
Product and tech
4 weddings and a funeral
Gien Verschatse
@selketjah
ARDLING

AGENDA

- What is a product?
- What isn't a product?
- What is product thinking?
- How can Domain-Driven Design help with product thinking?

Photo by Alexa Williams on Unsplash



Why this talk?

Photo by Jon Tyson on Unsplash

PRODUCT

A product is **any item or service** you **sell** to serve a **customer**'s **need or want**. They can be physical or virtual.

Has 3 characteristics:

- Intended for customers
- Provides a benefit in a market
- Exchange value

Source: https://www.aha.io/roadmapping/guide/product-management/what-is-a-product

PRODUCT

Anything a business **sells** that solves a market problem or addresses a **customer**'s **need or desire**. When you view a product through this broad lens, you can see why it can include many things we pay for that we wouldn't normally describe as products.

...

It's not always clear exactly what product a business is selling.

Source: https://www.productplan.com/glossary/what-is-a-product/

PRODUCT

Product is something that satisfies a **Business Need**. Product **delivers value** to the **stakeholders** (internal or external). Product has a clear boundary, **customers** and achieves some measurable value.

A **tangible** product is a physical object that can be perceived by touch such as a building, vehicle, gadget, or clothing. An **intangible** product is a product that can only be perceived indirectly such as an insurance policy.

Source: https://worldofagile.com/blog/what-is-a-product/

PRODUCT

A product is the item **offered for sale**. A product can be a service or an item. It can be physical or in virtual or cyber form...

Source: https://economictimes.indiatimes.com/definition/product



MY UNDERSTANDING OF A PRODUCT

Customer facing

(business or person)

Fulfills a need

Physical (I can touch it), service (I can do something), or virtual (I can imagine it)

Value exchange

(money)

Photo by Galina N on Unsplash



PRODUCT STRATEGY

The **market** describes the target customers and users of your product.

The **key features and differentiators** are those aspects of your product that are crucial to creating value for the customers and users and that entice people to choose it over competing offerings.

The **business goals** capture how your product is going to benefit your company, and why it is worthwhile for the company to invest in the product.

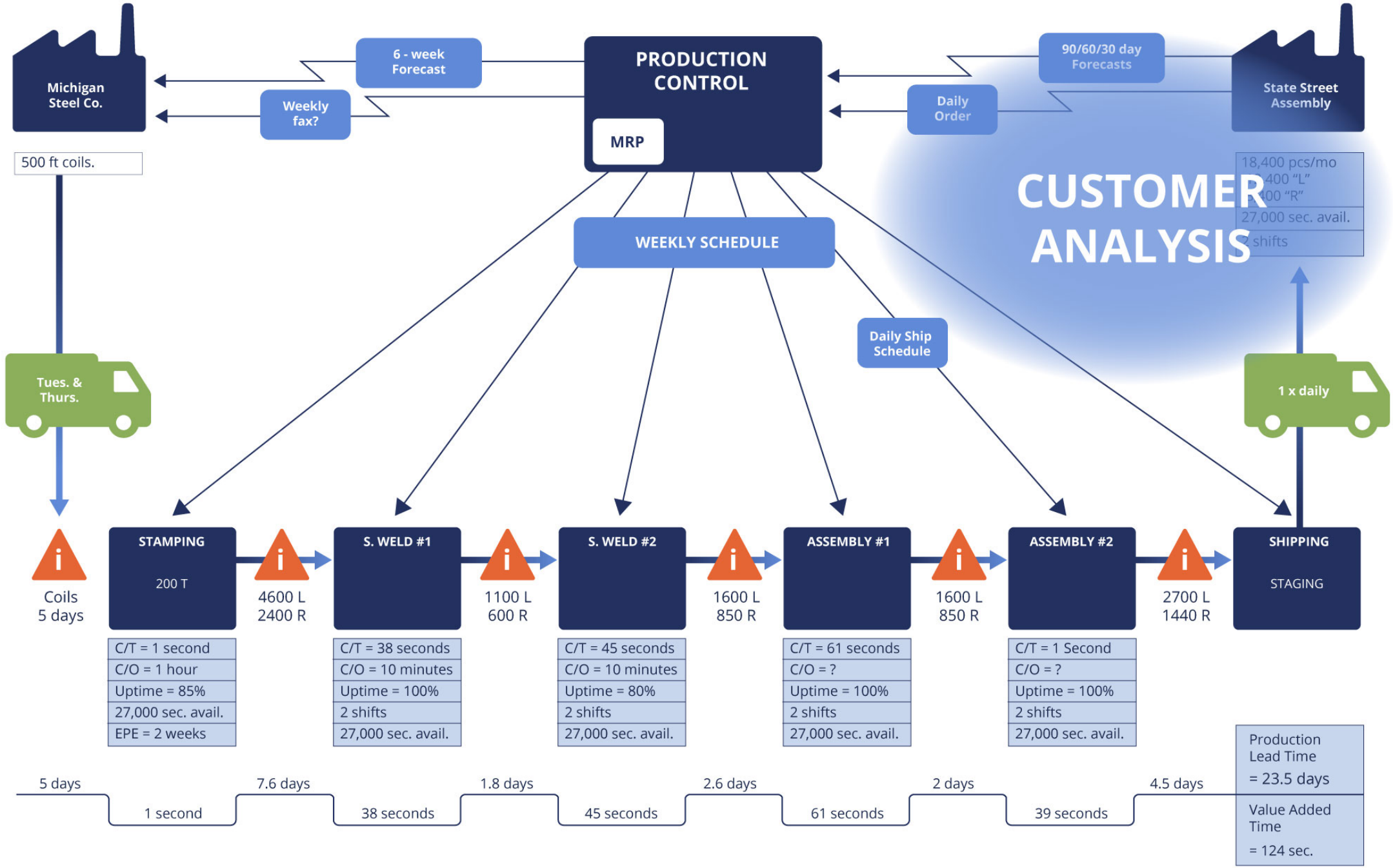
Source:
Pichler, Roman. Strategize: Product Strategy and Product Roadmap Practices for the Digital Age. Pichler Consulting. Kindle Edition.



VALUE STREAM

Set of actions that deliver value to the customer **from the initial need until the realisation of that value** by the customer.

Photo by Andy Holmes on Unsplash


Michigan Steel Co.
6 - week Forecast
Weekly fax?
PRODUCTION CONTROL
MRP
90/60/30 day Forecasts
Daily Order
State Street Assembly
CUSTOMER ANALYSIS
18,400 pcs/mo
400 "L"
400 "R"
27,000 sec. avail.
2 shifts
500 ft coils.
WEEKLY SCHEDULE
Daily Ship Schedule
Tues. & Thurs.
1 x daily
Coils
5 days
STAMPING
200 T
4600 L
2400 R
S. WELD #1
1100 L
600 R
S. WELD #2
1600 L
850 R
ASSEMBLY #1
1600 L
850 R
ASSEMBLY #2
2700 L
1440 R
SHIPPING
STAGING
C/T = 1 second
C/O = 1 hour
Uptime = 85%
27,000 sec. avail.
EPE = 2 weeks
C/T = 38 seconds
C/O = 10 minutes
Uptime = 100%
2 shifts
27,000 sec. avail.
C/T = 45 seconds
C/O = 10 minutes
Uptime = 80%
2 shifts
27,000 sec. avail.
C/T = 61 seconds
C/O = ?
Uptime = 100%
2 shifts
27,000 sec. avail.
C/T = 1 Second
C/O = ?
Uptime = 100%
2 shifts
27,000 sec. avail.
5 days
1 second
7.6 days
38 seconds
1.8 days
45 seconds
2.6 days
61 seconds
2 days
39 seconds
4.5 days
Production Lead Time
= 23.5 days
Value Added Time
= 124 sec.

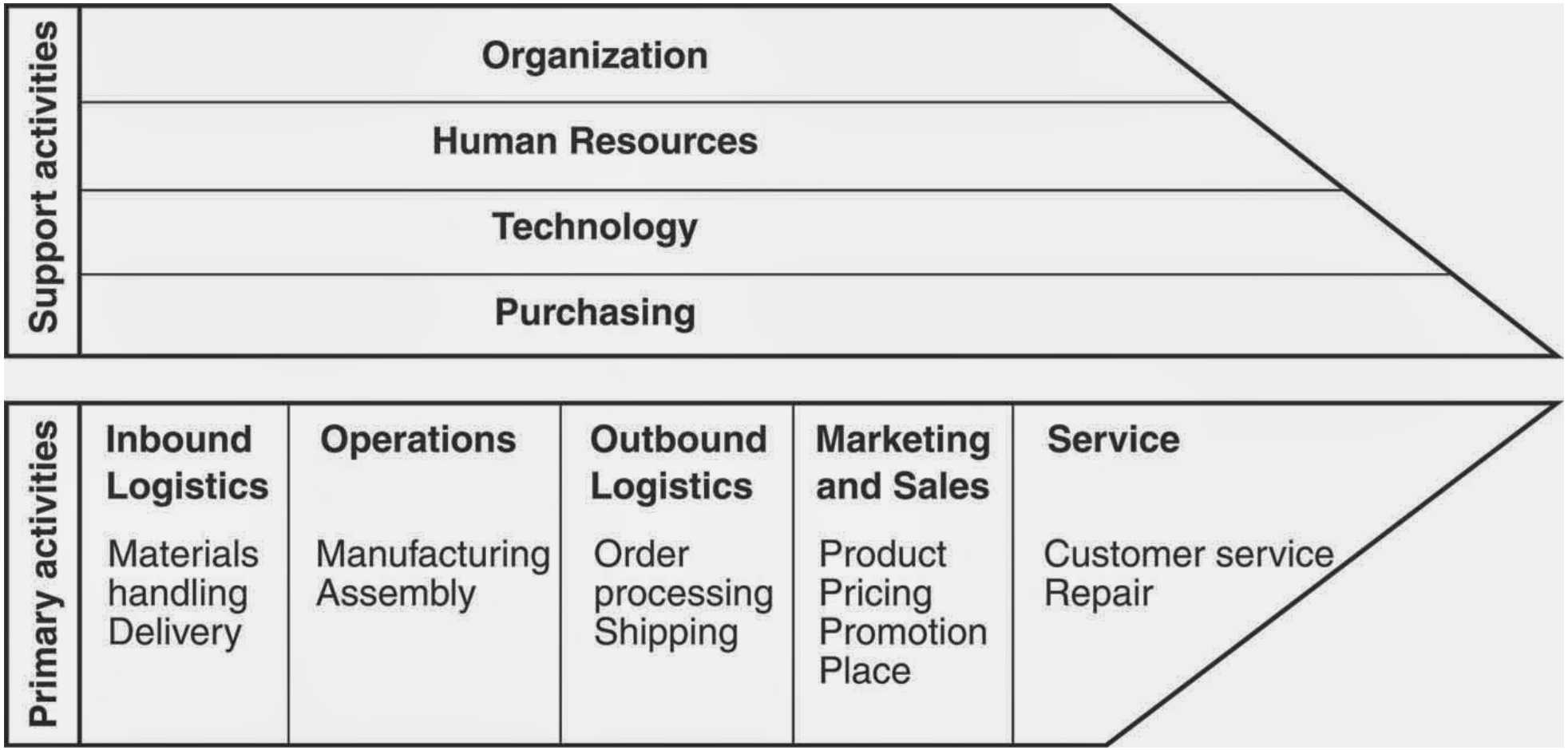
VALUE CHAIN

Progression of activities that a firm operating in a **specific industry** performs in order to deliver a valuable product to the **end customer**.



