

Four Approaches to Project Evaluation Experiences from Project Half Double

DES Conference 14-15.09. 2017

Per Svejvig, PhD, Department of Management, Aarhus University



Agenda

- › Introduction: Brief about Per and relation to evaluation practices and research
- › Project Half Double and the evaluation challenge
- › The challenges of evaluating and comparing projects – An empirical study of designing a comparison framework
- › From one approach to four approaches
- › Findings so far...(if times allow)
- › Questions

Brief about Per

› Educations & Certification

- › PhD in Enterprise Systems
- › M.Sc. in IT (Cand.it), Aarhus University
- › B.Sc. in Engineering, Engineering College of Aarhus
- › Certified Senior Project Manager (IPMA level B)

› Experience

- › Aarhus University since 2007
- › Partner ProConsulting A/S since 1995
- › LEGO System A/S 1992-1997
- › Digital A/S 1986-1992
- › Pasilac Electronics A/S 1983-1986
- › *About 25 years experience in project management*



› Teaching

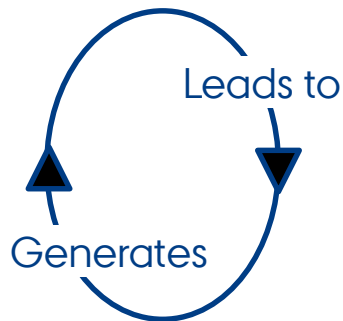
- › Project Management
- › Change Management
- › IS Philosophy of Science and Research
- › Information Systems Development
- › Study coordinator for MSc Information Management programme

› Research Areas

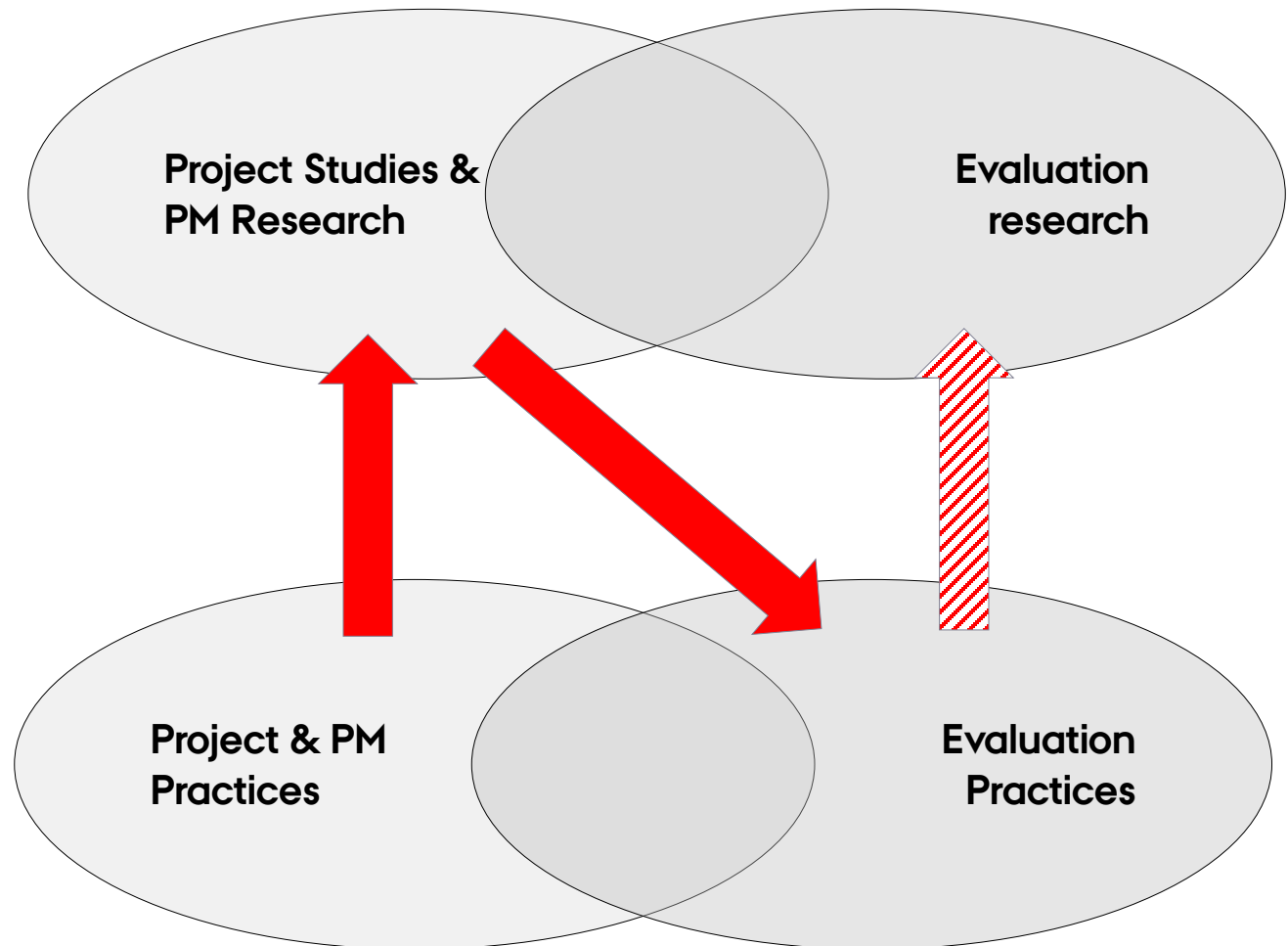
- › Project Management and Project Studies
- › Rethinking Project Management
- › Benefit Realization Management
- › Project Value Creation
- › Project management of complex IS/IT projects
- › Virtual Project Management
- › Institutional theory
- › ES implementation and use with technical and organizational aspects

Per's way into evaluation

Theory &
knowledge
domain



Practice &
experience
domain



Half Double Methodology & Project Half Double



The logo consists of two overlapping white circles on a dark teal background. The right circle contains the text "PROJECT HALF DOUBLE" in a bold, sans-serif font, with "PROJECT" on the top line, "HALF" in the middle, and "DOUBLE" on the bottom line.

