

IT Project Portfolio Management (ITPPM)



July 13, 2020
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KNOWDigital





- The Project Portfolio
- From Demands to Projects
- Project Portfolio Matrix
- The Scaled Agile Approach





Single projects run in parallel

- Project Manager = lone fighter
- No coordination
- No active management of interdependencies

Project A

Project B

Project C

Multi-project management

- Projects are managed in a similar way
- Interdependencies are managed

Project A

Project B

Project C

Project Portfolio Management

- Portfolio Management = overall management layer
- Preparation phase before launching projects
- Active management of interdependencies and status reporting

Portfolio

Project A

Project B

Preparation

Project C

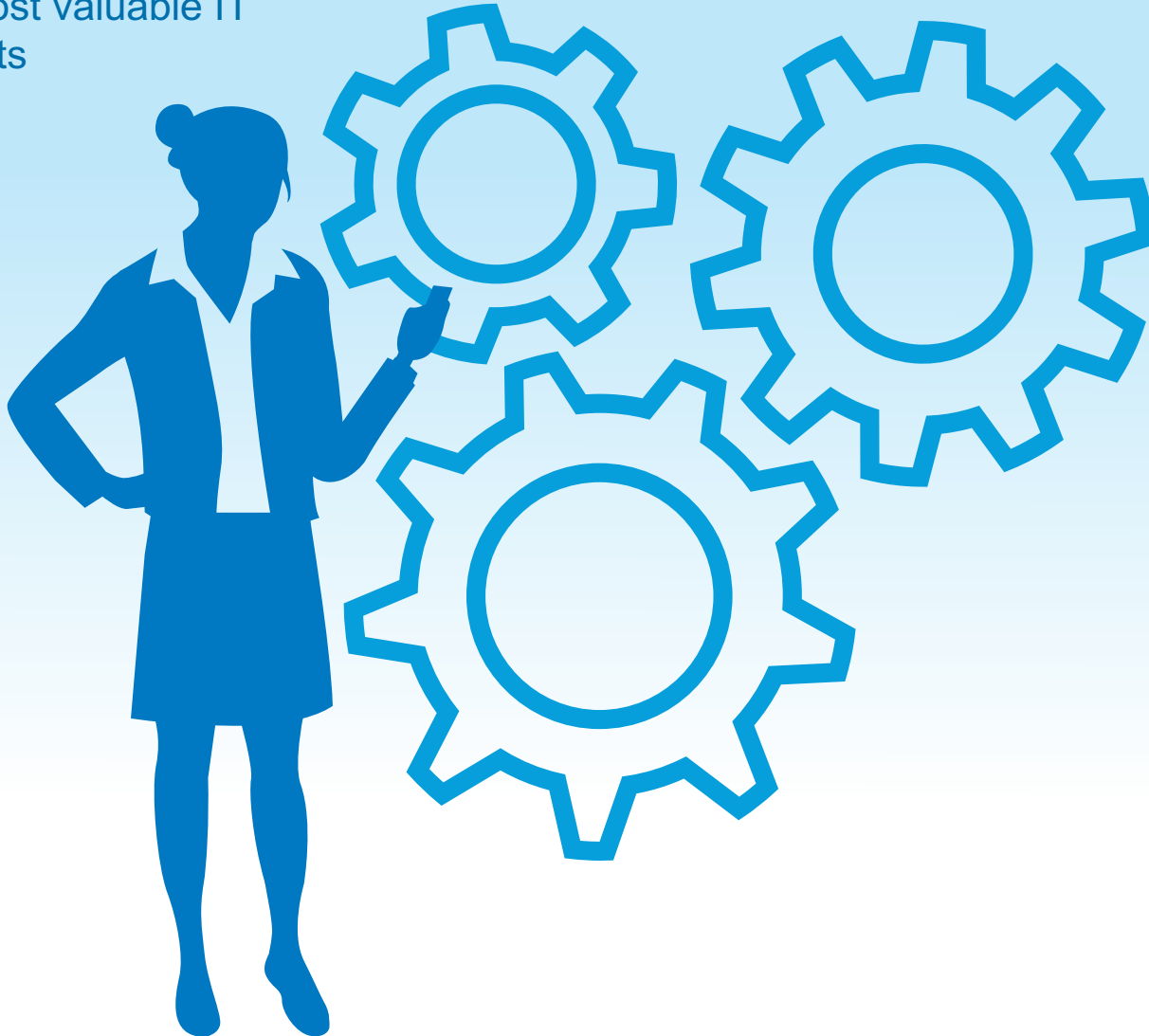
How many projects running in parallel?

