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SEA2SEE

NEWSLETTER

VOL.5
2024

Innovative blockchain traceability technology and stakeholders' engagement strategy for **boosting sustainable seafood visibility**, *social acceptance* and consumption in Europe.

Current seafood traceability tools and services can take advantage of novel blockchain technologies to obtain a wide range of data making sustainable seafood practices more visible to consumers. SEA2SEE project fills in existing seafood traceability gaps through development and demonstration of an innovative end-to-end blockchain-based traceability platform throughout the seafood value chain as well as professional and consumer applications to increase trust and social acceptance of sustainably fished and farmed seafood.

[Read more about SEA2SEE activities and objectives](#)



Blockchain technology for a *transparent,* competitive and **sustainable** **seafood sector**

Over the hump: Advancing seafood traceability through demonstrations and stakeholders' engagement



SEA2SEE project has rolled over into its third year, with the past six months having been pretty busy for partners. Partners marked an impressive progress with the development of the building blocks of the blockchain-based traceability platform, the finalization of the use cases definition, stakeholder engagement and just recently, first steps made towards our demonstration workshops, presenting the SEA2SEE platform's solutions and how they can be utilized to the benefit of the seafood value chain sector.

The months of July and August were pretty hot with

accomplishing two milestone events for the project: the launch of the first edition of the Massive Open Online Course on “Navigating the Sea-to-Plate Journey for Responsible Seafood Consumption” and first-time demonstration of our end-to-end traceability platform, for aquaculture, at AQUA24 exhibition in Copenhagen, Denmark. Both events enjoyed a tremendous success thanks to the dedication and commitment of all project members involved, and the extensive communication support through the employment of numerous promotional materials, channels and formats. We stepped into fall with a series of two synergy webinars engaging with several European projects, tackling critical challenges in the agrifood sector, such as combating food fraud, improving food traceability and increasing consumers’ trust. This synergy effort marks an important step towards amplifying the impact of SEA2SEE’s goals in the seafood industry through blockchain technology and sustainable initiatives. The consortium’s 5th management meeting was held in beautiful Athens beginning of October, ending with a field visit to a Greek sea bream and sea bass aquaculture farm. We were recharged by the energy of the sea and left appreciating the importance of the role that environmental conditions play in the farming process and the logistics needed for traceability.

To conclude, a pinnacle event for SEA2SEE was its recognition as an innovation project by the EU’s Innovation Radar. This remarkable endorsement reinforced our belief that digital traceability based on AI tools and blockchain technology utilization is the pathway to achieving sector’s transparency, and sustainable and safe seafood consumption.

Enjoy the issue and find out more about SEA2SEE on social media and our website: <https://sea2see.eu>



WHAT WE HAVE BEEN UP TO

SEA2SEE LAUNCHED THE MASSIVE OPEN ONLINE
COURSE ON SEAFOOD LITERACY AND VALUE CHAIN

SEA2SEE



proudly presents

NAVIGATING THE SEA TO PLATE JOURNEY FOR RESPONSIBLE SEAFOOD CONSUMPTION

an Open Online Course *on*
seafood literacy and value chain



A key result from SEA2SEE consumer engagement strategy was development a Massive Open Online Course (MOOC) aiming to increase the public's seafood literacy and knowledge on the value chain. The MOOC was proudly deployed in July and was open for enrollment until the end of September 2024. This innovative course tackled a key challenge identified during the project's participatory workshops, namely, society's limited understanding of the seafood industry.

Through five interactive modules covering topics like fishing methods, aquaculture processes and seafood traceability, the MOOC empowered consumers and stakeholders to adopt sustainable practices while

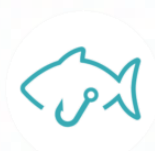
understanding the seafood value chain better. Engaging videos, infographics, summaries, and expert-led discussions enrich the learning experience.



LM0 – WELCOMING
WORDS



LM1 – OCEAN
AND SEAFOOD
LITERACY



LM2 – FISHERIES



LM3 –
AQUACULTURE



LM4 – TRACEABILITY AND
THE SEAFOOD
VALUE CHAIN



LM5 – RESPONSIBLE
CONSUMPTION
AND ENGAGEMENT

Participants benefited from networking opportunities, expert Q&A forums, and digital certificates upon completion. Standout features included community engagement, prize raffles, and success stories shared within the course.

The second edition of the MOOC is expected to open at the end of February, beginning of March 2025. It is with an improved content based on the great feedback we received from users and project partners. Watch our social media channels to tune in right from the start and become part of the SEA2SEE community, fostering shared knowledge and sustainable seafood practices across the globe.

