Product Management Essentials
– From Requirements to Business

Dr. Christof EBERT, Vector Consulting Services
... supports clients worldwide in improving their product development and IT and with interim management

... with clients such as Accenture, Audi, BMW, Bosch, Daimler, Huawei, Hyundai, IBM, Lufthansa, Munich RE, Porsche, Siemens, Thales, Toyota and ZF

... offers with the Vector Group a portfolio of tools, software components and services

... is as Vector Group globally present with 1500 employees and well over 300 Mio. € sales

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The problem in industry is that we sell far too often features and rarely near enough dreams.

Christof Ebert
Instructor: Dr. Christof EBERT

Christof Ebert is managing director at Vector Consulting Services. He supports clients around the world to improve product strategy and product development and to manage organizational changes. Prior to that, he held international senior management positions for twelve years.

A trusted advisor for companies around the world and a member of industry boards, Dr. Ebert is a professor at the University of Stuttgart and Sorbonne at Paris, and authored several books including his most recent book “Global Software and IT” published by Wiley.

Many Fortune 100 companies have already used his competence to improve their performance and competitiveness and lead strategy and change programs.

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Cost and complexity remain biggest challenges across all industries. Safety and security evolved since 2015 to a major challenge.
What is a Product?

- A deliverable which creates a value and a lasting user experience: **WHOW!!!**
- A bundle of benefits: Customers don’t buy products, they seek to maximize benefits
- Can be a combination of components, solutions and services delivered as is or as a component for another product
Ambition: A Winning Product

The iPhone is a mobile phone with appealing design and a secured supply chain for applications, content and payment.

Product management excellence:

► New business model. Redefine an already existing market with many incumbents. Create an ecosystem. Premium for apps and content downloads. Profits are immediately used to innovate and thus generate new needs in short timeframes.

► Reliable technology. It is not about new technology but about improving of what is already around.

► Innovative marketing. Make the product cult. Based on continuously updated fashionable devices.
Benchmarks: Too fast, Wrong direction

- Top 20% of enterprises deliver 80% of new products in time. Average delivers only half of projects in time.

- One third of software dominated projects successful. One fourth of projects completely failed.

- Only half of the committed requirements appear in the final product.

- Typical requirements change rate is 1-3% per month. Beyond 20% total change rate in a single project, productivity decreases rapidly.

Sources: Standish Group 2012; study with 10000 Projects per year, 45% Fortune 1000; ca. 50% NPI. Ebert, C.: Systematic Requirements Engineering, 2014, 5. ed.
Why Product Management?

Product Management: Responsibilities

The product manager is responsible for strategy and results

- Takes accountability for the product’s success end to end
- Understands market needs and positions the product
- Defines business case, gets money to invest and delivers ROI
- Launches and oversees various projects
- Positioned in middle management
- Exhibits strong strategic and operational skills
- Reaches his objectives without direct line organization

The successful product manager acts as an “embedded CEO”
Why Product Management?

Product Management in the Enterprise

Enterprise

Business unit

Product line / department

Projects

Objectives, policies, alignment

Strategic management

Product management

Project management

Results, adjustments

Results
Reasons for Failure

**Bermuda Triangle** of

- **Sales**
  “Sell today and cash in the bonus – agree it tomorrow.”

- **Marketing**
  “We know what our customers want! We told ‘em so.”

- **Engineering**
  “If the others would just be quiet. Our technology will sell itself.”

...and Product management in the middle but out of control:

“I am the only one understanding all details – but unfortunately I am not in control.”
Agenda

- Performance and market success
- **Ten ingredients for winning products**
- Growing your product management competence
- Summary and conclusions

It isn't that they can't see the solution. It is that they can't see the problem.

*Gilbert Keith Chesterton*
Ten ingredients for winning products

1. Begin with the End in Mind

- How will the company generate its future sales and profits?
- Is this perceived consistently by stakeholders in the boardroom, in the markets, and by those who finance the company?
- Where do we set priorities?
- Which risks do we expect from projects, markets and suppliers – and how will we cope with them?
- When will this strategy pay off, given its inherent level of risk?
- Which marketing strategy will best implement these plans?
- Are the right people, competencies and technologies available in due time?
- How do we get all this done?
## Ten ingredients for winning products

