

Corporate Milestone 2.2.4

The Team



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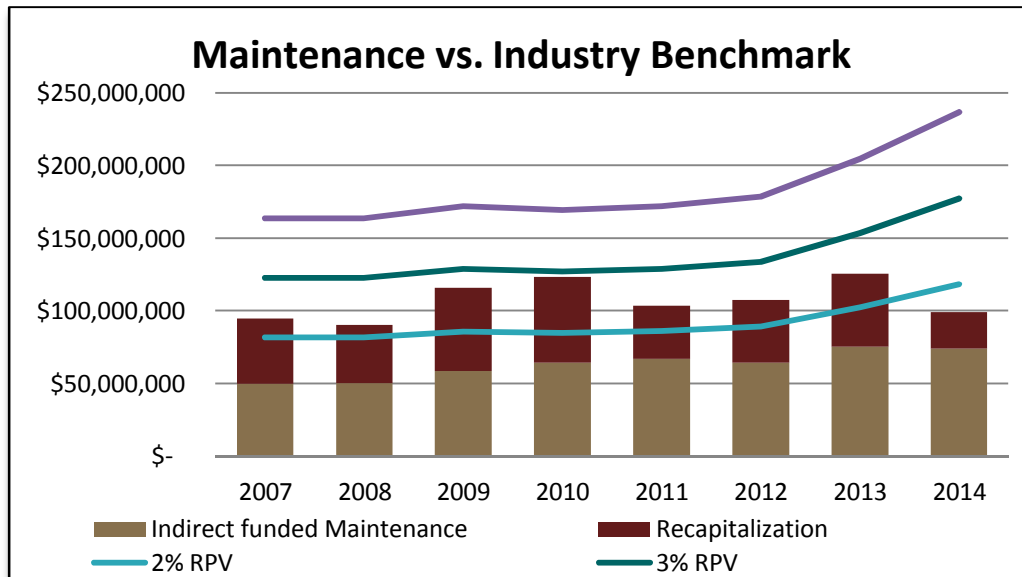
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Strategic Objective 2.2.4



Current State at Sandia

- DOE/NNSA Strategy & Policy:
 - Interagency Council on the Strategic Capability of the National Laboratories (MEC)¹
 - Freeze the footprint²
 - Segmentation³
- Aging infrastructure (avg. age ~35 years)
- Deferred maintenance is a significant issue
- F&I funding base steadily declining, particularly for line items
 - We believe that NNSA and WFO line item construction will not meet all institutional needs.
- Maintenance and Recapitalization
 - Industry Standard for maintenance: 2% of replacement plant value (RPV)
 - Additional 1% to 2% for recapitalization
 - Sandia: fell below 3% in FY13



1 <http://www.gpo.gov/fdsys/pkg/PLAW-112publ239/html/PLAW-112publ239.htm>

2 <http://www.whitehouse.gov/blog/2013/03/14/freezing-footprint>

3 http://www.im.doe.gov/Office_of_Business_Operations/Solicitations/RFP_Support/DOE_Directives/055_DOE_O_430_1B_Chg2.aspx?__taxonomyid=791







Approach

- Explored the current state
 - 10-year site plan, Governance Models, Alternative Financing, OSTP
- Benchmarked other Labs
 - MITRE, MIT-LL, DRAPER
- Applied Design Thinker (LSS) methodology to explore options
- Split into three themes/teams
 - **Sustain**: How might we sustain Sandia's infrastructure if all we had at our disposal were internal resources?
 - **Incentivize**: How might we incentivize WFO investment for SNL infrastructure and capital equipment?
 - **Accelerate**: How might we leverage a system that enables SNL to go from concept to gold shovel in 2 years for an outlay >\$10M?
- Synthesized and developed conclusions

Critical Precursors




- Success of all ideas presented in this milestone hinge on a strong partnership with NNSA HQ and SFO.
- NNSA must own, in partnership with SNL, the recapitalization of the Laboratory. Attraction and retention of the workforce depends upon infrastructure health to fulfill its national security missions.

