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S. Ahvenainen 11.6.2013

OUR MISSION





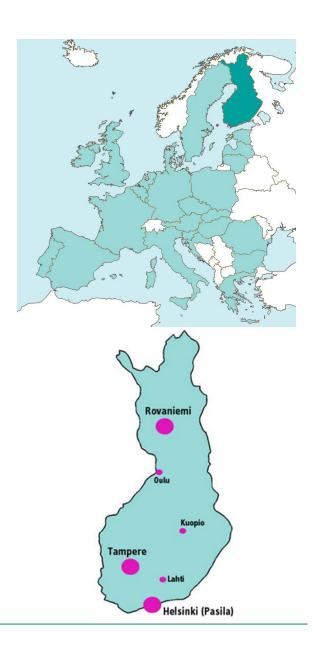


 We supervise products, services and production systems in our branches, and enforce the relevant legislation.



WHAT IS TUKES?

- National surveillance authority
- Multi-sector authority: Tukes operates subject to the Ministry of Employment and the Economy and has 5 other steering ministries in their respective branches. Tukes oversees dozens of regulatory sectors.
 - => "One-stop shopping" service idea
- Roles:
 - > Surveillance
 - > Communications
 - > R & D
- **Staff** 230





TUKES OPERATION CHART

Customers Tukes	PRODUCT MARKETS	SERVICE MARKETS	IN-SERVICE OPERATIONS		
PRODUCTS	Electrical equipment and electronics Pressure equipment, chemical tanks and transportation Containers for dangerous goods Rescue service equipment, Construction products Articles of precious metals, Measuring instruments Fireworks and explosives, Gas appliances Chemicals, biocides, plant protection products Consumer products				
INSTALLATIONS AND SERVICES	Electrical equipment and lifts Rescue service installations Pressure equipment and pressurised systems Gas, oil and refrigeration installations Inspection, testing and installation services Consumer services				
INDUSTRIAL PLANTS		Pressurised systems Chemical plants and explosives factories Storages for chemicals and explosives Mining, gold panning and ore prospecting			



Smart Regulation – General aspects



WHAT IS SMART REGULATION?

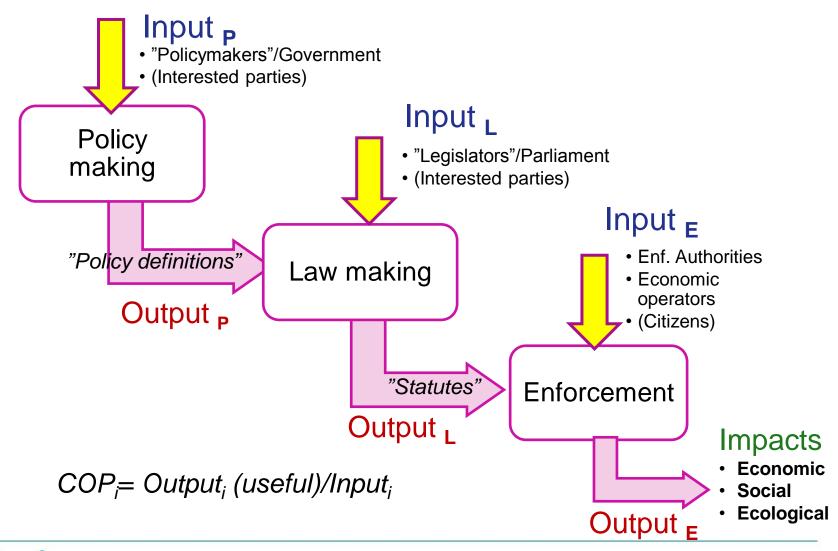
No exact/standardized definition of SR

Process approach: Maximization of <u>useful</u> regulatory output/regulatory input ("Regulatory coefficient of performance")

- EU aspects (CION Communication on Smart Regulation 2010 et.al.)
 - smart EU regulation will support growth, maximise social and environmental benefits, while reducing burdens and costs.
 - "limit the regulatory burden to what is strictly necessary"
 - "quality throughout the policy cycle: from design and law making to implementation, enforcement, evaluation and revision
 - "efficiency and effectiveness of legislation"
- National/Member State aspects
 - "...both Community level and <u>national</u> level issue..."
 - No difference in basic prinples and practices
 - Few statutes or enforcement practices that 'favour' the SMEs!



