



## Agenda 22 April 2003 Train the trainers

- |                |                              |
|----------------|------------------------------|
| 9.30 – 10.00   | Arrival with coffee and tea; |
| 10.00 – 10.15  | Welcome, introduction;       |
| 10.15 – 10.45  | Overview Three country Pilot |
| 10.45 – 11.15  | How does it work in detail   |
| 11.15 - 11.30  | <i>Coffee / tea break</i>    |
| 11.30 – 12.15  | How does it work in detail   |
| 12.15 – 13. 00 | <i>Lunch break;</i>          |
| 13.00 – 14.00  | Hands-on session;            |
| 14.00 – 14.15  | <i>Coffee / tea break;</i>   |
| 14.15 – 15.45  | Scenario's;                  |
| 15.45 – 16.00  | Questions & Answers          |



## Three Country Pilot Aachen – Luik (Liège) – Maastricht



# 22 April 2003 Train the trainers

Working group business processes

Working group Coupling

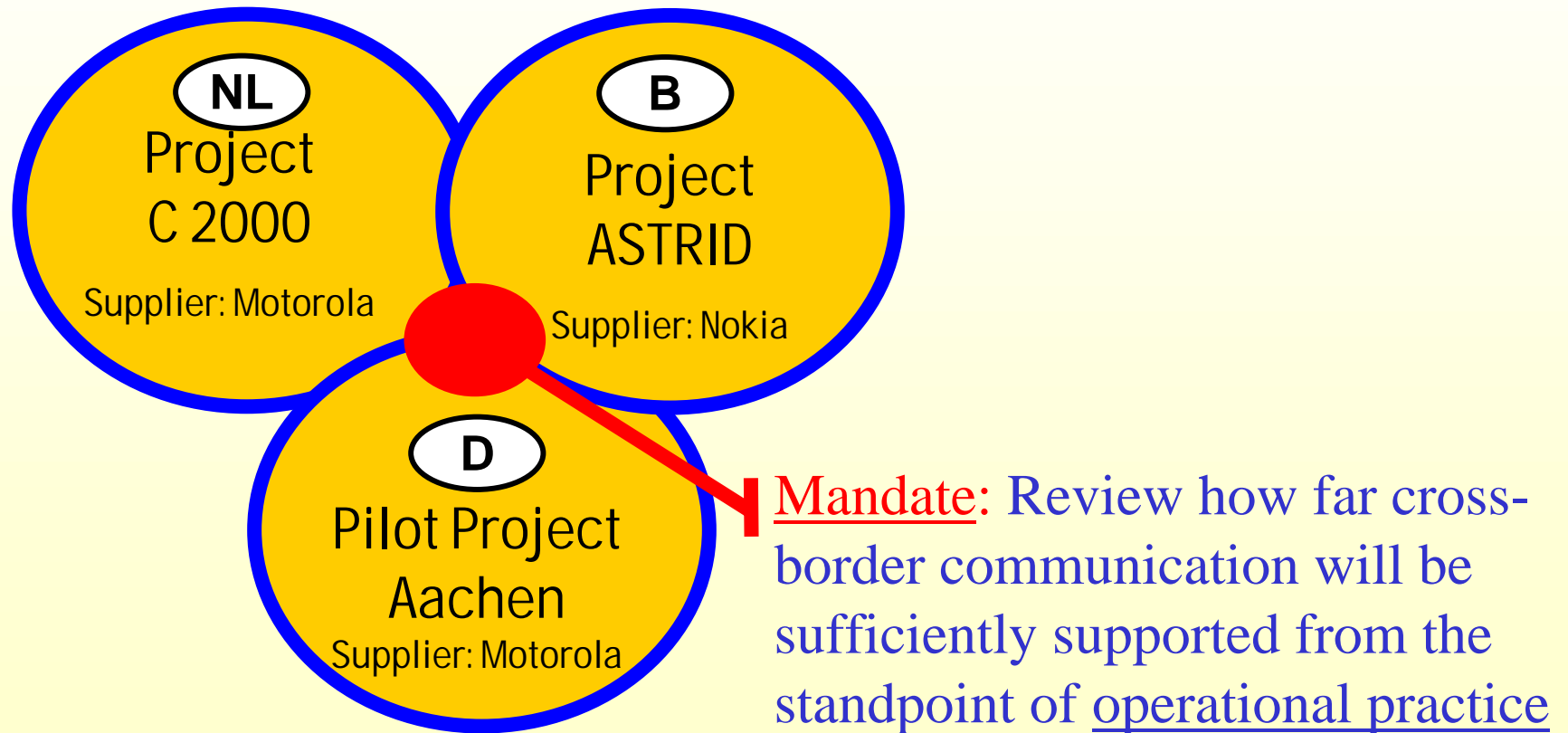


## Importance Cross Border Cooperation





## Participating Countries





## **Goal Three Country Pilot, First Phase**

*“To investigate how far on an operational level (mobile) speech communication facilities of the TETRA based technologies are sufficient regarding cross-border cooperation between the several organisations for public order and safety and the dispatching rooms in the region Aachen, Zuid-Limburg and Liège”*



# Phases

- Preparation phase: national infrastructures
- 
- Start phase: testing speech communications
  - Possible future phases: testing data communications and alarming facilities



# Participating organisations

- Border Police
- Police
- Customs
- Fire brigade
- Ambulance services
- Civil Protection



## Scope

### In scope

- Mobile speech communication facilities: group call, individual call, telephony call, emergency call (limited signalling)
- Dispatch terminals in Control rooms
- Radio's

### Out of scope

- Mobile data communication facilities
- Paging
- Procedures
- Juridical aspects
- Organisational aspects





## Results

- Insight TETRA and national projects cross border aspects
- Insight in optimization TETRA
- Recommendations national projects cross border aspects
- Recommendations Thee Country Pilot next Phases
- Technical and functional proven cross border communication in the field



## Pre conditions

- Mobile speech communication features available
- Interim Inter System Interface available
- Dispatch terminals in control rooms and radio's available
- Trained end users and dispatchers
- Experts to support the tests

