

# Complementarity of EBI and COW

**Donagh Berry & Margaret Kelleher**

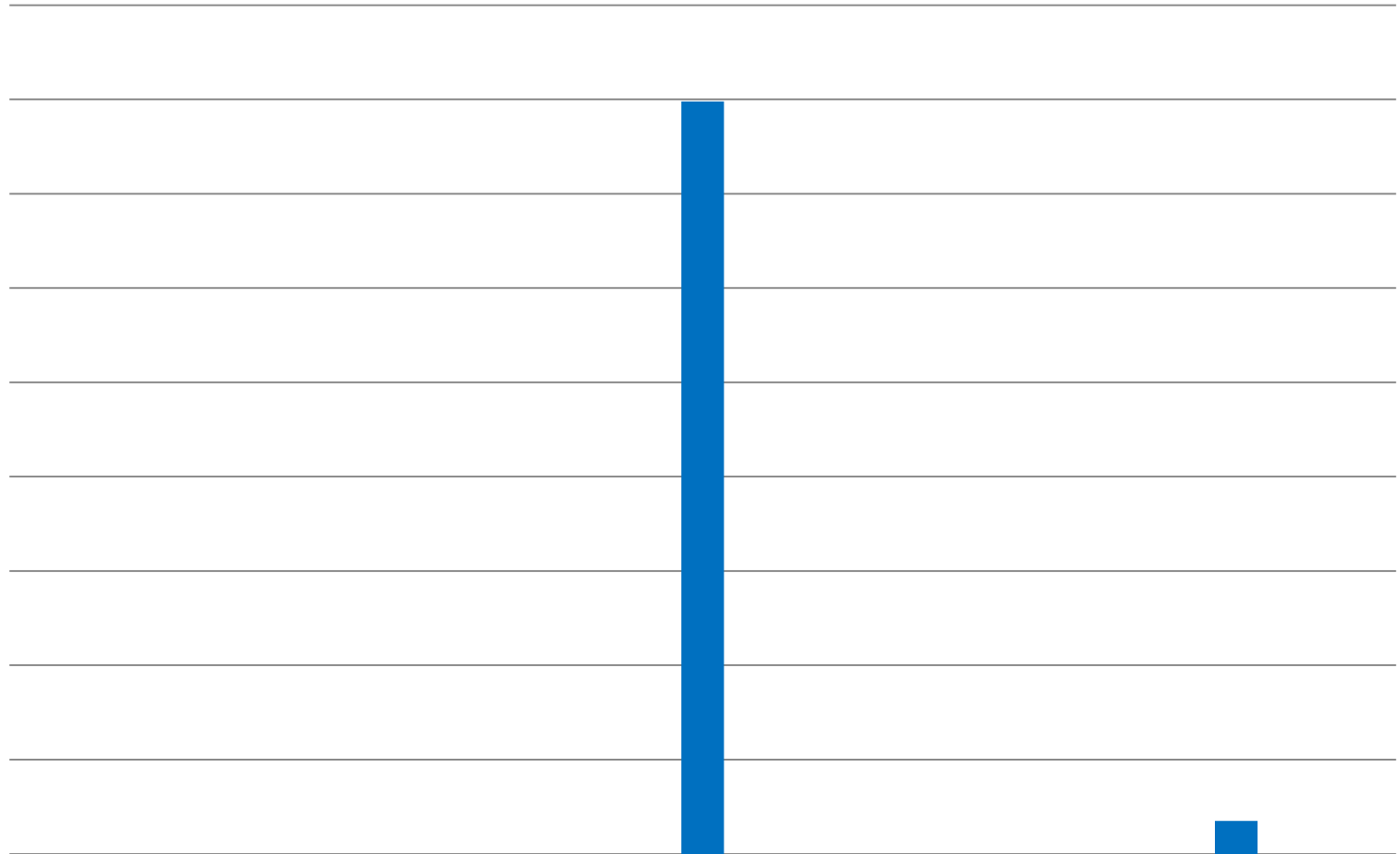
***Teagasc, Moorepark & ICBF***

[donagh.berry@teagasc.ie](mailto:donagh.berry@teagasc.ie)

