CCSS-IT Change Management

Current gaps and proposals for solutions

Discussion points for today

- Do we have consensus on approach / sequencing?
- Do we have consensus on our roles and expectations?
- Do we know who we need to involve?
- What guidance / decisions are we looking for, from Ginna and G's team?
  - This pass: Approval that this is the right direction; designation of sponsorship; potentially participant names
  - Next pass: Detailed plan and additional requirements, if any… unless we can come to agreements very quickly on some of the open questions

Problem Statement

Change Control in CCSS-IT is **burdensome**, does not adequately **drive decisions or actions**, does not adequately account for varying **change risk levels**, fails to adequately prevent **quality** issues, and is hampered by overlapping responsibilities and **unclear decision authority**

Change control in CCSS-IT is neither *effective* nor *efficient* – and is not *consistent* across CCSS-IT

Intent of proposal

- Clarify and clearly delineate decision responsibility
- Ensure decision authority is enabled and clearly articulated to change participants
- Remove unnecessary overhead in change processes
- Better manage change based on relevant risks and – eventually – relevant change priorities
- Put pieces in place to make better decisions
- …and… institute continuous improvement processes to assess change-related issues, identify improvements, and implement them

Subtle variations in change management goals

	CCSS-IT-owned Systems	Critical Infrastructure and Foundational Systems
Goal:	Ensure that impacts of planned changes are understood and adequately mitigated as to not unduly impact CCSS-IT business constituencies	Ensure that planned changes do not unduly impact CCSS-IT releases or business constituencies
Concerns:	• Impacts of planned changes to existing production environment, including other applications in the environment • Impacts and risks of planned changes on other changes within the same target window (release or exception) • Extent to which planned testing will mitigate the risks • Actions needed to mitigate risks further, as needed, such as expanded test scope or changes in release scope	• Impacts to planned CCSS-IT release activities • Business user hours of operation and needs for availability • Stability of systems that business constituencies require • Communications to business constituencies regarding change impacts • Preparation of implementers to make the change, verify its success, and roll back if needed

Proposed scope of responsibilities

CCSS-IT-owned Systems → **CCSS-IT RMO**

Critical Infrastructure and Foundational Systems → **CCSS-IT Change Control Board**

Proposed delineation of responsibilities

CCSS-IT RMO

Identify change timing for changes to all CCSS-IT systems

Includes proposed release scope items and release exceptions

Incorporates change priority, dependencies, and risks into timing decisions

For maximum effectiveness, will require normalized definition of change priority

CCSS-IT Change Control Board

Determine or approve change timing for changes to critical Infrastructure and Foundational systems

Uses critical systems list as the definition of systems included in scope

May require identification of critical systems for business constituencies beyond TS

Benefits

- Cleans up confusing, overlapping, ambiguous responsibility areas
- Actually makes the change management process simpler – for participants and decision makers
- Better enables change assessment to drive meaningful decisions
- More appropriately puts control over CCSS-IT systems' changes where it belongs – in a release function
- Will allow better assessment of risks and impacts, included as a key process within release activities
- Provides consistent change management for high-priority systems across CCSS-IT

Impact of not making these changes

- Continued high change management overhead
- Continued frustration by change participants with change review process overhead
- Ambiguous and overlapping change-related decision authority, with little ability to make decisions “stick”
- Little ability to tie change decisions to change priorities
- Gaps in change risk and impact assessment, leading to change-related defects and failures
- Continued confusion – by all parties – as to processes
- Inconsistency of processes across CCSS-IT groups, systems, change windows (release versus exception), and change size (project versus tactical)

Critical Success Factors

Key enablers for the process improvement effort:

- Strong IT and business sponsorship for the effort, including definition and institution of sponsor team*
- Continued visibility and prioritization of the improvement program over the course of the effort*
- Resources allocated to the team to do the work*

Key enablers for the new (“to-be”) change processes

- Executive support in communications of new processes
- Executive support for defined decision-making authority, i.e., backing for release scope and change timing decisions

* Specific requests to be articulated in upcoming slides

Action Plan

Clarified and realigned RMO / CCB roles and authorities; risk and impact included in release processes and decisions

