

Integration industrial accidents safety into land-use planning through SEA

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Overview

- ▶ **Flanders safety authority**
- ▶ **Legal aspects**
 - SEA in Flanders
 - SEA and IAC in Flanders
 - IAC in Belgium/ Flanders
- ▶ **Safety assessment in LUP**
 - Risk criteria
 - Decision criteria for LUP
 - Areas of special attention
 - Spatial safety report

About Flanders safety authority

- ▶ **Department of Environment, Nature and Energy**
 - ▶ Environmental, Nature and Energy Policy Division
 - ▶ **Safety Reporting Service**
 - ▶ Flemish Region
 - ▶ Belgium
- ▶ **Tasks**
 - Preparation of Flemish policy of external safety
 - Implementation of Flemish regulations of external safety
 - × Coordination about safety reports
 - × Assessment of safety reports
 - × Advises on external safety in land-use planning
 - ...

Legal aspects of SEA in Flanders

- ▶ **Flemish Decree**
- ▶ **Authorities for LUP**
 - Regional urban planning
 - Provinces
 - Municipalities
- ▶ **Screening : “Seveso-test” is included**
 - Industrial activity in LUP?
 - Presence of Seveso companies within perimeter of 2 km around LUP?
 - If yes → consultation of Safety Reporting Service
- ▶ **Scoping**
 - Strategic environmental assessment
 - Seveso-test → consultation of Safety Reporting Service

Legal aspects of SEA in Flanders

▶ Environmental report

- References are made to safety report(s)
 - × spatial safety report
 - × safety report of Seveso companies
- Relevant conclusions of safety report(s) are included

▶ Public participation

- For each LUP public information and participation

▶ Consultation

- Environmental and safety authorities are consulted for each LUP
- Other authorities depending on the nature of the LUP

Legal aspects of SEA and IAC in Flanders

► Transboundary consultation

- In case of environmental and/ or safety effects
- During the SEA procedure and the planning process (in an early stage)
 - × Information neighbouring state about planning process, including spatial safety
- In the formal procedural steps e.g. formal meetings, public consultation, ...
 - × Participation of neighbouring state

Legal aspects of IAC in Belgium/ Flanders

- ▶ Agreement of cooperation between federal and regional authorities on the control of major accidents involving dangerous substances

- Transposition of Seveso Directive

- Including transboundary effects

- ▶ **Flemish Decree of General Regulations of Environment**

- Safety report of upper tier Seveso companies

- Spatial safety report for some cases of LUP

- ▶ **Flemish Decree of Permits**

- Safety report of upper tier Seveso companies

- Decision by Province

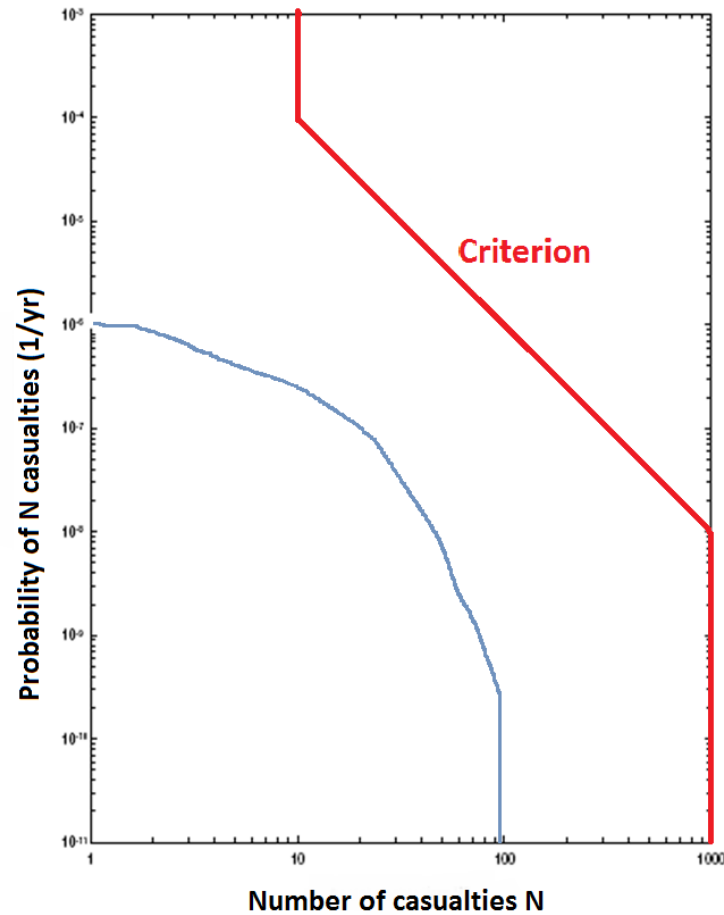
Safety assessment into LUP

- ▶ Risk based approach: use of risk criteria for external safety
- ▶ Use of decision criteria for advise about external safety
- ▶ Taking into account of areas of special attention
- ▶ In some cases a spatial safety report is needed

