



EUROPEAN TELEMATICS & ITS 2009 Research Programme

... Know what Tomorrow Brings



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1. Introduction to 2009 Telematics & ITS Research Programme

AIM OF 2009 RESEARCH

“To enable growth through knowledge”

To help grow your business by giving you're the reassurance of matching your developments with the market needs

To help you reduce costs by saving research, planning and implementation time and effort

By giving you a key combination of strategic analysis and raw data, SBD will again be providing a comprehensive programme of research solutions in 2009 specifically designed to help you overcome the challenges of the European market place.

Our Research Programme has been created to give you a range of deliverables throughout the year that focus on our six areas of expertise: **Telematics, Navigation, Traffic & Travel, Connectivity, Audio & Video** and **ITS & ADAS**. For each of these areas we will provide the following deliverables -



Market trends reports

In-depth analysis of competitor trends, key stakeholders, legislation and consumer demands. These reports help you prioritise which technologies and services to implement in order to remain competitive whilst eliminating unnecessary developments.



Technical trends reports

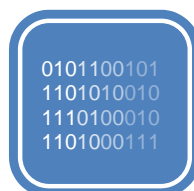
In-depth analysis of technical trends, key features and cost-down approaches. These reports help you understand how to overcome the technical barriers to implement the right products and services.

The Market and Technical trends reports are each 25-30 pages of concisely written analysis, provided in printed and/or electronic (pdf) format.



Sales forecasts (Excel spreadsheets)

Forecasts of system sales, fitment rates and segment-by-segment growth over the next 5 years. These forecasts help you pin-point key growth trends and provide accurate data points for creating realistic business models.



Feature databases (Excel spreadsheets)

Databases of system availability and features, categorised by vehicle manufacturers, systems and services. These databases help you benchmark your products and services against competitors to assess future directions.

The Sales forecasts and Feature databases are provided in Excel spreadsheets (xls).

Topic	Key benefits of SBD analysis	Deliverable	Reference number	Month												
				Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Telematics	Understand the future of public, private and hybrid eCall as a building block to future telematics strategies	Market trends report	2401													
		Technical trends report	2402													
		Sales forecast	2403													
		Feature database	2404													
Navigation	Understand all of the different navigation approaches to prioritise future developments and reduce "trial & error"	Market trends report	2411													
		Technical trends report	2412													
		Sales forecast	2413													
		Feature database	2414													
Traffic & Travel	Understand TPEG to know if, when and how to launch TPEG systems and services	Market trends report	2421													
		Technical trends report	2422													
		Sales forecast	2423													
		Feature database	2424													
Connectivity	Understand CE trends to keep up with changing consumer demands and develop flexible solutions	Market trends report	2431													
		Technical trends report	2432													
		Sales forecast	2433													
		Feature database	2434													
Audio & Video	Understand the direction of digital broadcast in each country to develop future proof and compatible entertainment strategies	Market trends report	2441													
		Technical trends report	2442													
		Sales forecast	2443													
		Feature database	2444													
ITS & ADAS	Understand how to develop low-cost solutions in order to increase fitment rates and improve brand image	Market trends report	2451													
		Technical trends report	2452													
		Sales forecast	2453													
		Feature database	2454													

2. Research topics

2.1 Telematics

Two important factors are likely to emerge during 2009 that will shape the future of the telematics industry. The first is that some form of eCall (either private, hybrid or public) will become inevitable in the short-term. The factor is that despite eCall becoming inevitable, no single approach to telematics will prevail.



During 2009 SBD will therefore be publishing a series of reports that will help you understand all of the different telematics approaches being implemented, along with how vehicle manufacturers can ensure that next generation services succeed where previous attempts have failed. A few of the many questions that we will be answering are included below:

- ❑ **Market trends report**
 - What new services will be launched?
 - How can vehicle manufacturers capitalise on the inevitability of eCall?
 - How can services be sold to the end-user?
 - What role will the PND industry play in enabling telematics?
- ❑ **Technical trends report**
 - Which approach will win, embedded GSM or a Bluetooth link?
 - How will the EC's technology standardisation activities proceed?
 - Will vehicle manufacturers have to fit In-Band Modem?
 - What is NGTP and how will it affect the automotive industry?
- ❑ **Sales forecast**
 - What different growth scenarios exist for eCall in Europe?
 - What will be the penetration of telematics ECUs in each segment?
 - What will be the market up-take of other telematics applications?
 - How will telematics grow within the PND industry?
- ❑ **Feature database**
 - Who are the key stakeholders within the telematics industry?
 - What services are available, what applications are offered and what pricing models have been adopted?
 - What technologies are used for each service?
 - What are the communication routes between the car and the provider?

