

Evaluation
Report

**EVALUATION OF 10 OPERATIONS IN THE
TELECOMMUNICATIONS SECTOR IN EU
MEMBER STATES**

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The EIB and Regional Development

The objective of reducing disparities in growth rates between the regions is enshrined in the fifth recital to the Treaty establishing the European Community:

“Anxious to strengthen the unity of their economies and to ensure their harmonious development by reducing the differences existing between the various regions and the backwardness of the less-favoured regions”.

However, in order to avoid distorting competition between Member States, the Treaty sets out a very strict framework for possible forms of regional development aid.

The Treaty explicitly entrusts the EIB with the remit of supporting regional development: “The task of the European Investment Bank shall be to contribute...to the balanced and steady development of the common market... For this purpose the Bank shall.... Facilitate the financing of ... projects for developing the less-developed regions” (Article 130 of the Treaty of Rome superseded by Article 198e of the Treaty on European Union – 1992).

Until 1975 and the creation of the European Regional Development Fund (ERDF), managed by the European Commission, the EIB was virtually the sole source of Community financing for regional development projects.

The dawn of the ERDF represented a significant stage inasmuch as it ushered in substantial, direct contributions from the Community budget in the form of grant aid, a development that in no way undermined the importance of the EIB’s input.

Over the years, a variety of additional Community objective mandates have been handed down to the EIB, including that of helping to improve communications between the Member States. Nonetheless, regional development has consistently ranked foremost, with almost two-thirds of aggregate annual financing given over to the least-favoured countries.

In 1988, reform of the Structural Funds introduced a new distinction between the different levels of regional development in terms of “Objective” classifications. The main category was labelled “Objective 1” and embraces all regions recording average per capita income 75% below the Community average¹.

Adoption of the Single European Act served to speed up the process, according unequivocal priority to the aim of strengthening the Community’s economic and social fabric. At the same time, the go-ahead was given to doubling the Structural Fund’s budgetary appropriations, with the proactive partnership of the EIB.

The Treaty on European Union (the Treaty of Maastricht) gave the EIB increased responsibilities in the drive towards greater economic and social unity.

These responsibilities encompass:

1. direct contributions towards financing capital projects in areas eligible for assistance under the Structural Funds (Objectives 1 – 2 and 5(b));
2. operations in areas covered by other specific support measures promoted by the European Union;
3. infrastructure financing having an indirect impact on regional development.

¹ Regional objectives:

Objective 1:	Economic adjustment of regions whose development is lagging behind
Objective 2:	Economic conversion of areas affected by industrial decline
Objective 5(b):	Economic diversification of vulnerable rural areas
Objective 6:	Development of areas with an extremely low population density

The purpose of this report is to provide a clearer insight into how the third category of activity serves to foster regional development.

The study is one of three offering an evaluation of the impact on regional development of investment in major road and rail infrastructure, telecommunications and industry.

Note: In community parlance and in contrast to other multilateral development agencies, the term “region” denotes an entire country or parts thereof rather than an area encompassing several countries. In its Nomenclature of Territorial Units for Statistical Purposes (NUTS), the Community adopts three subdivisions. In most cases, “region” falls within the NUTS 2 subdivision, generally considered the most important in economic terms.

Correlation between NUTS and national administrative subdivisions:

	NUTS 1	NUTS 2	NUTS 3
Belgique/België	Régions	Provincies	Arrondissements
Danmark			Amter
Deutschland	Länder	Regierungsbezirke	Kreise
Ellada	NUTS 2 groupings	Development regions	Nomoi
España	NUTS 2 groupings	Comunidades autónomas	Provincias
France	ZEAT + DOM	Régions + DOM	Départements + DOM
Ireland			Planning regions
Italia	NUTS 2 groupings	Regioni	Provincia
Luxembourg			
Nederland	Landsdeien	Provincies	COROP-Regio's
Österreich	Gruppen von Bundesländern	Bundesländer	Gruppen von Politischen Bezirken
Portugal	NUTS 2 groupings	Comissões de coordenação regional + Regiões autónomas	Grouping of cancelhos
SuomiFinland	Manner-Suomi Ahvenanmaa	Suuralueet	Maakunnat
Sverige		Riksomraden	Län
United Kingdom	Standard regions	NUTS 3 groupings	Counties, local authority regions

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ABBREVIATIONS USED

EIB	:	European Investment Bank
EU	:	European Union
EV	:	Operations Evaluation Unit of the European Investment Bank
ERR	:	Project "Economic Rate of Return"
IRR	:	Project "Internal Rate of Return"
RoR	:	Annual Rate of Return on fixed assets

* * *

NOTICE

The EIB has an obligation of confidentiality in relation to the owners, promoters and operators of the projects referred to in this report. Neither the EIB nor the consultants employed on these studies will disclose to a third party any information that might result in breach of that obligation, and the EIB and the consultants will not assume any obligation to disclose any further information nor to seek consent from relevant sources to do so.

