



Building Relevance to Grow a Usability Team

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Speaking points (not visible in original slide show):

- I think we would all agree with a statement I'm going to make here: The first goal of HCI practitioners is to understand our user's needs and design products that support their requirements, even if unstated.
- In the case of building a usability team or what I'm going to call a User Experience Design team, who is your audience? I submit that it's the people who hire you.

Why do CEO's and Senior VPs hire us?

I want my team to follow precise research methods



Usability engineer
or UE designer

I need new Advanced Technologies that grow the business by \$2 Billion



Senior Vice
President

Speaking points (not visible in original slide show):

- In industry, executives pay us a lot of money, and the reason is so that the company can make a lot more money.
- I know that many of us are researchers at heart, and we want to do the best research we can. That's my background-- research in human memory and learning, so I understand the model well. And we need research so that we can further our learning as a community. But this panel's purpose is to talk about building a team *in industry*
- For those of us who are UI designers or industrial designers on the other hand, we want to create the next killer app-- that's what motivates us. But executives today are typically held responsible for hitting strict revenue targets.
- The language we speak may not be the language they speak.
- I think we can achieve our goals as designers, but we have to deliver what executives expect. They are our audience--our users--after all. They are the ones who decide to buy our product-- I.e., invest in our usability.

Cisco usability group generated \$2 billion

Example: SMB voice solution



Before: Multiple tools, 9 hours to deploy

After: 45 minutes to deploy, increased revenue \$100M over goal



Speaking points (not in original slide show):

- To be considered strategically relevant so Senior VPs will permit my group to participate at a strategic level, we found that we needed to show three examples of strategic impact. Generic ROI arguments describing how much money *can* be saved will not sway an executive. They want to see proof that you can turn pennies into dollars. The question is one of personal competence and accountability.
- I don't have time to talk about these, but in our examples, we identified opportunities for revenue based on user research. As Professor Holnagel said earlier today, it is important to focus on the whole system. And that is what usability methods can do-- help you understand and focus on the complete systemic experience.
- Last year, I presented examples that increased revenue by \$2 Billion, and suggested to Sr Leaders that User Experience Design was itself the next advanced technology. The result?

The experience is the next advanced technology

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Speaking points (not visible in original slide show):

