Project Management for Value in Internal Projects

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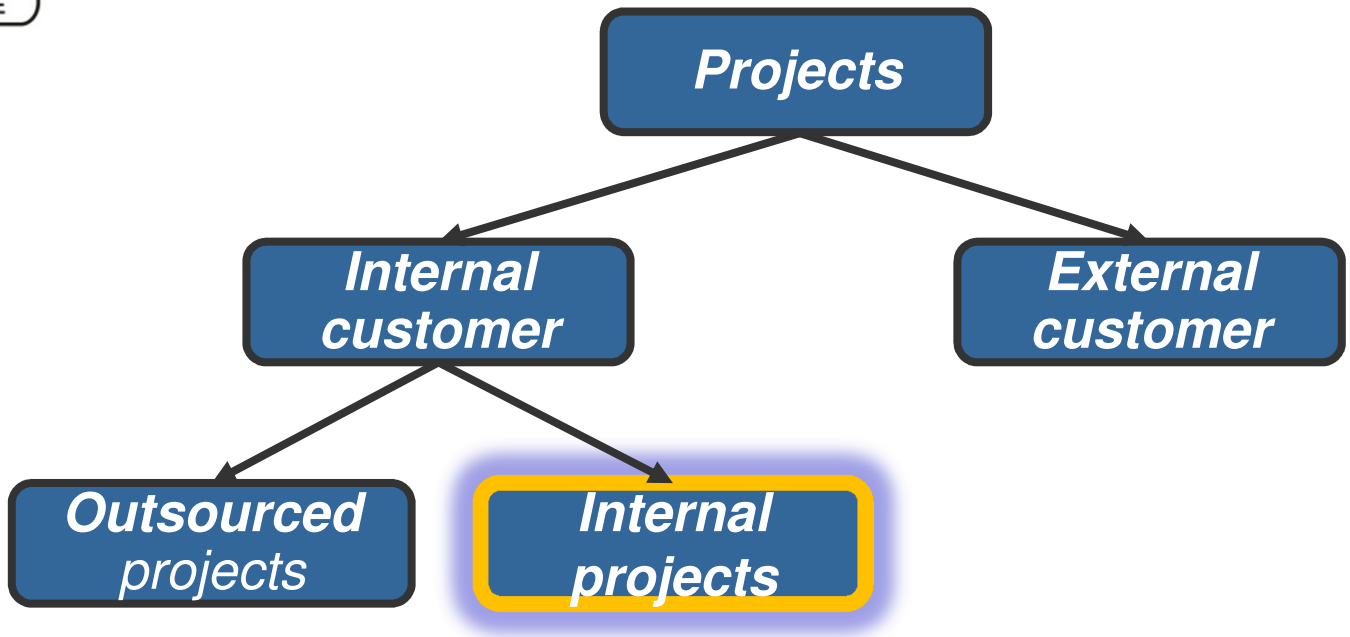
Internal projects



- *Initiated by a VP to satisfy a business, operational or regulatory need*
- *Accomplished by an internal team of resources led by a project manager*

What is the aim of project management?

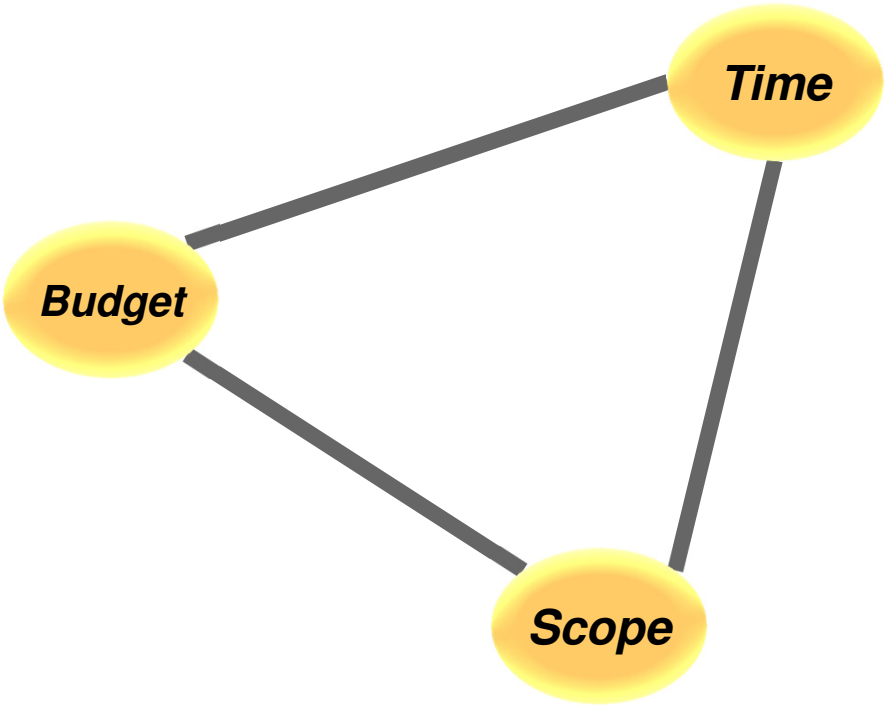
*"**High quality projects** deliver the required product, service or result **within scope, on time, and within budget**"*

(PMI, A Guide to the Project Management Body of Knowledge, 3°ed., 2004)

*"**Success** is measured by product and project **quality**, **timeliness**, **budget** compliance and degree of **customer satisfaction**"*

(PMI, A Guide to the Project Management Body of Knowledge, 4°ed., 2008)

