PKS

eXplain

Sustainability as a strategic approach for the transformation of legacy applications.

How to underpin your **modernisation strategy** with convincing arguments and thus win over your **decision-makers commercially**, **technically** and **strategically**.

Foreword:

Why resource bottlenecks and digitalisation pressure are also making sustainability a trending topic in software development.

Sustainability and actions aligned with it have evolved from an eco-fad to a megatrend for companies and organizations. Why? Because resources are not available to us today and in the future in unlimited and/or free quantities in many areas. Sustainability is defined in Wikipedia as a principle of action for resource use, in which a permanent satisfaction of needs is to be ensured by preserving the natural regenerative capacity of the involved systems.

At first glance, IT professionals think of energy-efficient computer architectures, space-optimized data centers, or the reuse of valuable raw materials from decommissioned servers and laptops.

We believe: The current discussion is too one-dimensional and often only brings hardware-relevant aspects to the forefront. In contrast, we recommend considering sustainability as a strategic approach for the transformation of aging core applications. Our thesis is: Sustainability and legacy transformation go hand in hand. And: Those who want to assert themselves as a company in the long term despite a shortage of skilled workers with new business models in volatile markets cannot avoid sensible reuse, continuous knowledge management, and consistent housekeeping for their core applications.

We are not advocating for holding onto „old socks" or ignoring technological progress in software development. We understand the challenges of matured software landscapes, have an eye on the numerous transformation solutions, and know which measures can bring the most benefit. However, in this trend paper, we are not aiming to provide you with an overview of technical concepts. Instead, we demonstrate how a well-thought-out sustainability story can breathe new life into long-postponed or failed legacy transformations, finally get them moving, or prevent them from stalling again.

Because time is of the essence: The baby boomer generation is inexorably retiring, and the limited young talents available see their future more in a four-day work week than in the lifelong challenge of constantly reinventing the wheel of software development.

My plea to you: Act now. This trend paper aims to enable you to underpin your strategy with convincing arguments and to win over your decision-makers commercially, technically, and strategically.

Best regards,

Heidi Schmidt

The pressure to act is increasing
At the same time, implementation is stalling

Not a quarter goes by without new studies on the topic of „legacy modernisation", whether from **_Foundry_**, **_Deloitte_** or Gartner, all of which point to the urgent need for action to get rid of the technical debts of the legacy world and to be able to act to meet the requirements of today and tomorrow.

At the same time, the volume of legacy systems continues to grow. There are 800 billion lines of COBOL code alone in productive use worldwide and the number is growing every day (source: Vanson Bourne, February 2022). The need for action not only appears to be there, but is obviously there and is causing more and more pressure at various levels:

Resources are scarce and **becoming ever scarcer**

Action requires commitment - but who is still available today? There is no end in sight to the shortage of skilled labour and the availability of time and money also leaves a lot to be desired. Due to retirement and in view of increasingly expensive raw materials, rising energy prices and supply bottlenecks for servers, it is becoming clear that we need to prioritise and make decisions more carefully and thoughtfully than before.

Sustainability is important and is **becoming increasingly important**

Almost every company now has specific sustainability targets and is measured against these by its owners and shareholders. However, acting sustainably also requires rethinking and adapting established processes and therefore further digitalisation measures and the associated adjustments to core systems. Only those who have mastered these and have them under control can implement new requirements in the required time.

Business moves fast and is **getting faster and faster**

As if the aforementioned alone were not enough pressure on IT, there are also volatile markets and the requirements of the specialist departments to adapt and re-orchestrate new business ideas and associated processes in the company to suppliers and customers ever more quickly. Here too, technical debt, unmanaged code and overgrown architectures do the rest, slowing down rather than accelerating realisation.

However, despite the obvious pressure to tackle the existing problems, many companies are still not taking courageous and targeted action.

It seems as if a miracle is expected that will help the breakthrough from one day to the next. Until then, problems that have been known for years are repeatedly pushed aside in the quiet hope that things will work out or that no one else will notice for the time being. However, this attitude means that the problems continue to pile up and become more complex and bigger. At the same time, resources in all areas, whether people, time or silicon, are becoming ever scarcer.

