DESIGN THINKING AND DIGITAL TRANSFORMATION

Use SAP's proven design thinking approach to drive your digital transformation journey
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Executive Summary

In today’s digital economy, the pace of innovation is unrelenting and creates an urgency for companies to transform. Unfortunately, many C-level executives report high levels of “corporate cholesterol” resulting from rigid processes, risk avoidance, and a mind-set of, “If it’s working, why change?” The “corporate cholesterol” organizations carry prevents the rapid transformation needed to innovate business models, business processes, and, ultimately, the workforce. This white paper addresses the need for organizational leaders to systematically embed a culture of innovation and creativity across the whole company.

How do you define innovation? And what can you do to consistently bring it into an organization to stay ahead of today’s competitors and those that may emerge as competitors in the future?

At its essence, innovation = execution x creativity

Most companies are optimized to execute and solve a stated problem. Creativity is about finding the problem worth solving. An absence of a scalable, creative framework encourages incremental innovation instead of disruptive innovation. As companies strive for disruptive innovation, they must find ways to inject and scale creativity across their organizations.

At its core, design thinking is a human-centered approach to innovation. It helps identify the optimal customer experiences and highlights the problems worth solving. The process emboldens companies to become:

- **Empathetic** to better understand the needs and innovation opportunities of customers
- **Collaborative** across functions to bring diverse perspectives to create more coherent customer experiences
- **Highly iterative** to more quickly understand market feedback and success

Technology should not aim to replace humans, rather amplify human capability.
Design thinking nurtures and scales creativity across the organization, dissolving “corporate cholesterol” and delivering meaningful innovation.

For design thinking to flourish, leadership support is vital in pushing investments in:

- **People**
- **Processes**
- **Environments**

SAP’s design thinking journey started 12 years ago when Hasso Plattner funded the Hasso Plattner Institute of Design at Stanford University (the d.school) and then brought 35 design thinkers into SAP to help make design thinking a strategic priority, driving innovation across the entire organization. Lessons learned from that journey, as well as hundreds of engagements with customers and collaborations with leading academic institutions, make SAP uniquely positioned to help bring a more innovative and creative mindset into organizations on their digital transformation journey. We do this in four main ways:

- **Business model innovation**
- **Business process innovation**
- **Design and co-innovation**
- **Competency building**

We invite you to learn more about design thinking at SAP and how we can partner with you in your digital transformation.

Further readings on digital transformation

- **Reimagine: Business Processes**
  A step change in productivity and customer experience with new digital technologies
  [Read the whitepaper](#)

- **Reimagine: Business Models**
  Navigating your company in today’s new reality
  [Read the whitepaper](#)

- **Reimagine: Work**
  The line between how we work and how we live is blurring. The workplace will never be the same
  [Read the whitepaper](#)
What is Digital Transformation?

The pace of innovation continues to accelerate. New ideas, products, and services are brought to market faster than ever, and product lifecycles continue to shrink. As consumers demand more speed and simplicity, technology becomes essential in providing delightful experiences. It is worth mentioning that the real purpose of technology is to augment and amplify human capabilities, not to replace them. Technology should ultimately help us run better and improve lives.

Companies are looking to use digital solutions to innovate their business to:

- Target developing markets
- Build stronger customer relationships
- Create new revenue streams
- Avoid being disrupted

Digital transformation is the formal effort to create new customer experiences, business models, and value. This transformation is a continuous and iterative process. It is focused on staying ahead of ever-changing trends that can deliver tremendous value.

Digital transformation can only be successful if organizations are proactive in disrupting their own business. If they do not, someone else will. How can innovation happen before a crisis? How do you keep the balance between running the company and transforming it? How would you organize your business and workforce to deliver that transformation?

Companies are looking to develop the ability to deal with change as a routine part of the business and move from a complex, rigid enterprise to an agile one with flatter hierarchies. They are fundamentally changing their focus from product and service innovation to driving outcomes that provide value by delighting their customers and the organization overall.

