THE FUTURE OF
OCEAN LISTENING

By Mark Wood,
President, Ocean Sonics

Listening. It is what we do, it is our guiding principle, and it is what has made Ocean Sonics a trusted word leader in ocean listening. Since Ocean Sonics began producing underwater acoustic data solutions in 2012, we have listened to acoustic experts, industry partners and users of ocean sound data. We have listened to every compliment and congratulations, but we have listened even closer to every complaint, every frustration, and every failure.

Overcoming failure and challenging the status quo is what makes Ocean Sonics different. We choose to turn challenges into opportunities. Just because something has always been done a certain way does not mean that is the way it must be done forever. We choose to be unconventional and ask ourselves the hard questions, including the ones that sound impossible and that others prefer to avoid.

- *"How do we build a sensor to deploy at the deepest points of the ocean?"*
- *"What if we didn't have to wait for processed data?"*
- *"Why do we record, what if we could listen instead?"*
- *"What if we could answer simple questions in real time, like, 'is there a leak?'"*

By never settling for what is easy and what is proven, Ocean Sonics dedicated itself to developing game-changing ocean technology, creating the world's first digital, real-time underwater listening device.

REAL-TIME SIMPLICITY

The icListen made ocean sound data more accessible. Users no longer had to be acoustics experts to view and interpret acoustic data. Processed at the source, data was available and ready to use to allow for simplified decision making. By listening instead of recording, Ocean Sonics has been able to provide instant answers to important questions, resulting in improved environmental practices for industrial activities

» *Ocean Sonics' SC60 hydrophone processes data while streaming HD acoustic data in real time. With a titanium casing, the SC60 is 6,000 m depth rated and so perfect for deep water deployment. (Photo credit: Ocean Sonics)*

and protection for the oceans most vulnerable and at-risk species. There is a joy in the simplicity of an icListen. While it is an innovative tool, with years of prototyping, engineering, testing behind it, it is uncomplicated in its use. For even the most novice of users, an icListen opens up the world of ocean sound, immediately and without fuss.

At Ocean Sonics we share. We share data and access, but we also share ideas. Our team is allowed to dream and run with ideas. We seek out partnerships and projects that test us. We are not afraid to confront our limits and push past them. Why stop at 3,500 m when we can reach depths unexplored. Our culture of sharing has led to numerous innovations and improvements to our products and to how we support those collecting ocean sounds data. Without the freedom to share ideas, we never would have developed the launch box, a wireless solution for hydrophone deployments when access to power and internet or cell connections are not readily available.

CHALLENGING INNOVATION

Our unique company culture reminds us to stay humble. We choose to learn. As we share ideas and explore opportunities, we are reminded that while not every venture is a grand success, every venture is an opportunity to learn. We develop and test new methods and approaches to existing ideas. We

» The SC60 allows operators to collect ocean sound data accurately, easily and with confidence, with ultra low-noise and wide dynamic range for high-quality signal quality and stability. Ocean Sonics' In-line Hydrophone Frame helps safeguard underwater moorings. (Photo credit: Ocean Sonics)

» The RB9 hydrophone is 900 m depth rated and outfitted with Teledyne Reson sensor tips. (Photo credit: Ocean Sonics)

» The new architecture of the icListen Kayak has simplified arrays; With the new Universal Hydrophone Bus, or UHB, users can now string up to 100 hydrophones on a single cable, making it easy to design and deploy, large scalable arrays. (Photo credit: Ocean Sonics)

» Ocean Sonics offers a range of accessories and deployment products, such as launch boxes to make your Smart Hydrophone completely wireless. (Photo credit: Ocean Sonics)

approach problems with a broad, holistic view and we stay curious. Without asking ourselves the difficult questions, such as, *why are acoustic arrays so difficult and how can we make them easier for people to use?* the newest icListen, the icListen Kayak, would not exist.

Creating a new hydrophone architecture was a risk. We know that change occurs when risks are taken, we make space for failure and use it as a chance to learn. The original icListen Smart Hydrophone was a game changer in its own right, but we choose to look ahead. We listened to the researchers, companies and organizations working with ocean sound data. We heard their frustrations and complaints, and we heard what they really wanted and what they wished they could do. Coming from a place of optimism, Ocean Sonics chose to ask, what if…?

- *"What if we could deliver real-time sound data from a low power instrument?"*
- *"What if we could integrate smart sensors quickly and easily?"*
- *"What if we could scale acoustic arrays to huge sizes?"*

THE FUTURE

Looking ahead meant taking what we saw was possible with existing acoustic architecture and we imagined what could become possible. We chose to be provocative and saw opportunities instead of limitations. We started conversations by asking, *what would you like to achieve and how can we help you do that?* We turned our users' aspirations into our goals and took them on headfirst. In 2021, Ocean Sonics plans to roll out brand new underwater listening tools, ready for integration, ready to scale into huge acoustic arrays, and ready to integrate into even the most challenging platforms.

At Ocean Sonics, our goal is to be the leader in ocean listening. In working towards that goal, we have also managed to become leaders in sharing, risk taking, learning, and unconventional thinking. Listening has been at the core of what we do since we began designing and building hydrophones. We are always ready to listen, now.

For more information, visit: *www.oceansonics.com.*