

Automatic system for quantification and classification

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 @Sostenibilidad



This project has received funding from the European Union's Horizon 2020 Framework Programme for Research and Innovation under grant agreement no. 633680



Quality of UUC needed for valorisation

⇒ Increase onboard handling

- ✓ Bulk Landing
- ✓ Custom Office
- ✓ Use of automatic systems

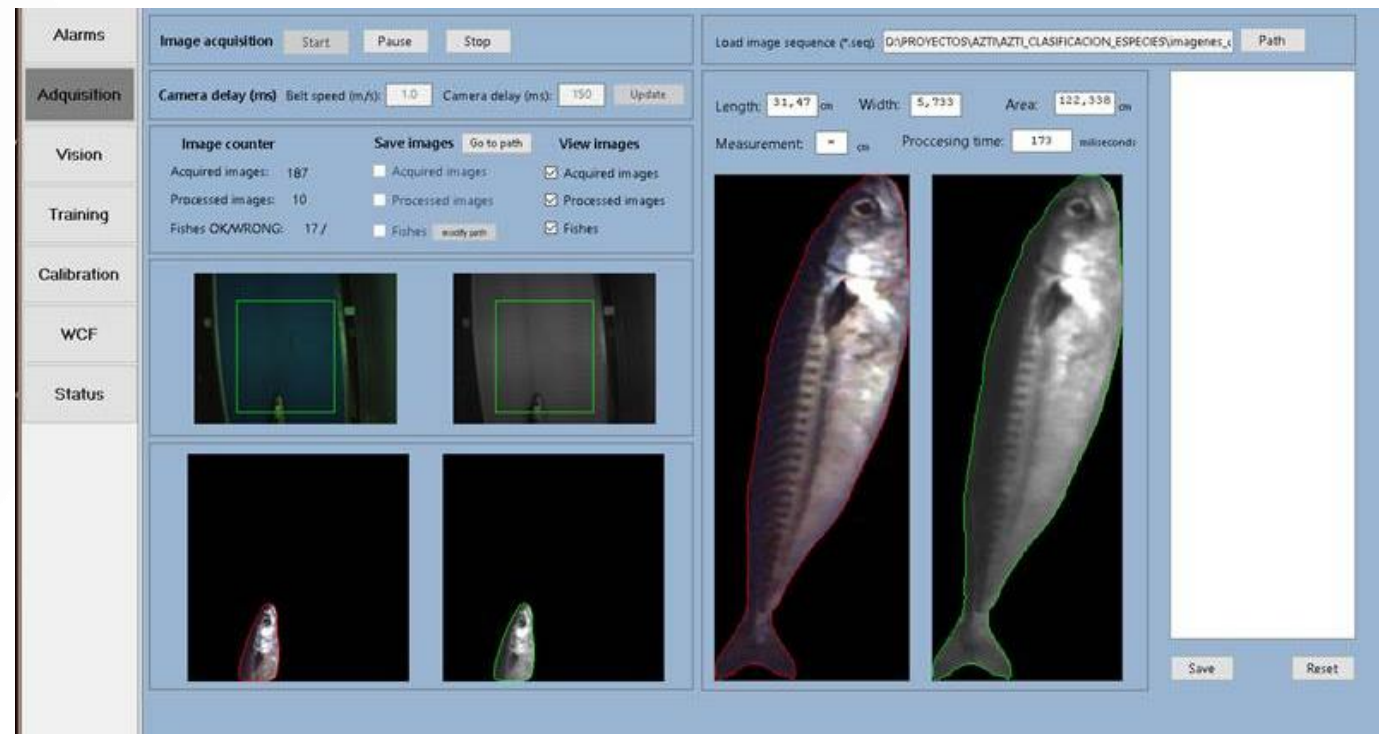
⇒ Real time on-line classification and quantification system by means of computer vision

Automatic Classification System

Real time on-line classification and quantification system

The online classification system consists of:

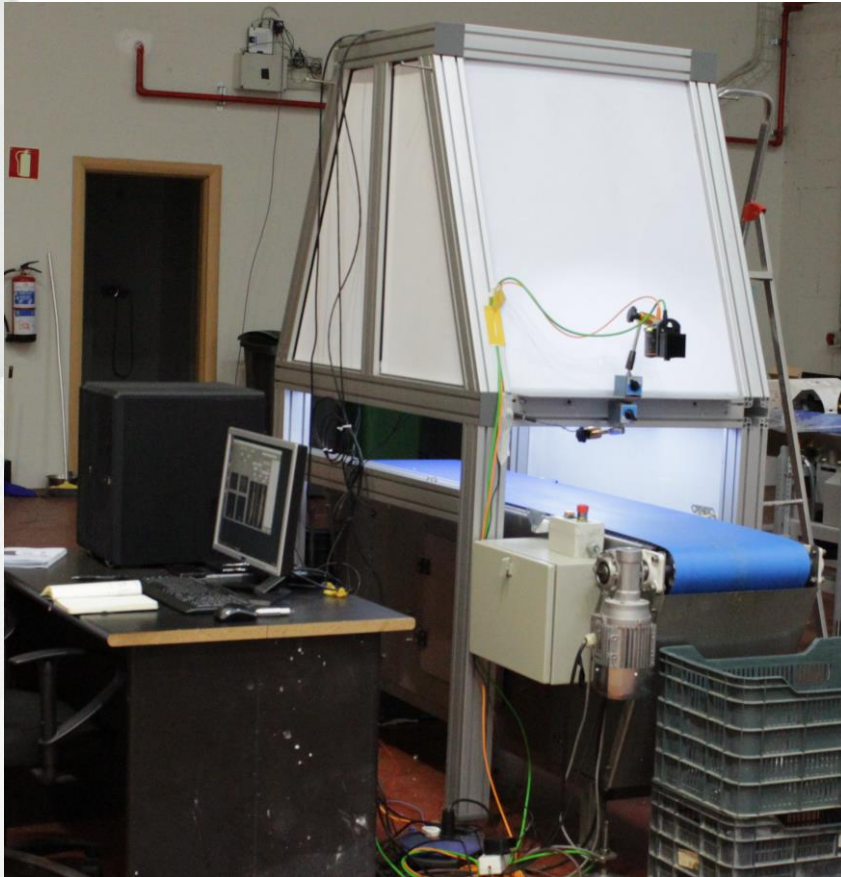
- Blue conveyor belt
- Illumination
- Camera
- Computer hardware
- Image capture board
- Software



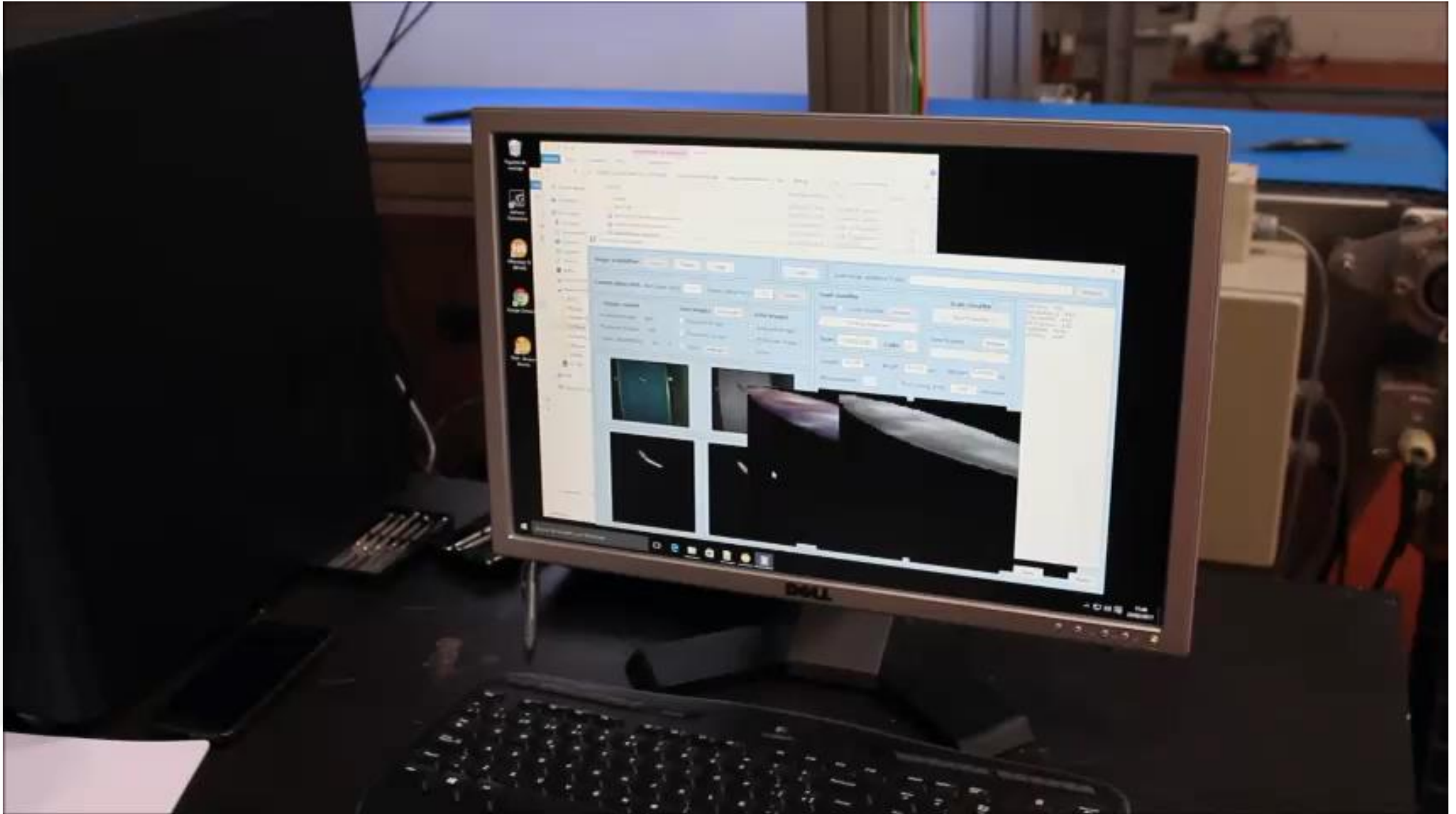
The system identify the specie and calculate the weight.