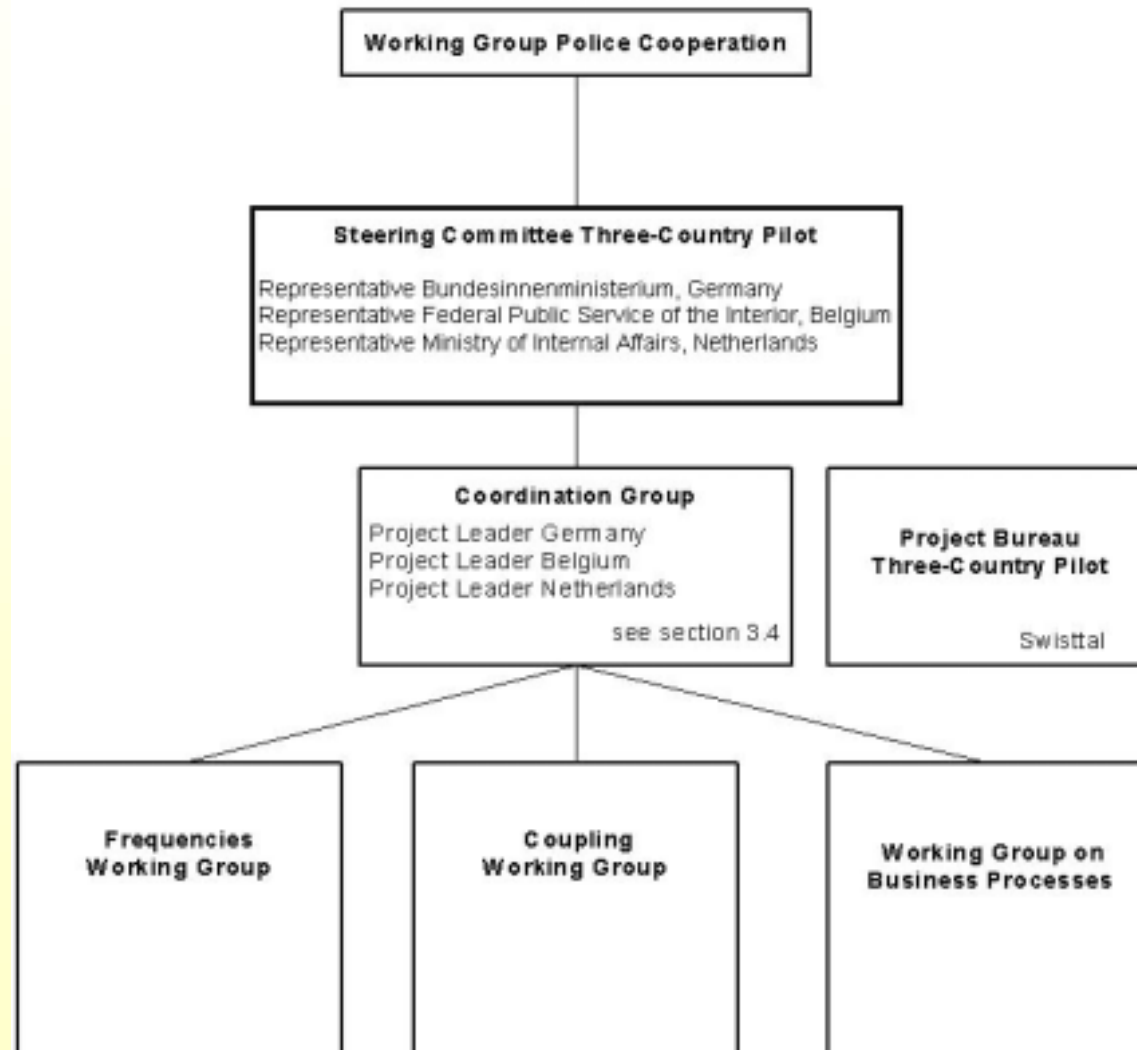


## Starting points

- Using known international and bi-lateral agreements regarding cross border cooperation laid down in:
  - Schengen → Police and border control
  - Other administrative agreements
- Aspects tested elsewhere are excluded (e.g. coverage)



## Project organisation D-B-NL





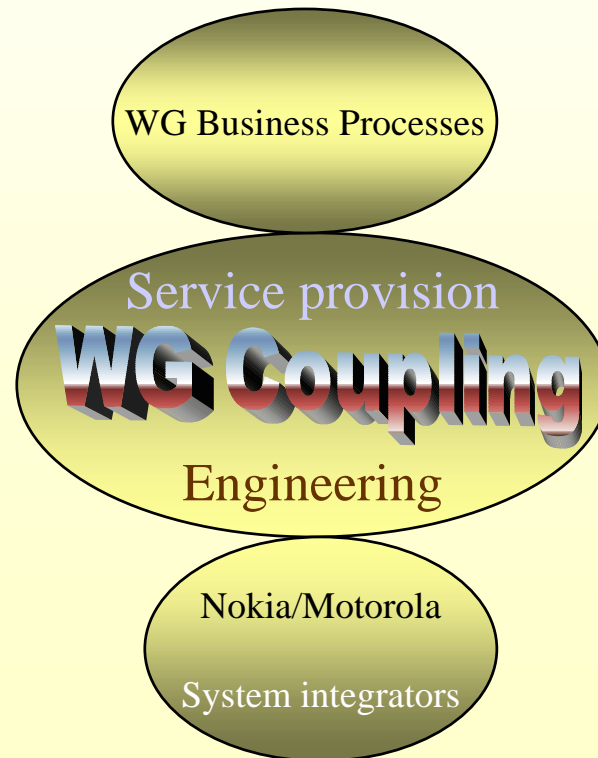
## Overview and cohesion WG activities

- Development ISI: Manufacturers
- Description how it works: WG Coupling
- Agreements frequency usage: WG Frequencies
- Prepare tests: WG Business Processes
  - Present cross border operational procedures
  - Usage of TETRA technology
  - Usage international frequencies
- Needed further improvements: WG Business Processes
- Translate to technical terms: WG Coupling and Frequencies



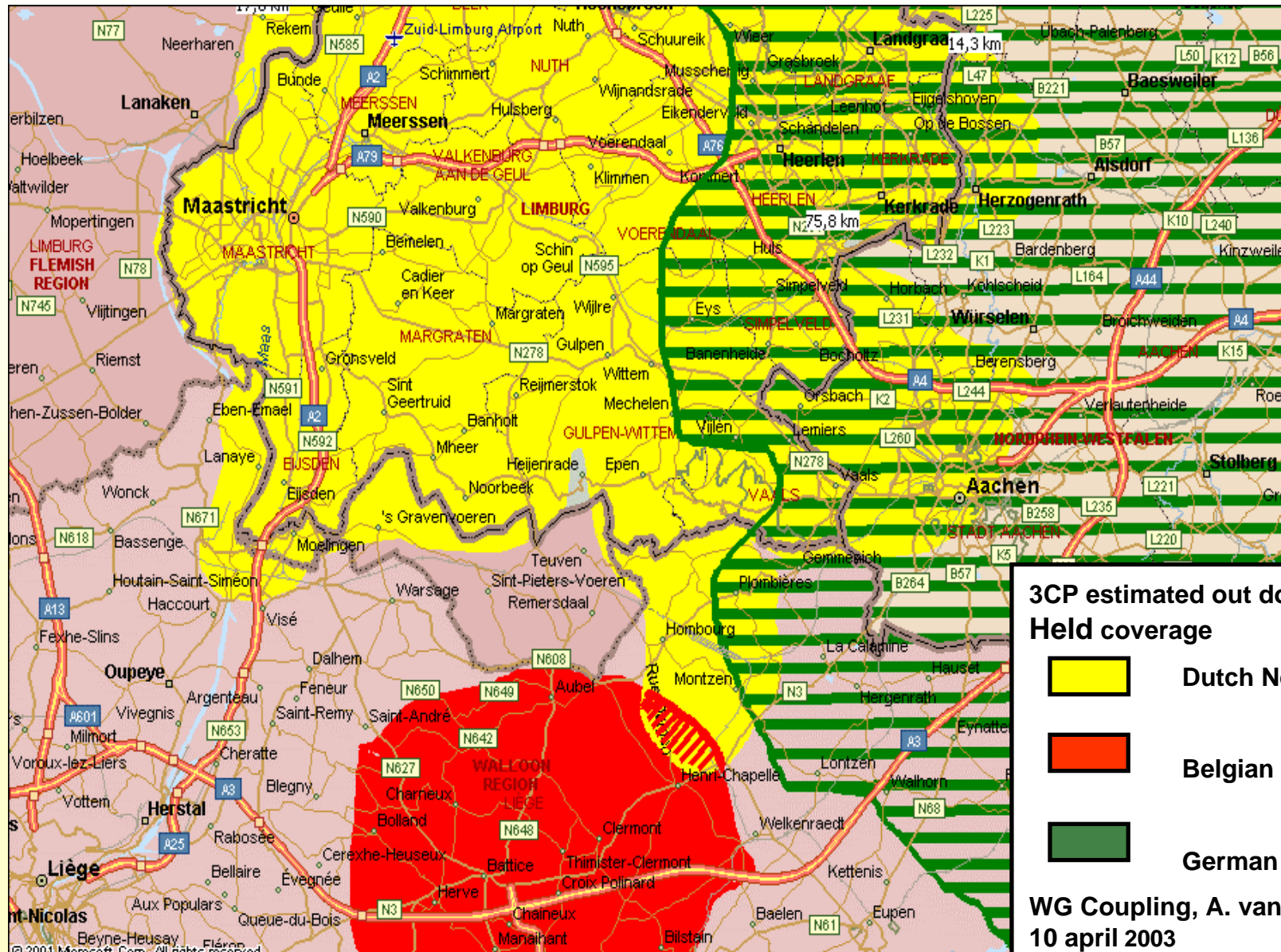
## Role of the WG Coupling

- Intermediar between operational/functional requirements 3CP and functional/technical realization.








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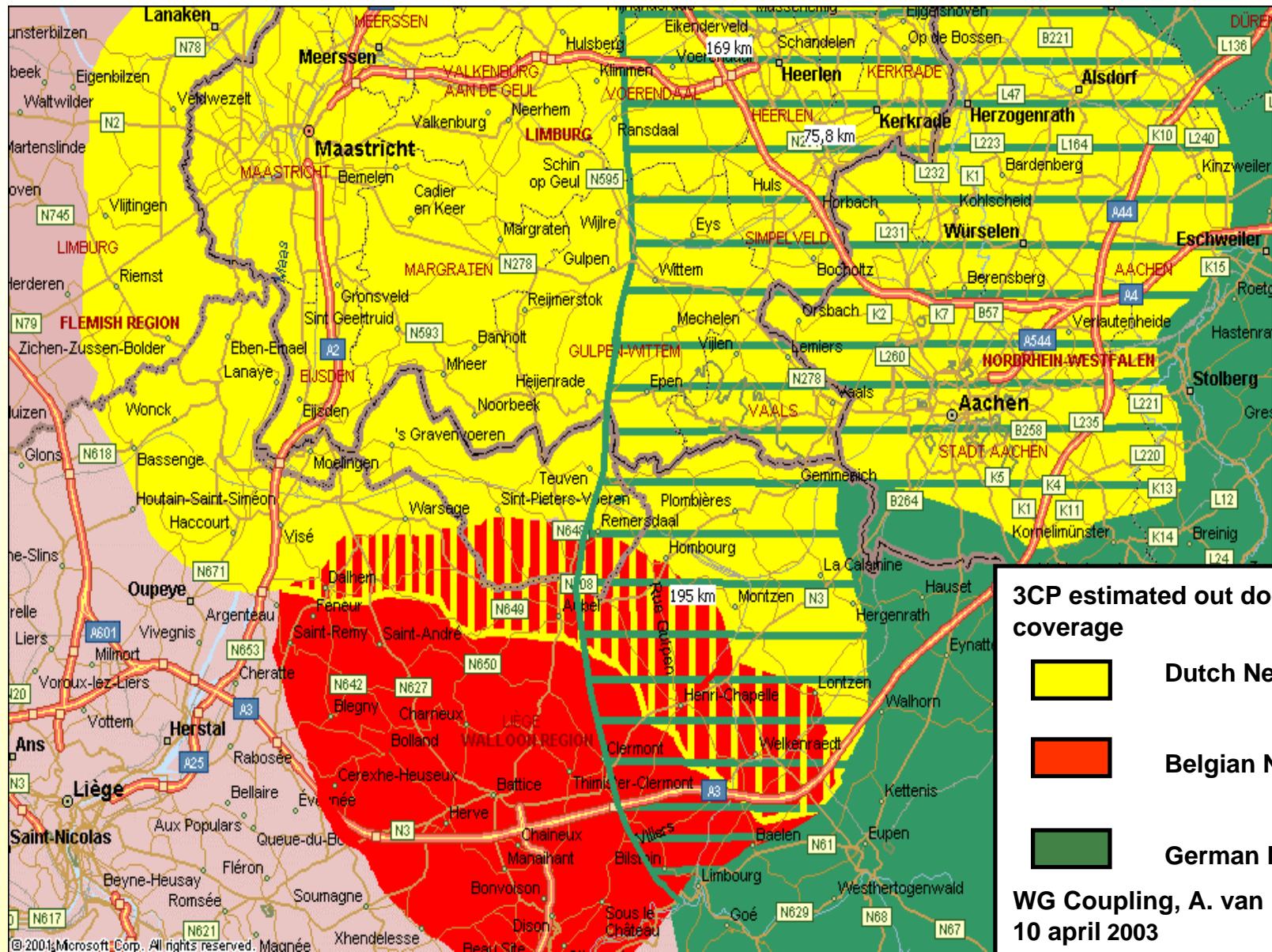
**3CP estimated out door Hand-Held coverage**

-  Dutch Network
-  Belgian Network
-  German Network




**WG Coupling, A. van Houten,  
10 april 2003**



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**3CP estimated out door Mobile coverage**

-  Dutch Network
-  Belgian Network
-  German Network

**WG Coupling, A. van Houten,  
10 april 2003**





### Fleetmap and radio's

- Fleetmap:
  - configuration 3CP radio = country specific groups + three 3CP groups (3CP2, 3CP3, 3CP4);
  - configuration dispatch terminals = country specific groups + four 3CP groups (3CP1, 3CP2, 3CP3, 3CP4);
  - 3CP1 is reserved for international communication between control rooms;
  - Belgian specific part described in attached presentation;
- Radio's:
  - **NL**: 50 Motorola MTP700 or MTH500, handhelds;
  - **G**: 30 Motorola MTP300 handhelds;
  - **G**: 10 Motorola MTM300 mobiles;
  - **B**: 3 Sepura and 10 Nokia THR420 handhelds, 10 Nokia TMR420 mobiles;



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## Fleetmap and radio's

The Netherlands

**Motorola**

**MTP700**

**MTH500**



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## Fleetmap and radio's

**Motorola MTP300**

**Germany**

**MTM300 mobiles**



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## Fleetmap and radio's

Belgium

**Nokia THR420**

**TMR420 mobiles**

**Sepura SRP2000**



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### The involved dispatcher locations:

#### Belgium:

1. Hasselt

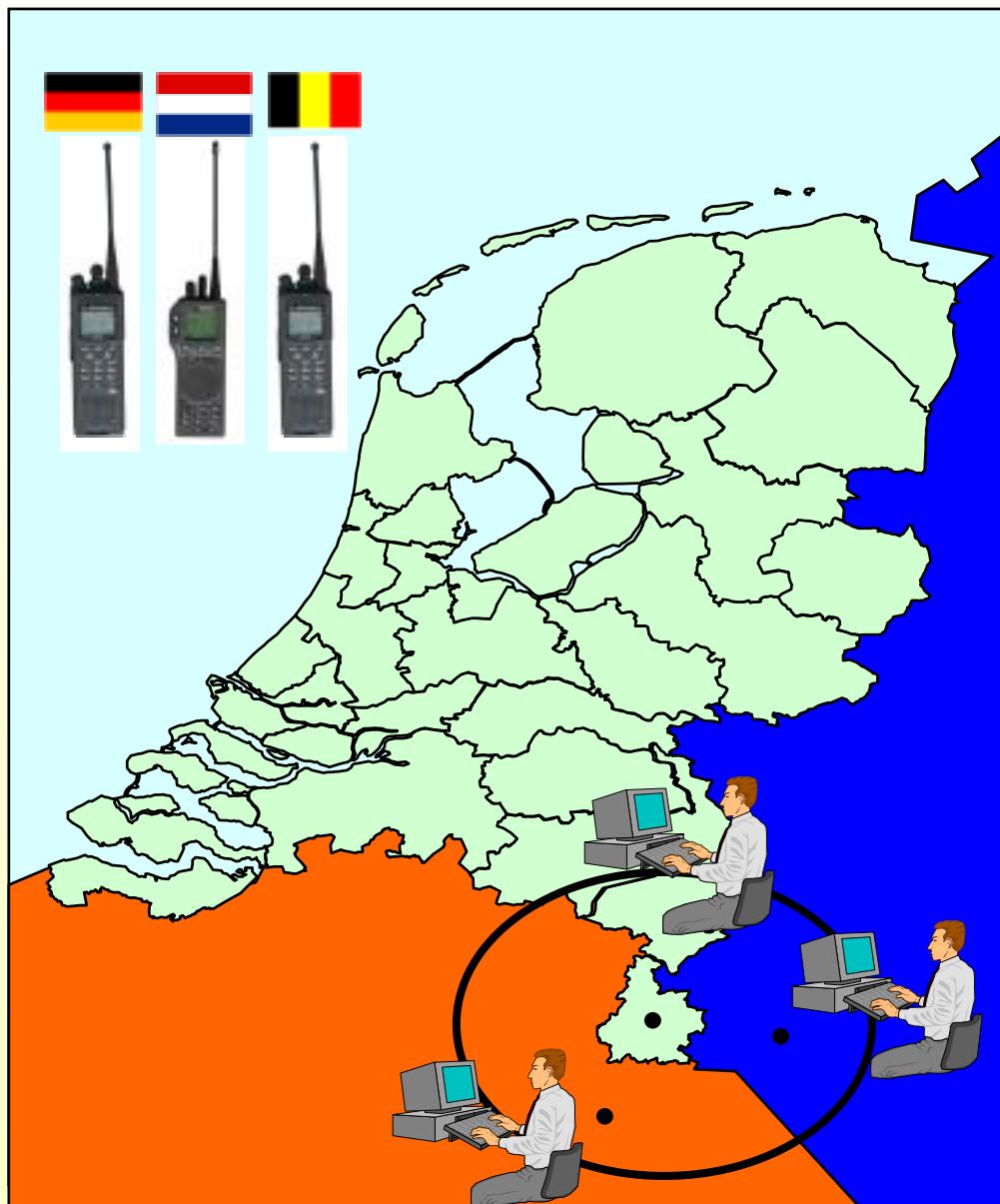


#### The Netherlands:

1. Multidisciplinary dispatcher room  
Maastricht

#### Germany:

1. Police dispatcher room in Aachen,
2. Federal Border Police dispatcher room  
in Linnich Welz
3. Fire Rescue and Disaster release  
dispatcher room

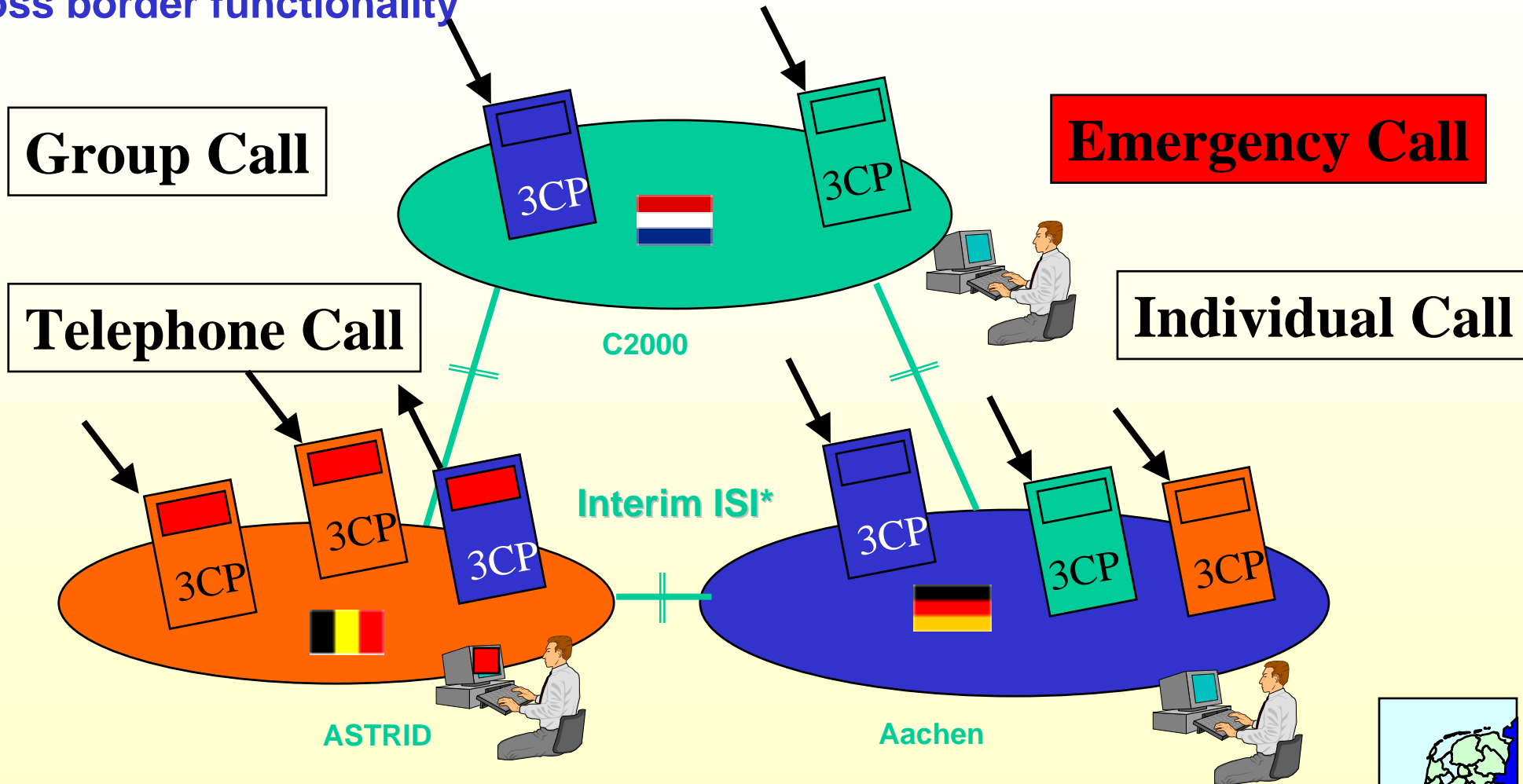




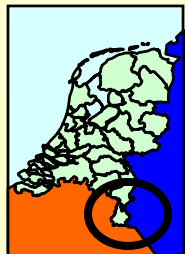
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## Cross border functionality



(\*) interim ISI: interim Inter System Interface





## How to make an International Group Call:

Select one of the four 3CP groups and press Push to Talk (PTT).

Result: All radio's and dispatchers in the networks that have the group selected can hear the audio.

### Remarks:

- There are four 3CP groups available;
- National groups are not available in foreign network!
- All radio's do **not** indicate which network it uses;
- All radio's can roam from one to the other country automatically;
- Motorola and Sepura can roam from one to the other country also manually;
- No encryption is used in this phase for international groups;



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### Automatic versus manual network selection:

	Advantage	Disadvantage
automatically	<ul style="list-style-type: none"><li>- no user action required;</li></ul>	<ul style="list-style-type: none"><li>-no choice in the used network;</li><li>-in case of emergency call it's unclear for user which dispatcher gets the emergency signaling</li></ul>
manually	<ul style="list-style-type: none"><li>-user can select a favorite network;</li><li>-in case of emergency call it's clear for user which dispatcher gets the emergency signaling</li></ul>	<ul style="list-style-type: none"><li>-radio stays on selected network even if there is no coverage;</li><li>-user action required</li></ul>

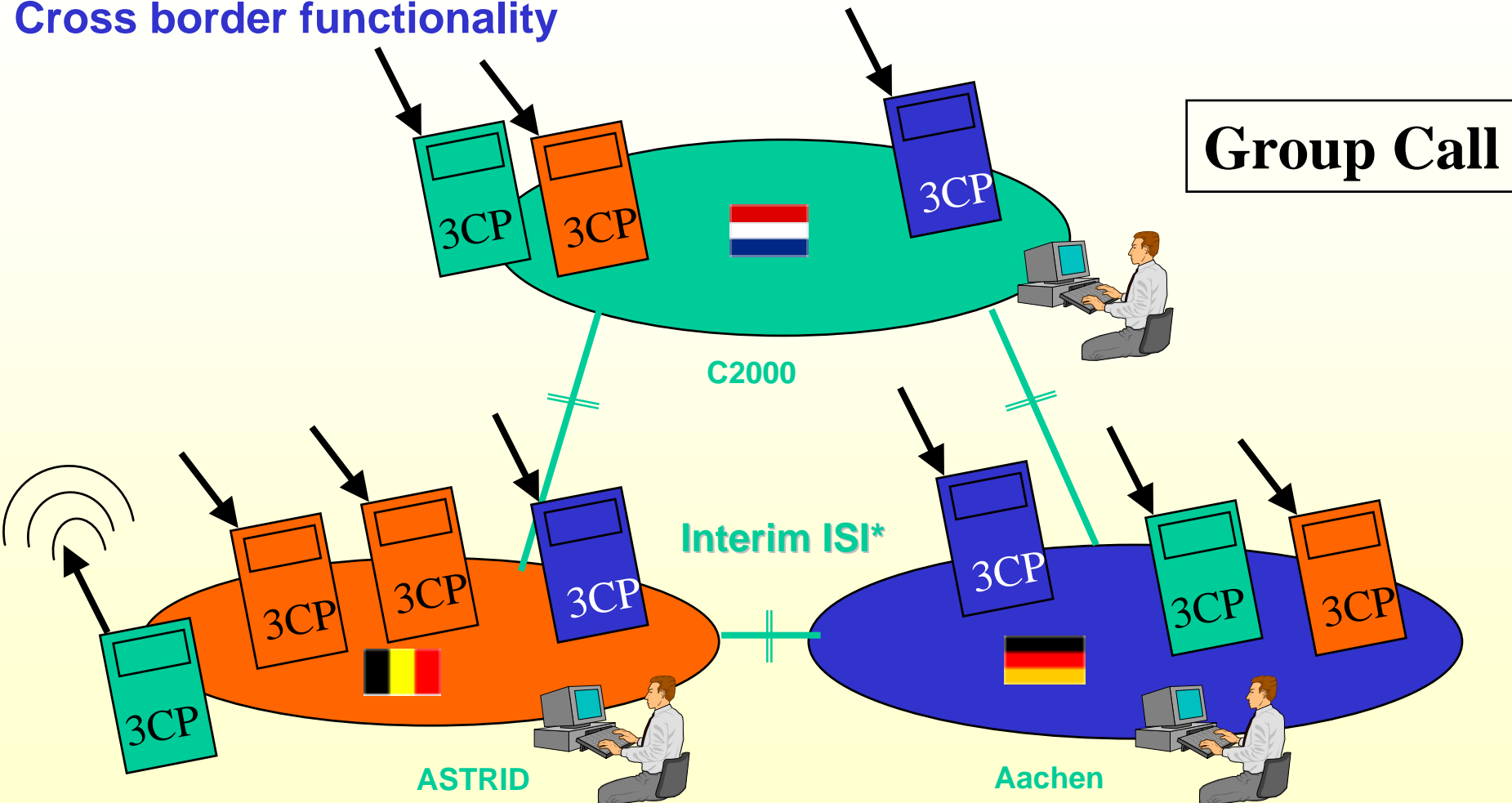




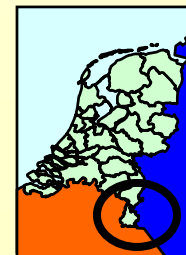
# Three Country Pilot

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### Cross border functionality



(\*) interim ISI: interim Inter System Interface





## How to make an International Emergency Call:

Press Emergency button.

Result :Emergency call goes to the selected group (3CP group). Audio can be heard by all dispatchers and radio's in the networks that have the group selected.

Remarks:

-Emergency call signalling only in network where call initiated. Emergency call signalling is not being transferred to the other country at this moment;

**-Types of Emergency calls can differ in the participating countries (Group vs Individual)**

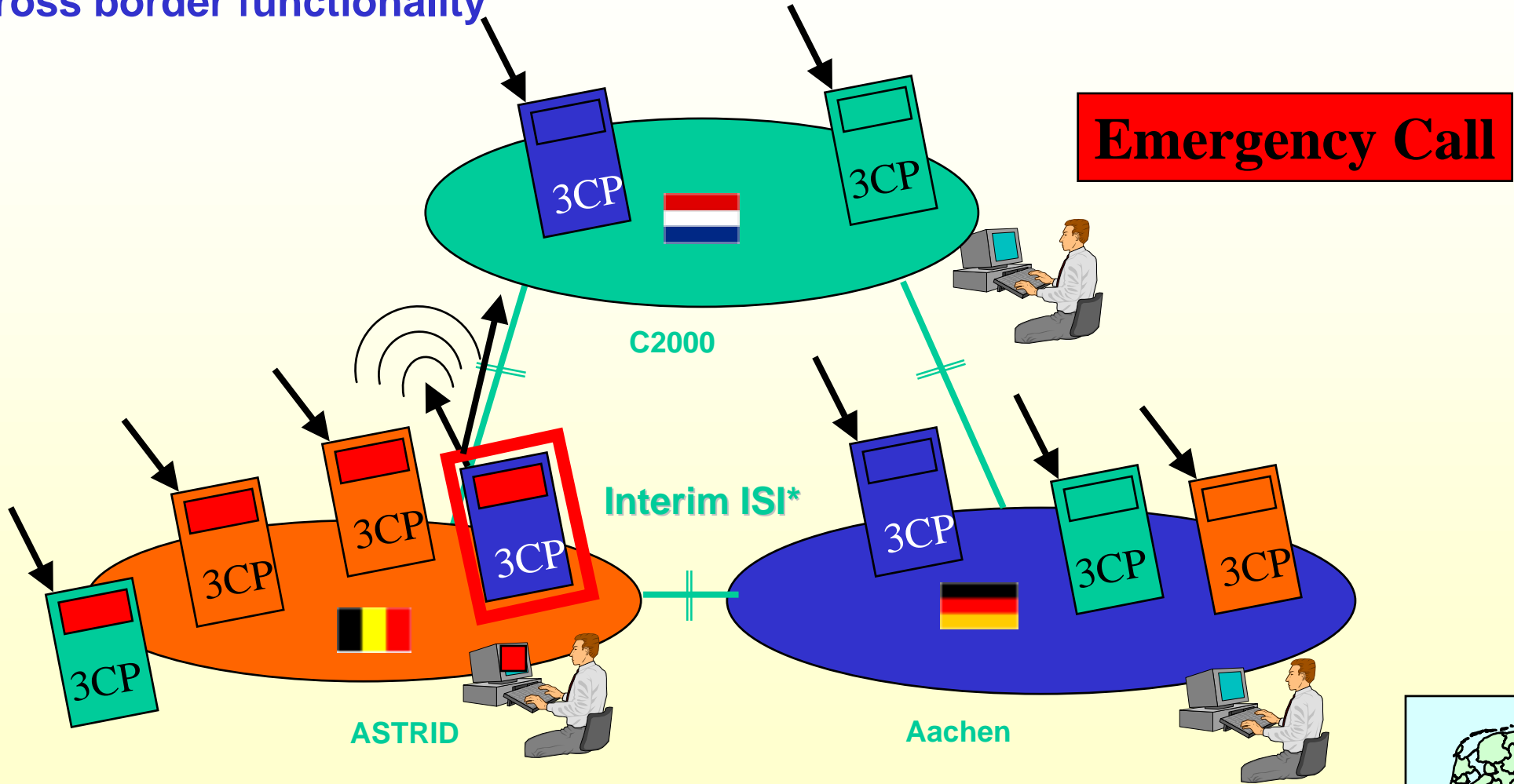
-In Germany and the Netherlands the Emergency call is linked to a group;

-In Belgium the Emergency call can be linked to an individual user or to a group;

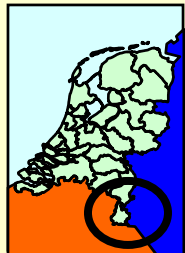


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## Cross border functionality



(\*) interim ISI: interim Inter System Interface





## How to make Individual Call:

Individual call in Belgian Network to other radio in Belgian Network

Dial ISSI number

Individual call in German Network to other radio in German Network

Dial ISSI number

Individual call in Dutch Network to other radio in Dutch Network

Dial ISSI number

**Remark:** To use this functionality both radio's have to be registered in the same network.

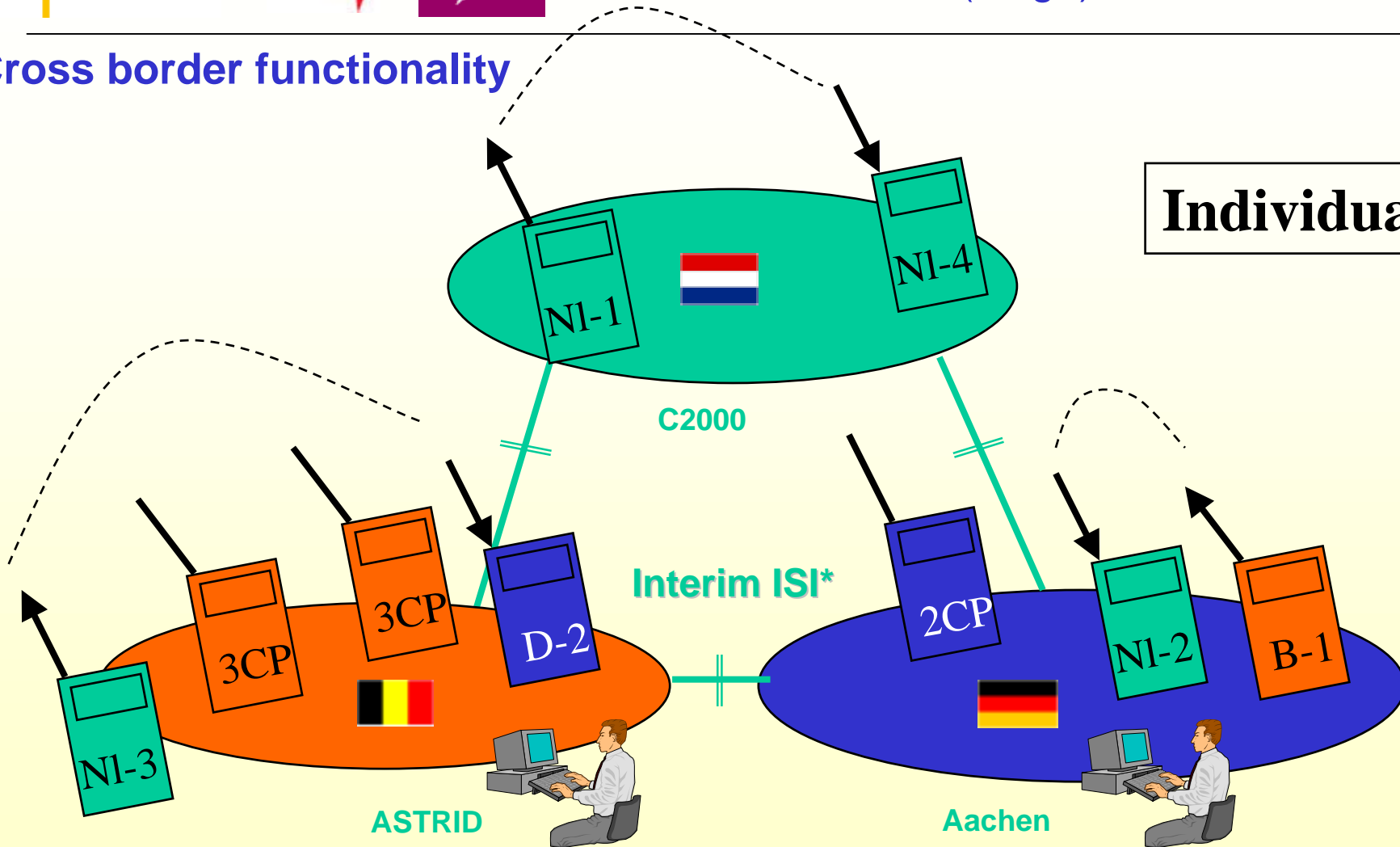


# Three Country Pilot

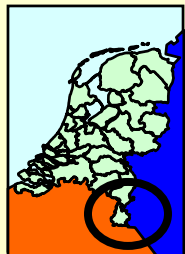
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Cross border functionality

Individual Call



(\*) interim ISI: interim Inter System Interface





## How to make Telephone Call:

### Telephone call in Belgian Network:

Nokia THR420: dial “00” + “Telephone number” (e.g. 000031....)

Other Terminal : Select telephone mode and dial “0” + Telephone number

### Telephone call in German and Dutch Network

Nokia THR420: dial “200” + “Telephone number” (e.g. 2 00 0032....)

Other Terminal : Select telephone mode and dial “0” + Telephone number

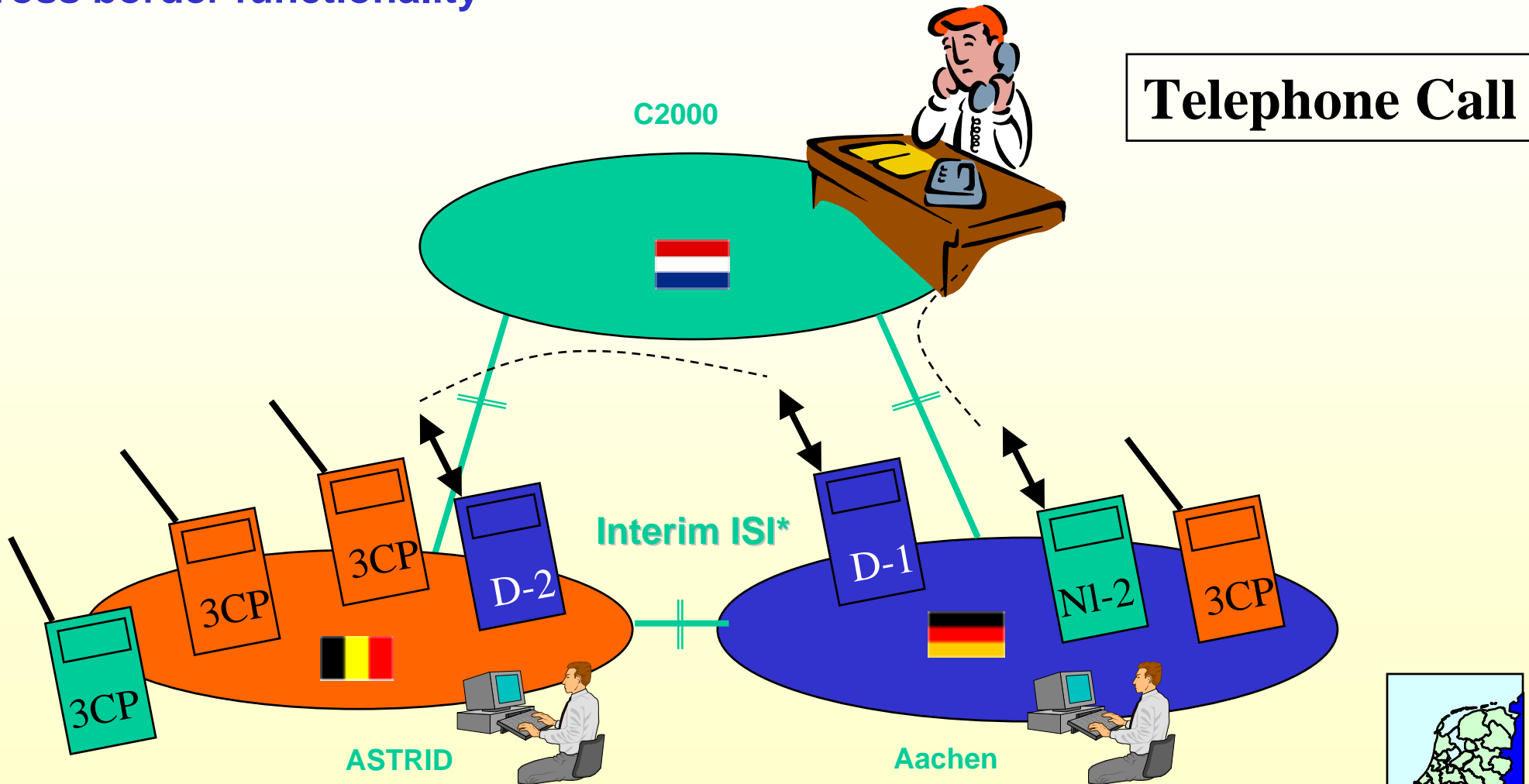
### Remarks:

- THR 420 is half duplex this means talking and listening simultaneously is not possible;
- Half duplex telephone calls are not supported by German and Dutch network;
- Set up of a telephone call can be different for each network;

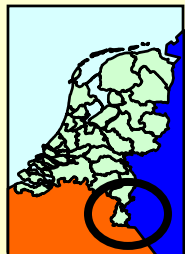


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## Cross border functionality

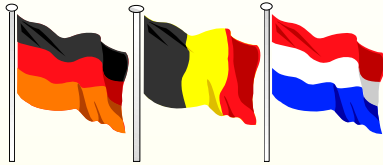
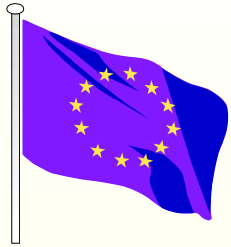


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### General Information Three Country Pilot in:

- English
- Français
- Deutsch
- Nederlands

Or visit the website:

<http://www.3countrypilot.com>





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