

Forum

 Genoa Congress—See pages 5–8 for Provisional Programme, Registration Form and Hotel Booking Form

www.fitce.org

Newsletter of the Federation of Telecommunications Engineers of the European Union

April 2002

The Genoa stage is set

The stage is set for another highly successful FITCE Congress in Genoa. The Technical Committee has met and made their decisions and our Italian colleagues have arrangements well under control.

This year's Congress sees a new format. The overall theme is 'Evolving Networks: Service Opportunities and Market Realities'. Each of the three days of technical sessions will be devoted to a particular theme: 'From Circuit-Switched to IP-Based Networks: Risks and Opportunities', 'Broadband Solutions for the Last Mile to the Residential Customers' and 'Mobile Communications in the Future'. Each day will begin with a keynote presentation from an invited industry expert, followed by contributed papers and closing with a round-table discussion.

The Congress will be held at the 'Magazzini del Cotone' Congress Centre located in the Porto Antico of Genoa, Italy. Few congress venues in Europe can boast such a scenic location; in fact it looks out over the waters of the old port from the 'Molo Vecchio' quay. The 'Porto Antico' is at the very heart of Genoa's old quarter, the liveliest and most picturesque part of the city. Streets full of his-



FITCE Forum

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torical buildings, the main shopping thoroughfares, not to mention the alleyways full of craftsmen's workshops—they all lead down to the sea, to the traffic-free tranquillity of the old port. Restored to the public domain in 1992 by architect Renzo Piano, this area is now a concourse of history, technology, culture and leisure.

This *Forum* includes the provisional programme, and information about registering for the Congress. For further information about the Congress visit www.fitce.org.



Message of Welcome from the President of the AIIT

Dear Friends,

We are very proud to organise in Italy the 41st European Telecommunications Congress, offering European telecommunications professionals the opportunity to meet and improve friendship among our countries.

This year a new strong bond has been established by the adoption of the Euro as our currency and through it we feel yet closer to the huge political, economical and social project that has been under way for nearly 50 years.

You can see how progressive was the project of our predecessors that in 1961 created the FITCE for the exchange of information among telecom managers and professionals at the same time stimulating friendly relations across our industry.

Information travels across boundaries without the need of a passport and this has always kept our industry in the front line of the European Project.

I can't forget on this occasion that the Congress has gradually evolved through time adapting itself to the always changing telecommunications scenario. More and more people felt deeply the necessity to use this yearly meeting first of all as an occasion to show the most important innovations that operators were introducing in their networks, or manufacturers in their laboratories.

Furthermore the European Telecommunications Congress has allowed FITCE associates to participate as members of National Associations therefore enabling them to deliver their contributions openly and more freely from external constraints.

FITCE's answer to this new direction is apparent in the increasing quality of the presentations and of the papers submitted to the Congress and the number of abstracts submitted, which this year has reached a new record of 91. Taking into account the high quality of many abstracts the Technical Committee has decided to accommodate in the Congress more papers than originally scheduled. Regrettably, time only allows 43 contributions to be presented at the Congress.

The Congress deals each day with a different theme, each of which is of great current relevance. I have to thank the Comité de Direction of FITCE and in particular their Technical Committee for choosing themes and papers of such importance.

We will meet in September in Genoa where I hope to meet many of you that are reading me now and I give my assurance that we will do whatever is possible to heartily welcome you in friendship.

Arrivederci a Genova

Ing. Stefano Pileri



For latest news of Congress 2002, visit www.fitce.org

FITCE News

When science becomes an art

The meeting of the 2002 FITCE Congress Technical Committee took place in Rome on 8 March to select the papers to be presented at the Congress in Genoa.

I guess it is a reflection of the busy times in which we live that nowadays papers arrive very late to such meetings, either right on the deadline or afterwards! In the event this year we had 88 papers from which to make a selection, of which about 40 could be accepted.

People who have not been involved in such a selection, but have submitted papers, are puzzled how the process works. Some assume that it is essentially random; the paranoid assume a conspiracy. In fact, we try and make it a little more scientific. The committee regards their role in essence as representing the audience by selecting the papers that they would like to hear.

The first stage is to get some idea of the rating of the papers and each committee member scores the paper against some criteria. This year Wim van der Bijl had suggested as criteria:

- Is the subject new (new vision, new technology)?
- Is the subject interesting for the FITCE audience?
- Does the author get his/her idea across?

