P^3 Profitable Product Performance

Target Costing inside

Concept for the Target Controlling at MD

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Introduction

- This paper introduces Target Controlling as one core tool of the Target Costing methodology.
- Target Controlling aims at assuring the fit of the realized product concept to market requirements, to profit and cost targets as well as to the predefined time to market goals after concept freeze.
- Target Controlling is implemented by the use of the Target Costing tools Enthusiasm Model, Reverse Calculation and Product Target Splitting aided by a dedicated change request process at MD.
- The paper is divided into two chapters:
  - The first chapter gives a methodological overview on Target Controlling.
  - The second chapter provides a view on how Target Controlling is adapted to the specific situation at MD.

Agenda

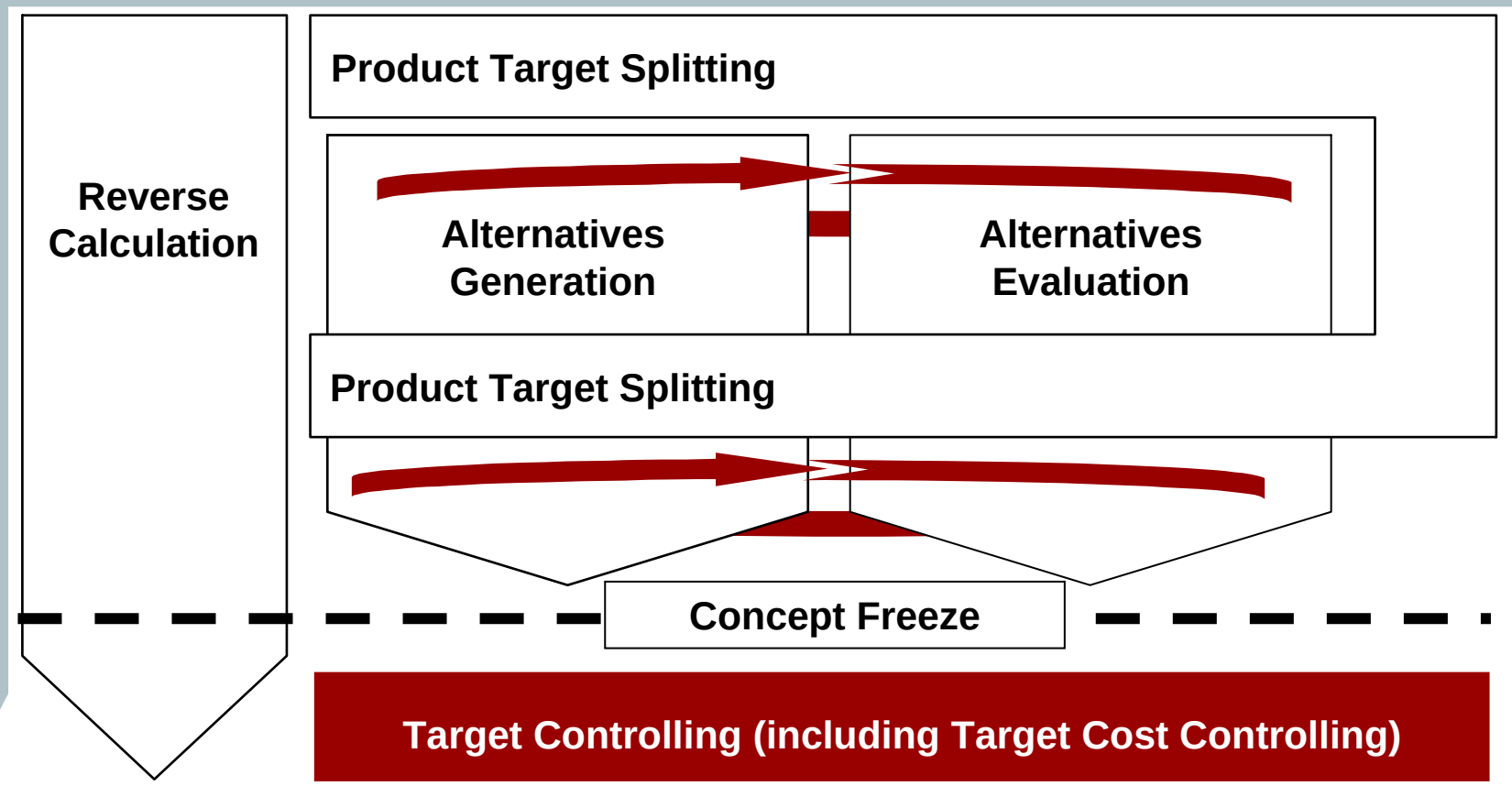
- **Benefits and methodology of the Target Controlling**
- The Target Controlling at MD

The Target Costing concept

Target Controlling aims at securing product performance, profit, cost as well as time to market goals after the concept freeze

Market Research

Window of Opportunity and Enthusiasm Model



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Definition and benefits of Target Controlling

Target Controlling ensures a strict implementation of defined product concepts and provides a structured process for product modifications

