

DESIGNING WITH SAP FIORI

Creating a best practice guide to support designers

User System Interaction PDEng

Industrial Project Gen '15

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TABLE OF CONTENTS

1.	General summary.....	3
2.	Management summary.....	4
3.	Introduction	5
	Project background.....	5
	Project goal.....	6
	Report structure	7
4.	SAP Fiori Framework.....	8
5.	Case A: Worklist application for Credit Control	11
6.	Case B: Overview dashboard	16
7.	Best practice guide.....	20
8.	Case C: Evaluating UX approach	22
9.	Expert Evaluation	26
10.	Discussion & Conclusion	29
11.	References	32
12.	Appendices.....	34
	Appendix A: Designs	34
	Appendix B: Best practice guide (version 1).....	38
	Appendix C: Best practice guide (version 2).....	40

1. GENERAL SUMMARY

McCoy & Partners is a IT consultancy that has the vision to simplify enterprise systems and processes to make their clients more successful. One of their recent efforts to accomplish this is by starting up a User experience (UX) design team that provide consultancy on how the interfaces for enterprise systems can be improved.

McCoy works almost exclusively with SAP applications, most of which are using the SAP Fiori design style for its user interface. For UX designers of McCoy this means that they are often designing for this SAP Fiori interfaces.

As the UX design team at McCoy is growing, the need is arising for a way to standardize the way of working in Fiori projects. Second, McCoy wants to help newly hired UX designers, who often don't have experience with SAP Fiori, to design for SAP systems. Due to these needs, it was decided to create a best practice guide for designing with SAP Fiori in this industrial project.

The information necessary for the best practice guide were collected by performing three cases at two different companies and evaluating the guide with experts. Due to company privacy, the names of these companies cannot be shown.

The first case revolved around building a new Fiori app that would support credit controllers at a finance department with their collections. If a partner would not pay their invoice, the credit control team would call them and arrange a payment plan. We designed a Fiori app that supported their complete flow in this task. The second case consisted of creating a financial dashboard for managers that would monitor certain key performance indicators (KPI's). In these two projects, all kinds of experiences about the design process with Fiori were noted down and used to create the first version of the best practice guide. This guide consisted of a standard UX project approach for Fiori cases and a top 10 of design guidelines that were mostly focussed on the design process.

The third case, which focussed on supporting the internal order process of materials in an energy company, was used to validate the first version of the guide. In addition to this third case, the guide was reviewed by two experienced design consultants at McCoy.

After consolidating all the feedback from the experts and from trying the guide in case C, a second version was created of the guide. This guide should be further developed in the coming years, based on experiences of different designers in different Fiori projects. Ideally, this guide will become a living document that is constantly updated by designers that are using the guide to help it improve over time and stay relevant.

2. MANAGEMENT SUMMARY

In this project, we created a best practice guide for designing with SAP Fiori. SAP Fiori is the design language that is used more and more for SAP applications. The UX designers of McCoy often work with the SAP Fiori interfaces, so it is paramount that they know how to set up Fiori projects and what is important in their design process to provide the value that McCoy envisions.

The guide was created based on my experiences during three company cases and an expert evaluation with two senior UX design consultants at McCoy.

The first two cases (Case A and B) were performed at the finance department of an online search company. Case A focussed on developing a UI5 application for Credit controllers and Case B consisted of creating a dashboard for financial managers. After these two cases, the initial version of the guide was created.

The best practice guide consists of two parts. The first part describes the standard UX project approach that was developed within McCoy that also incorporates the design services that are used within McCoy. The second part are 10 design guidelines that help advise on how the design process for SAP Fiori cases should be performed. The initial version of the best practice guide can be found in appendix B.

This guide was then validated in the third case (Case C). Unfortunately, this was not a Fiori project, but the envisioned Fiori project that was supposed to be used for validation was postponed. The new project that was incorporated as the third case revolved about a user research and user journey mapping project for an energy company. This case was mostly used to validate the UX project approach from the guide and a subset of design guidelines that did not focus on Fiori specifically. Additionally, the guide was evaluated with Fiori design experts.

When the guide was evaluated with these experts, it received positive comments. However, this guide was still created based on only two true Fiori cases. In the future, the guide needs to be improved based on new insights and experiences that are collected in all kinds of different Fiori projects. Ideally, this guide will become a living document that is updated by designers that are using the guide to help it improve over time and stay relevant. An update meeting for this document could for example be held every half year. The final version of the best practice guide can be found in appendix C.

3. INTRODUCTION

Project background

Enterprise software is defined by Seddon, Calvert and Yang [1] as ‘application software that supports core business processes across departments and between organizations [2]. Even though enterprise software has this mentioned focus to support organisations, it does not have a reputation of creating a pleasant experience for its users. These types of applications are often found to be complex and employees require extensive and costly training before they can use it [3,4]. A plausible reason given for this phenomenon is that enterprise software solutions are designed for a very specific group of expert users, while the large group of main users do not have the same needs, technical skills or organizational capacity [4].

SAP, the world leader in enterprise software applications [5], has recognised these issues and has shifted their focus to delivering a product that fits the needs of their users in a better way. They have been incorporating design thinking in their company ever since 2008, making them frontrunners in the Enterprise software world to do so. In 2013 SAP announced one of their largest efforts in improving the UX for SAP systems: SAP Fiori [6]. SAP Fiori (Figure 1) is the new design style by SAP that aims to change SAP’s business applications from process-centric to user-centric experiences. This is done by delivering ‘a role-based consumer-grade experience across all lines of business tasks and devices using modern UX design principles’ [7]. The design concept of SAP Fiori 2.0, the second iteration of Fiori, was awarded by the Red dot award in 2015 [8].

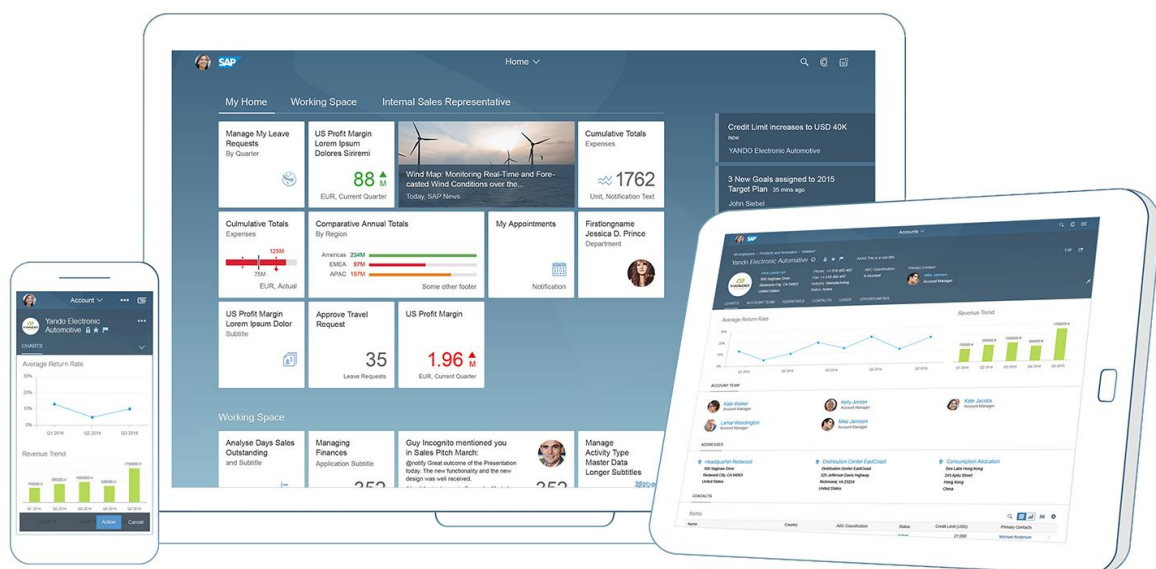


Figure 1. An example of the SAP Fiori interface for business applications.

McCoy & Partners is an IT consultancy focussing on supporting customers with their SAP landscapes. Their mission is to simplify IT. Convinced that IT should reinforce and speed up business. Nothing more, nothing less. Like SAP, McCoy & Partners has acknowledged the importance of UX in designing these applications and have been building a UX team for the past few years. This team uses their experience in User-centered research and design to improve the user experience of someone's daily job by optimizing enterprise software. This is done combining the UX design of SAP applications in the initial stages together with the functional design and by involving users over the entire process. By combining these disciplines, a truly multidisciplinary approach can be used in projects. According to the TAM model [9] User involvement has a positive effect on users' intention to adopt enterprise software systems [10,11,12,13], making it also a very important aspect of project success [14].

One of the ways that McCoy & Partners consultants are helping to bring IT back to the essence, is by introducing the earlier described Fiori applications. There are a vast amount of different SAP Fiori apps, all focussed on accomplishing a certain task. By assessing a user's tasks and work process, it is possible to recommend which apps they need. If possible, Fiori apps are implemented as standard. These standard apps are a lot easier to maintain and upgrade. As SAP Fiori is fairly new, updates are released very often, so being able to is a very relevant point. However, if certain core business processes are not supported by the standard, the Fiori apps will have to be tailored to be able to truly offer value to the users, outweighing the effort of maintenance. This is often the case, as Enterprise software packages are built to serve a large and anonymous market, therefore not fulfilling specific requirements that users and/or a company have [2,15]. SAP Fiori does offer standard components that can be reused to create a nearly standard application landscape. UX Consultants at McCoy try to find a balance in offering the most relevant functionalities to users, while keeping the design as standard and maintainable as possible.

