IFCN Meeting, SEGES
26th June, 2017

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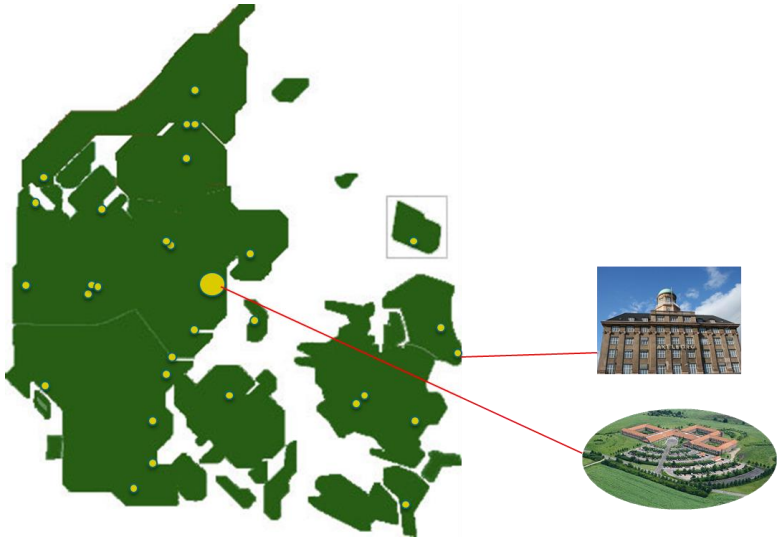
ECONOMICS DANISH DAIRY FARMS

AGENDA

- The context (DK milk production)
- Economical results
- Alternativ Source of financing
- Learning from the best.

THE DANISH CONTEX

ABOUT SEGES



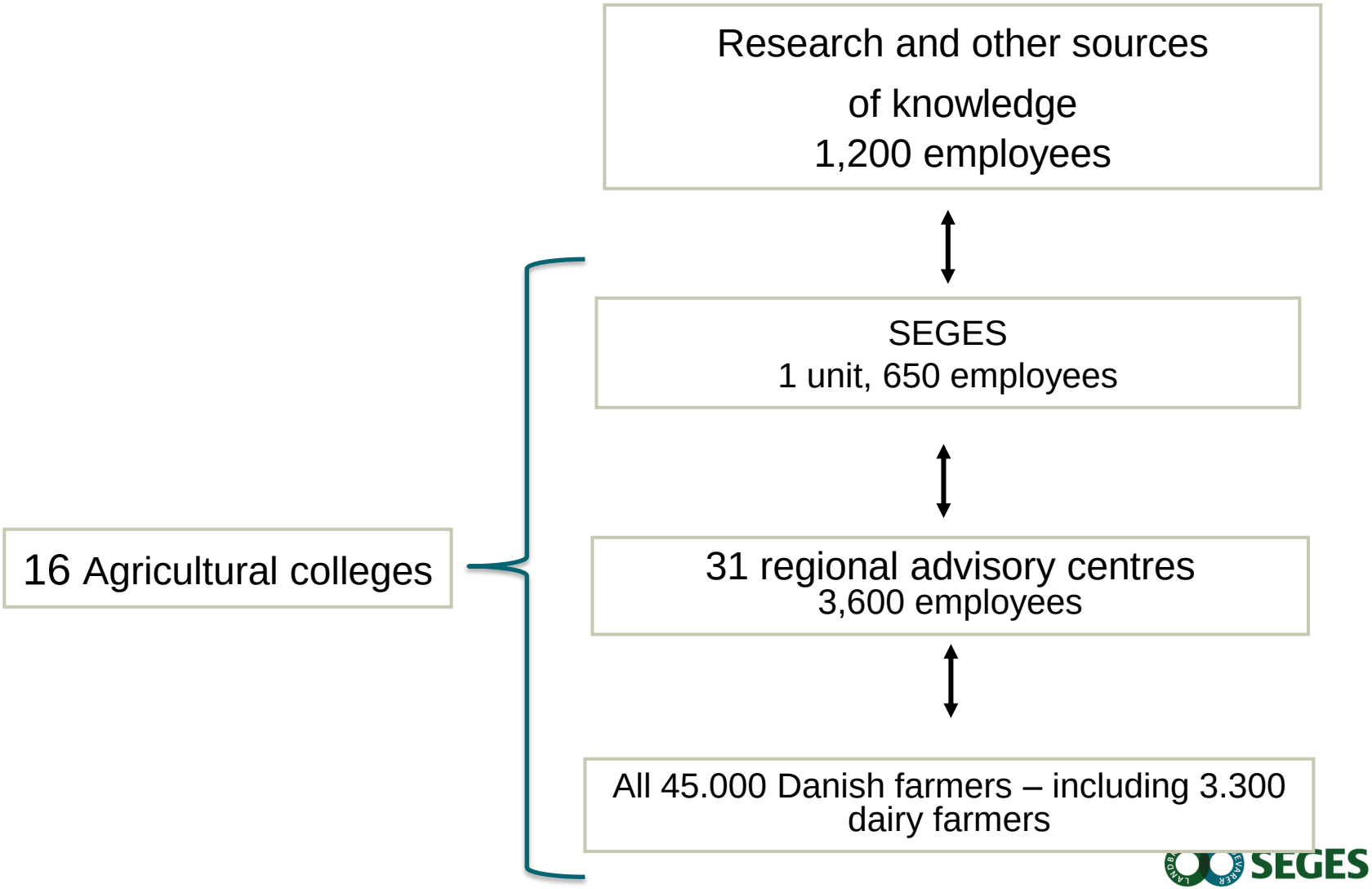
SEGES

The national research and knowledge transfer centre for agriculture

SEGES

- Is owned by the Danish Agriculture & Food Council (the farmers)
- About 650 employees
- Head office in Aarhus
- Annual turnover EURO 130 mill.

