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delivering results that endure

Leveraging Multiple Standards to Achieve Organizational Goals:

Booz Allen Hamilton's Process Improvement Program

Arlington, VA
August 7, 2007

Agenda

- Our Environment
- Our Response
- Our Lessons Learned
- What We Can Offer

The market environment is evolving towards integrated assurance in mature business processes throughout the lifecycle

Drivers

- Procurements require evidence ***of mature management and technical approaches***
- DIACAP mandates ***integration of security on day one***
- DoD Directive 8570.1 **requires Information Assurance professionals to be certified** within a five year time period
- Leading industry organizations are defining and publishing a **variety of assurance approaches**

Implications

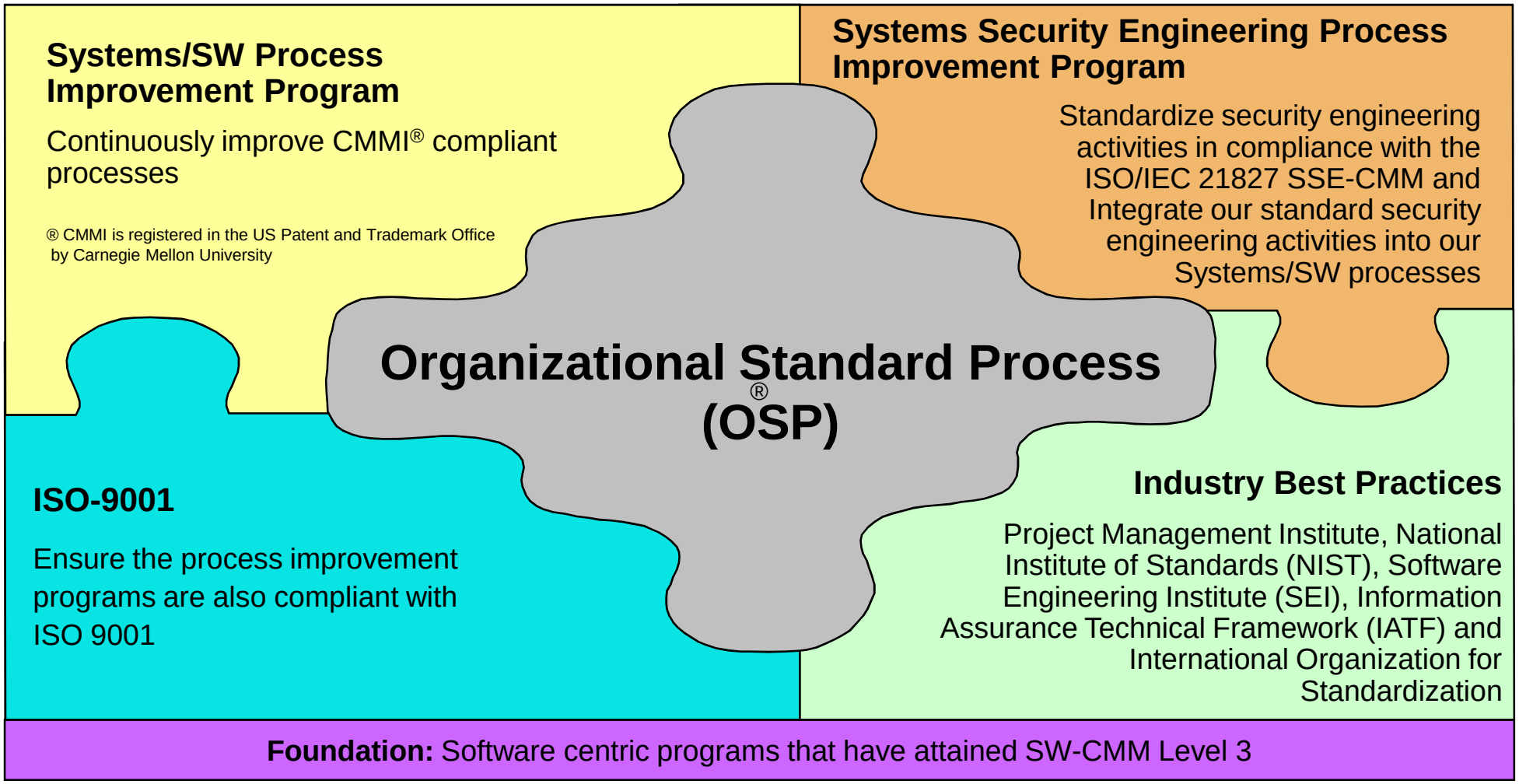
- **Institutionalization** of integrated management, engineering, quality, and assurance processes are a business imperative
- **Recognition of critical need** for highly-qualified, experienced information assurance personnel
- **National and International Standards** are emerging to document requirements and best practices

