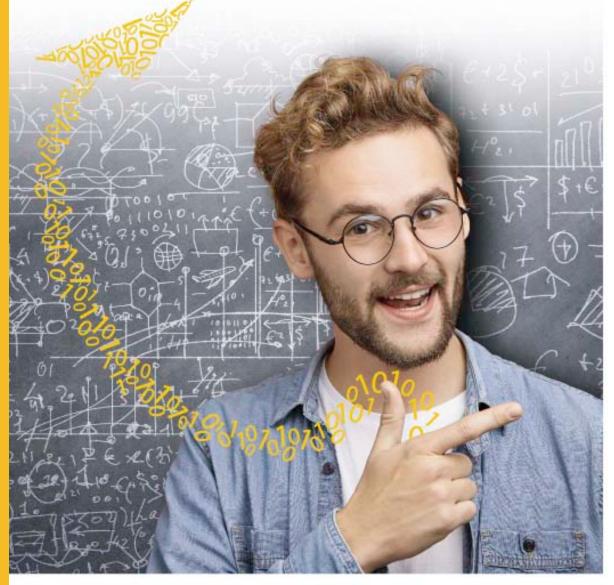
IT Project Portfolio Management (ITPPM)



July 13, 2020 Lionel Pilorget







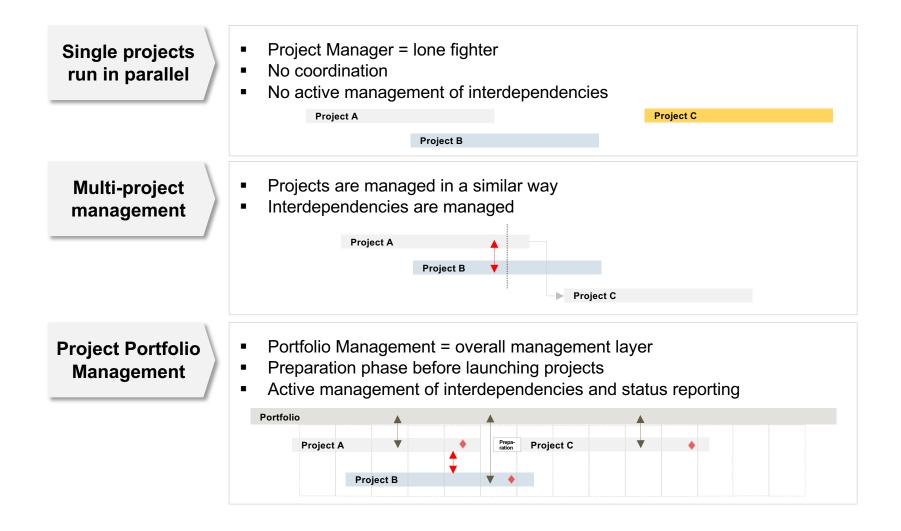


- The Project Portfolio
- From Demands to Projects
- Project Portfolio Matrix
- The Scaled Agile Approach



The Project Portfolio





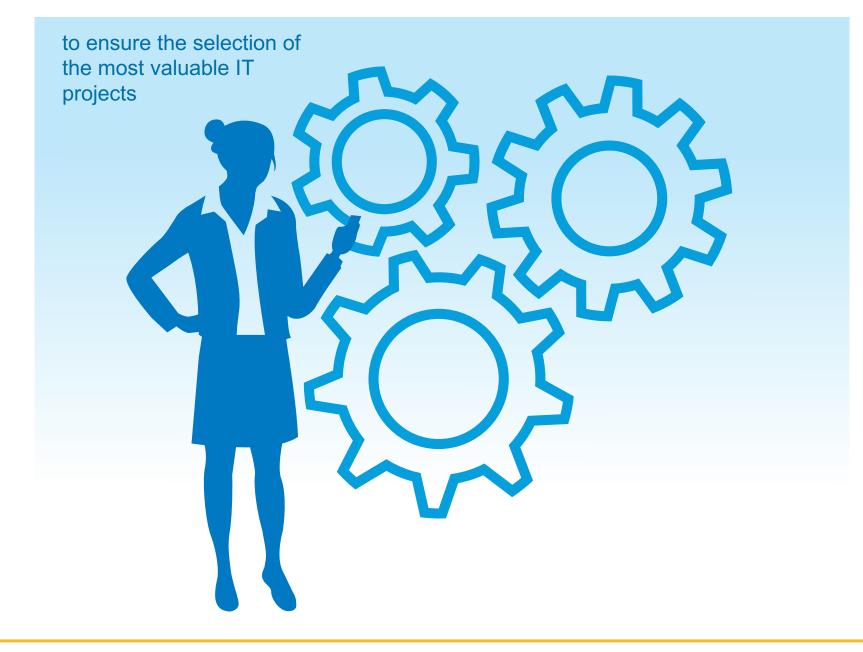
How many projects running in parallel?



