

Attending:

Frode Jensssen, GC Rieber VivoMega

Baldur Hjaltason, Pharma Marine

Nicole Kunin, MSC

Katrina Benedicto, Nuseed

Lisa Burban, Fermentalg

Nicolás Cruz, Golden Omega

Nicolás Huidobro, Golden Omega

Ben Arcenaux, Nutrasource

Guido Medina, Pesquera Diamante

GOED: Chris Gearheart, Gerard Bannenberg, Kaitlin Roke, Vicky Lin

Meeting Minutes

- **Notes from GOED**

- Feedback on Seafood Expo Global
 - Chris: The highlights included MSC's Seafood Futures Forum, related MSC species sessions and [the full SeafoodSource conference program](#). Both were a great way to learn about the different issues confronting any team that harvests fish from the ocean and what they can do to get things right and how to communicate that information to the public. I recommend it to sustainability professionals whose company does marine work.
- GOED and the UN Global Compact
 - Chris: GOED has requested to join the UN Global Compact, the official UN organization that helps companies advance the UN Sustainable Development Goals (SDGs). Once admitted, we'll join more than [101 international business associations](#) in advancing [the 10 principles](#) as efficiently as we can.
- GOED Offsetting Carbon using [Wren.co](#)

Are you subscribed to *The GOED Current*? Subscribe [here](#) for the most comprehensive weekly newsletter available on the global EPA+DHA omega-3 industry.

- Chris: The GOED management team has started offsetting its carbon using a turnkey platform for individuals and smaller teams called Wren.co. Carbon offsets are not the ideal way to manage carbon emissions (like reduction and process optimization are), but the fees we pay to offset 2.2 tons of home and travel emissions CO₂ every month are helping us stay mindful of our environmental impact, [contribute to valuable projects](#), and build empathy with GOED member companies who have to track much more complex emissions than ours.
- **ESG kudos to GOED members**
 - [\[See slides below\]](#)
- **Presentation**
 - **Topic:** 100% Renewable Energy Use at GC Rieber VivoMega
 - **Speaker:** GC Rieber VivoMega
 - [\[See slides below\]](#)
 - **Video link:**
 - [Click here to watch](#)
 - Passcode: ?72hb!A#
 - **Highlights:**
 - Frode: Expanding operations at our plant and changing regulations in Norway prompted us to replace our flue boiler with an electric one that provided increased capacity and allowed us to draw on abundant hydroelectric resources from the surrounding area. Where we previously burned some fish oil to operate this boiler, we can now use that oil to create additional product. Additionally, we contribute much less air pollution to our community, the sound levels inside our boiler building decreased by 40 dB, and our energy effectiveness increased from 95% to 99%.
- **Q&A and discussion**
 - Chris: So regulations and the need for increased capacity spurred on the

transition to an electric boiler?

- Frode: Right. There were replacement fuel options, like biogas, but they wouldn't arrive as quickly and consistently as we needed them due to that market being underdeveloped in our area.
- Chris: Did you require new personnel to be able to be able to install this boiler and integrate it into your new workflow?
 - Frode: A little bit of both.
- Chris: Was there an opportunity to connect to the community with this boiler as you went through the regulatory process, or was it relatively routine?
 - Frode: Fairly routine. There was actually an 8-9 month queue to wait for approval to install.
 - Chris: That sounds like a good problem for a community to have — to have too many people that want to install renewable-powered electric projects.
 - Frode: Our installation consultant has been very active. He used to focus on our area but is now doing projects around the world because of how many companies want to electrify.
- Wenche: This is a beautiful example of the mindset of using sidestreams in a valuable way. Could you say a little more about optimally using sidestreams?
 - Frode: The previous fish oil we burned as fuel was not our main product, but over time the industry has developed the ability to put those products into feed. That was also a big driver. The only regret is that we should have started earlier.
 - Wenche: What was it like to get involved into a new value stream?
 - Frode: That's a little bit of a trade secret, but I can say that it's been interesting work. It's helped me shift from the concept of "waste" to "product" – it almost makes me angry when people don't see it that way so naturally. A lot of companies are going down the same path.
- Nicolás H.: Did you have to invest in additional electrical backup capacity?

