

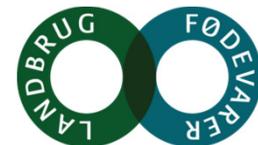


The Danish Pig Industry - quality pays

Claus Fertin, Director, Pig Research Centre



Danish Pig
Research Centre



Quality pays

150-year-old industry based on co-operative model

Business

Society

Ethics



Pig Research Centre



- Financed by Danish pig farmers
- Responsible for research and development programmes and knowledge transfer to the Danish pig industry
- Supporting the development of a responsible and economically sustainable pig industry with highest possible level of welfare and a minimum impact on the environment



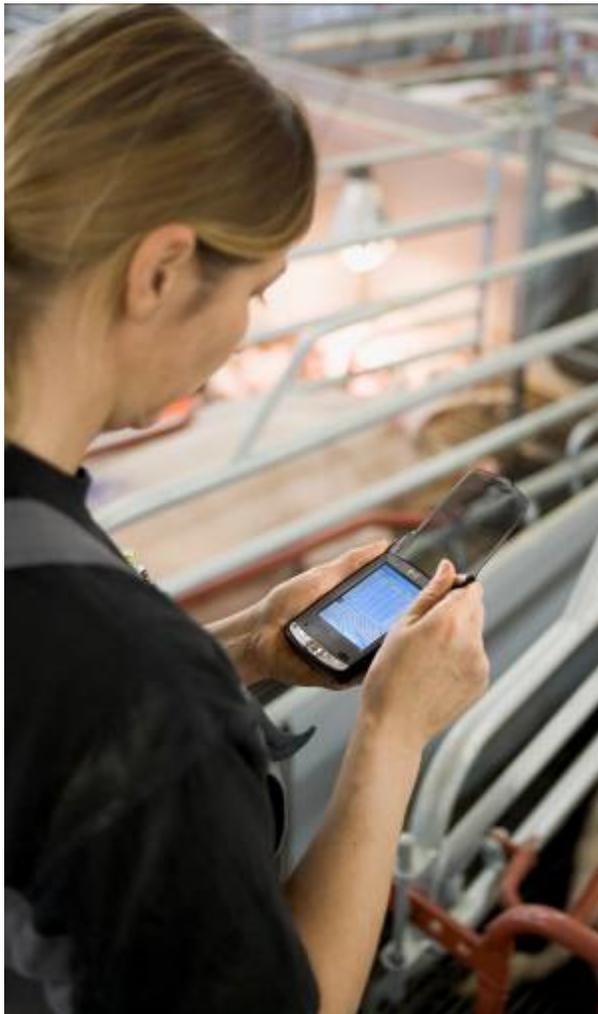
Pig Research Centre

Research, test and demonstration
for 15 million Euro per year

Operating in 200 commercial farms



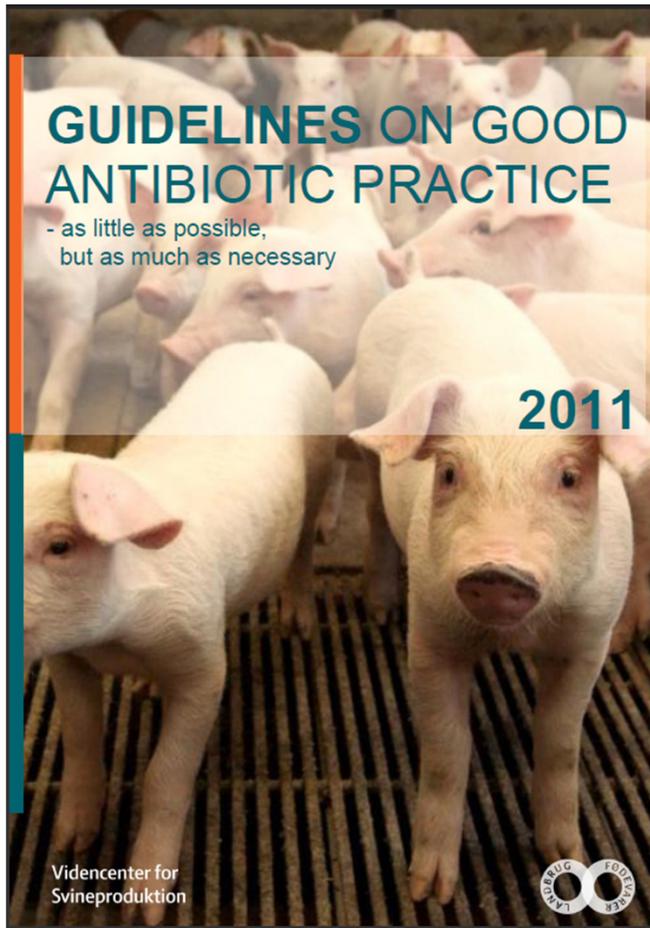
Advisory service



Knowledge
transfer



GUIDELINES



As little as possible, but as much as needed

- **English**
- **Danish**
- **Russian**



Open information



You can find our annual reports here:

