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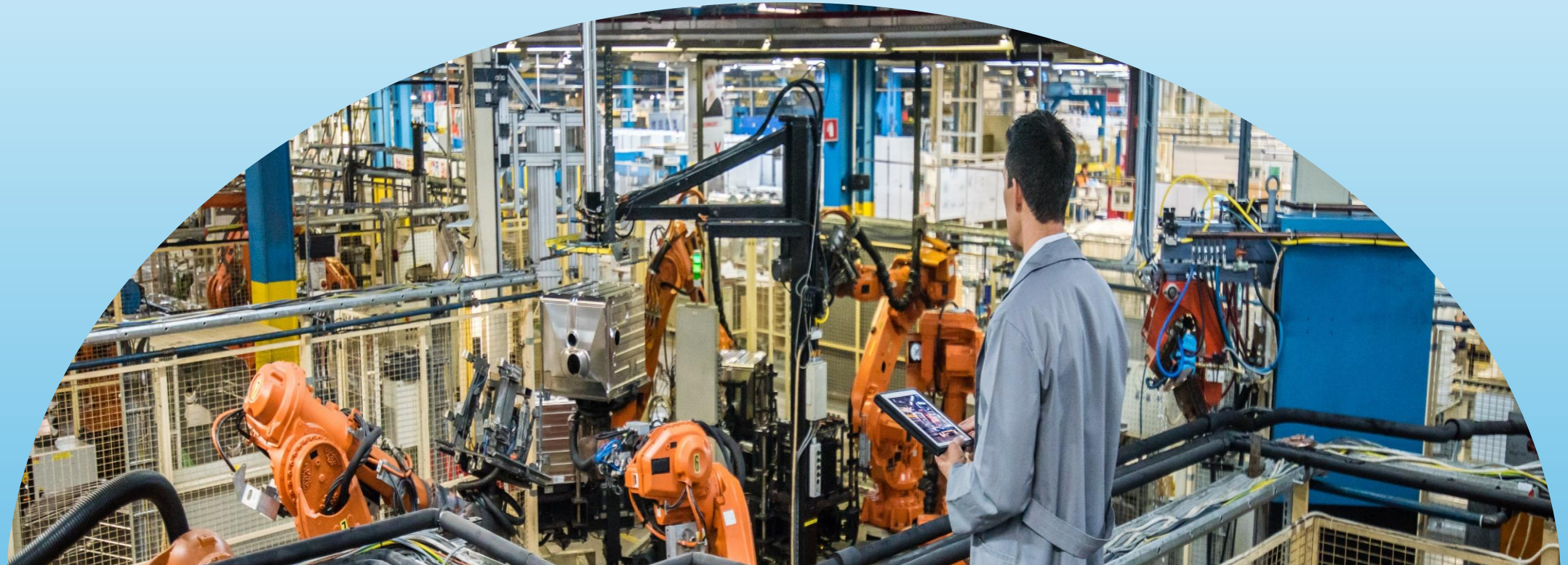
Pollution Prevention (P2) Challenge

Phase 1: Analysis of P2 Data for the North American Automotive Manufacturing Sector and Supply Chain

Oct. 2024



Background

Objective of the NAPRTR Initiative: Promote the use of PRTR data to support P2 (*Action Plan on Enhancing the Comparability of PRTRs in North America*)

Focus on the Automotive Manufacturing Sector and Supply Chain:

- Economic importance to the region (~ 40% of all PRTR facilities associated with the sector)
- Large, highly-integrated Original Equipment Manufacturers (OEMs) share common suppliers (e.g., coatings, metals, stamping), are leaders in innovation, and can support improvements across the supply chain (key to environmental sustainability).

Objectives of the P2 Challenge, Phase 1 (completed): Examine P2 data reported by facilities to:

- Assess the quality and completeness of the data and better understand current P2 practices, as well as possible P2 drivers and barriers
- Assess national P2 reporting requirements to identify strengths, weaknesses and areas for improvement.

Plans for Phase 2 (2025): Involve the sector in a review of Phase 1 results to explore how to improve P2 information and its use by industry and governments across the region.