The project management triangle



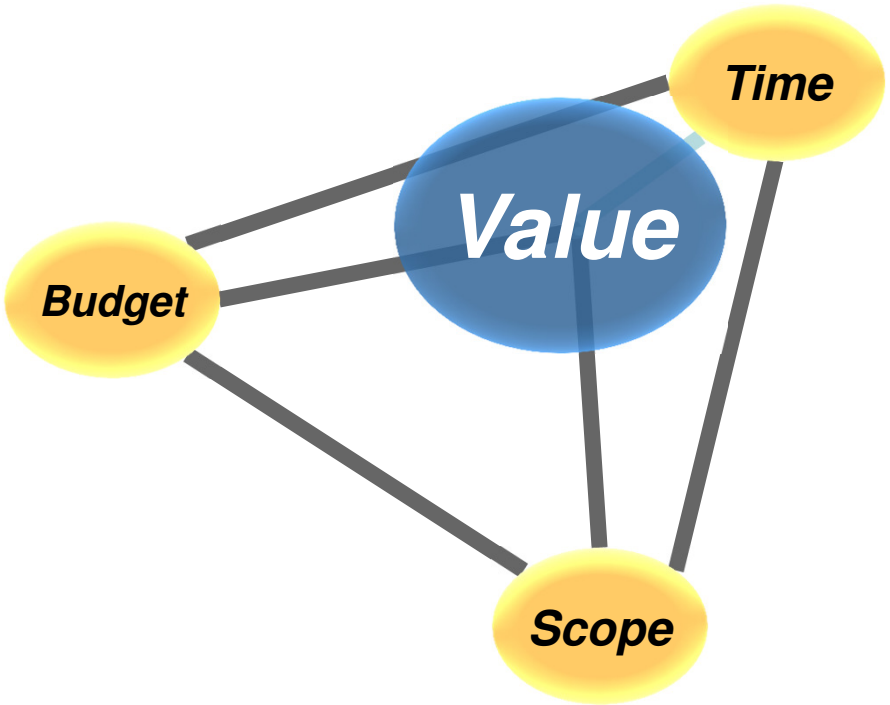
Project management value paradox

*Does it make sense that so many "**high quality projects**",*

*conducted by successful and **professionally managed** organizations,*

*eventually contribute **little or no value** at all?*

The project management pyramid



Project Management for Value (PMV)

The value of a project

*The "true" value of a project = the **Discounted Cash Flow (DCF)** created by the project*

Year	2012	2013	2014	2015	…..	**DCF**
Free Cash flow →	$ 150K	$ 200K	$ 220K	$ 250K	…..	$ 1.2M

*For the sake of **simplicity** we define:*

*"**Project value**" = the total Throughput* (T) created by the project during the first 3 years*

Year	2012	2013	2014	**"Project value"**
Throughput*	$ 150K	$ 200K	$ 220K	$ 570K

**Throughput = revenues – costs and investments associated with the project*

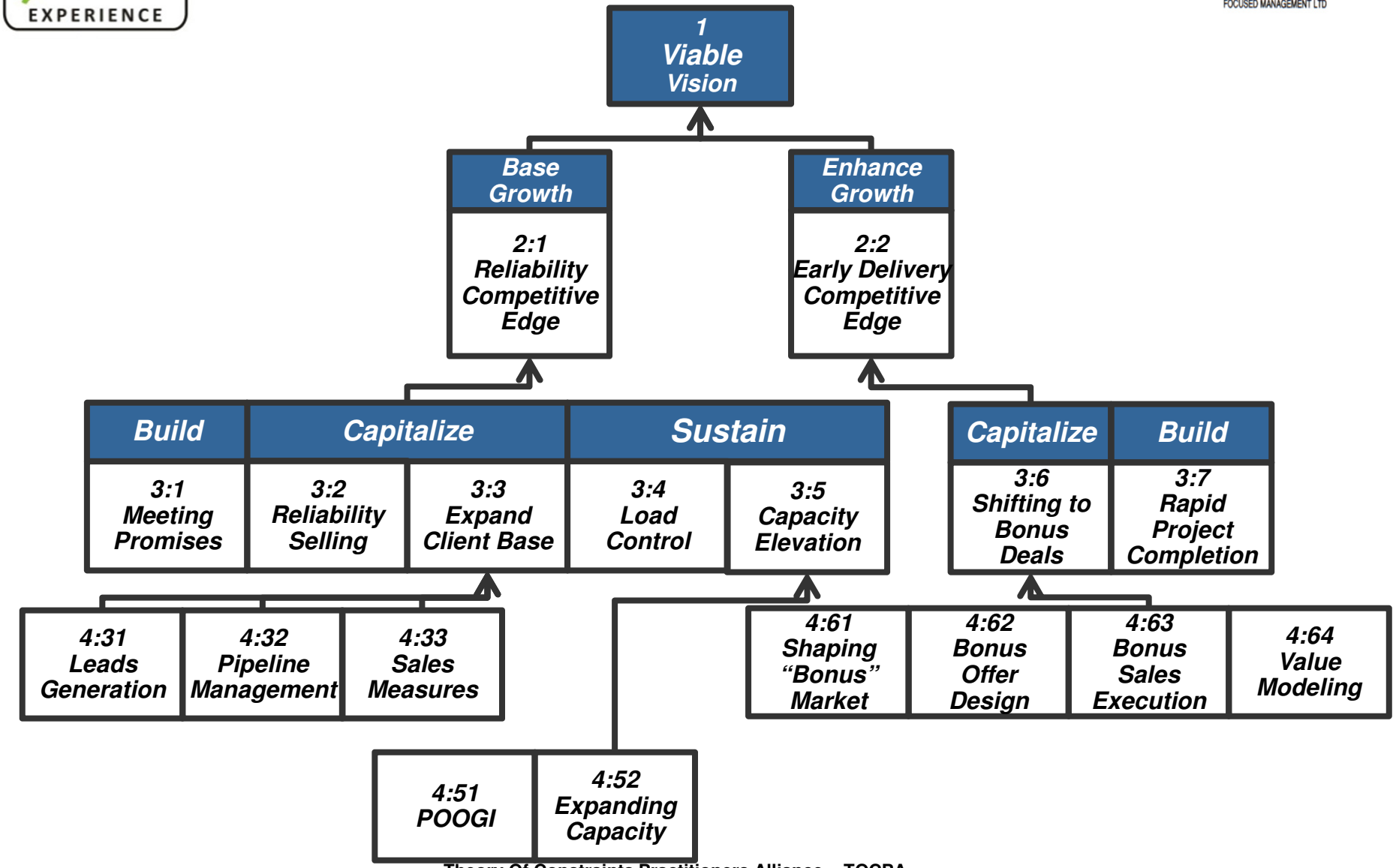
Results

- ***Implementation of PMV*** *in 11 companies (finance [3], telecommunication [3], insurance [1] and manufacturing [4])*
- ***Throughput*** *(T) of projects: on average +20% (best implementation over +40%)*
- ***Value creation*** *(in-sync with improvement of other value drivers): on average +60% (best implementation over +200%)*

