

**Fleksibilitet**

**Energiklasse A**

**Lave LCC kostnader**

**Moderne og fremtidsrettet**

**Futureproof**

# Å bygge for fremtiden

Rune Augenstein, CTIO  
Smedvig Eiendom

**Bygget skal eldes med verdighet**

**Høy kvalitet**

**BREEAM**

**Relevant for fremtidige generasjoner**

**WELL**





## Smedvig- kvartalet

Stavanger Sentrum

Regionens største klynge for  
bank, finans og smartby



## Site 4016

Åsen

Regionens største klynge for  
bygg, anlegg og eiendom



## Innovasjonspark Stavanger

Ullandhaug

Internasjonalt senter for  
innovasjon, forskning og  
næringsutvikling



# Strategisk ramme – strategi – strategiske hovedpunkter



Smedvigs visjon

**Bygge for  
fremtiden.**

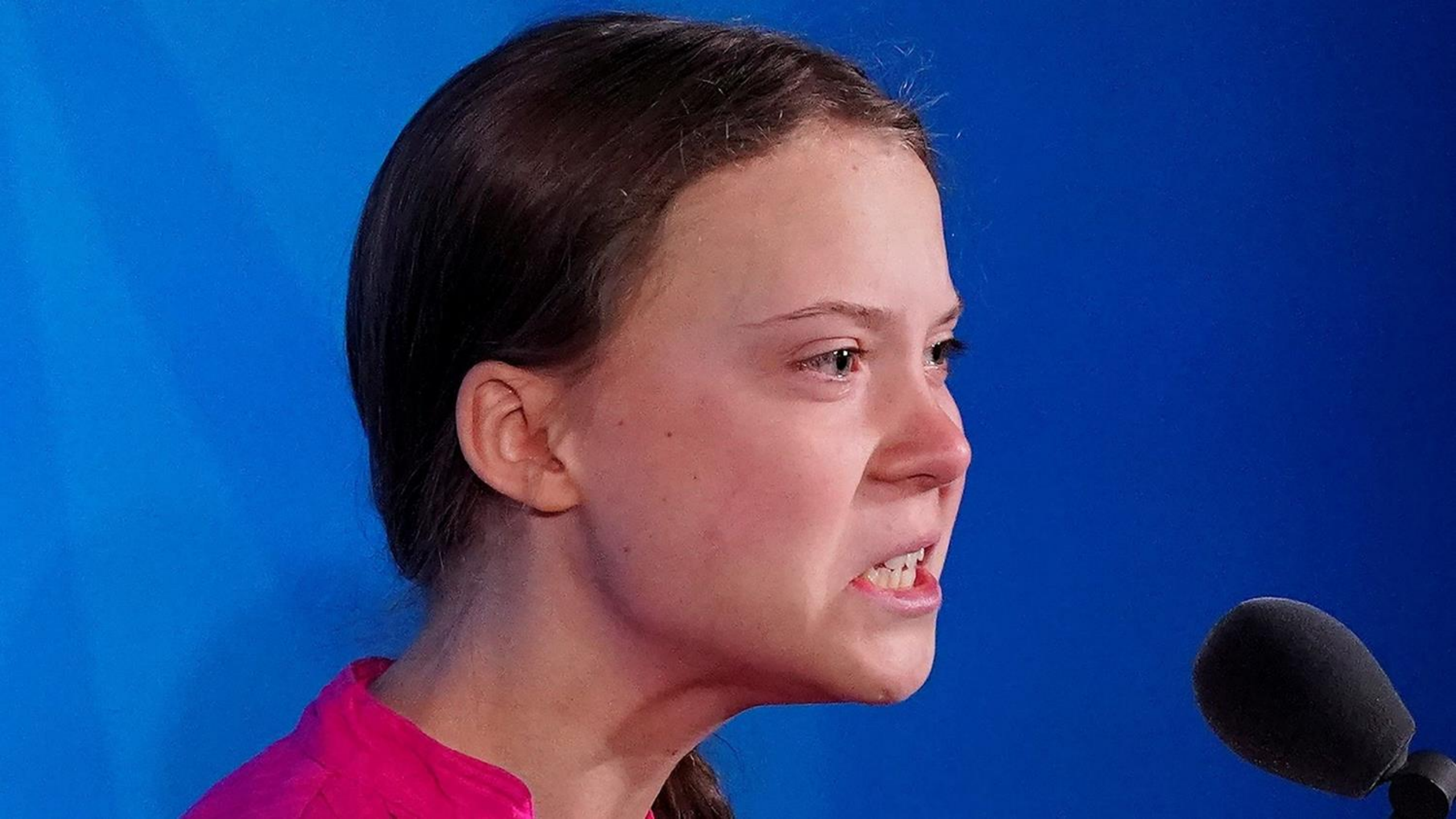
**Kultur  
Kompetanse  
Kapital**



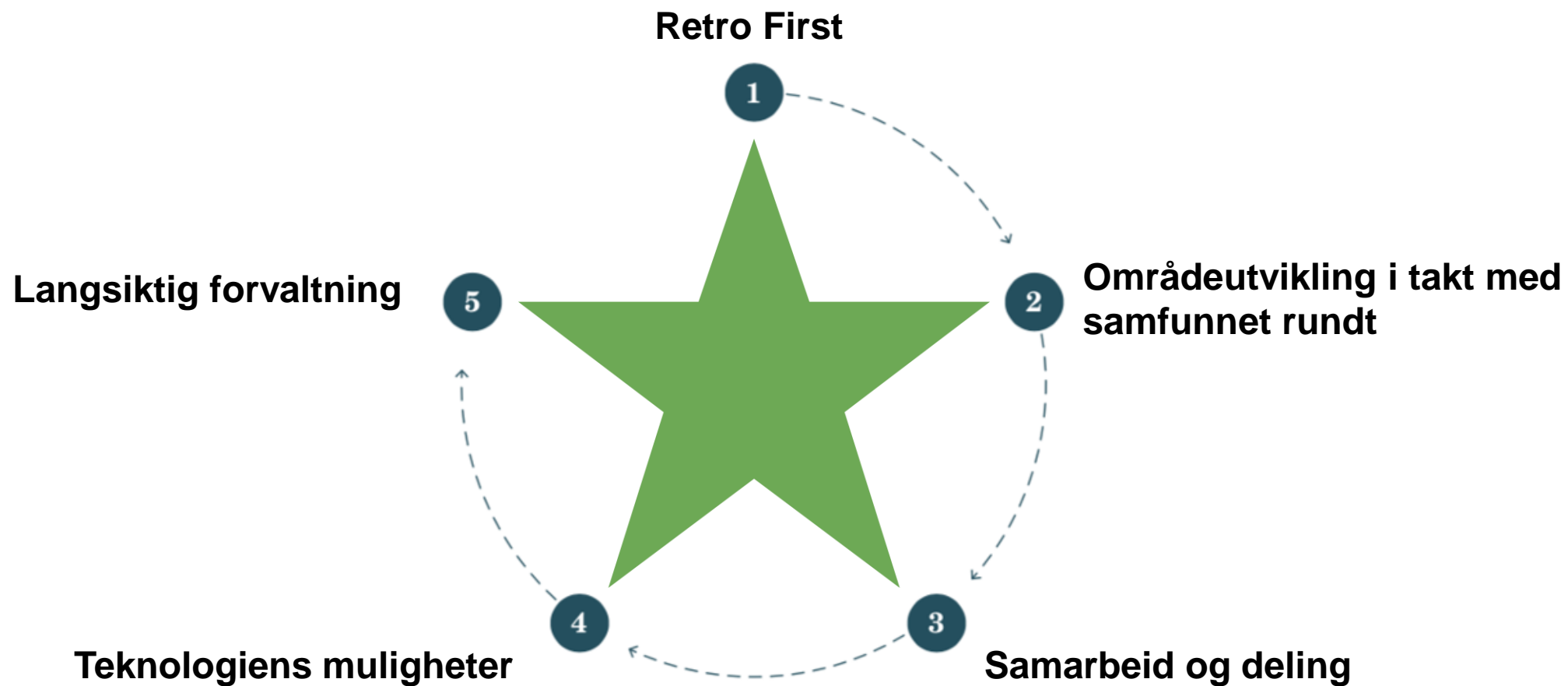
**Område-  
utvikling  
+  
Tjeneste-  
leverandør**