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EXECUTIVE SUMMARY

The evaluation of 10 "classical" telecommunications operations financed by the EIB between 1985 and 1994 in eight member-States of the European Union countries shows that EIB funds have been put to good use: they have contributed to financing investments which were part of sound programmes and, in the hands of efficient operators, these funds have helped raise the efficiency of telecommunications in the recipient countries.

By facilitating access to its financial expertise, the EIB has encouraged large state monopolies to enter the more competitive world of international capital markets and has helped reinforce the competitiveness of this key European industry. The EIB has thereby supported the liberalisation and deregulation drive of the European Commission. Curiously, this achievement in institutional building has received little acknowledgement within the EIB itself, although it could be used as an illustration of how the Bank can make a significant contribution to EU objectives, and as an example for other sectors going through the privatisation process.

Investment "projects" as the EIB defined them were well integrated into operators' comprehensive investment programmes and, as such, achieved their goal. But the way the EIB extracted often disparate investments was ill-understood by clients and, furthermore, at odds with the EIB's declared aim of contributing to specific objectives since this would appear to assume a coherent set of properly targeted investments. **In the telecommunications sector particularly, the EIB should make greater use of the possibility of financing projects in a broader sense and which are part of "a company investment programme"; appraisal, monitoring and completion procedures should be organised accordingly.**

Most of the projects in this study were aimed at fulfilling the EIB's objective of supporting regional development through investments in telecommunications, but in the absence of clearly defined targets and specific measures to that effect, the achievement of this objective cannot be demonstrated. It may well be that the EIB contributed indirectly to this goal through the telecommunications operators' national programmes, which are considered to have improved accessibility including in the less advanced peripheral areas. **But to focus on regional development, the EIB should concentrate its interventions on those operations that meet specific criteria. Such criteria, as well as precisely defined targets and quality standards against which project performance can be checked, should be established at appraisal to enhance the EIB's contribution to statutory goals.**

Finally, promoters now have easier access to capital markets and have achieved higher penetration rates throughout Europe. Hence, in the future, there are likely to be fewer investment opportunities in telecommunications for the EIB under its regional development objective.

The study makes recommendations to help the Bank better focus its operations on the achievement of its statutory goals.

1. Introduction

1.1 Telecommunications and the EIB

Telecommunications help in alleviating underdevelopment by improving access to information in the depressed regions of Europe often located at its periphery. They facilitate intra-community exchanges by interlocking the international communications network. Better telecommunications services strengthen the competitiveness of EU businesses. These effects closely match the statutory objectives of the EIB - created under the Treaty of Rome to stimulate "harmonious development in the European Community" - and which today still retains regional development as its primary goal.

Over the last 10 years, European telecommunications have undergone a liberalisation drive aimed at breaking down the large state monopolies, which have dominated the sector. It started in 1984 with the first privatisation within the EU of an incumbent operator and should culminate in 1998 following the deregulation from 1st January of telecommunications services in all but five EU member countries. This drive has the ongoing effect of increasing competition, cutting costs, reducing tariffs and making them less "distant sensitive", and dismantling bureaucratic barriers which hamper progress.

In 1995, investments in EU telecommunications reached 140 bn ECU (of which 69 % for fixed telephony). This amount is expected to grow, in part because of the tariff decline brought about by liberalisation, to 230 bn ECU (of which 53% for fixed telephony) by 2000. New services, including mobile telephony, will develop faster than fixed telephony. The expansion of electronic data transmission (multimedia) can be accommodated within existing infrastructure at a minimal cost. Investments in fixed networks alone (plus cable TV networks still to be established in many countries), should reach 16 bn ECU per year in the future with, however, greater overall risks since the incumbent operators' cash-flow will be under pressure from competition. New entrants will face higher set-up costs and difficulties in obtaining and retaining licences thereby increasing the likelihood that some of them will fail.

