

Workshop within the framework of the “transport logistic 2019” trade fair in Munich
on 5 June 2019

History and work on ITS in the field of Inland TDG

« telematic WG of the RID ADR ADN joint
meeting

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« Mission for the transport of dangerous goods » in France
Chairman of the Joint meeting

The « Joint Meeting » and TDG regulations

Develops the common part of the regulations for the transport of dangerous goods by the 3 Land modes. (RID ADR ADN)

- The regulations are binding for :
 - Operators (carrier, consignor, loader, consignee...)
an operators must follow the requirements when carrying or preparing for carriage
 - Authorities
Authorities may not deny conforming transports (international agreements)
- All 3 modes agreements cover about 48 contracting parties including all EU members.
- The regulations are harmonized with worldwide conventions concerning maritime (IMDG) and air transport (ICAO TI)

Consequences for ITS applications and important things to remember

For ITS Applications to be used wider than in « in house systems » the conditions need to be defined in the DG regulations

The regulations already provide a complete frame concerning the content of required information. (that work doesnt need to be done again)

The regulations already mention ITS as possibilities

- Chap 1.10 (security) option for tracking and tracing of HCDG
- Chap 5.4 documentation possible use of EDI provided equivalence with paper as regards legal value (depends on acceptance by Competent Authority)

The regulations are amended on basis of a 2 years periodicity

The « telematic » WG

Initial proposal from the European Commission- DG MOVE
(doc ECE/TRANS/WP.15/AC.1/2007/17)

Terms of reference (see doc ECE/TRANS/WP.15/AC.1/108/Add.3 on www.unece.org):

1. Consider what information provided by telematics enhances the safety and security of the transport of dangerous goods and facilitates such transport. In particular, consider who might benefit from the provision of such information and in what way, having regard, inter alia, to:

consignors, transport operators, emergency responders, enforcers, regulators;
2. Consider necessary parameters for telematics systems, and examine if existing systems meet these parameters and what further developments might be necessary;
3. Consider the cost/benefit analysis of utilising telematics for the purposes identified above;
4. Consider what procedures/responsibilities might be necessary to monitor the information captured by telematics and how access to data should be controlled; and
5. Consider interfaces and synergy with other systems.

The « telematic » WG

The TOF are complemented by 15 working items inter alia :

15. Draw up a proposal for the amendments to ADR/RID/ADN that will be required by the telematics facilities decided upon;
16. Draw up a summary description of necessary standards to complement the regulations.

The WG is composed of TDG experts and ITS experts from different participating countries.