Current Project Management concepts

- ***Critical Path Method (CPM)***
  - *Introduced by Henri Gantt, Henri Fayol, DuPont / Remington-Rand, US Navy / Booz-Allen-Hamilton (1900-1957)*
  - *The CPM body of knowledge is depicted in the Project Management Institute (PMI) in its "guide to the PMBOK®" and is approved by ANSI*
- ***Critical Chain Project Management (CCPM)***
  - *Introduced by Eli Goldratt (1997)*
  - *The CCPM body of knowledge is depicted by TOCICO community in the TOC dictionary, handbook, the "projects S&T" and many books*

TOC "Projects S&T"



Areas not addressed by CPM or CCPM

- ***A goal definition*** *for projects that is aligned with the goal of the organization which is* ***VALUE***
- *A* ***framework methodology*** *to* ***guide*** *project teams towards* ***creation of maximal value***
- *Guidelines for dealing with the* ***dis-alignment*** *(silos) of business owners and project managers*

CPM solution

- *CPM created an infrastructure for managing projects along their life-cycle (Initiating, Planning, Executing, Monitoring and controlling, Closing)*
- *CPM's concepts and tools:*

Critical path	**Teamwork**	**Planning (networks)**
Budget management	**Scope management**	**Procurement**
PMO	**Risk management**	**Control**

CCPM solution

- *CCPM stresses:*
  - ***Lead time reliability and reduction***
  - *Lead time and due-date performance control by* ***buffer management***
  - *Planning methodology based on* ***buffering*** *and* ***realistic time estimates***
- *CCPM concepts and tools:*

Critical chain	***LT reduction***	***Drum***
LT reliability	***Buffers***	***Buffer management***
Realistic estimates	***Multi project***	***Pipelining***

The conceptual difference between PMV and CPM/CCPM

- *CPM and CCPM focus project managers and teams on* ***accomplishing the project's pre-defined scope, on-time and on-budget***

- *Project Management for Value (PMV) methodology* ***adds*** *a* ***meta-dimension*** *– the* ***strive for utmost Value***

Value *becomes PMV's* ***criterion and guideline*** *for defining, planning and executing the project scope and process*

Wrong assumptions of CPM/CCPM

1. *Project's goal is* ***compliance*** *with the* ***project management triangle***
2. *Project considered "completed" once the* ***deliverables are handed over***
3. ***Disparity of goals and targets*** *for* ***business owner*** *and* ***project management***

Wrong assumptions of CPM/CCPM (cont.)

3. Disparity of goals (cont.):

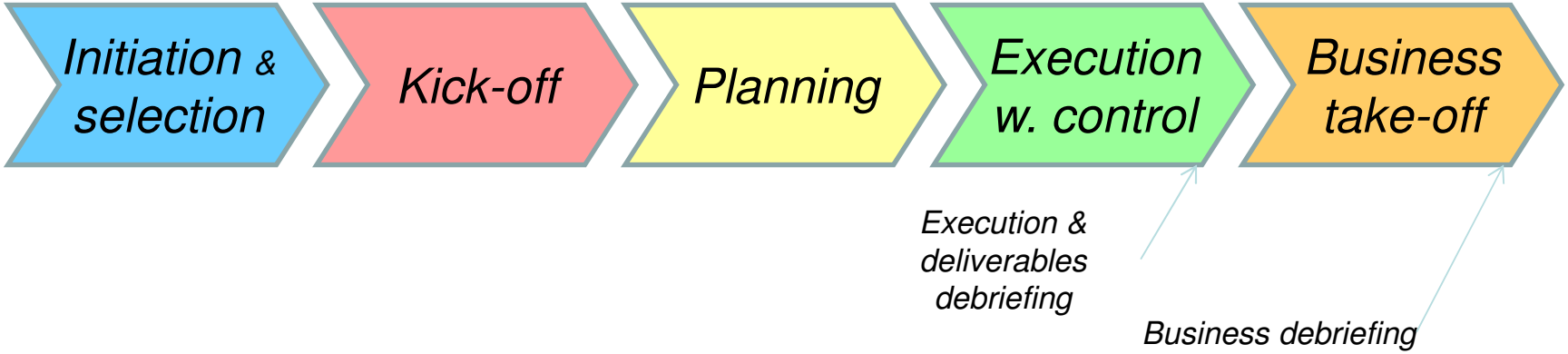
	Business owner	Project manager (PM)
Goal	• **"Business"**	• **"Project execution"**
Responsibility	• Revenues • Initiatives	• Scope, time, budget, risks • Implementation
Concerns	• Sales, products, market share, prices, costs, profitability, partners, customers	• Requirements, changes, decisions, attention • Resources availability and quality, due-date performance • Project Management Office
Performance measures	• Revenues • Profitability • Market share	• Time over-run • Budget over-run • Scope attainment
Thinking	• Business	• Technical / operational

The PMV solution – "Start at the End"

*The **goal of a project:** to increase organization's **value***

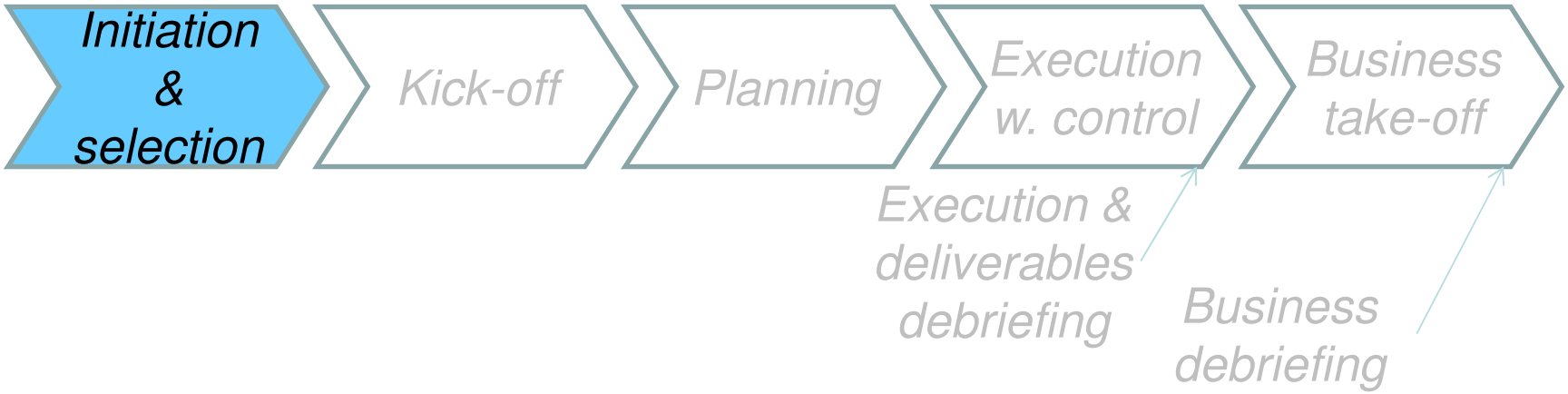
- *The project manager is a **"mini CEO"** with responsibility for:*
  - ***Business** aspects*
  - ***Operational** / **technical** aspects*
  - ***Global view** of the organization*
- *Project manager and business owner have **joint goal, measures and targets** ("two-in-a-box")*
- *Project manager and business owner participate in the Integrated Project Team (IPT), hence the required "checks and balances" do exist*