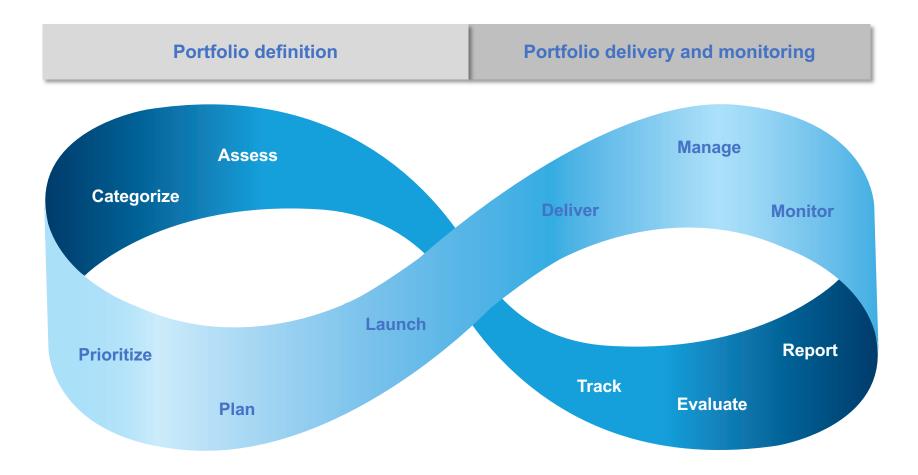


The Aim of the ITPPM is



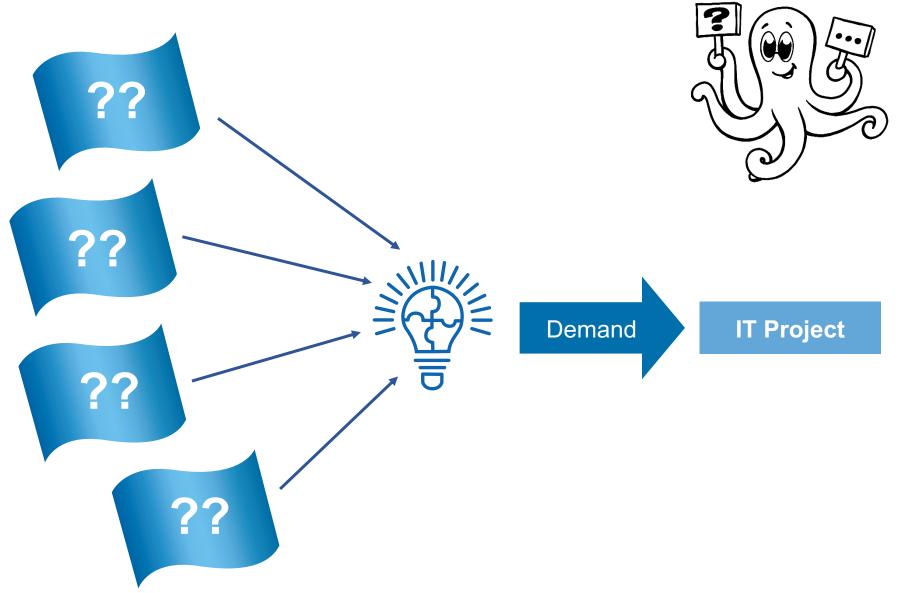




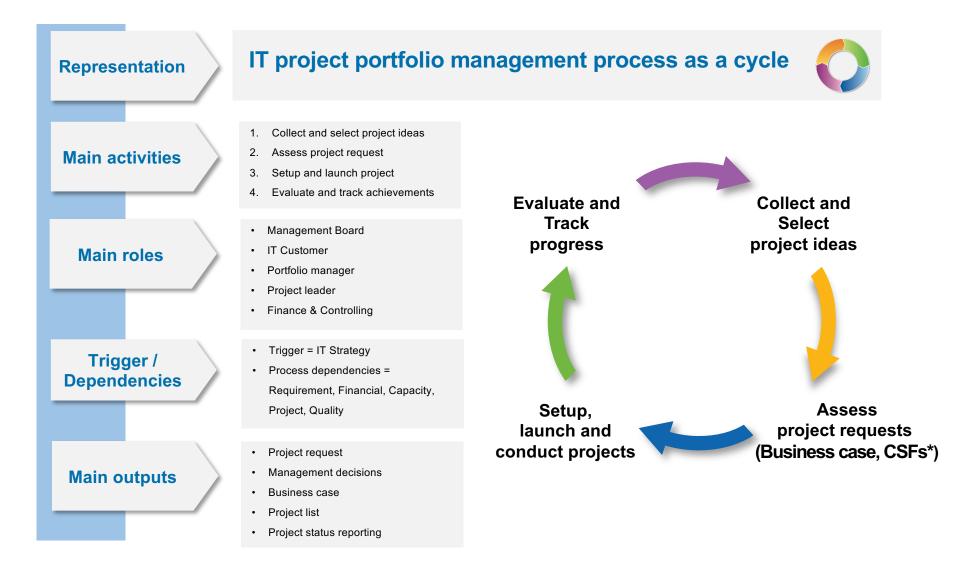


Where do projects come from?