 The scores of all committee members are then averaged for each paper. It is relatively easy then to determine the level of score that



Congress Technical Committee 2002; L to R: Riccardo Pattuelli, Italy; Leonidas Dritsas, Greece; Paul Flanagan, Ireland; Wim van der Bijl, Netherlands; Marc Verbruggen, Belgium; Renzo Failli, Italy; Guido Vanucci, Italy; Hans-Otto Ehmke, Germany; and John Griffiths behind the camera!

should justify acceptance. However a simple selection of those papers above the level does not lead to a good Congress. It may be that those papers only reflect a narrow range of interests. The papers may also only reflect a narrow range of countries and organisations while we are sure that the audience would like to hear from a wider spread. Thus selection is based on the overall interest although an eye is always kept on the quality score.

Finally the papers must be grouped into sessions and here further adjustments may be needed. If the sessions accommodate four papers and we have five excellent papers on the subject then one will have to go. Conversely if we have three papers only then somehow the gap must be filled, either with a weaker paper or a strong one which is less directly related to the other three. This is the stage at which the science become an art.

Professor John Griffiths

UK merger

FITCE UK has announced its merger on 1 April 2002 with IBTE (Institution of British Telecommunications Engineers), the combined organisation being known from 3 May 2002 as 'The Communications Network'.

Some of you will recall that FITCE UK was once a part of the IBTE, so why, after so many years of 'independence', have we 're-merged'? The reason is that since April 2001 membership of the IBTE has no longer been restricted to BT employees.

The committee realised that the target markets for FITCE UK and IBTE in the UK have significant overlap. Both organisations are targeting a similar set of individuals, albeit that FITCE UK remains an organisation for 'professionals' whereas IBTE is open to all that have an interest in ICT. Also the two organisations could be targeting similar corporate members and sponsors: the UK ICT companies. We realised that through merger FITCE UK would gain access to IBTE's professionals and would be in a good position to encourage them to sign up to FITCE membership as well as IBTE, boosting our membership numbers. We would become the European arm of IBTE.

Discussions between the two organisations led to a joint proposal together with the necessary draft constitutional changes. The proposal was put to both organisations, voted on and accepted at the FITCE UK AGM and subsequently at IBTE's Conference in November.

The two organisations have some strong synergies and this is extremely good news for us. We will be stronger together through joint funding, joint advertising and greater opportunity to run joint events and marketing. The merger potentially brings many benefits to members of both organisations.

Jeremy Randles (Secretary, FITCE UK)

CD Report

The Comité de Direction meeting **No. 215** was held on 16 and 17 November 2001 in Genoa, at the Istituto Internazionale delle Comunicazioni. In addition to the normal agenda topics, the following decisions were taken:

- The Polish Federation of Engineers, representing Poland as a new FITCE member, was accepted. The CD will propose the nomination of the Polish Federation of Engineers as a full FITCE member during the General Assembly of September 2002.
- Via the intermediary of our Greek colleagues, a representative of a recently established Federation of Telecoms Experts in Bulgaria had come to present his Federation. Talks about possible membership will be continued.
- It was decided to set up a working group 'Can FITCE do more?' under the presidency of Walter van Hemeledonck. One major objective is to find ways to create more visibility for FITCE.
- Paul Nichols will from now on be responsible for the FITCE web site and the *Forum* on a 'freelance' basis. A budget was set up for 2002.

The CD met in Brussels on 8 and 9 March 2002 (**No. 216**) with participants from all national associations, except Luxembourg.

The organisation and the budget of the next Congress in Genoa were discussed at great length, as well as the development of the web site. The Congress, *Forum* and web site are the services rendered by FITCE for the benefit of the members of all national associations. The CD agreed that investment should be made to expand the portfolio of services to members. Initiatives will be taken in the near future.

Secretary-General Bert Maes will step down at the end of his two-year mandate. Filip Geerts will be the new candidate.

The CD also prepared the next General Assembly on 7 September. On this occasion, the Polish Association of Telecommunication Engineers will be proposed to join FITCE.

Our German colleagues confirmed their commitment to organise the Congress 2003 in Berlin (4–6 September 2003).

FITCE Secretariat

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FITCE Forum 3

Is the Information Society a mirage, or are we on the right road?



Dominic Pinto FRSA MIEEE MIMgt BA, and Senior Associate at Telesphere Ltd., initiates a debate.

Surfing, e-mail and ecommerce may not be a bad start on the road to 'Broadband Britain'—but

suggestions that ISDN (launched in the UK as a pilot service in 1985) is an adequate interim service to support these basic service components do not seem sensible or practical.

Affordability (of ISDN) is dependent on usage, despite service packages that include an element of pre-paid usage. It's not that ISDN is only for the corporate world, it is more a matter that a regular fee plus usage charges does not lend itself to an 'always on' connection environment, whether for entertainment, surfing, e-commerce, gaming, or e-mail, all shared perhaps between several people in a household.

It's not entirely clear what the end-goal of an Information Society is, or what the out-turn will look like, but access is critical—over a range of channels. Technology (even 20-year-old ISDN) doesn't sell service.