Phase 1

Normalized definitions for change priority

Priority incorporated into release scope and change timing decisions

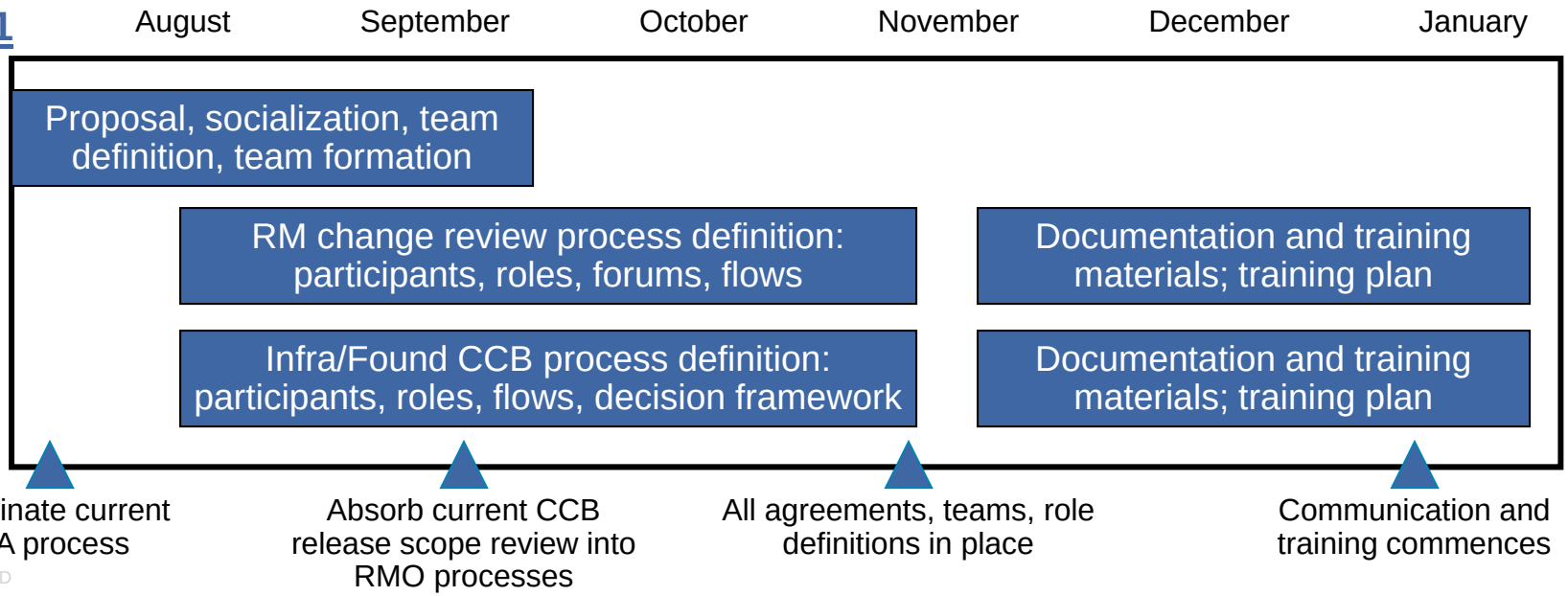
Phase 2

Standard tool-set to support release and change management processes across CCSS-IT

Ideally, normalized change priority linked into portfolio and funding decisions

Phase 3

Phase 1



Proposed team structure and open questions

Executive Sponsors

Guillermo, Tania, Ginna, David M., Mike P., Business?

Team – Overall

Igal (Lead), Melissa (Advisory), Toni (RMO), Iain (CCB), Jenny (Risk), Stephen (Guidance)
Open: QA (Synergy vs TS-IT vs other IT)
For discussion: CSCC IT, AS IT, CSCC and AS business?
Phase 2: Portfolio Mgmt
Phase 3: G-Ops

CCSS-IT RMO

Toni – Lead
Igal – Participant
Melissa – Advisory
Iain – Stakeholder
Jenny – Assessment process
??? – QA?
??? – Arch expert (for risk/impact process)
?? – CACO expert (same)
?? – Other business repr?

CCSS-IT CCB

Iain – Lead
Igal – Participant
Melissa – Advisory
?? – CACO expert
Neil L.? – G-Ops
?? – QA
?? – non-TS business (CSCC, AS,…?)

