

MASTEROPPGAVEN

din søknad til drømmejobben.



masteroppg.

hva er
koblingen
?



drømmejobben



MIN CV

PÅ SKOLEBENKEN:

- 2010 - 2016: Master i arkitektur, AHO
- 2016: skrev en masteroppg. ved en "prosjekt-basert" skole.
- 2016: vant Aspelin Ramm prisen.
- 2016: "null" arbeidserfaring, egen praksis.
- 2024: p.d.d. aldri tatt på meg fast en ansettelse (nåværende alder 35).

I ARBEIDSLIVET:

- 2016 - 2019: jobbet med Mesh sin scandinaviske ekspansjon (eie.forvaltning).
- 2017 - 2019: jobbet tett med forskere og brainstormet ulike ERC søknader.
- 2018 - 2019: inv. ambassader, "posterboy".
- 2016 - 2020: forelest for CEOs/direktører i eiendomsbransjen.
- 2021: delt ut 35 mill.kr. til HSS næringene, på vegne av Rådhuset.
- 2017 - 2023: konkurrert med bemerkelser, om design- og plankonkurranser (tidlig-fase).



the numero uno guy

Tin Phan M.Arch. (b. 1989) is head honcho of the company Tin.uno (est. 2016), and a research fellow at the Dept. of Property and Law, NMBU. His PhD focuses on proptech - specifically how digitalisation affects core practices in the real estate industry. Tin's interests range from simple drawings, information design, architecture practices, business strategies, and property development.

Tin.uno's sole purpose between 2016 - 2020, was to compete for architectural and urban competitions on analytical and design merits. His efforts has in recent years shifted over to scientific contributions, but he does take on the occasional competition only if the proposition is interesting enough. As a result of Tin's transition into academia, his competition portfolio has been consolidated as and transferred over to Air Studio - evidence based architecture.

Competitions

2023 // New Helicopter Base in Bergen, Prequalified	▼
2022 // Gronlikaia Parallel Commissions, Prequalified	▼
2021 // Europan 16, 2nd Place	▼
2021 // Sara Hildén Art Museum, Honorary Mention	▼
2020 // Recycling Artificial Turf, Prequalified	▼
2020 // Nordland Regional Airport, Competition-winning Design	▼
2019 // Sterudkvaralet in Moss, 1st Place	▼
2019 // Vestland County Chambers, 1st Place	▼
2019 // Horten Harborfront, 2nd Place	▼
2018 // Lørenskog Station Area, Prequalified	▼
2018 // Ibsen Library in Skien, Prequalified	▼
2018 // U.S Embassy in Oslo, Invited Competition	▼
2017 // Europan 14, 3rd Place	▼

Volunteering

2023 - present // NORA Research School	▼
2022 - present // NORSI Research School	▼
2022 - present // LANDSAM Faculty Board	▼
2022 - present // OBR Advisory Board	▼
2017 - 2020 // Oslo Urban Arena	▼
2016 - 2018 // Levende Lokaler	▼
2014 - 2015 // Magasinet KOTE	▼

Distinctions

2023 // CIB International Advisory Board's Awards, Best Paper 1. Prize	▼
2023 // Golden Pineapple Award, Shortlisted	▼
2018 // Only Wildcard-candidate to be chosen Twice Consecutively	▼
2018 // Top 30 under 35 Super Talents in Norwegian Real Estate	▼
2016 // Aspelin Ramm Award, Winner	▼
2013 // Urban Design and Planning Award, Nominee	▼

Ventures

2021 - present // Air Studio	▼
2016 - present // Tin.uno	▼

Education

2021 - 2024 // PhD., The Norwegian University of Life Sciences	▼
2010 - 2016 // M.Arch., The Oslo School of Architecture and Design	▼

www.tin.uno

MYTE: masteroppgave noe du bare gjør én gang.

bare en fotnote med ingen relevans i arbeidslivet.

SAM MCDONALD
Liverpool, LI 4JA | 07912345678 | s.mcdonald@email.co.uk

SUMMARY
Resourceful and adaptable Manager with over 11 years of experience in scheduling, staff training, protocol development, and process improvements. Meticulous team builder with expertise in employee engagement, customer relationship management (CRM), time management, and conflict resolution. Customer-focused leader seeking to leverage background into assistant or operations manager role with progressive organisation.

EXPERIENCE

09/2018 to Current **General Manager**
Mamdos – Liverpool

- Met with each associate to establish realistic monthly sales goals.
- Communicated store policy violations to upper management to prevent shrinkage and misconduct.
- Enhanced data collection accuracy by preparing, authoring, and updating communications and policy memoranda.
- Coordinated, led, and executed brand training presentations for trade or trend shows and new partners to generate and drive product awareness and sales.
- Supervised, developed, and delegated tasks to employees.

01/2015 to 08/2018 **Manager**
Stone Target – Liverpool

- Offered constructive criticism regarding quality assurance on collections team phone calls.
- Developed open and professional relationships with team members, enabling better, more effective issue resolution.
- Analysed employee workloads to meet seasonal fluctuation needs.
- Implemented new team onboarding program, reducing training time from seven weeks to three.
- Integrated process improvements continuously to increase overall workflow.

10/2012 to 12/2014 **Team Leader**
TX Training – Liverpool

- Generated £4,000 in annual savings by implementing a new workflow process and reducing wasted resources.
- Adeptly handled 23 inbound calls per day, generating £20,000 in sales revenue annually.
- Managed team of 12, overseeing the hiring, training, and professional growth of employees.
- Supported General Manager in improving operations and resolving issues to deliver top-notch customer service.


EDUCATION


2012 **M.Sc.: Business Management**
University of Liverpool – Liverpool, UK

SKILLS

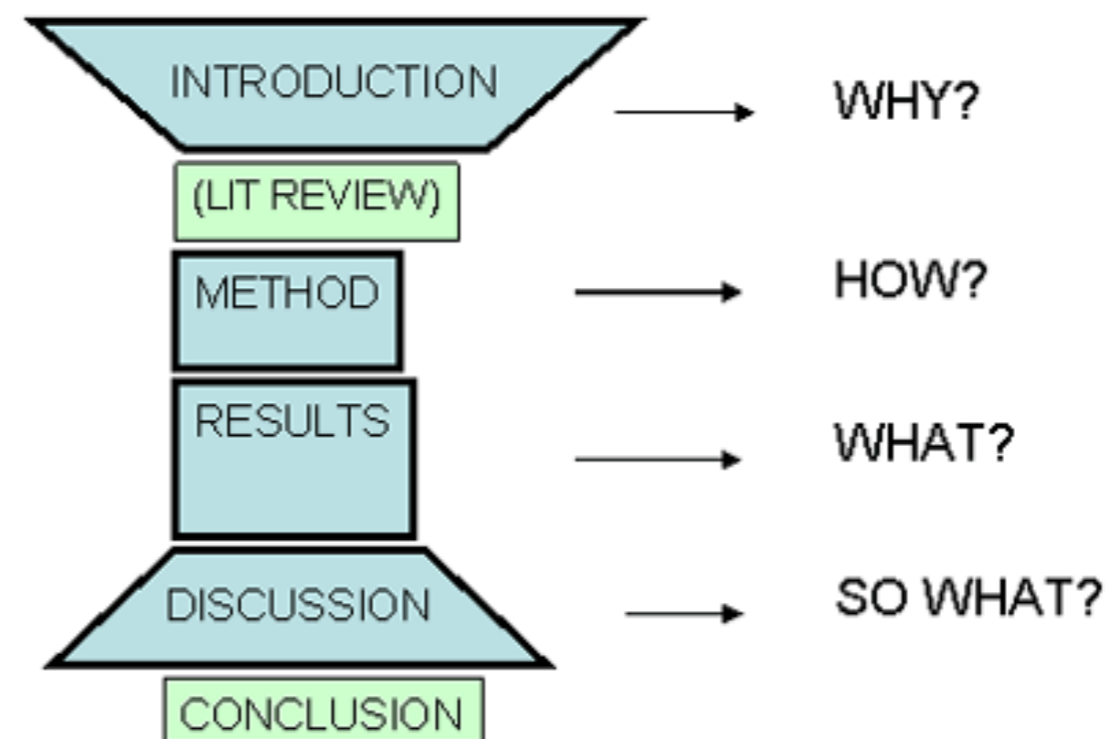
- Performance improvements
- Client relations
- Team oversight
- Staff supervision
- Contract development and management
- Complex problem solving
- Communication skills
- Strategies and goals
- Profit and loss accountability
- Sales planning and implementation

LANGUAGES

German:  Upper Intermediate

Italian:  B2 Elementary

dette blir du prasket på:



Déjà vu min første jobb, er akkurat som den siste!

alltid knapphet på tid., null forberedelse til å løse utfordringene.
mye info som må prosesseres/behandles på kort tid.
uforutsigbarhet iht. arb.tider, bemanning, arbeidsoppg. og -flyt osv.



Vi ser etter deg som:

- Har minimum ett års erfaring som servitør
- Behersker et skandinavisk språk
- Er serviceorientert, motivert og engasjert
- Trives med å jobbe kvelder og netter, med noen dagvakter Innimellom
- Kan stille opp på kort varsel fra tid til en annen
- Mestrer stressende situasjoner godt
- Har en evne og vilje til å lære
- Foretrekker å jobbe i team
- Førerkort og bil er en fordel, men ikke nødvendig

Du vil få:

- Et stimulerende arbeidsmiljø med varierte oppgaver
- Muligheter for personlig og faglig utvikling
- Fleksible arbeidstider tilpasset dine behov
- Gode lønnsbetingelser
- Et positivt teammiljø med hyggelige kollegaer
- Støtte fra erfarne fagfolk

Er dette noe for deg? Send inn din CV og søknad på Toptemp.no i dag, så tar vi kontakt med deg.

Vi ser frem til å høre fra deg!

Déjà vu min første jobb, er akkurat som den siste!

alltid **knapphet på tid.**, **null forberedelse** til å løse utfordringene.
mye info som må prosesseres/behandles på kort tid.
uforutsigbarhet iht. arb.tider, bemanning, arbeidsoppg. og -flyt osv.

hva er din villighet i
å gi tilbake og lære
i krevende sit.?



Vi ser etter deg som:

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- **Er serviceorientert.**
- Er motivert og engasjert
- Trives med å jobbe kvelder og netter, med noen dagvakter innimellom
- Kan stille opp på kort varsel fra tid til en annen
- **Mestrer stressende situasjoner godt**
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Vi ser frem til å høre fra deg!

er selskapet bemannet
godt nok med tid/
overskudd til å adressere
dette?

MASTEROPPG.

Hva skrev jeg om?

hva var prosessen?

Hvorfor var det så viktig å være metodisk?

Hva er det viktig å være obs på?

Aspelin Ramm prisen

nasjonal pris for beste oppg.
innen samfunn, by og eiendomsfag

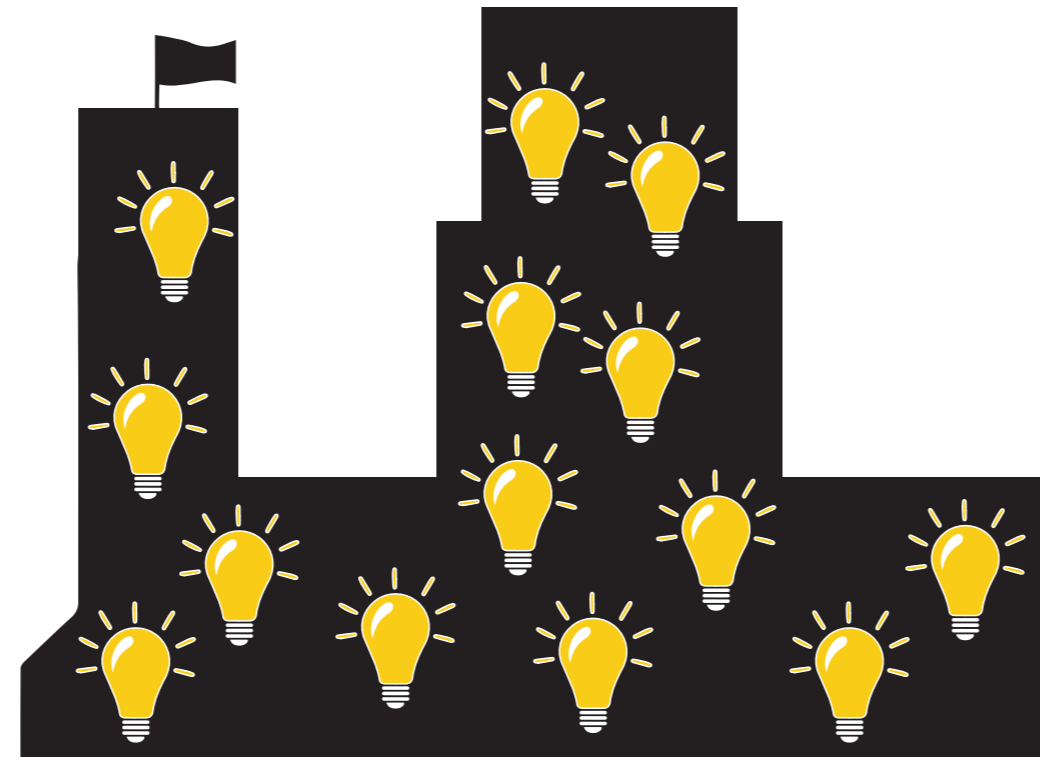


Tins masteroppg.

Aspelin Ramm prisen

slides fra masterpitchen.
hvordan presentere 100 sider på 1 min?

Storbedriften

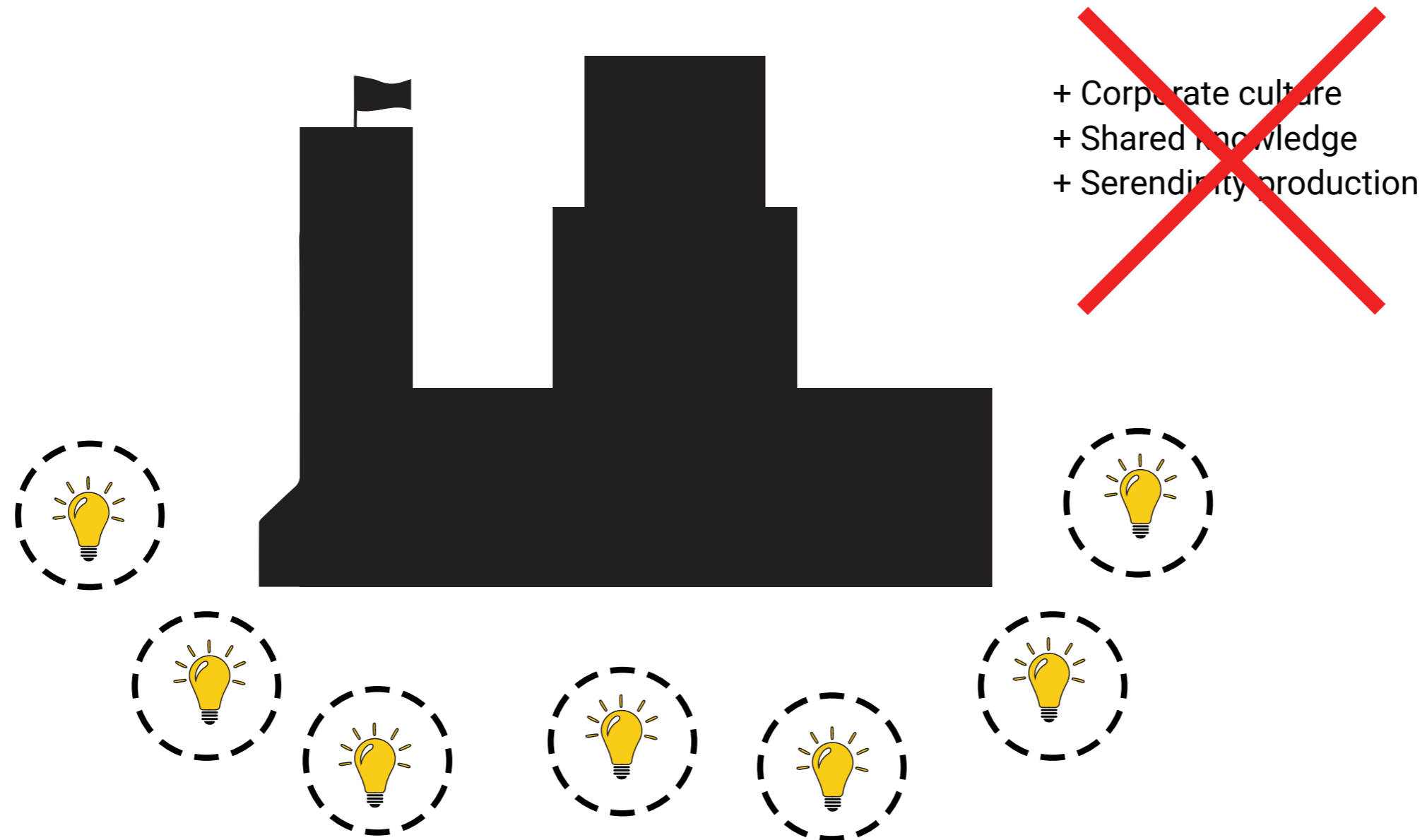


- + Corporate culture
- + Shared knowledge
- + Serendipity production

Aspelin Ramm prisen

slides fra masterpitchen.
hvordan presentere 100 sider på 1 min?

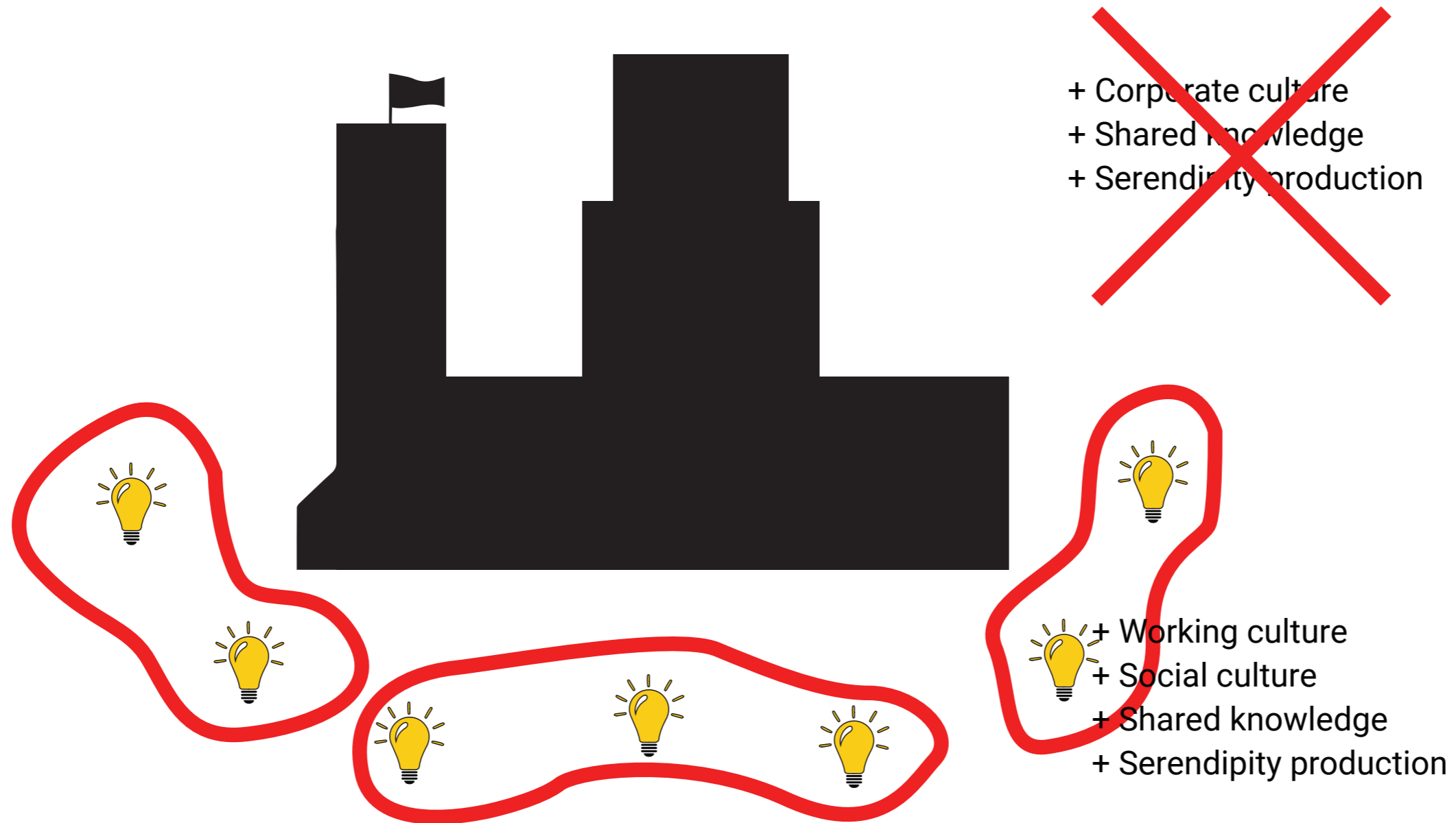
Frilansbevegelsen









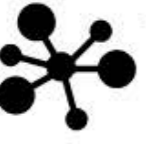






























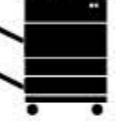




Aspelin Ramm prisen

slides fra masterpitchen.
hvordan presentere 100 sider på 1 min?

Coworking spaces



GENERIC AND SPECIFICS OF COWORKING SPACES

CORE ELEMENTS	VIRTUES	PROFILE	AMENITIES	HYBRIDIZATION	ALTERNATE OPERATIONS
 <p>COWORKING SPACE A place or facility where people of different employment share office space and amenities. Also a place to meet, socialize, collaborate etc.</p>	 <p>TECHNOPHILIAC Tech-savvy, technological obsession. The ubiquity of technology makes it relevant in every aspect of coworking concepts.</p>	 <p>BASIC COWORKING Flexible or fixed desk, basic facility where independent workers sit together.</p>	 <p>WIFI Important for the lone eagles, the ubiquity of IT in daily operations makes WIFI the outmost priority.</p>	 <p>CORPORATE COWORKING When major firms and corporations start a coworking space together, an attempt to generate and test new ideas.</p>	 <p>EVENT MANAGEMENT Participates and manages public and major events.</p>
 <p>A COMMUNITY The keepers of social and working culture, intellectual property etc. There is no coworking without its people, the community.</p>	 <p>INTERNATIONAL Open to global trends, foreign impulses etc.</p>	 <p>INCUBATOR Result-oriented and facilitates for small but growing companies. Generally with accelerator programs, investors etc.</p>	 <p>DESK It may be fixed or flexible, whatever suits the daily operations of the lone eagle best. The desk ultimately represents different memberships.</p>	 <p>ENCLOSED OFFICE SPACE To cater growing or bigger companies. Also to maintain other interests within the coworking space.</p>	 <p>BRANDING Treats coworking as a brand, merchandise and company.</p>
 <p>COMMUNITY MANAGER The all-seeing eye. Decides who stays and leave, keeps tabs, curates and cultivates the space etc. Also deals with HR or human capital.</p>	 <p>CORPORATE Capitalistic and result-oriented mindset. Main goal is to succeed on the market.</p>	 <p>MAKERSPACE or hackerspace. A mixture of coworking, workshop, machine shops, studios. etc. where people ranging from hackers to designers can share knowledge and build stuff.</p>	 <p>LOUNGE Function as the third place in coworking spaces. An alternate place for relaxation, work or informal meetings.</p>	 <p>MIXED-USE SPACE Auditorium, theatre, stage, scene, event space, networking etc. Also mixed between private and public use.</p>	 <p>URBAN DEVELOPMENT Participator in urban and smart city development and discussions.</p>
 <p>ADMINISTRATIVE UNIT Technical support, legal advice, human relations, public relations etc.</p>	 <p>COLLECTIVE Community builders. Great supporter of shared economy, knowledge sharing, social events, networking, mingling.</p>	 <p>STARTUP COMMUNITY Focus on repeatable and scalable business model. Growth and innovation as main goals, bound to leave. Temporary state.</p>	 <p>MEETING ROOM Dual role: for the sake and image of professional appearances.</p>	 <p>RESTAURANT Managed as a separate unit to the coworking space. Has dual function as the third place. Becomes a part of the urban fabric.</p>	 <p>PUBLIC RELATIONS Deals with media, press and marketing etc.</p>
 <p>MEMBERSHIPS Defines rank, accessibility, agenda and activity of the members. Is only given by the administrative unit or community manager.</p>	 <p>ELITIST Competitive mindset. The belief of possessing intrinsic qualities, intellect or experience greater than others.</p>	 <p>CREATIVE COLLABORATIVE Workers with background in arts and design often in relation with consultancy.</p>	 <p>KITCHEN Food, coffee, water etc. Usually preferred over the regular cantina. A place for informal meetings.</p>	 <p>CAFÉ Managed as a separate unit to the coworking space. Has dual function as the third place. Becomes a part of the urban fabric.</p>	
 <p>LONE EAGLE Knowledge workers, freelancers, skilled labor who can live and work from anywhere, made possible by tech-advances.</p>	 <p>ALTRUISTIC Philanthropic and humanitarian mindset. Acts on the behalf of the greater good for society. Concerns about the welfare of companies and not personal gain.</p>	 <p>CONSULTANCY-ORIENTED COLLABORATIVE Consultants who offer services and advice to other companies. Considered the stark contrast to startups.</p>	 <p>FURNITURE AS MEDIATOR Sometimes on wheels, works as spatial separators instead of walls in the context of open office- landscapes.</p>	 <p>BAR/PUB Managed as a separate unit to the coworking space. Has dual function as the third place. Becomes a part of the urban fabric, also at night time.</p>	
 <p>SERENDIPITY PRODUCTION The production of the events by chance, informal meetings and random encounters leading fortunate happenstance or pleasant surprise.</p>	 <p>PATRONAGE Patrons of cultural production and supports it in any way possible.</p>	 <p>SOCIO-ENTREPRENEURIAL COLLABORATIVE Local entrepreneurship to increase social life for the less fortunate people, immigrants, welfare etc.</p>	 <p>PRINTER One of the important amenities from the traditional workspace, where the cost of owning one was high. Its current importance can be debated.</p>		
 <p>THIRD PLACE A place for informal gatherings of individuals beyond the realm of home and work. Irreplaceable in the production of the urban fabric.</p>		 <p>OTHERS Other profession-specialized collaboratives, that have not yet to be coined or invented.</p>	 <p>RECEPTION Important if coworking space is part of a bigger institution or brand. Dual function as the voice and physical presence of coworking.</p>		
			 <p>TABLE TENNIS Exist in almost every coworking space. Its importance can be debated. Other recreational games include pool, chess etc.</p>		

ANSATTE MED HENSIKT OM Å FOSTRE SPESIFIKKE MILJØER OG KULTURER



ADMINISTRATIVE UNIT
Technical support, legal advice, human relations, public relations etc.



