

# Multi-criteria evaluation of farms based on Czech FADN

**PACIOLI 24**

26<sup>th</sup> September 2016, Pristina

Zuzana Hloušková

Liaison Agency FADN CZ

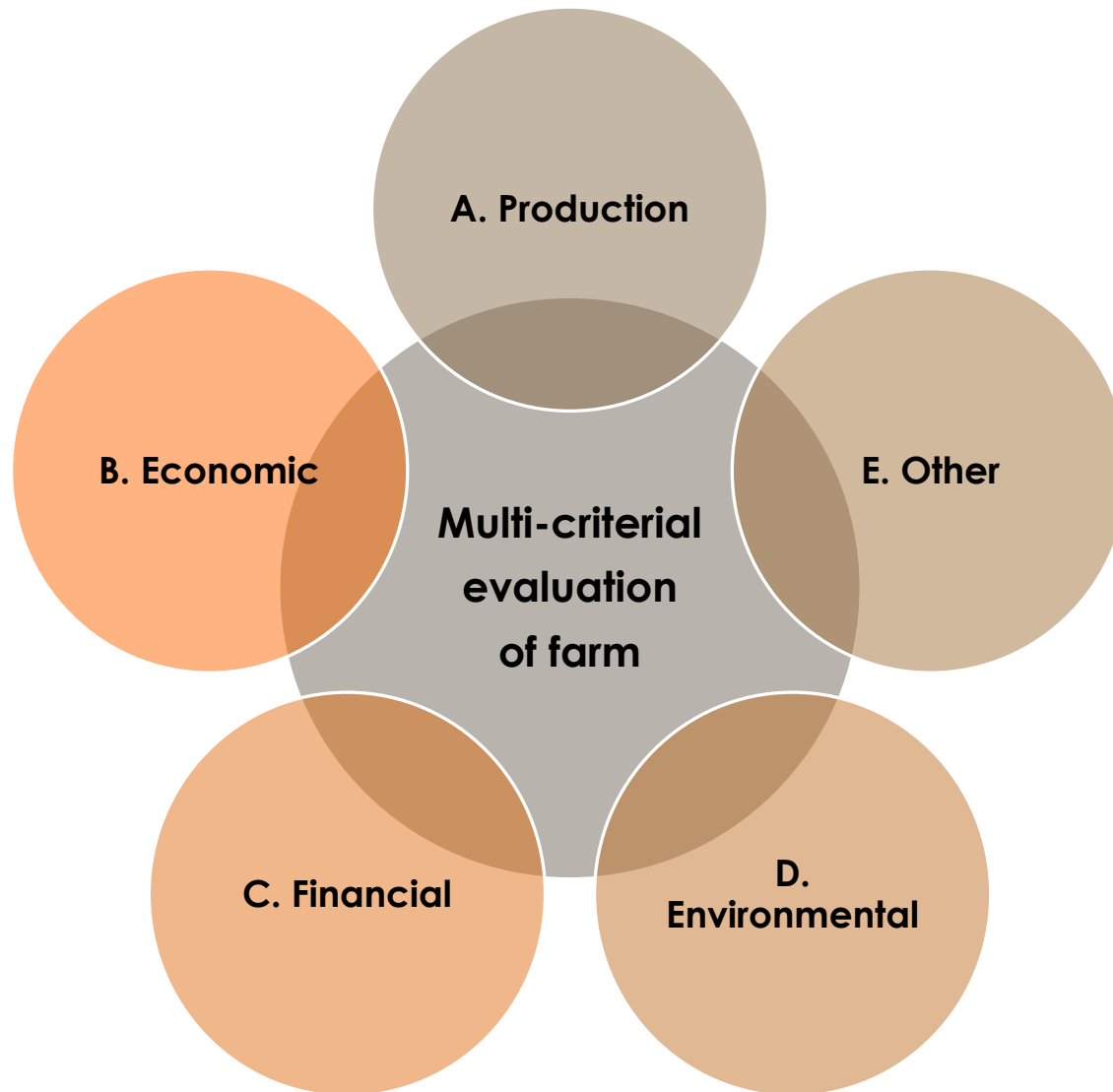
Institute of Agricultural Economics and  
Information

Prague, Czech Republic

# PURPOSE

- To enrich outputs from FADN CZ database
- To attract attention of farmers to FADN survey
- To offer new approach of farm evaluation
- To look at farm results from another perspective
- To meet new requirements of policy makers

# CRITERIA GROUPS



# CRITERIA

50 indicators until now:

## A. Production:

- Crop yield
- Weight increase of livestock
- Milk yield
- Eggs yield
- Honey yield
- Livestock mortality

## B. Economic:

- FNVA/AWU
- Total production/AWU
- Crop production/ha
- Livestock production/LU
- Specific crop costs/ha
- Specific livestock costs/LU
- Total intermediate consumption/Total production
- Cash flow/total assets
- Net investment/Fixed assets
- Profit without subsidies/AWU

## C. Financial:

16 indicators of

- Profitability
- Liquidity
- Liability
- Activity ratios

# CRITERIA

## D. Environmental:

- Organic manure/ha arable land
- Mineral fertilizers
- Crop protection products
- Crop rotation
- Stocking density
- Bio belts
- Energy costs/Total production

## E. Others:

- Gender equal opportunities
- Age of farmer
- Nb of employees
- Education of farmers
- Land ownership
- Own labour
- Production of energy from renewable sources
- Protected designation of origin
- Protected geographical information
- Investment without investment support
- Salary
- Diversification of production