2009 is a make-or-break year for telematics Europe, and the need for clear and hype-free analysis has never been greater. SBD's long experience of working within the telematics industry places us in an ideal position to help you develop viable strategies that take into account legislative requirements, economic restrictions, technological barriers and consumer demands.

2.2 Navigation

The navigation industry is expected to undergo further dramatic changes during 2009, as new features, new stakeholders and even new device categories emerge. Many vehicle manufacturers will increasingly look beyond the traditional value chain, and develop partnerships with consumer electronics suppliers in order to offer competitively-priced solutions. However, as they do this they will also face fresh challenges associated with quality control and consumer expectations.



Throughout 2009, we will be answering a number of key questions relating to the diversification of automotive navigation:

- ❑ **Market trends report**
How far can vehicle manufacturers extend their current partnerships with PND suppliers and future partnerships with smartphone suppliers?
What new niche navigation device types will evolve, and how likely are they to succeed?
How are consumer demands changing?
- ❑ **Technical trends report**
How can vehicle manufacturers balance the need for low cost and high functionality?
How can the key success factors from each device type (OE, PND and smartphone) be carried over effectively to the other types of device?
What is the ideal balance between embedded and dynamic content?
- ❑ **Sales forecast**
What market growth can be expected for each of the established and emerging navigation device types?
How will the market growth for embedded systems vary between low-cost navigation and high-end navigation?
Has the market growth for PND systems peaked, and how soon will it be overtaken by smartphone navigation?
- ❑ **Feature database**
Which vehicle manufacturers and models are embracing innovative features such as Eco-Routing and PND integration?
What are the display, media and mapping feature trends?
Who are the key suppliers and which models do they supply?
What pricing models are being adopted by different vehicle manufacturers?

As the automotive industry continues the “try-anything” approach to navigation, it will become increasingly difficult to differentiate between short-term fashion trends and long-term sustainable strategies. SBD will continue to analyse all of these approaches, identifying which of these are most like to succeed in improving the navigation experience. This will help our customers to prioritise future developments and ensure that consumer expectations are continually exceeded.

2.3 Traffic & Travel

The automotive content provision industry is in a state of transition. As TPEG services begin to be rolled-out from 2009 onwards, these next generation services will overcome many of the limitations of RDS TMC. Instead of delivering just traffic information, service providers will be able to deliver other travel content such as parking availability and fuel pricing. Instead of using low-bandwidth FM bearers, service providers will be able to capitalise on the growing coverage of digital radio bearers and consider GPRS where digital radio isn't available. During 2009, SBD will be analysing the following aspects of this transition period:



❑ **Market trends report**

Which vehicle manufacturers are leading the way in next generation traffic & travel information?

How will TPEG be deployed across Europe, and how can service providers overcome the fragmented digital bearer landscape?

How will the cost and pricing structures vary from today's RDS TMC business models?

What do consumers expect from traffic and travel services?

❑ **Technical trends report**

Will TPEG standards be ready and mature enough for deployment?

What are the different ways in which TPEG can be decoded and processed within a navigation platform?

At what volume threshold does the cost of broadcast become viable?

How can service providers shift from only collecting traffic information, to aggregating other types of dynamic content?

❑ **Sales forecast**

How will the market for TPEG receivers grow?

Which countries will lead the growth in TPEG deployment?

When will RDS TMC be withdrawn from different markets?

How widespread will TPEG become within the PND market?

❑ **Feature database**

What applications and location referencing approaches will be implemented by TPEG service providers?

What coverage and delivery channel will be available within each market for next generation services?

How are services being encrypted?

What is the status and characteristics of existing RDS TMC services in each market, and how widespread is the shift from public to private services?

There is a danger with any transition period within the automotive industry that the technologies or business models are not mature enough for the market place. SBD will therefore be analysing the transition from RDS TMC to TPEG to understand if, how and when vehicle manufacturers should jump on the TPEG bandwagon.

