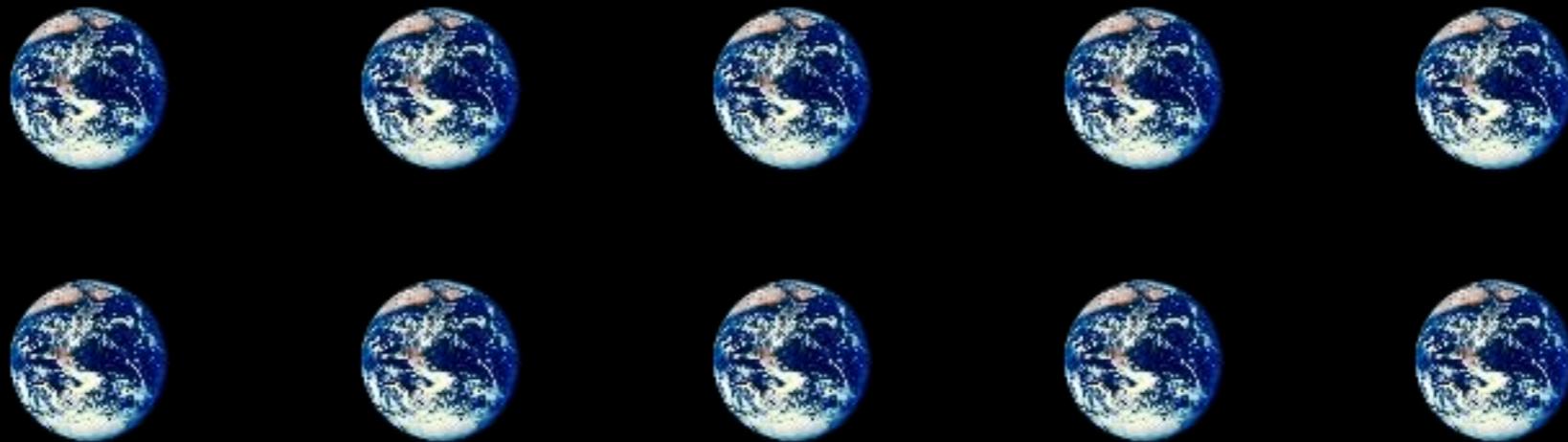


**IPRO 334: Energy Consumption Awareness
at the Point of Decisionmaking in the Home**



We only have 1 planet.

If everyone lived like us we'd need 10.



We **use** a lot of energy in our homes.



We **waste** a lot of energy in our homes.

