“Almost 50% of controlled dangerous goods transports had technical problems. Equally many broke drive time regulations.”
• 1985: NYZ Hazardous material reporting system
### 3rd Framework

<table>
<thead>
<tr>
<th>Projects</th>
<th>Subjects</th>
<th>(1) Mobile data communication systems</th>
<th>(2) EDI systems</th>
<th>(3) Multi-modal tracking and tracing</th>
<th>(4) Dangerous goods monitoring and control</th>
<th>(5) SME's requirements</th>
<th>(6) Input to standardization</th>
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3rd Framework

• CITRA: System for the Control of Dangerous Goods Transport in International Alpine Corridors (CITRA) had, just like FRAME and PORTICO the purpose of setting up pilot tests on supervision/information sharing for dangerous goods.

• Frame: European information system for dangerous goods. The concept was based on every vehicle being connected to emergency responders in respective country

• Portico: Corridor. Supervision of dangerous goods
4th Framework

- 1998: SEALOC
- 1998: BOPCOM: Baltic open port communication
Other initiatives

- 2004: Verkehrstelematiksysteme für das Management von Gefahrguttransporten
- 2006: MITRA
- 2008: DA.GO.T
- 2008: Cassandra

**Structure of transmitted data:**
- Driver identification
- Tractor identification
- Trailer identification
- All information is georeferenced (Space and Time)
Who controls...?

```
Simple constellation
Internal transport control
Proprietary fleet
Employed driver
```

```
Complex constellation
Jointly-owned forwarding agency
Internal transport control
Cooperative transport control
Proprietary fleet
Fleet
Sub-contractor
Partner fleet
Fleet
Driver
Driver
Partner drivers
```

Physical Flow
Information Flow
Relationship
Transparency Challenges

- Low degree of purchasing standardization (e.g. Q3) = problem for Forwarders
- Lack of well understood practices for accountants
- Lack of easy-to-communicate certification = low incentives
- One-way transparency enables harmful externalization of costs
- Heterogeneous IT base (multiple technologies and provider competition) makes information flow difficult
- Legally complex information sharing (e.g. authorities involved = public information)
HITS Compliance Portal - proof of Concept
Transparent forwarding

- **Consignor**
  - Transport Declaration Request (consignment data and questions)

- **Forwarder**
  - Transport order (consignment data)
  - Answer Questions
  - Push Questions

- **Haulier**
  - Answer Questions
  - Push Questions

- **Driver and Truck**
  - Answer Questions
  - Grant FMS access
  - Retrieve FMS data
  - End assignment

- **Transparency Portal**
Transportköpare skapar en transportenkät baserad på en faktisk kommande transport, inklusive ADR information (FN-nummer och kvantiteter enligt regler).

1

Enkäten skickas till den underleverantör som har uppdraget (och som redan registrerat en upphandlingsenkät)
Speditören kan skicka vidare enkäten till den förare som ska utföra transporten

2

Förare fyller i de frågor som skickats vidare av speditören i ett mobilt gränssnitt. Om FMS efterfrågats och finns tillgängligt adderas detta automatiskt efter inloggning.

3

Under transporten adderas FMS-data från lastbilens system löpande till transportenkäten, inklusive GPS-position.

4
Demo
Dashboard

- **Waiting Questions**: 0
  - View Details

- **Tender Surveys**: 1
  - View Details

- **Transports**: 4
  - View Details

- **Subcontractors**: 0
  - View Details
Tender Survey
What's next? You have just created a draft of the survey. Now you can add some questions. After you finish adding questions, move to the "Info" tab and publish your survey. When survey is published, you cannot add any more questions, but you will be able to create declaration for this survey and push it to responders.
Transport Survey

Currently you are working with transport survey Akzo test 160125

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- **Info**
- **Questions (2)**
- **Declarations (1)**

- **take picture of fire extinguisher**

- **Take photos of protective shoes**
Currently you are working with declaration TR_DECL_16 for the transport survey Example Survey.
Analys