SO2.2.4 Experiment Summary

Rating	Description
	Commercial Development/Mall Model Customers invest to complete space according to joint programmatic needs
	Strategic Utilization of Indirect Funds “Bank” year-end indirect funds and request permission to carryover
	Raise GPP Threshold From \$10M to \$25M
	Enhanced Burden for Infrastructure Investment Tax targeted (and witting) customers to create funds for infrastructure modifications.
	Enhanced 5-Year Site Plan aligned with Laboratory Strategy Agreement from all parties (SNL Executives, DOE, NNSA) that includes all funding sources
	Increase Space Efficiency Apply industry best practices to current and future laboratory space

Harder*

Easier

-  Recommend completing experiment
-  May be worth pursuing, but may have significant challenges / barriers
-  Bridge too far – do not recommend pursuing

* Opinions differ among the team on the relative challenges of these concepts



Description

Use internal investment to prepare facilities/infrastructure to a limited readiness state. Could be existing facilities (e.g., Bldg. 840) or new construction (Stub-out/pre-fab option). Customers invest to finish a space according to joint programmatic need.

Benefits

- Adds Agility – more responsive to customer needs
- Enables alignment of internal investment, mission area strategy with strategic customers through cutting edge lab / facilities / equipment
- Enables joint investment across multiple users to leverage and lower individual customer costs
- Enables reutilization of existing facilities to meet future mission needs
- Potential to maximize freedom within current GPP limits

Risks

- Current GPP/IGPP threshold
- Appearance of segmentation
- Potential limitation on use of internal investment (new building shell or just existing buildings)
- Potential for partial builds
- Sustained customer commitment

Recommended Next Steps

- **Completed:**
 - Investigated concept feasibility with SNL Finance and Facilities
 - Discussed customer value proposition with SNL Program Directors (would existing customers invest? and why?)
- **Next Steps:**
 - Obtain LLT approval to pilot
 - ID initial opportunities for internal and strategic customer investment (evaluate scenarios to validate feasibility)
 - Fully evaluate identified risks and develop mitigation strategies
 - Negotiate approach and strategy with NNSA/SFO and/or pursue legislative options



Description

Alternative method to finance the Mall Model. Assess a cost burden to amortize cost to finish out/modify space for programmatic needs. Plan on a 1-3 year amortization. Use a burden model similar to the FIE burden.

Benefits

- Sponsors do not carry new space on their books
- Sponsors have more flexibility for the types of funding they can utilize (Ex: O&M funds)
- Costs targeted to specific benefiting customers
- Infrastructure ownership remains at Sandia
- Allows Sandia to strategically engage customers

Risks

- Sponsors may not understand nature of justification for the additional cost burden

Recommended Next Steps

- **Next Steps:**
 - Obtain LLT approval to pilot
 - Assess optimal amortization periods and potential ability to recover stub-out costs as well

Description

Commitment and agreement among SNL executives, DOE, and NNSA for the 5-Year Facilities and Tools Plan for multi-year capital investments to guide annual planning and budget process.

Characteristics: Future state vision with a consistent story linked to Lab direction. Includes all sources of funding (broader than IMS). Should include line items for specialized facilities. Annual flexibility to capitalize on unplanned opportunities and recognize uncertainty. Understanding and agreement among SNL executives and NNSA for flexible plan/direction.

Benefits

- Articulation of a future state to be shared with stakeholders and customers
- Sequence of events with multi-year funding to reduce annual budget and decision-making “churn”
- Prioritized goals for facilities and tools across Sandia
- Accelerate project authorization and execution
- Responsive to mission needs

Risks

- Sandia must integrate across Mission Support (Facilities, IT, Security, etc.) and Divisions/PMUs
- DOE and NNSA do not have processes to support 5-Year Planning effort (not required by DOE Order)
- Will NNSA allow SNL to deviate from plan when justified?
- Federal budget uncertainty

Recommended Next Steps

- **Completed:**
 - Met with SNL, NM and CA Facilities staff and Procurement staff
 - Reviewed 8000 F&I Planning as a pilot
- **Next Steps:**
 - Seek approval from LLT to develop plan
 - Develop pilot with an agreed to laboratory capability – captured lessons learned
 - Expand pilot for an integrated 5-year plan that includes mission and mission support needs



Strategic Utilization of Year-End Indirect Funds

Description

Request permission from DOE to carryover indirect funds across fiscal years and strategically utilize or “bank” the indirect funds for planned infrastructure investments through the following approaches:

- Pool year-end unspent indirect funds and apply to accelerate 5-year plan
- Could consider an additional cost burden on different types of customers (similar model to FIE)

Benefits

- Creates greater flexibility for the Lab to manage indirect resources
- Creates a strategic option for utilizing unspent indirect funds
- Creates a balance between corporate stewardship and mission capability management

Risks

- Customers might react negatively on a increased and perhaps differential burden model
- Potential CAS and appropriation issues that would require NNSA/DOE approval

Recommended Next Steps

- **Completed:**
 - Analyzed the potential carryover from indirect funds
 - Looked into details of exception for waste management carryover
- **Next Steps:**
 - Obtain LLT approval to investigate further
 - Obtain better understand the CAS and appropriation issues
 - Broach concept with NNSA leadership

Raise GPP Threshold

Description

Use Government Relations resources to utilize congressional assets (e.g., annual NDAA) to increase the GPP limit from \$10M to \$25M, allowing SNL to get closer to the “sweet spot” for construction efficiency (90k sq. ft. / 3 story building).

