GBSD: A US DoD 'Enterprise Agility' Pathfinder

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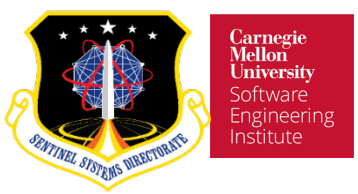

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Agenda

- Background/Intro
- Research Question & Results
- Research Issues and Methodology
- Summary/Next Steps

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GBSD Quick History

- GBSD=Ground-Based Strategic Deterrent
  - One enterprise, multiple strategic deterrent programs
  - Mk21a and Fuze programs are in varying stages
  - GBSD *program* became Sentinel program in 2021
- Sentinel is the largest program by far
  - SPO started out as 16 govt staff in 2016
  - Now over 1700 govt, FFRDC/UARC, and Independent Support Contractor staff

- GBSD targeted by the 2018 and 2019 NDAAs to be a pathfinder in Digital Engineering, Digital Acquisition, and Agile at Scale

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Research Questions and Results

QUESTIONS	OBSERVATIONS	NOTES
1. Can L/A (Lean/Agile) be useful in acquisition program ofc non-product development activities??	**YES--All divisions using L/A based methods**	**See next question for adaptations needed**
2. What adaptations are needed to make L/A useful?	Adapting OKRs to include operations work Adapting Scrum to Kanban and vice versa Understand building products vs providing services	As teams get deeper into implementation, more are doing a mix of kanban (for services) and Scrum (for products)
3. How do Jira/Conf contribute or create barriers?	Barrier: Initial tool barriers created L/A adoption barriers Contribution: Availability and use of tools increased quality and prioritization of division objectives	All divisions using same instance of Jira/Confluence Jira Business Rules crucial
4. How do OKRs contribute or create barriers?	Barrier: OKR constructs not a direct analogue to L/A and Jira work task constructs Contribution: Familiar construct already in place before L/A and Jira/Confluence contemplated	OKRs meant to be strategic items only but Sentinel uses for all work
5. How do govt/ prime contractor interactions change?	Large batch to small batch interactions tough to adapt to Overall collaboration improved	Enabling divisions of prime not yet using L/A; creates some disconnects

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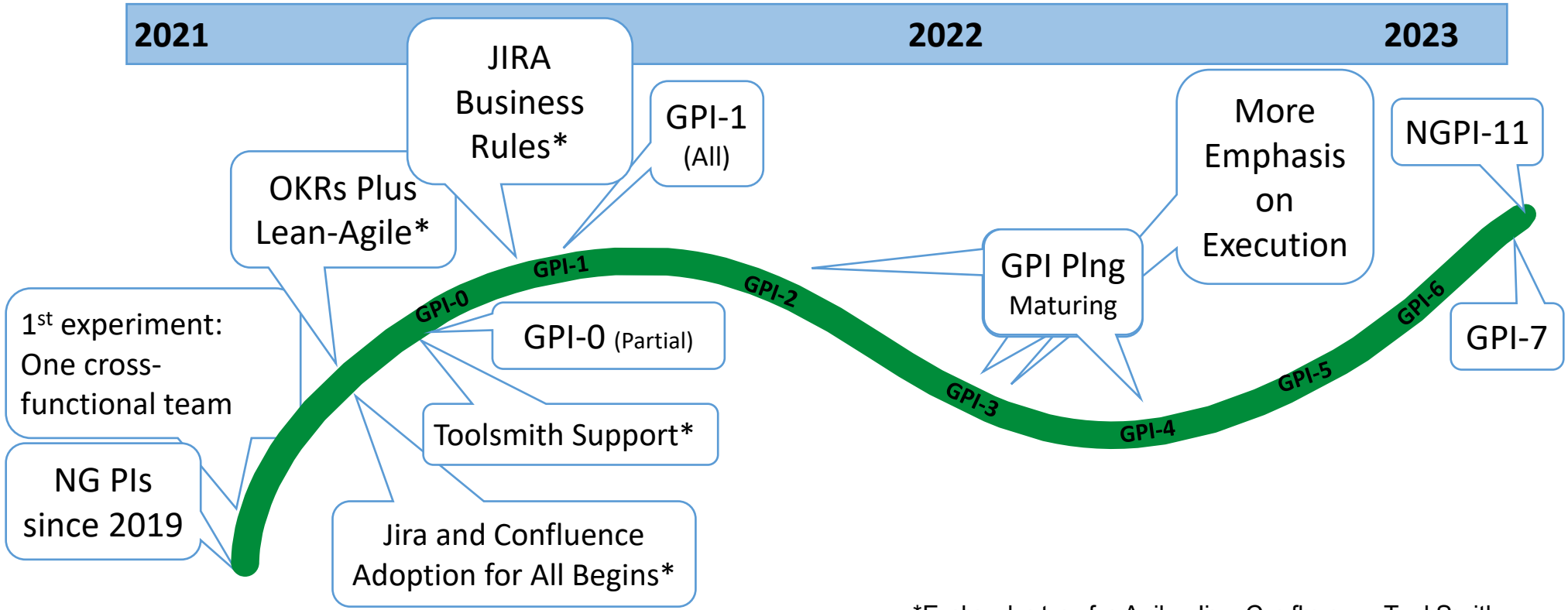
Summary of GBSD Enterprise Agility Journey



