

## **RDS Forum – what it does and why it is needed**

This presentation highlights the attractions for  
manufacturers, broadcasters  
and service providers

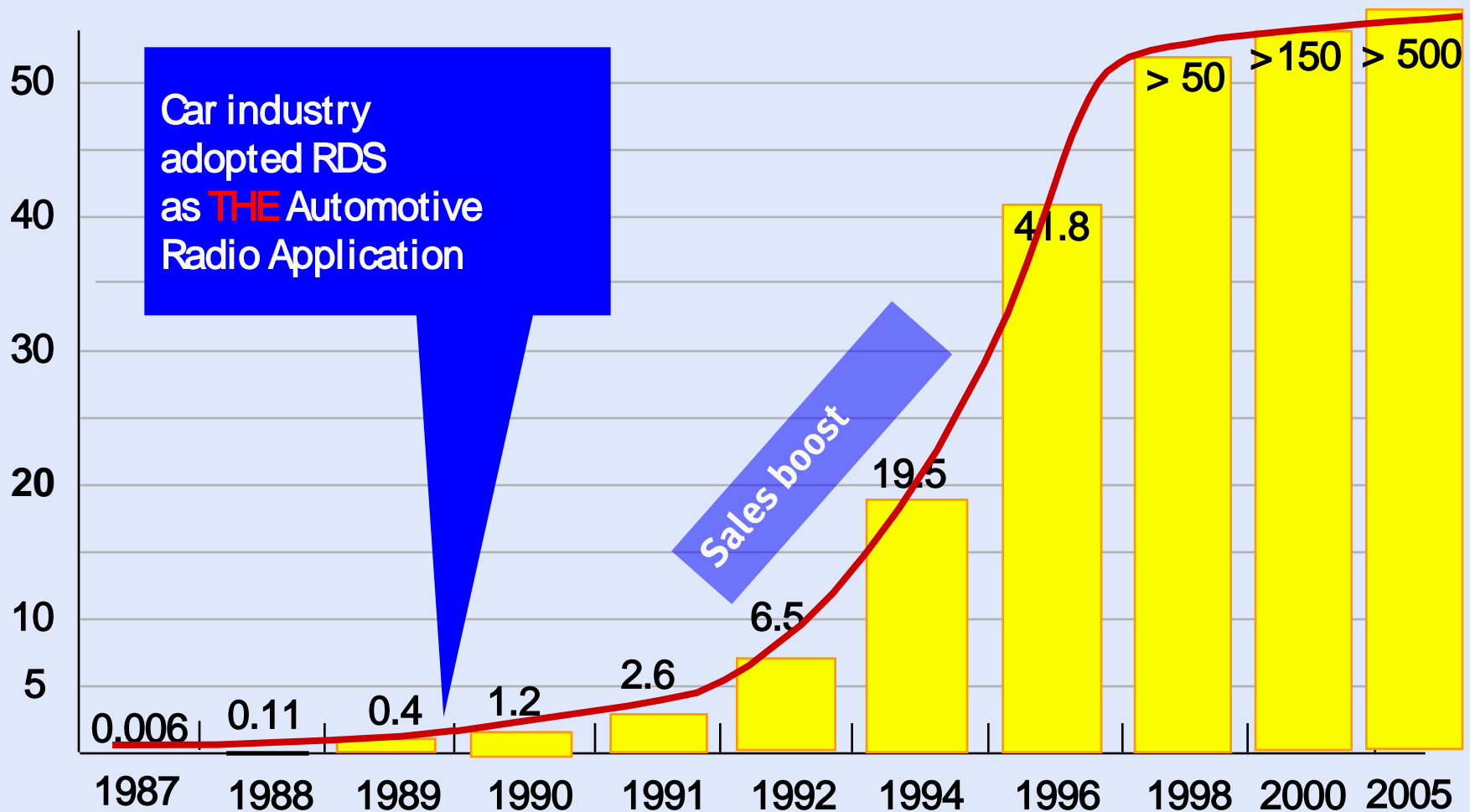
- **RDS Forum Members only pay a very small annual fee**
  - less than many comparable organisations will charge
  - The 2012 RDS Forum member annual fee will be EUR 2000.-
- **Exchange experience on using RDS correctly**
  - With particular emphasis on car radio reception
- **Receive relevant information on the further development of RDS and all Digital Radio technologies**

