Parasites are an important component of the marine biota. Many taxa have been described associated to significant disease outbreaks in cultured populations, or as an important etiological agent impairing the well-being and marketability of wild exploited fish populations. They are also responsible of emergent fish-borne zoonoses and allergic processes. In spite of their importance, marine parasites are probably the least known group of organisms as tags in technological developments, mainly due to the scientific concern that parasites are so well adapted to the marine ecosystem that they are apparently out of any human control management plan in wild populations. For that reason, in 2006 we created a technological consortium financed by the PGIDIT Programme (Xunta de Galicia-05RMA00702CT), with the aim to introduce a contra-epizootic parasite measure onboard during the gutting and discarding operations in the vessel fleet. The working hypothesis was to reduce the epizootiological values of parasite infections inhabiting fishing grounds by diminishing the recruitment of parasites to host populations once the whole visceral mass is treated by electromagnetic radiation emitted by TEDEPAD-Ship. The technical accurability, ecosystem-health improving and usefulness for fishing industry of TEDEPAD-Ship is exemplified on the important marine macroparasites belonging to Anisakidae.

CONCLUSION: Under controllable TEDEPAD treatment of offals from fisheries discards all anisakids dead. The highly ordered, multilayered parasite cuticle is broken and their proteins denatured with a 100% efficiency. Thus, this technological device can contributes to reduce the economic and public health impacts of fish parasites at the marine ecosystem level. As an example, only considering the Spanish fleet operating in the Gran Sole it has been estimated that TEDEPAD-Ship can reduce the recruitment of over 120 million anisakid larvae per fishing survey. This development could become the basis of a commercial system for fishing fleet overseas.