



How many lambs are too many?

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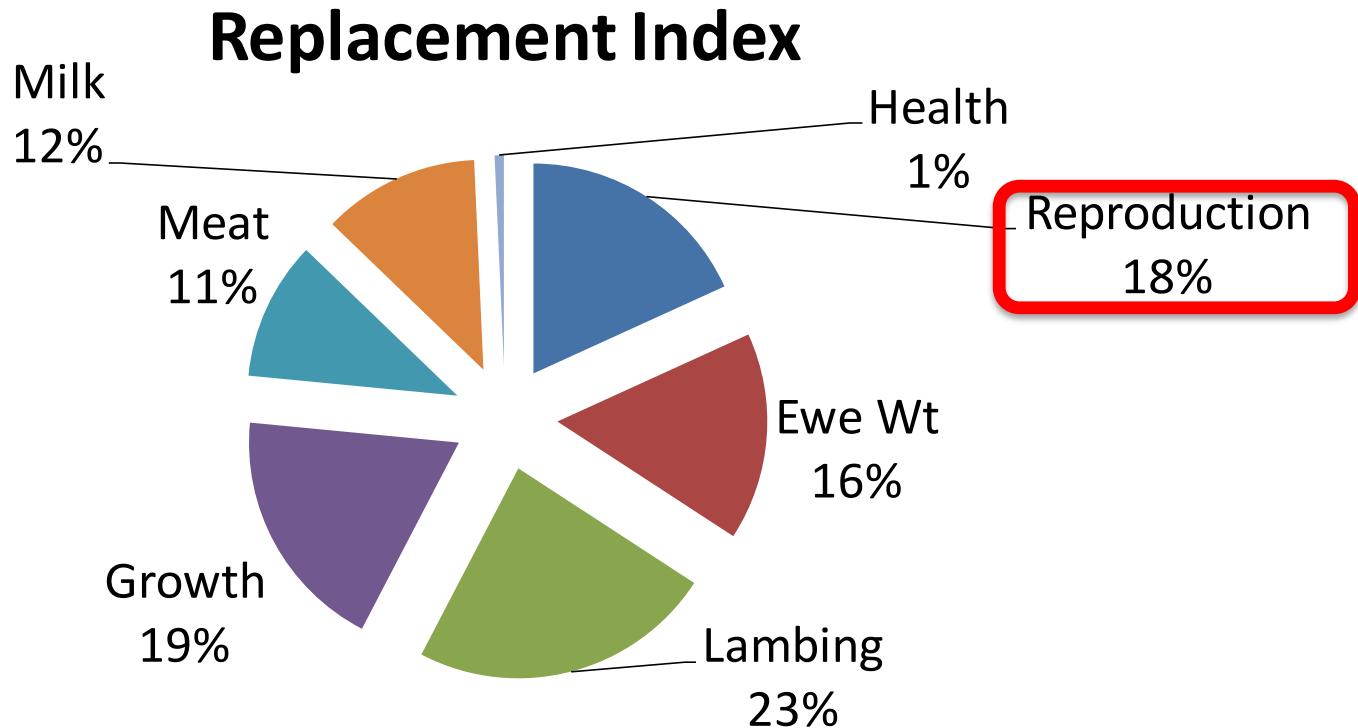
¹Teagasc, Moorepark

