Animal science in the blood; an appreciation and celebration

Chris Knight

chkn@life.ku.dk

Prof André-Max Leroy, 1892-1978

First President of FEZ (EAAP), 1949-1961

Chaire de Zootechnie à l'Institut National Agronomique de Paris

Commandeur de la Légion d'Honneur


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Iceland
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Atlantic Ocean
Finland
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Malta
Lebanon
Tunisia
Crete (Greece)
Mediterranean Sea
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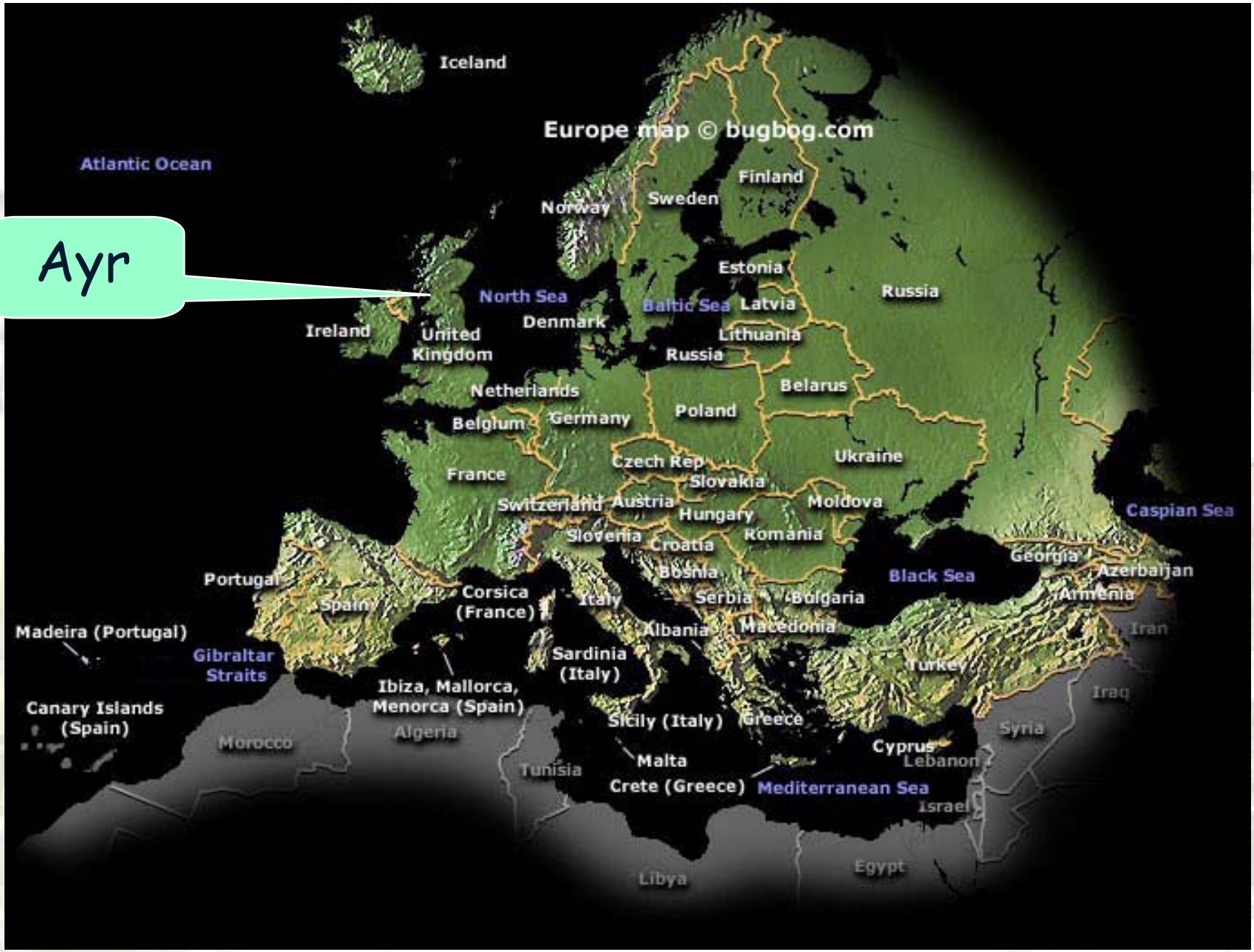
Egypt

There was a job to be done!

ECMBR: the birth of quantitative animal production data?

3rd session of ECMBR (now ICAR), Ayr, 1953
Chairman: Prof Leroy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Robert Bakewell (1725-1795): the birth of animal production?

www.le.ac.uk/elh/newdishley


Dishley Grange
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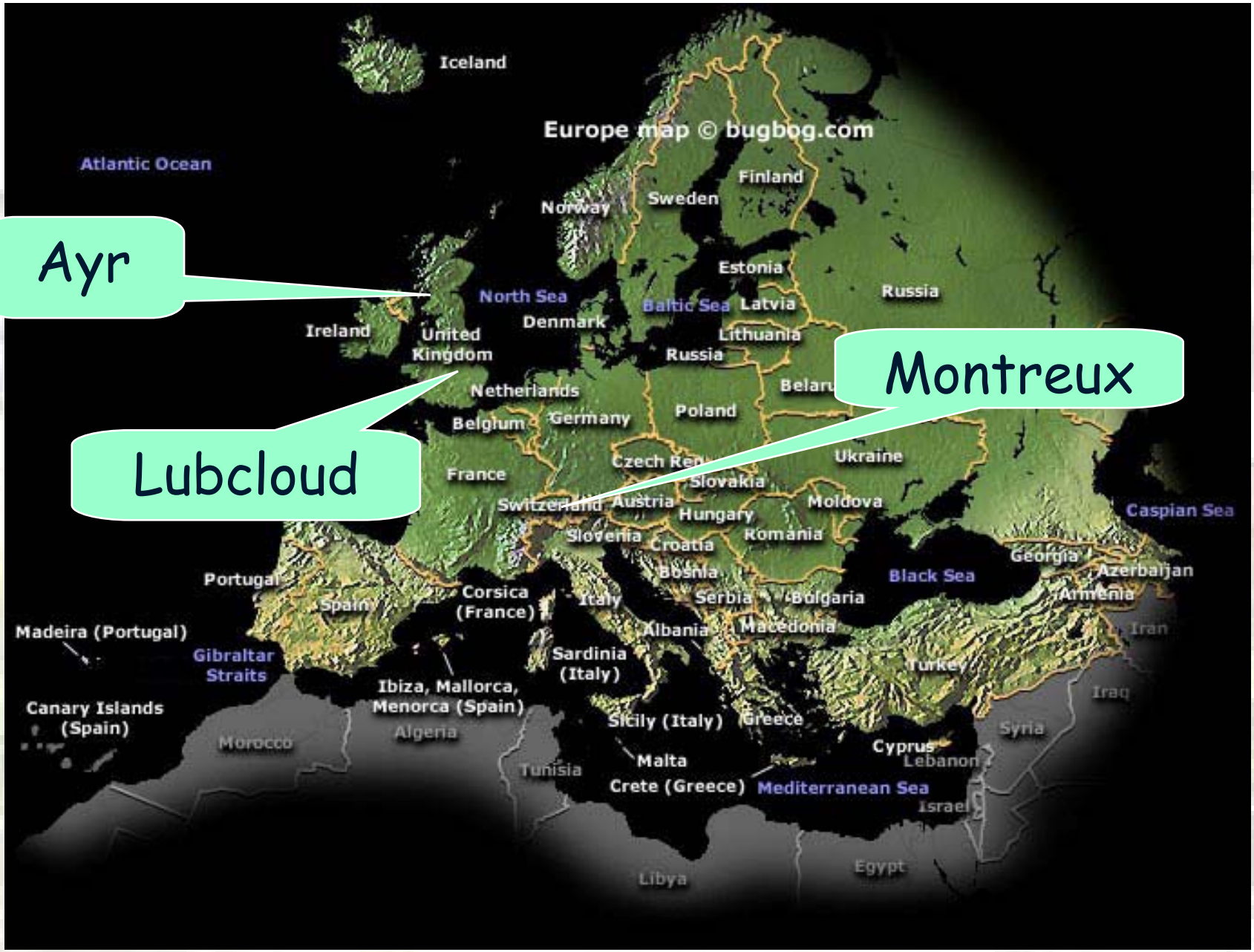
Egypt

1960 (ish): the birth of my agricultural career (or was it 1085?)