**Hoved-  
områder;  
  
Nye løsninger  
Bærekraft**

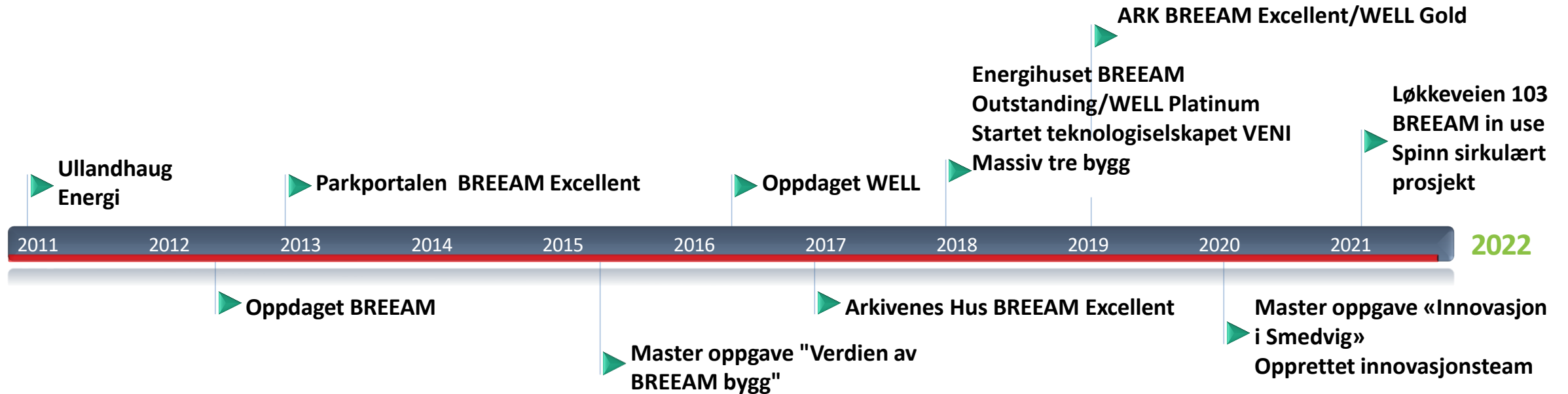




# Smedvig Eiendom bærekraftmodell



# Vår reise mot net zero



# Ullandhaug Energi

Oppstart

2009/2011

Tilknyttet bygningsmasse

100 000 m<sup>2</sup>

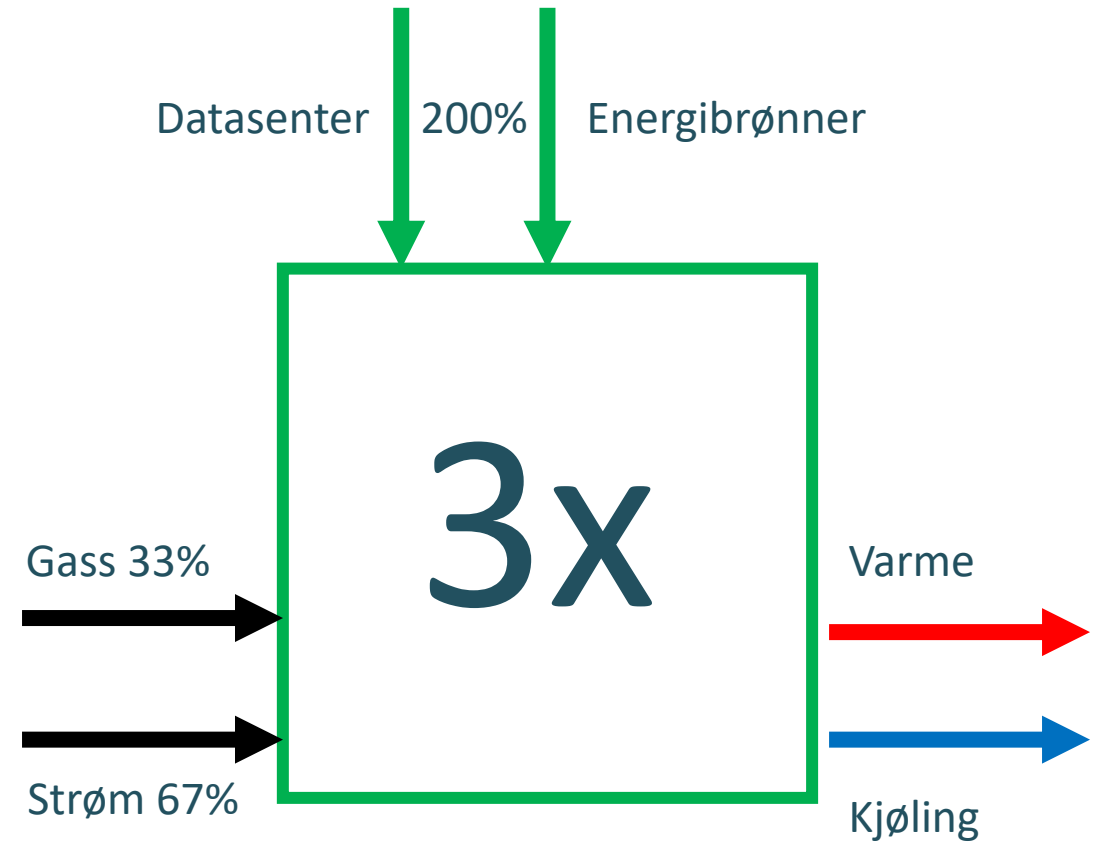
Årlig varmeleveranse

4 200 MWt

Årlig kjøleleveranse

3 000 MWt

Varmepumper og energibrønner





**KT6**

Areal: 50 000 m<sup>2</sup>  
Varme: 1 000 kW  
Kjøling: 1 000 kW

**KT5**

Areal: 7 000 m<sup>2</sup>  
Varme: 140 kW  
Kjøling: 105 kW

**KT17**

Areal: 16 700 m<sup>2</sup>  
Varme: 334 kW  
Kjøling: 251 kW

**KT9**

Areal: 21 000 m<sup>2</sup>  
Varme: 735 kW  
Kjøling: 735 kW

**KT8**

Areal: 12 000 m<sup>2</sup>  
Varme: 200 kW  
Kjøling: 360 kW

**KT10**

Areal: 7 200 m<sup>2</sup>  
Varme: 144 kW  
Kjøling: 170 kW





An aerial photograph of a dense tropical forest with a thick canopy of green trees. Overlaid on the center of the image are three lines of large white text.

