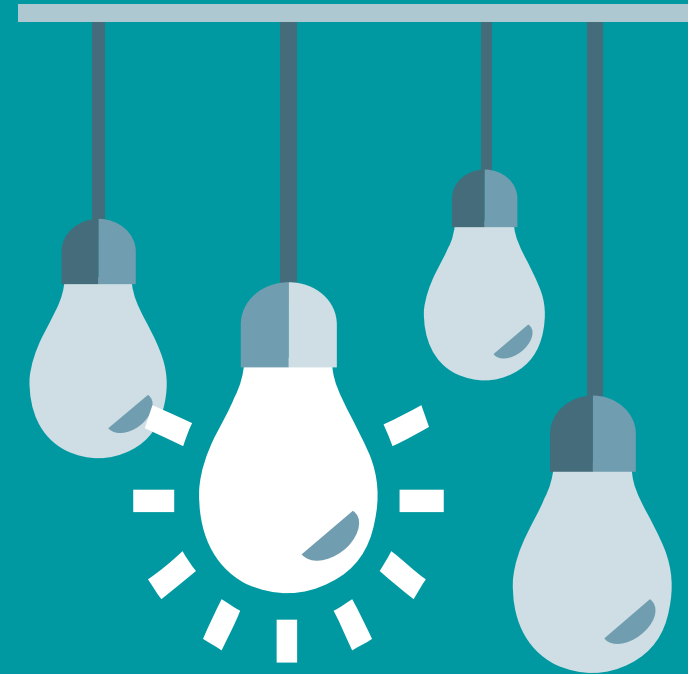


# Innovation and Development Strategies

Business Case PHOENIX CONTACT

Christian Helmig



Inspiring quotes

## Innovation

“It’s tough when markets change and your people within the company don’t.” (Harvard Business Review).

“If at first the idea is not absurd, then there will be no hope for it.” (A. Einstein).

“If you always do what you always did, you will always get what you always got.” (A. Einstein).

“To gain customer insights, we must understand that we are prisoners of what we know and what we believe”. (Mohanbir Sawhney).

“The world is changing very fast. Big will not beat small anymore. It will be the fast beating the slow” (Rupert Murdoch).

“The best way to predict the future is to invent it.” (Alan Kay).

“There are no old roads to new directions.” (Advertisement of the Boston Consulting Group).

## Some facts about innovative companies

# Importance of Innovation

„...achieve up to ten times more revenue with innovations and new products“\*

„...achieve more than 40% of the turnover with products launched in the last 5 years“\*

„...are twice as fast in Time-to-Market regarding new products“\*

„...make use of innovation search fields and work with roadmaps“

„...invest 44% of their time in concept phase, whereas Follower spend 76% of their time in market launch (Frontloading) “

\* Compared to the average of their competitors  
Sources: ZEW Industryreport 2009; Manager magazine 2011



# Targets of the lecture

- Understand how innovation and development works in practice
  - Doing the right things (market orientation)
  - Doing the things right (process orientation)
- Structure follows strategy
  - How to manage innovation within a global decentralized company
  - Find the right balance between innovation and controlling
- Risk management is necessary
  - Reduce the company risks by diversification
  - Take care on the product and process risks within each project

## Overview

# Innovation management

### Innovation culture

Motivation

Leadership

Change Management

### Strategic innovation management

Innovation  
strategy

Technology  
strategy

Knowledge  
management

IP  
management

Innovation  
controlling

Resource  
management

Innovation  
organisation

### Innovation process

#### Idea management

Scouting &  
screening

Ideation /  
idea  
generation

Idea  
evaluation &  
selection

#### Realization

Planing

R&D

#### Commercialization

Market  
launch

Optimization

## Overview

# Innovation management

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Motivation

Leadership

Change Management

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Innovation  
strategy

Technology  
strategy

Knowledge  
management

IP  
management

Innovation  
controlling

Resource  
management

Innovation  
organisation

### Innovation process

Scouting  
&  
foresight

Ideation process

D1

D2

D3

PxC Development process

M1

...

M4

...

M7

M8

Market phase

M9

...

M12

## Overview

# Business Case PHOENIX CONTACT

## Part I

### Innovation culture

Motivation

Leadership

Change Management

### Strategic innovation management

Innovation  
strategy

Technology  
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Knowledge  
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Market  
launch

Optimization

## Overview

# Business Case PHOENIX CONTACT

## Part II

### Innovation culture

Motivation

Leadership

Change Management

### Strategic innovation management

Innovation  
strategy

Technology  
strategy

Knowledge  
management

IP  
management

Innovation  
controlling

Resource  
management

Innovation  
organisation

### Innovation process

#### Idea management

Scouting &  
screening

Ideation /  
idea  
generation

Idea  
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selection

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Planing

R&D

#### Commercialization

Market  
launch

Optimization



## Overview

# Business Case PHOENIX CONTACT

## Part III

### Innovation culture

Motivation

Leadership

Change Management

### Strategic innovation management

Innovation  
strategy

Technology  
strategy

Knowledge  
management

IP  
management

Innovation  
controlling

Resource  
management

Innovation  
organisation

### Innovation process

#### Idea management

Scouting &  
screening

Ideation /  
idea  
generation

Idea  
evaluation &  
selection

#### Realization

Planing

R&D

#### Commercialization

Market  
launch

Optimization

## Overview

# Business Case PHOENIX CONTACT

## Part IV

### Innovation culture

Motivation

Leadership

Change Management

### Strategic innovation management

Innovation  
strategy

Technology  
strategy

Knowledge  
management

IP  
management

Innovation  
controlling

Resource  
management

Innovation  
organisation

### Innovation process

#### Idea management

Scouting &  
screening

Ideation /  
idea  
generation

Idea  
evaluation &  
selection

#### Realization

Planing

R&D

#### Commercialization

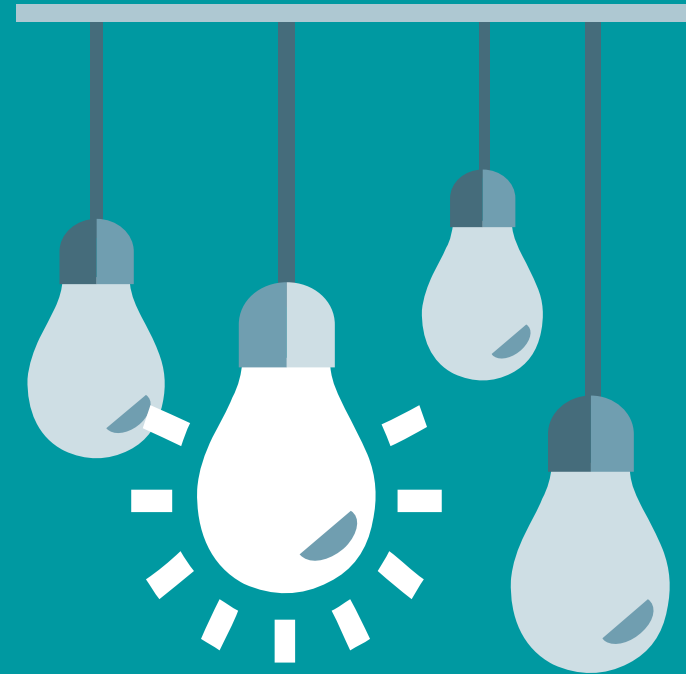
Market  
launch

Optimization

# Innovation and Development Strategies

Business Case PHOENIX CONTACT  
Part I

Christian Helmig



## Business Case PHOENIX CONTACT Part I

# Today's agenda

- Introduction of the company PHOENIX CONTACT and the lecturer
- Importance of the strategy
- Target markets / applications & suitable product portfolios

# Today's agenda

Introduction of the company PHOENIX CONTACT and the lecturer

- Importance of the strategy
- Target markets / applications & suitable product portfolios

“

**Phoenix Contact** is a privately owned company founded in 1923 with great depths of added value. It is independent and has the freedom to make its own decisions as a company.



Continuous growth together

# Company headquarters and competence centers



**Headquarters**  
Blomberg | Germany



Continuous growth together

# Company headquarters and competence centers



**Group Center of Competence**  
Harrisburg | USA



**Innovation Center Electronics**  
Bad Pyrmont | Germany



**Group Center of Competence**  
Nanjing | China



# 11



## Production sites

Germany | China | Taiwan |  
India | Poland | Sweden |  
Switzerland | Turkey |  
Argentina | Greece | USA

# 100,000



## Products

# 22,000



## Employees worldwide



# 75%



## Sales abroad

# 25%



## Sales in Germany

# 10,200



## Employees in Germany



## Group Executive Board:

Frank Stührenberg (CEO)  
Axel Wachholz (CFO)  
Frank Possel-Dölken (CDO)

Dirk Göröitzer (COO, President BA ICE)  
Torsten Janwlecke (COO, President BA DC)  
Ulrich Leidecker (COO, President BA IMA)

# 1923



Founded in  
Germany



# TODAY



Present in more  
than 100 countries

Technical expertise at a glance

## 2022 facts and figures

- has more than 2.000 engineers (in Germany).
- invests more than 7% of its turnover in R&D.
- launches more than 50 new product families every year.
- holds more than 2700 property rights worldwide.
- has development teams in 5 countries.



