ISOBUS Workshop 2008 in Brazil

ISOBUS
Status of Standardization and Implementation

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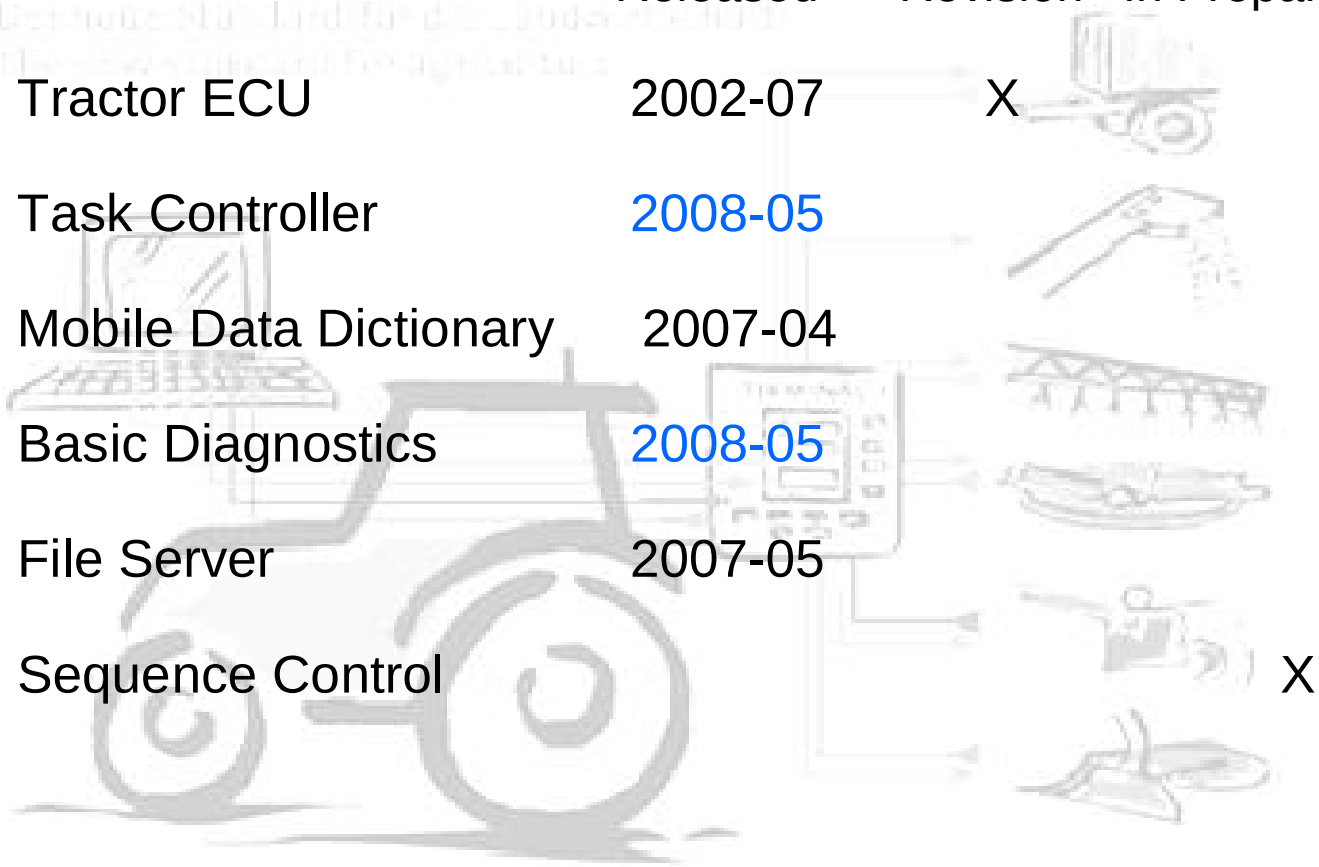
Standard ISO 11783 Part 1 - 8

