RAPID PROTOTYPING

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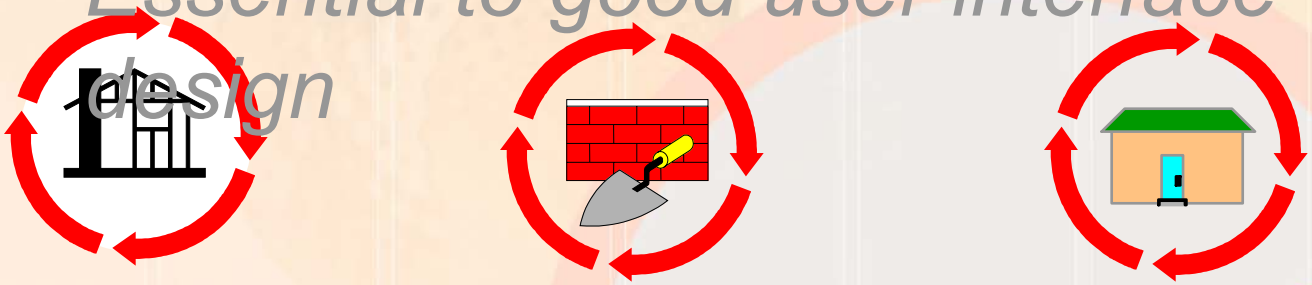
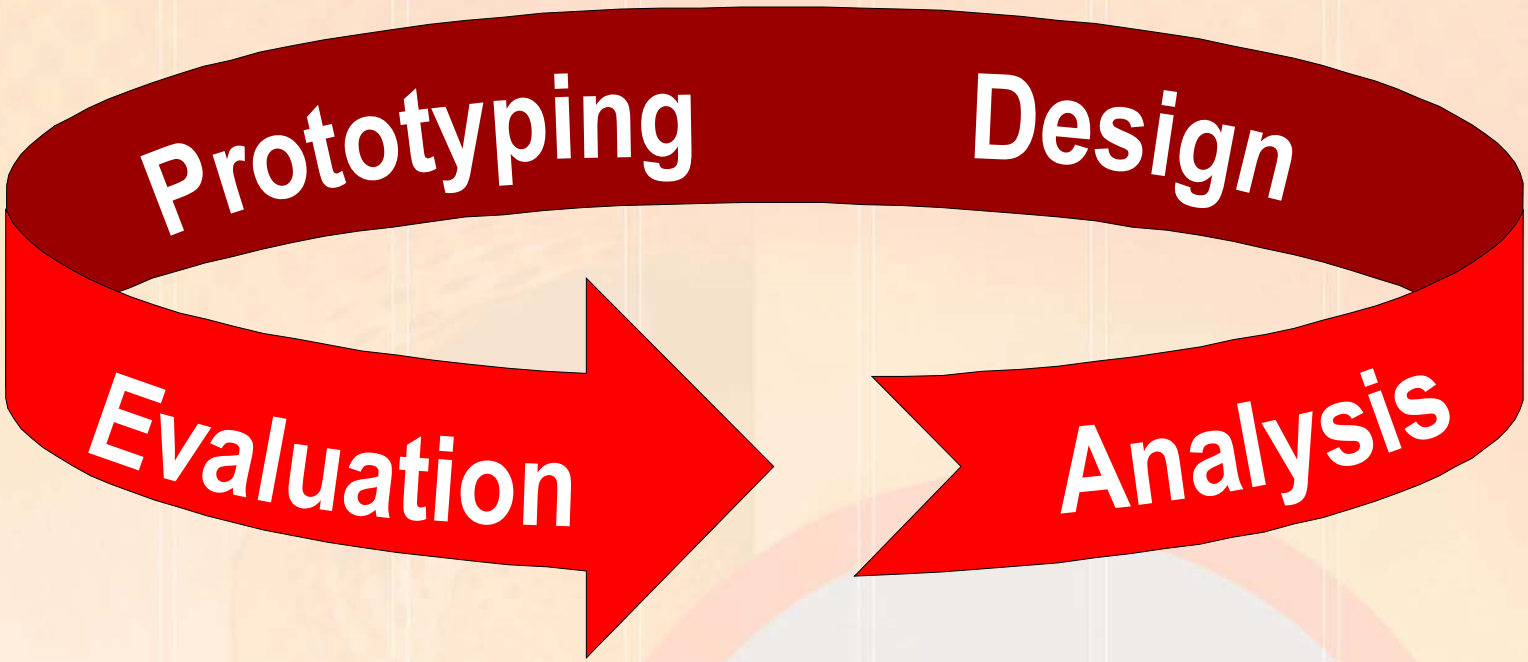
Rapid Prototyping