Project goal

Even though the UX consultants of McCoy & Partners has been involved in numerous SAP Fiori projects over the last few years, a structured approach for designing with Fiori was not yet available. Therefore, the goal of this project was to create a best practice guide for designing with SAP Fiori, helping designers at McCoy in their company projects. This guide would be helpful in offering structure and consistency to UX consultants at McCoy, which in turn can help to guarantee a certain quality. It will help new hires to learn the McCoy approach to UX faster and introduce them to key rules of SAP Fiori. Since UX design in the SAP domain is fairly new, most consultants that are hired by McCoy are not.

Last, this is a framework that can be used to structure new insights and experiences, making this guide a living document.

Over the last months, several UX projects were performed for McCoy & Partners focussed on designing with Fiori for SAPUI5. The design, fuelled by the user input, was done in close collaboration with developers, to make sure that the designs were technically possible and the framework was used to its full potential. The guide itself was validated by other UX experts that are familiar with SAP Fiori. The following approach was taken for this project (Figure 2):



Figure 2. Process for this industrial project.

Report structure

This report will first give an overview of the SAP Fiori framework and will then illustrate Fiori, and my experiences designing with it, by presenting three cases for reference. For each case, a reflection was made on the experiences with SAP Fiori that were subsequently used as input for the best practice guide. The names of the companies where these cases were performed were removed for privacy reasons. First case A and B will be discussed, after which the first iteration of the best practice guide will be discussed. Then case C will be presented, which was used to partially validate the outcomes found in case A and B, followed by an expert review of the guide. Last, the process of this project will be discussed and a general conclusion will be made.

4. SAP FIORI FRAMEWORK

SAP Fiori is the design language for all of SAP's latest apps. Most importantly, it has become the standard UI style for SAP's cloud-based Enterprise Resource Planning (ERP) system, called SAP Business Suite 4 SAP HANA or SAP S/4HANA [7, 16]. The software industry has seen a gradual shift towards cloud-based applications and a SaaS (software as a service) business model. SAP was rather late in their step to the cloud and saw a big drop (5%) in their market share between 2010 and 2016 due to this. Competitors such as Salesforce that did move to the cloud early profited for this [17]. However, SAP is on its way back with S/4HANA, showing a revenue growth of 73% for the Enterprise SaaS space in 2015, larger than all its competitors [18].

All the apps that use the SAP Fiori interface are built with SAPUI5. SAPUI5 is a HTML5, CSS & JavaScript-based UI toolkit, containing a collection of libraries that developers can use to develop to build web-based and desktop applications [19]. It was developed by SAP itself and later released in an open source form called OpenUI5. Recently the SAP Fiori design has become available for iOS as well, after Apple and SAP announced a close collaboration for mobile enterprise applications.

The biggest goal for SAP in creating Fiori was to set a standard for enterprise user experience by removing unnecessary complexity', delivering to users only what they really need to complete their business tasks [20]. The way it tries to reach this goal by five design principles (see Figure 3). A brief overview and assessment of these five principles will be given below, to further explain what was important to SAP when designing their newest generation of apps.

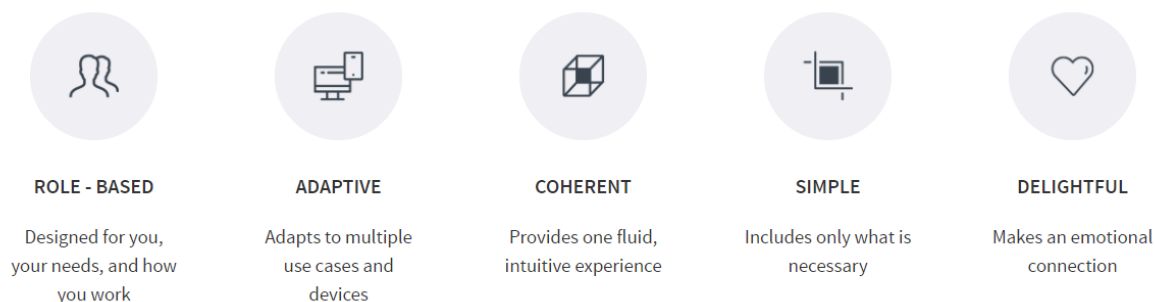


Figure 3. the five design principles of SAP Fiori [20].

The first design principle for Fiori is to create it as a role-based system. SAP Fiori works with user accounts that can be assigned roles and rights. Based on these definition, certain apps or data within apps will be made visible to users. Rather than making an app fully tailored in functionality, SAP Fiori makes sure that the apps and the data you see are all relevant to you as a user.

The second principle is adaptiveness. Fiori consists of responsive web-based apps, meaning

that users are not dependent on desktop systems anymore. They are able to use any device they want at any location, as long as they have an internet connection. This is especially interesting for users that do not have a fixed workstation or have to move around a lot during their work.

Coherency is the third design principle that Fiori mentions, meaning that SAP wants to provide one fluid, intuitive experience. This is for example accomplished by selecting a common theme for all SAP Fiori apps. This theme can also be tweaked by using a SAP app called the UI Theme designer, which lets you customize the colours and styles of your SAP Fiori. The output of the Theme designer is a theme that can be used for all Fiori apps, helping to create one unified style for the entire company, regardless of device.

There also are Fiori guidelines for designers as well as developers, to make sure that there is also a consistent way of building apps in Fiori. These guidelines can for example help to decide what components to select, what colour coding to use and what transitions need to be between screens.

The fourth principle of SAP Fiori design is Simplicity. This might have to be put in perspective for enterprise software, because in the country of the blind, the one-eyed man is king. The way that SAP uses this principle is by including only what is necessary. In the old systems of SAP, all kinds of different functionalities were accessed by using relatively long menus, many tabs and different popup windows (See Figure 4). The biggest difference to such a previous SAP systems is that functionalities are grouped based on task in apps. This means that you pick an app based on your task and will find only relevant functions for that task inside the app.

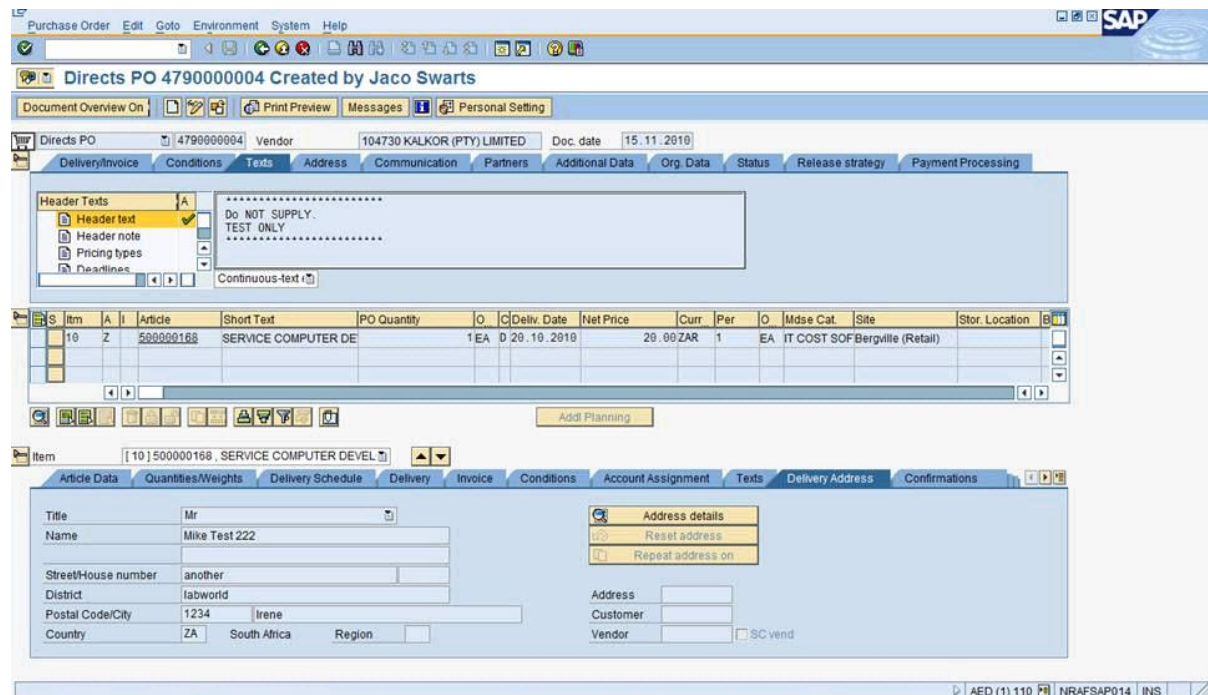


Figure 4. Example of a typical older SAP interface [21]

The final design principle that SAP Fiori tries to comply to is delightfulness. The word 'delightful' has many definitions, but SAP Fiori describes this as 'making an emotional connection.' Donald Norman [22] asserts that such emotions can have a critical impact on product's success and may be even more important than its practical elements. This emotional connection is said to be achieved by making a product beautifully designed. According to Norman, attractive products will work better because a beautiful product will make a user feel good, which helps to motivate these users to find solutions whenever the product gives them problems [23]. If we use this definition, this last design principle would mean that SAP wants to create something beautiful or at the very least a lot more attractive than their previous software, so it will evoke positive emotions for users. By for example adding the company logo and colours using the aforementioned UI Theme Designer and adding subtle transition effects, SAP Fiori definitely offers something to address this.

These five design principles help SAP Fiori to be a vast improvement over the old situation. What is not different with SAP Fiori than it was in the old situation is that every company is extremely different in its structure and way of working. Therefore, a Fiori app will often have to be tailored, or at the very least configured to fit the company. Luckily both SAP Fiori and SAPUI5 (or OpenUI5) are well-documented, but this does mean that designers and developers have to work together to help SAP Fiori apps add value to a company. This process to configure and optimize the SAP Fiori design will become clearer in the different cases.