THE DANISH MODEL – THEORY ⟷ PRACTICE

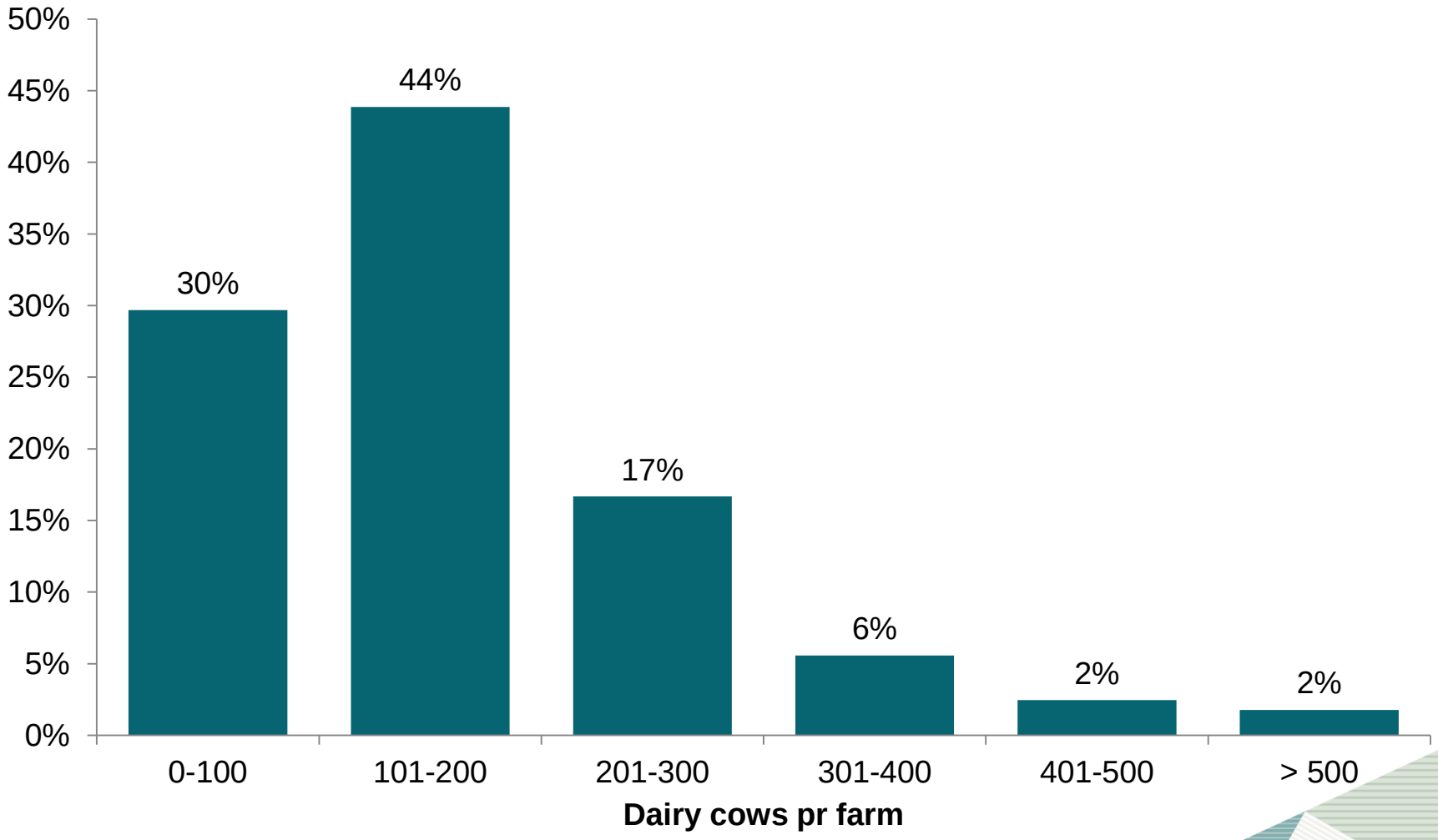


DANISH DAIRY INDUSTRY TODAY

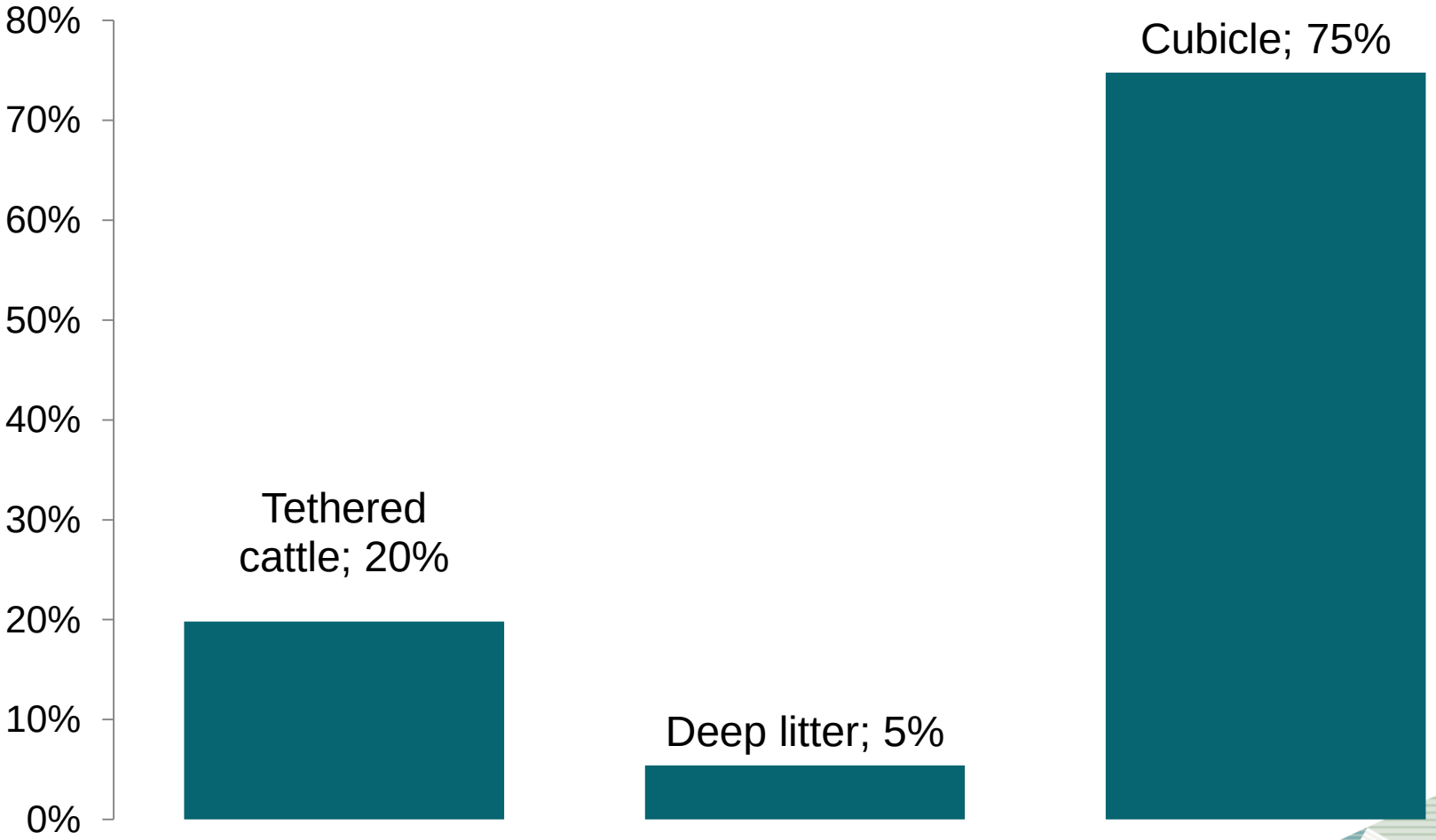
- Around 3.300 dairy farms
- Total milk production ~ above 5 billion kg /year
- 20 - 2.500 milking cows per farm (average 170 cows)
- 10.000 kg milk per cow, del.
- Mostly Holstein, some Jersey, Cross Breed and a few Viking Red,
- Farmer owned companies (cooperatives)
    - E.g.: Arla (Dairy), Viking Genetics (Breeding), DLG (Feed stuf), Danish Crown (Slaughter house)
- Denmark exports 2/3 of our agricultural production
- 10 pct. of the farms are organic

DAIRY IN THE WESTERN PART OF DENMARK

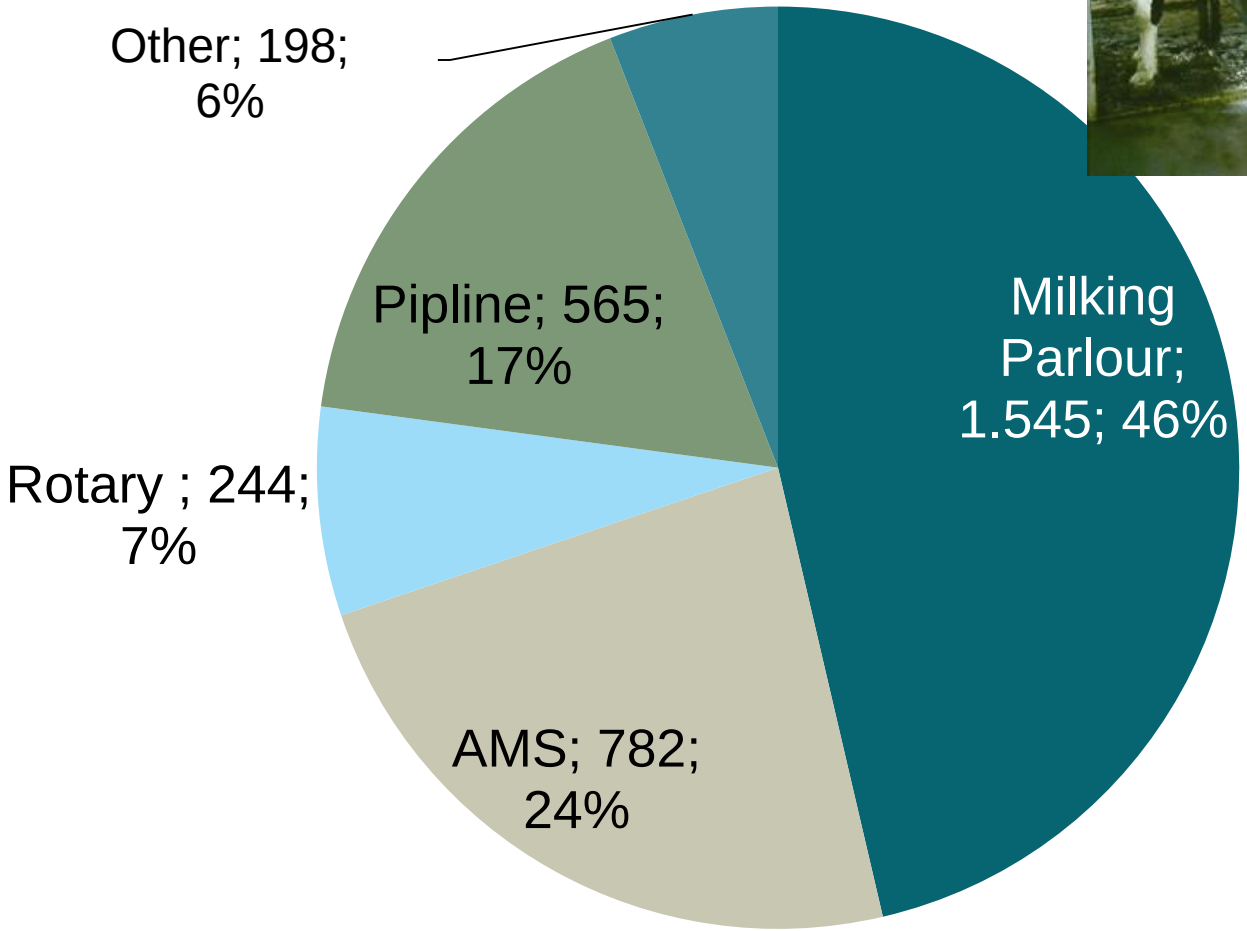
FARM SIZE


50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
30%
44%
17%
6%
2%
2%
0-100
101-200
201-300
301-400
401-500
> 500
Dairy cows pr farm

HOUSING SYSTEM



MILKING SYSTEM



THE STRENGTHS OF DANISH DAIRY FARMING

- The most modern milk production in EU
- Our labour productivity is in the world elite (275 milk/hour)
- High milk yield per cow
- A unique coherent value chain (farmer owned companies)
- Low climate impact per kg milk/meat
- High standards of animal welfare, quality and sustainable production

THE WEAKNESS OF DANISH DAIRY FARMING

- High Level of debt 20.000 EURO per Cow
- Large capital requirement (4 -8 mio EURO)
- High cost level (ex. labor cost 25 EURO per hour)
- Hard regulation
- Low profitability (ROA: 0,5-3,5 pct.)

