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Nephrops Industry Coalition,
Fisheries Innovation & Sustainability

 @SAGB



Shellfish
Association of Great Britain

THE CROWN
ESTATE



Llywodraeth Cymru
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The FISHMONGERS'
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seafish



Marine
Management
Organisation

Crustacean welfare & automation trials on Nephrops vessels

Lynne Forman & Linda Wood
Nephrops industry coalition



THIS IS NOT JUST
FOOD THIS IS ↙



Unprecedented collaboration

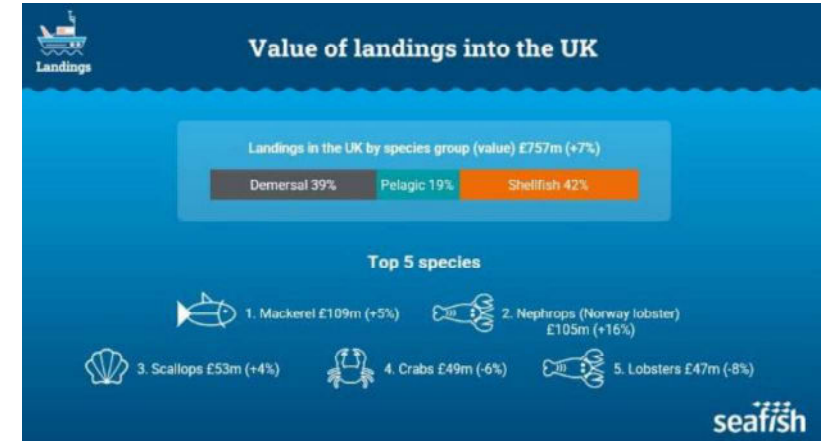
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Facing a challenging landscape together

Nephrops is an important fishery for UK seafood:
2nd most valuable fishery landed into the UK.

We came together with a shared aim to find a solution to challenges facing UK nephrops supply chains.



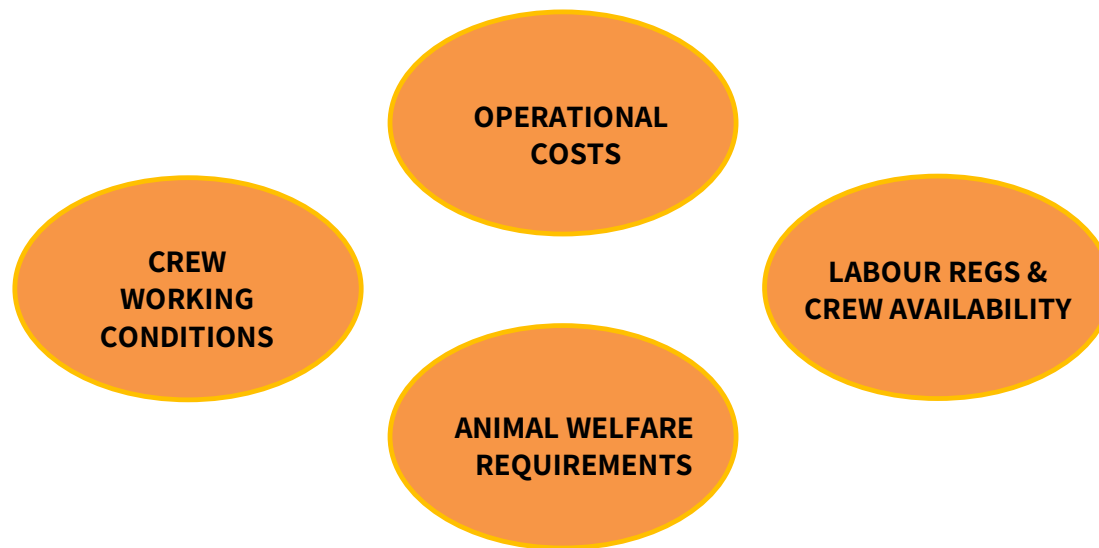
There is **no automated nephrops stunning & tailing device** available for use on board UK fishing vessels.

Similar technology does exist separately, for use on other species, but never used together, on nephrops, or on commercial fishing vessels.

Facing a challenging landscape together

The ability to stun and tail nephrops at sea would have significant benefits for the fishery, with the potential to reduce crew numbers, improve working conditions and meet animal welfare requirements.

An economic analysis by Seafish concluded that this machinery could reduce operational costs and improve efficiency on board prawn vessels.



Legal & consumer focus on nephrops welfare

All decapod crustaceans now identified as sentient in 2022 Animal Sentience Act.

Seafood companies under unprecedented scrutiny about live tailing without stunning, and fisheries being asked to meet obligations for humane despatch of nephrops at point of capture.

Shoppers can see which supermarkets & seafood brands are acting responsibly - ahead of legal requirements - simply by clicking on campaign websites.



Optimar trip & return visit

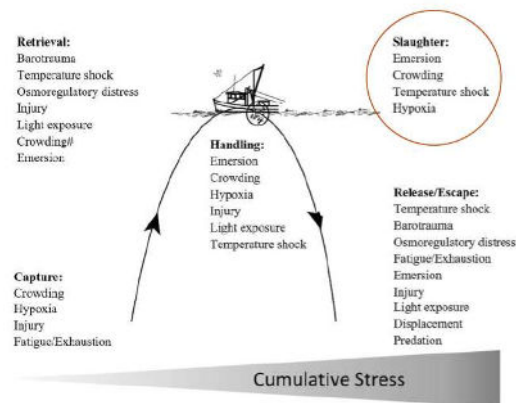


In March 2023, M&S partnered with Optimar to host an 'Animal Welfare Week' in Ålesund, Norway.

Following this, the coalition came together to develop proof of concept of a nephrops stunning & tailing machine for use on board fishing vessels while at sea.

FIS & Fishmongers' Company supported an exchange trip for Optimar technologists to travel to N. Ireland & Scotland to view the tailing process and support preliminary trials.

Catch welfare in the *Nephrops* fishery



Breen, M., Anders, N., Humborstad, O.B., Nilsson, J., Tenningen, M., Vold, A. (2020). Catch Welfare in Commercial Fisheries. In: Kristiansen, T., Fernø, A., Pavlidis, M., van de Vis, H. (eds) *The Welfare of Fish. Animal Welfare*, vol 20. Springer, Cham. https://doi.org/10.1007/978-3-030-41675-1_17



Proof of concept trials

University of Stirling trials: stunning on nephrops successful according to behavioural & neurological responses.

ASL tests on shelf life, organoleptic, and production weight/yields : no issues raised, but batch size small and more trials will be needed.

Partners now confident of proof of concept and now want to fully realise a prototype stunning and tailing machine, built by Optimar and tested on UK vessel.



Next steps

Now seeking support to make concept a reality, by Optimar building a prototype machine specific to needs of UK nephrops vessels. Design is taking shape for testing on UK vessel.

...but prototype is only the beginning - must encourage acceptance & uptake by skippers, who have questions on the need & operation of machine, and how it makes business sense to them.

We're listening...



Eyes on the prize

Together we've began a unique, precompetitive collaboration to help resolve very difficult issues.

But we need support from governments and others to incentivise early adoption of this machinery.

The prize is a resilient scampi market that supports businesses and communities, and produces great quality, accessible UK product.

Project partners agree:

*“the success of this project is essential
for the future of the UK scampi industry”.*



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For more information, contact Kara at FIS
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FIS is a coalition of experts driving innovation for
a prosperous & sustainable UK seafood industry.

Our remit is to facilitate, coordinate & leverage
investment for innovation in UK seafood.



www.fisorg.uk

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