The mandate had no time limit given the complexity of the issue

ITS EXPERTS PART

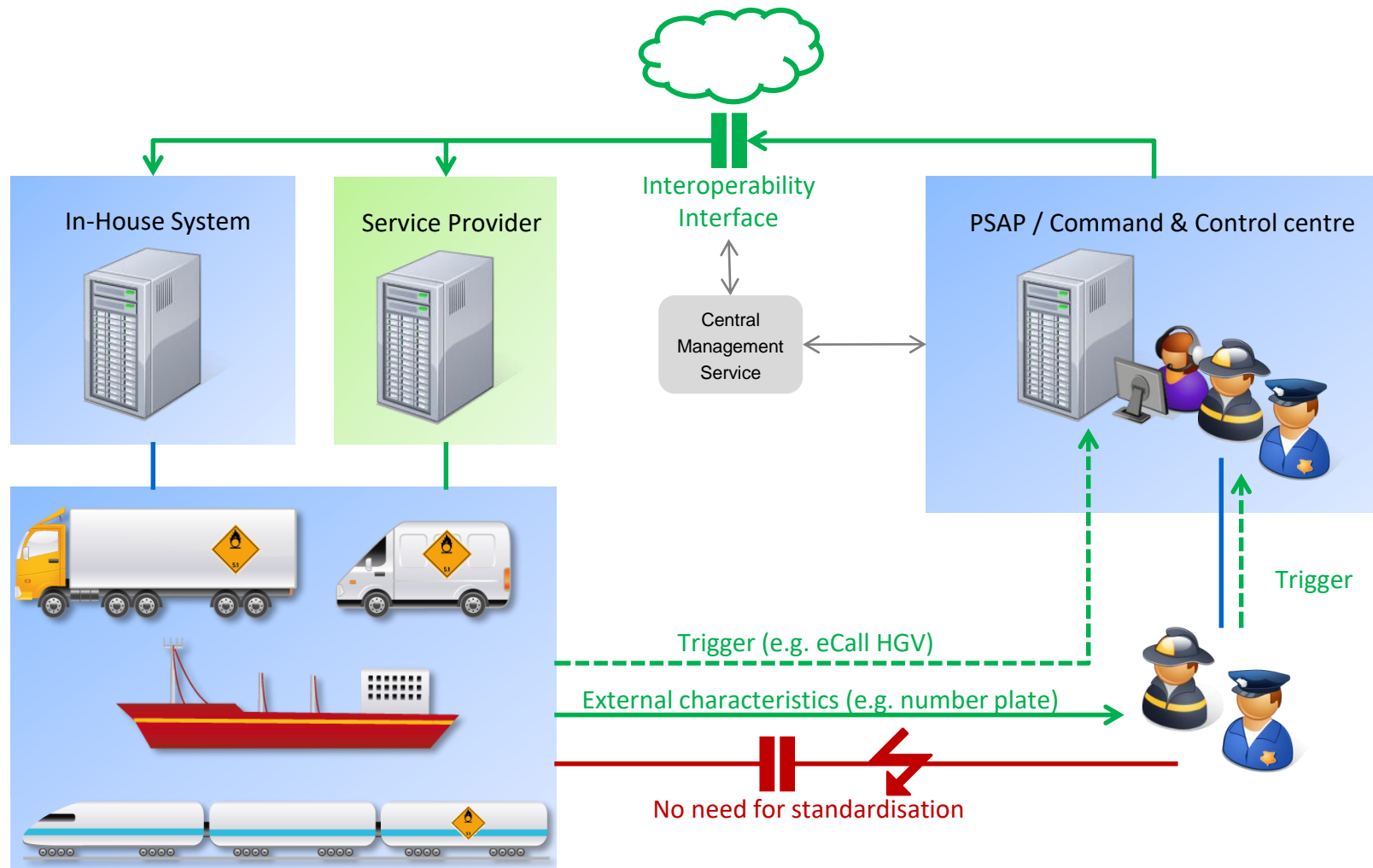
« Architecture »

- Definition of a DATA model for all the DATA in the spreadsheet
- The data model has been completed with the modelling of the position in line with the results from EU project SCUTUM
- The minimum required to allow accesibility to relevant data for both operators and public authorities is to define an « architecture » making connexions possible between different systems in place.
- A concept of such architecture has been approved by the RID/ADR/ADN Joint meeting as an appropriate way to follow for the use of ITS in TDG

