

Enabling Data For Automating Capital Facility Decisions Through Scenario Based Planning

OPS Support Tools & Processes

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Driving Forces Enabling Innovation

***Information systems are developed around
the available forms of communication***



We are evolving.....
from paper-centric to an info-centric process
from conversation to communication
from outputs to outcomes
from ad-hoc to standardized

- CAD to BIM
- Text to Database
- E-Mail to Portal Workflows
- Unstructured to Structured Data
- Knowledgeable Workers to Knowledge Management
- Stovepiped Disciplines to Collaborative Teams

Lag Time in Decisions

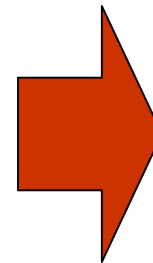
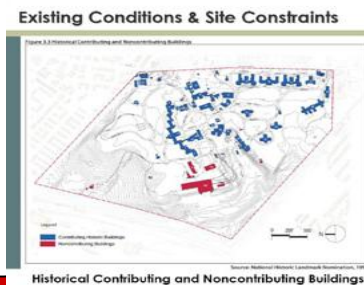
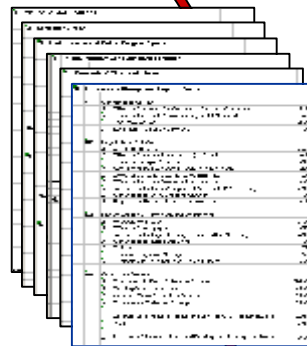
- It is estimated that 30% of time on design is spent waiting on information or designing without complete information.
- By focusing on enabling data we reduce the lag time from design option to project decision
- These tools allow the maximum number of decision makers to view the same data
- See ramifications of decisions against the project criteria

Project Data Issues Addressed by Process Data Development, Use, Sustainability



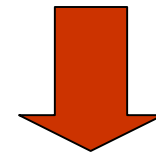
One-Way Data

Limited Integration and Re-Use Capability



New Studies Re-Create or Re-Process the Data

Alternative #	Area (sqft)	Area (sqft)	Area (sqft)
Buildings	Above grade	Below Grade	Total
Group			
A	524,500	50,500	575,000
B	1,841,900	129,800	1,971,700
C	423,900	47,800	471,700
D (HSCC)	1,058,800	115,700	1,174,500
E	4,300	500	4,800
F	574,000	307,000	881,000
Total	5,759,100	740,900	6,500,000
Parking Structures			
Parking Spaces	2765	2542	5307
Area (sqft)	947,750	889,800	1,837,550
Grand Total	4,724,850	1,830,800	6,357,650



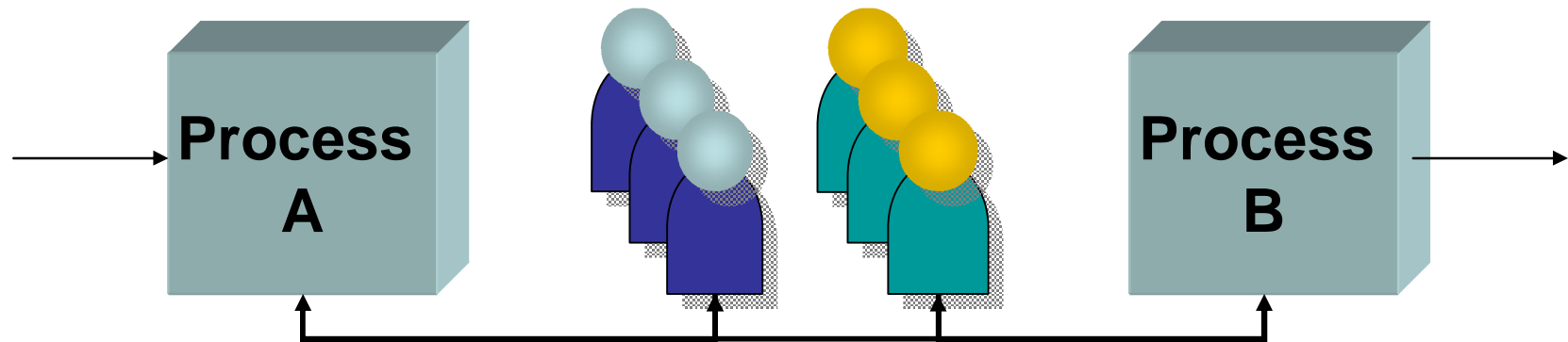
Formats Don't Support Automated Analysis
Analysis = Simulation



