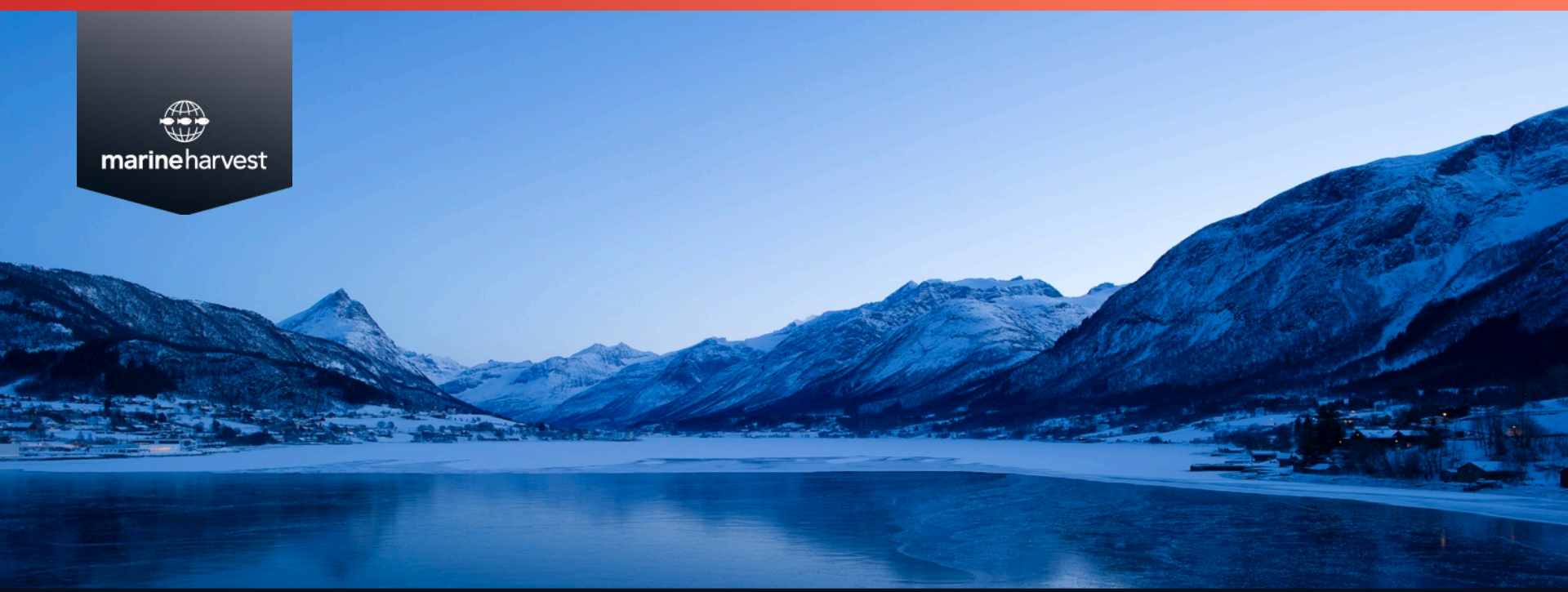


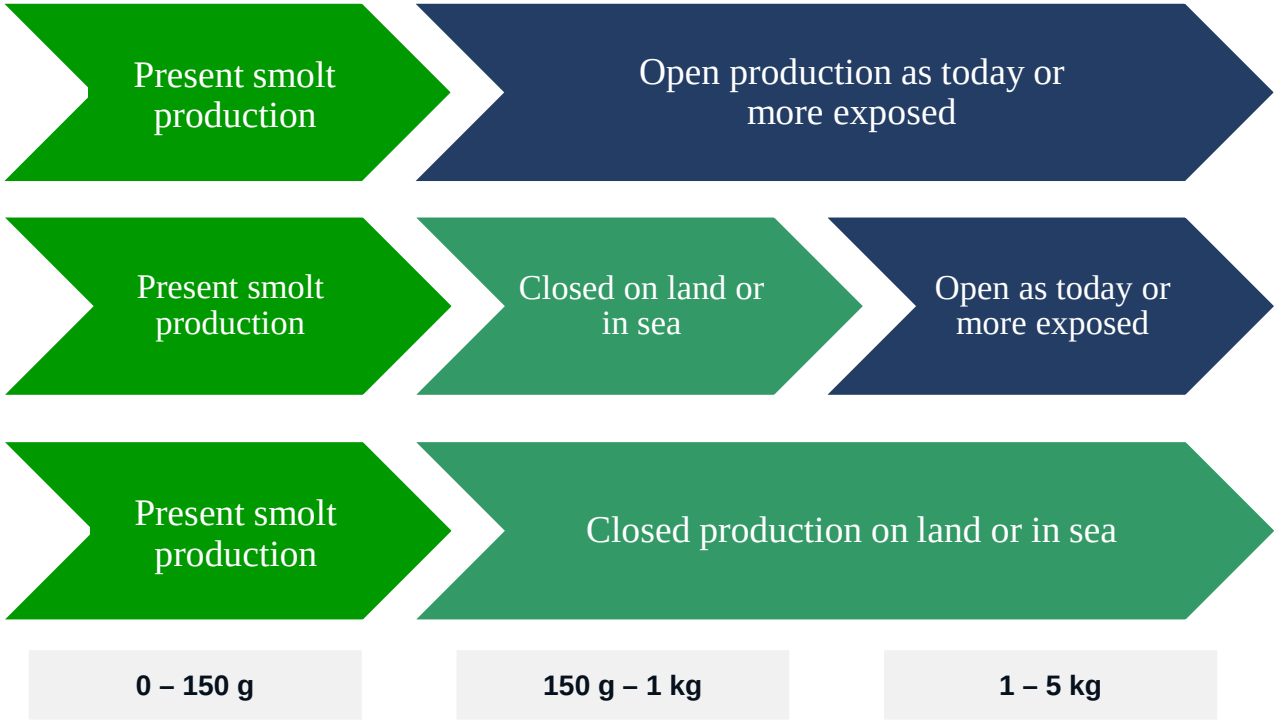
Large Smolts in Salmon Farming

Ragnar Joensen, Group Manager Technology MH ASA

Reykjavik – Nov 25th, 2016

Sjávarútvegsráðstefnan 2016,
Hörpu,
24.-25. nóvember.

New production systems – closed or more exposed?