ECONOMICAL RESULTS

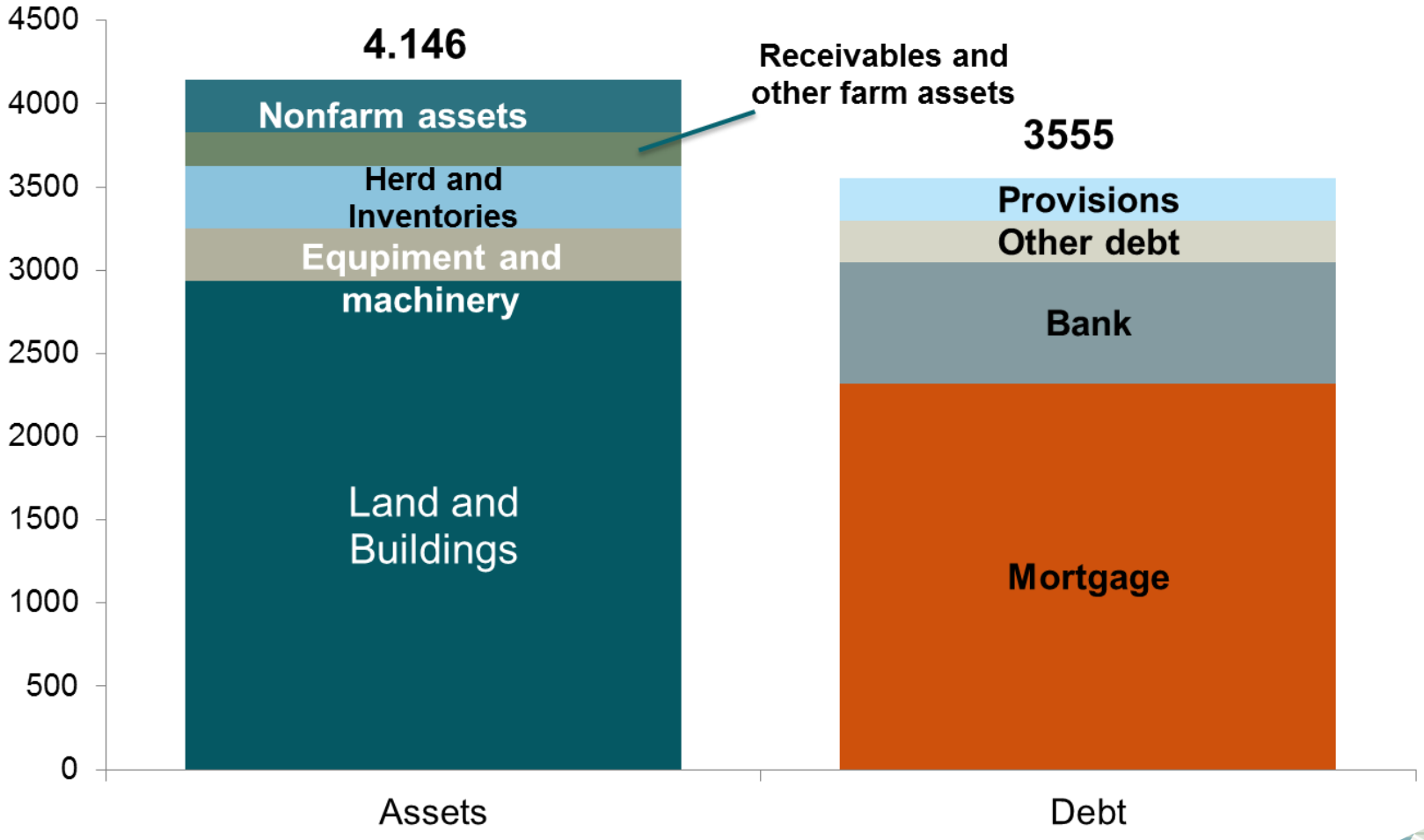
2013, 2014 and 2015- results in 1000 EURO (Averages DK farm)

	2013	2014	2015
Gross Income (Milk, beef & live cattle, crops, other livestock and other farming incomes)	841	911	834
Unit related Costs (Feed, vet. & medicin, seeds, cattle and crops advicering, ect.,)	-429	-436	-447
Contribution Margin	***412***	***475***	***387***
Cash Capacity Cost (Labour, maintenance, energi, contractor, insurances and mics.)	-221	-243	-240
Deprication	-75	-82	-85
EBIT	***116***	***150***	***64***
Decoupled EU Payments	66	68	68
Net finansial cost (Net tenancy, interest cost, lost on financials instruments)	-117	-127	-123
Farm Income	***64***	***91***	***8***

FROM FARM INCOME TO ECONOMIC PROFIT IN 1.000 EURO (AVERAGE DK FARM)

	2013	2014	2015
Farm Income	**64**	**91**	**8**
Owner Salary	-60	-60	-60
Req. return on equirty (5 %)	-31	-28	-27
Economic Profit (EVA)	**-27**	**3**	**-79**

BALANCE SHEET I 1.000 EURO ULT. 2014 (AV. DK FARM)



Number of cows	GNS	0-100	100-200	200-300	300-400	400-
Number of farms in total	2,474	600	1,131	429	163	151
Number of cows	181	66	148	240	335	549
Ha,	161	80	144	213	271	351
Kg ECM per Cow/year	10,181	9,423	10,142	10,275	10,319	10,414
			In 1,000 DKK			
Contribution margin	2,852	1,031	2,361	3,756	5,368	8,465
Cash capacity costs	1,796	666	1,492	2,381	3,352	5,217
Depreciation	648	236	562	895	1,255	1,566
EBIT	**407**	**129**	**306**	**480**	**761**	**1,682**
Decoupled EU-payments	509	256	461	651	848	1,114
Net financial costs	933	251	744	1,337	1,762	3,007
Farm income	**-16**	**134**	**23**	**-206**	**-153**	**-211**
Salary	433	383	452	496	417	337
Farm income after owner salary	**-449**	**-249**	**-429**	**-702**	**-570**	**-549**
Total Assets	31,842	15,462	28,436	41,209	54,394	71,400
Equity	3,892	5,378	4,133	2,364	4,289	87
			Key figures			
Soliditet, %	12%	35%	15%	6%	8%	0%
Return on farm assets	0.8%	-0.4%	0.6%	0.8%	1.4%	2.1%
Operating margin, farming activities	3.8%	-2.6%	3.0%	3.6%	6.1%	7.5%
Asset turnover ratio, farming activ-ities	0.21	0.17	0.20	0.21	0.23	0.28
productions price pr kg ECM	2.78	3.22	2.86	2.77	2.68	2.54
% of rented land	30%	23%	28%	32%	34%	35%
Farm assets per cow	163,463	206,451	178,216	161,200	153,558	123,014