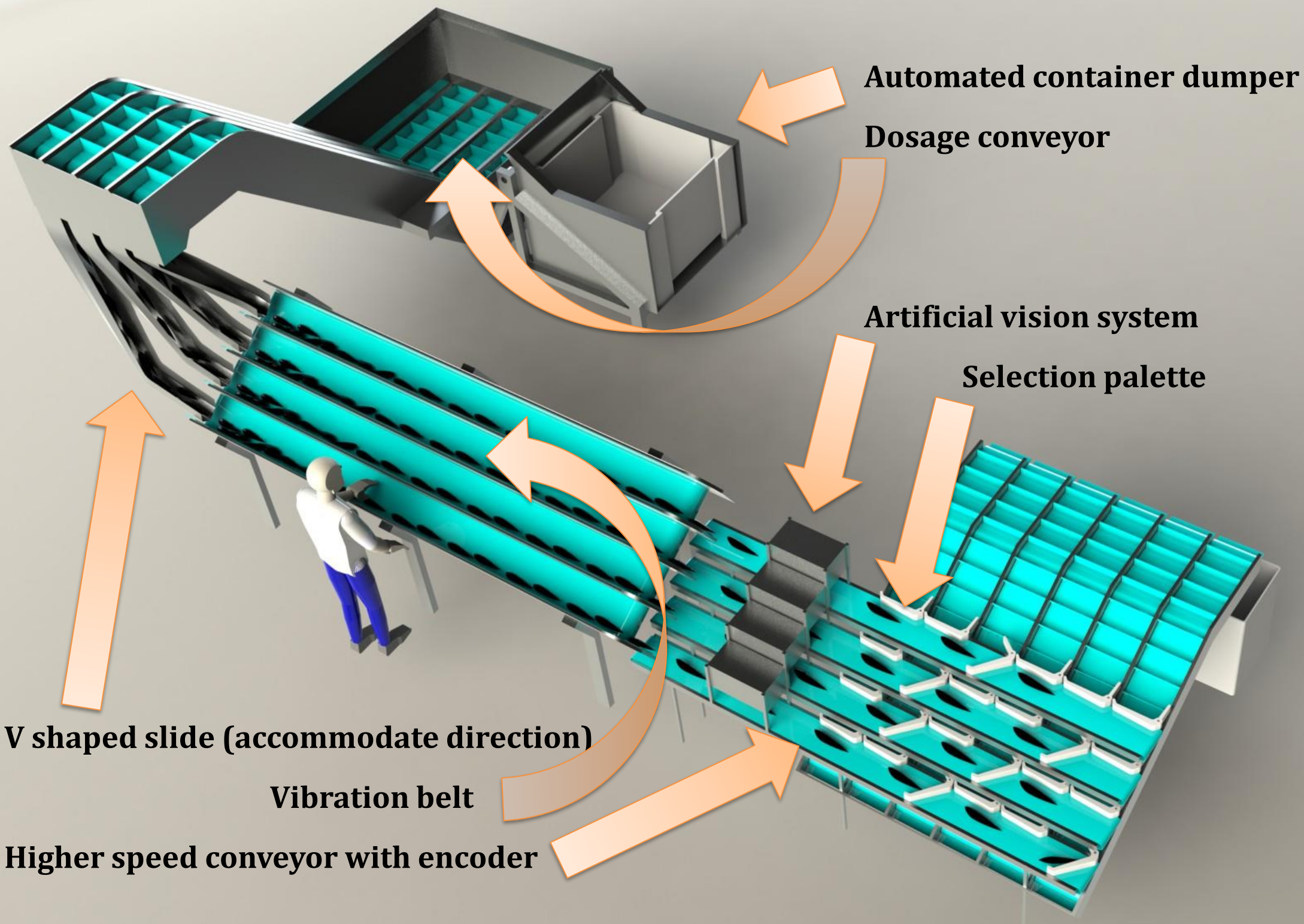
Automatic Classification System

Real time on-line classification and quantification system



Automatic Classification System





Automated container dumper

Dosage conveyor

Artificial vision system

Selection palette

V shaped slide (accommodate direction)

Vibration belt

Higher speed conveyor with encoder