Photo by Markus Spiske on Unsplash

PORTERS GENERIC VALUE CHAIN





WHUT?

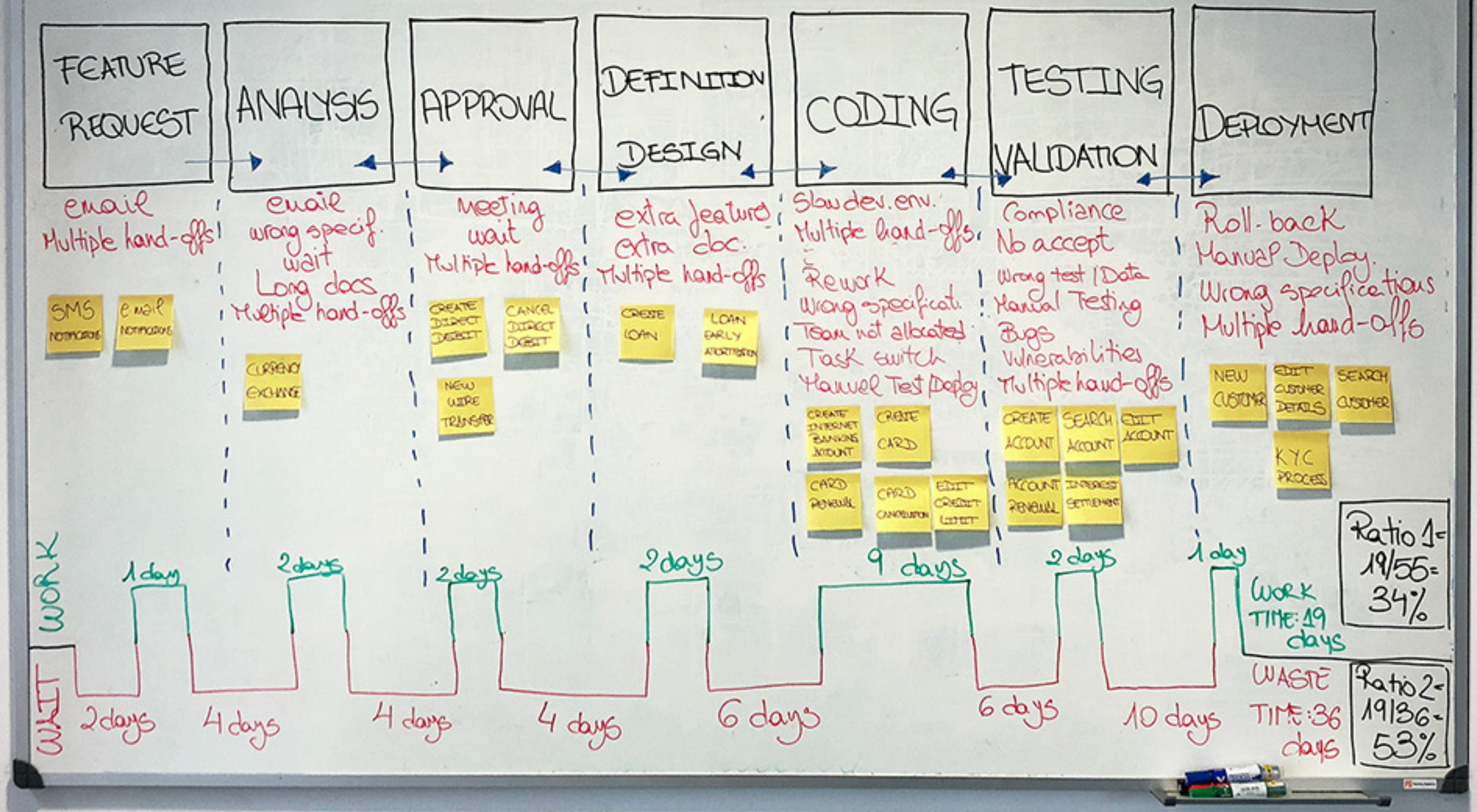
VALUE CHAIN

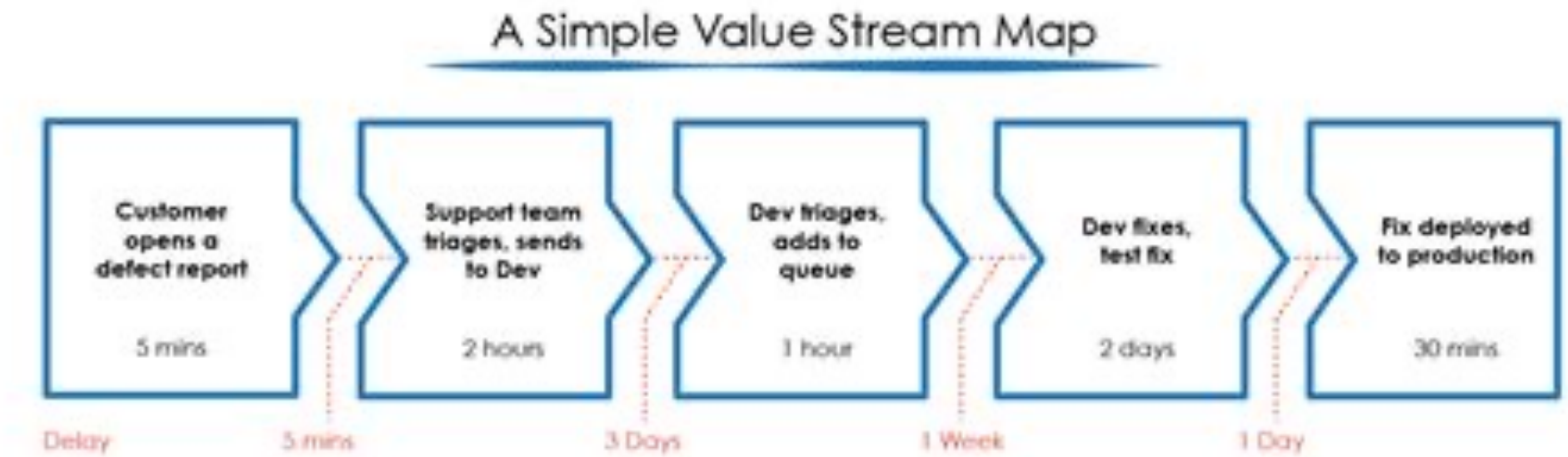
How does this work for service/virtual?

VALUE STREAM

How does this work for service/virtual?

Photo by charlesdeluvio on Unsplash


FEATURE REQUEST
ANALYSIS
APPROVAL
DEFINITION DESIGN
CODING
TESTING VALIDATION
DEPLOYMENT
email
Multiple hand-offs
SMS NOTIFICATION
email NOTIFICATION
email
wrong specif.
wait
Long docs
Multiple hand-offs
CURRENCY EXCHANGE
Meeting
wait
Multiple hand-offs
CREATE DIRECT DEBIT
CANCEL DIRECT DEBIT
NEW WIRE TRANSFER
extra feature
extra doc.
Multiple hand-offs
CREATE LOAN
LOAN EARLY AMORTISATION
Slow dev. env.
Multiple hand-offs
Rework
Wrong specificati
Team not allocated
Task switch
Manual Test/Deploy
CREATE INTERNET BANKING ACCOUNT
CREATE CARD
CARD RENEWAL
CARD CANCELLATION
EDIT CREDIT LIMIT
Compliance
No accept
Wrong test Data
Manual Testing
Bugs
Vulnerabilities
Multiple hand-offs
CREATE ACCOUNT
SEARCH ACCOUNT
EDIT ACCOUNT
ACCOUNT RENEWAL
INTEREST SETTLEMENT
Roll-back
Manual Deploy.
Wrong specifications
Multiple hand-offs
NEW CUSTOMER
EDIT CUSTOMER DETAILS
SEARCH CUSTOMER
KYC PROCESS
WORK
WAIT
1 day
2 days
2 days
4 days
2 days
4 days
2 days
4 days
9 days
6 days
2 days
10 days
1 day
WORK TIME: 19 days
WASTE TIME: 36 days
Ratio 1= 19/55= 34%
Ratio 2= 19/36= 53%


A Simple Value Stream Map
Customer opens a defect report
5 mins
Support team triages, sends to Dev
2 hours
Dev triages, adds to queue
1 hour
Dev fixes, test fix
2 days
Fix deployed to production
30 mins
Delay
5 mins
3 Days
1 Week
1 Day

