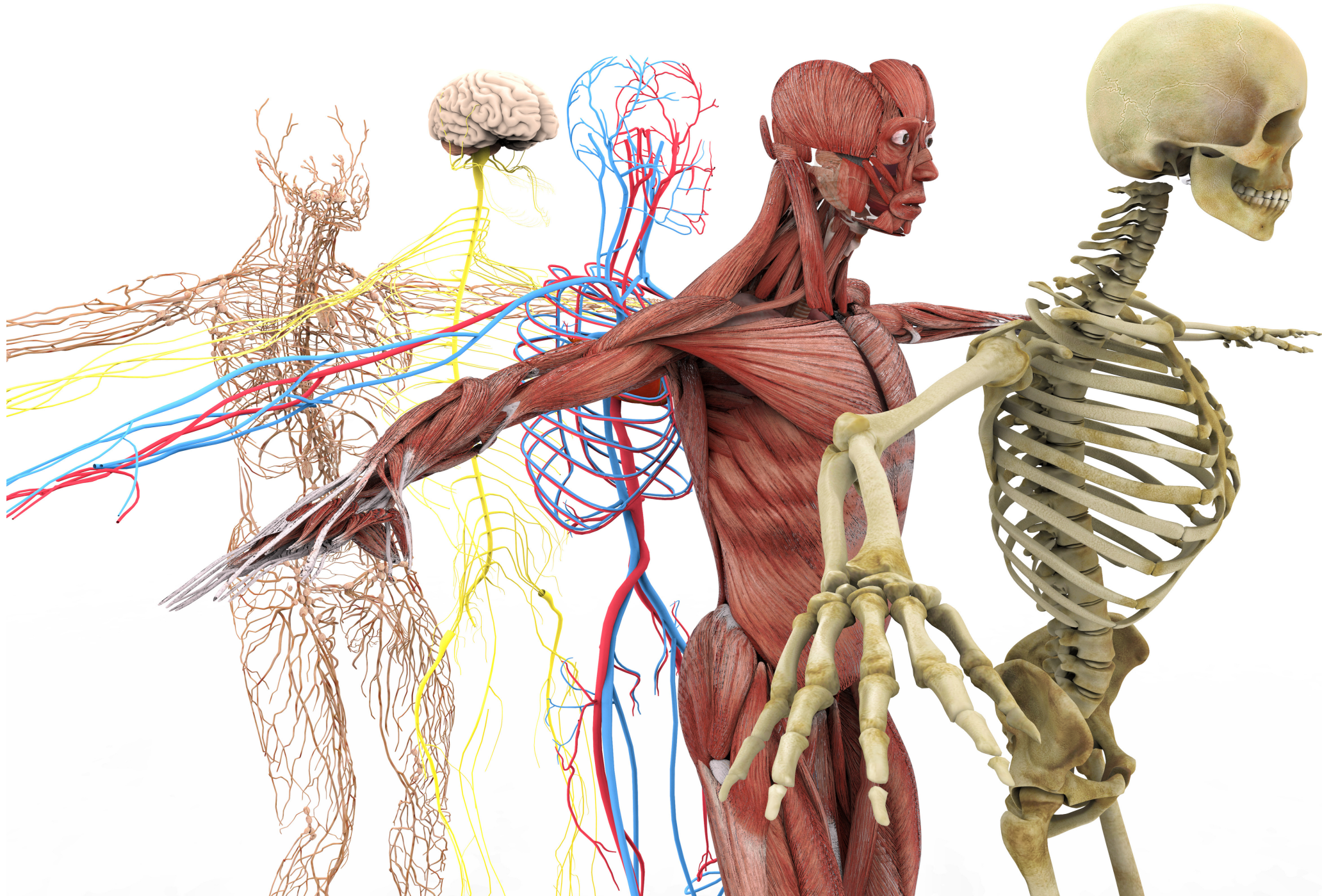
Systems

- There are systems of very different scales all around us
- It is the nature of systems that they have evolved or have been developed to serve a specific purpose.
- The purpose of **simple systems**, such as a car engine, is easy to understand: the purpose of the engine is to generate power to move the car.
- More **complex systems**, such as an ecosystem or an economic system, do not have a similar obvious and well-defined purpose, but they are still necessary for the entities that depend on the system

