



**Dafydd Morris' speaking notes  
for the Lunch Debate of the Kangaroo Group  
European Parliament in Strasbourg – 19 October 2022:**

***“Towards a Green Future for the EU Aquaculture”***

*INTRO - About me commentary*

*From Wales originally and recently relocated to Scotland having been in Norway for the past 4 years where I have been the General Manager for MSD AH Norway and the Aqua Lead for Europe. I've been with MSD AH since 2009 in a range of positions in a number of countries. I have a scientific background and have had a number of different roles prior to joining MSD such as a Fish Farm Manager, Ran a Shellfish production company, I've worked in human health and I also managed to follow my other passion, Mountains, as I was a climbing guide for a couple of years.*

*Why am I here today, well, I am a passionate believer that Aquaculture has the capacity to meet the ever growing demands of the consumer for a sustainable source of protein.*

*MSD AH is well known for its Biopharma solutions across all livestock species to enhance the well-being of animals. What we are less well known for are our technology based solutions in this sector.*

*Fish welfare, be it in aquaculture, wild fisheries or conservation is what drives us. We have developed egg to plate, or sea to plate solutions bringing together the biopharma and technology platforms to enhance fish welfare through the supply chain.*

*I'd like to take this opportunity today to highlight three such technology based solutions from MSD Animal Health*

*VAKI - Vision systems*

*The DNA Traceback solution from IDENTIGEN and*

*The HyperInfusion oxygen systems for conservation fisheries and aquaculture from BIOMARK*

*VAKI, based on Iceland has been part of the MSD family since 2019. Since then we have been working on innovative camera based solutions for the monitoring of fish sizes, or biomass in sea pen aquaculture. One of the Main challenges for successful fish production is actually knowing what you have in the pen, be it the number of fish or the weight. VAKI has had accurate fish counter systems for many years but biomass has traditionally been estimated from manual counts by taking fish out of the cages, which is stressful on the fish and can be inaccurate, but also takes up a lot of time for the farmers themselves.*

*In November this year we will be launching a high definition camera based solution for the estimation of fish biomass, providing production and health teams with actionable data to*

*ensure the right feeding regimes are implemented and the sales force has an accurate assessment of what will be available to sell to the market. The cameras sit in the pen 24 hours a day 365 days a year constantly monitoring the fish.*

*Optimising efficiencies through the production cycle, reducing feed waste, reducing the cost of production and enabling on going fish welfare monitoring.*

*Next I'd like to talk about Traceability solutions -*

*Traceability can play a vital role in validating the industry's sustainability claims and benefitting the entire supply chain and inspiring consumer confidence.*

*The DNA Traceback Fisheries and aquaculture platform from IDENTIGEN utilises species unique DNA and data analytics to provide an evidence based traceability solution: DNA Traceback has been used across the beef, pork and poultry sectors for many years and there is increasing interest in utilising this technology for seafood, from both wild capture fisheries and aquaculture. We have successfully launched the program in the Asian shrimp market and this year we launched the Wild fisheries solution enabling decision makers and regulators to enhance management of wild fish stocks.*

*Finally let's talk fish conservation*

*As I said earlier we have also diversified into fish conservation across Europe through our brand BIOMARK. We have dedicated teams based in Belgium, Italy and the Nordics.*

*We have developed a unique fish passage solution that enhances the movement of fish through fish ladders or passages at obstacles or dams. Now BIOMARK has for many years now been the global leader in fish monitoring systems, enabling fishery managers to monitor fish movements up and down river systems. We now have a technology solution to not only monitor fish populations but also to enhance their journey.*

*The technology, branded HyperInfusion delivers stable oxygen to efficiently and effectively attract fish to passage facilities. Optimised env conditions increase fish tolerance to extreme temps, reduces stress and improves the fishes capacity to navigate the passage systems.*

*I don't want to get too bogged down in the science but essentially we are stripping out nitrogen and trace gases and replacing them with Dissolved oxygen.*

*The system has also been shown to reduce the need to divert water out of turbines for attraction flow to support sustainable hydropower.*

*I will be with the BIOMARK team next week visiting existing installation and getting feedback from the users as we seek to expand the introduction of this novel Technology across Europe.*

*Thank you for your time and I would be happy take any questions.*