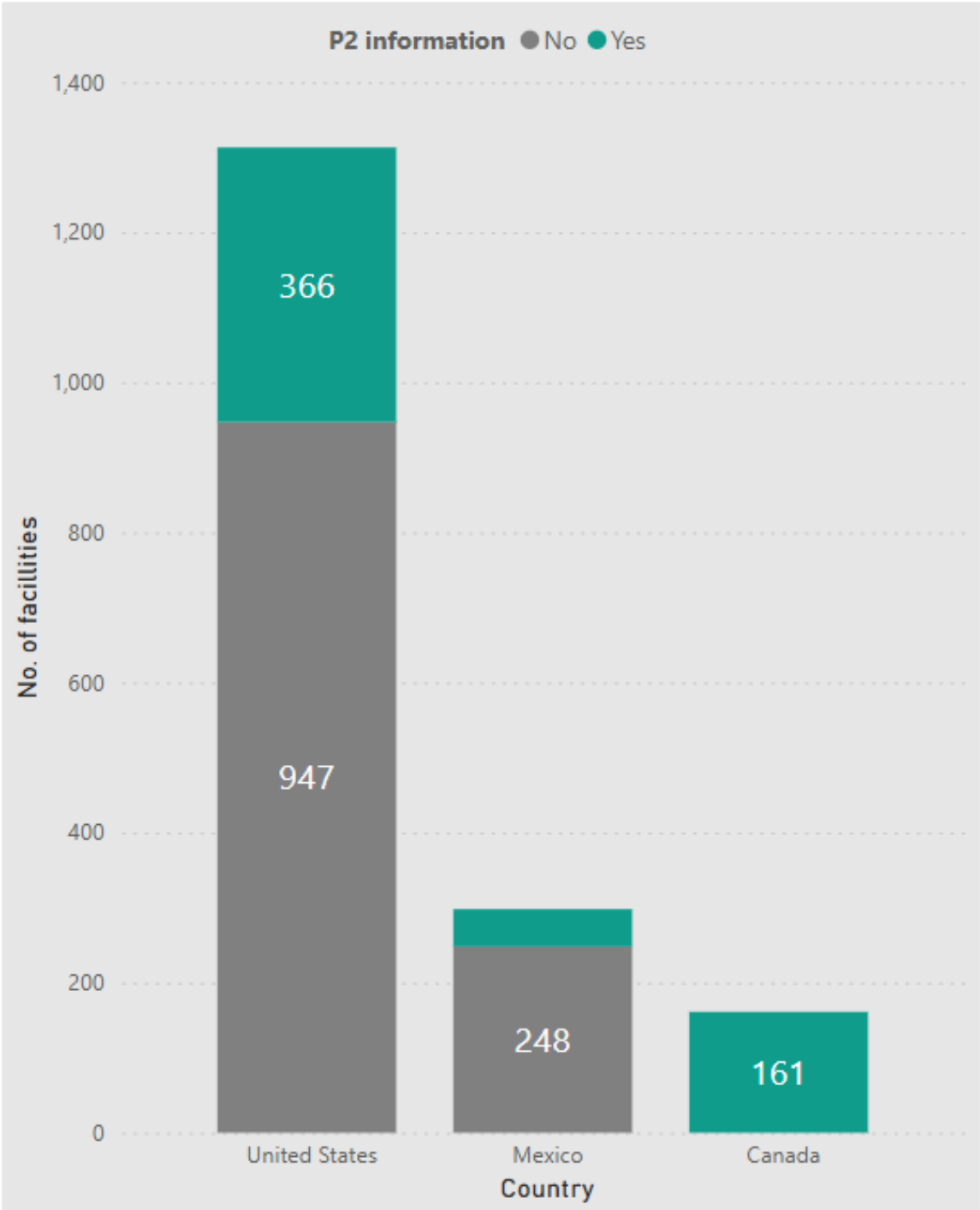
Scope of P2 Reporting

All facilities, all tiers (in Taking Stock Online)
70 NAICS codes, ~ **12,000** facilities

2018-2020 (most comparable P2 reporting requirements)

