

Web-based inspections in industrial radiography

Digital inspections in an analogue world

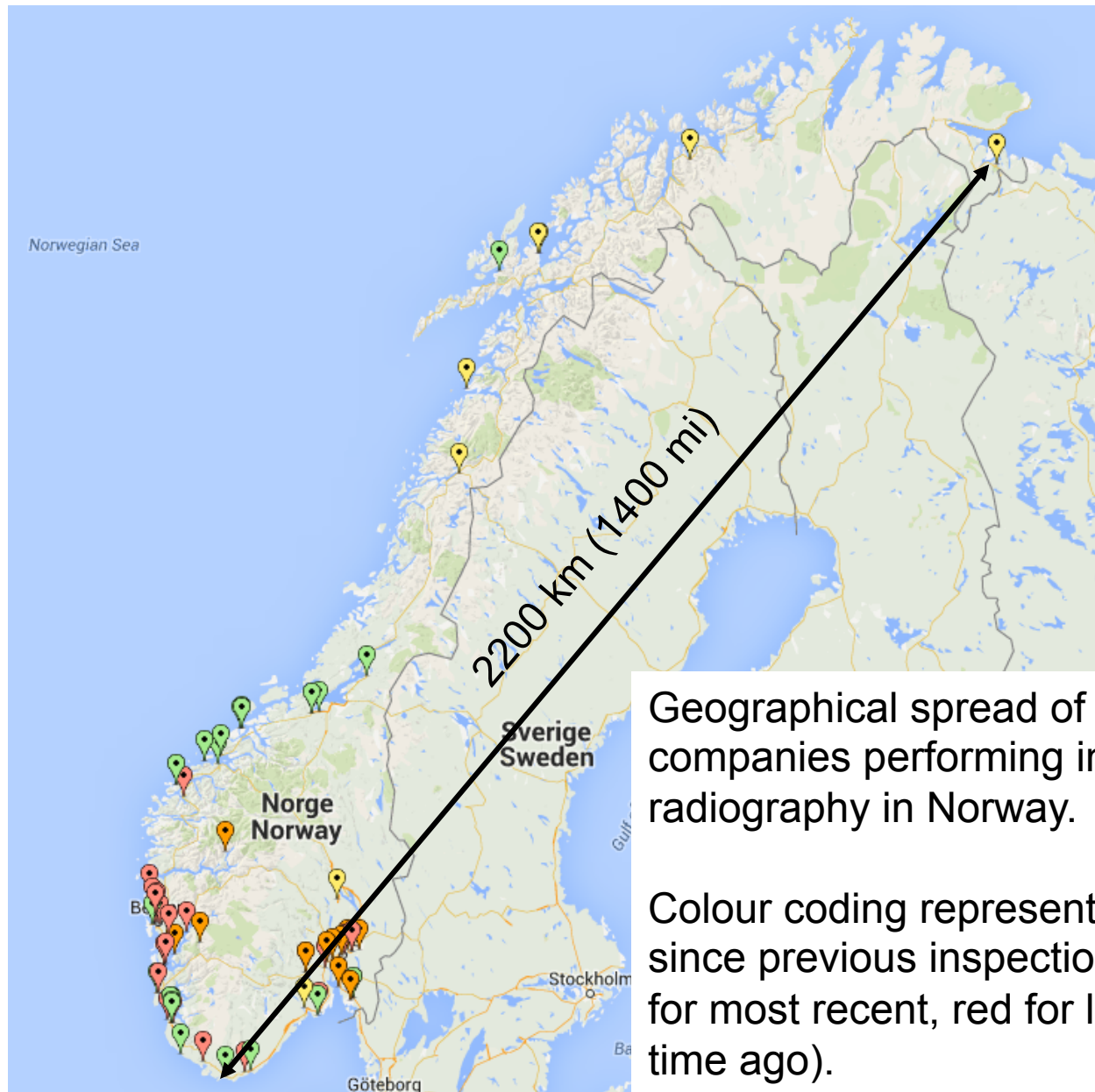
Knut Helge Knutsen , Sindre Øvergaard, Gunnar Saxebøl.