- www.pigresearchcentre.dk

Business

Competitive pigproducers



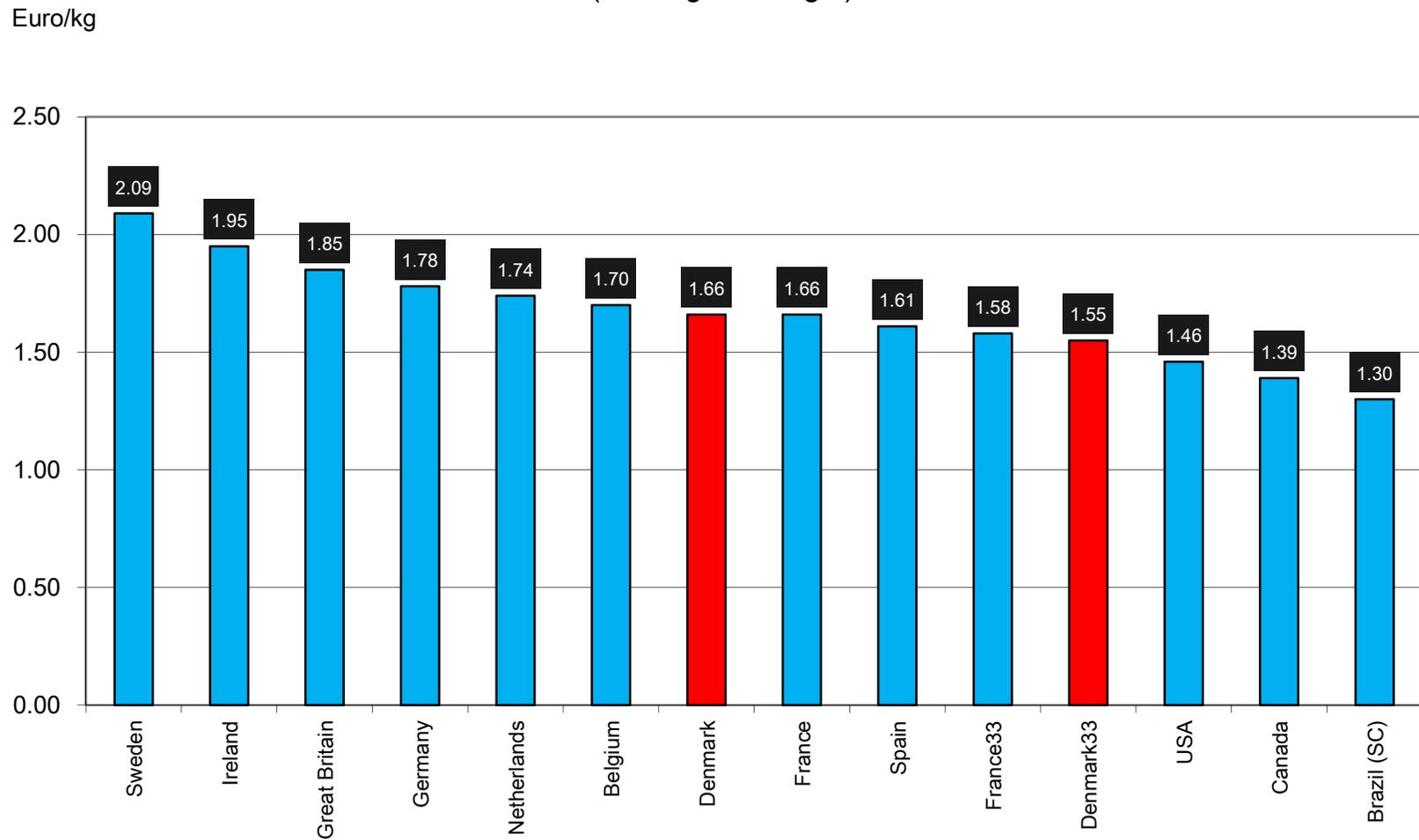
Danish pig production

- 30 million pigs in 2014



- 4.000 pig producers
- 10 million live pigs exported : 60 % to Germany and 30 % to Poland
- New sow units 1.000-2.000 sows
- 95 % of Danish pig meat is exported to 140 countries
- DanAvl genetics has increasing sale worldwide

