

# Design and User Experience



# It is about Becoming User-Relevant...



Source: IDC Hidden Cost of Information Work May 2009

# Why Is User Experience Important Today?



## Focus in the Business Press

Leading industry thought leaders have recognized **user experience and innovation** as a competitive differentiator in enterprise software



Functionality Is Dead



Usability: The New Dimension

Enterprise software vendors must respond by delivering a more compelling user experience



amazon.com.



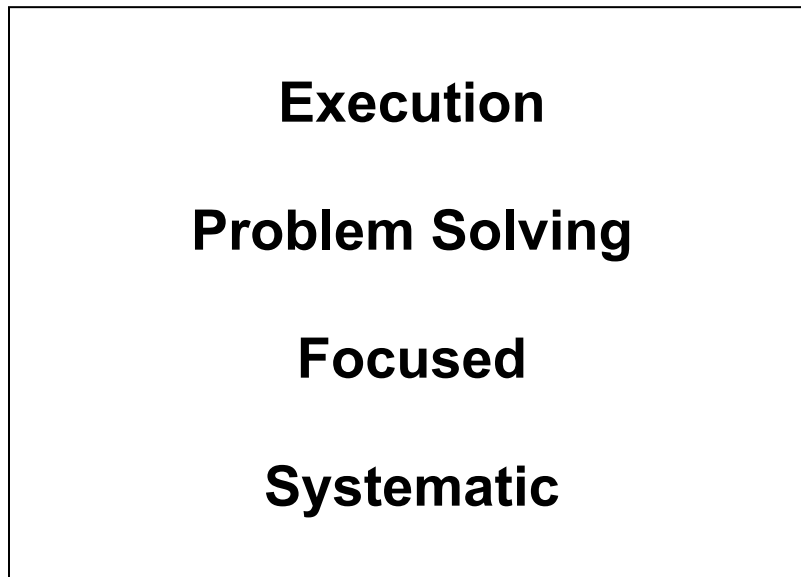
## Rise of the Enterprise Consumer

Enterprise software users expect their **work experience** with an application to be as **easy** to use as their consumer experience online