Project life-cycle



*The project is completed once the **"business take-off" phase** has ended*

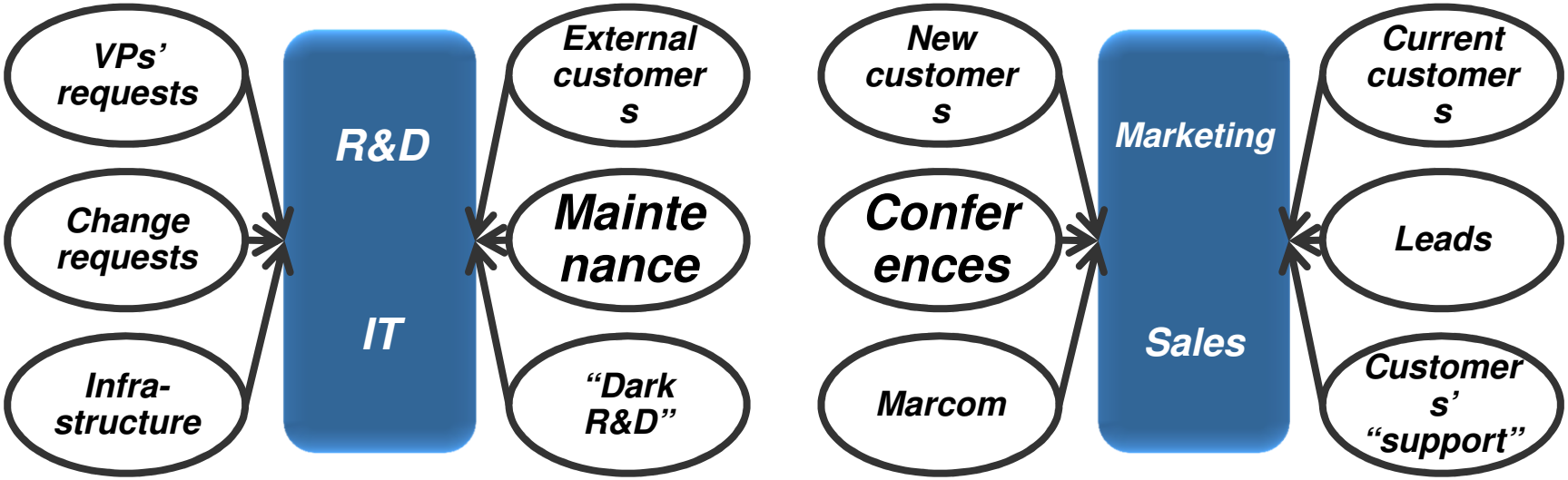
LC1: "Initiation and selection" phase



Design-to-cost ➔ *design-to-price* ➔ ***design-to-value***

Permanent bottlenecks and Strategic Gating (SG)

- *Projects always depend on "**permanent bottlenecks**"*



- *300-500% **over-demand***
- *Selection mechanism is required*

Permanent bottlenecks and SG (cont.)

- ***Not all requests and initiatives*** *for projects* ***can*** *be fulfilled*
- ***Prioritization*** *is needed*
- *Selection of a* ***feasible portfolio*** *of projects*