Recently, the pressure for implementation has increased as the topic has become more and more the focus of auditors and regulators, and the truth is becoming increasingly clear: a miracle will not happen. Legacy systems are system-critical for companies and society and soon there will be no one left who dares to tackle them.

The **urgent questions** are obvious:

?

- How do you find the right track for your starting position and your company and pick up the pace?
  ... without being thwarted again when the first stumbling blocks appear?

- How and with what should you start, what priorities should you set in order to win backers, supporters and implementers for your path?
  ... without risking your career if previously chosen directions have to be revised or new insights force you to rethink?

Use current trends and the market situation as a springboard for the necessary legacy modernisation.

But what are trend arguments anyway and how do they help you?

With this white paper, we want to enable you to implement your modernisation strategy with convincing commercial, technical and strategic trend arguments for the decision-makers in your company.

Let's take a closer look at the **current trends** in three dimensions:

1. **Dimension:** Commercial trend arguments

It is an economic fundamental that when resources are limited, prices rise. Thus, it is clear that by using limited resources sparingly, enormous cost advantages can be realized from a business perspective.

Regarding legacy systems, this means: The sustainable reuse of existing, long-developed, tested, and optimized software components helps to achieve more with fewer resources. And: The more I streamline and clean up the existing system, the leaner and thus more cost-effective the ongoing operation will become.

Use these convincing business arguments to secure modernization budgets. Calculate the monetary value of today's systems, the cost implications of replacing them carelessly, and the expenses incurred due to system downtimes.

To argue convincingly and sustainably from a business perspective, it is essential to know how to decouple the tightly integrated monoliths of existing systems and then reuse them. You need to reduce complexity, eliminate dependencies, and optimize costs. To achieve this, powerful tools like *eXplain* and our expertise in ROI calculation are at your disposal.

2. Dimension: Technical trend arguments

Numerous technical solutions for legacy modernisation are already available today. However, it is precisely this diversity that poses a challenge, as there is often a lack of experience within the company regarding the utility and limitations of individual offerings.

A division and delimitation in the form of „6Rs" is suitable for structuring the options for action:

Retain

Maintaining and resolving specific problems. Moving development and test environments to a cloud infrastructure.

Replace

Replace with a package (COTS or SaaS) that offers improved functionality. Extract and migrate data to a new system.

Rehosting

At a more cost-effective location without changing the code or programming language.

Re-Platform

Switching to a different platform/operating system („lift and shift") without changing the programming language so that applications can run in the cloud.

Re-Factor

From legacy code to a modern programming language using (semi-) automated tools.

Re-Imagine

Rewriting on the basis of new requirements. The resulting application goes beyond current capabilities, enabling technological modernisation and updating of business processes.

The diverse options make it clear: there is no technical reason to do nothing, as much is possible, and for every option, there are at least two providers in the market. From complete replacement with purchased standard or industry solutions to new development using the latest technology trends such as AI or LowCode, as a customer, you have a wealth of choices.

You can use this diversity as a strong trend argument: there has never been so much focus on the topic of legacy transformation. Global players like Google and AWS have built their own expert teams, as have consulting firms like Accenture and BearingPoint. Everyone has solutions, and some even have satisfied reference customers.

To ensure you do not get bogged down when selecting the best technical solutions for your starting situation and objectives, and to be able to technically support your argument for the chosen modernization path, our „Train the Boss" concept is at your disposal. Here, you will learn everything about the technical details and trends, supported by real-world examples. Use this knowledge advantage to derive your trend argumentation from a technical perspective. Also, involve other colleagues who can broaden your perspective, ensuring the optimal fit for your company.

3. Dimension: Strategic trend arguments

The current turning point questions many of our old thought patterns. It is increasingly moving away from „either-or" towards „both-and."

This shift also leads to different guiding principles for strategic positioning in companies and organizations. Today, we see how a compelling sustainability story in software development can make the long-neglected topic of sustainable legacy modernization exciting for young talents.

In personnel planning, especially in the intensified War for Talents, the new diversity matters. We need not only young tech gurus but also experienced process experts—both must collaborate on an equal footing and with mutual respect. Similarly, teams in the age of agile projects today are composed of IT experts, business area specialists, and sometimes even colleagues from top management. This imposes new demands on the team and communication skills of employees and simultaneously aligns with the trend towards greater diversity.

