AALBORG UNIVERSITY
DENMARK

User-driven creative academy

Building the core design

InDiMedia
Center for Interactive Digital Media & Experience Design

Peter Vistisen
Assistant Professor, PhD, nice guy
Say hi: vistisen@hum.aau.dk

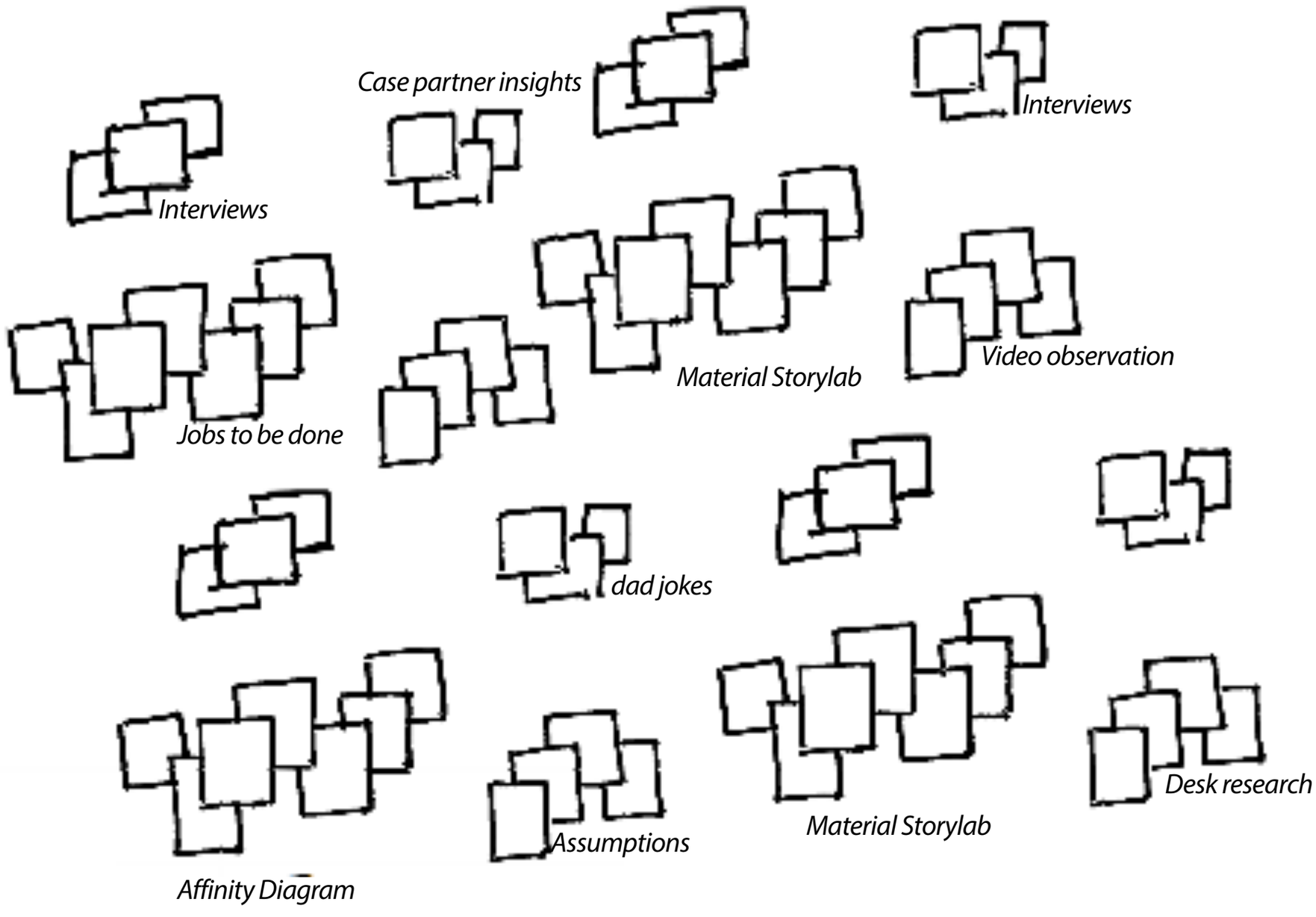
TODAY...

10.15 - 11:30'ish: *Core Design lecture*

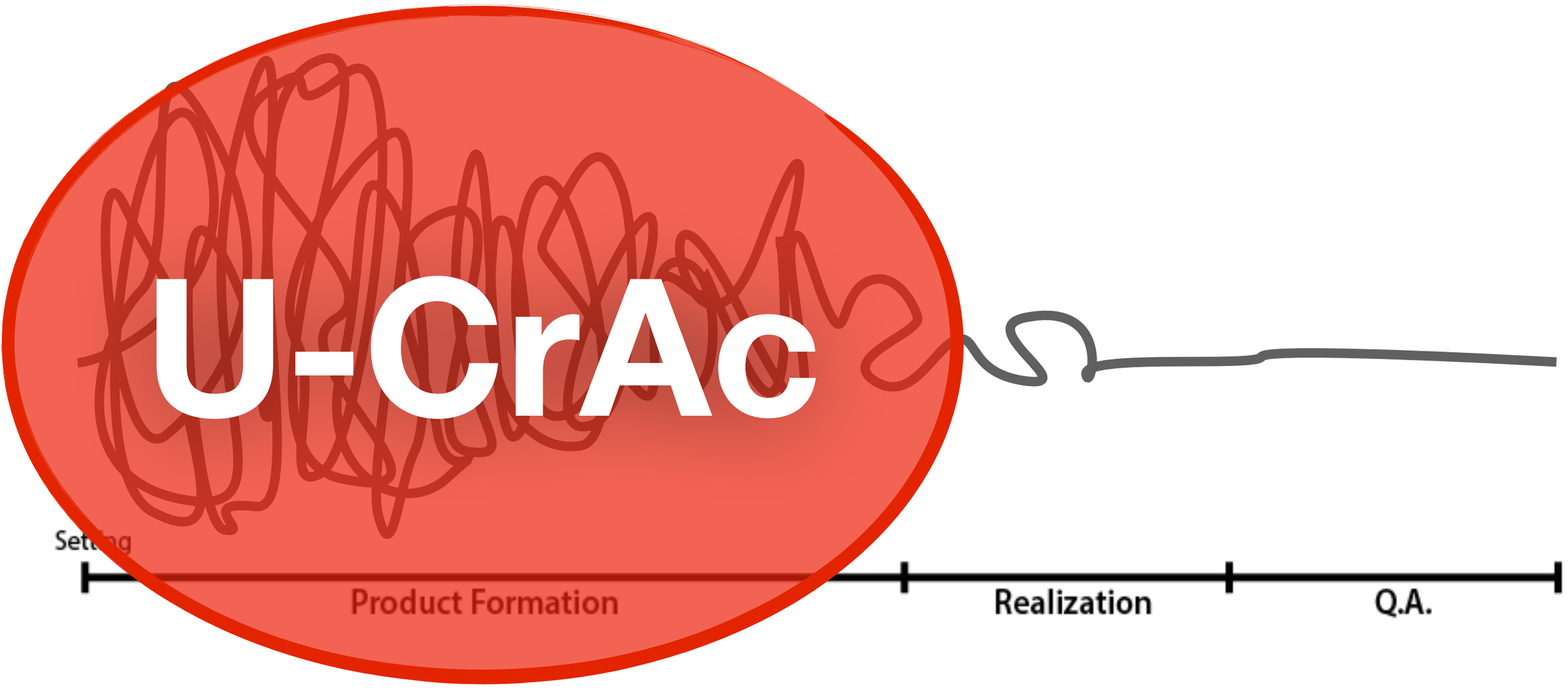
11.30'ish - Monday: *Defining innovation tracks*

(at StartupWorks)

STATUS...

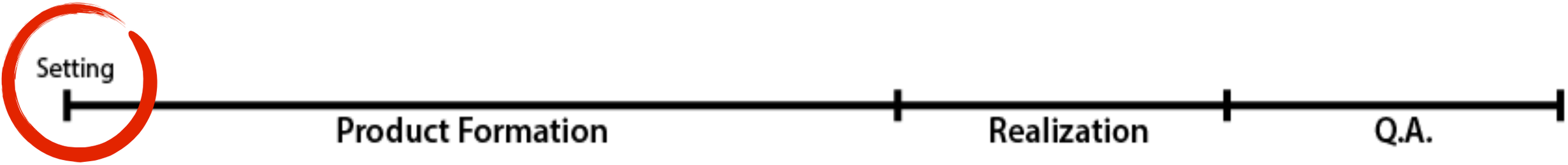

Case partner insights
Interviews
Interviews
Material Storylab
Video observation
Jobs to be done
dad jokes
Assumptions
Material Storylab
Desk research
Affinity Diagram

DESIGN CYCLE FUZZY!



Rosenstand & Kyed 2013 + Vistisen & Rosenstand 2016

DESIGN CYCLE: SETTING

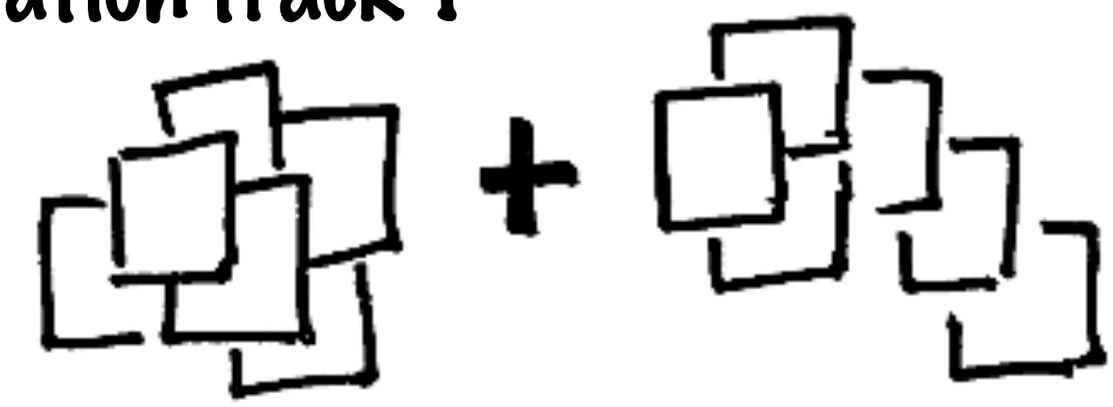


*The Design Cycle is **a major iterative movement** from the product **formation**, towards production **realization**, ending in **quality assurance***

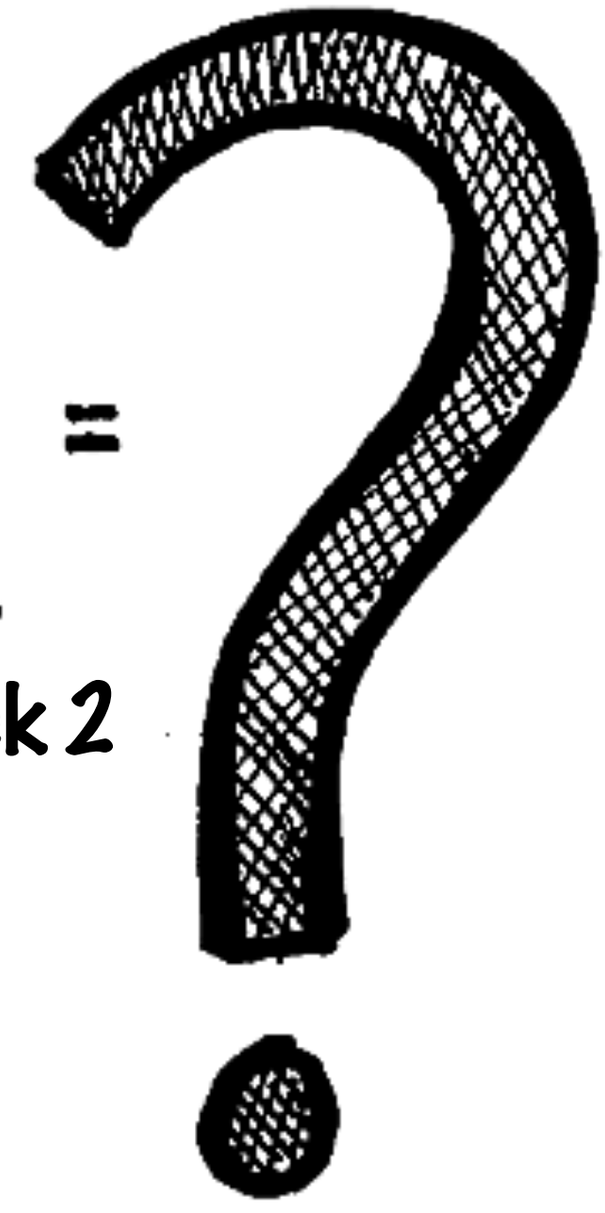
Rosenstand & Kyed 2013 + Vistisen & Rosenstand 2016

NEXT WEEK...

