

# Success without Requirements Engineering

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This presentation is about how we work with requirements at Axis Communications. You might say that at Axis, we actually don't work with requirements, at least not according to requirement engineering best practices. But this way of working has proved very successful for us.



Axis was founded 1984. Early products included protocol converters and print servers. The company has always done embedded systems, but has more had the spirit of a software company, rather than a mechanics company.



Today the main product area is video surveillance, where Axis is the market leader.  
The turnover in 2014 was 5.5 Billion SEK.  
Axis has 2.000 employees, of which about 800 are in R&D.



Our product projects follow something you could call "Agile Waterfall", a waterfall project model with Agile Principles culture

**Reacting to change** over following plans

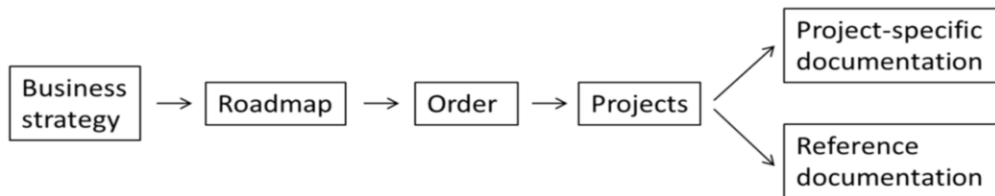
**Cooperation** over contracts

**Working products** over documentation

Picture credit:

<http://themetapicture.com/32-captivating-photos-of-children-playing-around-the-world/>

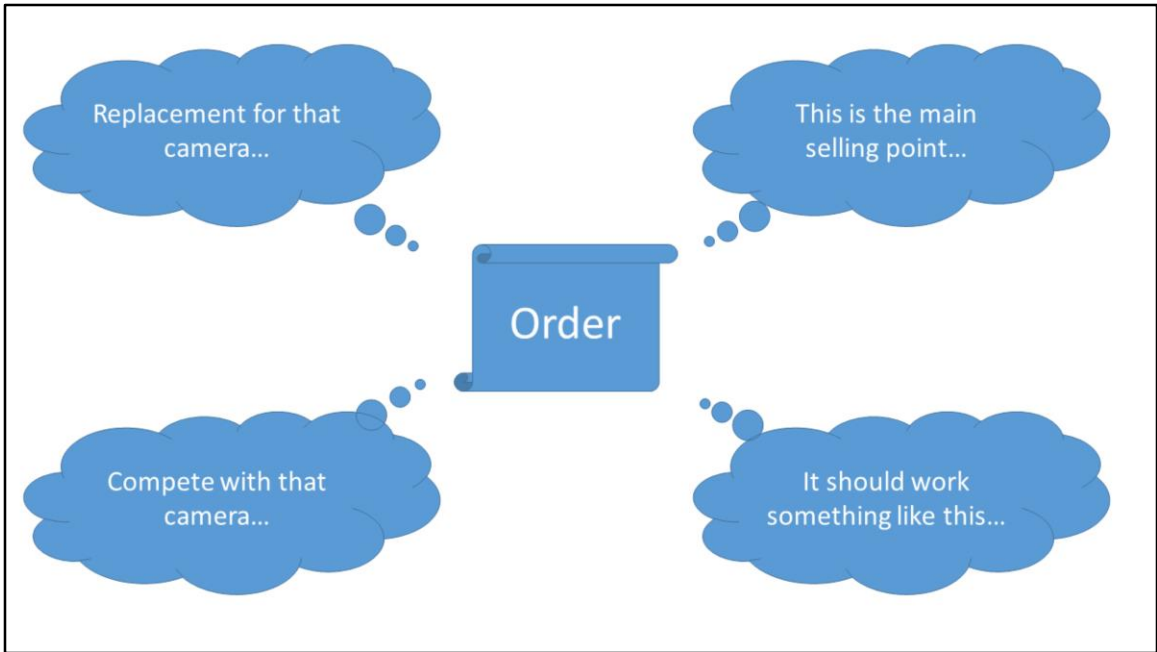
## Requirements and The Big Picture



The Business Strategy influences the Product Roadmap. The Product Roadmap results in Orders for different products (about 30 products per year).

An Order results in a Project, which will start to specify in more detail what to do. The details of what the project will do is done by the project after it starts, not before.

Some of the specification work done in the project will survive as reference documentation, but most of the specifications will "die" when the project is closed (and sometimes even before the project is finished).



Each Order contains a motivation for a product, why it is being done. It is a high level description.



"Vision without action is a daydream, but actions without vision is a nightmare" – Japanese proverb

The requirements are "Mission type tactics", stating intentions rather than detailed orders.