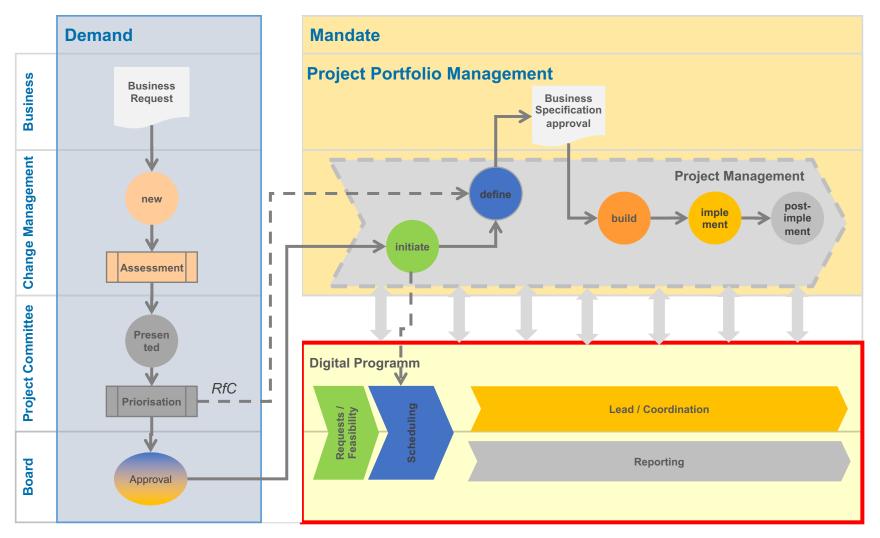




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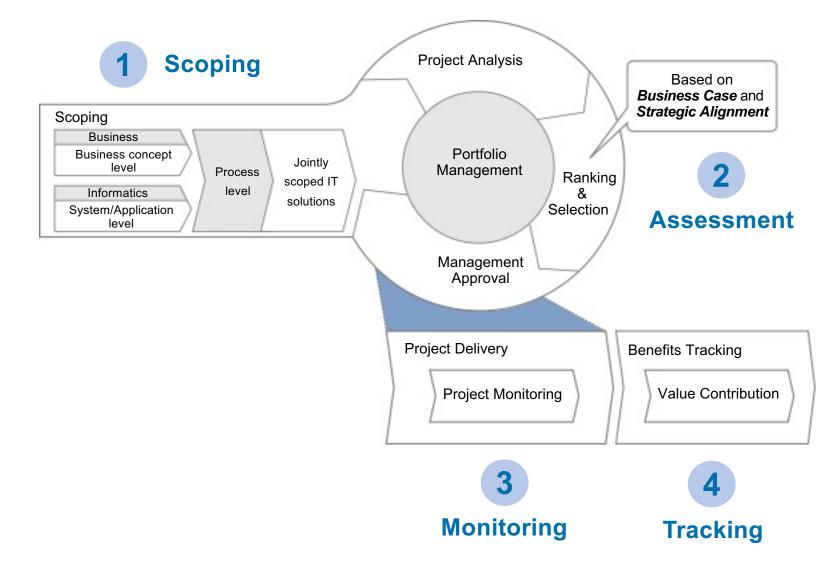
Process example: from Demand to Project





RfC: Request for Change





Step 1: Scoping of demands

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













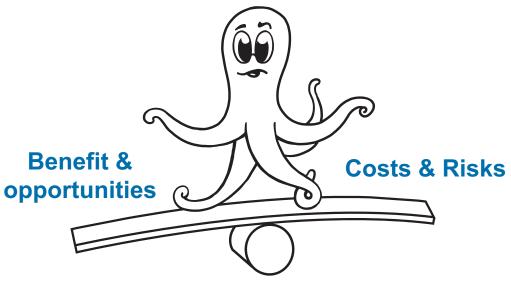
Business Case based on a financial analysis

- 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

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Project Cost	ts	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Internal IT staff							-
Other internal s	taff						-
Total Second	ary Costs	-	-	-	-	-	-
External IT Ser	vices						-
Hardw are							-
Softw are Lice	nces						-
Ext. business	backfilling staff						-
Others (travel	, expenses,)						-
Total Primary	Costs	-	-	-	-	-	-
Project Bud	get	-	-	-	-	-	-
		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 depre	ciation from Investment	-	-	-	-	-	-
HW/SW Mainter	nance						-
Others							-
Total Incren	nental Operating Costs	-	-	-	-	-	-
Total Costs,	with Depreciation	-	-	-	-	-	-
Tocal Costs,	without Depreciation	-	-	-	-	-	-



Tangible Benefits						
Business Benefits	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Headcount reduction						-
Operating Cost Reduction						-
Additional Profit Generation						-
Others						-
IT Benefits						
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					00000000	-
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 bene		efits > 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

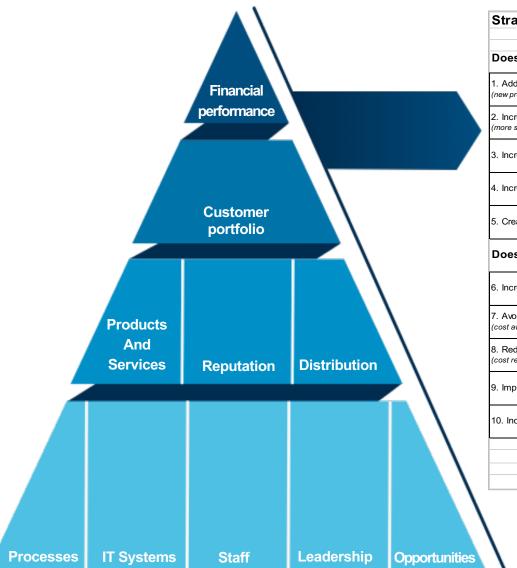
 $ROI = \frac{R}{I}$ R = Retum (some measure of value)I = Investment (some measure of cost)

- 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

 $NPV = \sum_{t=1}^{\prime\prime} \frac{R_t}{(1+i)^t} \qquad \begin{array}{l} R_t = \text{Net cash inflow-outflows during a single period } t \\ i = \text{Discount rate or return that could be earned in alternative investments} \\ t = \text{Number} \end{array}$

Strategic Alignment

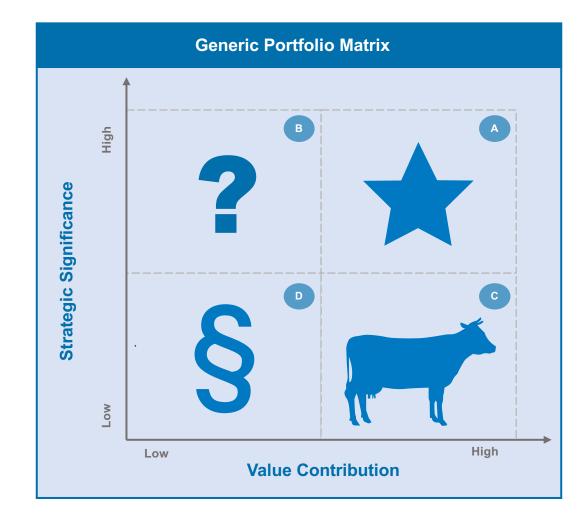




Strategic Alignme	nt				
Does the project sup	oort Growth ?	high (4 points)	medium (2 points)	low (1 point)	zero (0 point)
1. Add new business (new products or new customers)					0
2. Increase customer value ((more sales/value per customer)	,				0
3. Increase existing custome	er binding ?				0
4. Increase production flexib	ility ?				0
5. Create a unique sustainat	ele competitive advantage ?				0
Does the project enal	ole cost effectivness ?				
6. Increase effectiveness of				0	
7. Avoid potential additional (cost avoidance)	costs ?				
8. Reduce current cost base (cost reduction)	, improve cost efficiency ?				0
9. Improve business knowled					
10. Increase Research productivity ?					0
	Sub-Total	0	0	0	C
	Total =	0			

