

Reimagining *Science and Engineering Indicators*: Roadmap

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Science and Engineering Indicators 2020 & Beyond

Guiding Principles for Reimagining *Indicators*

- Improve usability
- Attain production viability for SBE/NCSES and NSB



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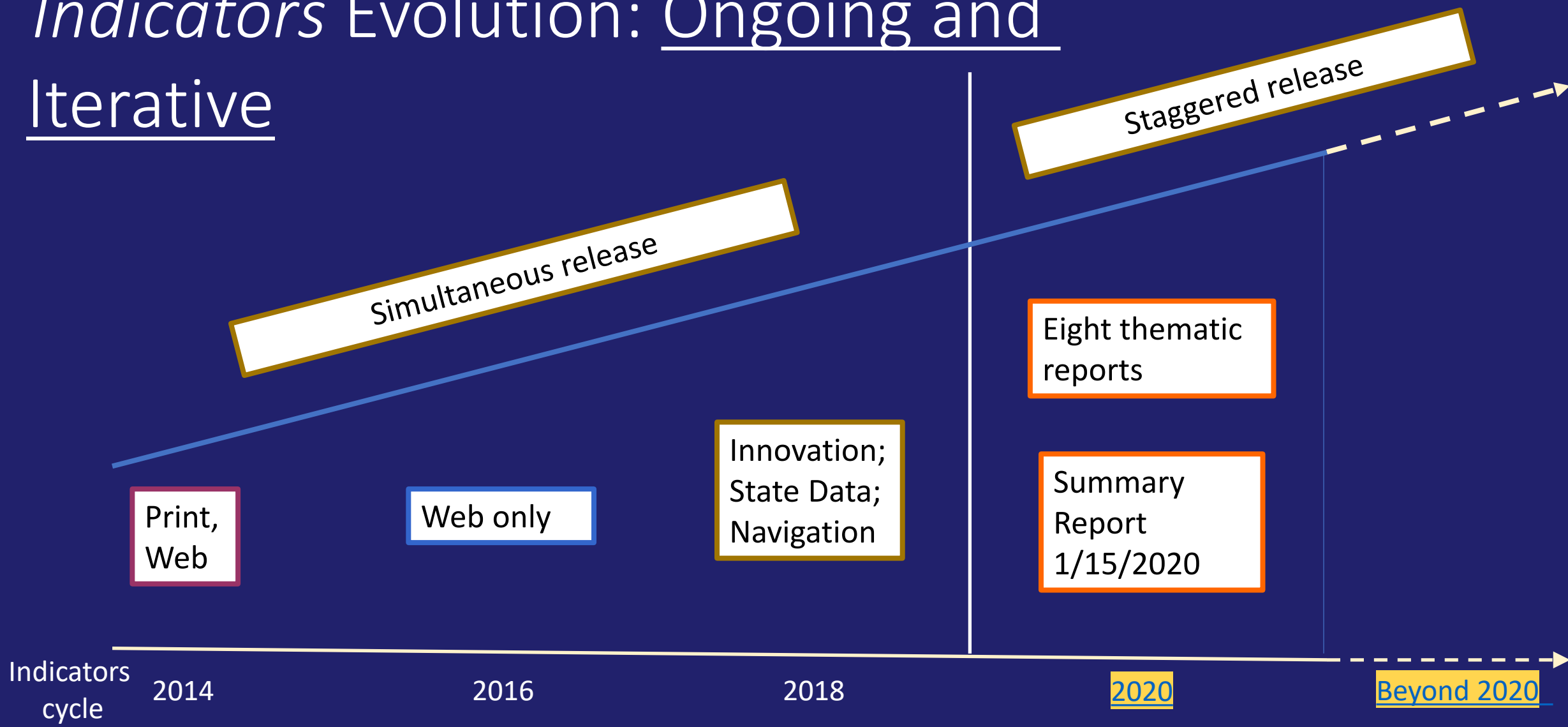
Indicators Evolution: Ongoing and Iterative

- Congressionally-mandated due date
 - Maintain production and implement change
- Stakeholder engagement and input
 - Considered in production plans



