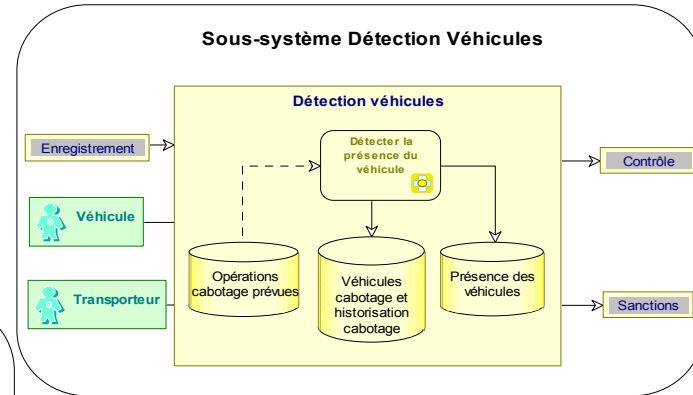


Logical architecture (continued)

The vehicle detection sub-system

The functions identified for this sub-system are:

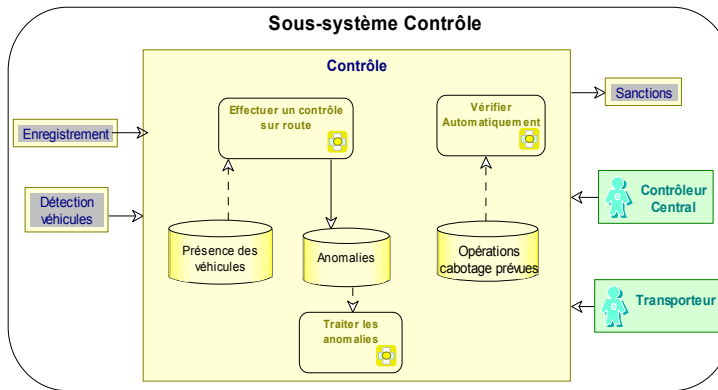
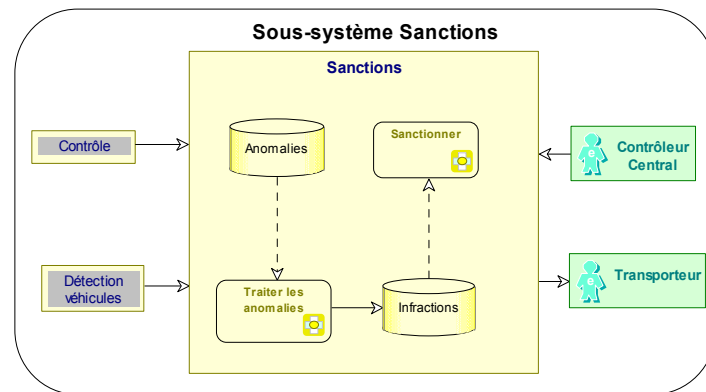
- ▶ Detect vehicles conducting cabotage operations who enter the territory;
- ▶ Detect vehicles conducting cabotage operations who leave the national territory;
- ▶ Disseminate this information to enforcement services.



The sanctions sub-system

This system shall:

- ▶ Process the offence file
- ▶ Request relevant information on the vehicle and the company responsible for an anomaly/offence
- ▶ Establish the offence documents
- ▶ Penalize the offender by a fine or warning.



The control sub-system

This has the following functions :

- ▶ Collect information on the presence of vehicles conducting cabotage operations;
- ▶ Monitor vehicle rights – determine the exit deadline for a vehicle whose entry has been detected;
- ▶ Carry out controls on the road to check cabotage authorizations;
- ▶ Detect anomalies or record an offence committed by the non-resident haulier ;
- ▶ Forward the file on the recorded anomaly (or offence)

Comments from Mrs Pascale BUCH Deputy Director of Road transport - DGMT

"The use of ACTIF as the first stage of a comprehensive project on road cabotage for goods transport within France, rapidly obliged us to consider essential questions relating to the practical realization of the project. These questions were brought to light when describing the complete functional chain, from the registration of vehicles belonging to non-resident companies, the detection of the presence of vehicles within the French territory, the management of anomalies detected by the system, right through to the possible recording of an offence. The work conducted on the project's functional architecture enabled sensitive aspects of information relating to be identified.

