

The Danish 3R Survey

Knowledge, attitudes and experiences with the 3Rs among researchers involved in animal experiments in Denmark

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Background and research aim

- The 3Rs will soon celebrate 60 years anniversary
- The 3Rs are important tools animal welfare regulation
- Yet, there is limited knowledge about:
 - Actual implementation
 - Barriers to further implementation

Research aim: to survey animal researchers knowledge, attitudes and experiences with the 3Rs in Denmark and their view of the Danish 3R-Center

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Project group: Jesper Lassen, Thomas B. Lund & Rikke Nøhr (University of Copenhagen).

Thanks to: Lisbeth E. Knudsen, Jan L. Ottesen & Tom Bengtsen. (Advisory group).



Design and methods

Data production

- A web-based questionnaire (anonymous) in October 2015

Population: Animal researchers

- All holding a Danish license to carry out animal experiments
- All scientists working under another's licence

Recruitment

- Licence holders: Through the central register of licence holders
- Non-licence holders: Snowballing and posts at workplaces

Demography of the respondents

Total sample

→ 234

Gender

→ 50% male // 50% female

Function

→ 72% licence holders (=37% r-rate) // 28% non-licence-holder

Place of work

→ 66% public sector // 31% private sector // 3% both sectors

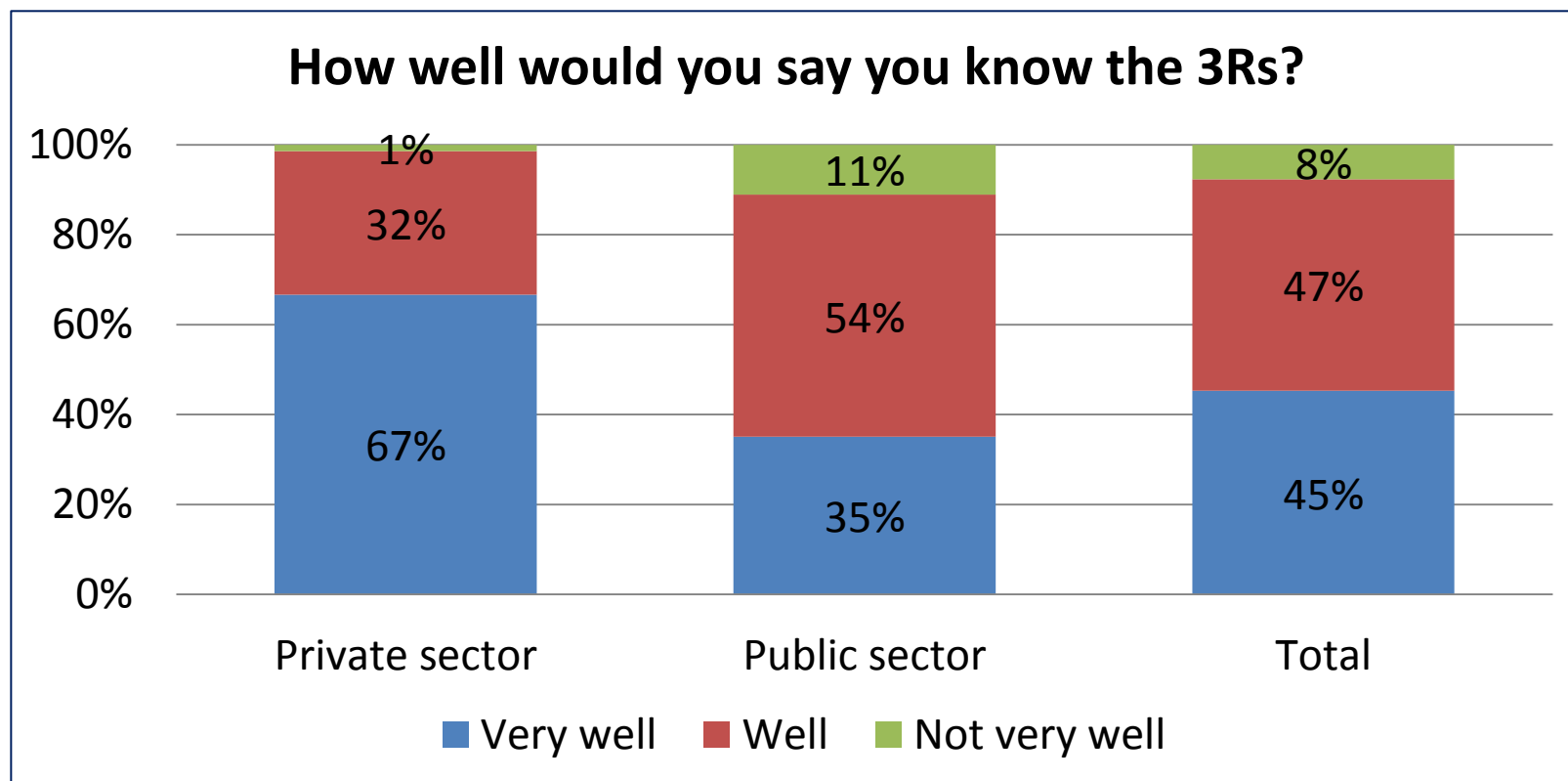
Size of workplace (private sector only)

Number of employees	Share of respondents (%)
1-100	24
101-1.000	15
1001-10.000	25
10.000-	35