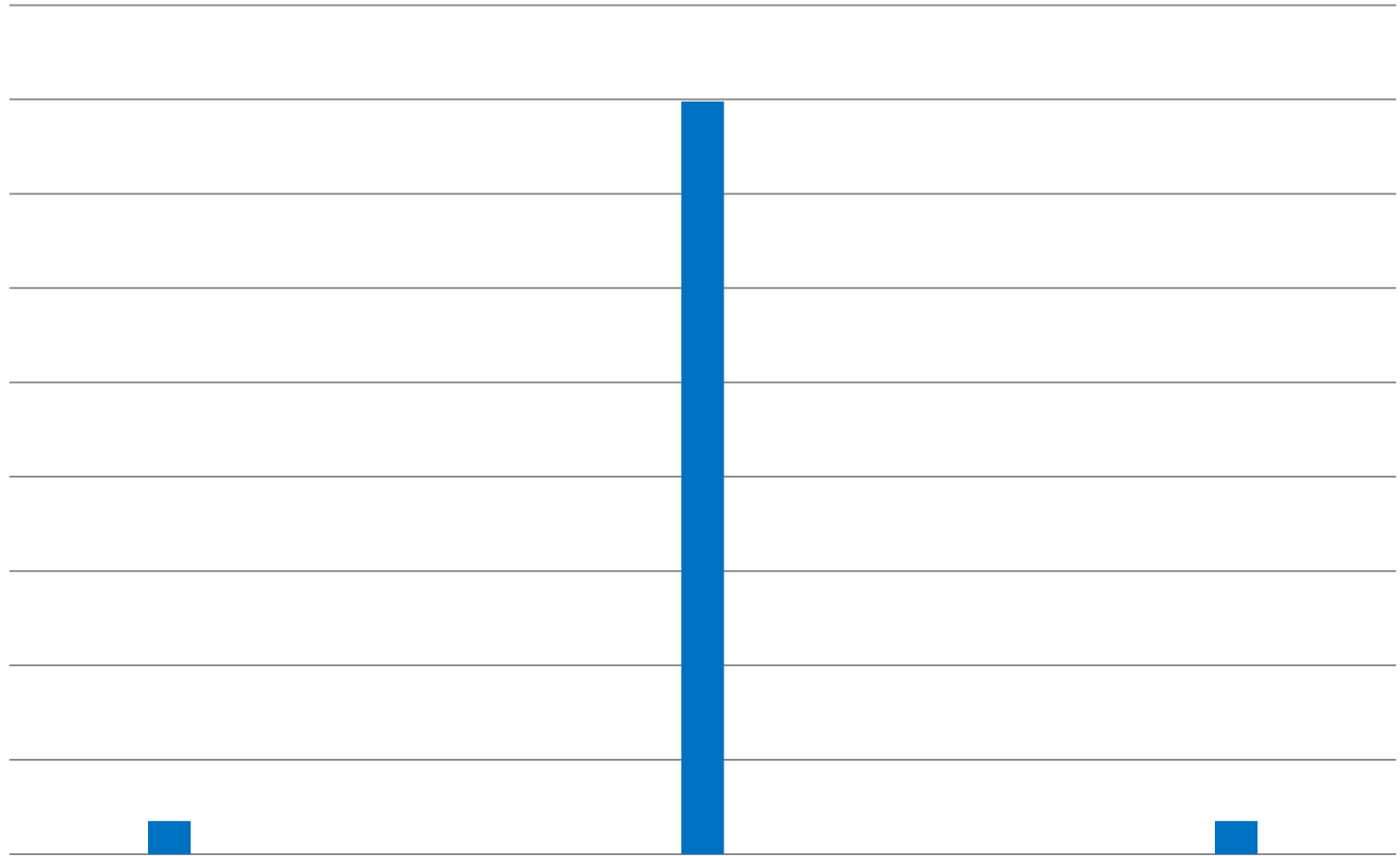
*C.O.W. Launch, Moorepark, October 2017*



