

Repair, Replace, or Upgrade? How to make the right choice

An Introduction to Asset Lifecycle Model
for Total Cost of Ownership Management

*Presented by:
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How much does it cost?



\$1.00



\$3.50

When does it cost \$1.00, or \$3.50?

*Just after you buy it,
before you use it!*

What do you do when your car needs major repairs?

Repair ...

Replace ...

Upgrade ...

Go ahead and fix it

Find a similar used car

Buy a new (and fancier) car





How do you shop for a car?

- *Dealership visits*
- *On line research*
- *Advice from your friendly garage*
- *Consumer Reports, Car and Driver, other magazines*

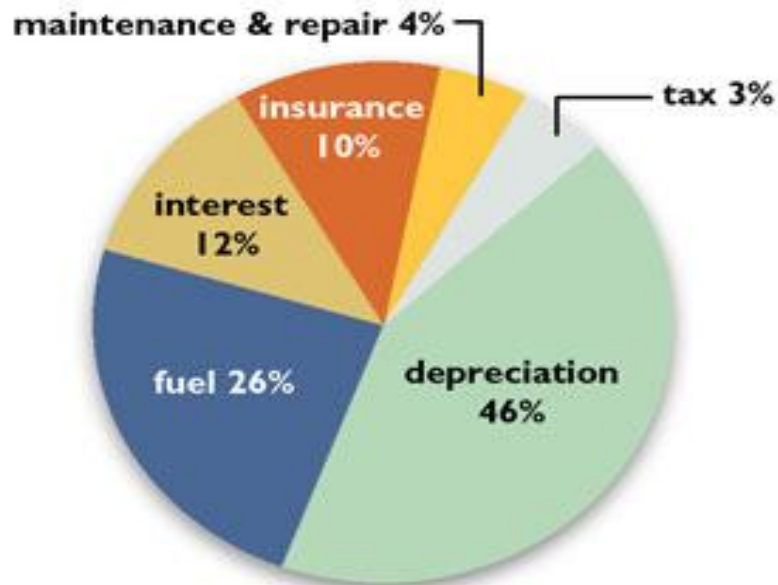


How do you compare prices for a car?

- *Initial price*
- *Trade in for your clunker*
- *Cost of ownership*

Research by Consumer Reports

Where does the money go?



Ownership costs break down over five years, based on their study of more than 300 vehicles.



Cost of ownership comparison

"A Toyota Highlander can cost you \$3,000 more to purchase than a Ford Explorer V6, but owning the Ford after five years can cost \$6,750 more."

*Consumer Reports,
August 2008*



Looking to buy a car?

*Edmunds True Cost to Own® (TCO)
pricing system*

<http://www.edmunds.com/tco.html>

What about measuring and managing a facility's useful life?

- *Terminology*
- *Processes and practices*
- *Metrics and/or cost models*
- *Resources and skills*



Are you asking?

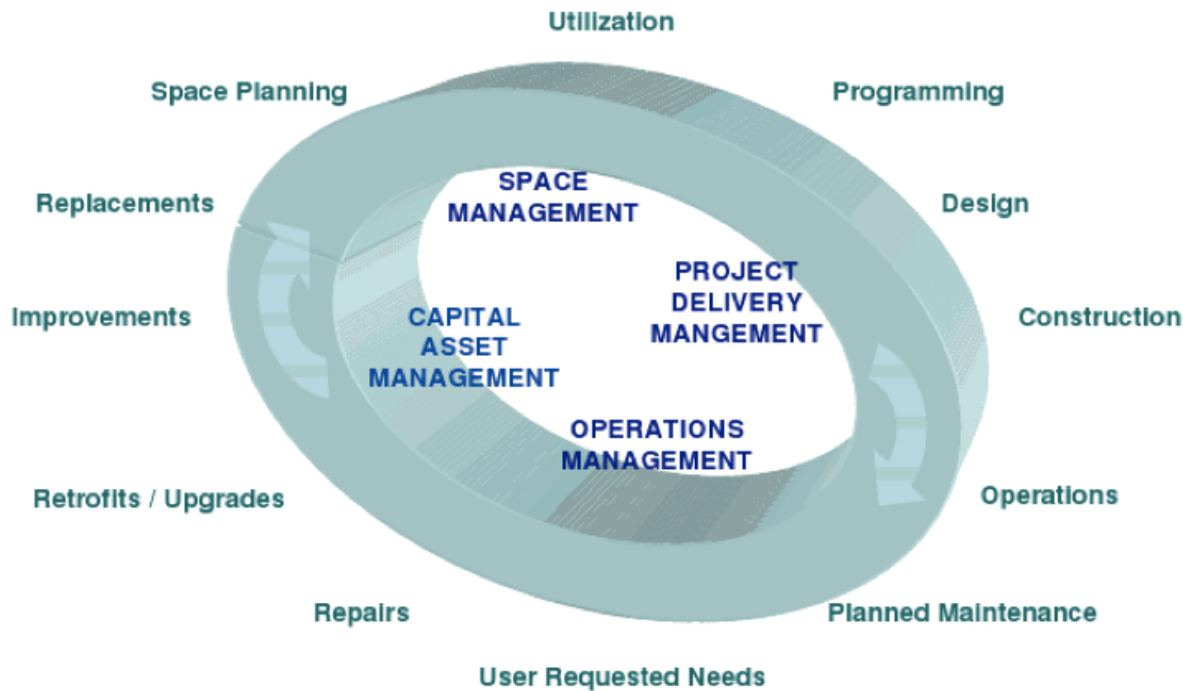
*Do I
continue to
repair, or
should I
replace?*

