

# ICT for Agriculture

## *Future Internet Forum*

## of Member States

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# Global State of Play

- The price spikes have several causes, including drought and bad harvests in major food-exporting countries, high oil prices that make food more expensive to chemically fertilize and transport and a growing diversion of corn for use as a biofuel.
- The food crisis has sparked international tension over the rich diets enjoyed by industrialized nations and the fear that, as developing countries add more animal products to their menus, food crises will increase.

# Agriculture state of play

- Higher energy and fertilizer prices raised production costs in agriculture, and the combination of high oil prices and biofuel subsidies and mandates increases pressure on arable land.
- Demand growth for food and feed in developing countries (such as China and India) has not accelerated and was not a major contributor to the rise in food prices
- Real-side speculation (the decision to hold on to physical stocks in anticipation of further price increases) and financial investments along with policy reactions such as the imposition of export bans, also contributed to the rapid increase in grain and oilseed prices
- Typical cycles of boom and bust limits – inhibits long term strategic approach by farming community
- Europe : Removal of quotas provides opportunities and uncertainty for farming community
- Tension between rapid growth in production and Green agenda – clean water, increased carbon emissions

# European Environment

- CAP Policy focus on subsidies
  - Subsidies driven model no longer sustainable
  - International Carbon monitoring inhibits rapid growth in production
  - Issues re: water purity
- All European countries have major investments in agriculture support systems
  - Systems are not interoperable
  - Remember European Food and mouth Crises