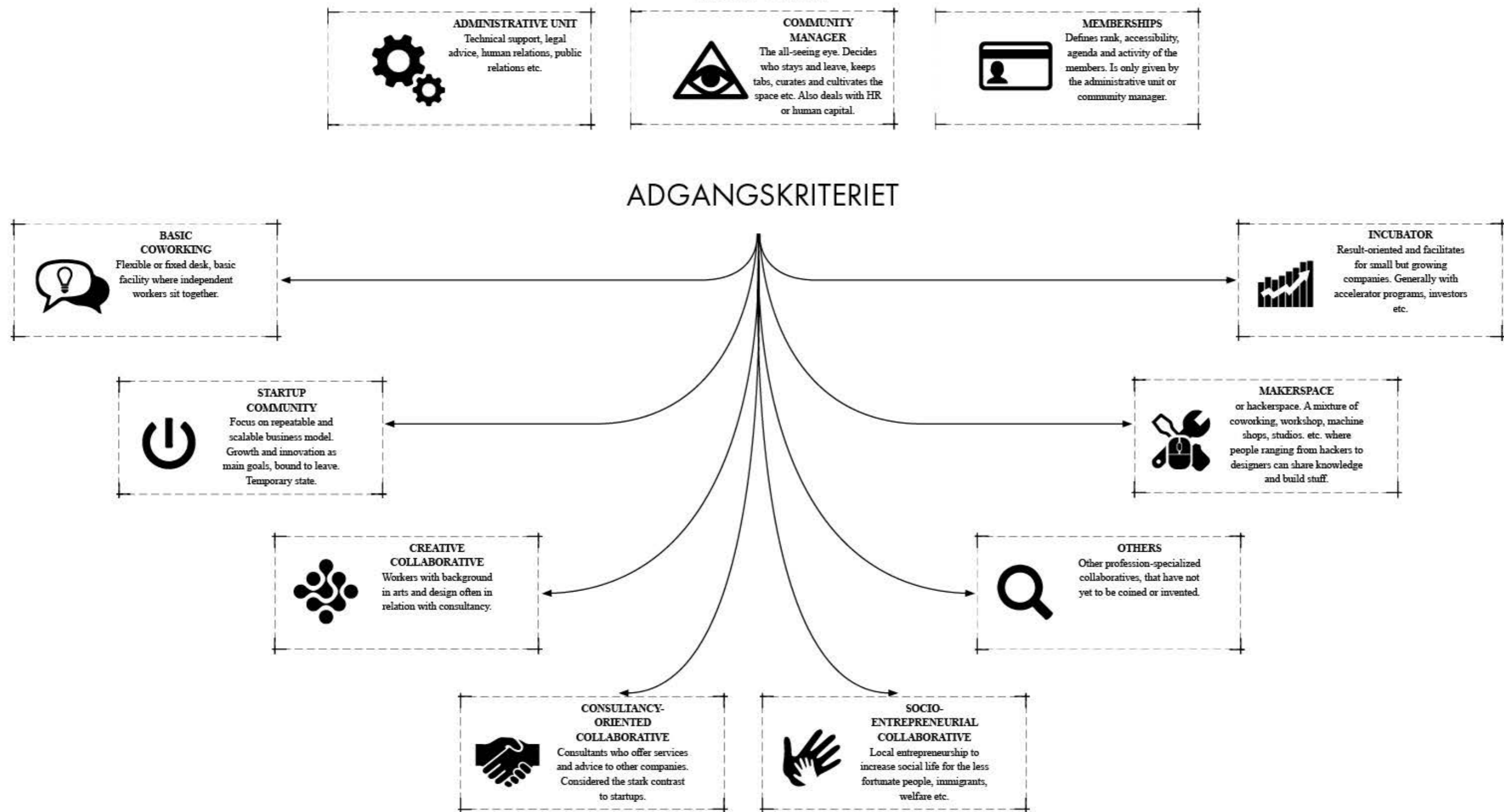
COMMUNITY MANAGER
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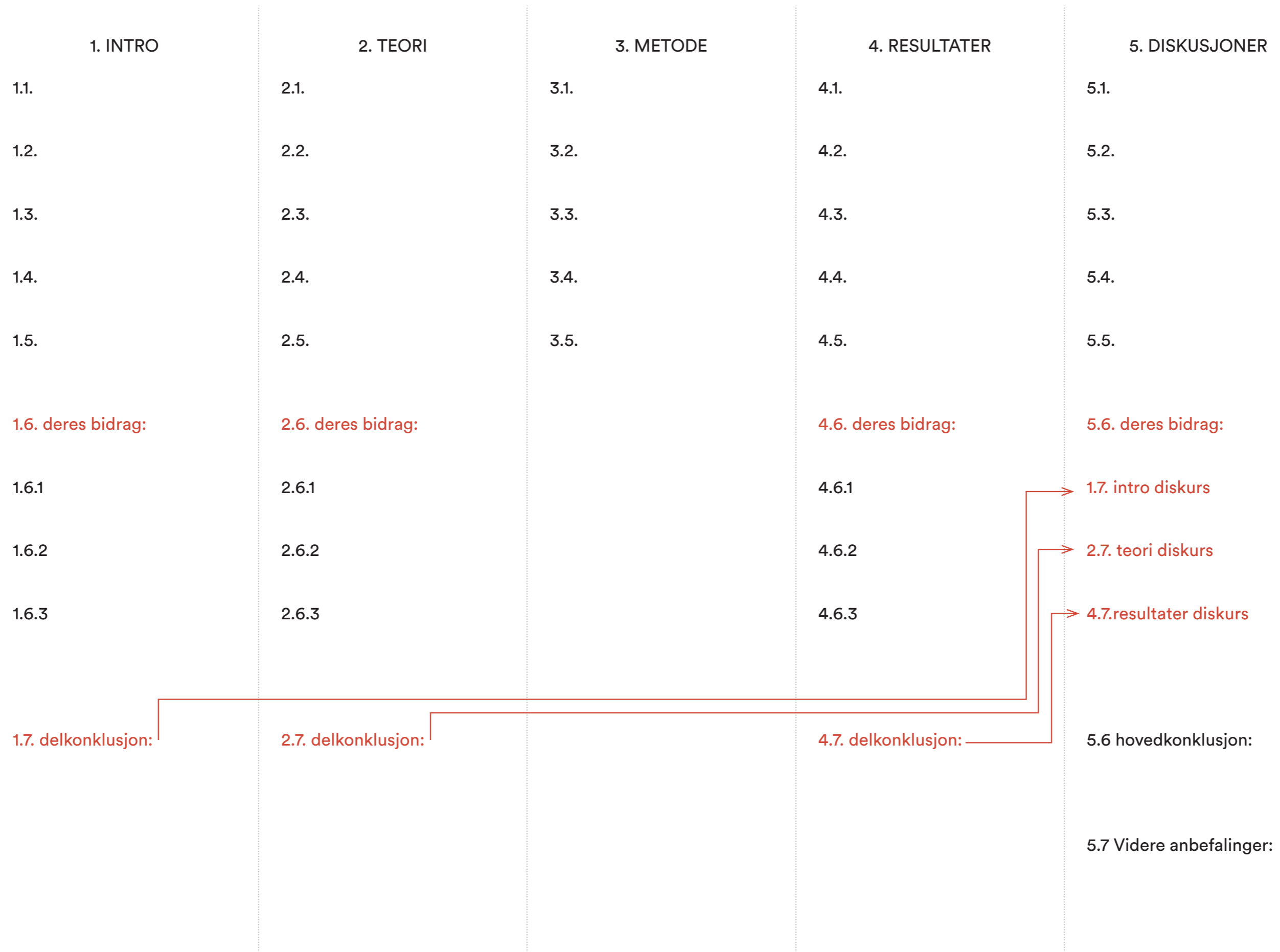
MEMBERSHIPS
Defines rank, accessibility, agenda and activity of the members. Is only given by the administrative unit or community manager.