Strategic Gating*:*

What ***will be done*** *and*
what ***will NOT be done***

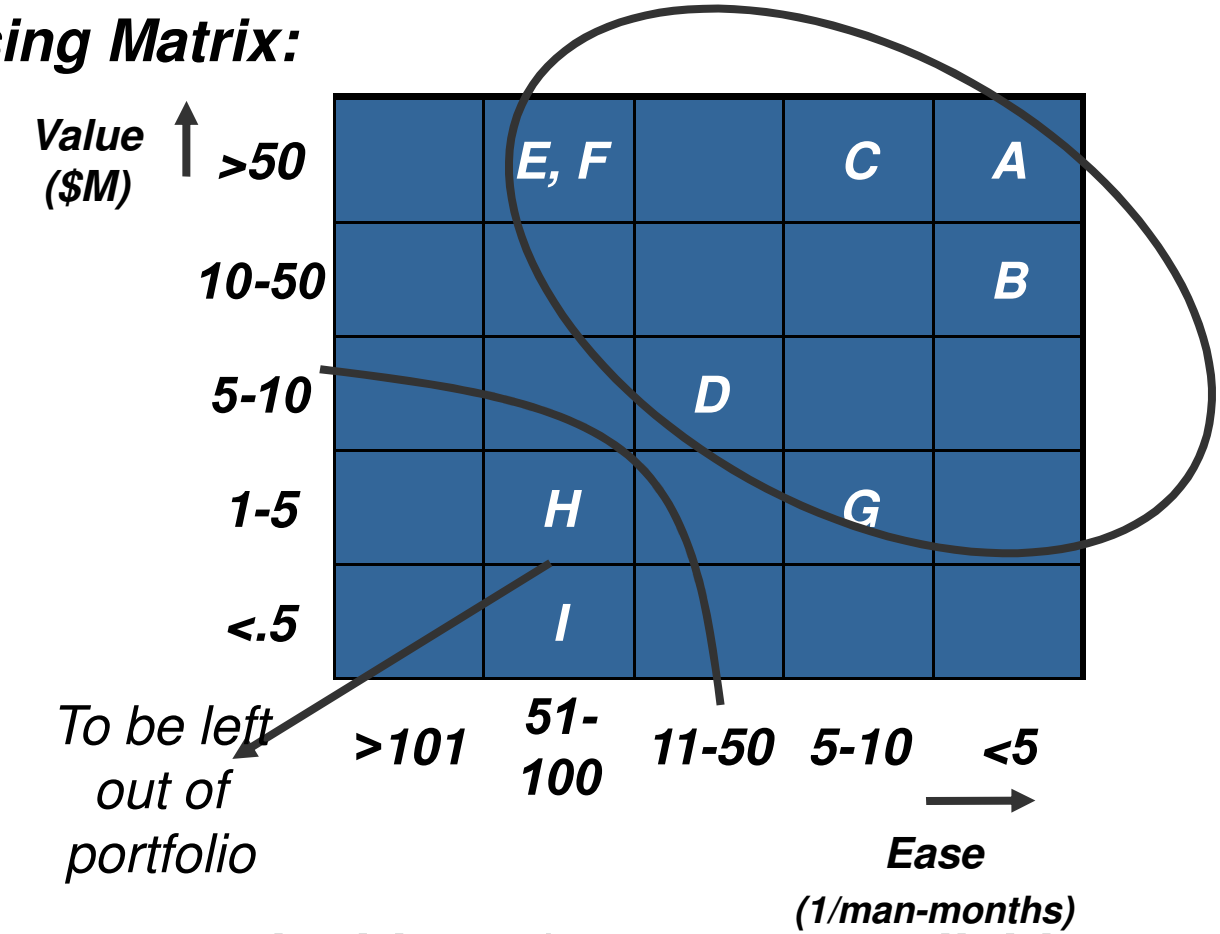
Strategic Gating

- *Project **initiation** with a **satisficing Complete Kit**:*
  - *A "micro business plan"*
  - *A rough estimate of total effort and effort of "drums"*
- *The **Focusing Table***

#	Project	Value ($M)	Ease (Man-months)
1	Project A	58	4.5
2	Project B	27	4
3	Project C	64	9
4	Project D	7	12
5	Project E	92	62
6	Project F	61	80
7	Project G	4	8
8	Project H	3.5	73
9	Project I	0.4	61

Strategic Gating (cont.)

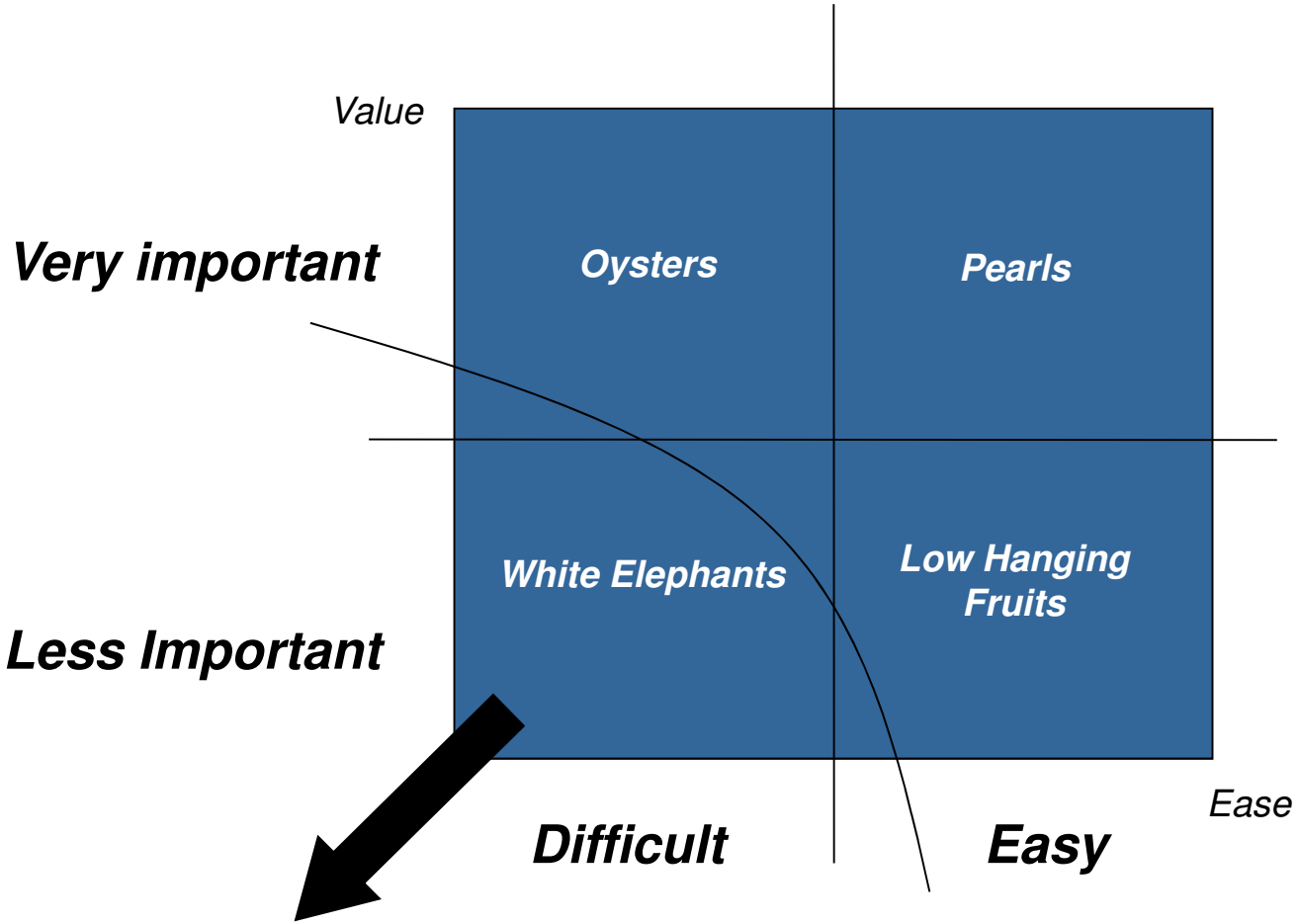
Focusing Matrix:



*Pick the most **valuable** projects **up to available capacity/budget***

Strategic Gating (cont.)