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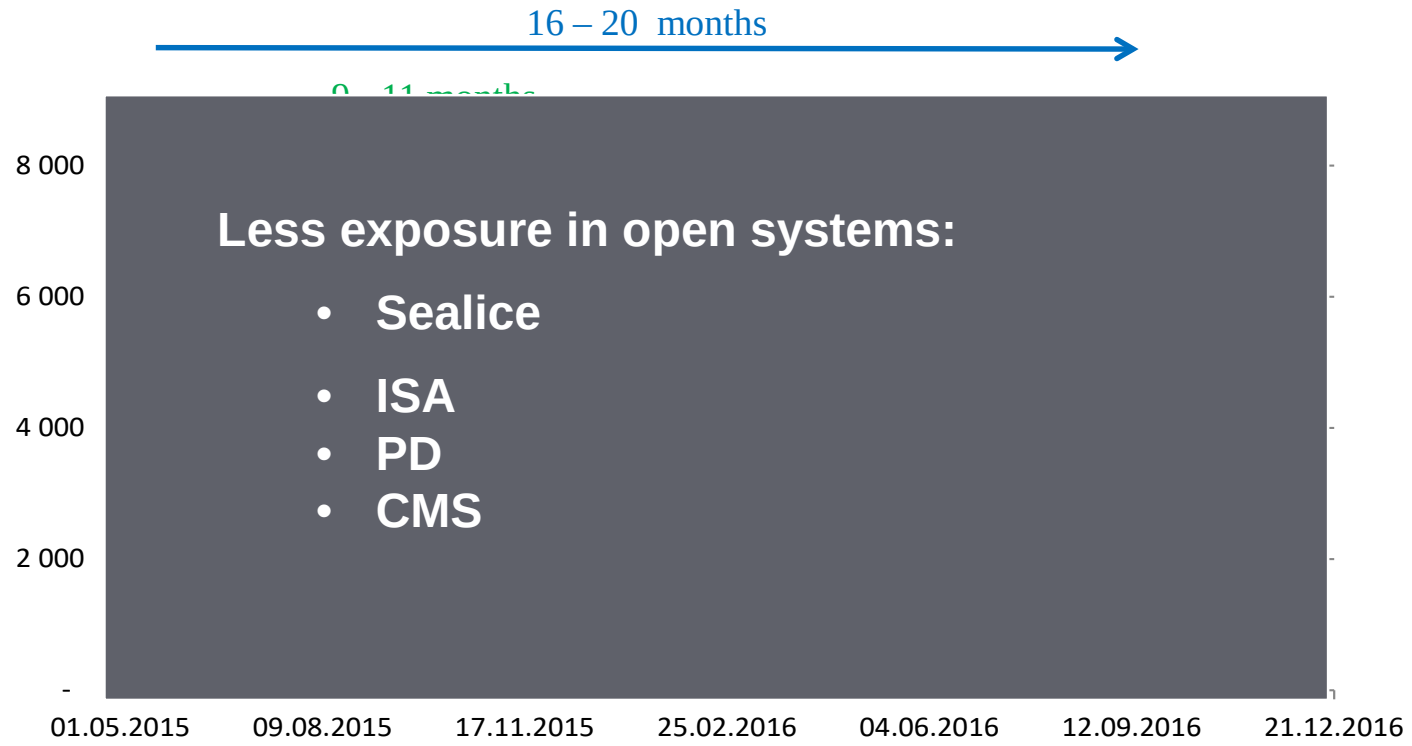
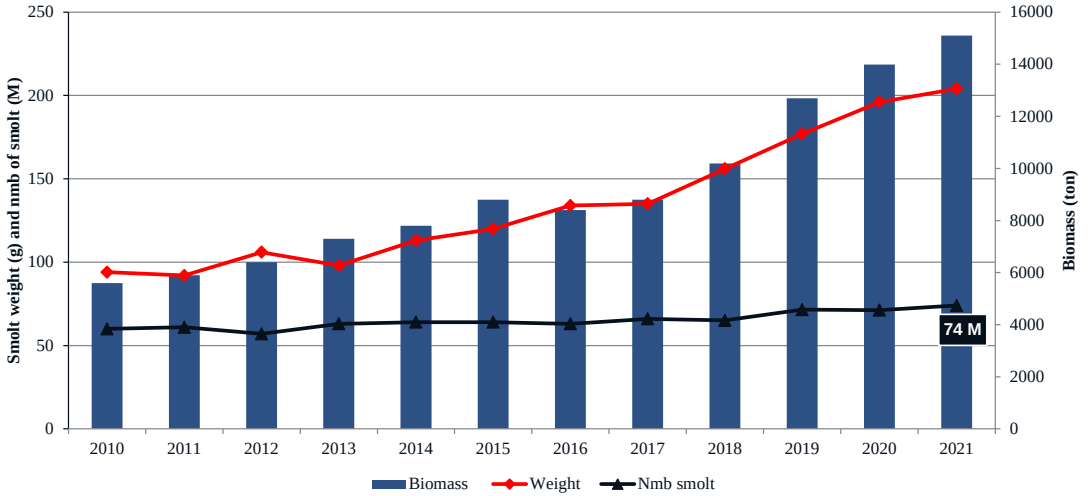
Production time in sea decreases with larger smolts – 1 kg vs 70 g



Closed farming in Marine Harvest

Increased smolt size with RAS systems



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Marine Harvest Norway results with large smolt groups

Heggvika to harvest

Smoltsize (g)	RGI	bFCR
86	99	1,06
88	99	1,09
88	98	1,05
92	95	1,09
143	100	1,06
556	114	1,07

