

# FRAMEWORK FOR DEMONSTRATING VIABILITY



# Hi, I'm Thomas

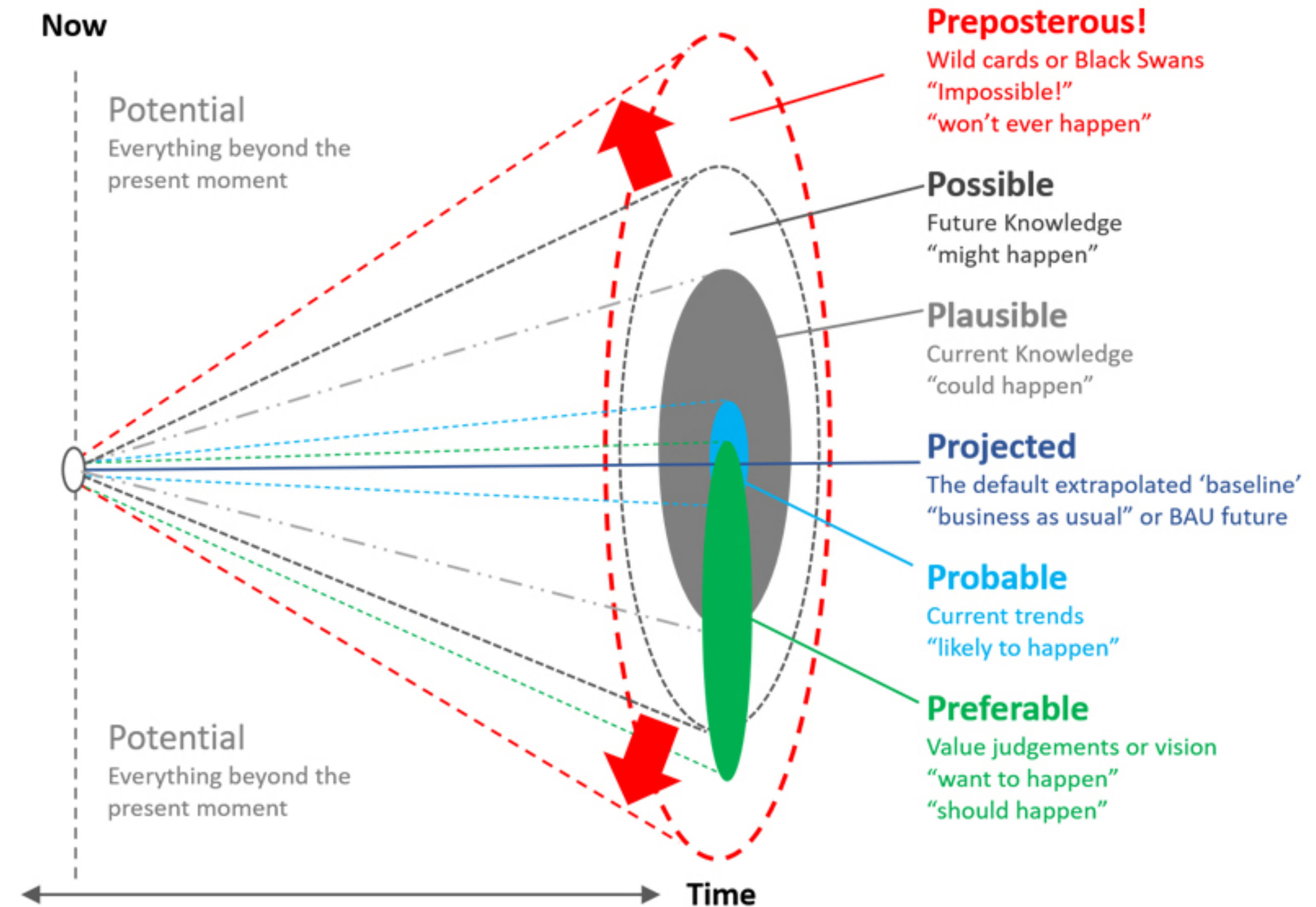
Head of Digital Innovation @ BI X Digital Lab



# Hi, I'm Thomas

Head of Products & Design @ BI X Digital Lab

Design for the future



Adapted from Voros (2003, 2017), based on Hancock & Bezold's original cone

# Hi, I'm Thomas

Head of Products & Design @ BI X Digital Lab

Design for the future

I love hiking (with my family)



**NTMY**

# Our journey



## 7 YEARS & GROWING

90+ people  
20+ nationalities



## SUCCESS WORLDWIDE

+10 initiatives  
on global markets  
*Mexico – China –  
Canada – Europe*



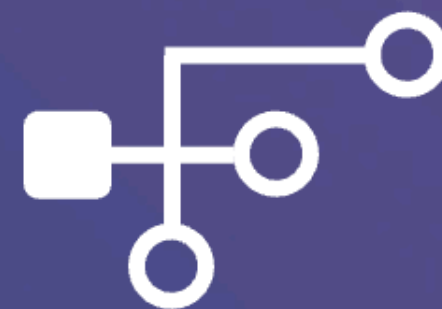
## EXPANDING NETWORK

Constantly expanding  
our external  
innovation network



## GLOBAL PRESENCE

Ingelheim and  
Shanghai  
Focus on USA



## CROSS-CREATION

Co-designing and  
setting the pace  
across all Boehringer  
business units



## 2024 FOCUS

Digital Products and  
services focusing on the  
US encompassing clinical  
development, Gen AI,  
biomarkers, oncology,  
obesity and pets

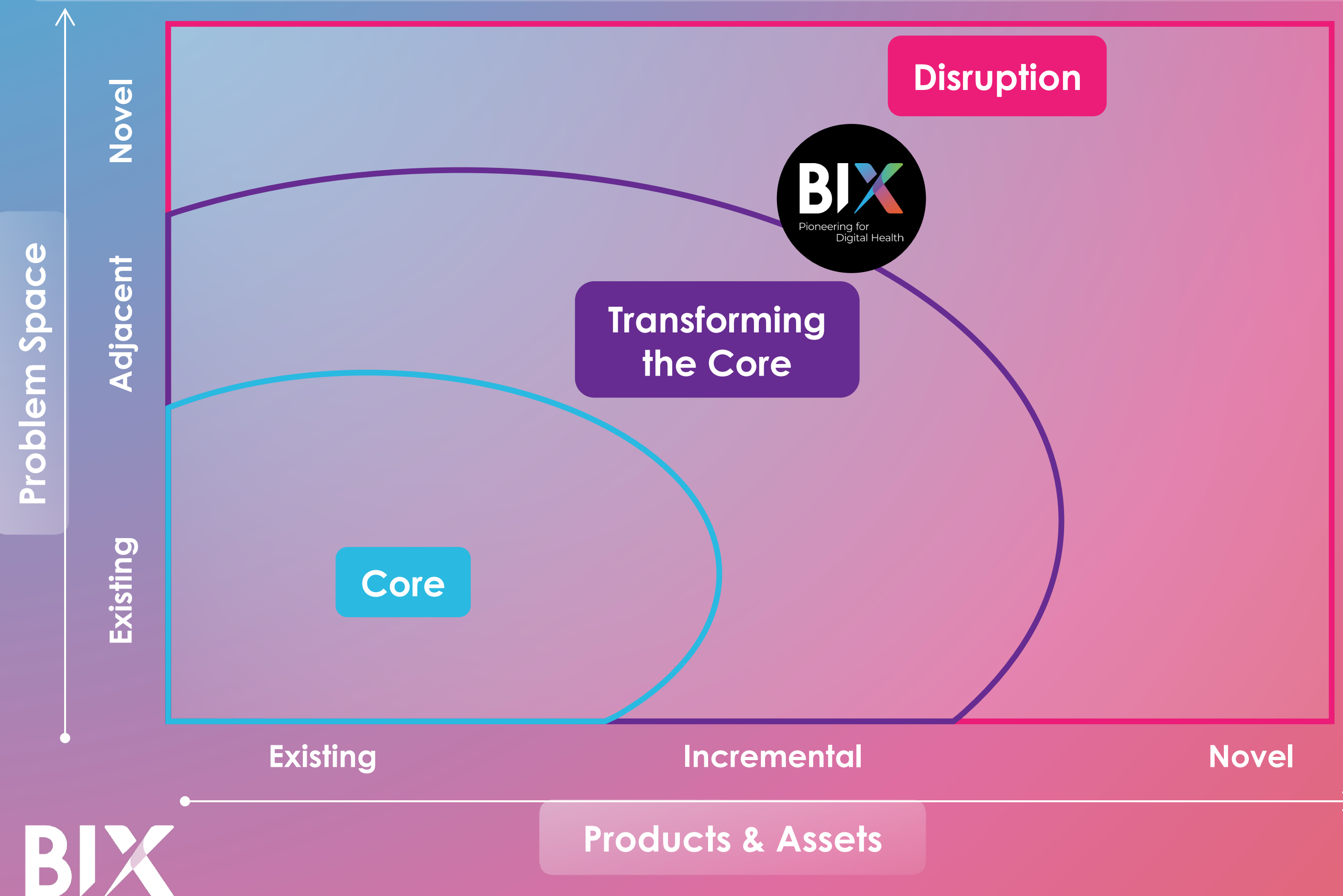
A photograph of two men in a meeting, overlaid with a semi-transparent red and purple geometric shape. The man on the left is smiling and looking towards the man on the right. The man on the right is wearing glasses and a cap, looking down. The background is a blurred office setting.

Our purpose:  
We create **breakthrough healthcare solutions** with innovative **digital** products and services to **improve** humans' and animals' **lives**.

We are digital pioneers: **fearless, hungry, and determined**. We innovate to have a positive impact on the world we live in.

