



Adaptation and outlook of the Swedish implementation of the Euratom directive

GARRM – Prague 18th September 2018

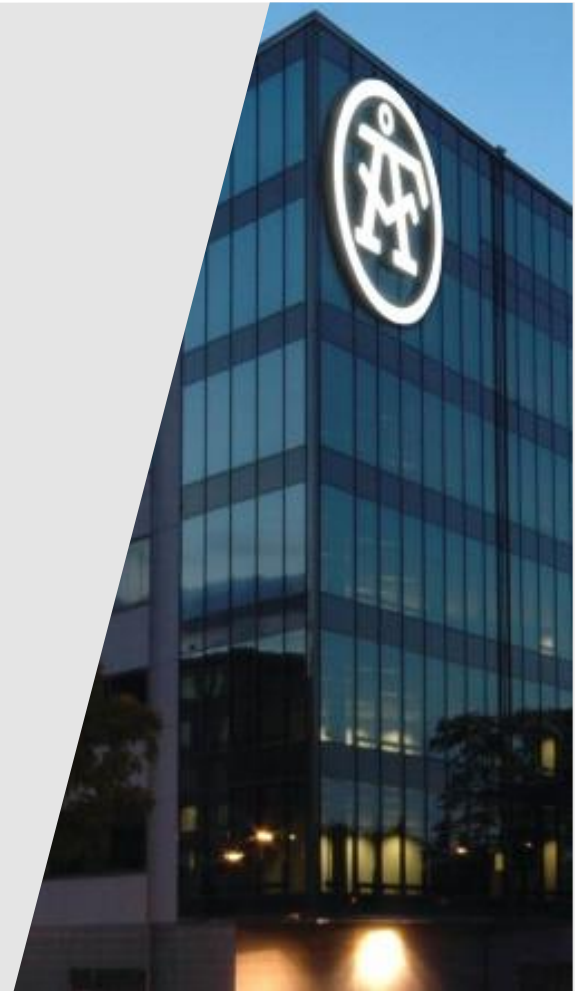


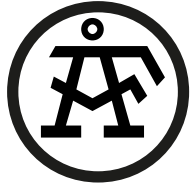
ÅF Group

Making Future.

Highlights

Headquarter:	Solna/Stockholm - Sweden
Employees:	10 000
Number of ÅF offices:	over 100 on four continents Europe - Asia - South America and Africa
Customers:	over 28 000
Turnover:	1 200 Million Euros





Status



Radon market - Sweden

- Since decades - a functional commercial market
- Around thirty radon mitigation companies
 - Predominately focusing on single family houses and housing associations
- Handful consultants
 - Radon assessments at workplaces and public buildings
- Two of Europe's biggest radon testing laboratories
 - Since 2006 Sweden has been one of the most active countries to monitor radon indoors
 - Huge market for radon testing
 - Entering new markets with down going trends in Sweden.



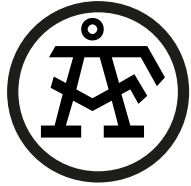


Authorities

- High focus on radon testing during 2005-2008
 - Single family houses
 - Campaign and national goals for lowering radon levels at schools and pre-schools.
- Less commitment from national and regional authorities
 - Many involved but no clear leadership
- Withdrawn “radon mitigation grant” - 2016
 - Half the cost financed by the state, up to 1500 Euro.
 - Logical decision in the parliament - since the grant wasn't used
- Alarming reports from Swedish Radon Association
 - More houses with elevated radon levels built than mitigated.
 - Only 25 % of local authorities fulfilled the supervisory responsibility, stated by the law.



Directive 2013 / 59 / Euratom



Adaption to national legislation

- Covers all types of radiation situations
- Major work for legislators and authorities
- First time radon handled in directive and therefore “upgraded” in importance in national legislation.
- Article 103: Member States shall establish a **national action plan** addressing long-term risks from radon exposures...
- The action plan shall take into account the issues set out in Annex XVIII and be updated on a regular basis.



Implementation work

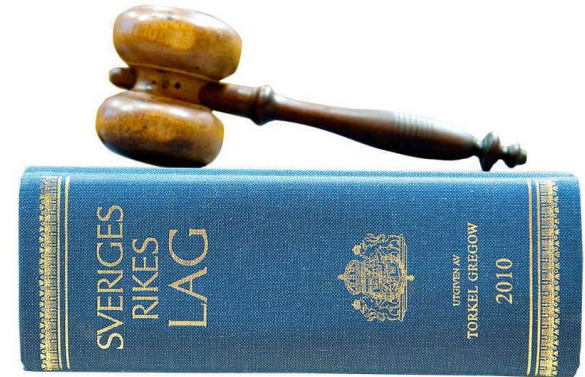
- Initiated by Swedish Government
- Stakeholders invited in work (radon)
 - Authorities working with radon
 - Swedish Radon Association
 - Companies/experts in the field
 - Companies being affected by the new legislation
- Proposition sent to Parliament – past as new radiation safety legislation





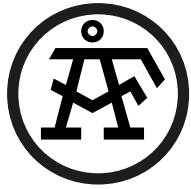
New law and regulations

- New law came into force 1st June 2018
- Covers:
 - Workplaces
 - Building codes
 - Exposure to the public
 - Responsibility
 - Employer
 - Building owners
 - Municipalities
- Same action levels as before