PROJECT
HALF
DOUBLE

To put it simple, we will deliver

Projects in **half** the time
with **double** the impact

Together we will develop a new and radical project paradigm to increase the competitiveness of the Danish industry

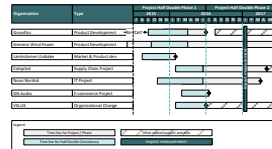
What do we mean by project management methodology?

› *A Project Management Methodology is an organized collection of concepts, methods, belief, values and normative principles supported by material resources.*

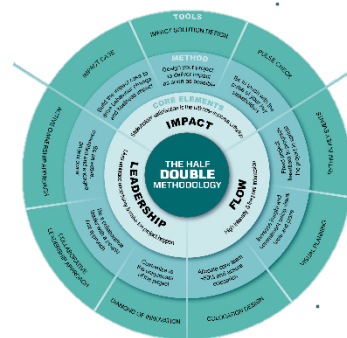
(Adapted from Hirschheim et al. 1995: 22)



The History

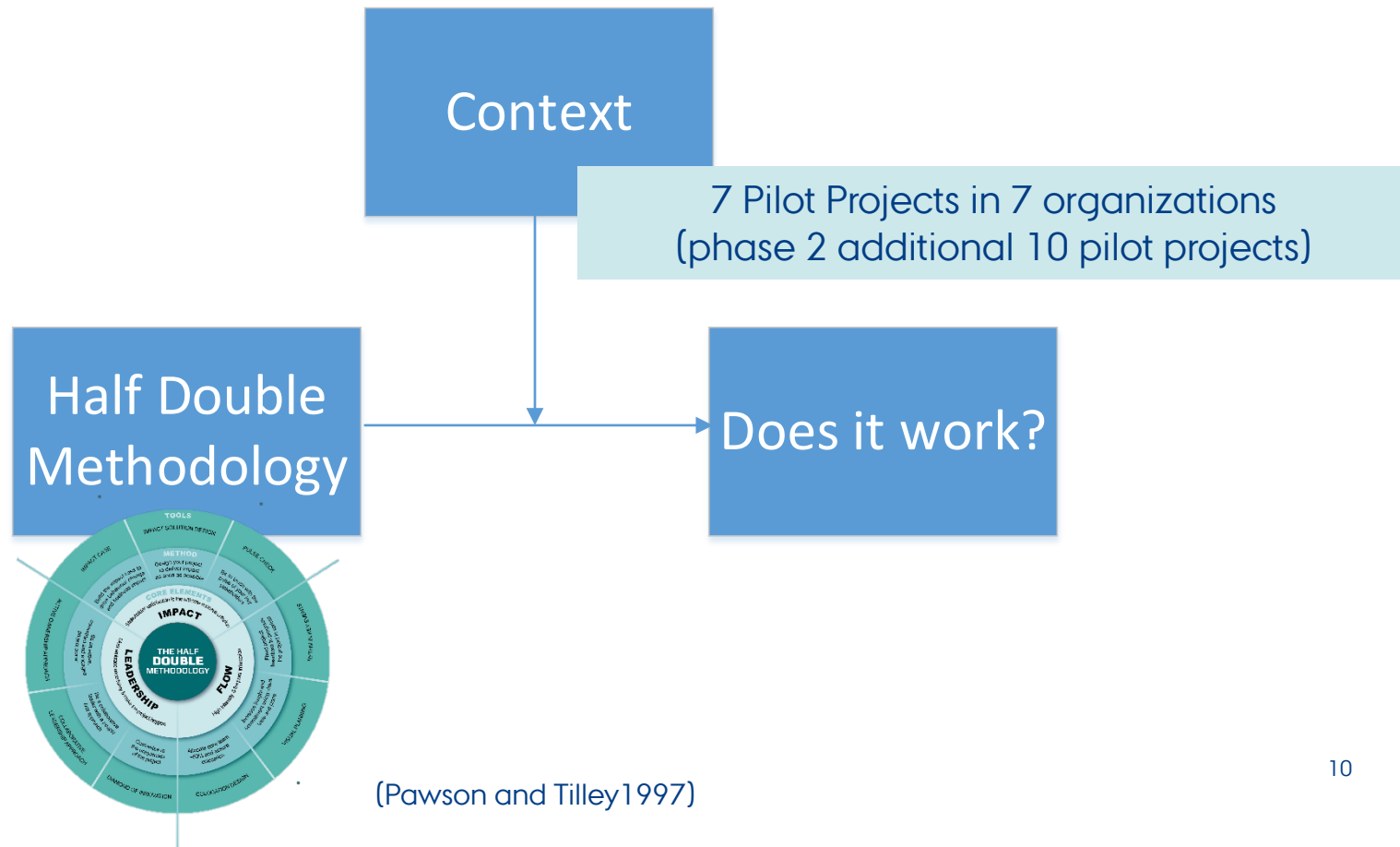


Half Double Community



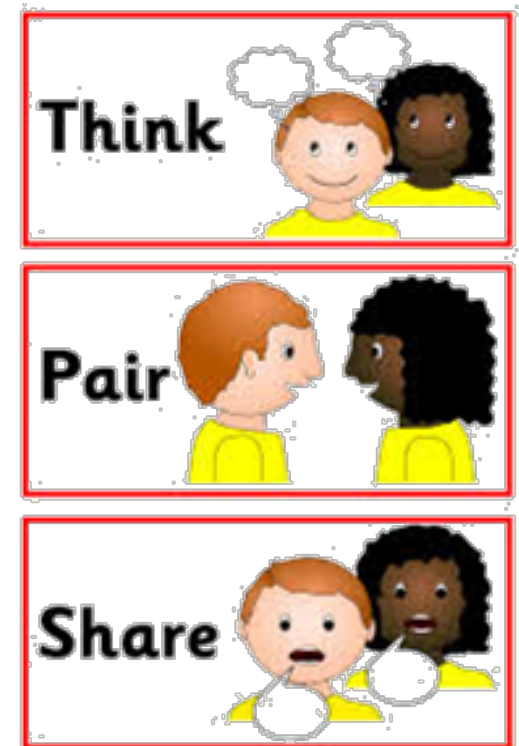
Half Double Methodology

The evaluation challenge, Summer 2015



Think Pair Share

- › How would you design the evaluation in Project Half Double?
- › What are the biggest challenges?



The challenges of evaluating and comparing projects – An empirical study of designing a comparison framework



5. THE CHALLENGES OF EVALUATING AND COMPARING PROJECTS

An empirical study of designing a comparison framework