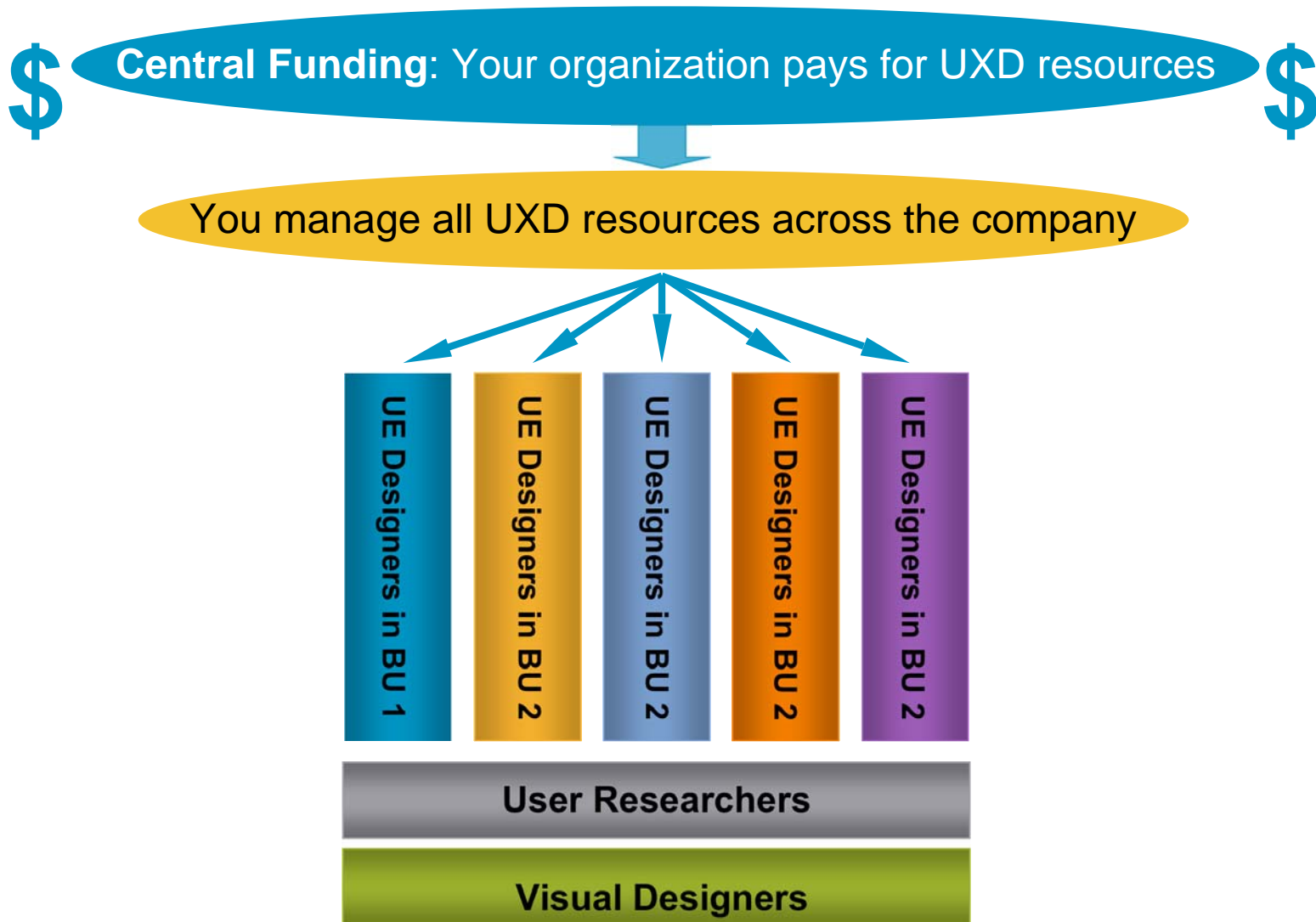
- Today, the Cisco UXD Group is involved in 6 of 9 biggest opportunities across the company.
- Today, Cisco's tag-line to "Leading the Experience." (It's about the Human Network.) You'll be hearing a great deal more about Cisco in the consumer market space going forward.
- But how did we make this kind of impact? When we started out, we only made an impact of \$50 Million per year. We thought that was really good. But \$50 Million was not enough \$\$ in a company growing by billions.

Building a successful UXD group, Phase I

1. Find a manager who can see which organizational structures is best in your company:
 - Centrally funded
 - Client funded central team
 - Distributed teams in different business units
 - Consultancy model
2. Hire the **best** researchers available (plus interaction or industrial designers, and visual designers)
3. Significantly increase revenue on 3 products.
4. Use your success to get one or more executive sponsors.
5. Align with your sponsors (strong relationships are the key).
6. Do not take on too much- prioritize!

Speaking points (not visible in original slide show):

