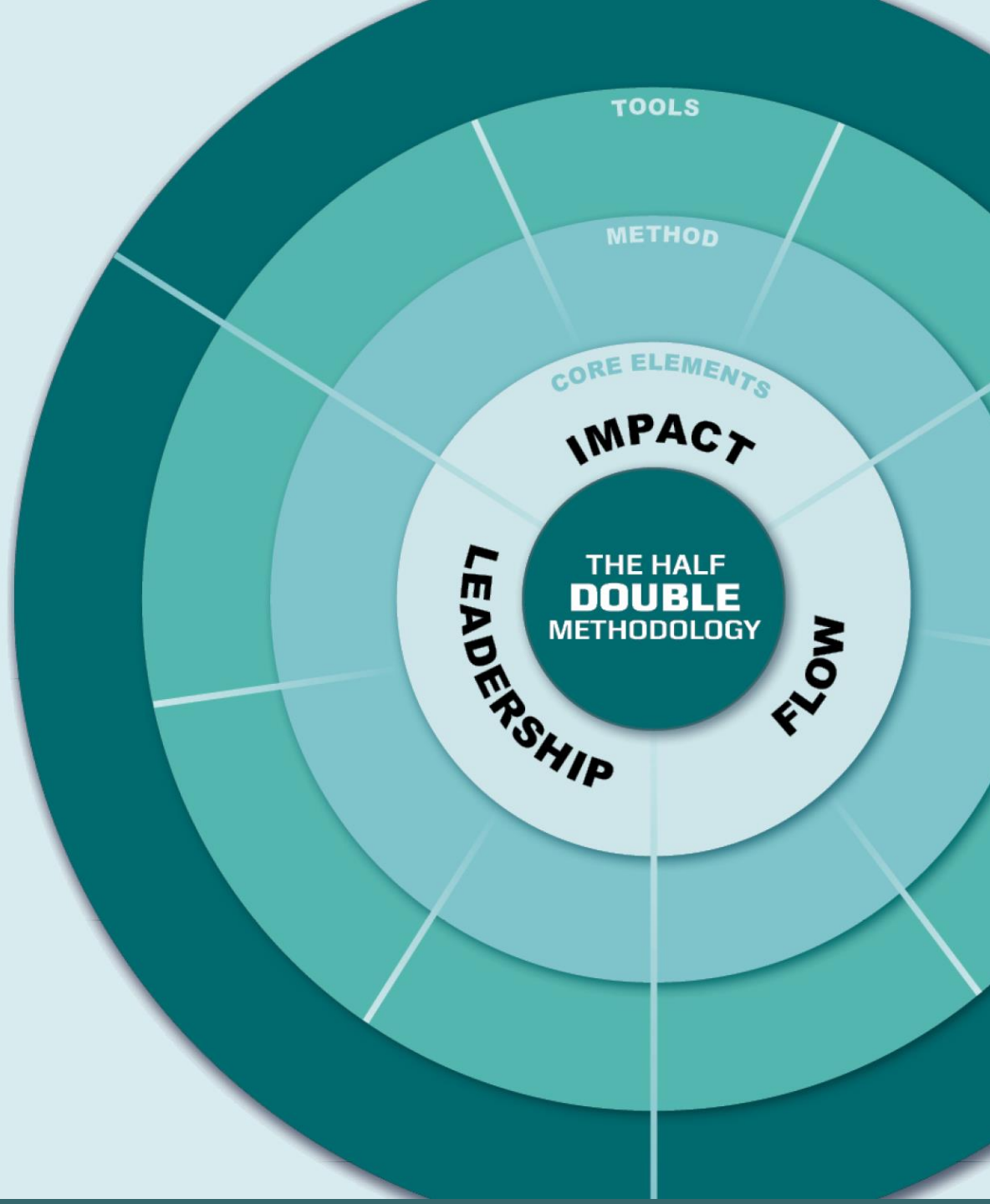


*Half Double conference
April 2018*

Key takeaways

**Project Half
Double**
– A proven
concept



PROJECT HALF DOUBLE



Project Half Double - A proven concept



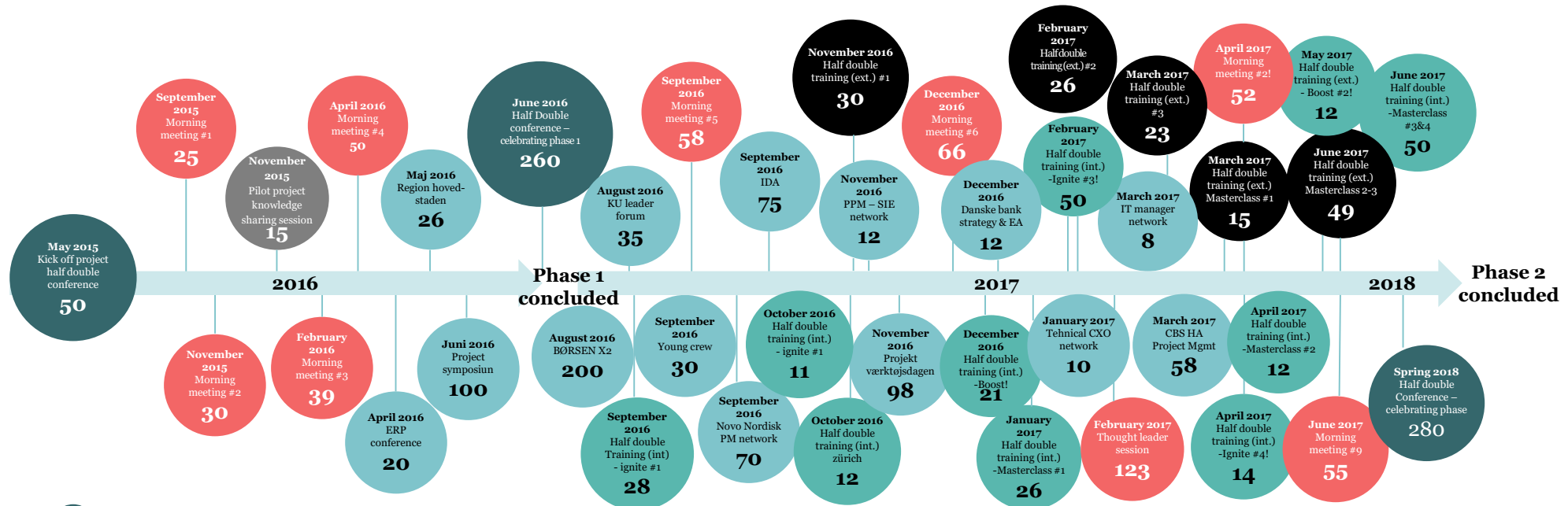
**PROJECT
HALF
DOUBLE**

3 years ago in June 2015



PROJECT HALF DOUBLE KICK OFF

Half Double events from 2016 to 2018



- 3** Big conferences
- 9** Community meetings
- +20** External events and networks
- 5** Free community training sessions
- +20** Training session

Methodology

3

core elements

Pilots

14

projects

INDUSTRIENS
FOND FREMMER DANSK
KONKURRENCEEVNE
The Danish Industry Foundation

13,8
mDKK

Research

3

universities

People

1500+

practitioners

Niels Ahrengot

Managing Partner in Implement Consulting Group

Project owner of Project Half Double

PhD, Technical University of Denmark (1988),

He is senior adviser for a wide range of global companies on strategic transformation. His fields of expertise include Operational Strategy, Lean, Project and Programme Management, Agility and Project Organisations.

Niels is the author of several management books and concepts, including Half Double, Kill Complexity, Fit for Fight and Power in Projects and Portfolios.

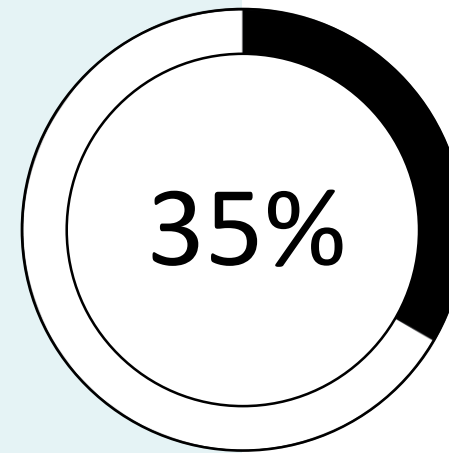


THE PROJECT SOCIETY

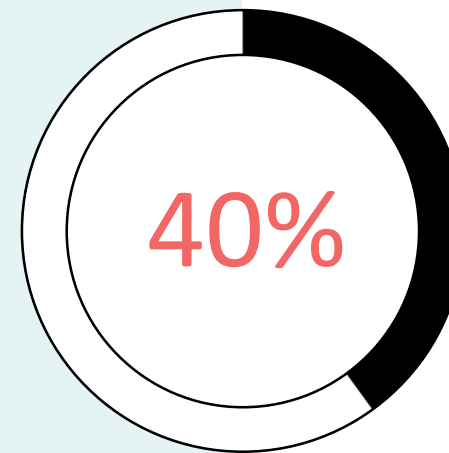


WORLD PROJECT GDP:
48 TRILLION DOLLARS

Schoper, 2013



of GDP in the
Western world
in 2010



of GDP in the
Western world
in 2020



THE GLOBAL GOALS
For Sustainable Development



Reducing
poverty

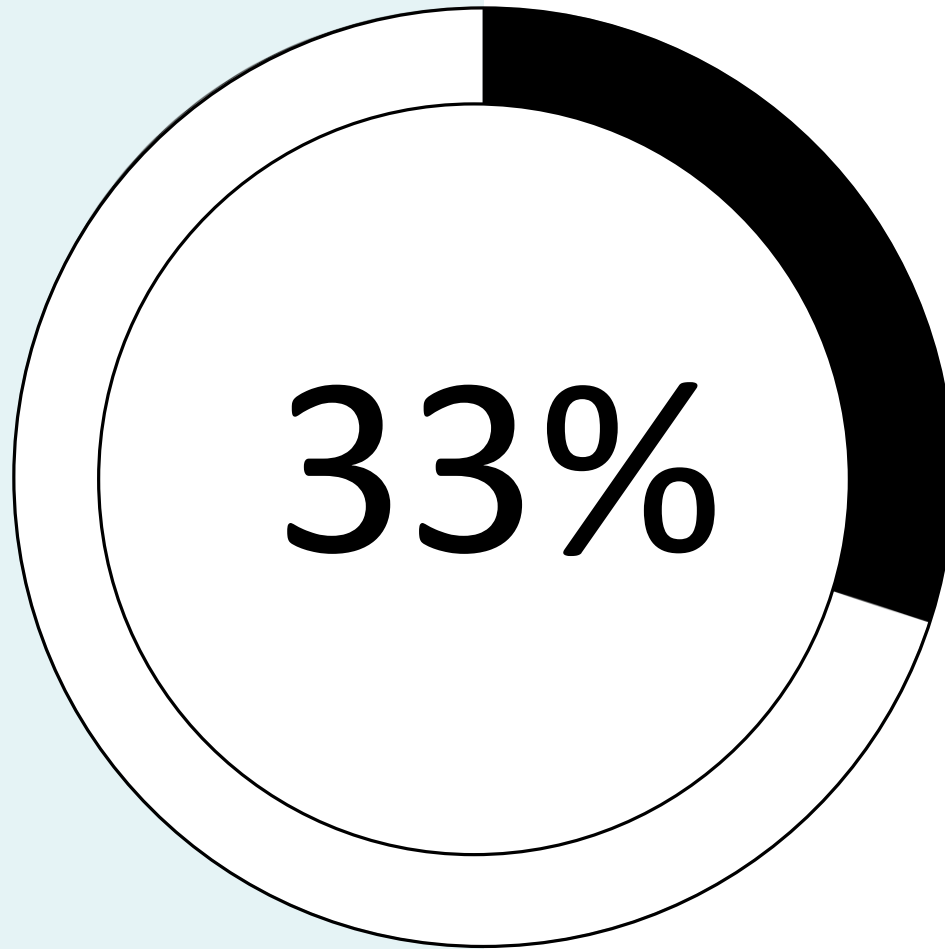


Hindering climate
change



Creating a radically more
innovative and **digital**
business world

IT'S ALL PROJECTS!



