NEEN Conference 2022
https://neen.network/
Karina Barnholt Klepper

Chair of NEEN
Senior Researcher at Norwegian Defence Research Establishment (FFI)
Nordic Energy Equality Network

• The Nordic umbrella for the promotion of gender diversity and empowerment of women, forming a Nordic voice for an inclusive sustainable energy transition

• Representatives from the whole Nordic region and all sections of the energy sector

• NEEN will build bridges between education, research, government and industry and promote an inclusive approach through the whole sector

• NEEN will strive to make the energy sector increasingly visible to women and highlighting role models in order to attract more women to this sector
The energy issue is a crucial part of the fight against global warming and climate change – carbon emissions and fossil fuels must be reduced and replaced with green innovations and technology.

“In business, politics and society as a whole, we can only reach our full potential if we use all of our talent and diversity. There must be the same opportunities for all who share the same aspirations.” - A European Green Deal - president of the European Commission, Ursula von der Leyen
Gender equality in the Nordic energy sector

Nordic Energy Equality Conference, 14th June, 2022
Purpose

• Link between gender equality in the workplace and corporate performance

• Currently, investigation of the link between lack of gender equality in leadership positions and the lack of ambitious commitment of the sector to climate commitments

• The purpose was to gather statistics from the Nordic countries and provide an overall status of gender balance and attitudes within energy companies, universities and energy authorities
Energy companies

- Women hold 31% of all the decision-making power positions (board members, C-suite executives, department managers)
- Low representation in top positions
Energy companies

- Women’s leadership score: 24%
- Major part of women in manager positions rarely leading to top positions
- Women hold a major role in 5% of Nordic energy companies
Academia

Research groups

- 27% Professors
- 36% Researchers
- 41% PhD students
- 27% Group leaders

University departments

- 12% Women department leaders
- 88% Men department leaders
- 19% Women professors
- 81% Men professors
- 2 energy ministers were women (40%) in August 2021, June 2022 100% men
- No change in FTE (2017 – 2019)
- 82% have both gender equality and equal pay policies
- All state that they actively take steps to improve gender equality
Benefits of gender diversity

• Gender diversity leads to better management and boosts innovation

• Better gender diversity = better performance and higher profitability

• Investing in diversity is an investment in sustainability
Change is possible

- Increase diversity in hiring and promote women into leadership roles

- Showcase role models

- Make gender diversity a priority – set goals, initiate programmes, monitor performance

- Remove the gender pay gap

- Encourage development, educate, ensure information flow across the organisation and create opportunities for women

- Make work-life balance a priority and increase work flexibility

- **Energy companies**: create sponsorships and make demands towards your collaborators and suppliers

- **Academia**: rethink branding and think multidisciplinary

- **Authorities**: start programmes, support networks, make demands towards supported projects
Gender equality is not just a fundamental human right, but also an essential foundation for a sustainable world.

The report is available at: neen.network and nordicenergy.org
Karina Barnholt Klepper
Chair of NEEN
Senior Researcher at FFI

Anders Granum
Special Adviser R&D at Statnett SF

Sonja Berlijn
Professor, Head of School at KTH Royal Institute of Technology

Ivana Suboticki
Researcher at NTNU, Department of interdisciplinary studies of culture
Panel discussion

https://neen.network/
Sonja Berlijn

Professor, Head of School at KTH Royal Institute of Technology
Increasing the gender balance from goal to action

Sonja Monica Berlijn
Prof. dr. techn. ir. MBA
European Green Deal and RePowerEU

The first climate-neutral continent by 2050
by boosting the economy, improving people's health and quality of life, caring for nature and leaving no one behind.

The green transformation of Europe’s energy system will strengthen economic growth, reinforce its industrial leadership, and put Europe on a path towards climate neutrality by 2050.

RePowerEU is about rapidly reducing our dependence on Russian fossil fuels by fast forwarding the clean transition and joining forces to achieve a more resilient energy system and a true Energy Union.