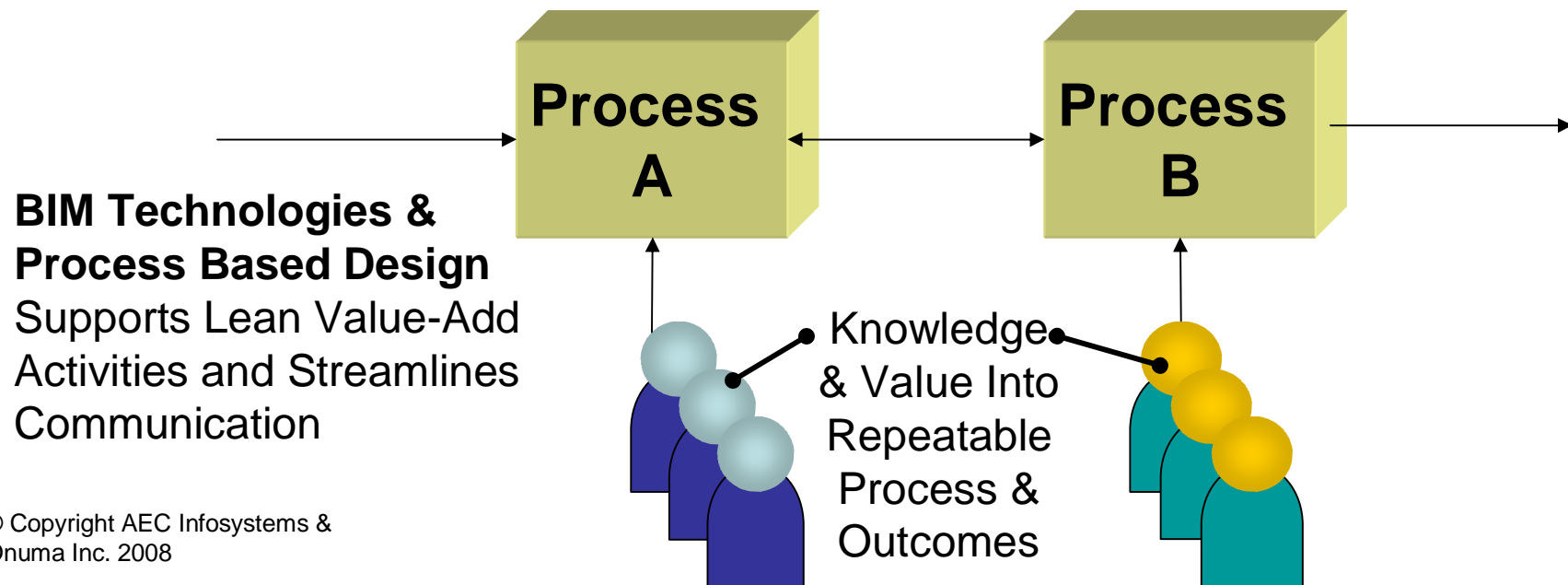
Static Data

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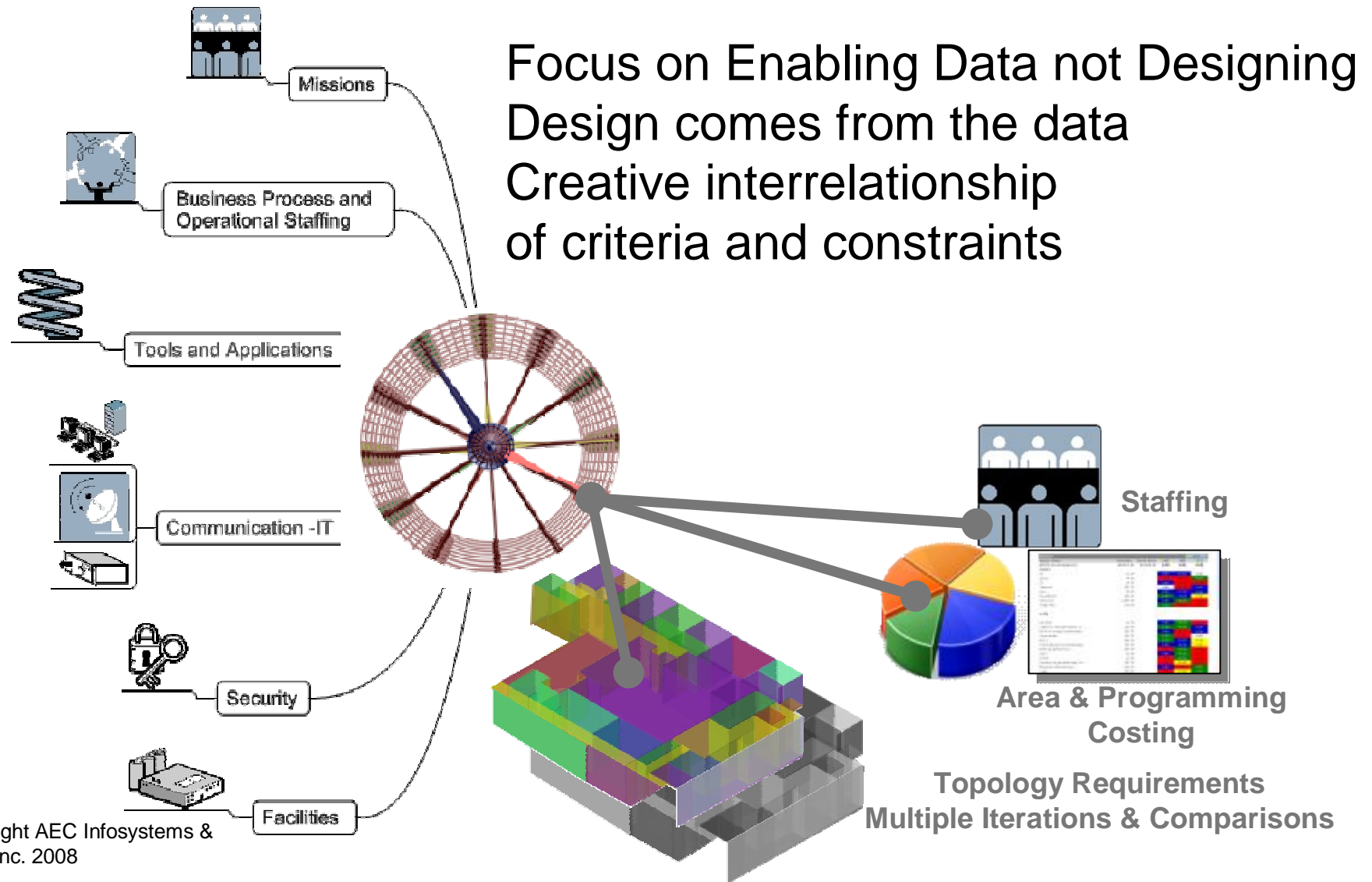
Benefit: Reduction of time to insight.
Data re-use supports project decision making and on-going change management



