



# How many lambs are too many?



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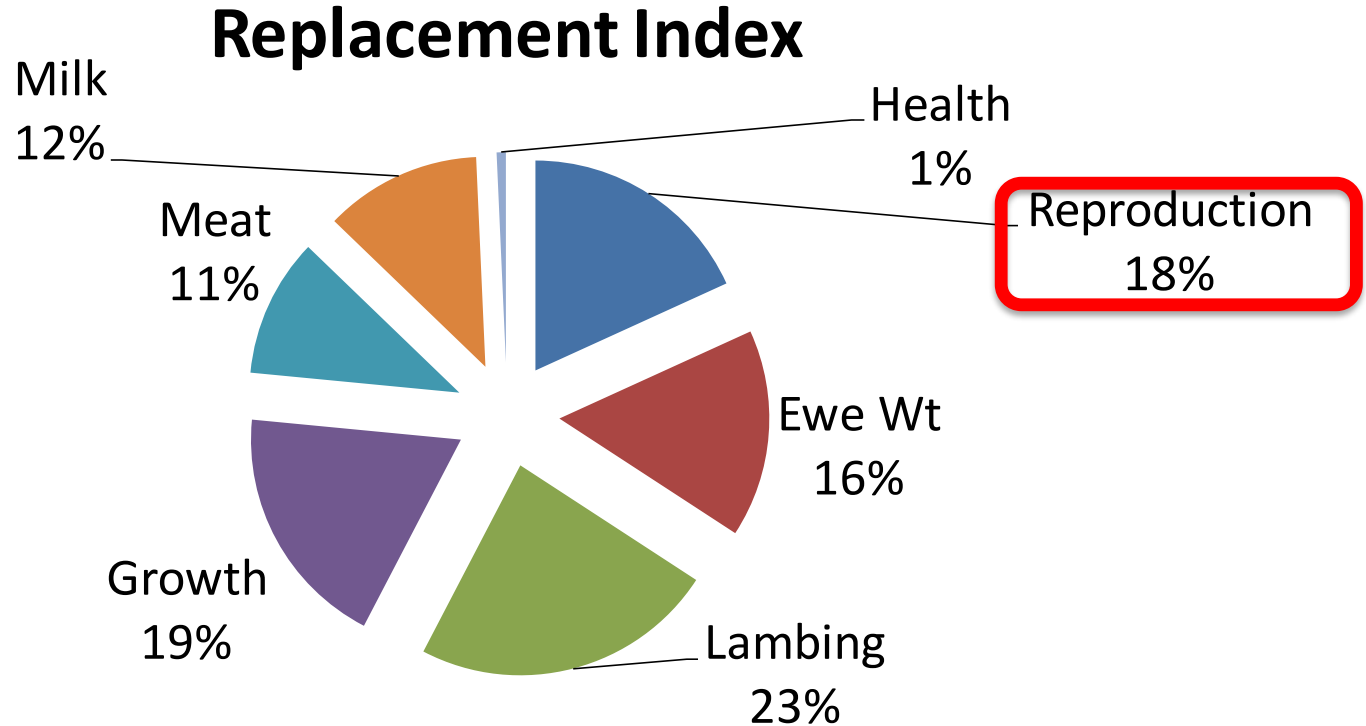
<sup>1</sup>Teagasc, Moorepark

