

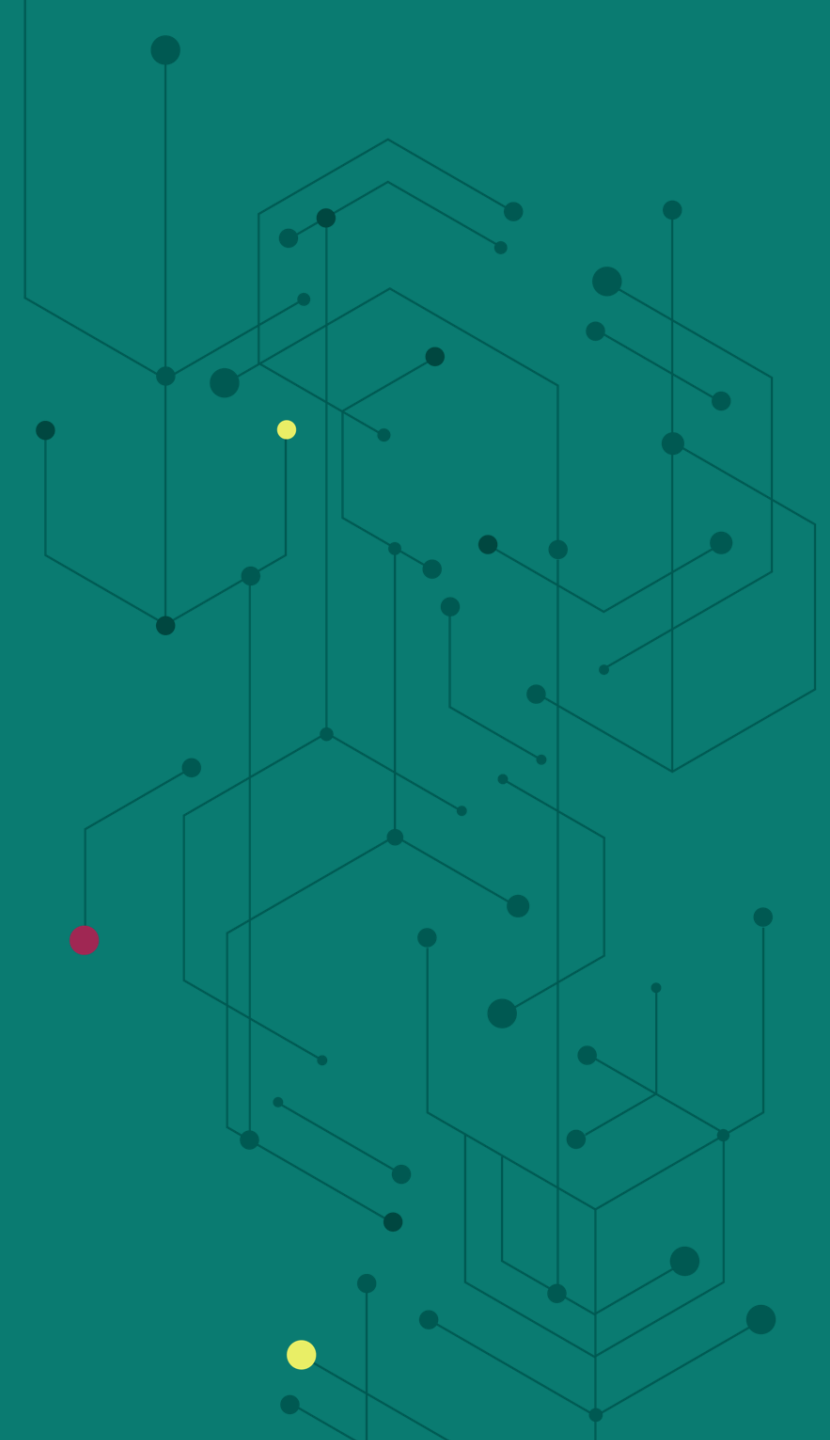
abelia

Et digitalt og bærekraftig
kunnskapssamfunn

Vi treng omstillings- og vekstmotorar for Noreg

Kjartan Almenning, næringspolitisk direktør i Abelia

Sykkylven, 04.06.2026



ASPI's two-decade Critical Technology Tracker:

The rewards of long-term research investment



JENNIFER WONG LEUNG
STEPHAN ROBIN
DANIELLE CAVE

AUGUST 2024

Artificial intelligence, computing and communications

Technology	Tech monopoly risk	Top 5 countries				
Advanced data analytics	9/10 2.3	33.2%	14.4%	5.4%	4.0%	3.6%
AI algorithms and hardware accelerators	6/10 2.2	30.9%	14.0%	5.9%	5.0%	4.5%
Machine learning	9/10 2.4	36.5%	15.4%	5.4%	3.6%	3.2%
Advanced integrated circuit design and fabrication	4/10 1.1	24.4%	22.5%	5.6%	4.3%	4.2%
Adversarial AI	7/10 1.6	31.1%	19.5%	5.5%	5.1%	3.5%
Natural language processing	6/10 1.0	24.8%	24.1%	4.2%	4.2%	3.7%

Quantum technologies

Technology	Tech monopoly risk	Top 5 countries				
Post-quantum cryptography	6/10 2.8	33.9%	12.1%	5.6%	5.1%	5.1%
Quantum computing	7/10 2.1	33.6%	15.9%	5.8%	5.7%	3.7%
Quantum communication	6/10 2.0	33.6%	16.8%	7.3%	6.0%	3.8%
Quantum sensors	2/10 1.0	24.1%	23.8%	7.7%	4.3%	4.1%

The future — — of European competitiveness

*Productivity growth is the only
possible way to achieve prosperity*

- Mario Draghi

European Commission
Commission européenne



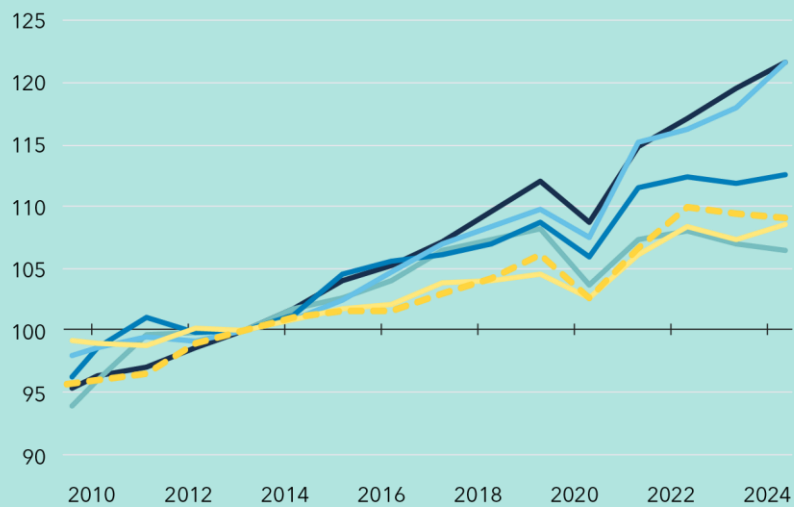
Veien til vekst

Norsk konkurransekraft
- Veien til vekst

Norge er blant verdens beste land å bo i, men pilene peker nedover

BNP per innbygger

Volumindeks, 100=2013. Kjøpekraftskorrigert

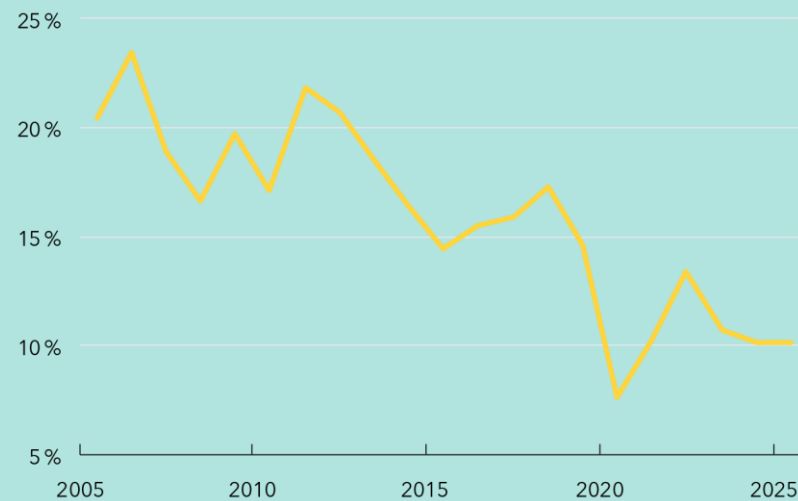


— USA — Sverige — Norge
— Tyskland — Danmark - - - Fastlands-Norge

Kilde: LSEG Datastream / IMF World Economic Outlook / Statistisk sentralbyrå / NHO

Norges andel nordiske topp 50 selskaper

I markedsverdi

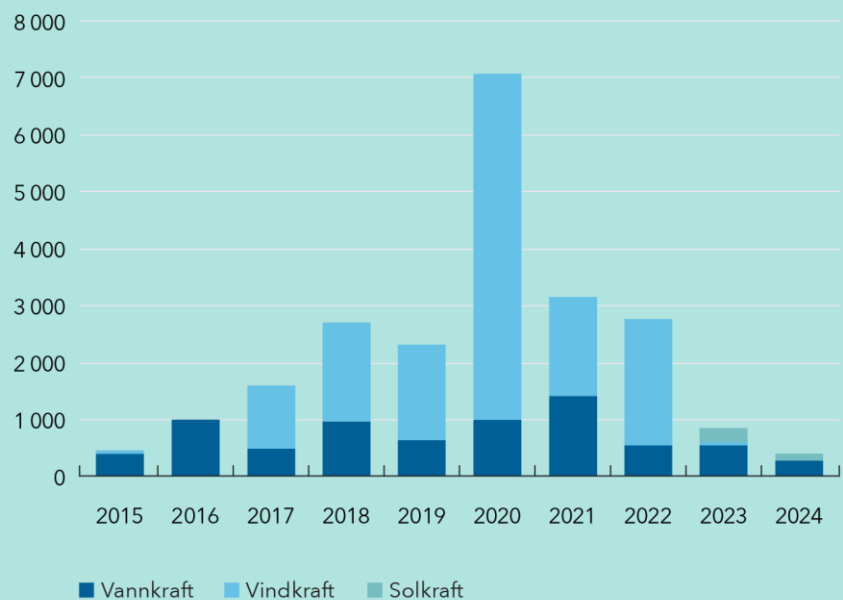


Kilde: CapitalIQ / Bloomberg / NHO

Vi styrer mot et kraftunderskudd og blir hengende etter i det grønne skiftet

Ny kraftproduksjon satt i drift

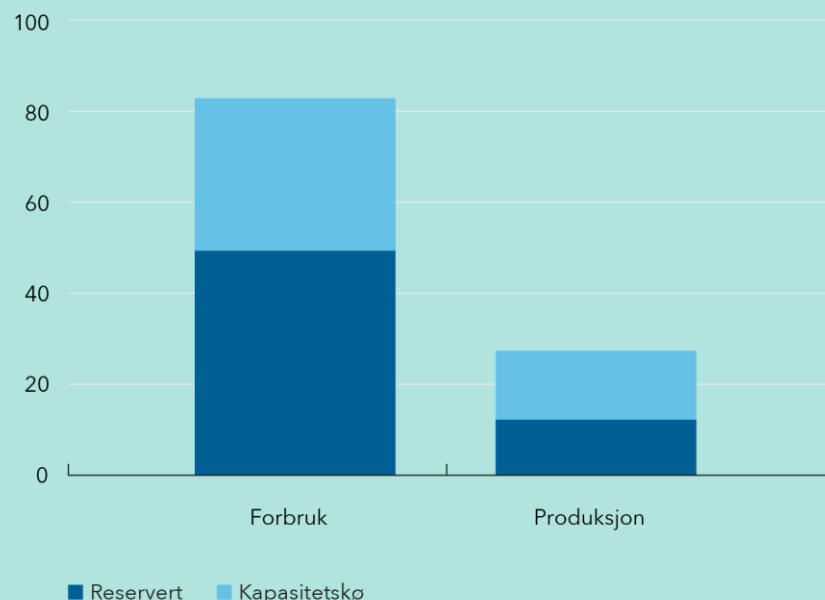
(GWh)



Kilde: NVE / NHO

Kraftforbruk og -produksjon 2024-2030

Totalt over perioden. TWh.

