



NACE Corrosion Research Consortia

Consortia Initiation Workshop

Edward M. Manns/H. Castaneda

NACE Staff/Consortia Chairman

Why marine corrosion?

1. The industry's only **corrosion-related consortia** administered by the premier global corrosion engineering association is seeking corrosion science and engineering experts to collaborate in a neutral forum for researching innovative solutions to key challenges faced by the marine industry.



2. Significant **Maritime** industry **growth** is projected over the next 30+ years and corrosion will continue to be a huge factor in the marine environments - with the estimated total cost of marine corrosion worldwide to be between \$50-80 billion every year.



Concept

- Various industries have substantive corrosion-related issues and need to invest in research to understand how to best mitigate corrosion in their assets.



- Decreased corporate investment in research, however, slows if not halts many from getting this vital information.



- Consortia can assist organizations, universities, and government entities in funding, administering, and attaining research.



- By offering services and brokering relationships between organizations, a consortia provides for industry partners to pool their resources to study and share in the results of research pertinent to them.



Concept (cont.)

- **NACE International** will bring two or more organizations together to collaborate on new research in various industries seeking to mitigate corrosion.
 - Sharing costs to study a technical area.
 - Consortia members will formalize the overall structure and scope of the project while...
 - NACE supplies administrative services and brokers the consortia relationships to facilitate the research.
 - Consortia members will likewise share in the results and receive access to the research — before it is available to the public.

WHY participate in NACE Corrosion Consortia?

- ✓ While other consortia may have a corrosion component, NACE uniquely offers a specific, in-depth focus on corrosion.
- ✓ With its long history of developing technical knowledge in corrosion prevention and extending the life of assets, NACE is ideally positioned to lead and broker partnerships for the distribution of new research.
- ✓ As an independent, nonprofit organization, NACE has extensive experience in managing data and sharing information in a fair and unbiased manner.

NACE is committed to establish a strong partnership with the industry and the leader institutions on corrosion control and materials reliability

Workshop 1

Maritime

Problem definition and industrial needs and trends

Topics:

- VOC Reduction for Maritime Coatings
- Biofouling Technology in the Maritime Industry
- Anti-icing Coating for Maritime Exposures
- Effect of Ballast Water Treatment on PSPC-compliant Coating in Ballast Water Tanks
- Future Research topics for NACE Corrosion Consortia

Purpose:

- Meet and conduct dialog with industry to generate a range of perspectives on required and prioritized research related to corrosion in the maritime industry.
- Introduce the NACE Corrosion Consortia as a venue to generating potential solutions via research.
- Discussion of potential next steps.

Workshop 2

- Includes specific topics and cutting age research portfolio for a **Consortia Initiation Workshop**.
- This one-day symposium will focus on **addressing solutions** to corrosion control in Maritime, offshore or extreme environments based on industry feedback-and following the Consortia concept.
- The venue of this symposium is an integral and holistic engineering and science concept to **foster cutting edge research, develop technology and materialize transformational ideas into concrete solutions.**

NACE Corrosion Research Consortia Committee

Chair, Dr. Homero Castaneda-Lopez (Texas A&M)

- Dante Battocci (North Dakota State University)
- Edye Fox Abrams (ChemQuest)
- Xihua He (Southwest Research Institute)
- Qindan Huang (University of Akron)
- Mike Hurley (Boise State University)
- Roy Johnson (Norwegian University of S&T - Norway)
- Joey Kish (McMaster University – Canada)
- Nese Orbey (University of Massachusetts-Lowell)
- Francisco Presuel-Moreno (Florida Atlantic University)
- Ben Rowton (National Physical Laboratory – UK)
- Barbara Shaw (Penn State University)
- Preet Singh (Georgia Tech)
- Robert Stote, US Army (US DoD)
- Ravi Vilupanur (Cal Poly Pomona University)
- NACE Board of Directors Champion, Jeff Didas, NACE President
- NACE Technical & Research Activities Chair, Cris Conner
- Thomas Ladwein, NACE Board of Directors
- Edward Manns – NACE Staff
- Buddy Reams, NACE Chief Maritime Officer
- Shari Goss – temporary NACE Staff support
- NACE Staff Manager, tbd
- NACE Grant Writer, Coordinator, tbd
- Ad Hoc NACE Staff Team: Marketing, PMO, etc.
- NACE Staff Support in creation of concept: Jacob Adams, Melissa Craig, MBA Dept.

Also received detailed feedback: Michael Sellars (Elcometer)

Membership Levels

- Membership Levels
 - (Founding) Strategic member
 - Technical Committee Member
 - Advisory member
 - Informational member

Strategic Member	Technical Committee Member	Advisory Member	Informational Member
\$40,000	\$30,000	\$5,000	<u>\$2500</u>

Funding (Strategic member)

- Guide consortium development and select thematic research projects
 - *Short courses and symposia attendance
 - Resources for recruiting well-trained graduates through co-op/intern programs and interaction with consortium personnel
 - Access to basic and apply research generated
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- Development of Test Methods
 - Technology transfer for Understanding the degradation mechanisms of the substrate/coating/environment
 - Access to computer based models
 - Access to monitoring methodologies

*We need 15 members to apply 100% full consortia-related Short Courses attendance with no registration

Benefits

- High tech research value based on the scope of the consortia



- Documentation (reports, proceedings, papers, methods, standards)



- Technology transfers (basic courses)



- Discussion forums (workshops and seminars)



Next Steps

- Forming committee to shape and review scope of work.
 - Based upon companies that are interested in participating
- Committee recommends Governance final draft for approval by all members.
- Proposed start date: Spring 2020

Questions?

Feedback?