

Auteur: Mijksenaar Lab is our knowledge institute, focusing on wayfinding research, innovation, and education
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New warning flags improve safety at the beach

Dutch beaches attracts millions of visitors every year, both from the Netherlands and abroad. Many come to cool off in the sea, to swim, play, or enjoy water sports. The sea is popular, but can be dangerous as well. Each year, dozens of people drown, and many more are rescued by lifeguards. Every year, dozens of people drown, and lifeguards rescue many more from the water. Clear communication about potential dangers and advice on safe behaviour is therefore essential.

Mijksenaar Lab and VU Amsterdam developed and tested new designs for beach safety flags that inform visitors on site about the current safety situation.



Introducing the new flags at the beach in The Hague (April 2025)

Photo: Reddingsbrigade Nederland

Existing flags were poorly understood

Beach flags have been used for decades to inform beach visitors and warn them of danger. In recent years, we have conducted research into how these flags are perceived and understood. The results from our first two studies were concerning, showing that the existing, internationally standardised flags were not well understood by most Dutch and international beach visitors. The red flag ('Do not swim – very dangerous!') made sense to most people, but the meanings of the the yellow, purple, and red-over-yellow flags were often unclear.

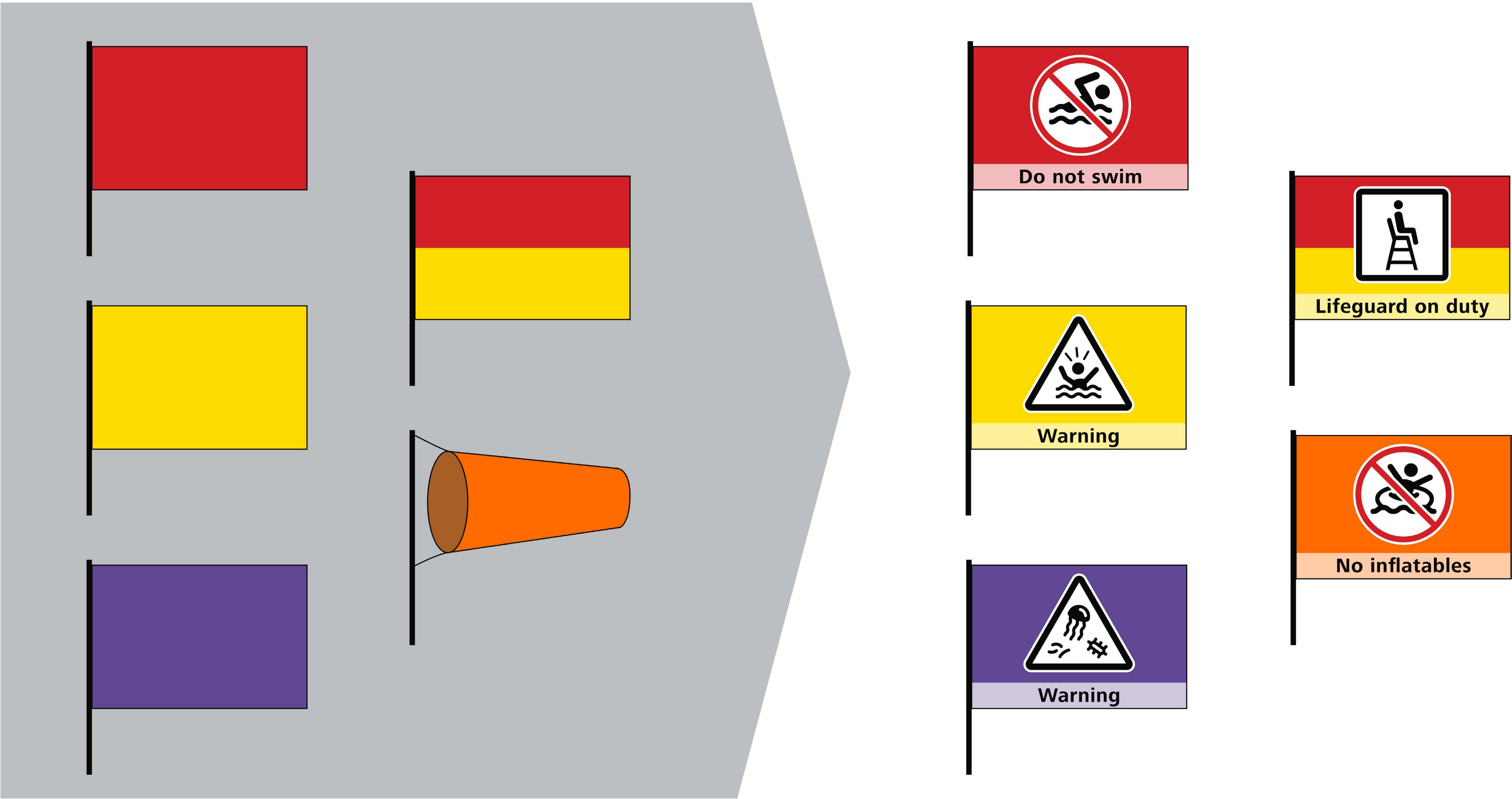
Obviously, flags that are not understood do not contribute to safety. That is why we set out to develop a new, research-based information design that would lead to better understanding, greater compliance, and ultimately: improved safety.