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Flemming Hedegaard, Grundfos Holding A/S, Denmark, fhedegaard@grundfos.com

ABSTRACT

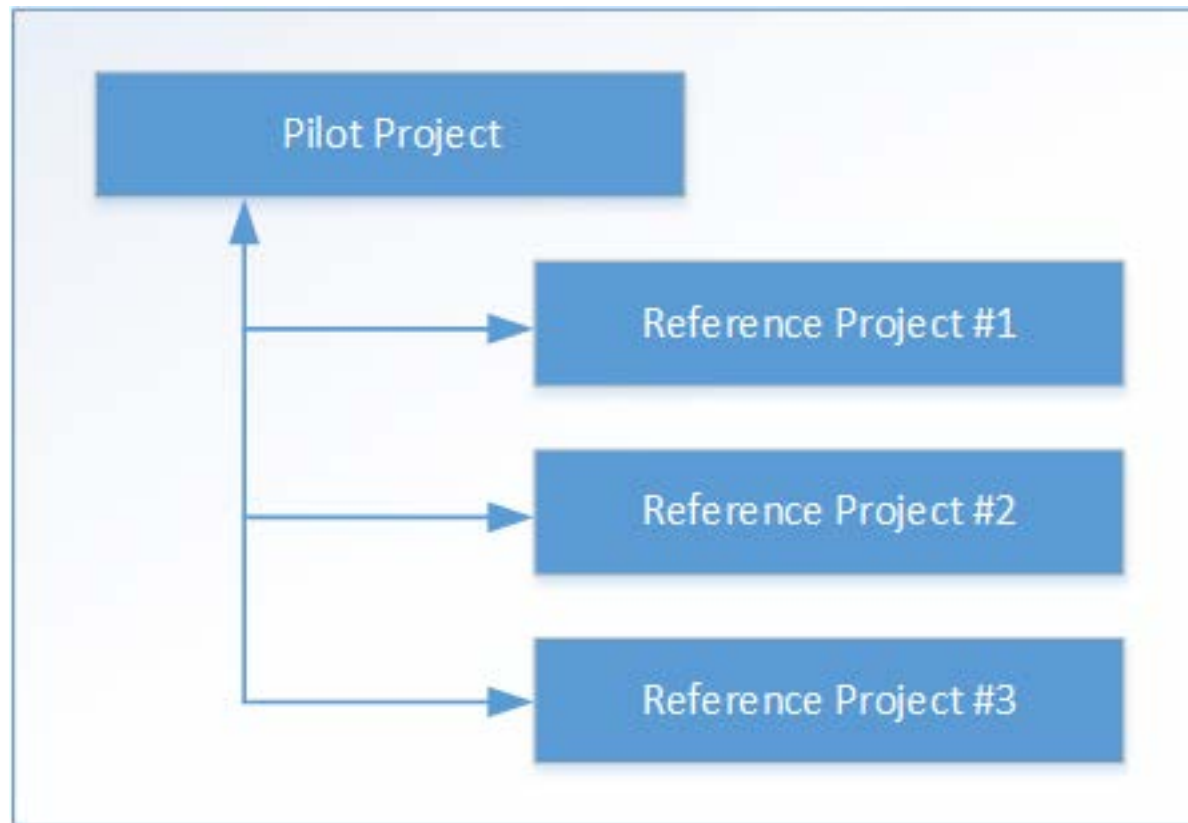
Project Half Double is an industry-driven initiative with the purpose to develop a new and radical project paradigm to increase the competitiveness of the Danish industry. The research part of Project Half Double will assess the degree to which the new project paradigm is more successful than traditional approaches, which calls for an evaluation and comparison framework. This paper describes the design of such a comparison framework consisting of the five elements context, project, mechanism/practices, output and impact based on the open systems view. We illustrate the use of the comparison framework for front-loading projects in Grundfos and the specific evaluation criteria used here. The design and use of comparison frameworks have some implications, such as it being challenging to define relevant and meaningful evaluation criteria, it is difficult to collect complex evaluation data and some organisations lack the project maturity to take advantage of the frameworks.



