

Animal ID: where are we heading?

The topic of animal identification has enjoyed plenty of attention over the last few years and looks set to be a very fruitful application area for automatic identification technologies. Among the numerous benefits technologies such as RFID promise to bring the industry are improvements in the health and management of herds, and far superior surveillance, control and eradication of disease, particularly relevant given the outbreaks of Mad Cow disease and bird flu in recent years. In the US, the Department of Agriculture's National Animal Identification System (NAIS) is under development and has the ultimate goal of identifying and tagging every single livestock animal in the country. In Europe, meanwhile, EC legislation (Council Regulation EC 21/2004) requires the electronic identification of all sheep and goats from January 1, 2008.

With the agriculture and livestock businesses evidently moving in the direction of ever-improved identification of their herds, ID People asked several industry experts for their views on how they see animal identification evolving over the next five years and the technologies and methods that will prove most popular.

Monica Emmenegger



Head of Animal ID Division
Datamars

A: "Since the introduction of RFID products for animal ID in the 80s where some non-compatible systems were offered, interest in this ID method has grown. The products found their first major application with fish, followed by pigeons, pigs and pets. The ISO 1174/11785 standards in 1996 created a basis, enabling authorities, international organizations, and agriculture ministries to include this method in regulations such as the pet travel scheme in the UK, the EU health certificate for dogs, cats and ferrets, and the EU Council regulation for the identification of ovine and caprine. Tattoos and other methods are being replaced by RFID because it is painless, fast and animal-friendly. Vets, border authorities, the shelter community and kennel clubs rely on RFID transponders and reader devices, and on secure, fast and efficient databases. Given all regulations, we might estimate that within 5 years 50% of pets in Europe will carry a chip under the skin. N.America and Australia are steadily increasing the numbers of their livestock that are electronically identified. The future for this technology is bright and brings with it proposals like plastic encapsulated transponders and chips with r/w capability and sensors."

Monica Emmenegger has headed Datamars' Animal ID Division since 2000 having previously spent five years as marketing and sales manager.

Reiner Wagner



CEO and co-owner
AEG ID

A: "We have to distinguish between two major market segments: animals that are identified with transponder implants (e.g. pets) and animals that are identified with either ear tags or a bolus (e.g. livestock). The transponder in a 2mm diameter glass tube is a mature product that has been implanted in well over 50 million animals. It is used for companion animals, zoo animals, but also for fish and research animals and horses. This market segment is characterized by steady growth, which will certainly continue over the next 5 years. A vision of the future may involve a user-defined memory in the transponder. Information on animal health can be stored there as well as the telephone number of the owner. These features are reflected in an advanced ISO Standard, currently being worked on. On the other hand, the electronic identification of livestock will be driven by legislation. In Australia the majority of bovine animals are "tagged" with RFID, whereas in the EU a regulation for sheep and goats was issued using ear tags and bolus. I expect the majority of the 90 million sheep in the EU to be identified with RFID within the next 5 years. The same will then apply to livestock animals."

Reiner Wagner has been CEO and co-owner of AEG ID since 2003. He previously held positions at Amatech (managing director) and ACG (partner).

Q: What will happen in the area of animal ID in the next 5 years?

Dan Baker



VP Sales and Marketing
Optibrand

A: “Animal ID needs to be viewed in one of two categories – regulatory ID and value-added ID. Regulatory ID has traditionally been a cost to the livestock producer and serves only to track disease while value-added ID has given livestock producers the opportunity to gain premiums for the products they produce due to the ability to verify who, how old, and where the products came from. In the next five years we will see a significant increase in the use of animal ID for value-added purposes. In addition to this, producers of livestock products will continue to adopt new and innovative methods of identification to further differentiate their products from their competitors. Due to the susceptibility to tampering and loss of traditional ID methods such as tags (both visual and RFID), livestock producers will adopt secure biometric methods such as retinal imaging and DNA. This will allow them to meet customer demand and expectation for reliable proof of important production claims.”

Dan Baker is vice president of Sales and Marketing at Optibrand. He works with livestock producers, processors and food retailers to identify and implement value-added solutions by utilizing animal identification, herd management tools and innovative marketing techniques. He holds a Master of Science degree in Animal Sciences from Colorado State University.

Sven Hütter

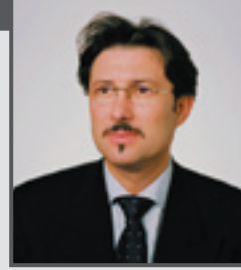


Managing director
PlanetID

A: “The electronic identification of animals is the only business field where there is a real and closed ISO standard, which has offered countries the opportunity to take decisions for the official identification of animals with RFID devices. More and more countries will decide upon an official use of the RF identification. This process will certainly continue over the next five years. The fact that there is a well-constructed and accepted standard offers more and more new readers, new additional devices and applications based on this technology, which will increase confidence on the user side. The new ISO standard 14223 is on the way to being finished and should be available in about 4-5 years. The ISO standard for r/w animal transponders will open up completely new possibilities on the animal market. This consists of different market segments and so their idiosyncrasies have to be taken into consideration. Unfortunately more and more places are establishing test procedures that will only increase prices and not user confidence.”

