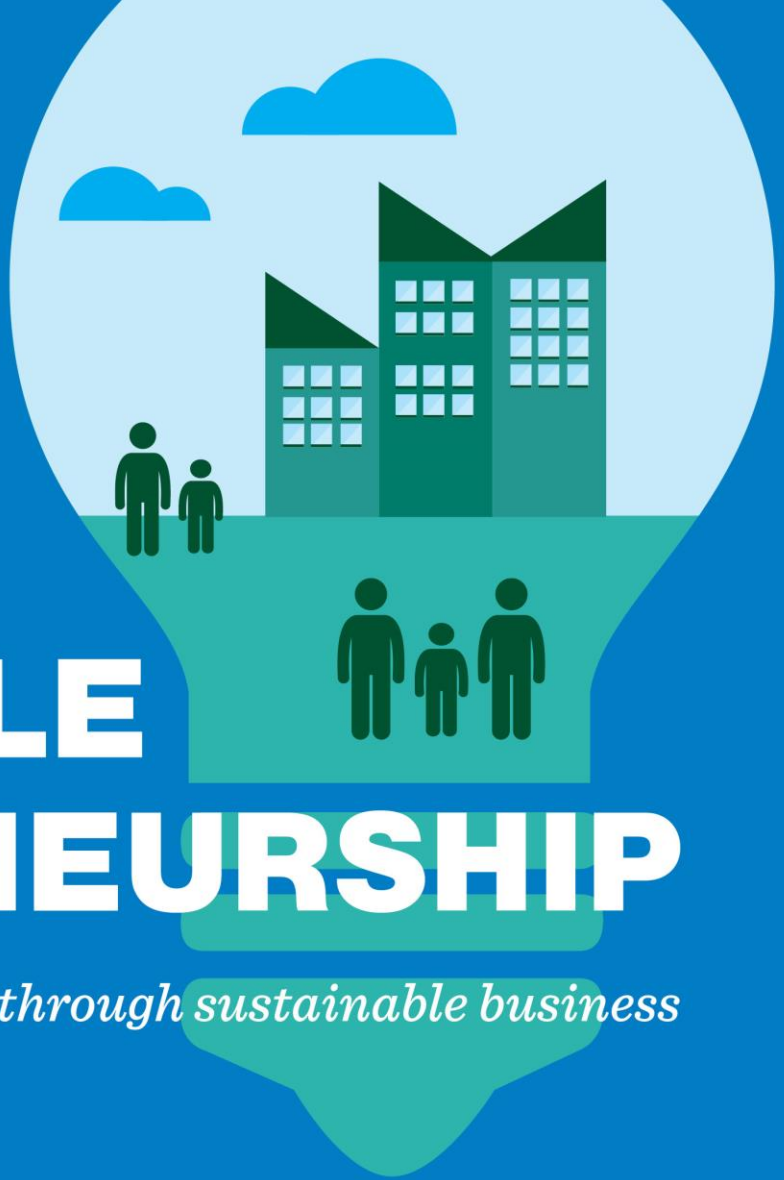
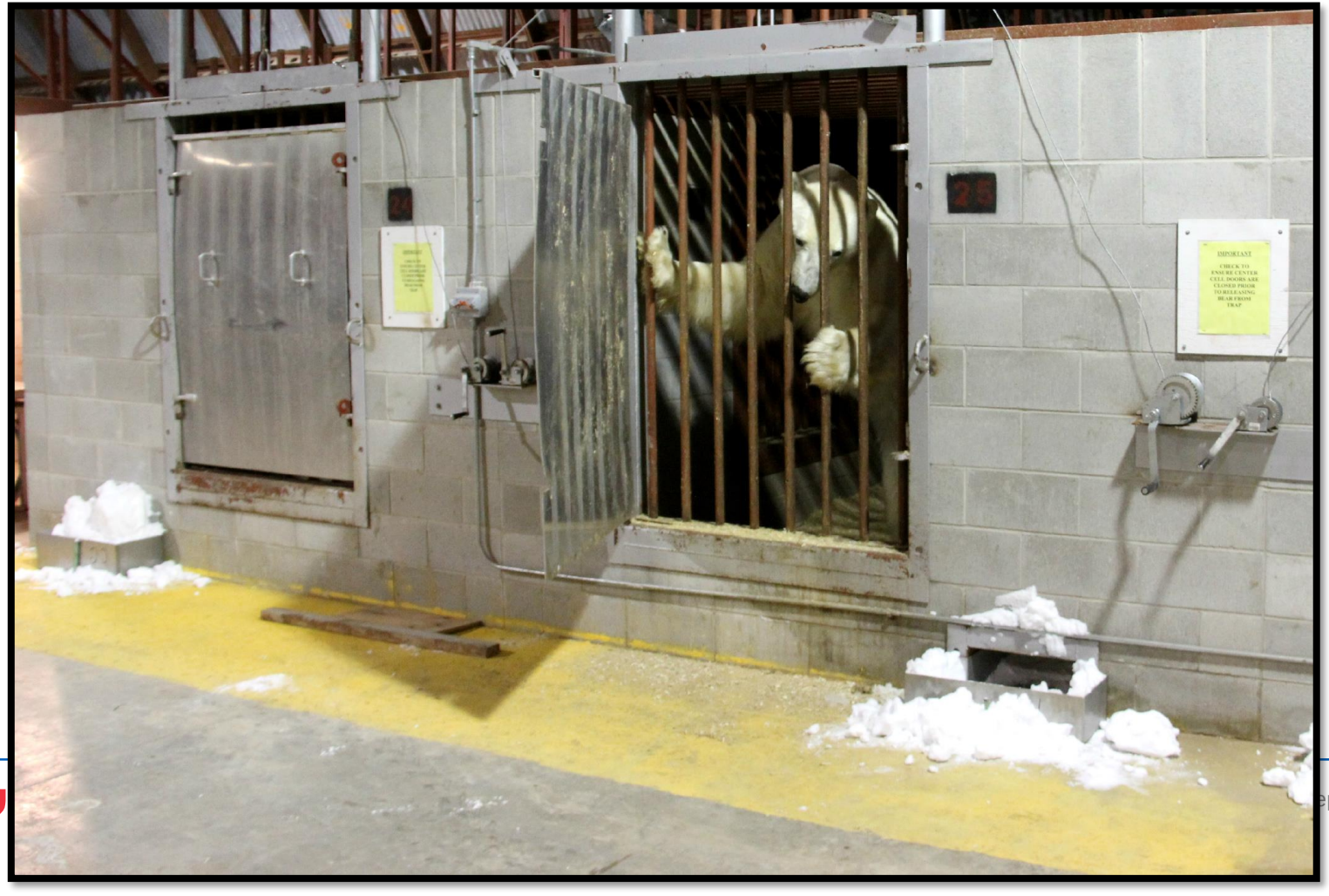


SUSTAINABLE ENTREPRENEURSHIP

Solve the societal challenges of today through sustainable business

Patrick Shulist
Lauri Laine

Canada Fact


IMPORTANT
CHECK TO ENSURE CENTER CELL DOORS ARE CLOSED PRIOR TO RELEASING BEAR FROM TRAP

Schedule for today

1. Course overview
2. Why sustainable entrepreneurship?
3. An ecosystems approach to sustainable entrepreneurship
4. Actor profiles and project descriptions

1. Course Overview

Course Objectives

- What this course will do
  - Provide an ecosystems view of sustainable entrepreneurship
  - Give an overview of key actors in this ecosystem
  - Give you an extensive opportunity to develop your skills in one of three learning tracks

- What this course will NOT do
  - Provide a step-by-step guide on how to be a successful entrepreneur
  - Take the lead on guiding you on your projects
    - *I am here for guidance, but the projects are yours to lead*

In-class Structure

- Mixture of mandatory and optional classroom elements
- Main sustainable entrepreneurship lectures are required
  - Either 13:15-16:00, or 14:00-16:00
- Supplementary “introduction to entrepreneurship” lectures are not mandatory
  - Running on four days, 13:15-14:00
- Classes done by March 12th
- See syllabus for specifics

Course Workload

Classroom hours	20h
Class preparation (pre-readings for lectures)	27h
Assignments (group work)	75h
Assignments (individual)	10h
Sustainable Entrepreneurship Day	8h
Additional time allocated to students' learning leads	20h
Total	160h (6 ECTS)

Not much prep reading for class. Expectation is you will spend a lot of time on your projects

Assignments

1. Individual assignments by 12.04.

(30% of the final grade)

- *Individual essay*

2. Group assignment, by 12.04

(50% of the final grade) (2 Interim reports as well…just for progress)

3. Oral assignment, 03.04

(20% of the final grade)

- *Presentation of Actor-Profile findings at the Sustainable Entrepreneurship Day*

Other points

- Plagiarism is bad. Don’t do it. See the syllabus regarding academic integrity
- Hand things in on time. Things coming up at the last minute and internet problems are all a great reason to hand things in early.
- Use standard assignment formatting (syllabus)
- Need to attend 5/7 mandatory sessions to get a grade for final project

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Questions?