SPREAD IN FARM INCOME, SIZE

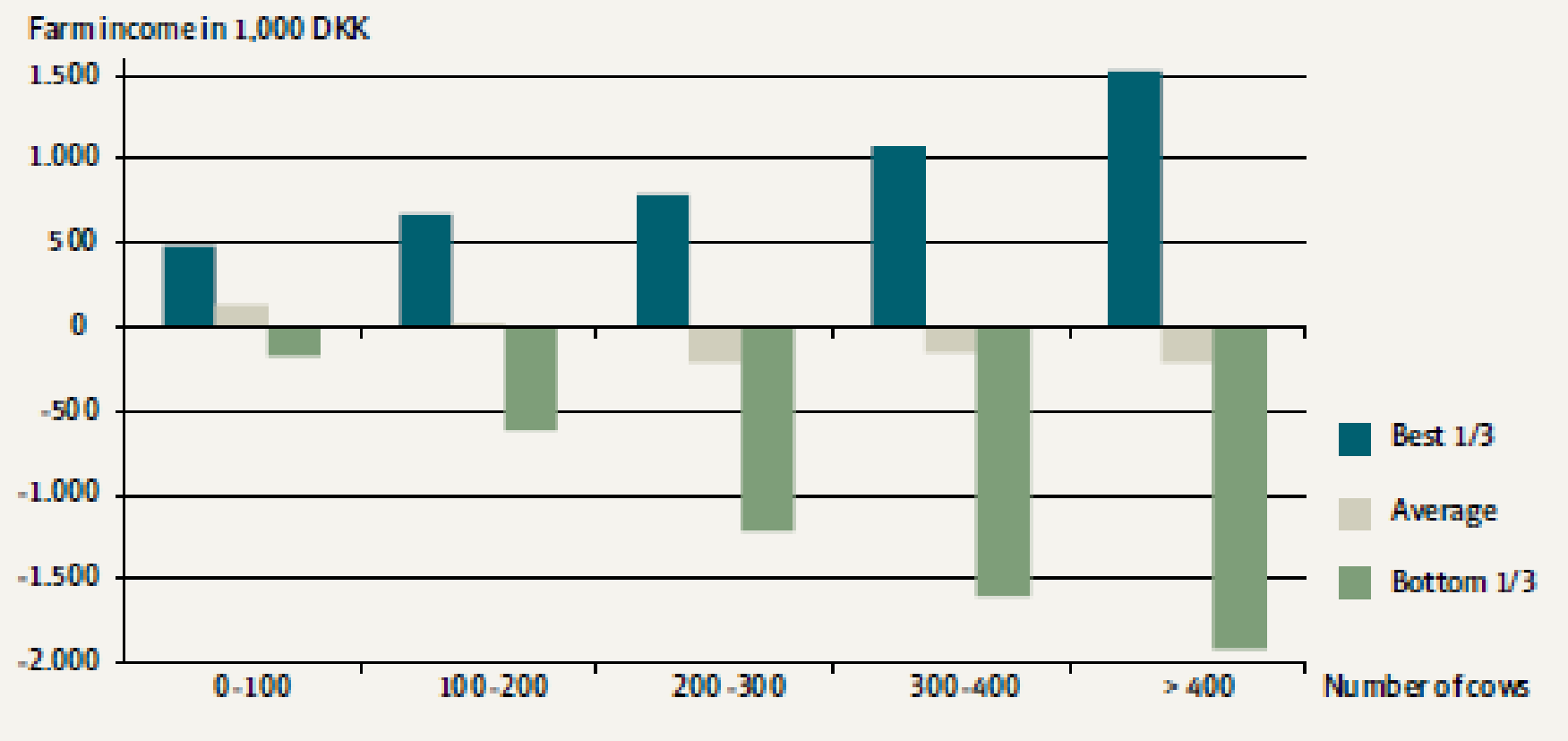
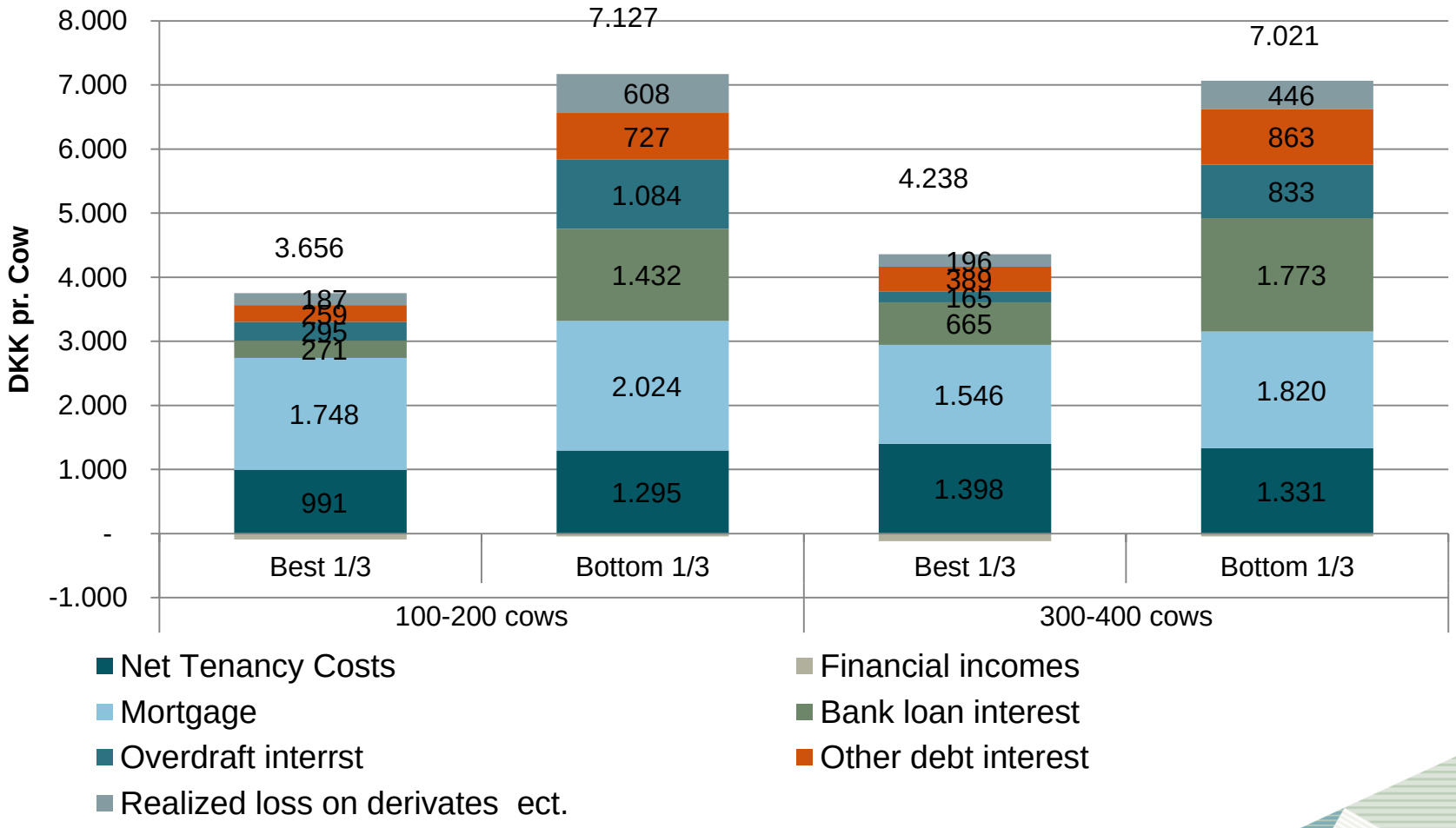
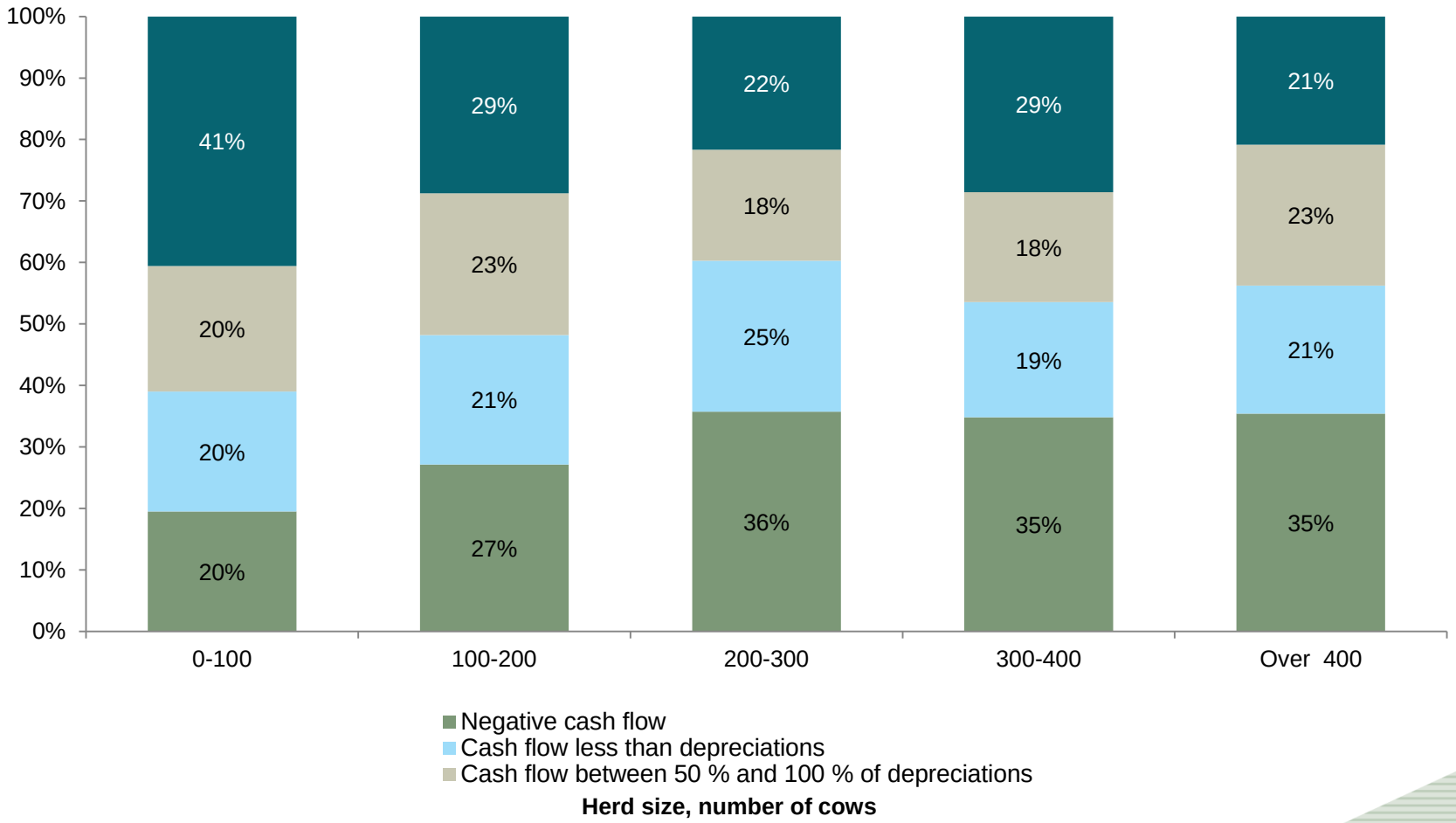