Total costs (Euro/kg hot weight) 2013



**Beeindruckende
Produktionsergebnisse
über einen Zeitraum von
19 Monaten:**

500 Sauen mit Ferkelaufzucht
bis 25 kg.

Abferkelquote 90,9 %

Lebend geborene Ferkel 15,4
pro Wurf / 36,2 pro Sau und Jahr

Säugtage 25,8

Abgesetzte Ferkel 13,7 pro
Wurf / 32,4 pro Sau und Jahr

Saugferkelverluste 10,6 %

Würfe pro Sau und Jahr 2,36

36,2

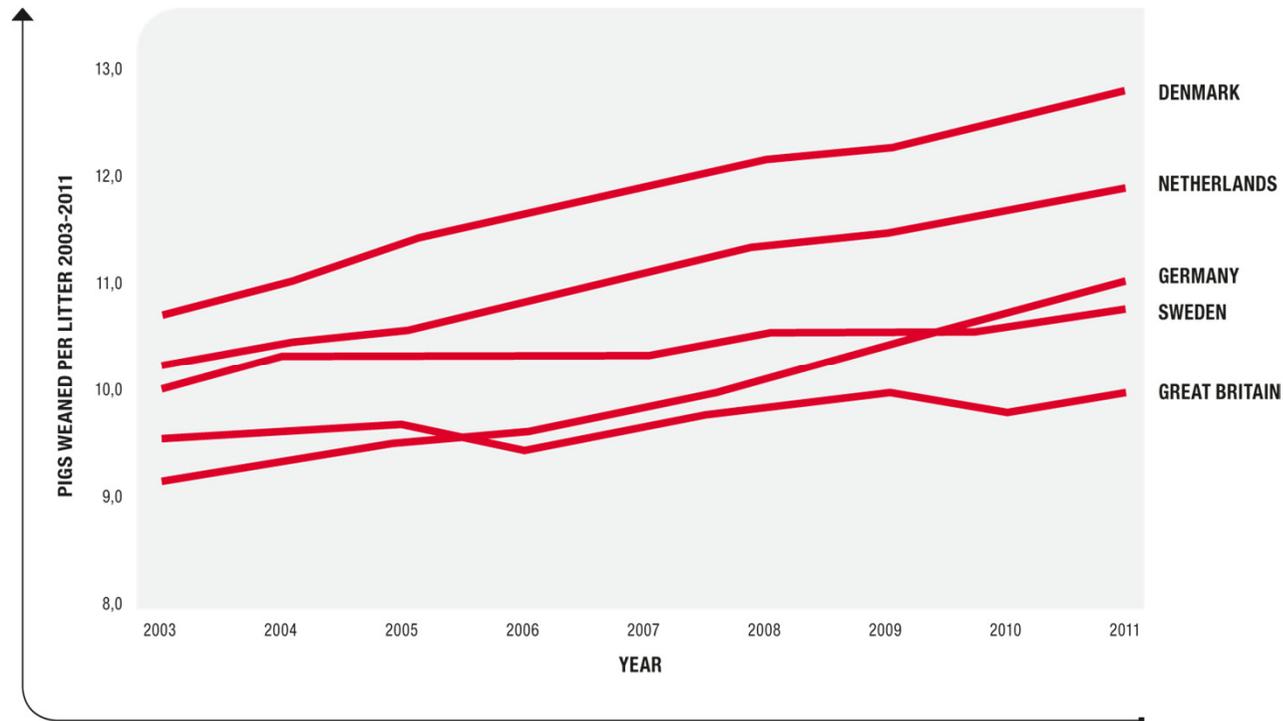
**Lebend geborene
Ferkel pro Sau
und Jahr**



Danish Pig
Research Centre



PIGS WEANED PER LITTER 2003-2011 - EUROPE



Efficiency – sows



	2013*)		2012
	Average	Top 25%	Average
Live born / litter	15,4	16,1	15.1
Pre-weaning mortality, %	13,7	11,5	13.7
Weaned / litter	13,3	14,2	13.1
Litters / sow / year	2,25	2,31	2.26
Weaned/per sow/per year (median)	30,2	32,5	29,7

** National average for productivity in pig production 2013, Pig Research Centre, based on 604 sow herds with a total of 411,000 sows*

Efficiency – Finisher Herds

(30-107 kilo live weight)



	2013		2012
	Top 25%	Av.	Av.
Daily weight gain, g	985	916	905
Feed conversion, feed units FUgp* per kg gain	2,67	2,84	2,86
Average slaughter weight, kg	83,4	82,7	81.8
Average lean meat, %	60,3	60.2	60.4
Dead and culled, %	3	3.7	3.6

* 1 kg feed mix \approx 1.04 -1.07 FUgp (feed units for finishers)

