

# **Data-Driven Decision-Making in Product R&D**



# Hello!

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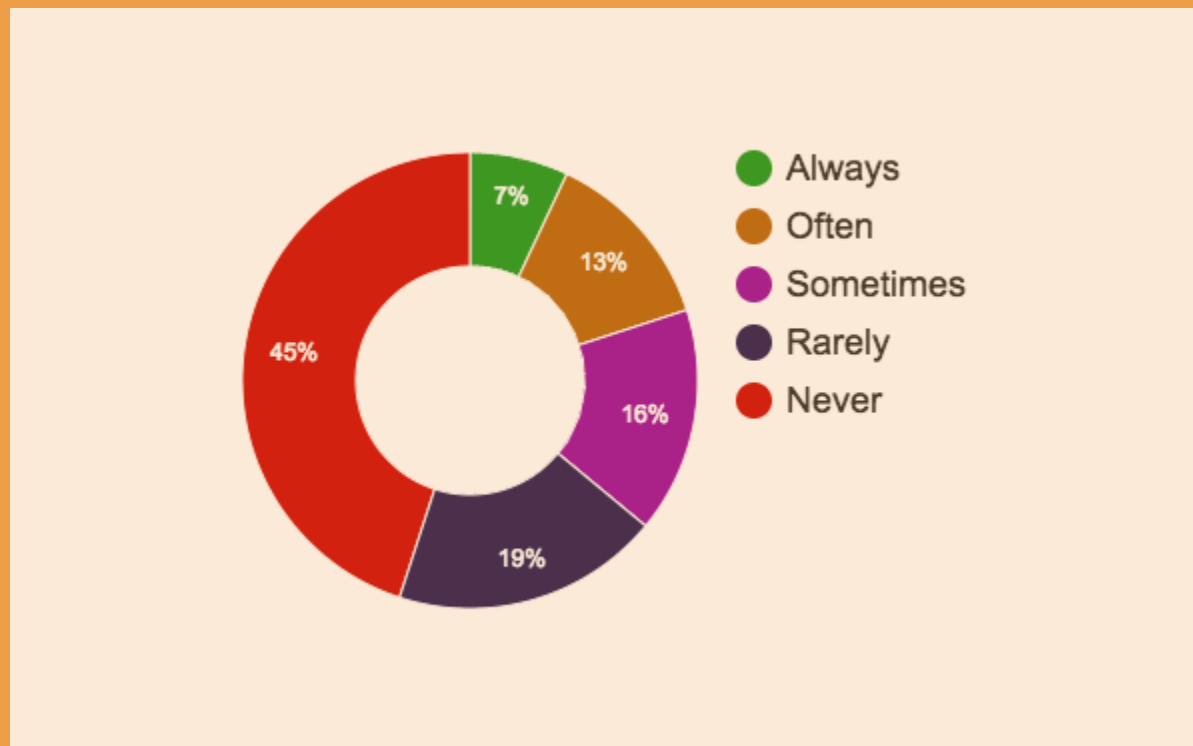
“

*...there are a lot of assumptions  
when questions are often  
answered with*

***“we believe”, or “we think” this  
is what the customer wants...***

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# Feature/Function usage of a typical system



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Reported by Standish Group at XP 2002

**45%**

**of features in a typical system**

**are never used**



That is a large number, isn't it?

1.