# Two Views on Innovation

## Analytic Thinking

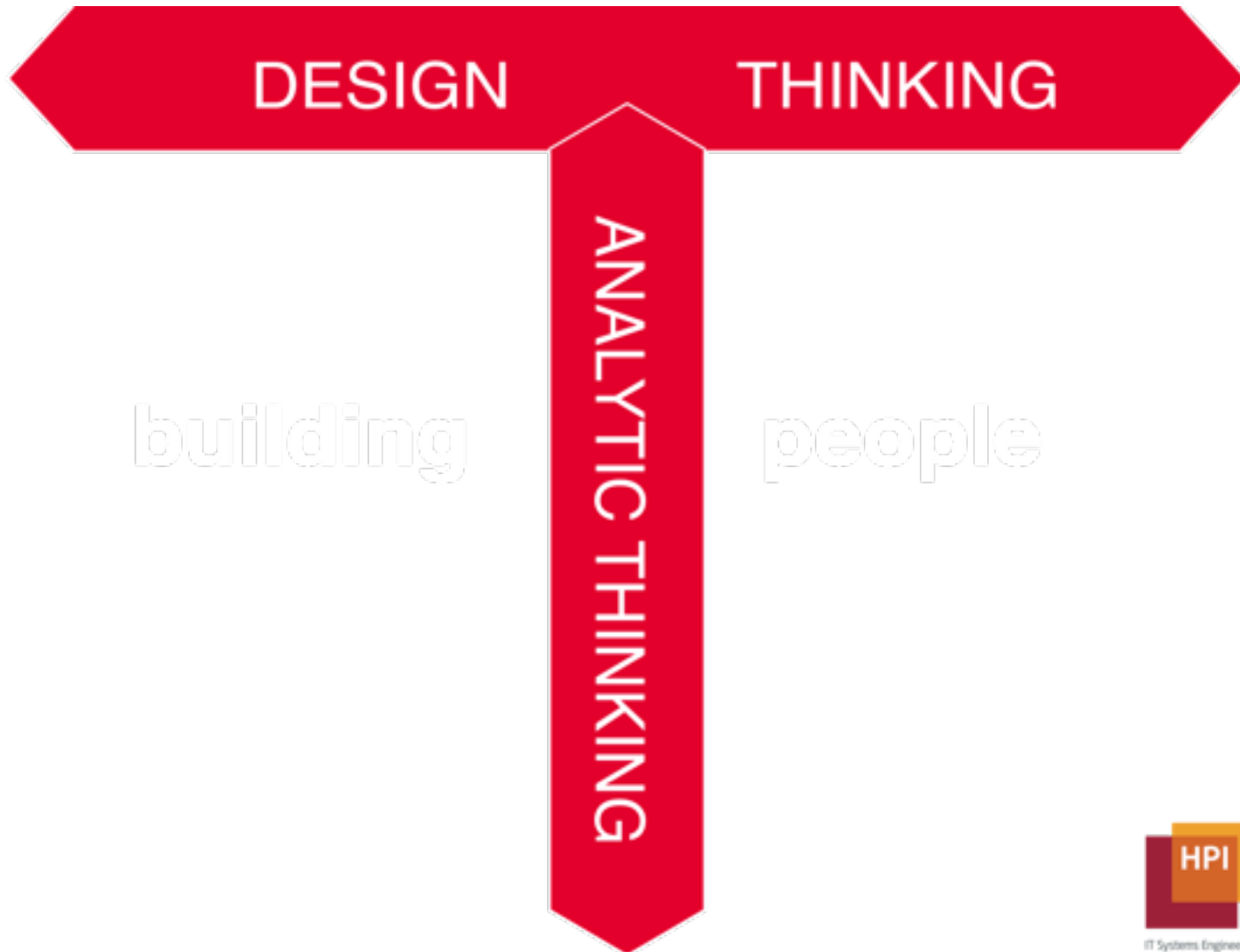


## Design Thinking

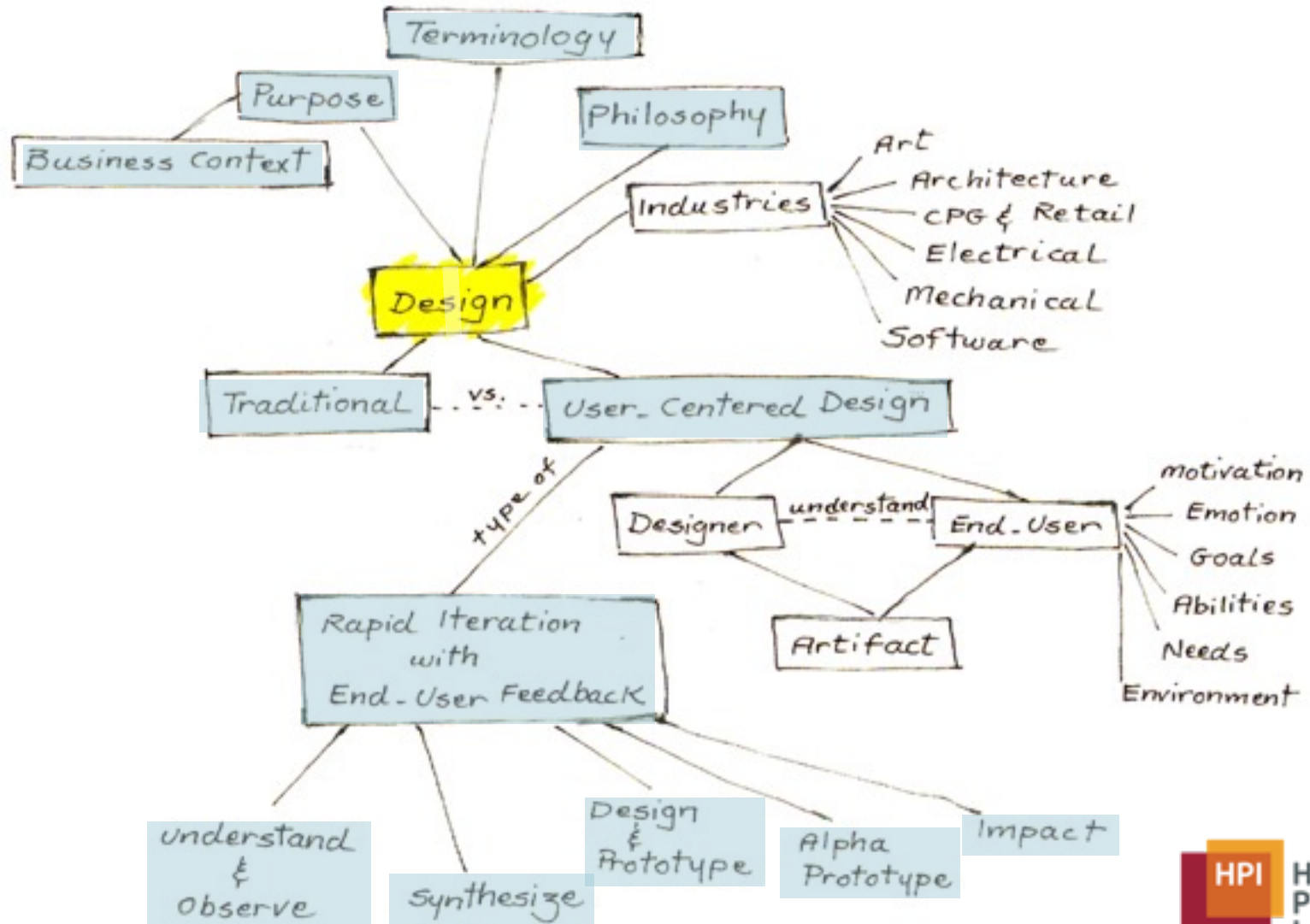


