



**TUM**

*INHO MAUREN*

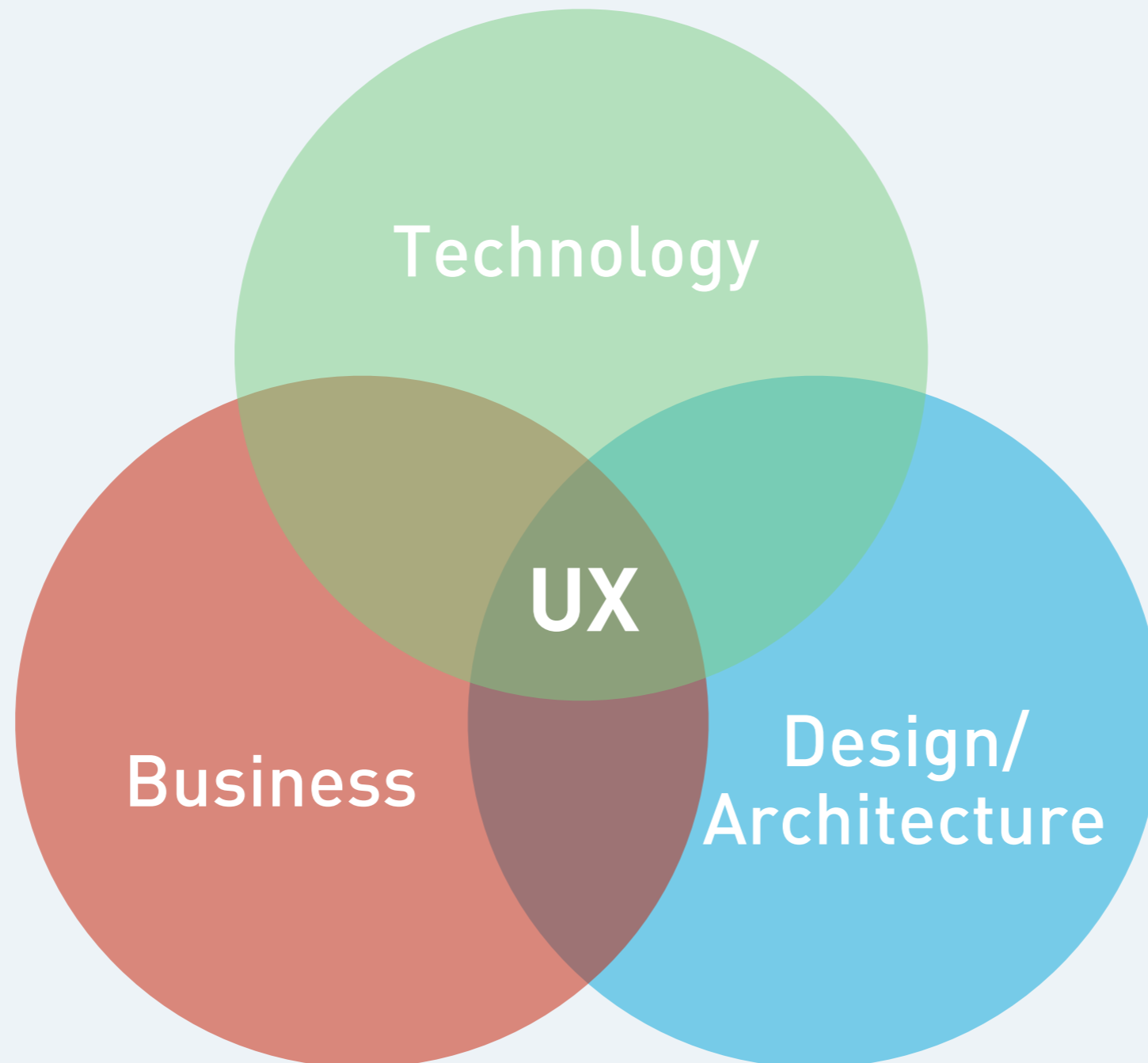
Welcome!

**Designworkshop II**

**Summer Term 19**

What are we doing here ?

# User Experience Design



# Getting the right Design and the Design right...

Bill Buxton - Sketching User Experiences



# Front Stage



# Back Stage

<http://blog.entrepreneurhearts.com/etablog/wp-content/uploads/2010/08/backstage.jpg>

