

GOED Technical Committee - Minutes

Date: June 5, 2025

PRESENT (please let us know if you were present, but not listed below)

Jenna Ritter (*chair* – Nature’s Way of Canada)

Dimitri Sclabos (Tharos)

Manuel Reyes (Colpex)

Andrew Jenkins (Lipid Analytical Labs)

Marita Buarø (GC Rieber/Vivomega)

Veronika Ulstein (KD Pharma)

Ainara García García (KD Pharma)

Tony Bimbo (International Fisheries)

Mina Fakhary (Pharmavite)

Juergen Gierke (BASF)

Guro Solberg (Pharma Marine)

Simone Staiger (Eurofins)

Kenny Sharp (dsm-firmenich)

Jorge Sepúlveda (Innocon)

Fernando Miranda del Solar (Austral)

Sonia Casanova (Copeinca)

Arnar Halldórsson (Lysi)

Ingjerd Lystad (Pharma Marine)

Ida Aspmo (KD Pharma)

Lars Dalheim (NOFIMA)

Christine Krumbholz (KD Pharma)

Adin Smith (Nordic Naturals)

Anthony Bible (Wiley Companies)

Christine Bousses (Fermentalg)

Rafael Lozada (Henry Lamotte Oils)

Tina Vestland (Golden Omega)

Rafa Gracia (Solutex)

Magdalena Sobieska-Pietrzak (GC Rieber)

Nils Billecke (Cargill)

William Yip (Aker Biomarine)

Jennifer May (dsm-firmenich)

Tim Johanek (Carlson Laboratories)

Lilian Thiaux (Olvea)

Vibeke Bløndal (BASF)

Joan de Jong (Bioriginal)

Guido Medina (Pesquera Diamante)

Henriette Meiser-Zessner (KD Pharma)

Boriana Bedjova (HuveNutra)

Lina Cekaite (Aker Biomarine)

Marie-Sophie Tangen (Orivo)

Gerhard Kohn (Vesteraalens)

Ágata Szygula (TASA)

Bas Arntz (Novosana)

Brad DaDalt (Jamieson Laboratories)

Gaige Pyatt (Nutrasource/SGS)

Kangming Ma (Eurofins)

Stig Jansson (Grøntvedt)

Guy Ben-Zvi (Omega-3 Galil)

Ivana Kostic (Colpex)

Hyun-Ah Kim (Nutrasource/SGS)

Keith Persons (Eurofins)

Katrina Bartley (Nutrasource)

Meagan Eggebeen (Amway)

Gladys Cchahuantico (Copeinca)

Osvaldo Barraza (Naturmega)

Jiyoo Baek (Nutrasource/SGS)

Roberto Fronzoni (KD Pharma)

Elizabeth Reyes (Colpex)

Marco Figari (TASA)

Guowen Yang (Kinomega)

GOED Staff:

Gerard Bannenberg (GOED)

Harry Rice (GOED)

Guests:

Absented:

Chris Gearheart (GOED)
 Kirsten Humphreys (Bare Biology)
 Ellen Schutt (GOED)
 Mia Brastad (Zooca)
 Frank Möllering (NutriSwiss)
 Ashley Becnel (GOED)

Yutong Wang (Nutrasource/SGS)
 Eline Verbaanderd (Friesland Campina)
 Michelle Stout (Amway)
 Senya Joerss (Trident Seafoods)
 Geir Frode Olsen (Epax Norway/Pelagia)

Invitees for this call:

Ross Zirkle (dsm-firmenich)

Approval of Agenda and Minutes (Jenna Ritter - committee chair)

- Any comments on the minutes of the last meeting?
 - *No comments.* The minutes of the last meeting were approved.
- The agenda and meeting documentation were sent out on June 3th, 2025. Any additions or changes?
 - The agenda was approved.