Figure 1. Spread in operating results - full time dairy farms with large breeds sorted according to size

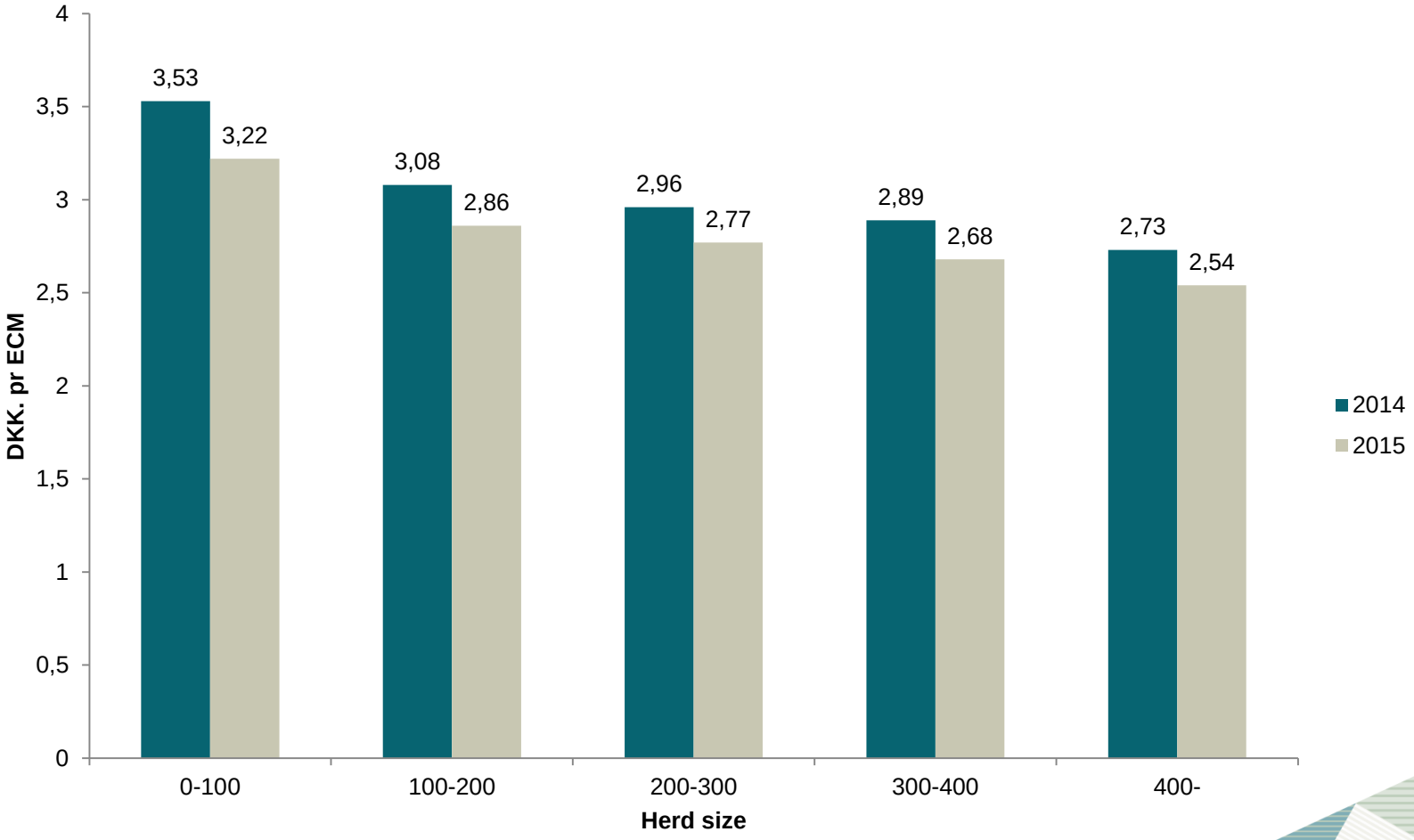
FINANCIAL COSTS PR. COW (IN DKK)



