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**Vision 2020 - Past,
Present, and Future**
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Dave Whitmore
Vector Corrosion Technologies
ICRI Spring Convention
Montreal, March 15, 2017

Outline

- 1 • History of How it Started
- 2 • What has been Accomplished?
- 3 • What Next?

**History: Concrete
Repair/Restoration Industry**

- ▶ From Obscurity to Prominence
- ▶ Growing Needs and Demand
- ▶ Fragmentation, Diversification
- ▶ Inception of the Need for a Common Vision 1994

Meeting of the Minds

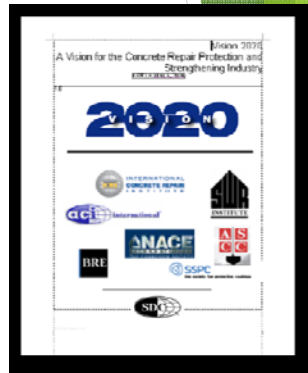
Professional Practitioners
Academia and Researchers
Government Agencies
Suppliers
Contractors

- ▶ March 2004, in Chicago, IL
- ▶ May 2005 at Sedona, AZ
- ▶ September 2005 at Baltimore, MD



Vision 2020 - Mission & Goals

The mission of Vision 2020 is to provide a strategic plan for improvements in the Concrete Repair Industry, making the industry more efficient, effective, green, safe, and fun by year 2020.



Road Blocks

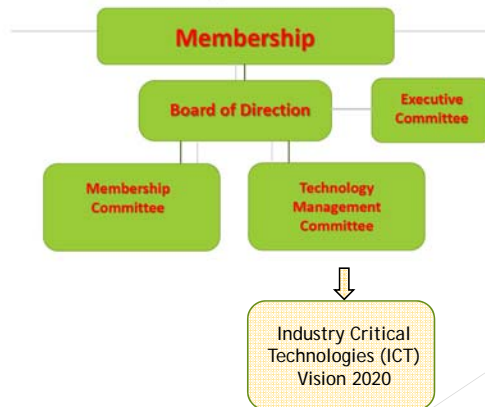
Goals

Vision

Strategic Actions

- 15 Goals were identified: 13 in 2005 + 2 added in 2010.
- Vision 2020 Concrete Repair Council: to promote, monitor, and coordinate progress of identified goals and to identify and recommend assignments of specific tasks

Strategic Development Council



VISION 2020 Council

Council Chair

- ▶ Peter Emmons - Founding
- ▶ Kelly Page
- ▶ K. Nam Shiu - 2010 - 2016
- ▶ David Whitmore - 2017 - present

Members of Vision 2020 Council (2015)

- K. Nam Shiu, Chair
- Kelly Page
- Tanya Komar
- Charles Hanskat
- Paul Tourney
- Jay Paul
- Peter Emmons
- Narendra Gossain
- Fred Goodwin
- Kurt Van Fay
- Claudio Manissero

15 Goals (I)

1. Industry Cooperation
2. Accelerate Industry Documents
3. Create Repair Code
4. Create Repair Specifications
5. Improve Repair Materials
6. Friendly Repair Methods/Materials
7. Predict Performance
8. Strategic Repair Research Council



15 Goals (II)

9. Recruiting, Increase Professionals
10. Improve Project Relationships
11. Educate Owners
12. Accurate Assessment
13. Specific Repair Systems
14. Branding & Promotion of Concrete Repair Industry
15. Sustainability of Concrete Repair



What has been Accomplished?

1. Industry Cooperation

- Establishment of Vision 2020 Council
- Concrete Repair Manual 4th Ed.
- Floor Moisture Document
- ICRI & SWRI Horizontal Waterproofing Manual
- ICRI-PTI P/T Evaluation
- ICRI 710.1-2004 Guide Protective Polymer Flooring System for Concrete
- International Co-operation

2. Accelerated Industry Documents

- Established Funding of \$250,000 with USBR for Evaluation Protocol for Corrosion Protection Research
- Funding for Repair Related Issues
- Internet Portal for Concrete repair
 - e.g. <Fixconcrete.org>
 - Jointly Owned by ACI & ICRI
- Floor Moisture Document