5. CASE A: WORKLIST APPLICATION FOR CREDIT CONTROL

Context description

Company A is a large online search engine that has partners in more than 200 countries. Their business model revolves around earning a sales commission from their partners on purchases completed through their website. At the Financial systems department of Company A, SAP technology is used to support business processes throughout the entire company. One of the current efforts of the Financial systems department is to support the credit controllers of Company A.

These credit controllers are responsible for contacting partners that did not complete their monthly payment responsibilities to Company A. A partner receives an invoice on the first of the month based on the number of orders they received through the Company A website in the month before. If they do not pay this invoice before the 14th, credit controllers will contact them and try to collect the invoice amounts. If the partners don't pay, they risk being suspended, meaning that they are not shown on the Company A website until they do pay their invoice.

The main focus of credit control during the collection period is on 'current collection', or invoices between 1 and 30 days overdue, but they also try to collect invoices up to 90 days overdue. In addition, credit controllers are also responsible for sending invoices older than 90 days to the legal department, providing partners with credit notes and processing changes of ownership. As Company A is still growing rapidly, the number of partners each credit controller is responsible for also increases. To be able to deal with scaling up in the future, the Financial systems department is considering ways to facilitate the way credit controllers' work.

Goal

The Financial systems department has been in the process of developing a new worklist application in SAP Fiori for credit controllers for some time. Their aim was to combine all necessary functionalities in one environment. Currently, the credit controllers are using up to five different programs to collect all relevant information to contact a partner and register their results.

This new worklist app has been developed for some time, but has been approached mostly from an IT point of view. After McCoy had performed a heuristic evaluation on the current app, Company A realized it would be valuable to bring in a designer to improve the app and start designing from a user point of view. I was hired as a UX consultant on this project to accomplish this. My goal was to match the flow of the new application to the preferred way of working of credit controllers, while supporting the major pain points they are currently experiencing with new functionalities.

Design process

To get acquainted with the context, we kicked off this project with a number of one-on-one contextual inquiry interviews. In total, there are over 300 credit controllers working at Company A. As these credit controllers work with partners over the entire world, selecting users from different markets was important to understand the difference between market-specific characteristics as well as process characteristics for the personas. Out of these 300+ credit controllers, approximately 10 users were in the process of testing the newly developed app, called Collections 2.0. I received access to five of these users to interview, all from different markets.

The interviews were focussed on understanding the different tasks that credit controllers have, what the pain points are in their process and understanding what type of users they are. The users then showed how they worked with their old software package and how they did the same tasks with the Collection 2.0 app.

In addition to the interviews, a meeting was scheduled with the operation excellence manager of Company A, who collected a lot of user input in earlier stages of the project. The collected information was then processed in three personas. An example of one of the personas can be seen in Figure 5. Data has been blurred due to company privacy.



Figure 5. Persona for user research. Data was blurred due to company privacy.

Based on the outcomes of the contextual inquiry interviews and the personas, a prioritization was made for the most important features to improve. After discussions with the development team on how this could be designed, seven prototype iterations were performed. Each iteration consisted of first creating or expanding functionalities in the prototype, then evaluating this with credit controllers and finally processing this information as input for the next iteration.

The prototype of the Credit control collection app was first sketched and then designed in Axure. It was chosen to do this in Axure as SAP has released design stencils for this software. These design stencils consisted of a widget library of components that interacted in the way that a standard SAP Fiori functionality would as well. In addition to the separate components, there were also floorplans available, which were templates of standard Fiori apps with mock data. These floorplans were not used that much, as the functionalities that were designed were mostly build on top of or in addition to the already existing app. The prototype therefore consisted mostly of screenshots of the current state of the app with components added on top of this. Examples of a prototype screen can be seen in Appendix A.1. For privacy reasons, the names and amounts of partners with outstanding invoices were removed by blurring the image.

The users that were recruited for these evaluations differed in the experience they had with and if they had participated in a test before. However, after some time the user group working with Collection 2.0 was expanded to 70 users, giving us more possibilities to test with unbiased users.

Whenever a validated functionality was found to good enough, it went into production with the developers. The development switched to a continuous release process, which meant that every time a new functionality was developed, it was released.

Feedback and bugs on these functionalities were collected in an online feedback form. However, since it, feedback moments were also implemented in the user evaluation interviews and stand-up meetings with Credit control managers were joined to gather extra insights. Since at one point we also wanted to quantify our user experience, we sent out an adapted version of the System Usability Scale (SUS). This SUS had two extra questions relating to frequency of use and an open-ended question where users could indicate priorities for them or leave final comments. The goal was to send this survey out on a regular basis, so that an indication of the user experience can be tracked over time.

Reflection

This was a very exciting project for me as it was my first assignment for McCoy. The company was very helpful in giving me the freedom to apply most methods I wanted to and helping me to understand Fiori. Most important for the success of this project, was the access to users. By including the users in almost every design decision, not only were we able to build a better product, we also changed the

image of the software system for the better and seemingly increased adoption rates. One user for example stated: "Sometimes when I work with the app I get irritated when it doesn't work. But this helps me to think that it is important to keep using the app and to give feedback to improve it." However, we were only able to support this claim with qualitative data. Without having the quantitative statistics, it was almost impossible to make clear claims about these concepts. This showed me that measuring for performance is an essential step when you want to complete a successful project in an enterprise setting. One condition of course is the number of users that are available for quantitative testing. Jakob Nielsen [24] showed that this type of research starts to become interesting at approximately 20 users. Luckily Company A valued the qualitative data we collected very much, but to build a stronger case for your own worth as a UX Consultant, it is better to measure both qualitative as well as quantitative. At the point that I did realize this, we did implement the SUS to quantify our value on the project, but at this moment we do not yet have a secondary measurement to compare our scores.

quote

As this was my first project with SAP Fiori, so I needed to gather a lot of background information before becoming productive. However, expanding my knowledge of SAP Fiori while designing with it was quite manageable due to the available documentation and close collaboration with the front-end developers. Especially this collaboration presented me with a lot of interesting points, as designing for an app that makes use of a UI toolkit limits you instantly in your design choices. Discussing the availability and technical implications of UI components with the developers helped me to understand the exact design space that was presented to me. Knowing these boundaries was an important insight. By becoming aware of the standard components of SAP Fiori and using these in my designs, I was always able to create something that the developer could build without a lot of tailoring, making the software better maintainable. Early discussions on the designs also helped me to understand more about the technical implementation and capabilities of SAP Fiori, which helped to understand why certain design choices were easy implementable or not. As an extra bonus, I could reduce the workload of the developers as they did not have to investigate as much into how to build something. The components were very well documented so instructing them in which components they had to use helped them to build faster.

Even though I figured out what the most relevant information was to transfer to the development team, I experimented a bit with finding the right format to deliver this information. At first, I tried to go to the development team directly and showed the prototype and discussed user feedback. This was not very effective. The developers did not want to make decisions about adding tasks to their backlog without consent of their manager. This meant that I had to share my results with

the managers first, discuss priorities, before I could talk to the developers about the actual implementation. As I already experienced that taking the developers along in the process was very valuable, I still wanted to present the results to them as well. I then made demo videos and summary presentations with screenshots, but these were often not checked in detail. As I felt we needed a more direct interaction, I organized a design demo, similar to the demos from the scrum methodology. Here all relevant stakeholders, team members and other people that were interested were present and we discussed progress in a one-hour meeting. This seemed a very effective way as all the decisions were made on the spot. I then had follow up meetings with the developers to go more into depth on the detail and logic of the designs. The most interesting insight I got from this was that it was good to include different opinions in your feedback, but that different users might be interested in different aspects of the design. Besides, I saw that this was something that worked for this client, but would have been different with other clients. Therefore, it is good to keep trying new formats, especially for new clients

Main takeaways for this case

- User access is incredibly valuable, but not all companies will make it this easy
- Collecting quotes can help to support your story, but measurements will be even a stronger tool of communication. Most companies already focus on KPI's, so quantifying your user experience helps you a lot.
- There is a lot of (scientific) reference material, tutorials and design guidelines already available, so do proper desk research at the start of the project.
- Design in cocreation with developers, this will help you to realize the technical impact of your design choices. Working in close proximity to (most of) the developers will instantly increase such a collaboration.
- Using standard Fiori components in your designs will not only reduce workload for developers when they recreate your design, but you can guide the developer better as well by referencing the component documentation.
- There is no one perfect format for presenting your stakeholders and team members on your progress, but it is good to get have a co-creative structure for your feedback meetings. Try to figure out what works best for your client and try out something new every now and then to keep it fresh and interesting.

6. CASE B: OVERVIEW DASHBOARD

Context description

The second case was performed at Company A as well. The financial systems department wanted to explore a new SAP Fiori functionality: The Overview page (OVP).

The OVP is a dynamic dashboard-like page that shows real-time data for a specific domain or role. A user is able to directly react on this data by 'drilling down' to apps that are behind the presented data.

In earlier releases of SAP Fiori, all apps were directly accessible from the launchpad, which is the main entry point for SAP Fiori. The launchpad displays a number of tiles that represented all available apps. The OVP was introduced as an extra layer between the launchpad and the apps, that helps to guide you to the right application at the right time due to the data visualisation. In this new situation, the launchpad still showed tiles, but these now represented a variation in roles rather than apps (see Figure 6). When a user selects a role by clicking a tile, he is guided to an OVP, which in turn focuses on the different tasks of a specific role. For this role KPI information and graphs are shown to help him or her decide which task they need to perform when. The chosen structure for SAP Fiori in this new situation means that a user might have separate OVP's for various aspects of his job.