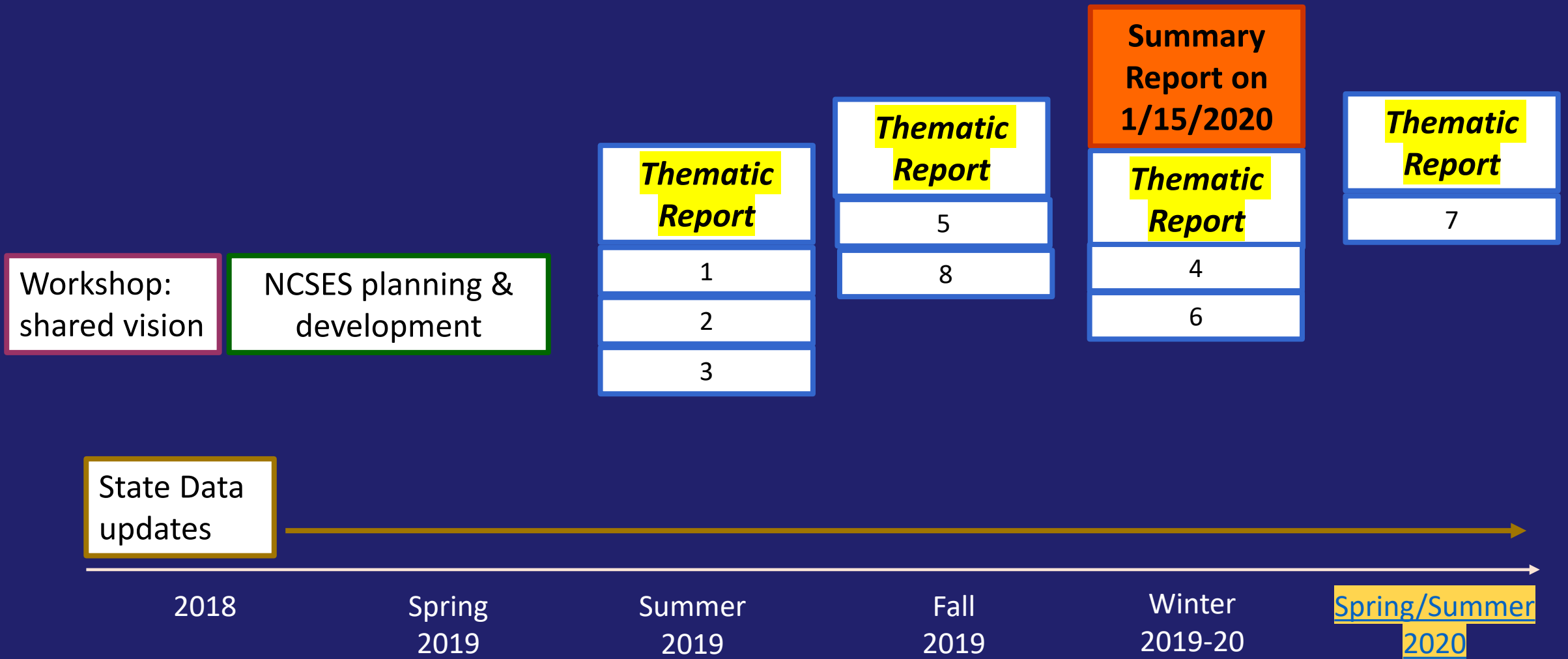
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Indicators Evolution: Ongoing and Iterative