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5th Consortium Meeting in Athens: Moving towards a Sustainable Seafood Future



From October 1 to 3, 2024, the SEA2SEE consortium kicked off the new business season with a productive 5th management meeting in Athens, hosted by NAYS. The event brought together project partners to share insights, align on goals and report on significant advancements. A key focus of the meeting was enhancing consumer confidence in seafood through improved traceability and sustainable practices.

Besides MOOC's next editions, Submon shared planned consumer engagement activities, like cooking workshops at schools, guides and a recipe book in collaboration with Ethic Ocean. The University of Aveiro provided updates on their ongoing research on identifying barriers to blockchain adoption in the seafood sector, including legal hurdles and cost challenges.

Technological advancements were a major topic, with Tilkal, Smartwater Planet and PAGE UP presenting progress on data management and the integration of real-time aquaculture production data into the SEA2SEE traceability platform.

Furthermore, as SEA2SEE moves into demonstration phases, partners are fine-tuning tools and applications with pilot sites to ensure the platform meets market needs and enhances sustainability across the seafood value chain.

A highlight of the experience was the visit to a Greek aquaculture farm, offering

invaluable insights into farming processes and the logistics of traceability. The meeting concluded with a successful multi-stakeholder workshop, where the consortium showcased the SEA2SEE blockchain based platform's capabilities to important external stakeholders from Greece, to include Greek aquaculture sector experts, production and packaging branches and regional authorities.

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Behind the scenes with the University of Aveiro capturing the journey of Algarve Octopus: “A Roadmap of Your Catch”



In early November, the Sea2See team, alongside our partners from the University of Aveiro, embarked on an exciting journey to the Algarve to capture the story of the Algarve octopus, as part of our efforts to bring the project's activities to life.

With the help of a talented videographer, we followed the octopus's remarkable journey from sea to plate. We witnessed a fisher at work, using traditional methods to catch octopus on a fishing vessel, then documented its landing and auction process in Fuzeta, marking the beginning of its market journey. Furthermore, we showcased the octopus's transformation into a delicious dish at Casa do Polvo Tasquinha, a local restaurant renowned for its octopus' cuisine in Santa Luzia. Throughout the day, we interviewed key players along the octopus value chain, delving into the economic, cultural, and ecological importance of this iconic seafood.

Stay tuned for the upcoming videos!

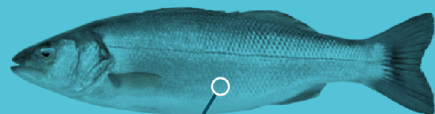
SEA2SEE #species campaign underway

As part of the promotion of the project, we launched the SEA2SEE #Species campaign. In a series of posts, we acquaint our audience with the species

featured at our demo sites – their food properties, farming and fishing practices as well as recommendations for sustainable consumption.

Sea Bass

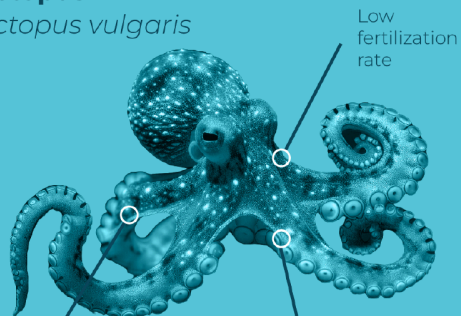
Dicentrarchus labrax



Highly Prized Fish - a sought-after species, especially during its spawning season when large groups gather to reproduce.

Octopus

Octopus vulgaris



A cephalopod characterized by a short biological cycle, making it highly sensitive to environmental variations

Low fertilization rate
High survival rate of the eggs until hatching, thanks to the great care the females give to their eggs

Meagre

Argyrosomus regius



a carnivorous fish with high commercial value

fished in coastal areas at less than 80 m depth

Gilthead seabream

Sparus aurata



The gilthead seabream is the only sparid species that is farmed.

Connect with SEA2SEE on our social channels to find out more!



DISSEMINATION OF RESULTS

SEA2SEE project at AQUA24 in Denmark



At the end of August, SEA2SEE partners proudly presented the blockchain-based seafood traceability platform at the prestigious AQUA24 trade show in Copenhagen, Denmark. The demonstration marks a significant milestone in the project's progress towards building a comprehensive digital tool for tracking seafood throughout the entire value chain.

During the event's interactive Happy Hour, visitors experienced a live showcase of how various system components work together. This included Landing Aquaculture's MicroRAS system, Smartwater Planet's Medusa sensor suite and CLOUD Aquaculture Management Software, all seamlessly integrated into the Sea2See blockchain using Tilkal's platform model. Attendees had the opportunity to test the technology by scanning barcodes of fish products, tracing their journey from farm to plate. SEAentia showcased their work with corvina (*Argyrosomus regius*), a premium fish known for its taste and omega-3 richness, and one of the SEA2SEE species.