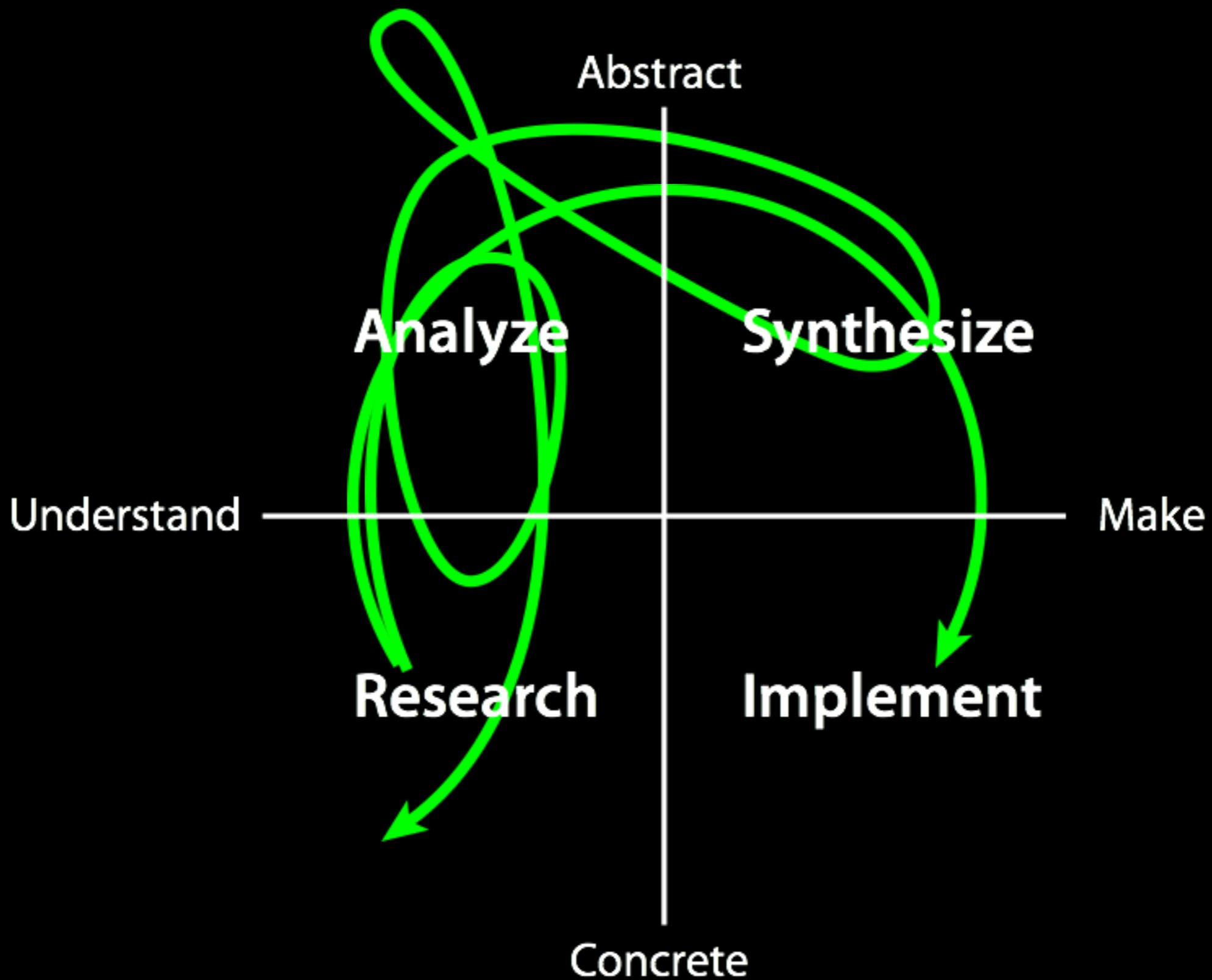


Sustainable Homes = Smart Homes
+
Smart Occupants

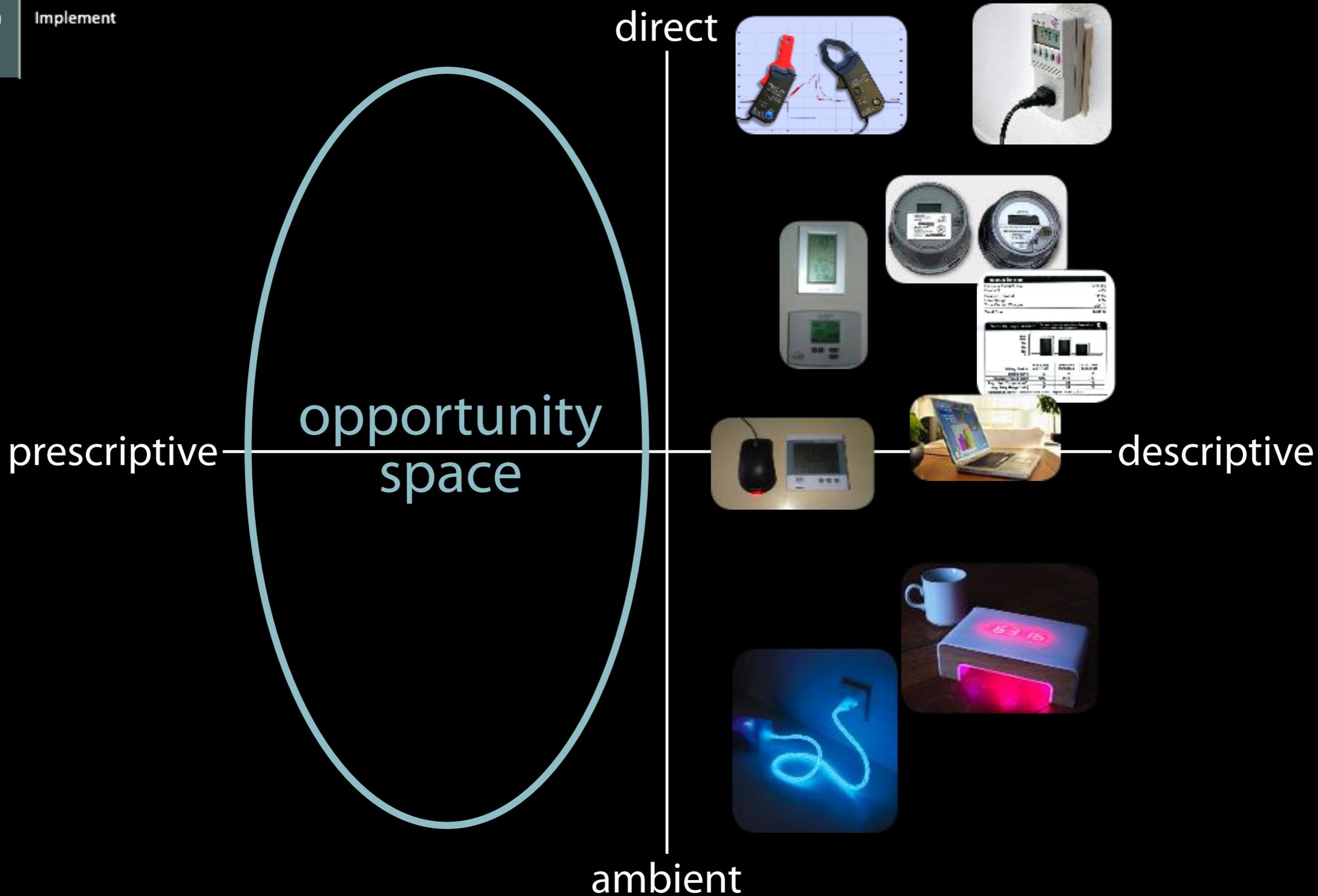
Our challenge : make the invisible
visible.

Task Name	Duration	Start	Finish	February 2007							March 2007							April 2007							May 2007												
				18	21	24	27	30	2	5	8	11	14	17	20	23	26	1	4	7	10	13	16	19	22	25	28	31	3	6	9	12	15	18	21	24	27
Introduction to the Problem	21 days	Tue 1/23/07	Fri 2/16/07																																		
Team Building	0 days	Tue 1/23/07	Tue 1/23/07																																		
IPRO Briefing	0 days	Thu 1/25/07	Thu 1/25/07																																		
Existing Products Exploration	0 days	Tue 1/30/07	Tue 1/30/07																																		
Team Brainstorming	0 days	Thu 2/1/07	Thu 2/1/07																																		
Product Testing	0 days	Thu 2/1/07	Thu 2/1/07																																		
Institute of Design Presentation	0 days	Tue 2/6/07	Tue 2/6/07																																		
Project Plan	12 days	Sat 2/3/07	Fri 2/16/07																																		
House of the Future Meeting	0 days	Tue 2/13/07	Tue 2/13/07																																		
Research	15 days	Tue 2/6/07	Thu 2/22/07																																		
Market Research	9 days	Tue 2/6/07	Thu 2/15/07																																		