### 2. Drive Your Product Like a „Mini-CEO“

<table>
<thead>
<tr>
<th><strong>Product Management</strong></th>
<th><strong>Product Marketing</strong></th>
<th><strong>Project Management</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Asks what to make and how to make it</td>
<td>Asks how to best sell it</td>
<td>Asks how to best execute a project or contract</td>
</tr>
<tr>
<td>Ensures it will make business sense</td>
<td>Ensures it will make market and customer business sense</td>
<td>Ensures project is executed as defined</td>
</tr>
<tr>
<td>Understands how it fits customer needs as a solution</td>
<td>Understands the market architecture and influencing factors</td>
<td>Agrees technical details, mitigates risks and resolves conflicts</td>
</tr>
<tr>
<td>Defines roadmap (beyond a single release). Determines what to innovate or kill.</td>
<td>Understands the customer need</td>
<td>Business and customer responsibility for a commercial project</td>
</tr>
<tr>
<td>Responsible for all aspects (value chain) of a product or solution following the life-cycle</td>
<td>Communicates content, functionality as a value proposition</td>
<td>Selects processes to best fit the business model</td>
</tr>
<tr>
<td>Leads teams with various functions during the life-cycle</td>
<td>Drives the project plan for sales and marketing</td>
<td>Leads various technical, supplier, and service teams to achieve a shared goal</td>
</tr>
</tbody>
</table>

**Results champion, embedded CEO**

**Market champion**

**Implementation champion**
Ten ingredients for winning products

3. Lead the Core Team

As a product manager you lead without line responsibility

Set up a core team that owns the product

- Product manager (responsible for business case and overall profitability)
- Marketing / sales manager (responsible for revenues)
- R&D / project manager (responsible for development project success)
- Finance / operations manager (responsible for allocating appropriate resources)
Ten ingredients for winning products

4. Understand Markets and Customers

- Develop customer orientation in all functions. Ensure that every function understands that they are there to serve the customer.
- Organize in cross-functional teams around customer groups. Use various channels to obtain market understanding.
- Take the time to listen and understand the customers’ business.
5. Create Needs

- Segment needs according to user profiles.
- Closely combine marketing and R&D in the problem definition process (e.g., market studies, prototyping, test markets)
- Co-create value together with the customer.
- Sell a concrete vision and how it will materialize to benefits. Don’t sell technology. A product is a means to an experience.

A mini van?

A sports vehicle?

A pick-up truck?

NO!
Family

NO!
Fun

NO!
Adventure

Safety

Way of living

Independence
Ten ingredients for winning products

6. Deliver Value

- Usability
- Performance
- Automation
- Functionality
- Pricing scheme
- License model
- Installation, administration
- Service

Your product
7. Optimize Top Line and Bottom Line

Ten ingredients for winning products

**Resources**
- Financial resources
- People and skills
- Customer business case
- Own business case
- Operating expenses
- Capital expenses
- Resource needs
- Suppliers and partners

**Execution**
- Business case
- Performance
- Efficiency
- Risks that materialize
- Complexity
- Time to market
- Cycle time
- Waste and rework
- Resource utilization

**Results**
- Business case
- Actual vs. projected revenues and profits
- Market share
- Product quality
- Customer satisfaction
- New product success rate
- Payback period
Ten ingredients for winning products

8. Manage Innovation

1. Experiments (learning, investment, no payback, go/no-go)
2. Growth (value is growing fast, market positioning, invest)
3. Saturation (adapt / reduce investments, cash in profits)
4. End of life (high maintenance, decide / communicate end of life)
Ten ingredients for winning products

9. Institutionalize Clear and Lean Processes

- Establish processes that are systematically applied
10. **Never be Satisfied**

- Question the value of your products as perceived by markets
- Perform and update your own SWOT

<table>
<thead>
<tr>
<th>Competitor A</th>
<th>Competitor B</th>
<th>Competitor C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strengths</td>
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<td>Weaknesses</td>
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<tr>
<td>Opportunities</td>
<td>Opportunities</td>
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<tr>
<td>Threats</td>
<td>Threats</td>
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</tr>
</tbody>
</table>

- Added value
- New rules
- Attack plan
- Defense plan
Unless you try to do something beyond what you have already mastered, you will never grow.

* Ronald E. Osborn
Growing your product management competence

Practical Product Management: The Vector View

- **Product management often stagnates due to a vicious circle**
  - Dysfunctional organization
  - Insufficient performance of incumbent product managers
  - Thus no empowerment
  - Continued dysfunctional organization ...

- **You must break this vicious circle with four concrete measures**
  - Systematically prepare and manage the change
  - Establish standard role based on the “Mini CEO” Leitmotif
  - Clearly and consistently position product management
  - Flexibly adapt the role according to different business models

Our ambition: Make product managers successful.
Case Study: Growing the Product Management Competence

**Environment**

- Major supplier of communications solutions.
- Product management had been formally introduced by building the competence, training, coaching and carefully reviewing progress. Introduction happened per business division but always following the same 3-phase approach.
- This study takes result from the first business unit that had fully finished this introduction process. Data taken from project and PLM reporting in the corporate history database.

