

# *agri benchmark* – a global approach to measure silvopastoral systems

Dr. Claus Deblitz  
*agri benchmark* Beef and Sheep Network



# Practice change and its definition

“Is a significant alteration of a production system against the background of specific objectives”

- ▶ Mitigate greenhouse gas emissions
- ▶ Contributing to ecosystem services
- ▶ Reduce overgrazing, erosion and degradation of grasslands
- ▶ Improve animal welfare
- ▶ Maintain or increase productivity and profitability
- ▶ Improve working conditions of producers and their employees

**Sustainability goals**

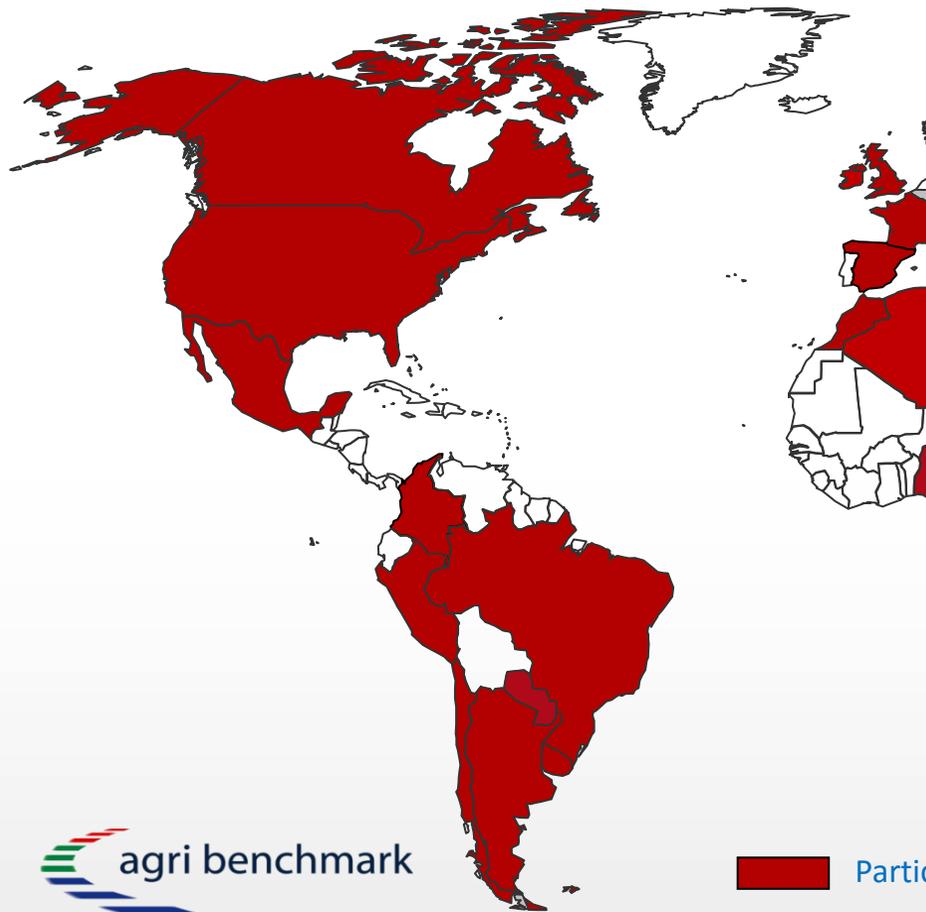
# Information, data and actors required to analyse practice change

## Knowledge, competence and capacity

- ▶ Production systems, economics, framework conditions and perspectives
- ▶ Environment  
CIPAV  
GASL, LEAP, GRSB  
IIASA, **OTHERS WANTED!**
- ▶ Animal welfare  
World Animal Protection  
**OTHERS WANTED!**
- ▶ Social  
to be confirmed



# Global questions – global approach: We harvest data around the world



2015	Countries	Farms	Years in Network
Beef and Sheep	31	109	14
Cash Crop	41	100	11
Horticulture	15	17	5
Pig	10	30	3
Organic	6	10	2
Fish	4	10	2



■ Participating countries 2015  
 Contacts for further growth

# One focus – 6 networks



# The principle: Typical production systems and farms

Imagine you have a guest from a foreign country who is interested to see how **beef** farming is done in your country.