# BI X explores disruptive digital products and services in both human and animal health

## Innovation Ambition Matrix



### Disruption

Developing breakthroughs and inventing things for markets that don't yet exist

### Transforming the Core

Expanding from existing business into "new to the company" business

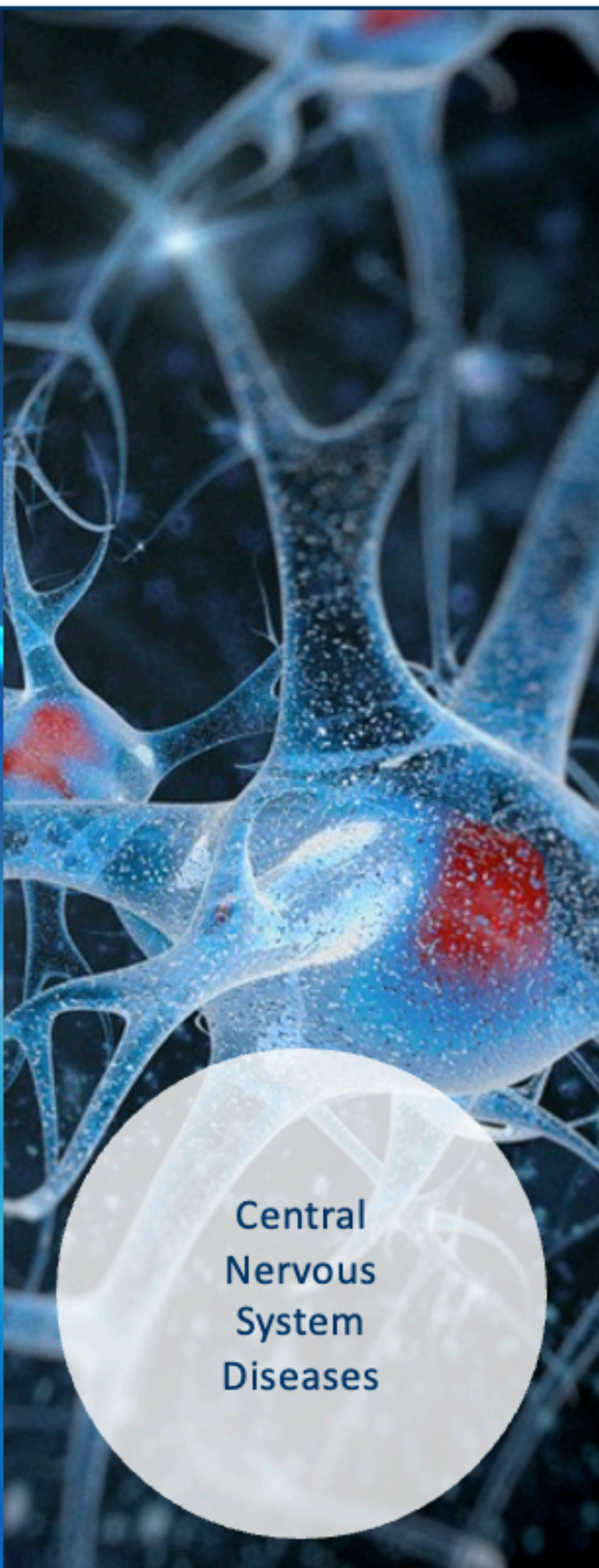
### Core

Optimizing existing products and processes for existing customers

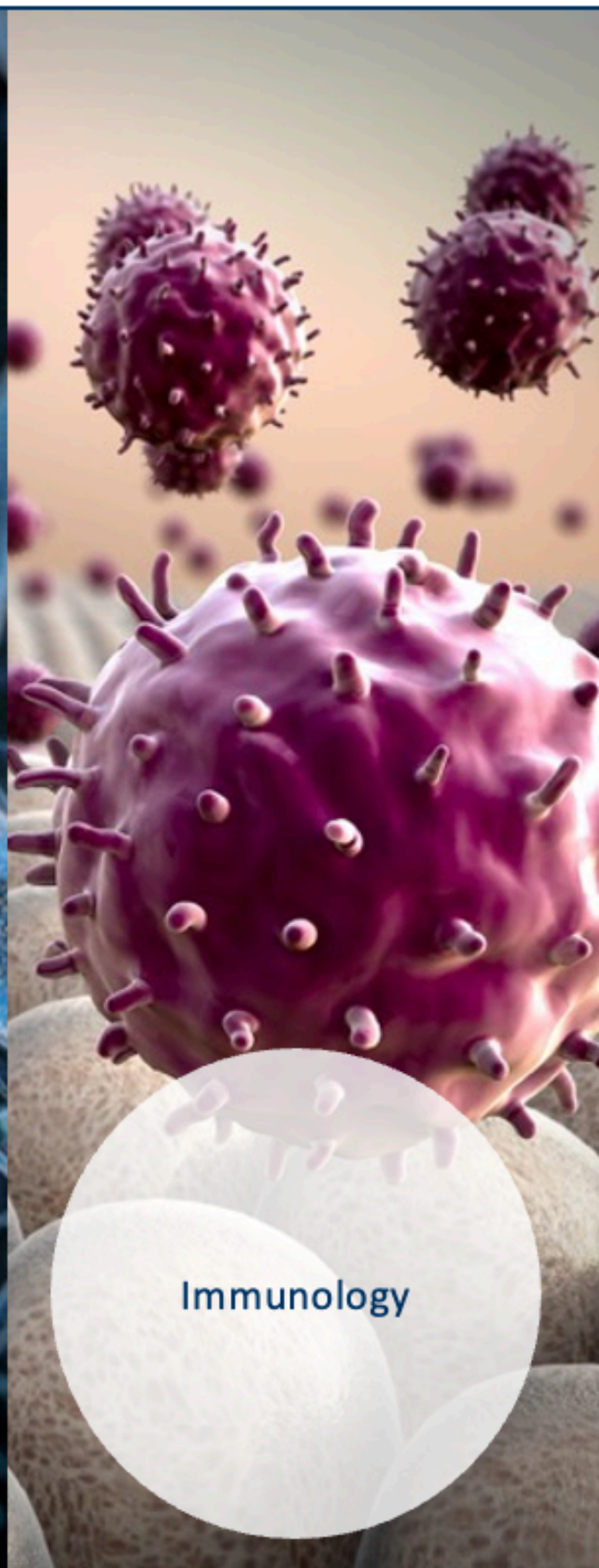




CardioMetabolic  
Diseases



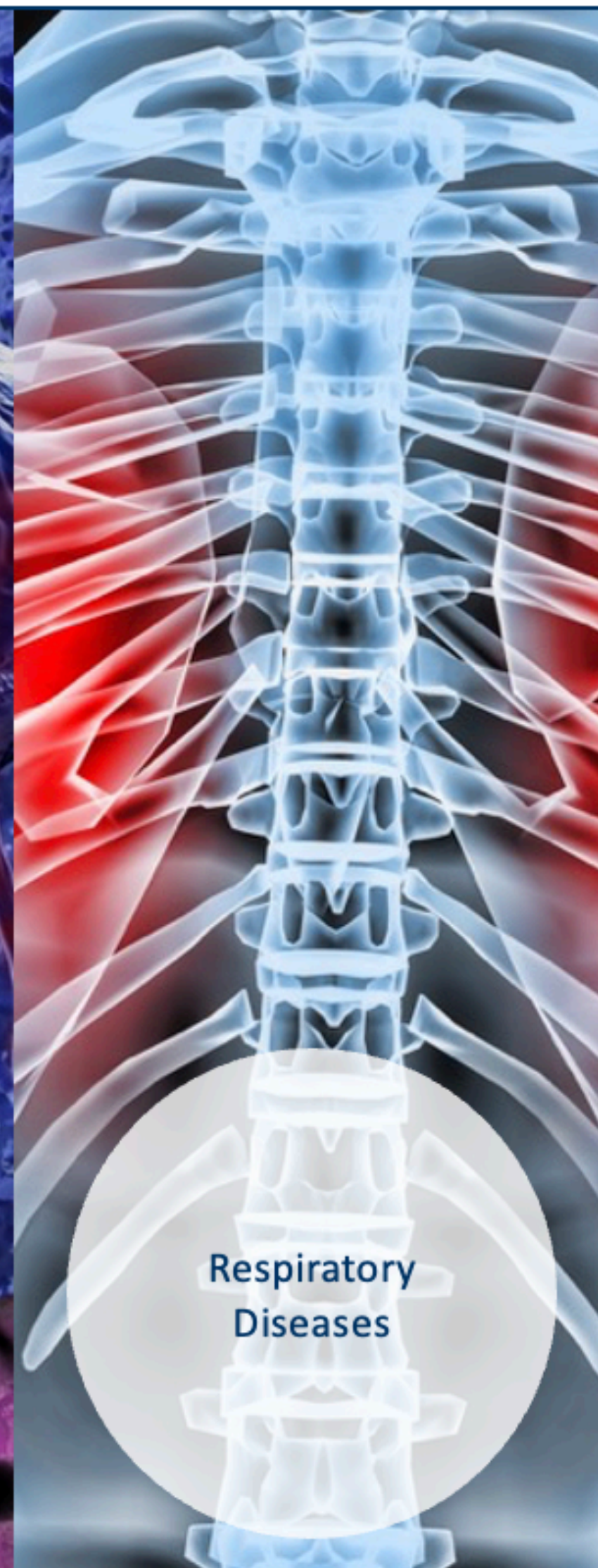
Central  
Nervous  
System  
Diseases



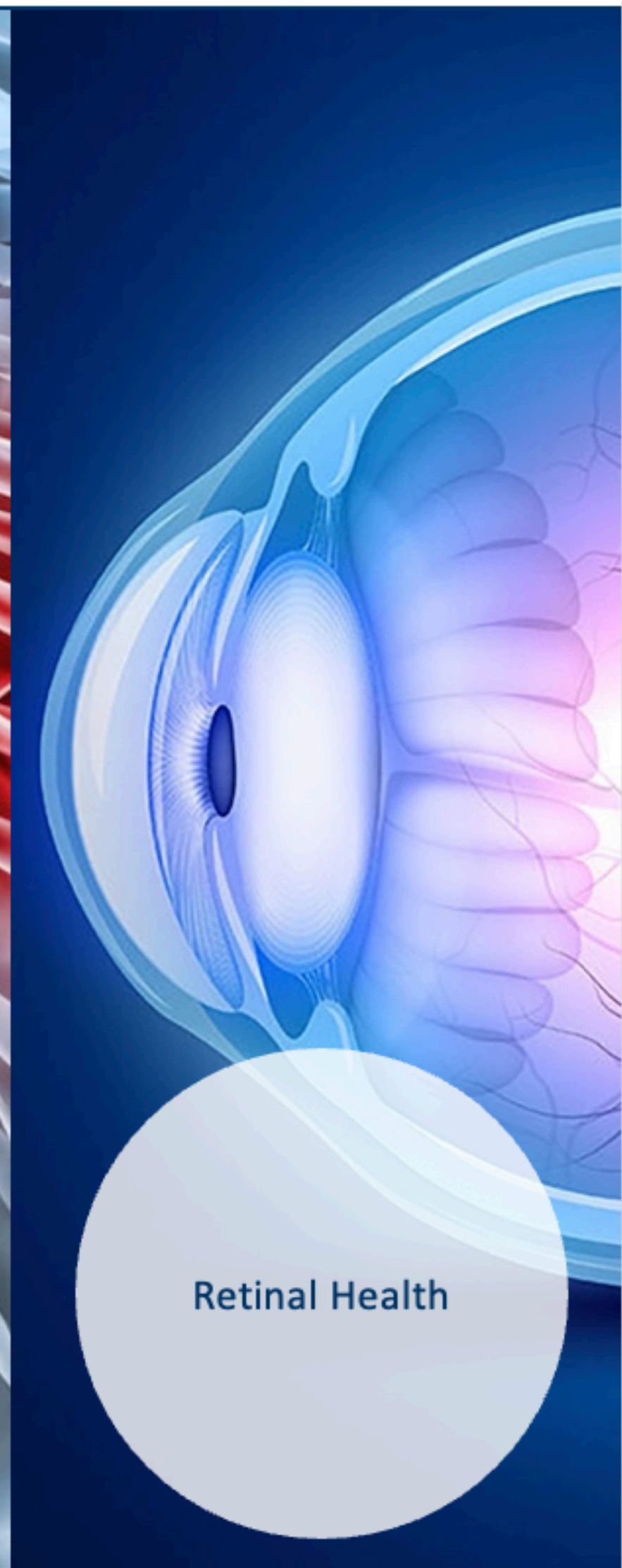