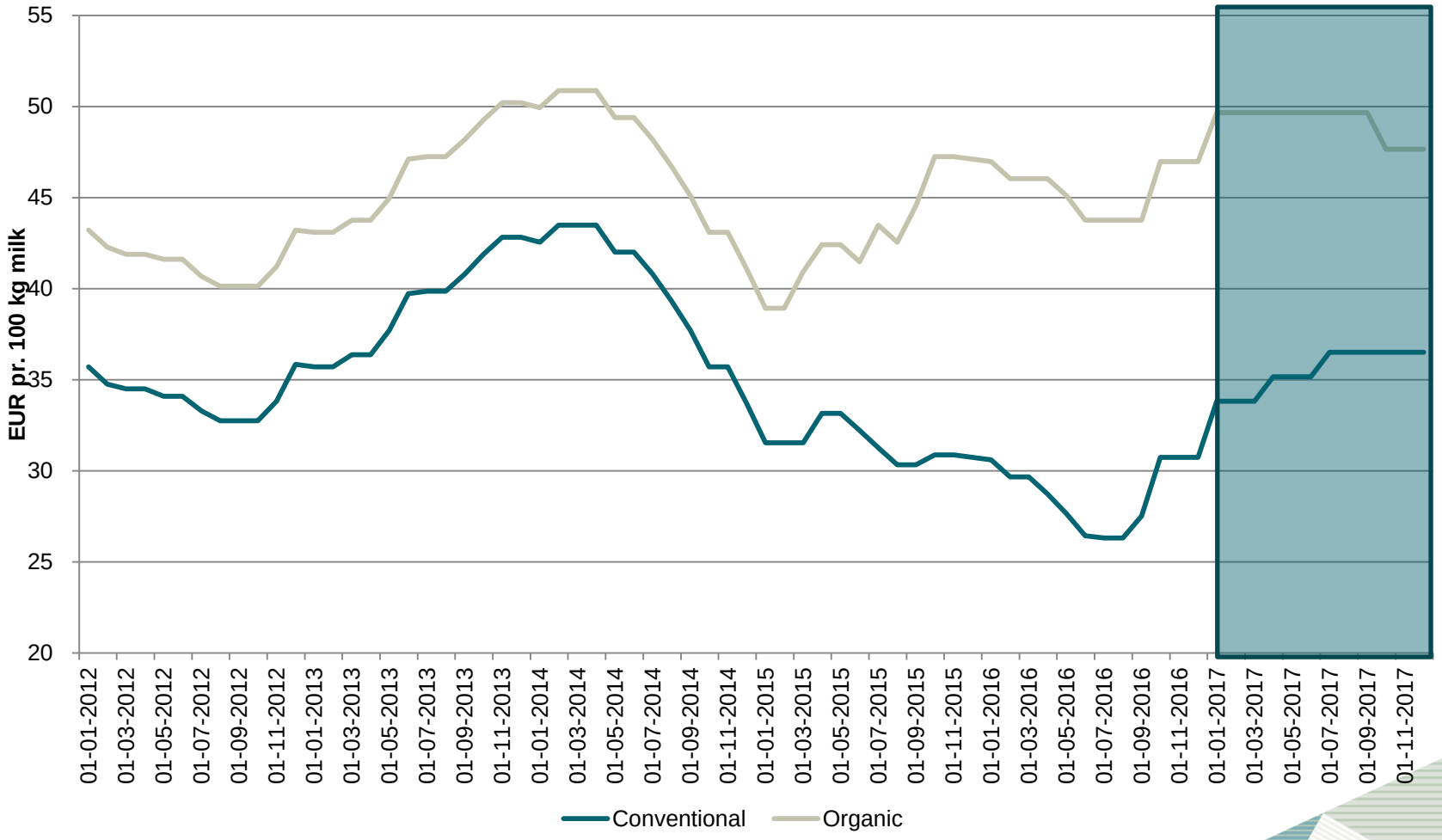
CASH FLOW BEFORE INVESTMENT AND DEBT-REPAYMENT 2015



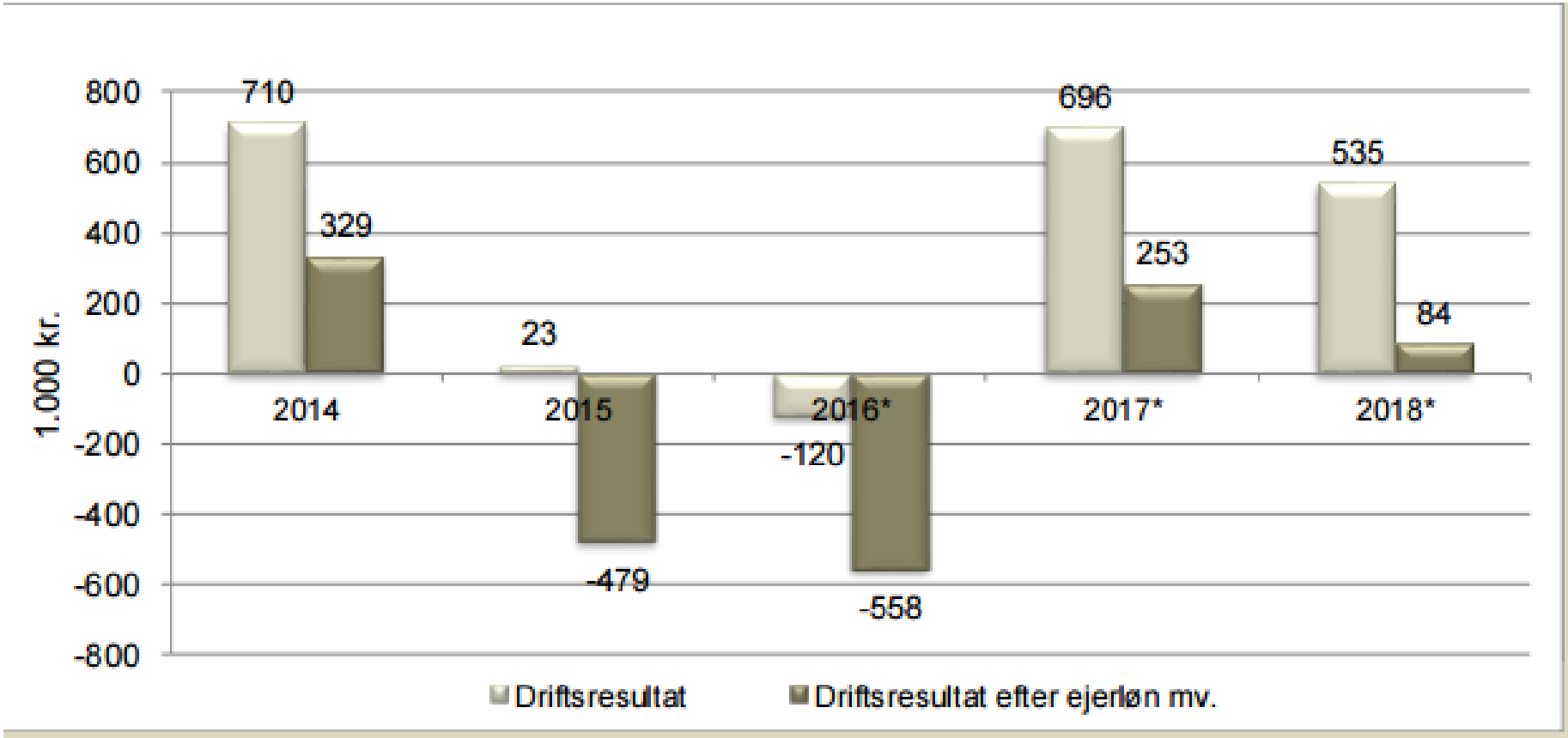
DECREASE IN THE PRODUKTION PRICE



FARM GATE PRICE (KR PR. 100 KG MILK)

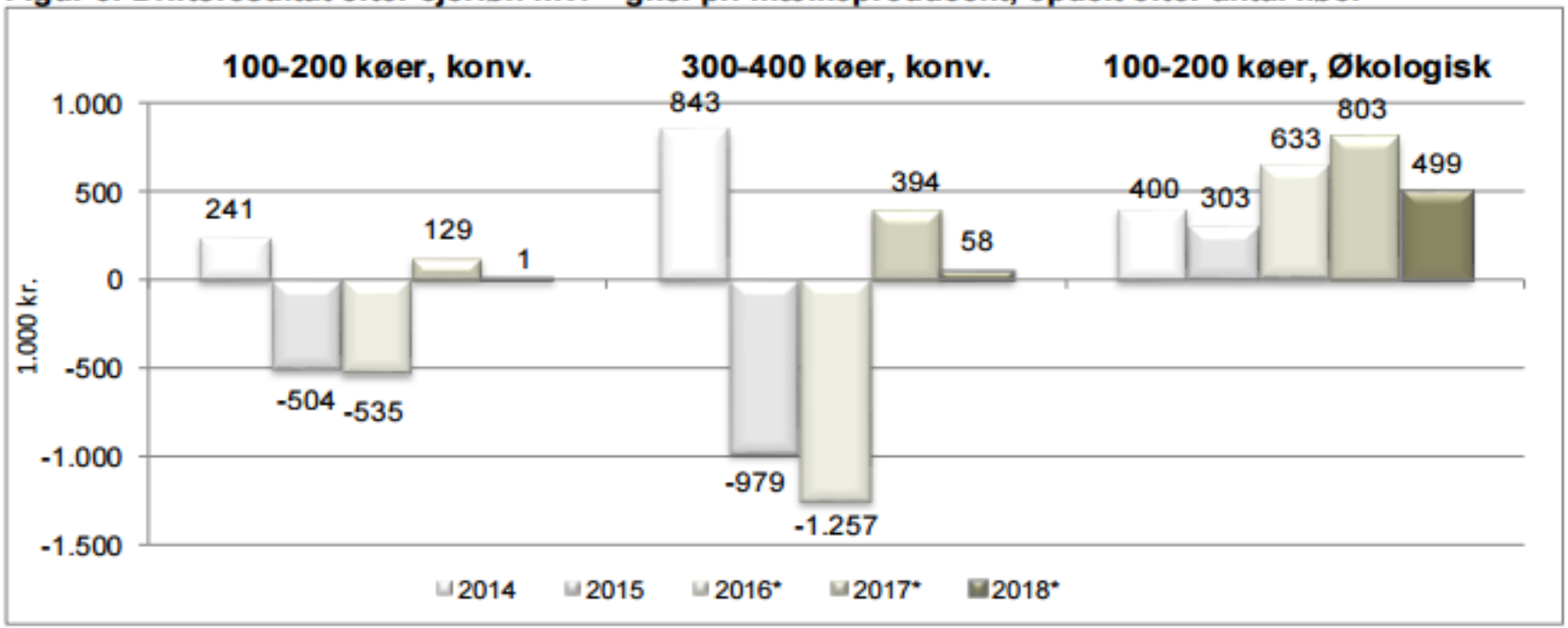


FORECAST (FARM INCOME INC. OWNER SALARY), MAY 2017



FORECAST GROUP FARM INCOME INCL. OWNER SALARY

Figur 5: Driftsresultat efter ejerløn mv. – gns. pr. mælkeproducent, opdelt efter antal køer



TWO LEVELS OF REPORTING

Annual Report

- Whole farmers economy (both Dairy, Crops production, family income, other business)
  - Aggregate view
  - No owner salary and cost of equirty

Business Check

- Benchmarking tool
- Focus on the Business Units (dairy, roughages, cash crops)
- Per unit (ex. cow, kilo milk)
- Includes all costs

