Sustainable animal and human nutrition: Feeding the future

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- In agricultural development and food production in Western Europe, the period after the second World War can be divided in five phases:
  - 1945-1960: Food security
  - 1960-1980: Rationalisation & modernisation
  - 1980-2000: Consciousness about environment & animal welfare
  - 2000-2010: Food safety & food quality
  - Today and tomorrow: Sustainability & innovation
  Worldwide, every country operates in one of these phases

- Doubling food production while halving the footprint is a challenge that can be met by improving the resource efficiency of animal protein production.

- We need to empower the farmers to reach the full potential of their animals. Currently 30-40% of their potential production is not reached.

- Animal nutrition is an essential link between struggling resources and increasing demand. By closing the efficiency gap we can meet the demand sustainably.

- Essential factors for closing the efficiency gap that can be positively influenced by nutrition are e.g. production level, production quality, animal health, feed-to-food efficiency, longevity and animal welfare.

- A development that combines all these factors is Sustainable Precision Livestock Farming

- To sustainably reach the goal of feeding the growing world population, it is important to share knowledge around these themes globally and to apply solutions locally.

- Key priorities for sustainable development of the livestock sector are:
  - System innovations: efficient and sustainable animal production systems
  - Environmental footprint: responsible raw materials, reduced emissions, closed mineral cycles
  - Market and entrepreneurship: value creation, reduction of volatility
  - Responsible consumption: stimulation sustainably produced animal products, reduction of waste
  - Animal welfare and health: prudent use of antibiotics, responsible transportation, stimulating natural behaviour
  - Societal acceptance: transparent production, interaction farmer – consumer

- Critical success factors for sustainable development of the livestock sector are:
  - Governance and involvement of all stakeholders, including retail and primary sector
  - Availability of funding for research
  - Level playing field in animal production sector
  - Further development and professionalization of farming