Benefits

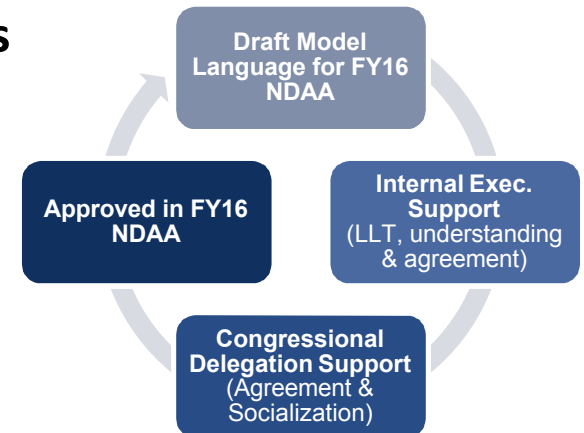
- Improves building efficiency
- Responsive to mission needs
- Establishes a mechanism to align building costs with cost-of-living (inflation, Davis/Bacon) increases

Risks

- Raising limit could cause additional invocations (413.3, etc.) that need to be managed
- Undermines the current DOE CD process, congressional authority
- Congressional priority (Can we make them see value?)

Recommended Next Steps

- **Completed:**
 - Met with CA/NM government relations staff
 - Established preliminary timeline for introducing idea for FY16 NDAA
- **Next Steps:**
 - Request approval from LLT
 - Develop white paper in October for government relations use
 - Gain support from other labs and independent bodies (OSTP?)
 - Government relations provides a go-forward timeline



Increase Space Efficiency

Description.

- Achieve better utilization of space with equal or enhanced work experience, with a suite of solutions. Examples could include: rightsizing work space, space re-configuration, enabling teleworking, and hoteling or desk sharing.
- Observation: In some areas of Sandia, offices appear underutilized or “over-sized.”

Benefits

- Create professional, modern, 21st century feel
- Reduced footprint, results in reduced facility/O&M costs and thus savings to customers.
- Savings could be used to modernize work environment
- Industry data suggests that teleworking increases productivity and work satisfaction

