



## An Introduction to Design Led Innovation

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In India: Yes It is Design Led Innovation or DLI, not Idli [a small round Indian Rice roll]

- Welcome the participants
- Introduce yourself briefly
- Spend a few words about the DLI initiative and that it is meant to inspire the SAP employees to take a different, more design driven approach to find solutions.
- Ask the participants to introduce themselves (Name, area of work), and to say a sentence about why they are here and what their expectations are.

## Objectives

**This workshop is intended to provide you with an overview of Design Led Innovation.**

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Explain that this day is intended to provide an overview of innovation, and especially Design led innovation, a very powerful way to innovate.

Explain that the day will set the stage for the second day, when they will make their own hands-on experience of a possible approach to design led innovation.

Also make clear that we have a pretty broad look at the topics of design and innovation and not just focus on SAP or software.

# RELAX

This is not a typical presentation

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# INSTEAD

We will introduce you to Design Led Innovation.



**Introduction to Innovation**

**Innovation @ SAP**

**Design Led Innovation (DLI)**

**Hands-on Exercise**

**SAP Design Led Innovation**

**Outlook on Day Two**

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Explain the flow of the day:

1. Introduction to innovation – section explains what innovation means.
2. Innovation @ SAP – section explains why innovation matters to SAP
3. Design Led Innovation – section explains what “Design Led Innovation” or “Design Driven Innovation” is and how design led innovation is applied in other companies
4. Hands-on Exercise – Is a hands-on exercise where the participants will practice a core value of Design Led Innovation: Empathy (do not explain empathy now, refer to later parts of the training)
5. SAP Design Led Innovation – section shows an approach for SAP going forward.
6. Outlook on Day Two – provides an outlook on day two, including information that will drive the design of a solution during day two.

**(re)design**  
design led innovation at **SAP**



## Introduction to Innovation

Innovation @ SAP

Design Led Innovation

Design Led Innovation - Examples

Hands-on Exercise

SAP Design Led Innovation

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## Innovation – what does it mean to you?

- **Take turns telling your team members the most innovative consumer solution that you have encountered recently**
- **As a group, agree on the most compelling solution discussed in your team, and be prepared to explain it to the larger group.**

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As in introduction, ask the teams to talk about the most innovative consumer solution they are aware of, and to decide as a team which one is the most important to the team.

Ask each team to report out about their most innovative solution, and also to explain why it is important.

Note the innovations the teams present on a flipchart.

After all teams reported out, reflect back on what they came up with. Usually the teams come up with various different types of innovation. Point that out and explain that this is just right, because there are many different ways to innovate.

# INTRODUCTION

## Innovation Clip

This section will define Innovation and why it has become an imperative in today's business world

Explain that this section will briefly discuss

- the definitions of innovation
- why it is important to companies in today's economy
- what innovation principles more and more companies adopt in their R&D as guiding principles

Show the Innovation Clip (Slides\_all.mov).



**The term “innovation”  
should be reserved  
for an initiative that can  
produce a  
*viable new business  
concept*\***

Explain that innovation is only valuable when it helps to gain competitive advantage, so that a company can differentiate itself from the competition enough so that the customer is willing to pay for it.

It has also value when it helps to

- neutralize competitors advantages (when products are on the way to being commoditized)
- or to improve productivity and/or profitability

Many innovations do not meet these criteria → Innovation has to be managed carefully

**While an invention is merely theoretical, an innovation is an invention that has been put into practice.\***

\* Joseph Schumpeter

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Explain that innovation is different from an invention. While an invention is merely theoretical, an innovation is an invention put into practice.

→ Joseph Schumpeter: Austrian Economist who (re)defined the term “innovation” in 1963, and this definition is still a valid definition.

You can also add here what Henning said during his speech on the all-hands meeting in Bangalore 2006:

**Invention is when you take a lot of money and get an idea.**

**Innovation is when you take an idea and make a lot of money with it.**

Innovation is **non-linear**,  
**iterative**, and uncertain.



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Innovation is not easy and does not come from nothing. Innovative companies are aware of some guiding principles for innovation and integrate them into their corporate culture.

So first is that innovation can not be planned like you plan a straightforward production process or execution plan. It is more like a meandering river leading you through unknown territory sometimes, and that is OK.

It's difficult to know the  
implications of a new idea.



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Sometimes it's just not possible to predict all implications of a new idea.

E.g. WebVan Online grocery store, delivery within 30 min after ordering. Wanted to do everything themselves (supply, storage, delivery logistics, IT infrastructure, ...)

But the idea of an online grocery store works, as e.g. "*Simon delivers*": focused on the local market, fixed delivery days, delivery of partner products, cooperation with local producers

Google:

- Employees get 20% of their working time as creative time when they can try out new ideas
- New solutions get out to the users as beta very quickly (Google Labs)
- Google Earth has been rated the most innovative product of 2006

Trying to be **all things** to all **people**  
can lead to average results



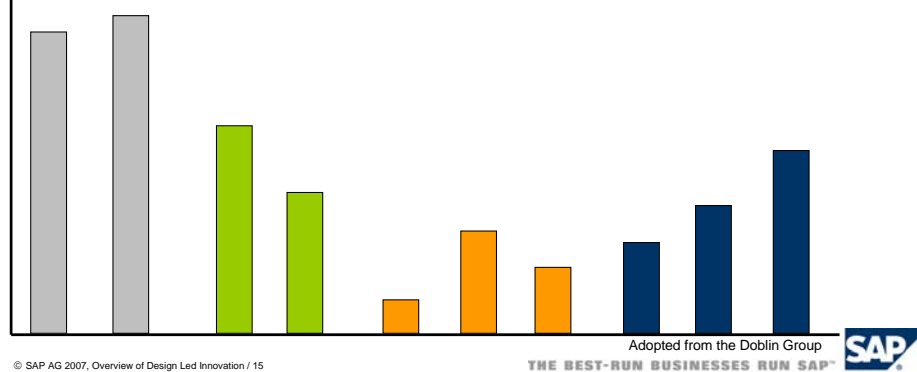
# Fundamental assumptions are moving targets



# Innovation is not just about the product

Finance		Process		Offering			Delivery		
Business model	Business Networks	Enabling process	Core process	Product	Product Suite	Service	Channel	Brand	Customer experience

Cumulative value creation—  
Last 10 years



Studies have shown that for most companies innovation to their core products return the least revenue.

Business model innovation: DELL – assemble to order PCs

Business networks such as Toyota or Walmart have built up

Enabling processes such as GE Capital offering financing

Core processes such as Online banking

Product suite such as MS Office, Disney

Service such as FEDEX

Channel such as Nike: “Niketown”

Brand such as Virgin ( records, flights..)

Customer experiences such as Lexus or BMW

## It is hard for organizations to be innovative



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It is hard for organizations to be innovative due to the required cultural changes

1. Slow development times if innovation is not driven from the corporate center

2. Lack of coordination

- It requires more than lip services to break down silos in the organization
- Requires new reporting lines, creative space, and collaboration
- Rewards are often not linked to innovation (Being innovative requires to foster innovation-oriented behavior, and this best occurs when these required behaviors are incorporated into the performance goals. Even General Electrics....)
- Getting good consumer insights



## Innovation Impact

The Economist

“Innovation is now recognized as the single most important ingredient in any modern economy..”



	S&P Global 1200 index	100 Most Innovative	% Difference
Margin Growth:	0.4	3.4	750%
Stock Performance:	11.1	14.3	29%

Source: Businessweek April 24<sup>th</sup> 2006



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Use this slide to “prove” that innovation pays out.

Explain that there is interesting reading in the Business Week (April 24th, 2006, listing the 100 most innovative companies according to a Business Week / Boston Consulting Group study with >1000 executives)

Mention a couple of companies on the list:

1. Apple

2 Google

...

4 Toyota

...

7 Procter&Gamble

...

9 Starbucks

...

24 Blackberry

...

90 SAP

The good news: Oracle is not on the list

## Summary:

### What is Innovation?

**“Innovation is the successful implementation of creative ideas within an organization.”**

Theresa Amabile, Harvard Professor of BA

### Why is it important?

**“Innovation is now recognized as the single most important ingredient in any modern economy..”**

The Economist

### What is Design Led Innovation?

**“..one step to improve our ability to innovate is design..”**

Hasso Plattner, Sapphire 2006



Summarize what “Innovation” means and why it is important with the first two quotes.

Going forward: Quote Hasso Plattner to set the stage for the coming chapters.