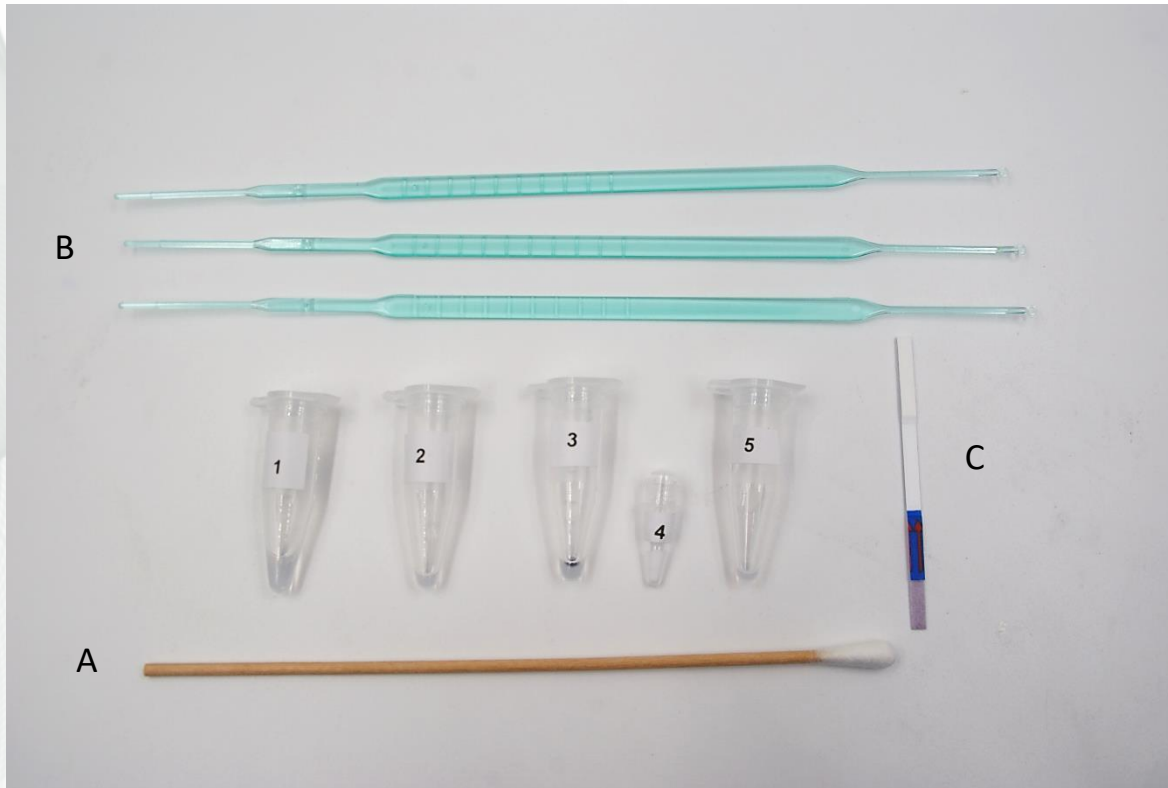
Automatic Classification System

Real time on-line classification and quantification system

Up to 60 kg/min per lane

- ✓ Bulk Landing => mixed storage on board not allowed
 - Custom Office
 - Use of automatic systems
-
- ✓ Instalation of automatic classification and quantification systems on board?
Automatic classification on board not allowed.