User Profile	0 days	Tue 2/6/07	Tue 2/6/07																																		
User Needs Research	7 days	Thu 2/8/07	Thu 2/15/07																																		
Retailer Research	7 days	Thu 2/8/07	Thu 2/15/07																																		
Installation Research	7 days	Thu 2/8/07	Thu 2/15/07																																		
Customer Research	15 days	Tue 2/6/07	Thu 2/22/07																																		
Survey Design	7 days	Tue 2/6/07	Tue 2/13/07																																		
Survey Distribution	7 days	Thu 2/15/07	Thu 2/22/07																																		
Interviews	7 days	Thu 2/15/07	Thu 2/22/07																																		
Research Presentations	0 days	Thu 2/22/07	Thu 2/22/07																																		
Continued Research	25 days	Fri 2/23/07	Thu 3/22/07																																		
Preliminary Scenario Plan	25 days	Fri 2/23/07	Thu 3/22/07																																		
Survey Team Interviews	25 days	Fri 2/23/07	Thu 3/22/07																																		
Design Phase I	5 days	Tue 2/20/07	Sat 2/24/07																																		
Identify Design Needs	0 days	Tue 2/20/07	Tue 2/20/07																																		
Prototype Design	0 days	Thu 2/22/07	Thu 2/22/07																																		