For the mass market, it has to be a compelling service package. For the business market it needs to be service (data) plus keen pricing; for the education market, interactive multimedia services delivering content that supports teaching. Sharing ISDN2 across an average middle school, for example, just isn't going to deliver anything usable. ISDN30 is likely to be beyond any sensible budget, although Japan has most schools connected to 2 Mbit/s leased lines, and has explored increasing this to 10 Mbit/s.

I don't see, yet, a logical argument for the majority of the market—other than ISDN is here, it's cheap (-ish), and it gives you slightly higher speeds for Internet access.

99 per cent of the UK population may be served by ISDN-capable exchanges, but not if you're beyond approximately 6 km of the serving exchange or remote concentrator. That's not a direct technical limitation, but the cost of extending beyond that limit is disproportionate to the benefit. Cost advantage (over unmetered analogue dial-up access, or broadband) depends on usage profile, and

doesn't encourage a mass market, web-surfing or e-commerce use. 64 kbit/s (or even 128 kbit/s), doesn't equate even to Home Choice's limited offer of up to 115 kbit/s as part of a £26 per month service over ADSL.

So what is happening in the ADSL world?

Current Q4 figures for new DSL customers show Japan adding 875K, Bell Canada added 132K, reaching a total of 757K (by far the highest penetration in North America—availability is well over 70 per cent of the Canadian population, with plans to reach 90 per cent soon; add Telus's 200 000 and MTT, and Canadian DSL subs are over a million). SBC, serving three or four times the population, only added 146K new subs, despite increasing promotion by AOL and Earthlink. They intended to connect 350K per quarter a year ago, while DT and NTT—with similar numbers of lines—are preparing for 500-750K per quarter.

Also in Japan, ADSL has overtaken cable, with 1.5M customers, almost all in the last year, and the majority installed after September when YahooBB launched a \$22 per month service. US figures show gains of over 600K to a total of over 4.4M customers, putting them third in the world for penetration, after Korea and Taiwan. If the US telcos deployed at that rate, the US DSL subscriber count would be 8–10 million, passing cable and ending all the noise about broadband demand. (Source: DSL Prime Volume 3, Number 4, February 2, 2002. Copyright Dave Burstein 2002 http://www.dslprime.com)

The UK market is about to be shaken up, with BT's announced cuts in wholesale ADSL rates. BT Openworld, Pipex, and others have announced significantly reduced retail rates for consumers, in the range of around £25–30 a month. That still compares slightly unfavourably with averages elsewhere of around \$30 monthly, and UK cable modem service of around £15–20 (albeit as part of a bigger package). UK CATV operators have responded with a promise of 1MB service later this year.

I'm checking out the Pipex retail service, and will report as this develops. So far, so good. Can we have a volunteer to report on CATV?

I have put an order in for Pipex ADSL for my base in London. There is still no

chance of service out in North Oxfordshire, although the serving exchange at Bicester had a DSLAM installed a year ago. Critically, service availability to non-urban areas (that is, outside the cities and larger towns) has yet to be addressed. Rural living members will have to contribute their own experiences, but see some comments below on other access methods.

Ordering on-line was painless, and Pipex's FAQs etc., were pretty exhaustive. My order was confirmed by e-mail which informed me of the connection process, how to monitor my order and gave me contact details. A good service—no 12 month minimum (but an early termination charge that is not penal), price dropping to £19.99 + tax monthly, no installation/connection fee, modem about £100. This compares pretty favourably with a friend's recent experience with Telewest in south west London. That was so good that he cancelled the order!

ADSL may be a contended service, but so is cable modem service—indeed, any service that shares infrastructure across many users is a contended service. Speeds go down as the number of users using at any one time goes up, unless capacity is increased either in the local access network, in the number of DSLAMs, or in the backbone networks.

It makes no sense to blame one or other technology for delays in creating greater broadband access. But fibre is nearer than you may think, at least physically, in many locations. Fibre to the home is way off though. Transitions are one thing, and ISDN may still play a minor role. As for deploying satellite—BT has piloted successfully, in conjunction with Gilat, two-way DSL via satellite. Pricing may be an issue, but it's 'doable' now—and 'doable' by others. A combination of digital satellite service and a return path (available now) offers up to 8 Mbit/s. Broadband terrestrial radio service is unlikely, seriously, until the licensing restrictions on use are limited.

To my mind, the conclusion is that to gain that end-goal of an Information Society (whatever that might bring) we must keep focused on affordable, commercial, broadband. XDSL, cable, and satellite are footsteps along the way. ISDN may offer some niche use, but investing heavily (save to upgrade analogue phone service), is a diversion.

The devil is of course in the detail, and how widely access is made available across the UK. FITCE members should be ideally placed to judge and report how successful BT's welcome steps (and other suppliers responses) are in meeting users needs, and how this is developing across the EU and associated countries.