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design led innovation at **SAP**



Introduction to Innovation

**Innovation @ SAP**

Design Led Innovation

Design Led Innovation - Examples

Hands-on Exercise

SAP Design Led Innovation

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# INNOVATION@SAP

This section will explain why innovation matters to SAP

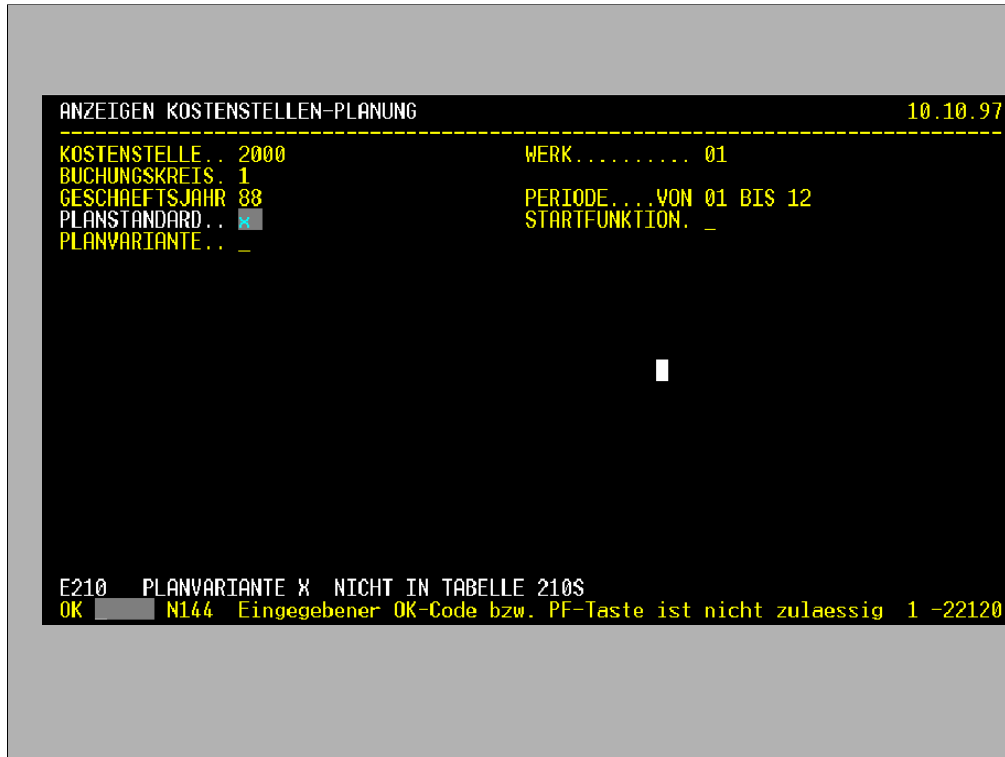
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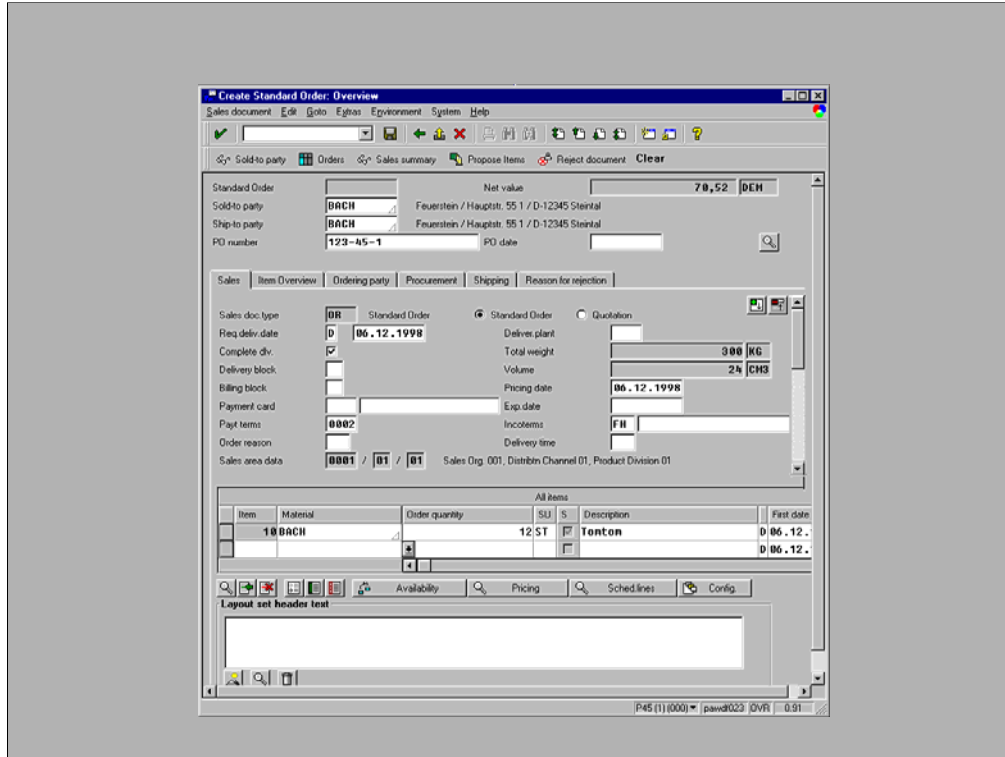
This little animation shows that we have always be innovating at SAP.  
It starts with SAP logo and WDF building, goes through R2, R3, mySAP, Duett  
Requires Clip\_11.wav as sound file to be stored in the same directory as the  
presentation!

Recap with the fact that we have been innovating all the time in the past too, but  
technology growth will offer countless opportunities in the future, and we all have a  
stake in that. If we will not take the chance we have and continue to innovate, other  
will that's for sure.



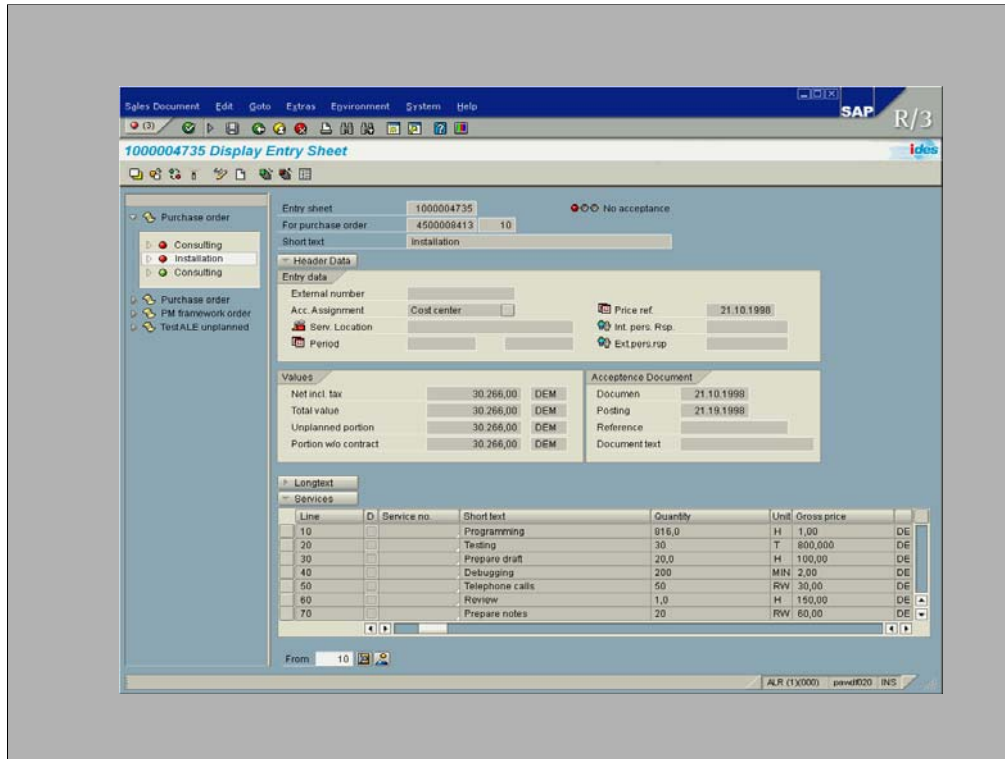
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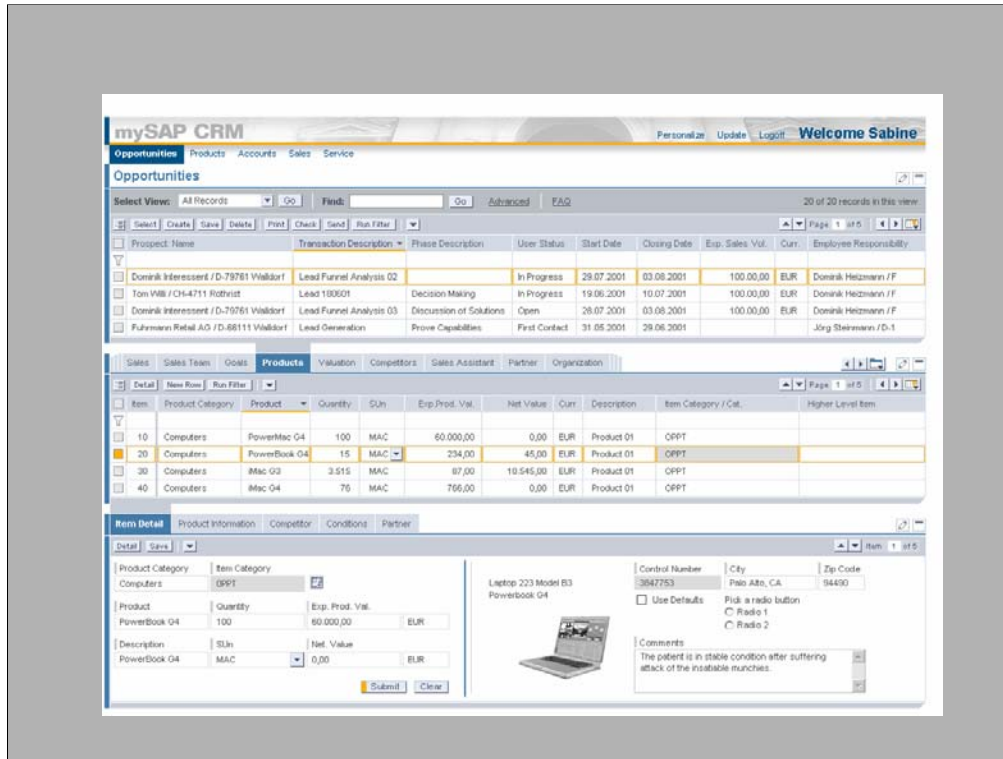
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