ADGANGSKRITERIET

ANSATTE MED HENSIKT OM Å FOSTRE SPESIFIKKE MILJØER OG KULTURER



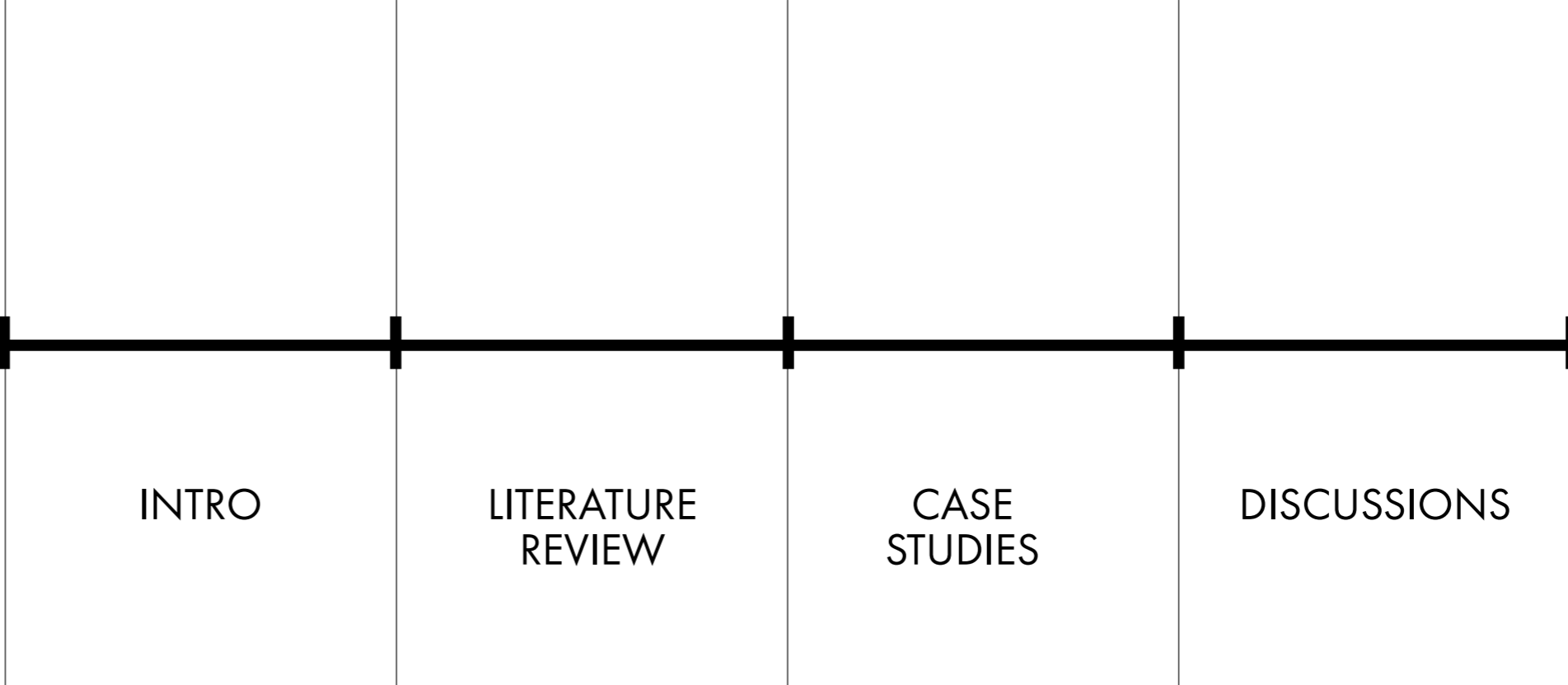




Process

...seen through the chapter structure

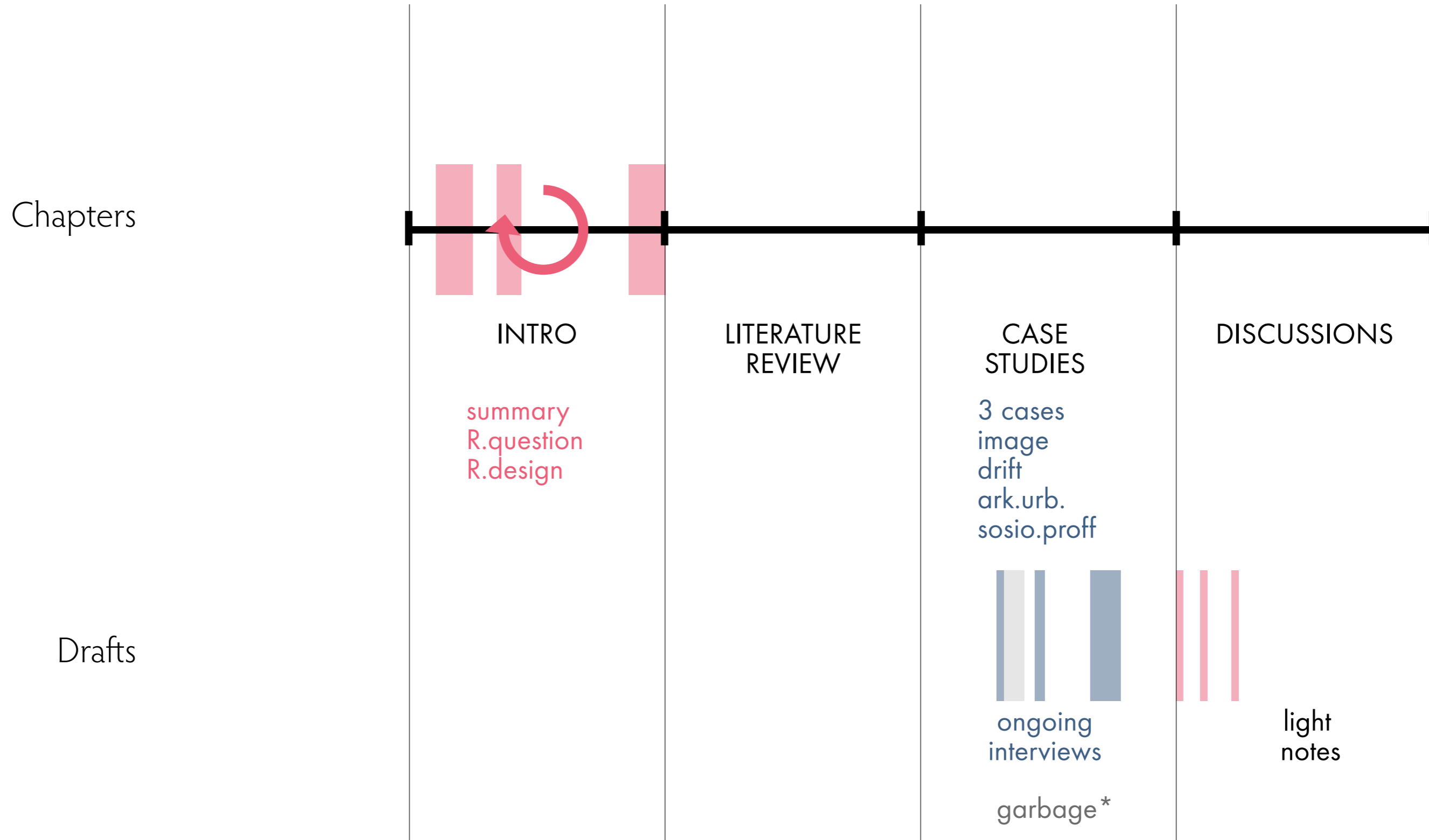
Chapters



Drafts

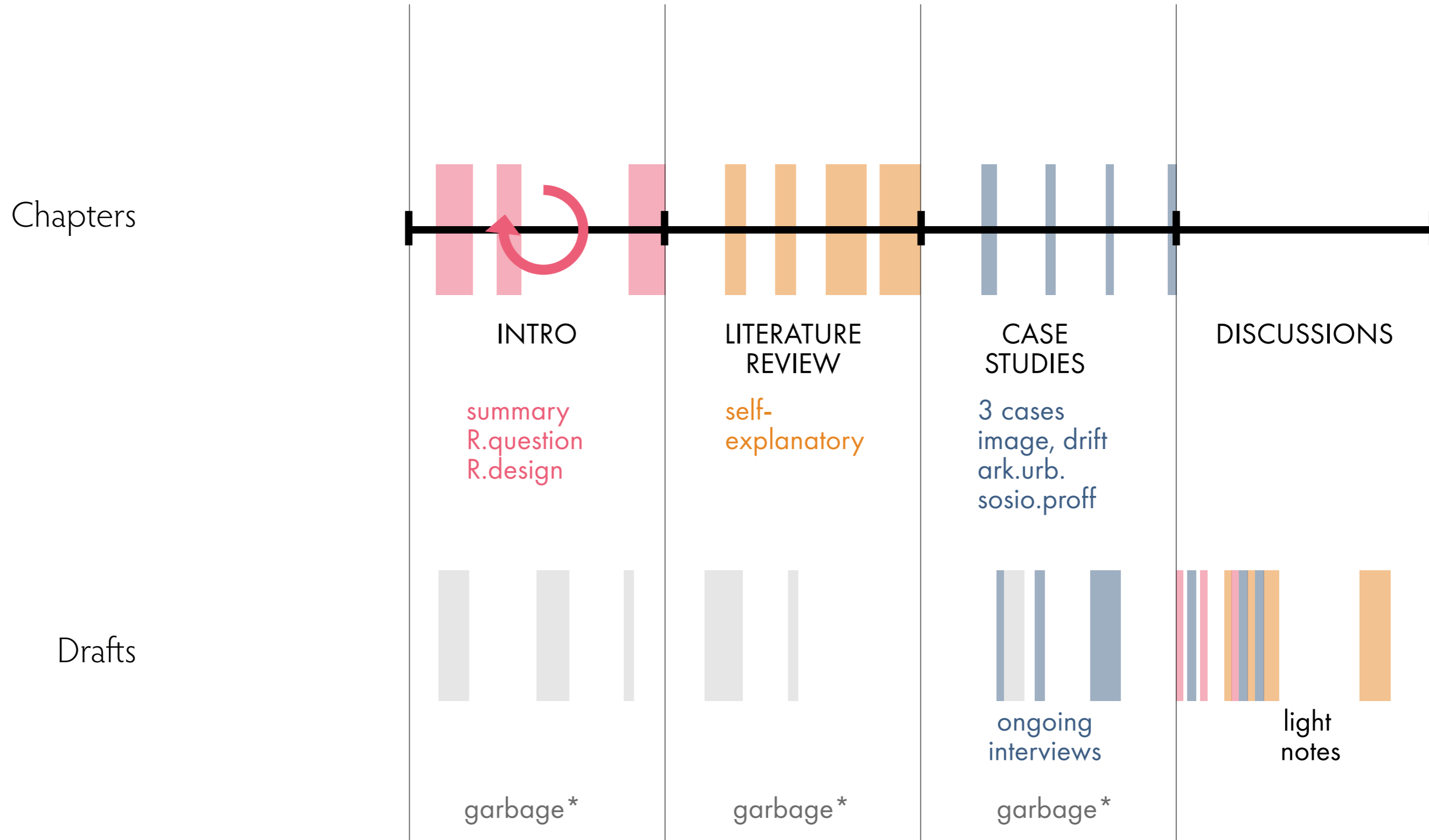
Process

...seen through the chapter structure



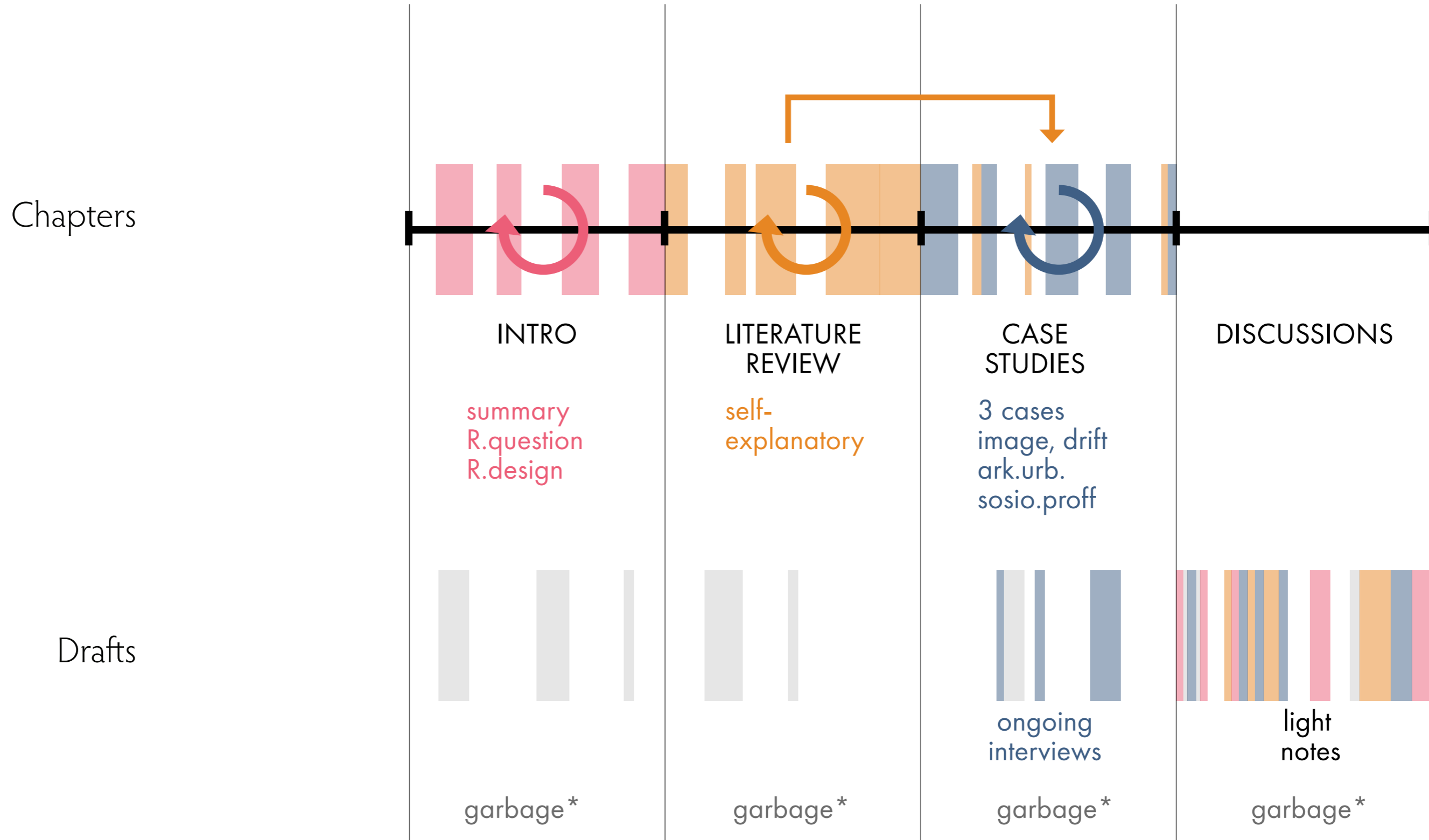
Process

...seen through the chapter structure



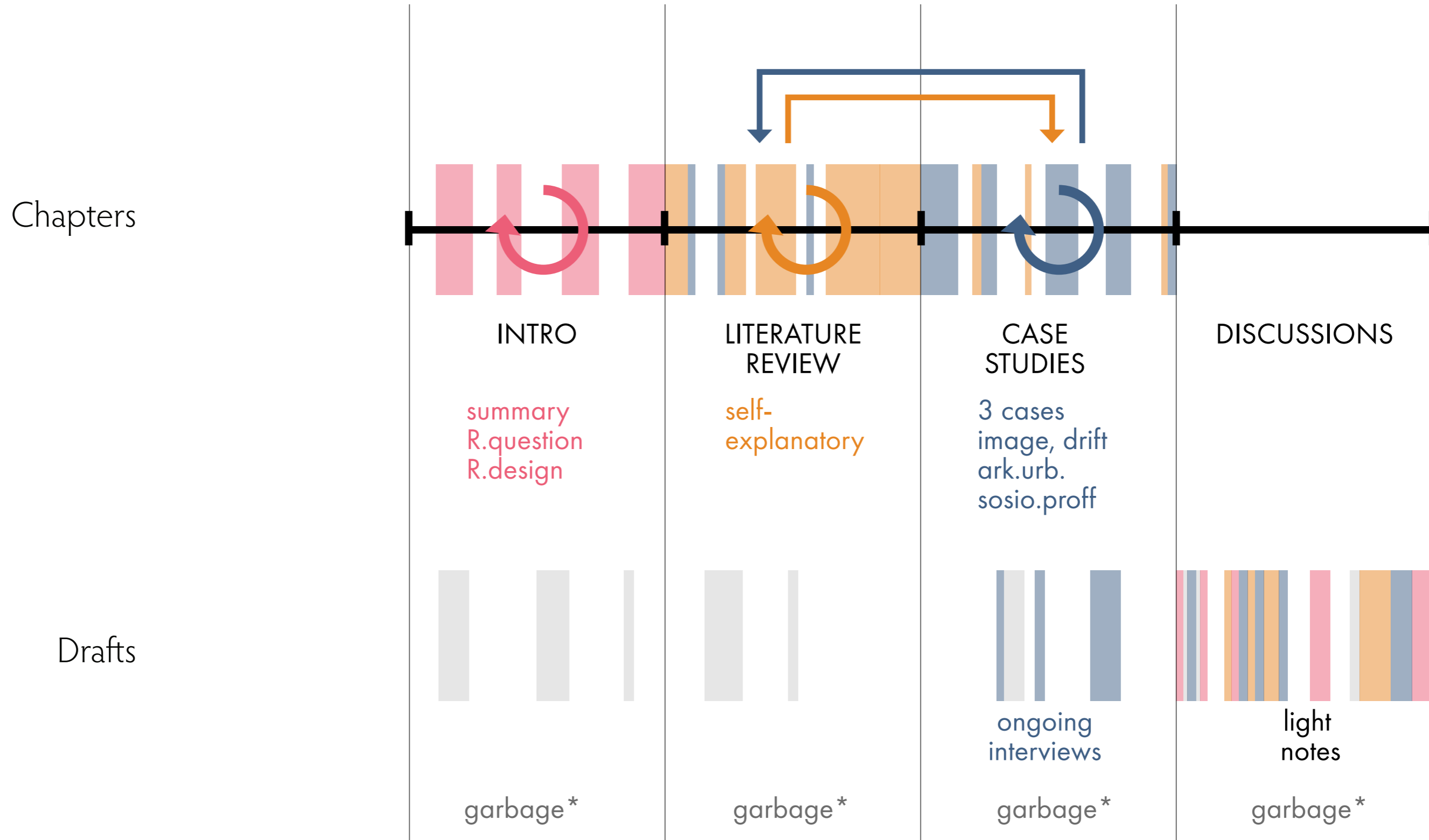
Process

...seen through the chapter structure



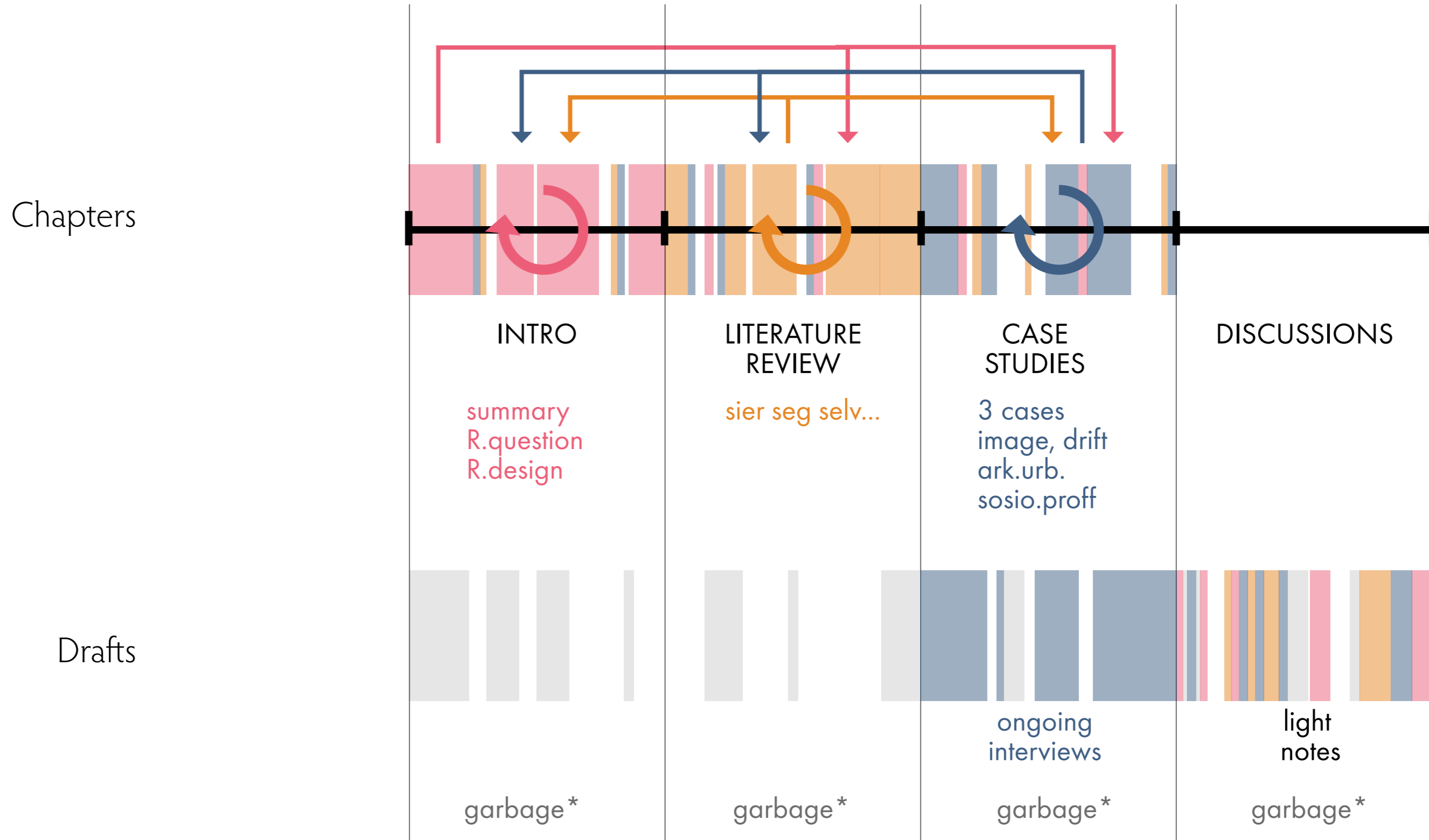
Process

...seen through the chapter structure



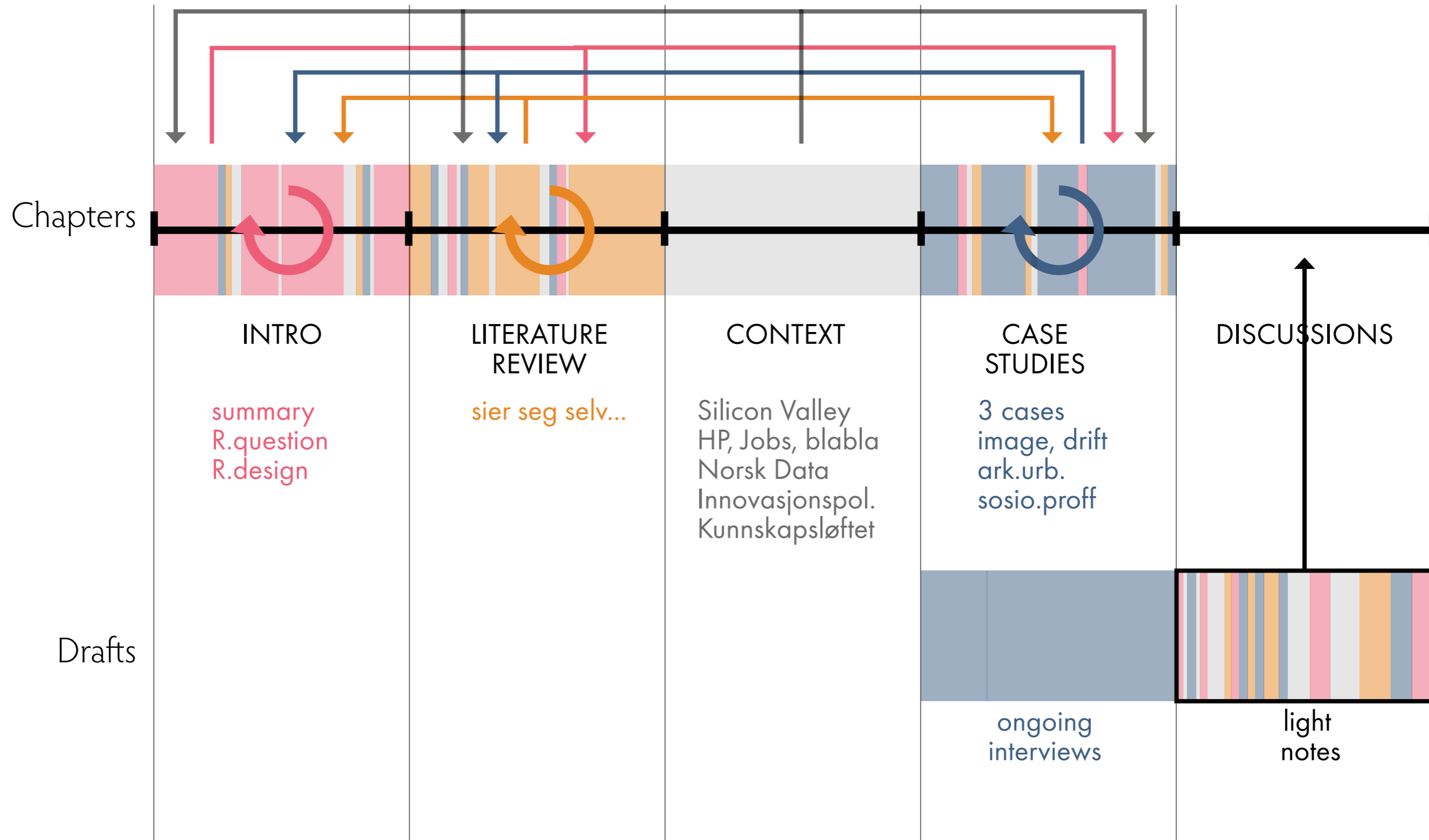
Process

...seen through the chapter structure



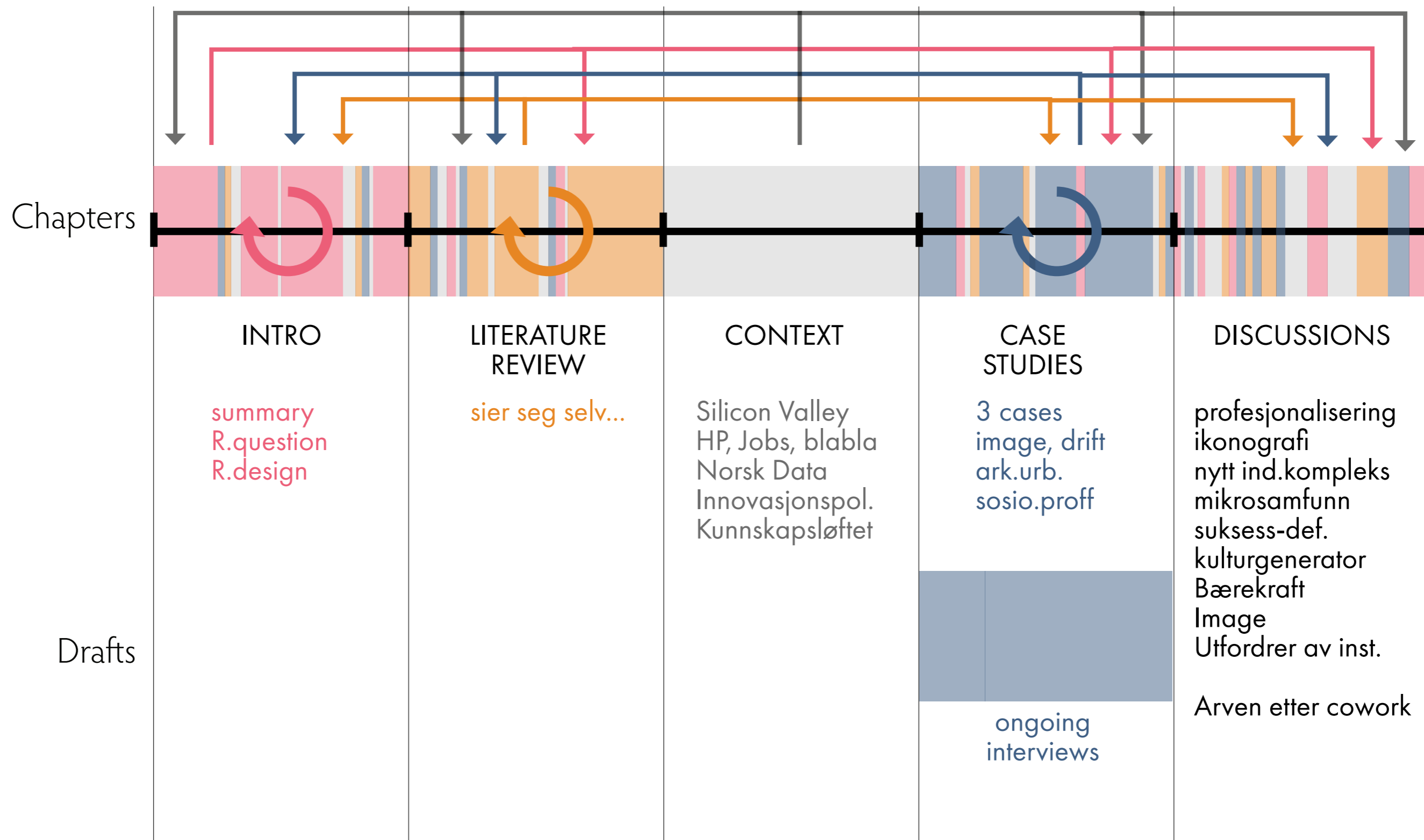
Process

...seen through the chapter structure



Process

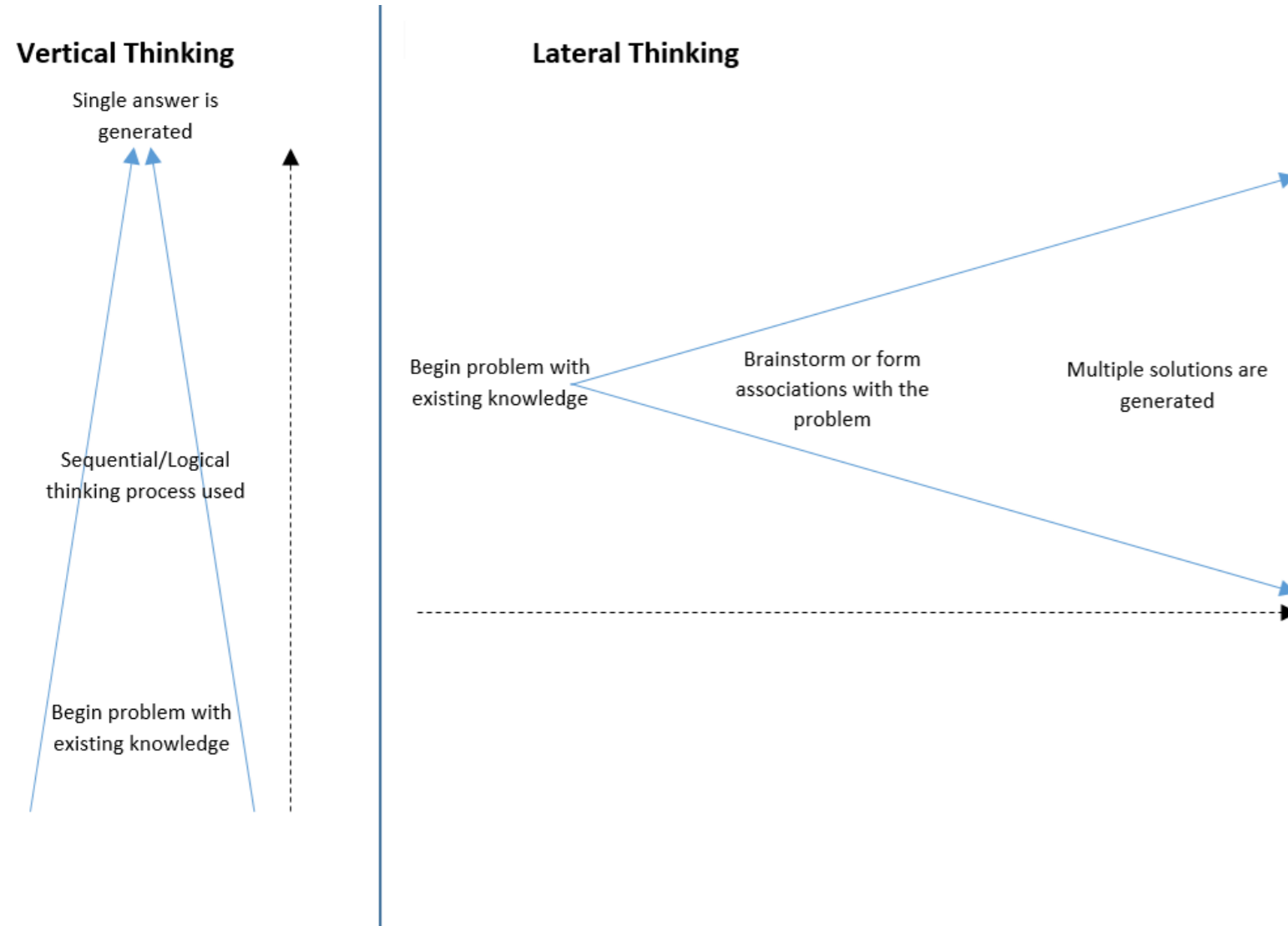
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Edward de Bono - lateral thinking

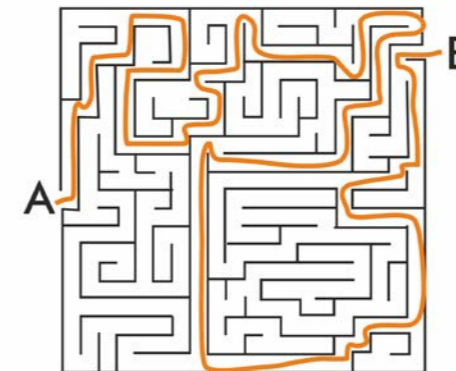
vertical: logisk, lineært resonnement

lateral: et stort hopp i resonnement, uventet, men logisk.



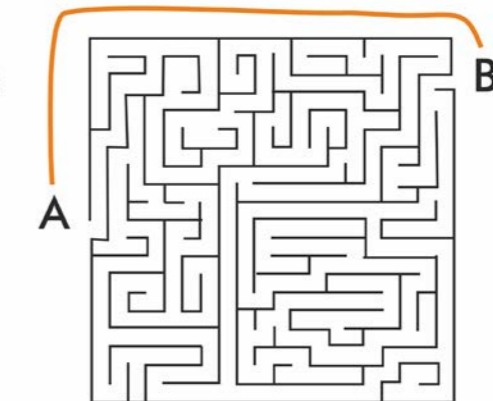
Traditional Logic

Making assumptions of what the rules are



Lateral Thinking

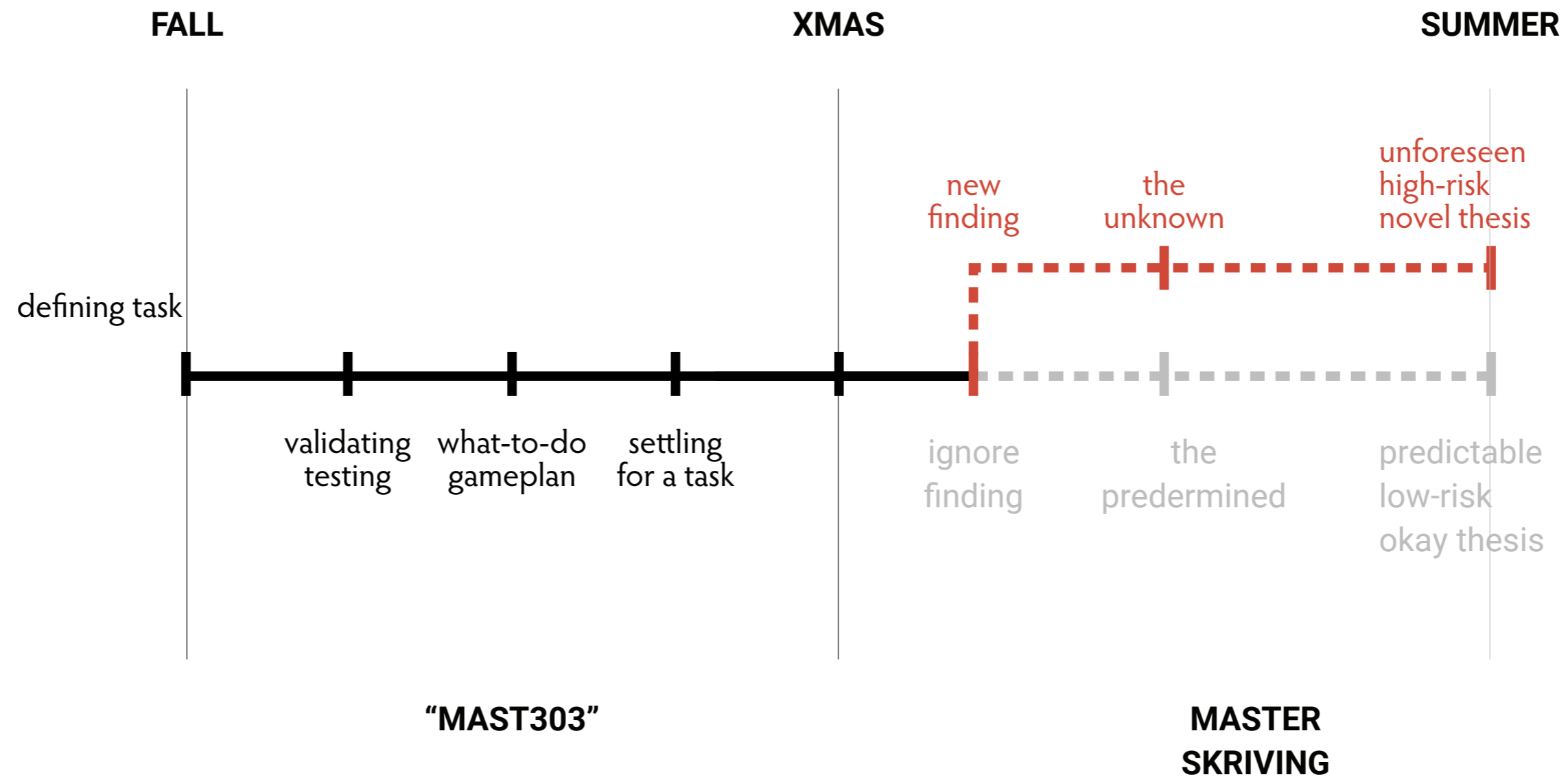
Disregarding 'implied' rules



Elasticity, response-time, & risk-taking

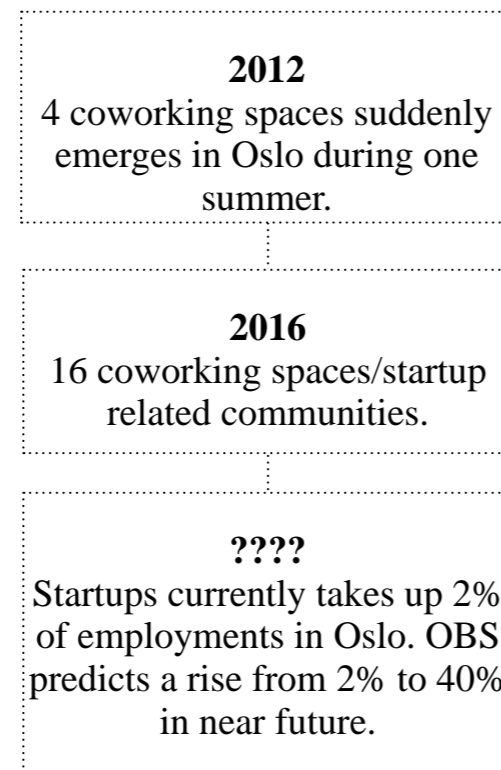
initial research question =
predetermined gameplan =
expected finding =
predictable answer

questioning research question =
gameplan out-of-the-window =
new finding - new gameplan =
unforeseen, maybe novel thesis



03. Vertical thinking

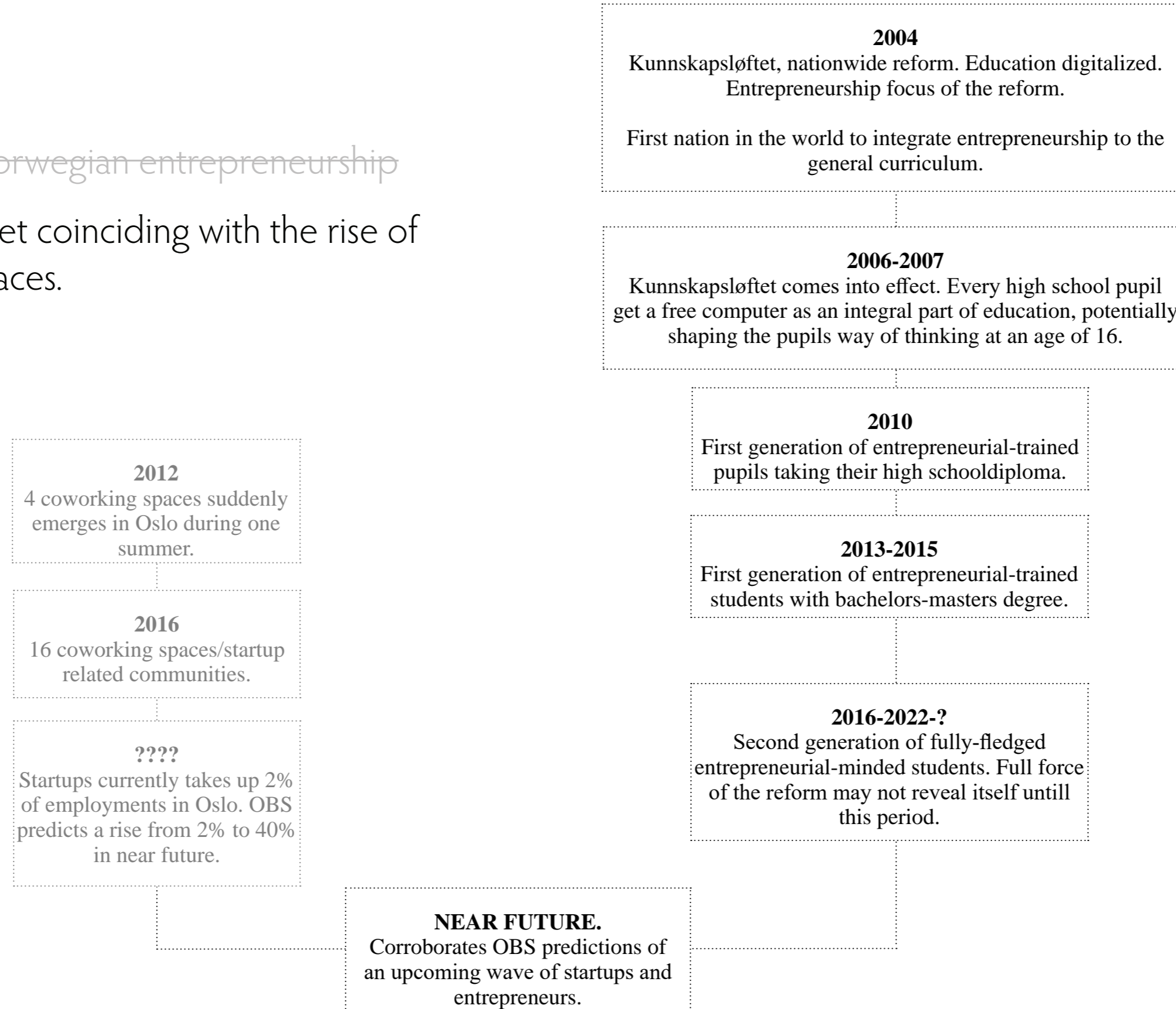
Timeline of norwegian entrepreneurship



03. Lateral thinking

Timeline of norwegian entrepreneurship

Kunnskapsløftet coinciding with the rise of coworking spaces.



Overførbar verdi?

MASTEROPPG.

intro

teori

metode

resultater

diskusjon

Overførbar verdi?

MASTEROPPG.

ANVENDBARHET:

intro → oversikt,
avgrensing,
presisering.

teori → diskusjoner der
ute, hva foregår?

metode → oppskriften,
agregere info.
hvordan du kom
frem til resultatene.

resultater → fremlegg, funn,
implikasjoner osv.

