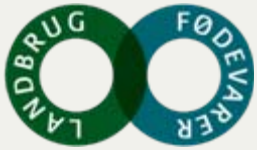


# Danish Pork Traceability System – "Pigtracker"

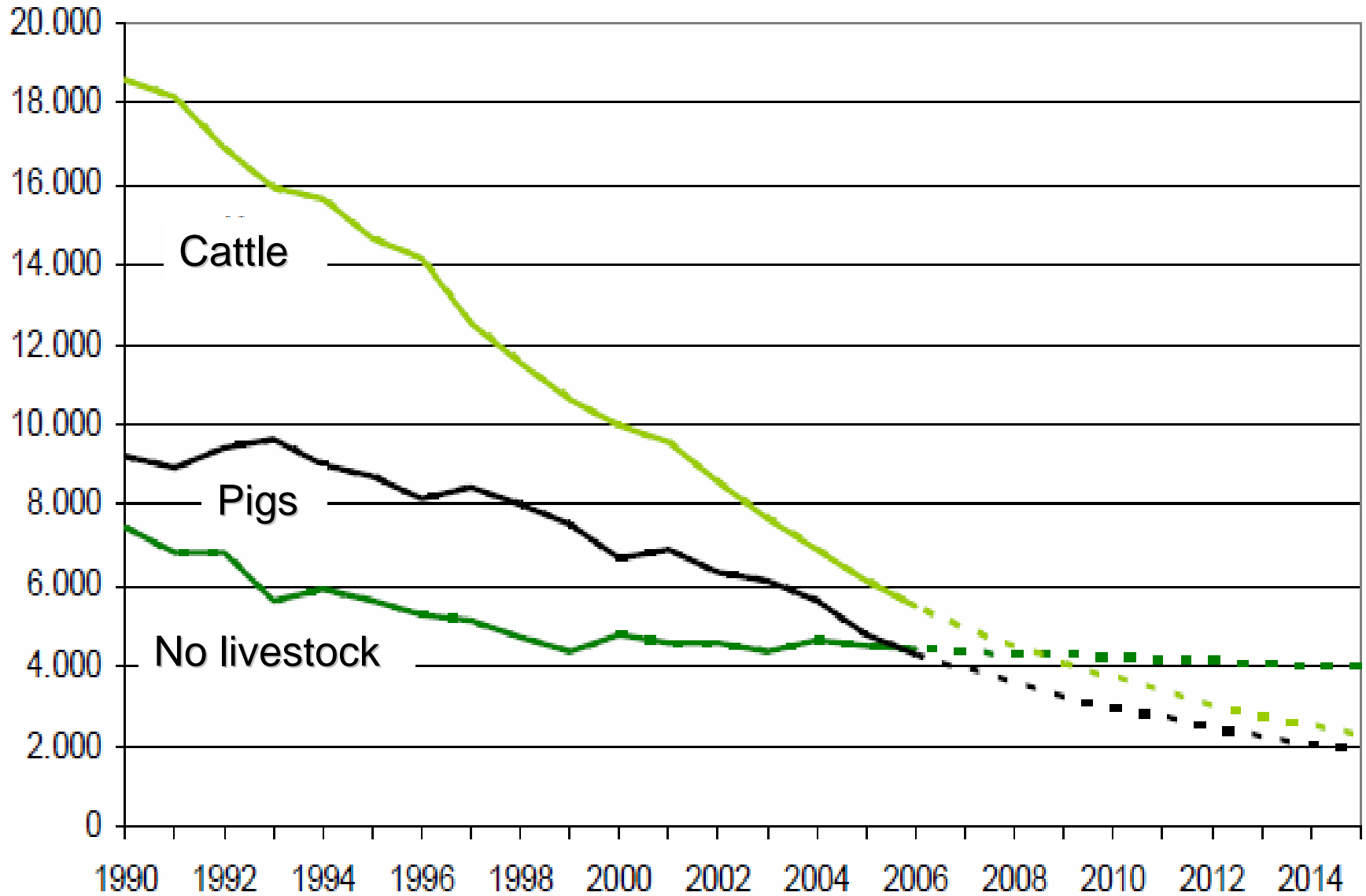
Niels Peter Baadsgaard, DVM, Ph.D.



