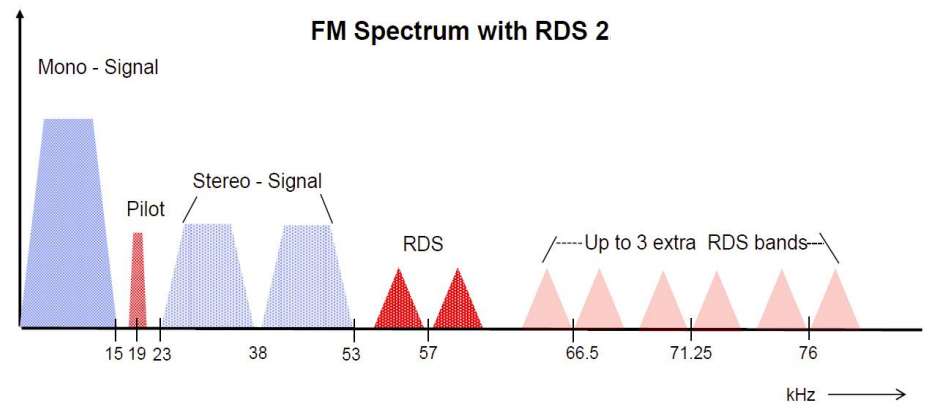


## RDS 2 A new challenge And what it is all about



*Extended data capacity for RDS will offer huge opportunities for new applications and added value services by ODA*

For **both** Broadcasters Service, providers and enhanced Traffic



# RDS is a success story and Mature



A rich variety of features with only a few hundred bits/s available

## Program features:

PS, AF, PTY, EON, CT

## Automotive features:

TA/TP, AF, TMC

**AND**

*Growing need for added value features  
And new applications by ODA*

*The Car industry was the key driver  
In the development of RDS*



# Future of FM/RDS alongside Digital radio



- *FM radio with RDS is mature, cheap and universally available*
- *Traffic services **TA/TP** and **TMC** are well established*
- *The perceived audio quality does not differ significantly from that heard via Digital Radio*
- *Because due to sophisticated technologies like **Multiple tuners**; **Multiple antenna systems** and **RDS** algorithms this system is just about perfect*
- *A general FM switch-off is unlikely for the next 20 years and probably it will never happen*

# RDS 2 offers extended capacity.



## **RDS Forum 2014**

*in Glion decided to launch the RDS2 project officially with the following mission*

- 1. Identify existing unused functions within RDS 1*
- 2. Ensure complete compatibility with RDS 1*
- 3. Consensus on high level customer requirements*
- 4. Define the technical architecture*
- 5. Identify the work items and expertise needed.*

## **November 2014**

*RDS 2 workshop was held in Budapest with RDS  
Top specialists from*

*Silicon Labs, MTVA Radio Hungary  
RDS Forum, T&C Holding, Nokia Here,  
Catena Radio Design,*



# Rich TMC service with RDS2



Today TMC is mainly motorway oriented.

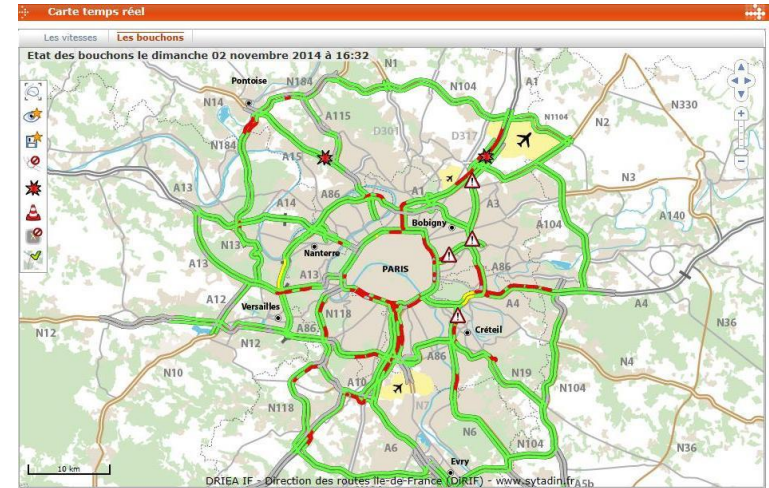
For large major metropolitan areas like Paris, Munich and London detailed and rich Traffic Information is available like

**Travel time and Speed information**

Alerts for fast upcoming and unexpected **Weather Changes** may improve **safety** significantly  
Infrastructure is often present and information is available.