Immunology



Oncology



Respiratory  
Diseases



Retinal Health

# Animal Health

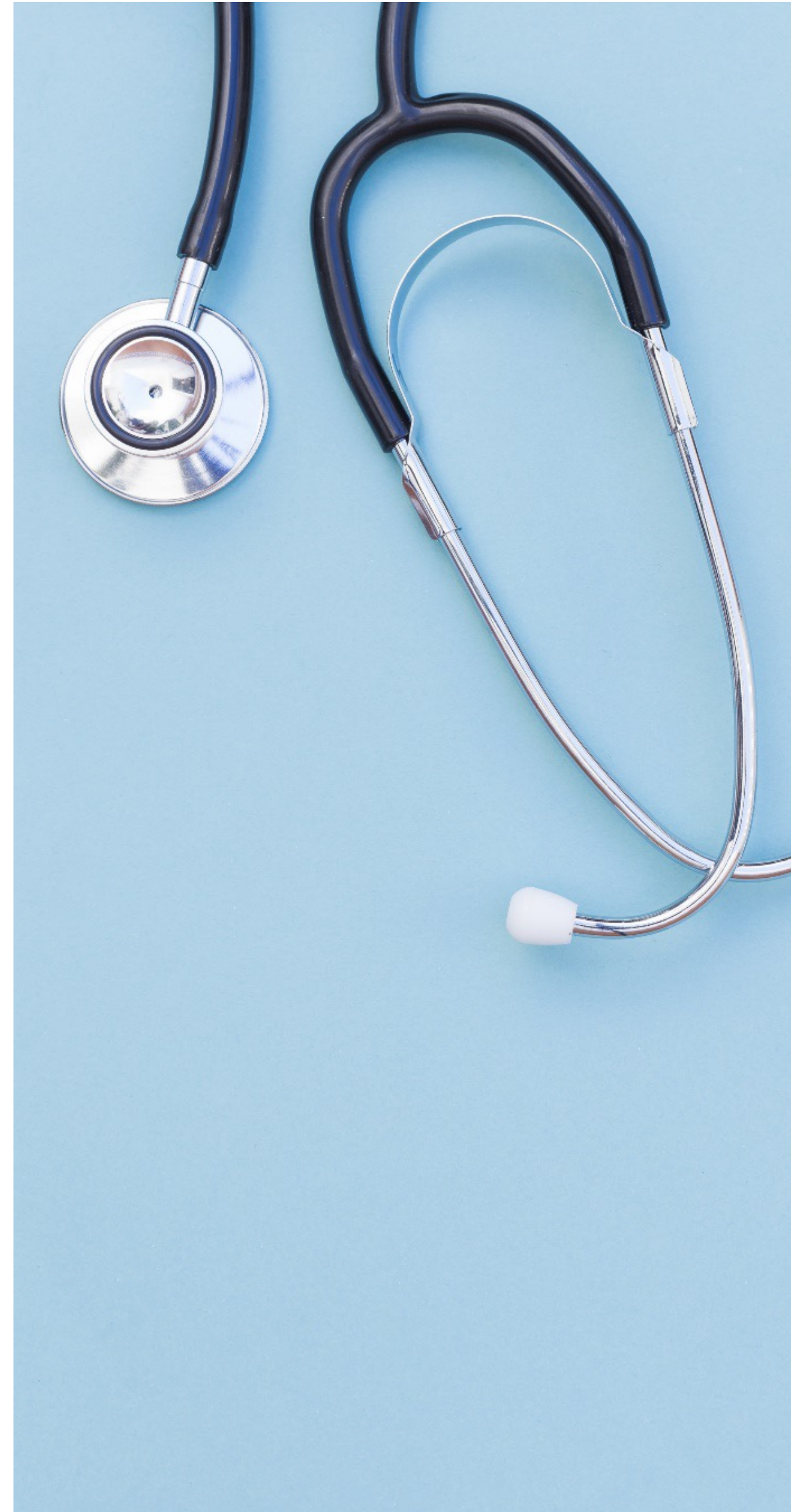


# Pharma



BIX

# Provider



# Payor



# Tech



# Patients

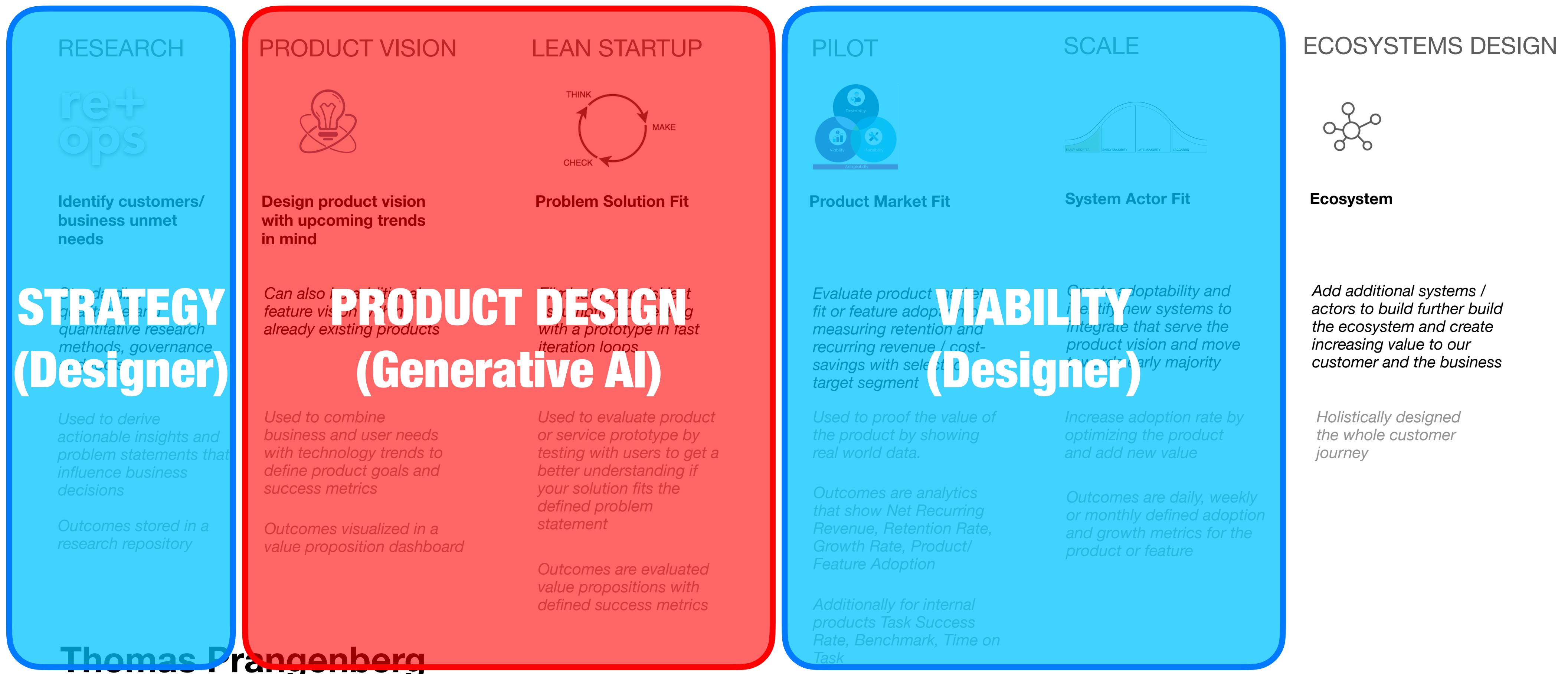




# UX DESIGN PROCESS OF PRODUCTS

Provides value end to end, can be applied throughout the whole service & product life cycle, from innovation to run

Where “user-centric design” puts a face to a user, “user experience design” expands this view far beyond: to the systems level and the interaction between users unmet needs and the business who faces highly complex and interrelated challenges.



