

KANDDD!NSKY

October 20th 2017



Steel in the cloud



Cédric
Pontet
@cpontet

#play14

It's not about the number of
events per second your system
can process

but ...

...the right way to solve
your customer's
problem

24 tons steel coils



Business challenges

- Very competitive market
- Stock valuation variation due to chrome & nickel volatile exchange rates
- Fragmented industry
- Complicated logistics and supply chain

Equation of a success

$$\begin{array}{ccccccc} \text{Agile} & & \text{Cloud} & & \text{Customer} & & \\ \text{e} & & \text{d} & & \text{r} & & \\ A + B + C + D^3 = CS + & & & & & & \\ \text{T2M} & \text{Business} & \text{Domain} & & \text{Time} & & \\ & \text{vision} & \text{Driven} & & \text{to} & & \\ & & & & \text{Mark} & & \\ & & & & \text{et} & & \end{array}$$

Where do we
start ?

First dates

3 one-day workshops

Vision

- Elevator pitch
- Opportunity canvas
- Event storming
- Story mapping

Architecture & platforms

- Architecture blueprint
- Choice of a cloud platform

Team organization

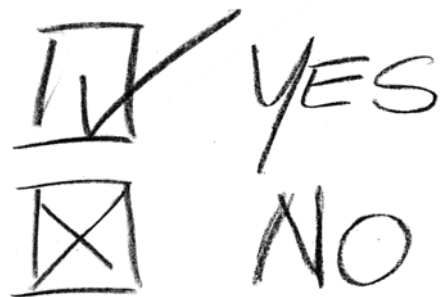
- Process
- Language
- Tools
- Conventions

Time is of the essence



Opportunities

- The right mindset
 - Leadership
 - Lean startup approach
- Motivated people
 - Open minded
 - Eager to learn new things
- Complementary skills
 - Great business knowledge from the customer
 - Great technical knowledge from Agile Partner



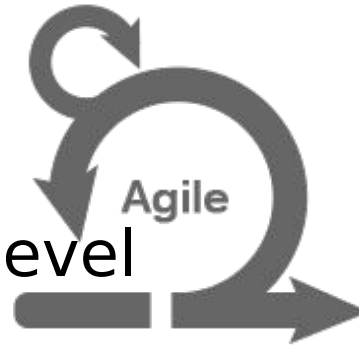
Early decisions

Agile/Lean process



Lean Startup
at program
level

Scrum
at team level



Hybrid team



- Cross-functional
- Collocated at Agile Partner
 - Away from mothership
 - Startup spirit
- Focused