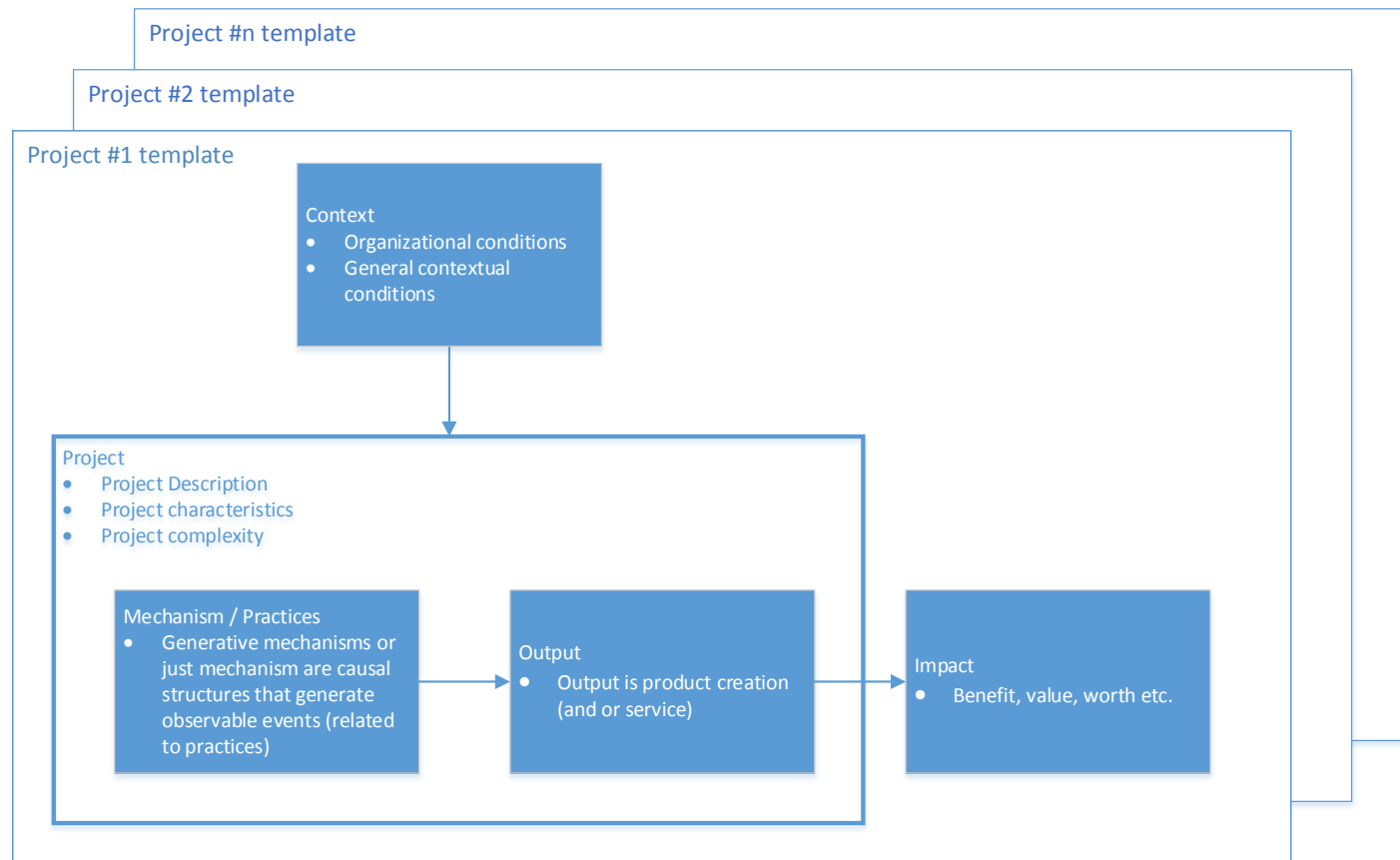
Comparing projects: Like 100 Meter run, but much more complicated...



Internal Benchmarking



Designing a general comparison framework



Grundfos - an illustrative example of a specific comparison framework (2 of 3)

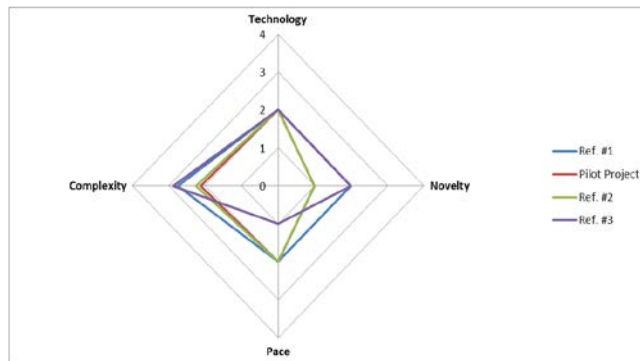
- > Project Characteristics combining Diamond Model and complexity evaluation
- > Cost (budget/actual)
- > Duration divided into stages according to Grundfos project model
- > Resources (number of man-hours and number of employees)
- > Project Half Double method (practices): Impact, flow and leadership (IFL) method
- > Impact: Fact package quality (output from FL project gate 3 handed over to product development gate 1)
- > Specific impact measurement derived from pilot project

Evaluation area	Evaluation topic (could be key performance indicator)	Type*	Purpose
Context	General contextual conditions	Not defined yet	To understand the general conditions for Grundfos e.g. competitive situation and beyond
	Organizational conditions	Not defined yet	To understand how the organization is organized and business processes are executed including especially organizational maturity for portfolio, program and project levels (Axelos (Office of Government), 2013; Project Management Institute, 2003)
Project	Project description	Qualitative subjective	To give an overall understanding of the given project
	Current status of project according to Grundfos project model	Quantitative Objective	To give an overall understanding of the given project
	Duration divided into stages according to Grundfos project model	Quantitative Objective	To understand the time perspective of the project
	Project Characteristics combining Diamond Model and complexity evaluation	Quantitative and qualitative subjective	To compare and contrast projects e.g. how similar projects are
Output	Cost (budget/actual)		Size proxy
	Resources (number of man-hours and number of employees)	Quantitative objective	Size proxy
	Project Characteristics combining Diamond Model and complexity evaluation	Quantitative and qualitative subjective	Size proxy
Mechanism /Practices	Project Half Double method (practices): <ul style="list-style-type: none"> Impact, flow and leadership (IFL) method 10 leading stars 	Quantitative and qualitative subjective	To map practices used across pilot and reference projects
	Other practices beyond PHD method	Not defined yet	To map other practices relevant for doing pilot and reference projects beyond PHD method
Impact	Fact package quality (output from FL project gate 3 handed over to product development gate 1)	Quantitative and qualitative subjective	Quality proxy for the front-loading project
	Specific impact measurement derived from pilot project	Not defined yet	Not defined yet

