



Program Folder

NFC Congress 2008 International Near Field Communication Event

26th/27th February 2008
Campus Hagenberg



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congress.nfc-research.at



University of Applied Sciences



Welcome

We are happy to welcome you to the NFC Congress 2008 in Hagenberg, Austria. Presentations of top speakers of the leading NFC companies give deep insights into the next steps of NFC developments and future market perspectives.



The NFC Research Lab in Hagenberg started its NFC research activities in 2004. The research areas are NFC hardware, middleware and mobile NFC applications. The NFC Research Lab has both industrial and scientific focus. It is funded by the Austrian government, NXP Semiconductors, mobilkom austria, voestalpine Informationstechnologie and Assa Abloy ITG.

On the first day you will learn about the latest NFC developments and have a training from Nokia, mobilkom austria and the NFC Research Lab. In the evening of the first day we invite you to join a gala dinner, where the award ceremony of the First Austrian NFC Competition will take place. On the second day you will hear about future NFC business and marketing plans. At the exhibition you can experience demos from leading NFC solutions companies.

I want to thank all our sponsors and speakers for helping us realizing this conference and giving you the opportunity to join this event. At the NFC Congress 2008 you will meet key NFC executives who will change your business. Connect with the leading NFC companies and enjoy the conference!

Prof. Josef Langer

NFC Congress 2008 is brought to you by



Platinum Sponsor



Program 26th February 08

Session A

09:00 NFC Developers Forum, Nokia

Janne Jalkanen, Chief NFC Architect
Jure Sustersic, Business Development Manager

Join to connect – A Nokia NFC developer event

The event is intended to give you an overview of Nokia's engagements in Near Field Communication (NFC) and NFC application development for the Nokia 6131 NFC. The event presents a great networking opportunity to share experiences with other early adopters and developers. Participants will be NFC application developers and technical implementers, in addition to the Nokia NFC experts. The overall goal is to have an open and technical information exchange, to learn from each other and to give you the opportunity to influence the future development of the NFC platform and tools.

In an open forum we will share the latest NFC news and developments, transfer knowledge and experiences as well as facilitate open interaction and networking.

The event will focus on exploiting the opportunities of NFC and the Nokia NFC Developer Community can bring to the application development using the Nokia 6131 NFC as the current platform.

Topics will include:

- >> Current status of NFC
- >> Nokia 6131 NFC architecture and management
- >> Guidance, hints and tricks for NFC application development and exchange of ideas
- >> Experience of Nokia NFC demos and NFC demos from other developers
- >> An opportunity to meet and interact with the Nokia NFC experts and fellow NFC developers

13:00 Lunch Break

Session B

14:00 NFC from an MNO's Point of View, mobilkom

Christian Kantner, NFC Product Manager

Workshop Agenda

- >> Benefits from NFC for a mobile network operator
- >> Why telcos insist on upgrading the SIM to enable NFC at the POS
- >> How the telco client base can be better leveraged via NFC services roll-out
- >> Key drivers for NFC handset uptake
- >> Details on NFC Roll out in Vienna
- >> Time line for further NFC services and applications

15:45 Coffee Break

Session C

16:15 NFC Research's Technology Workshop

NFC Research Lab Hagenberg

Josef Langer, Professor and Head
Gerald Madlmayr, Research Associate
Christian Saminger, Research Associate

Workshop Agenda

- >> Assessing the current challenges of integrating NFC into mobile devices
- >> Device Evaluation and overview over methods of implementing NFC on Handsets
- >> The Roll of SWP in the context of NFC
- >> NFC Forum Device Architecture
- >> NDEF NFC Data Exchange Format
- >> Participants and Key Players in the Standardization and their Achievements
- >> Evaluating the options for solving security issues arising from NFC implementations