New Technical Committee Members (Jenna Ritter)

- **New members of the Technical Committee**
 - **Adin Smith (Nordic Naturals)** – I am a nutrition research scientist at Nordic Naturals for quite a while now. I initially started out in marketing, and I have also worked with the regulatory department and in product development. I look forward to learning yet another layer here at the technical committee meetings.
 - **Rafael Lozada (Henry Lamotte Oils)** – I work with Henry Lamotte Oils since three and a half years. Formerly I worked for 27 years in the fresh produce sector. I am an agronomist by background, and rather new in the fish oil sector. I am the product manager at Lamotte since a month. I am originally from Peru, and I have lived for 20 something years in Germany now.
 - **Daniel Bohlen (KD Pharma)** – *Christine Krumbholz (KD Pharma) speaking* “Today is my last day as I am going on maternity leave, and Daniel will be taking over for me. He will be occasionally joining, and also Henriette from our group is usually participating”.
- **Members who have left the committee:**
 - **Claus-Michael Briber (Henry Lamotte Oils)**
 - **Johannes Kraft (Evonik)**
 - **Christine Krumbholz (KD Pharma)** – *temporary leave*

- **Jenna** – We like to thank Claus-Michael and Johannes for their support to the Technical Committee

Monograph/Pharmacopeia Updates (Gerard Bannenberg - GOED)

- **Polar lipid oils – Aim to bring within scope of the GOED Monograph – Step 1. Technical Guidance Documents for krill oil, herring roe oil & Nannochloropsis oil**
 - **Gerard Bannenberg (GOED)** – I would like to start with a topic that has been on our to-do list for several years, which is to bring polar lipid oil within the scope of the GOED Monograph. For those that are a bit newer to GOED, I like to provide a short background. You are all aware that we have our own industry monograph for EPA/DHA omega-3 oils, the GOED Voluntary Monograph, to which GOED members abide. It has served us since the creation of GOED. You can find a copy on the GOED website - [The GOED Voluntary Monograph](#). Alongside the GOED Monograph, we have a document called the GOED Technical Guidance Documents, or in short, the “Guidance Documents”. You can find a copy on the same webpage as the GOED Monograph. Have a look at it, if this is new to you.

It is important to understand that the current scope of the GOED Monograph currently is for EPA/DHA-rich triglyceride oils, ethyl ester concentrates, and re-esterified triglycerides. The GOED Monograph explains the precise scope, but oils that are rich in polar lipids are not currently covered. The project I am starting now aims to precisely do that, bring polar lipids oils, such as krill oil, herring roe oil and Nannochloropsis oil within the scope of the GOED Monograph. This is mainly on my plate, and I would like to briefly outline how I plan to go about that during the rest of this year.

If we have a look at the Guidance Documents first, you can see from the Index that it has three main parts. The first part provides information regarding the methods that are used to determine the parameters that are regulated in the GOED Monograph. The second part provides a lot of additional helpful information for other parameters and methods that are used to characterize EPA/DHA omega-3 oils, as well as other technical information useful for our sector. And the third part provides the so-called “technical guidance documents” (TGDs) for individual EPA/DHA omega-3 oil types that are within the scope of the GOED Monograph. The structure of the Guidance Documents has grown historically in this way, as a practical way to summarize all the collective technical information that we have in our sector. All the information and precise language used is first vetted by the Technical Committee for inclusion.

The TGDs at the end of the Guidance Documents are basically brief descriptions of individual oil types, with some additional information regarding specific parameters that can be useful to characterize such an oil, as well as some further information regarding the species used for that oil type, and any additional oil-type specific information. We have three types of TGD: *i*) EPA- and/or DHA-containing refined, processed, and concentrated oils (not based on species origin), *ii*) Species of origin EPA- and DHA-containing oil (what we sometimes call “named oils”, and *iii*) Other EPA and/or DHA-containing oils. An example of the second group of named oils, is for example “skate liver oil” or “tuna oil”, where it is clear from what species (or group of species) the oil comes from. The TGDs are not compulsory for members to follow (except when we refer to any specific parameters defined in the GOED Monograph) and are intended as information. The Guidance Documents as a whole is a “live” document, and we often incorporate new information and update things.

