



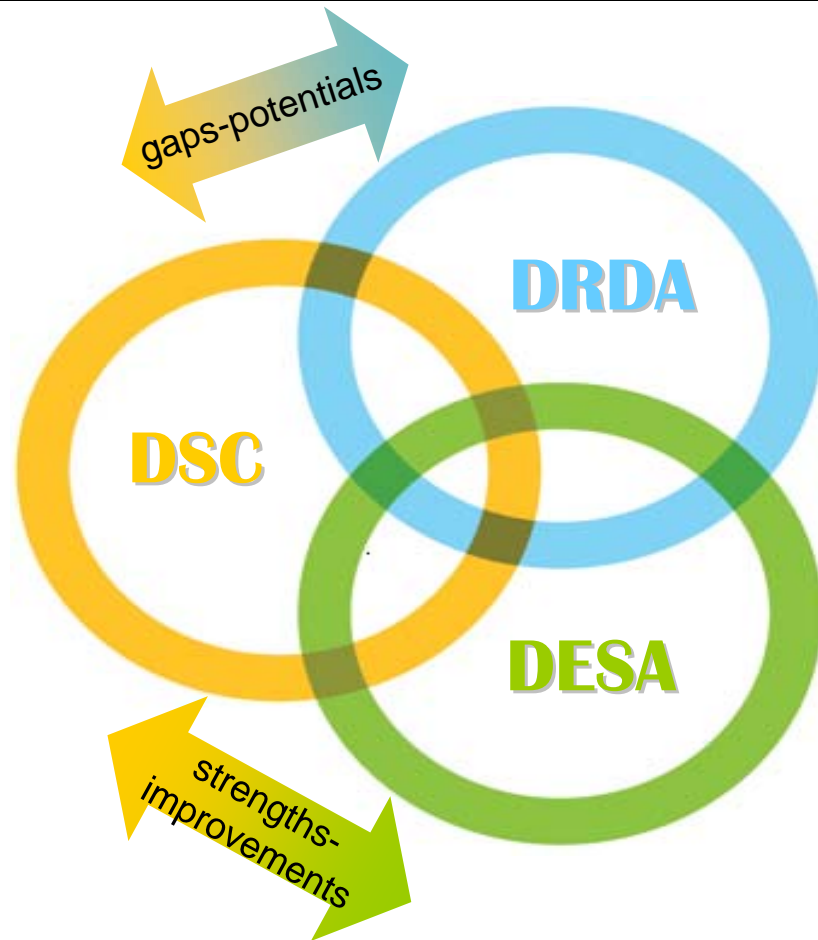
Overview of OPASI's Division of Evaluation and Systemic Assessments (DESA)

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OPASI

OPASI Overview



DSC: Division of Strategic Coordination

- Strategic Coordination-High Risk-High Impact
- Trans-NIH Initiatives

DRDA: Division of Resource Development and Analysis

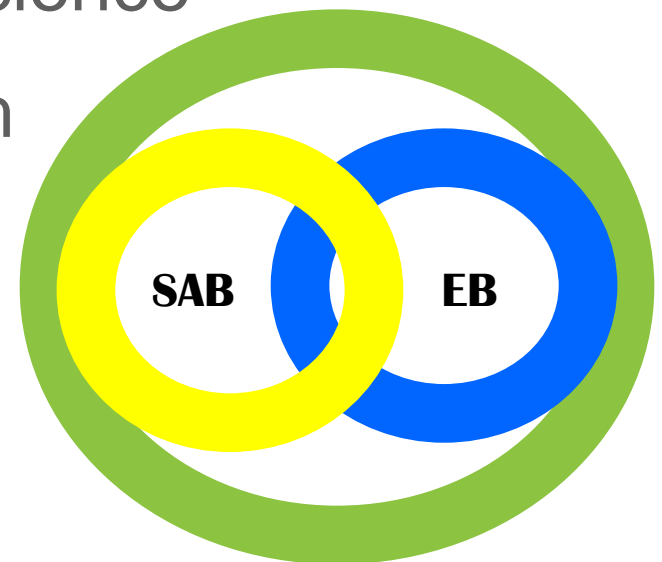
- Knowledge Management
- Portfolio Analysis
- Public Health Need
- Centralized tools

