

Market possibilities for species from recirculation aquaculture

Marco Thorup Frederiksen, Ph.D.
Senior Project Manager
EUROFISH

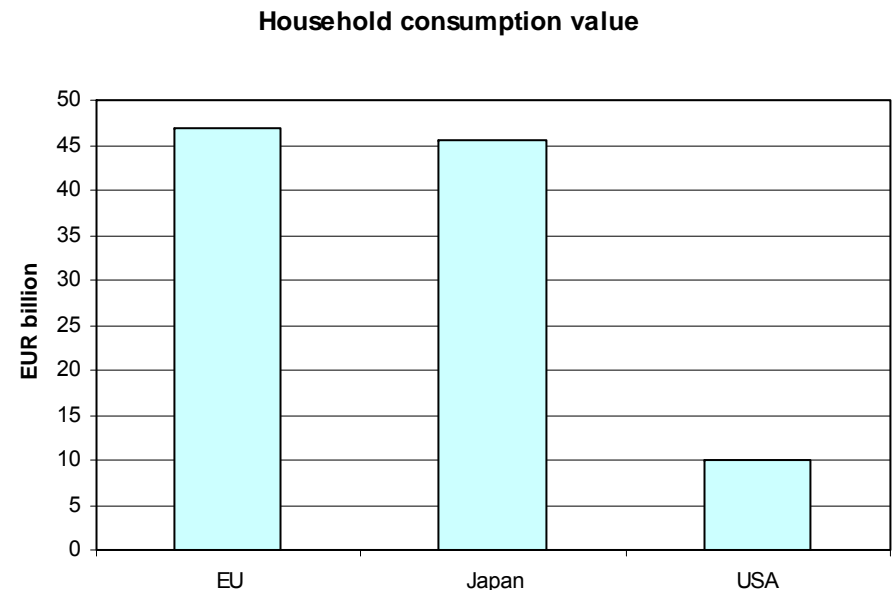
Riga, Latvia, 13 September 2011

Content

- Background on EU market and aquaculture
- Main species and their potential
- Market aspects of recirculation systems
- Conclusions

EU market

- Total aquaculture production in the EU is around 1.3 million tonnes.
- Around 12 million tonnes of fish consumed per year
- First market in value
- More than EUR 45 billion



Source: OECD

EU 27 trade balance evolution

Evolution of EU external trade (sem 1 2011 versus 2010)

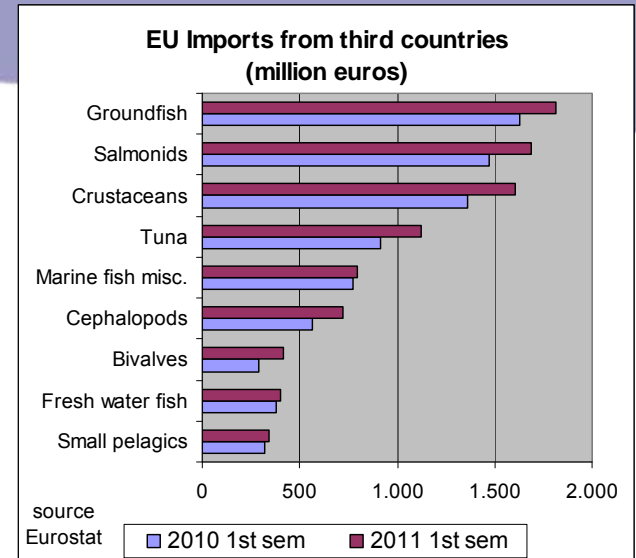
	imports		exports		deficit	
	% volume	% value	% volume	% value	% volume	% value
food use	1,6	15,6	-8,7	14,1	6,5	16,0
non food use	-28,5	-23,9	-21,3	6,1	-32,5	-39,8
total	-2,0	14,1	-10,3	13,5	2,1	14,2