Regarding polar lipid oils, we actually already did some important preparatory work last year with the development of our “Technical Report on Conversion Factors for Polar Lipid Oils”, which contains useful information and calculators to calculate and express EPA and DHA levels in such oils – [link](#) / [link](#). Polar lipid oils are particularly challenging because their lipid composition can be very complex. Besides the presence of neutral lipids and free fatty acids, several of the following EPA/DHA-containing polar lipids can be present, the main ones we recognized being phosphatidylcholine, phosphatidylethanolamine, phosphatidylserine, phosphatidylinositol, phosphatidylglycerol, N-acyl phosphatidylethanolamine, 1-lysophosphatidylcholine, 2-lysophosphatidylcholine, monogalactosyl diglyceride, digalactosyl diglyceride, and sulfoquinovosyl diglyceride.

To address bringing polar lipid oil within the scope of the GOED Monograph, I have elaborated this three-step approach. The first step is to develop the TGDs for krill oil, herring roe oil, and Nannochloropsis oil, which are the polar lipid oils rich in EPA and /or DHA that we know are currently being commercialized by GOED members. If we see in the course of the work that other polar lipid oils should be addressed as well, because they have a market, then we can do that. The second step will be to summarize the methods that are suitable for polar lipid oils and are in use by members, and add these, and any other polar lipid oil-specific technical information, to the first two sections of the Guidance Documents. The third step is to actually update the GOED Monograph itself in such a way to have these new oil types reflected in the scope, supported with the relevant information for their testing and the TGDs in the Guidance Documents.

I already have some draft texts for these TGDs, but we will need to further elaborate them and find consensus. For that I would like to work with a group of stakeholders for each oil type, *i.e.* GOED members that have a particular interest in them, because they are producers of these specific oils, or distribute or market them. If you are interested in being a

stakeholder, send me a message. I already have a lot of names of people in GOED member companies that work on these oils, but feel free to reach out to me after this meeting, and I will add your name. In any case, the progress of this work will be reviewed by the Technical Committee, so if you miss something it will come back here. And we will likely occasionally reach out through the Current to reach other members too.

Lastly, I would just like to add that when we complete this work sometime, it does not mean that it is the end of the road with some static Monograph and Guidance Documents. We can always update the text with new information or make changes, when necessary, like we do for other oils that are already within the GOED Monograph scope. We will see later if a separate Monograph for Polar Lipid Oils is merited, but I will try to work towards incorporating polar lipid oils within the scope of the current GOED Monograph, in other words, expand it, by making the required updates for that.

Stakeholders will soon receive the first draft of the TGDs.

- **Action item** – Prepare first draft Technical Guidance Documents for krill oil, herring roe oil and Nannochloropsis oil, and send to stakeholders for input (**Gerard, GOED**)

Legislative Updates (Gerard Bannenberg)

- **LOQ statement in MOH method in amendment of EC Reg 333/2007 / EC MOH regulation proposal update**
 - **Gerard** – We have become aware of an update of the European Commission (EC) document “Methods of Sampling and Analysis 333/2007 - Laying down the methods of sampling and analysis for the official control of the levels of lead, cadmium, mercury, inorganic tin, 3-MCPD and benzo(a)pyrene in foodstuffs”. In parallel to creating a regulation for mineral oil hydrocarbons (MOH), the development of which we have followed over the past few years now, there is a revision of the document that lays down the methods of analysis and sampling for the control of the levels of mineral oil hydrocarbons in foodstuffs” (Sante Plan 2023 2726; [link](#)). We have seen the fourth revision of this document, and I would like to highlight some of the changes that are being made.
 - The first is the introduction of this language (in section *B.1.3 Precautions to be taken*): “*materials used during sampling, sample storage and sample transmission shall be free of mineral oil residues and shall not release interfering substances. The sample shall be handled in order to prevent cross-contamination*”.