DESA: Division of Evaluation and Systemic Assessments

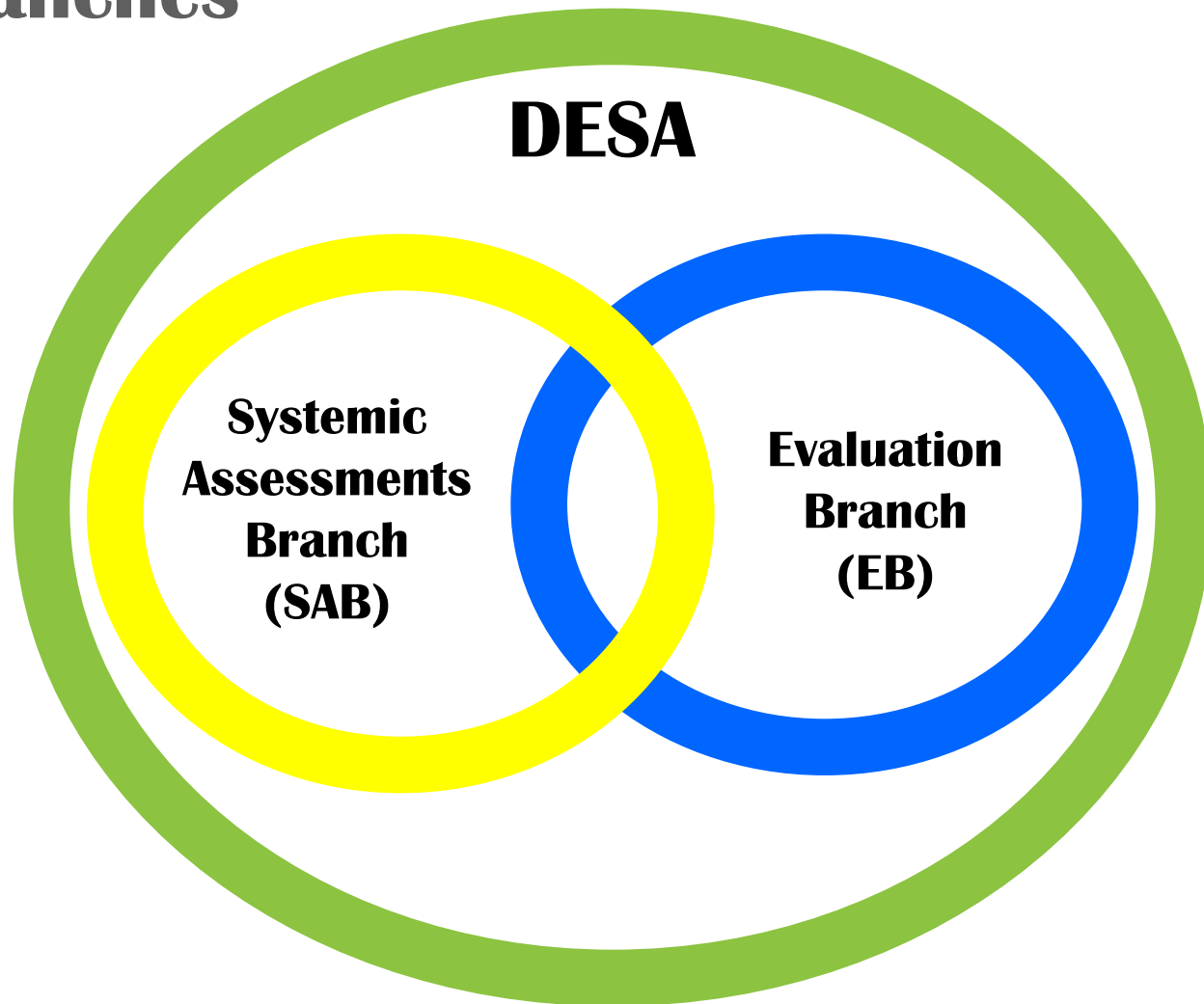
- Evaluation Feedback
- System Assessments (Sci of Sci)
- Evaluability
- Organization Performance