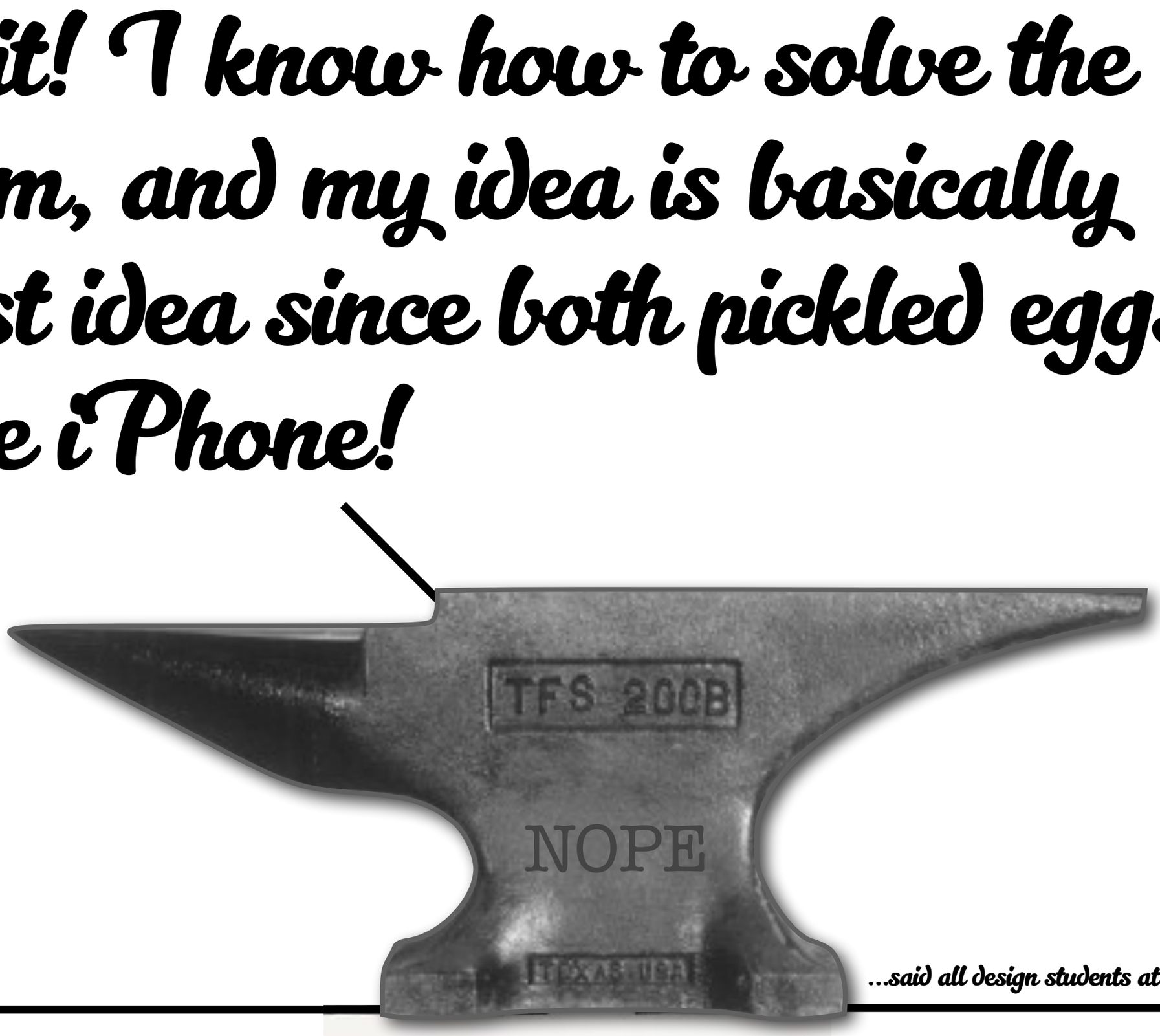
Innovation track 1



Innovation track 2



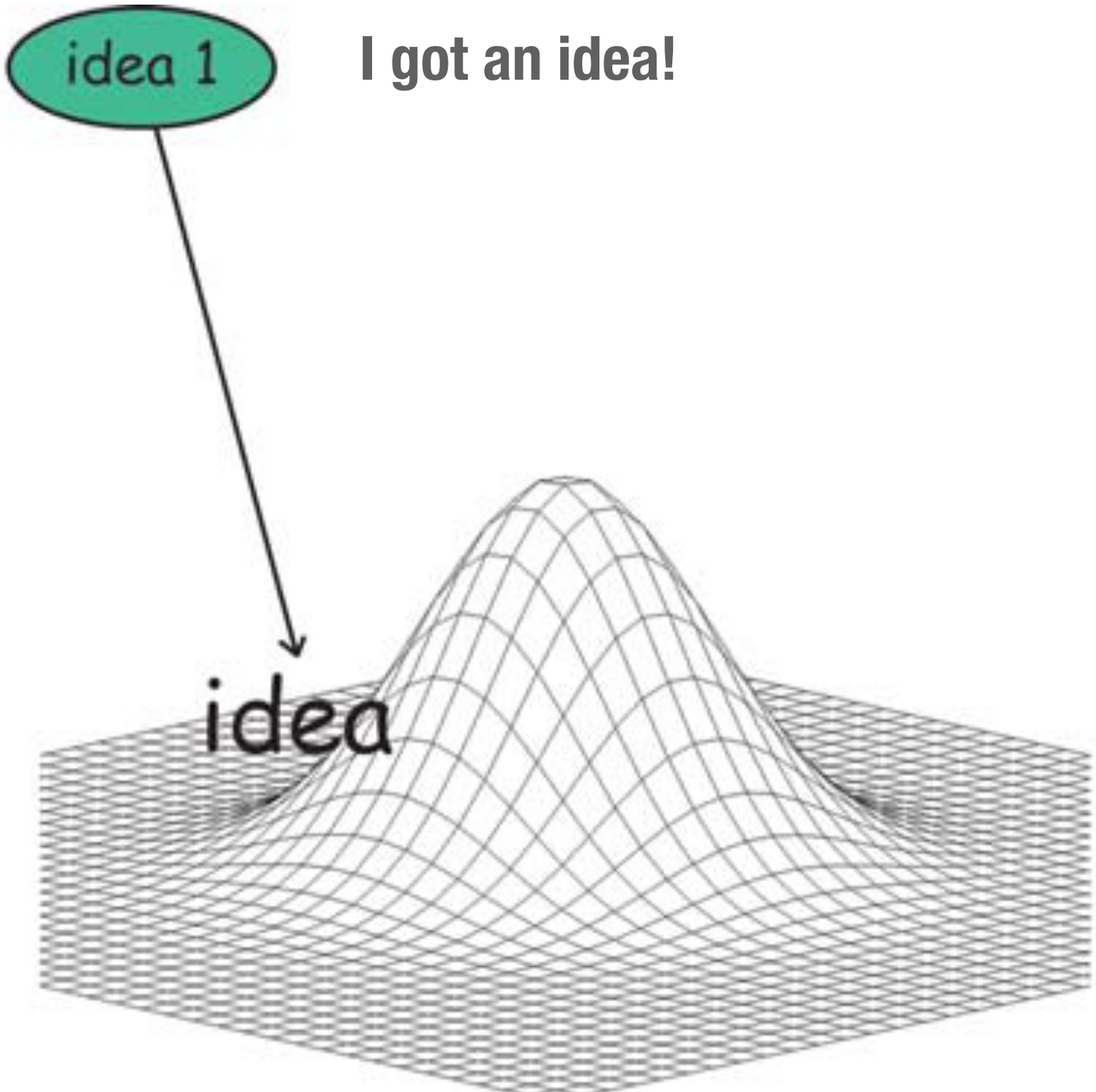
I got it! I know how to solve the problem, and my idea is basically the best idea since both pickled eggs and the iPhone!



...said all design students at some point

Local hill climping

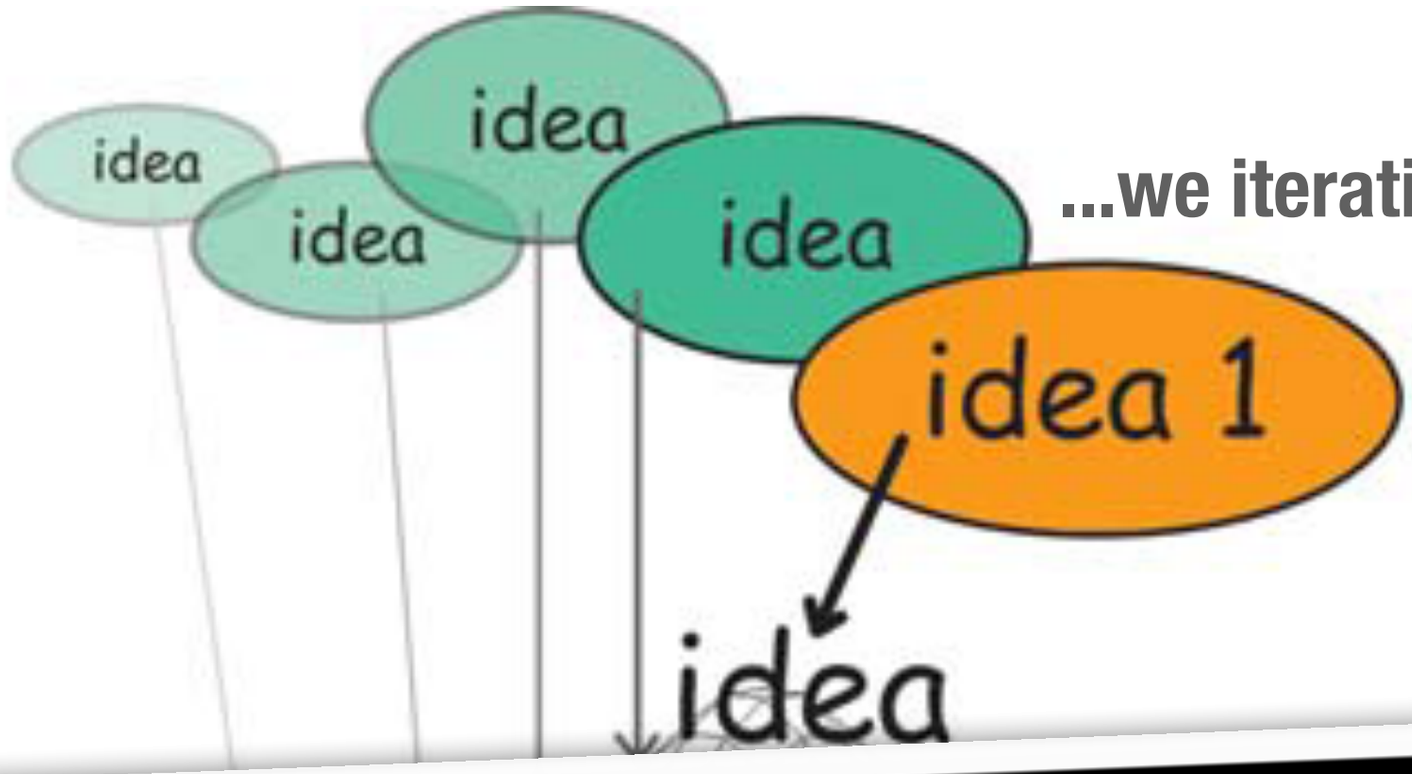
The first idea gives us a space to explore...



Greenberg et al 2011

Local hill climping

After some time and work we reach ‘the local maxima’



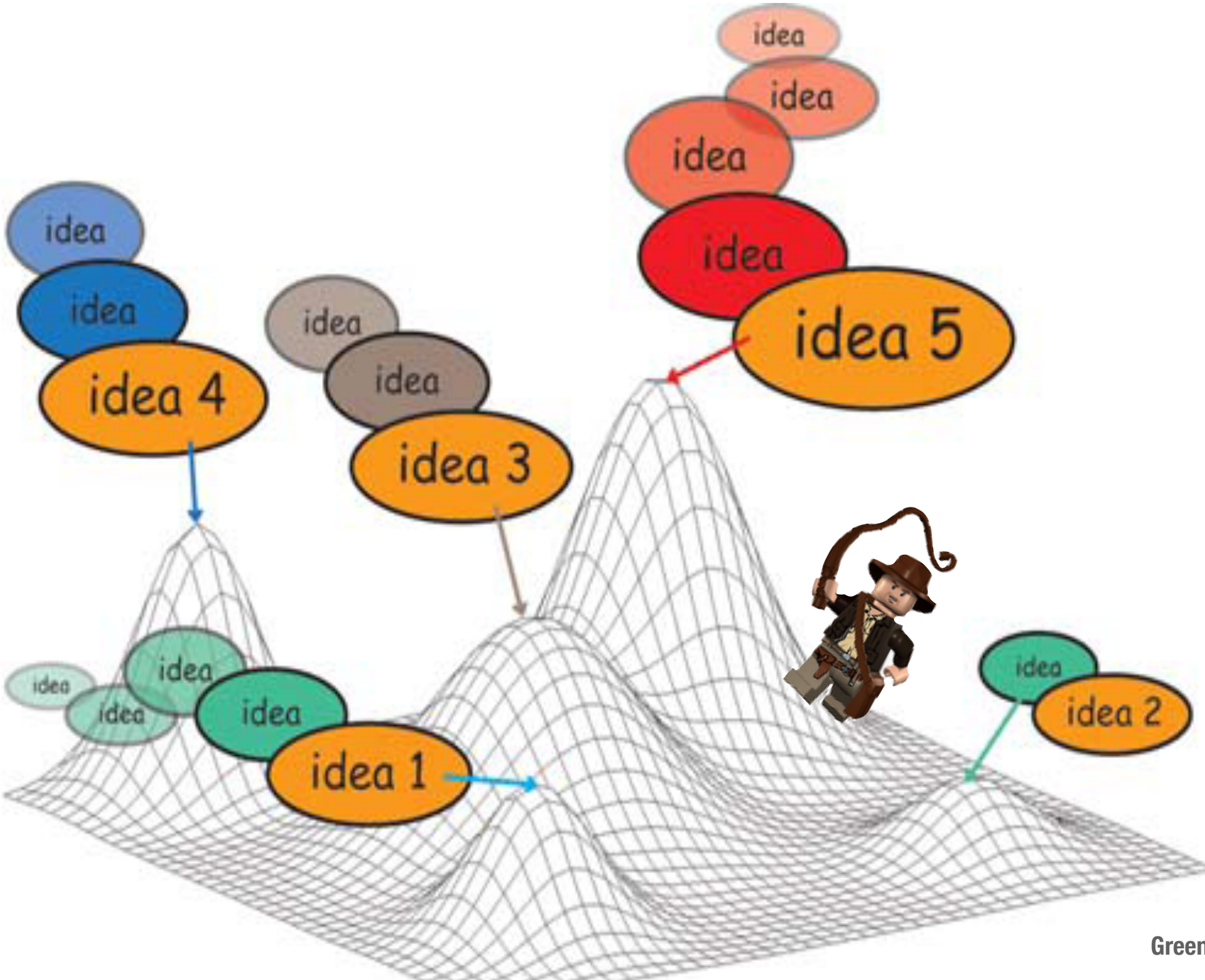
...we iteratively climb the hill

But is it a good idea?

Greenberg et al 2011

The problem is quite clear

The local maxima is not always equal to the global (optimal) maxima



Greenberg et al 2011

...history has a lot of examples

So get ‘the right design’ before working to get ‘the design right’

The inertia of innovation

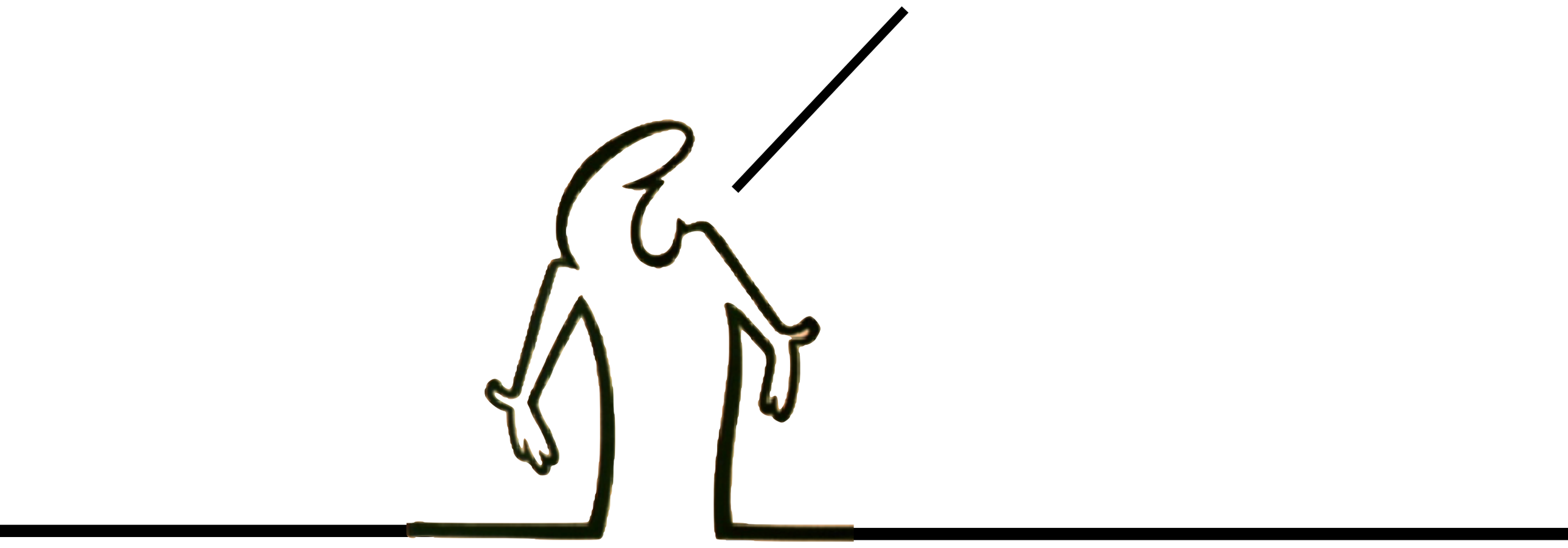
We need tools that allow us to avoid the pit fall of local hills

"In terms of stifling innovation, ***good ideas are more dangerous than bad ones.*** *They take hold, assume momentum, and therefore result in* ***intertia****"*

Buxton 2007

...intertia must be avoided

But how do we identify what the global maxima is?



case example

THE NORTH SEA WANTED AN ENGAGING DIGITAL EXPERIENCE

The visitor group of tweens (10-12 years) mostly saw a visit with their family to the Oceanarium as more of duty, rather than a fun experience...

...instead they sat with their phones

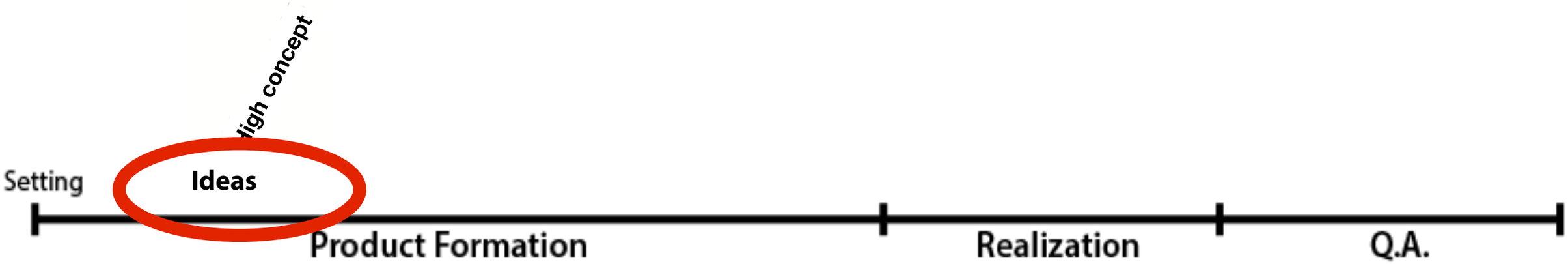
THE MOVIE MAKER

DIRECT A SLAP STICK MOVIE OF YOUR FAMILY'S VISIT

NORDSØEN
MOVIE MAKER

Optag sjove film med
vores gratis iPhone app!