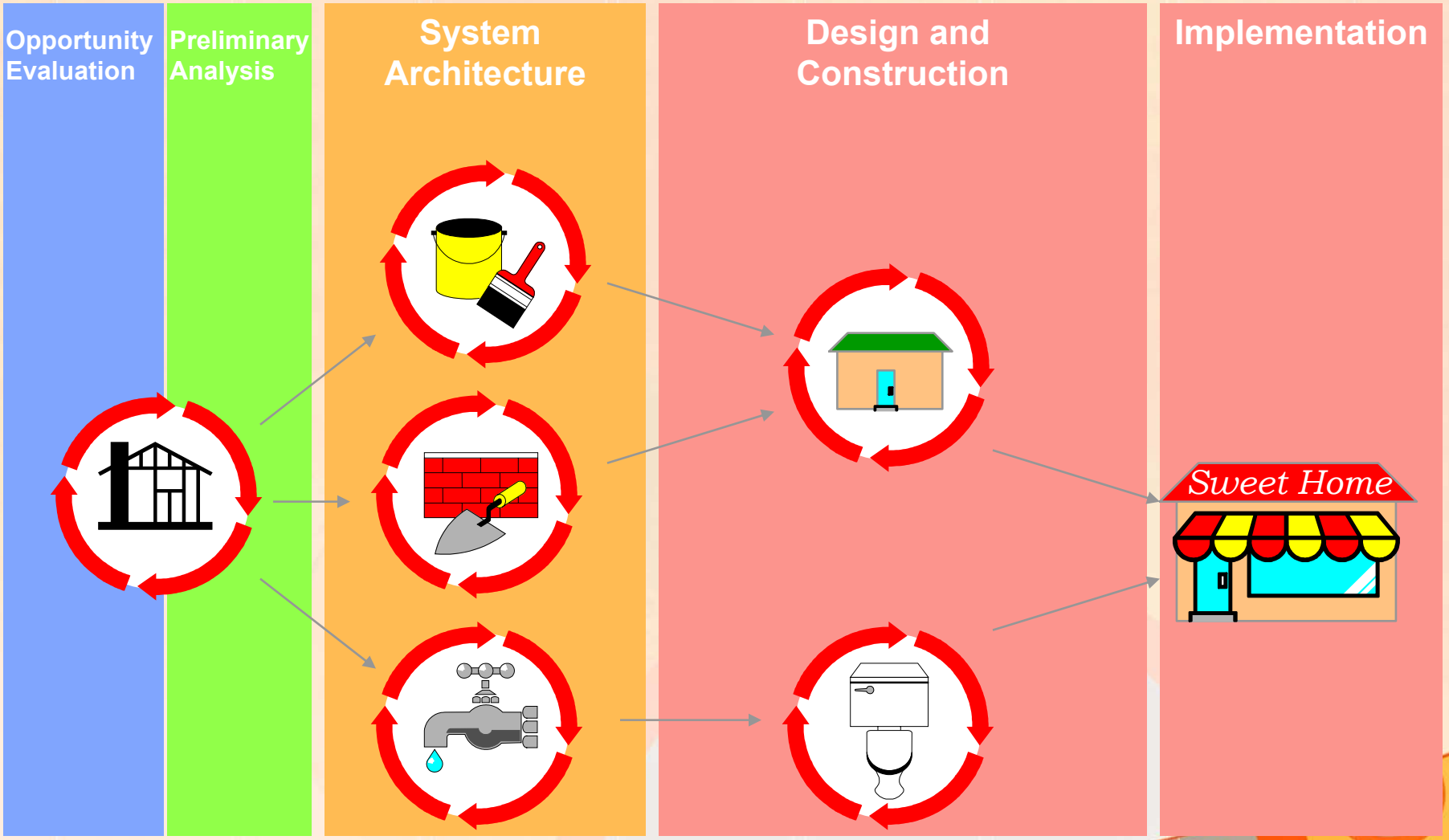
- *Used for* components *or* decisions *rather than entire system*
  - *to explore (exploratory prototyping)*
  - *to build and validate some aspects of the final product (evolutionary prototyping)*
- *Essential to good user interface design*