Analyze	Synthesize
Research	Implement

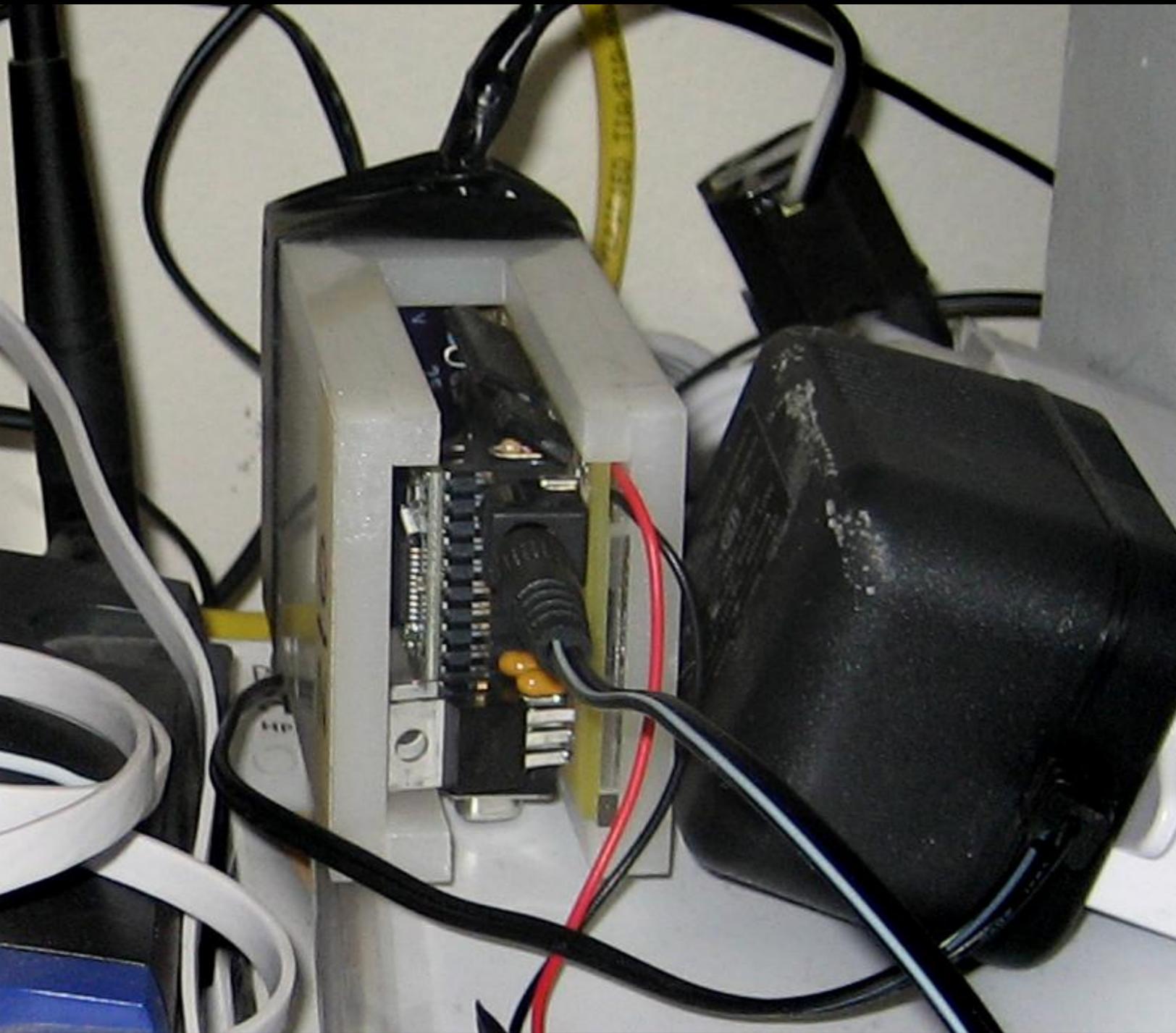


Analyze

Synthesize

Research

Implement

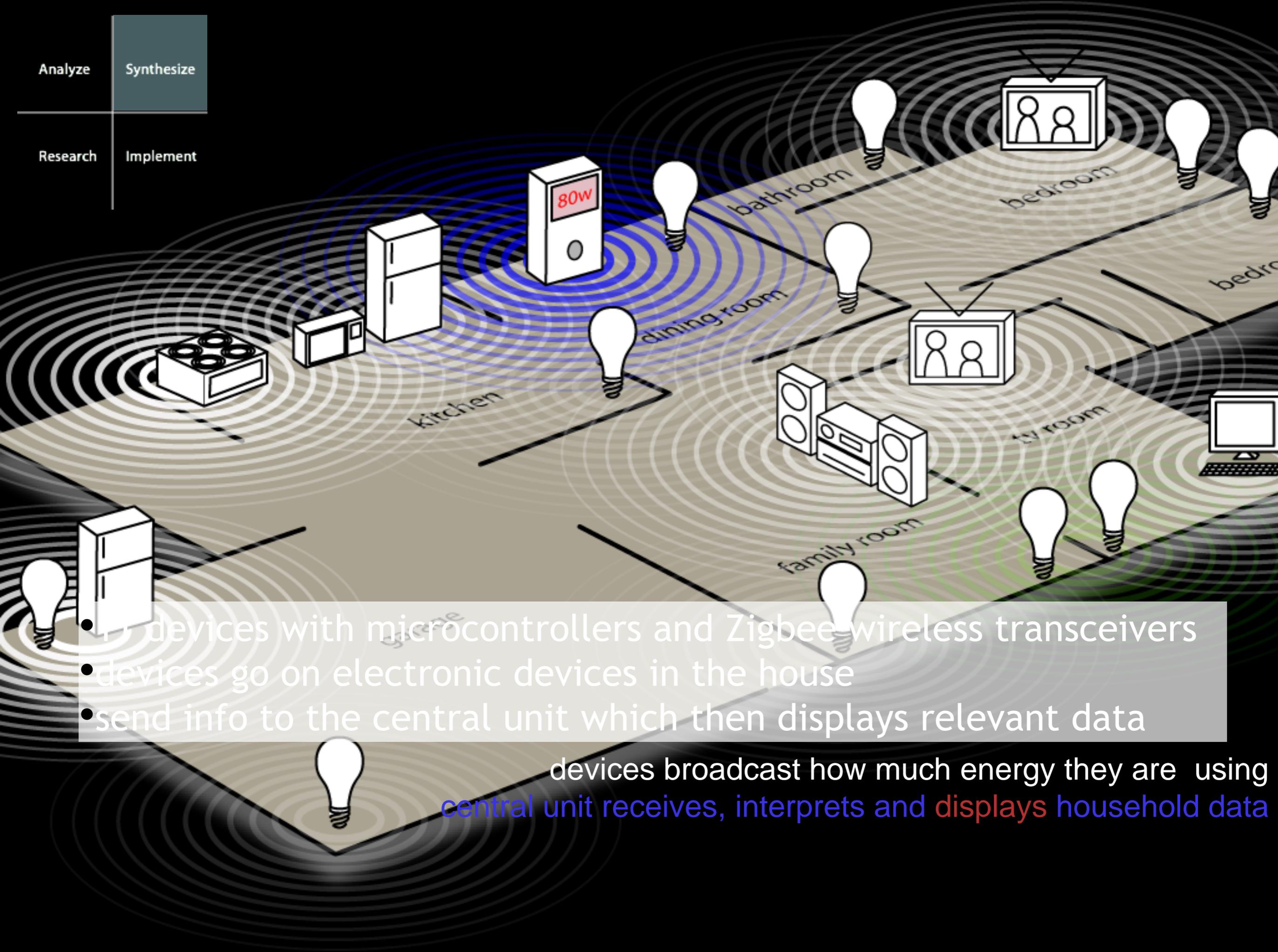


Analyze

Synthesize

Research