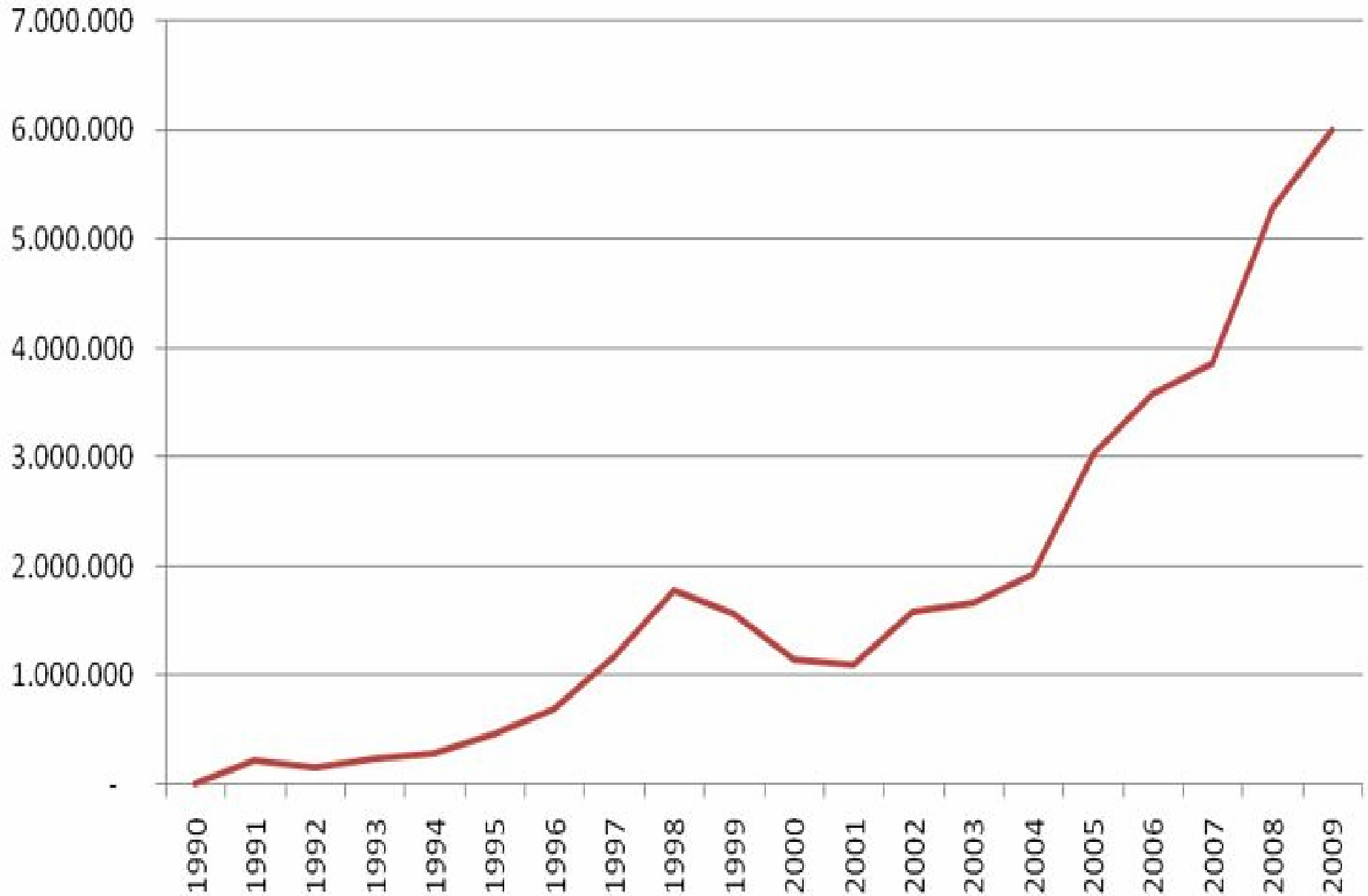
## Key words

- Danish pig production – some statistics
- The Pigtracker-project – UHF-RFID for E-ID
- Online electronic ID – a new paradigm – from the group level to the individual level
- The benefits
- The challenges