Industry Response

- ***Vendors are integrating assurance activities*** into their standard processes
- Increased ***outsourcing to countries*** with desired certifications and qualifications
- Strategic hiring creates the ***demand and competition for scarce resources***

Our Response …

Instituted a Process Improvement Program that leverages industry standards to support our diverse clients



CMMI ® = Capability Maturity Model Integration **ISO = International Organization for Standardization**

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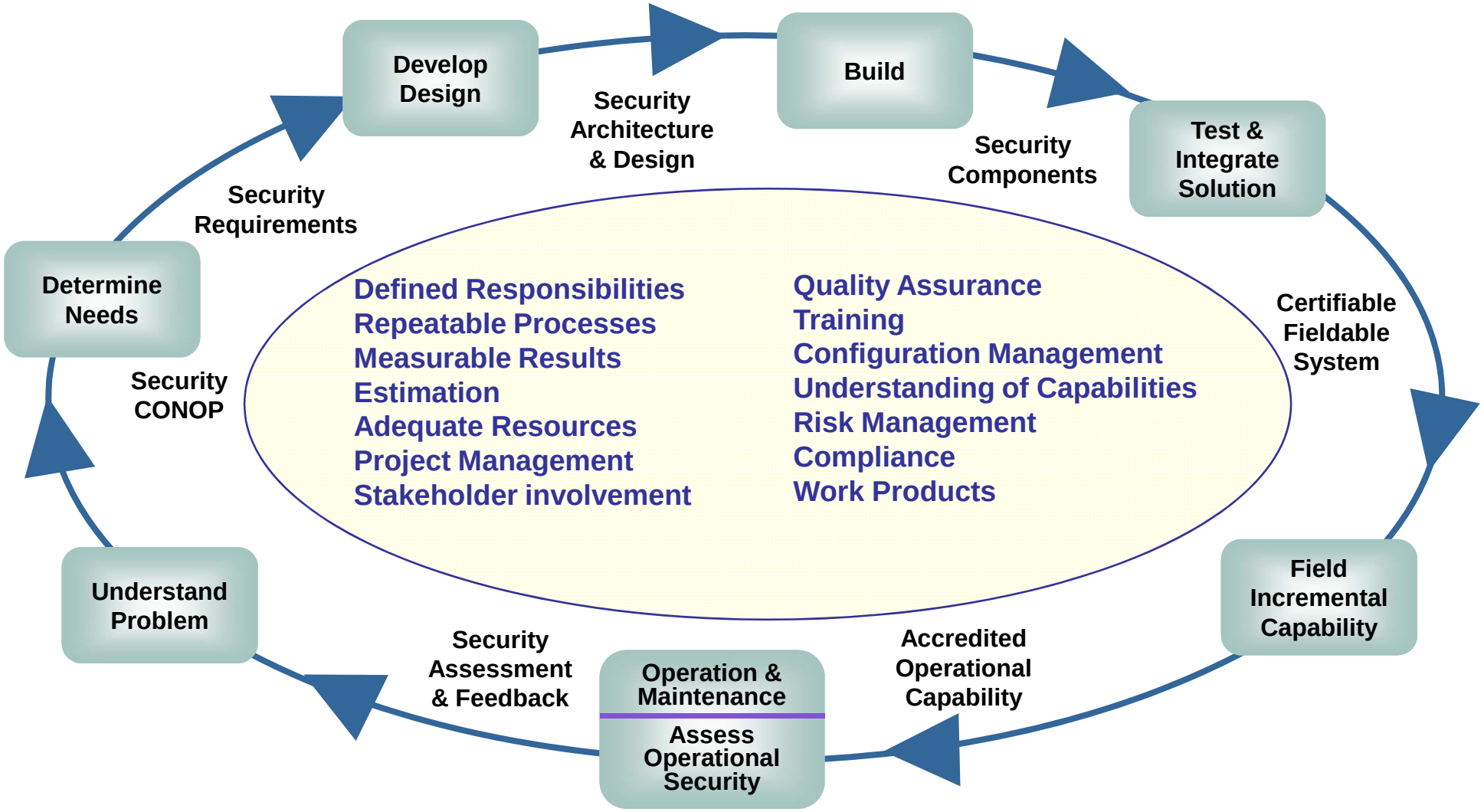
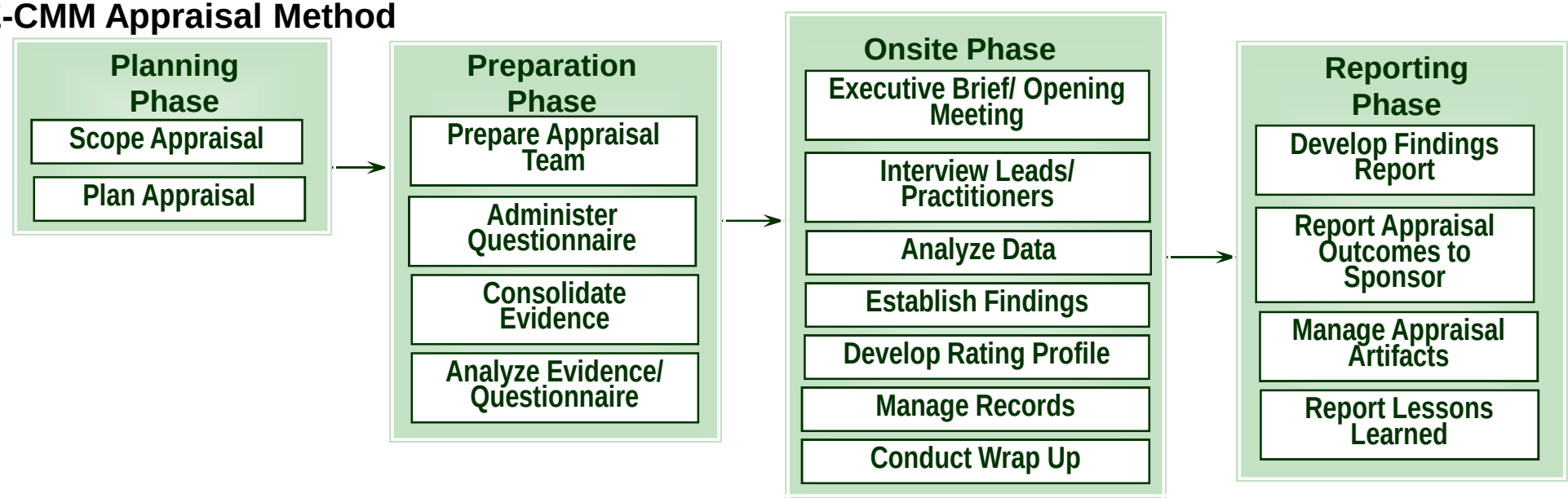
We deployed and institutionalized our integrated set of processes on our systems and software projects