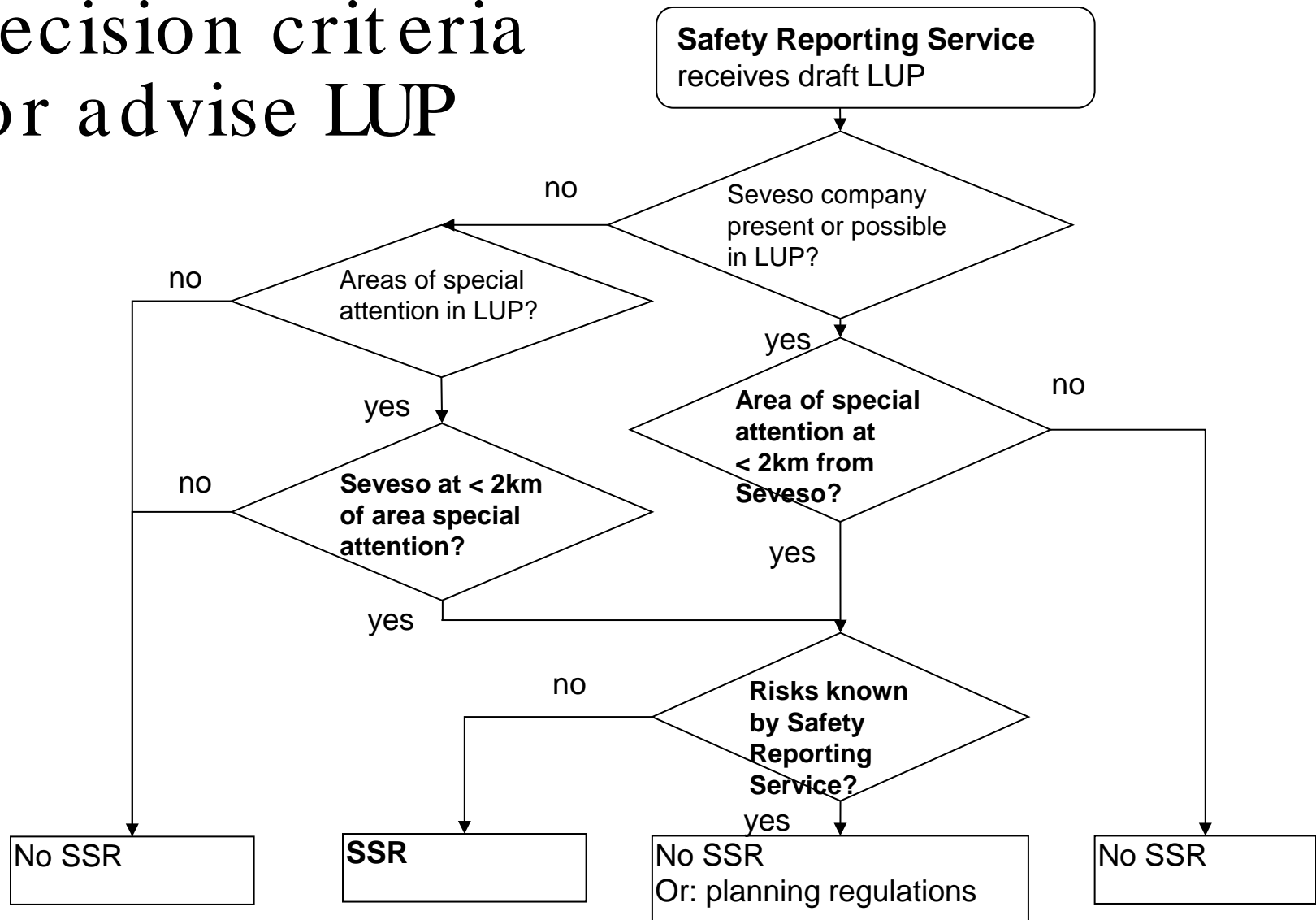
Risk criteria – Iso Risk Contour (IRC)

Risk criteria	IRC
Border of the establishment	$10^{-5}/y$
Border of residential area	$10^{-6}/y$
Border of area containing vulnerable location (schools, hospitals, retirement homes)	$10^{-7}/y$

Risk criteria – Societal risk (SR)



Decision criteria for advise LUP



SSR = Spatial Safety Report

Risks = IRC and SR

Areas of special attention

- **Residential areas** (IRC 10^{-6} / y and SR)
 - Residential zoning
 - Group of at least 5 dwellings in non-residential zoning
- **Areas with a vulnerable location** (IRC 10^{-7} / y and SR)
 - Schools (< 18 years)
 - Hospitals
 - Retirement homes
- Buildings and areas of **public use**, recreational areas (SR)
- Major transport routes (domino effect)
- External sources of danger (domino effect)
- Areas of particular natural sensitivity or interest (effect)

Spatial safety report

- ▶ LUP with new industrial park for new Seveso companies
 - × Risk zoning of industrial park taken into account the amount and categorie of dangerous substances
 - × Safety zoning for residential area and for area with a vulnerable location

- ▶ LUP with new area of special attention nearby existing Seveso companies
 - × Safety zoning for residential area and for area with a vulnerable location
 - × Safety measures of the nearby Seveso companies

Spatial safety report

Experiences in Flanders during period of 10 years

► Positive

- Good cooperation of LUP and safety authorities
- SSR very valuable for LUP covering a big area for new Seveso companies
- SSR excellent for LUP with area of special attention nearby many Seveso companies

► To improve

- Follow up of LUP and SSR
- Communication with real estate developers

► One very special case

- Expropriation of about 15 houses nearby Seveso company

Q & A

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