- The next change is in Point B.1.7 Packaging and transmission of samples:
“Furthermore the more detailed precautions for sampling for the analysis of mineral oil hydrocarbons as included in the JRC Guidance on sampling, analysis and data reporting for the monitoring of MOH in food and food contact materials shall be followed or, in case other procedures are followed, equal performance of those procedures shall be ensured”.
 - A new section C.2.2.3 is added with “Specific procedures for mineral oil hydrocarbons” which mentions the need to avoid possible introduction of MOH during sampling, and the inclusion of a reagent blank analysis during sample analysis for each sequence of samples.
 - Section 3.2 “General Requirements”, is replaced with a new text which highlights that for MOH, the JRC Guidance on sampling, analysis and data reporting should be followed, or in case other procedures are followed, equal performance of those procedures shall be ensured.
- These updates appear to make sense in general, but the next one is of greater interest to us:
- The addition of performance criteria for methods of analysis for total mineral oil saturated hydrocarbons and total mineral oil hydrocarbons:

Table 10

Parameter	Criterion
Applicability	Foods specified in Regulation (EU) 2023/915
Specificity	Analytical methods shall demonstrate the ability to reliably and consistently quantify MOSH and MOAH, excluding other co-extracted and possibly interfering compounds, that may be present. When needed, characterisation of interferences shall be done on the basis of gas chromatography (GC) x GC.
Recovery	70-120 % (The recovery can be lower than 70%, when applying a sample preparation with aluminium oxide for the determination of mineral oil saturated hydrocarbons or when performing a sample preparation with epoxidation for the analysis of mineral oil aromatic hydrocarbons.
Repeatability (RSD_R)	$\leq 15\%$ (For certain products that contain endogenous interfering substances, the repeatability can be higher than 15%).
Reproducibility (RSD_R)	$\leq 20\%$ For certain products that contain endogenous interfering substances, the reproducibility can be higher than 20%.
LOQ	
LOQ Food other than spices, dried herbs, food supplements, essential oil and oils produced from fishery products and algae with a declared fat oil content of $< 4\%$, unless a higher LOQ is specified	≤ 0.50 mg/kg
LOQ Food other than spices, dried herbs, food supplements, essential oil and oils produced from fishery products and algae with a declared fat/ oil content of $\geq 4\%$ and $\leq 50\%$, unless a higher LOQ is specified	≤ 1.0 mg/kg
LOQ Food other than spices, dried herbs, food supplements, essential oil and oils produced from fishery products and algae with a declared fat/ oil content of $> 50\%$, unless a higher LOQ is specified	≤ 2.0 mg/kg
LOQ for spices, dried herbs, food supplements, essential oil and oils produced from fishery products and algae.	≤ 5.0 mg/kg

The points about specificity and recovery are good to know. The point about reproducibility sounds very ambitious and may not be attainable in our sector, where we know that the variability between laboratories for the same sample can be much larger than 20%. The most important change is the introduction of a fourth category of commodities for which a specific LOQ is specified, namely an LOQ of less or equal to 5 mg/kg for spices, dried herbs, food supplements, essential oil and oils produced from fishery products and algae. This new category comes in addition to the categories we already know for products with different levels of declared fat/oil, and the LOQs for which match the current action limits handled by the EU Member States currently. A higher LOQ for oils produced from fishery products and algae, and

dietary supplements, means that we will have more lenient analytical requirements. It may also be a kind of implicit recognition by the EC that it is sometimes very difficult to quantify MOAH in these matrices due to the presence of natural or process-induced interferences. This higher LOQ looks also like a convergence with the proposed maximum limit for MOAH of ultimately 5 mg/kg in January 2030.