CUSTOMER EXPERIENCE IS DRIVING THE BRAND

Customers now expect a new type of experience, one that is simple and delightful, where commerce is seamless, and
technology is invisible. This is why, in today’s economy, a company’s brand is primarily driven by the experience rather than the advertising dollars behind the message. Companies have to get closer to their customers’ needs, motivations, and expectations to better determine how the technology can deliver the best possible experiences.

**IT’S ALL ABOUT PEOPLE’S BEHAVIOR**

In a digital world where everything is digitally captured and measured, data becomes invaluable. How can we use data to understand and influence human behavior?

Disney is a great example of a company that has created a simple and intuitive way to create customer insights and value to its customers. Disney introduced MagicBands, which are personalized, colorful, waterproof wristbands that allow families to enter and more easily navigate the theme parks. Customers can use the band to unlock the door of their hotel room and charge food and merchandise to their account. Disney uses the wristbands to collect valuable data on its customers’ preferences and thereby is able to increase revenue by creating a seamless experience while minimizing fraudulent activities.

**AN INNOVATION CULTURE IS THE SECRET SAUCE FOR SUCCESS**

Although driven by technology, digital transformation is not just an IT topic; it is about the accelerated disruption of business models and requires a mind-set shift from problem solving to problem finding. CEOs need to be visionary leaders: from establishing an internal culture that encourages ideation, creation, and iteration, to building strategic partnerships to create new value propositions.

A September 2015 McKinsey survey uncovered a strong link between digital performance and a risk-taking culture. This type of culture not only understands that exponential rewards come with increased risk, but that failure (at least fast failure) provides a powerful learning opportunity. Just like learning to ride a bike, – if you never fall, you will not know how to look for ways to be better.

**SPEED OVER PERFECTION**

Rather than spending inordinate amounts of time researching a market and developing a complete product, a digital culture embraces a minimal viable product...
with rapid iterations. To remain competitive, companies have been adopting more iterative and quick ways of creating innovation. Technology allows them to build quick prototypes and test early with their user base to get feedback on new value propositions. Often digital transformation is taken up by a small team within the larger organization; the challenge is how to scale breakthrough innovation, as opposed to incremental improvements. In other words, how do we make customer-driven innovation everyone’s job? This is where design thinking comes in.

Drive Digital Transformation Using Design Thinking

Design thinking is critical in helping organizations succeed in the digital economy as they look for a mindset and methodology to create innovations that bring together:
- Technology (feasibility)
- Business (viability)
- The human experience (usability)

It starts with an empathetic, and human-centric approach that aims to uncover unmet needs of the end user, whether an employee or a consumer. By focusing on the human experience in a highly collaborative manner, companies can use design thinking to bring all teams together – whether they are focused on technology or business – to rally behind a shared vision about the future, reimagined experience of their brand. Design thinking, we believe, is the perfect approach for creating and scaling a culture of creativity and innovation across products and processes. Injecting design thinking into the organization’s DNA is the secret to a long-term, sustainable innovation mind-set.

THE DESIGN THINKING APPROACH
1. Human-centric
2. Highly collaborative
3. Iterative: fail fast, fail early

BRAINSTORMING VERSUS DESIGN THINKING
While brainstorming is a tool that focuses on a discussion around a known challenge, design thinking is a framework that uncovers the right problem to solve and a clear path to executing the solution.
Design thinking requires people to walk in their customers’ shoes, encouraging them to think outside the box, enabling rapid prototyping, testing ideas in the market with people, and iterating appropriately. This means end users are ultimately shaping the final experience; since they are part of the process from the start, the experience will resonate.

Based on our extensive and practical experience with design thinking, SAP has adapted the methodology to fit both our customers’ needs and internal needs. SAP has been evolving design thinking for use on the shop floor, the IT suite, the C-suite, and even the board of directors’ suite. Design thinking also requires “design doing,” which includes visualizing potential solutions with mock-ups and prototypes.

At a high level, SAP’s design thinking methodology includes three main phases: discover, design, and deliver.