- **RDS Forum is constituted as an independent Member funded not-for-profit association**
- **RDS Forum was originally founded by the European Broadcasting Union EBU**
  - The industry association has been independent from the EBU since 1999
- **RDS Forum Office situated in Geneva with easy links for coordination with**
  - EBU, ITU and IEC/ISO
- **Next annual meeting: 11 and 12 June 2012**
  - Guests are welcome: For them the conference fee is 650 EUR

- **RDS already has been successfully used in a wide range of radio types:**
  - in car radios where automatic tuning is important
  - in portable radios where station name helps
    - FM/RDS radio is now a feature of many mobile phones
  - in home radios where RT is an added feature
- **The annual FM radio market is now**
  - over 1 billion units worldwide
- **RDS/FM radio annual chip market sales are**
  - **600 million-plus since 2009**
    - Bought in very large quantities, the prices of these chips are very low (still over 10 times lower than DAB radio chips)

- The market has virtually exploded for RDS used in
  - Many Mobile phones
    - On Wikipedia most models with FM/RDS radio are listed
  - Many Portable Audio Devices
  - USB sticks
  - Most Short range transmitters
  - Navigation systems with RDS/TMC
- Already, over 2 billion RDS/FM radios have been sold by now
- Compare this to DAB: so far just about 18 million radios were sold in Europe
  - Over 13 million in the UK and only just over 5 million in all other European countries together

Total in Millions since 1987



Analysis supplied by RDS Forum Member Frits de Jong, TomTom



**Features:**

- Works with any iPod/iPhone with a dock connector
- Changeable iPod/iPhone holders for a perfect fit
- ClearSearch technology with 5 memory presets
- RDS technology
- Follow Me technology when used with RDS radios
- Powerful signal, full band channels (87.6-107.9)
- No need for batteries, powered from your car's cigarette lighter
- Fully adjustable arm

Made for iPod

Works with iPhone

Made for iPod touch, iPod classic, iPod, iPod nano  
Works with iPhone and iPhone 3G

**Features:**

- No need for batteries, powered from your iPod/iPhone
- Works with any iPod with a dock connector
- Powerful signal, full band channels (87.6-107.9)
- 'Follow Me' technology when used with RDS radios
- ClearSearch technology with 5 memory presets
- Mini-USB port

iPhone 3G  
8GB 16GB

iPhone  
4GB 8GB 16GB

## ■ Two interesting examples

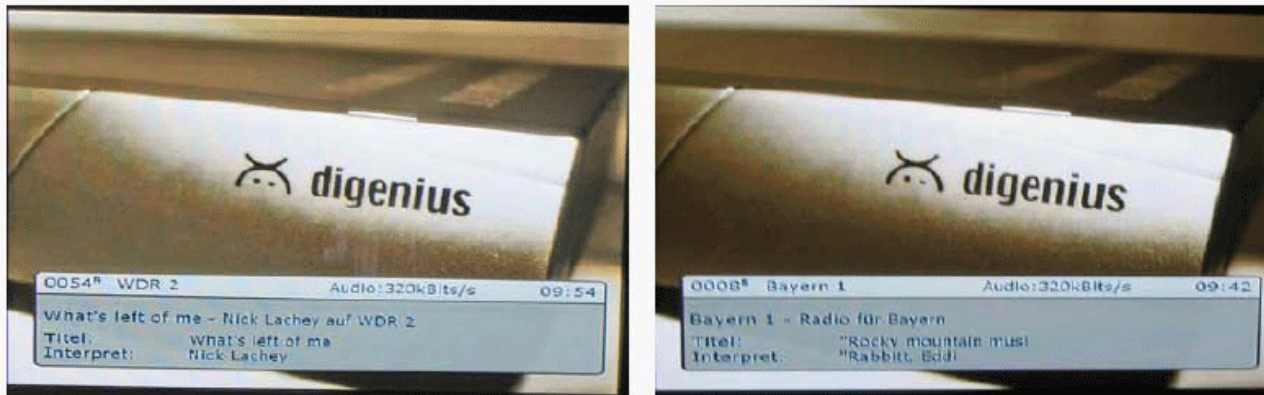
- **Several German public broadcasters started RT+ in 2006**

- Now - in 2011 - there are already 12 FM programmes



- In 2008 – Clear Channel Radio implemented RT+ on 400 stations in the USA
- In addition, in Germany, some RDS features are also used on DVB-S radio
  - To achieve this the RDS Forum upgraded the UECP
  - The new version 7 of the UECP (see also slides 14 and 29) can be downloaded from this web site: Go to ‘Publications’ and there it is

- The first receiver with RT+ was for DVB-S radio



- The first line is normal RT
- The second and third line are obtained from RT+
- RT+ info stays on the display as long as the (music) item is running