Paper and Current Ad-Hoc Based Design

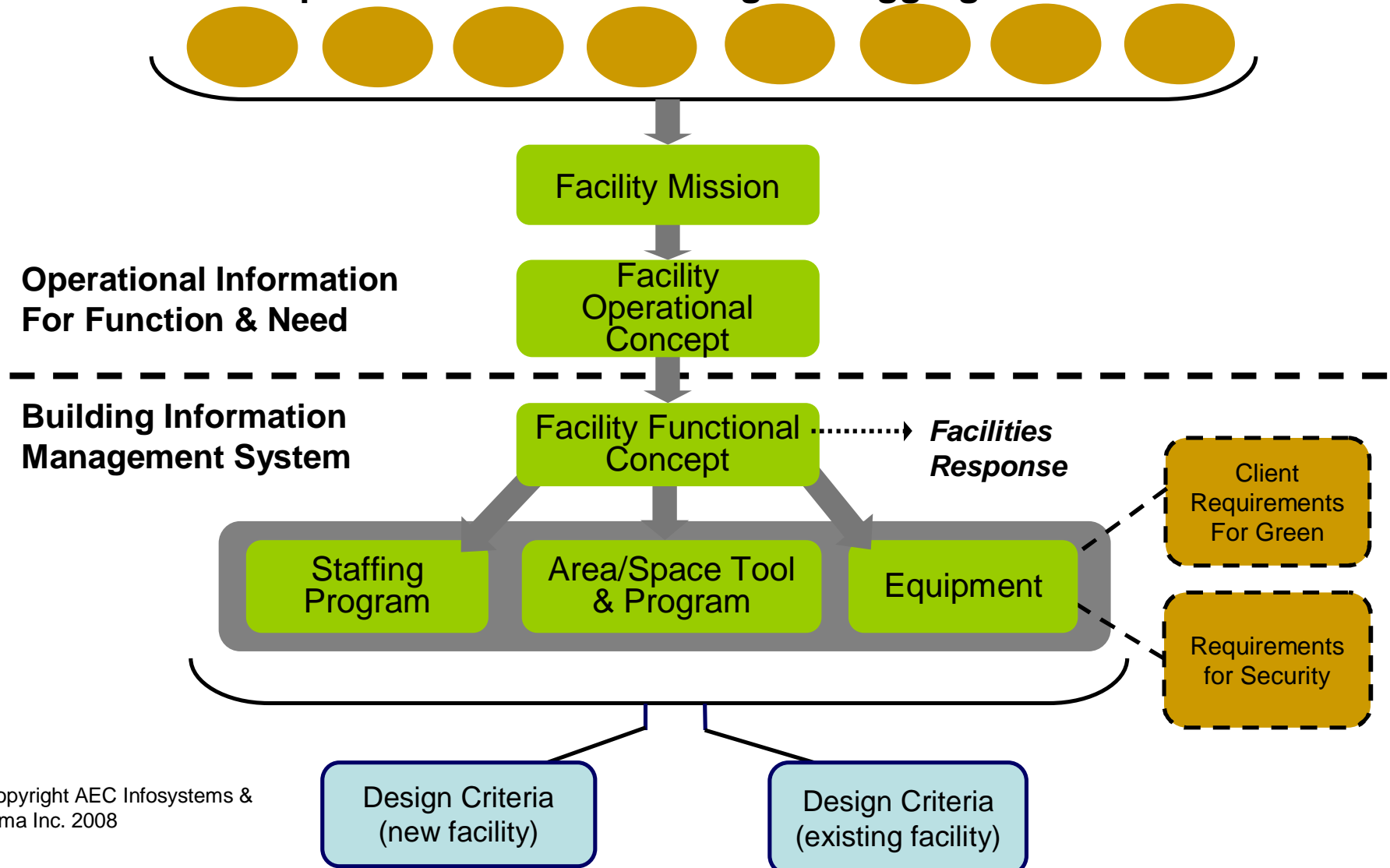


Data Aggregation & Relationships



