

AIM

To provide more sustainable animals through the development & uptake of better animal breeding and reproduction approaches



- Meeting point for professionals in animal genetics, genomics, breeding, reproduction
- Exchange Platform
- Cooperation Platform
- Consortia creating Platform
- Dissemination Platform
- Input EU and National Research Programmes

Contact

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FISHBOOST

Dr. Anna Sonesson, coordinator



Hard facts

- FP7-Collaborative Research Project targeted to SMEs- grant agreement No 613611
- February 2014-January 2019
- The contribution of the European Commission is €6 million
- 26 partners- ALL work through collaboration Industry & RTD















NO- 2 RTD 1 IND
FIN- 1 RTD
UK- 1 RTD
NL- 2 RTD 1 IND
CZ- 2 RTD 1 IND
GR- 1 RTD 1 IND
E-1 RTD 2 IND
I- 1 RTD 1 IND
F- 2 RTD 5IND & 1
NGO

Background

- Globally, ~10% of aquaculture production is based on genetically improved stocks
(Gjedrem et al., 2012)
- In Europe, large differences between countries, species etc

Boosting European aquaculture by advancing selective breeding to the next level

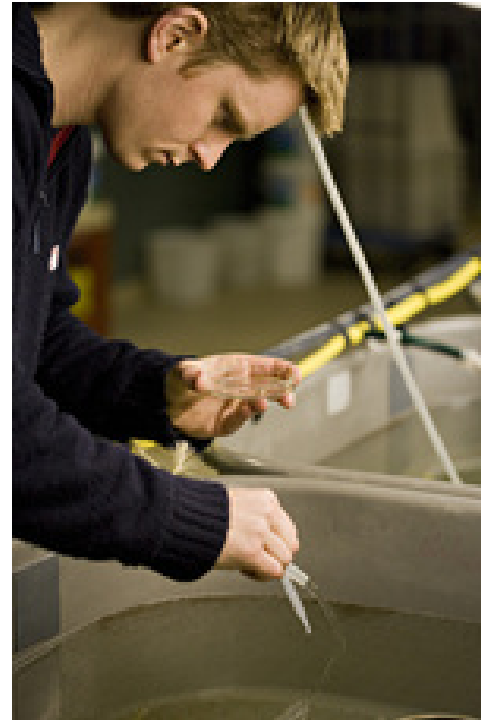
	Level 0	Level 1	Level 2	Level 3
Atlantic salmon				
Rainbow trout				
European seabass				
Gilthead seabream				
Turbot				
C. carp				

What will FISHBOOST do for European aquaculture?



Recording protocols for defining new traits for the breeding goal

- Feed efficiency
- Fillet yield
- Disease
 - Resistance
 - Tolerance
 - Infectivity



Robbert Blonk, IMARES, feed efficiency

Calculate heritability and genetic correlations

- Feed efficiency and fillet yield
 - Indirect measurements
- Winter survival
- Diseases
 - PD (V), KHV ((V), VNN (V), Pasteurella (B), Sparicotyle chrysophrii (P), FP (B), Scuticociliatosis (P)
- G x multiple feed (veg/marine origin)



Develop the genomics field for the six finfish species

- Genomic architecture for disease resistance traits
- Map genes
- Estimate genomic breeding values
- Genotyping by sequencing techniques



Deliver optimised breeding schemes for six finfish species

- Design
- Genetic parameters
- Evaluation methods
- Economic evaluation of traits
- Perception of producers & representative organisations

Courses and seminars

Autumn 2015

- Tool for setting up base populations
- Tool for constraining rates of inbreeding in aquaculture breeding programs
- **Keep informed at www.fishboost.eu**
- **Contact anna.sonesson@nofima.no**

Level 0 No modern breeding programmes.

Level 1 Basic breeding programmes with few traits that are measured directly on selection candidates.

Level 2 Advanced breeding programmes with several traits and routine sib-testing to improve some traits via family selection.

Level 3 Advanced breeding programmes with several traits and routine use of genomic tools to improve accuracy on sib- tested traits.