



From left to right: Tobias Huuva, Loic Morand, Olav Rognebakke

Three working group chairmen reflect on 50 years of CRS success

With decades of experience between them, three longstanding chairmen share their thoughts on the importance of CRS to the maritime industry. In a typical lively CRS manner, they discuss the benefits, but also the possible areas for improvement, as well as answering the question as to whether CRS can stay ahead of the curve and even reach its centenary!

What made you get involved in CRS originally?

Olav Rognebakke, Chairman of RAW++ (Added Resistance in Waves) and Head of Section at DNV GL: "I was brought along to a meeting in the first year of joining my company. I wanted to get to know some people. It was quite an experience and that was already 12 years ago!"

Tobias Huuva, Chairman of SHARCS2 (CFD for Cavitation) and Manager Core Competence Team at Caterpillar Propulsion: "For me it was 10 years ago when I was working at Berg Propulsion and at that time I was looking at propeller analysis. I met some people from MARIN who stressed that they had a much better tool than I was considering. And it showed that we had to join CRS to get this fantastic tool called PROCAL!"

Loic Morand, Chairman of SPEED2DESIGN (CFD for Powering) and Head of the Hydrodynamic Department at Chantiers de l'Atlantique: "My first meeting was back in 1999 when I was introduced into a working group by Roger Lepeix."

In CRS, each project starts with an idea, followed by an initiative. Can you describe the path from conception to a mature project for your working group?

Olav: "RAW++ is a continuation of another working group. My own company and MARIN had a real passion for this topic so we joined forces for the first project, made a proposal and started to get others on board, making sure we had support. This process is an important part of CRS, setting out projects, lobbying and getting people around the table."

Tobias: "SHARCS2 is also a continuation, we have been going for six years now. We presented the proposal about cavitation simulations to bring in more people and it is working very well."

Loic: "The original idea for SPEED came from Raimo Hamalainen, now Head of Hydrodynamics at Meyer Turku, who asked me to chair."

Olav: "This process of using an existing working group and sitting together to make sure there is a continuation of the research is at the heart of CRS."

Tobias: "We make sure all members are listened to and have a chance to voice their opinion. This is important to have this climate in the group."

CRS currently has 23 members which can be divided into 'blood groups': research institutes, shipyards, class societies, suppliers and operators. Is this mix reflected in your working group?

Tobias: "In SHARCS2 I think we have 4-5 'blood groups'. This is important because

you need some people to evaluate, some to analyse and some need deeper knowledge. This all broadens the research and brings input from different fields of the marine world to give insight into problems."

Loic: "Our members bring wide ranging views about the problem, we have different people from a range of organisations. Some people have very good theoretical ways of solving the problems. In parallel, we need people who are very pragmatic. We manufacture products that are not so simple, so the confrontation between these different people is very interesting!"

CRS is based on active participation of the members. How does this work for your working group and can this be improved?

Loic: "Sometimes the meetings can mean only a few people discussing special topics and then some members feel a little left out.



Data Driven Methodologies project in the making (Madrid, March 2019)

I think a good thing introduced by the very bad weather in Houston in 2017 is the Web Conference. Perhaps we can introduce special working group web sessions for 5-6 people with a specific task and then they could make a report for the relevant working groups."

Tobias: "Within CRS initially we tend to focus on one broad topic and then we eventually focus on one narrow part of that and by the very nature of the process, some people will contribute more than others. Perhaps the subject should be broadened to include other tools or evaluations so everyone has a task, not just the specialists."

Olav: "A key point is how to distribute tasks and award projects to generate interest. Sometimes we don't necessarily follow the best way to progress the research. But we do it to get engagement and different input for a future activity."

Can you give an example of a research finding based on joint expertise or knowledge within your group?

Tobias: "Undoubtedly, the biggest outcome for us all is the propeller analysis tool PROCAL. The software developers of course developed the tool but there are also a lot of design

tasks, validation tasks and evaluations coming from different members, which have made it a very successful, useful tool."

Olav: "We have seen a lot of contributions from different companies regarding safety analysis. There are the evident benefits of the MARIN model test results but it is hard to understand what is going on because we don't have the measurements that we would like to have for the safety aspects. It is very much a collaborative process to explain what's going on." He laughs: "There have been a lot of hypotheses and theories as we go, which have changed surprisingly often!"

Loic: "With the SPEED project there are many generic lines about friction resistance and turbulence models and about how to modelise in PROCAL. But I think the best result of the working group is actually the progress that each member has made in the way they perform their propulsion computations. People are becoming better and better and learning a lot about how to perform resistance, appendage and open water computations."

An odd question perhaps, but what are the benefits of being a chairman? Would you recommend it?

Tobias: "Being a chairman gives you a very good insight overall, and you get to lead

the work. This overview is important when we put together our presentations and make the summaries for the Annual General Meeting. I think this is very valuable."