DanAvl – a Unique Breeding System



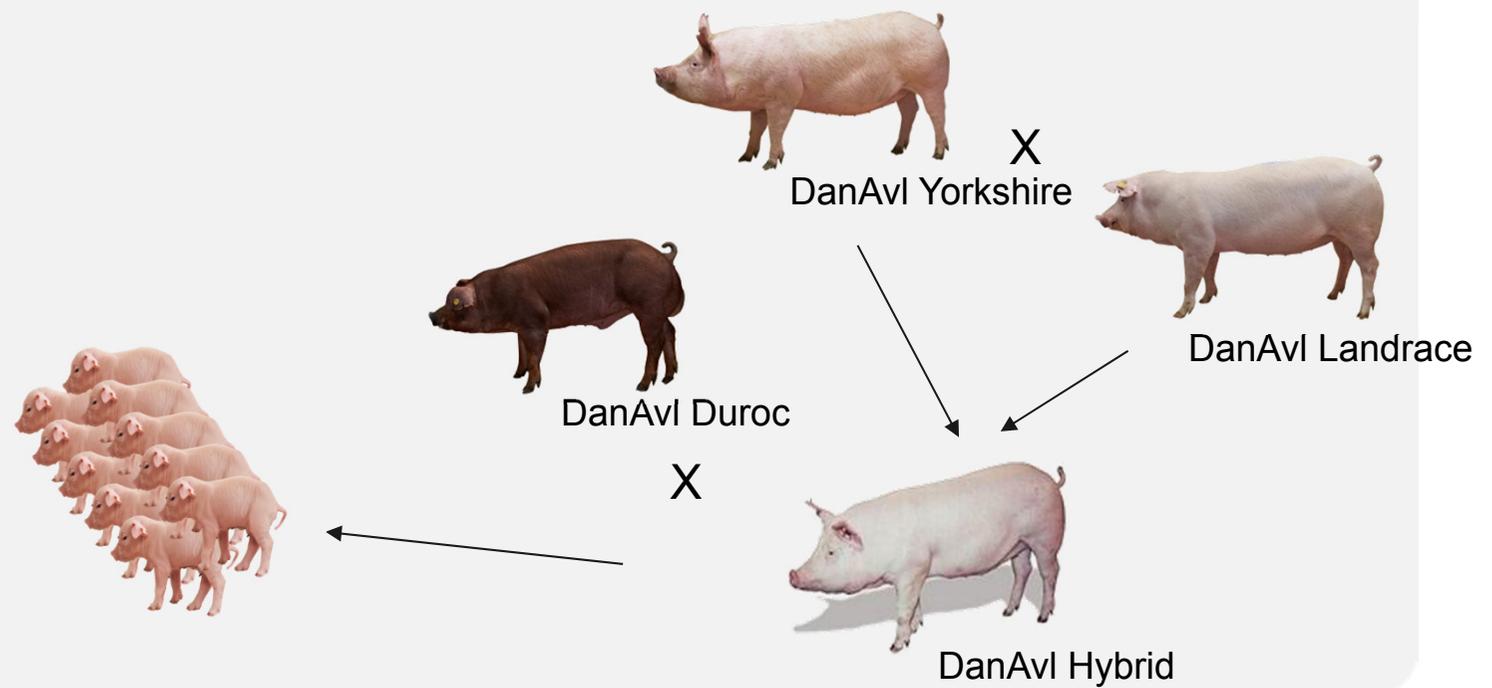
Danish Pig Research Centre



Danish Pig Research Centre
- owner of the DanAvl concept and brand

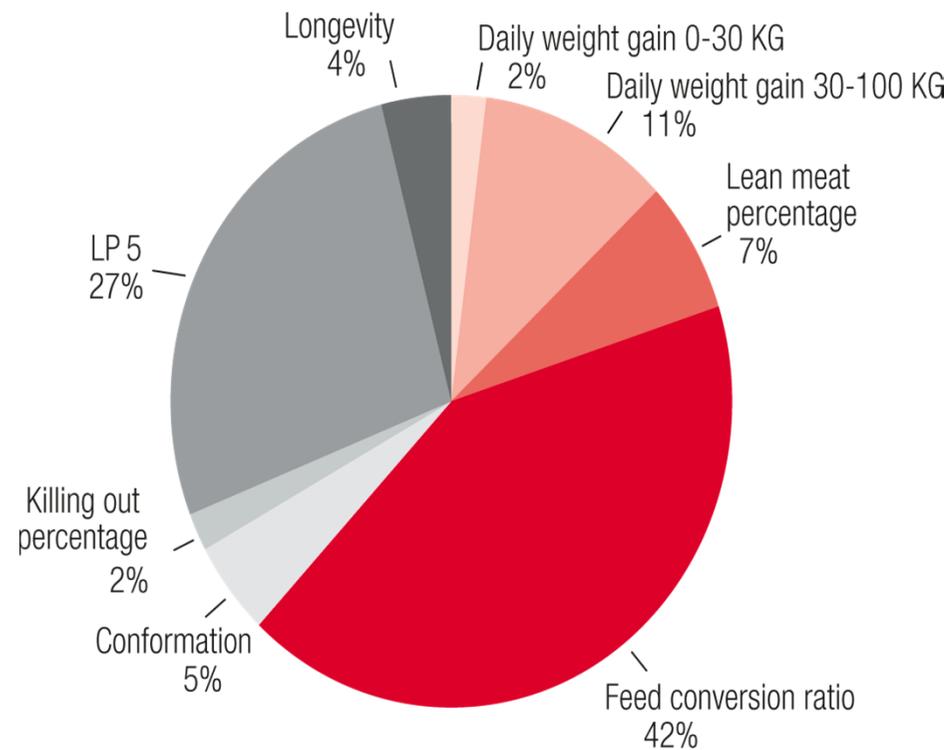
Complete three-way crossbreeding system

The development is based on knowledge-sharing, analyses and research



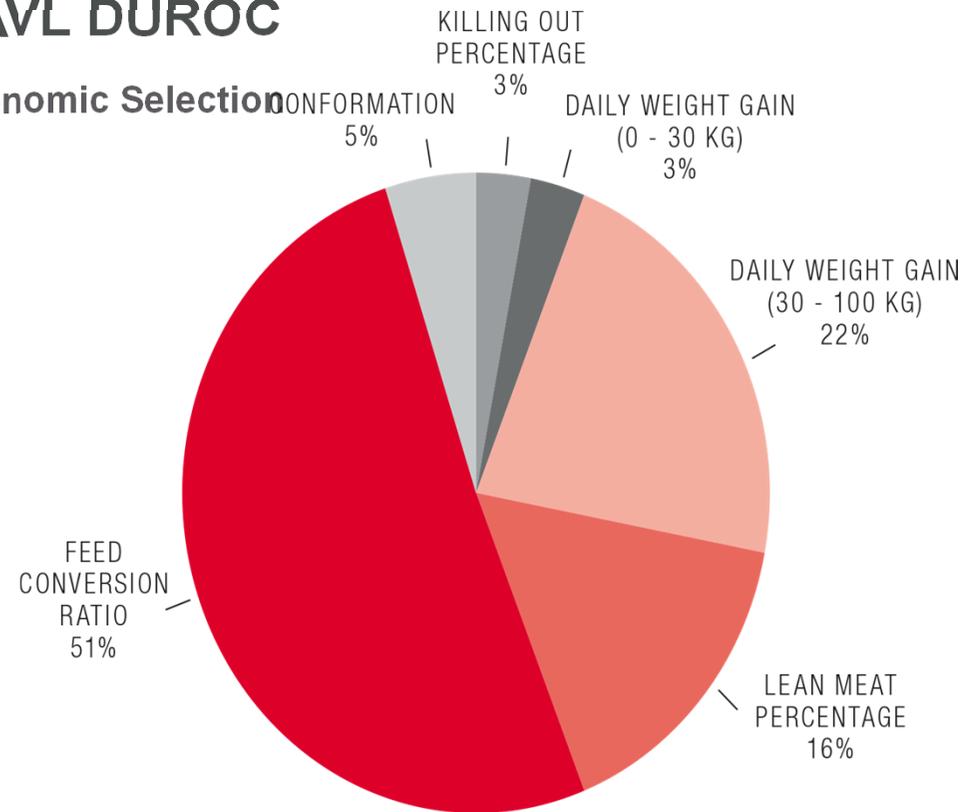
WEIGHTING OF TRAITS IN THE BREEDING OBJECTIVE OF DANAVAL LANDRACE/YORKSHIRE

Economic contribution

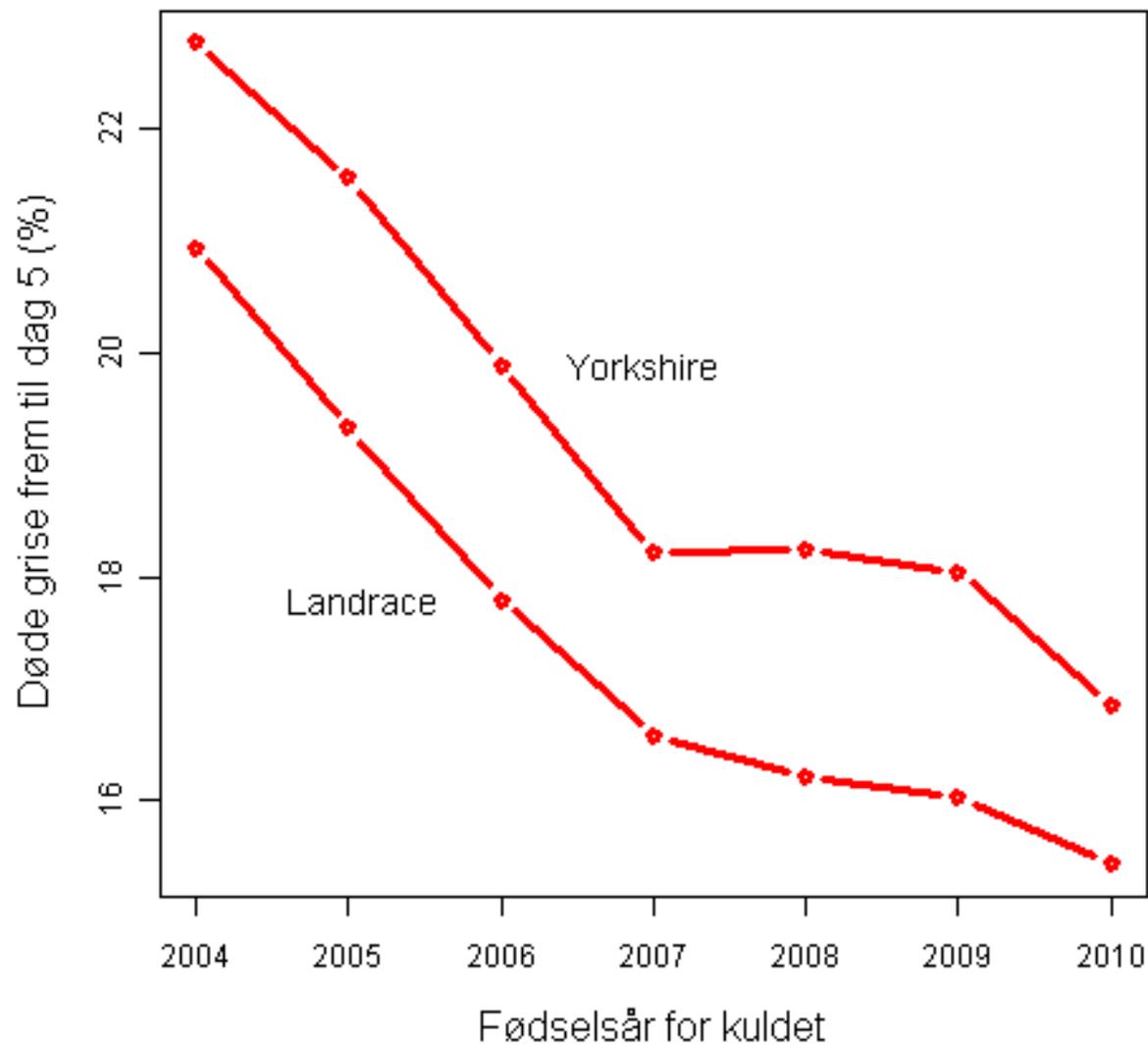


WEIGHTING OF TRAITS IN THE BREEDING OBJECTIVE OF DANAVL DUROC