Challenges and decisions needed

- No dedicated project manager
  - Igal is designated lead, but with limited time availability
- Little resource availability to create process documentation, training material, training plan
  - Resources not currently identified
- Team accountability is unclear in certain areas, e.g.,:
  - QA, to be able to drive impact assessment into test scope related actions
  - Technical / architectural expertise, to define and institute a standard cross-functional risk/impact assessment process that results in meaningful decisions and action identification
- Proper business sponsorship and team participation is unclear

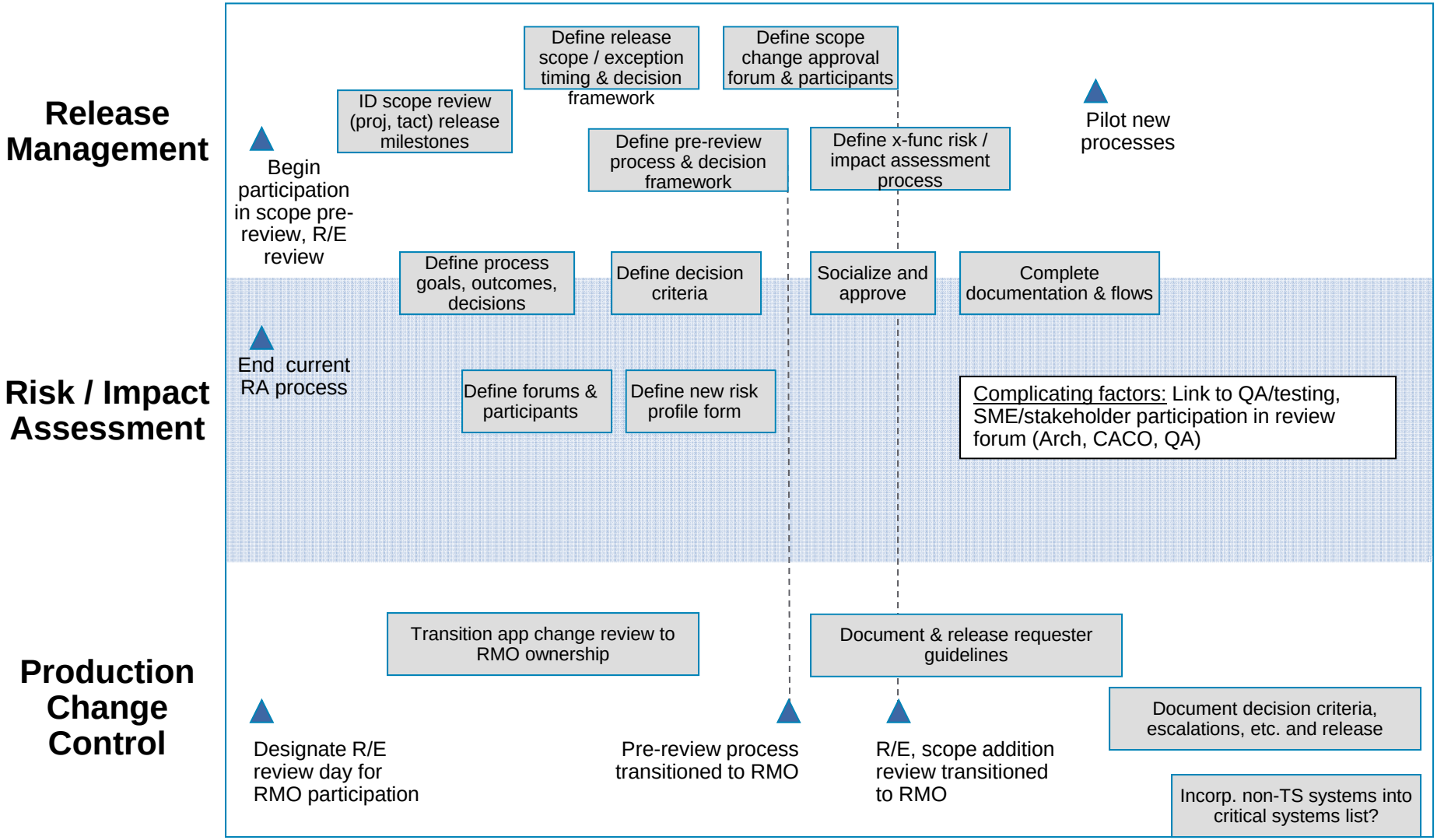
