Chapter 1

What worked in the past won’t work in the future

Don’t look back

You’re not going that way!

Throughout human history, great progress has been made every time we questioned our basic assumptions

… Who says we can't fly to the moon?
… Who says we can't produce energy from atoms?
… Who says we can't cure cancer?

The same applies to the way we run our society and our companies in the western world.
As management consultants, we asked ourselves the following questions to challenge & develop our work

What assumptions have led to our increase in prosperity?

Are there assumptions that are outdated in our project management?

What new principles would create further progress and growth?

The next chapter elaborates on our reflections. Do they make sense to you? Can you relate?

The past was built on efficiency and optimization

For thousands of years, the human race lived as hunter-gatherers and the simple notion of agriculture didn't dawn on anyone. It was a giant leap when we stopped living like nomads and started staying put. We went from short-sighted thinking and eating everything here and now to gathering reserves, sowing and cultivating, and keeping and breeding animals. This stage change multiplied our production by the hundreds. Today, a relatively small percentage of the world's population feeds the rest.

Henry Ford's transformation of car manufacturing from workmanship to industry, marked the beginning of the efficiency-driven era. Industrialization was founded on four simple principles: standardization, reproducibility, specialization, and the division of labor. Throughout the sixties, quick changeovers became increasingly important because multiple suppliers offered similar products.

During this period, Toyota factories developed what is now known as LEAN. LEAN was based on five principles: 1. Identify the Value, 2. Map the Value Stream, 3. Create Flow, 4. Establish Pull, and 5. Seek perfection. Once again, the principles were very simple, but throughout the eighties, they formed the basis for the superiority of the Japanese automakers, which outmatched their American colleagues. It took the US factories 240 days to produce one car, whereas it only took the Japanese 24 hours![1]

The Japanese production costs were half those of the US, and the quality was better. Today, these principles of focusing on value adding time, cycle time, lead time, and waste reduction through continuous improvements are well-known best practices with all production management. The Japanese mantras of small batch sizes and flow struck a responsive chord all over the world.

EFFICIENCY PARADIGM

Product and process optimization with markedly reduced lifetimes

Is it still appropriate to emphasize optimization when product lifecycles have already been drastically reduced?

In the last 40 years, international trade has increased by ***1500 %***[4]

The number of products and technologies increases vertically, while lifetime decreases drastically

In 1982, 33% of revenue and 22% of profits came from new products. Just ten years later, these figures had risen to 50% and 40%[3]. To understand this, let's consider a few examples: The majority of HP's profits today come from products that didn't exist a year ago. Cell phones generally have a commercial lifetime of just three months. And new software updates are released on nearly a monthly basis[4].

How to live and prosper in an uncertain & rapidly changing future?

Strategies that were once needed and that worked in the past won't accommodate the needs of tomorrow's fast-paced environment. We're headed for a world with no speed limits. A life where new products, technologies, and needs wash over us like a tsunami. In an effort to optimize our products and processes, all these changes can feel like a never-ending sea of interruptions.

We're in a position where optimization is growing increasingly desperate as service lives are continually declining. Creation is outpacing optimization. We need to understand that the efficiency paradigm is water under the bridge and that we actually live in an innovation-driven reality. It's essential that we learn to exploit the accelerating flow of opportunities rather than viewing them as interruptions.

Out of the blue
3D Robotics is a good example of a company emerging based on a product costing only a fraction of an existing product. Every day, Chris Anderson, editor of Wired Magazine, received tech gadgets and toys for review. One day he brought home an RC model airplane and a LEGO Mindstorm set for review. His plan was to build a LEGO robot and test the airplane. He had trouble controlling the airplane, so he combined the LEGO control system and the GPS sensor from a cell phone with the airplane – and 3D Robotics was born. Suddenly, it was possible to build a drone for less than $500, even though they feature 90% of the same functions as the Raven, which comes in at $50,0008[2].

