Survey on needs for changes in the Finnish radiation legislation and on regulatory oversight: The perspectives of operators

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Introduction

This study surveyed needs for changes in the Finnish radiation legislation, and evaluated the regulatory oversight. The total renewal of the Finnish radiation legislation will be done simultaneously with the transposition of the Council Directive (2013/59/Euratom) into national legislation before 6th February, 2018.

Methods

The on-line survey was open in February and March 2015. Analysis of results was carried out in co-operation between STUK and Tampere University.

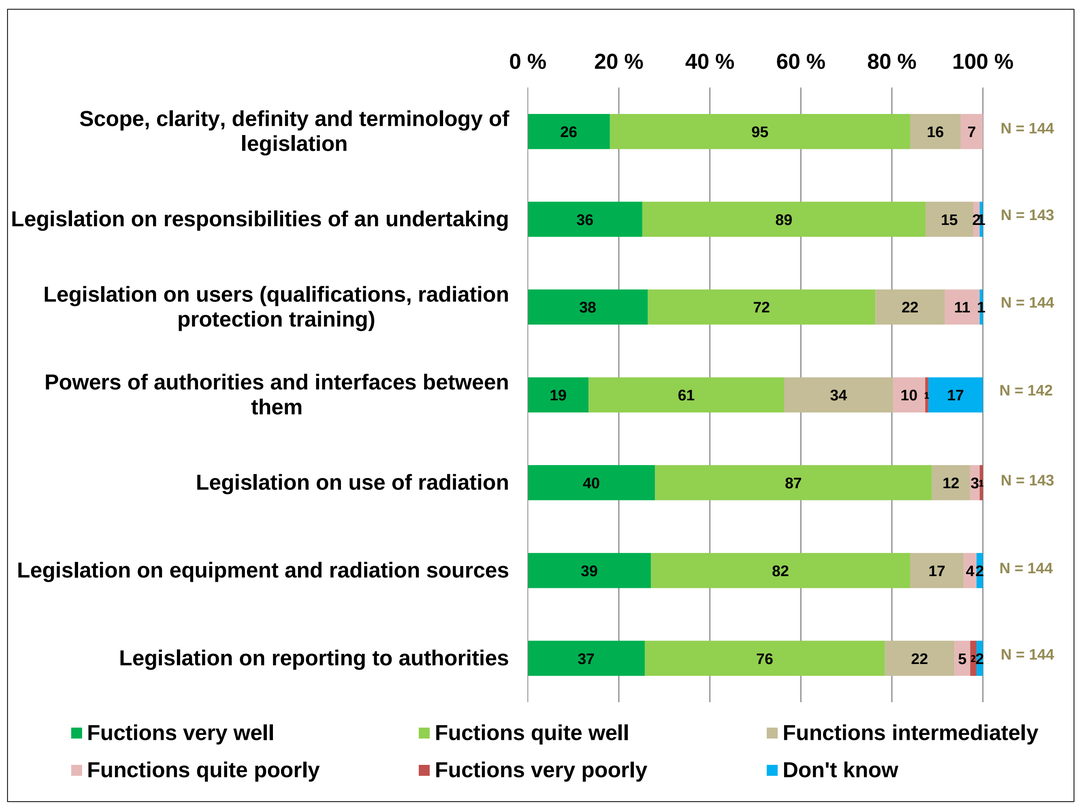

Figure 1. Functionality of the current legislation - a view of operators and other responsible parties in healthcare and industry.