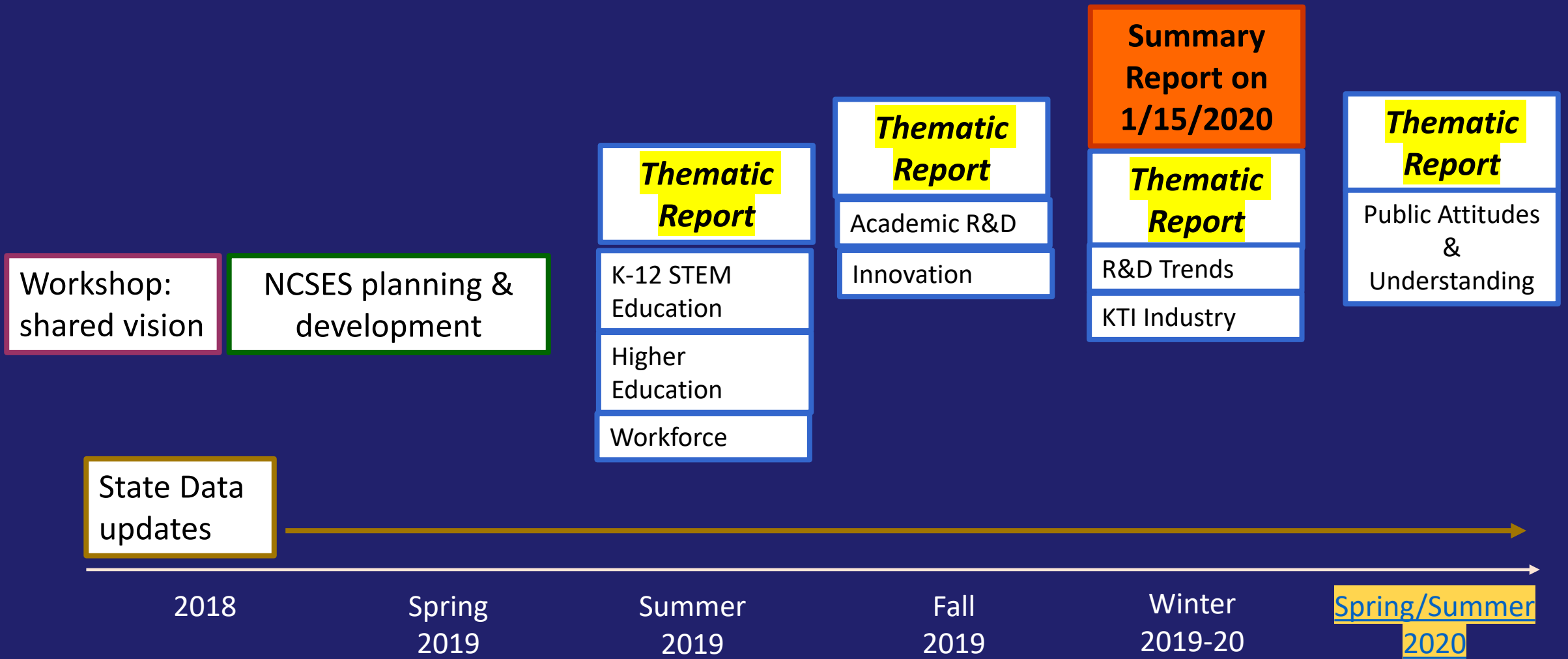
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Reimagining *Indicators*: 2020 Cycle



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Reimagining *Indicators*: 2020 Cycle



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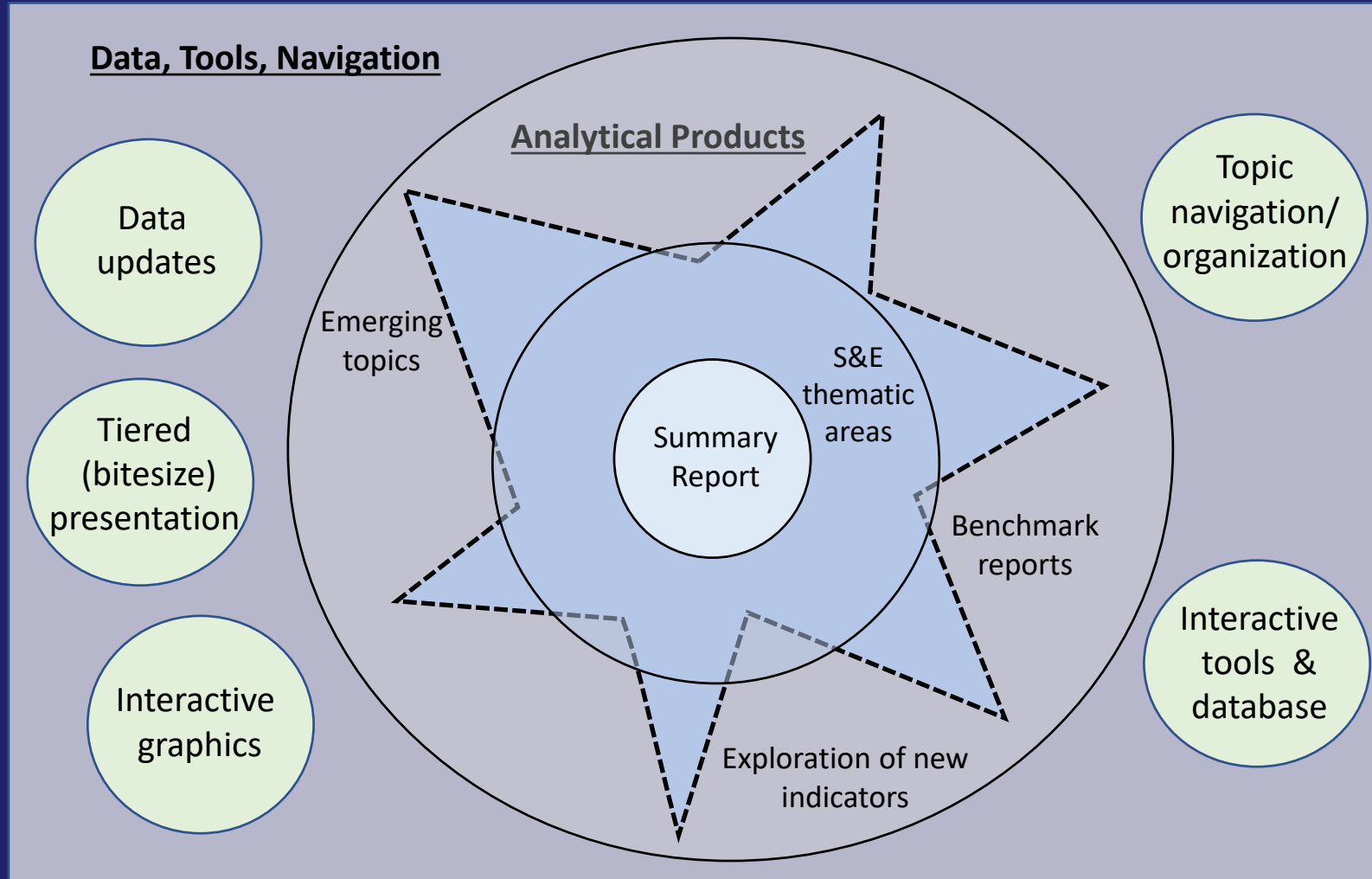
Reimagining *Indicators*: Review of Analytical Content