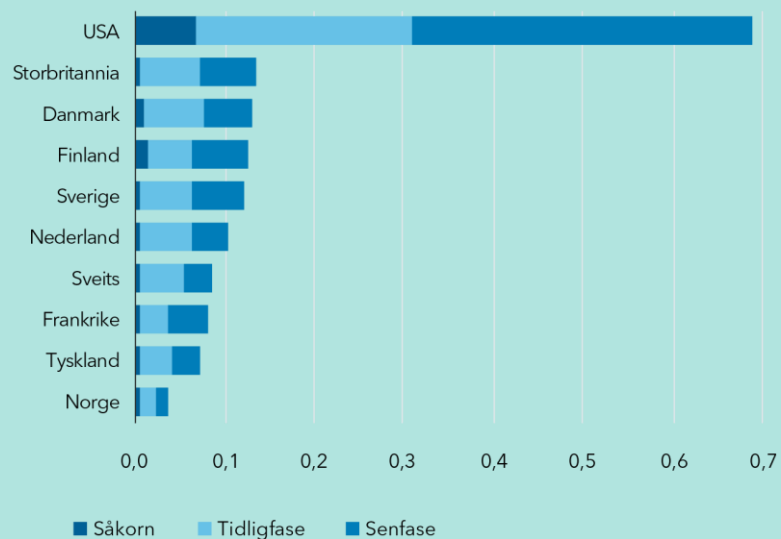


Kilde: Statnett / NHO

Fremover vil innovasjon være en vekstmotor, men vi ligger bak sammenlignbare land

Tilgang til venturekapital

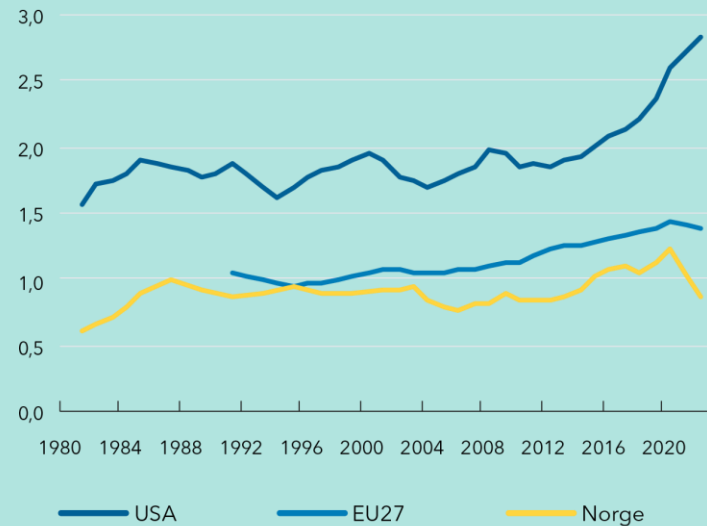
Risikokapital i prosent av BNP, gjennomsnitt 2019-2023



Kilde: OECD / NHO

Næringslivets utgifter til FoU

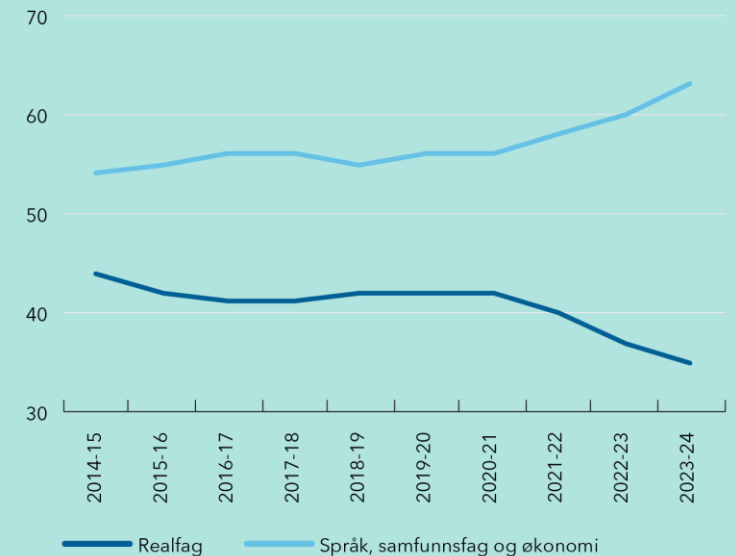
Prosent av BNP



Kilde: LSEG Datastream / NHO

Færre velger realfag

Fordeling på programområde, studiespesialisering vg2. Prosent

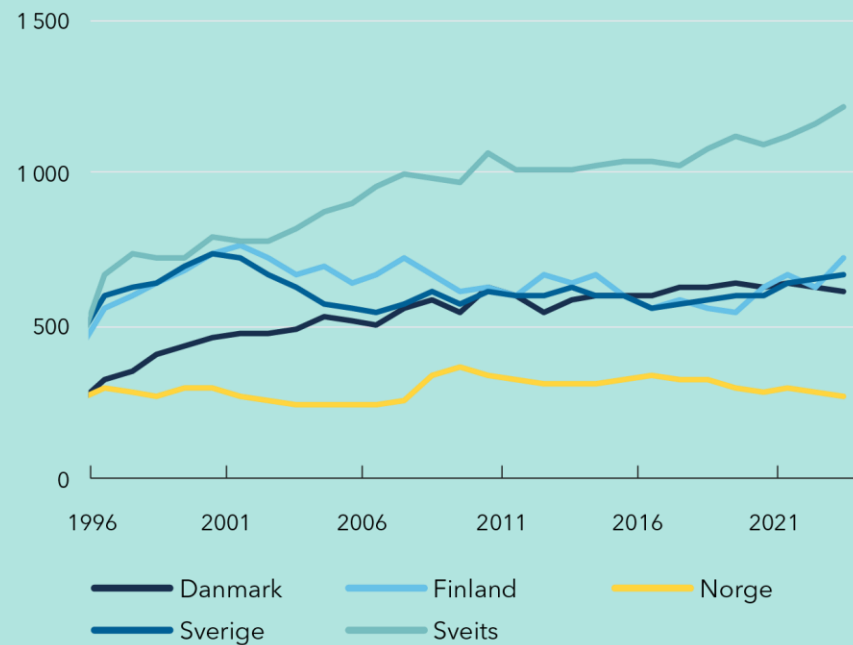


Kilde: Utdanningsdirektoratet / NHO

Svak utvikling innenfor vekstselskaper og nye teknologiområder

Patentsøknader per innbygger

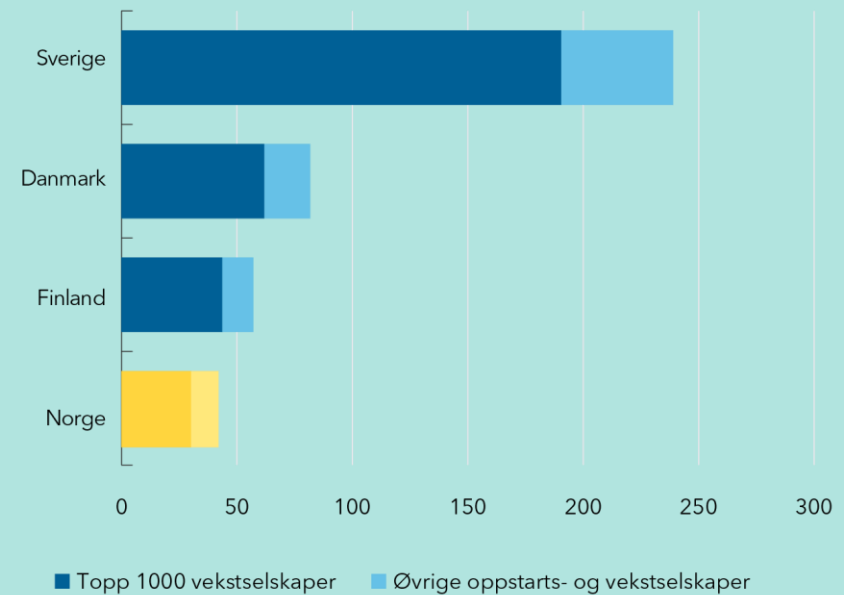
Patenter per million innbyggere



Kilde: WIPO / NHO

Verdi av vekstselskaper i Norden

€ mrd, november 2022




Kilde: Nordic Scaleup Landscape 2022 / NHO



DOBBEL OMSTILLING

A top-down view of a rectangular metal tin containing several sardines, arranged in a row. The tin is set against a dark, textured background. Fresh green herbs are scattered around the tin, including a sprig in the top right and another in the bottom right. The text 'SARDINBOKSØKONOMIEN' is overlaid in white, bold, sans-serif font across the center of the image.

SARDINBOKSØKONOMIEN

The background features a dark teal color with a pattern of thin, light green wavy lines that create a sense of movement and depth. Small, light green dots are scattered along these lines, particularly on the left side, resembling a network or data flow.