OEM and Tier 1 : **1,772** facilities

- With "P2" information: 20 NAICS codes (**577** facilities):
  - Canada: 161 facilities (17 OEM; 144 Tier 1)
  - Mexico: 50 (7 OEM; 43 Tier 1)*
  - United States: 366 (31 OEM; 335 Tier 1)



P2 Reporting Requirements

Common Reporting Fields →	• Industry sector • Facility Name • Year • Unique facility identifier (PRTR ID)

Canadian NPRI	Mexican RETC	U.S. TRI
P2_Plan (year): • Description • Comment • Plan Notice P2_Activity (year): • Primary • Secondary • Comment	Preventive Action Taken: • Timing of the action • Volume achieved • Result achieved /Aspect on which the action had an impact • Identification of listed substances • Original volume of release/discharge/ transfer	Source Reduction (SR) Activity (year): Classification (code, description): • *Source Reduction* • *Barriers to P2* • *Methods to Identify SR* • *Other Environmental practices* Comments Estimated Annual Reduction Chemical name, CAS Number

P2 Reporting Categories

Canadian NPRI

- Substitute materials or feedstock
- Redesign/reformulate products
- Change equipment or processes
- Prevent spills and leaks
- Change inventory management/purchase practices
- Re-use, recycle, recover on site
- Improve operating practices/training

Mexican RETC

- Reduction
- Reuse
- Recycling
- Energy Source
- Treatment
- Control
- Final Disposition
- Other

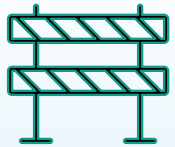
United States' TRI

- Raw Material Modifications
- Good Operating Practices
- Process Modifications
- Product Modifications
- Inventory Control
- Cleaning and Degreasing

Activities considered « true » P2 (or source reduction) activities.

Accessibility / Clarity of P2 Data

Canadian NPRI	Mexican RETC	United States' TRI
• Certain P2 Plan Notice information available on NPRI dashboard, ECCC Pollution Prevention website • Summary P2 information available via NPRI dashboard and downloadable Access files (but can be difficult to query)	P2 information is not available to the public	P2 data and analyses available via the TRI *P2 Search Tool* and TRI *Toxics Tracker*



Barriers to P2 (mentioned by facilities)

Canadian NPRI

Barriers	OEM	Tier 1	Total
Substance, process or technology alternatives unknown/ unavailable	4	53	57
Concern that product quality may decline as a result of P2 activities	1	9	10
Insufficient understanding of how to implement P2 activities		8	8
Insufficient $$ to implement P2	1	6	7
Limited by regulatory or permit obligations		3	3
Total	**4**	**71**	**75**

United States' TRI

Barriers	No. of facilities
B7 - No known substitutes or alternative technologies	83
B8 - Reduction does not appear to be technically feasible	48
B3 - Concern that product quality may decline as a result of source reduction	44
B6 - Pollution prevention previously implemented; additional reduction does not appear technically or economically feasible	27
B4 - Source Reduction activities were implemented but were unsuccessful	14
B1 - Insufficient capital to install new source reduction equipment or implement new source reduction activities/initatives	12
B5 - Specific regulatory/permit burdens	3
B2 - Require technical information on pollution prevention techniques applicable to specific production processes	2

Possible/suggested Drivers of P2 (internal/external)

Domestic regulatory compliance (internal) – e.g.: P2 plan notices, other national/sub-national requirements (e.g., Ontario MOE; *Industria Limpia*)

Corporate environmental, efficiency, and/or financial policies (internal) – e.g.:

- Zero waste/discharge targets
- Conservation of water, energy, or material resources
- P2 planning/identification of SR possibilities

Occupational health and safety (internal)

Competitiveness and Reputation (internal, external) – e.g.:

- Customer demand
- Corporate reports
- Publication of P2 information
- Media reports

International standards, regulations, or best practices (external) – e.g.: REACH legislation, prohibited substance lists

Remaining Questions/Issues to Address: Next Steps?

- No P2 data for substances that are not subject to PRTR reporting
- No links between PRTR data for P2 and other sector P2 information (e.g., corporate reports)
- Who are the intended uses/users of P2 data?
- What information will be most useful for the intended users (what improvements needed, re: P2 reporting requirements)?
- How can we promote useful P2 reporting, and sharing of best practices within the industry?