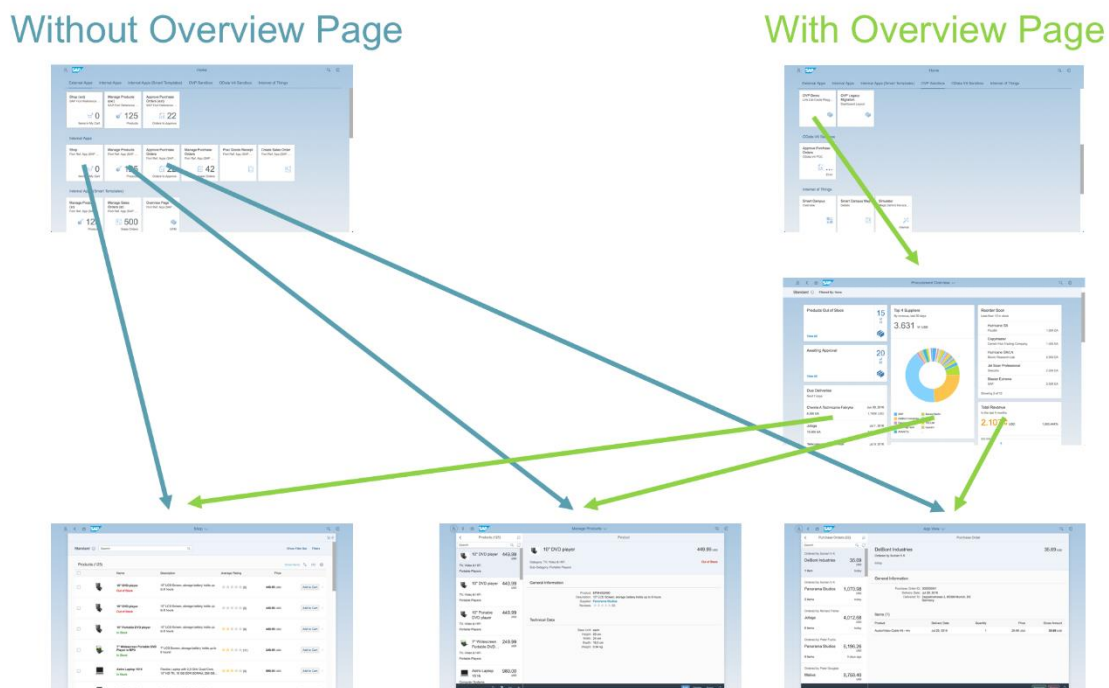


Figure 6. The flow before and after the introduction of Overview pages by SAP [25].

The data on an OVP is structured using 'cards'. Cards are smart templates that preview information, which already filtered based on the selected role (see Figure 7). A card normally consists of a title, a KPI value and an interactive visualisation of the data. By clicking the title of the card, you can navigate

to the app is feeding the data for the card. In addition, by interacting with the visualisation, you can also navigate to an already filtered version of that same app. For example, the orange part of the pie chart in Figure 7 would let you navigate to a filtered list of all 17” notebooks that have been sold. Company A wanted to use the OVP to give different financial managers (Procurement, Payment operations, Accounts payable, Accounts receivable) a way to monitor data about for example transactions or team progress and react directly on interesting information.

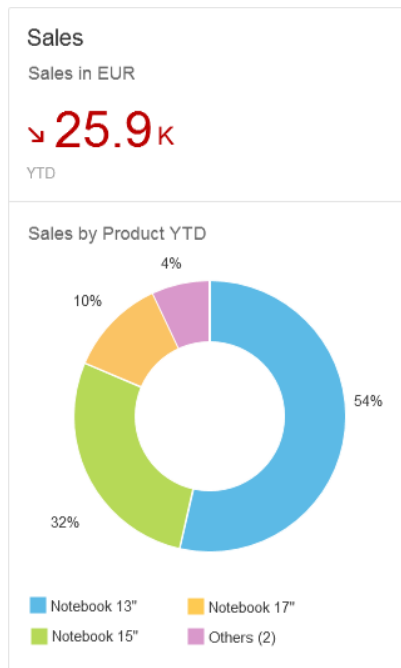


Figure 7. Example of a card showing the sales of notebooks [26].

Goal

The goal of this project was to investigate what kind of information financial managers at Company A would want to monitor on a daily basis and how this information could be clearly visualized. In addition, it was necessary to evaluate if the OVP showed this information in an attractive way for the financial managers.

Design process

To understand the OVP, the first step in this project was to perform a desk research into the functionality and dashboards in general. After reading up on dashboards, KPI values and data visualization, the OVP functionality itself was investigated. To understand the needs for financial dashboards in Company A, interviews were scheduled with the managers of different financial departments. These interviews were done together with a Fiori and finance domain expert. The first

two interviews were done with the manager of Procurement and the manager of Payment operations. During these interviews, we discussed the current finance dashboards they were using, what KPI's that were being monitored and what they would really like to have in addition to their current information. Furthermore, it was discussed what Fiori apps are available right now and what information would be relevant to navigate to these apps. This was important as the OVP can only display information when an underlying app is available, meaning that an OVP cannot be used for all types of information.

The information retrieved from the interviews were then processed into two OVP prototypes, one for each finance department. In parallel with this design phase, a third finance department, credit control, was added to the project. Again, we started with an interview with one credit control manager, but later also included more opinions during a visual storyboarding workshop. An example of the OVP prototype design can be found in Appendix A.2, again blurred for client privacy.

Based on the feedback the prototypes were updated and then validated once more. After this second validation of the prototype, the prototype was discussed with two Fiori developers who started building the OVP card by card. After the first cards were finished, they were presented as a demo to the three finance managers, to show the fully interractional version. After we received feedback on the basic functionalities, we started adding extra logic to give more context information. This meant for example that the KPI value would change colour based on its status (critical, risk, neutral, positive) and a trend indicator that showed if the value had risen or dropped. At the moment, the developers are finishing a working prototype of the OVP app with about five cards. This version will let the users test the OVP with live data, which will give a lot of insights on what users will actually need in an OVP, the performance of the app and how easy it is to use.

Reflection

A substantial difference in this case compared to case A was that our starting point was a functionality and we wanted to test if this was valuable. This wanted to use this design as input for our research, as opposed to researching users and learning what functionality they would need. As this 'research by design' approach provided a much more specific scope, it is important to be aware of any restrictions before you start your user interview. Even though we started with user interviews that did not yet present the prototype, still we had to manage expectations for the users as to what we were able to deliver to them.

During the interviews, it became clear that realistic data was an important feature for a successful research. As proposed by Knapp, Zerasky and Kowitz [27], using real text and data in your prototype will help your users understand how the prototype really works and increase the quality of

the feedback they are able to give. This would mean that you select a chart make sense, KPI values are logical and the terminology is as good as possible. In Case B, it was very valuable to have a domain expert available, that was involved with the design of the first prototype. By using realistic data and labels, the users were better able to relate the dashboard to their business and provide feedback without a lot of explanation or imagination.

During the user interviews with the finance managers, it was sometimes difficult to fully understand their terminology and abbreviations. Luckily, we agreed that both the domain expert and I as a UX designer would do the interviews together. The domain expert knew the company very well and she had a lot of functional knowledge of SAP as well. This made sure that the finance managers could talk freely, without having to adapt their wording to someone that did not understand the domain. Afterwards we both exchange notes and went over the interview to ensure that I had enough understanding to create the prototype. This prototype was then again validated with the domain expert first and secondly with the user.

Main takeaways for this case

- Determine your project focus at the start.
 - Are you going to base your design on the needs of your users? (research for design)?
 - Are you going to explore if a functionality will fit a certain group (research by design)?
- Use realistic data in the prototypes (as opposed to generic examples) to help your users better understand what this design would mean to them as a user.
- Work together with a functional designer or domain expert in interviews for a more valuable investigation. Having two different mindsets will be helpful in understanding and interpreting the takeaways of the interviews.

7. BEST PRACTICE GUIDE

After two cases I had collected a raw list of insights for the guide. Over time I had registered all interesting points I had experienced during my projects, as well as tips that I received from colleagues at McCoy and clients. As one can imagine, that list was far from structured when I started building the first version of the guide. My initial idea for the guide was to consist of a set of short rules or tips that would help designers to get started with Fiori or help them to reflect on their progress. As we believed that the right design process was even more important to be able to design the right screen, the guidelines shifted more towards supporting the design process rather than the design itself. Together with another UX consultant, a project proposal for a Fiori project was created, which included a UX approach that we wanted to re-use for different projects. As the best practice guide was already meant to guide designers at McCoy and could provide more structure, this project approach seemed very relevant as well to be featured in the guide. The full version of the guide can be found in Appendix B.

The guide now consisted of two parts, the UX approach and a top 10 of design guidelines for projects at McCoy. The UX approach was based on the standard McCoy project approach template, so that it was in line with the company way of working and could be integrated as part of every McCoy project setup. This McCoy project template consisted of four steps: Identify, Assess, Design and Execute. We filled these four steps with four parts that were more relevant to UX: Project setup, User research, Conceptual design and User testing, respectively. In each step, a number of 'services' can be found. These services (f.e. 'Measure user satisfaction' and 'Day in the life') are part of a new structure that the UX team at McCoy has adopted. In this new modular structure, customers do not have to buy a complete UX trajectory but can mix and match separate UX methods related to research, design, testing and strategy. It was decided to not use the name of the methods itself, as these were often too difficult or unknown to clients. The names of the services try to describe the method without any design terminology. The modular services structure gives companies more freedom, but McCoy will of course advise what service can be best combined and what is best suited for a certain situation. In this way, it becomes immediately visible how flexible UX can be performed and could provide a small scale start at a company that could be expanded in the future. The top 10 design guidelines were a collection of the takeaways that were collected from the two cases.