Rapid Prototyping

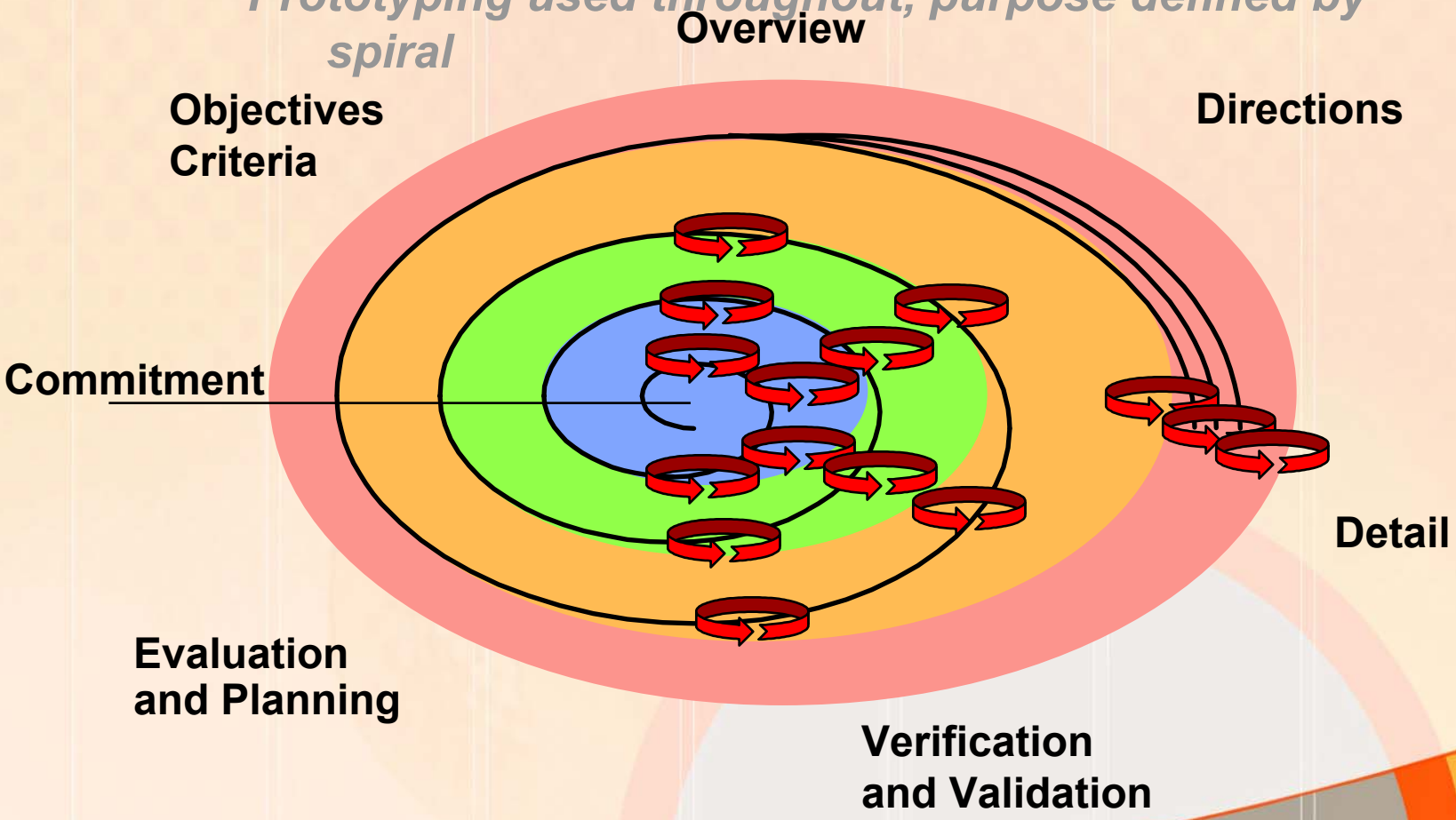


Rapid Prototyping



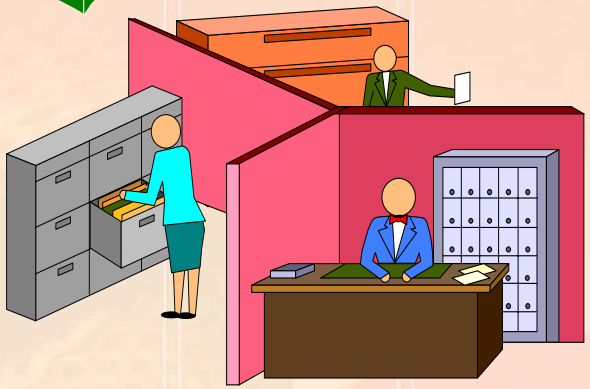
Rapid Prototyping Vs Spherical Development

