

# SUSAF WORKSHOP

Simen Sommerfeldt Q4 2023



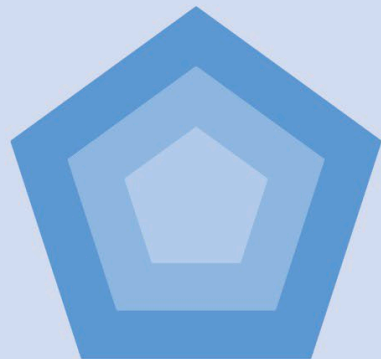
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# SusAF


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## The Sustainability Awareness Framework



Workbook

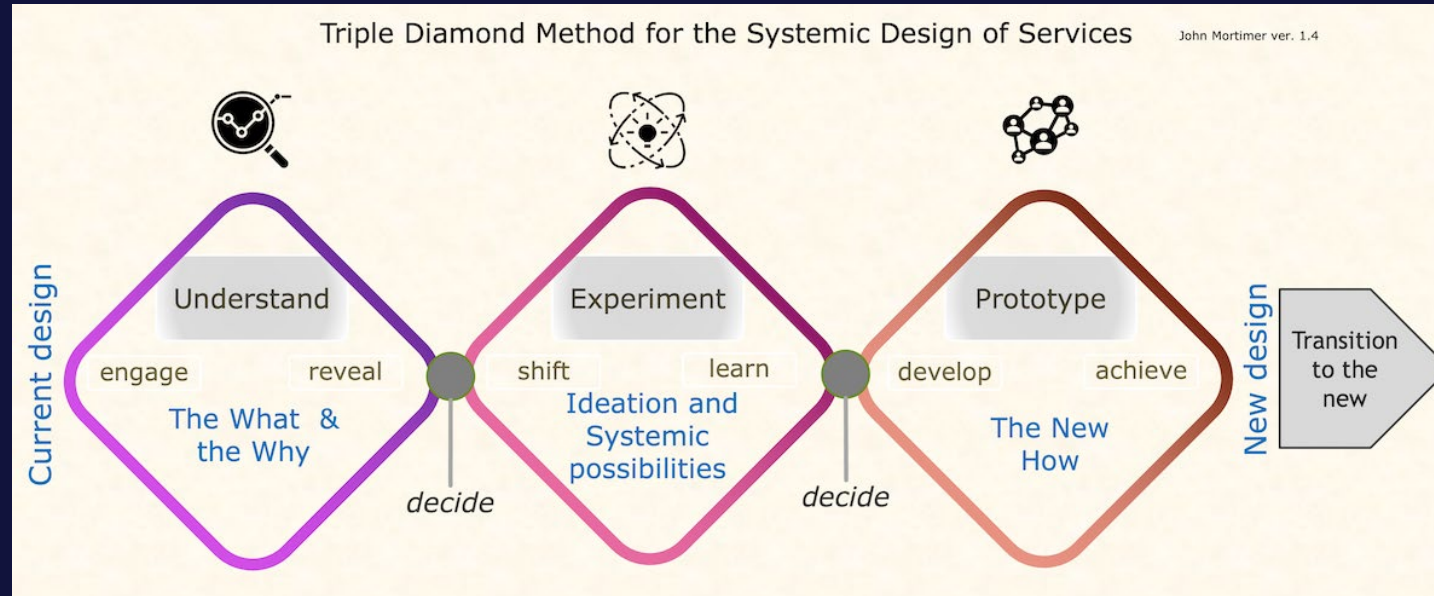
<https://www.suso.academy/en/sustainability-awareness-framework-susaf/>

A photograph of two young women sitting at a desk in a classroom, looking at a laptop screen. The woman on the left is wearing glasses and a striped shirt, while the woman on the right is wearing a white shirt. They appear to be engaged in a collaborative learning activity. The background shows a typical classroom environment with wooden desks and chairs.

**Sosioteknisk kompleksitet:**  
Hvordan sosiale/organisatoriske  
og tekniske aspekter henger  
sammen/former hverandre



**GoForIT**



# Systemisk tilnærming

<https://www.improconsult.co.uk/systemic-triple-diamond.html>



#nrknyheter

## Må laste ned app for å slippe inn i Qatar

De kan bruke den til masseinnhenting av informasjon fra én million mennesker.

