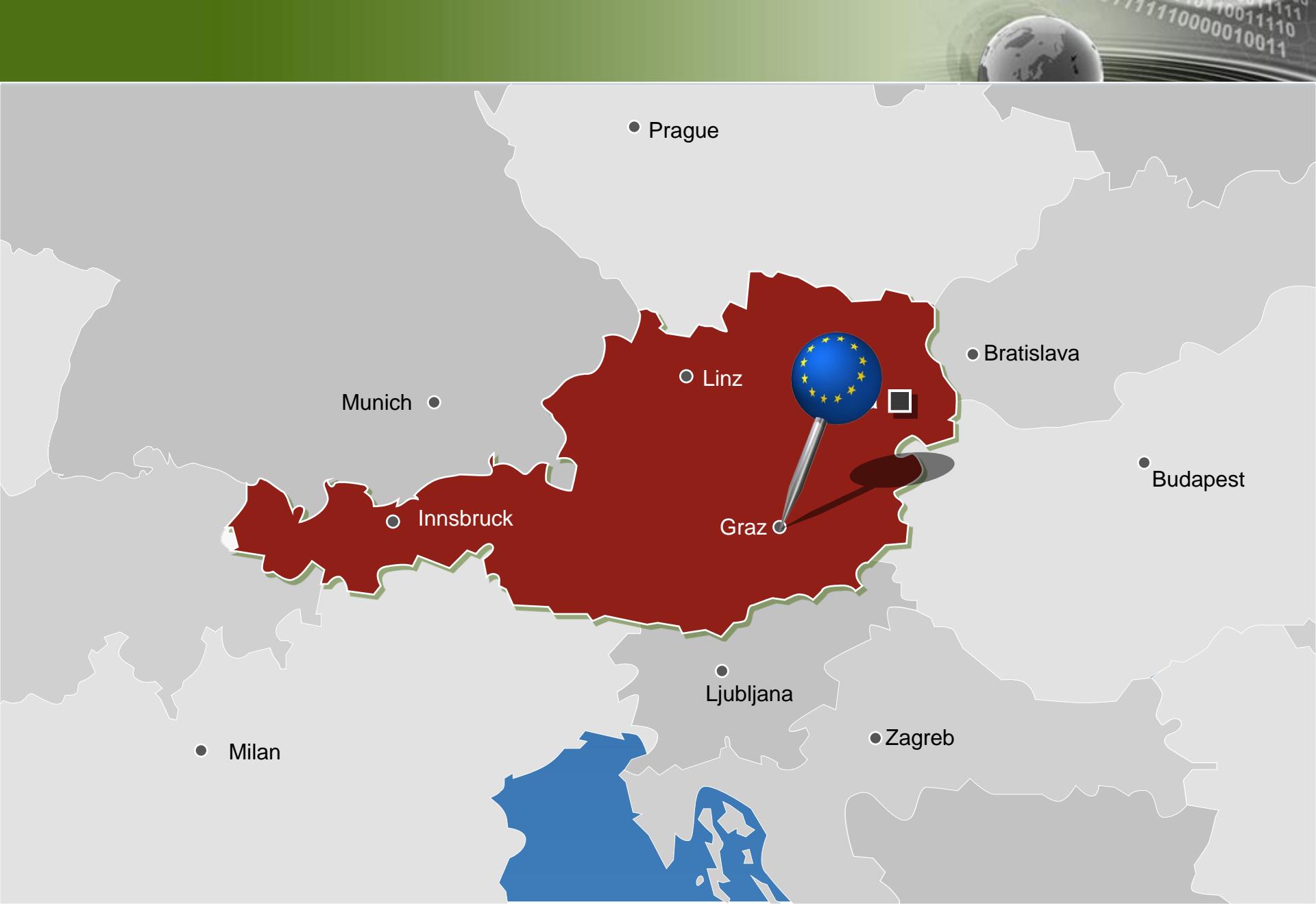




Research for Animal Health – What can we expect in the future?