Regulatory process - "from policy to practice"



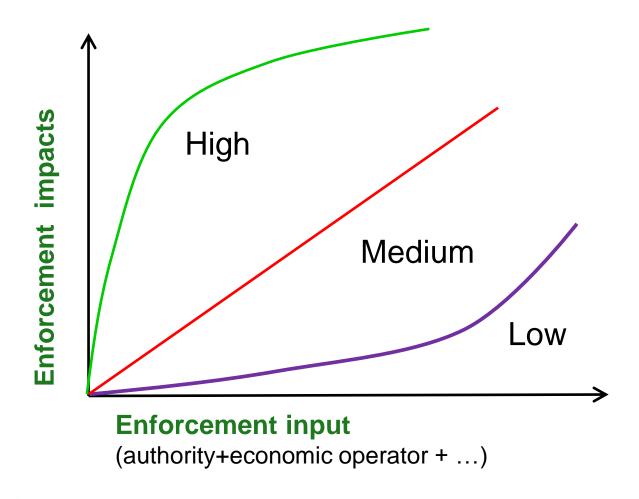


SMART REGULATION ASPECTS AT ENFORCEMENT STAGE

- Enforcement (incl. Implementation, supervision/surveillance) stage is critical as for gaining the targeted effects of regulation.
- Enforcement input should maximize the useful enforcement effects
- Identifying the link between enforcement output and societal impacts is important => a need for relevant impact <u>indicators</u>
- Enforcement input is a sum of authority enforcement, 'selfenforcement' by economic operators. The citizens/end customers have a role to play, too.
- Keys for high COP_E and high effectiveness:
 - => an active 'self-enforcement'
 - ⇒ Risk based authority input (supervision, information/advice, R&D)
 - ⇒ Co-regulation/standardization



Enforcement performance (schematic)