A deep space photograph featuring a dense field of stars and galaxies. The background is a dark, rich purple and blue nebula. Numerous bright, multi-colored stars are scattered throughout, with some appearing as distinct points of light and others as faint, glowing clouds. The overall scene conveys a sense of vastness and the ubiquity of celestial systems.

Systems are everywhere









Systems thinking

- Climate change and the weakening of biodiversity are system-level problems. Solving them requires fundamental changes to, for example, economic structures, technological solutions, decision-making systems and societal ways of thinking.
- Systems thinking is about focusing attention on processes and the systems in which these processes take place. The relationships between the components and factors of a system and what follows from these relationships are the most important aspects of systems thinking.

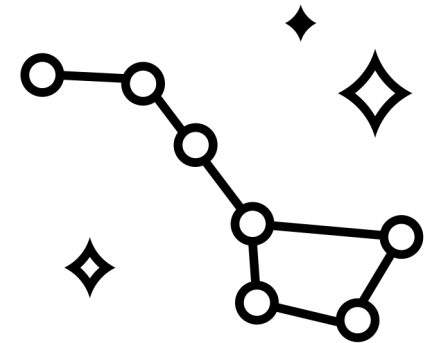
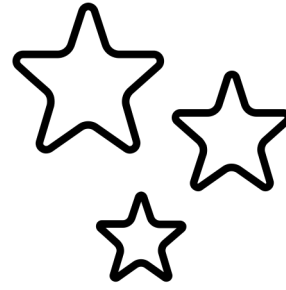


What are social-ecological systems?

Let's find out together!

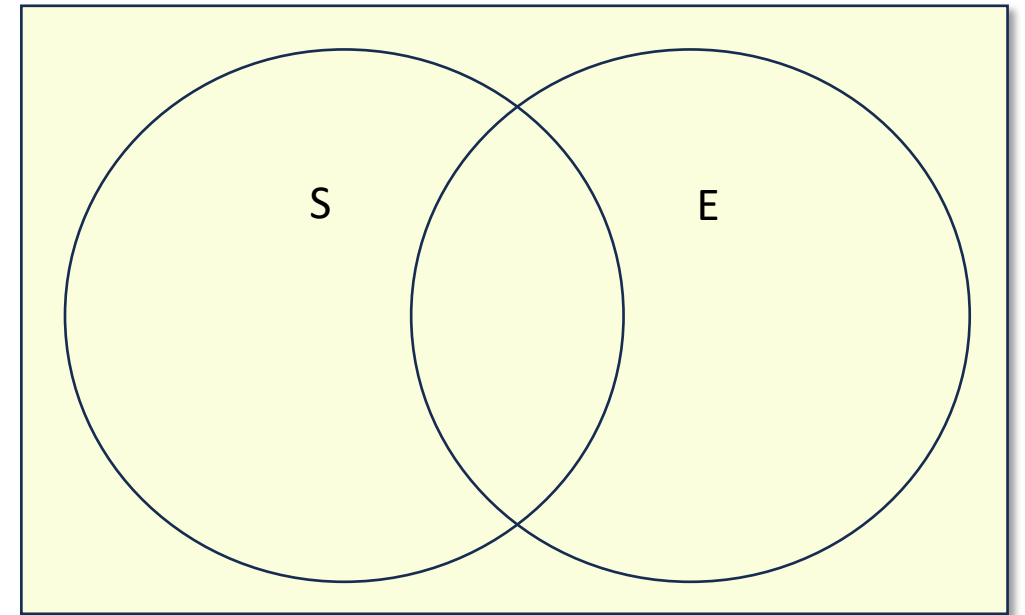
1. phase

- Write different systems on the notes (1/note)
- The systems can be anything (e.g. from your field, from your environment...)
- Examples of systems: a car, a user interface, street network, a star pattern...