International Dairy Federation, Montreux 1979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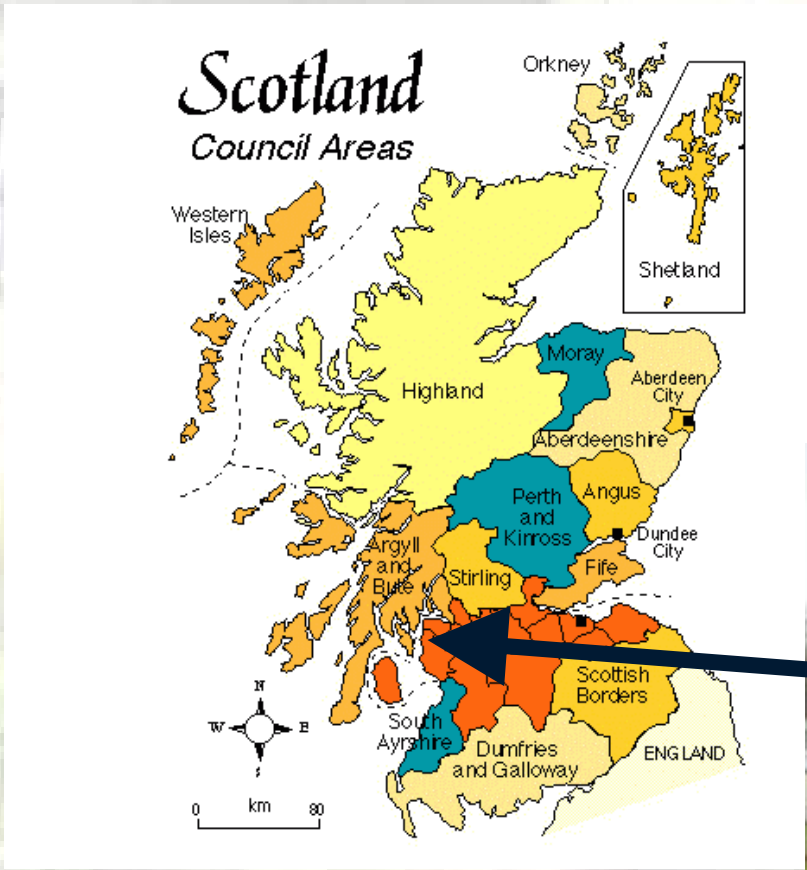
The Hannah Research Institute, 1928-2006



The Hannah: Evolution in Action

Dairy science

Lactation science

Clinical science

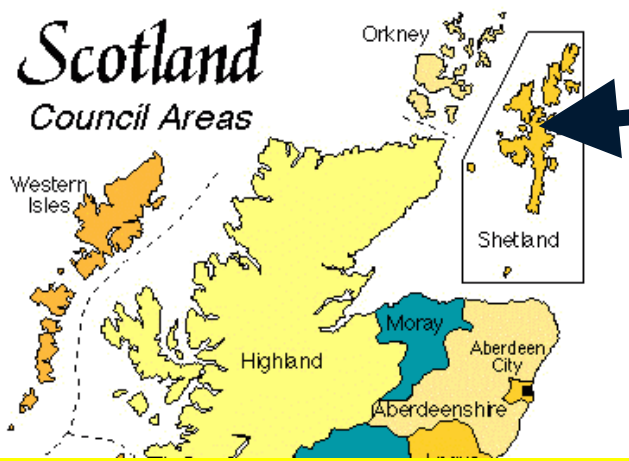
University science

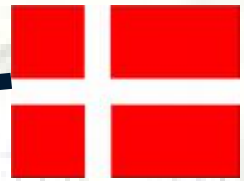
www.hannahresearch.org.uk

Hannah Trust
funding science

www.strath.ac.uk

The Hannah Research Institute, 1928-2006





New rules (by order of the President):

