AQUAculture infrastructures
for EXCELlence in European
fish research 3.0

# No more tags: a novel method to identify fish by using their scale patterns

Innovation Forum "From Policy to Solutions"
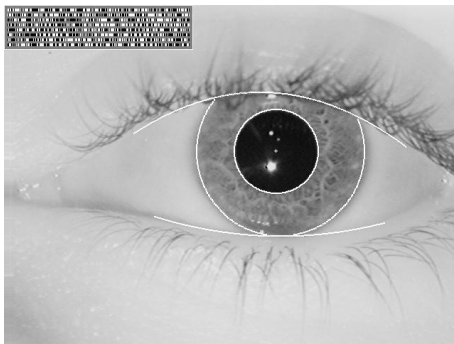
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KNOWLEDGE NEED
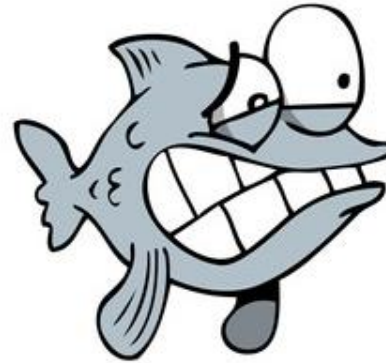
Stressful & traumatic for the fish; time consuming; prone to injuries and death, etc.


Human identification

Animal identification

➢ **Need**: to extend non-invasive identification methods to fish species without obvious skin patterns (e.g. European seabass *Dicentrarchus labrax*)

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SOLUTION (RESULT)

Photo identification was found to be a possible substitute for commonly used invasive fish tagging identification methods, **with 100% accuracy for both sea bass and carp,** as examples of fish species <u>without obvious skin patterns</u>

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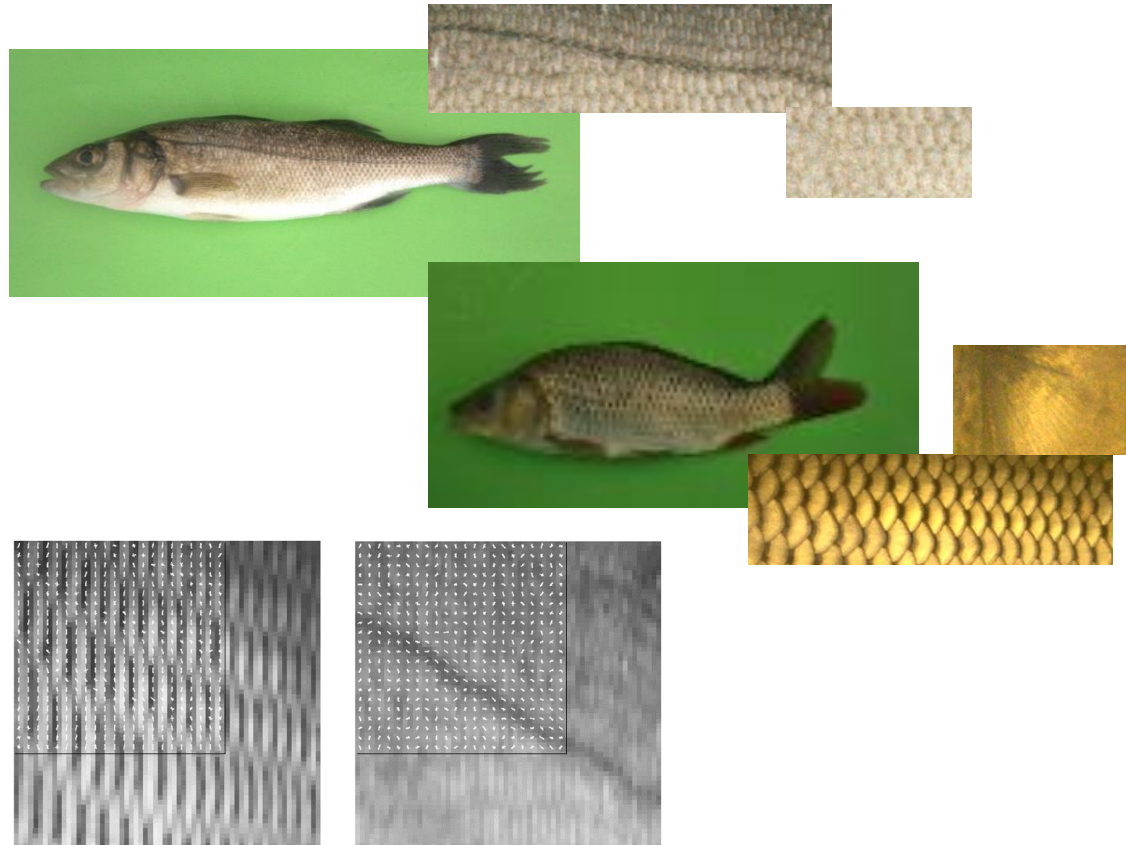
TARGET MARKET

Technology companies

E.g. photo & monitoring equipment industry could potentially take up the results to **develop commercial scale professional equipment that can be used to monitor fish non-invasively**

Fish farmers

E.g. fish farmers could use it for **automatized fish identification** working inside the tank/cage which will enable **to study fish behaviour or appearance changes** of the individual fish.

Enabling traceability through the whole life cycle without the usage of any tags

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IMPACT

- Precision fish farming concept
  - Individualized information about
  - fish state/growth

- Fish welfare monitoring
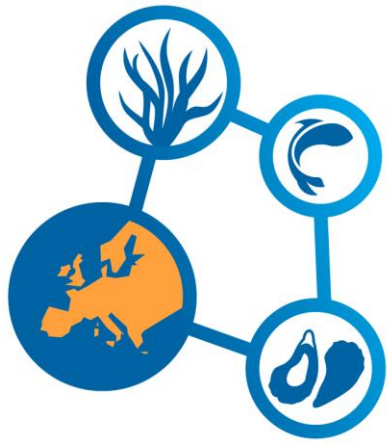 - Individualized analysis of swimming activity
  - Deformities

- Disease early detection
  - Disease signs detection
  - Individual disease evolution

All together: increased benefit to the farmers

Control feeding

Automatic fish sorting

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Thank you for your attention

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