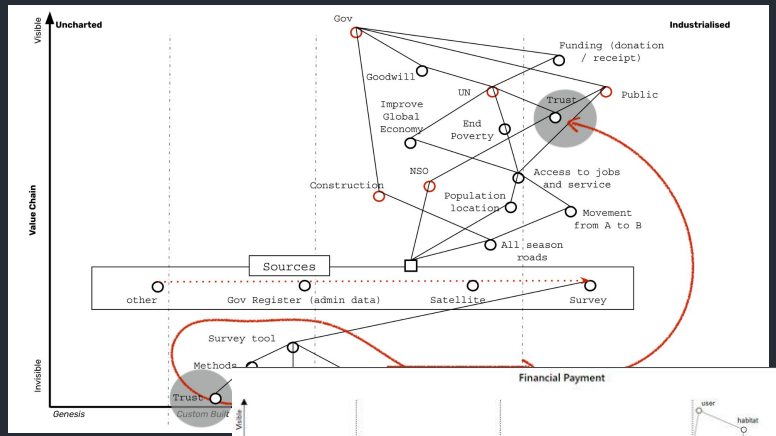
Applying Wardley Maps …

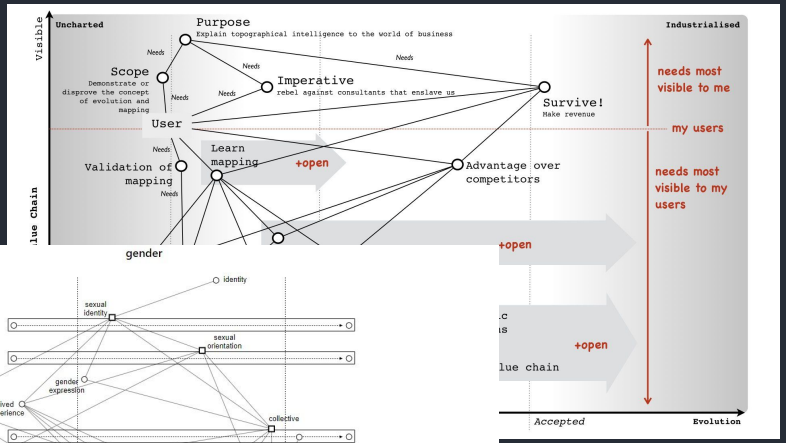
… to YOUR domain!

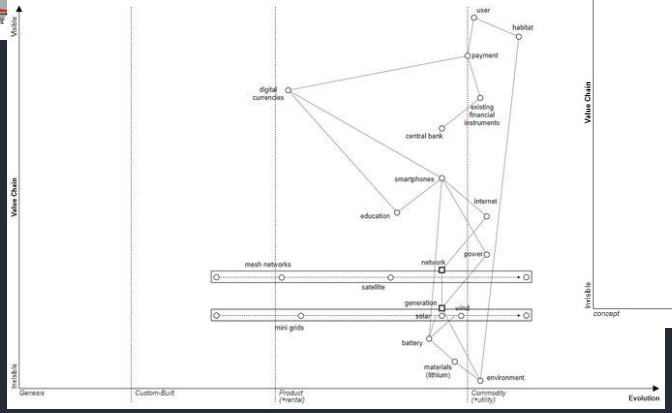
Battle of Antietam, Md., LoC https://www.loc.gov/item/gvhs01.vhs00259/

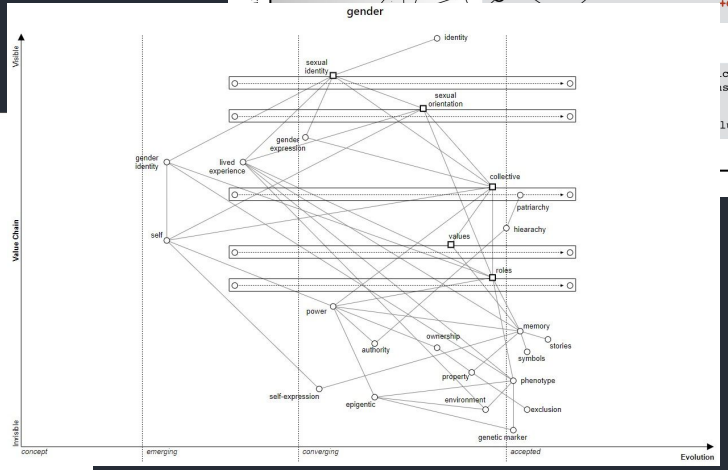
@Tom_Asel

What is *YOUR* domain?

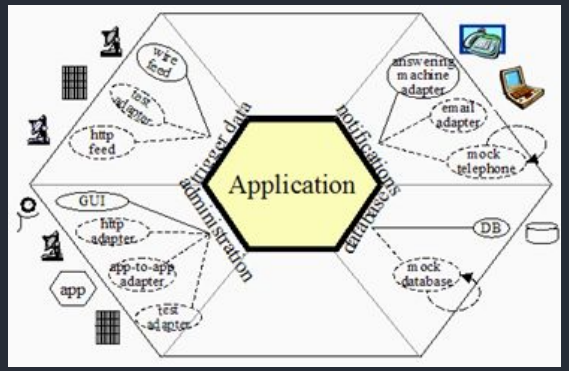


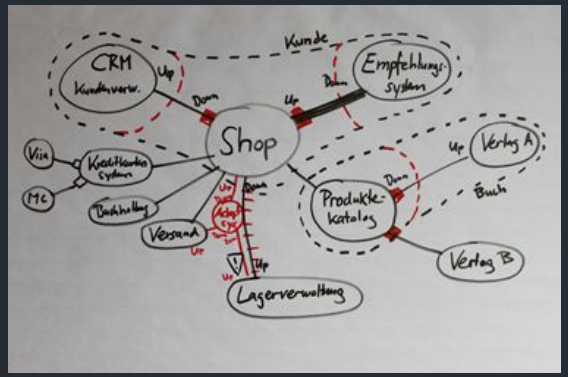


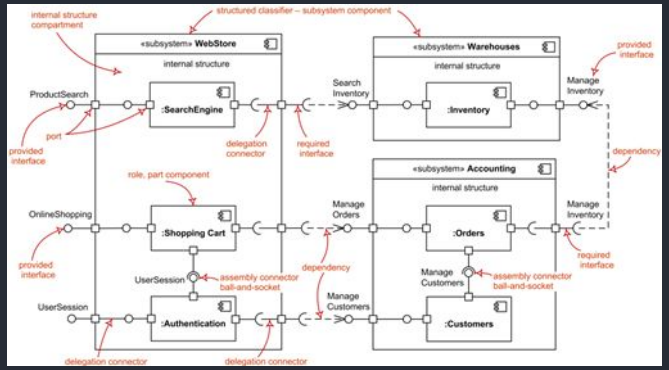




My domain: Software Architecture







https://www.uml-diagrams.org
https://jaxenter.de/domain-driven-design-2
https://alistair.cockburn.us/hexagonal-architecture475
https://twitter.com/NathanLee/status/890136808109027328

Considerations

In my domain...

- ... which capabilities are of strategic importance?
- ... what are the characteristics of evolution?
- ... what forces drive evolution?
- ... what types of capabilities are relevant?
- ... what patterns do apply?

Considerations

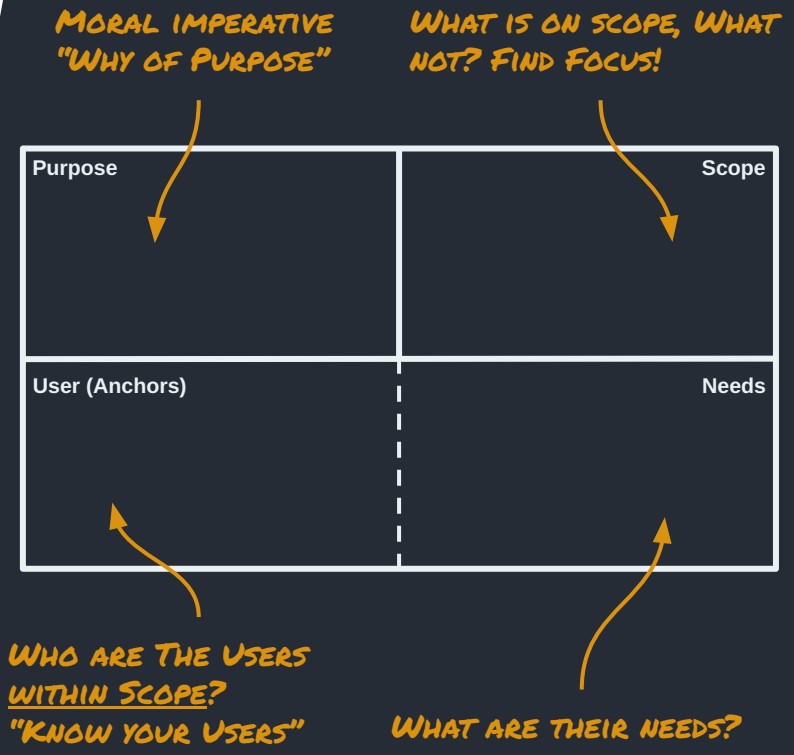
In my domain ...