The future is made up of innovation and quick reactions
The fashion company ZARA's business model is based on quick reactions, because fashion is notoriously unpredictable. Their business principle is to distribute limited collections to stores and observe what the customers actually buy. That way ZARA isn't left with large collections on their hands. And they can sell everything at regular prices. For customers, this means there is always something new in the stores, which increases their visit frequency. If a customer sees an interesting product, she better buy it immediately because within two weeks the collection will have changed.

ZARA manufactures their clothing in Europe. It's more expensive, but the supply chain is shorter. Other brands manufacture their products in China, but before the shipping container has completed its trip around the world, the fashions have changed.

It's essential that we learn to exploit the accelerating flow of opportunities rather than viewing them as interruptions

Half of S&P 500 companies disappear every 20 years[7]

The world is changing very fast. Big will not beat small anymore. It will be the fast beating the slow
– Rupert Murdoch[19]

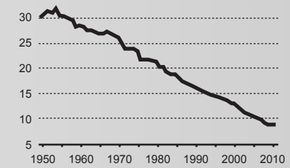
Easy access to knowledge
The value of your network increases exponentially with the number of users
– Metcalfe's law

Companies are evolving into smaller units with higher sales. In the US, the average company has gone from 25 to 10 employees in the last 25 years[2]

Technological development is exponential
Information technology doubles its performance every 18 months
– Moore's law

The best way to predict the future is to invent it
– Alan Kay

American workers engaged in production in percent[6]



Micro-multinational companies
are gaining ground with just a few or even a single employee[4]

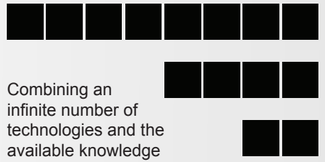
NO SPEED LIMIT

The lifetime of a multinational company is 40-50 years[4]

Infinite knowledge
Our knowledge doubles in volume every 8 to 9 years

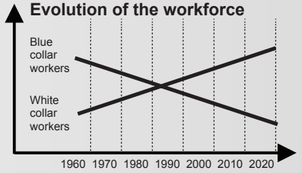
The company life expectancy in Japan and Europe is 12.5 years[4]

INNOVATION PARADIGM



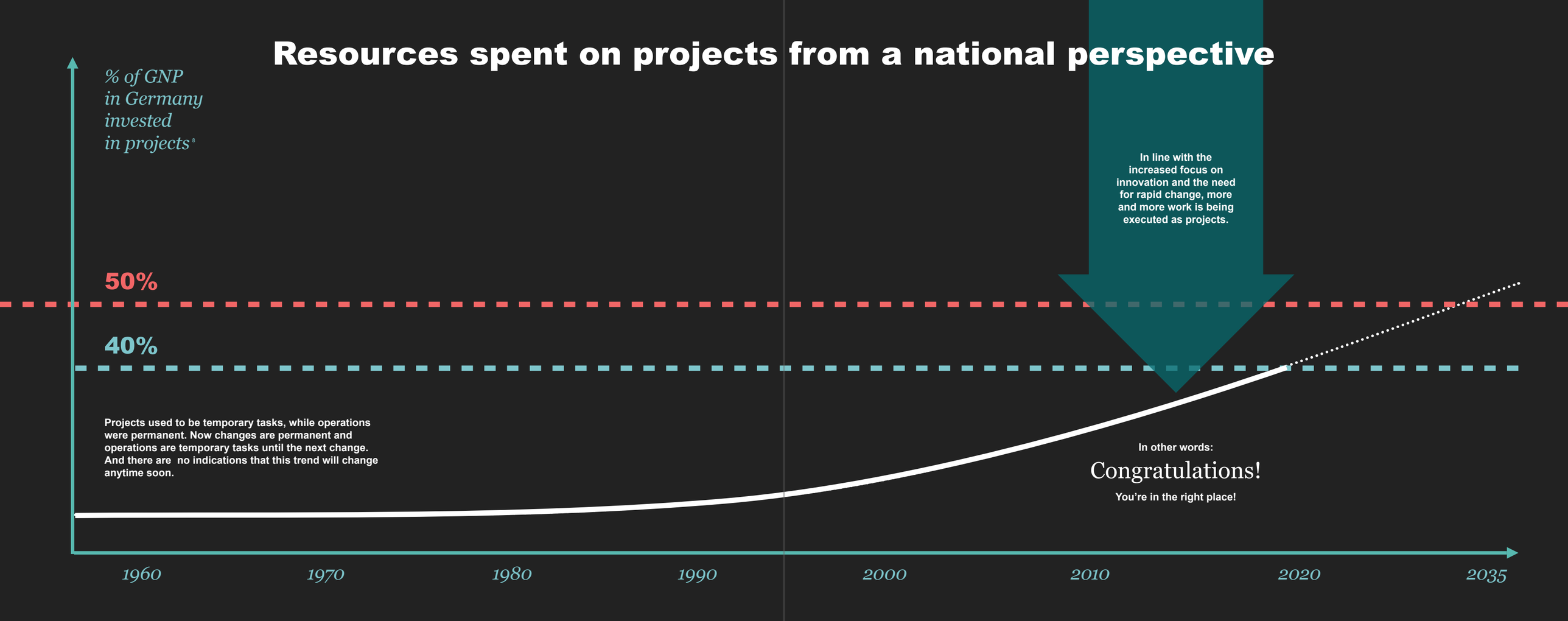
Combining an infinite number of technologies and the available knowledge