- Frode: We can double our capacity. After we spent all the money to dig the new cables into the ground, we decided to put in another cable. We may never use it, but the power here is at 11k volts and we can go up to 22k volts as needed.
- Chris: So the second cable will allow you to scale production, or is it just to be able to adapt to any changes in the local power grid?
- Frode: We can double the production of steam as needed.
- Frode: None of this information is much of a secret. I've been working in flue boilers for years, and this equipment is just fantastic. It was a big investment, but it's had a lot of wins so far.
 - Chris: This is what GOED is all about — sharing information that could help people get more omega-3s in the end, even if it feels a little vulnerable. Thanks very much for your transparency.
- **Next call dates**
 - June 19 | [\[Click here for the time in your local time zone\]](#)
 - [July to be postponed due to a GOED team exercise]
 - [August to be postponed due to heavy holiday schedules in Europe and elsewhere]
 - September 18 | [\[Click here for the time in your local time zone\]](#)



GOED Sustainability Committee

Main Topic: 100% Renewable Energy Use

Speaker: GC Rieber VivoMega

May 22, 2024

Agenda

- **Committee housekeeping**
 - Welcome to first-time attendees
- **Notes from GOED**
 - Feedback on Seafood Expo Global
 - GOED and the UN Global Compact
 - GOED Team to Offset Carbon using [Wren.co](https://wren.co)
- **ESG kudos to GOED members**
- **Presentation**
 - **Topic:** 100% Renewable Energy Use at GC Rieber VivoMega
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- **Q&A and discussion**
- **Next call date**
 - [To be discussed]

Agenda

Notes from GOED

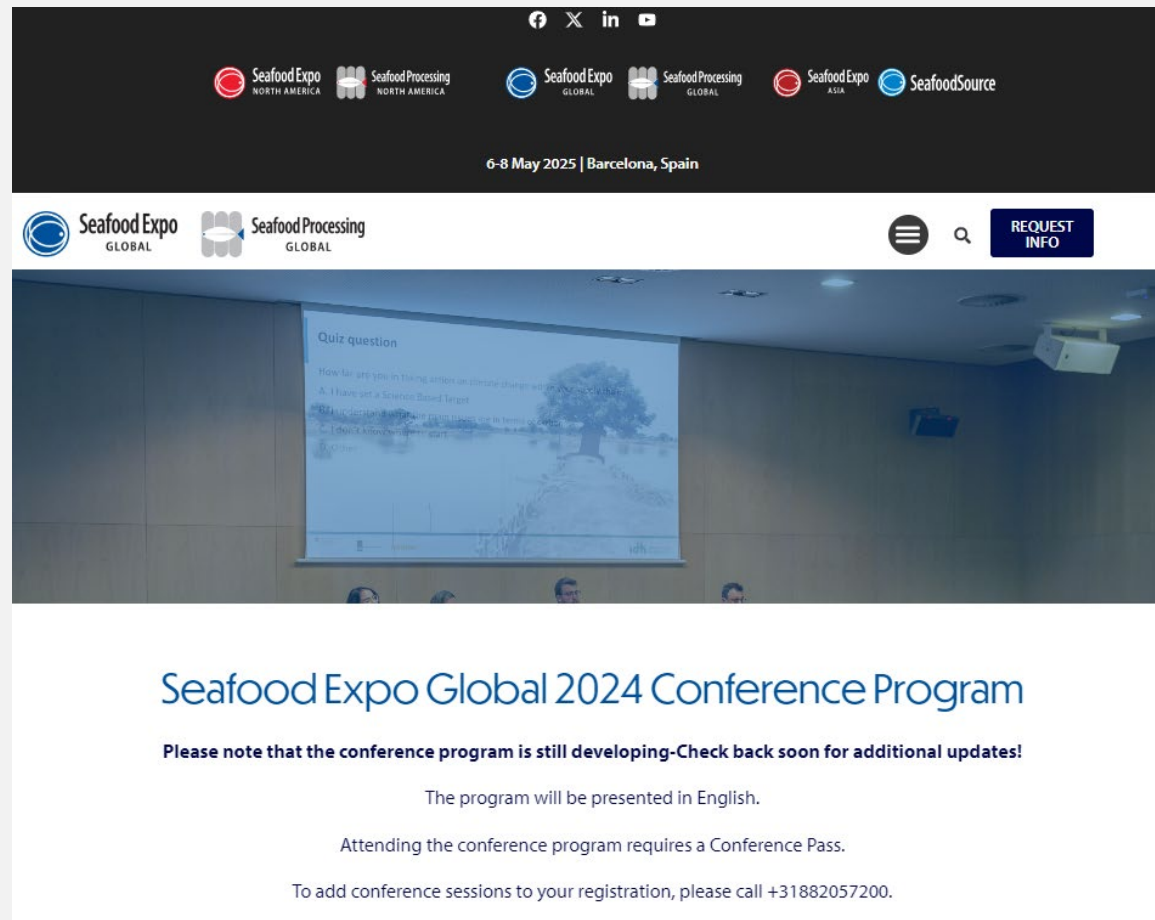
- Feedback on Seafood Expo Global
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[Wren.co](https://wren.co)

