



Learning the lessons

This, the 10th issue of TelePhare, is the last of the current series. As on previous occasions, we give prominence to Phare's activities in Bosnia-Herzegovina. We make no apology for this: the EU's telecoms programme in BiH provokes a keen interest, if the reactions of TelePhare readers are anything to go by. The article on pages two and three is contributed by Eurostrategies, the EU's telecoms project coordinator in BiH for the past 2-1/2 years. It describes the obstacles overcome and the results achieved in a very particular environment as the BiH telecoms emergency reconstruction programme (TERP) draws to a close. This issue of TelePhare takes another look at projects to develop rural telecoms, a priority in several Phare countries. We look at two related projects – a multi-country project to select the best alternatives to meet different circumstances, and a pilot project in northern Poland. Economic viability and sustainability are the elusive elements on which the implementation of rural services depend. In the postal sector, a leading consultancy assesses two years of high-level multi-country training projects. The success of the projects is clearly illustrated in the article. But, as the author says, the projects contained lessons for the teachers too. This is perhaps a fitting thought with which to conclude the present series.

The Editor

In this issue

Phare's emergency telecoms reconstruction programme for Bosnia-Herzegovina nears completion	2
Strategic postal training also provides valuable lessons for the teacher	4
Alternative models for the development of rural telephony	6
Rural pilot: the Polish experience	7
The Phare 1997 multi-country programme	8
Your Phare contacts	8

Phare's emergency telecoms reconstruction programme for Bosnia-Herzegovina nears completion

Three years of Phare effort to help restore the war-shattered telecommunications networks of Bosnia-Herzegovina are nearly complete. When the current programme finishes in the autumn, the EU will have spent more than 15 million euros in installing equipment to provide long-distance and local services and in training or retraining telecoms managers and engineers.

More than three years after the end of its bloody civil war, Bosnia is a place of contrasts. In towns and villages across the country, the roofs and windows of repaired buildings glint in the sun alongside the gutted hulks of neighbouring dwellings. Yet war damage aside, Sarajevans display more western-style affluence than folk in run-down Balkan capitals like Sofia or Bucharest. The Muslims, Serbs and Croats have each taken charge of their local affairs but are incapable of jointly running a national government. The country is a *de facto* protectorate run by the international community through the Office of the High Representative (OHR).

Aid from the international community and particularly from the Phare programme has been crucial in getting utilities and infrastructures back in operation in Bosnia, especially where this has required the three ethnic groups to work together. The Phare essential aid programme (EAP) for telecoms was one of the first successful actions in this context.

The programme was in two parts, covering the financial years 1996 and 1997. The beneficiaries were all three telecoms operators in Bosnia-Herzegovina. Although the country is divided into two entities, the Republika Srpska (the Serb entity) and the Federation of Bosnia-Herzegovina (the entity including the Muslim and Croat communities), there are three operators. The Federation has two – one for the Muslim areas and the other for

Croat-controlled areas). The first part of the programme was implemented in 1997 and 1998. The second part is currently nearing completion. Taken together, the programme had four main elements, each of which was the object of a separate international tender:

- The reconstruction of a long-distance radio-relay network in the Serb part of the country and the creation of links between the Serb network and those of the Muslim and Croat communities
- The provision of intensive training courses for senior managers and engineers from all three PTTs
- The reconstruction of local-access networks in priority refugee-return areas in the Bihac region of the Federation
- The reconstruction of local access networks in refugee-return areas in both entities (benefitting all three PTTs).

The tender for the supply and installation of the radio-relay network and the inter-entity links was won by an Italian subsidiary of Alcatel, the French group. The training contract went to DDL of the United Kingdom while the two tenders for installing local access networks were won by the Swedish group Ericsson. The programme was coordinated on the ground in Bosnia-Herzegovina by Eurostrategies, the Phare framework contractor for telecoms and posts.