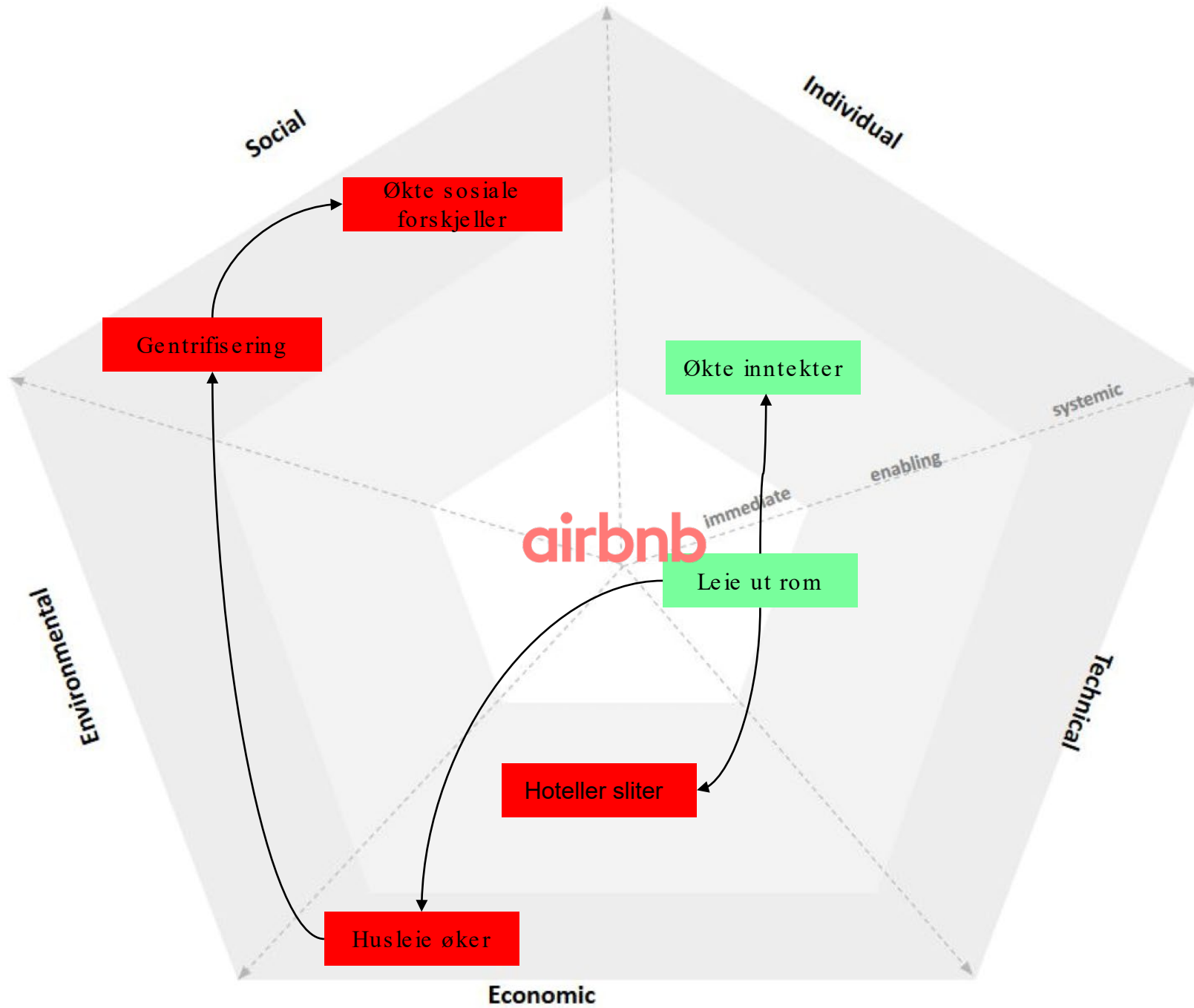
<https://tv.nrk.no/se?v=NNFA19101422&t=67s>

# Frihetene i EMK 8

Friheter: Privatliv, kommunikasjonsvern, personvern, ytringsfrihet, religionsfrihet, bevegelsesfrihet, bestemmelsesfrihet, retten til å organisere seg, retten til ikke å bli diskriminert

... Og så har vi Rettighetene i GDPR





# Requirements Engineering

- Natural language requirements
- Modeled requirements e.g.
  - graphs → UML diagrams
  - formulas → mathematical repr.
  - code → pseudo code / early proto
- Artifact-based RE