Implement

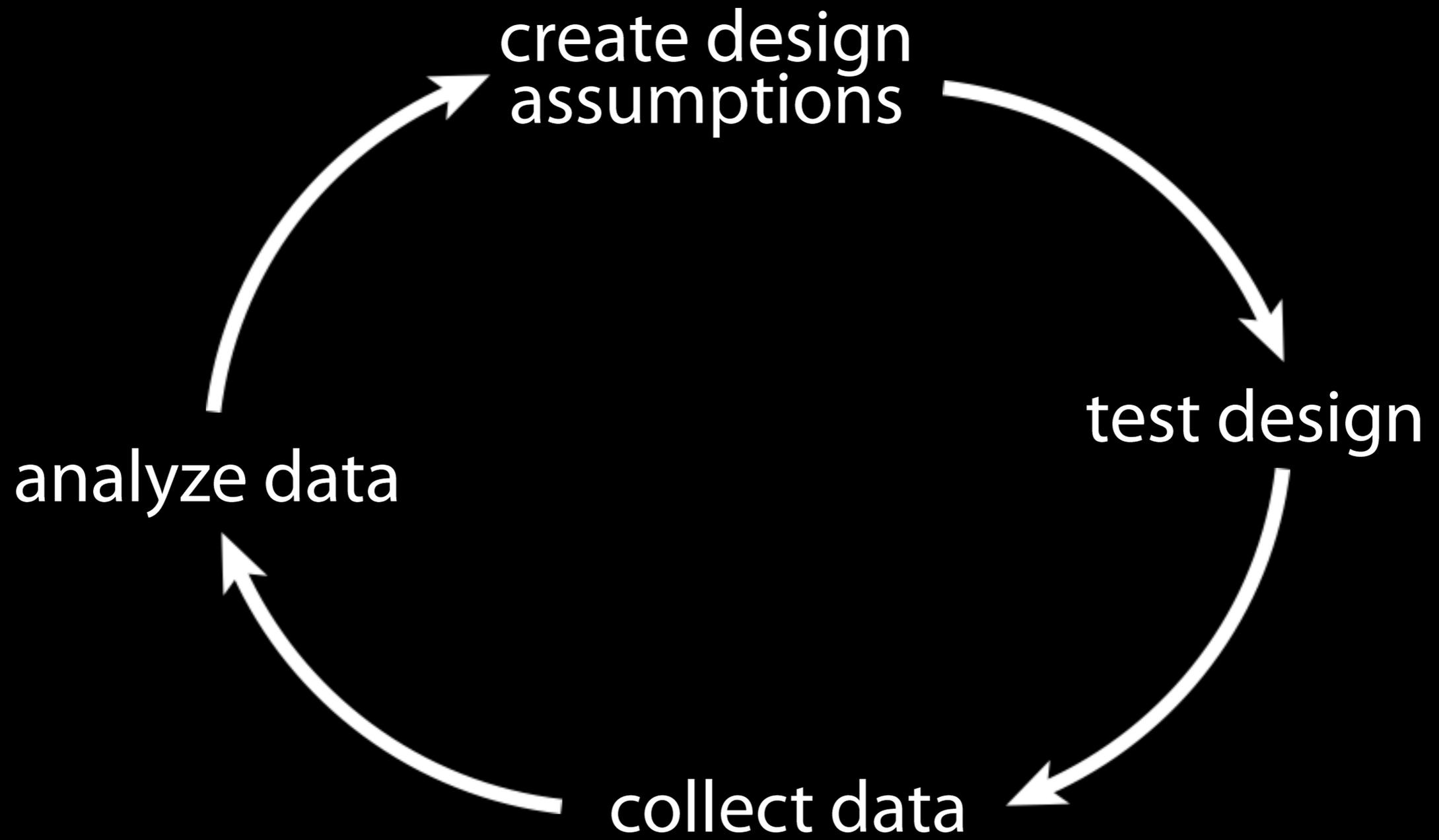


- devices with microcontrollers and Zigbee wireless transceivers
- devices go on electronic devices in the house
- send info to the central unit which then displays relevant data

devices broadcast how much energy they are using
central unit receives, interprets and displays household data

Our work is about **awareness**, not technology.