source Eurostat Comext

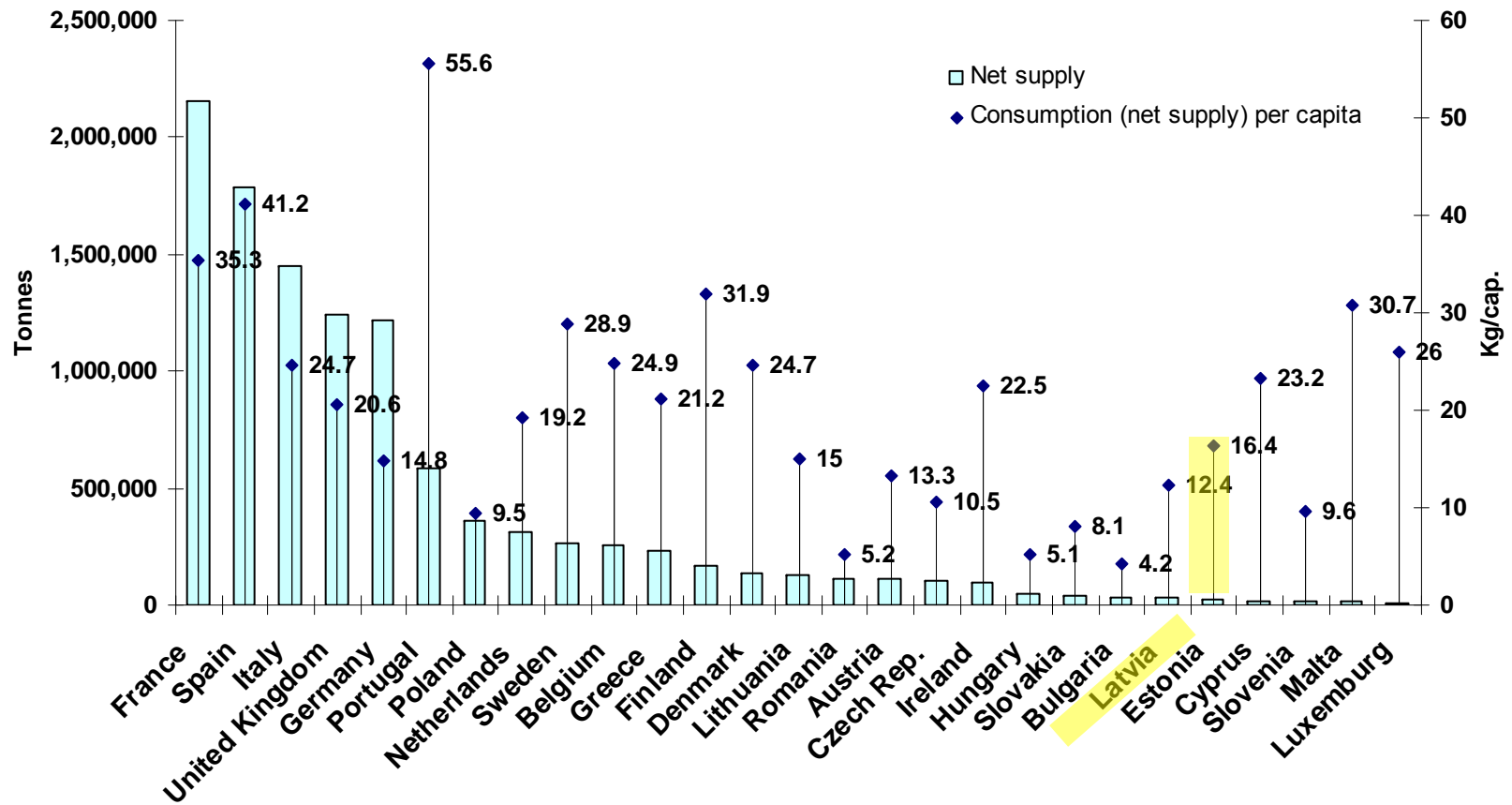
2010 to 2011:

Seafood imports stable in volume, but value increases 16%

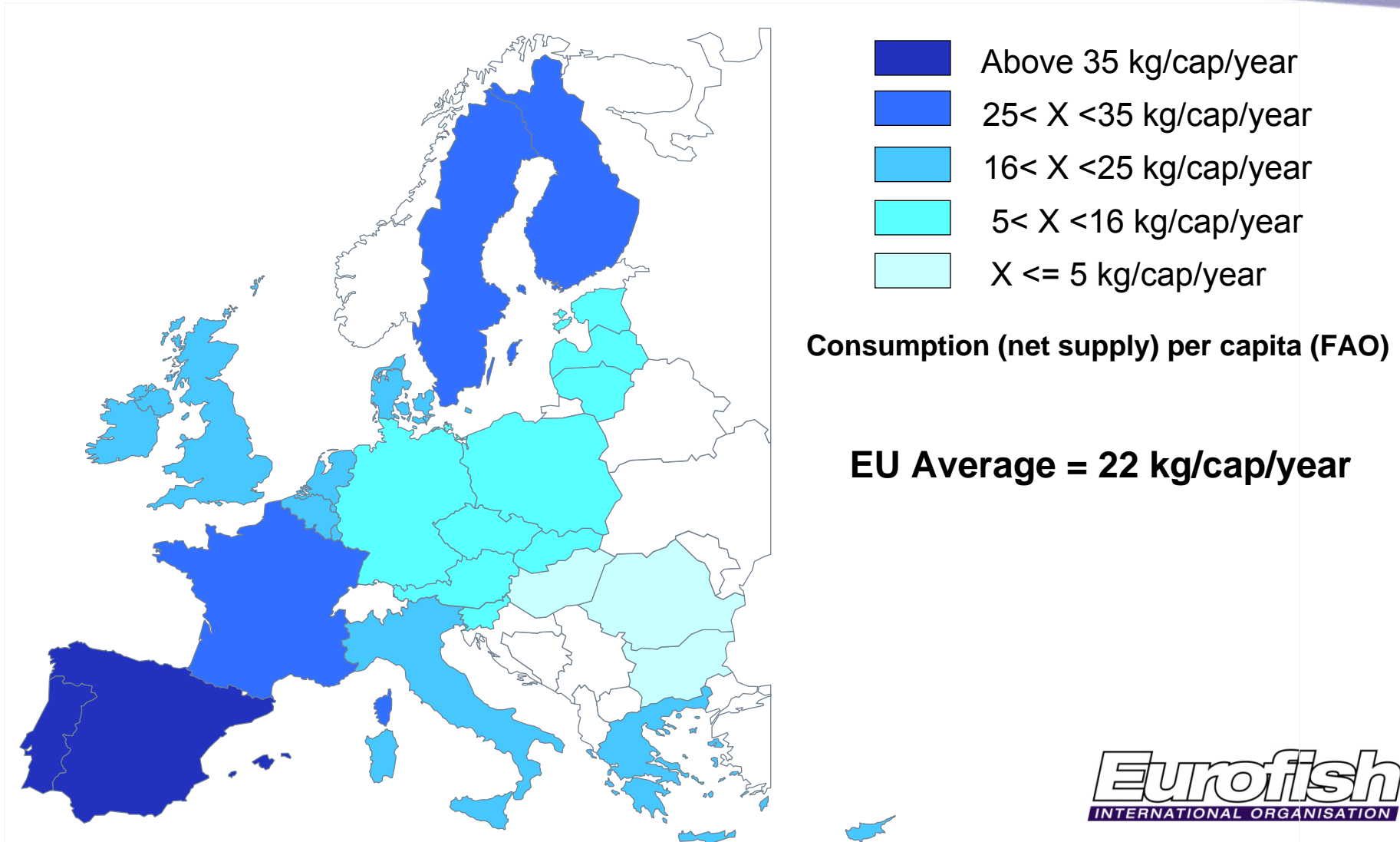
- Seafood exports down 9% in volume, but value increases 14%
- EU demand is stable and prices are increasing



EU market



EU market



Main species and their potential

All species are suitable for recirculation systems

- Reasons for using it:
 - Reduce environmental impact of production
 - Control production environment
 - Less risks for diseases
 - Avoid user conflicts – from tourism, fishing etc.
 - Improving growth rate/food use
 - Reduce manpower per produced ton
 - Farm new species that require
 - Specific environment
 - Environmental conditions not optimal locally

Main species and their potential

- Species in recirculation

Small - fast growing - species

- Rainbow trout (atlantic salmon) – Tough price competition
1000 tonnes “minimum” production...
- Carp – Low value
- Seabass, seabream

- New species

- Flatfishes
 - Turbot, sole,...
- Exotic
 - Tilapia, barramundi, catfish, pangasius...

Traditional species



- Trout
 - Demand
 - Trout (along with salmon) is the most well known fish in EU so benefits from EU wide market
 - BUT
 - Whole trout market on a decline
 - Added value products (smoked fillet) resist better
 - Heavy competition from imported trout from Turkey
 - Many developments towards labelling and sustainability

Traditional species



- Carp
 - Demand declining (strong competition from other species)
 - Consumption market limited to
 - Central and Eastern Europe
 - Festive periods (Xmas, Easter)
 - Need for new products to revive market and expand season
 - Fillets, organic, breaded products, Bones!

