

# Animal Trait Ontology – what do we need it for?

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Details

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Overview & Developments

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# **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**

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

## **Technical ways to achieve these goals**

**When we make enough  $\Delta G$ , we will...**

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

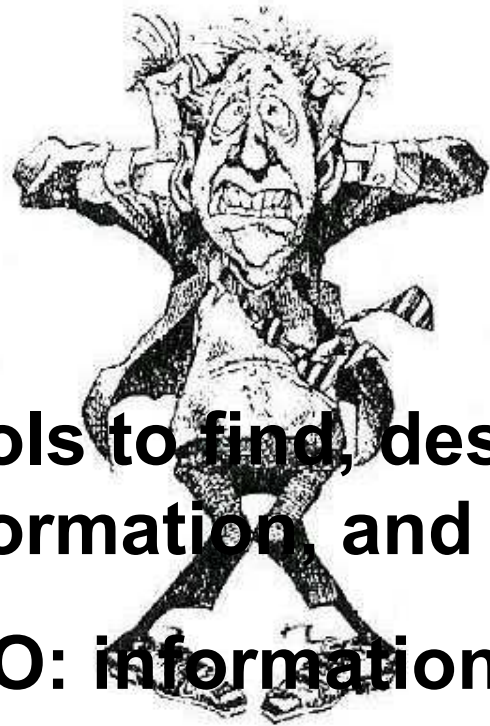
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**Animal Trait Ontology – what do we need it for?**

