***Project Business Management*[1,2]**

# Mission Failure at LIDL – But Actually, What was the Mission?

**Oliver F. Lehmann, MSc, PMP**

*"Every mission has life-or-death moments."*
Alan Stern, Scientist at NASA

## Summary

The international grocery chain Lidl wanted to replace a conglomerate of individual software solutions with a unified standard software supplied by SAP. The epic failure of the project named eLWIS is a prime example of the need to learn Situational Project Management (SitPM) and Project Business Management (PBM). Trial and error are too expensive as teachers for these disciplines.

A *Mission Success First* approach might have saved the project.

## Project eLWIS: The Main Players

Lidl Stiftung & Co.KG is the world-largest discount supermarket chain based in Germany. Its standard retail program is basic grocery products but also special items including mobile licenses and temporary offerings of electronic items and other goods. Founded in its current form in 1973, the group has over 11,000 stores in 27 countries in Europe and the US[3]. Through the group's focus on very cheap prices, which they achieve through a number of measures[4], it had a steady growth over the years and achieved a turnover of over € 70 billion (US$ 81.7 billion) in 2016[5].

[1]This is the 9th in a series of articles by Oliver Lehmann, author of the book "*Project Business Management*" (ISBN 9781138197503), published by Auerbach / Taylor & Francis in 2018. See full author profile at the end of this article. A list of the other articles in PM World Journal can be found at *https://pmworldlibrary.net/authors/oliver-f-lehmann*.
[2] How to cite this article: Lehmann, O. (2018) *Mission Failure at LIDL – But What Actually was the Mission?*, PM World Journal, Vol. VII, Issue VIII (August).
[3] (Lidl, 2013)
[4] (Hanbury, 2017)
[5] (Handelsblatt, 2018)


*Figure 1: A Lidl store in Munich, Germany*

SAP is also a leader in its field – business software. Its turnover for the year 2018 is expected to be around € 25 billion (US$ 29 billion)[6]. With its offering of widely demanded state-of-the art solutions, such as high-performing databases and cloud services for their software, their outlook is very positive.

A third player was a Bavarian consulting company named KPS AG, a consulting company that presents a focus on Rapid Transformation®[7] of organizations, combined with software implementation. In July 2018, the company was selected for the Top 100 Innovation Award for small and medium enterprises.

Further players in the eLWIS project were Hewlett-Packard and Software AG[8]. For a project of this size, it is likely that there was a greater number of subcontractors working for the main players. These can be companies, but also freelancers, individuals, who work as self-employed contractors.

[6] (Kerkmann, 2018)
[7] The expression "Rapid Transformation" is a trademark of KPS.
[8] (Lidl, 2018)

# Replacing Old Software at Lidl

It is a common observation that providers of large and complex operations, distributed over a number of locations, have developed a farrago of software solutions throughout their history. Each individual software solution was developed and implemented against

- specific requirements of a location,
- by that time prioritized tasks,

which were often different to the requirements of other locations and to the task priorities of other places and moments .

These software solutions were mostly custom-developed, and as these development works were done at different times, they were also made for different operating systems and following different standards. One can compare this to an airline that is buying new aircraft from time to time: As much as suppliers change their models, the fleet of aircraft gets more and more disordered, making it hard to unify education and certification for staff and to have a unique process for maintenance, repair, and overhaul.

Furthermore, these heterogeneous software programs need to be interconnected using middleware, software programs that manage these communications and help at the point where data gets transferred from one system to another.

Over a long term, the patchwork of software solutions is growing further, causing additional problems: particularly when

- upgrades and updates are needed, and
- unified safety protocols need to be implemented, for example to protect private data and keep malicious software out.

Over time, the complexity can impact the performance of the systems and create data inconsistencies that are hard to resolve. Lidl says they have to process 400 million data sets and serve 20,000 users[9]. The company adds that “in the dynamic day-to-day business of our warehousing companies, even small disruptions can have a massive influence on the stream of goods”.

A problem for the renewal of software: Organizations like Lidl need to remain almost permanently functional. They cannot simply stop their systems for maintenance work that takes longer than a closeout time over a weekend or public holidays last. Software replacement also must be performed while the company remains operational. Imagine a heart transplantation done, while the patient is concurrently at his or her workplace doing the daily job

[9] (Lidl, 2018)

The most difficult tasks with the old systems must have been implementing new processes and technologies in the software and transforming it to help the company adapt to changing laws, markets, and business models.