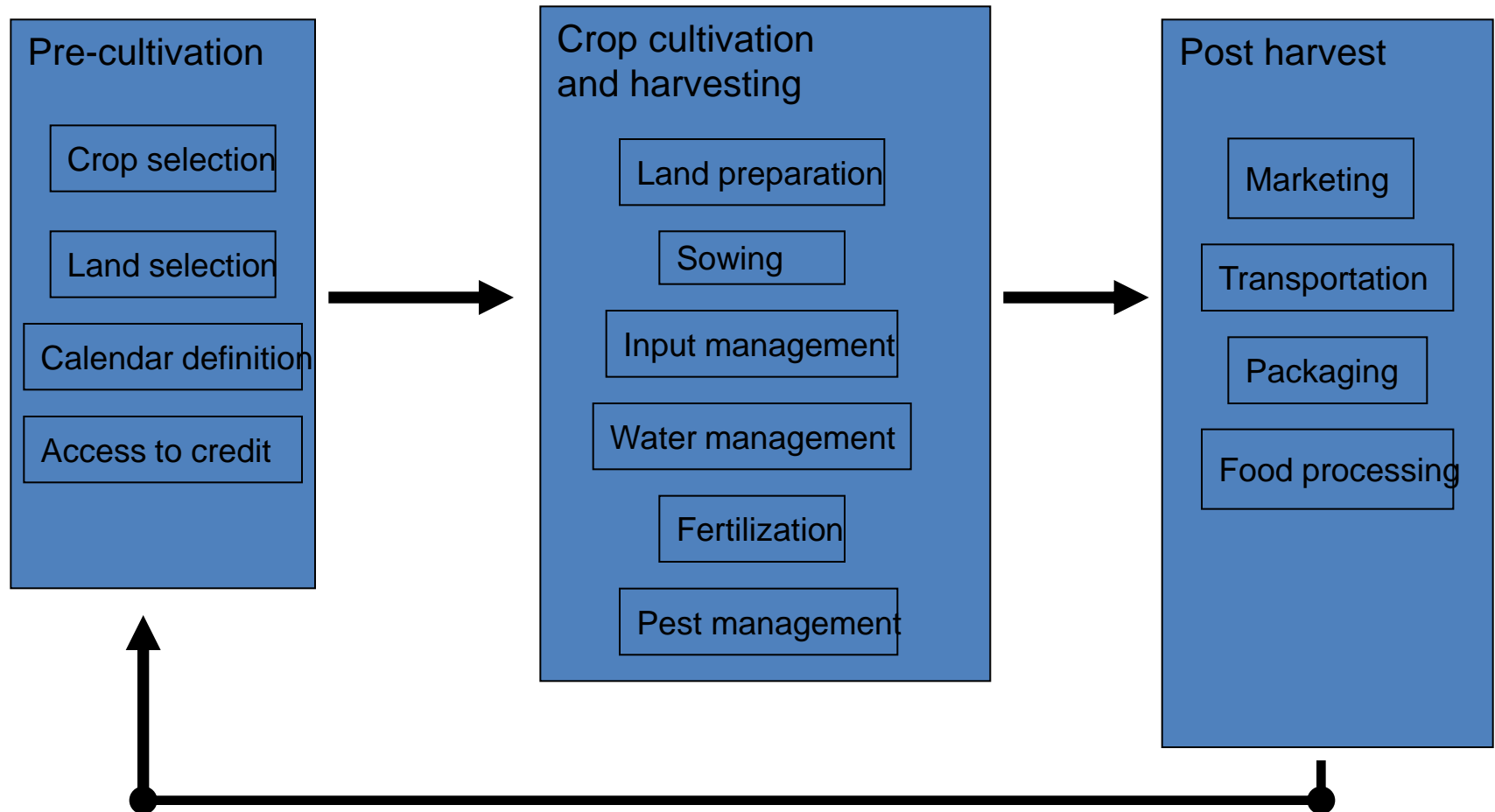
# European

- Market
  - Lack of an integrated food supply chain means that many European product are replaced by cheaper foreign equivalent
    - Europe subsidises the export of beef while European restaurants sell Brazilian and Argentinian beef
    - Similar situation with Fruit and Potatoes