Products for Outcomes

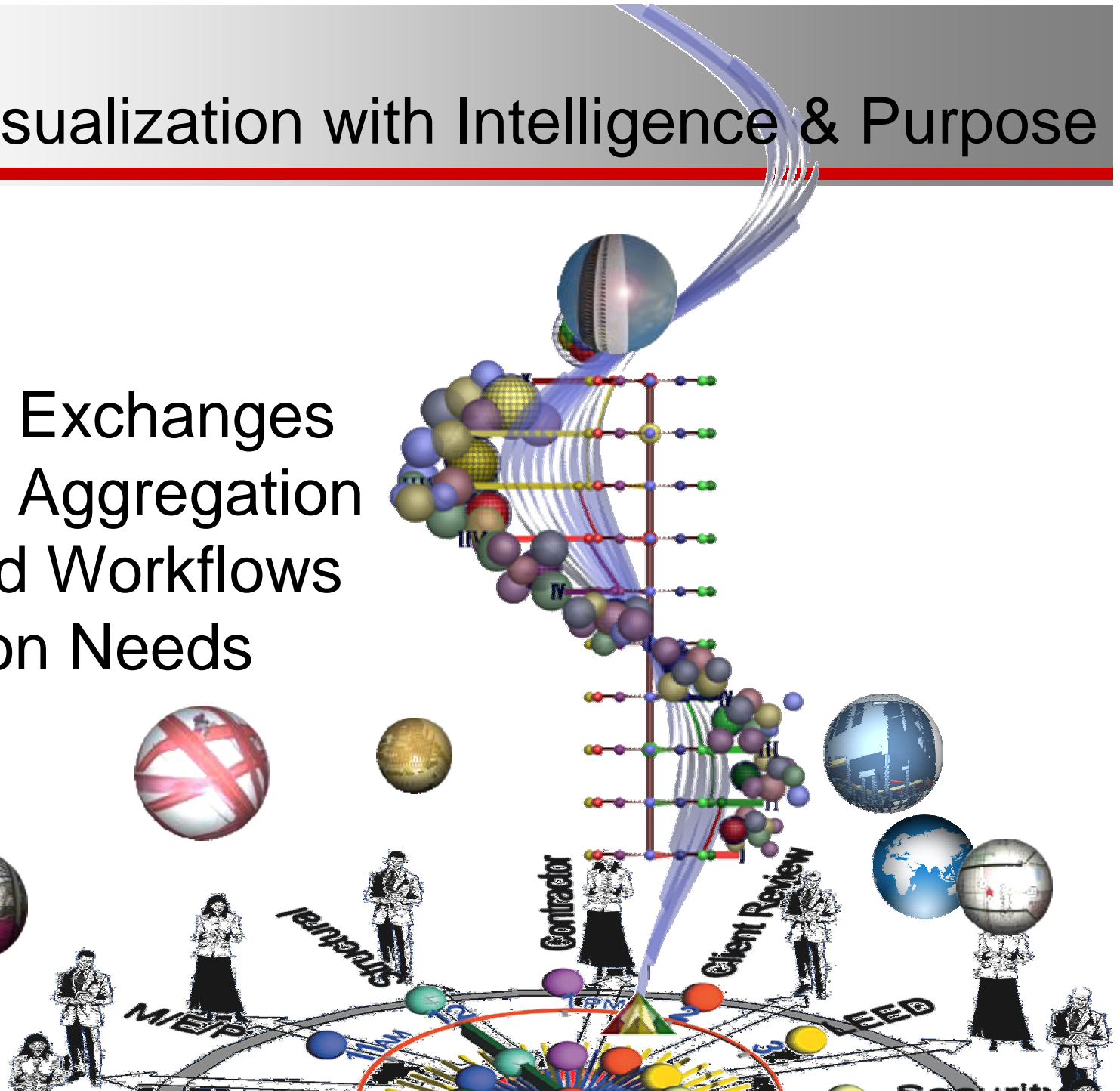
Core Requirements Understanding and Aggregate Data Sets





