



EU PSAPs eCall

PSAP requirements

Participants.



- The Netherlands.**
 - Min. Of Interior.
 - National PSAP
 - Service provider
- Finland**
 - Ministry of Interior.
 - PSAPs
- United Kingdom**
 - Ministry of Interior.
 - National PSAP (BT operated under contract with Home Office).
 - Emergency services.
- Spain**
 - 112 forum.
- Norway.**
 - PSAP.
- Sweden.**
 - PSAP (SOS alarm, operated under contract with the Ministry of Interior).
- Portugal.**
 - Civil Protection Authority of the Ministry of Interior.
- Czech Republic.**
 - PSAP

Performance indicators

Netherlands.



- Netherlands.
- 90% of incoming calls have to be answered within 10 seconds.
- Calls have to be evaluated and forwarded to 2nd stage PSAP's within:
- 20 seconds for fixed network calls.30 seconds for mobile calls.
- 2nd stage PSAP's have to answer 90% of calls from 1st stage PSAP's within 10 seconds.
- Dispatch within 90 seconds after call reception.
- Urban area: 10 minutes.
- Rural/suburban area: 15 minutes..

United Kingdom



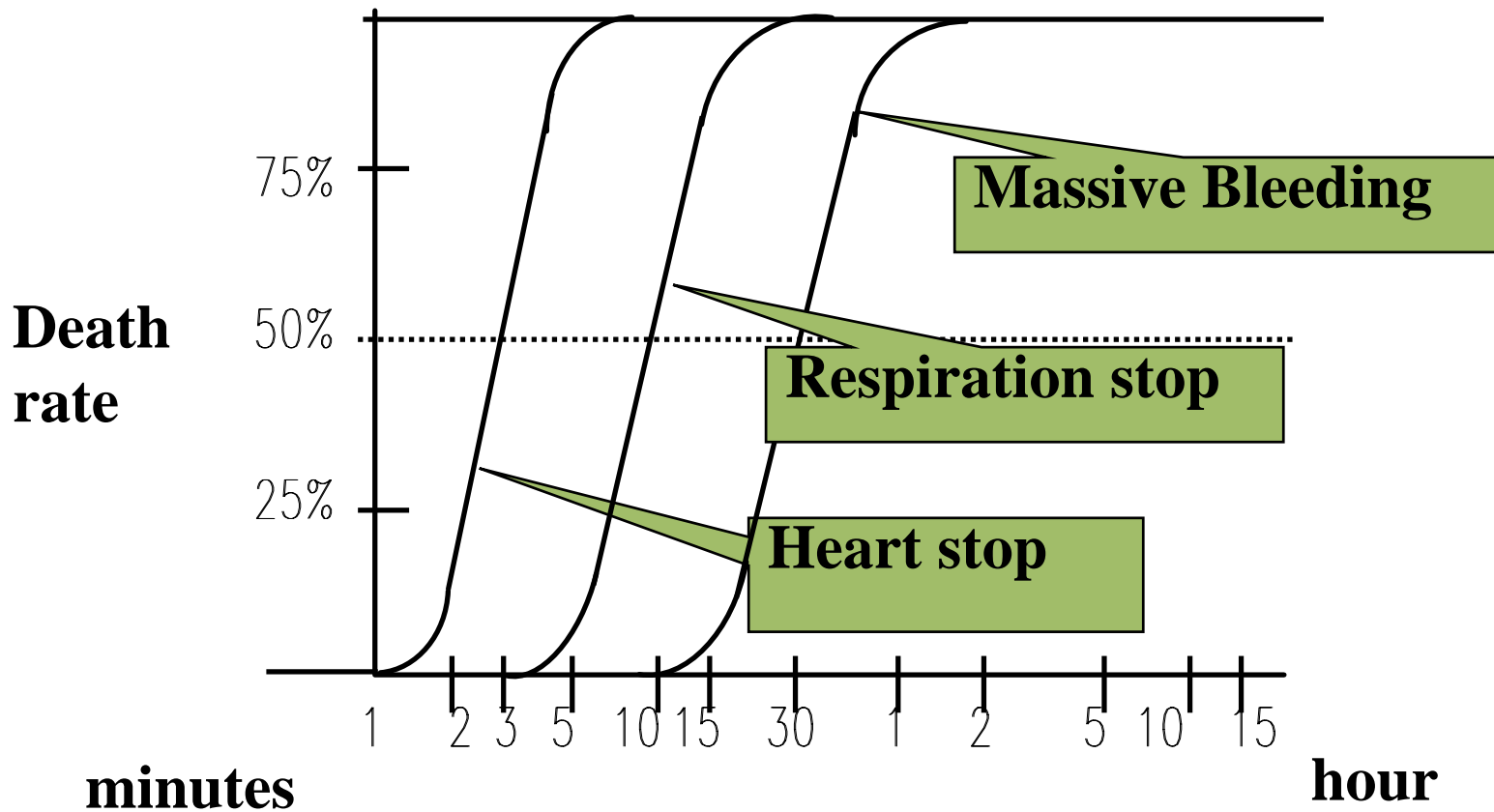
- 95% of incoming calls have to be answered within 5 seconds; average is 1 second.
- PSAP to 2Nd Stage PSAP: 90% of the calls have to be forwarded within 10 seconds. Typically, this is 7 seconds.
- Ambulance services are moving towards the target of answering 95% of incoming calls within 5 seconds.
- Police to answer 90% of incoming calls within 10 seconds.
- This is targeted but not achieved yet.
- Dispatch performance time dependent on the urgency.
- In the UK, this is risk/safety related:
- Area I, High risk: target is: within 15 minutes in 80% of all cases. For large urban areas like London this is 10 minutes.
- Area II, Lower risk: target is: within 1 hr in 90% of all cases. (This is a very recent national standard).
- Area III: Lowest risk: to be attended later.
- Area IV: can be handled otherwise, like by phone etc.

