Group discussion

#phenotypeisking

The value of performance recording

- Genetic gain is partly driven by reliability
- Reliability is driven by:

Phenotypes

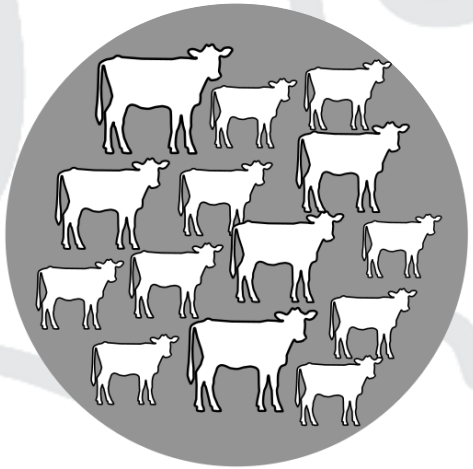
Pedigree completeness

Good data quality and models

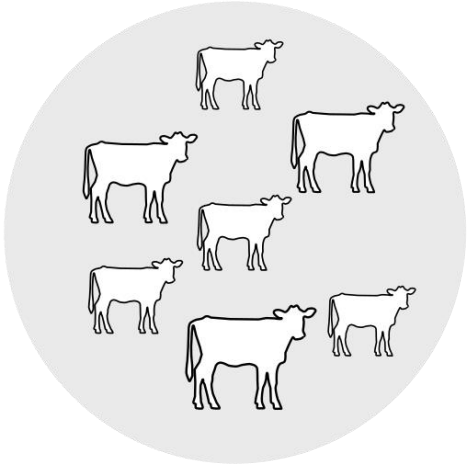
Genotypes

Reliability of genomic breeding values

BIG Reference population - genotypes and phenotypes



SMALL Reference population - genotypes and phenotypes

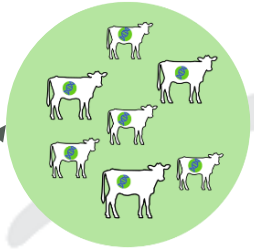


★ ★ ★ ★ —— Reliability —— ★ ★

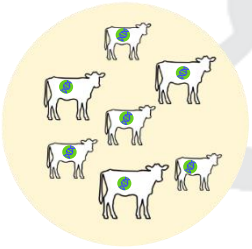
Single step GBLUP

ssGBLUP

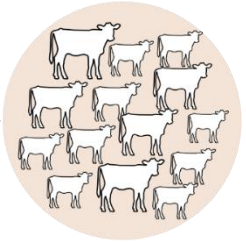
Pedigree, genotypes and phenotypes



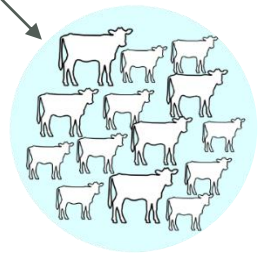
Genotyped and phenotyped — ★ ★ ★ ★ High reliability GEBVs



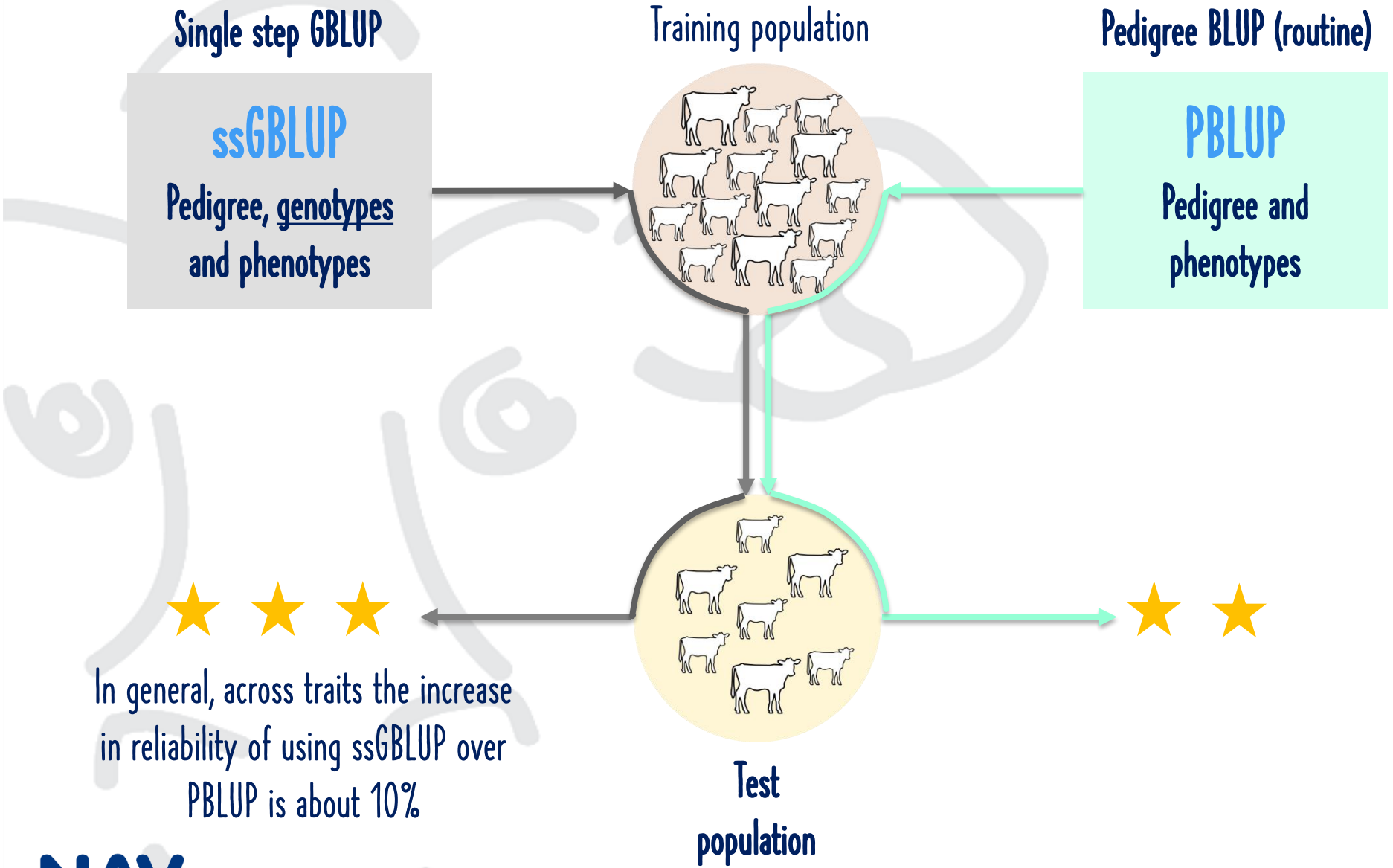
Genotyped — ★ ★ ★ Medium-High reliability GEBVs



Non-genotyped phenotyped — ★ ★ Medium reliability of GEBVs



Non-phenotyped non-genotyped — ★ ★ Low reliability of GEBVs


Single step GBLUP
ssGBLUP
Pedigree, genotypes and phenotypes
Training population
Pedigree BLUP (routine)
PBLUP
Pedigree and phenotypes
In general, across traits the increase in reliability of using ssGBLUP over PBLUP is about 10%
Test population

Questions

1. How can we make sure that everyone understands the value of phenotypes with introduction of genomic breeding values?

2. How can we help and motivate phenotypic registrations from genomic tested beef animals from:
    1. Animal owners?
    2. Companies and breed organizations?

3. What efforts and regulations are required from breed associations, national organizations and NAV?