

PSMS Industry Team & API 1173 Updates

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Pipeline SMS Industry Team



Industry coming together to enhance pipeline safety performance



The purpose of the Pipeline SMS Industry Team is to enhance safe pipeline operations by supporting pipeline operators in the adoption, implementation of, and conformance to API Recommended Practice (RP) 1173, *Pipeline Safety Management Systems*



Regulatory Perspectives on PSMS



- PHMSA PSMS Advisory Bulletin – 3/24/2025
 - ◆ 1) Implement PSMS covering all elements
 - ◆ 2) Facilitate continuous improvement
 - ◆ 3) Maintain a positive safety culture
- PHMSA Gas Distribution Report to Congress – 8/2/2024
- NTSB PSMS Safety Alert – 7/2024
- NTSB San Pedro Bay Final Report – 1/2024

Continued support for voluntary vs. mandatory adoption, incumbent on industry-wide progress

DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

[Docket No. PHMSA–2025–0018]

Pipeline Safety: Pipeline Safety Management System

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA), Department of Transportation.

ACTION: Notice; issuance of advisory bulletin.

A graphic for an NTSB Safety Alert. It features a yellow and black "SAFETY ALERT" banner on the left. To the right, the NTSB logo is displayed with the text "National Transportation Safety Board". Further right, the text "SA095 July 2024" is shown. The main title "Pipeline Safety Management Systems: Vital for the Safe Operation of Pipelines" is centered in white text on a dark blue background. On the right side, there is a vertical column of icons representing different transportation modes: AVIATION (airplane), HIGHWAY (truck), MARINE (ship), RAILROAD (train), and PIPELINE (pipeline), with the PIPELINE icon highlighted in yellow.



American Petroleum Institute



Demonstrating Progress – By the Numbers



- Pipeline operators representing nearly 80% of total mileage responded to the 2024 Annual Survey as implementing PSMS.
- These results compare the 2024 metrics with the last full survey of industry operators in 2022, including:

↑ **+23%**

increase in operators establishing management review and conducting at least one management review

↑ **+9%**

increase in operator's implementation as 'on track' or 'faster than planned'; 15% decrease in 'stalled for the moment'

↑ **+22%**

increase in operators maintaining a method to evaluate maturity

↑ **+13%**

increase in operators assessing safety culture since 2021

↑ **+4%**

increase in operators participating in external sharing or learning events, and

88%

of operators agreed or strongly agreed that PSMS was improving pipeline safety performance at their company (this question was not previously asked).



Demonstrating Progress – In Their Own Words



“Now, employees can easily submit reports of near misses, good catches, recommendations, recognition, or general observations related to safety on their laptops or mobile devices. They also have an option to submit anonymously. **There was a 6600% annual increase in submissions.**”

“The most significant enhancement to pipeline safety and safety culture has been the **culture of sharing and learning that PSMS helped foster**. Employees are recognized for their efforts to promote the company values that are directly related to PSMS.”

“Our company recently formalized a “Crisis Communications Plan” that was ratified through the PSMS Steering Committee. During a minor emergency, the involved communications personnel stated that **the document felt like a safety net during a challenging time and that there was comfort in being able to check their actions** against the document to ensure nothing was missed.”



2025 PSMS Annual Survey



The 2025 survey will be distributed in October. Help us continue communicating industry's voluntary & proactive implementation progress by responding!

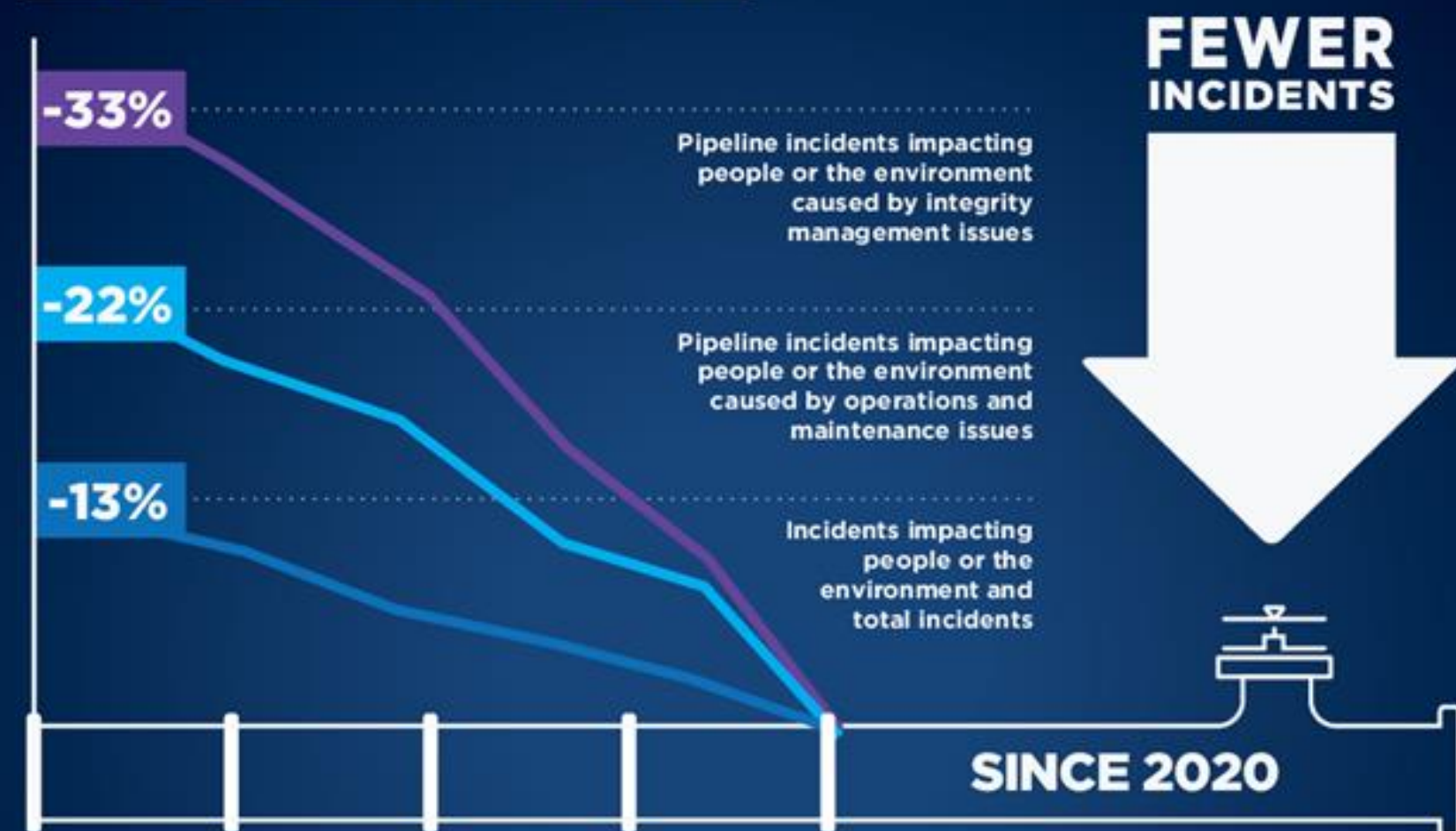
This year, like 2024, will feature two versions of the survey based on an operator's implementation status so every operator can participate and respond:

- “New” to PSMS: Just starting to committed and implementing less than three years
 - Questions about leadership commitment, gap assessment, gap closure, implementation status, and elements prioritized - **Conformance**
- PSMS “Veteran”: Implementing for more than three years
 - Questions about implementation progress, challenging elements, management reviews, maturity evaluations, safety culture, and performance improvements - **Effectiveness**



Safety Performance Improvements

INCIDENTS IMPACTING PEOPLE OR THE ENVIRONMENT AND TOTAL INCIDENTS ARE DOWN 13%



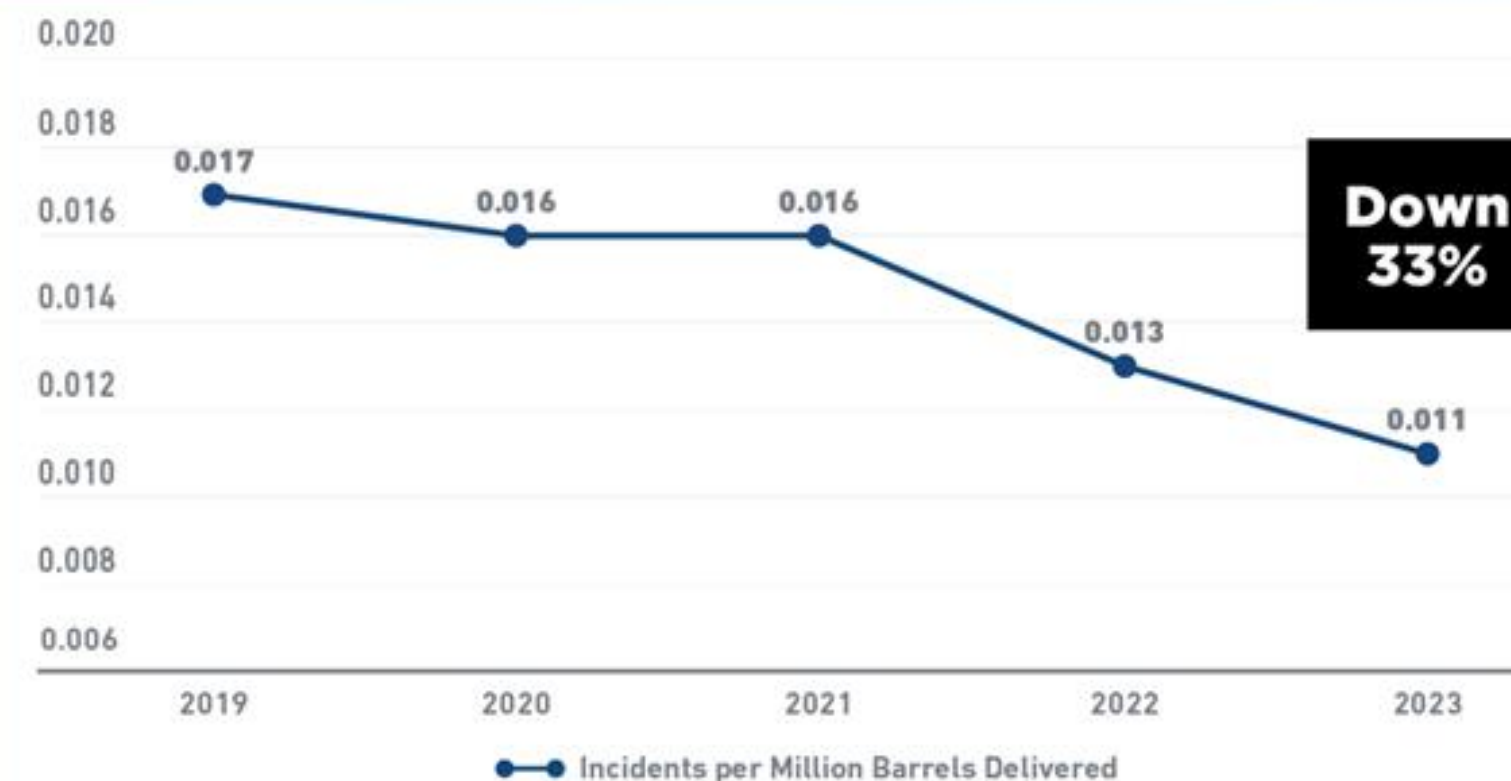
EVEN AS BARRELS DELIVERED HAVE INCREASED OVER 15%

Data from the U.S. Pipeline and Hazardous Materials Safety Administration & U.S. Federal Energy Regulatory Commission

2024 PIPELINE PERFORMANCE REPORT

INCIDENTS PER MILLION BARRELS DELIVERED

INCIDENTS PER MILLION BARRELS DELIVERED (2019-2023)



Total incidents per barrel delivered fell 33% from 2019 to 2023 (the most recent year barrels delivered data is available). In 2019, there were 0.017 incidents per million barrels delivered and that fell to 0.011 incidents per million barrels delivered in 2023. That means that, at the same time pipeline operators delivered 16% more crude oil and petroleum products, total pipeline incidents were down 22%.

Since 2020, incidents have declined:

- 13% in liquids pipelines
- 22% and 35% since 2015 for gas transmission
- 38% among distribution pipelines