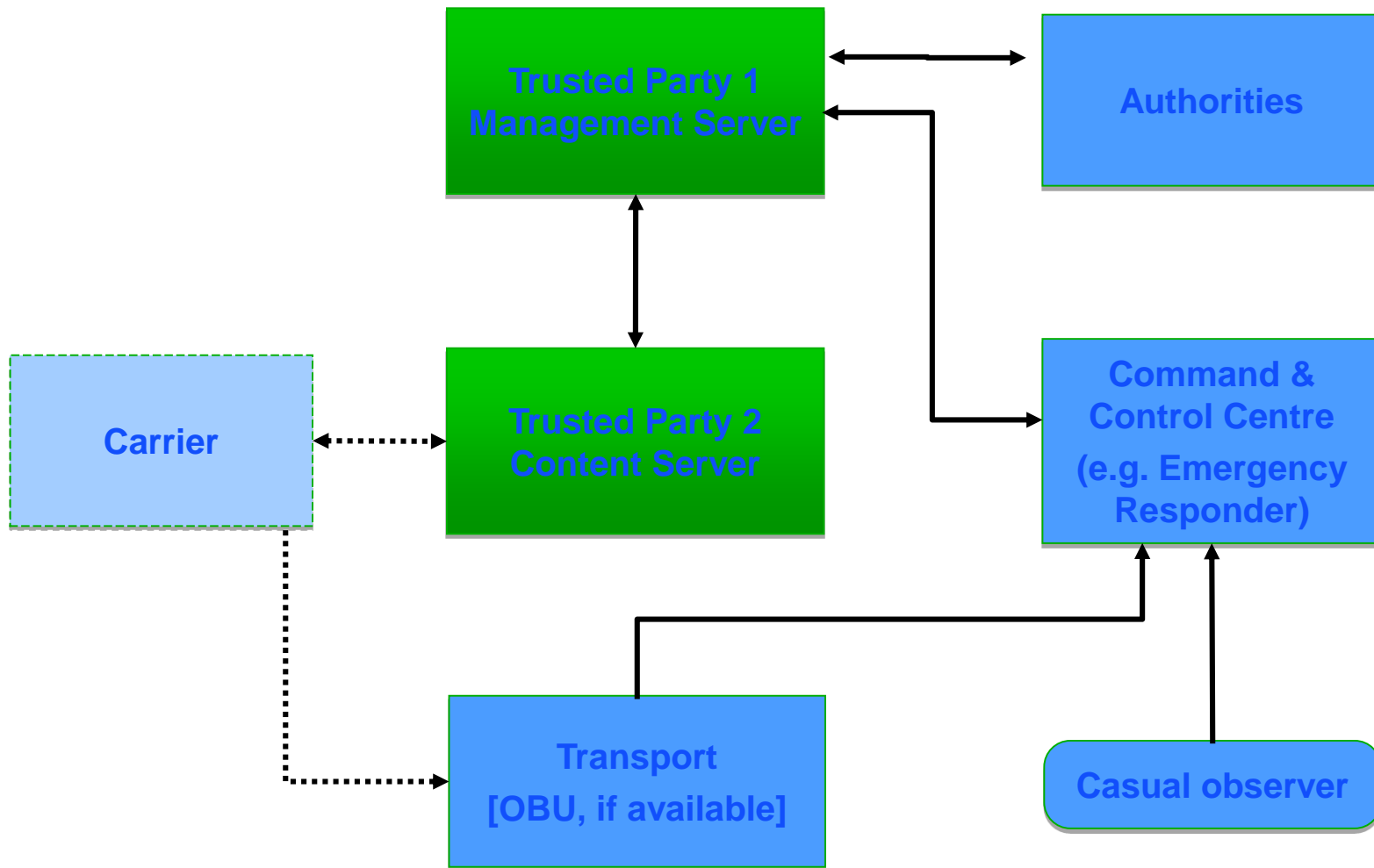
ARCHITECTURE basic points

- No regulations for authorities or emergency responders :
Their internal behaviour and how they make use of the system is entirely up to them
- Existing public key infrastructure would be used
- Internet backbone
- Two level « trusted party » interface:
 - **TP1**
 - Provided by an official organisation
 - Provides services for Access control
 - Management of trusted certification bodies
 - Management of black lists Management of roles and rights
 - Registration of certificates
 - Stores service end-points, vehicle IDs and related attributes for each DG transport
 - **TP2**
 - May be provided by an company in house system or a service provider
 - Stores transport related DG information (transport documents, certificates, dynamic data) and metadata (e.g. vehicle ID) for the time of transport