DESA Mission

- Coordinate NIH wide evaluations and system assessments
- Provide technical assistance for required performance reporting
- Facilitate the development of more appropriate performance assessments of science
- Provide findings, integrated with portfolio analyses that foster scientific planning
- Maximize effective use of the 1% set-aside

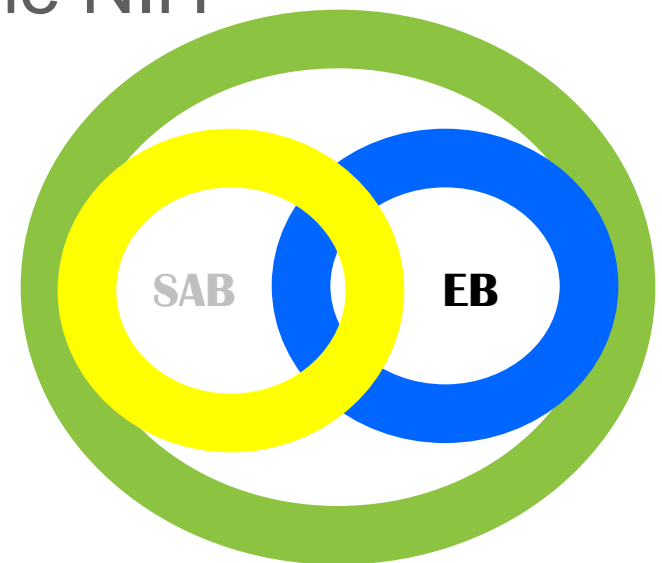


Two branches



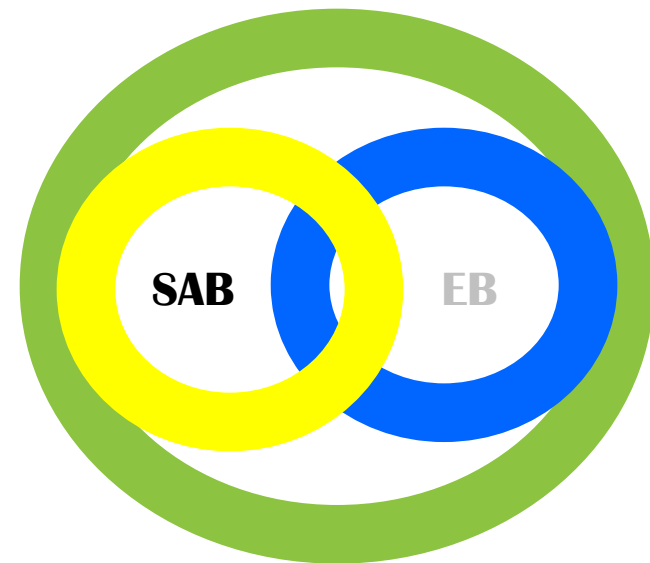
Evaluation Branch

- Evaluate NIH-wide programs, key initiatives, and strategic objectives (formative and summative)
- Track outcomes/recommendations
- Maximize the effective use of the NIH Evaluation Set-Aside Program