# THE BACKGROUND

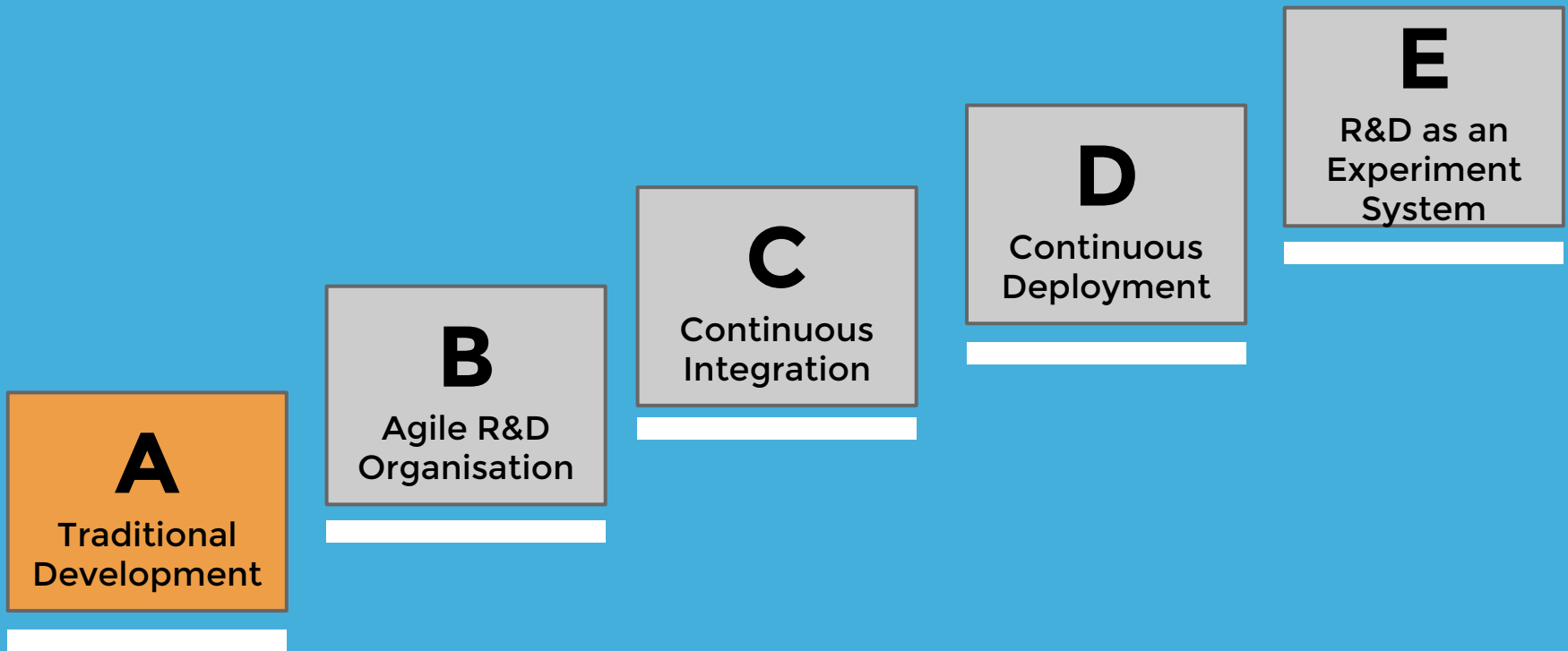
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- The 'Stairway to Heaven' model
- HYPEX model

## ■ The ‘Stairway to Heaven’ model

All companies evolve their software development practices over time.

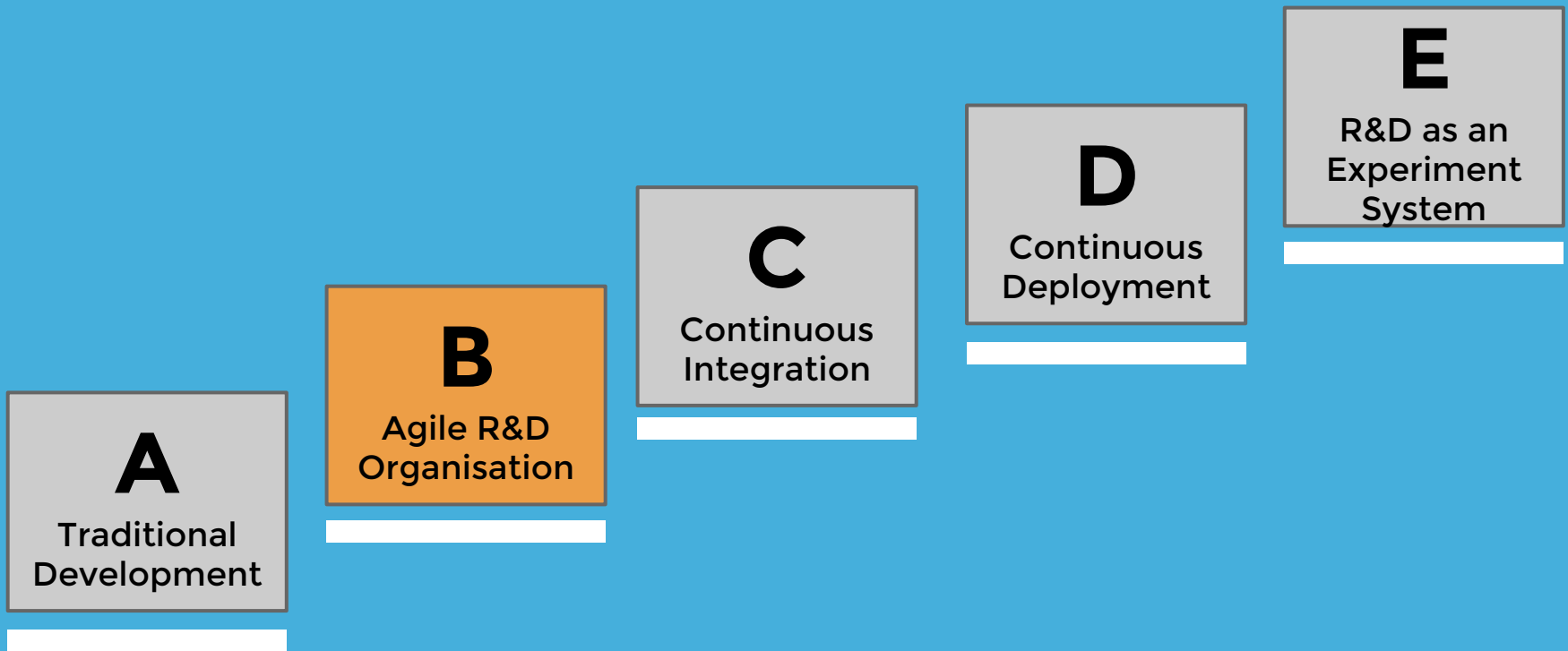
Typically, there is a pattern that most companies follow as their evolution path.