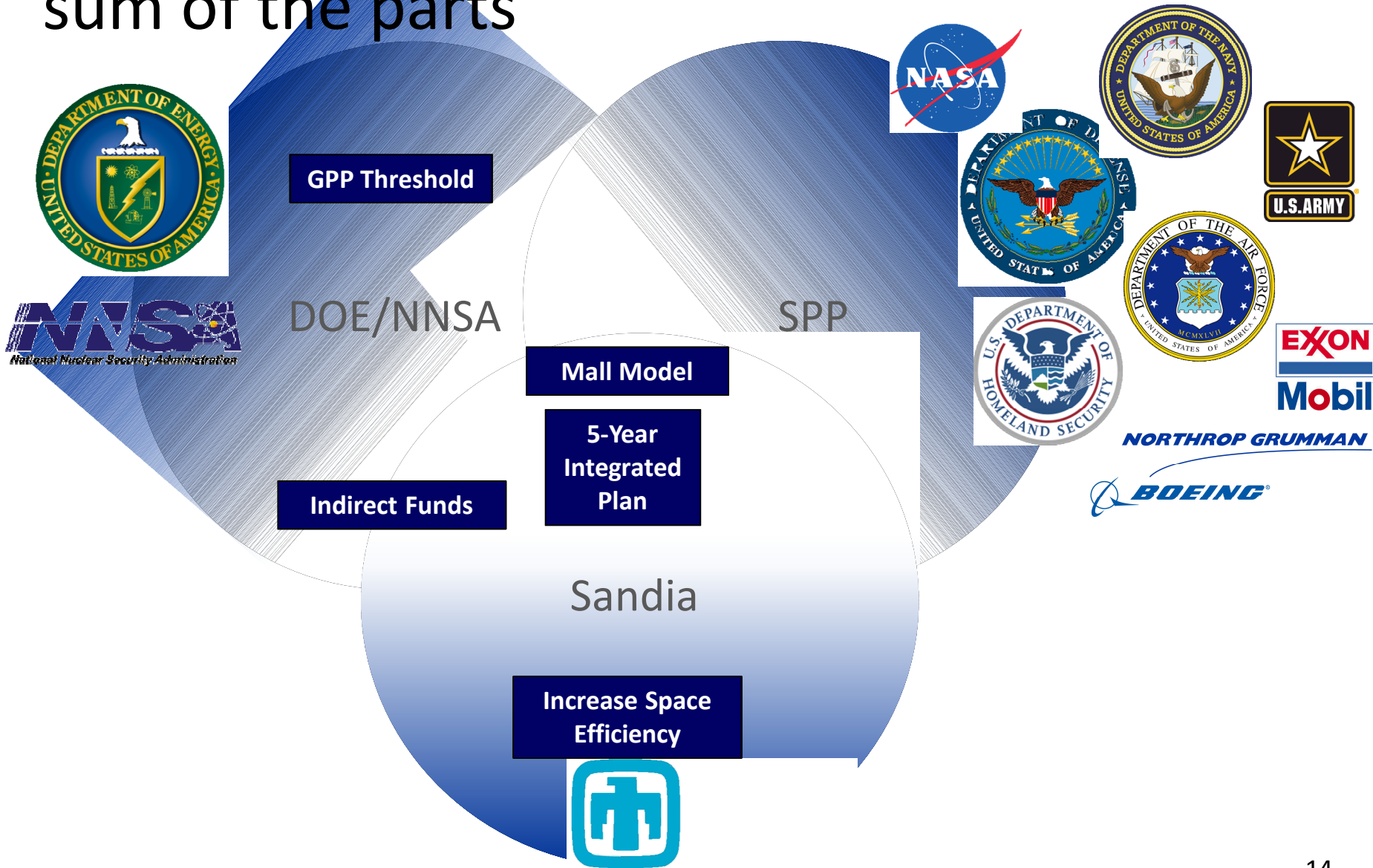
Risks

- Counter cultural
- Requires ample collaboration and kiosk space
- Could require spending money to save money




Recommended Next Steps




- **Completed:**
 - Looked into external studies (e.g., DuPont)
 - Looked at SNL examples (e.g., 8521), current SNL standards/policies
 - Reviewed GSA Workspace Studies (2012, 2002)
- **Next Steps:**
 - LLT decision to pilot

Proposed Ideas – Whole is greater than sum of the parts









SO2.2.4 Experiment Summary

Rating	Description
	Reusable Alternative Finance Model Accelerate alternative finance approvals
	MOA to Accelerate SPP Line Investments New construction and recapitalization of existing DOE buildings MOA between DOE and WFO agency that could be replicated
	GSA Targeted Asset Review Promote asset management and redeployment strategies

-  Recommend completing experiment
-  May be worth pursuing, but may have significant challenges / barriers
-  Bridge too far – do not recommend pursuing

SO2.2.4 Experiment Summary

Rating	Description
	Non-Profit 501c3 Establish under LM or Sandia Corp. to manage 3 rd party contracting for build-to-lease Not feasible – cannot transfer federal operating funds to avoid oversight
	Shift Options Consider multiple shifts for office and light lab staff for future space reductions Difficult to find an industry best practice and a major logistical challenge
	Multiple FFRDC Model Non-profit COCO for WFO customer Not currently feasible, but could evolve in the future

-  Recommend completing experiment
-  May be worth pursuing, but may have significant challenges / barriers
-  Bridge too far – do not recommend pursuing

Conclusion & LLT Decision on Next Steps

- The ideas have a logical progression but could be pursued independently
- We propose the following phases

Phase	Elements	Completion Time Frame
I. Within Our Control	5 Year Integrated Plan Increased Space Efficiency	FY15 - Version 0.1 Pilots in FY15
II. Partnership	GPP Threshold Mall Model	FY17 NDAA NNSA Concurrence in FY16
III. Lean In	Enhanced Burden Indirect Carryover	FY17 FY17

- A VP Champion and a team of experts on formal assignment for each phase element is required
- To achieve HQ and SFO ownership/partnership, we need Klotz, Creedon, and Beausoleil on board (Action: Hommert, Sawyer, Hazen)
- Recommend closing FY14 SO 2.2.4 milestone