In addition to demonstrating SEA2SEE technology on revolutionizing the seafood industry through cutting-edge blockchain solutions, partners from SEAentia delivered a conference presentation as well, titled "From RAS to Plate".

[Read more](#)







Check out the [exclusive video](#) we developed to demonstrate the functionality of the SEA2SEE platform, tailored to the aquaculture scenario.

Read the [Press Release](#) dedicated to SEA2SEE participation in AQUA24.

**SEA2SEE presented at the EMSEA 2024 Conference:
empowering ocean education and awareness**



The European Marine Science Educators Association (EMSEA) Conference took place in Zadar, Croatia, September 23 - 26, 2024, gathering marine education and conservation professionals from across Europe. This year's event celebrated the 20th anniversary of the "ocean culture" concept, emphasizing the critical role of fostering respect and understanding of the ocean to drive societal change and environmental stewardship. Through workshops, presentations, and collaborative sessions, participants explored innovative ways to bridge knowledge gaps and promote sustainable ocean practices.

A notable highlight was Juanita Zorrilla Pujana's presentation in which she showcased Submon's contributions to the SEA2SEE activities, emphasizing the intersection of ocean literacy, blue economy and sustainable seafood practices.

[Read more](#)

SEA2SEE partner ANFACO CECOPESCA presenting project results at WEFTA 2024



Representing the Sea2See project, ANFACO-CECOPESCA presented its groundbreaking research on the nutritional benefits of various European seafood products at the WEFTA 2024 conference, focused on four key species: corvina, trout, octopus, and gilt-head bream, sourced from different regions of Europe.

Over the past few months, ANFACO-CECOPESCA has delved deeper into studying octopus from artisanal fishing in the Algarve, Portugal, as well as corvina from Peniche, Portugal, and gilt-head bream from Greece, all produced through sustainable aquaculture practices. Preliminary results presented at WEFTA showcased the high nutritional quality of these species, with particularly notable levels of beneficial fatty acids and proteins, and the team also shared promising initial findings on rainbow trout sourced from a farm in Spain.

In the weeks following the event, ANFACO-CECOPESCA researchers traveled to the Algarve to further study the octopus' fishery, where they evaluated fishing techniques, as well as the evisceration and freezing operations at processing centers. This hands-on fieldwork allowed the team to gather data on the entire value chain of octopus production, from capture to final sale, enabling them to assess the environmental impact and life cycle of the product. The research conducted, and the insights shared at WEFTA 2024, emphasized the Sea2See project's dedication to promoting sustainable and healthy seafood options for

European consumers, furthering the understanding of seafood's nutritional benefits and environmental sustainability.

SEA2SEE VISIBILITY

SEA2SEE recognized by the Innovation Radar of the European Commission



We are thrilled to share that the SEA2SEE project has received prestigious recognition from the Innovation Radar, an initiative of the European Commission that highlights groundbreaking innovations within EU-funded research.

We are proud of this endorsement as it re-confirms the immense impact of our work in advancing sustainable and safe seafood consumption. The Innovation Radar serves as a powerful tool to identify high-potential innovations and visionary innovators, aiming to bring EU-supported novelties to market faster and more efficiently.

[Continue reading](#)

Connecting Culinary Heritage and Fish Traceability in Portugal



Partners ANP/WWF recently hosted an engaging interaction session dedicated to fisheries and fish traceability in Portugal. The one-day event gathered restaurant owners, chefs, processing companies, distributors, retailers and media professionals to explore sustainable fishing practices and traceability solutions. Participants had the opportunity to learn about the latest project's developments, including outputs from the Massive Open Online Course, and shared work experiences in responsible seafood sourcing.

The event featured an inspiring presentation by Portuguese partners highlighting project results and future goals. The lunch cooked by the renowned Chef Fábio Bernardino turned into a culinary festival, showcasing octopus and corvina – the species in two of the project's case studies. Attendees reflected on these products' gastronomic potential and the role of blockchain in ensuring fish traceability. A dynamic “Speed Dating” session allowed stakeholders to exchange ideas, fostering innovation and collaboration in the seafood value chain. This event underscored the critical link between sustainable fisheries and regional culinary heritage.

Celebrating Traditions, Promoting Sustainability in Spain



SEA2SEE project and SUBMON proudly collaborated in a vibrant fish auction event at the Pérez Sala School as part of the [SHORE project](#). This unique initiative brought together students, families, local fishermen and community, offering an immersive experience in seafood heritage and sustainability practices.