Finland



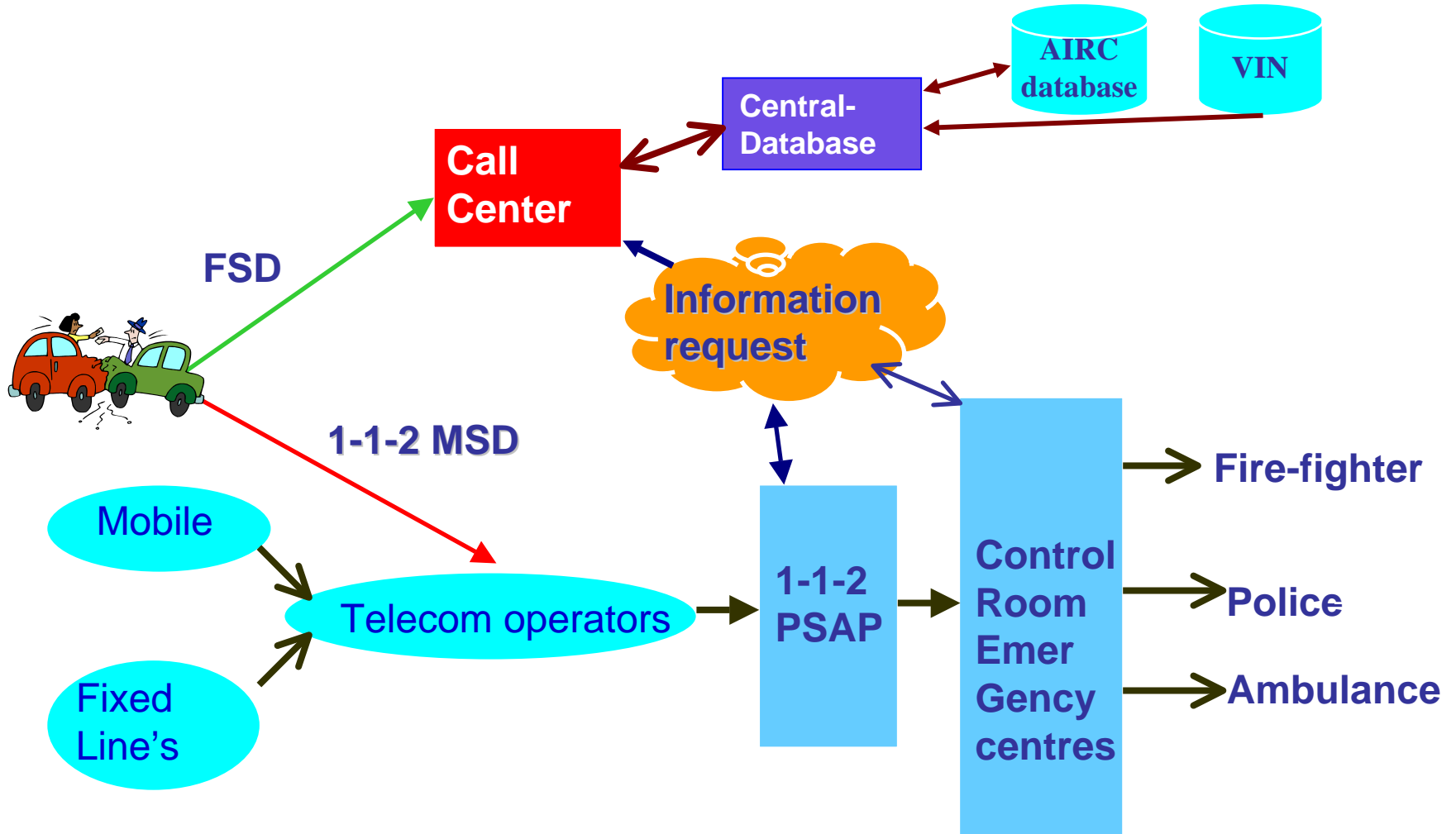
- Finland
- Incoming call has to be answered within 10 secs.
Average is about 8 seconds.
- Risk evaluation and dispatch to emergency service within 90 seconds.
- Dispatch within 1 minute after reception of call at emergency room.
- In Finland, three areas have been defined, not geographically but risk related:
- Area I (high risk like chemical plants): within 6 minutes.
- Area II (middle risk): within 10 minutes.
- Area III (low risk): within 20 minutes.