Step 3: the Portfolio Matrix







		Costs [мснг]		Yn		Year	⁻ n+1			Year	⁻ n+2			
	Projects		-	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	-	📥			5					
	SAP 3.1 Upgrade	0.8	0.3	0.5	-	📥								
	Customer Service Optimisation	0.8	-	0.2	0.6				Feas.	þ i 📖	l		ng pending	
	Operation Optimisation	1.2	-	0.3	0.9						Processes		KPI L	
	Inventory Optimisation	0.8	-	0.1	0.7									
	SAP Rollout	0.4	-	0.4	-		RVE.Rollou							
	Program 2	8.0	0.3	5.0	2.7									
	System Integration	0.3	0.3	-	-		N							
	Factory Implementation	3.6	-	3.4	0.2									
	Emerging Markets	1.2	-	1.2	0.1									
	New Plant	0.2	-	0.2	-								timin	gpending
	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	-				1					
	e-Commerce	7.9	2.9	* 5.0	-			/	Phase III					
Unit	TOTAL	1.7	0.1	1.0	5	-								
	B2B Extension	1.4	0.1	1.	3	∥₋! ⊨								
	Business Warehouse Upgrade	0.8	-	- 0.	8	-								
	Delivery Pricing on SAP	0.1		- 0.	1	-			timing.p	ending.				

Step 4: Benefit Tracking



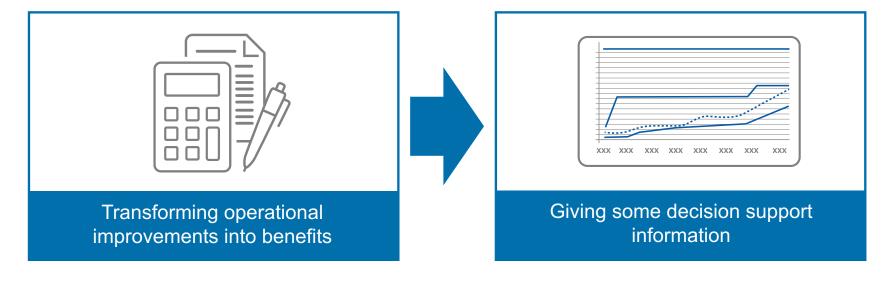
Performance Achievement Reporting

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



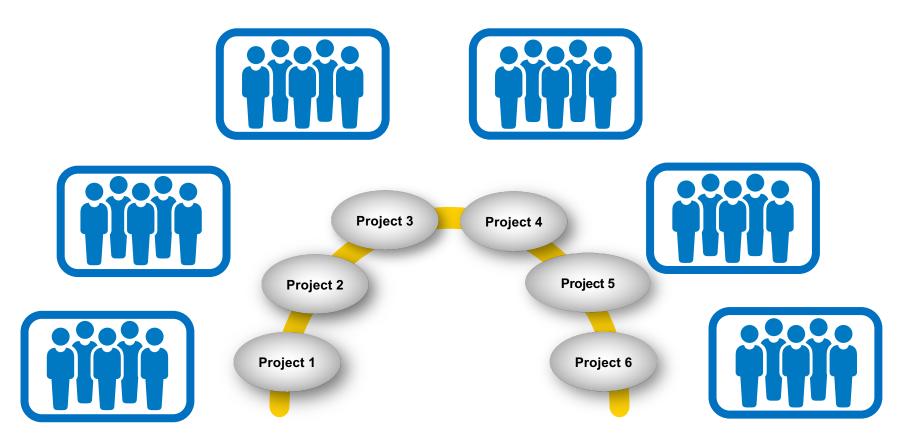
Financial Benefits Achievement Reporting

Converts the performance improvement into financial figures



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



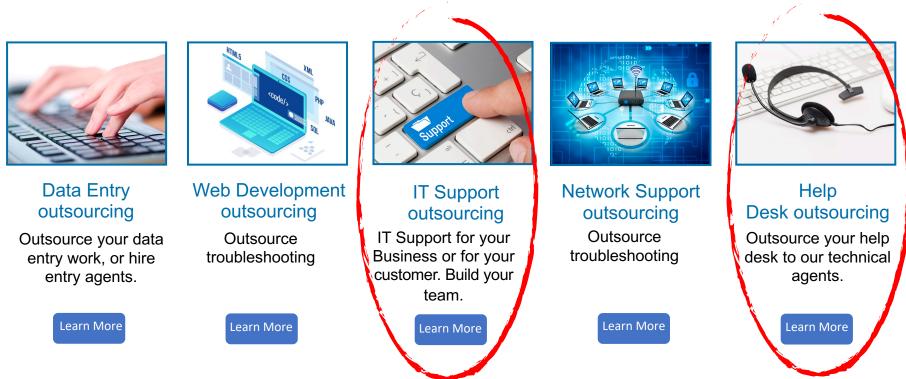




Helpdesk Outsourcing

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.