People and markets

## Continuous growth together

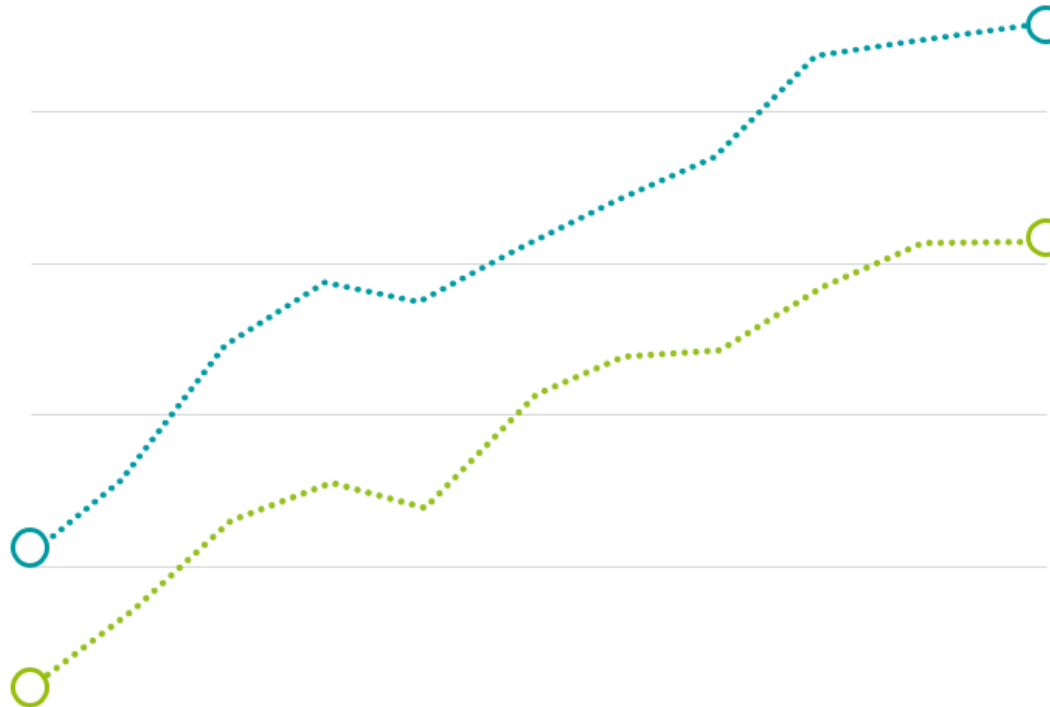
# 2007

# 1.0

€ Billion sales

# 6,800

Employees worldwide



# 3.6

€ Billion sales

# 22,000

Employees worldwide

# 2022

# Empowering the All Electric Society

## ... a world

- with unlimited energy based on renewable resources – without harmful emissions
- with sustainable growth and conservation of natural resources
- with great growth and development prospects for all markets



“

**Solutions for electrification, networking, and automation are our contribution to a world in which renewable energy is available for the benefit of everybody.**



# Corporate Structure

## Group Functions



### Core Business Areas



**Device  
Connectors**



**Industrial Components  
and Electronics**



**Industry Management  
and Automation**

### New Business Fields



**Innovation Ventures and  
Start-up-Culture**

Core Business Area

# Device Connectors



Global  
network

Innovative connectors for  
the reliable transmission of signals, data, and power  
as well as modular electronics housings for  
designing cutting-edged device solutions

Translation of customer-specific requirements into  
innovative and trendsetting solutions



PCB blocks and  
connectors



Connectors for  
field devices



Electronics housings





“

Our **culture** guarantees our success. Our **day-to-day operations** are characterized by **respectful cooperation, open communication, and responsible, future-oriented design.**

About my person

# Christian Helmig

Dr.-Ing. Christian Helmig M. Sc.  
Vice President  
Field Device Connectors  
Device Connectors

Phone: +49 52 35 - 3 41315  
Mobile: +49 151 58 72 33 53

[chelmig@phoenixcontact.com](mailto:chelmig@phoenixcontact.com)

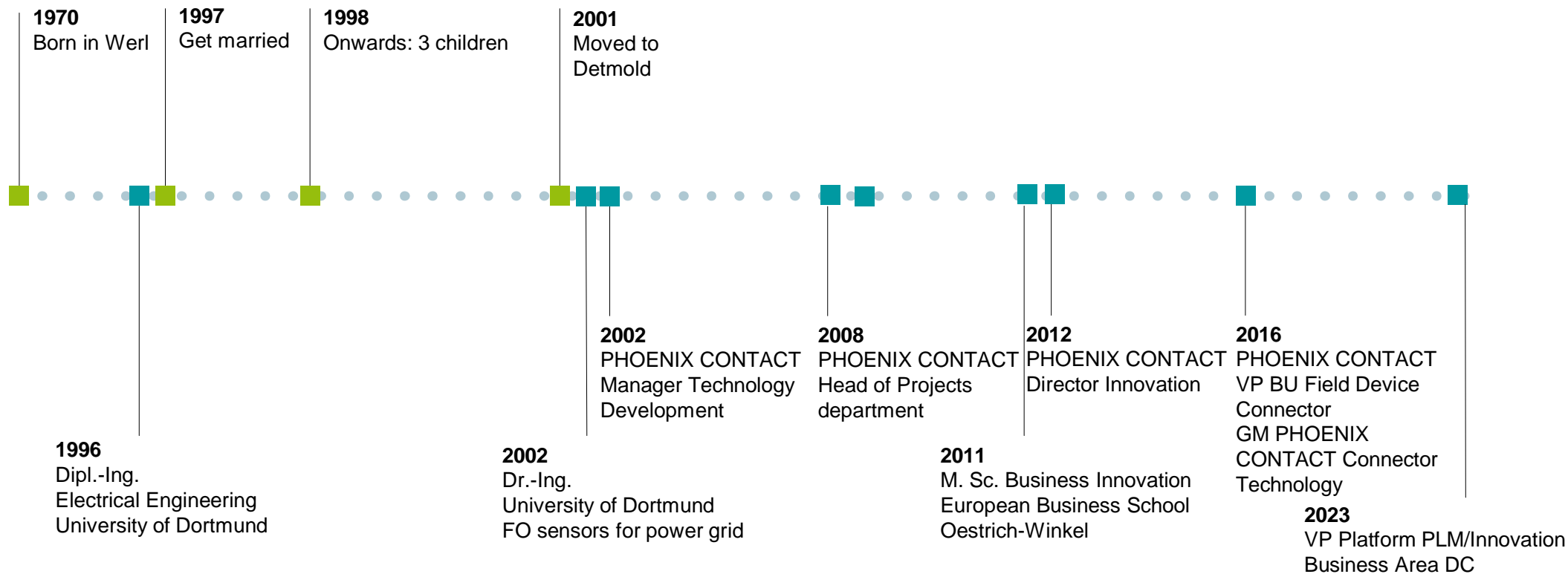
Phoenix Contact GmbH & Co. KG  
Flachsmarktstraße 8  
32825 Blomberg, Germany

[www.phoenixcontact.com](http://www.phoenixcontact.com)



About my person

# Christian Helmig



About you

## Short round of introductions



- Name
- Country
- Experience
- Motivation
- **Expectation on the lecture**
- ...