The Golden Hour principle



Dr. M. Cara, 1981

eCall consolidated



MSD: Minimum set of data
FSD: Full set of data

Location accuracy eCall



- ❑ 50 – 100 m within the eCall expert group as defined by CGALIES but being updated
- ❑ For the sake of swift implementation.
- ❑ Natural migration to better accuracy expected.
- ❑ PSAPs will monitor that and modify their requirements when technical feasible, also considering cost – benefit aspects.
- ❑ 2008: combined Galileo – GPS.
 - More robust.
 - More accurate
 - Also in problem areas

Why best accuracy?



- Accurate route guidance and pre-empting the route to the incident via the fastest possible route; the Golden Hour principle counts here!
- Distinguish exactly the lane where the incident occurred, to be connected to traffic control systems in the future.
- Ditch or a canal, 1 meter will give the proper distinction on what side of the ditch or canal the incident occurred, next bridge may be 10 km away!
- Canyons and gorges in mountainous likewise.
- A car can simply vanish into the shrub, a few years ago there was an example on London's M25 orbital ring road. A car was detected only after 5 weeks!
- A car can get submersed without leaving a trace; the water plants floating on the surface can render a car totally invisible from the shore.
- Last known position as accurate as possible to define search area.

- ❑ Only PSAP operator can terminate the eCall.
 - To reassure people.
 - To try to keep them conscious.
 - To operate longer term activities (pursuits).
- ❑ Robust communication system.
 - The car should talk to the person, not the GSM.
 - GSM could easily get lost in case of a crash.
 - Person can be trapped, not able to reach the GSM if it is lost from its bracket.
 - Solid mike & speaker
- ❑ PSAPs prefer a in-car robust solution (could be low cost).

Minimum Set of Data



- ❑ PSAPs/emergency services need additional data to assess seriousness and parallel dispatching
 - Timestamp
 - Location including direction of travel
 - Vehicle identification
 - Service provider identifier
 - eCall qualifier

- ❑ PSAPs require the MSD
 - As defined in GST Rescue.
 - Being standardised by ISO/CEN

- ❑ PSAPs agreed to consolidate but express the need for further development as technology improves over time.