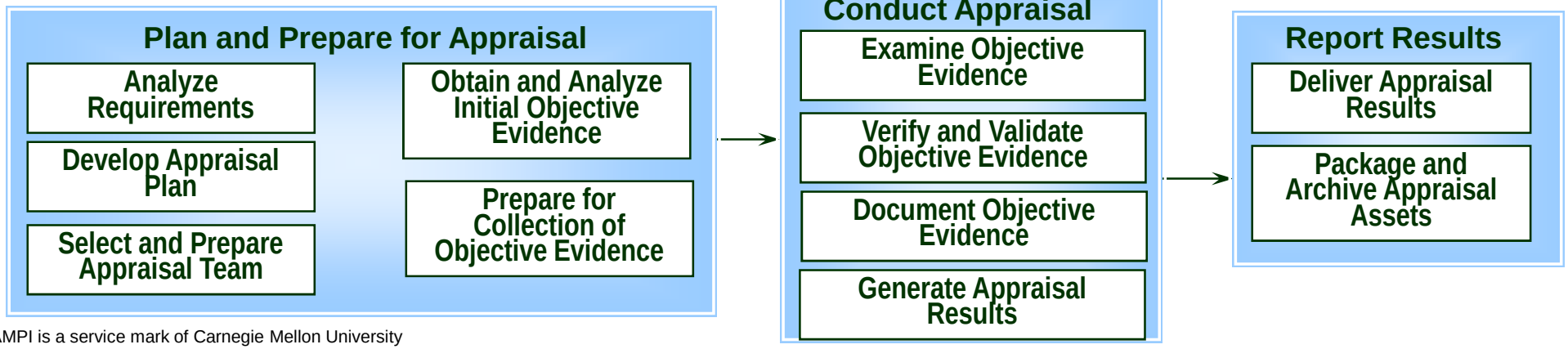
Our Response …

We leveraged the similarities in the appraisal methods to evaluate the effectiveness of our process deployment and prioritize improvements

SSE-CMM Appraisal Method



CMMI® SCAMPI℠



℠ SCAMPI is a service mark of Carnegie Mellon University

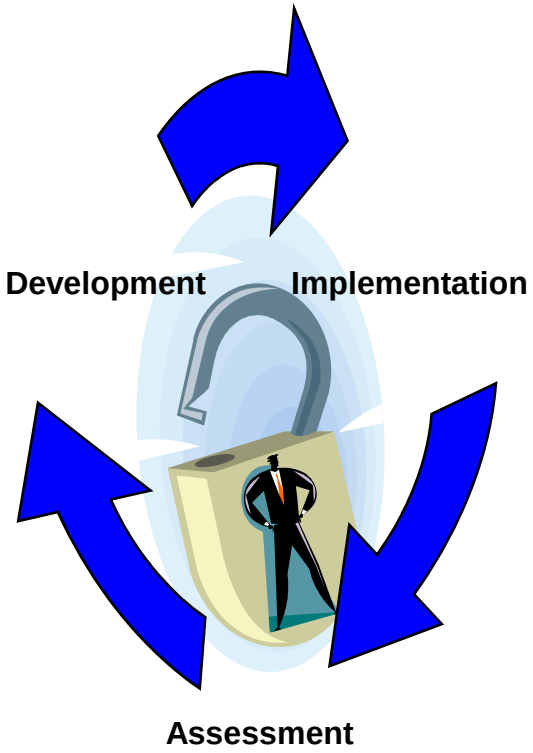
Integrating security into an existing Process Improvement Program has its challenges …

- Organizational resistance to change
  - Leadership commitment and continuity, compelling business drivers, carefully selected and qualified team members drove greater awareness and acceptance, overcoming resistance to change
  - Model independent processes that fit the organization facilitated rapid adoption (mapped processes to the model(s) in the background to ensure completeness of process coverage)
  - An integrated team of security and non-security experts contributed to our success
  - Process Improvement Organization modeling of engineering and assurance processes increased the organization's ability to mentor projects
  - Terminology glossary provided consistent definition of terms used for assurance activities facilitating collaboration among team members with different backgrounds
- Competing priorities
  - Limited funding and resources provided to implement the organization's process improvement plan are diverted to respond to changes in industry standards and models
  - Organizational process requirements frequently conflict with client defined processes, SOWs, and expectations
- Sustaining Support
  - Define and pilot before full scale implementation
  - Start small and create early wins and successes

… many of which are similar to those any of any process improvement effort

Assessment of security process institutionalization is necessary for continued improvement

- Lessons from Integrated CMMI ® and SSE-CMM Appraisal
  - Paired CMMI® and SSE-CMM experts to evaluate evidence concurrently
  - Used open-ended questions allowing inclusion of information assurance affirmations, even when not specifically solicited
  - Determined that the same artifacts can be used as evidence for both models
  - Realized that the use of multiple compliance tracking tools was cumbersome and that the evidence matrix should be integrated
  - Finding the right balance of information assurance knowledge among the team is critical to a successful appraisal



Appraising security process capability is not a substitute for evaluating the security of a system

Booz Allen will contribute to a collaborative effort to benchmark assurance processes and create a path forward

- Guidance on structure and implementation
- Piloting implementation and appraisal
- Enhance industry acceptance of effort through presentations and articles
- Continued participation in industry efforts such as SEI Partner, ISSEA, and ISO

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