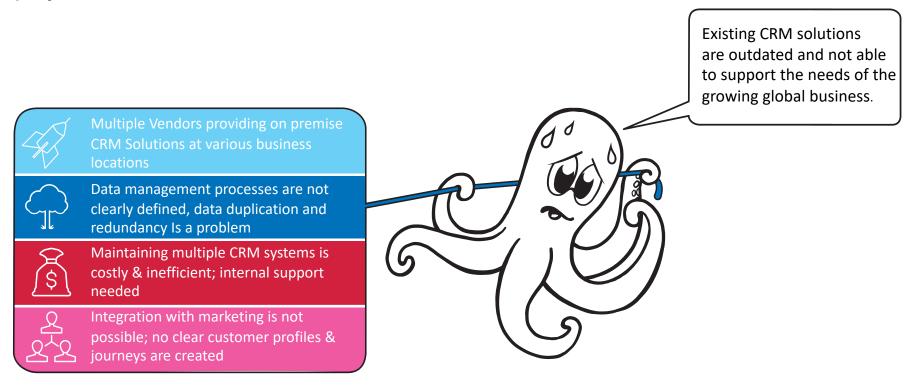




Global CRM

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.



Project 3



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



Project 4



Cloud-based HR Management

Outsourcing of Payroll and Personnel Administration

- More time for core business?
- Cost effectiveness
- Need for clearly defined processes especially fro 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.





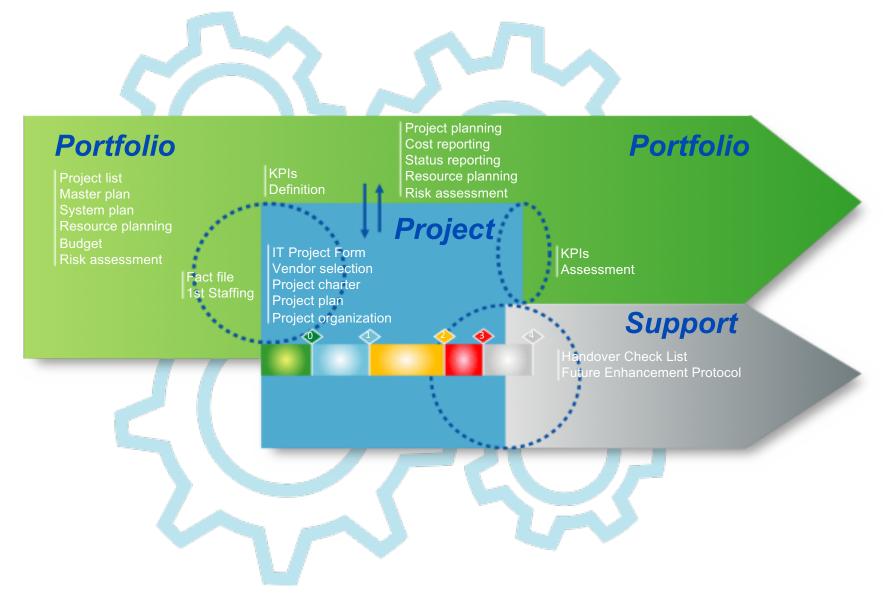
Data Management

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.

