

# Filozofia DDD a Microservices

Štvrtok 20.09.2018 o 18:00

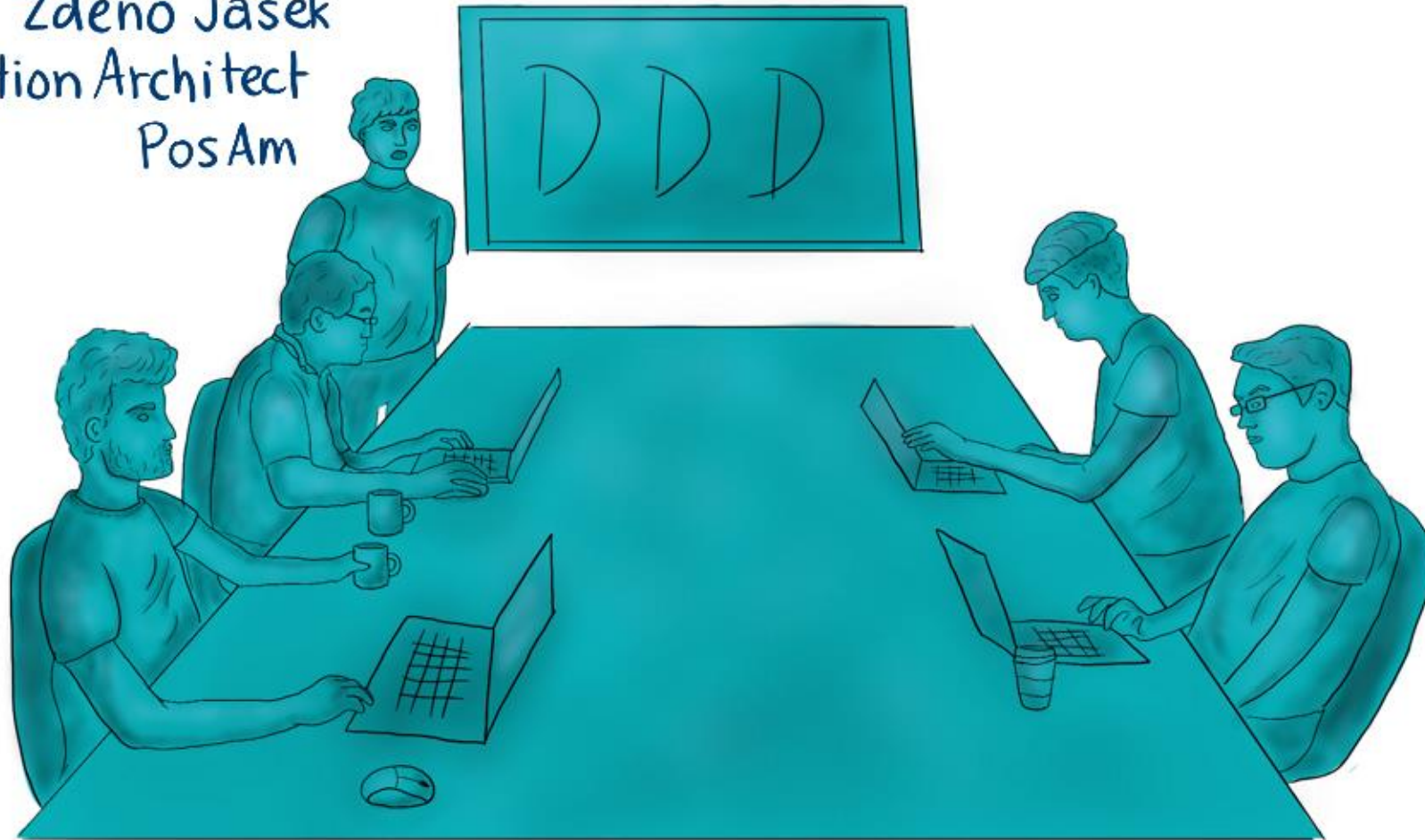
EVENT VENUE V CAMPUS0100, BINARIUM

**PARTNERI**



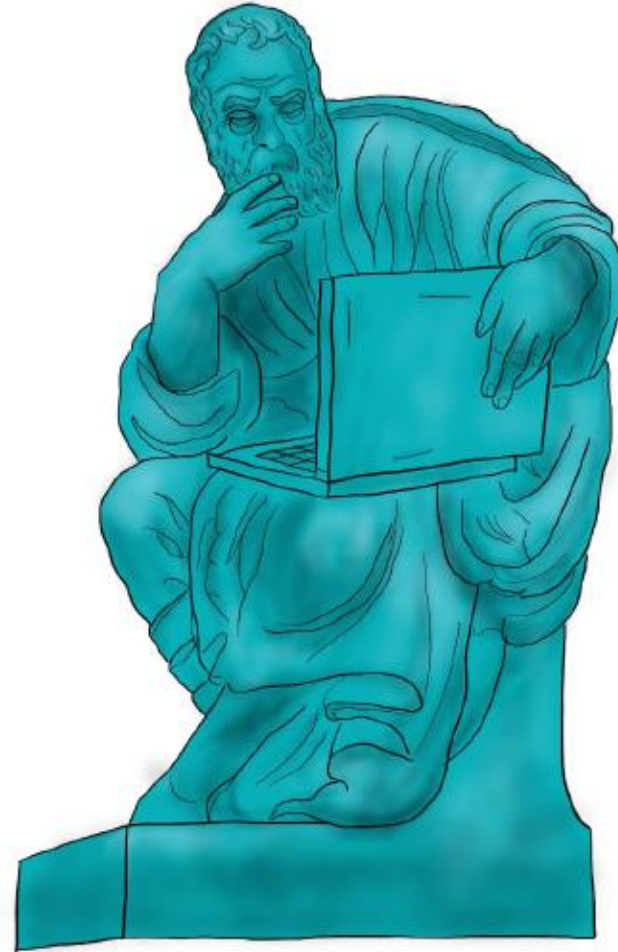
# Domain-Driven Design Community

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Solution Architect  
PosAm



# Domain-Driven Design

- Ubiquitous language
  - Model has to be based on it
  - Source code is readable for analysts
- Bounded context
  - Meaning to the terms



