From promise to running service

A tale of promise theory, Team topology and Domain Driven Design

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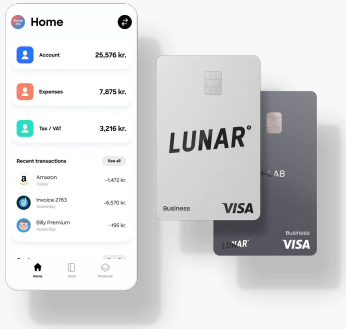
May 31, 2022 - IDC DevOps 2022



15,000

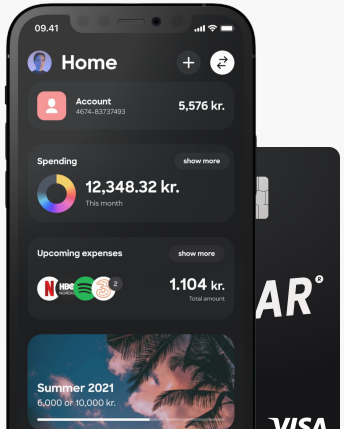
Total number of Business Customers

650

Employees

European Banking License issued in Denmark

We have offices in these locations



500,000

Customers in total

Company founded in 2015

€345m

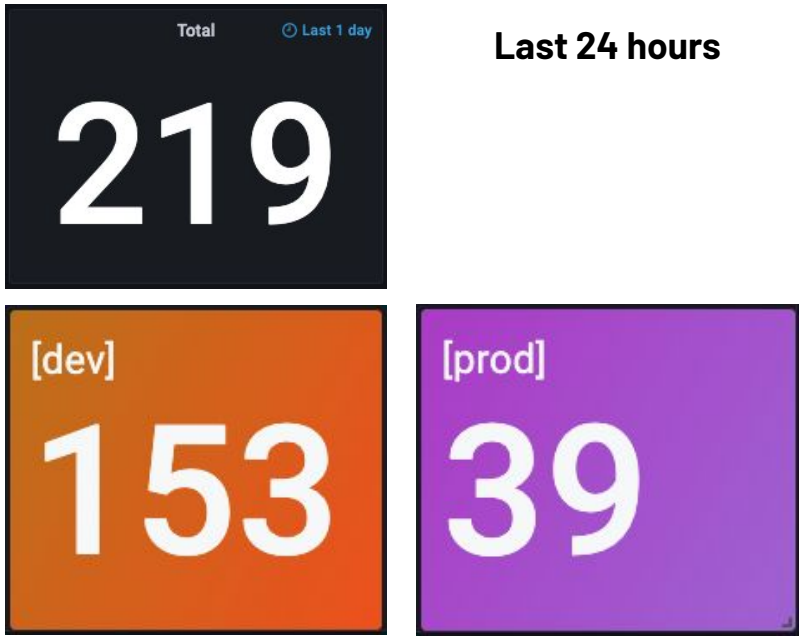
Total amount raised

Series D ✔

Recently closed our Series D of €210m

Releases

at LUNAR®



Last 24 hours

From new service “click” to release ~ 5 min

About the speaker

Name : **Henrik Høegh**

Platform engineer at **Lunar**

Work in **Squad Odyssey**

Interests :

- **Cloud Native**, **Dungeon & Dragons**

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Agenda

- Conway's law
- Promise theory
- Team Topology
- Domain Driven Design

Melvin Conway

- Conway's law

"Organizations, who design systems,
are constrained to produce designs which are
copies of the communication structures of these
organizations"

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Conway's Law

Eight people were commissioned to produce a COBOL and an ALGOL compiler.

Five people were assigned to the COBOL job.
Three people to the ALGOL job.

The COBOL compiler ran in **five phases**.
The ALGOL compiler ran in **three phases.**

Mark Burgess

- Promise theory

“Promise theory describes interactions between autonomous agencies within a system.