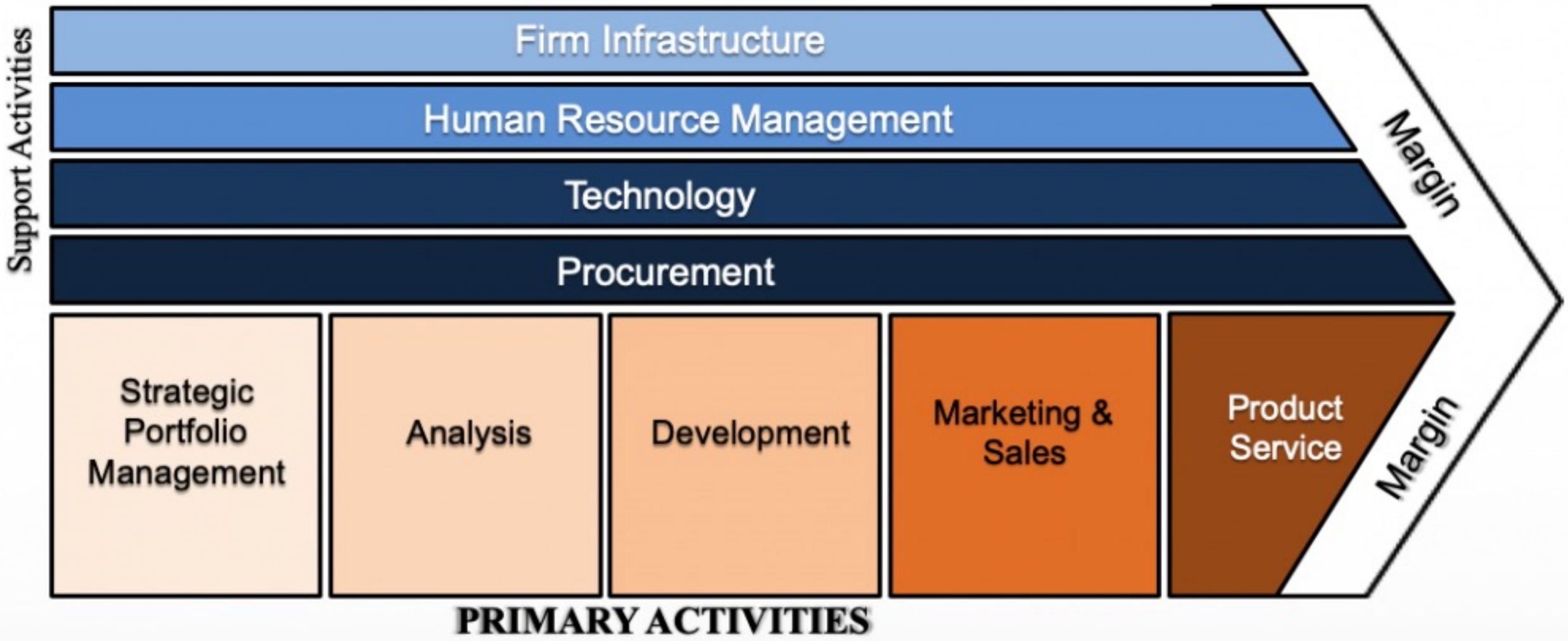

Support Activities
Firm Infrastructure
Human Resource Management
Technology
Procurement
Margin
Strategic Portfolio Management
Analysis
Development
Marketing & Sales
Product Service
Margin
PRIMARY ACTIVITIES


Photo by Aleksandar Cvetanovic on Unsplash
Maybe I need help to understand this for software…



MY UNDERSTANDING OF PRODUCT THINKING

Customer centric discovery and delivery

Focus on the problem first

Maximize value exchange

In context of business goals

Photo by Diego PH on Unsplash



Photo by Austin Distel on Unsplash

When is software (or SaaS) the product?

- Customer-facing
- Value exchange
- Fulfills a need
- Service or virtual



1. POTTRACK

Customer-facing?

- private accounts

Value exchange?

- subscriptions

Need or want?

- Tell me when to water my plants

What is the product?

- Service, reminder app

Photo by Francesco Gallarotti on Unsplash



Software

What do we sell?

Photo by Francesco Gallarotti on Unsplash



2. WATER AWAY

Customer-facing?

- Person and business

Value exchange?

- Bundles (private accounts)
- Fixed rate (business accounts)

Need or want?

- Someone to water their plants

What is the product?

- Service, plant watering

Photo by Jonathan Kemper on Unsplash



Software

How do we do sell it?

Photo by Martin Katler on Unsplash



3. SEEDY

Customer-facing?

- farmers

Value exchange?

- GMO Seed packages

Need or want?

- Healthier fruit and vegetables in garden

What is the product?

- Physical, seeds

Photo by Let's Kick on Unsplash



Software

How can we get better?

Photo by Let's Kick on Unsplash



WATER AWAY



SEEDY



POTTRACK

Can get fuzzy



WATER AWAY



SEEDY



POTTRACK

What about the rest of the system?

Not all software is a product…



Photo by Thomas Dils on Unsplash

Not all software should be a product…

Maybe we can use projects?



Photo by Thomas Dils on Unsplash



WHAT I UNDERSTAND A PROJECT IS

Sequence of tasks

Temporary

Specific outcome/goal/output

Needs to be managed

Photo by Linda Xu on Unsplash



PRODUCT VS PROJECT!



Photo by GR Stocks on Unsplash

PRODUCT STRATEGY

The **key features and differentiators** are those aspects of your product that are crucial to creating value for the customers and users and that entice people to **choose it over competing offerings**.

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DDD SUBDOMAINS!

- Core
- Supporting
- Generic

Photo by Vale Zmeykov on Unsplash



Core, supporting, generic

Core (sub)domain

Adds most value to your organisation/system

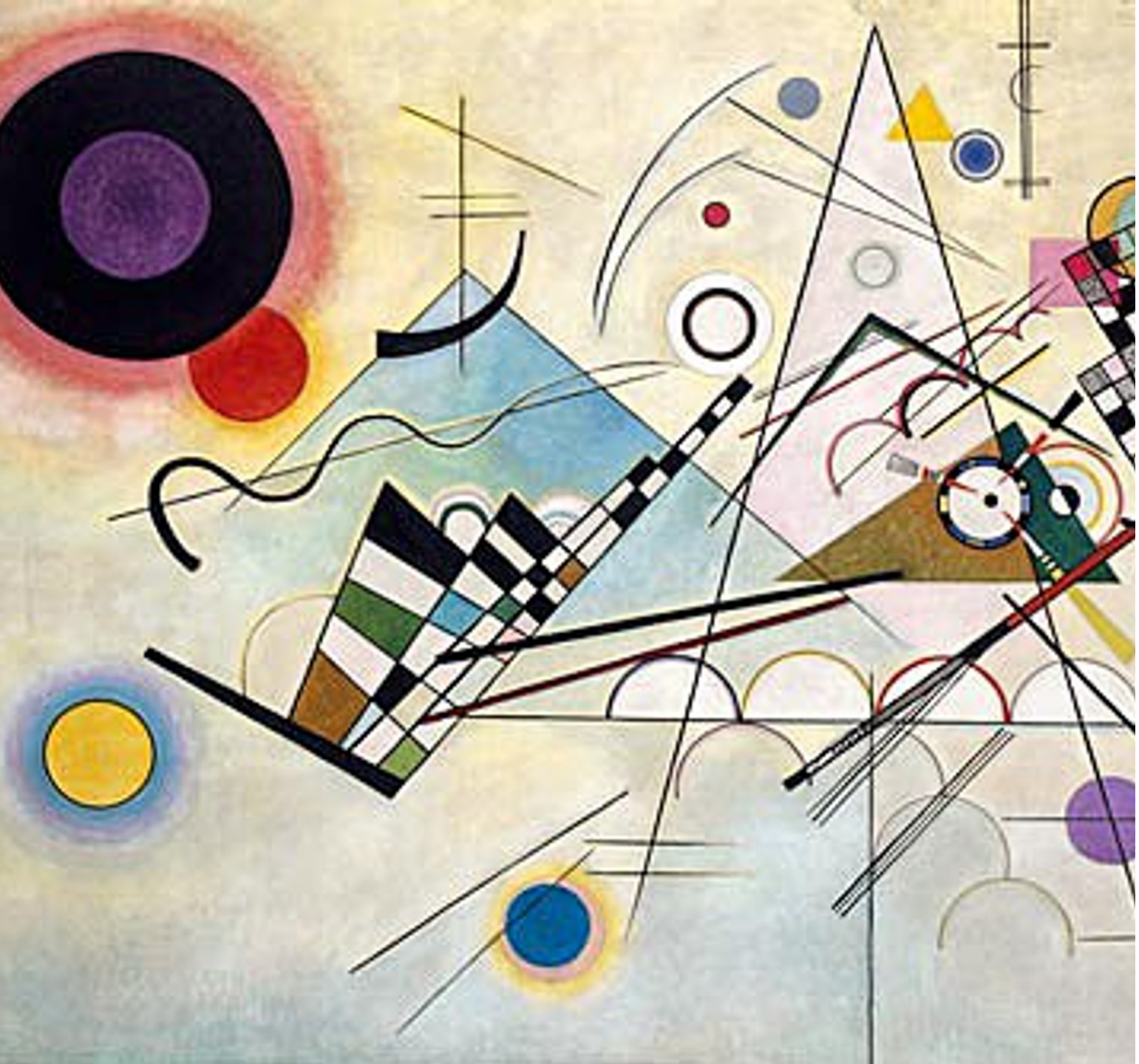
Supporting subdomain

Limited return on investment (Supporting <> unimportant)