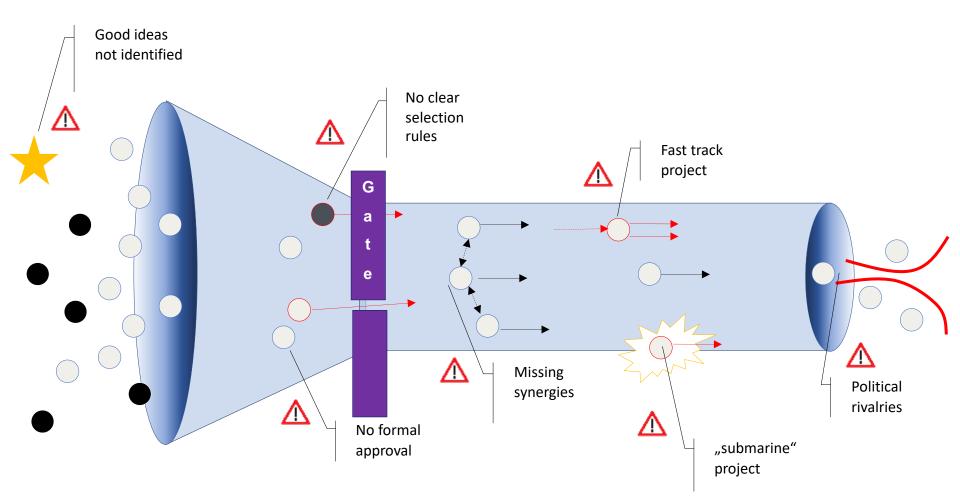


Integrating and keeping the Balance

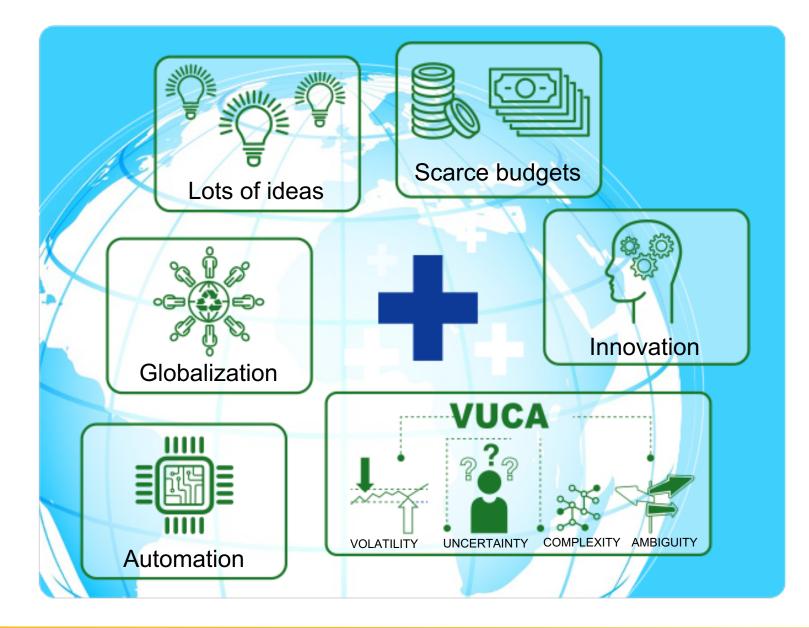




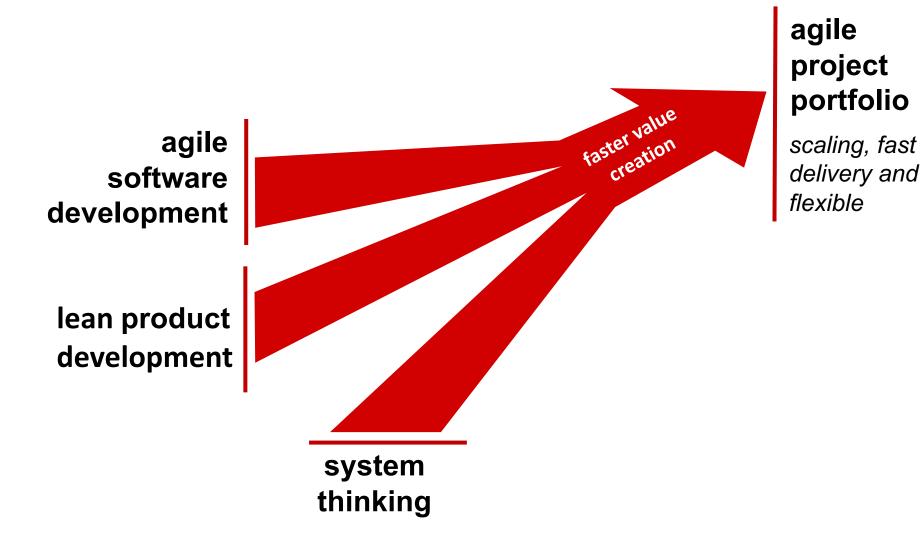














Scalable Agile Framework (SAFe)	Framework for scaling Agile SAFe provides guidance for all the levels of the enterprise that are actively engaged in solution development: Team, Program, Large Solution, and Portfolio. The result is greater alignment and visibility across the organization, connecting the business strategy to execution, enabling better business results, faster, and with a higher degree of predictability and quality. Source: https://www.scaledagileframework.com/
Scrum of Scrums (SoS)	Scaling Agile with Scrum Of Scrums (SoS) 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 Source: <u>https://www.agilest.org/scaled-agile/scrum-of-scrums/</u>
Disciplined Agile Delivery (DaD)	Framework with three phases: Inception, construction, and transition 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. Source: <u>https://www.agilest.org/scaled-agile/disciplined-agile-delivery-dad/</u>
Large Scale Scrum (LeSS)	Large Scale Scrum 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: <u>https://less.works/</u>

A new language

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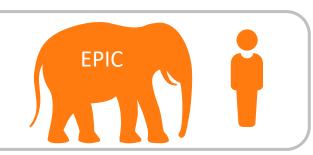
EPIC

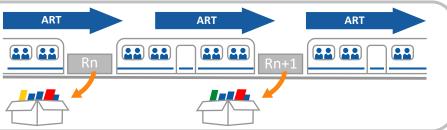
an epic represents a large requirement as a series of user stories to achieve a broader strategic objective

Agile Release Train (ART)

System implementation by integrating developments to productive systems

Example: wish list for customers

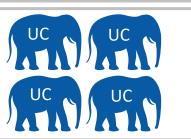




User Story / Use Case (UC)