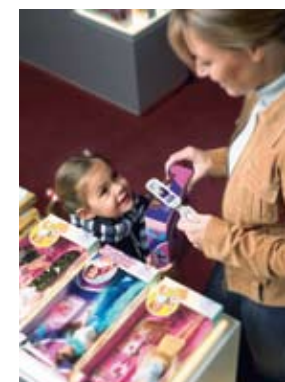
17:30 NFC, Tag Programming and Integrated Solutions, Innovision

Ian Keen, Standards and Applications Manager

18:00 Evening Break

20:00 Gala Dinner and NFC Competition Awarding in Linz

Courtyard by Marriott (Design Center)



Program 27th February 08

Conference Chair: Olaf Acker, Principal with Booz Allen Hamilton's Global Information Technology Group

Session A

- 09:30 Welcome and Opening Remarks**
University of Applied Sciences of Upper Austria,
Josef Langer
- 09:40 NFC – Successful Launch and Future Opportunities**
mobilkom austria AG, Reinhard Zuba
- 10:05 NFC Solutions for the Global Market Ramp Up**
NXP Semiconductors, Steffen Steinmeier
- 10:30 NFC Reader Infrastructure – Bridging the Gap**
SCM Microsystems, Felix Marx
- 10:55 Coffee Break**

Session B

- 11:30 NFC for Business and Consumers**
Nokia, Janne Jalkanen
- 11:55 Business Cases for Short & Mid Term NFC Success Stories**
NEXPERTS, Kurt Schmid
- 12:20 NFC – the New Dimension of Mobile Ticketing and Access Control**
Skidata, Gregor Ponert
- 12:45 Lunch and Networking Break**

Session C

- 14:15 Touch&Travel – a SIM based e-Ticketing System**
Giesecke & Devrient, Stephan Spitz
- 14:40 NFC Deployment @Frankfurt – Update**
RMV Rhein-Main-Verkehrsverbund, Peter Preuss
- 15:05 NFC – Future Ticketing Strategy for Public Transport**
TFL Transport for London, Brian Dobson
- 15:30 Coffee Break**

Session D

- 16:00 NFC OTA Services – from Trials to Commercial Rollouts**
Venyon, Sirpa Nordlund
- 16:25 Smart City – NFC as an Enabler of Services**
VTT Technical Research Centre of Finland, Tuomo Tuikka
- 16:50 NFC – The Enabler of the Internet of (Medical) Things**
ARC Austrian Research Centers, Günter Schreier





Olaf Acker

Olaf Acker is a Principal with Booz Allen Hamilton's Global Information Technology Group, based in the Frankfurt office. His professional interests include the Information Technology, Media and Telecommunication industries, where he specializes in technology transformation programs, strategy and organization & governance topics. His cross-industry project experience spans Europe and the United States.

Mr. Acker is also leading Booz Allen's Global Mobile NFC Initiative which brings together industry experts from the telecommunications, financial services, transport, consumer goods, media and technology industries. The team works with clients around the globe on making NFC-based value propositions a reality.

Prior to joining Booz Allen Hamilton, Mr. Acker gained practical experience in the banking industry, while working for one of the leading international banks in Frankfurt/Main.

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Janne Jalkanen

Janne Jalkanen is the NFC Program Manager at the Nokia Devices R&D unit. His team is responsible for defining, developing and deploying NFC solutions for mobile devices across the Nokia portfolio. Janne has been working in the NFC area for many years at various positions ranging from Corporate Strategy to R&D, and was involved in the NFC Forum from the beginning. He was the editor of several NFC Forum specifications.

Prior to Nokia, Janne worked broadly all over the IT industry, including software consultancy, virtual reality, and rocket science.

Janne holds a M.Sc. and Lic. Tech from the Helsinki University of Technology, and in his spare time relaxes as the lead developer for JSPWiki, an open source wiki solution. Janne as well was present with the Nokia at the inception of the NFC-Forum when Nokia, NXP and Sony formed it.

NOKIA

Josef Langer

Josef Langer is working since more than 10 years in the smart card and terminal hardware area. He studied electrical engineering at the TU Vienna and the RWTH Aachen and philosophy and history at the University of Vienna.