# Today's agenda

- Introduction of the company PHOENIX CONTACT and the lecturer

## Importance of the strategy

- Target markets / applications & suitable product portfolios

**What is strategy (management)?**

**...SO...**

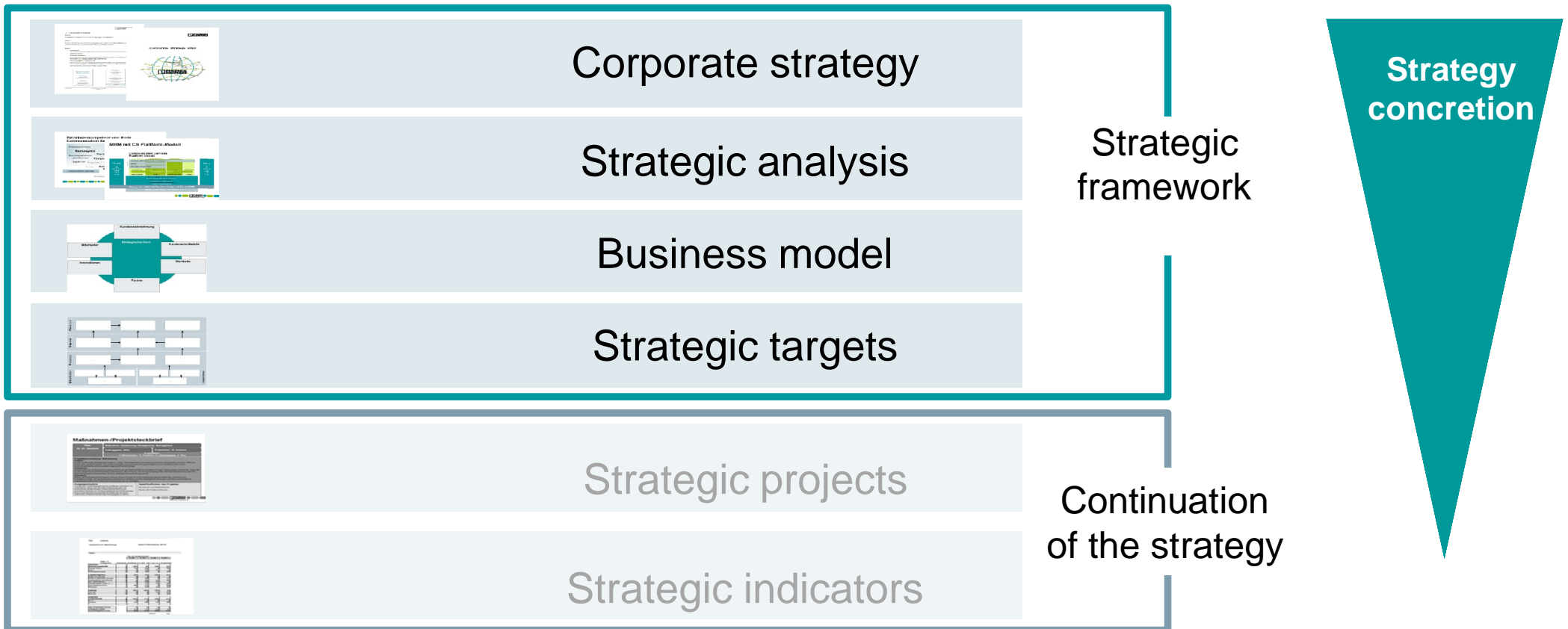
**what is an innovation strategy about?**

# Basic conception of strategic management




Strategy elements Phoenix Contact

# Corporate strategy process






# Corporate strategy process




Corporate strategy



Strategic analysis



Business model



Strategic targets

Core business + new business fields

Status quo, alignment of activities

Core + different perspectives

Longterm targets



Strategic projects



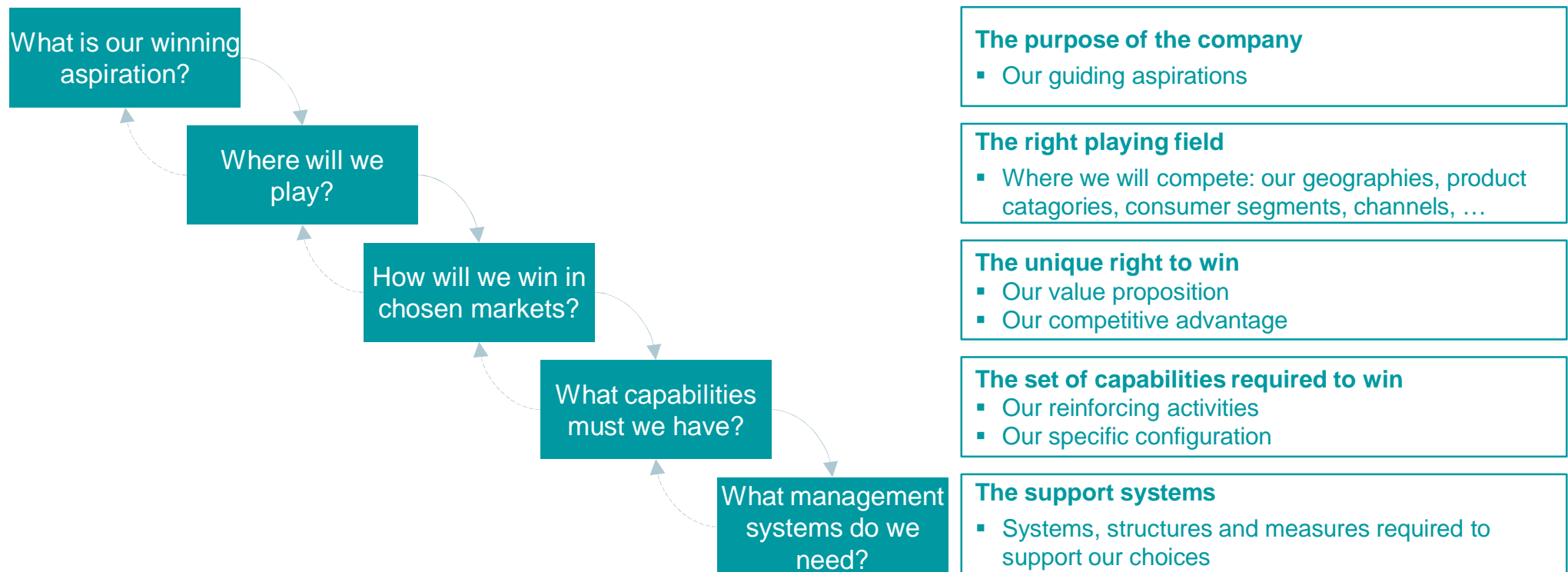
Strategic indicators

Projects to achieve longterm targets

KPIs to measure achievement/success

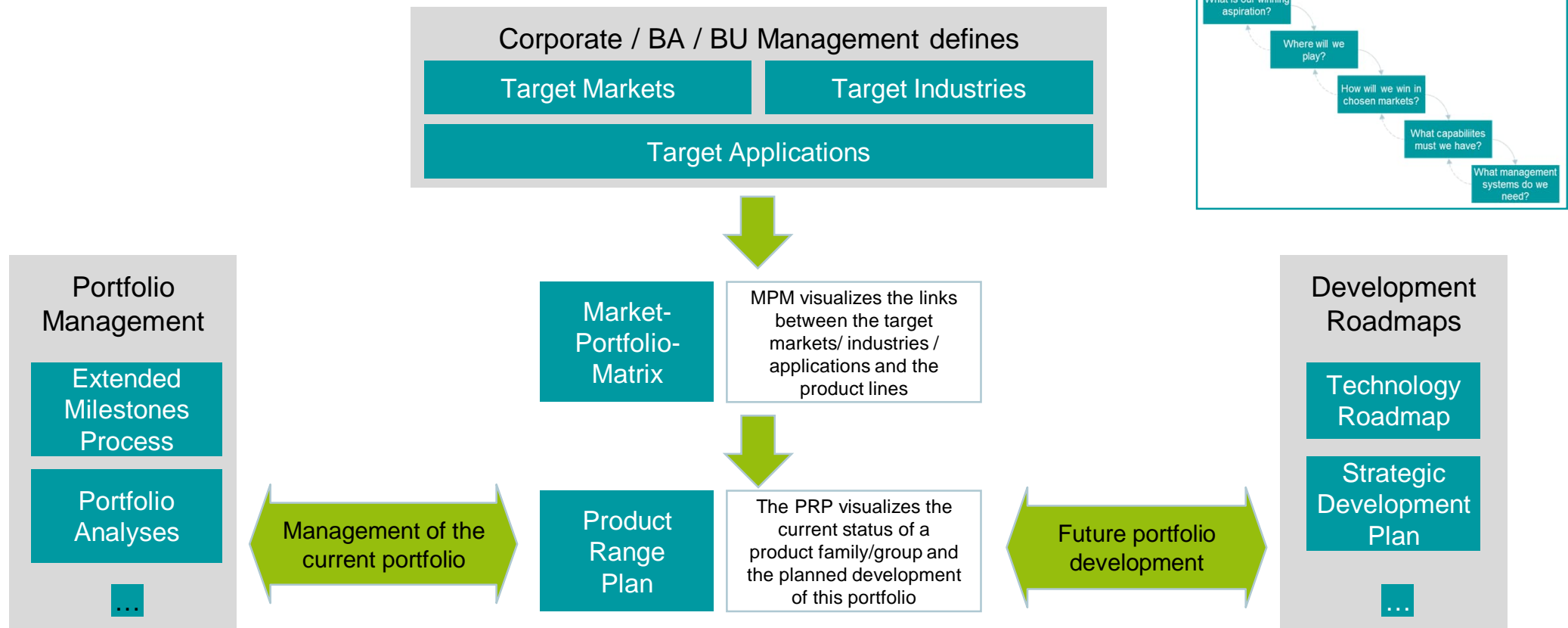
# Business Case PHOENIX CONTACT Part I

## Breaking down strategy



## Business Case PHOENIX CONTACT Part I

# Breaking down strategy: tool level



## Today's agenda

- Introduction of the company PHOENIX CONTACT and the lecturer
- Importance of the strategy