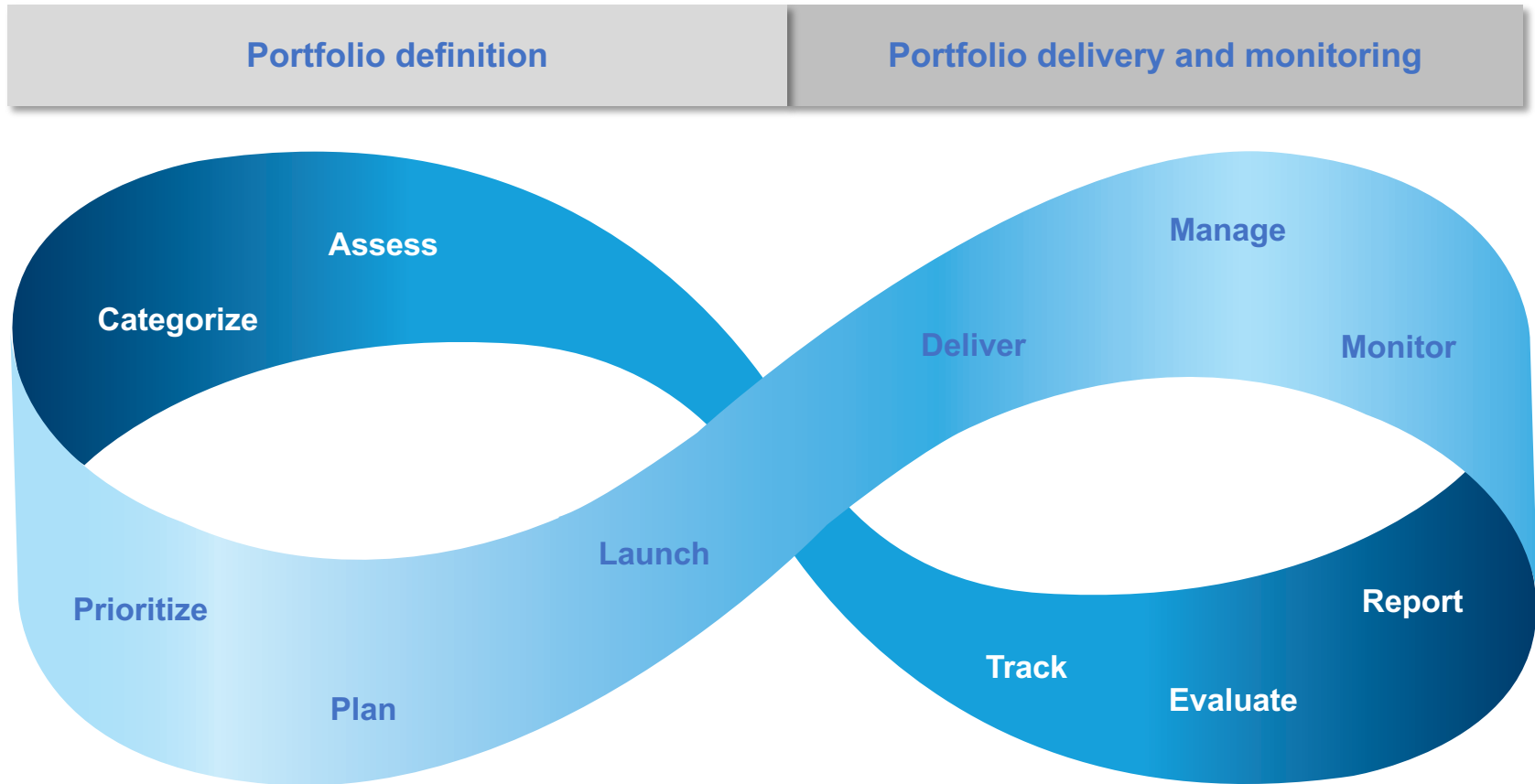


The Aim of the ITPPM is

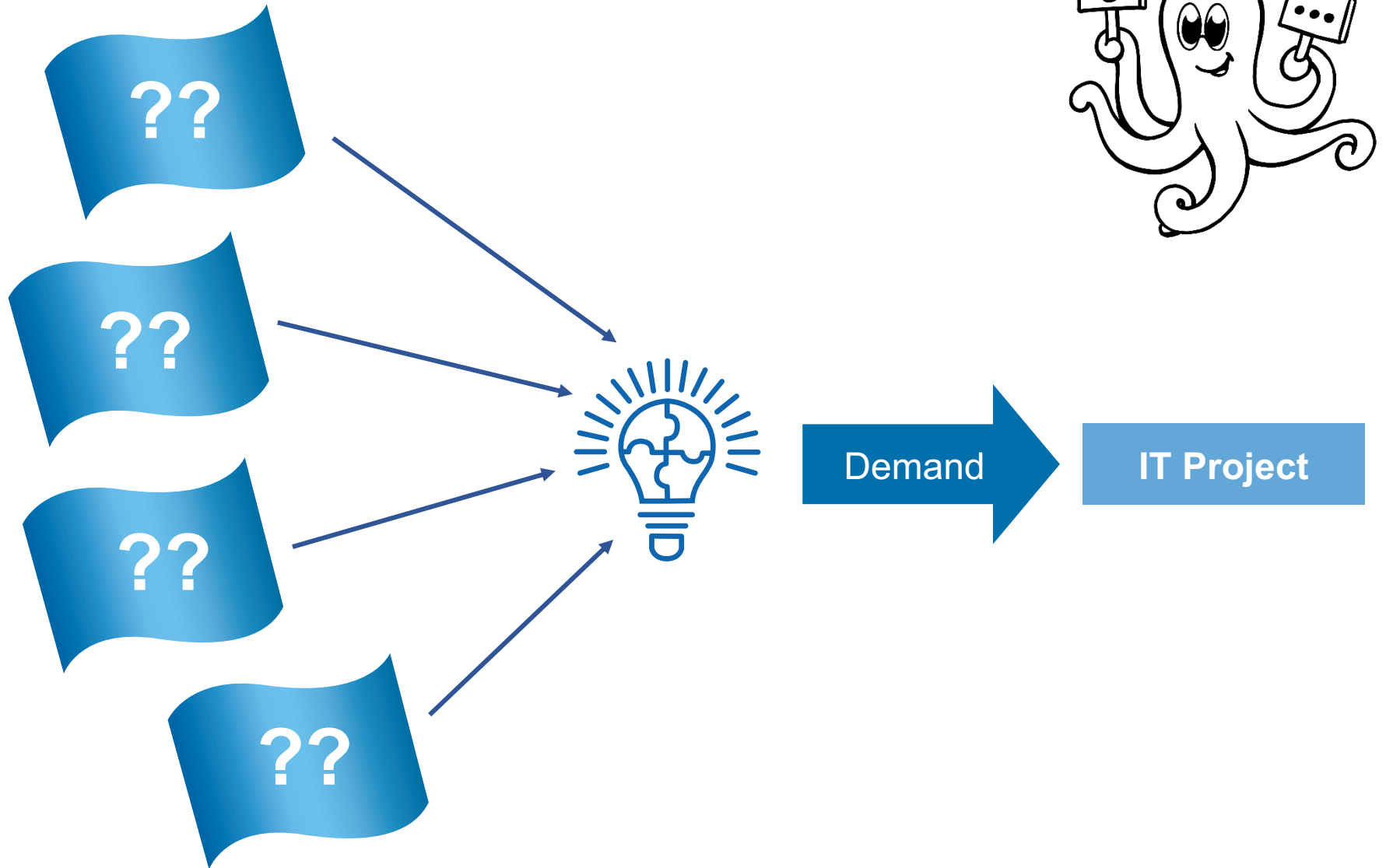


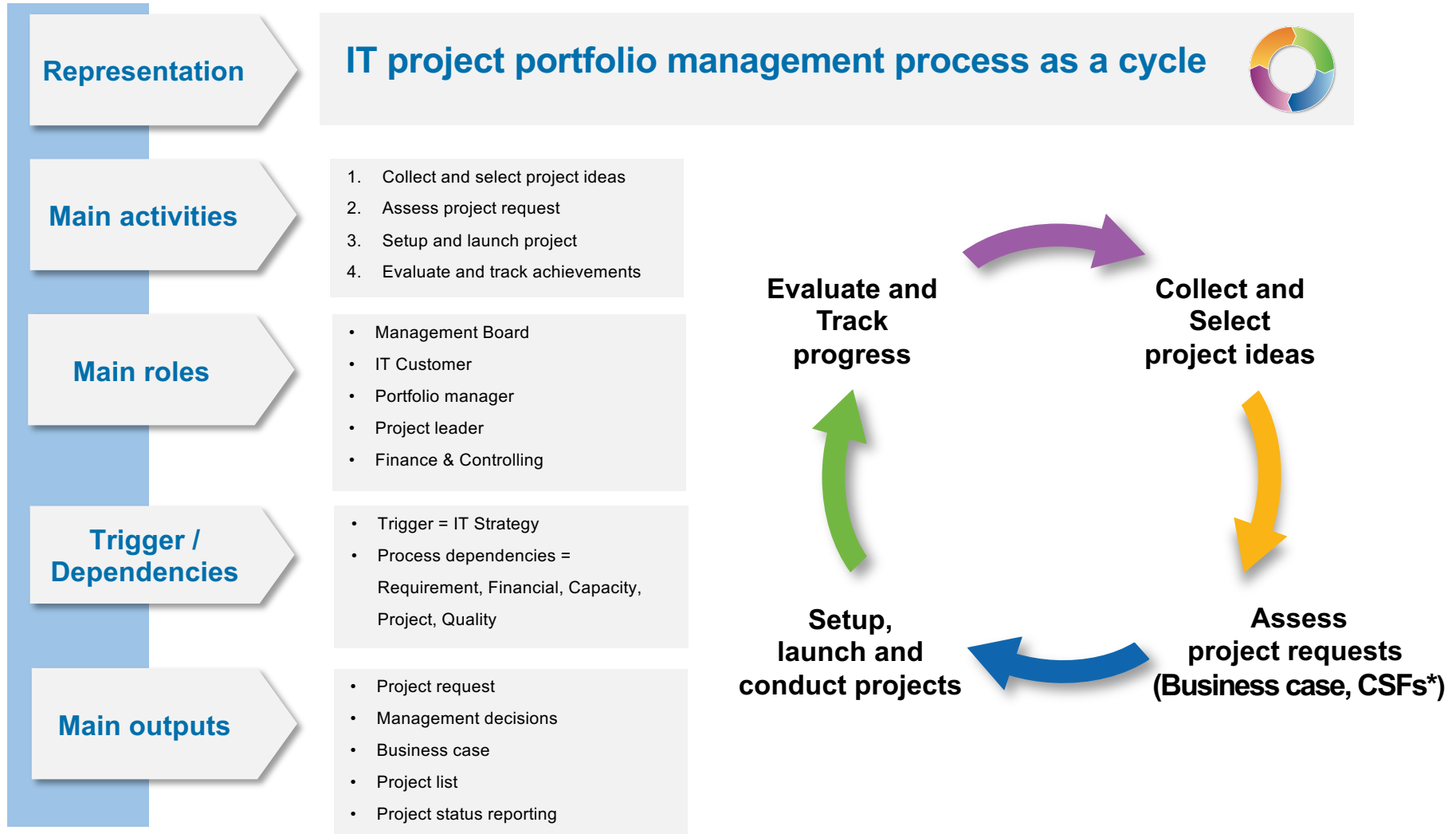
to ensure the selection of
the most valuable IT
projects





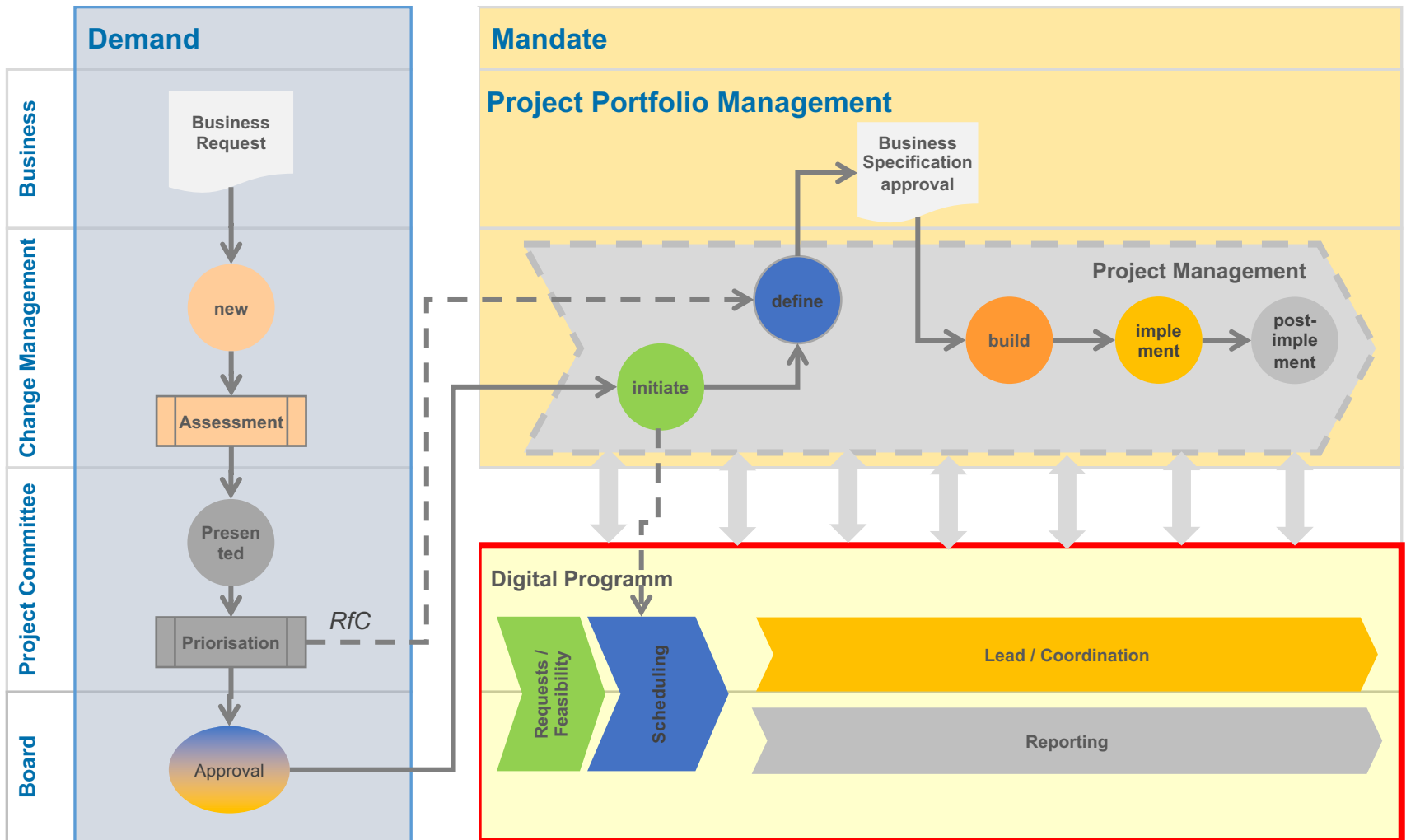
Where do projects come from?





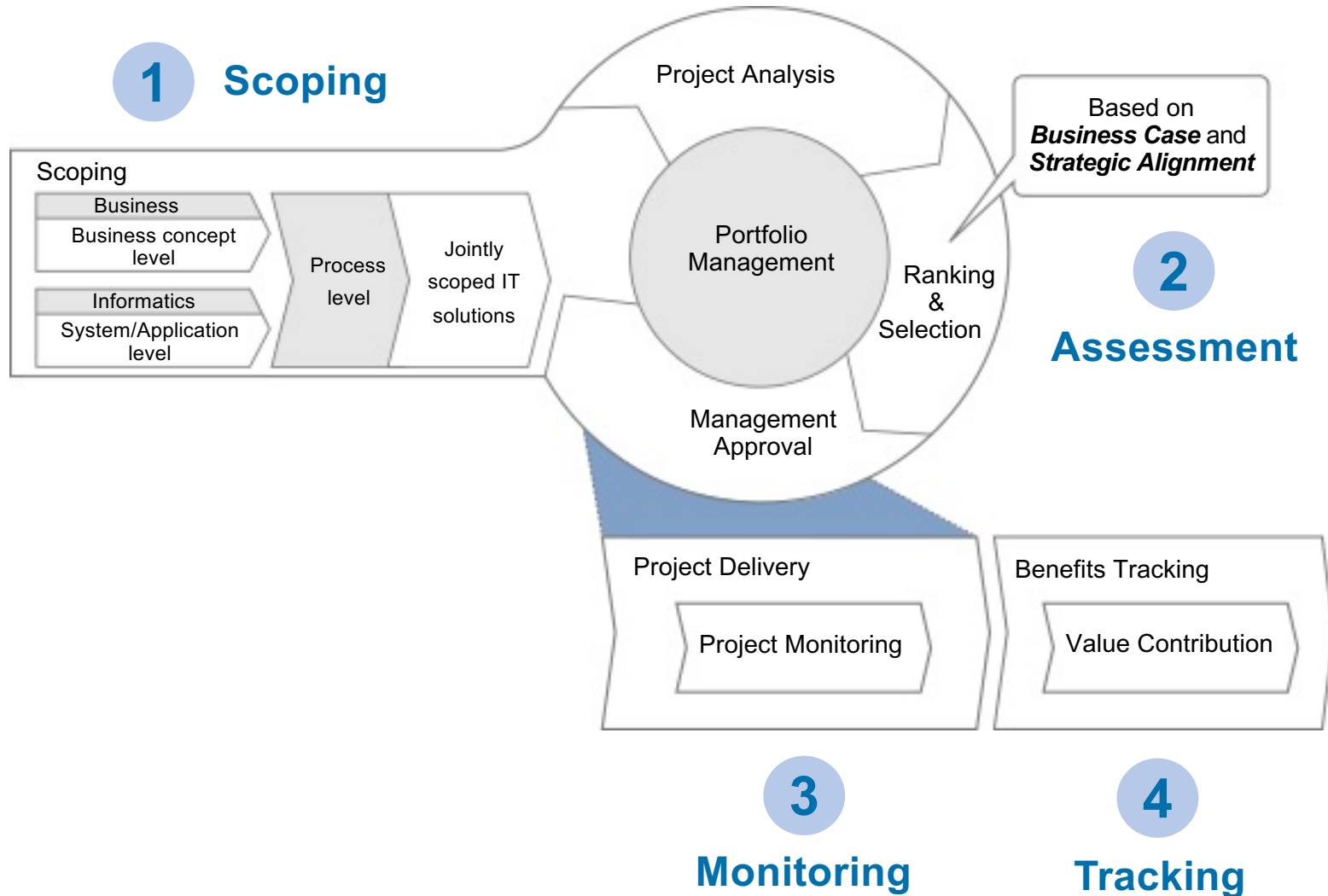
* (CSFs = Critical Success Factors)