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The Newest Economy

by Jos Gerrese (GANESHA consult, The Netherlands)

Several months ago I was speaking at a telecom seminar in Geneva for a rather thinned-out audience. Seminar organisations are the first to suffer from set-backs in the economy. This small audience allowed for a bit more interaction than we normally experience. At a point during my lecture the topic of company success was raised and I asked the following simple question: what is the minimum requirement for a successful company? After the usual silence the first answers were given: revenues; customers; a portfolio... Finally a senior representative from Cisco gave the solution: PROFITS!

The last three to four years we have indeed lived in a 'New Economy'. A New Economy that preached, or at least was able to get away with, the idea that an idea of a service and some potential revenues were enough to be a success in the market, to lure investors and to drive a Porsche. Well-known companies were eager to report stunning growth in revenues but also had to tell that their losses increased even faster. Their share values have now crumbled to almost nothing and I wonder what happened to the Porsches.

The last 12 months have demonstrated that 'fried air' does not fill a purse and that in the end dream castles built on ice either evaporate or sink when the temperature rises.

In other words: the New Economy has melted away; we all have suffered for some time and now it is time to pick up the pieces. Since it is not fashionable that we return to old paradigms we need a new one: 'The Newest Economy'. The aim of The Newest Economy is to make Profits. How does one make profits?

- 1. Control the costs.
- 2. Profitable pricing.

Free service is a suicidal method. Customers will have to pay for what they get. The Customer is King....but only then when he renders profitable revenues. No one can afford to have loss-making customers.

In general the consequence must be that services in the IP space will become more expensive—they were almost given away up to now. It will also mean that the IP revolution will most likely be an IP evolution. The penetration of IP services on a professional level will therefore be much slower than foreseen up to now.

Companies should base their decisions for change-over to other protocols and/or suppliers on mainly two criteria: will the new package be cheaper, and will the new package be better? Successful ITC service providers will meet these two criteria because better plus cheaper wins.

The year 2002 will be about profits.

The dust has not settled yet!

Now that the telecommunications landscape has become clearer it is time to see whether the resulting picture will be stable or not. In my view it is not stable and I shall try to explain why this is the case.

Looking at the market for fixed telecommunications services, we can note that in every European country the incumbent may have been weakened but is still very much alive and has an important market share. In most markets it is even still a dominant player. The competitors are mostly niche players, for instance offering ADSL services, long distance and international telephony, Internet access, international capacity and so on. The incumbents however have succeeded in maintaining control on the whole production chain of which the access to the client is perhaps the most important part.

Only in gaining access to the content part the incumbents have been less successful as for instance the withdrawal of France Telecom from the satellite television programme chain shows. When dealing with competitors, who control the whole chain and especially the client access part, newcomers are in a very difficult position. If they want to deliver their services to new customers they must use the facilities of their biggest competitor, the incumbent telecommunications operator.

The European answer to this has been the ONP (Open Network Provision) package. This in essence means that the incumbents must give access to the last mile facilities on the same conditions as they apply to their own services. You could in terms of public economics say that a private good has been given some of the attributes of a public good. By doing this the EU legislators must have thought that they succeeded in the quadrature of the circle (and I must admit I also once believed it): keeping the last mile in private hands and still have assured competition on it.

Seen from a distance it could work. But as a member of a European telecommunications consultancy firm I have been able to note that in most if not all countries the devil is in the detail. The incumbents have been forced to cooperate but they were always able to explain why in certain cases this or that made it impossible to satisfy the demand of the newcomers. Not the least of these problems was that most of the times delivery dates were not met, which is rather dramatic for a newcomer who must show his reliability to its new customers.

The officials in the incumbents who help arranging things this way must think they do a good job for their employer. Keeping com-

petition at a distance that is what the game is about isn't it? I am afraid that this is only a short-sighted view, because it has awakened forces which, once they have grown to their full strength, could deal a final blow to the same incumbents.



by Ton de Liefde (SITICOM Columbi)

Nowadays there are experts that say that the local networks of the incumbents should be separated from the incumbent thereby creating a new company, which can but not necessarily has to be state owned. Of course the incumbents oppose this idea, which by the way is practised in Stockholm for quite some time already. It would leave the incumbents without the cash-generating machine which now finances their relatively inefficient other service-provision activities. Although it can be demonstrated that separating the local access network is beneficial to the society from an overall point of view it is my guess that the incumbents will have enough lobbying power to prevent this from happening in the foreseeable future.