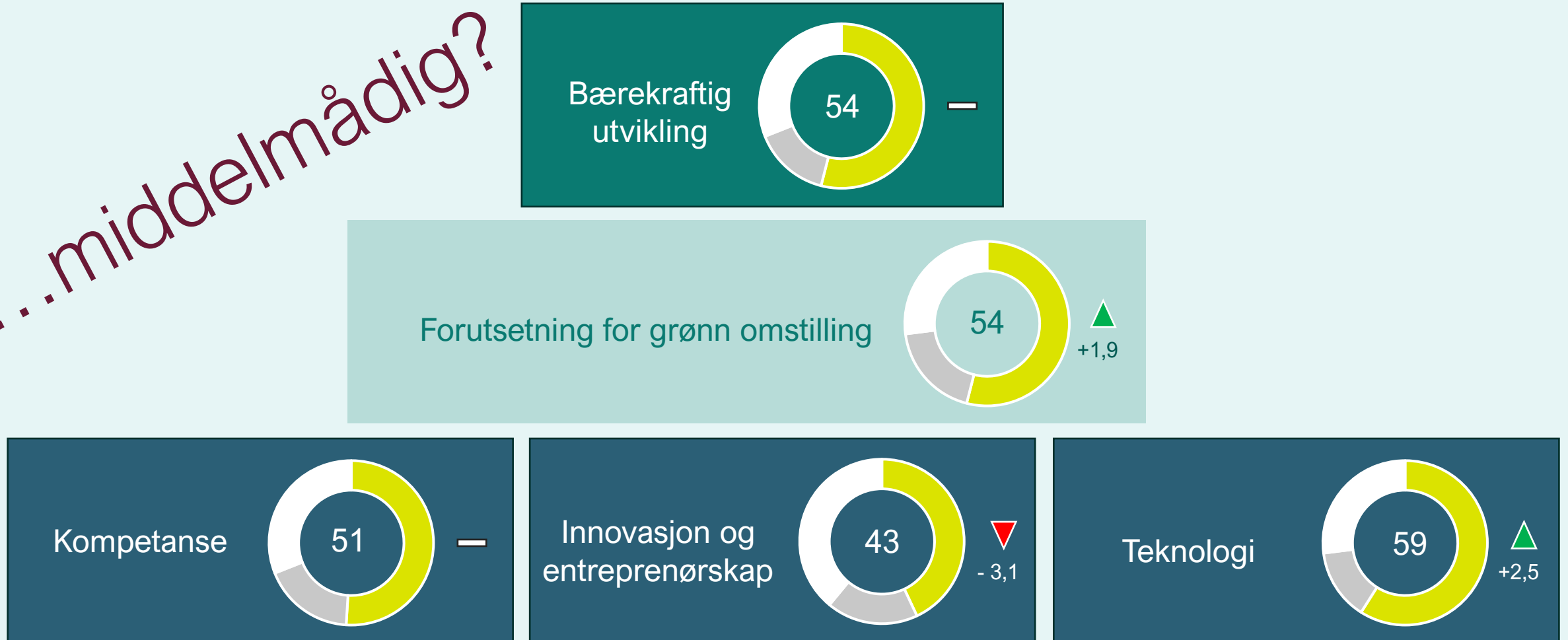
OMSTILLINGS- barometeret™

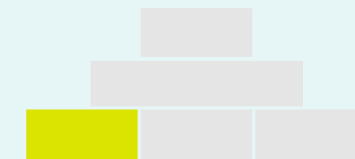
Det er typisk
norsk å være...



Omstillingsbarometeret 2025 - Hoveddimensjoner

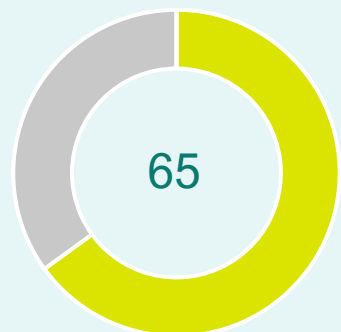
...middelmådig?