- … which capabilities are of strategic importance?
- … what are the characteristics of evolution?
- … what forces drive evolution?
- … which types of capabilities are relevant?
- … what patterns do apply?

Explore your domain!

Focus on the essentials!

- Don't get bogged down in the complexity of your domain.
- Start with a schema that helps to identify Users and needs in your context.



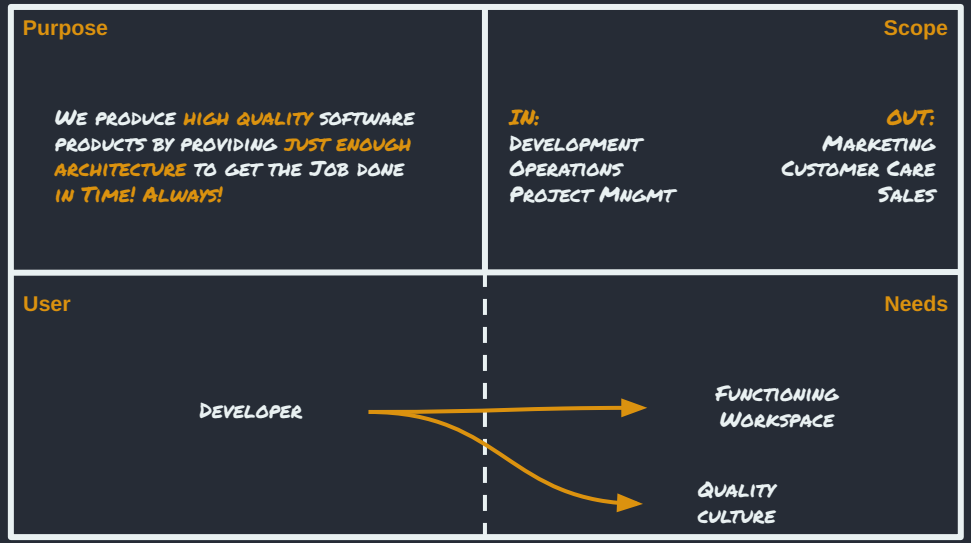
Purpose

Scope

User (Possible Anchors)

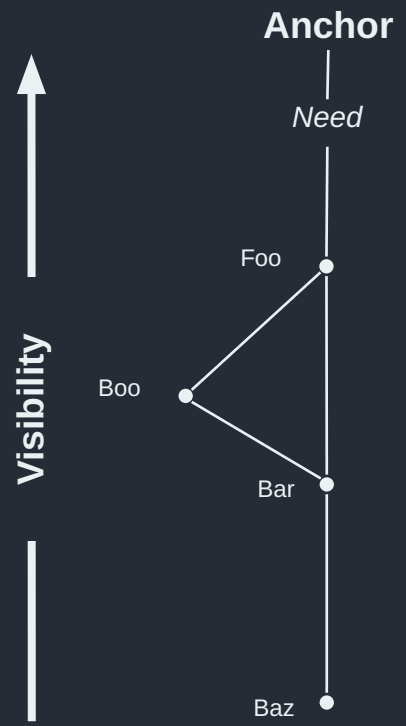
Needs

Start small


Purpose
We produce high quality software products by providing just enough architecture to get the job done in time! Always!
Scope
IN:
Development
Operations
Project Mngmt
OUT:
Marketing
Customer Care
Sales
User
Developer
Needs
Functioning Workspace
Quality culture

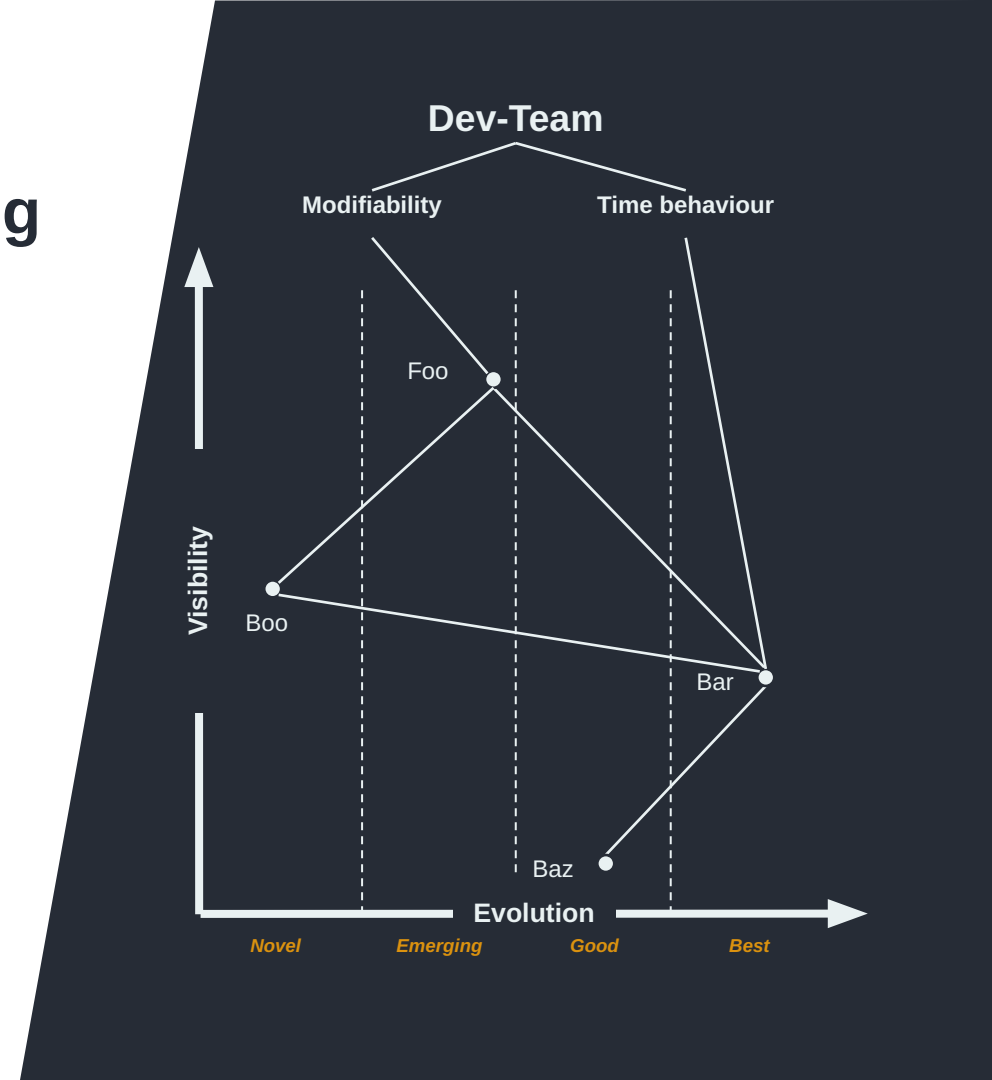
Start small

- Start with a single user and only few needs.
  - You can always add more to the map later on.
  - Do so, if the map proofs to be valuable only.
- Collect potentially useful capabilities
- Keep in mind:
  There is no such thing as a perfect map.
  - Don’t waste too much time on trying to create on



A clean start ...