Josef holds the position of a professor for microprocessor engineering at the University Of Applied Sciences Of Upper Austria since January 2003. In 2007 he was appointed as Chief Technology Officer of NEXPERTS GmbH, a leading NFC solutions provider, based in Hagenberg, Austria.

Josef is head of the NFC Research Lab and head of the Research Group Embedded Systems at his university. He is author of more than 30 publications. His current research interests are Near Field Communication and embedded real time systems.



Brian Dobson

Brian Dobson graduated in Chemical Engineering at Newcastle University in 1968 and worked with Mobil Oil for 12 years on refinery computer applications before broadening out on to Exploration and Production applications. He then joined Phillips Petroleum, where he spent 17 years on both technical and business computer system application management, with the last two years being the Information Technology Director for the United Kingdom. He then joined the London Underground Internal Audit group, where he helped implement their Computer Audit section and conducted audits of their various ticketing systems. He then worked on the Prestige PFI project as the Systems Integration manager for the London Oyster card system between 1997 and 2007.

Brian is now the Technology and Systems Manager for Transport for London's Fares & Ticketing Directorate on the Future Ticketing Project looking at the use of Payment Cards and NFC functionality.





Felix Marx

Felix Marx joined SCM Microsystems in November 2007. Since 2003, he has held a variety of management positions with NXP Semiconductors, a specialty semiconductor manufacturer founded by Philips that provides solutions for mobile communications, consumer electronics, security applications, contactless payment and connectivity, in-car entertainment and networking.

Most recently, Mr. Marx has served as General Manager of NXP's Near Field Communication (NFC) business, which focuses on the use of existing contactless smart card standards to enable devices such as mobile phones to act as secure access and payment mechanisms. Prior to this, he also served as General Manager of NXP's Contactless & Embedded Security business, where he was responsible for NXP's smart card (mobile communications, banking, e-government), NFC and reader businesses.



Gregor Ponert

Gregor Ponert is responsible for the Device Factory at SKIDATA AG. The Device Factory is in charge of the development of all SKIDATA Devices (like ticket and RFID readers, barriers, Automated Sales Stations, Turnstiles etc.) throughout the lifecycle, including Product Management. Recently Gregor was appointed as the chairman of the Compliance Program Working Group in the NFC Forum. Gregor Ponert has 20 years of working experience in the fields of physical access control and RFID. Prior to his responsibility for the Device Factory, Gregor has been working in Firmware Development for RFID and other ID Technologies and as Project Manager. He then worked as Business Development Manager and built up the SKIDATA business area Stadia and Arenas together with a second colleague.

Gregor Ponert graduated in Commercial Information Technology at the Technical University Vienna and is inventor in more than 30 patents.

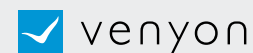


Sirpa Nordlund

Sirpa Nordlund is working as Sales Director, Europe for Venyon Group. Venyon offers hosted services for banks, transport companies and other service providers in order to download their applications securely over the air to the consumers' NFC phones while they maintain branding and consumer facing activities.

Before joining Venyon she was working 10 years at Nokia and was involved in NFC development from the very beginning. She was responsible for market strategies for NFC product line as business manager, and held several management positions after that, latest being the Head of Operations. Prior to Nokia she was corporate researcher at the Confederation of Finnish industries.

She holds Master of Science in Economics degree (M. of Sc. in Econ.) from Helsinki School of Economics and Business Administration.



Peter Preuss

Peter Preuss is working for RMV since 2000. He is Head of Strategy and New Business Development. Besides the development and implementation of the RMV overall e-Business and e-Ticketing Strategy he is responsible for the RMV Bonus Card program RMV-ErlebnisCard and the development of RMV's personalized online and mobile Services.

Since 2004 he is heading the development and introduction of NFC solutions at RMV.