# The 'Stairway to Heaven' model

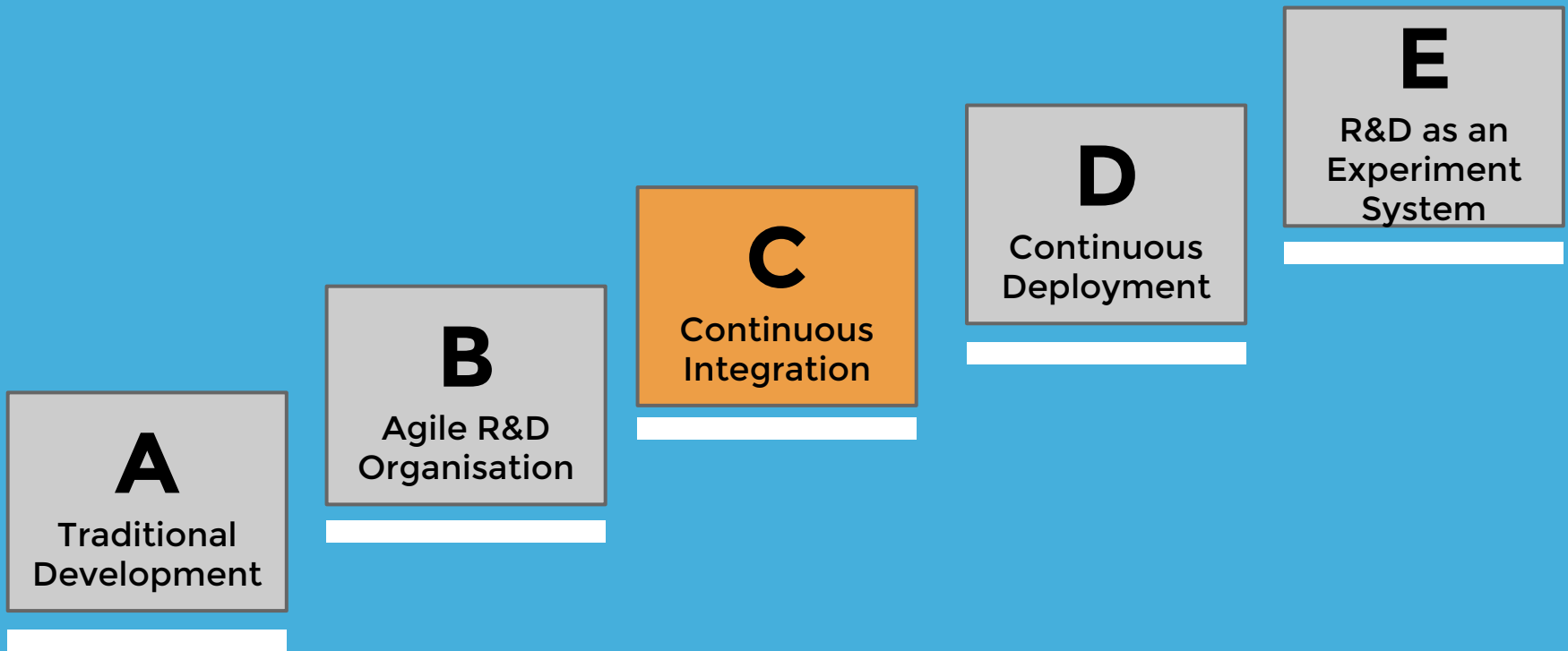
Olsson et al., From Opinions to Data-Driven Software R&D (2014)