**How does ATO help us reach more  $\Delta G$  ?**

# How does ATO help us reach more $\Delta G$ ?



**What is ATO ?**

**What is “ontology” ?**

**Ontology:**

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

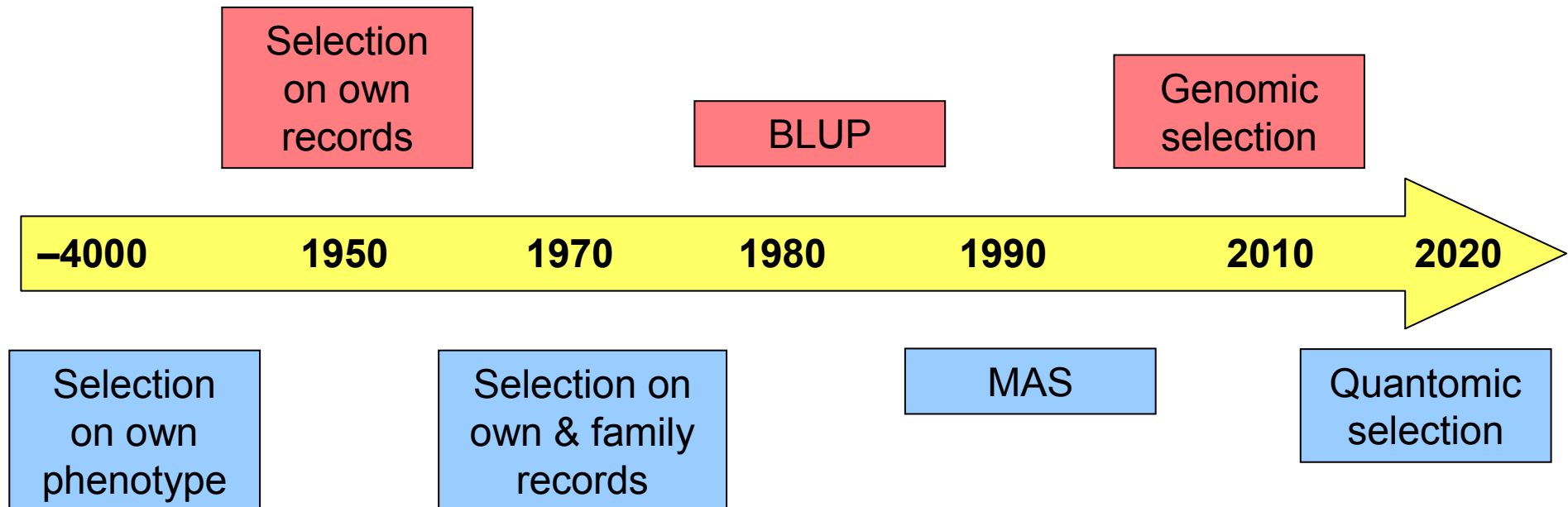
**ATO: information on Animal Traits**

**Phenomics, genomics, all the other –omics**

**Recording, genetic structure, physiological pathways, interrelationships, databases**

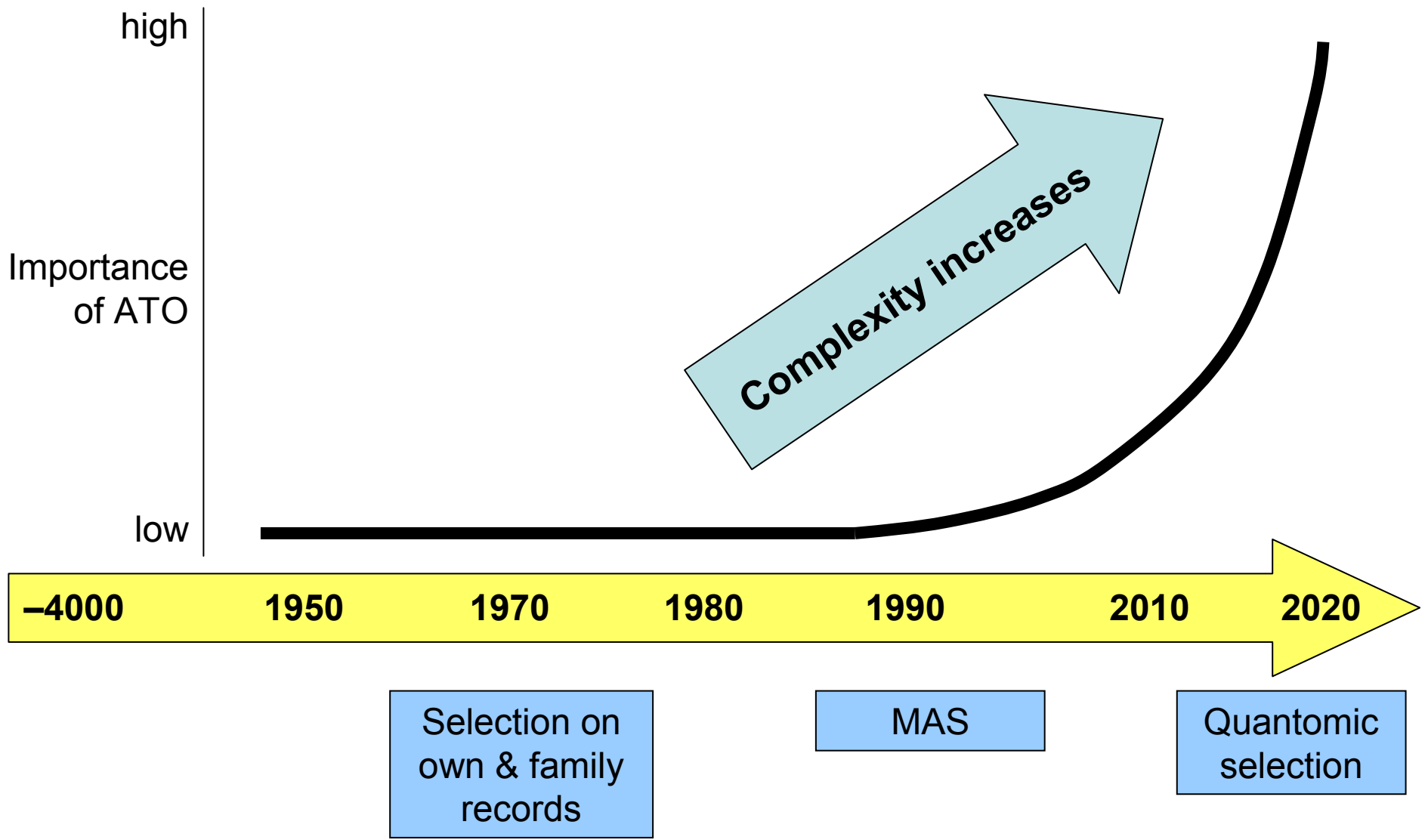
**ATO is important on this side of the picture,  
to understand what is going wrong**