PSAP Performance criteria



❑ Map accuracy

- 15 meters – measured against WGS84
- Road geometry – lowest local level
- Road naming – Each road must have a name

❑ Operational procedures

- Answering incoming emergency calls
- Evaluation of incoming calls
- Forwarding to 2nd stage PSAP or emergency control room
- Answering of incoming emergency calls from the 112 centre by the 2nd stage PSAP or emergency control room
- Dispatching of emergency unit
- Time to arrive on the location of the emergency

❑ Timing

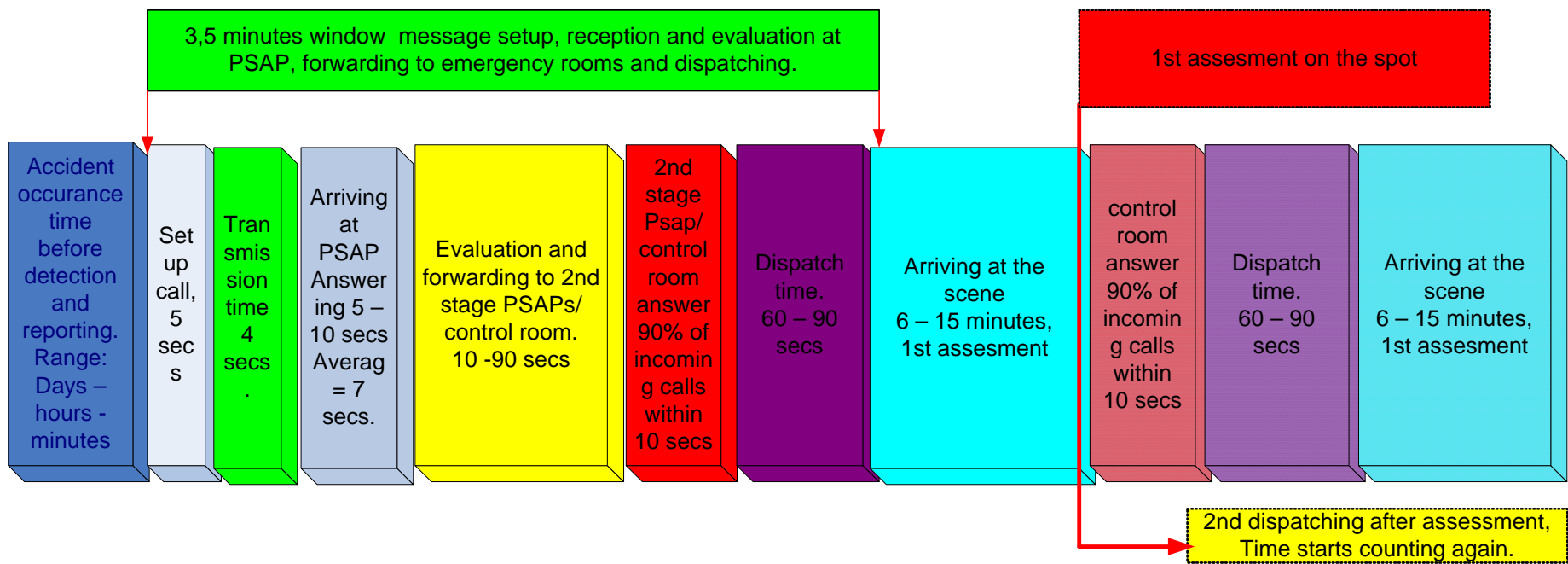
- <10 Sec. For voice response
- <10 Sec. For receiving the MSD and visualising the location

