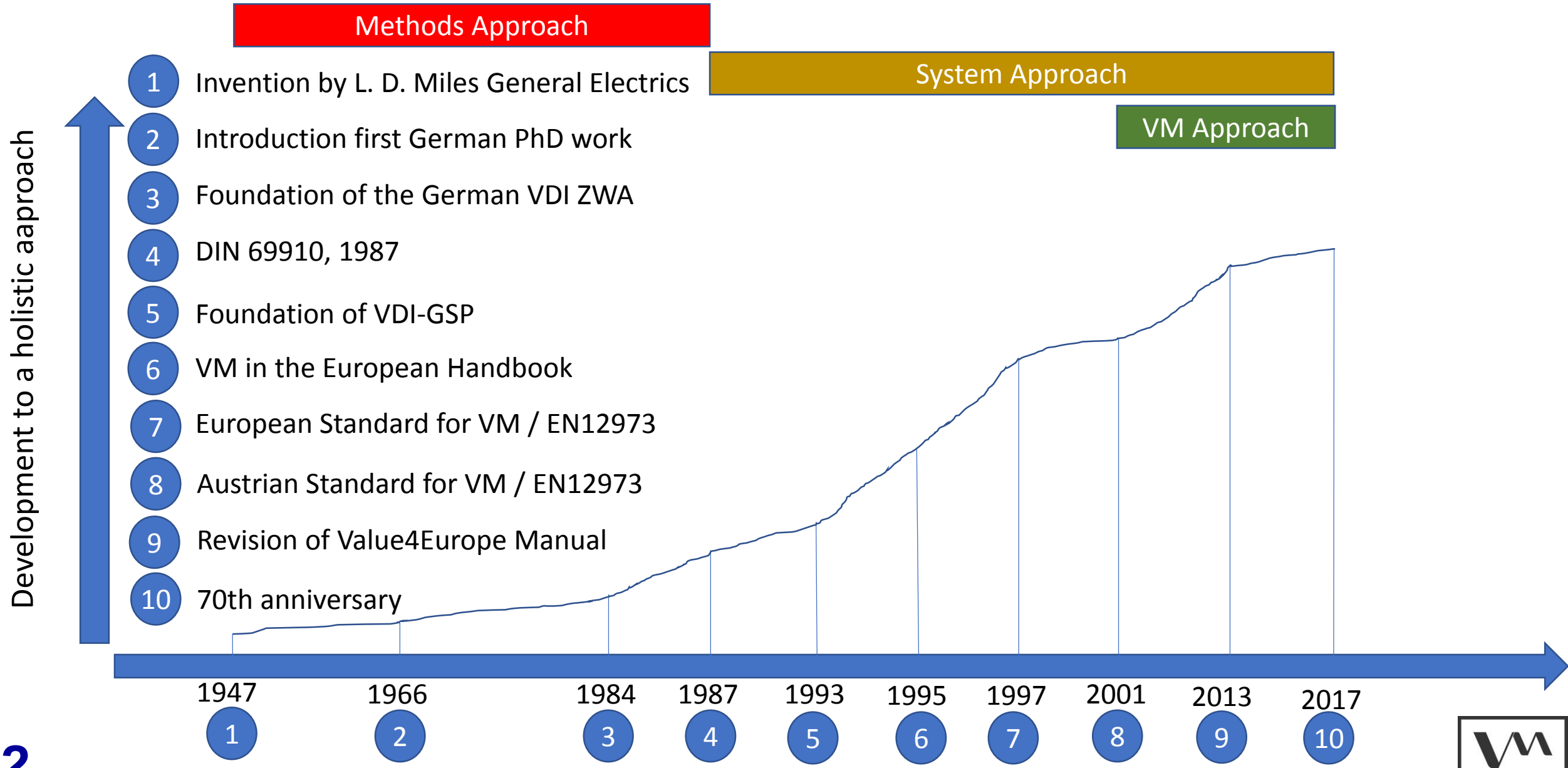
Value Engineering quo vadis? A future trend projection.