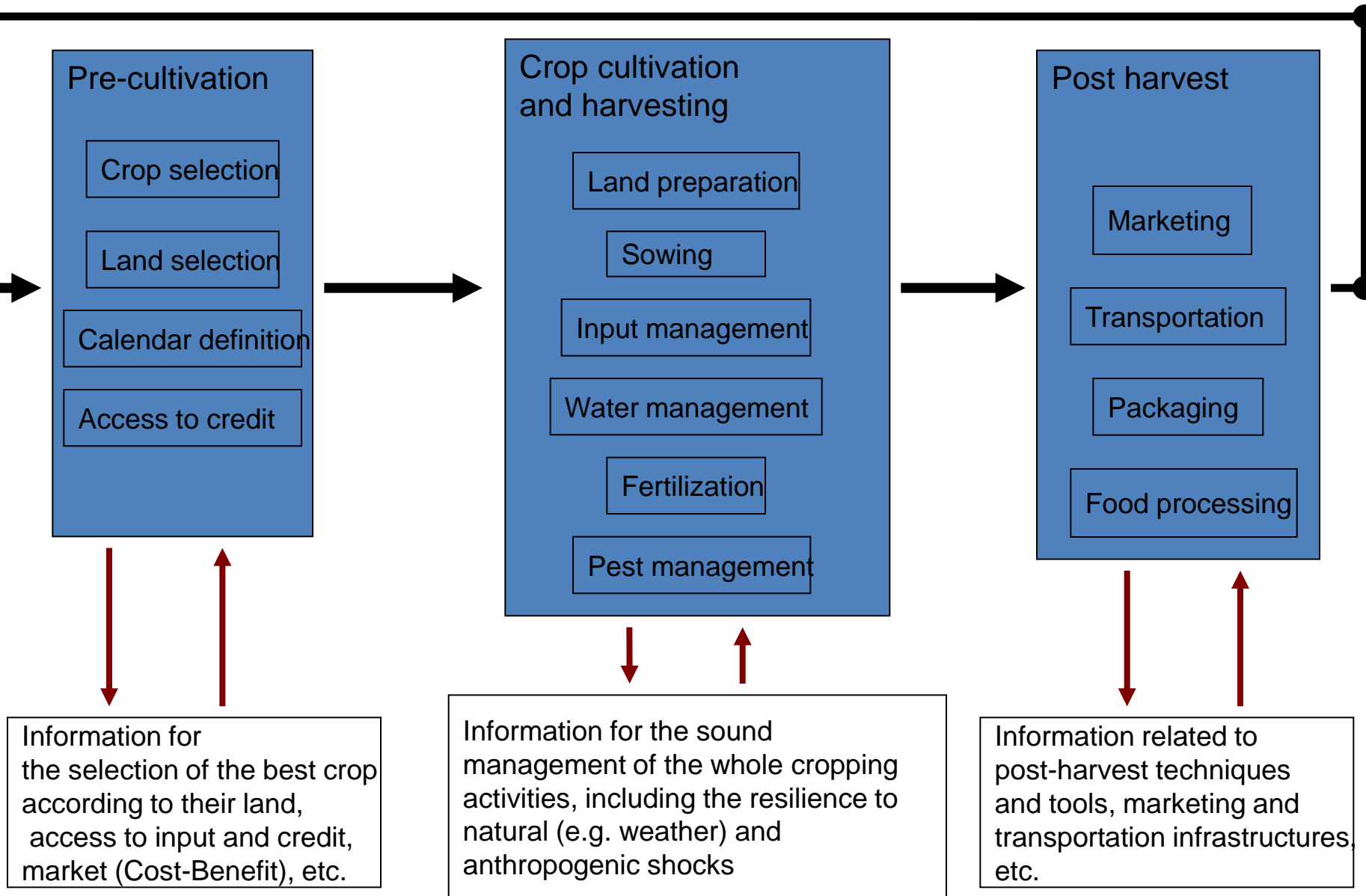
# Example of Challenge

- Modern supply chains (or "*The Supermarket revolution*") will push a large share of farmers, in particular small farmers, out of the market as they fail to meet the requirements to sell to these chains ("The supermarkets")
- Creation of new superpowers – undermining communities and supply chain – Global Salmon Farming
  - ***ICT supports dynamic food chain providing greater protection for producer and consumer***