CCSS-IT Change Management

Backup materials

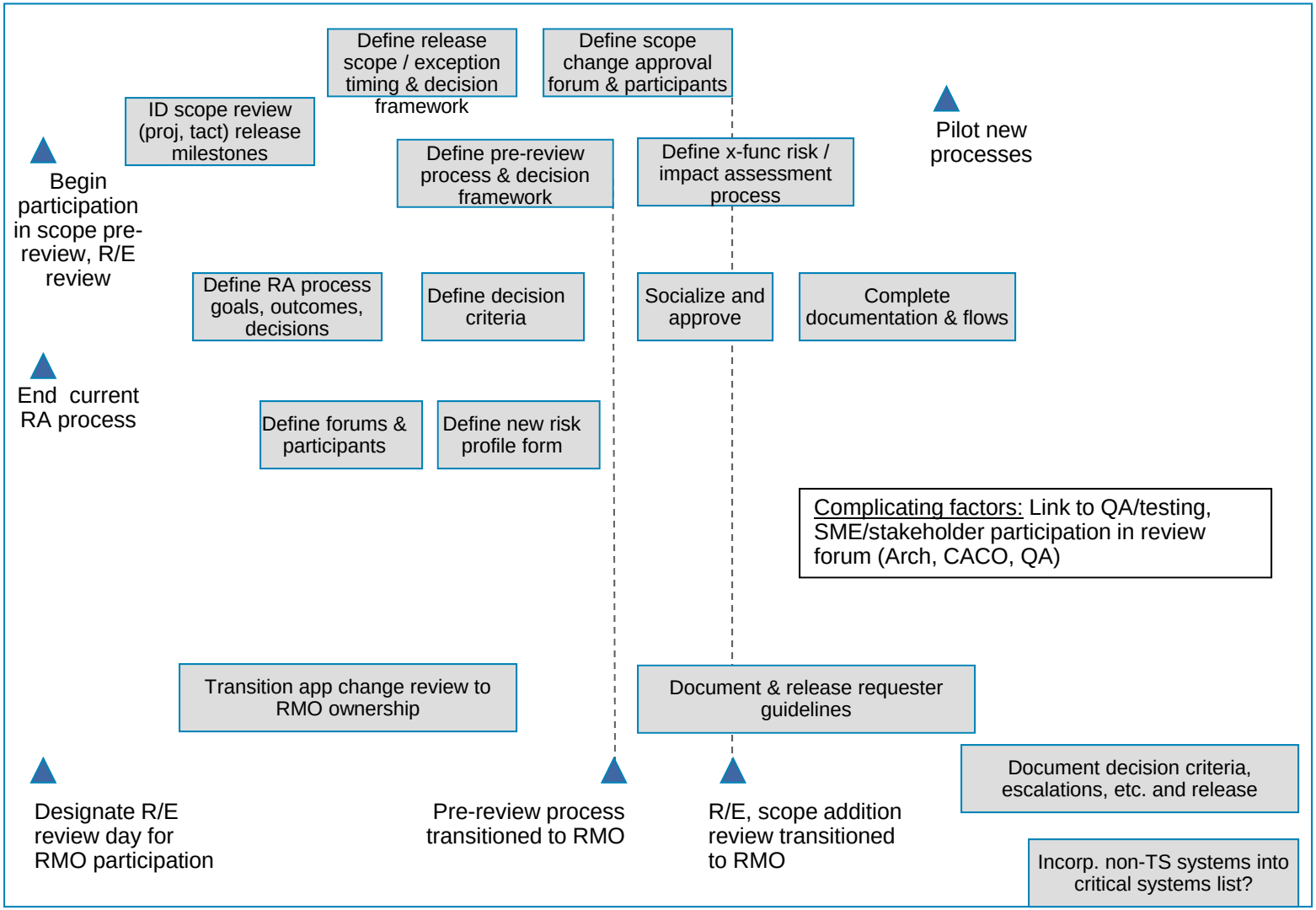
Immediate suggested transitions – FOR REVIEW

1. Communicate end of current RA process
   - Use piloted pre-RC “pre-review” process as the current risk/impact process until ready to deploy new process
2. Involve RMO (Toni) closely in current CCB scope pre-review process
   - Build understanding of concerns, questions asked, implications identified, issues, etc.
3. Move CCB review of CCSS-IT application changes to a specific day, and involve RMO (Toni) closely
   - Build understanding of release exceptions proposed, rationales given, late release scope proposals, etc.