## **Statistics-driven breeding technology**



## **Biology-driven breeding technology**

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

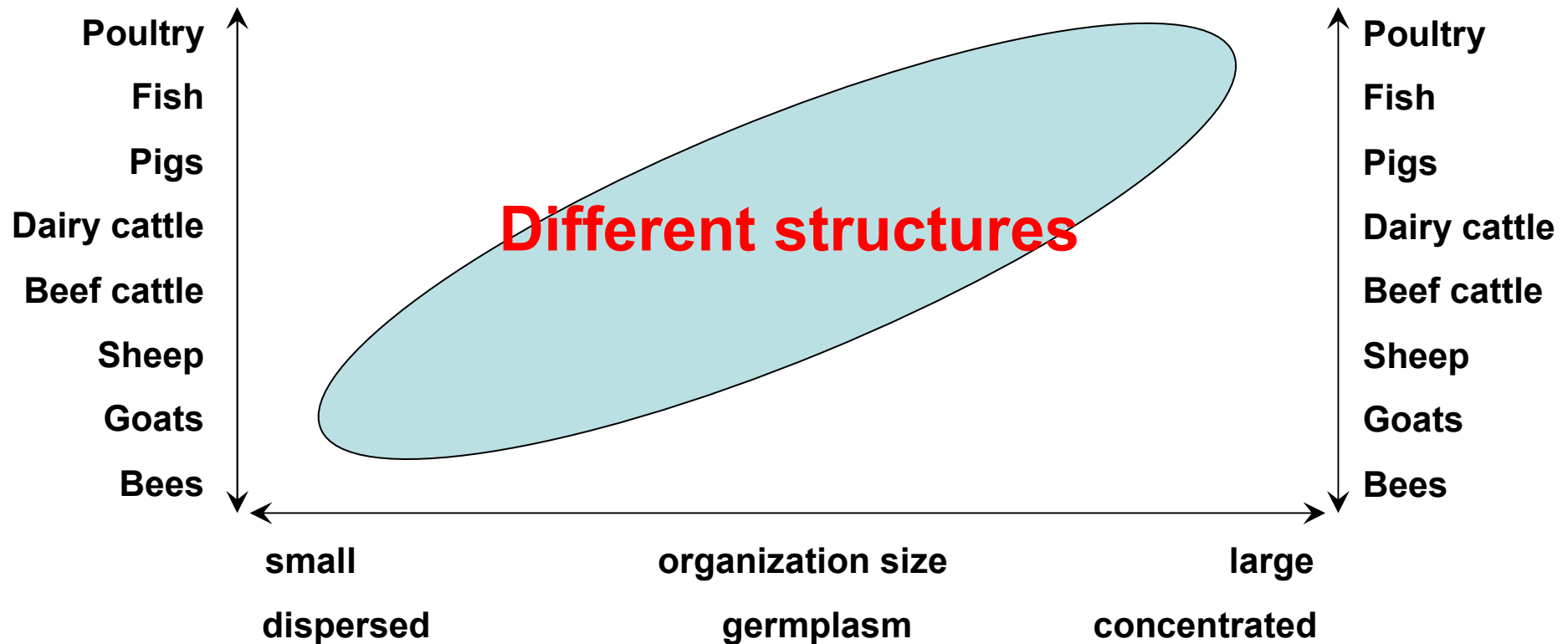


## Biology-driven breeding technology

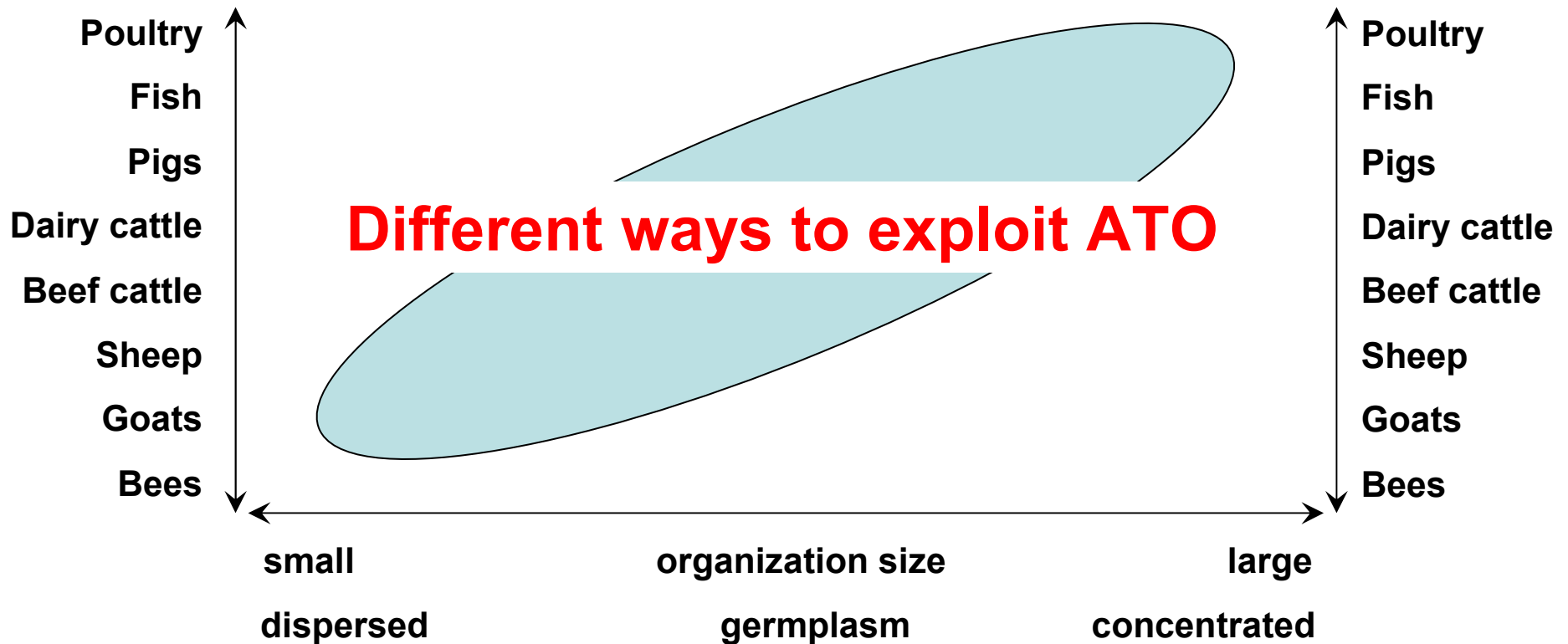