Challenges are the need for significant more and other type of production, large and/or many storage facilities, flexibility and more transmission and distribution capacity.
Gender imbalance in the Nordic Energy Sector

- Women have proven to be leading the way towards more equitable and sustainable solutions to climate change*

- Because of the multi-disciplinary dimension, renewable energies and other developments associated with the energy transition seem to exert a greater appeal on women and provide greater opportunities to them, than the more traditional fossil fuel industry*. Still, in renewables, women’s participation is much lower in the science, technology, engineering, and mathematics (STEM) jobs than in administration.

- Women’s participation in the Nordic Energy Sector seems rather stable over the years
Why is this an issue?

• Across societies the impacts of climate change affect women and men differently. Women are disproportionately affected.*

• Women play a crucial role in climate change adaptation and mitigation. Women have the knowledge and understanding of what is needed to adapt to changing environmental conditions and to come up with practical solutions.*

• Evidence shows that women’s empowerment and advancing gender equality can deliver results across a variety of sectors, including food and economic security and health. It can also lead to more environmentally friendly decision making at household and national levels.*

• Unleashing the knowledge and capability of women represents an important opportunity to craft effective climate change solutions for the benefit of all.*

• Our future is too important to be left alone to men.
Understanding the causes for gender imbalance

- A lot of research has been done and is still on-going towards the causes for the gender imbalance in STEM and in the energy sector

- Factors identified are:
  - Working conditions
    - Working clothes
    - Offices
    - Salary
    - Career opportunities
    - Working hours / work-life balance
  - Working environment
    - Male dominated
    - Language
    - Harassment and bullying
    - Support network
    - Feeling of not being included or listened too
    - Appreciation for looks rather than knowledge
  - Recruitment process
    - Language used
    - Evaluation criteria
    - Evaluation team
    - Gender difference in application
  - Social acceptance
  - More?
What can we do?

• Make gender diversity a priority
  – Set clear goals and follow them up
• Encourage and support woman
• Encourage development
• Make work-life balance a priority
• Remove the gender pay gap
• Increase diversity in hiring
• Showcase role models
• Improve working conditions
• Improve working environment
• Branding
• More?
Initiatives

- Many networks have been established
  - Women in Power
  - Kraftkvinnorna
  - Kraftkvinne
  - etc
- Branding activities
  - Fill the gap
  - Jaevle flink
- Diversity initiatives in companies
- Policies
- Young girls in Tech
Are there measures with effect on the short term?

5 - 10 years or 100 years?

- **Study application**: How can we increase the number of female applicants? Do we have the right evaluation criteria?
- **Study**: How can we increase the number of female students? How can we keep the students?
- **Recruitment**: How do we get more women to apply? Do we have the right selection criteria?
- **Job**: How do we make jobs more attractive?
- **Stay in the job sector**: How do we get them to stay?
Do we need to be more radical?

• Increase the number of study places with a special quota for women?
• Do we need to adapt studies and exams to be more diverse friendly?
• Do we need to have more women than man in the recruitment process?
• Do we need to redefine jobs?
• Do we need to build our organisation and culture from 'scratch'?

If action is needed, what is, in your view, the main obstacle preventing gender equality and diversity in the energy sector?

- Male-driven working environment 62%
- (Unconscious) bias in selection processes 28%
- Lack of interest among women (at least in some segments) 10%
Take away

• To reach the climate goals, new solutions in the energy system are crucial
• Innovation succeeds best with diverse teams
• We need to engage, recruit and keep more diverse teams
• Causes are know, or are they really?
• Possible actions are identified, or are they?
• Most of the actions are long term oriented
• Do we need to be more radical to get the change faster?
NEEN conference 2022

• At the NEEN conference we will find out more

• We hope that we are able to inspire you!