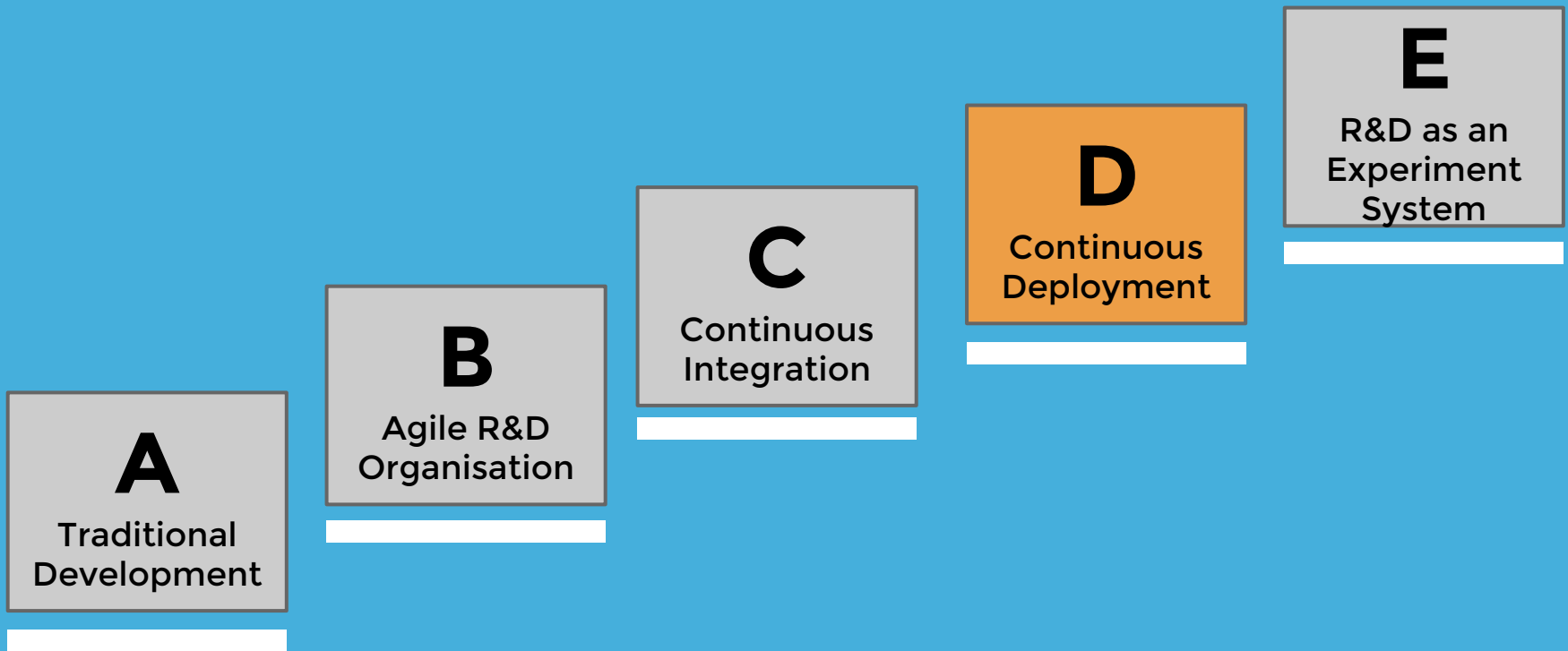
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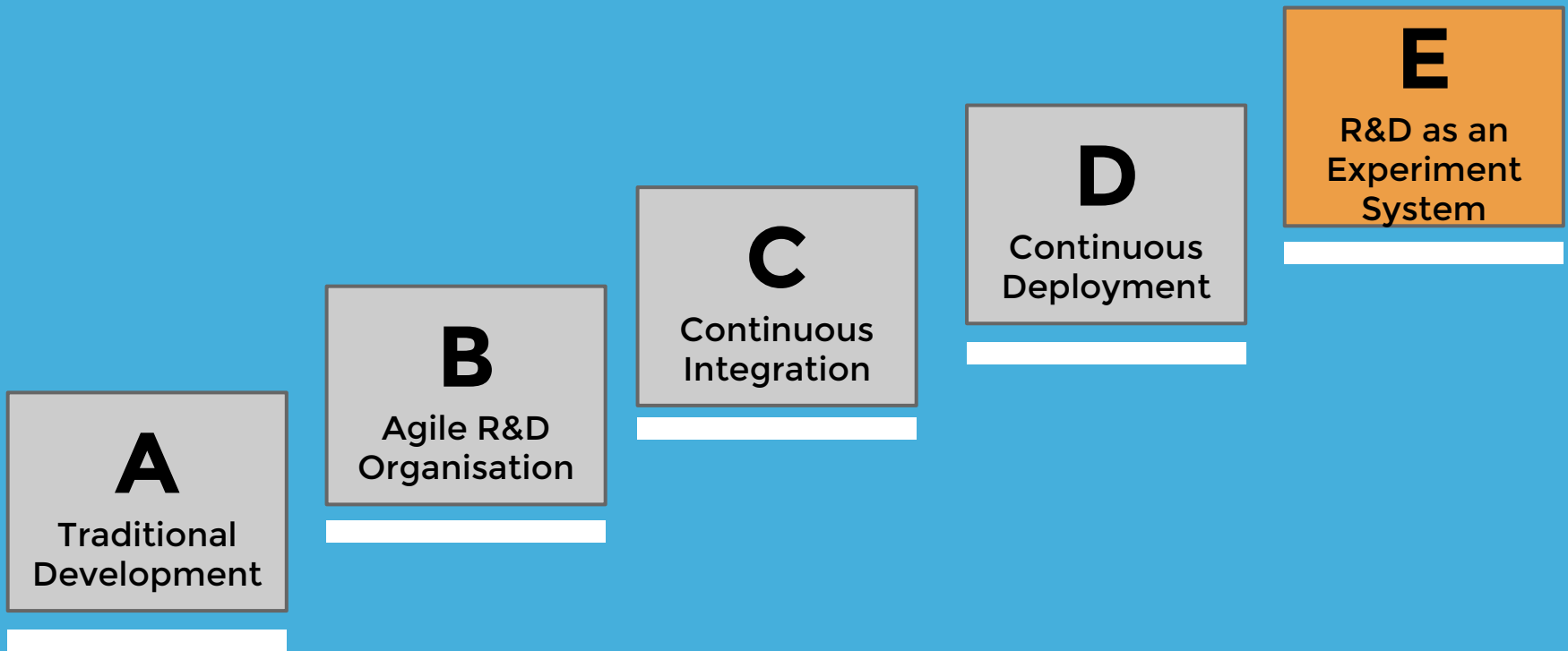