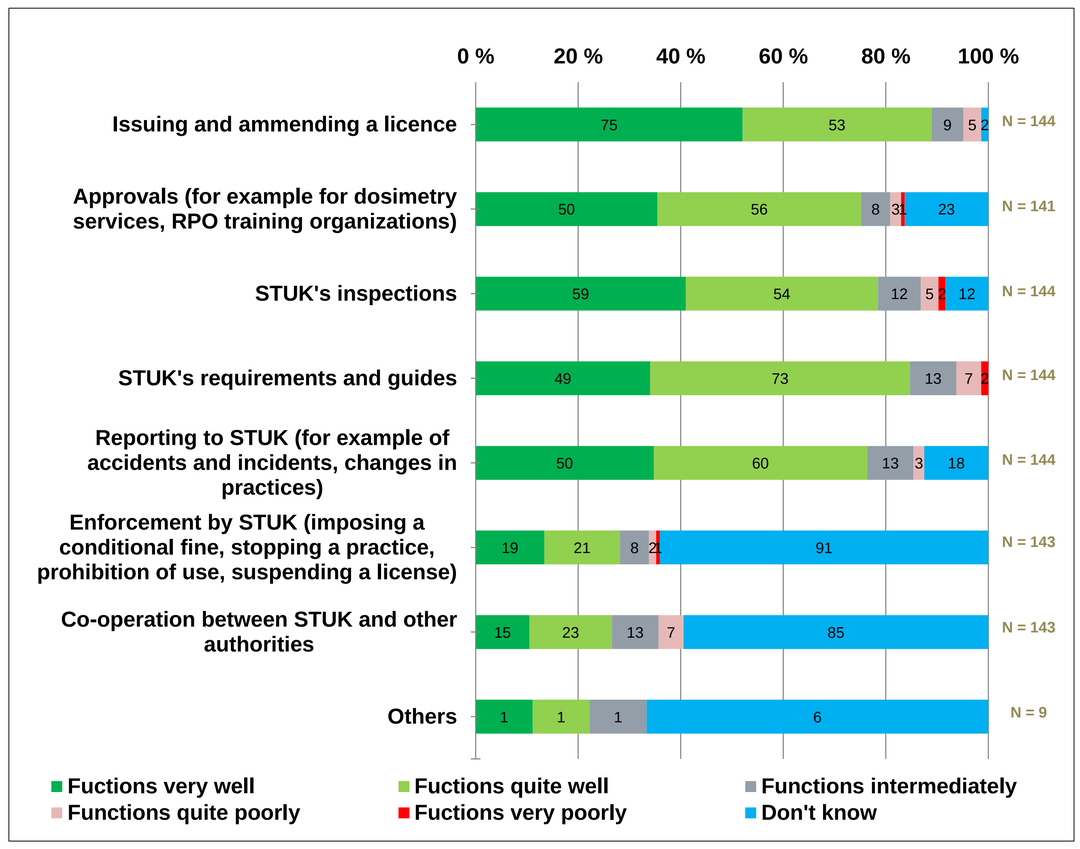

Figure 2. Functionality of STUK's procedures for regulatory control - a view of operators and other responsible parties in healthcare and industry.

Results

A total of 182 responses were received. The largest group of respondents (101) was from the field of healthcare, and the second largest (46) was from industry.

Most of the respondents were satisfied with the efficiency of Finland's current radiation legislation. Approximately one third of the respondents of the industry survey and one fourth of the respondents of the healthcare survey did not have an opinion whether changes to the current radiation legislation are required (Figure 1). Respondents in the fields of healthcare (65 %) and in industry

(67 %) were also happy with the efficiency of STUK's procedures for regulatory control (Figure 2).

Following results of the survey were found regarding both development of radiation legislation and STUK's regulatory control:

- The definition of an undertaking should be clarified.
- Qualifications of both radiation protection officers and experts should be regulated.
- There should be more co-operation between different authorities.
- STUK needs to simplify practical guidance on the radiation safety.
- Electronic systems for applying and issuing a license should be developed.
- Reporting systems of different authorities should be harmonized.
- STUK should use sanctions in case of sequential violations of regulations.

Qualification requirements of radiation protection officer (RPO) were considered too demanding in modest use of radiation.

In industry a new requirement in the Directive 2013/59/Euratom for having a radiation protection expert (RPE) was welcomed in isotope production and use of cyclotrons and unsealed sources.

Respondents in healthcare were dissatisfied with requirements on quantity of radiation protection training and expenses due to that. Moreover, minor changes of a license were considered too expensive. Requirements concerning the content and frequency of clinical audits should be reconsidered and implemented in a more risk based way and a relationship between clinical audits and inspections should be further clarified to avoid duplications.

For non-ionizing radiation there was a request to have more regulation on staff qualifications for magnetic resonance imaging and more training of radiation protection training in healthcare. Naming a responsible person was favoured by 73 % of respondents to improve control of non-ionizing radiation.

Conclusions

In Finland a system of having roles and responsibilities of RPO and RPE together may need a new approach of separating them at least in demanding fields of the use of radiation. Qualifications of RPO and RPE should be reconsidered.

Requirements of radiation protection training in healthcare have to be balanced taking into account the resources of hospitals and modern learning techniques. Moreover, requirements of training for staff of non-ionizing radiation have to be considered.

The suggestions to develop regulatory functions of STUK have to be analyzed carefully. In all areas it was emphasized that regulatory control should be better commensurate with the risk.

The results provide valuable feedback from users of radiation and other professionals for the radiation legislation renewal in Finland. Results have been utilized already in preparation of the new legislation.