

Big advantage of genomic selection:  
! Step 2 can be done with any animal with a genotype, not only for animals in the reference population.

⇒ If a calf is born, hair sample is used to extract DNA and to determine the genotype at the SNP-Markers

Animal N+1: Genotype  
 $G_1 G_1$      $H_1 H_2$     ---     $I_1 I_1$

Using marker effect estimates, the direct genomic breeding value can be predicted!

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Swiss Cattle:

- Marker effect estimation: 3 times per year (April, August, December)
- Direct genomic breeding values: every 2 weeks (Step 2)