Target markets / applications & suitable product portfolios

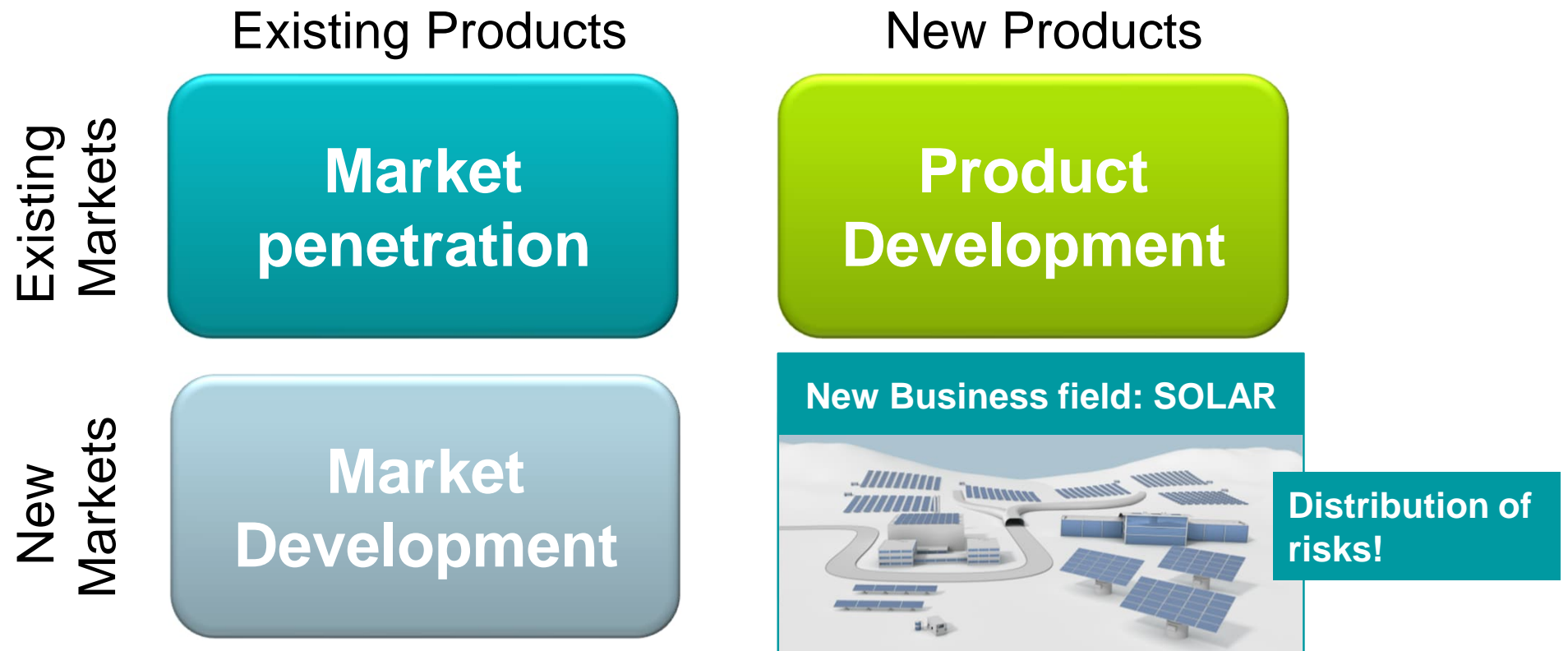
Where will we play? How to win?

## The right playing field & product portfolios



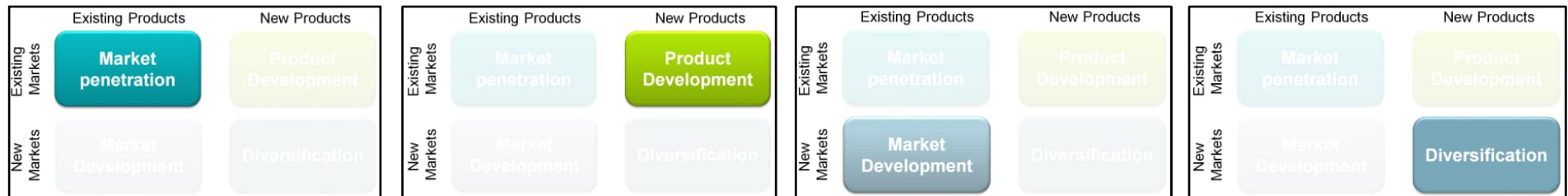
Distribution of resources according to your strategy

## Ansoff matrix: matching markets and products



One possible example of portfolio development

## Strategic options based on the Ansoff matrix



Year 1

Year 2

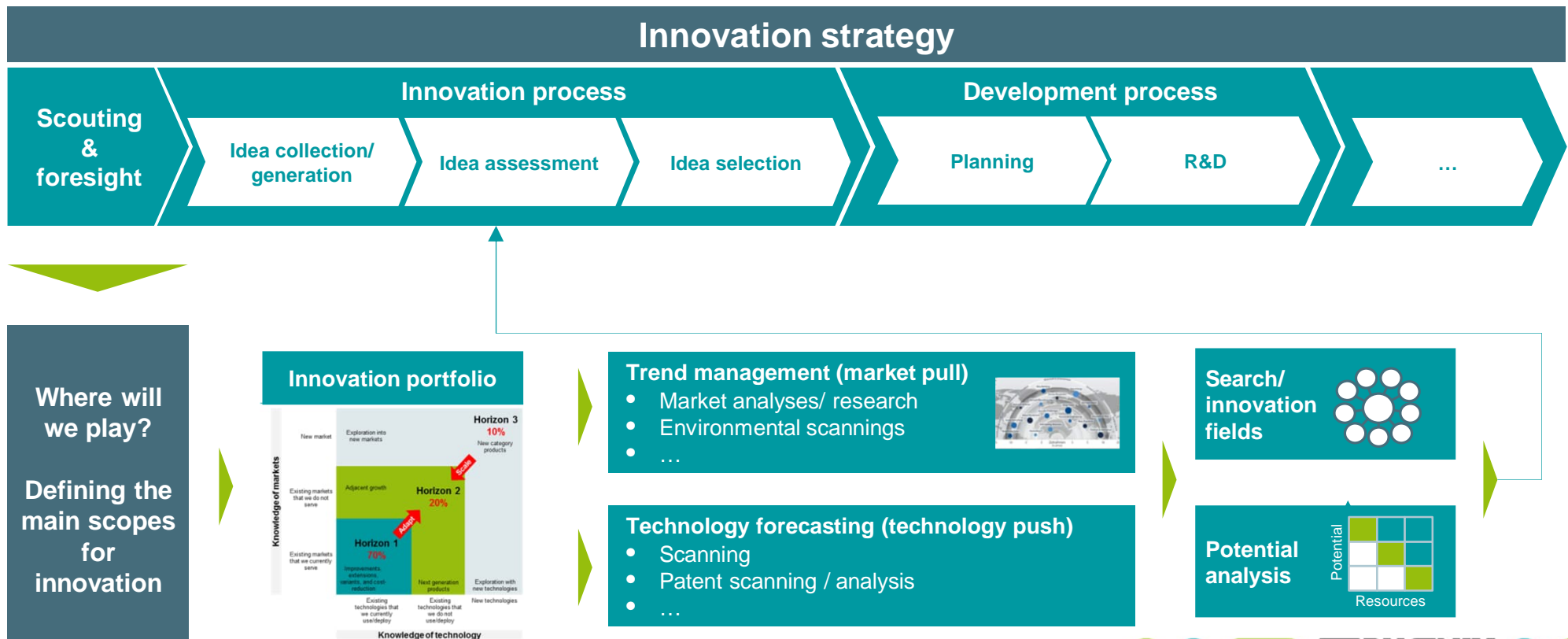
Year 3

Year 4

- Consolidation
- Redesign of products
- Build up roadmap for next years
- Innovation on well known areas
- Market launches with existing key customers
- Business case NM
- Enter new market
- Win first target customers/success stories
- Fulfill business case
- Business plan
- Align additional resources towards new strategic direction