Statens strålevern
Norwegian Radiation Protection Authority

www.nrpa.no

Industrial radiography in Norway

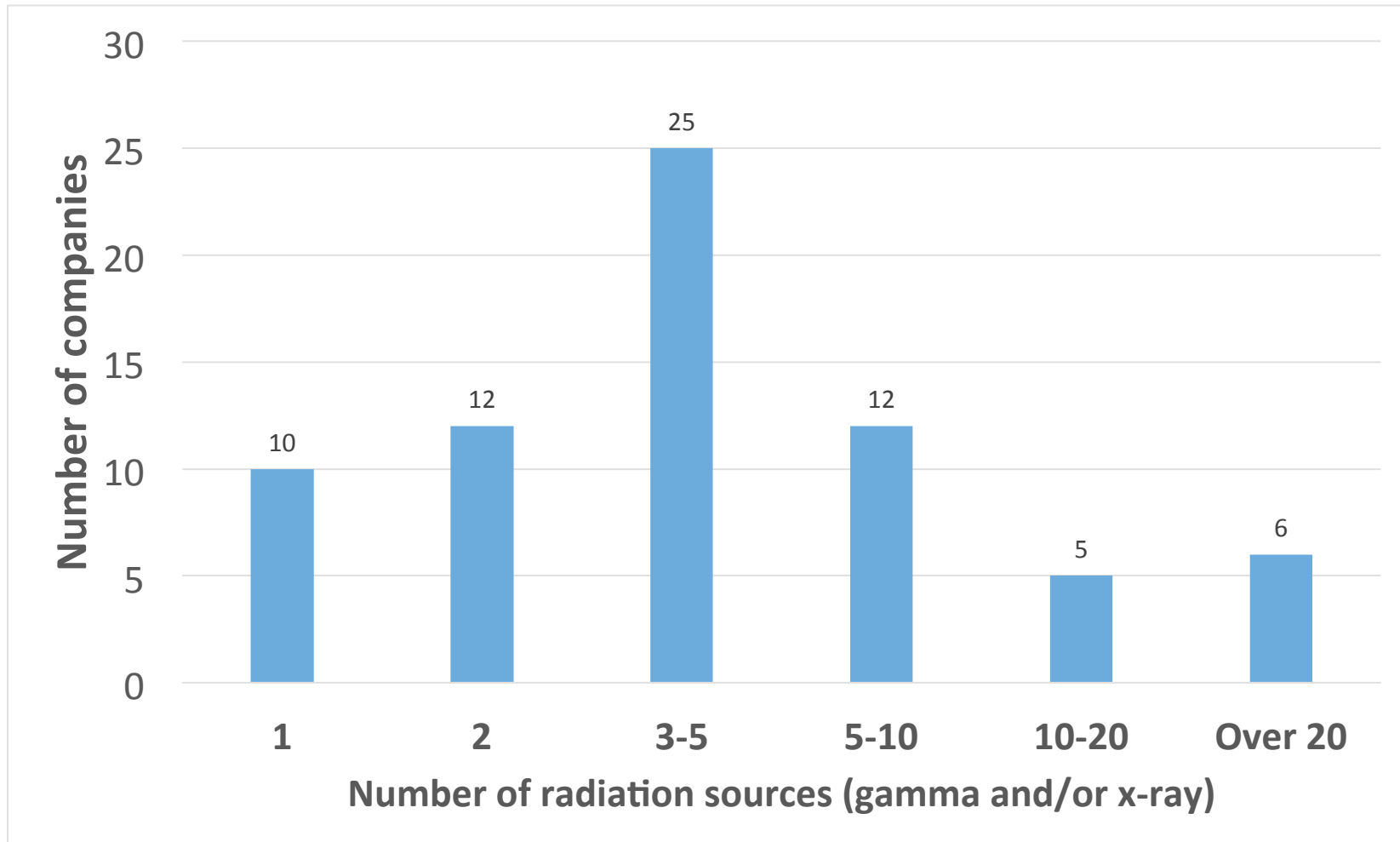


Geographical spread of some 70 companies performing industrial radiography in Norway.

Colour coding represents time since previous inspection (green for most recent, red for longest time ago).



Industrial radiography in Norway



→ Less than 5 sources for about 2/3's of the radiography companies.