Peter Juul Kristensen - Boehringer Ingelheim



Agenda



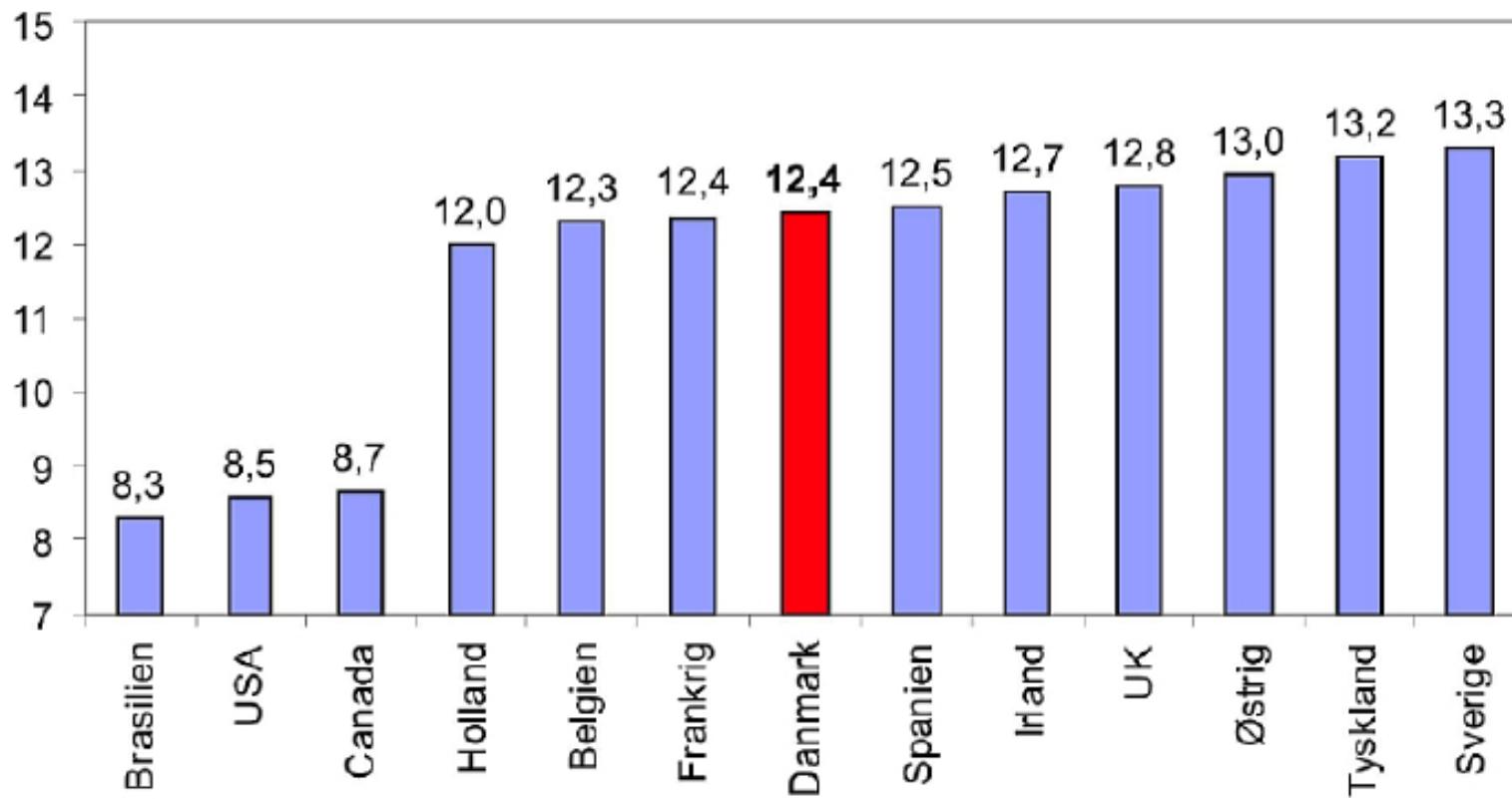
1 Situation

2 The Future – Animal Health Research

3 The Future – Biosecurity