2. Why Sustainable Entrepreneurship?

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Why do we need to think about *sustainable* entrepreneurship?


1 NO POVERTY
2 NO HUNGER
3 GOOD HEALTH
4 QUALITY EDUCATION
5 GENDER EQUALITY
6 CLEAN WATER AND SANITATION
7 CLEAN ENERGY
8 GOOD JOBS AND ECONOMIC GROWTH
9 INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION
13 PROTECT THE PLANET
14 LIFE BELOW WATER
15 LIFE ON LAND
16 PEACE AND JUSTICE
17 PARTNERSHIPS FOR THE GOALS
THE GLOBAL GOALS
For Sustainable Development

17

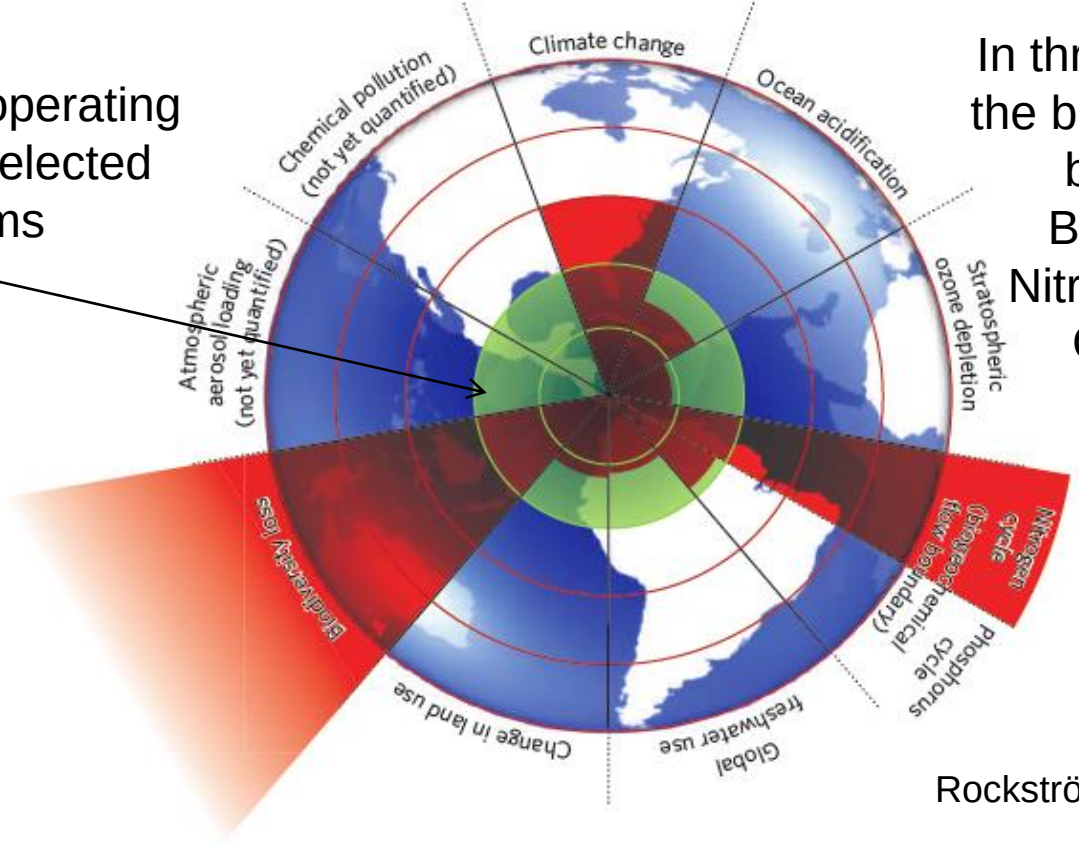
169

Environmental Issues

Major environmental issues

Proposed safe operating space for nine selected planetary systems (Green circle)

Current position for each subsystem (red sectors)



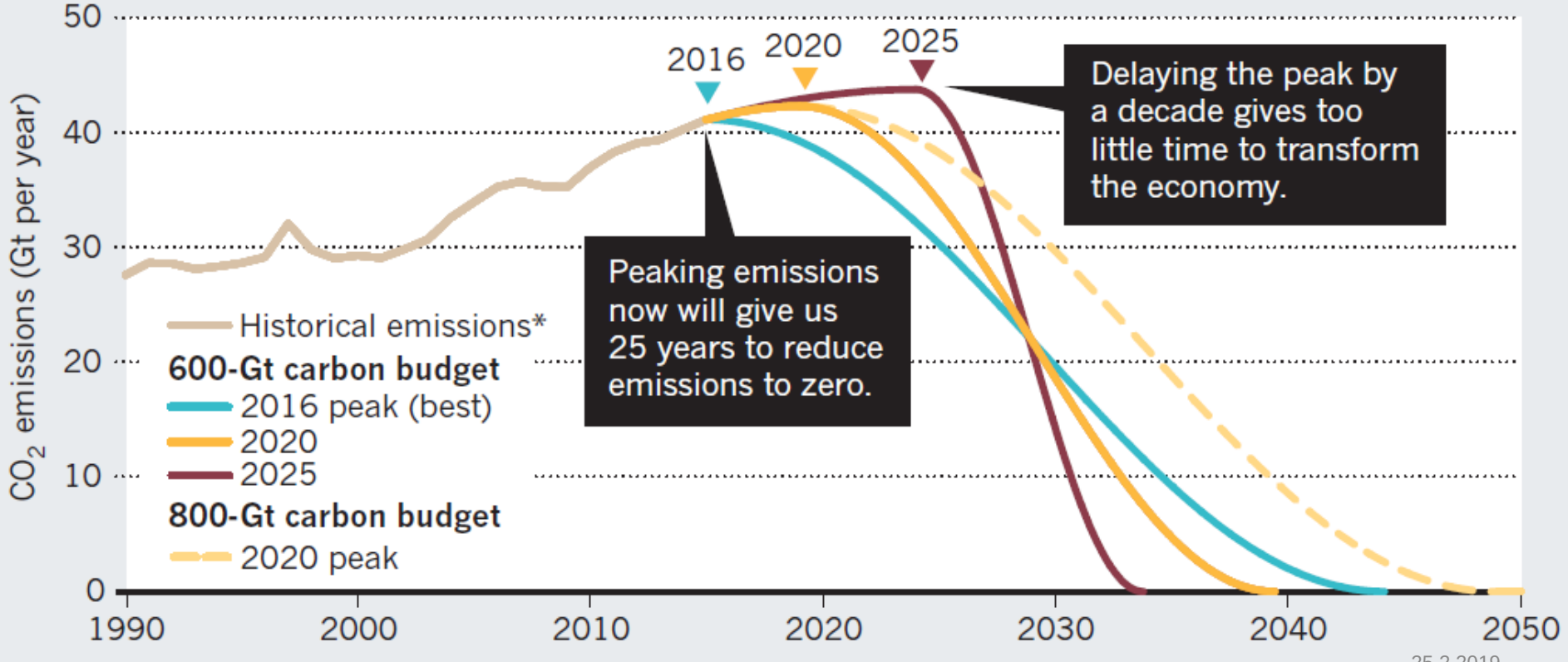
In three subsystems the boundaries have been exceeded: Biodiversity loss, Nitrogen cycle and Climate change

Rockström et al., 2009, Nature

16

CARBON CRUNCH

There is a mean budget of around 600 gigatonnes (Gt) of carbon dioxide left to emit before the planet warms dangerously, by more than 1.5–2°C. Stretching the budget to 800 Gt buys another 10 years, but at a greater risk of exceeding the temperature limit.



