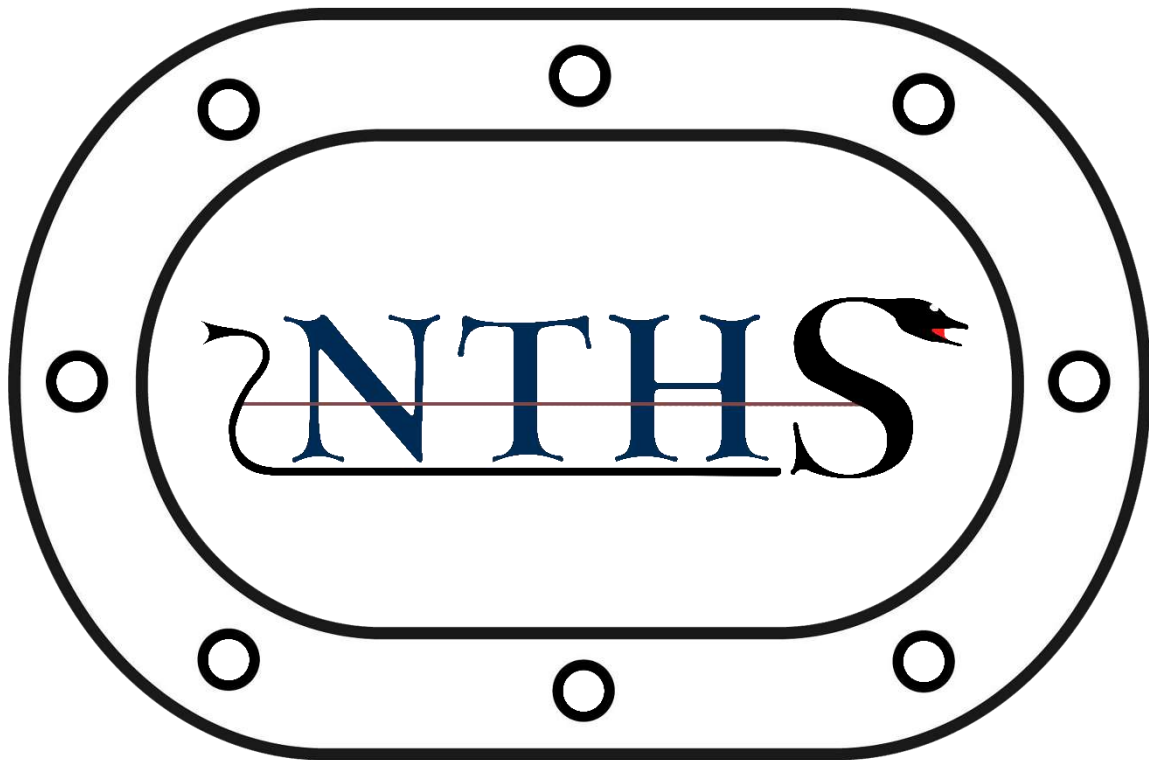


# Official report 73rd NTHS



**Finland 2022**

**20<sup>th</sup> – 26<sup>th</sup> March**

**The Norwegian Delegation**



## Words from the 73<sup>rd</sup> Norwegian President

NTHS consists of students studying naval architecture and marine engineering from five different nordic universities. Every year, one of the universities are responsible for arranging a congress where all the students gather for a week of business presentations and visits to mechanical shops and yards. In total, 50 students from Sweden, Norway, Denmark and Finland, who are about to start their maritime careers, will meet in Finland in March of 2022 to get a thorough insight into the nation's maritime industry.

NTHS was founded in 1948 and has since developed into a sizable multilateral collaboration. The congress and partnership have created a brotherhood among the young Nordic naval architects, making it a great honour and joy for the host nation to be able to present its maritime industry.

The 73rd NTHS congress will take place in Finland, hosted by the student union of Laivanrakentajain Kerho who will introduce the students to the Finnish maritime industry during the daytime, and social activities in the evenings. During the congress a meeting takes place where next year's congress and the future of NTHS is the topic of discussion, ensuring the traditions bonding of Nordic marine engineers continues. At the final day of the congress, a grand banquet is held where both new and old NTHS-members participate.