EAAP is hereby re-named DAAP

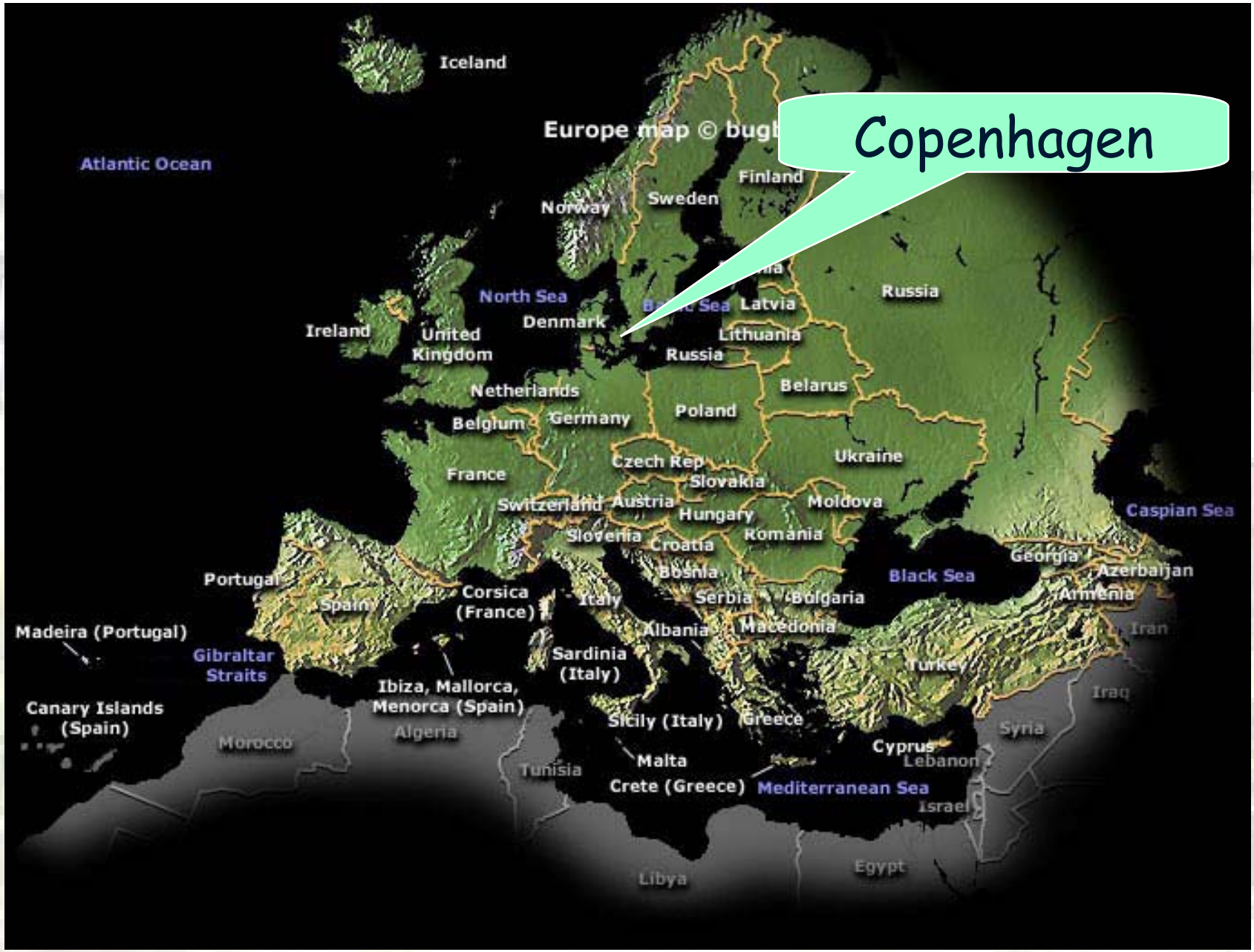
The official language will be Danish

2007: My Evolution and Migration

Hannah

KU LIFE

Mælkepige kommer hjem!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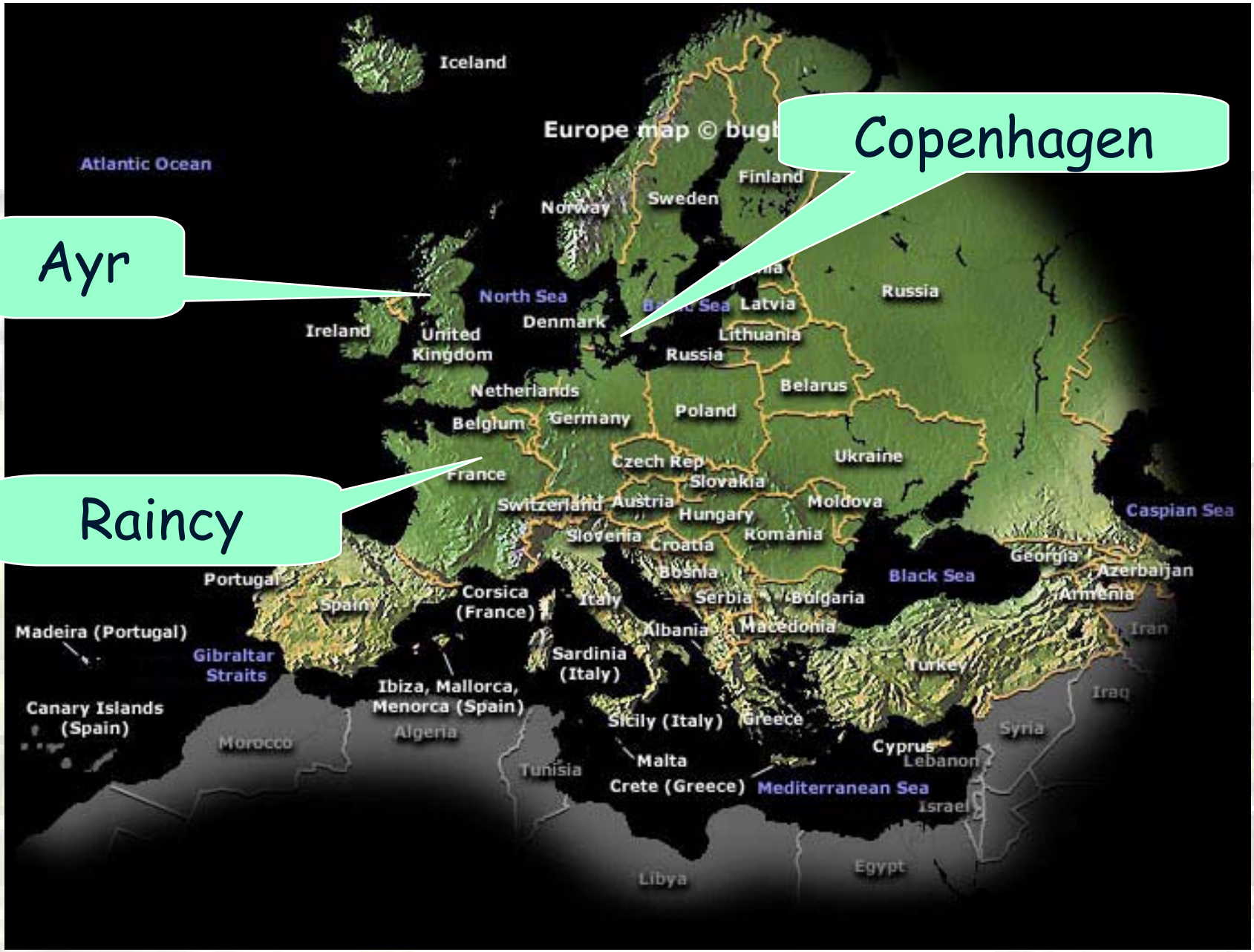
Egypt

Scotland, Denmark, ECMBR and EAAP

- First President of EAAP and first Chairman of ECMBR: Prof Leroy
- First Secretary-General of EAAP: Dr Holger Aersøe, Denmark
- First Vice-Chair of ECMBR: J.A. Paterson, Scotland
- First Secretary of ECMBR: Tage Andersen, Denmark
- First International Congress organized by EAAP: Copenhagen, 1952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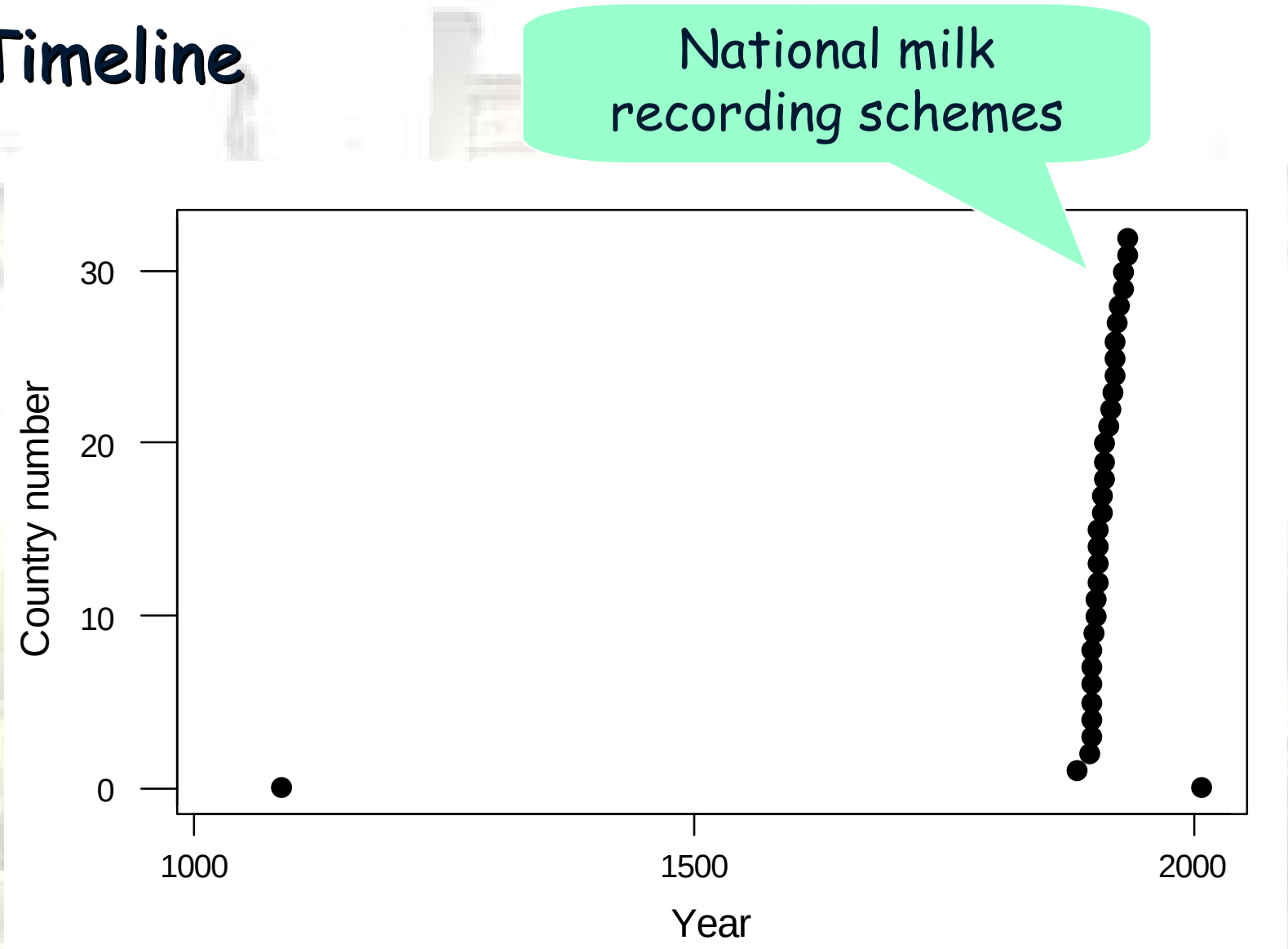
Timeline