Evaluating the Best practice guide

Now that the first version of the guide was created, the next step was to test it. Case C was meant to validate found insights, further flesh out the guidelines and evaluate the UX approach. The planned project that would be featured in case C revolved around creating UX strategy for a Fiori rollout. During

the preparations for this case a standard UX approach for among else Fiori cases was created, which was then included in the guide. Unfortunately, this project was postponed, but another possibility to test an adapted version of the proposed approach came along which replaced with a case for COMPANY B. This case did not revolve around Fiori, but this project approach did share a likeness to the proposed way of working for Fiori projects. To be able to validate the project approach for Fiori, and a subset of the guidelines, this project was also included as a case. As Case C did not revolve around any screen design, it was difficult to validate the top 10 of Fiori design guidelines that were created. Since an expert evaluation of the guide was already scheduled, it was decided to use this evaluation as the main validation for the guidelines. This expert evaluation was performed by two experienced Fiori design consultants at McCoy.

8. CASE C: EVALUATING UX APPROACH

Context description

COMPANY B is a large energy & utility company in the Netherlands. Procurement consultants of McCoy have been consulting there to help employees become more efficient in their work. At the moment COMPANY B uses SAP Supplier Relationship Management (SRM) to create purchase orders. It has become clear that this procurement software will not be supported anymore after the year 2025, so they were already thinking about a new software package and how this should be rolled out. They decided to get a better understanding of the situation first, without being restricted by a proposed software package.

To have a truly objective view on the situation at COMPANY B, I was brought in as an external user researcher that would assess two user groups. These two groups were work planners and operational buyers. Work planners mostly deal with the administrative task of creating order requests based on what engineers need on a project location. The engineers were said to be too busy to perform these tasks themselves or are not able to properly fill all the necessary information. Operational buyers make sure that all the requests for orders are processed and sent to the suppliers. They check if all the requirements for ordering are met and support everyone that creates order requests.

Goal

My objective was to identify the tasks that different user groups perform with software and what their needs and pain points are while performing these tasks. By conducting user interviews, the needs and pain points for the two user groups were assessed and processed in personas and an as-is user journey map. This user journey map would help the higher management of COMPANY B decide what type of software would actually be most valuable to the users and what should be taken into account for the rollout in the coming years.

Design process

As the plan was to create a user journey map as a deliverable, we first discussed the goal of this journey map. By discussing with this with a functional procurement consultant we were able to establish what the most important dimensions would be to include in the journey map.

By identifying this before we started with the interviews, we ensured that we would not miss any valuable information due to an incomplete interview scheme. The goal we identified for the map was to illustrate the tasks that both work planners and operational buyers in the current situation and

what their pain points were in their process. We tried to describe these tasks in a more general sense, without focussing only on the actions that had to be performed in the interface.

To obtain the information to fill our journey map, we performed contextual inquiry interviews. Due to the summer holidays, there were not many users available, but we were able to speak to three operational buyers and five work planners. After the interviews and discussing what most important insights were to communicate back to COMPANY B, we decided to create three journey maps: A map for each of the two user groups that focussed on their personal process and pain points, as well as a 'process map' that focussed mostly on the interactions between different departments. The (blurred version of the) user journey maps we created can be seen in appendix A.3. At the end of the research, a validation workshop was scheduled with the user groups. This was not only to get feedback on their process, but also to help other attendees, such as managers and developers, to get an understanding of the work process for work planners and operational buyers. However, due to the report deadline of this industrial project and the holiday schedule of stakeholders, this project was not fully completed when this report was finalized. Therefore, it is not possible to discuss the validation workshop that was scheduled at the end of this project.

Reflection

For this project, we were able to go through the 'Identify' and 'Assess' steps of the McCoy approach. This project had to be completed in ten days, which meant that we were had to narrow the scope and were not able to include all envisioned services. As the main goal of this project was to provide an overview of the current situation, without the possibility to influence the actual design, we disregarded steps that focussed on screen design. We also did not measure the user satisfaction. Even though we believed it would be very valuable, there were just a few users available and we would not be able to measure after a design change had been made. As we would not be able to compare the results of the surveys over time, we decided this would also be skipped in favour of having more time for the user research and user journey maps. Even though this meant that we were not fully able to evaluate our UX approach, it did show the possibilities of moving to modular project structure. In these ten days, we were able to give valuable information to our client, using the time we had the best way possible. It also showed how dependent you are as a consultant of the time and budget that will be made available for you to perform your work. This also shows why the 'identify' step, which mostly consists of project setup, is so relevant to the UX approach. Even though not all actions in this step have direct influence on the UX process, negotiating the envisioned methods and available time is a very important part of a UX project.

This case was mostly focussed on delivering an objective advice based on solid user research. During this research, I was able to apply a number of the top 10 guidelines from the guide that focussed more on process and not SAP Fiori. During the project setup, an emphasis was put on the goal of the project. We did not focus on a functionality or a software package, but chose to take a step back and look at the needs of the user. Additionally, a colleague gave me the tip to also determine the goal of the deliverables before creating the interview scheme. Without biasing yourself, knowing what the focus of your interview (pain points, tasks, interaction, devices, locations, etc.) can help you to make sure the information you collect will be relevant to your final goal in the research. Since I was going to create a user journey map, which can be created in so many different shapes and sizes, it helped to already focus a bit, so that we were certain that our map would show valuable information. This research was sometimes difficult as I needed to familiarize myself with a field that I did not know that much about in a very brief time. I was able to find a domain expert that was able to discuss the interviews with me and clear up certain topics, as proposed in the guide. This proved to be just as useful as it had been in case B. I was not able to work on the client side this time, so I could not follow my set guideline of working in proximity to team members and stakeholders. I especially noticed a delayed response time for feedback and for scheduling meetings. Even though it is possible to communicate over phone and email, it just seems to be very handy to have face-to-face collaboration.

Something else that stood out during the user research was that the users did not know what to expect going into the interviews. As I was an external consultant, I did not introduce the interviews myself. This sometimes led to users having very different expectations of the interview. I nonetheless had planned a brief introduction of the research at the start of the interviews, but it might be helpful for users to have some context before the interview starts. At the very least it would make them feel a little bit more comfortable about the interview itself. This helped me to realize that even if you might not be in the position to give your own introduction of yourself and/or the research when recruiting users, it is good to emphasize what you expect of this introduction.

Unfortunately, the validation workshop at the end of this project could not be included in this case. Therefore, it is not possible to reflect on the reaction of not only the users but also the other company stakeholders such as developers and managers. Moving forward this will be a key point in the project with regard to project success and change management. At this point this subject will not be taken into account, as a means of evaluation is missing.

Main takeaways for this case

- When you know the goal of your research, you are better able to structure your user interviews and collect information. This holds especially true in case of a deliverable such as a user journey map.
- A domain expert proved to be very valuable again in helping to understand context.
- Working in close proximity to your stakeholders and team will speed up your overall process.
- Always make sure you are included during the recruitment of users. Giving a good introduction to the research will help users feel more at ease during the research itself.
- Quantifying user experience is difficult when you can only perform one measurement. As enterprise software can be so different it is difficult to use reference data. Especially because company processes and politics very much influence the experience of the software.
- Make sure you start your project by identifying all the boundaries and restrictions. Due to these restrictions, it may be impossible to execute your ideal project approach or perform a method in exactly the right way. This is when you need to be flexible and make sure that you combine methods in such a way that your client will gain as much as possible out of the limited budget and/or time.

9. EXPERT EVALUATION

The expert review was performed by two senior design consultants from McCoy, that had a lot of experience with SAP Fiori. They were first asked to review the guide individually, then we had a session with the three of us to further discuss the outcomes. Overall, they thought it was very nice to see the processes that everyone performs almost unconsciously every day written down in a way like this. Of course, we did have a constructive session about improving the guide as well. Their feedback is shown below and has been divided in the project approach and the design guidelines.

Project approach

The project approach was seen as quite good, but was expected to be a bit vague to people that did not yet know the way of working of McCoy. Process steps such as 'visual guidelines' could mean so many things that some confusion arose. Furthermore, the process itself seemed quite linear, even though all design projects are of course of an iterative nature, set in an agile environment. Evidently, a better reflection of the actual process was necessary in the updated version. Especially the feedback loop of user evaluations as input for design change should be highlighted here. Another extra emphasis that was suggested was on the continuous multidisciplinary collaboration, which is present over the entire process as well.

Design guidelines

The Fiori guidelines were not structured in a particular way at this point. Adding a logical order to these guidelines could help to make them clearer. One of the suggestions was to map the guidelines to the four steps of the McCoy project. Another proposed way to add clarity to the guidelines was by formulating the guidelines according to the 'SMART' method (specific, measurable, acceptable, realistic, timebound) [28] and by possibly adding an example. An addition was proposed to the guideline that stated that realistic design helps users to help users understand what this design would mean for them. It was rightfully stated that a high-fidelity prototype would also induce opinions about the visual design instead of the conceptual design. Therefore, it could be interesting to design only in black and white so that users would not focus on the visual design too much. Two additional points that would be interesting to add as a guideline were mentioned as well. The first one was to include a guideline on the devices used. A Mobile design will have very different aspects as opposed to a desktop design. The second was to include what type of visual communication fits certain users and what type of visualisation would fit the way of working of a certain user group. All these points were taken further discussed and taken into consideration in the new iteration of the guide.