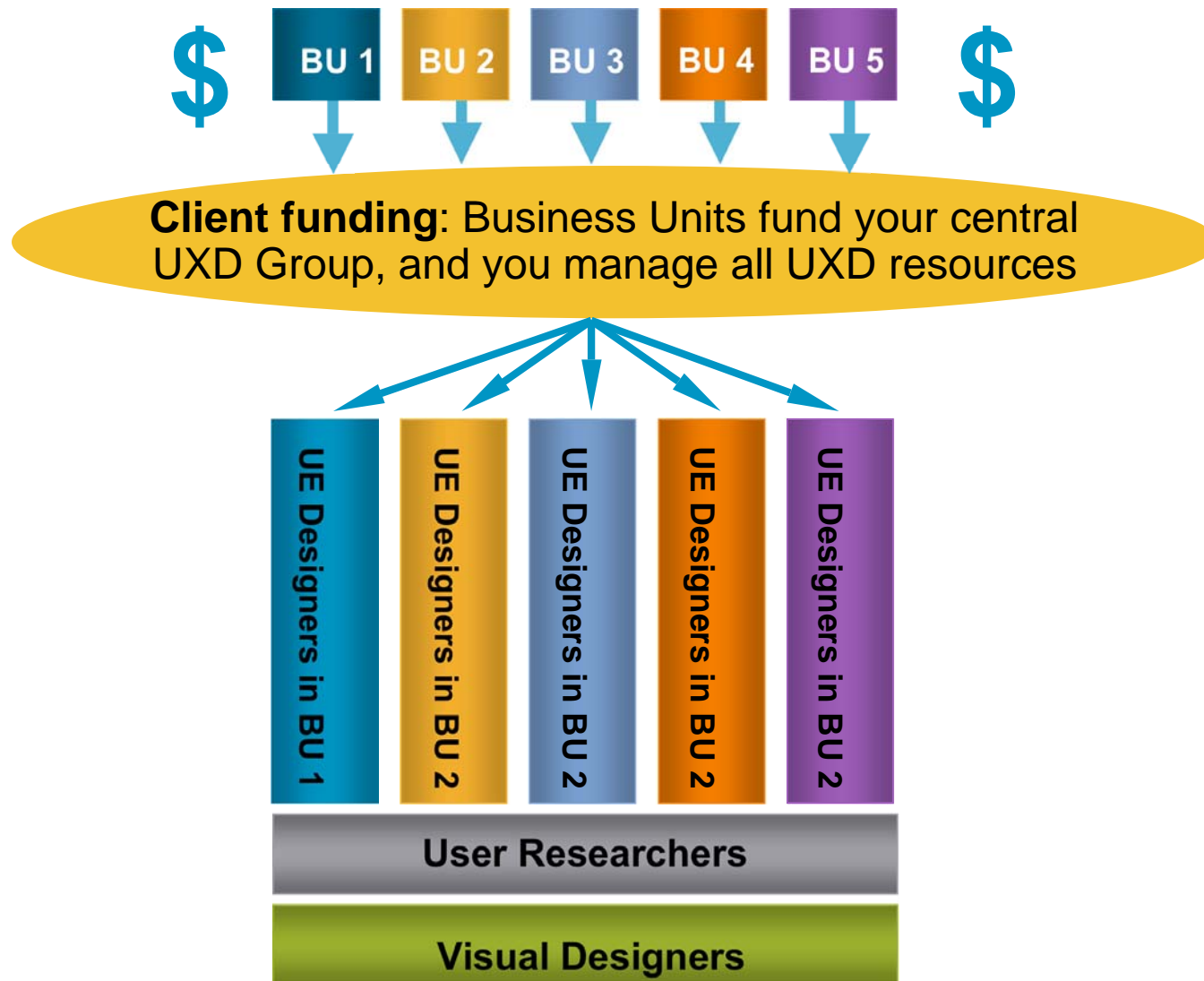
- First, hire someone who understands how to structure a UE team, and someone who knows how to build a team. Don't just hire someone who has done good usability in the past. It requires an understanding of business and business structures.
- Cisco went through the first three of these and ended up with the fourth model. You can't do this unless you have a level of maturity in your UE practice, or you have managed an external design firm in the past.



Speaking points (not visible in original slide show):

My team had this model at one time and I had 60 UXD resources working throughout the company