User Interface

*Visible*

*Behind the Scenes*

Capturing

Connecting

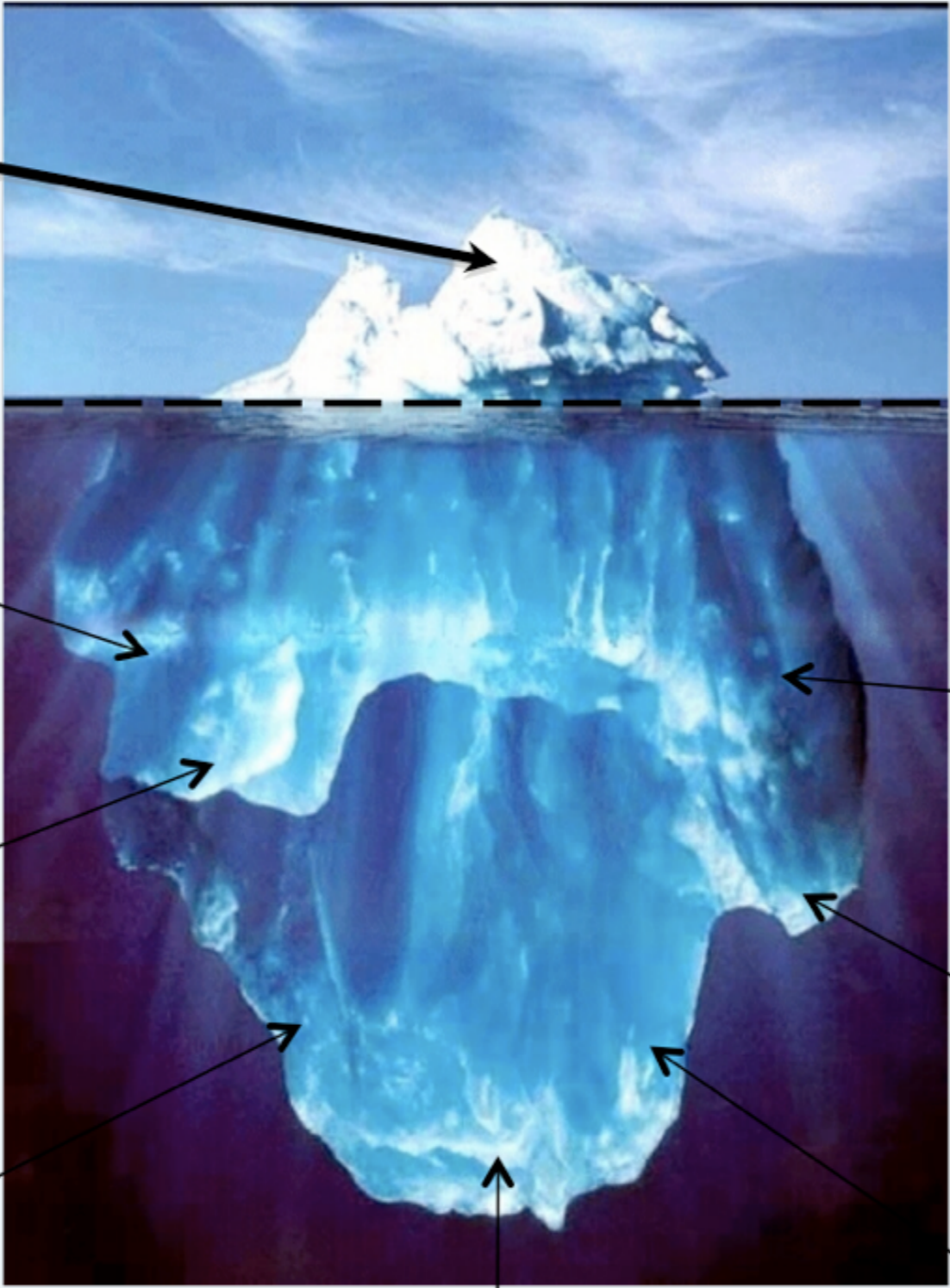
Combining

Contextualizing

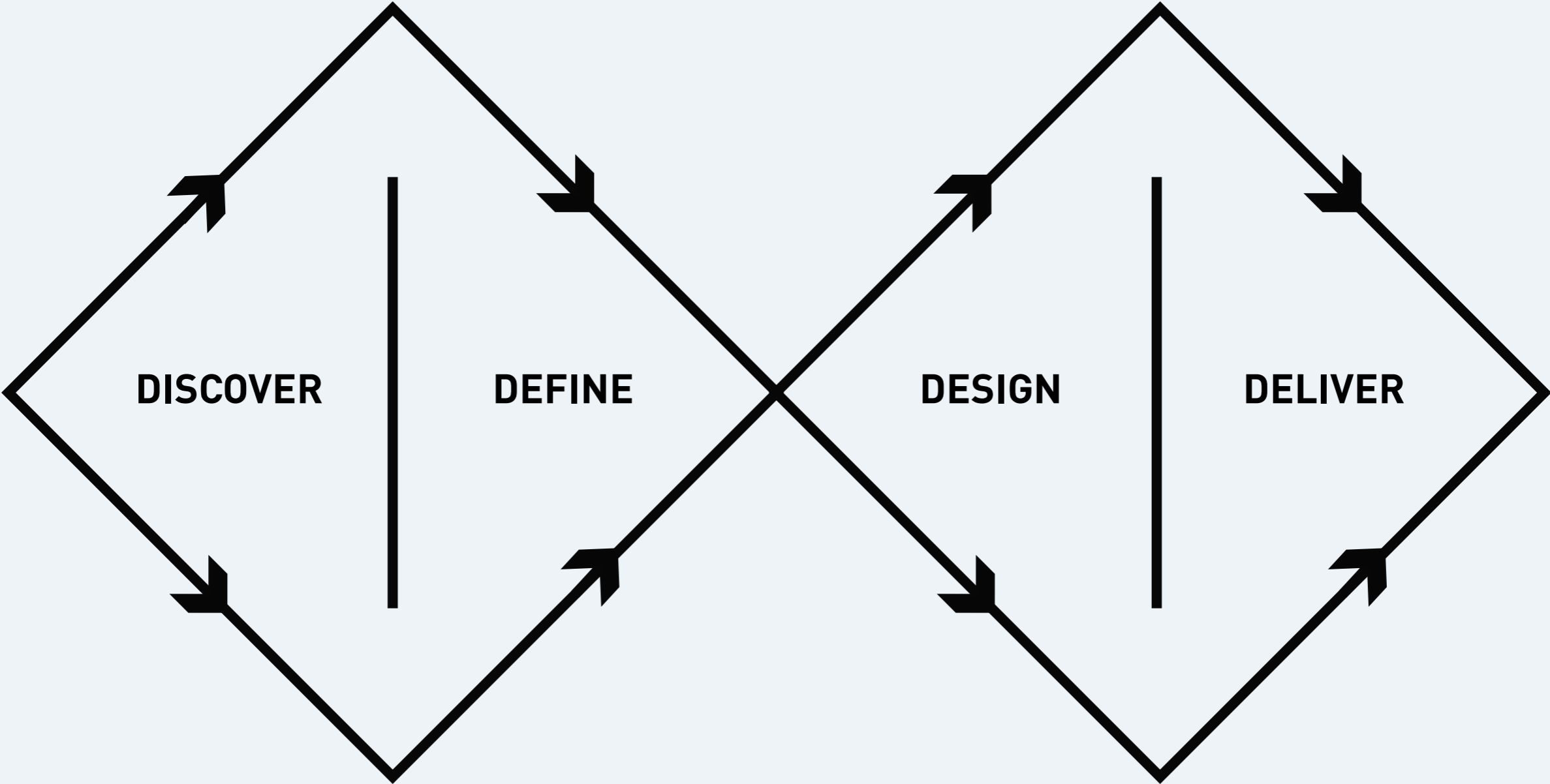
Transferring

Coordinating

Storing

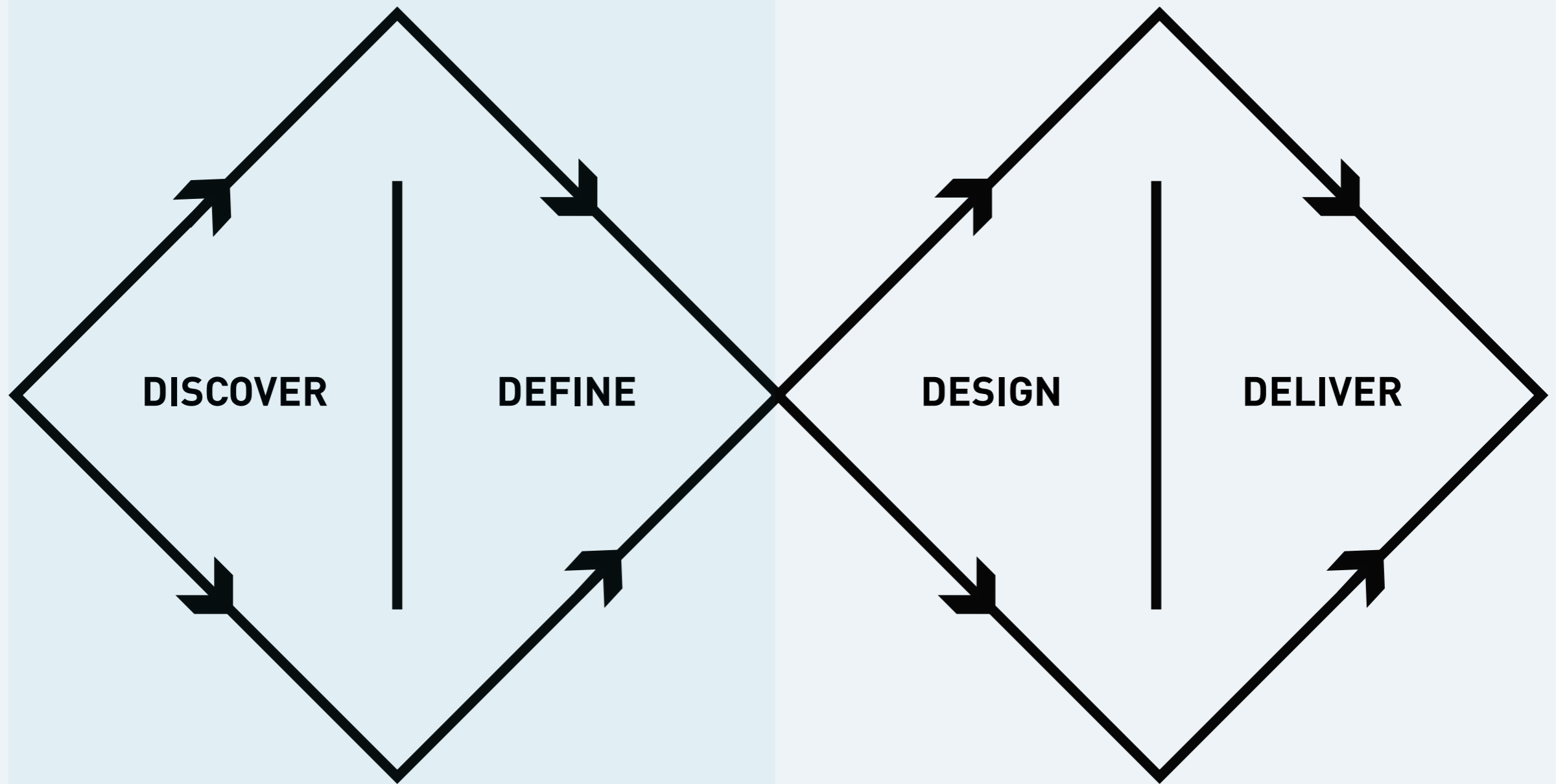


# Double Diamond



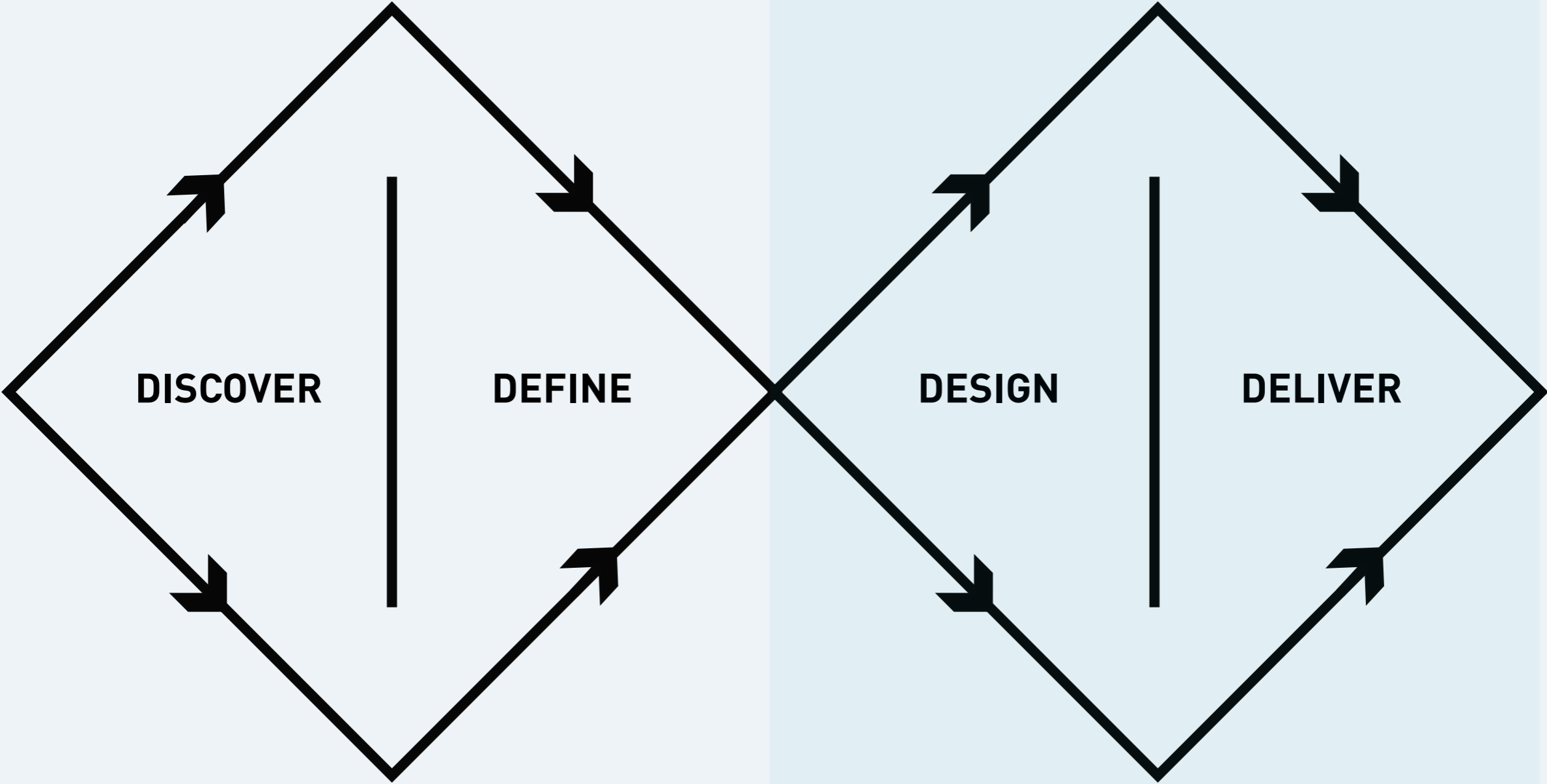