Method

- Questionnaire sent to radiation protection officers (RPO) by e-mail.
- Unique link in e-mail leads RPOs to their company specific questionnaire online.
- Accompanying letter from NRPA emphasising that responding is **obligatory, not voluntary**.
- Informed about a follow-up “on site” inspection would be arranged for some companies somewhere.
- Questionnaire, e-mails, replies handled by EasyResearch™.

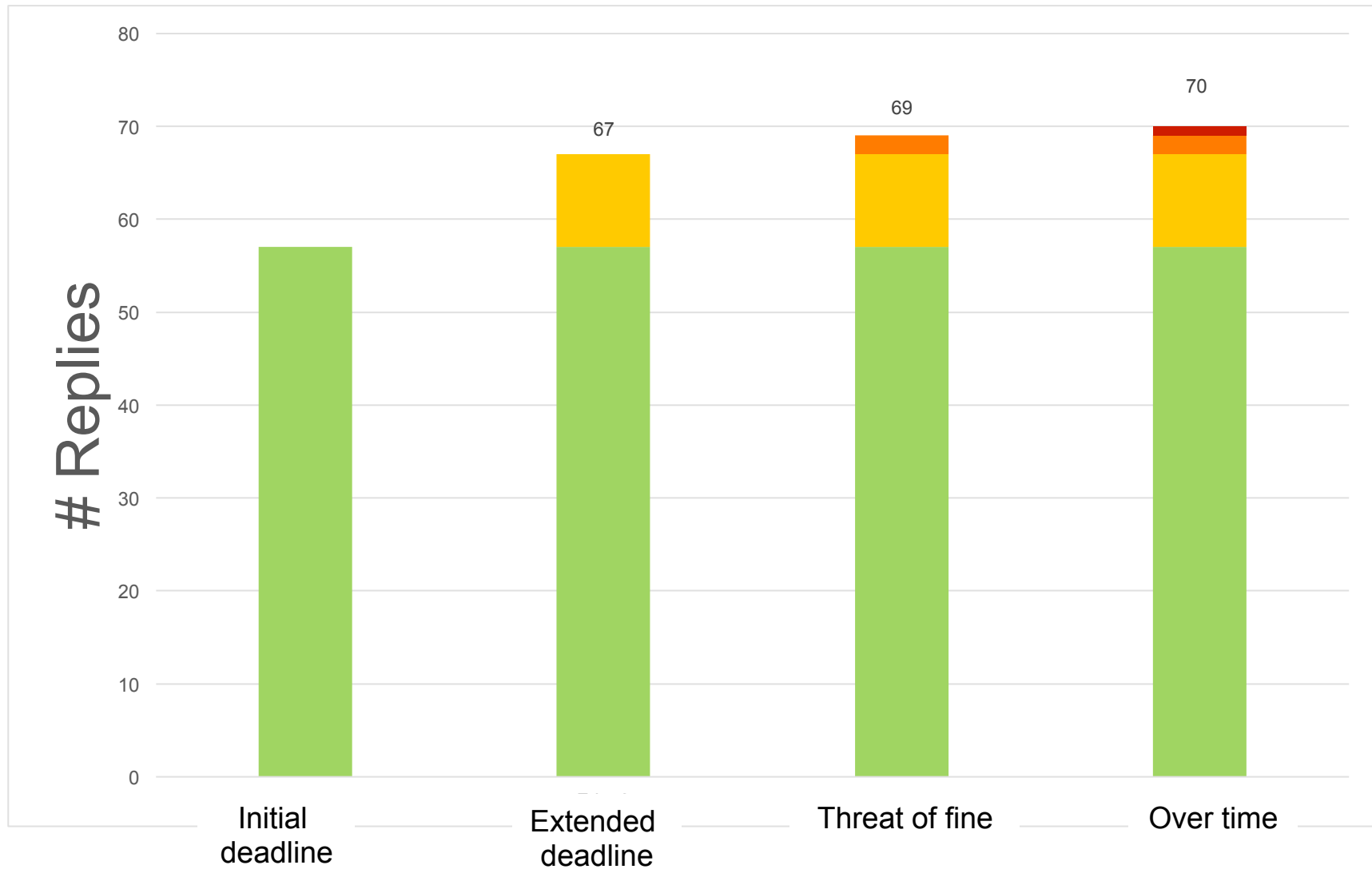


The Questionnaire

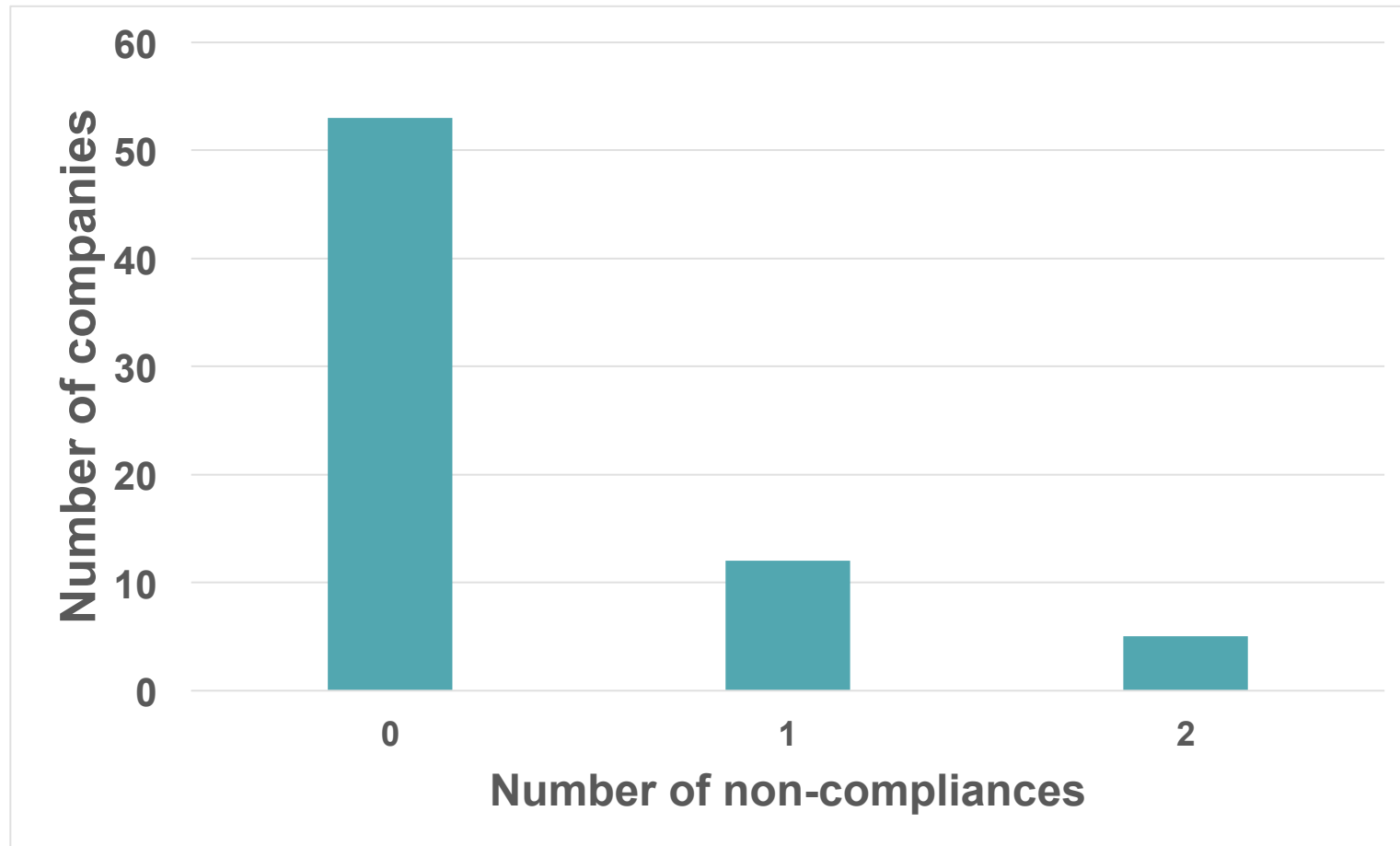
- **52 questions (mostly «multiple choices») within 8 topics**
 - I) -4? About- The company (lic.no, org.no, name, RPO..
 - II) 7? Competence issues (§ 15,16)
 - III) 5? Equipment and notifications (§12,20)
 - IV) 9? Safety and emergency procedures (§12,20)
 - V) 5? Closed installations (Guideline 3.4.2)
 - VI) 6? Open installations (Guideline 3.4.1)
 - VII) 7? Substitution – alternatives to I.R. (§22) - Survey of opinions
 - VIII) 3? Evaluation of this inspection regime -
(usefulness, time consumption, comments)