- Up 8.5% across pipelines (due to gathering reporting requirements, down 13% w/o reporting-required)

Since 2015, 13% decline among all pipelines (89 fewer incidents)

(Source: PHMSA)

2024 Annual Report



- Published in July 2025
- Includes updates on:
 - ◆ 2024 activities and 2025 priorities
 - ◆ API Assessment Program Updates
 - ◆ AGA and regional association updates
 - ◆ RP 1173 revisions
 - ◆ Regulatory and oversight activities
 - ◆ 2024 Annual Survey Results
- Used as a brief for external engagements with PHMSA, NTSB, PST, NAPSR and others



 **2024**
ANNUAL REPORT



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API Assessment Programs



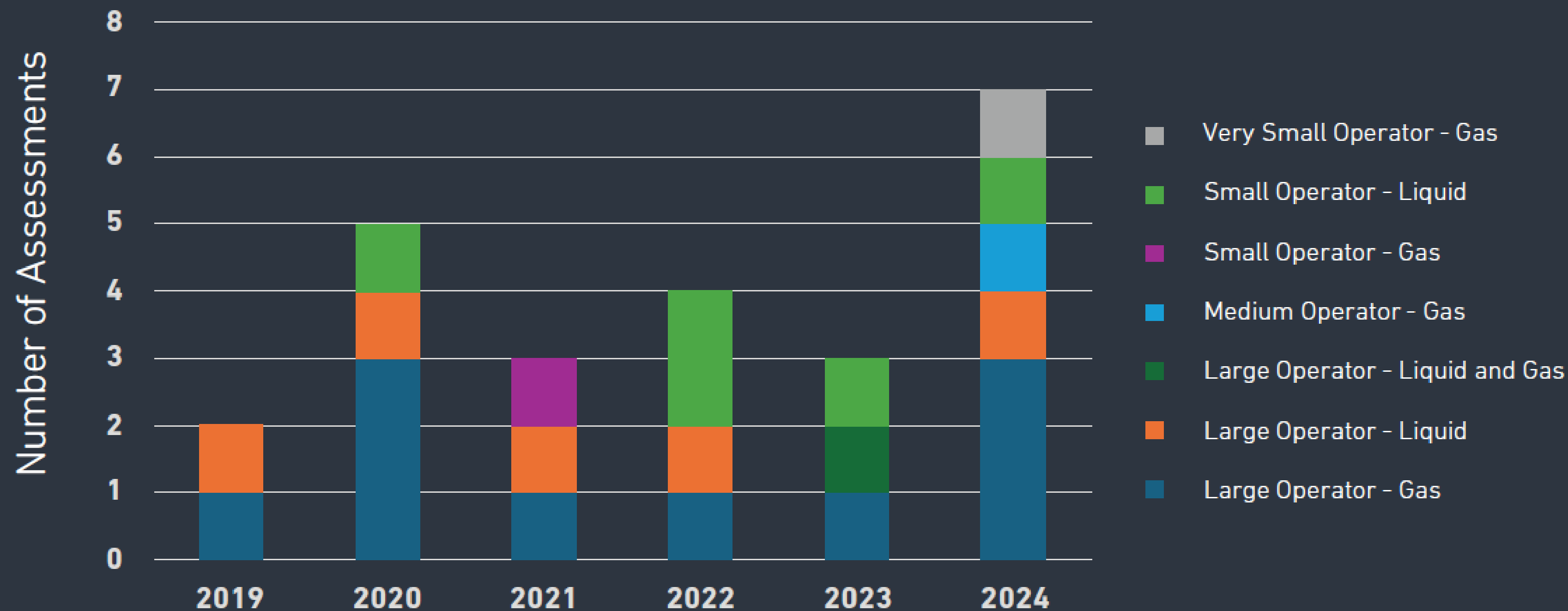
- API's Third-Party Pipeline SMS Operator Assessment Program provides companies with an **out-of-the-box solution** to help with their **implementation efforts and to meet the audit requirements in Section 10 of RP 1173**.
- This is a consistent assessment using third-party subject-matter experts, focused on assessing PSMS maturity and effectiveness while sharing good practices and lessons learned with participants. **It is built to be scalable for ALL SIZE operators at ALL LEVELS of PSMS Maturity.**
- Not a check-the-box audit!
- In 2024 we created the same type of **consistent, third-party assessment for *Contractors***, looking at the agreed-upon 56 Requirements in [Pipeline SMS: A Contractor's Guide](#), derived from API 1173, and aligned with the [Contractor PSMS Implementation Tool](#) (available for free on pipelinesms.org).