- ↳ goals
- ↳ stakeholders
- ↳ constraints

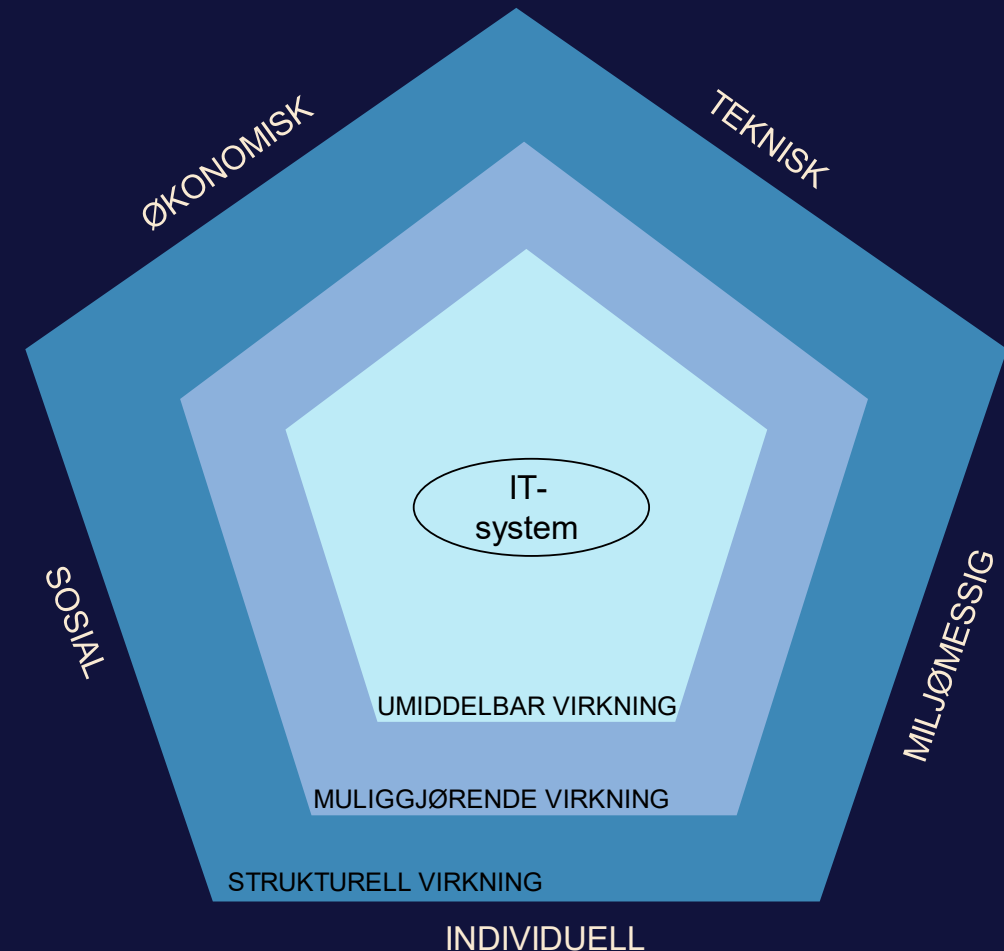


Birgit Penzenstadler



# Sustainability Awareness Framework

- Innfører «Systems thinking »
- En sosioteknisk analyse
- Umiddelbar, muliggjørende og strukturelle effekter
- I fem dimensjoner
- Endrer fokus fra avgrensning til inkludering
- Er sentral for  **goforIT**



# SUSAF-Dimensjonene


Dimensjon	Beskrivelse	Inkluderer
Miljømessig	Hvordan menneskelig aktivitet påvirker naturen	Økosystemer, råvarer, klimaet, matproduksjon, forurensning, <b>energi -effektivitet</b>
Sosial	Samfunn og faktorer som ødelegger tillit	Sosial likhet, rettferdighet, arbeidsliv, demokrati
Økonomisk	Eiendeler, kapital, og verdiøkning	Velstand, profitt, investeringer, inntekt, tap
Teknisk	Levetid for informasjon, systemer og infrastruktur	Vedlikeholdbarhet, teknisk gjeld, utskifting, <b>sikkerhet</b>
Individuell	Levevilkår for den enkelte	Mental og fysisk helse, menneskerettigheter, utdanning , selvrespekt, kompetanse, mobilitet, <b>personvern</b> , <b>universell utforming</b>

Oppvarming: Hva er prosjekt-visjonen - og de bærekraft-effektene man kjenner til?

Description of the IT **Product or Service**:


 10 Min

List the **known sustainability effects** (SDG? CSR?):

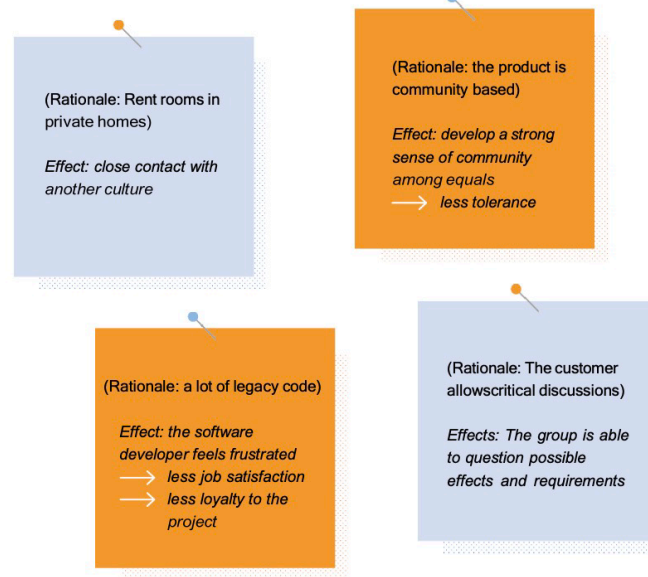
 10 Min

Finn effekter i fem  
dimensjoner.  
Intervjuguiden har  
**forslag**, og må  
suppleres