National Action Plan



Authorities involved



Strål
säkerhets
myndigheten

Swedish Radiation Safety Authority



Folkhälsomyndigheten



Boverket



Livsmedelsverket

SGU

Sveriges geologiska undersökning



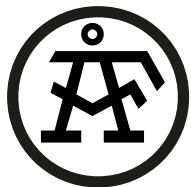
ARBETSMILJÖ
VERKET

SWEDAC 



Authorities involved

- Swedish Radiation Safety Authority
- Public Health Agency
- National Board of Housing, Building and Planning
- National Food Agency
- Geological Survey of Sweden
- Swedish Work Environment Authority
- Sweden's national accreditation body



National Action Plan

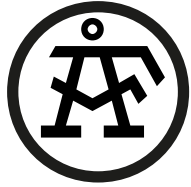
- Organization
- Communication Strategy
- Radon testing
- Corrective Actions
- New Buildings and preventive measures
- Radon at Workplaces
- Radon in drinking water





National Action Plan

- Every chapter summarized in actions and suggestions.
- Some consider be of greater importance.
 - Organize work between authorities under SSM lead
 - Encourage radon testing through campaigns.
 - Coordinate information on radon and risks
 - Set the goal that all buildings should have radon levels less than 200 Bq/m³
 - Survey Workplaces with increased risk of radon, supervise and monitor.
 - Local state authority to follow up municipalities work.
 - Follow up corrective actions for radon – efficiency
 - Provide a Radon Risk map of Sweden – Geological and indoor test results.
 - Database of radon test results from private wells
 - Cooperate with authorities in the Nordic countries and other international context



Any changes so far ?

- Information strategy coordinated within the different authorities.
- 1st July - Radon Mitigation Grant back – Half the cost maximum 2500 Euro
- Mandatory Notification for Workplaces with elevated radon levels.
- Approaches of “special” workplaces – mines, tunnel workers etc.
- Radon in Radiation Safety Law – Much more powerful than prior situation



Other Stakeholders

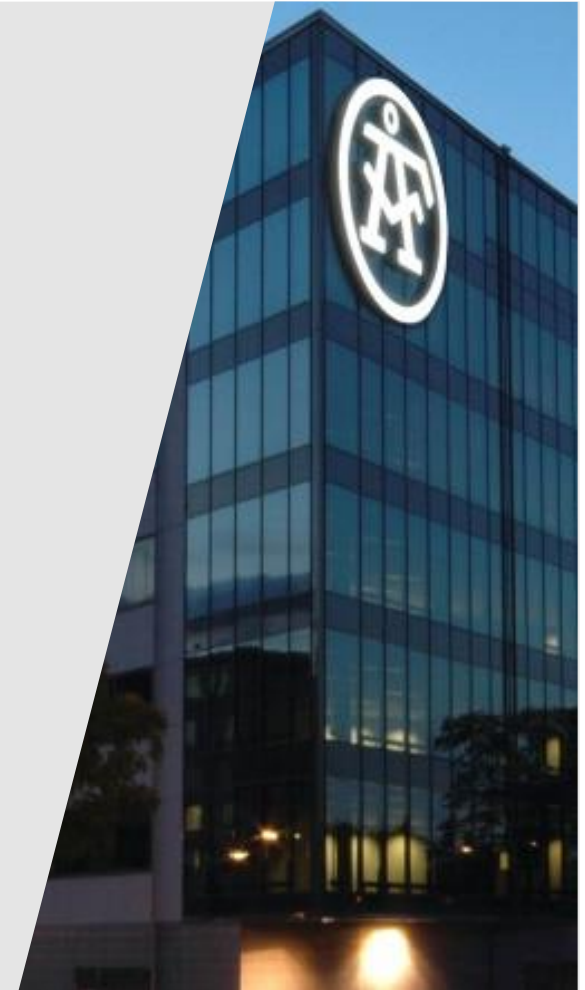
- Real impact of NAP is gained in cooperation with the radon professional community.
 - Effective testing protocols
 - Information campaigns
 - Increased performance in corrective actions
 - Radon Associations and Expert Networks plays an important role
- New markets – other competences required
 - With new NAP and legislation radon is more interesting for new types of companies
 - Work environment- IAQ
 - Experts in building codes quality systems
 - Need for higher competence and expertise
 - Place for bigger companies that can be qualified for larger projects with higher risk.



ÅF Group

Trusted Radon Experts

- All phases of new buildings
 - Geological Surveys
 - Architecture and building engineering
 - Designing protective measures
 - Environmental Standards – Breeam, Eco-label and **Well**
 - Control plans – Project management
- Assessing risks in existing buildings
 - Assessing risks for inhabitants at workplaces and in public buildings.
 - Calculate the economical risk for investors in the property market – Due Diligence



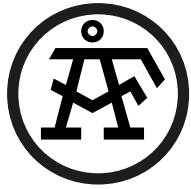


ÅF Group

Trusted Radon Experts

- Synergies of competence
 - ÅF – Nuclear and ÅF -Facilia
 - Environmental risk assessment experts
 - Radiation Protection Advisers
 - Experience from Nuclear industry and NORM

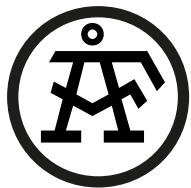




Summary

- Clear and ambitious Radon Action Plan
- Committed Authorities and clear leadership
- Actions has to be financed – Need for all stakeholders to keep the importance up
- Encourage and stimulate the cooperation with industry so that goals in RAP are meet with required effect





Thank you for Your attention



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Nyní je čas na kávu - time for coffee