PSMS Assessments – By the Numbers



API Pipeline SMS Operator Assessments



20 Operators participating, representing:

24% of PHMSA HL bbl-mi
32% of FERC Crude bbls
23% of FERC Product bbls

4 operators and 10 contractors in process for 2025

10 operators in process for 2026!



Operator Assessment Average Maturity Benchmarking (Conformance)



Contractor Assessment Options

Offering 1 – Guided Gap Assessment

- Contractor Prep Time: Low
 - ✓ *Virtual Only*
- Personalized Learning Sessions (QA/QC on self-assessment tools) including Q&A
- Verbal report out using a pptx and bulleted observations & discussion points for Company on completed assessment

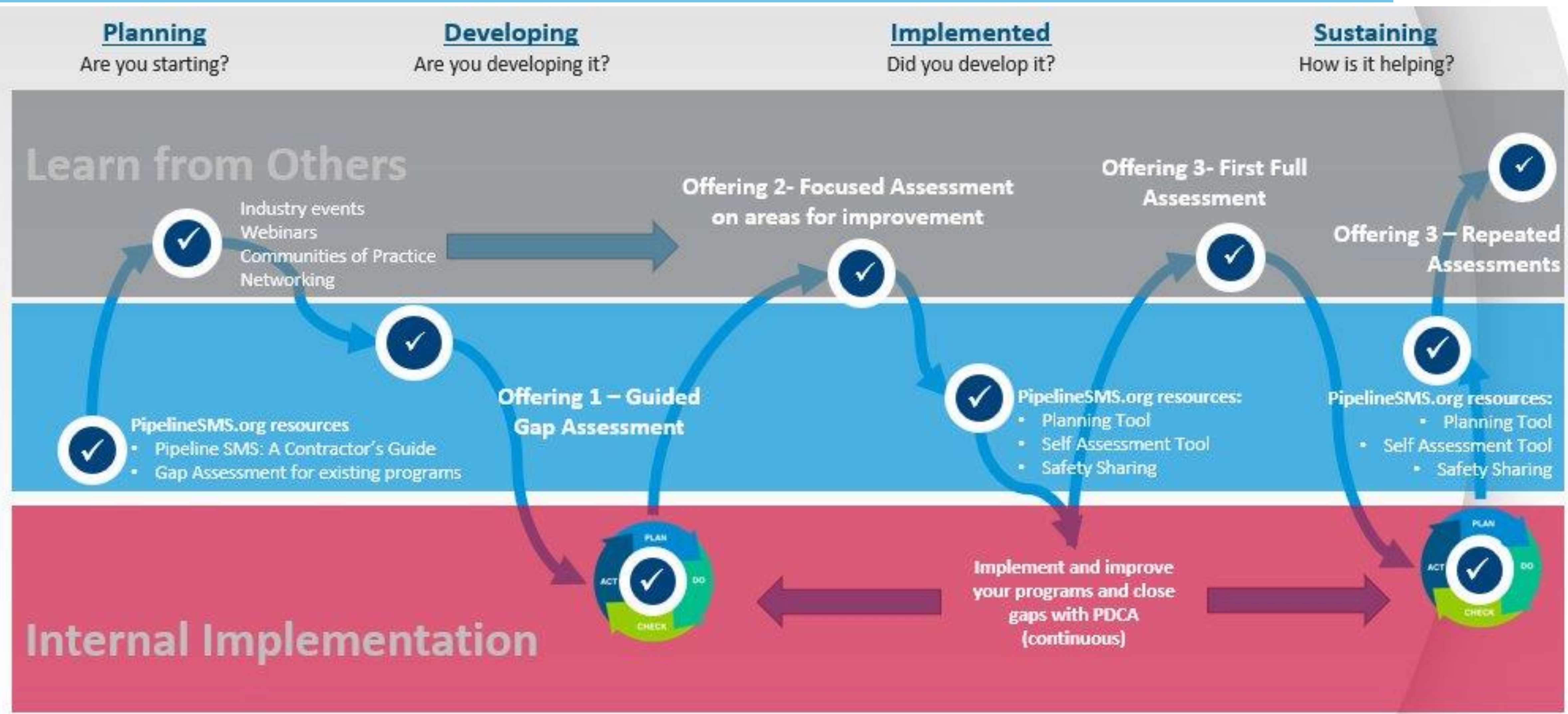
Offering 2 – Focused Assessment

- Contractor Prep Time: Medium
 - ✓ *On-site optional (Daily Rate/Travel)*
- Assessment Plan and Document Review of predefined PSMS pick list of elements within 56 requirement statements
- Verbal report out with delivery of (1) PPTX assessment report for each selected element area(s)
- Peer Support (post-assessment)