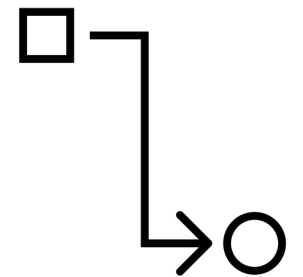
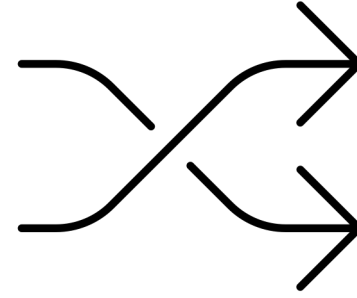
2. phase

- Form a group of 4-6 people and take one board
- Draw two overlapping circles on the board
- Organise your notes on the board: consider whether the systems you list belong to social (S) or ecological (E) systems or in between



3. phase

- Consider whether you can find interactions between different systems: if a change occurs in one system, does it affect any other system?
- On the board, draw an arrow that shows the impact



4. phase

- Discuss with your group what thoughts or insights the task evoke.
- Where would you locate yourself?



Some conclusions

- When a system or part of it is changed, you can usually be sure that the changes will not only remain within that system, but will be reflected in all systems with which it interacts.
- Our planet is a system that can be thought of as consisting of systems that interact with each other. Human systems, such as the food system and the energy system, strongly influence the functioning and characteristics of other systems on Earth.