Dr. Manfred Ninaus

The 6th SAVE-EUROPE Conference

19th - 20th April 2018, Budapest- Hungary

Review of 70 years of Value Engineering

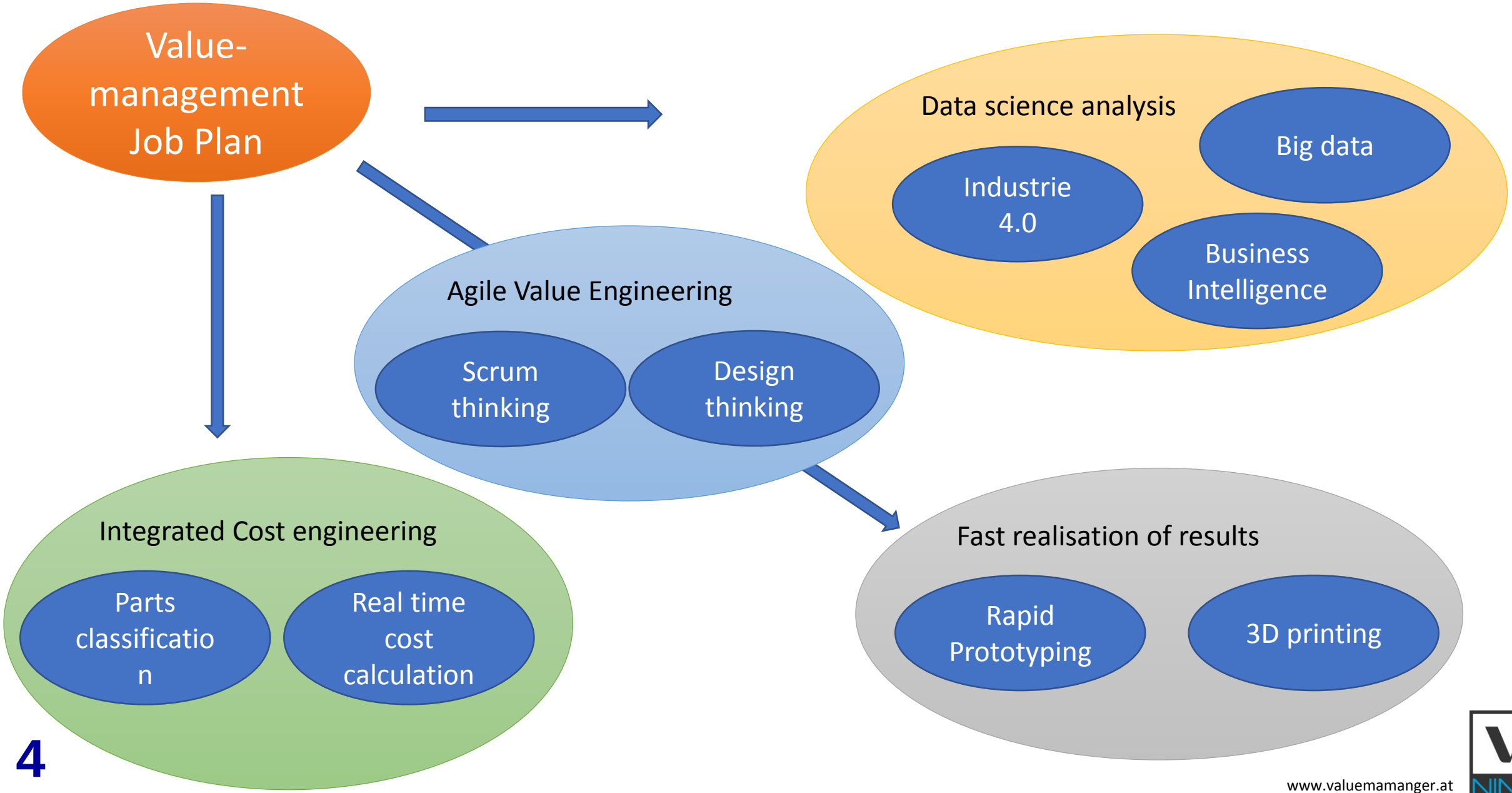


Focus of a PVM Professional for Value Management

- Be able to determine stakeholder needs and their organization and cultural context
- Be able to design studies and assist in VM program design
- Be able to demonstrate promotional skills in a single business context through the application of negotiation, and persuasion
- Be able to work with teams outside a workshop environment
