Dear Innovasea member, 11-03-2021
Dear Mark Jollymore,
Dear Richard Vallee,

Request to include the open protocols OPi and OPs on Innovasea receivers

We write this letter with a specific request on behalf of all undersigned institutes.
First, we would like to thank Innovasea and all its employees for their support over the years. We are immensely grateful for your assistance in scientific research studies; from development and production of hardware to sound advice on study design and field support that Innovasea offers to its customers. Consequently, these services have resulted in substantial investments of at least €2.5 M in Innovasea technology by the institutions endorsing this letter, and many other European institutions have also invested substantially in Innovasea products. Indeed, hundreds of receivers and thousands of tags have been purchased to advance the scientific knowledge and understanding of fish movement ecology in the North Sea region and adjacent rivers. The knowledge gained has contributed to fisheries management, policy advice and knowledge dissemination to the general public.

In the coming years, many further investments in acoustic telemetry equipment are planned. At present, we estimated an investment of another €1.5-2 M the coming 2 years. As the receiver networks in Europe keep growing and the number of tagged fish at liberty increases year after year, there is an urgent need for interoperability of equipment. Furthermore, the way fish telemetry research is performed in Europe is changing. In the past, individual researchers/research groups typically tagged small numbers of fish and tracked their movements relatively locally. The recently erected European Telemetry Network moved the community to an international context with researchers collaborating across borders to achieve common research goals, deliver state-of-the-art science and manage fish populations at appropriate spatial scales. This already led to the discovery of new large-scale migration routes. Obviously, the European Tracking Network has the potential to reveal more such unknown movement patterns in the near future.

As such, we require a compatible system that allows for flexibility to operate tags and equipment. It is our hope that we can continue to purchase Innovasea equipment to deliver this vision of fish telemetry research in the future, however, our vendor choice for the planned investments will largely depend on equipment interoperability.

The Open Protocol, with OPi and OPs (see https://www.lotek.com/acoustic-open-protocol/ https://www.thelmabiotel.com/open-protocols-for-acoustic-telemetry/), fulfills this need and we therefore kindly request Innovasea to support these protocols by incorporating them to the Innovasea receivers. Both on new receivers as on already purchased receivers at 69 kHz.

During recent discussions with ETN, Innovasea were provided all necessary information to assess the impact of OP on existing protocols. Therefore, we expect an answer from Innovasea within one month after the signature date of this letter stating whether or not Innovasea will adopt OP on their (new and purchased) receivers. In addition, we want a timeline of when this will be implemented (if adopted).

This letter is set up by collaborating researchers from The Netherlands, United Kingdom, Belgium, France, and colleagues from other European countries within the European Tracking Network (ETN). Our fish

migrate within the freshwater systems and Northeast Atlantic and we intend to build a strong acoustic telemetry network. We want to stress that the request is supported by researchers in this field from all over the world as interoperability will undoubtedly increase the detectability of tagged animals on large spatial scales.
We believe that it is up to the manufacturers to work in close proximity with each other to achieve agreements on transmission protocols and guarantee compatibility.

We look forward to your answer and you can always contact me for a more in-depth discussion on the topic.

Yours sincerely,
Jan Reubens, Chair of COST-ETN and responsible of the Belgian Acoustic receiver network on behalf of researchers from:

- Ghent University- Marine Biology department
- Ifremer
- Research Institute for Nature and Forest
- SportVisserij Nederland
- University of Hull
- University of Plymouth
- Applied Sciences University Van Hall Larenstein
- Vlaams Instituut voor de Zee
- Wageningen Marine Research
- Flanders Research Institute for Agriculture, Fisheries and Food

Contact point:
Jan Reubens
jan.reubens@vliz.be
+32 486 148035

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