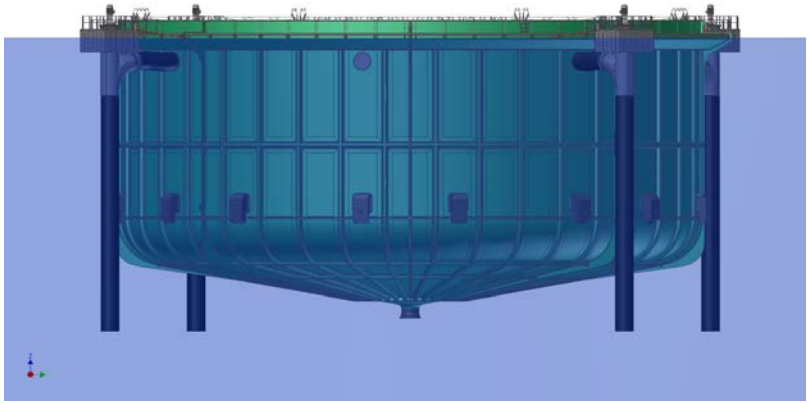
Åkre 90 days

Smoltsize	RGI	Mortality (%)
118	102	1,56
145	97	1,43
147	100	1,44
155	96	1,21
408	122	1,04

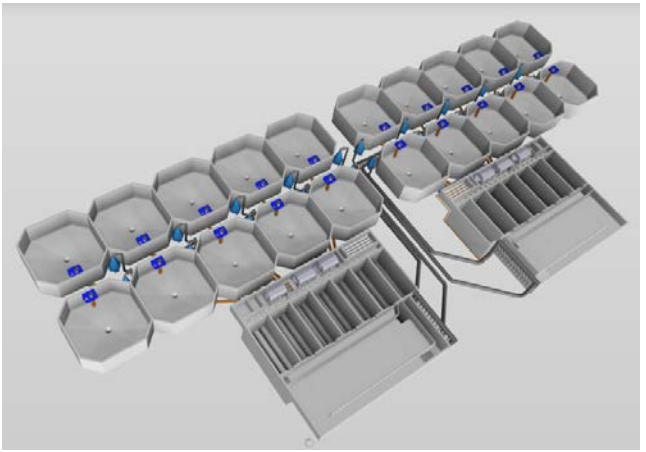
Postsmolt in sea

Floating semi-closed tank at Marine Harvest Norway site “Molnes”

The tank is 21 000 m3, water being pumped in from 30 m depth to prevent sealice and stabilizing temperature