Visualization with Intelligence & Purpose

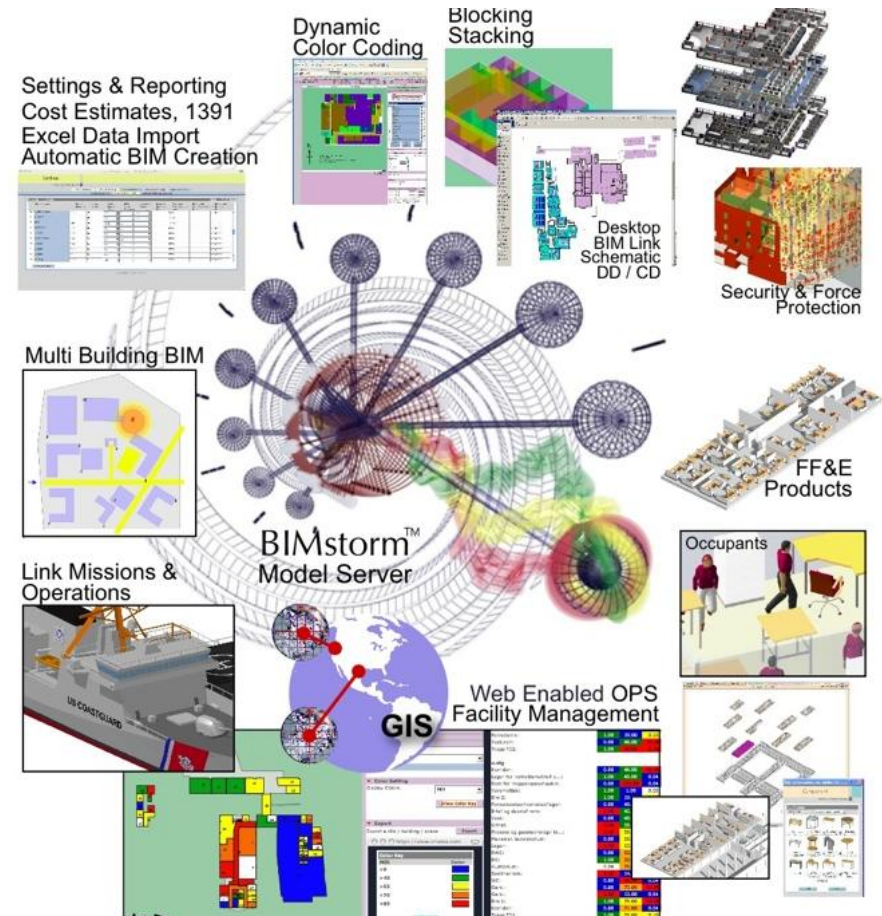
Information Exchanges
Information Aggregation
Built Around Workflows
and Decision Needs



ONUMA Planning System-OPS

- **Web-enabled Mission or Operational Based Requirements Planning for Facilities**

- Supports Mission to Facility Linkage
- Real Property Inventory
- Facility Metrics
- Functional Spaces
- Equipment
- Organization to Space Linkage
- Occupants and Space
- Costing
- Multiple Scenario Comparisons
- Downloads to major CAD/BIM software