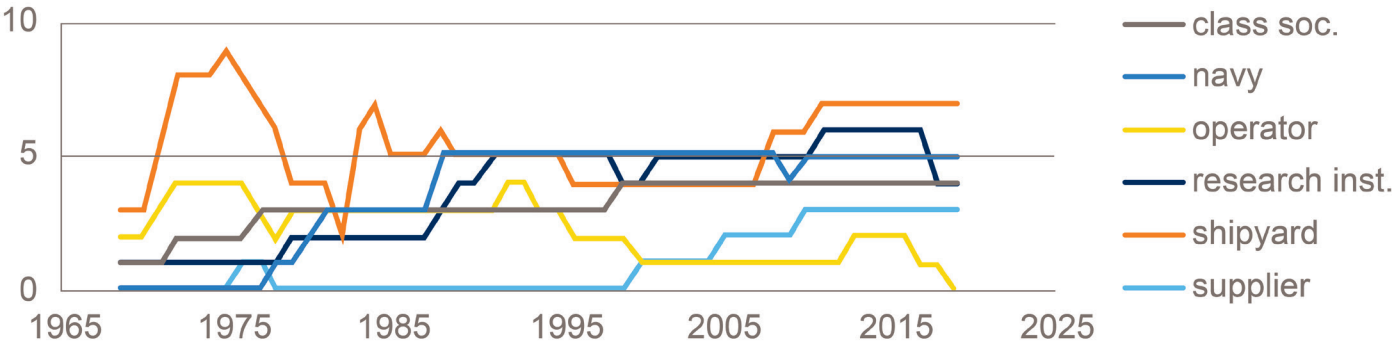
Olav: "Personally I like being active and to have a specific task. It is about meeting people, a learning experience and about doing something for the members – delivering good products to a nice group of people who I enjoy spending time with. There are many rewards, especially seeing that we are making progress."

Loic: "Sometimes during the life of a working group it gets 'stuck'. So you have to reconsider, and propose something in order to get it moving again. It is challenging, but it is also great when you are working with such enthusiastic people. I would encourage members to have this experience at least once."

Showing the camaraderie between the group, Olav jokes: "You need time for preparations and by the way Tobias – 'have you finished your report for the AGM?'" "Yes, for once!" Tobias laughs.

Can you reflect on the networking and educational aspects of CRS?

Tobias: "For us networking is an important part at both the meetings and at the dinner



CRS blood groups, 1969-2019



PRECAL workshop - knowledge transfer through software tools (Wageningen, December 2017)

afterwards! This is when you get to know people in an informal setting, making it much easier to contact people."

Olav: "I second that, we meet a lot of people and become good friends, building up trusting relationships. Our organisations spend time on training and marketing, but I think it is just as well spent here because of the benefits of networking and training we get by participating."

Can you give an example of a 'CRS product' which benefits your organisation?

All: "Should we all say PROCAL?" they laugh.

Loic: "Yes PROCAL is key, but we use PRECAL for seakeeping, COGNAC for manoeuvring. Several CRS tools are an important basis of the tools in our shipyard."

"The tools are more adapted to our needs because we participate in the meetings in order to make them more useful for our requirements."

Tobias: "Our company regularly needs to use CFD developed in CRS. With CRS it helps making this a more stable process, acting as a buffer between the commercial things that we need to do."

Olav: "It is easy to focus on the tools but for my company, it is just as important to get the methodology and implement that and use CRS to validate it."

What are the strong and weak points of CRS?

Loic: "I think the relationship between the working groups could probably improve. Perhaps this can be improved by dedicated meetings. For example, there are opportunities in combining CFD computations with full-scale experiments. SPEED and RAW++ could also improve links."

Olav: "People tend to dive into their cave and after three years they come out with results. This is still a very efficient way of working within the groups. We have a very good model, I think there are definite benefits running it this way."

"We are doing very specific things now in CRS. The fact that we have this continuation of the groups all working on the same thing all of the time, getting results is fundamental."

Tobias: "However, topics are now coming across 'the old borders' and coming together as we are able to handle more complex issues, and have more pieces of the puzzle."

Do you believe CRS will live for another 50 years?

Loic: "In the last decade we have seen the number of members increase and we didn't expect that, I would be surprised if it doesn't last for another 50 years!"

Olav: "We have a lot of good, really useful results. I don't see how we would get this same value for money anywhere else."

"Our strength is sharing and collaborating. You get something and give something. This is the essence of CRS and necessary for it to survive."

Do you have a clear message or recommendation for the CRS community?

Olav: "We have to find a better way to communicate what we have done. Internally, within our companies, and at conferences etc. It shouldn't be limited to only the annual report, or within SharePoint. We should explain what is being done within our own companies stressing that what we are doing is state-of-the-art. CRS is a driving force."

Tobias: "We are leading in many aspects but people don't know this externally. It is a very low hanging fruit to show that we are better than others!"

Olav: "There has to be knowledge transfer. We have a very good working model already."

Tobias: "Yes indeed but we need to maintain it and take the next steps. We must keep it going forward and keep it alive."

All: "We have to take good care of CRS!" —