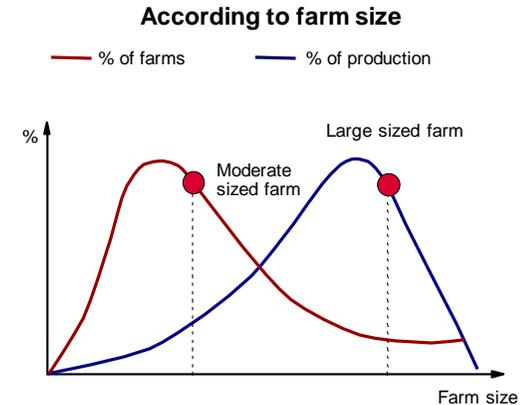
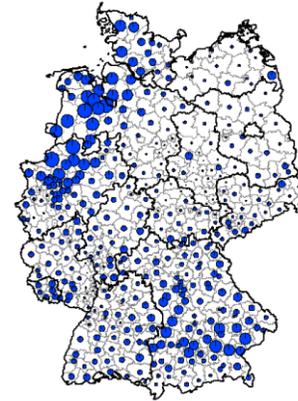
You would want to show your guest a farm that is

- ... located in an **important** beef producing **region**,
- ... using the **common technology** for beef production,
- ... running the **prevailing** production and feeding **system**,
- ... having a not too small and not too big **size**,
- ... using the prevailing combination of **labour**, **land** and **capital**.

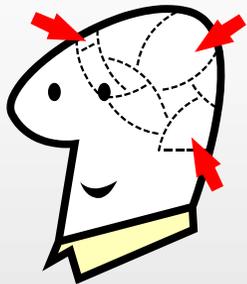
**In other words, you want to show your guest a typical farm!**

# How we collect our data

- **Statistics** available to determine
  - > important regions
  - > farm sizes and distribution



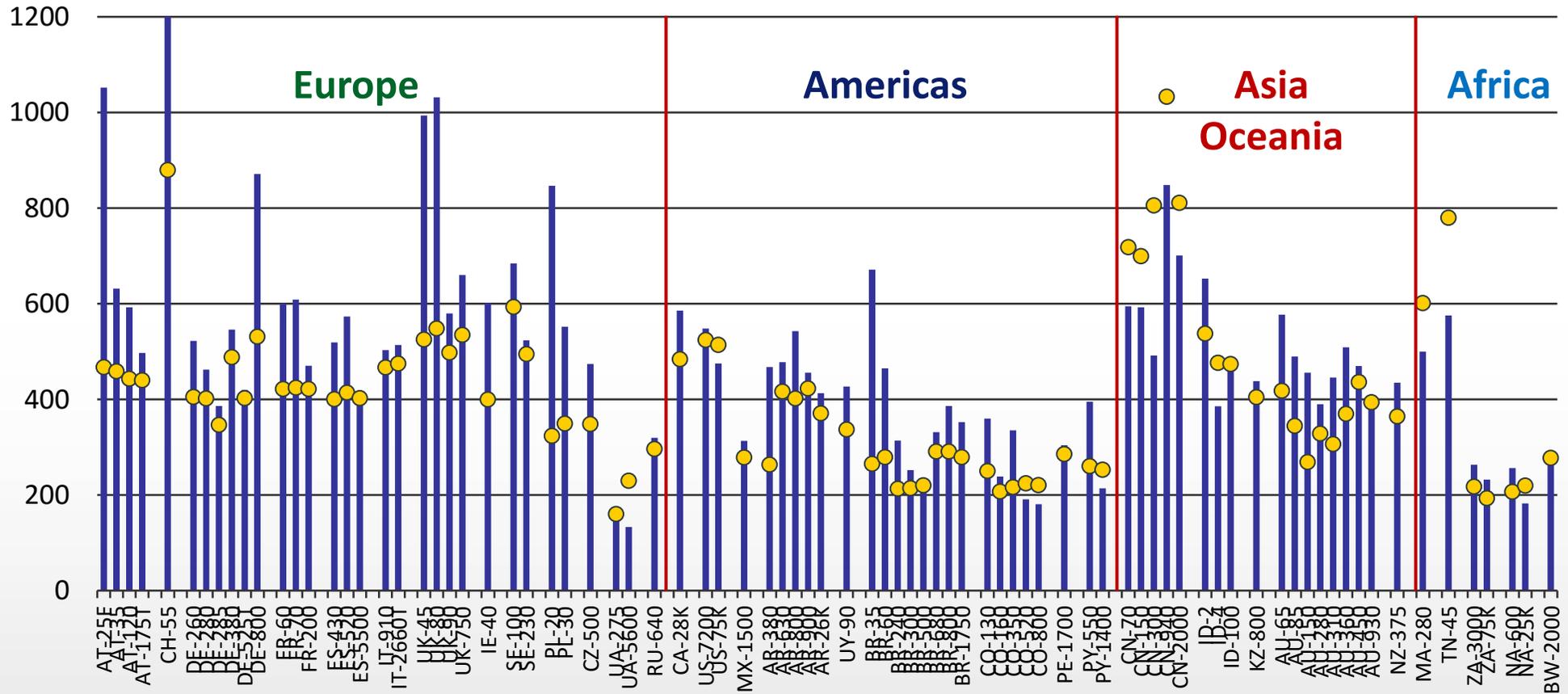
- **Focus groups** of researchers, producers and advisors to
  - > define prevailing production systems
  - > collect data in a standardised way



