



Stakeholder collaboration for a sustainable, trusted, and healthy global seafood industry.



Thanks for checking out the website, it is currently still in development (website copy is not complete) and will pre-launch on January 1, 2018. From January 1, through March 15, 2018 we will be performing outreach to industry stakeholders to complete our initial advisory board and whitepaper. If you are a participant in the seafood industry and would like to be involved at this pre-launch stage please send us an email at: info@transcoms.com

The Seafood Commons is intended to complement the implementation of the FDA Food Safety Modernization Act (FSMA) – Preventive Controls for Human Foods, Preventive Controls for Animal Food, and the Foreign Supplier Verification Programs. The FSMA requires a supply-chain program for certain raw materials and other ingredients. This program is designed to address hazards requiring a supply-chain-applied control.

Powerful, digital technologies are emerging that can reduce costs across large sectors of the seafood industry, with far-reaching implications for society in the first half of the 21st Century. The Communications Internet is converging with the fledgling Energy Internet and Logistics Internet in a seamless twenty-first-century intelligent infrastructure – the Internet of Things (IoT). The IoT will connect every "thing" with everyone in an integrated global network. Anyone will be able to access the IoT and use Big Data and analytics to develop predictive algorithms that can dramatically increase productivity and reduce the marginal cost of producing and delivering a full range of seafood.

The Blue Economy **Global Seafood Industry**

The seafood industry contributes US\$230 billion to the global economy, creating jobs that support to 8% of the world's population.

One billion people rely on fish as their primary source of protein. The ocean provides more than half of our oxygen. Healthy fish populations keep the ocean healthy.

Global Seafood Production

In the 52 year period from 1951 to 2013 global production increased from under 40,000kt to 140,000kt. The majority of growth was in the freshwater category.

Wild Caught vs Aquaculture

From under three million metric tons in 1960, aquaculture has grown to overtake wild caught in 2012. Wild caught has remained in a stable range since 1994.

Aquaculture by Region

Since 1960 over 80% of growth in world-wide aquaculture has been in Asia. More than 84 percent of aquaculture now comes from Asia.

A Regenerative Industry

Through habitat destruction, overfishing, and pollution, the ocean is losing the ability to provide the benefits that humans have come to rely on: food, livelihoods, and climate regulation. This is happening in the face of a rapidly changing climate and acidification of seawater, which is reducing the ability of the ocean to absorb carbon and to regulate global temperatures and local weather patterns.

The journal [Science](#) published a four-year study in November 2006, which predicted that, at prevailing trends, the world would run out of wild-caught [seafood](#) in 2048. The scientists stated that the decline was a result of [overfishing](#), [pollution](#) and other environmental factors that were reducing the population of fisheries at the same time as their ecosystems were being annihilated. This is a crisis for the industry and the global population in general. Developing and sharing regenerative aquaculture practices is not only innovative but is essential to our future.

RESOURCES

The State of World Fisheries and Aquaculture

Fish continues to be one of the most-traded food commodities worldwide with more than half of fish exports by value originating in developing countries. Recent reports by experts, international organizations, industry and civil society representatives all highlight the tremendous potential of the oceans and inland waters now, and even more so in the future, to contribute significantly to food security and adequate nutrition for a global population expected to reach 9.7 billion by 2050.

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Social Responsibility in the Global Seafood Industry

BACKGROUND AND RESOURCES - FISHWISE.ORG

Across the world, reports of ethical concerns about human and labor rights issues in seafood supply chains are increasing. This white paper aims to serve as a tool to help conservation NGOs and human rights experts join forces to improve human and labor rights in the seafood industry. It also seeks to provide businesses with background on the drivers of human rights and labor abuses (e.g. trafficking and forced labor), as well as resources business can utilize to plan and implement social responsibility protocols within their supply chains.

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Oceans and Law of the Sea - United Nations

FIRST WORLD OCEAN ASSESSMENT - UN.ORG

The First Global Integrated Marine Assessment, also known as the "World Ocean Assessment I", is the outcome of the first cycle of the Regular Process for Global Reporting and Assessment of the State of the Marine Environment, including Socioeconomic Aspects. The first World Ocean Assessment provides an important scientific basis for the consideration of ocean issues by Governments, intergovernmental processes, and all policy-makers and others involved in ocean affairs.

