



Center of Excellence for Preservation
and Service Life Extension

P+Ex – Preserve . Extend . Lead 2 Years into the Journey

Lesley Ko

March 30, 2026

THE WORLD'S GATHERING PLACE FOR ADVANCING CONCRETE



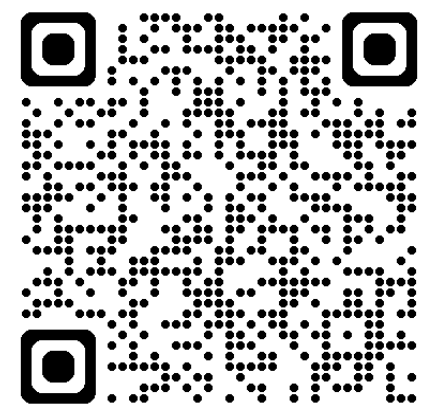
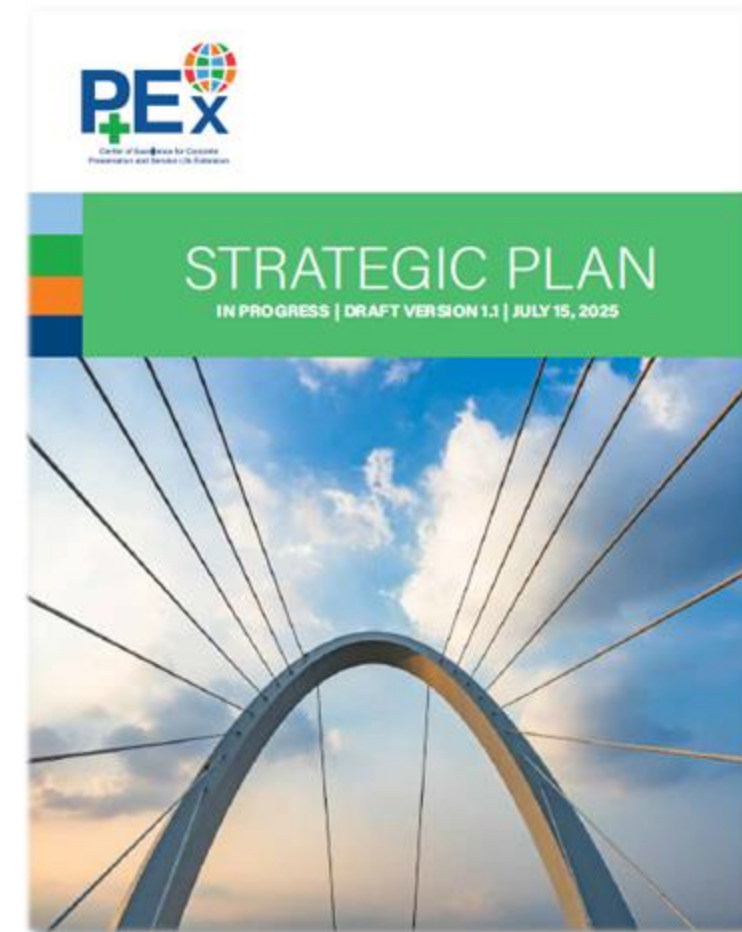


Acknowledgement

- + Appreciation to all active P+Ex participants in our working groups
- + Thanks to P+Ex Sponsoring Members' engagement and financial contributions



Strategic Goals



1. Highlight the **societal benefits** of enhanced service life for new and existing structures.
2. Develop strategies to **conserve resources and reduce environmental impact** through proper concrete asset management.
3. Raise awareness of the **financial benefits** of durability design and service life extension.
4. **Advocate for responsible stewardship** of the built concrete environment.
5. Serve as a **knowledge hub** for tools and techniques to extend service life.
6. Publish periodic sustainability reports on the repair industry's efforts and set future goals as needed

- ✚ P+Ex has established Memorandums of Understanding (MoU) to collaborate with:
 - ✓ ACI (American Concrete Institute)
 - ✓ ICRI (International Concrete Repair Institute)
 - ✓ NEx (ACI Center of Excellence for Nonmetallic Building and Construction Materials)
 - ✓ NCBC (National Concrete Bridge Council)
 - ✓ PTI (Post Tensioning Institute)
 - ✓ ASA (American Shotcrete Association)

Goal #1 – Highlight the societal benefits of enhanced service life for new and existing structures

Objectives:

- ✚ Support the **inclusion of durability requirements in codes and standards**, such as ACI 318 and ASCE 7
 - **Short study** – FL coastal building permit survey – demonstrate the need for durability requirements
- ✚ Educate owners on the importance of regular maintenance of concrete structures to prevent deterioration and keep them safe
 - Educational videos for condo owners, parking garage, general audience
- ✚ Protect public safety by utilizing available technologies to enhance and protect concrete structures against aggressive environments

Goal #2 – Develop strategies to conserve resources and reduce environmental impact through concrete asset management

Objectives:

- Assess and recommend methodologies and procedures to **quantify the environmental and resource consumption benefit** of extending the service life of concrete structures vs. replacement
- Assemble case studies and establish standardized methods to build database for environmental declaration of repair systems (EDRS)
 - **Case study of Toronto's Gardiner Expressway** (presented by David Whitmore)
 - **Case study of PVM parking garage** (presented by Richard Cantin/Lesley Ko)

