Between Ship and Shore: Communication and Media Challenges on Research Vessels

General experiences of a marine science communicator

Experiences gained during an R/V Belgica expedition to Iceland

Best practices from dedicated session @ CommOCEAN 2024

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11.12.2025

CommOCEAN online talks 2025

natural
sciences
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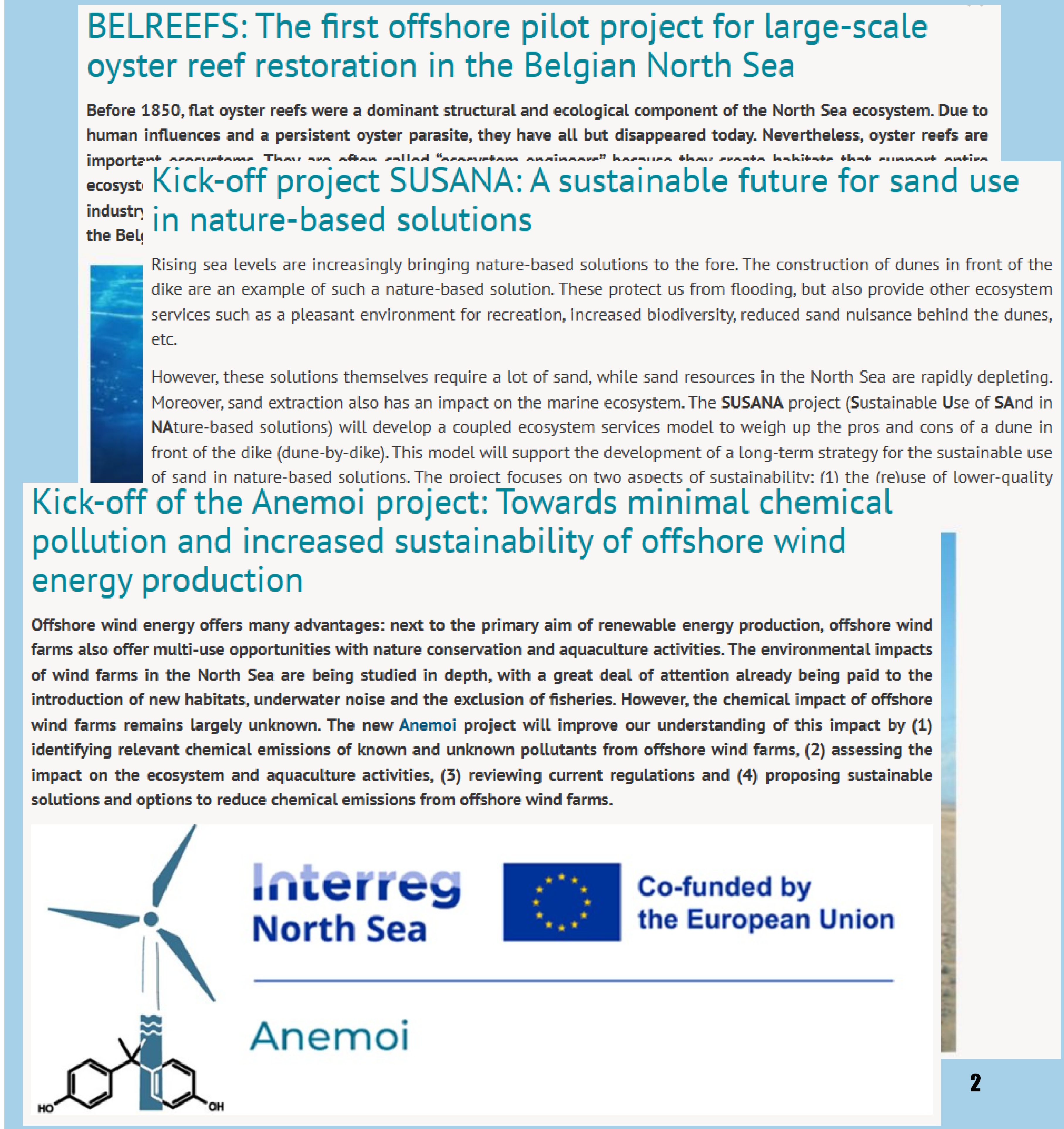
COMMUNICATION ON RESEARCH TIMING

START OF PROJECT

- (more) often project deliverable
- scientists still have time
- no results or new insights to show
- conceptual, no activity to show
- no unique ('real') images
- varying success depending on subject
- varying success depending on tools and audience



