

Findings by the ESE Strategic Management Council

- Endorsed the overall Technology Strategy and approach to implementation
- Endorsed the vision of an Earth Science Program evolving from set of unique missions to one providing a global architecture of observing capabilities that continually exploits emerging technological capabilities
 - future mission-specific capabilities provide components to the greater observing whole

Actions from ESE Strategic Management Council

- Ensure (improve) communication among scientists, applications, technology developers
 - ensure and communicate traceability from science requirements to technology products and capabilities
 - directed technology investments may be a critical component of strategy
 - ensure an aggressive, viable, incentivised technology infusion process
 - ensure that technology transfer processes and metrics encourage adoption
 - coming into flight programs; resulting from technology investments; transitioning from lower TRLs

Actions from ESE Strategic Management Council, con't

- Ensure a “Technology Push” emphasis past the 10 year time horizon
 - ESE goal is to invest 10-15% of annual Technology Budget
 - ensure proactive integration of ESE requirements in Agency-wide programs
 - e.g., Cross-Enterprise Technology; SBIR; HPCC; ERAST; SOMO Tech; NMP
 - seek a balanced, equitable approach for selecting projects
 - seek strong external partnerships (e.g., DoD, DoE, commercial) in very advanced, high risk technology investments

Actions from ESE Strategic Management Council, con't

- Establish a Technology Readiness Assessment Process
 - must support new program paradigm for 3-4 year mission acquisitions
 - e.g., a Technology Readiness certification prior to mission selection
 - include as part of acquisition procedures
 - must support a technology “peer review-like” approach
 - seek common definition and understanding of technology readiness levels (TRLs)
 - seek world renown qualified technology peers

Actions from ESE Strategic Management Council, con't

- Establish a strong end-to-end information and intelligent systems validation process
 - (lack of) identified as a pervasive and significant government and industry challenge
 - assure timely software assessment--may require entirely new validation concepts, e.g. to assure readiness for flight
 - assess current TRL definitions and refine, if necessary, to accommodate system concepts