Prototyping used throughout, purpose defined by spiral

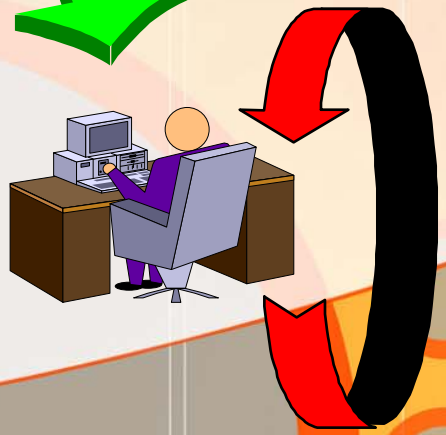


Usability

Users



Work Processes



User-Interface Prototyping

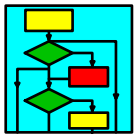
- *Usability enables organizational flexibility and user productivity*

User Interface Design Techniques

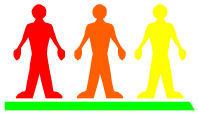
Principles & Guidelines

Technology

Users



Task Analysis



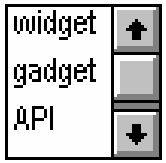
Population Analysis

Usability Goal Setting

Analysis

Automation design

Dialogue Design



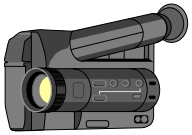
Presentation design

Design

High fidelity prototyping

Low fidelity prototyping

Prototyping



Usability testing

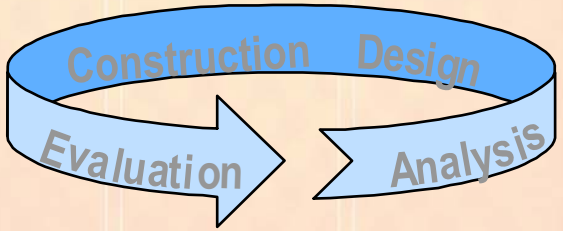