BELREEFS: The first offshore pilot project for large-scale oyster reef restoration in the Belgian North Sea

Before 1850, flat oyster reefs were a dominant structural and ecological component of the North Sea ecosystem. Due to human influences and a persistent oyster parasite, they have all but disappeared today. Nevertheless, oyster reefs are important ecosystems. They are often called "ecosystem engineers" because they create habitats that support entire ecosyst… industr… the Bel…

Kick-off project SUSANA: A sustainable future for sand use in nature-based solutions

Rising sea levels are increasingly bringing nature-based solutions to the fore. The construction of dunes in front of the dike are an example of such a nature-based solution. These protect us from flooding, but also provide other ecosystem services such as a pleasant environment for recreation, increased biodiversity, reduced sand nuisance behind the dunes, etc.

However, these solutions themselves require a lot of sand, while sand resources in the North Sea are rapidly depleting. Moreover, sand extraction also has an impact on the marine ecosystem. The **SUSANA** project (**S**ustainable **U**se of **SA**nd in **NA**ture-based solutions) will develop a coupled ecosystem services model to weigh up the pros and cons of a dune in front of the dike (dune-by-dike). This model will support the development of a long-term strategy for the sustainable use of sand in nature-based solutions. The project focuses on two aspects of sustainability: (1) the (re)use of lower-quality

Kick-off of the Anemoi project: Towards minimal chemical pollution and increased sustainability of offshore wind energy production

Offshore wind energy offers many advantages: next to the primary aim of renewable energy production, offshore wind farms also offer multi-use opportunities with nature conservation and aquaculture activities. The environmental impacts of wind farms in the North Sea are being studied in depth, with a great deal of attention already being paid to the introduction of new habitats, underwater noise and the exclusion of fisheries. However, the chemical impact of offshore wind farms remains largely unknown. The new Anemoi project will improve our understanding of this impact by (1) identifying relevant chemical emissions of known and unknown pollutants from offshore wind farms, (2) assessing the impact on the ecosystem and aquaculture activities, (3) reviewing current regulations and (4) proposing sustainable solutions and options to reduce chemical emissions from offshore wind farms.

COMMUNICATION ON RESEARCH TIMING

END OF PROJECT

- once again … often project deliverable
- scientists (sometimes) have time again
- results or new insights ✓
- potential to show activity ✓
- unique, project-specific and good images … not always …
- varying success depending on subject
- varying success depending on tools and audience

Vision for aquaculture at sea and decommissioning of offshore wind farms

Aquaculture at sea and the decommissioning of offshore wind farms come with many opportunities and challenges. For the efficient development of future policy on these activities, it is essential that the priorities and concerns of the many stakeholders are heard and integrated in an open and transparent manner into a broad-based vision that policymakers can subsequently work with.

15 years of monitoring the ecological effects of Belgian offshore wind farms still yields new insights

Fifteen years into the programme, monitoring of the ecological effects of Belgian offshore wind farms continues to provide new insights. That is an important conclusion of the latest WinMon.BE report that summarizes the findings on bottom-dwelling invertebrates, fish, harbour porpoises and birds. Only through sustained and adaptive monitoring can we ensure that we design and build offshore wind farms in the most eco-friendly way.

COMMUNICATION ON RESEARCH TIMING

DURING PROJECT - FIELDWORK

- rarely a project deliverable
- scientists usually have little time - project phase with the fewest communication requests
- results or new insights subject to uncertainty (or not yet published)
- potential to show activity ✔ ✔ ✔
- unique, project-specific and good images … not always …
- subject less decisive for success
- success remains dependent on tools and audience

Successful first EcoMPV Sampling Campaign: Insights into Early Colonization on Littoral Modules

Scientists of the Institute of Natural Sciences have concluded the first sampling campaign of the littoral modules within the EcoMPV project (Eco-designing Marine Photovoltaic Installations). This sampling event, conducted on October 23, 2023, aims to investigate the habitat provisioning effect of artificial floating structures for marine fouling fauna and fish, one of EcoMPV's objectives.

Spat collectors boost European flat oyster research in the ULTFARMS project

To study settlement patterns and preferences of the European flat oyster, custom-made oyster spat collectors were installed in the Belgian part of the North Sea in early June 2024. Reconciling commercial oyster cultivation with oyster restoration activities is the ultimate goal.