4 489 167

19 000

480 000





# BREEAM<sup>®</sup> NOR

★★★★★



Energy



Health and  
Wellbeing



Innovation



Land Use



Materials



Management



Pollution



Transport



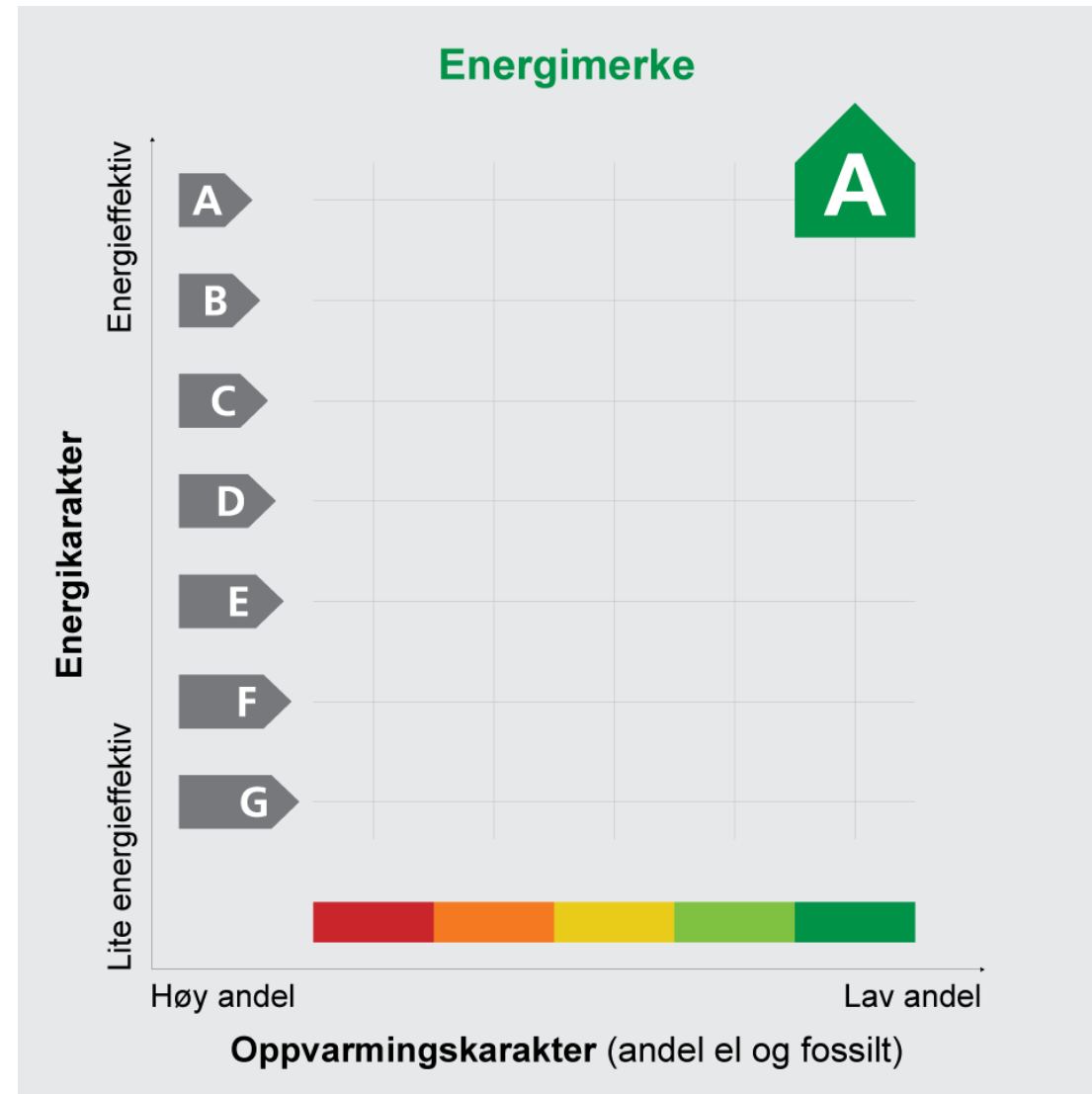
Waste



Water











**WELL** er en helhetlig, frivillig miljøsertifisering basert på medisinsk forskning



AIR



WATER



NOURISHMENT



LIGHT



MOVEMENT



THERMAL  
COMFORT



SOUND



MATERIALS



MIND

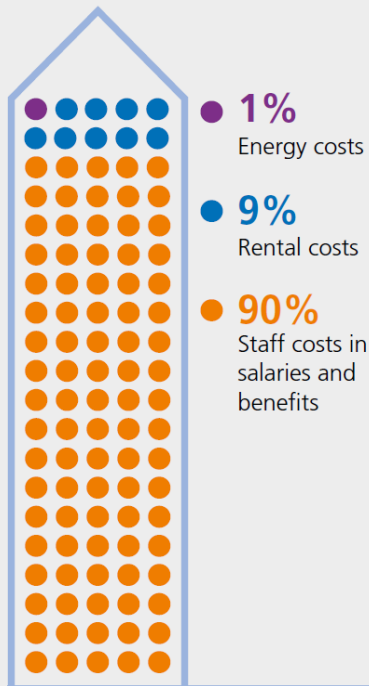


COMMUNITY