# Double Diamond



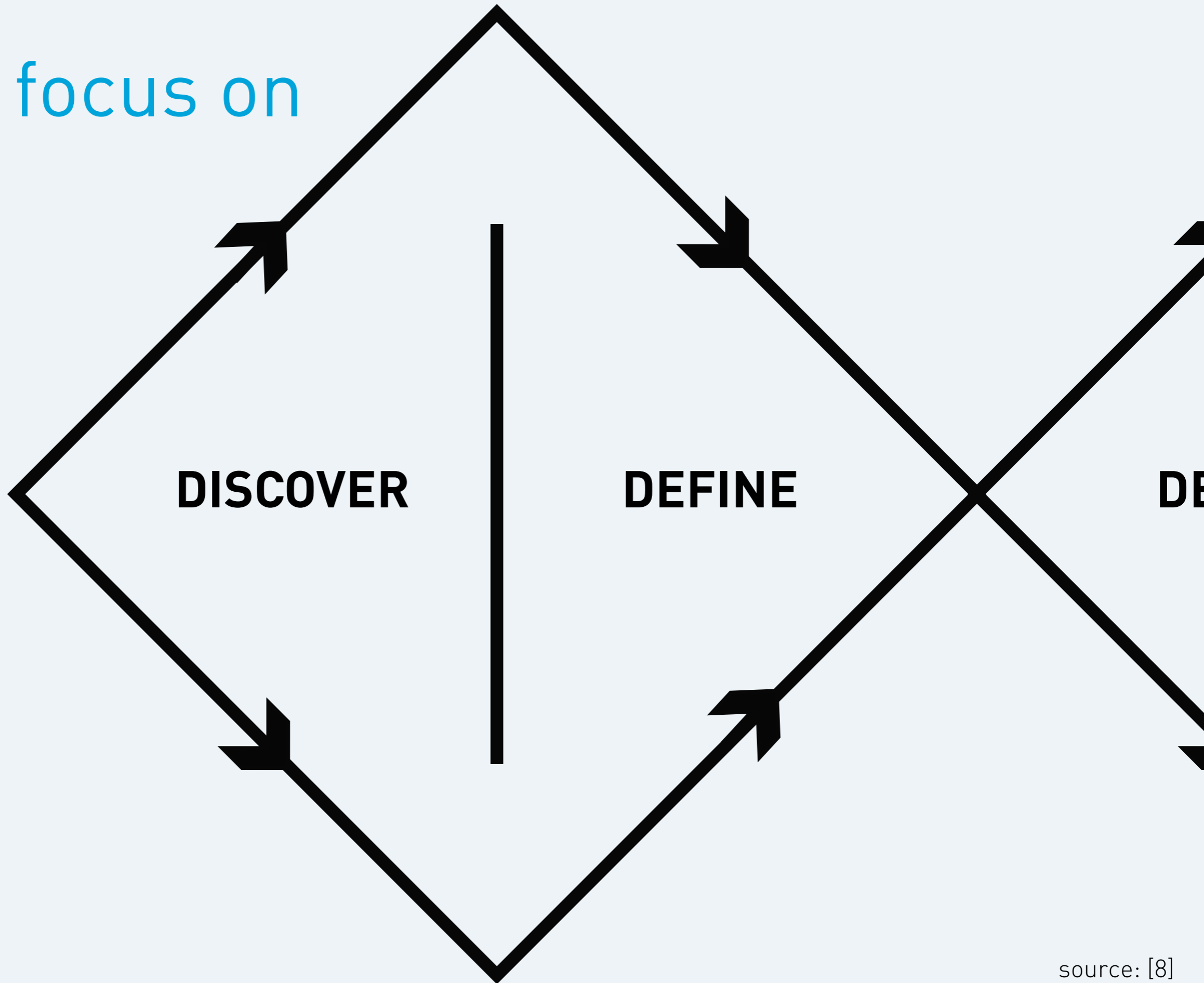
**Why? and How?**

# Double Diamond

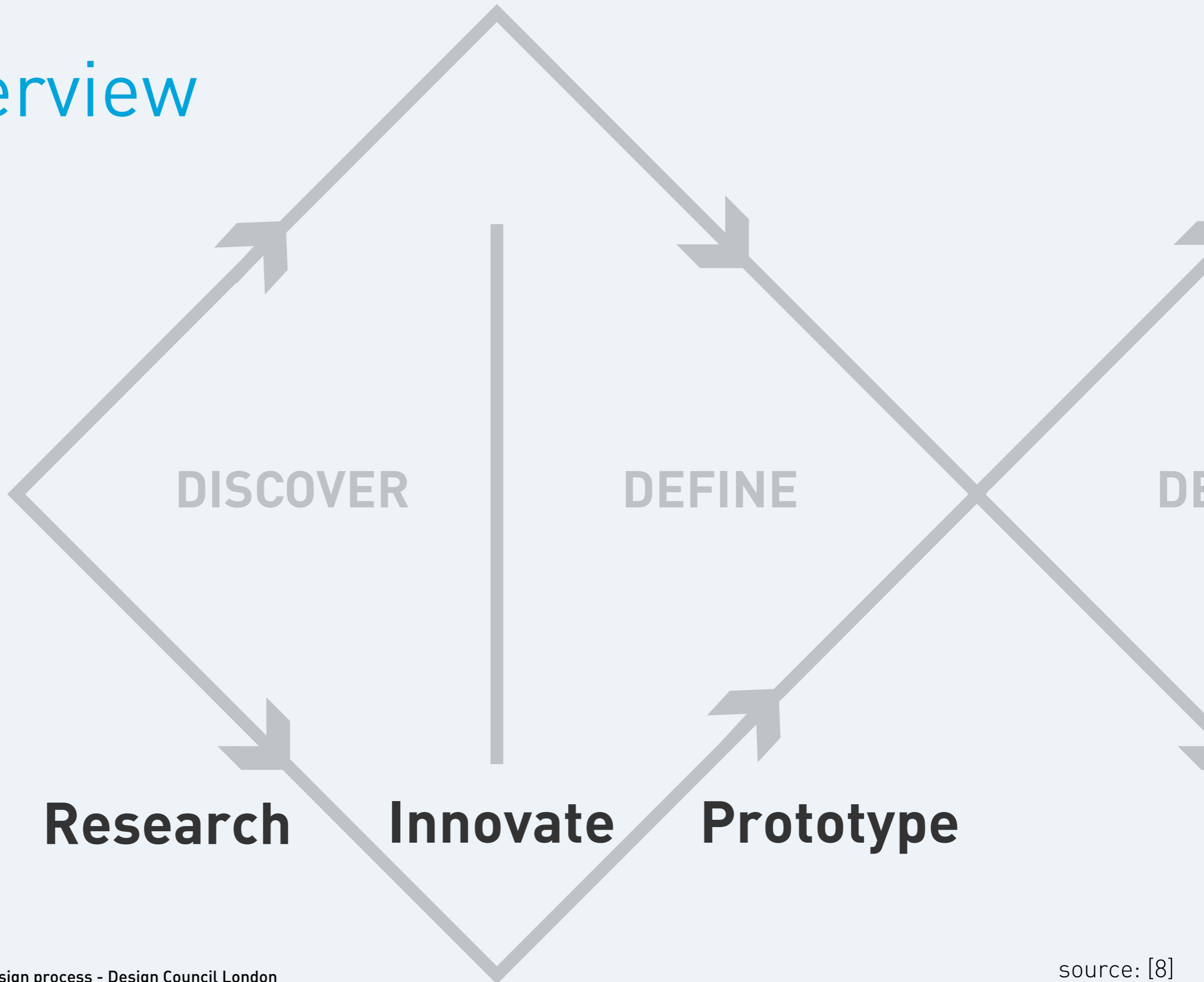


**What?**

We focus on



# Overview



# Overview



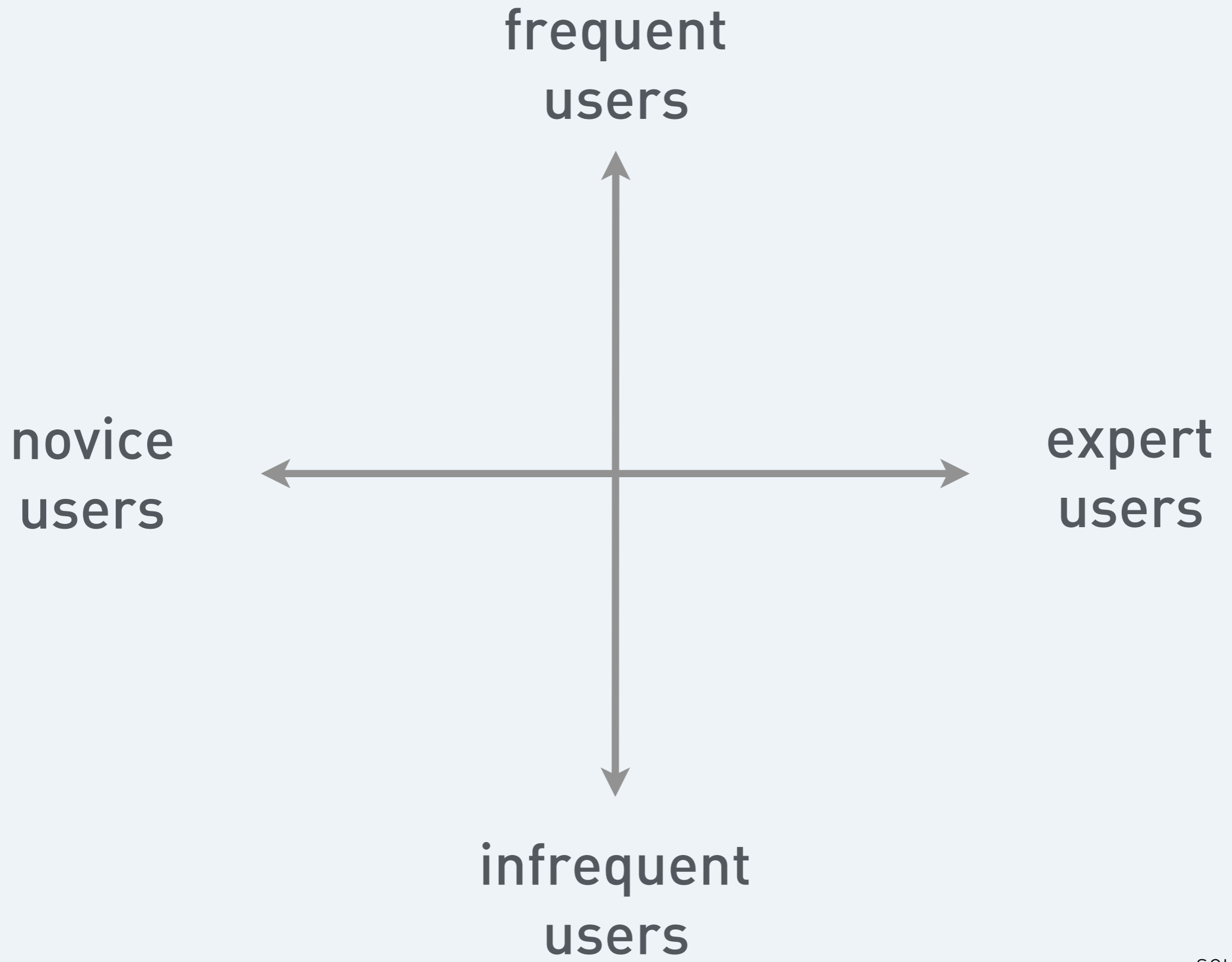
**Research**

Get to know your problem/  
subject

Gather insights about the  