- Be able to work with teams in a conventional or virtual workshop
- Be able to apply VM or elements of VM independently
- Be able to report and present results, and promote VM
- Be able to implement and/or support teams to implement results
- Be able to ensure that VM learning and development is embedded

A Valuemanager is a facilitator and mainly moderator

Future challenges for Valuemanagers



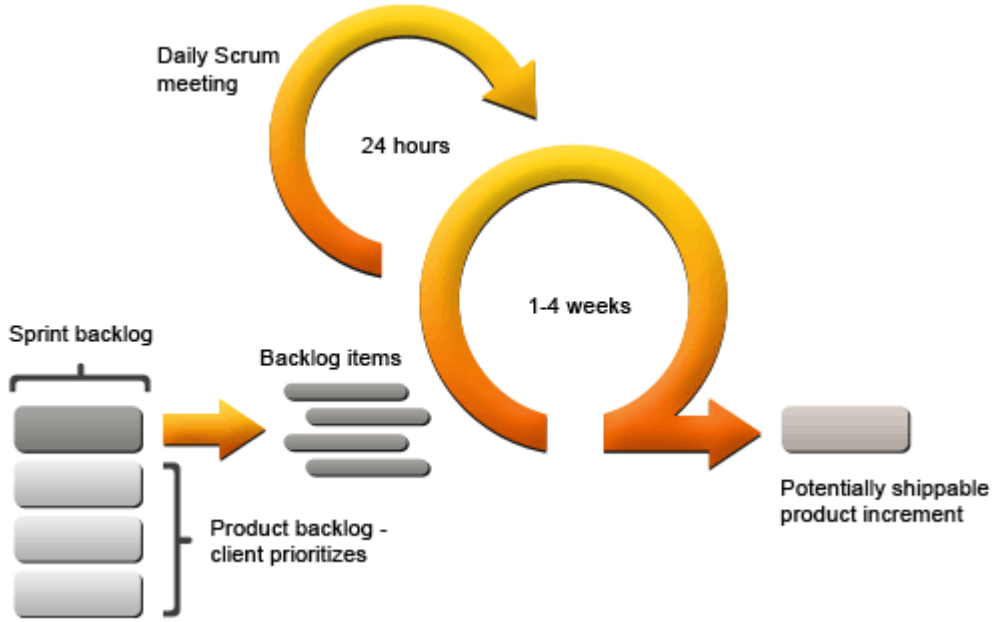
Agile Value Engineering

Use the SCRUM logic for:

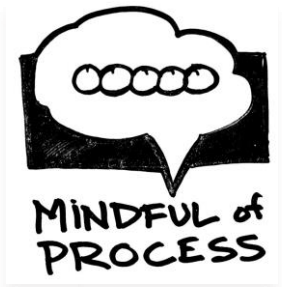
Agile Value Engineering Methodology

Characteristics are:

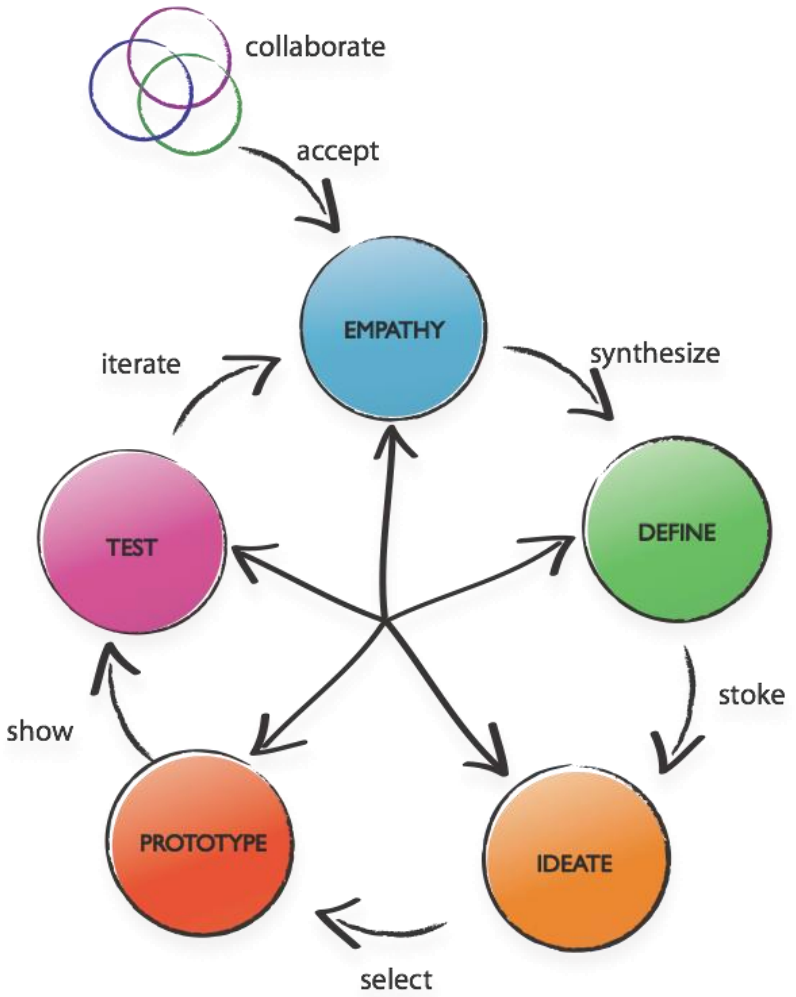
- ADAPTIVE, not PREDICTIVE
- LIGHTWEIGHT, not HEAVYWEIGHT
- DESCRIPTIVE, not PRESCRIPTIVE



Agile Value Engineering with Design Thinking



&
Combine



d.
HASSO PLATTNER
Institute of Design at Stanford

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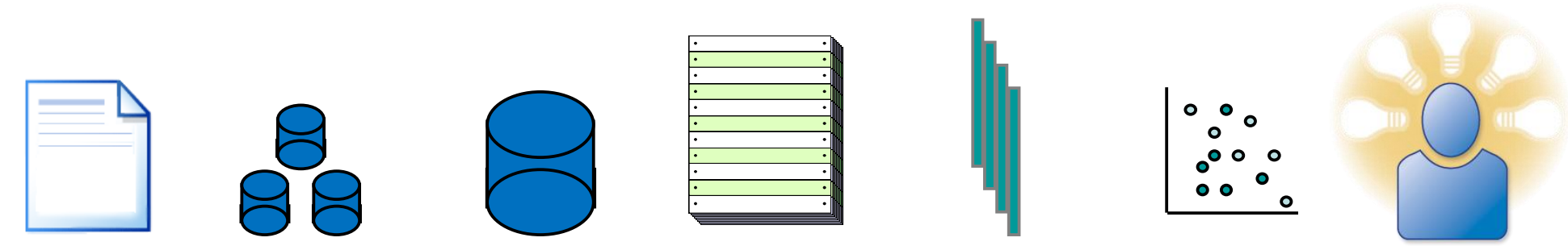
Data science analysis



Identify Business Problem

Identify Data Sources

Select the Data

Clean the Data

Transform the Data

Analyze the Data

Intepret, Evaluate, and Deploy the Model

Preprocessing

Analytics

Post-processing

Baesens (2014), Analytics in a big data world: The essential guide to data science and its applications