*Should we
move to
better office
space?*

*What
information
do I need to
make the
right
decision?*



Asset Lifecycle Model



Source: IFMA publication

The BIG Picture

HEADQUARTERS MODEL SPREADSHEET (LINK)

Contact Garry Brinton for the spreadsheet
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717-221-9700 x 122



What are the issues?

What data do you need?

How do you structure the analysis?

Resources:



www.facplan.com

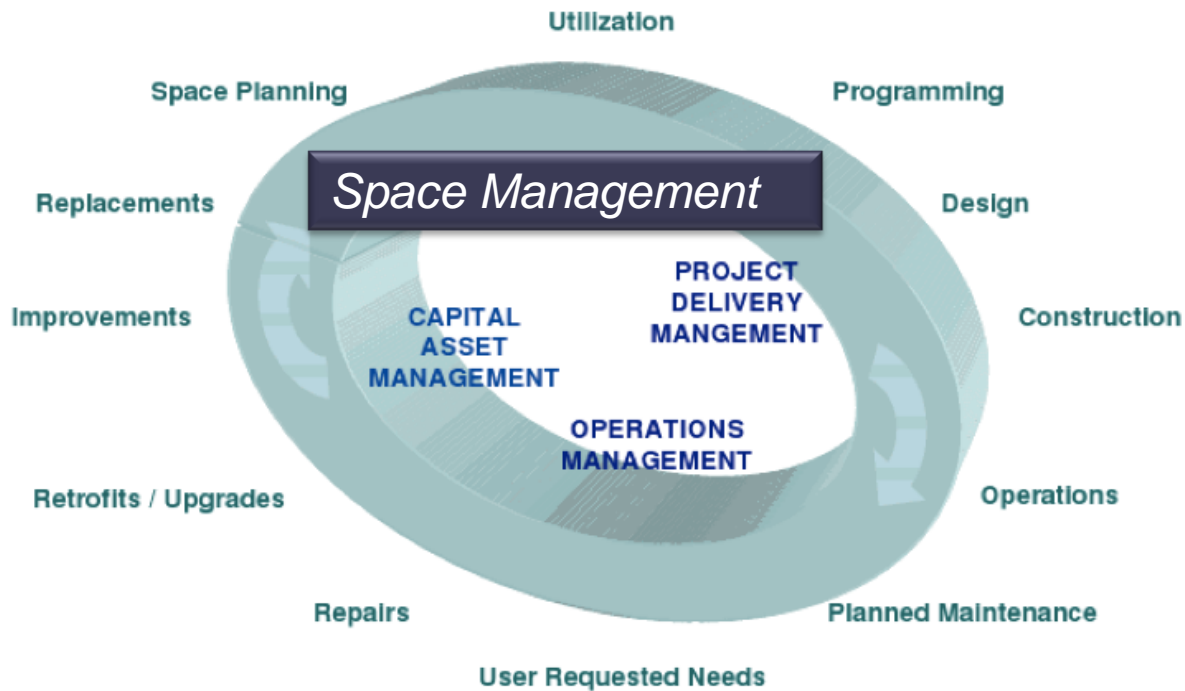
... and your own data



Total Cost Of Ownership (TCO) by facility lifecycle component

- *Space Management*
- *Project Delivery Management*
- *Operations Management*
- *Capital Asset Management*

Asset Lifecycle Model





Space Management

Space Planning and Utilization

- *TCO per square foot*
- *Churn rate (# of moves/# of occupants per year)*
- *Utilization rate (Occupied space/Usable area)*