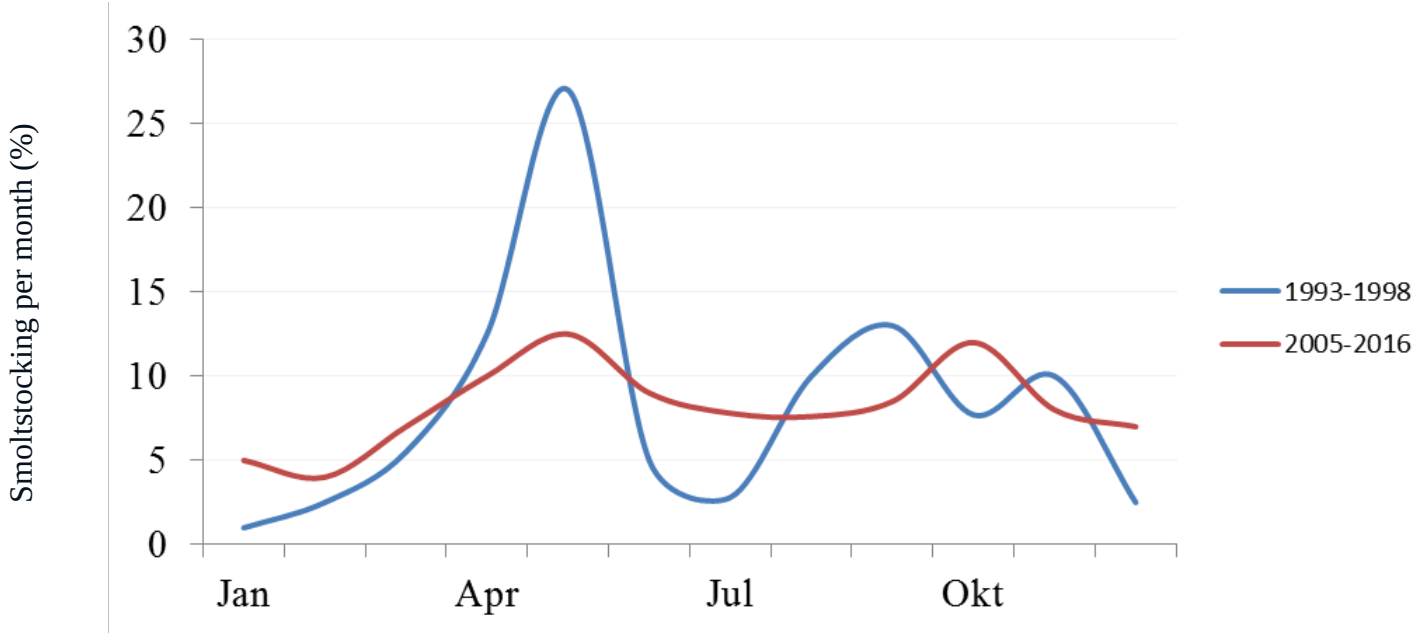
Postsmolt on land - Laxa MH Faroes



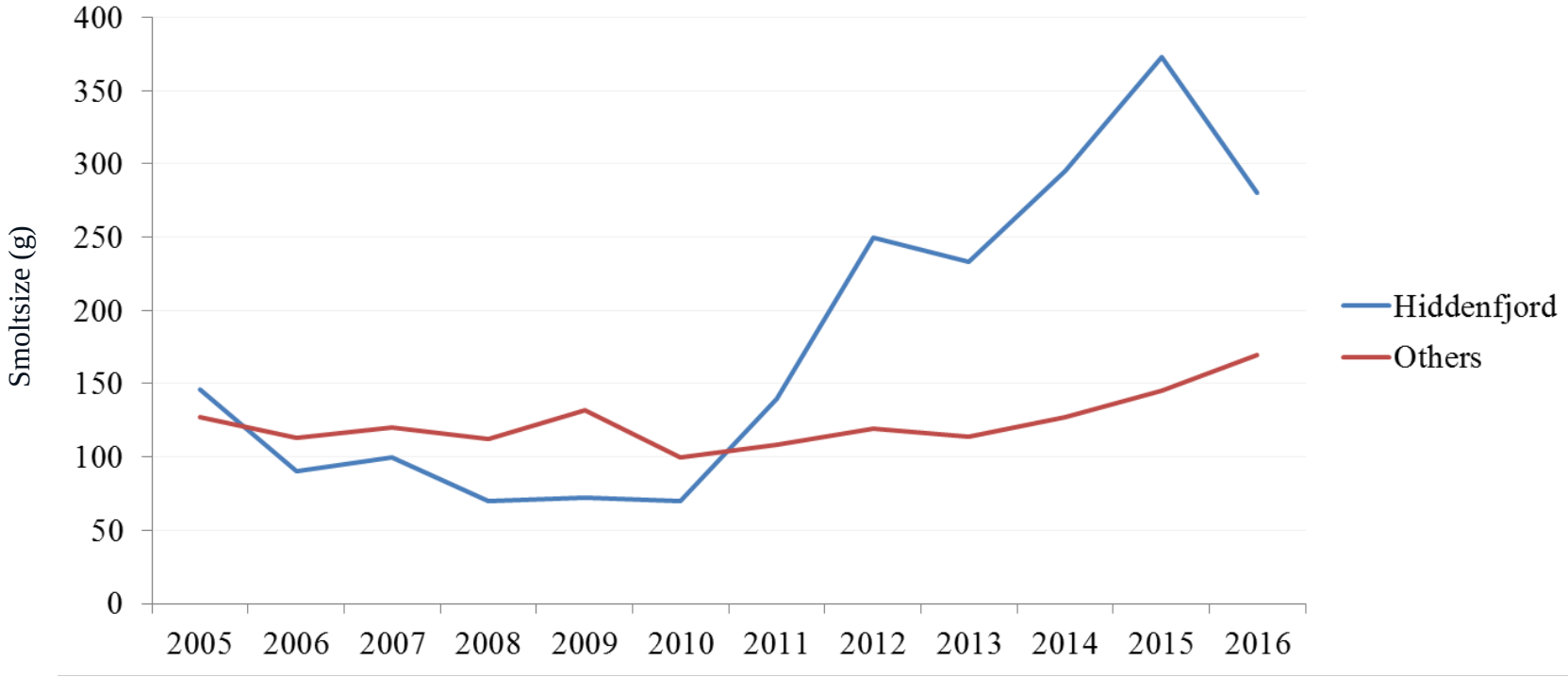
- 2.8 mill fish annually á 650 g
- Shorter production cycle 24 → 18 months
- Same #fish – less exposure time
- 4000 tonnes extra production – EV 25 NOK/kg