Process example: from Demand to Project



RfC: Request for Change

A step-by-step Approach





Business Problem or Opportunity

- Description of current situation
- Description of the current problem and the potential impact on customers
- Indication about the quantitative magnitude of the improvement idea

Improvement Objectives

- Status to be achieved once the project is done
- Description of the new situation to be reached
- Impact on customers

Strategic relevance and potential benefits

- Link to the company strategy
- Benefits for the company and the implementation of the strategy

Project delivery and deliverables

- Design of the way to achieve the objectives
- Definition of the deliverables

Financial analysis

- Estimation of savings or increase of revenues

Project boundaries

- Definition of the scope of the potential project
- Precise activities out-of-scope

Stakeholders, Sponsor and competencies needed

- Persons or entities with a real interest for the improvement
- List of persons or entities to be involved

Frame conditions

- Definition of the critical success factors

Deadlines

- Precise deadlines to be met





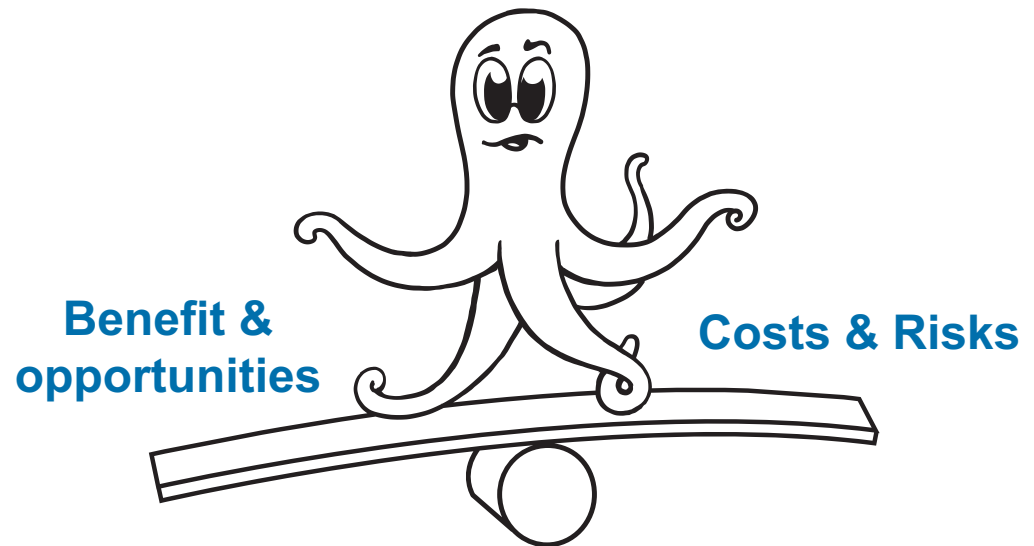


Business Case based on a financial analysis

- External Costs
Consultancy, SW, HW
- Internal Manpower versus
- IT Benefits
Headcount reduction, operating cost reduction
- Business Benefits
Profit generation, Headcount reduction

Strategic alignment to support the business strategy

- Company growth
new business, increased customer value
- Cost effectiveness



Business Case: Estimating costs



Project Costs	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Internal IT staff						-
Other internal staff						-
Total Secondary Costs	-	-	-	-	-	-
External IT Services						-
Hardware						-
Software Licences						-
Ext. business backfilling staff						-
Others (travel, expenses, ...)						-
Total Primary Costs	-	-	-	-	-	-
Project Budget	-	-	-	-	-	-
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Investment (CAPEX)			-	-	-	0
Incremental Operational Costs (OPEX)	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Internal IT staff						-
External IT staff						-
Business staff						-
HW / SW depreciation from Investment	-	-	-	-	-	-
HW/SW Maintenance						-
Others						-
Total Incremental Operating Costs	-	-	-	-	-	-
Total Costs, with Depreciation	-	-	-	-	-	-
Total Costs, without Depreciation	-	-	-	-	-	-

Business Case: Estimating benefits



Tangible Benefits						
<u>Business Benefits</u>	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Headcount reduction						-
Operating Cost Reduction						-
Additional Profit Generation						-
Others						-
<u>IT Benefits</u>						
Headcount reduction						-
Operating Cost Reduction						-
System replacement						-
Others						-
Total Tangible Benefits	-	-	-	-	-	-
Cost avoidance	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Avoiding other investments						-
Others						-
Total Cost avoidance	-	-	-	-	-	-
Intangible Benefits:						
Total Benefits, without cost avoidance	-	-	-	-	-	-
Total Benefits, with cost avoidance	-	-	-	-	-	-



ROI1 (without cost avoidance)							-
Net financial cumulated benefits		-	-	-	-	-	
Payback 1	(net financial cumulated benefits > 0)						
ROI2 (with cost avoidance)							-
Net financial cumulated benefits		-	-	-	-	-	
Payback 2	(net financial cumulated benefits > 0)						

- **ROI** (Return on Investment): performance measure used to evaluate the efficiency of an investment by dividing the benefit (or return) of an investment by the cost of the investment

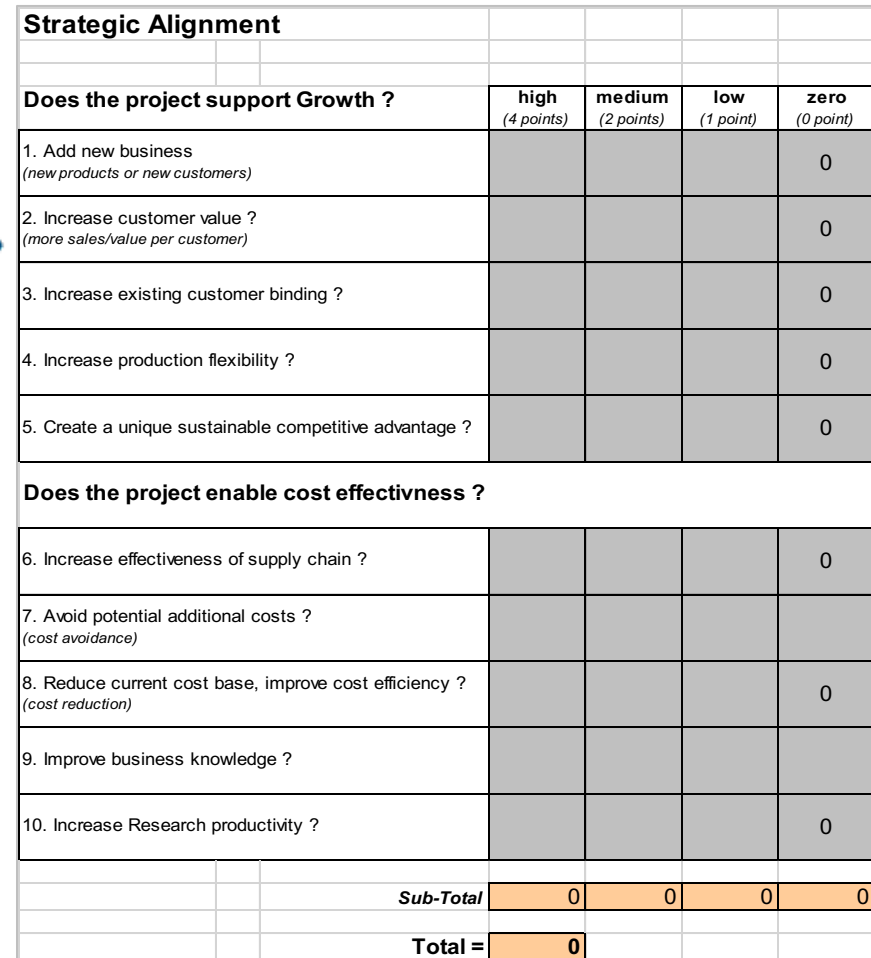
$$ROI = \frac{R}{I}$$

R = Return (some measure of value)
I = Investment (some measure of cost)

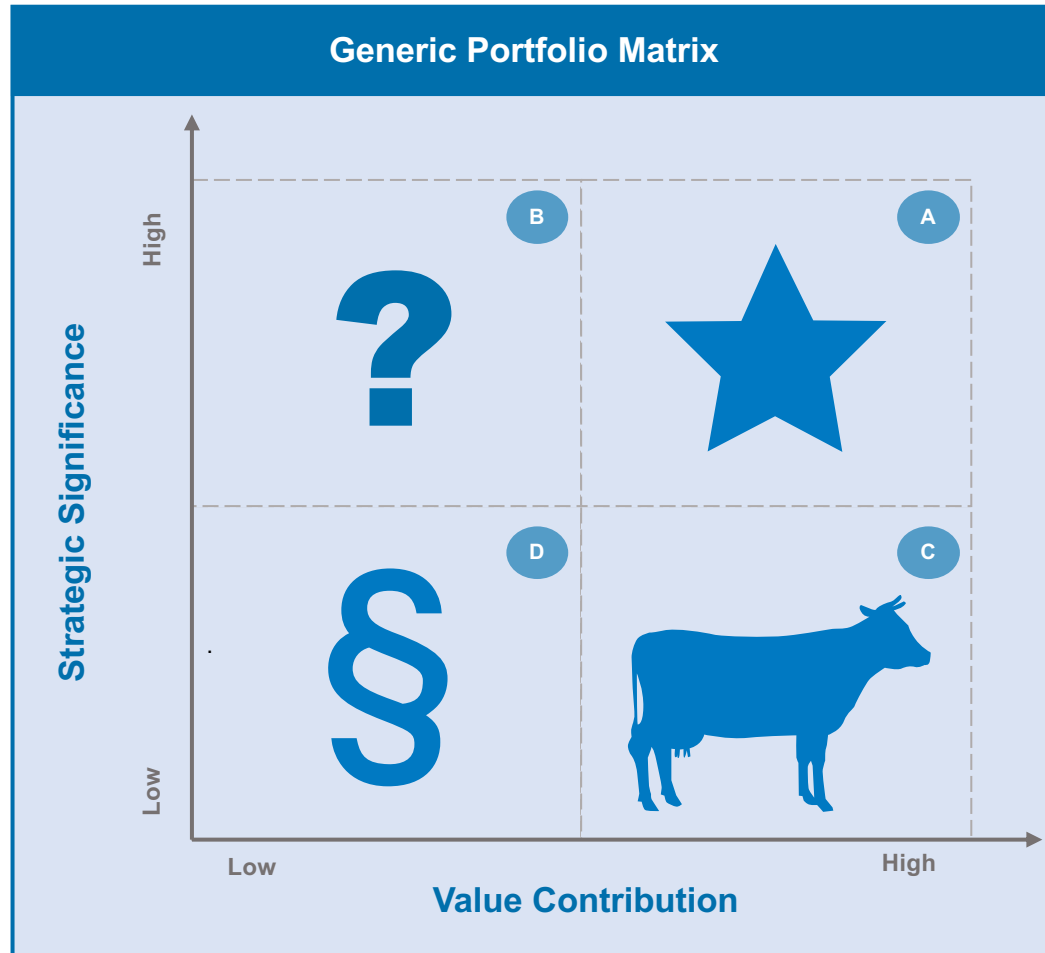
- **Payback**: period which refers to the amount of time it takes to recover an investment. It corresponds to the length of time where an investment reaches a break-even point.
- **NPV** (Net Present Value): difference between the present value of cash inflows and the present value of cash outflows over a period of time

$$NPV = \sum_{t=1}^n \frac{R_t}{(1+i)^t}$$

R_t = Net cash inflow-outflows during a single period *t*
i = Discount rate or return that could be earned in alternative investments
t = Number