user and their life

Collect artefacts &  
impressions

Record tasks





# Audi A4 Series Cockpit

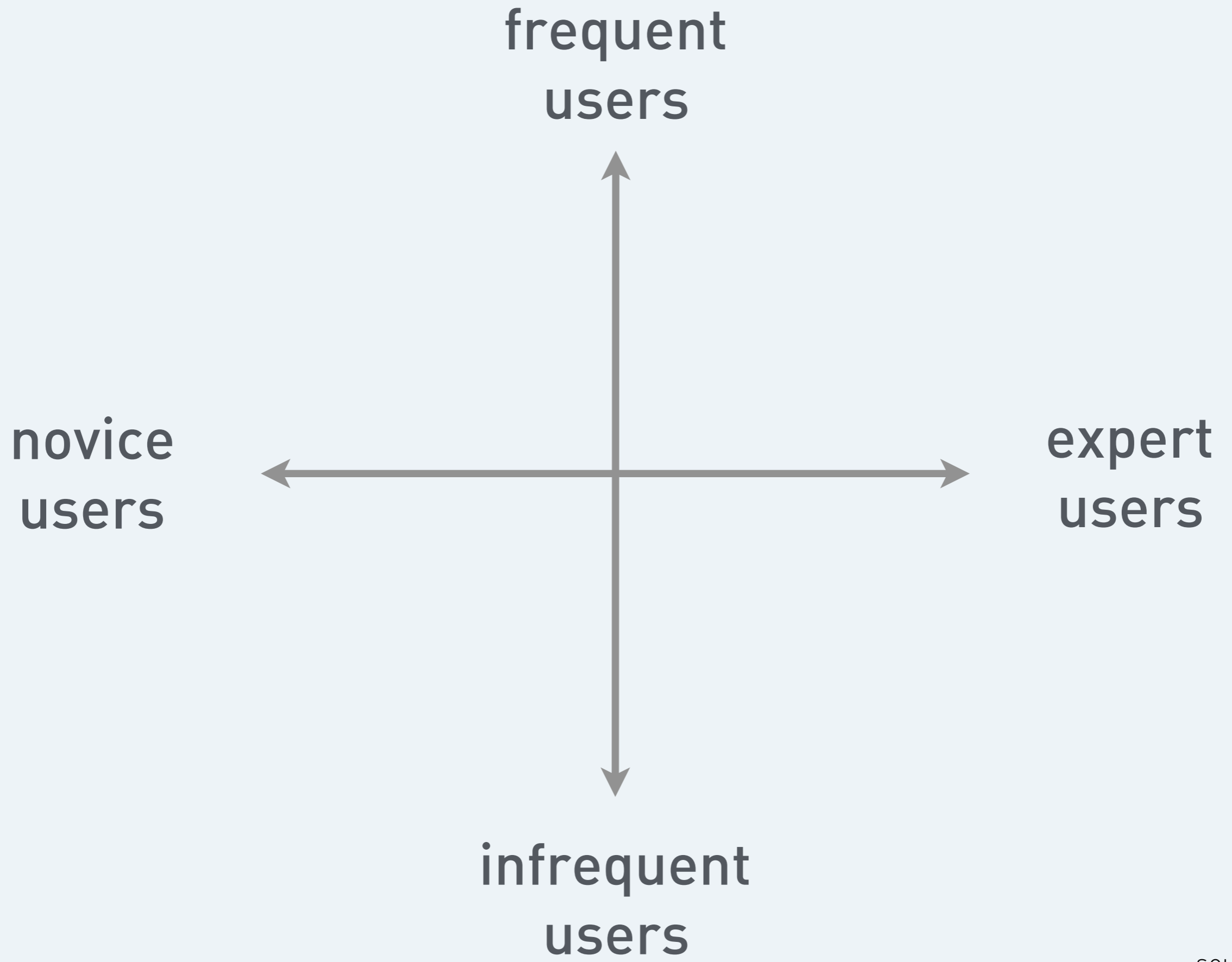
<http://www.audicomparisons.com/wp-content/uploads/2013/10/2014-Audi-A4-interior.jpg>



# Audi R15 Racing Cockpit

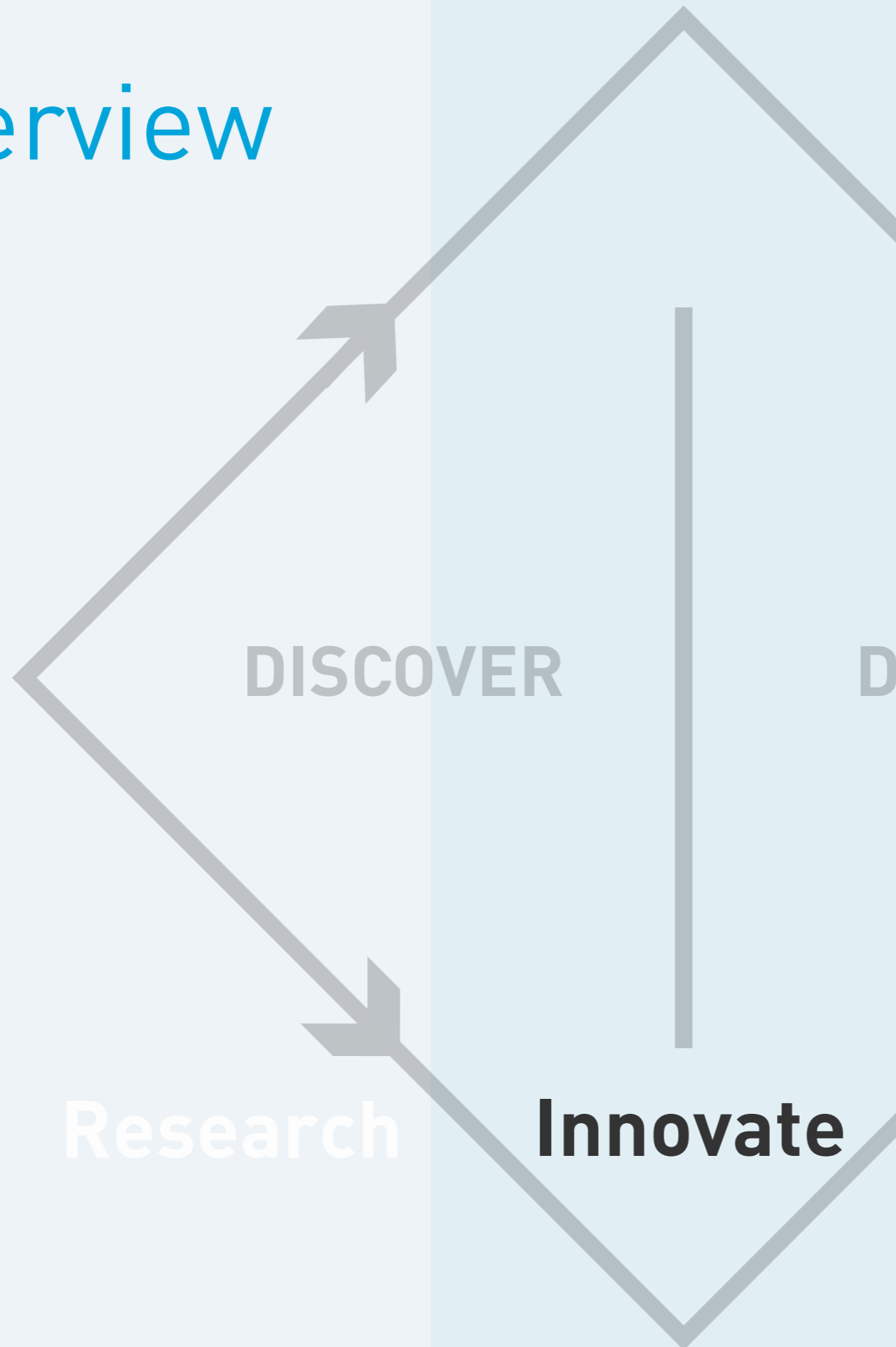
[http://2.bp.blogspot.com/\\_SM9A\\_sqVGgM/S9XON6I\\_WtI/AAAAAAAAADww/HcrQgfpuHgl/s1600/Audi+R15+Plus+Cockpit.jpg](http://2.bp.blogspot.com/_SM9A_sqVGgM/S9XON6I_WtI/AAAAAAAAADww/HcrQgfpuHgl/s1600/Audi+R15+Plus+Cockpit.jpg)





Different, usage contexts, user types  
and usage frequency will require  
dedicated solutions.