*) Type description (Chiesa & Frattini, 2007, p.: 285):

- Quantitative objective indicators are numeric metrics obtained from the application of a definite algorithm that brings to the same evaluation independently from the person responsible for the measurement (e.g. percentage of projects concluded on time, number of engineering change requests)
- Quantitative subjective indicators are numeric metrics based on personal judgment of an expert whose subjective evaluation is however translated into a numeric score through alternative techniques
- Qualitative subjective metrics are not expressed numerically, but through personal judgment of the evaluator

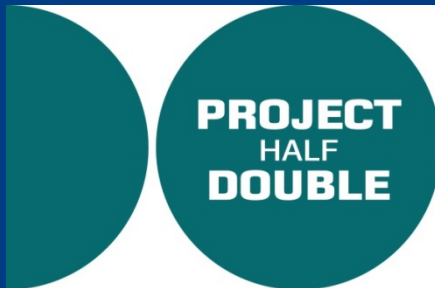
Grundfos - an illustrative example of a specific comparison framework (3 of 3)



	Pilot	Ref. #1	Ref. #2	Ref. #3
Technology	2,00	2,00	2,00	2,00
Novelty	1,00	2,00	1,00	2,00
Pace	2,00	2,00	2,00	1,00
Complexity	2,13	2,75	2,25	2,88
Total	7,13	8,75	7,25	7,88
Average across projects	7,75			
Minimum maximum	7,13	8,75		

	Pilot	Ref #1	Ref #2	Ref #3
New for research and development	2	2	2	2
Supply performance/impact on operations	2	4	3	3
Novelty to business	2	2	2	3
Importance of project to Grundfos	3	4	3	3
Number of stakeholders	2	3	2	3
Changes in FL project	2	3	1	3
Competence needs	3	3	3	3
Number of geographical locations	1	1	2	3
Total	17	22	18	23
Average	2,13	2,75	2,25	2,88
Average across projects	2,50			
Minimum maximum	2,13	2,88		

From one approach to four approaches



Four Approaches to Project Evaluation

Markus Laursen, Per Svejvig, Anna Le Gerstrøm Rode

Aarhus University, Aarhus BSS, Department of Management

Abstract

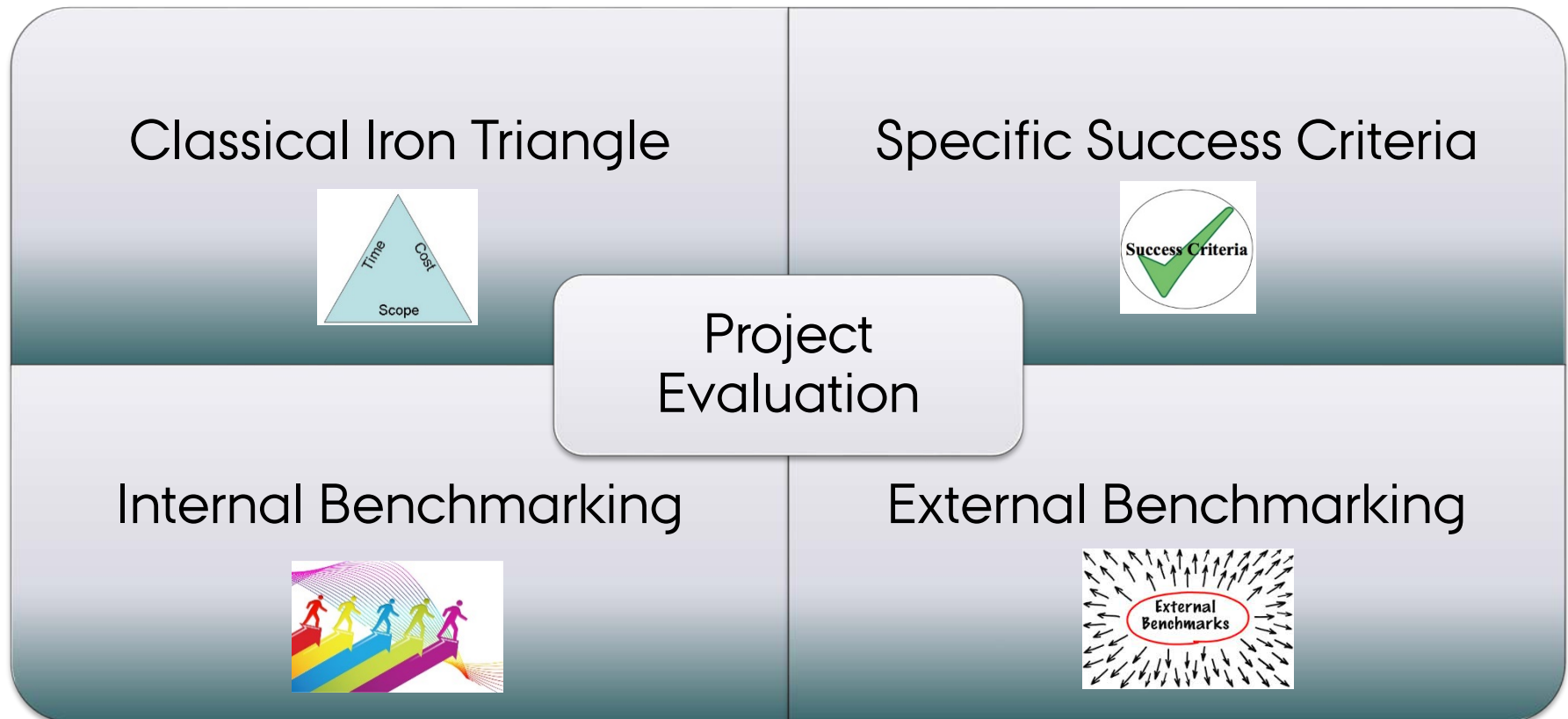
There are many theoretical and practical reasons for evaluating projects – including explorative arguments focusing on expanding descriptive knowledge on project work as well as normative arguments focusing on improving prescriptive models of project performance. Despite the need for project management methodologies that work and combat project failure, and research methods that can assess effective project management and methodologies, as well as empirical research on the actuality of projects as practice, evaluation research on projects including project management and methodologies is scarce.