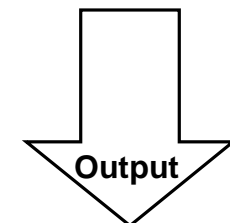
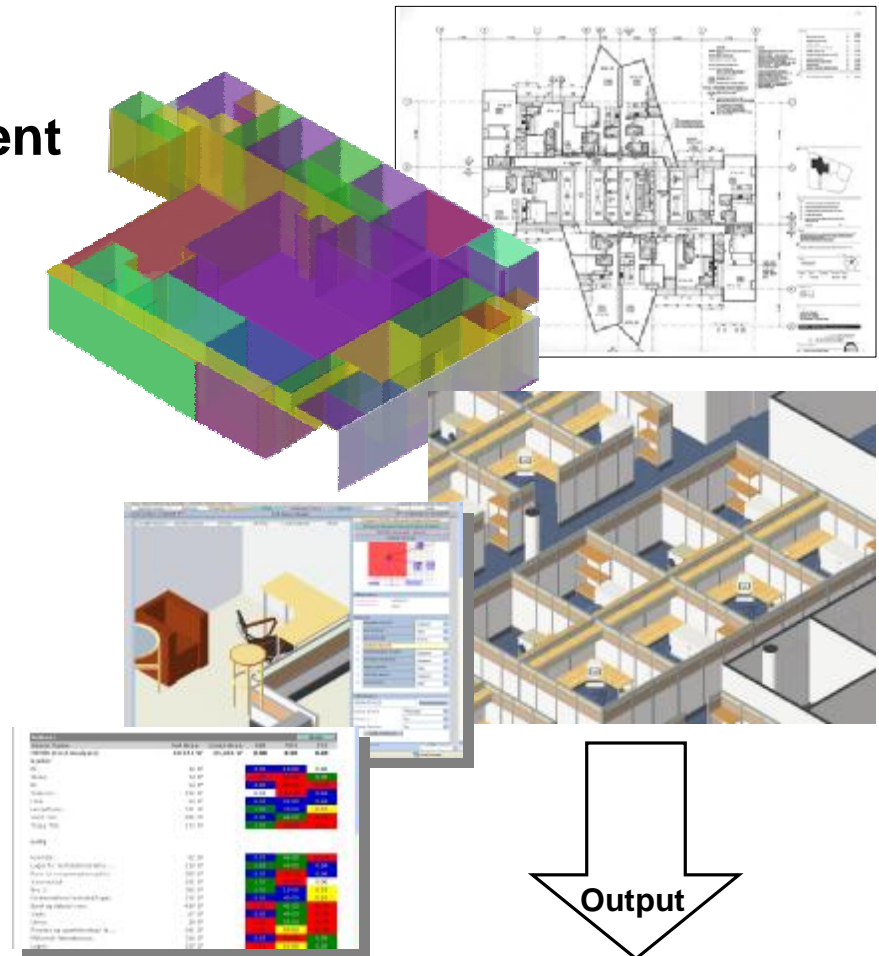


Backbone of Process Change

- The enabling environments of WEB, Databases, and Visualization of Data are core components of Scenario Planning
- Move from Application and desktop (singular) to Web and collaboration
- Requires a process approach to design automation
- Built on Open Data and Standards to Allow Maximum Participation

Views of Critical Project Data

- High Level Programming from client
- Space and Functional Inventory
- Facility Metrics
- Project Principles
- Spaces & Components
- Equipment
- Functional Space Linkage
- Occupants
- Costing
- Multiple Scenario Comparisons
- Downloads to major CAD/BIM software



Staff/Area Program
Functional Concepts
Space Typologies

US Coast Guard Operations Planning

ArchicAD File from API (-XML)

XML File 180K Furniture
IFC File 240K Spaces and Floors

API from XML File
Creates All Floors
Zones
Furniture in Archicad

Web Enabled Planning System + Archicad API

Project: OCCSU
Scheme: OCCSU Y8 2 Bldgs
Building 1 - Floor 1

Spaces

1. BUILDING PEOPLE SUPPORT AREAS
2. FIRE TECH ELEC ROOM ALARMS
3. TELECOMS ELECTRONIC EQP
4. ELEVATOR MECHANICAL
5. VERTICAL CIRCULATION
6. DC LOCKER
7. LAW ENFORCEMENT TEAM
8. SHIPMENT READING ROOM
9. COMPUTER BASED TRAINING CLASSRM
10. WOMENS
11. MENS
12. PERSONAL STORAGE FOR CREW
13. WORK AREAS
14. SMALL BREAKOUT RM.
15. JANITORIAL STORAGE
16. CONFERENCE ROOM
17. CONFERENCE ROOM SECURE
18. CO OFFICE
19. RECEPTION
20. COFFEE MESS
21. XO OFFICE
22. Corridor
23. ADMIN OFFICE
24. RECEPTION