²Sheep Ireland

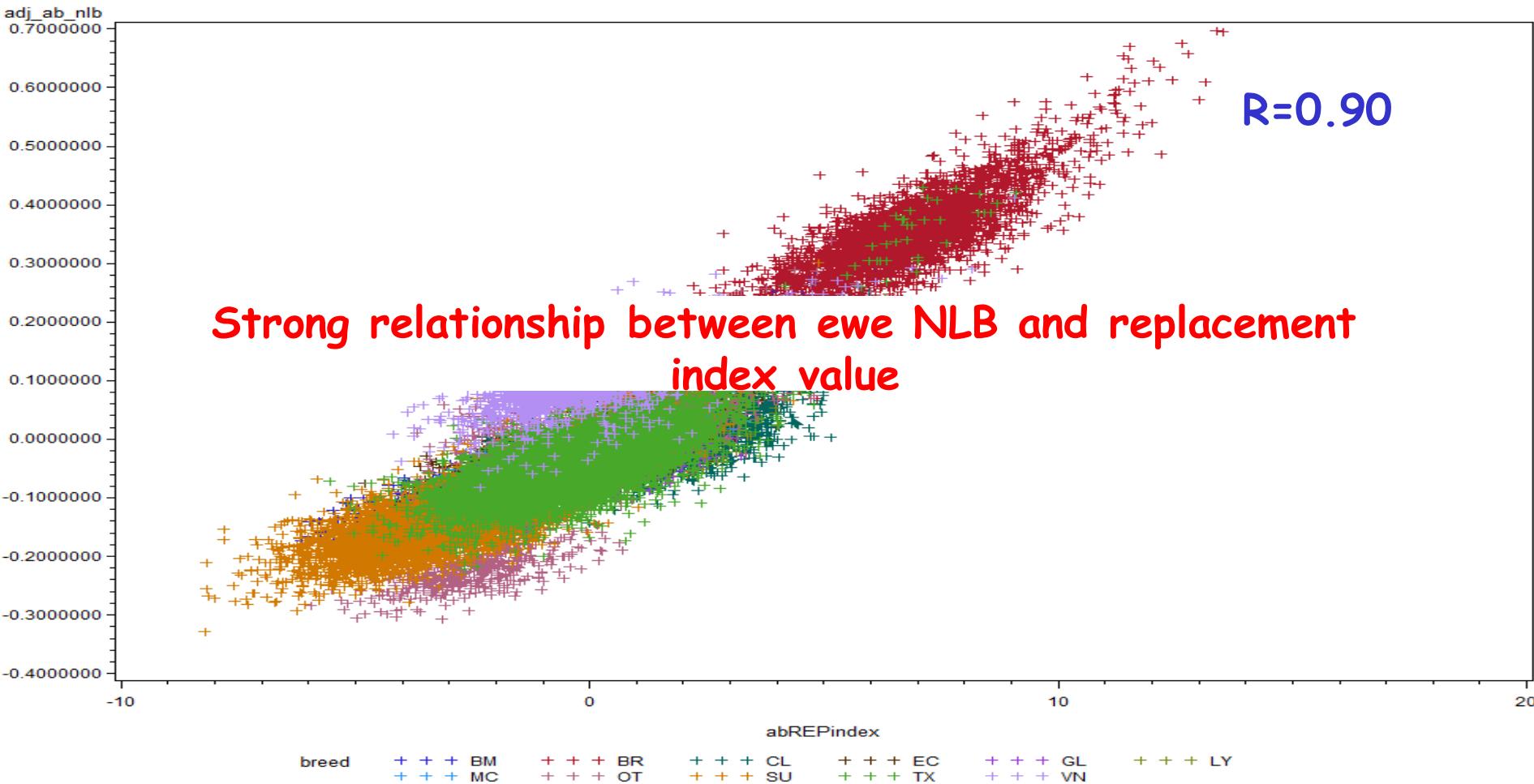
ICBF & Sheep Ireland Conference, 17th January 2020