Each of the framework's four approaches provides a distinct evaluation that sheds light on some issues while leaving others unattended. Following these lines, the paper calls for more multi-faceted project evaluations. Introducing a framework that can help analyze existing evaluations and structure upcoming evaluations by highlighting beneficial aspects and/or revealing hidden issues, the aim of this paper is to contribute to the theoretical and practical field of project management.

The paper contributes to project theory and practice by inspiring project researchers and aiding project workers in their efforts to open up the black box of projects and deliver relevant and valuable results.



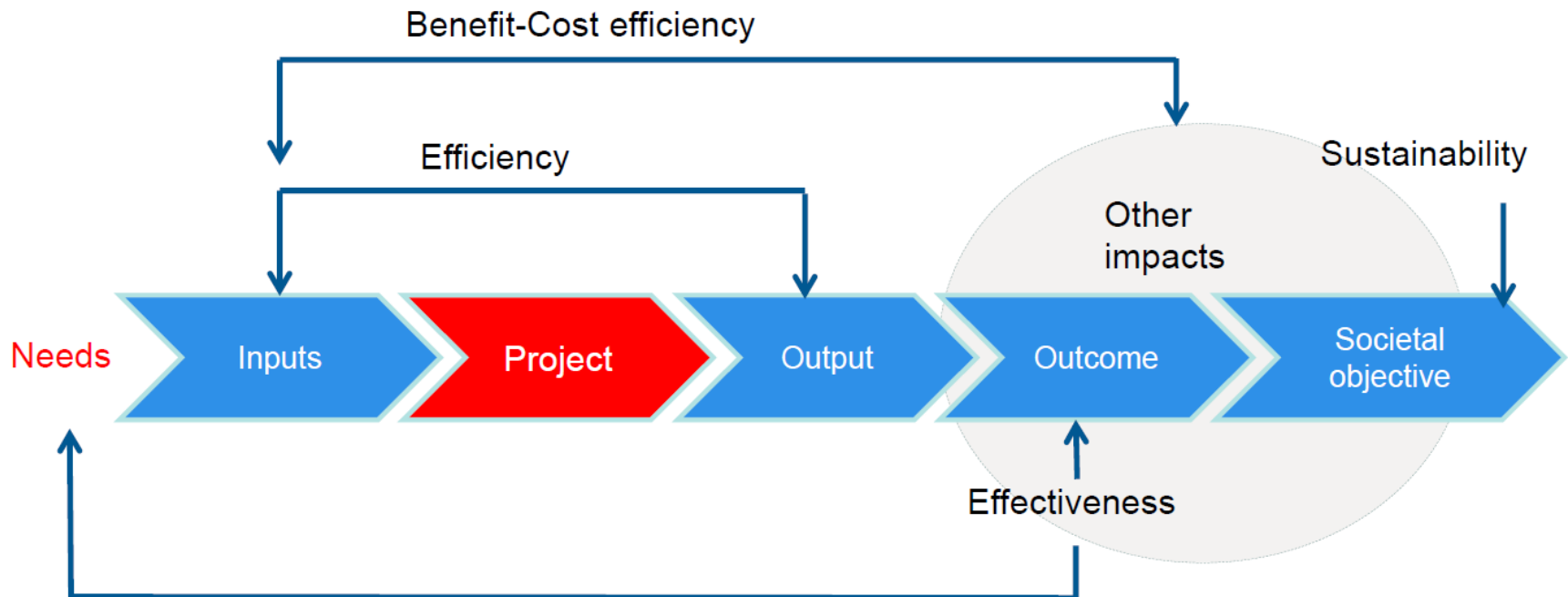
Project Evaluation Framework (1 of 2)



Project Evaluation Framework (2 of 2)

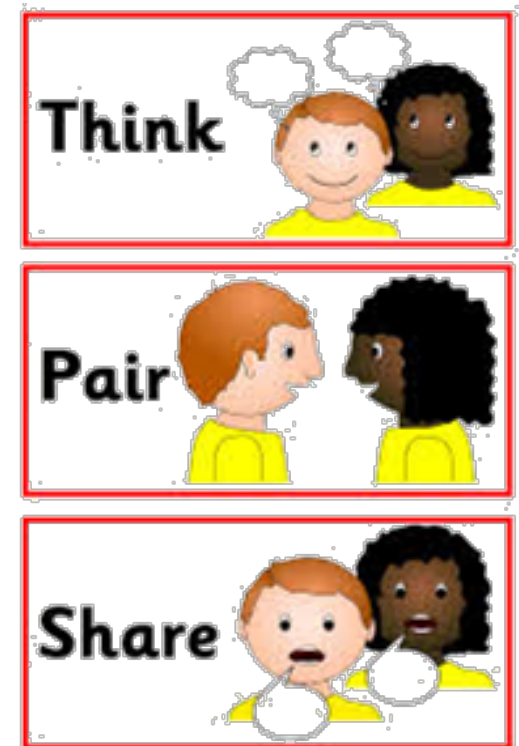
EVALUATION APPROACH	PURPOSE OF EVALUATION
Classical Iron Triangle	Project management success, being measured against the traditional gauges of performance (i.e., time, cost, and quality (Jugdev and Müller 2005, McLeod, Doolin et al. 2012)
Specific Success Criteria	Project success, being measured against the overall objectives of the project. (McLeod, Doolin et al. 2012)
Internal Benchmarking	Comparing projects e.g. concerning project performance
External Benchmarking	Comparing projects in organizations e.g. concerning learning from best practices and project performance