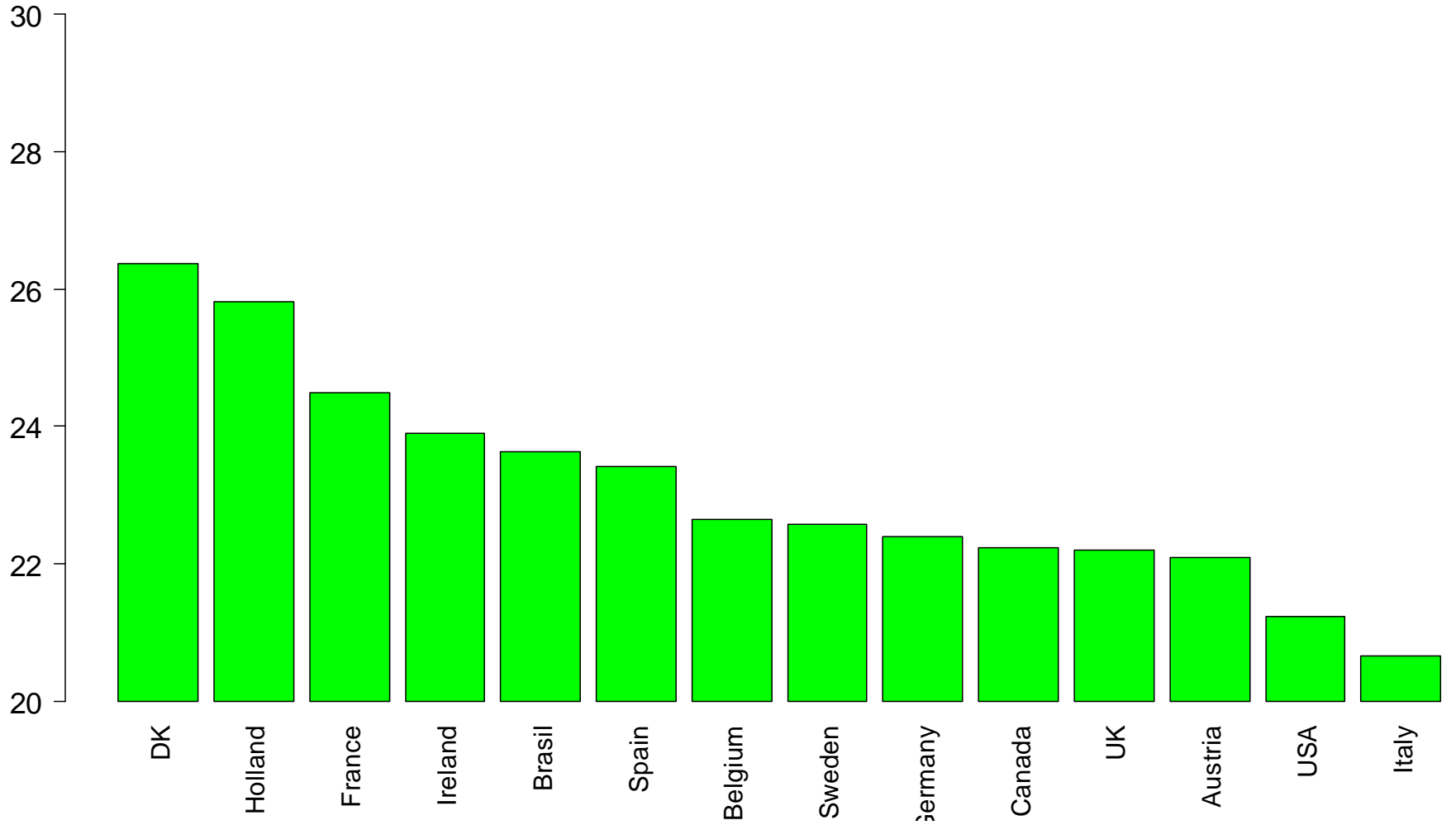
# The herd structure

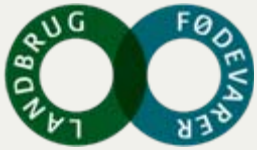


# The Danish annual export of pigs (30 kg)



**Piglets produced per sow per year**

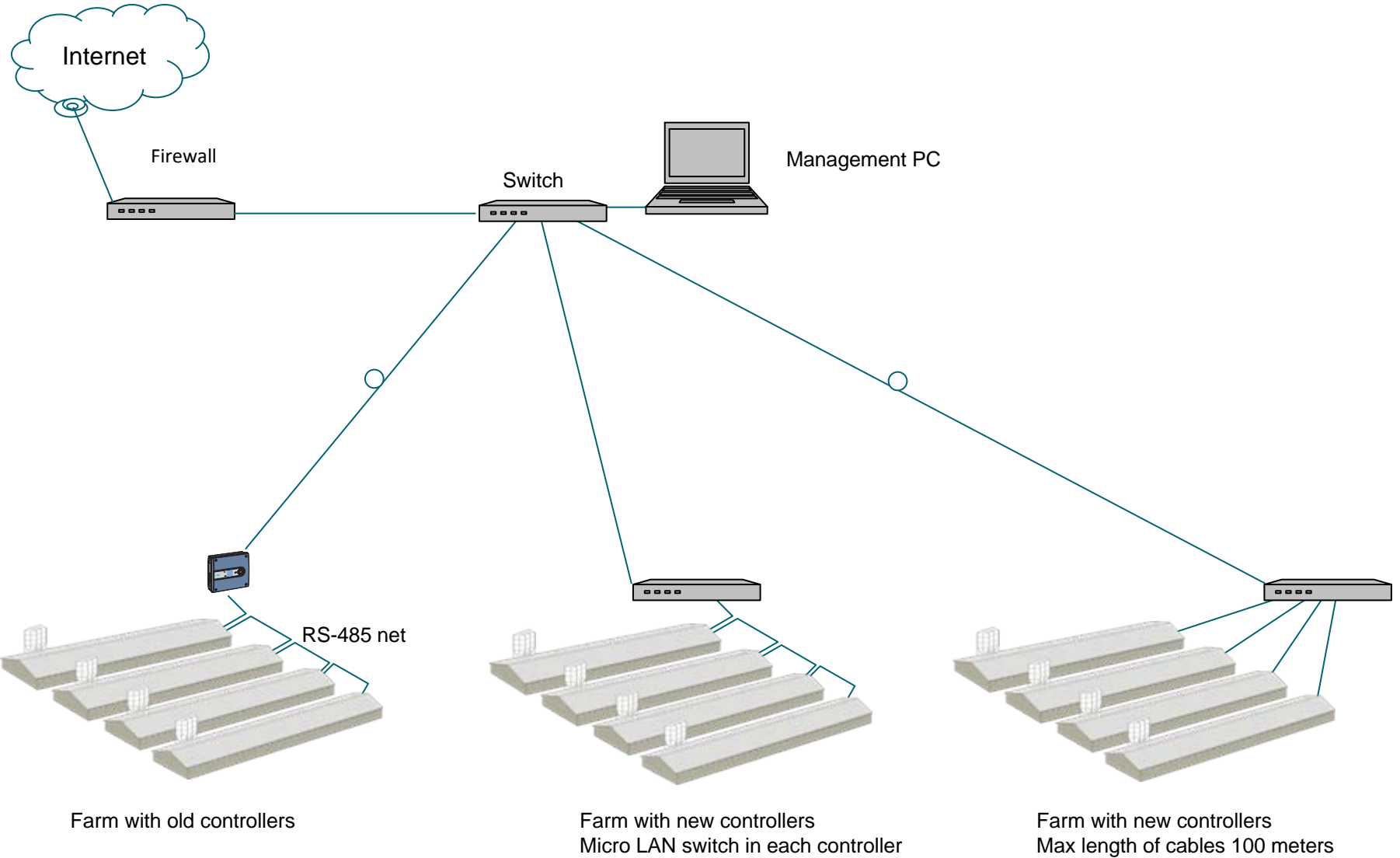




## Key words for the future of Danish pig production

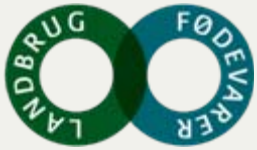
- Few, but very large herds
- High efficiency, but also very high costs
- German finishing units instead of Danish finishing units?
- Export of high valued breeding pigs: 20% increase in export from 2008 to 2009
- Increasing demands regarding animal welfare and more environmental restrictions