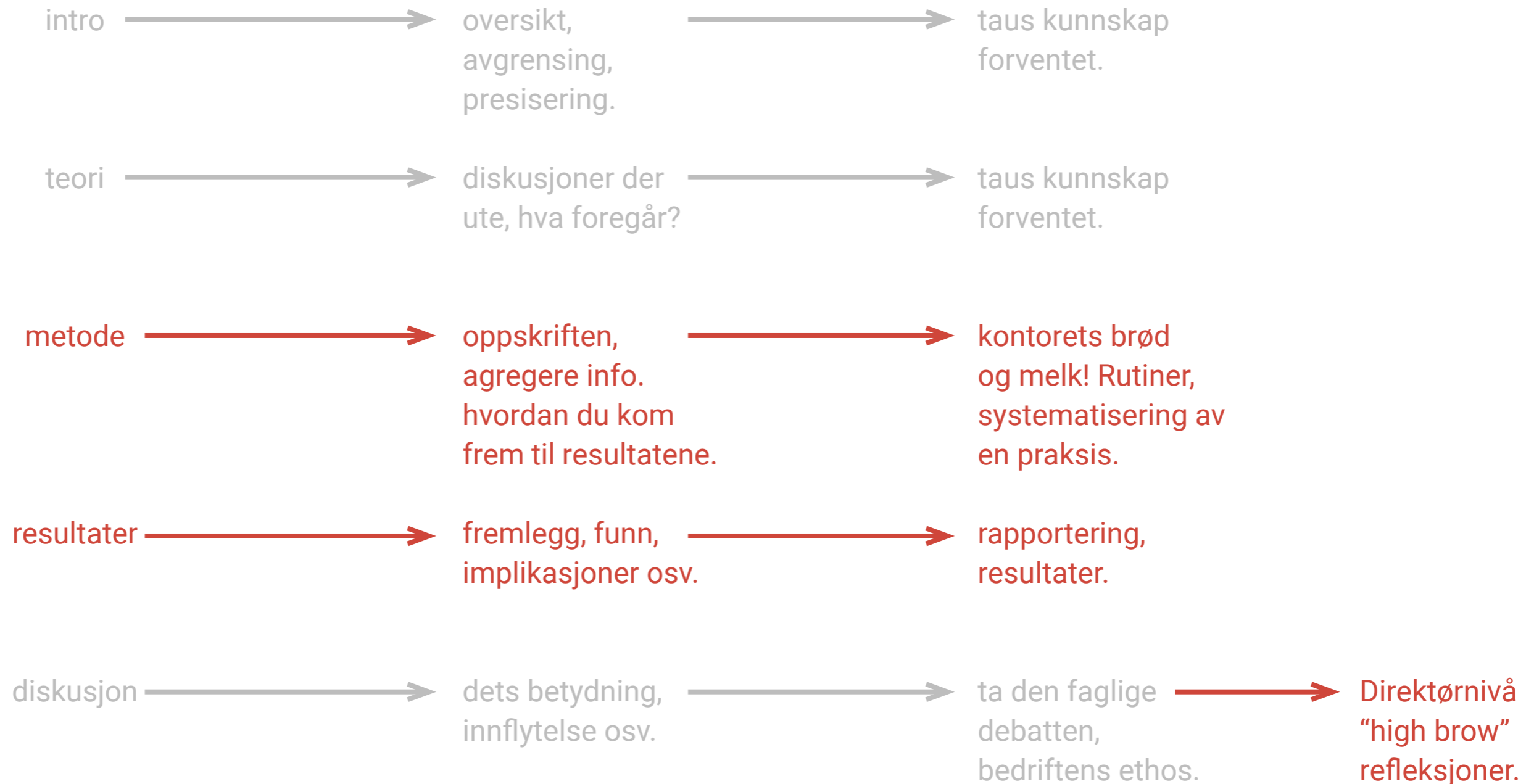
diskusjon → dets betydning,
innflytelse osv.

Overførbar verdi?

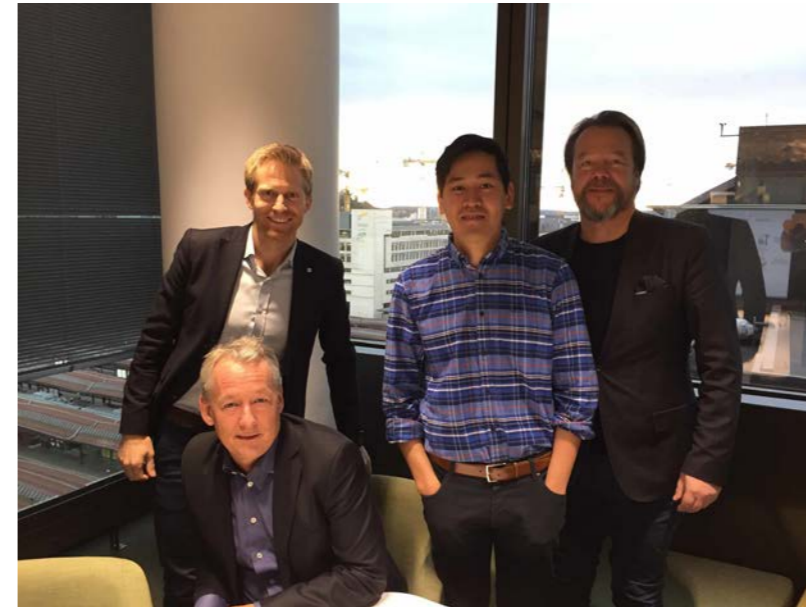
MASTEROPPG.

ANVENDBARHET:

ARBEIDSLIV



Gitt at jeg skulle få Alle oppdrag innen coworking?



MA oppg.
Mesh

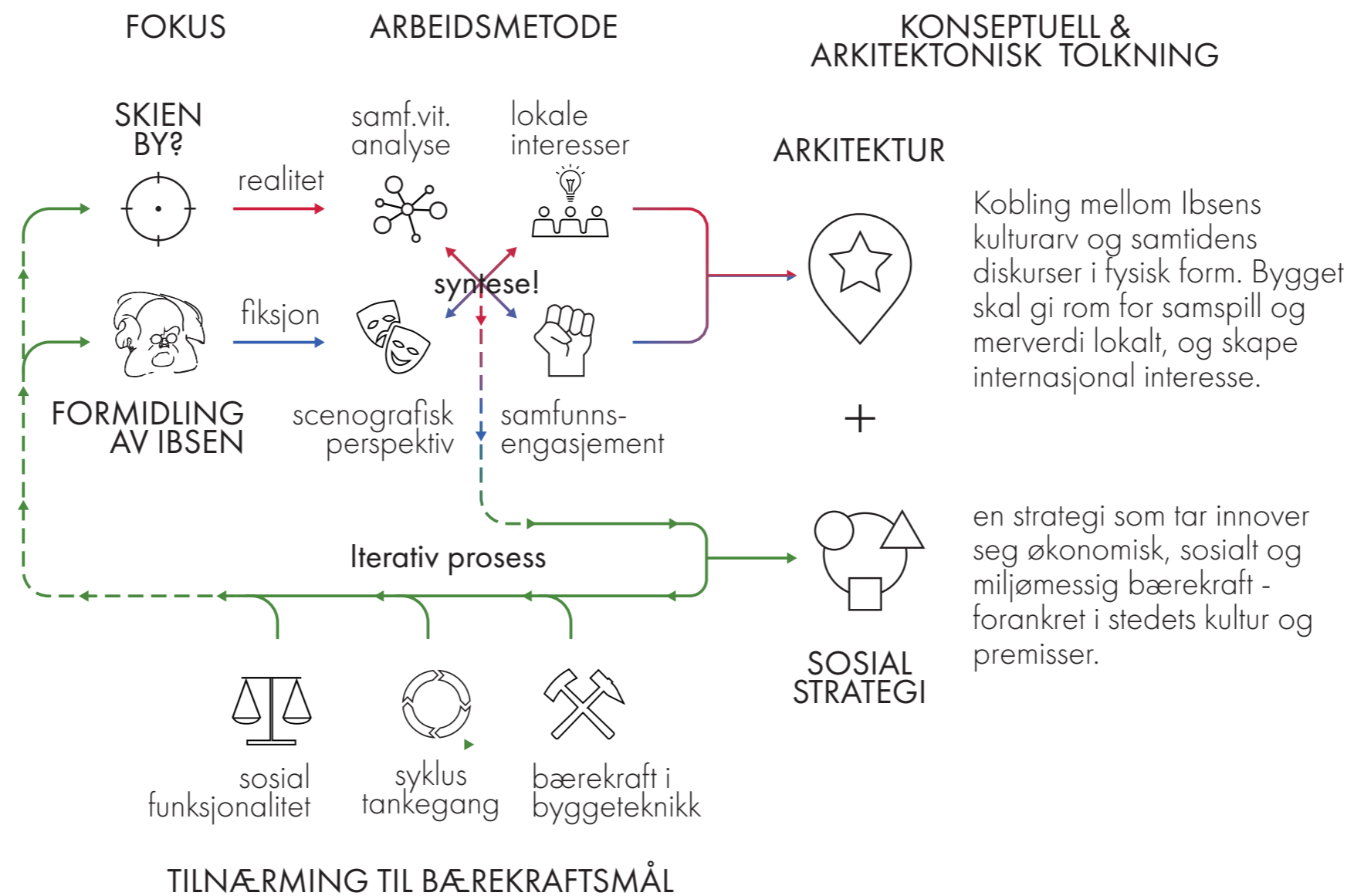
Entra
Rebel

EKSEMPLER FRA ARBEIDSLIVET

Ibsenbiblioteket (wildcard kat.)

visualisert **metode, resultater + forslag/løsning**

- fikk 99% score med skriftlig søknad mot mine tidl. lærere, KOHT (stjernene fra NTNU).

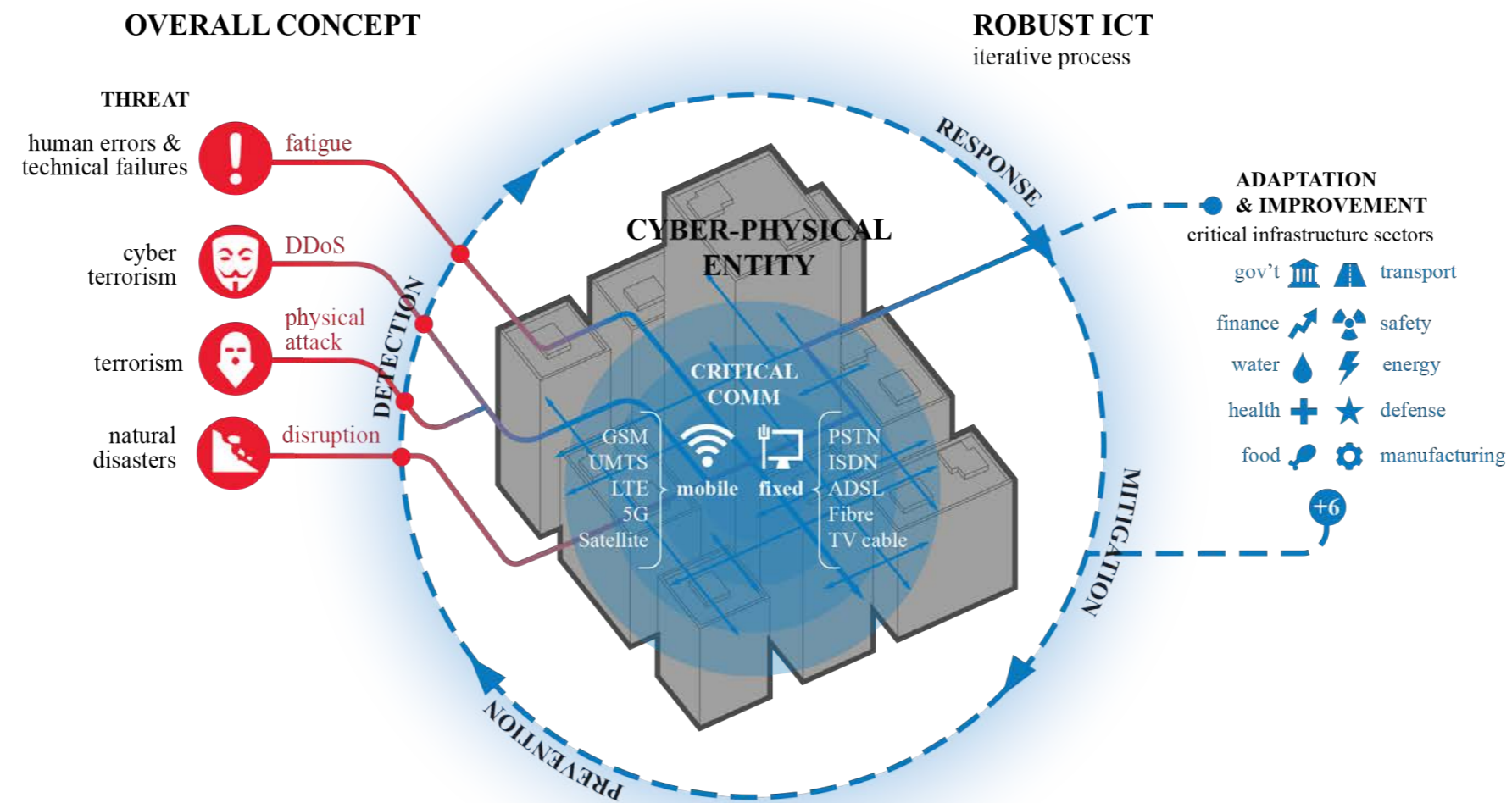


ERC søknader

hypotese:

1. kjapp til å behandle data,
2. lese livsverket til noen på få dager,
3. respons til formidling av forskningen =

øke vannersjansene i å anskaffe ERC midler!



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INTRODUCTION

Imagine a future where there are hundreds of thousands of micro underwater robots navigating the oceans, operating for several years without assistance, collecting data, and making these data available to a large open database that scientists can access to obtain answers to fundamental questions about our planet by resorting to big data and machine learning techniques. Imagine that these micro underwater robots can localize themselves, take decisions on which trajectories to follow, be self-sufficient using energy harvesting, and all at a cost a hundred times lower than existing solutions. The present project aims at addressing and solving some of the challenges that can make this hypothetical future a reality.

1. THE INCREMENTAL INNOVATION

Autonomous Underwater Vehicle (AUV)



Pressure house: is currently large, heavy, and the technology makes cost and complexity of UAV design expensive, for each unit produced.

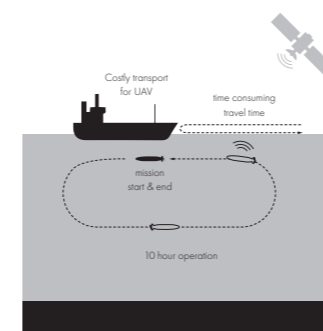
Micro Underwater Gliders (MUG)



New implementation: BiMUG mimicks nature to reduce weight, size, effectively reducing cost and design complexity of each unit.

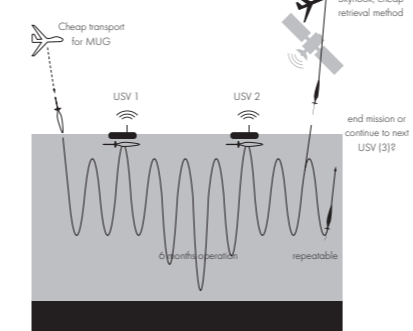
2. ITS MAJOR IMPACT ON OCEANIC RESEARCH

Current: mechanical and costly process, limited by daily missions.



BUDGET COST
+crew
+ dedicated research vessel (transport)
+travel expenses
+cost for UAV with only 10 hour operation time
= stages has to be repeated each mission with a day's downtime, cost 100%

Proposal: autonomous and cost-efficient process, not limited by time constraints.



BUDGET COST
+drone (transport)
+permanent unmanned surface vessels (USV)
+ low cost for MUG with 6 monthish operation time
=one-time only process, repeatable at near zero cost & downtime, if repeated cost can be as low as 30%

3. TRANSFERABILITY TO OTHER RESEARCH AREAS & INDUSTRIES:

- Optimization and validation of physical oceanographic models
- Contaminant spill and plume tracking
- Black box localization
- Potential research area 4
- Potential innovation in industry 1
- Potential innovation in industry 2
- Etc. etc.etc

ERC søknader

hypotese:

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2. lese livsverket til noen på få dager,
3. respons til formidling av forskningen =

øke vannersjansene i å anskaffe ERC midler!



May 15, 2017



May 15, 2020

ReStartOslo 2021

intro: COVID har slått ut alt av handel/byliv i sentrum.
resultat: 35 mill.kr. skal ut ila **3 mnd**, på **rettferdig** og **lovlig vis**.

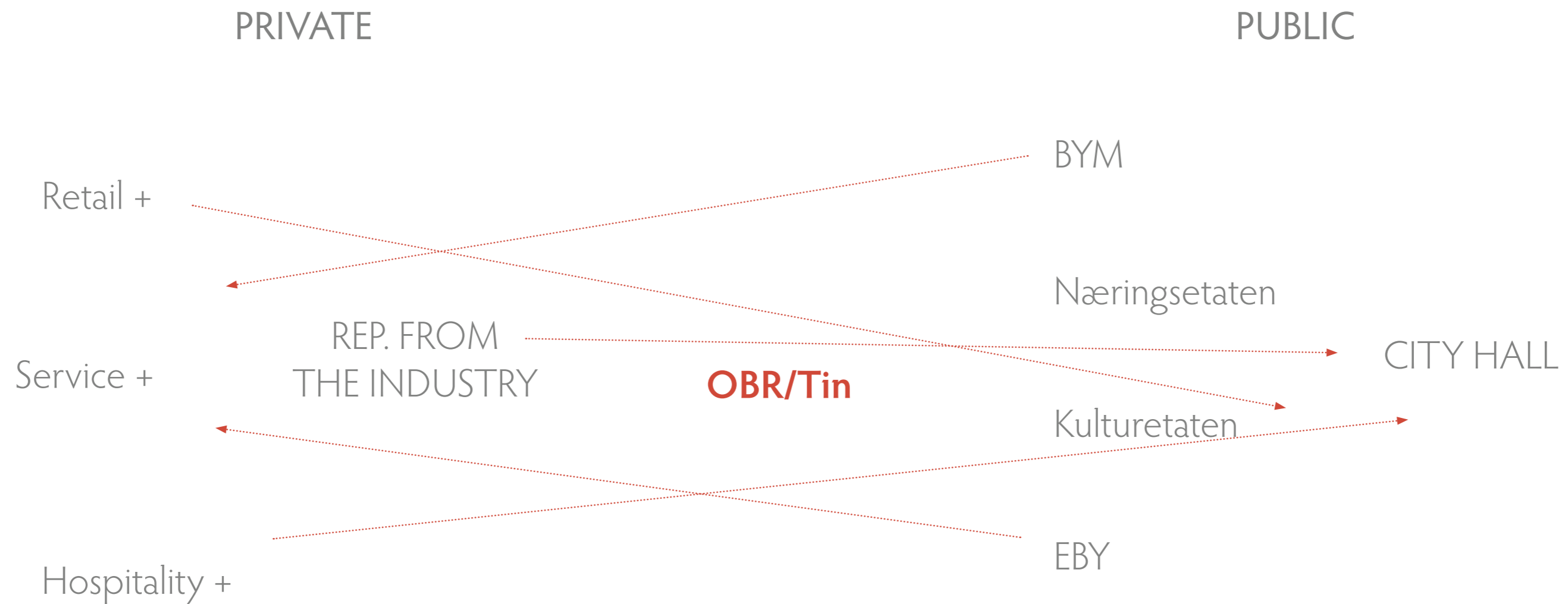
ukjent metode og empiri:
hvordan gjør vi dette teknisk sett, og hva finner vi ut?



ReStartOslo 2021

Diplomati i offentlig/privat “turf war”

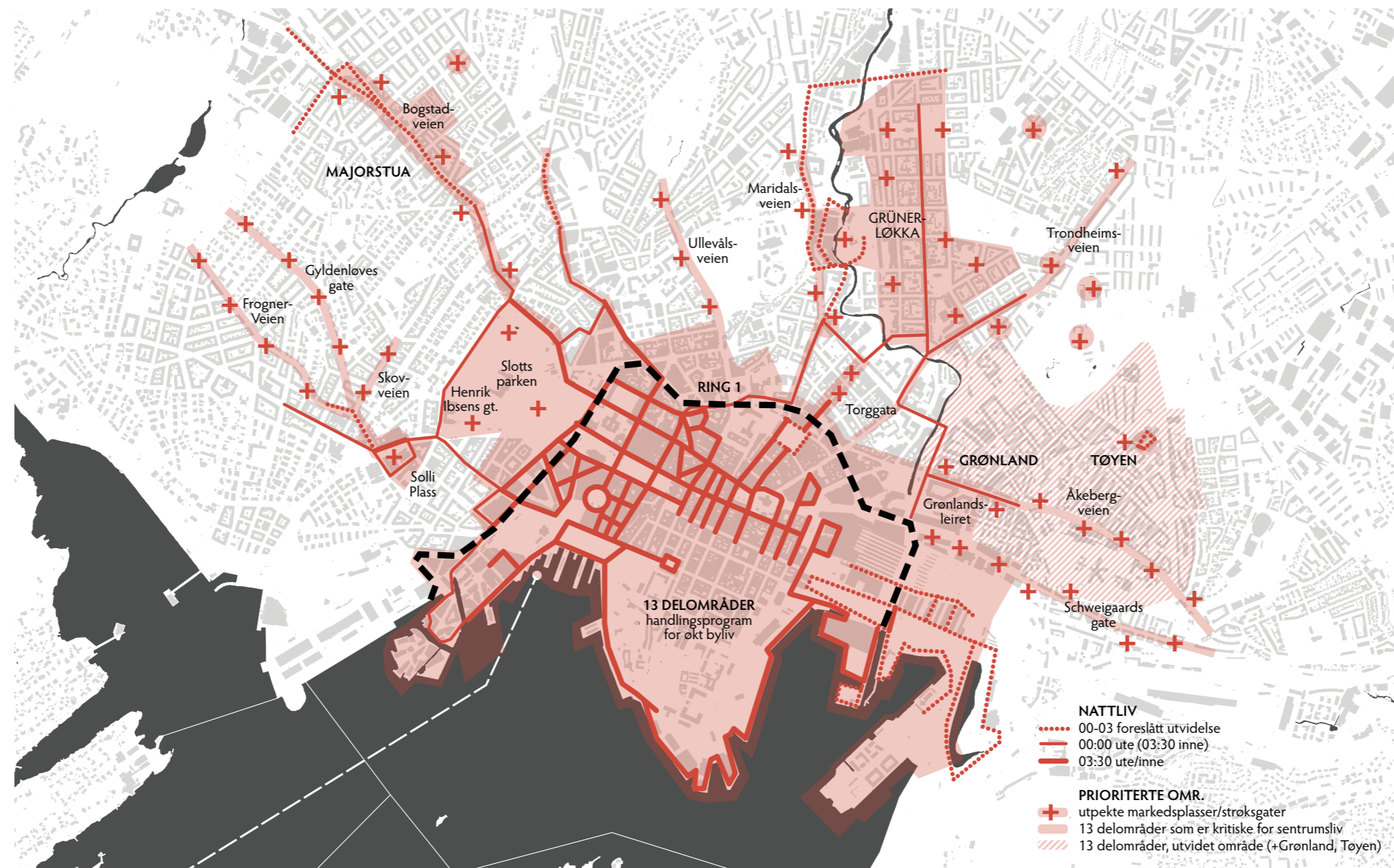
omskrivning av intro: skjulte agendaer, egeninteresser, “scheming”, og forakt for at OBR/Tin fikk



RestartOslo 2021

metodisk avgrensning for å dele ut

sentrumsdefinisjon/avgrensning = nattliv (åpningstider + skjenkebevilling), utpekt markeds plasser/strøkgater, 13 delomr.+ politisk korrekthet (tøyen, grønland).



RestartOslo 2021

metode for rettferdig spredning av budskap:

live sending, Q&A, **Schibsted kampanje** med 500k clicks (utvalgte målgrupper).



RestartOslo 2021

metode for å aggregere empiri: forenkling av byråkrati (rekordfart!).
prosessering av 750 unike søknader.

10 dagers frist/10 dagers juryering - eksport i excel,
jury som kjenner søkerne "on-face-value".

Restart Oslo / Restart Oslo (Deadline 15 August 2021)

Create Connect Share Results

Content

Tilskudd til aktiviteter for økt byliv i Oslo

1 Hva er ditt fornavn?

2 Hva er ditt etternavn?

3 Hvor jobber du?

4 Hva er ditt organisasjonsnummer?

5 Hva er din postadresse?

6 Hva er telefonnummeret ditt?

7 Hvem er dine samarbeidspartnere?

8 Huk av en eller flere kategori...dere best:

9 Hvilken RestartOslo 2021 ordn... søker du?

10 Velg en kort, men beskrivende ...ekt-tittel

11 Hva er din prosjektidé?

12 Hvilken allmennyttig verdi har ... prosjekt?

13 Gi oss en kort pitch!

14 Hvor skal prosjektet ditt finne sted?

15 Når skal prosjektet ditt finne sted?

16 Har du mottatt bagatellmessig...

17 Totalsum som søkes...tartOslo?

Endings

Tusen takk for søknade

Tilskudd til aktiviteter for økt handel og byliv i Oslo

Handels-, serverings- og servicenæringene, som er en viktig del av bylivet, har som følge av koronaepidemien vært ekstra hardt rammet det siste året. Byrådet ønsker å bidra til å få folk tilbake til byen, bidra til økt byliv og en styrket handels-, serverings- og servicevirksomhet. Det lyses derfor ut totalt 34 mill. som skal gå til prosjektet RestartOslo 2021. Satsingen skal rettes mot byen og regionens befolkning i tillegg til nasjonale tilreisende.

Tilskuddsordningen skal avhjelpe situasjonen for lokale virksomheter som er særlig hardt rammet av lokale eller nasjonale smitteverntiltak. Tilskudd til økt byliv skal bidra til å dempe de økonomiske konsekvensene av Covid-19-Pandemien og styrke handels-, serverings- og servicenæringene i de geografiske områdene i hvor pandemien har hatt størst innvirkning.

Dersom du mottar støtte, står du selv ansvarlig for å innhente nødvendige kommunale tillatelser til gjennomføring av tiltaket. Ved å starte dette søknadsskjemaet, så godtar du at dine opplysninger vil bli lagret hos oss. Disse opplysninger er konfidensielle og skal ikke deles med noen andre enn juryeringskomiteen.

Dette søknadsskjemaet administreres av Oslo Business Region AS, som er et selskap eid og finansiert av Oslo kommune.

Fristen for å søke går ut den 23:59 den 25.juni og 15.august 2021 23:59. Dette søknadsskjema gjelder 15. august.

Vennligst gjør deg kjent med den fulle utlysningsteksten på www.oslobusinessregion.no før du søker.

Start press Enter

Question Design Logic

Type

Welcome Screen

Settings

Time to complete (?)

Button

Start 5 / 24

Image or video Change

Layout

Focal point

Brightness

Alt text Help?