Offering 3 – Full Assessment

- Contractor Prep Time: High
 - ✓ *On-site included*
- Review of company provided policies and procedures for full gap analysis of all 56 requirement statements
- Field verification and analysis by assessor(s) may be added for additional cost
- Maturity evaluation that aligns with the industry accepted PSMS maturity model
- Benchmarking

Contractor Journey Roadmap (Example Only)

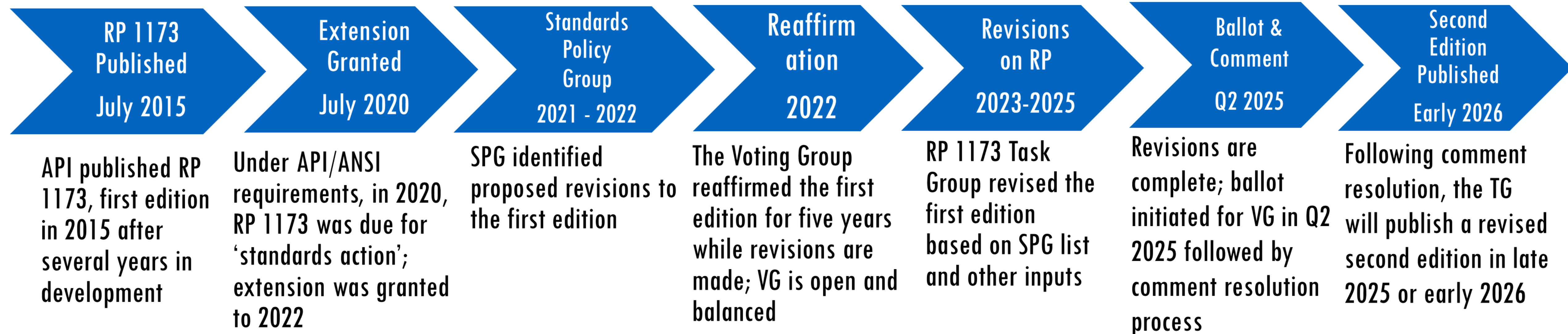


API RP 1173 Path Forward



Under API / ANSI requirements API RP 1173 is due for a “standards action” by 2027

- All standards must be extended, revised, reaffirmed within 5 years of last action



RP 1173, 2nd Ed. Inputs

- ✓ API RP 1173, 1st edition
- ✓ RP 1173, 1st Edition list of potential updates
- ✓ Learnings from API PSMS Third-Party Assessments
- ✓ Learnings from AGA Peer Review Program
- ✓ Safety Culture by PSMS Program Element
- ✓ Annex for Process Safety Guidance
- ✓ Annex/Appendix for very small operators

15 Executing a Pipeline Safety Management System Strengthens Safety Culture

15.1 General

Implementing PSMS elements strengthens an organization's safety culture. Establishing safety as a core value strengthens the overall organization's belief in its importance, acting as a unifying force to improve safety performance.

The execution of the elements depends on the actions of every individual and organizational unit at all levels of the organization. Each of the elements can be expected to contribute to different aspects of the safety culture, and these combined aspects reflect the strength of the culture. The PSMS, with all its discrete elements, supports the culture, and the culture feeds back into the management system in a continuous process, yielding an increasingly mature organization.

15.2 Contribution of Leadership and Management Commitment

Management leading and demonstrating their responsibilities as outlined in this element are essential to improved safety and a positive safety culture. While establishing pipeline safety policies is essential, it is the commitment of management in implementing the processes to meet the objectives of a PSMS that produces the desired performance outcome. Employees will understand that safety is valued if they see management in the constant practice of acting on assessments and evaluations, improving plans and processes, allocating resources, and maintaining connections between objectives of safety critical functions and findings. Further, assessing the implementation and maturity of each of the elements in this PSMS will provide indicators of how the organization's safety culture is evolving.

6.4 Contribution of Stakeholder Engagement to Safety Culture

This element demonstrates the comprehensiveness of the organization's commitment to safety by engaging all stakeholders. Through the engagement process, the operator is more thorough in its management of risk and more expansive in its partnerships for safety performance. Stakeholders can help maintain a heightened sense of vigilance in identifying risk and contribute to their own protection.