- **Joan de Jong (Bioriginal)** – How can we distinguish the two last categories? The one with an LOQ of ≤ 2 mg/kg is for products with fat/oil content greater than 50%. For an oil, which is 100% fat, does it fall under ≤ 2 mg/kg or ≤ 5 mg/kg?
- **Gerard** – The third category excludes herbs and species, dietary supplements, and oils produced from fishery products and algae, so my interpretation is that what is applicable for a neat oil is the new fourth category with an LOQ ≤ 5 mg/kg. There is also mention of an exception for those oils for which a different LOQ applies (not further explained)
- **Arnar Halldórsson (Lysi)** – This refers to the limits of quantification. The maximum limit for MOAH will probably be 10 mg/kg from 2027, and 5 mg/kg from 2030, which is the (*newly proposed*) quantification limit.
- **Joan de Jong (Bioriginal)** – If I speak for The Netherlands, where we have a guidance limit of 2 mg/kg, and now you have a LOQ of 5 mg/kg, how can we agree on that with the authorities?
- **Gerard** – The point is that the guidance limit will disappear once the EC regulation for MOAH is enforced. Then the national EU Member States' regulations will be overruled by the new EC regulation, which is EU-wide.
- **Arnar** – And this new regulation will be 10 mg/kg.
- **Gerard** – Yes, 10 mg/kg from 2027, and 5 mg/kg from 2030.
- **Arnar** – Is it clear now if it is going to apply to fully refined oils, or crude oils as well?
- **Gerard** – Not yet, let me give some further information that came out of a recent, May 6-7, meeting of the EU member States Expert group /Expert Group on Environmental Contaminants. It appears that the European Commission has again confirmed the integration of MOAH into Regulation 333/2007, thereby allowing the deduction of analytical measurement uncertainty, both for official controls and self-monitoring. Self-monitoring is what companies measure and report themselves based on their own testing results. An example would be a fish oil that tests 12,0 mg/kg for MOAH, and after allowable deduction of a (fictional) measurement uncertainty of 3,0 mg/kg, you would end up having a reportable level of 9,0 mg/kg, which would be compliant with the possible new limit of 10 mg/kg.

There are still some open points, for which we don't have clarity yet:

- A possible MOAH limit to be extended to crude oils intended for refining.
- A possible MOAH limit for blends of oils of different origin (expected to be 2 mg/kg)
- The final interpretation of the indicative limit for MOSH (which is proposed as 50 mg/kg for marine oils and dietary supplements). The European Commission emphasized that exceeding these levels should only trigger investigations and not be used as thresholds for implementing

restrictive measures such as product withdrawals or recalls. Apparently, there are still EU Member States that disagree with this point and want to keep the right to decide on deciding what to do with products exceeding such an indicative limit.

The finalized version of the regulation on maximum MOAH levels and the monitoring recommendation for MOSH should be published by the EC and shared with stakeholders (including some of the European associations) “before the summer”, so possibly this month of June. A vote is expected during the SCOPAFF meeting in November.

One last point was brought forward by one GOED member which is to consider commenting to the EC that omega-3 oil samples are not included in any proficiency testing schemes. That should change.

- **Arnar** – The conclusion is that this is getting more realistic now, in terms of practicals, in this draft. I am a little interested in seeing which amendment this is going to be. I would expect an amendment of 915 of 2023, with dioxins and dioxin-like PCBs, etc. it looks like this is going to be in a different EU regulation they amended. 915/2023 refers to the final products going to the consumer. It would be unusual if they are going to apply this to crude oils.
 - **Gerard** – On the hand the EC has consistently said they want to regulate MOH across the entire supply chain, from consumer products all the way back to initial production phases. We will probably see the final proposal for regulation soon. You will all be informed through the Current and collect your input. We may reach out to the EC on behalf of GOED if there are specific things we think need to be rectified.
- **Hexane as ECHA SVHC (Substance of Very High Concern)**
 - **Gerard** – The European Chemicals Agency (ECHA) is considering including n-hexane to their list of Substances of Very High Concern (*see [link](#)*). This is a proposal by Slovenia, and there will be an open consultation in the month of August. We looked at this topic in our October 3, 2024 meeting, after EFSA had published their “*Technical Report on the need for re-evaluation of the safety of hexane used as an extraction solvent in the production of foodstuffs and food ingredients*” ([link](#)). That report pointed out the need to re-evaluate the safety of hexane (given its reported neurotoxic effects). So now also ECHA is giving added attention to hexane. The requirement from ECHA, if hexane ends up being added to the SVHC list ([link](#)), has to do with documentation, namely, companies exporting products to the EU containing SVHCs above 0.1% must fulfill the following obligations:
 1. **Information Transfer:** Suppliers must provide recipients with safety information for safe use if SVHC content exceeds 0.1%.