	Released	Revision	In Preparation
Part 1: General Standard	2007-06		
Part 2: Physical Layer	2002-04	X	
Part 3: Data Link Layer	2007-10		
Part 4: Network Layer	2001-05	X	
Part 5: Network Management	2001-05	X	
Part 6: Virtual Terminal	2004-06	X	
Part 7: Implement Messages	2002-09	X	
Part 8: Power Train Messages	2006-02		

Normenreihe ISO 11783 Teil 9 - 14

	Released	Revision	In Preparation
Part 9: Tractor ECU	2002-07	X	
Part 10: Task Controller	2008-05		
Part 11: Mobile Data Dictionary	2007-04		
Part 12: Basic Diagnostics	2008-05		
Part 13: File Server	2007-05		
Part 14: Sequence Control			X



Standard ISO 11783
Emphasis in Standardization work

- Part 6: Virtual Terminal
  - Optimization of the implement control in terms of Ergonomic and Safety
  - Closed >80 interpretation gaps and added new features for VT version 3
- Part 10 and Part 11: Task Controller and Mobile Data Dictionary
  - Implementation of automatic documentation and task management
- Part 12: Diagnostics
  - Implementation of Basic Diagnostics for September 2008
  - Definition of enhanced Diagnostics
- Part 14: Sequence Control
  - Headland management with integration of implement functions
- Review of ISOBUS systems under consideration of ISO/CD 25119 Part 1 – 4 (Electronic Risk Assessment)

ISOBUS
Implementation & Certification

- Implementation Levels define a common application oriented implementation of ISO11783
- Implementation Levels are defined and fine-tuned by IGI (Europe) und NAIITF (North America)
- Defined Implementation Levels (IL):
  - IL 1 valid 2001
  - IL 2 valid 2002 - 2005
  - IL 3 valid 2006 - 2007
  - IL 4 valid 2008 - 2009 (IL 3, Part 12 Basic Diagnostics, VT Version 2 clarifications)
  - IL 5 valid from 2009 (includes IL 4 and Part 6 VT version 3)
- Challenge: backwards compatibility
- ~ 80 Products and Terminal-Versions from 17 Manufacturers were implemented and certified in the time from 2003 to 2007
  - 20 Terminals und 2 Auxiliary Controls
  - 35 Implement Controller



ISOBUS Implementation
ISO 11783 Part 6 - Virtual Terminal (Revision)

- Revision got started to include urgent Safety requirements in terms of the Terminal and Auxiliary Controls
  - New Function types for Aux Control (e.g. paired functions like up & down)
  - Working Sets can load specific Aux button mappings for known input devices
  - Working Sets can reject inappropriate Aux Control mappings
  - Backup methods are required when Aux Control fails (e.g. via VT)
- New VT features
  - Split Screen support
  - On-screen mapping, etc
- Implementation of Part 6 Revision in two steps
  - Closing of Interpretation gaps with IL 4 (2008-09)
  - Introduction of new VT features with IL 5 (2009-09)
- ISOBUS specific additions in ISO 15077 - Operator Controls
  - Appropriate marking of Aux Controls required
  - Touch Screen usage regulations
  - Operator Manual requirements

