

»Hydrography is probably one of the best jobs ever in terms of versatility and diversity«

An interview with ERIC LANGLOIS

Eric Langlois is French, he works in Germany for an international organisation in Bonn, he is Chairman of the IFHS, a member of the board of the AFHy, which is organising the HYDRO conference in Monaco this year on behalf of the IFHS – we could not have found a more suitable interview partner for this international edition of HN, which is jointly produced by the AFHy and the DHyG.

hydrography in France | HYDRO conference | IFHS Student Award | HPAS | Sustainable Development Goals
hydrographie en France | conférence HYDRO | IFHS Student Award | HPAS | objectifs de développement durable
Hydrographie in Frankreich | HYDRO-Konferenz | IFHS Student Award | HPAS | Ziele für nachhaltige Entwicklung

Eric Langlois est français, il travaille en Allemagne dans une organisation internationale, il est président de l'IFHS, membre du conseil d'administration de l'AFHy, qui organise cette année la conférence HYDRO à Monaco au nom de l'IFHS - nous n'aurions pas pu trouver un interlocuteur plus approprié pour cette édition internationale des HN, réalisée conjointement par l'AFHy et la DHyG.

Eric Langlois ist Franzose, er arbeitet in Deutschland bei einer internationalen Organisation in Bonn, er ist Präsident der IFHS, Mitglied im Vorstand der AFHy, die in diesem Jahr im Namen der IFHS die HYDRO-Konferenz in Monaco organisiert – einen besser geeigneten Interviewpartner hätten wir für diese internationale Ausgabe der HN, die von der AFHy und der DHyG gemeinsam gestaltet wird, nicht finden können.

Interviewer

The interview with Eric Langlois was conducted by Lars Schiller and Holger Klindt via email in November.

You work in Bonn at an organisation named OCCAR. This acronym stands for »Organisation for Joint Armament Co-operation«. What is the mission of this organisation and what is your personal role here?

OCCAR is an international centre of excellence in armament programme management. It aims to facilitate and manage such programmes through their life cycle while improving efficiency and reducing costs. The main strength of OCCAR is that, beyond its six Member States (Belgium, France, Germany, Italy, Spain, United Kingdom), non-Member States are also able to participate in programmes they find an interest in.

For the record, the concept of OCCAR first came with the French-German Principles of Baden-Baden signed in December 1995.

Today, OCCAR is responsible of 13 important programmes with a total operational budget of about 4 billion Euros. One of them, the European Secured Software Radio (ESSOR) Programme involves six Participating States (Finland, France, Germany, Italy, Poland, Spain). ESSOR addresses military communication interoperability by developing common secured software radio waveforms to be ported on national radio platforms. My current position

stands within the ESSOR Programme Division as Head of the Programme Control, Commercial and Financial Section.

What does your current occupation have to do with hydrography?

My current position does not have anything to do with hydrography. However, being involved in IFHS has been a way to maintain a link with our community and to contribute to its development.

Speaking about your background, how did you originally get involved in hydrography and which experience have you gained in the field of hydrography?

When I first heard about hydrography and marine environment, it seemed to be so much in line with my personal professional expectations: high technical benefit, nonprofit activity, and the remote office space (while being at sea). A balanced mix of adventure and purpose. After being graduated (Hydrography and Marine Cartography) from ENSTA Bretagne school in France, I worked for 13 years at Shom, the French Hydrographic Office, where I gathered most of my experience in hydrography.

My first assignment lasted three years on board French Navy survey vessels. There, I learned the

»on the field« job, gaining experience from experienced teammates and trying to adapt to every survey sites and weather conditions, taking into consideration the singularity of the mission, especially in remote locations. Besides, long period on board a ship puts you into so many human related situations that you are equipped to deal with a number of different future scenarios and eventualities.

