

# New technologies in Agricultural Engineering

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# Worldwide Megatrends in Agriculture

- Climate change
- Growth of population
- Change of consumers behavior in emerging countries
- Boom of biofuels and growing demand for renewable raw materials

Kaphengst et al 2009

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# Future trends in Agricultural Engineering

- Automation
- Robotics
- Data Management
- Electrification

# Automation

- GPS control for wide planters, sprayers (section control; application rate control; tramlines...)
- Headland management
- Selective weed control
- Autonomous tractors and machines



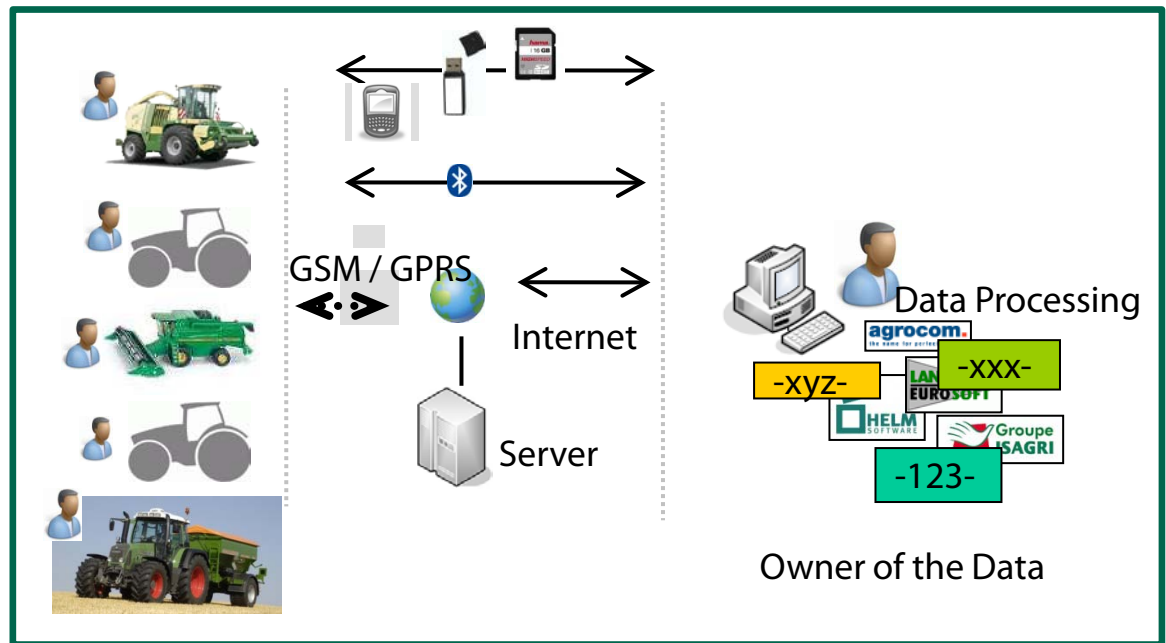
# Robotics

- Autonomous vehicles for
  - Seeding
  - Weeding
  - Fertilizing
  - Spraying



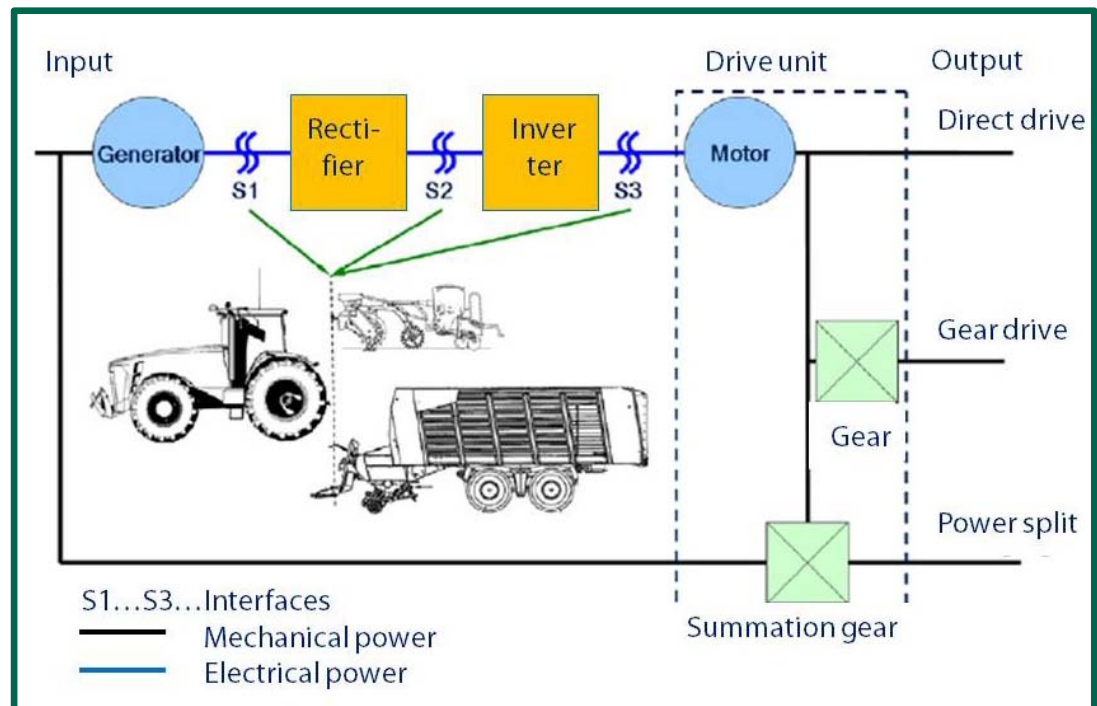
# Data Management

- Yield mapping
- Variable application rates
- Documentation
- Traceability
- ...



# Electrification

- Fuel saving
- Higher efficiency
- Drive controls
- Automatisisation



Thank you!