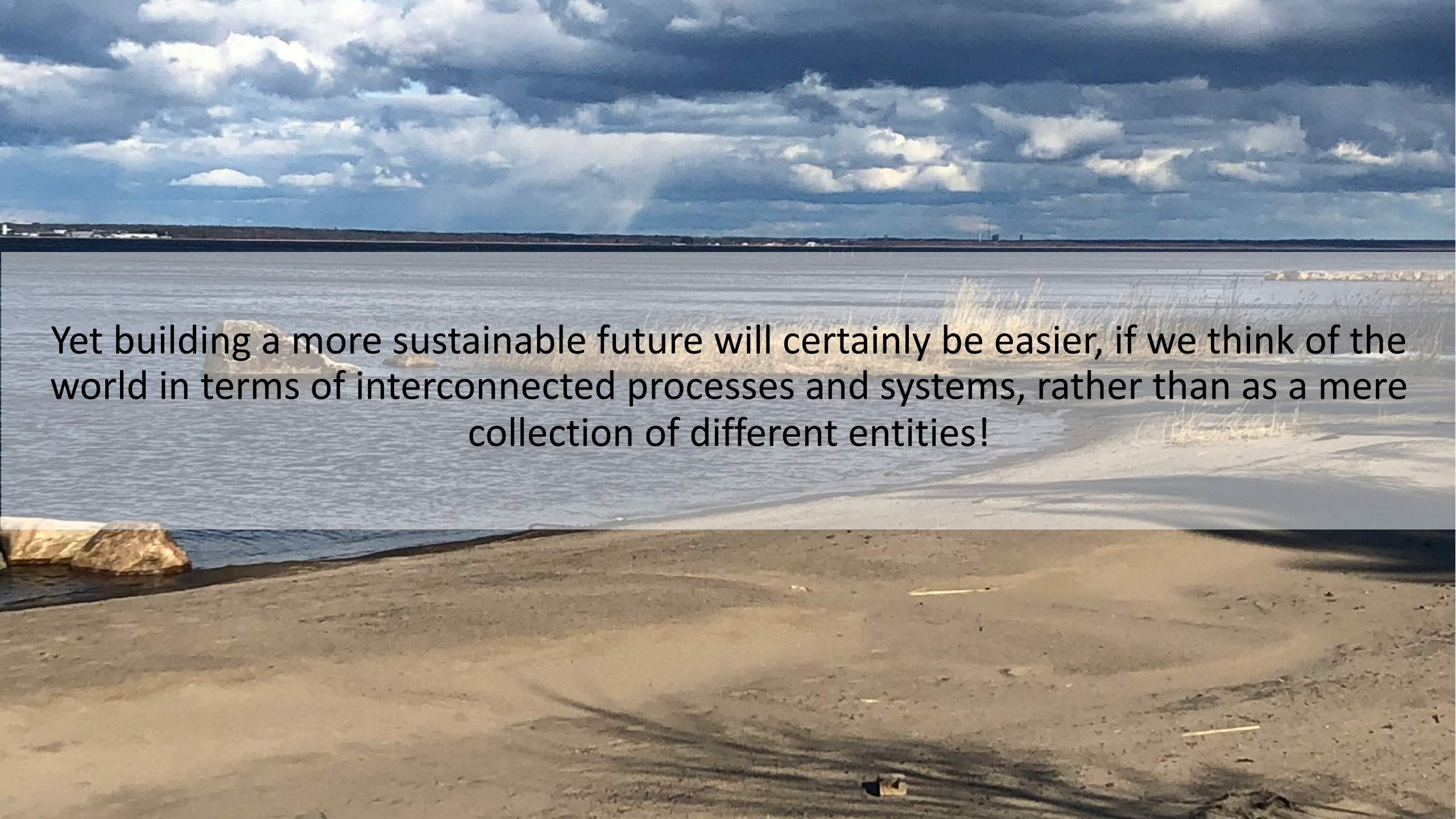
Some conclusions

- Systems thinking recognizes that real-world problems are rarely simple.
- Recognizing that complexity, diversity and constant change make many problems challenging is the first step to developing better measures.
- A holistic approach to systems does not mean ignoring the parts of systems, but seeing how these parts contribute to the larger, more complex whole.



Systemic challenge

- We understand the complex processes that are essential for sustainability very poorly.
- We don't understand, or at least control, even the functioning of the social systems we have created ourselves, because various economic and political crises surprise us again and again.
- Add to this the wide-ranging human impact on ecosystems, atmosphere, oceans and so on, and the interconnectedness of all these systems, and it becomes clear that we live in a world, whose workings we have little knowledge of and whose future we can barely predict.



Yet building a more sustainable future will certainly be easier, if we think of the world in terms of interconnected processes and systems, rather than as a mere collection of different entities!