Large smolt production in the Faroes

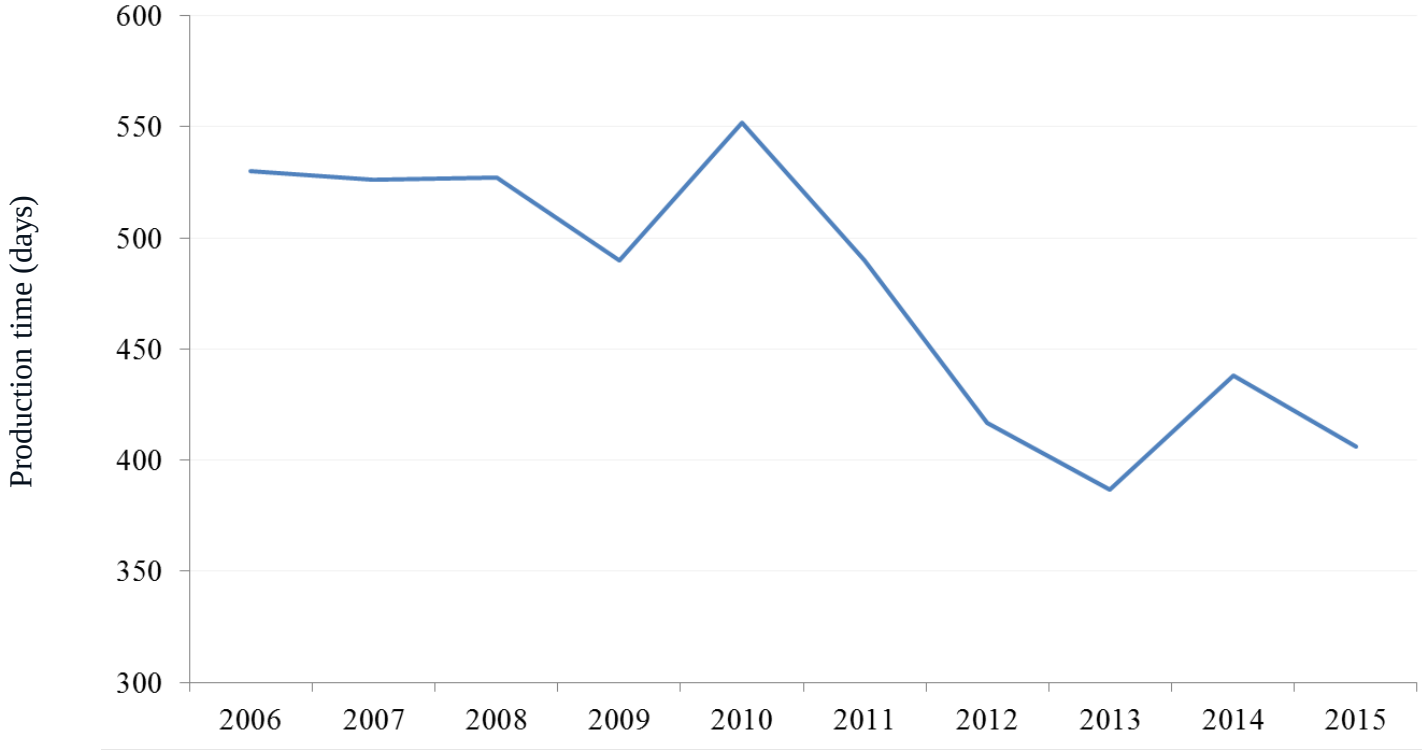
More even smolt stocking through the year