Demo during the RDS Forum 2006 using the Digenius DVD-S set-top box

- Then some Kenwood car radio models followed:





This 91.3 screen was captured in October 2009 on radio BAYERN 1 in Munich:

- Upper line shows normal RadioText scrolling through the display
- Lower two lines show -RT+ tagged music info
  - > Music title on line 1
  - > Artist name on line 2



The iPod nano 6G of September 2010 has the FM/ RDS radio with RT/ RT+ as well

**NOKIA**  
Connecting People

- In some recent mobile phone models
  - Nokia implemented the new Symbian^3
  - These are those new Nokia models: N8, E7, C7 and C6



**These phones have all an FM/RDS radio with RT/RT+ for**

- **Music titles** (to purchase the song)
- **Artist names**
- **Radio programme web address** (stored to non-volatile memory)
  - That web address is then always available on your phone !!!

**Broadcasters** – This brings a real digital breeze to your listeners of your so popular analogue FM radio with RDS

• If you go for that RDS feature, you can only win-win-win

- Watch also this video to learn what the N8 does

<http://www.youtube.com/watch?v=zGuY3tMvbC4>

- **Maintain and develop further the RDS Standard**
- **Update RDS technology to today's requirements**
  - Try to compatibly enhance the data transmission capacity
- **Maintain a knowledge base about correct implementation of RDS**
- **Create updated Implementation Guidelines**
- **Liaise with Standardisation Organisations on RDS with the IEC and the ITU**
- **Maintain the ODA\* and the UECP\*\* registry**

\* RDS Open Data Application    \*\* RDS Universal Encoder Communication Protocol

- **Link with other Digital Radio technologies**
  - DAB/DAB+/DMB, HD radio and DRM+
- **Ensure there is a smooth transition to DAB/DMB**
- **Study and use all features that are common in RDS and DAB**
  - This will facilitate the transition from FM/RDS to Digital Radio
- **Provide liaison between broadcasters, manufacturers, service providers and regulators**



... and you can be part of this **superb RDS contact network !**

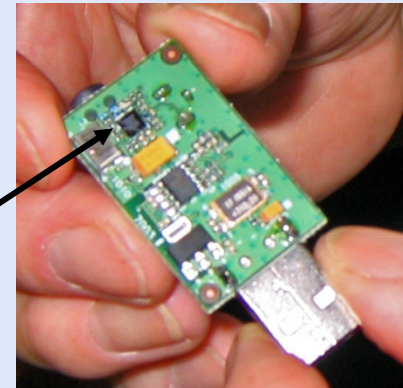
Here's the proof:

- From now on 1 billion plus RDS/FM radios per year are possible !!!

### ■ How ?

- Several RDS Forum Members are involved in the development of new very small RDS receiver chips
- These chips enable RDS radios to be put in

- **Mobile phones**
- MP3 / iPod players
- USB radio plug-ins
- **RDS-TMC traffic receivers**
- **Short-range transmitters**



**This tiny RDS FM radio chip is the heart of Catena's USB radio stick**

- All these are low-cost mass market products
- Nokia/WDR/IRT developed new RDS feature RT+
  - RT+ enables new multimedia radio applications

- **There is one annual meeting of Members**
- **All other work is done by e-mail**
- **All documents are in PDF format**
  - **On average the RDS Forum produces 50 new documents per year**
- **Each year a CD-ROM is produced for the RDS Forum Members with all reference documentation published since 1999**



**Dietmar Kopitz, Chief Executive Officer**

**Johnny Beerling, Chairman**

**Frits de Jong (TomTom), Treasurer and Secretary**



**The RDS Forum 2010 asked Jonathan Pearce from Silicon Labs to join this team and he accepted the proposal**



*Those who attended the 2011 Forum*

*Belgium: TISA*

*France: Continental, Radio France, TDF, Worldcast/Auditem*

*Finland: Nokia*

*Germany: Bosch, Delphi, Harman-Becker, iBiquity, IRT, J+K Technologies, Qbit, T&C*

*Hungary: Magyar Radio*

*Italy: Axel Technology*

*Netherlands: Catena, ItoM, International Datacasting, TomTom*

*Norway: Post & Telecom Authority*

*United Kingdom: Silicon Labs, Ofcom, WorldDMB, DRM Forum*

*USA: Data FM, Navteq, SiliconLabs*

*Sweden: Mitsubishi Electric Automotive*

*Switzerland: SRG/SSR, Swiss Association of Private Broadcasters, Swisscom Broadcast*