RESEARCH VESSELS – UNIQUE ASSET

DURING PROJECT - FIELDWORK

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- communication as an essential part of the complete project planning
- provide necessary personnel effort

5. There is a need for **additional funding and human resources** in order to cope with future MSC needs. In several marine scientific institutions, there are at present no dedicated personnel or only a limited number of staff dealing with communication, education and outreach. EMBCP recommends that marine science institutions aspire to dedicate at least **10% of their staff time** to MSC. This can include both staff dedicated to MSC and/or time spent on MSC by scientists and other staff.

https://www.marineboard.eu/sites/marineboard.eu/files/public/publication/EMB_FSB8_Marine_science_communication_in_Europe_Web.pdf

RESEARCH VESSELS – AN OCEAN OF VARIETY … AND OPPORTUNITY

SOCIAL MEDIA

- Facebook and X
- **English**, French and Dutch
- ‘Closed community’ → only posts by admins
- Original & shared/retweeted content

CHALLENGES

- admins need to be available fulltime (or account needs to be shared with a lot of scientists)
- dependency on scientists on board – streamline process of generation of content with scientific user community
- establish guidelines for style & content – e.g. not just faits divers, but also consider confidentiality of results and the need for consultation with chief scientists
- connection problems

CRUISE BLOG

- Good way to maintain connection with audience/ followers during the cruise
- Must be created on board → real-time communication (content aspect)
- We also provide the opportunity to use the RV Belgica blog, but there are some preconditions attached to this (especially the availability of personnel ashore)
- Recommended that science teams create their own blog (technical aspect)
- Easily linked to social media

MONDAY JULY 11TH, 2022 BY KELLE MOREAU

S4GES at sea with RV Belgica (part 1)

Monday 11 July 2022

S4GES at sea with RV Belgica

The long-planned one-week expedition S4GES is now in full swing. A team of scientists has embarked the brand new Research Vessel (RV) Belgica over the weekend, familiarized themselves with the facilities on board, revisited the research programme and started the sampling campaign. Preparations were struck by Corona troubles until the very last minute, including the originally foreseen chief scientist, then also its replacement. But here we are now, under the brave leadership of Dr Federico Falcini from CNR, Italy, and Prof Isabelle Schön from RBINS, Belgium.

Getting started with the scientific programme

This first S4GES expedition aims at assessing the Good Environmental Status (GES) of the marine environment by integrating physical, chemical, bio-optical, and biological information from the Southern Bight of the North Sea. On Monday, the focus was on the "deep" station of the expedition. Maybe forty meters water depth does not sound deep to you, but it does so for shallow Belgian-Dutch waters. At such shallow water depths, tides are a crucial driver of physical and biological dynamics. The sampling and measurement strategy for physical and bio-optical parameters, water samples and plankton samples is therefore paced at the maximum of the high and low velocity of marine tidal currents, respectively. This is allowing to connect the dots between the physical forcing and the biological patterns that evolve through space and time during the tidal cycle. More on the scientific operations in coming posts.

SUNDAY JULY 2ND, 2023

DEHEAT 2023/03 – Hvalfjördur – In search of water

26 June 2023 – There is pleasant excitement on the RV Belgica this morning, as the ship leaves Reykjavik harbour and steams to the first sampling station. No far journey ahead, as the first days of the expedition will be spent in a fjord just north of the Icelandic capital. The fjord in question is the Hvalfjördur, literally translated as the 'whale fjord'. It only takes less than two hours to arrive at station HF3, which gets the scoop of being the first to be sampled. That first sampling is always a crucial moment, as it is definitely better for morale to start with a success. However, only one thing is certain at this point: the weather will certainly not be a killjoy! The water is calm, the wind absent, and there is pleasant sunshine.

RV Belgica sails into Hvalfjördur.

The DEHEAT campaign kicks off with a CTD deployment, which will become the regular start of activities at each sampling site. CTD stands for conductivity, temperature and depth, parameters that are measured by sensors that are incorporated in a construction that further includes 24 so-called Niskin bottles arranged in a rosette. For simplicity, we refer to the whole thing simply as 'CTD'.