Ubiquitous  
language

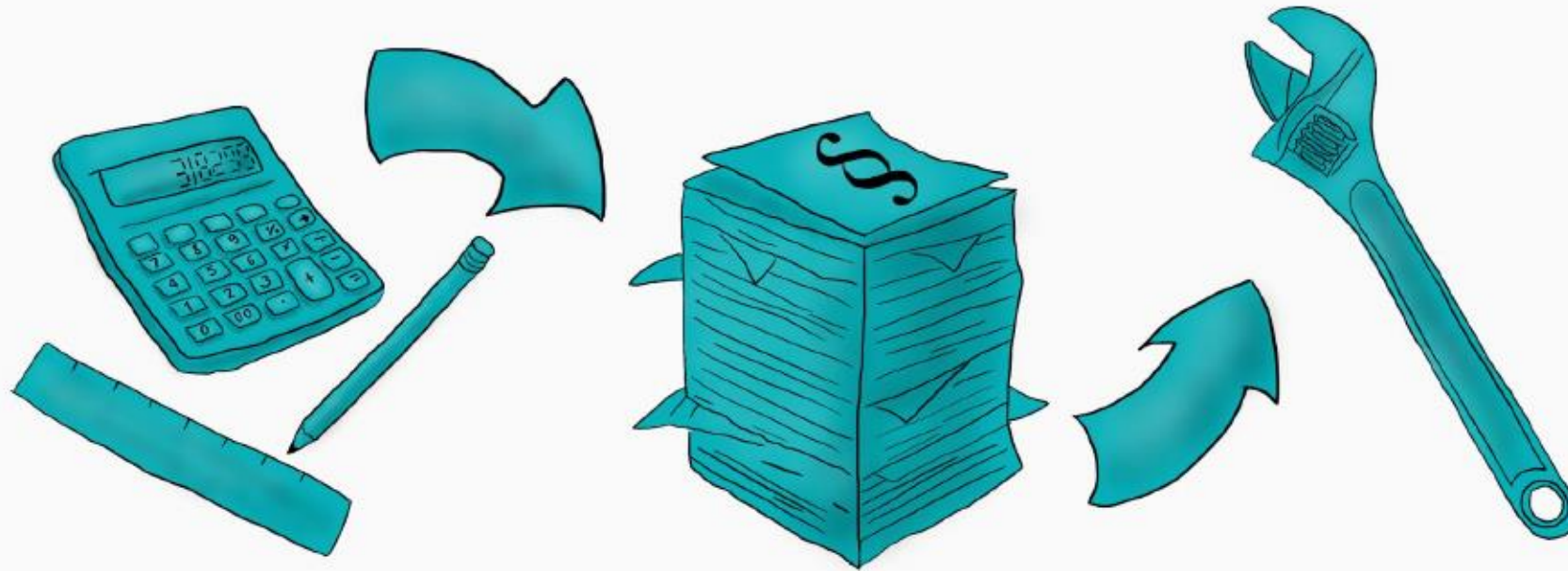


1 - 20 z nájdených 40 záznamov

Druh	Org	Organizácia	Zdroj	Eko	Uct	Schválený
						
211	15	00151742	111	211003		19 560 204,00
211	15	00151742	111	211004		300 000,00
211	15	00151742	111	212001		0,00
211	15	00151742	111	212003		10 850,00
211	15	00151742	111	212004		150,00

# Budget item

1. Preparation of state budget
2. Execution of state budget





## Import budget items

```
for (SchvalenaHodnotaNaPolozke polozka : polozky) {  
    if ( predikat.test( polozka, polozky ) ) {  
        try {  
            ImportRozpocetuTranslator.translate(polozka,  
        } catch (Exception e) {  
            if ( onException != null ) {  
                onException.accept(new ImportLimituExce  
            }  
        }  
    }  
}
```



# 1. Open for changes

- Analysis:
  - New predicate = new class
  - Open-close principle

```
public static SchvalenaHodnotaPredicate predikaty() {  
    return and( LimitNeobsahujeZdroj11PrePrijemateleTransferu.  
        and( LimitNeobsahujeEkoRoot.INSTANCE,  
        and( VlastnikLimituMaKontrolnyRozpocet.INSTANCE,  
        and( Polozka211obsahujeZdroj11alebo72.INSTANCE,  
        and( PolozkaNeobsahuje13tkovyZdroj.INSTANCE,  
        and( PolozkaNieJeNulova.INSTANCE,  
        and( PolozkaNemaEkonomicku9xx.INSTANCE,  
        new LogWrapperPredicate( LimitMaPodSebouRozno
```

## 2. Readability

- Source code corresponds to analysis
- No in-line comments

```
public static SchvalenaHodnotaPredicate predikaty() {  
    return and( LimitNeobsahujeZdroj11PrePrijemateleTransferu.  
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            and( VlastnikLimituMaKontrolnyRozpocet.INSTANCE,  
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                            and( PolozkaNemaEkonomicku9xx.INSTANCE,  
                                new LogWrapperPredicate( LimitMaPodSebouRozpo
```