EU consultant meets friend on the road to Pale



Not all 32 radio-relay links put in place by the EU programme are quite so remote

Of the four projects, the first was the most complex and the most difficult. It involved equipping and linking 29 radio-relay stations in the Republika Srpska and three links into the Federation (at Sarajevo, Tuzla and Mostar). The problems encountered were less technical – the transmission technology was synchronous digital hierarchy (SDH), by now a standard technology – than political. The PTTs did not want to work together to install the inter-entity links. Political agreements committing the entity authorities to agree to the project were delayed for months. Eurostrategies had to negotiate with the PTTs – on its own authority – provisional routing and numbering plans to get the project operational.

Friends also created unexpected problems. Just before project launch, the OHR and other leading members of the international community in Sarajevo expressed doubts at the EU's capacity to implement the project and sought to have it transferred to another aid donor. The challenge was short-lived.

SFOR, the Nato-led stabilisation force, which gave Alcatel and Eurostrategies significant logistical support and managed civil works for the project in Republika Srpska, also provided the odd surprise. When SFOR troops shut down Serb TV transmitters at one mountain location near Sarajevo for broadcasting anti-western propaganda, they also shut down, unknowingly, the SDH equipment for the inter-entity link into the Federation, which was also located at that site.

The first inter-entity link, consisting of 30 lines, was inaugurated on September 19th 1997 when the then head of the EC Representation Office in Sarajevo, Donato Chiarini made a phone call to Bijeljina in Republika Srpska. Another 90 lines were added by spring 1998 and a further 240 have been made available since then.

DDL's training project also had its moments of tension. One recurrent problem was to get staff from one PTT to

attend joint courses organised in the territory of another PTT. However, this problem eased considerably when joint training courses involved study visits abroad and other activities outside Bosnia-Herzegovina. Travel broadens the mind, perhaps? The high-point of tension occurred however when a DDL trainer was thrown into a Serb jail, despite two broken ribs, after his involvement in a road accident near Pale. It took several days to secure his release. In all, 298 participants attended a total of 33 courses as part of the DDL project.

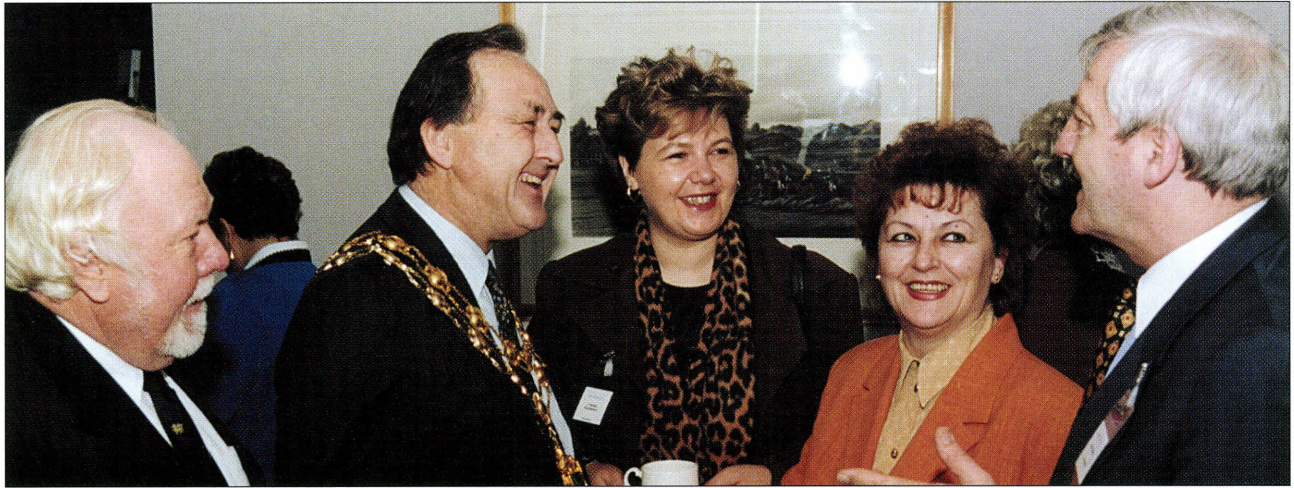
The local network projects have proved less contentious. This is mainly because these projects do not require the three PTTs or their staff to work together. The smaller of the two projects involves a total of seven sites near Bihac, all of them in territory covered by the Muslim (Bosniac) operator – JP PTT BiH. It is now in its final phase, after some delay due to harsh winter conditions.