• And that you take with you some ideas for concrete action!
Ivana Suboticki

Researcher at NTNU, Department of interdisciplinary studies of culture
The GENDIM toolbox for improving gender balance in higher education

Ivana Suboticki & Vivian A. Lagesen
Department of Interdisciplinary Studies of Culture (KULT), NTNU
Nordic Energy Equality Conference June 2022
The underrepresentation of women in science is improving unevenly

• Women are historically underrepresented in scientific institutions - «A world without women» (Noble, 1992)
• Women now constitute 48% in PhD positions and 46% in other recruitment positions (EC, 2021)
• Women constitute only 24% in professor positions (EC, 2021)
Why is gender imbalance in science a problem?

• Resource argument: we miss out on talents
• Justice argument: men and women should have equal opportunities, and more balanced representation can contribute to more just outcomes
• Gender balance means better science
• Gender balance makes better work environments among scientists
Projects

- Gender balance from below (NRC Grant 2015-2019)
- Learning from gender balance and equality measures (NRC Grant 2021-2023)
- Evaluating the gender balance measures at NTNU (NTNU grant 2020-2021)
- Understanding gender imbalances among university professors: the shaping and reshaping of epistemic living spaces (GENDIM) (NRC Grant 2019-2023)

More info: [https://www.ntnu.edu/genderbalance](https://www.ntnu.edu/genderbalance)

Data

- Online survey among all department heads at NTNU in 2016
- Qualitative interviews and focus groups with 150 employees at NTNU (PhD students, postdoctoral fellows, associate professors and professors) (2015-2018)
- Interviews with department heads at four universities (2020-2021)
- Interviews with five deans (2020)
- Analysis of policy documents
- Analysis of all employment processes over ten years at one faculty
- Official data: DBH, NTNU management, Christin, Google Scholar
- Online survey with recipients of qualification grants and start-up packages (2021)
- Qualitative interviews of gender equality advisers (3), administrative staff (2), recipients of qualification grants (4), recipients of start-up packages (4) (2021)
GENDIM approach

• Practical and easy to use
• A method more than a recipe
• Research-based
• Adapted and tailor-made strategies and measures
• Anchored in leadership and supported among employees
### Local variations

**Table: Share of women professors at NTNU in percent**

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Share of women professors in 2021</th>
<th>Lowest/highest share of women professors on department level in 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>NTNU total</td>
<td>27</td>
<td>0 – 100</td>
</tr>
<tr>
<td>The Faculty of the Humanities</td>
<td>41</td>
<td>11 – 67</td>
</tr>
<tr>
<td>The Medicine Faculty</td>
<td>40</td>
<td>15 – 100</td>
</tr>
<tr>
<td>The Faculty of Architecture and Design</td>
<td>36</td>
<td>31 – 54</td>
</tr>
<tr>
<td>The Faculty of information technologies and electronics</td>
<td>16</td>
<td>9 – 22</td>
</tr>
<tr>
<td>The Engineering Faculty</td>
<td>12</td>
<td>0 – 15</td>
</tr>
<tr>
<td>The Faculty of the Natural Sciences</td>
<td>27</td>
<td>18 – 95</td>
</tr>
<tr>
<td>The Faculty of Social and Educational Sciences</td>
<td>40</td>
<td>20 – 50</td>
</tr>
<tr>
<td>The Faculty of Economy</td>
<td>21</td>
<td>9 – 28</td>
</tr>
</tbody>
</table>

*Source: DBH 2022*
Different scenarios

Scenario 1: Leaky pipeline
Gender balance on PhD and post-doc level, but low share among professors
→ focus on keeping and promoting women

Scenario 2: Underrepresentation overall
Low share of women overall, including study programs
→ focus on recruiting women to study and promoting a career in academia

Scenario 3: Gendered research groups
Some research groups dominated by men, some by women
→ focus on collaboration

Scenario 4: Sustainability problem
Share of women improved through extensive measures, but are dropping after
→ focus on understanding why women leave
Local knowledge-making

• Mapping and developing knowledge about the local gender balance situation
• Obtain a knowledge base - helps gender balance measures and strategies be more accurate and thus increase their chance of having the desired effect
• Knowledge-making can increase motivation and ownership
Adapted measures