# Overview



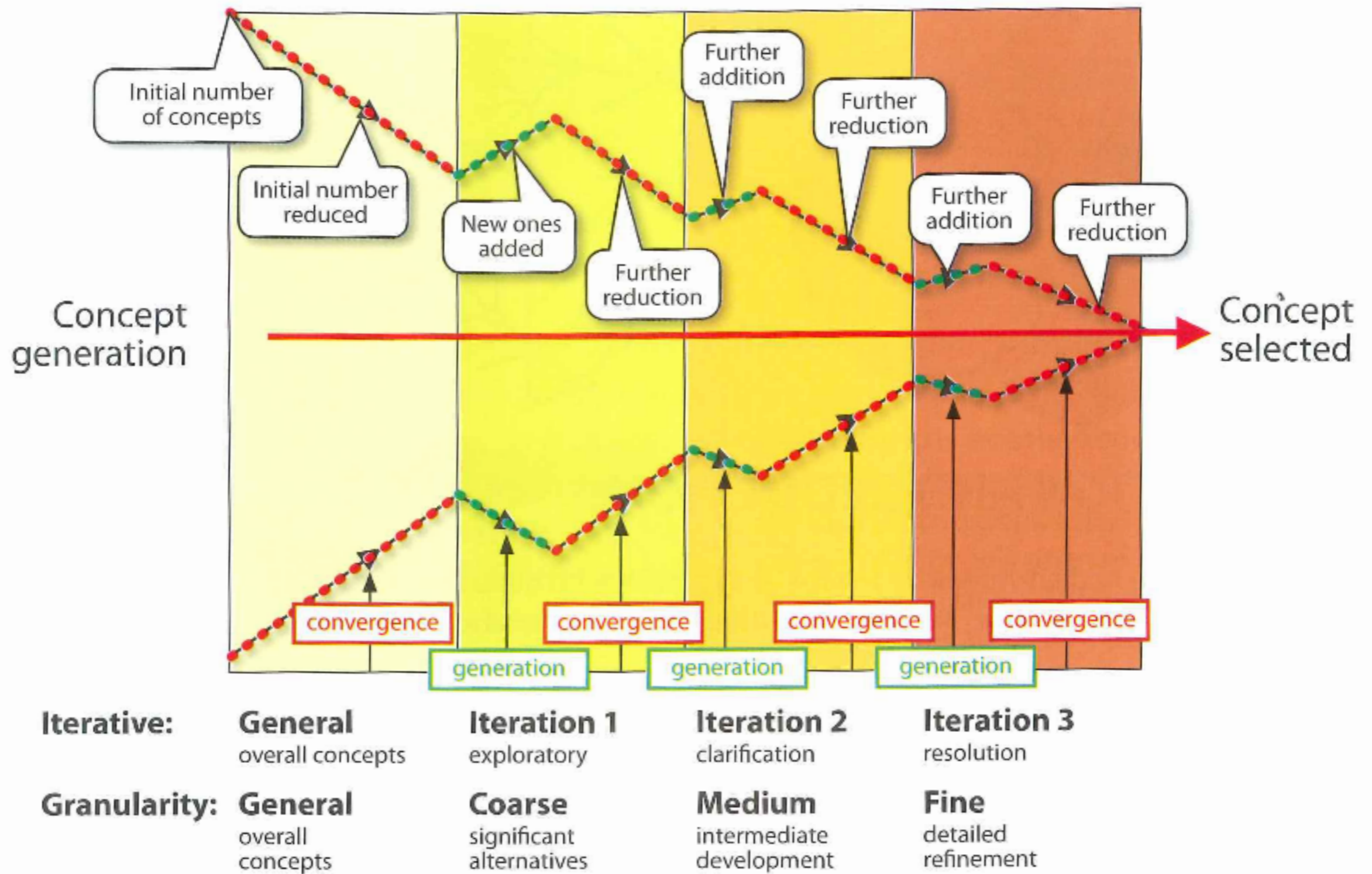
Make sense of your data

Identify important facets

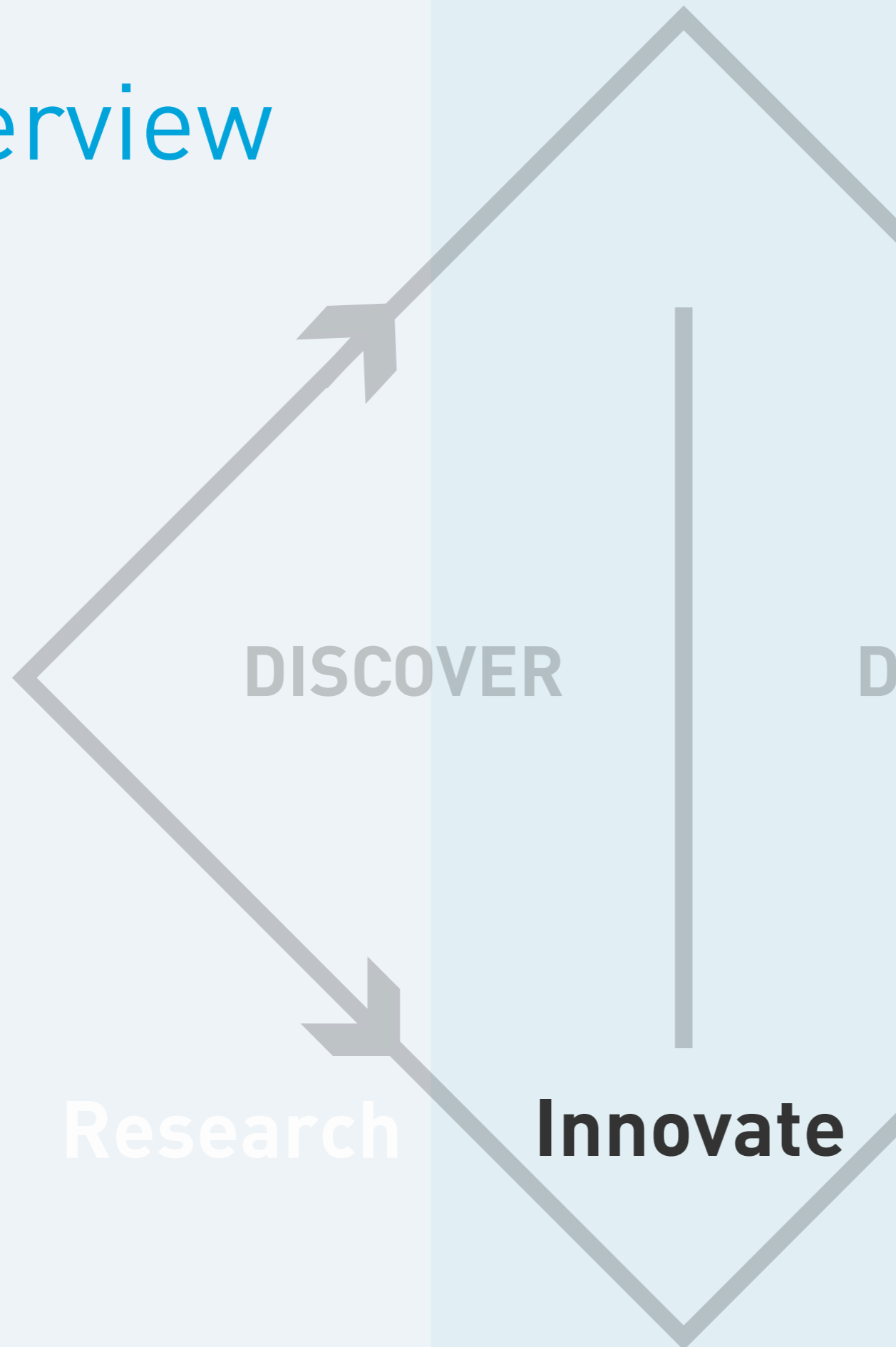
Keep all players in mind