Design changes

The following changes to the best practice guide were made based on the insights of case C and the expert evaluation. The second and final iteration of the best practice guide can be found in Appendix C. The process was changed to make it look more iterative and to emphasize the input of user feedback for design change. A new flow was sketched out and then visualized to create the result in Figure 8. This updated version was a lot more visual and to the point. As there were some things that still needed an explanation, a second slide was created after the process that explained some of the terminology. This explanation slide replaced the one that explained the McCoy services, which was present in the first version of the guide.

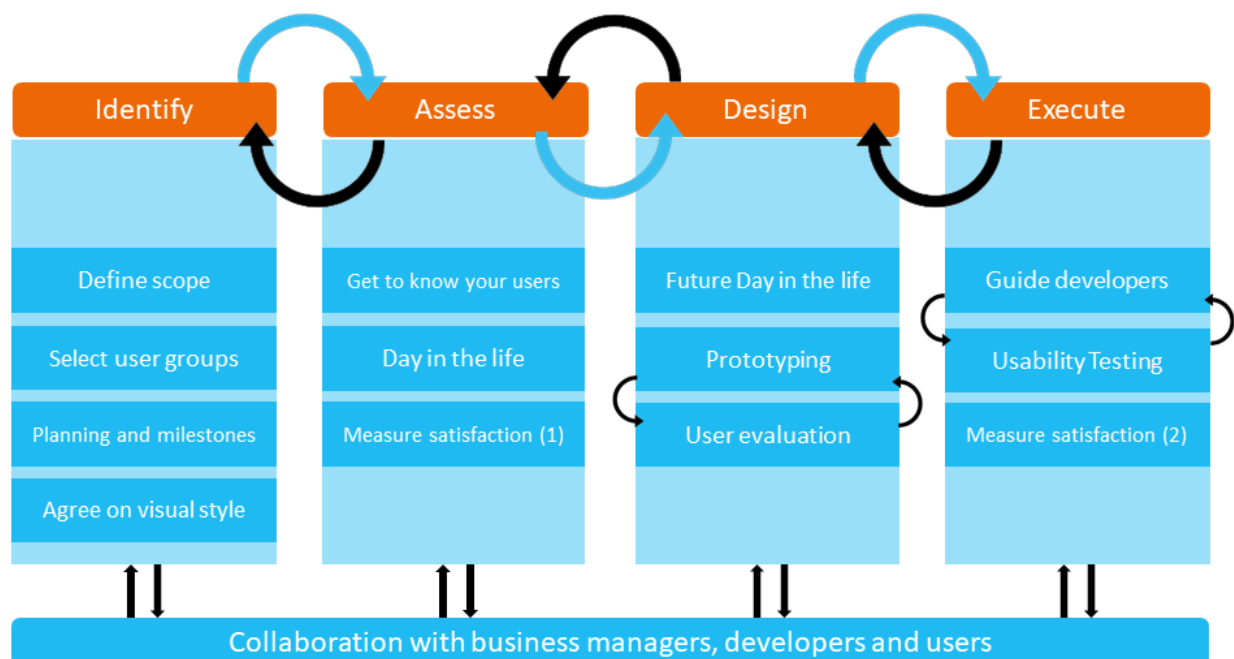


Figure 8. The new process structure for the UX approach.

The design guidelines were restructured to reflect the project approach stages of the McCoy template. The guidelines that fit a particular stage the best were grouped in that stage. The wording of the guidelines was changed to make it more in line with the SMART guidelines. A truly 'SMART' way of formulating the guidelines was not possible, as this is greatly dependent on the project parameters as well. However, where possible the guidelines were improved and examples were added where possible. Additionally, two of the guidelines were combined as they seemed to be somewhat redundant.

Other guidelines were updated based on the experiences of case C and the feedback from the expert evaluation. Two guidelines were added to the guide, which coincidentally brought the total back to ten guidelines. The two guidelines that were added were the following:

- Determine a goal for your deliverable before you start your user research. This way you are certain that you will gather the information in the user interviews you need to fill your map. This goal should be agreed upon with your stakeholders as well.
- Investigate what type of devices are used by users and where they use them. It might be that proposing a change in devices might fit their locations better.

Both these added guidelines were created based on expert input from senior designers at McCoy. The comments about incorporating visual communication styles into the user research was not added as a guideline, but mentioned in the UX approach itself. The final iteration of the best practice guide can be found in Appendix C.

10. DISCUSSION & CONCLUSION

Our goal in this project was to create a guide that supported designers in SAP Fiori projects. At first it was the goal to help them design interfaces, but during the process the focus shifted towards a more generic goal. In the end, the guide was mostly designed to support a design process for Fiori projects by showing what was important in the eyes of the designers at McCoy.

Initially two cases were performed to gather information for the guide. In Case A, I had a lot of contact with developers and users and I could work on improving an existing product. Case B provided a lot of contact with the business users and asked me to assess if a functionality would be valuable to a certain user group. The first version of the guide that was created after these two cases, was a very raw version with some assumptions that had to be tested. Case C did not give me as much room for testing as I would have liked, but did provide some extra general insights on UX in the enterprise software world that were still relevant to the guide. The expert review provided more specific feedback, especially for the design guidelines. The final improvements of the guide focused mostly on a better structure, more clarity and a wider focus. The best practice guide still needs to be tested further. In addition to testing, this type of document should also be continuously updated based on new insight that are collected in the future.

Limitations

Over the course of this final project there certainly were some limitations. First, this project started without a clear direction, as I was not yet sure what kind of projects I would be doing for the USI project period. The exact topic of this project was figured out over some time and changed a few times. However, when the goal was set, it would have been interesting to start with expert interviews. It could have been very valuable to start with these interviews and construct a guide based on their initial input. This would have made it possible to use all three the cases for validation. Second, Cases A and B were performed at the same company. Having a broader sample of clients would have been better, but we were restricted by the availability of projects. This is something to take into account when looking at future validation rounds. Last, case C did not fully fit this industrial project, as it was not a SAP Fiori project. As discussed before, the envisioned project for this case was postponed, which led us to include the case of COMPANY B. It was not ideal, but I believe it was still good to evaluate the project approach. It also showed that the guide may be generalized to fit not only SAP Fiori projects, but also other projects in enterprise UX. Last, I could have incorporated more low fidelity, conceptual stages in the projects. Due to the availability of UI components of Fiori, it was tempting to quickly go to a high-fidelity prototype. However, this sometimes led users to focus too much on the

details and less on the concept itself. Luckily this was also mentioned in the expert review and this was incorporated in the final guide as well.

Future work

Looking to the future, one of the most important things will be to keep validating the guide. Ideally this guide would become a living document, which is evaluated yearly to see if it still fits McCoy's way of working and if any new important changes have been made in Fiori. At this moment, there are two validation rounds that I would deem interesting. First, it would be good to see if multiple designers are using a guide like this at different types of companies, if the consistency in design process between designers could be increased, while staying flexible enough for a designer to use his or her strengths and adjust to the context. Second, it would be very interesting to test the guide with a newly hired UX consultant, so that the clarity of the guide could be tested without being biased by earlier experience.

Another possibility is to generalize the guide. UX design for enterprises is not about implementing SAP Fiori, but about finding the right software to support the (new) process at a client. If this in the end is a different software altogether, that does not matter to a UX designer at all. Therefore, the somewhat accidental case focussing on another software package than Fiori proved very interesting.

During this project, it became clear that User experience design for enterprise software is very much about change management as well. You are not only changing their interface, but the users' known work process. Guiding this transition should be a significant part of your research and design process. This also means that you need to sometimes challenge some of the current processes, to be able to truly get a deeper understanding of the users. In the words of Gestalt psychologist Kurt Lewin, "If you want to truly understand something, try to change it" [29]. Of course, this has to be done in a very delicate way, to make sure you are not pushing your own ideas onto a user, but the user itself stays at the centre of your research. The impact of change does not only translate to the users, but to other stakeholders such as developers and managers as well. As Fiori projects are often about introducing a new interface, as well a UX approach to a company, this is something that could be further investigated, to see how this process of change could be supported better.

Process

The process final project was quite a challenge. Especially combining a 40-hour workweek with writing the report was sometimes difficult to schedule. I chose a setup where I would first get experience designing with SAP Fiori and would reflect on it afterwards. Even though I registered my experiences gradually over the entire period, I noticed the bulk of the work was still at the end, in summarizing and reflecting. Looking back, it would not only have been better to create the preliminary guide sooner

to validate earlier, it would also have distributed the workload better. Additionally, it was challenging to find a structure for the industrial project that would fit my activities for McCoy. Due to the non-disclosure agreements between McCoy and our clients, I was not able to describe results into detail, but had to focus on the process. Furthermore, the cases that I described were all rather applied researches at businesses that not always had the time or budget available for me to perform all methods the way I would have liked to. However, I believe being flexible and creating the best situation for your client is the most important goal as a consultant. Therefore, I focused mostly on using the best academic method for each particular situation, while being aware of any limitations that could be present and reporting these to the clients. The clients appreciated this to such a degree that they helped me to apply certain methods in a better way in a later stadium of the projects.

I also want to mention one of the main realisations that I had during this case, which was on a more general level. Since these libraries consist of readymade and pre-designed components, working Fiori did not require me to (re)design these components, but I recreated and combined them in prototypes. For me the challenge with SAP Fiori is not so much about detailed design, but focusses more on users receive relevant content in the right place at the right time and in the right way. A case can be made that this is becoming a new standard, with the rise of these frameworks and elaborate guidelines of for example Android or Apple. The design components are becoming standardized by these guidelines, so for UX designers to stay relevant, they need to collect valuable (business) knowledge and facilitate a bridge between users and IT. I feel that this mindset of going beyond the methods to truly add value is something that USI has prepared us for perfectly.