# Brainstorm

Instructions  2-5 Min brainstorm for every single question

- 1** Read the questions (starting page 11)
- 2** Write down the first effects that come to mind in your notes sheets (1 minute)
  - a. Consider effects of the product/service, working process and business model.
  - b. Positive effects on blue cards and negative effects on orange cards, (with 'rationale', if it was mentioned)
  - c. Remember, quantity over quality
- 3** Present all the ideas within the team (5 minutes max.)
  - a. Do not judge
  - b. Do not worry if you are not able to comment on all ideas
  - c. If applicable, cluster ideas





# Gruppér og prioritér

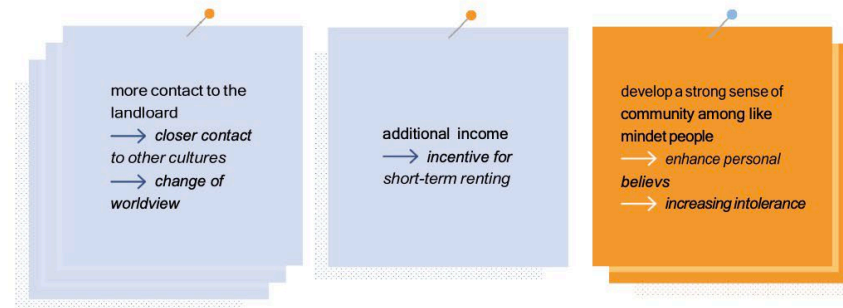
## Discuss & Select

### Instructions

🕒 7 Min discuss & select for every single question

Discuss all the ideas within the team

- a. Decide which effects are worth capturing
- a. Paste in likelihood & impact matrix



Prioritize: Classify the effects using their likelihood and their level of impact

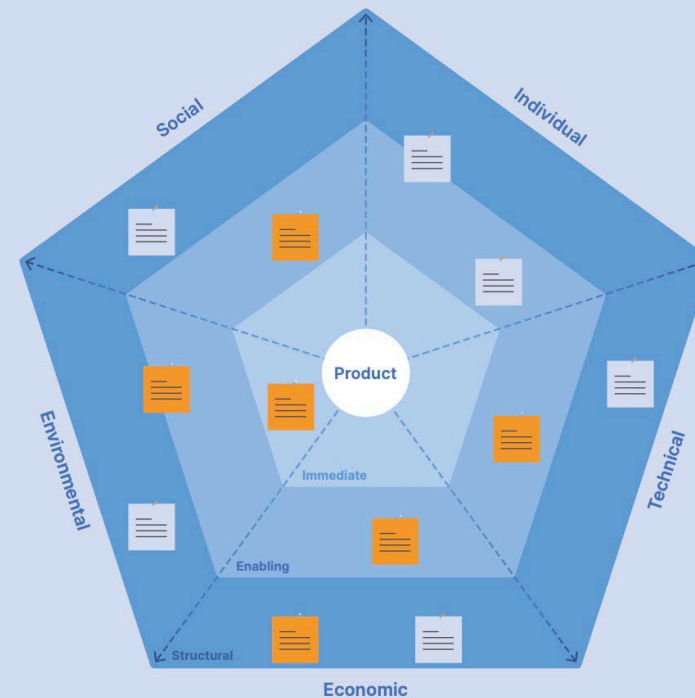


# Plassér i femkanten (SUSAD)

## Filling the SusAD

🕒 15 Min

1. Paste the effects from the high impact and likelihood corner of the matrix onto the SusAD according to dimension and order of effect.
2. Look at the remaining, less likely or less impactful, ones and choose which ones to still add to the SusAD (so it does not get too crowded).
3. Imagine your IT product or service is being used by many people over an extended period of time. What consequences may this have? And how do they relate?