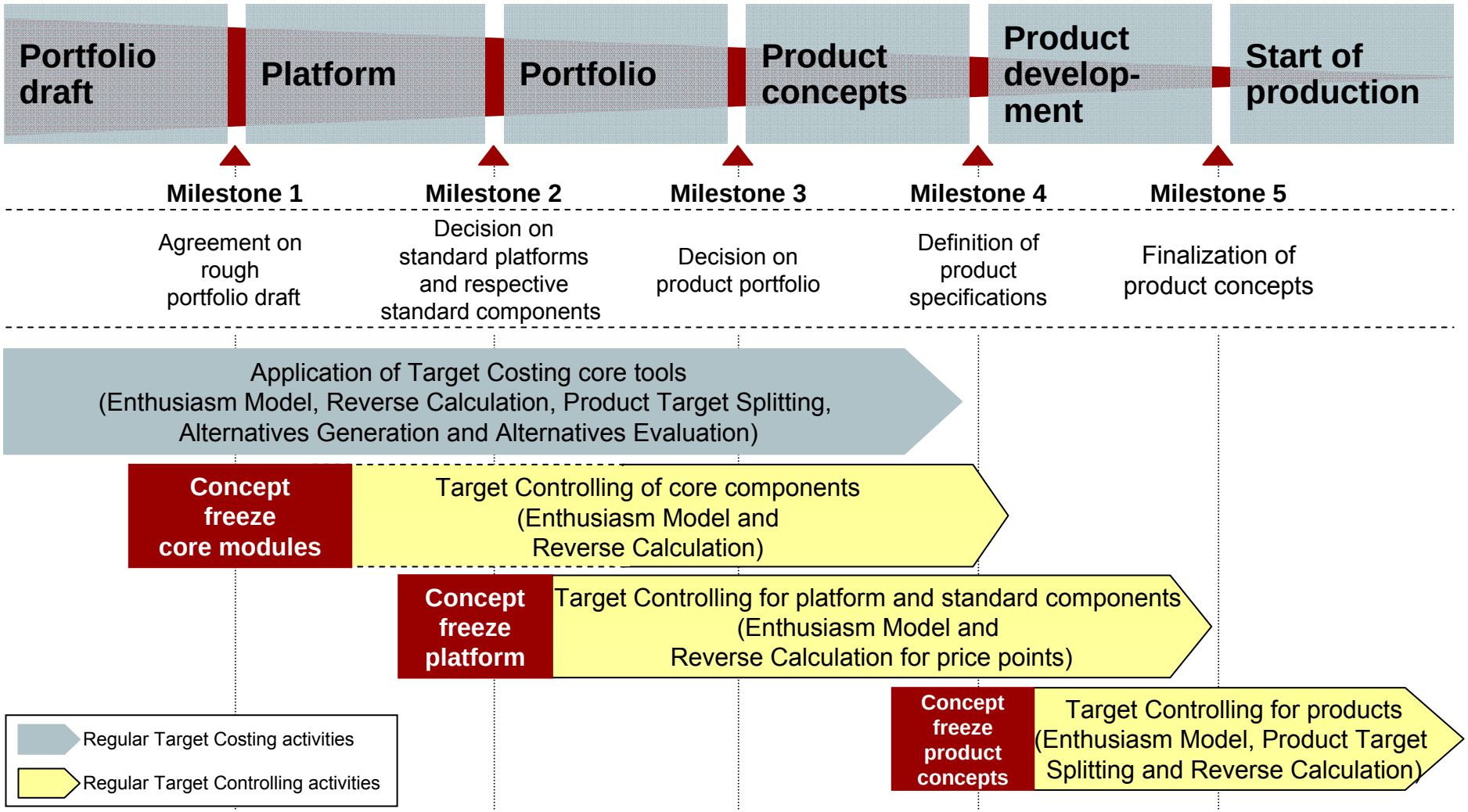
Target Controlling ensures an **adequate implementation of product concepts** – defined by the use of the Target Costing methodology – **after concept freeze**. This comprises a **consequent controlling of the defined market fit of the product concepts**, a **monitoring of key business data** at predefined intervals as well as **a crosscheck of the congruence between module valuation with market demands**. These activities are supported by a dedicated **change request process**.

Benefits of Target Controlling

- Target Controlling **reviews the compliance** of the product concept to **market demands.**
- Target Controlling **visualizes** and **quantifies** the **effects of deviations** from the original module / product concept **after concept freeze.**
- Target Controlling **leads to transparent decisions on modifications** of the original product concept.
- Target Controlling provides the management with a **focused overview** on the key topics of product realization.

Concept of Target Controlling

Target Controlling monitors the achievement of Target Costing goals along the relevant milestones of the product development process



Instruments of Target Controlling

Target Controlling is based on the Target Costing tools Enthusiasm Model, Reverse Calculation and Value Control Chart as well as a dedicated change request process