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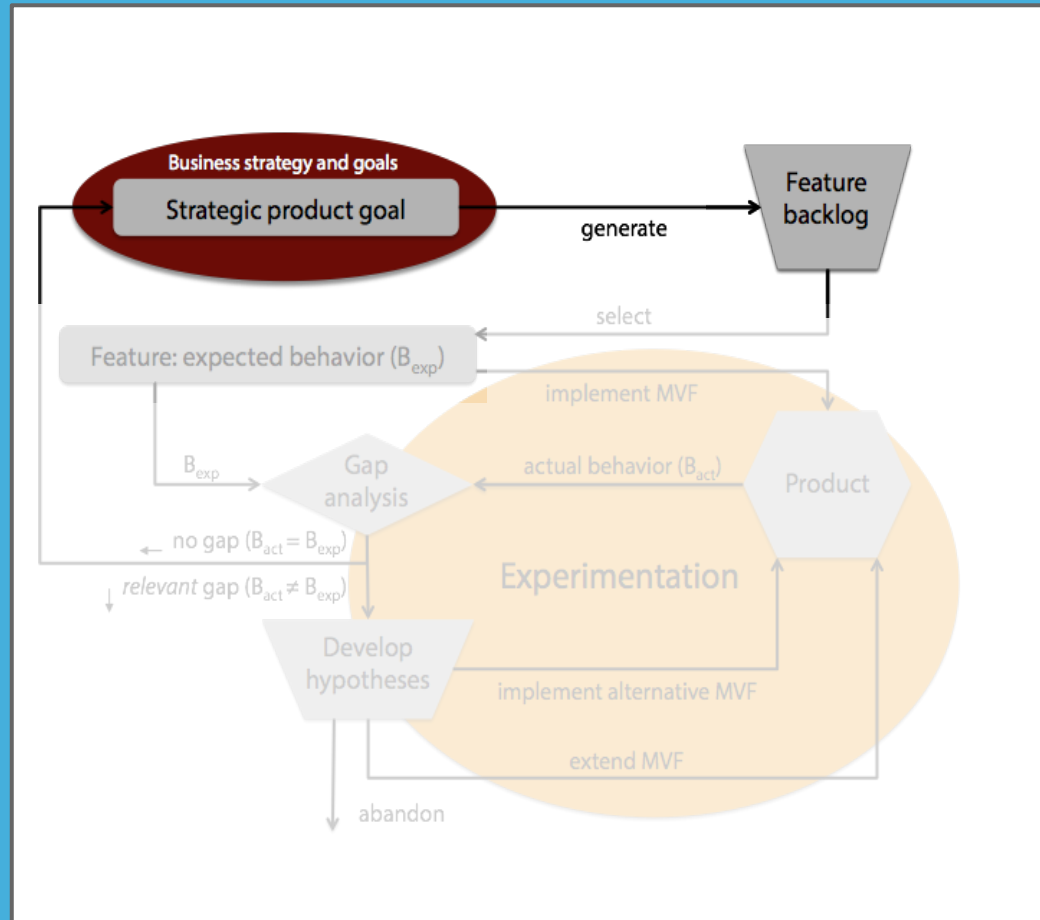
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