4 The Future - Environment

COP across Interpig Countries

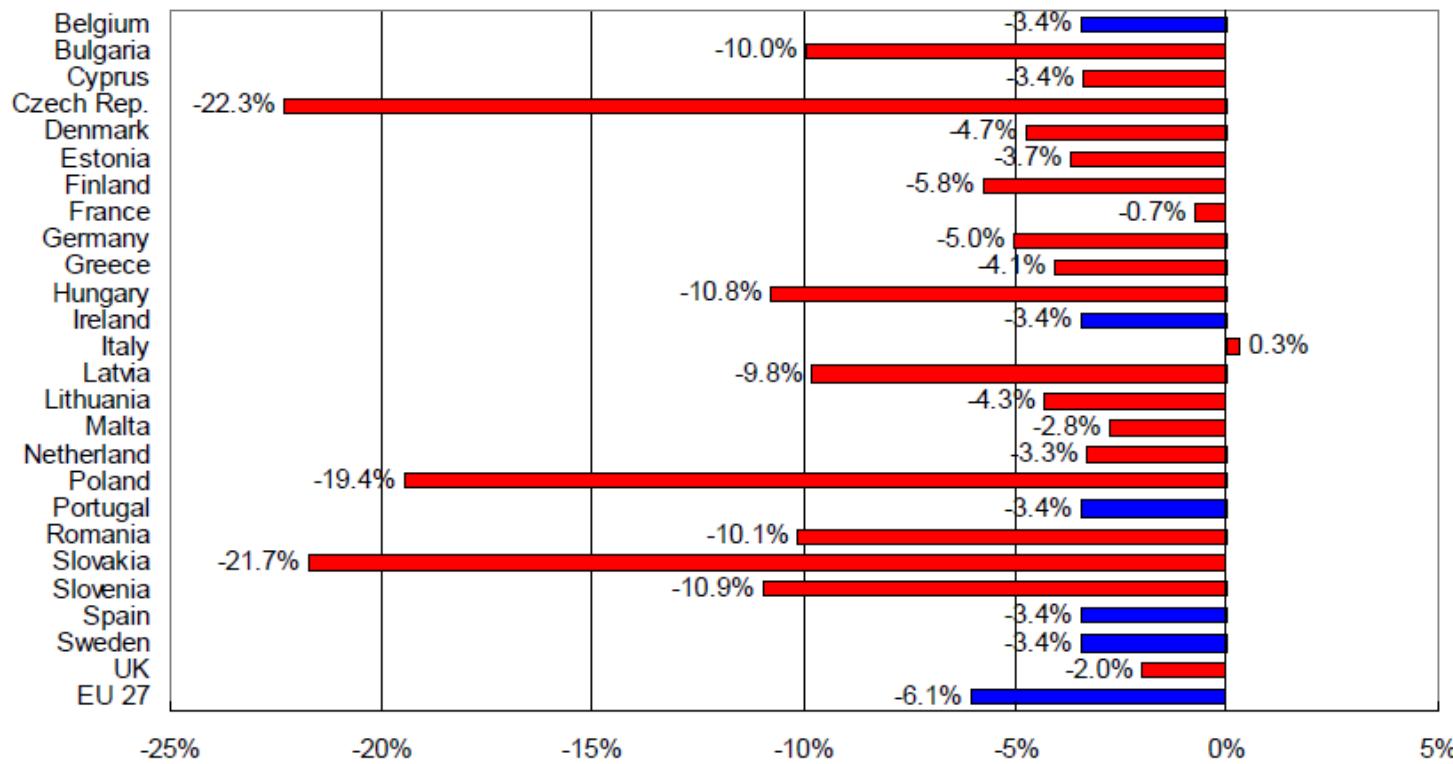


2008 production cost per kg carcass in DKK

EU Sow herds



