

Broadcast Emergency Warnings

Frank Strässle, Managing Director

WorldDAB Automotive 2022 London, 22nd June 2022



Source: Eon Productions Ltd.

In a nutshell

**Informing travellers
with alerts and warnings,
via an efficient distribution channel,
who may not speak the local language,
nor be familiar with local geography and roads
and not disturb them while driving.**

Who we are



- ▶ Founded 1994 as subsidiary of Bavarian regulatory authority for new media (BLM) and Bavarian Broadcasting Corporation (BR)
- ▶ Competence center for realising projects in the field of digital broadcasting and media
 - Broadcasting (TV, Radio, Internet, Mobile)
 - Interactive Services (HbbTV, Apps)
 - Traffic Telematics (TISA member since 2007)
 - Consulting & Studies

Make warnings reach everyone



Flooding in Germany (Ahr Valley) Source: WDR

Requirements on warnings

- ▶ Reach as many people as possible
- ▶ As fast as possible
- ▶ Reliable information
- ▶ Comprehensible and coherent
 - Clear instructions
 - Easy to understand
 - Accessible

Ways and Means

- ▶ Sirens
- ▶ Digital information systems
- ▶ Radio, TV
- ▶ Smartphone-Apps
- ▶ *And now, also: TPEG*

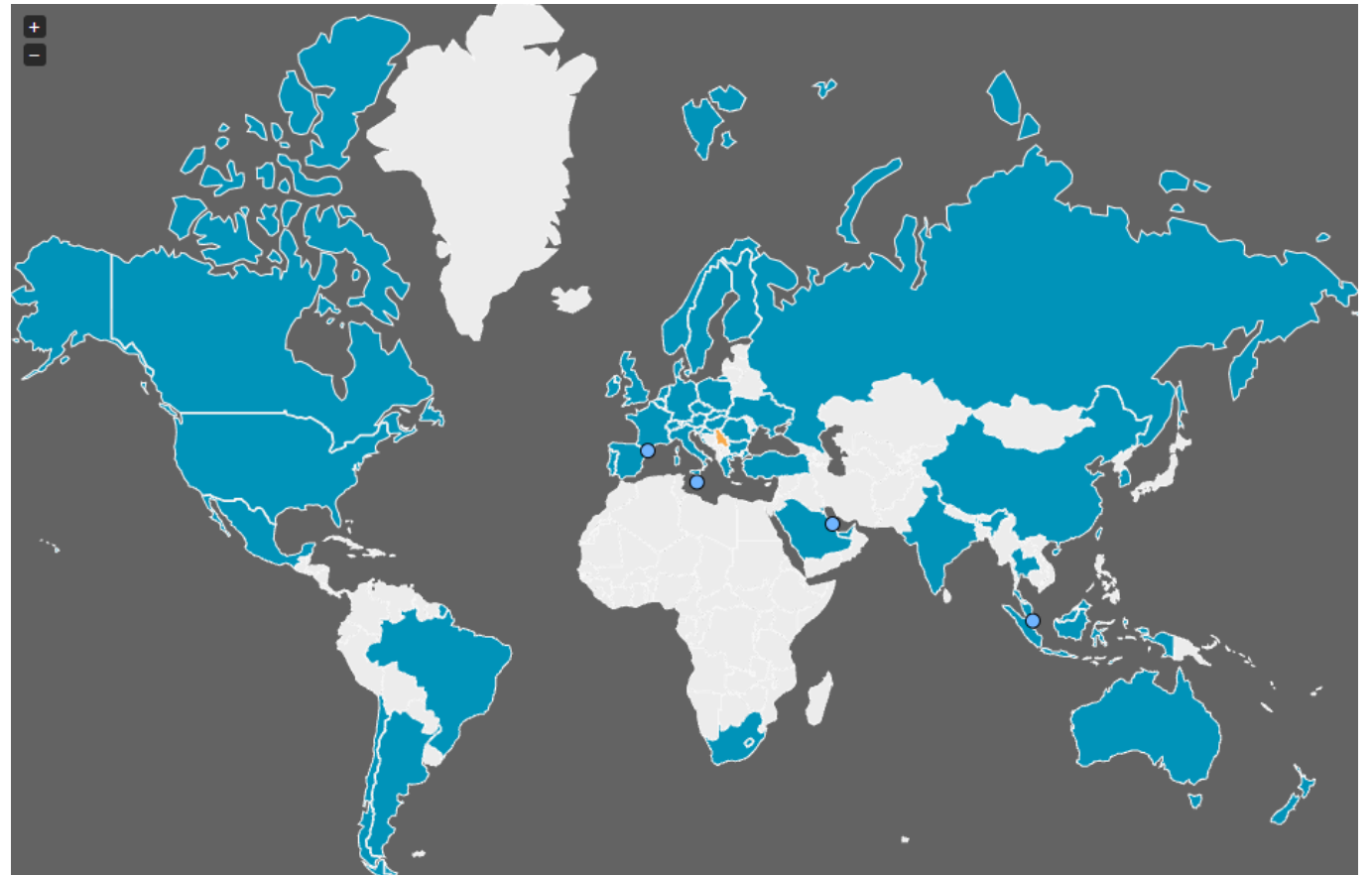
What is TPEG



- ▶ Standardized
- ▶ Bearer-independent
 - DAB or Mobile Networks
 - Adaptable to other bearers
- ▶ Language Independent
- ▶ Multimodal
- ▶ Highly backwards-compatible
- ▶ High-precision location referencings
- ▶ For end users