7 Element 3: Risk Management

7.1 General

Very Small Operator Annex

- Follows PHMSA recommendation for “size-scaled” approach to PSMS implantation for distribution operators under 6,000 customers or 1.3 BCF
- Highlights critical ‘non-negotiables’ for PSMS without requiring implementation of all 234 requirements

Element 8: Emergency Preparedness & Response		
Plan: Systems shall respond effectively to pipeline incidents.		
Do	Recommended Actions	RP 1173 Rev. 1 Shall Statements
Emergency preparedness and response procedures (or Emergency plans) should address the following types of emergencies: - system damages or ruptures - system outages - weather events - security threats (cyber and physical) - fires - loss of utilities (power, water, etc.) - pandemics - civil disturbances - self-identified risks <i>Do the emergency response procedures address a wide range of possible emergencies, such as:</i> - <i>system damages or ruptures</i> - <i>system outages</i> - <i>weather events</i> - <i>security threats (cyber and physical)</i> - <i>fires</i> - <i>loss of utilities (power, water, etc.)</i> - <i>pandemics</i> - <i>civil disturbances</i> - <i>self-identified risks?</i>	Verify that your Emergency Response Plan covers the following topics: - System Outages (of various sizes and durations – loss of supply versus system isolation due to an incident, etc.) - Weather events - Security threats (cyber & physical) - Fires - Loss of power, water, etc. - Pandemics - Civil disturbances - Other threats identified by your system Note: 49 CFR 192.615 Requires all natural gas distribution operators to establish an Emergency plan for many of the same scenarios outlined by this document. You may determine that not all the scenarios listed in this document should be included in your Emergency Plan. However, you should consider addressing those scenarios outside your formalized plan (i.e. during drills, business continuity plans, etc.)	12.a

RP 1173, 2nd Ed. Ballot



- Open 5/22/25-7/10/25
- Passed overwhelmingly; no negative votes
- Roughly 375 comments submitted
- Editorial comments will be addressed internally
- Substantive comments addressed by Task Group
- Comment resolution started August 20, occurs monthly;
 - Participation welcome
- Reballot for major changes or recirculation for minor ones



Safety Culture



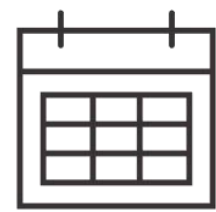
- “An effective Pipeline SMS cannot exist without a positive safety culture.” – *API RP 1173*
- Voluntary implementation promotes a robust safety culture where employees are encouraged to share potential problems without punitive measures.
 - ◆ Safety culture can predict accident/incident rates and shows how effective your SMS is.
- Regulators are increasingly focused on safety culture but recognized it cannot be audited through a one-size-fits-all checklist
- Over 115,000 operator employees, contractors and service providers have participated in the safety culture survey since 2013. API/LEPA/INGAA are preparing for the 2026 transmission survey and welcome operators with transmission assets!



2023 Safety Culture Survey



Survey Administration



September 6 to October 13,
2023



Email Distribution
(1 company used paper)