Knowledge and attention

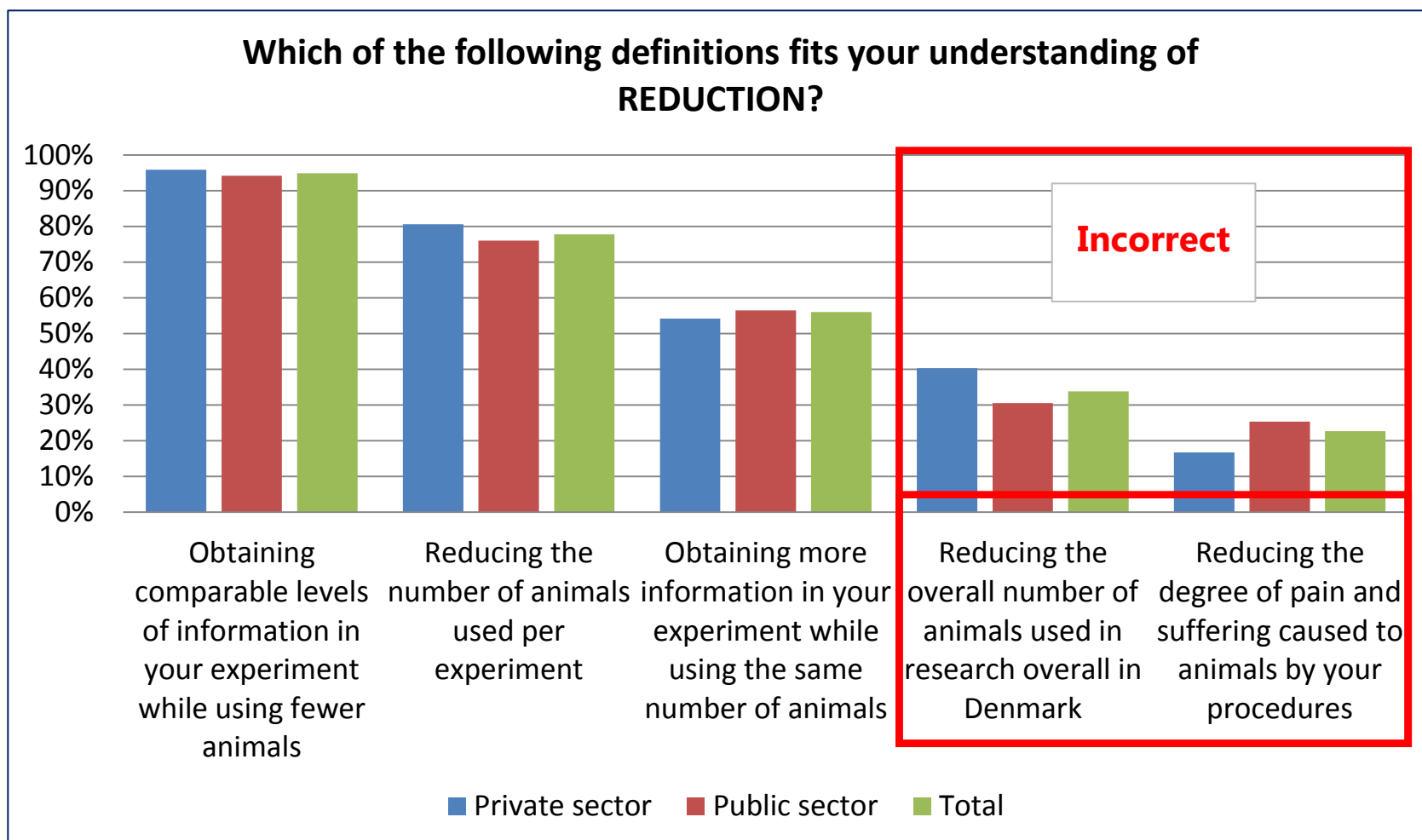
Self reported knowledge

- Self reported knowledge of the 3Rs is high
- Significant difference between sectors



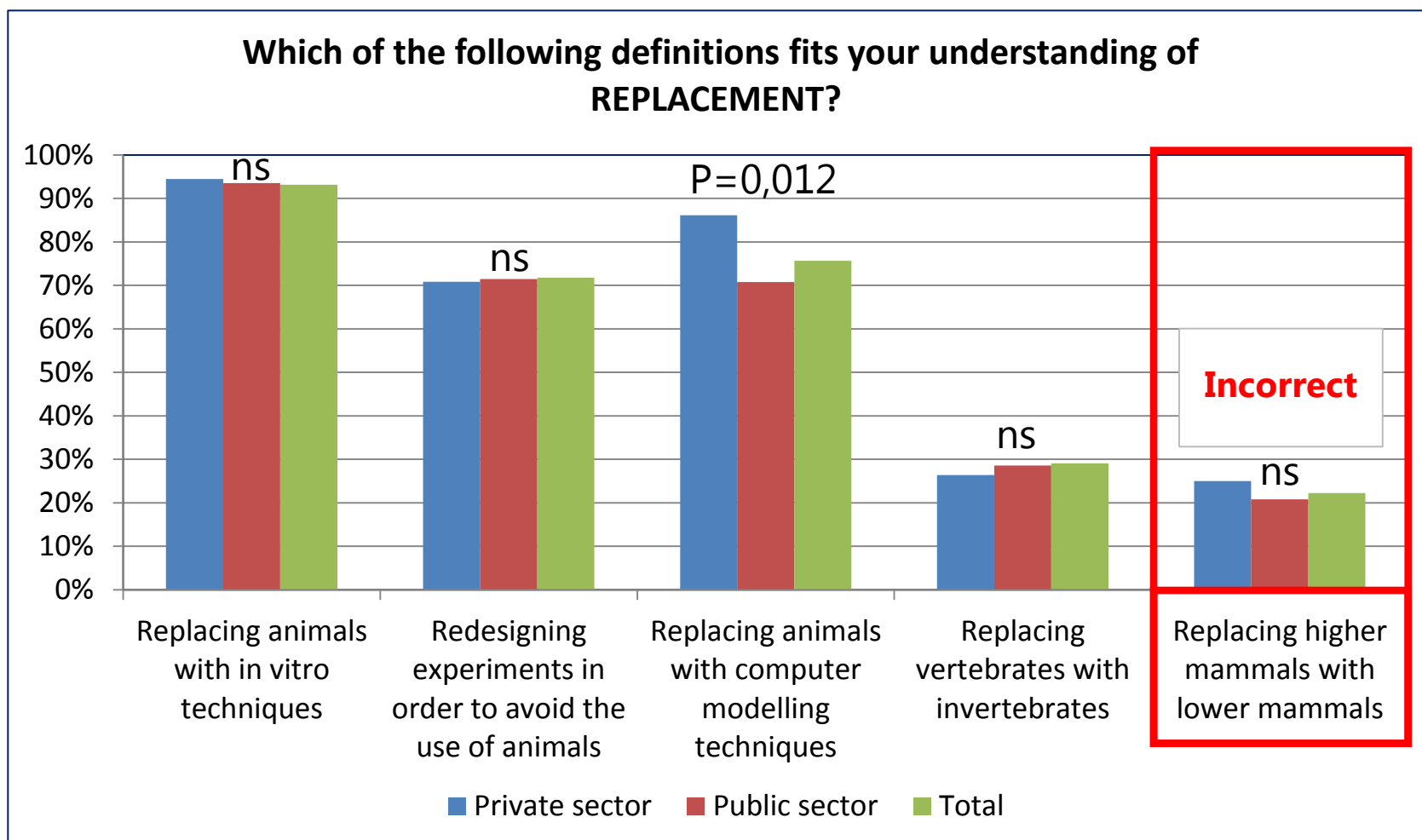
($N_{\text{total}}=234$; $N_{\text{sector}}=226$; $p=0,00$)