Design for scale

- PaaS on Azure
- DDD/CQRS
- NoSQL
- Message oriented



App
Service



Cosmos
DB



Service
Bus



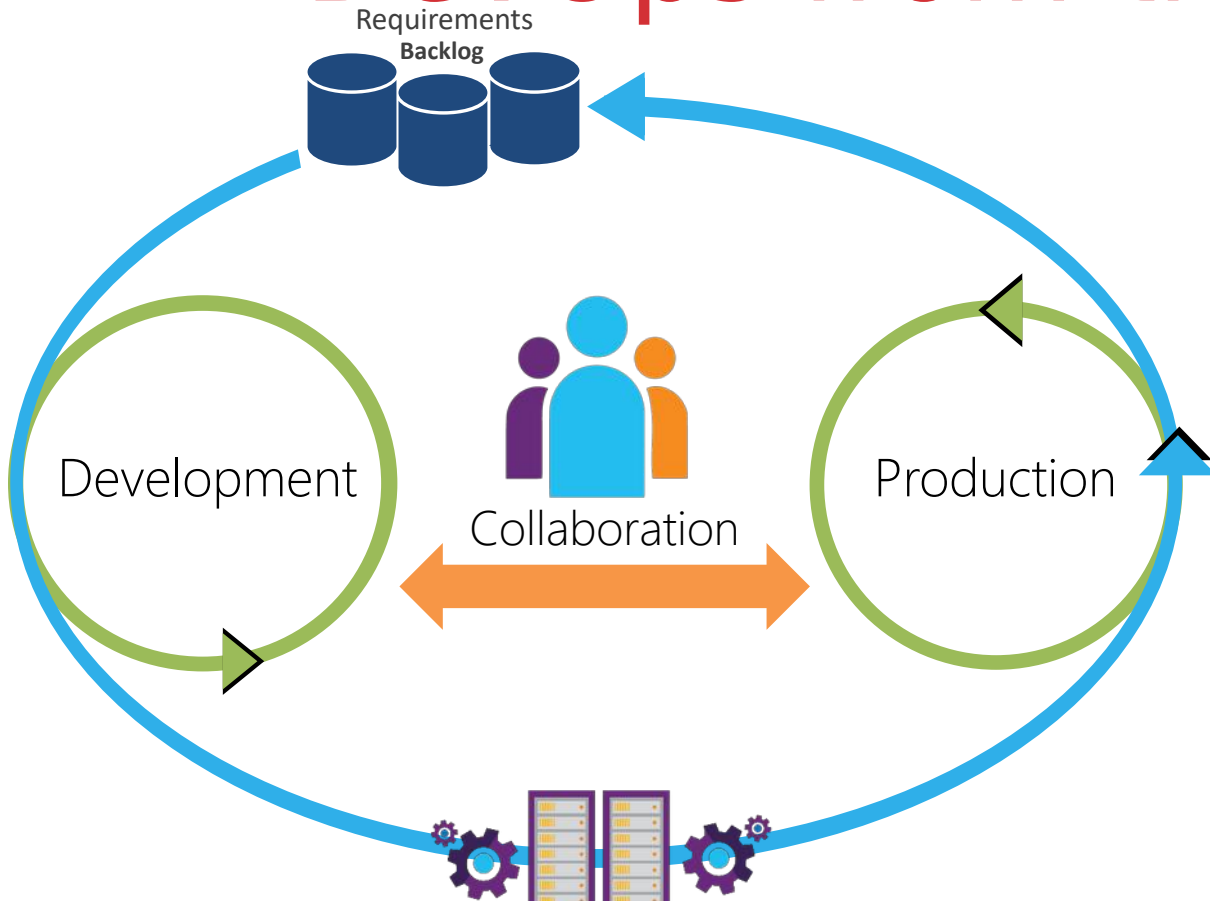
WebJo
b

Modern web technologies



TypeScript

DevOps from the start



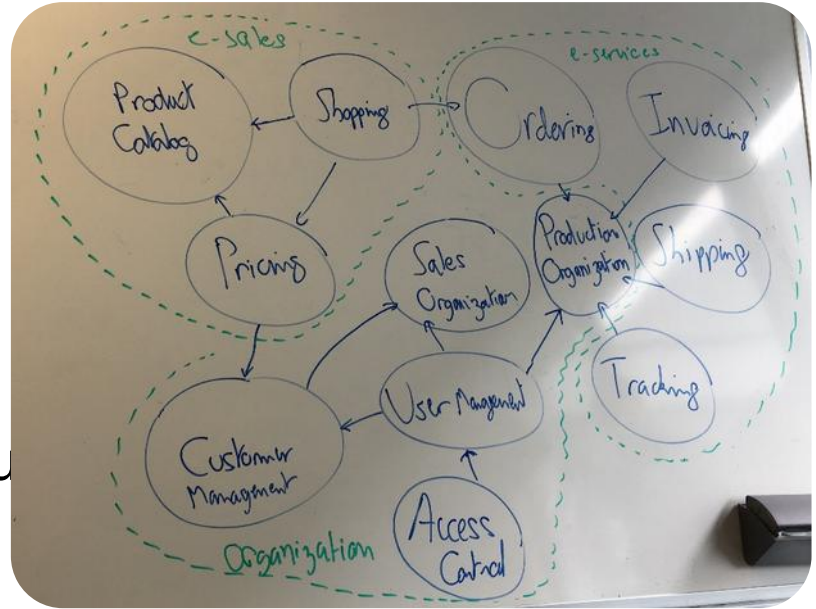
Visual Studio Team Services

- Backlog
- Source control
- Continuous integration
- Continuous delivery
- Dashboarding

Why DDD /
CQRS ?

Why DDD?