- One size fits none
- Measures need to adapted and translated
- Design and try-out multiple measures
- Measures need to be followed up, evaluated and adapted (‘double-loop learning’)
Gender-sensitive leadership

- Department heads are potential change agents
- Challenged by competing concerns and lack of knowledge
- Need clear signals from top-leadership
- Local knowledge-making can lead to more action
Gender balance from below

- Need local support to implement measures
- Necessary to avoid ‘hidden’ leadership
- Collegial and collective leadership more suited to academia
- Need collective ownership of the problem and solutions
GENDIM toolbox

1. Mapping the situation
2. Involving employees in assessment of the situation and developing local understanding of the problem
3. Planning for change: recruitment, career advancement, working environment
4. Making someone responsible for implementation
5. Evaluating, making amendments and adaptations

Available at: https://www.ntnu.edu/genderbalance/toolbox
THANK YOU!

More information: https://www.ntnu.edu/genderbalance
For questions: ivana.suboticki@ntnu.no
Anne Flagstad

Executive Vice President,
People and Sustainability
at Statnett SF
Diversity in Statnett

Anne Flagstad, Head of People and Sustainability
Objective:

Diversity 1.0

Diversity 2.0
Let's focus first on gender..
Gender: You need to fix the basics.....

- Female (F):
  - 60%
  - 30%
  - 27%

- Male (M):
  - 40%
  - 70%
  - 73%

Flexibility
Employer brand to attract females...

Internship
Trainee program
Student part timers

Internal development opportunities to retain females...

A transparent and non-biased internal job market
Supportive leaders
Active encouragement
Structure is hygiene - "Culture" required to accelerate diversity

![Diagram showing the relationship between Diversity Skills, Diversity Consciousness, Diversity Awareness, Understanding of Diversity, Attitude, and Action.]

- **Attitude** -> **Action**
- **Action** -> **Attitude**
The ultimate goal is Diversity 2.0 - because it's good for business, society and humanity.
Trine Moa
Senior Adviser Innovation Strategy and Governance at Nordic Innovation

Hege Guttormsen
Higher Executive Officer at Nordic Innovation
Nordic Innovation Diversity Task Force
How equal?

In 2020, all-women-founded startups raised just 0.7% of investment in the Nordics. 7.3% went to mixed-gender founding teams, while all-men founding teams raised 92%.
The Nordic Innovation Diversity Task Force

- The Nordic task force for diversity consist of members from (almost) all the Nordic countries together with Nordic Innovation.

- The aim of the task force is to make the Nordic innovation ecosystem more gender equal.
What we do

- Knowledge transfer
- Analysis
- Policy making
- Engagement
Get in touch!

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Moa Persdotter, Program Administrator, Vinnova
Maija Kāle, Innovation & Sustainability Adviser at The Council of Ministers' Office in Latvia
Line Christmas Møller, Project Manager Gender Mainstreaming, Nordic Council of Ministers
Rebekka Ravnholt Edemann, Green and Responsible Business Development, Danish Business Authority
Trine Moa, Senior Adviser Strategy and Governance, Nordic Innovation
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Hege Guttormsen, Higher Executive Officer, Nordic Innovation

https://www.nordicinnovation.org/
Nina Hellum

Senior Scientist at
Norwegian Defence
Research Establishment
(FFI)
Influencing Culture, Behaviour, and Mindset - actions speak louder than words

- Identifying organizational properties and biases using the Norwegian Military Forces as a case

Oslo, June 14 2022
Nina Hellum, senior social scientist FFI
Background

- Social anthropologist, gestalt therapist, Russian studies
- Gender, state security, individual security awareness, influence operations, cyber security, recruitment & retention, insider risk, PSYOPS, military deception, counter intelligence
- Participatory observation
- Interviews
- Emic/ethic perspective
Gender issues in the Norwegian military

- 2006 – Norwegian government and the MOD (Ministry of Defence) presented a bill for increasing female percentage in the military

- 2009/2010 – compulsory selection day for all (theoretical and physical tests, health check, conversation, information about service opportunities)
  - Women were forced to reflect on doing military service

