

## DESCRIPTION OF NATIONAL GENETIC EVALUATION SYSTEMS

<b>Country (or countries)</b>	SLOVENIJA
<b>Main trait group<sup>1</sup></b> NOTE! Only one trait group per form!	CONFORMATION
<b>Breed(s)</b>	BSW
<b>Trait definition(s) and unit(s) of measurement<sup>2</sup></b> Attach an appendix if needed	See appendix
<b>Method of measuring and collecting data</b>	Linear scoring from 1 <sup>st</sup> lactation is included in genetic evaluation.
<b>Time period for data inclusion</b>	Scoring from 01.01.2004
<b>Age groups (e.g. parities) included</b>	1 <sup>st</sup> parity
<b>Other criteria (data edits) for inclusion of records</b>	Classifier*year >= 20 scores (calving date - birth date) <= 1200 days 5 <= (scoring date - calving date) <= 365
<b>Criteria for extension of records (if applicable)</b>	
<b>Sire categories</b>	AI
<b>Environmental effects<sup>3</sup>, pre-adjustments</b>	No
<b>Method (model) of genetic evaluation<sup>3</sup></b>	MT – AM – BLUP sta, cwi, bde, ran, rls, fan, hde, ruh, ruw, ude, flt: F1 + F2 + F3 + R ocs, ofl, rwi: F1 + F2 + F3 + linear regression(bcs) + R usu, ftp, rtp, ous, fua: F1 + F2 + F3 + F4 + R
<b>Environmental effects<sup>3</sup> in the genetic evaluation model</b>	F1 – classifier*year F2 – class(birth year)*class(scoring date - calving date) F3 – calving season*year F4 – class(time interval from milking) R – herd
<b>Adjustment for heterogeneous variance in evaluation model</b>	
<b>Use of genetic groups and relationships</b>	
<b>Blending of foreign/Interbull information in evaluation</b>	No
<b>Genetic parameters in the evaluation</b>	Use Appendix GE for heritability/genetic variance estimates; for multiple-trait genetic evaluations, provide genetic correlation estimates between traits separately. Use <b>also</b> appendices PR, CO, BCO, SM, LO, CA, as applicable, if you participate in the international genetic evaluations of Interbull
<b>System validation</b>	Genetic trend validation – method 3
<b>Expression of genetic evaluations</b> If standardised (e.g. RBV), give standardisation formula in the appendix	$BV12 = ((BV - a) / b) * 12 + 100$ a – mean of BV b – standard deviation of BV

<b>Definition of genetic reference base</b>	Mean of cows born in 2010
<b>Next base change</b>	2016
<b>Calculation of reliability</b>	Yes
<b>Criteria for official publication of evaluations</b>	reliability $\geq 0.25$
<b>Number of evaluations / publications per year</b>	3
<b>Use in total merit index<sup>4</sup></b>	BSW: Stature 0.9%, Rear leg set 1.4%, Pasterns/Foot angle 1.2%, Deep heel 0.7%, Teat length 0.3%, Rump angle 0.7%, Fore udder attachment 0.7%, Rear udder height 0.7%, Rear udder width 0.7%, Udder depth 1.4%, Body depth 1.2%, Chest width 1.2%, Rump width 0.3%, Front teat placement 0.5%, Rear teat placement 0.3%, Udder support 1%
<b>Anticipated changes in the near future</b>	Change of genetic base
<b>Key reference on methodology applied</b>	Web site: <a href="http://www.bf.uni-lj.si/zootehnika/struktura/katedre-in-ene/center-za-strokovno-delo-v-zivinoreji/govedo/">http://www.bf.uni-lj.si/zootehnika/struktura/katedre-in-ene/center-za-strokovno-delo-v-zivinoreji/govedo/</a>
<b>Key organisation: name, address, phone, fax, e-mail, web site</b>	University of Ljubljana, Biotechnical Faculty, Department of Animal Science, Groblje 3, 1230 Domzale, Slovenija Tel. +386 1 3203 872 Fax: +386 1 7241 005 <a href="mailto:Jurij.Krsnik@bf.uni-lj.si">Jurij.Krsnik@bf.uni-lj.si</a> , <a href="mailto:Klemen.Potocnik@bf.uni-lj.si">Klemen.Potocnik@bf.uni-lj.si</a>

1) Either: Production (e.g. milk, fat, protein), Conformation, Health (e.g. mastitis resistance, milk somatic cell, resistance to diseases other than mastitis), Longevity, Calving (e.g. stillbirth, calving ease), Female fertility (e.g. non-return rate, interval between reproductive events, number of AI's, heat strength), Workability (e.g. milking speed, temperament), Beef production, Efficiency (e.g. body weight, energy balance, body conditioning score), or Other traits.