DESIGN CYCLE: IDEAS

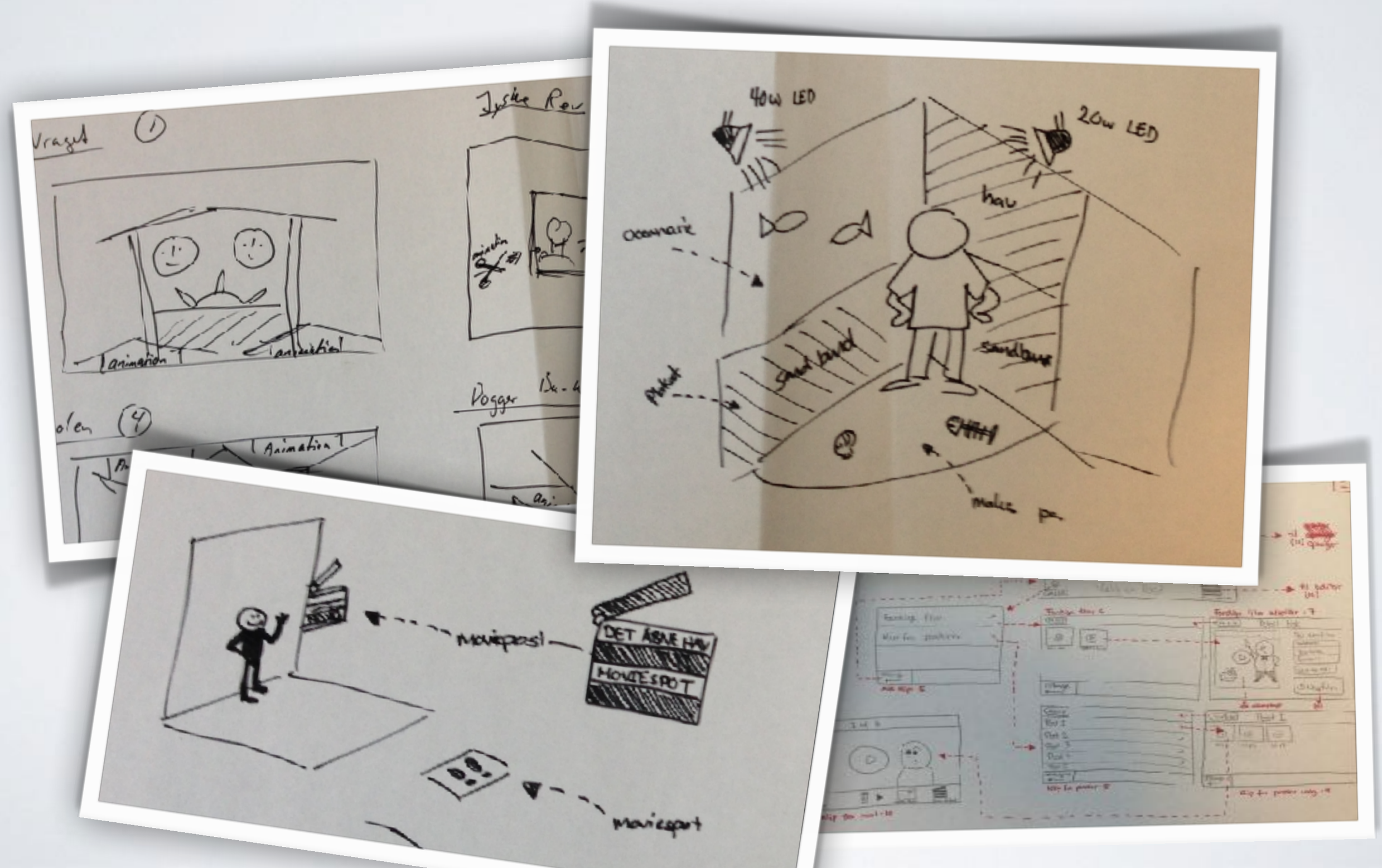


*The idea is generated as **the basis for a project vision**, which might be formulated and illustrated in different ways.*

Rosenstand & Kyed 2013 + Vistisen & Rosenstand 2016

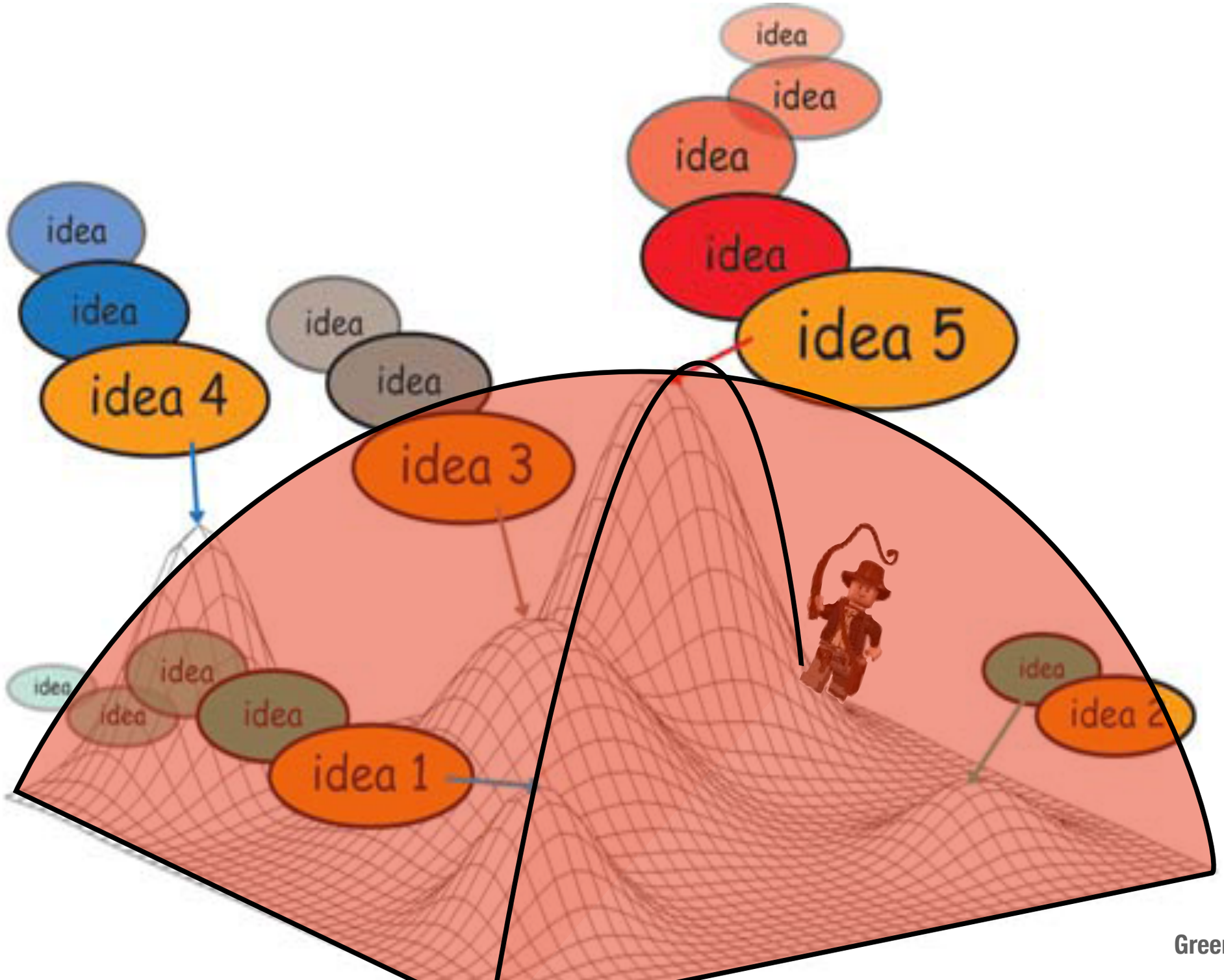
mapping insights

SKETCHING IDEAS



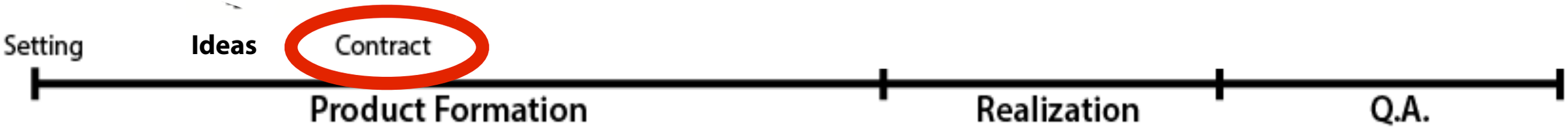
HIGH CONCEPTS

exploring the spectrum is crucial!



Greenberg et al 2011

DESIGN CYCLE: CONTRACT



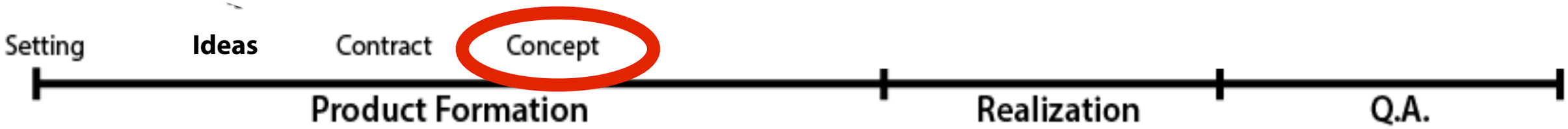
Rosenstand & Kyed 2013 + Vistisen & Rosenstand 2016

Time **(e.g. launch in week 42)**

Cost **(e.g. 250.000,-)**

Quality criterias **(e.g. smartphone platforms, user experience goals)**

DESIGN CYCLE: CONCEPT

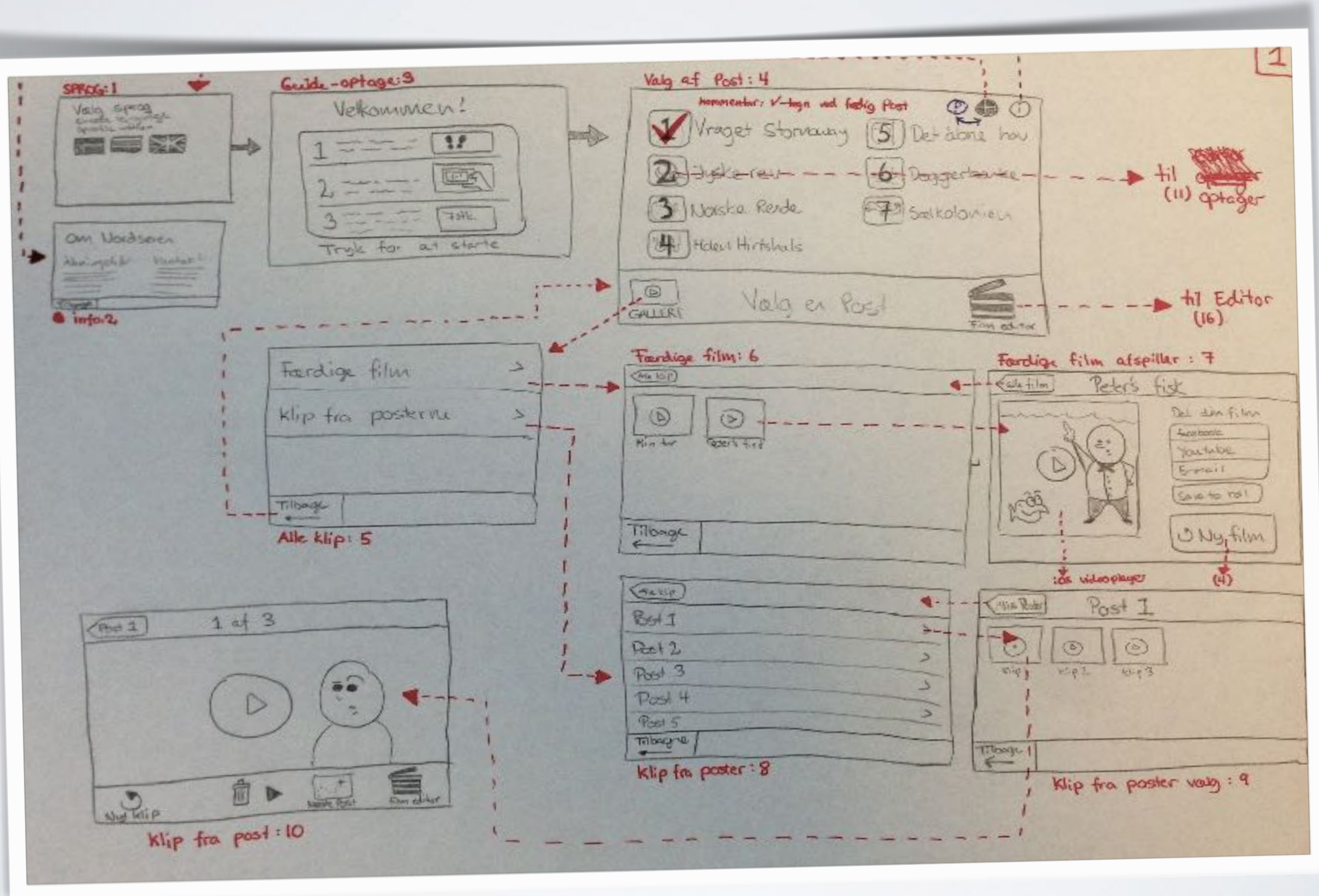


Rosenstand & Kyed 2013 + Vistisen & Rosenstand 2016

Concepts converge towards ***mixing features and content***

more sketching

IT BECAME RATHER COMPLEX

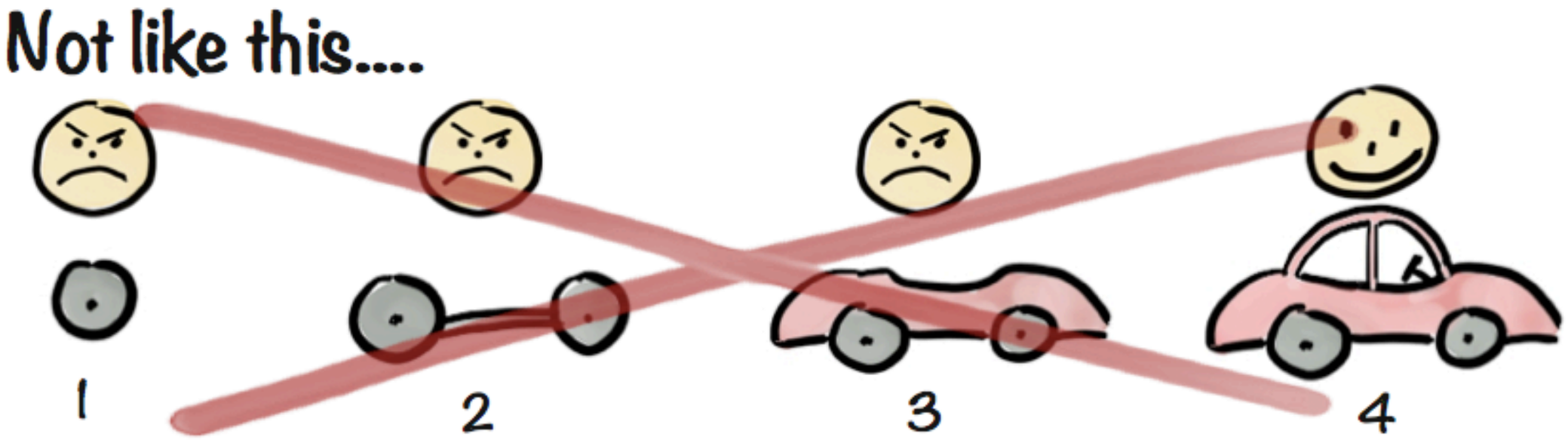


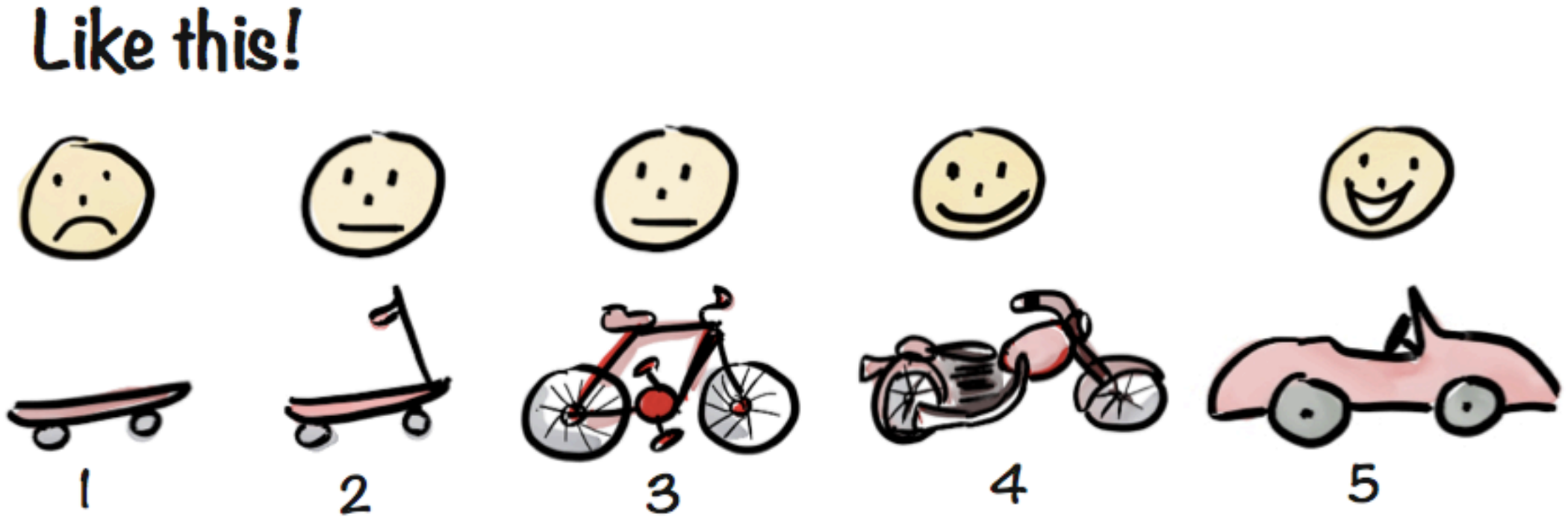
and then we can do this
and this and this and
this and this and this
and this and then this
and this and this and
this and this and this