Lidl reportedly had 90 different solutions developed over decades[10]. Around 2011, the group made a decision to replace all of them with one standardized solution that would be delivered by SAP. The name of the project was eLWIS (pronounced like "Elvis" in German) for "elektronisches Lidl Warenwirtschafts-Informationssystem" (~ electronic Lidl merchandise information system). The eLWIS project had 1,000 employees of both parties assigned[11] and a corps of hundreds of consultants[12].

The project was formally terminated in July 2018.

One reason for project failure, according to German Handelsblatt magazin[13], were incompatibilities between the software and the business processes in place at Lidl. It is generally easier to adapt an organization to a software than vice versa, but Lidl rejected such changes. This made it necessary to adapt the standard software, which is time-consuming and comes with negative effects on the performance of the software. There are also limitations to the degree of adaptations that a software solution allows for, and each adaptation brings the risk that a small programming error, unidentified during inspections and testing, can lead to a failure or even crash of the entire system.

A positive note is that Lidl was responsible enough to not burn the bridges behind them. They allowed to keep an option open to fallback to the old systems in case the new one is not working as expected. I have a number of customers with similar software renewals planned or in process, and I strongly recommend them to plan with ramp-up phases and fallback plans, allowing for failures in the complex new systems and keeping measures in place when they occur. Burnt bridges are a common root cause for many failed projects.

Lidl fell back to using its old systems and a new project. The company now has to write off around € 500 million (US$ 584 million) in sunk costs and start again at scratch.

The old software solutions have already been outdated when the eLWIS project started, they will limit Lidl's options even more, for example to build a new web-based delivery service that is heavily dependent on the integration of the online user interface and the inventory systems inside the organization. It will take time for a new project to deliver a system with the needed functionality.

[10] (Schüler, 2018)
[11] I strongly doubt that they were all assigned full-time.
[12] (Kerkmann & Kolf, 2018)
[13] ditto

# The Typology of Projects Applied[14]

In the year 2015, I asked 17 field experts to help develop a typology of projects to better understand why certain practices can be successful in one project or project situation and fail in another. The total experience in project management of these experts added up to 393 years.

A series of interviews with the experts led to a list with nine typological dimensions, classified as *B/W* for dichotomies (it is either one or the other) and *Greyshades* (it is somewhere between extremes). Figure 2 shows the terminology identified by the experts.

| Types of projects and project situations identified | | | | |
|---|---|---|---|---|
| Typological dimension | | | Occurrences | Mode |
| 1 | Mark 1 project | Mark n project | \|\|\|\|\|\|\| | B/W |
| 2 | Greenfield project | Brownfield project | \|\|\| | B/W |
| 3 | Siloed project | Solid project | \|\|\| | Greyshades |
| 4 | Blurred project | Focused project | \|\| | Greyshades |
| 5 | High impact project | Low impact project | \|\| | Greyshades |
| 6 | Customer project | Internal project | \| | B/W |
| 7 | Stand-alone project | Satellite project | \| | B/W |
| 8 | Predictable project | Exploratory project | \| | Greyshades |
| 9 | Composed project | Decomposed project | \| | B/W |

*Figure 2: The dimensions of project types developed by 17 field experts.*

It is interesting to classify projects along this typology. As different project types favor different practices, including approaches, tools, and techniques, understanding the project may lead to a better project management right from the start.

## 1. A Brownfield Project

Lidl's eLWIS project is a typical example of a brownfield project. In contrast to the introduction of a new software to an organization (a greenfield project), the brownfield project needs engaged and actively managed stakeholders. There are needs, expectations,

[14] See the proposed project typology in my paper "An Introduction to a Typology of Projects" (Lehmann, 2016a) and my book "Situational Project Management, the Dynamics of Success and Failure" (Lehmann, 2016b)

and fears that need to be addressed. The new solution will be measured against the previous one. Even if it is superior in many aspects, many stakeholders will focus on those aspects of functionality and comfort that it does not deliver and that the users experience as a loss. A decision to ignore and reject these stakeholders, will cause them to come back, and they will bring friends with them, possibly lawyers and the press. Trying to meet all stakeholder requirements makes the project costly and easily delays deliveries.