After this first assignment, I studied for one year at the *École Nationale de Meteorologie* (French National Meteorology School) in Toulouse. After this academic break, I was in charge of designing bespoke wave modelling for the amphibious units, using accurate bathymetric and tidal data combined with refined weather modelling forecasts. It contributed to capture the broad range of application of hydrographic data.

Another turnover in my career happened when I joined Shom's Parisian Office as Head of the External Relations Division. Five years in this position gave me the taste for international cooperation, from the International Hydrographic Organization (IHO) to UNESCO's International Oceanographic Commission (IOC) and the various bilateral cooperation France has in the field of hydrography and cartography. What I enjoyed the most during those years was the capacity building projects we managed to raise awareness of hydrography, especially in Western Africa.

You are a board member of AFHy, the French hydrographic association. Please tell us more about AFHy. Which are the aims and objectives of your society and how many members does AFHy have? AFHy actually stands for »Association Francophone pour l'Hydrographie«. It aims at promoting hydrographic expertise in France and francophone countries. It is a forum of exchange and dissemination of information between researchers, manufacturers and private/public hydrographic surveyors.

AFHy has 60 corporate members including both public administration and private companies and 20 individual members.

Do you only accept members from central France or can other French-speaking nationals from your overseas territories also become an active member?

Initially, AFHy was exclusively dedicated to French public administration, including French overseas territories. In 2012, AFHy changed its statutes to include a private corporate college of members and to open to francophone individuals and entities. Today, AFHy counts in francophone members from Canada, Western Africa and Indian Ocean regions.

Please share with us your view on the different roles and relevance of hydrographic work in France.

The relevance of the French hydrographic expertise takes its root in three aspects:



Eric Langlois

- The legacy of French hydrography, as France was the first Coastal State to create, in 1720, a national entity entitled to safeguard the marine knowledge related to navigation charts;
- The multiplicity of the uses of the French maritime space raising economic, environmental and governance needs for marine knowledge and therefore hydrographic data;
- The extent of the France's National Waters, which is the second largest maritime territory with 11 millions square kilometres spread all over the globe.

These three aspects have been the reasons why French hydrographic expertise is now one of the richest ones, based on a strong legacy: the discovering and cartography of new overseas territories, the invention of the hydrographic circle, the first use of satellite-derived bathymetry in the Pacific atolls. Today, the French industrial base is one

»Hydrography offers a balanced mix of adventure and purpose«

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of the most dynamic and innovative in the field of hydrography.

Where and how are French hydrographers also involved in hydrographic activities abroad?

Every survey area comes with its own challenges, which is why the hydrographic expertise has to be versatile in order to adapt to all circumstances.

With a maritime »playground« of 11 millions square kilometres spread over five continents, French hydrographers are accustomed to dealing with one of the most various range of conditions and environmental factors: Tracking sand dunes in the British Channel, achieving precise positioning and levelling in the middle of the Pacific or setting up a tide gauge in Antarctica, this is why French hydrographers are keen to adapt to every maritime situation.

Training and education of hydrographic knowledge is key to any successful professional development. How is it organised in France and who are the key institutions here?

France disposes of several academic entities able to provide accredited courses recognised by the IBSC (FIG/IHO/ICA International Board on Standards of Competence):

- ENSTA Bretagne, a pluri-disciplinary engineering school that delivers Category A certified Master degree,
- Intechmer, an academic institute that delivers a Category B certified Degree in Hydrography,
- Shom's School of Hydrographers, initially created to train French Navy's Hydrographic personnel, delivers Category B certified in both hydrography and cartography.

AFHy also contributes, to an extent, in the sharing of the knowledge by organising workshops and dedi-

cated courses for the benefit of its individual members. Some of its corporate members also offer courses or demos on survey equipment and tools.

Is there a close cooperation in France between hydrographic and other marine sciences?