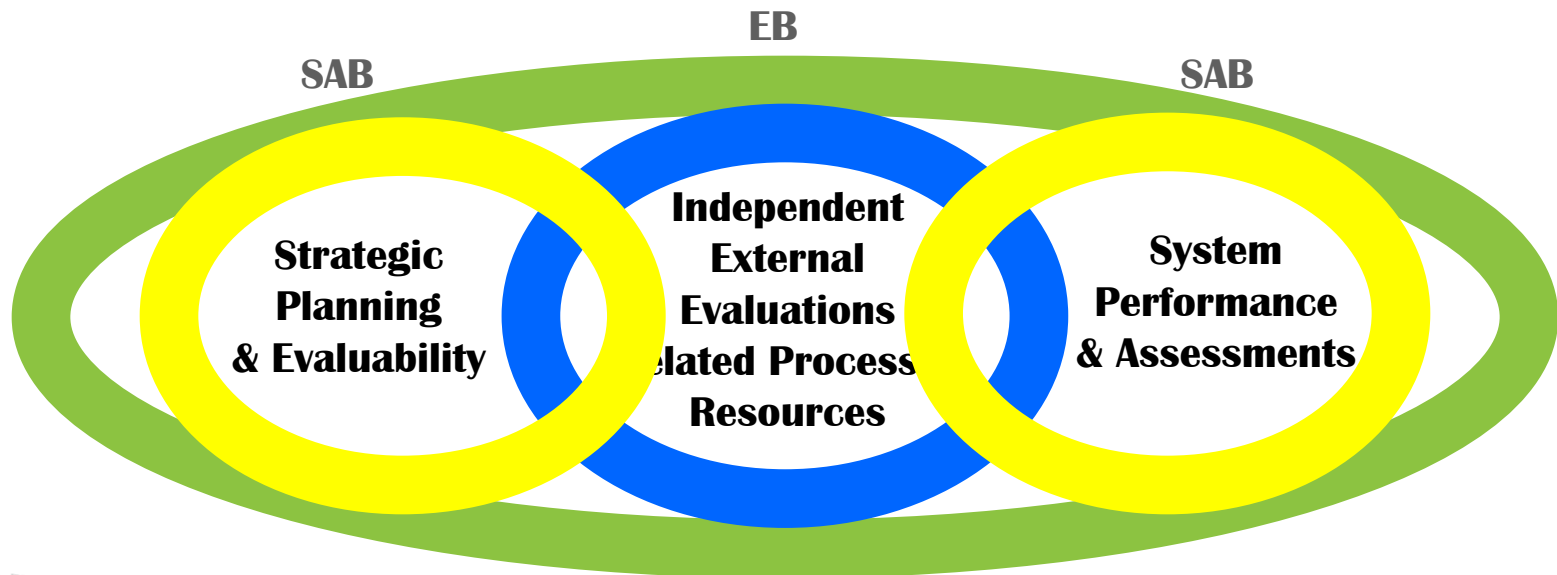
Systemic Assessments Branch

- Coordinate trans-NIH level program performance activities
- Comply and respond to federally-mandated performance reporting mechanisms
 - GPRA
 - PART
 - PAR
 - Scorecard
- Foster development of more appropriate assessments for
 - Innovative science assessments
 - Large complex systems/Organization assessments
- Facilitate science of science activities