# INNOVATION

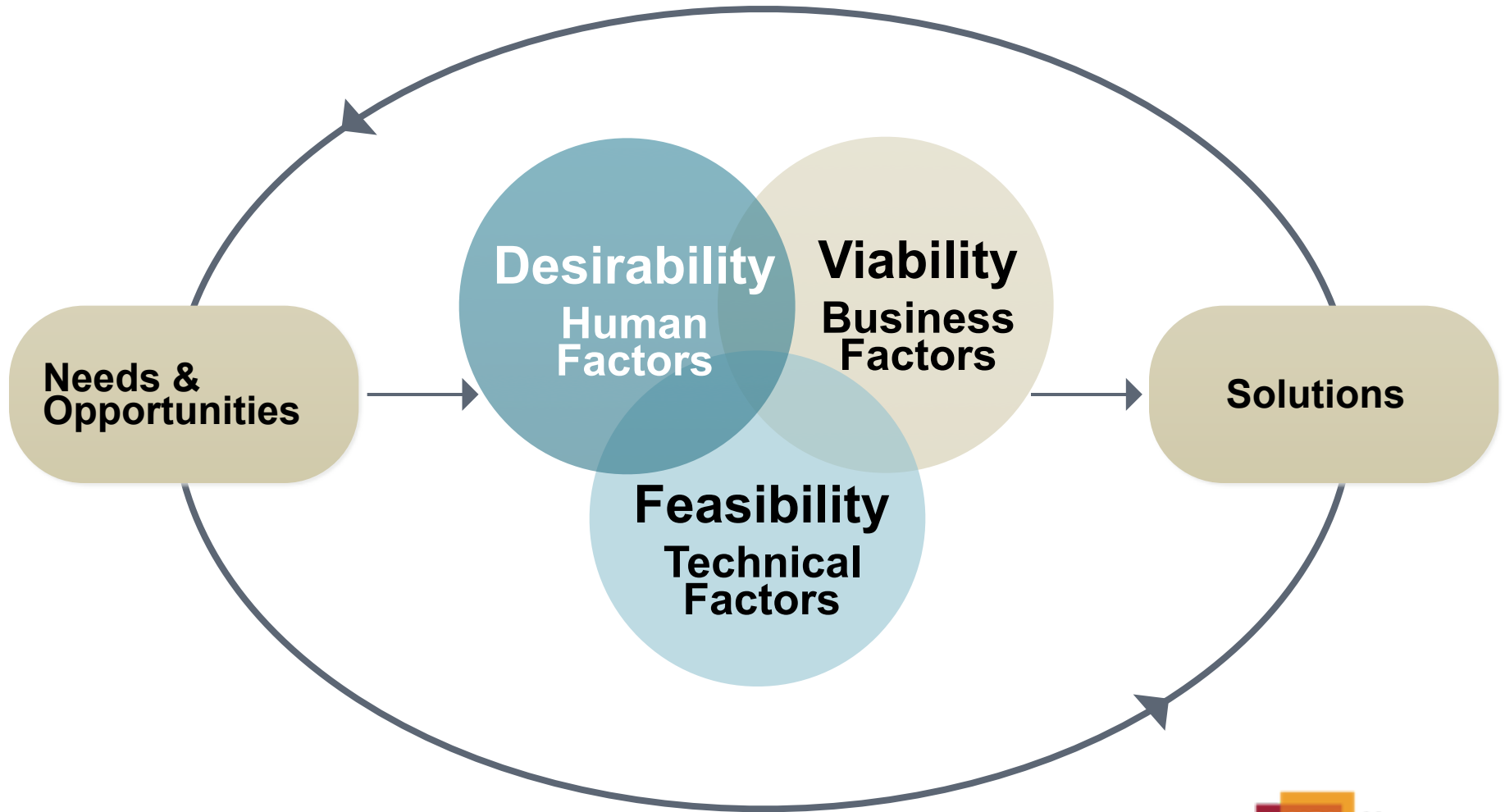
# T-shaped People: Analytic and Design Thinking



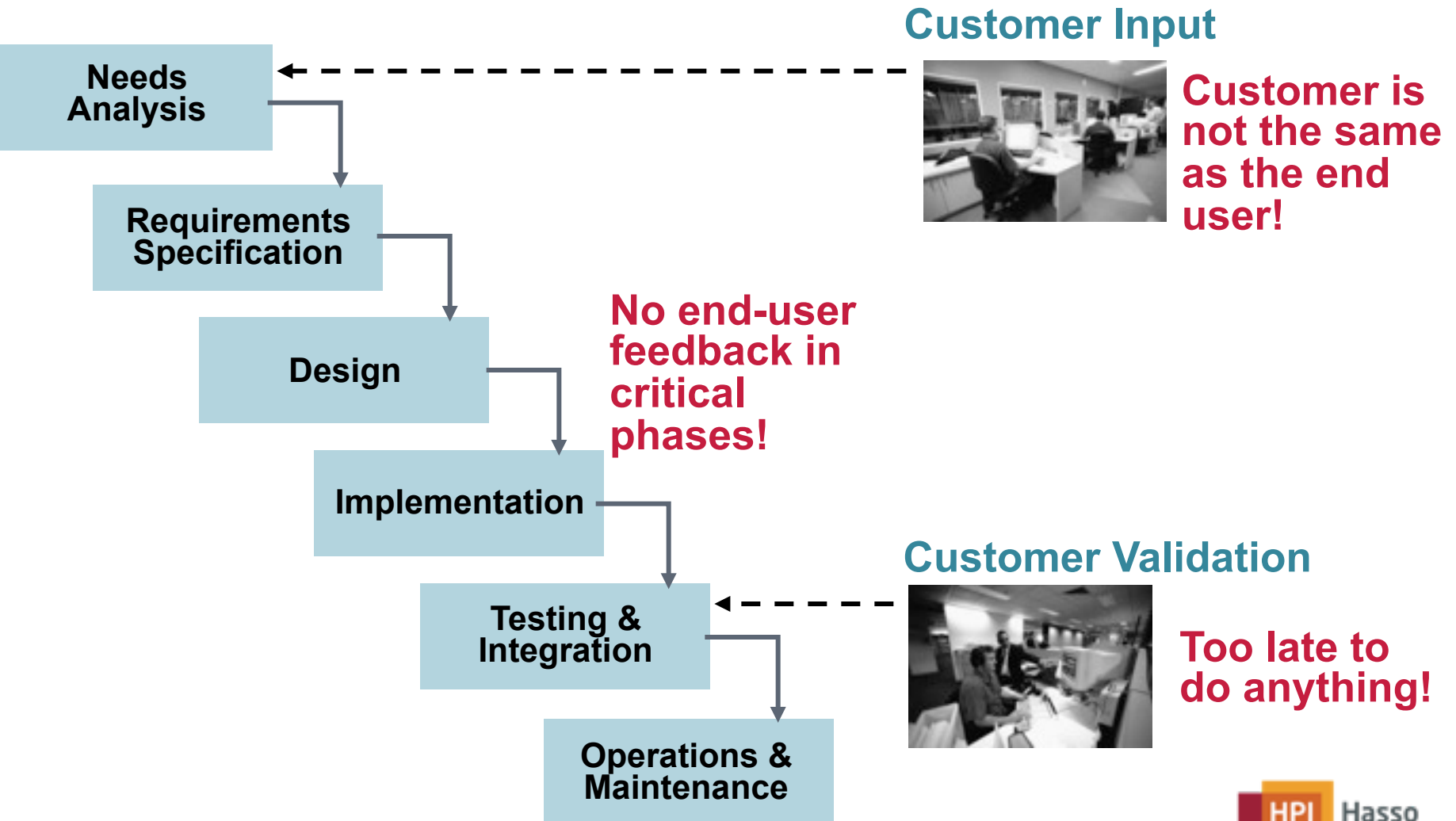
# User-Centered Design in Enterprise Software Development