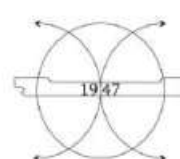
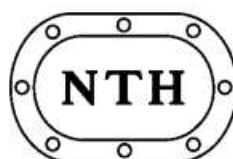
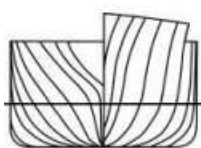
This year's Norwegian delegation consists of ten students from third and fifth-year students at NTNU in Trondheim. At the end of the congress, a final report that summarizes the week is crafted and presented to sponsors and the other students at our university. For more information about NTHS and previous reports, feel free to visit [mannhullet.no/nths](http://mannhullet.no/nths).

We wish to thank all sponsors and partners for the contributions, which made this trip possible.

On behalf of the Norwegian delegation,

Lasse Killingmo

Chairman, NTHS Mannhullet



# Official program 73<sup>rd</sup> NTHS

	Sunday	Monday 21.3.	Tuesday 22.3.	Wednesday 23.3.	Thursday 24.3.	Friday
Morning		Piikkiö Works	Turku seminar	Bus to Helsinki		Aalto
Afternoon		Norsepower Turku	Kongsberg	Bluetech	Marioff	Aalto
Early evening		Meyer	RMC	NAPA	Foreship	
Evening	Viking Glory	Meyer	RMC Dinner	Anecdote evening (NAPA)	Helsinki Shipyard	Banquet
Night	Viking Glory	Turku	Rauma	Helsinki	Helsinki	Afterparty



Moen Marin

## The Norwegian Delegation



Lasse Killingmo



Aadne Eide



Sofie Wettre



Thea Lefdal Kvalheim



Mathias Solheim



Carl Henrik Olsen Torjuul



Sarah Erslund Elseth



Christian Råstad Knutsen



Andreas Eknes Minne



Hedda Aksnes



## The Congress – Day by Day

### Sunday 20<sup>th</sup> of March

The start of the 73<sup>rd</sup> NTHS Conference started on Sunday 20<sup>th</sup> of March. NTHS was the week after Mannhullets 105<sup>th</sup> anniversary, but it was still an energetic delegation walking through the doors at Værnes airport early Sunday morning. We were going to Stockholm, and since we were not leaving Stockholm before the evening, we spent the day wandering the streets and testing some local restaurants.



*Departing Værnes*



*Company presentation onboard Viking Glory*

After a lovely day in Stockholm, we boarded Viking Line around six o'clock. Viking Line had the honour of having the first company presentation of the NTHS 73<sup>rd</sup> congress. Here we learnt that Viking Glory was a newly built boat, and before our trip, it had only been sailing for two weeks. We learnt a lot about the struggles of designing boats and all in all, a very interesting presentation. The rest of the evening was spent on getting to know the rest of the delegations and the famous Finnish "long drink". Viking Glory sailed through the night, and we landed in Turku 6 am the next morning.

## Monday 21<sup>st</sup> of March

The first full day of NTHS program started early allowing for a full day of activities. After a night onboard Viking Glory were we finally on Finnish soil and in Turku. After disembarking the ship, we were acquainted with the bus that were our faithful companion for the week.



*Touring the sites Piikkiö Works*

At Norsepower we were treated to an exciting presentation about their technology. Norsepower is a company that works towards the reduction of the environmental impact caused by shipping, by using auxiliary wind propulsion in the form of rotor sails. The visit concluded with a presentation of one of their rotor sail models.



*Arriving in Turku at 6 am*

Our first stop of the day at 09:00 were at Piikkiö Works. Piikkiö Works is a leading global manufacturer of cabin modules for the cruise ship industry. They specialize in the use of industrial serial production in their making of high quality and carefully thought through cabins. We were given a thorough look into their assembly process and the showroom showcasing different products and solutions. The visit was rounded off with a nice lunch before we set course for Norsepower at 13:15.