Agenda

Seafood Expo Global

Attending the conference gave a front-row seat to [current and pressing topics in seafood](#), many of which also applied to marine ingredients.



The screenshot shows the website for the Seafood Expo Global 2024 Conference Program. The top navigation bar is dark with social media icons (Facebook, X, LinkedIn, YouTube) and logos for Seafood Expo North America, Seafood Processing North America, Seafood Expo Global, Seafood Processing Global, Seafood Expo Asia, and SeafoodSource. Below this, the dates "6-8 May 2025 | Barcelona, Spain" are displayed. The main header area features the Seafood Expo Global and Seafood Processing Global logos, a menu icon, a search icon, and a "REQUEST INFO" button. The central image shows a large screen in a conference room displaying a "Quiz question" about climate change and the SDG target 13. Below the image, the title "Seafood Expo Global 2024 Conference Program" is prominently displayed. A note states: "Please note that the conference program is still developing-Check back soon for additional updates!". Further down, it specifies "The program will be presented in English." and "Attending the conference program requires a Conference Pass." The bottom line of text provides a contact number: "To add conference sessions to your registration, please call +31882057200."

6-8 May 2025 | Barcelona, Spain

Seafood Expo Global 2024 Conference Program

Please note that the conference program is still developing-Check back soon for additional updates!

The program will be presented in English.

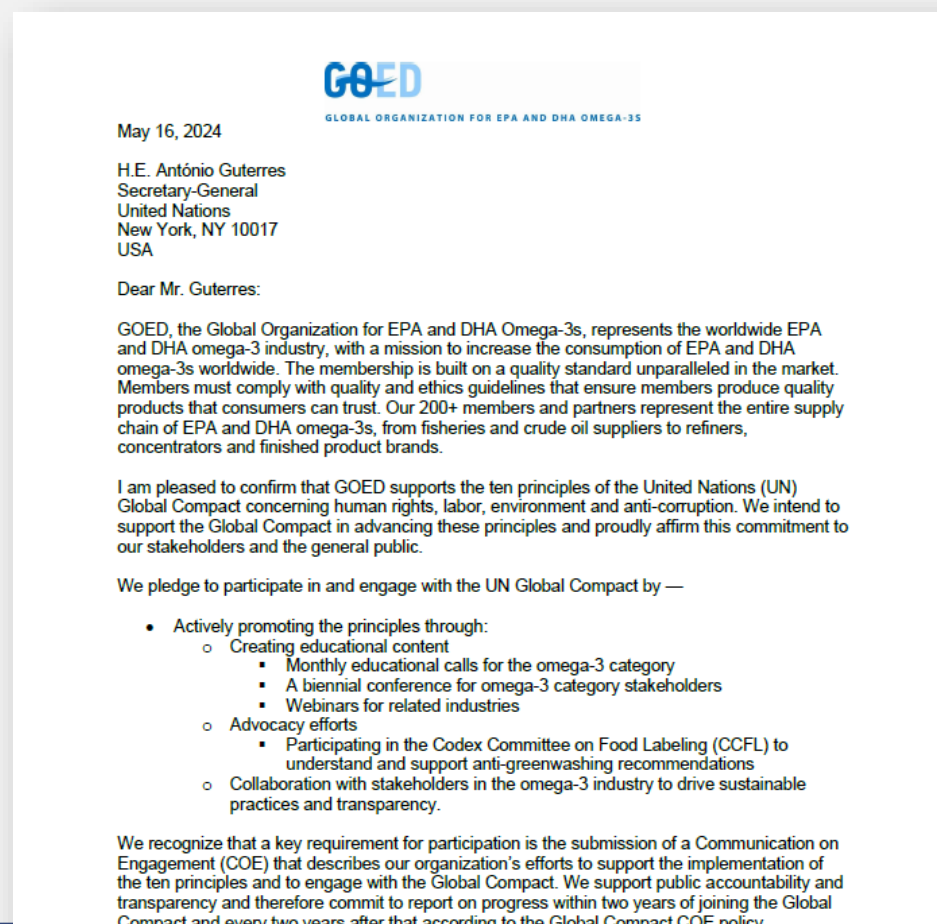
Attending the conference program requires a Conference Pass.