- 2016 – gender neutral conscription

- 2022 – women in uniform not longer an anomaly
Influencing behaviour

• Military disciplines – PSYOPS and MILDEC (influence operations)

• C-SPI – Cyber Social Propaganda and Influence

• Influencing behaviour easier than changing mindset and attitudes

• Leaders are key – changing and influencing by doing, not just saying

• Exposure between differing groups enhances tolerance and understanding (to a certain degree)

• Different groups are influenced in different ways – one size does NOT fit all
Equality / Equity

- In order to obtain diversity – minorities must be of a certain size to have a voice
- Party toasts and pamphlets can be counterproductive
  - Big words and no action is demotivating
- National culture weighs in – expectations of gender equality and equity
- Recruiting and selecting “the best”
  - Who decides what criteria distinguish the best?
- Positive discrimination – myths and use
  - Radical
  - Moderate
- Tokenism / Queen bee theory
Questions?
Khanya Bouma

Civil Engineer at Equinor
Advisor Hydropower at Multiconsult
Board Member of Kraftkvinnene
Khanya Bouma
Kraftkvinnene Board Member
Day 2

https://neen.network/
Charlotte Søndergaard
Strength, Business & Leadership Coach
Strategic DEI Leadership Advisor at FemaleLeadership.dk
Who is doing the Office Housework?
Charlotte Caroline Søndergaard
FemaleLeadership.dk
Office Housework: Work predominantly done by women that contributes to the business but isn't formally recognized in performance reviews, typically does not lead to advancement, and isn't usually compensated.
Women everywhere are unfairly burdened with "non-promotable work." But still trail behind their male peers.
Are you performing more administrative work compared to your male peers?

"I do more administrative work compared to my male peers."
Gender stereotyping are still part of most organizations' culture where we expect men to be ambitious and result-oriented and women to be nurturing and not "too ambitious".

Women are conditioned to be helpers from childhood, and therefore often experience an internal sense of pleasure when they can help others. Men are conditioned to be celebrated when they help and expect praise in return for helping.
Being “Ms. Fixer” can become harmful for your career progression. Always volunteering to help others comes with a cost of missed opportunities and risk of burnout.

Women are held to a different standard of likability and experience double standards that act like a glass ceiling. When a woman declines to help a colleague, people like her less and her career suffers. But when a man says no, he faces no backlash. A man who doesn’t help is “busy” and a woman is “selfish.”

Sheryl Sandberg & Adam Grant, New York Times
Many men believe that there is a bias against male leadership and male promotions.

But men still hold the leadership positions in most organizations.

1 out of 4 women have not had the same access to promotion opportunities in their job as their male peers*

* Exclusive results from the opinion survey conducted by Focus 2030 and Women Deliver, covering 17 countries, Summer 2020.
No one gets the promotion if they don't understand their own results and women are not promoted just because they are women. Don't assume.
Disrupt Office Housework. Call it out!

Don’t assume coworkers find it enjoyable.

Set up rotations for ongoing chores.

Coach volunteers to step back.

Spread tasks among the team with respect for diversity.
What do you want to be known for?

• Compare your amount of admin work with your male peers and set boundaries accordingly.
• Be authentic and know your strengths. Invest in them and apply them. Be known for them.
• Make active decisions about the work you want to take on. Use a coach, mentor or sponsor to help you.
• Say no to requests that pull you away from the work that matter most to your career. If the work doesn’t count in performance review or salary negotiations – Say No!
• Be aware that getting coffee, baking cakes and planning office parties and events are more regarded as a personal investment and are not accelerating you anywhere.
Be the leader of your own life and career!

Act so others will mention your name in a room full of opportunities.
Get Inspired. Read Our Blogs.
Let’s connect.
The superhero pose produces power by increasing testosterone and decreasing cortisol levels.

Marvel, Black Widow, Scarlett Johansson
Petra Berg

Assistant Professor at University of Vaasa, School of Marketing and Communication and VEBIC platform
Taking the Fools Leap Towards Sustainability

...socio-cultural perspectives to navigate future social-cyber-physical energy systems – case REDISET
HELLO!