SMALL BREAK



Pre-assignment

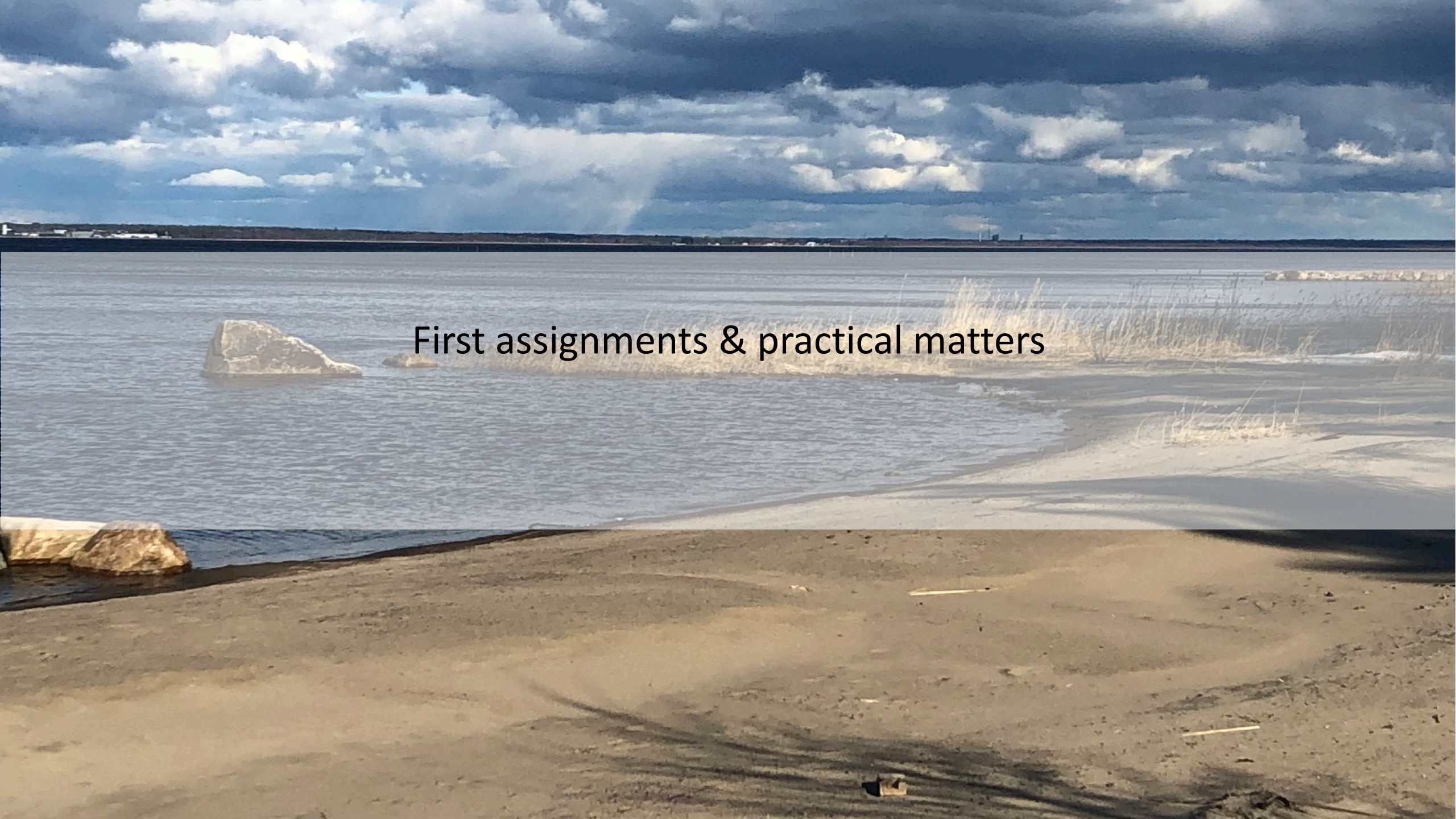
Choose a species or a natural process you are familiar with and study your interaction with it.

Use text and/ or infographics to present how you influence each other.

Pre-assignments

Noel	Apell
Amanda	Bogdanoff
Saara	Hietala
Maija	Iiramo
Jonna	Kankaanpää
Fiiia	Kitinoja
Sara	Korkeamäki
Aimi	Kärnä
Jenni	Laamanen
Tiia	Lassila
Maria	Nurminen

Erica	Nyholm
Tiia	Oksanen
Iida	Perkkiö
Anna-Maria	Rajala
Mila	Raudaskoski
Sini	Rönkkö
Henriikka	Salonen
Emmi-Riina	Sinkko
Yuanzhi	Su
Nea	Vesterinen
Miira	Virtanen
Heidi	Välisalmi