Text labels and icons enhance clarity

We designed and tested pictograms to add on to the flags, to clarify their meaning. The results were very positive: the number of correct answers to the question 'What does this flag mean?' doubled. More importantly, the pictograms also encouraged safer behavioural intentions about whether or not to enter the water. Under the existing yellow flag ('Swim with caution, dangerous!'), seven out of ten people said they would enter the sea. With the new pictogram added to the flag, that number dropped to just one in ten.

After testing various versions with hundreds of participants, we developed a final set, including further refined pictograms and text labels. Last summer, these new flags were tested on the beaches of Julianadorp and Wassenaar, among Dutch and international beach visitors. Again, the new designs were found to lead to safer behavioural choices.

Now, after four years of research, the time has come: five new beach flags have been introduced and will soon appear along the entire Dutch coastline. A major milestone, and one that we hope will contribute to greater beach safety.



Overview of the five old beach safety flags on the left, and the new versions on the right

Frequently asked questions

Want to know more? We invite you to [get in touch](#), or read frequently asked questions and answers below.

Why are the text labels in English and not (also) in Dutch?

The texts are added to clarify the meaning of the pictograms. Where possible, this information is offered in multiple languages—such as Dutch, German, and English—on signs at beach entrances, for example. Only one language is used on the flags themselves, to keep the text short. English was chosen because many international visitors come to Dutch beaches, and data shows that non-Dutch-speaking beachgoers are relatively more likely to get into trouble. Using English makes the messages understandable to as many people as possible, and is generally easy for most Dutch beach visitors to follow as well.

What if flags are hard to read due to (lack of) wind?

Readability under these circumstances could be improved with practical solutions such as a top rod to keep the flag stretched out. More importantly, the combination of colours, pictograms, and texts is not limited to the flags. It also appears on a wide range of communication tools: apps, websites, signs and screens at the beach, flyers, and even weather reports.

By consistently using the same visual language, we aim to increase recognition and help people learn the meaning of the flags over time.

If the current colours are unclear, why haven't they been changed?

A valid question. During the recent public survey that was part of the Dutch [Science Weekend](#), we also explored which colours people find most intuitive. The results of this study will be published in a public report this September. For now, we've chosen to stick to the internationally standardised colours. Local deviations from the standard could create confusion, and that is of course something we want to avoid.

The research was conducted by Fenne Roefs (Mijksenaar Lab and VU Amsterdam) and Chris Olivers (Ph.D.) en Joshua Snell (Ph.D.) from VU Amsterdam in collaboration with Martin Hoogslag and Bernard Korte (Dutch Institute Safe Swimming Locations). It is part of Dutch national programme Het Strand Veilig (Safe beach) and funded by the Dutch Ministries of Health, Welfare and Sport and of Infrastructure and Water Management. Articles about this research were published in scientific journals [Safety Science](#) and the [Proceedings of the Human Factors and Ergonomics Society Europe](#).



Flag 'Lifeguard on duty' hoisted at the beach rescue station in Zandvoort (July 2025)

Photo: Mijksenaar