2) Indicate frequencies per category if the trait is categorical and specify transformation of data if practiced.

3) Use abbreviations for most common effects (see document with list of abbreviations at [http://www-interbull.slu.se/service\\_documentation/General/list\\_of\\_abbreviations.rtf](http://www-interbull.slu.se/service_documentation/General/list_of_abbreviations.rtf)) and indicate random (R) or fixed (F).

4) Please give economic weights and indicate how they are expressed (preferably in genetic standard deviation units).



## Parameters for national genetic evaluations for conformation traits as provided to Interbull

Country (or countries): SLOVENIJA  
 Main trait group: Conformation  
 Breed: Brown Swiss

Trait	Definition	$h^{2a}$	genetic variance <sup>a</sup>	official proof standardisation formula <sup>b</sup>
Stature	cm	0.47	7.84 cm <sup>2</sup>	a= -1.296415 b=1.797205 c=12 d=100
Chest width	Scale 1-9	0.13	0.175	a=0.040058 b=0.210582 c=12 d=100
Body depth	Scale 1-9	0.17	0.286	a= -0.080493 b=0.22752 c=12 d=100
Angularity				
Rump angle	Scale 1-9	0.22	0.401	a= -0.00925 b=0.299017 c=12 d=100
Rump Width	Scale 1-9	0.16	0.275	a= -0.123774 b=0.299108 c=12 d=100
Rear Leg Set	Scale 1-9	0.15	0.266	a=0.05667 b=0.245097 c=12 d=100
Pasterns/Foot Angle	Scale 1-9	0.13	0.236	a= -0.082486 b=0.218824 c=12 d=100
Deep Heel (Hoof Height)	Scale 1-9	0.05	0.094	a= -0.04744 b=0.127915 c=12 d=100
Fore Udder Attachment	Scale 1-9	0.15	0.272	a= -0.148682 b=0.25157 c=12 d=100
Rear Udder Height	Scale 1-9	0.13	0.228	a= -0.203807 b=0.265738 c=12 d=100
Rear Udder Width	Scale 1-9	0.13	0.226	a= -0.207263 b=0.279352 c=12 d=100
Udder Support	Scale 1-9	0.16	0.273	a= -0.104642 b=0.228224 c=12 d=100
Udder Depth	Scale 1-9	0.24	0.449	a= -0.11086 b=0.333837 c=12 d=100
Front Teat Placement	Scale 1-9	0.25	0.459	a= -0.166115 b=0.385976 c=12 d=100
Teat Length	Scale 1-9	0.34	0.622	a=0.161955 b=0.453445 c=12 d=100
Rear Teat Placement	Scale 1-9	0.33	0.603	a= -0.127542 b=0.455522 c=12 d=100
Overall Conformation Score	Points	0.16	0.502	a= -0.216464 b=0.344469

				c=12 d=100
Overall Udder Score	Points	0.21	1.334	a= -0.293466 b=0.571242 c=12 d=100
Overall Feet & Leg Score	Points	0.07	0.802	a= -0.225852 b=0.393131 c=12 d=100
Locomotion				
Body Condition Score				

<sup>a</sup> If repeated records are treated as separate traits, provide heritability estimates and genetic variances separately for each trait, as well as for all traits pooled, i.e. for the trait submitted to Interbull.

<sup>b</sup> Expressed as follows:

StandEval= $((eval-a)/b)*c+d$  where a=mean of the base adjustment, b=standard deviation of the base, c=standard deviation of expression (include sign if scale is reversed), and d=base of expression.