Six evaluation criteria shown in relation to the results framework (Concept Programme Norway)



Think Pair Share

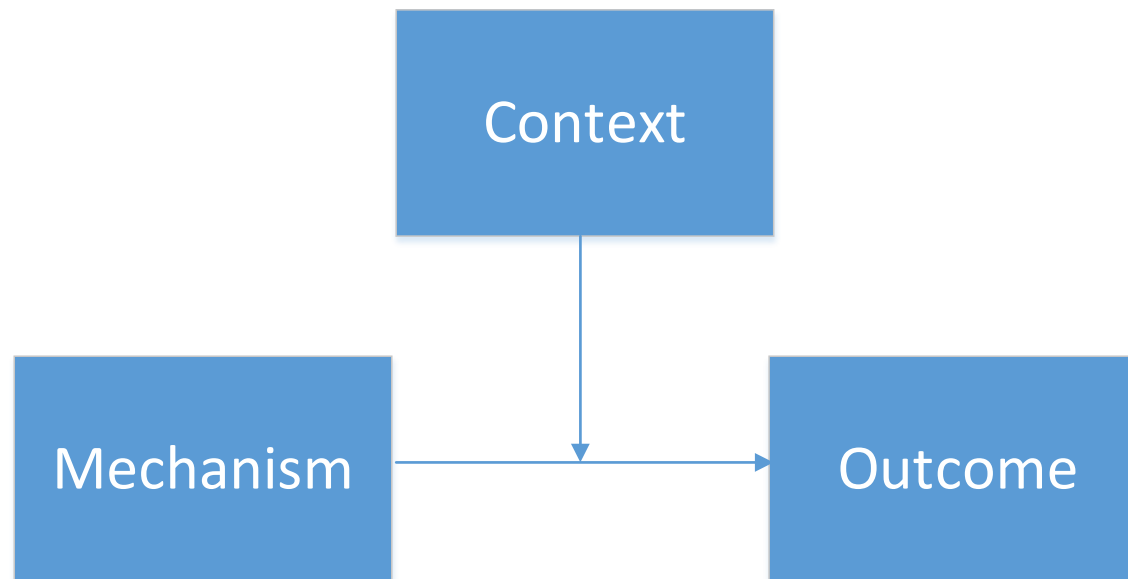
- › What is your response to the four evaluation approaches?
- › Where are the “black holes”?



Findings so far...

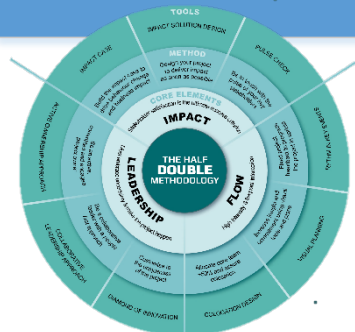
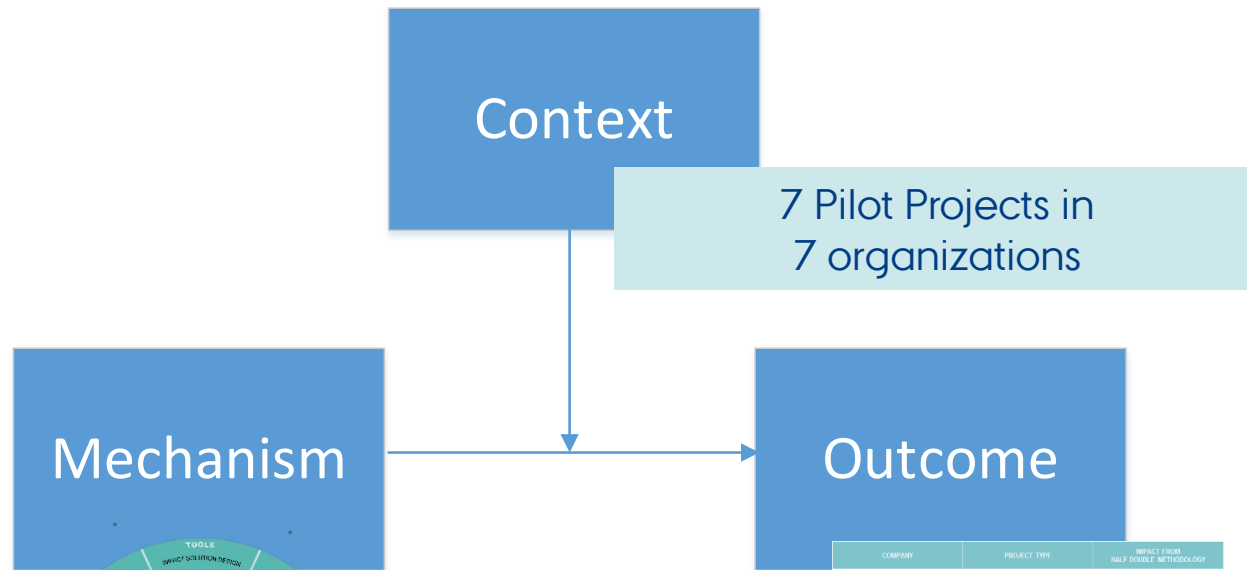