# Design Purpose

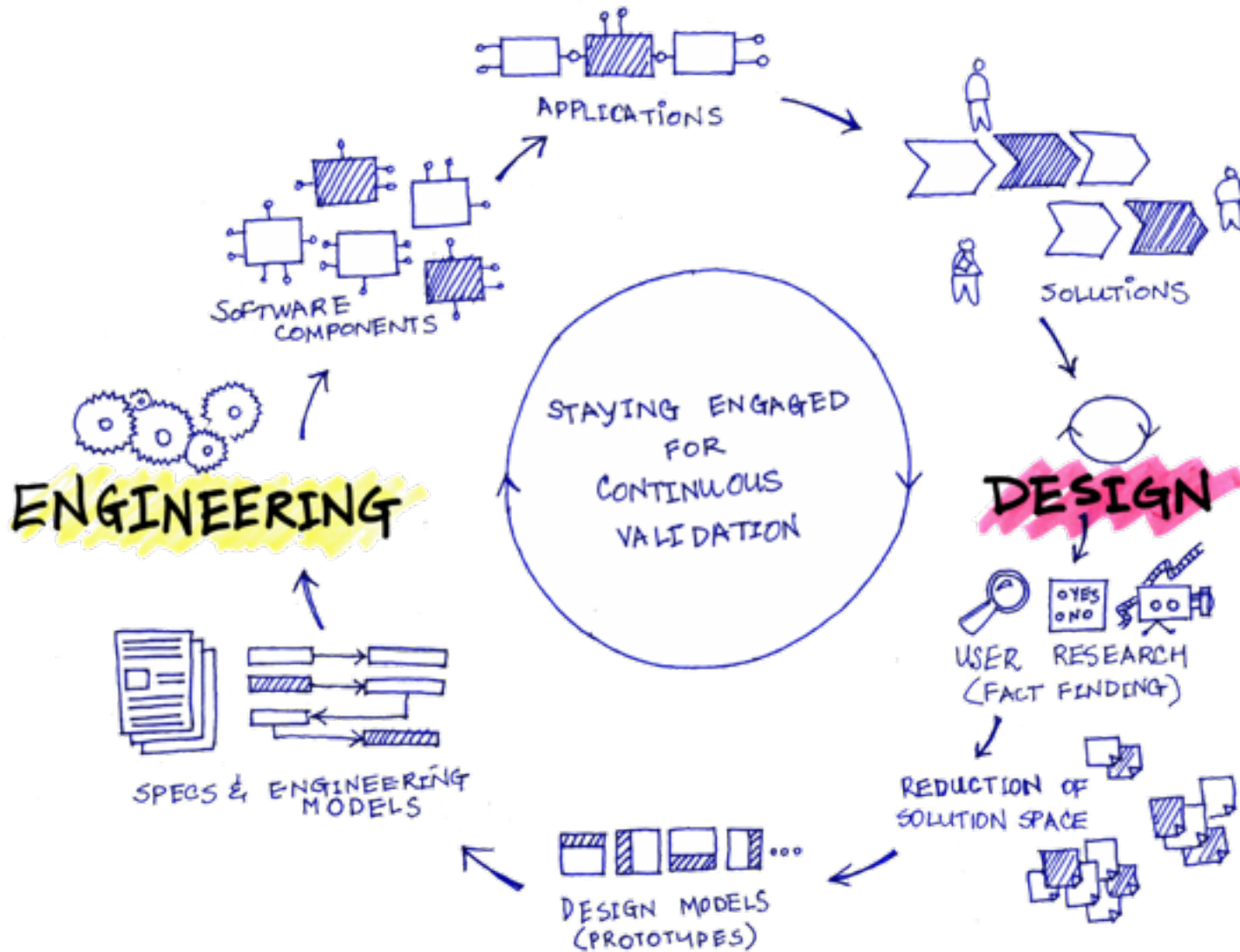


# Traditional Waterfall Approach





# Staying Engaged For Continuous Validation



# Principles of Design Thinking



HUMAN  
CENTERED



MINDFUL of  
PROCESS



CULTURE  
OF  
PROTOTYPING



BIAS  
TOWARD  
ACTION

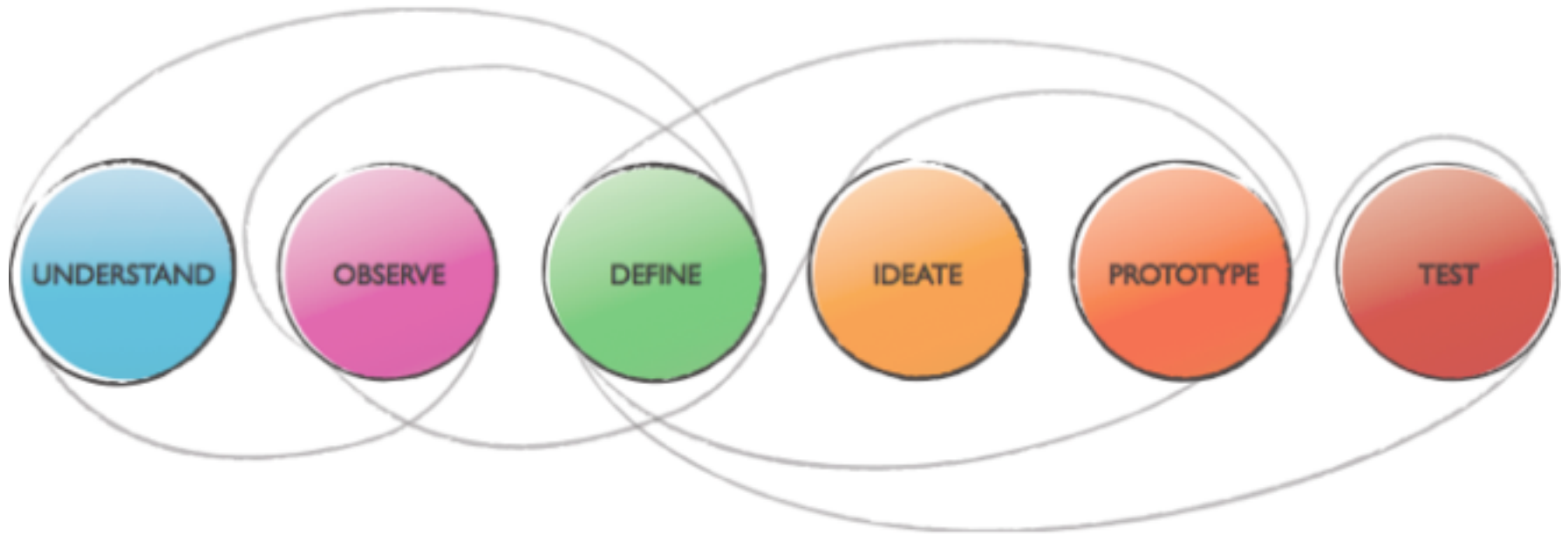


SHOW  
DONT  
TELL