Usability Inspection

Usability Inquiry

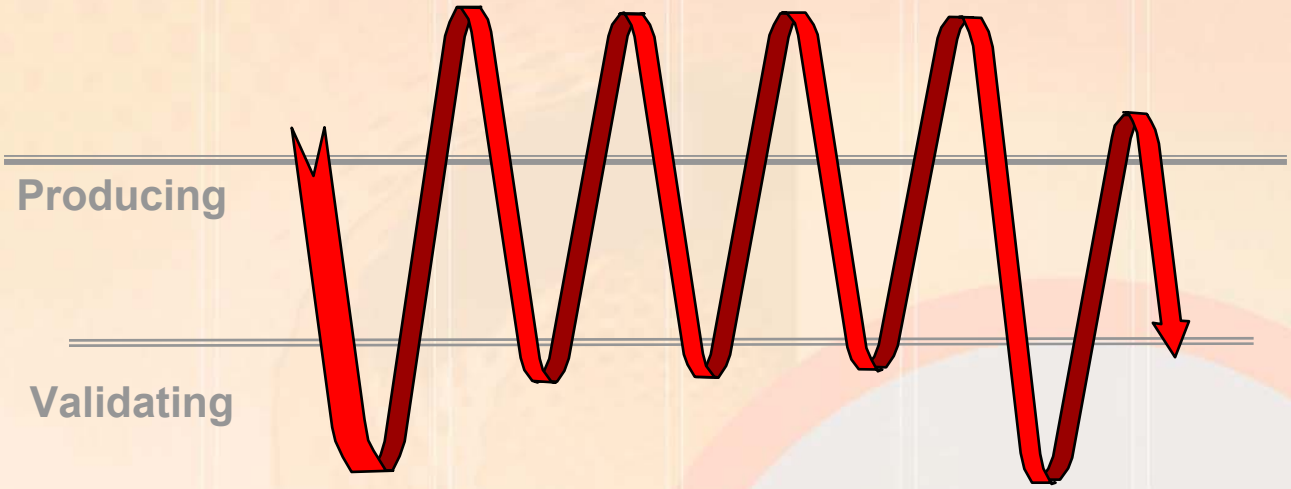
Evaluation

Iterative approach

- *Get feedback*
- *Sort and prioritize*
- *Discuss*
- *Achieve consensus*

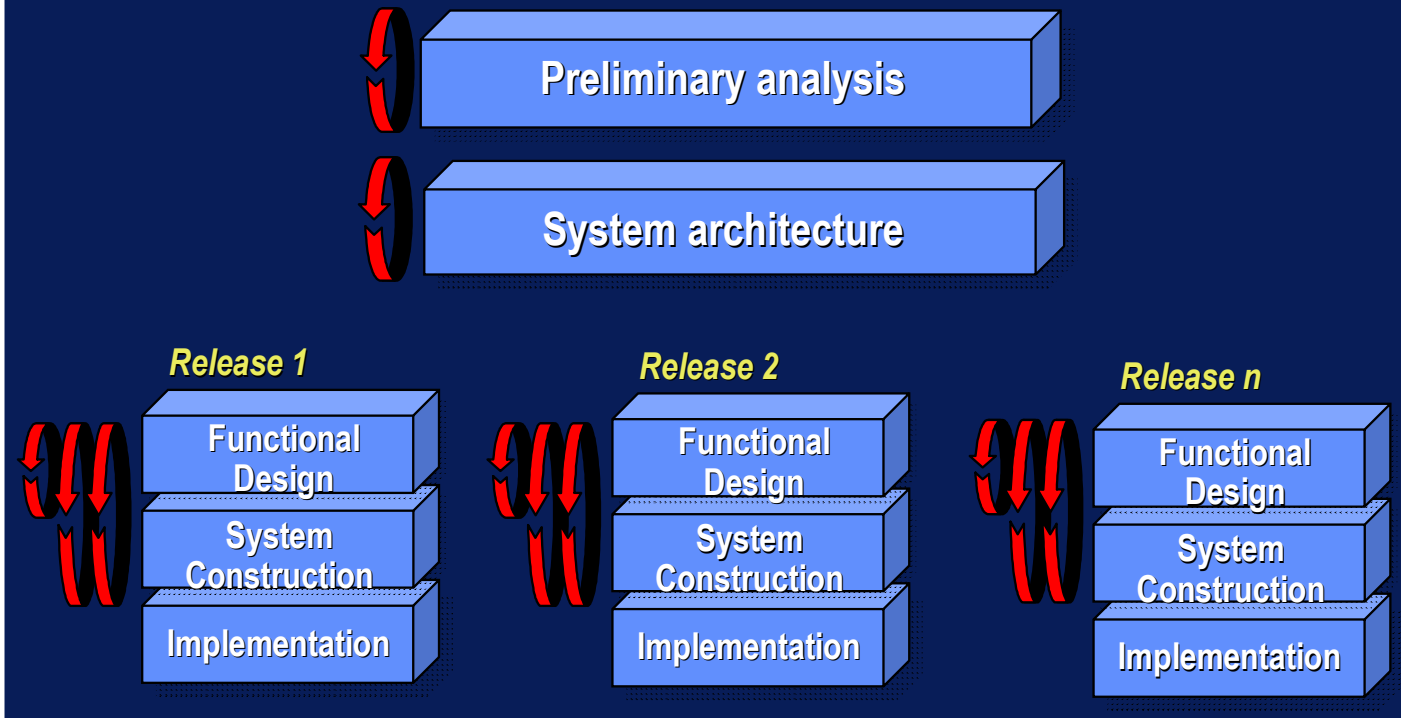


Validation Cycle



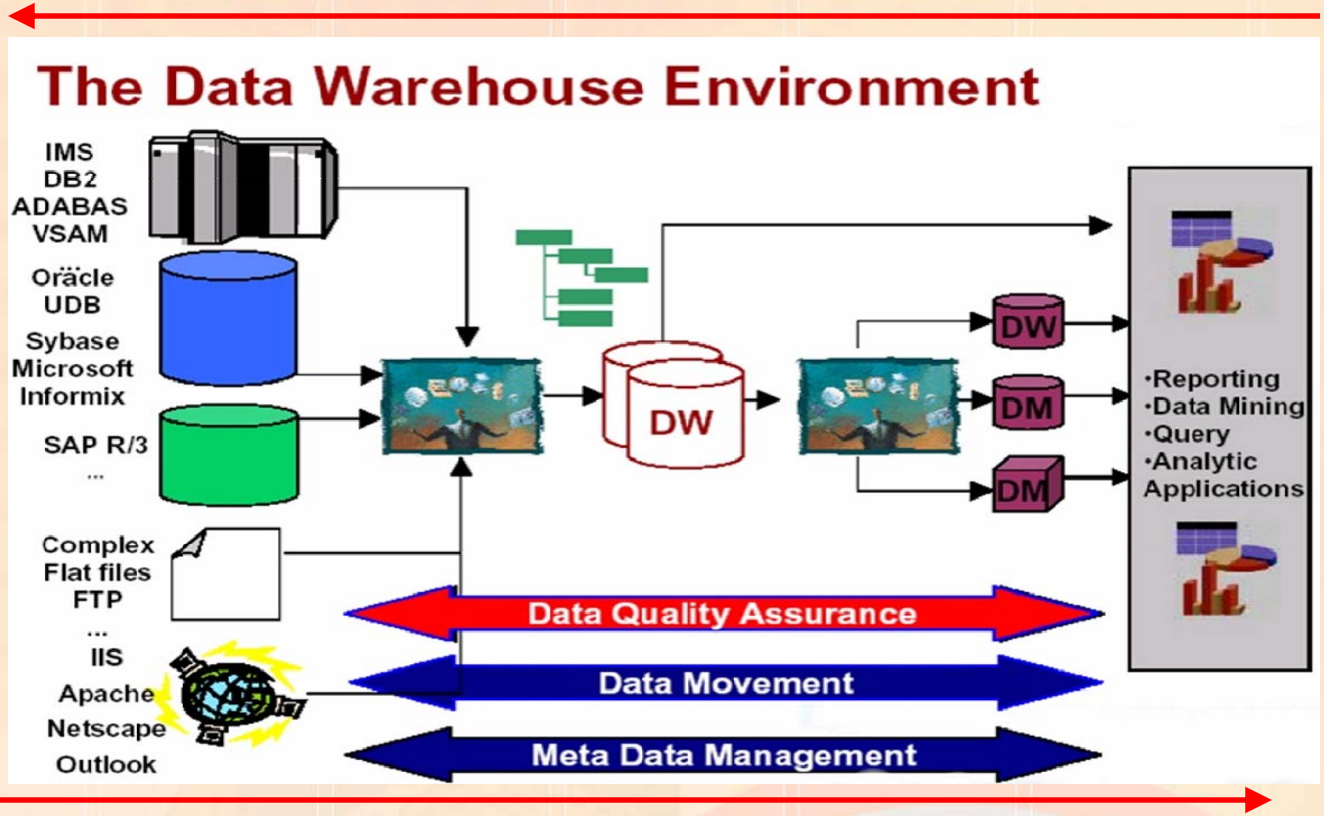
Continuous Validation

Prototyping is Mainstream