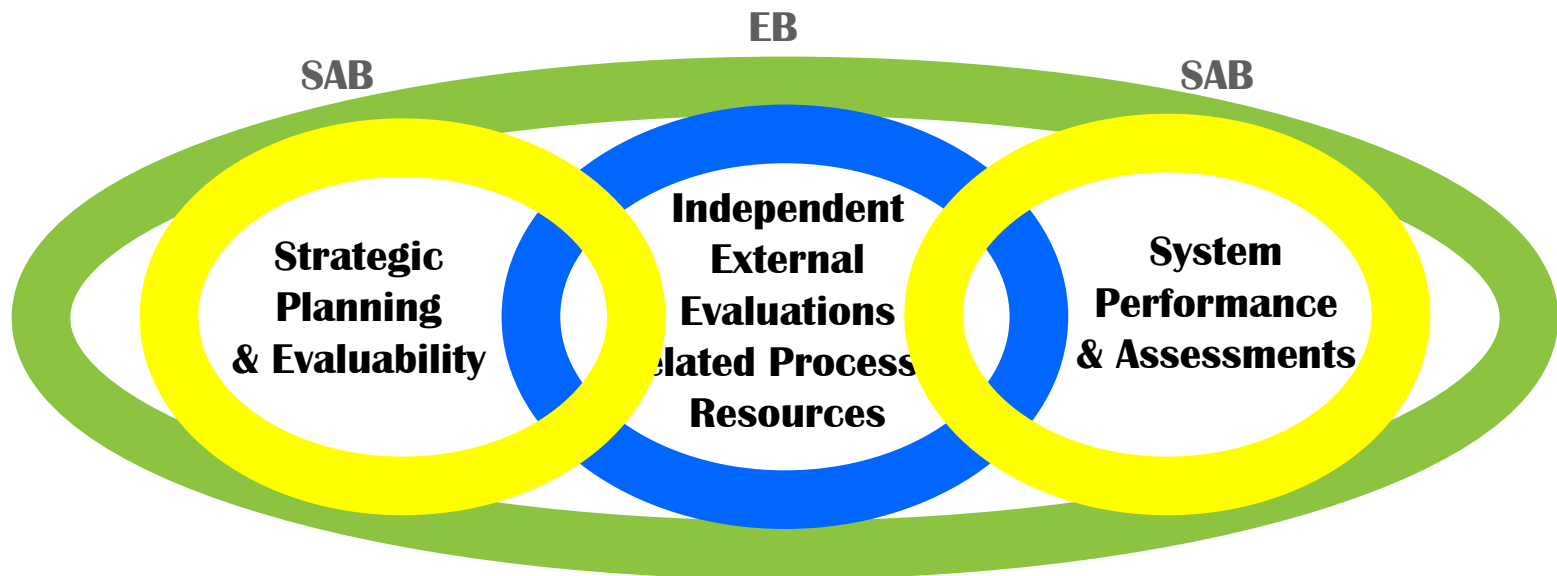
Coordinating-Planning-Managing-Tracking-Reporting

- Strategic Plans System Level
 - HHS/IC/Office/Program
 - Science of Science Management
 - Pre-evaluation Assessments
 - Visual Analytic Tools
 - e-Monitoring Systems
- Strategic Plans Project Level
 - Independent Evaluations
 - Evaluation Set-Aside Funds