## RESEARCH



Identify customers/  
business unmet  
needs

**STRATEGY  
(Designer)**

Used to derive  
actionable insights and  
problem statements that  
influence business  
decisions

Outcomes stored in a  
research repository

Thomas Prangenberg

## PRODUCT VISION



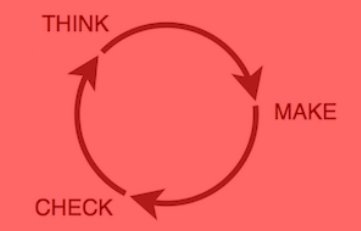
Design product vision  
with upcoming trends  
in mind

**PRODUCT DESIGN  
(Generative AI)**

Used to combine  
business and user needs  
with technology trends to  
define product goals and  
success metrics

Outcomes visualized in a  
value proposition dashboard

## LEAN STARTUP



Problem Solution Fit

Used to evaluate product  
or service prototype by  
testing with users to get a  
better understanding if  
your solution fits the  
defined problem  
statement

Outcomes are evaluated  
value propositions with  
defined success metrics

## PILOT



Product Market Fit

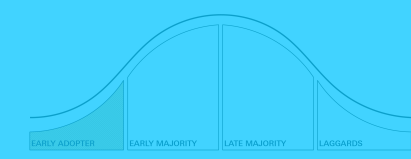
**VIABILITY  
(Designer)**

Used to prove the value of  
the product by showing  
real world data.

Outcomes are analytics  
that show Net Recurring  
Revenue, Retention Rate,  
Growth Rate, Product/  
Feature Adoption

Additionally for internal  
products Task Success  
Rate, Benchmark, Time on  
Task

## SCALE



System Actor Fit

Used to increase adoption and  
fit or feature adoption by  
measuring retention and  
recurring revenue / cost-  
savings with selected  
target segment

Used to increase adoption rate by  
optimizing the product  
and add new value

Outcomes are daily, weekly  
or monthly defined adoption  
and growth metrics for the  
product or feature

## ECOSYSTEMS DESIGN



Ecosystem

Add additional systems /  
actors to build further build  
the ecosystem and create  
increasing value to our  
customer and the business

Holistically designed  
the whole customer  
journey



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RESEARCH

re+ops

Identify customers/ business unmet needs

**STRATEGY (Designer)**

Used to derive actionable insights and problem statements that influence business decisions

Outcomes stored in a research repository

Thomas Prangenberg

## PRODUCT VISION



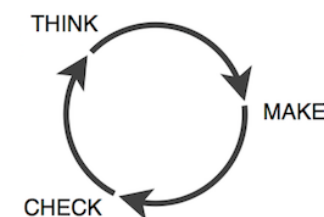
**Design product vision with upcoming trends in mind**

*Can also be additional feature vision within already existing products*

*Used to combine business and user needs with technology trends to define product goals and success metrics*

*Outcomes visualized in a value proposition dashboard*

## LEAN STARTUP



**Problem Solution Fit**

*Eliminate your riskiest assumption by testing with a prototype in fast iteration loops*

*Used to evaluate product or service prototype by testing with users to get a better understanding if your solution fits the defined problem statement*

*Outcomes are evaluated value propositions with defined success metrics*

## PILOT



**Product Market Fit**

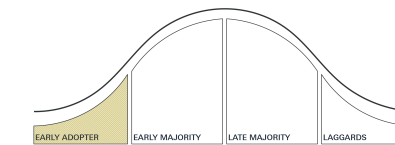
*Evaluate product market fit or feature adoption by measuring retention and recurring revenue / cost-savings with selected target segment*

*Used to proof the value of the product by showing real world data.*

*Outcomes are analytics that show Net Recurring Revenue, Retention Rate, Growth Rate, Product/ Feature Adoption*

*Additionally for internal products Task Success Rate, Benchmark, Time on Task*

## SCALE



**System Actor Fit**

*Create adoptability and identify new systems to integrate that serve the product vision and move towards early majority*

*Increase adoption rate by optimizing the product and add new value*

*Outcomes are daily, weekly or monthly defined adoption and growth metrics for the product or feature*

## ECOSYSTEMS DESIGN



**Ecosystem**

*Add additional systems / actors to build further build the ecosystem and create increasing value to our customer and the business*

*Holistically designed the whole customer journey*

# Definition of Strategic Research

To provide a framework for  
prioritizing and decision  
making



# Principles of Strategic Research

Business first

Provides priorities

Based on long term strategy

Multi method research

Build Business acumen

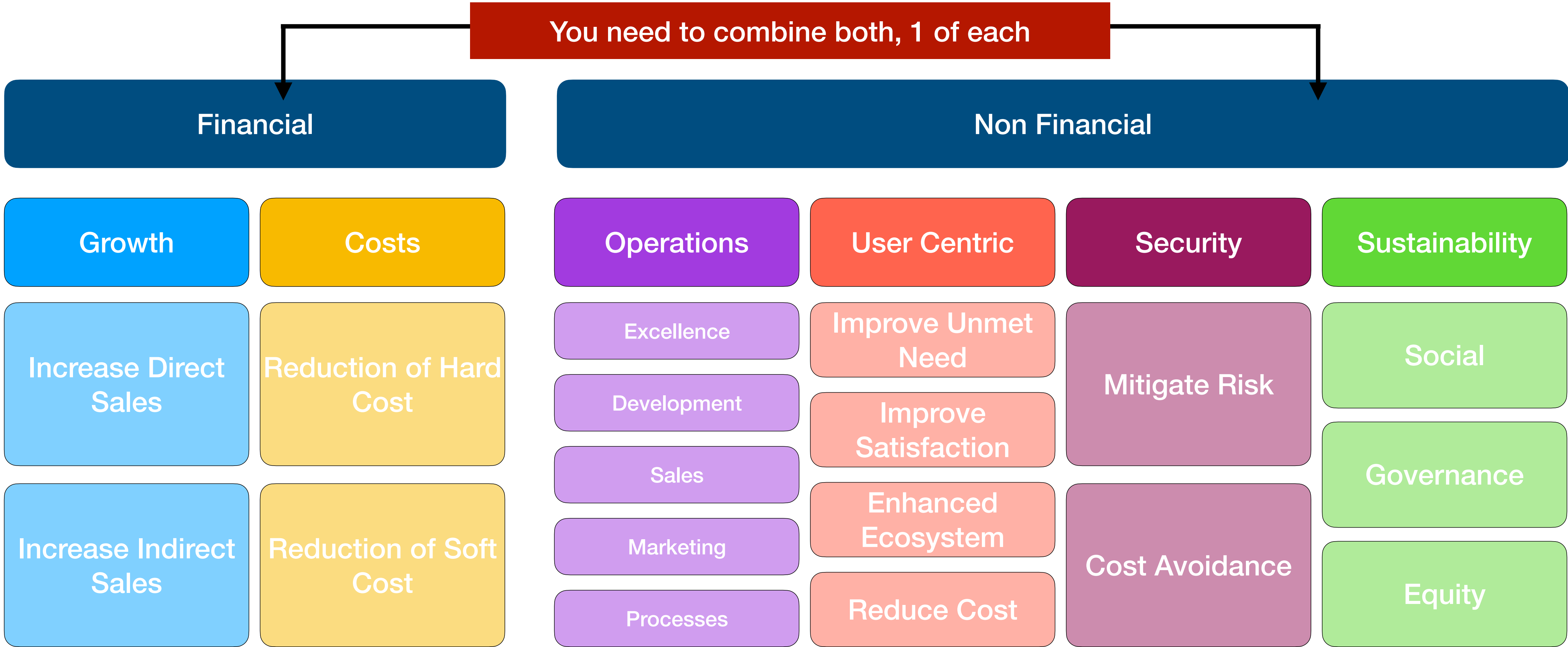
# Value Framework Guidelines

Value Drivers and Metrics

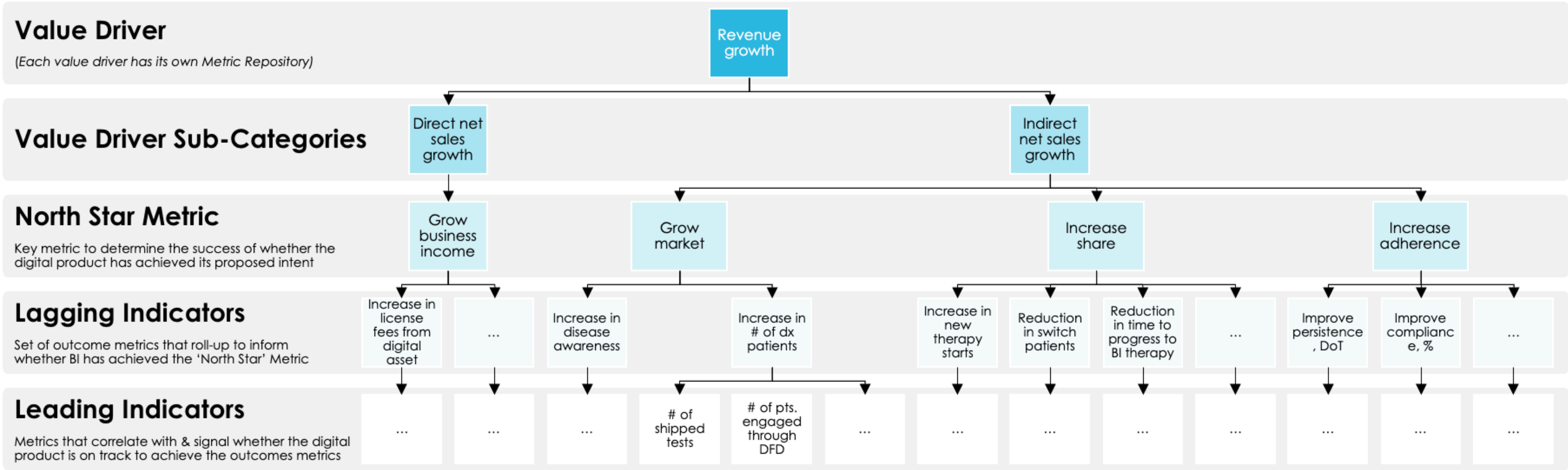
Prioritization and Decision  
Governance