### 3. Testability

- Every predicate has its own unit test
- No database is needed

```
public static SchvalenaHodnotaPredicate predikaty() {  
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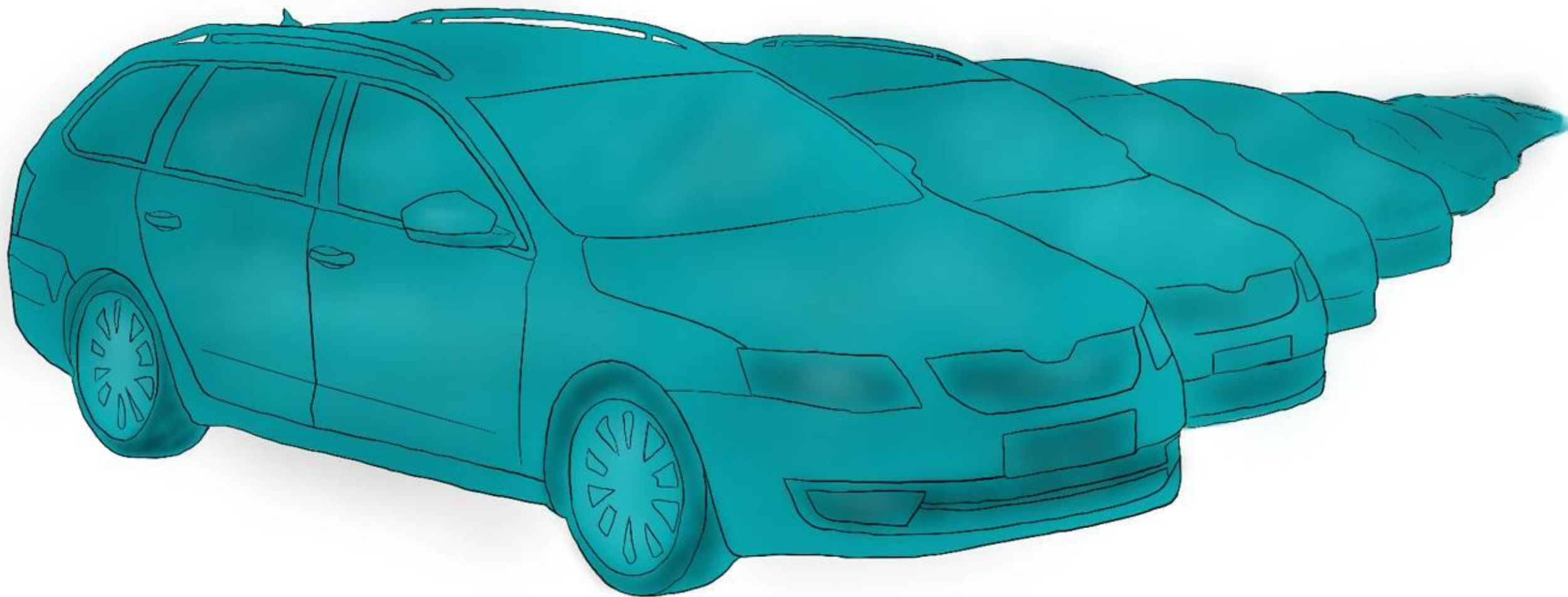
# Used principles, techniques, ideas

- SOLID
  - Single responsibility
  - Open-close principle
- Test Driven development
  - (partially)
- Functional programming

# Ubiquitous language

- Term from domain should be represented in model
- Combine:
  - Object-oriented design
  - Functional programming
- Responsibility