Generic Focusing Matrix:



Business rationale clarification during SG

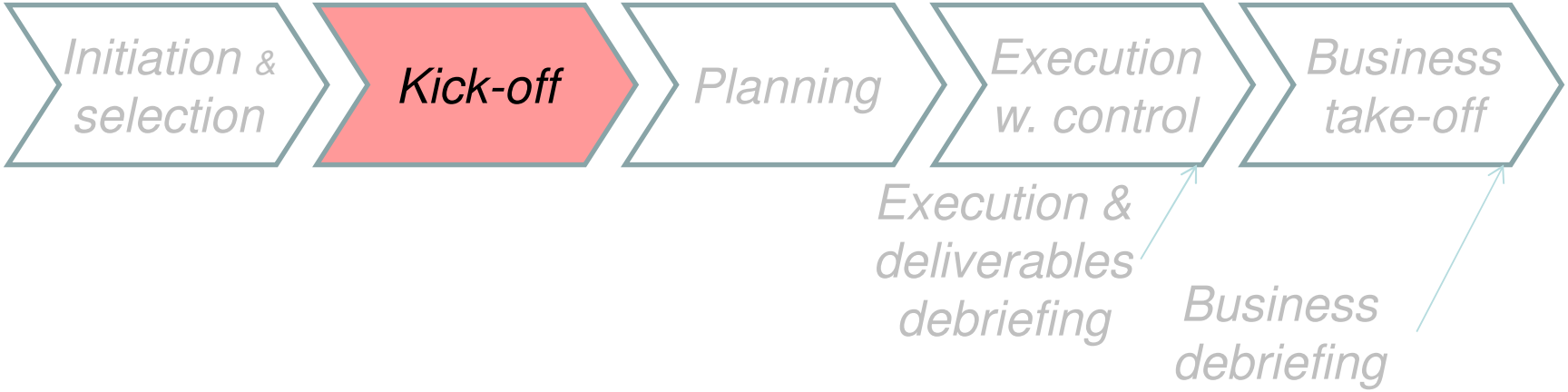
- *Top management checks whether:*
  - *Project is **aligned with** company's **strategy***
  - *Project **makes sense** business-wise and contains no **over-requirements***
  - *Initiator is **committed** to the business targets*
  - *Requested **due dates** make sense*
  - ***Critical resources and budgets** can be provided*

Over-requirement and over-design

When awareness does not exist, ***30% of the development effort*** *is invested in* ***over-requirements and over-design:***

- *Requirements, specifications or actual implementations that are* ***not needed – "nice to have"***
- *Over-ambitious performance parameters or tolerances*

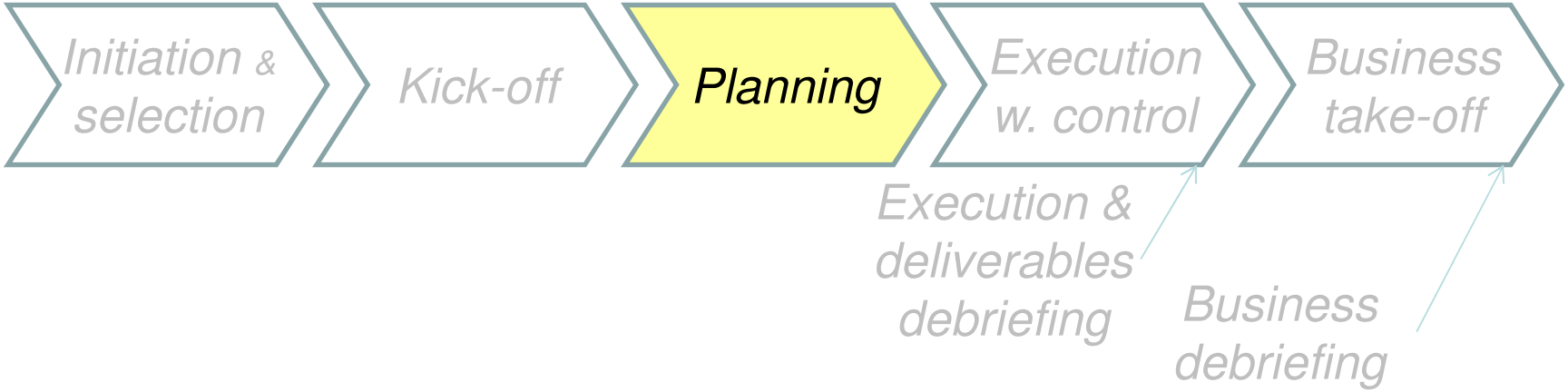
LC2: "Kick-off" phase



Value-based elements of "kick-off" phase

- *Expectation setting of **business rationale** and the overall project **business targets***
- ***Commitment** of the main players to:*
  - ***Business targets***
  - *Scope*
  - *Due date*
  - *Allocation of resources with the required skills and of budgets*
- *Joint commitment of business owner and project manager to the "**business take-off" phase business targets***
- ***Balanced** steering committee: business vs. technology /operations*

LC3: "Planning" phase



"… plans are useless but planning is indispensable"
(D.D. Eisenhower)

Challenging over-requirement

- ***Legitimation to challenge*** *any element of the* ***scope*** *for over-requirement by all IPT members*
- *Results in a* ***tighter and more robust*** *work plan*