It is also worth noting that mastering a software and a process is a personal asset for an employee. When the software gets replaced with another one and the process is changed, this asset gets lost for the person, at least for the moment. What is often perceived as resistance by others may be just a "stand your ground" response by employees to uncertainties that in the persons' perceptions are not sufficiently addressed by the project's teams.

Reports published on the project make it doubtful that these questions received sufficient attention. Given the technical challenge, this is somewhat understandable, but may have nevertheless been detrimental for the project. A project business manager would not only have seen the technical aspects but would also have looked at the commercial, social, and interpersonal aspects.

## 2. A Mark N Project

eLWIS is also an interesting example of the risks coming with a Mark n project. The typology takes the labels from British sports cars, but also from Japanese camera makers. It recommends a distinction between a Mark 1 project, that is new to the world, or at least to the people doing it, and a Mark n project, a kind of project that can be derived from a number of former projects, that have been done often enough so that people doing it feel experienced and know precisely what needs to be done.

The observation that a Mark n project may entail more risk than a Mark 1 project may seem counterintuitive, and project management literature generally takes it for granted that any breakthrough comes with more uncertainties than a project that can be derived from older, similar ones[15]. The obvious risk cause in Mark n projects is complacency. Seemingly irrelevant disruptive factors, that were not present in the former projects are not given the attention that they deserve. Small issues then grow to become problems and, still left unaddressed, explode as crises.

Reports published on the project strengthen the assumption that this Mark n complacency existed.

[15] For example in the Diamond Model of Aron Shenhar & Dov Dvir (Shenhar & Dvir, 2007)

# 3. A Customer Project

This is true for the majority of projects: An internal project is a cost center, a customer project is a profit center. Internal project managers bring change to the organization. Project managers in customer projects bring money home.

When I developed the typology together with the group of field experts, the most surprising observation for me was that customer projects, in contrast to internal projects, are not described and standardized to the degree at which this is done with internal projects. Literature, education, software, etc. focus on internal projects.

The same is true for the perspective of handing a project out to supply networks over various tiers. So far, the focus lies on internal teams. Leading teams across corporate borders poses new challenges. The majority of project managers does not receive sufficient education for that.

For both groups of project managers, the expectation in the project obviously was that they obtain the business acumen and skills needed for project success by following a trial-and-error approach. The failed eLWIS project shows us that this approach can become very expensive.

One may assume that the parties will meet again to negotiate damage claims. If these negotiations fail, the partners may turn to alternative dispute resolution (ADR), such as negotiation or arbitration. In the worst case, meeting again at court for litigation is also not an impossible option. The costs of trial and error—particularly error—can become very high.

Project business should be understood as high risk business for all parties involved.

To make things worse, surveys show that the percentage of projects performed under contract is higher than of those done internally, and the percentage is further growing.[16] Need for more education in the field of Project Business Management is there. So far, training providers, authors, universities, etc. generally have failed to develop offers and turn the need into a practical demand.

New approaches to make project business successful have been invented in the past. Some focus on legal topics such as Relational Contracting, Rolling Award Fee contracts, and Customer-led Consortia. Others, such as Benefit Engineering, focus on developing business acumen of project managers. These have so far not entered the canons of education in project management.

Without such educational offers, trial and error in Project Business Management will remain the only for way for organizations to develop their professionals, with all the costs, strategic drawbacks, and embarrassment, that this approach brings, and the risk of burnout for team members and managers.

[16] (Lehmann, 2018a)

# eLWIS as a Customer Project

Figure 3 depicts a simple and basic structure of a *Project Supply Network* with a buyer and five sellers distributed over three tiers. In reality, these networks can grow much larger and much more complex.