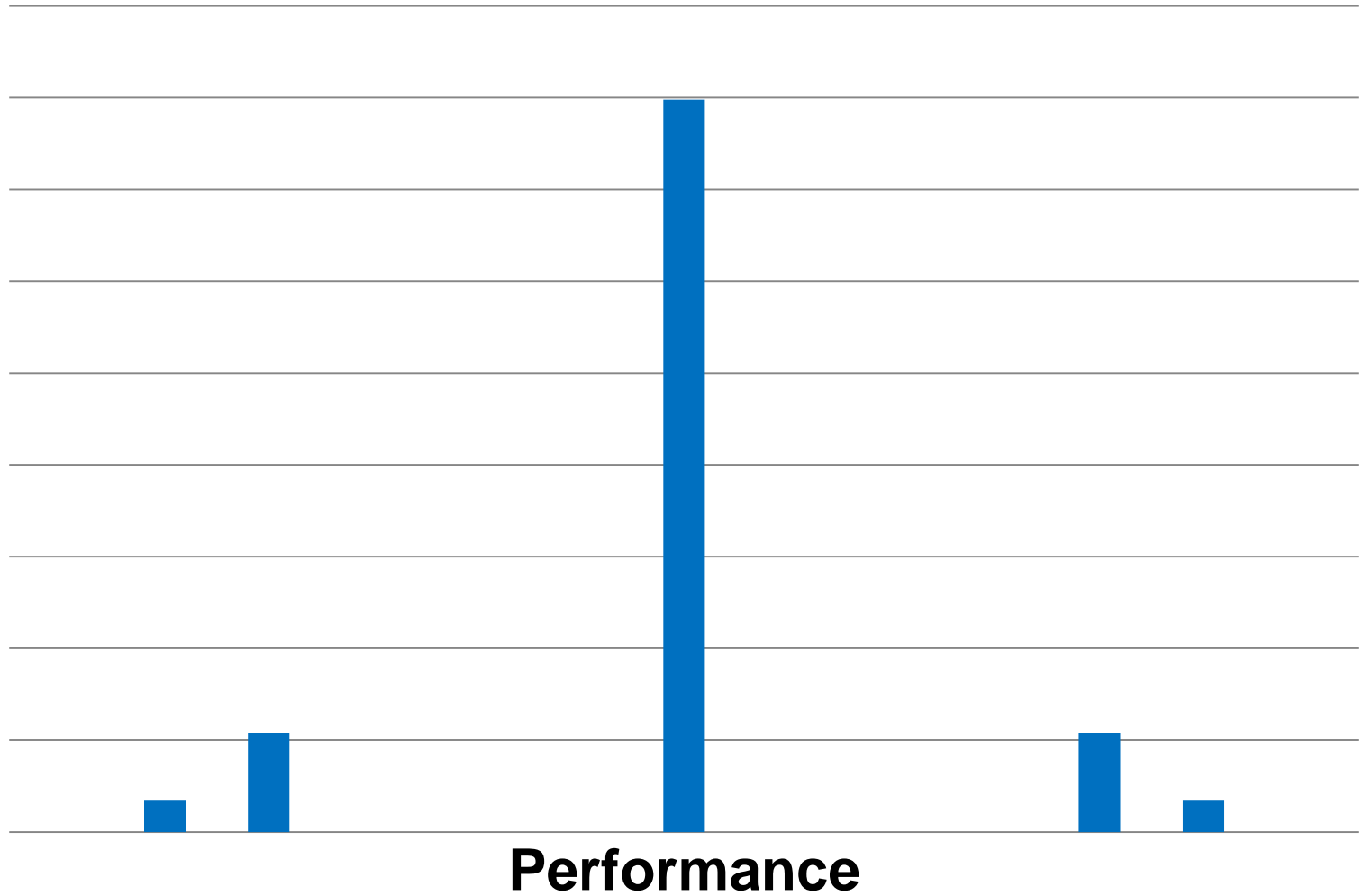
**Performance**

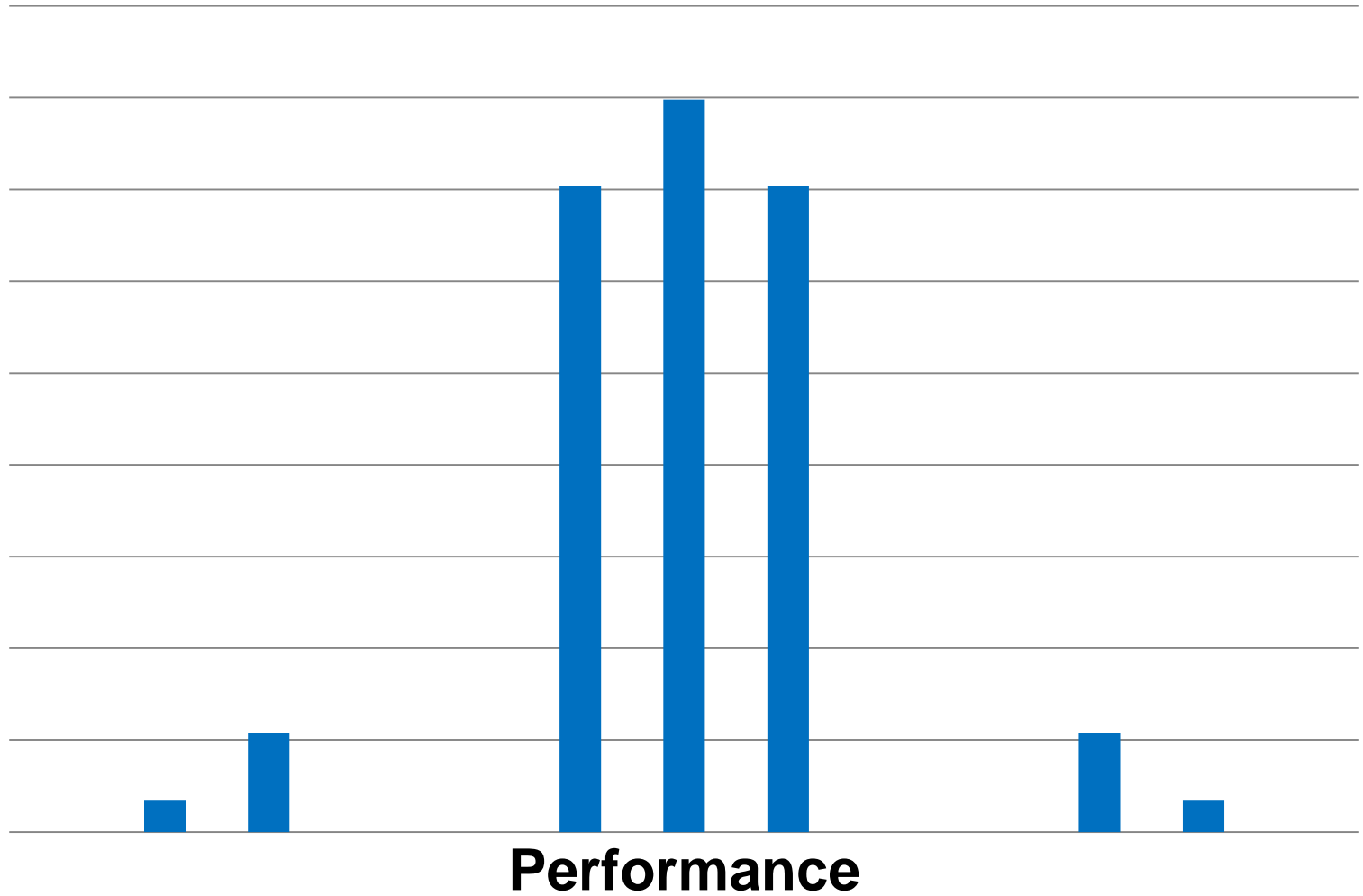


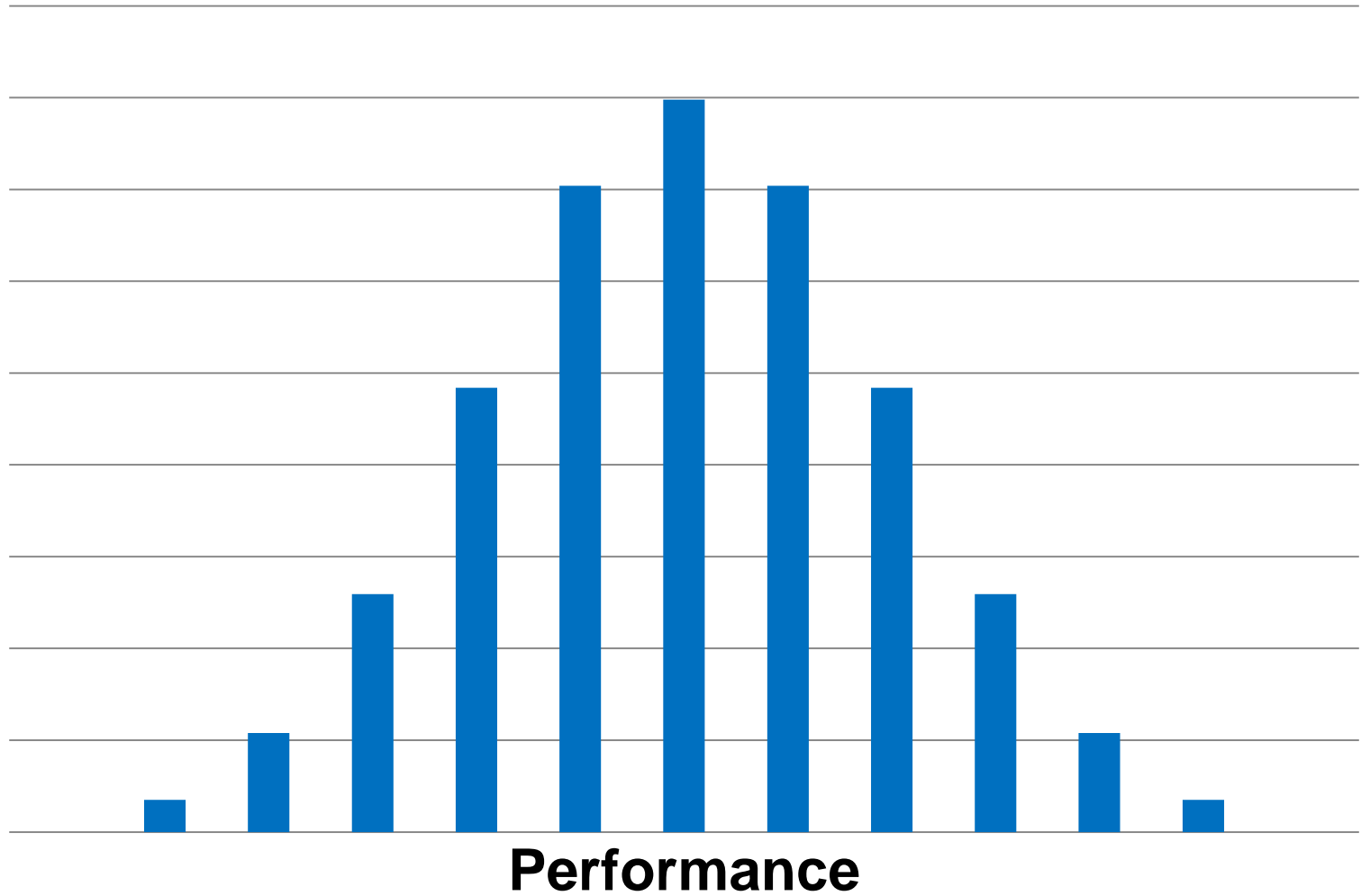
**Performance**

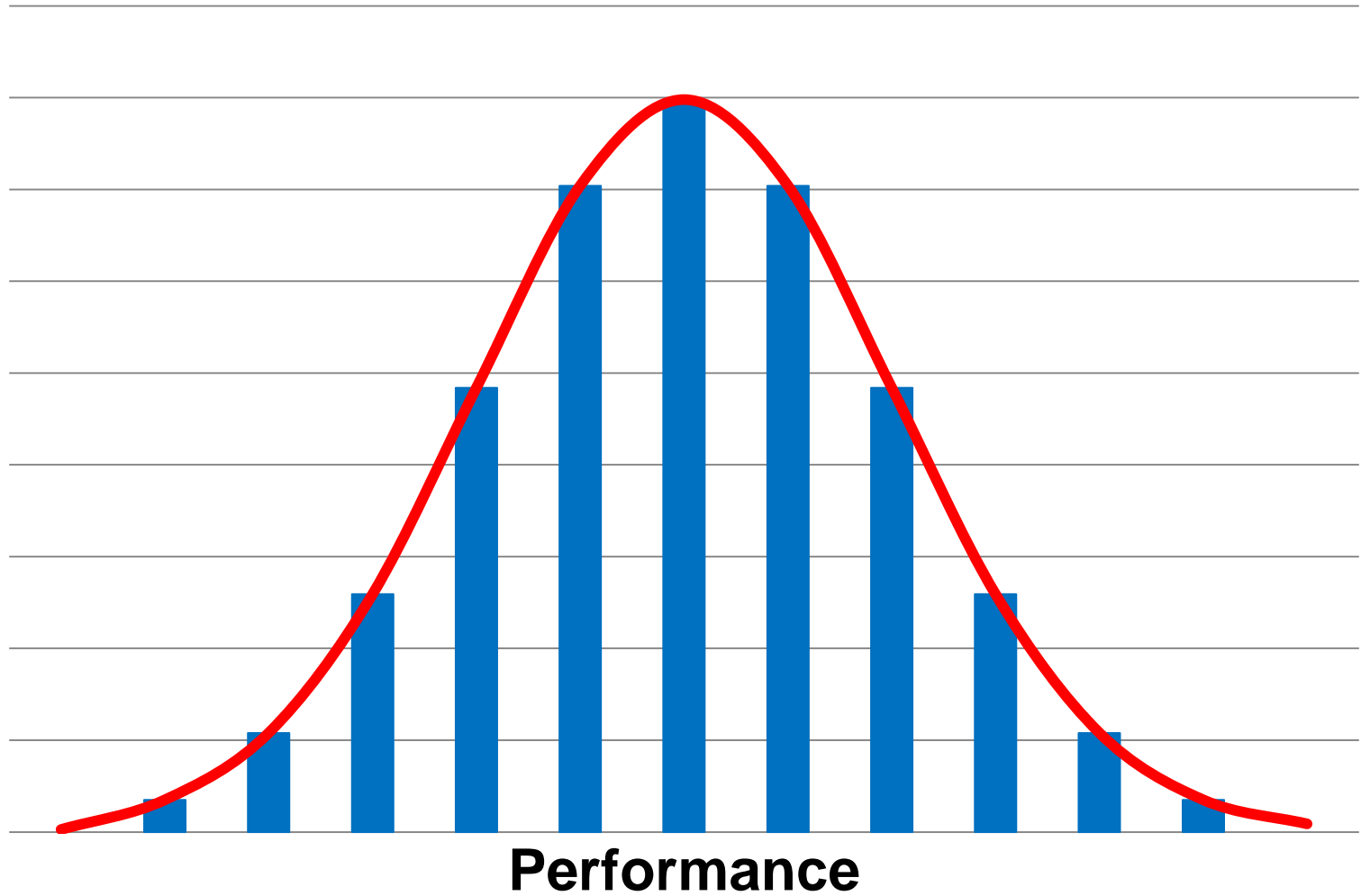


**Performance**

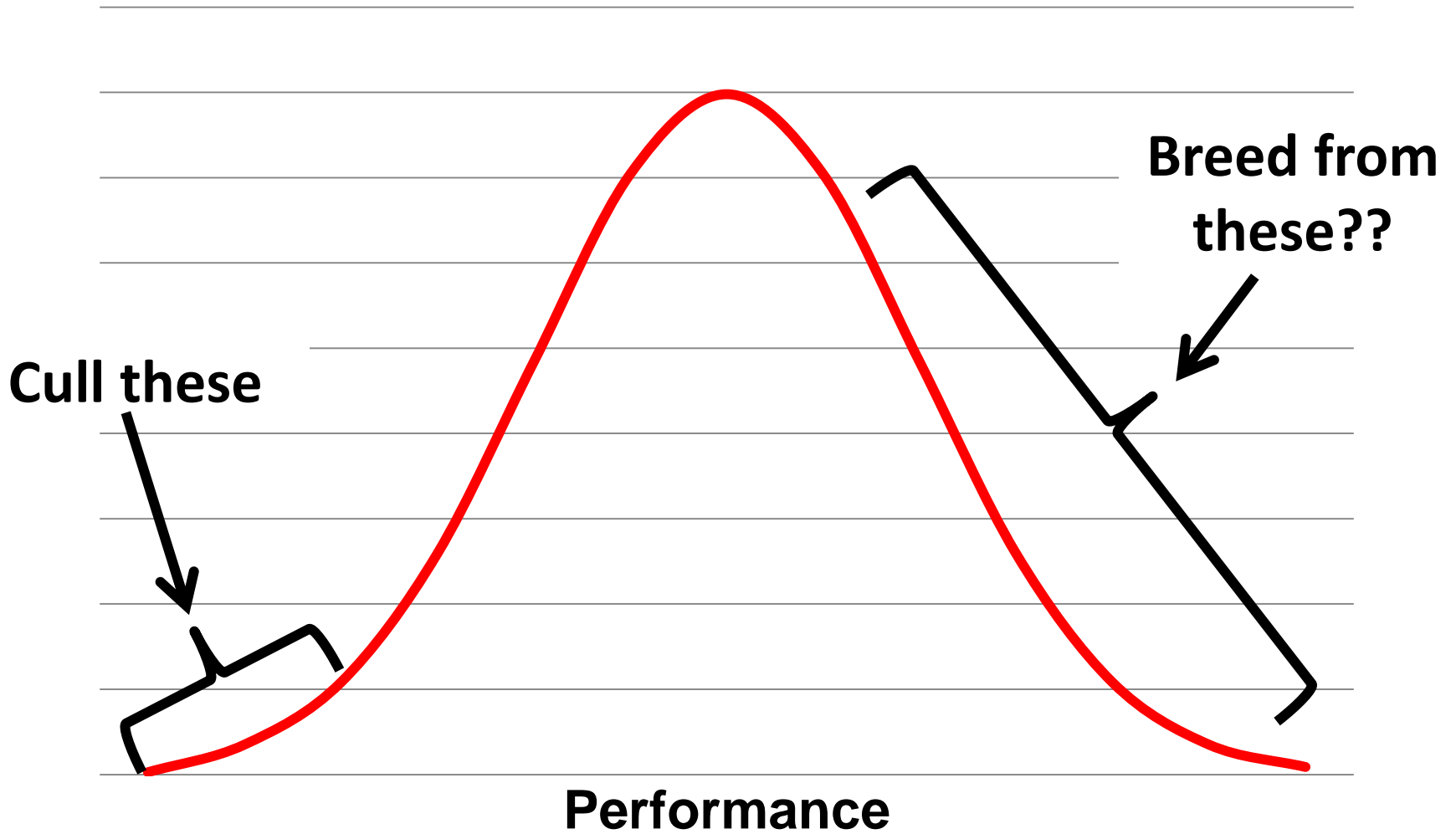