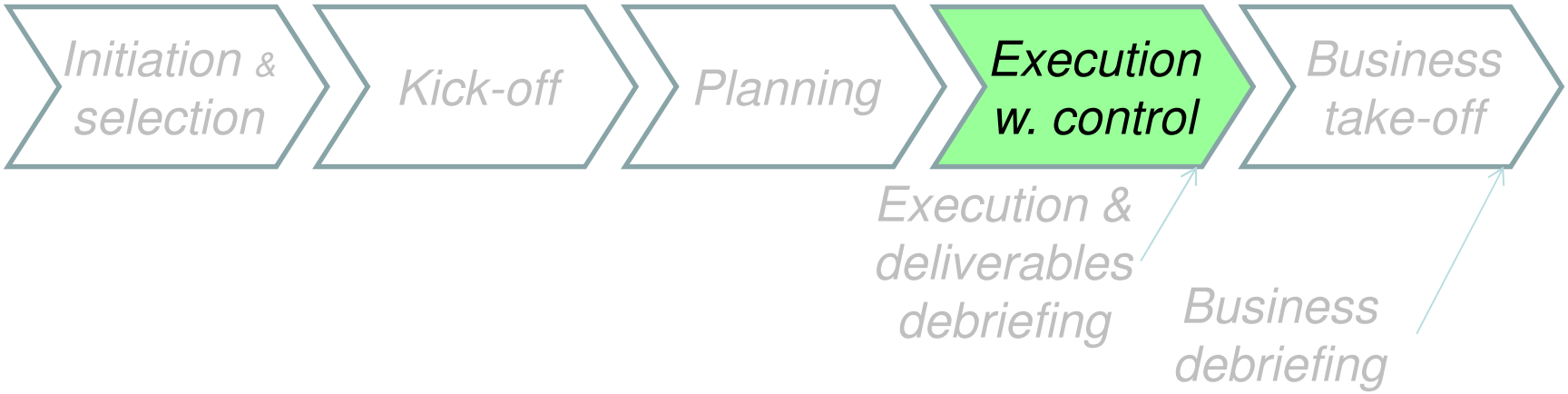
Value-based uncertainty management

- *Business language is the common language*
- *Business related **risk and opportunity sources:***
  - *Economic situation*
  - *Regulation*
  - *Market and competition*
  - *Relations with partner/s*
  - *Relations with sub-contractors*
  - *Failure of basic assumptions*
  - *…*
- ***Chance Management (CM)** – taking a calculated risks for the sake of potential opportunities*
- *Risk mitigation and opportunity capturing activities and responses to actual problems are **included in work plan***

Value-based control gates

- *Aimed at securing the **fulfillment of business requirements**:*
  - *Did the business partners or the sub-contractors sign the contracts?*
  - *Are the business plan and the planning still realistic?*
  - *Did we provide all planned deliverables (to customers or internally)?*
  - *Were the deliverables validated in a proper Design Review?*
  - *Can we confirm our business assumptions?*
  - *…*
- *Control gates are **included in work plan***
- *Validation and success criteria are defined in advance*

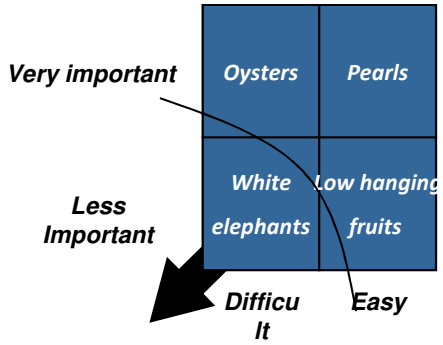
LC4: "Execution with control" phase



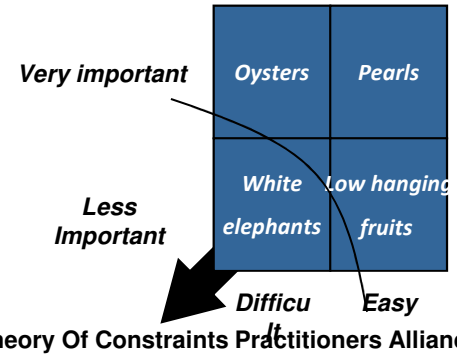
The 25/25 mechanism

*Removal of **unnecessary** projects and features during the execution phase (e.g. quarterly):*

- ***25/.*** *– Discontinue ~25% of the **projects** in process*



- ***./25*** *– Remove ~25% of the **features** in the continuing projects*



Performance measures of the project

- ***No perfect sets*** *of performance measures*
- *We suggest a set of "satisficing" measures* ***aligned with maximization of value***

Performance measures of the project (cont.)

Measure	Definition
Throughput (T)	[% progress on the critical path/critical chain] * [expected value of the project]
	Actual contribution to value at the end of the "business take-off" phase
Work in Process (WIP)	Average number of released activities per worker
	Total number of released activities
Due-Date Performance (DDP)	% activities completed on-time during period
	% milestones completed on-time on the critical path/critical chain during period
Quality (Q)	% "right first time" DR's and control gates passed during period
	Scope stability to date

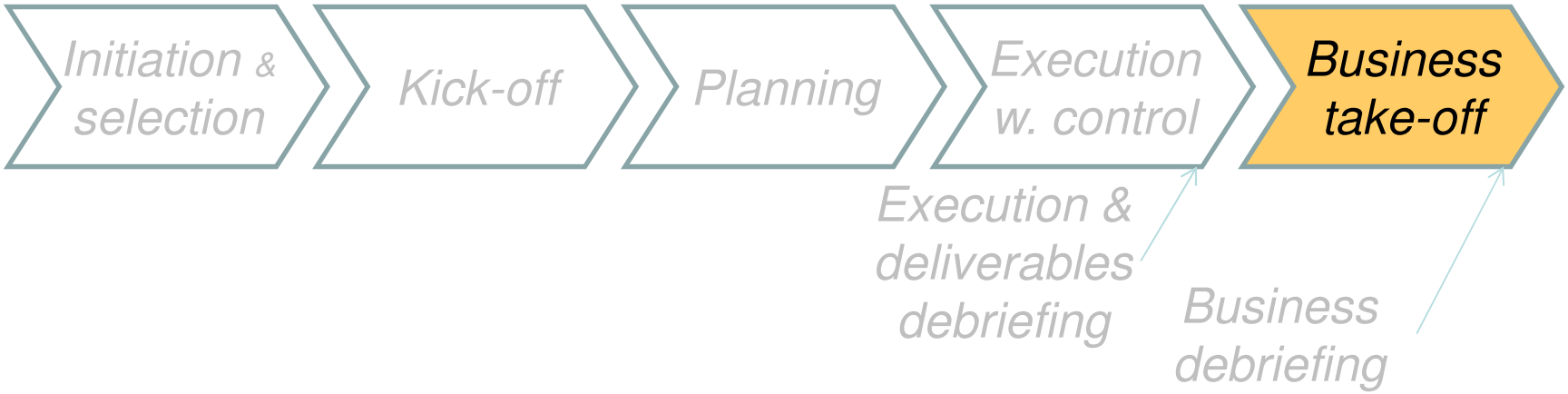
Value-based assessment of change requests