	<u>Previous cycles</u>		<u>2020 cycle</u>	
<u>Review groups</u>	<u>Chapters (1 – 8, State)</u>	<u>Digest & Overview</u>	<u>Thematic Reports</u>	<u>Summary Report</u>
➤ NSB	√	√	√	√
➤ Experts (including federal agencies)	√		√	
➤ Federal agency concurrence	√			√
➤ Sequence of review groups	Sequential	NSB only	Parallel	Parallel
<u>Items under review at a given period</u>	All chapters	Two	Report(s) under production	One



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Reimagining *Indicators*: Long-term State, Beyond 2020




➤ Scalable production model

➤ Revisit product suite

- Prevent continuous growth

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Reimagining *Indicators*: Steps to Long-term State

Indicators cycle	2020  2030	
NSB Policy Companions	Staggered thematic reports → more regular data	
Summary Report	Biennial	
S&E Thematic Reports (TR)	Eight substantially rewritten	<u>Goal:</u> Enhance timeliness and flexibility <u>Approach:</u> Revisit content, format, number
NCSES Special Reports	Plan future content	<u>Goal:</u> Develop and refine new indicators <u>Approach:</u> Begin with planned list of topics
Review Process	Similar, parallel	<u>Goal:</u> Optimize review process; ensure quality and timeliness <u>Approach:</u> Rethink engagement
Interactive Data/Tools	State Data periodic updates	<u>Goal:</u> Continue State Data Updates; leverage technology and enhance flexibility <u>Approach:</u> Build on NCSES's tools and capabilities

Critical factors:
Staffing and dissemination capability; production steps including review



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We are Reimagining *Indicators* to.....

- Modernize how we provide information
- Leverage digital technology
- Improve agility
 - Dynamic, timely, and nimble reports
 - Viable production



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Additional Slides



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Science and Engineering Indicators 2020 and Beyond

Reimagining *Indicators*: 2020 Review

Review groups

- + Focus reviewer expertise

Review groups: Parallel

- + Reduce production time
- + Assess reviewer input more holistically
- Reduce iterative refinement

Items under review

- + Reduce reviewer burden

NSB Communication

- + Streamline beyond NSB meetings → more nimble production



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Considerations for Thematic Reports

Key considerations

- Indicators on the state of the S&E enterprise
- Major findings in an accessible, effective fashion
- Leverage other published reports
- Special, one-time reports
- Maintain quality while improving the efficiency and sustainability of the process



Supplemental data tables to thematic reports