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## But: Unprecedented Advances in Technology

	1990	2006	Improvement
 <b>CPU</b> MIPS/\$	0.05	7.15	143x
 <b>Memory</b> MB/\$	0.02	5	250x
 <b>Storage</b> MB/\$	0.11	220	2000x
 <b>Mobile Phones</b> Million Units	<10	825	83x
 <b>Sensors</b> Billion	<1	500	500x
 <b>Screen Size</b> Mega Pixels	0.3	3.1	10x

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Point out the unprecedented advances in technology between 1990 and 2006 (and that is not the end):

- Processing speed, memory and storage costs
- The mobile phone hype, not only in Europe and the states, also in developing countries
- Sensor networks as an upcoming technology
- Screen size

Also mention the Web2.0 wave, that suddenly allows us to create completely different ways to organize knowledge, create mashup...

If we really want to be able to come up with future-oriented solutions, then we have to ask ourselves what all this means to us.

### Is this an example? Cisco Systems

Solution: Web Dispatcher on a Router

Customer Benefit: Application aware load balancing and security on the router instead of on a separate box.

What we did: Took SAP's application aware load balancing and security software and together with Cisco migrated it to Cisco's latest routers.

## And: SAP's Strategy and the Innovation Imperative



**What do you know  
about SAP's 2010  
Strategy?**

**Why is Innovation  
important to achieve our strategy?**

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Ask the participants what they know about our strategy. Keep this section pretty interactive. Push a little to make the participants come up with the most important points.

## Top Strategic SAP Goals for 2010



“We will undertake a **dramatic transformation** over the next few years, as the entire organization aligns to meet our strategic objectives:

- becoming a **platform company**,
- transforming for **volume business**, and
- addressing the **business user**”

- SAP 2010 Strategy

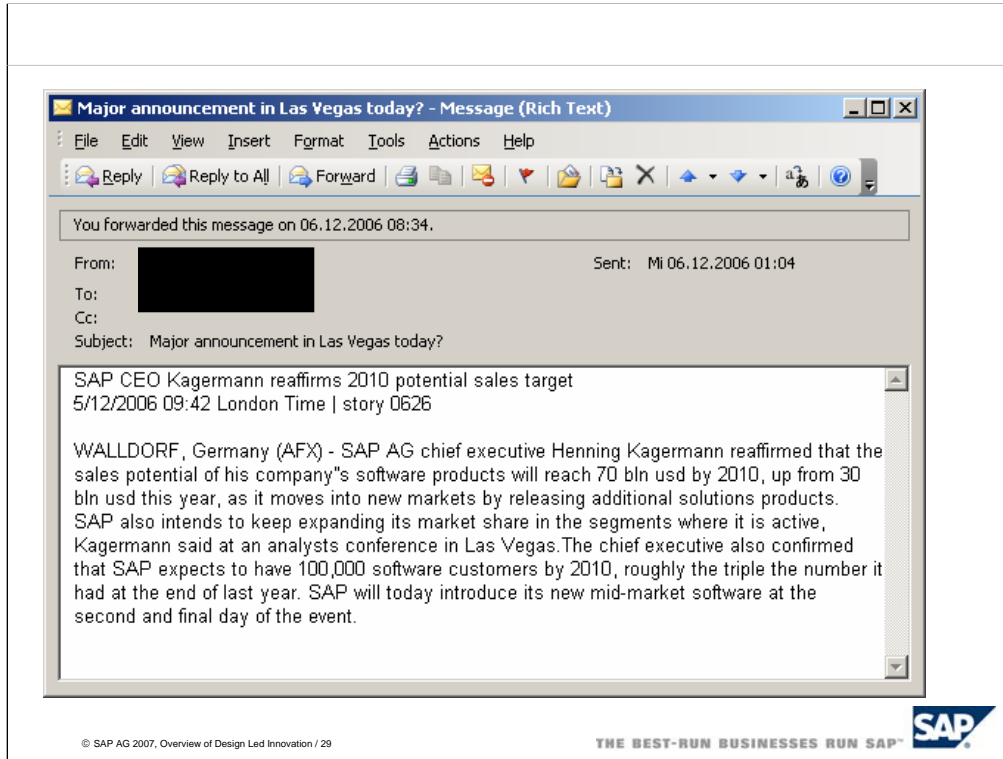
<https://portal.wdf.sap.corp/go/strategy>

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What is the business user?

- more the information worker type as we all are more or less
- working very much in an office environment that is more and more melting with the application environment
- representing high intellectual capital



Nice proof that the strategy is still valid and that we are going forward to achieve it. Can be taken out if it does not fit. But when this was included, it was just great because it was brand new.

## Strategy Applied to (re)design - Ask yourself:

- If China is one of SAP's top emerging markets, what do we know about its customers, users and competitors?
- How many NetWeaver developers have used the LAMP (Linux, Apache, MySQL, PHP) platform?
- How can we defend the enterprise application space against Microsoft, Google, salesforce.com, and others?
- How can SAP be agile enough to enable our software partners to be more competitive?
- Do we understand emerging user roles such as the information worker so we can open new revenue opportunities?
- How can we break a "not-invented here" mentality to co-innovate?

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1. Ask participants what they know about the China market, customers, users...

[for your own preparation, the SAP World **Edition 5/2006** has a **special about China**]

2. Ask the participants who has recently installed the LAMP stack and how long it takes (less than an hour). Ask who has ever installed the NetWeaver Stack (takes days). Point out that the experiences from the outside world influence expectations of the workforce inside the company.

3. Explain that Google has an enterprise strategy, and that they are wildering in Microsoft space too (Google spreadsheets). Explain what salesforce.com does (Salesforce CEO has declared "the end of software" already). They know what the US market needs, and there other vendors in Europe too already 24/7Office.

4. Explain ???

5. Explain the information worker briefly, and point out how much roles are changing in today's economy.

6. Explain how important it is in the innovation race to take good ideas and drive them forward, even if they were not really invented by SAP.

## Innovation is Happening at SAP



- SAP Research
- Solution Development
- SAP NetWeaver
- SAP Inspire  
(Ideas Management)
- SDN
- SAP Ventures
- Emerging Solutions
- DKOM
- ...



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Show the video `Inside_Innovative_Employees_e.wmv` that demonstrates how the ABAP Editor and the Debugger can be places where really innovation takes place. This resonates in particular if you have a developer-dominated audience.

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design led innovation at **SAP**



Introduction to Innovation

Innovation @ SAP

**Design Led Innovation**

Design Led Innovation – Examples

Hands-on Exercise

SAP Design Led Innovation

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# DESIGN LED INNOVATION

This section will introduce you to Design Led Innovation

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# Innovation can happen in Different Ways

## Innovation

From Wikipedia, the free encyclopedia

For other uses, see [Innovation \(disambiguation\)](#).

The classic definitions of **innovation** include:

1. *the process of making improvements by introducing something new*
2. *the act of introducing something new: something newly introduced* (The American Heritage Dictionary).
3. *the introduction of somet*
4. *a new idea, method or de*
5. *the successful exploitat*
6. *change that creates a ne*
7. *the creative force of num*

Experiential Innovation

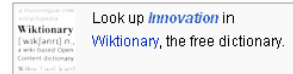
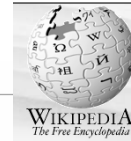
Technological Innovation

Design driven Innovation...

In economics, business, and gov... not an insignificant change. In economics the change must increase value, customer value, or producer value. Innovations are intended to make someone better off, and the succession of many innovations grows the whole economy.

The term innovation may refer to both radical or incremental changes to products, processes or services. The often unspoken goal of innovation is to solve a problem. Innovation is an important topic in the study of [economics](#), [business](#), [technology](#), [sociology](#), and [engineering](#). Since innovation is also considered a major driver of the economy, the factors that lead to innovation are also considered to be critical to [policy](#) makers.

Source: Wikipedia, Sept. 9, 2006



There is various drivers of innovation...

... today's topic is how design can drive innovation.