3. Create Repair Code

- ACI Committee - 562 Concrete Repair Code completed in 2012
- ICRI Committee: Notes on ACI 562 - Concrete Repair Code completed in 2015
- ACI Committee 562E - Educational Seminars

4. Create Specifications

- ACI Committee 563 - Repair Specifications - performance based
- Develop Installation Guide specifications
- ICRI Committee 130.1R-2009, Guide for Methods of Measurement and Contract Types

5. Improve Repair Materials

- ACI Committee 546.3R Repair Material Selection Guide Completed
- ICRI 320.2 - 2009
- ICRI 320.3 - 2012 Data Sheet Protocol for Inorganic Repair Materials
- EN1504 Products and Systems and ISO 16311
- Validate Service Life Model
 - ACI Life 365 Software
 - Stadium Model derived from Summa Model
- Develop Standard Test Methods to Evaluate Repair Materials, US Bureau of Reclamation

6. Friendlier Repair Methodologies & Materials

- ICRI 120 White Paper on Silica in the Repair Environment
- Formation of Sustainability committee at ICRI and ACI
- Formation of ICRI Safety Committee, ICRI 120.1 - 2009 Guidelines for Safety in the Concrete Repair Industry and ICRI CRB article entitled "Safety Solutions."

7. Predict Performance

- US Bureau of Reclamation Project
 - ▶ Funding of \$ 250K established
 - ▶ Test Protocol for Repair Materials / Techniques
- ACI 365 Life Model, Stadium Model, etc.

8. Strategic Repair Research Council

- Establish Strategic Repair Research Council (SRRC) in 2012, approved as an ICT at SDC
- Funding research through the US Bureau of Reclamation (USBR)
- Part of ACI Research Foundation
- Collect and Identify Repair related Research Topics

9. Increase Professionals, Recruitment

- Concrete Industry Management (CIM) Program - Undergraduate Program
- CIM at different Universities with Scholarship program for attending ICRI and ACI
- Target University to Offer Concrete Repair Related Classes and Post-graduate Program

10. Improve Project Relationship

- ICRI established Procurement and Relationship Committee with recommended guidelines

11. Educate Owners

- ICRI Committee 140 established to develop Life Cycle performance and Costs
- ICRI Committee 210 to develop guidelines "Owner's Guide to Inspection and Maintenance for Concrete Masonry Buildings.

12. Condition Assessment

- Many Guidelines Developed for how to perform and utilize condition assessment, ACI-364-1R; SEI/ASCE 11-99; SEO/ASCE 30-00, TCRP Report 157, etc.
- Promotion of Health Monitoring, Theme of Spring 2011 ACI Conference "Structural Health Monitoring System" in Houston
- Use of New Technologies in Condition Assessment, e.g. Laser Scanning, Remote Inspection using Drone Technology

13. Specific Repair Systems

- Research on Non-cracking Concrete
- Goal suspended

14. Branding & Promotion

- Fall 2011 Workshop, identified action items
- New Name for the Industry: Repair, Rehabilitation, Restoration, Renewal, Re-purpose, Re-use, Extending Service Life etc.
- Synergy from Stake-holders in Promotion, Research, and Recognition

15. Sustainability

- Fall 2011 Workshop, identified action items
- Develop Analytic Tools, Model to Predict Sustainability
- Promote, Celebrate and Share Successes
- Training and Education
- New Recognition beyond LEED for Built Environment
- Build with the intention of Re-use and Repurpose

INTERIM REMARKS

Moving forward strategically,
Focused,
Journey continues

Where Do We Go From Here?

- A lot of work has been completed
- Many things have been accomplished
- Still lots to do

Time to Review

- Now is the time to review what has been completed
- Determine priorities going forward
 - These priorities should be based on today's needs
- Tomorrow we will have a 2 hour breakout session
- Breakout session is open to everyone

We Want You

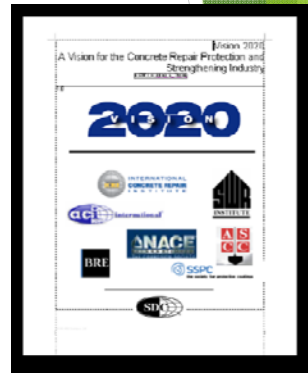
- We want your input
- This is your opportunity to say what is important
- Help set the direction for our industry

What Do You Want?



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