Generic subdomain

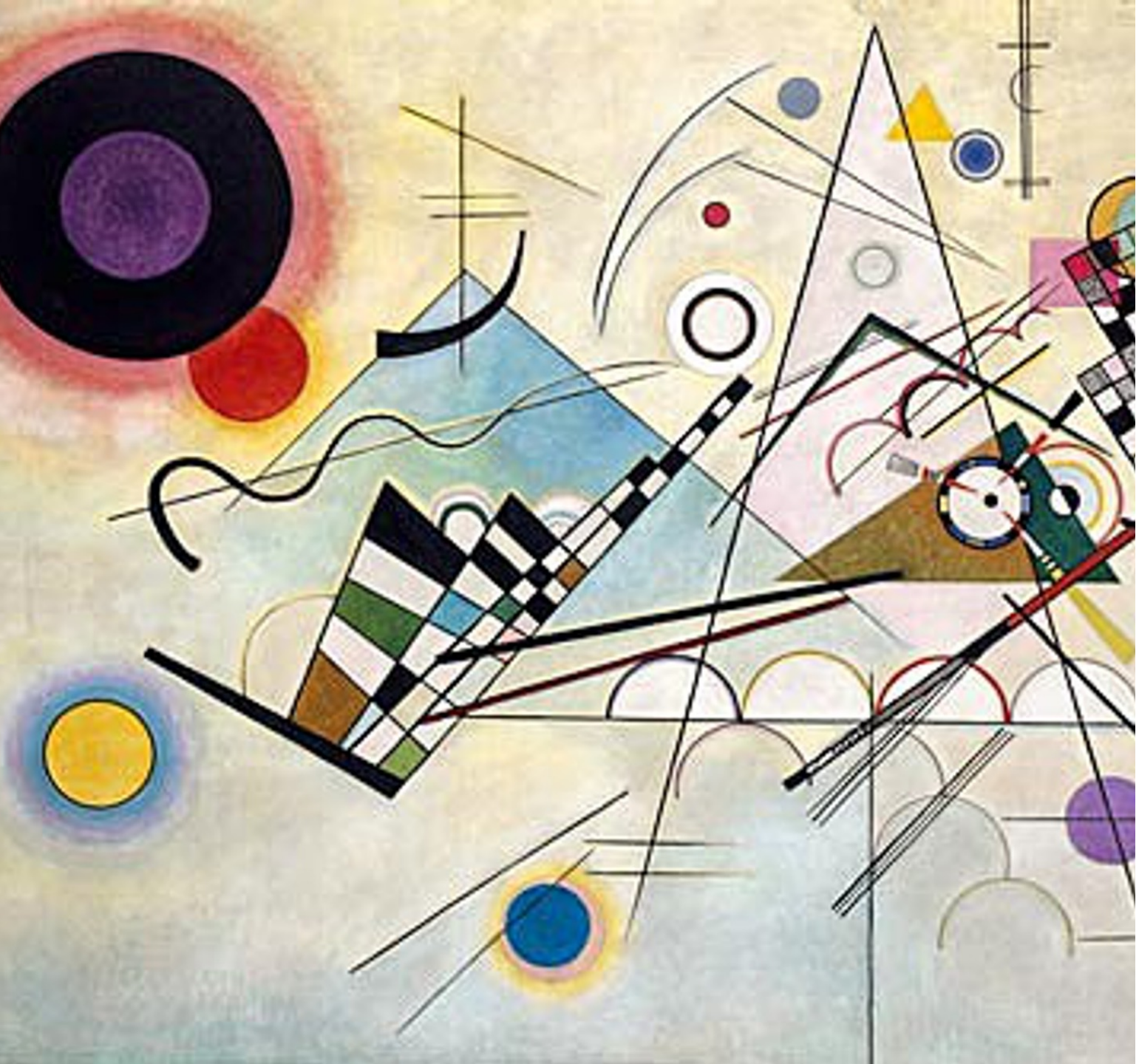
does not capture specialized knowledge and you would like to take it for granted (does not mean that you can)

Photo by Sangga Rima Roman Selia on Unsplash



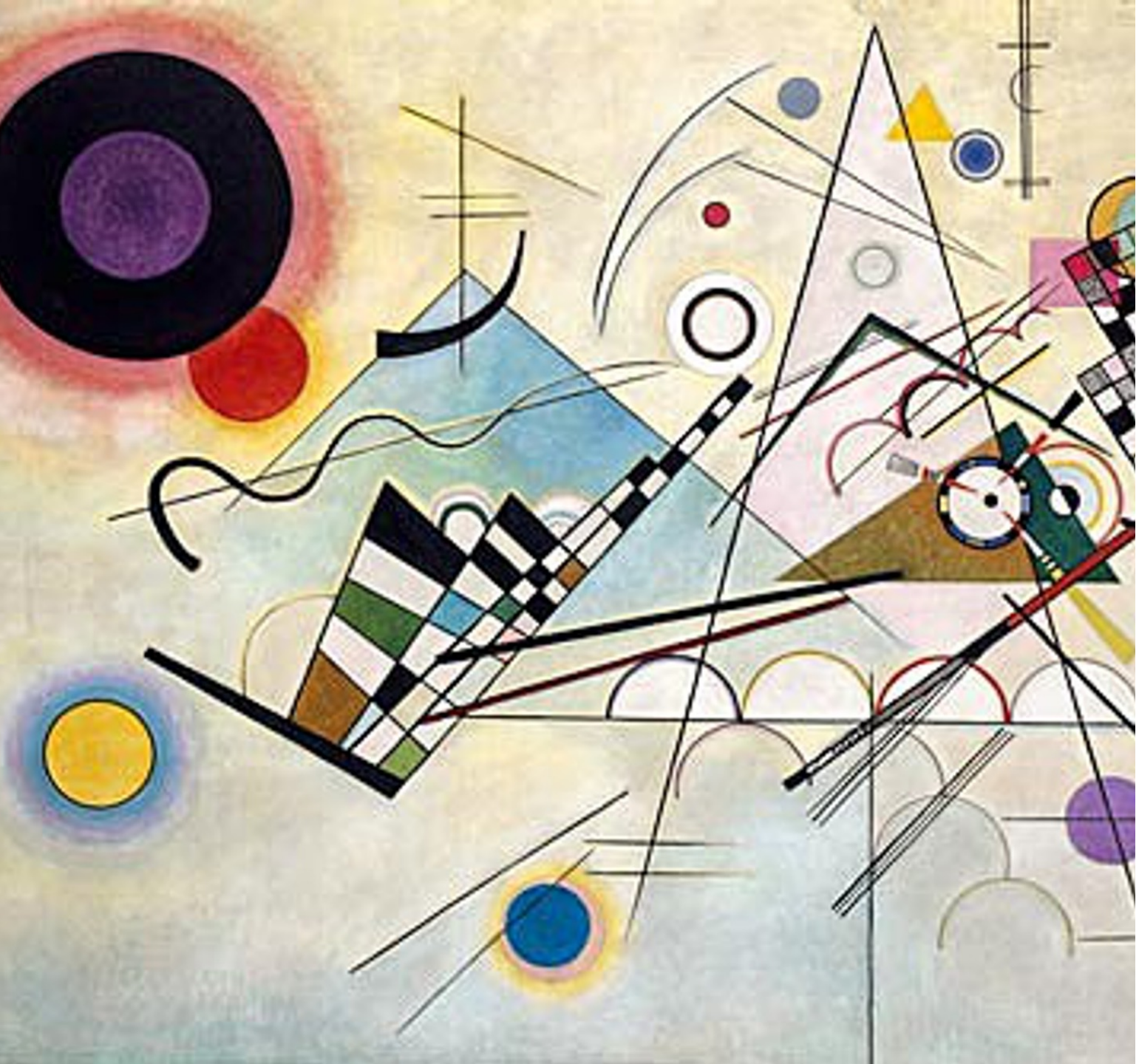
DDD is a design discipline where you

- Grasp the domain
- Agree on a language
- Express it in shared models
- Embrace complexity
- Separate models in contexts
- ... and evolve them continuously



Many tools to do this

- EventStorming
- Business model canvas
- Tactical patterns
- Wardley mapping
- Example mapping
- Bounded context canvas
- ...



DDD is a design discipline where you

- Grasp the domain
- Agree on a language
- Express it in shared models
- Embrace complexity
- **Separate models in contexts**
- **... and evolve them continuously**



DESIGNING BOUNDED CONTEXT

Long version:

- Explicit boundary in which model and language are consistent.

Short version:

- Consistency boundary of meaning

Photo by Jan Canty on Unsplash

Let’s start where software is the product!