First assignments & practical matters

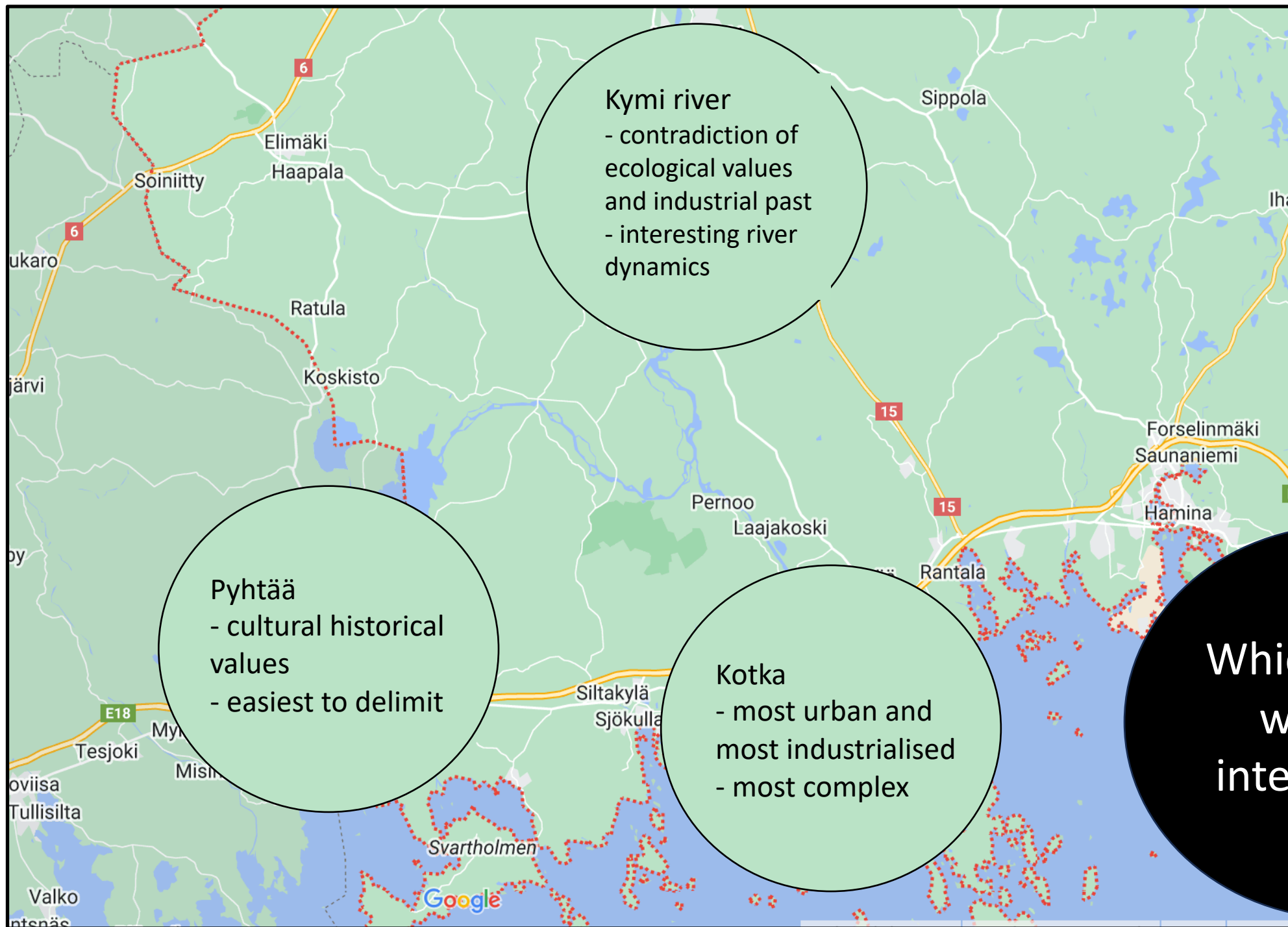
Assignment 1

For the assignment 1, each participant draws up a personal work plan setting up the scope of the study and their own learning goals. At the same time the perception of the course work, the management of the working process and one's own working time are practiced.