STOP

THE PROBLEM WITH MVP'S

MINIMUM VIABLE PRODUCTS ARE OFTE TO FEATURE-FOCUSED





by Henrik Kniberg

THE MINIMUM VIABLE PRODUCT

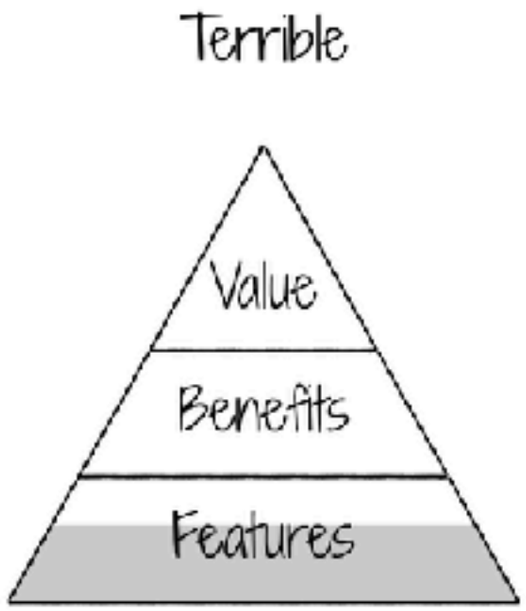
HOW DO WE START SMALL IN ORDER TO SCALE BIG?

*"The minimum viable product is that **version of a new product** which allows a team to collect the maximum amount of **validated learning about customers** with the least effort."*

Eric Ries (2009)

THE PROBLEM WITH MVP'S

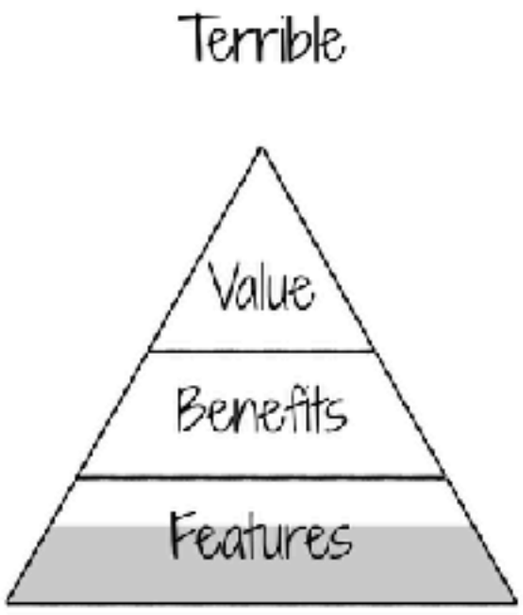
MINIMUM VIABLE PRODUCTS ARE OFTE TO FEATURE-FOCUSED



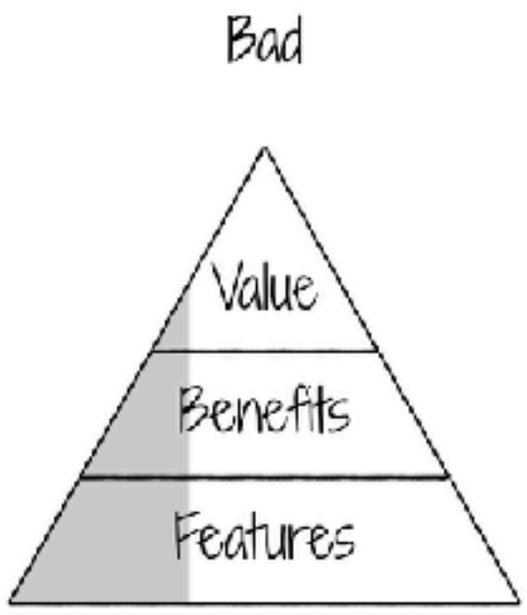
When you ask yourself
"which features can I build"

THE PROBLEM WITH MVP'S

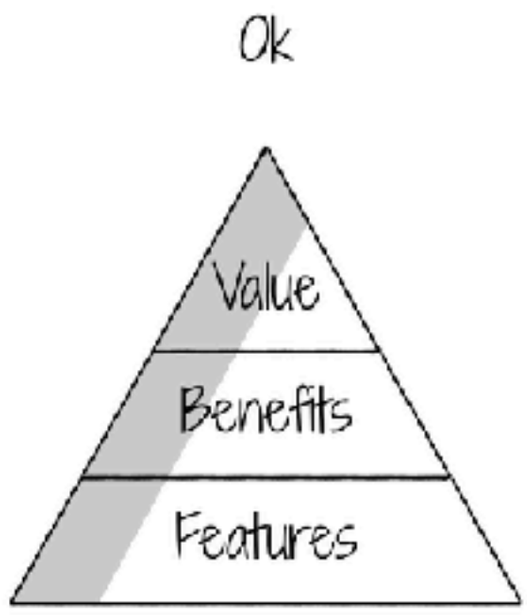
MINIMUM VIABLE PRODUCTS ARE OFTE TO FEATURE-FOCUSED



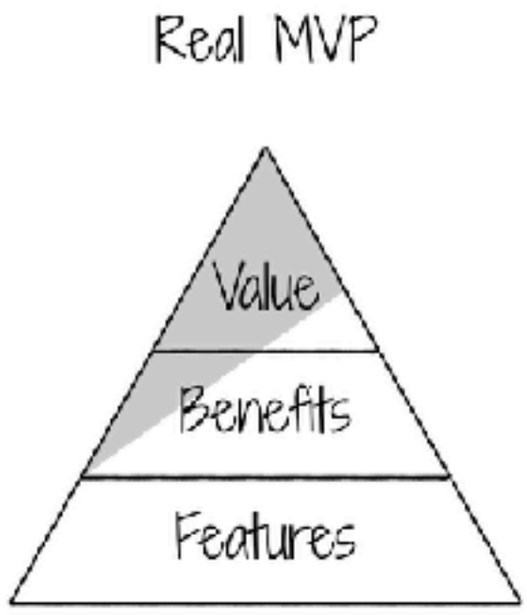
When you ask yourself
"Which features can I build"



When you ask yourself
"What are the minimum features to provide at least some value"



When you ask yourself
"what version of my product can I build, that captures most of the value?"



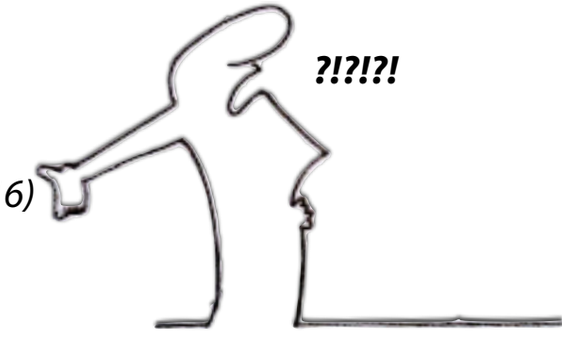
When you ask yourself
"how can I validate my value proposition"

DESIGN CYCLE: CORE DESIGN

Talk about desired ***core qualities*** *before finalized* ***complex features***

DESIGN CYCLE: CORE DESIGN

The basic idea of Core Design is to ***focus on the core of the future system****, make that work with as few features and assets as possible, check it again, and be sure it actually works; and then* ***create the full system around the core****.*

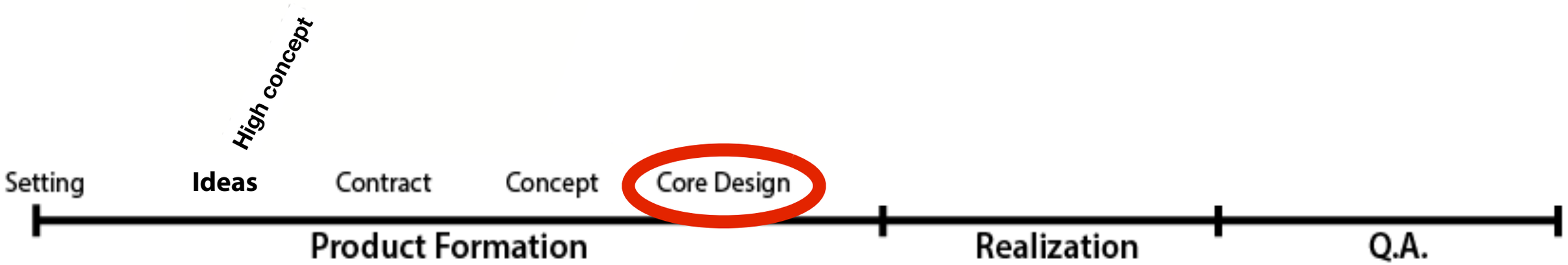


Rosenstand (2014) + Vistisen & Rosenstand (2016)

Behind any complex system, there is a <u>simple core system</u>

Rosenstand (2014) + Vistisen & Rosenstand (2016)

DESIGN CYCLE: CORE DESIGN



Rosenstand & Kyed 2013 + Vistisen & Rosenstand 2016

The core design ***manifests the quality criterias*** *as the* ***minimum viable user experience -*** *. . .*

Quality vs. Features

Quality tells us about:

…desired user outcomes

…what 'Job to be done'

…principles for your design(s)

…something we can evaluate

…can diverge into many forms

Features tells us about:

…some very specific usages

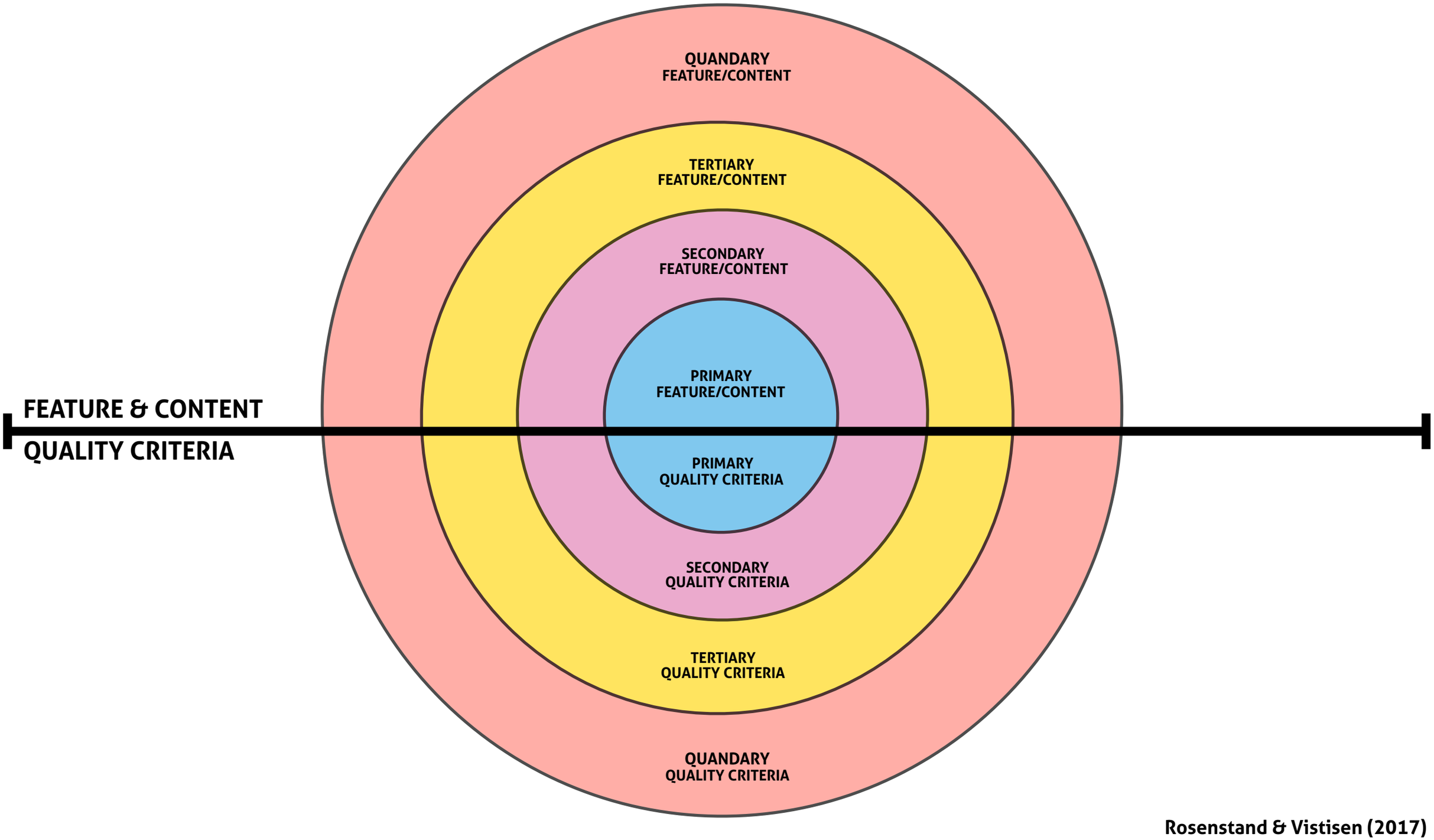
…something technology dependent

…interaction patterns for use

…something we can evaluate

…converges into one form

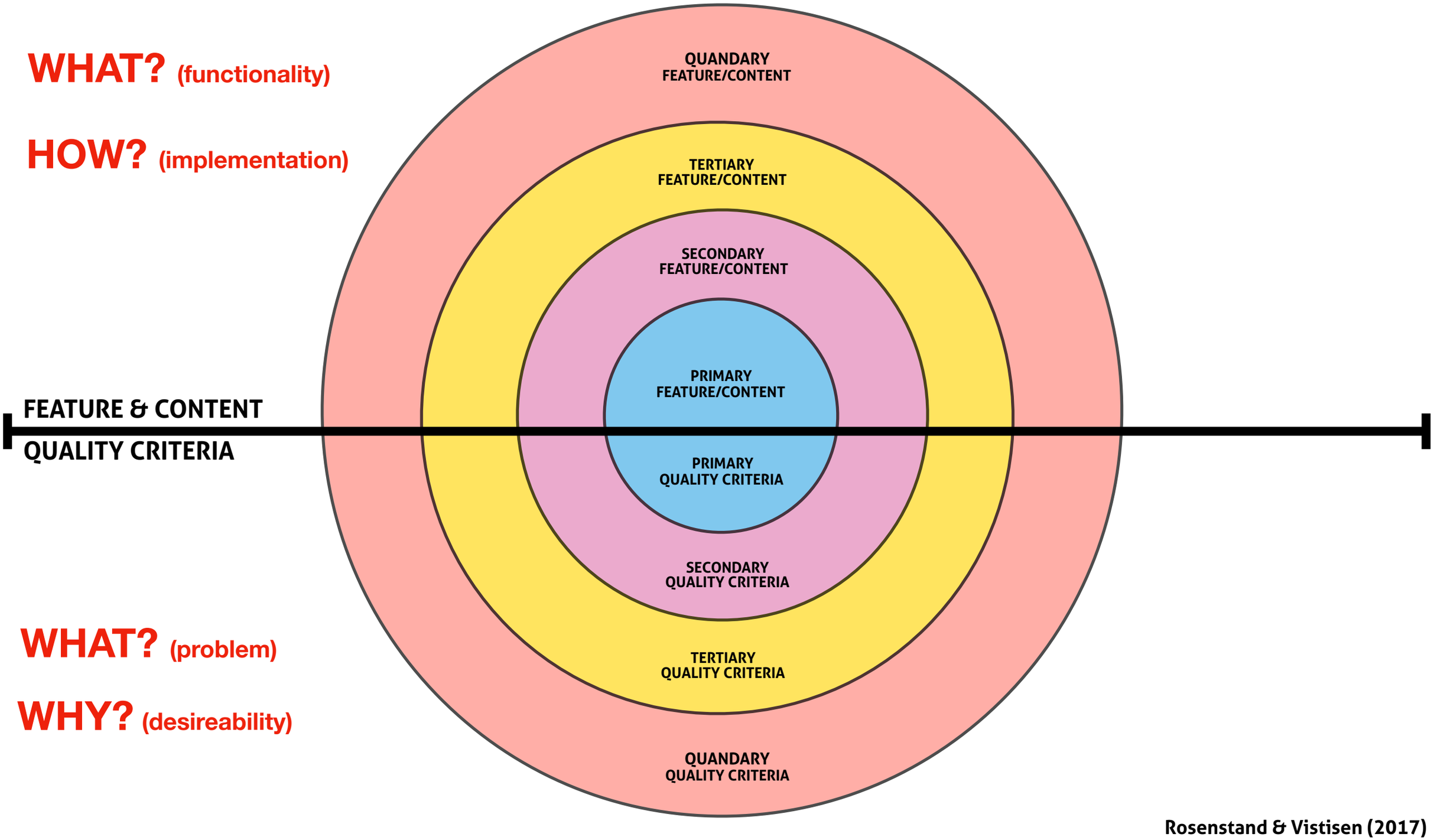
Rosenstand (2014) + Vistisen & Rosenstand (2016)