ADDITIONAL RESOURCES

Reusable Alternative Finance Model

Description

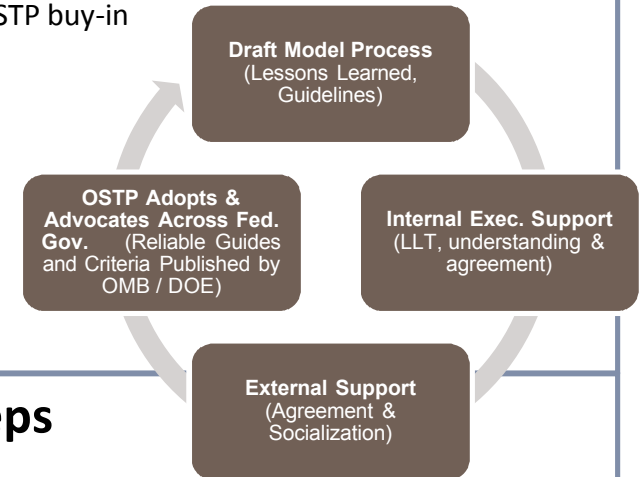
Using CREATE, establish a re-usable model to accelerate 3rd Party Financed buildings. Assist OMB/OSTP/DOE/NNSA with refinements to the DOE Alternative Finance (AF) Guide and OMB A-11 to enable its use and facilitate rapid AF approvals. This would allow for an accelerated approval process; concept to gold shovel within 2 years.

Benefits

- Establishes an accepted AF process
- Approved alternative to DOE Order 413
- Provides for an expedient process
- Reduces demand on O&M, deferred maintenance
- Responsive to mission needs
- Reduces pressure on system, reserves LI requests for truly complex test facilities that should not be commercially developed

Risks

- Undermines the federal CD process, congressional authority, FEDs lose control
- Requires OSTP buy-in



Recommended Next Steps

- **Completed:**
 - Provided input to OSTP/IDA federal guide on third party transactions. On-going influence on the LOB and DOE regarding the AF process
- **Next Steps:**
 - Continue to engage with the AF community to help refine the process and guidelines



MOA to Accelerate SPP Line Investments

Description

Develop a standard agreed upon “template” with SFO for an MOA that could be used with multiple agencies to accelerate and support new line item construction (< \$40M) and recapitalization of infrastructure at Sandia. Capital investments at Sandia demand a set of terms and principles that address a variety of matters related to ownership and maintenance. Establishing a master MOA that addresses these matters would support acceleration of the overall process from appropriation to commencing construction.

Benefits

- Becomes a standard agreement for use by all SPP customers vs. a “one off” point solution
- Becomes a standard model for governance, ownership and maintenance
- Provides a means to consistently define standard terms enabling efficiency and reducing barriers and frustrations
- Would utilize the modified 413 process (No CD:0-4)
- Address SFO landlord concerns on life cycle management

Risks

- Potentially limits flexibility as conditions change
- Continued pressure across all federal agencies to reduce foot-print
- Still requires congressional approval
- Increases complexity for maintenance and options
- Requires long-term committee to SNL program

Conclusions / Next Steps

- **Completed:**
 - Reviewed and discussed MOA between NNSA and DHS for NISAC building
 - Convened inter-disciplinary team to discuss benefits and risks
- **Next Steps:**
 - Monitor other milestone interactions with SFO
 - Utilize DOD-OSD POM submission for 840 labs as a pilot
 - Continue evaluation of alternatives to support the acceleration capital investment and recapitalization

GSA Targeted Asset Review

Description

Central Idea: The GSA has authority to perform Targeted Asset Reviews to promote sound asset management and redeployment strategies. In recent years, that has resulted in the sale of federal property, and redeployment of the proceeds to fund infrastructure investment for the divesting agency.

What Problem Does This Solve: Divesting of unused property could generate infrastructure investment funds, and reduce O&M costs.

Strategy / Approach

Key Players: GSA Targeted Asset Review Program, KAFB, LLNL (potentially)

Success Factors: Willingness to re-assess our existing security perimeters, management support, commercial demand for excess F&I

Key Steps:



Roadblocks / Challenges

- Re-define required security perimeter
- NM: Working with KAFB to identify acceptable strategies for assted redeployment
- CA: Coordination with LLNL may be required (Vasco entrance)

Additional Ideas that have merit

- Consider a different space tax approach. Ideas:
 - Move the cost to a pain point (e.g., each individual enters P/T's for their space)
 - Pay “x” for utilized space; pay “5x” for underutilized space (may not work for CA site)
- Let employees do the work – 1 or 2 times each year, gather the employees for volunteer days: deep cleaning, sorting through lab space and storage, etc.
- Hire an expert for “infrastructure development” in government-owned space (MIT-LL has done this)