# The herd structure and the infrastructure



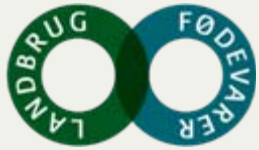






# The business drivers

- The breeders cannot use the existing standard for E-ID of breeding animals – a new standard is needed
- The existing tags are too expensive and the reading range is too short
- Internal traceability:
  - How many pigs within each unit?
  - Which pigs?
  - Where is 1073?
- How are the newly bought pigs performing?
- What is the performance of the pigs that I sell?
- Management – we need ID

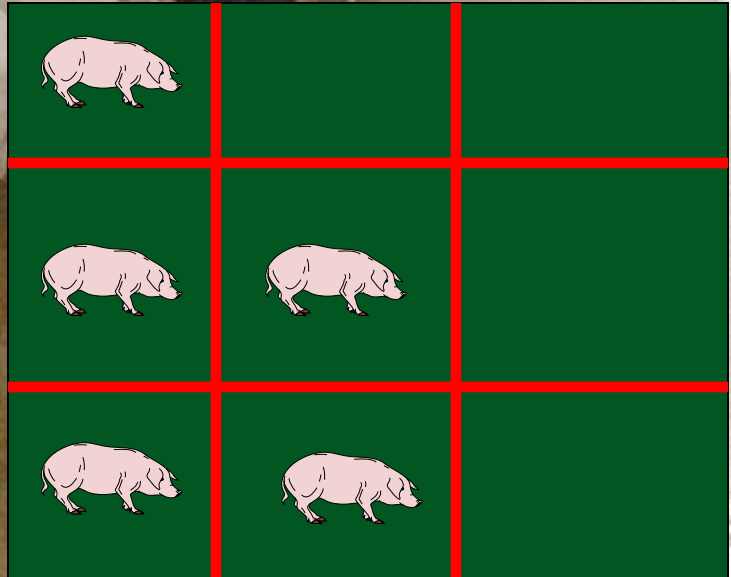
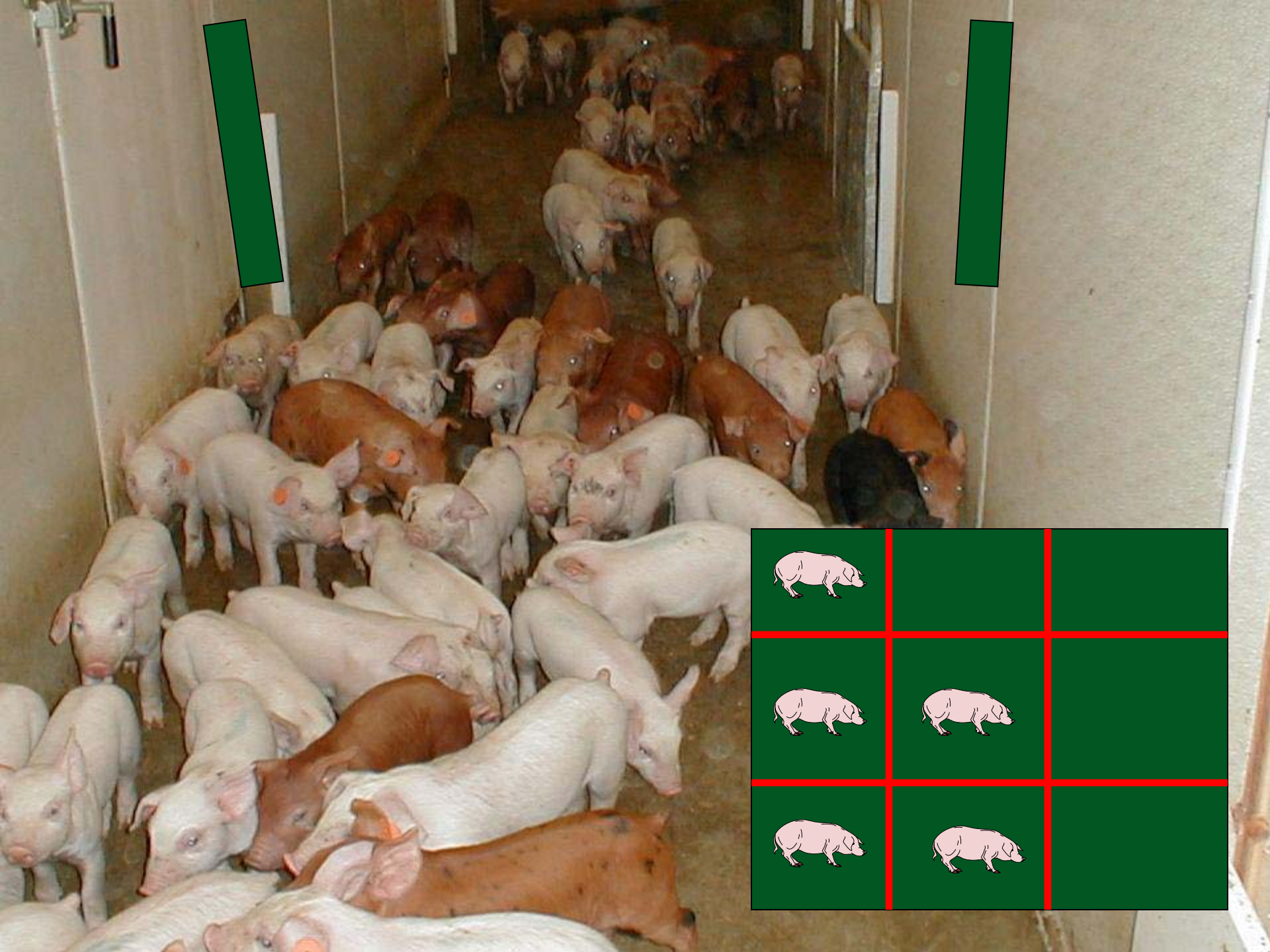