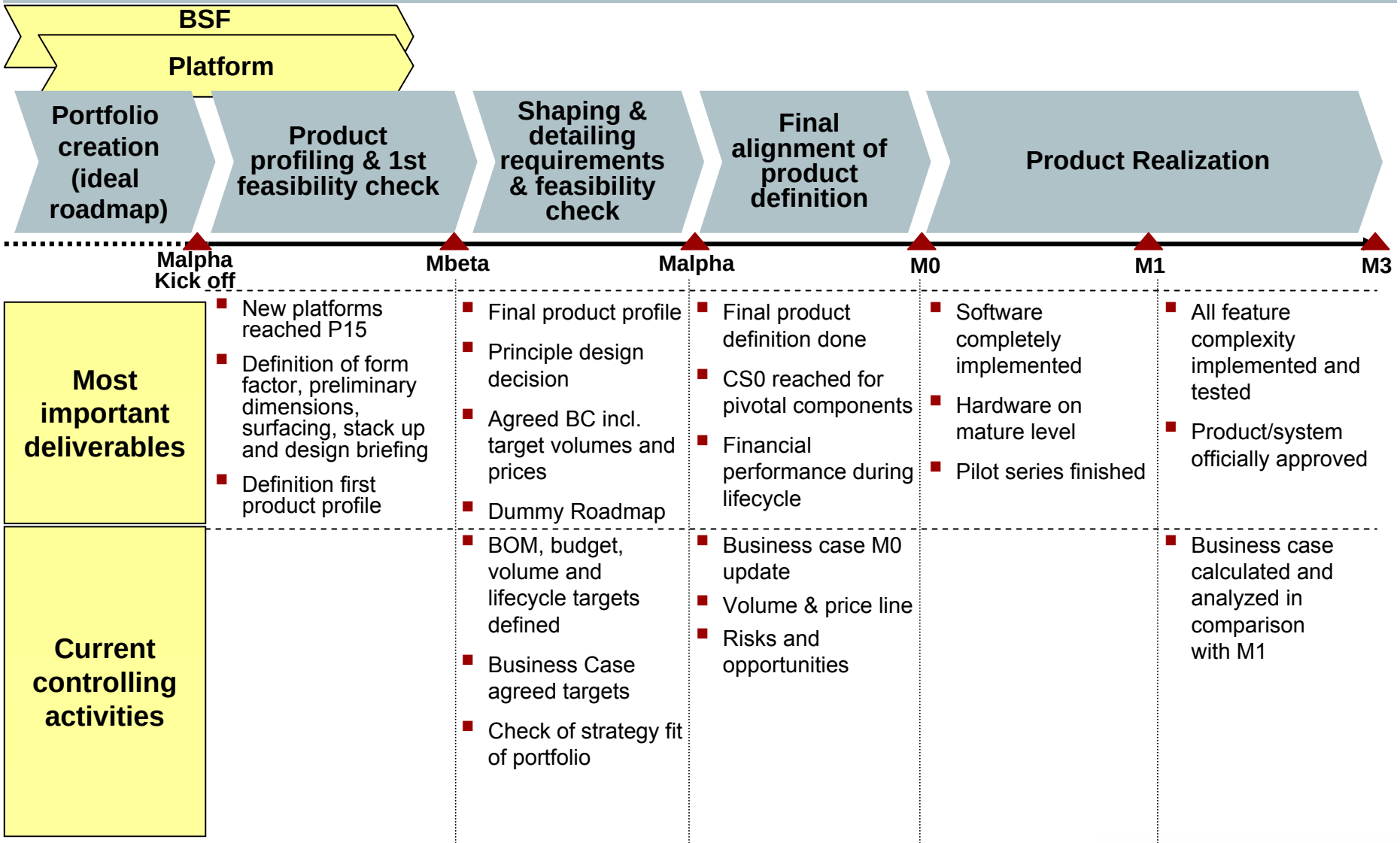
	Controlling objectives	Tasks in Target Controlling
Enthusiasm Model	▪ Implementation of the defined product concept ▪ Fit to market requirements if changes in market demands or competitive environment occur	▪ Frequent check of operator requirements ▪ Frequent and standardized check of end-user requirements ▪ Continuous monitoring of competitor activities
Reverse Calculation	▪ Monitoring of the set profit targets after concept freeze	▪ Update of business cases to evaluate the financial impact of product modifications and market changes ▪ Evaluation of possible changes of the product concept after the concept freeze
Value Control Chart	▪ Securing the compliance of modules/core components to predefined cost corridors and thus to market requirements	▪ Compare products' actual module cost structure to the defined targeted module cost structure according to market requirements
Change request process	▪ Structured process for changes in the product concept considering Target Costing demands ▪ Documentation of rationales and consequences of change requests	▪ Approval process based on the assessment of rationales and consequences of proposed changes. These changes are to be evaluated in by the use of EM, PTS and RC

Agenda

- Benefits and methodology of the Target Controlling
- **The Target Controlling at MD**

Controlling activities within the MD product development process

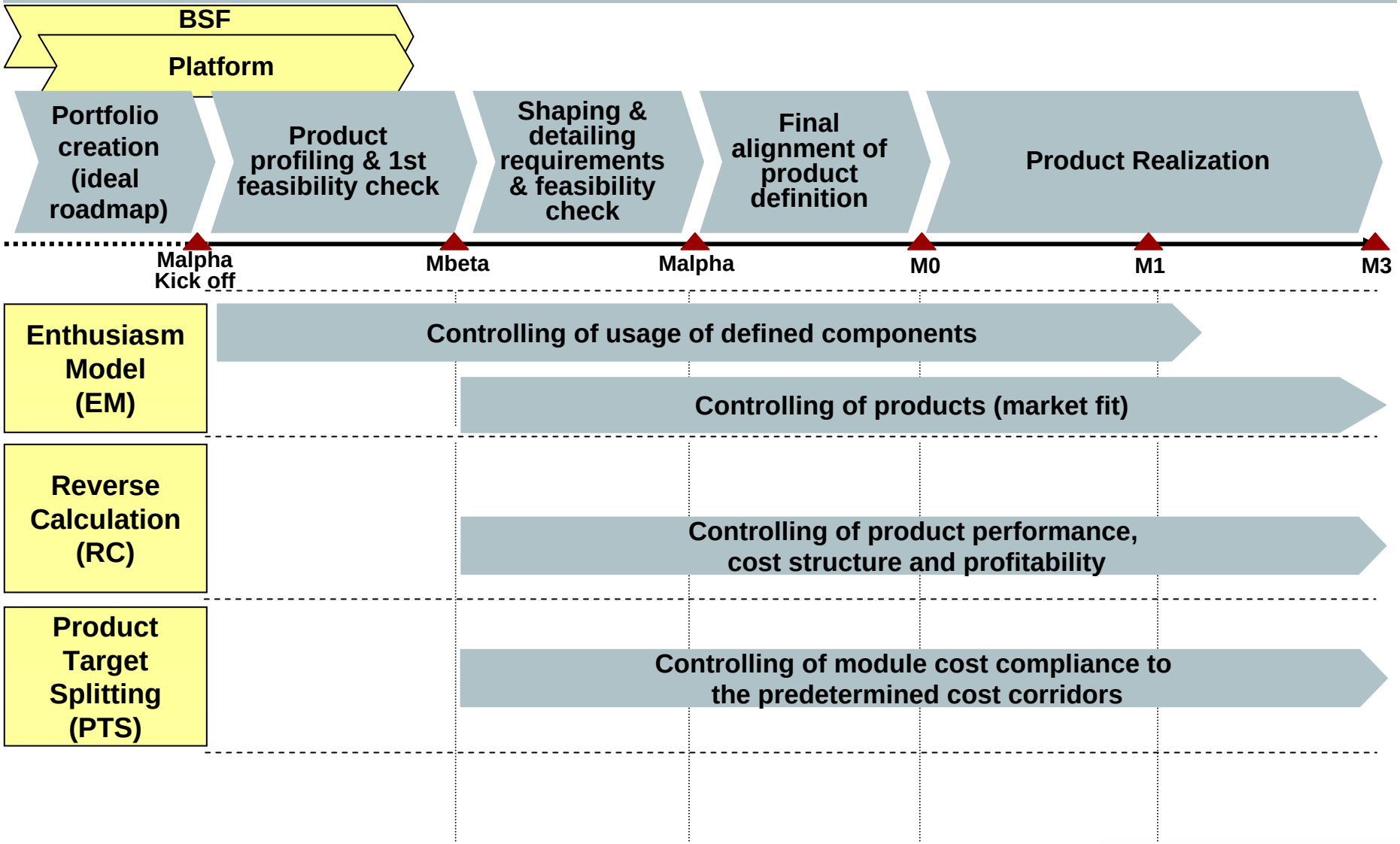
Several project controlling activities are already conducted within the product development process



Source: PBM PM process draft 15.10.04

Extension of current activities to Target Controlling

The current controlling activities will be extended by the usage of the Target Costing tools for Enthusiasm Model and Reverse Calculation as well as a dedicated change request process



The Enthusiasm Model as controlling tool for MD I

The defined product concept will be reviewed regularly using the Enthusiasm Model in the PSR and at defined milestones

Cells change colour, when number is entered

Please fill in	1=Target not reached	2=Target nearly reached	3=Target reached or exceeded

Functions	Operator require-ments	End-user require-ments	Mbeta	Malpha	M0	Comment	S0	M1	M3
Make and receive calls (quality of basic function)	B	B							
Appeal to user (design/ material/ form factor)	P	P							
Support imaging and video	E	E							
Support music and audio	P	P							
Provide gaming	B	B							
Provide outdoor/ leisure features (e.g. sensors)	NO	NO							
Enable messaging	B	P				PoC becomes market standard			
Support business applications (incl. PIM and sync)	B	B							
Provide additional services (e.g. location services)	NO	NO							
Usage and standby time	P	P				Improved battery performance added as new battery introduced by T-Program (no size impact)			
Provide visualization (display)	E	P							
Interaction with other devices	B	B							
Store data	P	P							
Consumer personalization / operator customization	P	B							

The Enthusiasm Model as controlling tool for MD II

Starting from the detailed analysis, an aggregated view of the product is required

Cells change colour, when number is entered

Please fill in	1=Target not reached	2=Target nearly reached	3=Target reached or exceeded

Functions	Operator require-ments	End-user require-ments	Mbeta	Malpha	M0	Comment	S0	M1	M3
Make and receive calls (quality of basic function)	B	B							
Appeal to user (design/ material/ form factor)	P	P							
Support imaging and video	E	E							
Support music and audio	P	P							
Provide gaming	B	B							
Provide outdoor/ leisure features (e.g. sensors)	NO	NO							
Enable messaging	B	P				PoC becomes market standard			
Support business applications (incl. PIM and sync)	B	B							
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Usage and standby time	P	P				Improved battery performance added as new battery introduced by T-Program (no size impact)			
Provide visualization (display)	E	P							
Interaction with other devices	B	B							
Store data	P	P							
Consumer personalization / operator customization	P	B							

Aggregation of information

- The information regarding the degree of fulfillment of the functional targets need to be **aggregated** in order to **clearly show** how the Targets are met on Basic, Performance and Enthusiasm level.
- The thus **aggregated information** is then added to the **management cockpit.**

Aggregated view for Management Cockpit

	Product	Market fit			
		Functionality type B[1]	P[2]	E[3]	Trend
PG xx	Product 1	●	●	●	↗
	Product 2	●	●	●	→
	Product 3	●	●	●	→
	Product 4	●	●	●	↗
	Product 5	●	●	●	↘
	Product 6	●	●	●	→
PG xx	Product 7	●	●	●	→
	Product 8	●	●	●	→
PPM	Product 9	●	●	●	→

The Reverse Calculation as controlling tool at MD

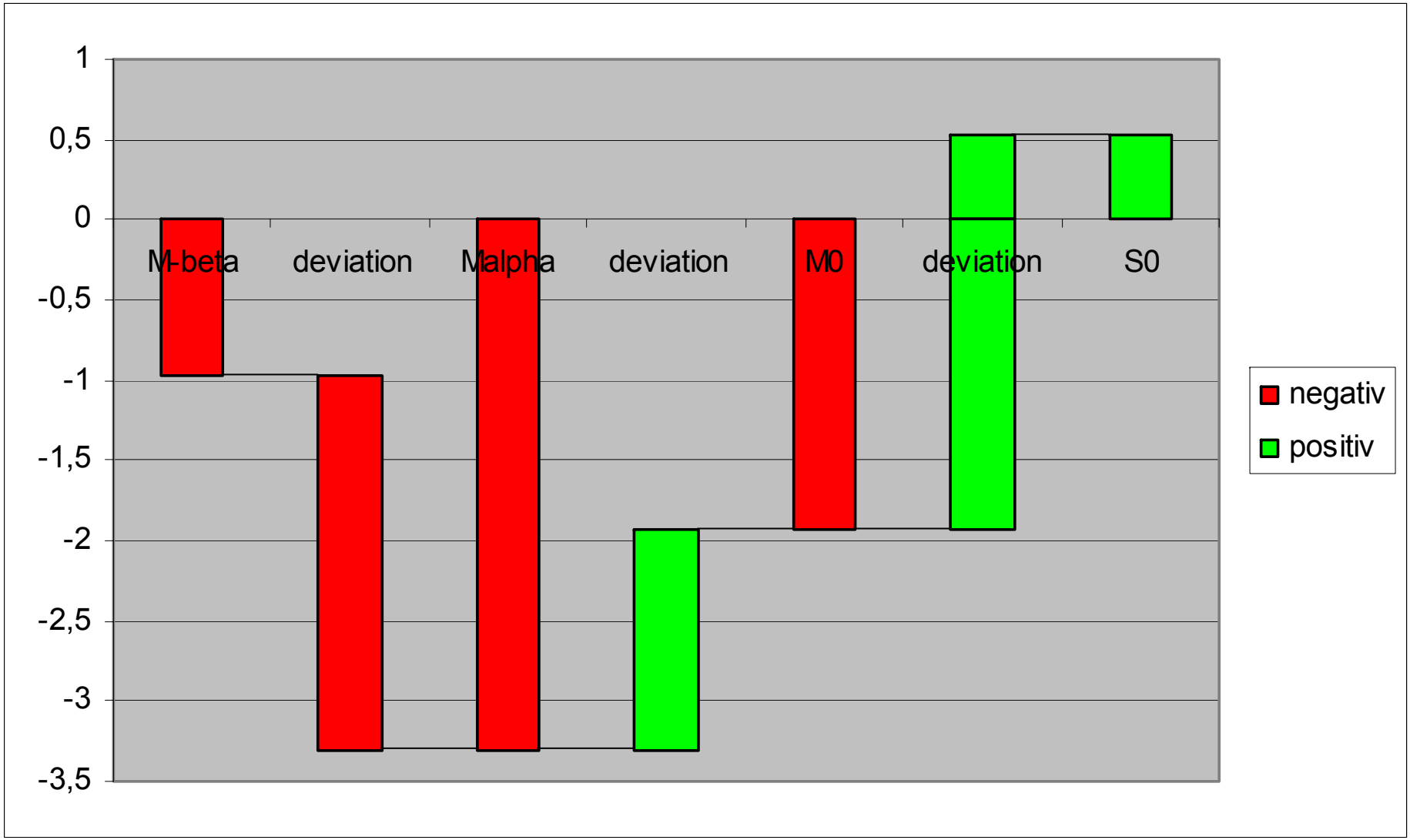
The continuous usage of the Reverse Calculation along the product development process helps monitoring the key business figures

Target Controlling RC Nestor	Mbeta	Malpha	M0	S0		
	Lifecycle Total	Lifecycle Total	Lifecycle Total	Lifecycle Total	Deviation to Mbeta	Description deviations
Units	**3.500.000**	**3.500.000**	**3.500.000**	**3.500.000**	0	
Target Turnover	**603.000.000**	**603.000.000**	**603.000.000**	**603.000.000**	0	
Price (average)	**172,29**	**172,29**	**172,29**	**172,29**	0,00	
Target Profit Total	**45.225.000**	**45.225.000**	**45.225.000**	**45.225.000**	0	
Allowable Costs	**557.775.000**	**557.775.000**	**557.775.000**	**557.775.000**	0	
Overhead I	**7.839.000**	**7.839.000**	**7.839.000**	**7.839.000**	0	
Administration	7.839.000	7.839.000	7.839.000	7.839.000	0	
Overhead II	**84.476.500**	**84.476.500**	**84.520.500**	**84.548.000**	71.500	
Development (indirect)	8.800.000	8.800.000	8.844.000	8.871.500	71.500	
Marketing (indirect)	24.662.700	24.662.700	24.662.700	24.662.700	0	
Selling Expense	28.160.100	28.160.100	28.160.100	28.160.100	0	
SCM Costs	16.642.800	16.642.800	16.642.800	16.642.800	0	
Other COGS	6.210.900	6.210.900	6.210.900	6.210.900	0	
Directly Influenceable Costs (DIC)	**465.459.500**	**465.459.500**	**465.415.500**	**465.388.000**	-71.500	
Product Related Costs (PRC)	**31.870.000**	**31.870.000**	**31.443.000**	**31.113.000**	-757.000	
Development (direct)	8.000.000	8.000.000	8.040.000	8.065.000	65.000	25.000 EUR extra expenditure to enable PoC in software
Marketing (direct)	8.575.000	8.575.000	8.108.000	8.108.000	-467.000	
Service Costs	15.295.000	15.295.000	15.295.000	14.940.000	-355.000	355.000 EUR less expenditure due to simplified stack up concept
Manufacturing Costs	**437.001.600**	**445.156.600**	**440.746.600**	**432.451.600**	-4.550.000	
Manufacturing Costs per unit	**124,86**	**127,19**	**125,93**	**123,56**	-1,30	
BOM per unit	100,06	102,14	100,88	100,31	0,25	5% decline in memory prices
Variant Adder per unit	4,78	4,78	4,78	4,78	0,00	
CC per unit	15,29	15,29	15,29	13,74	-1,55	1,55 EUR savings as product is mainly produced in China
Licences per unit	4,73	4,98	4,98	4,73	0,00	
Target Cost Gap	**-3.412.100**	**-11.567.100**	**-6.774.100**	**1.823.400**	5.235.500	
Target Cost Gap per unit	**-0,97**	**-3,30**	**-1,94**	**0,52**	**1,50**	
EBIT (for comparison purpose)	**41.812.900**	**33.657.900**	**38.450.900**	**47.048.400**	5.235.500	

- **Based on latest cost, volume and price information the business case has to be re-calculated at defined milestones**
- **Deviations from the original business case have to be identified and explained**
- **The impact of change requests for feature set can be financially evaluated**

The Reverse Calculation as controlling tool at MD I

To visualize the profitability of the envisaged product a graph has been developed which shows the changes of the Target Cost Gap at the relevant milestones



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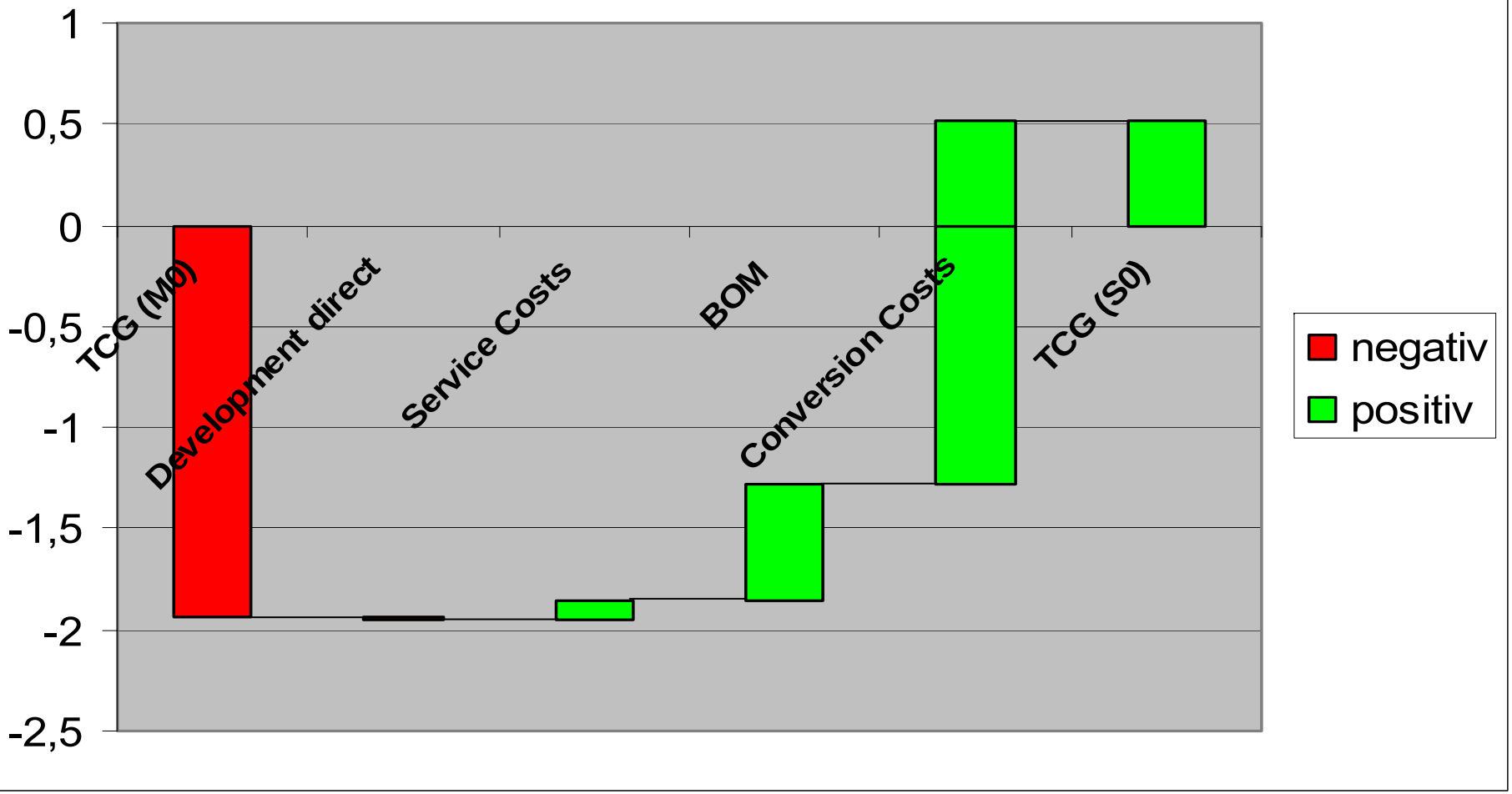
The Reverse Calculation as controlling tool at MD II

In case deviations in the Target Cost Gap per unit occur between the relevant milestones, a detailed graphical explanation is required

Development of Target Cost Gap per unit between two milestones



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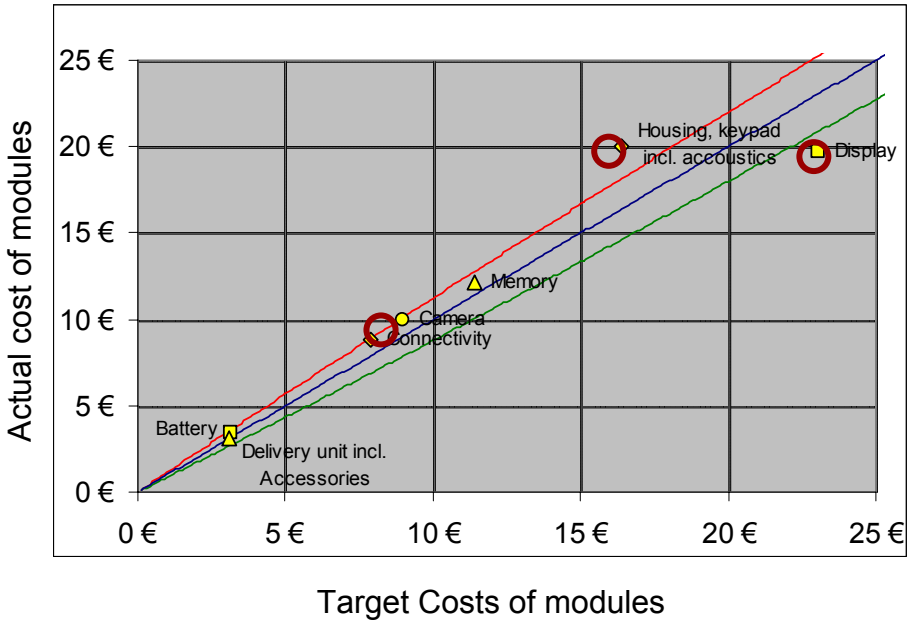
The Value Control Chart as controlling tool at MD

Designated graphics clearly indicate the compliance of the individual modules to the designated Target Cost corridors

Defined milestones



- At **regular intervals** the **compliance** of the single **modules with the Target Cost corridors** has to be checked.
- In case any **deviations** occur, a **detailed explanation** about the reasoning is required and has to be given according to the change request process.

		S0				
Modules	Target BOM	Actual BOM	Δ to Target BOM	Confirmed (y/n)	Actions	Comments
Basic needed parts (BSF, PCB, B-components)	24,80 €	23,00 €	-1,80 €			
Sensors & others	0,00 €	0,00 €	0,00 €			
Connectivity	8,31 €	8,85 €	0,54 €			
Camera	9,26 €	10,00 €	0,74 €			
Display	23,67 €	19,72 €	-3,95 €			
Memory	11,81 €	12,12 €	0,31 €			
Housing, keypad, accoustics	16,55 €	19,99 €	3,44 €			
Battery	1,97 €	3,47 €	1,50 €			
Delivery unit	2,61 €	3,16 €	0,55 €			
Sum	98,97 €	100,31 €	1,34 €			
		= Actual BOM				

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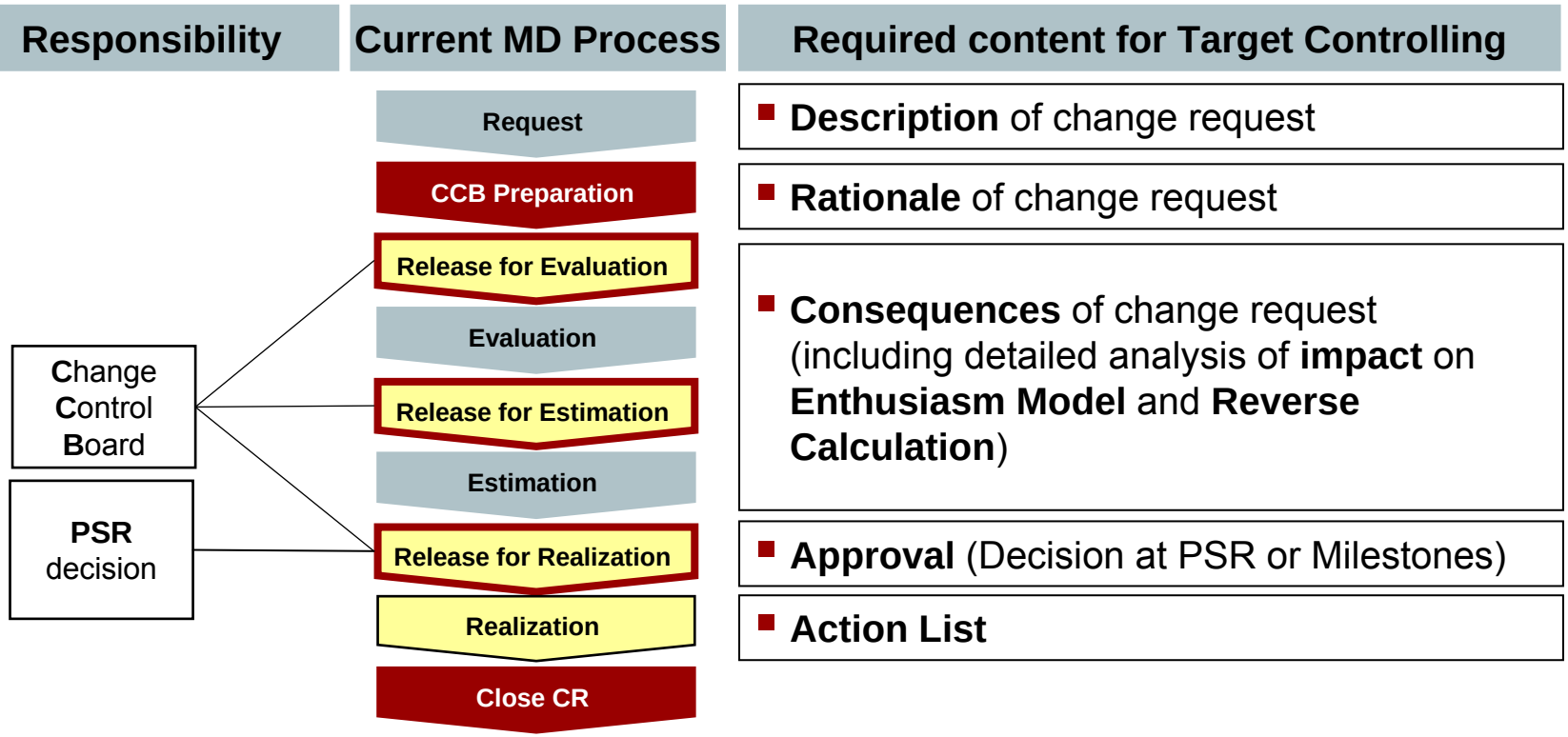
Adaptation of CR-light process as support tool of Target Controlling

In case of conceptual deviations, a clearly defined change process will be initiated based on the corresponding Enthusiasm Model, Reverse Calculation and Value Control Chart

Enhancement of the existing change request light process for changes affecting the product concept



- In order to ensure a strict implementation of Target Costing results a **stringent adaptation** and **usage** of the **enhanced change request light has to be conducted.**

The Target Controlling cockpit at MD

The Target Controlling cockpit provides the MD management with a summary of the Target Controlling results

Enthusiasm Model

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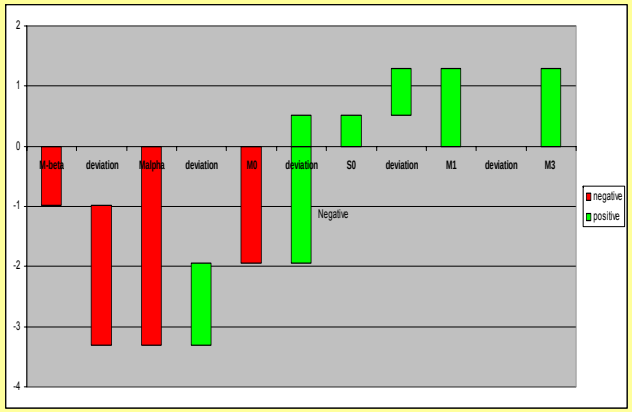
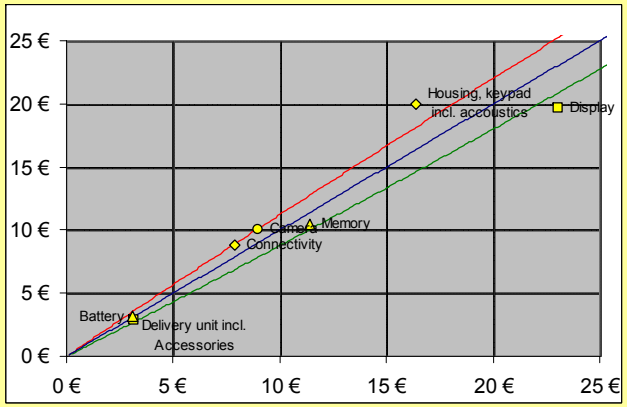
Reverse Calculation



Value Control Chart



Comments / Change Requests

- The increase of the sales volume by x% has an impact on profitability by + y%
- Adding of a new Enthusiasm Feature leads to an increased marketability
- Change Request A has to be decided upon on Milestone Y