The CHORIST warning system
(MODULE 2)

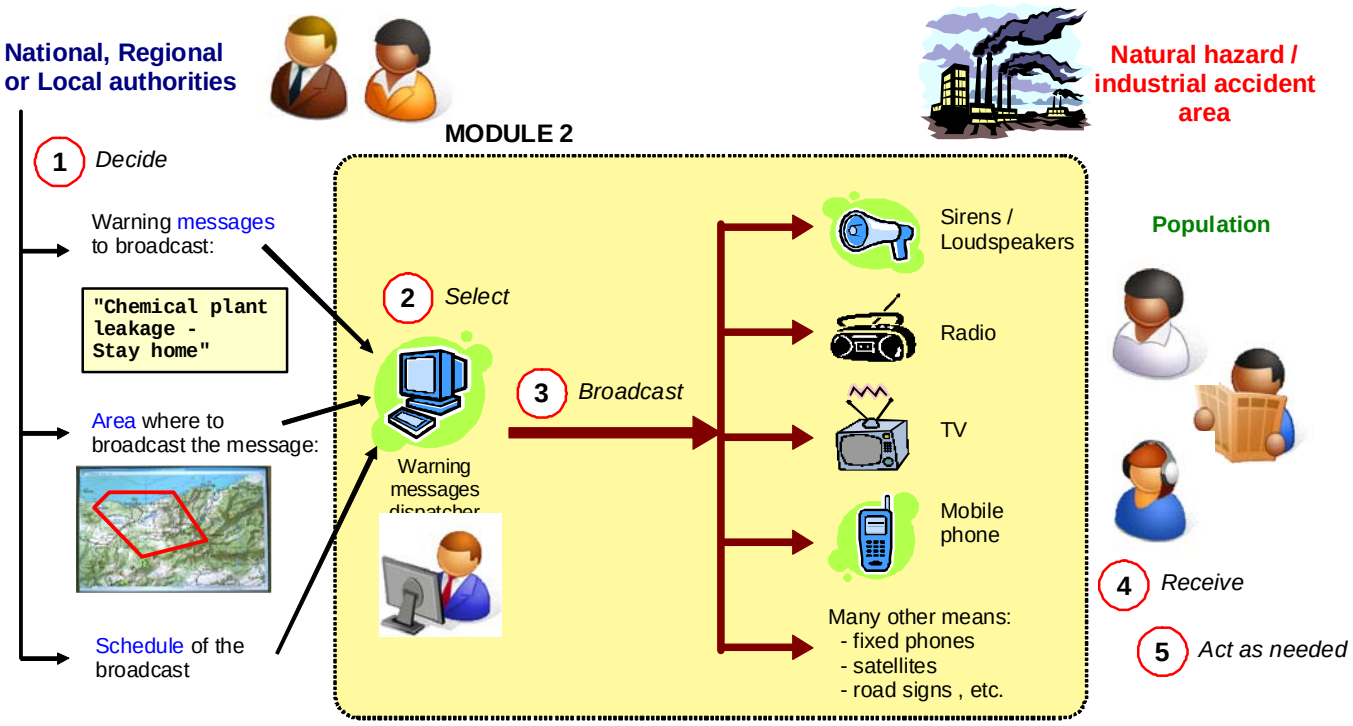
www.chorist.eu

The CHORIST Warning System (MODULE 2) is an integrated and scalable communication tool allowing authorities to deliver early warning messages to the maximum number of citizens in a given area in the minimum of time.

The MODULE 2 essentially facilitates the design of warning messages and the selection of the area where to broadcast them. Warning messages are then automatically broadcast in parallel to the citizens through several communication channels.

Main features

The creation of the content of the warning messages is based on ready made templates which can be overridden if needed. The dispatcher can also quickly select the geographical area to be targeted through a user friendly interface.



The system adapts the warning messages to the citizens heterogeneity and to the available channels.

These warning messages are then automatically sent to the targeted population within minutes. Multiple technologies can be deployed to reach more people regardless of their whereabouts (at home -possibly sleeping-, at work, at a public venue, on the move...).

Besides proper messages delivery to the citizens, the MODULE 2 provides an acknowledgement service, allowing authorities to know whether, where and when warning messages were actually broadcast.

Note: The CHORIST project demonstrates that the distribution of warning messages is possible on mobile phones, on digital radio sets, on digital televisions and on sirens, but other means such as fixed phones, satellites or road signs could be provided for. Only large natural or industrial disasters (e.g. tsunami, cyclone, chemical plant explosion) are addressed, but it could fit to any other event (e.g. terrorism attack).

Typical scenario

1. A natural hazard or an industrial accident occurs and it is detected by the authorities. Consequences on the population are forecast, and then, national/regional/local level authorities decide to evacuate most of the population in a given area, and to maintain another part of the population indoors and make them close all possible airings.
2. Authorities have to define:
   - what is the content of the warning messages (templates proposed)
   - where to broadcast the message
   - which kinds of devices (mobile phones, TV sets, radio, sirens…) to use
   - when they want to deliver the warning messages.
3. Message dispatchers introduce these elements in the MODULE 2 using a simple and clear user interface. A graphical and zoomable map simplifies the drawing of the area.
4. The MODULE 2 automatically broadcast these warning messages through different communication channels, providing back a status on the actual messages broadcast.
5. Citizens are made aware of what to do in a matter of minutes, and act as needed.

Advantages and innovations

The MODULE 2 includes the following advantages compared to other existing emergency warning systems:

- The MODULE 2 can be used at different levels (Local/Regional/National), depending on the scale of the disaster:
  - In case of a major accident, governments and Crisis Response Centres are capable to distribute the warning messages, possibly in large areas involving several countries.
  - In case of a minor incident, local police or fire brigades can select, edit and distribute the warning messages to citizens in their own area of jurisdiction.
- Several areas can be selected; for each area, several warning messages can be defined; each message is then associated to a date/time of broadcast.
- Warning messages templates are provided, but override is possible.
- Messages can be written in several languages; citizens will only see the message in the language they prefer.
- The area where to send the messages can be drawn on a map with just a few mouse clicks.
- Parallel broadcast of messages through multiple networks allows to reach more people and to solve failure issues in case one is not operating properly.
- Standard protocols ease the extension with similar channels or new type channels.
- The CHORIST project also proposes the MODULE 1 which provides authorities with a real-time picture of the situation related to ongoing natural hazards and industrial accidents, and with the forecast of the consequences of the event on the population and on the goods. The MODULE 2 can be coupled with the MODULE 1 system for a better design of the messages' content and a better targeting of the broadcast area.

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The 3 CHORIST modules

- *MODULE 1*
- **MODULE 2**
- *MODULE 3*