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Common Standards and IoT

OPENSTAND: GLOBAL COMMUNITY FOR OPEN INNOVATION

"When you have common interfaces and common protocols, everyone can innovate and interoperate. Companies can build their businesses, consumers can expand their choices, technology moves forward faster, and users get more benefit..." "The world is getting smaller on a daily basis. Hardware, software, and content move independent of, and irrespective of, international boundaries. As that increasingly happens, the need to have commonality and interoperability grows. We need standards so that the movie made in China or India plays in the equipment delivered in the United States, or the Website in the United States plays on the computer in China."

The Modern Paradigm for Standards is shaped by adherence to the following five principles:

1. Cooperation

Respectful cooperation between standards organizations, whereby each respects the autonomy, integrity, processes, and intellectual property rules of the others.

2. Adherence to Principles

Adherence to the five fundamental principles of standards development:

- **Due process.** Decisions are made with equity and fairness among participants. No one party dominates or guides standards development. Standards processes are transparent and opportunities exist to appeal decisions. Processes for periodic standards review and updating are well defined.
- **Broad consensus.** Processes allow for all views to be considered and addressed, such that agreement can be found across a range of interests.
- **Transparency.** Standards organizations provide advance public notice of proposed standards development activities, the scope of work to be undertaken, and conditions for participation. Easily accessible records of decisions and the materials used in reaching those decisions are provided. Public comment periods are provided before final standards approval and adoption.
- **Balance.** Standards activities are not exclusively dominated by any particular person, company or interest group.
- **Openness.** Standards processes are open to all interested and informed parties.

3. Collective Empowerment

Commitment by affirming standards organizations and their participants to collective empowerment by striving for standards that:

- are chosen and defined based on technical merit, as judged by the contributed expertise of each participant;
- provide global interoperability, scalability, stability, and resiliency;
- enable global competition;
- serve as building blocks for further innovation; and
- contribute to the creation of global communities, benefiting humanity.

4. Availability

Standards specifications are made accessible to all for implementation and deployment. Affirming standards organizations have defined procedures to develop specifications that can be implemented under fair terms. Given market diversity, fair terms may vary from royalty-free to fair, reasonable, and non-discriminatory terms (FRAND).

5. Voluntary Adoption

Standards are voluntarily adopted and success is determined by the market.

→ [LEARN MORE - OPENSTAND WEBSITE](#)

RESOURCES

GS1

GS1 Standards are the shared language businesses use to sell, grow, remain competitive, and even reinvent themselves. They allow you to easily identify, manage, and share product data with your trading partners, supply chains, and customers to streamline operations, cut costs, and deliver more satisfying customer experiences.

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IEEE

IEEE is the world's largest technical professional organization dedicated to advancing technology for the benefit of humanity. IEEE creates an environment where members collaborate on world-changing technologies, from computing and sustainable energy systems to aerospace, communications, robotics, healthcare, and more.

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Open Connectivity

The Open Connectivity Foundation is dedicated to ensuring secure interoperability for consumers, businesses and industries by delivering a standard communications platform, a bridging specification, [an open source implementation](#) and a [certification program](#) allowing devices to communicate regardless of form factor, operating system, service provider, transport technology or ecosystem.

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Promoting Best Practices

An important role for best practices is organizational learning. At any given time, there are various initiatives within the industry which lead to process improvements. Often, these are not codified, but informal best practices that arise from trial and error rather than a focused effort. Here are some examples of organizations practicing and promoting best practices, Seafood Commons will be a central platform for collaboration between industry stakeholders.

RESOURCES

Global Aquaculture Alliance

The Global Aquaculture Alliance is an international non-governmental organization dedicated to advocacy, education, and leadership in responsible aquaculture. Through the development of our Best Aquaculture Practices (BAP) certification standards, GAA has become the leading standards-setting organization for aquaculture seafood. We uphold and engage stakeholders worldwide who are dedicated to advancing environmentally and socially responsible aquaculture practices.

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Blue Ventures

REBUILDING TROPICAL FISHERIES WITH COASTAL COMMUNITIES

Blue Ventures develops transformative approaches for catalyzing and sustaining locally led marine conservation. We work in places where the ocean is vital to local cultures and economies, and are committed to protecting marine biodiversity in ways that benefit coastal people.

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GreenWave

GreenWave is an ocean farmer and fisherman-run organization dedicated to building a new blue-green economy that creates jobs, mitigates climate change and grows healthy food for local communities. We envision a day when there are thousands of restorative ocean farms on coasts around the world contributing food, fertilizers, energy and much more to local economies, while saving our oceans – and ourselves.