## Innovation strategy

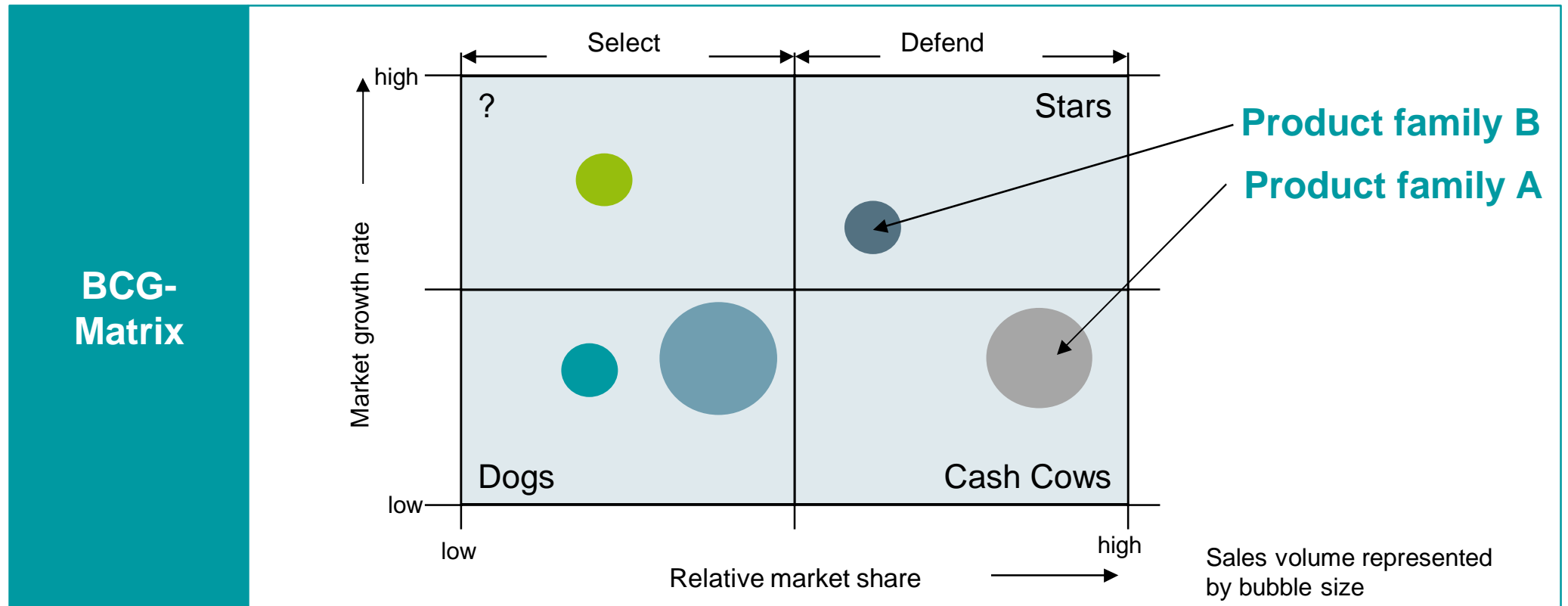
# Product portfolio development for chosen markets





Managing & developing the product portfolio

# Strategies for existing product portfolios

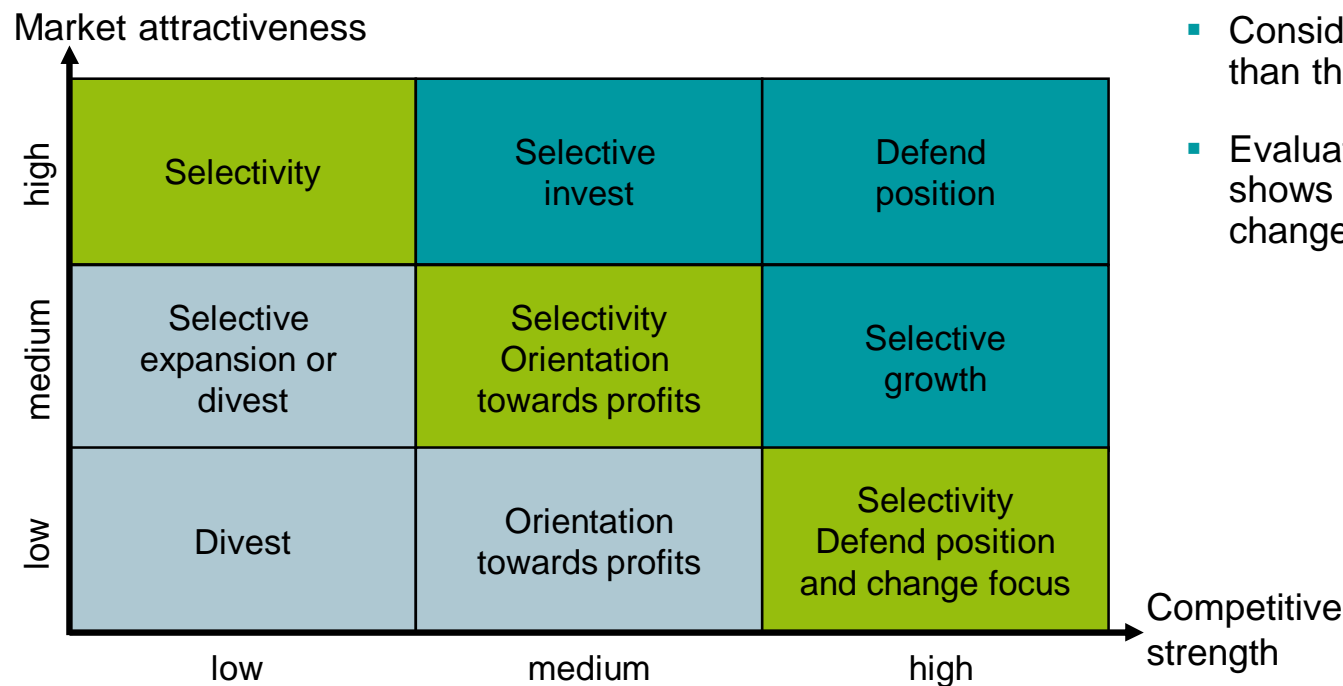


## Managing & developing the product portfolio

# Strategies for products & business fields



### McKinsey portfolio

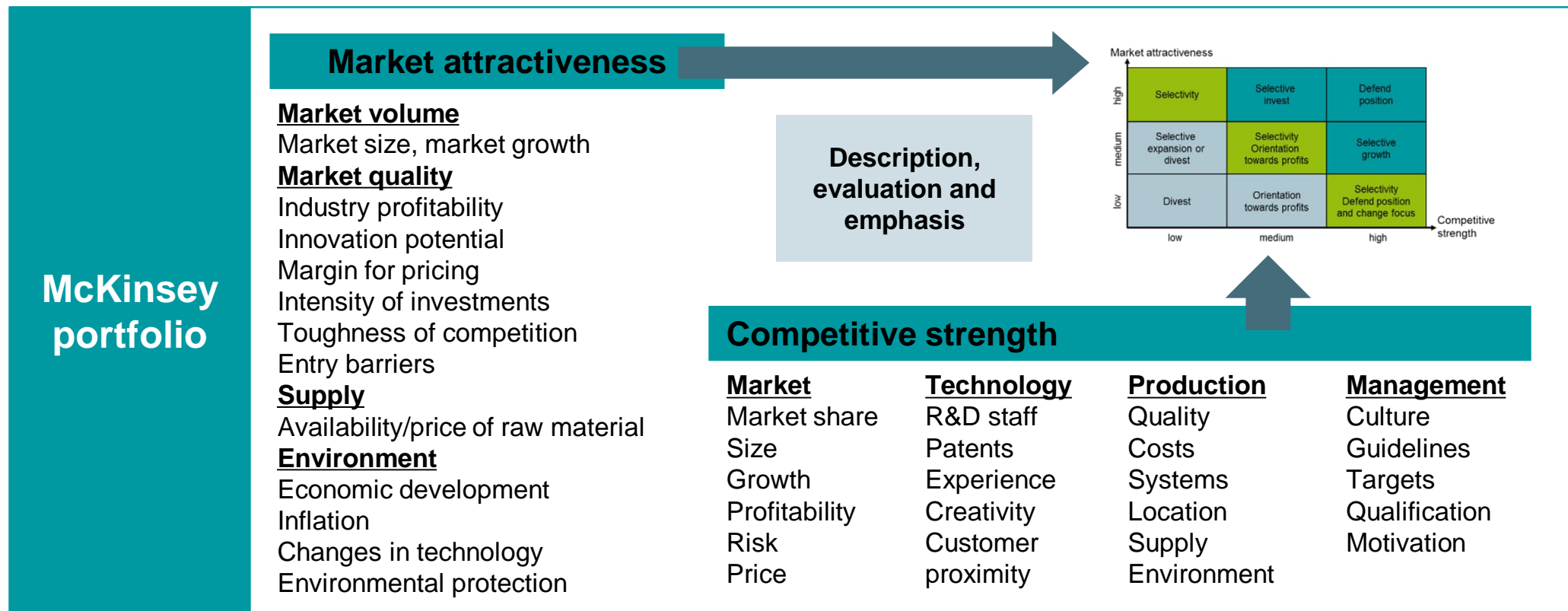


- Considerably more detailed than the BCG portfolio
- Evaluates the capability and shows fields of activity to change the situation