Survey Population



22 Member Companies



38,439 Eligible Participants
31,236 Respondents

81% Response Rate



Survey Content



84 questions(survey items)
broken into different SMS categories



Average completion time: 13:28

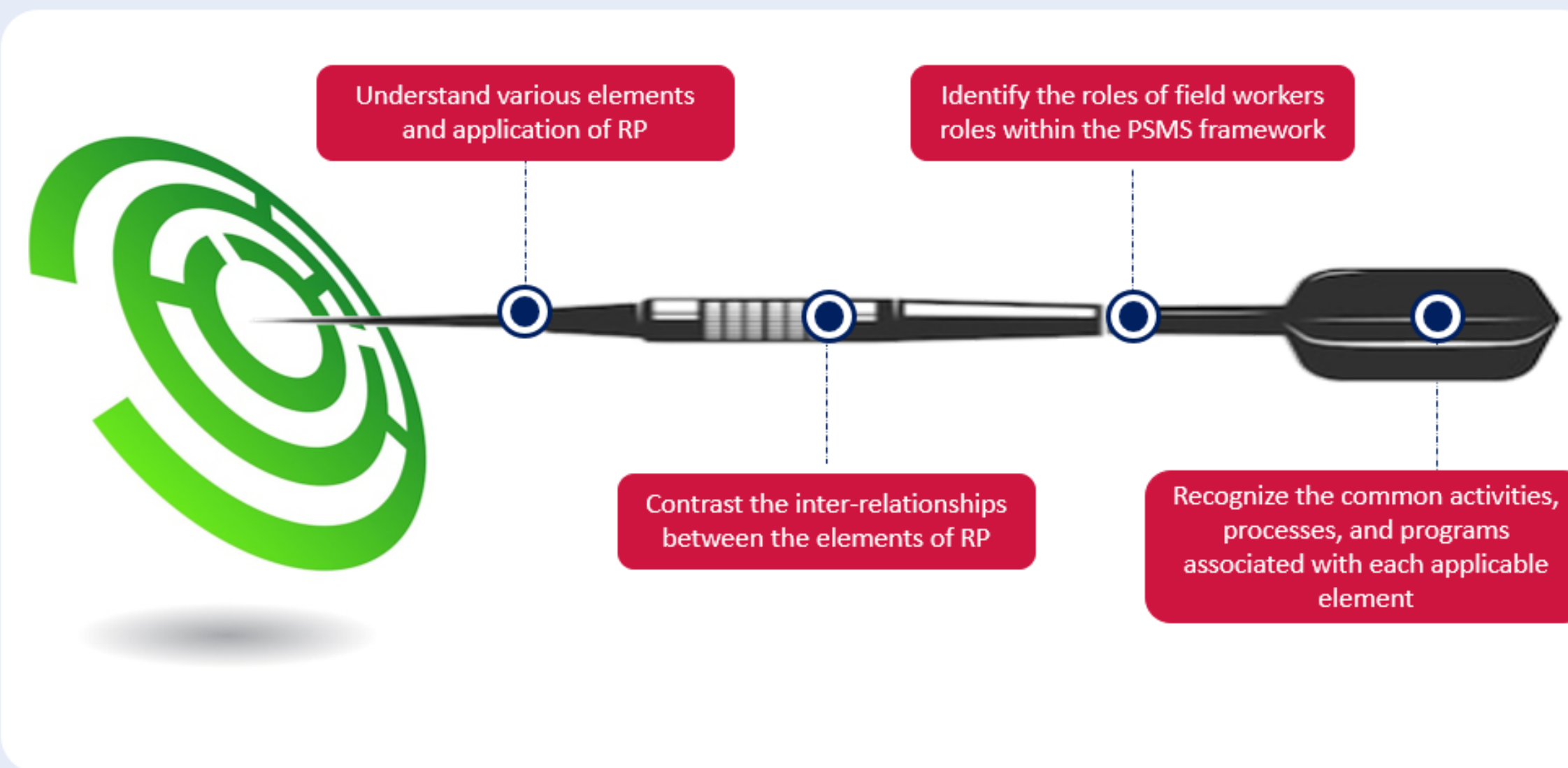


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Computer-Based Training

Learning Objectives



Audio:

By end of the course, you will be to:

- Understand various elements and application of RP.
- Contrast the inter-relationships between the elements of RP.
- Identify the roles of field workers roles within the PSMS framework.
- Recognize the common activities, processes, and programs associated with each applicable element.

API recently finalized a PSMS computer-based training

- Intended for field staff & contractors
- Focused on their connection to PSMS
- 15-minutes long
- Interactive
- Able to be branded & integrated into an operator's LMS