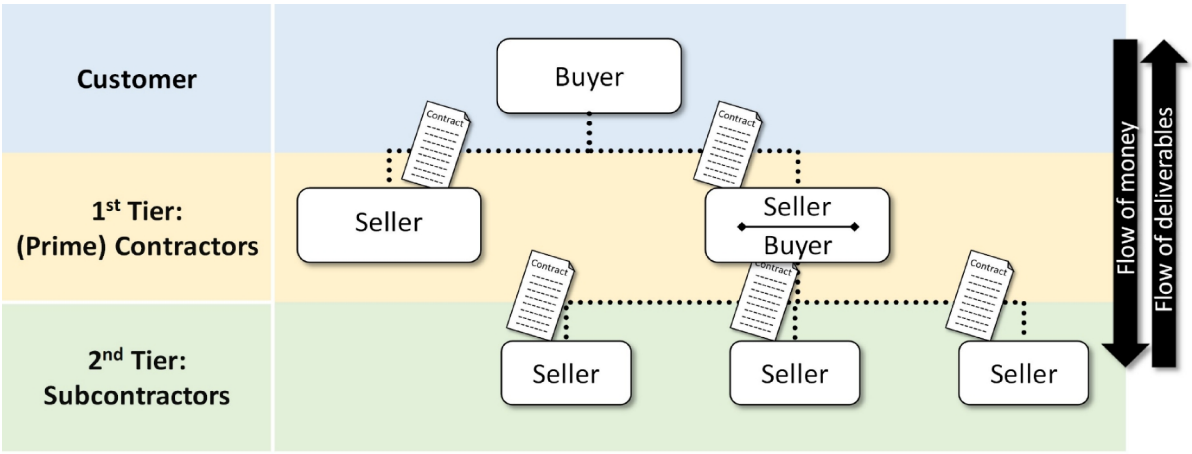


*Figure 3: A basic structure of a Project Supply Network (PSN)*[17]

The full structure of the PSN of Lidl's software project has not been made public. It is obvious that Lidl is the customer. It is furthermore likely that SAP was a direct contractor of Lidl. The other players in the project may have been direct contractors as well, or subcontractors over an unknown number of tiers.

The massive need of adaptation of the standard software makes it likely that the PSN consisted of a great number of companies and freelancers—actually one-person companies, as subcontractors, su-subcontractors and so on..

Did the players understand each other's different business interests? Where they prepared to consider them? Where they prepared to become members of a cross-organizational mission or did they focus on own gains and on the protection from liabilities, if things go wrong. Where they prepared to communicate openly, so that the project manager at any time knew, where the project stood? Or did they communicate only what was necessary due to the contract?

Was everyone prepared to go the extra mile to ensure mission success?

In 2017, I made a survey asking project managers in business contexts what they found to be the most frequent causes of conflicts between parties under contract in their projects. Figure 4 shows the results on a scale from 0 (never) to 5 (frequent).

[17] (Lehmann, 2018b)