I have two personal examples of close cooperation between national entities:

In 2005, I volunteered to take part to an international campaign on a Spanish Navy oceanographic vessel named *Hesperides*. The purpose of this campaign was to gather bathymetric and geologic evidence in the Bay of Biscay in order to submit a common request for an exclusive economic zone (EEZ) extension from France, Spain and Ireland. On board this vessel, I worked closely with one colleague from Ifremer. The campaign at sea lasted for one month and gathered critical pieces of evidence that contributed to the approval of this extension request by the United Nations.

In 2016, the French Ministry of Environment signed an MoU with the World Bank, enabling the sharing of French expertise on coastal areas. A working group was then created, with representatives from the national agencies involved in coastal areas. The underlying purpose was to find project ideas to support the empowerment of Western African States on their coastal areas management, strongly impacted by coastal erosion and water level rising. One of the project ideas submitted was to take advantage of Shom's archives in the region by digitalising old chart and using the data to monitor coastal erosion. This project came through, funded by the French Ministry of Environment with the participation of Shom for the data rescue part and CEREMA, a French agency specialised in the study of coastal dynamic and phenomenon.

Shom and Ifremer are two globally well-reputed institutions in marine sciences. How do they interact with each other; and are there further institutions contributing to this field?

Shom and Ifremer are two public entities placed under the authority of different Ministries. Shom depends on the French Ministry of Defence whereas Ifremer depends on the Ministries of Research, Environment and Agriculture.

Beyond these administrative differences, these two entities share expertise on common fields related to marine knowledge and research: Bathymetry, coastal and seafloor dynamics, wave modelling, sedimentology and several others.

Besides, Shom and Ifremer share their maritime assets in order to minimise the deployment costs. In that scope, both Hydro-oceanographic survey vessels *Beautemps-Beaupré*, launched in 2002, and *Pourquoi Pas?*, launched in 2005 have been co-financed by Ifremer and the French Navy (for the benefit of Shom). Moreover, all French survey vessel deployments are harmonised by a national

commission in charge of dispatching these vessels adequately to fulfil national needs on campaigns at sea.

Initially planned in December 2020, the HYDRO conference will take place in December in Monaco. AFHy is organising this event. Please allow us an early glimpse on what we should expect there.

I am very excited to attend this HYDRO conference, for various reasons:

- It is a kind of homecoming for HYDRO conference events after a three years break;
- It is the first edition hosted by AFHy, which chose Monaco to emphasise on the franco-phone scope as well as the symbol Monaco represents for worldwide hydrography;
- It is the first edition to be hosted on the coasts of the Mediterranean Sea, which is a maritime area subject to several challenges while involving more than 40 different Coastal States of different cultural background.

Therefore, I am expecting to see lots of familiar faces as well as new ones, especially from the students community. They suffered a lot over the past years from the worldwide situation, and I am more than grateful that they managed to persevere in that field, which is probably one of the best jobs ever in terms of versatility and diversity.

For this edition, we did not want to limit ourselves on a technical ground. So we agreed to focus on the responsibilities that lie on the shoulders of all hydrographic professionals, as maritime stakeholders and citizen of the world, in raising awareness on climate challenges affecting the ocean.

The International Federation of Hydrographic Societies (IFHS) is a unique partnership of learned national and regional hydrographic societies and acts as a kind of an international umbrella organisation for all hydrographic associations around the globe. You are the current Chairman of this organisation. What do you intend to achieve with your involvement in the IFHS and which are your strategic goals?

Today, we do have international coordination on charting schemes and on technical standardisation with the national hydrographic offices and the IHO. However, we are still missing coordination between the community of its professional individuals, who are the core constituent of the hydrographic community.

Even though individuals and national companies and administrations have managed to organise themselves with national societies, the leverage effect remains quite limited.



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IFHS purpose is to join all these national communities, without duplicating their actions, more to bring initiative and concerns from their members to a higher level. IFHS can contribute to advocate these concerns on the international scene, especially on topics not properly addressed by other international forums: individual accreditation, recognition of the hydrographic expertise, promotion of hydrographic careers.