- Complexity
 - Lots of sub-domains
 - e-shop
 - Contracts & Call-off
 - Auctions (non-prime)
 - e-shop+
- Specificity
 - Very specific business structure
 - Sales organization
 - Production organization
 - Very specific business logic
 - Pricing model



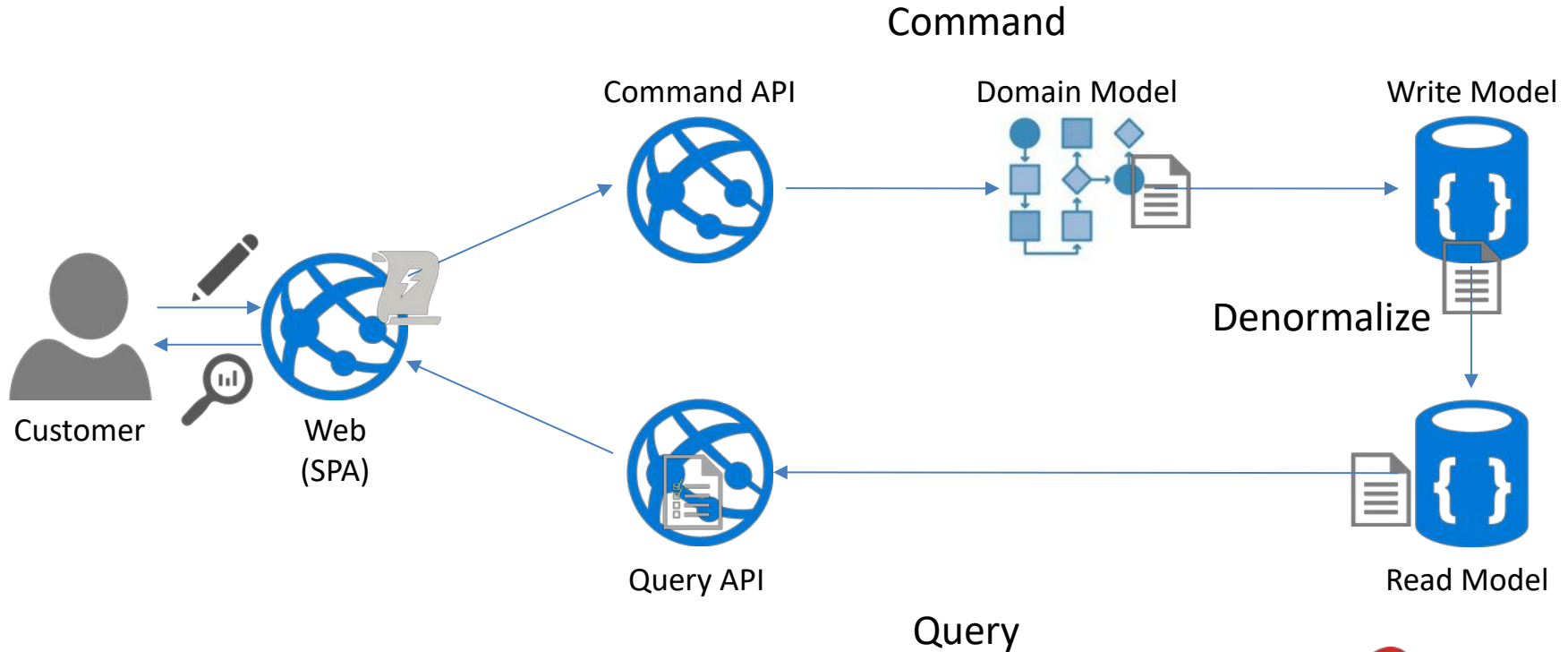
Why CQRS?

- Scale
 - 20 000 potential users
 - e-sales (Write) vs e-services (Read)
- Integration
 - 8+ back office systems
 - dependencies on other teams
- Geo-distribution
 - 2 continents