Petra Berg
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School of Marketing and Communication & VEBIC
University of Vaasa, Finland

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It is argued that sustainable behavior is a question of self-control, as it usually means changing a habit. Research suggests that people with a fresh start mindset (the fool archetype) are more inclined to change their behavioral patterns. The downside to this finding is, that most people don’t seem to naturally exhibit this mindset. Still, today’s wicked challenges require fresh perspectives and innovative solutions, we need many different minds to work together. REDISET is a new Nordic project which focuses on cyber security and resilience of social-cyber-physical energy systems, it is also an interdisciplinary research group, where both gender equality and cultural diversity have been taken into account. Will this group manage to follow the style of the fool – what are the tools?
Global externalities of local actions – we don’t live in a vacuum, disaster somewhere else will land into our lives sooner or later.

The state of the planet is much worse than most people understand and that humans face a grim and “ghastly future” unless extraordinary action is taken soon. A loss of biodiversity and accelerating climate change in the coming decades coupled with ignorance and inaction is threatening the survival of all species, including our very own, according to the experts from institutions including Stanford University, UCLA, and Flinders University.

How sustainable will our recovery be?

According to new OECD data, OECD countries and key partner economies have so far allocated USD 336 billion to environmentally positive measures within their national effects needed to address unlock the economy?

If we are serious about transitioning towards a low-carbon economy, we are going to have to do better than this.
Energy transitions are driven by the need and availability of energy sources, and today they also always aim towards more renewable and sustainable solutions. (Sovacool 2016)

A central aim of sustainability transitions research is to conceptualize and explain how radical changes can occur in the way that societal functions are fulfilled. The unit of analysis is thus primarily situated at the ‘meso’-level of socio-technical systems. (Köhler et al. 2019)

Differs from long-standing sustainability debates at the ‘macro’-level (e.g. changing the nature of capitalism or nature-society interactions) or the ‘micro’-level (e.g. changing individual choices, attitudes and motivations). (Köhler et al. 2019)

Transitions involve various aspects of power. Broadly speaking, power can be characterized as the (in)capacity of actors to mobilize resources and institutions to achieve a goal. (Avelino 2017)
SOCIO-ECONOMIC AND TECHNICAL PERSPECTIVE ON ENERGY SYSTEM TRANSFORMATION - VISUALIZATION OF TRANSFORMATIVE MISSION PORT COMPANY  (ROEL VAN RAAK, DRIFT, VAASA, 15.11.2017)
RESEARCH BACKGROUND:
MARKETING SYSTEMS & ENERGY BEHAVIOR

Marketing systems theory proposes that markets as systems can describe social evolution of a collective. Their origin lies in the trade imperative (exchange), where individual actors realize that gains are possible through specialization. (Layton 2011)

Marketing systems are “multi-level, path dependent, dynamic systems, embedded within a social matrix, and interacting with institutional and knowledge environment”. (Layton 2011)

The embeddedness of established technologies into user practices, business models, value chains, regulations, and institutional as well as political structures creates a situation where changes are rather incremental than radical.
RESEARCH BACKGROUND: DOMINANT SOCIAL PARADIGM - DSP

The freedom of choice and responsibility for it is said to exist within the context of the DSP, which refers to the collection of norms, beliefs, values, habits, and so on that form the world view most commonly held within a culture. (Kilbourne et al., 2009)

Consumption regarded as a socially constructed process considers that people are socialized into consumption systems and therefore, it is hard to grasp a holistic and sophisticated understanding of sustainability and make coherent, consistent decisions from an external point of view.
Path dependence and lock-ins are inherent to socio-technical marketing systems

Lock-In of mental models: Thought models that lock us into mindsets and behaviors that create inertia to change e.g. path dependence

