Supplementary Data 4:
Descriptive statistics of the span of desired property values for training and competition surface from a questionnaire on riding arenas in Sweden 2014.

| Discipline | Property | Category                  | N  | Mean | STD | 10th Pctl | 50th Pctl | 90th Pctl |
|------------|----------|---------------------------|----|------|-----|-----------|-----------|-----------|
| Dressage   | Impact   | Competition: From         | 1417 | 2.5  | 0.5 | 2.0       | 2.5       | 3.0       |
|            | firmness | Competition: To           | 1404 | 3.3  | 0.5 | 3.0       | 3.2       | 4.0       |
|            |          | Training: From            | 1370 | 2.4  | 0.5 | 2.0       | 2.5       | 3.0       |
|            |          | Training: To              | 1364 | 3.4  | 0.6 | 3.0       | 3.2       | 4.0       |
| Cushioning | Impact   | Competition: From         | 1201 | 3.1  | 0.6 | 2.5       | 3.0       | 4.0       |
|            | firmness | Competition: To           | 1194 | 4.0  | 0.6 | 3.0       | 4.0       | 5.0       |
|            |          | Training: From            | 1171 | 3.0  | 0.6 | 2.0       | 3.0       | 4.0       |
|            |          | Training: To              | 1163 | 4.1  | 0.6 | 3.2       | 4.0       | 5.0       |
| Responsiveness | Impact | Competition: From         | 1085 | 3.2  | 0.7 | 2.0       | 3.0       | 4.0       |
|             | firmness | Competition: To           | 1072 | 4.3  | 0.7 | 3.0       | 4.3       | 5.0       |
|             |          | Training: From            | 1061 | 3.0  | 0.7 | 2.0       | 3.0       | 4.0       |
|             |          | Training: To              | 1050 | 4.3  | 0.7 | 3.2       | 4.2       | 5.0       |
| Grip       | Impact   | Competition: From         | 1064 | 3.8  | 0.7 | 3.0       | 4.0       | 5.0       |
|            | firmness | Competition: To           | 1049 | 4.6  | 0.5 | 4.0       | 5.0       | 5.0       |
|            |          | Training: From            | 1045 | 3.7  | 0.7 | 3.0       | 3.9       | 4.7       |
|            |          | Training: To              | 1032 | 4.6  | 0.5 | 4.0       | 5.0       | 5.0       |
| Uniformity | Impact   | Competition: From         | 1056 | 4.6  | 0.7 | 4.0       | 5.0       | 5.0       |
|            | firmness | Competition: To           | 1037 | 4.9  | 0.3 | 5.0       | 5.0       | 5.0       |
|            |          | Training: From            | 1039 | 4.3  | 0.9 | 3.0       | 4.6       | 5.0       |
|            |          | Training: To              | 1024 | 4.9  | 0.3 | 5.0       | 5.0       | 5.0       |
| Showjumping | Impact  | Competition: From         | 1449 | 2.6  | 0.6 | 2.0       | 2.7       | 3.0       |
|             | firmness | Competition: To           | 1439 | 3.6  | 0.5 | 3.0       | 3.5       | 4.0       |
|             |          | Training: From            | 1404 | 2.3  | 0.6 | 2.0       | 2.2       | 3.0       |
|             |          | Training: To              | 1398 | 3.5  | 0.6 | 3.0       | 3.5       | 4.0       |
| Cushioning | Impact   | Competition: From         | 1192 | 3.1  | 0.6 | 2.0       | 3.0       | 4.0       |
|            | firmness | Competition: To           | 1178 | 4.1  | 0.6 | 3.1       | 4.0       | 5.0       |
|            |          | Training: From            | 1163 | 3.0  | 0.6 | 2.0       | 3.0       | 4.0       |
|            |          | Training: To              | 1149 | 4.1  | 0.6 | 3.4       | 4.0       | 5.0       |
| Responsiveness | Impact | Competition: From         | 1045 | 3.2  | 0.8 | 2.0       | 3.0       | 4.0       |
|             | firmness | Competition: To           | 1032 | 4.4  | 0.7 | 3.5       | 4.8       | 5.0       |
|             |          | Training: From            | 1027 | 3.0  | 0.8 | 2.0       | 3.0       | 4.0       |
|             |          | Training: To              | 1014 | 4.4  | 0.6 | 3.5       | 4.5       | 5.0       |
| Grip       | Impact   | Competition: From         | 1036 | 3.9  | 0.7 | 3.0       | 4.0       | 5.0       |
|            | firmness | Competition: To           | 1008 | 4.7  | 0.5 | 4.0       | 5.0       | 5.0       |
|            |          | Training: From            | 1011 | 3.6  | 0.8 | 3.0       | 3.8       | 4.6       |
|            |          | Training: To              | 992  | 4.7  | 0.5 | 4.0       | 5.0       | 5.0       |
| Uniformity | Impact   | Competition: From         | 1026 | 4.3  | 0.9 | 3.0       | 4.8       | 5.0       |
|            | firmness | Competition: To           | 1004 | 4.9  | 0.4 | 5.0       | 5.0       | 5.0       |
|            |          | Training: From            | 1003 | 4.0  | 1.1 | 2.0       | 4.0       | 5.0       |
|            |          | Training: To              | 988  | 4.9  | 0.4 | 4.0       | 5.0       | 5.0       |
| Eventing   | Impact   | Competition: From         | 147  | 2.5  | 0.5 | 2.0       | 2.5       | 3.0       |
|            | firmness | Competition: To           | 144  | 3.5  | 0.5 | 3.0       | 3.5       | 4.0       |
|            |          | Training: From            | 144  | 2.2  | 0.6 | 1.0       | 2.0       | 3.0       |
|            |          | Training: To              | 145  | 3.7  | 0.7 | 3.0       | 3.5       | 5.0       |
| Cushioning | Impact   | Competition: From         | 127  | 3.1  | 0.6 | 2.2       | 3.0       | 4.0       |
|            | firmness | Competition: To           | 127  | 4.0  | 0.5 | 3.2       | 4.0       | 5.0       |
|            |          | Training: From            | 127  | 2.8  | 0.7 | 2.0       | 3.0       | 3.7       |
|            |          | Training: To              | 127  | 4.2  | 0.5 | 3.5       | 4.0       | 5.0       |
| Responsiveness | Impact | Competition: From         | 117  | 3.0  | 0.6 | 2.0       | 3.0       | 3.8       |
|             | firmness | Competition: To           | 117  | 4.3  | 0.6 | 3.6       | 4.2       | 5.0       |
|             |          | Training: From            | 117  | 2.7  | 0.7 | 2.0       | 3.0       | 3.5       |
|                  | Training: From | Training: To | Competition: From | Competition: To |
|------------------|----------------|--------------|--------------------|-----------------|
| Grip             | 116            | 117          | 116                | 116             |
|                  | 2.9            | 4.4          | 3.1                | 3.1             |
|                  | 0.9            | 0.6          | 0.9                | 0.9             |
|                  | 2.0            | 3.5          | 2.0                | 2.0             |
|                  | 3.0            | 4.5          | 3.0                | 4.5             |
|                  | 4.0            | 5.0          | 4.0                | 5.0             |
| Uniformity       | 116            | 116          | 116                | 115             |
|                  | 3.8            | 4.5          | 3.8                | 4.8             |
|                  | 1.1            | 0.5          | 1.1                | 0.5             |
|                  | 2.0            | 4.0          | 2.0                | 4.0             |
|                  | 4.0            | 5.0          | 4.0                | 5.0             |
|                  | 5.0            | 5.0          | 5.0                | 5.0             |