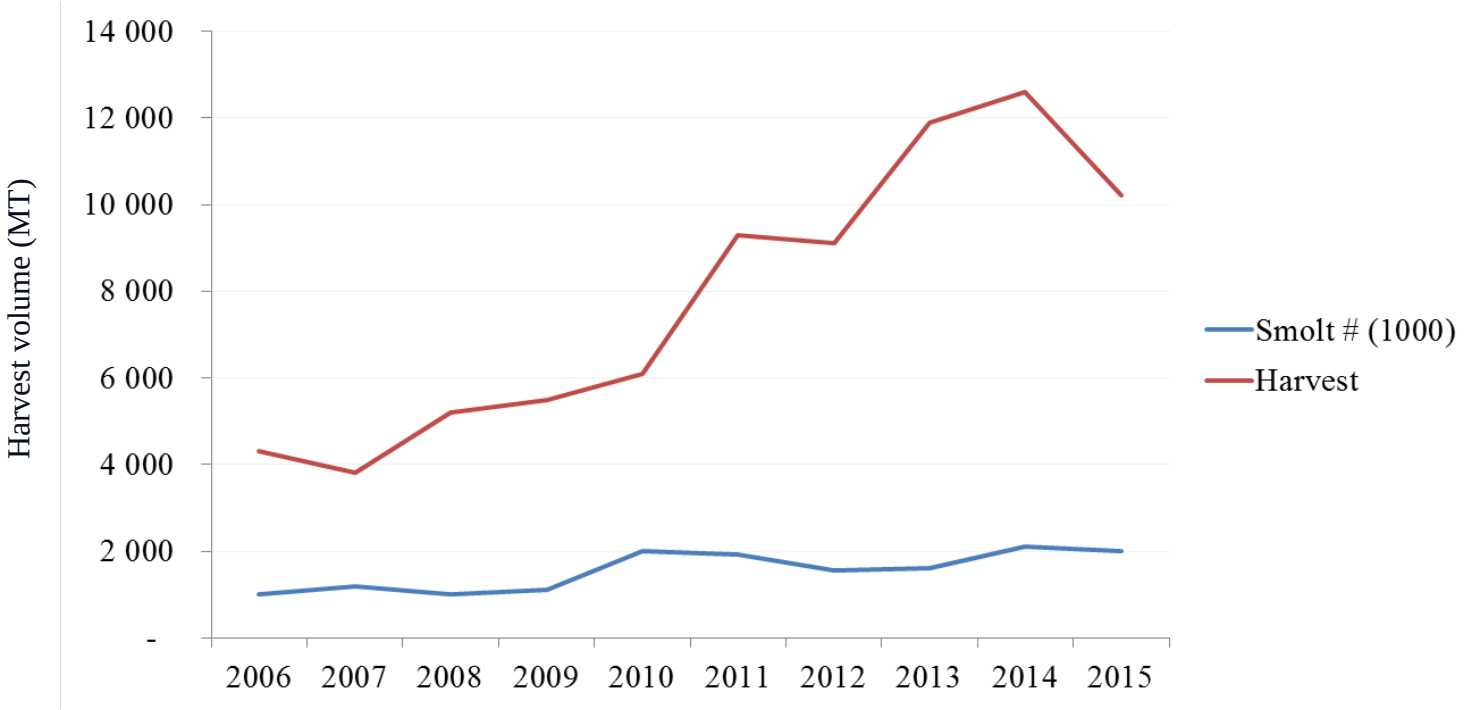
Smoltsize is increasing in Faroes (especially in Hiddenfjord)



Decreased production time to 6 kg gw



Increased harvest volume



Production protocol of large smolts

Production protocol of large smolts

Salinity

- Faroes - only in FW
- Norway - FW and SW

Light regime

- Traditional 12:12 and 24:0 for 6 + 6 weeks
- Newest: 24:0 in RAS and with salinity

Water quality parameters

R&D leading to optimal production protocol

CtrlAQUA

Salmon

Closed-containment systems on land

Research

Semi-closed containment system in sea

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