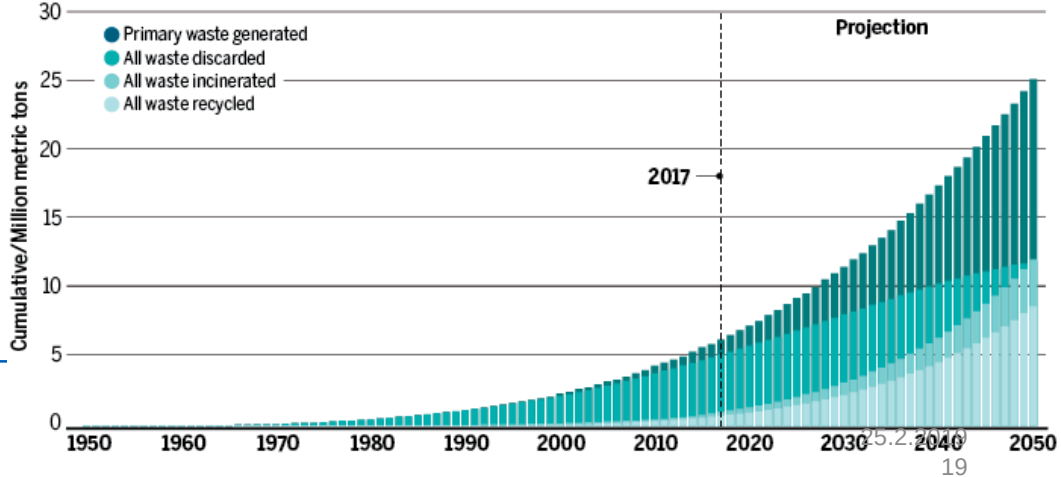
*Data from The Global Carbon Project.

Biodiversity loss

- Species loss estimated to be 1000 times the normal rate of extinction (Pimm et al. 2014)
  - E.g. mammals -tiger numbers have fallen by 97% in the last century
  - Animal populations in freshwater ecosystems have fallen by 75% since 1970

- Biodiversity is linked to the resilience of ecosystems
  - Fundamental effects to human well-being, e.g. The Economics of Ecosystems and Biodiversity (TEEB)

Plastic waste

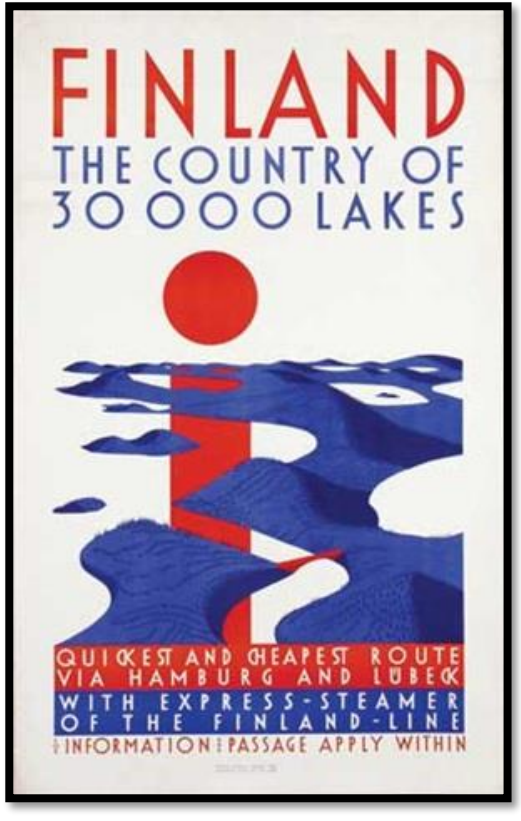


Science, 2017

Nitrogen and phosphorus cycles

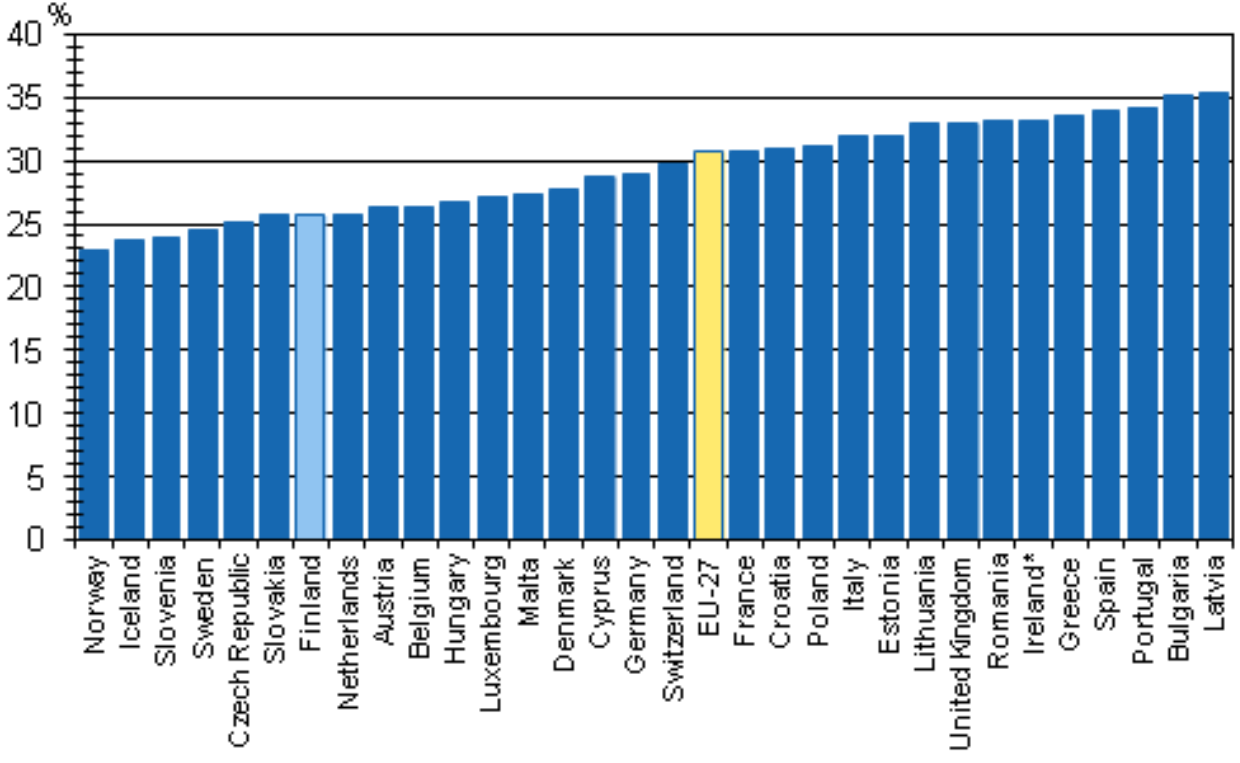
Nitrogen cycle (part of a boundary with the phosphorus cycle)	Amount of N_2 removed from the atmosphere for human use (millions of tonnes per year)	35	121	0
Phosphorus cycle (part of a boundary with the nitrogen cycle)	Quantity of P flowing into the oceans (millions of tonnes per year)	11	8.5–9.5	~1

Water usage


FINLAND
THE COUNTRY OF
30 000 LAKES
QUICKEST AND CHEAPEST ROUTE
VIA HAMBURG AND LUBECK
WITH EXPRESS-STEAMER
OF THE FINLAND-LINE
INFORMATION PASSAGE APPLY WITHIN

