Satellite Connected Farmers

– ARTES 20 Demonstration Project
Telespazio VEGA Deutschland, Olaf Herper

Space Moves! 7th ARTES Applications Workshop

18-19 September, Berlin
--- ARTES 20 Demonstration Project ---

**Project Partners**

Telespazio VEGA Deutschland GmbH
- Project lead
- Satellite communication solutions

John Deere GmbH
- GNSS solutions
- Plant specific input application

DLG Test Center Technology & Farm Inputs
- Interest group for customers and expert users
- Label and R&D tests for agricultural products
Applications of Satcom in precision farming

- Internet
  - Online agricultural information and services
  - Automated process documentation
  - Smart Farming (Portals, Big Data)
  - Remote diagnostics and maintenance

- Mobile Connectivity
  - Automated driving
  - Field sensing and mapping
  - Zone specific input application
  - M2O, M2M communication
Application Domains

- Public Safety
- Mining & Construction
- Public Management
- Energy & Facility Monitoring
- Mobile bank offices
- Fleet & Container Tracking
- Off-shore, SAR
- Precision Farming agriloc
Benefits

- Immediate setup
- Globally available
- Low investment for the user
- Roughly 2 € for a GB
- Fixed, Portable, Mobile
- Voice and Data
- Guaranteed service level
Fixed Satcom Solution
Portable Satcom Solution
Fixed Satcom Solution

Reference:
Ministry for Cartography and Geodesy / Ministry for Transportation and Digital Infrastructure / TÜV Rheinland
Mobile Satcom

Precision Farming developments

- Higher precision, higher degree of automation and integration of processes, sensor data, documentation, management
- = higher dependency on data and reliable connectivity!
- Main problem: availability of terrestrial network and shielding
- Solution: hybrid communication: mobile network + Satcom
Testing Satcom from Farmers’ Perspective

- Performance
- Endurance in typical agricultural use
- Practical testing; usability
- Benefits for the end user

www.dlg.org
www.dlg.org/testsagriculture.html

Agricultural dust
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THANK YOU FOR YOUR ATTENTION