Cutting bones – Polish research

<http://www.eurofishmagazine.com/magazine/all-issues/143-em-4-2010>

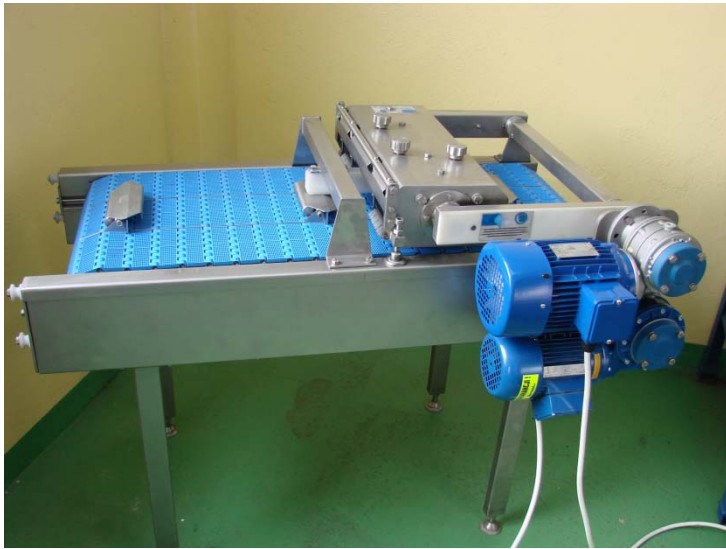


Foto: Andrzej Dowgiałło Ph. D.
Jūras Zivsaimniecības institūts, Gdiņa

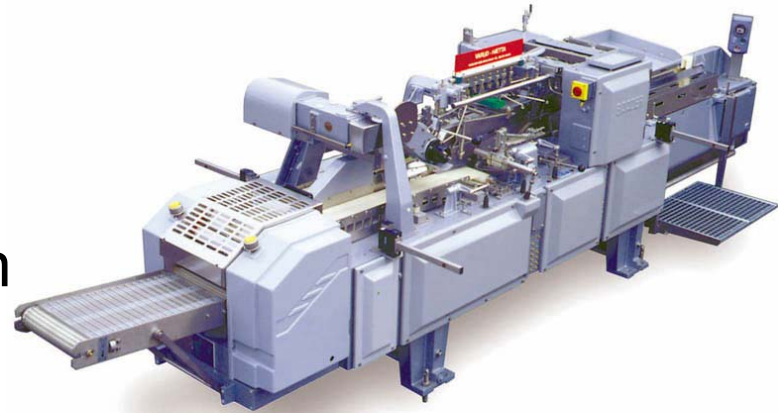


Filleting trials at Baader-Lübeck

- Carp filleting test
 - Baarder is willing to test carp filleting on their machines
 - In case carp can be provided for the factory in Lübeck
 - Contact Eurofish in case of interest
 - ...Baarder machines are costly...

BAADER[®]

Food Processing Machinery



**BAADER 252
Whitefish Filleting
and Skinning
Machine**

Traditional species

- Seabass, seabream

- Demand

- Mostly located in Mediterranean countries
 - Overproduction causes lower prices
 - UK and Germany on the rise but slowly
 - Need for product adaptation (fillets, added value) to enter new markets



New species

- Flatfishes
 - Turbot
 - France, Spain
 - Farmed volumes are limited to around 9 000 t but should be growing
 - Sole
 - Very good demand for wild sole
 - But production problems
 - Trials in NL...

New species

- Exotic

- Tilapia

- US vs EU
 - 170 000t vs 15 000t
 - 2 300 000 tonnes (liveweight) worldwide



- Barramundi

- Still marginal (70 t in NL, 700t in Malaysia, 70 t in Bulgaria)

- Catfishes

- African
 - Hybrids (Clareesse)



- Bluefin tuna? – Australian trials with success

Pangasius phenomenon

- From 0 to 600 000 tonnes imported to EU in around 5 years time
- In the top 5 species consumed in most market



EU farmed substitutes ? (www.claresse.eu – NL)

Market aspects of recirculation systems

- Use the production process as a marketing tool
 - “Sustainability” and “organic” are buzz words
 - Closeness to market
 - Full traceability (in both production and feed)
 - Assurance of safety and quality
 - Reduced risk for fish diseases

Organic/sustainable production?

Many ongoing initiatives for sustainable/organic aquaculture

EU reg 710/2009 on organic aquaculture (in force 1 July 2010)

Social and environmental standards



www.ascworldwide.org

**The first pangasius farm to be ASC certified
in the end of 2011 / start 2012**

Organic Trout (Ireland)



Organic Tilapia (Jordan)



Organic trout roe (Denmark)



Conclusions

- EU has a stable demand for fish products – the market is open for new fish species (Nile perch, tilapia, pangasius...)
- EU natural production sites are becoming saturated
- Concerns about animal health and environmental issues
- Recirculation technologies
 - can help satisfy EU markets hunger for fish
 - can benefit from unique comparative advantages
 - sustainability/organic could be used in the future for higher value market segments?

Thank you for your attention

Contact:

Marco.Frederiksen@eurofish.dk

Tel: +45 333 777 69