Integrated Cost engineering

Manufactoring costs

Setup costs
Unit costs / machine
Summset up costs
Sum unit costs
Material group
Material costs
Material indirect costs
Batch scaling
Manufacturing costs

Vorschaubild	Maschinen	Rüst...	Stückkos...	Rüstko...	Stück...	We...	Mat...	Ma...	Los	Herstellkosten VK [EUR]
	AUFTRAGSBEARBEITER	0,0	0,0	65,43	16,82	VA	2,36	0,26	1	82,25
	SAEGE	2,50	1,65						2	49,53
	ZWISCHENGRATER	0,0	0,08						5	29,90
	D2003	29,50	6,43						10	23,36
	FRCNC1	23,60	5,99						25	19,43
	REINIGER	4,92	0,05						50	18,13
	PRUEFER	4,92	0,0						100	17,47
									200	17,14
									400	16,98
									800	16,90

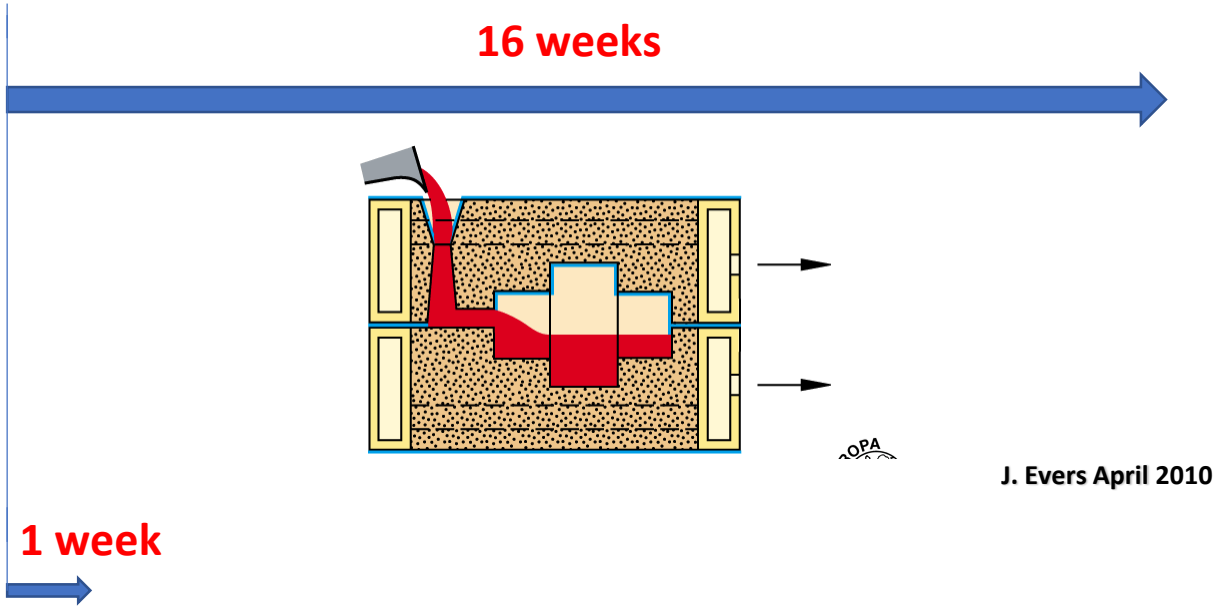
Tool support for realtime cost calucalation and cost engineering in the CAD world

Simus

Fast realisation of results

Traditional

casting



Rapid prototyping
3D metal printing

Conclusion

- Professional for Value Management will still have to facilitate the VM job plan
- It will be mandatory to use the new various sources for data concerning the VM object to optimize
- Valuemanager will need an even brighter knowledge education to be able to decide how to acquire relevant knowledge and how to use it in respect to the VM work

Thank you for your attention!

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