Define Design and what it means. Go back to Steve Jobs ***“Design is not just what it looks like and feels like. Design is how it works.”***

*(Steve Jobs, Co-Founder and CEO, Apple Computer)*

:

## The Core Values of Design Led Innovation

- 1. Have an Outside-in Mindset**
- 2. Use Empathy for Users & Stakeholders**
- 3. Embrace diversity**
- 4. Think holistically**
- 5. Collaborate in multi-disciplinary teams**
- 6. Generate many new ideas**
- 7. Find & iterate alternatives**
- 8. Fail early and often**

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Design lead innovation is hard to define, and most people do not even share a consistent notion of design (which by the way do not exist).

Yet, despite the differences in notions, practitioners of Design Lead Innovation share a **common set of values** that embraces the inherent ambiguity of design's definition.

This set of values is listed here and will be explained in detail on the next pages.

# 1. Have an Outside-In Mindset

**Analyst Views**

Figure 21: Dashboards and scorecards user deployment profile, 2004 versus planned

User Category	Current (%)	Next 18 Months (%)
500+ users	~10	~10
100 to 499 users	~10	~10
50 to 99 users	~10	~10
10 to 49 users	~10	~10
1 to 9 users	~60	~60

Source: AMR Research, 2005

**Customer View**

**User Perspective**

**Competitive Landscape**

**Partner View**

**Thought leaders**

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**An outside-in perspective allows the discovery of much better solutions compared to purely using the inside-out approach**

Give an example: When NASA started sending up astronauts, it quickly discovered that ballpoint pens would not work in zero gravity. To fight this problem, NASA commissioned Fisher to develop a (space) pen that would write in zero gravity, upside down, underwater, on almost any surface, including glass, and at temperatures ranging from below freezing to 300C.

The Soviets used a pencil!

This is the classic example of the inherent risks in being too focused on your existing ideas. The inside-out perspective implies the risk of getting locked into one idea very easily and precludes other options that can deliver the desired goal more efficiently.

Unfortunately, companies do this all the time.

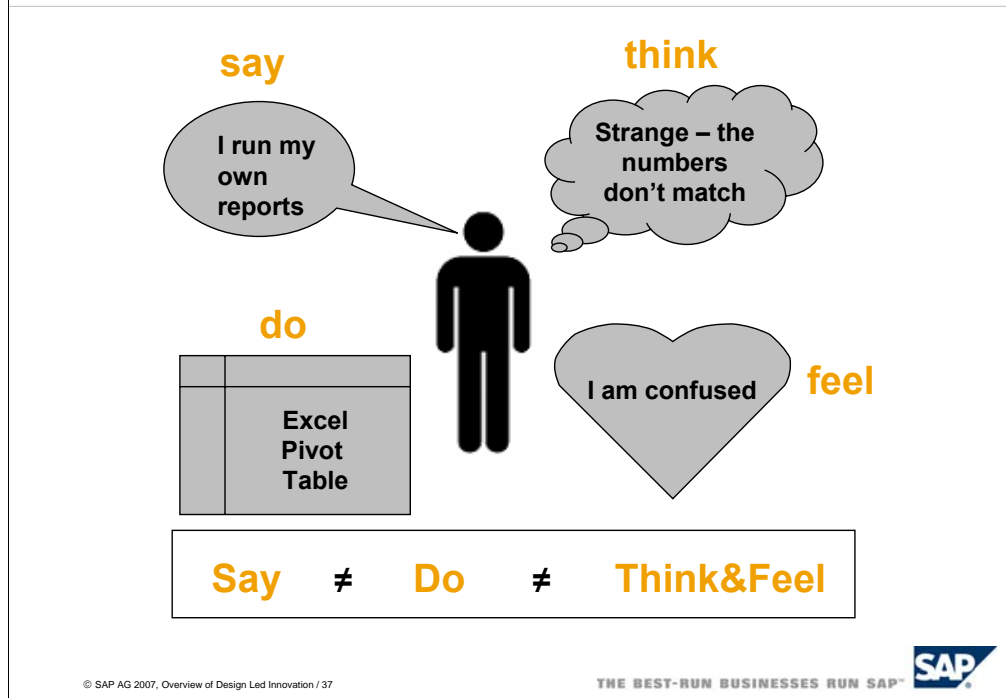
The outside-in perspective allows you to focus on a desired outcome and to identify multiple and sometime unexpected or easy ways to reach it.

Having an "Outside-in focus " helps to look at solutions through the eyes of customers, analysts, partners....

and ensures that your efforts are relevant and that efforts are applied to "real world opportunities".

D-schools may be the B-schools of tomorrow! Not just in the US, also in India and also elsewhere in the world.

## 2. Use Empathy for Users & Stakeholders



### What is it?

Empathy [Webster's New Encyclopedic Dictionary]: The capacity for experiencing as one's own the feelings of another.

### Why is it important?

Fundamentally, to deliver a product or service, it is critical to understand everything about the needs and expectations of the end-users. It is not enough to simply listen to what a person is doing, but also to observe what (s)he is doing to deduce what (s)he is thinking and to grasp what the person is feeling. In this process, you gain empathy for the user, so that you can be the voice of the end-user when design decisions need to be made.

German translation: "Mit-Gefühl" or "Einfühlungsvermögen"

Recommended Reading: Joachim Bauer, 2005, Warum ich fühle, was du fühlst. Intuitive Kommunikation und das Geheimnis der Spiegelneurone (not translated into English yet, but really enlightening!)

### 3. Embrace Diversity



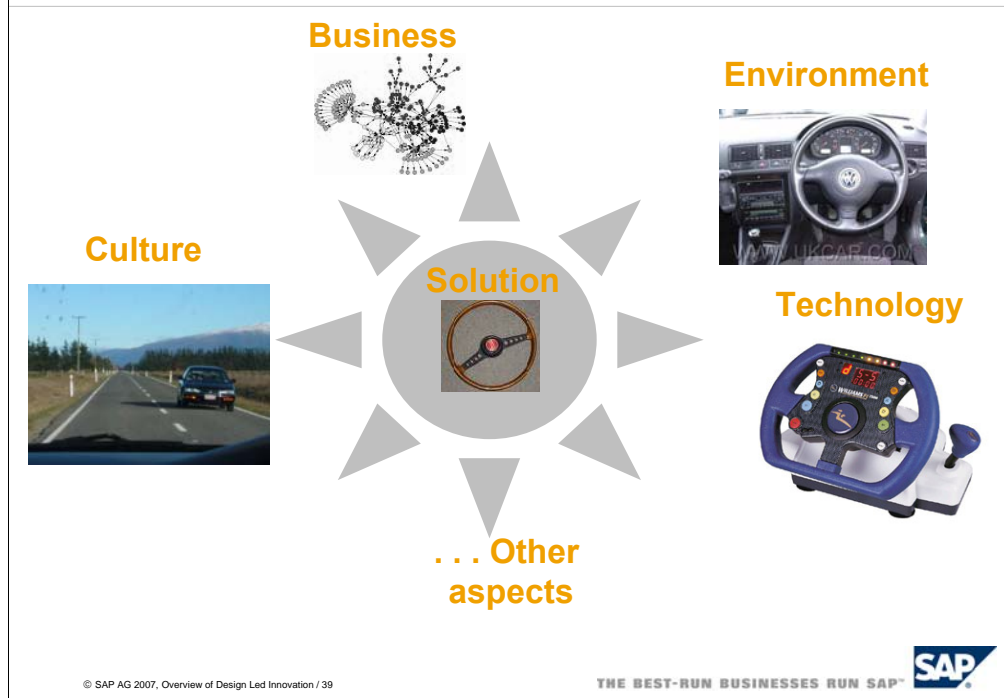
Diversity stands for a variety of cultural backgrounds, opinions, ideas, skills and competencies, or solution approaches.

Discuss the importance of diversity here:

Diversity in working teams foster an environment of respect, trust and openness where all employees can bring their diverse competencies to the table and engage to their full potential. Usually diverse teams work together very effectively and diverse working environments are in general more creative and innovative than non-diverse environments.

Embracing diversity enables the team to gain a broad understanding of the issues at hand by cross-fertilization and widening peoples mind thus helping to find applicable solutions much easier.

## 4. Think Holistically



A holistic approach involves not to concentrate on individual components of a systems, but on their entirety and the relationships and interactions between them. By following this approach you can achieve results that can actually be greater than the sum of the individual parts.

For example in alternative medicine, a **holistic approach to healing** recognizes that the emotional, mental, spiritual and physical elements of each person comprise a system, and attempts to treat the whole person, concentrating on the cause of the illness as well as symptoms. Examples of such holistic therapies include Acupuncture, Chinese medicine, Homeopathy and many more.

Another example could be a workflow that you want to build. E.g. if an SAP employee wants to order a new laptop, it is not only the manger's approval that is important. The whole process starts with the decision that a new laptop is needed, then the employee needs to find what laptops may be ordered, would like to know alternatives, what are the right accessories (docking station or wireless mouse), how long it takes to delivery... and also who is responsible to process the request and how.