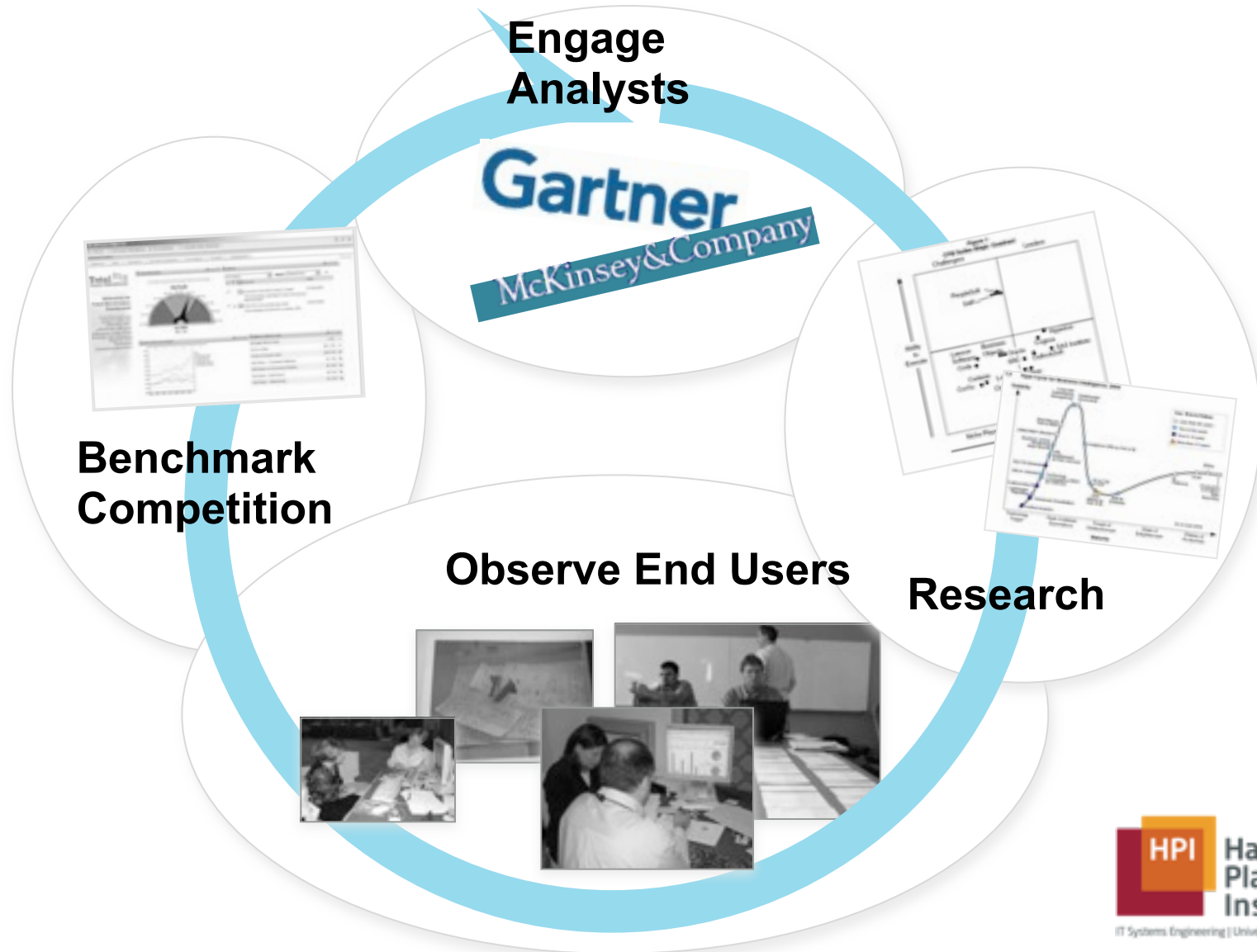
RADICAL  
COLLABORATION

# The Design Thinking Process



# Step 1: Analyze

360° Fact Finding



# Step 1: Analyze

## Site Visits



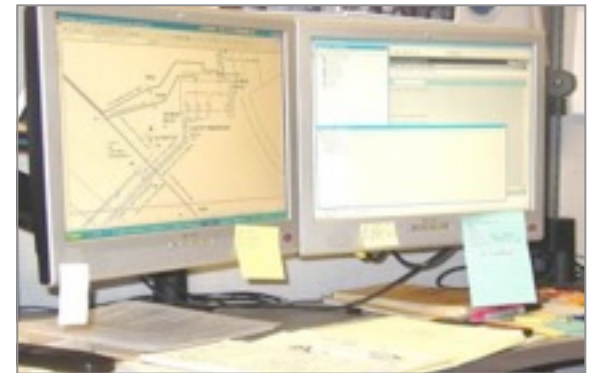
Plant Repair Crews



Assets get lost between systems

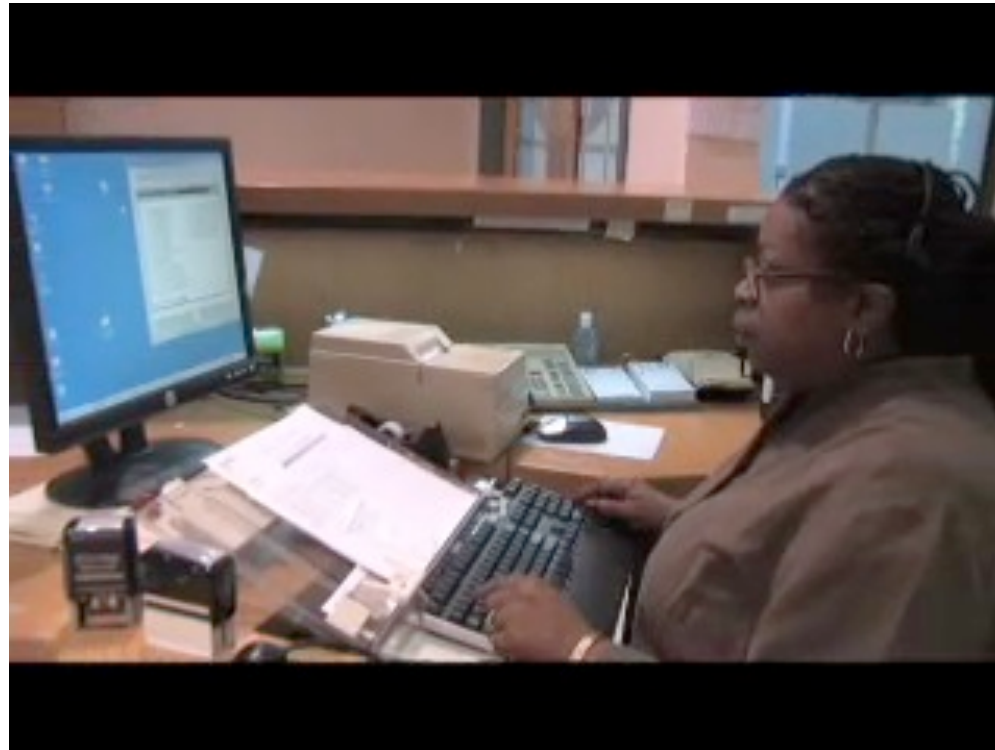


Oil and Gas Workers