2.4 Connectivity

The automotive industry has now fully embraced portable device connectivity, as shown at the 2008 Paris Motorshow where virtually all cars were fitted with some level of connectivity. However, the approaches to portable device connectivity vary significantly between different vehicle manufacturers. Additionally, the expected introduction of new connectivity solutions into portable devices, such as Near Field Communications (NFC), will create new opportunities and challenges for the automotive industry. Below are some of the questions that SBD will answer throughout 2009, aimed at helping our customers adapt to the rapid changes within the consumer electronics world:



- ❑ **Market trends report**

How will consumer electronics market trends affect automotive connectivity strategies?
What new devices will consumers want to bring into the car in the future, and what connectivity solutions will they require?
Will UWB ever be successful within the consumer electronics world?
When will WiMAX/4G be deployed across Europe, how will they compete with/complement 3G, and how useful will they be in the car?
- ❑ **Technical trends report**

How does the implementation of Bluetooth and USB solutions vary between vehicle manufacturers?
When will vehicle manufacturers begin implementing WiFi into cars, and how will it be used to improve connectivity with the home?
What impact will new short range technologies, such as NFC have on connectivity strategies?
- ❑ **Sales forecast**

How will the fitment rate of portable device connectivity solutions increase within the automotive market?
How will the fitment rate of portable device connectivity solutions increase within the consumer electronics market?
How fast will UWB and WiMAX penetration on portable device grow?
- ❑ **Feature database**

What connectivity solutions are available on each model within the automotive industry?
How has each vehicle manufacturer implemented connectivity strategies?
What connectivity solutions are available within each product within the consumer electronics market?
How has each consumer electronics supplier implemented their connectivity strategies?

Whilst most vehicle manufacturers have successfully implemented connectivity solutions into their cars, the automotive industry cannot afford to sit back on this success. 2009 will see a renewed push from within the consumer electronics world towards high-speed connectivity. SBD's analysis will help our customers to keep ahead of these changing trends, and to develop solutions that are flexible enough to last the lifetime of the car.

2.5 Audio & Video

In-car entertainment continues to be an important factor for consumers when choosing which car to buy, and as such is becoming a more integral part of vehicle manufacturer's infotainment strategies. However, the European automotive industry faces the additional challenge of a fragmented digital bearer landscape, with the emergence of different solutions in different markets. Below are some of the many questions that SBD will be answering as part of the 2009 Research Programme:



- ❑ **Market trends report**
 - How will the re-launch of DAB in Germany and France affect automotive entertainment strategies?
 - Can Ondas overcome the business barriers associated with satellite radio, and when could services become available?
 - When will internet radio be introduced into the car, and how will it affect infotainment strategies?
 - How do consumers want to access their digital music in the car; by connecting their MP3 players, or through HDD jukeboxes?

- ❑ **Technical trends report**
 - How can vehicle manufacturers develop systems that are compatible with the growing number of broadcast standards available in Europe?
 - What new codec and encryption (e.g. DRM) technologies are emerging from the consumer electronics world that could impact OE strategies?
 - What changes will portable music suppliers such as iPod implement in their devices that could affect users in the car?
 - What are the legislative barriers to enabling more advanced entertainment features in the car?

- ❑ **Sales forecast**
 - What will the growth of digital broadcast receivers (such as DAB, DMB, DVB-H and satellite radio) in the car be?
 - What will the growth of digital broadcast receivers in portable devices be?
 - How will the market for digital receivers vary between different countries?
 - How will the consumption of multimedia grow over time?

- ❑ **Feature database**
 - Which models are equipped with digital broadcasting receivers?
 - What kind of codecs are vehicle manufacturers supporting?
 - How are different vehicle manufacturers enabling their customers to bring their own digital music into the car?
 - How are in-car entertainment solutions being integrated with navigation and connectivity systems?

Vehicle manufacturers will be faced with a growing range of digital bearers in Europe during 2009. Opting to support all of these will be prohibitively expensive. However, choosing to develop the wrong digital bearer could prove costly too. SBD's analysis during 2009 will help our customers understand how to deal with the fragmented digital bearer market, and how to ensure that OE entertainment strategies are future-proof.