EU-27 breeding sow numbers in December 2008



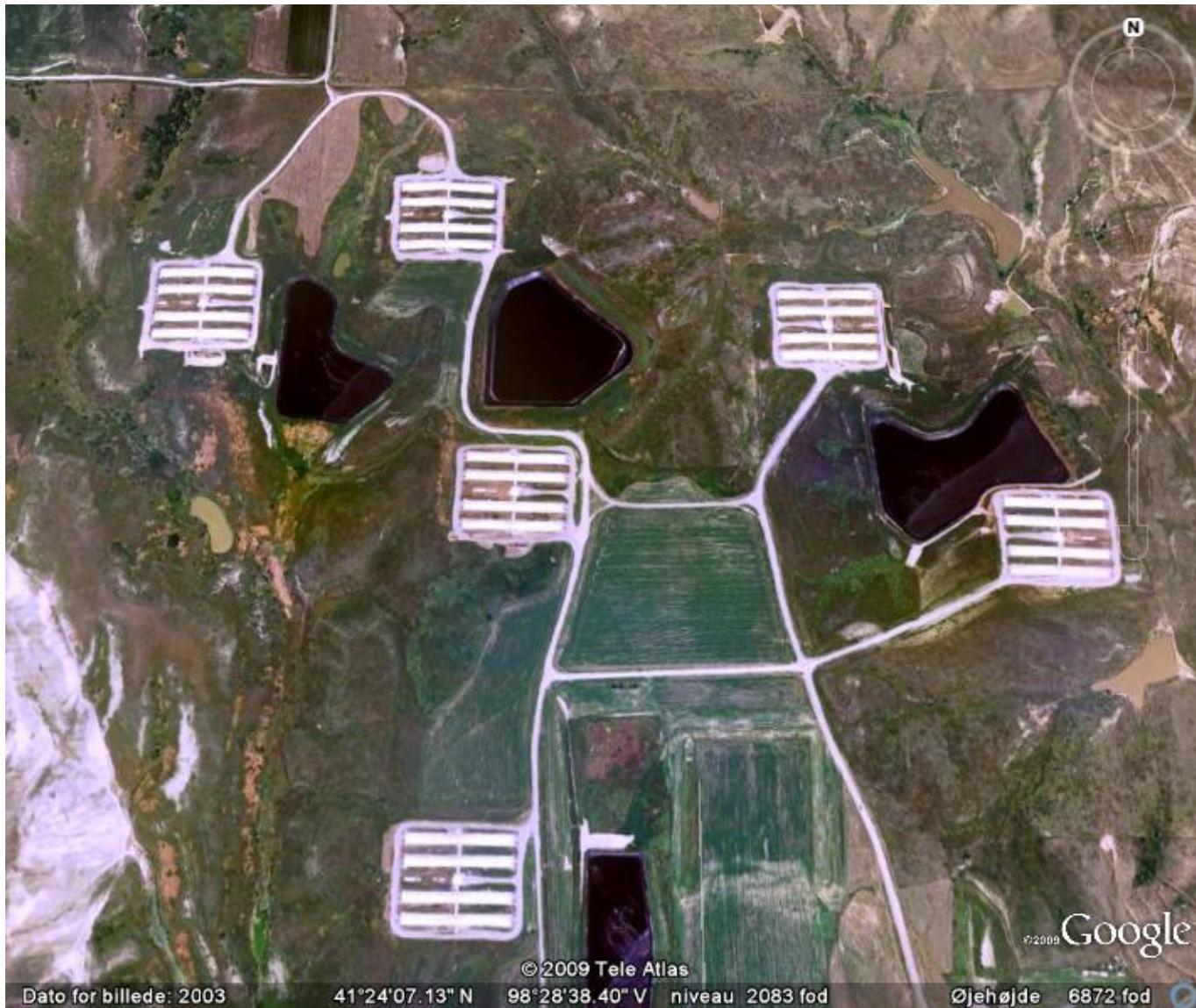
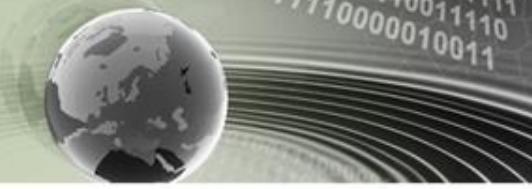
Blue bars indicate that results are provisional