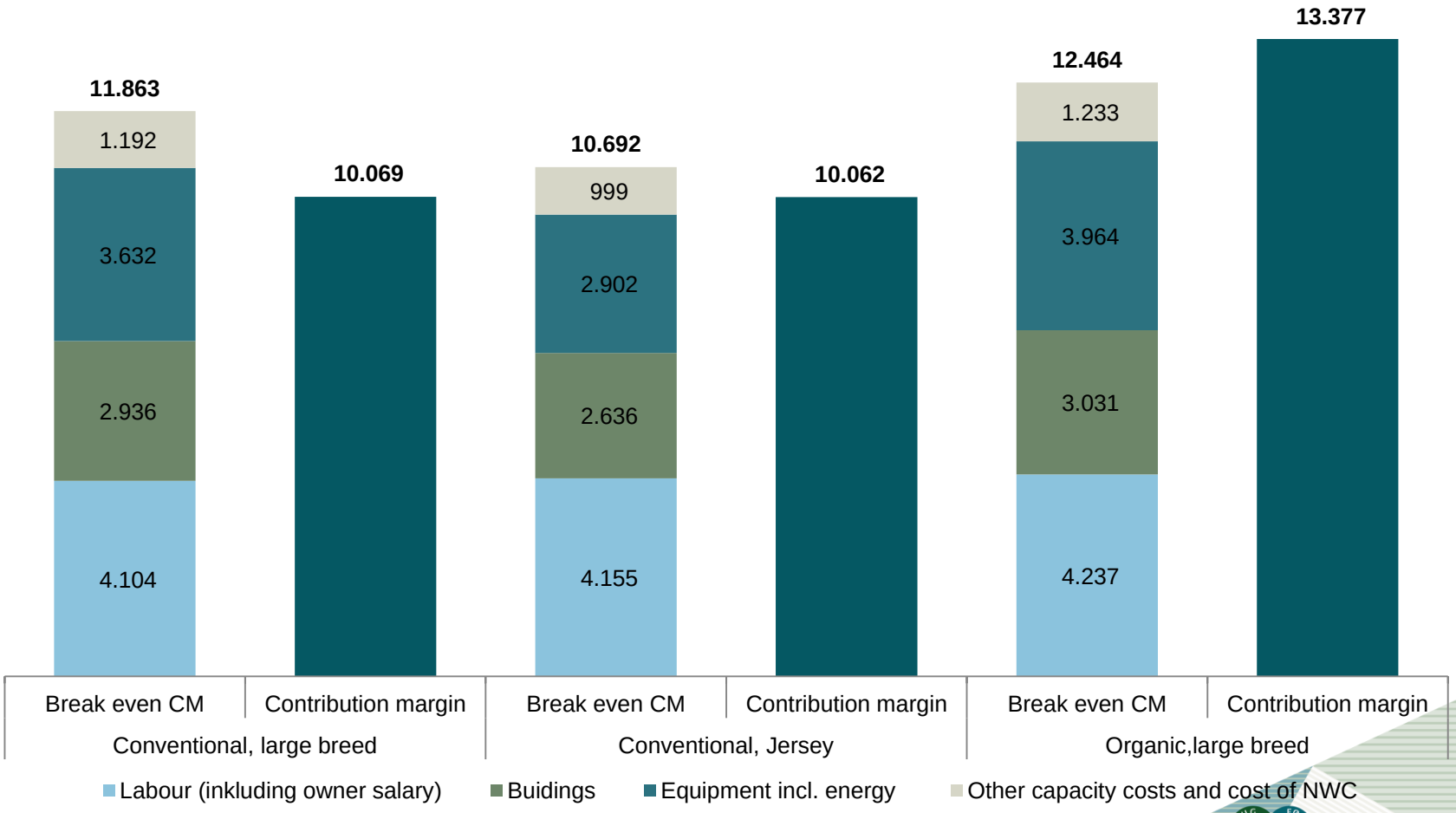
Table 1. Main results for Conventional large breed herds from 2012-2015

	2012	2013	2014	2015
Farms in sample	431	472	561	474
Kg ECM per cow, delivered	9,227	9,619	9,894	10,361
Sales price per kg ECM	2.52	2.87	2.88	2.28
		DDK PER COW		
Gross Income	**26,663**	**30,290**	**31,119**	**27,440**
Feed	13,555	15,261	14,755	14,485
"Veterinary and other unit realted costs"	2,382	2,432	2,495	2,502
Total Unit related costs	**15,937**	**17,693**	**17,250**	**16,988**
Contribution margin	**10,726**	**12,597**	**13,870**	**10,452**
Labour costs (incl, owner salary)	3,818	3,905	4,191	4,104
Maintenance, energy etc,	3,050	3,173	3,396	3,085
Rental and capital costs	5,062	4,792	4,685	4,676
The result of the year	**-1,204**	**727**	**1,598**	**-1,412**
Break even contribution margin	11,930	11,870	12,272	11,865
		KEY FIGURES		
Production price per kg ECM	2.71	2.76	2.72	2.49
Feed cost per kg milk	1.46	1.58	1.49	1.39
Return on assets, Dairy	1.8	4.5	6.4	-0.1

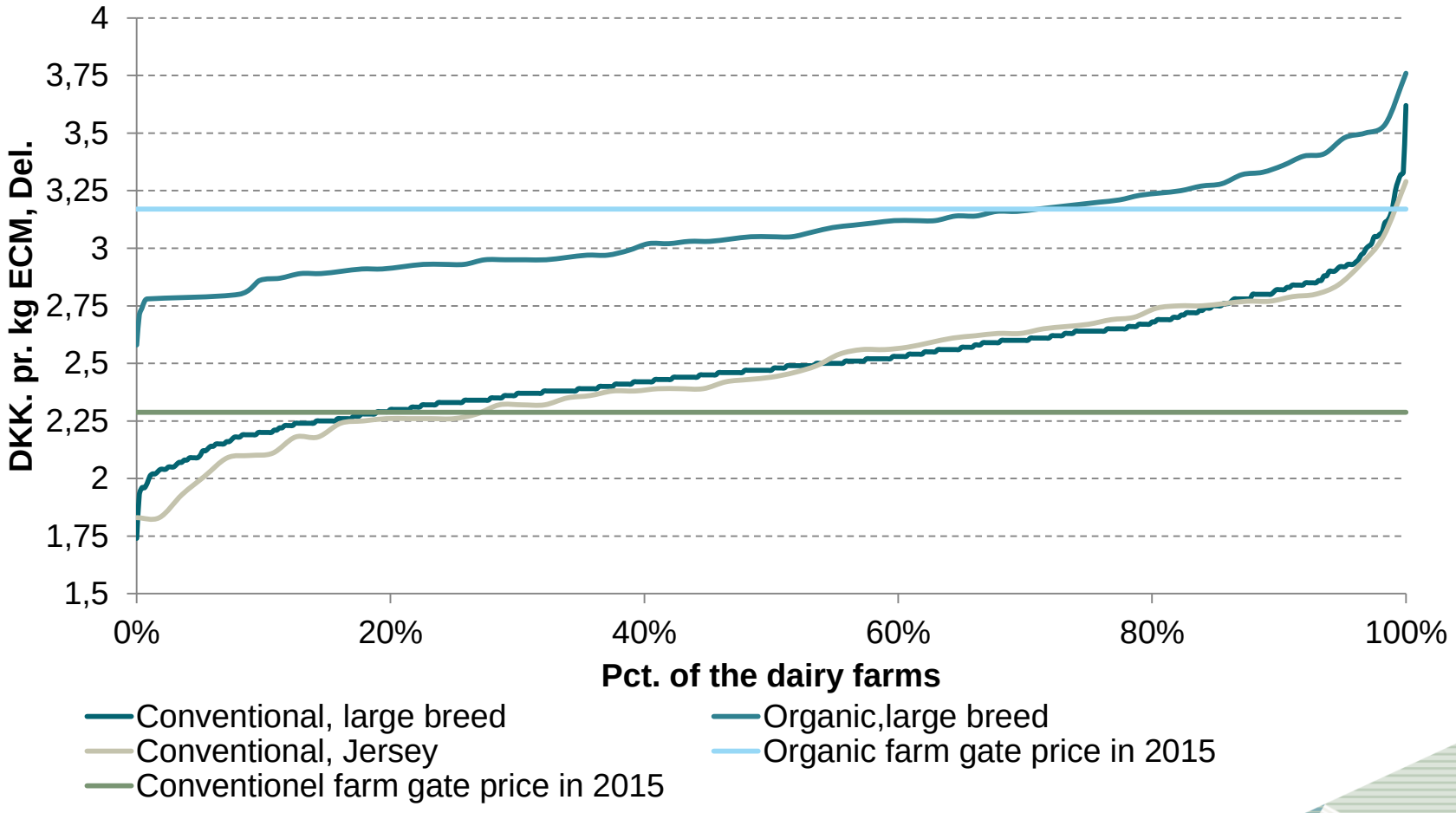
BREAK EVEN CM

EURO per cow
Labour cost: staff cost and the owner families salaries
+Buildings: insurance, maintenance, depreciation and cost of capital related to buildings of the milk production
+Equipment: Maintenance, depreciation and cost of capital related to the equipment of the milk barn, energy and contractor costs
+Cost of working capital: renumination of capital employed in herd, stored feed, receivables and owner certificates
+Other costs: misc. administration and overhead cost (Ex.: ITC software, Telephone, Financial reports, economically advisory)
= Break Even Contribution margin, Dairy

