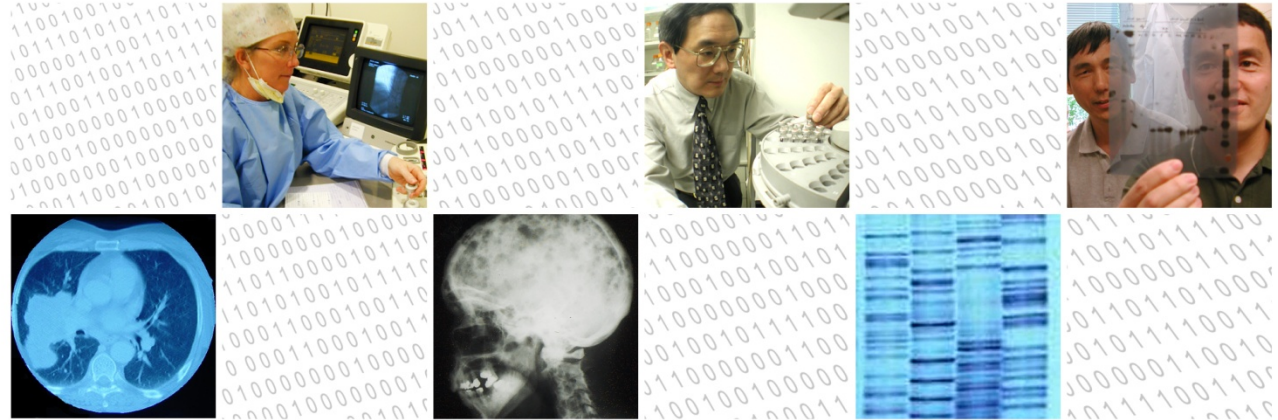




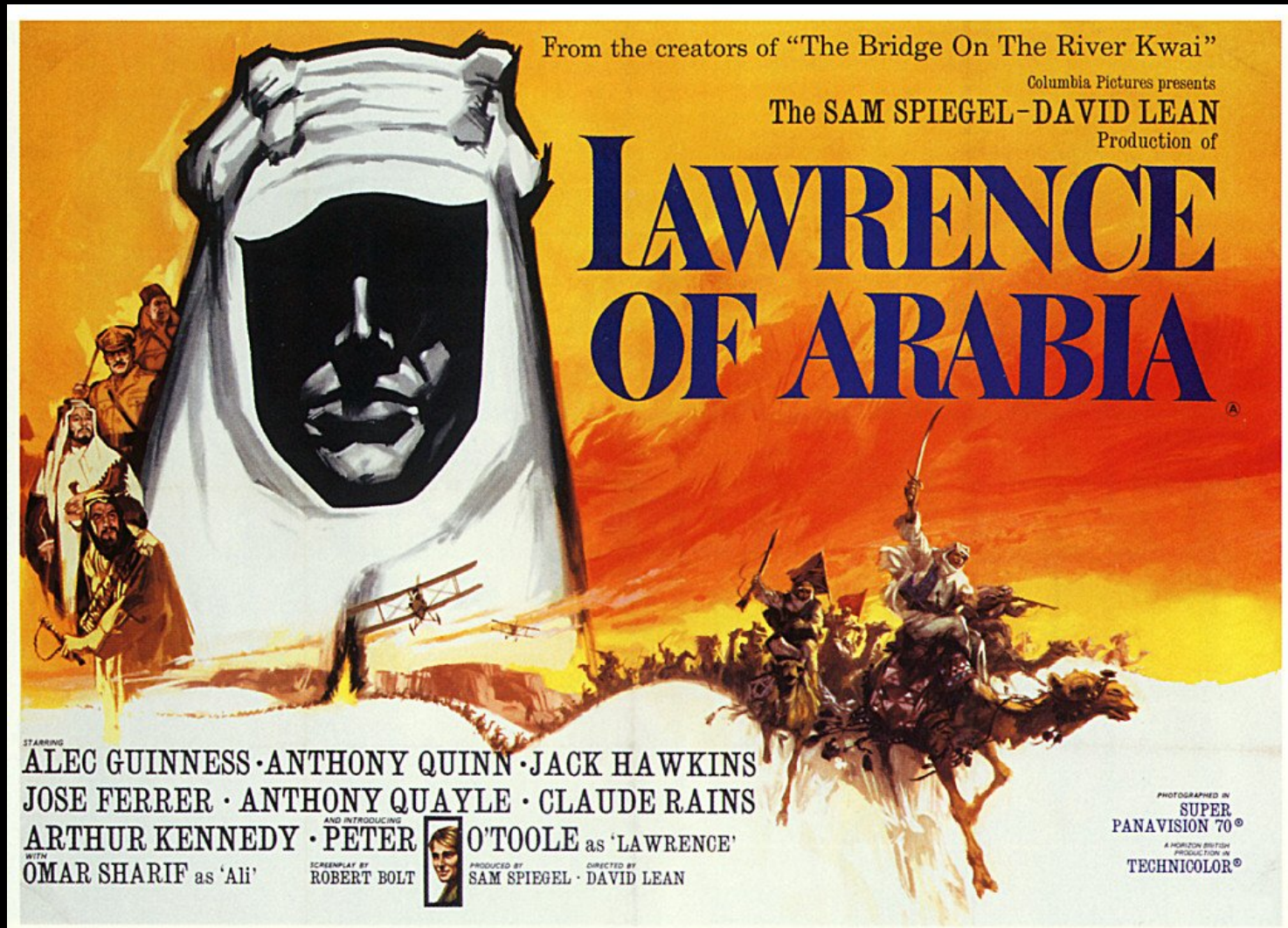
INFORMATION TECHNOLOGY SUPPORTING BIOMEDICAL RESEARCH



Aligning Expectations with Resources: What's the Trick

Robert J. Robbins
rjr8222@gmail.com

What is the trick, then?



**A film that is fifty years old this year,
and still full of great insights.**



At the beginning of the film, Lawrence puts out a match by squeezing it between his thumb and fingers...



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**You'll do that once
too often; it's only
flesh and blood!**



At the beginning of the film, Lawrence puts out a match by squeezing it between his thumb and fingers...



Corporal William Potter decides to try it himself...



Corporal William Potter decides to try it himself...



Corporal William Potter decides to try it himself...

**Ouch! It damn
well hurts.**



Corporal William Potter decides to try it himself...

**Ouch! It damn
well hurts.**



Corporal William Potter decides to try it himself...

**Ouch! It damn
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Corporal William Potter decides to try it himself...

**Ouch! It damn
well hurts.**

Certainly, it hurts!



Corporal William Potter decides to try it himself...