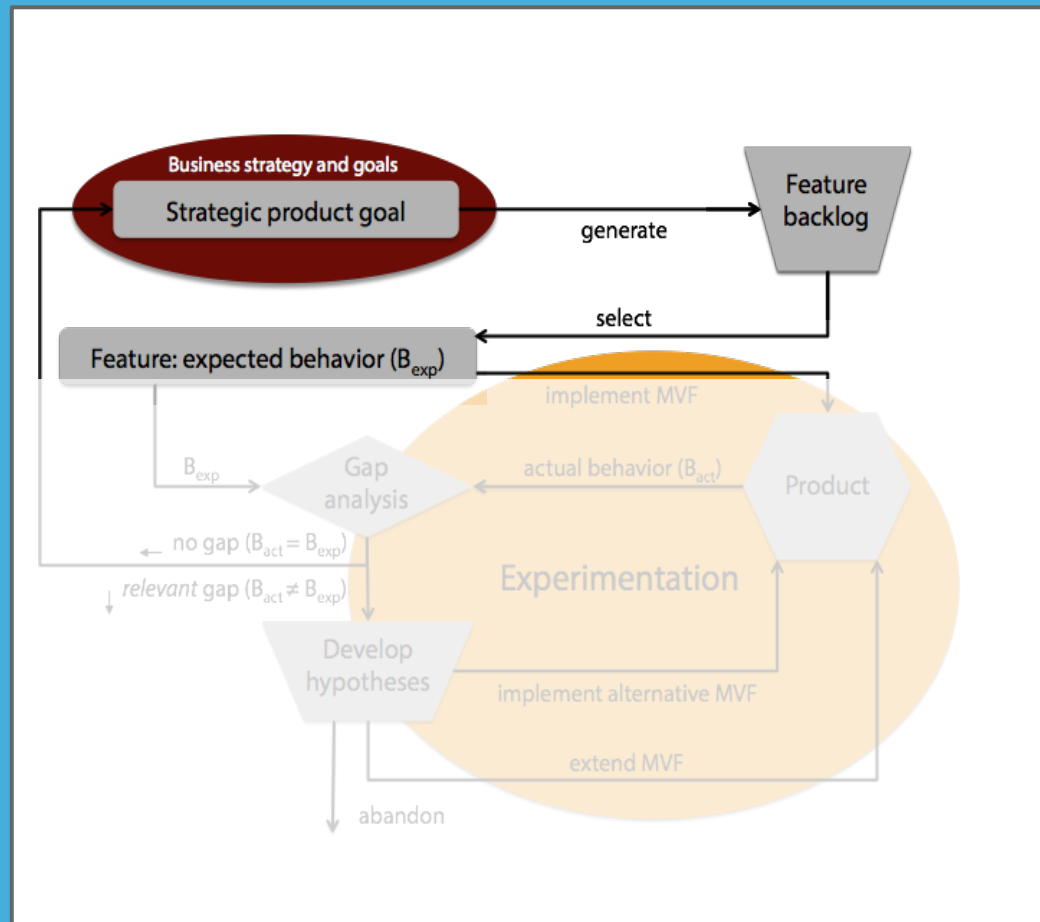
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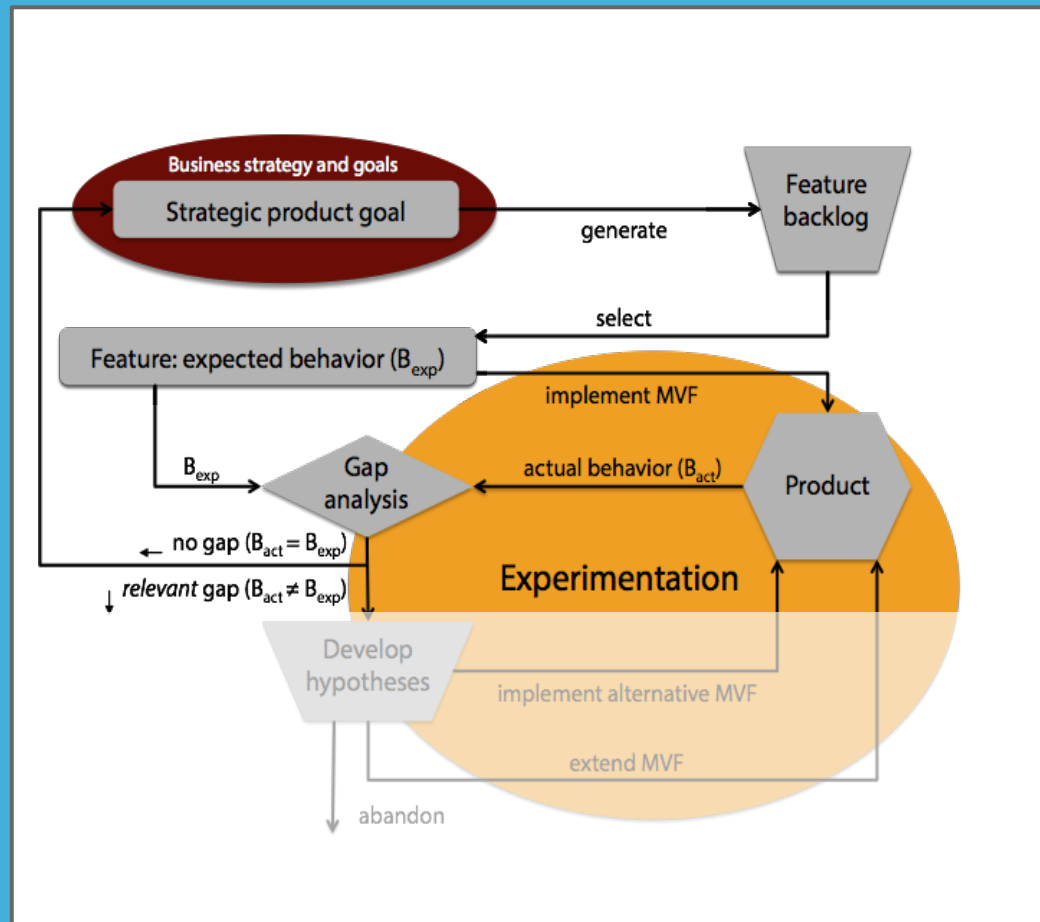
# HYPEX model



