Using extension to progress genetic improvement on Irish dairy farms
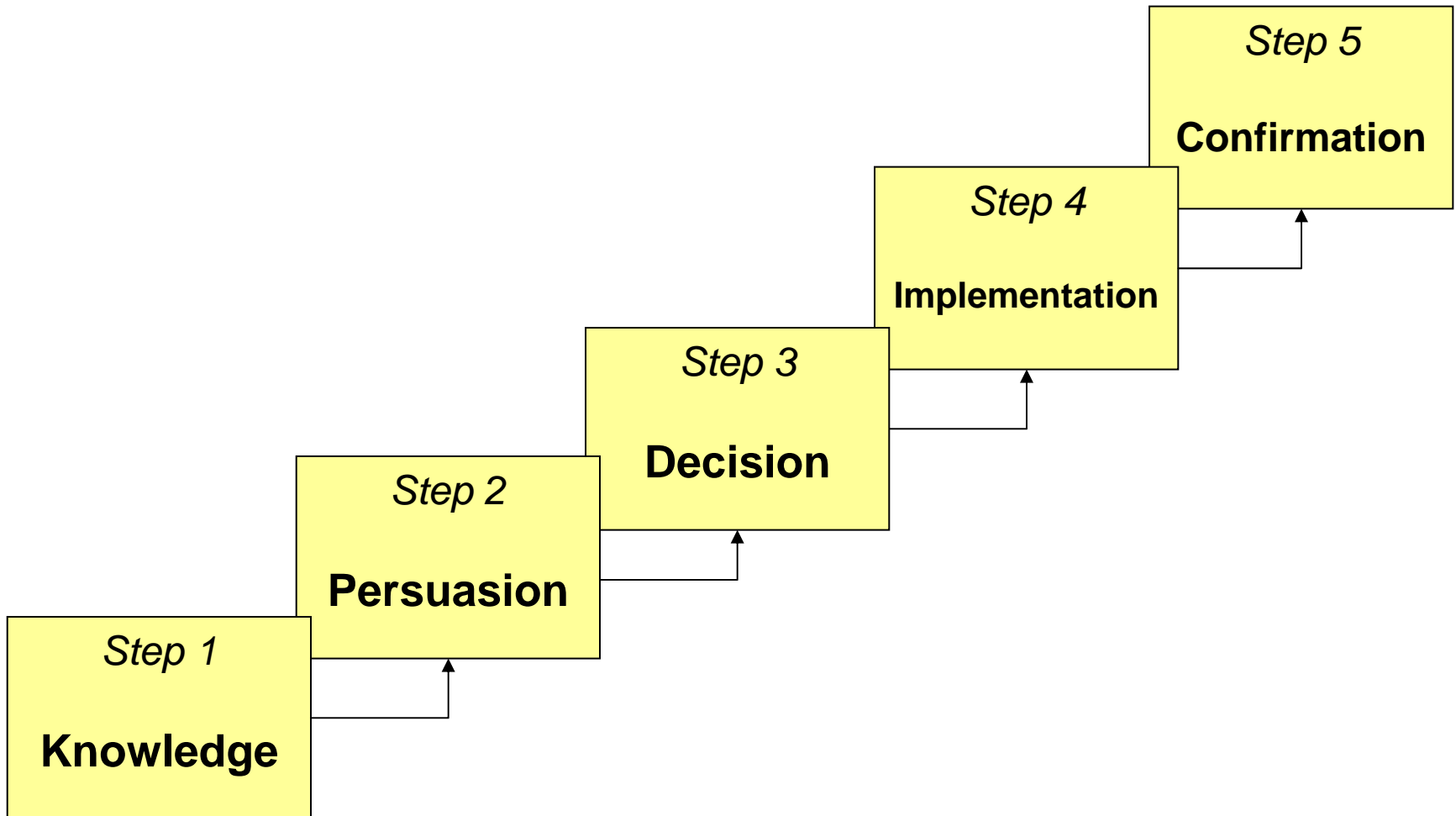
George Ramsbottom
Teagasc

Introduction

- Background

- Applying extension to EBI adoption

- Results

Trends in milk production and replacement rate on farm net profit for 14 spring-calving dairy herds

Year	Milk		Replacement		Profit
	Yield (kg)	Sales (€,000's)	Rate (%)	Cost (€,000's)	(€,000's)
1990	5,033	126	16%	21	29
1993	5,307	136	21%	28	30
1997	5,629	145	25%	34	32
2000	5,609	148	26%	35	33
2003	5,638	150	27%	37	33
Change	605	24	11%	16	4