Social Issues

Inequality

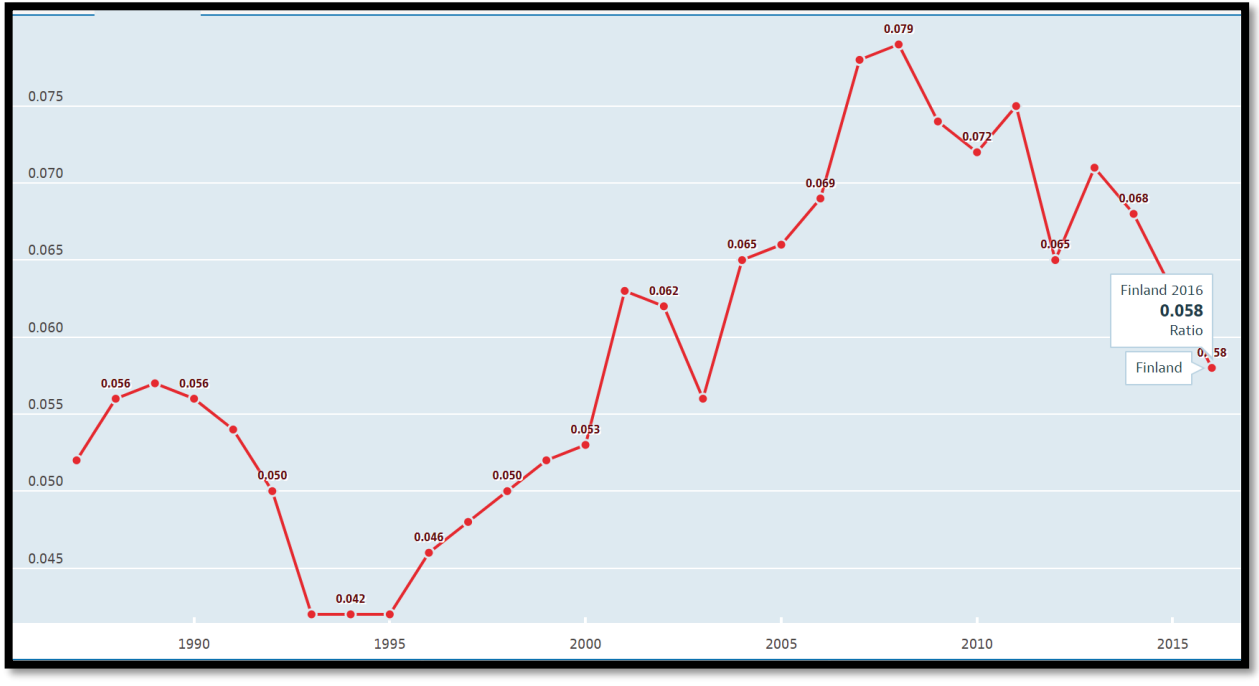


USA: 41

Canada: 34

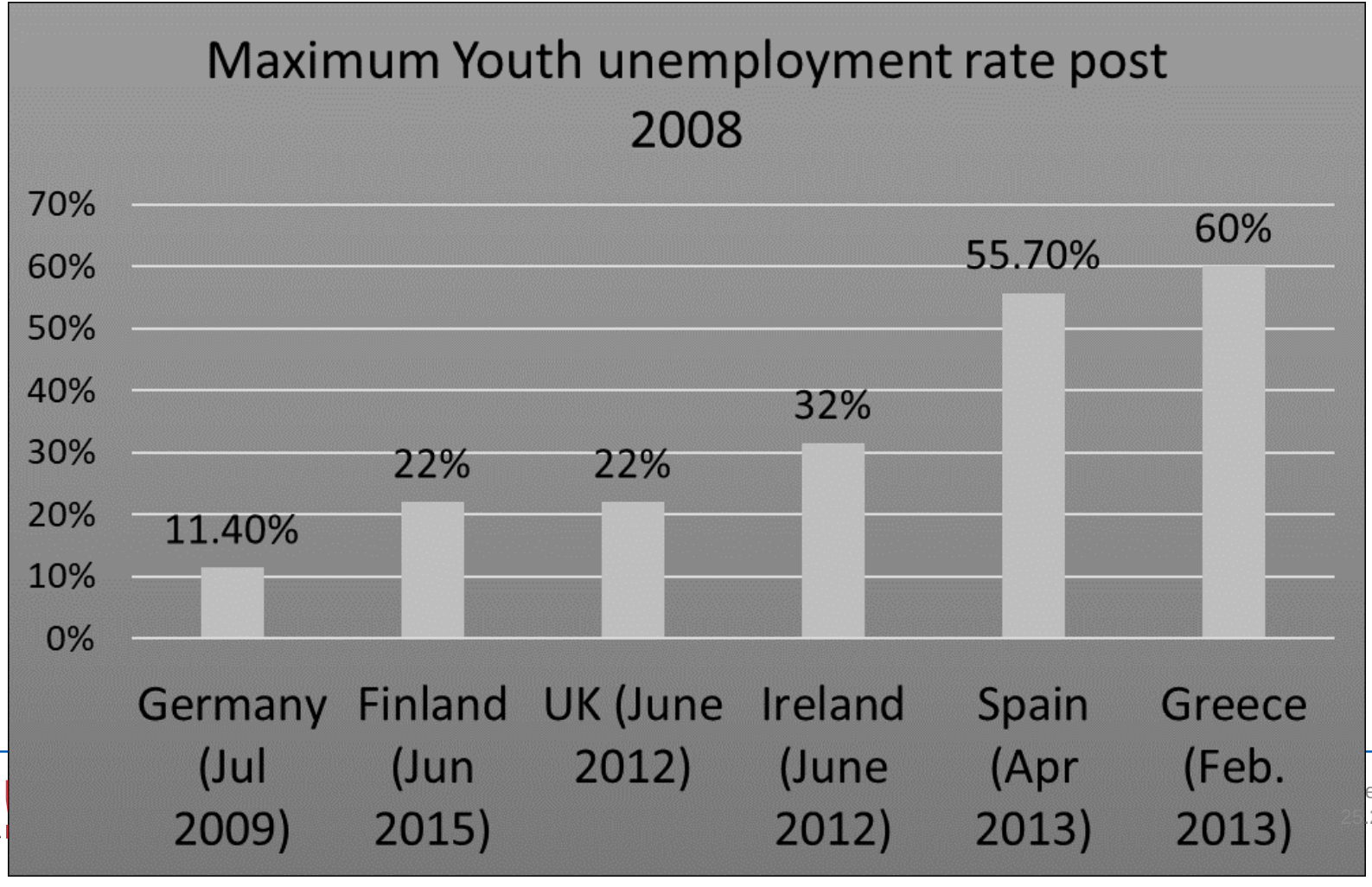
Poverty Rates

OECD definition: percent of population living at below half of median income

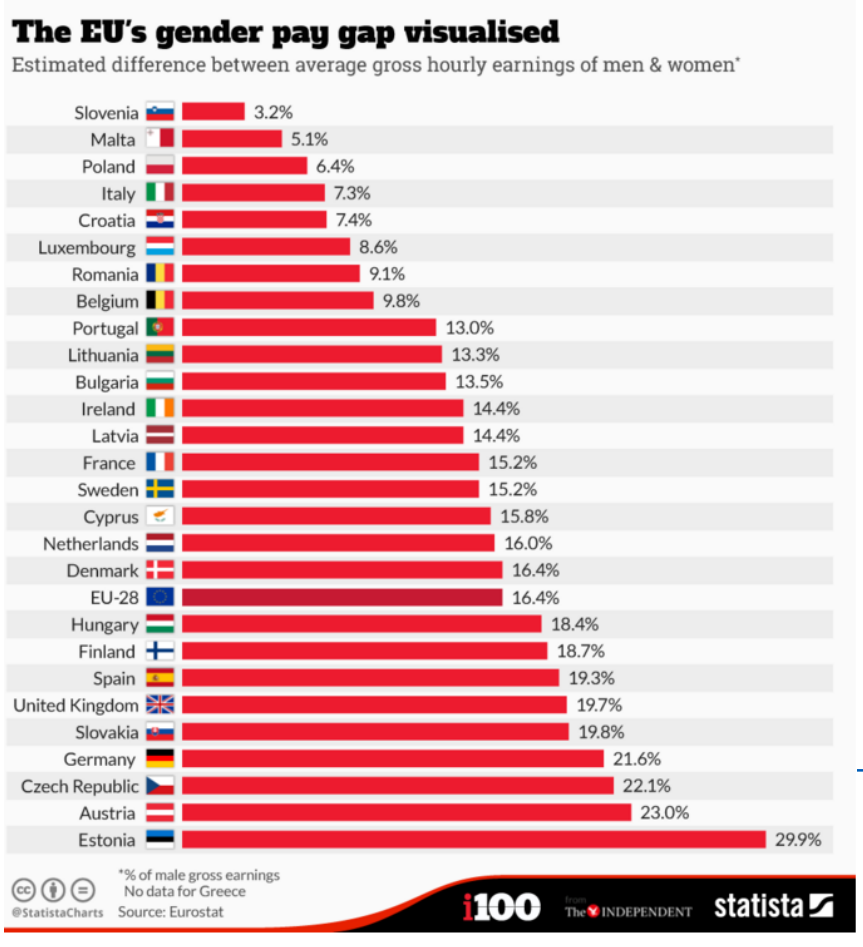


Finland:	**5.8%**
France:	**8.1%**
Germany:	**10.1%**
UK:	**11.1%**
Canada:	**14.1%**
US:	**17.8%**