2. **Consumer Requests:** Provide sufficient information (e.g., substance name and concentration) free of charge within 45 days upon consumer request.
3. **SVHC Notification:** If annual exports exceed 1 ton per year (t/y), importers/producers must notify ECHA within six months.
4. **SCIP Notification:** Since January 5, 2021, companies must submit SVHC-related information to ECHA's SCIP database (*information database on substances of high concern*) if the content exceeds 0.1%.
5. **Future Compliance:** SVHC-listed substances may later be added to the Authorisation List. Companies must apply for authorization to continue their use.

I am not very familiar with the current use of hexane in the EPA/DHA omega-3 sector. I know it has been used in the past. This information is likely helpful for those companies that do use hexane in their operations and sell product in the EU.

- **Joan** – In the omega-3 sector, I can only think of flax oil. Alpha-linolenic acid-rich oil is obtained from flaxseed using solvent extraction.

- **EFSA Annual Report Emerging Risks and Horizon Scanning Activities**

- **Gerard** – More news from Europe – please send Jenna and me technical news from other parts of the world. EFSA has published their 2024 Annual report on Emerging Risks and Horizon Scanning Activities ([link](#)). We looked at a short report last year when EFSA had initiated this activity of detecting any technical challenges as early as possible and then evaluate their relevance. While you may want to review the entire report for relevant topics, I have picked out a few of these perceived emerging risks that I considered somewhat or possible relevant to our sector:
 - Mono-n-hexyl phthalate was found in the urine of 61% of children and in a third of adults. This is a newly recognized phthalate species or metabolite. The source of exposure is unclear
 - High levels of per/polyfluoroalkyl substances (PFAS) and perfluorooctanesulfonate (PFOA) were found in freshwater fish
 - Long term effects of food emulsifiers on intestinal barrier were recognized, including by E471 (diglycerides)
 - Edible oil contamination with MOSH and MOAH in tankers due to lack of cleaning procedure after transport of fuels
 - The presence of glass fibers in shellfish. The fibers are from glass-reinforced plastic composites (fiberglass) used for boat hulls.

Please read the topics in more detail in the report if any are of interest to you.

All Other Business (Jenna Ritter)

- **Technical publications notification**

- **Jenna** – I am just going to highlight a few of the recent technical publications we found. The list of publications was sent out with the meeting agenda. I would like to draw your attention to the following that seemed especially interesting:
 - Integrative flavoromics-GC-MS/IMS approach to study the formation mechanism of fishy flavor in skipjack tuna oil induced by oxidation and heat. Lan *et al.* *Food Chem. X*, 22 May 2025, 102577. [Link](#)
 - Critical validation of a GC–MS/MS methodology for confirmatory quantification of dioxins and PCBs in fish/ fish oil: Integrating a tiered surveillance strategy. Sheebakumari *et al.* *Food Chem.* 487, 30 Sept 2025, 144771. [Link](#)
 - Spatial distribution of fishmeal and fish oil factories around the globe. Shea *et al.* *Science Adv.* 11,17, 2025. [Link](#)

Presentation:

"Marine thraustochytrids: Brief history and insights on taxonomy" – Ross Zirkle, dsm-firmenich, Columbia, MD, USA.