Lateral Flow format



- (A) cotton swab
- (B) plastic pipettes
- (C) lateral flow strip
- (Tube 1) DNA isolation buffer
- (Tube 2) Dilution buffer
- (Tube 3 &4) RPA reactives
- (Tube 5) Development buffer



Atlantic cod



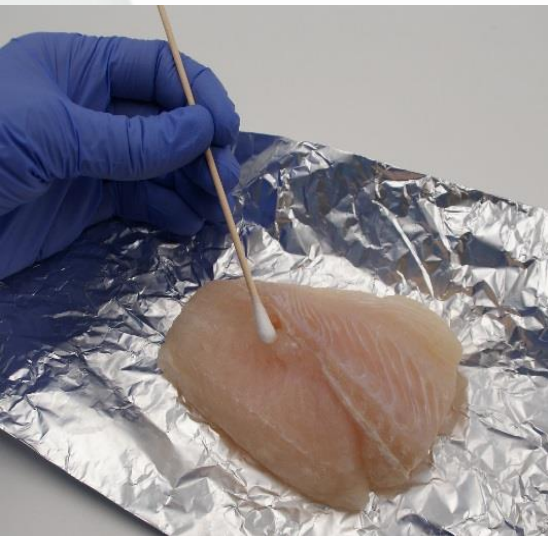
European Hake

- Kit developed for Atlantic cod and European hake
- Results within 15 minutes
- Inexpensive, portable and very simple to use
- Could be used anywhere