In the context of Design Lead Innovation, this holistic context of the end-user and stakeholders is a key insight. The ability to zoom out to see the big picture provides this context. Understanding end-user or stakeholder requirements requires a holistic view of their context. This allows the design team to interpolate the gaps between what the users or stakeholders are able to communicate and what their real needs are. This holistic context includes an understanding of the end-user's role, tasks, motivations, skills, social and working interactions, experience and expert knowledge, and much more.

It also considers the various aspects of innovation that go beyond the product or solution itself – such as solution delivery aspects or business models.

## 5. Collaborate in Multi-Disciplinary Teams



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-Have discussion about different skills and competencies here and how a team can combine them to it's advantage

-Emphasize on cross-fertilization:

- across diverse people
- across disciplines
- across organizations
- across markets

-We all know how to go about doing things the way we have always done it, but if the charter involves being more innovative than we have been in the past, we better listen to each others ideas

-Bring together diverse people, with diverse backgrounds to solve problems!

The main point is to pay attention to the mix of backgrounds and skills, as well as cognitive styles of the team members as they pertain to decision making and information collection preferences, and assigning responsibility by aligning tasks with these preferences.

In a prototyping exercise, the ideal mix might include someone who is good at brainstorming ideas, with someone who is good at expressing things visually, with someone who is talented at building, with someone strong in project management so the team effectively uses their time.

So, in assembling a multidisciplinary team, consider not only field/discipline, but cultural background, personality preference and cognitive style. A task one person may consider painful to execute on may delight another.

Advantages: - Establishes a common vision - Helps you generate many ideas and innovations - Encourages full team contributions and team buy-in.



## 6. Generate Many new Ideas



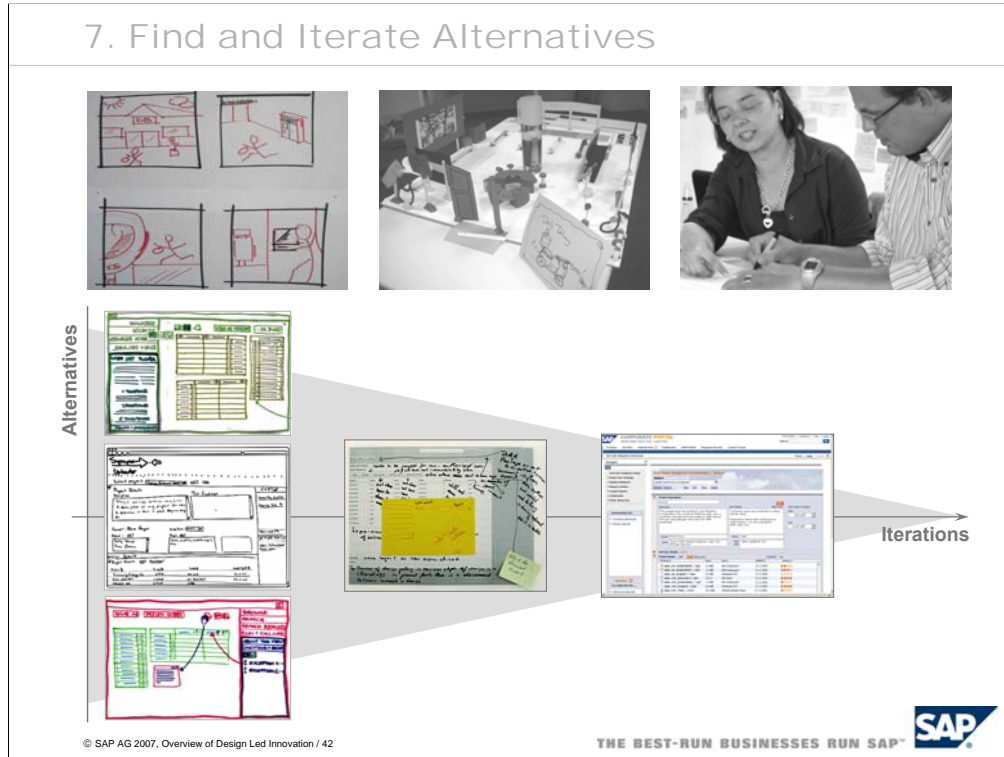
The more ideas you can generate as a team the better.

Why should you do that?

- pushes the process
- every idea may spawn another
- You never know when the great ideas come up
- Avoids to become attached to just one idea too early

Screening and prioritizing is the next step.

## 7. Find and Iterate Alternatives



*Prototype* [Webster's New Encyclopedic Dictionary]: A prototype is an individual that exhibits the essentials of a later type.

In other product development areas [consumer products, automotive], 30-60% of the development time is spent on prototyping.

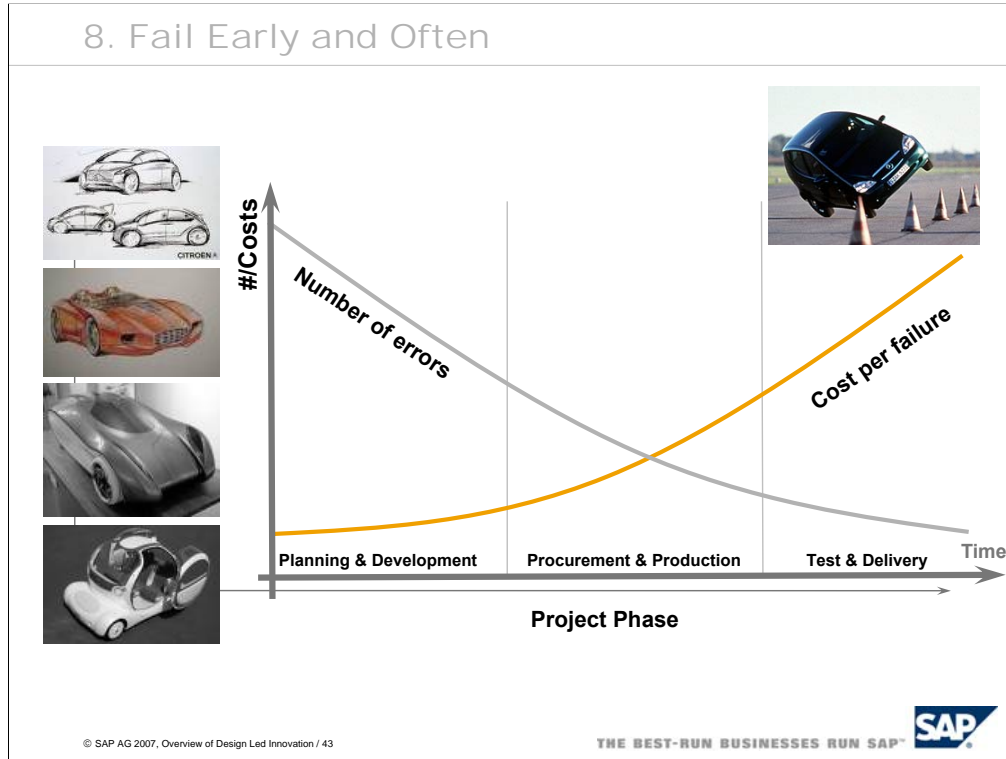
- Evaluate your story lines and use cases
- Start with low fidelity prototypes and validate alternatives with end-users as soon and as often as possible.
- Start with rough prototypes to discuss concepts, and increase fidelity gradually going forward.
- Use flexible media

By doing this, you reduce

- the risk and cost of failure
- the emotional attachment

"If you are not failing, you are not pushing hard enough" → Discuss that prototyping means experimenting with alternatives, that implies "failure" of some of the alternatives. That is OK, and you could also say "We are not failing, we are learning".

## 8. Fail Early and Often



The rule of 10 (from Quality Management)

The cost per error increases by a factor 10 during each project phase (traditional project including analysis phase, development phase, closing phase...)

The more errors are made/recognized at the beginning of a project, the lower are the resulting overall costs.

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Introduction

Innovation @ SAP

Design Led Innovation

**Design Led Innovation - Examples**

Hands-on Exercise

SAP Design Led Innovation

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# DESIGN LED INNOVATION - Examples

This section will introduce Design Led Innovation applied

Design Led Innovation implemented:

Companies recognized as **design leaders** have adopted **Design Led Innovation** as a core philosophy for innovation.



E.g. Virtual worldwide brainstorming at IBM



**BMW assembled a multidisciplinary team to design the new Rolls Royce Phantom**



Source: Businessweek October 16<sup>th</sup> 2006

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To get the most out of its people, BMW likes to throw together designers, engineers, and marketing experts to work intensively on a single project. The redesign of the Rolls-Royce Phantom, for instance, was dubbed "The Bank" since the **10 team members worked out of an old bank building at London's Marble Arch, where dozens of Rollsies roll by daily.** "We took designers from California and Munich and **put them in a new environment**" to immerse them in the **Rolls Royce culture**, says Ian Cameron, Rolls's chief designer. **The result was the 2003 Phantom**, a 19-foot edifice on wheels that remains true to Rolls's DNA but with 21st century lines and BMW's technological muscle under the hood. With sales of the \$350,000 car running at about 700 a year, **the Phantom is the best-seller in the superluxury segment**, outstripping both the Bentley Arnage and the Mercedes Maybach.



