



Bundesministerium
für Verkehr und
digitale Infrastruktur

Improving the Efficiency and Effectiveness of the Organization of Security in Transport Sector

A National Perspective from Germany

Inland Transport Security Discussion Forum „Securing Global Transport
Chains“

17 June 2016 / Palais des Nations, Geneva



Structure of Presentation

- Introduction
- Tasks of My Division
- Transport Security and CIP Activities in Germany
- Questions / Discussion



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the Federal Ministry of Transport and Digital
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National Expert on (Land) Transport Security

Member of the International Working Group on Land
Transport Security



The Crisis Management Taskforce

Civil Emergency Preparedness / Civil Defence in Germany

- Policy issues and coordination in the transport sector

Crisis Management

- Operation of the situation centers in Berlin and Bonn
- On-call duty, reporting systems and situation assessment
- Participation in the interdepartmental emergency staff

Security

- Policy issues and intermodal coordination
- Protection of critical infrastructures in the transport and building sectors
- Cooperation with international organizations



Transport Security Framework Conditions

- High dynamism and complexity of a globalized world
- Network-based global value chains
- Increasing vulnerability of open societies
- Transport sector essential for provision of goods and raw materials
- High interconnection with almost every other business sector
- High job creation impact across the whole economy
- Transport grows at a disproportionate rate compared with GDP



Transport Security

“The prosperity of our countries and citizens will continue to depend largely on the unhindered use of global information, communication, supply, transport and trade lines.”



Risks for the transport sector

- Sabotage, terrorism, piracy, crime
- Human and technical failure
- Failure of other infrastructure areas
- Natural disasters, accidents, wrecks, pandemics, etc.





Results up to now

Security is not a new issue anymore.

High security level, among other things as a result of

- EU directives and regulations (esp. ports/airports)
- Customs law
- Dangerous goods law
- Standardization, standards
- Technology
- Civil emergency preparedness
- KRITIS guidelines
- IT-SiG





Strategic specifications

Freight Transport and Logistics Action Plan and National Strategy for the Protection of Critical Infrastructures

General principles and objectives:

- Trustful cooperation between the public and private sector
- “connected security”
- Voluntary measures preferred over statutory rules
- Recognize risks and avoid disruptions, if possible
- Keep consequences of disruptions or failures to a minimum



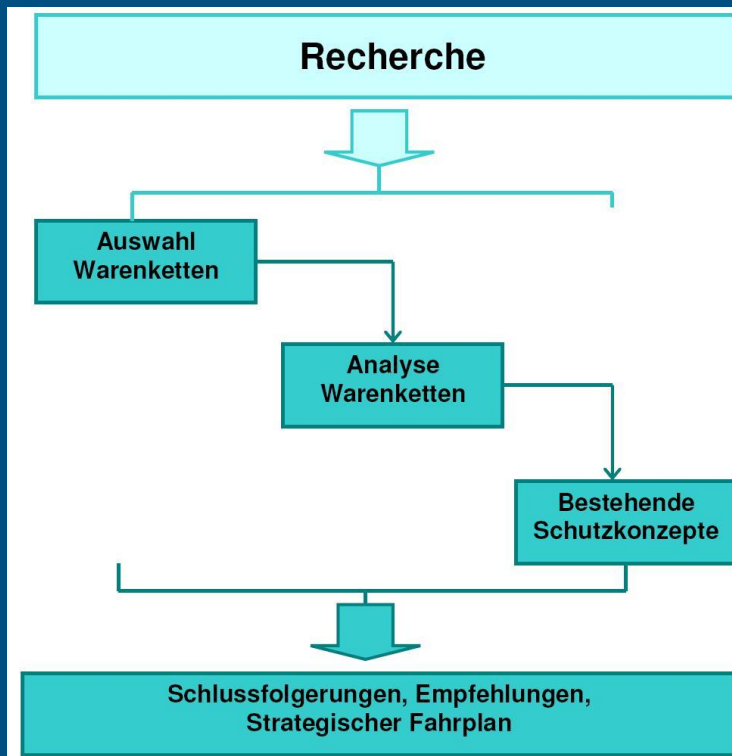
Instruments

Risk-based approach

- Precedence of risk analyses
- Definition of protection targets and “residual risks”
- Connection to crisis management

Cooperative approach

- Working group on Logistics Security
- Associations + ministries/authorities
- Dovetailing with civil security research



- Criticality analysis
- Vulnerability analysis
- Risk analysis
- Derivation of protection targets



- Development of implementation measures, organizational models, options for action etc.
- Identification of further research needs