Activity Sequencing



Activity Sequencing



Intent of standard change control processes

Reduce the number of change-related issues created in production environments…

…to facilitate production system stability and performance…

…and prevent outages and unplanned downtime

Problems with today's change control

Requires too much overhead, even for small changes…

…but does not closely examine the impact of large changes

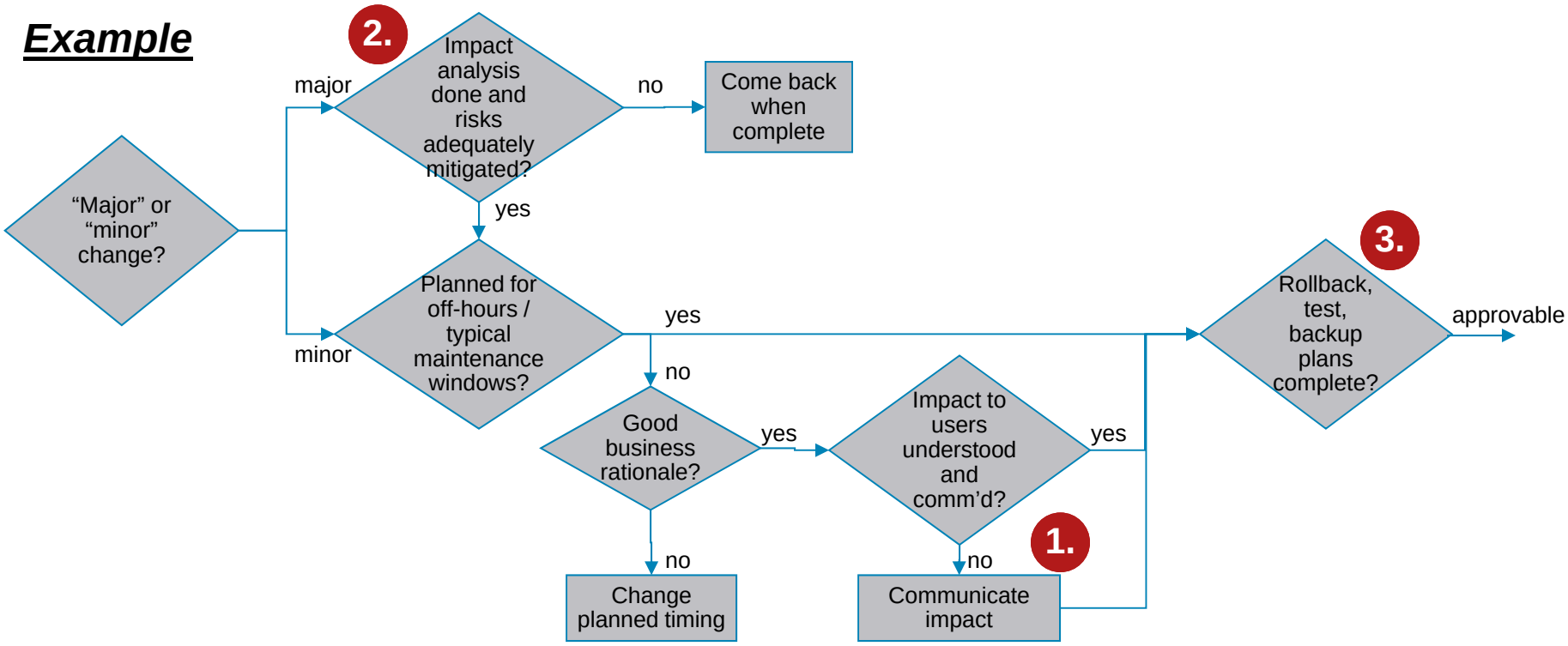
Impedes delivery of requested changes…

Does facilitate appropriate decisions and trade-offs, nor enable tough decisions to "stick" once made