- **Expertise** of researchers + advisors + farmers
  - > define and quantify practice change
  - > crosscheck the results

# Total costs and returns of beef production 2015

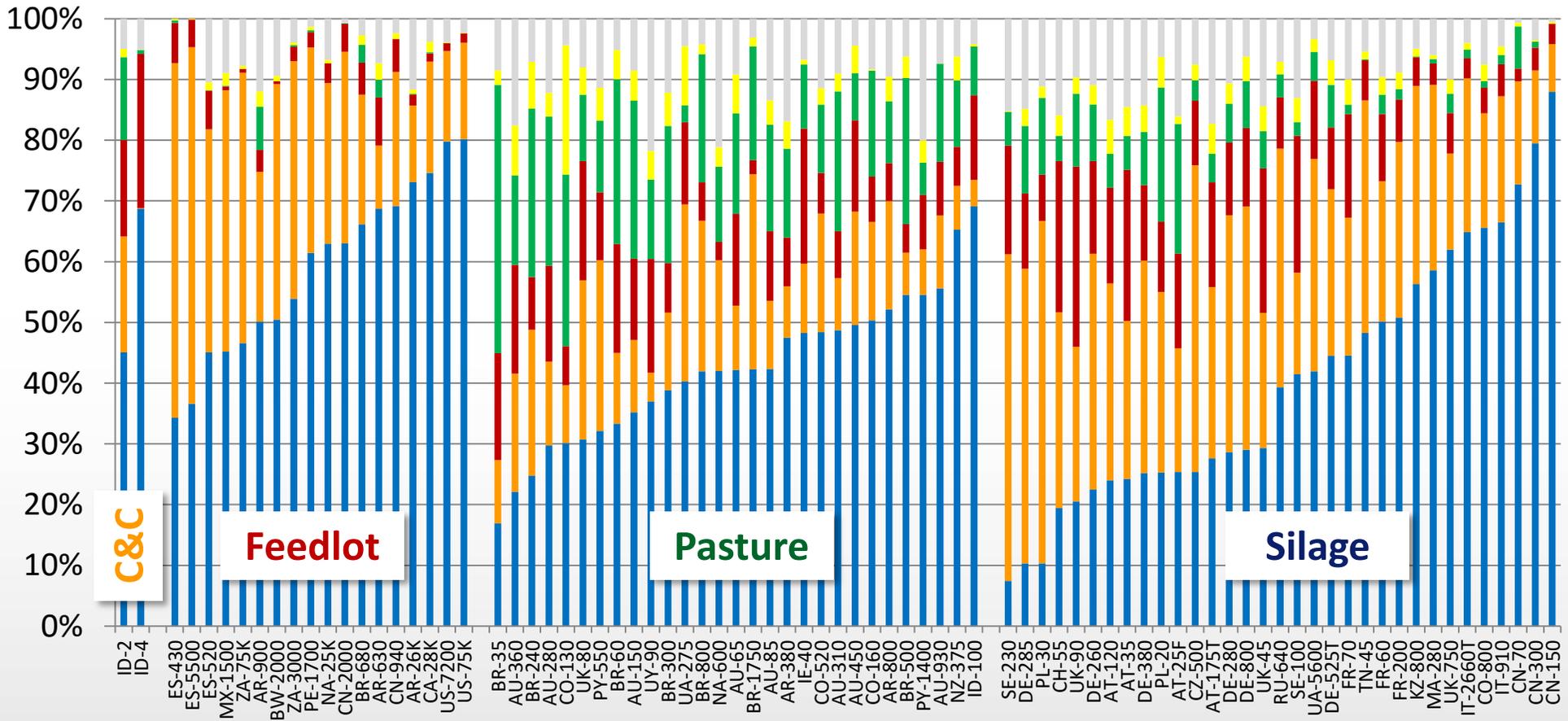
## USD per 100 kg carcass weight



# Cost composition by production system

- Other
- Capital
- Land
- Labour
- Feed
- Animals

## Percentage of total costs



# Analysis steps practice change – example SPS

1. Create a baseline = reference situation (“without-situation”)
2. Identify and quantify one or more scenarios, for example SPS
  - ▶ Steps of establishing the change
  - ▶ Investment needs
  - ▶ Feed resources
  - ▶ Labour / land requirements
  - ▶ Performance changes
  - ▶ Price and cost changes