A pdf copy of the slides will be distributed with the minutes, and a copy of the presentation will be uploaded to our GOED Presentations folder ([link](#)) after the meeting.

Q&A

- **Gerard** – What do researchers and people in the industry need to know to find the correctly curated sequence databases, to properly identify and name their microorganism?
- **Ross** – The NCBI will have a more curated side of that. Also, there are a couple of papers out more recently that I could hand out, that point to folks that work on this in a taxonomic way and on some of the databases that are more curated on the 18S rRNA. There is sort of two flavors here, one approach is on the 18s, with many 18S sequences in the database. Here, the mathematical way you make your hierarchy is important, and there are some standards out there for that. The second thing that has happened is whole-genome sequencing, which is becoming more in vogue. When two genomes are 99.90% similar, it is easy to conclude that two strains are the same. But when they are 90% or 79% or 82% similar, people really

haven't ironed out yet what that means in terms of genus or species. There are good researchers out there that publish on this, and who have good information on that do have good databases that you want to put together for the 18S to say something about the organism generally.

- **Gerard** – If people grow Schizochytrium, or Aurantiochytrium, for producing a DHA-rich oil for example, do the cells grow in the vegetative growth loop that you showed, or more in a binary division-type growth?
- **Ross** – In the left panel of slide “Life Cycle”, in the upper middle part, the D, E and F cell types are this vegetative reproduction. That body “F” is what is accumulating. Lots and lots of lipid goes into that vegetative growth. The reality of it is that in Schizochytrium or other Thraustochytrids, you don't see much of the other loops and the vegetative reproduction is the main way that this grows and main way it accumulates oil.

End of meeting.

Summary of Action Items

- **Action item** – Prepare first draft Technical Guidance Documents for krill oil, herring roe oil and Nannochloropsis oil, and send to stakeholders for input (**Gerard, GOED**)

Date of next meeting

- The next Technical Committee meeting will be scheduled for Thursday, July 24th, 2025.

USEFUL LINKS:

- Useful documents that the committee has discussed can be found in the Technical Committee folder. You can upload any material there yourself as well:
<https://drive.google.com/drive/folders/0B-5CurmVIvvETm1Wd29xemU5YVU>
- Past minutes can be found here:
 2025 - https://drive.google.com/drive/folders/1st1PlkU7Z0_3Phy4uya_ucmc34ThuWrG?usp=drive_link
 2024 - https://drive.google.com/drive/folders/16WcCbtwh_NY09cnx-pEpnANbubBv7Wmo?usp=drive_link
 2023 - https://drive.google.com/drive/folders/1Q_aJTzxZL106KkZJUkgrkLT2MdgDiEXh?usp=share_link
 2022 - <https://drive.google.com/drive/folders/1Pt8CJafBCjIYaLZF0ZJ08csPqlzW5XaC?usp=sharing>
 2021 - <https://drive.google.com/drive/folders/1VGy-t4TuWtDUB30jU98unIxWYzpnZuNj?usp=sharing>
 2020 - https://drive.google.com/open?id=1olF0Ab9UeGO_VaQpSshICS3xn0V8liLK

2019 - <https://drive.google.com/drive/folders/0B0usR2nagMSpSU1aaTR6Ty0yTE0>
 2018 - https://drive.google.com/open?id=1lXXmBgN3F9XwZnXKxqq0hwC-oLZl9rc_
 2017 - https://drive.google.com/drive/folders/0B6uJWj5y9FY9NDRRS2lVdUQ1ZW_s
 2016 - <https://drive.google.com/drive/folders/0B6uJWj5y9FY9UVZpU3NLejBIMEk>

- GOED Presentations - [GOED Presentations \(goedomega3.com\)](https://goedomega3.com)
- GOED Newsletters: If you do not receive newsletters from GOED, please sign up since this is our best way of communicating with members. Here is the link:
<https://goedomega3.com/members/subscribing-goed-current>