Factual knowledge Reduction



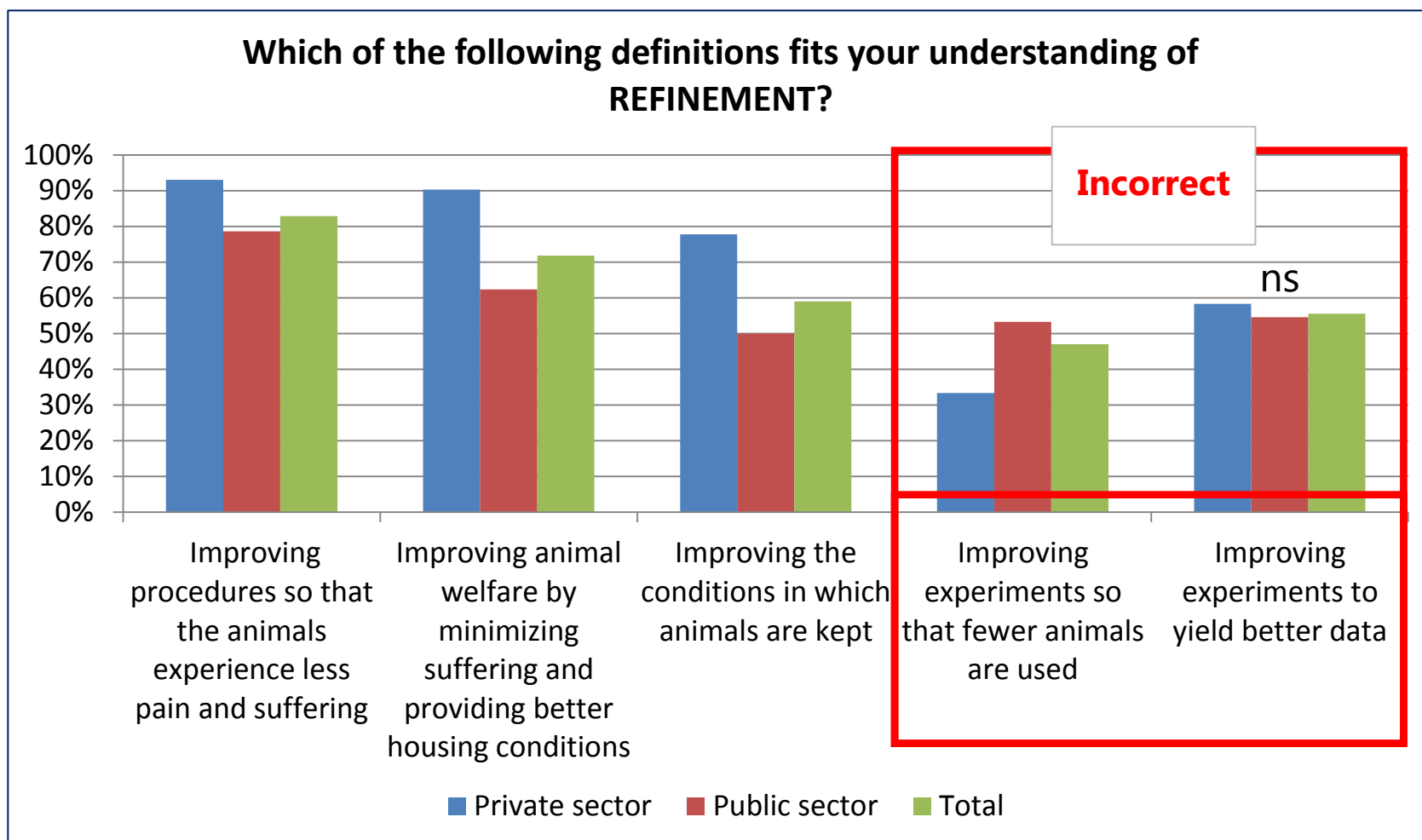
Ntotal=234; Nsector=226; ns

Factual knowledge Replacement



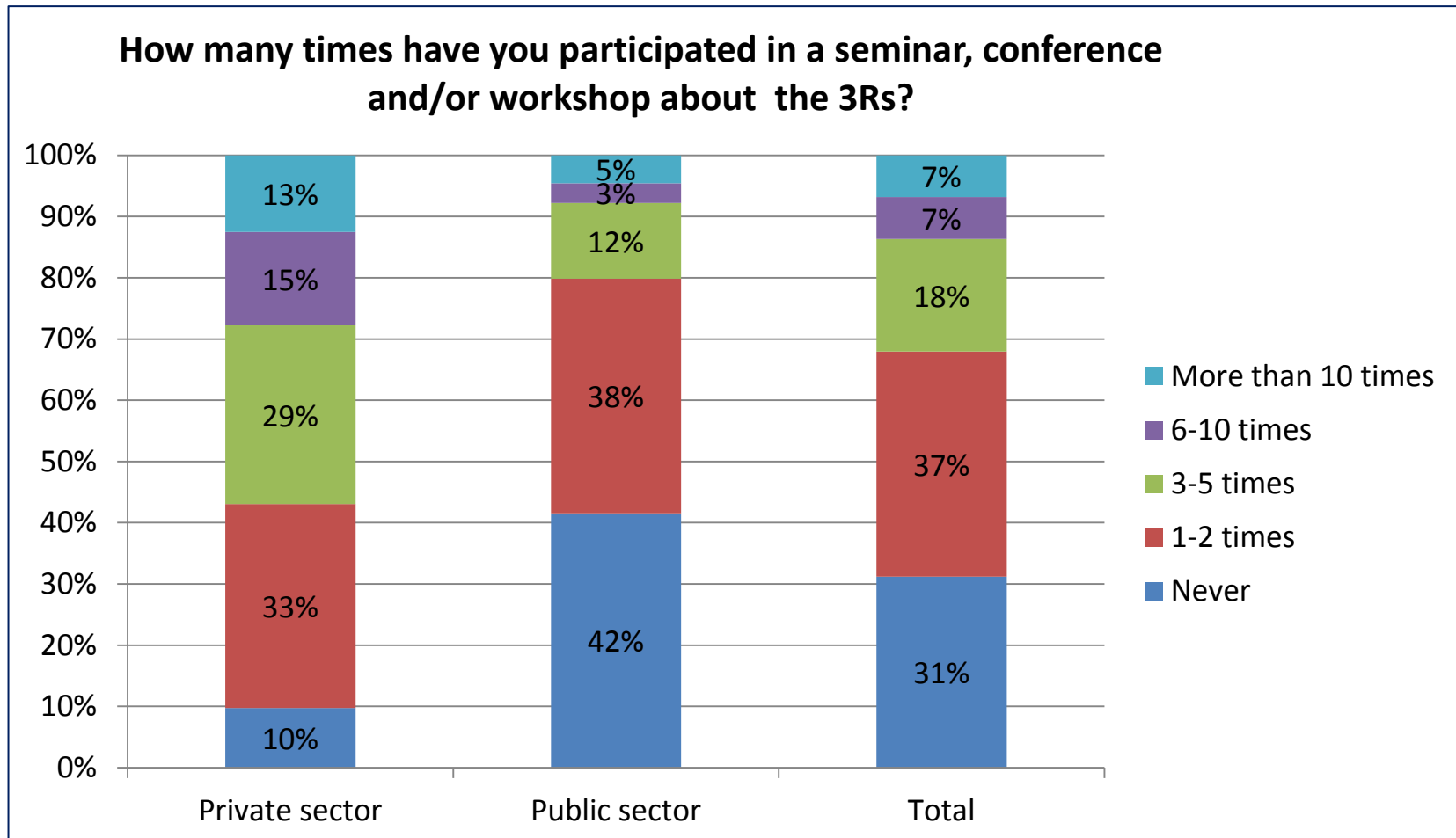