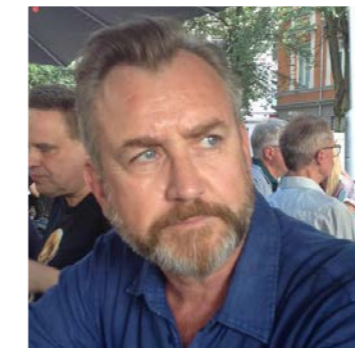
cars parked on street near buildings during daytime 51 / 125



LINNÉA SVENSSON
Sosialantropolog, Cand.mag.
Konglomerat.
NIGHTLIFE



MARIT JENSEN
Jurist, Cand.jur.,
Stor-Oslo Eiendom.
RETAIL

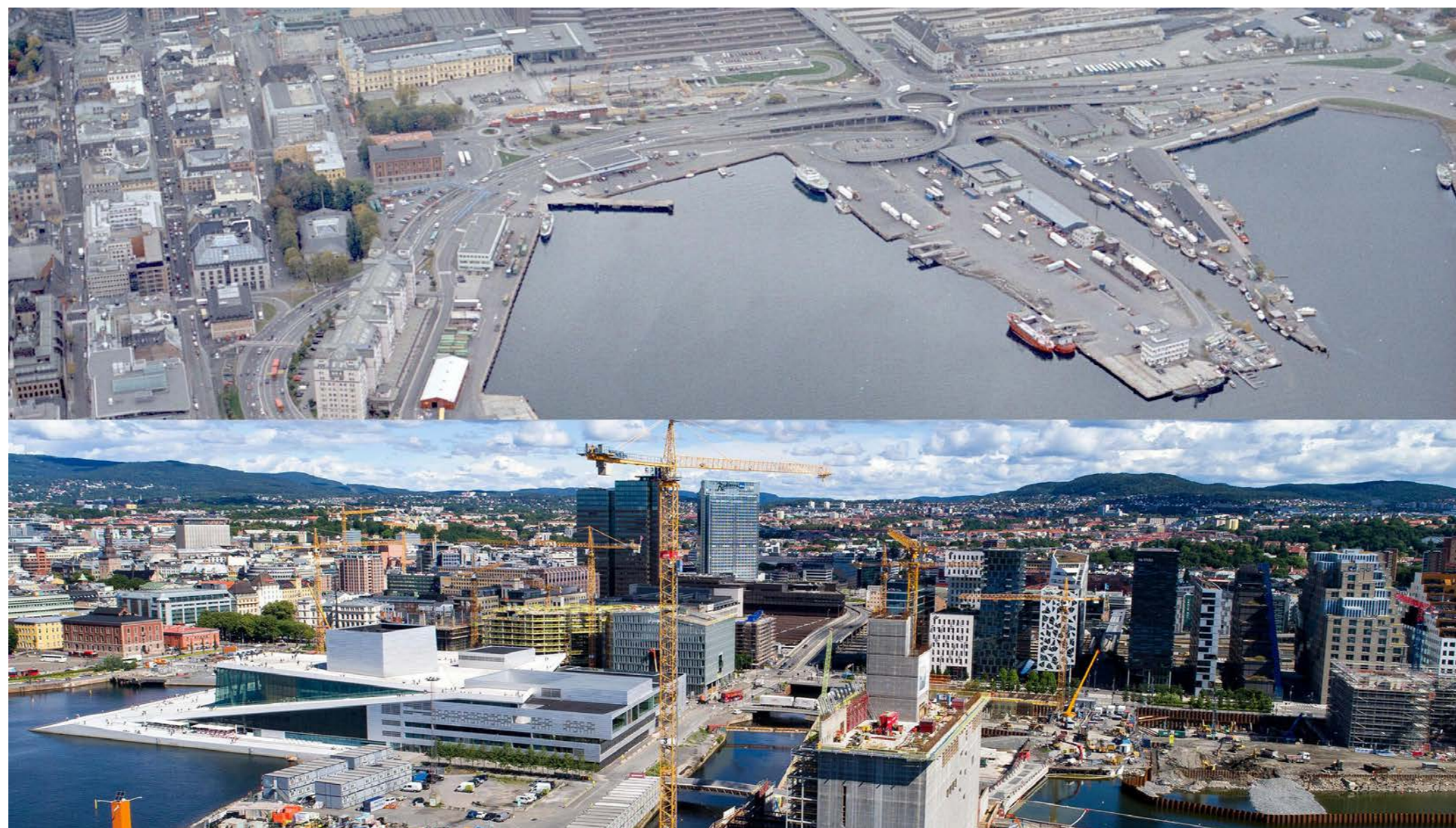


YNGVAR HEGRENES
Landskapsarkitekt, MNLA
EBY/BYR - Oslo kommune.
URBAN SPACE

Arkitektur: innebygd akilleshæl.

Styrke - analysere nåværende virkelighet og **foreslå et konsept for en ny virkelighet.**
spm: hvor godt forankret er denne "nye virkeligheten" i stedlige politiske, fysiske, kulturelle parametere?

Svakhet - hvor godt trent er arkitekter i å forklare sin tankerekke?
(dvs. intro, teori, metode, resultater, diskusjon?)



Europan 16, 2.plass i 2.mest populære tomt.

hvor mye teknisk analyse, data og info får jeg presset inn i et boligutviklingsprosjekt?
(dvs. intro, teori, metode, resultater, diskusjon?)



2020
2018



2020
2012



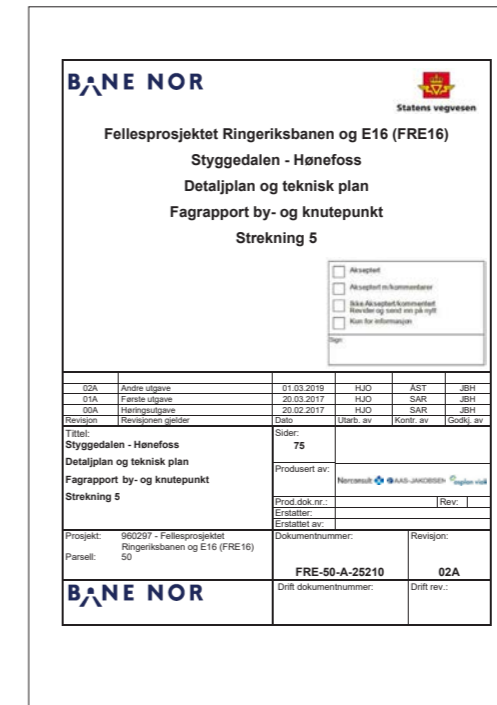
QUICK ASSESSMENT

A thorough assessment has not been done, many of these shows current state and projections for 5-10 years ahead of time through numbers, locations and mappings. Note that there are some recurring wishes surrounding how a city wants to be perceived culturally and commercially. These reports usually do not really address their uniqueness.

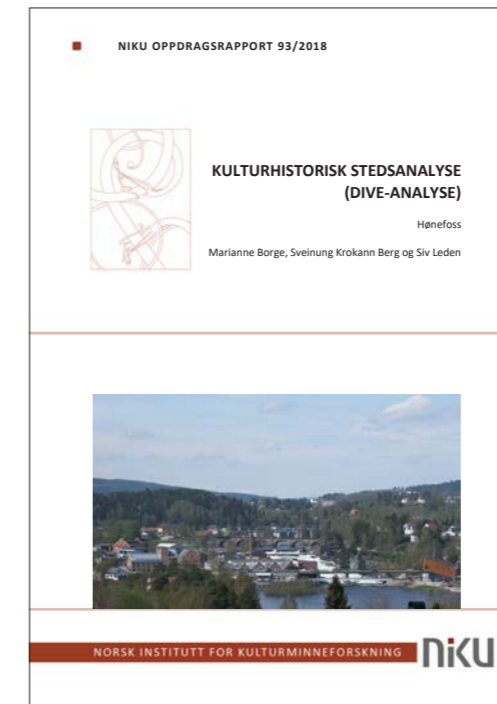
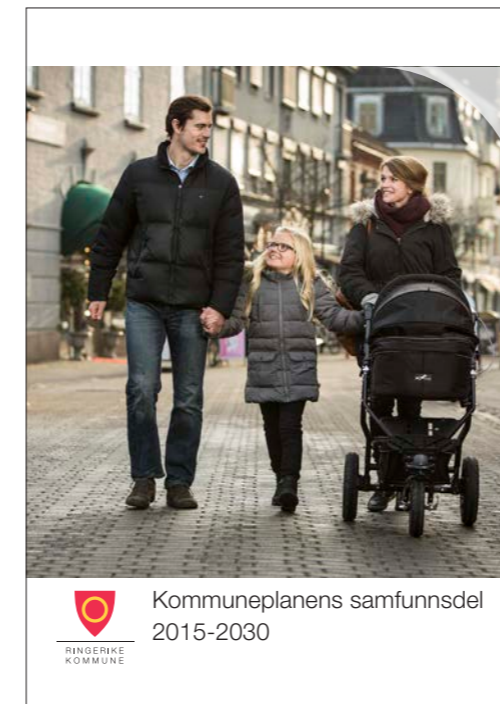
NOTE ON COMMERCE/TRADE: if the majority of reports are conflicting each other after a cross-reference, they can also be contested in their findings. There is a question as to why there exists 3 assessments on commerce and trade in such a short time span (2018-2020).

To-be-continued, or to be updated!

2015?



2019
2018



Europas 16. og 2. mest populære tomt.

forstå de tekniske leveransekravene og hvordan bruke det til vår fordel.

ALTA BUSY BOSSE!

INTRO

The site **Busy Bosse!** represents the current level of industrial production being relocated from other, to be more precise, being located in the urban fabric of the municipality. With the relocation to a new, to be more precise, being located in the urban fabric of the municipality, the project is a response to the need for a new industrial site in the urban fabric of the municipality.

CONTEXT & COMPARATIVE STUDIES

Why is it necessary to build a new industrial site in the urban fabric of the municipality? The answer lies in the need for a new industrial site in the urban fabric of the municipality. The project is a response to the need for a new industrial site in the urban fabric of the municipality.

EMPLOYMENT RATES & STATISTICS

Production rate in the municipality of Alta. The project is a response to the need for a new industrial site in the urban fabric of the municipality. The project is a response to the need for a new industrial site in the urban fabric of the municipality.

PROFESSIONAL COMMUNITIES

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SOCIAL CHALLENGES

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BOOMING TOURISM

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ALTA BUSY BOSSE!

PHASES

IDEOLOGY OF APPROACH

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PROGRAMMING

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CONNECTIVITY

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SERENDIPITY

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CURATION

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ALTA BUSY BOSSE!

CO-HABITAT

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TRANSPORTATION HUB

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CULTURE COMPLEX

The project is a response to the need for a new industrial site in the urban fabric of the municipality. The project is a response to the need for a new industrial site in the urban fabric of the municipality.

MECHANICAL WORKSHOP

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CORPORATE SAUNA + GREENHOUSE

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PRODUCTIVE MARKET + AQUATIC PORT

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Europap 16, 2.plass i 2.mest populære tomt.

forstå de tekniske leveransekravene og hvordan bruke det til vår fordel.

AITA BUSY BOSSE!

BUSY BOSSE!

RENDER

RESEARCH

RESPONSE

BOOMING TOURISM

EMPLOYMENT RATES & STATISTICS

PROFESSIONAL COMMUNITIES

SOCIAL CHALLENGES

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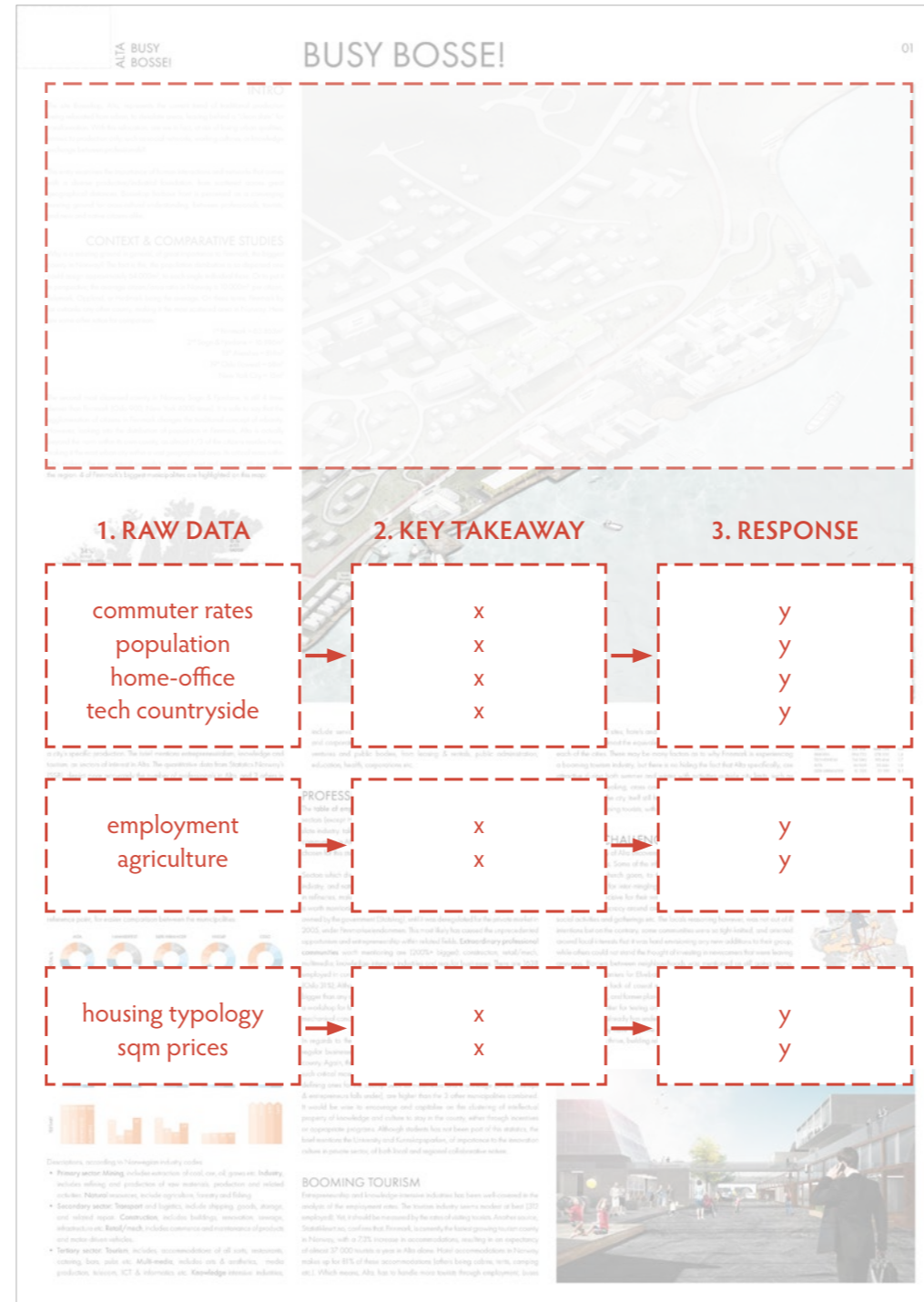
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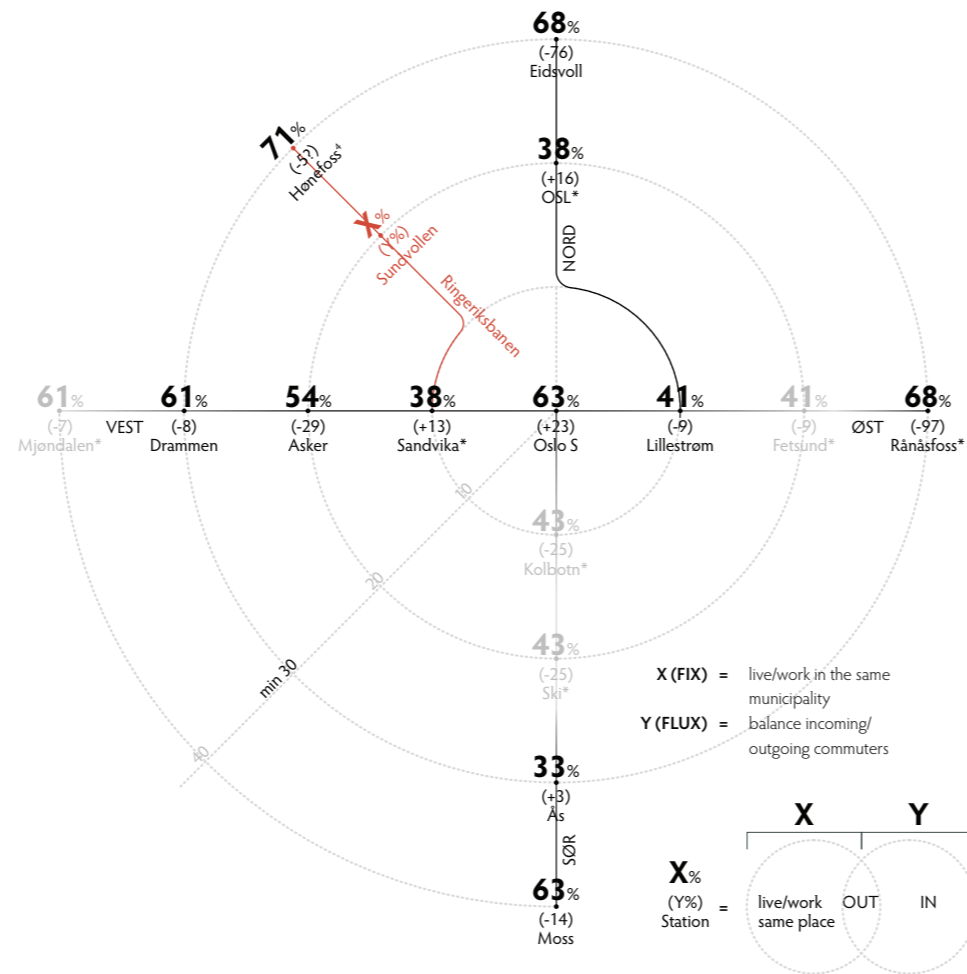
Europas 16, 2. plass i 2. mest populære tomt.

forklaring av tankerekke:

1. rådata (empiri), 2. hovedfunn (resultater), 3. respons (so-what, anbefalinger).



1. RAW DATA



COMMUTER RATES PRE-INTERCITY (2020)

The selected municipalities the comparative studies are the ones 30min away from Oslo S. by train. Hønefoss is transitioning from a 90 to 30min destination to Oslo S. with the new InterCity network/Ringeriksbanen.

TRAIN ST.	IN%	OUT%	IN TOTAL ²	OUT TOTAL ³
Hønefoss ⁴	34%	32%	14k	15k
Mjøndalen ¹	47%	44%	45k	49k
Drammen	47%	44%	45k	49k
Asker	75%	58%	37k	47k
Sandvika ¹	49%	56%	74k	64k
Oslo S	14%	18%	486k	372k
Kolbotn ¹	82%	65%	24k	30k
Ski ¹	82%	65%	24k	30k
Ås	64%	66%	11k	10k
Moss	51%	45%	20k	23k
Lillestrøm	69%	63%	40k	44k
Fetsund ¹	69%	63%	40k	44k
Rånåsfoss ¹	123%	64%	6k	12k
OSL ¹	46%	55%	24k	20k
Eidsvoll	108%	61%	7k	13k

¹ The statistics from a select few stations were acquired through these municipalities:

- = Ringerike municipality
- Hønefoss = Drammen municipality
- Mjøndalen = Bærum municipality
- Sandvika = Lillestrøm municipality
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- Kolbotn/Ski = Ullensaker municipality
- OSL

² Total workplaces in the municipality

³ Total employed residing in the municipality

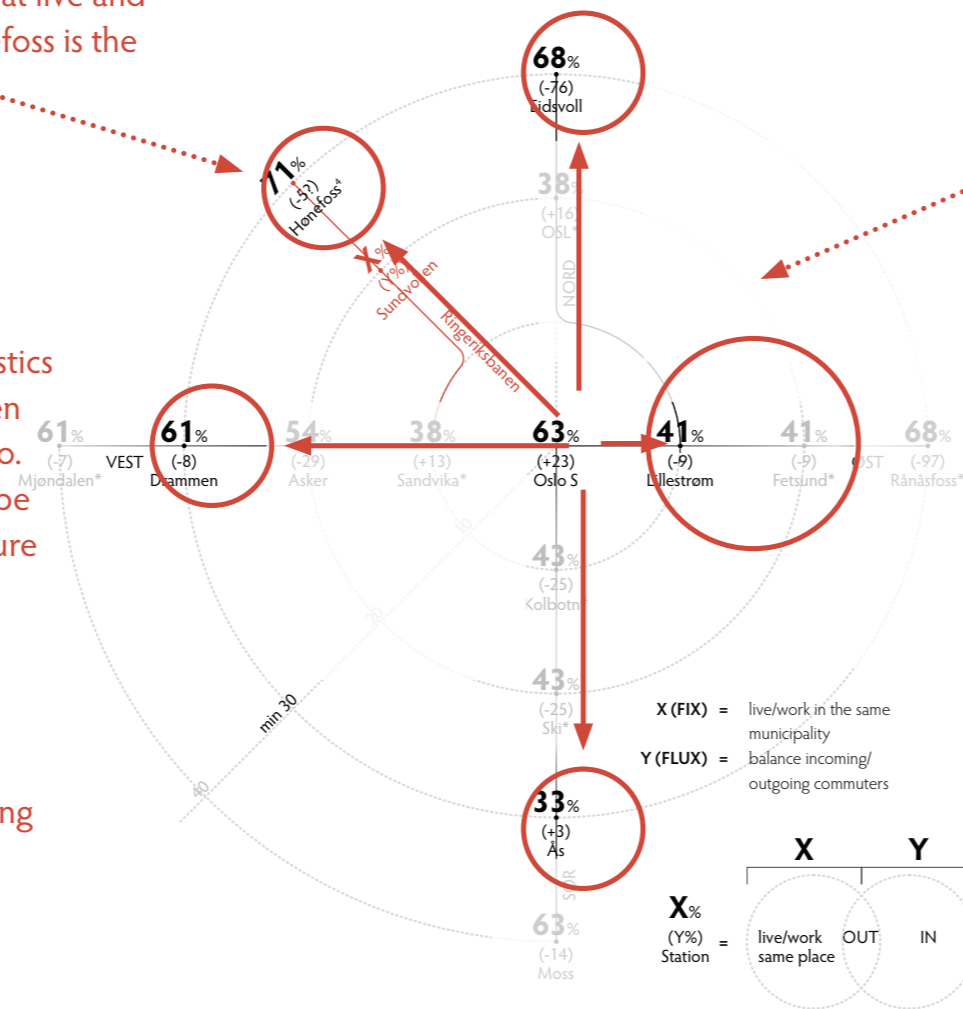
⁴ Statistics for Hønefoss are from 2020

2. KEY TAKEAWAYS

71% = local culture (people that live and work in the same place). Hønefoss is the highest in Oslo region!

NB! Remember that the Hønefoss statistics does not convey what will happen when it becomes a 30min city away from Oslo. Its commuter conditions can very well be turned upside down - of low local culture or a lot of influx people.

Hønefoss will transition into becoming part of Oslo region employment/housing market. This could potentially mark a radical shift.



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Hønefoss low in/out% is the closest to something like Oslo. Somehow a sweet-spot of stable (low) in/out commuting.

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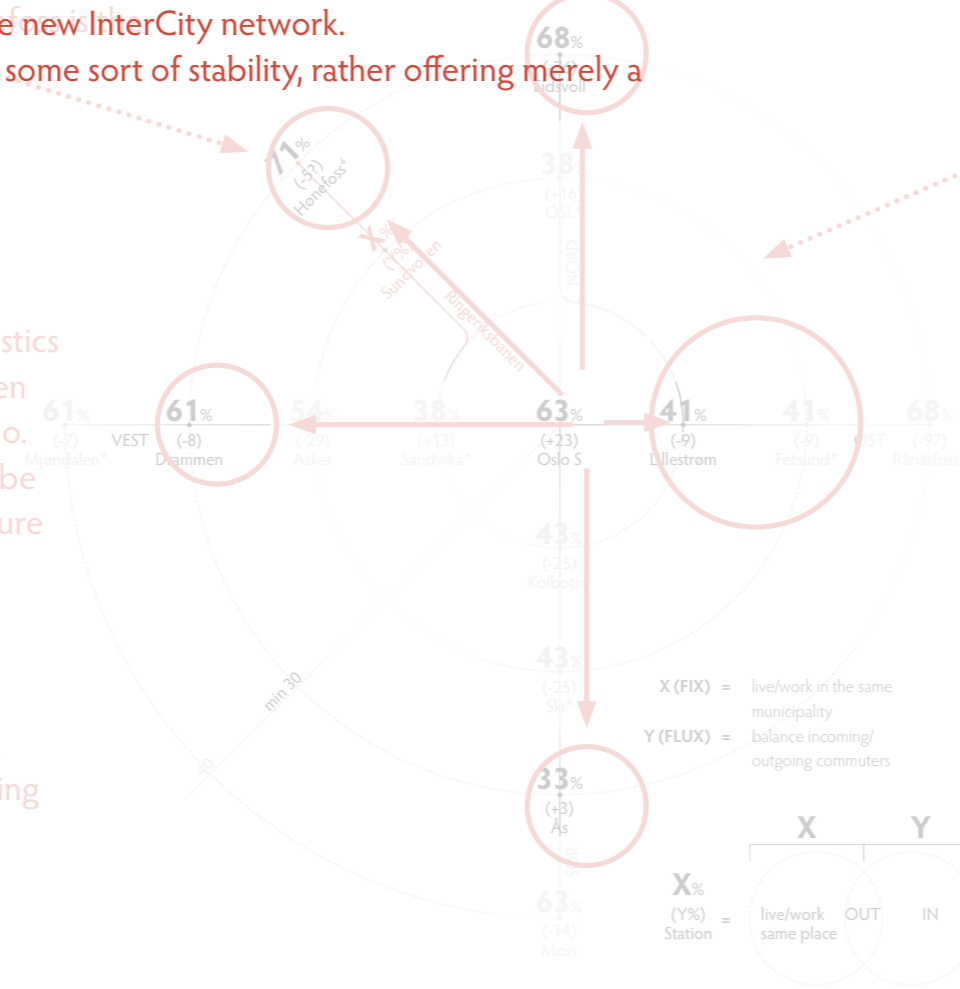
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3. RESPONSE

- Strategy to deal with local culture (as it is potentially at risk).
- Housing types targeting young talent, as attracting/retaining them will be easier with the new InterCity network.
- Housing must create some sort of stability, rather offering merely a suburbs to Oslo.

NB! Remember that the Hønefoss statistics does not convey what will happen when it becomes a 30min city away from Oslo. Its commuter conditions can very well be turned upside down - of low local culture or a lot of influx people.

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1. RAW DATA

POPULATION GROWTH

	1980	1990	2000	2010	2020	TOTAL
Ringerike	26,856	+2%	+4%	+7%	+14%	30,641
Eidsvoll	15,038	+11%	+17%	+38%	+69%	25,436
Lillestrøm	49,674	+8%	+21%	+48%	+73%	85,983
Ås	10,962	+9%	+24%	+49%	+86%	20,439
Drammen	71,848	+7%	+14%	+28%	+41%	101,386
Oslo	454,872	+1%	+12%	+29%	+52%	693,494
Norway	4,0 mill	+4%	+10%	+19%	+32%	5,3 mill

The population projections for Ringerike towards 2040 are conflicting according to these two sources:

- The brief: 40k, +31% increase between 2030 - 2040.
- SSB: 33k, +8% increase between 2030 - 2040.
- Total increase of +49% (brief), +23% (SSB) between 1980 - 2040.

HOME-OFFICE (2020)

During the corona outbreak, formal agreements to work from home increased by more than 20% (from 7.4 - 8.9%) between 2019 - 2020. FAFO Research Foundation conducted a survey on the conditions surrounding the more informal home-offices in April, 2020. 670/1000 participants were still employed at the time of this survey, and participants with higher education were overrepresented. The key findings on employees working from home or in home-office were:

- 52% were mandated to work from home.
- 80% adopted one or more digital tools in this transition, with ease.
- 50% shared their home-office with others (often a spouse).
- 70% did not have optimal working conditions (spatial configurations).
- 38% converted parts of their bedroom to office space.
- 59% stated their productivity level stayed the same or increased.
- 30% had children in elementary school.
- 63% welcomes the digital change of working habits (old & young).

2. KEY TAKEAWAYS

POPULATION GROWTH

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- Ringerike is at the lowest among all the municipalities (rural or urban).
- Ringerike can potentially boom as a 30min city - as the rest has been doing the last 40 years.

- growth - either you choose the brief or SSB = the projections are high in a 10 years timespan that does not follow the 40 year trend.
- (written wrong (2020-2030))
- Ringeriksbanen taken into consideration?

- Pandora's box - ppl actually like working remote from workspace.