Rosenstand & Vistisen (2017)

WHAT? (functionality)

HOW? (implementation)



- FEATURE & CONTENT
- QUALITY CRITERIA

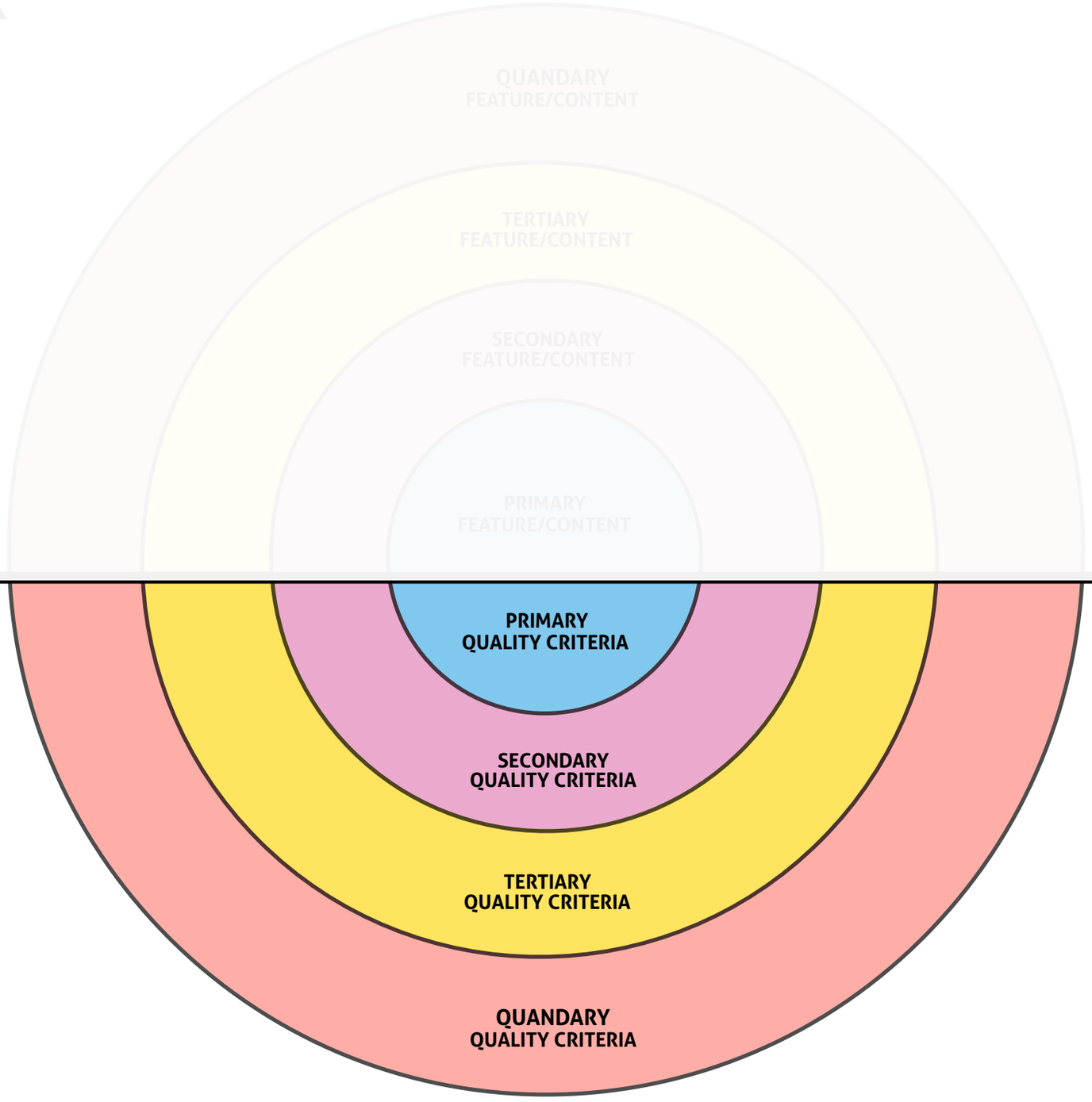
WHAT? (problem)

WHY? (desireability)

Rosenstand & Vistisen (2017)

Rosenstand & Vistisen (2017)

CORE DESIGN FRAMEWORK



- FEATURE & CONTENT
- QUALITY CRITERIA

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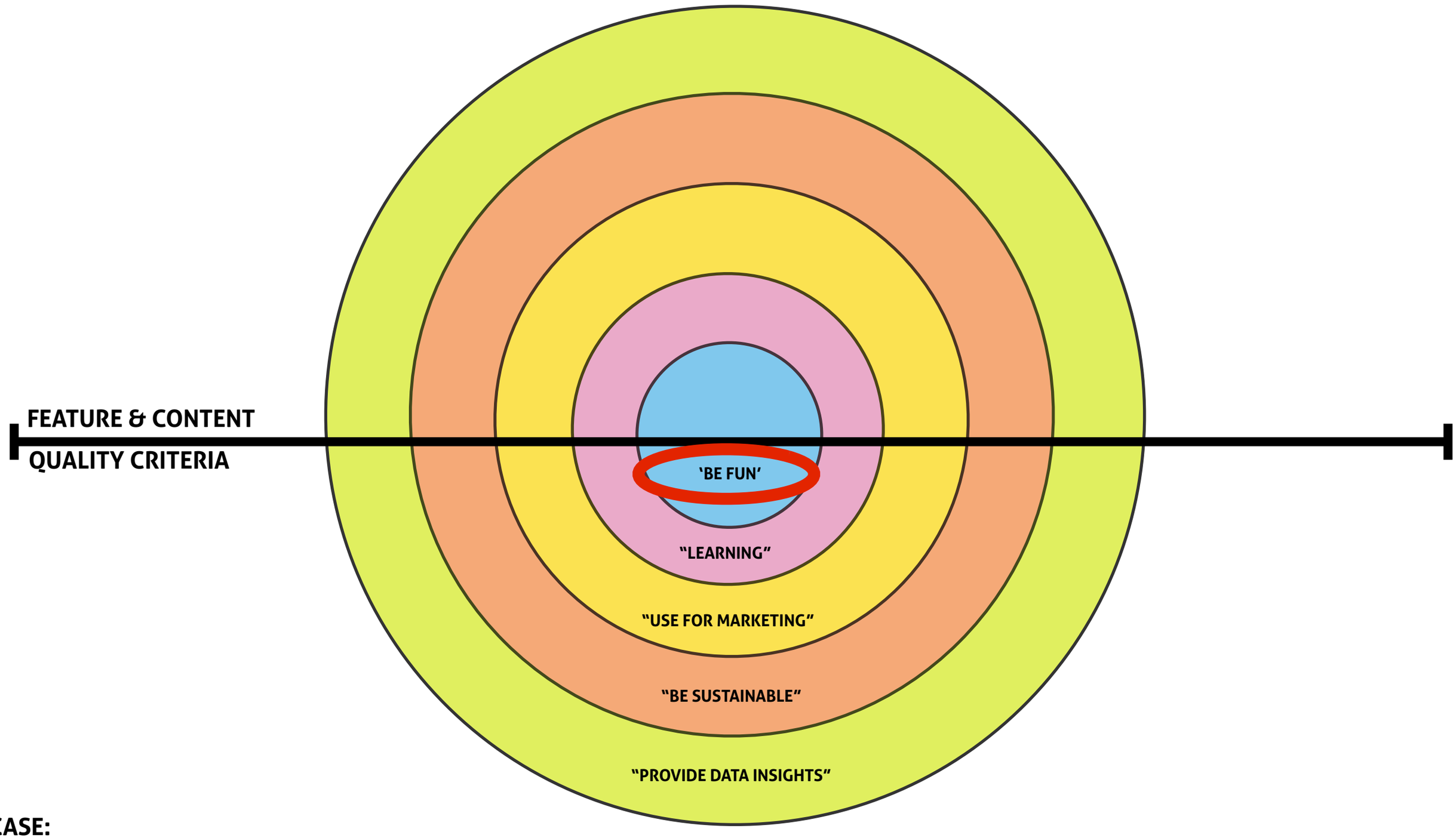


CASE:

NORDSØEN MOVIE MAKER

AALBORG UNIVERSITET

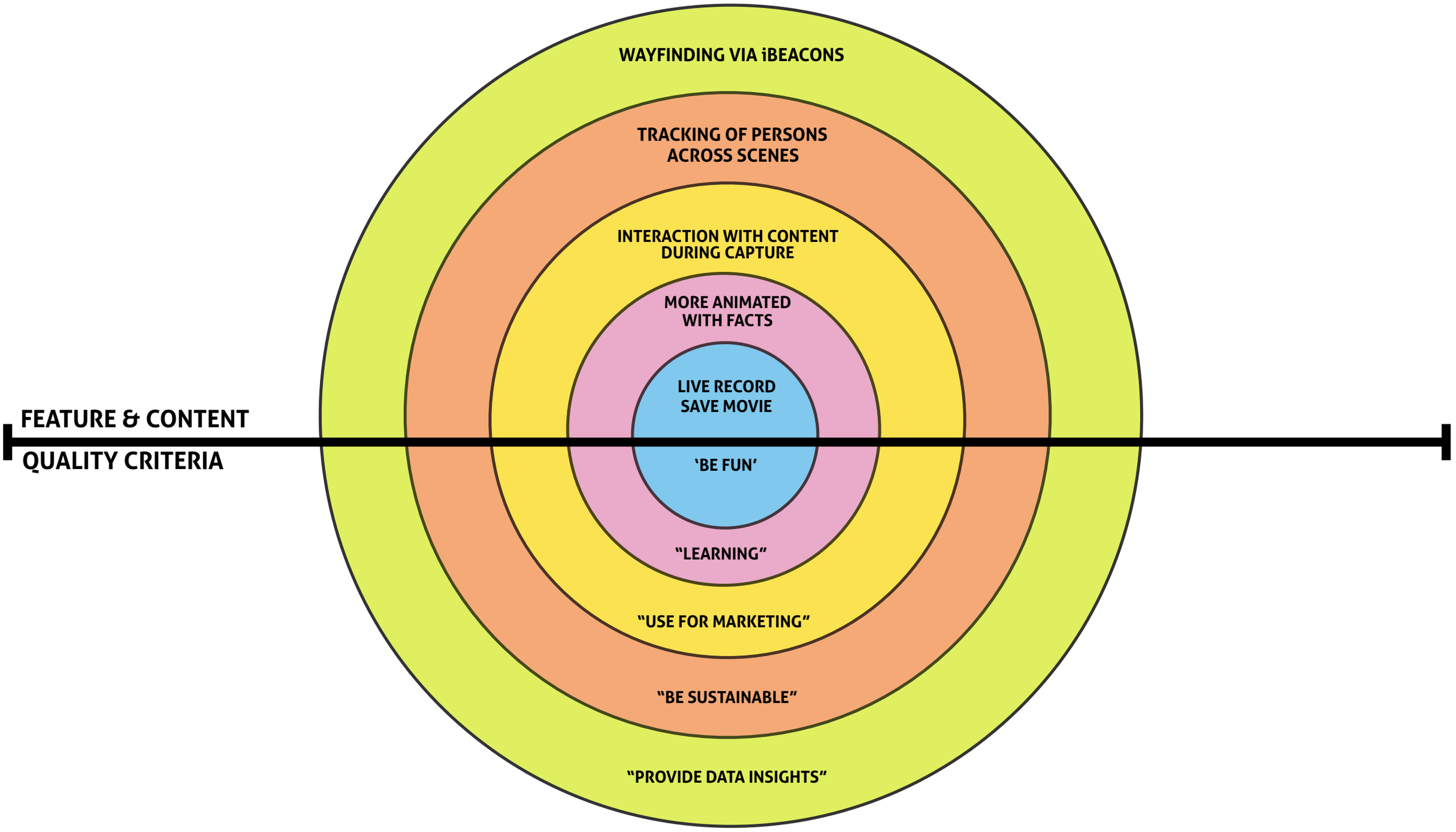
CORE DESIGNING THE APP

SKETCHING FROM STATIC TO ANIMATION-BASED

STATIC SKETCH

CLICKABLE MOCKUP

10 SECOND ANIMATION



NORDSØEN MOVIE MAKER

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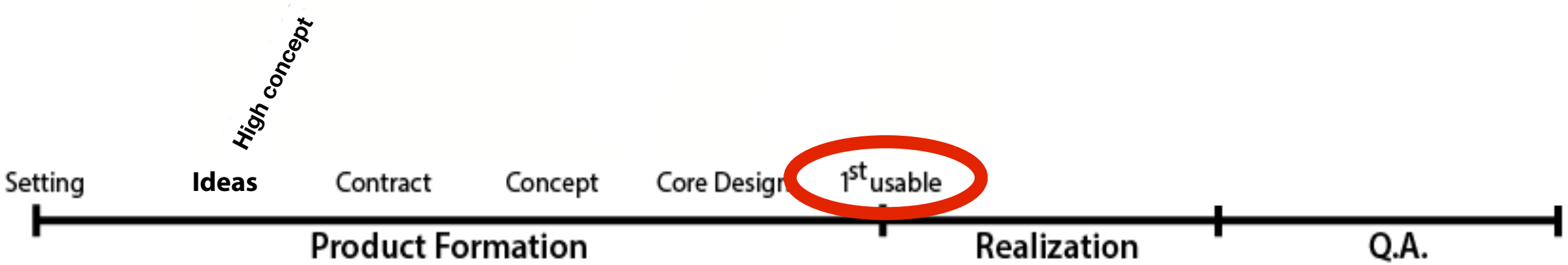
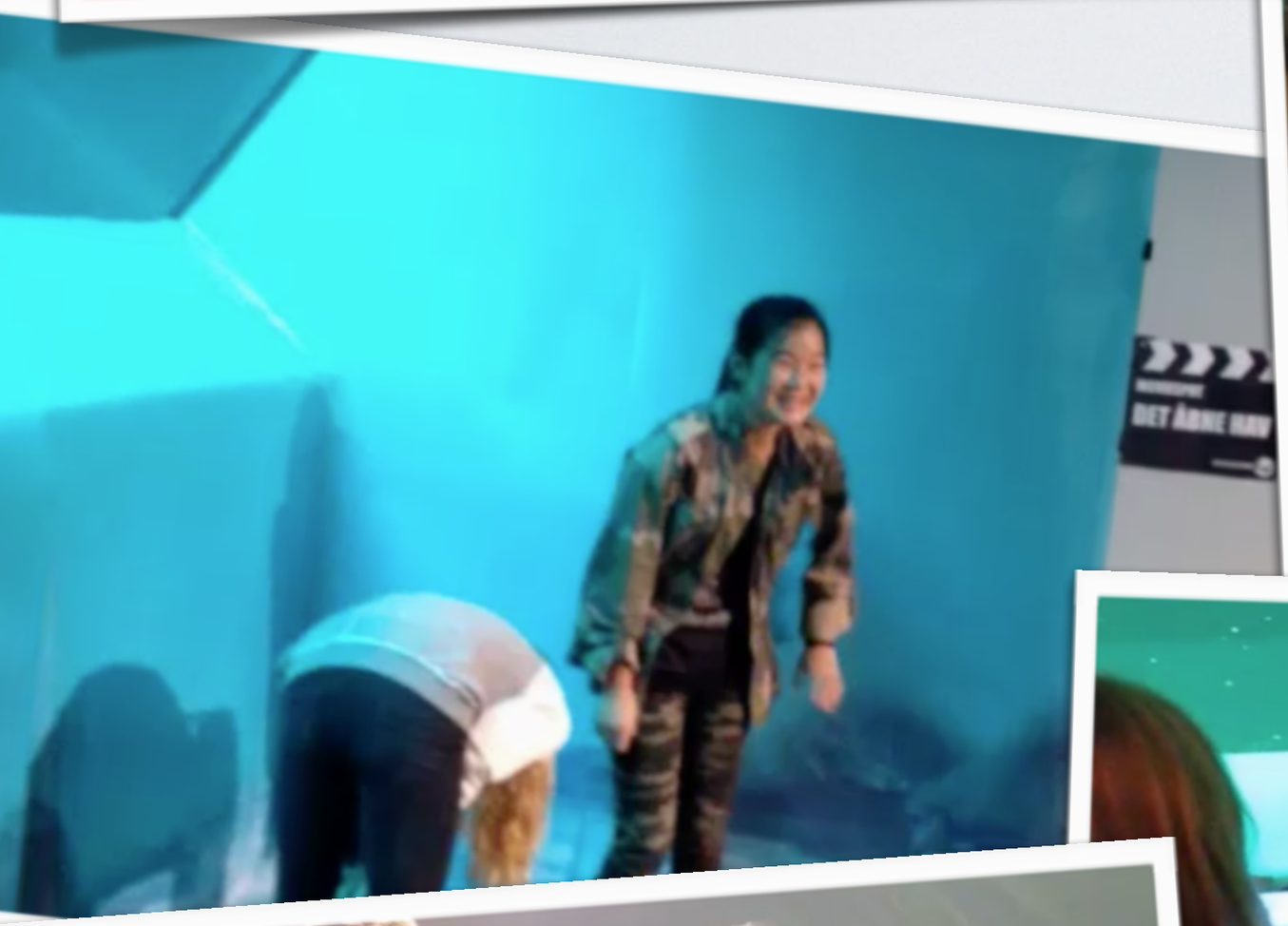
Design cycle: 1st usable