Adapted from Evans et al. 2006

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The 5 step adoption process

Step 5

Confirmation

Step 4

Implementation

Step 3

Decision

Step 2

Persuasion

Step 1

Knowledge

Step 1 - Knowledge

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Step 2 - Persuasion

Step 3 - Decision

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Step 1 - Knowledge

Step 2 - Persuasion

Step 3 - Decision

Step 4 - Implementation
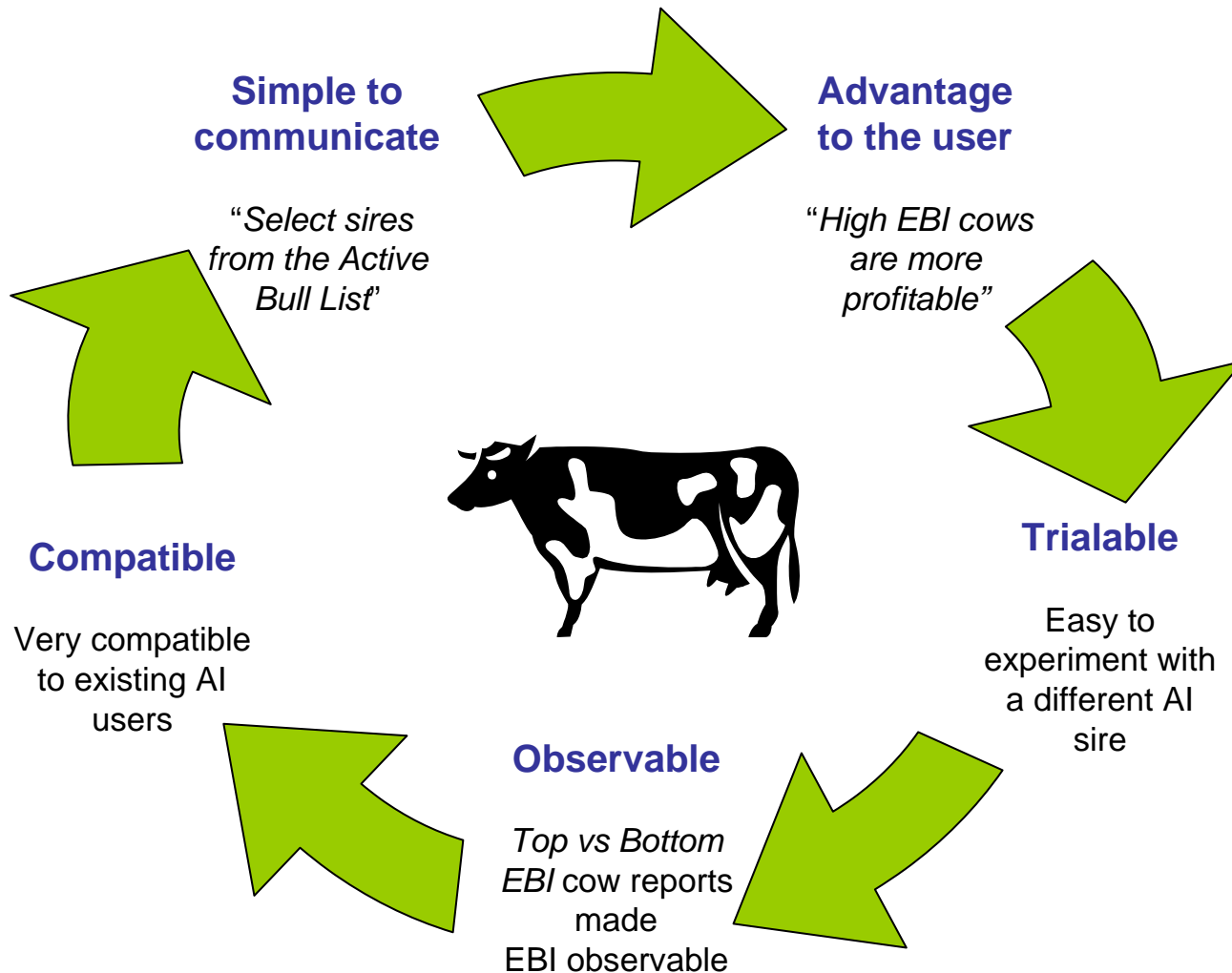
Step 1 - Knowledge

Step 2 - Persuasion

Step 3 - Decision

Step 4 – Implementation

Step 5 - Confirmation

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Intrinsic factors that made EBI adoption easier

Simple to communicate

"*Select sires from the Active Bull List*"

Advantage to the user

"*High EBI cows are more profitable*"