It provides a semi-formal language for modelling intent and its outcome, which results in a chemistry for cooperative behaviour”

→ http://markburgess.org/

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Promise Theory

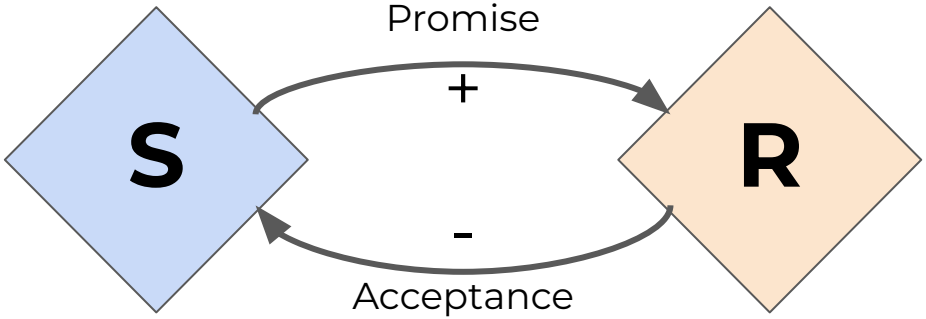
Variations

Following a recipe doesn't alway lead to the same result

Obligations vs Promises

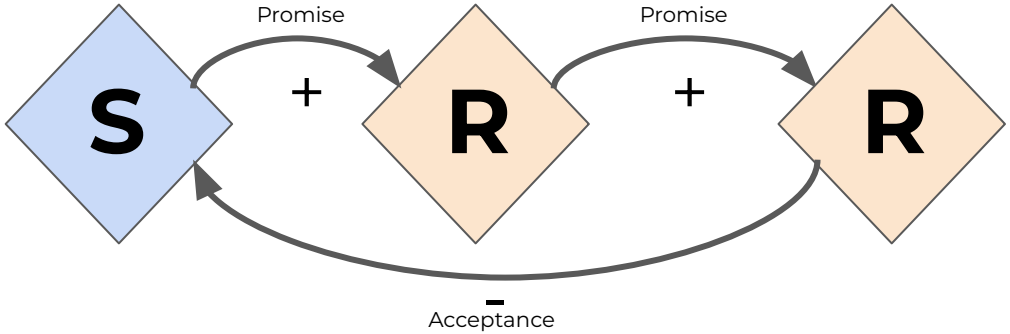
Promise Theory

Simple Agents