*During the discover phase, we find the problem by empathizing with the human and observing his or her needs and pain points. The insights gained will then be used in the design phase, which is the solution-finding space. In the deliver phase, the focus shifts to implementing the potential solution. The entire process is highly iterative with many feedback loops throughout. The aim is to yield a feasible and viable solution that produces a tangible and quantified outcome linked to the organization’s objectives.*

“Design thinking was always at the heart of SAP’s success.” – Hasso Plattner, Cofounder and Chairman of the Supervisory Board of SAP SE
SAP’s Design Thinking and Digital Transformation Journey

The design thinking journey at SAP began in 2004. Hasso Plattner, one of the original founders of SAP, was captivated by a BusinessWeek article about design thinking. He felt that SAP had strayed from its roots and how he and his fellow founders had focused on end users to create a groundbreaking suite of business applications. He agreed to fund the Hasso Plattner Institute of Design at Stanford University (the d.school) with David Kelley, founder of renowned innovation consultancy firm IDEO. Later, the d.school at the Hasso Plattner Institute in Potsdam, Germany, was opened. Hasso was also instrumental in bringing 35 design thinkers into SAP to help make design thinking a strategic priority, driving innovation across the organization. Once teams and executives saw the power of the problem-solving and empathetic approach, design thinking spread across many internal groups.

In 2012, SAP made a big move to scale design thinking as a way to help customers drive business outcomes by reframing their problems, finding personal meaning for technology, and focusing on the user experience. Since then, we have conducted numerous customer design thinking workshops and engaged in countless co-innovation projects focusing on topics that touch all our digital pillars: customer experience, workforce engagement, supplier relationships, the Internet of Things (IoT), and the digital core.

“We are using design thinking to gain empathy for our customers and help you realize your future through technology so we can help the world run better and improve people’s lives.” – Bill McDermott, SAP CEO

Many organizations looking at digital transformation resemble SAP before our 12-year journey: less consumer-grade and more rigid business processes. In 2010, SAP applied design thinking very specifically to the user experience of our products and processes.
We have instituted a **design-led development process** where UX teams can stop the release of a product if the user experience does not meet certain standards. These quality design checks help drive a design mind-set in product teams. This is significant in an engineering-focused company and a testament to the fact that SAP places the human experience at the center of our processes.

This has led to dramatic improvements in the user experience of SAP products. SAP has since won many prestigious design awards, including the coveted Red Dot Design Award. Design thinking has allowed SAP to innovate by simplifying the complexity of enterprise software, gaining recognition in the design community, and turning what was once a weakness into a unique selling proposition.

**SAP is uniquely qualified as your innovation partner:**
- Deep business and industry knowledge with a pulse on global markets
- A leading provider of digital technology solutions for the modern world
- A budding design powerhouse in tune with human values

Few organizations offer such a breadth and depth of expertise.
CRITICAL SUCCESS FACTORS WHEN IMPLEMENTING DESIGN THINKING

1. Leadership
   - Link design thinking initiatives to your strategic goals
   - Provide direction, resources, and commitment

2. People
   - Enable champions to lead the change through successful lighthouse projects
   - Build up an internal design thinking community where best practices are shared

3. Process
   - Use the generic design thinking framework, but evolve the method and tools so they support your company’s objectives

4. Environment
   - Develop and create collaborative work spaces for your workforce
   - Use to co-innovate with your customers and partners

SAP PART OF THE DESIGN MANAGEMENT INSTITUTE’S (DMI) DESIGN VALUE INDEX

DMI’s design value index tracks the performance of design-centric companies versus the S&P 500 over a period of 10 years.

SAP is proud to be included in the latest index update, a testament to the deep level of commitment to design at all levels within the organization.

Since 1975, DMI (www.dmi.org) has been bringing together educators, researchers, designers, and leaders from every design discipline, every industry, and every corner of the planet to facilitate transformational organizational change and design-driven innovation.

Read the full report
OVERVIEW
SAP offers executive teams a unique off-site workshop to engage with top SAP executives, design thinkers, and digital transformation experts in order to reimagine the future of their organization and define their innovation plan.