## Allocation of points based on FADN farm results

Maximum 10 points per indicator

### a) Groups B-E

Results of indicator is divided by deciles

Each farm gets number of points according to the position on the scale

### b) Group A – yield

Average is calculated

Points according to the distance from the average

Example:

Average yield = **100% = 5 points**

**Below:**

0% = 0 points

20% = 1 point

40% = 2 points

60% = 3 points

80% = 4 points

**Above:**

120% = 6 points

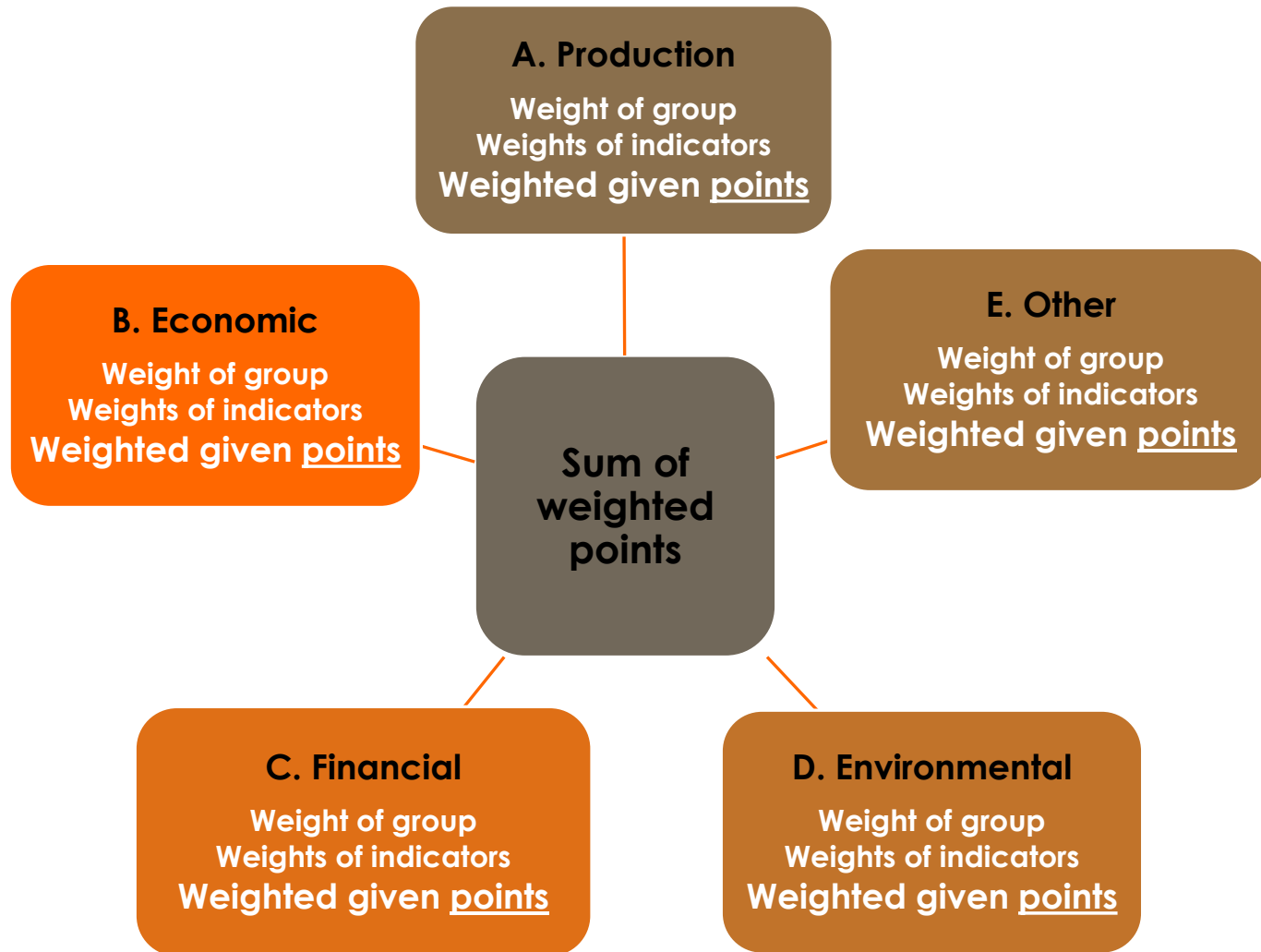
140% = 7 points

160% = 8 points

180% = 9 points

200% = 10 points

# RELEVANCE



## The most sensitive parts are:

- Selection of indicators
- Problem of similar indicators (average of points)
- Set up of weights per group and each indicator
- Fair scoring for various production structures
- Missing values arrangements



## Access to database for:

- Farmers
- Researcher
- Other registered users

## Options:

- Predefined tables
- Dynamic table design
- Time row
- Comparison
- Flexible filter setting

## Large scale of information:

- Complete information of questionnaire
- Standard results
- Yields & Prices of products
- Structure of land, labour, revenues
- Balance sheet
- Profit and loss statement
- Efficiency indicators
- Financial analysis
- Predicted results of selected variables

## Evaluation of farm at farmer disposal – on-line access

### Evaluation:

- Total
  - By criteria group
  - By indicator
- } strengths and weaknesses

### Comparison

- own evaluation result with average of group of similar farms

### Time series

- farm development since 2014 onwards

**THANK YOU FOR YOUR ATTENTION**