Current Market Sitation

- ▶ Accepted in the global market
- ▶ Worldwide deployments
- ▶ De-Facto Standard for end-user traffic provisioning



<https://tisa.org/technologies/tpegm-services-map/>

What is TPEG2-EAW (Emergency Alerts and Warnings)

- ▶ Created and approved by TISA (www.tisa.org)
- ▶ Developed together with the German Federal Office of Civil Protection and Disaster Assistance (www.bbk.bund.de)
- ▶ Data interface using the Common Alerting Protocol (CAP)
- ▶ Successfully evaluated in 2021 together with NDR, WDR, bmt, GEWI, mecom, NNG, TomTom and Teatownlake in the German federal-state project "Warning the Population"
- ▶ Describes events, e.g. fire, flood or criminal activities and classifies different alert levels
- ▶ Locates the informed area and the affected area
- ▶ Provides reliable real time data into navigation systems and thus an early provision of alternate routes in the relevant language

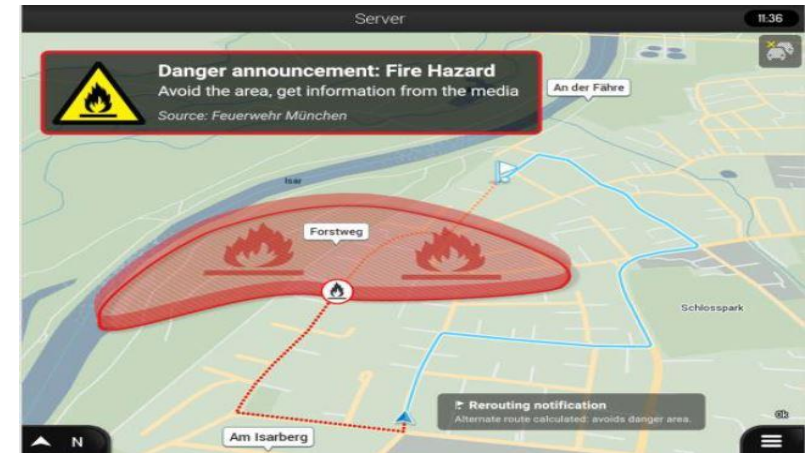


Bild: NNG



Bild: NNG

bmt TPEG ecosystem

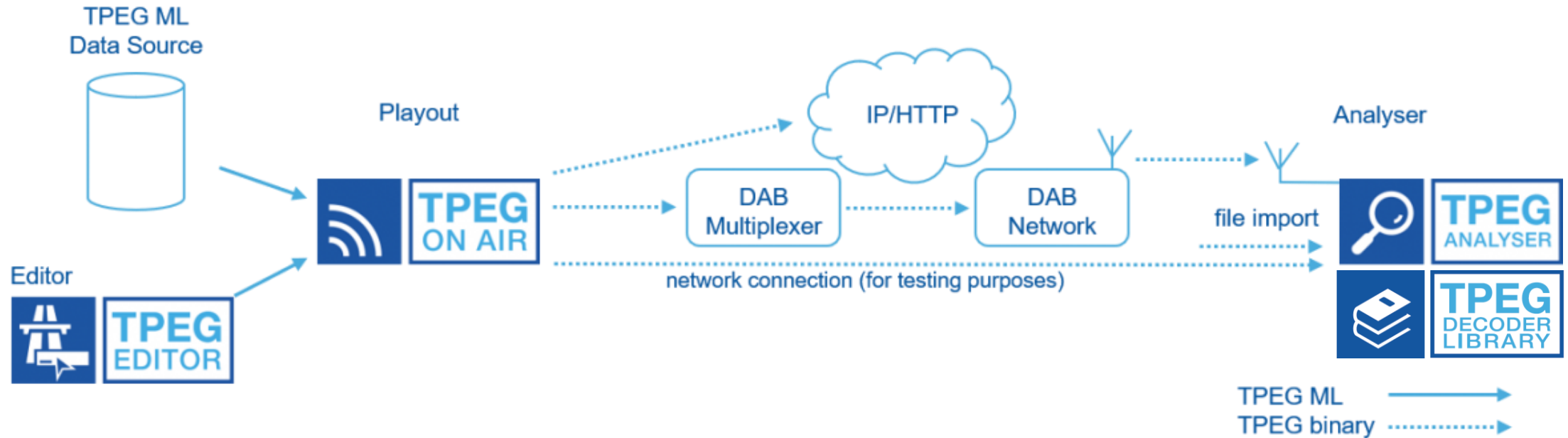

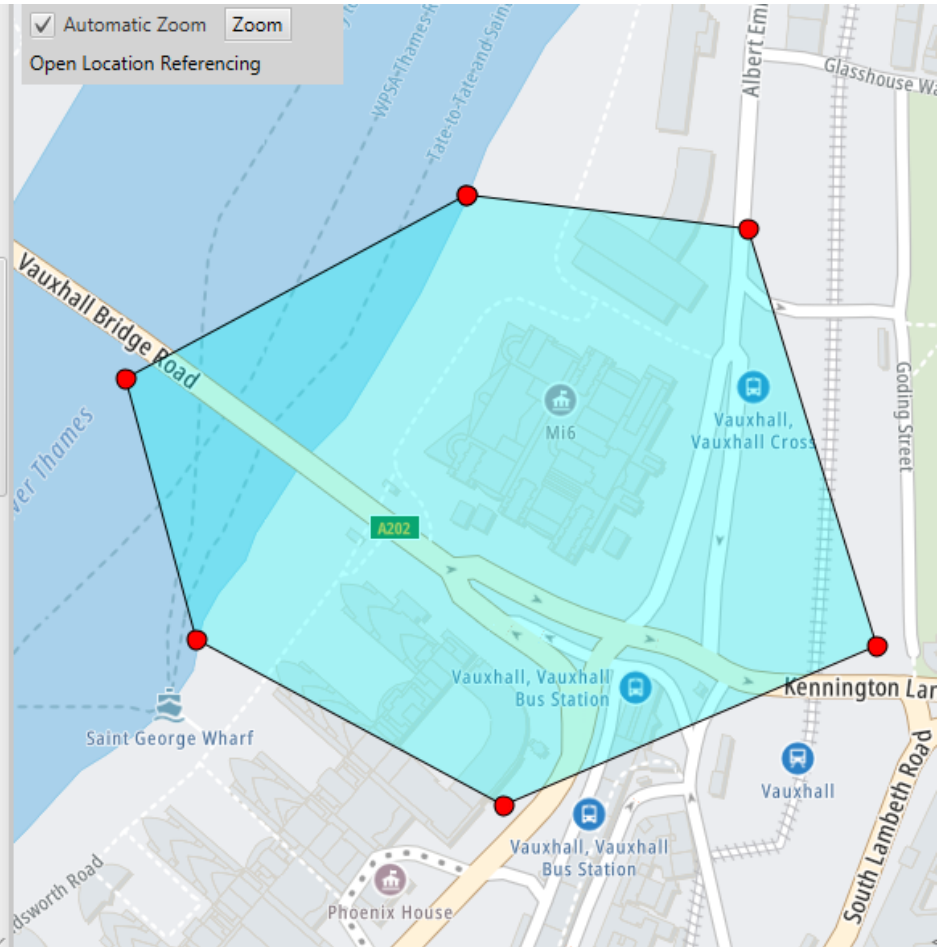


Fig. relation of bmt's TPEG Products, how they fit together and what interfaces and datatypes can be used.



Ready for TPEG-EAW

<EawEventType[]> alertEvent	Array (Count 2)	+ ∅
<EawEventType[0]> alertEvent		∅ ∅
<eaw010_EawEventCode> mainEvent	7 + 7: criminal activities	∅