Kurt Schmid

Kurt Schmid has more than 20 year of business experience in the Security, Smart Card and RFID industry.

Before NEXPERTS Kurt Schmid was CEO of OMNIKEY, a company he grew to one of the world's top three players in the smart card reader business. Previously Kurt worked as CTO at Utimaco Safeware AG, a security and encryption specialist, listed on the Frankfurt Stock Exchange. NEXPERTS is a solutions provider using NFC and mobile phones for identification, payment and ticketing. The company, based in Hagenberg, Austria, focuses on complete solution packages based on NFC enabled mobile phones.

Kurt Schmid, born in 1961, holds a Master in Business Administration and Computer Sciences from the Johannes Kepler University in Linz, Austria, and is holder of several patents.

NEXPERTS
connecting your business

Stephan Spitz

Stephan Spitz has working experience in the field of information security from basic research projects to product developments and infrastructure rollouts. Since several years he is responsible for new technologies like the Internet Smart Card or NFC enabled SIM cards at Giesecke&Devrient in Munich.

One of his working topics is the impact of new Smart Card and security technology on the telecommunication markets of tomorrow. He has a doctorate degree from the Technical University of Munich where he still lectures Applied IT Security.



GD Giesecke & Devrient
Creating Confidence.



Günter Schreier

Günter Schreier received the Dipl.-Ing. and the Dr. techn. degrees in electrical engineering/biomedical engineering from the **Graz University of Technology**, Austria, in 1991 and 1996, respectively. In 2003, he received an MSc degree in Communications and Management from the Danube University in Krems, Austria. Following positions in research and industry, he currently is the head of the eHealth systems department of the biomedical engineering division of the Austrian Research Centers GmbH – ARC and leads research teams in Graz, Hall in Tirol and Vienna.

Dr. Schreier is a Distinguished Lecturer at the Graz University of Technology and a lecturer at the University of Applied Sciences FH JOANNEUM in Graz. His areas of expertise and research interests are in biomedical informatics, telemedicine and eHealth.

AUSTRIAN RESEARCH CENTERS

Steffen Steinmeier

Steffen Steinmeier is Global Business Development manager **Near Field Communication (NFC)** of **NXP Semiconductors' Identification Business**. He is responsible for developing and fostering an NFC ecosystem on a global basis, establishing crucial business relationships and alliances to support the worldwide rollout of this technology.

Mr. Steinmeier has been with Philips in Germany since 1995, where he held various positions in purchasing and as Project Manager. Prior to his current role he was responsible in the Identification Business for the sales management of European customers for embedded security solutions and RFID.

Mr. Steinmeier holds a University degree in Industrial Engineering.



NXP
founded by Philips



Tuomo Tuikka

Dr. Tuomo Tuikka is a senior research scientist at VTT Technical Research Centre of Finland. He is the leader of SmartTouch project, which is EU ITEA based project focusing on Near Field Communication (NFC) between smart devices.

Dr. Tuikka was previously a Director of software product development with responsibility of international software product development team at CCC Group and he was partly positioned in Japan. Before that he held Assistant Professorship at the University of Oulu until 2002. Dr. Tuikka has been involved in many European Union and nationally funded research projects and published in the area of collaborative systems, usability, and virtual product development.



Reinhard Zuba

Reinhard Zuba is head of marketing at mobilkom Austria and responsible for the product development of business and private customers. His team deals with innovation management and customer loyalty as well as development of new services.

Since 2000 Reinhard Zuba was responsible for pay scale development for mobile network plans for the residential market. Before joining Austria's leading MNO Reinhard held positions as a product and account manager at a international retail company.

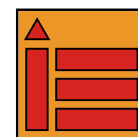
Reinhard Zuba holds a Master degree in business administration for the WU Vienna and a Master in psychology for the University of Vienna. He is still lecturer at the institute of marketing and author of several publications dealing with marketing and product development.



Thanks to our sponsors!