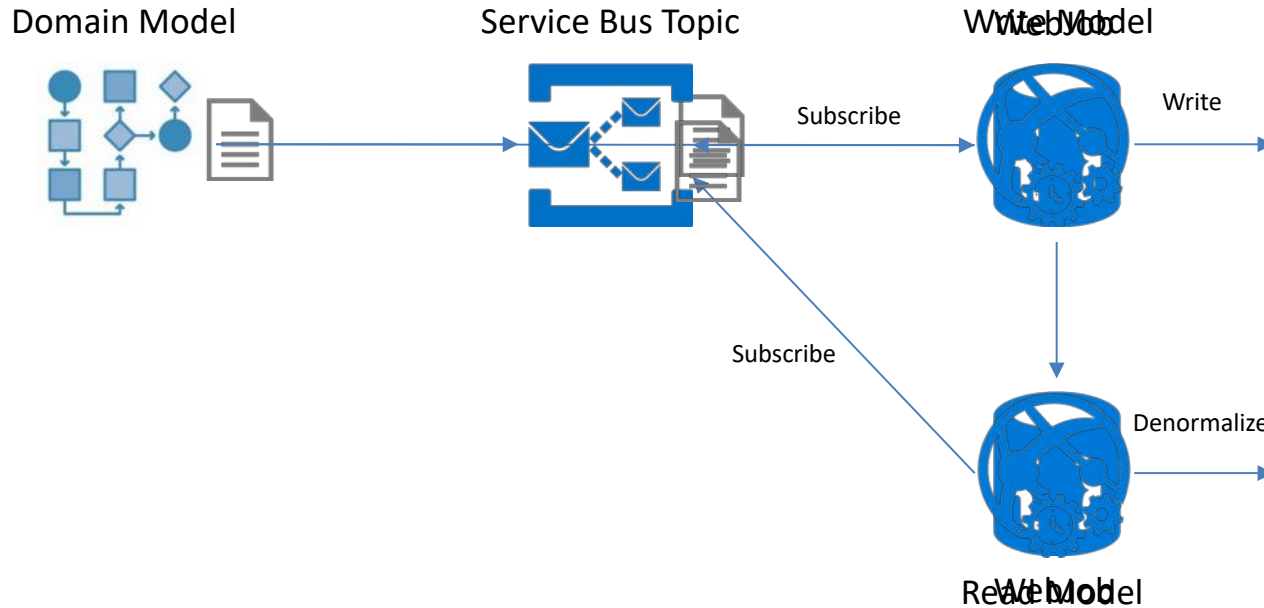


Technical challenges

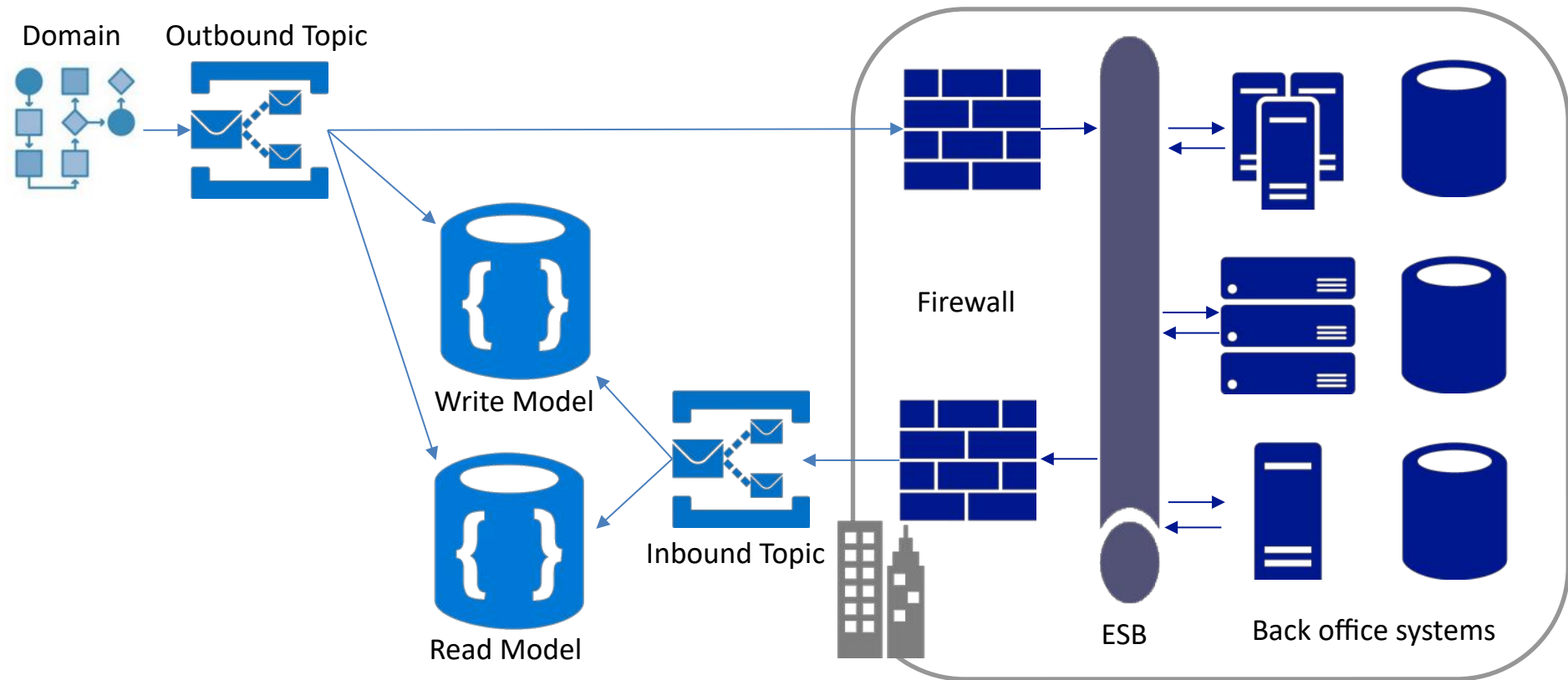
Command Query Responsibility Segregation