Collect and prioritise ideas

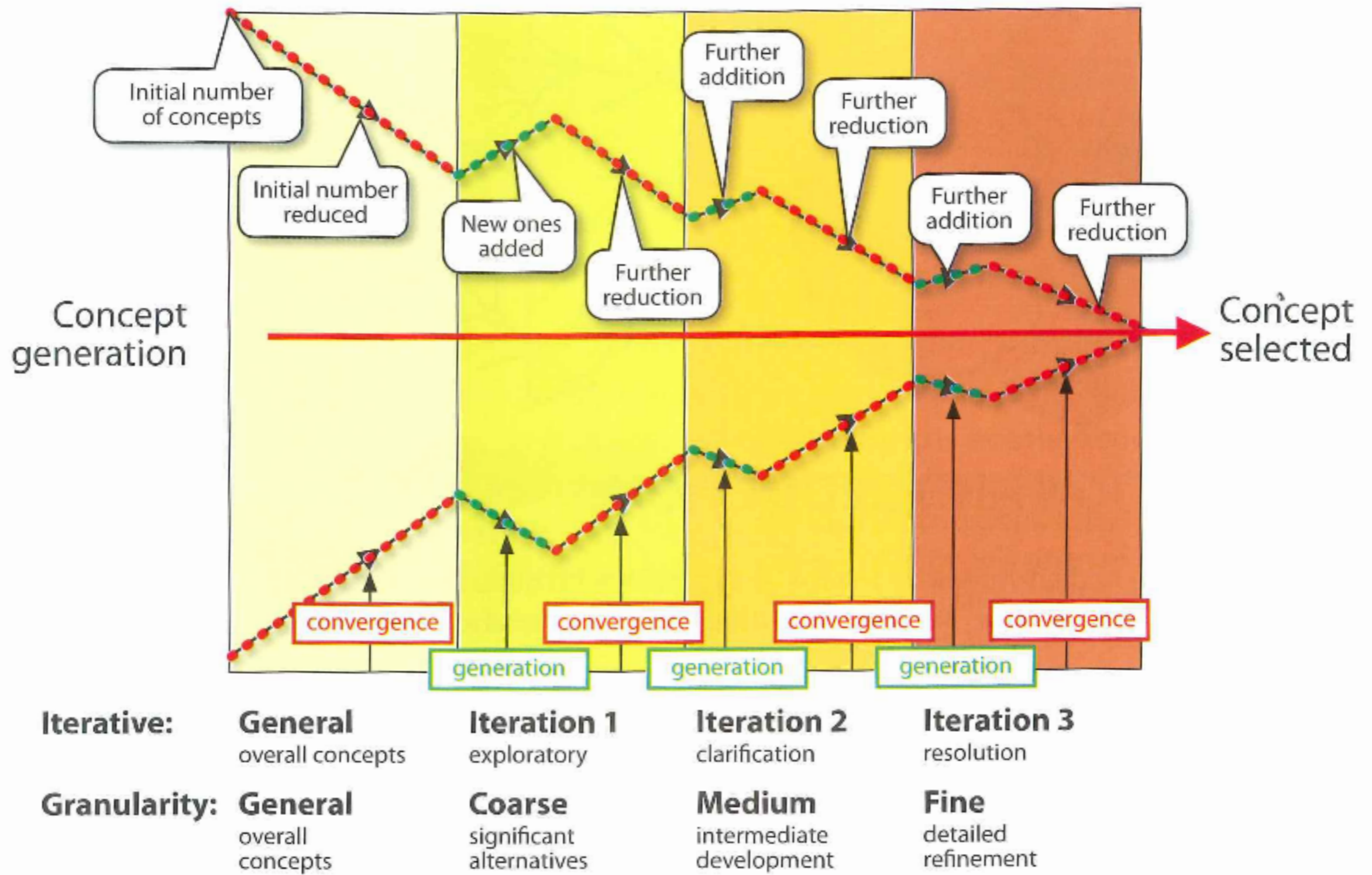
Develop & validate solutions

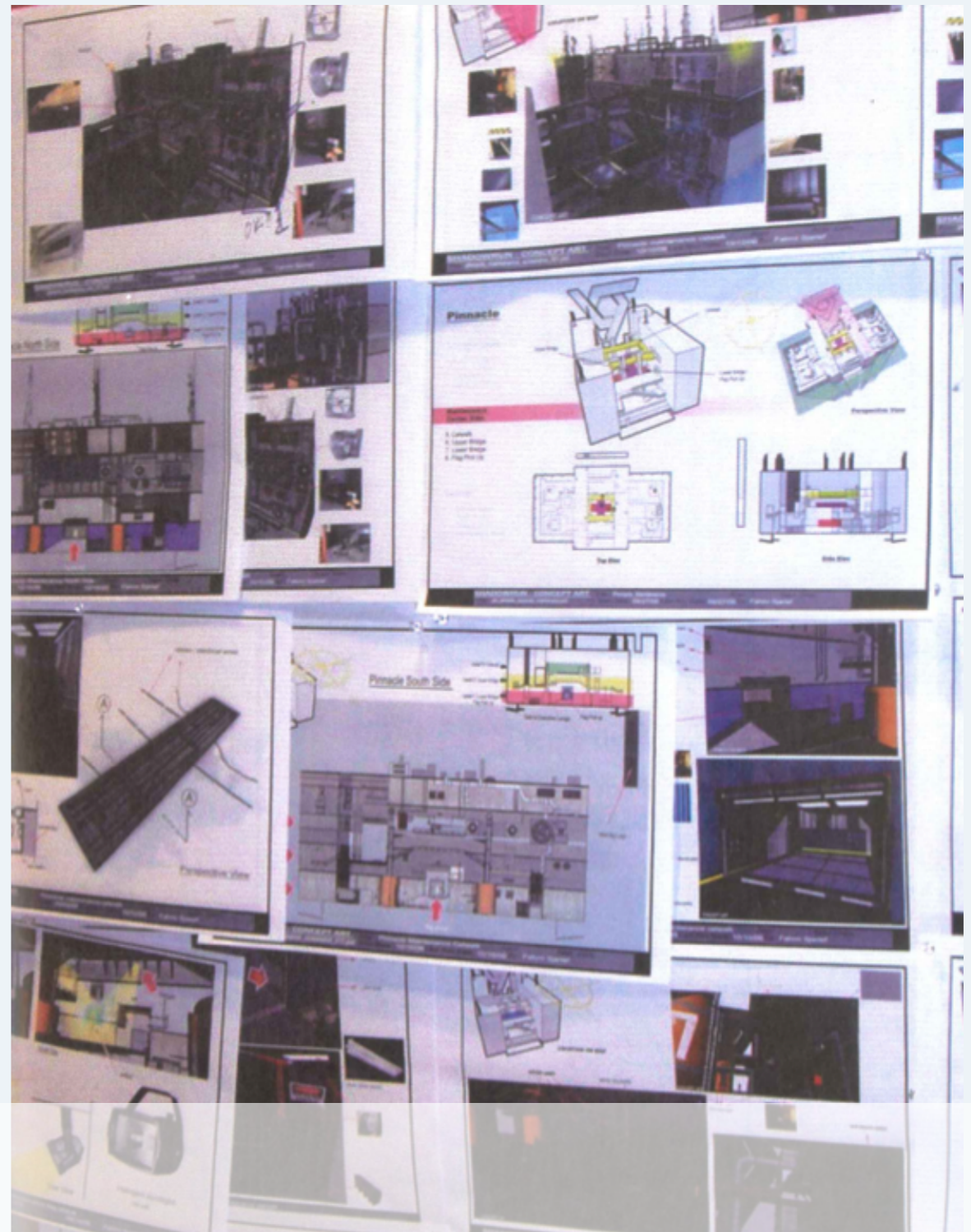
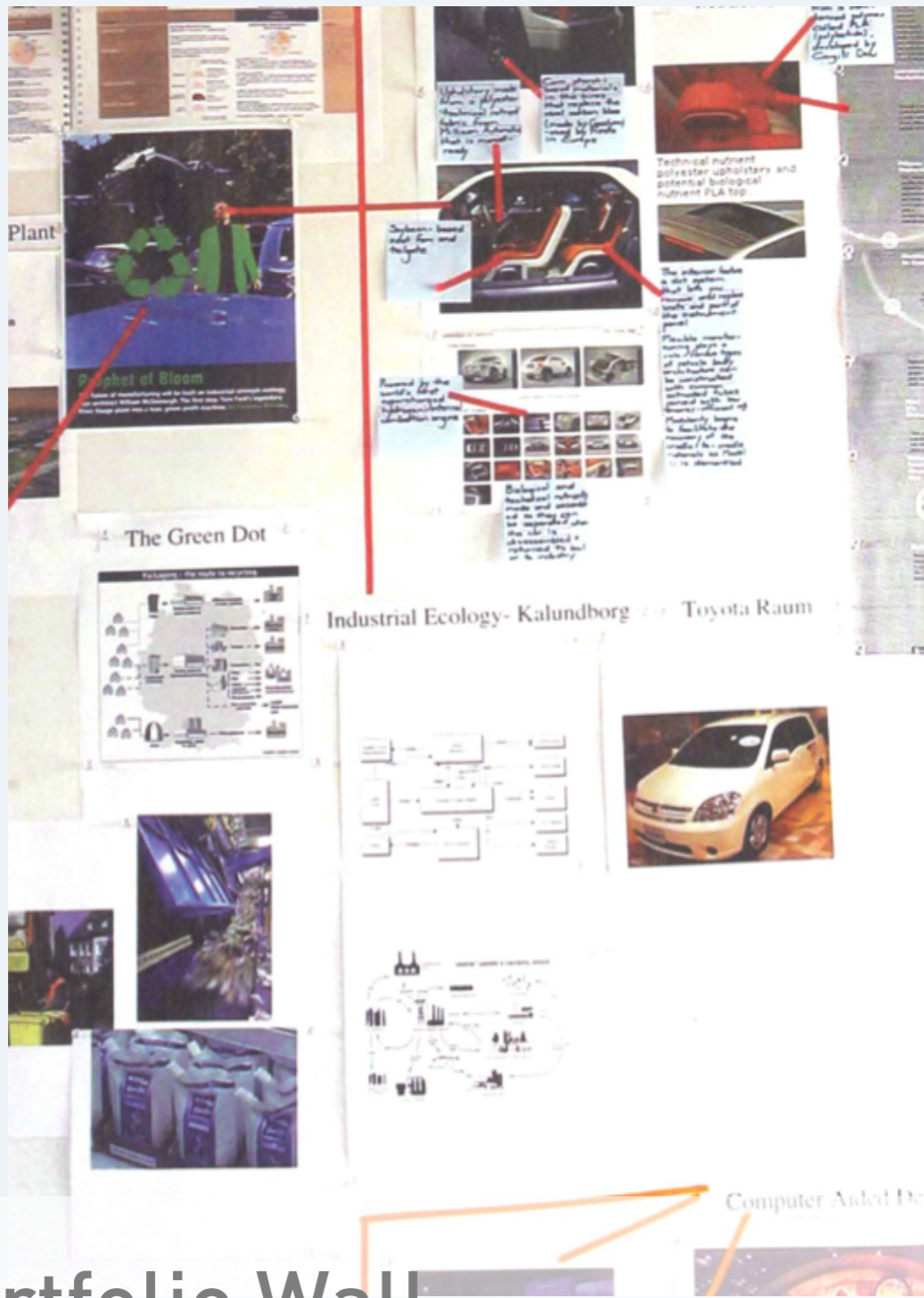