Economic contribution with Genomic Selection

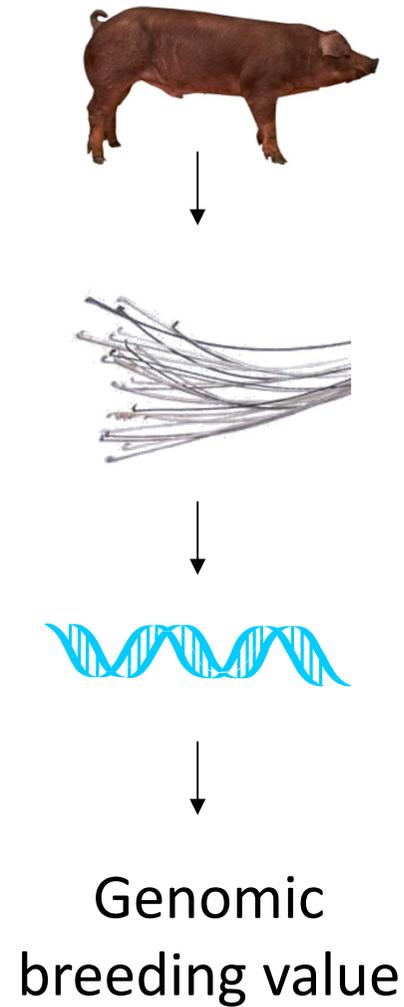
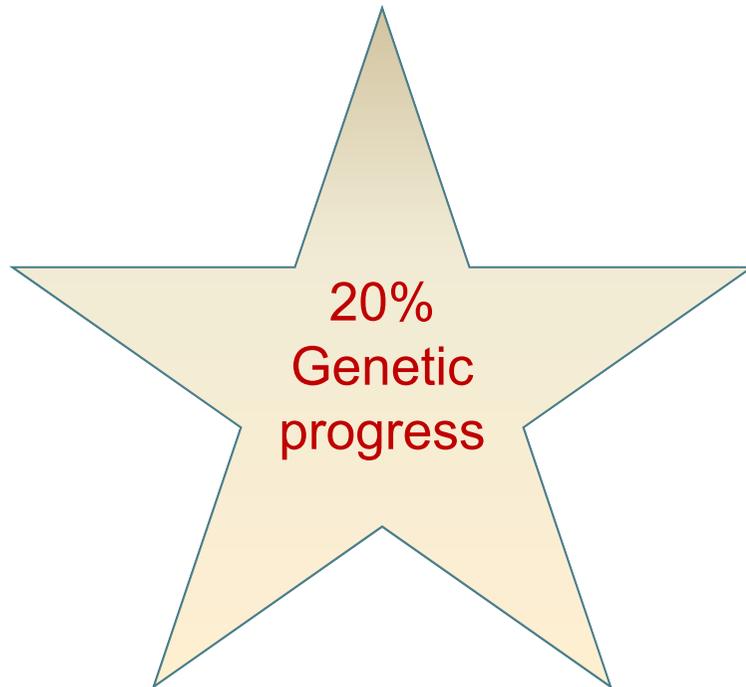


Total piglet mortality at day 5 (LP5)



**LP5:
25 % reduction in
6 years**

Using Genomic Information



NEW BREEDING GOALS

- Social interactions
- Boartaint - human nose, skatol, androstenon
- Longivity – number of litters LY
- Health ???



Society



8 employees in
neighbouring
areas



15 employees in slaughter-
Houses and related industries



Society

Quality pays:

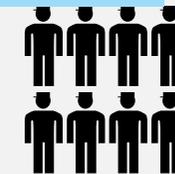
- Not only for the pig industry,
but also for Denmark