"Plans are useless, but planning is essential" – Dwight Eisenhower

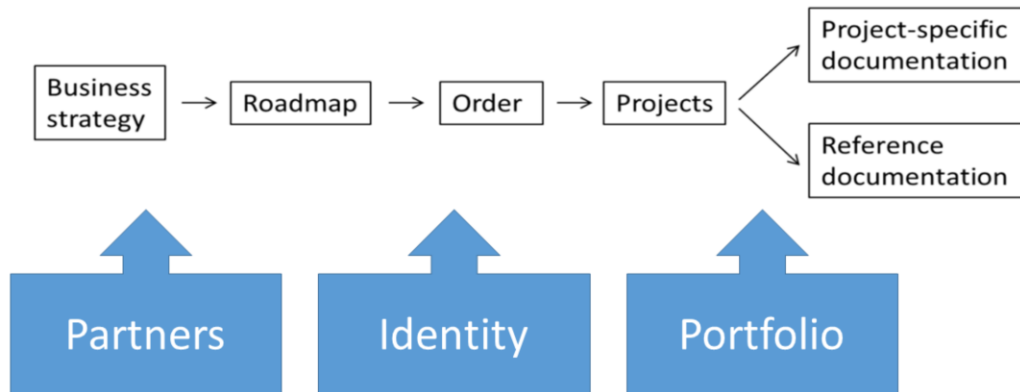
"No plan survives contact with the enemy" – Helmuth von Moltke

Picture credit:

<http://dreamatico.com/mountain.html>



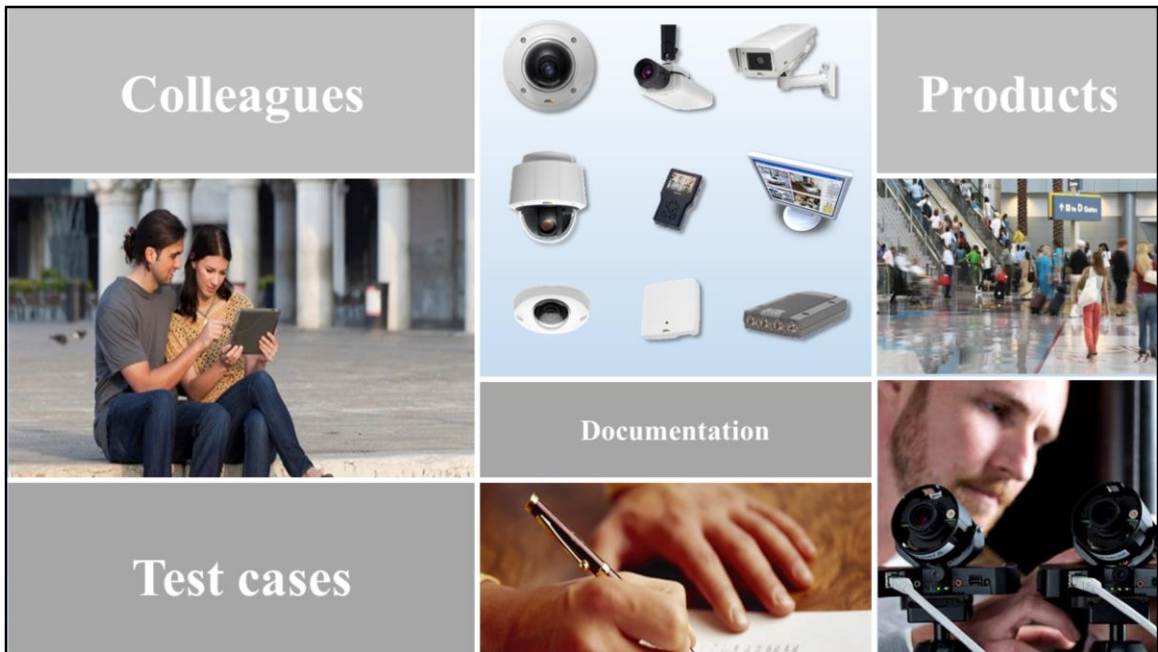
## Requirements and The Big Picture



The strategy, roadmap, orders and projects are all influenced by the outside world. Things such as Axis' partners, the company identity and the existing product portfolio all play an important, but indirect part, in what the end result will be.

*What you actually want  
is more important than  
whatever you said you wanted*

This is essentially the spirit of the agile manifesto.



Sources of requirements knowledge comes from different places. You are encouraged to talk to your colleagues, you can refer to existing products, some documentation does exist. The test case database is in a way quite similar to a requirements database, as it lists things the product should do. The difference being that the test is not “the law” (the tests question the product, they do not mandate anything) and the tests are designed to interact with the product in a way the requirements might not be.

*What you actually did  
is more important than  
whatever you intended to do*

Keeping requirements about what you wanted to do at one point in time, is not as important as actually focusing on what you are doing and what you have done. The best reference of a product, is the product itself.

## Facilitating factors

Company Culture

Low personell turnover

Small co-located teams

Products are accessible

Test department (QA)



The way we work at Axis will not necessarily be the best way to work for other companies. We do have some facilitating factors that help us a lot in making this work.

## Key challenges

Some people find it scary

Having to look for information

Efficiency can suffer

Negotiating test results

Requirement Engineering



And of course it is not perfect, we have our own challenges. But we find them manageable and are learning how to better handle them.