ISOBUS Implementation
ISO 11783 Part 10 - Task Controller

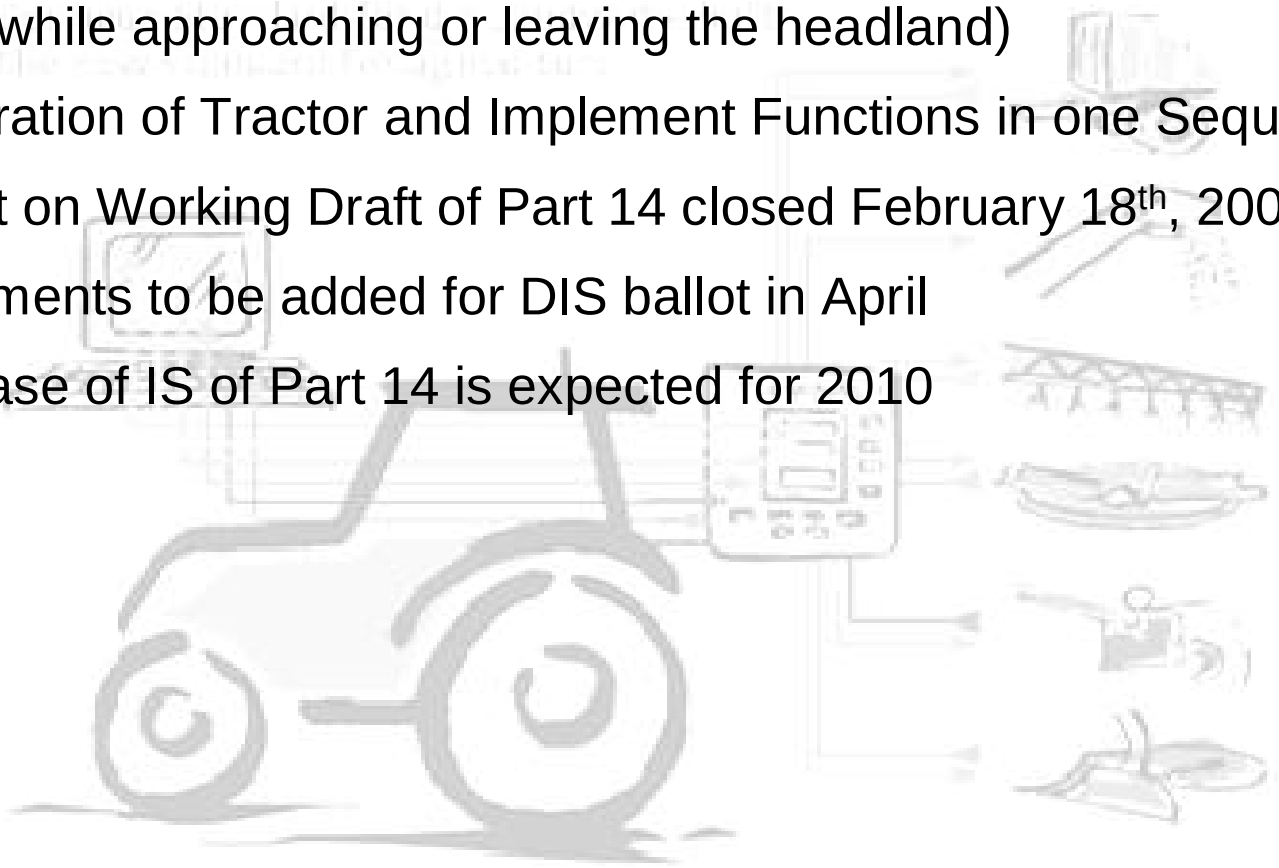
- FDIS ballot closed in fall 2007
- Feedback and comments have to be included in the document
- IS release is planed for May 2008
- Prototypes of Task Controllers are in the field since early 2007
- First TC are scheduled for ISOBUS Certification in mid 2008

ISOBUS Implementation
ISO 11783 Part 12 - Diagnostics

- Basic Diagnostics
  - Physical interface defined in ISO11783 part 2
  - Standardized diagnostics allows for localization of failure sources in the open system
  - Some Working Sets provide special diagnostic pages on top
  - FDIS of Part 12 is complete (Release expected for May 2008)
  - First Implementations will be seen at the upcoming IG PlugFest in March 2008
  - Support mandatory for September 2008 (IL 4)
- Enhanced Diagnostics
  - Definition of common Off-board-Diagnostics
  - Implement Vendors can load their Diagnostics-Object-Pool into any ISOBUS Service Tool
  - Concept will be based on existing ISOBUS mechanisms (e.g. OP, ETP, etc)
  - ISO Working Group started Draft Document

ISOBUS Implementation
ISO 11783 Part 14 - Sequence Control

- Release operator from recurring sequences of operation steps (e.g. while approaching or leaving the headland)
- Integration of Tractor and Implement Functions in one Sequences
- Ballot on Working Draft of Part 14 closed February 18th, 2008
- Comments to be added for DIS ballot in April
- Release of IS of Part 14 is expected for 2010