Myths are stories about how things are – "the reality" – they maintain a certain belief systems and follow collectively agreed upon paths
The Energy Agora – the ancient marketplace for material and immaterial exchange - is the place where different actors in a socio-technical energy marketing systems translate their ideations to others. Institutionally legitimized beliefs and mental models are translated to others through discourses.
Inter-Nordic collaboration with partners from Finland, Sweden and Norway. Aim to provide social-cyber-technical knowledge to support the sustainable rollout of a future, digital electricity system. Specific focus on providing more understanding of the variables and threats to the Nordic energy system to support the transmission system operators in constructing a secure and resilient future energy system.
GENDER BALANCE AND CULTURAL DIVERSITY IN INTERDISCIPLINARY RESEARCH GROUP(S) – CASE REDISET

Social–Cyber–Physical Energy Systems
So... Who is the Fool?

One of the 78 cards in a tarot deck and one of the 22 Major Arcana cards, usually numbered as 0 OR 22.

Beginning a new path

The Fool - The Infinite Possibility of Chaos – the Leap of Faith

Represents new potential, the chaos before actuality, new beginnings, innocence and naivety

Jungian psychology, archetypes, symbology, mythologies and myths... (Raider Wait Deck)
THE REST OF THE MAJOR ARCANA
What can we learn from the Fool?

”Theoretical considerations of cause and effect often look pale and dusty in comparison to the result of chance” (Carl Jung).

Zero point
What do you take along, what will you leave behind?
Unlocking mental models – am i stuck in a paradigm?
Look at your ”roots” – family, education, interests – what are your unquestioned truths about life?
Liminal spaces – the edge - uncomfortable – messy – dynamic!
"Edges are where things happen – where a forest meets a prairie or a river flows into the sea, or at nearly any other boundary between two ecosystems is a cauldron of biodiversity... the edge is richer than what lies on either side. Any fisherman knows it. He doesn’t catch his lure into the center of the lake, but towards the shoreline, where the fish gather to feed on the flurishing life in the swallows” (Hemenway 2009 pp. 45)

So if we want to boost the biodiversity in our yards, we should optimize edge – the intersection of two environments – is the most diverse place in a system and is where energy and materials accumulate or are translated (Hemenway 2009 pp. 7)
THANK YOU!
REFERENCES


Saira Alladin

Director Asset Operation & Maintenance at Vattenfall
Everyone is needed to reach a fossil-free future
Saira Alladin

Director Operations & Maintenance
BU Distribution
300 employees
3 cities
A bit about me...
Fossil-free living within one generation
Electrification will be the biggest transformation in society since the industrial revolution.
Vattenfall commitments toward Net Zero until 2040

-38% Emission intensity reduction since 2017
1.5°C Target for own emission reductions
Net Zero Emissions in our full value chain

VATTENFALL EMISSION INTENSITY
2017-2040 gCO2e / kWh

TODAY 2030 2040
Climate change and electrification in Sweden – it’s happening now!

Regeringen vill skynda på elektrifieringen med 17 löften

Regeringen ökar takten för att elektrifiera transportsektorn i landet. Nu presenteras 17 löften som ska påskynda elektrifieringen av regionala godstransporter med lastbil.

12 punkter för en framgångsrik elektrifiering

- Snabb, smart och samhällesekonomisk effektiv elektrifiering för att uppnå klimat- och samhällsförandeförmåga
- Räcka med tillräckligt med energi och teknik
- Elektrifiera flera sektorer samtidigt
- Kostnadsstöd för att tvinga ombyggnad
- Samarbete i sektorer
- Strategisk planering och strategi
- Strategisk planering och strategi
- Strategisk planering och strategi
- Sektorsamtal och samarbete
- Strategisk planering och strategi
- Strategisk planering och strategi
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Fossilfri omställning av industrin kan inte vänta

Industrilaren stramlar: Brättom med mer el – grön boom stoppas
Sweden face an electrification revolution

Plan for double electricity demand

<table>
<thead>
<tr>
<th>Year</th>
<th>Electricity demand 2020</th>
<th>Decarbonization of industry and transport</th>
<th>New industry and export with global Climate impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2030</td>
<td>150</td>
<td></td>
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</tr>
<tr>
<td>2040</td>
<td>200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2050</td>
<td>250</td>
<td></td>
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</tr>
</tbody>
</table>

