Looking at data

- 10 years of data from the Danish

Experiments Inspectorate

Danish 3R-Center

Replacement Reduction Refinement

Introduction



 Accumulation of annual submissions to the Danish Experiments Inspectorate 2002-2013

 Development of experimental animal use over time



Purpose



- Create overview
- Use of animals
 - Species
 - Numbers
 - Severity
 - Types of investigations
 - Investigating organisations

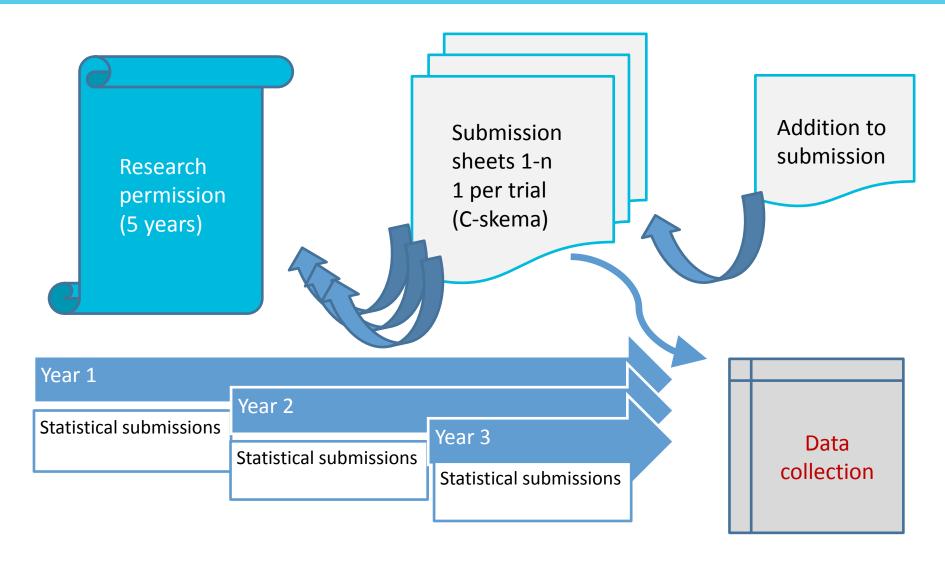
Purpose



- Investigate details to pinpoint focus areas of concern and development opportunities
- Ideas for effective initiatives to reduce animal use in the future
- Knowledge distribution
- Guidance
- Political/administrative actions

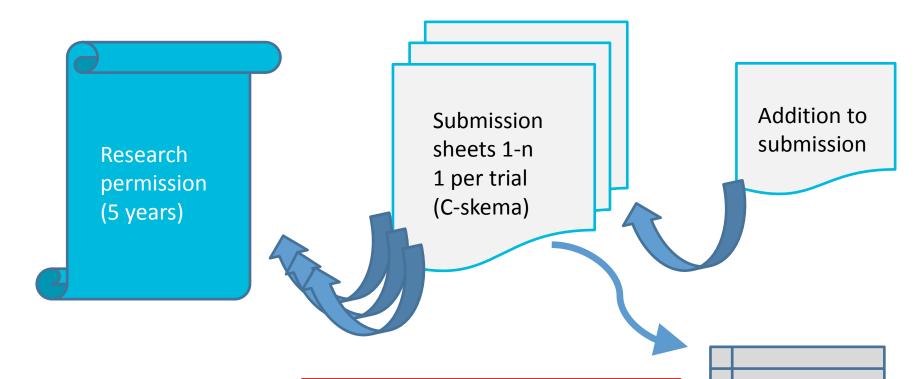
Data collection





Data collection





Data recorded in permission applications

Detailed information

Intended use

-number, species, expected severity

Organisation

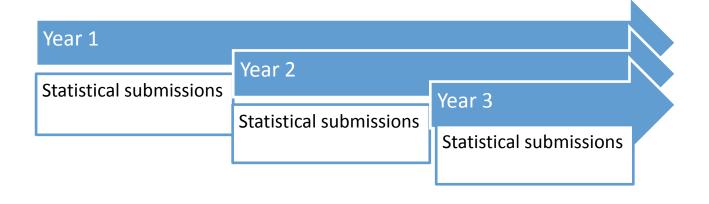
Data collection

Data collection



Data recorded in DEI statistics

Crude/exact numbers
Actual use
numbers
species
Use (type of study)



Data collection

Challenges

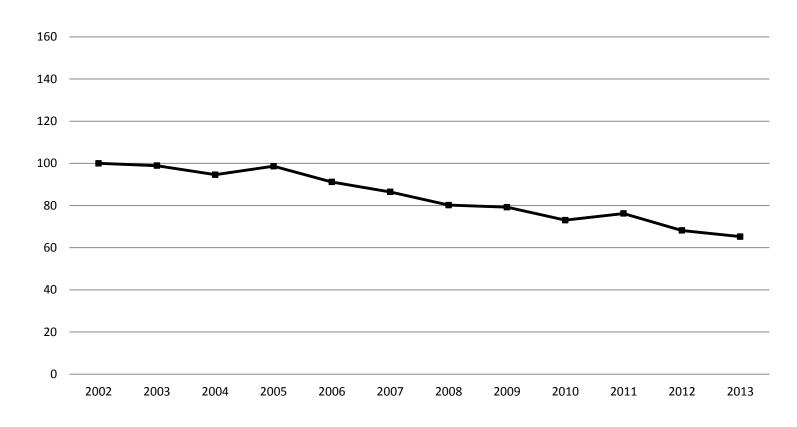


- Data reported for other purposes
- Submission sheets
 - Multiple severity levels distribution not available
 - Information in "free text" field in application not suitable for statistical evaluation
- Annual statistical submissions
 - Very little information