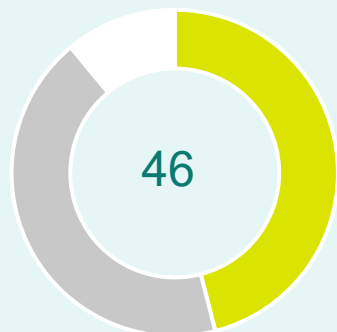


Kompetanse

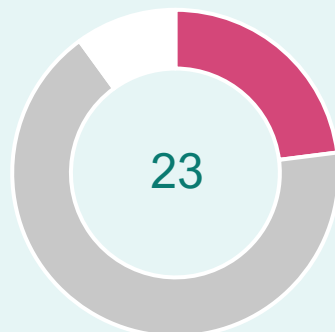
Høyere utdanning



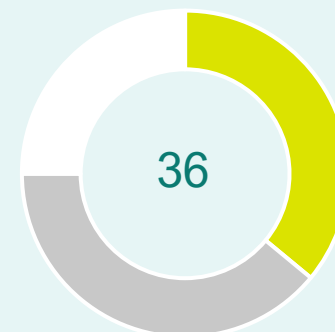
Spisskompetanse



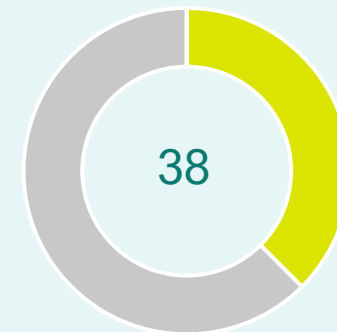
Tilgang internasjonal kompetanse



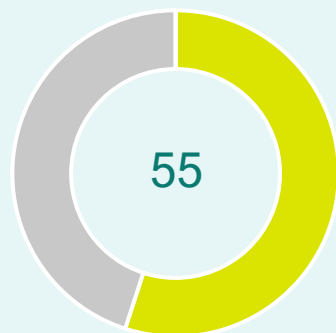
Teknologiutdanning og trening



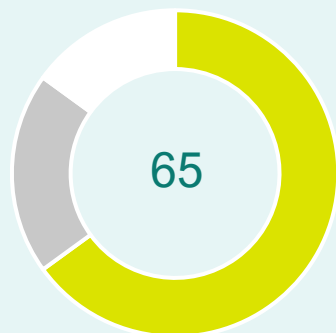
Entreprenørutdanning og trening



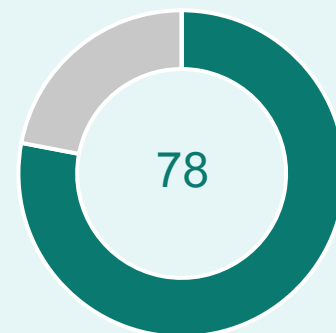
Riktig utnyttelse av kompetanse

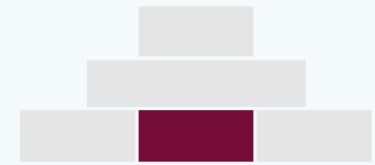


Livslang læring



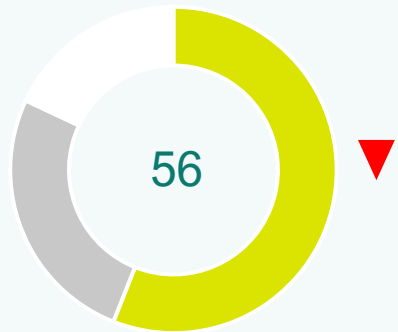
Arbeidsdeltagelse



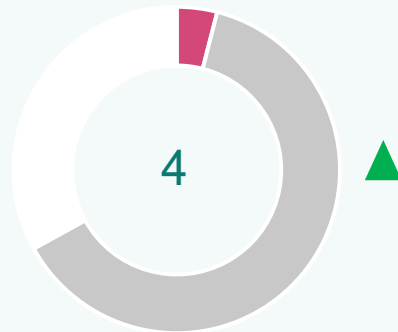


Innovasjon og entreprenørskap

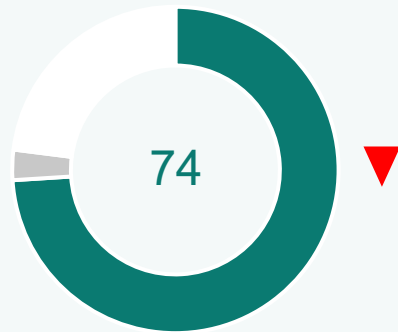
Motivasjon



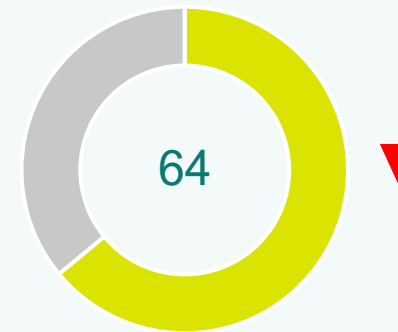
Risikokapital



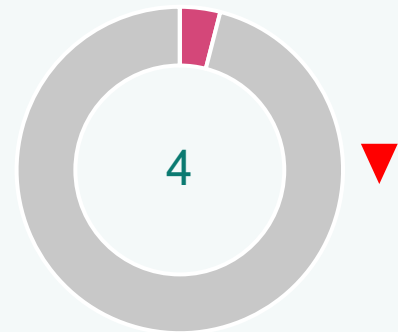
Gode ramme-
betingelser og stabilitet



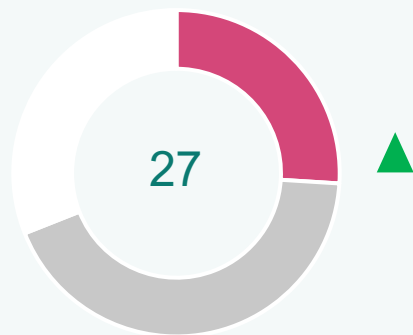
Offentlig FoU



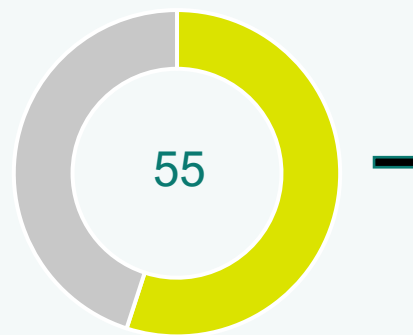
Privat FoU



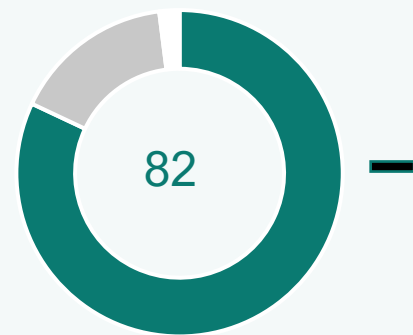
Entreprenøraktivitet



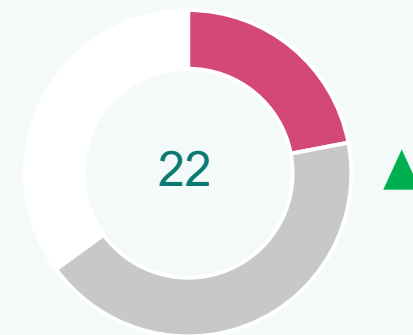
Samarbeid

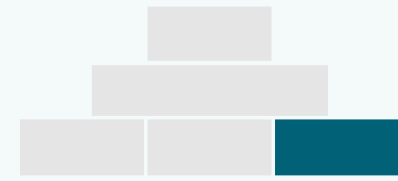


Innovasjon i
næringslivet



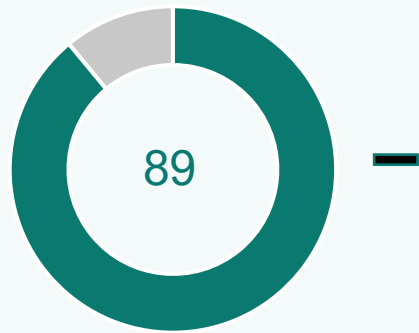
Internasjonal
konkurransen



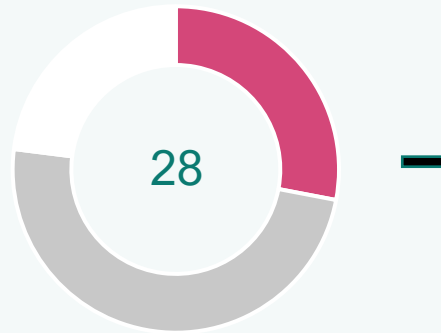


Teknologi

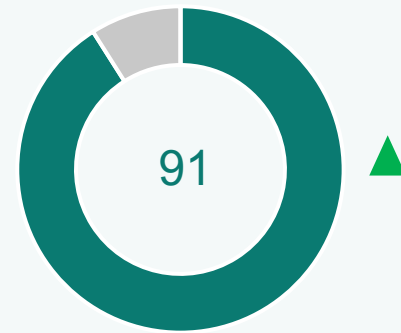
Digitale ferdigheter i befolkningen



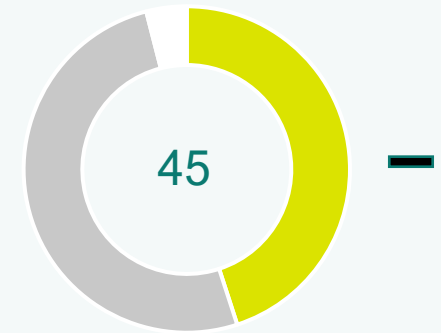
Spisskompetanse teknologi og digitalisering