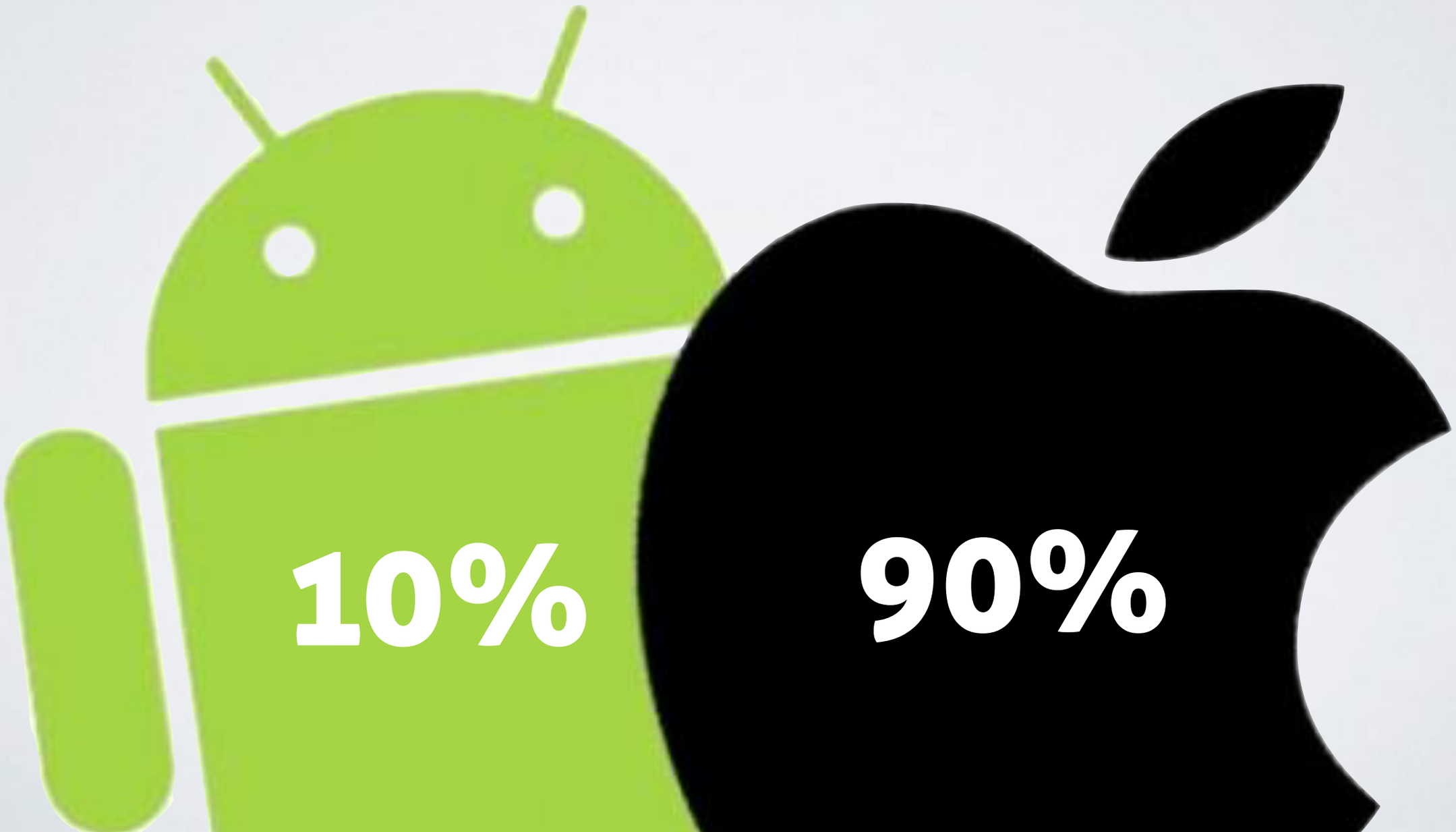
Rosenstand & Kyed 2013 + Vistisen & Rosenstand 2016

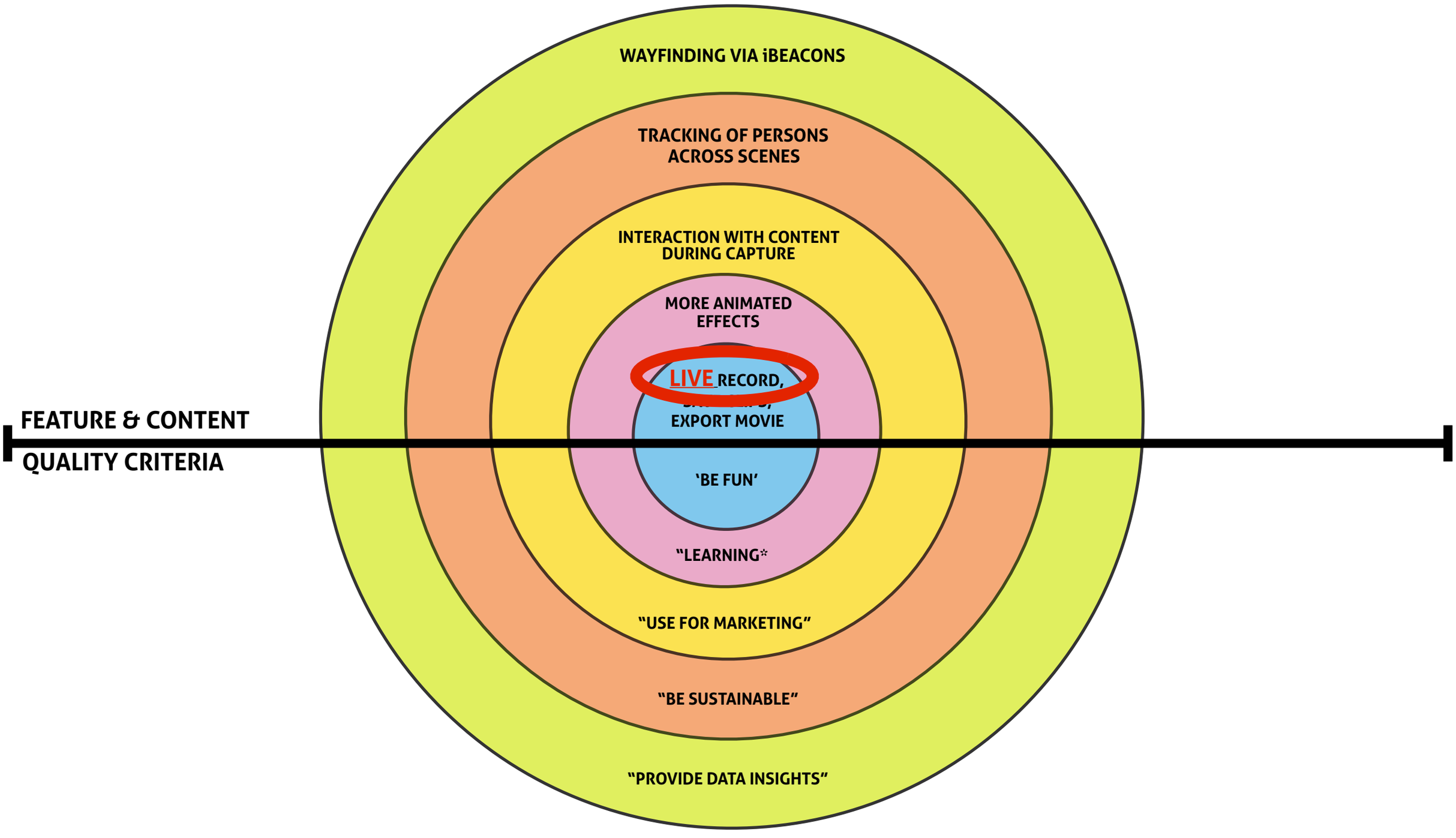
This is where U-CrAc has stopped - your core design should be able to specify what to build in the 1st usable (the MVP)

1ST USABLE IN ACTION



new insights!





NORDSØEN MOVIE MAKER

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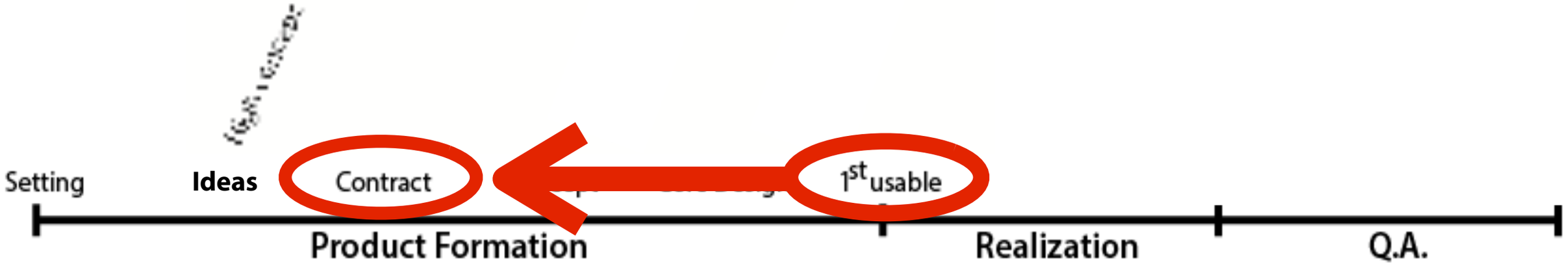
Design cycle: Backwards?

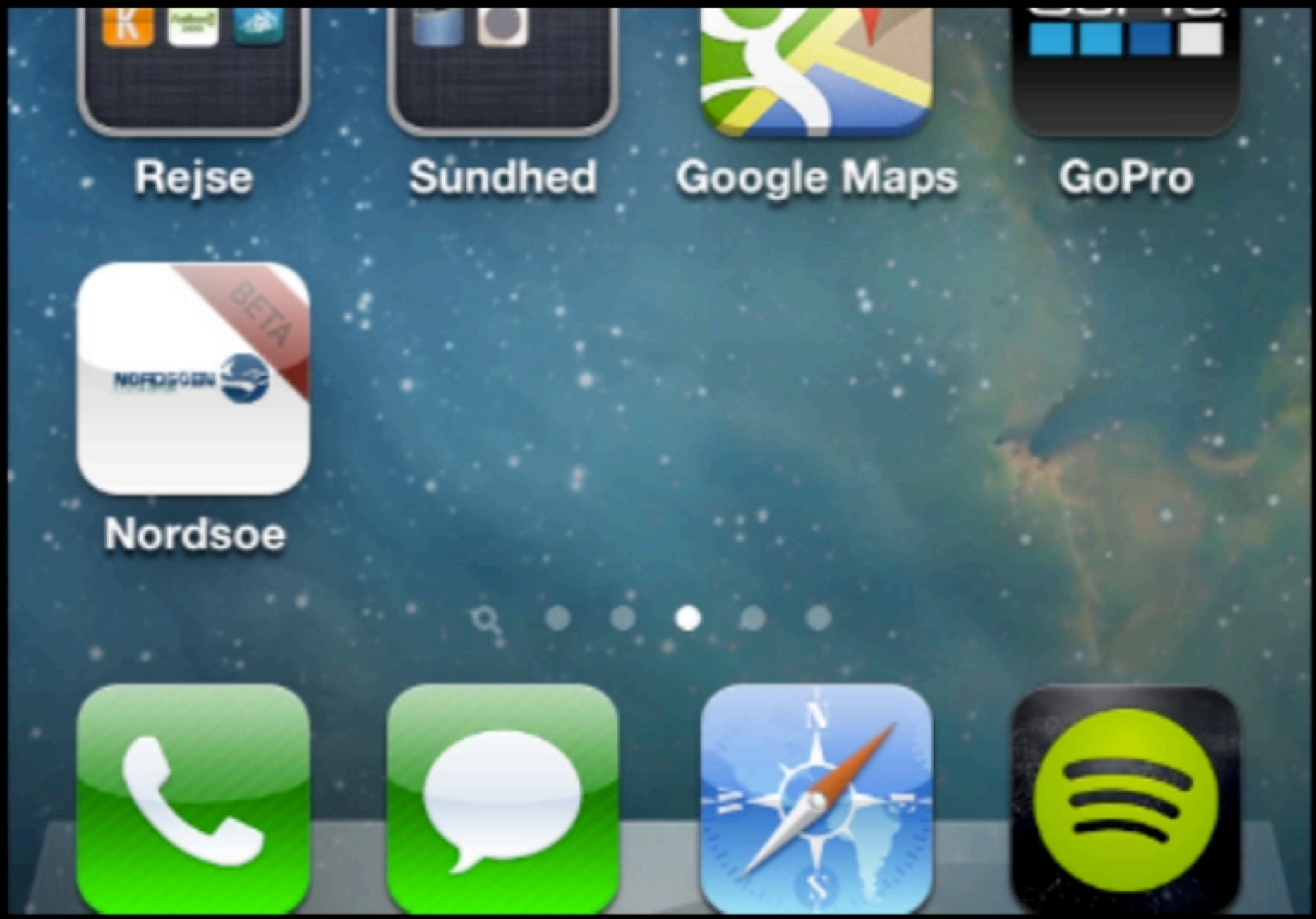


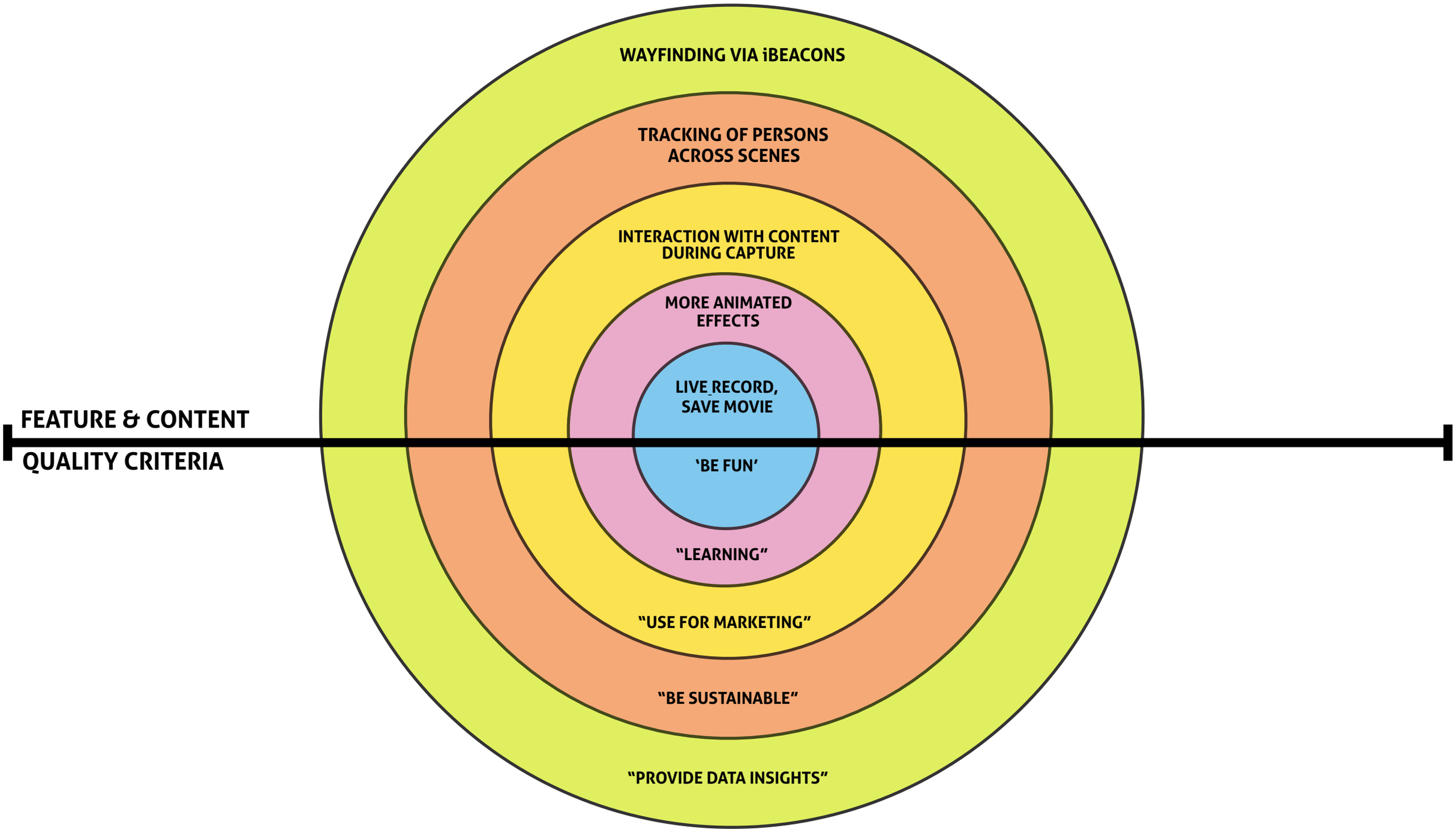
Rosenstand & Kyed 2013 + Vistisen & Rosenstand 2016

The contract is decided, and should be realized through the 1st usable - how do we respond to new insights?