To add conference sessions to your registration, please call +31882057200.

Agenda

GOED and the UN Global Compact

GOED has committed to promoting [The 10 Principles](#) through education and advocacy and requested to join the [101 other international business associations](#) that are Compact members.



The principles cover these topics

1. Human Rights
2. Labor
3. Environment
4. Anti-Corruption

Agenda

GOED Team to Offset Carbon using [Wren.co](https://wren.co)

Our offsets will contribute to a portfolio of tree planting, conservation, emission-mitigating technology and environmental policy advocacy projects.

Project name	Prev. allocation	New allocation	Change
Refrigerant destruction (A-Gas)	18.5%	14.9%	↓
Adipic acid nitrous oxide abatement	13.9%	14.8%	↑
Mangrove conservation in Mexico	19.6%	13.2%	↓
Mangrove planting in Myanmar	--	10%	↑
Biochar in California	7.7%	7.7%	--
Tech-enabled rainforest protection	7%	7%	--
Community agroforestry in Timor-Leste	6.9%	6%	↓
Refrigerant destruction (Recoolit)	5.5%	5.5%	--
Carbon180	5%	5%	--
Clean Air Task Force	5%	5%	--
Refrigerant destruction (Tradewater)	4.9%	4.9%	--
Enhanced rock weathering	2%	2%	--
Enhanced weathering on rice paddies	2%	2%	--
Bio-oil carbon removal	2%	2%	--

Kudos

ESG kudos to GOED members – Golden Omega



The image shows the cover of the Golden Omega Sustainability Report 2023. The cover features a collage of images including a water drop, a child's face, a yellow bird, a wind turbine, and a coastal town. The text on the cover includes the Golden Omega logo, the title 'Sustainability Report 2023', and buttons for 'ENTER', 'WATCH VIDEO', and 'Download Report'. A sidebar on the right highlights 'Adherence to Global Compact Chile' and lists six specific objectives corresponding to the UN Sustainable Development Goals (SDGs) 3, 6, 7, 8, 12, and 14.

goldenomega®
EXPERIENCE THE DIFFERENCE

Sustainability Report 2023

[ENTER](#) [WATCH VIDEO](#)

[Download Report](#)

Adherence to Global Compact Chile

Golden Omega is part of the Global Compact Chile initiative launched by the United Nations to promote corporate sustainability, contributing with actions to achieve the goals established by the 2030 Agenda of the United Nations Sustainable Development Goals (SDGs) in six specific objectives.