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

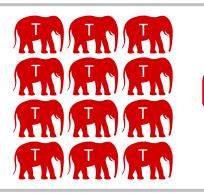


Task

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





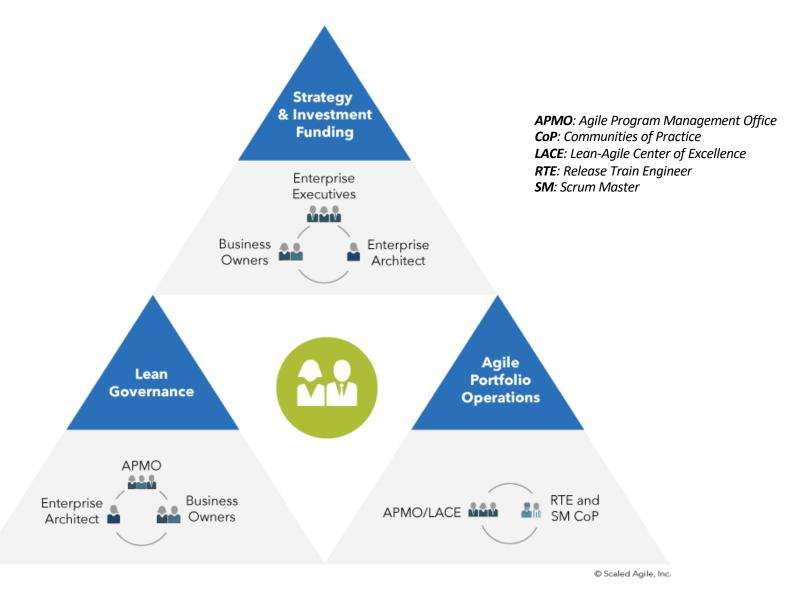
34

SAFe® for Lean Enterprises 5.0 Essential SAFe Large Solution SAFe Portfolio SAFe Overview Full SAFe Measure **Business Agility** & Grow Organizational Enterprise Government PORTFOLIO 60 Agility Epic Vision Epic Enabler Portfolio Backlog Epic Lean Budgets **KPIs** oadmap Enterprise Coordination trategic Portfolio Lean Portfolio Owners Architect Vision hemes Management Guardrails Value Streams ٠ Milestones **Customer Centricity Continuous Delivery Pipeline** ESSENTIAL Business 🧥 🔵 Owners ٠ 44 AGILE RELEASE TRAIN Agile D Shared Product • • Services Delivery Continuous Continuous Continuous Release Exploration Integration Deployment on Demand Solution System Product Design Thinking Context Arch/Eng Mgmt CoP PI Objectives WSJF System Demos System Demos XP Kanbai Goals Goals Team and RTE 46 Plan (LA) Technical Execute CD CD Review Agility System ~ Retro DevOps Agile Teams Team Scrum Program Backlog CI CI Featu \mathfrak{O} W Product Lean UX Owner ~ Architectural Continuous Built-In Iterations CE CE Story Runway NFRs. Learning Quality 9 Scrum Team Kanban Culture Program Increment Program Increment Master Backlogs Metrics Leffingwell, et al. O Scaled Agile, Inc. Lean-Agile SAFe Implementation SAFe Program imi Business | Dev | Ops | Support 5.0 Mindset Principles Roadmap Consultant Lean-Agile Leadership

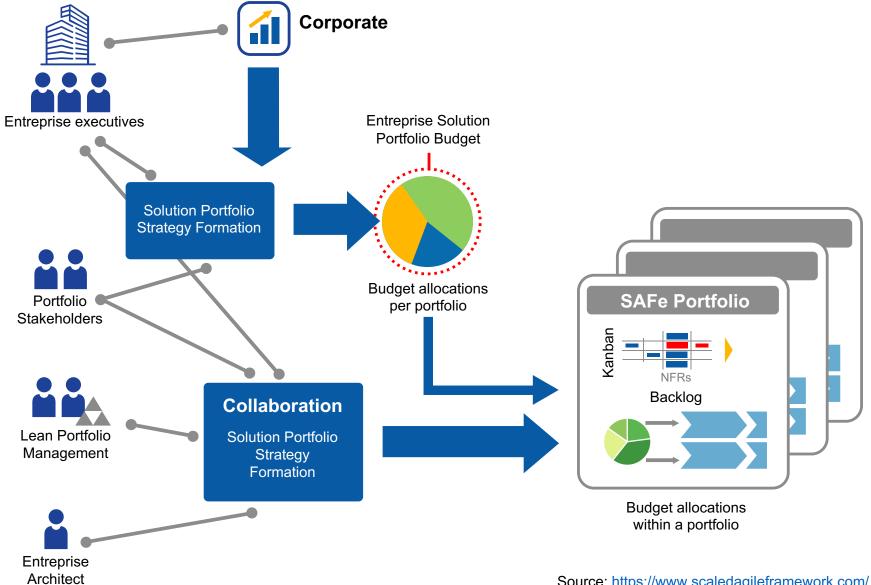
The three dimensions of the Lean Portfolio Management



35

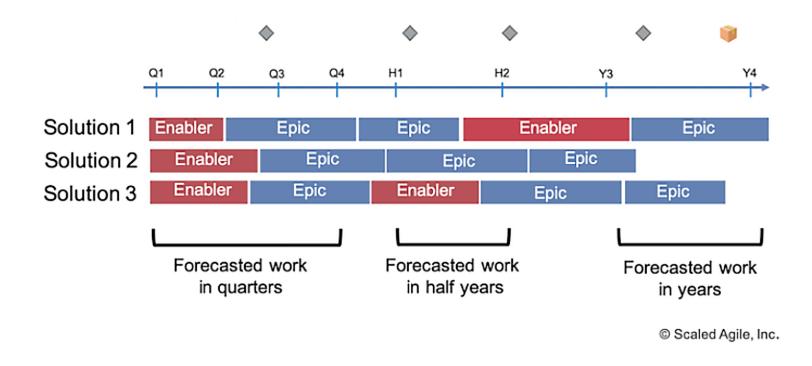






Portfolio Roadmap





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. <u>Examples:</u> documentation and signoffs, test automation, automated deployment, prototyping, regulatory approvals

37

Maintain a Portfolio Vision



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?

Vision: A postcard from the future

POSTCARD	
Having a great time at a dream location	
wish we were here!	

- 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



Strategic themes

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



Value streams

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

Source: https://www.scaledagileframework.com/portfolio-vision

Use the portfolio canvas



39

Portfolio Canvas Portfolio Name: Date: Version: Value Propositions 📸 Customer Relationships Revenue 3 Customers Budget 🌑 Channels | Value Streams 🗮 Solutions 💼 Ø ĉ Key Activities Key Resources Key Partners $\overline{}$ ğ Cost Structure Revenue Streams

The Portfolio Canvas is adapted from The Business Model Canvas (http://www.businessmodelgeneration.com).