Youth Unemployment



Gender-, Racial-, and Sexuality-Based Discrimination



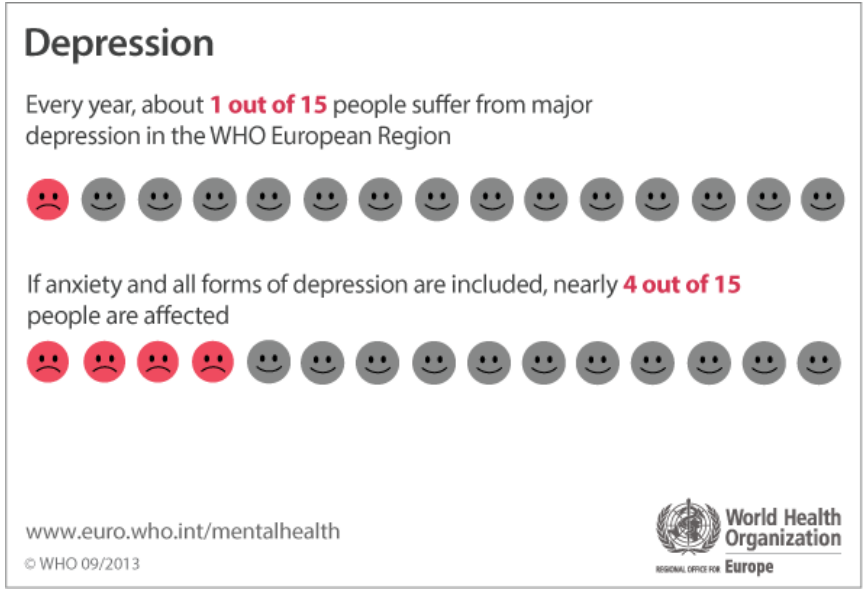
Global Poverty and Inequality

Richest 1% own more than half of global wealth

Average GDP/capita in Ghana is 1,300 EUR

Mental Health in the Workplace

- **In EU + (Switzerland, Norway, Iceland), 27% of adult population has had a mental health episode in past year**
  - Substance abuse, depression, psychosis, anxiety, etc.
  - 83 Million People
- **Depression costs the EU about 1% of GDP annually**



Refugee Crisis

3. An ecosystems approach to sustainable entrepreneurship

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But why do we need an ecosystems approach?

Why an ecosystems view?

- Complexity. **Complexity. COMPLEXITY.**

- "Regular" entrepreneurship has a relatively simple premise: you make/do something people want, they pay you.
  - Focuses on PRIVATE value. You gain, they gain.

- Sustainable entrepreneurship though: you make/do something that some people want, but part of benefits go outside this direct transaction
  - Focuses on PUBLIC value. Society gains, but unless you are crafty, you may not, and then the business fails

Public vs. Private Value

- Tradeoff between the two varies
- Consider several sustainable venture ideas
  - Solar panels
  - Sustainable hotel
  - Providing education in rural Nepal

Public vs. Private: Solar Panels

Value for entrepreneur	People pay you for solar panels
Value for customer	Potentially cheaper electricity, especially in remote areas. Get to feel good about clean energy.
Value for society	Fewer GHG emissions.
Key Complication	Electricity may be more expensive than gas or coal. Payback period may be lengthy. Misinformation Technological development costs
Ecosystem support needed	Financial incentives (especially at start of industry) Educating customers

Public vs. Private: Sustainable Hotel

Value for entrepreneur	Unique type of hotel. Potentially attract certain type of customers.
Value for customer	Fits with their personal beliefs.
Value for society	Lower ecological footprint
Key Complication	Really hard to connect customers and SMEs in this sector. Information overload. How can customer REALLY know if hotel is sustainable?
Ecosystem support needed	City/regional/national level support for this segment of industry. Some type of certification program. Network of similar hotels.

Public vs. Private: Clean energy in rural Nepal

Value for entrepreneur	Can sell energy to neighbours
Value for customer	Have access to electricity No longer have to use dirty kerosene lighting
Value for society	Lower health burden Improved gender equality
Key Complication	Getting the technology to Nepal Technology being robust to conditions Gender norms New technology Lack of money
Ecosystem support needed	Accessing technology Education Gender empowerment Financing

Exercise

Work with a partner

1. **Choose a social or environmental issue you care about**
2. **What might a venture addressing this look like?**
3. **What are the complications?**
4. **What ecosystem support do you need to overcome this?**

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What limits the reach of sustainable entrepreneurship?

Key points

- The value proposition for sustainable ventures is more complicated: public vs. private value
- Need ecosystem support to make many of them happen
- Wide variation between business ideas, providing further complication

How this connects to next class

- We will go much more in depth into the nature of sustainable ventures, especially their value propositions
- Need to see these ventures NOT as working in isolation, but as part of ecosystem
- However, necessity of ecosystem support varies based on complexity of value proposition
- Ultimately, the types of ecosystem support we can expect to access shapes what is possible for a sustainable venture to do

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4. Actor Profiles and Group Projects

Key points

- Three actor profiles
- Group based work, three people. (I may make some groups 4, based on numbers.)
- Deliverables
  - Group Presentation: April 3rd
  - Group Report: Friday, April 12th
    - *Interim report #1: Sunday March 10th, 12:00*
    - *Interim report #2: Sunday March 24th, 12:00*
- **By end of today, choose your actor profile (MyCourses)**
- **By end of tomorrow, rank project preferences, create group**

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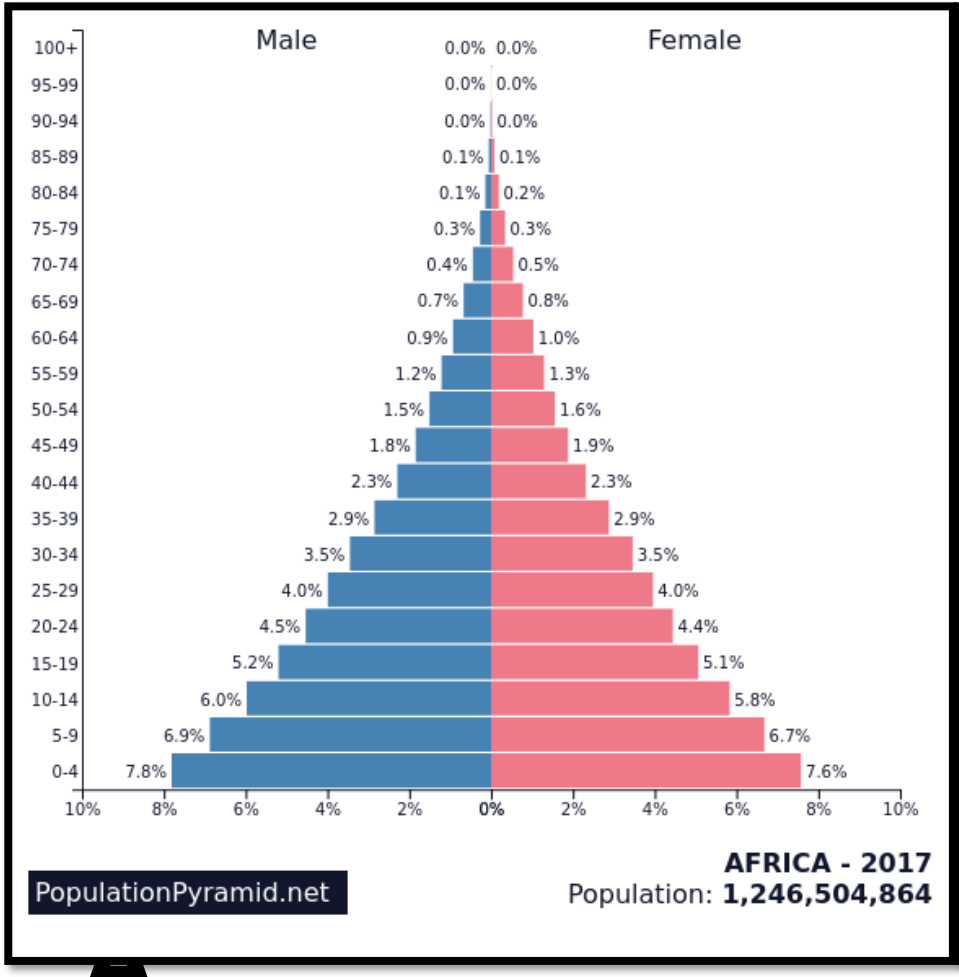
Profile 1 – The Researcher