- GPRA
 - PART
 - PAR
 - Audit
 - Biennial Report
 - Scorecard



SAB/EB work together to coordinate assessments of program/project performance and NIH overall performance

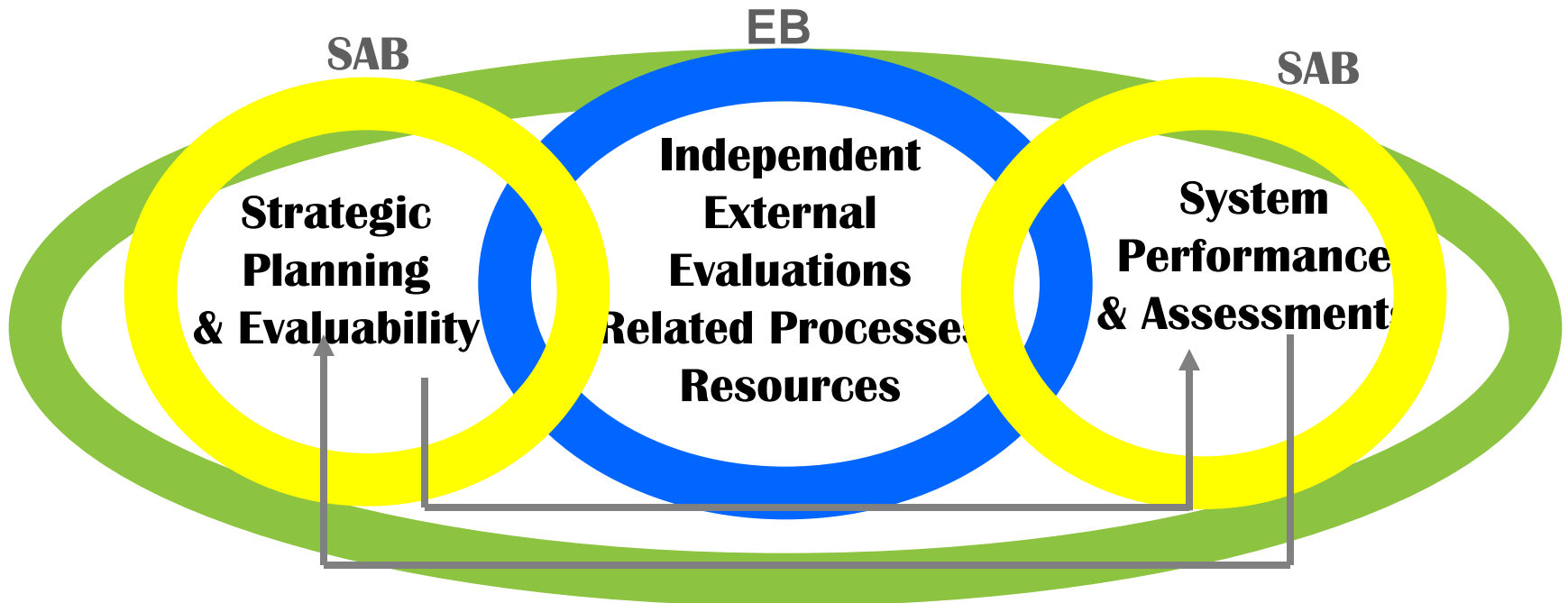
Internal preparation for external evaluations  Independent external evaluations  Organizational and system assessments