Conclusion

We created a best practice guide for UX projects performed by McCoy design consultants. This guide consisted of a standard project approach and a list of ten design guidelines that are relevant when you perform a SAP Fiori design project. The structure of the project approach was created in such a way that it can easily be integrated with all McCoy projects. The current version of the guide will have to be tested further and would be best suited as a living document that is updated every (half) year based on new insights and developments in the UX or SAP field.

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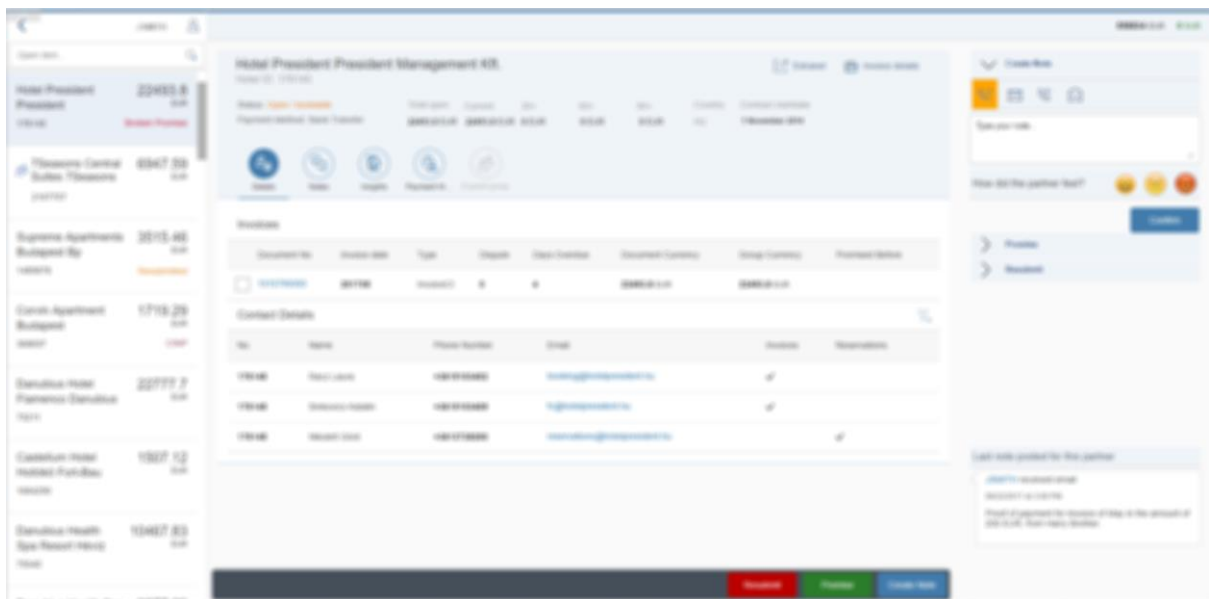
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12. APPENDICES

Appendix A: Designs

Appendix A.1 Screen design for the invoice collection tool (blurred for client privacy)

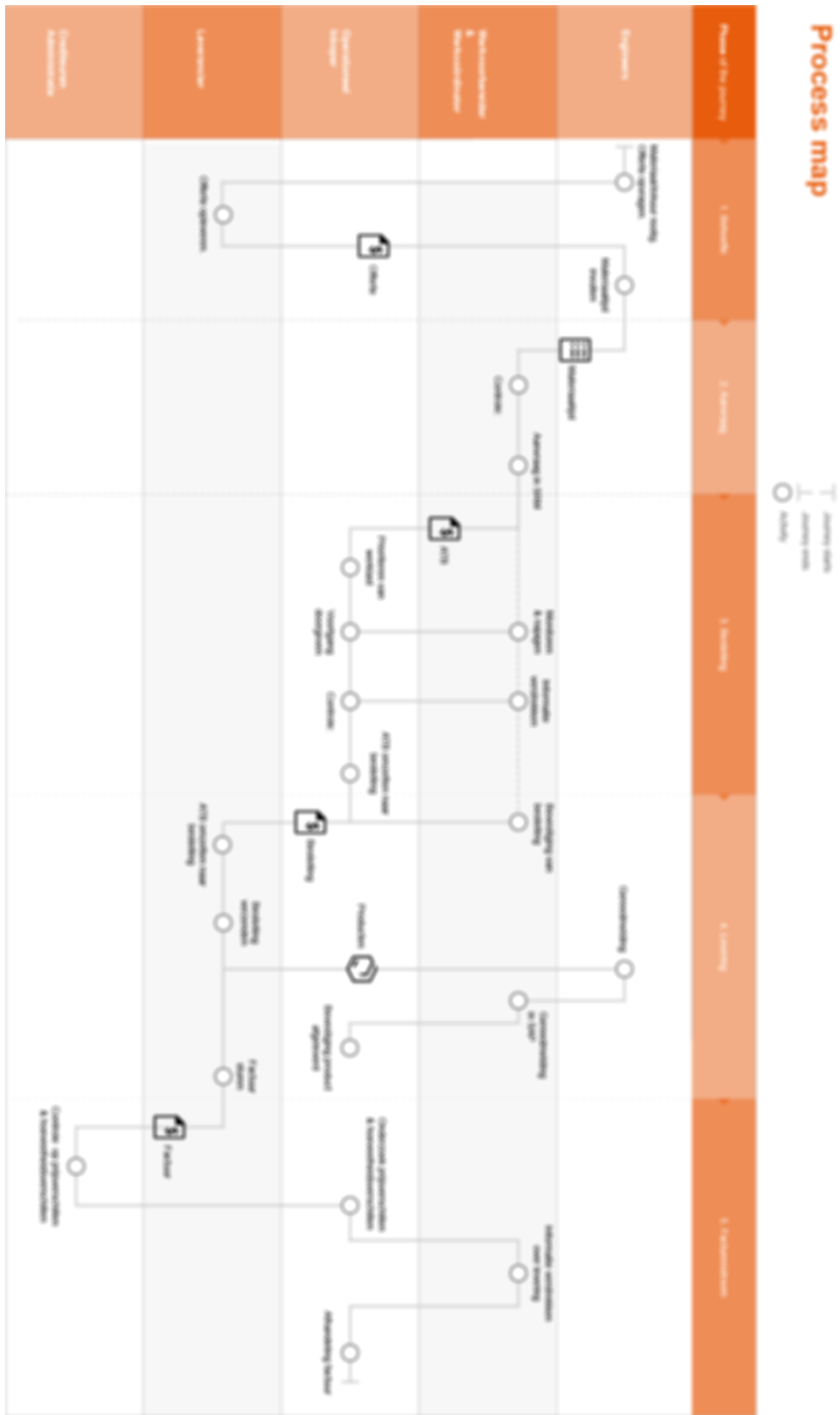


Appendix A.2: Prototype design for an overview page (blurred for client privacy)



Appendix A.3: User journey maps for COMPANY B (blurred for client privacy)