Background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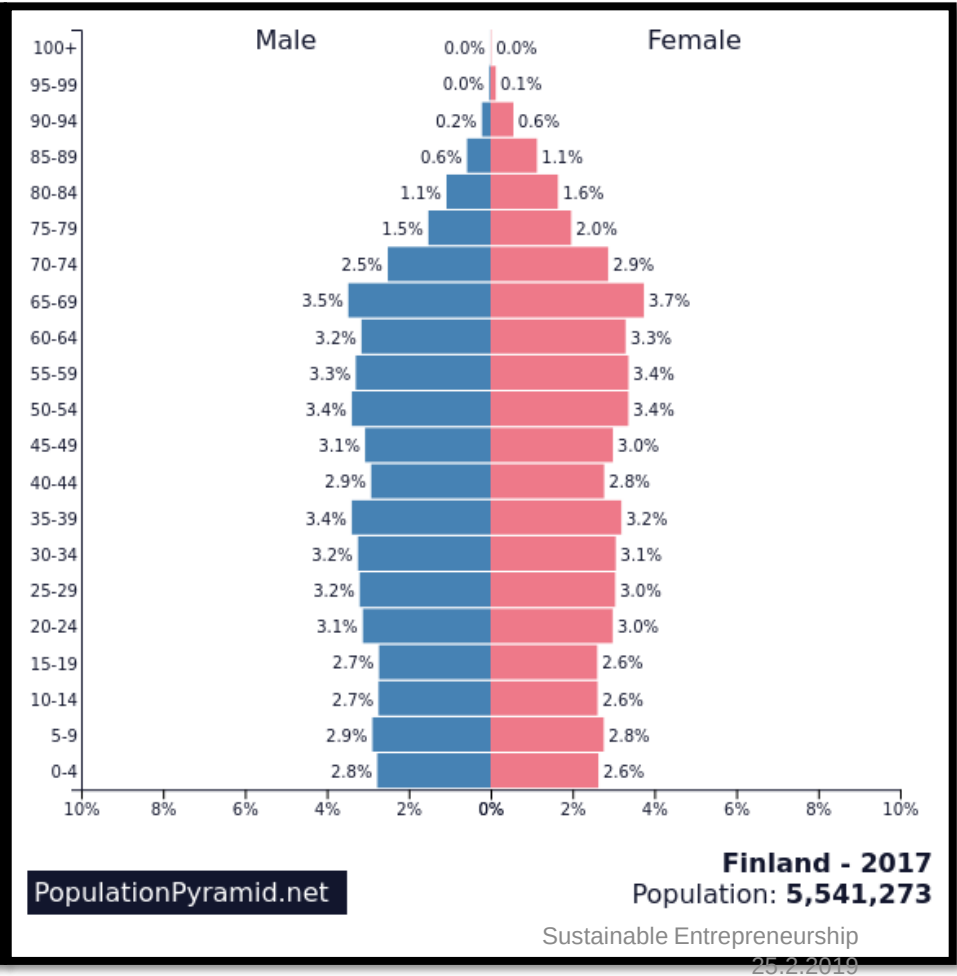
4.5% 4.4%
5.2% 5.1%
6.0% 5.8%
6.9% 6.7%
7.8% 7.6%
10% 8% 6% 4% 2% 0% 2% 4% 6% 8% 10%
PopulationPyramid.net
AFRICA - 2017
Population: 1,246,504,864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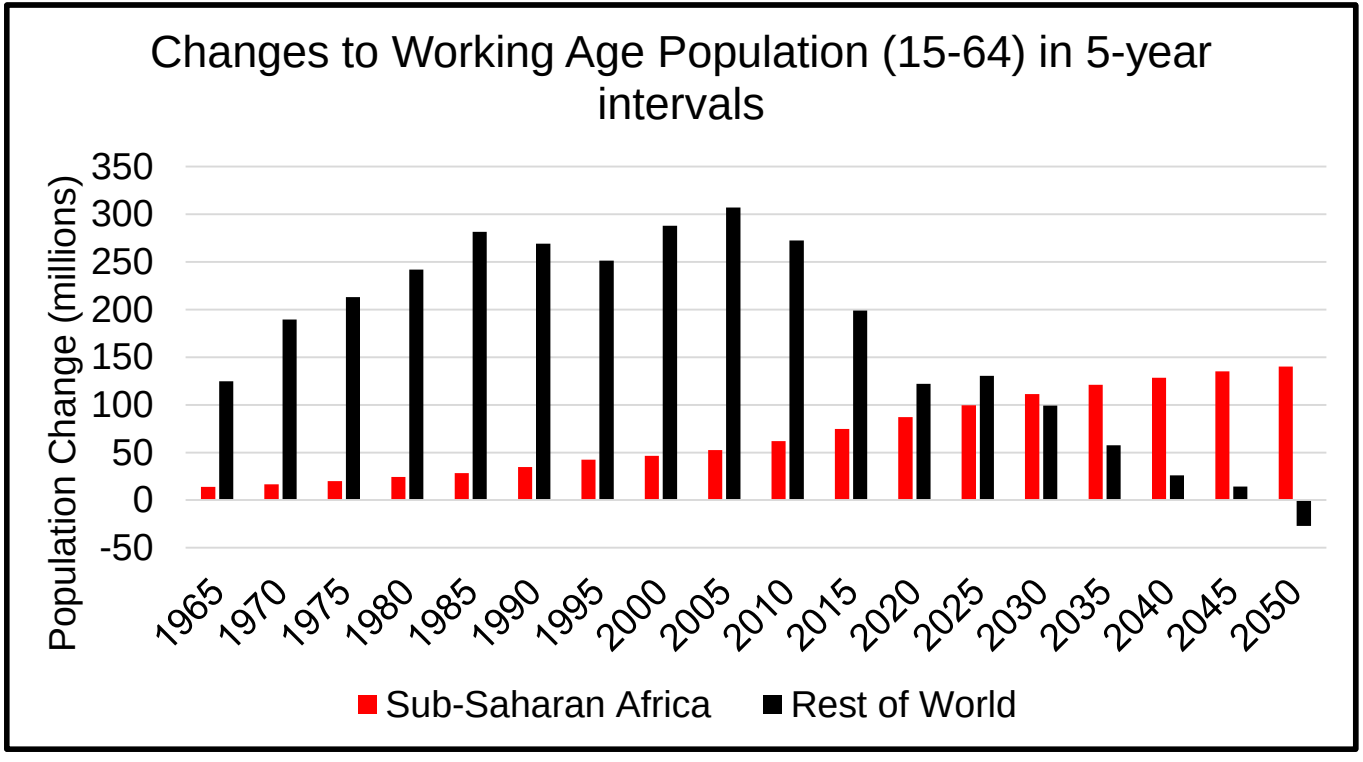
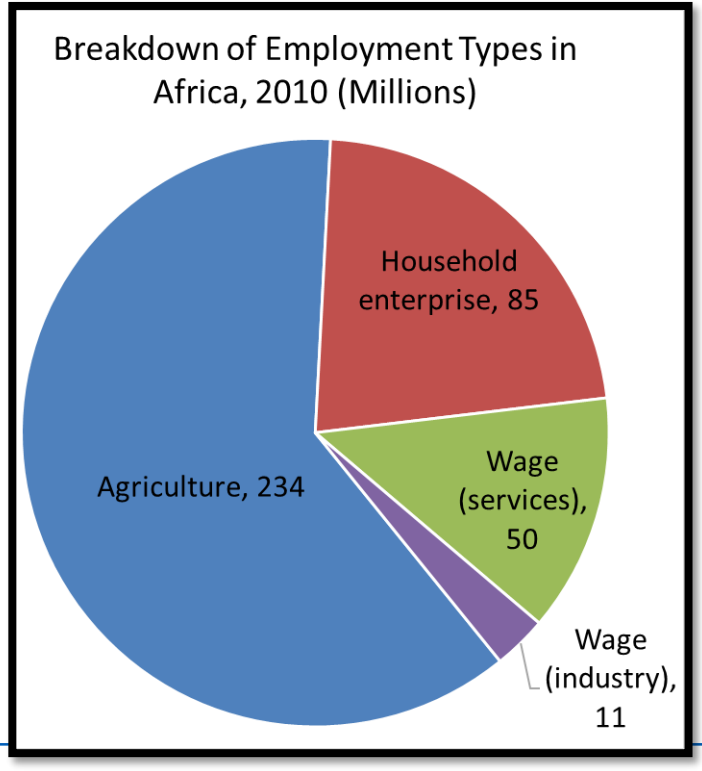
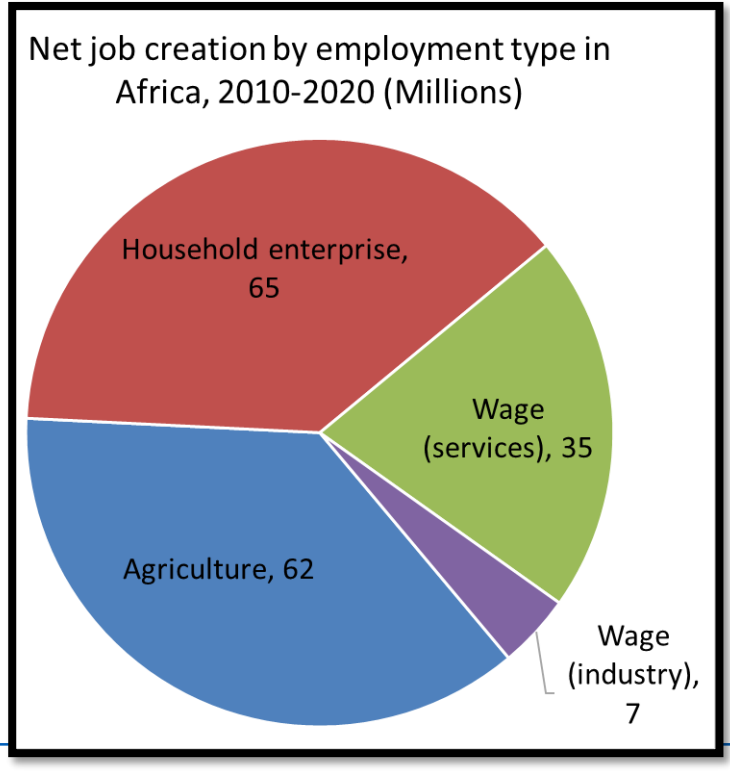
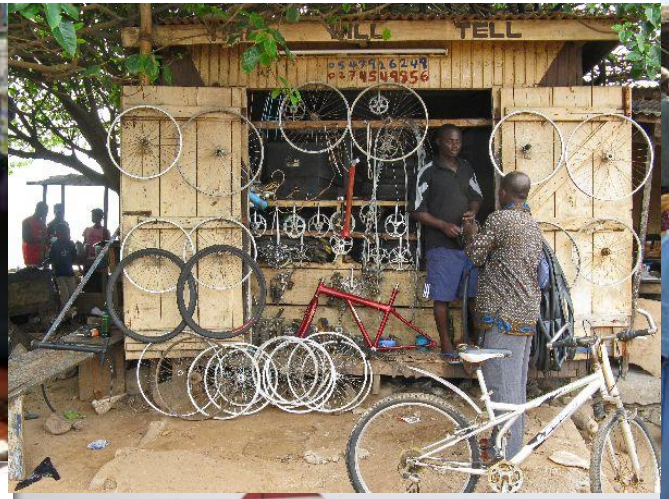
10% 8% 6% 4% 2% 0% 2% 4% 6% 8% 10%
PopulationPyramid.net
Finland - 2017
Population: 5,541,273


