



# PROFESSIONAL SOFTWARE ENGINEERING

PSE SWE LE 4 und 5 - Domain Driven Design

Eventstorming (I/II)

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# EVENTSTORMING (I/II)

**It's developers' (mis)understanding, not domain experts' knowledge, that gets released in production**

**Software development is a learning process, working code is a side effect.**

**(Alberto Brandolini)**

# KNOWLEDGE CRUNCHING

RECAP

## EventStorming (Alberto Brandolini)

- Brainstorming-Technik, in der ein Geschäftsproblem mit Hilfe von Domain Events untersucht wird. Domain Events sind Ereignisse, die für Domain Experten von Interesse sind: relevante Ereignisse.
- Ereignisse werden immer in der Vergangenheitsform notiert. (Sie haben sich ja bereits ereignet.)
- Domain Events sind dann Ausgangspunkt von allem anderen (einem Ereignis geht in der Regel eine Aktion voraus, diese hat eventuell einen User oder ein System, der die Aktion durchführt, ....)
- Wir schauen also von Hinten auf das Problem (backward-looking view)

# KNOWLEDGE CRUNCHING

## EventStorming (Alberto Brandolini)

- Big Picture Workshop
- Design Level
- IT Modernization
  - Concept Location: Services identifizieren, die dann mittels Strangler Pattern externalisiert werden
  - To-Be Modularisierung

RECAP

# ZUTATENLISTE FÜR EINEN EVENTSTORMING WORKSHOP

Teilnehmer: (8 – 12 optimal)

- Domain Experten (must)
- Facilitator / Moderator (must)
- Developer, Architekten, Requirement Engineers, UX Experts, Tester
- Product Owner, Manager

Clear Agenda & invitation of the right people

Kick-Off: workshop goal ist known and everybody feels aligned

Raum-Setup:

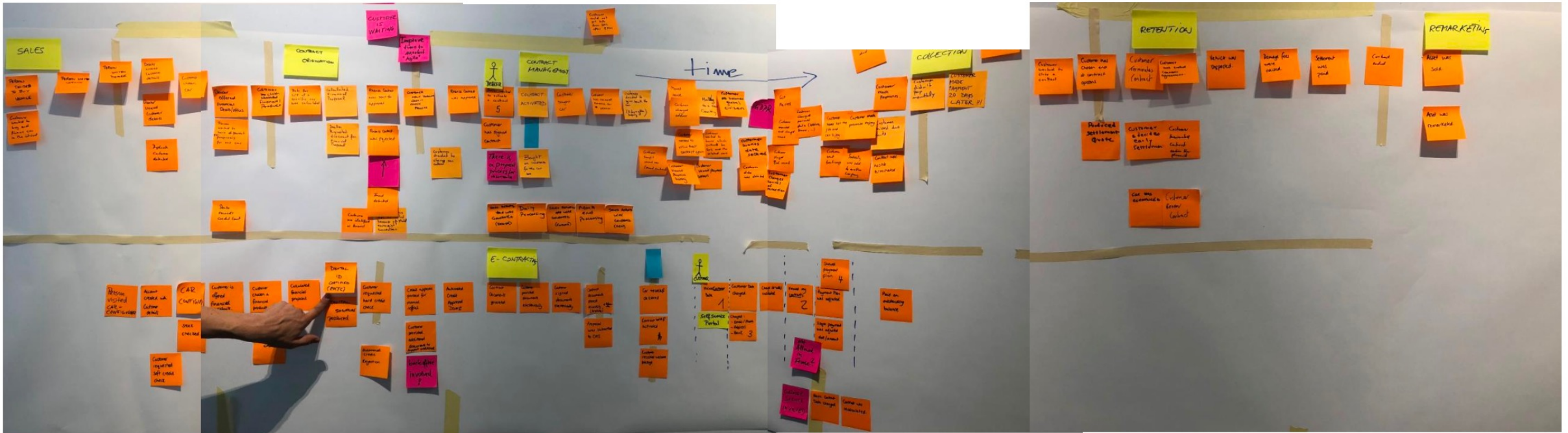
- Space: 10 Meter lange Wand!
- paper roll (weißes Papier)
- a lot of orange sticky notes → we are looking for business / domain events
- mid-sized black Filzstift (Edding 1300)
- some crepe tape
- visible legend
- Some sticky notes: yellow, pinc, lilaic, blue, red, green and white Time boxing



# BIG PICTURE EVENTSTORMING

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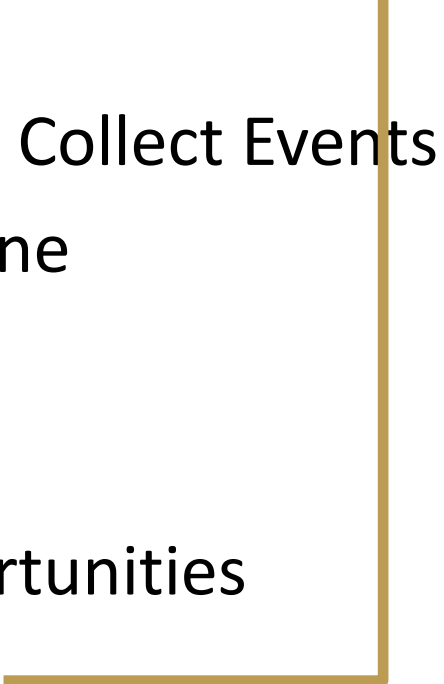
- Ziel: gemeinsames Verständnis des Problemraumes
- Ergebnis: vollständige Sammlung aller relevanten Domain Events





# BIG PICTURE EVENTSTORMING

## Phasen BigPicture EventStorming:

1. Kick Off
  2. Chaotic Exploration: Collect Events
  3. Enforcing the Timeline
  4. User and Systems
  5. Explicit walkthrough
  6. Problems and Opportunities
  7. Pick your Problem
- 

## Phasen Design Level EventStorming:

1. Kick Off (Problem is known)
2. Start with selected Domain Event
3. Identify all other design elements
4. Select next Domain Event (goto 2)

# BIG PICTURE EVENTSTORMING

## Phase: Kickoff & Exploration (15 min)

- (informal presentation round: discover everyone's background, attitude, goals & self introduction)
- make the goal explicit: „We are going to explore the business process as a whole by placing all the relevant **events** along the timeline.“  
(We will highlight ideas, risks and opportunities along the way.)  
→ Goal: **common understanding of the problem space**

## Phase: Chaotic Exploration (30 min)

- Start (icebreaker) with placing domain events on the wall along a timeline – chaotic exploration, no perfect outcome expected

## Phase: Enforcing the timeline (max. 45 min)

- Goal: Bring order into chaos and identify the scope for our further investigation
- **Make sure we are actually following the timeline.** We would like the flow to be consistent from beginning to the end.
- Make the events more accurate, check for:
  - **Syntactic rules:** verb in past tense, verb, ....
  - **Semantic analysis:** duplication, better words for ....
- Strict timeline: are there **gaps** in the causal chain (of events)
- Sorting the events:
  - Identify **Pivotal Events** (mark them with yellow crepe tape)
  - Optional: Work with swimlanes (red) (personas, sector, branch, division, ...)
  - Optional: Look for temporal milestones (blue)
  - Optional: Chapters sorting (yellow) (business process, business model,...)

# BIG PICTURE EVENTSTORMING

## Phase: Fix the the scope for further investigation (30 min)

- Identify 2 or 3 pivotal events:
  - scope starting event and scope ending event
  - and some in the middle to divide the whole group into two groups working
  - Use crepe tape to mark the boundaries
  - Transfer the pivotal events and start with a a new paper roll
  
- Ask for (the first) event trigger: identify **user**, **systems**, time, other events – 10 min

## Phase: Explicit walk-through (20 Min)

- Story telling: „may I ask Adam to walk through the events and tell the story that connects them“ - 10 min (is the model complete?)
- Root cause analysis: Reverse narrative – start with pivotal events, ask for: „For event A all it takes to have event B?“ „ What needs to happen, in order to have event C happen“
- Explore inconsistencies in a forward and backward fashion.

# BIG PICTURE EVENTSTORMING

## Phase: Getting a deep common understanding of the fixed scope (60 min)

- Identify and add **problems & opportunities** to our model (10 – 15 min): hotspot notation (purple) and opportunities (green): for every problem there is a solution!

Arrow voting (making problems and opportunities personal, is there a specific focus we want to set?) – use dark blue sticky note with an arrow.

- Explain the complete meta model (color code) and select problems & opportunities for further analysis.



- Wie könnte ein Geschäftsmodell für einen Onlineshop aussehen, der Design-Möbel verkauft:
  - Möbel sollen für eine breite Masse erschwinglich sein.
  - Die gesamte Customer Journey soll Online erfolgen.
  - Das Möbel-Design wird in Berlin in unserem Design-Lab gemacht.
  - Möbel werden dann in (großer Stückzahl) offshore gefertigt und via Schiff in eine Warenlager geliefert.
  - Dauer von der Fertigung bis zur Lieferung in das Warenlager soll möglichst kurz sein
  - Wir starten mit dem Abverkauf, sobald die Ware eingegangen ist (und geprüft wurde).

Aufgabe: Beschreibe das Geschäftsmodell mittels Business Model Canvas: 15 Minuten



# BIG PICTURE EVENTSTORMING

## ÜBUNG

- Aufgabe: Führe ein Big-Picture EventStorming durch: (45 Minuten)
  - Erfasse alle Domain Events rückwärts bis zur Idee eines neuen Möbel-Produktes.
  - Starte bei „Produkt wird beim Kunden genutzt“

Produkt  
wird beim  
Kunden  
genutzt

time

# FURTHER READING

## Event Storming



Event Storming  
Alberto Brandolini