

# Introduction to GenMon

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# Background

- ▶ Subsidies for rare breeds based on GenMon indices
- ▶ Five-year contract
- ▶ Results usually due on Aug. 15

# GenMon Indices

- ▶ Results from PopRep based on pedigree characteristics
  - ▶ inbreeding
  - ▶ age distribution of breeding animals
  - ▶ effective population size
  - ▶ ...
- ▶ Socio-economic factors
  - ▶ distance between animal owners
  - ▶ age of animal owners
  - ▶ ...
- ▶ Factors combined into over-all index

# Analysis Procedure

- ▶ Pedigrees requested for “external” breeds
- ▶ Pedigrees exported for breeds on Qualitas database (cattle, sheep, goat, . . . )
- ▶ Prepare pedigree data
- ▶ PopRep analysis
- ▶ Add socio-economic factors
- ▶ Results in Shiny-App page

# Components of GenMon System

- ▶ Webapplication
  - ▶ URL: <https://fagr.genmon.ch/gnm/genmon-ch/index.php>
  - ▶ Username: see KeePassX
  - ▶ works for small breeds (not for large cattle pedigrees)
- ▶ Commandline
  - ▶ Hostname: fagr.genmon.ch
  - ▶ ssh-access, credentials in KeePassX
- ▶ Shiny
  - ▶ Hostname: fagr.genmon.ch
  - ▶ User: zws, credentials as other servers
  - ▶ Directory: /home/zws/ShinyApps
  - ▶ Website: <https://fagr.genmon.ch/shiny/users/zws/GenMonReport2022/index.Rmd>
  - ▶ How to get to results not clear

# Further Steps

- ▶ Before 28.02.2023:
  - ▶ Ask Jürg for addresses of external breeding organisation
  - ▶ Ask Urs whether he is willing to send out requests
- ▶ After 04.04.2023: Planning of GenMon analysis 2023
- ▶ Starting after 01.05.2023:
  - ▶ Send out requests for pedigrees at external breeding organisations
  - ▶ Start to ask EDV for pedigree exports from Qualitas Database
- ▶ June/July 2023: Run GenMon Analyses
- ▶ August 2023: Results to BLW