Step 3: the Portfolio Matrix



Example of a strategic portfolio planning



Projects		---- Costs [MCHF] ----				Yn	Year n+1					Year n+2			
		Total	Yn	Yn+1	Yn+2		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Area	TOTAL	24.8	4.5	14.7	5.6										
	Program Management	1.5	0.2	0.9	0.4										
	Program 1	6.5	0.9	3.2	2.4										
	Sales reorganisation	2.4	0.6	1.8	-										
	SAP 3.1 Upgrade	0.8	0.3	0.5	-										
	Customer Service Optimisation	0.8	-	0.2	0.6										
	Operation Optimisation	1.2	-	0.3	0.9										
	Inventory Optimisation	0.8	-	0.1	0.7										
	SAP Rollout	0.4	-	0.4	-										
	Program 2	8.0	0.3	5.0	2.7										
	System Integration	0.3	0.3	-	-										
	Factory Implementation	3.6	-	3.4	0.2										
	Emerging Markets	1.2	-	1.2	0.1										
	New Plant	0.2	-	0.2	-										
	SAP Integration	2.5	-	-	2.5										
	Euro Conversion	0.9	0.2	0.7	-										
	SAP1	0.5	0.2	0.3	-										
	SAP2	0.4	-	0.4	-										
	e-Commerce	7.9	2.9	* 5.0	-										
Unit	TOTAL	1.7	0.1	1.6											
	B2B Extension	1.4	0.1	1.3											
	Business Warehouse Upgrade	0.8	-	0.8											
	Delivery Pricing on SAP	0.1	-	0.1											



Performance Achievement Reporting

Monitor and feed back
Project results (actual
benefits vs. baseline
vs. target)

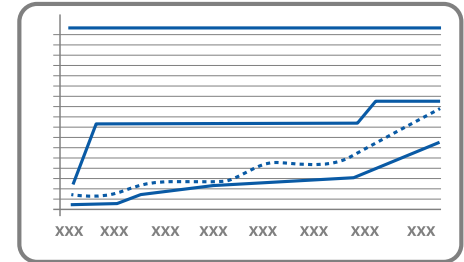


Financial Benefits Achievement Reporting

Converts the performance
improvement into financial
figures



Transforming operational
improvements into benefits

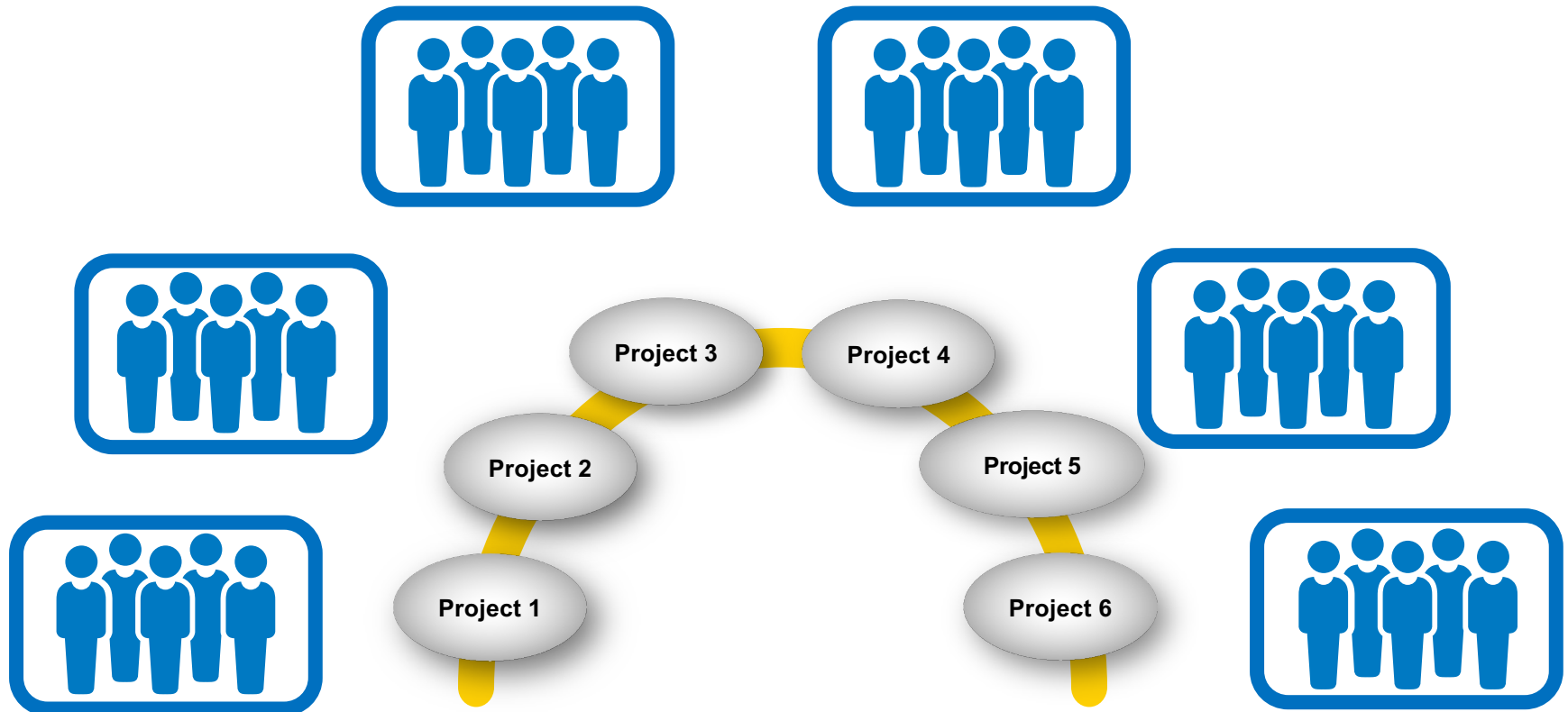


Giving some decision support
information

Defining the Portfolio Matrix



- Evaluate the business case
- Assess the strategic alignment
- Position the project on the portfolio matrix





Helpdesk Outsourcing

The company has different locations over 4 continents and wants to harmonize the helpdesk processes.

The IT Management asks you to investigate possibilities to reduce IT costs, especially by analyzing an outsourcing model in India. This should apply to IT Helpdesk and 1st Level Support.



Data Entry outsourcing

Outsource your data entry work, or hire entry agents.

[Learn More](#)



Web Development outsourcing

Outsource troubleshooting

[Learn More](#)



IT Support outsourcing

IT Support for your Business or for your customer. Build your team.

[Learn More](#)



Network Support outsourcing

Outsource troubleshooting

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Help Desk outsourcing

Outsource your help desk to our technical agents.

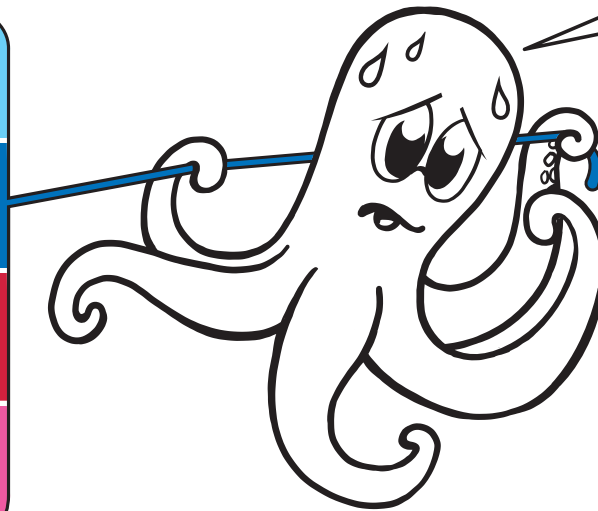
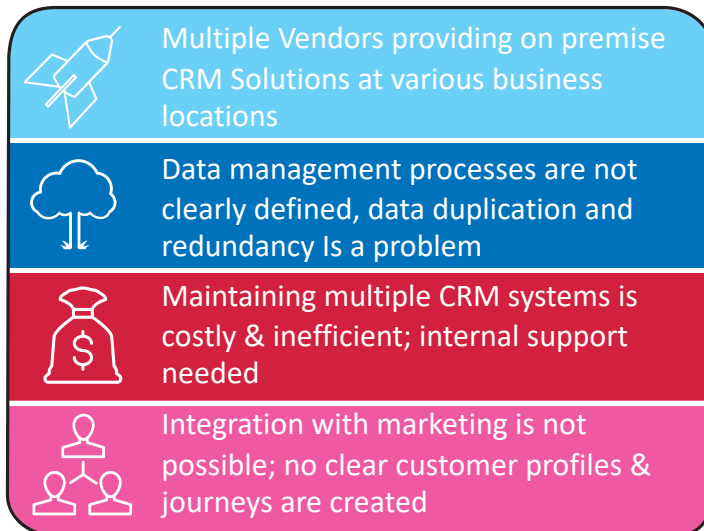
[Learn More](#)



Global CRM

The company wants to have a global CRM system in place to manage local and international customers with the same platform.

The idea is to have a cloud solution in place so that customer data sets are available all over the world as some customers become global players.



Existing CRM solutions are outdated and not able to support the needs of the growing global business.



eBilling

Saving time, paper and money...

- Send invoices electronically to our customers
- Direct delivery of e-bills from our software solutions
- No printing and shipping costs
- Better data quality: no need for subsequent credit data enquiries
- Higher delivery rate as there is no change of address and quicker payment receipt
- Unchanged credit processes



Go Green

Sign up for E-Billing



Cloud-based HR Management

Outsourcing of Payroll and Personnel Administration

- More time for core business?
- Cost effectiveness
- Need for clearly defined processes especially for the routine tasks
- No in-house skills in HR Management?
- Need for smart Engagement and Recruitment through leveraging social data



New data center

Many HW are end of life and the current data center is not compliant anymore as it does not fulfill the new security requirements. The idea is to move from the in-house infrastructure to a modern cloud infrastructure.