Research Operations

# Value Framework



# Value Metrics

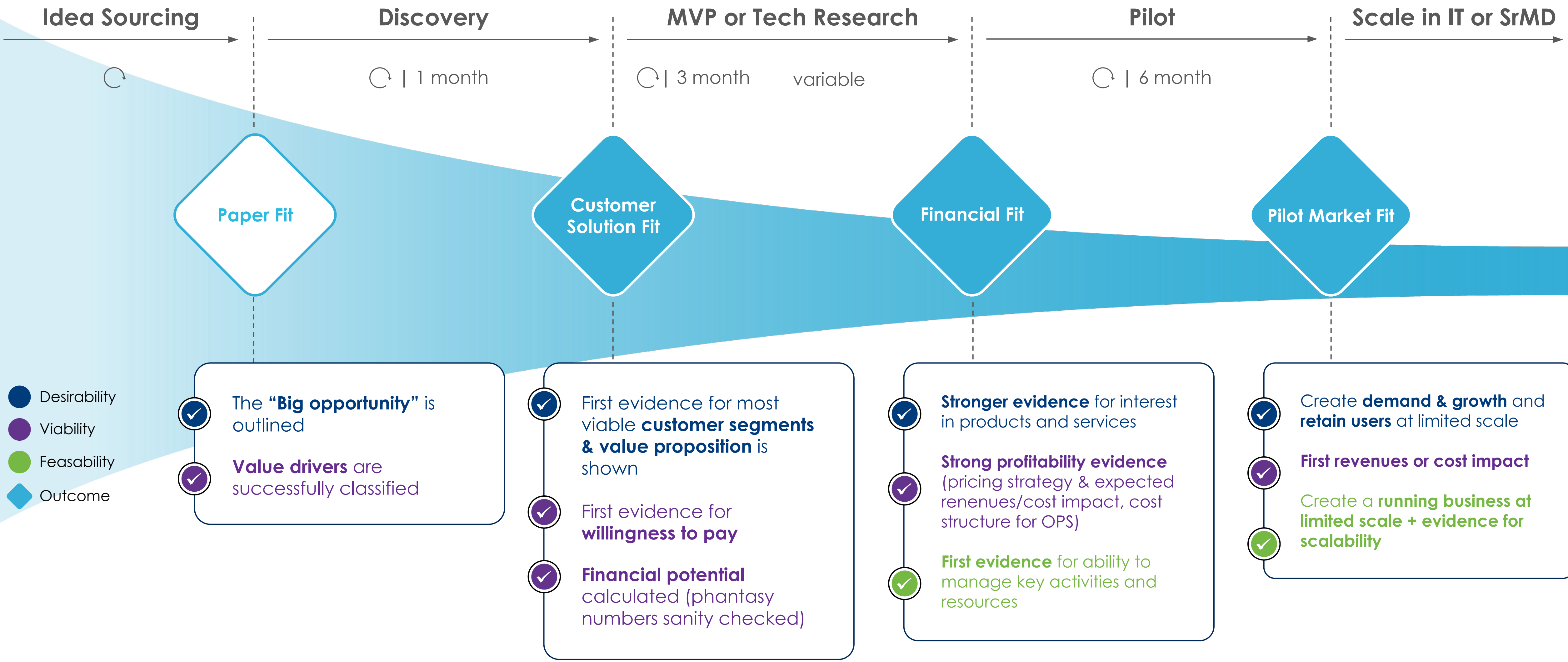


**Each Value Driver has a repository of North-star Metrics, Lagging and Leading Indicators aimed at providing digital product teams a starting point to determine which metrics to use to measure commercial success**

# Strategic Portfolio Guidance (Example)

Strategic guidelines					Business Case
Strategic Focus Areas	Value Drivers	Business Sponsor Support	Technology Application Maturity	Ambition (Companies Perspective)	Positive Business Case y/n
1. Focus Area 1 2. Focus Area 2 3. Focus Area 3 <hr/> 4. Business strategy plan 5. Wildcard	1. Revenue Growth: direct and indirect (fin) 2. Cost efficiency (fin) 3. Operational excellence (non-fin) 4. Customer Centricity (non-fin) 5. Security and Compliance Excellence (non-fin) 6. Sustainability, Environmental (non-fin)	Yes / No	1. Existing 2. Imminent 3. Aspirational	<b>Horizon 1:</b> continuous innovation to a company's existing business model and core capabilities in the short-term  <b>Horizon 2:</b> ideas extending a company's existing business model and core capabilities to new customers, markets or targets  <b>Horizon 3:</b> creation of new capabilities and new business to take advantage of or respond to disruptive opportunities or to counter disruption	Show at Stage Gate X
<b>PORTFOLIO BALANCE</b>					
<b>Business Case:</b>		<b>Ambition Balance:</b>		<b>Business Sponsor Support: Yes/No</b>	<b>Strategic vs Focus Areas</b>

# End-to-End Process – Criteria Overview



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## RESEARCH



Identify customers/  
business unmet  
needs

Standardize  
qualitative and  
quantitative research  
methods, governance  
and tools

Used to derive  
actionable insights and  
problem statements that  
influence business  
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Outcomes stored in a  
research repository

## PRODUCT VISION



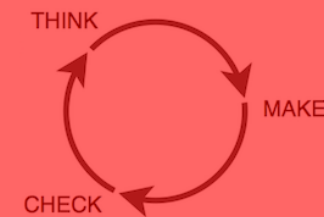
Design product vision  
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Can also be used to  
feature vision of  
already existing products

Used to combine  
business and user needs  
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define product goals and  
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Outcomes visualized in a  
value proposition dashboard

## LEAN STARTUP



Problem Solution Fit

Used to evaluate product  
or service prototype by  
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Outcomes are evaluated  
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# PRODUCT DESIGN (Generative AI)

## PILOT



Product Market Fit

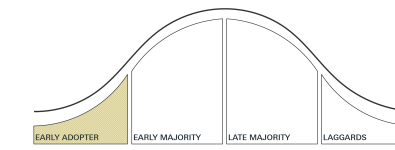
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System Actor Fit

Create adoptability and  
identify new systems to  
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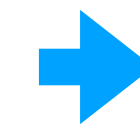
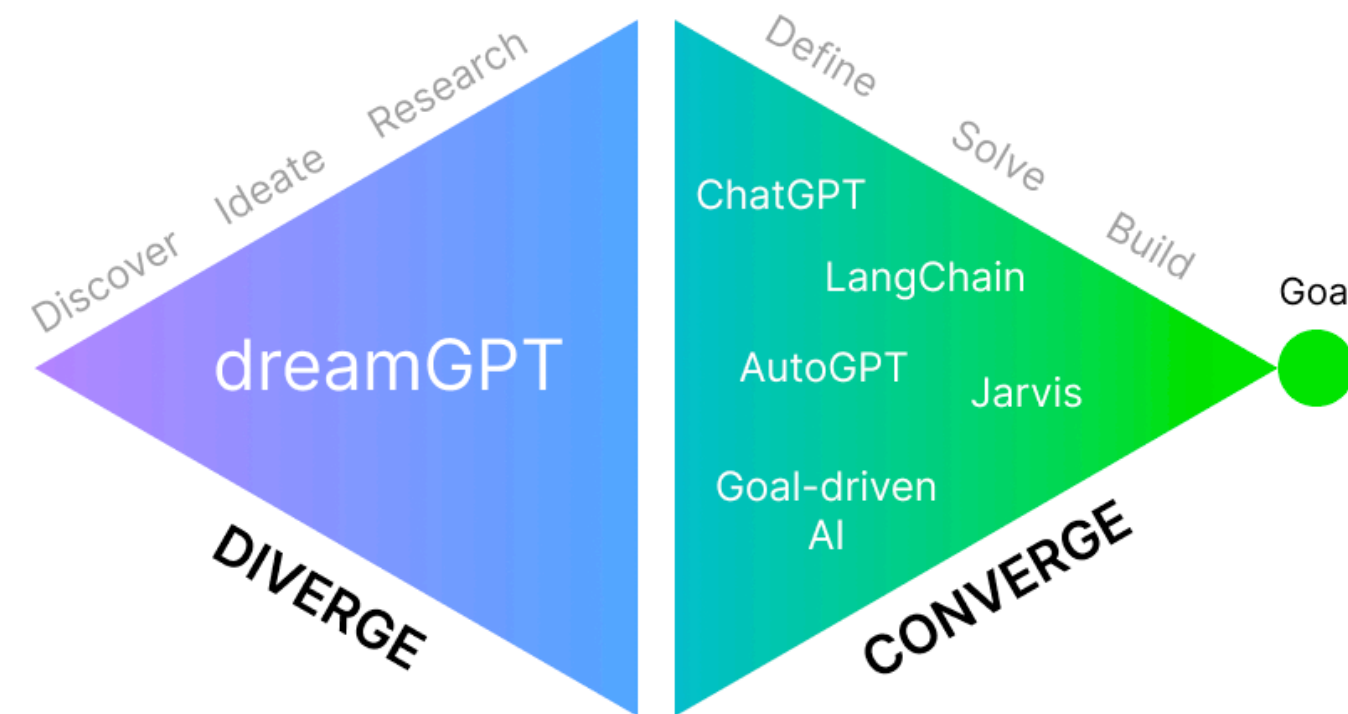
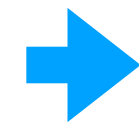
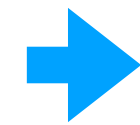
## ECOSYSTEMS DESIGN



Ecosystem

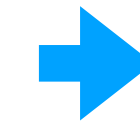
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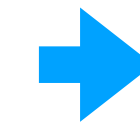
# Lookback

Usability testing, interviews, unmoderated step-by-step tasks, etc.