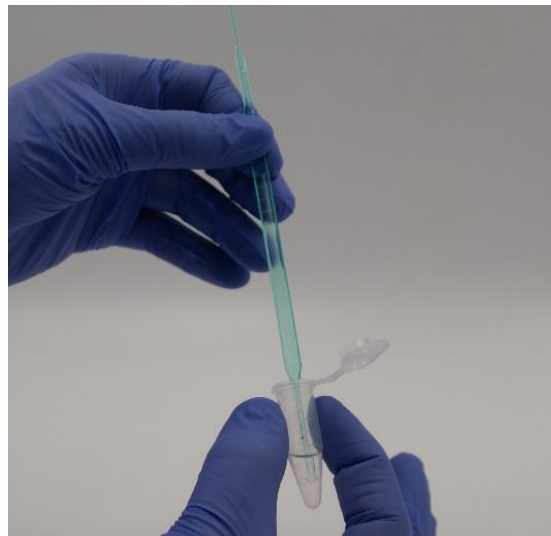
Fast DNA identification Kit

Lateral Flow format

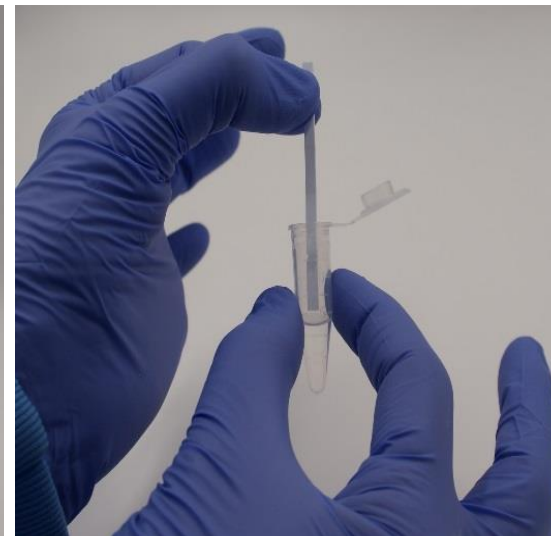
10-15 minutes



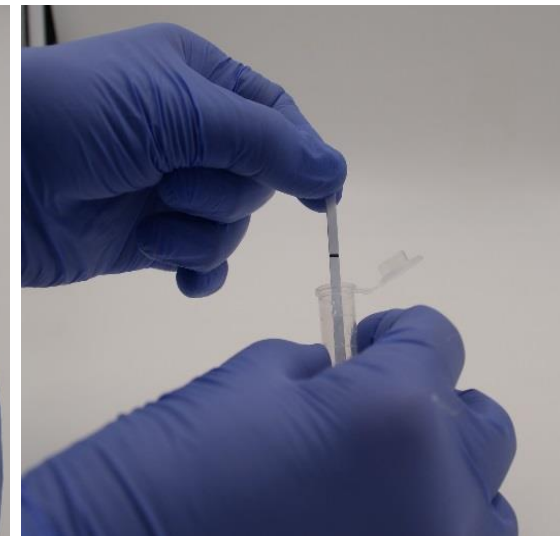
Swab your fish sample and dunk into isolation DNA buffer



Add DNA solution to RPA reaction buffer and heat at 39 °C for 5 minutes



Place reaction mix into development buffer with a dipstick



Wait one minute for line appears showing the result



Atlantic cod



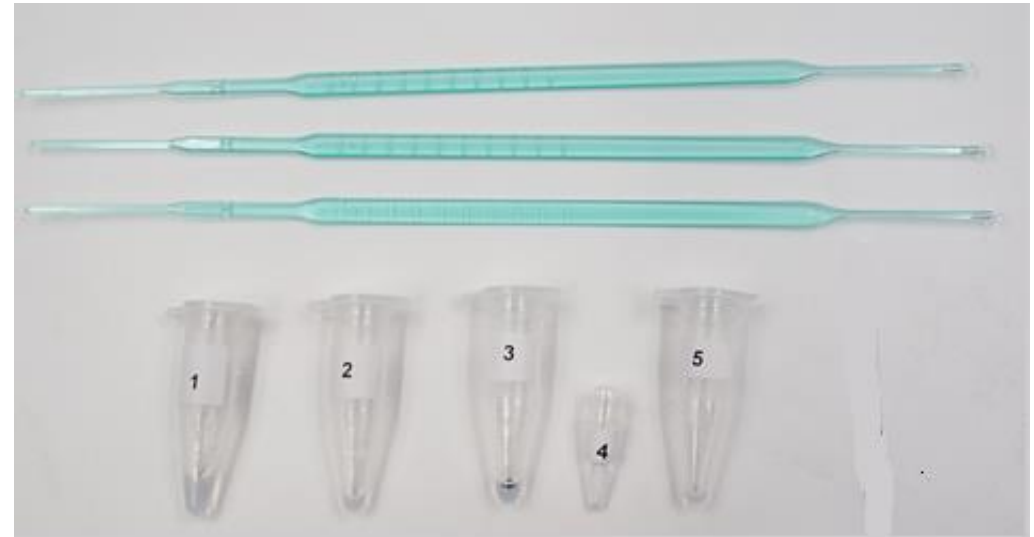
European Hake



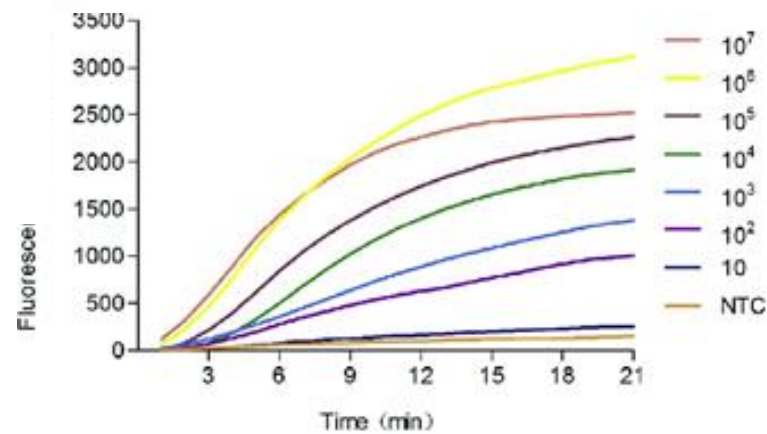
**8 minutes (Speed X 8)
(With a 7 min cut)**

Fast DNA identification Kit

Fluorescent format



Biomeme



Atlantic cod



European Hake

What can we do with unavoidable unwanted catches?

Thank you !!!

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