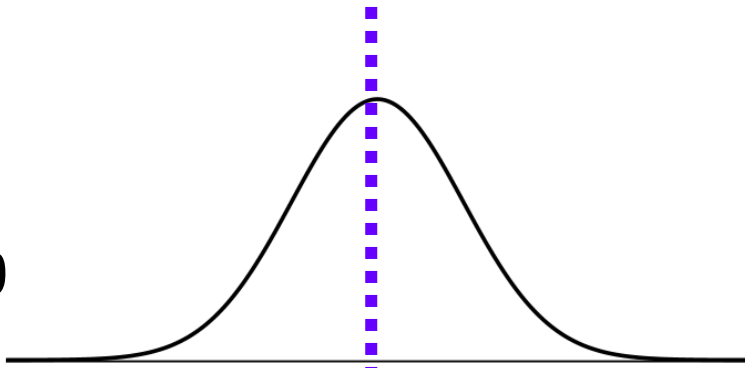






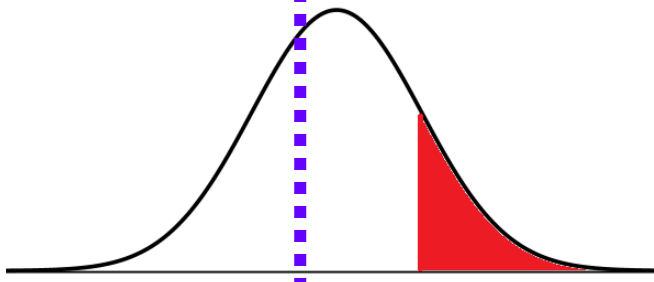


Gen 0



**Top 90% - €18 higher EBI**

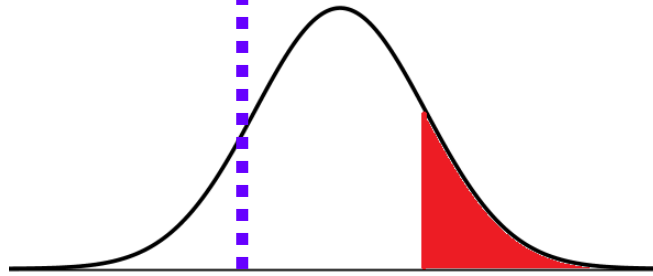
Gen 1

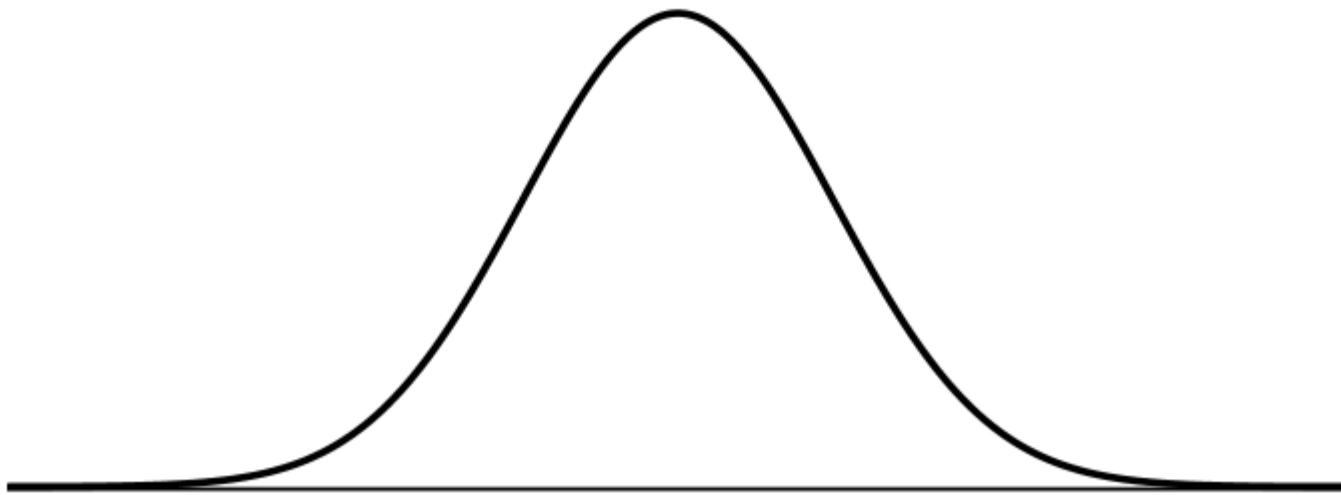