What will emerge however is the creation of new access networks using the most modern technologies, that is based on fibre, leaving the incumbents with an old fashioned network. The newcomers cannot finance this so we may expect that, as was done with the introduction of cable TV in the Netherlands for instance, local initiatives will be formed to organise modern fixed telecommunications access networks which can be indiscriminately used by all service providers. At some point in time these local initiatives will be put together to create a regional or even larger local access company doing just that: giving access. The challenge for the regulators then will be to make sure that these companies restrict themselves to this in order to avoid the problems we are experiencing now. Of course this is against modern marketing thinking which stresses the importance of control of the whole production chain. But it will be necessary.

Those very faithful employees of the incumbents who up to now in many cases successfully repulsed attacks from newcomers will then face a situation which for them is much worse. The incumbents are out of business. So, if I were an employee of an incumbent, I would know what I had to do: pamper my competitors and thus avoid new regulations and new networks to emerge. It may be bad for my country, but it would prolong the life of my employer until after my retirement!

Congress 2002 FITCE Forum 5

41st EUROPEAN TELECOMMUNICATIONS CONGRESS

Evolving Networks: Service Opportunities and Market Realities 4–7 September 2002

Magazzini del Cotone Congress Centre, Genoa Old Harbour, Genoa, Italy
PROVISIONAL PROGRAMME

Tuesday 3 September 2002

16:00–18:00 Registration 17:00–18:00 Welcome Drink (Congress Centre)

Wednesday 4 September 2002

08:30-10:00	Registration
10:00-11:30	Opening Ceremony
11:30-11:45	Break

Topic for Technical Sessions A1, A2 and A3:

FROM CIRCUIT-SWITCHED TO IP BASED NETWORKS: RISKS AND OPPORTUNITIES

11:45-13:15 Technical Session A1: INTRODUCTION

Keynote Speech (Speaker to be defined)

Pricing in the 'Newest Economy', Jos Gerrese, ICT Consultant, The Netherlands

Multimedia Evolution Strategies for Established Network Operators, Adam Macgill, BT Ignite, United Kingdom

13:15-14:30 Lunch

14:30-16:10 Technical Session A2: IP NETWORK OPTIMISATION

Optimising IP Network Performance through Active Measurement, Stephen Sargood, Nortel Networks Ltd, United Kingdom, Bob Mandeville, CQOS Inc., United Kingdom

Measurement-Based Traffic Characteristic Estimation for QoS Oriented IP Networks, Jimmy M. Leung, John A. Schormans, Queen Mary, University of London, United Kingdom

The User Access to QoS Parameters of IP Networks, Jaroslav Saroch, Vegacom, Czech Republic

Scalability Issues in the Configuration of Traditional ATM, PNNI ATM and MPLS Based Services, Luis E.García, Mercedes Garijo, Universidad Politécnica de Madrid, Spain

From Circuit-Switched to IP-Based Networks: Risks and Opportunities, Quentin Toussaint, Cisco Systems Belgium, Belgium

16:10-16:30 Coffee break

16:30–17:50 Technical Session A3: MIGRATION TO NEXT GENERATION

Telecom Network Architecture: Multi-Layer Switching Solution, Agostino Damele, Andrea Spaccapietra, Marconi Communications, Italy

Network Architectures: Conversion Strategies and Evolution, Thorsten Lang, Siemens AG, Germany

Innovative Class 5: A Challenge for Incumbent Network Operators, Stefano Nocentini, *Telecom Italia, Italy*, Maurizio Siverio, *Telecom Italia Lab, Italy*

Tactical Implementation of the Next Generation Local Switch, Jeremy Randles, BT Wholesale, United Kingdom

17:50-19:00 Round Table

Social Programme:

14:00–18:00 Guided Tour of the City for Companions

20:00–22:00 Cocktail Reception at Palazzo Ducale for Delegates and Companions

Thursday 5 September 2002

Topic for Technical Sessions B1, B2 and B3:

BROADBAND SOLUTIONS FOR THE LAST MILE TO THE RESIDENTIAL CUSTOMERS

09:00-11:10 Technical Session B1: OVERVIEW

Keynote Speech: Claudio Carrelli, Director of EURESCOM

Socio-Economic and Cultural Factors Affecting Adoption of Broadband Access: A Cross-Country Analysis,

Elizabeth Fife, Francis Pereira, University of Southern California, USA

ASP—Evolving Applications for Evolving Networks—Deutsche Telekom's Strategy and Experience,

Martin Günter, T-Systems, Germany
ASP Services for Residentials—A Challenge for Network Operators?, Juergen Krauss, Stephan Rupp, Alcatel SEL AG, Germany

An Intelligent Integrated Approach to Multi-Service Residential Access Networks, Eric Scharf, Peter Hamer, Konstantinos Smparounis, Queen Mary, University of London, United Kingdom, Wolfgang Payer, University of

Stuttgart, Germany, John Ronan, Micheal Crotty, Waterford Institute of Technology, Ireland

