Welcome

Thank you for joining us for an afternoon of exploring ways we can advance technology applications that can improve our understanding, management, and use of the Great Lakes. As the world continues to grapple with the novel coronavirus, we appreciate your patience and understanding as we made the decision to make the Smart Great Lakes Initiative (SGLi) workshop a virtual convening. We are confident in this decision, which was made with the health of our participants and the broader community in mind.

We’re meeting today to talk about solutions.

A binational, collaborative effort involving cross-sector partners and stakeholders, the SGLi will work to identify and meet the information needs of the region’s policy makers, municipal and natural resource managers, and recreational users, among others.

SGLi aims to improve the way people learn about and respond to lake events, inform critical policy, and direct future science and innovation.

From monitoring for pollution to predicting weather patterns, technologies make solving many water challenges feasible, but it is the generous partnerships and regional synergies that can leverage the technology into creative, impactful solutions.

The launch of this initiative begins with a call for data generators, researchers, funders, policy makers, resource managers, and industry in the region to come together around the vision of utilizing the latest technologies to share information to better understand the lakes.

Let’s get started.
Agenda

2:00 p.m. - 2:05 p.m.  Virtual Workshop Logistics
    Kelli Paige - Great Lakes Observing System

2:05 p.m. - 2:15 p.m.  Welcome and Introductions
    Kelli Paige - Great Lakes Observing System
    Alaina Harkness - Current
    Bryan Stubbs - Cleveland Water Alliance
    Mark Fisher - Council of the Great Lakes Region

2:15 p.m. - 2:30 p.m.  Introduction to Smart Great Lakes Initiative
    Kelli Paige - Great Lakes Observing System

2:30 p.m. - 2:45 p.m.  Smart Technology Opportunities
    Tim Kearns - Great Lakes Observing System

2:45 p.m. - 3:00 p.m.  H2NOW Chicago
    Alaina Harkness - Current

3:00 p.m. - 3:15 p.m.  Smart Lake Erie
    Bryan Stubbs - Cleveland Water Alliance

3:15 p.m. - 3:30 p.m.  Governance Structure and Next Steps
    Kelli Paige - Great Lakes Observing System

3:30 p.m. - 4:00 p.m.  Breakout Rooms and Discussion
    Mark Fisher - Council of the Great Lakes Region

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Breakout Room Instructions

Introduce yourself

For each topic area:
• Science and Innovation
• Data and Information
• Management and Policy

Answer the following questions:

1. What are the major issues or challenges that help characterize the problem statement? I.e., what is keeping the Great Lakes from being "smart?"

2. What are some existing efforts that serve as examples of how our region is working (or trying) to be "smarter?"
Advancing technology applications that improve our understanding, management, and use of the Great Lakes

The Problem

For the past several decades, scientists, citizens, and policy makers have worked creatively to address Great Lakes challenges including the spread of invasive species, aging water infrastructure, and a changing economy and climate. Today, the Great Lakes region continues to work towards greater collaboration and a better understanding of the lakes. It is now understood that a connected information ecosystem could help address a broad variety of challenges currently facing the region.

The traditional approach to problem solving has been limited by single use, disposable data, the high cost of technology, and barriers to data sharing. Fortunately, there has been a shift in the technology landscape making it easier and faster than ever before to access valuable, accurate information in a timely manner. Dramatic advances in smart technologies, communication pathways, processing workflows, and information dissemination further enable “smart,” information-driven solutions.

A Solution

The Smart Great Lakes Initiative (SGLi) is working to build an information ecosystem based on smart technologies that improve the understanding, use, and management of the lakes. This ecosystem will connect the region with advanced data management and analysis, leveraging technology innovations that get people more high-value information, on demand.

Making the Great Lakes smart requires coupling the development of a new technology platform with the creation of common policy goals to enable technology innovation, data gathering, improved monitoring, and greater binational collaboration. Far from being a single-sector solution, the SGLi has the ability to help address information needs basin-wide.

Join In

Ways to support SGLi:
- Bring fresh ideas
- Deploy smart sensors
- Become a collaborator
- Help draft the common strategy document

Visit smartgreatlakes.org to learn more and get connected.
Presenters

Kelli Paige - Chief Executive Officer of the Great Lakes Observing System

Appointed as executive director in 2015, Kelli has held several positions with Great Lakes Observing System (GLOS) since first joining the organization in 2009 including working with stakeholders, managing product development, and providing strategic direction for the data management and observing projects funded by GLOS. Kelli came to GLOS from The Nature Conservancy where she served as a Program Coordinator with the Ohio Chapter. She has also worked for the Washtenaw County Drain Commissioner and the Friends of the Chicago River.