To reach this goal, IFHS needs to federate more national/regional societies from all over the world, increase the recognition of the hydrographic expertise worldwide, especially towards youth.

My dream is that youngsters wish to become hydrographers as much as some would like to become astronaut.

[The IFHS has a new logo. What does it express?](#)

When I took the chairmanship of the IFHS, I noticed the logo was very similar to national societies, which did not help in understanding which role IFHS has, particularly with the recurring use of the hippocampus in several national logos.

The new logo is a combination of several key symbols that are of crucial importance in our community today: the sea-sky interface to represent the hydrography-hydrospace duality, the acoustic waves in the water as our technology still relies a lot on these technics. All these features are gathered in a rounded shape that symbolises the globe. We also wanted all these features to combine in order to symbolise an eye, as the human expertise is still the main driver of our community.

[Please tell us more about the organisation. How does it work and how does it interact with its national member societies?](#)

IFHS is a federation of national entities, registered a United Kingdom Charity, equivalent to a non-profit organisation. IFHS is managed through its Board of Directors, in which every society member is represented. The Board is consulted on every decisions taken by IFHS, from the budget to the hosting of the next edition of the HYDRO conference. In order to ensure its financial autonomy, every society member provides a per capita yearly subscription depending on their total membership.

[Where do you see the added value of the organisation? Could you give us examples of a successful cooperation with and between national hydrographic societies and the IFHS?](#)

The benefit of IFHS is beyond the value for money dimension for the sake of the professional individuals and the profession. The main example of successful cooperation lies with our individual accreditation scheme, HPAS. In 2020, the Board agreed to initiate the work on a common individual accreditation scheme. This idea had been discussed for years within the federation, but compromise seemed quite difficult to reach between the national communities. With the support of

THS:UKI, we created a task force that managed to draft a scheme in a few months. With the help and support of all the societies, this scheme was tested and consolidated in order to be suitable for IBSC recognition. The Hydrographic Professional Accreditation Scheme (HPAS) was born. Our submission was endorsed by all the national hydrographic authorities related to our society members: France, United Kingdom, Belgium, the Netherlands, Germany, Italy and South Africa. Last spring, the IBSC decided to recognise HPAS as one of the individual accreditation scheme.

This success only lies on team work and a shared will to reach a common ground for the sake of our community.

[You mentioned HPAS. The IFHS has developed HPAS to assist and support individual qualified and experienced hydrographic professionals in demonstrating their competency, capability and development of their careers. Would you please tell us about the idea behind HPAS. And where does the initiative stand today? Will HPAS one day will achieve global recognition by all relevant organisations?](#)

The main idea beneath HPAS was to build a multi-national accreditation scheme. Lately, the increase of national and regional schemes made us consider this idea in order to avoid a situation where hydrographic professionals would not be able to work worldwide, depending on how much accreditations they have.

The other underlying idea was to consolidate the legitimacy of the profession. Today, there are still many individuals whose strong expertise in the field of hydrography is based on a certified degree they gained several years/decades ago. It is so casual that most of hydrographic professionals tend to introduce themselves as a »IHO Category A/B hydrographer«. They should actually introduce themselves as »graduated from an IHO Category A/B certified course«. But the main issue is that hydrographic individuals cannot always claim with the same consistency when it comes to their »on-the-field« experience since their graduation.

So HPAS came in to bring a response to these two issues. First step was reached earlier this year with its recognition by the IBSC. The next step is to discuss and sign »mutual recognition agreements« with other IBSC recognised accreditation schemes (for example Canada and Australasia). In the meantime, we need to promote this multi-national recognition towards national/regional granting authorities that issue call/invitation to tender in the field of hydrography to enable all our accredited individuals to benefit from their status and then guaranty that these projects are managed by qualified and experienced individuals.