Sync read/write models

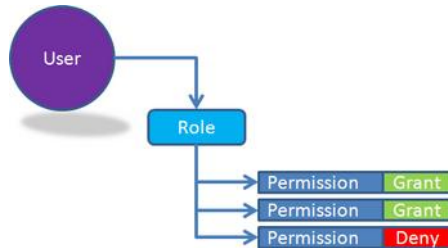


Back-office integration



Security

- Authentication
 - Google SSO
 - Microsoft SSO
- Authorization
 - Permissions
 - Roles
- Data segregation
 - Scopes



Continuous improvement

Learning as a team

- Training
 - Agile Primer
 - Domain Driven Design crash
- Coaching
 - Agile
 - DDD/CQRS
 - DevOps
- Backlog refinement
- Pair-programming



Documenting commands/events

4745 - I (NP Customer) want to see & select the packs available in flash sale See Results

Routes

+ GET bidding/flash-sales-items

Bidding / View

otto

Objects

Customer Flash Sale Item model

Flash Sale Round Started event

Bidding Flash Sales Items otto

Handlers

+ Update Flash Sale Status Triggered Job → Flash Sale Aggregate → Flash Sale Round Started Event

+ Flash Sale Round Started Event → Customer Flash Sale Item Denormalizer Handler

+ Flash Sale Round Started Event → Flash Sale Denormalizer Handler

Comments

🔔 Add new triggered job to check every minute the FlashSaleAggregates to change status

Flash Sale Created event

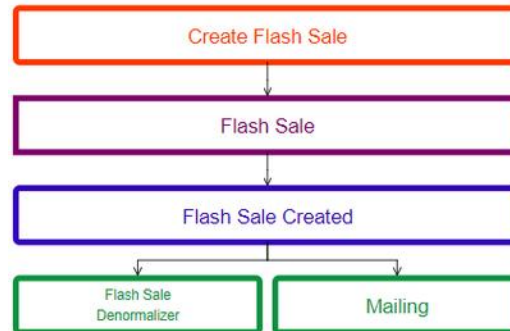
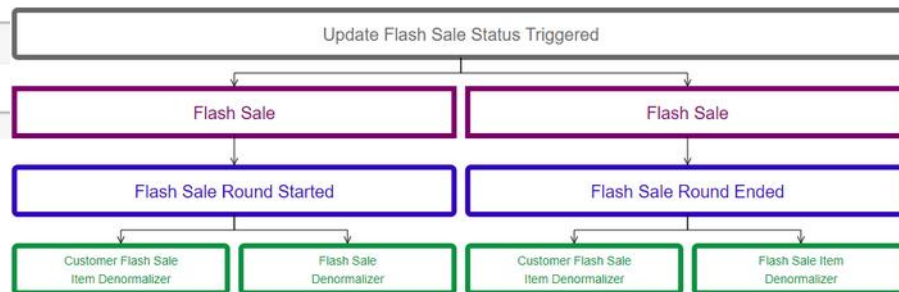
Properties