Kelli holds a BA in Public Policy from DePaul University and a MS in Resource Ecology and Management from the University of Michigan’s School of Natural Resources and Environment.

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Alaina Harkness - Executive Director of Current

Alaina leads Current’s work to build collaborations that advance innovative solutions to water challenges. She most recently served as managing director for the economic development firm RW Ventures, where she helped launch and lead the New Growth Innovation Network and developed inclusive growth strategies for cities and metropolitan regions.

Prior, she held a research fellowship in urban governance at the Brookings Institution, led urban development strategy for the John D. And Catherine T. MacArthur Foundation, and staffed civic collaboratives: The Partnership for New Communities and 2016 Fund for Chicago Neighborhoods. Alaina is a nonresident fellow in the Global Cities program at the Chicago Council on Global Affairs and has published research and commentary for the Brookings Institution, the San Francisco Federal Reserve Bank, and CityLab.

She holds a B.A. in political science and art history from the University of Rochester, and Masters degrees in Public Policy and Latin American Studies from the University of Chicago. Alaina serves on the boards of the CityTech Collaborative, Urban Initiatives, and Margaret’s Village. She is a 2014 fellow of Leadership Greater Chicago.

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Bryan Stubbs - Executive Director and President of Cleveland Water Alliance

Bryan is a recognized leader in building and implementing stronger, innovative, and more resilient economies and communities. Since April of 2014, he has led the Cleveland Water Alliance (CWA), an internationally recognized industry cluster of corporations, universities, research institutions, public agencies, and utilities dedicated to the expansion of the blue economy. In that role he has leveraged and accelerated technology to drive economic development (300 net new jobs annually) and innovation. Stubbs is the Chair of the Water Environment Federation’s (WEF) Water Technology Innovation Clusters Program and serves as an appointed member to the US Department of Commerce’s Environmental Technologies Trade Advisory Committee (ETTAC).

Before joining CWA, Stubbs led technology based economic development projects including the Oberlin Project where he served as the Managing Director. Prior to his work in Oberlin, Stubbs was the Director of Entrepreneurship at the Chicago Westside Entrepreneurship Center, a partnership program of the Illinois Dept. of Commerce, University of Illinois at Chicago and Chicago Community Ventures. Stubbs earned a BA from the University of Kansas, an MBA from the University of Illinois and an Executive MBA/MPA from the Presidio School of Management.

LinkedIn: stubbsbryan

Mark Fisher - President and CEO of the Council of the Great Lakes Region (CGLR)

Mark became the President and CEO of CGLR in 2014.

Prior to joining CGLR, he served as a foreign policy advisor in the Privy Council Office, which supports the Prime Minister of Canada and the federal Cabinet, where he focused on advancing Canada’s interests in North America and the Asia-Pacific region. Mark has extensive experience advising senior decision-makers on a range of socioeconomic and environmental issues facing government, business, and the non-profit sector.

In addition to CGLR, he is an elected school board trustee with the Ottawa-Carleton District School Board, is a member of the International Joint Commission’s Great Lakes Water Quality Board and is a director on the board of Easter Seals Ontario.

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Tim Kearns - Chief Information Officer of the Great Lakes Observing System

Tim is responsible for strategy, policy and development of data and information technology at the Great Lakes Observing System (GLOS). He is currently focused on leading the development of a new marine IoT technology platform that will serve GLOS and the Smart Great Lakes initiative. He is also bringing together stakeholders and industry to fulfill a vision to map the entirety of the Great Lakes with high resolution bathymetry.

Tim has held many roles throughout his career including chief technical officer, chief executive officer, executive vice president of robotics and data services, vice president of professional services, program manager, software manager, educator, and hydrographer.

With roots in ocean technology, he has applied his skill sets to a variety of products such as ClipCard, Numurus' NEPI, Ocean Aero’s Submaran, and Esri’s Maritime products as well as multiple 3D applications and custom projects. In Monaco, 2019, he was part of the GEBCO-NF Alumni Team that was awarded the Shell Ocean Discovery XPRIZE Grand Prize for autonomous deep ocean mapping. He is the founder of Map the Gaps, a non-profit that seeks to expand capabilities in marine mapping and is an advisor for Numurus, Terradeepth and Global Oceans.