Analyze	Synthesize
Research	Implement



Analyze

Synthesize

Research

Implement



Analyze

Synthesize

Research

Implement



Analyze

Synthesize

Research

Implement



Analyze

Synthesize

Research

Implement

Attraction

Engagement

Extension



Real-time Feedback



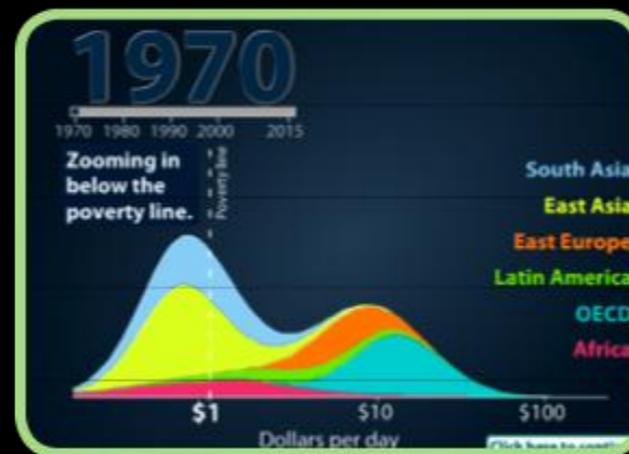
Goals/Comparison



Limited Lifetime



Simple Indicators



Deep Info