<sup>2</sup>Sheep Ireland

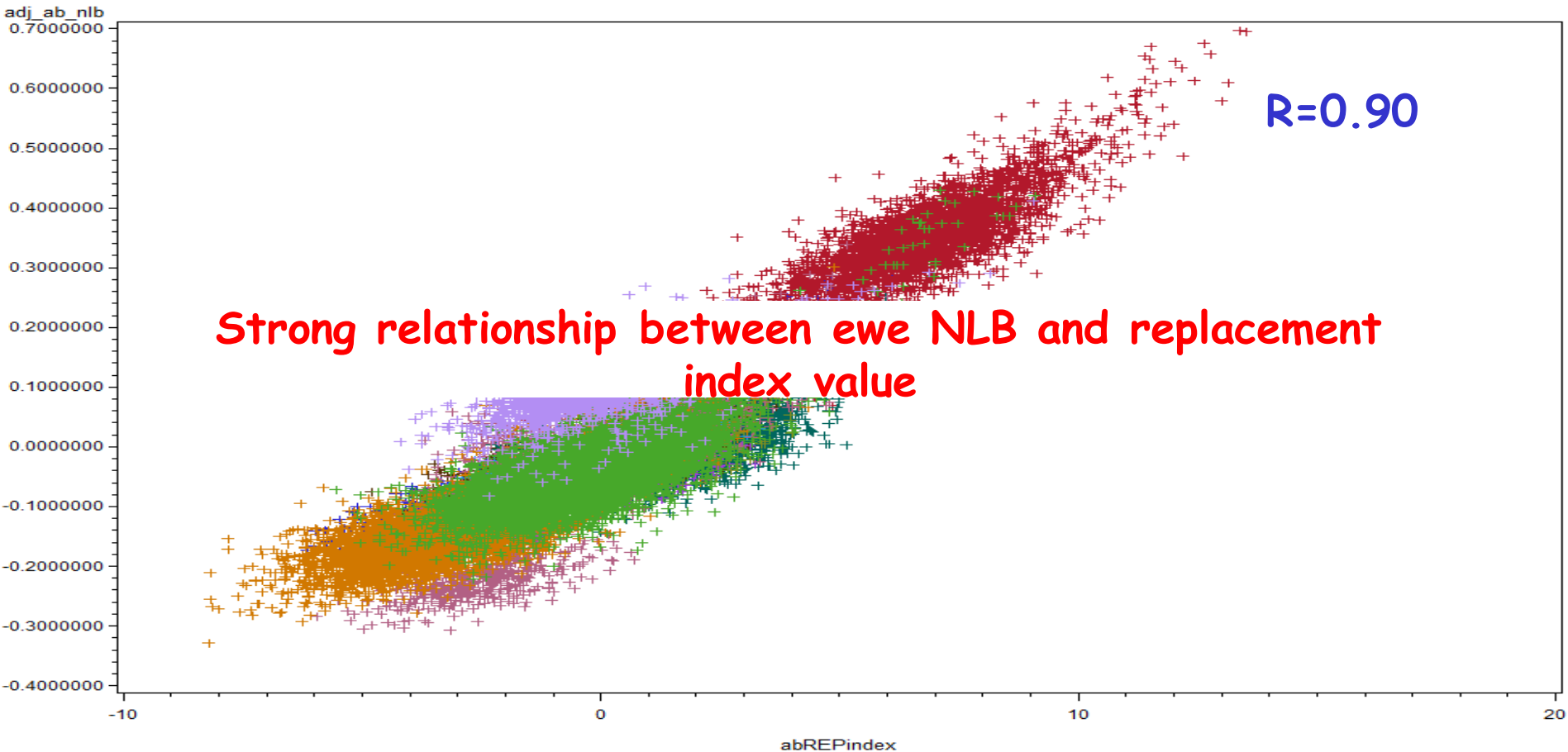
*9CB7 & Sheep Ireland Conference, 17<sup>th</sup> January 2020*