For example, one of the issues raised concerned how to measure and

control cabotage activities in order to detect and curb regulation violations. This notably led to a need to interpret legislation when observing a lack of correlation between the presence of a non-resident company's vehicle in French territory and actual road cabotage operations conducted by this vehicle.

The distribution of the various functions amongst the actors involved in cabotage regulation enforcement led to breaking down these functions into homogeneous functional sub-systems. The use of ACTIF, over two months in May and June 2006, enabled us to rapidly get through the initial stage of the project, by clarifying relevant issues".

Project : Set up a functional organization to enforce road cabotage regulations in France.

Challenge : Protect French hauliers from competition that may rapidly become unfair.

How ACTIF helped : By clarifying needs and enabling initial functional and organizational modelling.

The general context :

Road cabotage for goods transport involves the carriage of goods which are loaded and unloaded within the same country with a vehicle belonging to a non-resident company.

On a community scale, road cabotage for goods transport is governed by European regulation n° 3118/93 of the 25th October 1993. In France, law n° 2005-882 of 2nd August 2005 fixed rules stipulating the maximum number of days authorized for cabotage in France (no more than 30 consecutive days and no more than 45 days over a period of 12 months) and applicable sanctions for offenders.

However, the difficulty lies in providing land transport control services with the means of detecting anomalies with respect to regulations, in order to penalize offending companies. The Directorate for Sea Affairs and Transport (Direction Générale de la Mer et des Transports:DGMT) – under whose authority lie land transport control services – via regional public works offices (DRE) – is in charge of implementing a regulation enforcement system.



The aims of the study :

The DGMT's aims are to produce a functional organization architecture, taking into account the actors out in the field, so as to enable the nationwide implementation of efficient cabotage regulation enforcement.

This architecture will contribute towards building a compre-

hensive and consistent cabotage regulation enforcement policy in France. Later on, it will guide the DGMT in the implementation of enforcement means using new information and communication technologies (NICT).

The use of ACTIF :

At the DGMT's request, the consultants SETEC-ITS used the principles of the ACTIF method, model and tools to define the first levels of a functional architecture for cabotage regulation enforcement. The aims of using ACTIF were to :

- ▶ « map » the players, their functions and interfaces;
- ▶ identify insufficiencies, redundant elements, possible conflicts;
- ▶ issue practical recommendations in terms of project structuring, organization and implementation phases;
- ▶ identify norms and standards to be applied to particular aspects;
- ▶ indicate key points for later project phases, in particular in terms of management.

Un projet ?

The ACTIF team can assist you with your projects and pilot studies.

Contact :
 Yannick DENIS (CERTU)
 Tel : 04 72 74 59 46

Jean-François JANIN (DGMT / MTI)
 Tel : 01 40 81 21 22

<http://www.its-actif.org/>

The actors involved in road cabotage in France

Numerous players are involved in road cabotage. Here, however, the analysis of their roles should be limited solely to functions likely to be involved in enforcement operations. The different actors identified are split into two groups :

- ▶ - hauliers.
- ▶ - enforcement officers ;

Hauliers :

Hauliers are the main players involved in cabotage. They are transport companies from the European Economic Area, authorized to conduct cabotage operations in accordance with international agreements.

Enforcement officers :

The different branches of enforcement officers involved in controlling goods transport by road are part of the following Ministries :

- ▶ - Transport (MEDAD) : land transport control officers (CTT) ;
- ▶ - Home Office : police ;
- ▶ - Defence : gendarmerie ;
- ▶ - Finance : customs officers and tax inspectors.