2. KEY TAKEAWAYS 3. RESPONSE

- create housing for a more urban segment of society (potential)
- alternative in Hønefoss - counteract commuting and working somewhere else.
- housing should offer good work environment in near vicinity.

POPULATION GROWTH

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HOME-OFFICE (2020)

During the corona outbreak, formal agreements to work from home increased by more than 20% (from 7.4 - 8.9%) between 2019 - 2020. FAFO Research Foundation conducted a survey on the conditions surrounding the more informal home-offices in April, 2020. 670/1000 participants were still employed at the time of this survey, and participants with higher education were overrepresented. The key findings on employees working from home or in home-office were:

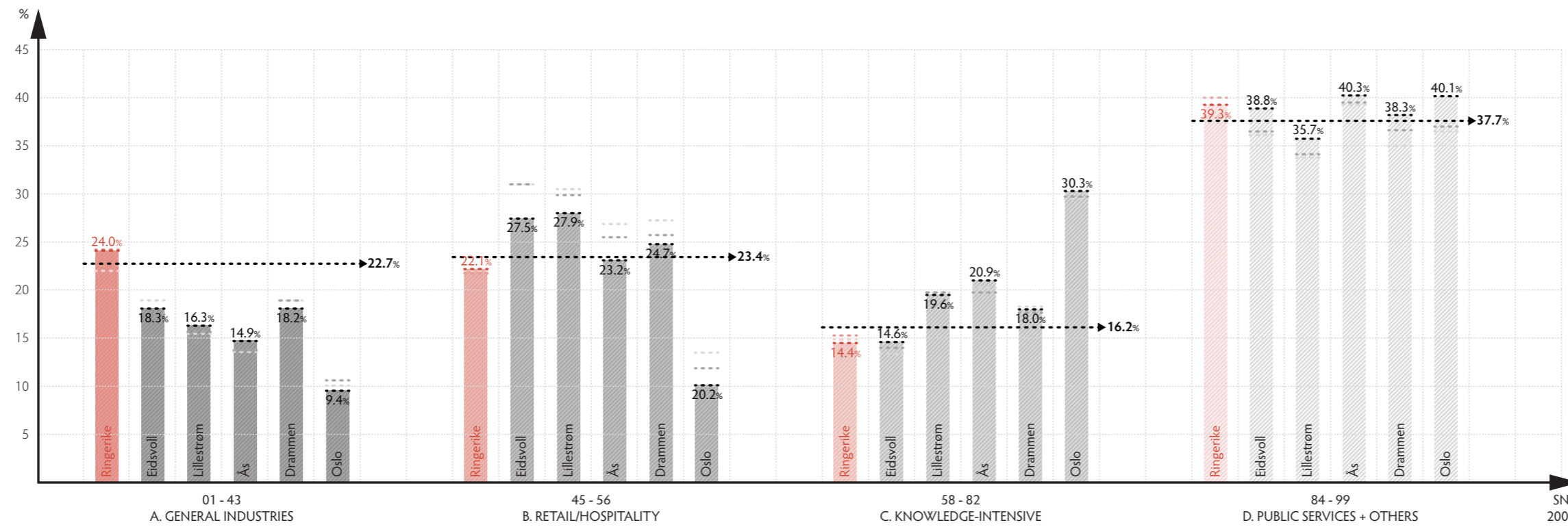
- 52% were mandated to work from home.
- 80% adopted one or more digital tools in this transition, with ease.
- 50% shared their home-office with others (often a spouse).
- 70% did not have optimal working conditions (spatial configurations).
- 38% converted parts of their bedroom to office space.
- 59% stated their productivity level stayed the same or increased.
- 30% had children in elementary school.
- 63% welcomes the digital change of working habits (old & young).

- Ringerike is at the lowest among all the municipalities (rural or urban).
- Ringerike can potentially boom as a 30min city - as the rest has been doing the last 40 years.

- growth - either you choose the brief or SSB = the projections are high in a 10 years timespan that does not follow the 40 year trend.
- (written wrong (2020-2030))
- Ringeriksbanen taken into consideration?

- Pandora's box - ppl actually like working remote from workspace.

1. RAW DATA



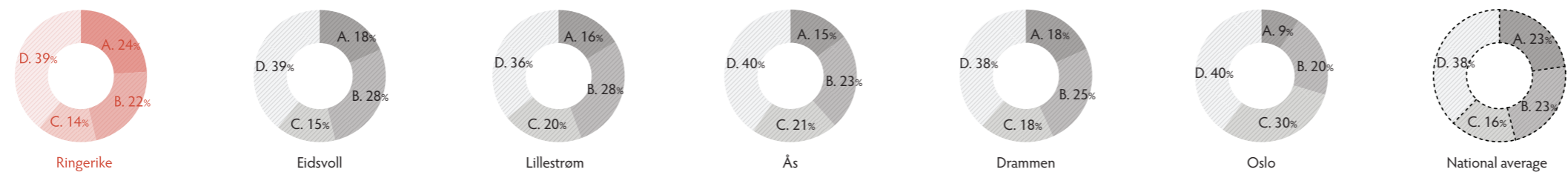
EMPLOYMENT DISTRIBUTION ACCORDING TO RESIDENCE PER CAPITA (SN 2007)

TOTAL WORKFORCE	2010	2015	2020
Ringerike	14,728	-1.9%	+1.0%
Eidsvoll	10,781	+8.6%	+16.2%
Lillestrøm	39,060	+5.3%	+13.2%
Ås	8,628	+10.2%	+18.8%
Drammen	46,356	+2.4%	+5.7%
Oslo	319,882	+8.8%	+16.4%
national avg.	2,5 mill.	+3.2%	+6.5%

A. Ringerike (Hønefoss) is the only municipality to experience both increased employment and being above the national average on general industries.

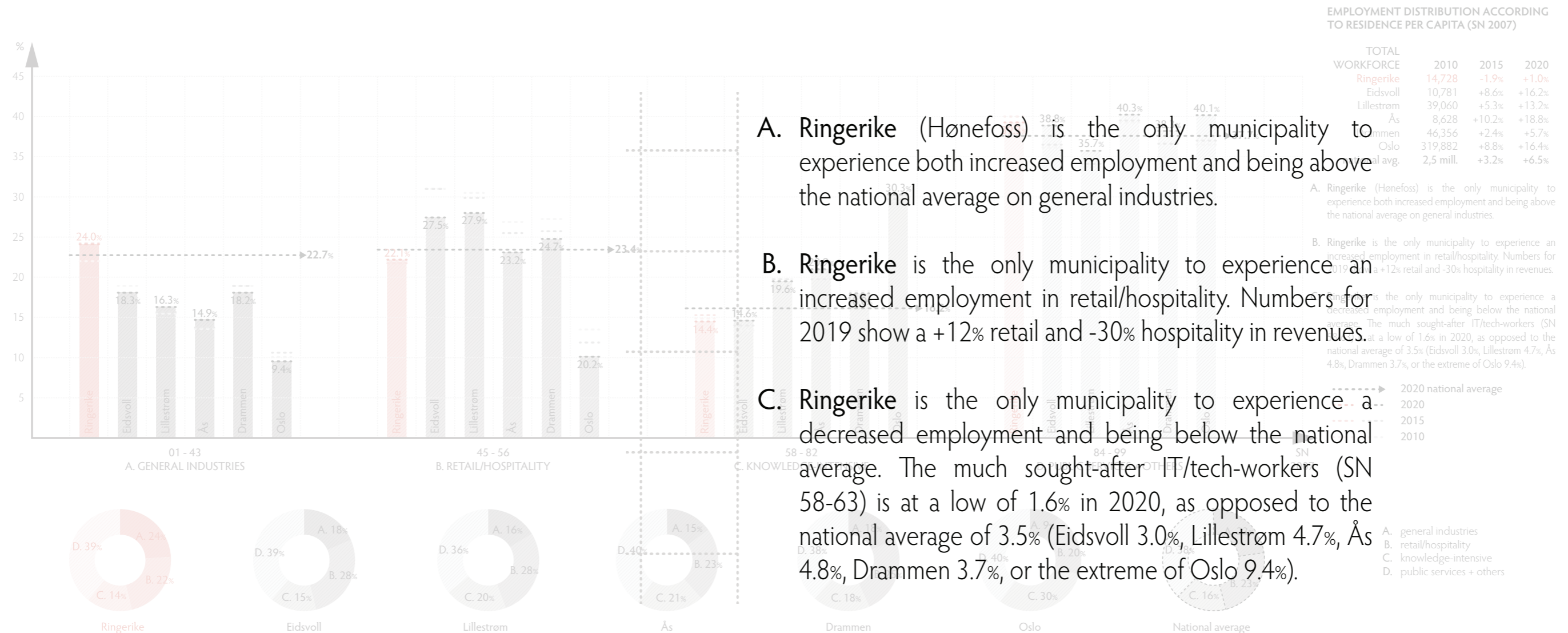
B. Ringerike is the only municipality to experience an increased employment in retail/hospitality. Numbers for 2019 show a +12% retail and -30% hospitality in revenues.

C. Ringerike is the only municipality to experience a decreased employment and being below the national average. The much sought-after IT/tech-workers (SN 58-63) is at a low of 1.6% in 2020, as opposed to the national average of 3.5% (Eidsvoll 3.0%, Lillestrøm 4.7%, Ås 4.8%, Drammen 3.7%, or the extreme of Oslo 9.4%).



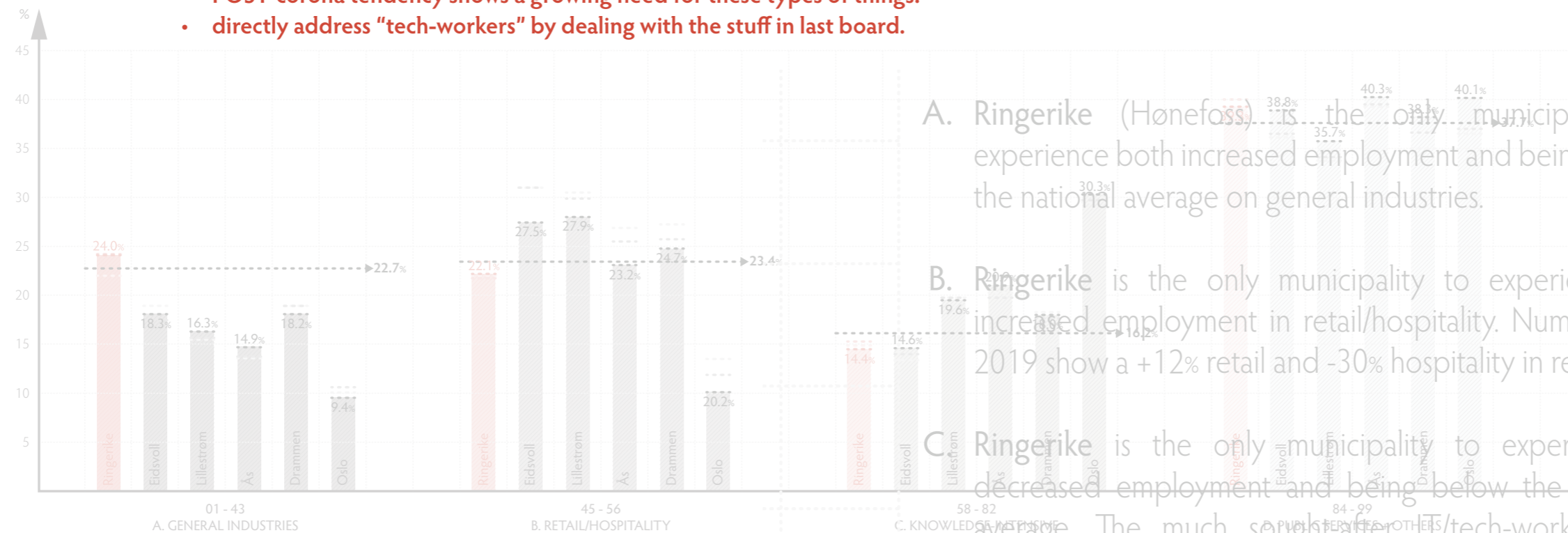
A. general industries
 B. retail/hospitality
 C. knowledge-intensive
 D. public services + others

2. KEY TAKEAWAYS



3. RESPONSE

- design for a better class of consumers
- integrate appreciation of nature in the housing scheme - handicrafts, woodwork, greenhouses, gardening etc.
- POST-corona tendency shows a growing need for these types of things.
- directly address "tech-workers" by dealing with the stuff in last board.



EMPLOYMENT DISTRIBUTION ACCORDING TO RESIDENCE PER CAPITA (SN 2007)

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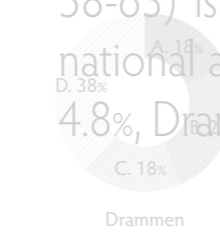
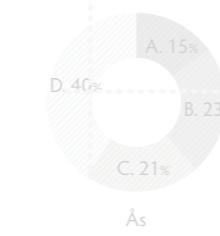
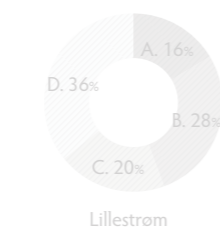
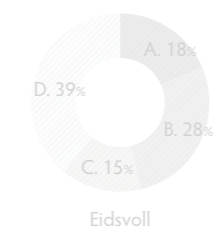
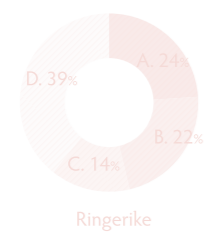
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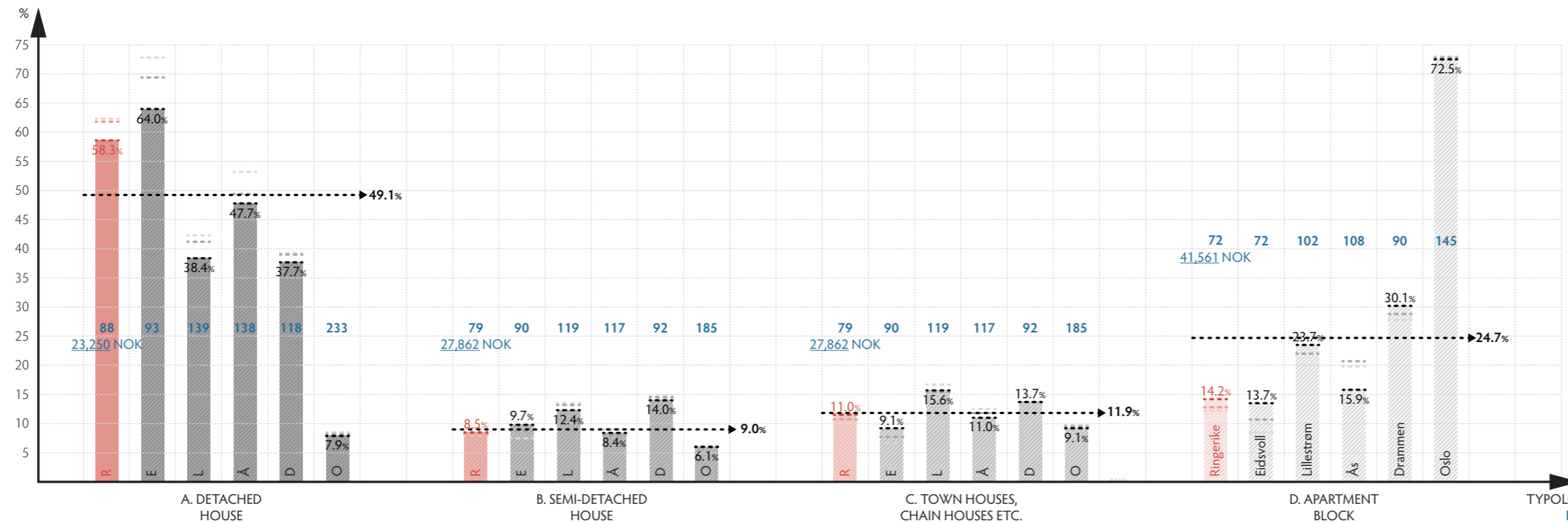
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- 2020 national average
- 2020
- 2015
- 2010
- A. general industries
- B. retail/hospitality
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1. RAW DATA



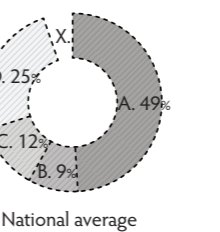
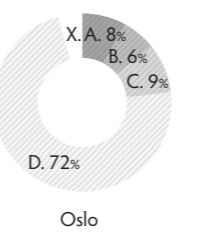
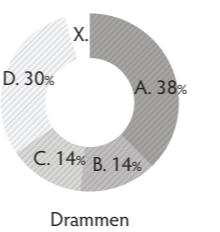
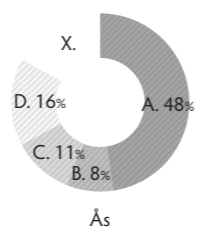
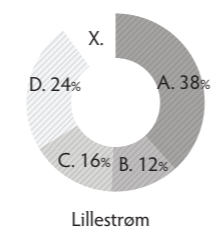
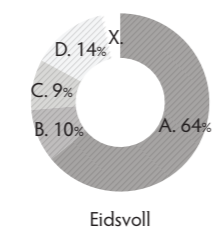
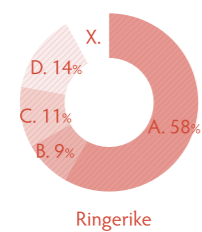
HOUSING TYPOLOGY DISTRIBUTION AND M² PRICES (2020)

TOTAL UNITS	2010	2015	2020
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PRICE PER m²/NOK	2005	2010	2015	2020
Ringerike	-58%	-43%	-25%	30,804
Eidsvoll		-45%	-25%	32,601
Lillestrøm				45,770
Ås	-62%	-46%	-27%	46,564
Drammen	-60%	-44%	-20%	38,409
Oslo	-62%	-45%	-26%	69,914
Norway	-53%	-36%	-15%	39,649

INDEX 100 = national average on m² price 2020 per m²/NOK

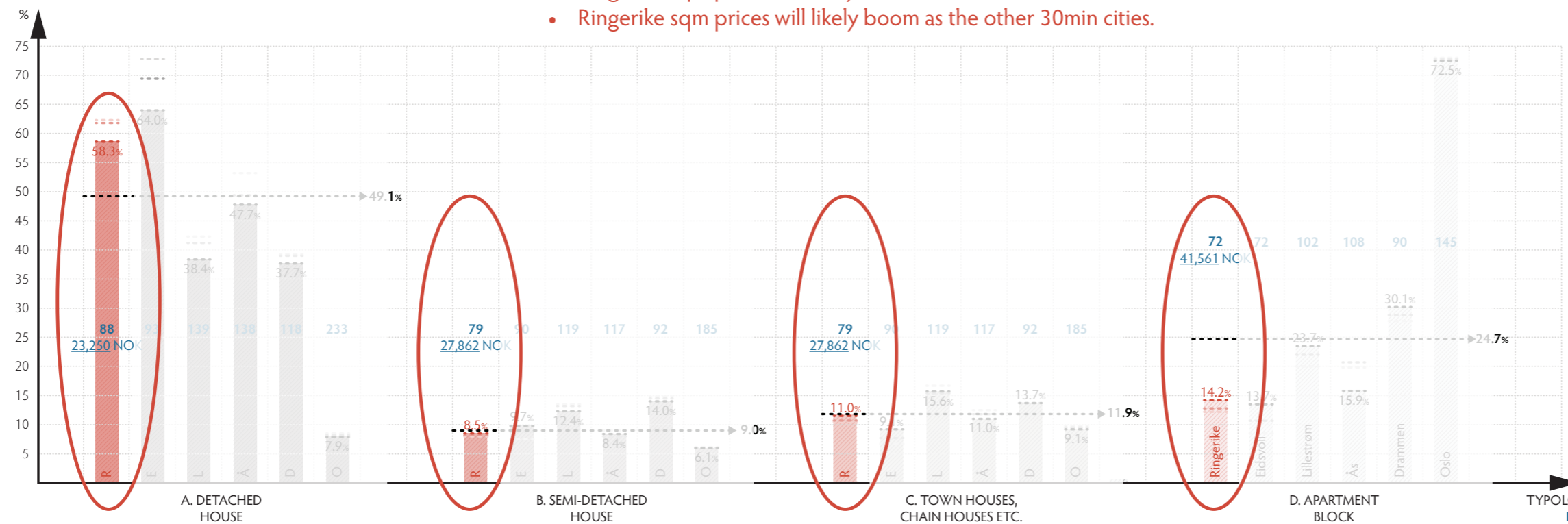
- national average
- 2020
- 2015
- 2010



- A. detached house
- B. semi-detached house
- C. town houses, chain houses etc.
- D. apartment block
- X. other typologies (excluded)

2. KEY TAKEAWAYS

- Ringerike far above national average in detached houses.
- detached housing is decreasing in all muni. in the comparative studies.
- Ringerike is increasing greatly in B,C,D!
- Ringerike sqm prices has not yet soared.
- Ringerike sqm prices will likely boom as the other 30min cities.



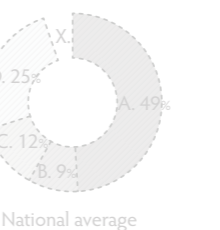
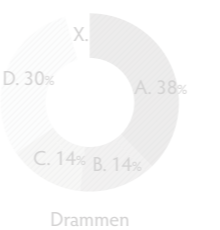
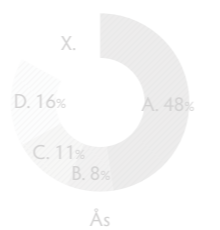
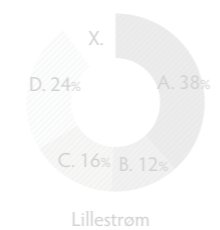
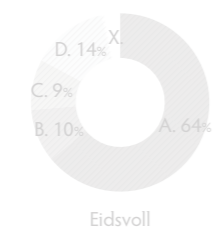
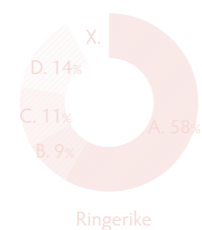
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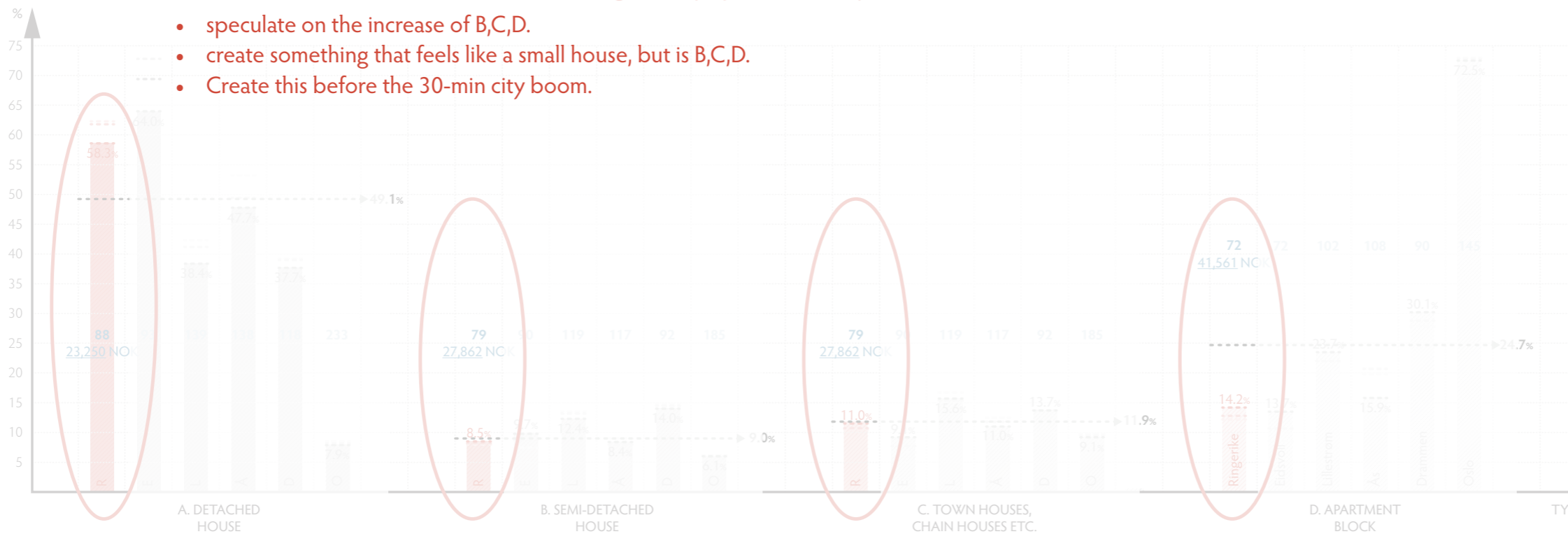
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3. RESPONSE

- Ringerike far above national average in detached houses.
- Ringerike is increasing greatly in B,C,D!
- Ringerike sqm prices has not yet soared.
- Ringerike sqm prices will likely boom as the other 30min cities.



- speculate on the increase of B,C,D.
- create something that feels like a small house, but is B,C,D.
- Create this before the 30-min city boom.

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GROWING A COMMUNITY



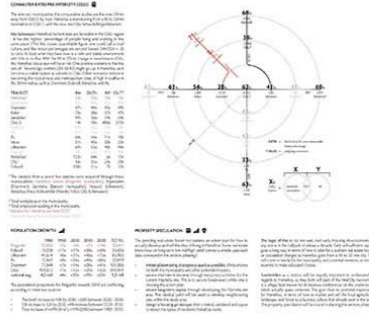
INTRO

MISSION
 The mission of the project is to create a sustainable, walkable, and vibrant community that integrates nature and modern architecture. The project aims to provide high-quality housing and amenities while respecting the natural environment and promoting social interaction.

VISION
 The vision is to create a model of sustainable urban development that balances environmental, social, and economic goals. The project will serve as a catalyst for positive change in the surrounding area, fostering a sense of community and well-being.



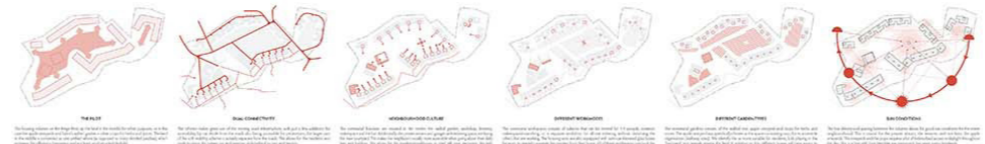
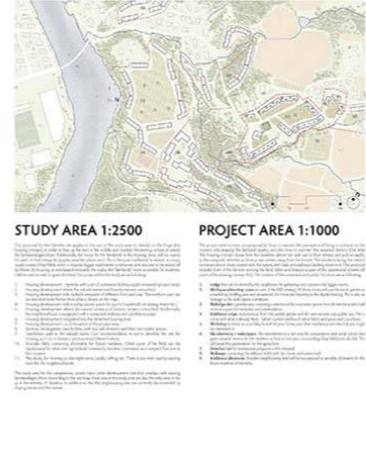
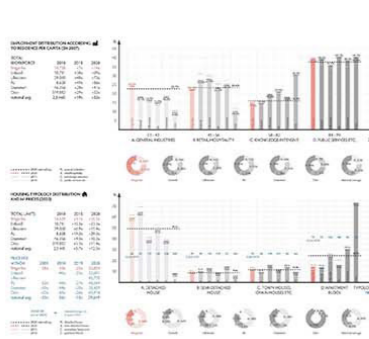
RESEARCH



CONTEXTUAL ANALYSIS
 The project is situated in a region with a rich history of sustainable living and a strong sense of community. The surrounding landscape is characterized by its natural beauty and diverse ecosystems, which provide a unique backdrop for the development.