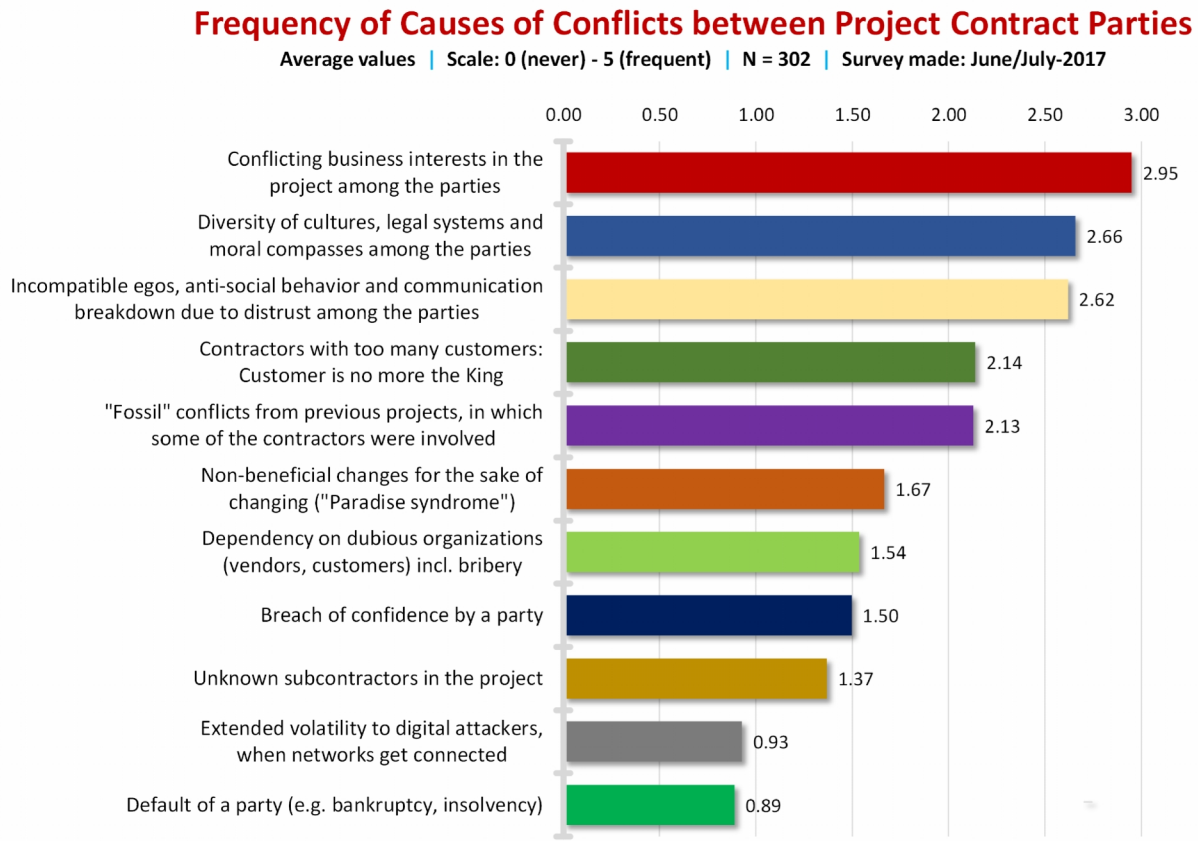


*Figure 4: Ranking of causes of conlicts in PBM*

The dominant cause is on top: Conflicting business interests of the players involved.

This raises the question if the main players, focused on the technical complexity of the project, were sufficiently prepared to identify and reconciliate these divergent interests. Today, when all eLWIS parties must be prepared for legal action, they may even no longer be willing to reconciliate at all. Such a breakdown of communications for self-protection can happen quite early in the project, when trust among the parties is suffering and confidence in project management slowly evaporates. In some projects with several organizations involved, such trust has never been present right from the start. Without such trust, however, integration becomes impossible, complexity cannot be managed, and no one is prepared to go the “extra mile” that is necessary to ensure mission success.

## A Solution from Space: Mission Success First

In the late 20th century, NASA had a similar problem: A number of major projects had failed, and billions of tax US tax dollars were burnt, or, to be more accurate, were lost in space or slammed into the soil of a planet.

Different “mishap investigation boards” were installed and delivered a series of papers. A particularly interesting one was published by the Mars Climate Orbiter Mishap Investigation

Board in March 2000, following a mission lost in 1999, probably due to a miscommunication of navigation data: One team communicated data in English measurement units, but the recipients understood them as metric units.[18]

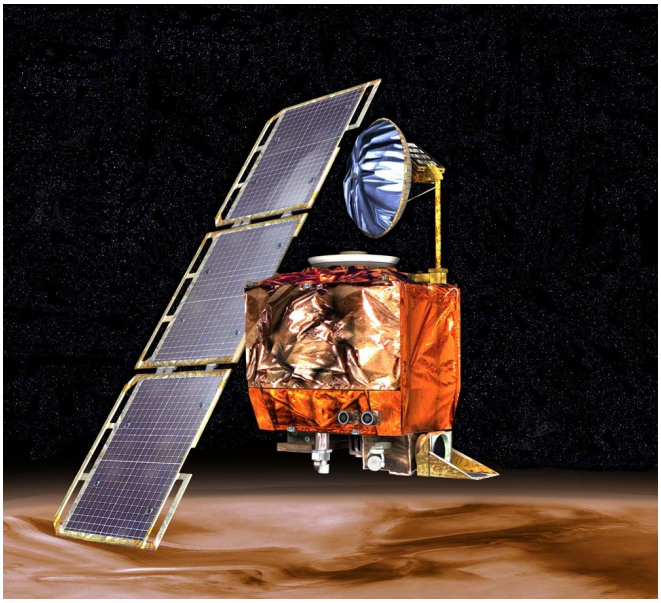

*Figure 5: Mars Climate Orbiter in Mars orbit (Artist rendering)*

The essential insight from the report is that NASA's paradigm used by that time, "Faster, Cheaper, Better", was detrimental to risk management. The paradigm is also known as a kind of "Magic Triangle". Various Magic triangles were popular by that time with different names[19] and different corner elements. Their insufficiency to guide people through projects has diminished their popularity since that time, but some are still around.