2.6 ITS & ADAS

The investment into Advanced Driver Assistance Systems (ADAS) continues to grow, as vehicle manufacturers move beyond warning drivers of impending dangers, and towards semi-autonomous systems that mitigate or even prevent collisions. But as the complexity (and cost) of these systems rises, vehicle manufacturers still face an uphill struggle to increase the sales of ADAS in order to justify investment. Below are some of the questions that SBD will answer throughout 2009 to help our customers develop sustainable ADAS strategies:



- ❑ **Market trends report**
 - Which vehicle manufacturers and suppliers are leading the development of semi-automated ADAS systems?
 - Is the introduction of ADAS into high-volume segments leading to high-volume sales?
 - How are ADAS solutions being marketed and sold to end-users?
 - How could legislative changes affect automotive ADAS strategies?
- ❑ **Technical trends report**
 - What approaches can be implemented to reduce the cost of ADAS solutions?
 - How are suppliers shifting away from stand-alone sensors to multi-use sensors or sensor fusion?
 - How are vehicle manufacturers using camera-based ADAS systems to reduce cost and increase fitment?
 - What is the status and challenges of next generation vehicle-to-vehicle communication trials and products?
- ❑ **Sales forecast**
 - How fast will sales of ADAS systems grow in the short, medium and long-term future?
 - Will high-volume segments see significant growth in the fitment of ADAS?
 - Which suppliers are selling the most ADAS systems?
 - How fast will vehicle-to-vehicle communications systems deploy across Europe?
- ❑ **Feature database**
 - What ADAS systems are offered in each model, and how are they sold to end-users?
 - Which suppliers develop ADAS systems for each vehicle manufacturer?
 - How are the various ADAS applications implemented in the car?
 - What levels of functionality do the ADAS systems for each vehicle manufacturer offer?

The safety and economic benefits of launching ADAS can only be obtained if these systems move beyond its current niche adoption within high-end models, and towards mass market adoption. SBD's analysis will help our customers by prioritising the key technologies that should be implemented, and identifying ways in which these technologies can be developed to minimise costs and maximise fitment rates.

3. Research packages ~ *Enabling you to succeed*

Our Research Programme is flexible with packages to suit both your needs and your budget, and designed in a format to make our focused analysis straightforward to integrate into your product planning and development activities.

Whether you are already operating in Europe or are seeking the expansion of your business in Europe, our focus is on helping you to succeed with the following options:



One-off Reports

Our reports and analysis will be published at regular intervals throughout 2009. This means that you can benefit by pre-ordering our research to fit in with your own development plan and budget.

Alternatively, we will inform you of the report detail with an *Information Bulletin* shortly before each report is published, giving you the benefit of first hand information about a specific report or analysis.

For each report purchased we will also provide you with a complimentary half an hour discussion time with the report author to help support your understanding.

Research Streams

We recognise the importance of having an end-to-end solution for your own topics of interest. Our research streams focus on giving you all the information you need on a particular topic throughout the year.

To help you with specific implementation or for bespoke research we will also give you the added benefit of a FREE day of consultancy time from our Telematics experts for each stream purchased. This means that you can make full use of our independent expertise and knowledge – ideal for securing additional competitive advantage.

Platinum Subscription

If you want the benefit of convenience, the safety of 'being first to know' and the reassurance of the quality analysis that SBD provide across all aspects of the Telematics & ITS market in Europe, the Platinum Membership Subscription has been developed as the ultimate package of support for any organisation that wants to succeed.

Platinum Membership gives the benefit of all six research streams in a series of deliverables at regular but manageable intervals throughout the year.

Your membership status also gives you the added benefit of a 10% discount over the cost of joining the 6 streams individually; this is in addition to 6 FREE days worth of consultancy time. As part of the service, you will also benefit from a monthly summary of both the research and your consultancy requests, and a regular meeting with one of our staff to ensure that we continue to meet your needs throughout your membership period. You also benefit from a favourable rate on every additional consultancy project you may need.

With Platinum Membership you are assured of having a definitive and cost effective solution that is second to none.

Consultancy days – the key to being the best

Included within our Research Programme, SBD also provides specific consultancy support for any aspect of your Telematics development. Whether you require development support for a project or smaller pieces of pin-point research work, SBD will apply its knowledge, experience, skill and understanding of Telematics to help you develop your business.



Next Steps

To discover how SBD can make a positive difference to your ITS and Telematics development program, the next steps could not be more straightforward.

Simply contact Roger Wilson on +44 (0)1908 305 101 or email Roger at rogerwilson@sbd.co.uk to start benefiting from SBD's unique, effective and accessible range of ITS and Telematics solutions.