Technology constraints

What if cannot explain technical constraints with words





NORDSØEN MOVIE MAKER

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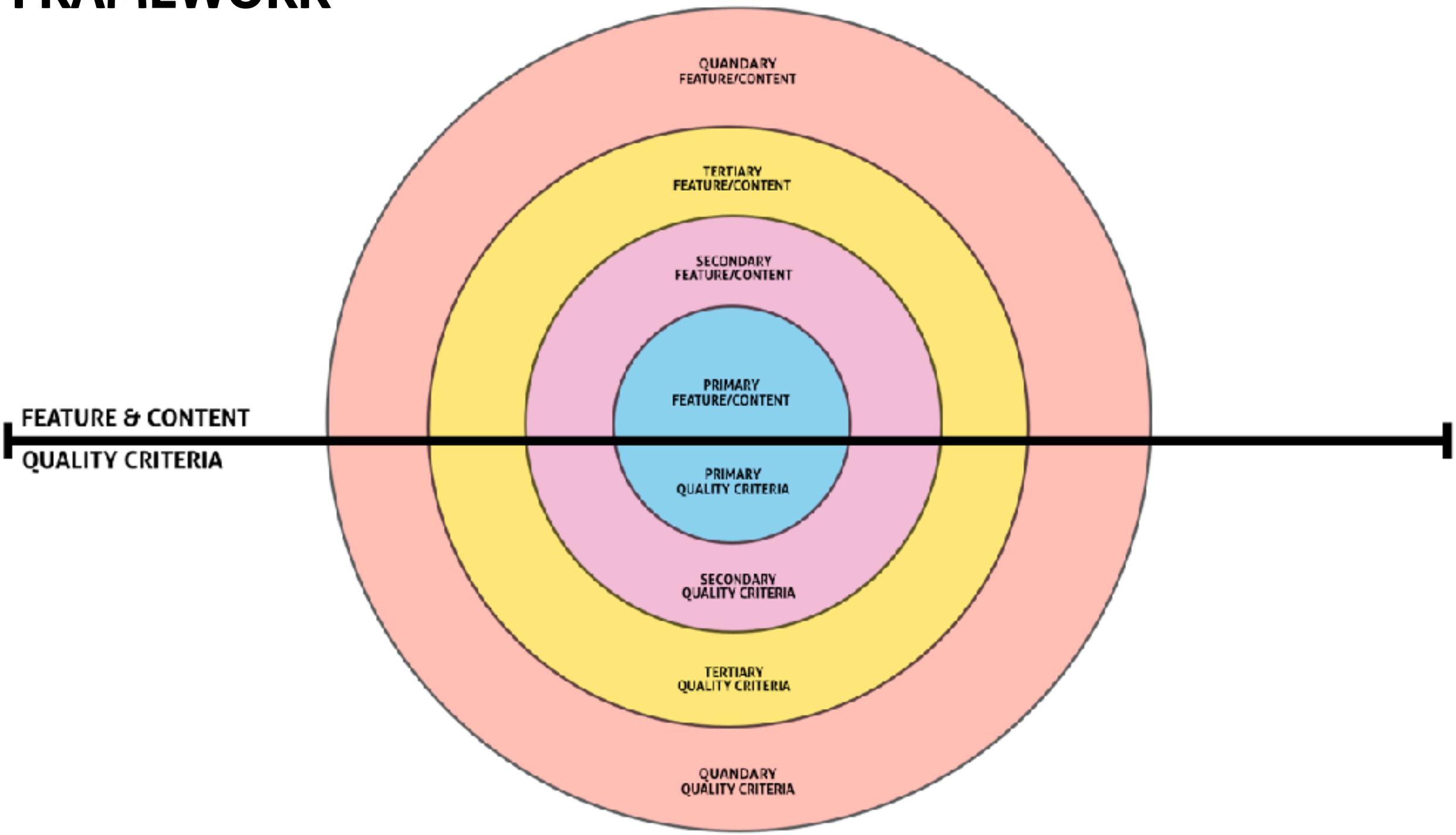
Rosenstand & Vistisen (2014)

CORE DESIGN FRAMEWORK

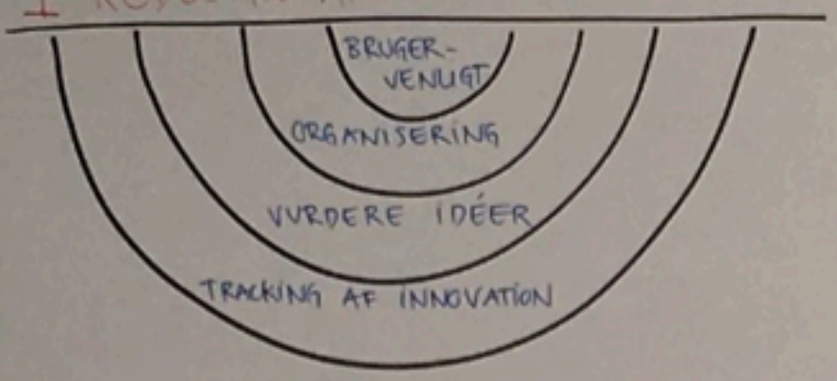


...but you can modify it whatever way which makes sense for your process

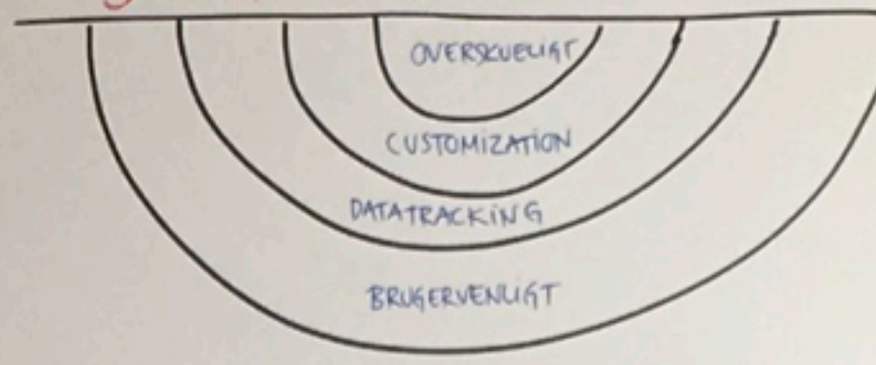
classic

http://ucrac.dk/gruppe-13-nordsoeen-oceanarium/

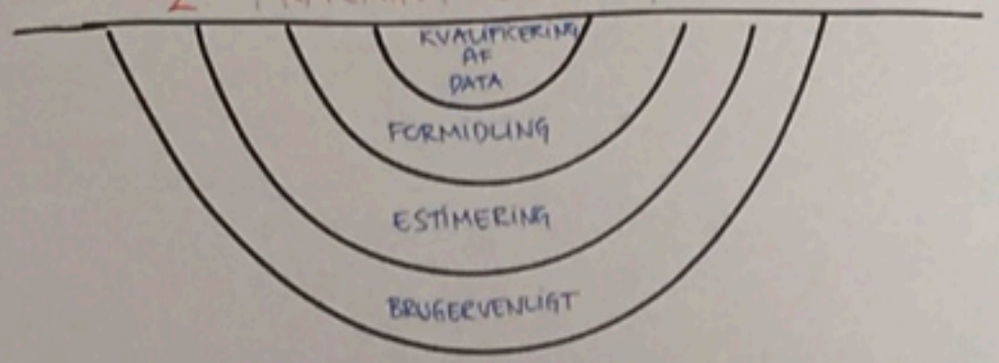
1 REDESIGN AF PLATFORM



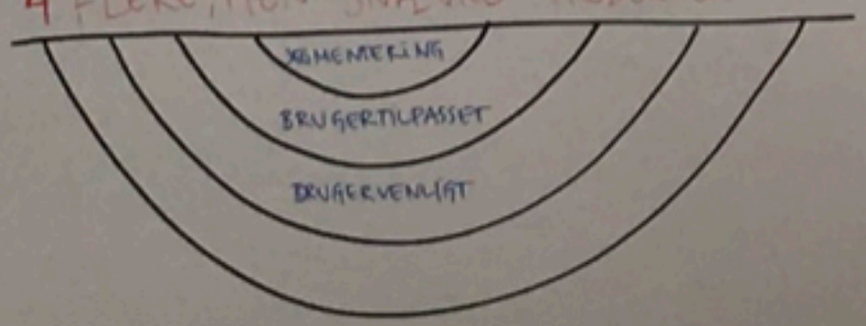
3 TO-DELT PLATFORM



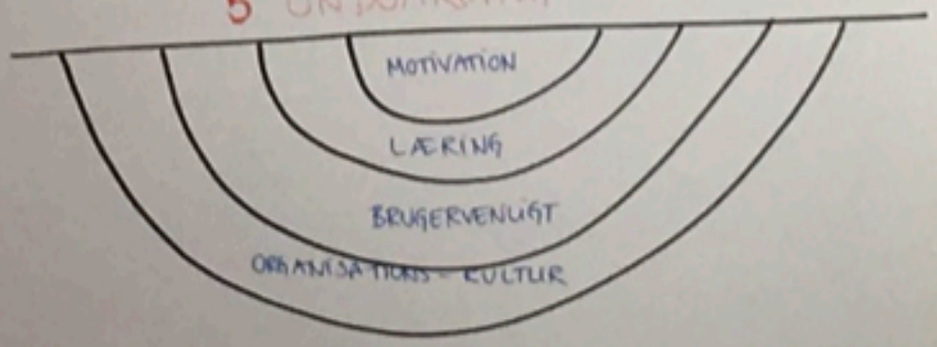
2 TRACKING OVERLAY



4 FLERE, MEN SNÆVRE PRODUKTER



5 ONBOARDING



HALF N' HALF

http://ucrac.dk/gruppe-10-pre-do/

Innouation tracks

Quality Criterias

1	2	3	4	5
Transparency	Evaluation	Sociability	Convenience	Education
Communication	Transparency	Knowledge	Usability	Evaluation
Education	Usability	Fun!	Effiency	Usability
Coach + Referee + Referee +	Coach +	Parents Spectators Players	Coach Referee	Referee + Talent Developer

COLUMNS!

http://ucrac.dk/gruppe-11-reflevel/

COLOR CODED

Core Criteria (Design)

Ledelsen (Infographic)