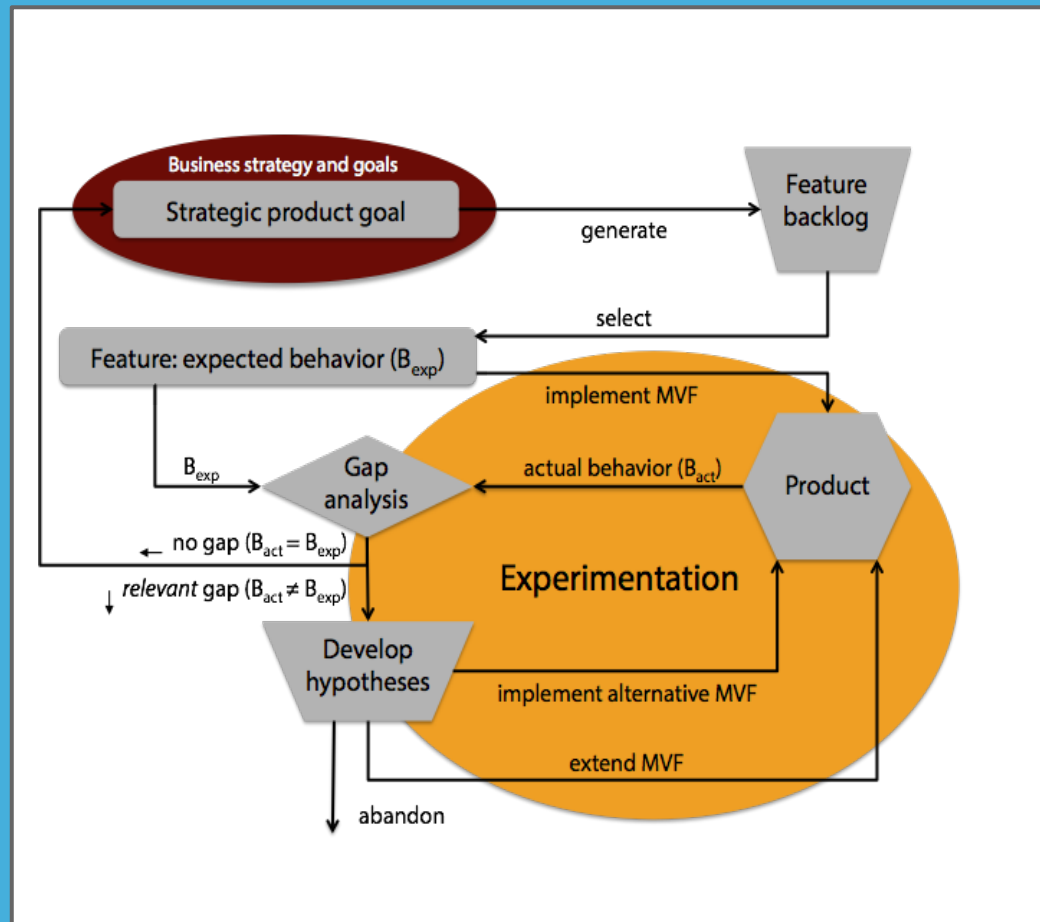
# HYPEX model



# HYPEX model



# HYPEX model





# 2.

## My contribution(s)

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- The Research Questions
- Literature Overview
- The Model

# ■ The Research Questions

## RQ1

How can software functionality **under development** be **continuously validated** through product and customer data?