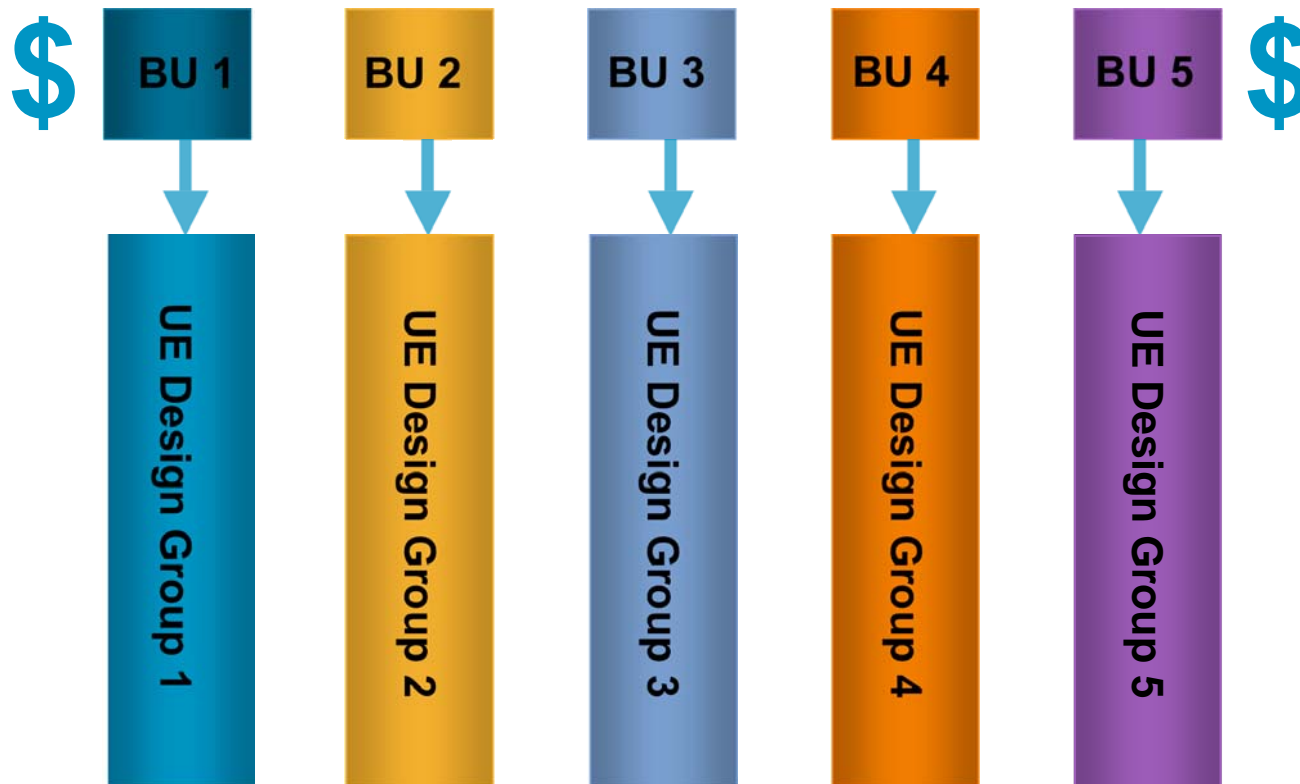
- Central funded model challenge: cost center, and if you grow too big, the cost center becomes a target; benefit: control over resources, consistent process,



Speaking points (not visible in original slide show):

We also worked in this model: That of a client-funded central team. Challenge: Executives eventually will not want to give up money and control to you if you do not report to them and if they do not control your resources. Benefit: This is a way for you to get additional headcount and not have your boss think that you cost too much money.

**Distributed model: Business Units
all have their own UXD Groups**



Speaking points (not visible in original slide show):

We tried distributed team model for awhile. Challenge: Teams tend to not work together, and sometimes compete. That causes problems on many levels, and can undermine everyone's credibility.

Consultancy model: Teams pay per project



Speaking points (not visible in original slide show):

- We took a page from Tom Kelley’s book, “The Art of Innovation,” and decided to assemble highly focused teams of cross-functional experts on very few products. Our Focus Team engagements combine researchers, interaction designers, visual designers, developers, and industrial designers.
- This structure permitted us to deliver world-class applications and convert Cisco from a technology-led to an experience-led company.

Building a successful UXD group, Phase II

7. Define and document skill set requirements.
8. Insert UXD Practices in development processes.
9. Build infrastructure:
 - ✓ Labs
 - ✓ Design spaces
 - ✓ Portfolio demonstrating impact
10. Establish expertise— generate training to educate teams.
11. Explore new horizons:
 - ✓ Globalization
 - ✓ UI standards and tooling
 - ✓ accessibility

Speaking points (not visible in original slide show):

- Once you have established your foundation and have been highly successful, you can then move on to Phase II of your growth, which includes these topics-- which I talk about in subsequent slides.