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Technology Impact

The Internet of Things (IoT) has been called the next Industrial Revolution – it will impact the way all businesses, governments, and consumers interact with the physical world. The global IoT market will grow from \$157B in 2016 to \$457B by 2020, attaining a Compound Annual Growth Rate (CAGR) of 28.5%. Emerging technologies based on blockchain and distributed ledger hold the promise for transformative impact over the next few years.

RESOURCES

Global Fishing Watch

Global Fishing Watch is the product of a technology partnership between SkyTruth, Oceana, and Google, designed to enable anyone to see and understand apparent fishing effort worldwide. This, in turn, will help reduce overfishing and illegal fishing and help restore the ocean to sustainability and abundance. Contrary to common belief, no one is actually taking high resolution, fine-scale images of the entire world at all times. So we had to come up with a new method of looking at fishing behavior far over the horizon.

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ID2020 Alliance

The ID2020 Alliance is a global partnership working to address the lack of recognized identity by more than a billion people around the world, in accordance with Target 16.9 of the Sustainable Development Goals. Without an identity, individuals are often invisible—unable to vote, access healthcare, open a bank account, or receive an education—and bear higher risk for trafficking.

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Blockchain for Social Impact

The New America Future of Property Rights initiative engages with policy makers, technologists, academics, civil society, and jurisdictions, as well as the property rights formalization community of practice. Property rights formalization is a powerful tool for creating wealth, opportunity, and security. A number of recent technology developments and advancements greatly reduce the time, cost, and complexity of property rights formalization. Our role is to highlight these opportunities, expand the conversation and facilitate instances of property rights formalization improving lives.

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→ SUPPLY CHAINS: MCKINSEY GLOBAL SURVEY RESULTS

Solutions Quest

so·lu·tion

sə'looSH(ə)n/

noun

solution noun (ANSWER)

an answer to a problem:

The oceans offer a reasonable solution to a difficult problem.

solution noun (LIQUID)

chemistry

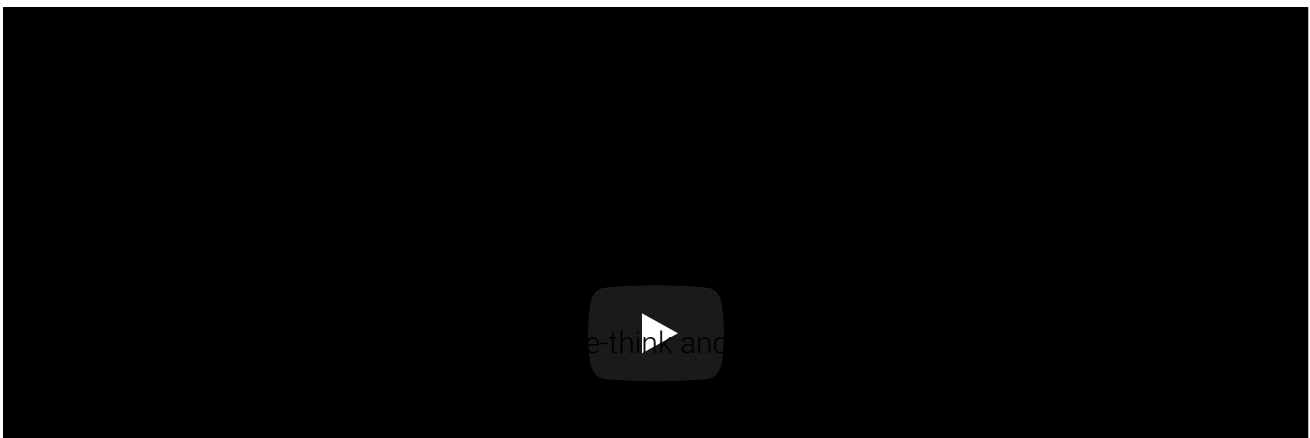
A liquid in which other substances have been mixed and dissolved.



Join us on a [Global Solutions Quest](#)

THE OCEANS ARE A SOLUTION

MEMBER BENEFITS





Our Leadership

A TEAM OF INDUSTRY VETERANS

The founding team behind the *Seafood Commons* has been working together through **Transformative Communities** (transcoms.com) as a Community of Practice and consulted on community and technical development for the **Association of International Seafood Professionals** ([AISP](#)) from 2016–2017.



Ted Schulman