Pigtracker: Using UHF-RFID for Pig Traceability

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The Pigtracker project – supported by the Danish Ministry of Food, Agriculture and Fisheries (Innovationsloven) 2009-2011

→ Develop an electronic ear tag that can be read automatically and from a distance
→ Demonstrate a system for online tracking of pigs

PROSIGN RFID
INNOVATIVE RFID SOLUTIONS

RF LabelTech AS
-we add technology to labels

DMRI
Danish Meat Research Institute
En division i Teknologisk Institut

TRACECOMPANY
UHF-RFID - a new technology for livestock ID?

→ UHF-RFID means Ultra High Frequency Radio Frequency Identification – 867 MHz
→ UHF-RFID has long reading ranges – many meters with fixed readers and up till 1 meter with handheld readers – depending on the size of the RFID-transponder
→ With UHF-RFID you can read many items/animals simultaneously
→ UHF-RFID is widely used in various supply chains - large volumes drive down the costs
→ Network technology and PDA’s are already on the farm
This is how it works

→ Link to the movie
Traceability

→ Internal traceability
  - How many pigs within a specific unit?
  - Where is the pig?
  - Individual performance measurements – growth, medical treatments etc

→ External traceability
  - Where did the pig come from?
  - When did the pig arrive at the farm?
  - When did the pig leave the farm?
  - When did the pig arrive at the abattoir?
  - How many pigs will arrive at the abattoir within 2 weeks?
Is the pig ready for slaughter?
The challenges

- Maintaining tag performance in a harsh environment
- User-friendliness – how does the technology fit into normal working routines?
- Willingness to share information/data and integration with existing software on the farm
- Start small but think big
- Farms are different
- Many additional applications for UHF-RFID within agriculture
- Inventory management, supply chain management – already in place in the industry – why not learn from others (technology, software, the standards)?
- Globally unique identification – EPC (GS1)
- [www.pigtracker.dk](http://www.pigtracker.dk)