11:10-11:40 Coffee break

11:40-13:00 Technical Session B2: COPPER SOLUTIONS

Local Loop Unbundling Policy Measures as an Initiative Factor for the Competitive Development of the European Electronic Communications Markets, Ioannis P. Chochliouros, Hellenic Telecommunications Organization SA (OTE), Greece, Anastasia Spiliopoulou-Chochliourou, LLM Athens Law School, Greece

The Failed Path of Broadband Unbundling, John P. Frantz, Verizon, USA

Congress 2002 Programme (continued from Page 5)

Broadband Telecom Italia Experiences and Future Developments, Paolo Passeri, Carlo Cori, Paolo Impiglia, Telecom Italia, Italy

KPN Belgium Case Study: BTS Backhaul over SHDSL - Last Mile over SHDSL, Last Metres over GPRS or UMTS, Walter Cuypers, KPN Telecom, Belgium

13:00-14:10 Lunch

14:10-15:30 **Technical Session B3: MORE ADVANCED APPLICATIONS**

> How to Incorporate the Value of Flexibility in Broadband Access Network Rollout Investment Projects, Nils Kristian Elnegaard, Telenor Research Dept, Norway

> Access Network Architecture for Video Distribution over Copper Pair, Sergio Torassa, WIND Telecomunicazioni, Italy IP QoS Services on an xDSL based Next Generation Network, Marc Van Diest, Belgacom, Belgium

Leveraging Broadband Technology for Service Integration and New Market Opportunities in the Last Mile, Filippo Sidotti, WIND Telecomunicazioni, Italy

15:30-16:00 Coffee break

Technical Session B4: ADVANCED BROADBAND INFRASTRUCTURES AND APPLICATIONS 16:00-17:20

> Next Generation Passive Optical Networks—Leveraging the future-proof broadband access platform, François Duthilleul, Alcatel, Belgium

A Service Transparent Full Fibre Access Network, J. E. W. Winkelman, H. J. Goes, A. van Zijl, Lucent Technologies, The Netherlands A Different Business Approach for the Strategic Innovation of FTTH, N. H. G. Baken, KPN Telecom, The Netherlands, W. Van der Bijl, Cap Gemini Ernst & Young, The Netherlands

Broadband Access Network: Enabling Technologies for Advanced Communication Services, Mario Agati, Fabio Cerone, Ericsson Telecomunicazioni, Italy

17:20-18:45 **Round Table**

Social Programme:

09:30-12:00 Guided Tour at the Aquarium for Companions

Friday 6 September 2002

Topic for Technical Sessions C1, C2, C3 AND C4: MOBILE COMMUNICATION IN THE FUTURE

Technical Session C1: GENERAL TRENDS AND ECONOMICAL ASPECTS 09:00-11:10

Keynote Speech: Kota Kinoshita, CEO of NTT DoCoMo

Next Generation Wireless—A Global Approach for Seamless Worldwide Mobility, Wolfgang Groenen, Lucent Technologies Network Systems GmbH, Germany

Mobile Network Sharing: Technical Solutions, Strategic Implications and Economical Impacts for Mobile Operators, Mario Polosa, Blu, Italy

3G Business Case Successfulness within the Constraints Set by Competition, Regulation and Alternative Technologies, Jarmo Harno, Nokia Research Center, Finland

Minimising the Cost of Deploying 3G Networks, Louise Carter, Anne Elvidge, Joe Martucci, BTexact Technologies, United Kingdom

11:10-11:40 Coffee break

11:40-13:00 Technical Session C2: NETWORK AND HANDSETS: FIELD TRIALS AND OPTIMISATION

T-Mobile UMTS Field Trials, Michael Forjan, T-Mobile, Germany

Evolution of the Technology and Deployment State of the Art of 2.5G and 3 G Networks, Mariano Votta, Giorgio Pala, WIND Telecomunicazioni, Italy

On the Optimization of Quality of Service, QoS, in 2.5G and 3G Cellular Mobile Networks, Spiros Louvros, COSMOTE, Greece Handset Technology Evolution, Giuseppe Putortì, WIND Telecomunicazioni, Italy

13:00-14:10 Lunch

Technical Session C3: NETWORK EVOLUTION 14:10-15:30

> Multimedia Services over UMTS Networks: the IP Multimedia Subsystem, Ermanno Berruto, Antonella Napolitano, Blu, Italy IPv6 is needed for a Mobile Centric Environment, Pietro Porzio Giusto, TIM, Italy

Building Services on Heterogeneous Networks, Frank Kroon, Consultant Cap Gemini Ernst & Young, The Netherlands Future Enhancement of W-CDMA Radio Interface, Lorena García López, Telefónica Móviles España, Spain

