A2 - Fresh Food Transparency Apps

# Summary of the innovation

The innovative transparency system for meat has been developed based on the new EPCIS standard that can handle irrevocable events, e.g. a slaughtered cow can never become alive again or even one single piece as it was in the beginning. The system consists of one or more EPCIS repositories that contain all events of a meat item starting at the farm, and subsequently passing the slaughterhouse, meat processors, distributors and or cold store to arrive finally in the supermarket. At the end of the FIspace project the transparency system is a rather well tested prototype that forms the main result of the MIP trial.

The MIP trial transparency system may be extended to more meat supply chains and to other types of food, at a national base, in Europe or worldwide. Therefore there is a business perspective to introduce it in real food supply chains.

# Key features / capabilities

* *Query App*: enables standard EPCIS query operations, i.e. queries about raw, intermediate or end-meat products for specific business locations, processes, time intervals, etc.
* *Aggregation App*: collects and aggregates automatically traceability information about a given end or intermediate product and their presentation. This app will be based on the Query App and the Discovery App
* *Farm Capture App*: is an easy to use web-page-like app to enable farmers to copy animal passport data (and more) as EPCIS events and master data on other aspects to an EPCIS repository.
* *Discovery App* discovers which business party has information about a specific object, e.g. a product identified via Global Trade Item Number (GTIN).

# Maturity level (TRL - Technology Readiness Level)

* TRL 4 – technology validated in lab

# Availability

* Research paper
  + Bartram, T., et al. (2014). Efficient Transparency in Meat Supply Chains with IT-Standards: EPCIS based Tracking & Tracing for Business Partners, Consumers and Authorities. IT-Standards in der Agrar- und Ernährungswirtschaft, Fokus: Risico- und Krisenmanagement, 34. GIL-Jahrestagung, 24-25 February 2014. M. Clasen, M. Hamer, S. Lehnert, B. Petersen and T. Brigitte. Bonn, Gesellschaft für Informatik e.V.**:** 185-188. <http://www.gil-net.de/Publikationen/26_185-188.pdf>
  + Scholten, H., et al. (2014). Enabling Transparency in Meat Supply Chains: tracking & tracing for supply chain partners, consumers and authorities. IT-Standards in der Agrar- und Ernährungswirtschaft, Fokus: Risico- und Krisenmanagement, 34. GIL-Jahrestagung, 24-25 February 2014. M. Clasen, M. Hamer, S. Lehnert, B. Petersen and T. Brigitte. Bonn, Gesellschaft für Informatik e.V.**:** 181-184. <http://www.gil-net.de/Publikationen/26_181-184.pdf>
  + Kassahun, A., et al. (2014). "Enabling chain-wide transparency in meat supply chains based on the EPCIS global standard and cloud-based services." Computers and Electronics in Agriculture **109**: 179-190. DOI: 10.1016/j.compag.2014.10.002.
  + Kassahun, A., et al. (2015). Realizing chain-wide transparency in meat supply chains using web applications based on GS1 standards EFITA/WCCA/CIGR 2015 Conference, June 29 - July 2 2015. Poznan, Poland.
* Deliverable (code/prototype)
  + The source code is in Java and owned by EECC
  + URL / link to repository FIspace platform <http://www.fispace.eu/experimental-environment.html>
* Video
  + URL: <http://www.eecc.info/files/mip/mip.html>
* Other
  + The MIP Trial aims at ensuring, that consumers, regulators and meat supply chain participants have reliable information concerning the origin of meat /a meat product (birth, breeding, slaughtering, deboning, processing, packaging). In general it is about enabling consumers to obtain better information on the goods they purchase and producers to better track the flow of goods to the consumers.
  + URL to flyer on platform <http://www.fispace.eu/Documentations/Leaflets/meat-information-on--provenance-leaflet.pdf>

# Licensing

* All apps are closed source, owned by the developer of the apps, EECC.

# FIspace partner(s) that own innovation & contact points

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