Importance of NLB

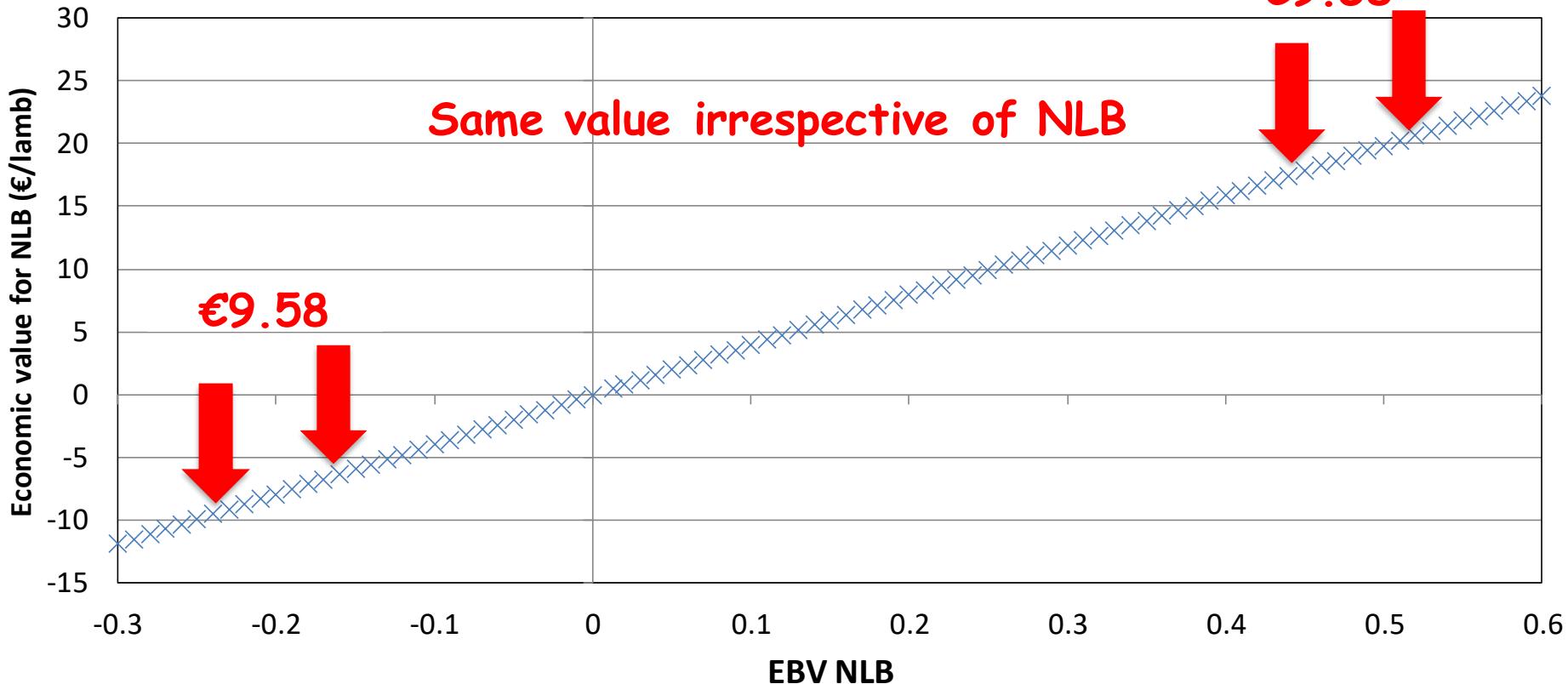
- NLB → key driver of profitability



Current Replacement Index



Current Scenario



What determines NLB?