Fails to prevent some issues that could be easily caught even without overly rigid control mechanisms

Change review for infrastructure and foundational system changes

Example

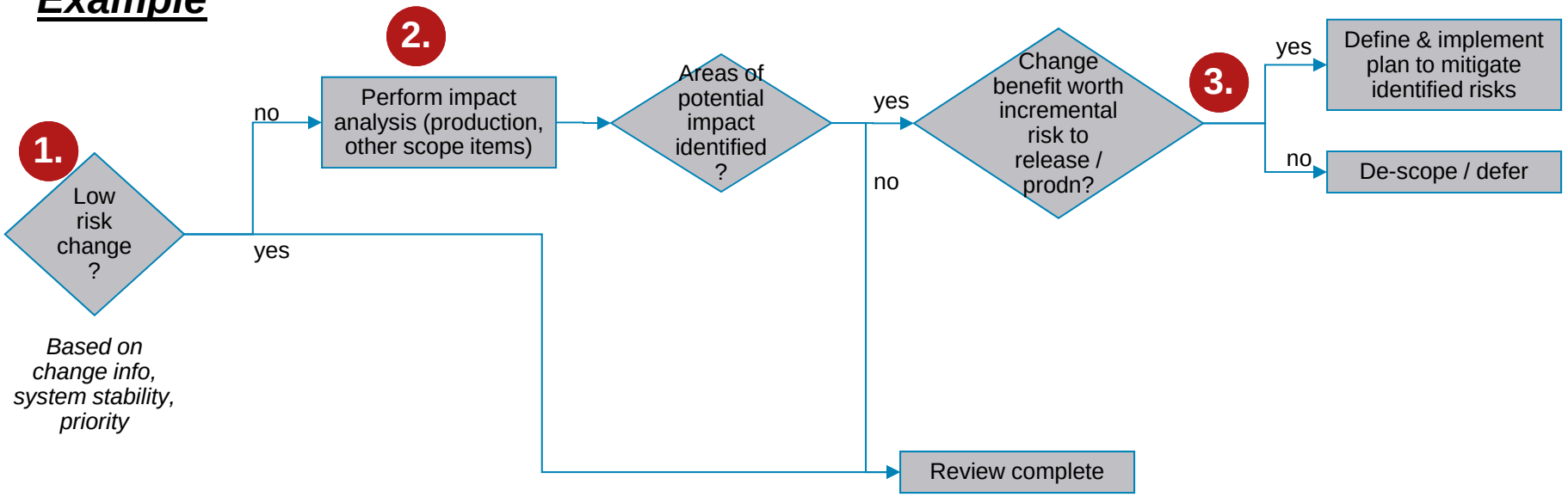


Key Points:

1. Change impacts are **communicated** to affected users and IT groups
2. **Major changes** have **impact analysis**
3. Changes are **properly planned for deployment**

Change review for CCSS-IT applications

Example



Key Points:

1. Risk profile used to identify whether further analysis needed
2. Impact analysis (to release, to production) identifies risks and mitigations needed
3. Impact analysis used to drive actions and decisions

Challenges

- Impact analysis is tough given lack of staff that understand interactions between systems and functions
  - Needs to be added as a standard process
- Link to testing scope complicated by fragmented test responsibilities (Synergy, TS-IT, CACO)
- De-scope / defer decisions tougher to make without normalized measures of change priority
- Defined low/medium/high risk levels may need adjustment to ensure focus on most significant changes
- Need to add process to examine post-release (and RE) failures for RCA and action identification
  - Identify failures in release processes and make improvements

Change break-down (CRs)

Minor Category	% of changes
Infrastructure Release Exception	**36** %
Foundational Release Exception	**30** %
Application Release Exception	**18** %
Release Scope Items	**12** %
EBFs	**4** %

Key Points:

- High volume of infrastructure / foundational changes – different drivers and needs for evaluating those
- Infrastructure changes affecting TS apps and release bugs not caught by testing were both significant issues at last examination
- Organization would benefit from linked process between CACO problem management and post-release stabilization efforts to identify and address release process issues