Over the 1985 - 1994 period, the EIB financed, in 11 EU-member countries, approximately 65 investment projects in the telecommunications sector, with a total investment cost of about 53 bn ECU. About half of these projects (34), concerned "classical" telecommunications investments (wire networks and associated central switching equipment), at a cost of 40 bn ECU. The remaining operations involved special networks, international telephone cables, wireless telephony and a few telephone satellites.

In the mid-80s, the telecommunications sector represented 27% of total EIB financing reflecting the fact that the sector was perceived as making a key contribution to EIB objectives. This share decreased progressively to 13% in 1992-1996, although loans remained approximately constant at around 2 bn ECU per annum. In 1995, the amount financed dropped sharply to 885 m ECU (5% of EIB lending). There has subsequently been an equally sharp increase to the levels of the early 1990s.

1.2 The telecommunications evaluation study

The EIB's **telecommunications portfolio** has been evaluated primarily to verify its contribution to regional development and to see if there are lessons to be learned from past experience that can be incorporated into future similar operations. Ultimately, such studies are expected to help the EIB set strategies in its key sectors of activity.

The **methodology** consisted in selecting a sample of representative individual projects, completing a desk study on the basis of all material available within the EIB, and requesting promoters to verify and update the data by filling out a questionnaire (Annex 1) in advance of visits conducted by outside consultants. Findings on the individual projects (which are summarised in the Appendix) were then synthesised in the present report, which has been submitted for comments to promoters and EIB staff. In addition, promoters' views were sought on their relationship with the EIB. There were visits to all but two promoters.

The investigations followed standard evaluation principles. They covered conformity of achievements with initial forecasts, input and output efficiency, impact on targeted populations, sustainability, and relevance to EIB statutes.

Individual projects were selected by applying the following criteria:

- Type: Projects for classical wire networks and associated central switching equipment, as they form the bulk of the EIB's portfolio and are more easily comparable.
- Time period: Projects as recent as possible, but fully completed and in operation for at least 3 years (this turned out as the period 1985 - 1994).
- Location: Projects in European Union Member States.
- Documentation: Projects for which an "Implementation Completion Report"² was available.

Based on these criteria, the Operations Evaluation Unit (EV) retained a sample of:

- 18 projects grouped in 10 different operations (an operation consisting of related or successive projects);
- realised by 9 promoters (telecommunications operators);
- in 8 EU member-States;

With regard to EIB objectives:

- 15 projects were eligible under both article 130, point (a) of the Treaty of Rome, "Regional Development" and article 130, point (c), "Projects of common interest for several Member States (Infrastructure of common interest: basic telecommunications networks)";
- 2 were eligible under article 130, point (a) only; and,
- one under article 130, point (c) only.

The 18 projects selected are representative of the population of "classical" telephony projects financed by the EIB during the targeted period (1985-94). In terms of number of projects, the sample represents 56% of this classical population; in terms of average investment cost (in nominal value) it corresponds to 102%; and all eight countries which received EIB finance for such investments during those years are represented. As a proportion of all telecommunications projects financed during the same period by the EIB, including non-classical telephony projects, the sample represents 28% of the portfolio in terms of number of cases, but 43% of the cost.

The study required 323 person-days on the part of EIB staff and 122 consultant-days, excluding the time spent for publication editing.

2. Performance of the projects evaluated

2.1 Projects' general background and brief description

All 10 operations under review were aimed at developing and expanding national telecommunications networks together with the introduction or extension of digital technology to all network elements, in order to offer new, more reliable and cheaper services. The replacement of obsolete electro-mechanical analogue equipment with the digital electronic type will shorten the technical and economic lifetime of the projects in a liberalised market.

The investments comprised new subscriber lines, increased or modernised trunk capacities, switching and transmission facilities (national and international telecom links). This was in response to growing demand for telephone and data services and to increasing traffic. Both domestic (with the declared intention of favouring less developed regions outside main cities) and international services were to be reinforced. The operations were aimed at raising the reliability of the system and lowering maintenance costs in order to safeguard existing revenues in the face of mounting competition.

In eight out of 10 operations, the "projects" as defined by the EIB were not a comprehensive set of investments capable, on their own, of producing the expected impact. Instead, they comprised a clearly identifiable but disparate assortment of works and supplies carved out of the companies' ongoing investment programmes. This procedure affected the promoters' attitude towards the EIB, a point that will be taken up again later in the report (see par. 3. EIB Contributions).

² Also called in EIB jargon "RFT" after the French "Rapport de Fin de Travaux" which EIB is expected to produce at the end of the implementation period of each investment project. Throughout the text, the expression "at implementation" is used to refer, without differentiation, to "at appraisal" or "at completion" depending on the data available in EIB files

2.2 Actual project outcome compared to appraisal estimates

Physical implementation and operation: works were basically implemented as planned but in half the cases with delays averaging 65% of the scheduled duration (117 % in the worst case: the Appendix gives minimum, maximum, median, and average figures). In the absence of regular project monitoring, the technical performance of the projects can only be assessed through the resulting improvements in the performance of the promoters' services as a whole. In all the operations examined, the improvement in the quality of service (waiting time for connection, fault rates, repair time, failed call rate) and in staff efficiency is good, sometimes even excellent. For instance, the percentage of faults repaired in two days or less increased for the three promoters who replied to this question, from an average of 87% during project implementation to 94% at the time of evaluation.

In some instances, EIB interventions helped counterbalance State interference - which may engender investment delays or even poor technological choices - in the activities of public operators.

Investment costs: converted into 1995 values, the planned investment cost for the 18 "projects" averaged 2 080 m ECU, with large variations from a minimum of 82 m ECU to a maximum of 9 275 m ECU. On average, actual costs come remarkably close to initial plans (+ 1.2%) exceeding the budget by 1% to 28% in four out of the 10 operations, the other 60 % remaining below forecasts by 0% to 21%. Appraisal estimates of technical and price contingencies of 6.5% of investment cost proved accurate but more attention should be paid to calculating expected interest during construction.

Cost efficiency cannot be reliably assessed as only some promoters provided data on the unit costs of their installations. EV made its own estimate on the basis of the incomplete project database. The resulting unit cost spread from 885 ECU to 3 227 ECU per line installed is too wide to allow any meaningful comment. A detailed study would be required taking into consideration a uniform and clear definition of unit line costs (e.g. including or excluding trunk and international facilities), indicating the proportion of costs devoted to capacity extension and/or to replacements, the size of local networks, distribution of local networks (urban/rural, distances), the national market volume.

Procurement: although not mandatory under EEC legislation until January 1993 (with a derogation for some countries), the Bank encouraged promoters to use international tendering for procurement of project equipment, with only partial success apparently, since this type of procedure was followed in only half of the operations.

EIB loans to the operations (in current values) averaged 640 m ECU (ranging from about 30 m ECU to 3 770 m ECU). They represented, again on average, 30% of the total planned project cost (with a minimum of 15% and a maximum of 50%). In two cases, **disbursements** took place after project completion, highlighting a lack of correlation between EIB loans and its "projects". The 18 projects reviewed gave rise to 93 different EIB loan contracts ("tranches") and 321 disbursements (19 of which have been repaid in advance), i.e. more than five contracts and 17 disbursements per project. Ways of simplifying the process should be examined in order to reduce EIB administrative costs and risk of error. **Early repayments** (for amounts ranging from 26% to 100% of the original loan) took place in respect of seven of the projects financed. At project completion, the loans actually disbursed represented, on average, 34% of actual project cost (well within the Bank's maximum limit of 50%). **Loan duration** varied from five to 20 years, with grace periods from one to 15 years. The longer terms far exceed the life span of telecommunications investments.

The compound **interest rate** on EIB loans ranged from 8.40% to 12.50%, but these figures are meaningless in the absence of information on the foreign exchange risk of the currency used and the market conditions at the time. Repayment annuities on EIB loans represented 3% to 10% of the promoters' net cashflow (with an average of 5.5%). Hence, in spite of the significant size of the projects involved, they did not represent an excessive financial burden on their promoters who were, and still are, very large companies with an extensive operational base.

In six operations, the **borrower** for the loan was different from the project promoter. Regarding **security**, five enjoyed a State guarantee, two a Corporate guarantee and three that of a bank.

2.3 Staff efficiency and employment

During implementation, out of the nine operators (including eight monopolies) studied, eight were predominantly public and one private. Today, of the eight remaining operators (two of the public companies have merged) six are over 50% publicly owned and two are private. While radical changes have occurred in the organisation and management standards of the telecommunications sector as a whole (the consequences of which are progressively becoming more perceptible), differences between public and private operators remain minimal to date.

The **Staff efficiency** indicator gives only a global impression of the trend in the promoters' performance. Outsourcing of maintenance and repair work to third parties should also be taken into consideration as well as the number of line units still under analogue operating systems and their age. Public telecom operators all suffered the consequences of outdated, insufficiently maintained analogue systems, low salaries and over staffing. Under such inherited conditions, the transfer of specialised maintenance and construction know-how takes time. However, the figures below indicate that most of the reviewed project promoters are well on the way to solving these complex management problems.