### Typical business operating costs<sup>1</sup>



#### 10% Variation

A 10% variation applied equally to each cost has a far from equal impact

**+/- 0.1%**

Energy costs

**+/- 0.9%**

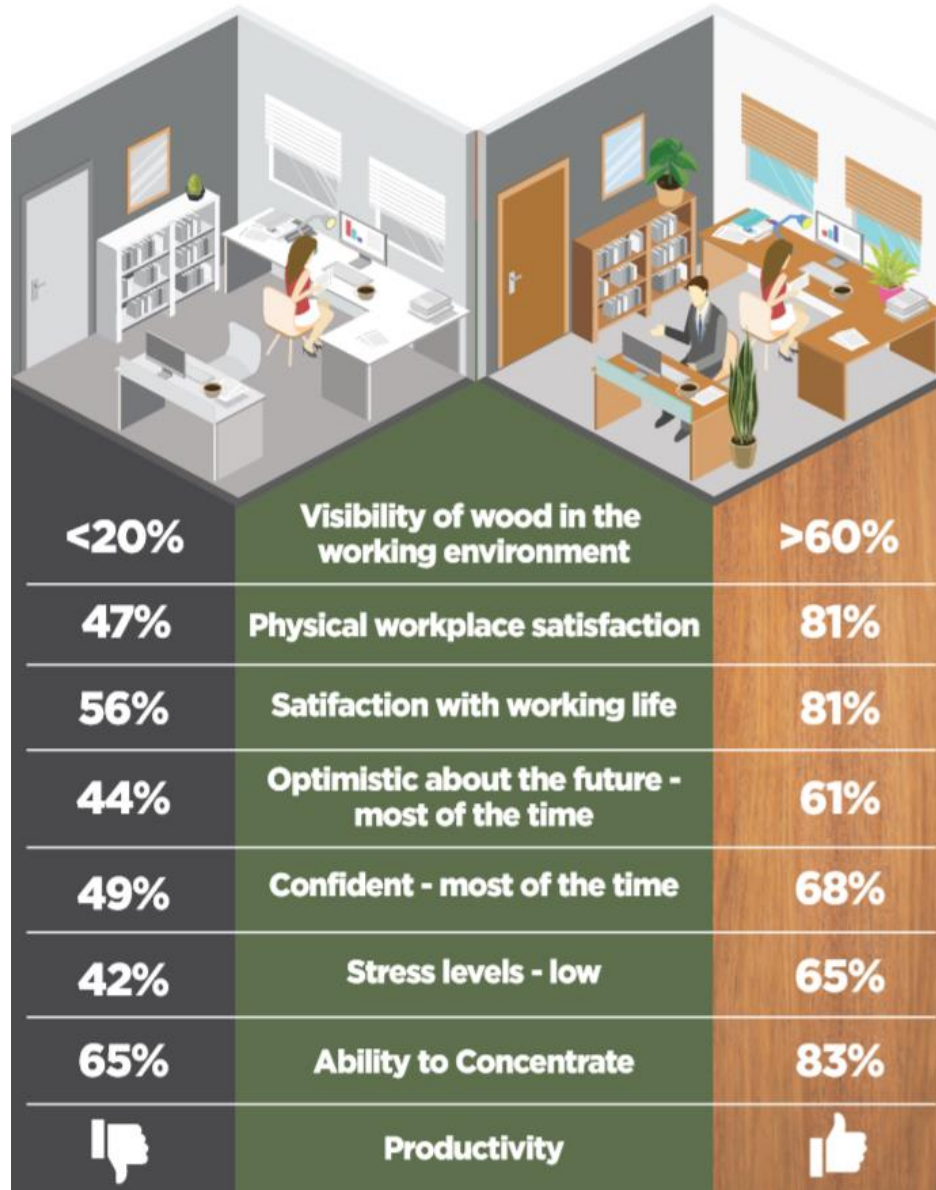
Rental costs

**+/- 9.0%**

Staff costs

**Mennesker  
er bedriftens viktigste  
ressurs og står for 90% av  
kostnadene**





Et miljøvennlig  
bygg øker  
produktiviteten til  
de ansatte med  
opptil **15%**

Kilde: Nieuwenhuis, Marlon & Knight, Craig & Postmes, Tom & Haslam, S.. (2014). The Relative Benefits of Green Versus Lean Office Space: Three Field Experiments. Journal of experimental psychology.