Adamsoft



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A1 – mobilkom austria

mobilkom austria was founded in 1996 and is the most successful company within Telekom Austria Group. 3,9 Million customers and a market share of 40,3% make mobilkom austria the leading mobile network operator in Austria. In the business year 2006 the company's revenue were EUR 1,726.6 million and an adjusted EBITDA of EUR 608.1 million. To prolong the success of mobilkom austria, the customer and the understanding for his desires is the company's target. Innovative products and services guarantee a better quality of life and time.

mobilkom austria has expanded to South and South-Eastern European countries and meanwhile consists of mobilkom austria, Mobiltel in Bulgaria, Vipnet in Croatia, Si.mobil in Slovenia, mobilkom Liechtenstein, Vip mobile in Serbi, Vip operator in Macedonia and MDC in Belarus. Almost 6,500 employees serve 11,3 million customers.



Adamsoft

The company Adamsoft has a ten year tradition in business application development and connected services. It is specialized in offering retail solutions, and has experience with the largest retailers in the country.

In 2006 Adamsoft uncovered the potential of integrating NFC technology in its solutions for processes in business and logistics. Our customers are currently cooperating in four pilot projects, where NFC technology is applied for business purposes.

In November 2006 Adamsoft has started working with the mobile operator Tuömobil on the field of NFC, which in March 2008 will offer the first commercial solution in Slovenia using NFC services for their business consumers. The platform for those services is provided by Adamsoft.

ARYGON

Your Partner for NFC and RFID Technology

ARYGON Technologies AG is first mover in state-of-the-art NFC/Mifare reader modules. We develop, produce and consult on NFC and RFID products and projects. Our OEM, system integration and industrial customers highly appreciate Arygon's superior NFC/Mifare competence, premium professional services and flexibility. Arygon's ability to recognize and adopt to innovative market trends facilitates our customers to develop competitive edge and set the technology pace in their era. We pursue strategic partnerships and cooperate with major industry players and organizations (e.g. NFC Forum) to shape the future within the Wireless Data Communication Industry (e.g. Bluetooth, GPRS etc.). We master our technology and utilize our network to offer excellent products, services and solutions customized to your needs.



Austrian Research Centers GmbH – ARC

The Austrian Research Centers GmbH – ARC is Austria's largest Center for Applied Research & Development with about 1.000 highly qualified specialists. The corporation's portfolio is strongly oriented towards national and European wide research projects and development programs. The eHealth systems research teams is part of the biomedical engineering division and cooperates with all major Austrian medical and technical universities in Vienna, Graz and Innsbruck as well as a number of additional medical institutions and industrial partners within Austria and abroad.

The eHealth systems research team focuses on eHealth related applications and R&D projects according to the mission to provide new connections between patients, physicians and other biomedical research and healthcare, biomedical and biotech partners. ARC / eHealth systems has subsidiaries in all three major biotech regions of Austria, i.e. Graz, Innsbruck and Vienna.





InnoVision Research & Technology plc

InnoVision Research & Technology plc is leading the next generation of NFC/RFID solutions. As the leading fabless developer of short-range data communication semiconductor and system solutions, with particular focus on NFC/RFID (Radio Frequency Identification) and ultra low-cost Integrated Circuit (IC) and RF electronic design, IRT is pushing cost performance to enable clients to get maximum utility for minimum cost.

The company develops innovative semiconductor technologies, ICs, RF systems (HF/UHF) and complete end product applications for mass volume commercialisation and then licenses customers for its incorporation into their own products.

At the heart of the emerging Near Field Communication (NFC) market, InnoVision R&T designs and develops NFC/RFID IC solutions for the global mobile handset and consumer device sectors.



The research group for Industrial Software

The research group for Industrial Software (INSO) at the Vienna University of Technology consists of a team of leading edge technology scientists working on highly innovative research as well as major industrial software&system projects. It is chaired by Prof. Thomas Grechenig. Mutually supplementing focal points allow INSO to cover a wide range of IT areas, such as human computer interaction, software and project engineering, business informatics, multimedia informatics and IT security engineering.