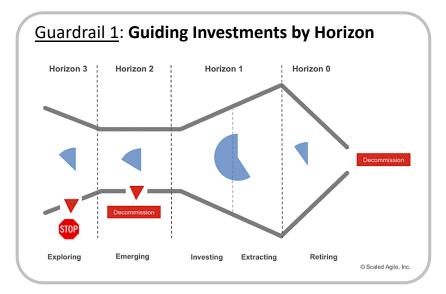
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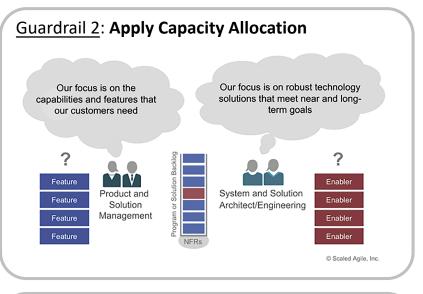
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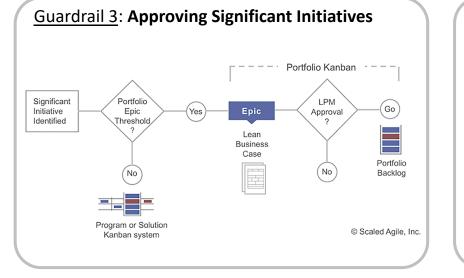
Establish Guardrails

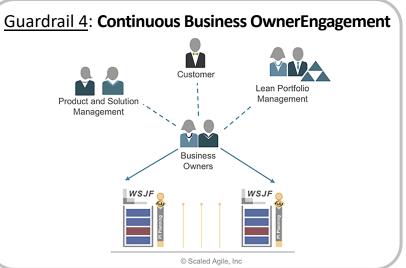


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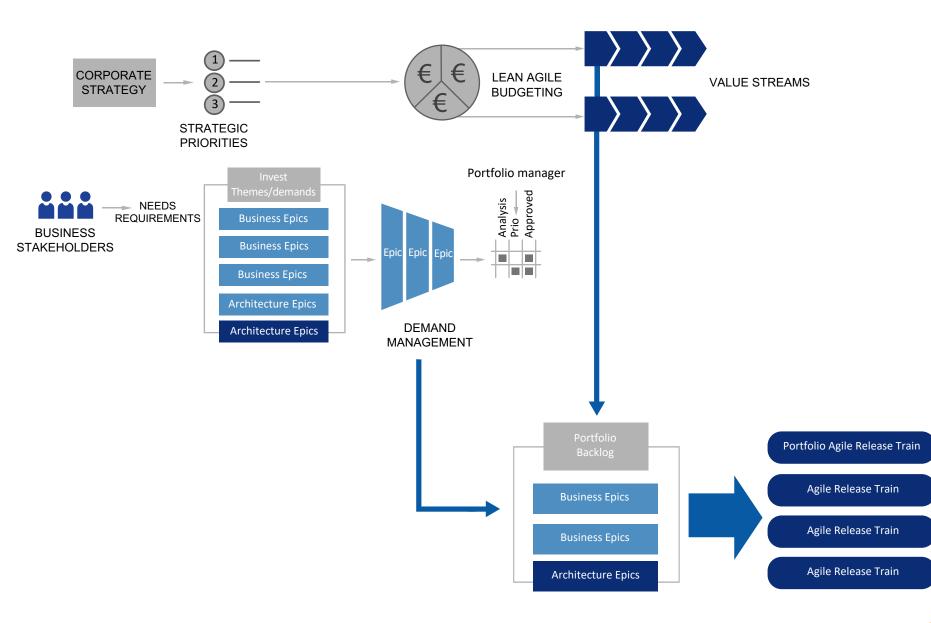




Source: https://www.scaledagileframework.com/

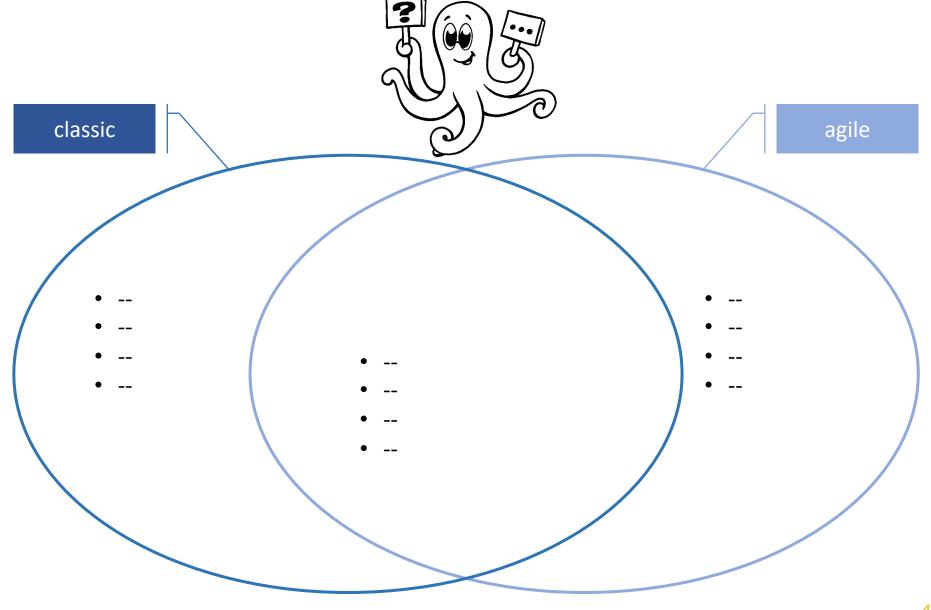
Simplified Process for Lean-Agile PPM





Differences "classic" vs "agile" Portfolio Management









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.

43

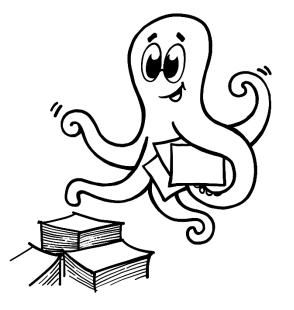


- Which framework?
- Which balance between organisational structures and large-scale agile frameworks?
- How to introduce a new framework (top-down, bottom-up, big bang, incremental)?
- How to bring the evidence-based use of large-scale agile frameworks?

Take away and must know!



- 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







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www.know-ledge.ch