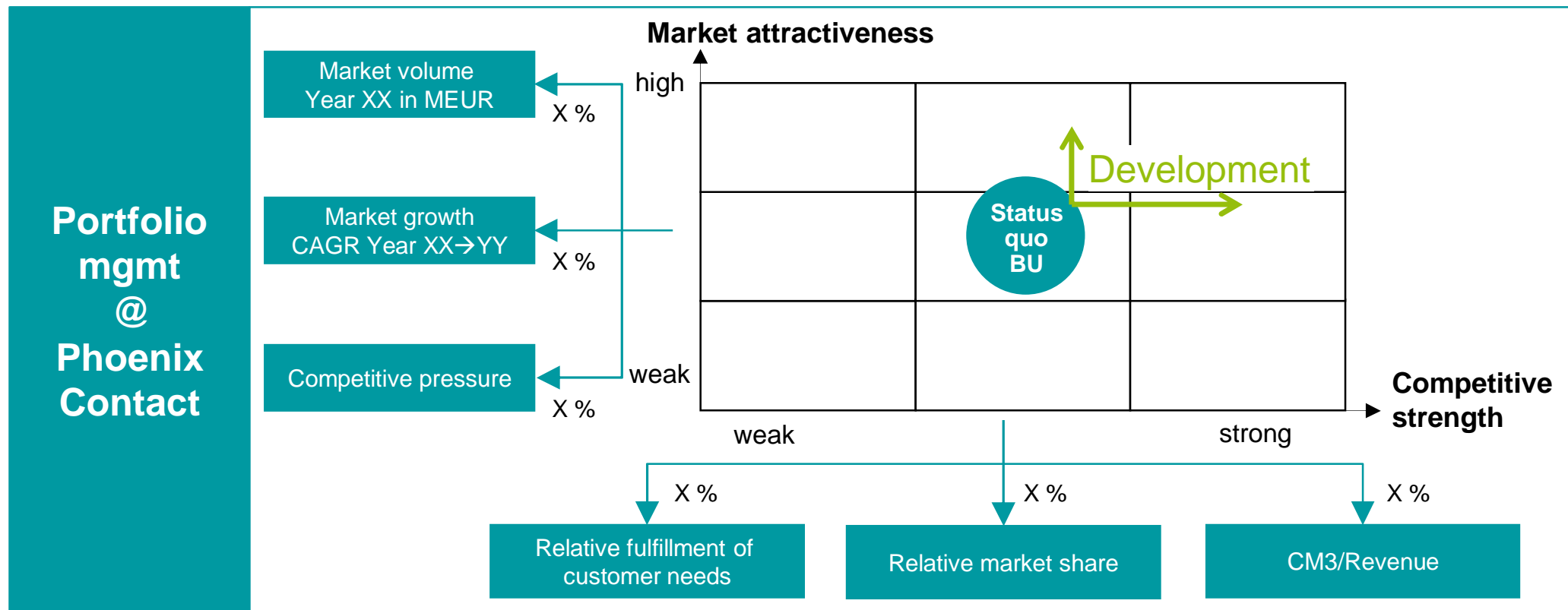
# Managing & developing the product portfolio

## McKinsey portfolio



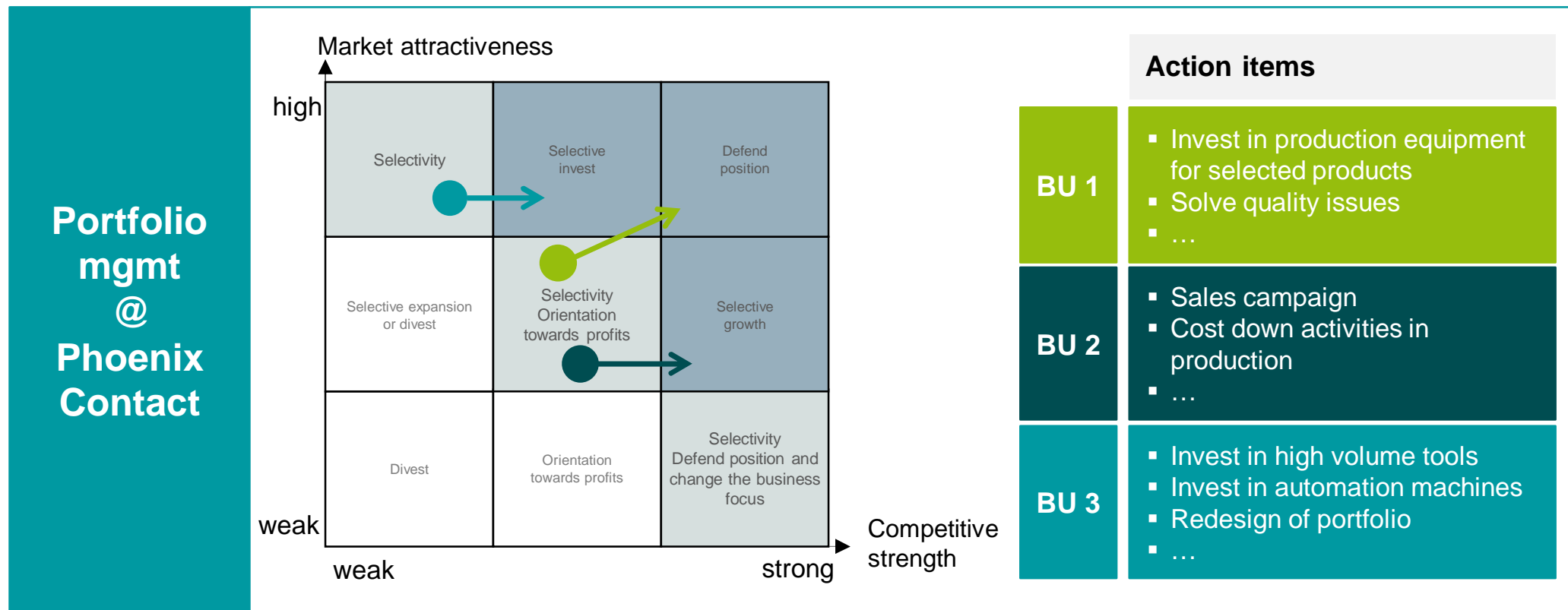
## Managing & developing the product portfolio