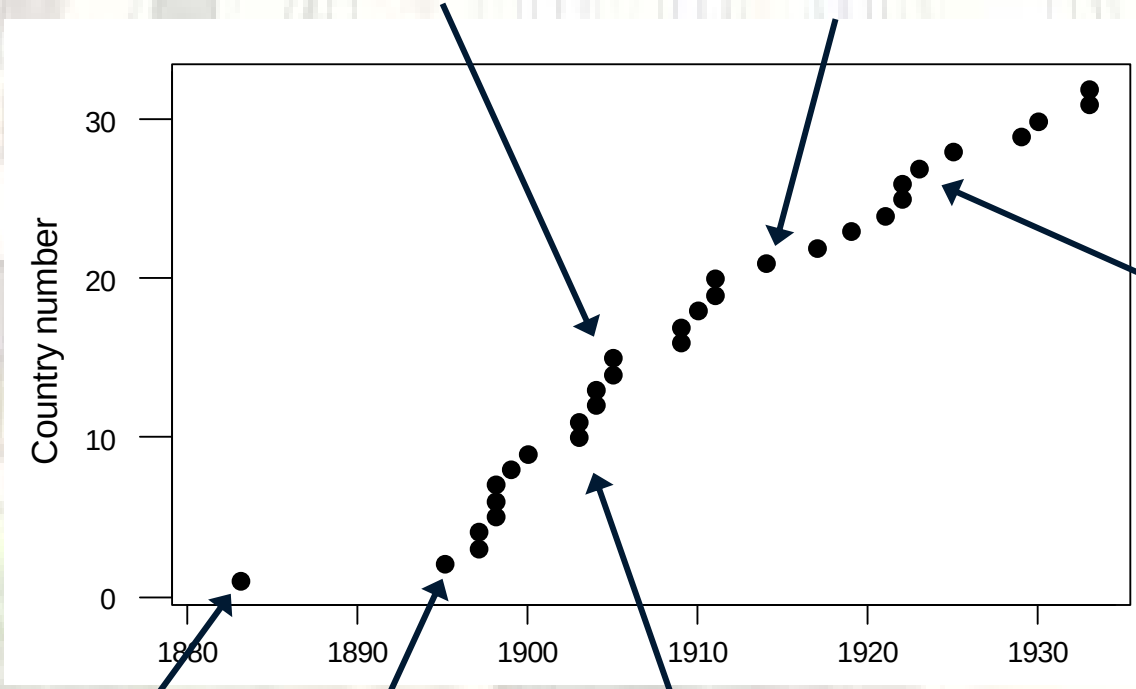

National milk recording schemes
Country number
0
10
20
30
1000
1500
2000
Year

Milk recorded cows, 1935

1 "dot" = 2500 cows

Denmark 2007:
551,000 cows,
= 220 dots

Uptake of national milk recording



France

England

Lithuania

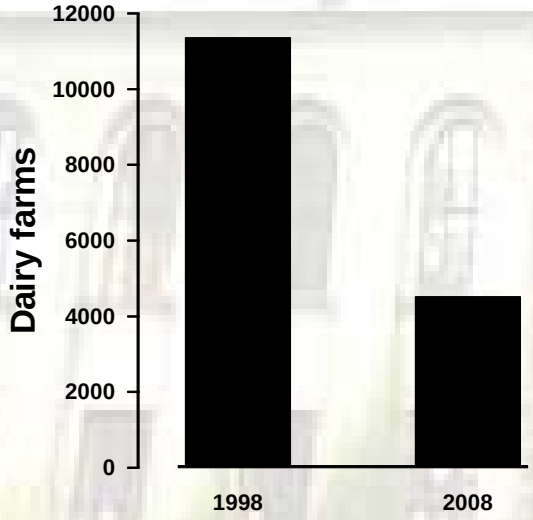
USA

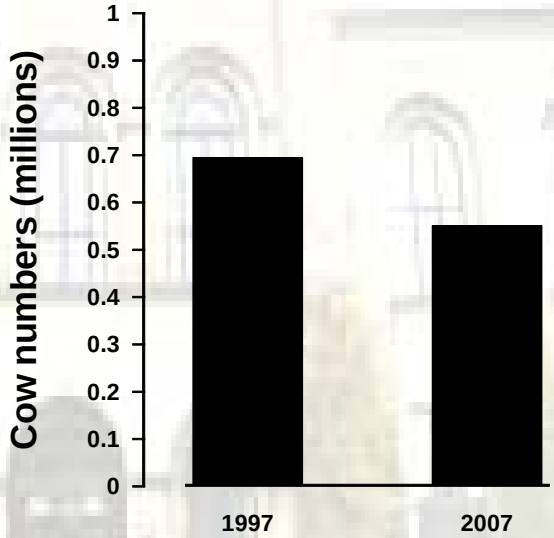
Denmark

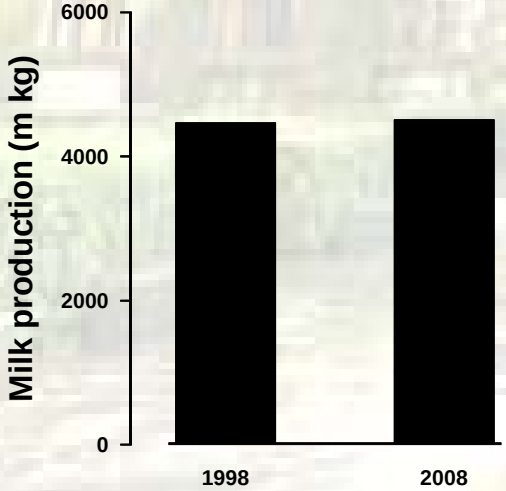
Scotland

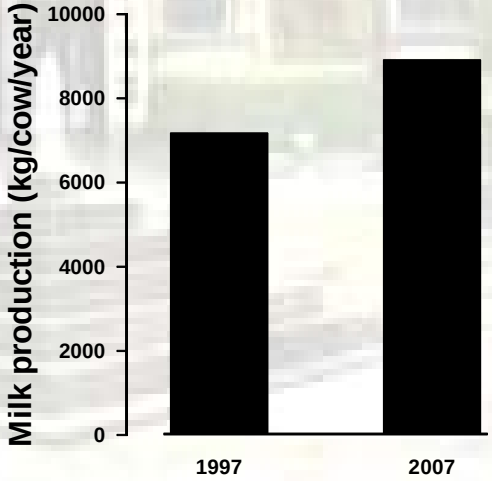
ECMBR: 1951

Evolution in (Danish) dairying



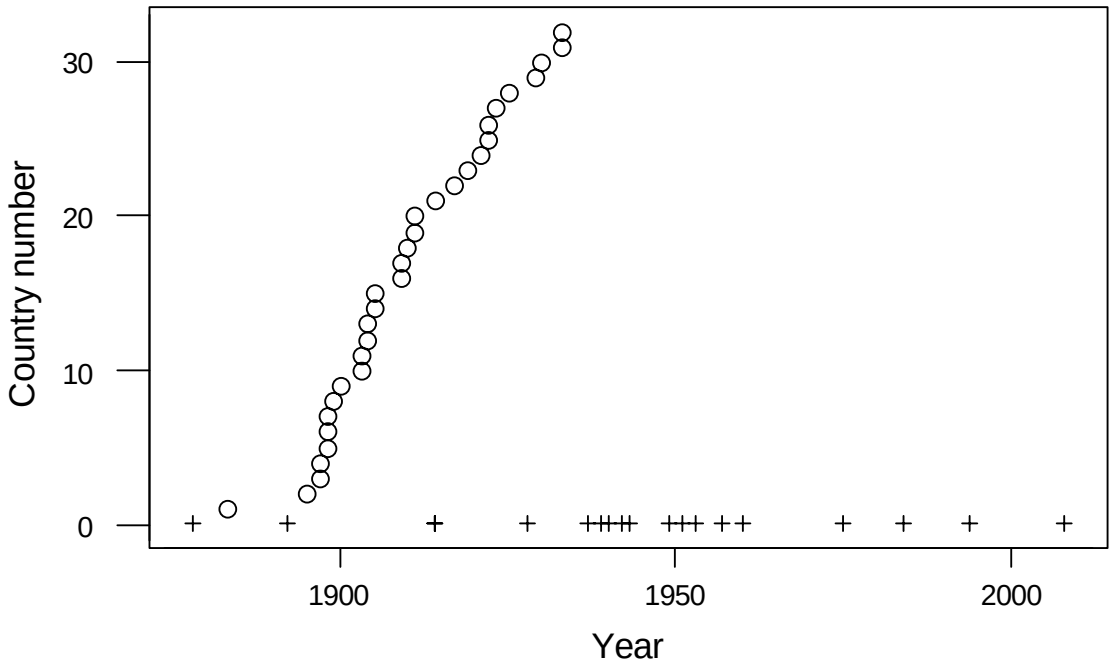






Evolution: does it work?

Significant events



Row	Year	Event
1	1878	separator
2	1892	leroy
3	1914	1st ww
4	1928	hannah
5	1937	gh
6	1939	2nd ww