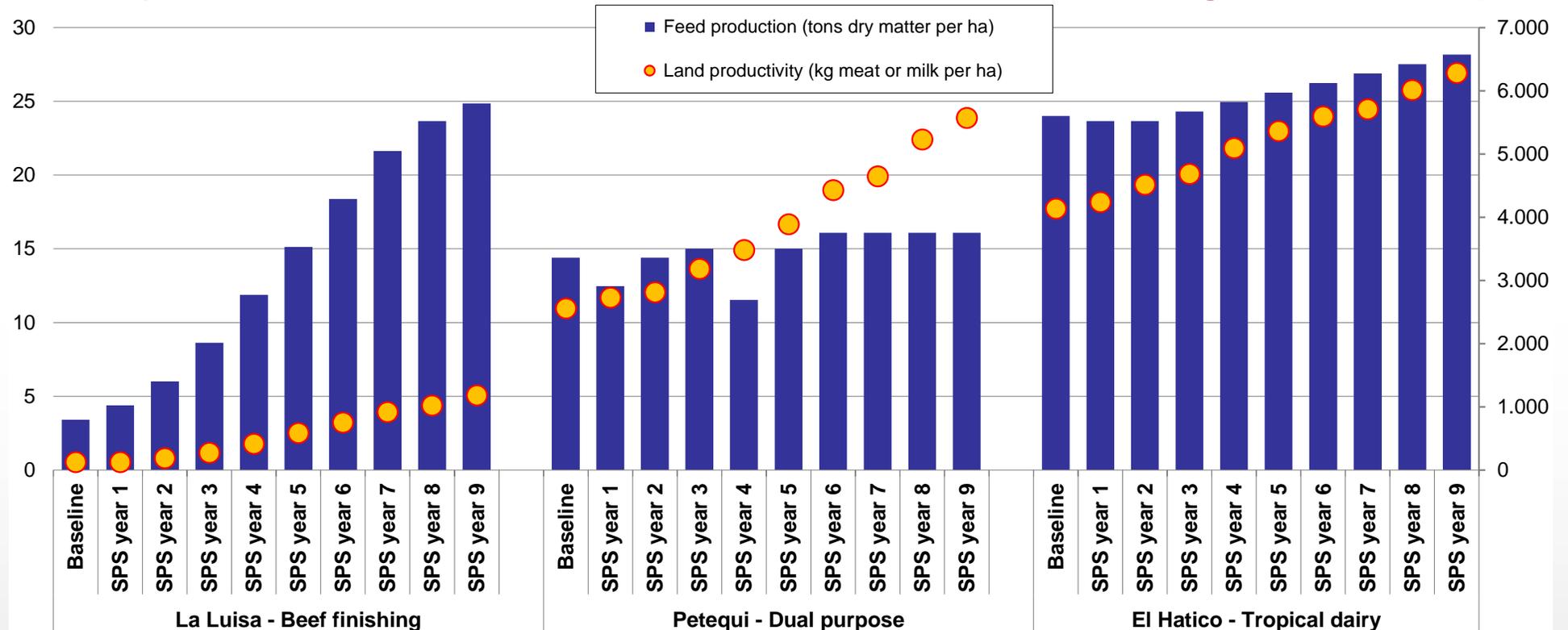


3. Calculate the baseline and the scenarios