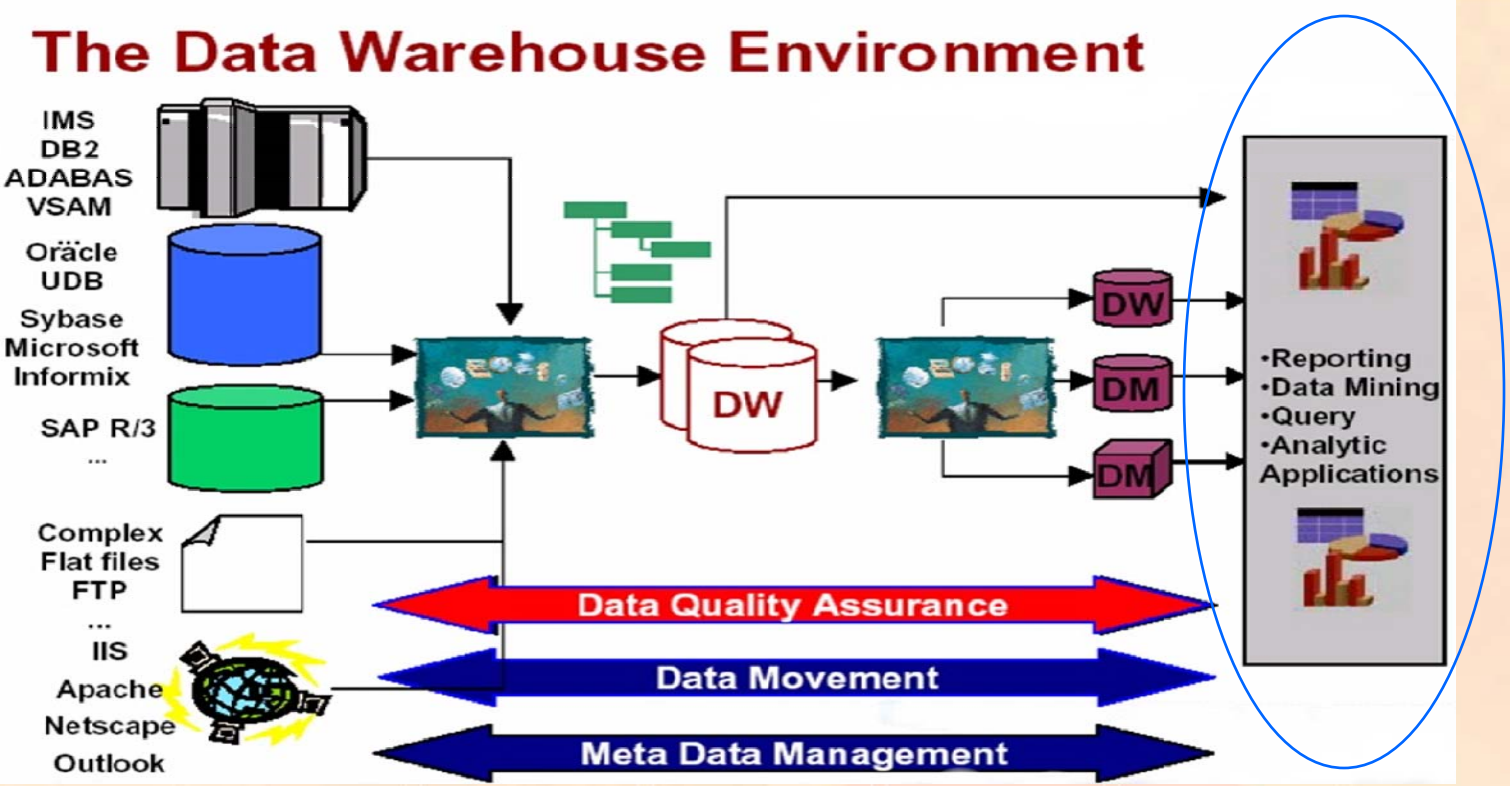
Prototyping is essential in developing usable systems and in reducing technological risks

Data Warehouse Development



- *Requirements: work right to left*
- *Construction: work left to right*
- *Rapid iterative cycles of builds*
- *Don't build a Data Landfill*
- *Remember why you're doing this – find a killer performance metric*