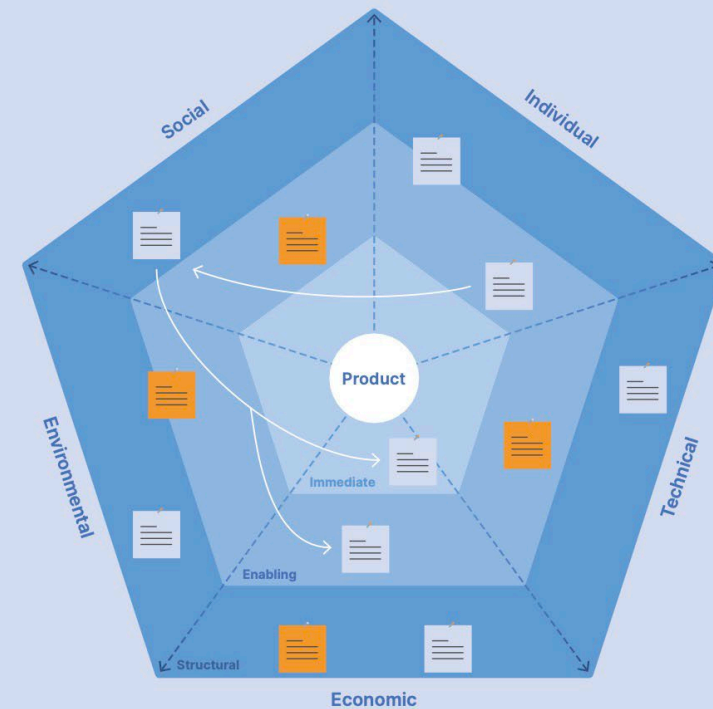
# Chains of effects

Identify chains of effect:

🕒 15 Min

Draw relations between the effects that may happen when many people use this product or service for several years:

1. Think about which second order effects stem from which first order effects, and
2. Which third order effects can be a consequence of some second order effects
3. Effects can also have a related effect of the same order, and/or of a different dimension



Analyse: Hvilke 2. og 3. grads effekter kan vi få?

# Fremgangsmåte

...prosessen kan ta 2-3 uker

- Starter med workshop på 4 -5 timer
  - Med «ambassadører» for dimensjonene
- Analysefase, der man utforsker effekter, forankrer og forhandler med stakeholders
- Grunnlag for endelig mandat
- Deretter finner man konkrete, kvantifiserbare krav

<https://ieeexplore.ieee.org/document/7325195>





# Kravhåndtering med bærekraft

- Systemisk fremgangsmåte via f.eks. SUSAF
- Gjengangere: Energi -effektivitet, etikk, vedlikeholdbarhet , personvern, sikkerhet, Universell utforming
- Let etter kvantifiserbare krav
- ...vi beskriver noen typiske i verktøykassen...



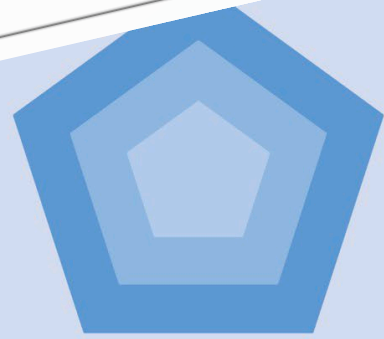
# SusAF

## The Sustainability Awareness Framework

**Suggested timing:**

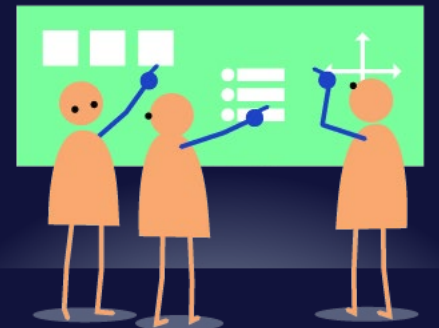
Warm up 45 min, capture 5\*40 min (incl. lunch break), analysis 45 min, synthesis 30 min.

Workbook



# Hva vi skal gjøre

- Intro til case
- Et kvarter: Deler i grupper på fem. Lag lapper med egenskaper og kvaliteter!
- Ti minutter: Hver person lager to - tre lapper for sin dimensjon
- Ti minutter: Prioriterer og setter inn i SUSAD
- Ti minutter: 2. og 3. grads effekter

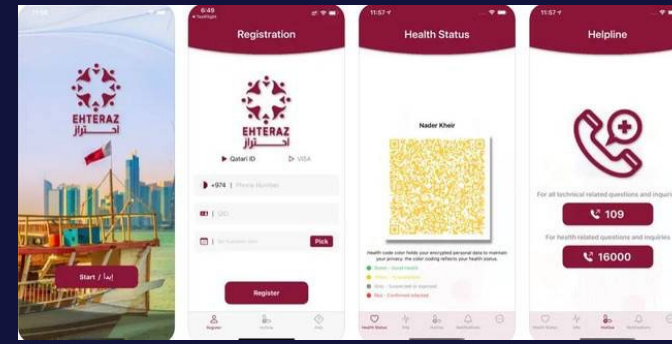


# Ehteraz & Hayya

To apper du må ha i Qatar

## Ehteraz

- Covid Smittesporing
- Bruker posisjon, Wifi, Bluetooth for å oppdage smitte
- Kan hindre sleep mode
- Kan foreta oppringninger




## Hayya

- Digitalt visum
- Må brukes sammen med billettene dine
- Viser restauranter, transport, innkvartering, etc
- Behandlingsansvarlig for begge er Qatar, ikke FIFA




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Description of the IT **Product or Service**:

 10 Min

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 10 Min

Gjør gjerne antagelser! Eller spør oss..