*Windsail at Norsepower*

The next stop was Meyer Turku shipyard at 15:15. Here we were among the first visitors that were allowed in after the covid restrictions were lifted. Meyer Turku is a world leading shipyard with the possibility to produce some of the largest ships in the world. They have a long history, and production of ships at the Meyer Turku shipyard started in 1737. They specialize in the production of modern and environmentally friendly cruise ships, ferries, and special vessels. The tour around their yard were an eye opener to the actual size of these ships.

This finished of the academic part of the day, and it was now time for the social part. We dropped our luggage off at the hotel before we were we off to dinner curtesy Meyer Turku. After a nice dinner were we again on the move and the destination was a local student sauna. This were our introduction to the Finnish sauna culture, and we must say it surpassed our expectations. This was just the first of many sauna visits of the congress.



*Dinner with Meyer Turku*







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## Tuesday 22<sup>nd</sup> of March



*Arriving at MS Bore*

Day two started early in the morning. We got straight on the bus after grabbing some coffees and after a short bus ride, we got on MS Bore. DNV, Elomatic and Royal Caribbean Group presented their companies on board MS Bore back-to-back. After learning about DNV's certifications and their greener future, Elomatic's boat designs and Royal Caribbeans different cruise ships, we had a big and beautiful lunch onboard MS Bore.

After leaving MS Bore, we headed towards Rauma, a beautiful small little place in Finland west coast. After a short one-hour bus ride, we stopped at Kongsberg in Rauma. Here we learned about different propellers and thrusters while enjoying some coffee and cinnamon buns. After the presentation, we got a tour of the facilities, where we got to see how they constructed different propellers. It was especially fascinating to see the size of some of the propellers.



*Outside of Kongsberg in Rauma*



*Cranes at Rauma Marine Constructions*

After Kongsberg, the bus took us straight to the last company of the day. We visited Rauma Marine Constructions, a company that specializes in construction of ships. Here we had a short company presentation before we visited the facilities and got to see how they welded and bended their ship parts. It was very interesting to see theory applied to real life. After a tour of the facilities, the bus drove us around the site and we saw their dry-docks, where they were doing maintenance of some ships.



After a long day of travelling, we got to the local hotel. We only dropped off our luggage before the bus took us to a nice restaurant in a remote location. The representatives of Rauma Marine Constructions bought us dinner and drinks, and we had a pleasant evening. The restaurant had a sauna of course, and it was frequently used throughout the evening. The bus drove us to the hotel early in the night, and the rest of the night was spent in downtown Rauma with the locals.

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## Wednesday 23<sup>rd</sup> of March



*Pizza at Bluetech*

Early Wednesday morning, after grabbing breakfast at the local McDonalds, the trip went from Rauma to the capitol Helsinki. This was a 3-hour long bus trip with the possibility to catch some rest. The bus went straight to the Bluetech office where they had pizza and beer lined up for lunch. Bluetech Finland Ltd is a ship design company which specializes in cruise, ro-pax and cargo ship design. After the presentation, we got a mini tour around Helsinki before we checked in to the hotel where we stayed for three nights.

The next stop was the office of NAPA. NAPA is a company offering software services for ship design and ship routing optimisation. We were given an interesting company presentation accompanied by tapas, red wine and NAPAs own brewed beer. After the company presentation it was time for the well-known anecdote evening, where the topic assigned from the Finnish delegation to Norwegian was: "Everyone knows how Norwegian skiers succeed, but what is the secret (lipstick) behind Norwegian naval architects?". Andreas and Carl Henrik from our delegation entertained the rest with a PowerPoint on the topic, and probably set a new record for longest anecdote held.