**Top 50% - €72 higher EBI**

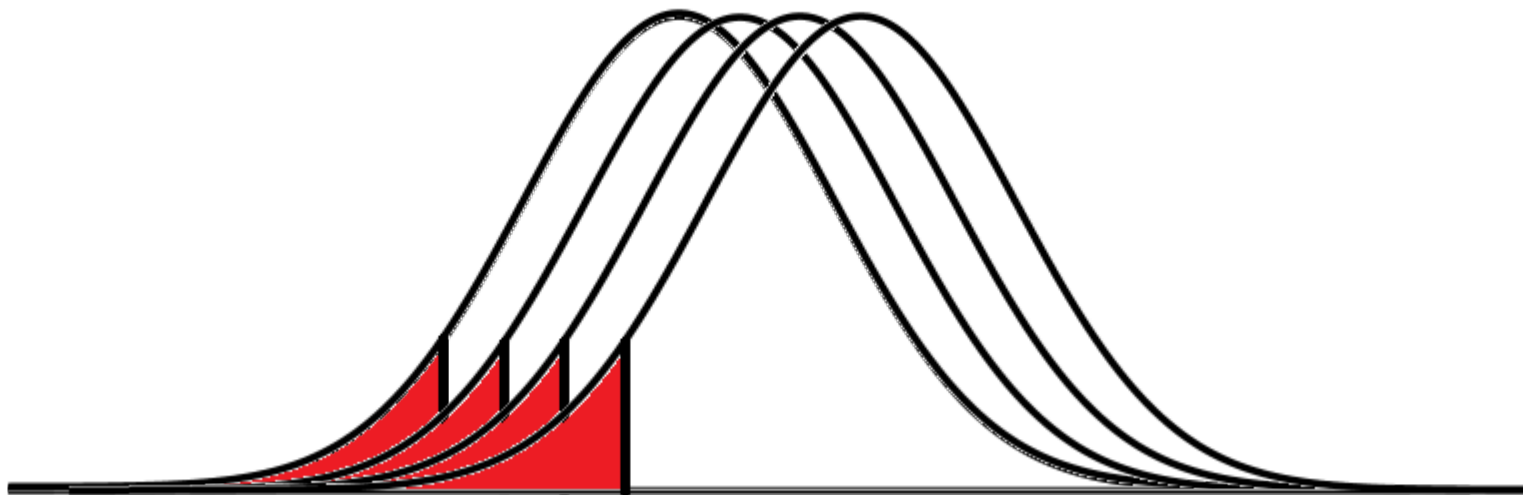
**Top 25% - €114 higher EBI**

Gen 2

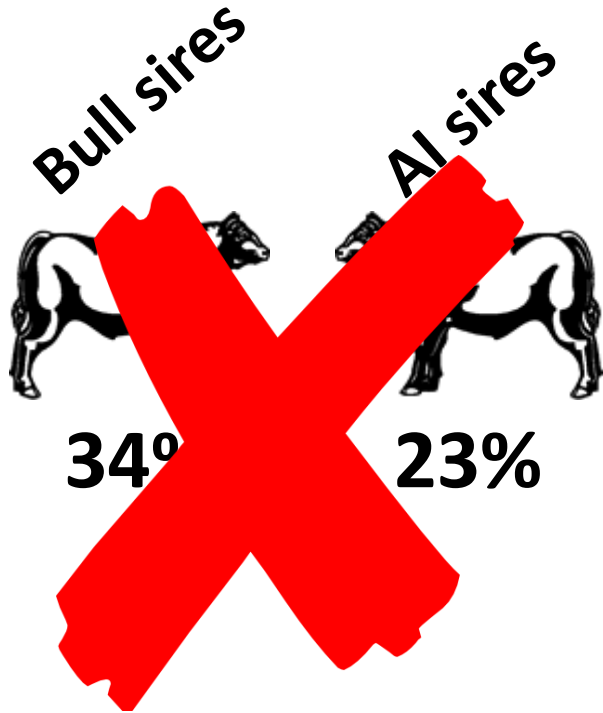




**9% voluntary culling rate → €86 more profit**



# Impact on genetic gain?

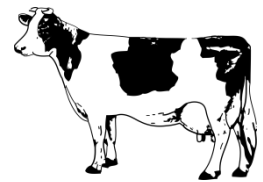