  - Class should have its own responsibility
  - Don't move it to a function

Bounded context

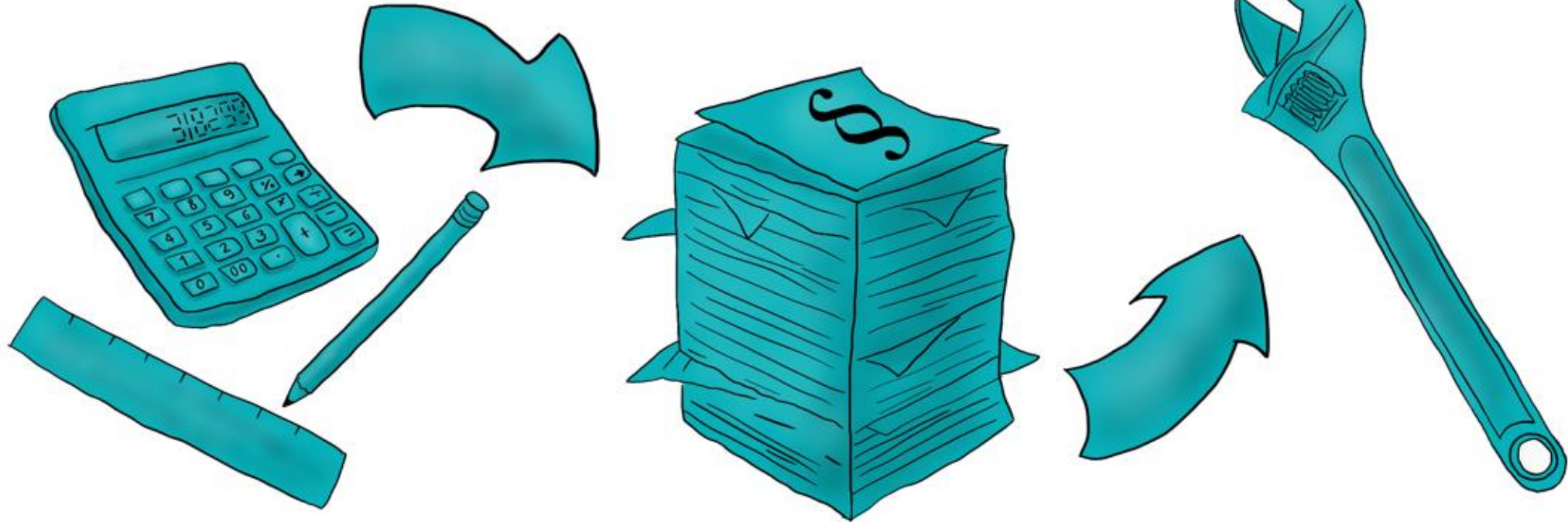


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211	15	00151742	111	212004		150,00

# Budget item

1. Preparation of state budget
2. Approval of state budget
3. Adjustment of state budget

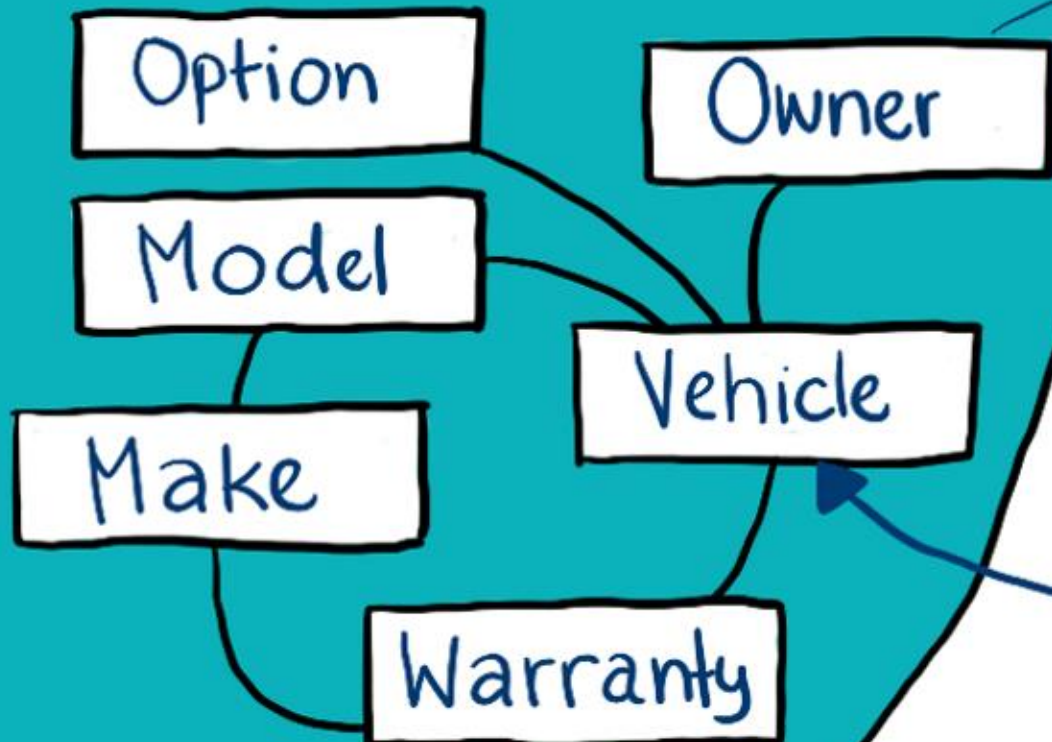




# Bounded context

- Preparation of state budget:
  - Create, modify, delete
  - Values: this year, previous, next
- Execution of state budget:
  - Modify: only value, very carefully