Ntotal=234; Nsector=226

Factual knowledge Refinement



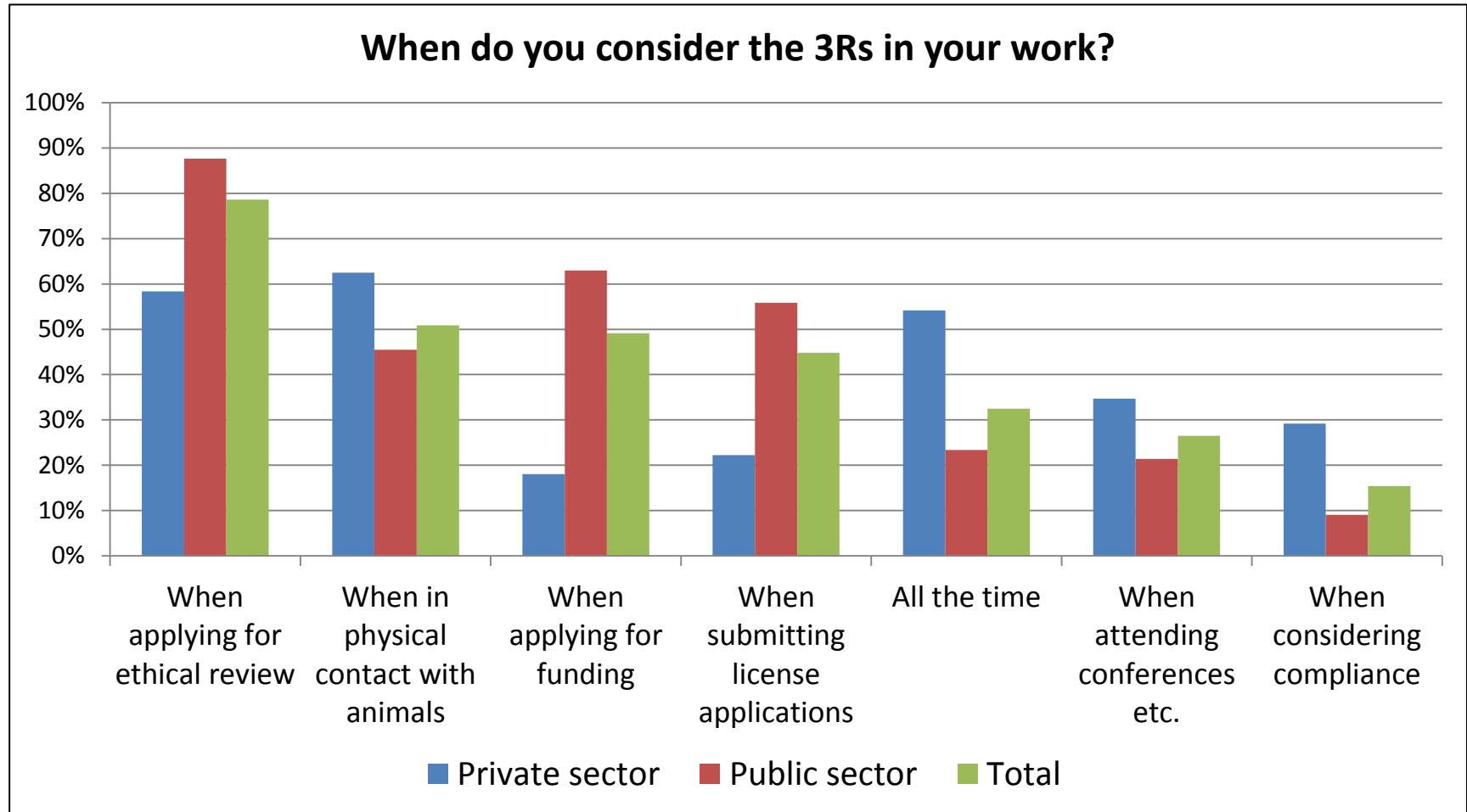
Ntotal=234; Nsector=226; $p < 0,05$

Knowledge seeking