Pregnancy Scan Data

Management of pregnant ewes

Barren Rates

Pregnancy diagnosis

Autumn/winter

Lambing

NLB

Breeding

Synchronisation

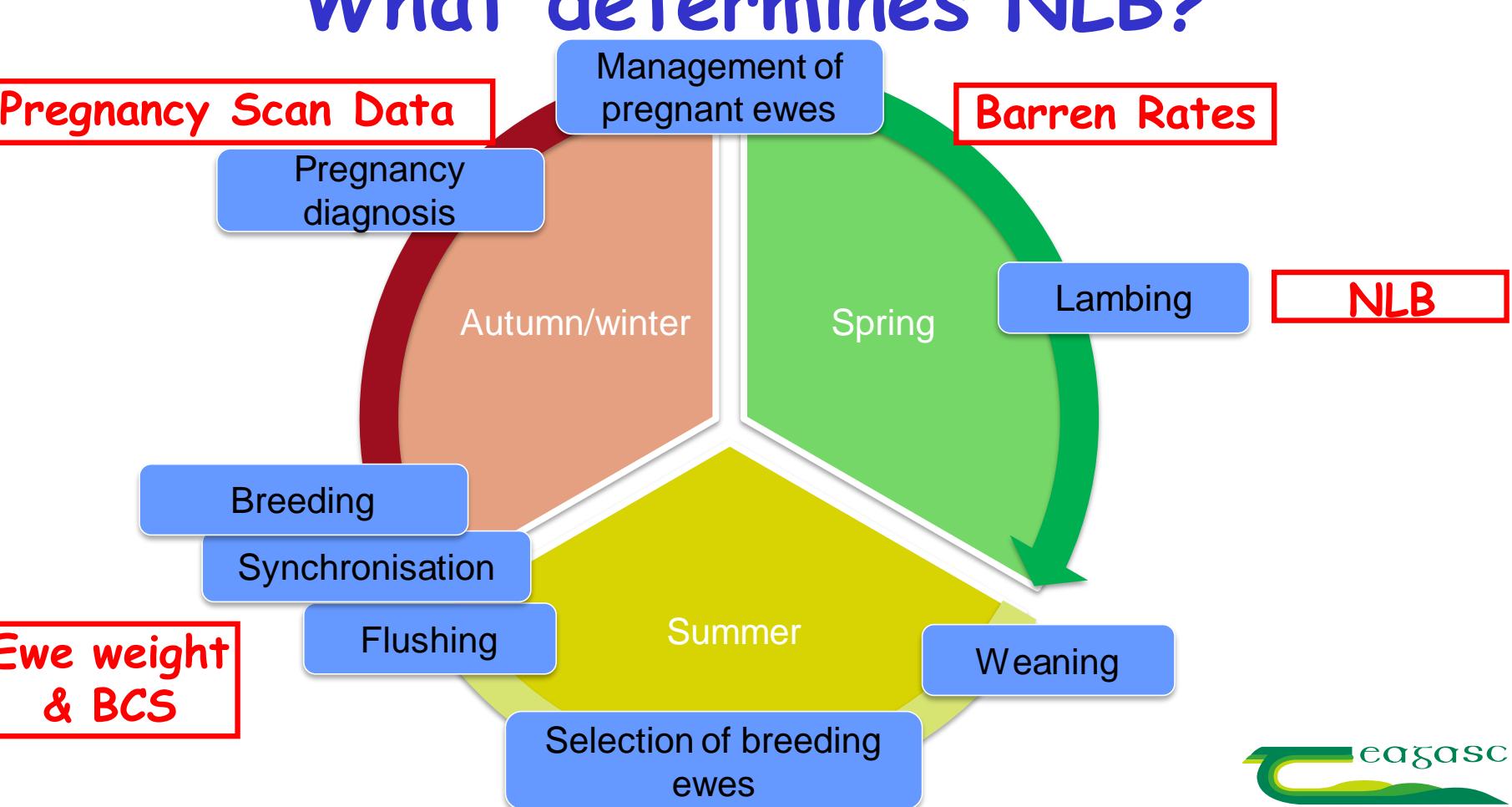
Ewe weight & BCS

Flushing

Selection of breeding ewes

Spring

Weaning



How to construct an genetic index

Genetic Component \times

Breeding Values

Economic Value

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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**