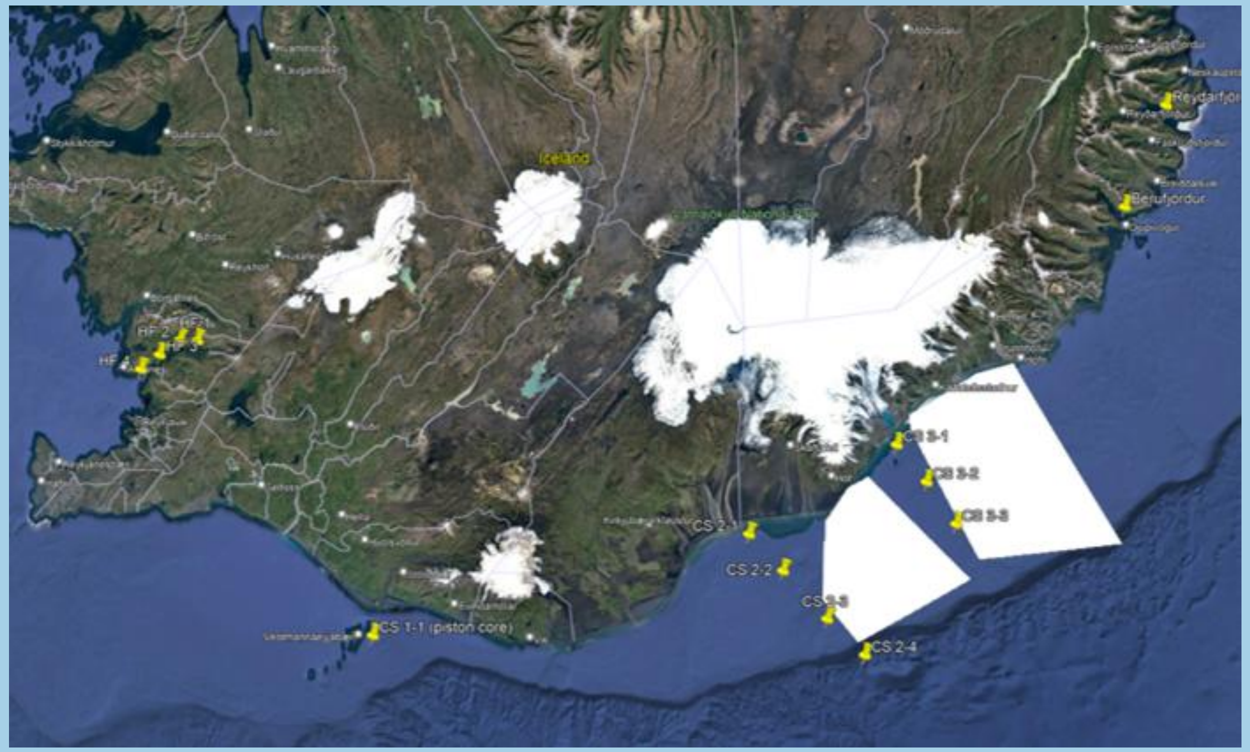
The rosette with 24 Niskin-bottles and CTD-sensors leaves the dedicated CTD-hangar of RV Belgica.

The CTD-construction is an essential oceanography instrument. As the CTD descends through the water column to just above the bottom, the depth and the changes in temperature, salinity and oxygen content of the water can be monitored in real time on a computer screen.

STAFF ON BOARD DEDICATED TO COMMUNICATION

- Communicator part of onboard team
- Social media & cruise blog
- Story map
- Gathering info for popularizing articles (photos, interviews with scientists) & videos

DEHEAT



STAFF ON BOARD DEDICATED TO COMMUNICATION

- Working with press
  - Establish connections – make joint planning
  - Press releases – before, during, after
  - *in situ* services to press (visual content !)

First RV Belgica Mission to the Far North

28/06/2023

RV Belgica (Beeld: Freire Shipyard)

On 26 June 2023, an international team of scientists embarked on the first arctic mission of the new Belgian oceanographic research vessel RV Belgica. They boarded in the Icelandic capital Reykjavik and will spend 16 days in the fjords and on the continental shelf of Iceland investigating the possibilities of reducing the concentration of atmospheric carbon dioxide by enhancing the weathering of silicates in the ocean. This process has potential to contribute to the active mitigation of the ongoing global warming.

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BELGICA
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ENVIRONNEMENT / AMÉLIORER L'ABSORPTION DU CO2 PAR LES OCÉANS

STAFF ON BOARD DEDICATED TO COMMUNICATION

MAIN LESSONS LEARNT

- Communication output part of objectives
- Need for detailed planning
- Need for good scripts
- Word vs Image conflict (ideally, > 1 person dedicated to communication)
- Use variety of tools/formats
- Real-time vs *a priori/a posteriori* communication
- Maintain series with fixed regularity
- Personal stories
- Focus on objectives, extras are also possible but should not take over

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