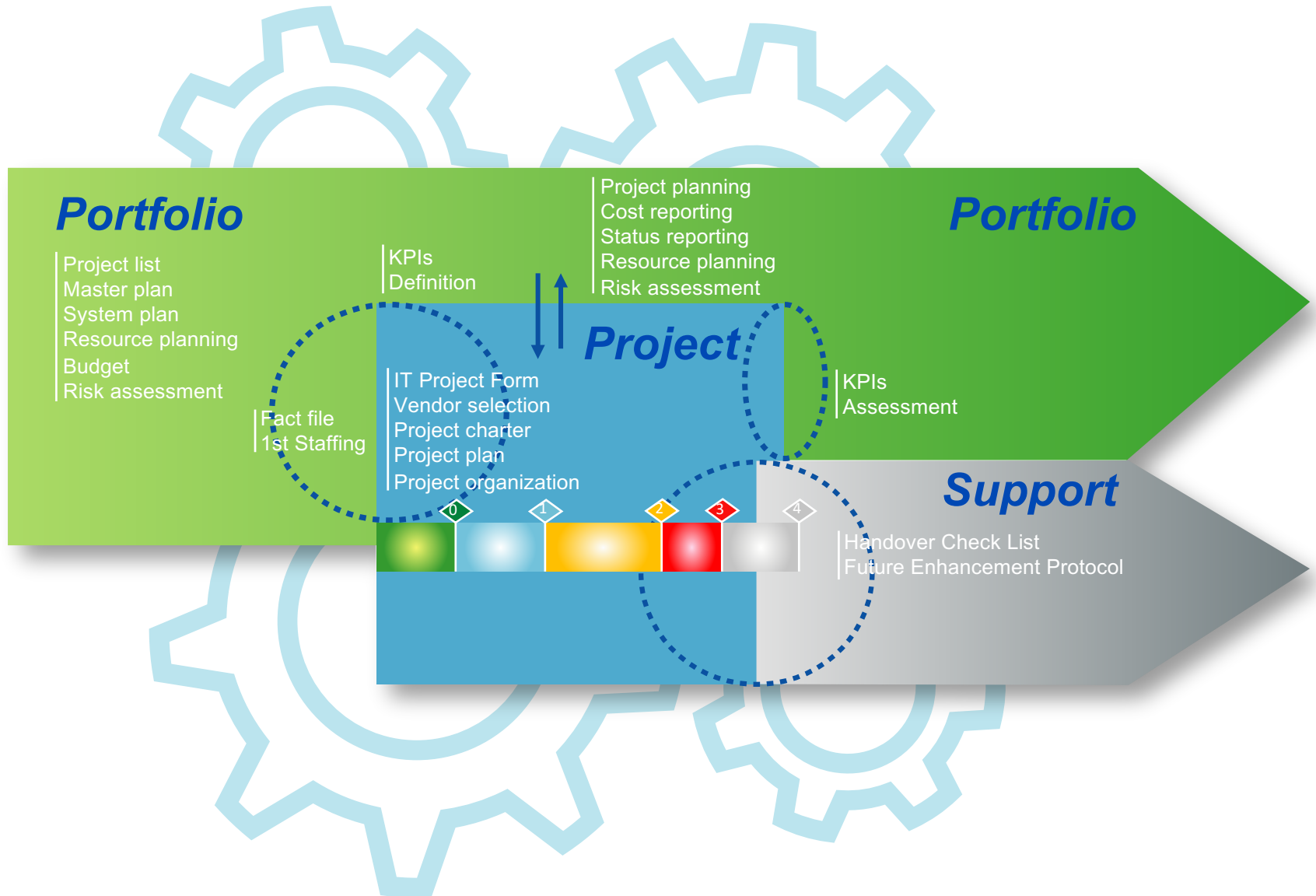


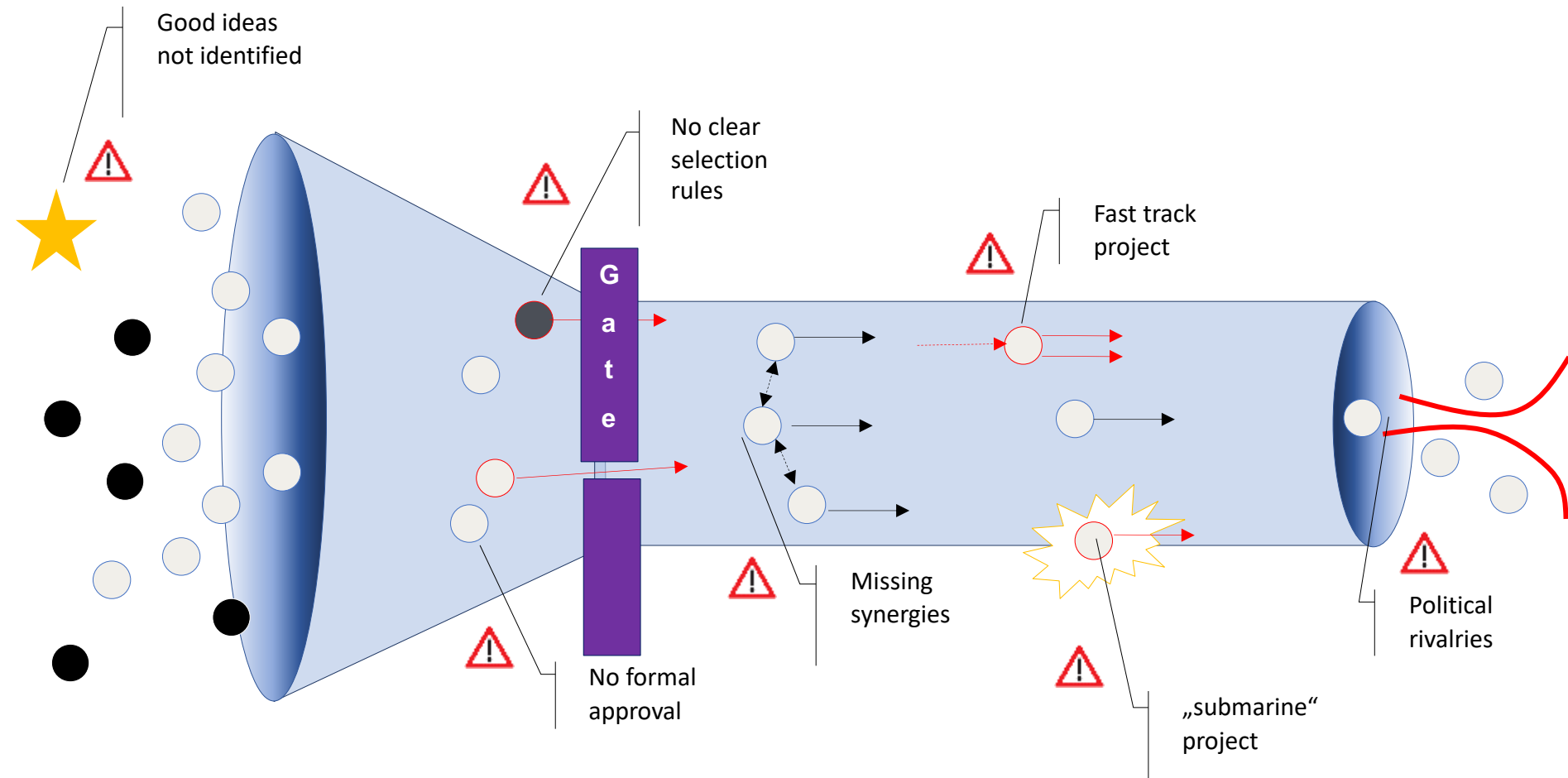


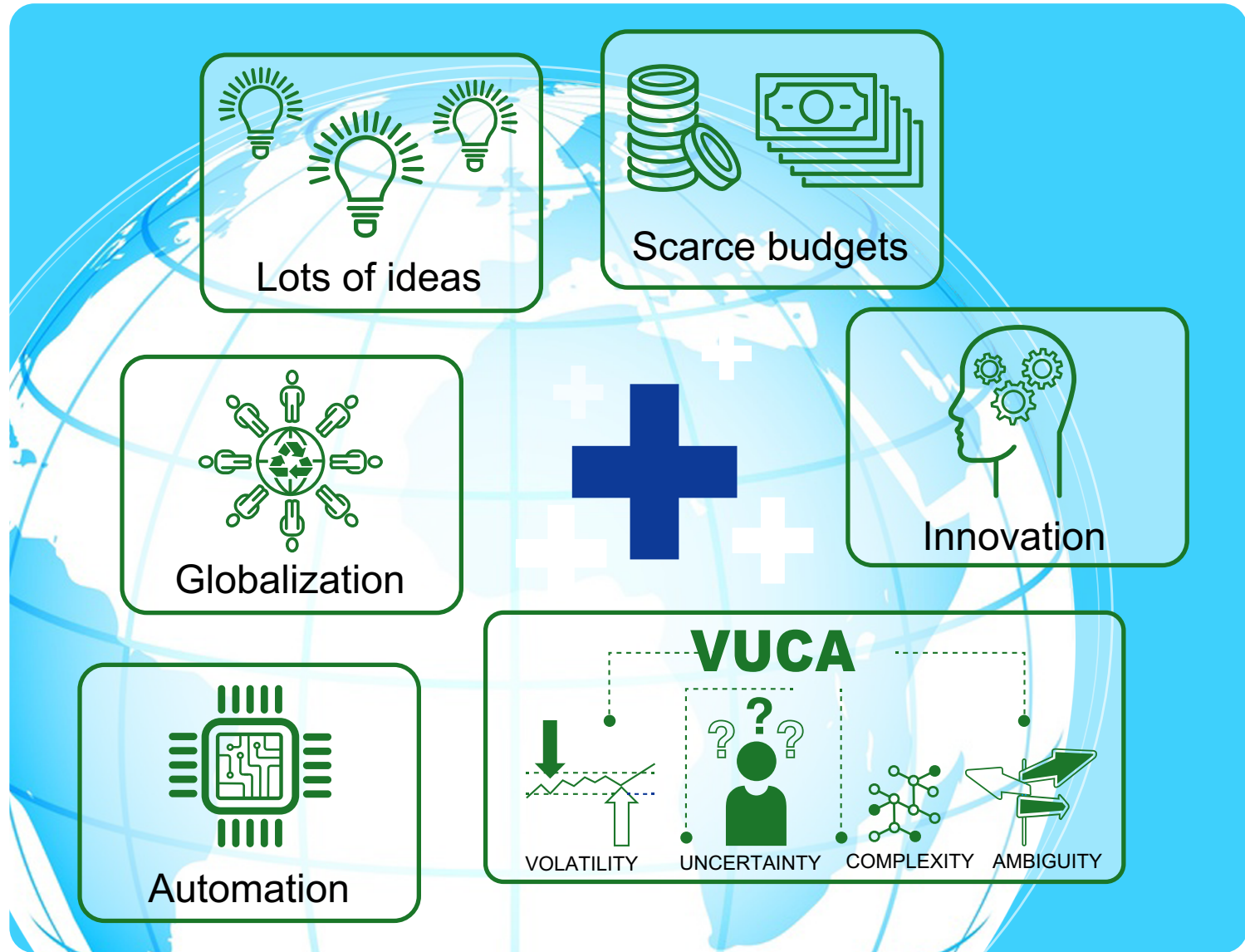
Data Management

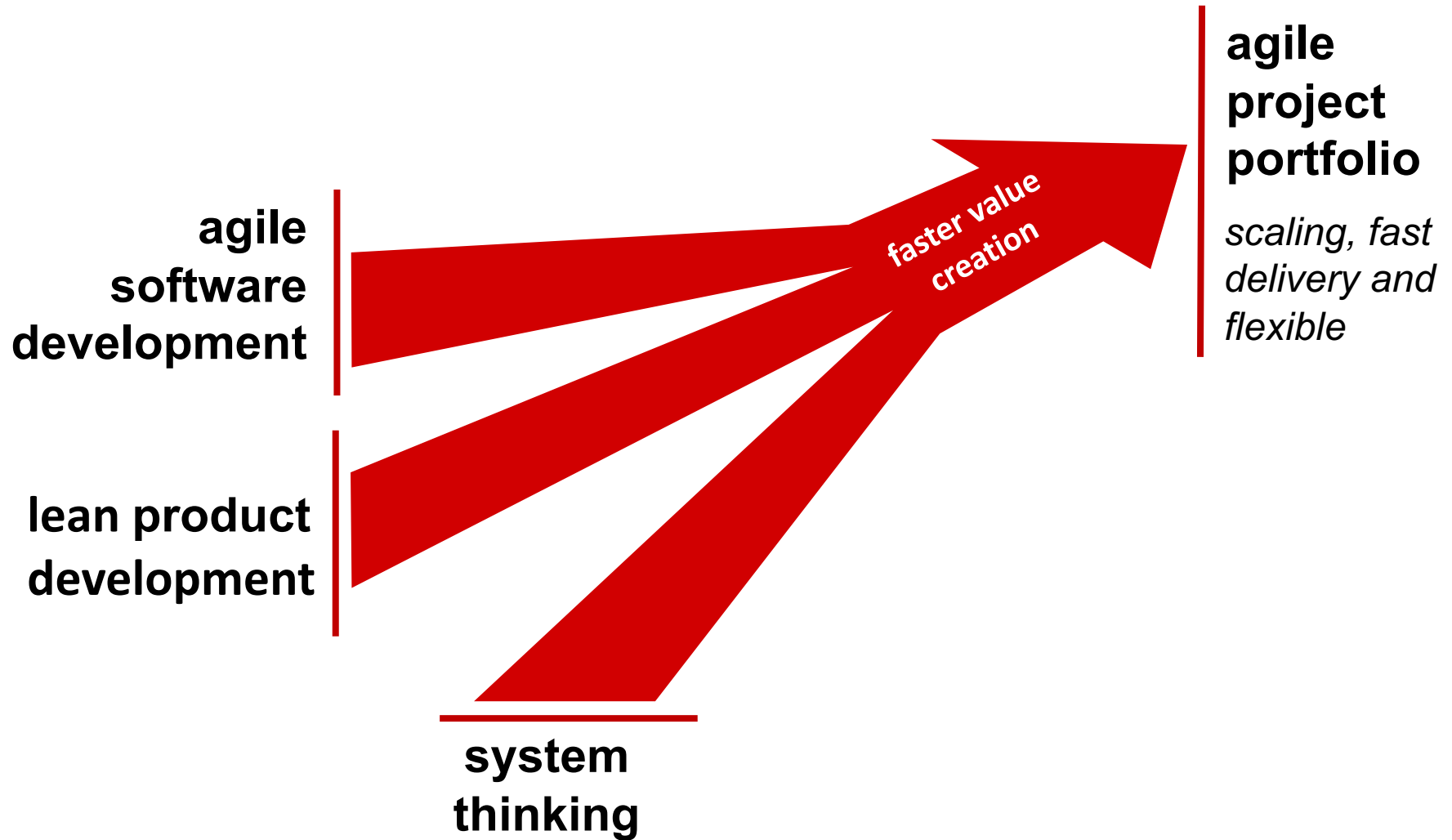
Within the digitalization, it has been noticed that the quality of data is not sufficient. The project should aim at identifying the major gaps, finding sustainable procedures and addressing the new GDPR requirements concerning data privacy.













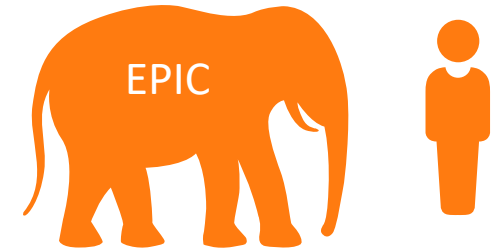
Scalable Agile Framework (SAFe)	<p>Framework for scaling Agile</p> <p>SAFe provides guidance for all the levels of the enterprise that are actively engaged in solution development: Team, Program, Large Solution, and Portfolio. The result is greater alignment and visibility across the organization, connecting the business strategy to execution, enabling better business results, faster, and with a higher degree of predictability and quality.</p> <p>Source: https://www.scaledagileframework.com/</p>
Scrum of Scrums (SoS)	<p>Scaling Agile with Scrum Of Scrums (SoS)</p> <p>The goal of Scrum of Scrums is to synchronize the work of the different Scrum teams and to identify team developments that influence other teams in implementing their requirements</p> <p>Source: https://www.agilest.org/scaled-agile/scrum-of-scrums/</p>