Hjemmeside/platform

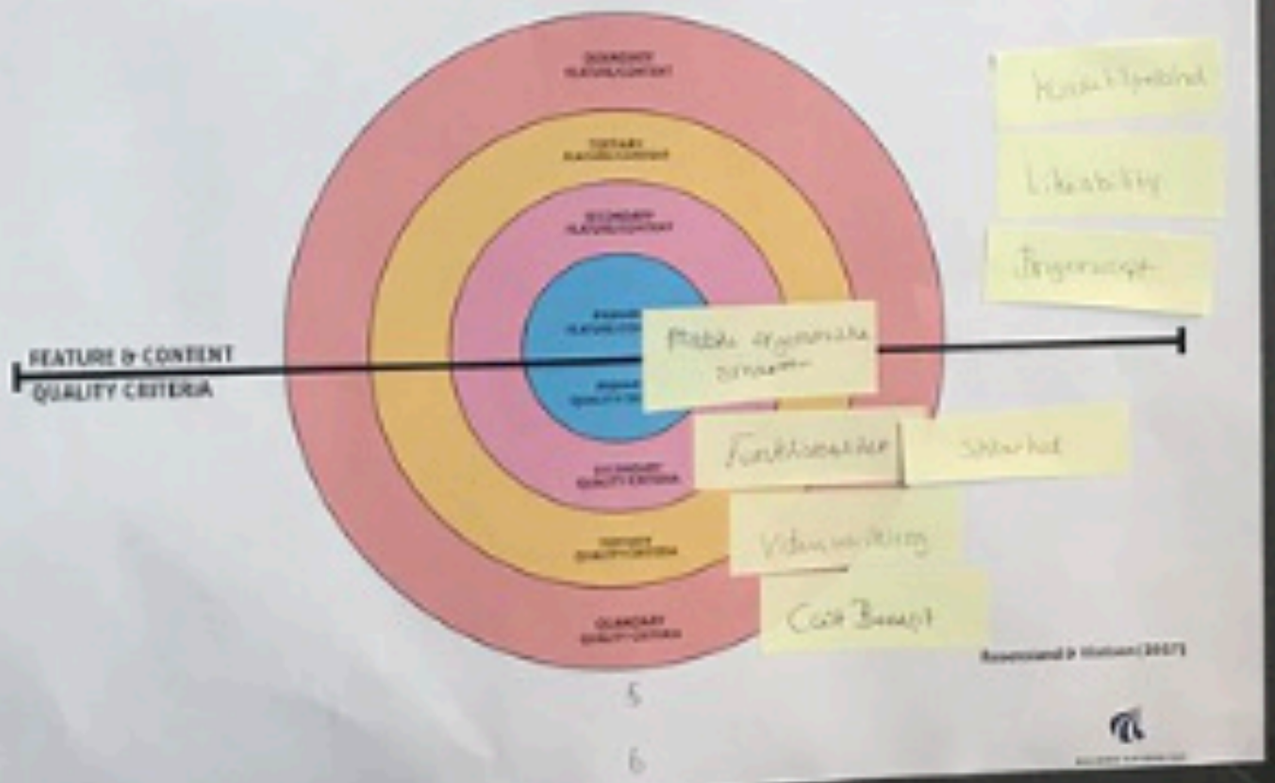
Core problem

Ledelsen

Hjemmeside/platform

http://ucrac.dk/gruppe-9-pre-do/

LT - vores bud



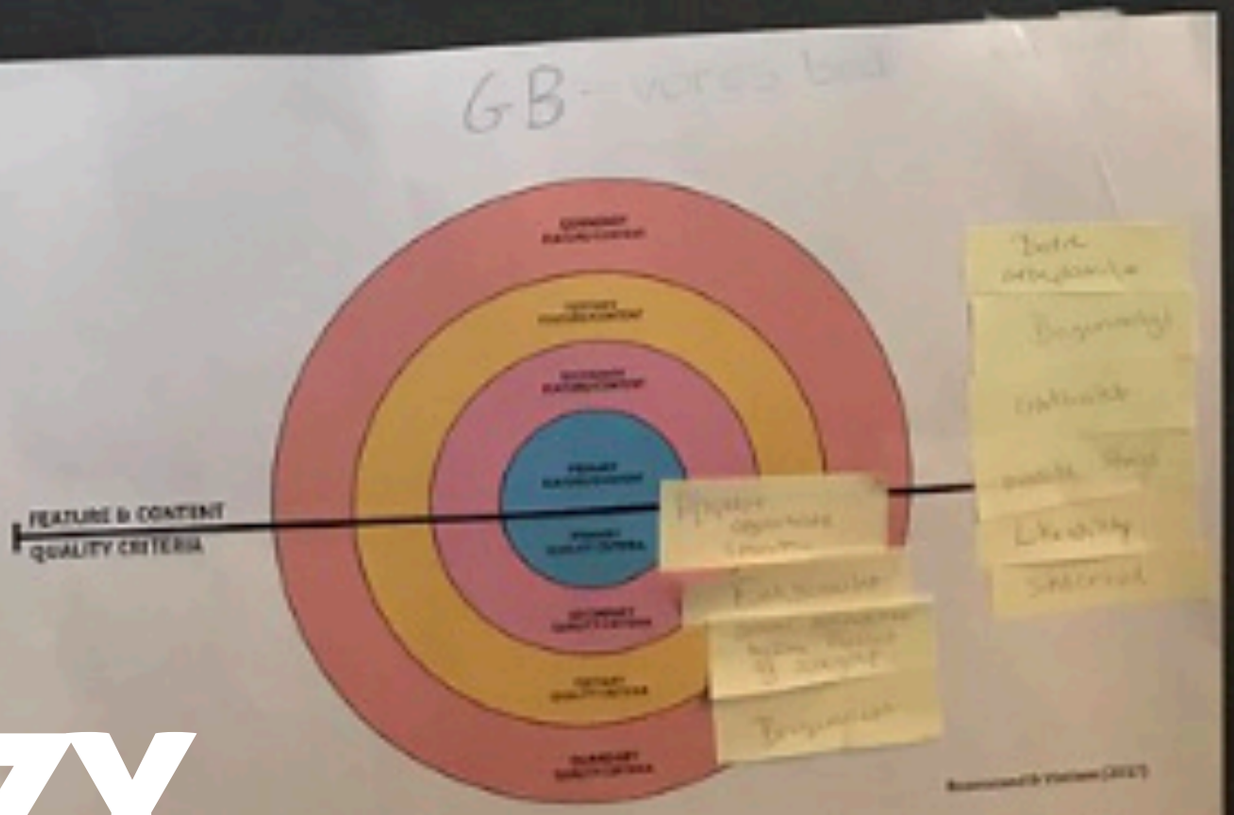
Gitte

- Sikkerhed
- afh. af tilpasning af ergonomisk smerter
- Brugeraccept
- Funktionalitet
- ass. sygeplejeske - ikke dan.

Lasse

- Cost-benefit
- Brugeraccept
- Sikkerhed
- Bedre arbejdsmiljø
- Brugervenligt

GB - vores bud



Lazy

http://ucrac.dk/gruppe-9-pre-do/

Koncept 1:

ET AKTIVT MUSEUM

Personificeret
- Spøgelse eller historisk person
- Vælg gåder efter målgruppe

1

Gåder
- Rød tråd
- Ledetråde

2

Udforskende elementer
- Kruskammeret
- Levende udstilling
- Skjulte udstillinger

3 & 4

Koncept 2:

MINIBY

Præsentations-platform
- Platform, hvor karakterer bliver præsenteret

1

Lay overs
- Vej til udstilling
- Vise før og nu
- Overblik

2

Sanser
- Se og høre
- Video og læse
- lys og lyd

3

Interaktion
- Interaktion med platform

4

Koncept 3:

MUSEETS NARRATIV

Interaktion
- "Gør xx ved mig"
- Aktivere lyd, lys, lugt, røg, bevægelse

1 & 4

Sanser
- Følekasser
- Aktivere hænderne
- Gøre udstillingerne levende
- Markant stemnings-ændring
- Lugtesansen, herunder:
  * Madlavning
  * Tang

3

Personliggørelse
- Video & audio
- Fortællinger om fra personer fra Hals (fiktion & real).
- En person tilknyttet hvert rum
- En familie gennem generationer

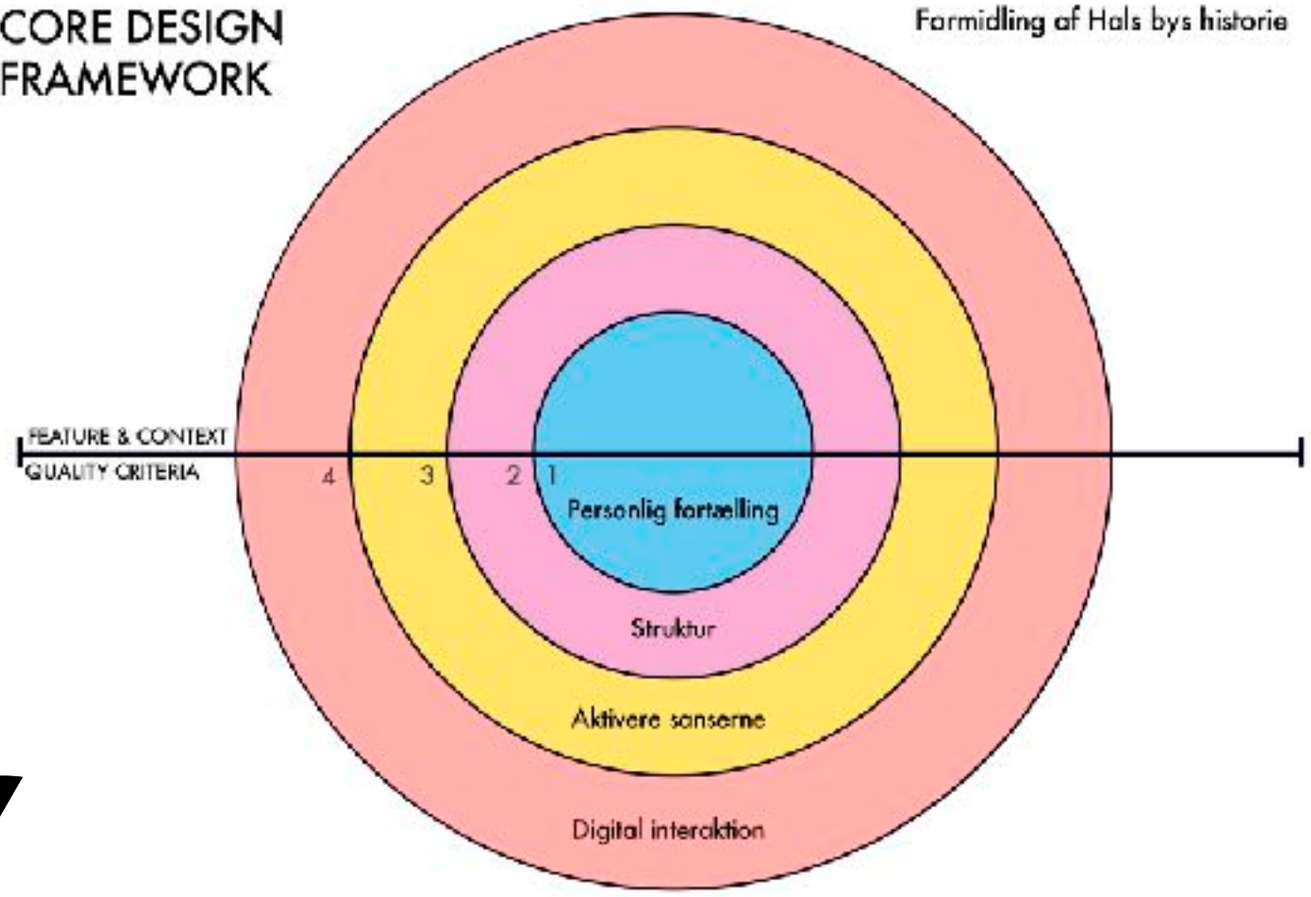
1 & 3

Kronologi
- Udstillinger opdelt efter tid
- Årstal

2

CORE DESIGN FRAMEWORK

Formidling af Hals bys historie



Fancy

KONCEPTIDÉER

Badminton

CSGO

Basketball

Håndbold

Floorball

Badminton

E-Sport (CSGO)

Basketball

Håndbold

Ishockey

Floorball

Amerikansk fodbold

1

2

3

4

5

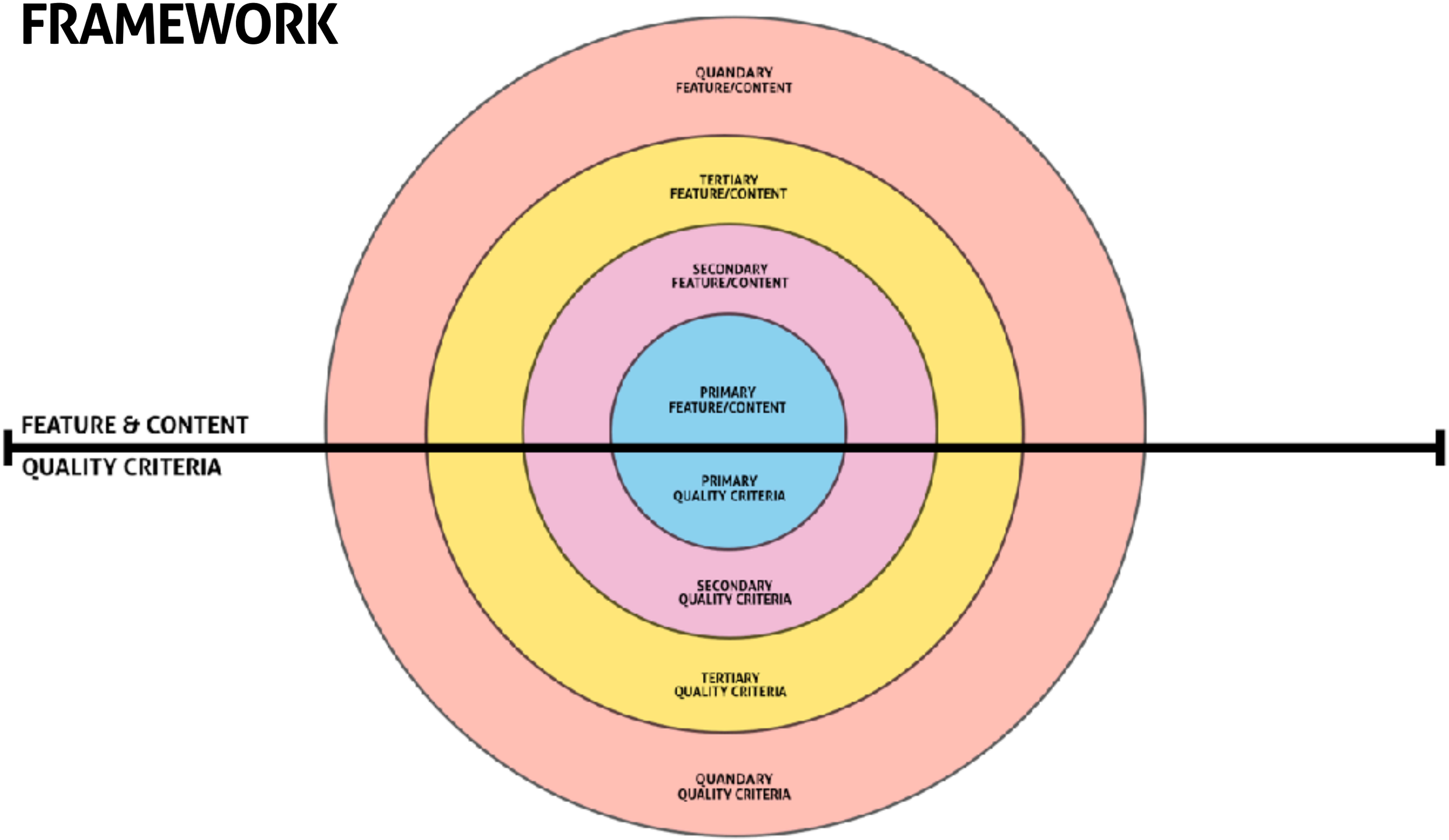
HOW

WHY

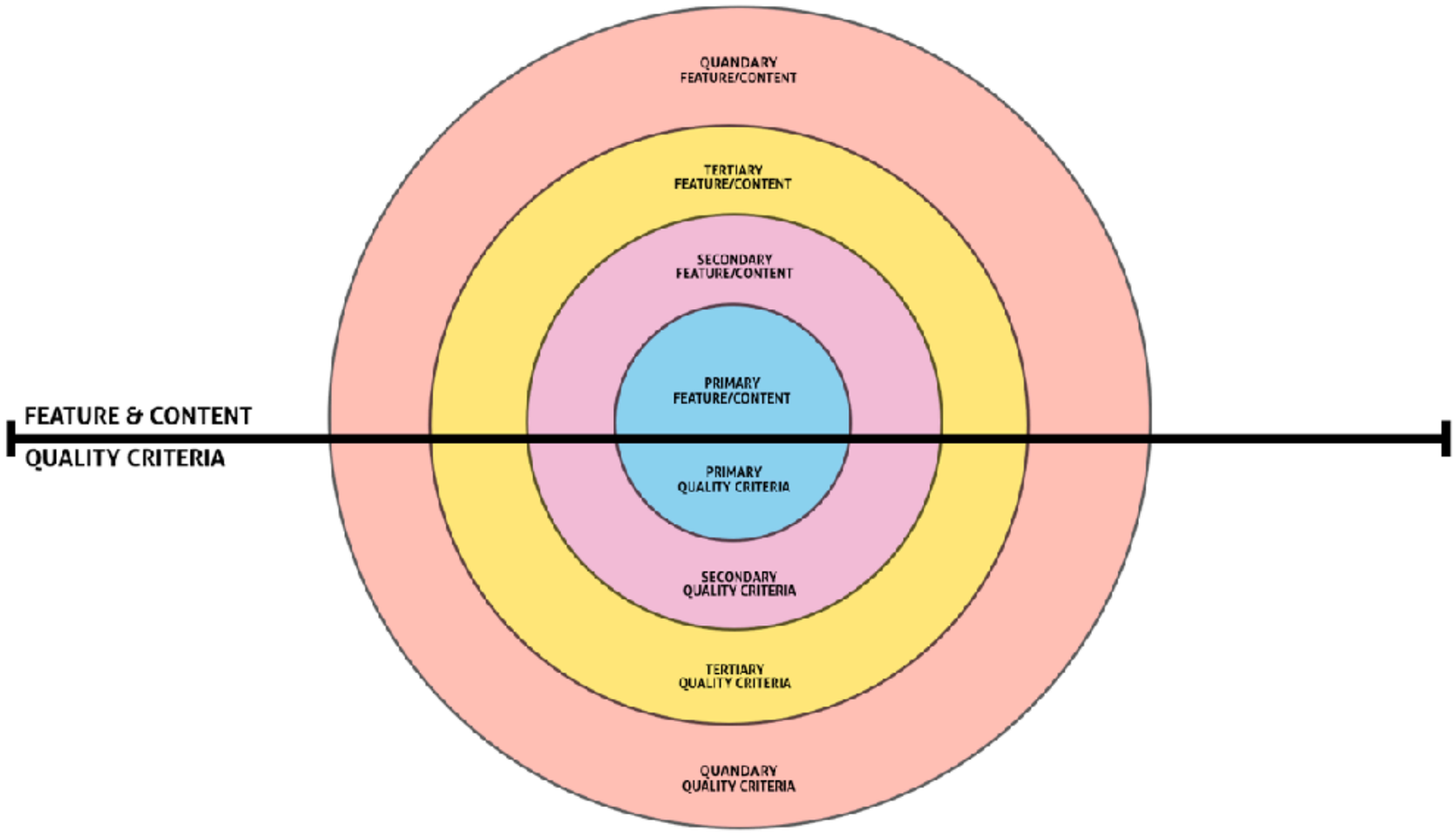
EVERYTHING!

Rosenstand & Vistisen (2014)

CORE DESIGN FRAMEWORK



WHAT ARE YOUR QUALITY CRITERIA?



1. What are your key insights from your research?

2. Translate insights into quality criteria

3. Map the insights from the core criteria and out to the outer circles

4. Make different configurations and ideate feature/content based on quality criteria

MONDAY...

case partner meeting no. 2

1. ***Each group presents their key findings for case partners individually***

2. ***You should present approx 5 innovation tracks for your possible concepts***

3. ***Negotiate which (converged) direction to follow in the concept development***

4. ***A successful meeting ends with a 'contract' on prioritized quality criteria(s)***

5. ***Write a short summary on ucrac.dk which formulates the quality criteria(s)***
(send your case partner an e-mail with a link to the summary after the meeting monday afternoon)

questions?

REMEMBER THE WEB-SITE