**For the design of the Rolls Royce Phantom the project team worked in a building in London's Marble Arch district, in the middle of a typical "Rolls Royce culture" environment**



Source: Businessweek October 16<sup>th</sup> 2006

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**The result is a true Rolls Royce with BMW's outstanding technology.**

**The Phantom is the best-seller in its class.**



Source: Businessweek October 16<sup>th</sup> 2006

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***"Back then we were saying 'Here's the features and the technology,' then put a wrapper around it," "Now the starting point is 'What does the consumer want?' and then apply the technology to that."***

**says Jim Wicks, Motorola's Director of Consumer Experience Design in an interview with FastCompany April 2006**



**Source: Businessweek August 8<sup>th</sup> 2005**

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The \$450 (about R2 700) Razr embodies "a departure from the stodgy, engineering-driven, Midwestern company that was Motorola," according to Yankee Group analyst John Jackson.

A 35 percent leap in sales last year pushed Motorola's share of the global cell phone market back up to 15.4 percent and enabled it to take back second place from Samsung Electronics Co, which briefly surpassed it in the third quarter, according to research firm Gartner Inc.

**Motorola opened a design centre in downtown Chicago hosting a multidisciplinary team and started focusing more on consumer research, conducting global studies and researching lifestyle trends as it began ramping up design**



PHOTO: MICHAEL O'NEIL

Source: Businessweek August 8<sup>th</sup> 2005

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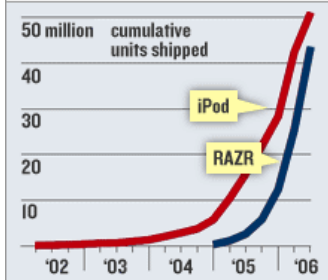
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**Motorola's RAZR was sold over 24 million times, helping Motorola to climb up again to #2 in the market with the goal to become #1**

**RAZR'S SILHOUTTE**

There's no denying the cultural influence of Apple's iPod. But since the RAZR's launch in late 2004, it has sold almost as many units as Steve Jobs' brainchild.



SOURCES: APPLE, MOTOROLA, MERRILL LYNCH ANALYST REPORTS



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## Characteristics of Innovative Organizations

- **Strong Strategic Focus** on the importance of innovation within their markets and the contribution that innovation makes to the business.
- **Insight, meaning excellent understanding** of the marketplace, customers and an ability to configure products and services around emerging needs.
- **Collaboration by** clearly understanding the **core capabilities** of themselves and their **partners** and working together to deliver innovative products and services.
- **Processes** - effective approaches to envisioning, qualifying, developing, and then rapidly launching new products and services.
- **Organization roles, responsibilities** and **culture** supporting innovation while measuring and rewarding successful innovation.

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Explain the main characteristics of innovative organizations and tie them back to design led innovation core values.

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Introduction to Innovation

Innovation @ SAP

Design Led Innovation

Design Led Innovation – examples

**Hands-on Exercise**

SAP Design Led Innovation

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# NOW IT IS YOUR TURN

In this section you will practice empathy, a core value of Design Led Innovation

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## One aspect of Design Led Innovation: Empathy

What do I think my customer wants



### OLD MODEL

Start with what you think

Collaboration nice, but not required

Limited diversity

What does my user need?



### NEW MODEL

Start by working with end users, customers and other stakeholders

Internal *and* external collaboration

Diversity



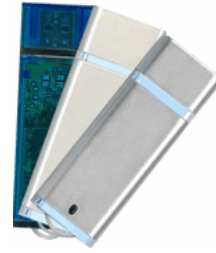
## Why Empathy?

- **Generates deeper understanding through contextual, multi-faceted, verbal/non-verbal observations**
- **Strengthens customer relationships**
- **Builds understanding within the team**
- **Creates possibilities by letting you explore “what you don’t know you don’t know”**
- **Captures “customer artifacts” for the team**



## Practice Empathy - step 1:

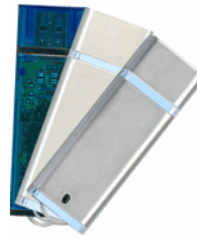
**Imagine you are in charge of re-designing the USB Stick and you are trying to find out what holds users back from using USB sticks**



- Appoint three roles in your team:
  - Interviewer
  - Observer
  - “User”
- Users write what they do not like on index cards, one topic per card
- Observers & Interviewers collect index cards and post them on the wall

## Practice Empathy - step 2:

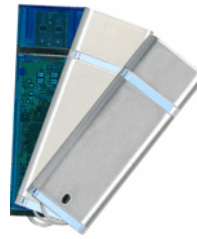
**Imagine you are in charge of re-designing the USB Stick and you are trying to find out what holds users back from using USB sticks**



- Interviewer reviews the index cards exploring the root causes of the user's dislike by using open-ended questions
- Observer listen to and observe the "Users" and make notes on index cards

## Practice Empathy – step 3:

**Imagine you are in charge of re-designing the USB Stick and you are trying to find out what holds users back from using USB sticks**



- Post observer cards on the wall
- What findings emerge?
- How might you innovate the USB stick?

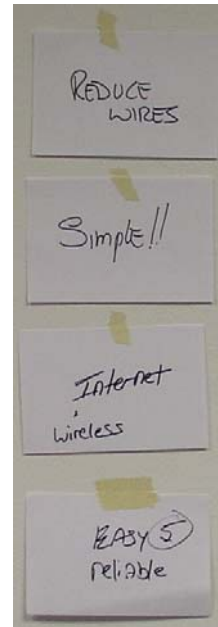
## Observation is KEY!

### Tips for Observers

- Write down anything you hear or see that you think is important – one observation per card:
  - What do users say?
  - How do users react?
  - How does your team react?

### Tips for the Interviewer

- Listen non judgmentally. These are your users. They're not stupid. They're not lazy.
- Ask open-ended questions ("Could you tell me more about ...")



## Practice Empathy

**Imagine you are in charge of re-designing the USB Stick and you are trying to find out what holds users back from using USB sticks**

- **Appoint three roles in your team:**
  - one Interviewer
  - two Observers
  - All others “User”
- **Users write what they do not like on index cards, one topic per card**
- **Observers & Interviewers collect index cards and post them on the wall**
- **Interviewer reviews the index cards exploring the root causes of the user’s dislike by using open-ended questions**
- **Observer listen to and observe the “Users” and make notes on index cards**
- **Post observer cards on the wall**
  - What findings emerge?
  - How might you innovate the USB stick?

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Introduction to Innovation

Innovation @ SAP

Design Led Innovation

Design Led Innovation – Examples

Hands-on Exercise

**SAP Design Led Innovation**

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# YOUR TOOLKIT FOR DESIGN LED INNOVATION

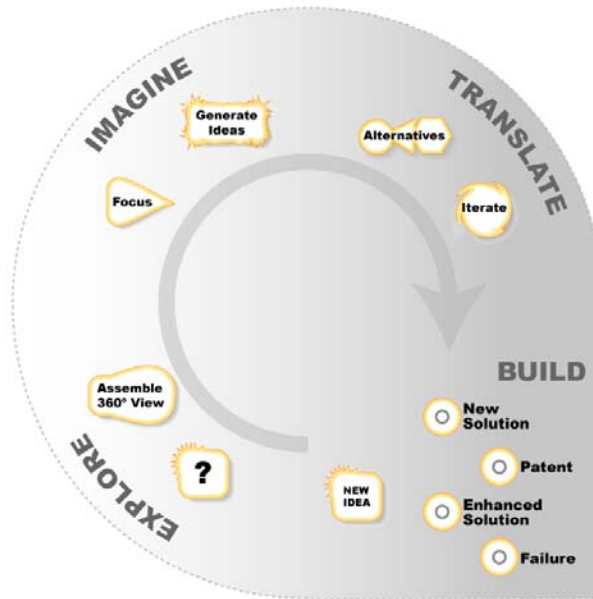
In this section you learn about Design Led Innovation at SAP  
and your toolkit

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# Design Led Innovation Components



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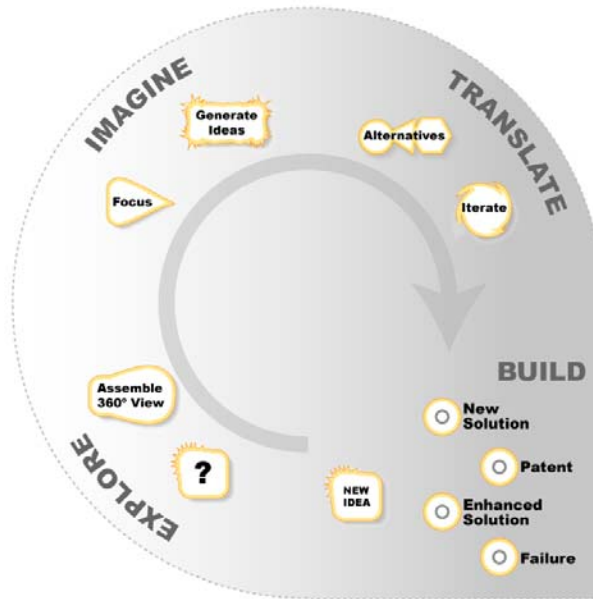