*Finish delegation member at NAPA Group*



*Anecdote evening*

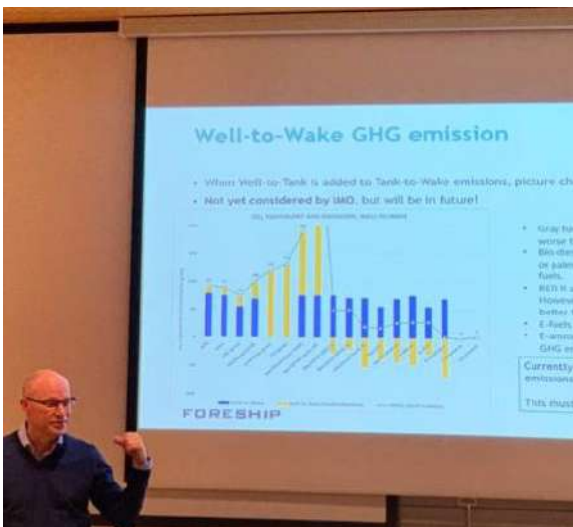
The night was still young, so after the anecdotes, the evening continued at NAPA's own rooftop bar. And as any other company in Finland, they of course had a sauna in their office which of course was inspected and approved by DNV.

## Thursday 24<sup>th</sup> of March

The fourth day of the congress started with a visit to the company Marioff in Helsinki. Marioff is a supplier of high-pressure water mist fire protection systems, used both on land and at sea. After a presentation of the company, we were given a tour of the test lab, and some of us had the opportunity to get a "shower" in the test room for the fire protection system.



*Testing of fire system at Marioff*



*Foreship presentation*

Next stop was at the office of Foreship, a ship design and engineering company, located just 20 minutes from the office of Marioff. We were first served a tasty lunch buffet before the company and their ongoing projects were presented. Sustainability and the IMO regulations were also central topics during this presentation.

The last company visit for the day was at the Helsinki shipyard. The shipyard is in downtown Helsinki and has long experience in designing and building passenger- and cruise vessels. They are especially known for the icebreakers and for other special vessels for arctic conditions. The highlight of this day was a guided tour of the shipyard, first in the 280 meters long covered graving dock and then inside the arctic cruise ship SH Vega.



*In a boat at Helsinki Shipyard*



*Perfect execution of Dirlandei*

We ended the day on Restaurant Boat Wäiski together with the company representatives from Helsinki Shipyard. We were once again served lovely food, and the company sponsored an open bar and ensured that it was a fun evening.

## Friday 25<sup>th</sup> of March

The last day of the 73<sup>rd</sup> NTHS conference started with a trip to Aalto University, just 15-minute trip from Helsinki centre. Here we got a tour of the campus and during a lovely lunch-buffet we were presented with the Maritime Engineerings (Nordic Master) master program. We were also so lucky to get a tour of the Aalto Ice and Wave Tank which is suited for testing structures in ice condition. Being the largest in the world, the tank is impressive in its size, 40x40 m, 2.8 m deep with the cooling equipment to produce model-scale ice.



*Touring the Ice and Wave tank*



*Norwegian delegation and old timers at the banquet*

After getting some much-needed rest, it was finally time to put on the formal dresses, high heels and fasten the NTHS 73<sup>rd</sup> dalje, because the banquet was about to begin! Here we had an eventful evening, meeting tons of interesting and friendly old-timers, enjoying a tasteful 3-course meal, hearing the men's- and women's- speeches performed by our own delegation members Sarah and Christian, and so much more! The evening was one to remember, and we would like to thank laivanrakentajainkerho for an amazing trip and that we will always cherish the memories made here.







## Words from the 74<sup>th</sup> Norwegian President

First, I want to congratulate the Finish delegation on hosting an exceptional congress! The last year's Norwegian delegation had a fantastic trip and got good insight to in the Finish maritime industry as well as made a lot of new acquaintances.

We are all looking forward to next year's 74<sup>th</sup> NTHS congress in Denmark. We are confident that the Danish hosts are planning an interesting and educational week. Insight in the local industries and the creation of new bonds with our future Nordic colleagues stands high on the Norwegian delegation's agenda.

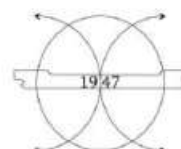
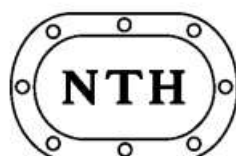
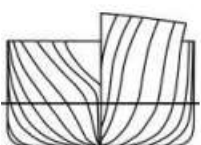
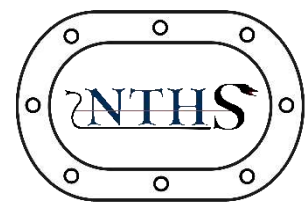
The Norwegian delegation traditionally consists of 3<sup>rd</sup> and 5<sup>th</sup> year students. Five lucky 3<sup>rd</sup> graders have recently been elected, from a record high number of applications, to join the next year's delegation. We are excited to meet the newcomers from all delegations and hope to meet the graduate participants at the banquet in Copenhagen among returning Oldtimers.