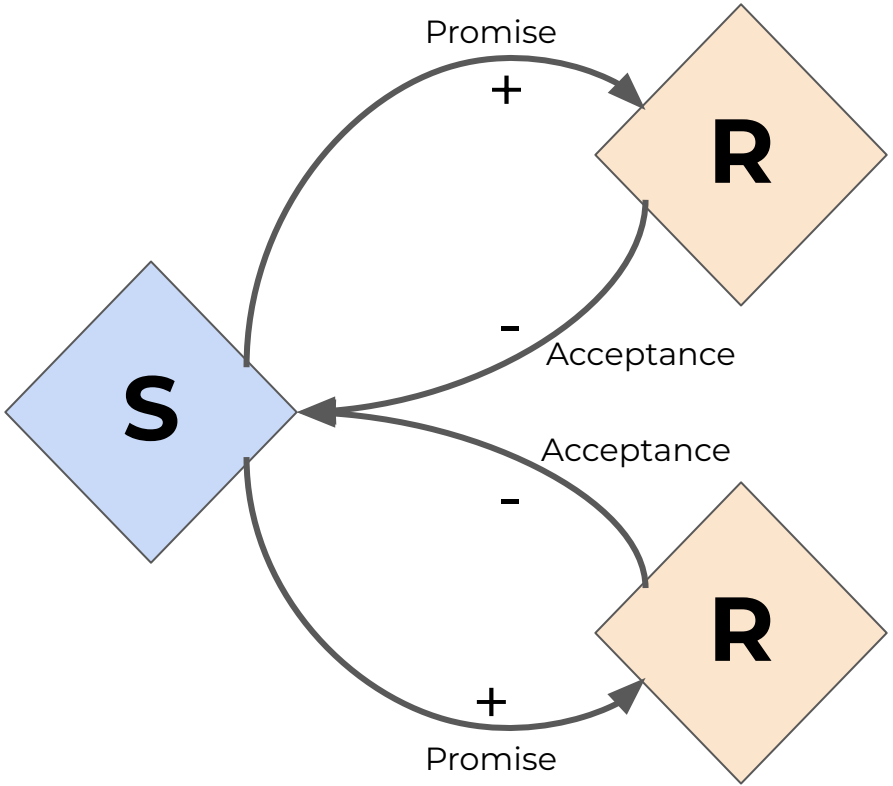
Promise Theory

Weak systems



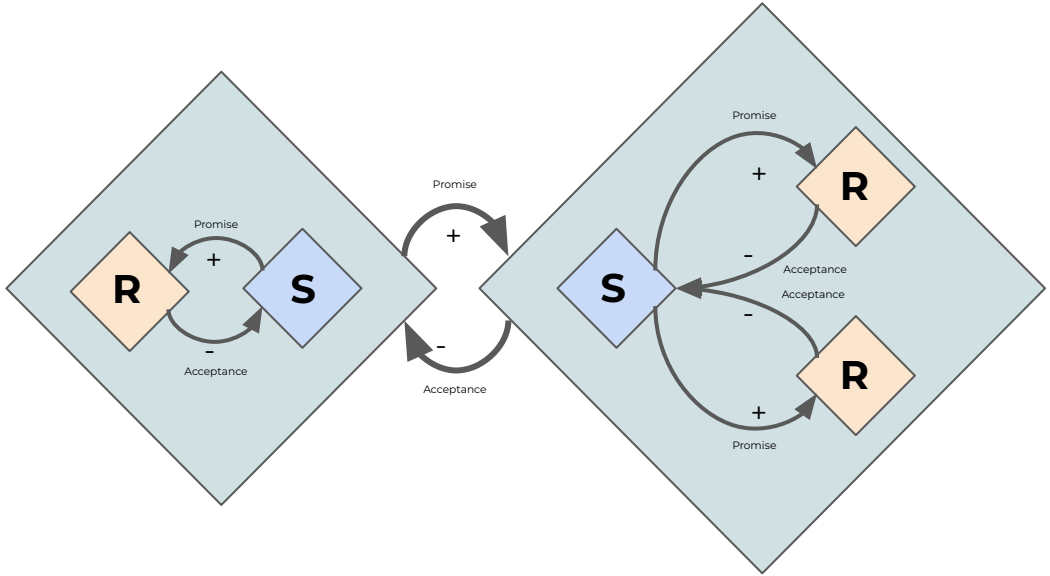
Promise Theory

Leader/Broker



Promise Theory

Super Agents



Manuel Pais & Matthew Skelton

- Team Topology

“Team Topologies is the leading approach to organizing business and technology teams for fast flow, providing a practical, step-by-step, adaptive model for organizational design and team interaction”