Explore the Solution space:

- Competitive Info
- User and Customer Needs
- Analysts & Thought leaders
- Internal Subject Matter experts



# Focus

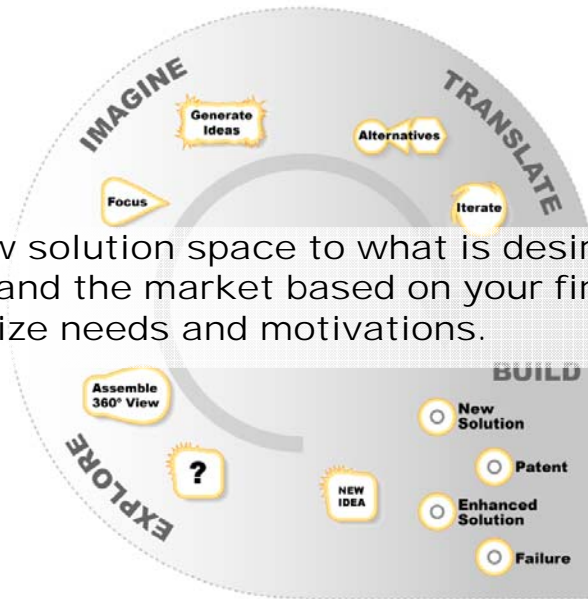


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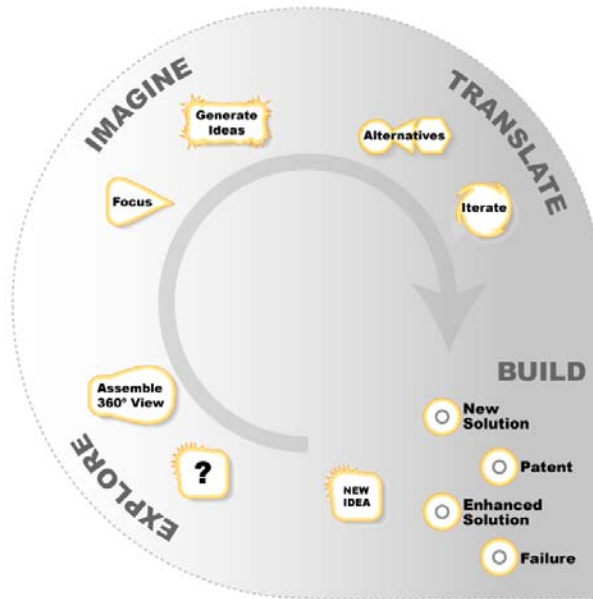
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- Narrow solution space to what is desired by users and the market based on your findings.
- Prioritize needs and motivations.



# Ideas

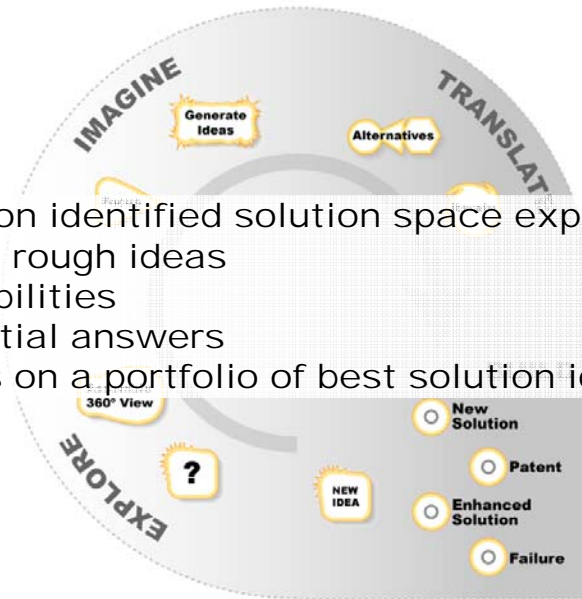


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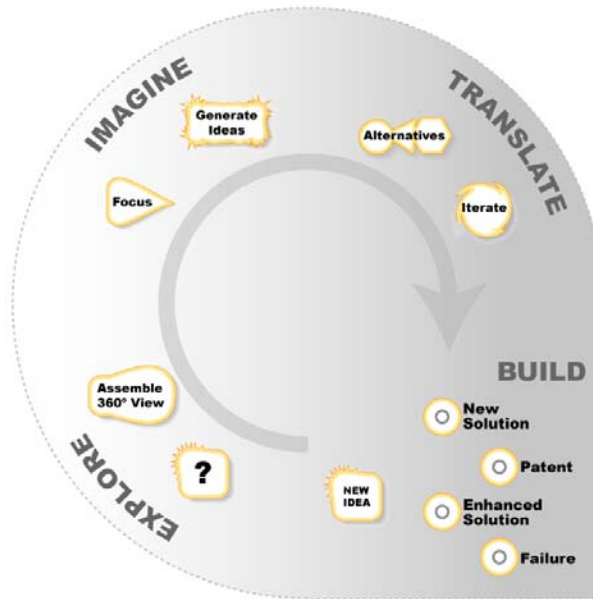
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- Based on identified solution space explore:
- Many, rough ideas
  - Possibilities
  - Potential answers
  - Focus on a portfolio of best solution ideas

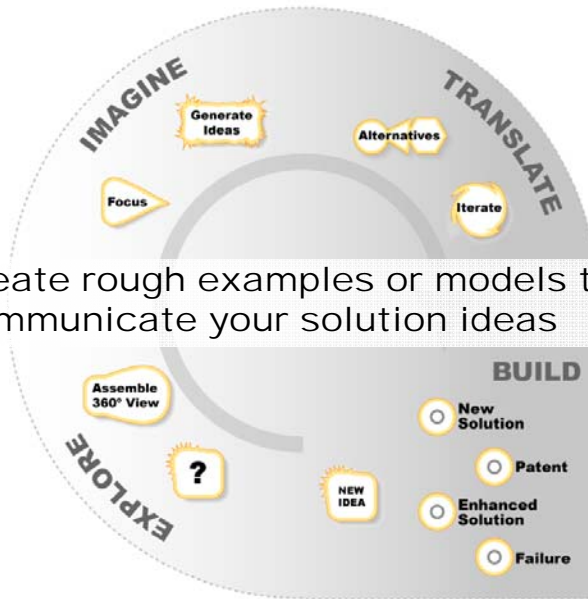


# Alternatives



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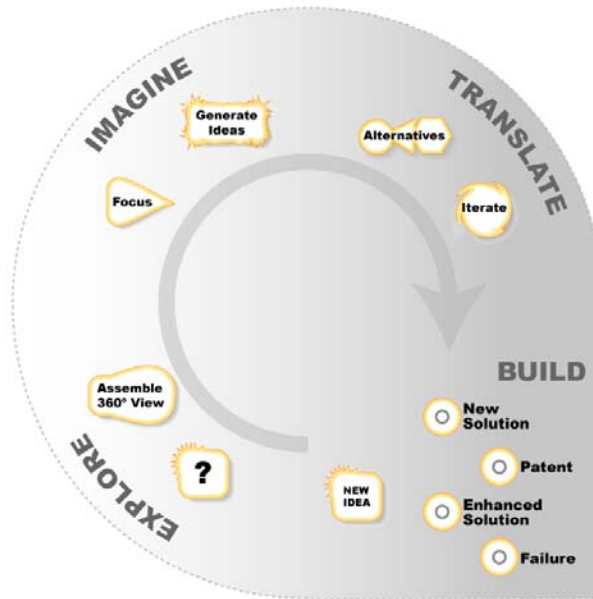
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- Create rough examples or models to communicate your solution ideas



# Iterate



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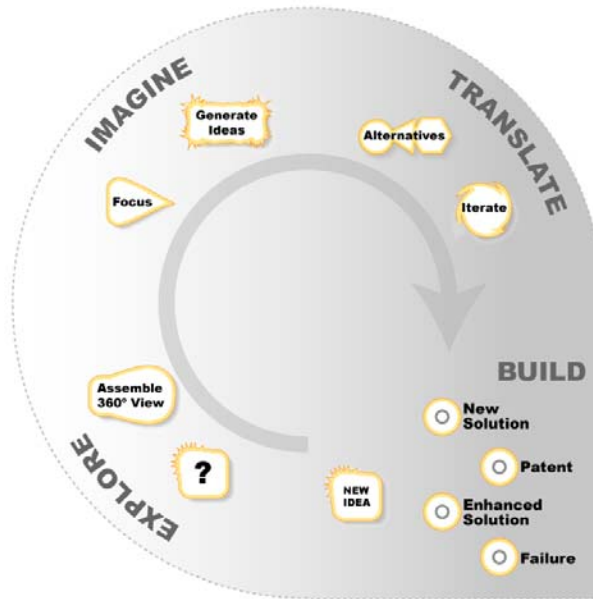




- Refine your alternatives through several feedback cycles with potential users
- Identify Best Possible Solution



# New Solution, Enhanced Solution, Patent, Failure



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## New Solution, Enhanced Solution, Patent, Failure

### Define New or Enhanced Solution

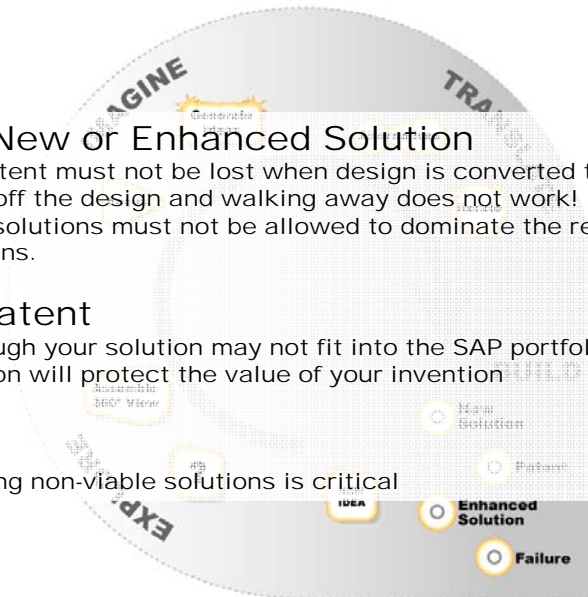
- Design intent must not be lost when design is converted to a solution
- Handing off the design and walking away does **not** work!
- Existing solutions must not be allowed to dominate the redesign discussions.