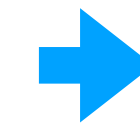
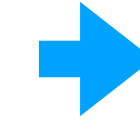
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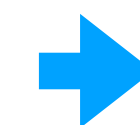
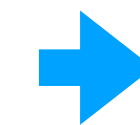
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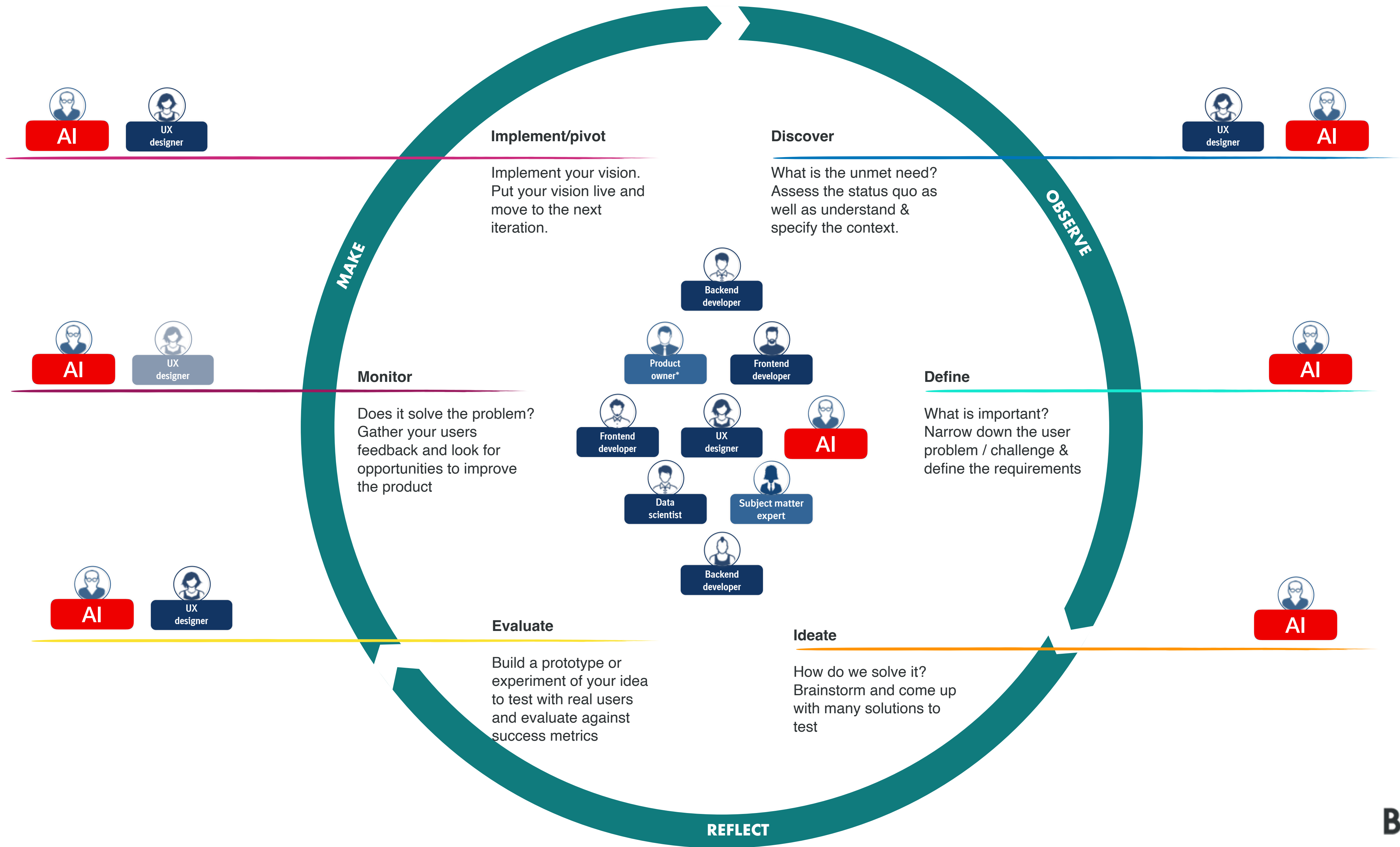


# Lookback

Usability testing, interviews, unmoderated step-by-step tasks, etc.

*Strategic Research feeds the repository where LLM is connected to generate multiple concepts that can be tested with with users including viability experiments.*





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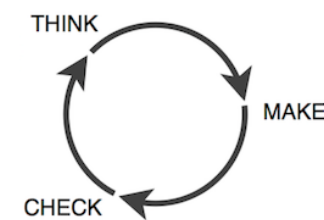
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## PILOT



Product Market Fit

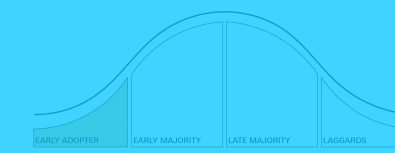
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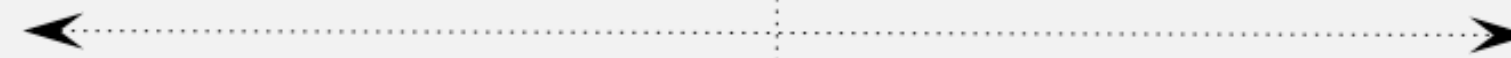
Holistically designed  
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# Question types across the research methods landscape

BEHAVIORAL

What people do  
**WE NEED TO PLAY HERE FROM THE BEGINNING!**

Why &  
How to fix



How many &  
How much

**WE SPEND TOO MUCH TIME HERE!**

What people say

ATTITUDINAL

QUALITATIVE (DIRECT)

© 2022 Christian Rohrer

QUANTITATIVE (INDIRECT)

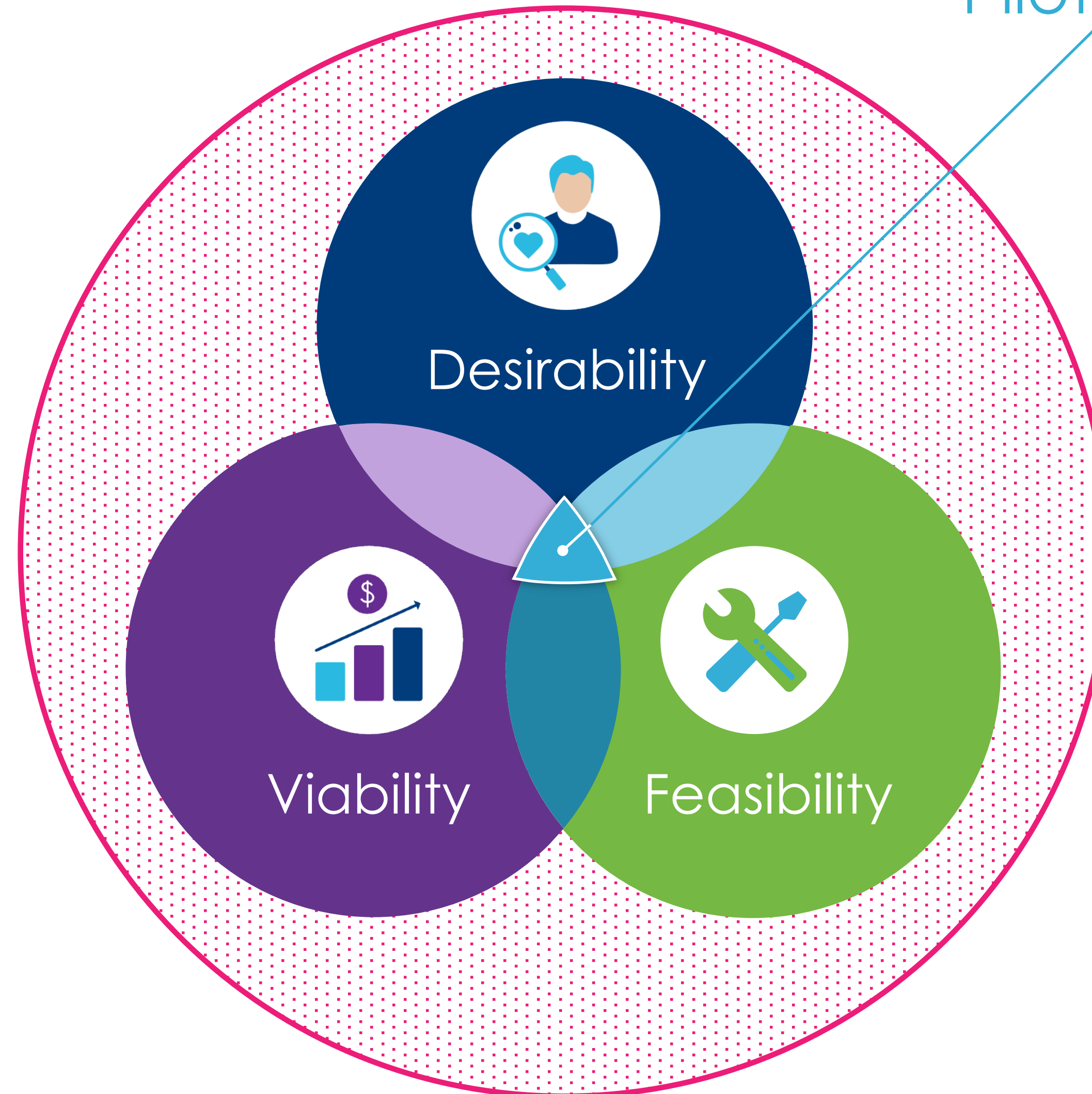
# Methods of how to get there

Discussion forums	Interviews (customers)	Prototype testing (moderated)	Speed Boat	Letter of intent (customers)	Single Feature MVP
Search trend analysis	Interviews (expert stakeholders, partners, suppliers)	Prototype testing (unmoderated)	Pretend To Own	Letter of intent (expert stakeholders, partners, suppliers)	Concierge
Customer support analysis	Survey (qualitative)	Storyboard / Co-creation	Card sorting	Landing page	Wizard of Oz
Boomerang	Survey (quantitative)	Brochure	Sales force feedback	Online pull ads (Google)	
Web traffic analysis	A day in the life	Data sheet	Concept test (with GLG)	Online push ads (FB, Insta)	
		Explainer video		Referral program (f.e. QR code)	
				Feature Stub	

How do we evaluate if we got it right? - entering **Pilot Market Fit**

# “Pilot Market Fit” Model

Pilot Market Fit



## Adaptability

new

Do we fit in the current market environment?  
(tech, regulatory, cultural, trends...)

## Viability

How does it make or save us real money?

Does it lead to long term growth?

## Desirability

new

What is our customer unmet need and how are we solving it?