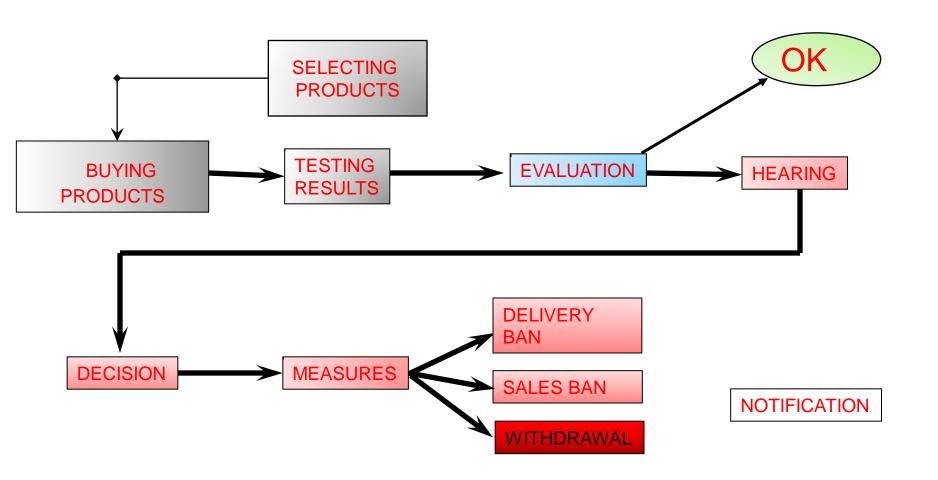


FI examples of Smart Regulation from enforcement point of view

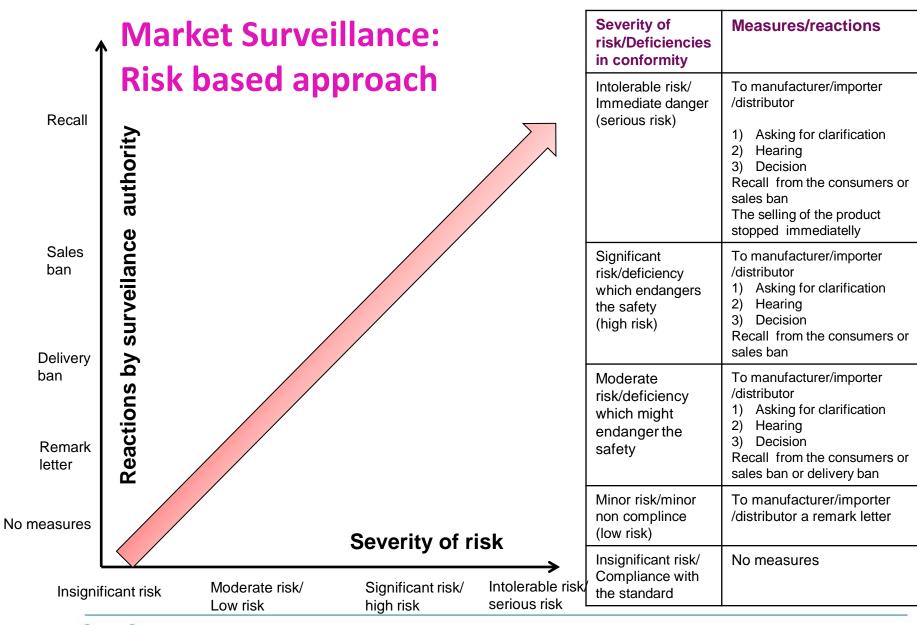
- Risk based market surveillance
- Risk based plant surveillance
- Impact indicators (safety&reliability)



Market surveillance procedure







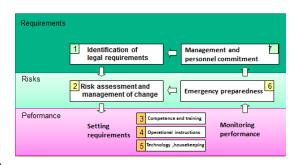


Supervision of the industrial handling and the storage of dangerous chemicals

- The aim is to ensure that licensee takes precautions in advance to in order to prevent explosions, fires, releases of chemicals, operational errors, equipment failures or any other hazardous chemical related accidents, and to limit their effects and consequences
- The supervision based on EU <u>Seveso II</u> Directive (96/82/EC) and Finnish requirements concerning safe handling of hazardous chemicals



Tukes's inspection model



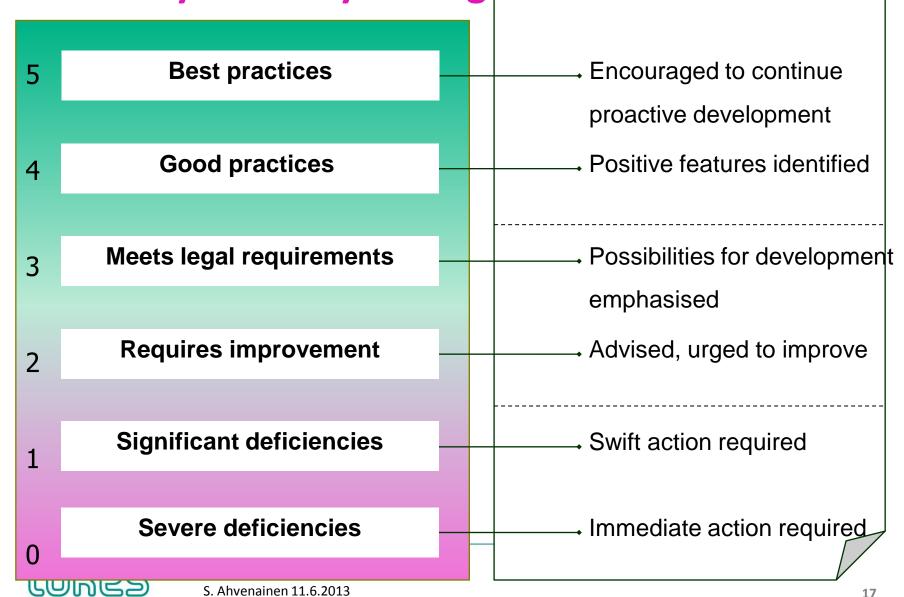
- 1) Awareness of regulatory requirements
- 2) Management and personnel commitment
- 3) Risk assessment and decision-making
- 4) Technical implementation and functionality
- 5) Instructions for and assessment of operations
- 6) Competence and training
- 7) Managing emergencies and deviations