The larger project on local access networks has also been relatively trouble-free – so far. This covers a total of 36 sites located in all parts of the country. But here too Ericsson works separately with the local PTT in each case. This project will provide for 30,000 subscriber lines to be made available, mainly in rural areas designated for refugee return. Completion date for this project is September 1999. In both local access projects, each PTTs is committed to making sure that all subscriber lines installed are connected to a local exchange.

With the completion of the local access projects, Phare has no plans at present to fund other telecoms projects in Bosnia-Herzegovina. The main follow-on programme is being funded by the European Bank for Reconstruction and Development (EBRD). This too concentrates mainly on local access networks for all three PTTs, plus some switching equipment. Taking the Phare and EBRD programmes together, the PTTs in Bosnia-Herzegovina are probably close to the limits of their capacity to absorb this kind of outside assistance. ■ ■

Strategic postal training also provides valuable

In the past two years, Postplan Systems Ltd has conducted three training seminars for senior executives such seminars, but also the organisers themselves learn from the experience. Alan Richards of Postplan



The mayor of Epsom, Councillor Paul Ardern-Jones chats with participants after opening the final training seminar

The first two seminars were part of a single project. The aim was for each participating country to submit to Postplan an actual problem, preferably market-based, which was hampering the development or expansion of postal services in the country concerned. The project would try to solve the problems in the following way:

- Postplan would send consultants to each country to help to define the problem
- A first seminar would be held where Postplan consultants could suggest solutions and facilitate discussion among participants to secure the benefit of shared experience
- The seminar experience would enable participating countries to develop solutions to their particular problem
- Postplan consultants would again visit participating countries to observe, and help with, the development of the solutions
- A second seminar would be held where solutions could be discussed, refined and finalised and an action plan for implementation agreed with each country
- Postplan consultants would pay a third visit to each country to observe progress towards the agreed action plan
- Postplan would submit a final project report to the European Commission.

In practice, the project turned out to be even more difficult to manage than first envisaged. Seven countries took part which meant that seven different problems were presented, representing a wide range of national priorities. These ranged from an internal communications system

for a database for direct mail advertising to creating a marketing and sales department, drafting a marketing plan for financial services, developing and implementing a postgiro system, and drawing up business and strategic plans.

With the benefit of hindsight, some form of selection allowing efforts to be concentrated on one or two major issues would have improved the overall effectiveness of the programme. Equally, budgetary constraints meant that visits to participating countries were necessarily brief. More time spent there at the start of the project, helping to define problems and prepare material used at the first seminar, would have been time well spent.

Two other important lessons emerged from the first seminar, one of which was foreseen and the other, although perhaps obvious in hindsight, was unexpected. The foreseen problem was the organisation of the seminar at a location far from Postplan System's base. In spite of willing and very capable help from the country concerned, it was difficult to make really effective arrangements across significant distances with language and cultural differences as well.

The unforeseen problem concerned the degree of openness of the exchange of experience among participants. All were keen to participate in the debate as long as items like financial or quality performance were not probed too deeply and, in particular, quantified. As soon as such topics emerged in earnest there was a general retreat behind the barriers of confidentiality which inevitably restricted the value of the debate.

The four key lessons which were learned from this experience were therefore:

The lessons for the teacher

part of the Phare Multi-Country Programme for Posts & Telecoms. Inevitably, not only the delegates to ports

- Spend as much time and effort as possible on the initial preparation stage,
- Concentrate on one or possibly two problems for solution,
- Create an environment which allows for full and frank exchange of experience,
- Organise the seminar close to home.

The second seminar took place at Postplan System's base in the United Kingdom and the truth of the last lesson was proven both in the relative ease of organisation and in the effectiveness of the seminar itself. Although some other initial problems were less easily overcome, the project was a sound success and participants both benefited from the experience and were able to implement the solutions to the problems raised.