3 GOOD HEALTH AND WELL-BEING	6 CLEAN WATER AND SANITATION	7 AFFORDABLE AND CLEAN ENERGY
8 DECENT WORK AND ECONOMIC GROWTH	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	14 LIFE BELOW WATER

Kudos

ESG kudos to GOED members – TASA



Kudos

ESG kudos to GOED members – BASF

KEMIFOKUS

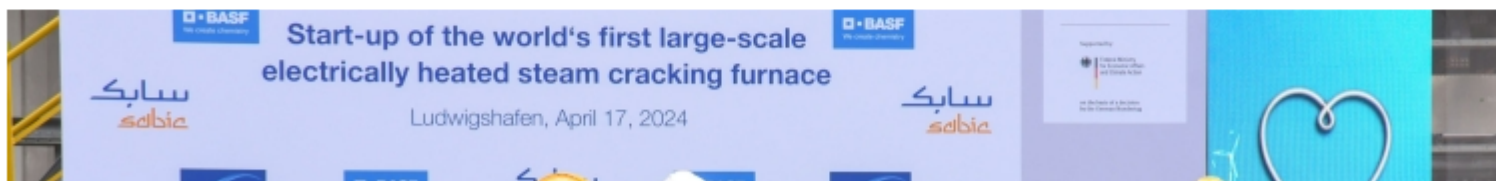
- digital platform for dansk kemi

ANALYTICAL CHEMISTRY / WORKING ENVIRONMENT/INDOOR CLIMATE / BIOCHEMISTRY / BIOTECHNOLOGY
FOOD CHEMISTRY / HISTORICAL CHEMISTRY / CHEMICAL ENGINEERING / CHEMOMETRICS / CLICK CHEMISTRY
LEGISLATION AND PATENTS / MEDICINAL ALCHEMY / NANOTECHNOLOGY / ORGANIC CHEMISTRY / L

Energy 29. 04. 2024 | Allan Malmberg

STEAMCRACKER ON RENEWABLE ENERGY IS TEST FOR LARGE-SCALE CHEMICAL PRODUCTION

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Kudos

ESG kudos to GOED members – Epax

 **Perishable**
News.com

HOMEBAKERYDAIRYDELIFLORALMEAT & POULTRYPRODUCERETAIL & FOODSERVICE

HOME > SEAFOOD > Epax Slashes Carbon Emissions as It Transitions to Renewables

Epax Slashes Carbon Emissions as It Transitions to Renewables

Epax, PelagiaSeafoodMay 1, 2024

Marine ingredient leader Epax has achieved major reductions to its carbon emissions as it nears its goal of 100% renewable energy use.

 **Epax**[®]

The Norwegian company's CO₂ emissions fell by 13.3% between 2021 and 2022, and by 9% between 2022 and 2023. Both figures are significantly higher than the 4.2% annual reduction required to limit global warming to 1.5°C.¹ Epax now aims to achieve absolute reductions every year until 2030.

The cuts have largely been achieved through drastic reductions in the use of fossil fuel, made possible by the installation of a new electric boiler. In 2023, more than 95% of the energy used by Epax came from clean hydroelectric power (up from 17% in 2020), with a figure of 100% targeted by the end of 2024.

Kudos

ESG kudos to GOED members – MSC



Photo: Stockfile/MSC/FIS

Appetite for sustainably sourced tuna undimmed by cost-of-living crisis

 **UNITED KINGDOM**
Friday, May 03, 2024, 05:00 (GMT + 9)

The volume of tuna sold with the **Marine Stewardship Council's** blue ecolabel grew by almost 10% year on year from 196,363 metric tonnes in 2022-23 to 217,300 mt in 2023-24, according to data from the MSC. Volumes sold are up almost 60% in the two years from 2020-21 when global sales were just 137,600 mt.

Most tuna carrying the MSC certified label is tinned but the data also includes sales of wet tuna from the fish counter, frozen, in ready meals or pet food.

Tinned tuna is a nutritious but affordable source of protein and omega 3 fatty acids and has long been a store-cupboard staple. As the cost of living has risen around the world, many

Kudos

ESG kudos to GOED members – Veramaris

BIOTECHNOLOGY | FEED INGREDIENTS | SUSTAINABILITY +5 more

14 May 2024, at 8:00am

A record-breaking year for Veramaris

Veramaris - a producer of alternatively sourced omega-3 EPA and DHA for aquafeeds - increased its production volume by 50 percent in 2023 whilst increasing its environmental footprint only minimally.