OF ALL PROJECTS TODAY
**ARE CHARACTERISED
AS SUCCESSFUL**

The Standish Group, 1994-2015



Stop Doing
What Doesn't
Work

WE NEED
**ANOTHER
APPROACH!**

WE KNOW WHAT TO DO!



**1,500+ PROJECT
WORKERS**

IT'S ALL ABOUT AN EXTREME **FOCUS** ON THREE **CORE** **ELEMENTS**



Impact



Flow



Leadership

What does your organization need to work on, in order to **work smarter** in your project factory?



“Impact focus in order to ...”



“Flow focus in order to ...”



“Leadership focus in order to ...”

You can download all the menti results on www.menti.com

Go to www.menti.com and use the code **22 93 85**

i

Mentimeter

What does your organisation need to work on, in order to work smarter in your project factory?

– Assign more qualified People to ongoing Projects. – cut half of project portfolio and focus on fewer simultaneous projects

NGO sector engagement from below public sector

Release early

Free up People from their daily work to have enough time to actually being part of doing project work

Delegate responsibility to

A combo of leadership and engagement

Clear targets, clear priorities, clear impact target, clear organization

Focus on impact creation and prioritize the few mist-win-

Show image

149

Associate Professor, Per Svejvig

Associate Professor at the Department of Management, Aarhus University.

His research interests are primarily in the area of Project Management and Project Studies, Rethinking Project Management.

He has among others published in International Journal of Project Management, Journal of Information Technology, Scandinavian Journal of Information Systems, Journal of Information Technology Case and Application Research, International Journal of Enterprise Information Systems, International Journal of Business Information Systems, International and Journal of Services Technology and Management and.

He holds a PhD in Enterprise Systems from Aarhus University.

He has more than 25 years of business experience as a manager, project manager and consultant.

He is a Certified Senior Project Manager (IPMA level B) and has practical experience with business and IT projects.






Half Double overview results

COMPANY	PROJECT TYPE	IMPACT FROM HALF DOUBLE METHODOLOGY	FULFILLING PROJECT SUCCESS CRITERIAS
	Product Development		
	Product Development		
	Market & Product Development		
	Supply Chain Project		
	IT Project		
	E-commerce Project		
	Organizational Change		
	Supply Chain Project		
	Supply Chain Project		

FULFILLING PROJECT SUCCESS CRITERIAS

-  Fulfilled
-  Partly fulfilled
-  Not fulfilled

IMPACT FROM HALF DOUBLE METHODOLOGY

-  High impact
-  Medium impact
-  Low impact

Two evaluation criteria's

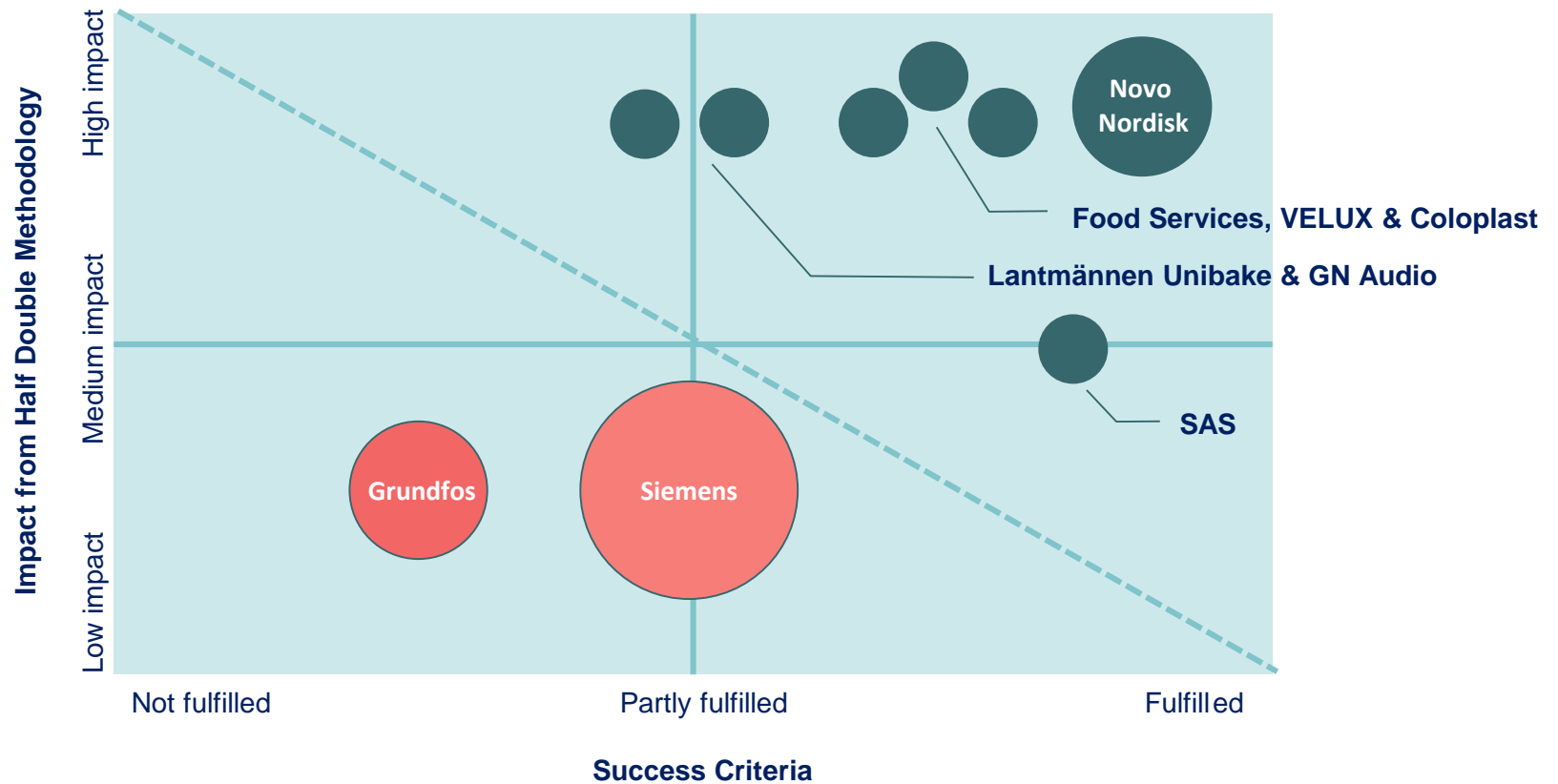
› **Impact from Half Double Methodology**

- › High Impact: Scores higher than comparable reference projects
- › Medium Impact: Scores higher than at least one reference project
- › Low Impact: No significant difference between pilot project and reference projects

› **Fulfilling Success Criteria's**

- › Not fulfilled: 0%-33%
- › Partly fulfilled 33%-67%
- › Fulfilled 67%-100%

Impact and success criterias of the Pilot Projects



Based on a comprehensive longitudinal research process

- › **Started in Summer 2015**, we have **three years research data** from **nine organizations** (and more are in process)
- › **More than 36 projects are detailed mapped** (one pilot project and three reference projects in each of the nine organization)
- › Typical 4-6 interviews, workshops and review meetings in each organization
- › **Comprehensive documentation** with **three reports published** about Project Half Double projects and an **internal report** for each organization
- › **Mixed methods data analysis** using **quantitative** and **qualitative** data analysis such 'Qualitative Comparative Analysis' (QCA)

Generalization and limitations

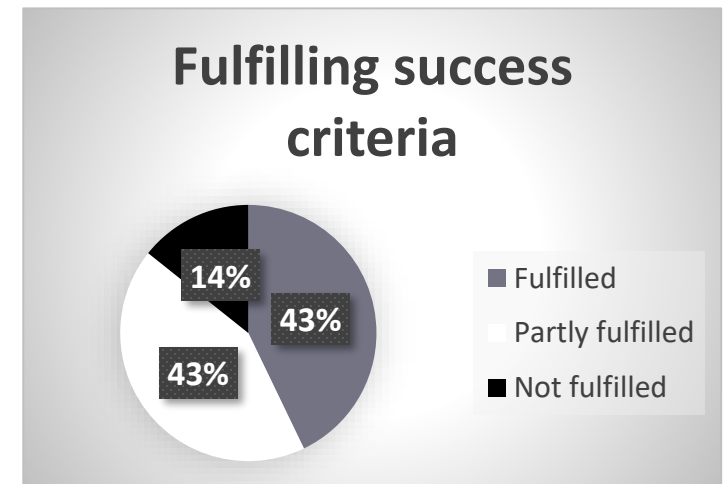
- › **Generalization:** Our results is based on nine pilot projects each compared with three similar reference projects – it is possible to use analytical generalization to generalize to other settings
- › **Limitations:** Our research cannot give causal explanations, but only come up with indications and tendencies (**A *can* lead to B**, not that A *will* lead to B)
- › Explanations (indications) are a combination of practices used in the pilot project and the context outside the pilot project
- › **Please refer to reports about Project Half Double** to get more details about the research process and limitations

Finding one: Half Double Methodology Works!