Building on success

The success of the project prompted the European Commission to ask Postplan to organise another seminar, this time based on the need for co-operation between Marketing, Operations and Finance functions in the planning of new postal services. Its objectives were:

- To gain experience of teamwork in the evaluation and planning for the introduction of a new postal service,
- To provide practical experience in developing a marketing and sales plan,
- To provide practical experience in developing an operational plan and specification,
- To undertake a financial appraisal of the options using a computer model,
- To introduce and discuss new concepts such as Process Mapping, Action Planning, Risk Analysis, Total Quality Management etc.

Twelve countries decided to participate. Postplan Systems set about organising the seminar with the lessons learned from the earlier experience very much in mind.

The first, and easy, decision was to hold the seminar at Postplan's base. This left us with the three other lessons from the previous project to implement.

We felt the solution lay in creating a hypothetical postal mail product for introduction into a mythical postal service. In this way, Postplan Systems would control the preparatory work to ensure its completeness and accuracy; the problems considered would be limited to one; and the commercial affairs of the mythical postal service could be openly discussed by all participants without breach of confidentiality.

So was born the State of Dunrovia, with its postal service (Posti Dunrovia).



Hopefully this postman's training included swimming lessons

A case study was developed setting out the geographic, demographic and economic profile of the country. Then came a detailed statement of Posti Dunrovia, including, *inter alia*, its manpower, its current services, its financial and its quality of service performance, its costs, its revenues, its wage rates and staff gradings, its government-set targets etc. This detailed case study was sent to all participants three months prior to the seminar to be studied and digested.

In the meantime Postplan Systems developed a marketing and sales plan, an operational plan and specification for a Guaranteed Overnight Letter Delivery Service for Dunrovia.

At the hands-on seminar in February 1999, the Postplan consultants formed the Board of Posti Dunrovia and the participants, divided into syndicate teams, played the part of project teams preparing a submission to the board for the introduction of the *Guaranteed Overnight Letter Delivery Service*. Initially, the syndicates were given the marketing and sales plan, with key elements missing which each syndicate had to identify and develop. The same technique was used with the operational plan and specification and the financial appraisal. The material from each session was provided in hand-out form to build into a text book of planning.

The seminar ran according to plan and the enthusiasm of participants for the format was a major contributor to its success. Of course, as always, we learned a few more lessons which we hope to put to good use in future. ■ ■

Alternative models for the development of rural telephony

By James Russ, BT Telconsult

The current project, launched in late 1998, brings to the implementation stage the "alternative models" identified in a previous study of rural telephony in central and eastern European countries (CEEC) as part of the Phare multi-country programme. The project is being carried out by Telconsult, the consultancy arm of BT, London. The objective is to initiate pilot projects by assisting in their definition, specification and determining evaluation criteria. The following activities are being addressed:

- Business definition and technical requirements
- Identification of key personnel and location
- Suppliers
- Evaluation scheme for each pilot
- Business plans
- Regional forum

The development of rural telecommunications in central and eastern Europe will require the provision of financial support through inward investment or loans from financial institutions. However finance is unlikely to be available for concepts that have not been proven. The purpose of these pilots is therefore to provide the necessary justification of the proof of concept, which can then be used to support requests for obtaining finance for a wide-scale implementation of the pilot actions.

Five pilots are being developed, involving six Phare countries from central and eastern Europe. Each pilot has a lead country. The pilots use a variety of technical and organisational solutions:

- Fixed cellular (Slovakia with additional work in Bulgaria and Poland)
- Build/Own/Lease (Slovenia and Bulgaria with additional work in Poland)
- Telecentres (Romania with additional work in Bulgaria and Slovenia)
- CDMA concentrated wireless local loop (Hungary)
- V5.2 signalling interface (Poland)

A sixth pilot on co-operatives was stopped due to regulation problems.

The Build/Own/Lease (BOL) raises a wide range of practical and regulatory issues which need to be addressed to ensure workable formulae can be obtained. It has proved to be a very exciting pilot with a great deal of interest being generated quickly. A mini-workshop on this pilot alone is planned for those countries which are involved.

