

# Cell Broadcast for Public Warning





State of affairs of the project in the EU, Sweden and the Netherlands

1



### **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, Norway, Estonia,

Spain, Denmark, France, Latvia, Belgium, Bulgaria



## Issues 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



### **Strong points of Cell Broadcast**

- CB networks can deliver emergency-scale traffic loads
- targeting users in a specific location is possible
- message delivery order is always predictable
- OPT-OUT service (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



## Cell Broadcast applications



## **Applications in use:**

- Amber alert
- Alarm tone radio
- Area mail (tsunami warning)

## **Future applications:**

- Florida (hurricane warning)
- Bangladesh (flooding warning)



### Cell Broadcast applications



## **Professional applications (tested):**

- Ambulance in tunnels
- Weather
- Traffic
- Public safety and security (football matches)

### Professional applications (not tested):

- Petro chemical plants
- Holiday camps
- Public safety and security (metrostations)
- National parks
- Bill boards



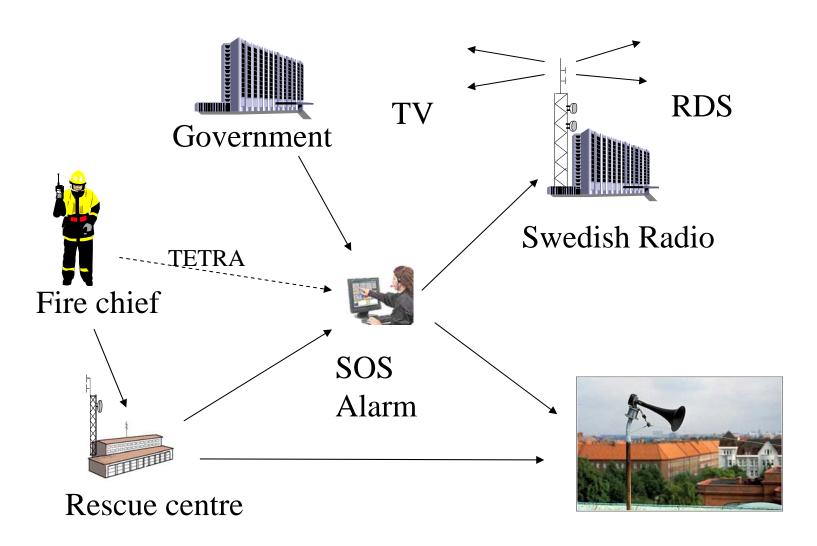
## **Sweden**





## **Public warning system**







## Alert through radio and television



### • TV

- Information in the all major TV- channels sending from Sweden
  - Text rolling in in the screen, and page-TV

### Radio

- Information in both public and commercial radio channels
  - Can break private commercial sending via PTY
     31 in the RDS system (special agreement)



## **Outdoor public warning**



 4500 sirens total in Sweden



New GIS-system for operating the system





# Indoor nuclear power plant warning system



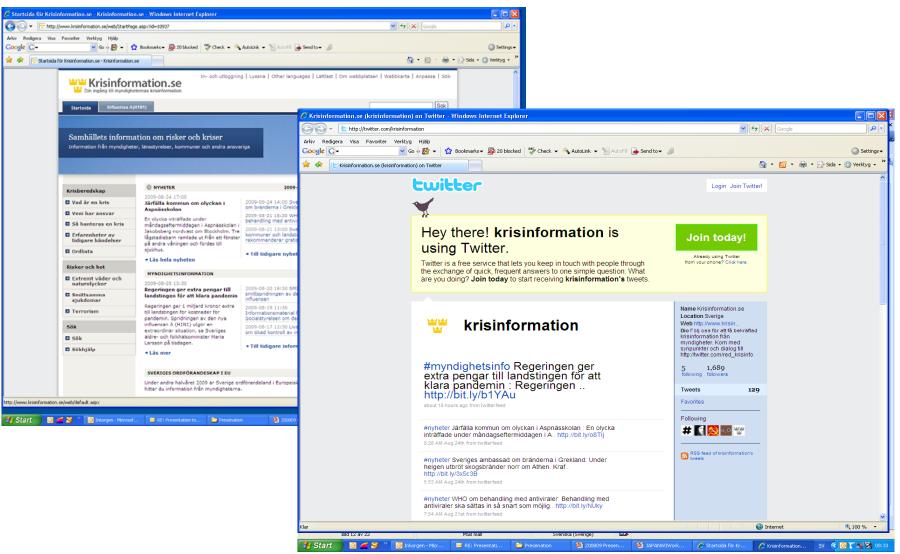
- RDS with special designed receivers
- 35 000 at 4 NPP (within 15 km from NNP)





### Internet information







## **Ongoing**



- Investigating warning and information messages using telephones:
  - fixed lines
  - cellular phones (SMS & CB)
- Investigating warning and information messages using Internet:
  - RSS-feeds
  - Blogs/Twitter



## The Netherlands





# Background & developments Cell broadcast 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 (MoI 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: MoI, did research about cell broadcast as citizen alert system together with the Technical University of Delft



# 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

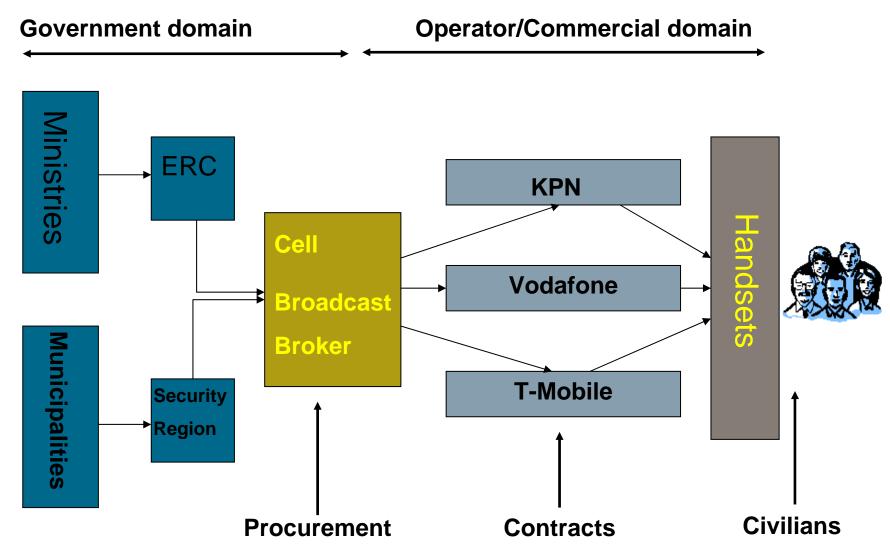
#### Advice and decision MoI

- Cell Broadcast is suitable OPT-OUT service for Public Warning
- Start with the procurement phase of project



### **Operational model Netherlands**







### **Broker Procurement**



## Winner of the open procurement: Centric

- Start building system (Q3 2009)
- System live in the Netherlands (Q2 2010)
- Final Go/No Go decision (Q1 2013)
- After Go decision then contract for 12 years



### **Operator Procurement**



- 3 contracts with: Vodafone, T-Mobile, KPN
- 1 steering group: MoI, TM, VF, KPN
- 3 working groups: technical, commercial and contractual
- Start Detailed Design phase (July 2009)
- Go/NoGo decision in October based on:
  - Functional requirements version 2.0
  - Contract and SLA
  - Price
- Finalize contract with operator (October 2009)
- System live in the Netherlands (Q2 2010)
- Final Go/No Go decision (Q1 2013)
- After Go decision then contract for 12 years



## Other upcoming activities



- Communication campaign citizens: Q2 2010
- Implementation of system in control room: Q3/Q4 2009
- Training communication/control room staff: Q1/Q2 2010
- Adjustment of procedures/protocols: Q4 2009
- Possibly some pre live trials:
   Q4 2009/Q1 2010
- Installation of usergroups: Q3 2009



### 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)





## Thanks for your attention Arigato gozaimasu

- Question?
  - 問い?

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