He is a people person, has a solid business acumen, enjoys rolling up his sleeves to dive into challenges and leads with integrity and efficiency.

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Mission

• Current’s mission is to grow Chicago and Illinois' blue economy – the companies developing innovative water technologies and industries that use them – to build solutions that will solve the world’s water challenges.

Who We Are

• Nonprofit water innovation hub, launched in 2016
• Headquartered in Chicago, IL
• Collaborative that leverages partnerships with the state’s world class utilities, research institutions, industries and innovation community for global environmental and economic impacts

How We Work

• As a cross-sector connector of local and global water sector stakeholders, we build networks, organize events and convenings, and help develop pilot projects in real-world settings to solve persistent local water challenges.

To get involved, please contact George Brigandi.
CHANGING HOW WE VALUE WATER.

The water problems of today demand innovative technology solutions from across sectors, borders, and disciplines.

Cleveland Water Alliance is on the cutting edge of creating an environment of innovation that urges greater care of our valuable water resources while tapping into the economic potential of water as a key driver of prosperity.

We move the needle on water technology development - driving research, attracting industry, centering water education, accelerating new tech and bolstering dynamic career opportunities in the Great Lakes region.

We focus on creating a Blue Economy where innovating solutions to water challenges serves as a key driver of prosperity.

The Blue Economy is the sustainable use of water resources for economic growth, improved livelihoods, and jobs while preserving the health of water systems.

Innovate.
Diverse problems require diverse solutions. Our innovation competitions, Smart Lake Erie initiative, and tech acceleration programs bring problem solvers together to make lasting change.

Elevate.
Water has an immense impact on our economy and community. CWA elevates the narrative of Northeast Ohio and the Great Lakes as a nexus for water and technology to spur education and career opportunities for lasting impact. Key areas include STEM education, industry mentorship, and water equity.

Connect.
NE Ohio and the Great Lakes region contain some of the densest hubs of water industry and activity in the nation. CWA connects a web of experts across the Great Lakes to drive tech advancement, foster business growth, and protect water resources.

MAJOR PROGRAMMING

Smart Lake Erie
We’re working to make Lake Erie the first Smart and Connected Great Lake, enabling better data management, harmful algae prevention, and policy decisions to protect our waters. Our Smart Watershed Pilot in the Western Basin currently serves as a testbed for new smart water tech.

Erie Hack
A series of innovation competitions across the Lake Erie Basin, Erie Hack is designed to find and accelerate lasting solutions to our water problems.

Smart Citizen Science
Our Smart Citizen Science program empowers communities with the data, tools, and organizational support needed to serve as the front line of Lake Erie management and research.

The triple helix model of innovation brings together a “cluster” of academia, industry, and government to foster economic and technology development.
April 2020

Established in 2013, the Council is a binational, member-driven, non-profit corporation that is dedicated to deepening the United States-Canada relationship in the Great Lakes economic region.

It focuses on creating stronger, more dynamic cross-border collaborations in harnessing the region’s economic strengths and assets, improving the well-being and prosperity of the region’s citizens, and protecting the Great Lakes watershed for future generations.

It achieves this by connecting regional leaders through the annual Great Lakes Economic Forum and sector dialogues, exploring key trends shaping the region and proposing solutions and strategies that move the region forward through public policy research, and acting as a strong voice for the region’s varied socioeconomic and environmental interests.

To learn more about the Council, please visit: councilgreatlakesregion.org.

Sincerely,

Mark Fisher
President and CEO
mark@councilgreatlakesregion.org / 613-668-2044
The Great Lakes Observing System (GLOS) provides end-to-end data services that support science, policy, management, and industry in the Great Lakes.

A bi-national nonprofit, GLOS aims to enable easy access to the real-time and historical lake data that the people of the region need.

By taking a user-oriented approach to organizing the technologies, people, and processes involved in monitoring the Great Lakes, GLOS is building a system where data is sharable and interoperable so that our immensely valuable freshwater resources can be better managed and more fully understood.

Find out more at glos.org.

GLOS makes data gathered by buoys, satellites, and more usable by people in government, science, resource management, business, and beyond.

The Smart Great Lakes Initiative is working to build a regional information ecosystem based on smart technologies.

GLOS is an initiative co-founder. Visit smartgreatlakes.org.