Twin

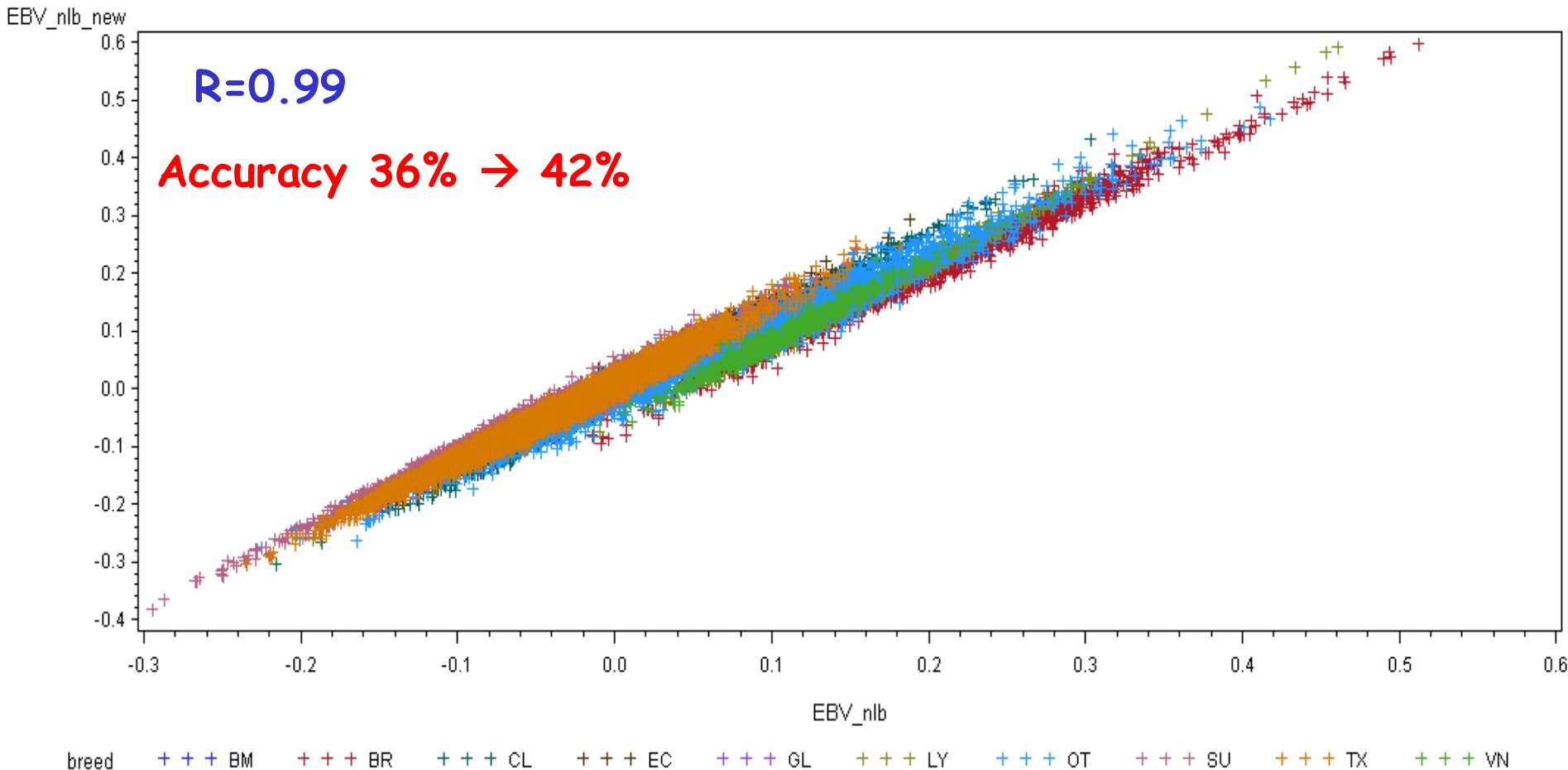
Trait	No. ewes	Mean	Heritability
Pregnancy scan	45 189	1.57	0.02
Post lambing loss	11 930	1.57	0.14
Ewe live-weight	8 712	70.74	0.40