Trialable

Easy to experiment with a different AI sire

Compatible

Very compatible to existing AI users

Observable

Top vs Bottom EBI cow reports made EBI observable

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Innovation drove further improvement

	2009	**2010**	**2011**
Genomic AI sires			
EBI (€)	€179	€211	€218
% of total AI used	34%	40%	47%
Daughter proven sires			
EBI (€)	€126	€151	€148
% of total AI used	66%	60%	53%
Weighted EBI of all AI sires used	**€144**	**€175**	**€181**

EBI of replacement heifer calves
by year of birth
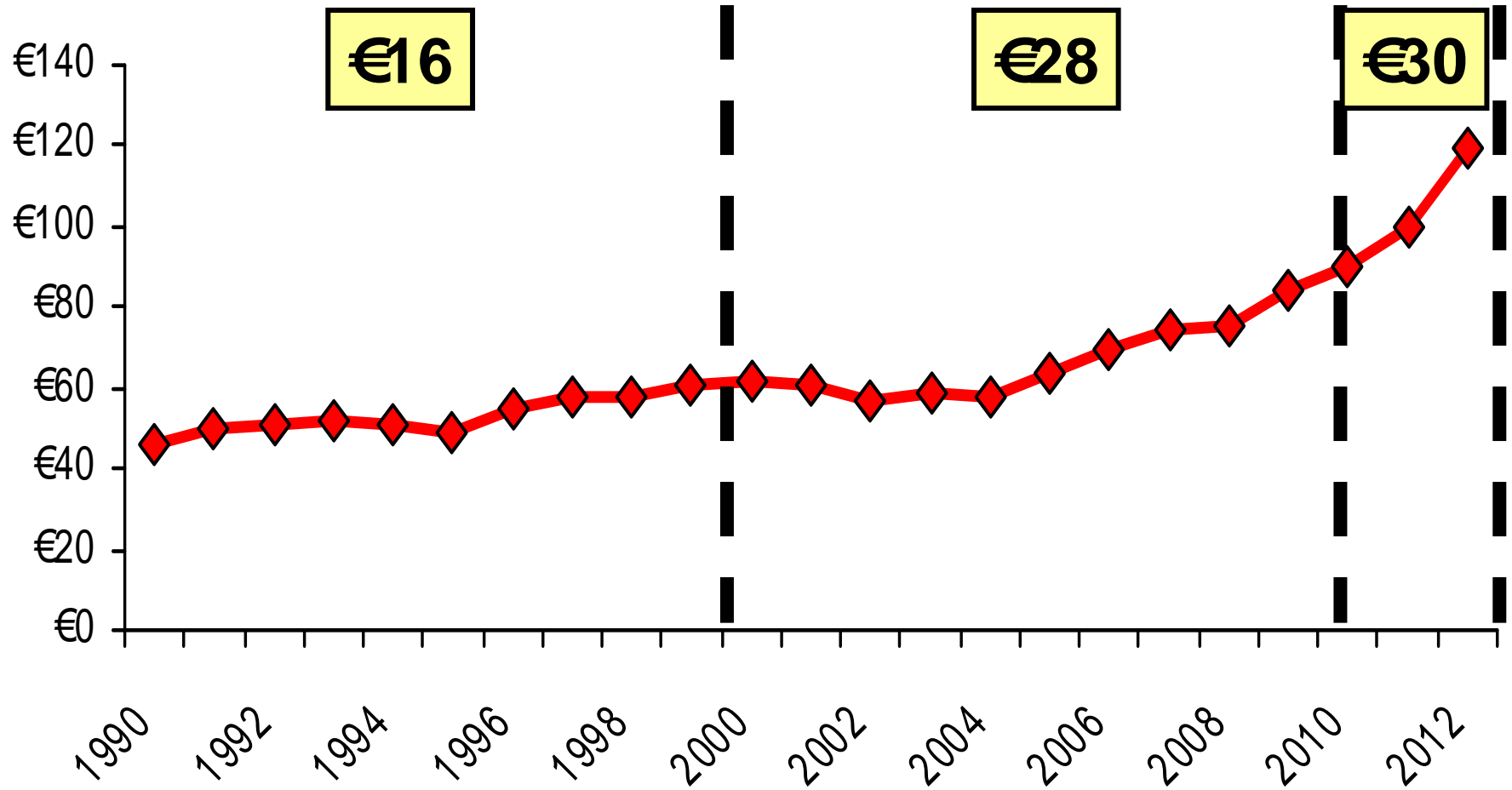
Genetic change in Milk and Fertility
by year of birth