**BREEAM+WELL**







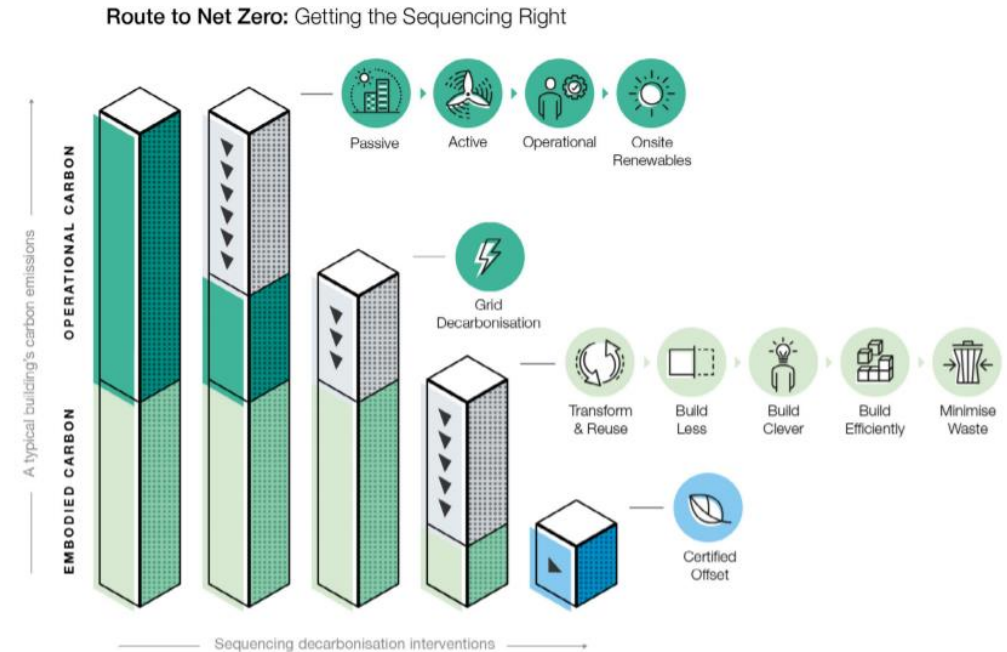
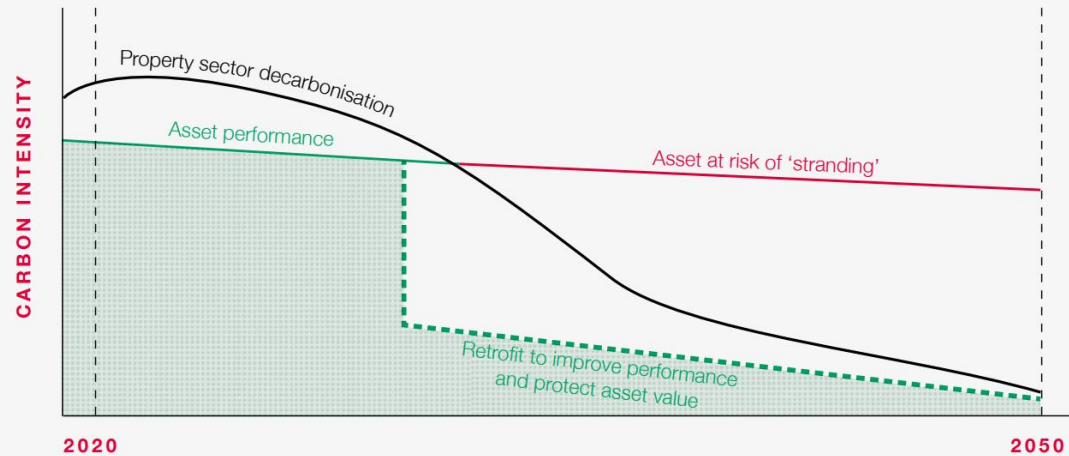
**Energihuset.**  
Norges mest innovative kontorbygg





# Veien til «null utslipp»

Energihuset vil bli et av verdens mest bærekraftige bygg og vil gi null utslipp i løpet av sin levetid. Bygget vil innfri alle myndighets-krav relatert til bærekraft de neste 30 årene.



«Vi velger Energihuset fordi det vil bedre vårt eget klimaregnskap. Vi vil leve selv som vi lærer andre. Vi skal prosjektere bygget, og dette blir et internasjonalt referansebygg for oss» - Cowi













# Spinn

Senter for sirkulær  
innovasjon



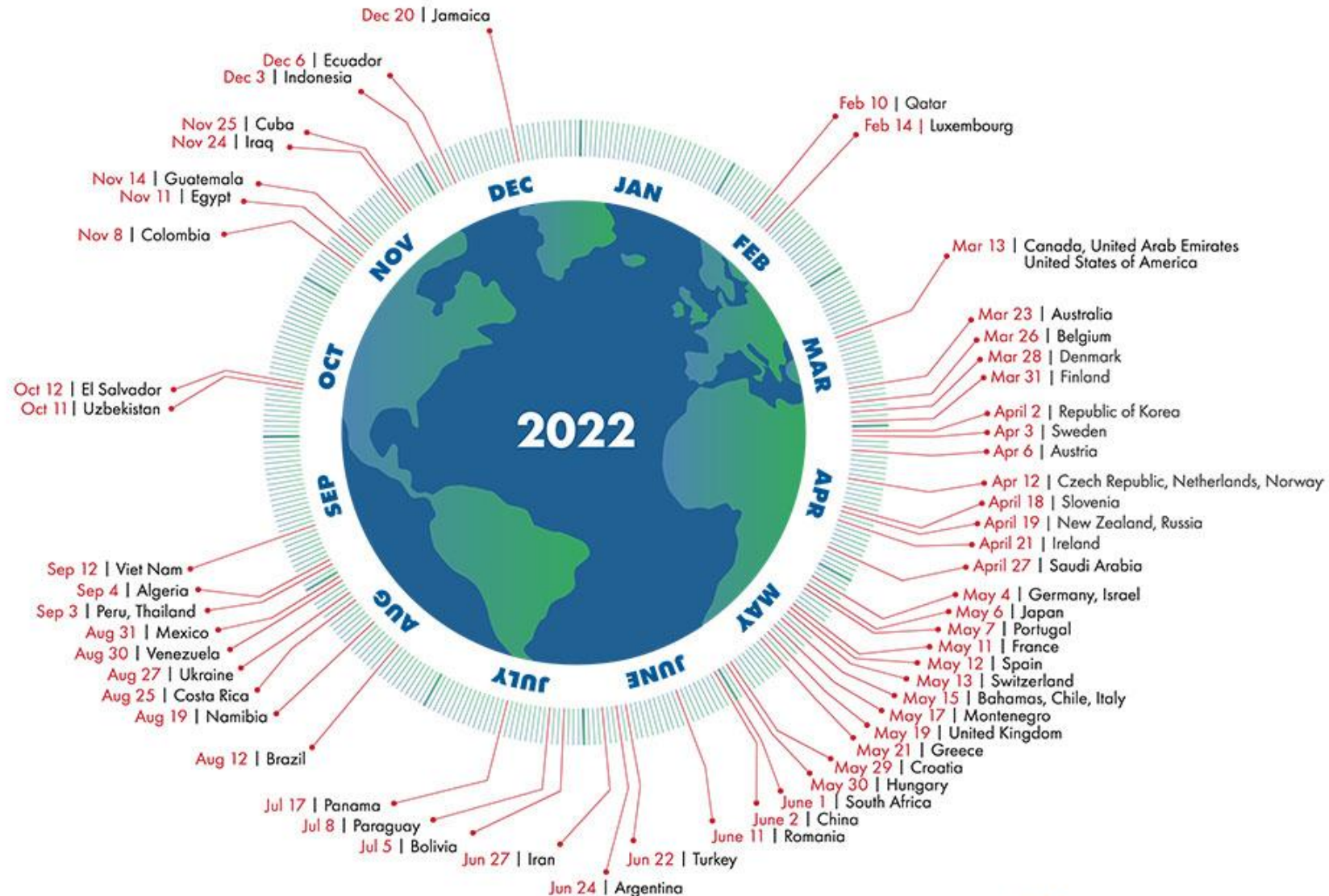




12. April?

# Country Overshoot Days 2022

When would Earth Overshoot Day land if the world's population lived like...