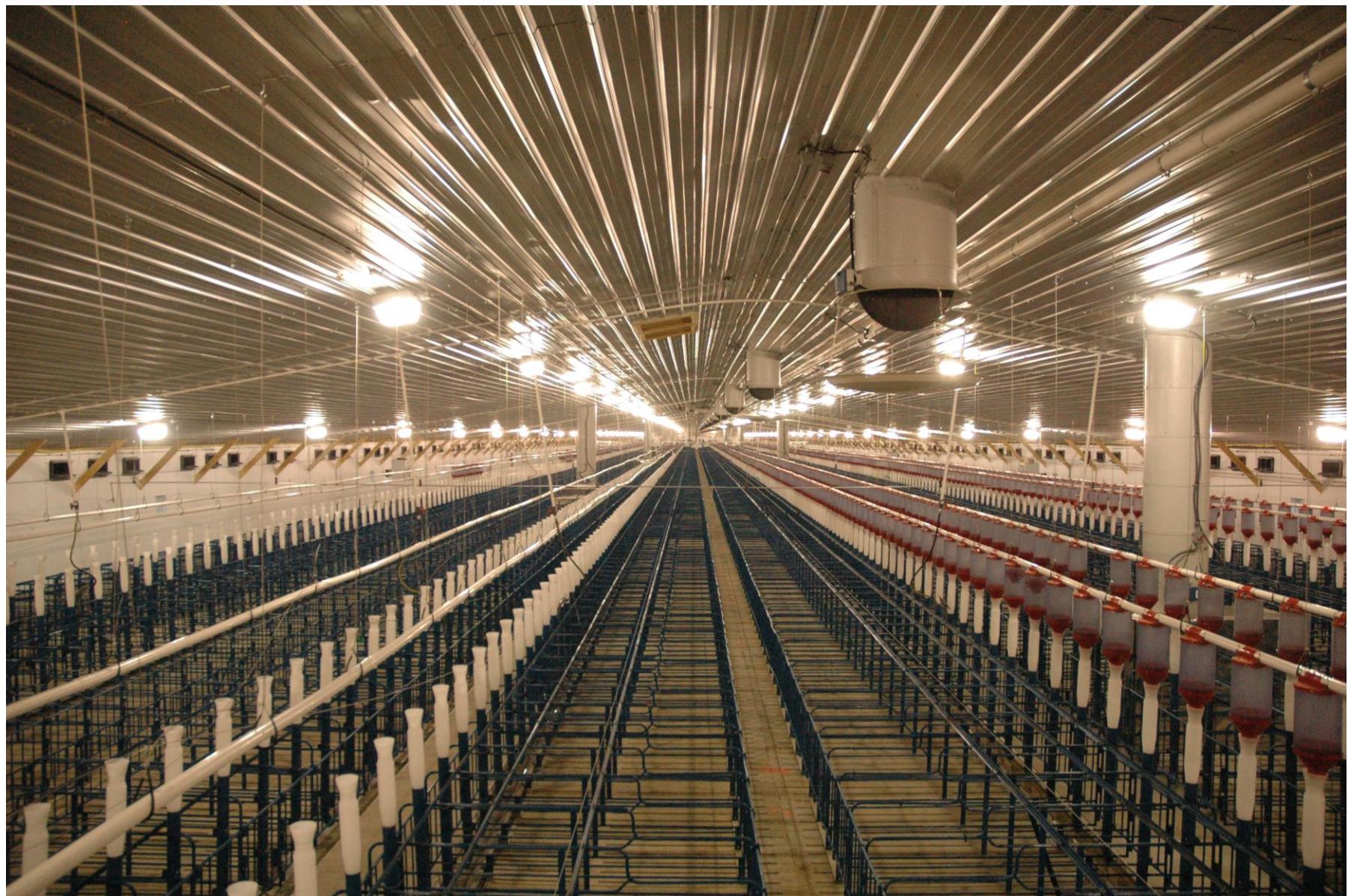
Across the water



- NA, SA and Asia
- Working with sites from 2.500 to 12.000 sows
- Asia and South America are working with "pods" on 10.000 to 100.000 sows

30.000 sows in "pod"





A New Day



- Extreme currency fluctuations and the financial crisis have changed the world as we know it !
- North- and South American producers are building large scale production sites that are EU compliant
- Who will set the agenda in the future?