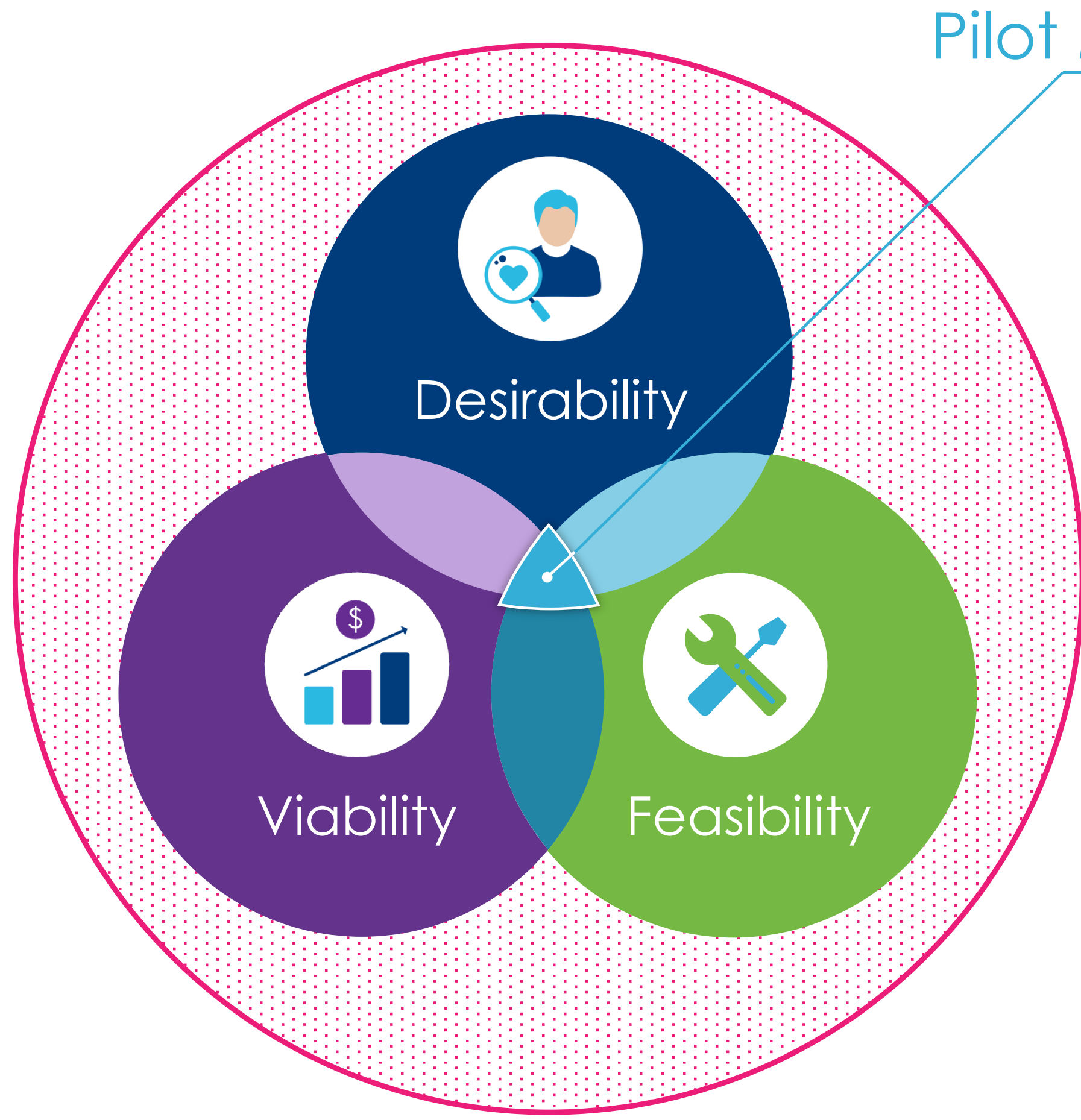
Do we provide value to our users?

## Feasibility

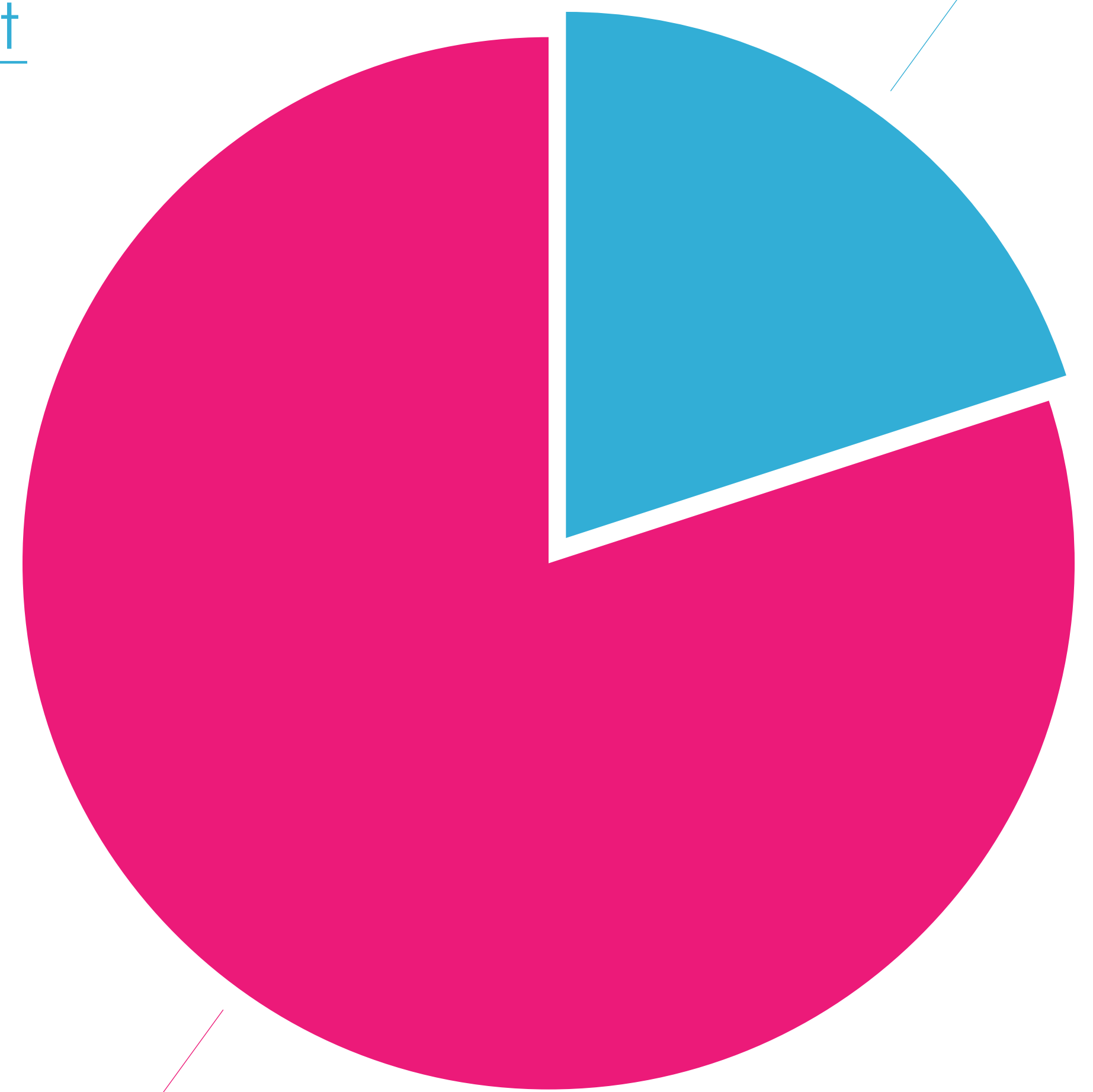
new

Do we have the resources needed?

Can we realize it well to solve the needs?



Pilot Market Fit



Minimal Viable Segmentation

Market

# Google's **HEART** framework\*

*\*Slightly modified to fit BIX purpose*

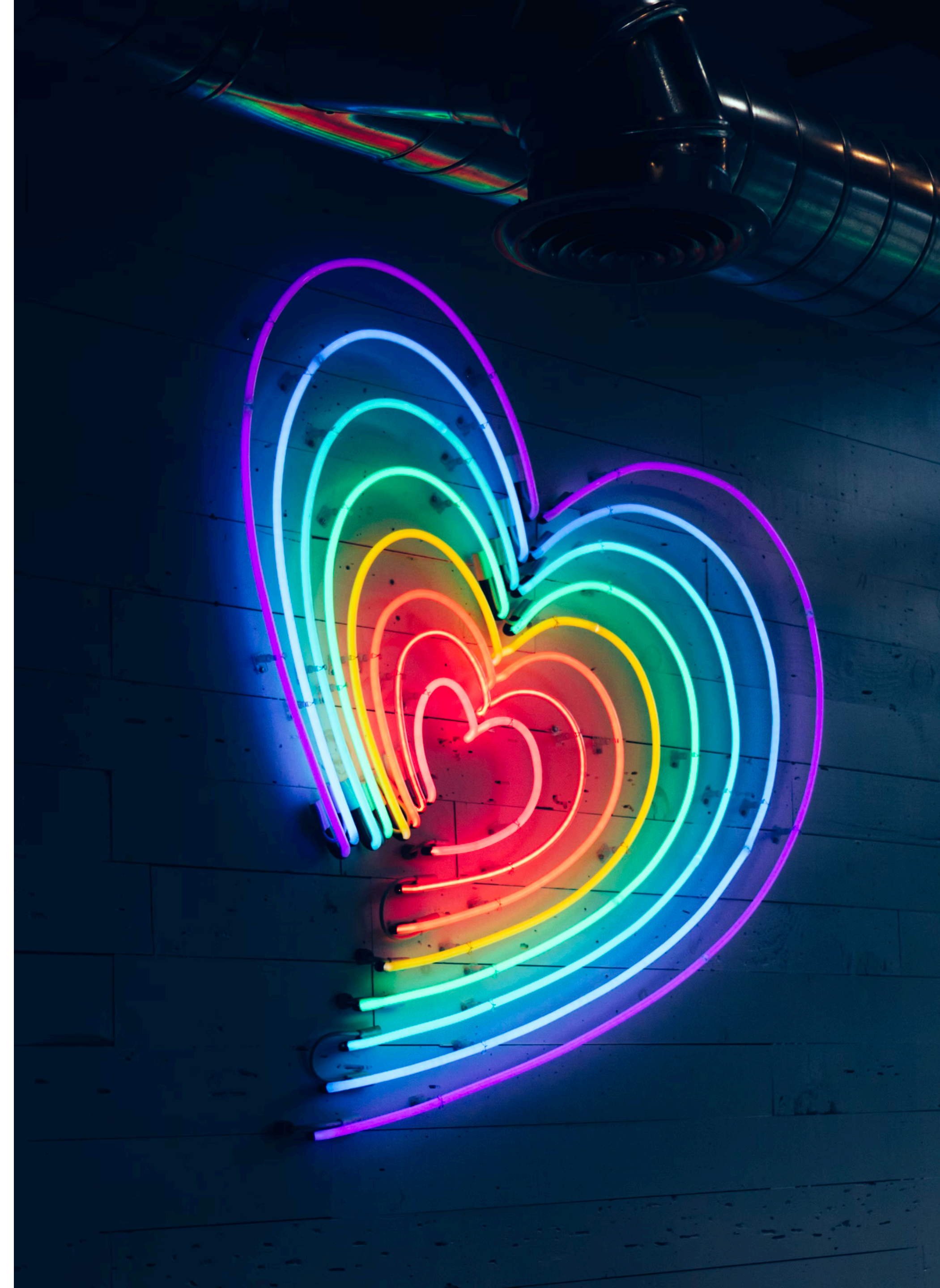
**H**appiness

**E**ngagement

**A**doption

**R**etention

**T**ask Effectiveness & Efficiency





	Analytics	Quant Usability Testing	Surveys
Happiness			Satisfaction rating Ease-of-use rating Perceived usability Questionnaire scores
Engagement	Sales, orders, or subscriptions Frequency of return Number of sessions per user Time spent Feature usage		
Adoption & Retention	New accounts/visitors Conversion rate Returning visitors Renewal rate Churn Repeat purchases		
Task Effectiveness & Efficiency	Completion rate Error counts & rate Time on page Productivity	Success rate Time on task Error counts & rate Productivity	