PSAP Requirements



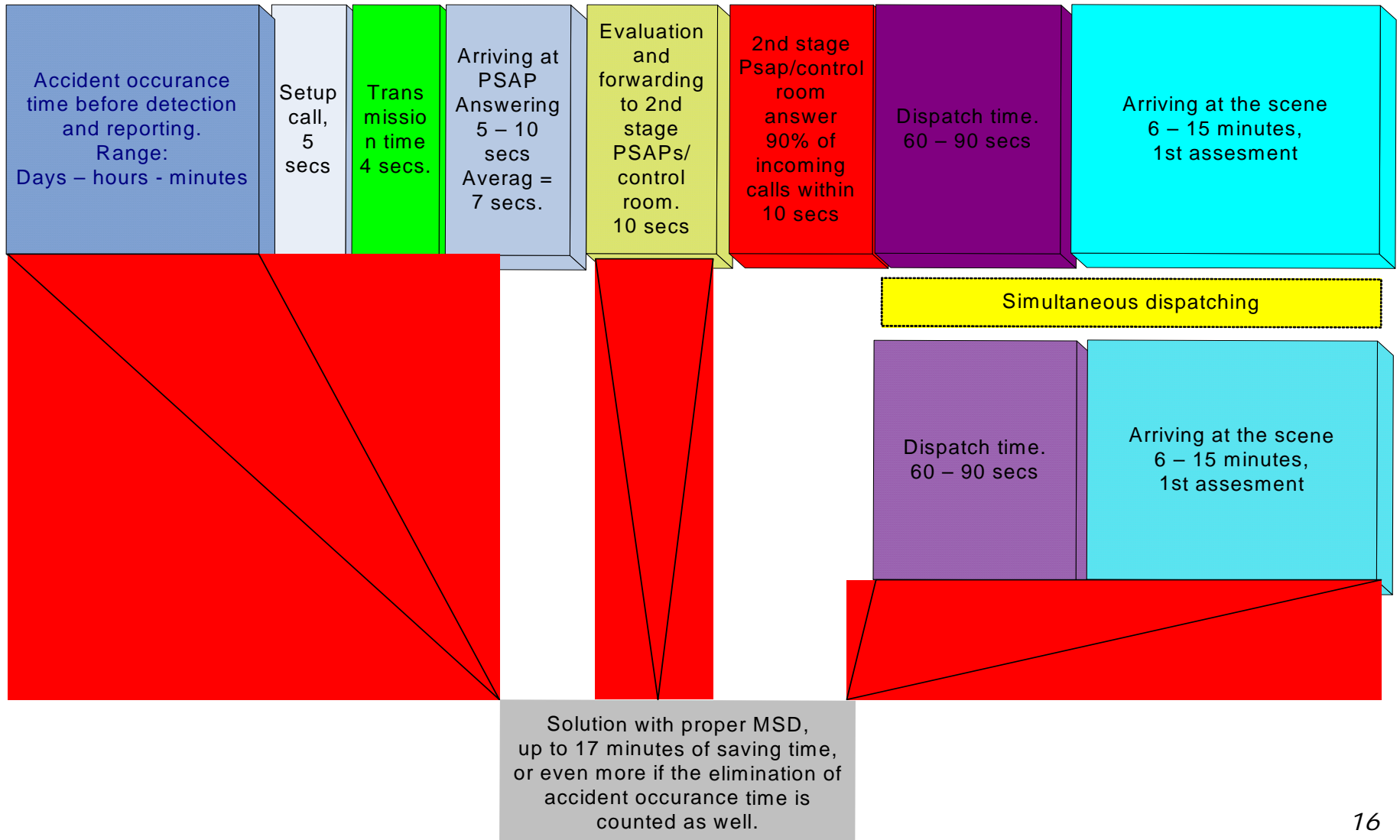
- ❑ Implement and operate 112 and E112
 - Through E112 implementation data receiving capabilities and a digital map will normally be available
- ❑ Ensure that both 112 Voice and MSD reach the same PSAP operator – could be a private body operating under the control of a Public Authority
- ❑ Implement PSAP XML data viewer to visualise the information provided in the MSD
- ❑ Training of PSAP operators

Timeline without MSD



Solution without MSD

MSD time potential



Next steps



IMPLEMENT eCall

Then:

- Agree on potential future status and consolidation of added value data - FSD
 - Role Service Providers
 - Crucial added value potential.
 - ✓ Mediator in case of foreigners involved in accident)
 - ✓ Access to vehicle data retrieval
 - ✓ After accident services
 - FSD (Full set of Data) available.
 - Relation to Control centres EA's
 - ✓ Service Level Agreements may be needed.
 - Backoffice
 - ✓ E.g. insurance companies.
 - Future coordinated action.
 - Dialogue PSAP – industry – Service providers.
 - Expansion of MSD.
 - Expansion of FSD.