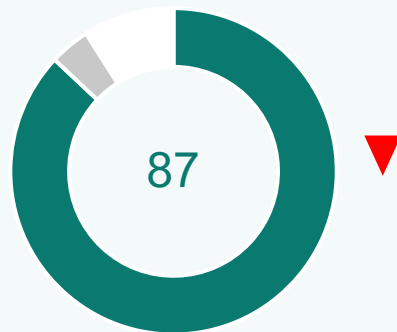
Tilkoblingsmuligheter



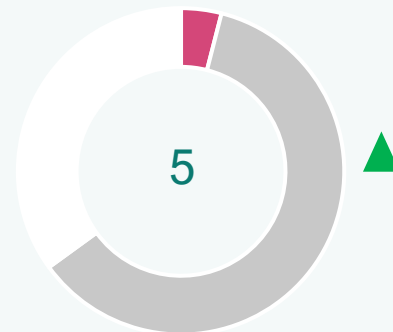
Muliggjørende teknologier



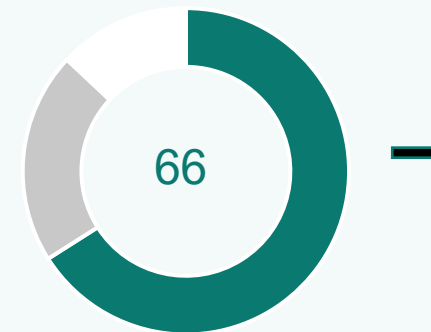
Digitalisering av offentlige tjenester

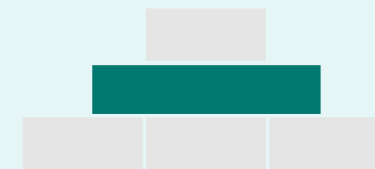


Omfang av IKT-sektoren



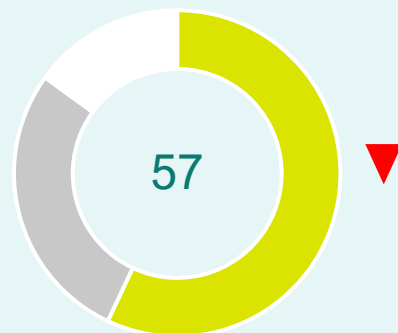
IKT-sikkerhet



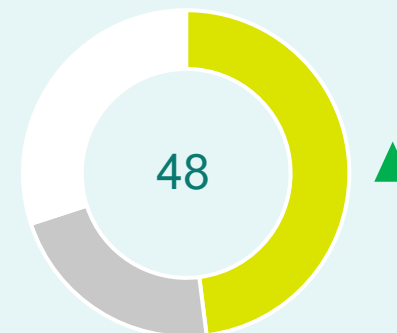


Forutsetninger for grønn omstilling

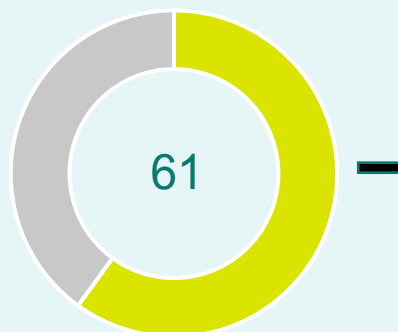
Grønne skatter og avgifter



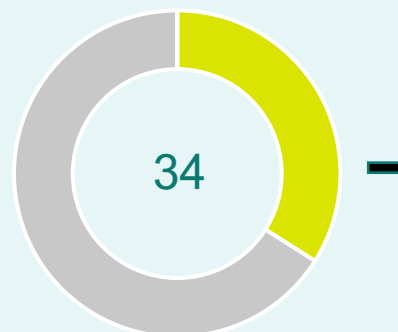
Grønn forskning og innovasjon



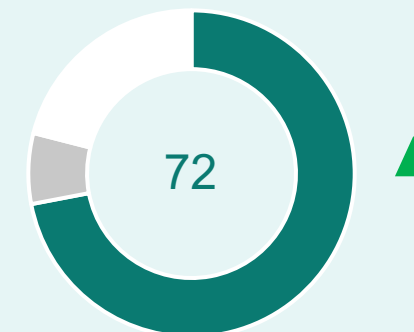
Tiltak for energieffektivisering



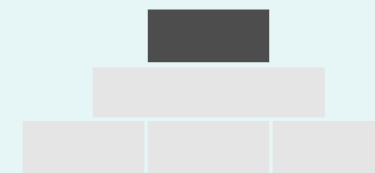
Tiltak for mer fornybar energi



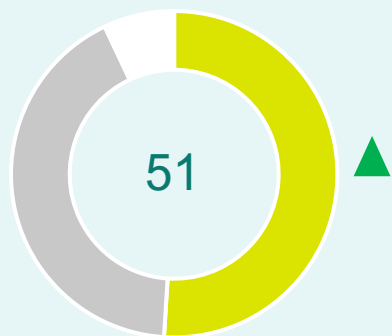
Miljøverntiltak



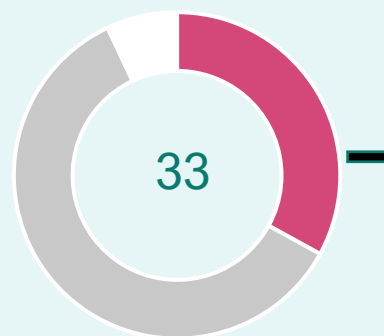
Bærekraftig utvikling



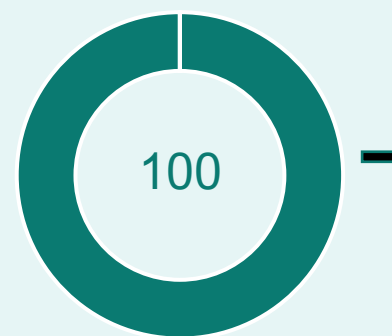
Utslipp



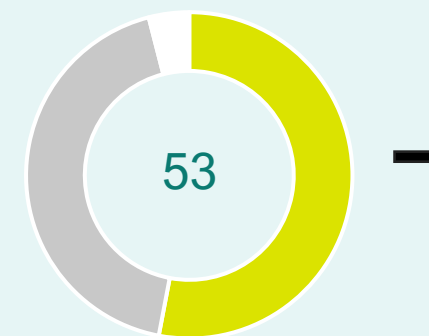
Energieffektivisering



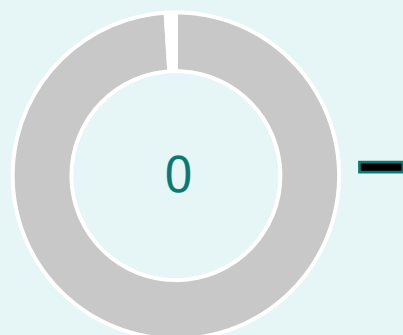
Fornybar energi



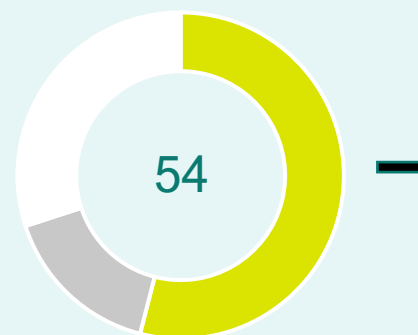
Bevaring av miljø



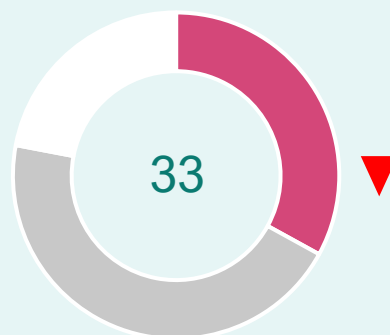
Bærekraftig eksport



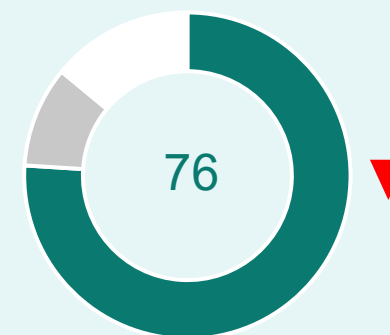
Sirkulærhetsgrad



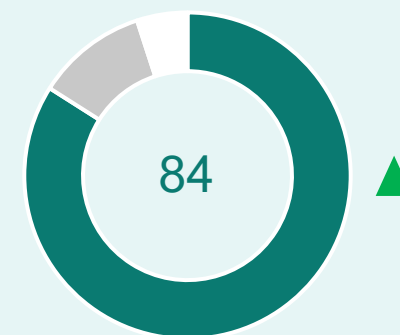
Grønn produktivitet



Utenforskap



Langtidsledighet



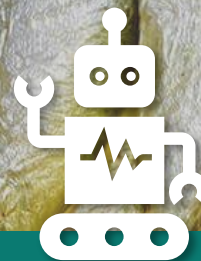
Omstillingsbarometeret 2025



Manglende teknologi-kompetanse og tilgang på internasjonalt talent



Lite risikokapital, privat FOU og gründere mister motivasjon



Liten tech-sektor, og næringslivet bruker i liten grad muliggjørende teknologier



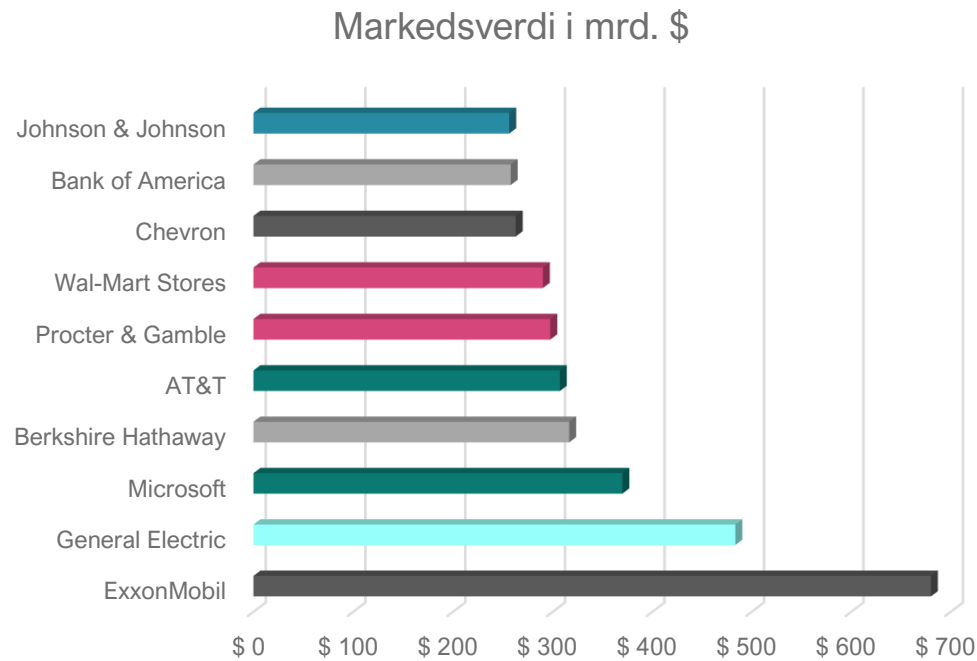
Mye gulrot, men lite pisk for grønn omstilling



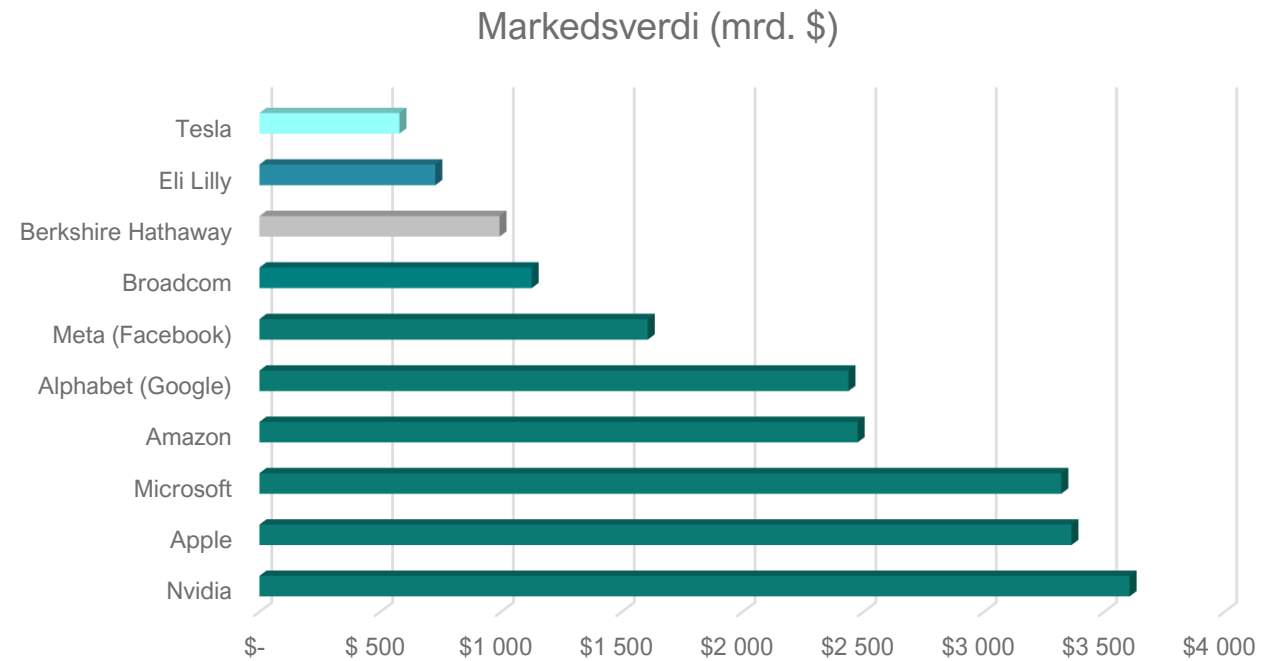
Fortsatt råvarebasert eksport som ikke er bærekraftig på sikt