15:30-16:00 Coffee break

Technical Session C4: MMS AND OTHER NEW SERVICES 16:00-17:20

Multimedia Messaging Service, Michael Forster, Nokia GmbH, Germany

LOVEUS: Location Aware Visually Enhanced Ubiquitous Services, Dimitris Xenakis, Athanassios M. Demiris, Nikolaos Ioannidis, Intracom S.A., Greece

Service Personalization and Beyond, Giovanna De Zen, Siemens ICN, Italy

Multimedia Messaging Service—MMS, Jochen Nowotny, Kapsch AG, Austria

17:20-18:45 **Round Table**

Social Programme:

09:00-12:30 Shopping at the Serravalle Outlet for Companions

20:00-23:00 Social Dinner for Delegates and Companions at the Stazione Marittima

Saturday 7 September 2002

10:30–12:00	General Assembly and Closing Ceremony	
12:00-13:00	Lunch	

14:00-19:00 Excursion to Portofino Bay Area for Delegates and Companions

41st EUROPEAN TELECOMMUNICATIONS CONGRESS

4–7 September 2002

Magazzini del Cotone Congress Centre, Genoa Old Harbour, Genoa, Italy REGISTRATION FORM

Registration to be made before 28 June 2002 by sending the attached form, duly filled-in, together with payment, to your National Association contact (see grey panel) and copy to FITCE 2002 Secretariat (contact person: Clotilde Canepa Fertini) Fax: +39 010 2722183; E-mail: fertini@iicgenova.it; Tel: +39 010 2722383. Non-members in countries without a national association are requested to send their form to FITCE c/o Armada - Kruisbaan 3 - B 2800 Mechelen Belgium Fax: +32 15 459089 and copy to Fax: +39 010 2722183; E-mail: fertini@iicgenova.it.

Please write clearly. This form is also available for download from www.fitce.org.

Title	Mr./Mrs./Ms/Miss/Dr./Prof./Other
Family Name	
First Name	
Company	
Address	
Code/City/Country	
Telephone	
Mobile	
E-mail	
Fax.	
FITCE Member	Yes/No
Accompanying persons (please write the name of each person on a separate line)	Family Name: First name:
Comments	
Signature	
Date	

IMPORTANT: remember to book your accomodation (see page 8) and flight.

Registration Fee	FITCE Member	Non-Member
Delegate	EURO 200	EURO 400
Accompanying Person	EURO 150*	EURO 300

*for the first accompanying person only, additional accompanying persons will be at the non-member accompanying person rate.

NB: Congress registration fees are waived for one speaker only for each paper. Congress registration fees are not refundable.

REGISTRATION FEE INCLUDES:

Delegates:

Attendance to all Congress sessions Coffees and work lunches during sessions Attendance at Congress social events Documentation

Accompanying persons:

Attendance at Congress opening session
Lunch at the Congress venue on opening day
Excusions mentioned in the accompanying programme
Attendance at Congress social events

Registrations will be processed on the basis of first come-first served until the available space is filled.

CONGRESS 2002: National Association Contacts for Registration (and payment details)

AUSTRIA: Alois Miedl, Lassallestrasse 9/A-401, A-1020 Wien; Tel: +43 (0) 59 059 1 34001; Fax: +43 (1) 409 85 17 2403; alois.miedl@jet2web.at Kontonummer: 92.003.390 bei PSK. BLZ 60000

BELGIUM: Gerard De Catelle, Neren-aard 6, B-2550 Kontich, Belgium; Tel: 03 457 2821; gerard.decatelle@skynet.be Account No: 415-5109121-49

CZECH REPUBLIC: Ing. Petr Drincev, FITCE CZ at CVTSS, Novodvorská 14 C, 142 01 Praha 4, The Czech Republic; Tel: +420 2 714 61671; Fax: +420 2 714 61678; petr.drincev@ct.cz Send Congress fee in Czech crowns to: FITCE CZ Account No. 161658698/0300 (CSOB)

FRANCE: Celina Lachampt, FITCE France Treasurer, 27, Allée de Trévise, 92330 Sceaux France; Tel: +33 I 40 91 83 68; lachampt@aol.com Account info: FITCE France, La Poste, No. 36848 95L 033 CCP La Source

GERMANY: Dipl.-Ing. Werner Hufnagel, VTP, FITCE Gruppe D, Mittermayerweg 43, D 64 289 Darmstadt; Tel: 06151 71 33 71; Fax: 06151 71 33 15; w.hufnagel@t-online.de Bank Account: FITCE Gruppe Deutschland, BLZ: 500 100 60, Postbank Frankfurt, Konto Nr. 342 000-608

GREECE: Miltiadis Goumas, President of the Hellenic Branch of FITCE, O.T.E. S.A., Constructions Department, 99, Kifissias Avenue, 15124 Maroussi, Athens, Greece; Tel: +30106117851; Fax: +30106117187; mgoumas@ote.gr National Bank of Greece, Number 671-747730-92

IRELAND: Send registration form and payment to: John Byrne FITCE Ireland (IEI), 22 Clyde Road, Dublin 4, Tel: 01 668 4341, Fax: 01 668 5508, iei@iol.ie.
Note that IEI does not handle enquiries about accommodation or other Congress arrangements.

