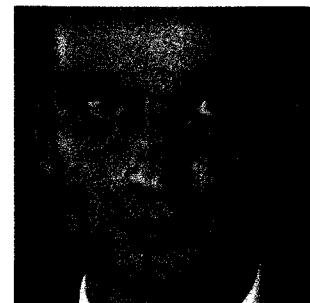


# Partnering for broadband? It just might work! >

By Angelidis Pantelides, General Manager of the Southeastern Europe Telecommunication & Informatics Research Institute (INA) at Thermi, Greece. Dr. Pantelides has spent the last few years researching and teaching the application of public-private partnerships to Central and Eastern Europe. Hybrid solutions for broadband supported by PPPs just might work best in the region, he says.



**O**n several islands off the coast of Croatia, municipal authorities' partner with satellite network providers to create local Wimax networks that provide these islands with broadband at a rate the inhabitants can afford.

This is one of the rare examples of public-private partnership for informatisation in Central and Eastern Europe. In general, PPPs have proven difficult to create in the IT arena in CEE. This issue has nothing to do with technology; rather it is a consequence of lack of trust.

Public administrators in CEE tend to fear being held responsible for the potential failure of a PPP. They lack trust in their potential private partners, and they are not used to negotiating with them.

The result is, as one IT executive from a well-known firm put it, "is that public-private partnership in CEE tends to mean that the private partner pays for everything."

## How to Build Confidence

There is another consequence: that convincing investors to fund broadband schemes, however well developed, in CEE is extremely difficult. One of the most recent advances in this area is research we at INA have undertaken in co-operation with UNDP.

As the UNDP paper, "Partnerships: Strategies, Models and Best Practices in building knowledge economies and information societies," states: "at present, no guidelines or training frameworks are available in this vast region (CEE and former CIS regions) on PPP strategies and models in the area of information society, knowledge economy and telecommunications. Similarly, public awareness of PPPs is very limited. There is also a considerable gap in research activities in terms of what can work specifically in the CEE and CIS contexts.

"Development of knowledge economies and information societies requires not only co-ordination of national and international policies, but also active partnerships between public institutions, private companies and NGOs. Such partnerships are needed to maximise the impact of the available resources on common goals, as well as for sharing knowledge and skills."

The UNDP-INA collaboration is working to produce guidelines on PPP financial plans for Central and Eastern European companies and public administrations. Results should be available within the year.

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## Using Hybrid Networks to Speed Penetration

The move to get public-private partnerships to stimulate broadband development is well overdue, since development has been lagging over the past few years.

A good example of a country where such partnerships would be most welcome is Romania, where the immediate urban areas are wired for cable, but where even the suburbs, let alone the rural areas, have no access (total country coverage is about 35%).

Here a hybrid solution would be most logical. It would make the most sense for a private partner to bring DSL into the wired urban areas, and to use Wimax linked up with it in the other regions. But a viable plan for development and return on investment needs to be made.

In fact, hybrid solutions combining existing infrastructure, public sponsorship, and private execution are a very logical choice for the CEE to improve broadband penetration.

Wimax, even in its current state of development, with the official standard delayed for release by 6 months, is undoubtedly the best choice for areas with no wiring in Central and Eastern Europe. There is another standard, the LMDS broadcast standard put out by the European Commission about four years ago, but, although many licenses for it have been sold, there are no examples of working LMDS networks in Europe even after all this time. Wimax has the obvious advantage of being internationally recognised, as well as having been shown to work in practice.

Telecommunications Revenue \$0.9 billion (2000)  
Main Lines in Service 4 million  
Main Line Digitalization 55%  
Main Line Penetration 18 (Teledensity)  
Cellular Subscribers 4.9 million (2002)  
Cellular Penetration 22% (2002)  
Internet Penetration 10%  
U.S. Export of Telecom Equipment \$31million (2003)



**Lack of Consensus for Development**

Still, for broadband development, there are unresolved issues. The major issue being debated is in which order things should happen: build the networks to generate demand for services and content (choice 1) or build the applications to generate demand for additional bandwidth (choice 2). As is the case with all "chicken & egg" situations the discussions up to now resemble a loop structure rather than a progressive path to a solution.

Nevertheless governments and private investors need to make a decision, in particular for rural and underserved areas where the risk is high and is widely considered unsupportable.

The European Commission seems to prefer the second choice. In fact in the last two to three years, we have been witnessing an obsession with content development that has led to the deployment of a number of policy assumptions/recommendations:

- > The lack of attractive broadband content is one of the bottlenecks for greater use of broadband
- > A prerequisite for further development of broadband is higher availability of attractive content

The value-added of broadband is seen to depend on the applications it enables, the content it makes accessible and the way it is effectively used. On the other hand, demand for broadband will lag as long as innovative applications, services and content are not developed.

**Who Needs It and What for?**

The discussion of users and what they "want/need" is an old one. Although notions like 'you should listen to your

customers' sound as music to the ear, history has shown that there is not even one technological innovation whose future users demanded beforehand. Consider mobile telephony. The GSM network and its operators enjoy worldwide acceptance today, a situation unforeseen by anyone, not to mention rapid growth and trillions of euros in revenues.

But it is not only the case with one major technological breakthrough like GSM. Consider a product as minor and modest as SMS. SMS was initially included in the GSM portfolio as a service to help technical people to communicate with one another. It turned out to be a popular service, the one that currently enjoys the highest growth in the GSM world, one which already represents more than 10% of total revenues.

What it is important to note here is that not only did any user ever asked for it, but even those who designed it, did not design it for the purposes that it primarily serves today.

Networks existed in operation in other sectors of the economic and social life well before LANs and the internet were popularised. One good example comes from transportation. In transportation the problem faced by network experts for many years now is the reverse than the one in broadband telecoms: too much traffic, not enough capacity.

Studies on transportation networks show that "building too many roads may do more harm than good". Operations engineer Dietrich Braess mathematically proved in 1968 that adding new

<"Compared to the average household, people with broadband access are much bigger consumers of all electronic media and entertainment, spending 22% more time with media.">