Verden er fundamentalt endret siden finanskrisen

Topp 10 selskaper på S&P 500 i 2008



Topp 10 selskaper på S&P 500 i 2024



Olje
Finans

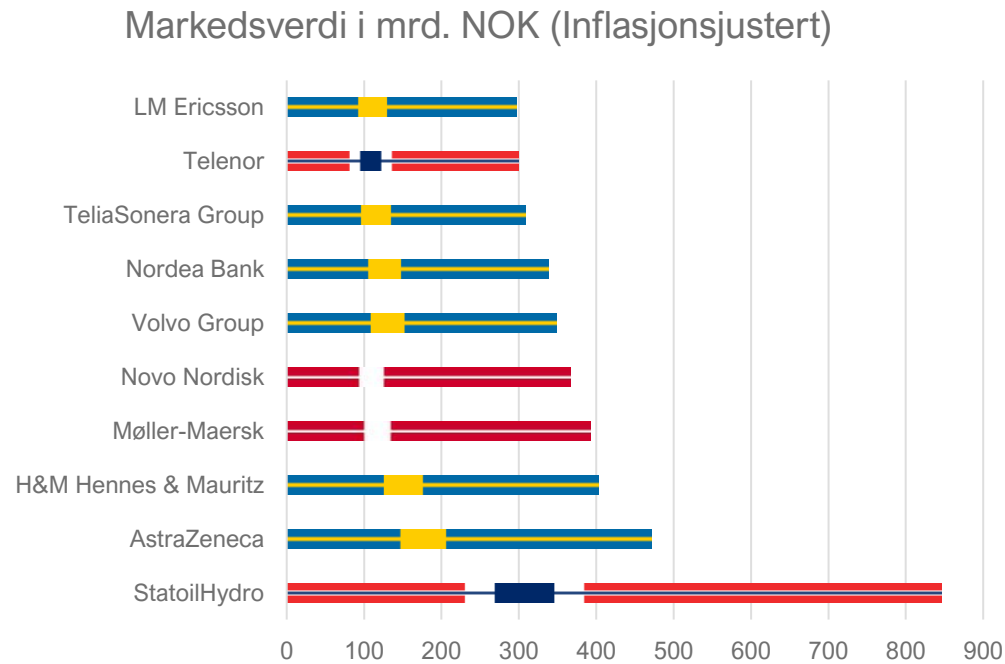
Teknologi
Helse

Forbruker
Industri

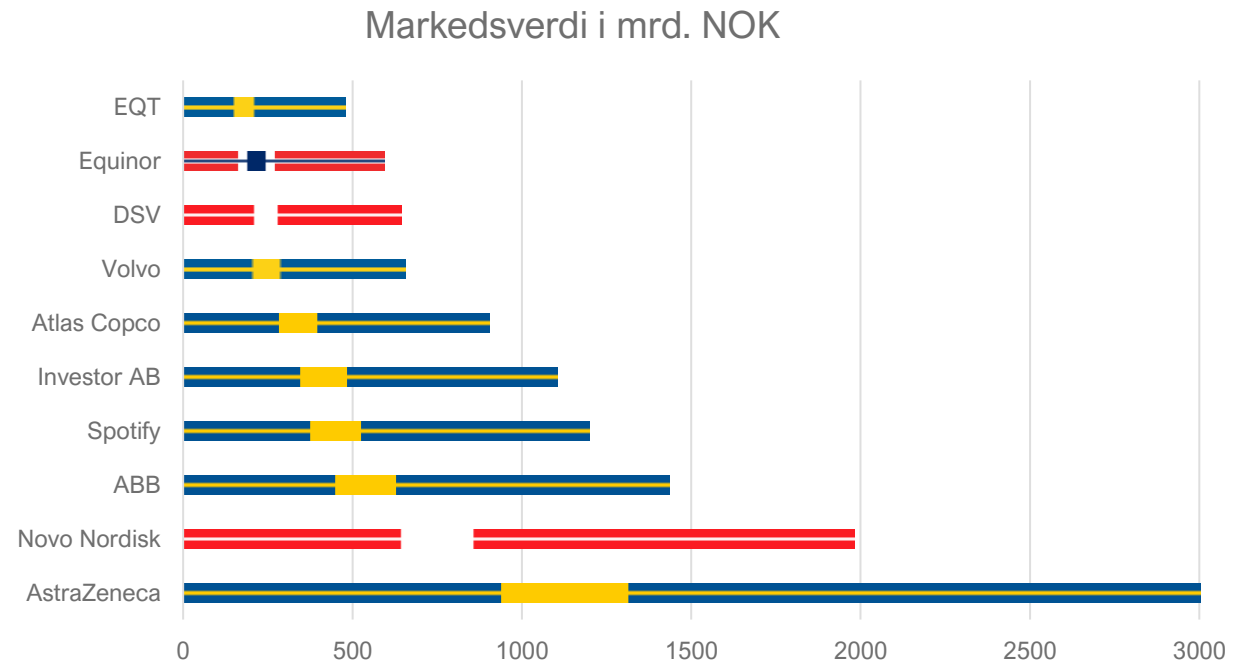
Transport
Energi

Topp 10 selskaper i Norge, Sverige og Danmark 2008 - 2025

Topp 10 selskaper i 2008



Topp 10 selskaper i 2025

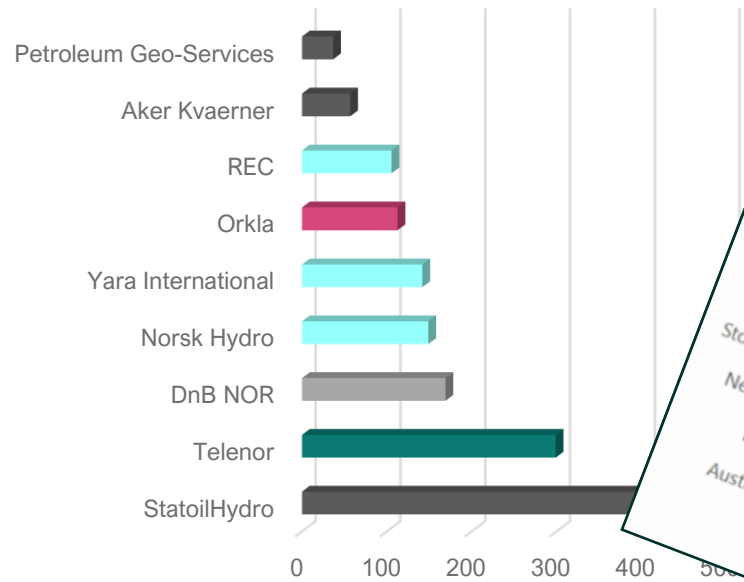




Top 10 selskaper i Norge 2008

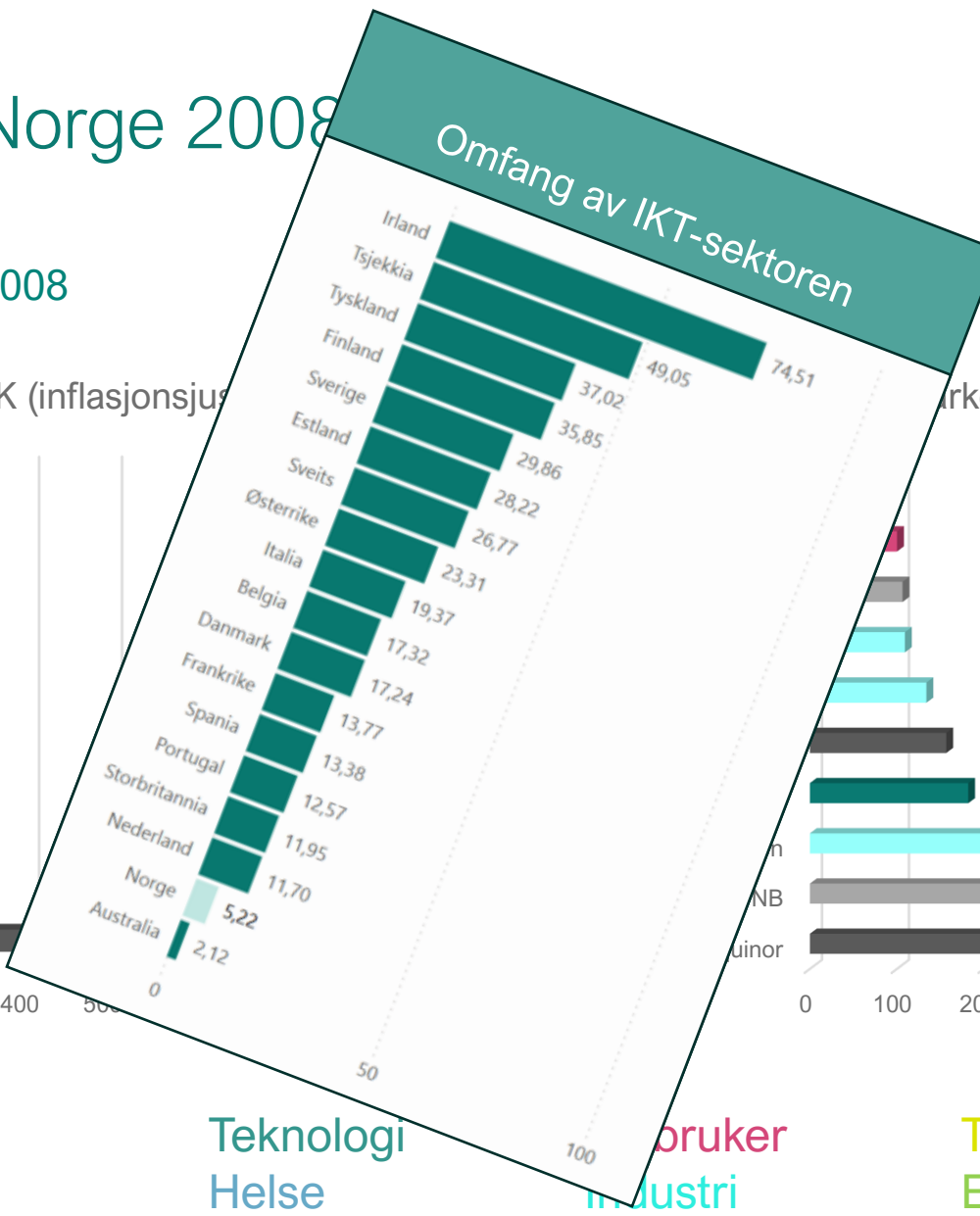
Top 10 selskaper i 2008

Markedsverdi i mrd. NOK (inflasjonsjustert)



Olje
Finans

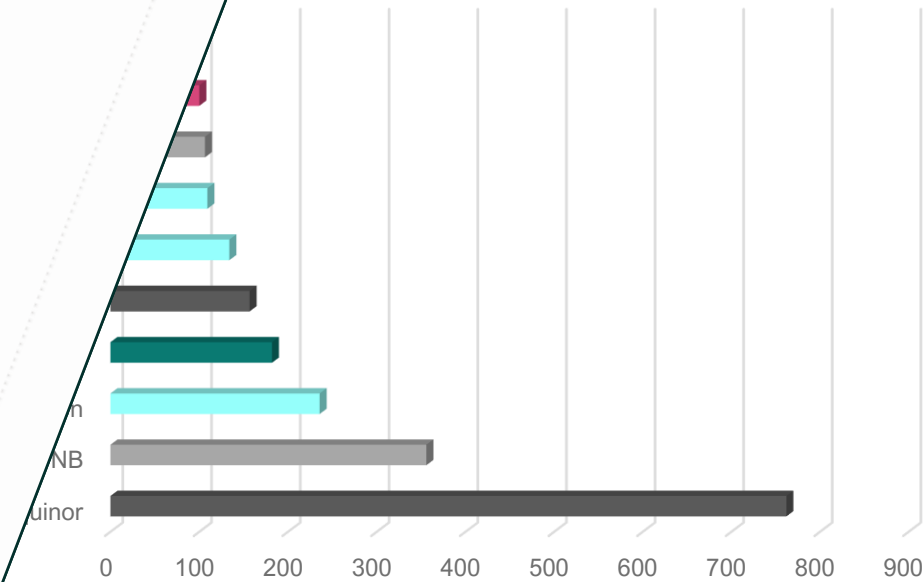
Omfang av IKT-sektoren



Teknologi
Helse

Top 10 selskaper i 2024

Markedsverdi i mrd. NOK

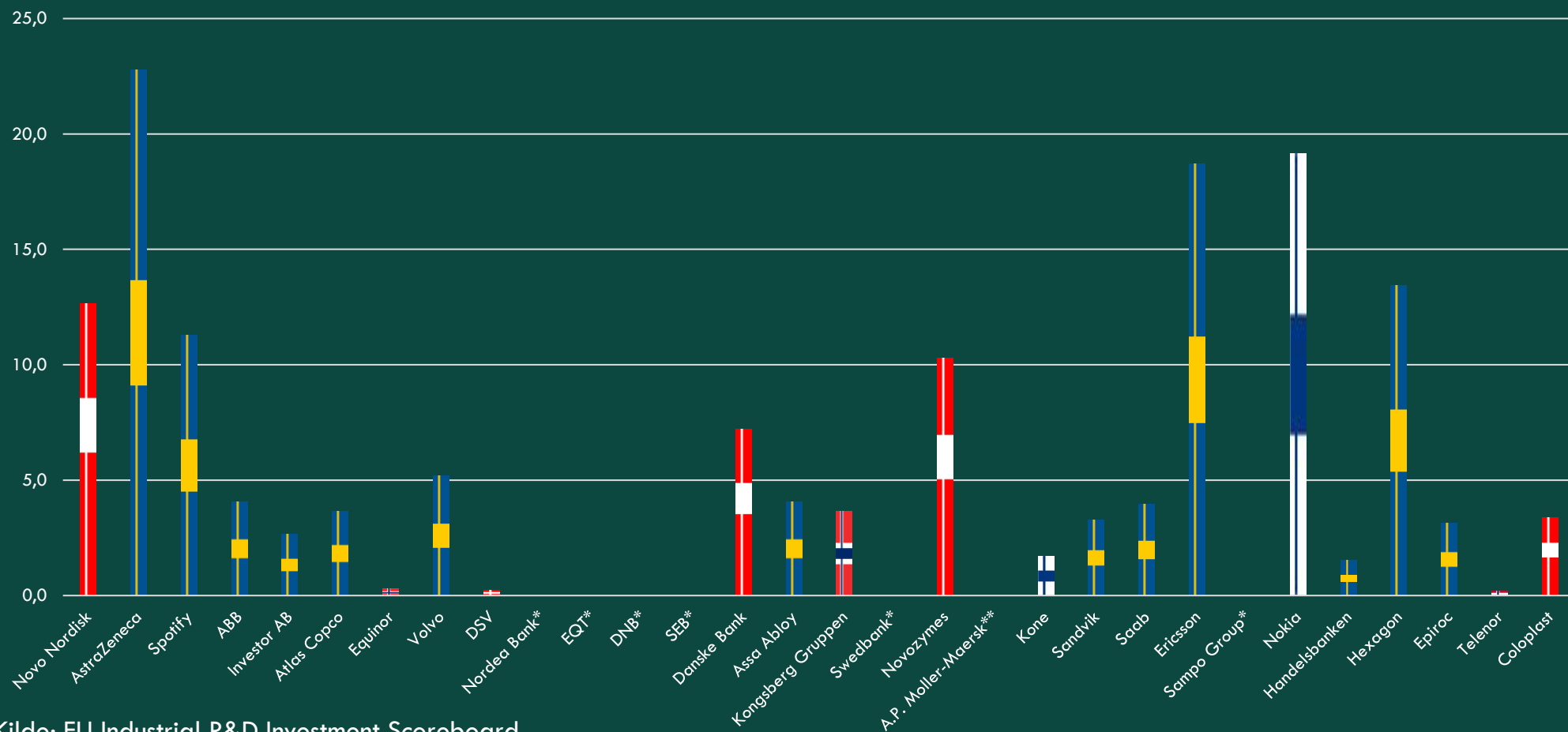


Industri
Bruker

Transport
Energi

FoU-intensitet 30 største selskaper i Norden

Forskningsintensitet topp 30 Norden etter markedsverdi (% av omsetning i 2024)