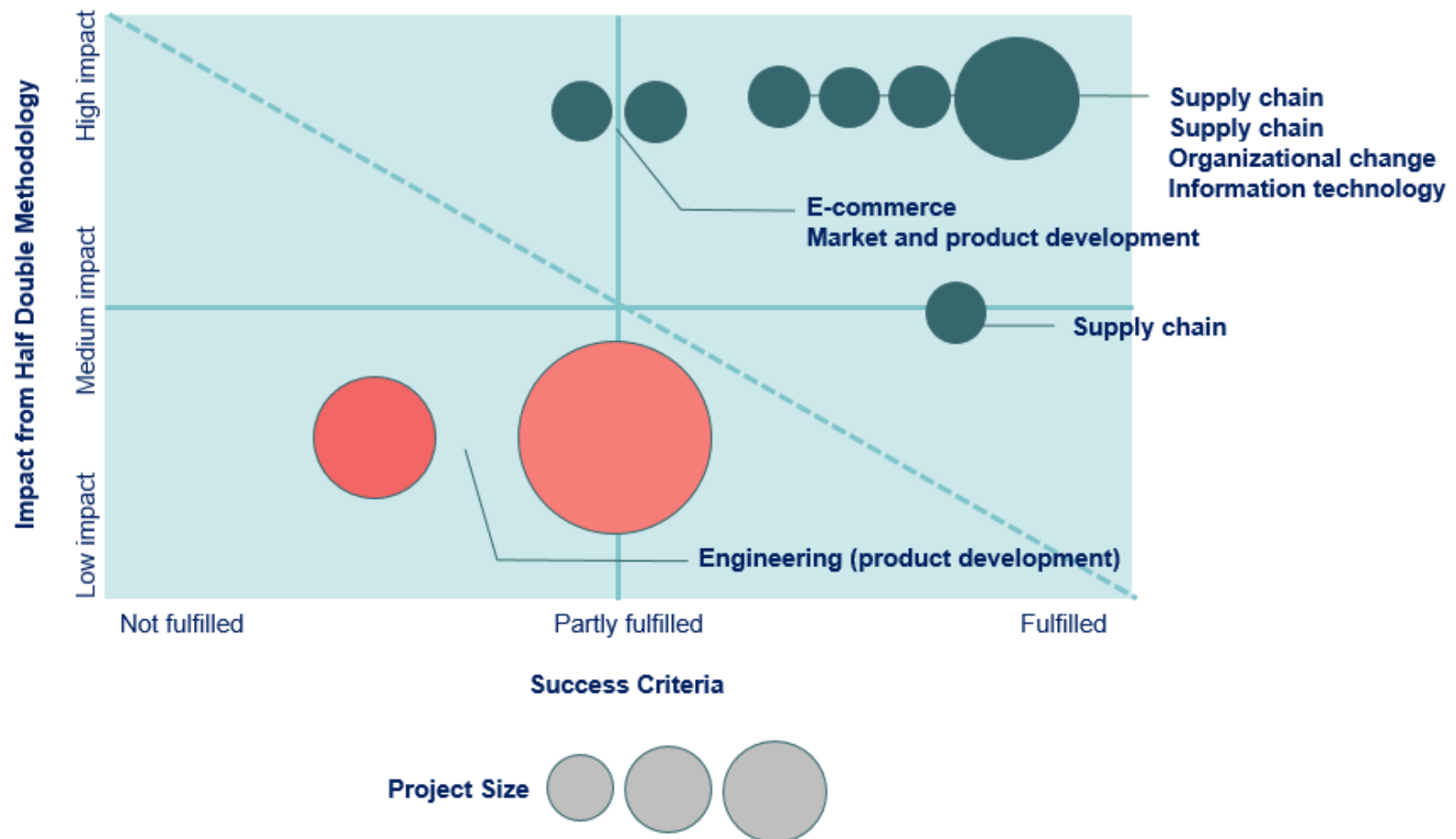
- › Half Double Methodology has been tested in nine organizations and it works in 7 out of 9 organizations
- › The overall conclusion is that ***Half Double Methodology can lead to higher impact from the pilot projects compared to similar reference projects in the same organization.***

Finding one: The Pilot Projects are successful with respect to success criteria

- › **Eight out of nine pilot projects (86%) has fulfilled its project success criteria's either fully or partly**
- › **We consider the results to be promising** with eight out of nine projects fulfilling its project success criteria's, which appear to be a high score compared to general results
- › Even the project not fulfilling the success criteria should not be seen as a failure as it is part of any product development process to have many opportunities in the pipeline and to select some projects to continue



Finding two: Sweet spots are where the project type and size matches the methodology



Finding three: Powerful practices make a difference

HD PRINCIPLE	HD PRACTICE	CHANGE IN PM PRACTICE
Flow	Short and fat projects	
Impact	Impact case	
Impact	Impact solution	
Impact	Pulse check	
Leadership	Steering committee supports through development and sparring	

› This is compared to practices used in reference projects

What do other studies say?

- › We find that, for **effective project governance**, the availability of relevant and realistic information for making authorization decisions in the **business case (e.g. target benefits)** is the strongest predictor of project success overall.
- › The second strongest predictor is the application of **disciplined governance arrangements** throughout the project life cycle.
- › Additionally, the existence of the **project owner role as the single point of accountability** in the organization is a strong predictor of project success.
- › For benefit management, the strongest predictor of project success is the process of **continuous review and realignment of actual project outcomes with target outcomes**.
- › The second strongest predictor is ensuring that **project outputs are integrated into the regular business**

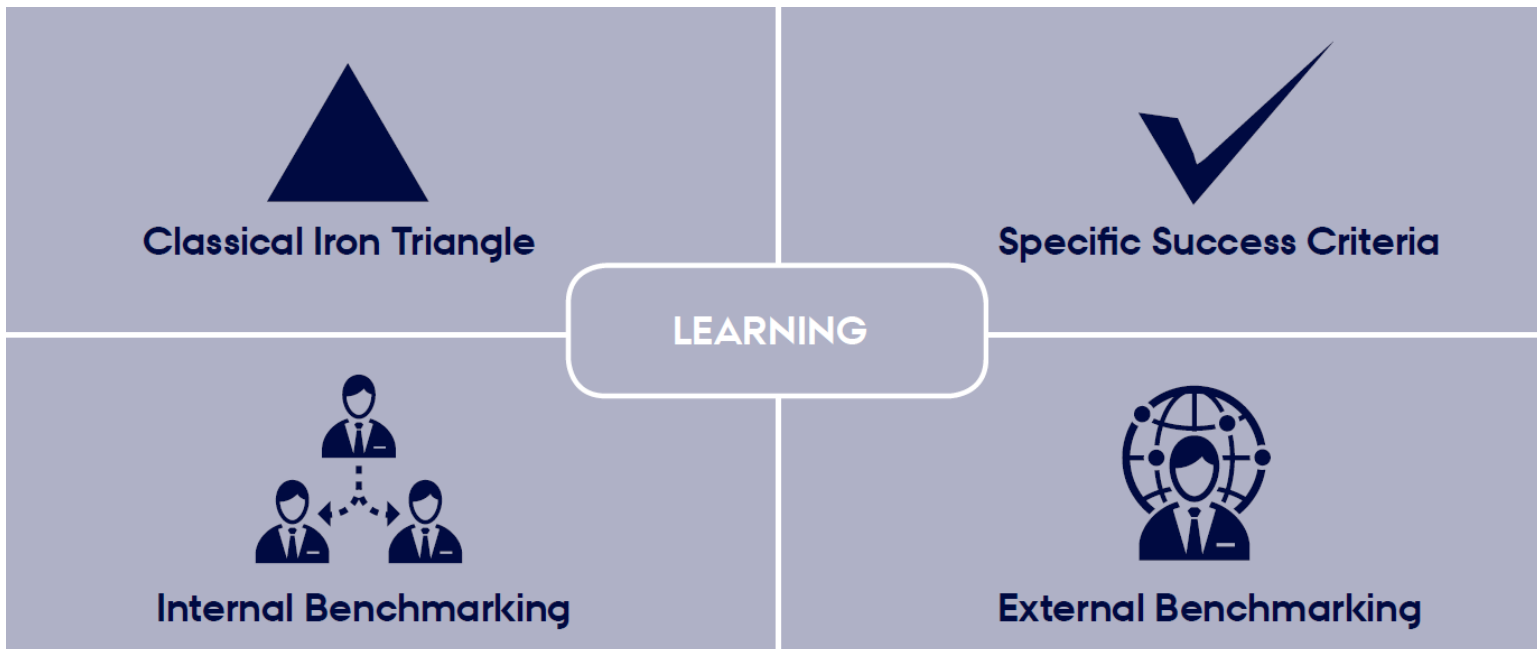
Finding four: Simplicity is a keyword for the Half Double Methodology

- › There is a growing tendency that best practices and de facto standards are increasing in size and scope (see table)
- › It is easy to get lost and not being able to see the forest for the trees
- › Half Double Methodology is a minimalistic methodology consisting of the Half Double Concept and the Half Double Book on less than 100 pages
- › However, the trade-off is that the project core teams, project managers and project owners need to be highly skilled as reflective practitioners.

Source	Pages
Project Management Body of Knowledge (PMBOK) sixth edition with agile practice guide	978 pages
AXELOS Managing Successful Projects with PRINCE2 (2017 edition)	405 Pages
Individual Competence Baseline (ICB) for project, programme and portfolio management	416 Pages
Half Double Methodology	Less than 50 Pages

Finding five: Multi-faceted evaluation is part of the learning process

- › Project Half Double has established a comprehensive multi-faceted evaluation framework to provide sound empirical evidence of using the Half Double Methodology



Learning an often overlooked factor

**The many learning points from each pilot project
show that the Project Half Double
has left its clear footprint**

Summary of high level findings

- › Finding one: Applying the Half Double Methodology works
- › Finding two: Sweet spots are where the project type and size match the methodology
- › Finding three: Powerful practices make a difference
- › Finding four: Simplicity is a keyword for the Half Double Methodology
- › Finding five: Multi-faceted evaluation is part of the learning process

Director, Merete Færgemand

Director of Incubation Applied R&T in Novozymes

PhD in Applied Biotechnology

20 years experience in innovation and leadership within the biotechnology industry. Broad experience with product innovation for the food ingredient and biotech sector and the author of several patents and publications in that space.

Cross-cultural experience from working in India and Switzerland, before recently returning to Denmark.

Passionate about leading people – and highly successful in creating impact across commercial and technical organizations.

Member of the Advisory Board for Certificate in Entrepreneurial Leadership – CEL™ at DTU Business. Former Chair of the IDA Food Science network.