Collecting data

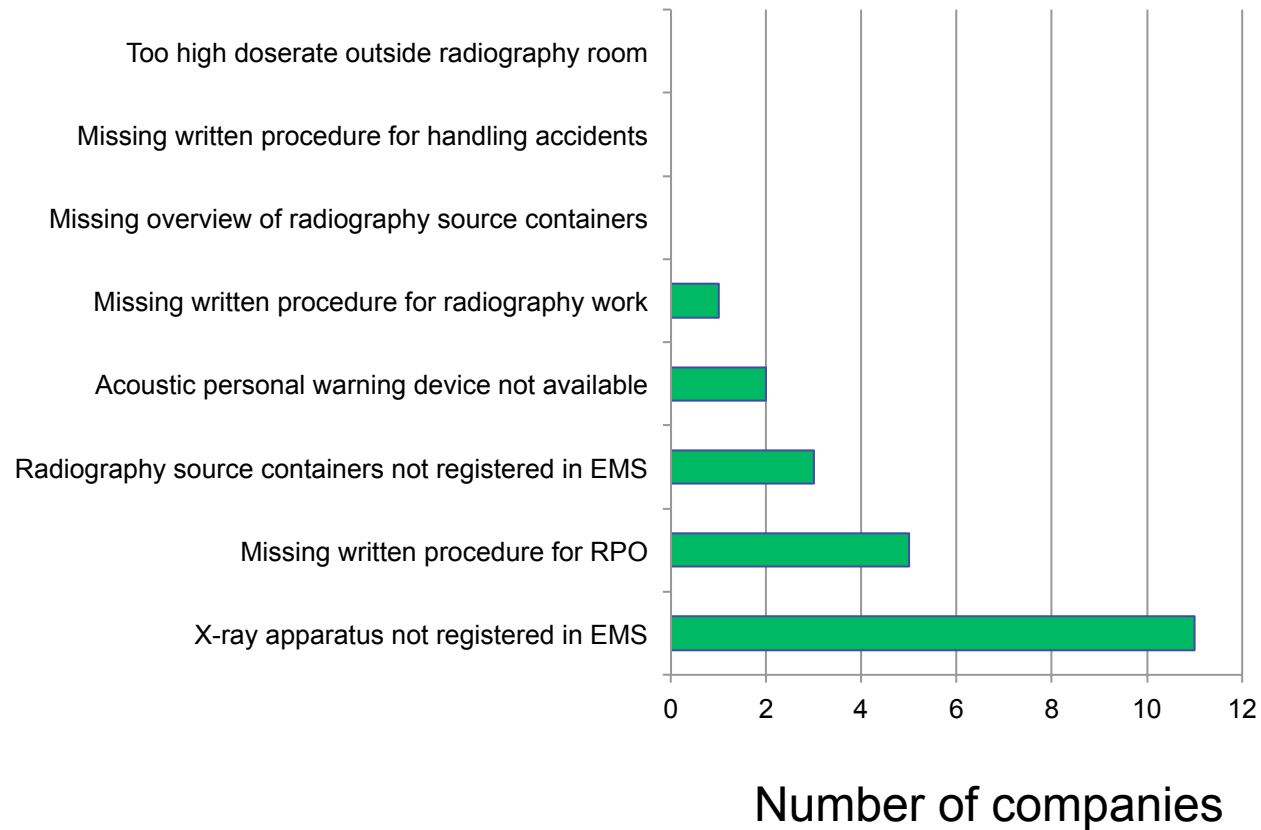


Non-compliances

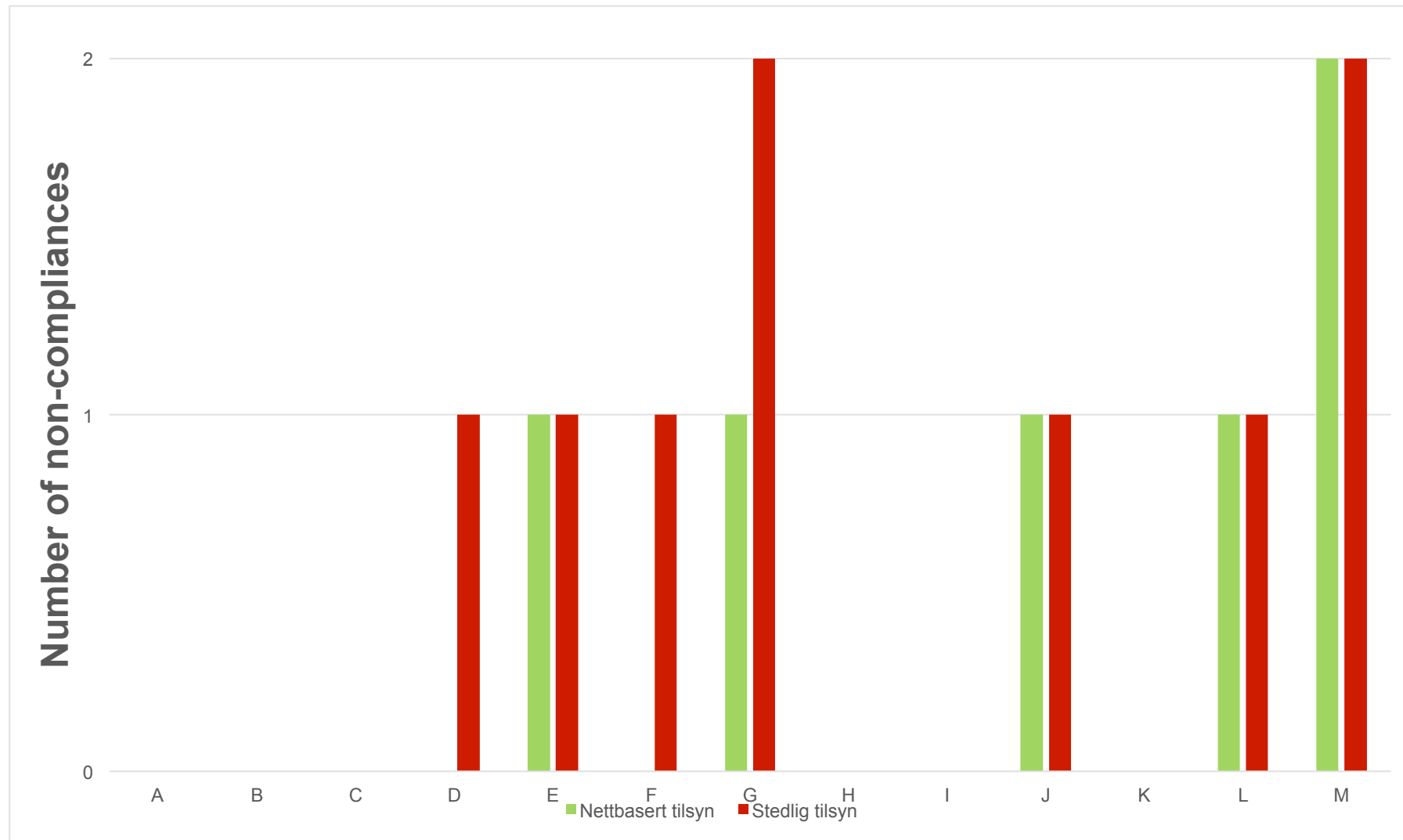


Distribution of non-compliances

Types of non-compliances



Web-based vs on-site inspections

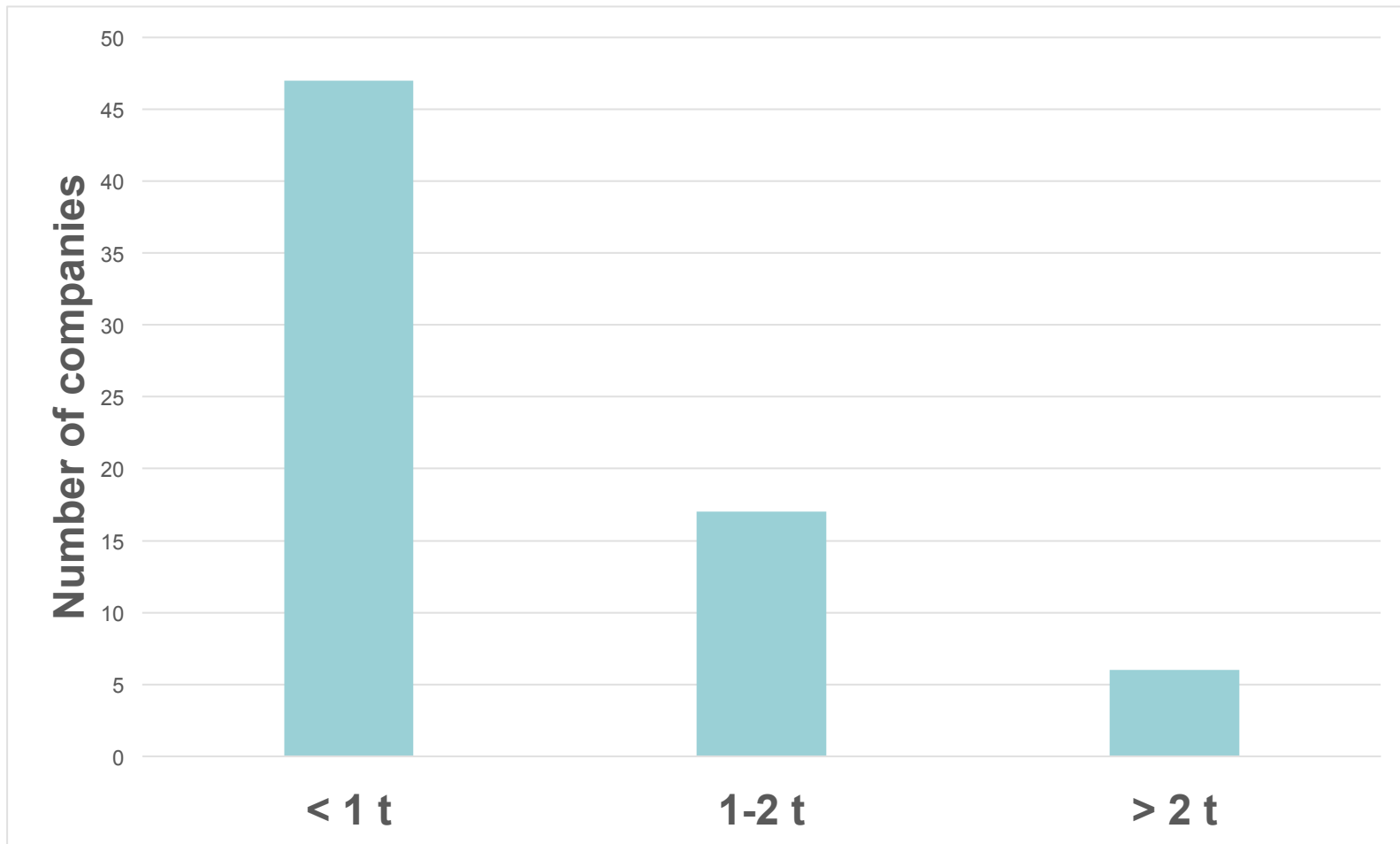


Web-based vs on-site inspections

- **Company D.**
In questionnaire, they confirmed having written procedures, thus in compliance. On-site these procedures were found sufficiently poor and outdated to warrant a non-compliance.
- **Company F.**
Said in questionnaire that they were using a closed facility for radiography. On-site inspection revealed that this facility did not fulfill all conditions of a closed facility, and a non-compliance was issued.
- **Company G.**
Gave a number of certified operators in questionnaire. Turned out on on-site inspection that one operator did not possess an accredited certificate in radiation protection.



Time consumption



Companies' evaluation