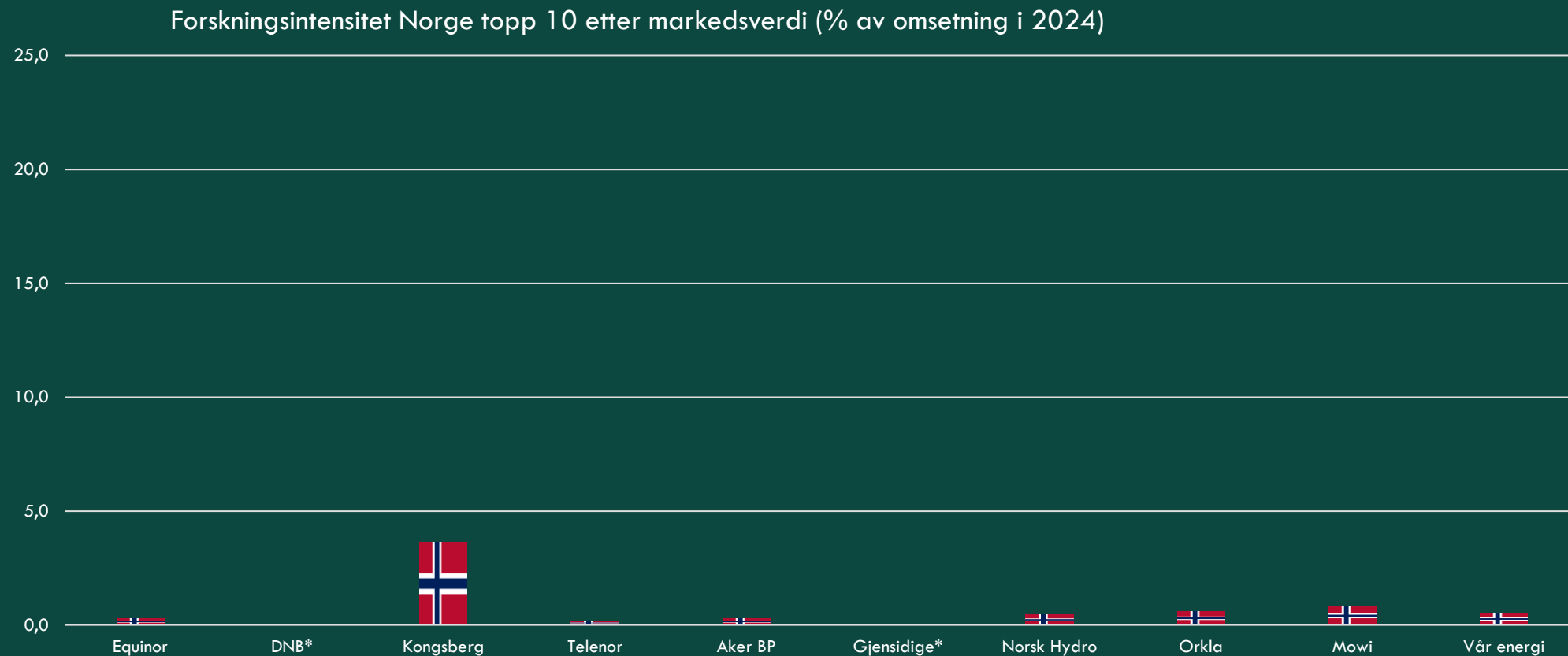


Kilde: EU Industrial R&D Investment Scoreboard

*Bank, forsikring- og investeringsselskap oppgir som hovedregel ikke tall på FoU-investeringer i sine årsrapporter, og er derfor satt til 0 her.

** A.P. Moller-Maersk oppgir heller ikke tall på FoU-investeringer og er derfor også satt til 0

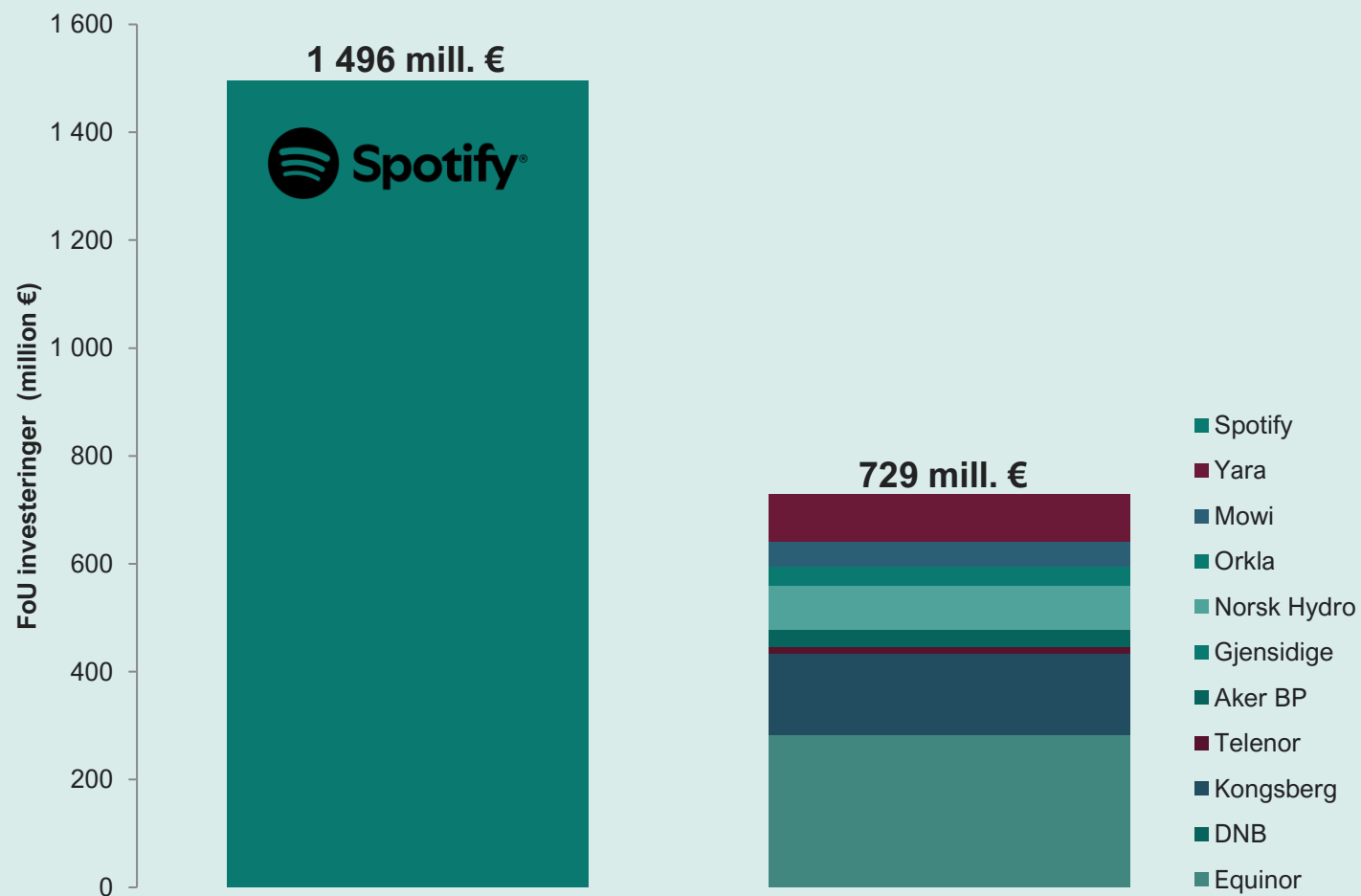
FoU-intensitet 10 største selskaper i Norge



Kilde: EU Industrial R&D Investment Scoreboard og selskapenes årsrapporter

* DNB og Gjensidige oppgir ikke tall for FoU-investeringer i sin årsrapport, og er derfor satt til 0