With 70 years of expansion we've grown in size and complexity



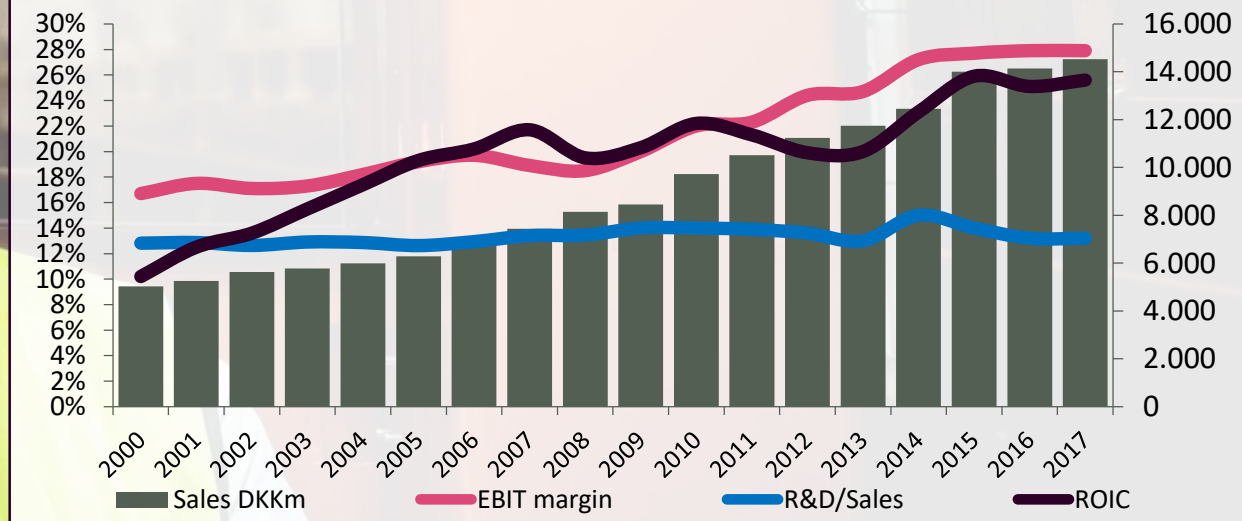
2018: ~700 products sold in 140 countries



1941: First enzyme sold
Enzyme production
initiated in the cellar of
Novo Therapeutics



17 years of innovation driven growth



Drawing Parallels to Biology

In nature, microorganisms survives by extending antennas, to explore for nutrition.
Once spores find nutrition, it expands by secreting enzymes to digest nutrition

It leads to an exponential growth phase where it can expand four-fold in a day

Novozymes has learned to harness the capabilities of the biological world for creating sustainable business

We, like nature, need to explore new ways to expand our impact



**PROJECT
HALF
DOUBLE**

Novozymes' Learnings from Project Half Double

Our key success criteria in a Half Double project



Benefits of Half Double

Project Ownership

- Accountability
- Performance management
- Active project coaching



Planning

- Visual planning tools
- Clear goal setting
- Unambiguous roles & responsibilities



Project Organisation

- Co-location and co-creation
- Focused and coordinated activities fostering better collaboration
- High allocation (>50%)



Increased Energy, Drive & Speed



Challenges



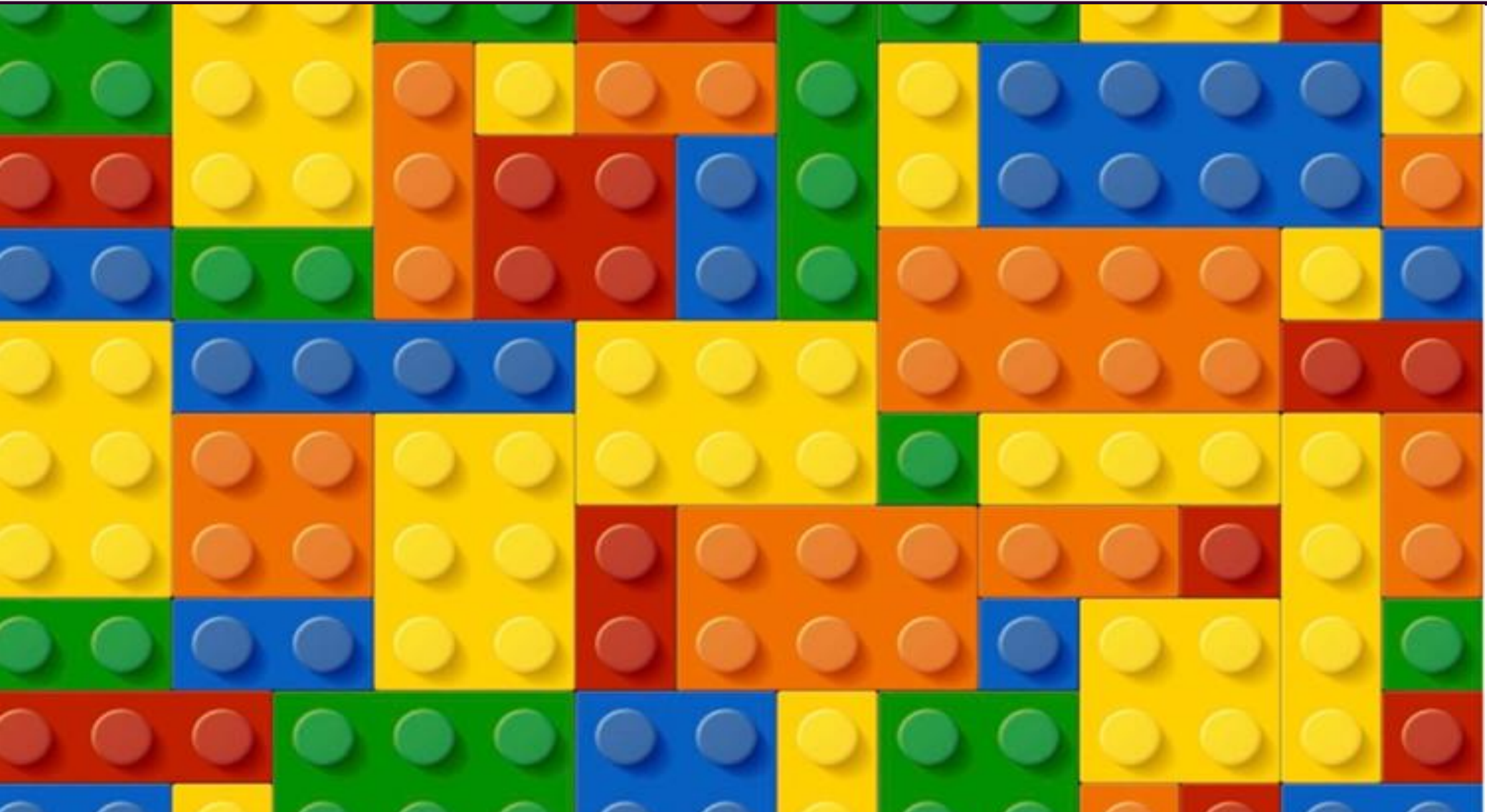
Challenges – keeping the pace



Challenges – Picking the right team



Challenges – across functions and geography



Challenges – running several tracks



Challenges – planning instead of playing



Great Outcomes of The Half Double Project

Two projects accelerated with **6-12 months**

Fail fast, learn fast

Too early to establish **hard impact** \$\$



Great Outcomes of The Half Double Project

Close collaboration through **co-location**

High **allocation**

Clear **visualisation** of goals, activities and roles



Great Outcomes of The Half Double Project

Performance **transparency**

Active project **coaching**

Accessible leadership



Outcome of The Half Double Project

Project Outcomes

2 projects accelerated with
6-12 months

“Fail fast, learn fast”

Close collaboration through **co-
location**

High **allocation**

Clear visualisation of goals,
activities and roles

Performance **transparency**

Active project **coaching**



Potential improvements

Too early to conclude on
commercial impact

Missing link to **co-creation**

Sprinting all the time

High **intensity**

A lot of **planning**

Difficult to have **ownership**
across multiple projects

Professor Andrew Davies

Professor of the Management of Projects at The Bartlett Faculty of the
Built Environment, University College London

30 years teaching and collaborative research with industry on innovation in
projects and project-based firms at leading universities (Sussex University,
Imperial College and University College London)

Author of articles in leading journals such as MIT Sloan Management
Review, California Management Review, Research Policy, and several
books including my recent one titled Projects: A Very Short Introduction,
Oxford University Press

Member of Project Management Journal and International Journal of
Project Management editorial boards. Founder member of The Future of
Project Management, a collaboration between Arup, UCL and the
Association of Project Managers



Challenges of delivering London's mega projects

- Ultra-large “megaprojects”
- Complex “system of systems”
- Uncertain
- Construction in busy urban context
- Transformational - “too big to fail”
- Poor performance – 9 out of 10 megaprojects globally are over budget

UK projects: late and over budget again and again!



Channel Tunnel



Scottish Parliament Building



Wembley Football Stadium



Jubilee Line

The traditional delivery model was broken

- Fixed-price contract
- Select lowest price bid
- Transfer risk to contractor
- Arms-length client-contractor relationship
- Adversarial
- Avoid innovation
 - “When it comes to innovative ideas...on major projects the natural state of mind is to control risk by using the tried and tested”
 - Andy Mitchell (Crossrail Programme Director, 2012)

Changing the rules of the game

- Heathrow “T5 Agreement”
 - New cost-reimbursable flexible contract
 - Collaborative integrate project teams
 - Actively manage risk and uncertainty
 - Exploit opportunities to innovate when the project is underway
- Learning transferred to London 2012, Crossrail and other projects



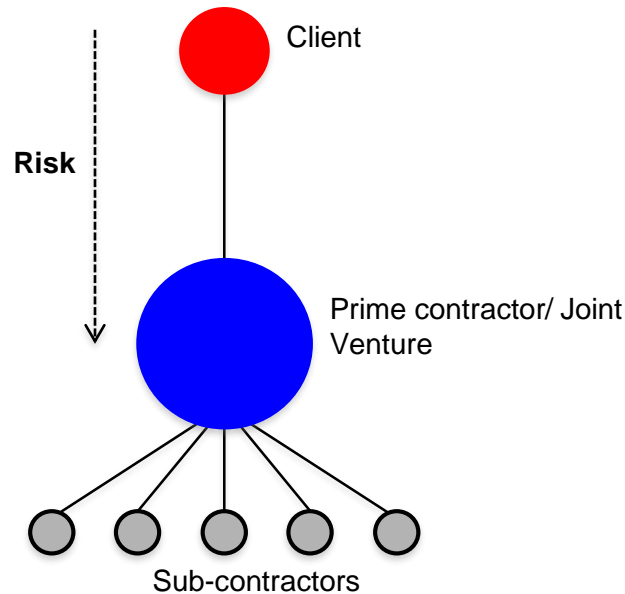
Making T5 Within budget.

To make the T5 project a great success, we need great people delivering quality work, safely, within budget and being on target. The Heathrow Partnership Contract Team are working together to do this. The £2.5 billion extension of the T5 terminal, around the world's eastern edge not only came in three weeks ahead of schedule, but under budget too – a major achievement in the face of some extraordinary challenges. In years to come, each of them will be proud to look back and say “I built T5”.