Number of animals used - total

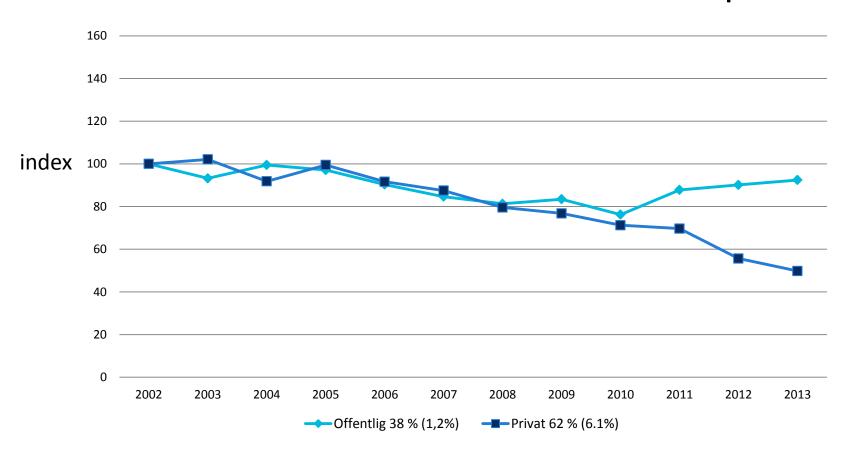
index



Overall average annual decrease 4%

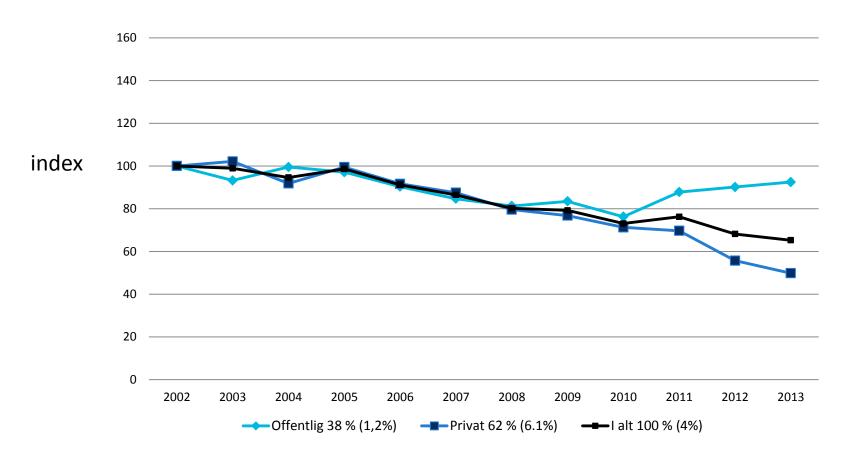


Number of animals used – Public and private



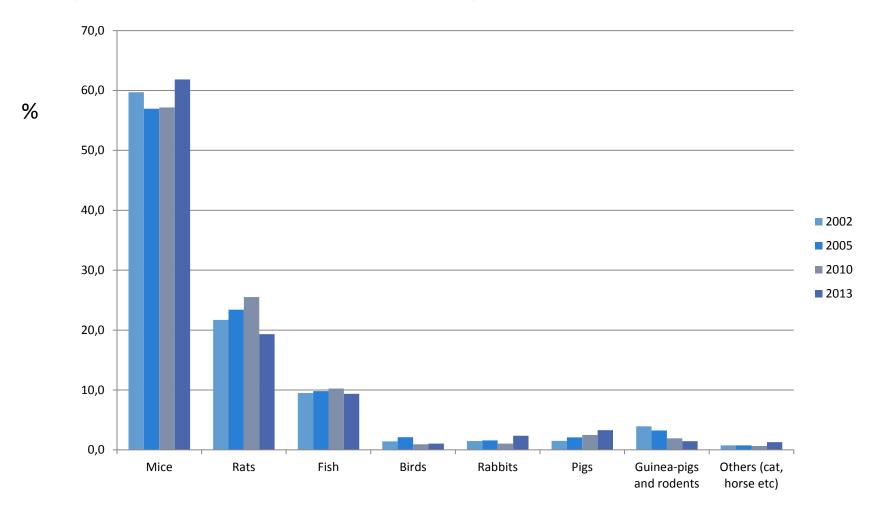


Number of animals used



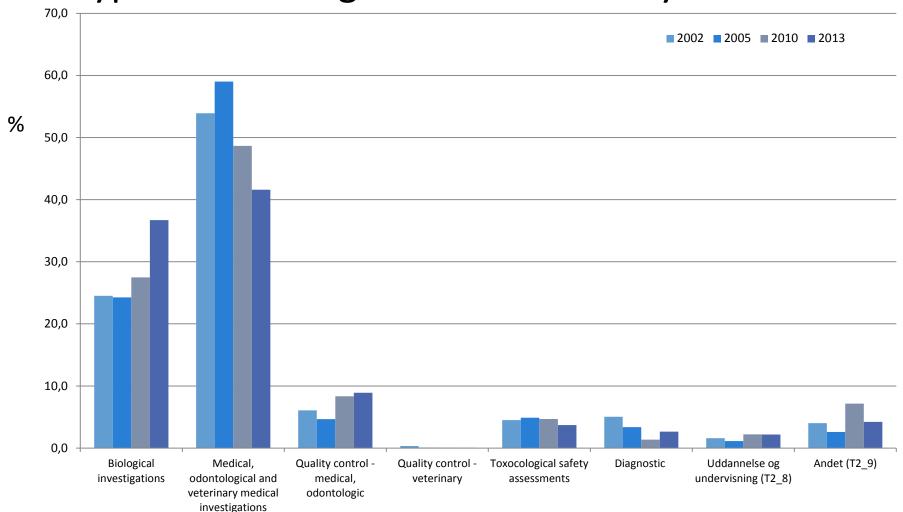


Species used – selected years





Types of investigations – selected years



Future actions



- Interviews
- Investigation of decreases in suffering or numbers
 - Possible use in other settings
 - Techniques
 - Experimental designs
 - ...



Future actions



- Evaluating benefit of animal experimental use
- Research strength to be evaluated how?
 - Number of publications/accumulated impact factor
 - Number of places/animals in places implementing new technique derived by animal experimentation
 - Number of animals/humans spared in future investigations
 - Number of new drugs developed
 - Financias investment in research pr animal

EU changes



New EU regulated statistical reporting

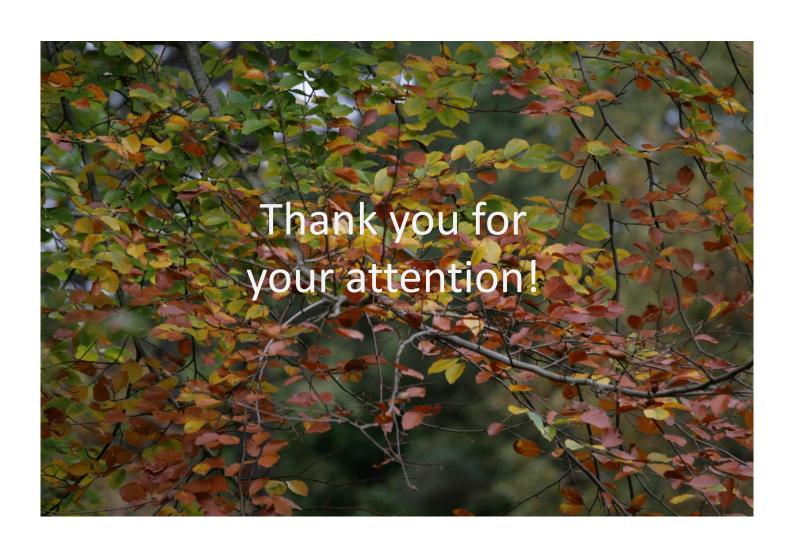
- Improved information regarding severity reports
 - Actual recorded severity
 - Include inherent severity in harmful genotypes
- Reporting on animal level





The Danish 3R-Center







- Severity
- Study based submission sheet



- Severity expectations example
- Mice