Spotify investerer dobbelt så mye i FoU som **topp 10 på Oslo Børs**

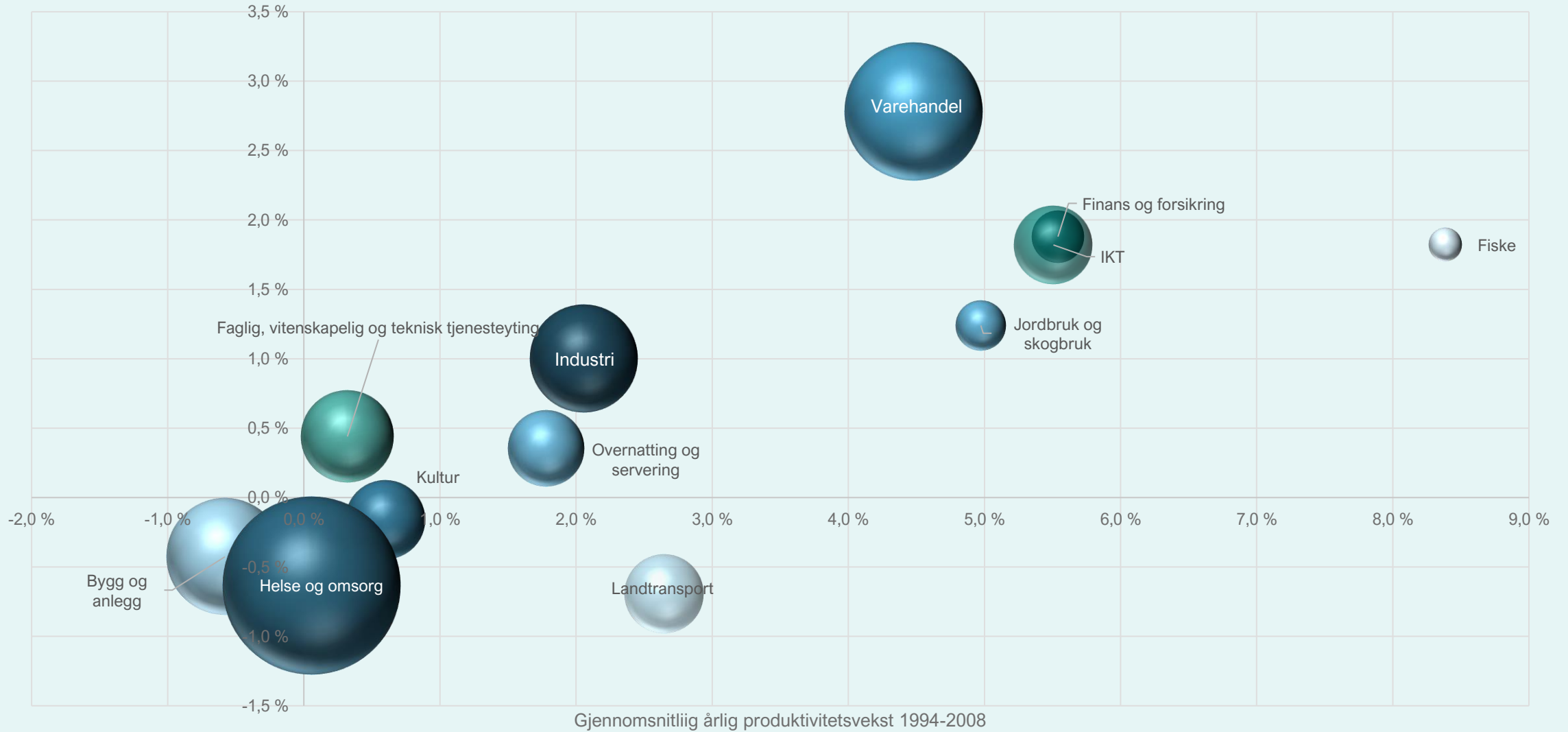


AstraZeneca investerer dobbelt så mye i FoU som **hele norsk næringsliv**



De mest digitaliserte næringene er de mest produktive

Gjennomsnittlig årlig produktivitetsvekst 2009-2023



Gjennomsnittlig årlig produktivitetsvekst 1994-2008



Norsk tech-sektor
i 2023

110 000 sysselsatte



367 milliarder omsetning



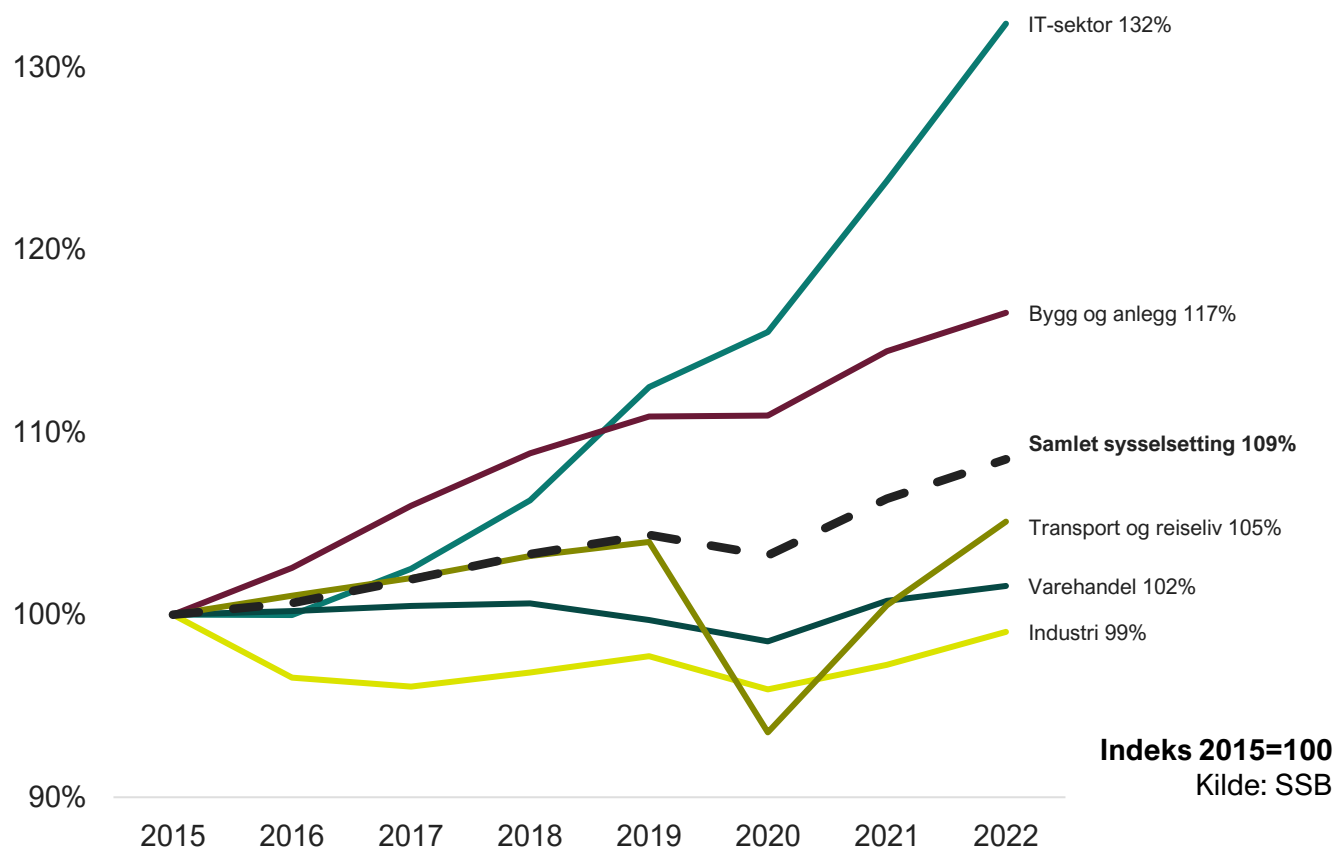
10 700 bedrifter



213 milliarder verdiskaping

Sysselsettingen i teknologi vokser mye raskere enn i andre næringer

Vekst i sysselsetting etter 2015



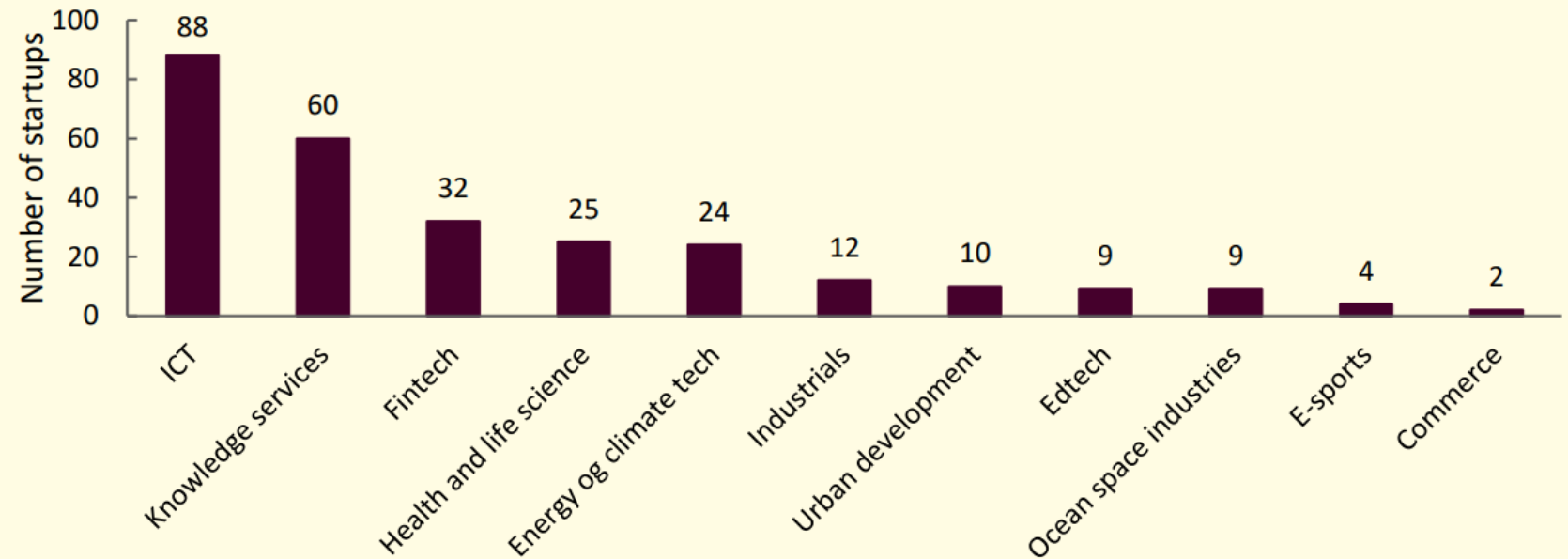
Over 60% av norske høyvekstselskaper er tech-selskaper

Kahoot!

reMarkable

Gelato

Figure 8: Startups according to industry. Excluding companies that only qualify by way of belonging to a knowledge-intensive industry. Source: Menon Economics



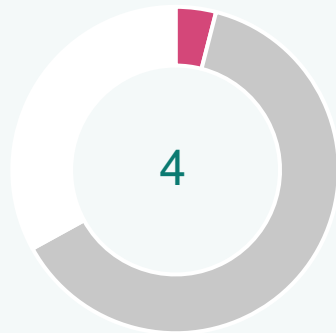
Privat eierskap er viktig på veien til vekst

- Norske private eiere har majoritet i nær 85 prosent av norske foretak
- De fleste er lokale eiere. Tre av fire norskeide arbeidsplasser har eier bosatt i samme fylke
- Privat lokalt eierskap har stor betydning for hele landet:
 - Skaper arbeidsplasser
 - gir liv i bygd og by
 - avgjørende for sikkerhet og beredskap
 - og gir inntekter til felles velferd

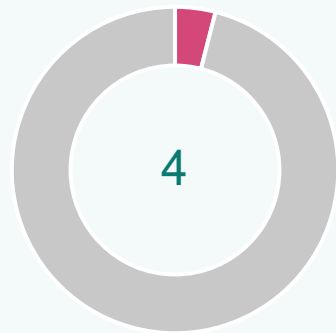
Politikken må belønne gründerskap, skalering og langsiktig eierskap

Største utfordringer for Norge

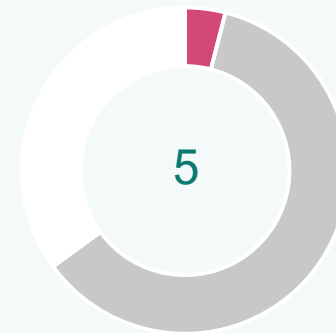
Risikokapital



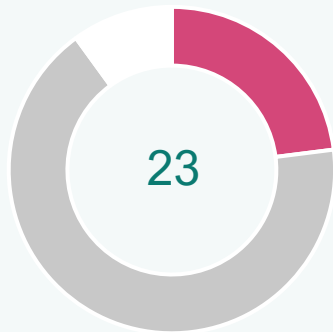
Privat FoU



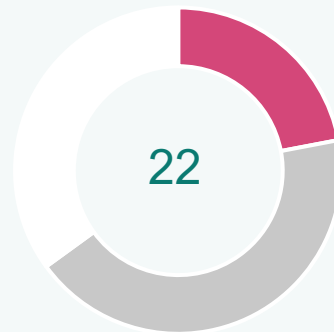
Omfang av IKT-sektoren



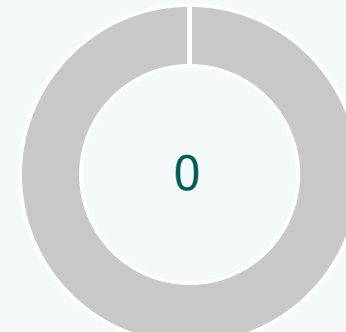
Tilgang internasjonal kompetanse



Internasjonal konkurranse



Bachelor i STEM-fag



Det er kunnskap og teknologi vi skal leve av.

Da trenger vi:

- Gode og forutsigbare rammevilkår
- Tilgang på kapital og kompetanse – og kunder
- Smartere fordeling av knappe fellesgoder