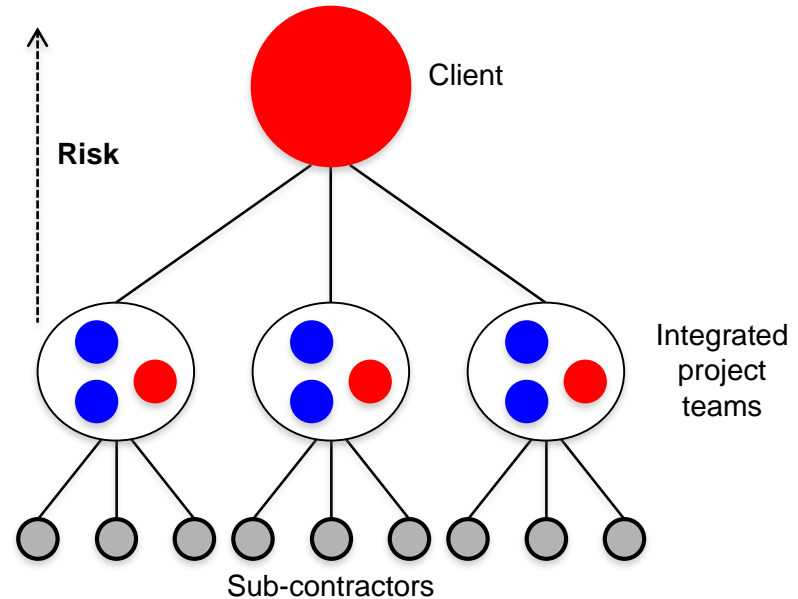
The world's most successful airport development

The new project delivery model



Traditional contracting

- Client transfers risk
- Arms length relationship
- Adversarial
- Fixed-price contract

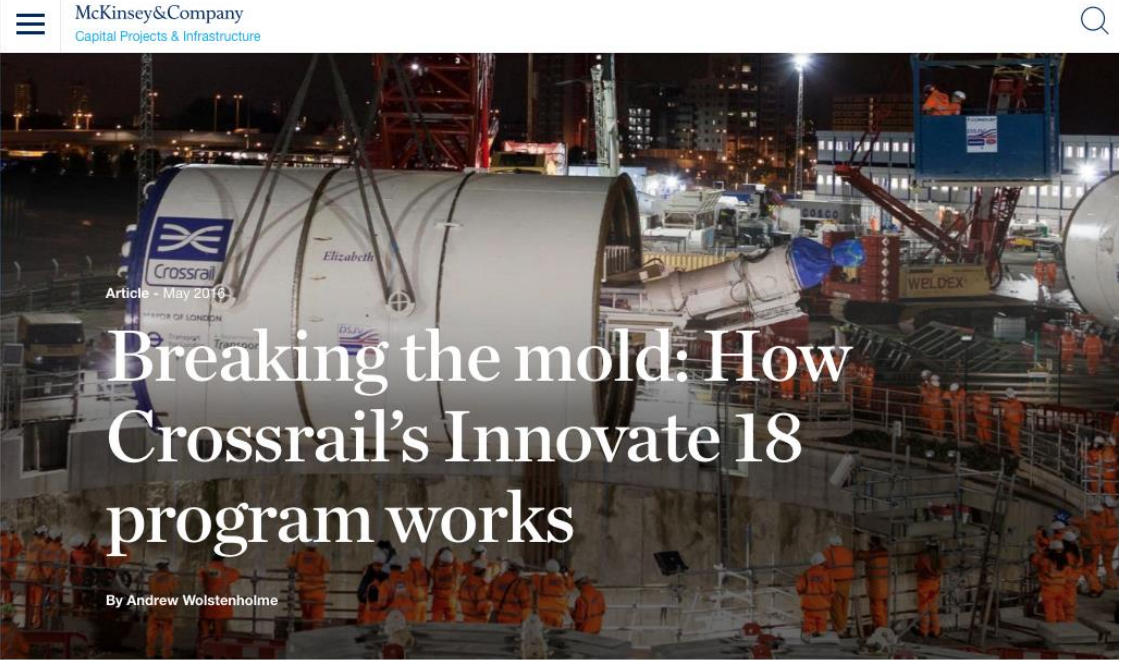


T5 Agreement

- Client bears the risk
- Collaborative
- Partnership
- Cost-reimbursable contract

Changing the rules of the game

- Crossrail
- World's 1st innovation programme for an infrastructure project
- “sent a powerful message that it was OK to generate new ideas, something that is not always typical of major construction projects”
- Andrew Wolstenholme, Crossrail CEO (2011-2018)



McKinsey & Company
Capital Projects & Infrastructure

Article - May 2016

Breaking the mold: How Crossrail's Innovate 18 program works

By Andrew Wolstenholme

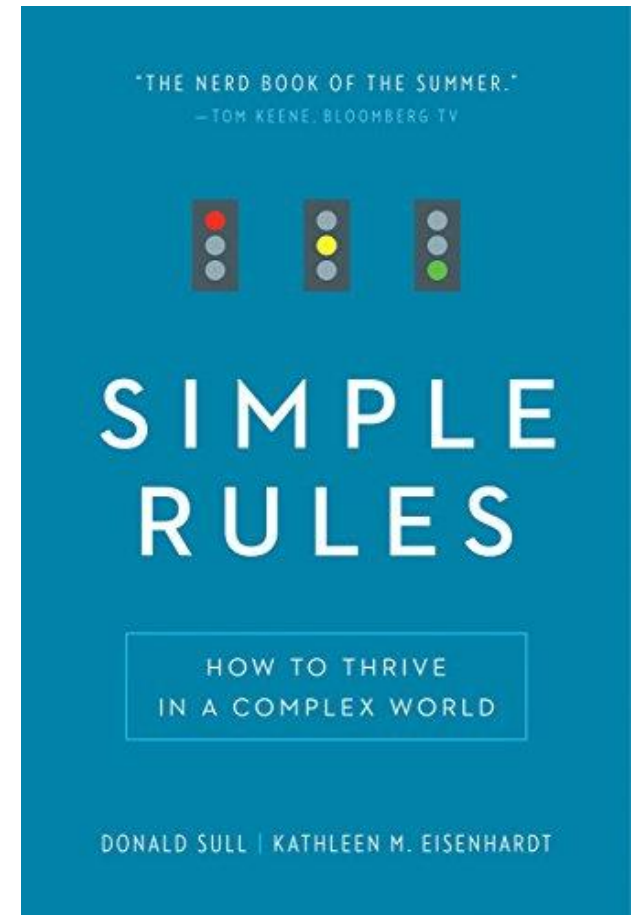
in twitter facebook email print download

A major project in London figures out how to get new ideas flowing.

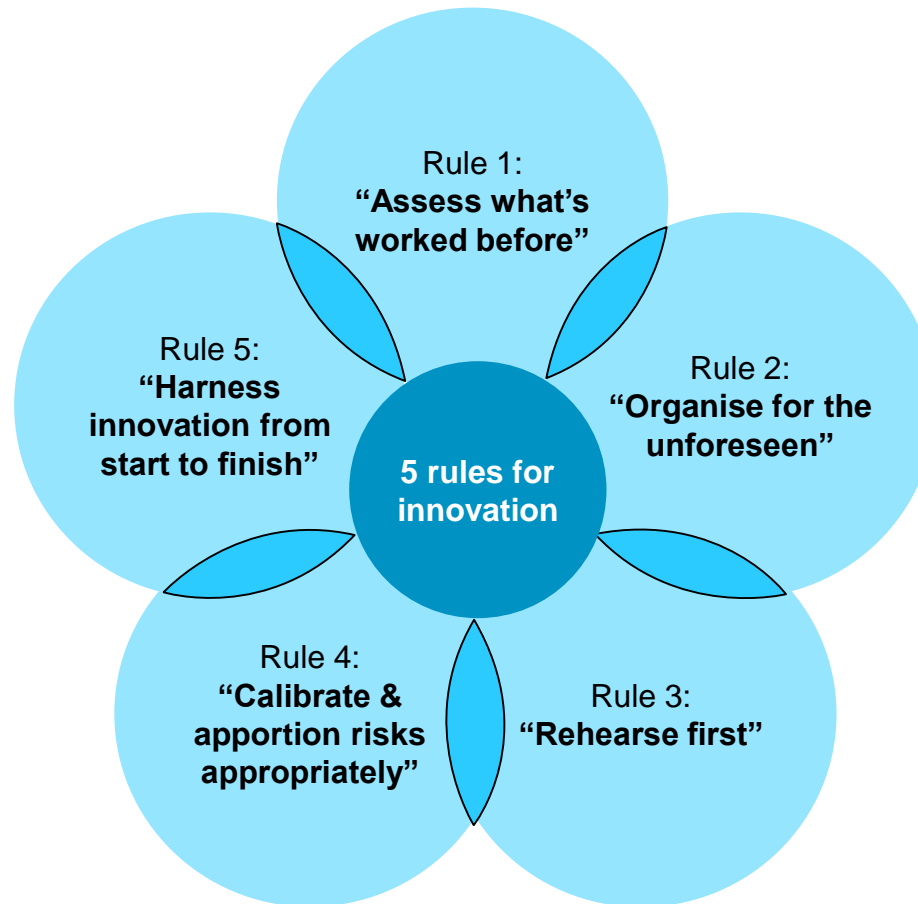
Crossrail is Europe's largest infrastructure project. The £14.8 billion rail line will link four major London economic centers: Canary Wharf, the financial district, the West End, and Heathrow Airport. It will be integrated with other transport services and increase central London's rail capacity by 10 percent. Scheduled to open in late 2018, Crossrail is running on time and on budget. In short, it is on track to success. One reason for that is Innovate 18, our program to identify and implement new ideas.

Research findings

- Simple rules
- Help people make better decisions, when information is limited, without losing sight of the overall strategy
- “Close to the facts on the ground, individuals can draw on their judgement and creativity to manage risks and seize unexpected opportunities”

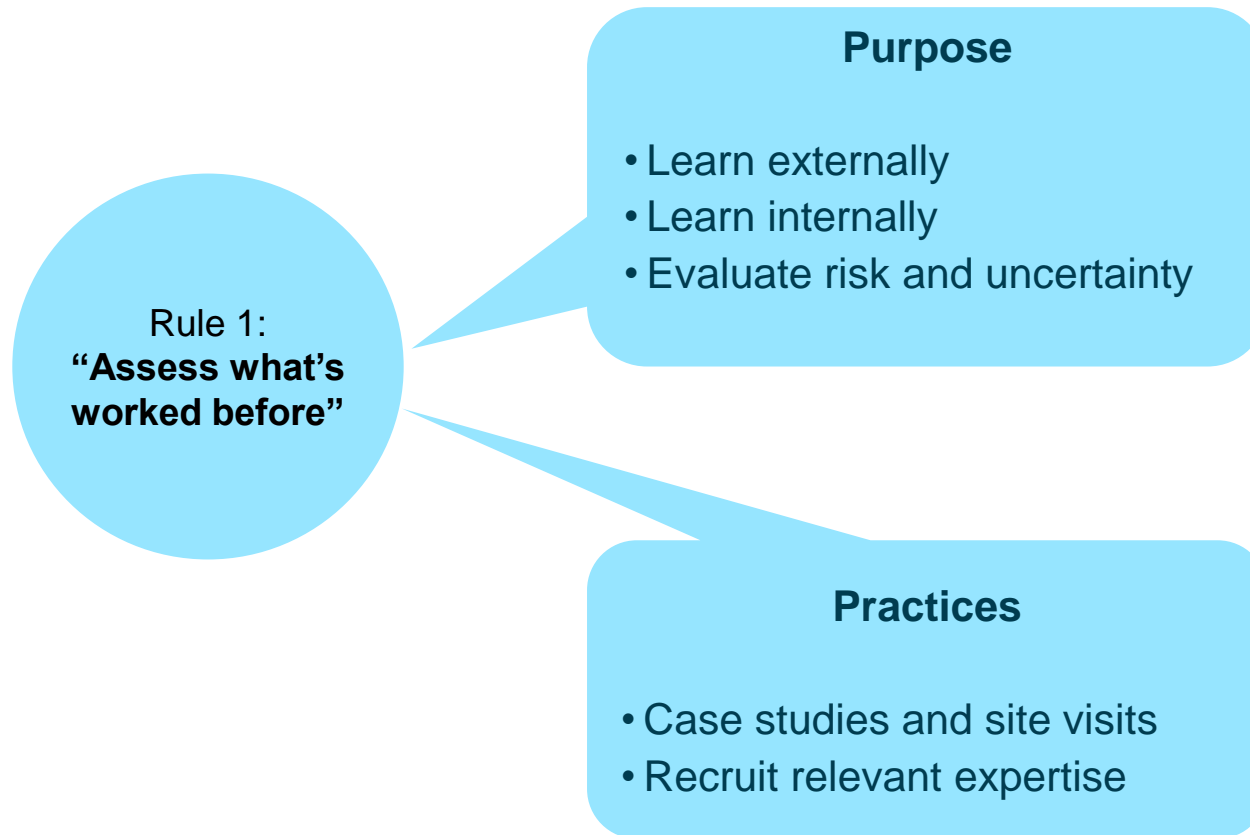


Rules for innovation in large, complex projects*

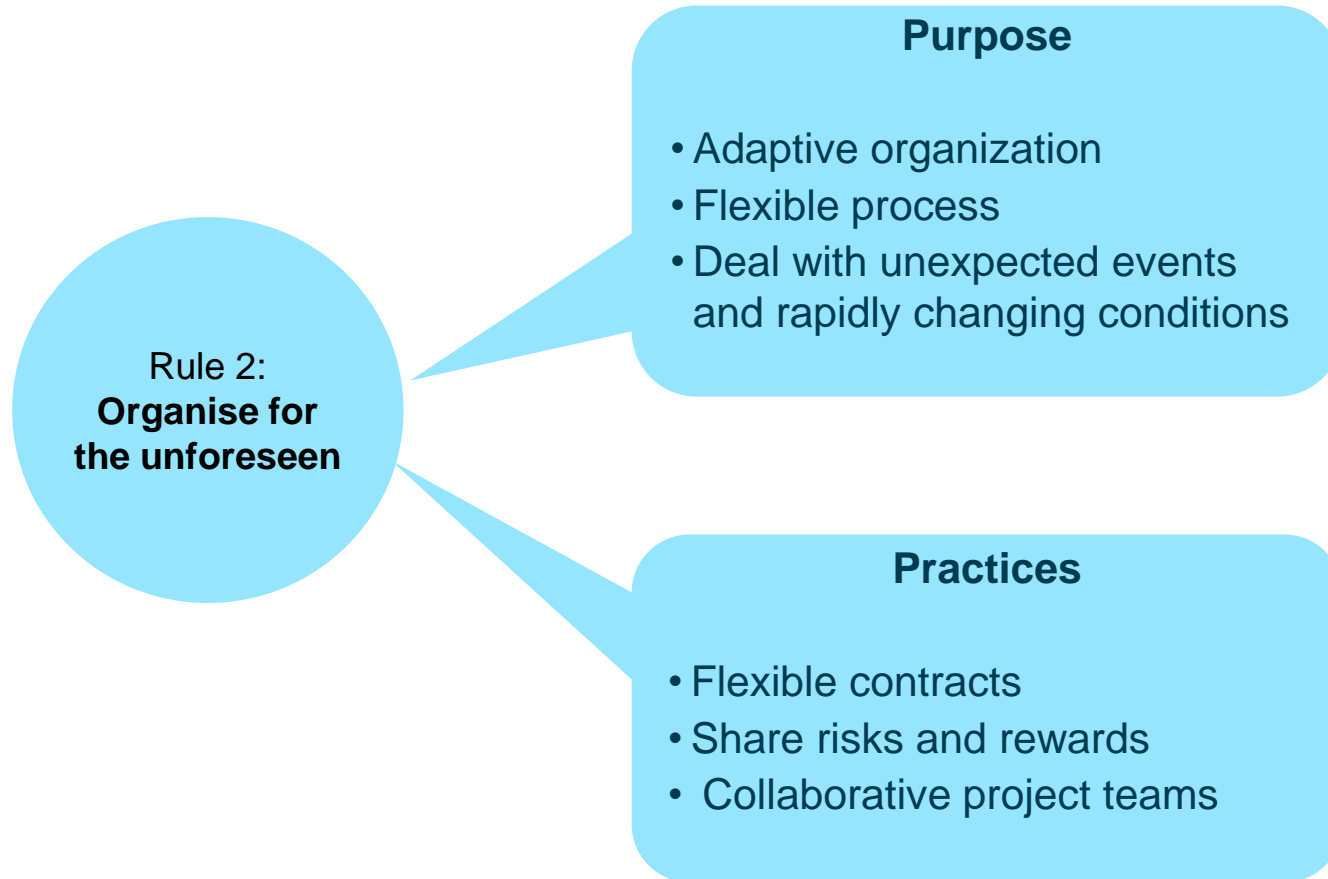


- *'Five Rules for Managing Large, Complex Projects', **MIT Sloan Management Review**, Fall 2017, Andrew Davies, Mark Dodgson, David M. Gann, and Samuel C. MacAulay

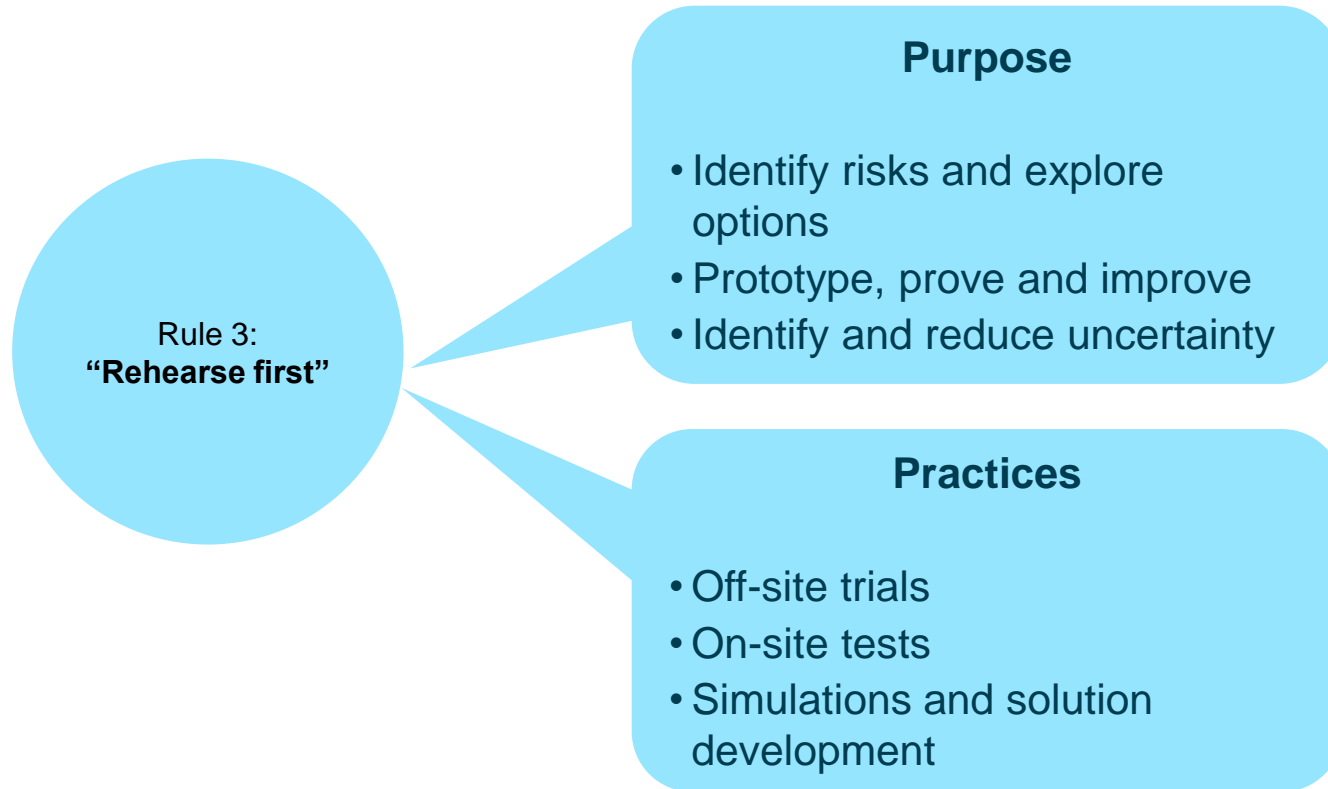
Rule 1: innovation in large, complex projects



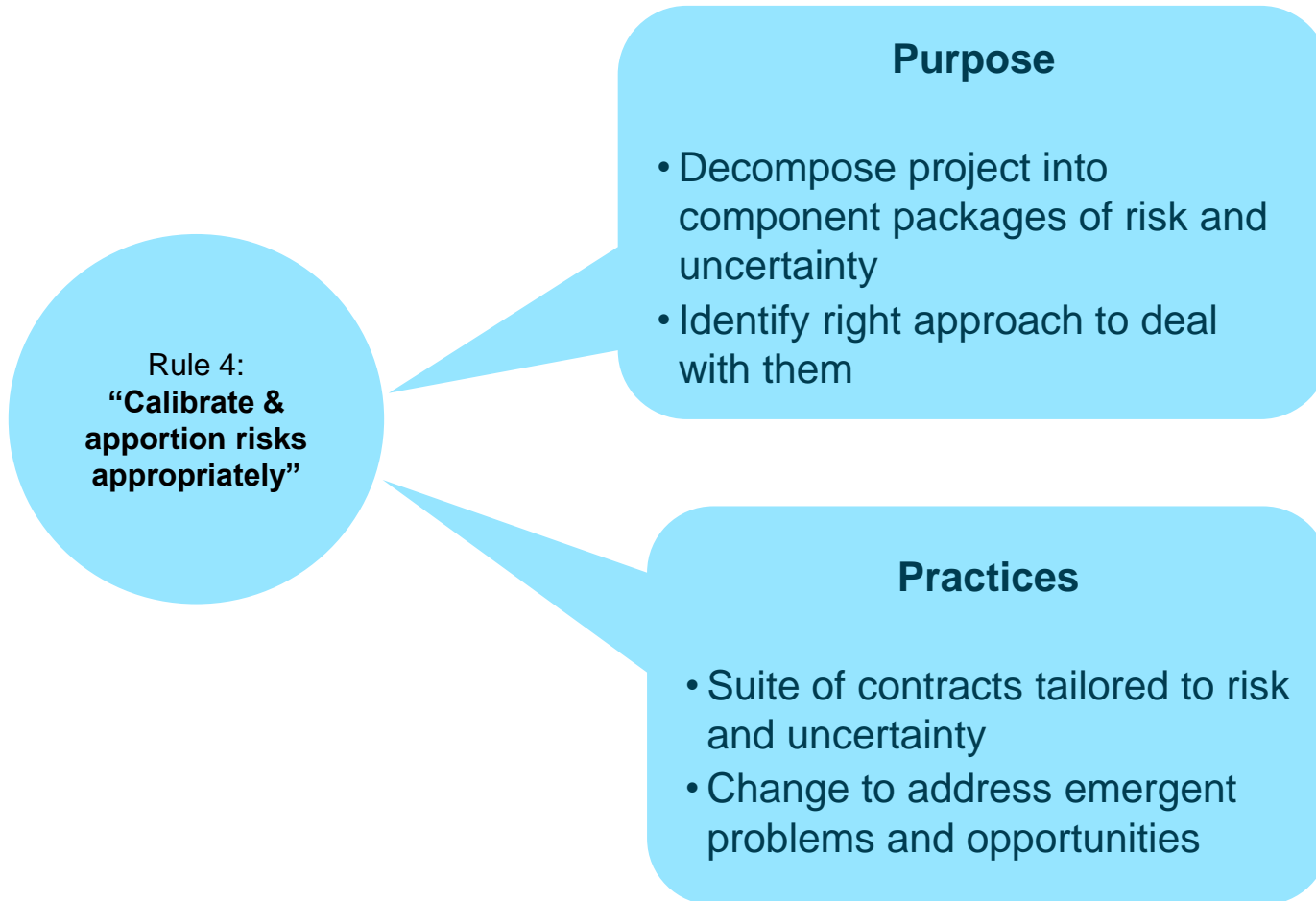
Rule 2: Innovation in large, complex projects



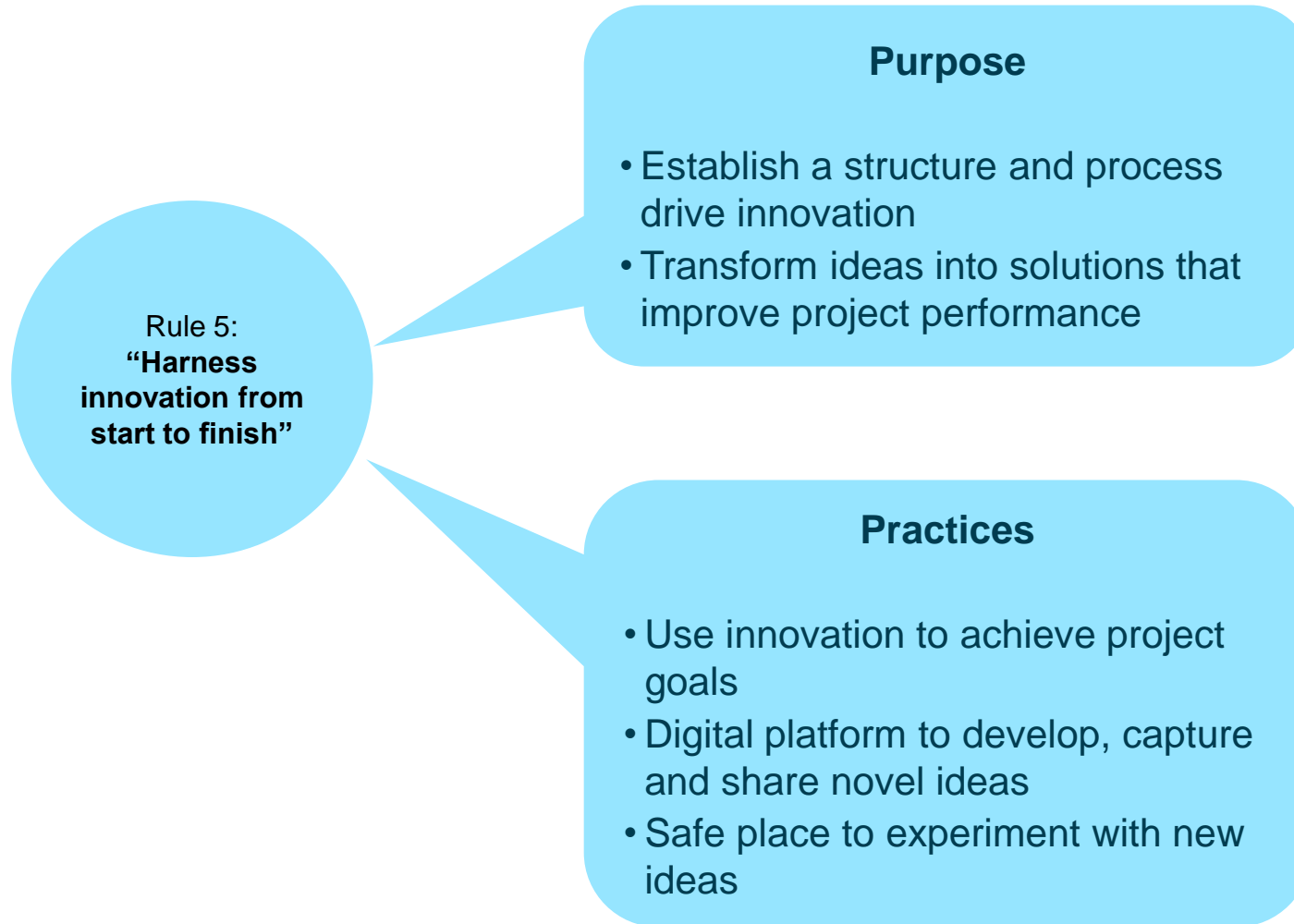
Rule 3: Innovation in large, complex projects



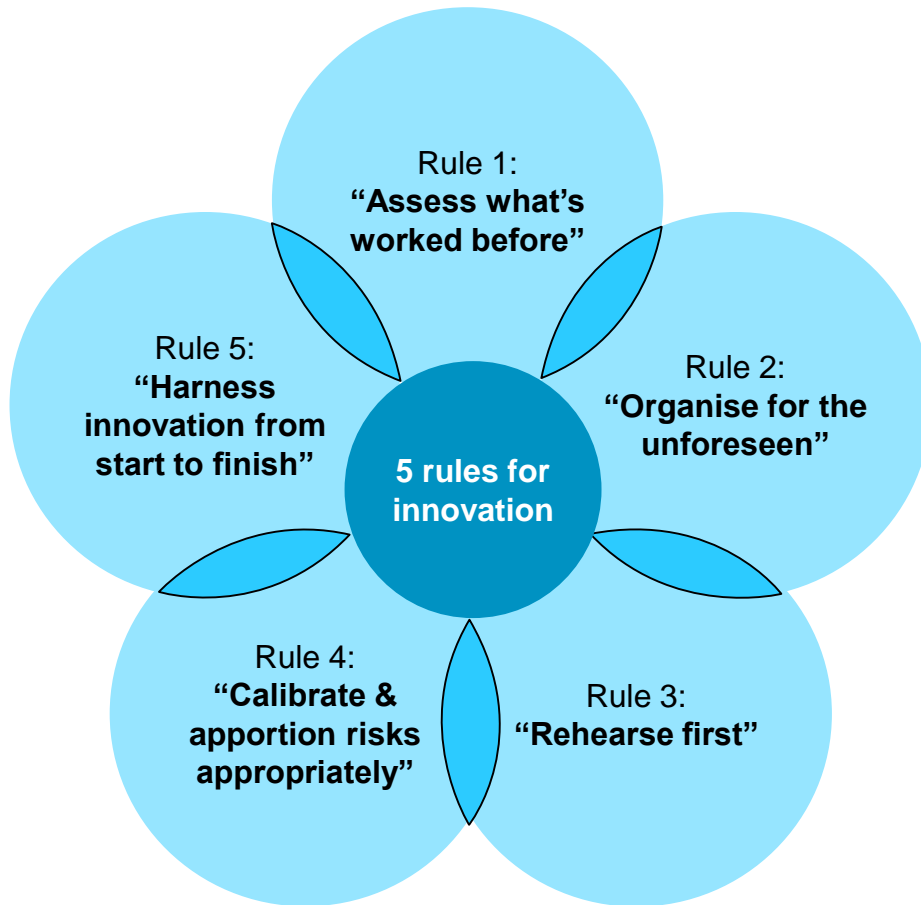
Rule 4: Innovation in large, complex projects



Rule 5: Innovation in large, complex projects



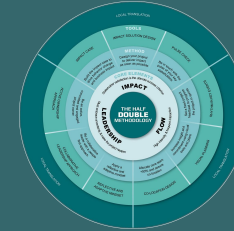
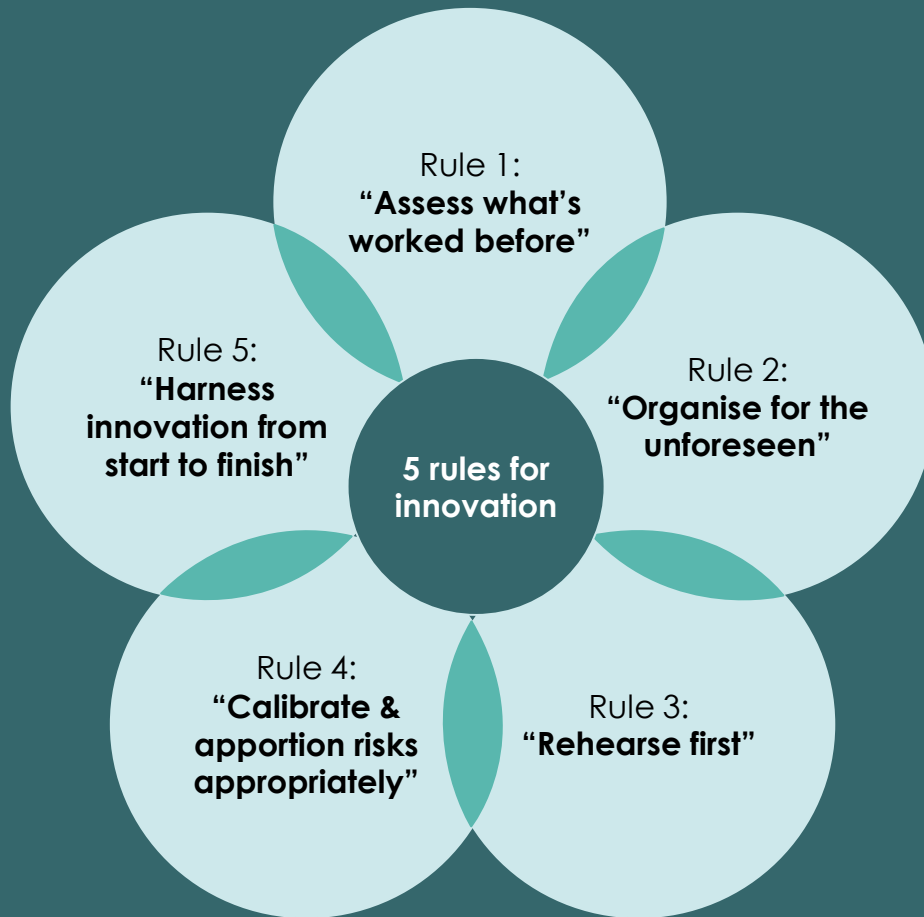
Implications for your projects



- Large, complex projects are becoming more innovative
- The risk is being shared by clients with partners in collaborative project teams

Mega projects related to Half Double

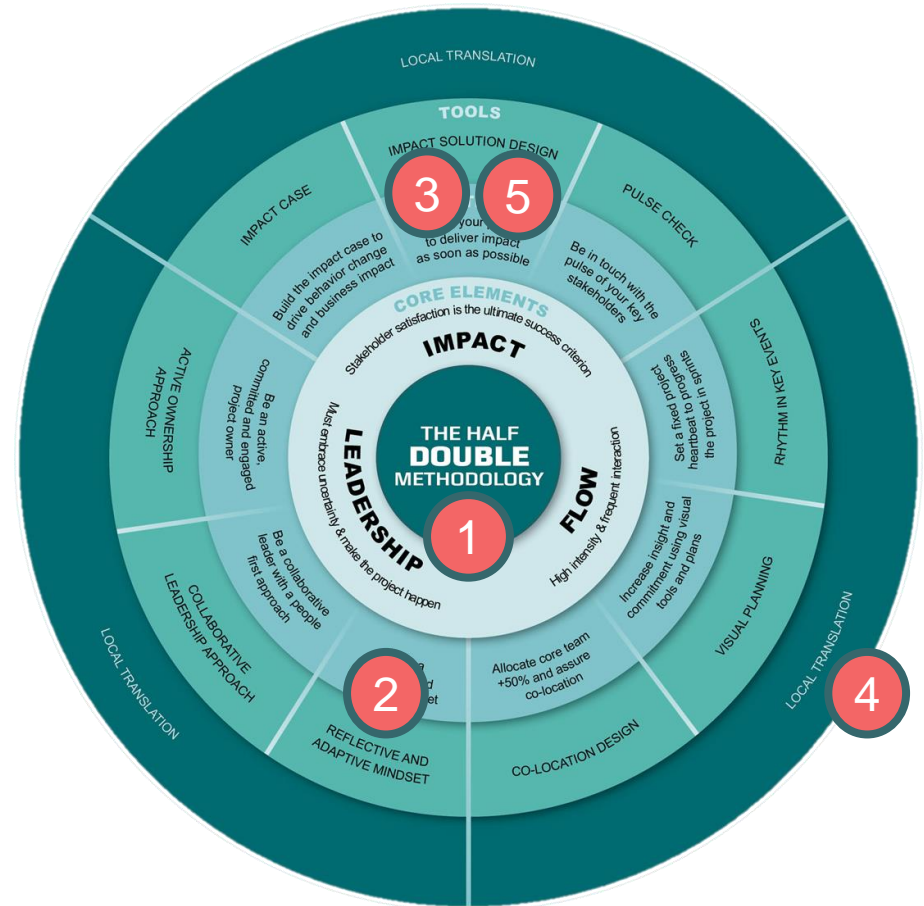
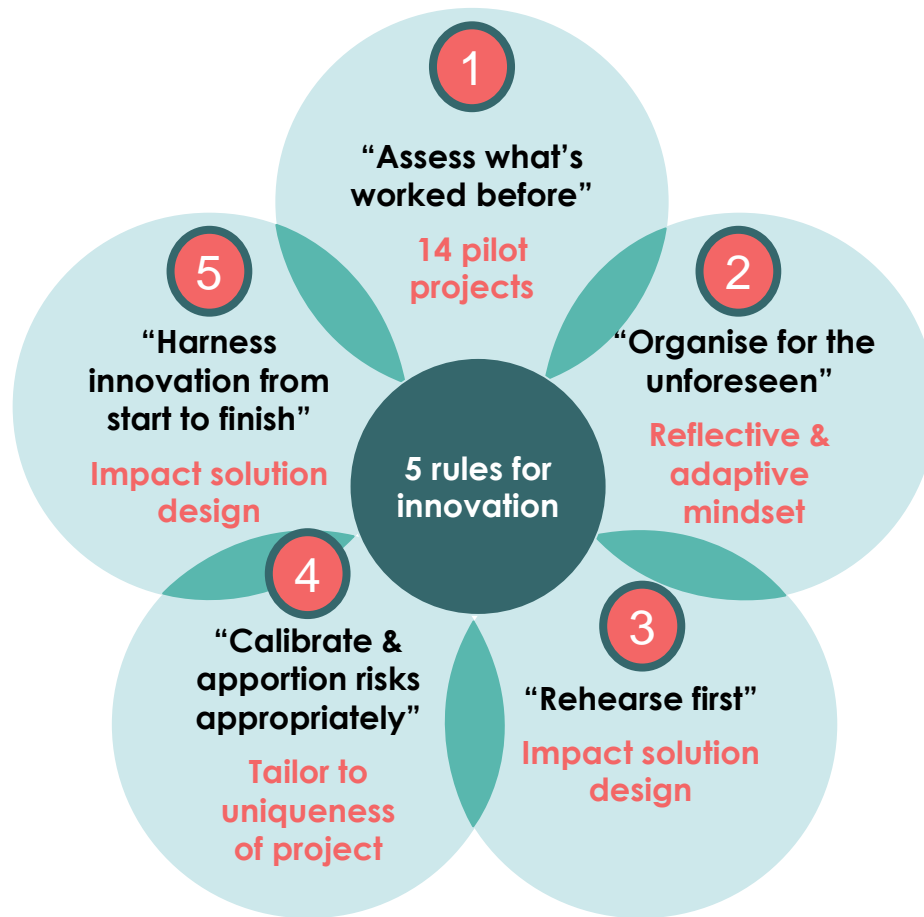
Mega projects related to Half Double

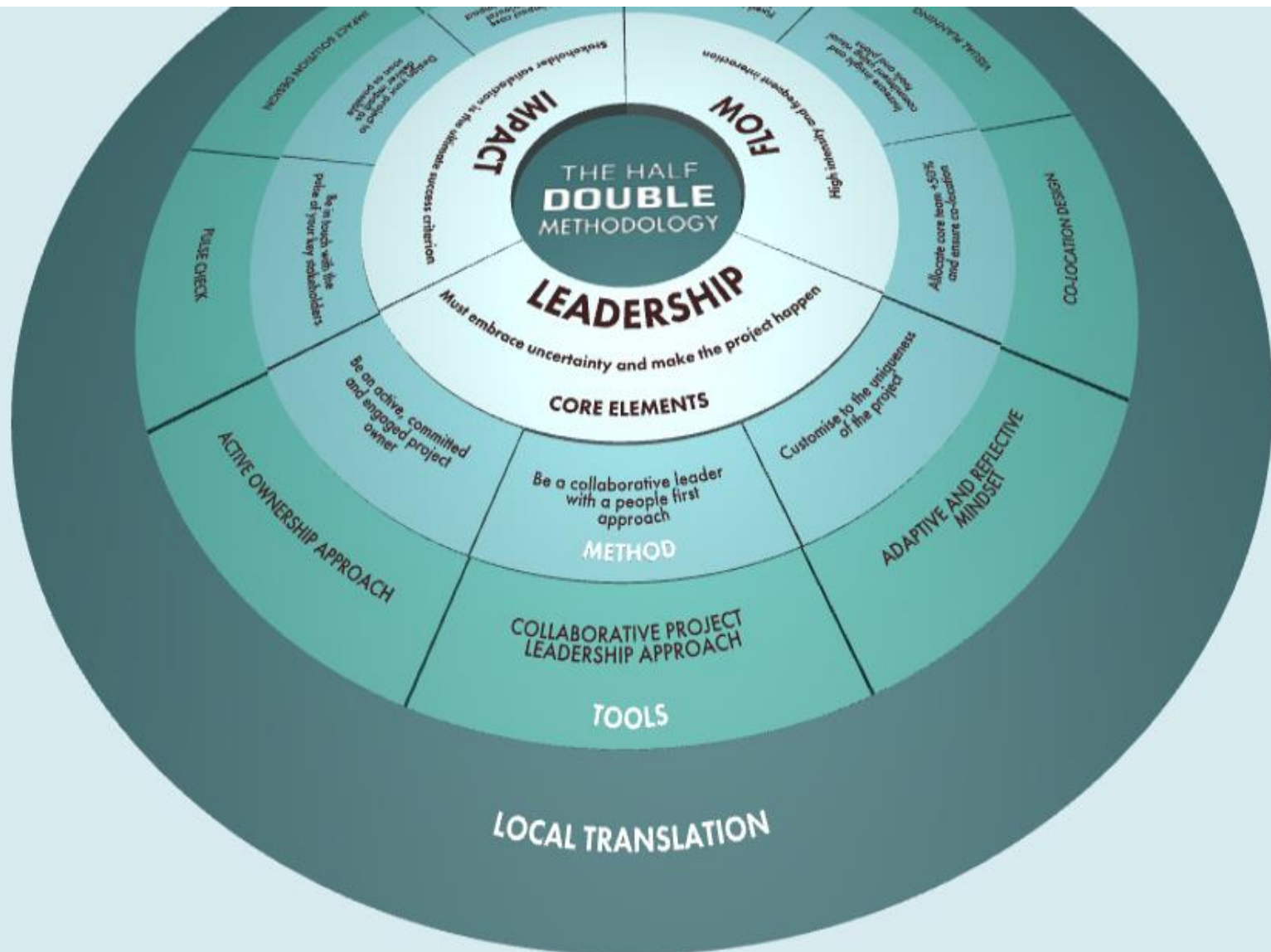


We share the **same mindset**:

- Collaboration as key
- Innovation as an integrated part
- Change of delivery model = avoid fixed price contracts
- Local translation to project uniqueness
- Simple rules for complex human systems

5 rules for innovation related to Half Double





The book is here

Projects in Half the Time,
Double the Impact

HALF DOUBLE

The title 'HALF DOUBLE' is rendered in large, bold, red, sans-serif capital letters. A large, thick, black brushstroke '2' is written over the word 'DOUBLE'. A black 'X' is drawn over the 'DOUBLE' part of the title. The background features a faint, light blue circular graphic behind the text.

WRITTEN BY

JOHN RYDING GLEASON
KAROLINE THORP ADLAND

MICHAEL EHLMERS
NIELS AHRENGOT

Global translation

National translation



Diffusion of the methodology to the national and global level is next step!

i

How would you describe this conference?