7. Define and document skill set requirements

			UE Job Roles							
Strength	Grade 6	Grade 8	Interaction Designer	Research	Industrial Design	Visual Design	Manager	SW Dev	Program Manager	
Advocacy	Positive attitude. Enthusiastic about team engagement. Constructive in criticism; honest with compassion. Open and direct in communications. Trust's teammates and instills trust in others.	Positive attitude. Enthusiastic about team engagement. Constructive in criticism; honest with compassion. Open and direct in communications. Trust's teammates and instills trust in others.						VP		
Organizational Skills	Consistent and timely delivery of UE Artifacts include: project briefs, mock-ups, UE specifications, usability or field study reports, workshops, and facilitated meetings.	Consistent and timely delivery of UE artifacts to the employee's specific role. Able to identify major milestones for tasks.	Fellow					Sr Director	Fellow	
Cisco Business Knowledge	An awareness of Cisco financial drivers and the importance of leveraging existing business cases and data to influence desired behaviors and justify preestablished Product specific UE Requirements.	An understanding of financial drivers and the importance of leveraging existing business cases and as well as supplier the correct data to influence desired behavior to justify Product specific UE Requirement	Distinguished Engineer					Director	Distinguished Engineer	
Professionalism	Understands UE organizational vision and helps to implement it. Does need some guidance but able and willing to implement direction but does not guide and teach others. Positive attitude. Able to follow the lead of others. Trusting of teammates and	Understands organizational vision and helps to implement it. Does need some guidance but willing to implement direction. Occasional teach others. Positive attitude and begins to drive of issues. Will lead on occasion the lead of others. Trusting of teammates	Technical Leader, User Experience					Sr. Mgr	Technical leader II	Mgr., Prog. Mgmt
Cisco Technical Knowledge	Ability to understand some technical implication of products in customer environment and the support implications. Seeks out technical experts and establishes firm understanding of issues outside of their expertise.	Establishing solid technical foundation. Understand a significant amount of technical implications of products in customer environment. Seeks out technical experts and establishes understanding of issues outside of their expertise.	Technical Leader, User Experience					Mgr/Team Lead	Technical leader I	Program Manager V
Effective Communications	Reasonably articulate. Able to communicate at a level that minimizes any confusion around the message being delivered. Can communicate ideas fairly well. May sometimes provide too much information	Reasonably articulate. Able to communicate that minimizes any confusion around the message being delivered. Provides constructive information. Sometimes includes too much data, though thoughts are well organized.	At this point, you can choose to move up in the individual contributor role or into management.							
Teamwork	Positive team influence. Constructively contributes to team's success. Consistently provides constructive input on projects. Collaborates well.	Positive team influence. Constructively contributes to team's success. Consistently provides constructive input on projects. Collaborates well.	Senior Interaction Designer	Senior User Experience Researcher	Senior Industrial Designer	Senior Visual Designer		SW Eng. IV	Program Manager IV	
			Interaction Designer	User Experience Researcher	Industrial Designer	Visual Designer		SW Eng. III	Program Manager II	
			Junior Interaction Designer	Jr. User Experience Researcher	Junior Industrial Designer	Junior Visual Designer		SW Eng. II		

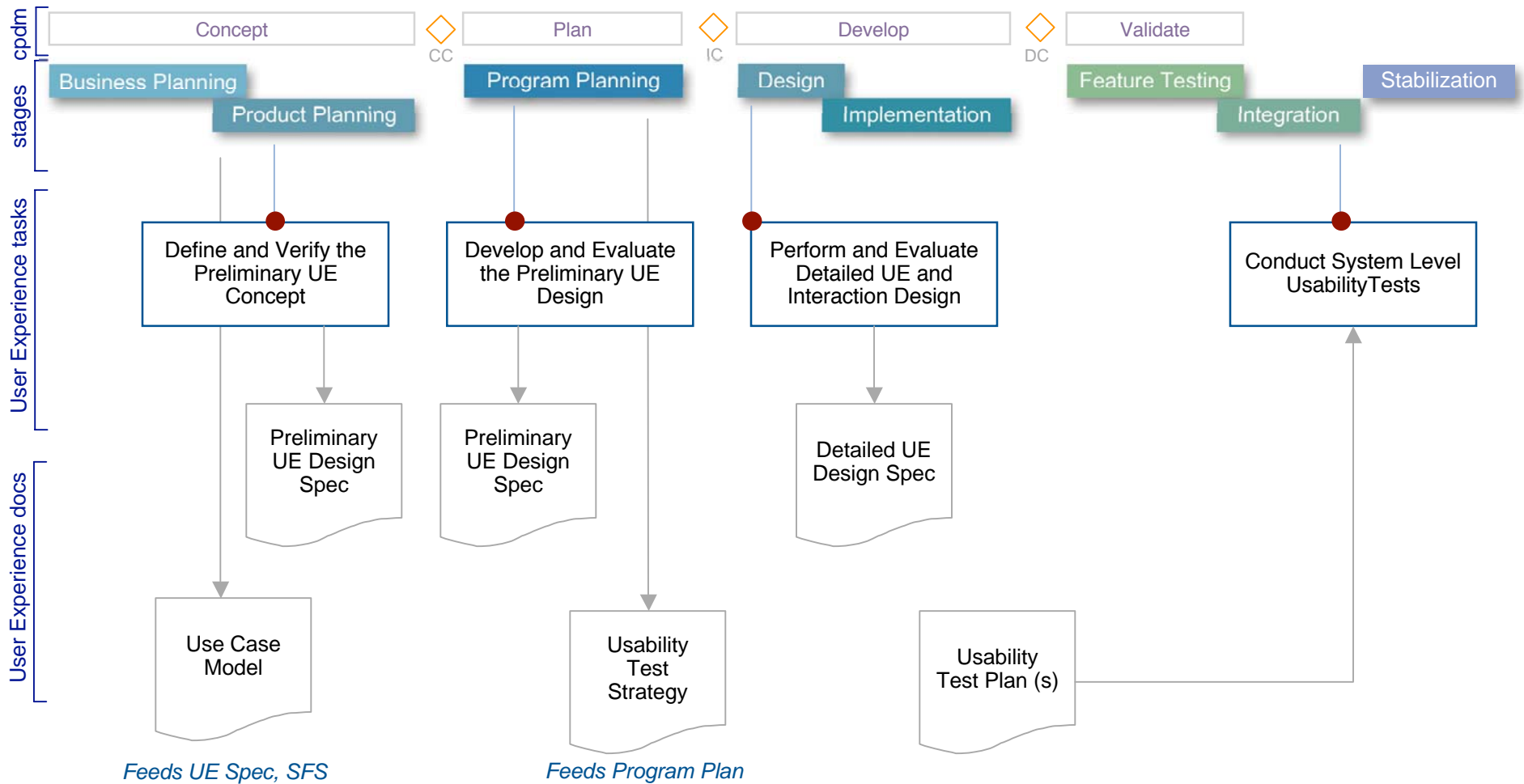
Color Legend
Centralized Roles
Not Applicable