The report describes how this paradigm led to a particular emphasis on the corners of "Cheaper" and "Faster", putting pressure on employees and contractors to reduce costs and accelerate projects. While this behavior increased the risk exposure of the projects and the missions they were to bring about, it also made it hard to actively manage risks. Dealing with risks costs time and money, and so does implementing sound systems to capture mistakes and deficiencies that lie in the nature of all complex projects.

The report then recommends to replace the "Faster, Better, Cheaper" paradigm with a new culture called *Mission Success First*.

The report says "Teamwork is critical for mission success. Good communication between all project elements—government, and contractor, engineer and scientist—is essential to maintaining an effective team". For teamwork, it emphasizes the importance of appropriate staffing and clarity on roles and responsibilities.

Another demand is that mission success criteria are defined early in the project. Mission success criteria provide a bottom threshold for any scope trade-offs to the project in order to save time and cost. A mission success officer should guide the transfer from development to operations, and should also be involved in risk management. [20]

A benefit of the *Mission Success First* approach is that there are no longer three priorities, but one. In many organizations, different people may be responsible for each of the

[18] (NASA, 2000)
[19] E.g. "Iron triangle", "Triple constraint" and more.
[20] I believe, being such a mission success officer should be regarded as the core task of a program manager or project manager.

objectives "Fast", "Good", and "Cheap". In a *Project Supply Network*, this intrinsic conflict of priorities applies not only internally, but over several organizations, and what constitutes "Fast", "Good", and "Cheap" may be understood differently by the various stakeholders.

A solution that a contractor prefers because it is cheap may lead to the perception of poor quality by the customer. For another contractor, it may become an additional burden: This company may have to take the blame for problems that the cheap solution causes and may have to accept doing additional unpaid work for the project to fix them.

The same applies for price and schedule pressure from the customer. When contractors are deprived from the assets and time they need to afford successful project work beyond the minimum requirements that are defined in the contract, the project will suffer. *Mission Success First* is also a demand against the customer to enable contractors to do a great job for them.

After the year 2000, NASA has shown that the *Mission Success First* approach can help perform projects better. Its photo gallery includes hundreds of thousands of images, each of them a document of a successful project. *Mission Success First* is more than just three meaningless words, it is the key to success in *Project Business Management*.

*Mission Success First* begins at the top end of the *Project Supply Network* (PSN), the customer. It must then be communicated and supported throughout the entire network by all companies involved down to the last tier. It is a fragile thing, like a house of cards. One weak spot somewhere in the PSN may make the house fall apart. PSNs need project business managers who have learned to identify such weak spots and act in a proactive way, before the project gets into troubles.

## What Actually was the Mission in Lidl's Project?

NASA's projects have at all times been performed by vast numbers of contractors, subcontractors and many more actors. *Project Supply Networks* can become highly complex; they are dynamic and often very opaque.

Implementing the *Mission Success First* paradigm helped NASA manage this complexity. The paradigm obviously begins with a definition: "What constitutes mission success?" This necessitates a mission statement, but also a set of criteria how mission success (and failure) is identified and, where possible, measured. A next step is to describe how all organizations involved throughout the *Project Supply Network* can support the approach, and just as important: what they can expect out of it for themselves.

*Mission Success First* is based on a common understanding of mutual responsibility for all partners, based on good faith, trust and on a common understanding of the mission. It requires leadership across the supply network to communicate the mission and make sure that all parties involved remember it and use it as the joint aspiration that guides their

decision making.[21] *Mission Success First* is furthermore based on the preparedness of all parties/partners involved to go the "extra mile" for the project, when this is necessary for project success.

There are statements in the report on the failed Lidl project that make it seem that the project had no such defined mission. For Lidl, SAP, KPS, and each of the other parties involved, mission success seems to have looked very differently. They may have assumed that each party knows what constitutes mission success and that it is the same for all.

If my understanding is right, it cost Lidl € 500 million to learn that this assumption was wrong.

## Note

All information used in this article is taken from publicly available sources.