For a full list of countries, visit [overshootday.org/country-overshoot-days](https://overshootday.org/country-overshoot-days)

Source: National Footprint and Biocapacity Accounts, 2022 Edition  
[data.footprintnetwork.org](https://data.footprintnetwork.org)

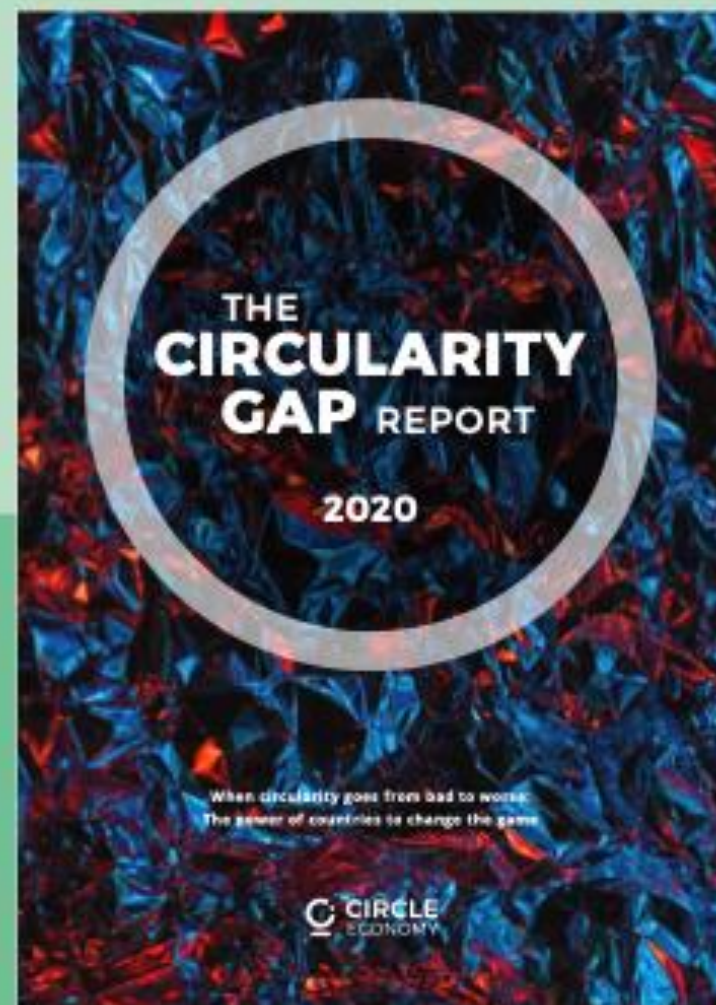




# The circularity gap report 2020, Circular Norway

**At 2.4%, Norway's circularity rate is below the global average (8.6%)**

Norway consumes 235 million tonnes of materials—metals, fossil fuels, biomass and minerals—to fuel its societal needs each year. 97.6% of these materials are never cycled back into the economy. But Norway has enormous potential: Our report reveals how the country could see a 20-fold increase in its circularity by restructuring Norwegian business and industry.