Finn effekter i fem dimensjoner. Intervjuguiden har forslag , og må suppleres

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(Rationale: Rent rooms in private homes)

*Effect: close contact with another culture*

(Rationale: the product is community based)

*Effect: develop a strong sense of community among equals*  
→ *less tolerance*

(Rationale: a lot of legacy code)

*Effect: the software developer feels frustrated*  
→ *less job satisfaction*  
→ *less loyalty to the project*

(Rationale: The customer allows critical discussions)

*Effects: The group is able to question possible effects and requirements*

# Gruppér og prioritér

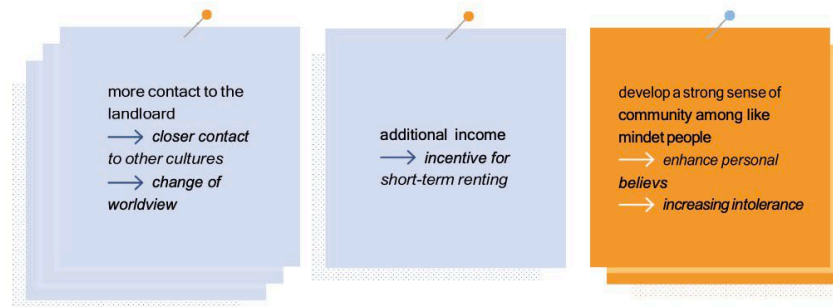
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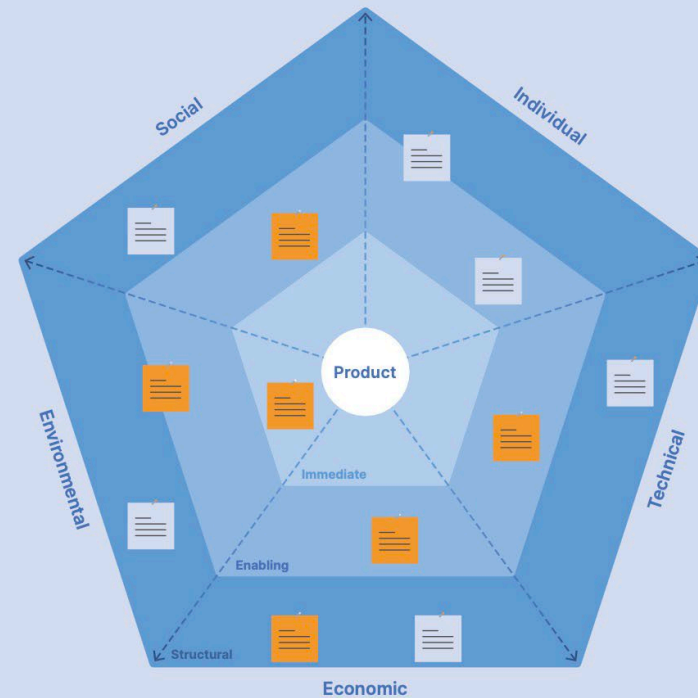