7	1940	mcdonalds
8	1942	computer
9	1943	ai
10	1949	eaap
11	1951	emcbr
12	1953	rationing
13	1957	eec
14	1960	cap
15	1975	microsoft
16	1984	quota
	1994	posilac

Food supply

Use of galactopietic hormones to increase milk production

(I, 1952) ANNALES DE ZOOTECHNIE 79

INFLUENCE DES PROTÉINES IODÉES SUR LA PRODUCTION ET SUR LA COMPOSITION DU LAIT DE VACHE

PAR

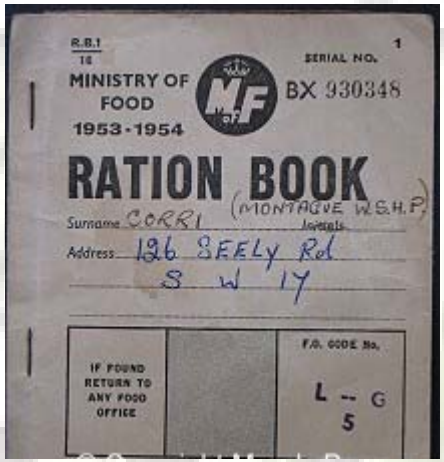
A. FRANÇOIS, H. HEIM DE BALSAC, A. M. LEROY, M. PAREZ (1)

Laboratoire de Zootechnie de l'Institut National Agronomique
et Centre d'Etudes de Biologie Industrielle et Agricole du C. N. A. M.

Today, 33% of America's 9M cows are treated with BST

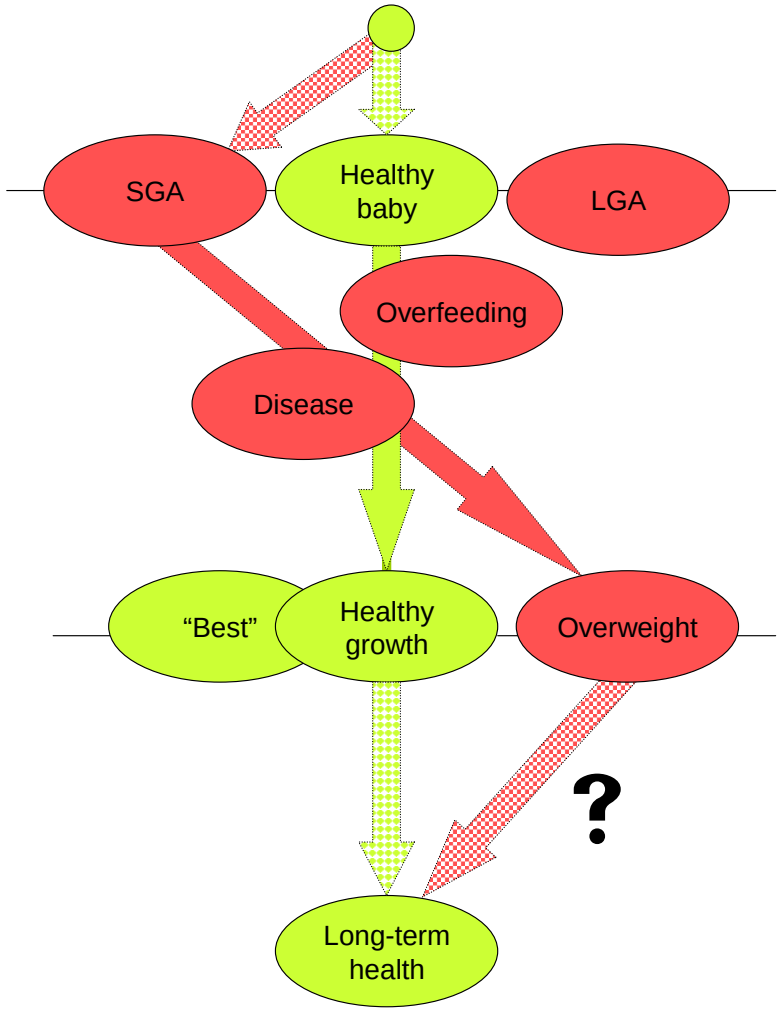
Job done?

Super-size me!

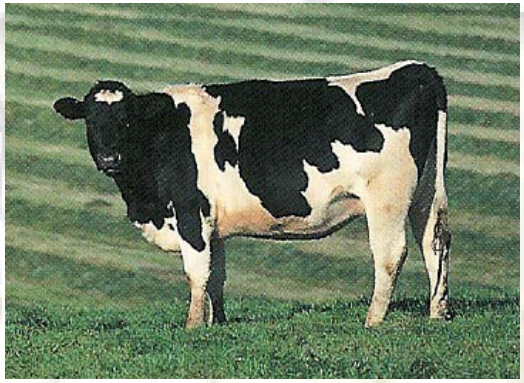


Georgia Davis weighs 210 kg at just 15 years of age, which makes her the world's fattest teenager.

Nutrition, genetics, growth & development: beyond "production"



Milk production and the over-fed heifer



High prepregnant body mass index is associated with early termination of full and any breastfeeding in Danish women[1–3]

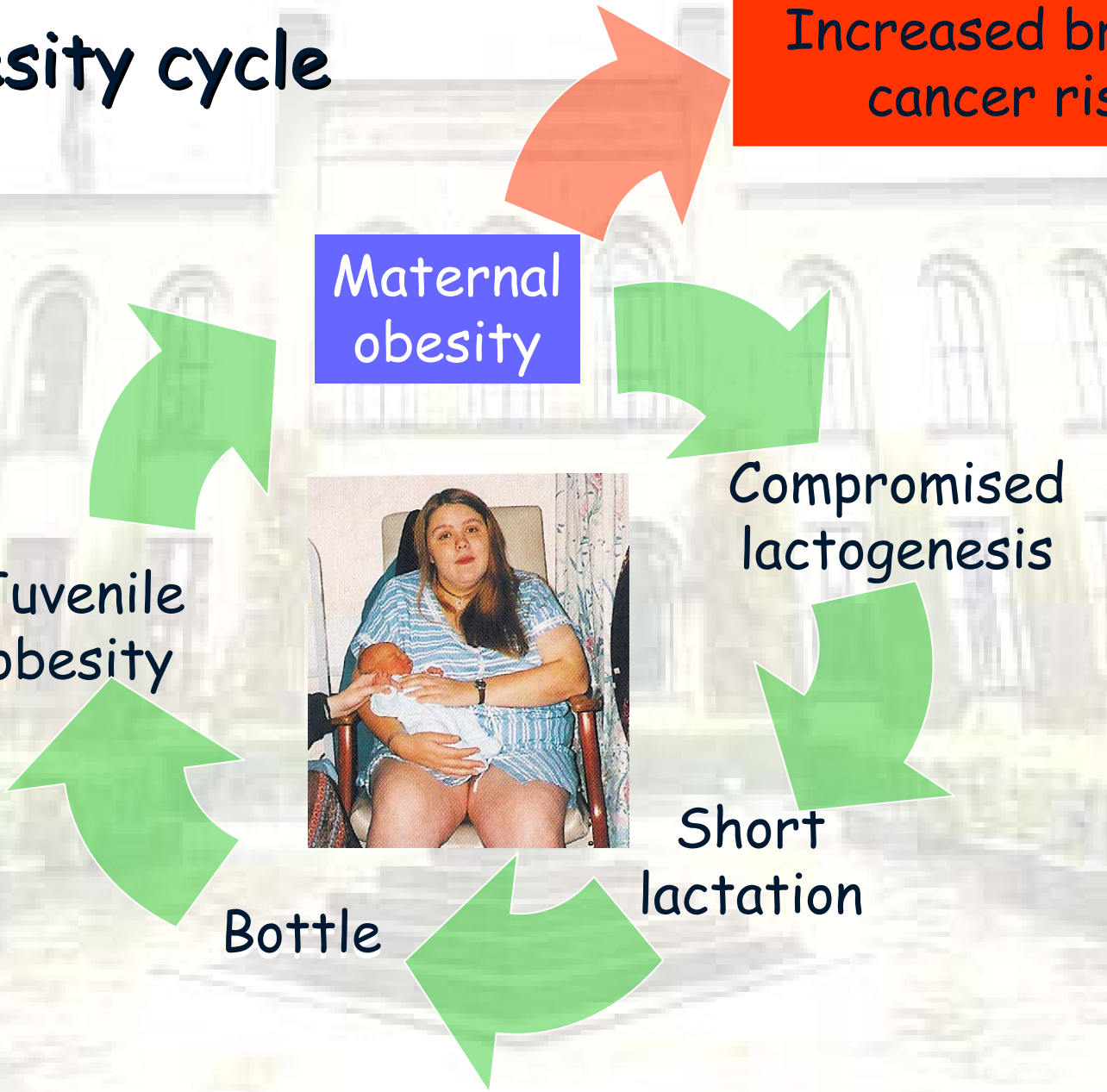
Jennifer L Baker, Kim F Michaelsen, Thorkild IA Sørensen, and Kathleen M Rasmussen

ABSTRACT

Background: An association between high prepregnant body mass index (BMI) and early termination of breastfeeding has been observed, but this finding may have depended on the sociocultural

This association is of particular concern in the U
where the proportions of overweight and obese wom
ductive age remain exceptionally high (51.7% and
spectively), according to the latest available national

The obesity cycle



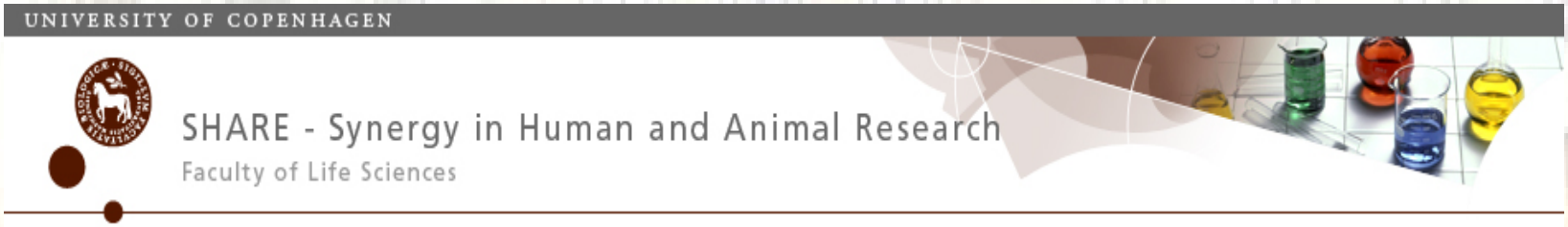
Mastitis

Major economic loss
(£400M pa in UK)
Compromised product
Antibiotic resistance

Common
Painful
Significant disease vector

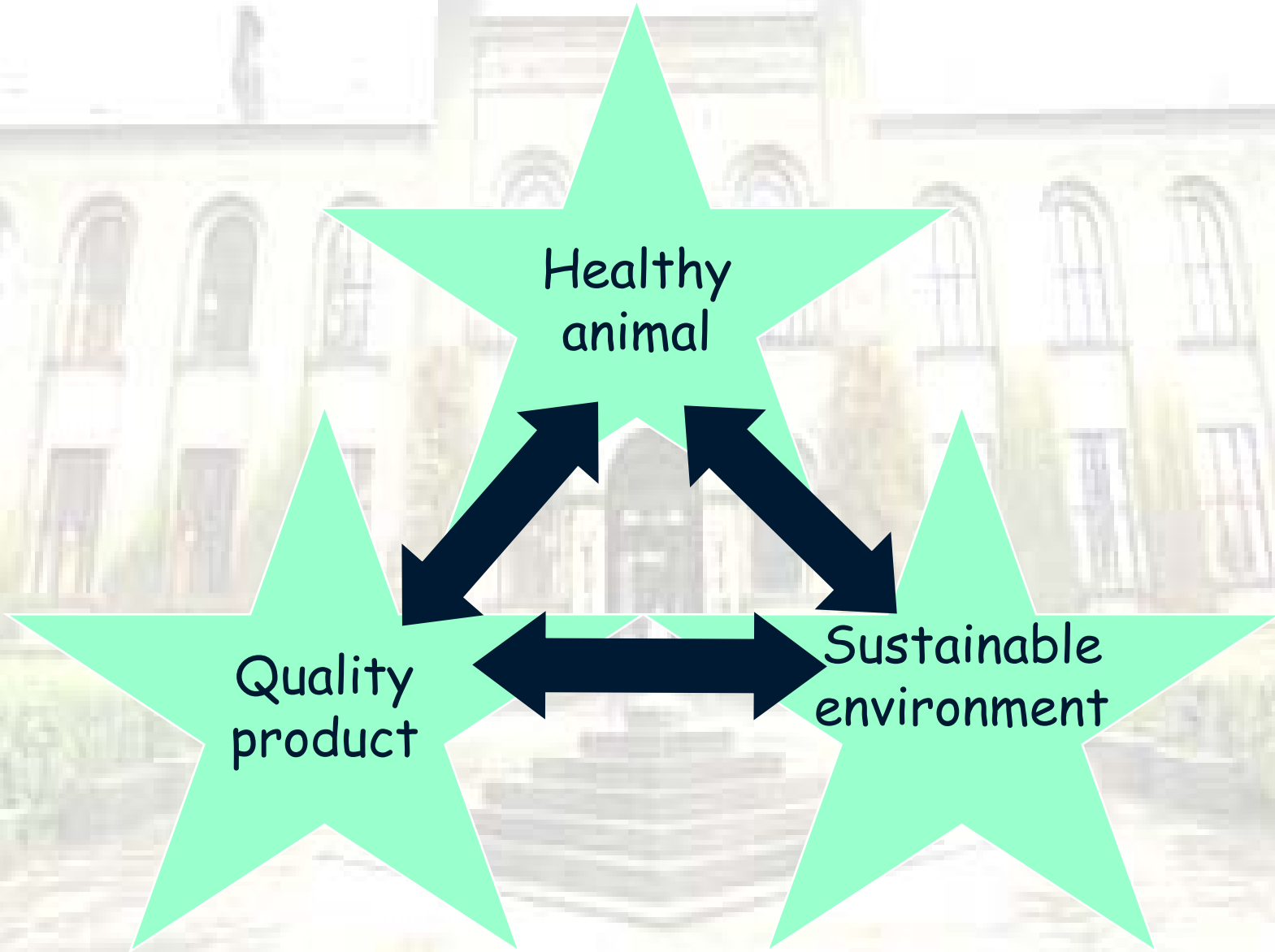
Increased breast cancer risk?

SHARE: synergy in Human and Animal Research



www.share.life.ku.dk

New priorities in production animal science



Extended lactation

The welfare-friendly and economically competitive strategy of the future?

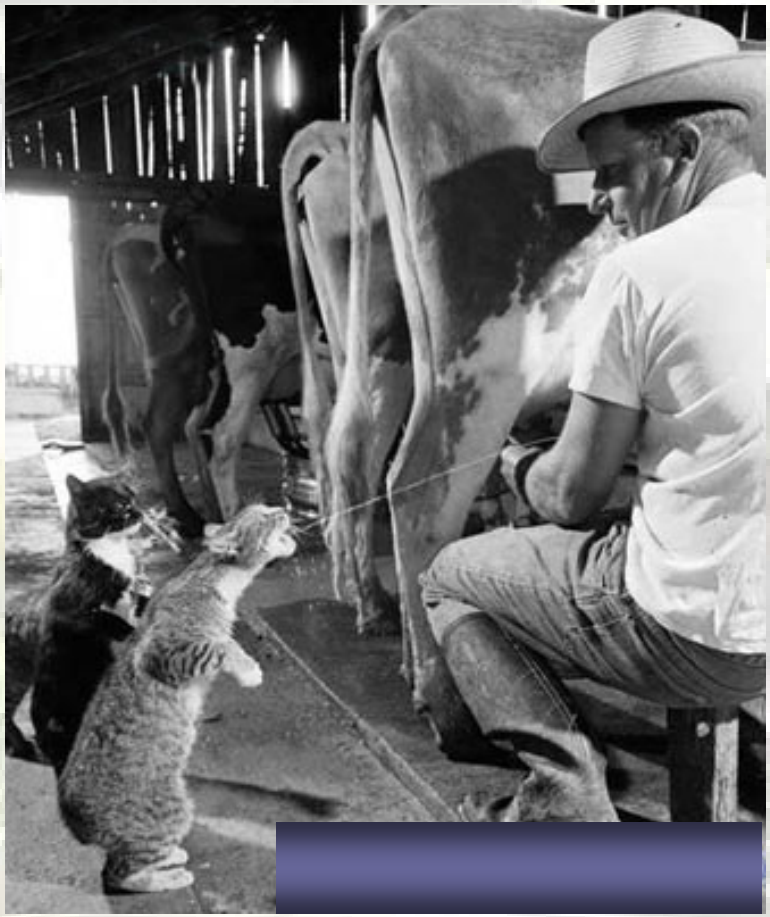

Arla


Irmas
JERSEY
SKUMMETMÆLK


MÆLK


Skt. Clemens Stræde

The past, the future or a bit of both?



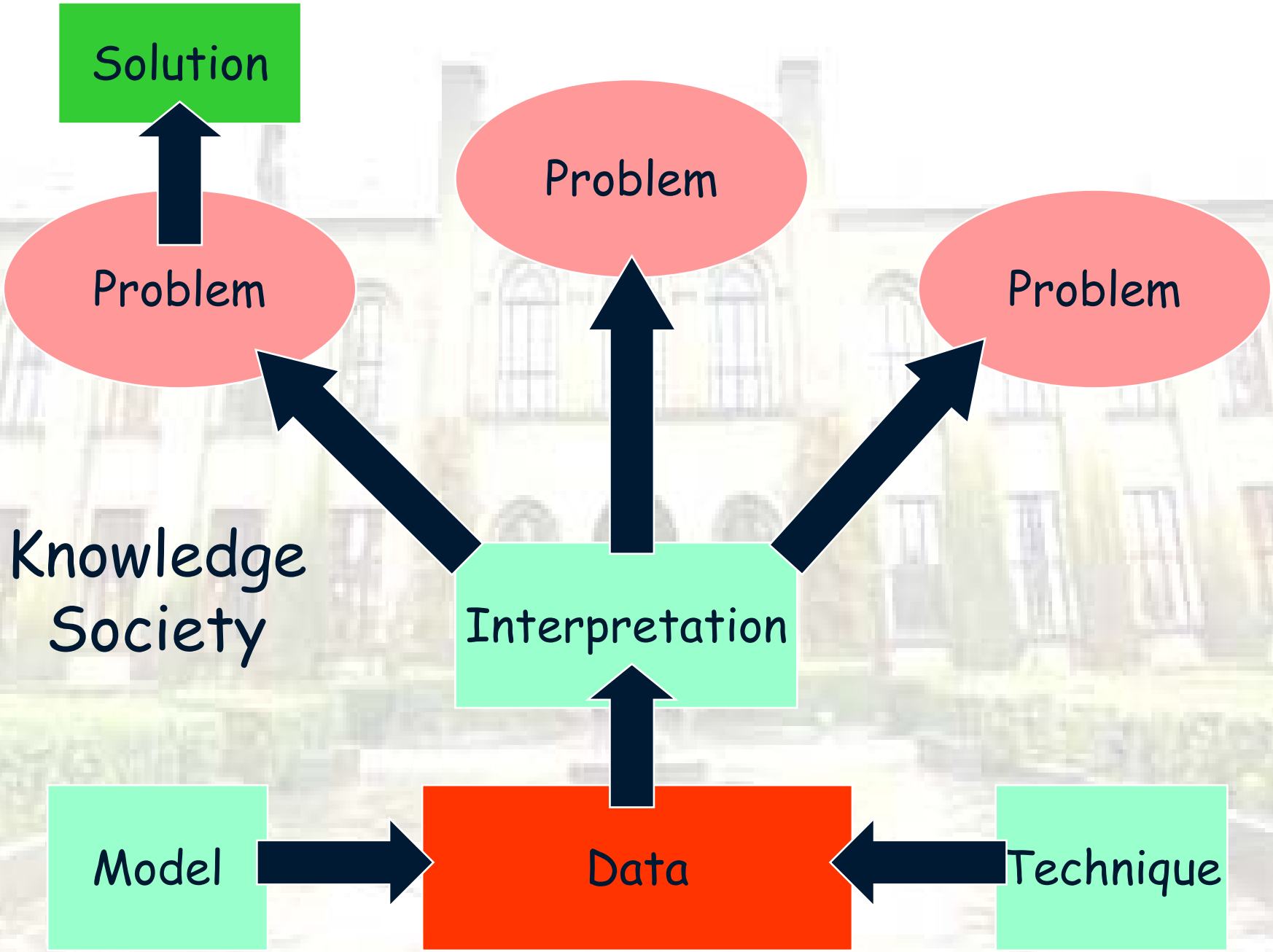
Made-in-China.com™
Connecting Buyers with China Suppliers

386 dairy products listed

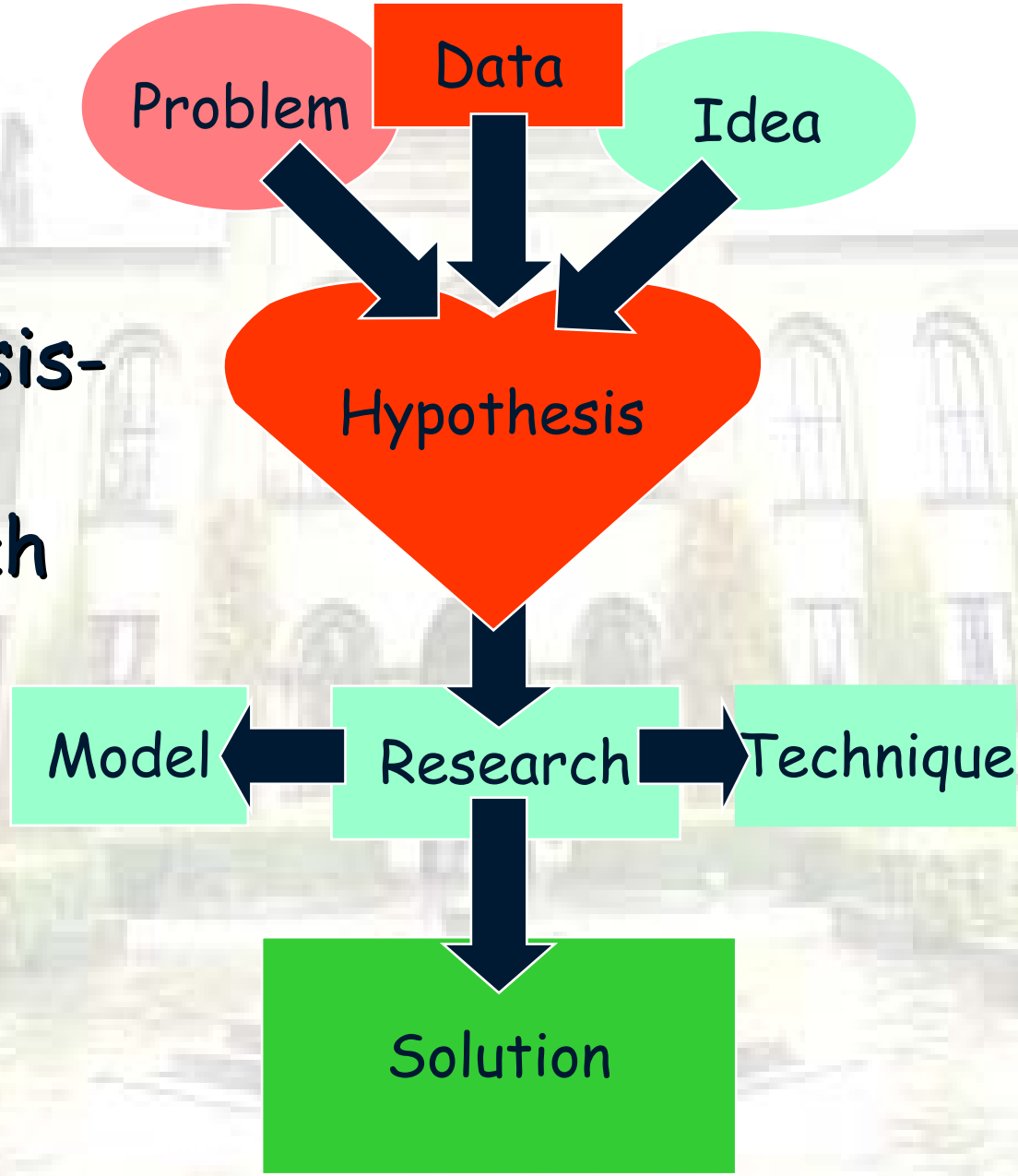
Production-driven research

Health-driven research

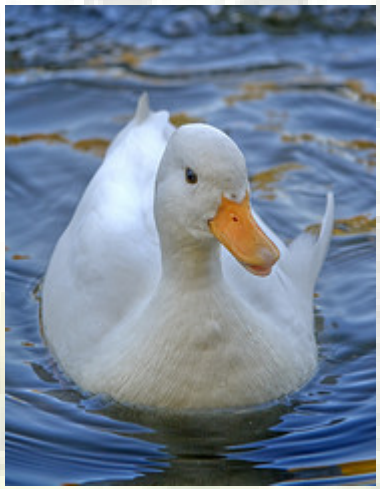
?


Solution
Problem
Problem
Problem
Knowledge Society
Interpretation
Model
Data
Technique

Hypothesis-driven research



Lateral thinking: lactation research in ducks!



Avian salt gland:
Secretes copiously
Grows rapidly

Helped to understand milk secretion

May help to enable extended lactation

There are still jobs to be done!

- Feed those who need to be fed
- Improve the diet (and health) of those who need it improved
- Introduce modern production methods where they are needed
- Ensure the safety and security of food supply chains
- Improve the health and welfare of our domestic animals
- Protect the environment
- Continue to support European agricultural industries

Retire or rejuvenate?

An agenda for EAAP in 2009:
Celebrate 60, rejoice in animal science and be confident in our ability to help solve new problems