Changes to Working Age Population (15-64) in 5-year intervals
Population Change (millions)
350
300
250
200
150
100
50
0
-50
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015
2020
2025
2030
2035
2040
2045
2050
Sub-Saharan Africa
Rest of World

Africa needs Jobs…badly






TELL

Small-scale, informal, replicative enterprises

Overwhelming majority of enterprises in sub

Practically how to foster: microcredit, training programs

General: Accessible to most anyone

Existence in literature: Usually used as a site to replicate or tweak existing theory about entrepreneurship

Entrepreneur Training Programs

Tend to sit people down in a classroom

Lead them through modules on different topics

- *Marketing*
- *Inventory*
- *Accounting*
- *Finding a business idea*

For instance, ILO's Start and Improve your Business Program

- *15 million people worldwide have taken it*

The Project

Researcher Project

- Use qualitative methods to understand nature of entrepreneurship in SSA
- Analyze ILO's training program, and compare with your understanding of entrepreneurship in this context
- Make recommendations of how to improve training programs
- Use existing theory to inform both tasks

- 5000 word academic-style report.
  - I.e.: introduction, literature review, methods, findings, discussion, recommendations, conclusion.
- Groups of four

- Theoretical focus is up to you to decide

What Patrick Will Provide

1. 8 fully transcribed interviews of entrepreneurs in Ghana (can have more if you really want)
2. Basic background on ILO's training program
3. Starter academic articles (e.g. they are to orient you, and you will need to find more)
4. Training on qualitative methods
5. Input and direction on project

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Profile 2 – The Entrepreneur

Overview

- Working on a real venture, specifically one of their strategic level problems – you have broad discretion in what this may be, but it must be cleared by Patrick
- Venture can be at any stage, but it must be an existing idea
  - E.g. an idea from New Venture Creation, all the way to something you've been running for 5 years.

- Deliverables:
  - 5000-work Consultant style report, with a heavy emphasis on analysis and recommendations

- Patrick will provide input and direction on the project

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Track 3 – The Consultant

Overview

Actor Profile - Consultant

- In small teams, the student-consultants are expected to collect reliable information to answer one challenge raised by the City of Helsinki or Helen.
- Alternatively, the student group will help The Shortcut plan *Impact and Sustainability Sprint Week,* and produce a report on how to improve it.

City of Helsinki

HELEN

the shortcut

Expectations

- You do an effortful job on this project – our clients are busy people and we need to provide value
- You do some primary research, such as interviewing key stakeholders

- Get started on project IMMEDIATELY.
- Contact client by Thursday
- Arrange for a first meeting within a week

What partners will provide

- An overview of the problem
- Access to important background documents
- Guidance on, and access to key stakeholders to interview

- General direction on the project

- Remember though, they have limited time, so you can expect 3-5 contact hours with them, so make the most of it
  - (That is the nature of consulting)

Deliverables

- 3000-4000 word report (you will find it is easy to write an 8000 word report, but will also find that no one wants to read an 8000 word report)
- HEAVY emphasis on the executive summary (20% of overall grade for report)
  - Need to ensure usefulness to clients
- Willingness to present your results to partners, at their offices

Key Dates (Not for The Shortcut)

- By Thursday, February 28th: contact client
- By Thursday, March 7th: Have first meeting with client
  - **The key output of this meeting should be a scoping of the project (i.e. exactly what will you explore), and an overview of how to do this**
- By Friday, April 5th: send Patrick a draft of the executive summary

City of Helsinki – Sustainable Tourism

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1. What types of opportunities are there?

- What type of market really is out there?
- What can the city do to set up the ecosystem to be supportive of these ideas?
- We can have multiple iterations of this project, with different foci:
  - GHG emissions
  - Socio-cultural aspects
  - Etc.

2. What have similar cities done?

- No need to reinvent the wheel.
- What cities are notable?
- On what do they focus?
- What do they do to foster the ecosystem?

3. How can Helsinki GROW sustainable tourism enterprises?

- It is much easier to find a niche market serving a boutique clientele.
- However, Helsinki has millions of annual visitors
- How can these small providers growth to serve this market?

- This project will focus on analyzing what the small companies in Helsinki are doing, and recommending how to modify the ecosystem to promote growth.

4. Virtual Tourism

- Helsinki has recently launched a virtual tourism initiative
- This project will analyze that initiative
- The group will recommend how the goals for sustainable tourism can be usefully linked to the virtual tourism strategy

City of Helsinki – Clean Water and Circular Economy

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5. Reducing Waste Inflows into the Baltic Sea

- Plastic pollution is especially problematic for the Baltic Sea.
- This project will examine the potential of the City to push the ecosystem towards managing this through the circular economy
- Importantly, the City of Helsinki has a partnership agreement with Tallinn on this topic

6. Promoting environmental awareness regarding the Baltic Sea

- This project will take a different approach
- You will focus on what an event or campaign to promote awareness of water quality may look like
- Working with the City, you will have broad latitude to pursue any number of ideas
- The deliverable will essentially be a set of options and recommendations