MARKET TRENDS
 The current market trends favor sustainable and walkable communities. There is a growing demand for high-quality housing and amenities that promote a healthy and active lifestyle. The project is well-positioned to meet this demand and create a lasting impact on the community.

RESPONSE



APPROACH



Paperet,

”The Norwegian proptech market”

CIB konferansen

publikasjon, funn og respons

PUBLIKASJON

- Published at IOP Conference Proceedings - Earth and Environmental Science, Volume 1176, 2023.

FUNN

- **proptech distribution according to core business practices.**
- **Feedback loops** = how the 85% in late stages inform the 6.7% early stage products (the entrepreneurial part)
- **Customised modules** moving faster than proprietary proptech - should not be regarded lightly.
- Unexpected business models due to institutional pressure.
- Changing how REI interact - side effects of proptech.
- Research design to quickly **assess a nation's proptech production and -users.**

RESPONS

- **CIB W070, Best Paper Award, 1st prize**
- **ISO/TC 267**, 1/3 underlag for videre evaluering, v/Knut Boge.
- Forespørsel om paperet, **"The Swiss proptech market"**
- I dialog om å paper-idé, **"The Nordic proptech markets"**
- Keynote i tech konferansen, Berlin.hub, Tyskland.
- Forelesning på NTNU, MA og etterutdanning.
- Voksenopplæring for Visma Property Solutions.



The Norwegian proptech market – an incubator for game changers

T Phan¹ and K Boge¹

¹Department of Property and Law, Norwegian University of Life Sciences (NMBU)

tin.phan@nmbu.no

Abstract. Property and construction are some of world's largest industries, but also some of the largest producers of waste and CO₂-emissions. The property or real estate industry is currently undergoing a digital transformation. Property technology (proptech) is one of the driving forces for this transformation and enablers to establish a more sustainable society. This paper investigates the Norwegian market through 154 proprietary proptech established between 2013 – 2023. The aim is to understand how proprietary proptech are influencing the business practices and how the real estate industry's overall capacity, efforts, and resources have been allocated in developing novel proptech. Three theoretical frameworks sociotechnical systems (STS), diffusion of innovation, and sustainability transitions, have been used to investigate how proptech influences the real estate industry and FM. The results suggest there are innovations coming from at least two unexpected places, namely customised modules moving faster than proprietary proptech, and game changers enabled by feedback loops from late stage and FM big data to early stage property development.



Property development as a linear process

the cut-off between early-stage and late stage.

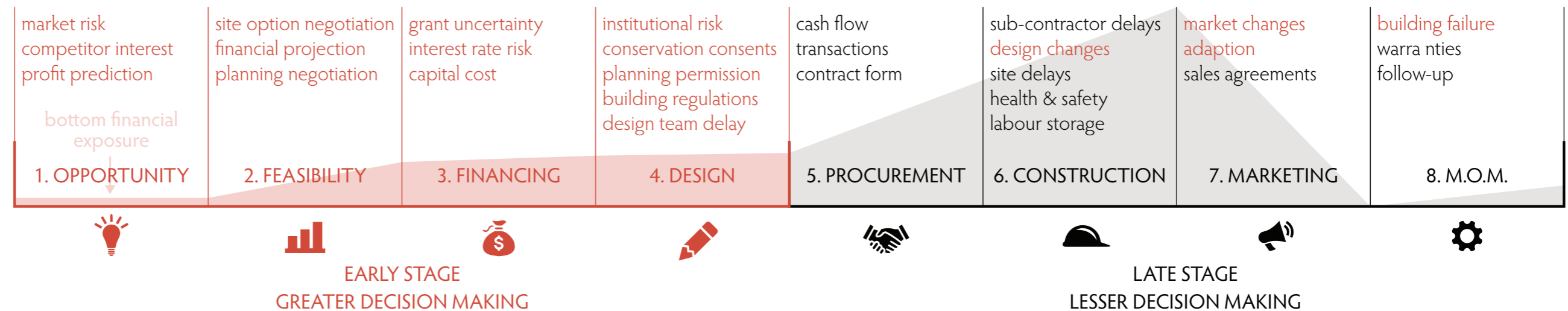
“Early-stage is a small but important fraction of the activities in the real estate industry (...): The decisions on the visionary and entrepreneurial side (...) the making of the blueprint before the construction plans goes ahead”

PhD Proposal

PROPERTY DEVELOPMENT AS A LINEAR PROCESS

the activities surrounding different stages.

Some of the late stage tasks are potentially informing the early stages



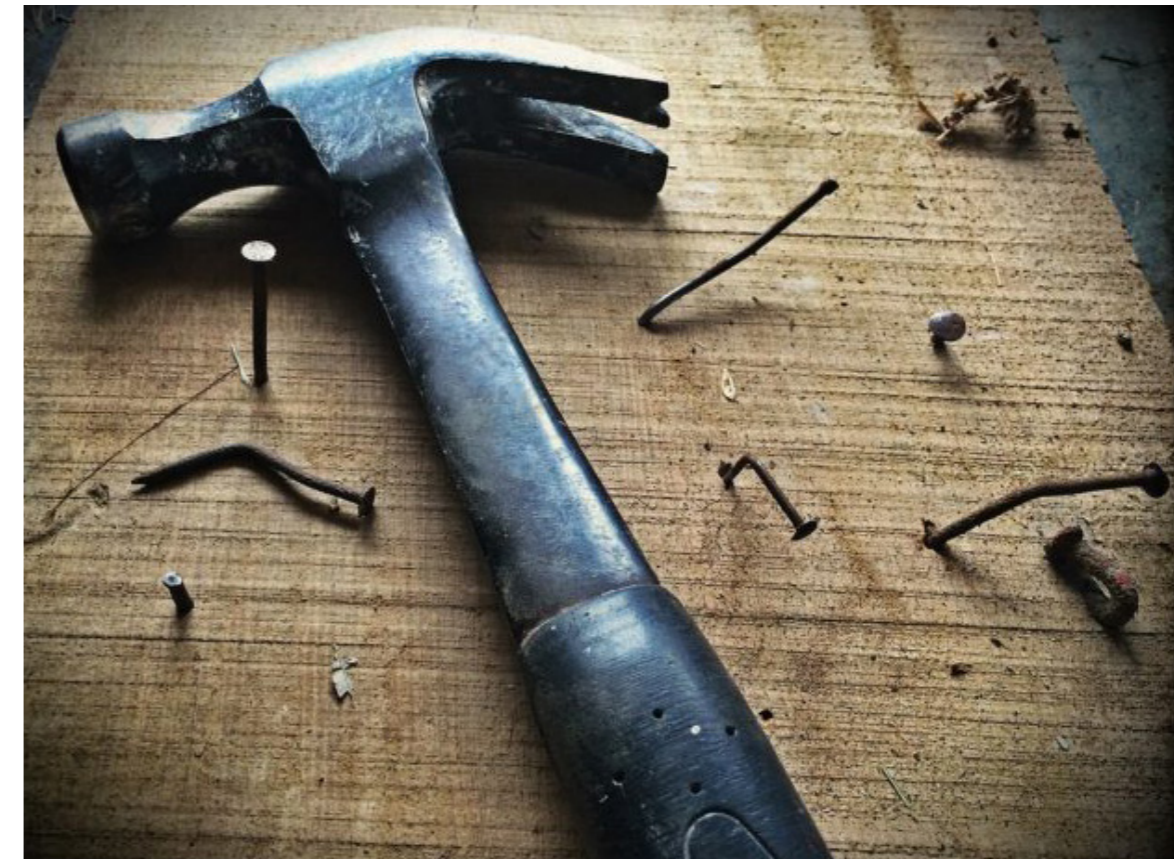
Disproportional effort/output

context



EFFORT

from \$22mill to \$4 bill. (2008-2018) =
18.181% increase in investments!

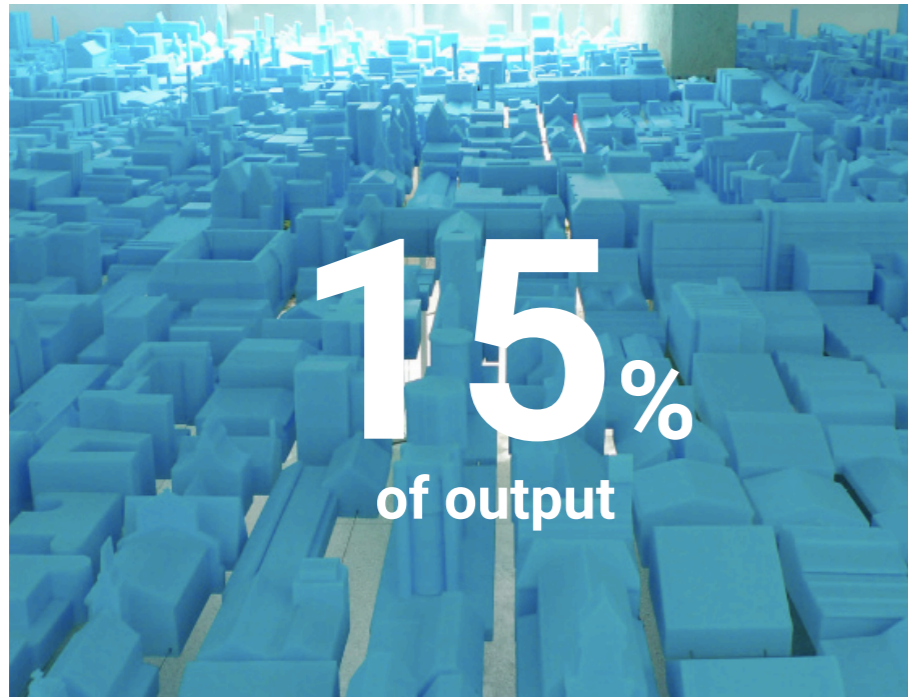


OUTPUT

proptech R&D and tools =
meh...

Life-time value creation on buildings.

How current diffusion is flawed and harmful...



STAGE 1 - OPPORTUNITY

Entrepreneurial.

- creative process.>
- crucial decisions.>
- profit potential>
- foreseeing risks.>



STAGE 6 - CONSTRUCTION

Technical

- following-the-blueprint.>
- following-the-decisions.>
- profits defined by blueprint.>
- emerging on-site risks.>



STAGE 8 - MAINTENANCE

Managerial

- no creative influence.
- maintaining as-is.
- profits defined by building.
- emerging everyday risks.

Datainnsamling

...how the REI's overall capacity, efforts, and resources have been allocated in developing novel proptech

- 154 proprietary proptech, strategic sample (NO)
 - names, ownership/board, staff, mission statement, stages, value proposition, area of application, op. years etc.
- 10 years timeframe
- 22 interviews: investors, consultants, dev., public authority, politicians etc.
 - challenges, goals, focus, time consumption, application on what?, what fell out of favor?

Datainnsamling

...how the REI's overall capacity, efforts, and resources have been allocated in developing novel proptech



LIMITATIONS

- strategic sample = face value.
- Norwegian-, Oslo-, company centric.
- timeframe/startups = time-sensitive and uneven picture.
- timeframe cuts off important historical tech foundation.
- timeframe immaturity on success/failures.
- private-economy perspective removing institutional understanding.

Datainnsamling

...how the REI's overall capacity, efforts, and resources have been allocated in developing novel proptech



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KEY FINDINGS:

- new proptech models due to ins. pressure.
- customised modules moving faster than...
- feedback loops (market minority!)

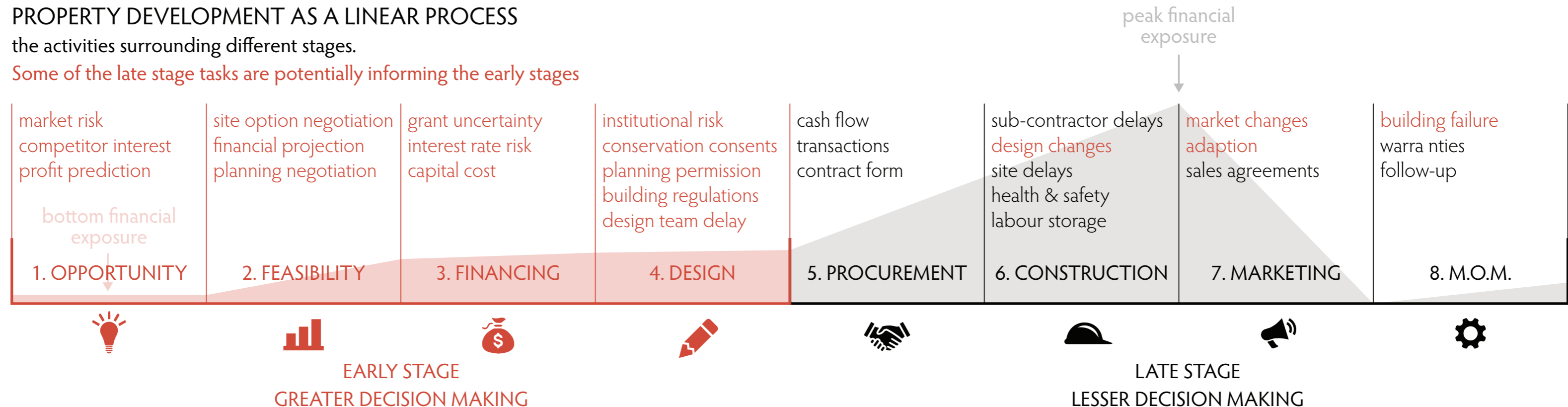
Activities in REI.

following the logic of proptech mirroring core business activities.

PROPERTY DEVELOPMENT AS A LINEAR PROCESS

the activities surrounding different stages.

Some of the late stage tasks are potentially informing the early stages



Activities in REI. + related proptech

following the logic of proptech mirroring core business activities.

+ we get these distributions:

100 companies in the later stages only (market majority): **79%**
 53 companies exclusively in stage.8 M.O.M. (pure FM): **42%**
 10 companies in the early stages only (market minority): **7.9%**
 8 companies in the early+late (the hybrids): **6.3%**

PROPRIETARY PROPTECH ACROSS THE LINEAR PROCESS (127 included in the calculations)

Faded in red/black represents the recurrence of same proptech answering multiple stages (hence multiplied searched hits).

Marked as **bold red** are a selection of hybrid tools.

Again X Augment City Celsia Consigli Kvist Marketer Nordeca I.P. Placepoint Spacemaker AI +10 more	Again X Consigli Celsia Mitigate Mondial Nabla Flow Nordeca I.P. Placepoint Spacemaker AI +2 more	Consigli Celsia Climatepoint FundingPartner Kvist Lytics +0 more	Consigli DataTrees Laiout Mondial Nabla Flow Parallelo Placepoint Spacemaker AI Varjo +1 more	Consigli Drifti Findable Overo Perlo Svenn +0 more	Birdflocks Bygr Drifti nLink Imerso Svenn Kvist Varjo Marketer +31 more	Findable Heime Laiout Plaace Propr Solgt.no Unite Living Marketer Vilda +9 more	Again X Consigli Defigo Disruptive Tech. Findable nLink Unite Living Unloc Vogl +65 more
10.3% 19 searched hits 1. OPPORTUNITY	6.0% 11 searched hits 2. FEASIBILITY	3.3% 6 searched hits 3. FINANCING	5.4% 10 searched hits 4. DESIGN	3.3% 6 searched hits 5. PROCUREMENT	21.7% 40 searched hits 6. CONSTRUCTION	9.8% 18 searched hits 7. MARKETING	40.2% 74 searched hits 8. M.O.M.



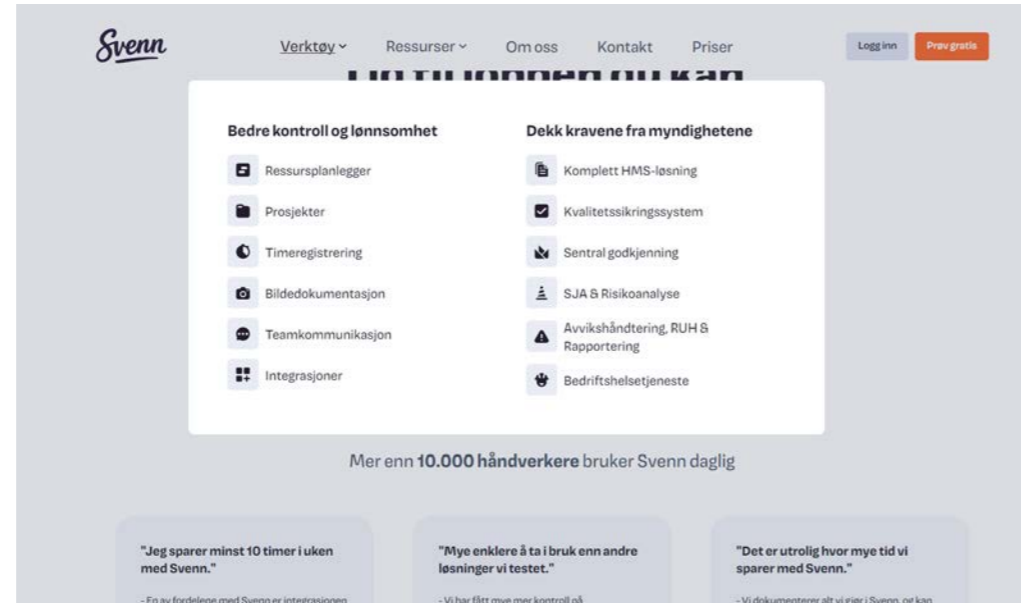
EARLY STAGE
GREATER DECISION MAKING

LATE STAGE
LESSER DECISION MAKING

79% market majority - later stages

stage 5. Svenn

“liberating bureautic tasks, so that craftsmen can do what their best at”



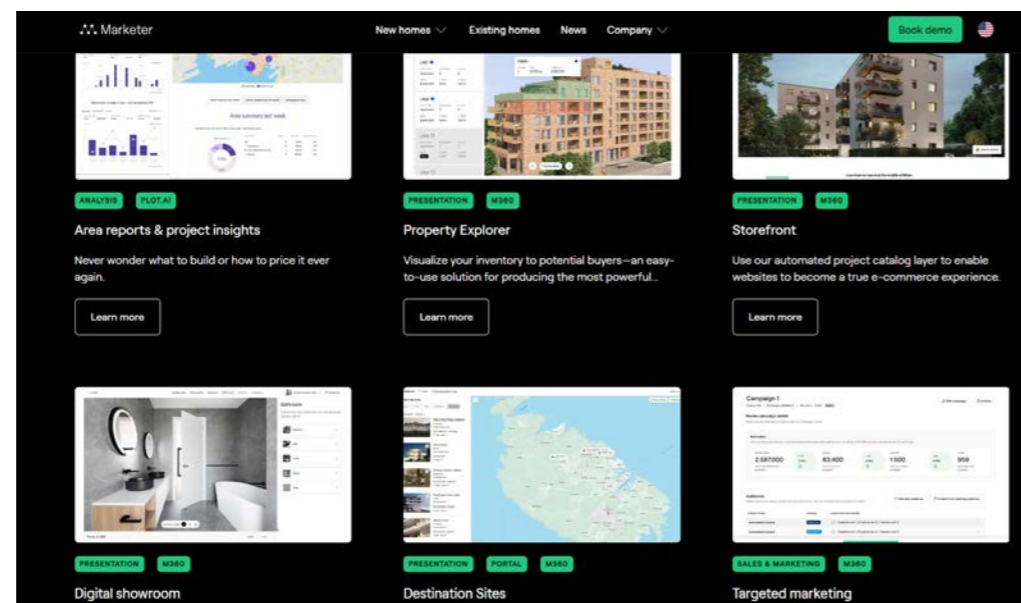
stage 6. Imerso

“monitors as-built with BIM model”



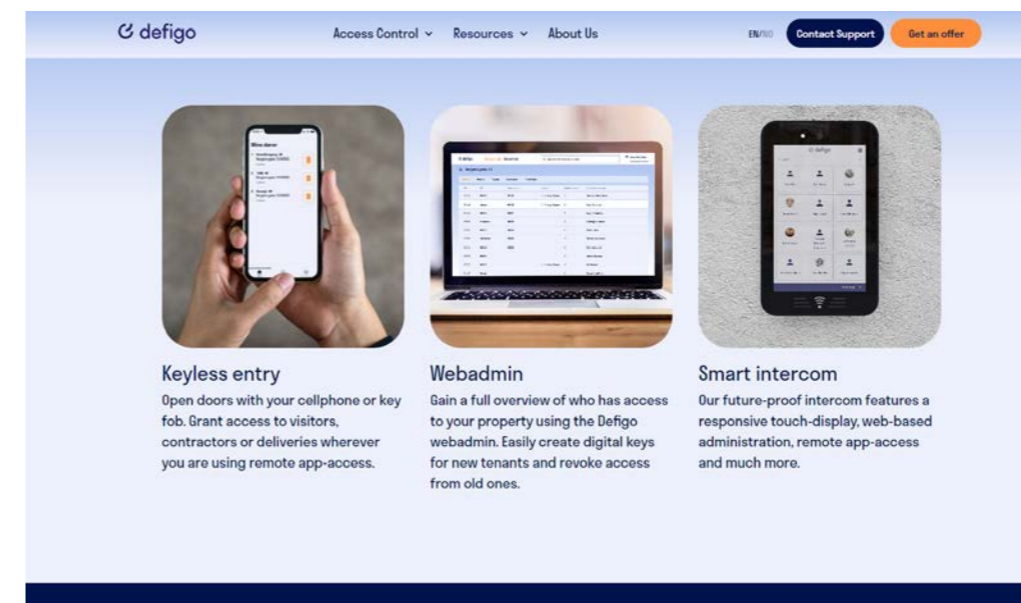
stage 7. Marketer

“end-to-end solution for digital newbuild sales”



stage 8 - Defigo

“digital access control as a service”

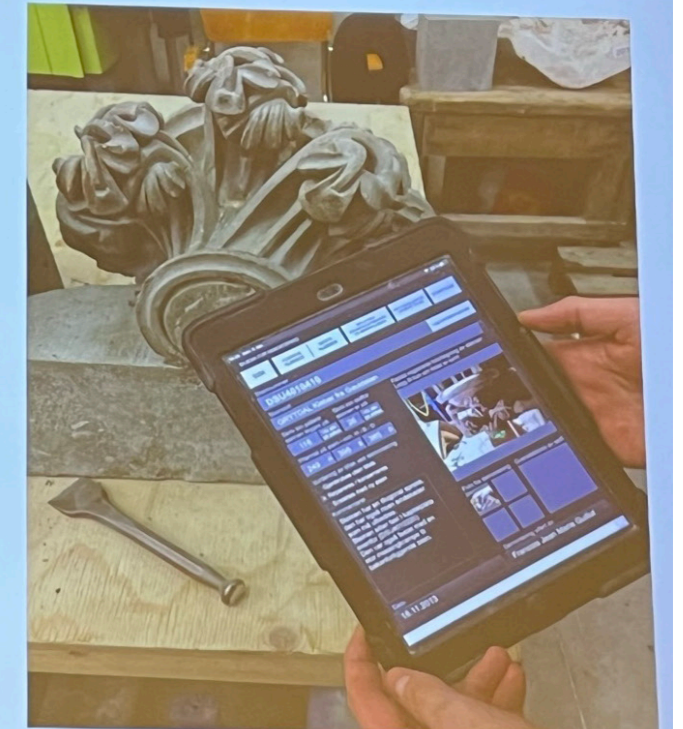


79% market majority - later stages

missed opportunity: UI for the craftsmen - analogue, tacit, practical...



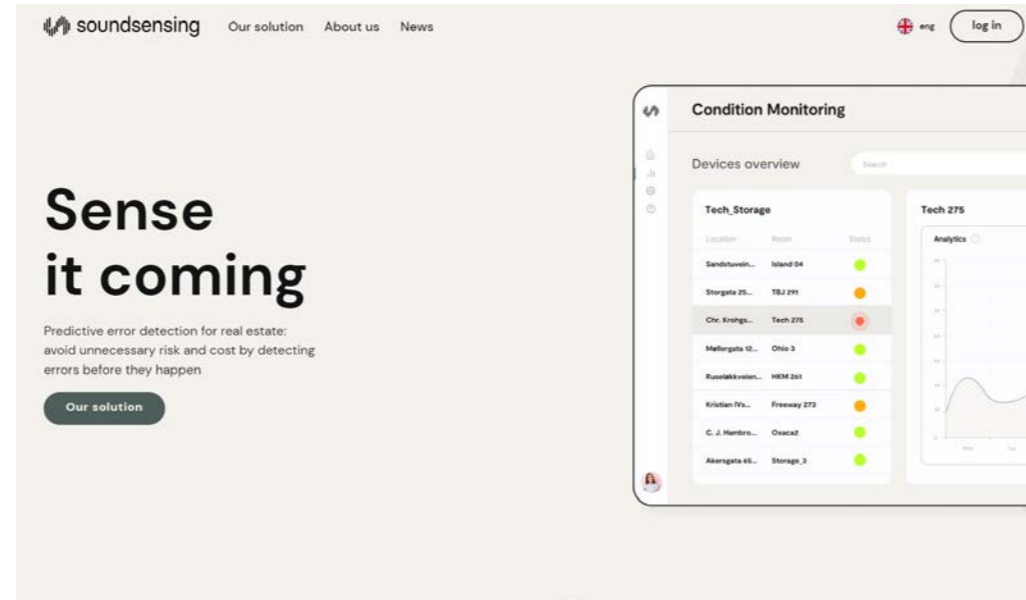
DATABASE FOR ORGANIZING THE WORKING PROCESS



42% Pure FM, M.O.M. - variations of same

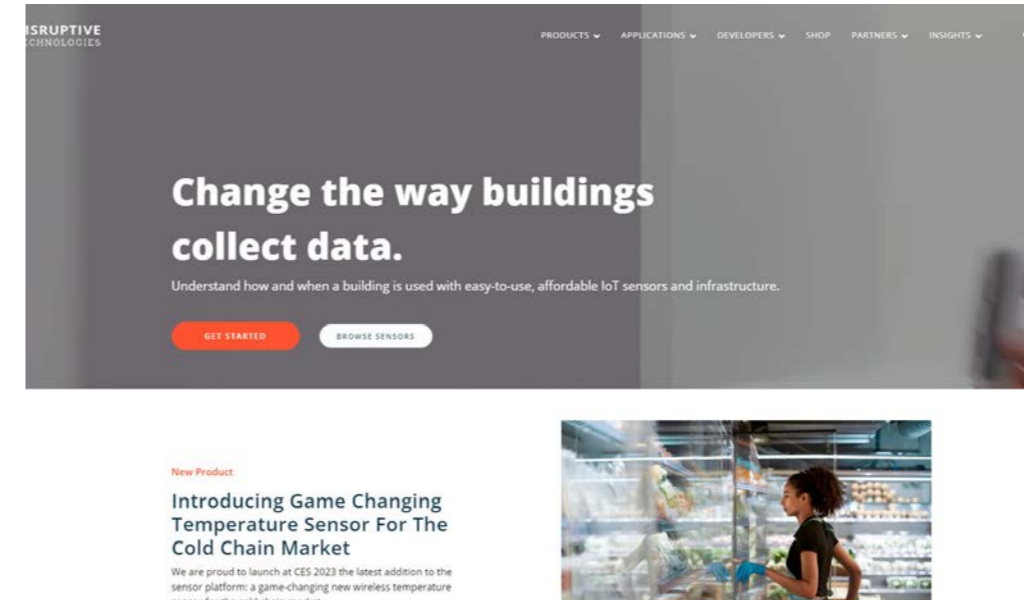
stage 8. Soundsensing

“Predictive error detection for real estate”



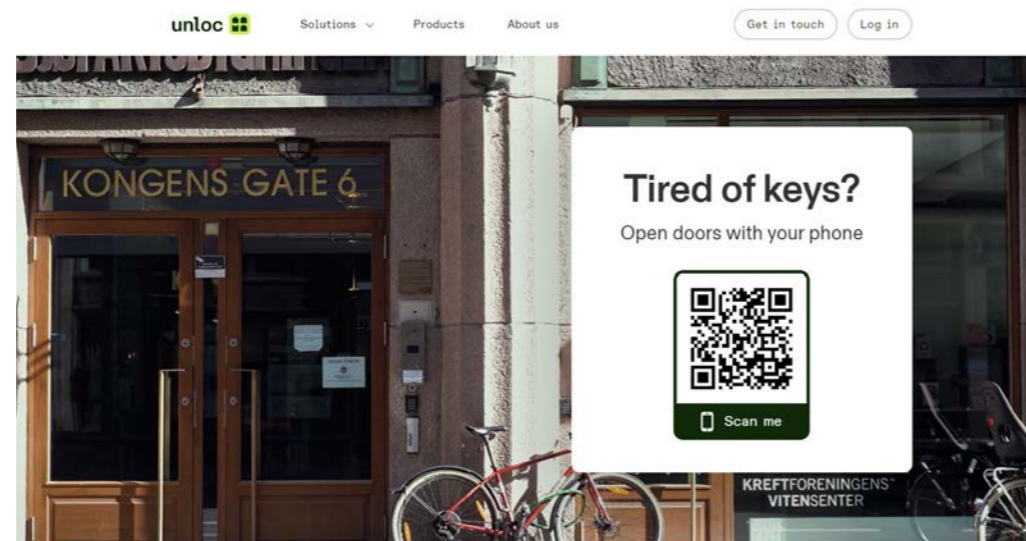
stage 8. Disruptive Technologies

“Change the way buildings collect data.”