Last but not least, the strategic trend towards hybrid solutions should be mentioned: Entrepreneurs have recognized that there is often no single unique solution anymore. This also applies to application development. Frequently, both traditional and cutting-edge solutions can be well combined, making it possible to benefit from the advantages of new technical possibilities by integrating different worlds. This is also an important trend argument for the strategic positioning of legacy modernization in your company.

To pick out the right arguments in such a complex situation and to think them through consistently for your company, the PKS experts and our extensive network of forward-thinkers and decision-makers from other companies are at your disposal. Use this opportunity to engage in discussions with sparring partners from various fields.
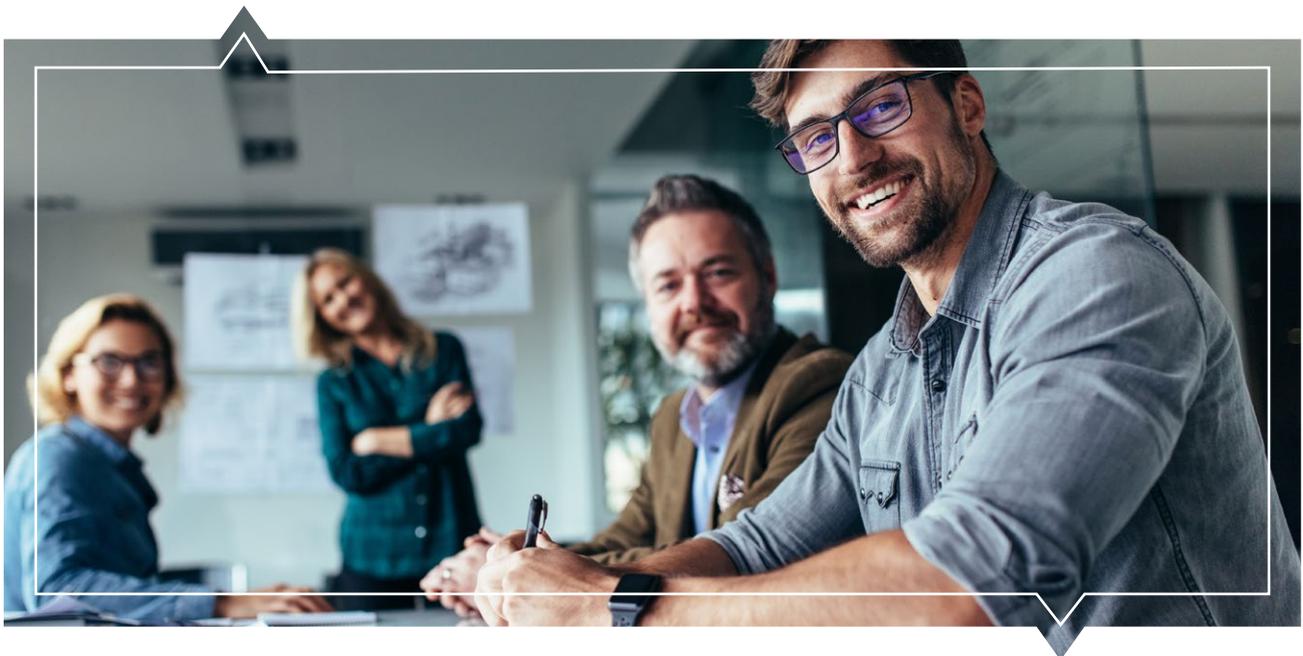
With your customised trend presentation on the topic of **„sustainable legacy transformation"**, you, the team and the entire company will benefit from decisive advantages:

Advantage 1:
You reach your destination quickly and in a resource-saving manner

With a logically convincing and well thought-out, sustainable legacy transformation story, you can convince and inspire both funders and implementers in a targeted manner. As a result, the necessary financial and human resources for project realisation are quickly available and you gain valuable project time. All of this also saves valuable resources and therefore contributes to sustainability.