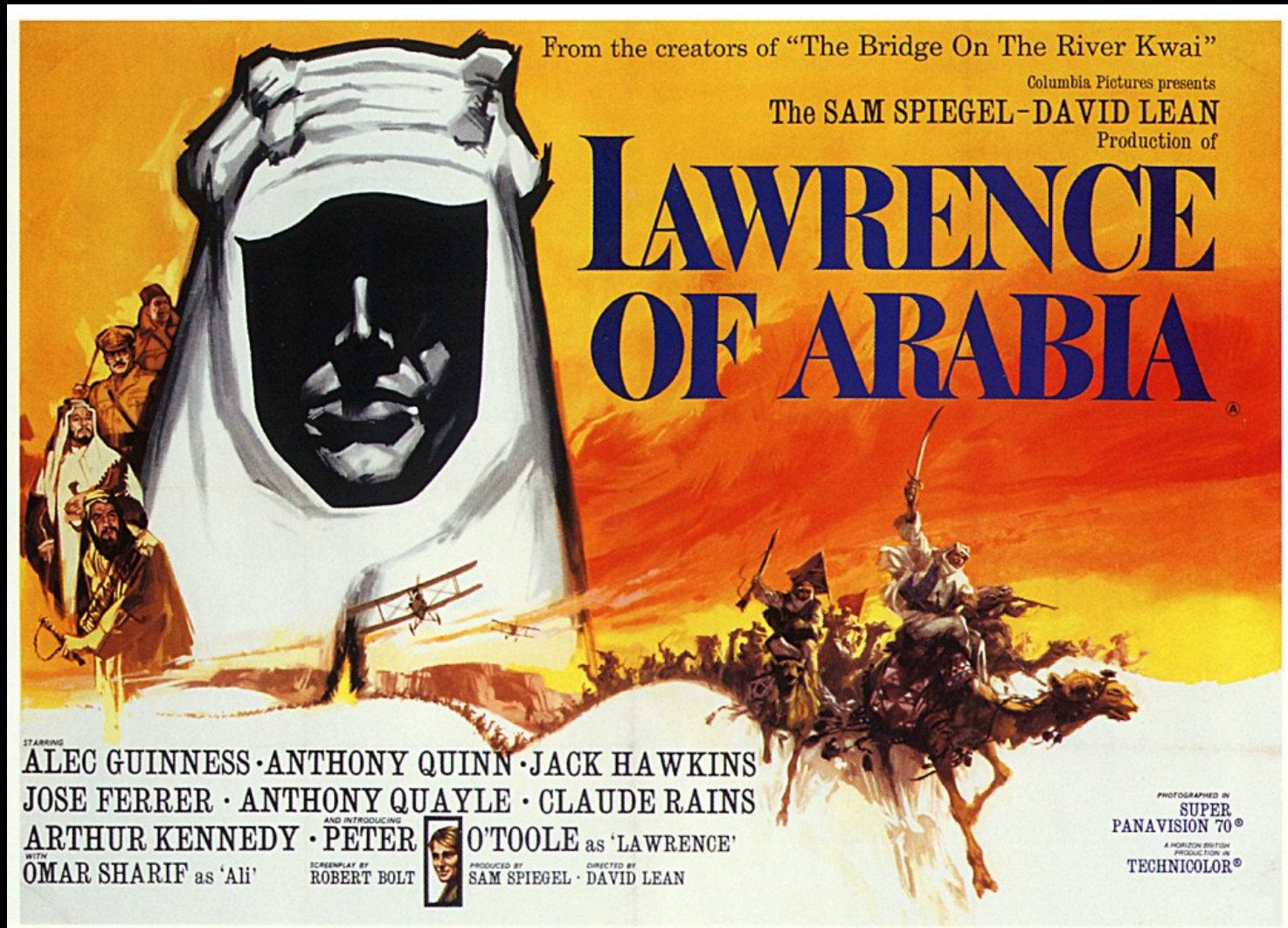
**Well, what's
the trick then?**

The trick, William Potter,

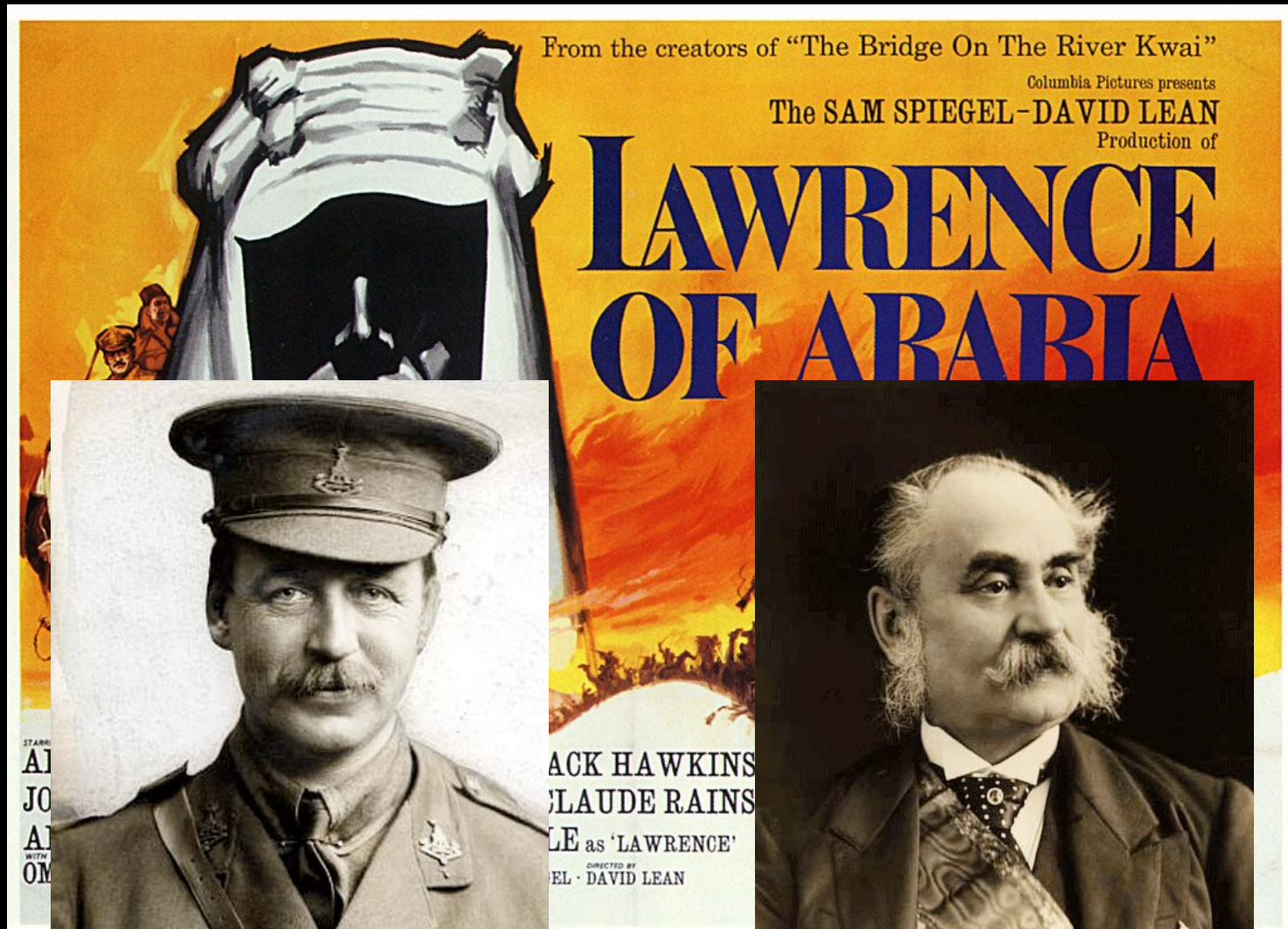


**The trick, William Potter,
is not minding that it hurts.**





Everybody should see this film.
Watch it closely. You will learn a lot.



Mark Sykes

François Georges-Picot

What is the trick, then?

- Not minding that it hurts?
- Recognizing that the alternatives are worse?
- Magic?
- Something else...

What is the trick, then?

The trick is recognizing that there is no trick.

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The trick is recognizing that there is no trick.

The trick is recognizing that IT has become second only to facilities as a consumer of institutional resources.

What is the trick, then?

The trick is recognizing that there is no trick.

The trick is recognizing that IT has become second only to facilities as a consumer of institutional resources.

The trick is recognizing that IT could do more for the institution that the institution can possibly afford to have done.

What is the trick, then?

Decisions have to be made.

Priorities have to be set.

Goals must be agreed upon.

Resources must be allocated.

Deliverables must be measured.

Governance must be established.

What is the trick, then?

The trick is establishing an adequate measure of trust between those who allocate resources and those who use the resources to execute tasks.

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The trick is ensuring that both the formation of expectations and the allocation of resources have been subject to a rational process.

What is the trick, then?

The trick is establishing an adequate measure of trust between those who allocate resources and those who use the resources to execute tasks.

The trick is ensuring that both the formation of expectations and the allocation of resources have been subject to a rational process.

It's that simple (and that hard).

IT Governance

What Is It?

IT Governance: What is It?

IT governance is putting structure around how organizations align IT strategy with business strategy, ensuring that companies stay on track to achieve their strategies and goals, and implementing good ways to measure IT's performance. It makes sure that all stakeholders' interests are taken into account and that processes provide measurable results.

IT Governance: What is It?



Center for Information
Systems Research

The Center for Information Systems Research (CISR) at MIT, distinguishes IT governance from IT management. IT management is the daily decision making and implementation activities around the firm's use of IT. Governance identifies who will make key IT decisions and how will they be held accountable.

IT Governance: What is It?



Center for Information
Systems Research

The Center for Information Systems Research

Good governance is enabling and reduces bureaucracy and dysfunctional politics by formalizing organizational learning and thus avoiding the trap of making the same mistakes over and over again.

IT Governance: What is It?



Center for Information
Systems Research

Five Key Decisions Need Governance

Principles for Digitization	High-level statements about how IT is to be used (driven by business principles, e.g., operating model)
Enterprise Architecture	Organizing logic for data, applications, and infrastructure captured in a set of policies, relationships, and technical choices to achieve desired business and technical standardization and integration.
IT Infrastructure Strategies	Strategies for shared IT capability (both technical and human) delivered as reliable services (e.g., network, help desk, shared data)
Business Application Needs	Specifying the business need for purchased or internally developed IT applications.
IT Investment and Prioritization	Decisions about how much and where to invest in IT, including project approvals and justification techniques.

IT Governance

Why Now?

IT Governance: Why Now

- IT is Important

IT Governance: Why Now

- IT is Important

Virtually all of our administrative, research, and clinical care operations have become wholly dependent upon access to appropriate IT systems.

IT Governance: Why Now

- IT is Important
- IT is Expensive

IT Governance: Why Now

- IT is Important

- IT has become second only to facilities as a consumer of strategic resources. Nobody builds a new building without a prior planning (governance) phase.

IT Governance: Why Now

- IT is Important
- IT is Expensive
- IT is Ubiquitous

IT Governance: Why Now

- IT is Important

- Parking, library services, digital dining, freezer maintenance, heating and cooling, animal health, training, web operations, telephones, business processes, shared resources ...