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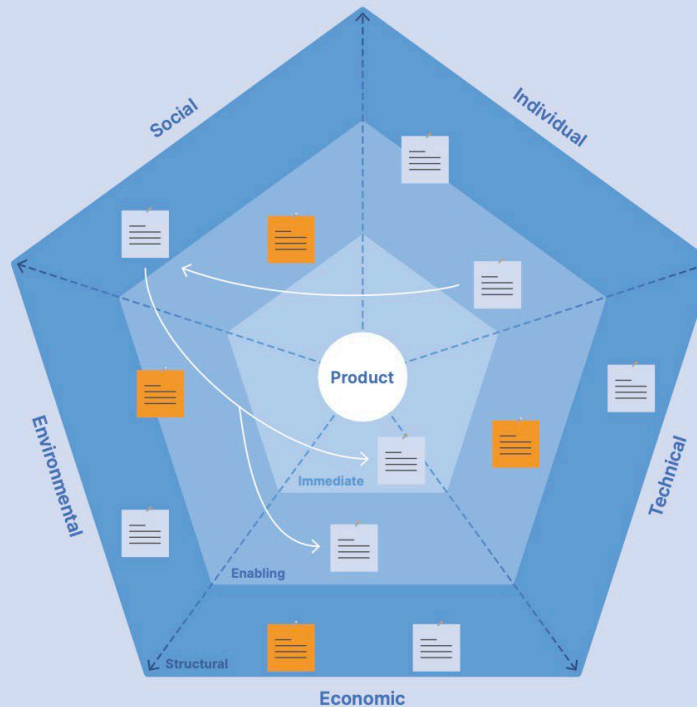
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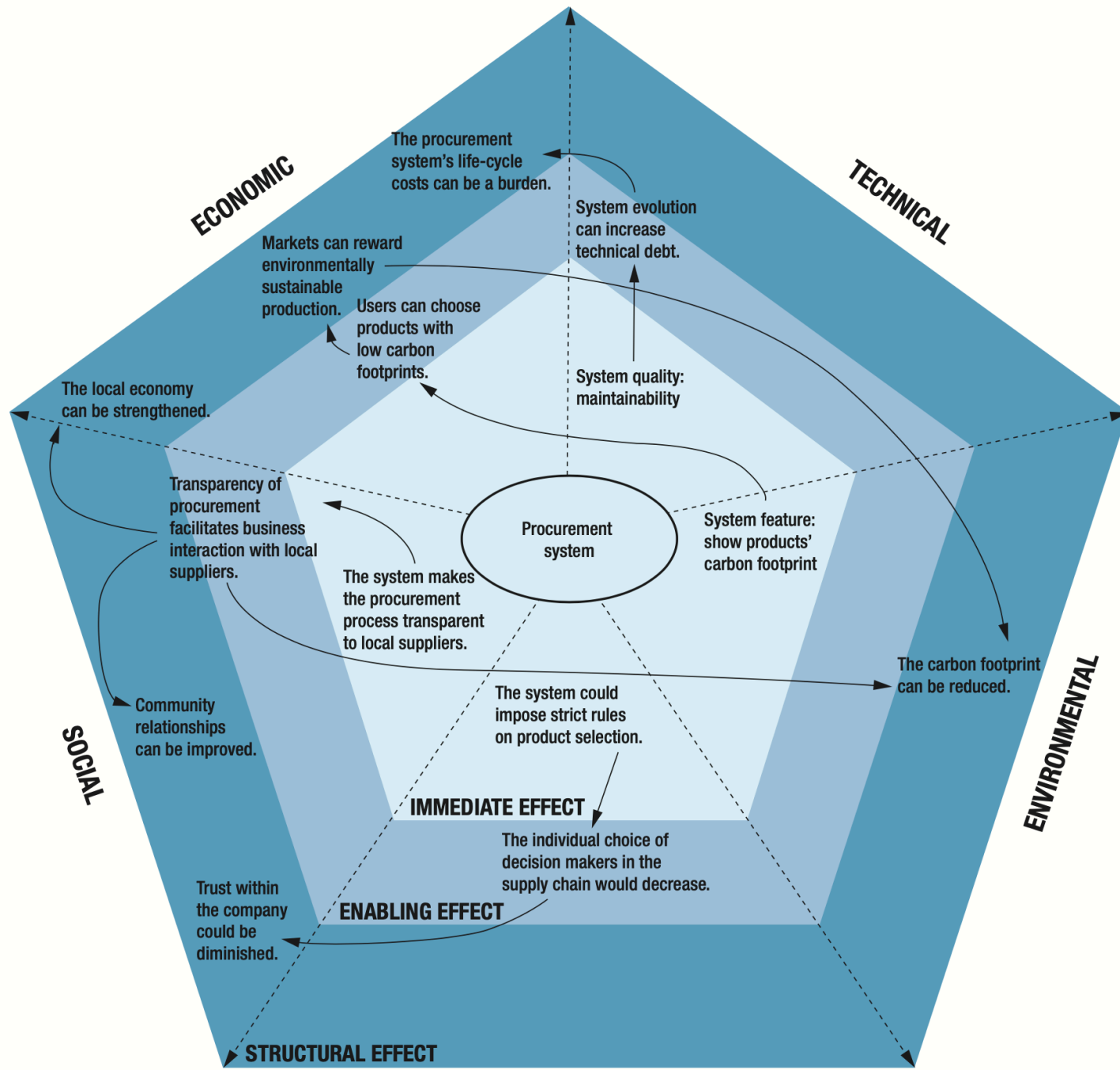
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Hva kan vi gjøre?