Grades: 0 (severe deficiencies) – 5 (best practices)

-> total grade



Inspection findings are classified to measure functionality of safety management system



The inspection model has been used in a comparative study between some EU countries

(Kotisalo et al., 2010)

- Tukes carried out a comparative study within the EU
- Is the level of process safety in Finnish industry average in

comparison with EU countries in general?

- Is the level of process safety within the same company better in some other EU countries than in Finland?





Comparative study: Process safety level of two multinational companies that locate in different EU countries

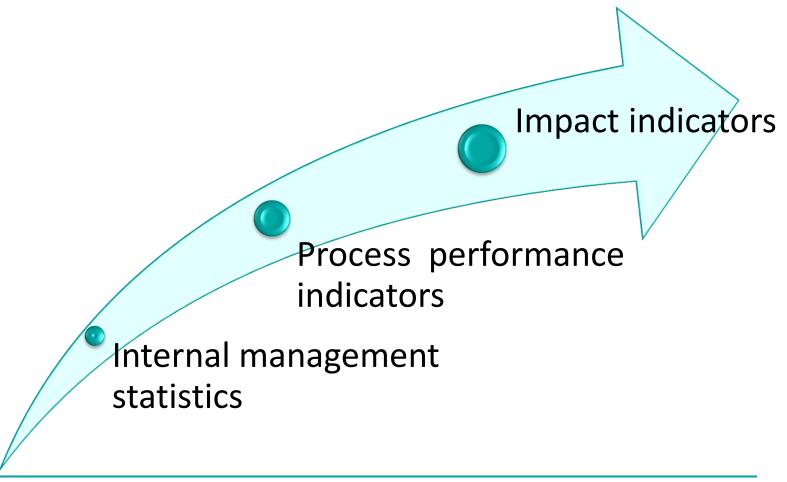
Company A	Finland	The Netherlands	Germany
Recognition of the demands of legislation	3.5	3	4.25
Management and personnel commitment	3.5	4.25	3
Risk assessment and management of change	3.5	4.5	3.5
Technical requirements and condition of the equipment	3.5	4	3.5
Operating instructions	3.5	4.25	4
Competence and training	3.5	4.25	3.5
Emergency preparedness	3.0	4.25	3.5

Company B	Finland	Belgium	France
Recognition of the demands of legislation	4	3,5	4
Management and personnel commitment	3.5	3.5	3,5
Risk assessment and management of change	4	3.5	3.5
Technical requirements and condition of the equipment	3.5	3	3
Operating instructions	4	3	3
Competence and training	3	3	3
Emergency preparedness	4	3	3

(Kotisalo et al., 2010)



Indicators for internal performance and impacts (safety and realiability)





"Effectiveness" goals of Tukes (2012-2016)

"The level of safety and reliability in the society improves"

- 1. The number of <u>accidents</u> decreases
- 2. The level of safety-related <u>practices</u> of businesses and citizens improves
- 3. The <u>technical safety and reliability</u> of products, installations and industrial plants improve



Examples of current impact indicators

- Number of deaths in Tukes' surveillance areas
- Number of serous chemical accidents (related to Seveso-directive)
- Number of accidents in process industry
- Number of fires in which the cause is related to electricity
- Number of deaths caused by fires started from electrical appliances
- Number of seriously inadequate electrical appliances in the market
- Proportion of industrial plants with inadequate safety level



Thank you!