# Main phases in the agriculture sector

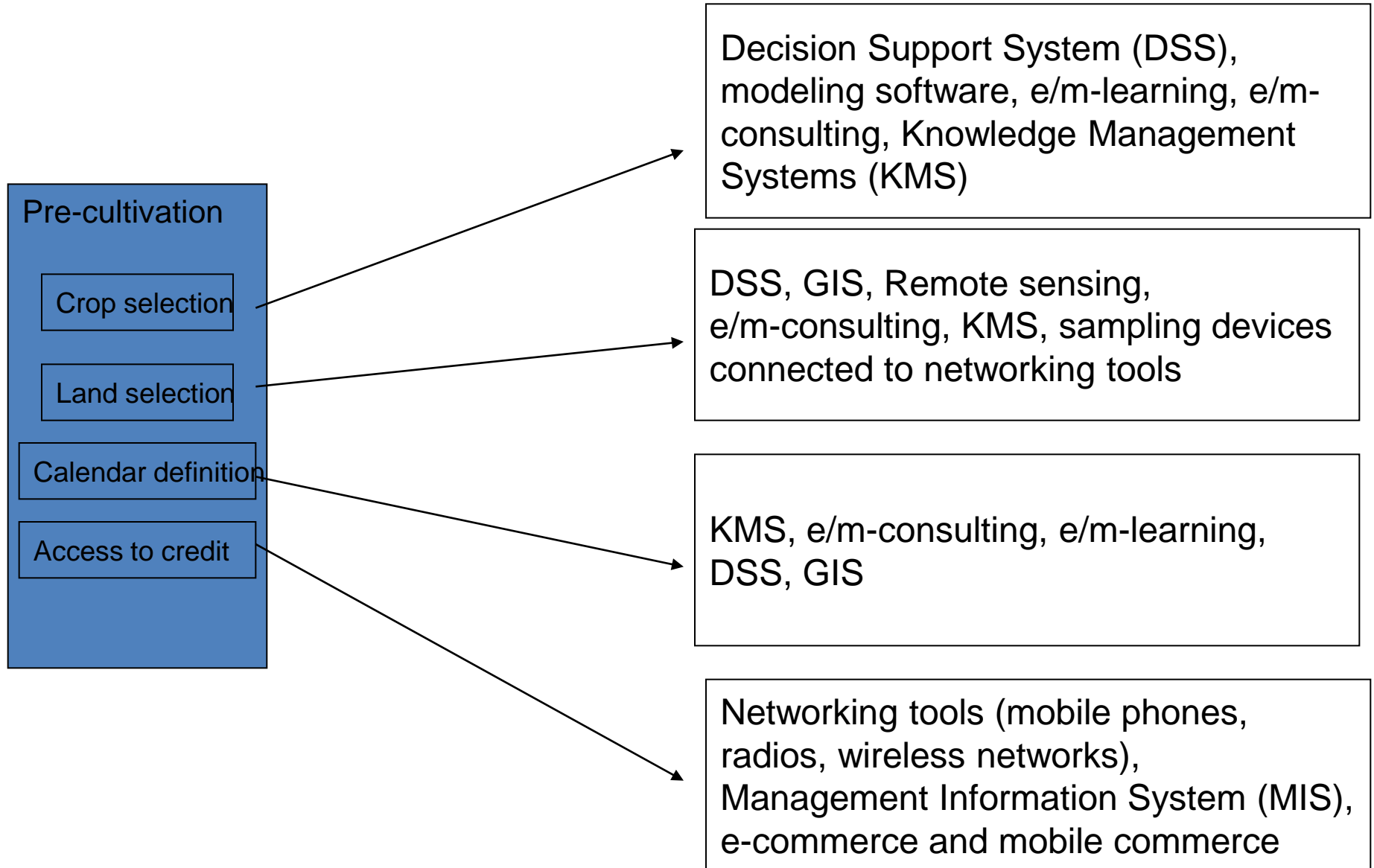


# Information produced/needed

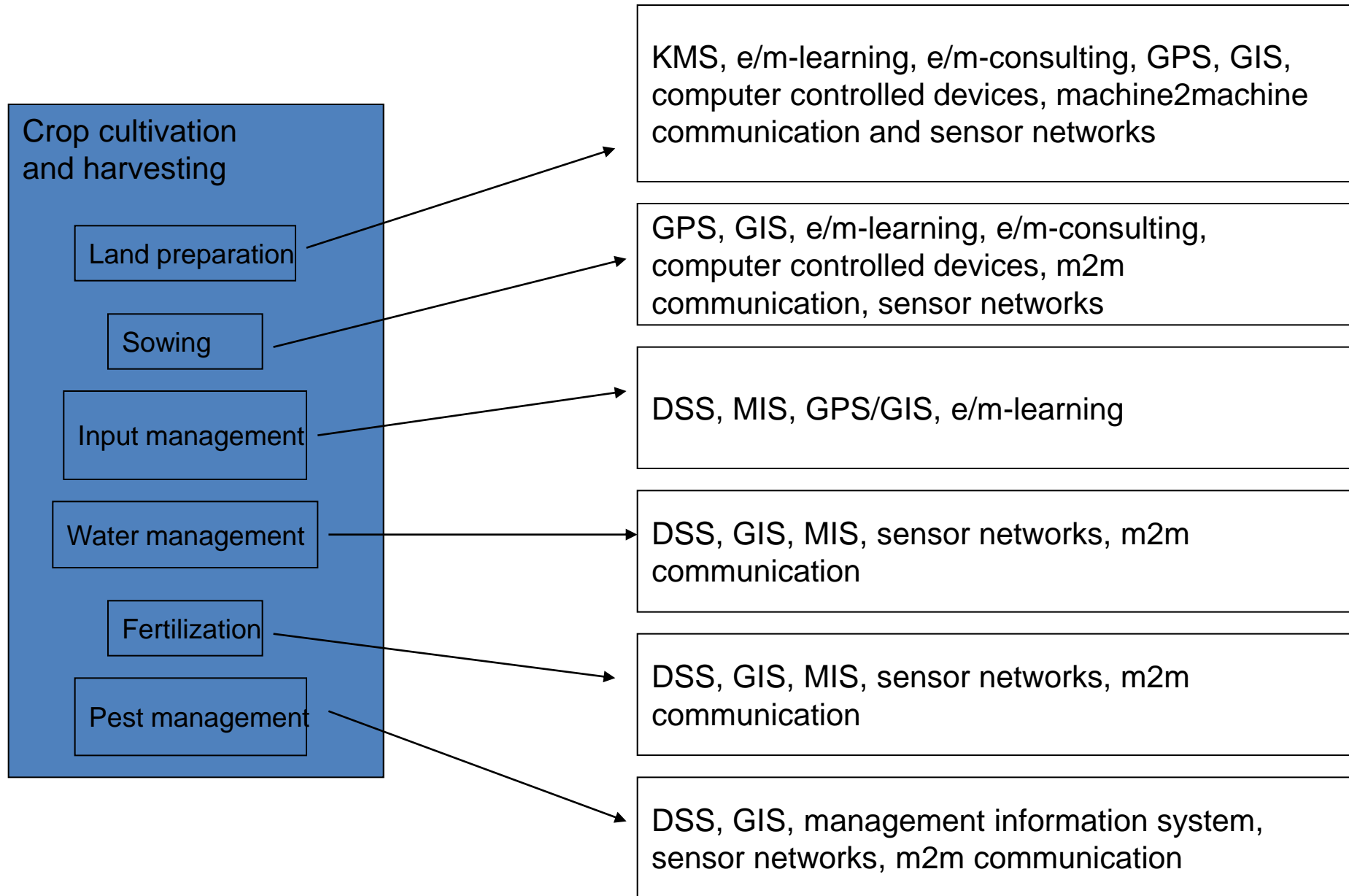




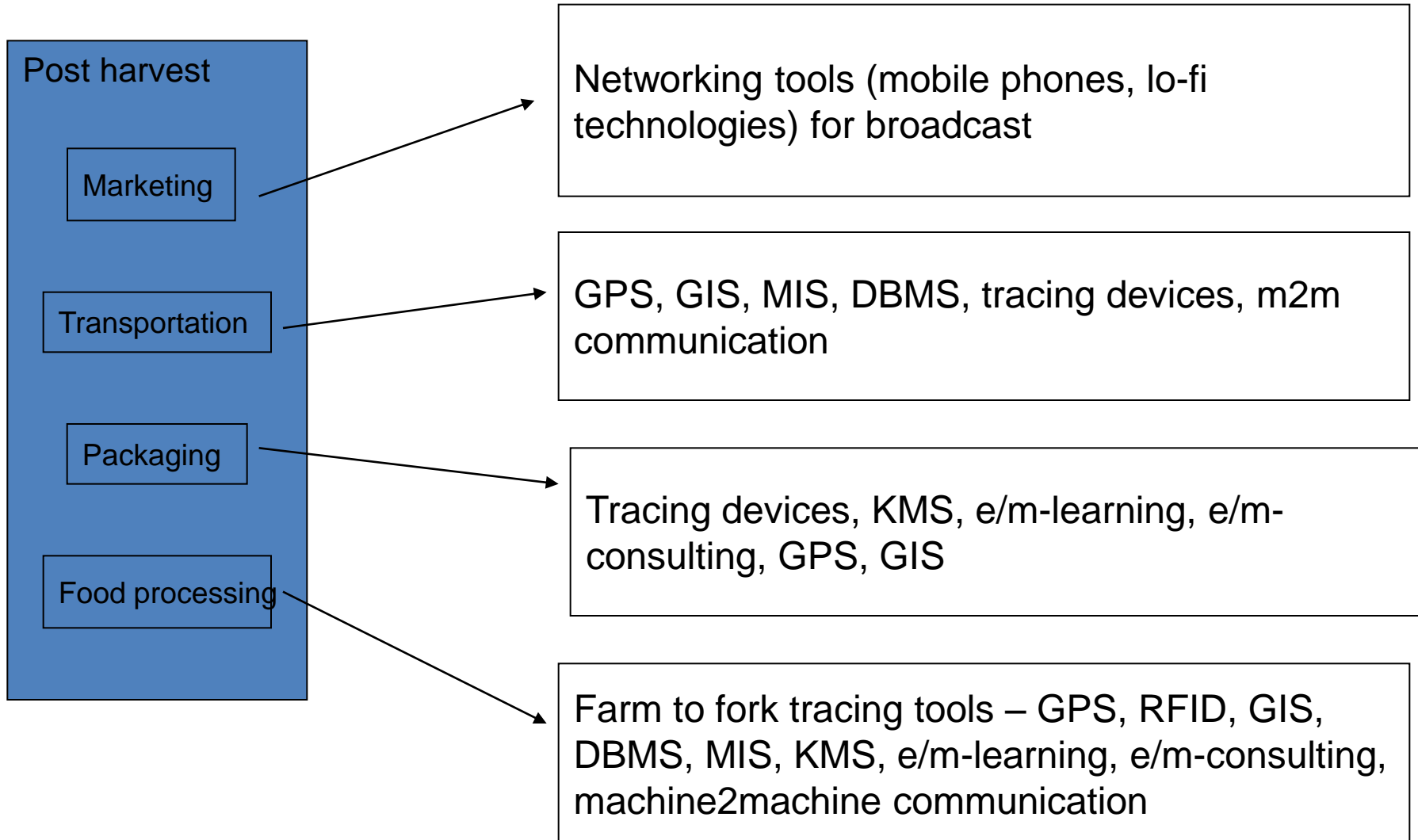