($N_{\text{total}}=234$; $N_{\text{sector}}=226$; $p<0,05$)

Awareness during daily work

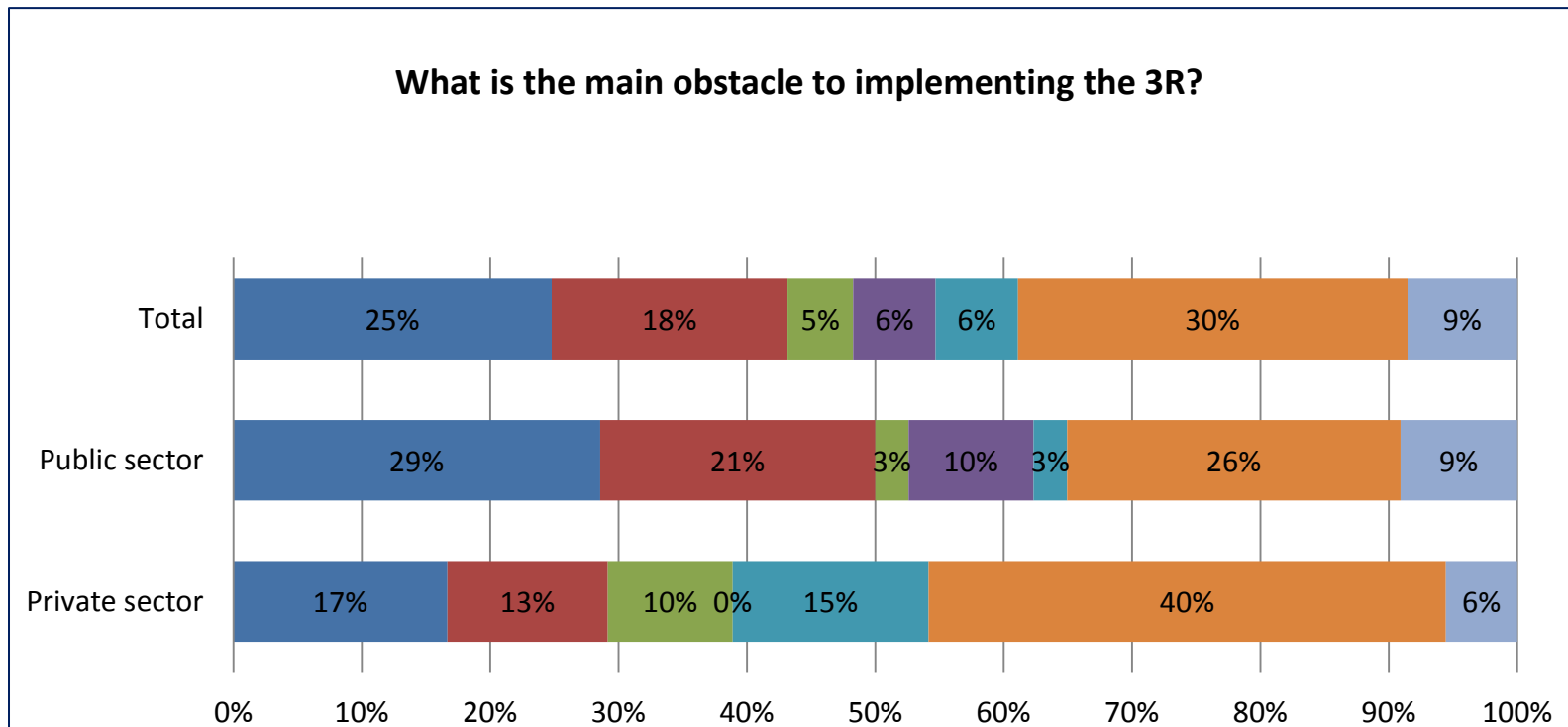


($N_{\text{total}}=234$; $N_{\text{sector}}=226$; $p=0,00$)

