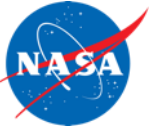


Approaches to Managing IT Change

National Aeronautics and
Space Administration



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- **Workforce:**

- 30% Civil Service / 70% Contractor (~17k / ~60k employees)
- Average age of CS workforce is ~49

- **Culture:**

- 10 Centers, 10 Cultures
 - Manned Spaceflight Centers (JSC, MSFC, KSC)
 - Research Centers (ARC, AFRC, LARC, GRC)
 - Science Centers (JPL, GSFC)
- Expectation that management will engage with employees on impacts of change
- Positive: Commitment to public service, to Agency mission
- Negative: “We will wait you out”
- Preference for highly customized solutions vs commercial off the shelf

- **Pace of Change:**

- Spacecraft take years to plan, build, launch, and operate
- We have missions launched in the 70’s that are still flying and need to be supported

NASA Locations





- **Change Management in Information Technology (IT)**

- Pace of change

- Very fast compared to other projects!
- Government slower than industry
- Cybersecurity pressure is increasing
- Release cycle is getting shorter and shorter (weeks or months, not years)

- Culture

- Customer expectations for the availability of IT tools is very high
- We expect access to the same tools we have at home

- 3 years is a key number

- Typical Chief Information Officer (CIO) tenure
- Typical refresh cycle for a computer



- **Innovation Led**

- New ideas, new ways of doing business, opportunities to operate better
- Example: Digital Transformation initiatives

- **Situation Led**

- Something happens where you have to respond
- Example: The Pandemic and shift to Work From Home (WFH)



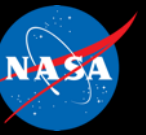
What's common? What's Different?

- **What's Common?**

- Senior champion engagement
- Communication!
 - The Why!
 - The vision, the benefits
 - Messages: We're in this together, be part of this!
- Do it WITH me, not TO me -- include stakeholders and customers in the change
- Let people process how they feel

- **What's Different?**

- Timeframe
- Flexibility / choice in making changes based on stakeholder feedback
- Doing it WITH me may be a lot harder
- Benefits may be harder to express



- SpaceBook & Microsoft Teams
- Both communications efforts to introduce employees to a new tool
- Different stages of the lifecycle – one being developed in house with stakeholder participation, one a commercial product being rolled out
- Dramatic difference in time scale
- Differences in ability to make changes to implementation based on stakeholder feedback



- **Example: SpaceBook**

- In-house pilot being developed to be a social intranet for employees at local facility
- Long time scale (6 months each, phases I & II) – users involved in the development and the rollout
 - Project was more serial
- Need was at the “nice to have” level – phased into the redesign of the Center intranet
- Senior Champions were from the business side, not just IT
 - Center Director’s office, Chief Knowledge Management Officer
- Business Case & communications plan identified vision & benefits for different customer segments
- Identified early adopters and key stakeholder communities
- Developed new resources for communication
 - Performed targeted outreach and shared what we learned from prior groups
 - Paper prototyping
 - Blog
- Success locally, not so successful expanding Agency-wide



- **Example: Increasing O365 Teams Adoption at the start of the Pandemic**
 - Commercial tool available to employees for communication and collaboration across the Agency
 - Short timescale driven by urgent business need
 - Project was more parallel
 - Developed local training program, didn't wait for the Agency
 - Champions were from IT, not business
 - This meant we had to do more educating on the "why"
 - Relied on existing resources
 - Knowledge of stakeholders, audiences
 - Use of Business Relationship Managers
 - Use of existing communications vehicles & processes
 - While we couldn't change the "how" of implementation, we could change the "how" of outreach
 - Doing it "With them" required a change in messaging – we're on your side to make this work
 - Tried harder to reach everyone
 - More & larger sessions to accommodate people's schedules, Recordings made available
 - Extensive FAQs



- **Know your audience**
- **Leading change requires listening to your stakeholders and helping them get there**
- **Situations require you to move quickly, but you still need to follow all the change steps**
- **Adapt where you can to help people through the change**
- **Answer to feedback, good or bad, is always “Thank you!”**



Questions?