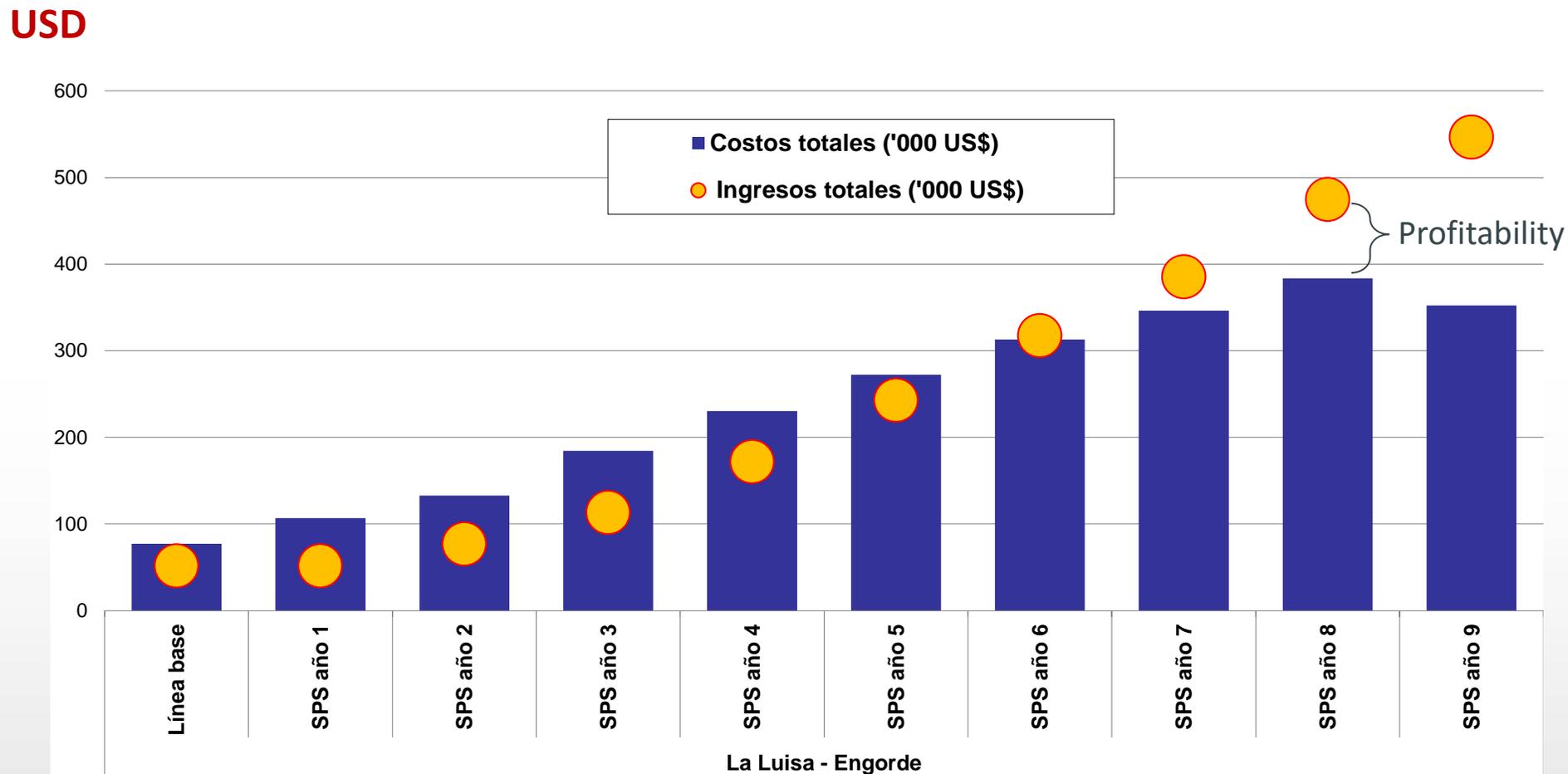
# Dynamic analysis, not just comparative static