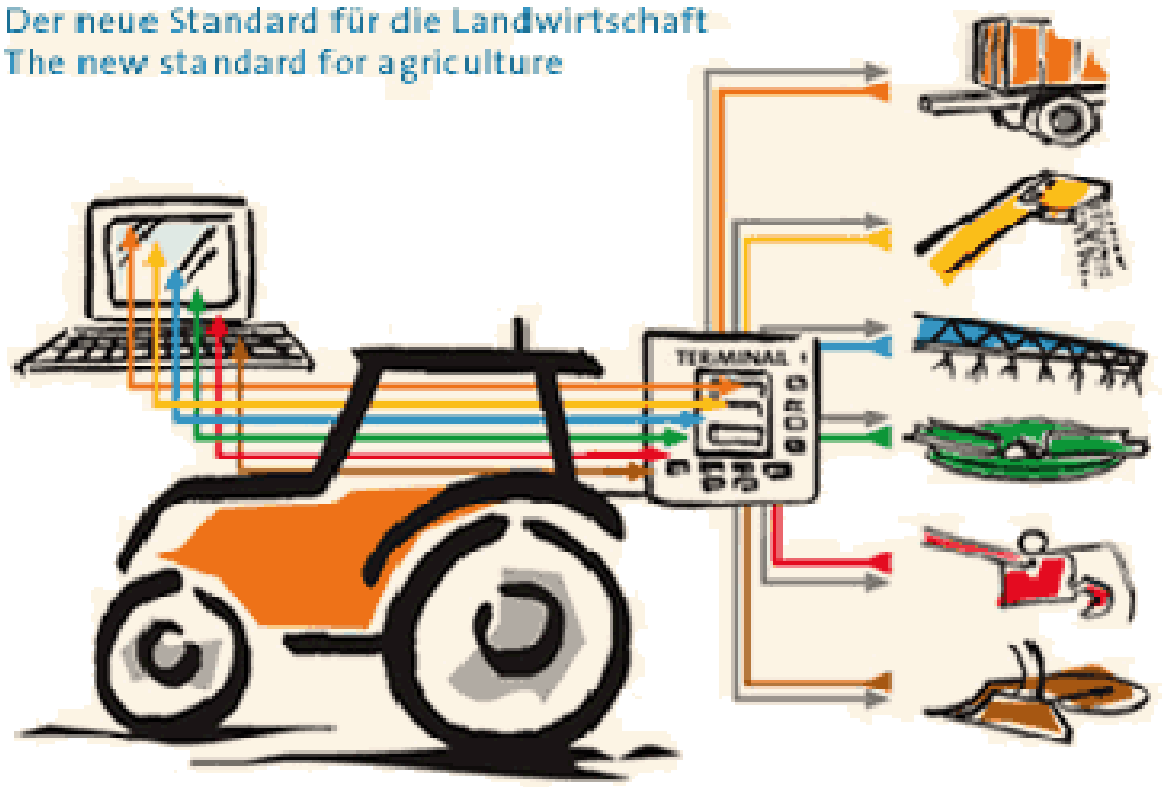
German Short-Liner Activity - Issues

- 6 European Implement Manufacturers joined up to address their ISOBUS issues
- Concerned with support of variety of VT's in the market
- Their needs aren't represented in the standardization work
- Concerned with Backward compatibility of Implementation Levels
- See Issues with Field Support for multi-brand systems
- ISOBUS certification test isn't strong enough
- All of them have the same issues in terms of their ISOBUS products in the field
- etc

German Short-Liner Activity – first steps

- 6 European Implement Manufacturers started ‘Competence Center ISOBUS’ (CCI) at school of applied science in Osnabrück, Germany.
- Hired Engineer to run the CCI and to represent the group in the ISOBUS related industry
- Gathering of ISOBUS know-how, Knowledgebase
- Started development of common VT and screen layouts for all 6 participants
- Approached German “Steering Committee for the Ag Industry”
- Medium Term Steps in terms of ISOBUS Marketing and Service
- All tractor manufacturers appreciate their activities
- All tractor manufacturers support the international approach of the ‘User Platform Electronics’

Thank You


Der neue Standard für die Landwirtschaft
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