The Outcome, Mechanism and Context model – OMC model



Outcome = Mechanism + Context

OMC model Applied on Project Half Double






COMPANY	PROJECT TYPE	IMPACT FROM HALF-DOUBLE METHODOLOGY
GRUNDFOS	Product Development	●
SIEMENS	Product Development	○
Intellicore	Market & Product Development	●
Coloplast	Supply Chain Project	●
Wipro	IT Project	●
CN	E-commerce Project	●
VELUX	Organizational Change	●

● Higher
○ Lower
⊗ NA

Impact from Half Double
Methodology on Pilot Projects

Impact from Half Double Methodology on Pilot Projects (1 of 2)

COMPANY	PROJECT TYPE	IMPACT FROM HALF DOUBLE METHODOLOGY
	Product Development	○
	Product Development	○
	Market & Product Development	●
	Supply Chain Project	▨
	IT Project	●
	E-commerce Project	●
	Organizational Change	●

● Higher

○ Lower

▨ N/A

Impact from Half Double Methodology on Pilot Projects (2 of 2)

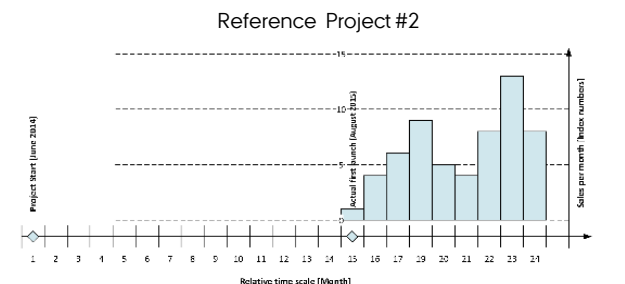
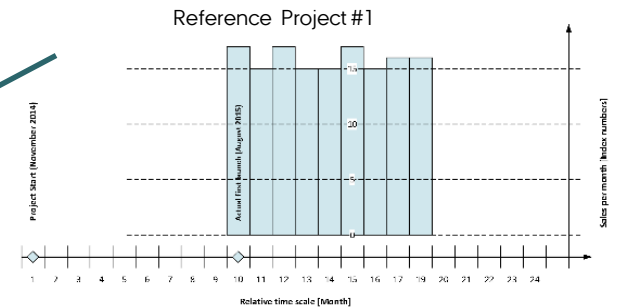
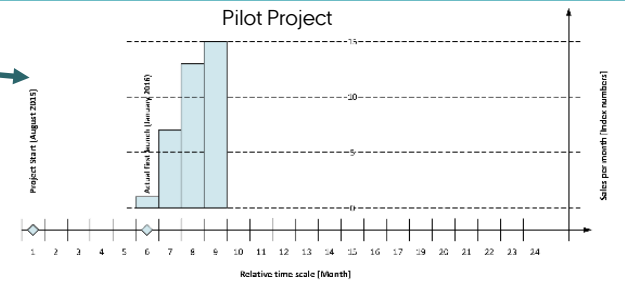
- › The Lantmännen Unibake, Novo Nordisk, GN Audio and VELUX pilot projects appear to have benefitted from using the Half Double Methodology
- › Grundfos and Siemens Wind Power pilot projects seem to have had little effect of using the Half Double Methodology
- › The Coloplast pilot project is still running, so we cannot yet comment on the potential effect from the Half Double Methodology
- › All the pilot projects have produced much learning beyond the more specific effect evaluated

(Svejvig et al. 2017)

Lantmännen Unibake: Faster Time to Market



Faster launch of products to stores



Truth Table for Qualitative Comparative Analysis (csQCA)

Lantmännen Unibake project practice (IFL)

	IMPACT	FLOW							LEADERSHIP						Project Success as faster lead time
	1. Focus on customer value	3. Co-location	7. Quick insight	8. Short and fat projects	9. Work with visuals	10. Kill complexity	2. People before models	4. Leadership is hardcore trust	5. Lead inwards	6. Steering Committee to Chaos Committee	TOTAL	AVERAGE			
	Pilot project	4	2,5	2	3,5	4	2	2,5	3	1,5	4	2,9	2,9		
	Ref. Project #1	4	1	3,5	3	2,5	3	4	3	2	2,5	2,65	2,65		
	Ref. Project #2	4	0	3	0	1,5	3	3	4	3	2	2,35	2,35		
Ref. Project #3	4	0	0	0	0	0	0	0	0	3	3	10	1,00		

Possible explanation:

- Co-location & Short and fat projects appears to be important factors in achieving shorter time to launch products
- However more analysis is needed...[methodological triangulation]

(Svejvig et al. 2017)

Why have four of the pilot projects benefitted from using the Half Double Methodology?

- › Research cannot give firm explanations (causal explanation), but only come up with indications and tendencies
- › Explanations (indications) are a combination of mechanism used in the pilot project and the context outside the pilot project (refer back to OMC model)
- › Indications of mechanism for the four projects:
- › Lantmännen Unibake: (1) Short and fat projects, and (2) Co-location
- › Novo Nordisk: (1) Short and fat projects, (2) Quick insights, (3) Working with visuals and (4) Steering committee for development and sparring
- › GN Audio: *We do not find that the pilot project sticks out in any positive way concerning the Half Double practices*
- › VELUX: (1) Short and fat projects, (2) Quick insights, (3) Working with visuals

Further Reading



Reports can be downloaded from
<http://www.projecthalfdouble.dk/en/research/>

Questions



References

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