# Importance of NLB

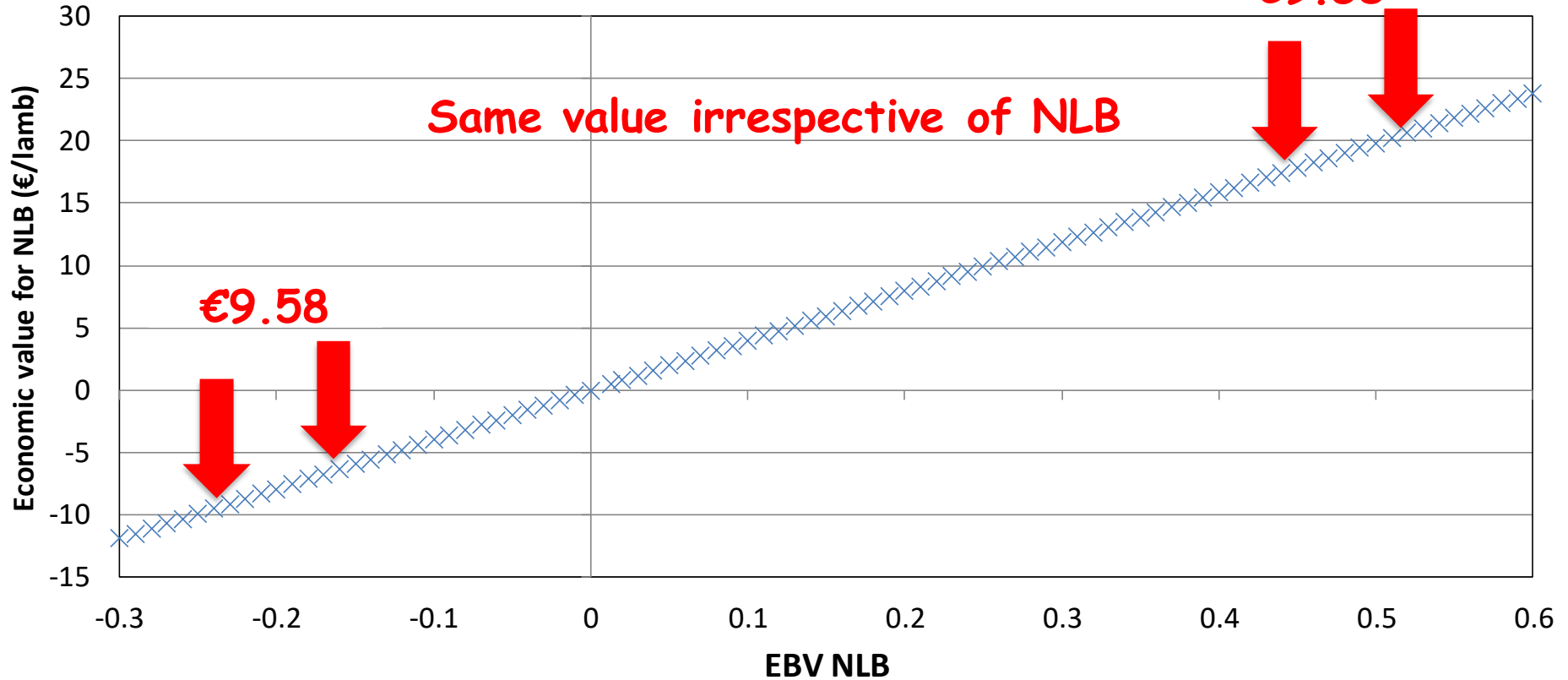
- NLB → key driver of profitability



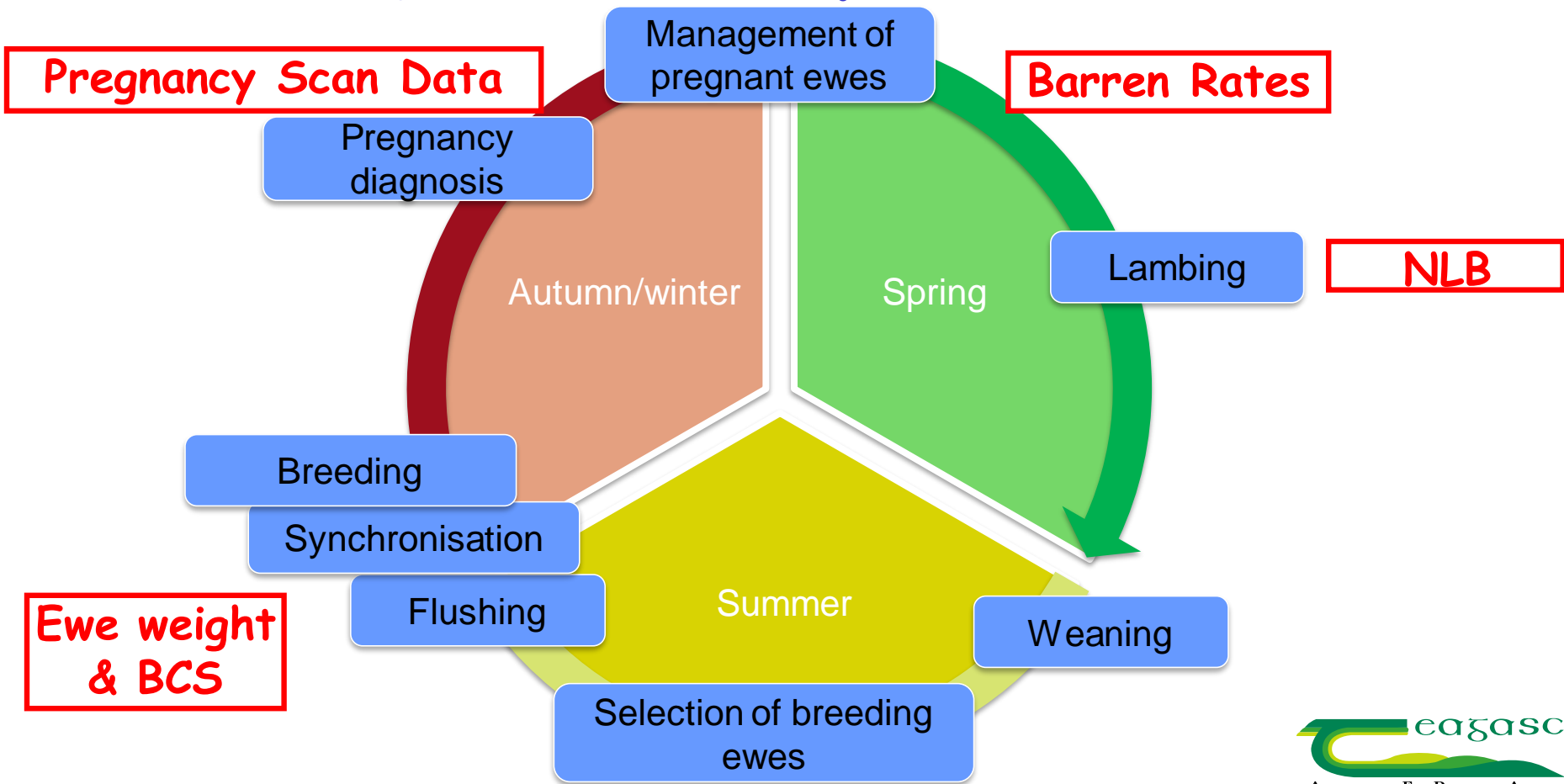
# Current Replacement Index



# Current Scenario



# What determines NLB?



# How to construct an genetic index

Genetic Component

×

Economic Value

Breeding Values

€



# Objective

## Investigate:

1. genetic component of NLB
2. Is there an economic cut off on having too many lambs??