CM AND BREAK EVEN CM



PRODUKTION PRICE PR. KG MILK (IN DKK)



SUM OF

- In general low profitablity for the average dairy farm
- Huge spread in the economical perfomance
- Economical of scale vs. financial vulnerabillty
- Due to high organic milk the price bether performance for the organic farmers

ALTERNATIVE SOUCES OF FINANCING

- AP Pension Model
- The Growt fund
- The Agricultural Financial Bank
- The Sydbank model
- Equity Financing (External Investor)

AP PENSION MODEL (AGROFOND - DANSK FARM MANAGEMENT)

- For talented farmers with low equity
- Agrofond own the land and the buildings
- A young farmer lease the land and the buildings from Agrofond
  - 5,2 pct interest for land and the private house
  - 6,2 pct. interest plus depreciations for Buildings
- The farmer is responsible for the daily operations at the farm
- Option: after 8 year the farmer can buy the farm with a discount of 20 pct of the increase in landprice

THE GROWT FOND

- Governmental venture capitalist fund
- Agricultural development loan
  - Have subordinate status in relation to other debt.
  - Are equivalent to equity on the company's balance sheet, which increases solidity.
  - The interest rate is 2-3 percentage points higher than the interest rate on senior bank loans.
  - Serves solely as a supplement to a complete financing solution including financing from a financial institution. It is possible to combine the loan with our other loans.

THE GROWT FOND – WHO CAN APPLY

- The capacity to generate revenue and liquidity must be sufficient in terms of being able to pay off an Agricultural Development Loan.
- The company must have the relevant competencies.
- Owners' equity must match the size of the Agricultural Development Loan.
- The loan must be part of a combined financing solution and in this manner improve access to further financing.

THE AGRICULTURAL FINANCIAL BANK

- Financing healthy solid farms, who can get loans from banks
- Three groups
  - Young farmers in the establishment fase
  - Going concern farmers with profitable operations
  - under reconstruction

- Risk sharing and guarantees for other banks

THE “SYDBANK” MODEL

- DK 4. largest bank, based in southern Denmark
- Convert debt to subordinated capital
- For the 60 most efficient farmers with high debt
- Repay in five year at price 50

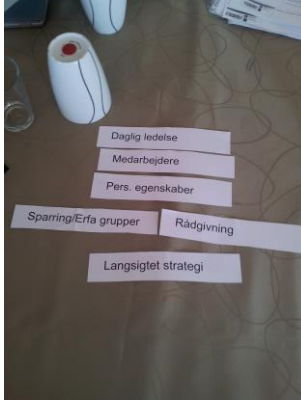
LEARNING FROM THE BEST

SHORT ABOUT THE PROJECT

1. Mapping of what the best does

2. Comprehensive survey of farmers who year after year is among the best measured on the bottom line (ROA, Farm Assets – Return on Farm Assets)

3. Knowledge from the project is used to lift the other producers

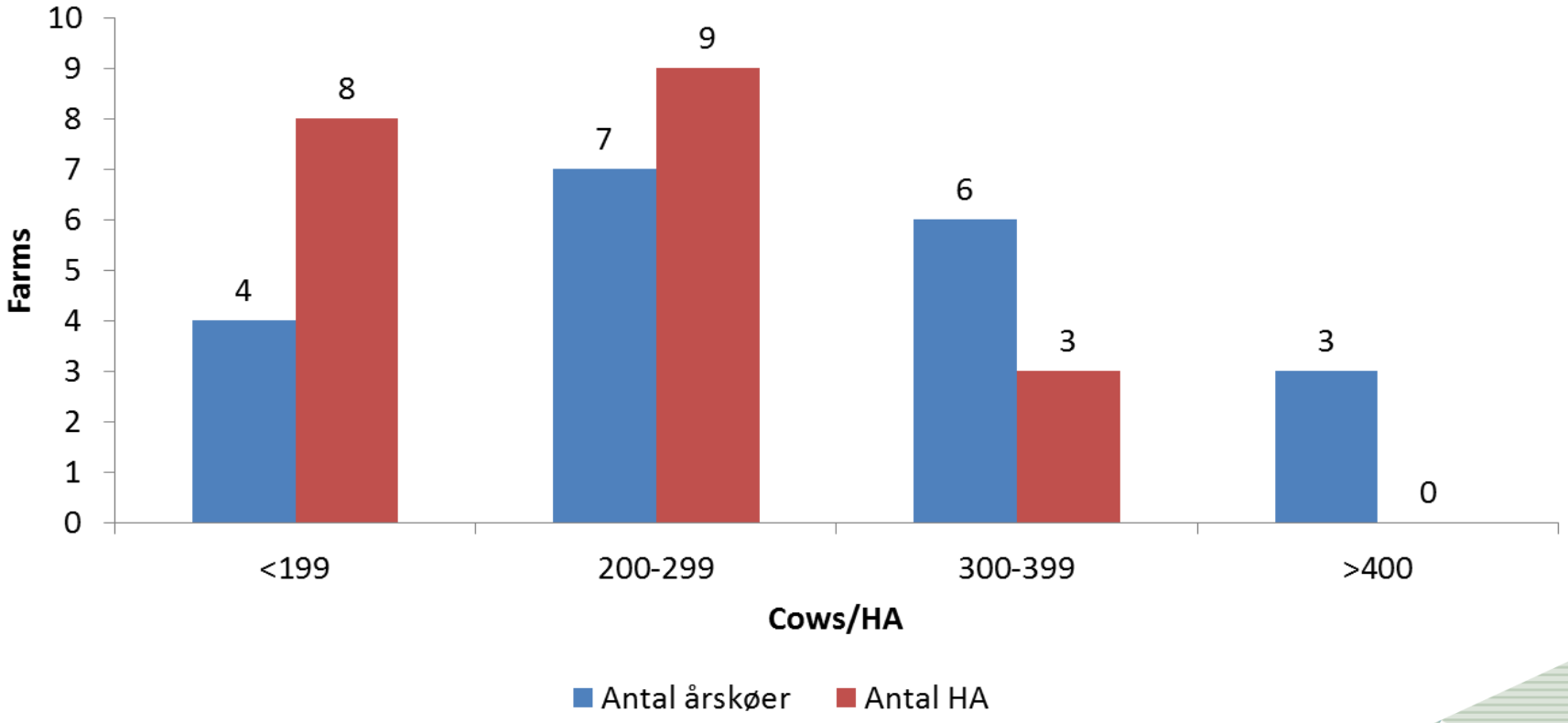


SELECTION OF THE 20 CATTLE FARMS

1. Milk producers
   - 80 % of the gross income must come from cattle or forage production
2. Looking ahead: Do not run attrition strategy
3. Over 150 cows
4. Equity to assets ratio, solidity of at least 10 % from 2011 to 2013

WHO ARE THEY?

Scale of production

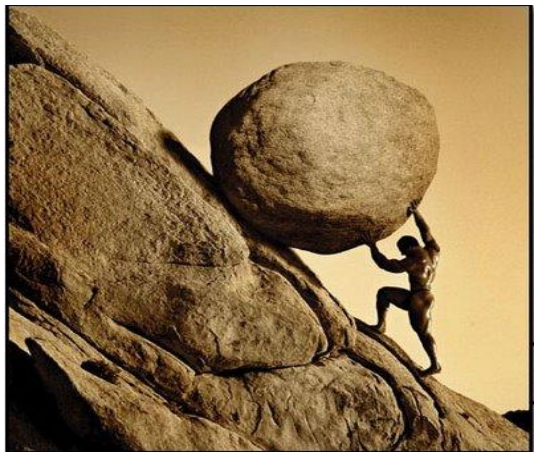


HERE THEY ARE ESPECIALLY GOOD

- Excellent overview over the production
- Conscious of their own strengths and weaknesses
- Staff management
- Planning and organization of the daily work
- Business acumen (no new tractors, thorough preparation before any investments, strength to say no)

BIGGEST CHALLENGE FOR THE 20 BEST

- Staff management
- Time for family life
- Public bureaucracy and control
- Delegation (afraid of losing control)



IMPORTANT LESSONS

1. They are not good at all things
2. But very aware of their strength and weakness and used it strategic
3. Strategy is not something they have – but something they do!
4. Alignment between attitude and actions – walk the talk
5. Important to take tough decision – early

   For example:

   - **Weak calves**
   - **Employees**, there several times has been trouble with
6. Leadership – you can always improve