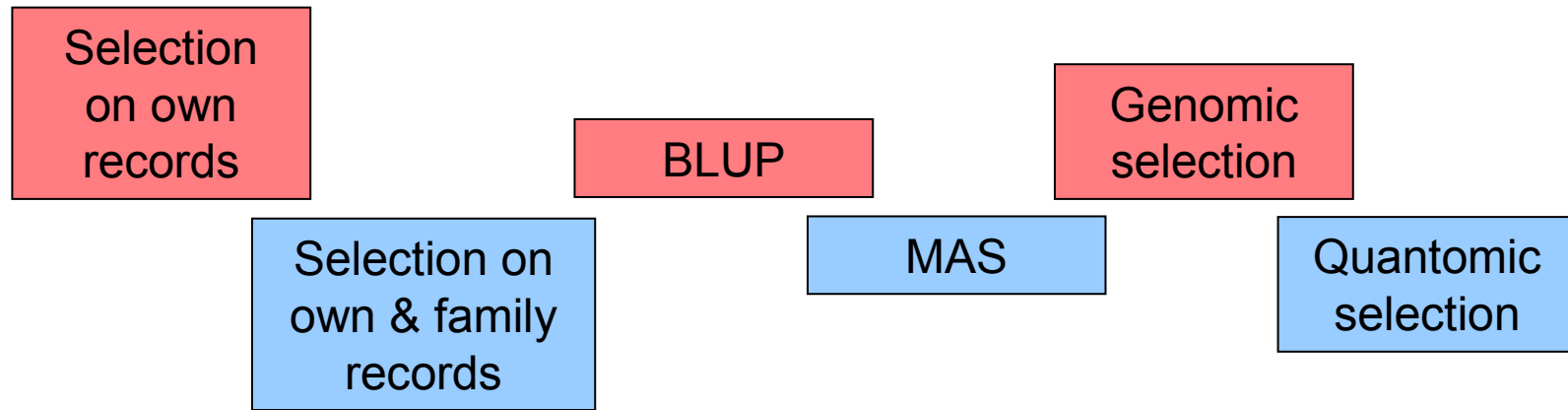
# Animal breeding organizations: commercial goals

- Survive
- Make a profit
- Grow

## 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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