- *Justification by "micro business plan" for any change including the **disruption costs***
  Crucial in situations where projects swapping is considered
- ***Risk analysis** of the change request has to include the **ramifications of change realization***
- *Approval by **steering committee** or **top management***

Value-based resource contention resolution

- ***Value destruction*** *to the* ***whole organization*** *caused by the delay of each relevant alternative is analyzed*
- *Decision by* ***steering committee*** *or/and* ***top management***

LC5: "Business take-off" phase



Ownership over the outcome

- *Project IPT is involved in the execution of the business activities according to work plan*
- *Business owner takes the lead in the IPT*
- *Business owner has the opportunity to gradually assume **ownership** on the outcome of the project*

Business debriefing

"How will we increase the value of the next project?":

- *Analysis of* ***processes*** *–* ***not people;*** *based on* ***data and records:***
  - *Results of "business take-off" phase*
  - *Attainment of the business targets*
  - *Scope definition, value estimation and Business assumptions*
  - *Business control and management involvement*
  - *Business risk management*
  - *Collaboration with partners and sub-contractors*
  - *…*
- *Lessons-learnt and action items*

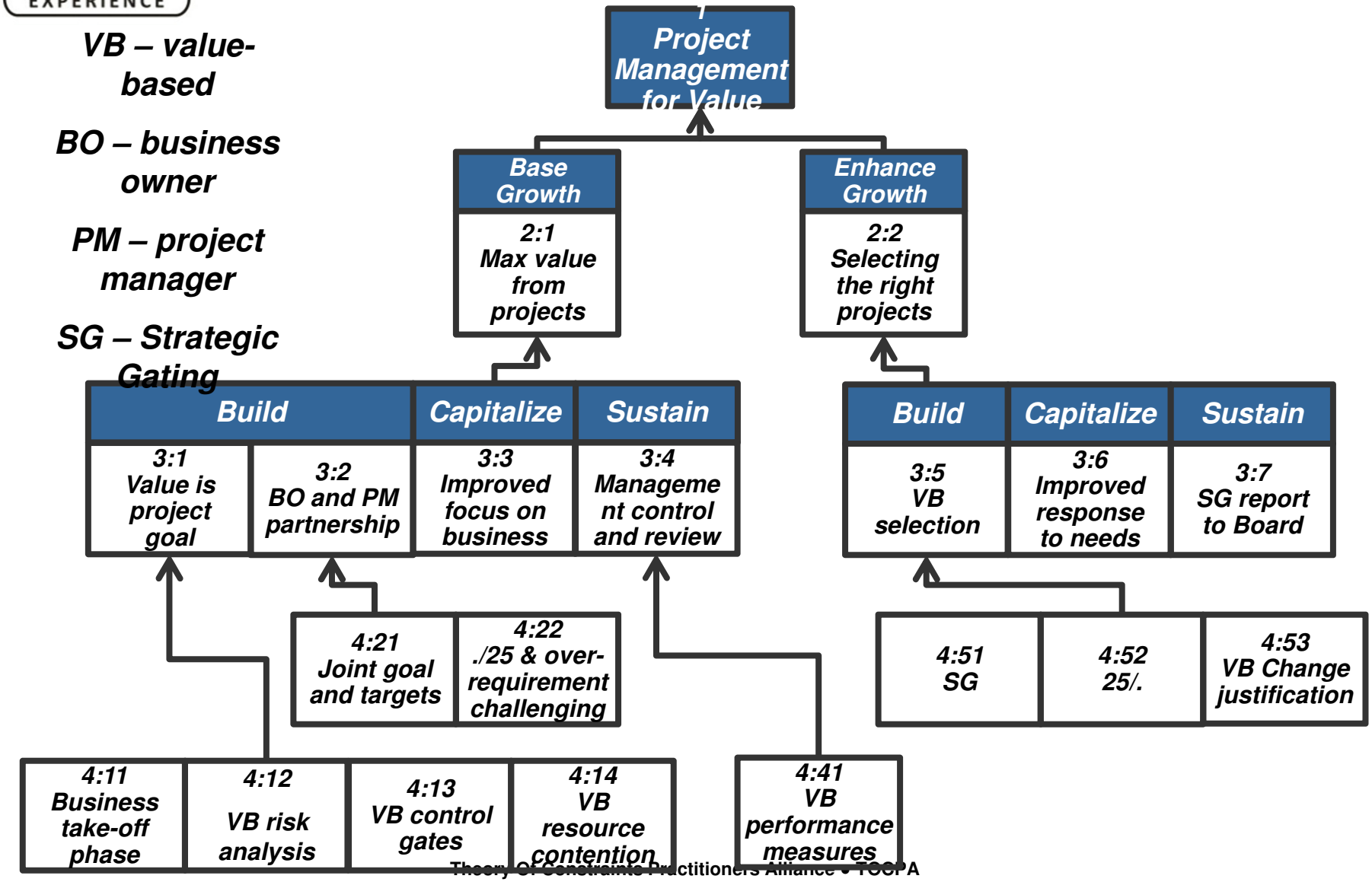
PMV in internal projects S&T

VB – value-based

BO – business owner

PM – project manager

SG – Strategic Gating



Example company profit and loss summary

[million $]	2012	%
Revenues	129	100%
Real Variable Costs (RVC)	21	16%
Throughput (T)	108	
Fixed costs	91	71%
EBITDA *	17	13%

* Earnings before Interest, Taxes, Depreciation and Amortization

- 30% of the company's revenues originate from internal projects
- Suppose that the implementation of PMV has a potential to increase the **Throughput of projects** by 20% using the same resources

Growth potential of PMV

[million $]	2012	%	2013
Revenues	129		137
Real Variable Costs (RVC)	21	16%	22
Fixed costs	91		91
EBITDA	17		24
Δ(EBITDA) [~Δvalue]			+41%

Future directions and final thoughts

- *Development and pilots of a Project Management for Value (PMV) variant for companies making projects for* ***external customers***
- *Development and pilots of a Project Management for Value (PMV) variant for companies that are* ***outsourcing*** *some/all of their projects*

We hope that the PMV approach will bring a fresh point of view to the project management discipline

Thank you