The Ministry of Ecology, Sustainable Development and Spatial Planning (MEDAD) possesses a national road haulier data base (list of hauliers, companies who have committed offences, sets of procedures,...).

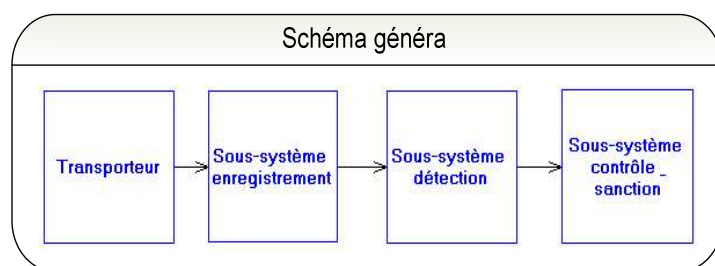
The modelling of functional chains

Using the ACTIF model

The functions required for a cabotage regulation enforcement system can be found in functional areas 7 “enforce regulations” and 8 “operate freight and goods fleets” in the ACTIF model. It rapidly appeared necessary to split the functions covered by the project into four different functional sub-systems, as they do not deal with the same type of information :

- ▶ registration: which will manage the list of companies and vehicles authorized to conduct cabotage and the list of declared operations,
- ▶ detection: which will detect declared vehicles on entry and exit,
- ▶ control: which monitor the “use of rights”, carry out “control operations” out in the field and report an “anomaly”;
- ▶ sanction: which will provide confirmation or not of an anomaly and deal with violations from the recording of the offence to the issuing of a penalty to the offender.

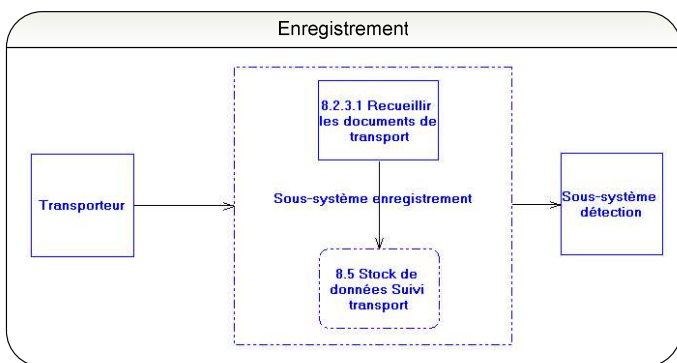
The “Detection” and “Control” sub-systems may be physically associated.



The questions raised during this modelling primarily concerned the nature of the information to be collected :

- ▶ should companies, vehicles or drivers be registered?
- ▶ is it a question of detecting border crossings or rather the duration of presence within the national territory?
- ▶ how can a distinction be made between an anomaly and an offence? This is one of the essential aspects of this study that provided feedback for the ACTIF model.

Exemple : registration sub-system



The modelling of functional chains (continued)