**Bull dams**

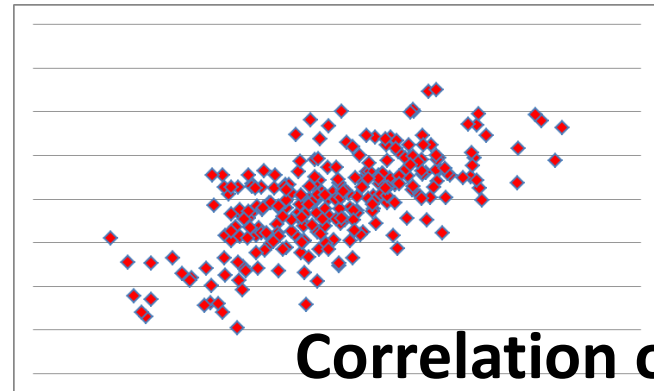


**40%**

**Commercial cows**

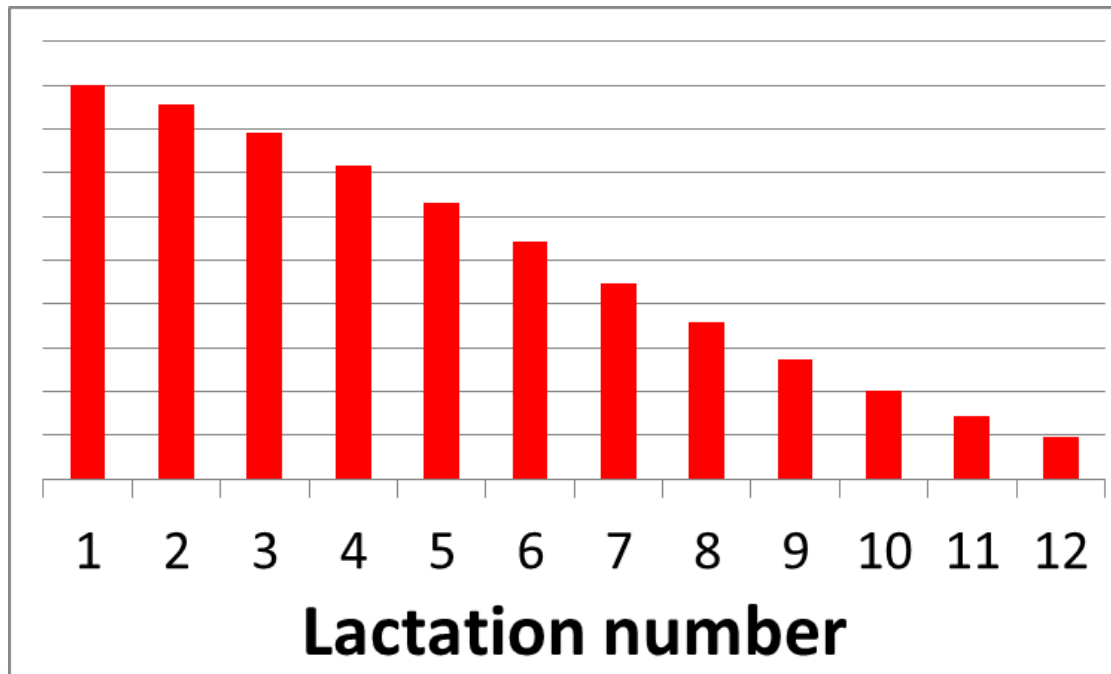


**3%**



# Achieving 5.5 lactations

- **18% replacement rate → 5.5 lactations**
  - **9% involuntary**
  - **9% voluntary**



# Future modifications?

- **Heifers**
- **Non-seasonal herds**
- **Better use of health data**
- **DNA data to estimate heterosis**
- **Customised/herd-specific parameters or decision rules**

# Conclusions

- **Complementary not replacement of EBI**
  - **Considers factors not directly transmitted to the next generation**
- **Useful tool to identify culling candidates**
  - **Component of new sire advice**
- **Under constant development**
  - **EBI revised 9 times since 2001**