POTTRACK



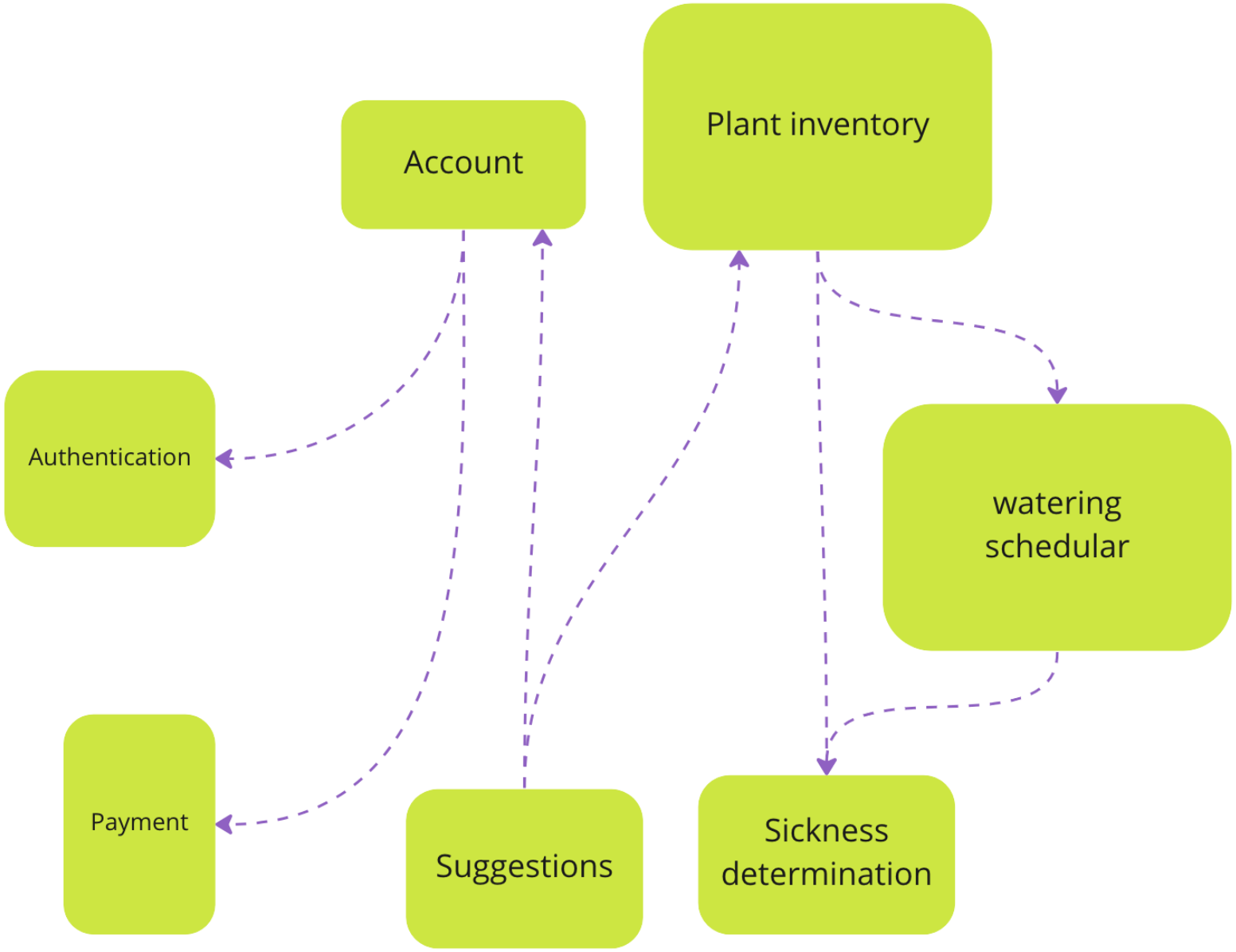
Validate with WATER AWAY and SEEDY

Because not all software is a product

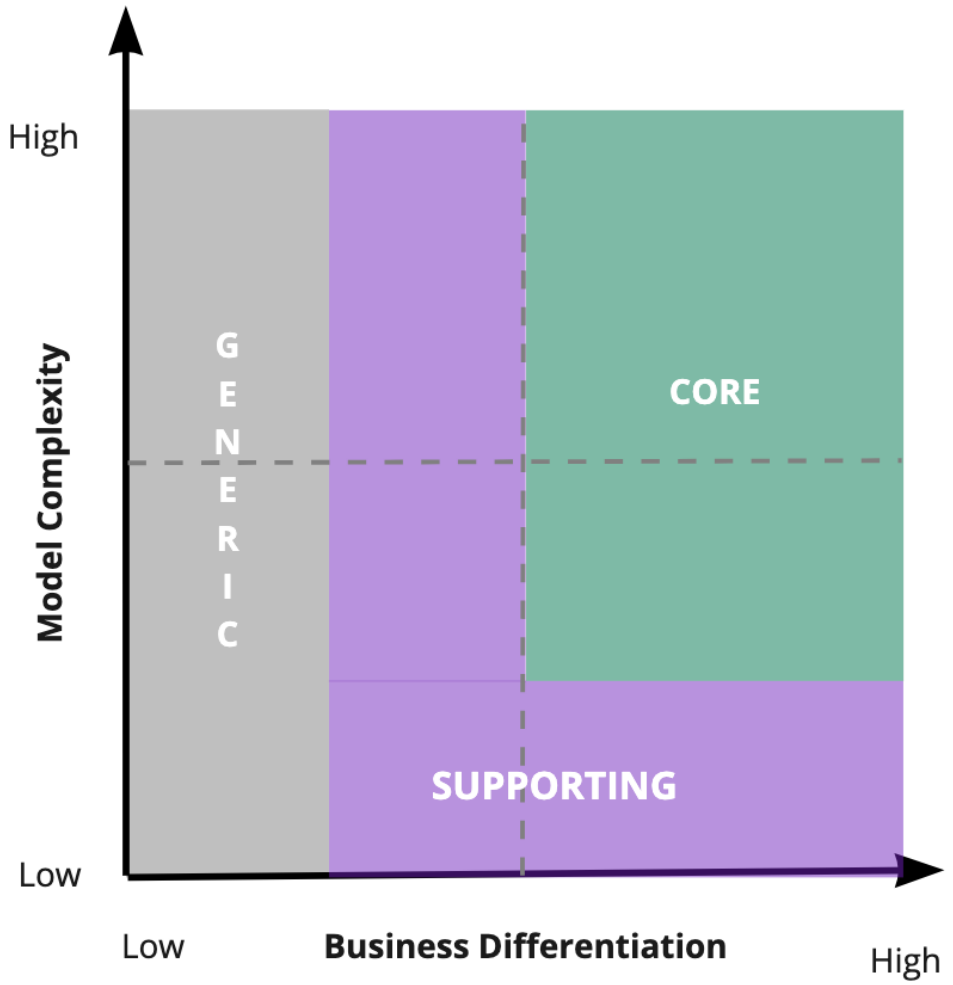
AND

Not all software in a company is part of the product.