# 1. NLB - genetics

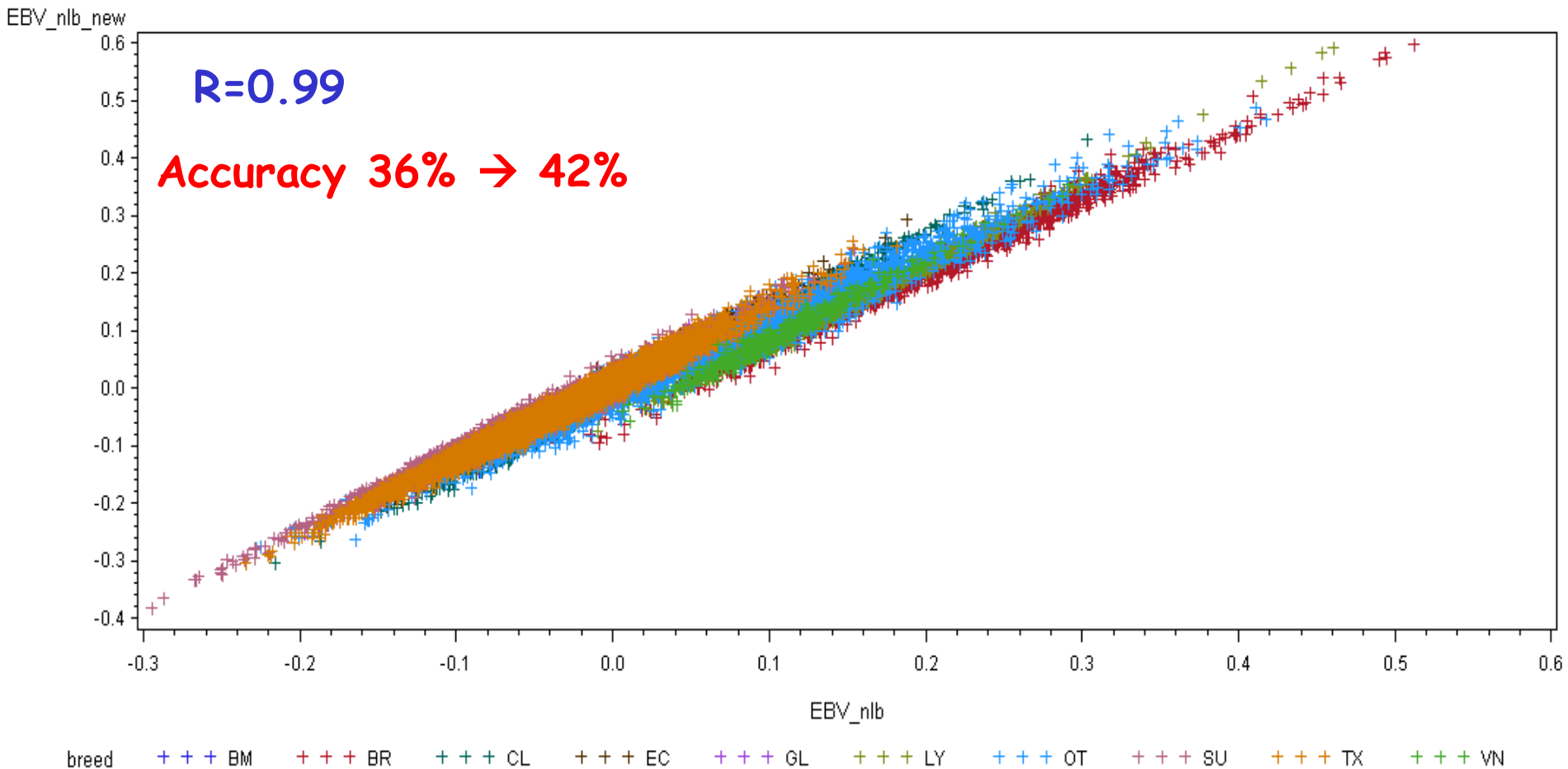
- Re-estimated NLB **heritability**

Trait	No. ewes	Mean	Heritability
an	45 189	1.57	
	11 930	1.57	
	<b>Proportion of difference between animals due to genetics</b>		
		3.15	0.02
Ewe live-weight	8 712	70.74	0.14
			0.40

- Estimate genetic correlation (relationship)
  - NLB & pregnancy scan data **0.77**