Users create workarounds

# User Observation – Customer Service



# User Observation - Billing



# User Observation – Account Management



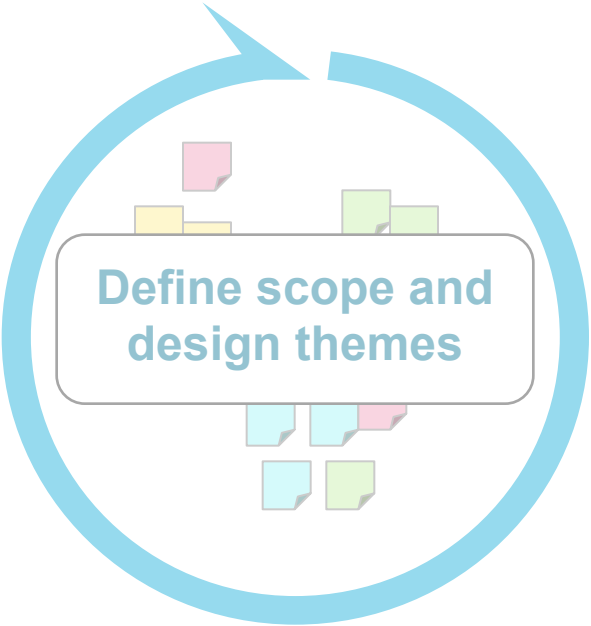


# User Observation – Meter Reading



# Step 2: Synthesize

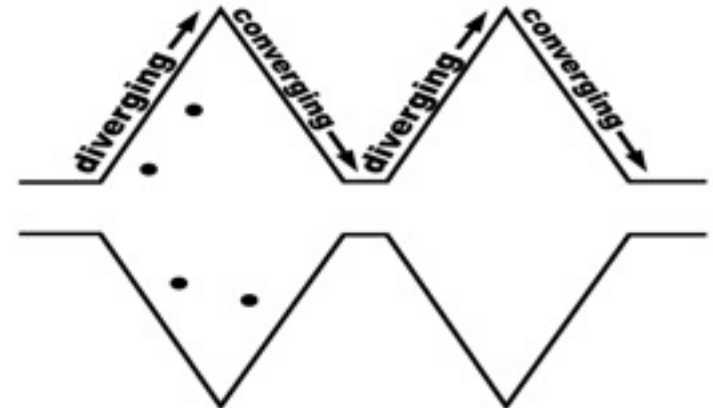
Identify Core Themes and Create a Common Point-of-View