Farm turnover
to EUR 1.5 mio.



Slaughtering and food processing
turnover to EUR 2.2 mio



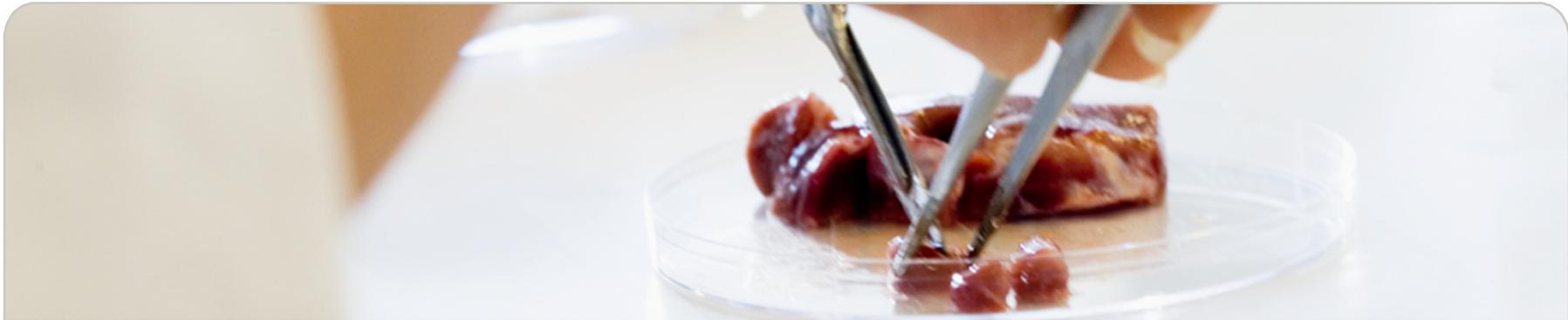
Tax income will fund at least
8 public sector employees.

Key food safety issues

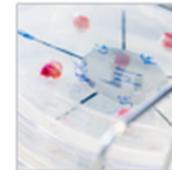


- The Salmonella Control Programme
- Resistance in bacteria (animal health / use of antibiotics)
- Surveillance of residues in animal products
- Cooperation and control throughout the production chain

Residues - Antibiotics



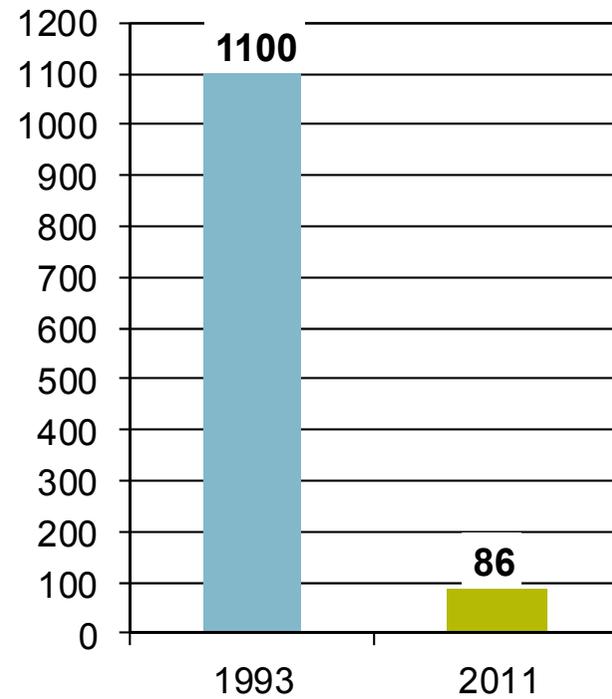
Percentage of positive samples from slaughter pigs, 2000-2011