Process map



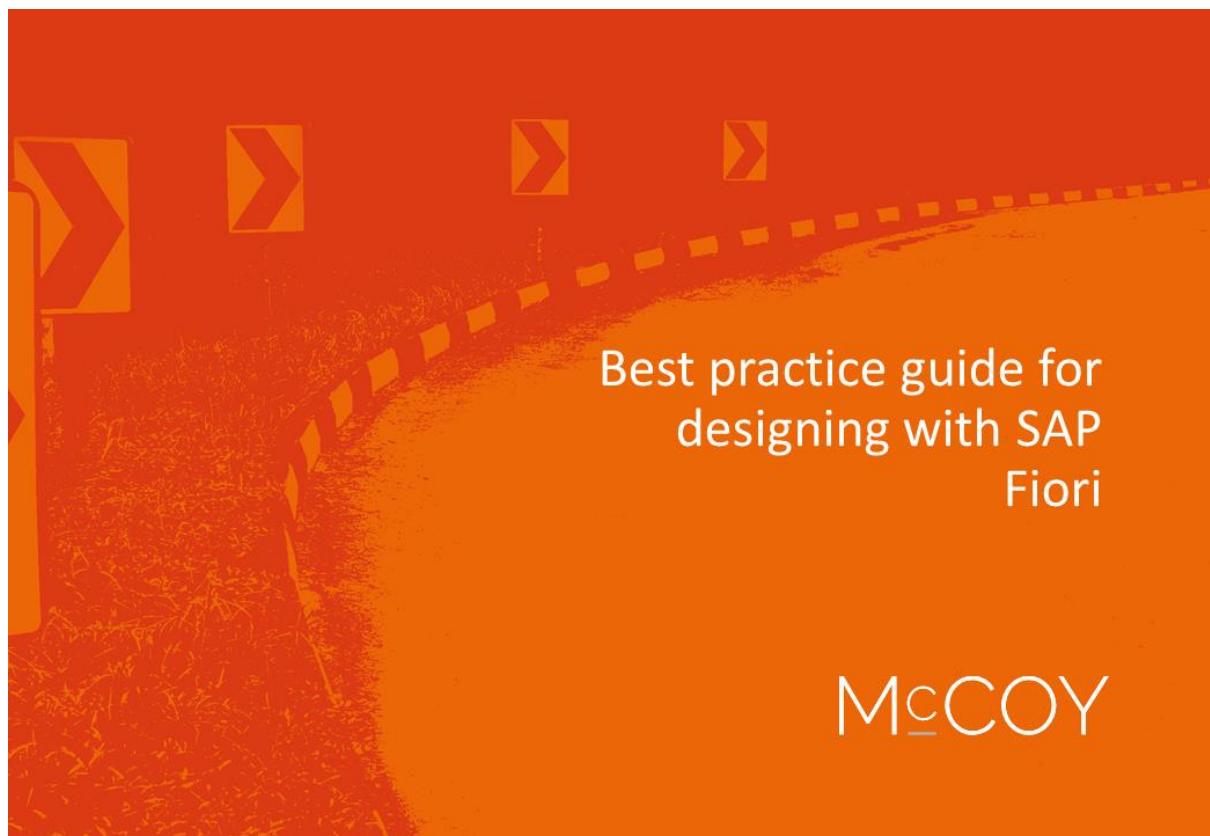
User Journey Map Operational buyers



User Journey Map Work planners

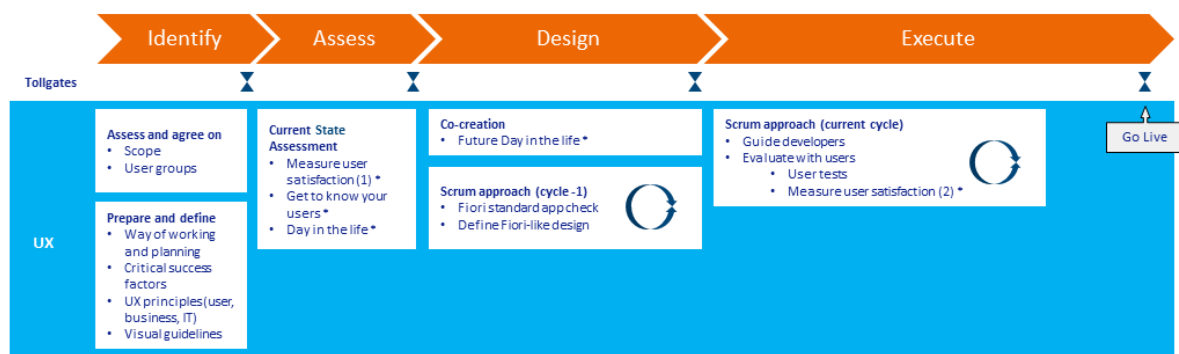


Appendix B: Best practice guide (version 1)



UX Approach for Designing with SAP Fiori

McCOY



Steps with a '*' behind them are **McCoy design services**. The design services are part of a modular approach where separate services are combined to create tailored UX approach for a project. The featured services will be briefly explained in the next slide.

Top 10 Guidelines



1. User access is incredibly valuable, help your client see that this is a necessary resource.
2. Collecting quotes can help to support your story, but measuring user experience will be even a stronger tool of communication.
3. There are a lot of design guidelines and tutorials already available for Fiori, so do proper desk research at the start of the project.
4. Design in cocreation with developers, this will help you to realize the technical impact of your design choices.
5. Work in close proximity to (most of) your stakeholders & team members for an instant increase in your collaboration.

Top 10 Guidelines



6. There is no one result presentation format, see what works with your client and change method every now and then to keep your stakeholders engaged.
 7. Using standard Fiori components in your designs (and referencing them) will help you to reduce workload for developers and guide them better in recreating your prototype.
 8. Determine your project focus at the start and incorporate it in your approach:
 - Are you going to base your design on the needs of your users?
 - Are you going to explore if a functionality will fit a certain group?
 9. Use realistic data in the prototypes to help users understand what the design would mean for them as a user.
 10. Work together with a functional designer or domain expert in interviews for a more valuable investigation.
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How to use the guide



This best practice guide consists of two parts:

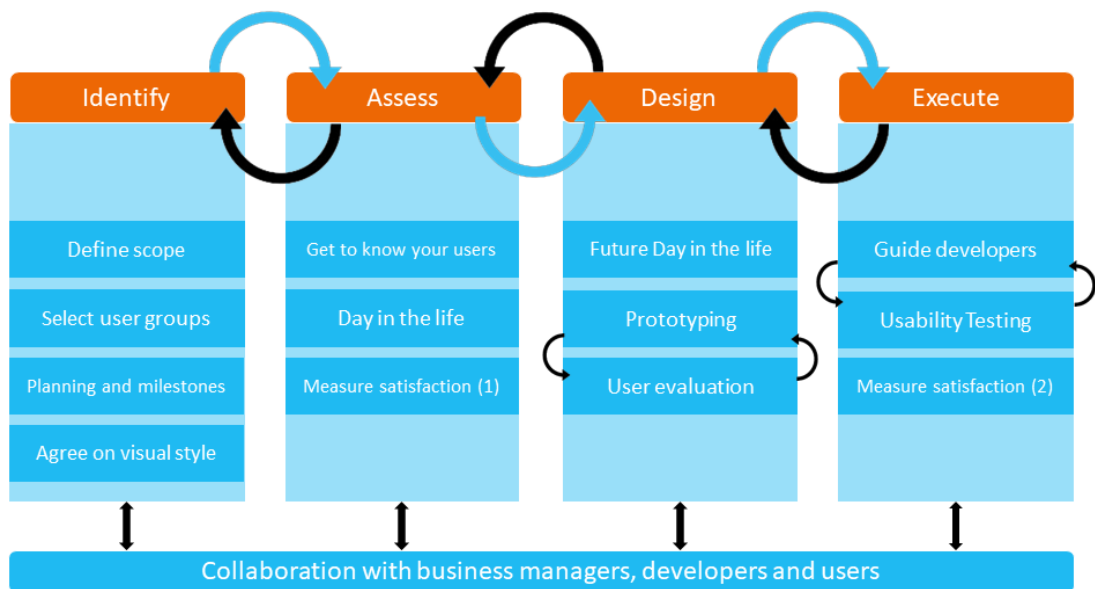
- **The McCoy UX approach:** a UX approach to Fiori projects, mapped to the steps of the standard McCoy project approach.
- **The top 10 Fiori design guidelines:** A list of guidelines that will help you start up or will remind you of important design aspects in Fiori or in general.

This guide is meant to be updated every half year to make sure the content stays relevant.

McCoy UX Approach

3

UX Approach for Designing with SAP Fiori



4

Phase	Activities
Identify	<ul style="list-style-type: none"> Scope and User group assessment <ul style="list-style-type: none"> What will be the scope for UX activities, which user groups are affected? Agreed Way of working, Planning and Critical success factors <ul style="list-style-type: none"> Agreed upon collaboration in project team, clear roles & responsibilities Visual style (SAP Theme Designer) <ul style="list-style-type: none"> Agree on look-and-feel Decide on standardized interaction patterns or incorporate research into interactions and visual communication.
Assess	<ul style="list-style-type: none"> Detailed overview of the current situation: <ol style="list-style-type: none"> Get to know your users <ul style="list-style-type: none"> Define typical user profiles for each relevant function. Day in the life per user profile <ul style="list-style-type: none"> User journey map that shows which functions collaborate at which stages in the business process Current user process, applications, work arounds, devices, locations, etc. Pain-points User Satisfaction Measurement (1) <ul style="list-style-type: none"> Quick user survey (adapted SUS) to examine satisfaction levels among users
Design	<ul style="list-style-type: none"> Overview of the future situation: <ol style="list-style-type: none"> Day in the life <ul style="list-style-type: none"> User journey map of future user process, applications, devices, locations, etc. Co-created by business, IT and users Prototyping and evaluations <ul style="list-style-type: none"> Check availability of Fiori standard app, if unavailable: define enhanced Fiori app / Fiori-like design Iterative procedure of prototyping and evaluating with end users to create a starting point for development.
Execution	<ul style="list-style-type: none"> Scrum approach (current cycle): <ol style="list-style-type: none"> Guide developers in creating the design that was created in the design phase. Evaluate with users <ul style="list-style-type: none"> Task based user testing User Satisfaction Measurement (2)

Top 10 Fiori Design Guidelines

Top 10 Design guidelines

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Identify: All preparational work before you start your user research

1. Determine your project focus at the start and incorporate it in your approach:
 - Are you going to base your design on the needs of your users? (research for design)
 - Are you going to explore if a functionality will fit a certain group? (research by design)
2. Determine a goal for your deliverable before you start your user research. This way you are certain that you will gather the information in the user interviews you need to fill your map. This goal should be agreed upon with your stakeholders as well.

7

Top 10 Design guidelines

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Assess: Research of the current situation

3. User access is incredibly valuable, help your client see that this is a necessary resource. Try to use at least 5 users per feedback round for qualitative research and at least 20 users for quantitative research.
4. Work together with a functional designer or domain expert in interviews for a more valuable investigation. After the interview you will be able to doublecheck if you understood things correctly or will be able to pilot test your prototype with someone that knows the previous user feedback as well.
5. Investigate what type of devices are used by users and where they use them. It might be that proposing a change in devices might fit their locations better.

8

Top 10 Design guidelines

Design: Propose a new situation

5. There are a lot of design guidelines and tutorials already available for Fiori, so do proper desk research at the start of the project.
Examples are: sapui5.hana.ondemand.com, experience.sap.com & opensap.com.
6. Work in close proximity to (most of) your stakeholders & team members for an instant increase in your collaboration. Especially designing in cocreation with developers is valuable, this will help you to realize the technical impact of your design choices.
7. Using standard Fiori components in your designs (and referencing them) will help you to reduce workload for developers and guide them better in recreating your prototype.
8. Use realistic data in the prototypes to help users understand what the design would mean for them as a user. For example by using realistic values, trends, tables and charts. Be careful with colour, as this will lead users to react more on the visual design and less on the conceptual design.

9

Top 10 Design guidelines

Execute: Develop and evaluate new situation

9. Collecting quotes can help to support your story, but measuring user experience will be even a stronger tool of communication. Try to combine both for an optimal delivery.
10. There is no one result presentation format, see what works with your client and change method every now and then to keep your stakeholders engaged.
Possible formats are a demo presentation, demo video, summary document and an interactive and/or multidisciplinary workshop. By involving stakeholders in the tests, you may not always need a separate presentation for results at all.

10