supplyingEntityId String 4742

rounds Object [] 4742

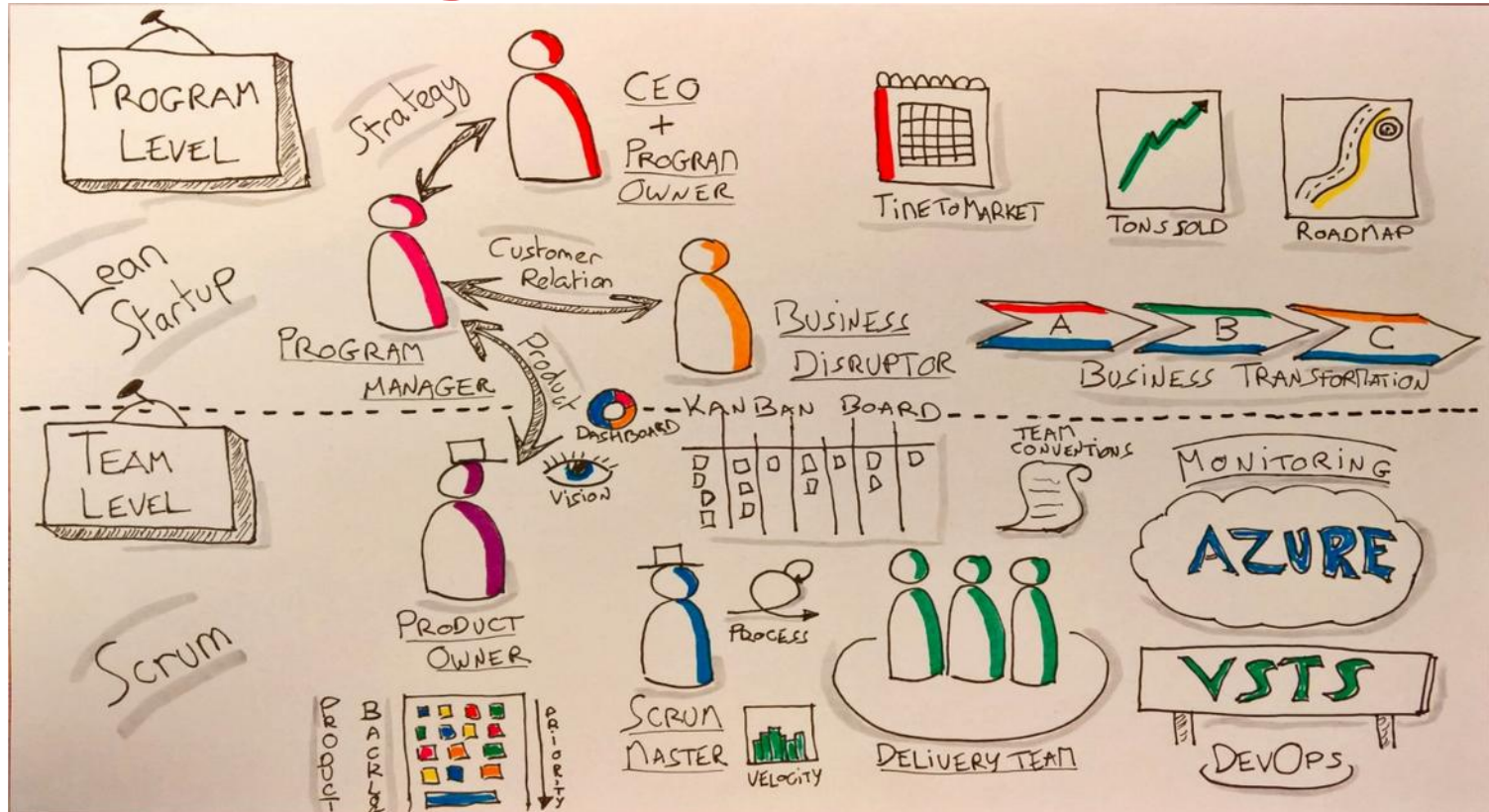
items Object [] 4742

status FlashSaleStatus 4742



A transformation program

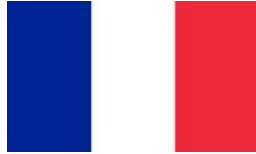
Program & team



Incremental rollout



Germa
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Franc
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Belgiu
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Netherlan
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Bra
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Luxembo
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Ital
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Spai
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Polan
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Turke
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So what?

Success factors

Strategic level

- Vision
- Leadership
- Means to an end
- Agile/Lean mindset

Team level

- Skills
- Eagerness to learn
- Discipline
- Continuous improvement

→ Release 7 –
Sprint 38

What's next?

- How to get faster ?
 - Moving from Scrum to Kanban
 - Splitting the team in two
- Improve some technical things
 - CosmosDB change feed
 - Blue/Green deployment
- Leverage Azure
 - Azure Data Factory
 - Machine learning

The pit of success

- Design for scale
- Don't distribute from the
- Build on motivated individuals
- Use a lean/agile approach
- Favor continuous learning
- Improve constantly



Thanks