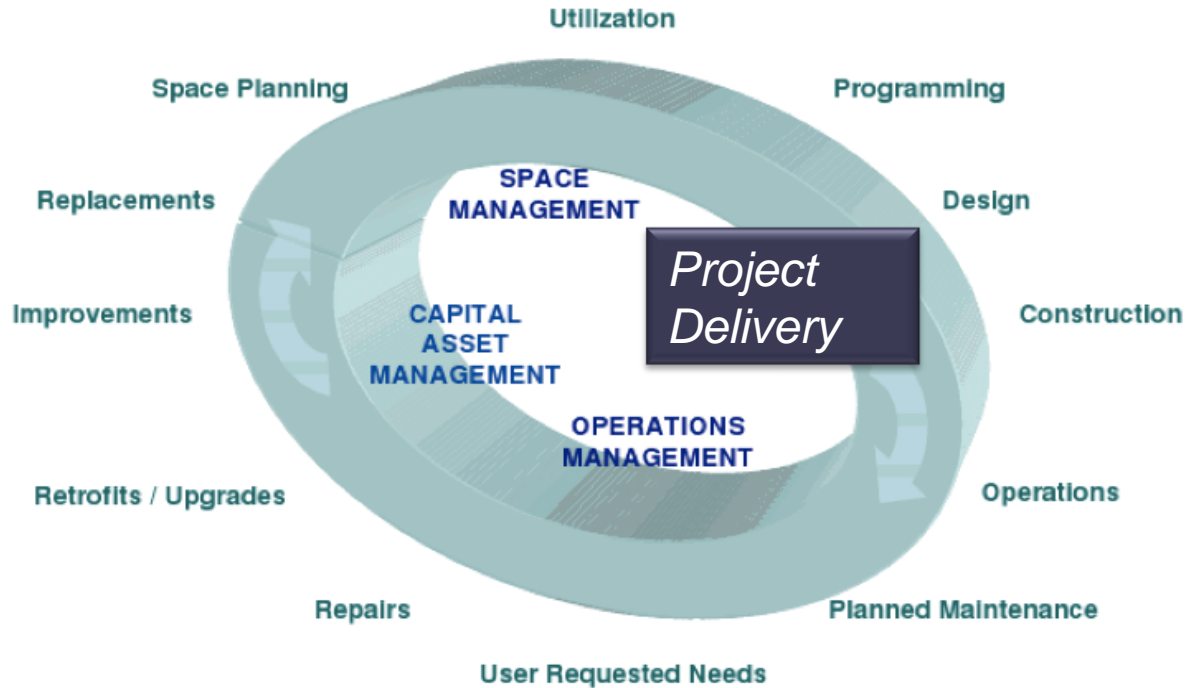


Space Management

Programming

- *Adaptation Index*
 - *Program or mission based condition*
 - *Program requirements/Replacement value*
- *Uptime - Amount of time suitable for the program(s) served*

Asset Lifecycle Model



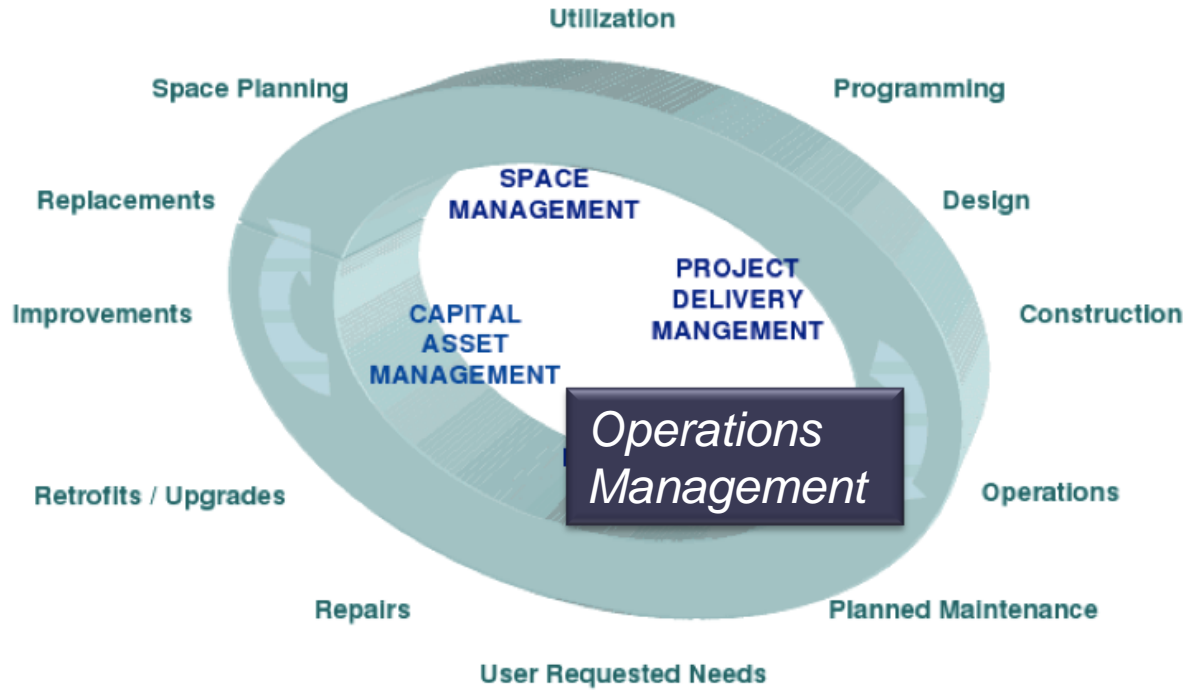


Project Delivery

Design and Construction

- *Cost estimating*
- *Delivery speed*
- *Project delivery*

Asset Lifecycle Model





Operations Management

Operations

- *Operating cost/SF*
- *Energy usage*
- *Replacement value index*

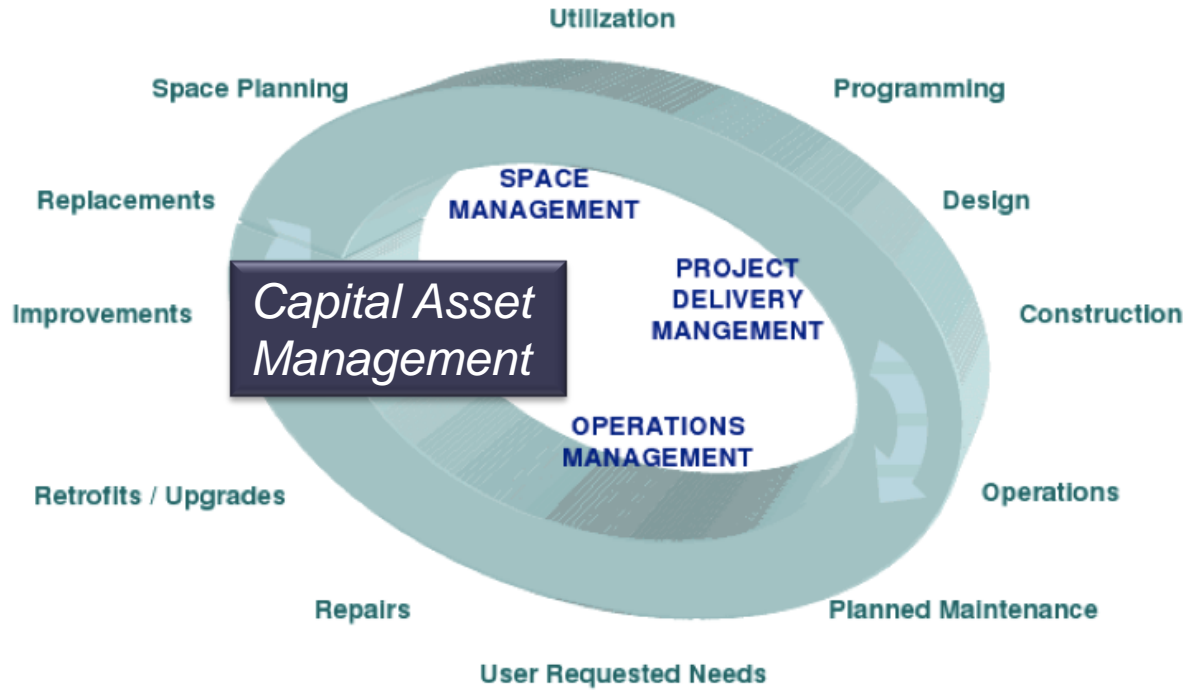


Operations Management

Planned and Unplanned Maintenance

- *PM cost/SF*
- *Emergency or unplanned maintenance costs*

Asset Lifecycle Model





Capital Asset Management

Retrofits/Upgrades, Improvements, and Replacements

- *Facility Condition Index*
- *Deferred maintenance*
- *Capital renewal*
- *Current replacement value*



Example of TCO Analysis

Need new 25,000 SF office space. Do you...

- **Repair** – *Renovate existing space, with hard walled offices and cube farm*
- **Replace** – *Move to new vanilla space, with same office features, lower rent*
- **Upgrade** – *Move to vanilla space, with new flexible office furniture and components*



Comparisons

25,000 SF new office space (TCO), over a ten year period

Repair	\$7,610,000
Replace	\$7,040,000
Upgrade	\$6,900,000

*.....and there are intangibles
(productivity, downtime,
attractiveness, etc.)*



Summary

Total Cost of Ownership

- *First costs + lifecycle operating costs*

Lifecycle Operating Costs

- *Space management*
- *Project delivery*
- *Operations management*
- *Capital asset management*

Repair, Replace, or Upgrade scenarios

Questions?

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