→ https://teamtopologies.com/

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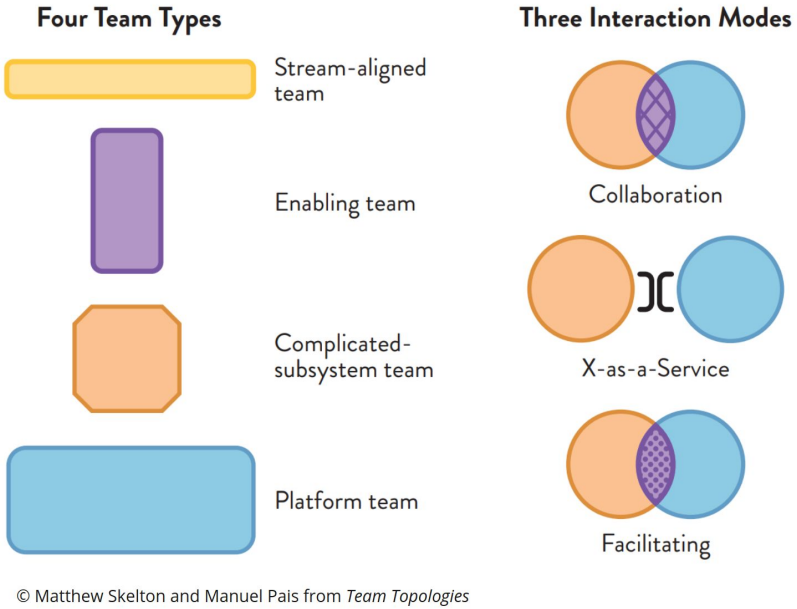
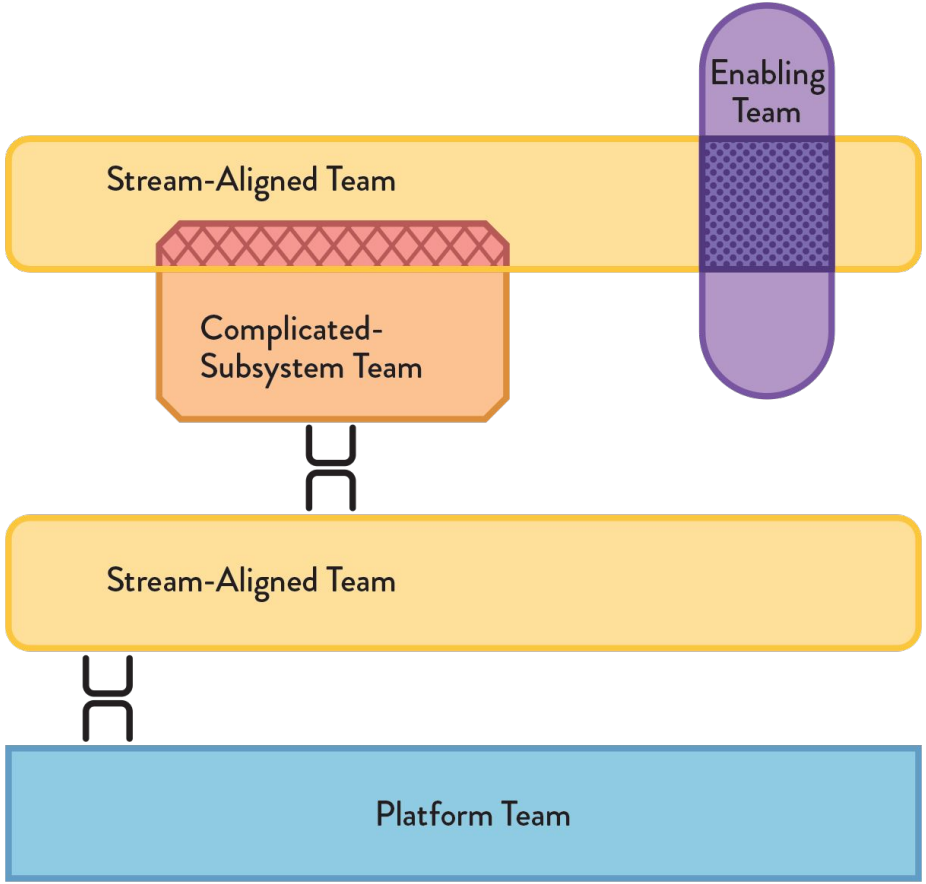
Team Topology

Components



Team Topology

Interactions



Eric Evans

- Domain Driven Design

“Domain-driven design (DDD) is a software design approach focusing on modelling software to match a domain according to input from that domain’s experts”