### File a Patent

Even though your solution may not fit into the SAP portfolio a patent application will protect the value of your invention

### Failure

- Eliminating non-viable solutions is critical



## Example – Enhanced Solution



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You can use the following slides to show examples for very easy ways to fulfill end-users needs and advanced solutions based on additional technology not used before in the ticket vending process.


Here you see that the ticket vending machines are only labeled in German and a funny icon (February 2006), so that foreigners and visitors usually had a hard time understanding what this machine does.

## Example – Enhanced Solution



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In this picture you see that the machines were later labeled in four languages and also carrying the  sign telling people that they can get information here too. This type of fulfilling end-user needs is pretty easy low hanging fruits, still helping users a lot.

## New Solution

**INNOVATIVE BAHN**

### Handy-Display wird zum Ticket

Viele Handy-Besitzer machen sich im Zug dadurch bemerkbar, dass sie ihre Umgebung mit lautstarken Gesprächen unterhalten. Doch das Mobiltelefon lässt sich auch sinnvoller einsetzen: Ab sofort können Bahnfahrer ihr Handy als Fahrkarte benutzen.

Berlin - Bahnkunden können ihre Fahrkarte ab sofort auch auf das Handy bestellen. Das Ticket bekommen Bahnreisende dann in Form eines sogenannten 2D-Barcodes via MMS (Multi Media Message) geschickt, erklärt Stephan Kahl vom Branchenverband BföM in Berlin. Dieser Code wird dann vom Schaffner wie bei einem Online-Ticket vom Handy-Bildschirm gescannt. Die neue Form des Tickets kann bis zehn Minuten vor Abfahrt des Zuges bestellt werden. Auch viele Nahverkehrsbetriebe wollen noch in diesem Jahr Handy-Tickets anbieten. In Köln ist das seit 2004 möglich.

Der Weg zum papierlosen Handy-Ticket führt über das Online-Portal der Bahn, dort müssen sich die Reisenden zunächst für den Service anmelden. Wer bereits im Buchungssystem registriert ist, kann das in dem persönlichen Benutzerkonto tun. Zur eigenen Handynummer wird eine persönliche Geheimnummer (PIN) definiert. Um dann eine Bahnfahrkarte mit dem Handy zu buchen, muss mit dem Handy eine Internetverbindung zu <http://mobile.bahn.de> hergestellt. Unter dem Menü-Punkt

Kommunikation zwischen Handy und Scanner: Ticket per 2D-Barcode

**EXKLUSIV**

- \*Stufferparadies: Comeback der Monsterwelle
- \*"Stuttgart 21": Showdown für das Jahrhundertprojekt
- \*Neuer Kreuzfahrtschiff: Baustelle an Bord
- \*Tourismus: Das Welt-Schiff
- \*Trekking im Trentino: Mit dem Adler über die Alpen

**REPORTAGEN**

- \*Reiseziele: Finden Sie Ihre Traumreise bei SPIEGEL ONLINE

**WEIN-SPECIAL**

- \*Veni, vidi, vini! Ein Streifzug durch die Weinbauregionen der Welt

**Condor**  
Wir lieben fliegen.

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In addition, the Deutsche Bahn came up with an online service, where you now can order tickets with your mobile phone that is sent to your mobile phone within seconds.

On the train, the conductor can scan the ticket from the phone display. Tickets can be ordered until 10 min before the train leaves.

## New Solution



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This is how the ticket looks like.



# The 360° view, the design challenge, market data

In this section we will introduce how to gather a 360° View, tomorrows design challenge and relevant market data

## Objectives

**Tomorrows workshop will allow you to explore key components of Design Led Innovation.**

**You will:**

- **Learn more about key values of Design Led Innovation**
- **Experience Design Led Innovation with a design challenge**

Toolkit?

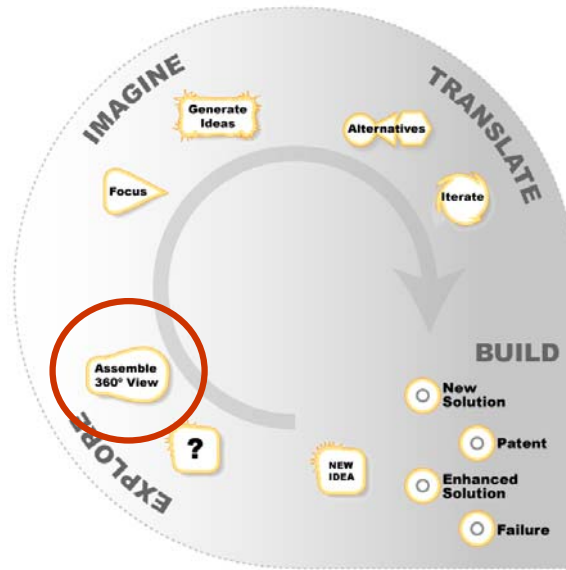
**You will split into teams for the hands-on exercises.**

- Each team will be given the same design challenge, and will compete for the best and most innovative solution.
- Today we will explain the design challenge, and give you the necessary background information from the market, thought leaders and what others are doing in this area.

# 360° View

This section will introduce you how to explore the solution space.

# Design Led Innovation Components



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Show beta video

## 360° View – Exploring the Solution Space

### Gather Competitive Info

- What are software and service competitors providing in this solution space?

### Consider Analysts & Thought Leaders

- What have industry and subject matter analysts written about the solution?
- What is the press writing about the solution space?

### Research User and Customer Needs

- What are the needs of the true end users of the solution?
- What are the needs of others such as IT, implementation teams, partners in the solution space?

### Contact Internal Subject Matter experts

- Is a department at SAP working with the solution you are researching?
- Are there colleagues that have worked in the solution space previously?

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Explain why the points mentioned in the slide are important:

**Gather Competitive Info** - It is important to know what the competition is doing and offering. Point out that it does not make sense to just copy the competition, because you can not be sure that they are able to really meet their user's need with what they offer.

**Consider Analysts & Thought Leaders** – *Analysts* are important as they know the market pretty well since they talk to our customers and competitors on a regular basis. Based on this they also make recommendations about software purchasing decisions. They spot technology trends and are the opinion makers out there. *Thought leaders* as e.g. academia and press are also important opinion makers and trendsetter who influence peoples thoughts.

**Research User and Customer Needs** – Make clear the difference between *end-user* (the people really working with the software on a regular basis) and *customer* (the company buying the software, decision makers) and *stakeholders* (implementation teams, partners in the solution space). Point out that it is important to get all these views on the solution space!

**Contact Internal Subject Matter Experts** – Find groups within SAP that use software related to the solution space, or try to find people who have previously worked in the solution space. Also mention that it is perfectly OK to use personal networks and “friends and family”.

## Conducting other Research

### Internet

- Browse the internet for any information you can find that is related to the solution space

### Intranet

- Check the Competitive & Market Intelligence Website in the Corporate Portal for summarized and detailed information about the solution space (<https://portal.wdf.sap.corp/go/cmi>).
- Explore SAP Demo Systems to gain an understanding of existing solutions (<https://portal.wdf.sap.corp/go/ides>).
- Check the Value Engineering Site in the Corporate Portal for customer benchmarks and other SAP insights on how solutions are used.

### Other

- Find Departments within SAP that may work in the solution space you are exploring – either as end users or as solution teams.

## Design Challenge

### What?

**Imagine your team has been hired to design...**

**Placeholder – to be exchange with  
workshop design challenge**



# (re)design

design led innovation at **SAP**

Placeholder, insert  
relevant market data

urist™

ce: [www.expatica.com](http://www.expatica.com)

Outside-in view on  
[Current design challenge]

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## Market Trends

**Placeholder, insert  
relevant data**

## Consumer Trends

**Placeholder, insert  
relevant data**

**Placeholder, insert relevant  
data**

THANK YOU!