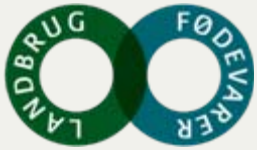
# The Pigtracker project

- Cooperation between Danish Agriculture & Food Council, Danish Technological Institute, Prosign and Printerlabels and supported by the government
- Use UHF-RFID for E-ID
- Automatic reading with reading distances > 1.5 mtrs. and handheld readers approx. 1 mtr. and near field reading
- Provide the producer with a system for internal traceability of individual pigs within the farm
- Next step: Make data available for other stakeholders: other producers, abattoirs, public authorities



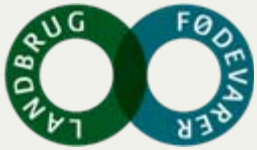






# The business strategy in Pigtracker

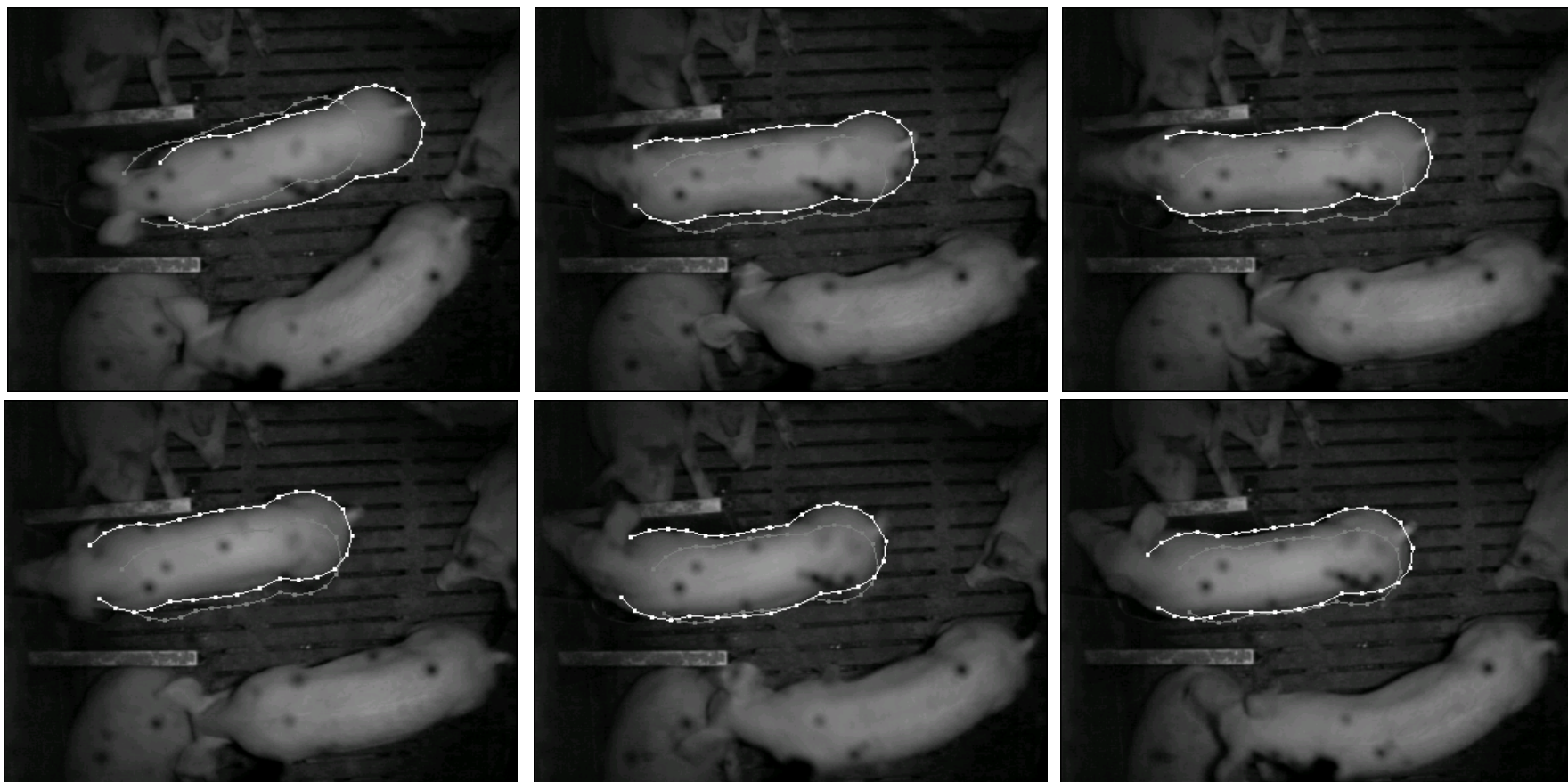
- Find the simplest and cheapest tag with only E-ID
- Proof of concept
- Demonstrate the benefits for the producer (4-5 test herds)
- Make decision on a common data standard
- Start tagging high value breeding pigs
- Moving forward with the production herds

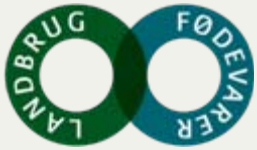


## More on the benefits

- Monitor individual performance instead of group performance
- Link data on individual performance and treatment with individual recordings on meat quality / disease recordings
- Individual documentation – disease tracking, recalls
- Sharing knowledge

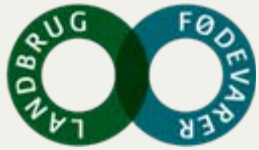
# Is the pig ready for slaughter?





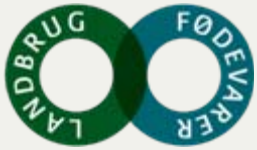
# More on the benefits with RFID:

- Costs of meat inspection are too high – focus attention on high risk pigs – pigs that have had disease (treatment recordings)
- Monitoring of personnel (5000 € for an existing system)
- Moving of pigs must be manually recorded in the official database – not surprisingly there is a fee each time.....
- How many pigs have been delivered to the slaughter house within the last hour?



# Potential obstacles/challenges

- Proprietary solutions / lack of scalability - think big in the start phase, agriculture is a supply chain
- A common data format will drive down the costs of the tags and the readers
- The official approval of a new standard – more than one tag may be needed temporarily
- The authorities: with cheaper and better technological solutions we must look for partners that can create political pressure for new standards –GS1
- Can the cattle industry become a partner?
- Tools for sharing data/knowledge are already there - EPCIS



## What is the strategy within Danish Agriculture and Food Council?

- Untill now, no top-down decisions on meat traceability within the Danish pork industry ~ no decisions on the standards either
- On the contrary, work is being done on getting EU approval of farms delivering large batches of pigs without herd id to the abattoir
- The breeding associations are pushing hard to get new solutions for E-ID
- <http://pigtracker.dk/>