AUDIENCE
Anyone with a mandate to drive new ways of executing business processes, business models, or innovation can benefit from these workshops, including the C-Suite, digital officers, innovation managers, and line-of-business heads.

HIGHLIGHTS
A two- or three-day workshop at one of SAP’s worldwide locations is:
• Designed to drive top-down innovation vision and strategy
• Facilitated by design thinking and digital transformation experts
• Focused on reimagining the future by identifying new business models and redefined processes
• Based on extensive, existing SAP customer experience
• Collaboratively personalized for maximum relevance

HOW IT WORKS
One day: digital maturity assessment
Two weeks: workshop personalization
One day: executive innovation workshop
One day: business owner workshops
One day: innovation plan creation

OUTCOMES
• New business model decision
• Documented transformation strategies
• Innovative digital plan
• Governance model
• Detailed next steps with an implementation time-line
• Recommendations on how to include the solutions in the enterprise architecture and roadmap
• Holistic picture of all digital opportunities in the business model
• Value propositions for digital products and services

EXAMPLE
Celestica
Celestica is a world-class electronic manufacturer based in Canada with more than $5 billion in revenue. It serves enterprise customers, aerospace and defense markets, healthcare, and renewable energy sectors. Products include communications equipment, servers, storage, consumer electronics, aircraft avionics systems, semi-conductor, solar panels, solar controllers, health tech, and renewable energy.
“Engaging process that drives creativity and leads to action and execution” – SVP, Chief Design Officer, and CIO

Challenge
“How might we create an awesome digital customer experience for our aerospace and defense customers?”

Participants
One Celestica’s external customer and 15-member team from different parts of the organization, including senior executives, COO, CFO, and CIO took part in the workshop.

Approach
The team was divided into different groups and asked to think about the three main concerns from a real customer, dealing with complexity, speed of communications, and quality. The groups expanded on, clustered, and prioritized the issues from Celestica’s internal perspective.

Persona
The team developed a typical end user and mapped the typical journey when dealing with Celestica.

Ideation
From the customer journey maps, each group selected the biggest challenge to solve and transitioned into ideation mode. The team was introduced to five different ideation techniques. Each group came up with a simplified and delightful customer experience process.

Rapid prototyping
Ideas were manifested into simple prototypes to get a sense of the overall experience.

Outcomes
Three teams generated three solutions to address the three pain points that the customer had identified earlier. Two new business model ideas were generated.

Final ideas were pitched to the COO and CIO, and Celestica leadership selected a few ideas for rapid experimentation over the next six weeks.

Value
Celestica leadership has decided design thinking will now be part of Celestica’s DNA; they are embarking on bringing this approach in house to train Celestica staff. They have asked SAP to help facilitate this training for them.

In fact, Celestica is planning to repeat this workshop with its Silicon Valley-based strategic customers to solve the challenge of, “How might we enable Celestica to become our strategic partner going forward?” The company has asked SAP to facilitate these sessions. Celestica has also used the outcome of this workshop to design its three-year IT road map.
OVERVIEW
Several SAP programs offer a comprehensive and structured approach to organizations that are looking for support in their digital transformation journey.

By using design thinking concepts in our engagements, we expand customers’ thinking beyond technology and address specific challenges around the transformation of their business processes.

AUDIENCE
With C-level executive sponsorship, the audience varies, depending on the topic: management team, functional owners, program owners, project teams, future users, customers, partners.

HIGHLIGHTS
Customer experience
• How might we improve our customers’ lives through digital technology?
• How might we provide products, services, and information tailored to customers at the time and the place of their choice across all our business units?
• How might we be able to increase our customers’ digital footprint?

Cross-enterprise collaboration
• How might we connect workforce, suppliers, and systems in a seamless manner to innovate and serve customers better?
• How might we improve collaboration within and across different departments and enhance the overall performance of our teams?
• How might we leapfrog competition by transforming into a digital enterprise?

How it works
In close cooperation with the customer, SAP’s design thinking team explores these challenges in more detail and designs a suitable approach based on our discover, design, deliver framework.

Discover
In the discovery phase, we use design research techniques such as observation and interviews to get a deeper understanding of the challenges and needs of the customers or internal stakeholders. For a retail customer, we shadowed a sales representative for a day and used observation techniques to study store managers in action. These insights helped us reframe the original business challenge. For a discrete manufacturer, we explored, designed, and actively participated in global road shows, trade shows, plant visits, and customer reference visits. In some scenarios, we conduct an internal dry-run session with the SAP team to generate ideas for our
customer’s challenges and share these with the customer through storyboards, sketches, or videos to start the conversation.

**Design**
The design phase consists of one or multiple design thinking sessions with customer organization participants and representatives from SAP. On some occasions, we also invite our customers’ customers or partners to the sessions. Research done beforehand is leveraged to create personas, which can then be the focus of a customer journey mapping exercise or idea generation activity. Our design thinking team creates a high-level agenda that allows for adjustments based on the flow of the day. Our key rule is that everyone in the room is an active participant. Throughout the session, all participants are encouraged to be creative and visualize their ideas through prototyping or role-play.

**Deliver**
The outcomes of the discover and design phases are synthesized into recommendations to make executive decisions. In addition, we capture the vision and prioritized ideas into design thinking artifacts. Created by professional designers, these storyboards, videos, or mock-ups are used to support the communication to the larger group of stakeholders and keep the “vision” alive throughout the transformation journey.

**OUTCOMES**
- Consensus on strategic objectives and prioritized ideas
- Shared vision of the customer experience
- Deeper understanding of critical organizational challenges
- Increased collaboration across the organization
- Improved team performance
- Acceleration of the execution phase
- Catalyst to a new way of working

**EXAMPLE**
*ThaiBev*
Vision 2020 is ThaiBev’s strategic roadmap for the next few years to drive innovation on the foundation of growth, diversity, brands, reach, and professionalism. The ThaiBev human capital team wanted to inculcate a global mind-set and implement a seamless, efficient system to support Vision 2020.

ThaiBev, with SAP, shifted its focus to strategic thinking, creativity, innovation, and collaboration using the design thinking approach. When our teams worked together, we dove into the barriers and opportunities for success to create a solution for the future. Through the lens of ThaiBev employees, we identified the need to eliminate processes and incompatible systems that did not support agility across the organization.

ThaiBev executives had a clear road map for the policies, people, processes, and tasks needed to support Vision 2020 and drive employee engagement.
OVERVIEW
SAP’s design services works closely with clients on strategic design projects and helps organizations become more design-centric and innovative. The global team of SAP design thinkers and design doers approaches digital transformation in a variety of ways, but our work is always deeply collaborative and informed by end-user research.

• Advise
  Understanding where you are, knowing where you could be. We assess the business value of an improved user experience, evaluate ways to increase end-user efficiency, effectiveness, and satisfaction, and lay out a vision for the future.

• Realize
  We work closely with customers to optimize the user experience of existing SAP solutions, implement new solutions, and help organizations leverage enablement tools, such as SAP Screen Personas software, so design can scale more easily. This is what we mean by “design doing”, and we do it together with you.

• Innovate
  We use design thinking to transform organizations.

Design innovative solutions together with us, your customers, and end users. Empower your organization by developing the three pillars of innovation: people, process, and environment.

AUDIENCE
Our approach works for existing SAP customers and non-customers of different sizes.

HIGHLIGHTS
• Use insights from user research to help map out customers’ digital transformation journey
• Teach customers design thinking concepts while working side by side on real, value-generating design projects
• Help drive a design-led culture of innovation by training people on design thinking, embedding design thinking within the development processes and establishing creative spaces.

Activities
• Conduct user research (interviews, observations, surveys)
• Participate in design thinking workshops led by a professional design coach to identify problem areas, ideate on new ideas, and learn design thinking concepts
• Be inclusive to generate new, unexpected ideas and solutions
• Involve all stakeholders and target users in a guided, iterative process

OUTCOMES
Expected outcomes differ depending on the selected service and engagement model:

• Redesigned digital experiences
• Gained a common understanding of existing challenges and potential future solutions
• Mapped out potential new business opportunities informed by user research
• Experienced design thinking and grasped its potential
• Obtained guidance on how to scale design thinking
EXAMPLE
Daimler drives change in innovation and agile working culture and is implementing design thinking in its organization. Daimler chose SAP as a partner for its design thinking enablement, because SAP undertook a similar journey and could therefore best advise Daimler based on our experiences.

A former development project for Daimler’s subsidiary Mercedes-AMG with SAP, in which design thinking was applied, created a high amount of trust, which is the basis for the partnership.

The core strategy of the enablement consists of three dimensions:

• **People**: Execute training curriculum to educate design thinking coaches from different units and organizations at Daimler to serve as multipliers, spreading the principles and the approach across the company.
• **Projects**: Apply design thinking in real projects to prove success and value of the approach.
• **Space**: Set up a creative space to support the new way of working and make it visible and tangible. Flexible furniture and a different environment will help to foster creativity and come up with different solutions.

Learn more about the process and outcomes.

Read more about other customer success stories.

“We should construct cars by applying the DCC’s approach” - Reinhard Breyer, CIO at Mercedes-AMG

SAP AppHaus
Building upon a history of creative environments, the SAP AppHaus is a customer facing co-innovation space in which customers, SAP, and end users collaboratively work on projects. Since 2010, SAP has renovated offices worldwide to foster teamwork and collaboration, and several SAP AppHaus locations were initially established to co-locate internal software development teams to explore new consumer apps (hence the name). The customer-facing SAP AppHaus is the next step in the evolution of the concept, bringing creative space to SAP’s collaboration with our customers. There are currently four customer-facing SAP AppHaus locations: Heidelberg, Berlin, Palo Alto, and Seoul. The SAP AppHaus Network (run by partners) includes a space in Amsterdam.
OVERVIEW
In a digital world, organizations move fast, but their customers move even faster. To stay ahead, organizations need to continuously innovate. The challenge is to enable an organizational culture that helps sustain innovation from top to bottom. According to Jeanne Liedtka, author of Designing for Growth: A Design Thinking Toolkit for Managers, design thinking allows organizations to democratize innovation and tap into the potential of every employee to be innovative.

When our customers experience design thinking with SAP, they often like it so much that they want to start using it in their own organizations.

Key challenges they are facing are:
• How do we build up design thinking skills within the organization?
• How do we integrate design thinking into standard processes and our way of working?
• How do we change people’s mind-sets across all levels?

Based on our extensive design thinking experience, SAP has devised a comprehensive enablement approach for organizations that want to go on their own design thinking journey.

AUDIENCE
Transformation leaders would participate, supported by their C-levels, who want to drive an innovation culture.

HOW IT WORKS
Every company’s journey to design thinking is individual. Cultural change is not something that can be rolled out or implemented by a defined number of activities and steps. It must grow and come from inside, and it needs to be anchored in the company’s overall mission and strategy. The success or failure of this journey is not depending on the number of trainings or projects conducted, but rather on the openness and willingness of everyone for a mind-set change. However, patterns from lessons learned reoccur every time. They are described in SAP’s design thinking implementation journey framework and serve as recommendations. During the journey, design thinking develops from tools, to methodology, to a mind-set, and finally becomes a culture.

• Start and plant the seeds
The focus at this stage is to provide the design thinking experience, to get to know the tools, and create a momentum. It is about creating awareness and inspiring others for design thinking. Our recommendation is to conduct at least one lighthouse project to showcase the value and the ways design thinking makes a difference.

• Grow and develop the roots
This stage is about establishing design thinking as a methodology and applying it to a variety of business challenges. The focus is on growing the internal community by educating and training design thinking coaches across the organization and nurturing them with central design thinking support (such as spaces, materials, and training).

• Live and harvest the fruits
This stage is about making design thinking become sustainable in people, projects, and spaces. On all levels and across the organization, more people not only apply design thinking in projects, but start living the design thinking principles. Managers act as role models with a design thinking mind-set. The principles get anchored into the company’s values and strategy.
LEARNING RESOURCES

DESIGN AT BUSINESS
SAP cofounded Design at Business, a community of design-minded intrapreneurs and change makers.
• Started in 2010, Design at Business is a network of over 100 change-makers across more than 40 large enterprises (members include Microsoft, Philips, Procter & Gamble, and Nestlé).
• Like-minded change agents share how to accelerate the adoption of a design-led innovation culture.
• Members are co-creating a set of shared best practices that companies can leverage and propagate in their own organizations.
Learn more.

ONLINE COURSES
SAP provides free online courses around the practical application of design thinking. Below are a few highlights:

Design for non-designers: This e-learning course bridges the gap between software design and development and will deepen your understanding of how good design can be applied within the context of software development. Watch.

Developing software using design thinking
This course uses easy-to-understand, real-world examples, and allows you to collaborate with fellow students on a real-life challenge using design thinking techniques. Watch.

Basics of design research
In this course, you’ll learn techniques, tricks, and strategies from SAP’s design research experts that will help you get the most out of your research experience. Watch.

Methods and tools
This set of practical method cards, videos, examples, and templates – helps you bring user-focused design to every phase of the product development lifecycle. Watch.

Designing business models for the digital economy
In this course you will experience designing and iterating business models. The course incorporates team-oriented exercises based on the experiences of SAP executives and thought leaders. Watch.

DESIGN THINKING WITH SAP
For a comprehensive overview of design thinking and SAP, please visit: https://designthinkingwithsap.com/
SAP COMPANY-WIDE COMMITMENT TO DESIGN
As a commitment to our design-led transformation, SAP has taken many steps in our organization, culture, process, and technology.
• **Cofounder and chairman support:** SAP’s support for design and design thinking starts with our cofounder and Chairman of the Supervisory Board of SAP SE, Hasso Plattner.
• **Design professor as supervisory board member:** Dr. Gesche Joost, Professor for Design Research and Head of the Design Research Lab, University of Arts Berlin, is a member of the SAP SE Supervisory Board.
• **Executive board commitment:** Chief Design Officer of SAP, was appointed in 2013. Sam reports directly to Bernd Leukert, Member of the Executive Board of SAP SE Products & Innovation.
• **Widespread design adoption:** Widespread design adoption: A unified, award-winning design language, SAP Fiori UX, is the de facto UX for SAP’s product portfolio. SAP Fiori UX is based on the paradigm shift in enterprise software of moving from monolithic applications to role-based tasks and activities. The SAP Fiori Design Language is based on a user-centered, role-based approach to design
and governs the information architecture, visual design, and interaction patterns.
• **Design embedded in operational processes:** Design is embedded in the development processes. Design-led product development (DLD) was adopted at SAP to intensify user centricity and to implement design thinking principles directly from the beginning of development. Throughout the product lifecycle, design artifacts are collected and reviewed to ensure a user-centered approach has been followed and that apps are consistent with the SAP Fiori design guidelines. This process has been key to scaling design in our flagship product SAP S/4HANA®.
• **Using tools and technology to scale design and a design mindset:**
  - **Fiori elements** – SAP has also introduced the concept of “smart templates” to help customers scale the award-winning SAP Fiori design delivered by SAP when undergoing extension or custom development projects. The predefined view templates and controllers ensure user interface (UI) design consistency across similar apps, and the metadata-driven development model significantly reduces the amount of front-end code per app and eliminates the need to refactor apps as design patterns evolve.
  - **User experience as a service (UXaaS)** – SAP has developed UXaaS, an integrated offering on SAP HANA Cloud Platform, SAP’s platform-as-a-service (PaaS) offering, that empowers organizations to scale great UX. It brings together the best-in-class application development and deployment capabilities from SAP HANA Cloud Platform with differentiating capabilities from the Build cloud-based collaborative design tool to enable non-technical users (product manager, designer, business expert) to learn and apply user-centered design prior to a line of code even being developed.
  - **SAP Screen Personas** – provides personalization to existing SAP customers through a simple drag-and-drop tool to modify many common SAP GUI interface screens to make them more usable as well as more visually appealing.