<eaw107_CriminalActivities> subEvent	8 + 8: life threatening ... Main Table: <eaw010_EawEventCode...	∅
<EawEventType[1]> alertEvent		∅ ∅
<eaw010_EawEventCode> mainEvent	25 + 25: roadway	∅
<eaw125_Roadway> subEvent	3 + 3: hazardous road... Main Table: <eaw010_EawEventCode...	∅
<EawInstructionType[]> alertInstruction	Array (Count 1)	+ ∅
<EawInstructionType[0]> alertInstruction		∅ ∅
<eaw011_EawInstructionCode> mainInstruction	4 + 4: inform yourself via all possible media	∅
<eaw204_InformYourselfViaAllPossibleMedia> subInst...	1 + 1: switch on ra... Main Table: <eaw011_EawInstructionCod...	∅
<LocalisedAlertTextInfo[]> alertTextInfo	Array (Count 1)	+ ∅
<LocalisedAlertTextInfo[0]> alertTextInfo		∅ ∅
<ShortString> rfc3066LanguageCode	en 2/255 Bytes	∅
	Explosion at MI6 Headquarters, 85 Albert Embankment, London. Avoid the affected area. Drive around the area as far as possible. 127/65535 Bytes	



Map showing the location of the explosion at MI6 Headquarters, 85 Albert Embankment, London. The affected area is highlighted in cyan. The map includes labels for Vauxhall Bridge Road, Saint George Wharf, Vauxhall, Vauxhall Cross, Vauxhall, Vauxhall Bus Station, Kennington Lane, South Lambeth Road, and Vauxhall. A202 road is also visible.

Thank you!

Dipl. Economist Frank Strässle
Managing Director
frank.straessle@bmt-online.de
T +49 89 451 15-111

Contact

Source: Eon Productions Ltd.



+49 89 45 1151-11



info@bmt-online.de



bmt-online.de