Notable Practices Tool



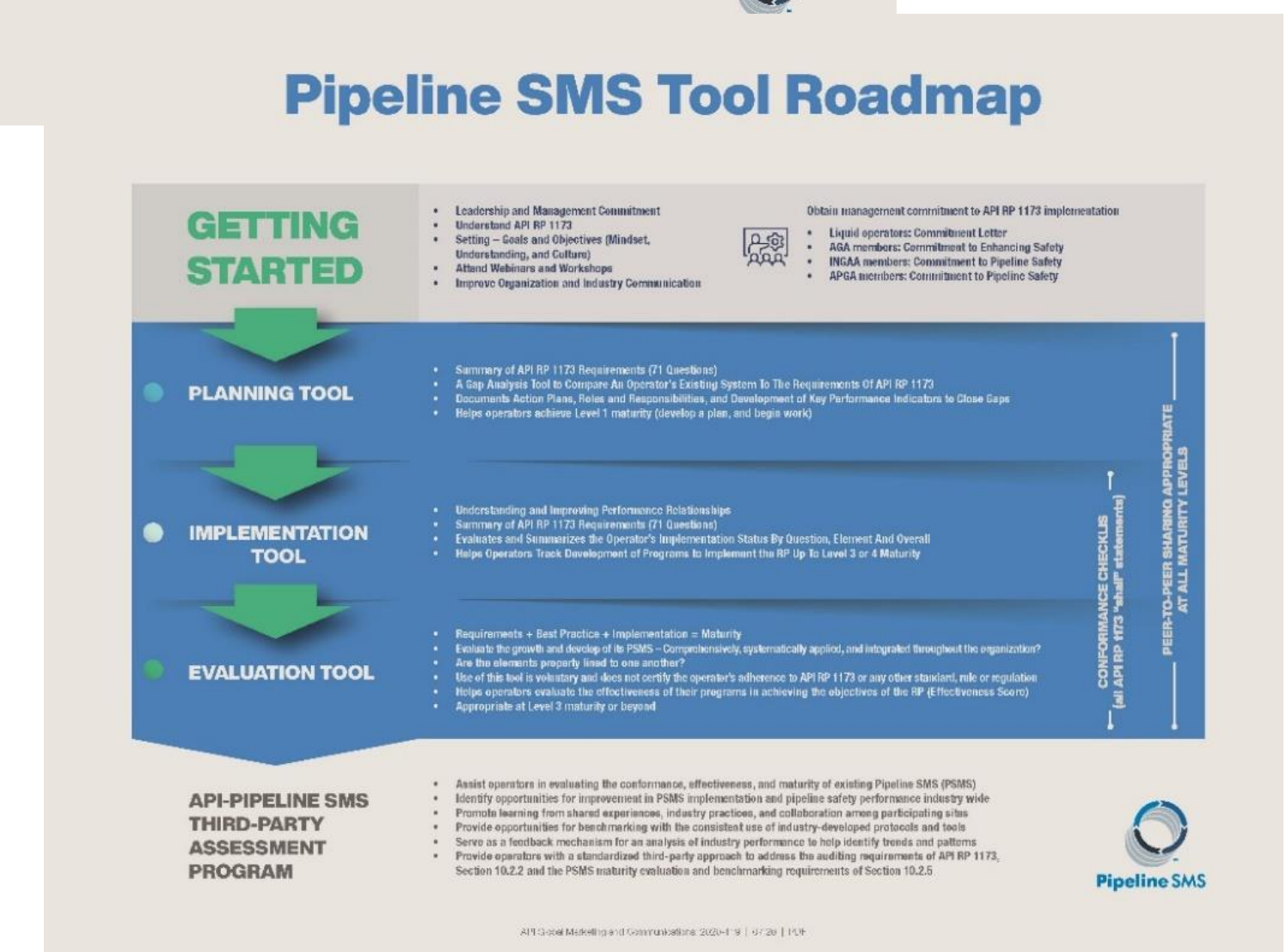
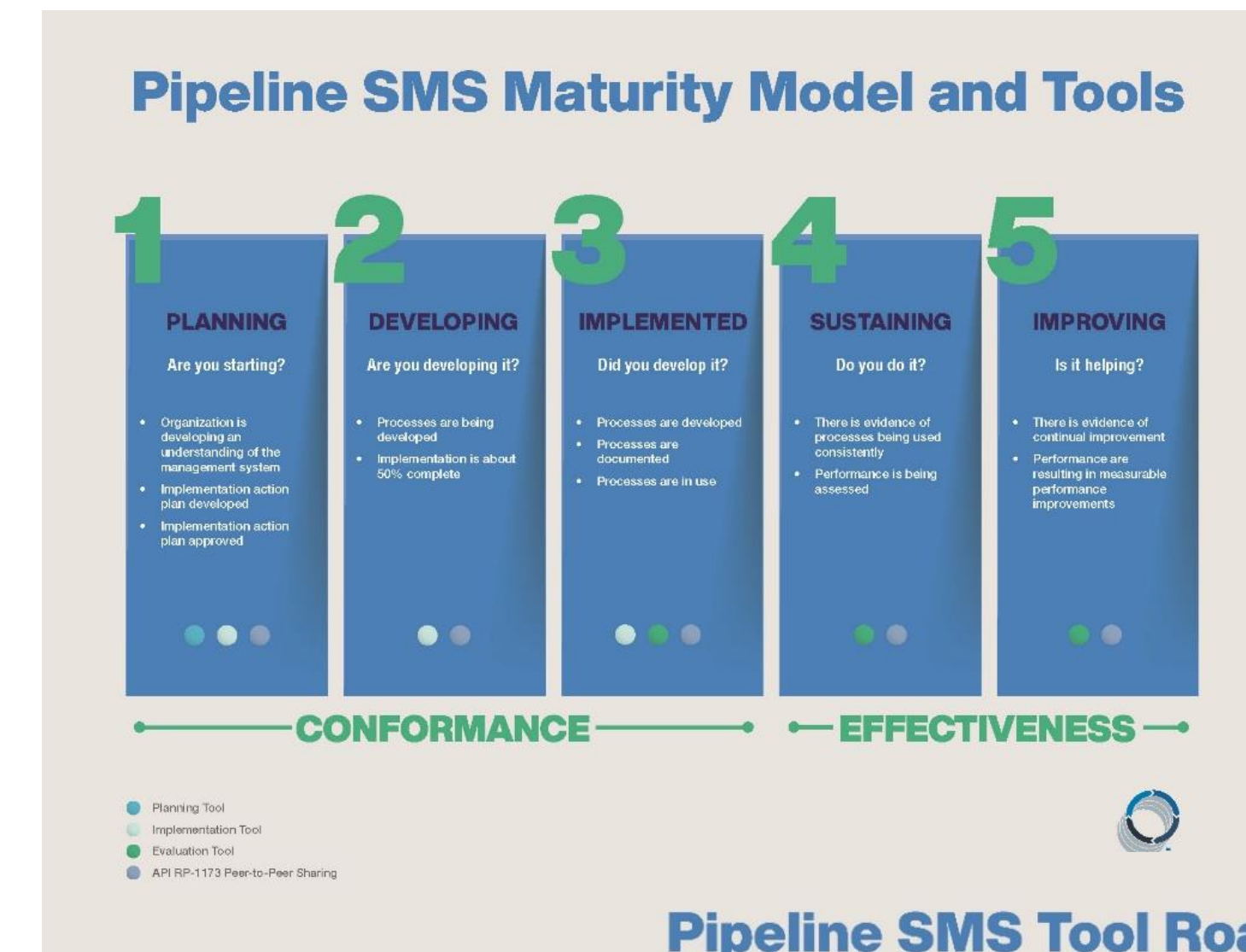
PSMS Program Element / Sub-element	RP 1173 Section	Notable Practice
Leadership & Management Commitment		
<i>Top Management</i>	5.4.1	Communication of leadership team with employees regarding impor
	5.4.1	Dividing of participants at executive safety meetings into groups (firs trust, and evaluating how to improve to help facilitate successful inte
	5.4.1	Monthly field and office visits from senior and mid-level leadership to
	5.4.1	Addition of Management Review & Continuous Improvement (PSMS mitigation and reduction in gas system risks, which recognizes the in
<i>Management</i>	5.4.2	Emphasis by management systems coordinator that all management

Compiles notable practices identified during its Third-Party Assessment Program and catalogues them by PSMS Program Element as potential considerations for operators on their journey. This tool is available on www.PipelineSMS.org.



In Closing, Keep Up Momentum!

- Keeping PSMS voluntary is contingent on industry demonstrating progress among all operators in improving safety performance
- Use the Maturity Model, Tools Roadmap, webinars and booklets hosted on www.PipelineSMS.org
- Check out the training or notable practices tool
- Do a gap analysis using the Planning Tool, measure progress with the Implementation Tool and evaluate maturity via the Evaluation Tool
- Talk with peers or association members
- Keep up the momentum in your journey!





THANK YOU!

Visit us at: pipelinesms.org

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