The work plan should describe at least the following:

- Personal learning goals
- The drawings and documents to be prepared, such as maps, diagrams, texts and the type of final presentation (a pdf report for instance)
- A weekly schedule and time estimate (Look at your calendar in realistic way)
- When do you have mid-reviews and final reviews for other courses? Do you have planned trips or other days that you cannot participate?
- The course assignments are prepared solo or in pairs. Consider how this will affect your schedule.
- The work plan is preliminary. It should be refined and monitored during the course.

Personal work plan is to be submitted in electronic form in My Courses (max. 2 x A4 in length, pdf file). DL 18.1.



Which site you would be interested in?

Assignment 2

The aim of this assignment is to analyse the landscape of the planning area.

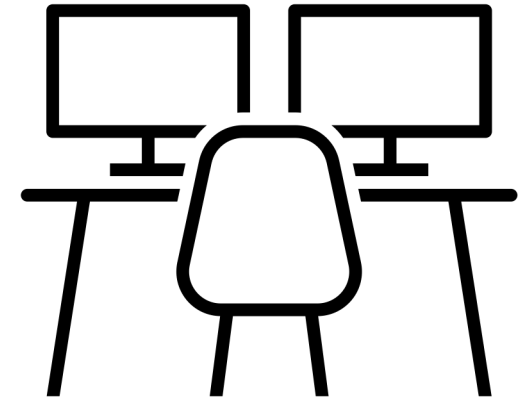
Using the material available online or collected otherwise, analyse your site. You should consider following perspectives:

- Consider landscape structure, topography, soil conditions, hydrology and landscape characteristics.
- What kind of green network and green structure the site has? Is it consisting of forests, build environments or something in between? How are different man made functions or structures located on the site? Is the landscape open or closed?
- Which areas have special values? Which areas are sensitive for changes? Which areas have other kind of importance? What kind of importance?
- To present this assignment, create needed amount of maps, diagrams and/ or section drawings and a short text **together with the other people working with the same site.**
- Other visual material is very welcome too. Make a pdf-presentation in landscape A3 format. The analysis will be part of the final report of the course.

Other assignments (FYI)

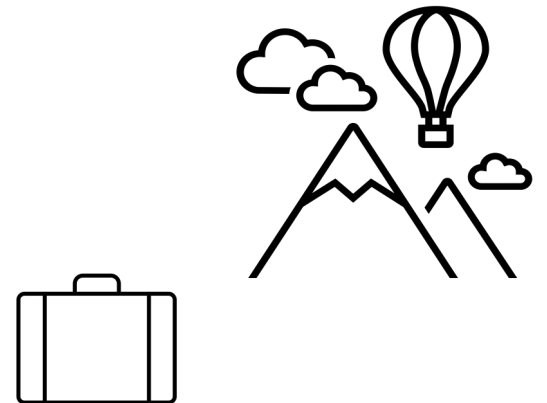
- Assignment 3: Readings
- Assignment 4: System analyses
- Assignment 5: Concept
- Assignment 6: Master plan
- Assignment 7: Peer review

12 credits= Tutored studies around 60 hrs, independent work around 260 hrs (together around 2,5 days per week during 16 weeks)



Field trip 8.-9.2.

- We will leave from Helsinki together in the morning of 8th to Kouvola (let us know, if you want to travel directly from somewhere else)
- We will travel by train and bus and come back in the evening of 9th
- We will visit all three sites and overnight in Anjala camp center (leirikoulukeskus)
- Some meals will be included
- Further instructions will follow...



Collaboration contract

- In order to do collaboration with Kymenlaakso regional council and Finnish marital spatial planning, we need to sign a collaboration contract.
- Copyright of the material you produce will stay to you, but collaborators will have permission right, so they can use the material for example in communications (the author(s) will be mentioned).
- This needs to be done before the field trip.
- You will receive more information and instructions how to sign it soon.



Thank you for today 😊

Enjoy your weekend and see you next week