Disciplined Agile Delivery (DaD)	<p>Framework with three phases: Inception, construction, and transition</p> <p>DAD, with its four lifestyle models (Agile basic, Lean/advanced, Continuous delivery, and Exploratory) is more flexible than SAFe because it recognizes the differences in projects and allows teams more flexibility in process decisions.</p> <p>Source: https://www.agilest.org/scaled-agile/disciplined-agile-delivery-dad/</p>
Large Scale Scrum (LeSS)	<p>Large Scale Scrum</p> <p>LeSS is different with other scaling frameworks in the sense that it provides a very minimalistic framework that enables empiricism on a large-scale which enables the teams and organization to inspect-adapt their implementation based on their experiences and context. Source: https://less.works/</p>



EPIC

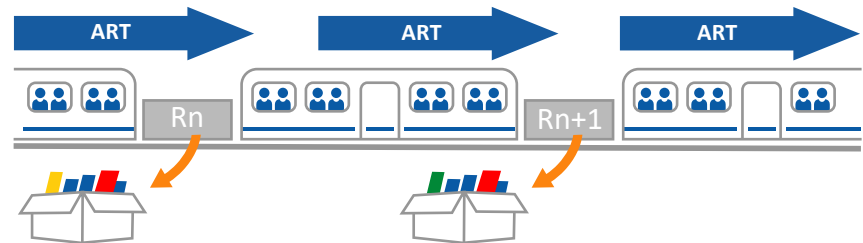
an epic represents a large requirement as a series of user stories to achieve a broader strategic objective

Example:
wish list for customers



Agile Release Train (ART)

System implementation by integrating developments to productive systems

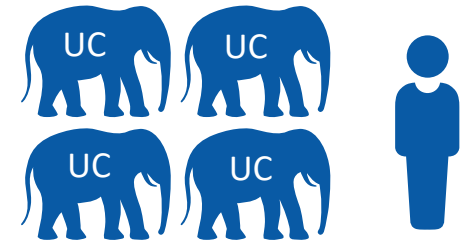


User Story / Use Case (UC)

individual feature or business requirement to be delivered within a single sprint

Example:

UC1: display existing wish list
UC2: add a new product to wish list

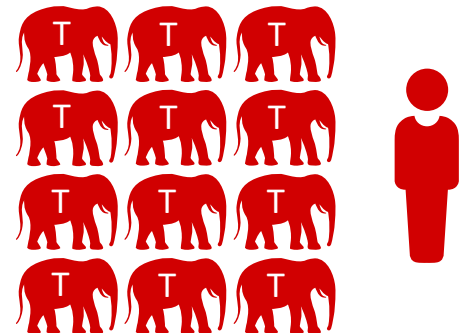


Task

smallest unit used to track work; a task should be worked on by just one person

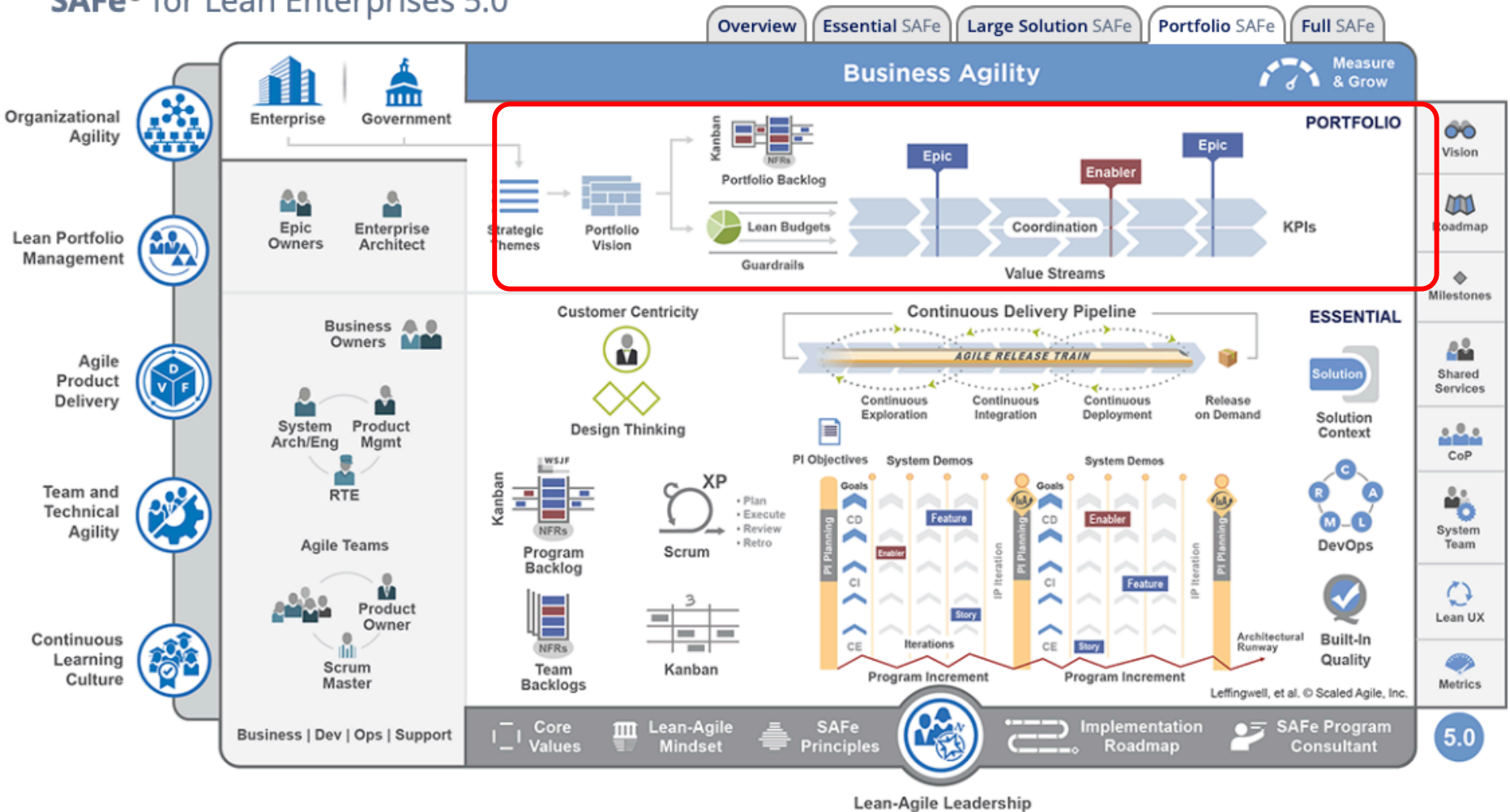
Example:

T1: wish button on all product pages
T2: add wish list to product view
T3: save new wish list
T4: view wish list

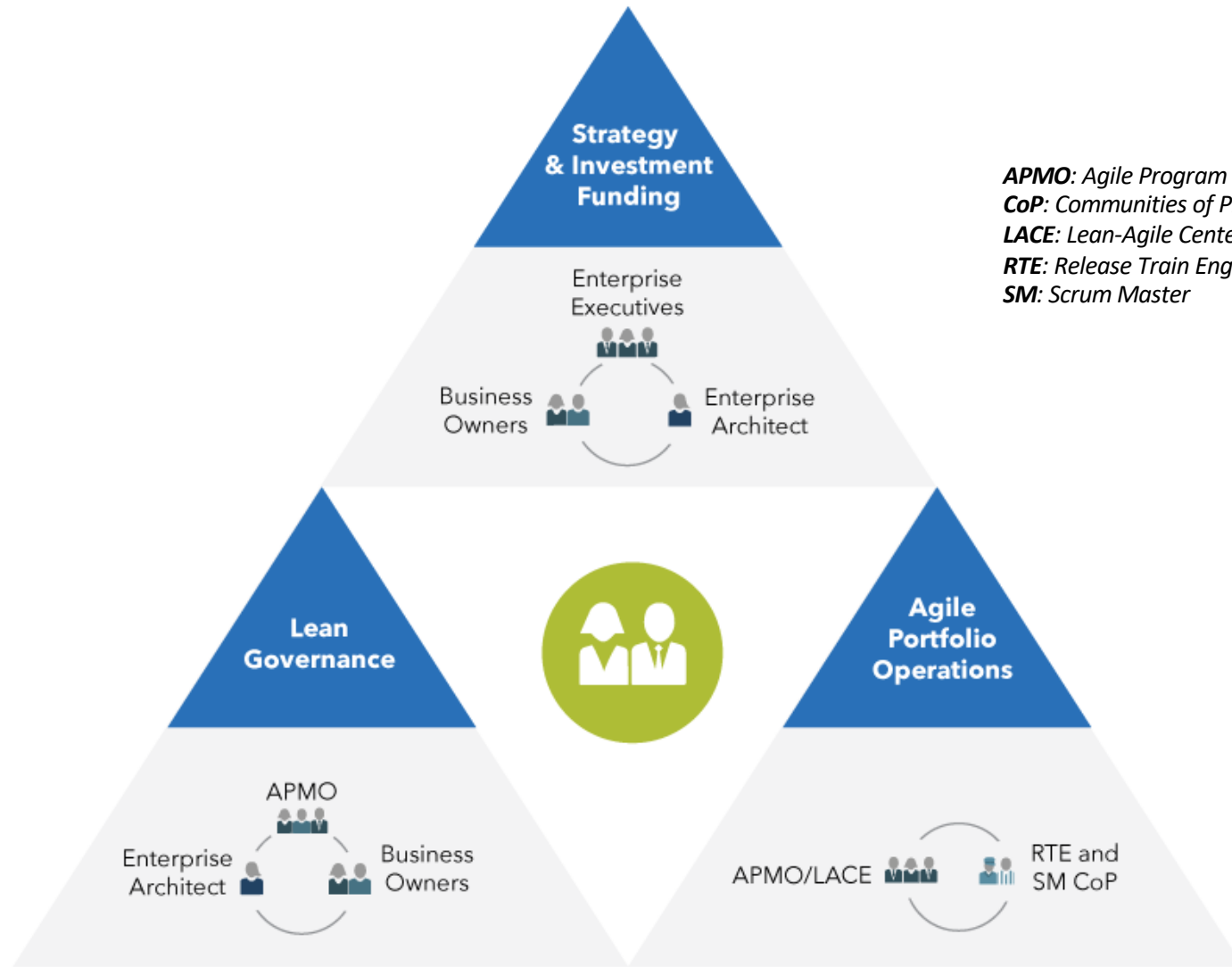




SAFe® for Lean Enterprises 5.0



The three dimensions of the Lean Portfolio Management

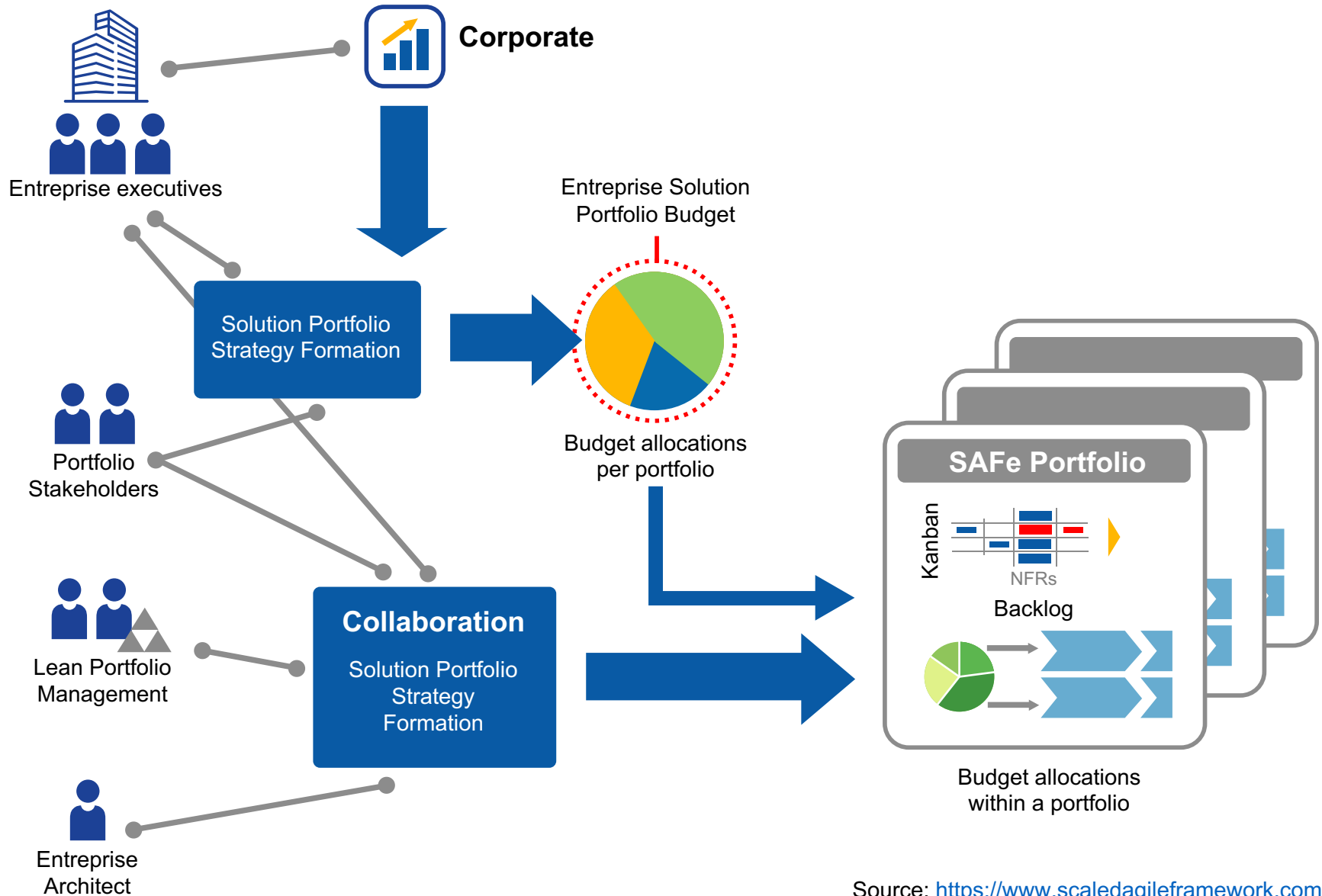


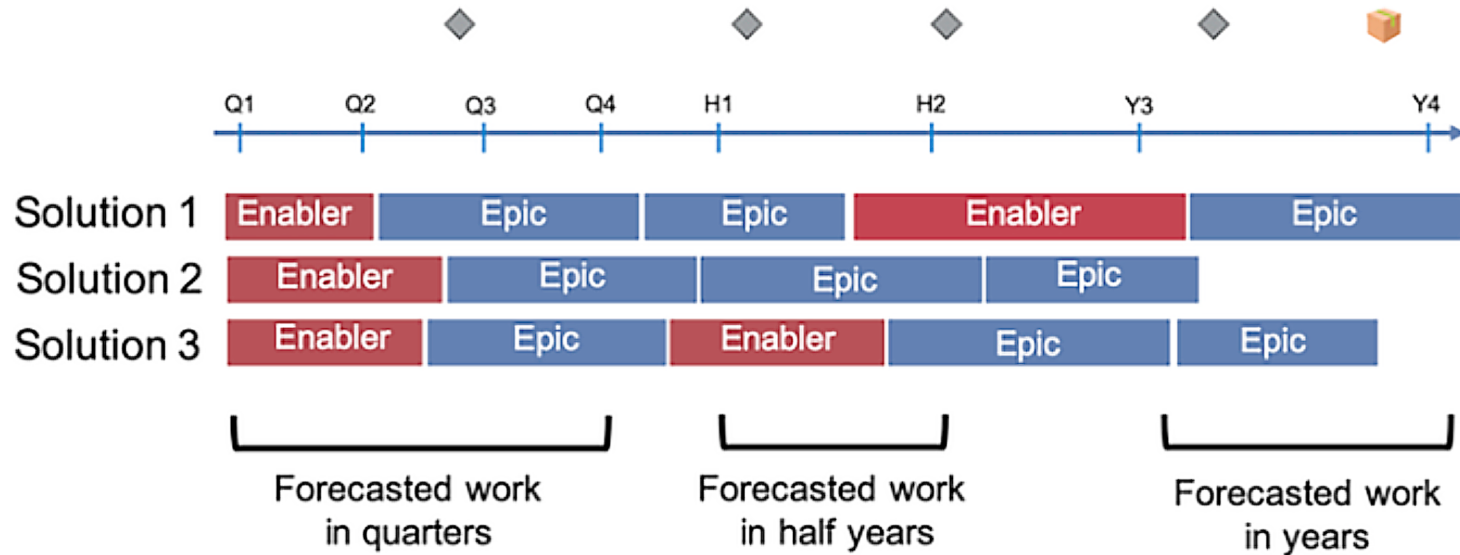
APMO: Agile Program Management Office
CoP: Communities of Practice
LACE: Lean-Agile Center of Excellence
RTE: Release Train Engineer
SM: Scrum Master

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Source: <https://www.scaledagileframework.com/>

Strategic Themes and Lean Budgets





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Enablers bring visibility to all the work necessary to support efficient development and delivery of future business requirements. Primarily, enablers are used for exploration, evolving the architecture, improving infrastructure and compliance activities.
Examples: documentation and signoffs, test automation, automated deployment, prototyping, regulatory approvals



A long view:

- ▶ How will our portfolio of future solutions solve the larger customer problems?
- ▶ How will these solutions differentiate us?
- ▶ What is the future context within which our solutions will operate?
- ▶ What is our current business context, and how must we evolve to meet this future state?