Many attendees expressed interest in buying fresh, locally sourced seafood, eagerly asking about various species and preparation methods. The children, excited by the bidding process, enthusiastically raised hands to secure the freshest catch. This interactive, educational experience successfully connected traditional fishing knowledge with modern sustainability practices, to see at the end that everything was sold!

Another interesting engagement of SUBMON, supported by the SHORE project, was an educational visit to the Museu de Palamós in Catalonia, Spain. It brought students from Pérez Sala Blue School for an immersive learning experience focused on seafood literacy. During the visit, students explored

various aspects of the seafood industry, gaining valuable insights into fisheries, different marine species and the diverse career opportunities within this vital sector. This hands-on experience played a key role in enhancing students' understanding of sustainable seafood practices.



Gastronomic Forum Barcelona

Like every year, this one made no exception and our partner SUBMON again attended the [Gastronomic Forum Barcelona](#) to immerse us in the various activities and creativity surrounding seafood.

The event united businesses, food enthusiasts, critics and gastronomy experts to learn firsthand about advancements in this incredible field where land and sea come together. An interesting presentation from Galicia highlighted the importance of product traceability when selecting and purchasing seafood, reinforcing that brands that are transparent in this area will have a competitive advantage.



KNOWLEDGE HUB

SEA2SEE commitment to providing valuable insights for our audience drives us to craft informative and educational articles. We explore the core of blockchain technology and its role in seafood traceability, emphasize the industry's need for traceability, discuss the circular economy's impact on our oceans and promote seafood literacy to empower consumers to make sustainable seafood choices.

Aquaculture: The Final Domestication

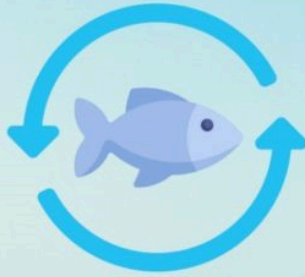


Throughout history, humanity's progress has often been marked by significant advancements, from domesticating animals to the industrial revolution. Today, with the urgent need for sustainable food sources, aquaculture has emerged as the "final domestication." This concept goes beyond farming fish, encompassing finfish, shellfish, and algae—key components of a resilient, sustainable food system.

SEA2SEE partner Smartwater Planet contributed an insightful article on our website, exploring the evolution of aquaculture - from ancient fishponds to today's high-tech industry. The article highlights cutting-edge technologies like blockchain, satellite imaging and remote sensing, applied nowadays to ensure a transparent and sustainable supply chain. While challenges remain, aquaculture holds immense potential to feed a growing global population while supporting environmental sustainability.

Read the full piece [here](#).

General overview of Life Cycle Assessment (LCA) in the industry: origin, uses and applications



Life Cycle Assessment

As industries worldwide embrace sustainable and circular processes, Life Cycle Assessment (LCA) proves to be an essential environmental tool. This comprehensive evaluation method assesses environmental impacts throughout a product's life cycle—from raw material extraction to waste disposal—examining energy consumption, emissions, and resource use. By applying LCA, industries optimized their processes, minimized ecological footprints, and advanced greener business practices. Its versatility allowed for extensive applications across sectors, including the seafood industry.

Check out the [article by ANFACO-CECOPESCA](#) on the SEA2SEE website. The piece explores LCA's historical development, practical implementation and specific contributions to sustainability in the seafood sector.

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NETWORKING FOR CAPACITY BUILDING



Join the Synergy Webinars!

September 11th & 13th at 11am CET

Securing our food supply chains: EU's innovative initiatives to combat food fraud, improve food traceability and sustainability, and increase consumers' trust.



SEA2SEE



THEROS

ALLIANCE

CUES

www.fisheutrust.org

In September, SEA2SEE joined forces with several other projects, FishEUTrust, [Watson](#), [THEROS](#), [ALLIANCE](#), and [CUES](#) to explore critical topics surrounding food supply chain security. The collaborative webinar delved into how the EU is combating food fraud, enhancing traceability, fostering sustainability and building consumer trust through cutting-edge technological solutions.

Looking for collaboration opportunities was the centerpiece of the event.

The webinar series promised for exciting synergies possibilities with CUES and THEROS projects, both of which focus on enhancing sustainability through digital innovations.

[Continue reading](#)

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Are you passionate about sustainable ocean conservation, digital transformation in the seafood sector, and empowering consumers by co-creating transparency throughout the seafood value chain?

Forward the SEA2SEE project's newsletter to friends and colleagues to inspire people and spread the message of sustainable seafood in the EU.

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SEA2SEE is social. Let's stay in touch!

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