  - Values: approved, change designed, changed, consolidated
- NOT: „Rule them all“ model

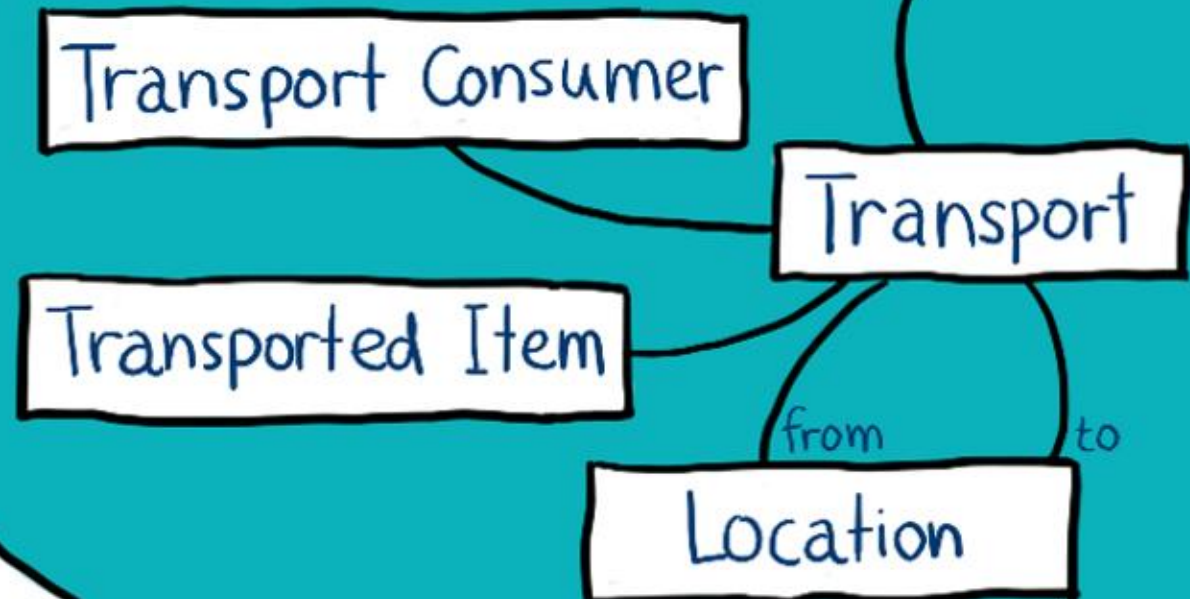
# Vehicle Context



# Business Partner Context



# Transport Supplier



# Transport Context

# Domain-Driven Design

Buzzword

Microservices

Event Driven Architecture

SOLID

Design Patterns

Test Driven Developments

Hexagonal Architecture

Agile Development

Functional Programming

Relation to DDD

Defines boundaries

Defines events

Used as principles

Used as tools

Perfectly fits

Is needed

Allow changes

Used as a tool

Questions?