2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
0.02%	0.005%	0.02%	0.02%	0.005%	0.00%	0.006%	0.006%	0.009%	0.004%	0.012%	0.00%

Human Salmonellosis

Pigmeat as a source

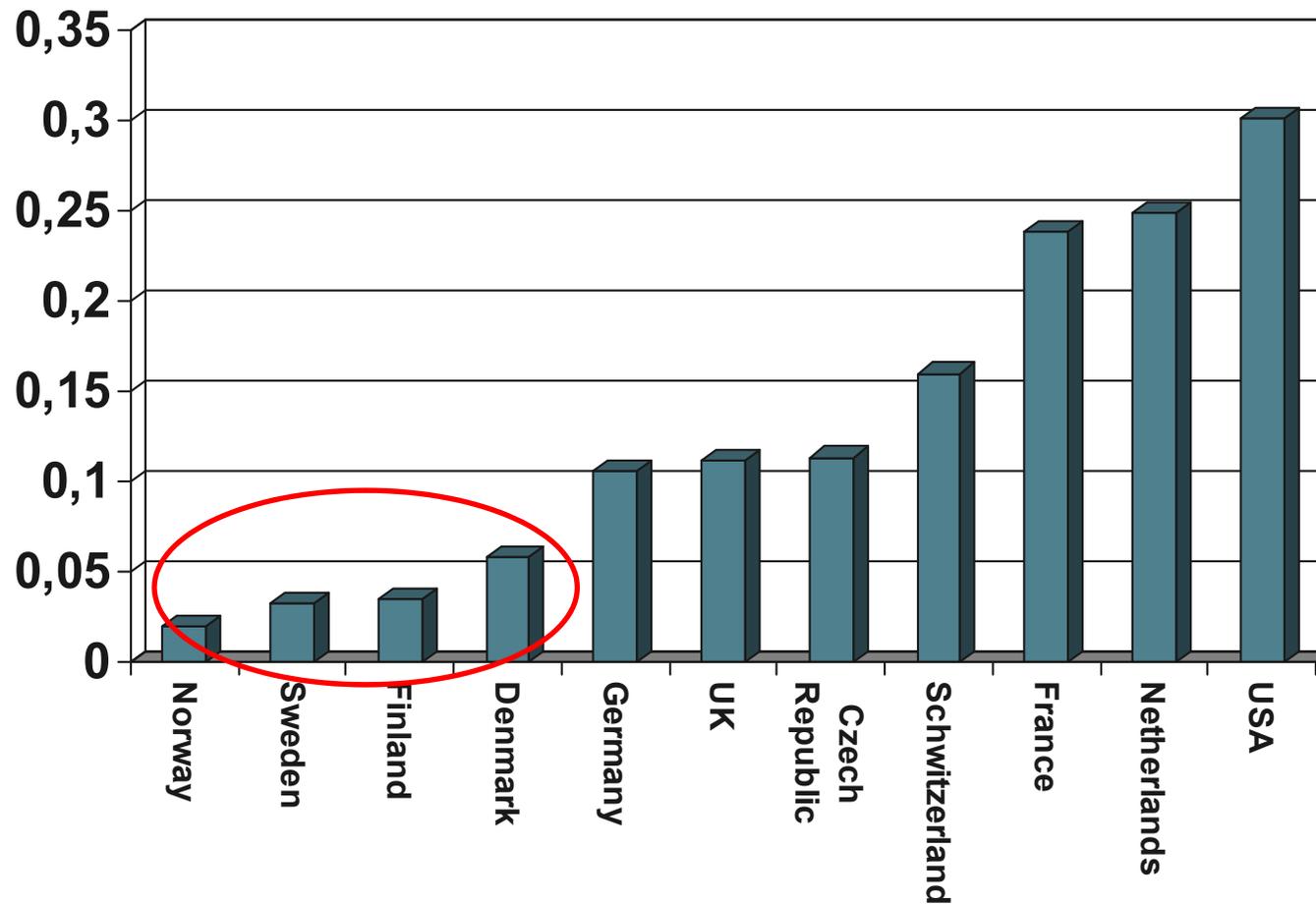


Use of antibiotics per kg meat

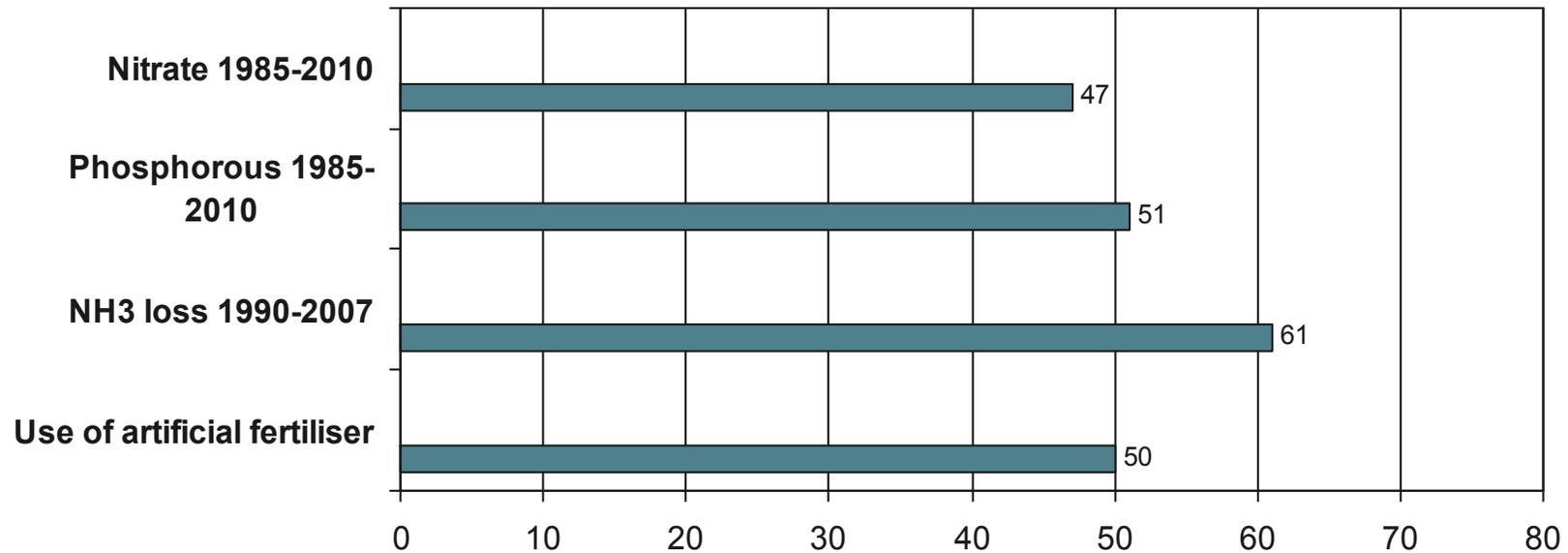
International comparison



Gram
antibiotics pr
kg meat-
all species



Environmental improvements



Ethics

How to keep the pigs



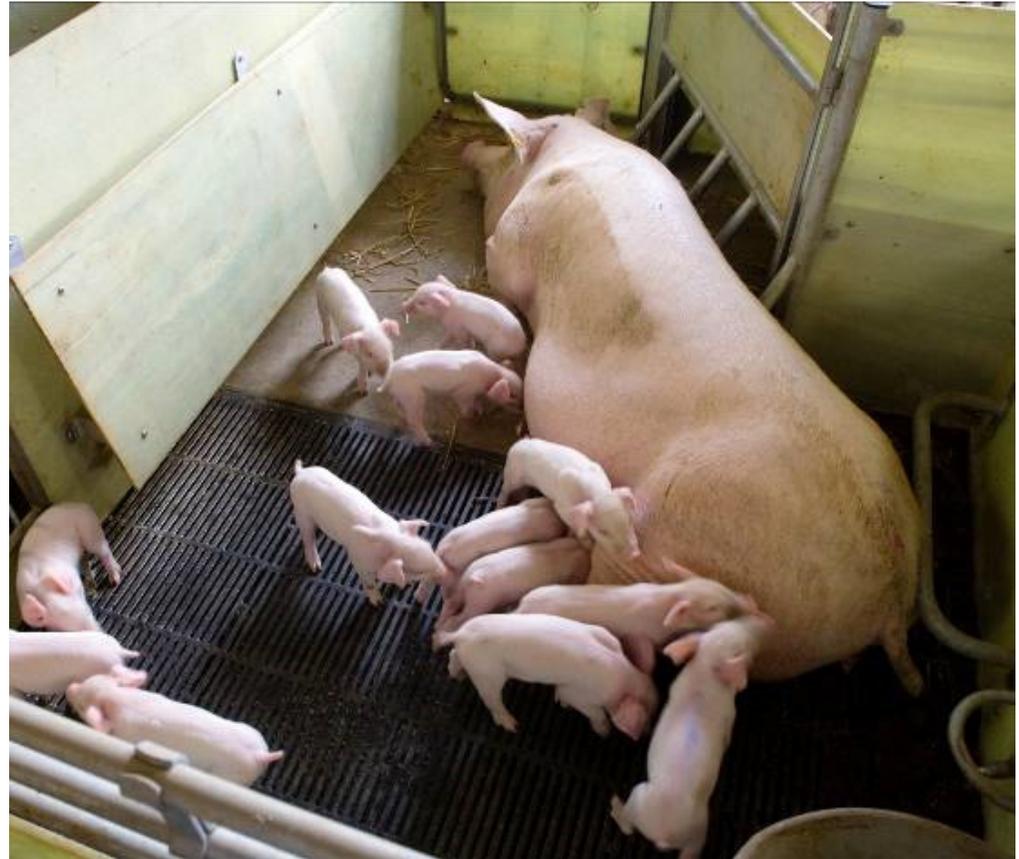
New legislation on keeping sows in groups in the service area



- Housed in groups or individual pens immediately – EU rules allow use of traditional stalls for four weeks after service
- This applies to newly built facilities after 1st January 2015. and all facilities by 1st January 2035
- Dry sows may be housed in pens for up to three days



Freedom farrowing



Hospital Pens



Special rules for design



Quality pays

150-year-old industry based on co-operative model

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Society

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Thank You!