Proportion of difference
between animals due to
genetics



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

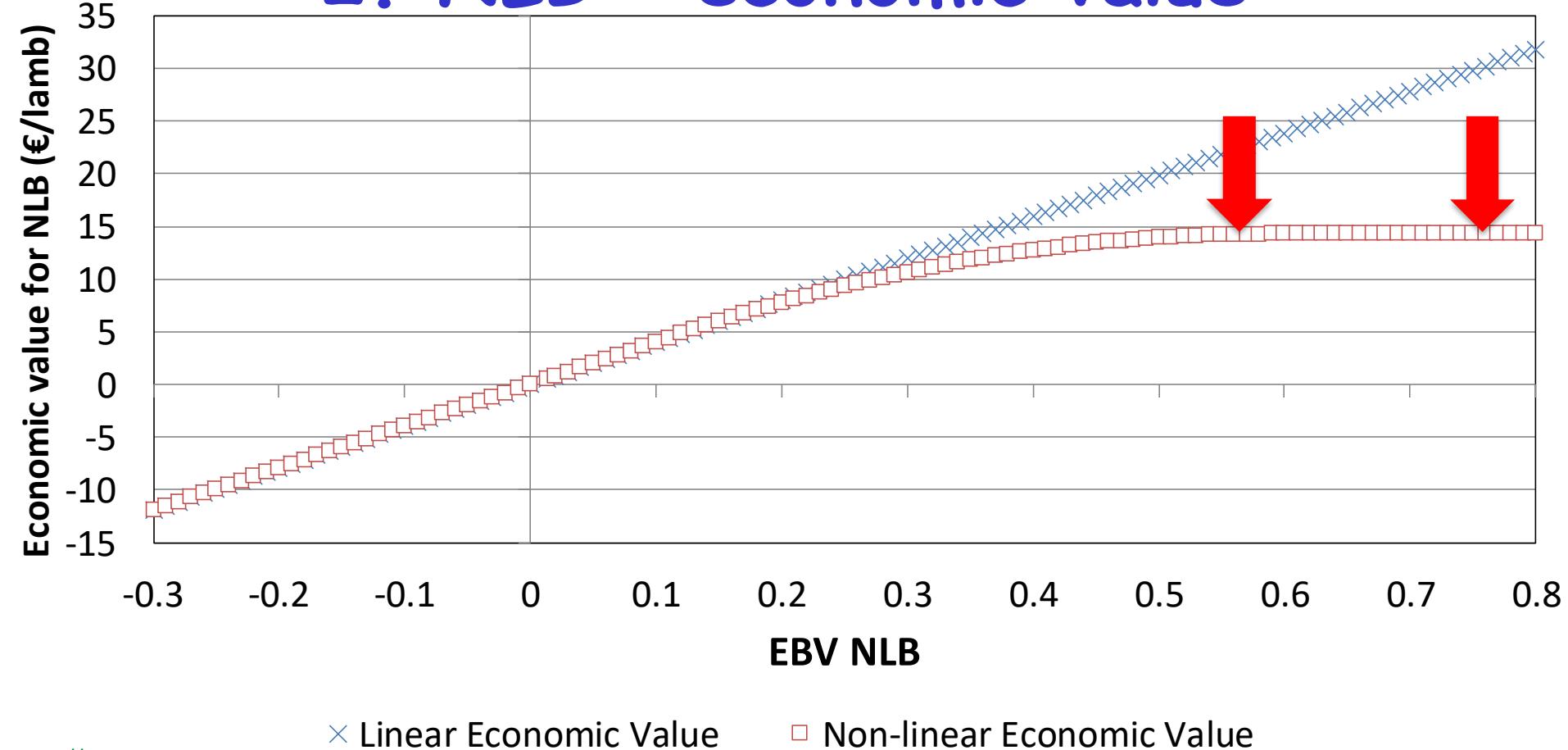
1. NLB - genetics



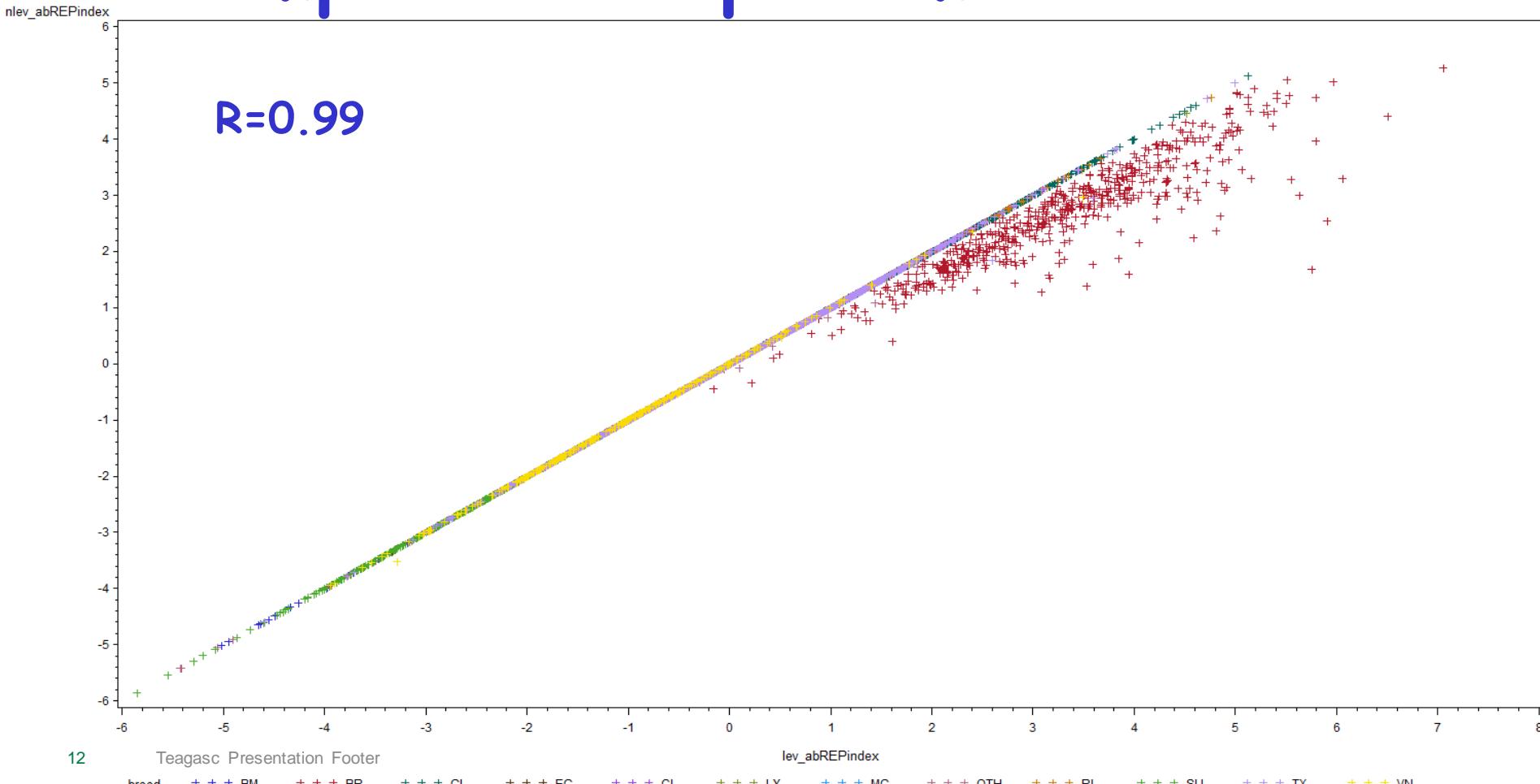
2. NLB - economics

- 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



Impact on Replacement Index



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 Hillcrest Wagner YZI15003 Greenhill HUI13095 Greenhill Yemen Boy HUI16069 Foundry PXI1702931 Oberstown Tuff PFI12014 Foundry PXI11077 (CPT Sire)	EuroStars Replacement (-€-0.02) Acc 48% Rank Top 25% Terminal (€1.68) Acc 50% Rank Top 6% ★★★★★ Lamb Survivability (-0.44%) 0% Poor Btm 34% Excellent V Acc 48.3% Days to Slaughter -14.73 days 0% Top 2% V Acc 57.9% No. of Lambs Born (€-1.4) 0% Top 48% V Acc 39% Daughters Milk (€-0.25) 0% Top 43% V Acc 43%	11/12/2019
Comment:			