DESA Summation

Provides a systematic process for conducting evaluations/assessments that produce evidence-based results in order to:

- improve or adapt programs and/or management of science
- comply with performance reporting requirements
- plan
- enhance effectiveness & efficiency



Demonstrates appropriate federal stewardship

- **Environment of Accountability**
 - Required
 - Chosen
- **In a well-functioning system...**
 - No sub-system operates at maximum
 - Dynamic/systems change
 - Relationships are interdependent and non-linear, rather than simple and linear (cause-effect)
 - Transitions - worse before better
- **R&D science challenges evaluation practices**
 - Highly emergent (difficult to plan and predict)
 - Complex, large, diverse programs
 - Dynamic
 - Impact assessments take time post project
 - Discovery mode

Current

- Desire to have evidence-based information for planning and budgeting
- Have a general schematic of the NIH scientific processes (Science System) without detailed subcomponents
- Evaluation methodologies-no system assessments

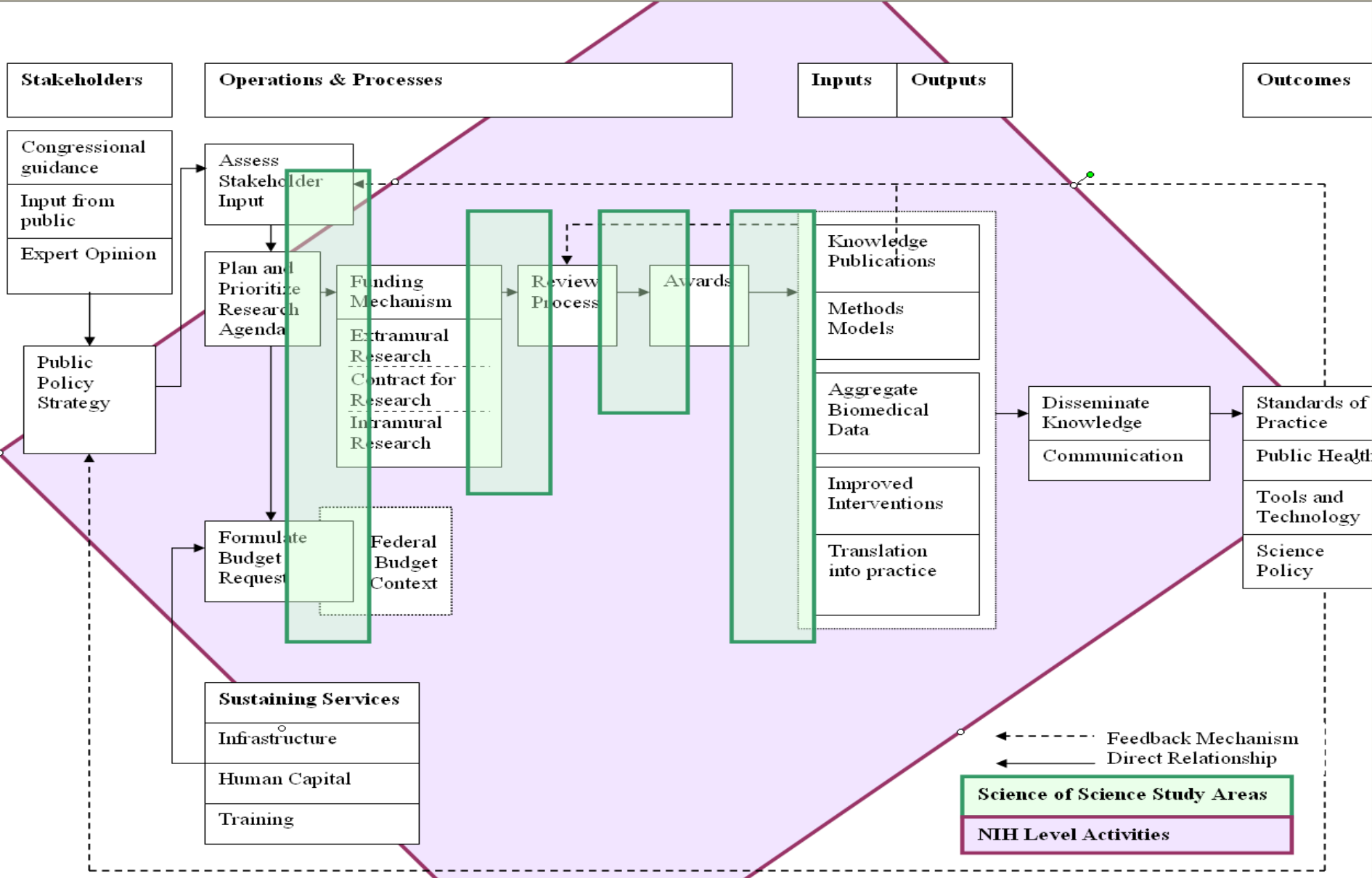
Questions with few answers:

- Should we fund a large center or multi-sites?
- Should we be applying metrics to help measure how effective a field of science is ? If so, what kind of metrics are in place to help assess a portfolio now? What do we need?
- What are the major questions that NIH should be asking?
- What methods procedures or tools exist to help answer the questions?

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Science of Science Model: Discovery Process – Bench to Bedside for Enhanced Public Health



Current

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- Have a general schematic of the NIH scientific processes (Science System) without detailed subcomponents
- Evaluation methodologies – not system assessments

- Program/project as the unit of analysis
- Upfront utilization focus / cause and effect
- Linear logic models
- Focus on achieving pre-planned goals
- Findings assessed in relation to plans
- Time specific
- Methodologies
 - Static designs
 - Preference for quantitative data
 - Randomized control trials - gold standard



Need

- Models of science administration subcomponents to assess
- Patterns, pathways and profiles to understand potential intervention points – remove barriers / enhance progress
- Metrics/Measures for more appropriate ways to assess science management performance
- More appropriate methodologies for assessing large complex scientific systems/organizations

Science of Science Management

The systematic scientific study of science administration in order to

- **Secure evidence-based information to report scientific progress and sound management**
- **Support scientific planning**
- **Facilitate effective, efficient decision-making**
- **Develop appropriate models for assessing science to encourage innovation, and to better determine effectiveness and efficiency of large complex science systems, including organizations/agencies**

Discussion Points - Homework

- Report on an area of innovation in your field of study for which patterns, pathways and profiles can be identified to determine if there are key intervention points that can reduce barriers or improve advancements, especially in areas of innovation
- Identify key areas of focus for NIH to focus science of science management efforts