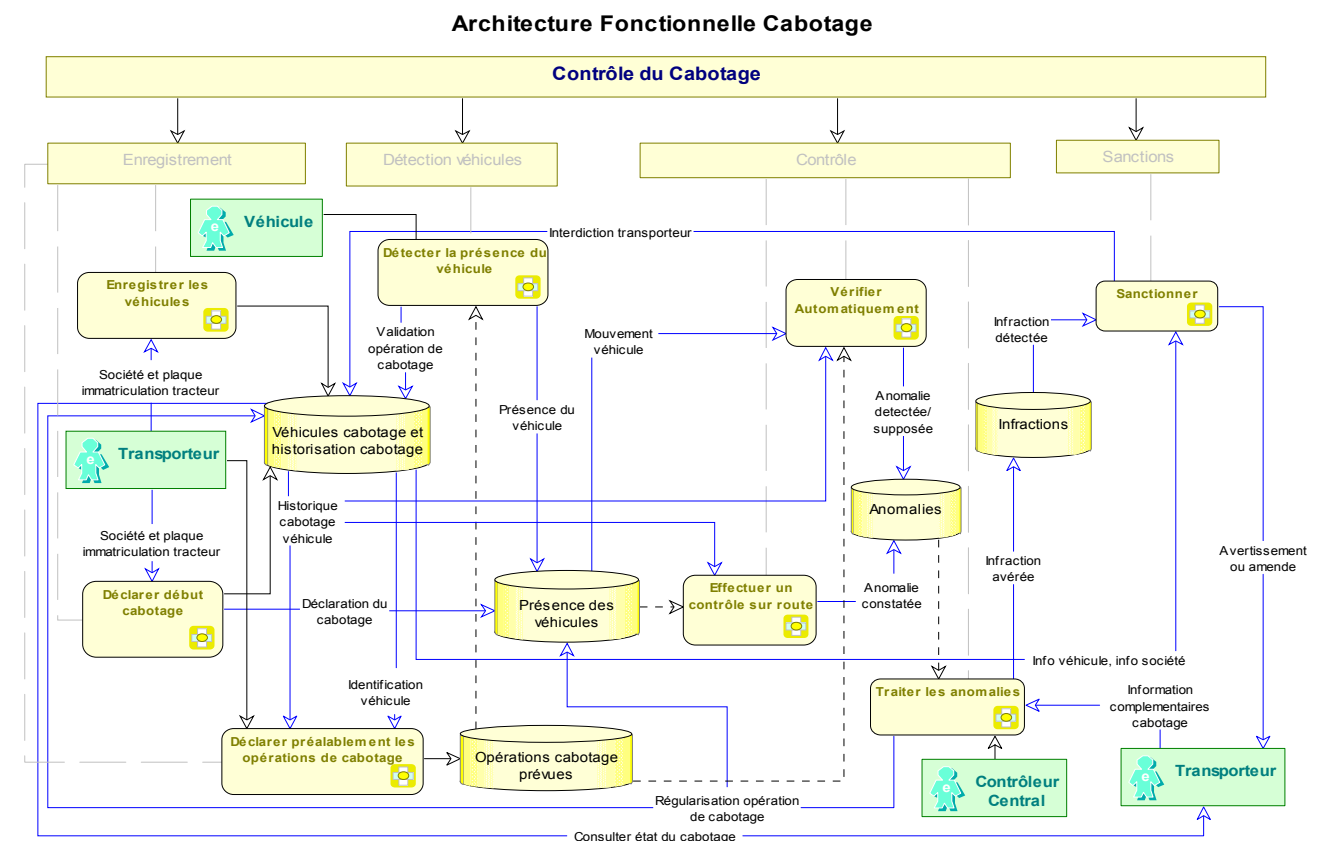
Functional architecture

The diagram below describes the set of mechanisms (functional chains) involved in the functioning of a cabotage regulation enforcement system. It can be viewed at a functional or organizational level :

- ▶ The haulier triggers the entire process by requesting the registration of its vehicles and by providing prior notice of cabotage operations. ;
- ▶ This provides input for a cabotage vehicle data store;
- ▶ and a planned cabotage operations store;
- ▶ The vehicle is detected when it crosses the border (the technical solution is not foreseen: GPS, licence plate reading...);

- ▶ and provides input to the “vehicles present” data store,
- ▶ which enables the automatic verification of presence duration, in addition to targeted controls on the road;
- ▶ in order to detect anomalies;
- ▶ anomalies are verified;
- ▶ detected offences will be penalized.

The overall functional diagram enables the proper identification of the different sub-systems to be implemented, along with their their interfaces, in addition to the organizations that will carry out the functions of these sub-systems and manage the corresponding data bases..



Logical architecture - the different sub-systems

The registration sub-system

This is managed by the transport administration (MEDAD, with regionalization through each DRE and recentralization of information at DGMT level). The functions are :

- ▶ Register vehicles following prior notice of cabotage operations;
- ▶ Register vehicles following notice of the initial cabotage operation, when the vehicle is already within French territory.