## Bibliography

Hanbury, M. (2017) *A German grocery chain that's coming to America is already dominating Walmart on prices — here's why it's so cheap*, 2 July [Online]. Available from: https://www.businessinsider.de/how-lidl-keeps-its-prices-down-2017-6?op=1 (Accessed: 2 August 2018).

Handelsblatt (2018) *Handelsblatt - Unternehmen - Lidl* [Online]. Available from: https://www.handelsblatt.com/themen/lidl (Accessed: 2 August 2018).

Kerkmann, C. (2018) 'SAP präsentiert starke Zahlen – und blickt optimistisch in die Zukunft', *Handelsblatt*, 19 July. Available from: https://www.handelsblatt.com/unternehmen/it-medien/blitzanalyse-sap-praesentiert-starke-zahlen-und-blickt-optimistisch-in-die-zukunft/22816060.html (Accessed: 2 August 2018).

Kerkmann, C. & Kolf, F. (2018) 'Lidl software disaster another example of Germany's digital failure', *Handelsblatt Global*, July [Online]. Available from: https://global.handelsblatt.com/companies/lidl-software-flop-germany-digital-failure-950223 (Accessed: 2 August 2018).

Lehmann, O.F. (2016a) 'Advances in project management: An introduction to a typology of projects', *PM World Journal*, V (12), December, pp. 1-14 [Online]. Available from: http://pmworldjournal.net/article/introduction-typology-projects/ (Accessed: 27 May 2018).

[21] Cross-organizational leadership is also not taught in education and not described in literature. A basis to develop an understanding of its requirements is the Connective Leadership model (Lipman-Blumen, 2000).

Lehmann, O.F. (2016b) *Situational project management: The dynamics of success and failure*, Boca Raton, FL, USA: Taylor & Francis [Online]. Available from: https://books.google.de/books?id=G8TBDAAAQBAJ&lpg=PP1&pg=PA9#v=onepage&q&f=false.

Lehmann, O.F. (2018) *Project Business Management*, Boca Raton, FL, USA: Taylor & Francis.

Lidl (2013) *Geschichte* [Online]. Available from: https://www.lidl-flyer.com/ae97b88e-ceb9-11e7-86b6-005056ab0fb6/locale/de-DE/view/flyer/page/1 (Accessed: 2 August 2018).

Lidl (2018) *IT Projekte* [Online]. Available from: https://jobs.lidl.de/de/3322.htm (Accessed: 2 August 2018).

Schüler, H.-P. (2018) 'So starb "Elwis": Hintergründe zu Lidls SAP-Rückzug', *heise online*, July [Online]. Available from: https://www.heise.de/newsticker/meldung/So-starb-Elwis-Hintergruende-zu-Lidls-SAP-Rueckzug-4113285.html (Accessed: 2 August 2018).

Shenhar, A. & Dvir, D. (2007) *Reinventing Project Management: The Diamond Approach to Successful Growth and Innovation*, Boston, MA., USA: Harvard Business School Publishing.

## Images, Copyright Note



## About the Author

**Oliver F. Lehmann**

Munich, Germany

**Oliver F. Lehmann**, MSc., PMP, is a project management author, consultant, speaker and teacher. He studied Linguistics, Literature and History at the University of Stuttgart and

Project Management at the University of Liverpool, UK, where he holds a Master of Science Degree. Oliver has trained thousands of project managers in Europe, USA and Asia in methodological project management with a focus on certification preparation. In addition, he is a visiting lecturer at the Technical University of Munich.

He has been a member and volunteer at PMI, the Project Management Institute, since 1998, and served five years as the President of the PMI Southern Germany Chapter until April 2018. Between 2004 and 2006, he contributed to PMI's *PM Network* magazine, for which he provided a monthly editorial on page 1 called "Launch", analyzing troubled projects around the world.

Oliver believes in three driving forces for personal improvement in project management: formal learning, experience and observations. He resides in Munich, Bavaria, Germany and can be contacted at oliver@oliverlehmann.com.

Oliver Lehmann is the author of the book "*Situational Project Management: The Dynamics of Success and Failure*" (ISBN 9781498722612), published by Auerbach / Taylor & Francis in 2016. His new book "Project Business Management" is announced for publication by Auerbach / Taylor & Francis in June 2018.