Finally, I would like to show my gratitude to our partners over the years. Whom without the annual NTHS congress would not be possible and looking forward to future collaboration.

On behalf of the 74<sup>th</sup> Norwegian NTHS delegation,

Per Henrik Ramberg

President NTHS 2023, Mannhullet





**Follow us on Instagram to see more pictures of NTHS and also follow along the next delegation during NTHS-74!**

**Read old rapports at [mannhullet.no/nths](http://mannhullet.no/nths)**

**Name: [nths.norway](https://www.instagram.com/nths.norway/)**

**Link: <https://www.instagram.com/nths.norway/>**

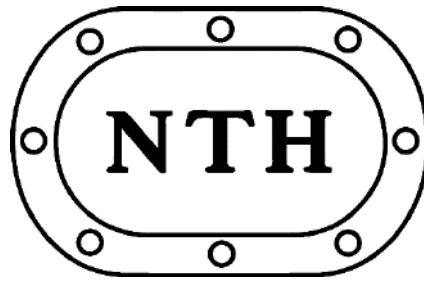




# Norsk olje & gass

# GLOBAL MARITIME





**Mannhullet**  
**Est. 1917**

The Norwegian Delegation represents Mannhullet, the student association at the Department of Marine Technology at the Norwegian University of Science and Technology (NTNU) in Trondheim.

Mannhullet is a very central part of the student life of those seeking marine engineering for the future. Leisure time can be spent on the sailing boat *Steinbiten III* or the motorboat *Havfruen IV*. These boats also give the students experience with the sea – an element that every marine engineer must master.

Social gatherings, such as quizzes, company presentations, sports on TV and those crazy parties only marine students know how to make are situated in Mannhullet's own bar; *Skipslogen*. Every year there are festivals such as Tyholt Rock Festival, the Regatta or RUKA, and the cabaret of Mannhullets Interne Teater (MiT), which are highlights of the year.

But beer contains calories, and for those who want to burn it away Mannhullet has a gym at Tyholt Campus called *Kraftgangen*. The sporty students of Mannhullet have access to a range of wildlife equipment, and annual trips to the woods and the mountains have become a tradition. Recently Mannhullet also started an own football club, FK Marin. The supporter club, Bulben, contributes to a good environment at the football matches.

There are constantly things going on in Mannhullet, and the choir *Tåkeluren* (The Fog Horn) making every gathering unpredictable. Luckily, the marine students have the newspaper *Marina* to keep track of it all – especially the gossip.

## Mannhullet's undergroups

### Skipslogen - bar

Several student unions have a bar in Trondheim, but *Skipslogen* is indisputable the largest and the best. Students in the bar-group serve a wide variety of drinks, beers and home-brews for all occasions.



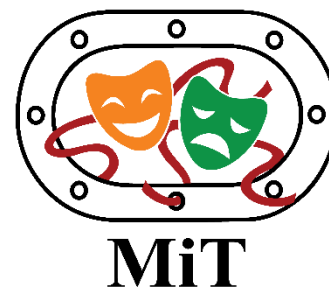
### COMA - tramping club

The COMA group is responsible for all outdoor trips. They arrange mountaineering trips on skis and on foot as well as surfing trips to keep the students of the union fit and active.



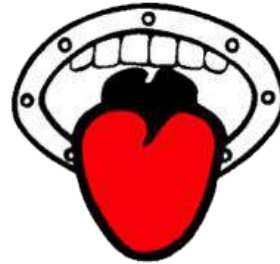
### MiT - Mannhullets Internal Theatre

The theatre group create one, unforgettable show every year with huge success, drawing a massive crowd to cheer them on. The show consists of skits and songs that consider today's happenings and problems.