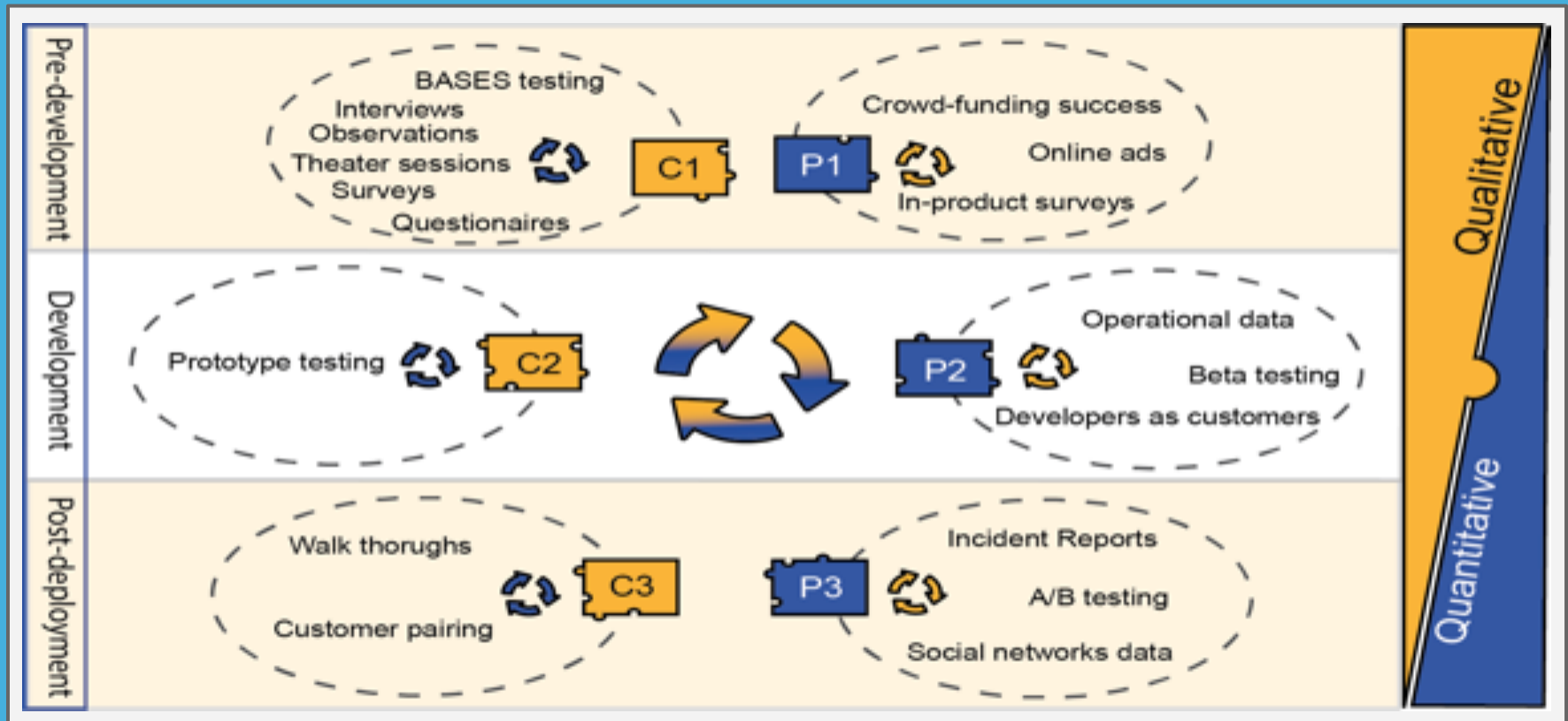
## RQ2

What are the **efficient** customer **feedback** and product **data** collection and analysis **practices**?

# Literature Review



# Data Collection and Customer Feedback Techniques Model



Customer



Product

## ■ The Next Step(s)

### **Validate the Model in empirical context!**

- work with the companies in the collaboration (case study approach)
- interview and observe the R&D & operations teams, also product owners

## ■ The Next Step(s)

**Expand the Literature review with related, and highly relevant research domains**

- requirements engineering domain
- other relevant ones?

# Thank you!

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