The User Interface

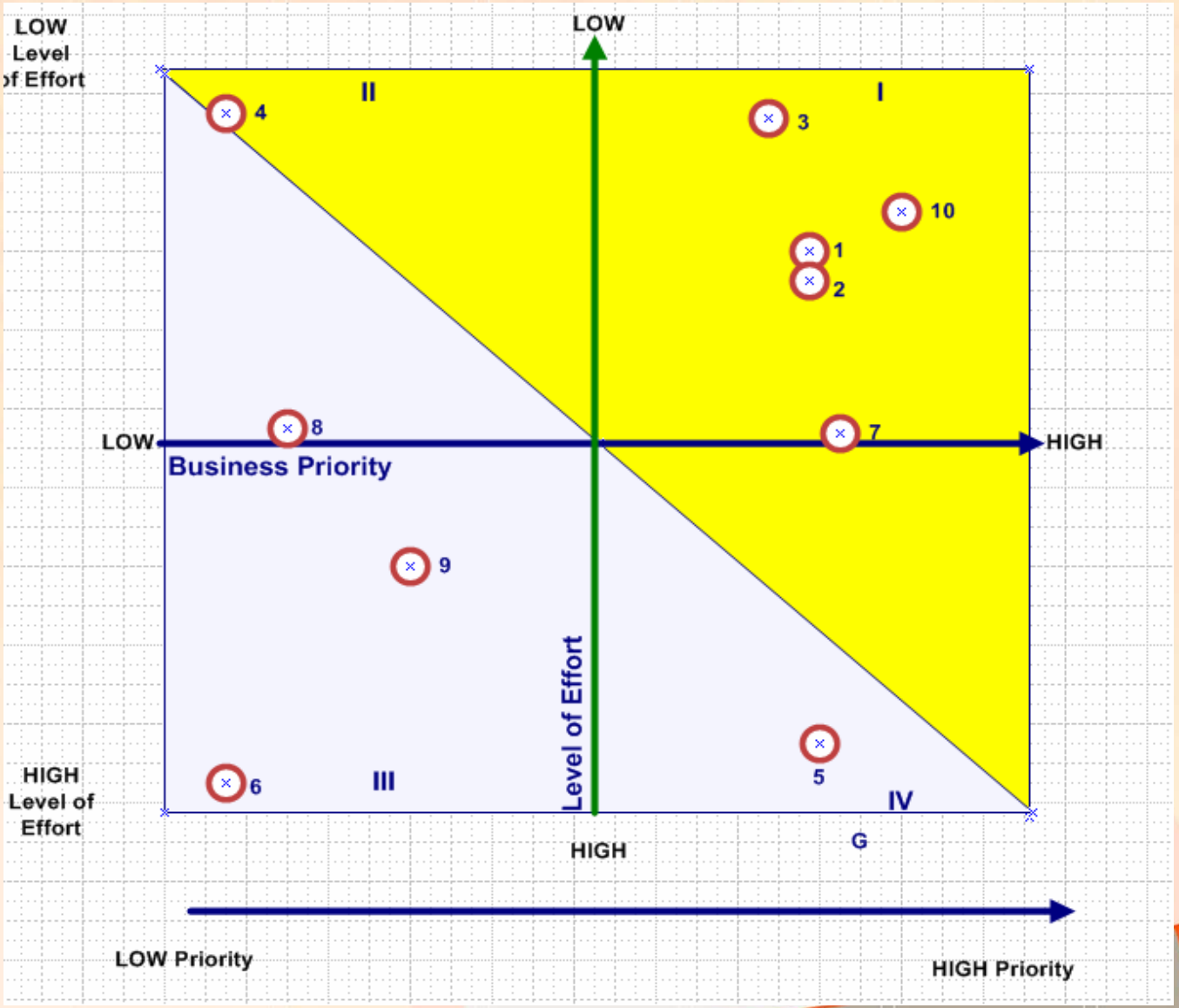


- *Query tools: life span is 12 to 24 months*
- *Largest investment is often user learning*
- *Browser based solutions can dramatically reduce deployment costs for occasional users*
- *Consider a heterogeneous approach*

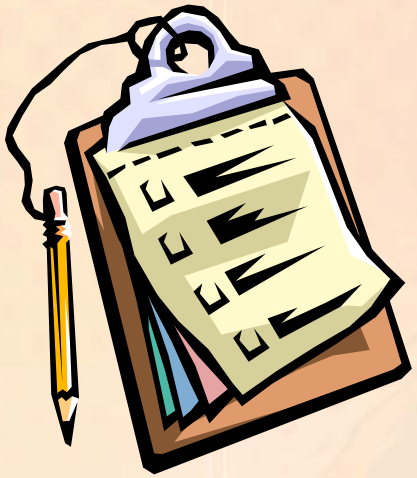
Ranking Opportunities

- *Group requirements into opportunity areas*
  - *Product Margin Analysis*
  - *Sales Analysis*
- *Grade opportunities by importance*
  - *Actionability of Information*
  - *Materiality of Impact*
  - *Tactical Vs Strategic Focus*
- *Grade opportunities by difficulty*
  - *Cross-functionality of Design*
  - *Existence and Accessibility of Data*
  - *Complexity of Calculations*

Creating the BI Opportunity Scorecard



Developing an Implementation Strategy



- *Set Specific Goals*
  - *Phased Approach*
  - *Quick Wins with High Value First*
- *Build a Prototype*
  - *Design from Requirements, Not Data Structures*
  - *Solicit User Feedback Frequently*
- *Construct Production Platform*
  - *Test Each Component with Small Volumes*
  - *Scale Up Incrementally*
- *Train the Users*
  - *Provide Training for the Tool and the Data*
  - *Institutionalize System Usage*