# Bygg, anleggs- og eiendomsbransjen med høyest utslipp i verden.

2019 Global Status Report for Buildings and Construction Sector International Energy Agency

36%

av endelig energiforbruk

39%

av energi- og prosessrelatert utslipp av CO<sup>2</sup>











# Spinn

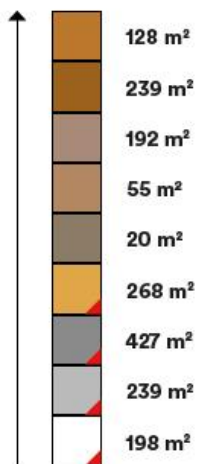
Senter for sirkulær  
innovasjon







Fargeprinsipp og areal for fasadeplater



▲ - platter fra Sverdrupgate 27, Stokkaveien 21

Totalt areal fasadeplater 1767 m<sup>2</sup>





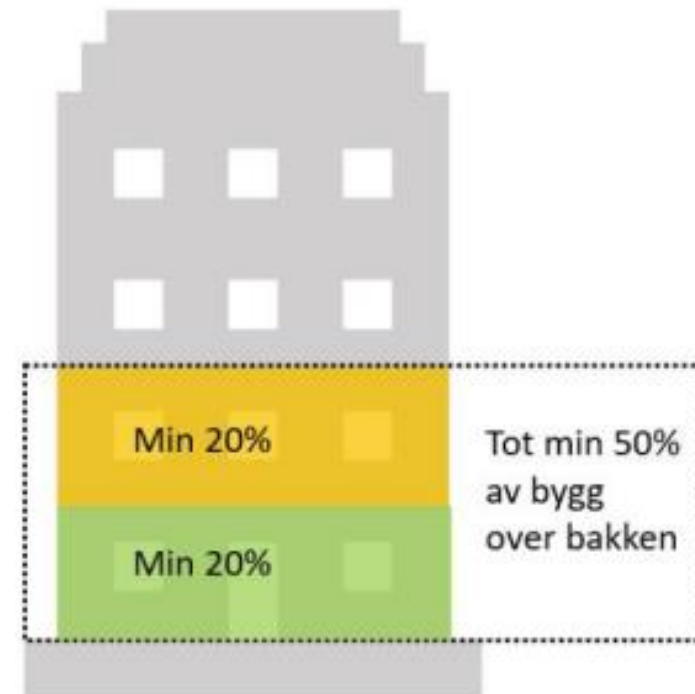


**Rehabilitering**

**Ombrukbare  
komponenter**

**Ombrukte  
komponenter**

**Eksisterende  
bygg**

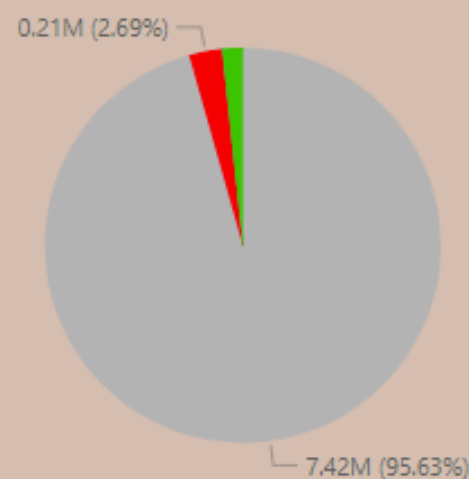


**Nybygg**



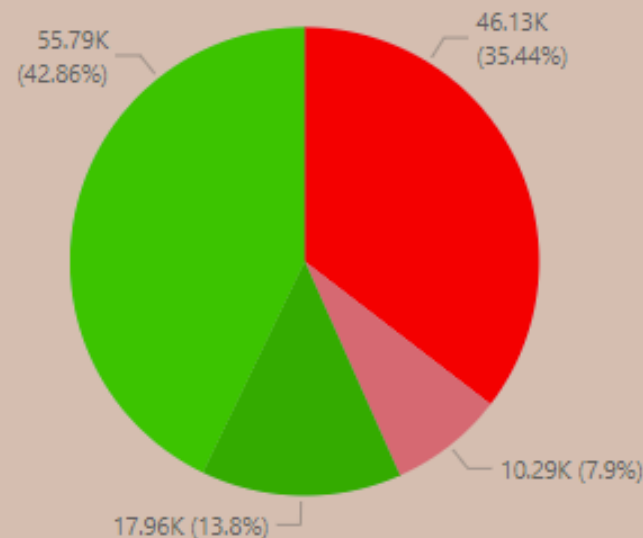
## Vekt eksisterende/rives

● Vekt MMI600 ● Vekt MMI10 ● Vekt MMI100-500

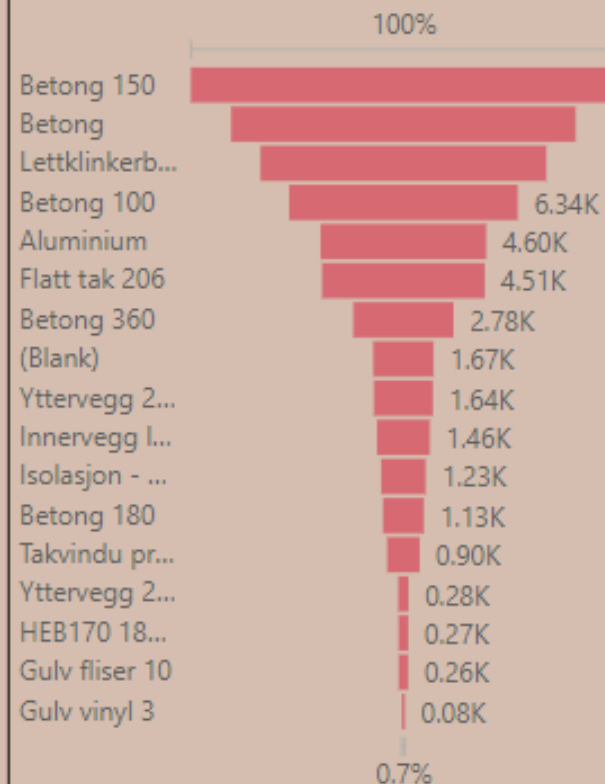


## Vekt tilført

● Nytt&amp;IKKEombr... ● Nytt&amp;Ombr... ● Ombrukt&amp;IK... ● Ombrukt&amp;O...



## Vekt Nytt pr type



## Source.Name

2022.04.04-Samlemodell.xlsx  
2022.03.28 -Samlemodell.xlsx  
2022.03.21-Samlemodell.xlsx

## Layer

222- Søylar  
223- Bjelker  
23-- Yttervegger  
231- Bærende yttervegger  
2311 Bærende yttervegger, betong  
232- Ikke-bærende yttervegger

## Type

(Blank)  
1200x200 mm 1200 x 200  
Aluminium  
Aluminium 2  
Betong

## REHAB.MMI

0  
200  
600

Layer	Vekt MMI600	Vekt MMI100-500	Vekt MMI10	Nytt&IKKEombrukbart	Nytt&Ombrukbart	Ombrukt&Ombrukbart	Ombrukt&IKKEOmbrukbart	First REHAB.Om...
24-- Innervegger	60,700.02	31199	30,166.88		9,389.74	14,196.39	7,612.74	Ja
255- Gulvoverflate	54,822.87	25629	37,206.81	1,568.77		13,710.34	10,350.13	Ja
238- Fasadekledning		21397				21,396.77		Ja
25-- Dekker	2,095,711.10	19807		19,806.58				N/A
23-- Yttervegger	540,849.08	13312	35,356.71	13,312.18				Ja
26-- Yttertak		10779	20,836.06	10,779.10				N/A
246- Tre konstrusjon		4669	406.08			4,668.67		Ja
<b>Total</b>	<b>7,415,091.99</b>	<b>130165</b>	<b>208,855.80</b>	<b>46,130.88</b>	<b>10,286.14</b>	<b>55,785.17</b>	<b>17,962.87</b>	<b>Ja</b>