ITALY: Segretaria AIIT, Att. Sig. ra A. L. Fontana, Casella Postale 10790-00100 Roma Eur; Tel: +39 06 54225024; Fax: +39 06 54074168; aiitsegr@tin.it Conto corrente postale nr. 30168009 dell'AIIT; or Conto corrente bancario, Banca di Roma ag. 134, c/c. nr. 46485/36, CAB 03288, ABI 3002.

LUXEMBOURG: Joseph Glod, Division des Telecommunications, 2 rue Emile Bian, L-2999 Luxembourg; Tel: +352 4991 5520; Fax: +352 491221; jos.glod@ept.lu Compte No. 28970-64, FITCE Luxembourg.

NETHERLANDS: KIvI congresbureau, Postbus 30424, 2500 GK Den Haag; Fax: +31 70 391 9840; congres@kivibur.nl. Do not send money with your application. After receiving your application, an invoice (acceptgiro) for the congress fee will be sent to you by KIvI.

POLAND: STOWARZYSZENIE INZYNIEROW TELEKOMUNIKACJI, ZARAD, GLOWNY, 2 Sw. Barbary Street, 00-686 Warszawa, Poland; Tel: +48 22 6992573; Fax: +48 22 6992415; E-mail: sit@tpsa.pl Bank PeKaO SA, V Oddzial w Warszawie, al. Perozolimskie

65/79, 00-950 Warszawa. Account No: 67 1240 1066 1111 0000 0020 7005. Bank transfer. FITCE Members rate applies.

SPAIN: Adrian Nogales Escudero, AEIT, Fernandez de la Hoz 7, 1', 28010 Madrid; Tel: 09 1447 8177; Fax: 09 1447 2318

Client's Code Account: Asociación Española de Ingenieros de Telecomunicación 2038-1849-86-6000277883

UNITED KINGDOM: Dominic Pinto, Asst. Secretary FITCE UK, 36 Bedfordbury #29, Covent Garden, London WCZN 4DQ, UK. Tel: +44 780 302 8268; Fax: +44 1869 346375; dominic.pinto@ieee.org Members: Delegate: £130; Accompanying persons: £100 (for the first accompanying person only, additional accompanying person will be at the non-member accompanying person rate). Non-Members: Delegate: £260; Accompanying persons: £200. Payment should be by cheque (sterling only) payable to FITCE UK, along with the printed application form.

41st EUROPEAN TELECOMMUNICATIONS CONGRESS

4-7 September 2002, Genoa, Italy HOTEL BOOKING FORM

Please complete this form and fax it before 1 July 2002 to: PORTOFINO COAST INCOMING – Via Lamarmora 17/6 - 16035 RAPALLO GE I Fax: $+39\ 0185\ 230054$; Tel: $+39\ 0185\ 270222$; E-mail: info@portofinocoast.it

Please write clearly. This form is also available for download from www.fitce.org.

Family name: Company:	First name:			
Company:	A d dua			
I	Address:			
Tel: Fax:	E-mail:			
ARRIVAL AND DEPARTURE				
Arrival date: September 2002 Number of nights:	Departure date: September 2002			
HOTELS				
Single Double (1 person) Double (2 persons) Category $\star\star\star\star$ \in 145 \in 165 \in 205/210 Category $\star\star\star\star$ \in 125 \in 155 Above rates are per room, per night and include breakfast and taxes. A booking fee of \in 5,50 is required. Apply to Portofino Coast for other hotel categories.				
RESERVATION				
Category *** Single*: Double (I person): Category *** Double (I person): * The number of single rooms is limited. When no longer available, reconstitution of the property of your payment, a voucher with the property of your payment, a voucher with the property of your payment, a voucher with the property of the pro	e your hotel reservation. No rooms can be confirmed until your hotel will be forwarded. The deposit paid will be deducted from your hotel			
PAYMENT				
All payments must be in Euro (€). All bank expenses will be deducted from the amount received. Accepted methods of payment: Bank transfer to: BANCO DI CHIAVARI E DELLA RIVIERA LIGURE Agenzia Rapallo S. Anna ABI 3424 CAB 32111 Swift code BCRL IT GG Account N. 786844 02 92, PORTOFINO COAST INCOMING SRL stating participant's name				
A certified cheque payable to PORTOFINO COAST INCO	-			
Credit Card Visa Mastercard Number:	American Express Diners Expiry date: /			
Card holder name:	Card holder signature:			