Agenda



1 Situation

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The Future - Antibiotics



- **Very few new antibiotics to the marketplace in the EU**
- **In feed antibiotics are under pressure**
- **Several groups of antibiotics are under heavy public surveillance**
- **Less and more expensive antibiotics**

The Future - Vaccines

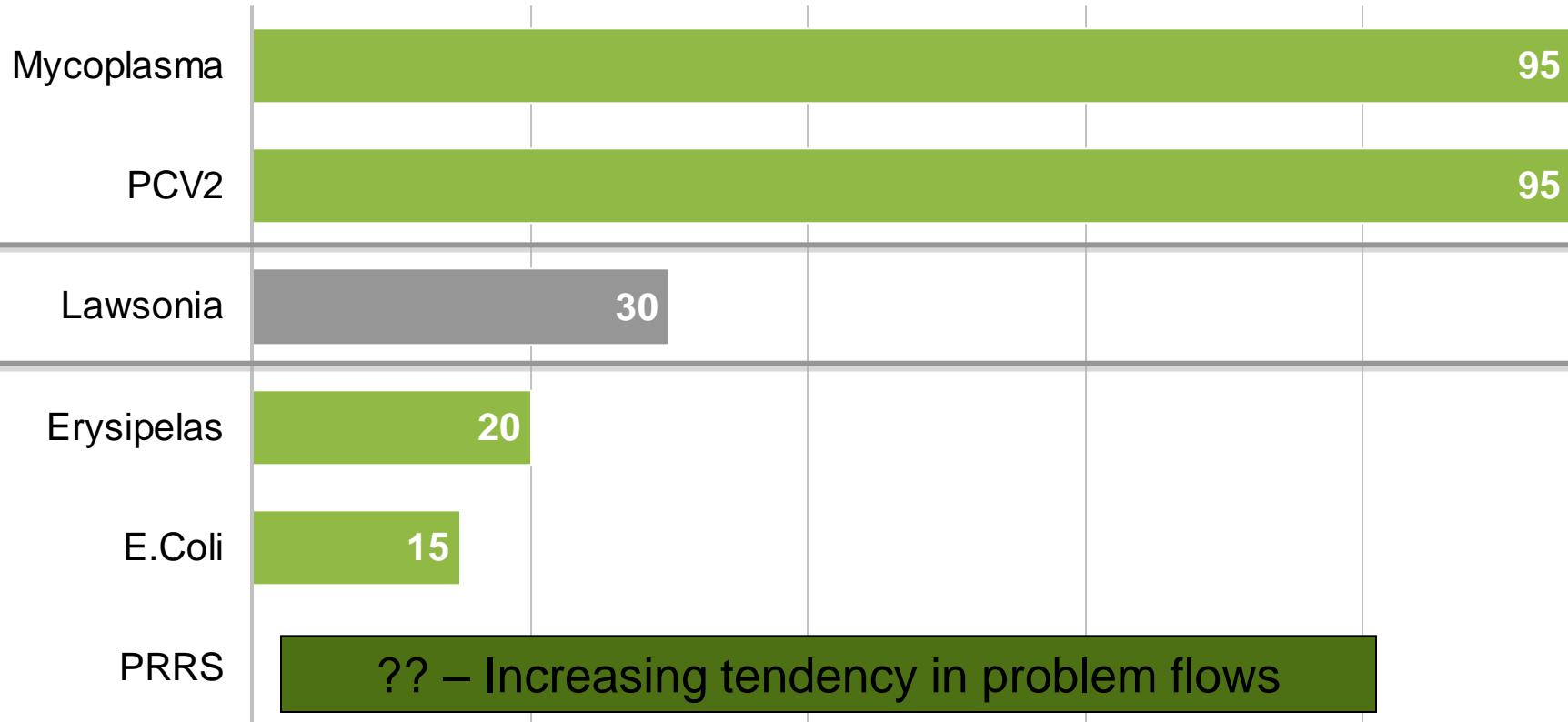


- Effective piglet vaccines for PCV2 have entered the market
- Combination vaccines for pigs will be developed in the years to come
- PCV2/Myco
- PCV2/Myco/PRRS/.....