Needs and obstacles



Obstacles – overall

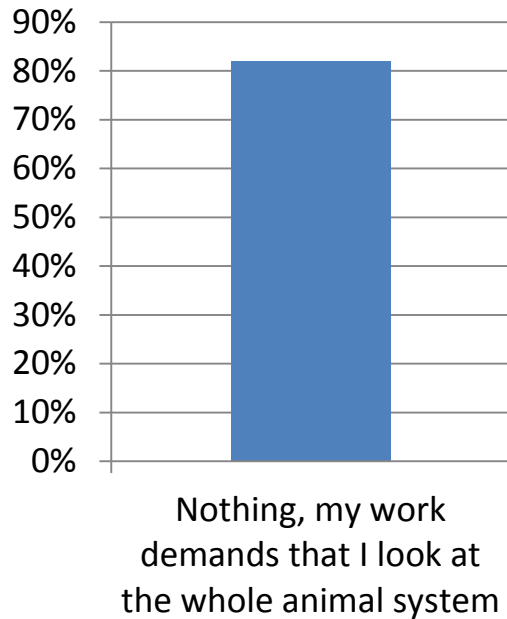


Ntotal=234; Nsector=226; p<0,05

- Lack of appropriate scientific or technological innovation
- Comparability of data
- Lack of time due to other duties
- Insufficient funding available
- Legislation or regulatory requirements
- There are no obstacles
- Other obstacle

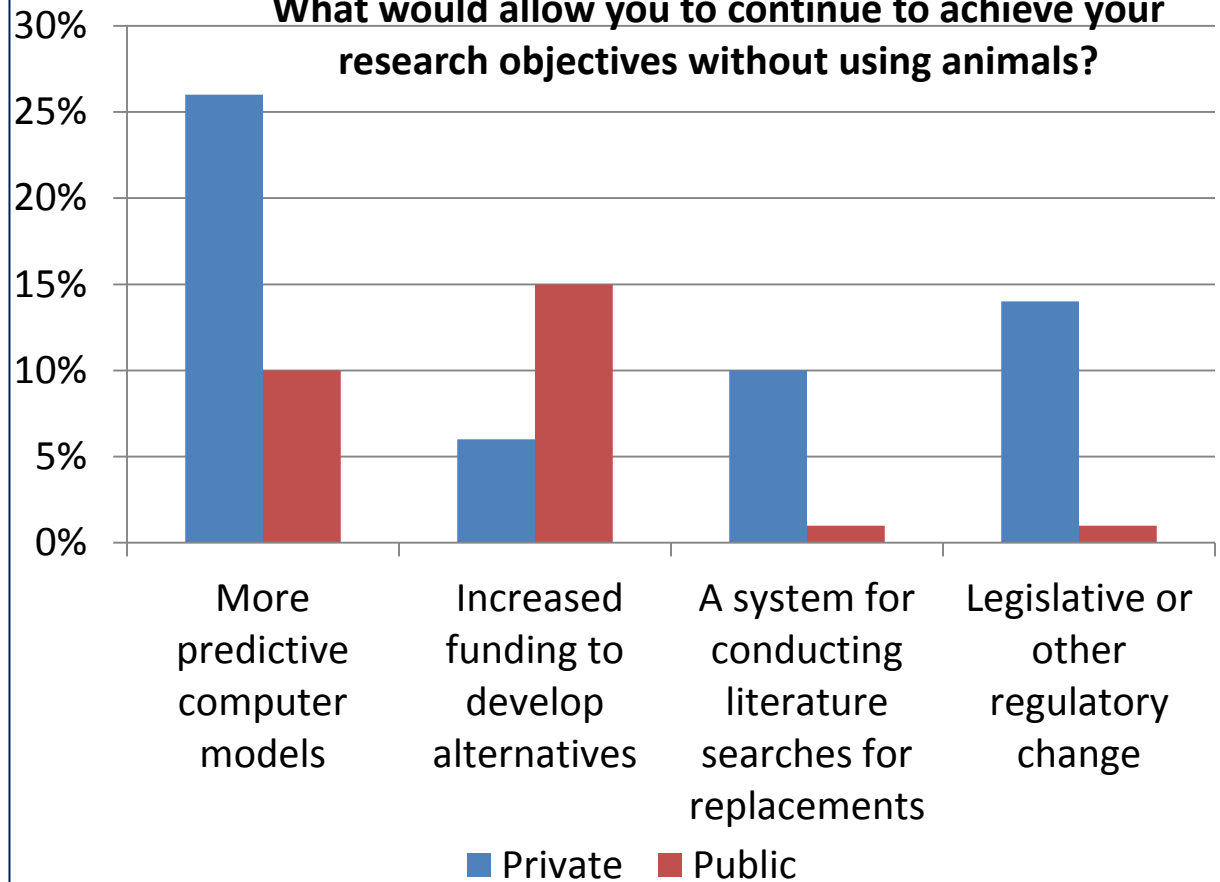
Replacement Needs

What would allow you to continue to achieve your research objectives without using animals?