Move Spaces

Floors

Ghost Floor: (None)

1. Floor 1

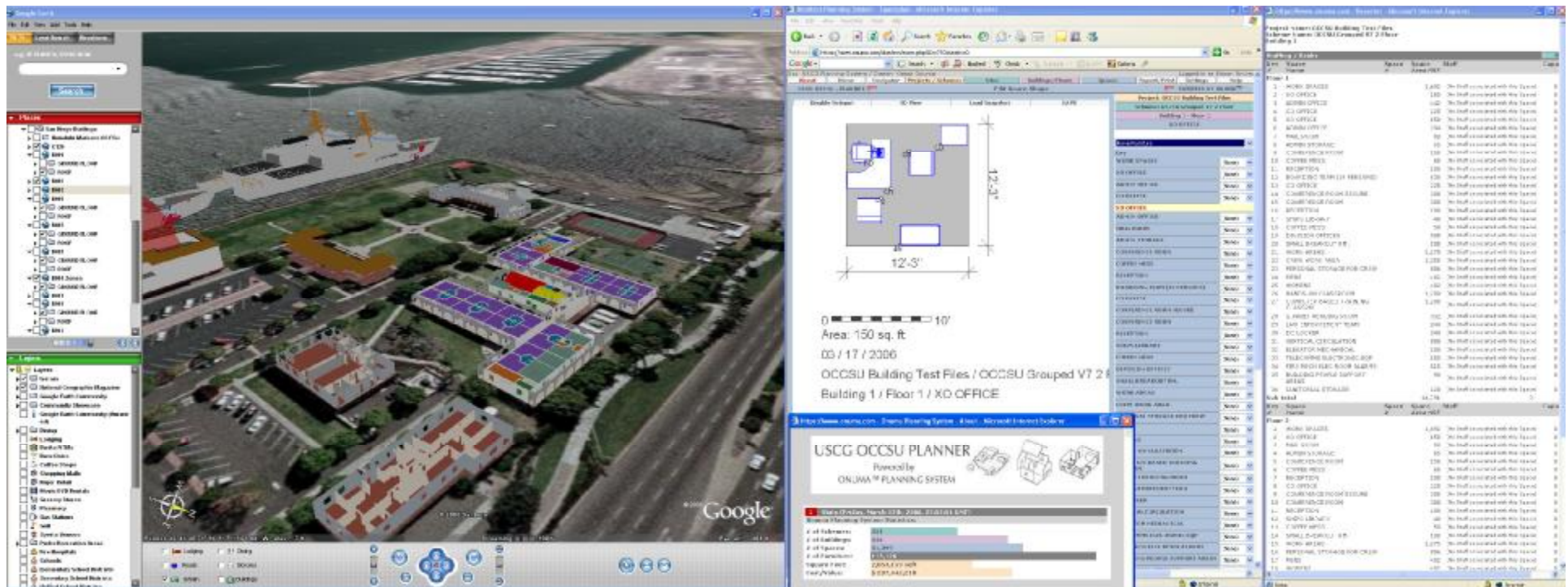
2. Floor 2

3. Floor 3

Add Floor ☐ (Including Spaces)
(Floor shape will be the same as current floor)

Edit Floor:
Floor Shape: User Defined

US Coast Guard Operations Planning





St Elizabeths Campus



Google Earth





Moving From Ad-Hoc to Industry Knowledgebase



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Please [contact us](#) if encounter any difficulties with the login.

Sign in:

Username

Password

☐ Remember Username and Password
(For this Computer to "forget" this information you can use the "logout" link at the top right.)

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