Strategic themes

specific driving elements that link the portfolio vision to the overall strategy of the company

Vision: A postcard from the future



- ▶ Aspirational, yet realistic and achievable
- ▶ Motivational enough to engage others on the journey

Result: Everyone starts thinking about how to apply their strengths in order to get there.

Switch: How to Change Things When Change is Hard, Heath and Heath, Broadway Books, 2010



Value streams

longer-term development projects that create a continuous flow of new products and services

Use the portfolio canvas
















Portfolio Canvas

Portfolio Name:

Date:

Version:

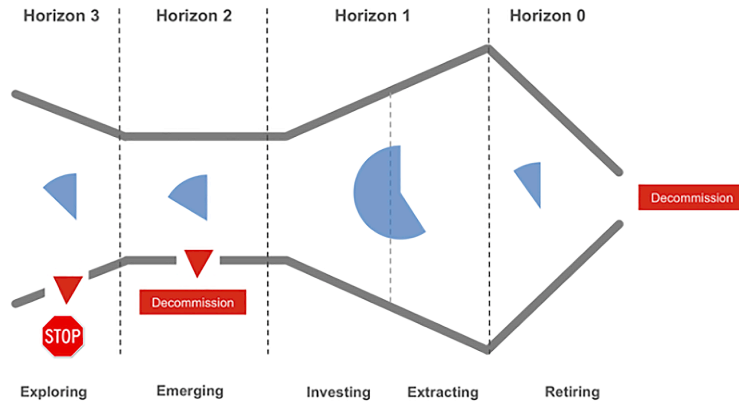
Value Propositions 						
Value Streams 	Solutions 	Customers 	Channels 	Customer Relationships 	Budget 	KPIs / Revenue 
Key Partners 		Key Activities 		Key Resources 		
Cost Structure 		Revenue Streams 				

The Portfolio Canvas is adapted from The Business Model Canvas (<http://www.businessmodelgeneration.com>).
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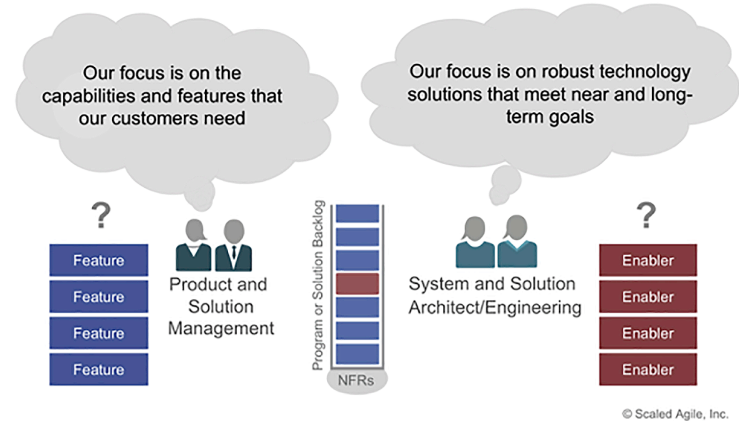
Source: <https://www.scaledagileframework.com/>



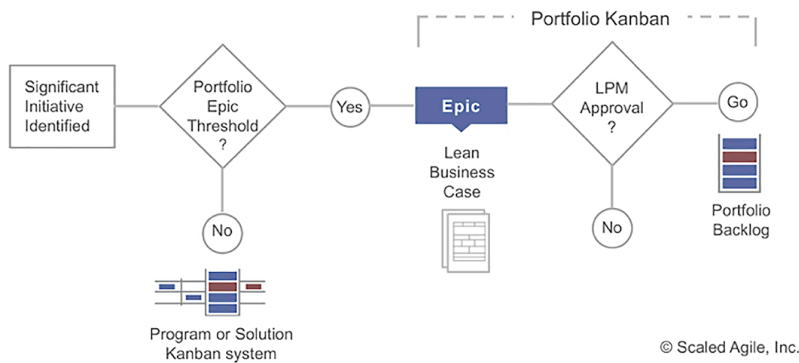
Guardrail 1: Guiding Investments by Horizon



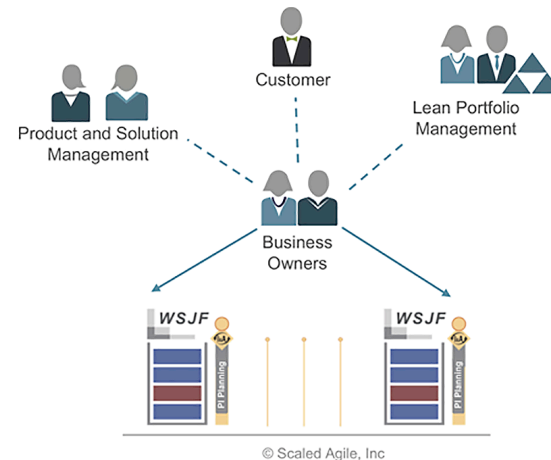
Guardrail 2: Apply Capacity Allocation



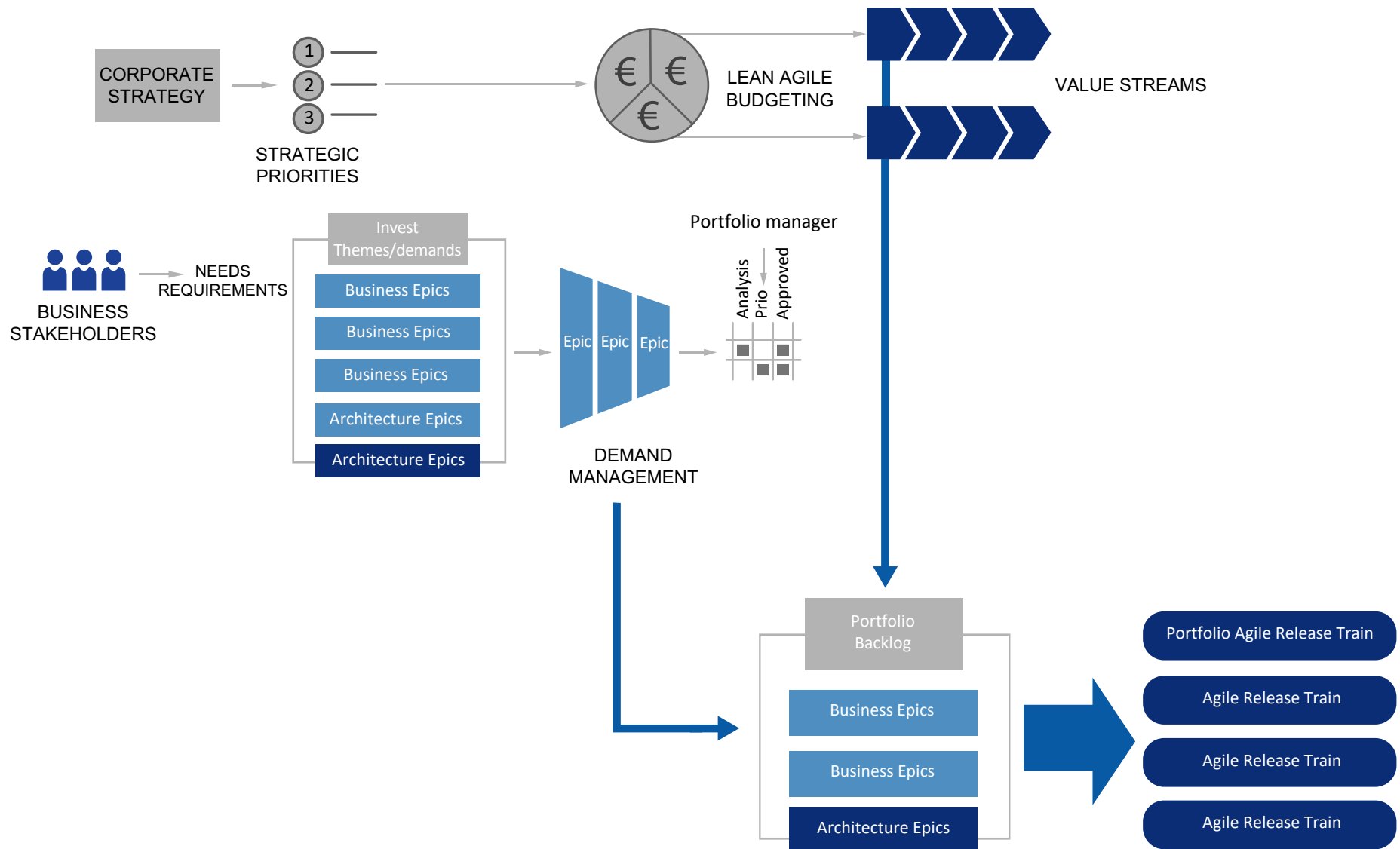
Guardrail 3: Approving Significant Initiatives



Guardrail 4: Continuous Business Owner Engagement



Simplified Process for Lean-Agile PPM



Differences “classic” vs “agile” Portfolio Management



classic

agile

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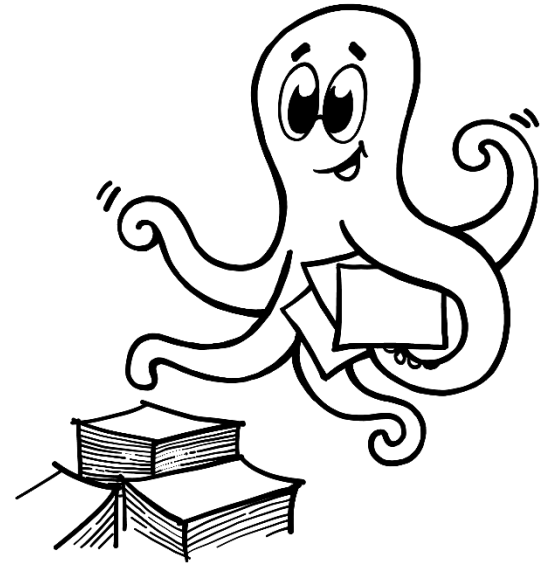
Executive sponsorship (48%), consistent process and practices (41%), implementation of a common tool across teams (36%), and agile consultants or trainers (36%) continue to be cited in the top five tips for successfully scaling agile for the past few years and likely points to the long-term importance of self-sufficiency when scaling agility. The top cited tip this year, internal agile coaches (52%), was a new entry into the top five.



- Which framework?
- Which balance between organisational structures and large-scale agile frameworks?
- How to introduce a new framework (top-down, bottom-up, big bang, incremental)?
- How to bring the evidence-based use of large-scale agile frameworks?



- The function of project portfolio
- The assessment criteria to select demands
- Calculation of a ROI
- The portfolio matrix
- The SAFe model





- Mathis C (2016) SAFe Das Scaled Agile Framework – Lean und Agile in Grossunternehmen skalieren. dpunkt, Heidelberg
- Pilorget L, Schell T (2018) IT Management. Springer, Wiesbaden





KNOWLEDGE