Speaking points (not visible in original slide show):

- When you are building a team of experts, they expect clear and accurate job titles that reflect their expertise. In my case, we have user researchers, interaction, industrial, and visual designers, plus developers on the team.
- I also defined a competency scale for non-technical skills, because I have found that if my employees do not bring teamwork, professionalism, excellent communications, business knowledge, organizational skills, and alignment or advocacy, their technical skills will not help them.

8a. UXD Practices in Engineering processes

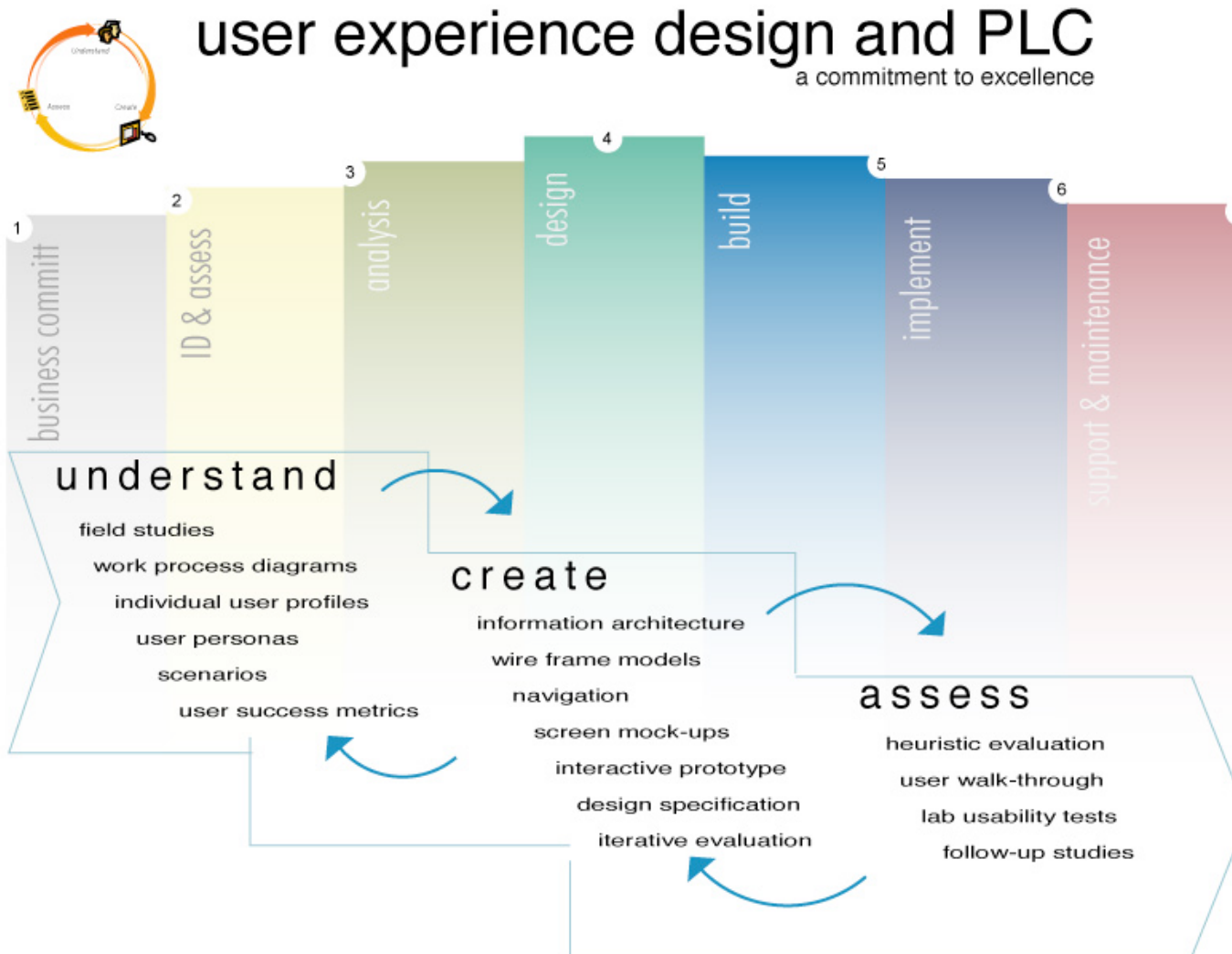
Example of tangible assets (documents) as part of Cisco dev process:



Speaking points (not visible in original slide show):

- By integrating UXD practices into the engineering development process, we have the ability to remind product teams that these milestones are not optional (in a highly professional way).

8b. UXD Practices in IT development processes




Speaking points (not visible in original slide show):

We also inserted UXD milestones into the IT development process at Cisco.

10. Establish expertise— generate training to educate product teams

Sample of Cisco UCD workbook



Cisco User-Centered Design Workshop




06 Designing with the user in mind

Once you understand the user, you are ready to create a design. This chapter will present the basic principles that serve as the foundation for good design, whether designing software, hardware, or documentation. You will learn a high-level design process. You will also have the opportunity to exercise your design skills. Depending on your needs, you may create use cases or design a workflow prototype. You will also learn something about two very useful design tools known as participatory design and paper prototyping.

As mentioned previously, the steps in product design and implementation include:


- Creating a product specification
- Designing the user interface
- Creating prototypes
- Iterating and testing prototypes through participatory design and usability testing (covered in chapter 07)

77. What is design
88. Redesign your problem definition
82. Exploring ideas
93. Design principles
96. A closer look at simplicity
98. A closer look at consistency
99. Design prototyping
102. Participatory design exercise
103. Iterative prototype testing
104. Developing the UI framework
105. Prototyping workflow
107. Write user centered use cases
112. Visual design
116. A few final design exercises




11. Explore new horizons- Globalization, UI standards and tooling, accessibility


- Home
- Evolving the Experience
- UE Standards
- Icons
- Tooling
- Design Services
- Globalization
- Portfolios




Application Layout



Drawer Elements



Breadcrumbs



Detailed Specifications

UE Standards

By mid 2003, Cisco had acquired close to 100 companies. Each of these companies generated user interfaces that differed widely in their visual treatment, their design patterns, and their interaction models. The Cisco User Experience group embarked on a journey of defining User Experience Standards for application user interfaces. We focused specifically on browser-based applications and rich-client applications. These standards defined specific rules for:

- visual treatment and branding, including a detailed icon language
- design patterns
- application elements (detailed specifications)
- application behavior
- repeatable workflows and interaction models
- online help

We also described how to evaluate conformance to the standards, provided a comprehensive roadmap, versioning of both standards and tooling, and documentation about how to use and apply the standards.

Speaking points (not visible in original slide show):

Once you have a strong foundation, you can reach (carefully) into new horizons. Be careful to not over-extend yourself. For the Cisco team, we built teams to support:

- UI Standards and tooling (JSP tag libraries and Java component libraries that help engineers develop a standard-compliant, accessible, and internationalizable product much faster)
- Accessibility-- designing products for people with disabilities
- Globalization (automating translation of code and documentation)

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