Vaccination Strategy



Vaccination protocol in US industry (% vaccinated animals)



Animal Health



- **Genetic research in disease resistant lines and traits**
- **Genome mapping**
- **Market specific animals**
- **Health insurance programs**

Statistical Sampling Size Chart

Sample size required to detect attribute in a population or defined group with defined level of certainty. (Pop. Med. News 6.11)

PREVALENCE	1%	1%	1%	5%	5%	5%	10%	10%	10%	25%	25%	25%	50%	50%	50%	75%	75%	75%
CERTAINTY	90%	95%	99%	90%	95%	99%	90%	95%	99%	90%	95%	99%	90%	95%	99%	90%	95%	99%
N= 10	10	10	10	10	10	10	10	10	10	6	7	8	3	4	5	2	3	4
20	20	20	20	19	20	20	14	16	18	7	9	11	4	5	6	2	3	4
30	30	30	30	24	26	29	16	19	23	8	9	13	4	5	7	2	3	4
40	40	40	40	28	31	36	17	21	27	8	10	14	4	5	7	2	3	4
50	50	50	50	30	35	42	18	22	29	8	10	14	4	5	7	2	3	4
60	59	60	60	32	38	47	19	23	31	8	10	15	4	5	7	2	3	4
70	68	70	70	34	40	51	19	24	33	8	10	15	4	5	7	2	3	4
80	76	79	80	35	42	54	20	24	34	8	10	15	4	5	7	2	3	4
90	84	87	90	36	43	57	20	25	35	8	10	15	4	5	7	2	3	4
100	91	96	100	37	45	59	20	25	36	8	10	15	4	5	7	2	3	4
125	106	114	122	38	47	64	21	25	37	8	11	16	4	5	7	2	3	4
150	118	130	143	39	49	68	21	26	38	8	11	16	4	5	7	2	3	4
175	128	144	163	40	50	71	21	27	39	8	11	16	4	5	7	2	3	4
200	137	155	180	41	51	73	21	27	40	8	11	16	4	5	7	2	3	4
225	144	166	196	41	52	74	21	27	40	8	11	16	4	5	7	2	3	4
250	151	175	210	42	53	76	21	27	41	8	11	16	4	5	7	2	3	4
275	156	182	223	42	53	77	22	28	41	8	11	16	4	5	7	2	3	4
300	161	189	235	42	54	78	22	28	41	8	11	16	4	5	7	2	3	4
400	175	211	273	43	55	81	22	28	42	8	11	16	4	5	7	2	3	4
500	184	225	300	43	56	83	22	28	42	8	11	16	4	5	7	2	3	4
600	191	235	321	44	56	83	22	28	43	9	11	16	4	5	7	2	3	4
700	196	243	336	44	57	85	22	28	43	9	11	16	4	5	7	2	3	4
800	200	249	349	44	57	85	22	28	43	9	11	16	4	5	7	2	3	4
900	203	254	359	44	57	86	22	29	43	9	11	16	4	5	7	2	3	4
1000	205	258	368	44	57	86	22	29	43	9	11	16	4	5	7	2	3	4
Infinite	229	298	458	45	59	90	22	29	44	9	11	17	4	5	7	2	3	4



The Producer must be able to
set an Agenda !!