... simplifies further mapping

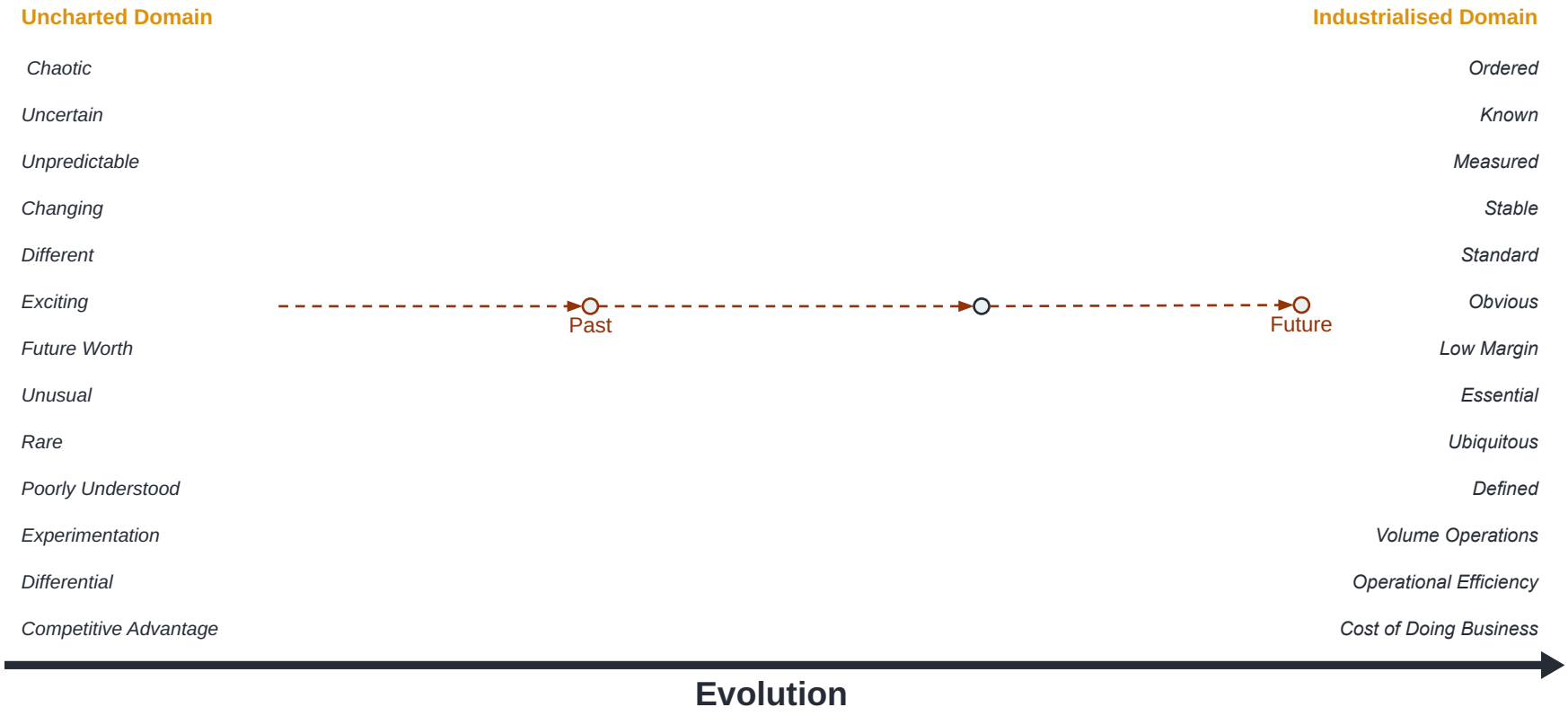


Considerations

In my domain...

- … which capabilities are of strategic importance?
- … what are the characteristics of evolution?
- … what forces drive evolution?
- … what types of capabilities are relevant?
- … what patterns do apply?

Evolution & Movement



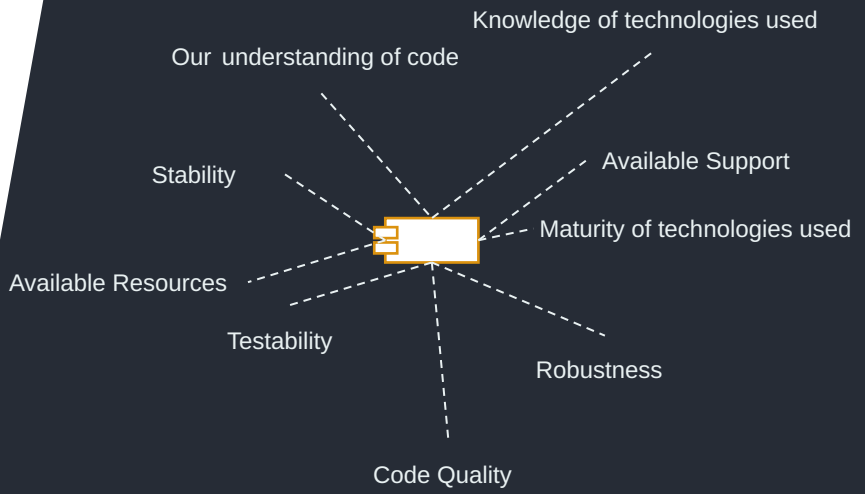
What is the state of evolution for this?

Uncharted Domain		Industrialised Domain
Chaotic		*Ordered*
Uncertain		*Known*
Unpredictable		*Measured*
Changing		*Stable*
Different		*Standard*
Exciting		*Obvious*
Future Worth	Architectural component	*Low Margin*
Unusual		*Essential*
Rare		*Ubiquitous*
Poorly Understood		*Defined*
Experimentation		*Volume Operations*
Differential		*Operational Efficiency*
Competitive Advantage		*Cost of Doing Business*

Evolution

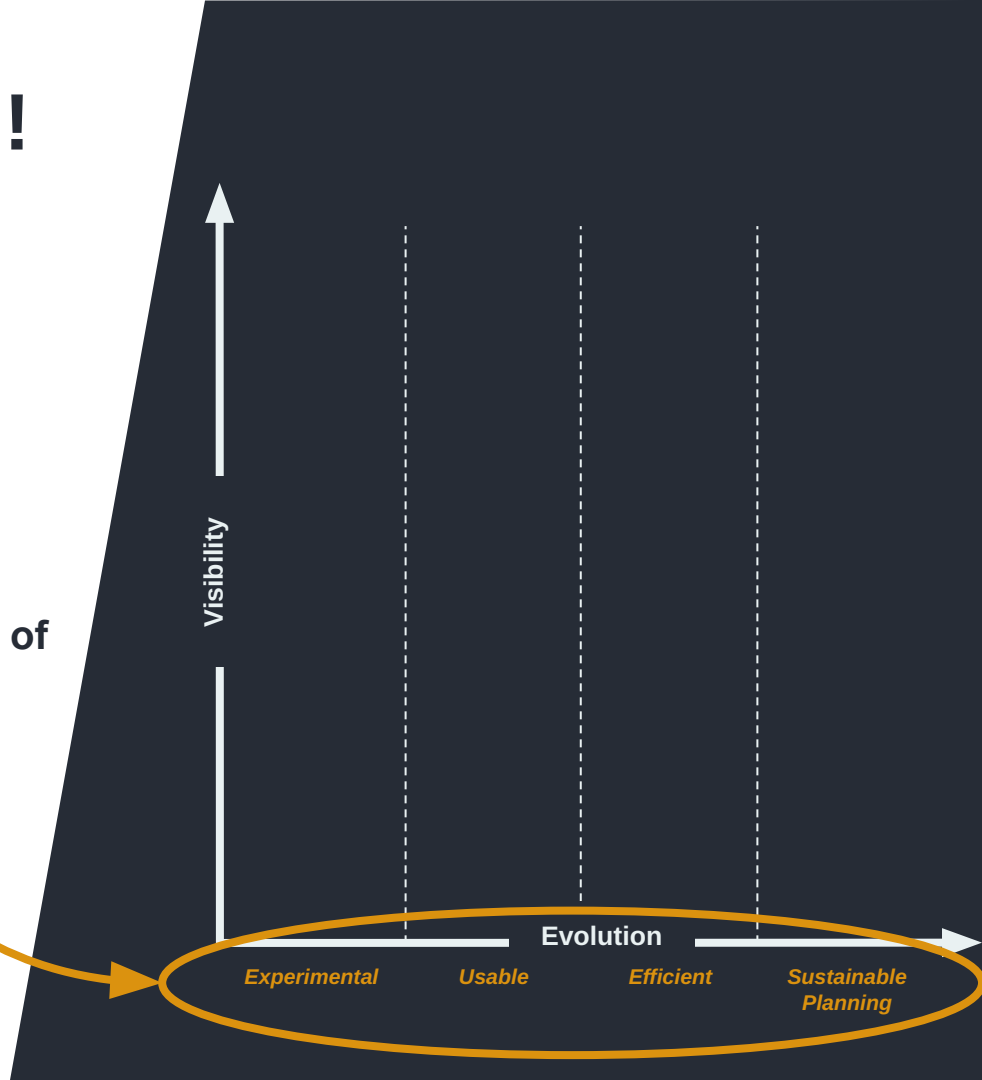
Characterize evolution!