Sven Hütter founded Planet ID, a company that focuses on animal ID and provides livestock consulting, in 1998 and has been managing director since its inception. Prior to this he worked for a major livestock identification company. He is the official expert for Germany on the ISO/TC23/SC19, and a German representative in the ISO/TC23/SC19/WG3.

Manuel Villamayor



Director Business Segments
Assa Abloy ITG

A: “The electronic identification of pets is now a reality and most countries are identifying their pet population with PITs (Passive Injectable Transponders) in compliance with the ISO 11784/85 standard. The electronic identification of livestock is also based on ISO 11784/85 and DG Sanco, ICAR and JRC rules and guidelines will move very fast from 2008 with a hundred million sheep and goats being identified in Europe, followed by cattle. In Europe alone we are talking about three hundred million animals. Traceability will be ensured by the EU using a general database located in Brussels which links to all EU member state databases. This will ensure quick action with secure quarantines in the case of disease outbreaks. Bolus tags, ear tags and injectable glass tags will be used over the next five years to identify livestock. Electronic ID will, therefore, increase the efficiency of animal control and assist in the free movement of livestock within the European Union, detecting animals that do not belong to the EU, improving the control of subsidies and allowing fast intervention in the case of contagious diseases.”

Manuel Villamayor is director of Business Segments at Assa Abloy Identification Technologies (ITG) where he is responsible for the market and product strategy of six business segments: Government, Financial Transactions, Public Transport, Food & Animal, Industry & Logistics, and Access & Security.

Q: What will happen in the area of animal ID in the next 5 years?

Daniel K. Brierley



CEO
Dalton Group

A: “The topic of livestock traceability for disease and breeding has been around for almost 100 years but over the coming years the issue of consumer confidence will add value and drive identification concepts. The commercial reality is that the benefits of any ID system are offset by cost, and some governments and organizations have thus shown great hesitancy in adopting any scheme that appears to penalize livestock producers. Technology solutions are now a commercial reality. Their ability to add value at every level of the food chain will lead to an availability of data at consumer level previously unforeseen. While several countries already employ ID techniques for traceability, within the next 5 years one would expect a global adoption of such systems thereby avoiding trade and tariff constraints or trade barriers created by a lack of traceability between countries. In 5 years time the scare tactics used by media organizations to frighten consumers will no longer be able to be applied to meat. Labelling and interactive information services at the point of sale will allow the retail trade to clearly differentiate quality products, and consumers will support animal welfare by paying the price for clearly identified produce.”

Daniel K. Brierley joined Dalton's in 1984 in Australia. After 10 years he transferred to the European market sector and, after operating in a variety of roles, was appointed CEO in 2000.

Mark C. Pydynowski



President
Somark Innovations

A: “Consumers, which range from ordinary individuals to export markets governed by public officials, are demanding more information about the source, age, production, and genetic makeup of the food they consume. I use the word “demand” because they are willing to pay a significant premium for this information and often alter eating habits to avoid items lacking the desired data. In order to deliver such information, all players in the supply chain must embrace a robust cross-platform information system. The obvious requirements for such a system, to be fully utilized and value appropriated from premium paying customers, is a 1) cost effective, 2) secure, and 3) a “speed of commerce compatible” animal ID system. It is for these reasons that I believe the area of animal ID will experience significant interest, growth, and investment throughout the next five years.”

Mark C. Pydynowski is the president of Somark Innovations, which is developing a patented ID system based on a RFID Bio-Ink tattoo. Recent company milestones includes successful animals tests, issued patents, and multi-million dollar financing. Pydynowski is an alumnus of Washington University in St. Louis where he and co-founder Ramos Mays won the 1st Place \$50,000 Olin Cup entrepreneurship award.

Axel Striefler



President and CEO
Syscan International

A: “Global livestock traceability, electronic animal identification (EID), tracking, tracing and authentication concepts are becoming increasingly widespread; EID forms one of the most important elements of any effective traceability system to assure food quality, particularly safety, in agri-food chains worldwide. Today we have four patterns of adoption in major producing and trading countries: mandatory systems in response to consumer concerns (EU and Japan); mandatory traceability to maintain or enhance export market shares (Australia, Brazil, and Argentina); industry-managed mandatory programs for animal ID (Canada); and voluntary systems (US). By working closely with different user groups, government or semi-government agencies, EID and animal movement tracking solutions among all stakeholders will turn into real value and compliance propositions. Overall, it is clear that EID traceability will become an increasingly integral feature of markets for food products and the countries that have already adopted such systems have positioned themselves to reap the economic benefits, either domestically or in export markets.”

Axel Striefler became president and CEO of Syscan International in 2002. He has a 15-year background in communications and RFID tracking and tracing technology and has launched several international enterprises.