The grounding methodology spans fundamental and theoretical approaches to actual implementations in the field. Examples for references include scientific excellence in "Industrial Software Engineering", science in "Personal/National ID" and "Secure Personal Health Record". INSO provides lectures, master theses and PhDs in several academic and industrial IT research areas and scientifically cooperates world-wide.

NEXPERTS

NEXPERTS is a solutions provider using NFC and mobile phones for tracing and tracking, m-marketing, m-payment, m-ticketing and couponing. The company, based in Hagenberg, Austria, focuses on complete solution packages to connect businesses to customers through the use of NFC enabled mobile phones. NEXPERTS offers NFC evaluation packages (NFC Starter Kit), NFC platforms and NFC tools for rapid application development as well as ready to use solutions for event management, mobile data acquisition and other application specific use of NFC technology. Our clients benefit from our expertise in many NFC projects and the technology know-how in mobile phone applet, PC, Server and Internet application development. Solutions from NEXPERTS are used and integrated at end-users by operators, system integrators and value added resellers.

NEXPERTS is NFC Forum Member and partners with the key players in the NFC ecosystem.

Near Field Communication Forum

The Near Field Communication Forum was formed to advance the use of Near Field Communication technology by developing specifications, ensuring interoperability among devices and services, and educating the market about NFC technology. Formed in 2004, the Forum now has over 130 members. Manufacturers, applications developers, financial services institutions, and more all work together to promote the use of NFC technology in consumer electronics, mobile devices, and PCs.

The NFC Forum provides a highly stable framework for extensive application development, seamless interoperable solutions, and security for NFC-enabled transactions. The NFC Forum has organized the efforts of dozens of member organizations by creating Committees and Working Groups.





Nokia

Nokia is the world leader in mobility, driving the transformation and growth of the converging Internet and communications industries. Nokia makes a wide range of mobile devices and provides people with experiences in music, navigation, video, television, imaging, games and business mobility through these devices. Nokia also provides equipment, solutions and services for communications networks.

Everyone has a need to communicate and share. Nokia helps people to fulfill this need and we help people feel close to what matters to them. We focus on providing consumers with very human technology – technology that is intuitive, a joy to use, and beautiful. We are living in an era where connectivity is becoming truly ubiquitous. The communications industry continues to change and the internet is at the center of this transformation. Today, the internet is Nokia's quest. Nokia's strategy relies on growing, transforming, and building the Nokia business to ensure its future success.

SCM Microsystems

SCM Microsystems is a leading supplier of solutions that open the Digital World by enabling people to conveniently access digital content and services. The company develops, markets and sells the industry's broadest range of contact and contactless smart card readers and terminal technology for secure PC, payment systems, network and physical access as well as digital media readers for transfer of digital content to OEM customers in the government, financial, enterprise, consumer electronics, health care and photographic equipment markets worldwide.

SCM has significant IP in smart card reader technology and develops its product portfolio in compliance with all relevant standards for the industry. The company is therefore uniquely positioned to partner with other leading industry players.



NXP Semiconductors

NXP is a top 10 semiconductor company founded by Philips more than 50 years ago. Headquartered in Europe, the company has 37,000 employees working in more than 20 countries and posted sales of EUR 5 billion in 2006. NXP creates semiconductors, system solutions and software that deliver better sensory experiences in mobile phones, personal media players, TVs, set-top boxes, identification applications, cars and a wide range of other electronic devices. NXP's contactless technologies are designed to track inventory, improve logistics and protect people's information-driven lives. NXP technologies can be found in everything from Radio Frequency Identification (RFID) tags that authenticate medicines, to e-ticketing systems that cut commute times and e-passports that fight identity theft and increase border security. In particular, Near Field Communication (NFC), a technology NXP co-developed, gives instant yet completely secure access to entertainment, information and services, so consumers' NFC-enabled mobile phone can act as their wallet, entertainment centre, travel guide and house keys.