**The next RDS Forum meeting will be in Glion/Montreux on 11 & 12 June 2012**

- **Tom Heijnen (ItoM):**
  - Our participation as a member helped us
    - to get attention and support for a new generation of short-range transmitters inside the 2008 RDS specification
  - The constructive discussions during the meetings enabled
    - coexistence between existing and new applications with enhanced functionality
  
- **Frits de Jong (TomTom):**
  - Personally I found this forum meeting one of the best and most productive ones

- A Position Paper on the Transition to Digital Radio in Europe
  - Derived from a corresponding workshop held at this meeting
- Minor enhancement and correction to RDS standard IEC 62106
- Update the knowledge on where RDS is used in the world
- Continued updating of the RDS implementation guidelines
  - Include support for Linkage to Digital Radio to optimise Service Following
- Examine the possibility to extend RDS

- Improve PTY signalling for NEWS and WEATHER
- Liaise between RDS Forum and TISA over RDS-TMC
- Liaise with NRSC over updating the RBDS standard
- Liaise with the EBU, NAB and ITU
- Attract more broadcasters to the RDS Forum
- Digital Radio developments and the interoperability needed with RDS to facilitate the transition to Digital Radio

- **All RDS Forum Members are given updated reference information each year on a CD-ROM**

**On the CD-ROM are all these folders:**

- RDS Forum documents 1999 to 2010
- Index of RDS Forum documents 1999-2010
- DAB/DMB & HD Radio update information
- Digital Radio implementation news
- ISO country codes
- ISO 10646 character sets
- ITU FM radio references
- RDS logos
- RDS Forum Statutes
- RDS Guidelines
- RDS/RBDS Standards
- RDS/DAB cross-referencing
- RDS-TMC
- UECP Specification

- **RDS is an open standard developed by the broadcasters associated in the EBU**
- **This does not mean that there would not be any IPR claims from manufacturers**
- **The RDS Forum looks critically at those claims**
- **Some unjustified claims were refuted**
  - Between 2000 and 2006 the Forum pursued Grundig Multimedia for unjustified claims over an EON trademark – and the court case was ultimately won for the Forum
  - Another company claims trademark rights on the RDS logo
    - The RDS Forum produced legal advice for Forum Members to be used in defence of any invalid claims
    - This documentation is now available to non-Members for € 1000.-
      - It can be ordered from the RDS Forum Office

- **This is an important manufacturers' task**
  - Sometimes wrong implementations are discovered during these activities
  - These mistakes degrade the RDS performance
- **Then the RDS Forum is of a real benefit**
  - The issues can be discussed in the Forum
  - The superb contact network very often helped to remedy the mistakes
  - Also broadcasters not being Forum Members directly benefit from this activity

- **Broadcasters, industry, service providers...**
- **Isn't FM radio still the most important medium for your listeners ?**
  - RDS technology keeps it all going !!!
    - It is specifically designed for radio on the move
    - Very wide spread now in mobile phones
    - Can deliver perfect radio reception in the car
      - Some experts say better than DAB !!!
  - **If you have not yet had any problems with RDS**
    - **Then this is because the RDS Forum has been so pro-active !**

- **You can still use RDS encoders from different suppliers in the same transmitter network**

- You can upgrade your RDS network using the technologies of today
  - Internet and satellite RDS signal distribution

**This is because the RDS Forum maintains the**

- **UECP (Universal Encoder Communication Protocol)**

- originally developed within the EBU

- last updated in 2009 and available for downloading on the RDS Forum web site

- All encoder manufacturers in the RDS Forum adhere to the UECP and they have solutions to meet your requirements

- **As soon as possible you should join the RDS professionals in the Forum**
  - The small annual fee you pay, will give you back great value through sharing the RDS experience and solving the RDS problems of today with the most superb contact network of RDS experts in the world
  - Nothing could be easier and more cost-effective
  - Your RDS technology will be maintained on the highest technical level, and you are never left alone with your RDS problems
  - Countries new to RDS can now share the long established know-how. Thus for them to join is even more important !
  - Annual RDS Forum meetings are open also to non-members for a small guest fee (contact us to join)

- **Thank you for your attention**
- **We hope that we have convinced you of the importance to be part of the RDS Forum**
- **You can join at any time**
- **How ? – Just contact us**
  - [DKopitz@compuserve.com](mailto:DKopitz@compuserve.com)
  - [johnny@johnnybeerling.com](mailto:johnny@johnnybeerling.com)