



B – T U C



BELGIAN TETRA USERS COMMITTEE

Cl. Jacquard
Chairman

B-TUC



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Astrid Partners

- The Public Operator (A.S.T.R.I.D. Cy)
- The Public User's Organizations
- The Private User's Organizations
- The Belgian Tetra Users Committee (B-TUC)

(R.D. 27-07-98)



Public Users Org

- Local (196) & Federal Police
- Fire Departments (265)
- Emergency Medical Services
- Civilian Security
- Customs
- Defense (MP, mine clearance,...)
- State Security
- Penitentiary Administration
- Forest Administration
- Public Transportation
- ...e *Public Radio Communication Services,*



Private Users Org

- Red-Cross
- Private Ambulance Services
- Hospitals
- Private Fire Services (Airports, Industry,...)
- Energy Distribution (Gas, Electricity,...)
- Funds Transportation (National Bank,...)
- Others (not defined by law)
- International Institutions
 - NATO
 - European Community



Mission of B - TUC

The legal Mission of the B-TUC is to :

- ◆ give advises and recommendations to
 - the Minister of the Interior & the Board of Directors A.S.T.R.I.D. Cy
 - about the execution of the public service delivered by this operator.
- ◆ formulate proposals concerning
 - the amelioration of the services of the A.S.T.R.I.D Cy &
 - the operationnnalisation of the RCS & paging systems;
- ◆ manage & develop the Multi disciplinary Fleet Maps;
- ◆ define the processes & procedures between the User's Org



Working



- **Composition** →
- **Working**
 - Meetings
 - Work Groups
 - Workshops
- *Reporting*
- *Fields of Activity*
- *Priorities & Goals*

- Fire
- Health
- Police (Loc & Fed)
- Civil Security
- Defense
- Customs
- Penitentiary Adm
- Fed. Crisis Center
- State Security
- Red Cross

Goals and Activities

The Goals of the B-TUC are aimed to insure :

- ◆ *Efficiency*
- ◆ *Reliability*
- ◆ *Availability*
- ◆ *Security*

Everyone

Everywhere

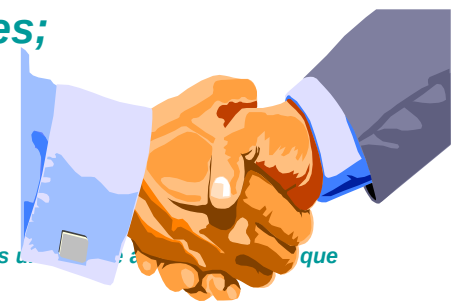
Always



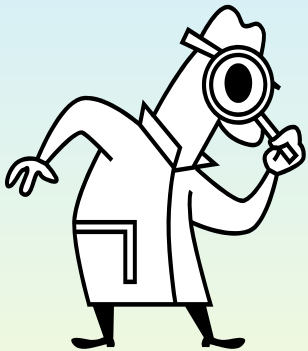
Goals and Activities

The activities of the B-TUC are aimed to :

- ◆ *contribute to an increasing efficiency & the extension of the systems & Infra;*
- ◆ *define the processes & procedures for the multidisciplinary radio communications ;*
- ◆ *guaranty the coherency & efficiency of the inter / multidisciplinary Com plans;*
- ◆ *Optimise / facilitate the working of each Org in an multidisciplinary environment ;*
- ◆ *deliver expertise & support to less experimented user Org;*
- ◆ *on demand, deliver expertise and advices to the public authorities;*

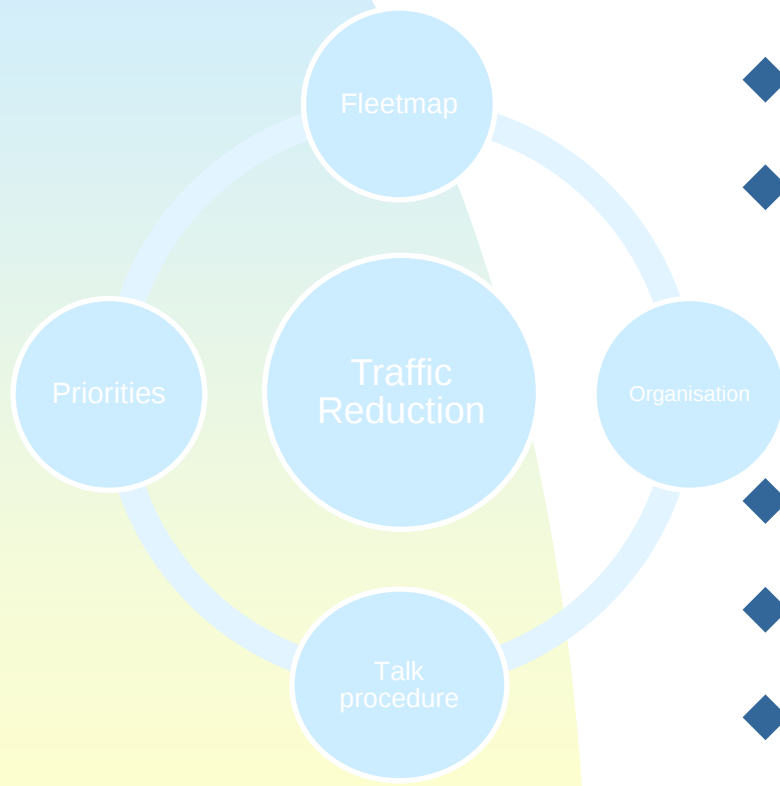


Field of Activity



- *Legal / Juridical*
- *Financial*
- *Human Resources*
- *Administrative (Contracts)*
- **Operational / Organizational**
- **Technical**
- **Maintenance**
- ...

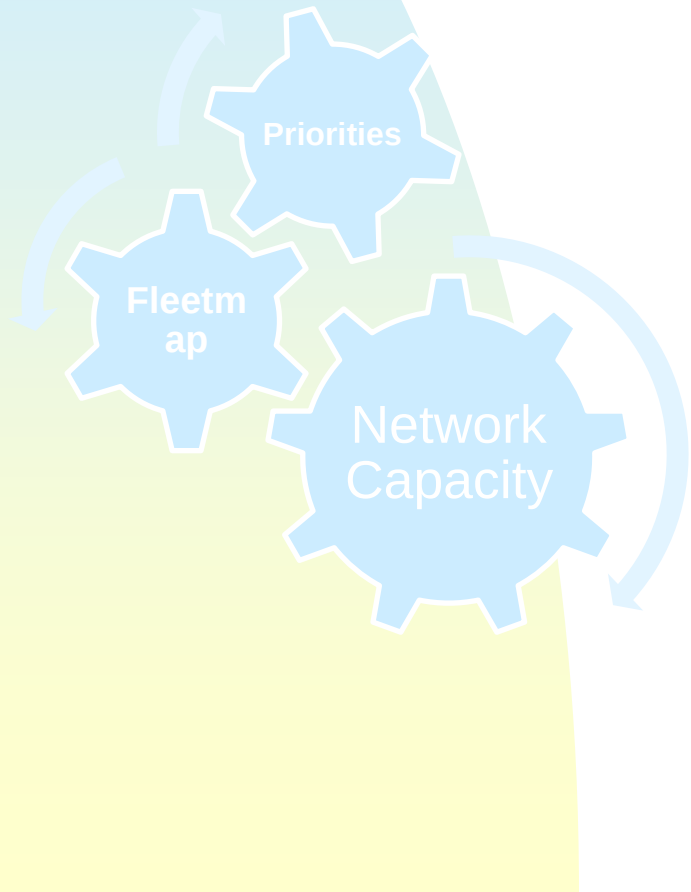
Points of Interest - *Priorities*



- ◆ **Fleet map (*Multidisciplinary*)**
- ◆ **Radio coverage**
 - ☞ **Outdoor**
 - ☞ **Indoor**
- ◆ **Capacity RCS**
- ◆ **Maintenance (RCS & Pg)**
- ◆ ***Pricing***
- ◆ **ISI**

Field of Activity

■ Operational / Organizational



- **Fleet Map**
- **DMO**
- **Pre Emption**
- **Priorities**
- ...

Fleet Map

- Nationwide
- Multidisciplinary
- **PGUI** (General Emergency & Intervention Plans)
=> Territorial Organization
 - Routine
 - Crisis Management
- Other Fleet maps
 - PPUI (Particular Emergency Plans)
 - Inter Safety (Utilities, NATO, ...)
 - Inter Security (Customs, Funds,..).

Overzicht multidisciplinair Communicatieplan										MAXIMUM CONFIGURATIE			
Dienst	niveau	Aantal	project 1	project 2	project 3	coördinatie	routine	speciaal (Rampenplan)					
Civiele Bescherming	interprovinciaal	6 -> 8	B1	B2	B3	IC1							
	provinciaal		BPRP1	BPRP2	BPRP3	BPRC		CC-PROV	CC-LOG1	CC-LOG2	CC-LOG3		
								CP-OPS1	CP-OPS2	CP-OPS3			
								LOG 1	LOG 2	LOG 3			
Politie	Direct Mode		D1	Unbruikbaar									
	Nationaal					NatC							
	provinciaal		ProvP1	ProvP2	VISIT	ProvC	ProvR	CC-PROV	CC-LOG1	CC-LOG2	CC-LOG3		
			BPRP1	BPRP2	BPRP3	BPRC		GPICA	CP-OPS1	CP-OPS2	CP-OPS3		
Brandweer	rondissemanteel		ArroP1	ArroP2	ArroP3	ArroC	ArroR						
						BZC							
	lokaal / politiezone		ZoneP1	ZoneP2	ZoneP3	BZC	ZoneR						
						BLC							
Dringende medische hulpverlening	Direct mode		D2	Unbruikbaar									
	provinciaal	1	BPRP1	BPRP2	BPRP3	BPRC	BPRR	CC-PROV	CC-LOG1	CC-LOG2	CC-LOG3		
		1	BPRM1	BPRM2	BPRM3			GPICA	CP-OPS1	CP-OPS2	CP-OPS3		
								CO1	CO2	CO3			
Dringende medische hulpverlening	lokaal	1	BZP1	BZP2	BZP3	BZC	BZR						
	lokaal	1	BLP1	BLP2	BLP3	BLC	BLR						
	Direct mode		D3	Unbruikbaar									
	provinciaal	1	BPRP1	BPRP2	BPRP3	BPRC		CC-PROV	CC-LOG1	CC-LOG2	CC-LOG3		
Dringende medische hulpverlening		1						GPICA	CP-OPS1	CP-OPS2	CP-OPS3		
								RV1	RV2	RV3			
								LOG 1	LOG 2	LOG 3			
	provinciaal	1	M100PRV1	M100PRV2	M100PRV3			M100CAT1	M100CAT2	M100CAT3			
Dringende medische hulpverlening		1	HPROV1	HPROV2	HPROV3			M100REG1	M100REG2	M100REG3			
			M100PREV1	M100PREV2	M100PREV3								
		11 kanalen per voertuig, tot 3 kanalen per Centrum 100)											
	Direct mode		D4	Unbruikbaar			R100PRV						

Multi-Disciplinary Intervention Plan

Dienst	niveau	Aantal pro	I1	I2	I3	Coordination							
Civiele Bescherming C.Prot  Po	interprovinciaal	6 -> (8)											
	provinciaal		BPRP1	BPRP2	BPRP3	BPRC			CC-PROV	CC-LOC1	CC-LOC2	CC-LOC3	
									CP-OPS1	CP-OPS2	CP-OPS3		
	Direct Mode		D1	Uitbreidbaar					LOG 1	LOG 2	LOG 3		
Police  Police	Nationaal					NatC							
	provinciaal		ProvP1	ProvP2	VISIT	ProvC	ProvR		CC-PROV	CC-LOC1	CC-LOC2	CC-LOC3	
			BPRP1	BPRP2	BPRP3	BPRC			GPRA -	CP-OPS1	CP-OPS2	CP-OPS3	
	arrondissementeel		ArroP1	ArroP2	ArroP3	ArroC	ArroR						
Police						BZC							
						BLC							
	lokaal / politiezone		ZoneP1	ZoneP2	ZoneP3	BZC							
	Direct mode		D2	Uitbreidbaar									
Brandweer Fire		B2B											
	provinciaal		BPRP1	BPRP2	BPRP3								
			BPRM1	BPRM2	BPRM3								
	zonaal		BZP1	BZP2	BZP3	BZC							
	lokaal		BLP1	BLP2	BLP3	BLC	BLR						
	Direct mode		D3	Uitbreidbaar									
	provinciaal		BPRP1	BPRP2	BPRP3	BPRC			CC-PROV	CC-LOC1	CC-LOC2	CC-LOC3	
									CP-OPS1	CP-OPS2	CP-OPS3		
Dringende medische hulp EMS													
									RV1	RV2	RV3		
									LOG 1	LOG 2	LOG 3		
	interprovinciaal		M100PRV1	M100PRV2	M100PRV3				M100CAT1	M100CAT2	M100CAT3		
			HPROV1	HPROV2	HPROV3				M100REG1	M100REG2	M100REG3		
			M100PREV1	M100PREV2	M100PREV3								
	(tot 11 kanalen per voertuig, tot 3 kanalen per Centrum 100)												
	Direct mode		D4	Uitbreidbaar			R100PR						

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PROGRAMMATION :

•Numberings plan

•Network Organization

•Communication Group

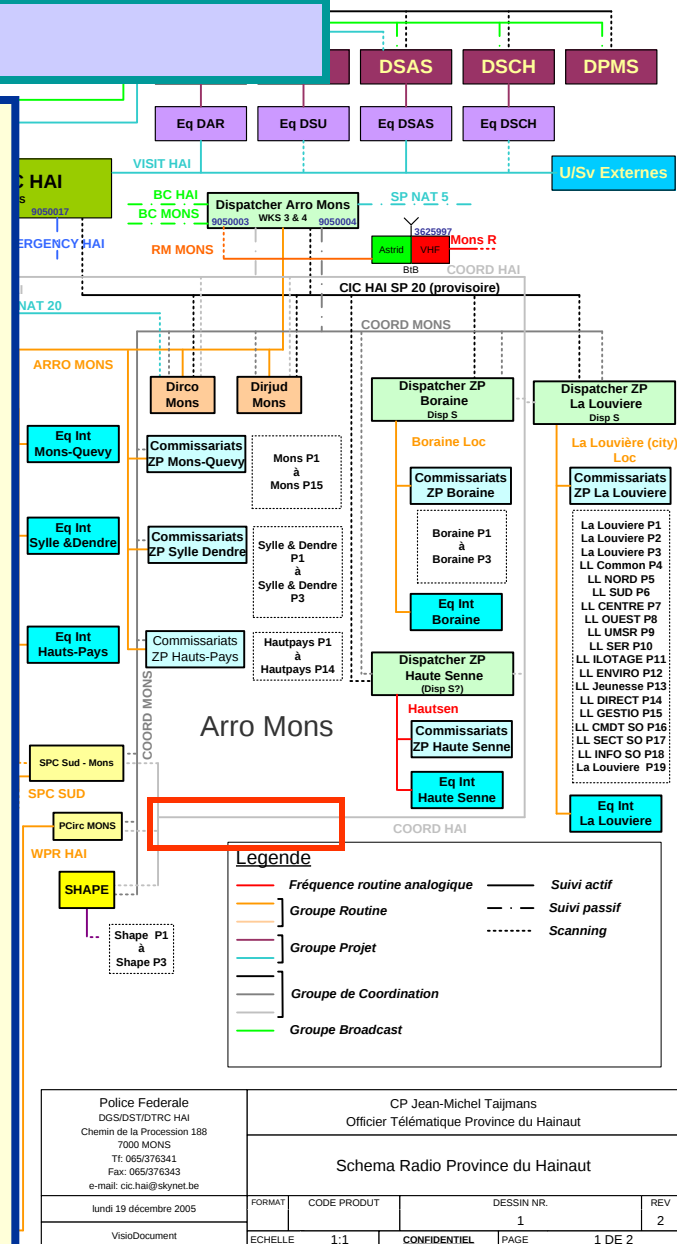
Coordination

- PROGRAMMATION :**
- Numberings plan
 - Network Organization
 - Communication Groups

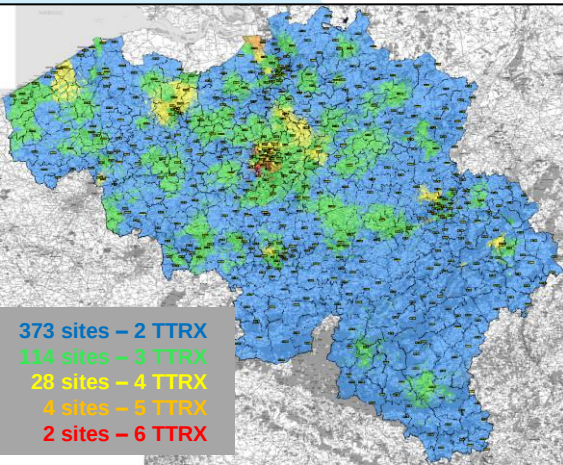
Prov Hai - Réseau RadioCom

• Folders :

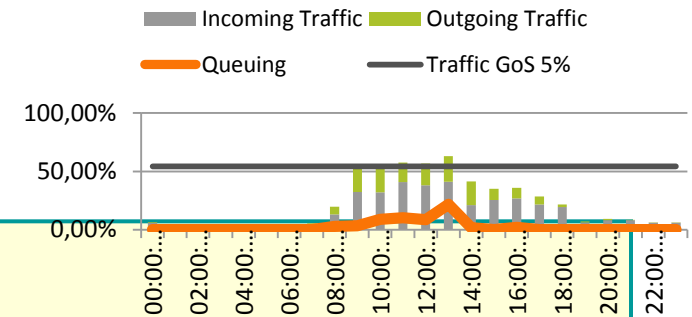
- 0. Favorites
- 1. Local
- 2. Visitors
- 3. Police - Prov [3.1 - 3.9]
- 4. Police - Arro [Only own Prov]
- 5. Own Province
- 6. Police - National
- 7. Multi Disc [7.0 -> 7.9]
- 8. Multi Pol [8.0 -> 8.9]
- 9. Academy
- Fall Back



Field of Activity



Technical



NW Occupation TBS BR 05

- Capacity
- Redundancy
- Basic Radio Coverage
- Suppl. Radio Coverage
 - Suppl. Base Stations (79)
 - Repeaters
 - Temporary Suppl. Capacity
 - Mobile Technical Unit (MTU)
 - ASTRID Security Commission



Legend

Mob

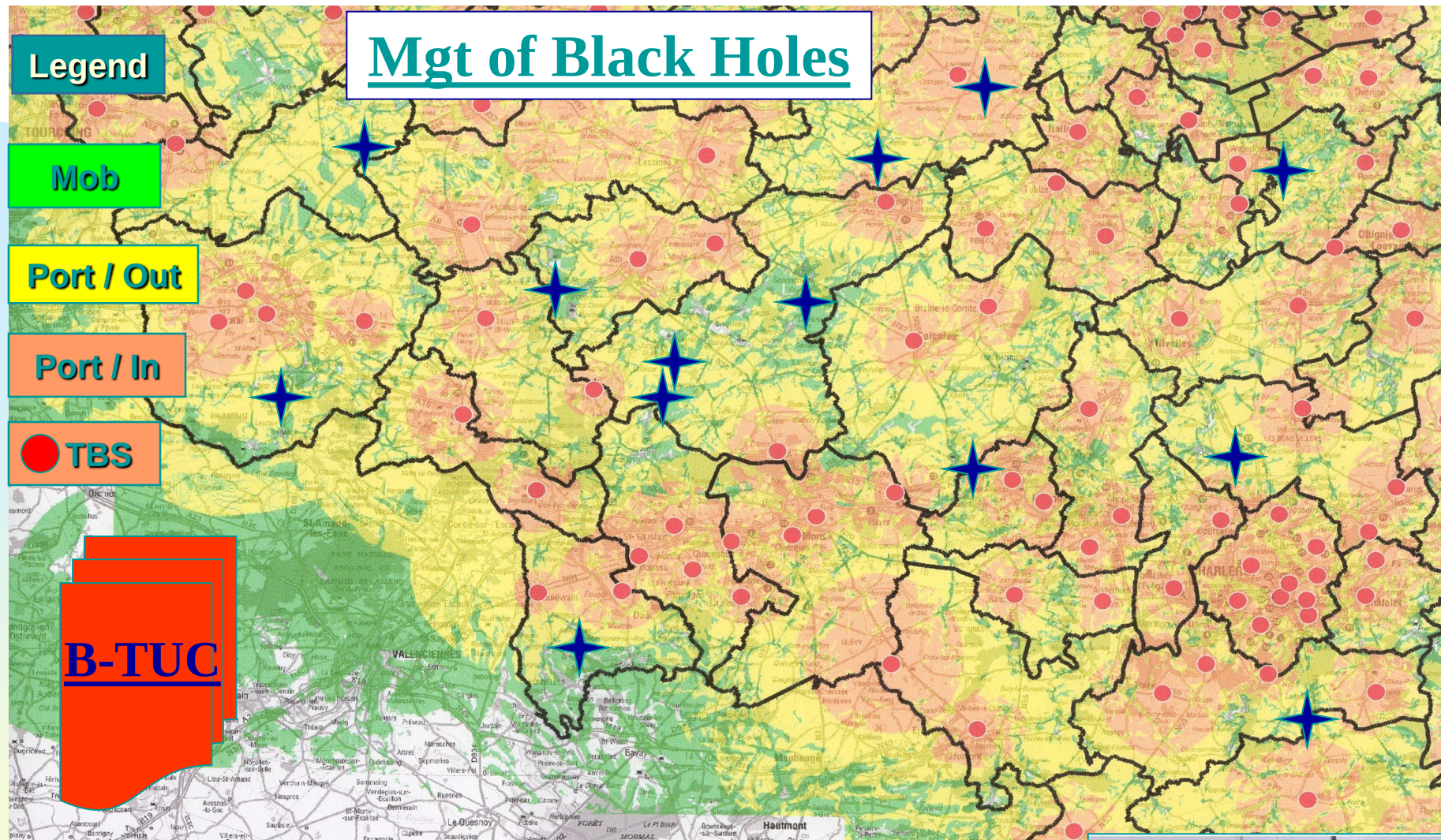
Port / Out

Port / In

● TBS

B-TUC

Mgt of Black Holes



TBS/1 : 435
TBS/2 : 79
AGA : 7

- Supplementary R Coverage
- Repeaters
- Mobile Technical Unit
- ASTRID Security Com



MTU

Legend

Mob

Port / Out

Port / In

TBS

Mgt of Black Holes

=> Prioritisation

B-TUC

TBS/1 : 435
TBS/2 : 79
AGA : 7

- Supplementary R Coverage
- Repeaters
- Mobile Technical Unit
- ASTRID Security Com

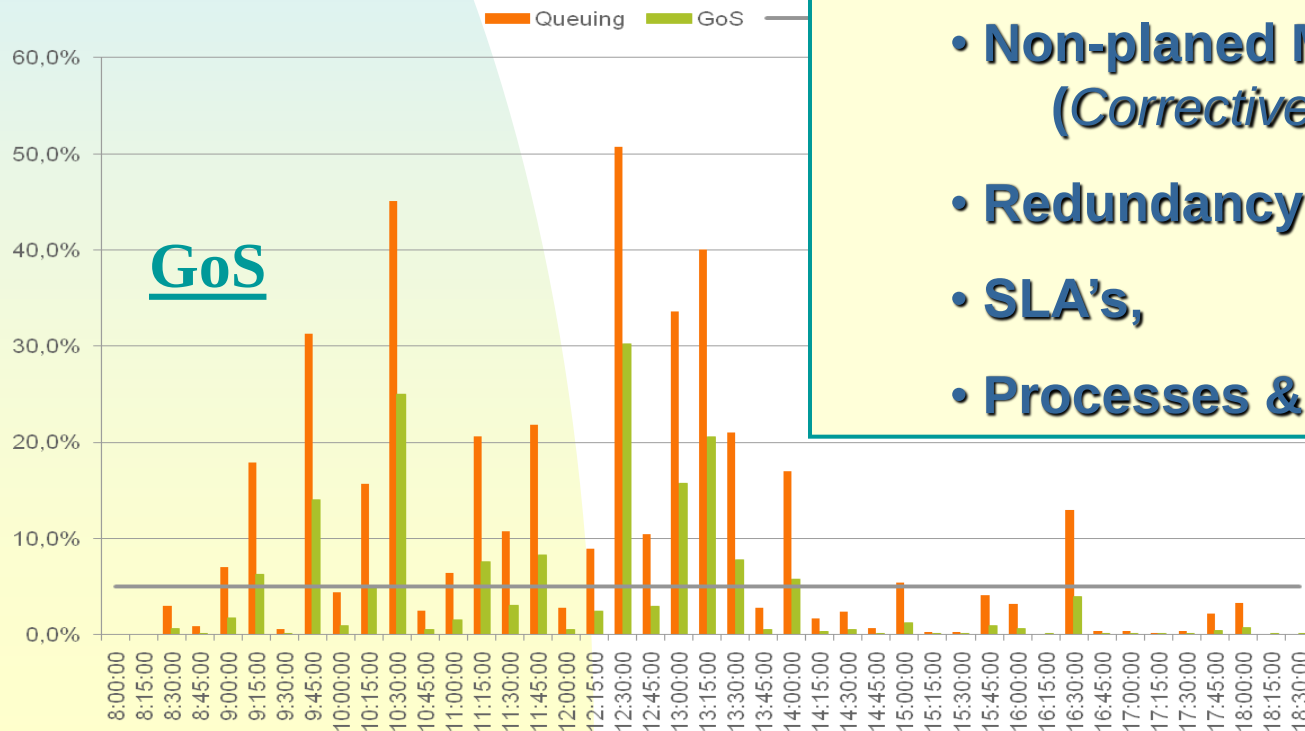


Field of Activity

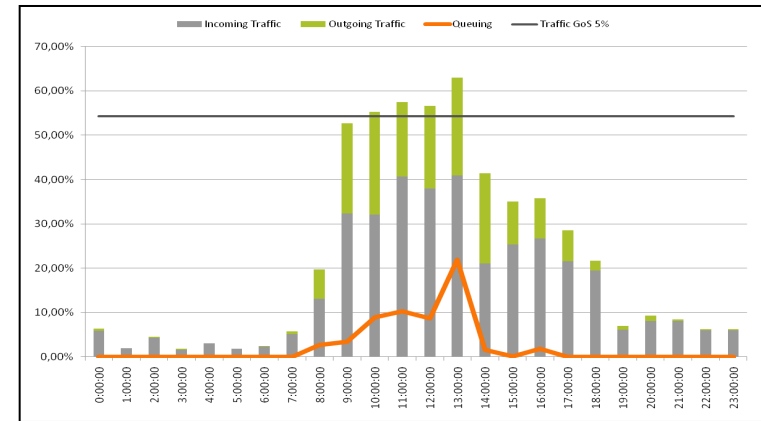
■ Maintenance

- **Planned Maintenance**
(Preventive, upgradable)
- **Non-planned Maintenance**
(Corrective)
- **Redundancy**
- **SLA's,**
- **Processes & Procedures (ASC)...**

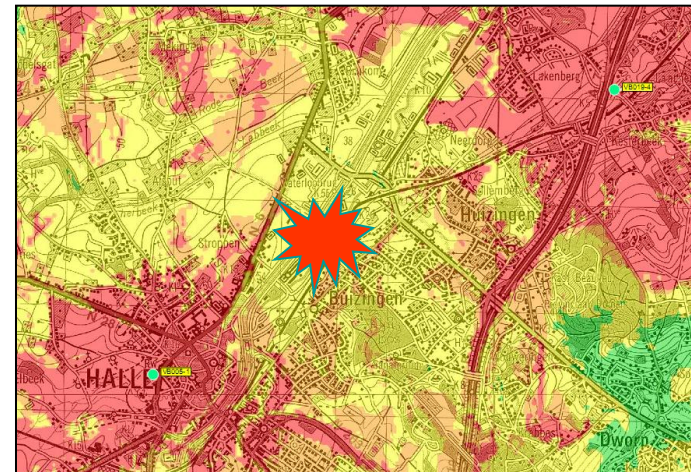
GoS



Train Crash in Buizingen – Feb 2010



Everything is crosslinked and each axis must be optimised to achieve operational excellence



Observations from the case

- **8x more traffic** than during a « normal » day
- Network was **quite overloaded** (but sites were only 2 TTRX)
- Users must have encountered **some inconveniences ...**
...but this could have been worse without good operational procedures !

- **Good practices** observed / assumed :
 - **Little** use of **individual** calls (only 3%)
 - Efficient use of **coordination groups**
 - Use of **Crisis Groups** (2 dedicated groups from Control Room)
 - Good **radio discipline** – ratio incoming / outgoing traffic

- **!!!!!!! GSM** Communications

Conclusion

- **Innovative approach**
 - ◆ **Technical Integrated Solution**
 - ◆ **Global methodological Approach**
 - ◆ **Global Organizational Solution**
 - ◆ **Nationwide approach**
 - ◆ **KEY role of the User's Organizations**
 - ◆ **Partnership with A.S.T.R.I.D.**

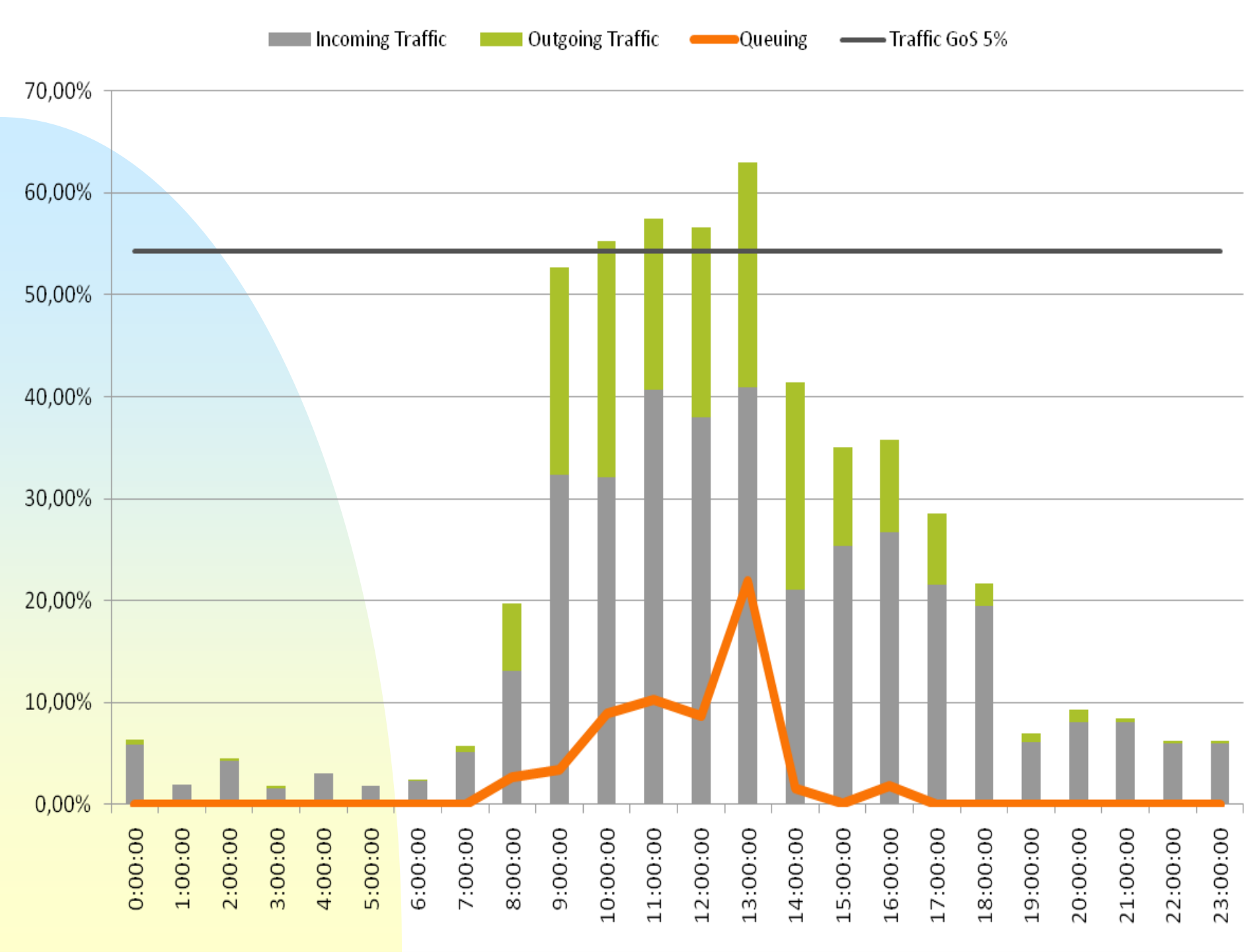
claudio.jacquard.1100@police.be

B - T U C

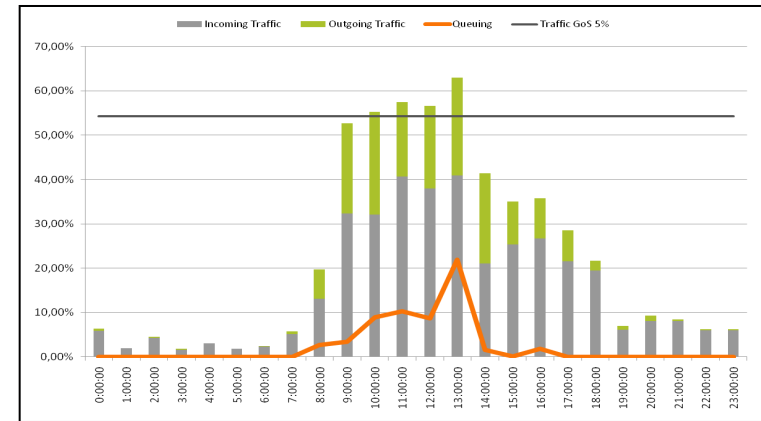
Belgian Tetra Users Committee



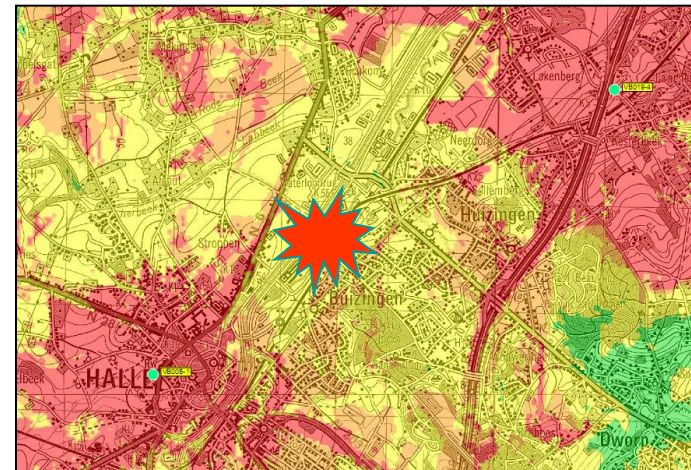
Jacquard Claude
Chairman



Train Crash in Buizingen – Feb 2010



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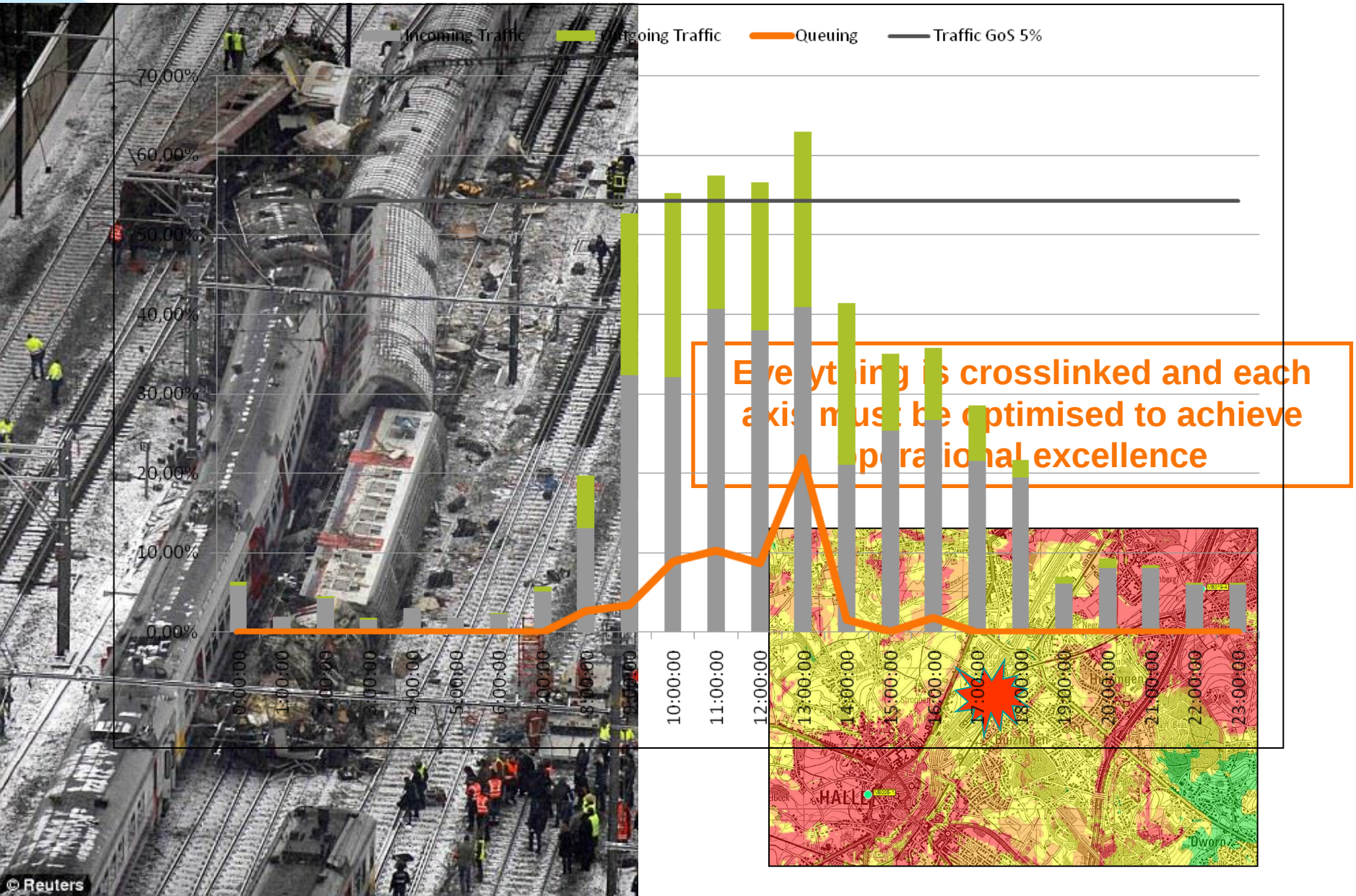
Train Crash in Buizingen



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Train Crash in Buizingen – Feb 2010



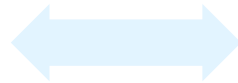
Conclusion

3 MAIN AXES

Capacity

Everything is crosslinked and each axis must be optimised to achieve operational excellence

Priorities



Operation

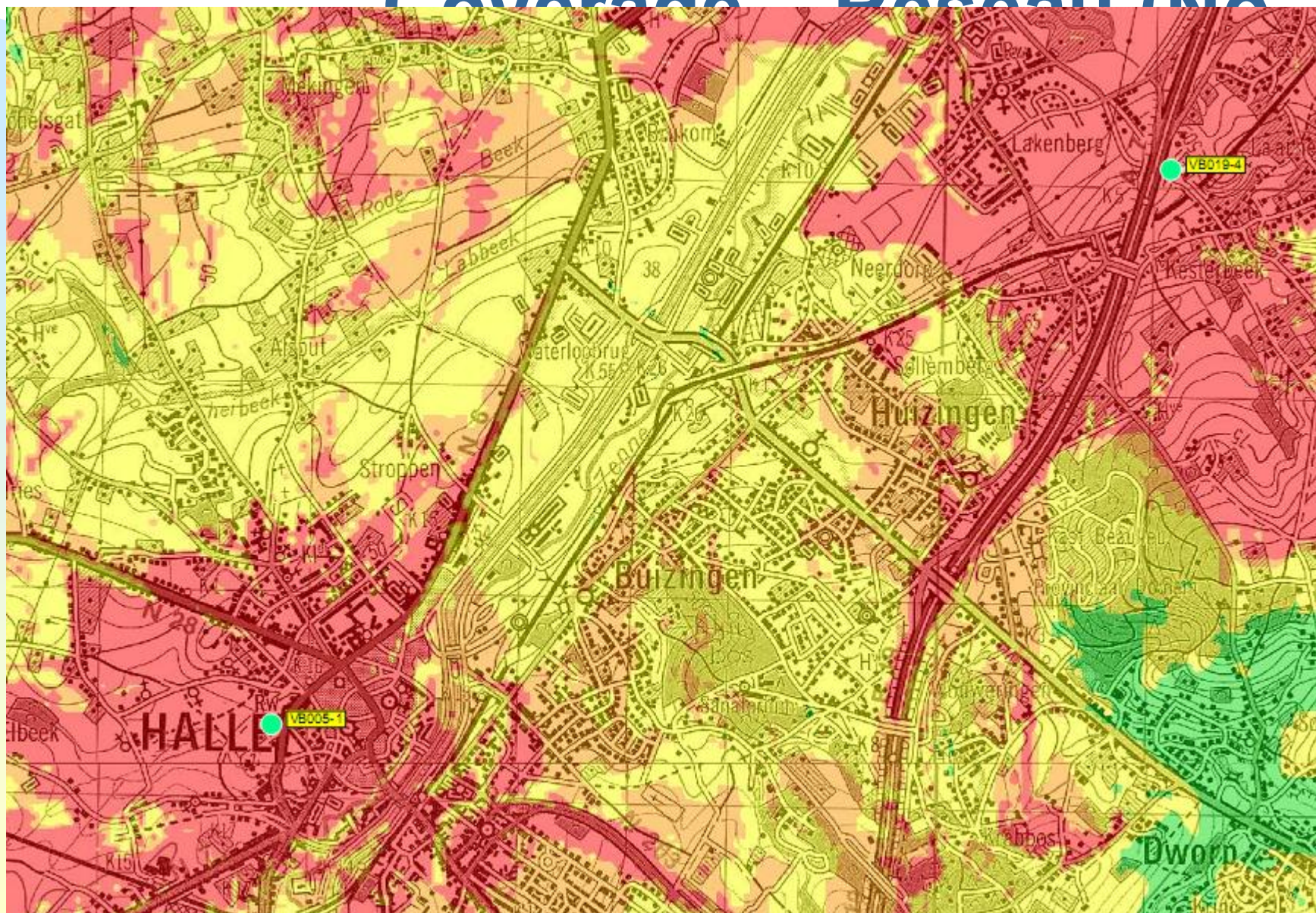
DMT MTU

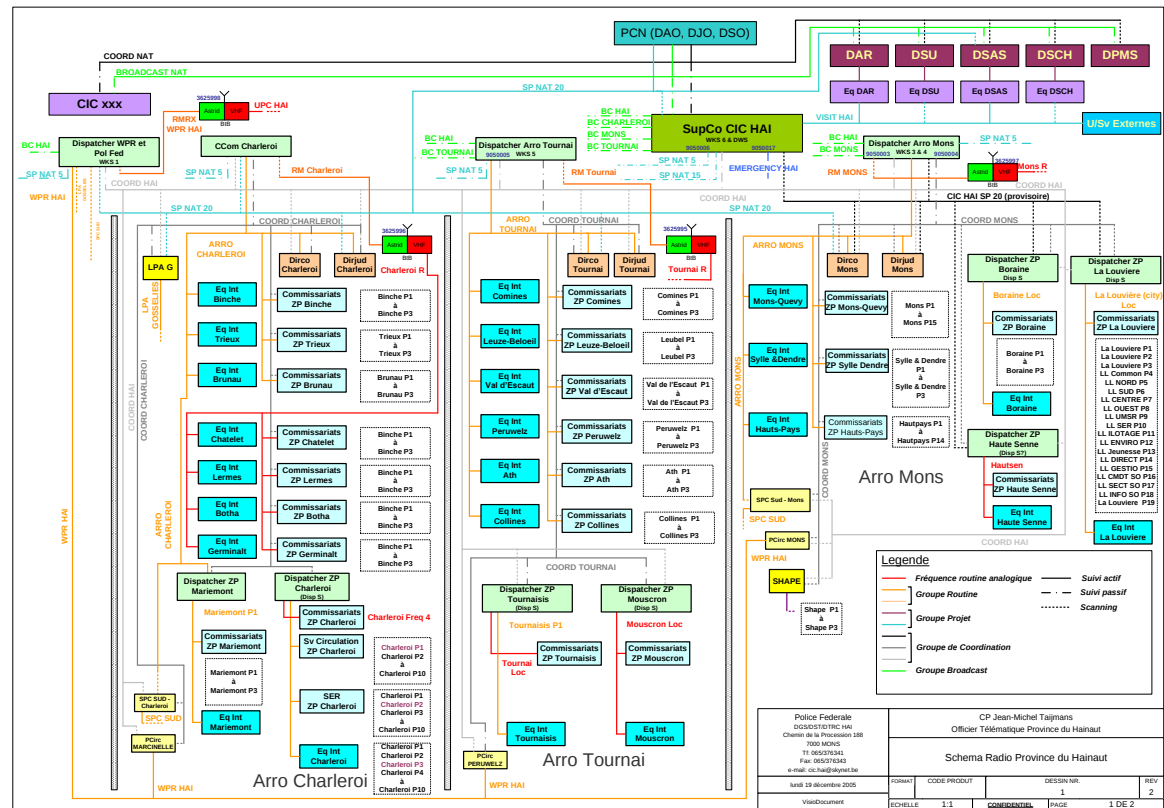


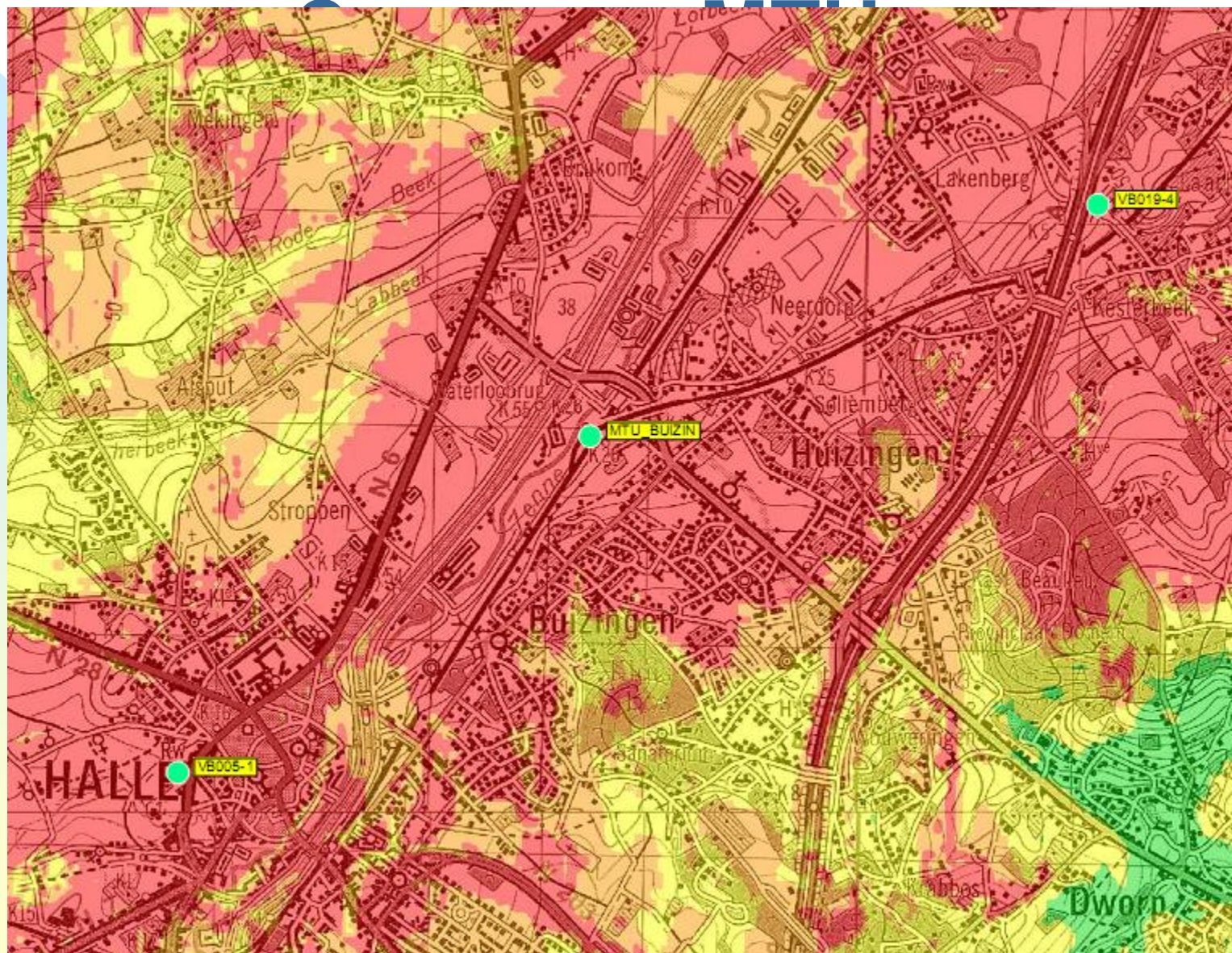
Train Crash in Buizingen



Coverage Réseau (No







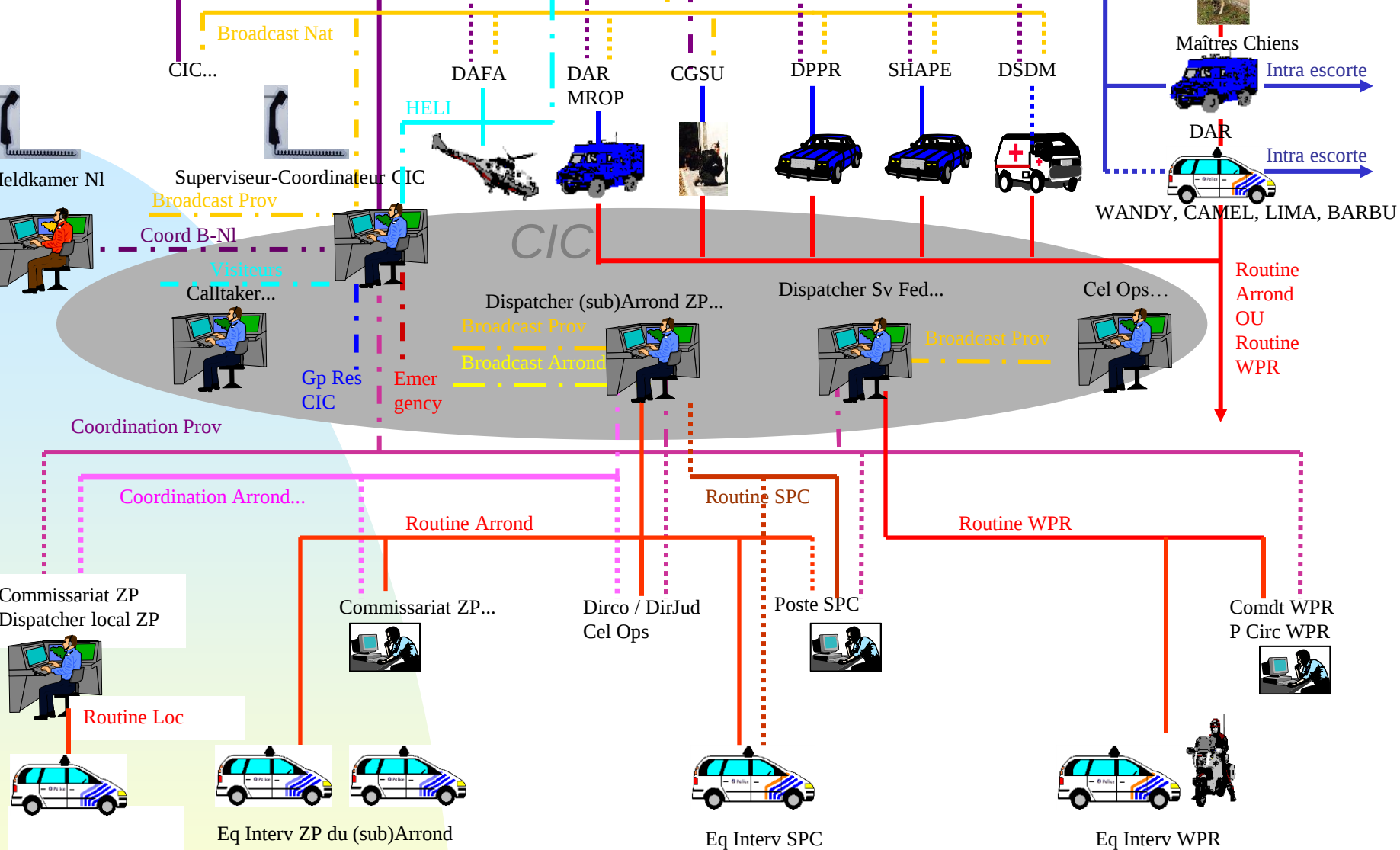


Audit - Methodologie

- ◆ **Verslag audit**
- ◆ **Analyse SORA**
 - ☞ ***Symptomen***
 - ☞ ***Oorzaken***
 - ☞ ***Remediën***
 - ☞ ***Acties***

B-Tetra Users Comm.

- Legal basis
 - Creation (R.D. 27-07-98)
 - Mission (R.D. 03-09-98 & 08-04-03)
- Mission & Goals
- Historical Review



Activités du CCU

Les activités du CCU ont pour but de :

- ◆ contribuer à une plus grande efficience et à l'extension des systèmes et des Infra;
- ◆ définir les processus et procédures de radiocommunication multidisciplinaires ;
- ◆ garantir la cohérence et l'efficience des plans de Com multi/pluridisciplinaires ;
- ◆ Optimiser/faciliter le fonctionnement de chaque Sv/Org dans un environnement multidisciplinaire ;
- ◆ délivrer l'expertise et l'appui demandés par les services/Org peu expérimentés ;
- ◆ délivrer l'expertise aux autorités publiques demanderesses.

Dans le cadre de sa mission légale, le CCU a progressivement développé un partenariat constructif avec A.S.T.R.I.D., et assure de plus en plus un rôle-clé apprécié en tant que partenaire, interface ou facilitateur entre l'opérateur des réseaux et les organisations utilisatrices.