SKIDATA AG

Headquartered in Groedig/Salzburg (Austria), SKIDATA AG is an international market leader in access management and ticketing solutions for controlled access of persons and vehicles to buildings and venues. With over three decades of experience in technological innovation and solution design, SKIDATA serves various segments, from airports and shopping centres to cities and communities, fairs, attractions, arenas and mountain destinations. Reference clients include international hub airports (e.g., London Heathrow, Hong Kong International), renowned ski resorts (e.g., Zermatt, Les Trois Vallées), sports venues (e.g., key stadia of the 2006 FIFA and 2008 UEFA Championships), and leisure parks (e.g., Legoland, Ski Dubai). Currently around 4,500 SKIDATA applications are in operation in over 30 countries worldwide. SKIDATA is a member of Swiss-based Kudelski Group (www.nagra.com), a world leader in digital security technology.



In the NFC ecosystem Venyon offers hosted services for banks, transport companies and other service providers in order to download their applications securely over the air to the consumers' NFC phones while they maintain branding and consumer facing activities. Venyon's close cooperation with mobile operators as well as mobile handset and secure element vendors enable seamless and secure services. The Venyon platform for top up services can be used for stored value applications, such as transport and event tickets, gift cards, loyalty cards or coupons. Travelers can top-up their ticket or stored value payment card anywhere or anytime. Application life-cycle management and quality assurance services are examples of other value-added services Venyon provides.

Venyon operates its services in a secure environment, which fulfills the requirements set by major credit card associations. This enables Venyon to offer vital services for NFC ecosystem without compromising security.

WIMA

WIMA is a Conference and Exhibition based in the prestigious location of Monaco and is presenting at the Grimaldi Forum from 28 – 30 April the 2nd European NFC Developers Summit and hosting the "Touching the Future" NFC Forum Global Competition Finals & Awards Ceremony.

With the support of NXP as Official Sponsor and the NFC Forum as Official Association Sponsor, WIMA is the European NFC industry event bringing together developers, systems integrators, device manufactures and service providers ready to realise the potential of NFC and the multiple opportunities available from both a business and technical standpoint with the ever expanding outreach of NFC services into the ecosystem. Presentations and exhibits will explore some of the top NFC application areas highlighting what the devices can do today and will do in the future, what you need to know about NFC technology and how to develop NFC applications.



VTT Technical Research Centre of Finland

VTT Technical Research Centre of Finland is an impartial multi-disciplinary expert organisation. VTT's special strength is its ability to create new, globally competitive technologies and innovations by combining knowledge and expertise in different fields. With its know how VTT produces research, development, testing and information services to public sector and companies as well as international organisations.

With its staff of 2780 VTT experts VTT provides high-end technology solutions and innovation services. From its wide knowledge base, VTT can combine different technologies, create new innovations and a substantial range of world class technologies and applied research services. VTT's technological focus areas are applied materials, bio and chemistry processes, energy, information and communication technologies, industrial systems management, microtechnologies and electronics, and technology in the community.

NFC Research Lab Hagenberg

The NFC Research Lab in Hagenberg was founded in 2005 focusing on new NFC use cases, hardware realizations and security aspects. In 2006 Austria's first NFC Trial was launched in Hagenberg, providing a variety of services never implemented in a trial before. After that time the NFC Research Lab came up with payment and ticketing services, an own reference hardware, several publications, and the organization of the Austrian NFC Applications Conference 2007. In order to ensure customers and industrial relevance of the research results, project partners, such as mobilkom austria and NXP Semiconductors, brought in practical experience from users' point of view.

In fall 2007 the research project has been relaunched, now being funded by the Austrian Federal Ministry of Transport, Innovation and Technology for another two years. For that time our research focus lays in the field of usability, testing, interoperability and energy efficiency.