[Under the motto »Younger generations in the forefront« IFHS is actively promoting hydrography](#)



amongst young hydrographers. One of the most prominent and attractive activities here is the IFHS Student Award (ISA). Please tell us more about this award. How is it perceived amongst students and younger professionals? Which are the criteria for a successful application and what are the future plans for this scheme?

Every year, each IFHS society member nominates a candidate for this award. Each candidate is named by its academic tutor for a specific project/work/project/publication achieved by the nominee. Each candidate is then assessed independently by each IFHS Board Members. Based on these individual assessments, a common ranking is agreed in order to designate the winner.

The winner is awarded with a money prize and get to present its work during the next HYDRO conference.

To be successful, the candidate's work has to bring a real value to the hydrographic community and to demonstrate a real complexity in the making of the scientific response. Some national societies usually name the winner of their national award to represent them.

In 2020, due to the pandemic context, we declared all our ISA candidates as winners. This year, at the next HYDRO conference in Monaco, we will finally be able to introduce our winner after several

years without any public event. This is a fair reward to these students and all the others.

Today, the IFHS Student Award could be more advertised among the student community. This could go through modifying the selection process, for example by setting up a public vote within the community.

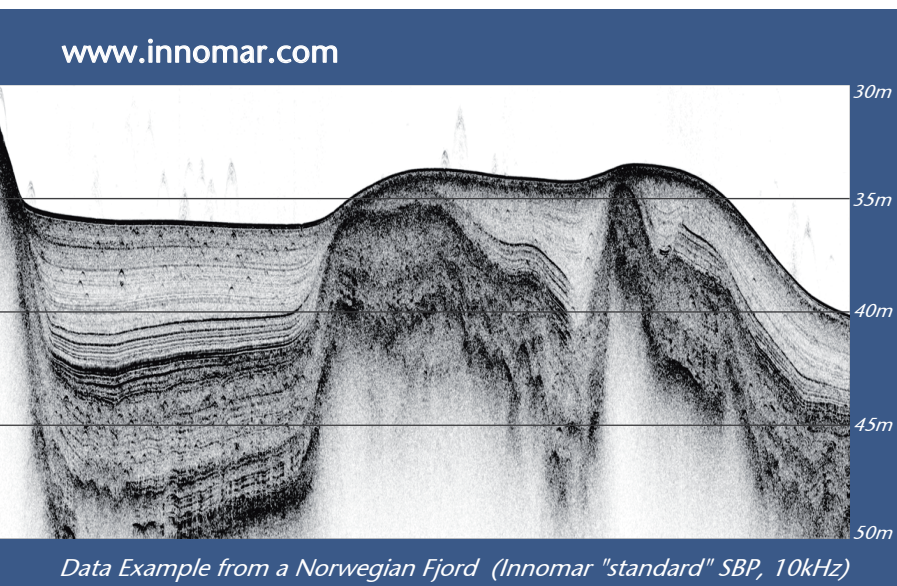
Currently the IFHS only comprises of six member societies. Comparing this with the total membership of our partner organisation IHO, how would you rate the further growth potential of the IFHS – what e.g. about the Hydrographic Societies from the US, Denmark and Australasia?

Unlike the IHO, not all Coastal States have their own national society. Therefore, the potential growth is to extend the membership basis to new national societies: Brazil, Nigeria, USA, Canada ...

As for Australasia, Denmark and South Korea, they have been member of IFHS in the past, so the challenge is more focused on bringing them back on board based on the growing profile gained by IFHS over the last years.

Do you follow a strategic acquisition plan to grow IFHS beyond its current extent and, if so, when can we expect to see new member societies joining this important work?