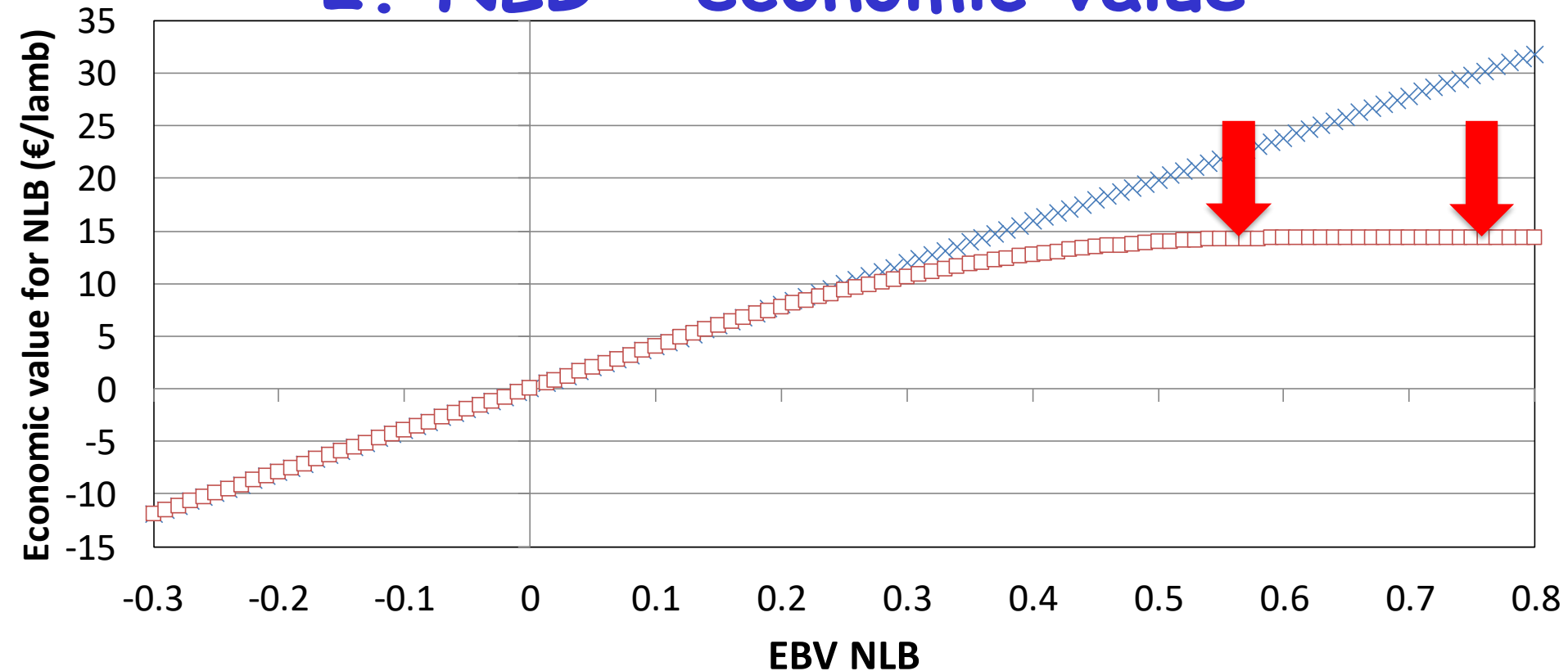
# 1. NLB - genetics



## 2. NLB - economics

- Currently using linear economic value
  - Value of increasing lambing percentage by 0.1 same at 1.3 lambs as at 2.0 lambs per ewe
- Is this correct?
  - Modelled each 0.1 increase in NLB:
    - » Mortality
    - » Lambs reared per ewe (cross-fostering)
    - » Sold as pets
    - » Labour
    - » Lambs weaned
- Optimum NLB **2.18 lambs**