Evolution of the workforce



In the United States, Japan, and Canada, highly educated employees represent 42%, 45%, and 51% of the workforce, respectively[5]. This suggests a shift from a workforce based mainly on blue collar workers to a workforce comprising mainly white collar workers. In other words, many of us today find ourselves working with more complex problems and development than before. And this work is often conducted as projects.

Resources spent on projects from a national perspective



The response to increasing project volumes has been an explosion in concepts, certifications, and methodologies

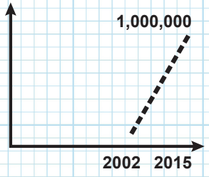
The drastic need for constant innovation and change has had a strong influence on the world of project management. More and more work is being conducted as projects, and there has been an explosion in concepts, training, and certifications since 2000.

Several universities offer master's degrees in project management and the number of project management programs and courses is rising rapidly. In fact, project management has become so widespread that it has evolved into a basic product with most suppliers.

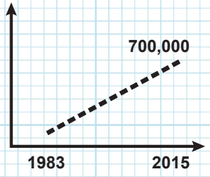
The three major certification organizations – Project Management Institute (PMI), TSO, and International Project Management Association (IPMA) – are growing constantly and have expanded with several specialist certifications, some of which are listed to the right.

Besides certifications, project managers are moving into all organizational levels. A multitude of concepts for program management, portfolio management, and organizational maturity assessment have been launched.

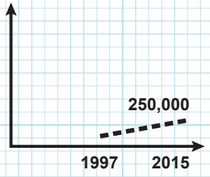
Prince 2 certified



PMI certified



IPMA certified



Prince 2 certificates [9]

PRINCE2 Foundation
PRINCE2 Practitioner
Managing Successful Programmes (MSP)
Management of Risk (MoR)
Portfolio Management (MoP)
Value Management (MoV)
Portfolio, Programme and Project Offices (P3O)

PMI certificates [10]

PMP Project Management Professional
PgMP Program Management Professional
PfMP Portfolio Management Professional
CAPM Certified Associate in Project Management
PMI-PBA PMI Professional in Business Analysis
PMI-ACP PMI Agile Certified Practitioner
PMI-RMP PMI Risk Management Professional
PMI-SP PMI Scheduling Professional

IPMA certificates [11]

Level A (Certified Project Director)
Level B (Certified Senior Project Manager)
Level C (Certified Project Manager)
Level D (Certified Project Management Associate)

In 2007, Leffingwell published the Agile Manifesto

Programme management [12]

OGC, MSP, Managing Successful Programmes
OGC, MoV, Value Management
PMI, Strategic change management
PMI, PgMP, Program Management Professional
OGC, Portfolio, Programme and Project Offices (P3O)
ToC, Theory of Change
(IMPA Level A, Certified Projects Director)

Portfolio management [12]

PMI, Strategic change management
OGC, MoP, Portfolio Management
PMI, PgMP Program Management Professional
PMI, PfMP Portfolio Mgmt Professional
OGC, Portfolio, Programme and Project Offices (P3O)
(IPMA Level A, Certified Projects Director)
Stanford University, Converting Strategy into Action

Project Maturity [12]

2002 CMMI version 1.1
2003 PMI Project maturity assessment
2006 CMMI version 1.2
2006 "P3M3" OGC, (Portfolio, Programme and Project Management Maturity Model)
2010 CMMI version 1.3

Agile methods [12]

Agile Process Management
Agile Management
Agile X techniques
Scrum
Extreme Process
SAFE Management
Iterative Life Cycle

Most of these concepts are based on the assumption of rationality, and are focused on structure, methods, and contracts ... Traditionally, there has been little or no focus on the impact our projects are set into motion to create.

However, research suggests that the foundation of the certifications, programs, and courses is insufficient when it comes to managing projects successfully. Most of these concepts are based on the assumption of rationality, and focus on structure, methods, and contracts. But this assumption doesn't take into account the complexity of projects, their unpredictability, and human nature.

Traditionally, there has been little or no focus on the impact our projects are set into motion to create. One notable exception is program theory, which has begun to focus on business impact at program level. However, at project level, the focus is still on deliverables and not on impact. The sum of your projects may not entirely reflect your written strategy, but that sum does reflect what you actually execute. So, if your projects don't create the expected impact, you will never meet your strategic goals.

While there has been some focus on the human aspect of project leadership, it has traditionally been considered more in a "don't forget the people" way than through a structured approach for leading, say, an array of stakeholders to create motivation, buy-in, and commitment. This is emphasized by the fact that stakeholder management was not included in the Project Management Institute's (PMI) Project Management Book of Knowledge (PMBOK) until 2013!

The success of a project depends primarily on the people working on the project, not on the execution model they choose to guide the project. The ability to inspire and motivate team members is a project leader's finest skill. If you have the choice between a certified project leader with a complete understanding of all the tools and models and a person with highly-developed relational competences, the relational competences should outweigh the formal ones. First and foremost, a project leader must be capable of navigating the complex social game which is at stake in a project.

The PMBOK Guide does not represent the knowledge that is necessary for managing projects successfully

Peter Morris

We have never been better educated in project management – yet the success rate is still 35% ...

Project success cannot be judged by the triple constraint alone. Time, budget, and performance are short-term dimensions that do not reflect longer-term success. Project success is a multidimensional, strategic concept. It should focus on business success as well as the efficiency when the project is run, and it should consider different stakeholders' points of view

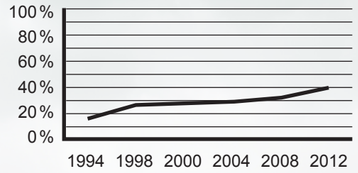
Aaron J. Shenhar & Dov Dvir

Agile project management has long been perceived as the solution to how to improve on the 35%[13]. The number of different agile methods has exploded, all created with the aspiration of counteracting increasing uncertainty. Similar to LEAN's reduced cycle times in production, agile methods propose executing projects as a series of short sprints. In addition, the contract should be replaced by a backlog, which the product owner can prioritize. However, this has only improved the success rate to 42%[13]. It is substantial progress, but it is not the entire solution.

First, agile methods are still based on the notion of the triple constraint – the iron triangle of time, cost, and scope, which still holds within each sprit. Second, they do not take into account the stakeholders' multiple points of view. And third, they tend to decrease the emphasis on project leadership in favor of team autonomy. While concord is required when product owners prioritize, we rarely see an emphasis on co-creation, and consciously establishing organizational concord as the primary focus and emphasis is based on the product owner's priorities alone.

Before we proceed, due diligence is to ask ourselves: Is the foundation of our project management built on the right assumptions? What would the consequences of continuing with the current mindset be?

Success rate (Standish Group) [13]



All existing success measurements are based on the triple constraint – nobody measures IMPACT!

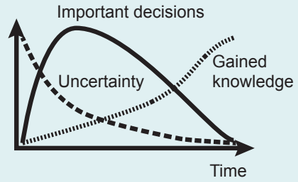
... luckily, there is still a huge potential to be realized

The conventional perception of project uncertainty and the importance of decisions has its foundation in the domains of engineering and construction. Contracts and predictability are based on the triple constraint and considered to be stable elements. The core idea is that it is possible to reduce internal project risks all the way to the final deliverables. All conventional project management literature aims at reducing this risk through defined methods and a consistent focus on risk management, defined processes, and frontloading of information, as illustrated in the top graph.

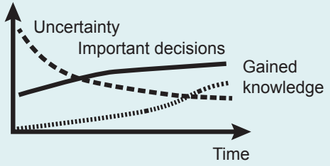
However, with the acknowledgement that the project's overall purpose is to achieve an impact, comes the understanding that the risks are only reduced once that impact has been achieved. At the same time, new possibilities keep hitting the project, making knowledge obsolete and demanding the continuous reconsideration of decisions and the overall purpose. This scenario is illustrated in the bottom graph. It is essential that we create direction in this chaos. We need to focus on a flow of impacts and on the involvement of the people and stakeholders who can create the future.

The management of structures, systems, and processes is not enough. This calls for leadership – project leadership! An approach that maintains a continuous focus on making sense of the project in its current state and on its stakeholders, as well as on creating a shared vision that everyone should aim towards.

Traditional view of uncertainty



Uncertainty in the real world



Luckily, we have a strong foundation to build on. All we need to capture the full potential is to:

- Ensure that projects are carried out in order to achieve an impact and that deliverables are simply a means for reaching this goal.
- Accept that, in a turbulent world, we need to create a flow of impacts, so launching new products, services, and processes becomes just as painless as the most streamlined production process.
- Understand that, in a world with easy access to infinite knowledge and highly trained employees, it takes a new kind of leadership to create a common vision, backing, and stakeholder satisfaction.

What are the impact objectives for your project?

Do you even measure impact?

Set the stage, involve skilled people, and create a flow of results

In 2000, Jimmy Wales had an idea for an internet-based encyclopedia called Nupedia. He wanted various experts with a profound professional knowledge to contribute and all entries should be reviewed by other experts. A thorough and serious approach – but also very slow. So in 2001, Jimmy Wales launched a small spin-off project where anybody could contribute. And Wikipedia was born! A month later, Wikipedia featured 1,000 entries. After six months, the number reached 40,000. And by 2012, it had a staggering 22 million entries. But what is truly interesting is what happens when an insufficient or poor-quality entry appears – someone is guaranteed to correct any flaws within a matter of hours. A journalist, A.J. Jacobs, actually tested this by deliberately submitting poorly written entries. In just 24 hours, his entries were corrected 225 times, and within the next 24 hours about 150 times more[2].

Jimmy Wales must have been quite taken aback by this. What happened? He planned a meticulous encyclopedia based on the very best principles and assisted by the most acute minds – so how could this project be overtaken without warning? And even more interesting: without a central plan for how the innovation work should progress!

Which principles enable this?

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