# Applying the McKinsey portfolio matrix



## Managing & developing the product portfolio

# Portfolio management @ Phoenix Contact

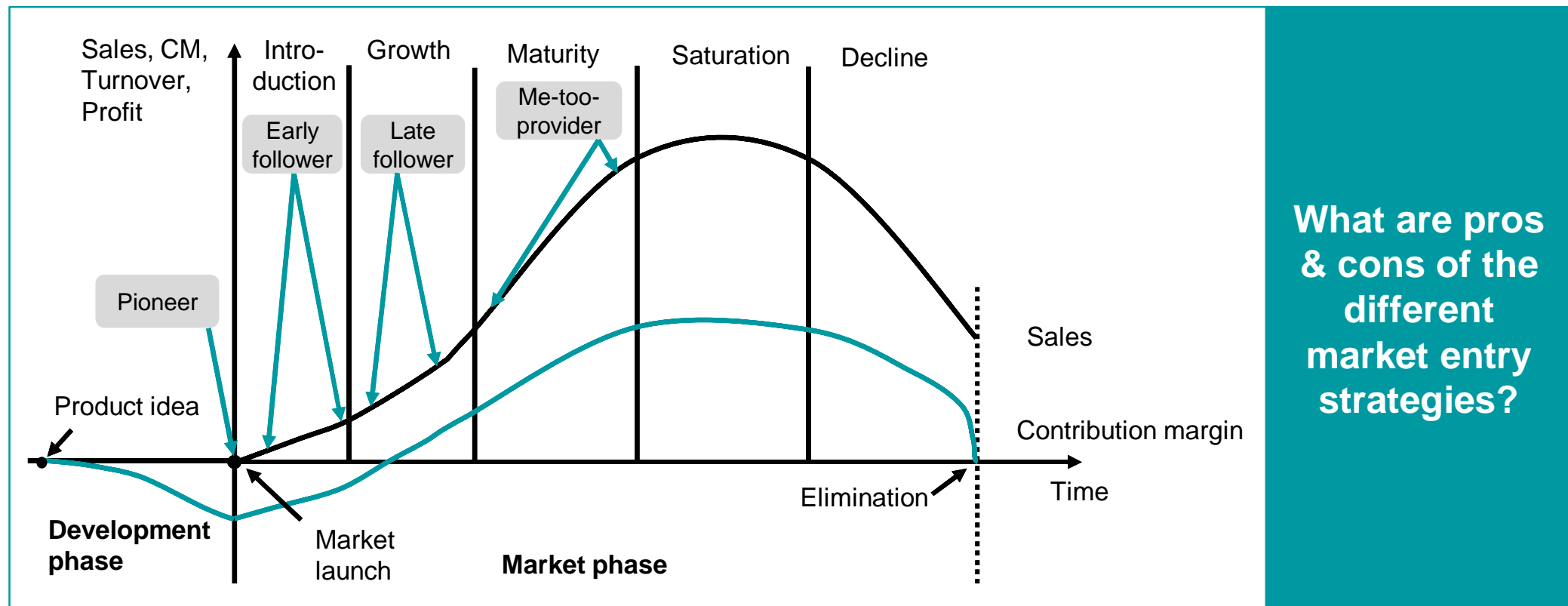


**However, knowing which markets are attractive & which product portfolio is necessary is not sufficient...**

**...smart decision making about timing of market entry is also key to become successful.**

## Managing & developing the product portfolio

# Different market entry strategies across the PLC



Managing & developing the product portfolio

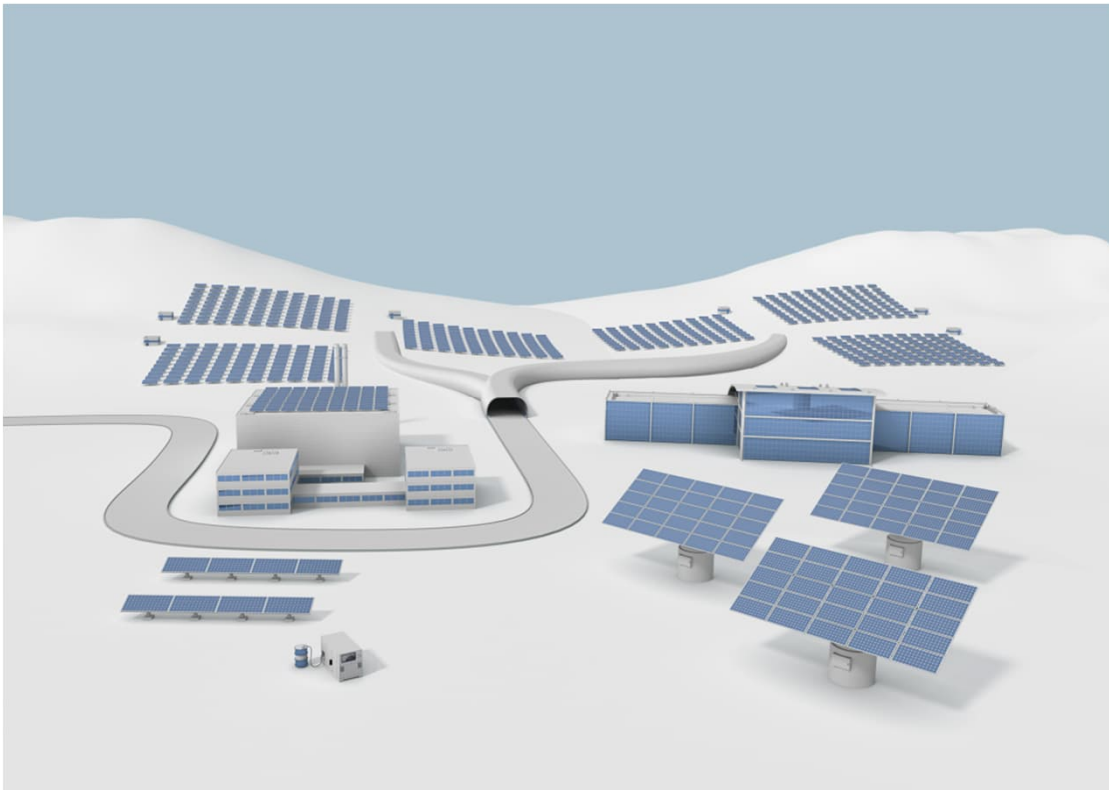
## Pros & cons of different market entry strategies

	Amount of RnD	Required investments	Technology/ market orientation	Main duties	Strategic target
<b>Pioneer strategy</b> (First-to-Market)	Very high research efforts	Very high	Rather technology-oriented (Technology-Push)	RnD	Technology leader
<b>Early Follower</b>	Intense development work	Low to medium	Rather market-oriented (Market-Pull)	Development/ sales	Customer orientation
<b>Late follower</b>	Strong customer-oriented development	Low	Rather market-oriented (Market-Pull)	Sales/ development	Customer orientation
<b>Imitation strategy</b> (Me-too)	No RnD effort	Very low	No technological competence	Production/ sales	Cost leader



Target markets

## PxC example: product line Solar (PV market)



### Market trends

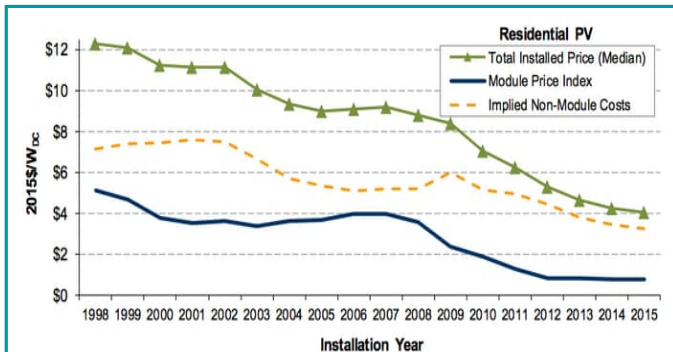
- CAGR > 10%
- Solar energy becomes more competitive
- Consolidation of module manufacturers
- Further need for cost down and higher efficiency
- Due to failures in the field, trend towards high reliability

Target market Solar

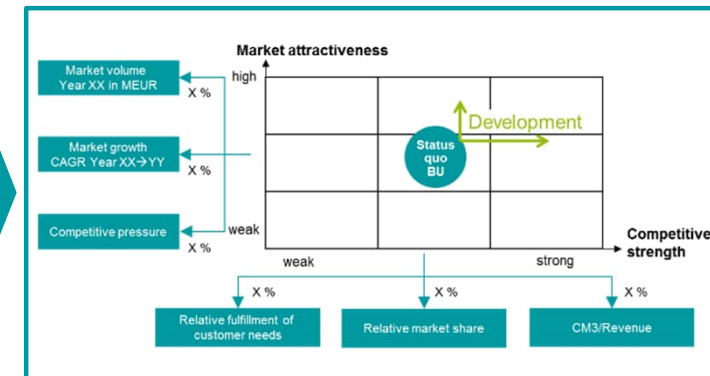
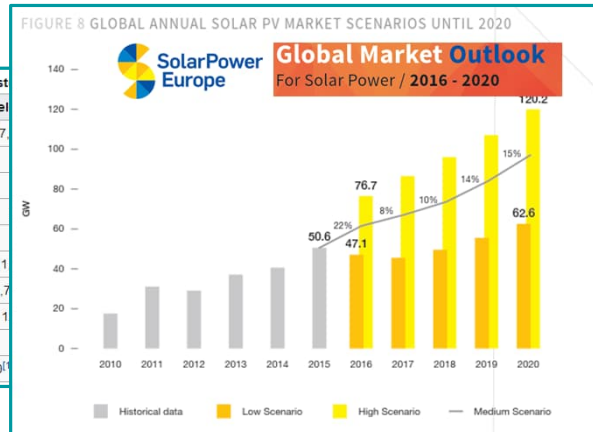
# PxC example: product line Solar (PV market)