## NRR

Monthly recurring revenue of the last month

+ Upsell/cross-sell revenue

- Revenue lost from down-sells

**- Revenue lost from churn**

---

Monthly recurring revenue of the last month

## **Product adoption**

Expressed over time as monthly active users (MAU), weekly active users (WAU), or daily active users (DAU)

---

## **Feature adoption**

Tracks a specific feature (or features) within the product

**Example:** The percentage of features that generate 80% of clicks

---

$$\text{Adoption} = \frac{\text{Avg. number of Core Events adopted}}{\text{Total number of Core Events}} \times 100$$

$$\text{Stickiness} = \frac{\text{Avg. daily/weekly active visitors/accounts}}{\text{Avg. weekly/monthly active visitors/accounts}} \times 100$$

$$\text{Growth} = \frac{\text{Total number of new users} + \text{recovered users}}{\text{Total number of dropped users}}$$

# Retention:

---

Are users building enduring habits inside the product?

## **Feature retention**

Gives you an understanding of which features keep your users returning and helps you identify users who are at-risk

---

## **App retention**

Measures how many users continue using your application during a given time period

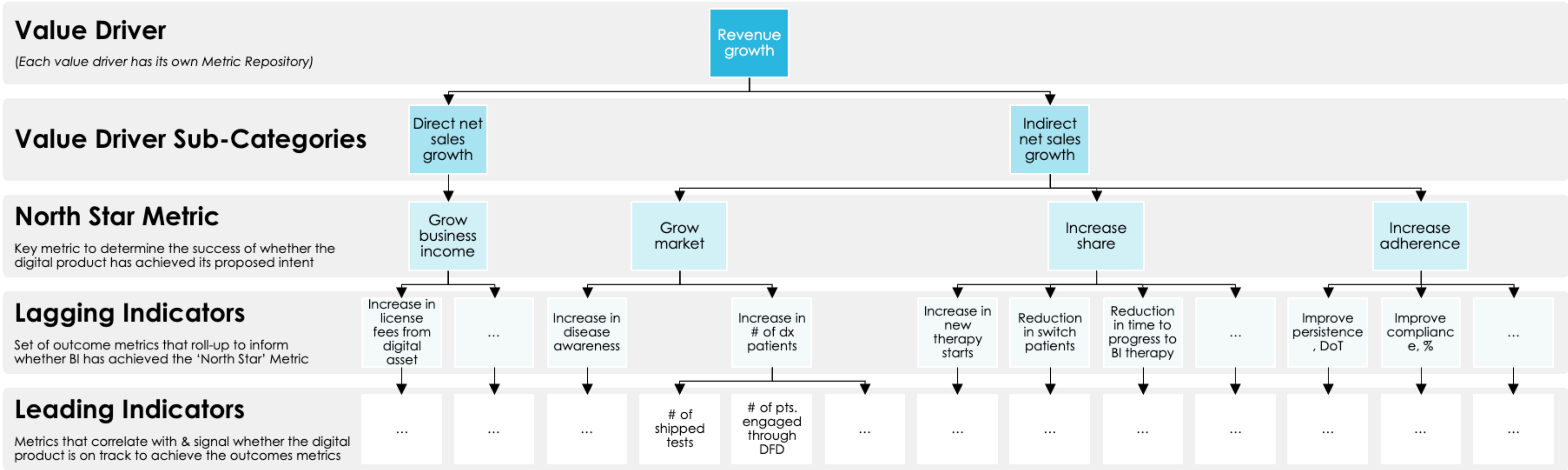
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## **Aha moment**

When a user clearly grasps why they need to use a specific piece of software

---

# Value Metrics



**Each Value Driver has a repository of North-star Metrics, Lagging and Leading Indicators aimed at providing digital product teams a starting point to determine which metrics to use to measure commercial success**

# Pilot Market Fit

can be proven

- through increasing user retention =  $(\text{number of active users} / \text{number of active users last period}) \times 100$
- through a growing MRR by 7%
- through a churn rate below 6%

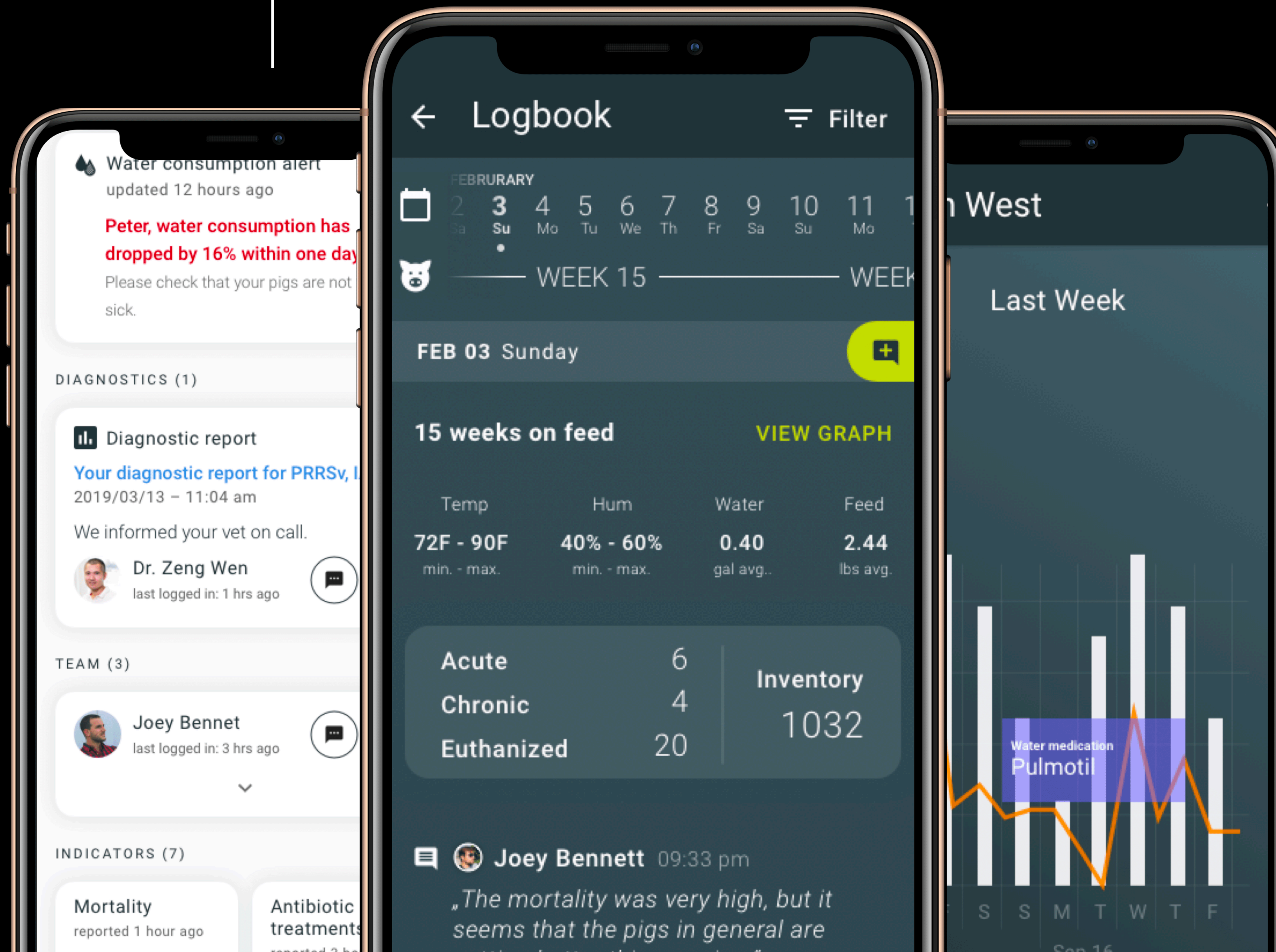
**+ in combination and based on your leading and lagging indicators!**



Farmers are given control with personalized access to their barns connected with AI leveraging data from various IoT devices.

There are **multiple touchpoints of engagement**, including IoT devices, a producers and vet dashboard, medical and financial data, a supervisor application to support multiple farms and farmers login to take care of the day to day activities.

Vet clinics receive actionable insights to support producers by leveraging Farmera digital eco-system



Its **intuitive design** allows for personalized engagement that is informed by behavioral data to improve interaction quality.



Good inventors and designers deeply understand their customer. They spend tremendous energy developing that intuition. **They study and understand their users thoroughly** rather than only the averages you'll find on surveys.

**They live user centred design.**

**„WE NEED TO GET AWAY FROM THE  
FOCUS OF SOLEY STUDYING AND  
UNDERSTANDING OUR USERS AND MOVE  
TOWARDS RESEARCH THAT FOCUSES ON  
THE BUSINESS NEED AND PROOF  
VIABILITY EARLY ON“**

# QUESTION:

HOW DO YOU PLAN TO APPLY  
THIS NEWFOUND KNOWLEDGE IN  
YOUR PROFESSIONAL OR  
ENTREPRENEURIAL ENDEAVORS?

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