Adapting Over Time

Analyze

Synthesize

Research

Implement

Consumer



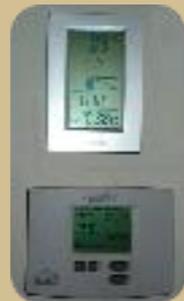
Contract



Service

opportunity

differentiation



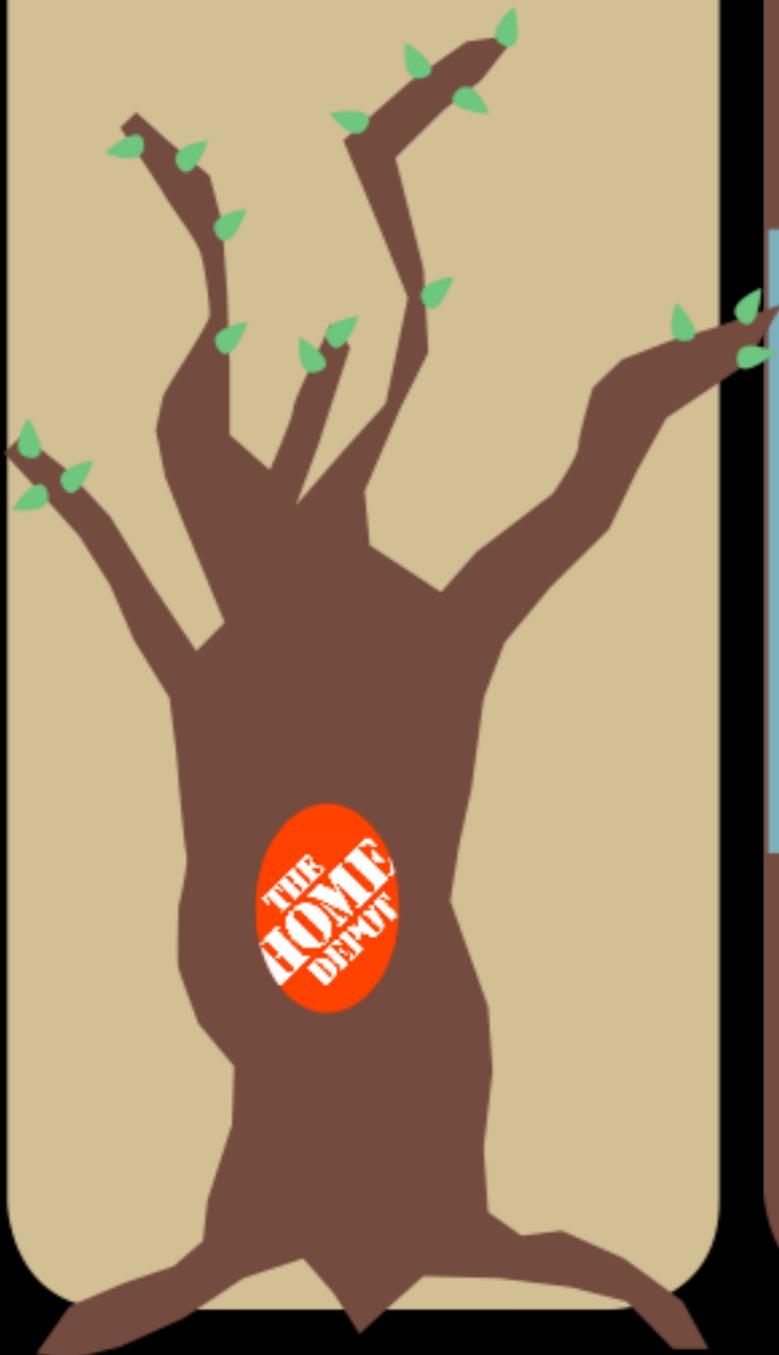
Analyze

Synthesize

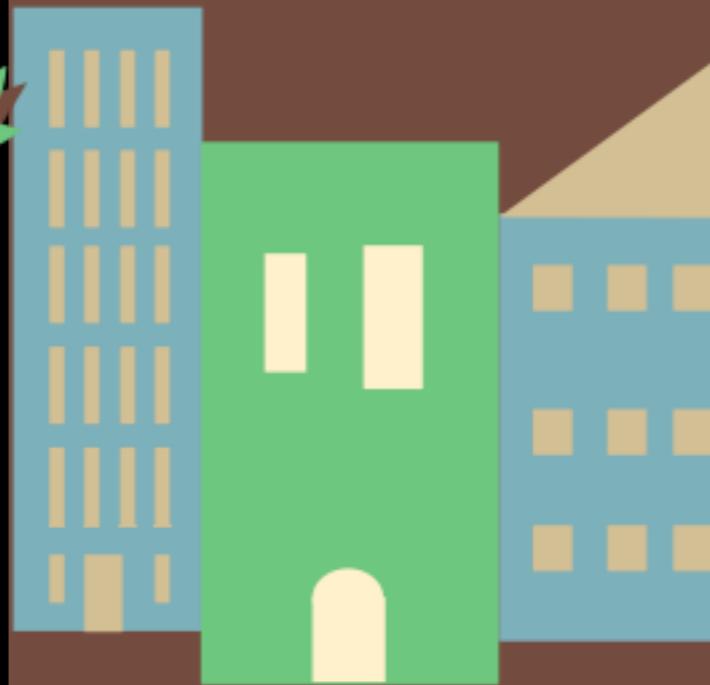
Research

Implement

Home Depot



Contractors



Power Companies



Analyze

Synthesize

Research

Implement