Three phases

- **2020 – 2030**: Transport and first movers in industry
- **2030 – 2040**: All industries
- **2040 – 2050**: Continued electrification, global climate impact

In order to succeed, planning and market need to collaborate
It’s an enormous challenge – in order to succeed we need

Create tailwind
Build what needs to get built
Make it all work
Secure competence

Faster permit processes
Increase social acceptance
Our history starts with the heroes who electrified Sweden
Why diversity & inclusion matter

It’s good for people

It’s good for business

It’s good for society
In 2015, we initiated major work for gender equality, diversity and inclusion (D&I) within the Vattenfall Group

- Increase balance between women and men
- Increase diversity within the company
- Increase understanding and knowledge of the benefits of D&I
- Develop our culture to be more inclusive
- D&I Officer in the Group Management team on a rotating basis
Vattenfall’s D&I Officer leads the way

- Map current D&I status
- Set strategy and business principles
- Set goals & follow up (35% Female Manager hires)
- Secure D&I in all processes
- Develop engagement and knowledge among top management
- Develop an inclusive culture

Road map towards diversity & inclusion

Start 2015, 2-year rotating role, within EGM
Think beyond
The energy industry in Sweden employs over 68,000 employees, spread over 1,000 companies.

For every additional billion invested, approximately 150 qualified electricians and 150 power engineers are needed.
The competence challenge consists of several parts

- We need to become many more
- We need specialist competence
- We need new type of competence
Examples of roles

- Project Engineer
- Wind Resource Engineer
- Geoscientist
- Operation Planner
- Laboratory assistant
- Agile Coach
- Meteorologist
- Online Marketing Specialist
- Business Developer
- Business Process Manager
- Technical Trainer
- Nuclear Power Plant Design Engineer
- Processleader
- Public Affairs Specialist
- Nuclear Power Plant Design Engineer
- Customer Relationship Expert
- Key Account Manager
- Scrum Master
- Mechanical Engineer
- IT Architect
- Project Manager
- Strategy Specialist
- Forest technician
- Sales Agent
- Sales Specialist
- Accounting Specialist
- Commercial Manager
- Energy Advisor
- Trader
- HR Business Partner
- Business Controller
- Project Economist
- Energy Advisor
- Commercial Manager
School and university collaboration

Create interest among young people

Meetings with future colleagues

The potential in wide recruitment
The result so far?
The result is that we have increased gender equality and diversity!

More manager recruitment appointed by women

- 2019: 36
- 2020: 41

+5%

Vattenfall Group at the top when Swedish association Kraftkvinnorna presents gender equality report for the energy sector.
Growth in gender diversity

Ratios over time

- Female manager appointments
- Female employees
- Female managers
# D&I Review Gender Diversity

## Trend over time

<table>
<thead>
<tr>
<th></th>
<th>Aggregated result total</th>
<th>Female employee ratio</th>
<th>Female managers ratio</th>
</tr>
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<tbody>
<tr>
<td>2021</td>
<td>27%</td>
<td>30%</td>
<td></td>
</tr>
<tr>
<td>2020</td>
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<tr>
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</tr>
<tr>
<td>2015</td>
<td>23%</td>
<td>19%</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>24%</td>
<td>18%</td>
<td></td>
</tr>
</tbody>
</table>
Engaged & enabled employees in 2021, positive to Vattenfall’s D&I initiatives

- Engagement: 75% in 2021, 74% in 2020, 71% in 2019, GI Norm 2021: 68%, HP Norm 2021: 75%
- Enablement: 78% in 2021, 77% in 2020, 73% in 2019, GI Norm 2021: 71%, HP Norm 2021: 76%
- Response Rate: 83%

- Diversity & Inclusion: 75%
- Health & Safety Index: 78%
Thank you!
Thank you!

https://neen.network/