## Market attractiveness: market & competitive analyses

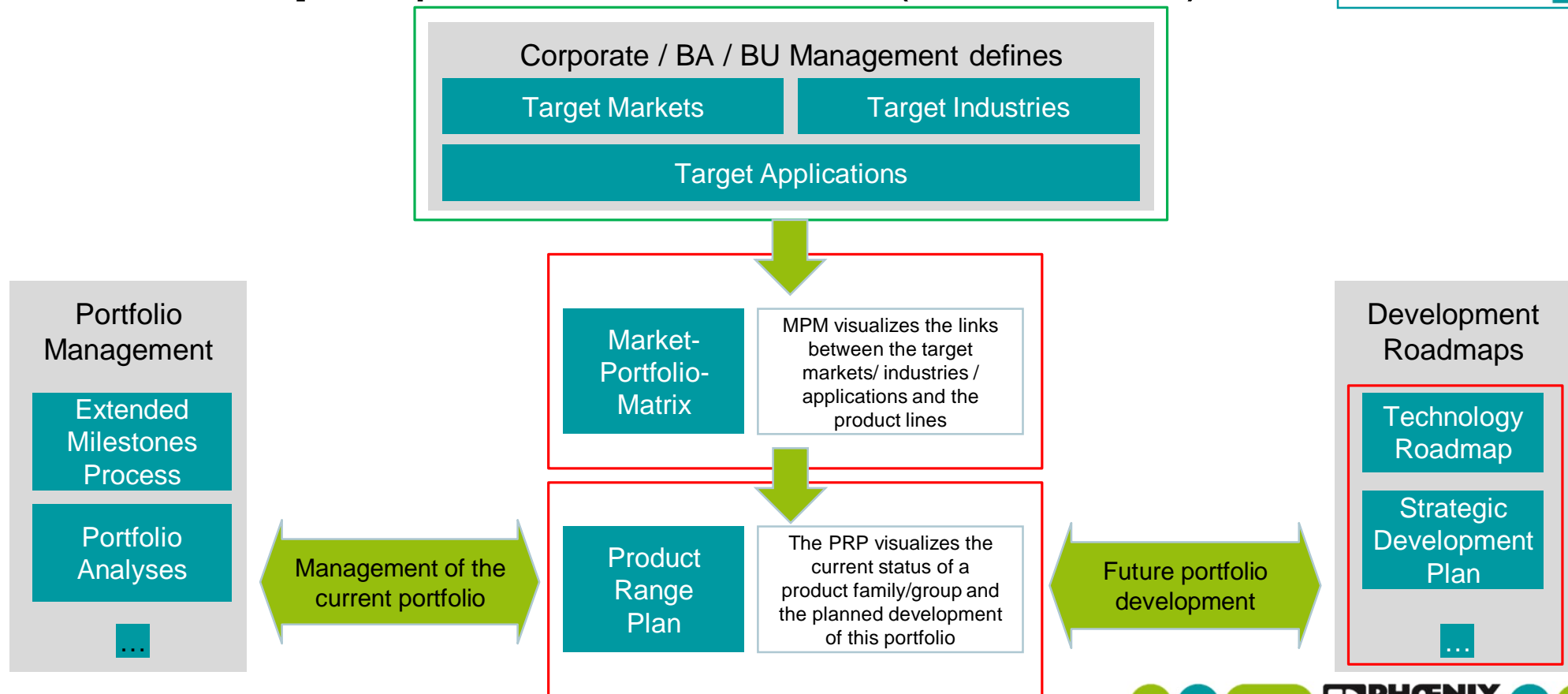


Stromgestehungskosten neuer Kraftwerke in Eurocent je Kilowattst					
Energie-träger	Studie 2008 <sup>[5]</sup>	Publikation 2009 <sup>[6]</sup>	Publikation 2011 <sup>[7]</sup>	Studie 2012 <sup>[8]</sup>	diverse Einzel
Kernenergie	2,7-4,4 <sup>[11]</sup>	5,0 <sup>[12]</sup>	6-10	-	7,0-9,0 <sup>[13]</sup> 7
Braunkohle	2,4-3,4 <sup>[11]</sup>	4,6-6,5 <sup>[16]</sup>	4,5-10 <sup>[17]</sup>	-	
Steinkohle	3,0-3,8 <sup>[11]</sup>	4,9-6,8 <sup>[16]</sup>	4,5-10 <sup>[17]</sup>	-	
Erdgas (GuD)	4,1-4,4 <sup>[11]</sup>	5,7-6,7 <sup>[16]</sup>	4-7,5	-	
Wasser	10,2	-	-	-	
Wind Onshore	9,6-14,4	9,3	5-13	6,5-8,1	6,35-11
Wind Offshore	12,1-18,0	-	12-18	11,2-18,3	13,7
Biomasse	9,6	-	-	-	1
Photovoltaik Kleinanlage (DE)	52,0-62,0	-	-	13,7-20,3	
Photovoltaik Großkraftwerk	52,0-62,0	32	-	10,7-16,7	10,0 <sup>1</sup>



# Strategic portfolio planning process of Phoenix Contact

## PxC example: product line Solar (PV market)



# Strategic portfolio planning process of Phoenix Contact

## PxC example: product line Solar (PV market)

		Product Line Solar			
Target markets	Target industries	Industry attractiveness	Market share	Sales (last year in €)	Strategic direction
A	a				↘
	b				↘
	b				↘
	d				↘
Infrastructure, New Energies & ICT	Traffic & transportation				↗
	Energy production, transmission & distribution				↗
	Renewables: PV & wind				↗
	Energy storage & charging				↗
	Data center				↗
	Telecommunication & IT				↗
	Others				↗
B	a				→
	b				→
	c				→
	d				→
	e				→
	f				→

**Legend**  
(please use the dropdown menus in the matrix)

Industry attractiveness (volume/ growth/ profit)

high  
medium  
low

Market share

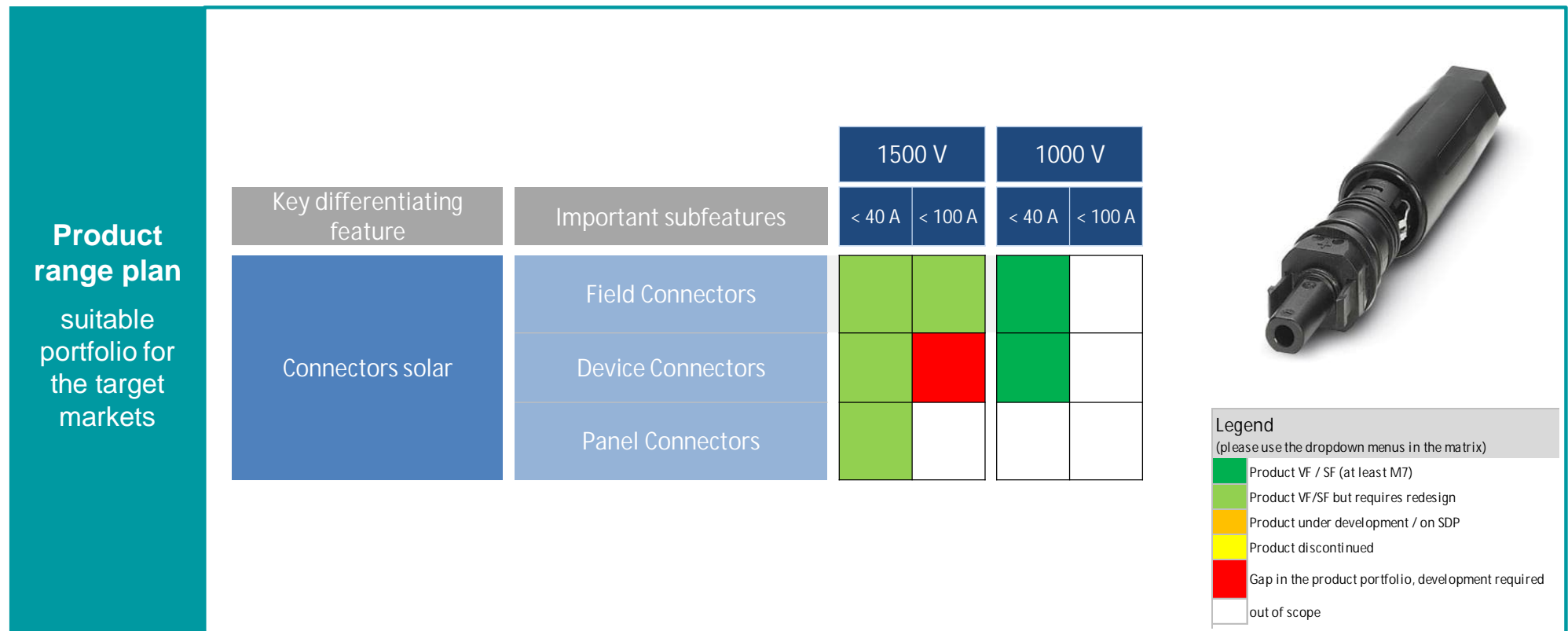
high → >10%  
medium → 5-10%  
low → <5%

Strategic direction

↗ Expansion  
→ Maintain  
↘ Desinvestment

# Strategic portfolio planning process of Phoenix Contact

## PxC example: product line Solar (PV market)

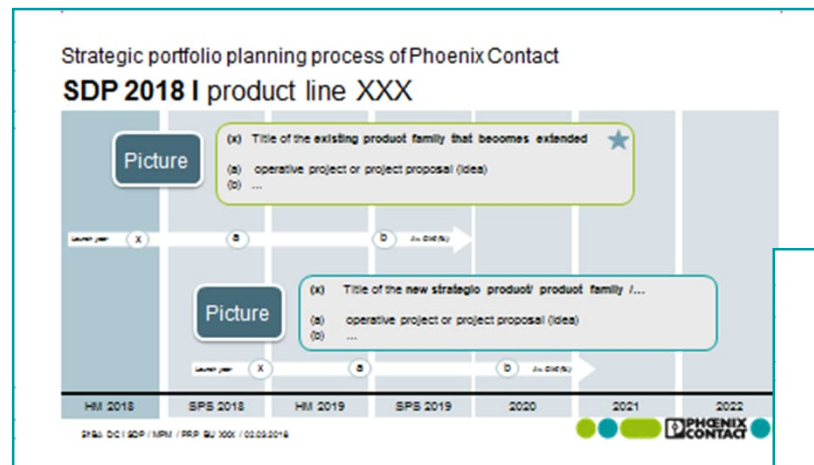


# Strategic portfolio planning process of Phoenix Contact

## PxC example: product line Solar (PV market)

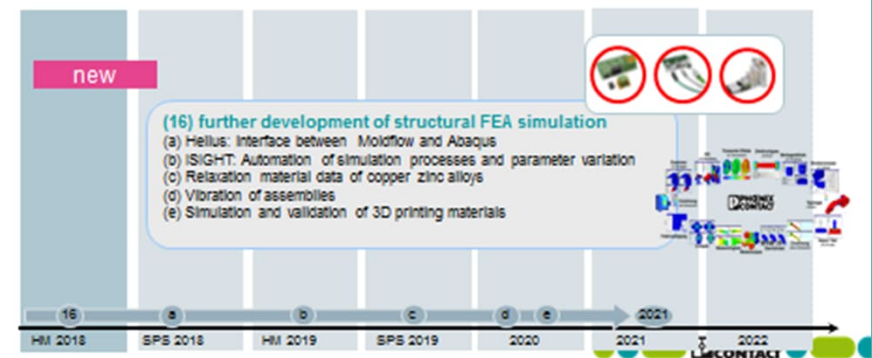
Strategic  
development  
plan/  
technology  
roadmap

5y roadmaps  
for products/  
technology



Technology-Roadmap DC

**DMF Electrical Termination and Contact Systems**



**Everything appears straightforward, right?**

**However, getting the right product ideas for real customer needs at the right time to the right price is challenging and hard work.**

**→ 20-40% of innovations fail in the capital goods industry!\***



**Many thanks for your attention.**