# Step 2: Synthesize (cont'd)

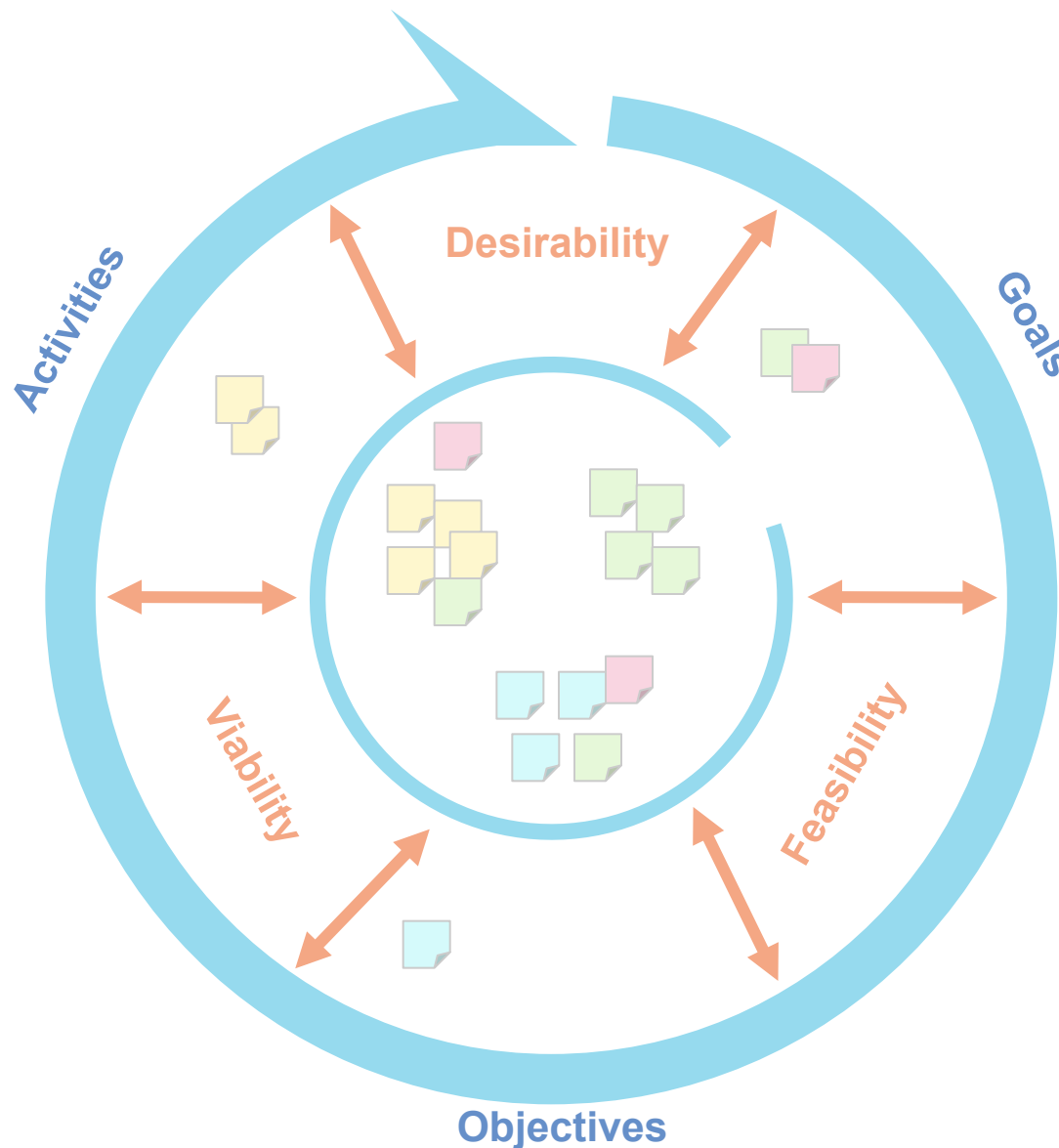
## Brainstorming for Divergent Thinking

<b>Be visual</b> 	<b>Defer judgment</b> 	<b>Encourage wild ideas</b> 
<b>Build on the ideas of others</b> 	<b>Brainstorm the rules</b>	<b>Go for quantity</b> 
<b>One conversation at a time</b> 	<b>Stay focused on the topic</b> 	<b>"The best way to get a good idea is to get a lot of ideas." Linus Pauling</b>



# Step 2: Synthesize (cont'd)

Reducing the Scope

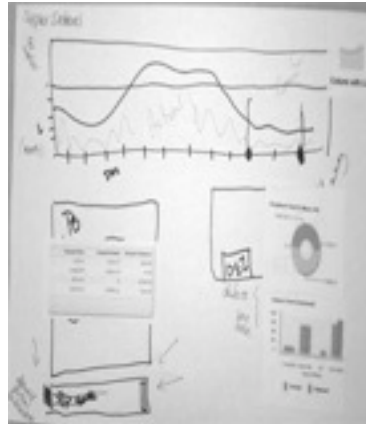


# Step 3: Iterative Prototyping

## Why Prototype?

### Better

- Allow comparisons, trade-off decisions
- Uncover new possibilities
- Gain counterintuitive insights



### Faster

- Reduce risk by making mistakes early

### Cheaper

- Reduce costs by starting with low-fidelity media, easily discarding ideas that don't work

### If you're not failing, you're not pushing hard enough.

- Fail early and fail often
- Learn from your failures
- Make the cost of failure low
- Keep and build on the successes
- Try many ideas quickly
- Reduce emotional attachment