Fixed cellular has the potential to develop quickly but this is not happening at present. Several issues, technical as well as commercial, will have to be tackled if fixed cellular is to be a real alternative to Fixed network services.

No real progress has been made on Telecentres, although Bulgaria has proposed schemes that will address currently unserved needs both rural and urban.

The Polish project to develop the V5.2 signalling interface has made slow progress but now promises a more rapid development.

The CDMA pilot has good initial documentation but frequency clearance issues are delaying rapid progress.

BT Telconsult is acting as catalyst and co-ordinator to each of the pilot countries as they develop their pilot plans. Flexibility in the programme is important, as in-country decisions are at times difficult for the participants. The project is due for completion at the end of September 1999. ■ ■



Rural landmarks of today...

Rural Pilot: The Polish Experience

Poland, the largest of the Phare countries with a big farming population, has been particularly keen to develop rural telephony. It was therefore a willing participant in the multi-country project. This is why a first feasibility study for the Polish pilot project was undertaken between September and December 1998 on behalf of the Polish Ministry of Posts and Telecommunications.

Part of the Phare national programme for Poland, it was carried out by Eurostrategies in cooperation with the Institute of Telecommunications in Warsaw and rural telephony experts from EL-Net, an operator of local telecommunications services in Poland. Its findings were made available to the other participants in the present project.

The aim of the study was to create a business plan for a rural pilot project in Poland covering

- The economic viability of the pilot project
- The technical aspects of the application of the V5.2



...and tomorrow

concentrated digital interface between local access networks and the host switch.

The telecommunications network planned for Slupsk province in northern Poland by EL-Net was selected as the pilot. EL-Net obtained the concession from the Polish government to operate a local network in Slupsk to compete against that of the incumbent operator TP SA.

The EL-Net network is expected to serve 45,000 subscribers in the province, of whom 25,000 live in rural areas, by 2003. The main host switch at Slupsk is linked to 33 remotes units in the province. Work on the network is due to begin in 1999. In this way, the present project was able to use a green-field site as its pilot, facilitating many aspects of preparing the business plan.

The validation of the V5.2 interface carried out by the Institute confirmed this interface as being more cost-effective and technically stronger than the V5.1 interface. The V5.2 interface provides for transmission concentration and the creation of high-capacity access networks, with the required degree of flexibility to provide for present and foreseeable network requirements.

However, the financial plan drawn up identified considerable obstacles to be overcome. The conclusion was that on the basis of prevailing market conditions, and with no possibility of low-cost or concessional financing, the internal rate of return for the Slupsk project would be insufficient to secure outside funding from commercial banks or international financial institutions. EL-Net would not be able to roll out its network as planned.

The recommendations to the beneficiary were twofold.

- The first was for the Polish government to enhance the financial plan for the Slupsk project in the eyes of potential financing sources by adopting sector policy changes in areas like local tariffs, subscriber standing charges and interconnection rules.
- The second was for the Polish government to put rural telecoms on its priority list of beneficiaries under future EU initiatives concerning the general development of rural areas of the country.

The main recommendation to the EU was for it to create a specific funding programme or instrument for the expansion of rural telecommunications in Poland – which could also be available for other candidate countries for EU membership. ■ ■

The Phare 1997 multi-country programme

The previous issue of TelePhare (January 1999) gave details of the award of the first series of contracts under the 1997 programme. Since then, a number of other contracts have been awarded. Details are given below. The total value for the 1997 programme exceeds 4.4 million euros, fairly evenly divided between telecoms and postal projects.

Project title	Contractor	Euro value	Duration
A. Telecoms			
Telecommunications tariffs	PriceWaterhouse Coopers	445,271	12 months
Translation of EU telecoms legislation into Phare languages	Eurostrategies	200,000	12 months
Regional telecoms atlas	Tender evaluation in May 1999	600,000	12 months
B. Posts			
Training of senior postal staff	Nepostel	346,071	12 months
Cost allocation: postal services (Part II)	Berenschot	400,000	20 months
Harmonisation of international money transfers	FACS	400,000	20 months
Hybrid mail services	Finmeccanica	350,146	20 months

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