IT Governance: Why Now

- IT is Important
- IT is Expensive
- IT is Ubiquitous
- IT is Expanding

IT Governance: Why Now

- IT is Important

- In most organizations, IT has been growing faster than the organization itself. IT Growth is driven by growth in demand for IT services. Every year, more and more work moves partially, or wholly, into IT.

IT Governance: Why Now

- IT is Important
- IT is Expensive
- IT is Ubiquitous
- IT is Expanding
- **IT is Changing**

IT Governance: Why Now

- IT is Important

Driven by Moore's Law, IT changes at a rate never before seen in any other technology.

IT Governance: Why Now

- IT is Important

Dealing with all of these issues and developing appropriate balances and tradeoffs is a task for IT Governance.

IT Governance: An Aside

Most people classify all IT resources into one of two categories:

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- **The stuff I personally use**

IT Governance: An Aside

Most people classify all IT resources into one of two categories:

- **The stuff I personally use** (which, although absolutely mission critical, is out of date, woefully underpowered and must be upgraded and expanded immediately).

IT Governance: An Aside

Most people classify all IT resources into one of two categories:

- The stuff I personally use (which, although absolutely mission critical, is out of date, woefully underpowered and must be upgraded and expanded immediately).
- **The stuff other people use**

IT Governance: An Aside

Most people classify all IT resources into one of two categories:

- The stuff I personally use (which, although absolutely mission critical, is out of date, woefully underpowered and must be upgraded and expanded immediately).
- **The stuff other people use** (which, although really an unnecessary luxury, is incredibly overpowered, way too expensive, and should be controlled or even eliminated immediately).

IT Governance: An Aside

Most people classify all IT resources into one of four categories:

Reconciling such divergent opinions and developing appropriate balances and tradeoffs is a task for IT Governance.

controlled or even eliminated immediately).

IT Gov: How

Getting Started

IT Governance: Getting Started

A PROPOSAL FOR IT GOVERNANCE AT FHCRC

prepared by

*Janell Baldwin, Linda Gainer, Spencer Lemons, Randy Main,
Han Nachtrieb, Robert Robbins, Scott Rusch, Doug Shaeffer, Myra Tanita*

This is a proposal to establish a Center Information Technology Governance Committee with responsibility for overseeing and coordinating the Center's diverse information technology ("IT") resources. The purpose of this proposal is not to centralize the Center's IT activities, but rather to help ensure that its IT resources are developed and delivered with maximum effectiveness in a manner consistent with the Center's strategic objectives.

The critical importance of IT strategically and economically to the Center's ability to achieve its mission is indisputable. Nearly all of the Center's research programs depend on access to appropriate IT technology. Data management, storage and analysis now represent a substantial portion of the cost of doing research. The Center's annual IT expenditures now exceed twenty million dollars and almost ten percent of the Center's total workforce (more than 225 people) are full-time IT professionals. The importance of IT will only increase over the next several years. Many of the research initiatives in the Center's current strategic plan will require extensive use of IT resources. It is estimated that over the next eight years, the Center will spend at least twenty million dollars on new technology projects with accompanying growth in the number of IT professionals and the annual operating budget for IT.

IT Governance: Getting Started

- Admin Vice Presidents
- Input: IT Professionals
- Input: Faculty and Research Staff
- Recommendation to Senior Vice Presidents
- ITRAP Revisited
- ...

IT Gov: How

Future Operations

ITRAP Operations

ITRAP will lead a Center-wide effort to improve our investment in IT through:

ITRAP Operations

ITRAP will lead a Center-wide effort to improve our investment in IT through:

- **Planning and Policy Development:**

ITRAP Operations

ITRAP will lead a Center-wide effort to improve our investment in IT through:

- **Planning and Policy Development:** ITRAP will convene working committees to analyze and prioritize FHCRC IT needs and to develop “living documents” that provide IT operational policies, architectural guidelines, and multi-year plans.

ITRAP Operations

ITRAP will lead a Center-wide effort to improve our investment in IT through:

- **Planning and Policy Development:** ITRAP will convene working committees to analyze and prioritize FHCRC IT needs and to develop “living documents” that provide IT operational policies, architectural guidelines, and multi-year plans.
- **Annual Budget Review and Approval:**

ITRAP Operations

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- **Annual Budget Review and Approval:** ITRAP will review, analyze, and prioritize proposed IT budgets, making sure that proposed activities fit with ITRAP-approved IT operational policies, architectural guidelines, and multi-year plans.

ITRAP Operations

ITRAP will lead a Center-wide effort to improve our investment in IT through:

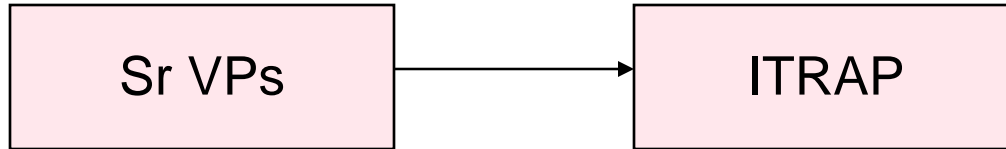
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- **Annual Budget Review and Approval:** ITRAP will review, analyze, and prioritize proposed IT budgets, making sure that proposed activities fit with ITRAP-approved IT operational policies, architectural guidelines, and multi-year plans.
- **Spending Review and Oversight:**

ITRAP Operations

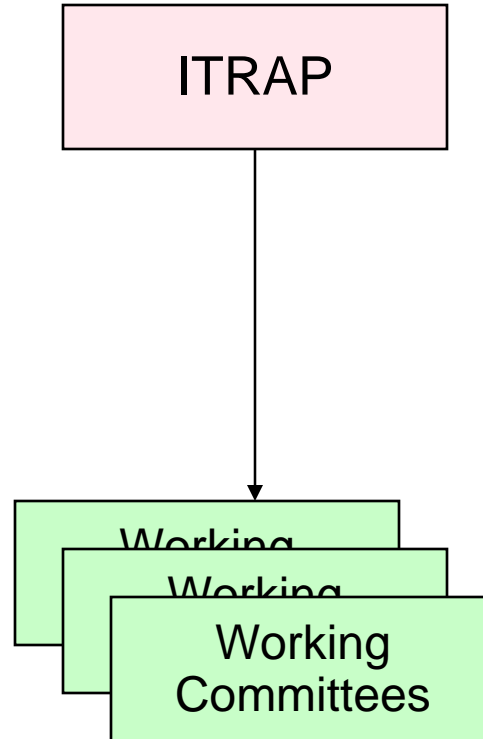
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- **Spending Review and Oversight:** ITRAP will review on-going IT spending, making sure that spending is in agreement with ITRAP-approved budgets and with ITRAP-approved IT operational policies, architectural guidelines, and multi-year plans.

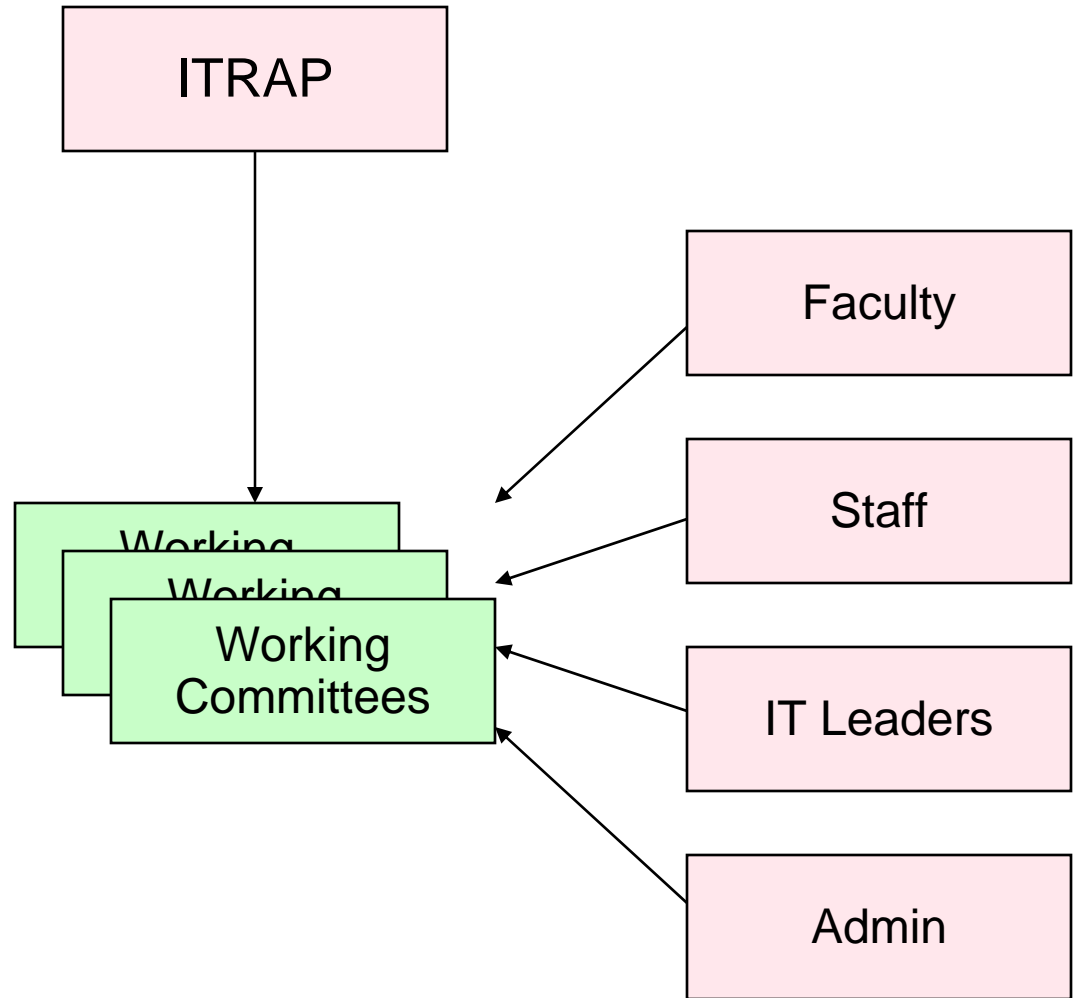
ITRAP: Planning



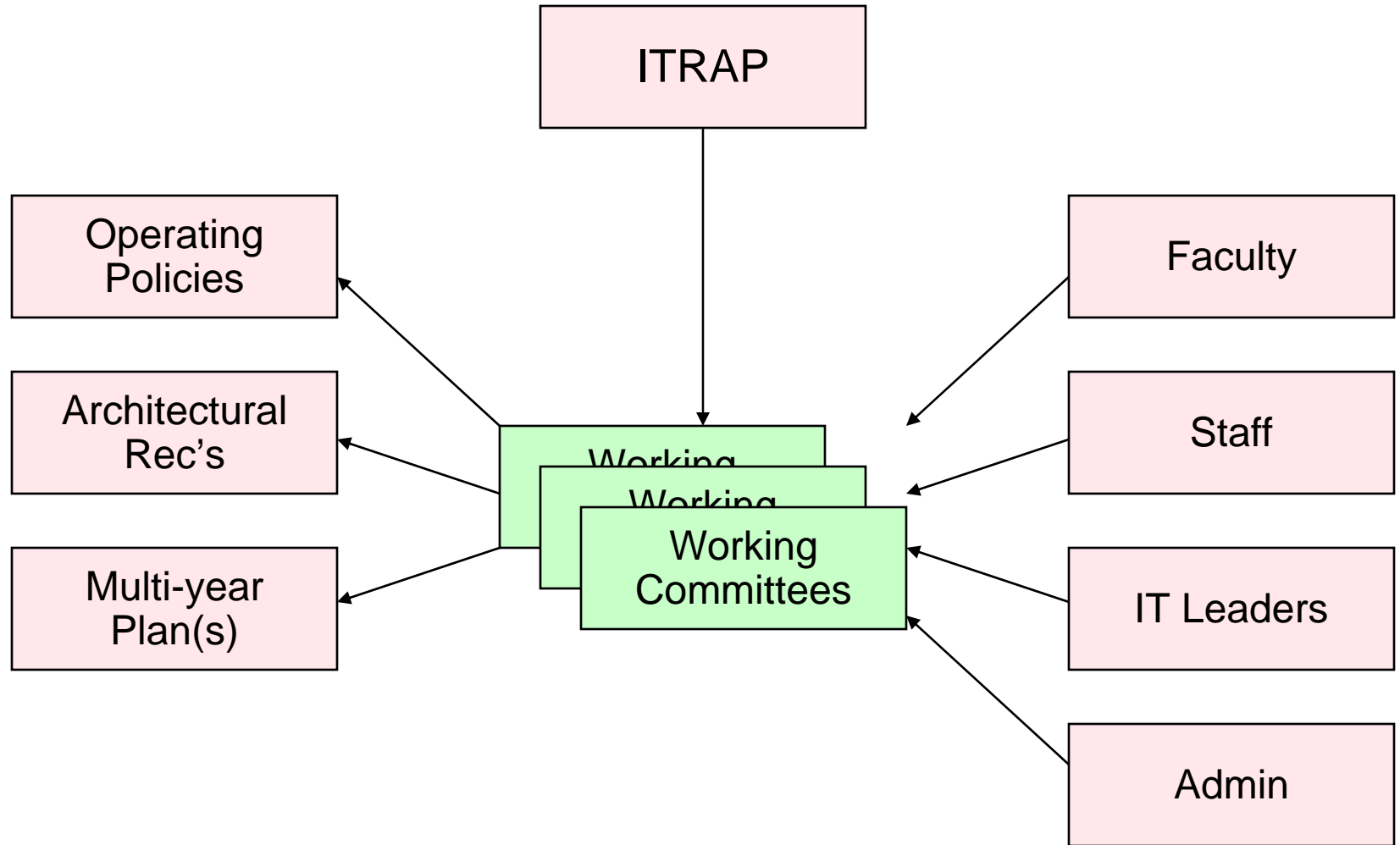
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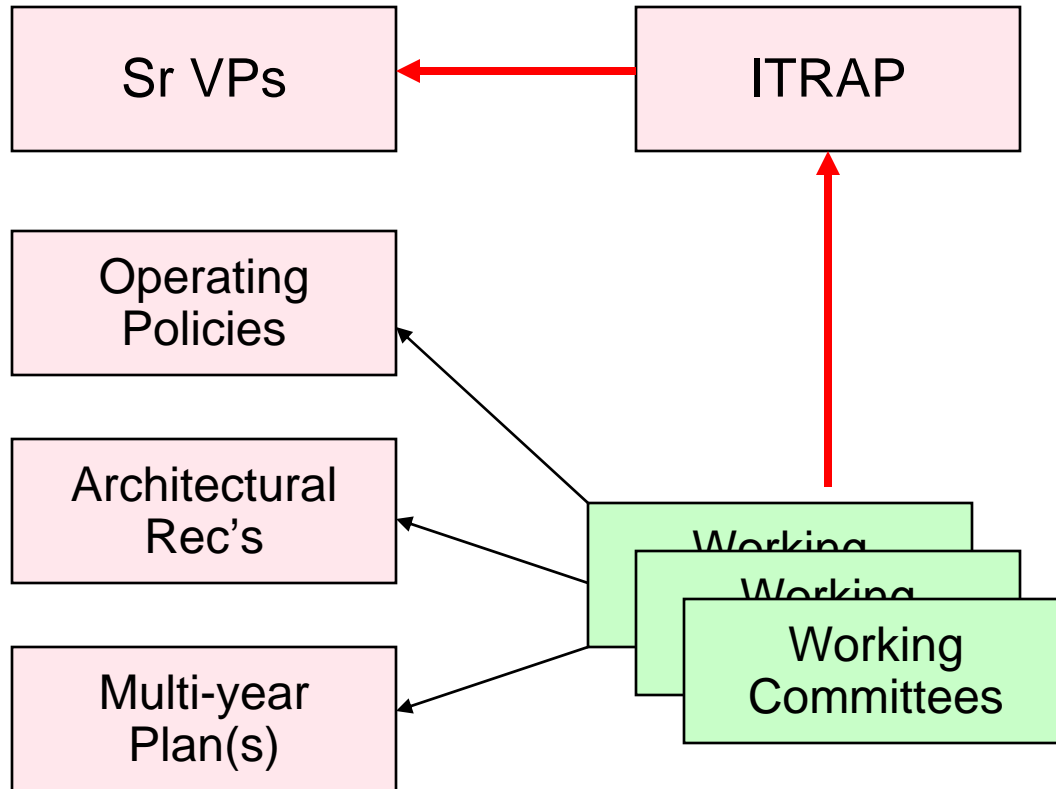
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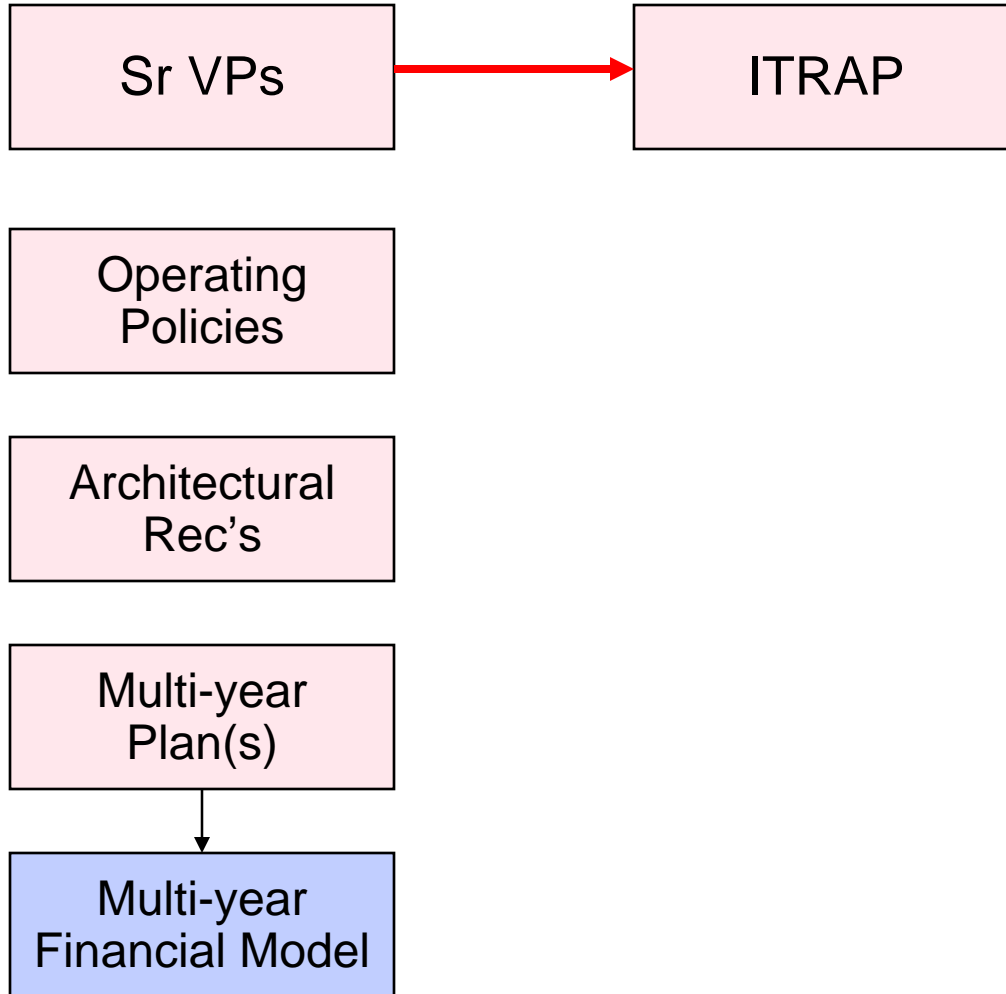
ITRAP: Planning



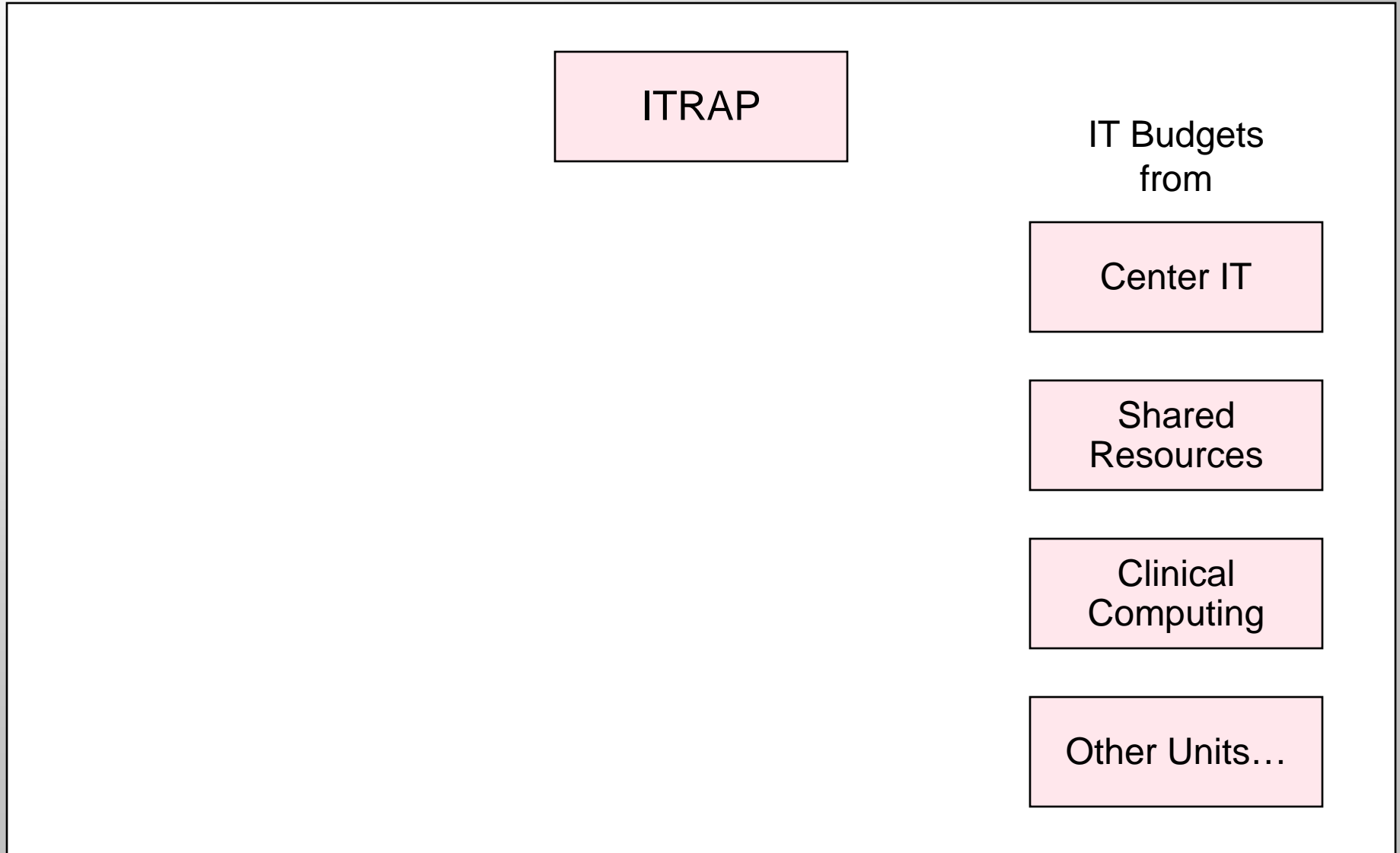
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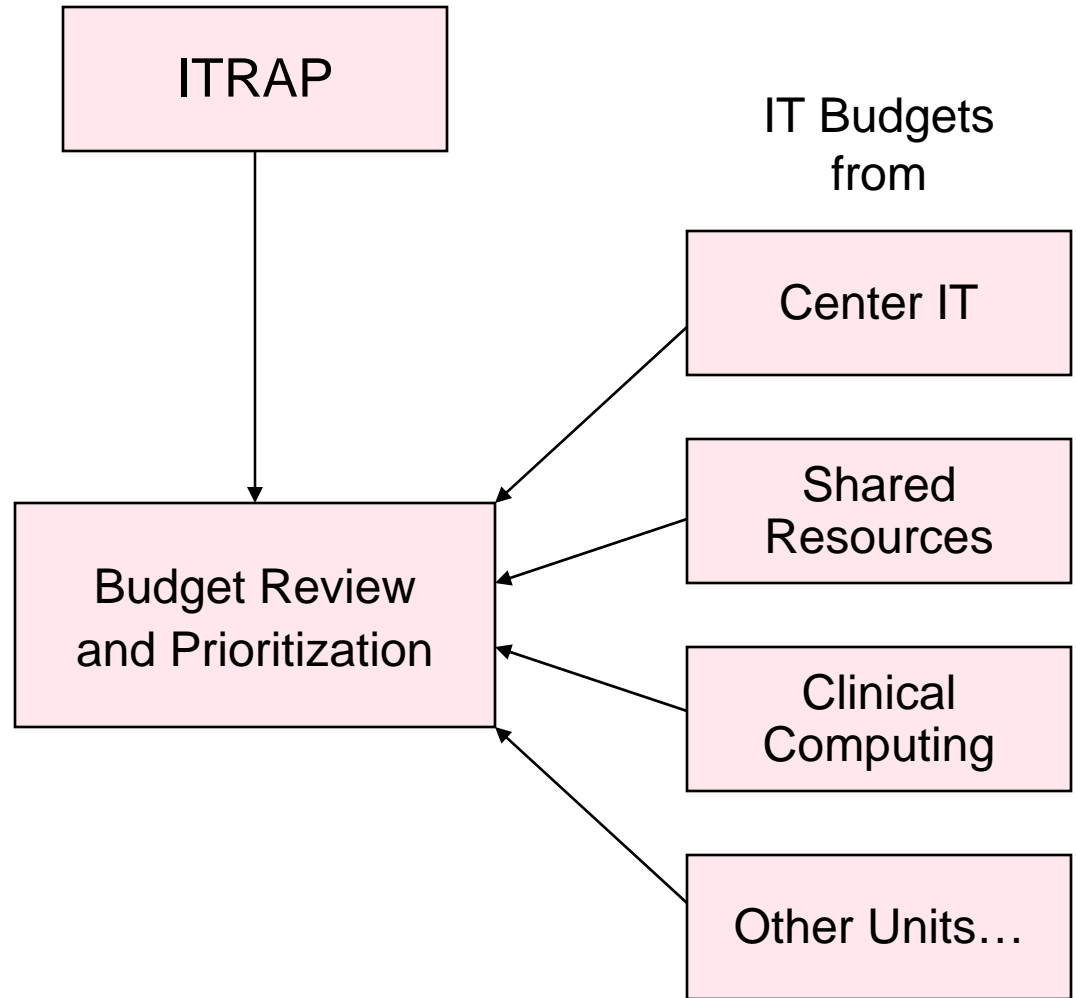
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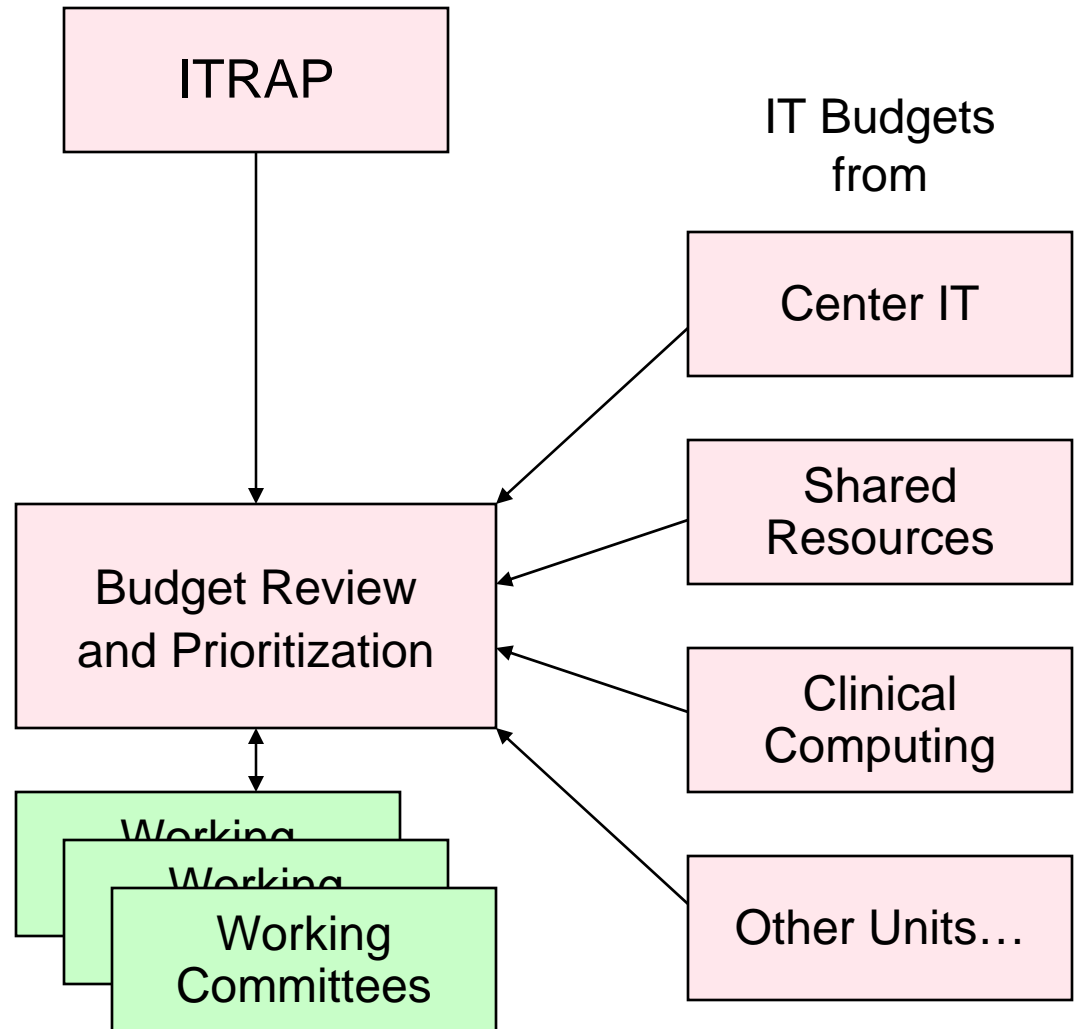
ITRAP: Annual Budgeting



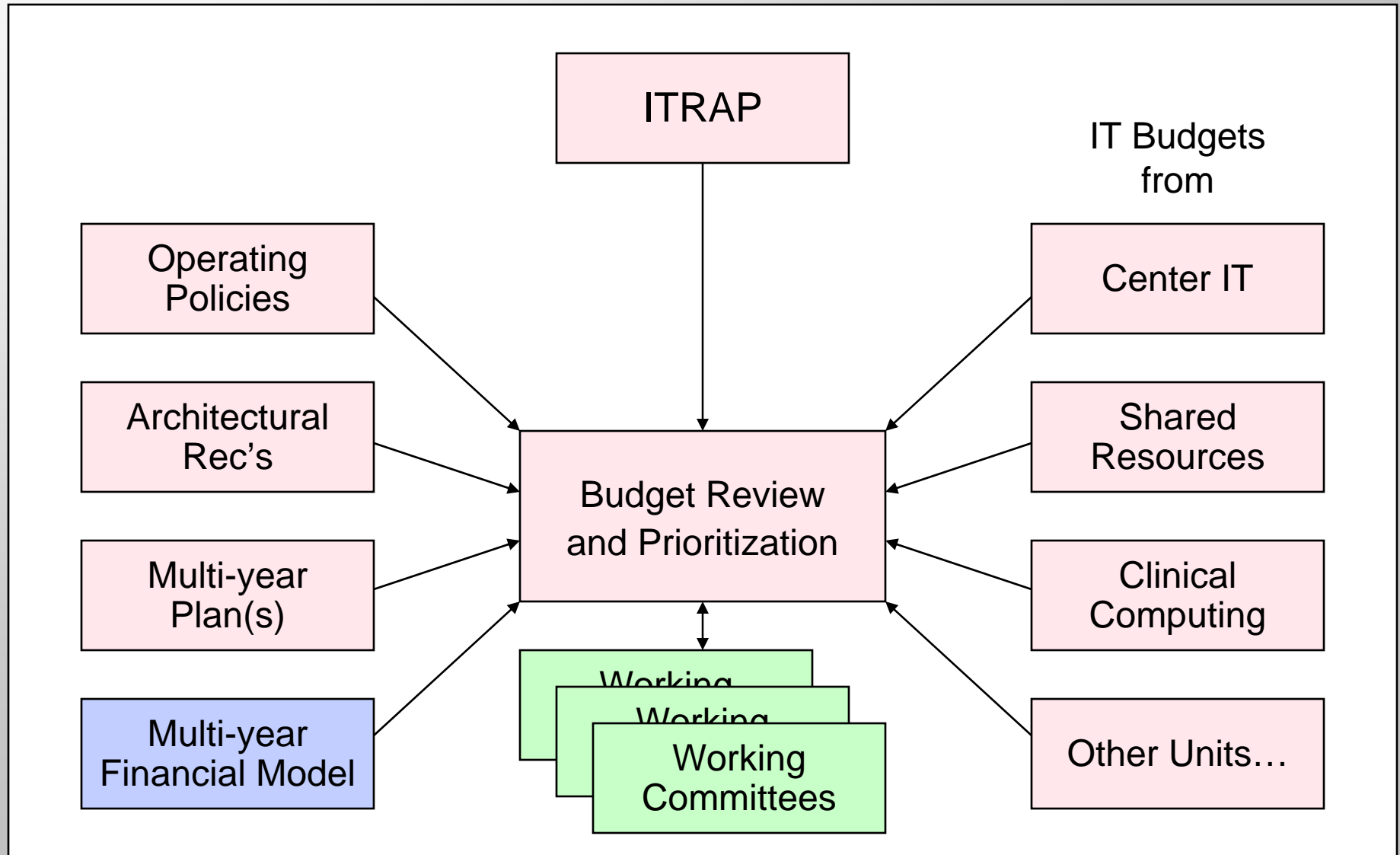
ITRAP: Annual Budgeting



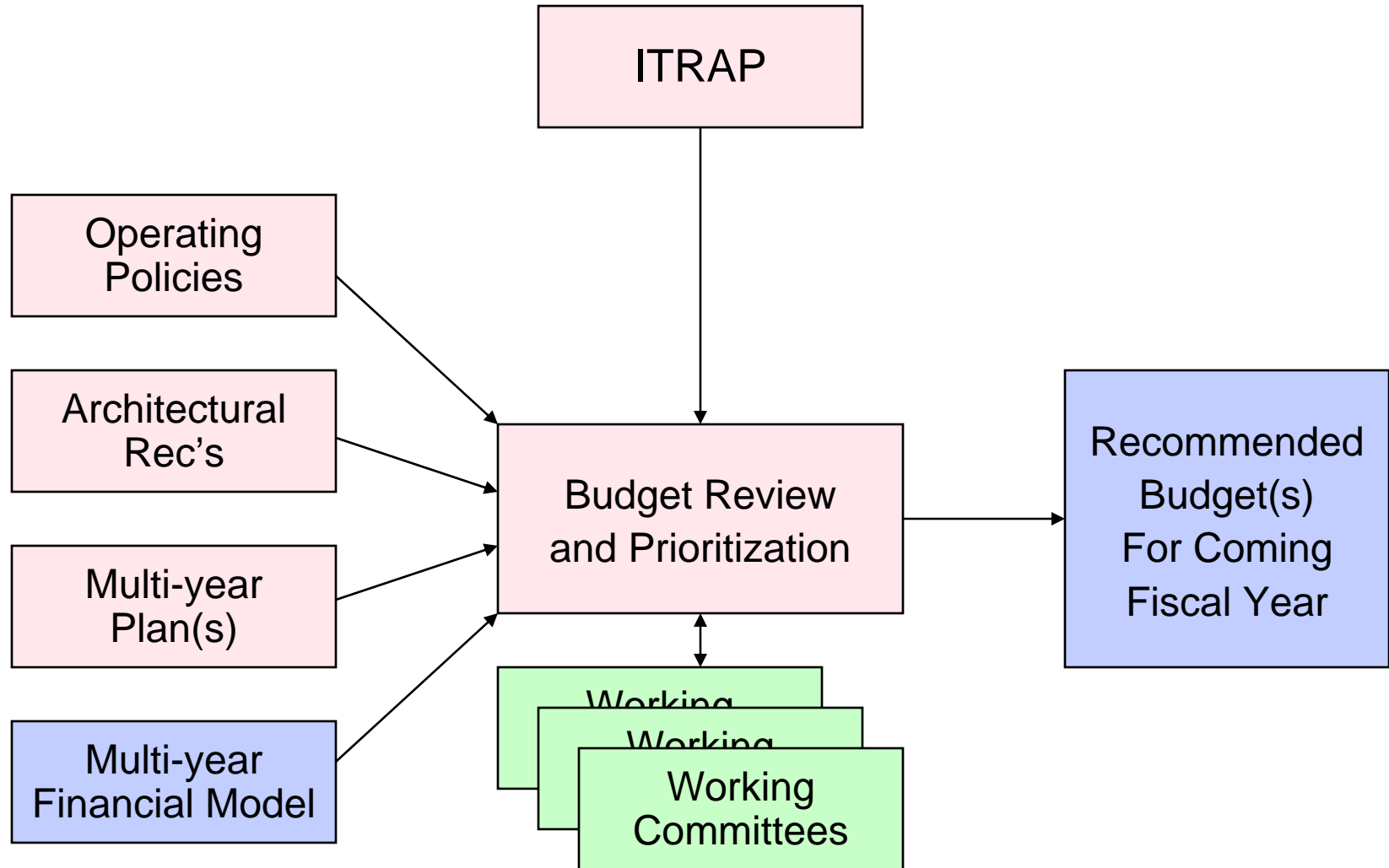
ITRAP: Annual Budgeting



ITRAP: Annual Budgeting



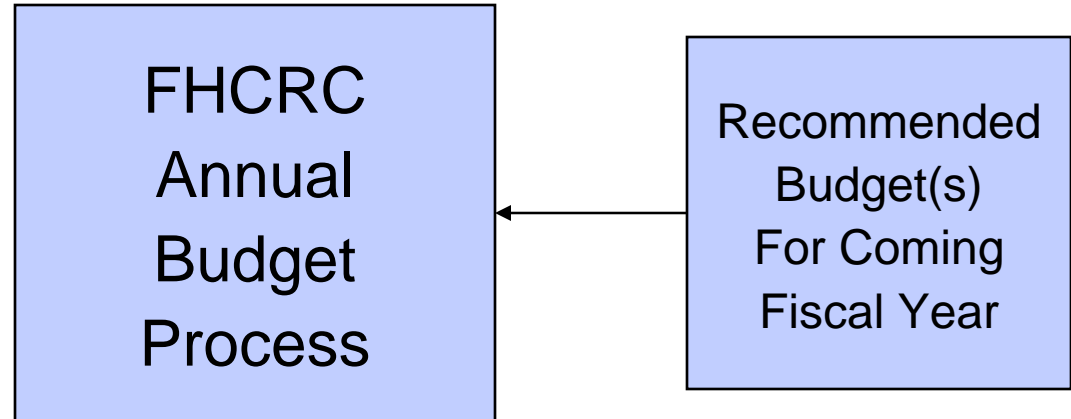
ITRAP: Annual Budgeting



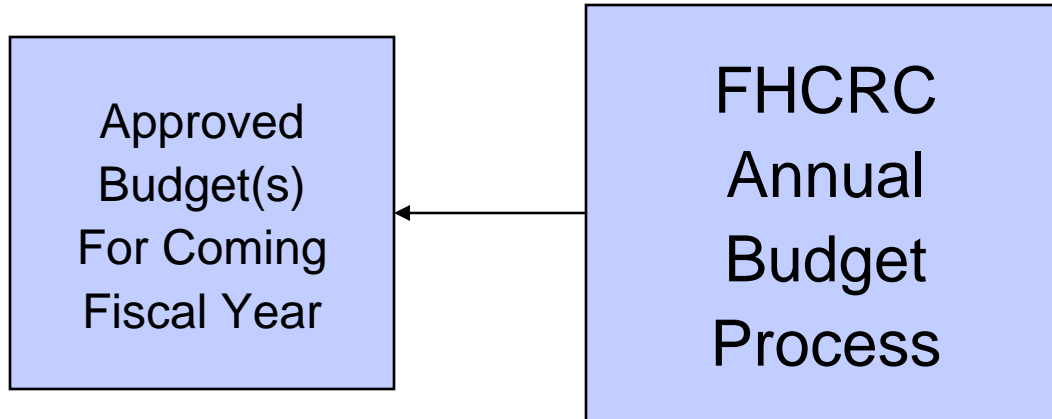
ITRAP: Annual Budgeting

Recommended
Budget(s)
For Coming
Fiscal Year

ITRAP: Annual Budgeting



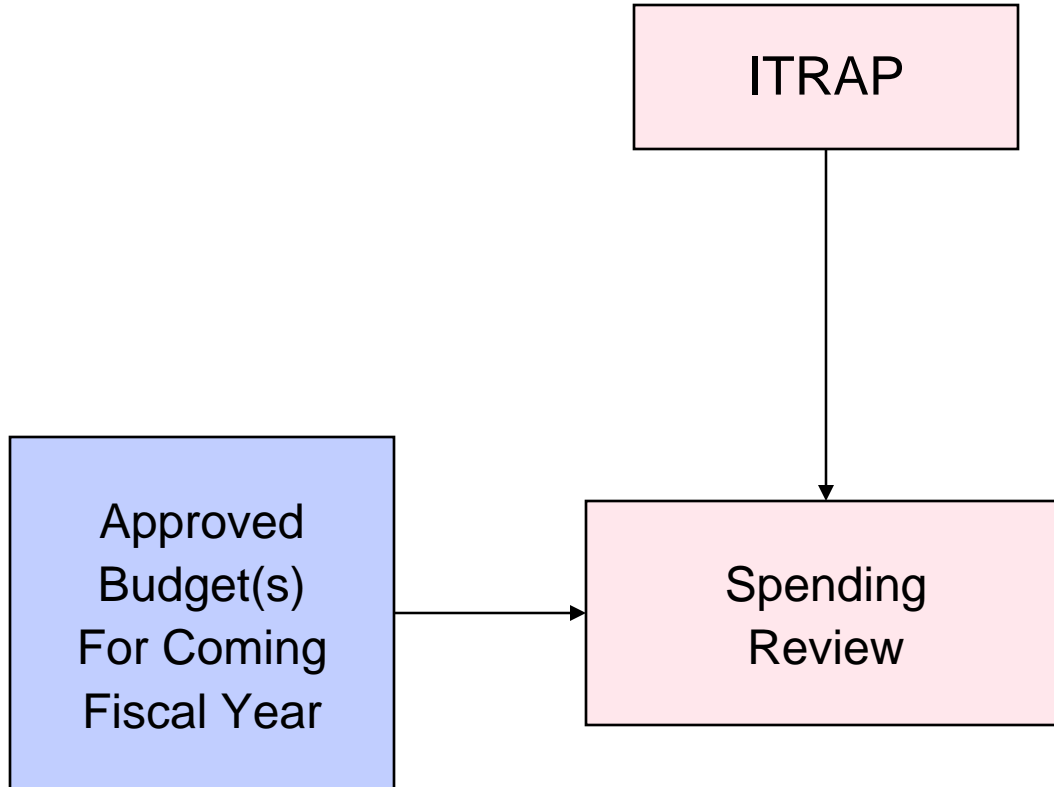
ITRAP: Annual Budgeting



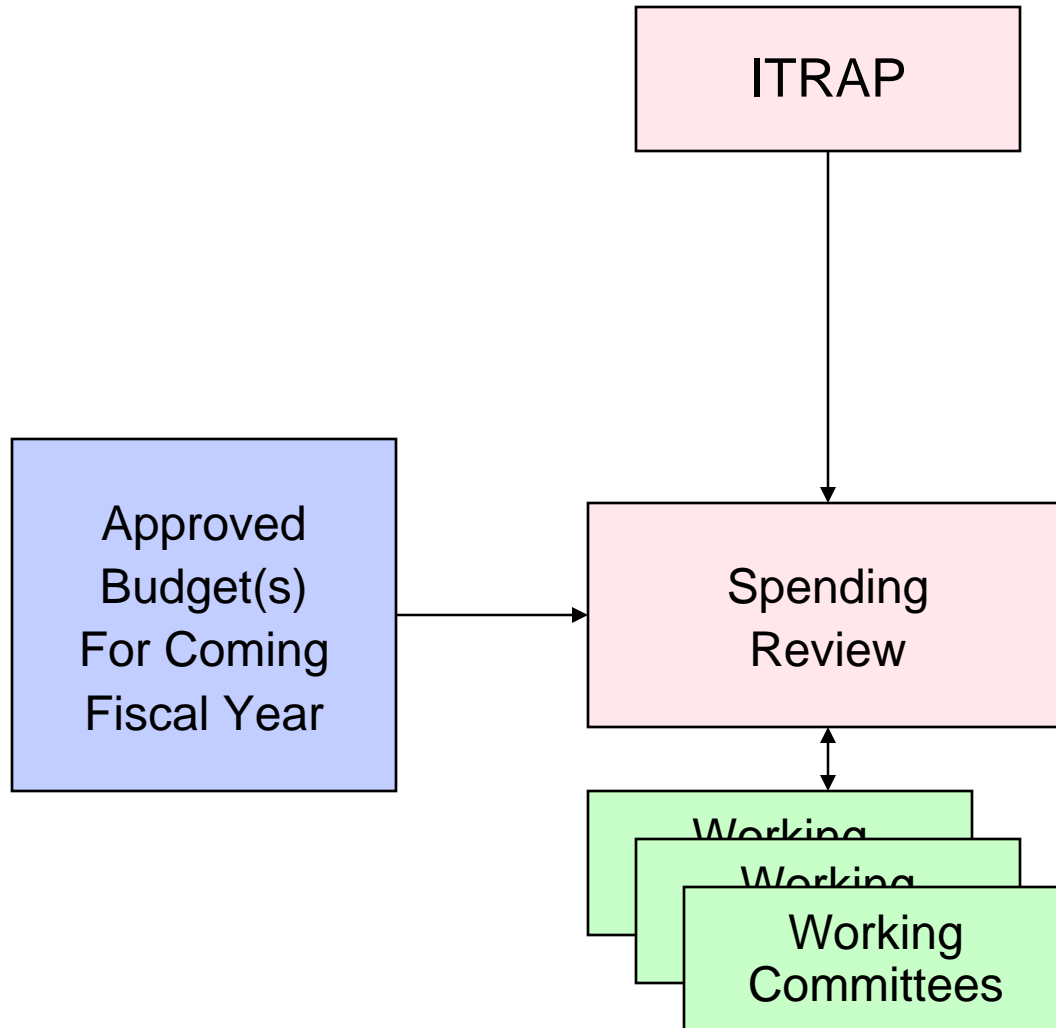
ITRAP: Annual Budgeting

Approved
Budget(s)
For Coming
Fiscal Year

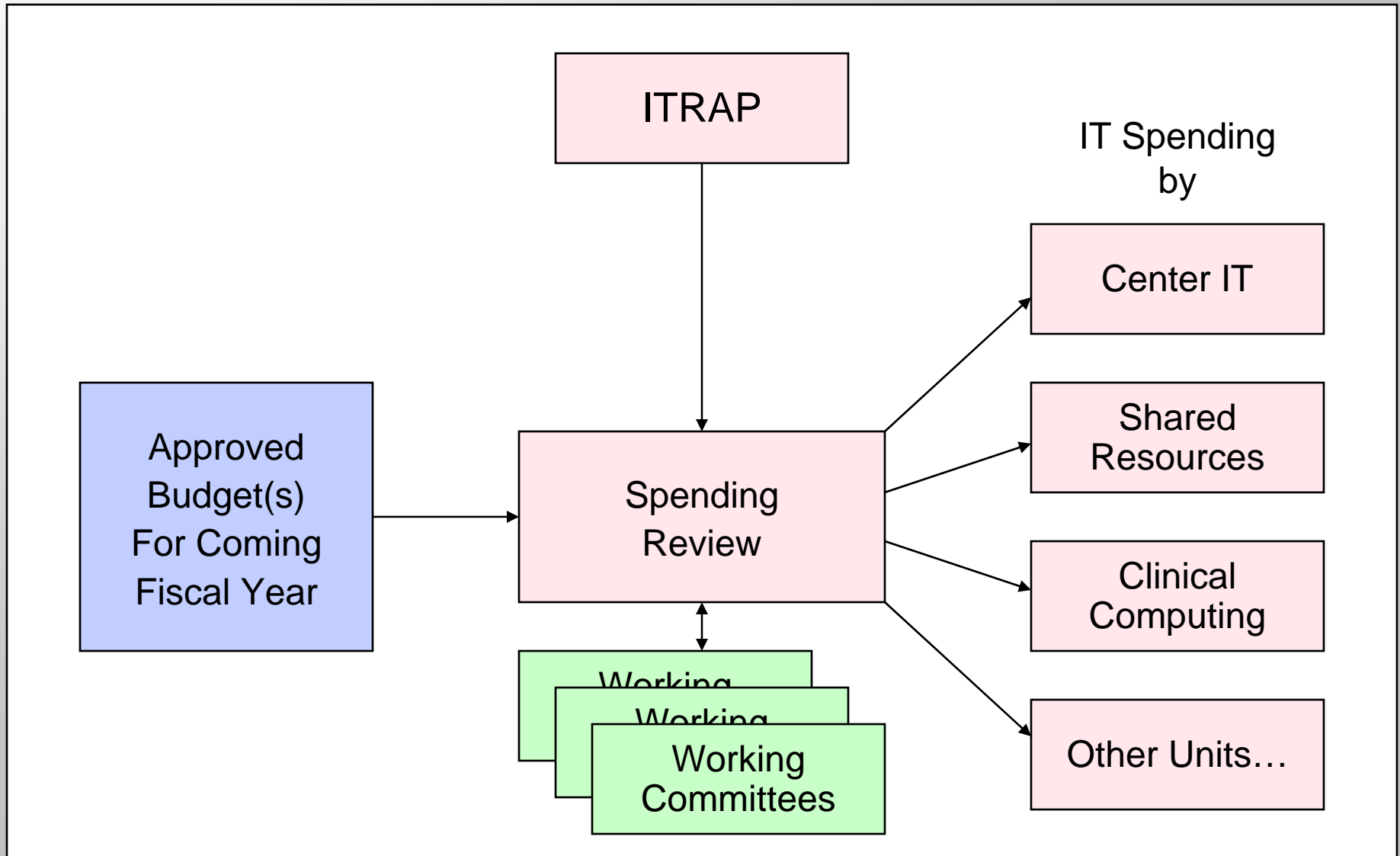
ITRAP: Annual Spending



ITRAP: Annual Spending



ITRAP: Annual Spending



ITRAP Operations: Summary

ITRAP will lead a Center-wide effort to improve our investment in IT through:

- **Planning and Policy Development:**
- **Annual Budget Review and Approval:**
- **Spending Review and Oversight:**

Open Questions

Open Questions

- Do you really need a formal governance process? Some institutions seem to function well on a handshake.
- Can there be too much governance? How to avoid bureaucratic overkill?
- Isn't there a risk that governance process will become an end in itself?
- To what extent does formal governance actually improve processes and to what extent is it just an elaborate form of butt covering?
- Are there best practices for IT governance at BRIITE institutions?

Open Questions

- How should IT governance differ between stand-alone institutions and embedded organizations?
- Isn't formal governance just a way of ensuring that medical IT gets *all* the resources? After all, won't patient needs trump all other priorities?
- Will a formal IT governance process be more like to result in the increase or the decrease of IT budgets?
- To what extent is formal IT governance related to formal IT project management?
- My boss says it's time to create a new IT governance process. Should I be worried?

INFORMATION TECHNOLOGY SUPPORTING BIOMEDICAL RESEARCH



WELCOME