STRATEGIC TECHNOLOGY PARTNERSHIPS
• **Apple and SAP’s partnership** brings the SAP Fiori design language to iOS. The resulting
SAP Fiori for iOS design language is based on the award-winning SAP Fiori design language and Apple’s human interface guidelines. Developed together with Apple, the SAP Fiori for iOS design language adopts expected iOS behaviors and capabilities and delivers reusable enterprise-ready UI components, through the SAP HANA Cloud Platform SDK for iOS, to accelerate the development of iOS apps by SAP development, partners, and customers.

THE IMPACT TO DESIGN COMMUNITIES BEYOND SAP
• Design at Business community – In 2010 SAP found the Design at Business community with the goal to shape the design mind-set in companies across industries by creating a business network of design-minded entrepreneurs. It consists of a network of more than 150 individuals across 60 large enterprises to share ideas, collaborate on challenges, and learn from each other. The first global Design at Business conference was held in Berlin in November 2016.

ACADEMIC INSTITUTION RECOGNITION
SAP is committed to educating the next generation of leaders with a design mind-set and the use of design thinking. SAP has partnered with institutions of higher education in these efforts.
• Academic appointments at the Stanford University d.school – Sam Yen is an Associate Consulting Professor, teaching courses such as “Scaling Design Thinking Globally.” SAP executives often guest lecture, and the collaborative work between SAP and Stanford has led to a new business executive education program, “The Innovative Technology Leader”.
• Stanford Business School case study: The Stanford Graduate School of Business published a case study entitled “SAP Design Thinking” (Part A and Part B), which is used in the classroom to help the next generation of leaders learn and think about the organizational challenges of driving change using design thinking.
• Spreading design thinking in universities – SAP is shaping future talent by partnering with universities, such as the University of California, San Diego’s Design Lab, and others across the United States, by training faculty in design thinking, co-teaching in the classroom, and helping shape the university curriculum.
• Diversity in design with “Project Propel powered by SAP” – SAP has engaged in this elite initiative to build the next generation
of talent for the digital enterprise by partnering with historically black colleges and universities (HCBU’s) to empower students with the knowledge of the latest SAP technologies, which will enhance their academic and career outcomes.

**LEARNING RESOURCES**

- **Massive open online courses (MOOC)** – SAP has created MOOCs to teach the basics of design and design thinking to software engineering teams. In 2015, over 4,000 internal and external participants took the courses. These courses see more than a 40% completion rate, compared to a 5–10% industry completion average.
- **Build** – Build is a cloud-based collaborative design tool that aims to be the definitive resource for enterprise design innovation to help organizations learn, adopt, and scale design thinking and user experience for the digital transformation. Non-technical users can use Build’s user research and prototyping capabilities to build prototypes with built-in UI elements and conduct effective user research with surveys, annotations, and usage analytics. Build provides best practices in user centered design, project collaboration, and an inspirational gallery of best-in-class enterprise designs, including SAP Fiori elements user experience, to help scale design competencies in the organization.

**MARKET ANALYST RECOGNITION**

Since embarking on our design-led, transformative journey, SAP has received praise and attention from the market and analysts. Most notably are research reports from Gartner’s Brian Prentice “**SAP Fiori UX: It Is Not a Matter of If, but When and How**.” Forrester’s Leah Buley “**Executive Q&A: How To Build A Design Program**” that speak to the success of our design efforts and how we are leading the enterprise software industry with our products and practices, and Holger Mueller & Ray Wang’s “**SAP UXaaS, Democratizes Usability, Starts Next Wave of User Experience**”.

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