N=234

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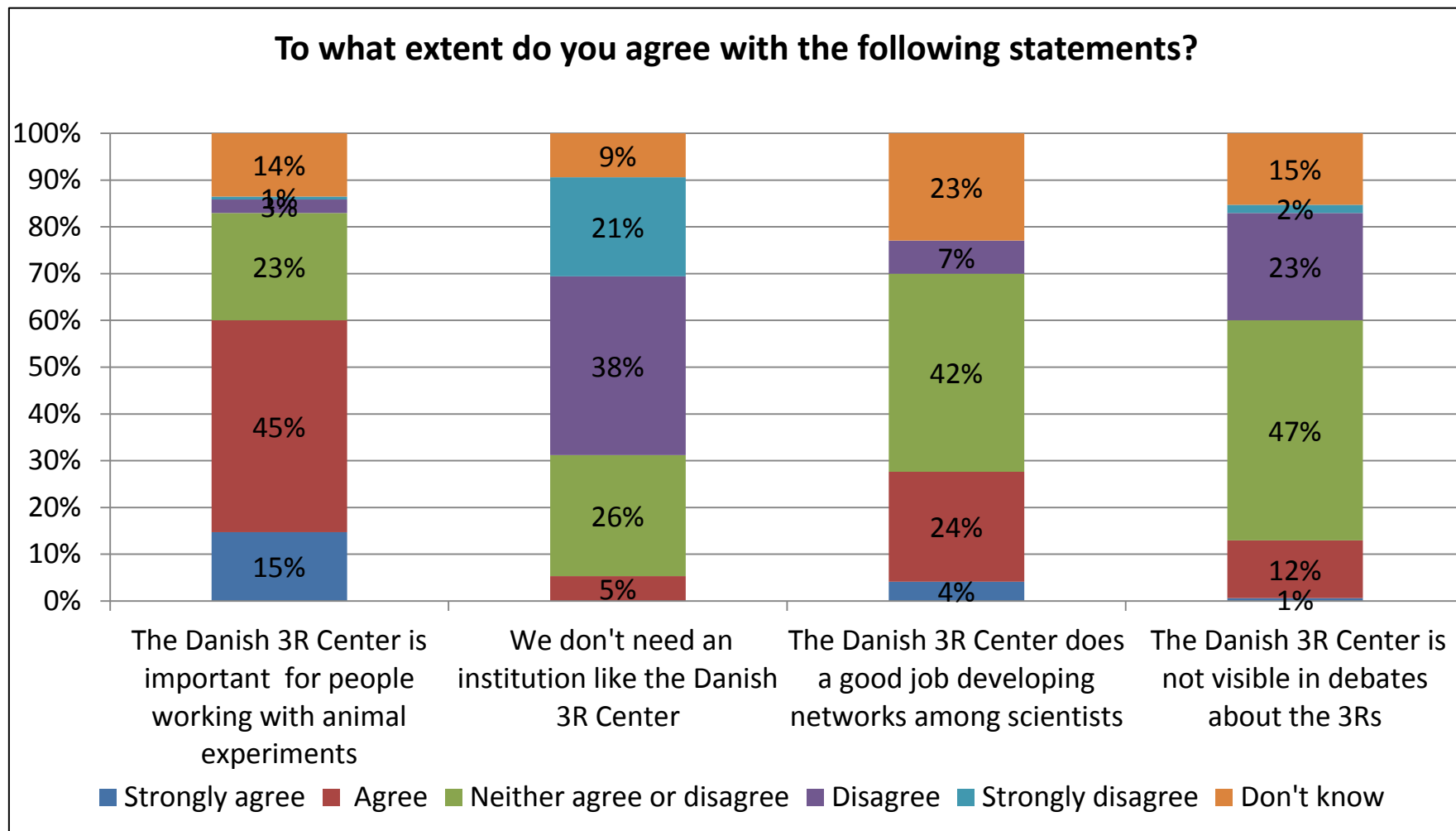