→ https://www.domainlanguage.com/ddd/

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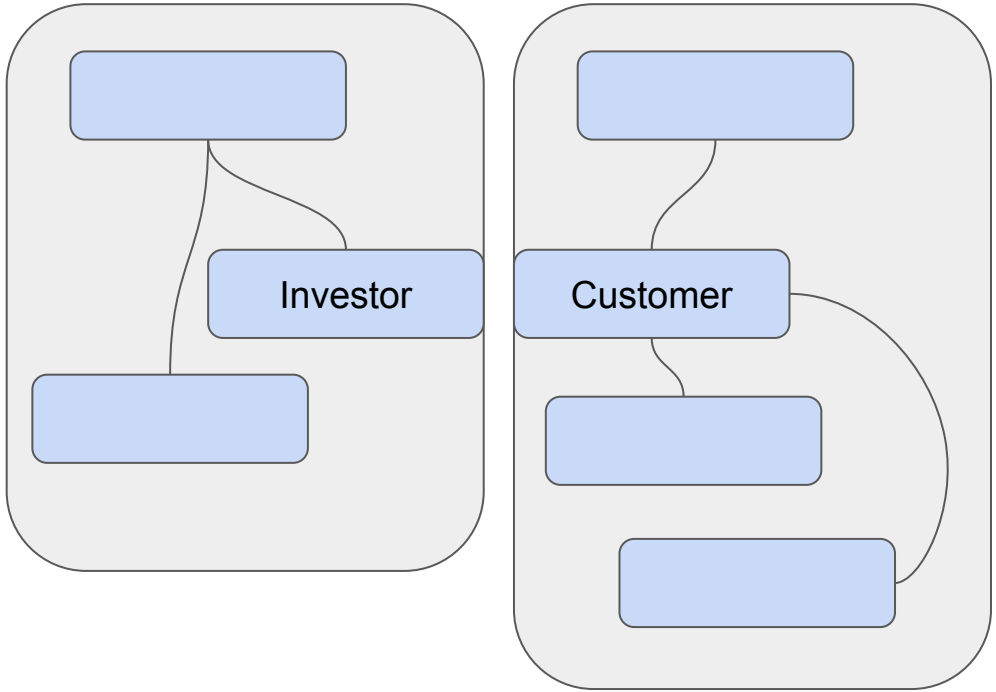
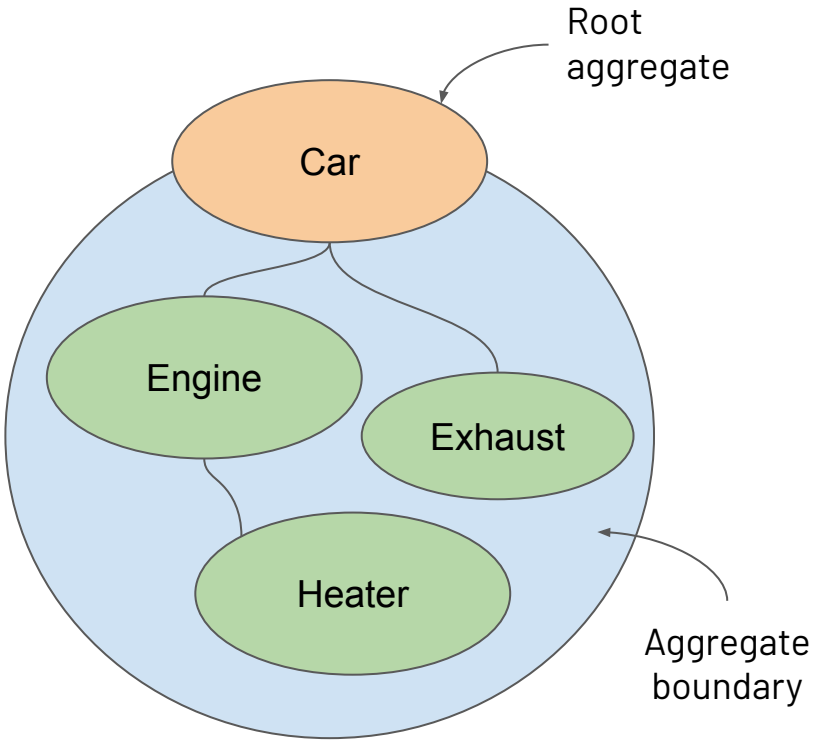
Domain Driven Design

Bounded Context



Domain Driven Design

Aggregates



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Questions?

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Links :

Promise Theory : markburgess.org
Team Topology : teamtopologies.com
Domain Driven Design : domainlanguage.com/ddd

Contacts :

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THANK YOU

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Abstract, 15 min talk

Working as a consultant for 15 years and now as a platform engineer at Lunar, I've seen many good and bad ways to transform a company to be more Agile. In this talk I will be sharing my thoughts on why many has failed and what a possible solution could look like. After the talk you will have learned what Promise Theory is and how it can be used as a fundamental tool to describe and design both teams and software, and how it not only relates, but also can be used to describe Domain Driven Design and Team Topology.

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Bio

Henrik Høegh is a Cloud Native Co-organizer in Cloud Native Aarhus where he contributes to the community with event planning and talks. He works as Platform Engineer at Lunar maturing, developing the platform and giving support to its users.

He is currently focused on maturing Lunars failover capabilities and onboarding new developers to the platform. He has been using Kubernetes since early 2016 and has done countless talks on Kubernetes for beginners. Before joining Lunar Henrik worked as a consultant implementing a Cloud Native edge computing platform for one of the largest wind turbine companies in the world.

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