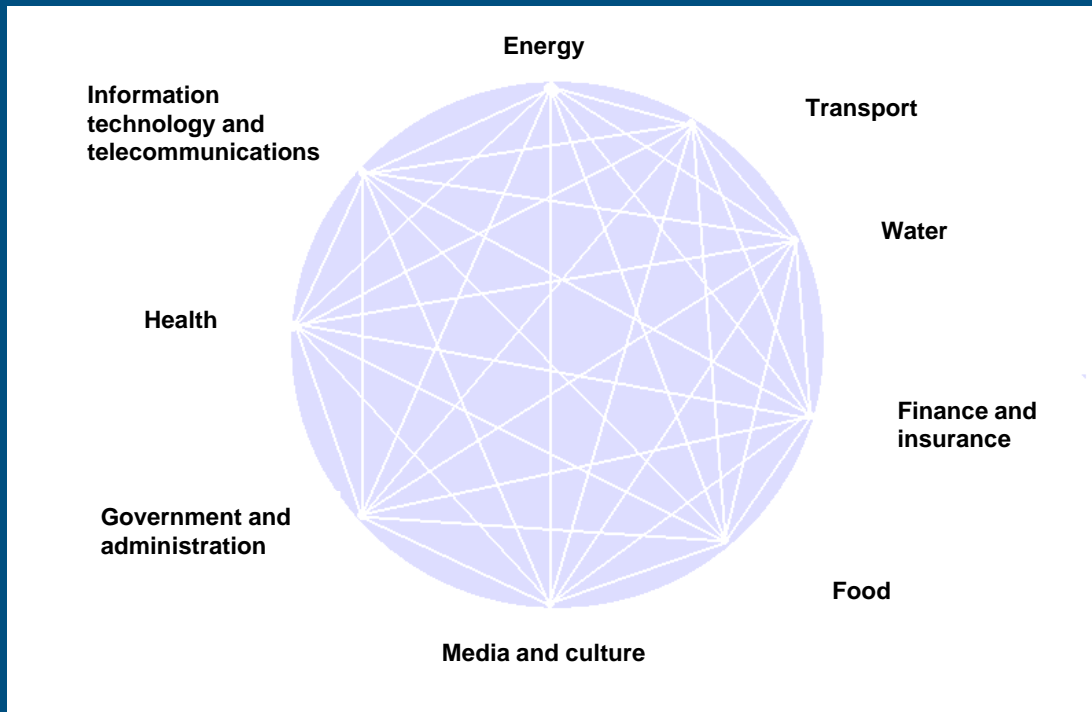


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The security strategy of the Federal Ministry of Transport and Digital Infrastructure



Sectors and industries with critical infrastructures





Sector and industry classification in the field of transport

- Aviation
- Maritime shipping
- Inland navigation
- Rail transport
- Road transport
- Logistics

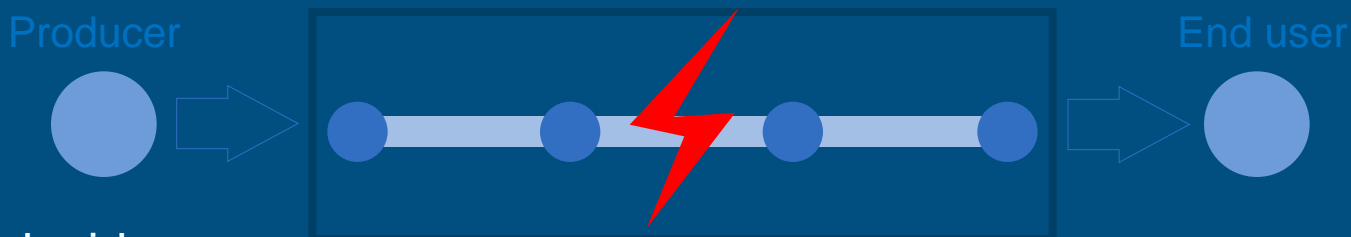




A study as a basis

1. Overarching question: What can the public and the private sectors do to make transport and logistics more secure (= reliable) against harmful external effects?
2. Conduct sectoral criticality, vulnerability and risk analyses
3. Provide information and argumentation aids for the Federal Ministry of Transport and Digital Infrastructure and facilitate the development of an intermodal security strategy (→strategic alignment)

Perspective on the logistics chain/supply chain





Identification of strategically important supply chain clusters

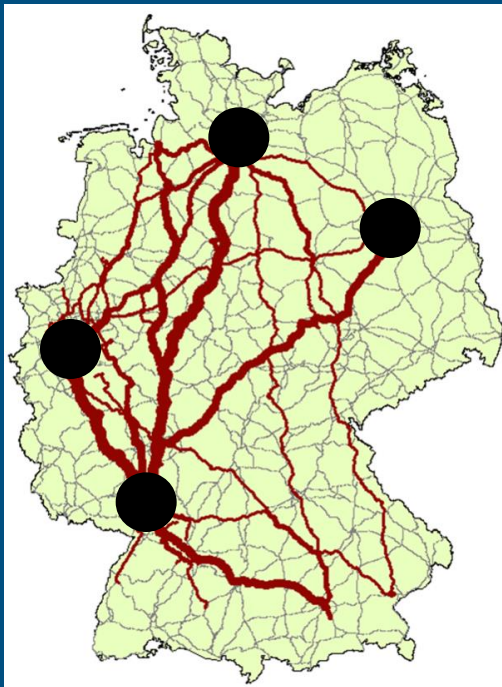
12 critical clusters were identified

- To derive the relevance of the supply chains, the following aspects were considered:
 - **Body politic**
Requirements of the population, expenditure on consumption of the Federal Government
 - **Internal security**
Defence, security, fire protection requirements
 - **Key industries**
Requirements of the identified key industries (automotive, machinery, chemical industry)