## 2. NLB - economic value

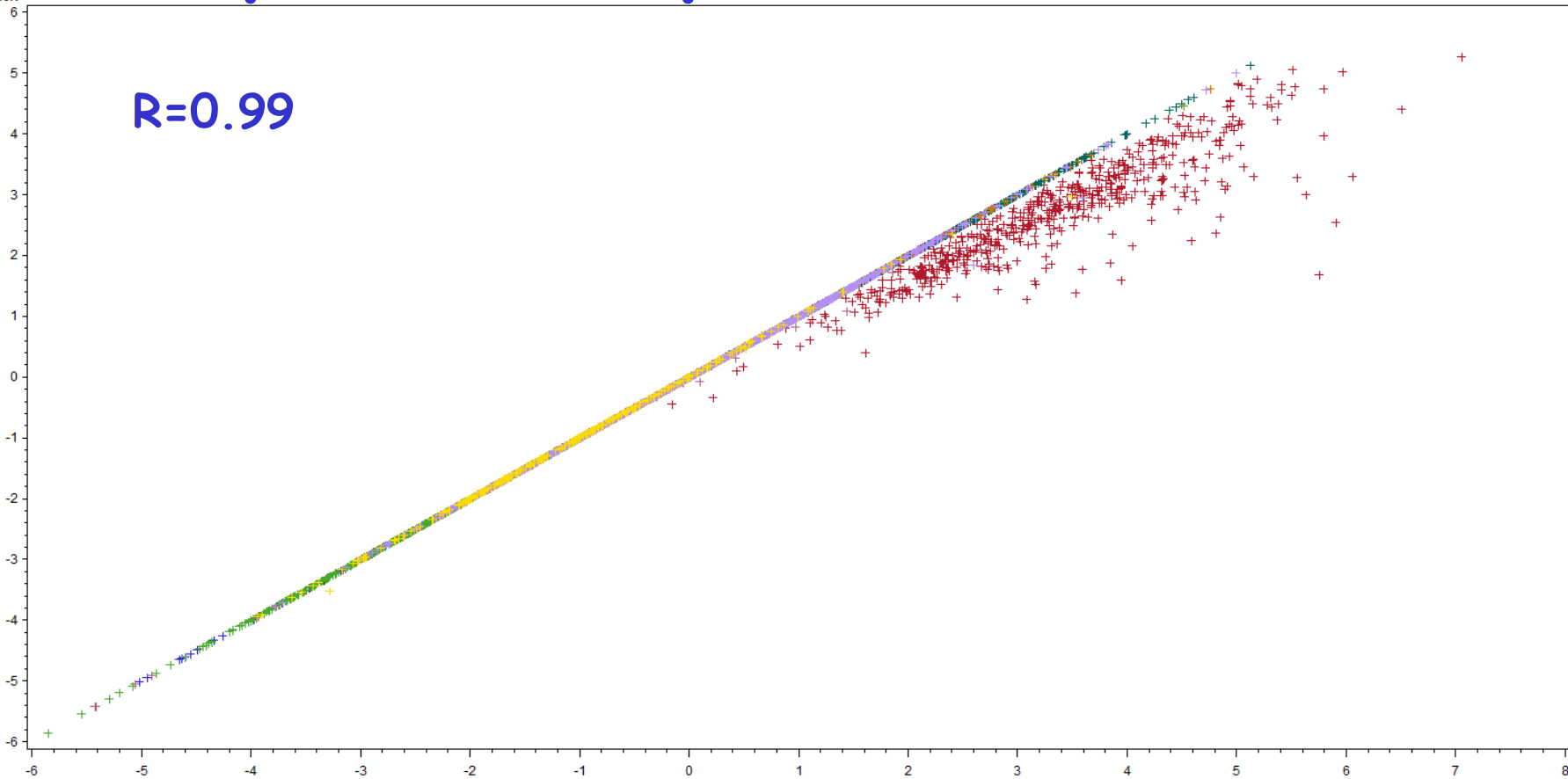


× Linear Economic Value

□ Non-linear Economic Value

# Impact on Replacement Index

nlev\_abREPindeX



$R=0.99$

# Conclusions

Owner: Flor Ryan (DQI: 82%); Lawn, Downings, North Prosperous, Co. Kildare  
 Breeder: Michael And Aidan Murphy; Belcarrig, Gorey, Co. Wexford

## Animal

IE044561203298A

PXE1903298

Murphys Collier

DOB: 11-Feb-2019

Texel

Male

Twin

Parentage DNA Verified

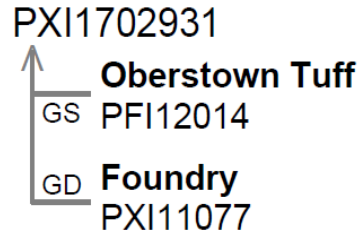
M & F Scanned: Yes

## Ancestry



**Greenhill Yemen Boy**  
HUI16069

## Foundry

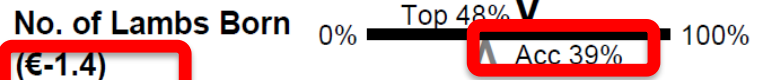
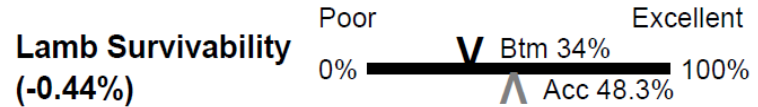


(CPT Sire)

## €uroStars

11/12/2019

Replacement: (€-0.02) Terminal (€1.68)  
 Acc 48% Rank Top 25% Acc 50% Rank Top 6%



Comment: