

Animal Trait Ontology – what do we need it for?

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Details

Ina Hulsegge

Overview & Developments

Hein van der Steen

Animal Trait Ontology – what do we need it for?

Animal breeding organizations: commercial goals

- **Survive**
- **Make a profit**
- **Grow**

Ways to achieve these goals

- **Cultural & political**
- **Financial & marketing**
- **Technical**

Animal breeding organizations: commercial goals

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Technical ways to achieve these goals

When we make enough ΔG , we will...

- **Survive**
- **Make a profit**
- **Grow**

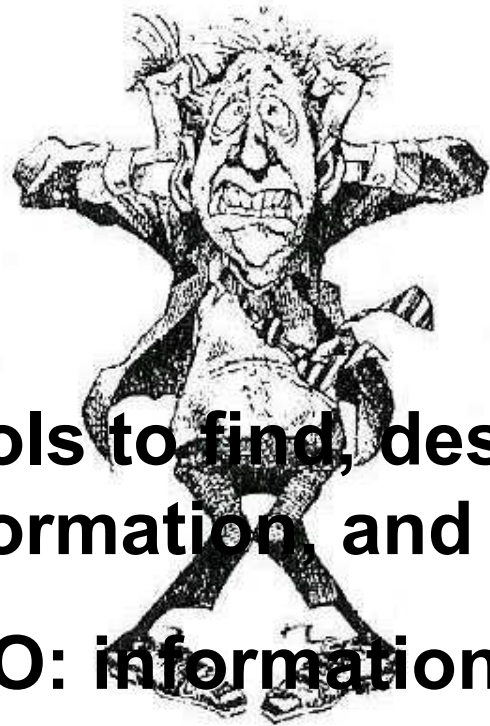
When we make enough ΔG , we will...

- Survive**
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How does ATO help us reach more ΔG ?

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What is ATO ?

What is “ontology” ?

Ontology:

Tools to find, describe, categorize & manage information and to make it accessible

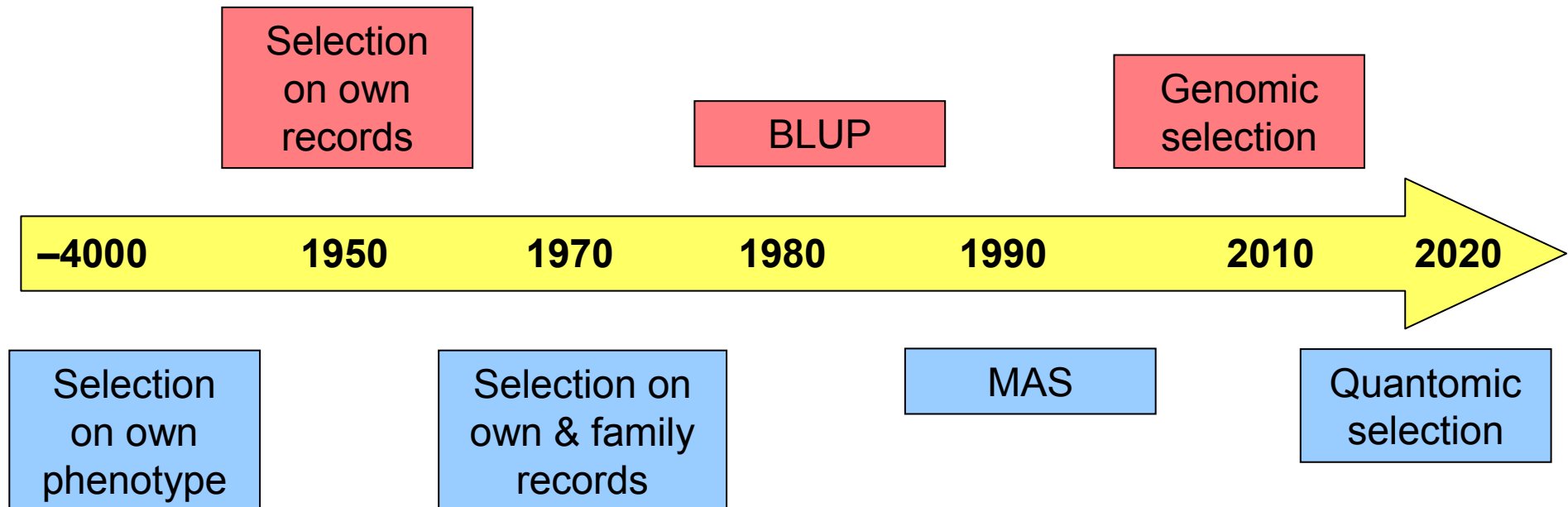
ATO: information on Animal Traits

Phenomics, genomics, all the other –omics

Recording, genetic structure, physiological pathways, interrelationships, databases

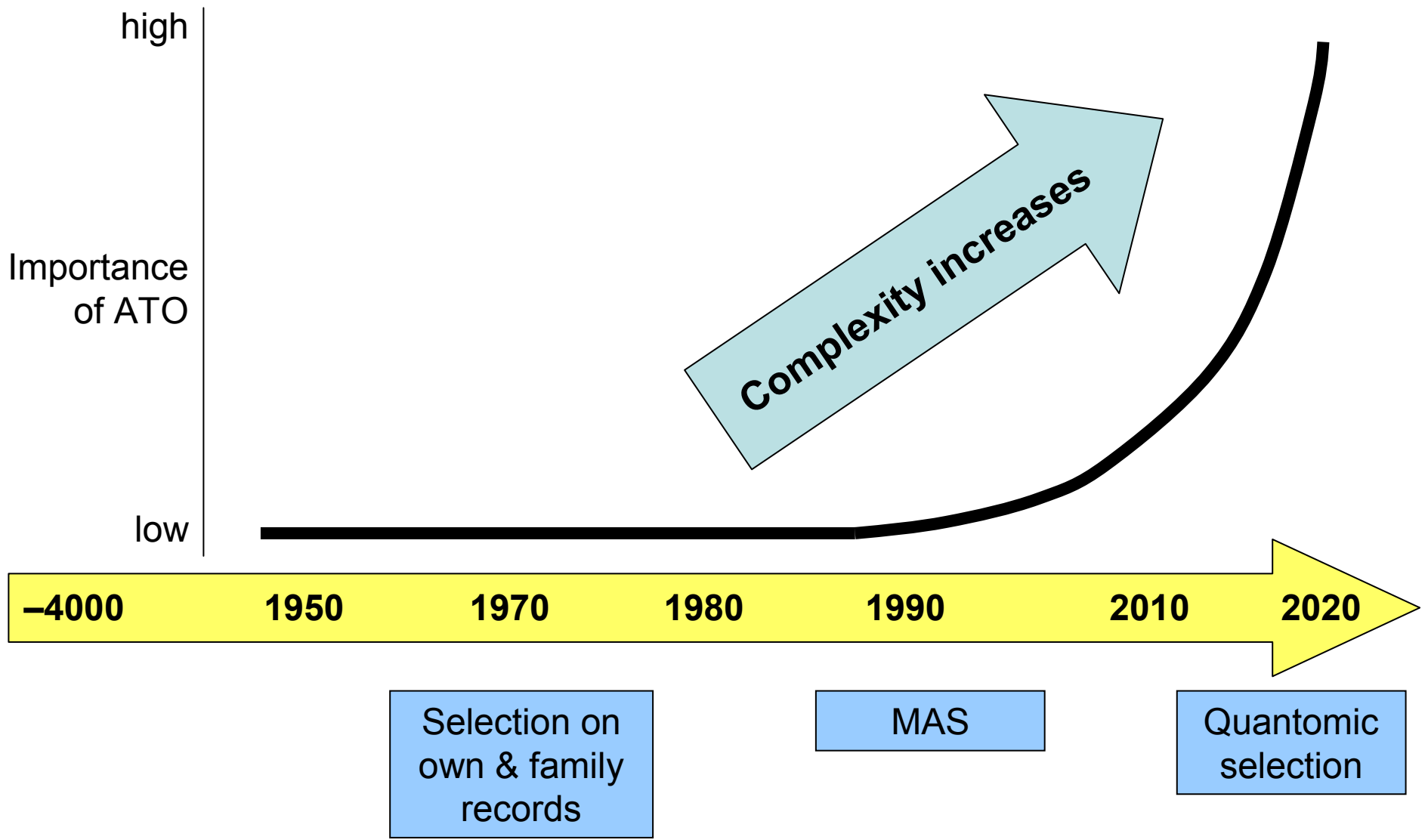
**ATO is important on this side of the picture,
to understand what is going wrong**

Statistics-driven breeding technology



Biology-driven breeding technology

**ATO is important on this side of the picture,
to support the primary action**

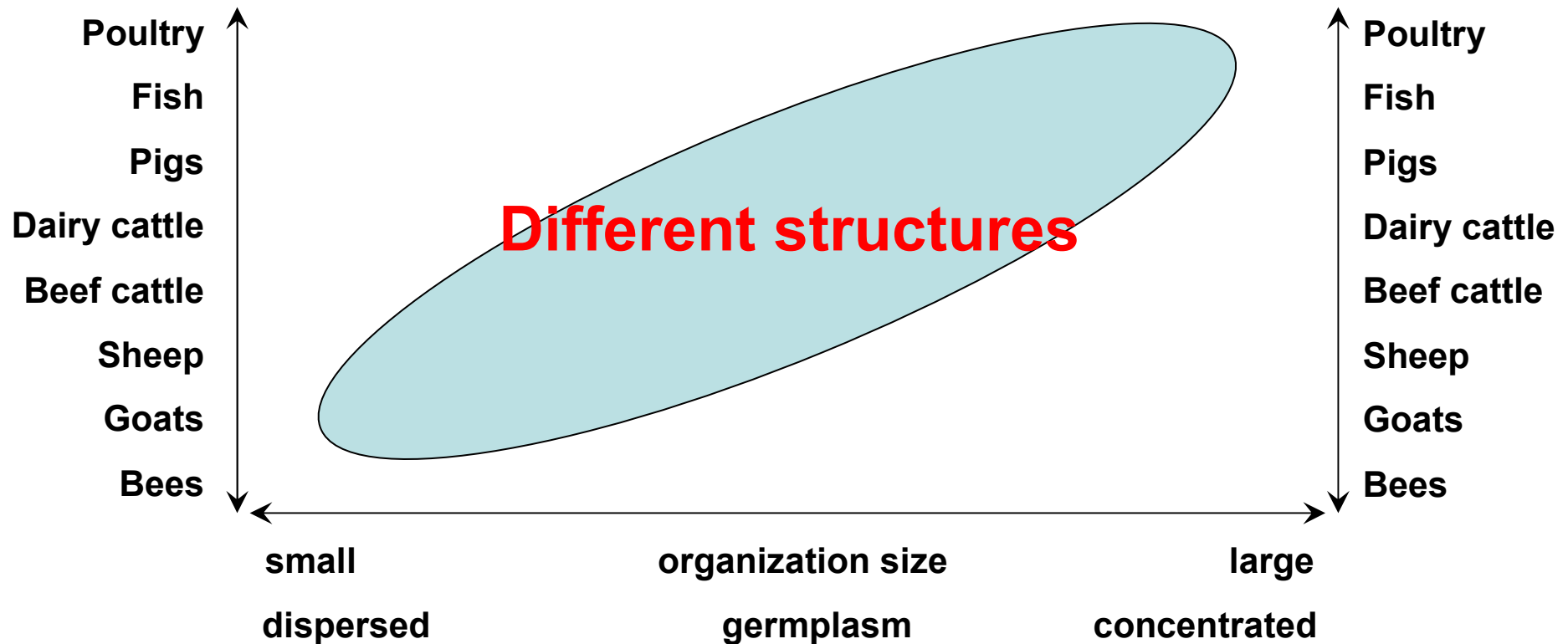


Biology-driven breeding technology

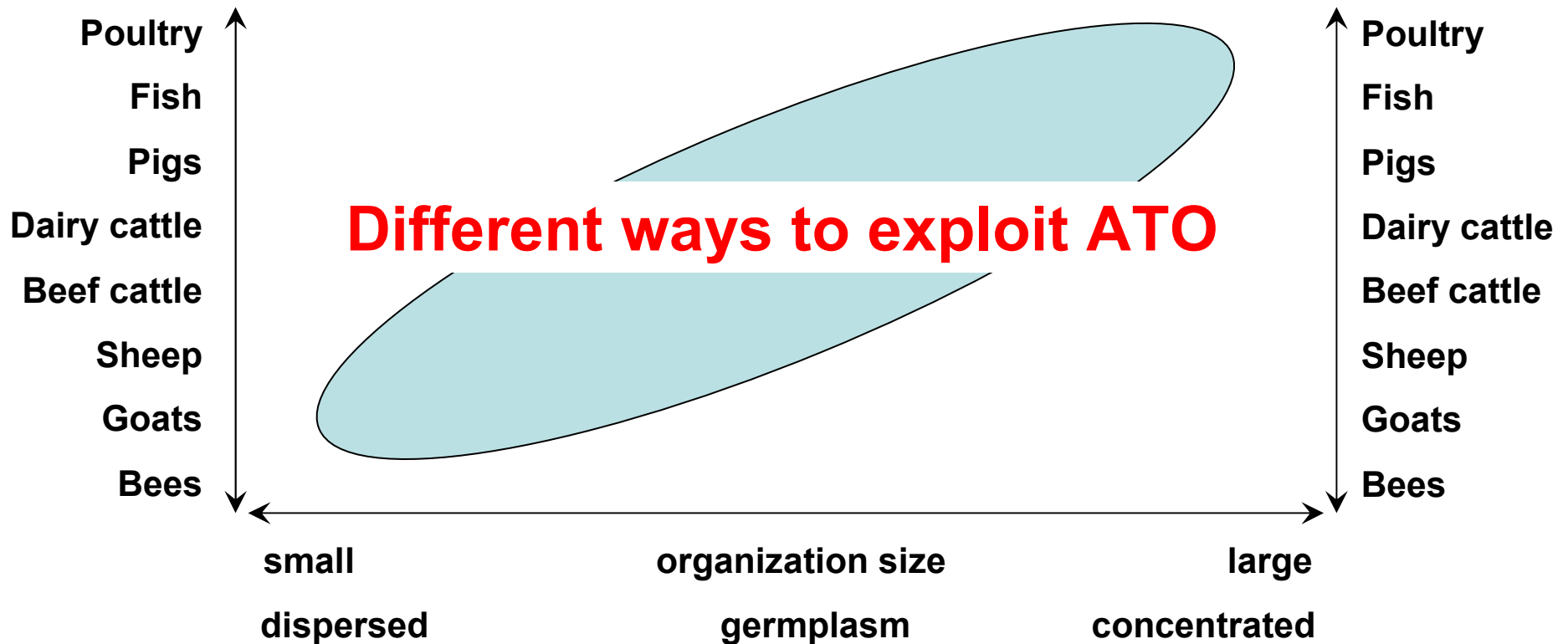
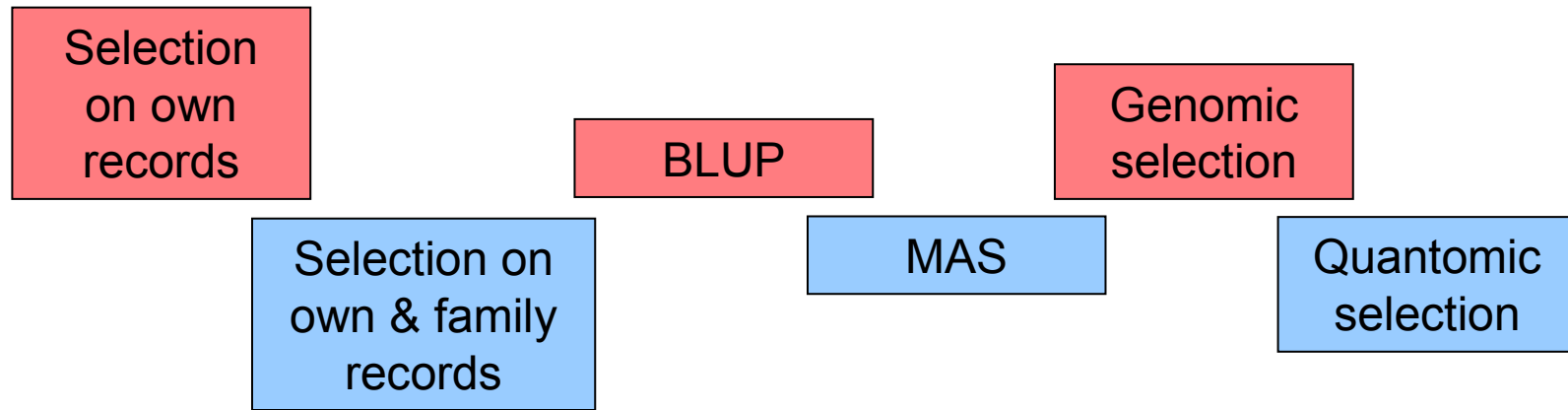
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- Survive
- Make a profit
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Technical ways to achieve these goals



Different ways to implement the same technology



ATO: technology under development

- **No mature methodology**
- **Various approaches need to come together**
- **Lead time**
- **Risky investment**
 - **Betamax, VHS**
 - **CP/M, DOS, OS/2, Windows**
- **Difficult to create competitive advantage**
- **Easy to create competitive **dis**advantage**
- **Pre-competitive development**
- **EADgene**

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