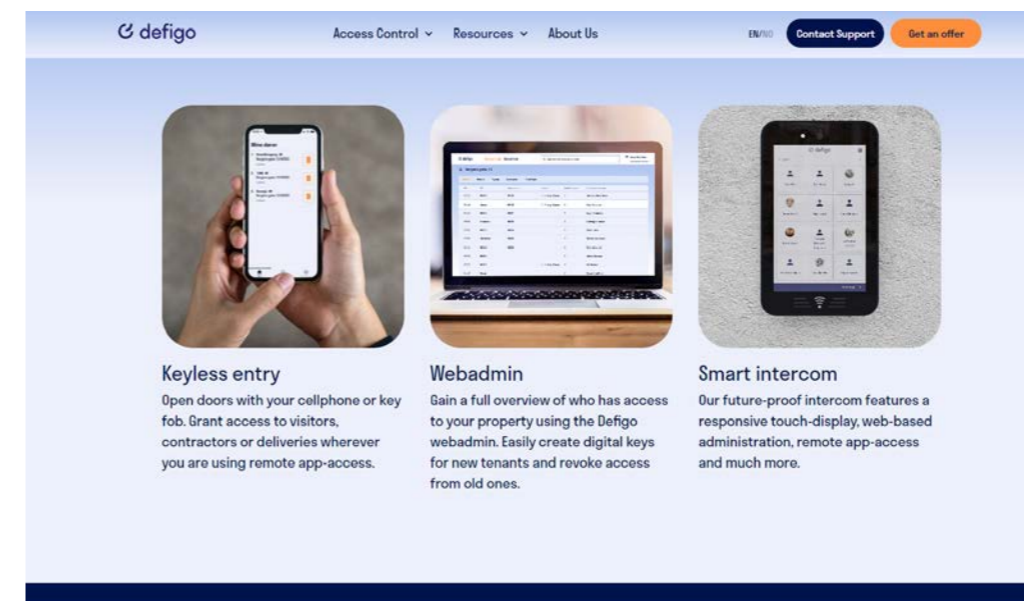
stage 8. Unloc

“Intercom. Reimagined. Open doors with your phone”



stage 8 - Defigo

“digital access control as a service”



42% Pure FM, M.O.M. - variations of same

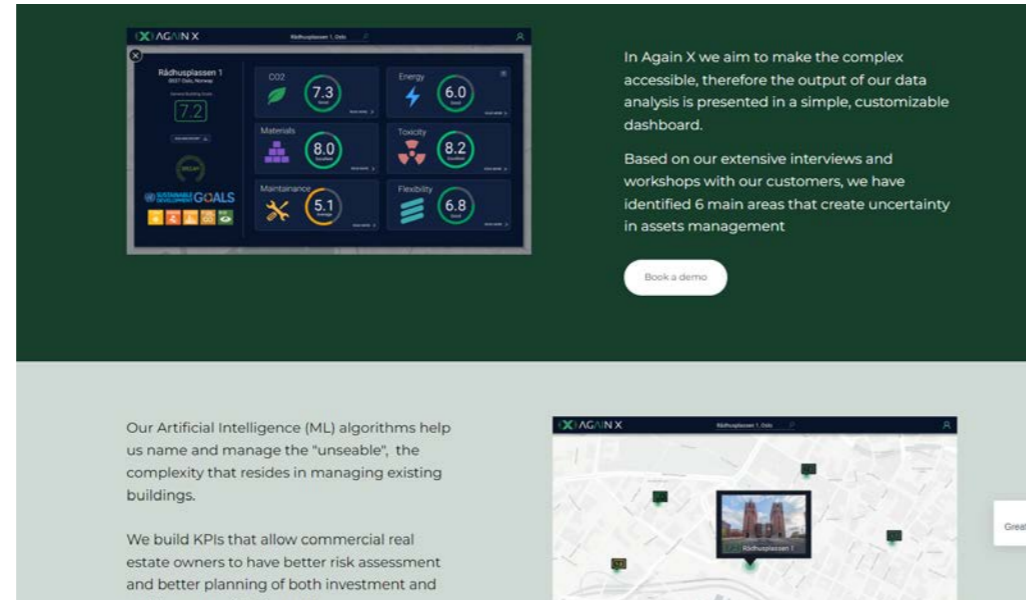
basically a study of where, when, and how the buttocks are moving...



6.3% Hybrids - feedback loop

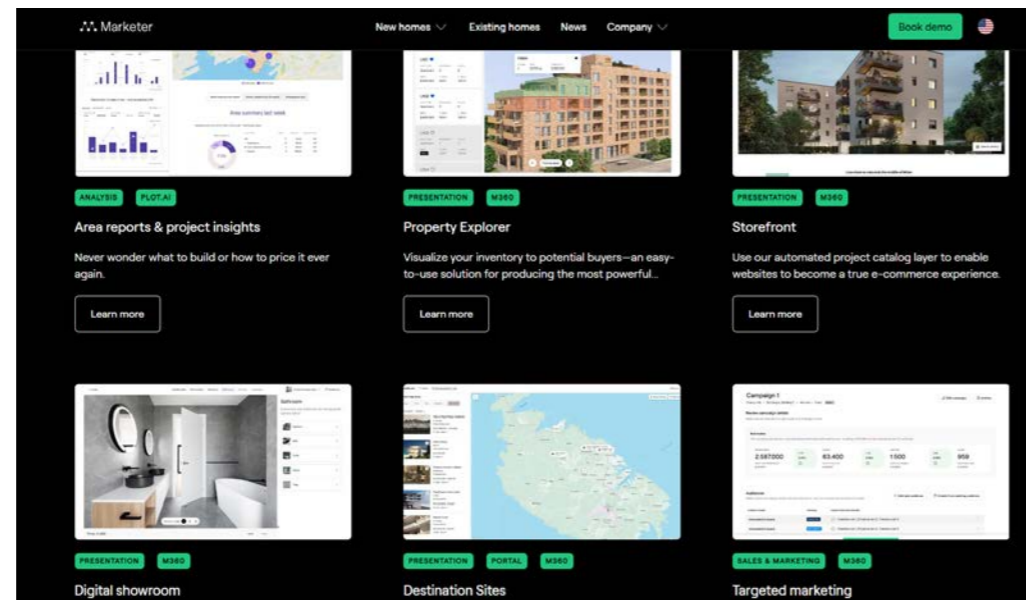
Again X 1,2,8

“Risk assessment for investments and maintenance of Real Estate”



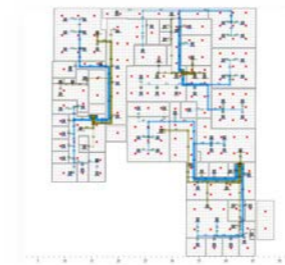
Marketer 2,6,7

“end-to-end solution for digital newbuild sales”



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By applying advanced mathematics and combinatorics in engineering, CONSIGLI finds the cross disciplinary optimal and coordinated design for your project. Optimising on the parameters that meet each project's specific requirements, securing maximum value for the customer.

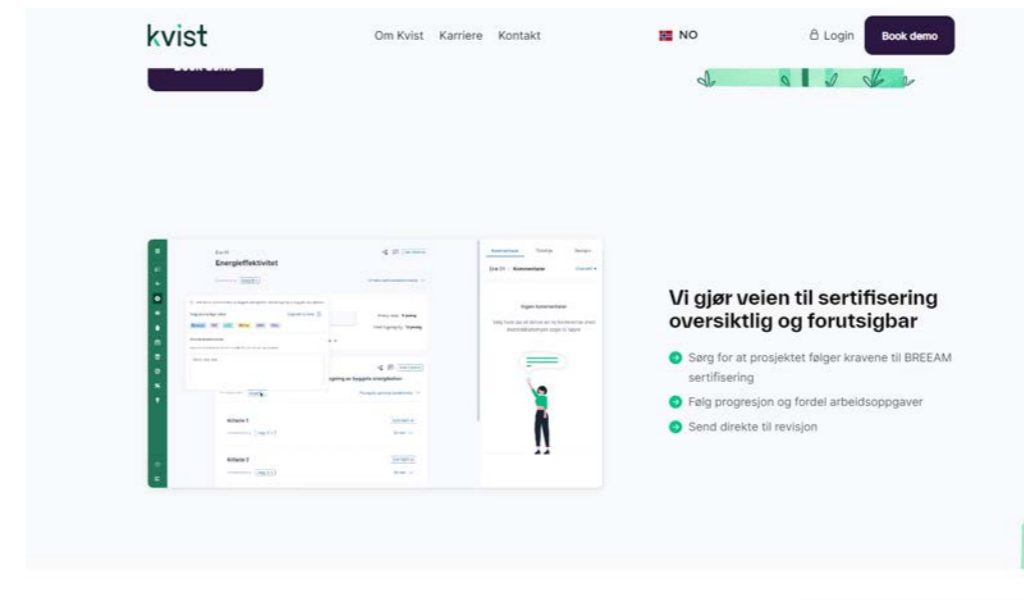


Consigli 1,2ma,3,4,5,8.

“autonomous engineer contributes”

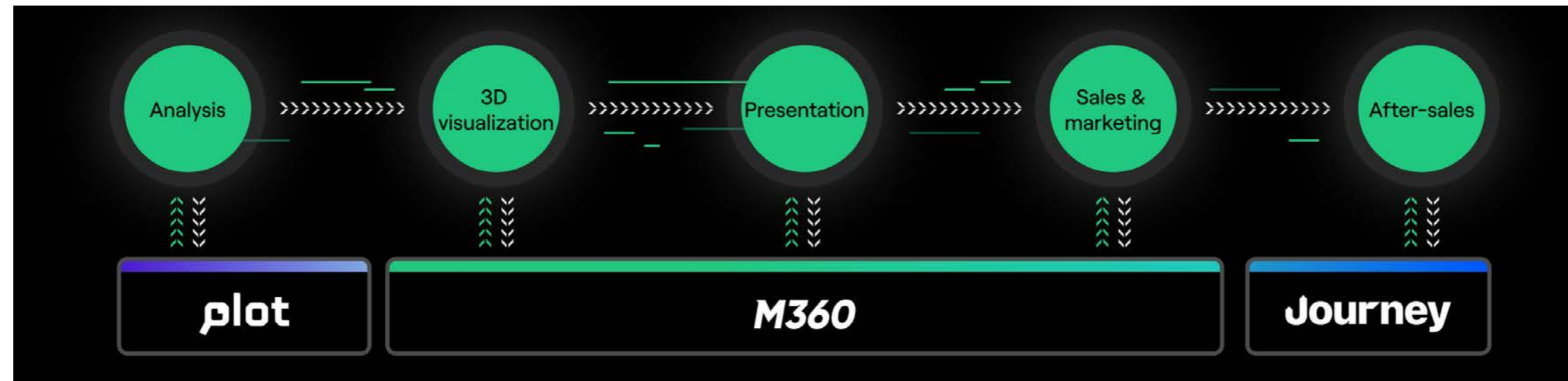
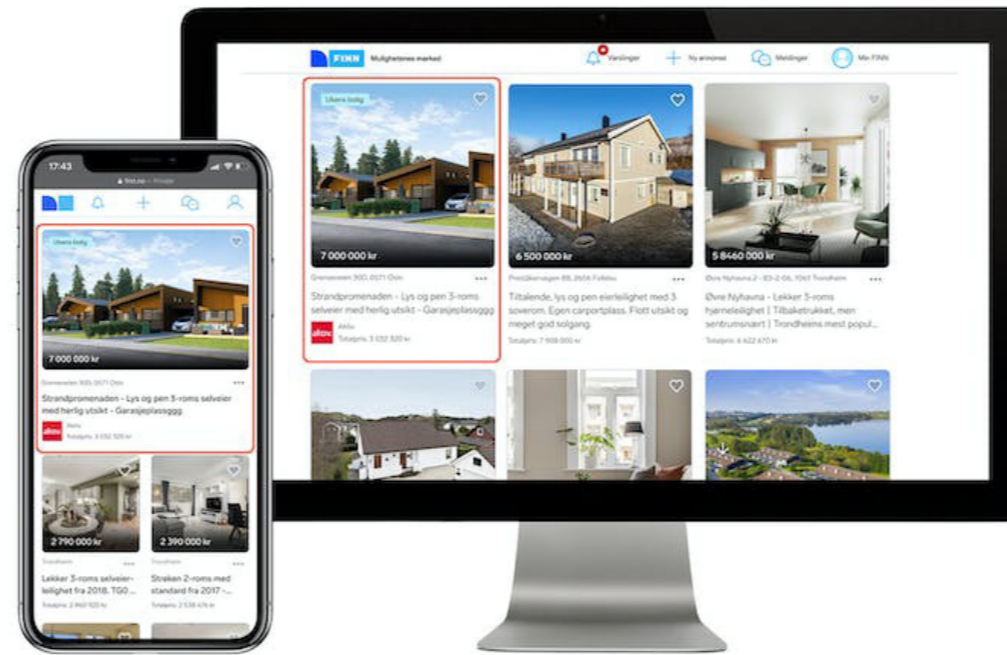
Kvist 1,3,6,8

“super-easy environmental certification”



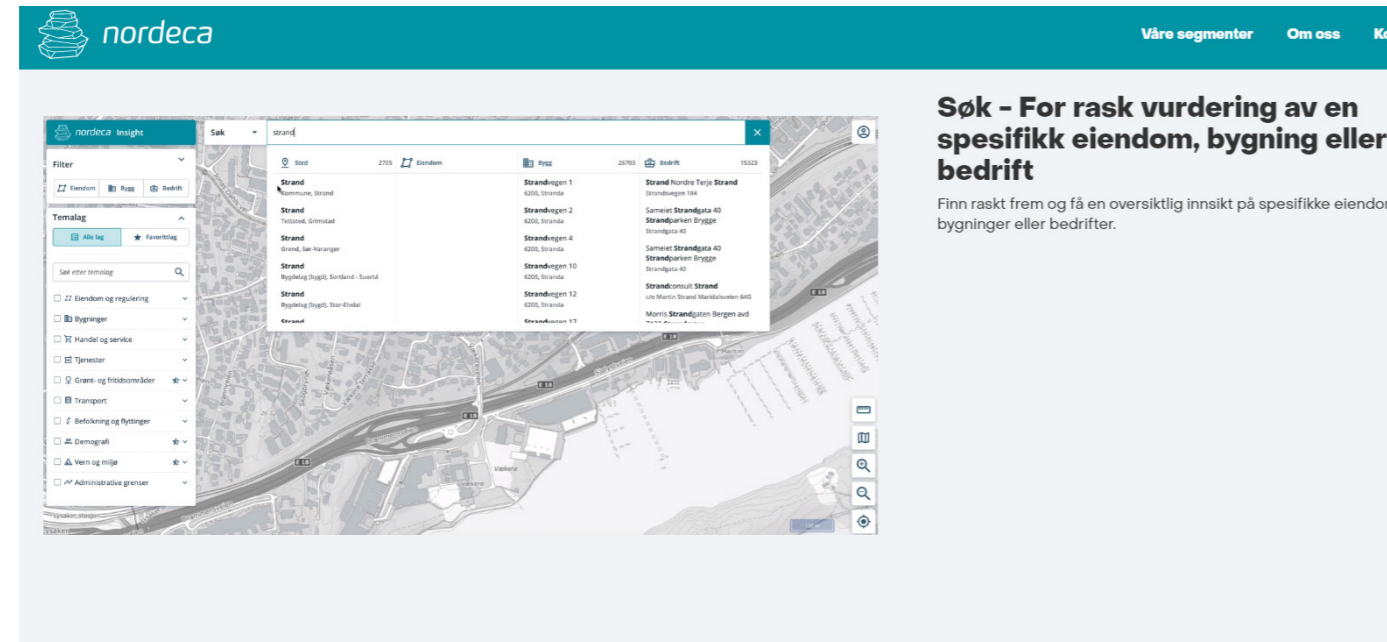
6.3% Hybrids - feedback loop

Home sales = patterns, preferences, consumerism



7.9% market minority - early stages

Særnorsk spisskompetanse.

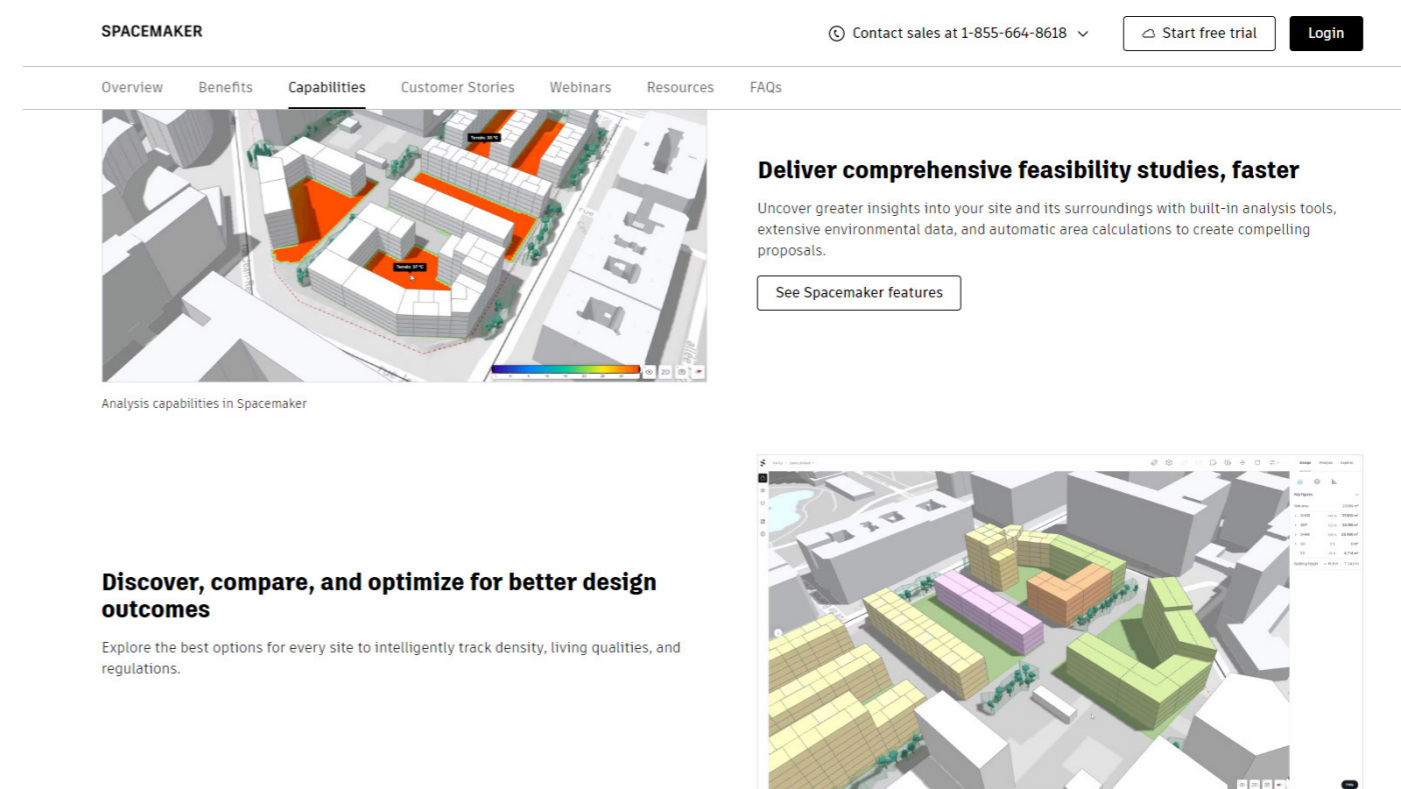


Filter - Når du ser etter eiendommer, bygninger eller bedrifter med spesifikke egenskaper



stage 1-2. Nordeca Insight Property

*type 1:
big data insight platform.*



stage 1,2,4. Spacemaker

*type 2:
CAD/parametric analysis modelling.*

Recommendations

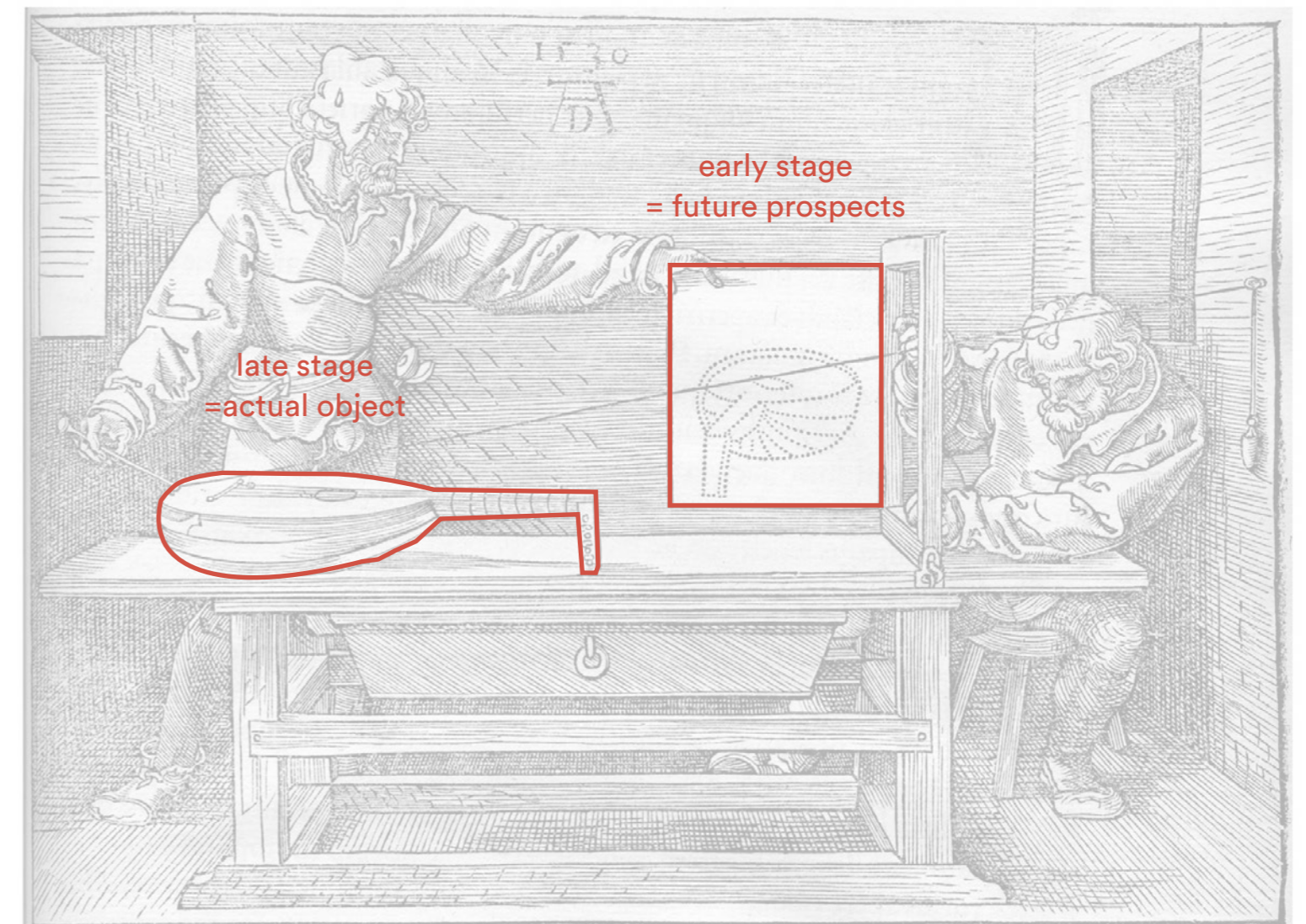
CONCLUSIONS:

- **Feedback loops** = how the 85% in late stages (buttocks tech) inform the 6.7% early stage products (the entrepreneurial part).
- **Customised modules** moving faster than proprietary proptech - should not be regarded lightly.
- **Unexpected business models** due to institutional pressure.
- **Changing how REI interact** - side effects of proptech.

RECOMMENDATIONS:

- **Don't focus on buttocks.**
- **Don't go in without domain knowledge/collaborators.**
- **Don't go for hype, 99% of the time** (PAM, insight platform, online marketplace)
- **REI/IT separation** - the location-specific REI and scalability of IT/software.
- **Scale up the customised modules...**
- **UI for craftsmen** as opposed to the executives.

FEEDBACK LOOP:



Albrecht Dürer's methods of perspective: to convincingly reproduce physical 3D objects to 2D paper format.