12 critical clusters

1. **Chemical products and basic chemicals**
2. **Electric motors, generators, batteries**
3. **Electronics**
4. **Energy**
5. **Automotive industry**
6. **Foodstuffs**
7. **Machinery**
8. **Pharmaceutical products**
9. **Other vehicles (rail, vessel, aviation)**
10. **Special instruments**
11. **Steel and pipework**
12. **Arms and ammunition**



The analysis of traffic flows based on statistical data

- ... shows 89 transport interrelations (traffic flows) which were identified as potentially critical **at international level**.
- In the course of the flows of goods, approx. 110 logistics components were identified as potentially critical **at international level**.
- They include well-known logistics components such as
 - international seaports and maritime waterways,
 - a national inland waterway.
- But also less well-known components, such as
 - marshalling yards,
 - freight villages,
 - ...



Identification of critical infrastructures



Maritime transport

- In Germany, the most important gateway in maritime transport is the *port of Hamburg*.
- All the 12 supply chain clusters use this port in the course of the flow of goods.



Air cargo

- The *airports in Frankfurt, Cologne/Bonn and Leipzig* together account for more than 85% of air freight imports and exports in Germany.



Identification of critical infrastructures



Inland navigation

- Transport operations by inland waterway vessel are *strongly consolidated* and performed via a few routes.
- In the sector of steel products alone, about 14.7 million tonnes are carried annually (*via the River Rhine*) from Rotterdam to Duisburg.
- What is more, for 8 of the 12 supply chain clusters, the Rhine is a potentially critical waterway.
- Short-term shift of operations in the event of failure of this axis virtually impossible.



Identification of critical infrastructures



Rail transport

- *Marshalling yards*, in particular, are important nodal points in the rail network.
- Especially in domestic and international port hinterlands, these are of great importance and were identified as being critical in several supply chain clusters.
- *Consolidation* of passenger and freight transport on certain lines with a high capacity utilization.
- Shift of operations in the event of failure of this axis virtually impossible.
- Which mechanisms become effective in the event of a failure? Who has to take action? When? How?



Identification of critical infrastructures

- Considering the volumes carried, the road sector is the pillar of goods transport (not only) in the Federal Republic of Germany.
- The road network is very dense which means that a disruption at one point can be more easily compensated compared with other transport modes.
- But: Transport hubs, nodal points, freight villages ...





Summary of the findings

- 12 critical supply chain clusters for Germany
- **A high level of preventive security is available, but ...**
- Networking concept is underdeveloped;
- Strong focus on prevention/counter-terrorism;
- Insufficient knowledge about relevant risks, threats and consequences to be expected;
- No need for new regulation – risk-based approaches are of fundamental importance to a sector which depends on openness, speed and efficiency;
- continue Working Group of the Federal Ministry of Transport and Digital Infrastructure on Logistics Security for cooperation and awareness-raising;



Summary of the findings

- Improvement of contingency planning and of crisis management are considered as the main tasks of the Federal Ministry of Transport and Digital Infrastructure;
- Emergency scenarios and response mechanisms of the public and private sectors are to be examined (e.g. IT failure/power outages);
- Natural disasters seem to have a higher priority than terrorist attacks;
- KRITIS definition of the Federal Government does not seem appropriate for certain transport infrastructures.
- But: Sectors, cumulation/cascade effects, dangers with high area-wide impact,

...



Strengthening of security in the freight transport and logistics industry

Prevention

- How can prevention/resilience be improved?

Response

- What instruments enhance responsiveness?

Sustainability

- Which approaches result in the topic being addressed in a sustained and continuous way?

Efficiency

- How can the various existing resources be used best for prevention?

Cooperation

- How can the required public-private cooperation in the transport sector be fleshed out?



Guiding principles

- Achievement of highest possible security level while keeping the burden on the stakeholders to a minimum
- Intermodal cooperation in identifying and reducing relevant risks and weaknesses
- In the event of an incident, fast and coordinated reaction to maintain or re-establish the serviceable condition of the logistics system
- Inclusion of all stakeholders relevant to the realization of the security strategy
- Establishment of objectives instead of specific means or technologies
- Convergence with the strategies and rules of international partners
- Competitiveness of the enterprises and economic efficiency of the measures



Security principles

1. Strengthening of the resilience of the logistics system
2. Targeted and economic action by means of risk-based approaches
3. Promotion of a cross-sectoral understanding of security
4. Trustful cooperation and structured dialogue
5. Raising awareness and improving knowledge of the stakeholders
6. Continuation and development of international cooperation



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Thank you.

I am happy to take your questions and comments.

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