**Change management approach**

- Phase 1: Foundations
- Phase 2: Pilot
- Phase 3: Roll-Out
## Case Study: Data Points

### Product Management Competence

<table>
<thead>
<tr>
<th>Prod. mgmt. introduction phase</th>
<th># Projects</th>
<th>Min size [PY]</th>
<th>Max size [PY]</th>
<th>Average delay</th>
<th>Average duration</th>
<th>Average defects</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>47</td>
<td>0.1</td>
<td>346</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
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<tr>
<td>2</td>
<td>55</td>
<td>0.1</td>
<td>84</td>
<td>25%</td>
<td>87%</td>
<td>30%</td>
</tr>
<tr>
<td>3</td>
<td>76</td>
<td>0.1</td>
<td>91</td>
<td>15%</td>
<td>64%</td>
<td>18%</td>
</tr>
</tbody>
</table>

Source: Data from 178 industry projects from telecommunication industry over a period of three years throughout which the product management role and competency was defined, deployed and improved. Note that the graphs show regression lines based upon least squares and not averages.
Growing your product management competence

Case Study: Results

The stepwise introduction of a product management competence yielded substantial performance improvements.

- **Cycle time in the business unit was reduced by 36%** compared to the initial baseline.
- **Delays and quality at handover improved by over 80%**.

**Observations from the change:**

- The techniques can be incrementally introduced to business units, thus reducing the change impact (i.e., no big bang).
- Product managers and their product core teams (notably engineering and marketing) accepted the clarified and strengthened product management role.
- They have more impact and see better results.
Agenda

- Why product management?
- Ten ingredients for winning products
- Growing your product management competence
- **Summary and conclusions**

Sometimes you have to stop and smell the roses.

*Dogbert*
Summary and conclusions

The Benefits of Product Management

- Dedicated champion for the product and its interfaces
- Strategic focus for product and technology evolution
- Internal competition of products with clear rules
- Pool of excellent managers in the enterprise
- Better performance ...

Good product management

- Accelerates market introduction by 20-30%
- Reduces defects and delays by up to 80%
- Improves customer satisfaction by 20%
- Reduces cost of rework and repeated agreements cycles

Summary and conclusions

Quote from a Client

“Product Management has a pivotal role for us. They are the glue that brings together Operations, Marketing and Engineering. Product Managers must have a 360-degree view of their company's operational activities while keeping a strategic view on product opportunities and strategy.

“Given these responsibilities, product manager skills sets are diverse, comprehensive and challenging. And the investment to development of these skill sets is a priority.

“We have placed a high value on identifying and communicating the role and then develop our product management teams.

“We have seen a clear return on investment in product management, which is concretely documented in a growing and profitable revenue stream. We have seen the benefits of product management in terms of reduced delays and faster product acceptance in the market.

“The benefits of investing in our product managers competence building has far outweighed the cost.

Source: BU VP from ICT, Systems industry who had successfully introduced a standardized role and business process for product management. She faced a big business benefit from this change.
Summary and conclusions

Critical Success Factors

1. Begin with the end in mind
2. Drive your product like a „Mini-CEO“
3. Lead the core team
4. Understand markets and customers
5. Create needs
6. Deliver value
7. Optimize top line and bottom line
8. Manage innovation
9. Institutionalize clear and lean processes
10. Never be satisfied
Summary and conclusions

Product Management: Trends

**Business trends**

- Global competition
- Cost pressure
- Demand for value
- Ever-changing expectations
- Service
- Everything is fashion
- Individualism
- Green
- Security

**Trends in product management**

- Focus on value creation (“blue ocean”)
- Customers are part of the value creation
- Dynamic segmentation down to the single-buyer segment
- Solution management with products, services
- Virtual company with ecosystems and communities
- Agility to manage uncertainties
- Effective people and knowledge management
# Software Product Management Certification with ISPMA

## Summary and conclusions

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<th>Product Strategy</th>
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<th>Development</th>
<th>Marketing</th>
<th>Sales and Distribution</th>
<th>Service and Support</th>
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<tbody>
<tr>
<td>Corporate Strategy</td>
<td>Positioning and Product Definition</td>
<td>Product Life-Cycle Management</td>
<td>Engineering Management</td>
<td>Marketing Planning</td>
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<td>Service Planning and Preparation</td>
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<tr>
<th>Participation</th>
<th>Core SPM</th>
<th>Orchestration</th>
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Summary and conclusions

Global Software and IT

Christof Ebert

Summary of the author’s first-hand experience and expertise, this book offers a proven framework for global software engineering.

"This book stands out as the best source of information on distributed software development. Seldom do we see a book with the concepts completely backed by industry experiences and views. Software developers and managers benefit from the broad case studies."

S M Balasubramaniyan, Vice President, Wipro Technologies
Thank you for your attention. Contact us. We are happy to support you.

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Questions?