EXTRACT OF BOUNDED CONTEXTS OF POTTRACK

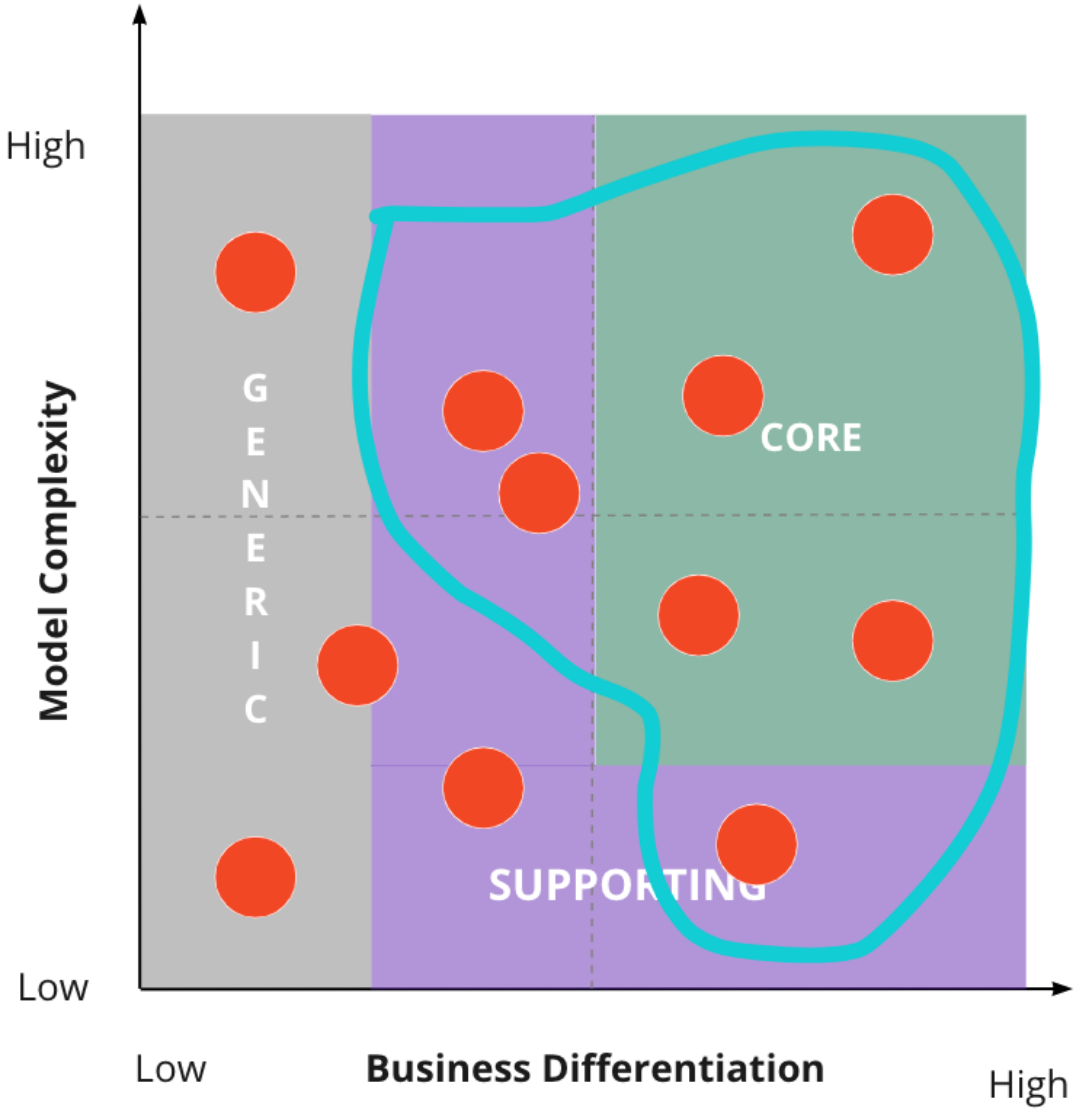


CLASSIFICATION



Source: https://github.com/ddd-crew/core-domain-charts

PRODUCT
vs
PROJECT



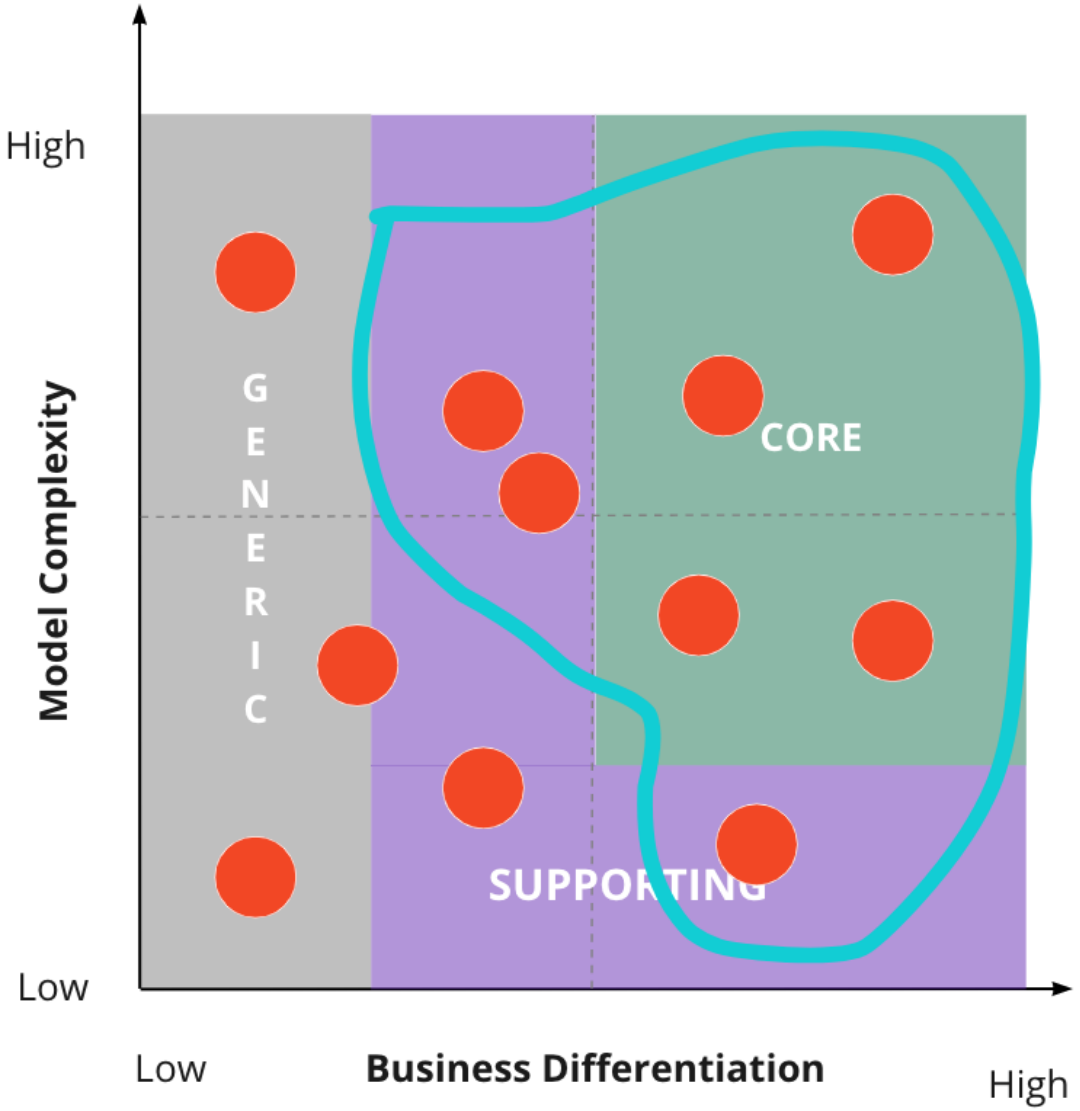
Core and some supporting:
- Stable teams
- Clear ownership
- Product

Generic and some supporting:
- Temporary teams
- No clear ownership
- Projects

???

vs

PROJECT



Core and some supporting:

- Stable teams
- Clear ownership
- ???

Generic and some supporting:

- Temporary teams
- No clear ownership
- Projects



Very alpha

Photo by Girl with red hat on Unsplash



MY UNDERSTANDING OF PRODUCT THINKING

Customer centric discovery and delivery

Focus on the problem first

Maximize value exchange

In context of business goals

Photo by Diego PH on Unsplash



Let’s focus on what the customer does and what the business has to do to support that!

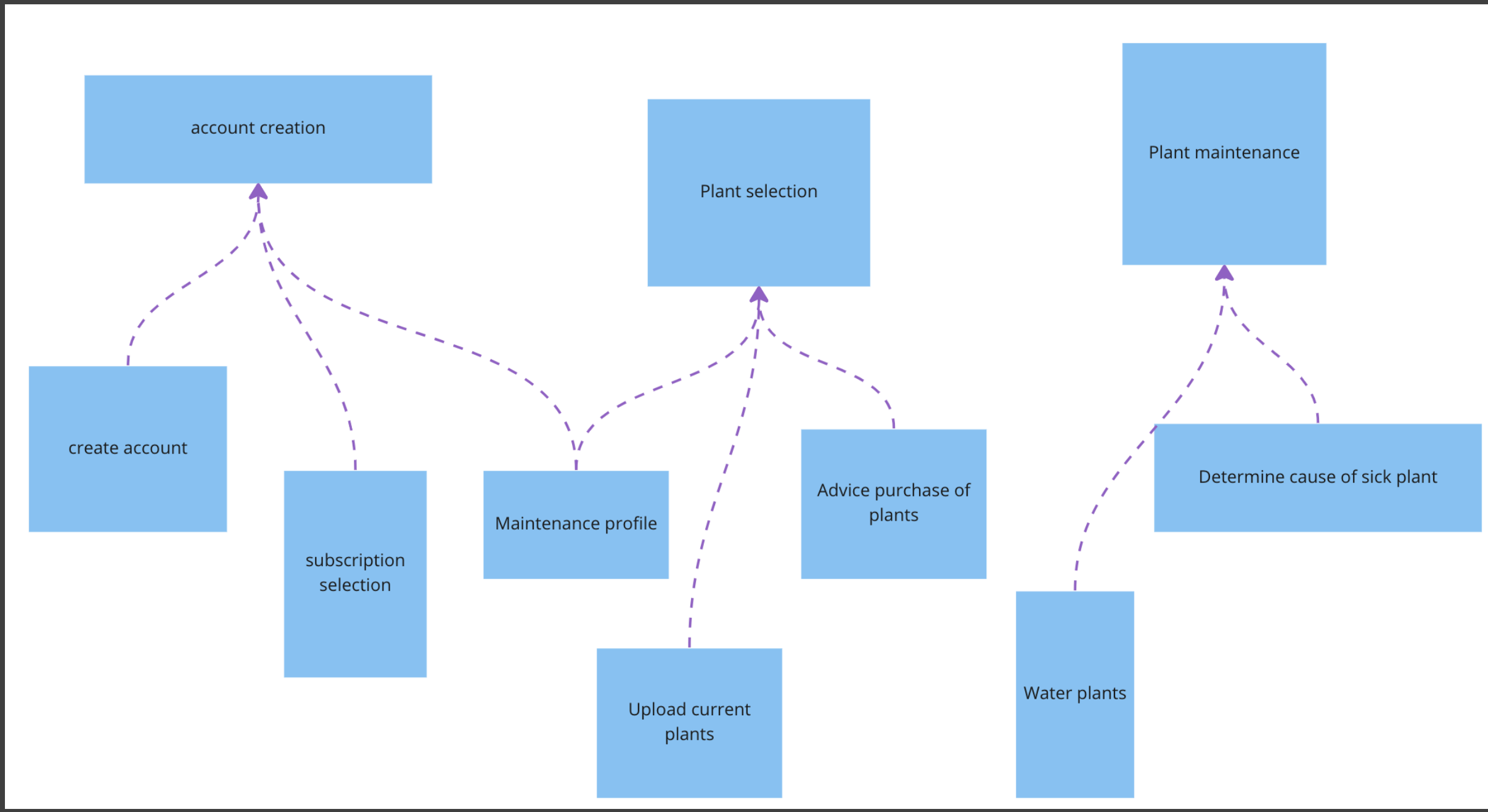
Photo by Jacqueline Munguía on Unsplash

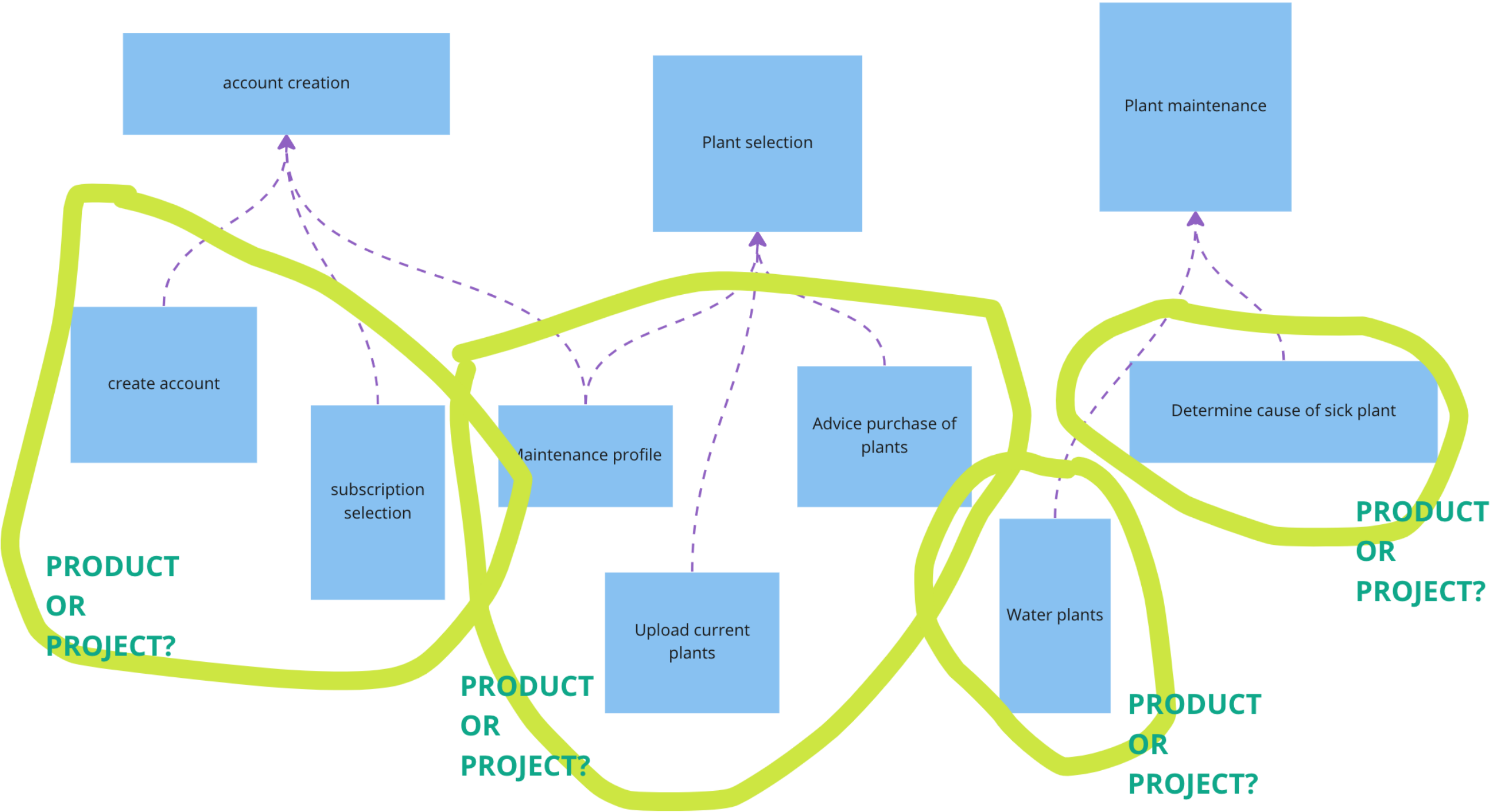


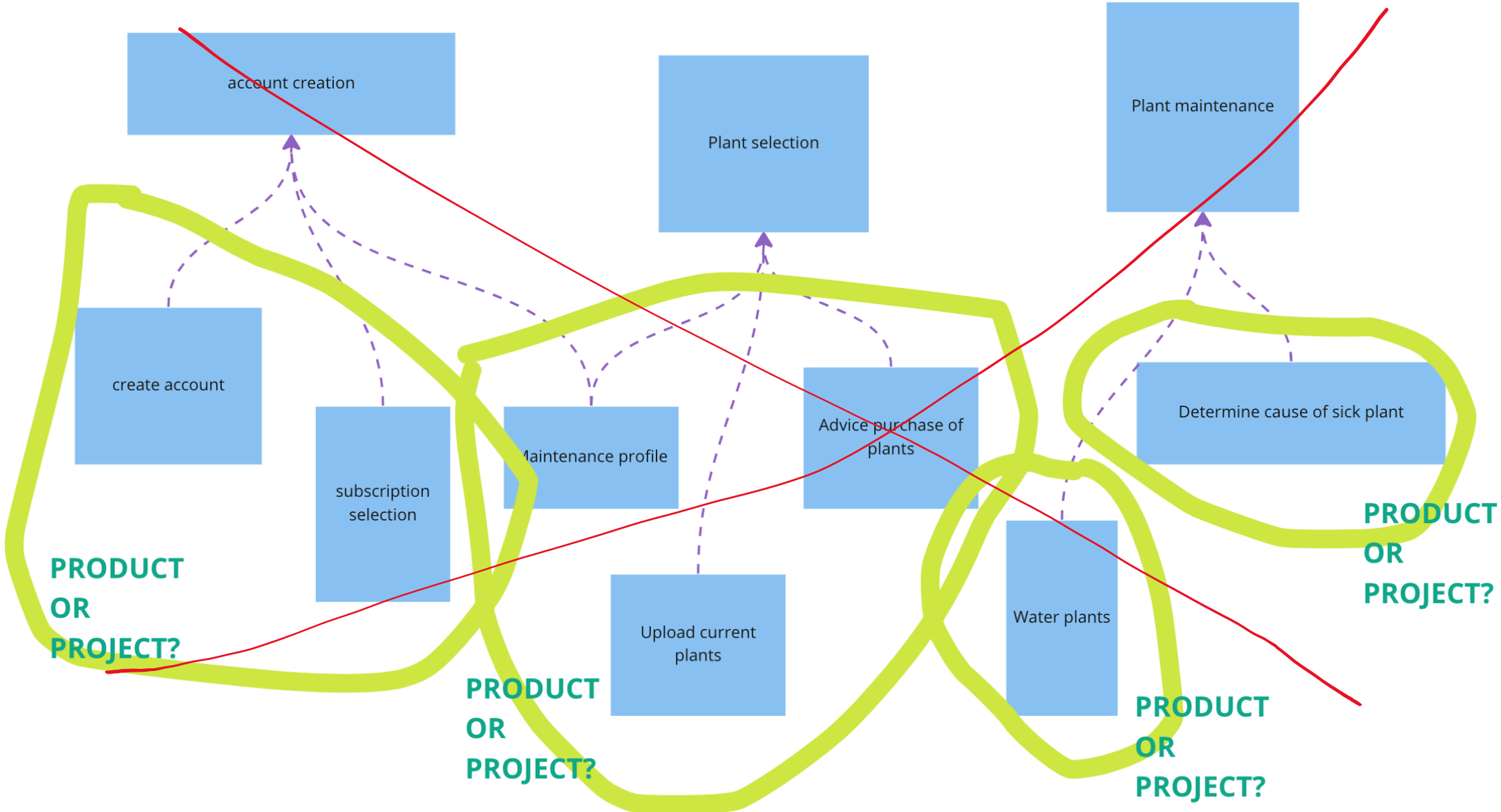
STREAMLET

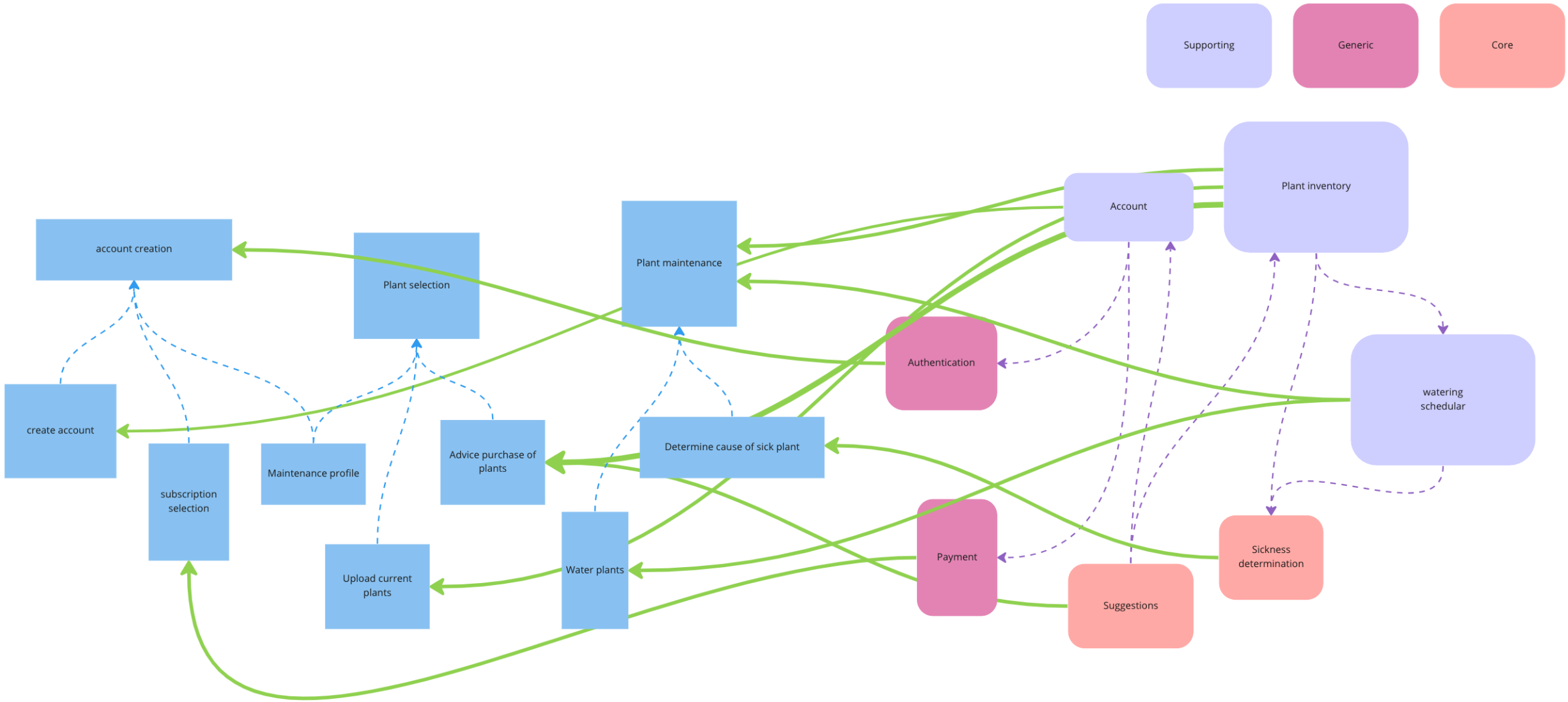
Cohesive grouping of actions that contribute directly or indirectly to the customer/user journey.

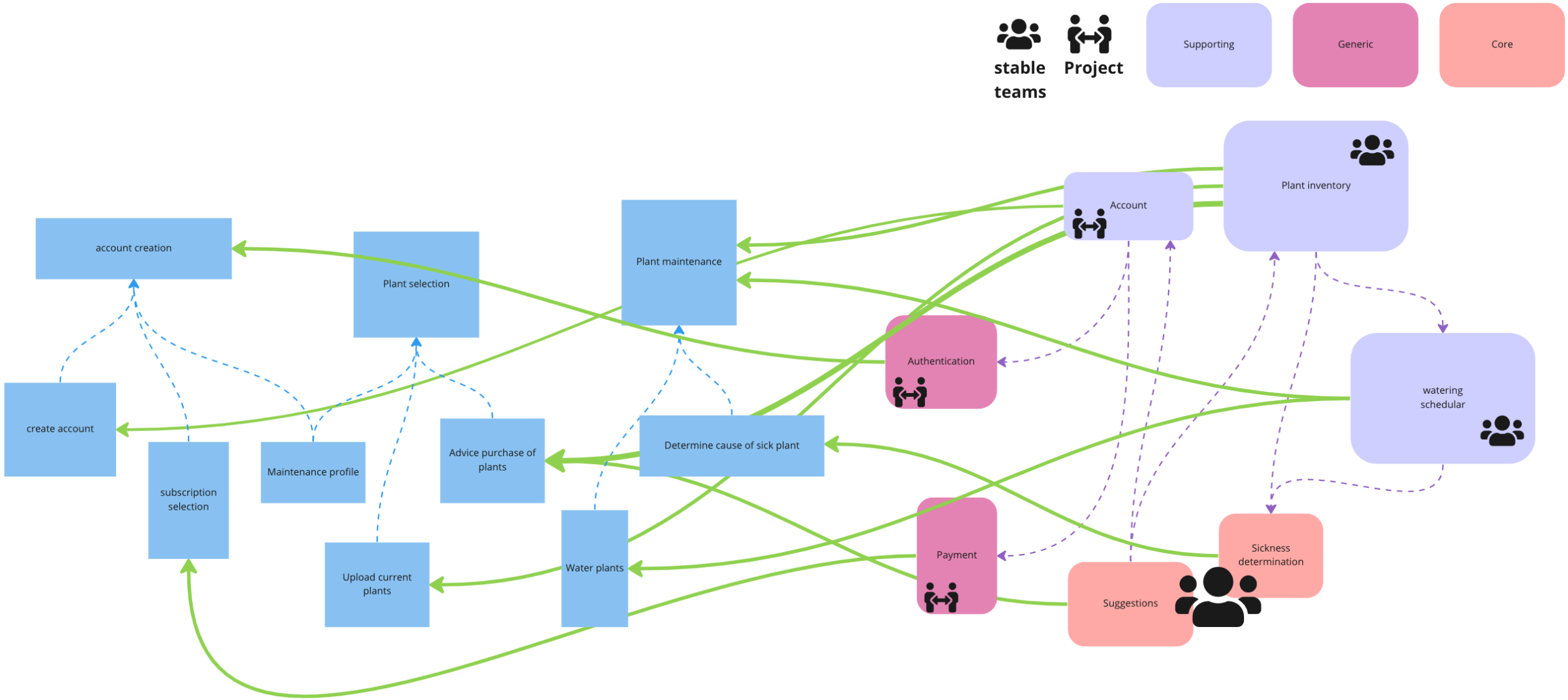
Photo by Anders Ipsen on Unsplash


account creation
Plant selection
Plant maintenance
create account
subscription selection
Maintenance profile
Advice purchase of plants
Determine cause of sick plant
Upload current plants
Water plants


account creation
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PRODUCT OR PROJECT?
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Supporting
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watering schedular
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Payment
Sickness determination
Suggestions


stable teams
Project
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Suggestions



WATER AWAY

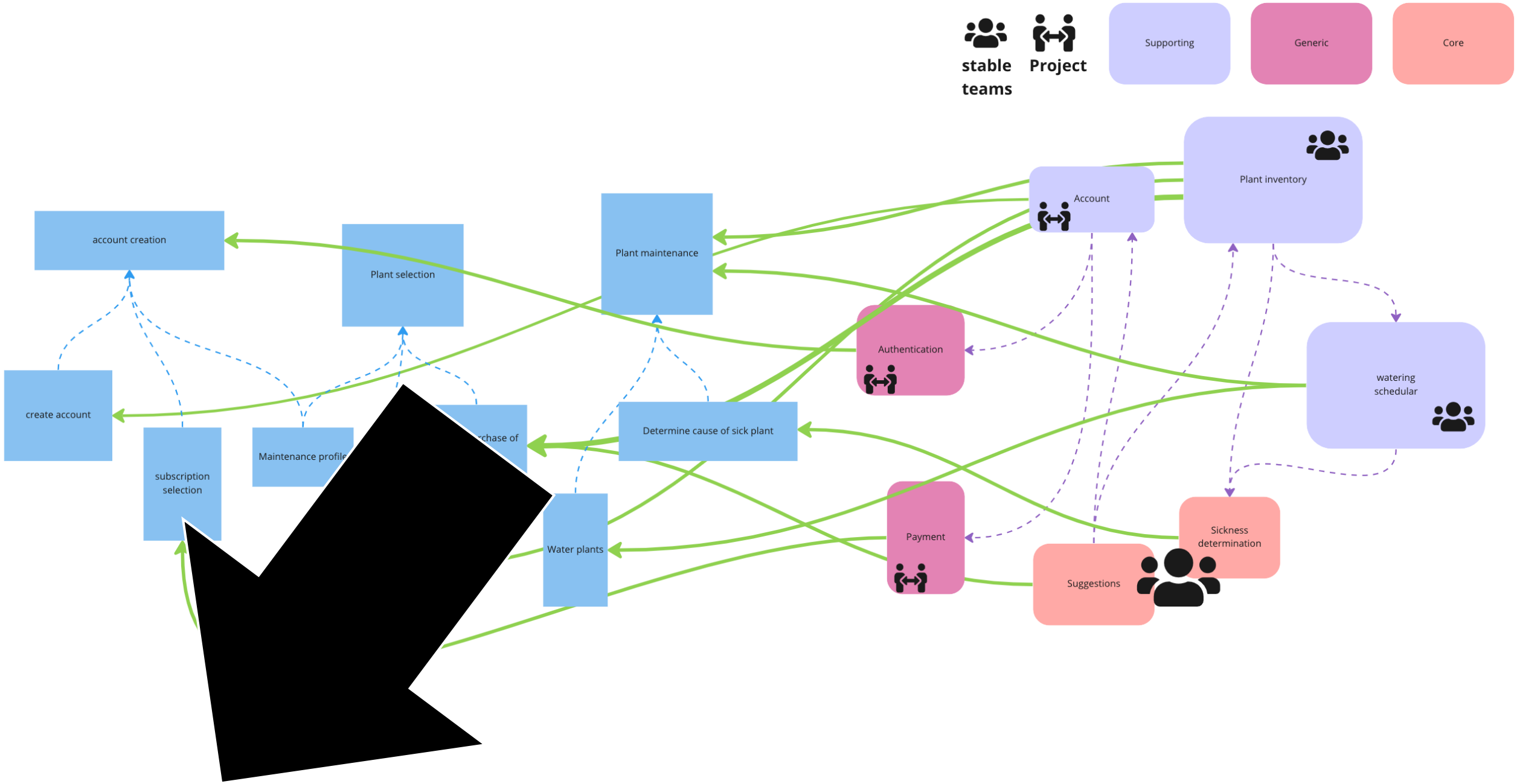


SEEDY



POTTRACK

I can do this for all software.


stable teams
Project
Supporting
Generic
Core
account creation
Plant selection
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Account
Plant inventory
Authentication
create account
subscription selection
Maintenance profile
Determine cause of sick plant
watering schedular
Water plants
Payment
Sickness determination
Suggestions

Project vs ???



Some parting thoughts

- Not sure streamlet is valuable, but needs more thought put into it.
- I think linking streamlets with bounded contexts had some valuable information to decide when something is a project or needs a stable team.
- I don't want to call (subpart of system + team) a product anymore. (funeral!!)
- I don't know what to call it ☹
- Would love to hear opinions/ideas around this.

Photo by Reid Naaykens on Unsplash



Come find me at the Aardling booth.

Do you have to water your plants today?

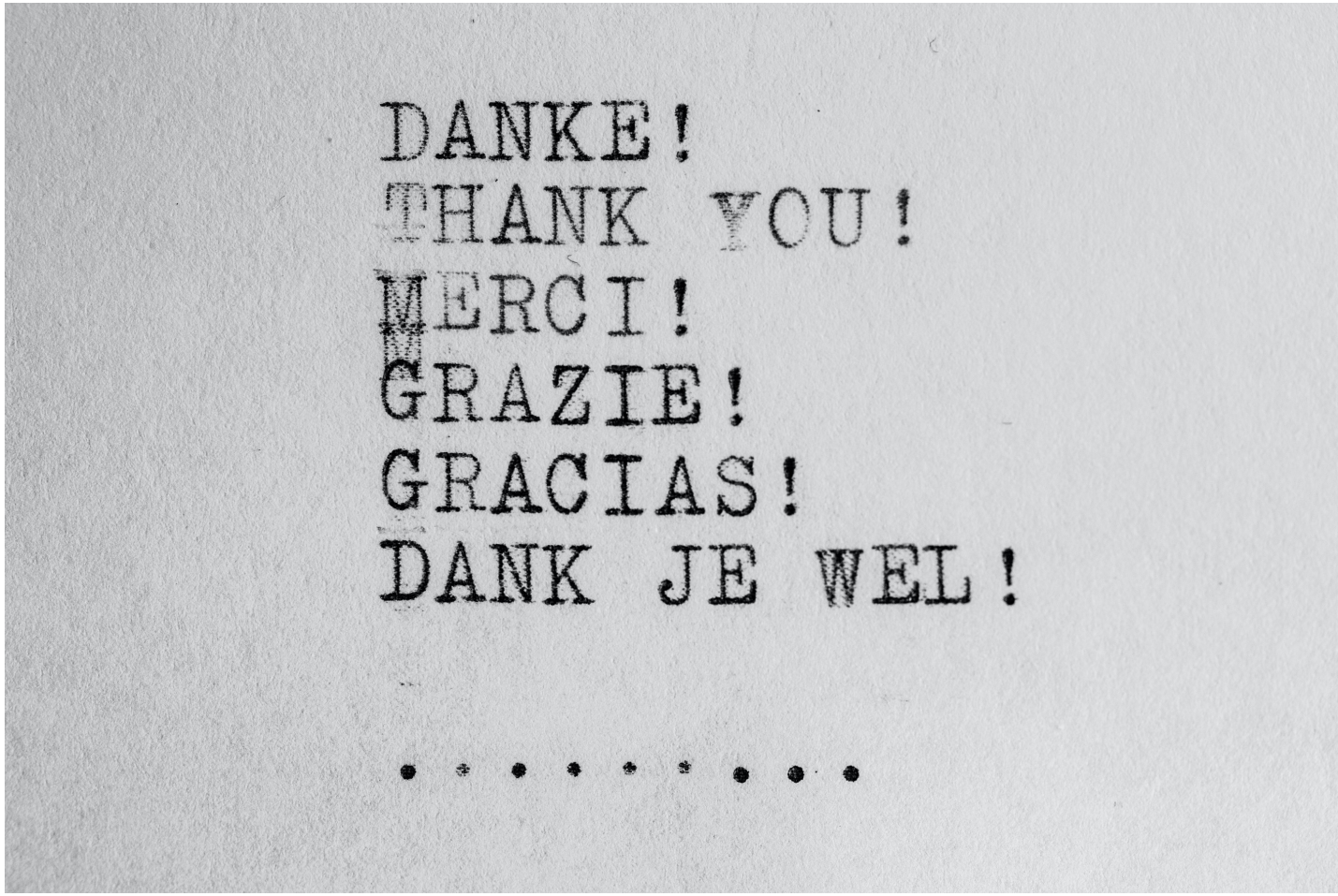


Photo by Wilhelm Gunkel on Unsplash