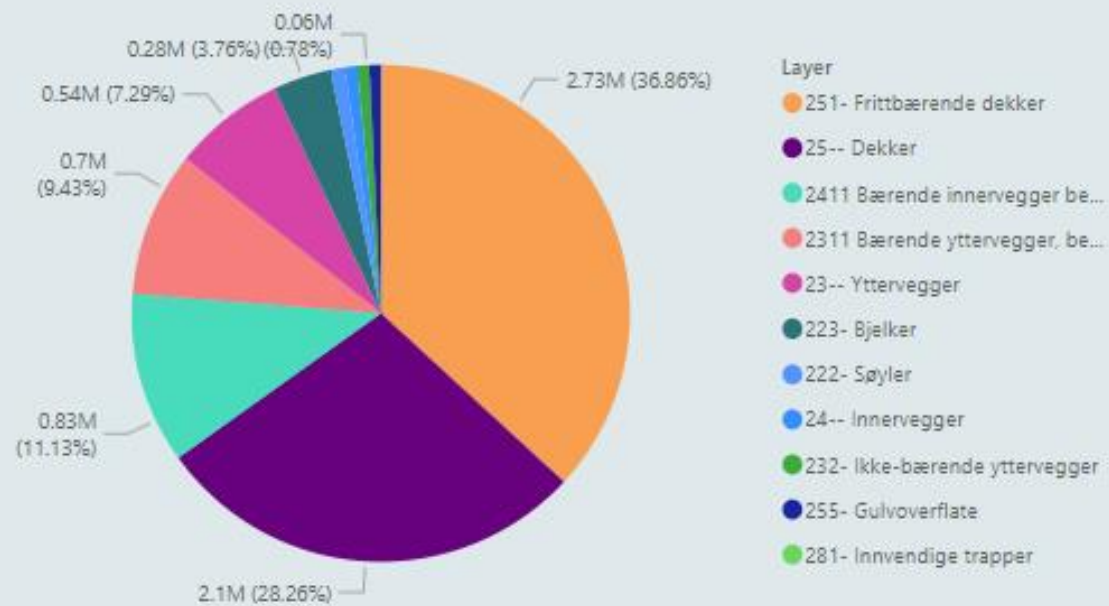
### Source.Name

- ☐ 2022.03.11 ARK ITO .xlsx
- ☐ 2022.03.15 ARK ITO - Gammel ARK.xlsx
- ☐ 2022.03.21-Samlemodell.xlsx
- ☐ 2022.03.28 -Samlemodell.xlsx
- ☒ 2022.04.04-Samlemodell.xlsx

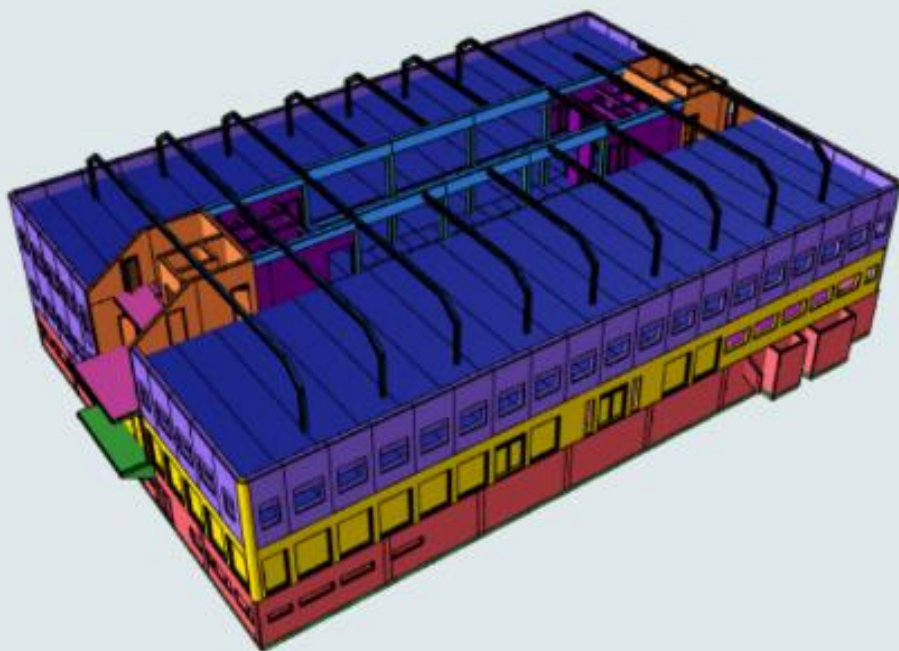
### Federated Floor

- ☐ (A) 1. Etasje
- ☐ (A) 2. Etasje
- ☐ (A) 3. Etasje
- ☐ (A) Takplan
- ☐ (A) U1

### Bevart



### 3D av tilført



Category	Vekt MMI600
IfcBeam	3,012,525.76
IfcColumn	86,139.38
IfcSlab	2,150,533.97
IfcStair	0.00
IfcWall	29,694.81
IfcWallStandardCase	2,136,198.07
Total	7,415,091.99



bygg smart

Digitalisering



Domenekunnskap

smarte bygg









## Weather

Mon  
**26°**  
20° - 30°

Clear and Sunny  
☀️ 28 km/h  
☁️ 42%

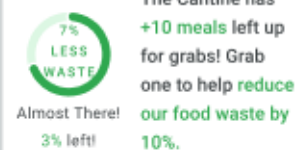
## Indoor Air Quality



## Targets



## Food Waste



## My Building

BREEAM In USE WELL BREEAM A

### Your Buildings Performance



The clouds size and color is directly impacted by the buildings CO2 output. (White/small is good)

This month our clouds are turning darker due to our increased CO2 output!

### Building Metrics

CO2 Energy Water Waste  
▲ 16.1% ▲ 12.1% ▼ 2.8% ▼ 6.8%

This month we roughly cut X trees worth of CO2 (X) . A X% decrease from last month!

### Your Consumption this month

This month you produced enough CO2 to cut down 8 Trees!

Compared to X Company's tenants, they were 25% more efficient than you producing CO2.

## Your Building This Month

### Top 3 Sustainable Companies

- ★ Smedvig ↑ 1
- ★ Kruse Smith ↑ 1
- ★ Faber Bygg ↓ 1

14 Your Company ↑ 2

### Reward this Month

- ★ Free Smoothies
- ★ X
- ★ X

If you ride your bike to work 3 days a week, this could save 3 trees worth of Co2 from your usual consumption!

### Actions to help reduce your footprint this month

Offset your carbon footprint by X%!

Ride your Bike to Work

Take The Bus

Go Plastic Free

Reduce Food Waste



User Satisfaction  
87/100



User's Cycling  
5%+ then last month!  
Saving X Trees





## Certifications



## Indoor Air Quality



## Targets



## Veni AS

4TH FLOOR



COMPANY TYPE

## Veni AS Initiatives

### Your Companies Performance



The clouds size and color is directly impacted by the buildings CO2 output. (White/small is good)

This month our clouds are turning dark due to our increased CO2! We also have 5 fewer trees as our

### Building Metrics



This month we roughly used X Kwh/M2 worth of energy. An increase of X, which would be equal to X football fields worth of trees in the rainforest!

### Their workers consumption



This month each employee produced enough CO2 to cut down 8 Trees!

Compared to X Company's tenants, they were 25% more efficient than you in saving energy.

we are 6% more efficient than the average company at waste management in this building.

\*Incentive or custom message on sustainability\*

### Efficiency Measures

- Riding your bike to work
- Public transport discounts
- Department competitions
- Monthly sustainability workshops

### Worker's most popular measures

- Shut off PC instead of sleep 83%
- Ride your bike to work scheme 76%
- Use mugs instead of single use 43%
- Focus on a Vegetarian diet 34%

***“ If you wanna make the world a better place  
Take a look at yourself and then make a change ”***



Rune Augenstein  
CTIO hos Smedvig