# Overview



- Make sense of your data
- Identify important facets
- Keep all players in mind
- Collect and prioritise ideas
- Develop & validate solutions





# Portfolio Wall

# Competitive Analysis / Current Interface

**Four different adjustments** just to make AC right the way you like it.

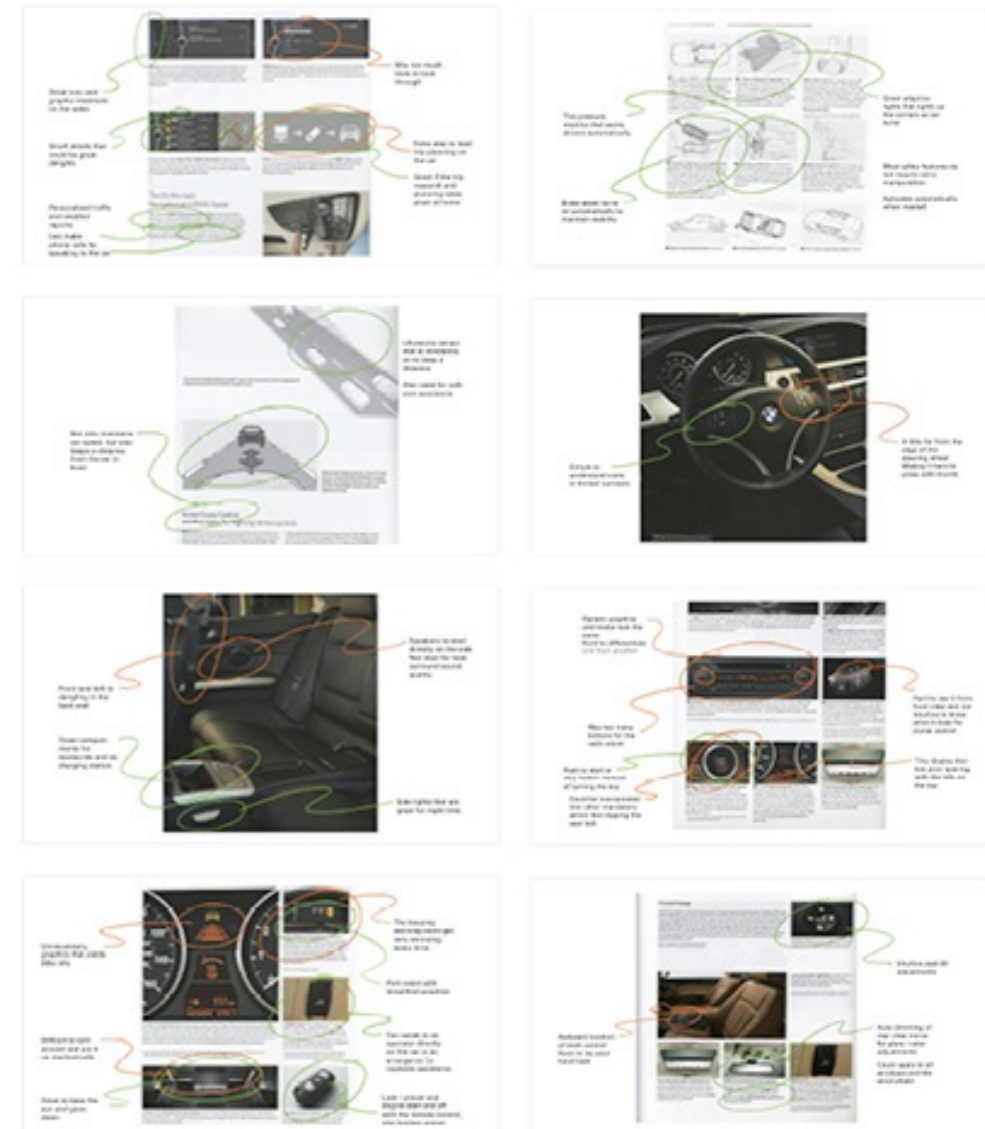
**Too many buttons** Buttons could be simplified and grouped further.

**AC adjustments** do not show up on navigation screen.

**Turning Knob** for the screen on top is far back; Poor ergonomic.



**Buttons** with simple icons are centralized at a convenient location.



## What is working?

- Screen does not need to be at the same place as control.
- Tactile feel of button/Button grouping
- Buttons on steering wheel
- Use of color, materials, textures, and lights can improve information heirarchy.

## What is NOT working?

- Appropriate position for frequently used buttons is important.
- Too many buttons are intimidating.
- Buttons are scattered and not intuitive position.
- Touchscreen requires too much attention.
- Buttons rely on small icons/text which is hard to read.

# Competitive Analysis



**Trends Insight**

- More wireless connectivity to information and to others.
- More seamless integration between digital and physical world.
- Devices are more content driven and user centric.
- Better customization capabilities and mobile computing is more prevalent.

**Interior Comforts**

**Communication between Driver and Passengers**

Taking the comfort to the next higher plane, models like the 2007 Ford Expedition have ensured better communication between passengers from first to third row by using improved materials in the carpet and other features.

**Sound Insulation from Exterior**

The SUV provides more insulation behind the dashboard and door panels, thick glass and a steady roof panel, thus preventing itself from blocking the sounds.



Competitive Analysis

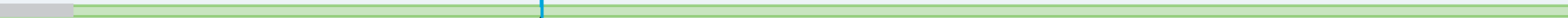
Now: Desk & Field Research

April

May

June

July



# Literaturrecherche

Google / Google Scholar

<http://scholar.google.de>

ACM Digital Library

<http://portal.acm.org/dl.cfm> -> BibTex, Referenzen, Verweise

Citeseer

<http://citeseer.ist.psu.edu/cs>

IEEE Xplore

<http://ieeexplore.ieee.org/Xplore/guesthome.jsp>

# Literaturrecherche

Zugriff auf diverse Literaturdatenbanken (ACM, IEEE) über LRZ-VPN und –Proxy:

<http://www.lrz-muenchen.de/services/netzdienste/proxy/browser-config/>

Zugriff auf das ACM Portal und IEEE über LRZ-Proxy:

<https://docweb.lrz-muenchen.de/cgi-bin/doc/nph-webdoc.cgi/000110A/http/portal.acm.org/portal.cfm>

Zugriff auf Zeitschriften:

<http://docweb.lrz-muenchen.de/>

# Webrecherche

Techblogs:

[engadget.com](http://engadget.com)

[ted.com](http://ted.com)

Zugriff auf Zeitschriften:

<http://docweb.lrz-muenchen.de/>

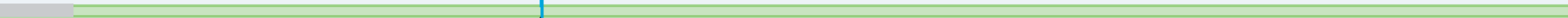
Now: Desk & Field Research

April

May

June

July



02/05 Data & Concept Draft



April

May

June

July



# References:

- [1] Buxton, W. Sketching User Experiences, Morgan Kaufmann 2007.
- [2] Blom, J & Chipchase, J : Contextual and cultural challenges for user mobility research, ACM Press 2005.
- [3] CHI '10 Panel Discussion on User Research, 2010.
- [4] Copenhagen Institute of Interaction Design, User Research Workshop 2008.
- [5] Jonas, W. A Scenario for Design, MIT Press 2001.
- [6] Norman, D. The Psychology of Everyday Things, Basic Books 1988.
- [7] Moggridge, B. Designing Interactions, MIT Press, 2006.
- [8] Rogers, Y., Preece, J. & Sharp, H. Interaction Design, Wiley & Sons 2011.
- [9] Saffer, D. Designing for Interaction, New Riders 2009.
- [10] Walonick, D. Survival Statistics, 2004.