# Application of ICT



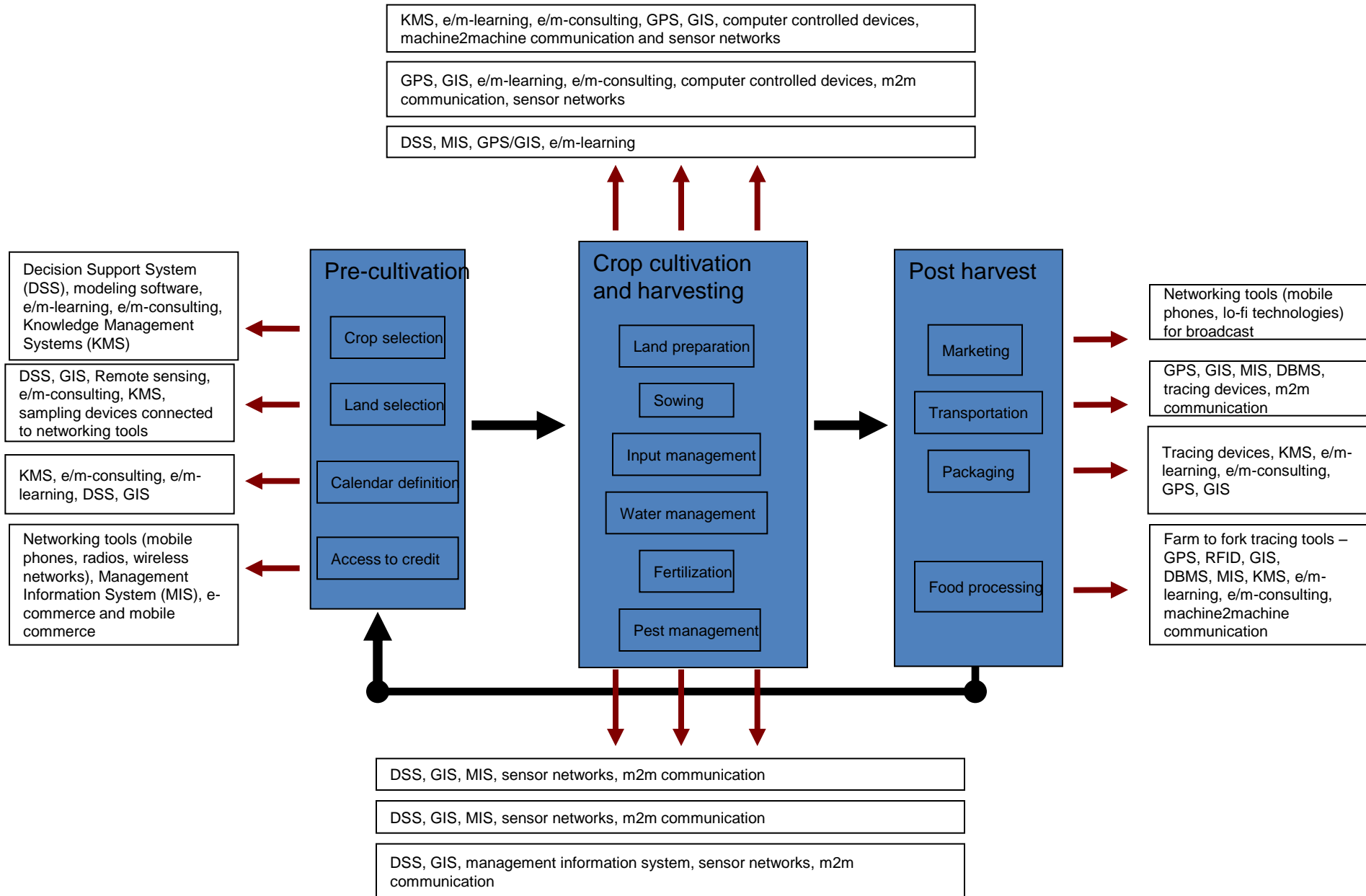
# Application of ICT



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# Mind map for ICT in Agriculture



# Way forward

- FIF Sponsored working group
  - DG Connect
  - DG Agriculture
  - National representatives from Agriculture and ICT research centres
- Output
  - Roadmap of priority research areas
  - Map of results from ICT projects transferable to ICT- Agriculture
  - Funding plan