## Tåkeluren - choir

Tåkeluren is the most infamous choir in Trondheim, known not for their beauty in tone, but loudness of voice. They gather by the hundreds and have been able to get kicked out of almost every possible choir festival in Norway.



## Marina - newspaper

Marina is the newspaper for students and by students. The columns and articles summarise various happenings and presents the gossip that follows a party. No one is safe from the scrutiny of the editors.



## Motorboat Committee

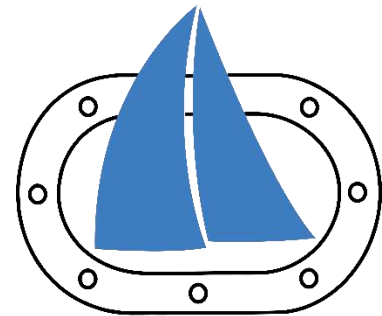
The motorboat committee owns its own day boat so that students may go fishing, water skiing or just relax on the fjord outside Trondheim. The newest boat - the fifth of its kind - was purchased as a gift to ourselves on the 100th anniversary of the student union.





## Sailboat Committee

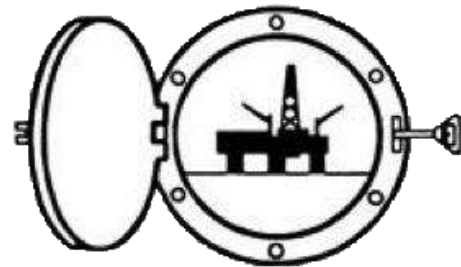
Mannhullet also owns its own sailboat, a Hanse 370 from 2004. All students have access to her during the semester, while the committee members sails her from Trondheim to Oslo or Lofoten every summer.



SEILBÅTKOMITÉEN

## Bedriftskontakt - industry networking contact

Bedriftskontakt Marin arranges company presentations throughout the year where companies from the maritime industry present their companies and possibly recruit the senior students for permanent positions at their companies. They are also active in advertising summer internships and occasionally arrange excursions.



## Marin FK and FKK - men's and women's football club

Mannhullet has two individual football clubs, for male and females. They compete against other students teams from other student unions. They don't always win, but will never lose support from their fan club *Bulben* (faction of *Tåkeluren*)



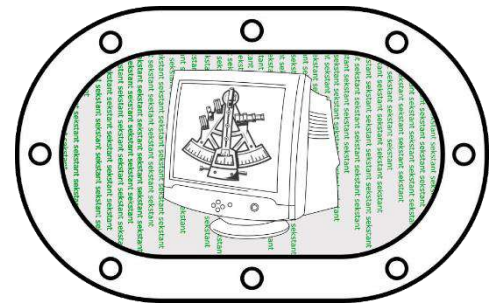
## Ølbryggelauget - the brewing club

Mannhullet also has its own brewing club making delicious beers such as lagers, ales and stouts that are served on tap in our bar. They also make large quantities of beer for quizzes and internal festivals.



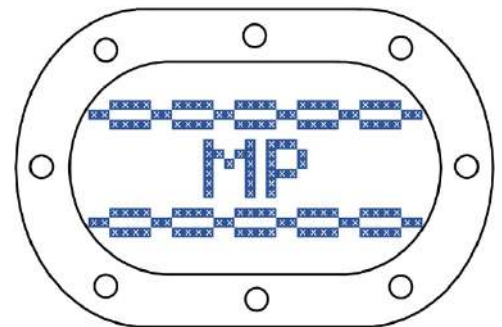
## Sekstanten – coding group for mannhullet.no

Sekstanten is a group that have developed and is currently maintaining mannhullet.no. Their main objective is to see that the website is fit for Mannhullets needs, and it is constantly under development.



## Marine Pinnar – knitting group

Marine Pinnar meets every week for coffee and knitting and is also introducing Mannhullitter to knitting. Some even knit their own Mannhullet sweater.



## MMUG – Media and equipment group

MMUG has been a part of Mannhullet for a long time, but just recently became an undergroup. Famous for its own band “Ship Happens”. They control and know how to use all the digital equipment and is responsible for all the technical for concerts or internal festivals.