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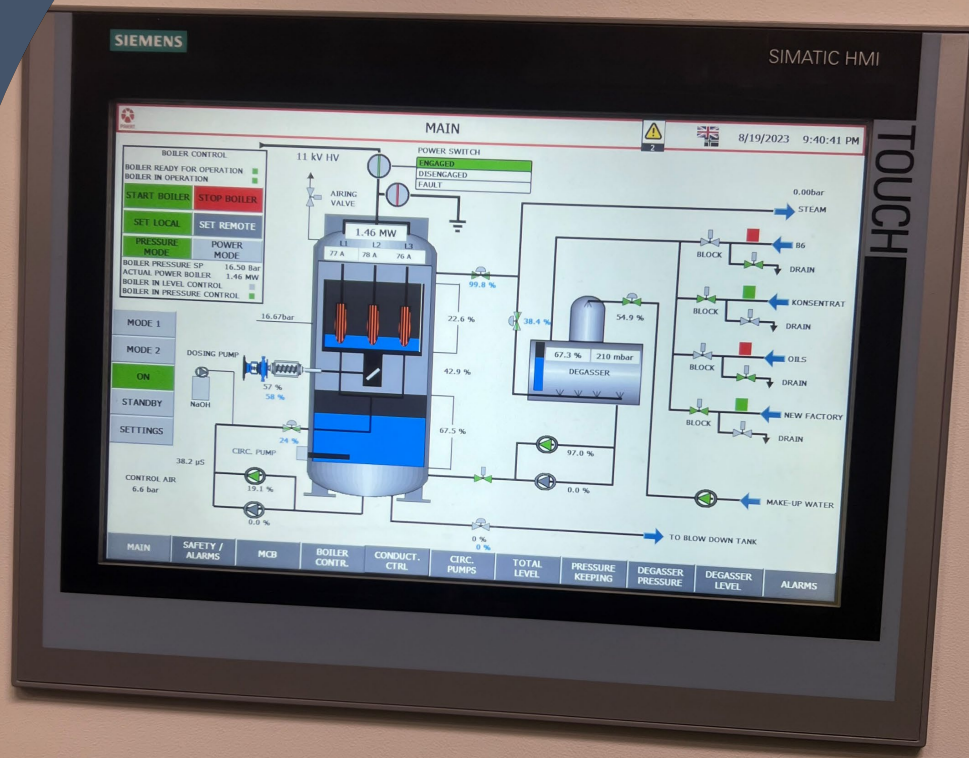


Electrical Boiler

History

- We found our existing solution with a “flue boiler” prepared for both MGO and Fish Oil needed a replacement due to fluctuating prices combined with high emissions regarding both CO2 and Sulphur ++
- Also, we needed more robustness (redundancy) due to plant expansions and higher demand of steam.
- We considered both LNG/LBG and LPG, but these sources has been heavily taxed by Norwegian authorities lately. Furthermore, we considered wood and pellets, but these were of different reasons sorted out (maintenance and area demand)
- The Electrical boiler stood out as the best option from the mentioned above.

Short facts:



The alteration of steam producer from MGO to electrical can give a reduction of Emissions

CO₂: 10-15 000 tons/year
Sulphur 2000 tons/year (main source to «acid rain»)

Nox Pollution >80 tons/year («bad air quality»)





Other advantages?

1

Sound levels inside boiler building reduced from 90dB to 50dB

2

Energy effectiveness is increased from 95 to 99% on the electrical boiler compared to the flue boiler

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Introduction + Presentation

- **Topic:** 100% Renewable Energy Use at GC Rieber VivoMega
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Q+A / Discussion

Agenda

Next call

Proposal: Meet in **June**, then again in **September** due to a GOED team summit and August being a popular holiday month.

Any objections?

If not, our next calls will be:

- Wednesday, **June 19**
- Wednesday, **September 18**



Thank you for joining us today.