Agenda



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10.000 sows – 5.000 pigs per week



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The Journal of the
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**AMERICAN ASSOCIATION
SWINE VETERINARIANS**



Filtration



Transfer station

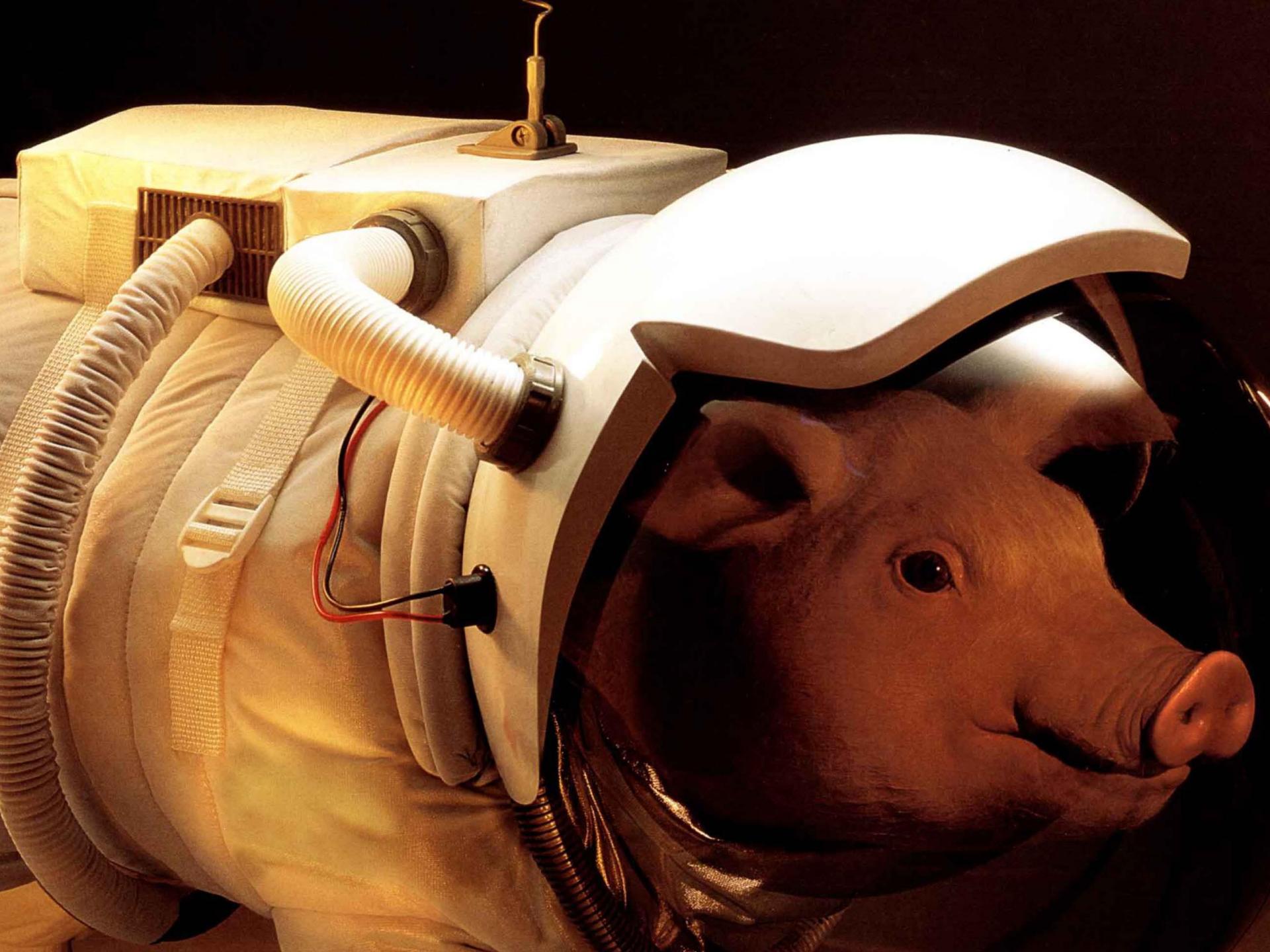


Transfer station II



Heating and drying





Agenda



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Environment



- “100 day pigs” – no antibiotics for the last 100 days of life
- “Zero pigs” – Green energy with waste and odor processing
- Increase in Organic production
- WHO IS GOING TO PAY??

Take Home



- In the future there will be two kind of producers
- Those who set an Agenda
- And those who are doing something else !!



Questions ?

Thank you for your attention