$N_{total} = 234$; $N_{sector} = 226$; $p < 0,05$

Danmarks 3R-Center

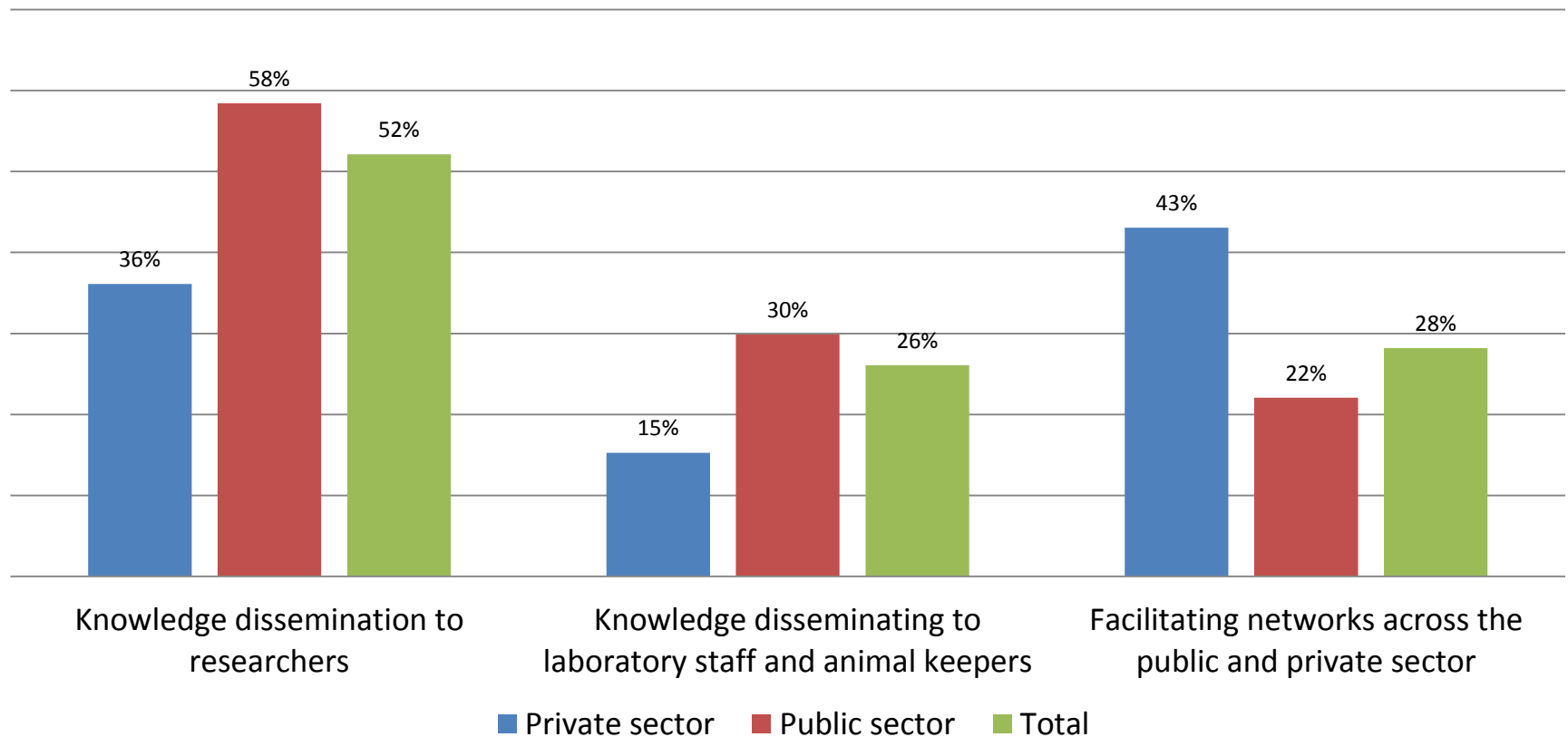
R R R

Danish 3R-Center Doing a good job?



The Danish 3-R Center Desired activities!

Where should the Danish 3R Center focus its activities?

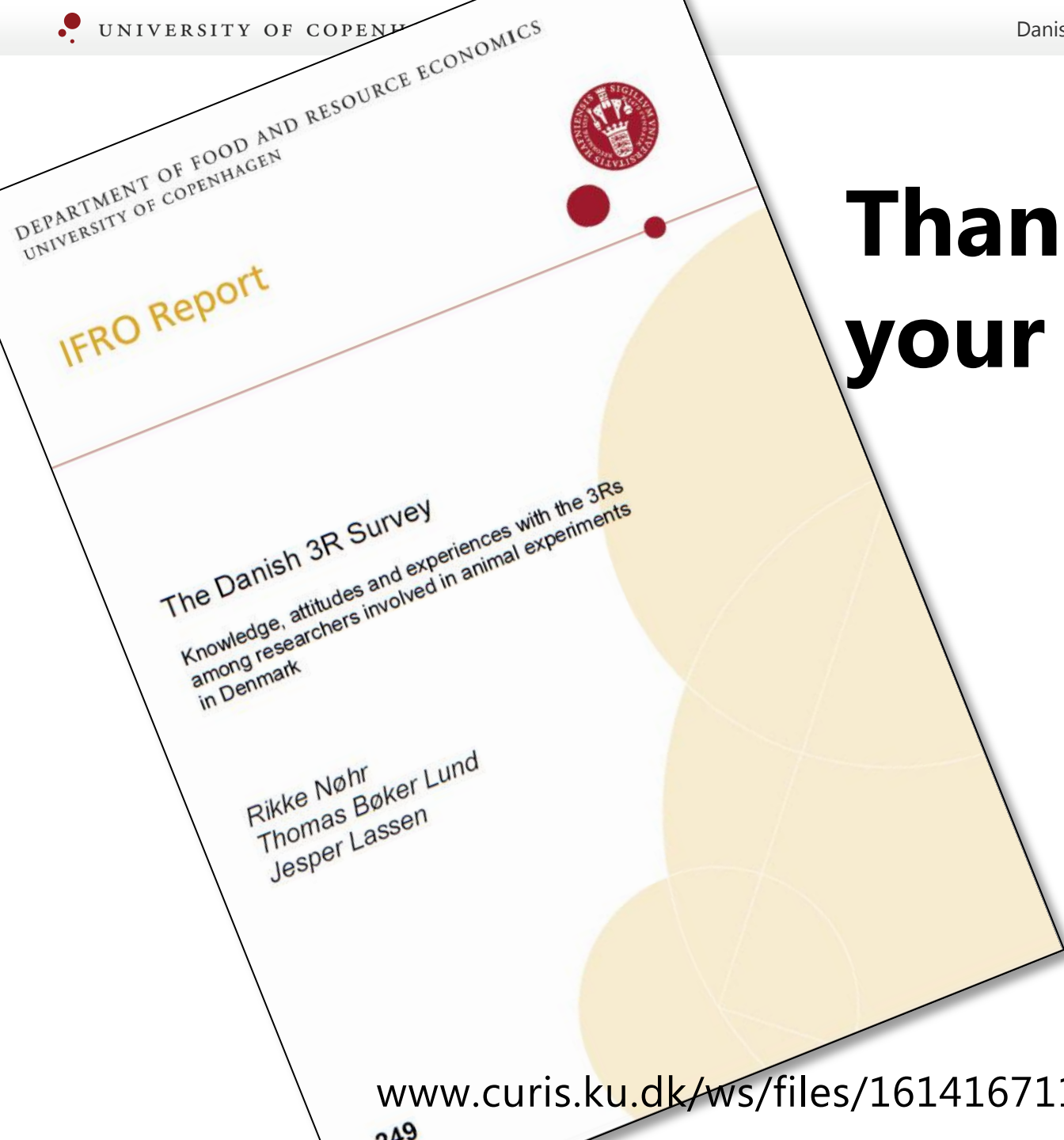


Conclusion and points of action

- Knowledge and understanding of the 3Rs is high
- There is a significant difference between private and public sector researchers
 - Cultural differences?
 - Structural/ economic differences?
- Most do not consider replacement an option
 - Maybe because of the nature of their work: they all use animals...

Points of action

- Communication/ information must be tailored according to cultures/ conditions of the two sectors
 - Increase funds for public researchers in replacement
 - Encourage research into computer models



Thank you for your attention!