- **Find the characteristics of the components of your domain**
- **Collect, map, brainstorm, … them!**

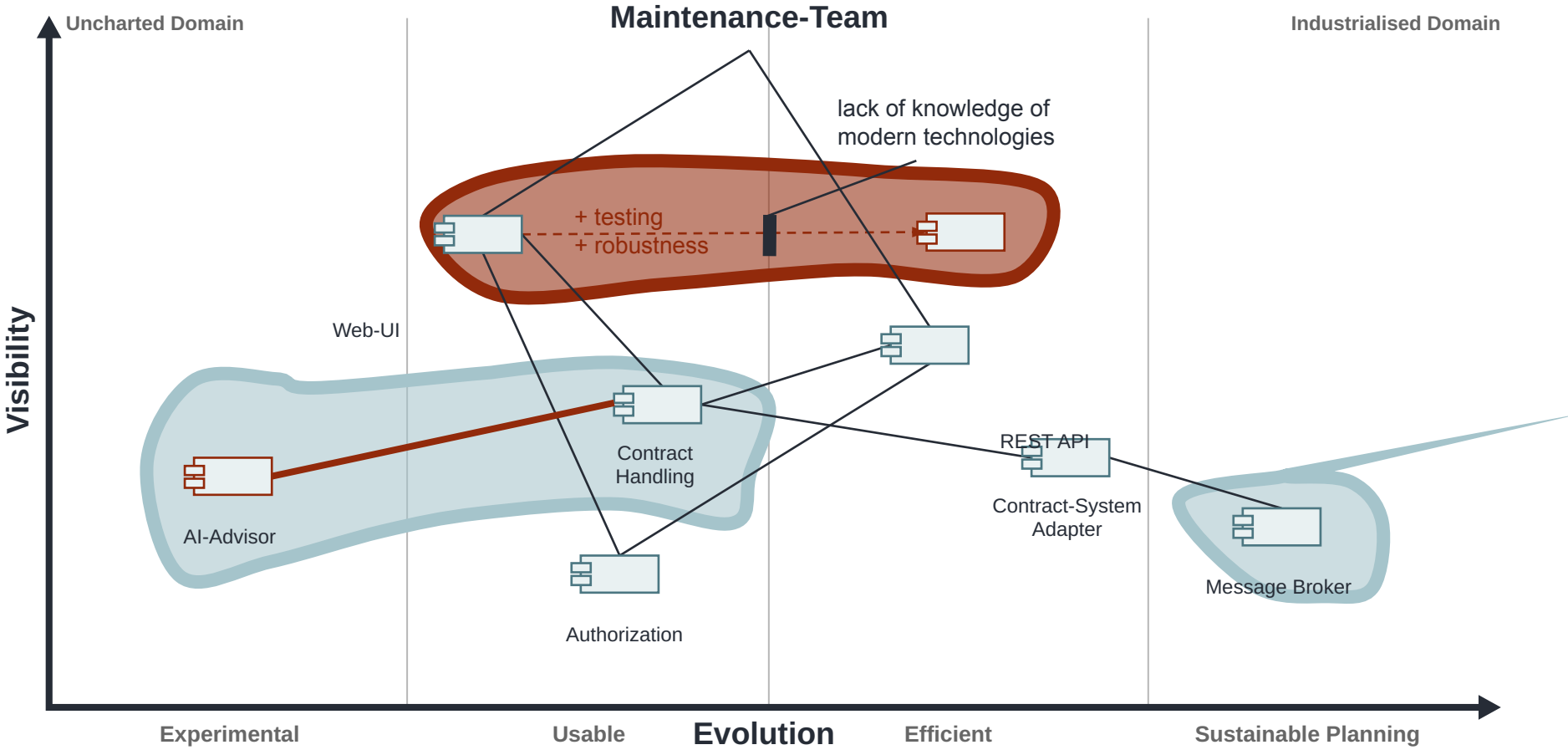


Characterize evolution!

- Characteristics change as capabilities evolve
- Find appropriate names for the stages of evolution



A map of a systems architectural building blocks



Considerations

In my domain...

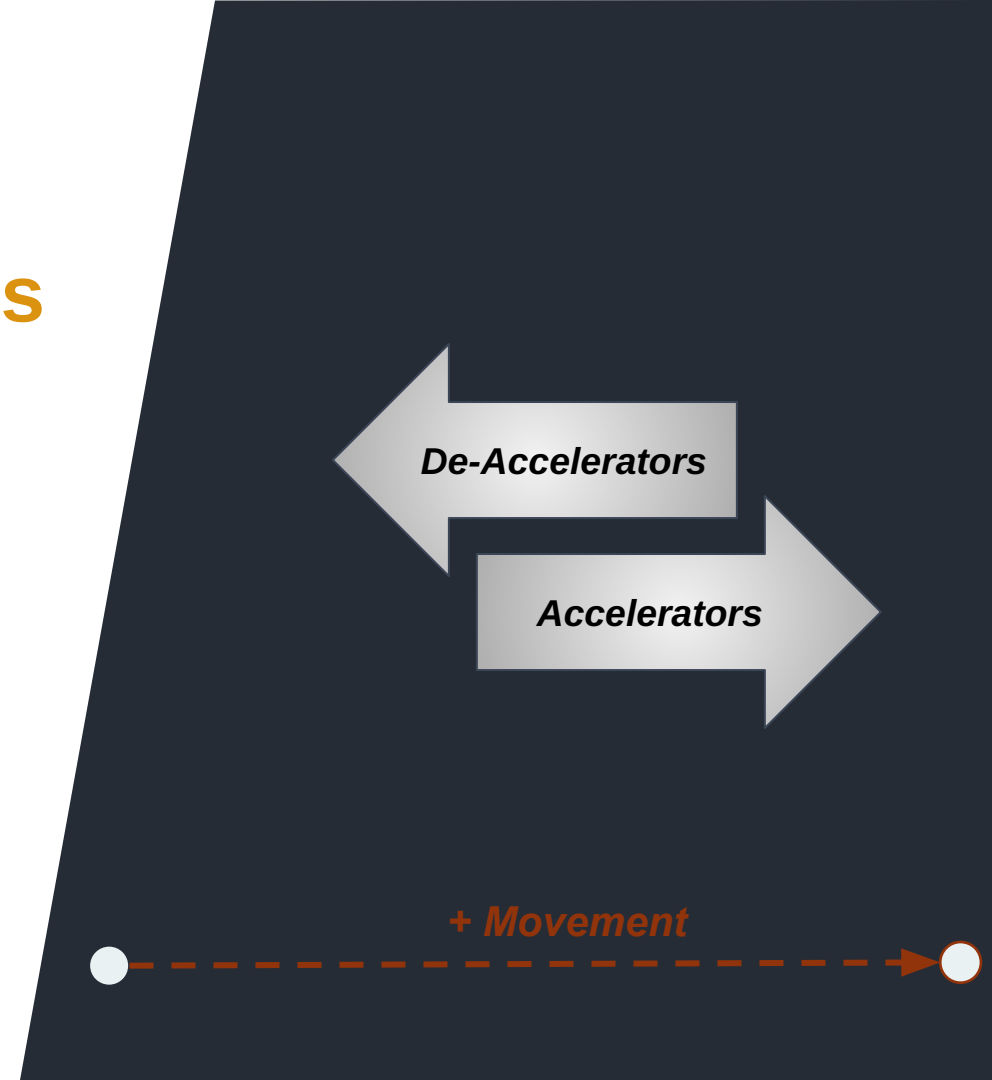
- … which capabilities are of strategic importance?
- … what are the characteristics of evolution?
- … what forces drive evolution?
- … what types of capabilities are relevant?
- … what patterns do apply?

“Everything evolves through supply and demand competition”

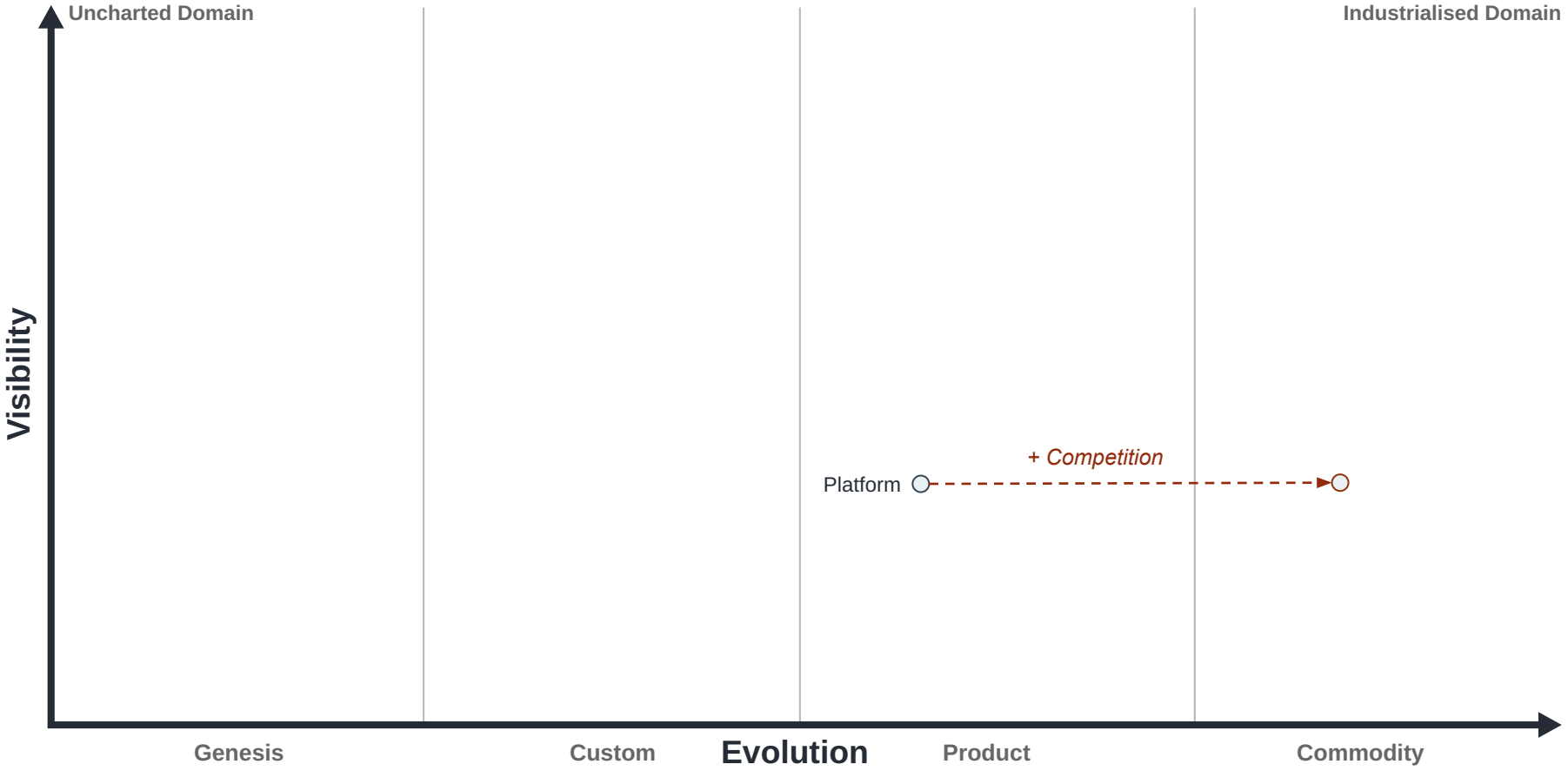
- Simon Wardley

Advice:
Investigate domain-specific effects on evolution

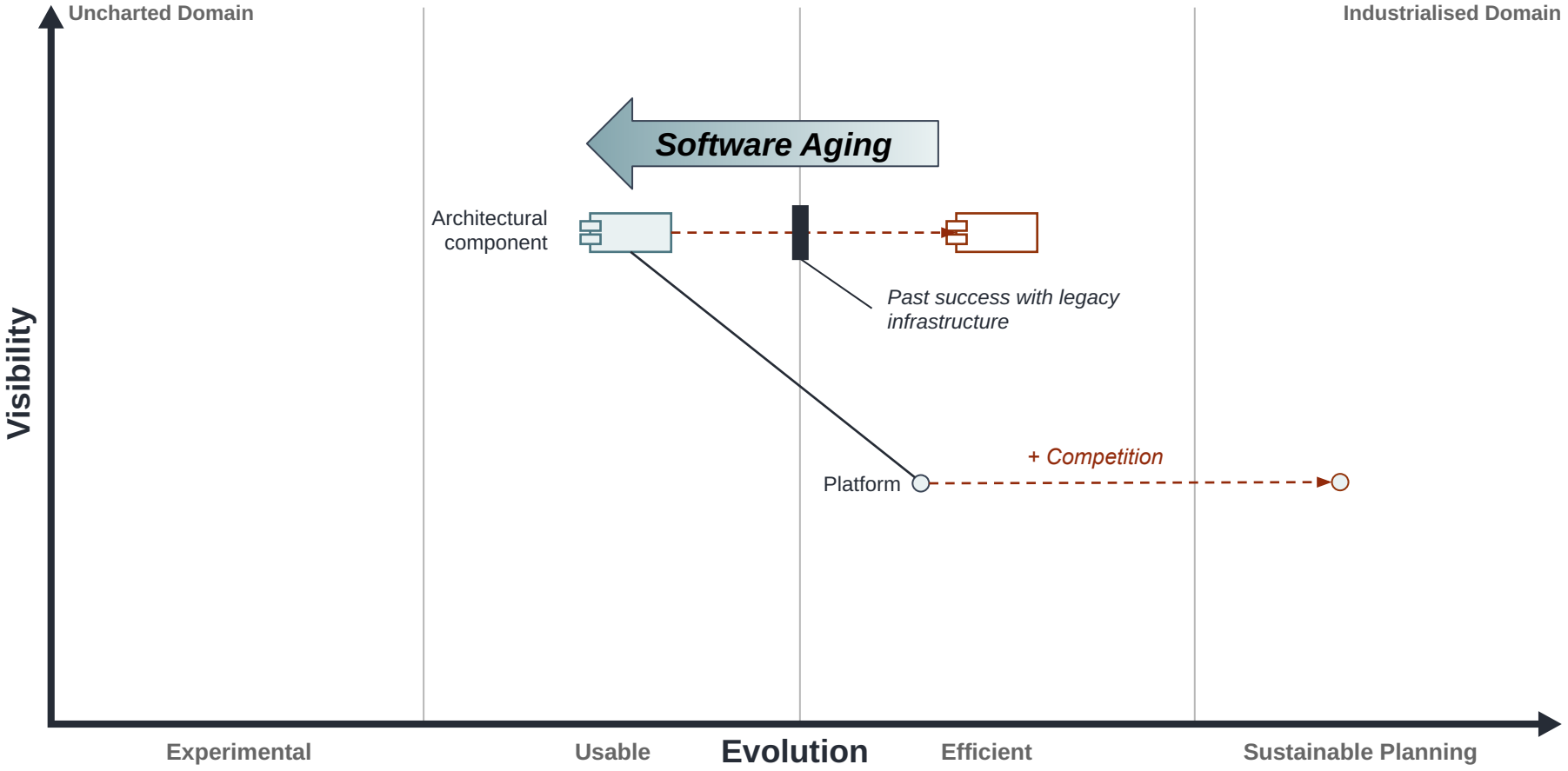
- What enables or hinders movement?



What forces affect evolution?



What forces affect evolution?



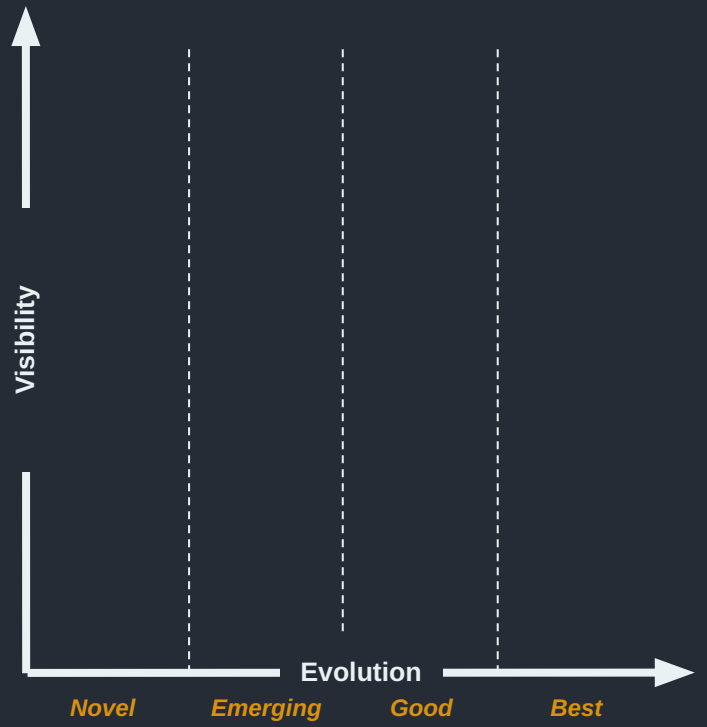
Considerations

In my domain...

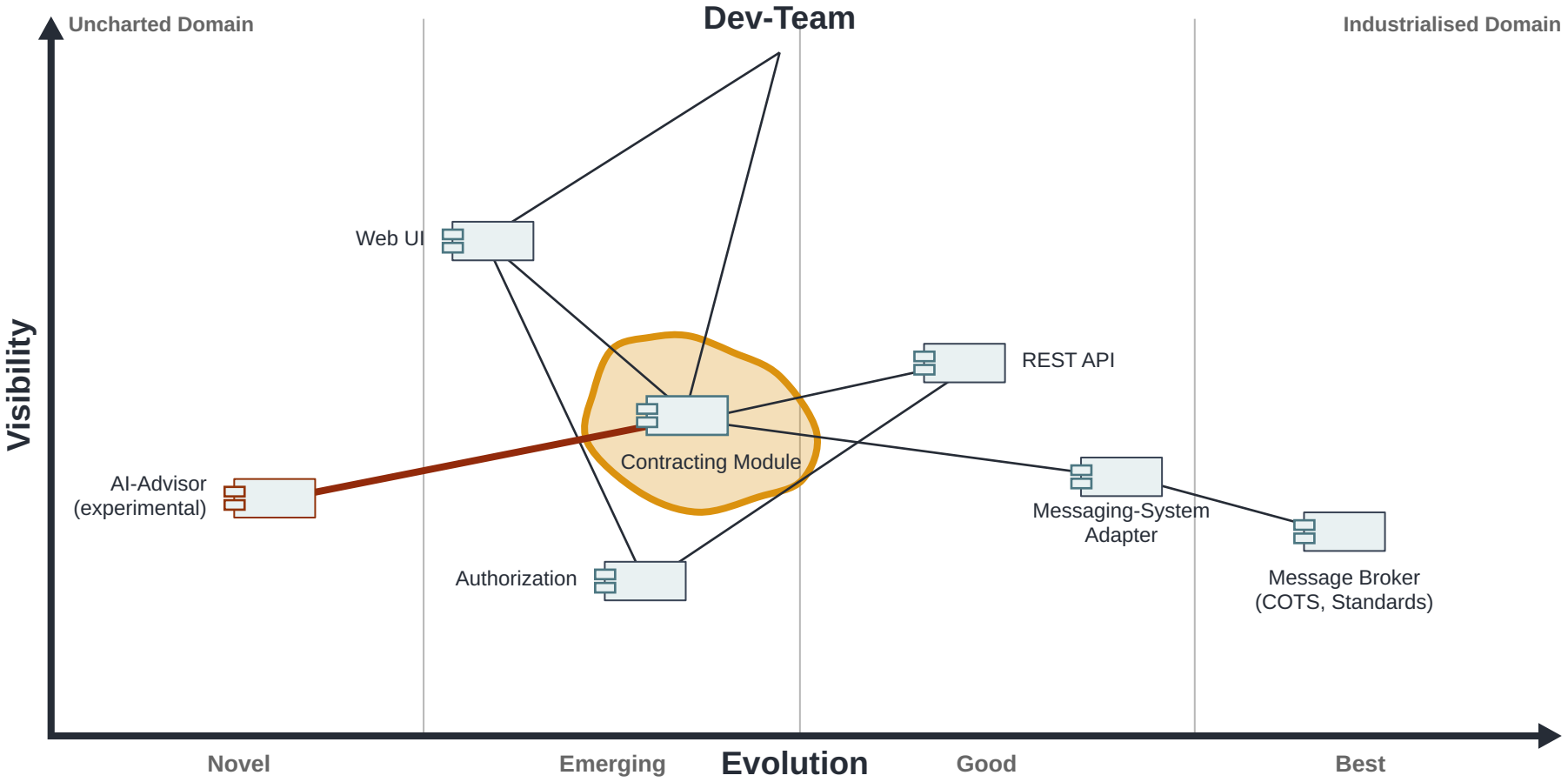
- … which capabilities are of strategic importance?
- … what are the characteristics of evolution?
- … what forces drive evolution?
- … what **types of capabilities** are relevant?
- … what patterns do apply?

Map your understanding!

- **Anchor: Yourself / Team / …**
- **Visibility: Relevance for you / Team / …**
- **Evolution: Degree of your understanding**
- **Choose appropriate names for the stages of evolution (e.g. *Practice*)**
- **Movement: What can be done to improve your understanding**

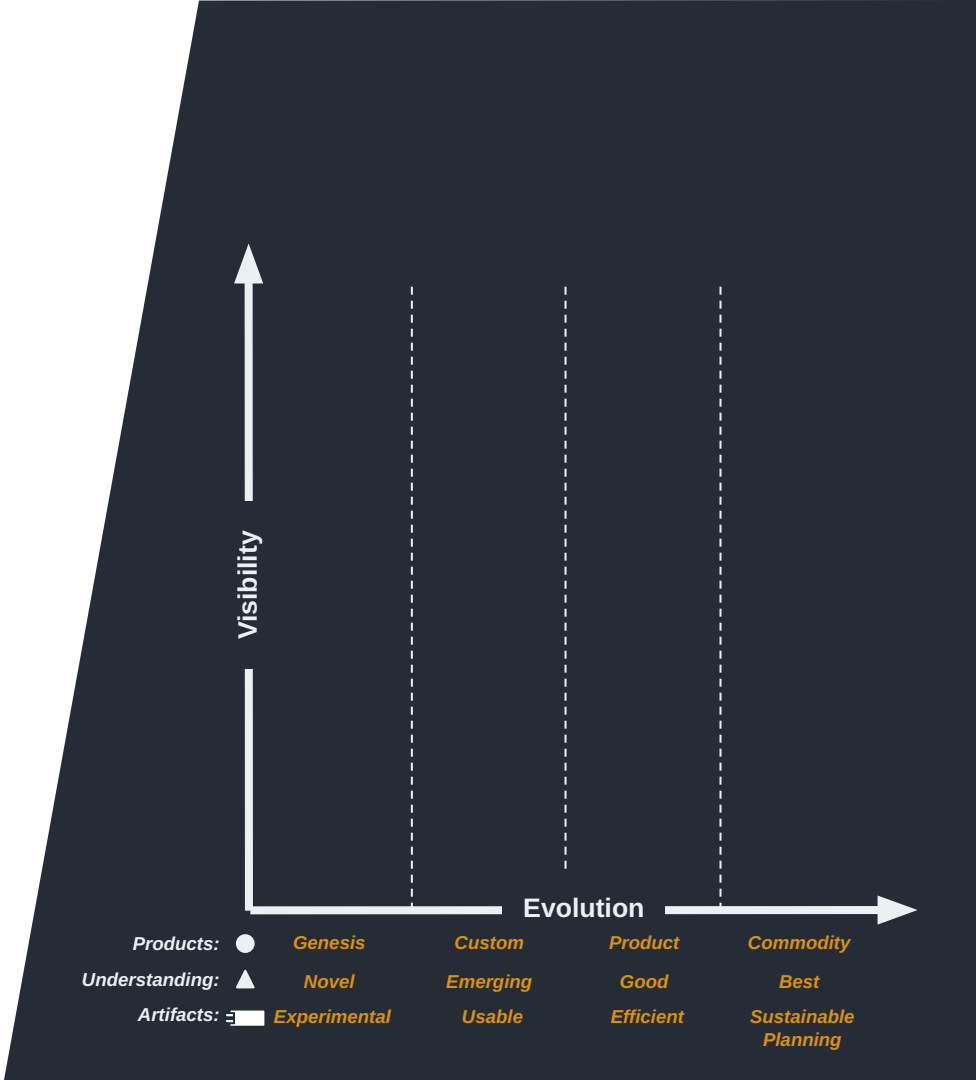


How well is our understanding of the building blocks of a system?

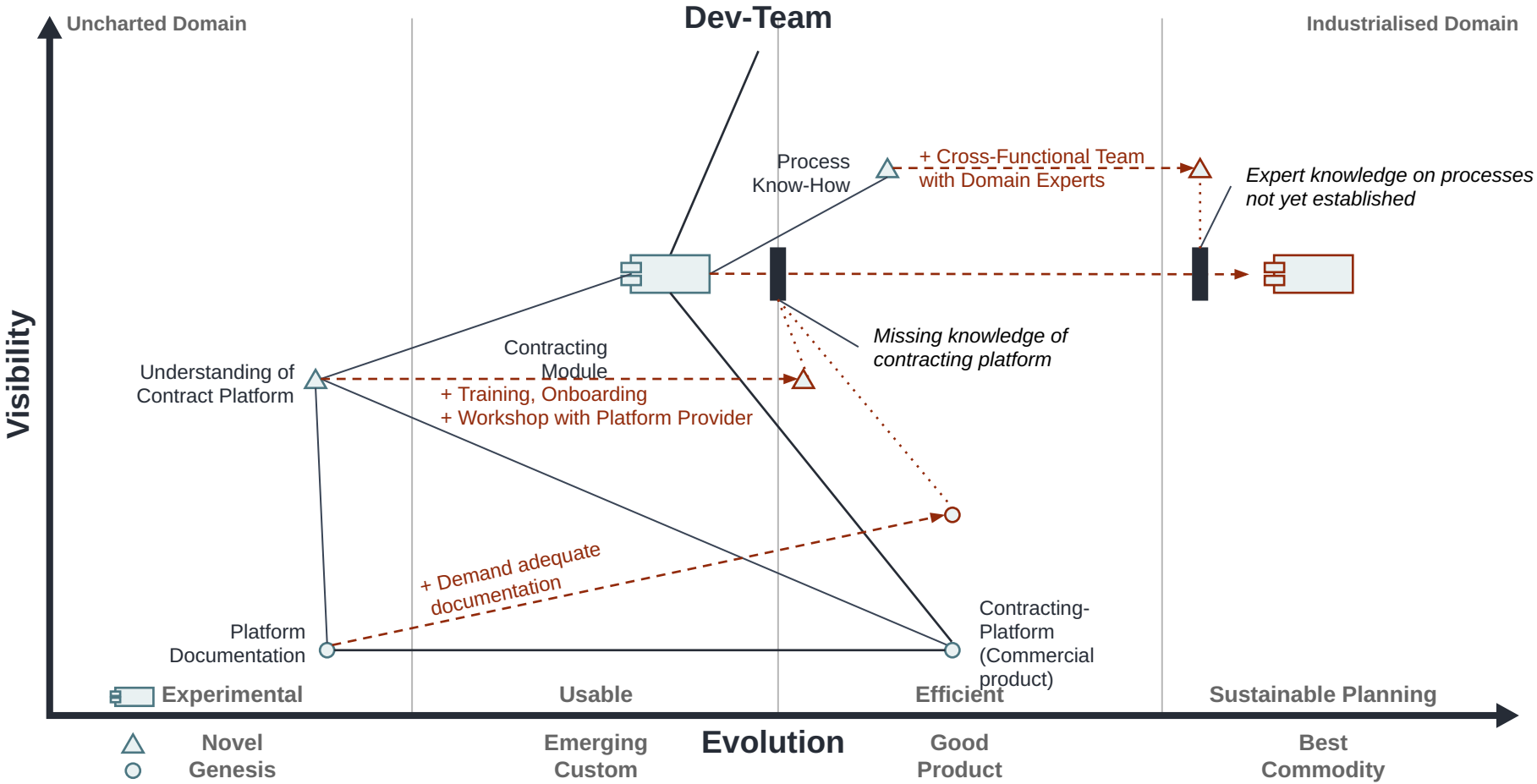


Use symbols for different types of capabilities

- For example:
  - Products: What we *use*
  - Understanding: What we *know*
  - Artifacts: What we *create*
- Name the stages of evolution to fit the capability types characteristics
- Provide a visual legend



Map: Intended strategy to improve our knowledge



Considerations

In my domain...

- … which capabilities are of strategic importance?
- … what are the characteristics of evolution?
- … what forces drive evolution?
- … what types of capabilities are relevant?
- … what patterns do apply?

Category	**Climatic Pattern** (Rules of the game. Patterns that are applied across contexts regardless of user choice)			
Components	Everything evolves through supply and demand competition	Rates of evolution can vary by ecosystem *(e.g. consumer vs industrial)*	Characteristics change as components evolve *(Salaman & Storey)*	No choice over evolution *(Red Queen)*
	No single method fits all *(e.g. in development or purchasing)*	Components can co-evolve *(e.g. practice with activity)*	Evolution consists of multiple waves of diffusion with many chasms.	Commoditisation <> Centralisation
Financial	Higher order systems create new sources of value	Efficiency does not mean a reduced spend *(Jevon's Paradox)*	Capital flows to new areas of value	Creative Destruction *(Joseph Schumpeter)*
	Future value is inversely proportional to the certainty we have over it.	Evolution to higher order systems results in increasing local order and energy consumption		
Speed	Efficiency enables innovation	Evolution of communication mechanisms can increase the speed of evolution overall and the diffusion of a single example of change	Increased stability of lower order systems increases agility & speed of re-combination	Change is not always linear (discontinuous & exponential change exists)
	Shifts from product to utility tend to demonstrate a punctuated equilibrium			
Inertia	Success breeds inertia	Inertia can kill an organisation	Inertia increases the more successful the past model is	
Competitors	Competitors actions will change the game	Most competitors have poor situational awareness		
Prediction	Not everything is random *(p[what] vs p[when])*	Economy has cycles *(peace, war and wonder)*	Two different forms of disruption *(predictable vs non-predictable)*	A "war" (point of industrialisation) causes organisations to evolve
	You cannot measure evolution over time or adoption, you need to embrace uncertainty.	The less evolved something is then the more uncertain it becomes		

Category	**Wardley's Doctrine** (universally useful patterns that a user can apply)			
Phase I	Know your users *(e.g. customers, shareholders, regulators, staff)*	Use a systematic mechanism of learning *(a bias towards data)*	Focus on high situational awareness *(understand what is being considered)*	Use a common language *(necessary for collaboration)*
	Challenge assumptions *(speak up and question)*	Focus on user needs	Remove bias and duplication	Think small *(as in know the details)*
	Use appropriate methods *(e.g. agile vs lean vs six sigma)*			
Phase II	Be transparent *(a bias towards open)*	Move fast *(an imperfect plan executed today is better than a perfect plan executed tomorrow)*	Be pragmatic *(it doesn't matter if the cat is black or white as long as it catches mice)*	Think fast, inexpensive, restrained and elegant (FIRE, formerly FIST)
	Focus on the outcome not a contract *(e.g. Worth based development)*	Use appropriate tools *(e.g. mapping, financial models)*	Manage inertia *(e.g. existing practice, political capital, previous investment)*	Effectiveness over efficiency
	Think aptitude and attitude	Think small *(as in teams)*	Use standards where appropriate	Manage failure
	Strategy is iterative not linear *(fast reactive cycles)*	A bias towards action *(learn by playing the game)*	Distribute power and decision making	
Phase III	Provide purpose, mastery & autonomy	Set exceptional standards *(great is just not good enough)*	Commit to the direction, be adaptive along the path *(crossing the river by feeling the stones)*	A bias towards the new *(be curious, take appropriate risks)*
	Do better with less *(continual improvement)*	Optimise flow *(remove bottlenecks)*	Think big *(inspire others, provide direction)*	Be humble *(listen, be selfless, have fortitude)*
	Be the owner *(take responsibility)*	Strategy is complex *(there will be uncertainty)*	Seek the best	
Phase IV	Exploit the landscape	There is no core *(everything is transient)*	Listen to your ecosystems *(acts as future sensing engines)*	There is no one culture *(e.g. pioneers, settlers and town planners)*
	Design for constant evolution			

Patterns of *YOUR domain!*

Category	**Gameplay** (context specific patterns that user can apply)			
User Perception	Education	Bundling	Creating artificial needs	Confusion of choice
	Brand and marketing	Fear, uncertainty and doubt	Artificial competition	Lobbying / counterplay
Accelerators	Market enablement	Open approaches	Exploiting network effects	Co-operation
	Industrial policy			
De-accelerators	Exploiting constraint	IPR	Creating constraints	
Dealing with toxicity	Pig in a poke	Disposal of liability	Sweat and dump	Refactoring
Market	Differentiation	Pricing policy	Buyer / supplier power	Harvesting
	Standards game	Last man standing	Signal distortion	Trading
Defensive	Threat acquisition	Raising barriers to entry	Procrastination	Defensive regulation
	Limitation of competition	Managing inertia		
Attacking	Directed investment	Experimentation	Centre of gravity	Undermining barriers to entry
	Fool's mate	Press release process	Playing both sides	
Ecosystem	Alliances	Co-creation	Sensing Engines (ILC)	Tower and moat
	Two factor markets	Co-opting and intercession	Embrace and extend	Channel conflicts & disintermediation
Competitor	Ambush	Fragmentation play	Reinforcing competitor inertia	Sapping
	Misdirection	Restriction of movement	Talent raid	
Positional	Land grab	First mover	Fast follower	Weak signal / horizon
Poison	Licensing play	Insertion	Designed to fail	

Category	Climatic Pattern (Rules of the game. Patterns that are applied across contexts regardless of user choice)			
Components	Everything evolves through supply and demand competition	Rates of evolution can vary by ecosystem *(e.g. consumer vs industrial)*	Characteristics change as components evolve *(Salaman & Storey)*	No choice over evolution *(Red Queen)*
	No single method fits all *(e.g. in development or purchasing)*	Components can co-evolve *(e.g. practice with activity)*	Evolution consists of multiple waves of diffusion with many chasms.	Commoditisation <> Centralisation
Financial	Higher order systems create new sources of value	Efficiency does not mean a reduced spend *(Jevon's Paradox)*	Capital flows to new areas of value	Creative Destruction *(Joseph Schumpeter)*
	Future value is inversely proportional to the certainty we have over it.	Evolution to higher order systems results in increasing local order and energy consumption		
Speed	Efficiency enables innovation	Evolution of communication mechanisms can increase the speed of evolution overall and the diffusion of a single example of change	Increased stability of lower order systems increases agility & speed of re-combination	Change is not always linear (discontinuous & exponential change exists)
	Shifts from product to utility tend to demonstrate a punctuated equilibrium			
Inertia	Success breeds inertia	Inertia can kill an organisation	Inertia increases the more successful the past model is	
Competitors	Competitors actions will change the game	Most competitors have poor situational awareness		
Prediction	Not everything is random *(p[what] vs p[when])*	Economy has cycles *(peace, war and wonder)*	Two different forms of disruption *(predictable vs non-predictable)*	A "war" (point of industrialisation) causes organisations to evolve
	You cannot measure evolution over time or adoption, you need to embrace uncertainty.	The less evolved something is then the more uncertain it becomes		

Patterns of *YOUR domain!*

Category	Wardley's Doctrine (universally useful patterns that a user can apply)			
Phase I	Know your users *(e.g. customers, shareholders, regulators, staff)*	Use a systematic mechanism of learning *(a bias towards data)*	Focus on high situational awareness *(understand what is being considered)*	Use a common language *(necessary for collaboration)*
	Challenge assumptions *(speak up and question)*	Focus on user needs	Remove bias and duplication	Think small *(as in know the details)*
	Use appropriate methods *(e.g. agile vs lean vs six sigma)*			
Phase II	Be transparent *(a bias towards open)*	Move fast *(an imperfect plan executed today is better than a perfect plan executed tomorrow)*	Be pragmatic *(it doesn't matter if the cat is black or white as long as it catches mice)*	Think fast, inexpensive, restrained and elegant (FIRE, formerly FIST)
	Focus on the outcome not a contract *(e.g. Worth based development)*	Use appropriate tools *(e.g. mapping, financial models)*	Manage inertia *(e.g. existing practice, political capital, previous investment)*	Effectiveness over efficiency
	Think aptitude and attitude	Think small *(as in teams)*	Use standards where appropriate	Manage failure
	Strategy is iterative not linear *(fast reactive cycles)*	A bias towards action *(learn by playing the game)*	Attribute power and decision making	
Phase III	Provide purpose, mastery & autonomy	Set exceptional standards *(great is just not good enough)*	Commit to the direction, be adaptive along the path *(crossing the river by feeling the stones)*	A bias towards the new *(be curious, take appropriate risks)*
	Do better with less *(continual improvement)*	Optimise flow *(remove bottlenecks)*	Think big *(inspire others, provide direction)*	Be humble *(listen, be selfless, have fortitude)*
	Be the owner *(take responsibility)*	Strategy is complex *(there will be uncertainty)*	Seek the best	
Phase IV	Exploit the landscape	There is no core *(everything is transient)*	Listen to your ecosystems *(acts as future sensing engines)*	There is no one culture *(e.g. pioneers, settlers and town planners)*
	Design for constant evolution			

Category	Gameplay (context specific patterns that user can apply)			
User Perception	Education	Bundling	Creating artificial needs	Confusion of choice
	Brand and marketing	Fear, uncertainty and doubt	Artificial competition	Lobbying / counterplay
Accelerators	Market enablement	Open approaches	Exploiting network effects	Co-operation
	Industrial policy			
De-accelerators	Exploiting constraint	IPR	Creating constraints	
Dealing with toxicity	Pig in a poke	Disposal of liability	Sweat and dump	Refactoring
Market	Differentiation	Pricing policy	Buyer / supplier power	Harvesting
	Standards game	Last man standing	Signal distortion	Trading
Defensive	Threat acquisition	Raising barriers to entry	Procrastination	Defensive regulation
	Limitation of competition	Managing inertia		
Attacking	Directed investment	Experimentation	Centre of gravity	Undermining barriers to entry
	Fool's mate	Press release process	Playing both sides	
Ecosystem	Alliances	Co-creation	Sensing Engines (ILC)	Tower and moat
	Two factor markets	Co-opting and intercession	Embrace and extend	Channel conflicts & disintermediation
Competitor	Ambush	Fragmentation play	Reinforcing competitor inertia	Sapping
	Misdirection	Restriction of movement	Talent raid	
Positional	Land grab	First mover	Fast follower	Weak signal / horizon
Poison	Licensing play	Insertion	Designed to fail	

Create a library of patterns for your domain!

- Find the patterns that can be of value in your domain
- Enhance them with existing domain knowledge.
- Define new patterns specific to your domain
- Don't be afraid to leave out things that don't apply to your domain.
- Ditch what is not of use but challenge your assumptions!

Considerations

In my domain...

- ... which capabilities are of strategic importance?
- ... what are the characteristics of evolution?
- ... what forces drive evolution?
- ... what types of capabilities are relevant?
- ... what patterns do apply?

Don’t explain the method beforehand.

Just use it.

- *“Nobody cares about your precious framework”*

  \- **Ben Mosior**

- **Let the other person decide if they want to dive deeper.**

TOM ASEL

Q & A

@Tom-Asel

Tom Asel

Tom Asel

mail@tom-asel.de

+49 6252 6033 536

www.tom-asel.de