Advantage 2:
You retain control over budgets, timelines and the tools used

„He who writes, stays", as the saying goes. This also applies to IT transformation. With a sustainable concept, you can keep the reins in your hands, implement projects optimally thanks to a clear view of your existing systems and recognise risks long before they become unavoidable disasters. Take an active approach to sustainable legacy transformation with the information in this white paper, switch to the driver's seat and don't let anyone take the wheel out of your hands.

Advantage 3:
You will be supported by a motivated and efficient team

There is no question about it. Overcoming today's legacy problems will only succeed together across generations and sectors. With a sustainable legacy transformation story, you have the advantage of young and experienced experts pulling in the same direction. You can inspire the key players from specialist areas, technology and management with a shared vision and thus bring the full potential of your organisation to the streets. This also makes it possible to create an attractive and meaningful field of work out of the dirty child topic of legacy system modernisation. This inspires everyone in the team and creates the basis for solving challenging problems together.

Advantage 4:
You become a visible trendsetter and pioneer

Companies that now consistently work on their legacy issues, which have often built up over decades, with sustainable solutions and a targeted approach, create the basis for opening up new business areas, creating space for innovation and making IT a pioneer again. As a leading figure in such a transformation initiative, you will also become a trendsetter yourself and gain visibility both internally and externally.
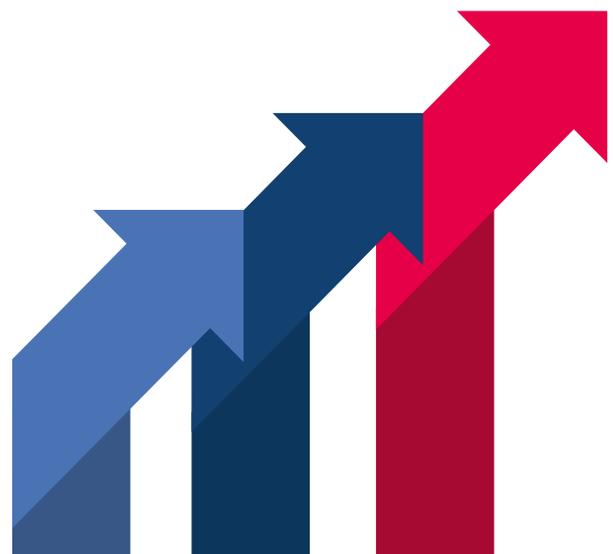
So: stop lamenting and start arguing the trend!
In just 4 steps you can put all your strength on the springboard.

Step 01

Your individualised trend argumentation

Together, we plan a roadmap that takes into account all areas such as finance, technology and strategy. At the same time, we ensure that these plans are realisable for your company and remain realistic. We conduct a structured interview with you to find out which arguments are important. With our experienced experts in transformation and communication, we can develop a convincing argument that addresses the commercial, technical and strategic trends within a few hours. We translate the arguments into the language of your company and the people who need to be convinced and inspired.

Your trend-based transformation strategy

Step 02

We can help you formulate your strategy in an attractive and convincing way and develop materials to support your argument. We can also provide expert contacts and additional sources of information to strengthen your arguments and rhetoric.

Step 03

Your well thought-out implementation roadmap

We work with you to develop a well thought-out implementation roadmap that takes into account all commercial, technical and strategic aspects, but also remains realisable against the background of company-specific possibilities.

Your impressive success story in realisation

Step 04

Now you can finally get started! The foundations are solid and the relevant teams are full of energy and drive. We at PKS are at your side and offer you support wherever you need it. We help you with technical challenges, with communication with your team and with monitoring and controlling the process. Together we will make your project a success!

Sustainable legacy modernisation as a trend topic of our time:

Utilise social trends to achieve your goals.

Benefit from finally being heard at decision-maker level.

Secure the tailwind of top management.

Make an appointment with us today for a structured interview and get started. **The time has never been more right.**

Your contact persons:

Bernd Butscher
Head of Enterprise Software Transformation
+49 (0) 751 56140 257
bernd.butscher@pks.de

Heidi Schmidt
Managing Director (CEO)
+49 (0) 751 56140 229
heidi.schmidt@pks.de

Dr. Matthias Quaisser
Business Development Excecutive
+49 (0) 751 56140 400
matthias.quaisser@pks.de

PKS

people knowing software.