*Early adopters for Agile, Jira, Confluence, Tool Smiths occurred earlier allowing for experience and lessons learned to support widespread adoption

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SENTINEL SYSTEMS DIRECTORATE

Research Issues and Methodology

- Research conducted within an *action research* context:
  - Real world, not laboratory or classroom context
  - Researchers are also actively working/consulting in the environment
- Multiple sources of data to support analysis
  - Periodic retrospectives within Agile/Adoption Resource Center on coaching/adoption activities
  - Ongoing observations of coaches at different events and in working with teams
- *Reflexive thematic analysis* provided a method for recording and tagging observations that can then be analyzed to formulate descriptive and explanatory observations for the behaviors

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The Journey Continues—Next Steps

- More intense coaching of individual divisions to optimize implementation to suit both their work type and NX need for transparency and aggregation of progress data
- Maturing the tools to better support measurement of execution
- Refining how OKRs are used to optimize for the GBSD context
- Improving the visibility, prioritization, and roadmapping of the work
- Continuing to improve the integration and collaboration among multiple planning events/cadences (NG/GPI being the most significant)
- Continuing to improve how OKR/Jira/Confluence/ Lean/Agile training is collaboratively developed and evolved

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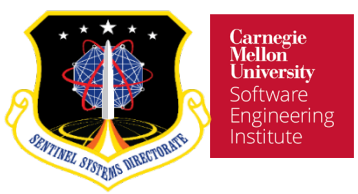

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BACKUP SLIDES

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What Would We Do Differently and the Same?

- **Different: Don't try all 3 – OKR, Jira/Confluence, Lean/Agile, all at once! Makes it difficult to figure out which dimension needs to be addressed when there's a problem**
- ***Same*: Start with a technical feasibility pilot (like DITF), BUT**
- **Different: Before rolling out to entire enterprise, do at least one *adoption* feasibility pilot with a group that (1) has access to the tooling, (2) gets more than awareness training for Agile and (3) is made up of at least 2 teams (so we can test dependencies in a controlled environment)**
- ***Same*: LOTS of training opportunities that address different roles AND different adopter populations that are offered every quarter**
- ***Same*: Quickly move from pilots to entire enterprise for GPI planning events, even knowing that not all divisions would adopt at the same rate for implementation**
- **Different: Provide more support for the day to day tool users in Jira/Confluence skill building earlier**
- ***Same*: incorporate transparent oversight using the tools and practices with leadership (e.g. synchronization meetings)**
- ***Same*: USG ARC/Prime contractor LACE collaboration from the start of EMD – different projects, but always communicating**

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Same/Different-2

- *Same*: Initial vision/strategy that was communicated early on
- Different: Survey/interview all the divisions before adoption to analyze likely adoption barriers and enablers
- Different: Identify and train division toolsmiths and Lean/Agile coaches before enterprise-wide GPI planning events started
- Different: before Lean/Agile introduced, train divisions more completely on OKRs (the lack of understanding of OKRs was a stumbling block at the branch level)
- *Same*: Not dogmatic about which Agile methods (e.g., not a "everyone must do Scrum") were used, especially in non-product development contexts
- Different: Earlier persistent (planning plus implementation)integration between USG and NG on PI Planning events

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The Journey Continues—Recent Changes

- Agile Resource Center became Adoption Resource Center
- Explicit Adoption Management process for both technology and practice adoption is being codified
- Lean/Agile implementations across divisions are becoming more nuanced (some divisions/branches that originally adopted Scrum are adopting Kanban for some teams)
- Weekly synchronization meetings reduced by 30% due to transparency and collaboration among divisions
- Pulling top 5 priorities for each division BEFORE GPI Planning brings OKR implementation closer to original author's intent

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