The main concerns shared by all potential new members are:



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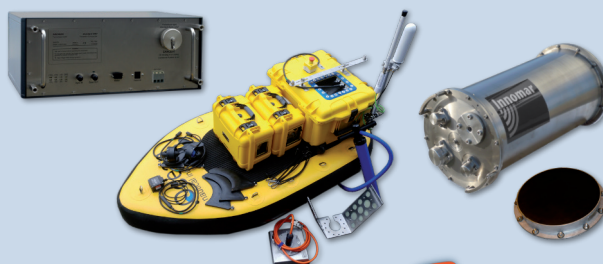
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- What do I get from IFHS for my own members?
- The financial contribution to IFHS versus the subscription fees they charge their individual members.

To address the first concern, we are building some direct added-value to the attention of individuals like we are doing with HPAS. HPAS is a key enabler to increase to membership of national/regional societies. But we need other initiatives of that kind to bring new societies along with us.

As for the second concern, one possibility would be to allow candidate societies to join us as an

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observer in order to have a close look on the work and the challenges faced by the Federation. Today, IFHS only includes members and associated members with different voting rights, but no observer status yet.

For many years the *Hydrographic Journal* had been a very attractive, regular pub-

lication of the IFHS. Unfortunately, it ceased to exist since a while now. Which are the reasons for this and are there any plans to revive the journal again?

When I took up the Chairmanship of IFHS, I took the decision to put this publication on hold. My intent was actually to rethink our communication channels and assets before taking the decision to publish the journal again. The limited human resources we dispose at IFHS forced us to prioritise the efforts towards the HPAS initiative. However, the intent is still to revive this famous publication into a formula in line with its time.

Today, the world is in a true turmoil. A multitude of simultaneous crisis, ranging from the global climate threat, the worldwide hunger for energy and commodities to the military conflict in Ukraine dominate the headlines. What is the role and potential contribution of hydrography to counter these challenges in future?

I strongly believe that hydrography has the ability to teach us how to become better individuals. Not every job has this power. It combines purpose, cooperation, innovation, discovery and mutual aid. Not to mention that it is very unlikely to be practiced alone. All these values, when experienced accordingly, contribute to set our individual bearings right.

On the other hand, I like to remember this quote that says that 80 percent of the success in any job or activity is based on your ability to deal with people. Well, the human experience is so rich within the hydrographic community that you are geared up to handle any kind of crisis that might come to your path.

The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in

2015, provides a shared blueprint for peace and prosperity for people and the planet. As the UN state: »They recognise that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests.« To what extent is the hydrographic community involved in the ongoing implementation of these globally accepted goals?

Hydrography cannot strictly be related to »climate action« and »life below water« (respectively SDG #13 and #14). Hydrography is actually able to trigger a virtuous circle able to impact various aspects addressed with the SDGs: By gathering hydrographic data, the community contributes to improve maritime knowledge, improving the management of the maritime space between the different stakeholders: increased navigation safety, protection of the marine environment, enhanced management of natural resources. All the consequences contributes to strengthen the development of the Blue Economy. Besides, strong and sustainable governance of maritime areas contributes to the stability of a coastal region, particularly through its institutions and infrastructures (water, energy, transport). This stability is then a key enabler to population well-being, which contributes in the long-term to raising education standards and reducing gender inequality. The rise of education standards will then trigger innovation, setting the way to new technologies that will ensure a more comprehensive and consolidated knowledge of the whole maritime area. Eventually, this circle also contributes to enhancing the hydrographic and marine sciences communities.

In a nutshell, enabling the hydrographic expertise and data collection in a particular region means nothing less than opening a new chapter of its sustainable development.

You are IFHS Chairman until the end of the year. A new chairman is being sought for the time after that. Assuming that the HYDRO conference will be a success, with what feelings do you look back on the years?

My first thought goes to my fellow Board members who joined me during this three years journey. Although we haven't been able to see each other in face to face mode, I always felt confident by their ability to support new initiatives and ideas I proposed. The second feeling is the satisfaction to have contributed to the community on my personal time and no longer as part of my job. The last impression is that there is so much left to do for this community. To that extent, I wish a lot of success to my successor and I hope that he/she will be able to capitalise on a successful HYDRO conference in Monaco. //