# Step 3: Iterative Prototyping

Evolutionary Design

## PROTOTYPES

Low fidelity

Low effort

Short cycle

Generic Feedback

Sketches



Physical Mock-up



Wireframes



HTML



Flash



Functional Code



High fidelity

High effort

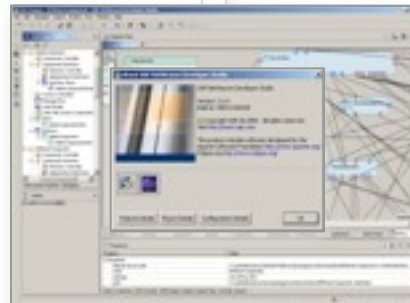
Long cycle

Specific Feedback

## FEEDBACK



UI Galleries



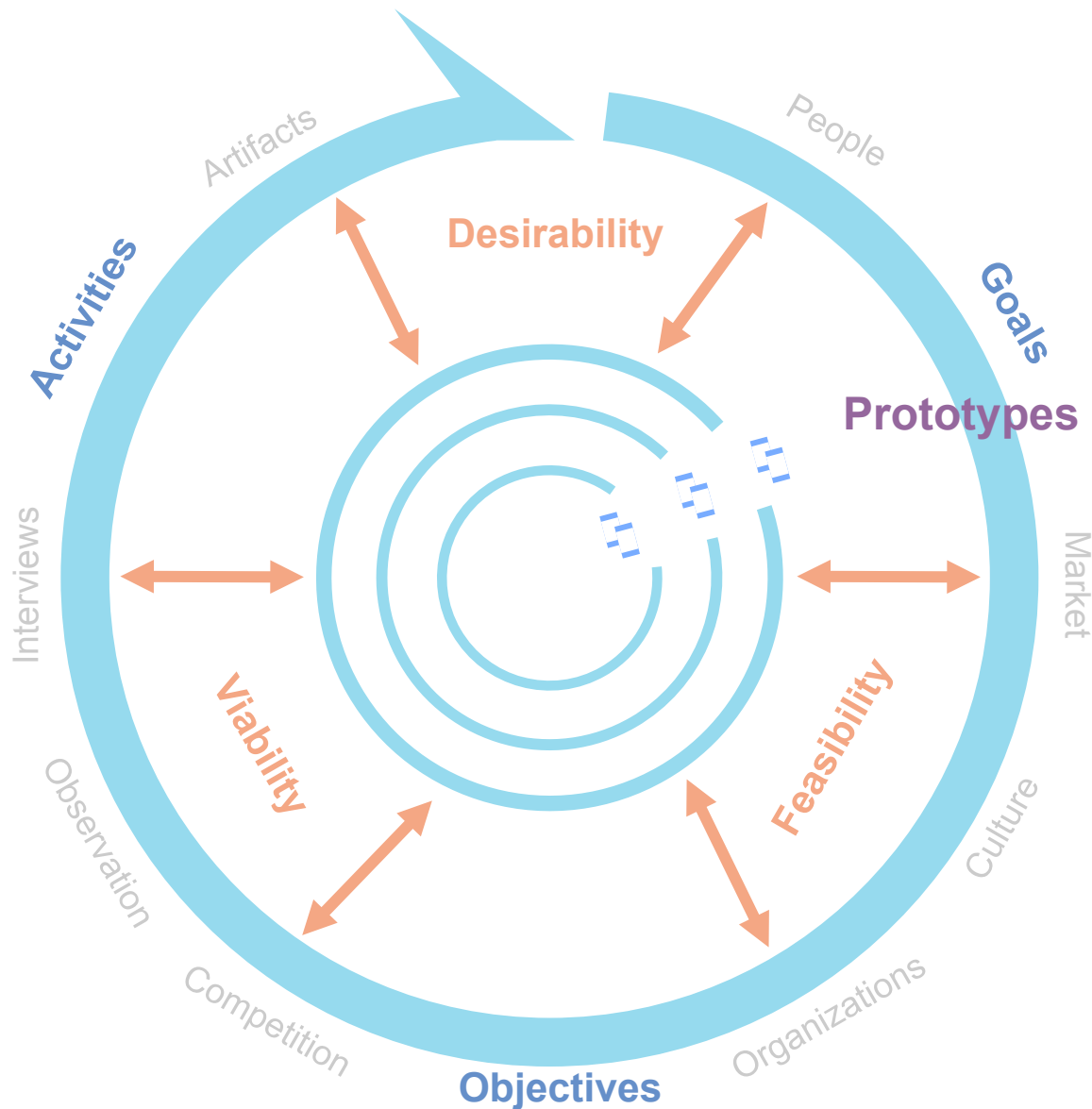
Design Studio



End-User Feedback System

# Step 3: Iterative Prototyping

Evolutionary Design



# Applied Design Thinking

Exclusive partner project in cooperation with Stanford University

9-month course starting end of September 2010

Allows you to take on a real design challenge

- In globally distributed teams
- And with real industry partners

Contact for questions and applications:

[Thomas.Kowark@hpi.uni-potsdam.de](mailto:Thomas.Kowark@hpi.uni-potsdam.de)  
<http://epic.hpi.uni-potsdam.de>

Real Companies, Real Projects, Real Designs ...

You determine what the world of tomorrow is going to use!

## Global Team-based Product Innovation & Engineering 2010-11

This course is an exclusive partner project in cooperation with Stanford University. Students from Potsdam and Stanford work together with corporate partners to determine project requirements, benchmark alternatives, generate solutions and develop a series of increasingly sophisticated prototypes through rapid prototyping, analysis and user testing.

- 9-month course of extensive ideation, engineering, and innovation – starting in September 2010
- Take on a real design challenge for a leading company
- Self-organize global teamwork and creative space in your own project room
- Meet your team partners in California

The next project could be Yours – Contact us!  
<http://epic.hpi.uni-potsdam.de>

**Dozentur**  
 Dr. Alexander Ziser  
 Deputy Professor  
 Chair of Prof. Hasso Plattner

**Contact**  
 Thomas Kowark  
 thomas.kowark@hpi.uni-potsdam.de  
 0303 / 87902-536

**HPI** Hasso Plattner Institut  
**EPIC** ENGINEERING PARTNERSHIP COLLABORATION

Design IT. Create Knowledge.