City of Helsinki – Sustainability Ecosystem

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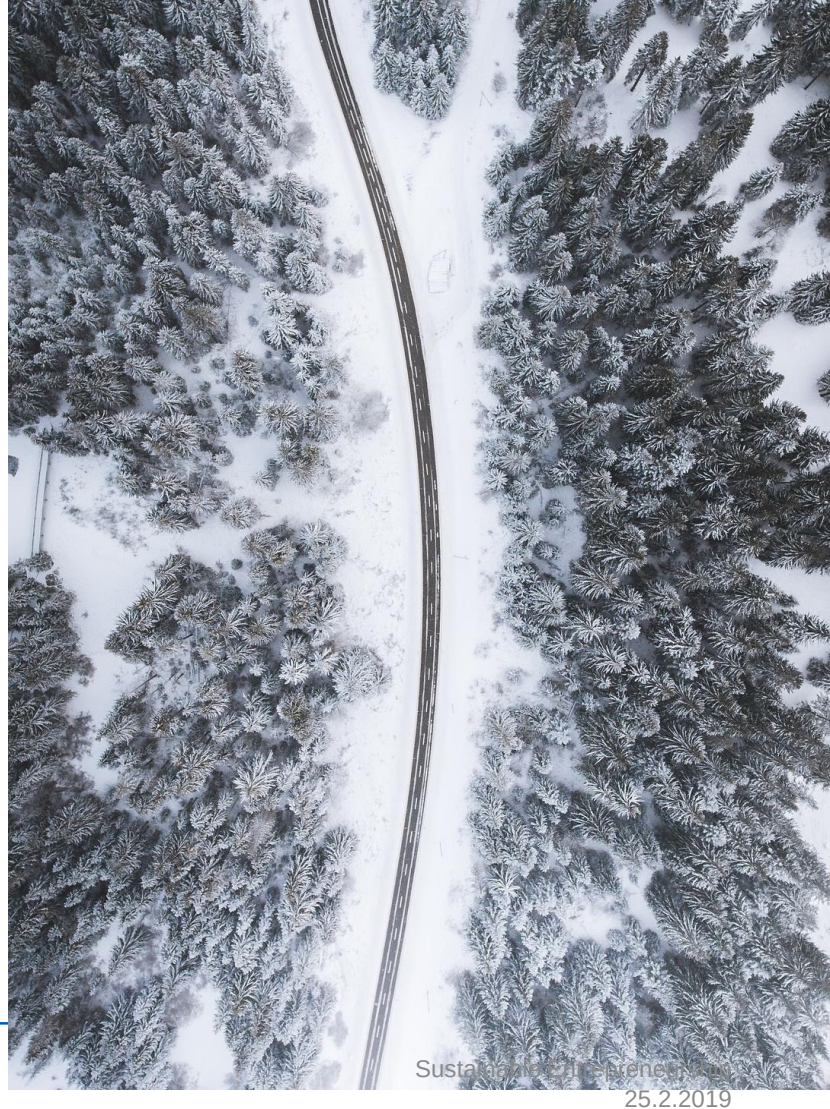
7. Developing Helsinki's sustainability ecosystem

- Helsinki City's strategy states: "*securing sustainable growth is the most essential task of the city*"
- Helsinki city attracts people from abroad with its location, infrastructure, educated workforce and high standard of living
- Startup Genome (https://startupgenome.com/) ranked Helsinki´s startup ecosystem as most communal in the world in 2018
- Multiple projects are possible here (next Slide)



7. Developing Helsinki's sustainability ecosystem

A. What opportunities might sustainable entrepreneurs find in Helsinki? What makes Helsinki attractive?

B. What can be done to attract foreign sustainable entrepreneurs to Helsinki? (What is there NOW)

C. What can be done to enrich the ecosystem and make it more attractive? (What CAN there be?)

City of Helsinki – Sustainability through procurement

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Background

- Helsinki has started including provisions in contracts with SMEs
- For instance regarding gender and immigrants
- Goal is to give extra incentives to SMEs

8. How do SMEs view these social stipulations?

- Little is known about how the SMEs see these
- Are they an opportunity? Just a cost?

- This project will have a heavy primary research component – interviewing SME owners

- Goal is to understand how SMEs see this, and make recommendations based thereupon

9. How do we make social collaboration more attractive for SMEs

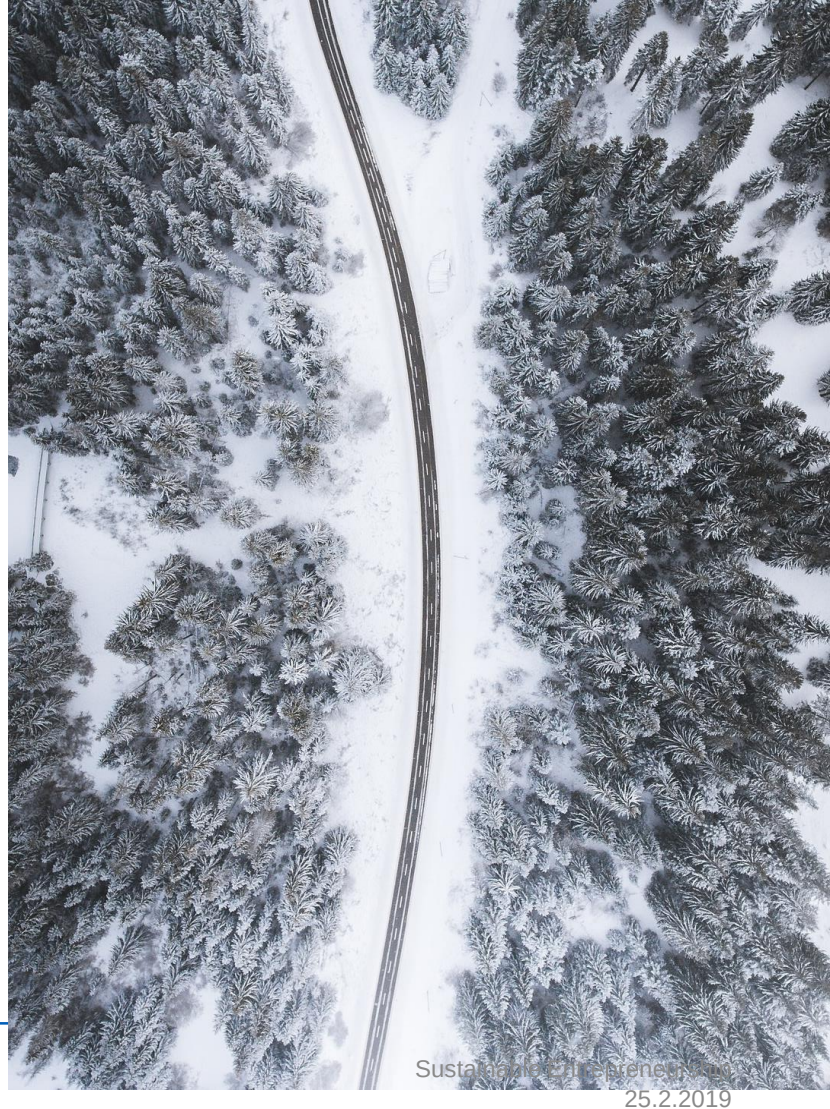
- Helsinki will continue with these stipulations
- However, improving them so they are more valuable for all parties involved is important

- This project will involve a lot of primary research as well, but will also focus more on city policy

City of Helsinki – Sustainability to attract talent

10. Sustainability as a means of attracting entrepreneurial talent

- Attracting talent is increasingly important for Finland's competitiveness.
- Finnish companies need skilled employees in general, especially in key areas (https://tem.fi/en/talent-boost-en)
- Anecdotal evidence suggests Helsinki's draw is especially pronounced for Russian and Asian immigrants, and for female programmers from countries with weak gender equality
- This project will expand on this anecdotal evidence to really understand how important sustainability is to this attraction, and what can be done to further augment the offering.



City of Helsinki – Helen

11. Linking Helen to the circular economy

- Helen produces electricity and heat, offering multiple opportunities to connect to the circular economy (separate projects)
  A. What waste materials can Helen use as material input to produce electricity?
  B. How can Helen either use waste heat from industry as part of its district heating network, or how can Helen supply some of its waste heat to industry?
  C. Would attracting certain industries to Helsinki improve the circular economy model?

12. Customer involvement in district heating

- Customers can be involved in the electricity network such as by allowing the batteries of their electric cars to be storage for managing peak load
- Can the same be done with district heating at all?
- Can customer waste heat be used by Helen? (Think commercial and large residential buildings)

13. Future of energy systems (separate projects)

A. What role can the Internet of Things, artificial intelligence, and big data play in the future of the energy system?
   - This is a very ecosystem level approach

B. How can the ecosystem be modified to encourage people to be more energy efficient?

14. Exporting energy technologies to the developing world

- Helen has excellent technical knowledge
- There is a big need for this to get to the developing world, where energy systems are still being developed, and a lack of electricity is a chronic problem
- What commercial opportunities are there for a company like Helen?
- How can carbon offsets under the Paris agreement be involved in the commercial case?