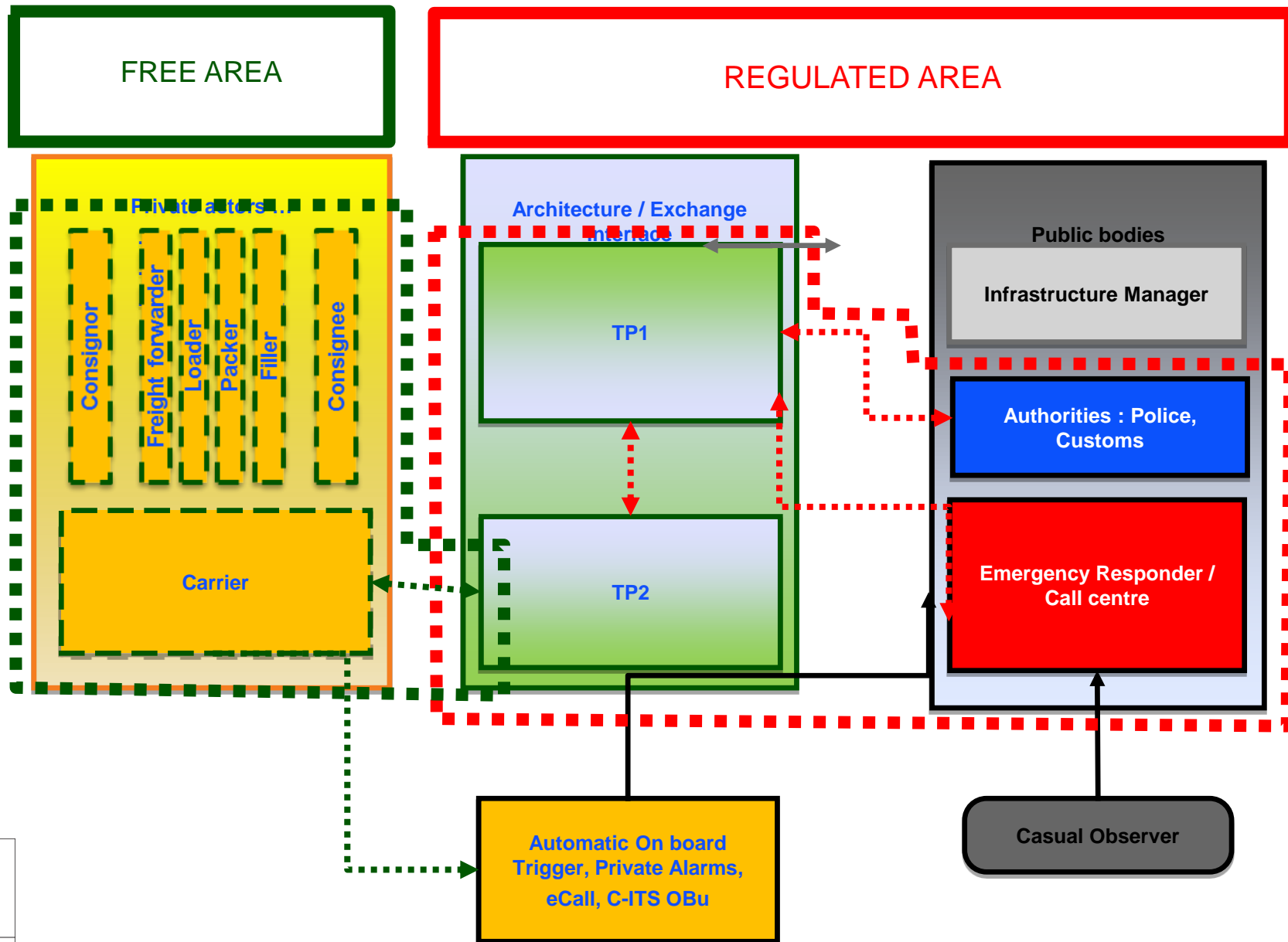
Context: Telematics Group Proposal – General Principle



Telematics system high-level architecture



Architecture minimale

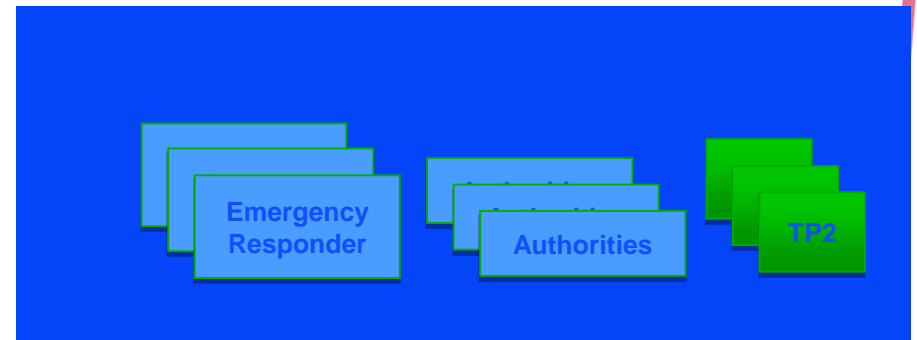
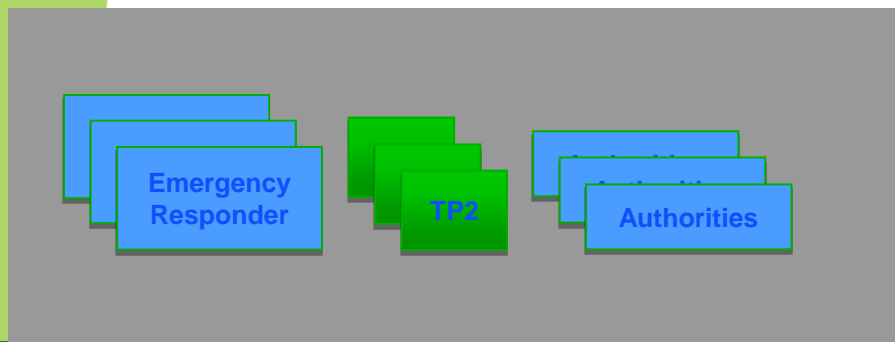
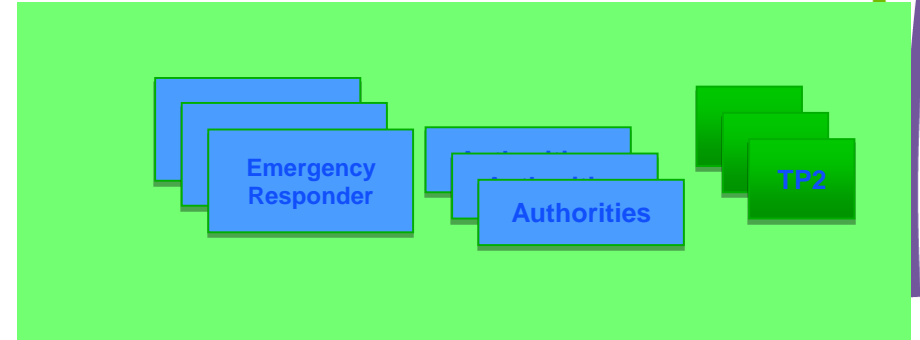
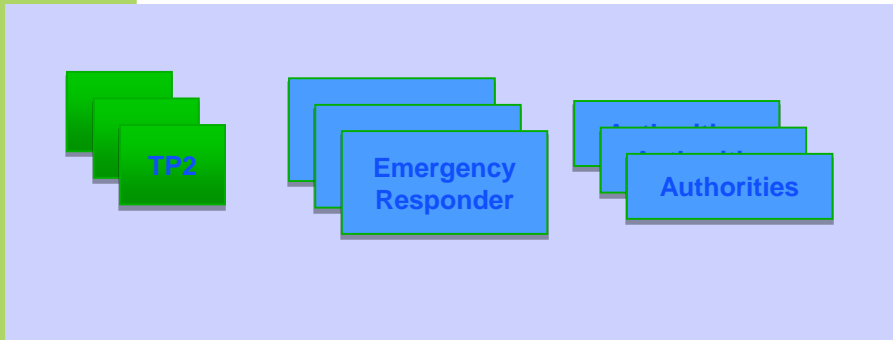


Advantages of the architecture

- Simple and practical: it is related to the way transport documentation is elaborated now
- It may be implemented quickly: Two immediate and consensual use : electronic documentation and emergency response
- It may be done without major changes in existing systems already used (interface aspect)
- Flexibility to allow evolution: other use have been mentioned such as statistics or traffic management link with the development of connected vehicles ...
- Tested at real scale in an international context (GEOTRANS MD project)

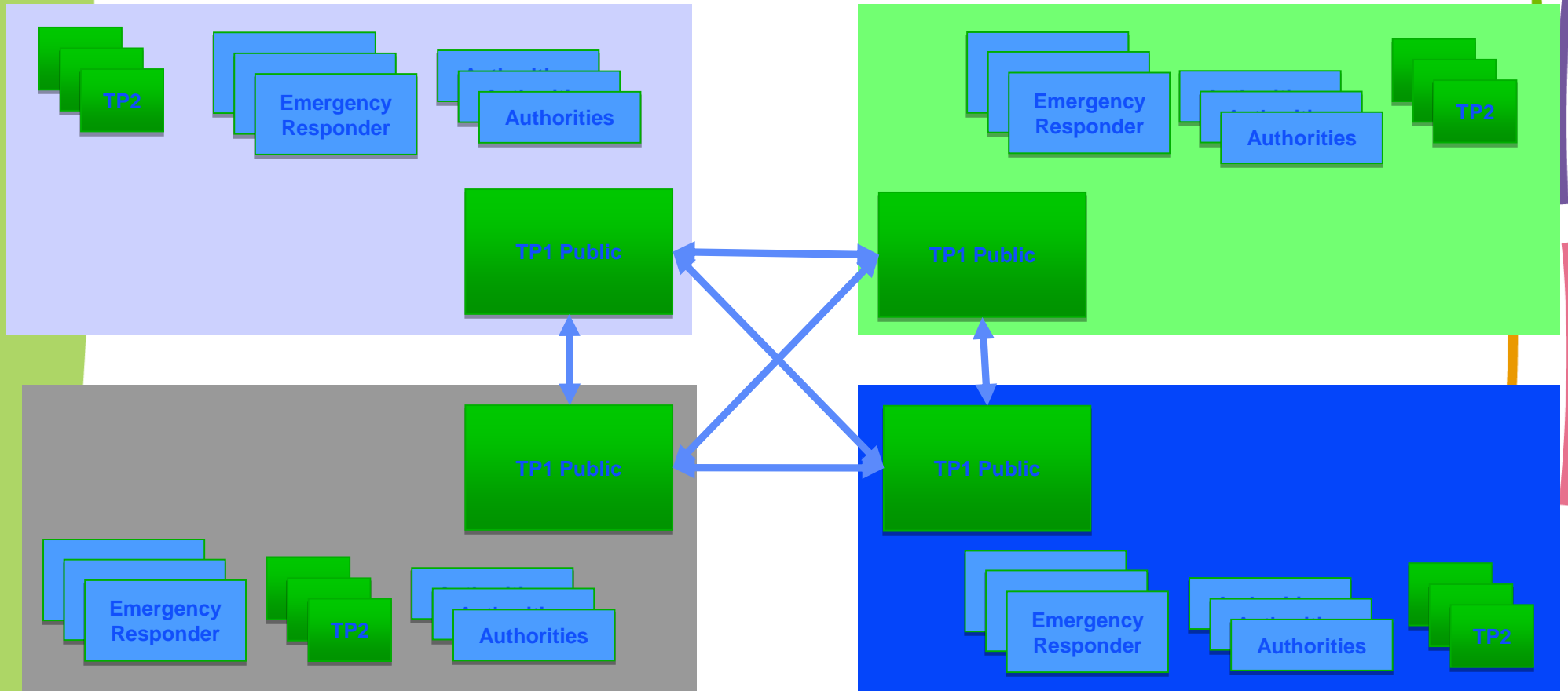
Possible organisation

1. One single TP1



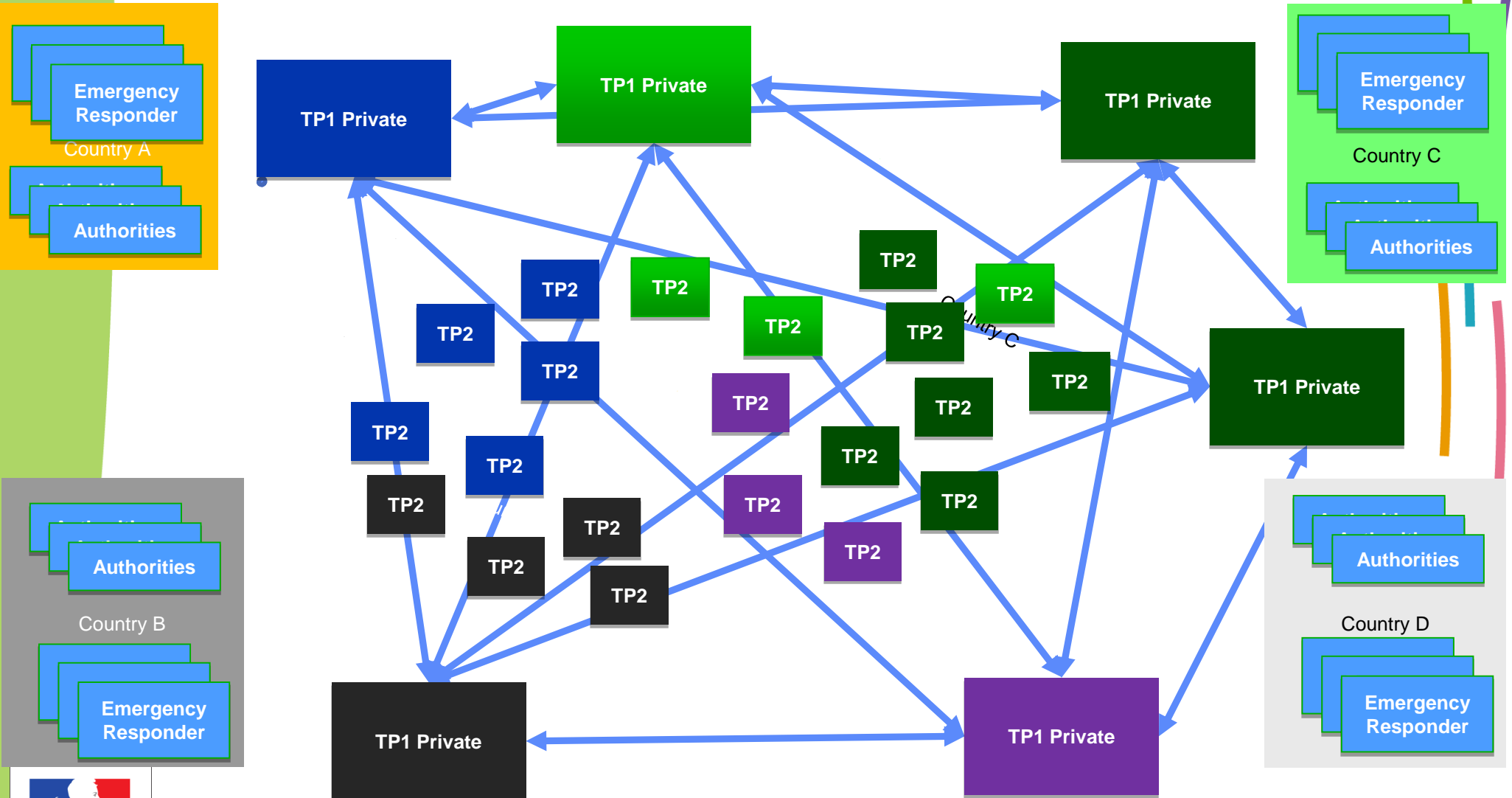
Possible organisation

2. Several national TP1



Possible organisation

3. Several TP1 acting as notified bodies



Development of ITS in the field of TDG SUMMARY

The Joint Meeting of the RID Committee of Experts and the Working Party on the Transport of Dangerous Good, based on the outcome of the “telematic” working group has established an ITS architecture to allow dematerialized information exchange suitable for the needs of transport of dangerous goods

The architecture is based on trusted party interfaces through which competent authorities may have access to the data required to be made available to them.

Efficiency of the system has been demonstrated on real scale projects.

Ongoing Work

The RID ADR ADN Joint Meeting “telematic” working group is establishing guidelines for the use of the approved architecture in order to allow some States to anticipate its use on a voluntary basis for digitalized data exchange related to the transport documentation based on possibility mentioned in the international agreements :

5.4.0.2 The use of electronic data processing (EDP) or electronic data interchange (EDI) techniques as an aid to or instead of paper documentation is permitted, provided that the procedures used for the capture, storage and processing of electronics data meet the legal requirements as regards the evidential value and availability of data during transport in a manner at least equivalent to that of paper documentation.

Three countries have developed, or are at a late stage of developing, operational trusted parties interfaces. Five have expressed their interest and have joined this common effort.

Guidelines should be finalized in 2019.

Principle of the guidelines

The guidelines will define the way communication between various TP1s and TP2s and competent authorities on transport documents is done.

- trusted lists
- management of registration with TP1
- obligations to accept connections...

The guidelines define the way RID ADR contracting parties will use them, and the way some necessary improvements to them shall be decided.

They shall be published on the UNECE website

Contracting parties interested in using them shall notify it to the UNECE secretariat

This notification is on a voluntary basis but once they have done so contracting parties shall commit to accept connections and dematerialized documents according to the guidelines

Other related Work

The Inland Transport Committee (ITC) meeting in February 2019 had a very strong orientation toward ITS and the development Cooperative systems based on ITS. The ITC supported the work made in the RID ADR Joint Meeting.

The architecture has been presented in DTLF seminars in March. It has to be checked how the work done in the Joint meeting can help to realize the goals of the upcoming EFTI regulation.

Many EU funded projects are dealing with « C-ITS » or connected vehicles. In the context of transport of dangerous goods these will be more useful if the data concerning the transport documentation are available

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