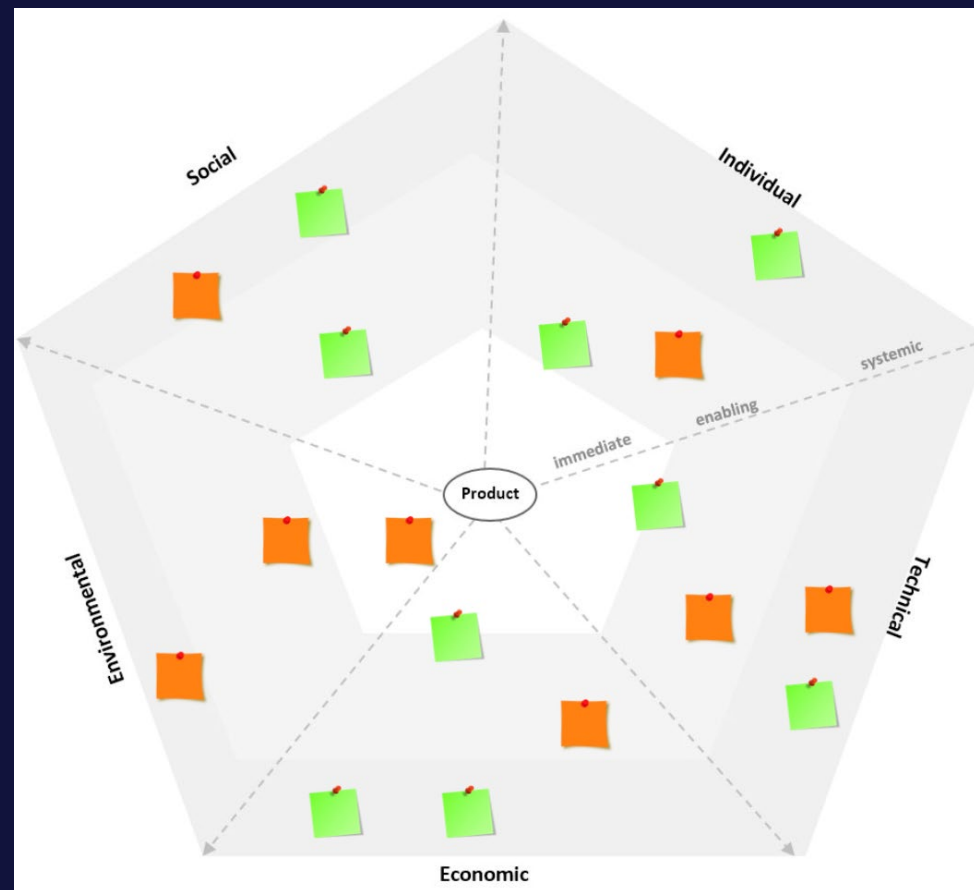
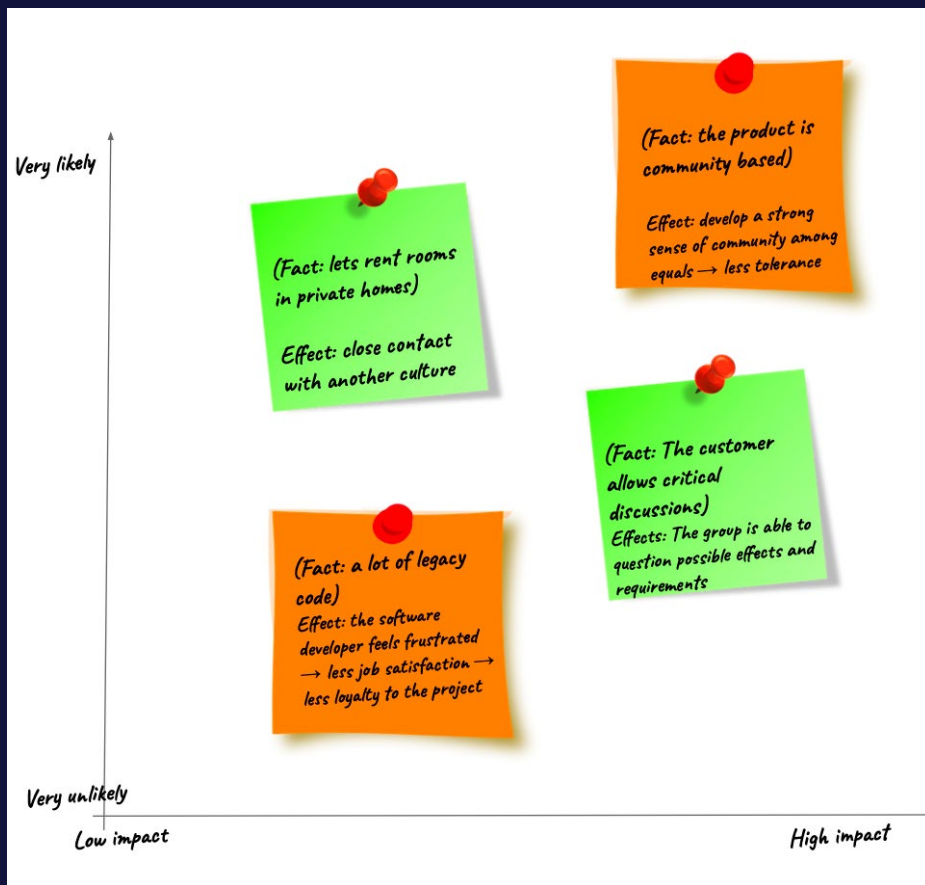
## Synthesis: Threats, opportunities, actions

—  
Identification of the biggest threats and opportunities ⌚ 15 Min  
as well as the developmen of adequate measures

Opportunities → Actions

Threats → Actions

# Lag diagrammer med med flipover



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