With RDS2 this may become reality  
**No data capacity constraints anymore**

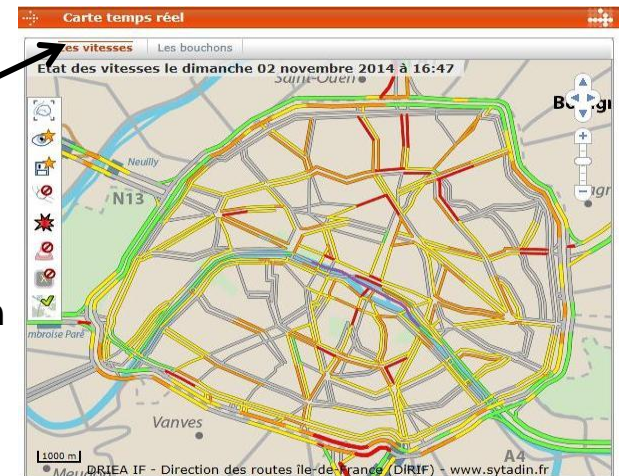


Average speed

< 5Km/h

< 15Km/h


Fluid



# RDS2 a solution for urban traffic

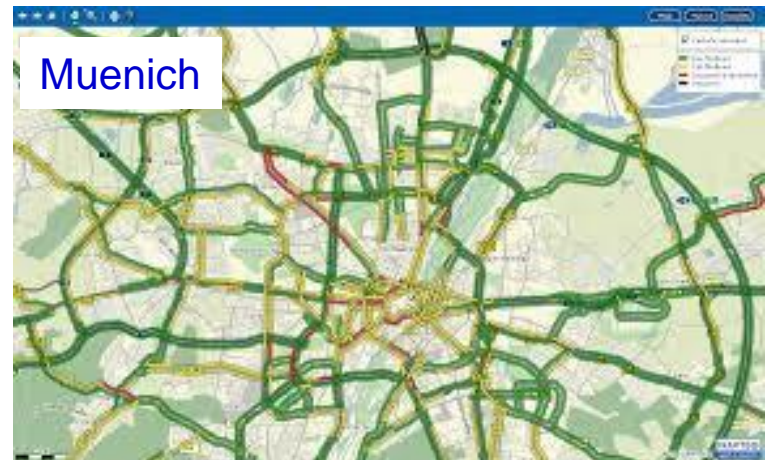
- Infrastructure for Traffic information has been improved drastically for large Urban areas
- Location tables on detailed level exist for:  
*Paris, London; Munich, Hamburg and Berlin and many more*

and

- TMC shows an ongoing Growth  
In 2014  has certified 340 Location tables
- RDS 2 has all capabilities to cope with this
- From TMC To TMC2?



# Rich TMC service with RDS2



Accessory for upgrading to **RDS2**

- TMC Receiver
- FM Antenna
- A battery charger

# Opportunities for Broadcasters



**RDS2 offers a huge opportunity for an enhanced identity and attractive *visualization* of the FM radio program.**

- Program Service name **PS** 16 characters and Station logo
- UTF-8 enables a worldwide text implementation
- No reason anymore for Scrolling or Dynamic **PS**

A few examples from the Dutch radio

And one station from China

2x Radio Text RT at the same time  
English and Hungarian by ODA eRT on RDS2

Short PS	Long PS	Station Logo
NPO R1	R1 KRO NCRV	
BNR	BNR NIEUWS RADIO	
VERONICA	RADIO VERONICA	
BRABANT	OMROEP BRABANT	
轻松调频	<b>EZFM</b>	

# RDS2 and Internet are everywhere



Easy handover from broadcast to the Internet



PI 8202

88.2

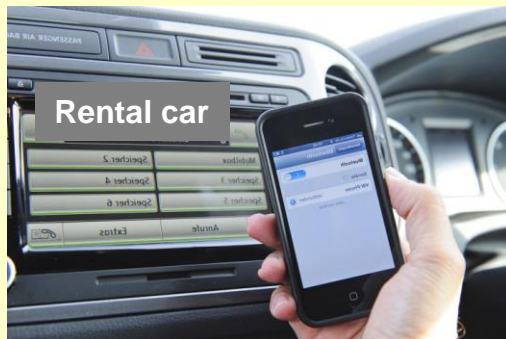
92.3

92.6

105.1

<http://radioplayer.npo.nl/radio2/>

Your favorite program everywhere available  
Unique combination **FM & INTERNET**



# Connected Car with RDS2



- RDS2 a perfect candidate for **C-ITS**  
Coopererative Intelligent Transport Systems  
V2I communication

- To bring local Safety and Alert information to the driver.



- RDS2 An integral part for Data communication for the connected car  
*RDS is mature and everywhere*



# Conclusion



- *FM/RDS will co-exist alongside Digital radio probably for ever*
- *RDS2 is an extension and built on a mature and proven technology*
- *RDS2 is a solution for the todays limited data capacity*
- *RDS2 opens the door for added value features by **ODA***
- *RDS2 & Internet The perfect match for Connected cars*

*RDS2 is not*

*A competitor for Digital radio **DAB or HD***