**Tons dry matter/ ha**

**Kg. meat or milk / ha**



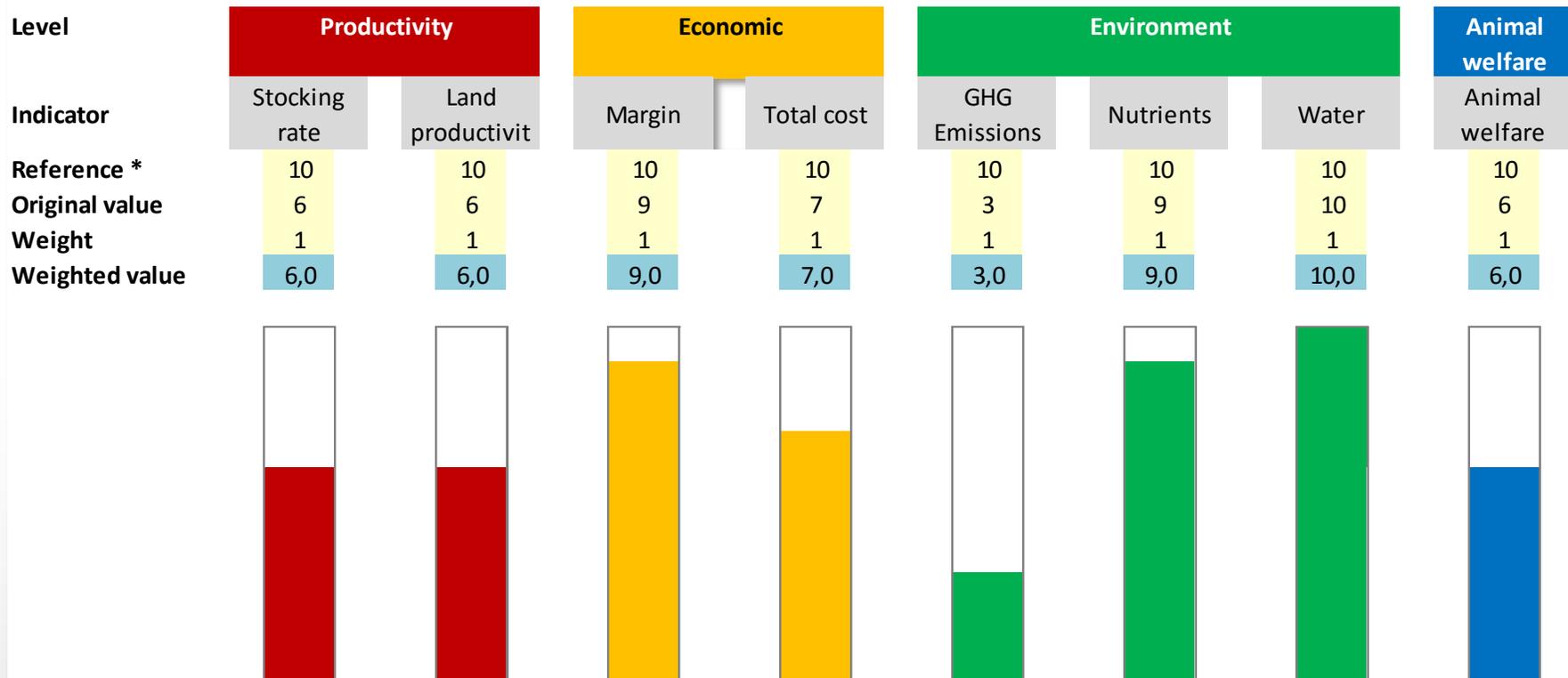
# Cash-flow and profit impacts in establishment phase



# Our future scope in measuring sustainability on farm-level

## Farm description

Cow-calf producer and beef finisher in Mecklenburg-Vorpommern, Germany  
1400 cows and 800 finished animals



\* Reference can be a set value, an average or quantiles referring to a population or survey

# *agri benchmark* – passionate about facts



**Dr. Claus Deblitz**

Thünen Institute of Farm Economics  
Bundesallee 50  
38116 Braunschweig, Germany

Tel.: +49-531-596-5141  
Fax: +49-531-596-5199  
E-mail: [claus.deblitz@thuenen.de](mailto:claus.deblitz@thuenen.de)  
Internet: [www.agribenchmark.org](http://www.agribenchmark.org)  
[www.ti.bund.de/bw](http://www.ti.bund.de/bw)