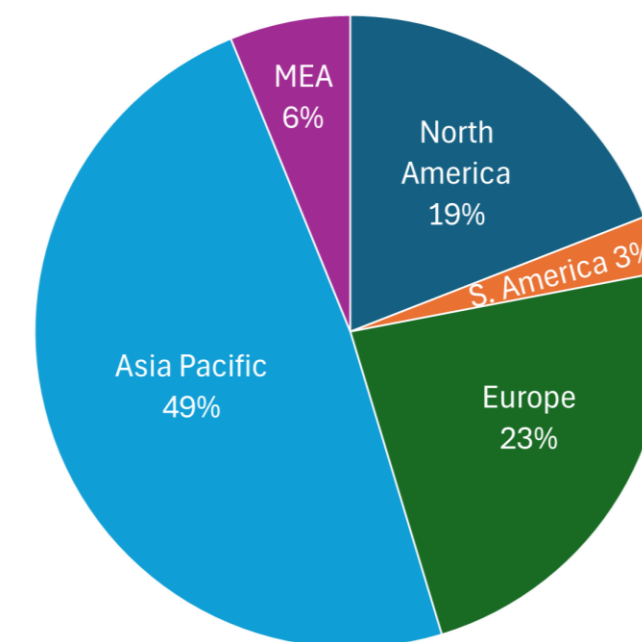
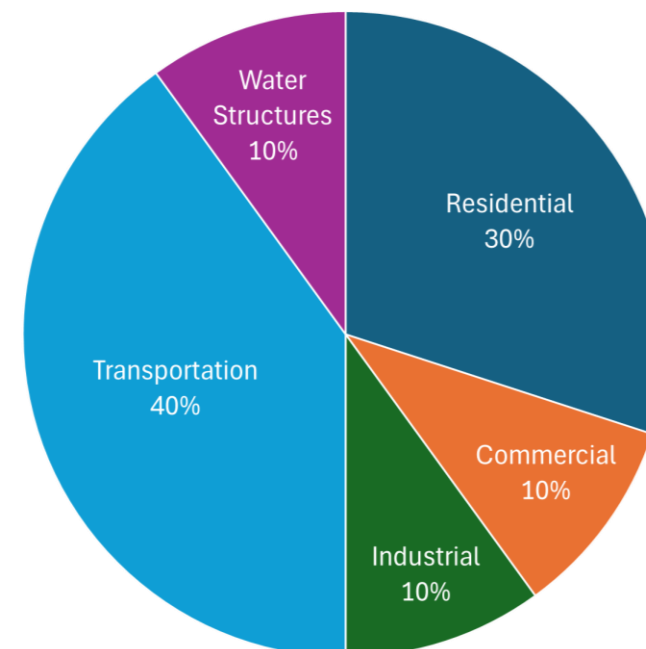
Goal #3 – Raise awareness of the financial benefits of durability design and service life extension

Objectives:

- ✚ Conduct market research for concrete repair industry
 - Determine the **MAGNITUDE of the concrete repair market** – how much effort is being expended on extending the service life of concrete structures?
- ✚ Assemble case studies of financial benefits based on Sitter’s “Law of Fives” – savings by proactive maintenance and rehabilitation
- ✚ Establish framework/methodology for asset management best practices of extending the service life of concrete structures

Goal #3 – Raise awareness of the financial benefits of durability design and service life extension

- + Determine current market size of concrete repair, protection, and strengthening (NA/global) was our first task
 - Data collected from material suppliers, contractors and verified with public information
- US repair market is estimated to be ~ \$ 65 B
 - Global repair market ~ \$ 450 B



Goal #4 – Advocate for responsible stewardship of the built concrete environment

Objectives:

- ✚ Develop and deliver **communication materials**
 - Videos for company employees to appreciate their higher purpose
 - PowerPoint presentation for companies to promote sustainability in their proposals
 - Publish a paper on how to communicate environmental and financial savings to clients
- ✚ Host 3 P+Ex events per year
 - Presentation at @ICRI / ACI conventions, conferences, trade association meetings, etc.



**Center of Excellence for Concrete
Preservation and Service Life Extension**

Join Us on This Exciting Journey

+ Recruiting Staff

- Executive Director
- Technical Director

+ Need your participation in the task groups:

Goal #1 (Societal impact)

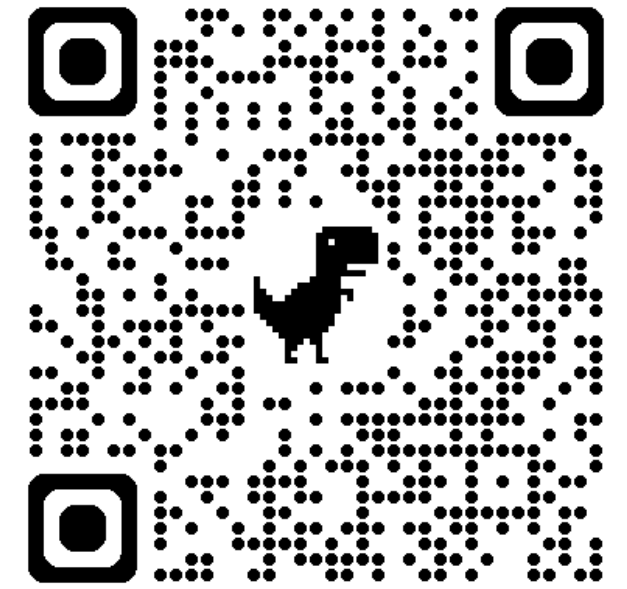
- Prepare a draft language for insertion into building code

Goal #2 (Environmental impact)

- Build a list of repair systems for service life extension and EDRS

Goal #3 (Financial impact)

- Assemble case studies of the financial benefits of early repair maintenance



P+Ex – Non-Profit
Center of Excellence
Organization

Questions?