

***A Dutch case study:
Cell Broadcast for Public warning,
The road ahead***

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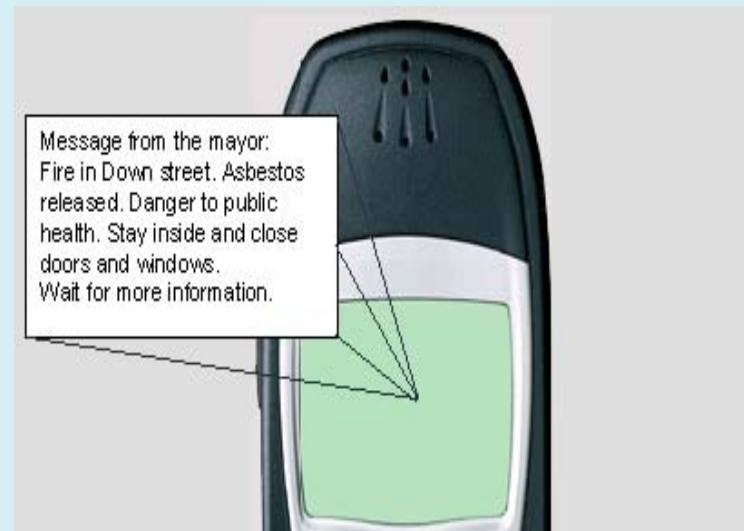
Ministerie van Binnenlandse Zaken en Koninkrijksrelaties



○ Communication in crisis situations



Alarming civilians



Alarming and
Follow up information



Background & developments

Cell broadcast in the Netherlands

- **2004: Assignment for national government:**
 - Find new possibilities to alarm, alert and inform the public in risk and crisis situations, including deaf people and hard of hearing
- **2006: Ministries (Mol and MEA) did research about the possibilities of the technique Cell broadcast**
 - Conclusion: cell broadcast is most suitable as communication mean from government to public in civil alert situations
- **2005-2007: Mol, did research about cell broadcast as citizen alert system together with the Technical University of Delft**



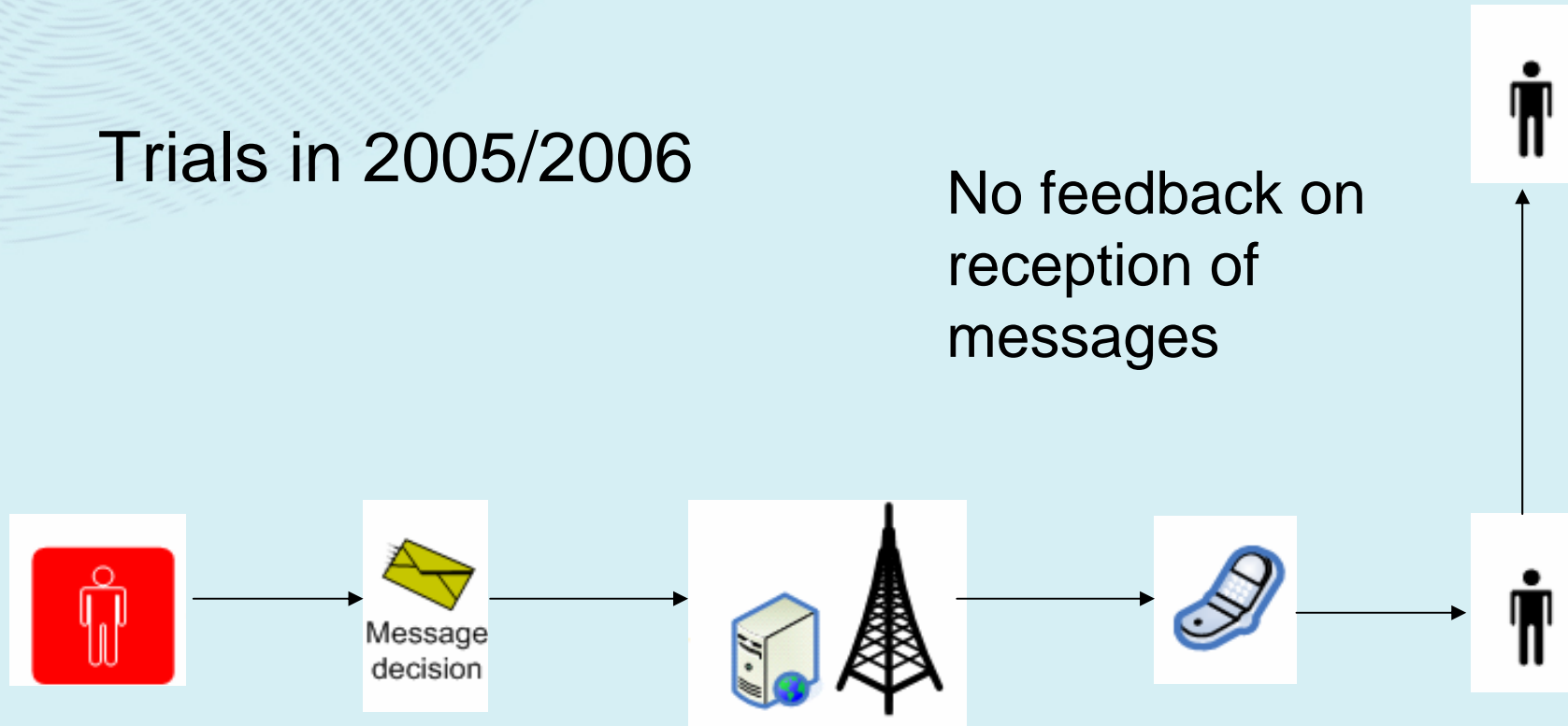
○ **Trials in the Netherlands**

Questions to be answered

- **Cell Broadcast Technology**
 - Is infrastructure at required quality level
- **Communication**
 - How many people can you reach
 - The acceptance of the message
 - Contents of the message
- **Advice and decision**

Civil alert cycle with Cell Broadcast

Trials in 2005/2006

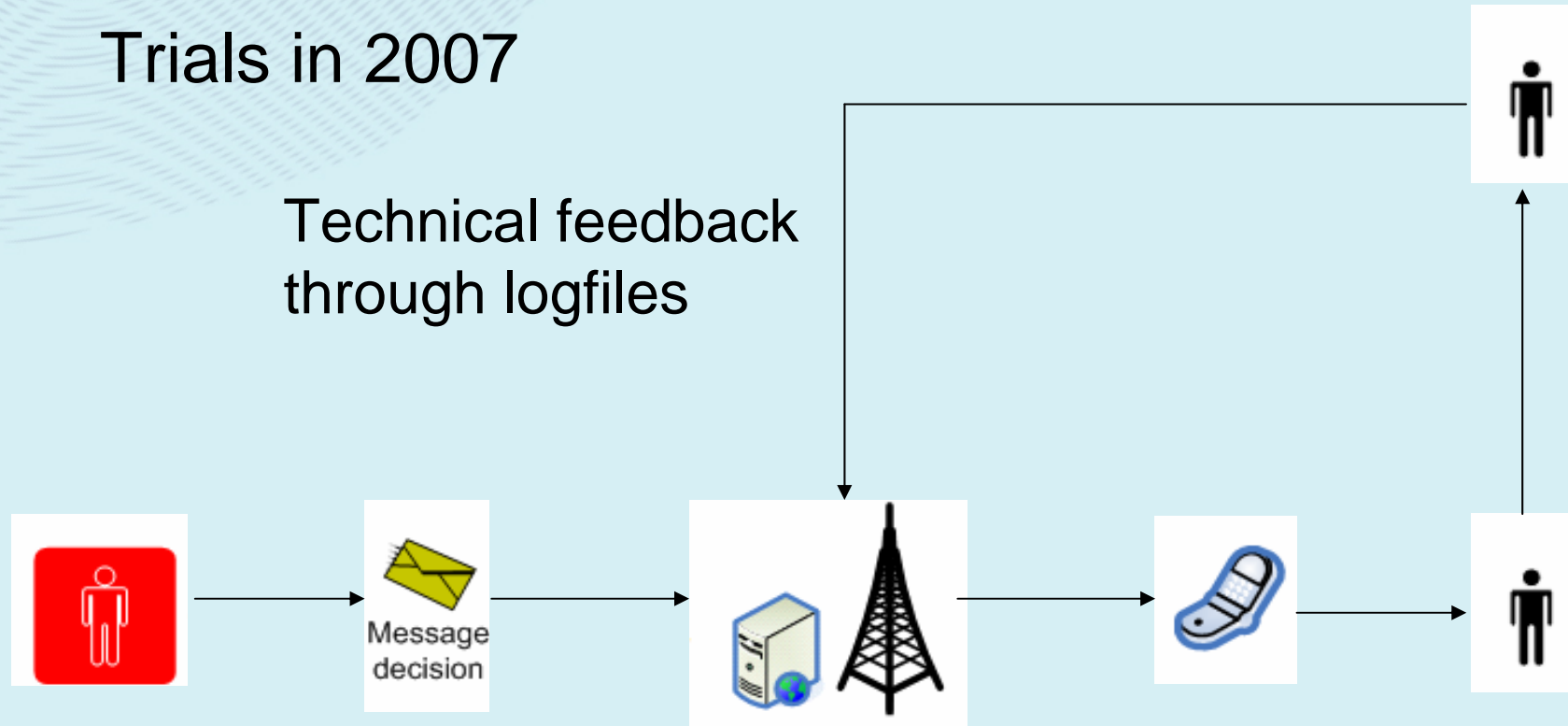


No feedback on
reception of
messages

Citizens own
mobile handsets not
preconfigured

Civil alert cycle with Cell Broadcast

Trials in 2007



1 type of
preconfigured
handset



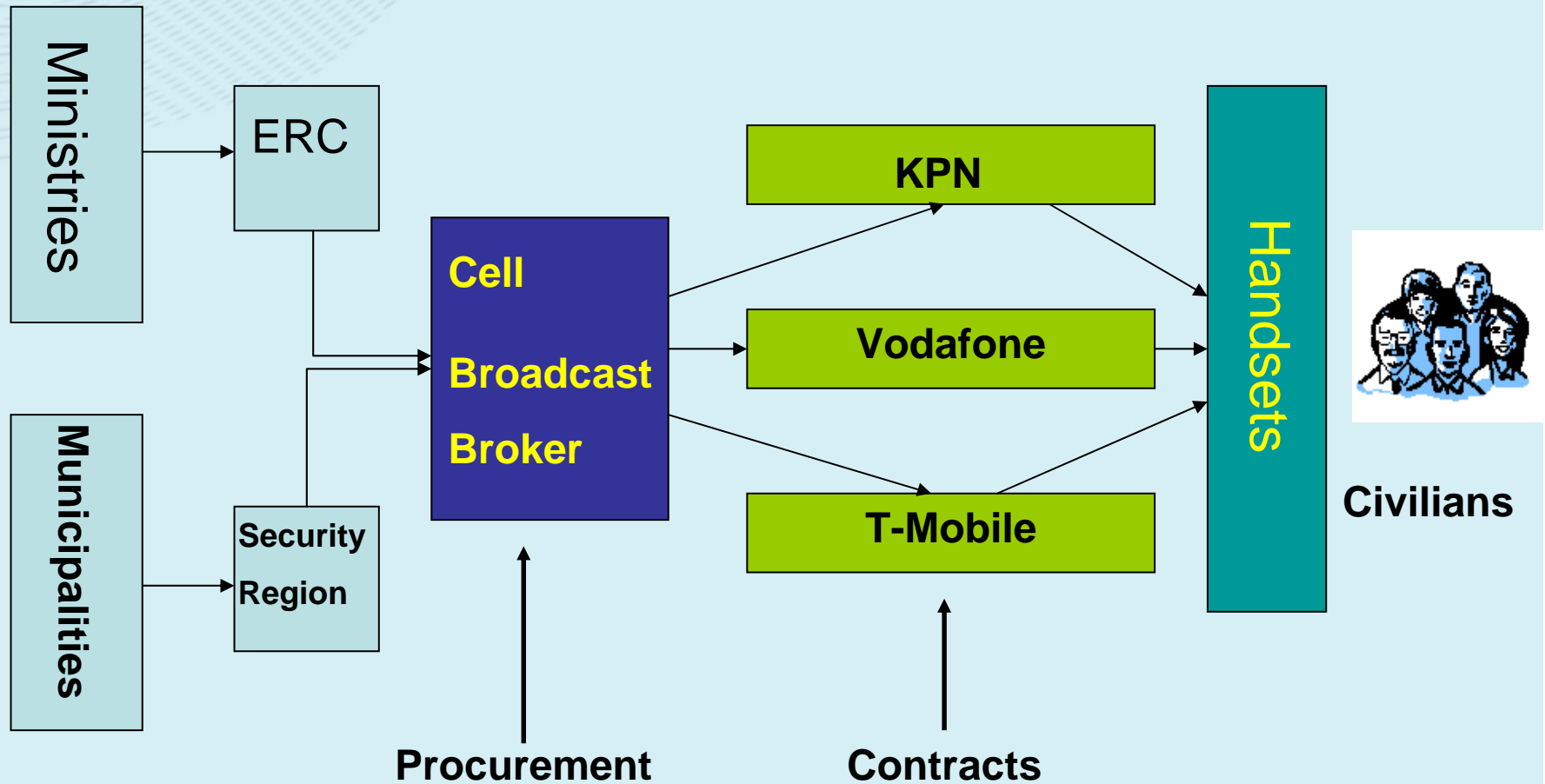
○ Results of trials in the Netherlands

- **Technology**
 - Infrastructure can be managed using network management and alignment between government and technology providers
 - Setting up the cell broadcast channel can provide problems on mobile handsets
- **Communication**
 - REACH (how many will be reached)
 - 86%-94%
 - ACCEPTANCE (of the use as a citizen alert)
 - Acceptance amongst citizens is high
 - CONTENT (effect of the information)
 - Risk, action and information as message content
 - Telegram style
 - Sender, date and time indication
 - Notification should be recognizable: alarm tone
- **Advice and decision Mol**
 - Cell Broadcast is suitable OPT-OUT service for Public Warning
 - Start with the procurement phase of project

Broker model Netherlands

Government domain

Operator domain





EU Project

EU Project

Exchange of information and knowledge

Standardization in the field of Cell Broadcast (e.g. handsets)

Position paper

Preparation of European wide tests

Grant accepted by EU (JLS)

Partnership countries: Germany, Hungary, Poland

Sweden and the United Kingdom

Participating countries: Austria, Finland, Estonia, Latvia

Belgium, Bulgaria



Issues to be addressed concerning cell broadcast

- **Threshold for civilians using Cell Broadcast**
 - All handsets should support Cell Broadcast
 - User interface on handsets should be standard
 - Keep citizens continuously informed
- **Cell Broadcast support on upcoming technologies (UMTS, LTE, Wimax etc)**
- **Civil alert when crossing the border as tourists (channel allocations, national languages)**
- **Developing other products in safety and security domain (no commercial applications)**
- **Cell Broadcast successful with citizens acceptance of this new service for alerting, informing and instructing during crisis situations**



The road ahead (1)

Strong points of Cell Broadcast

- CB networks are designed to deliver emergency-scale traffic loads
- targeting users in a specific location is possible
- message delivery order is always predictable
- OPT-OUT service (so no subscription like SMS), 'privacy proof'
- no congestion on network

Issues which have to be decided/developed in the near future

- only received real time if mobile phone is activated
- message may get lost (storage problems)
- long messages not received completely
- 'spill over' effect if geographical area is too small



The road ahead (2)

- Start procurement broker (dec 2008)
- Finalize contract with broker (Q2 2009)
- Finalize contracts with operators (Q2, Q3 2009)
- Start building system (Q3 2009)
- First operational pilots (sep 2009)
- System live in the Netherlands (Q1 2010)
- Final Go/No Go decision (Q1 2013)
- After Go decision then contract for 12 years



More information?

- E-mail
 - cellbroadcast@minbzk.nl
- Project website about EU-cooperation on cell broadcast
 - <https://projectplace.com/pub/english.cgi/0/283748154>
 - You can also find the lessons from a two-year study in the Netherlands (*Report on the use of cell broadcast as a citizen alert system*)