In the nine telecommunications companies evaluated, staff efficiency evolved as follows:

STAFF EFFICIENCY	AT IMPLEMENTATION	AT EVALUATION
European average (lines/employee)	125 in 1985	213 in 1996 (+70%)
Minimum (lines/employee)	46	101 (+120%)
Median (lines/employee)	167	236 (+41%)
Maximum (lines/employee)	244	271 (+11%)
Maximum efficiency / minimum one	5.3	2.7
Maxim. Efficiency / European average	1.9	1.3
Minim. Efficiency / European average	0.4	0.5

Obviously, those who performed poorly at the outset more easily achieved staff efficiency gains, and today the gap has narrowed between the best and worst performers. It should be noted in passing that this gain did not fully translate into reductions in staff cost per line which dropped by only 4% with the gap between best and worst widening.

Impact on **employment** was estimated by the EIB for five of the 10 operations at appraisal, and verified for three at completion. Two of the latter, which were due to create a total of about 4 275 jobs, actually created only 1 045; in the third, the 1 200 expected redundancies increased to 1 400.

With regard to total employment among the operators involved, all but two reduced their staff between 1985 and 1995. Exact figures were not obtained for the nine operators but it is estimated that, over a 10-year period, total employment dropped from about 630 000 persons to about 520 000, i.e. by 17%. Combined with a 33% increase in the overall number of lines in service, this reduction resulted in a 60% increase in staff productivity (not far off the 70% European average indicated above). Staff reductions were accompanied by an increase in the professional qualifications of the remaining staff.

2.4 Financial performance, tariffs and profitability

Financial performance improved as operating costs per line fell by an average of 10% and revenues per line by 2%, in constant 1995 values, for the six operations for which data are available. Gross profit per line increased for four operators between implementation and evaluation (by 50% to 230%) and decreased for two others (by 7% to 45%), no figures being available for the remaining three. It thus varies widely from one operator to another: from 25 to 295 ECU per year at implementation and from 75 to 360 ECU at evaluation.

Tariffs: all of the reviewed telecommunications operators inherited tariff structures that were largely shaped by political pressure over previous decades. The operators are beginning to establish accounting procedures to monitor production costs for service categories but, with one exception, they still require political consent for the introduction of cost oriented tariffs. It is expected that increased competition will force the project promoters as well as the regulating authorities to agree to a cost

oriented re-balancing of telecom tariffs as recommended by the European Commission. Cross subsidisation still exists but on a lesser scale than before.

In four operations, the promoters acknowledged the EIB's support in underlining the importance of tariff changes aimed at moving toward full cost recovery. In two cases, unbalanced tariff structures and insufficient adjustments in response to high inflation, reduced cash generation ability and remains of concern.

Project profitability: in none of the cases evaluated did the EIB actually calculate at appraisal or completion a proper rate of return on project investments - whether financial (IRR) or economic (ERR). Some projects, because of their nature (network extension) or because of their peculiar "project" definition (isolated pieces of investment) did not lend themselves to such a calculation. Others were so large (i.e. 90% of the total investments made in the region) that it would have been possible to do so. The IRR on project investments was estimated for two operations out of 10 at appraisal at about 13%; at evaluation the IRRs for the same two projects was re-estimated at 11%. Apart from these results, it is not possible to assess the impact of the projects on the promoters' financial situation.

Corporate profitability in telecommunications is often calculated as the annual Rate of Return on net fixed assets ⁽³⁾. This Rate of Return was estimated at appraisal for eight of the companies studied (including two of the three mentioned above for which the project IRR was calculated): the average increased slightly from 10% at appraisal to 14% at evaluation.

In current terms, project related financial charges dropped, on average, from 1.7% of total revenues at implementation to 0.4% at evaluation as a result of the increase in the promoters' revenues. Promoters' financial charges relative to their revenues dropped, again on average, from 11.2% (maximum: 21%) to 6.6% (maximum: 11%). These figures show that telephone operators have greatly reduced their overall indebtedness in recent years.

The ratio "total depreciation / revenues" remained approximately constant, at an average of 25% (range 12% to 34%), between project implementation period and evaluation. This implies that the debt reduction was not achieved to the detriment of investment. However, caution is advisable in making such an assumption since the depreciation method could have changed during the period considered. The ratio "investments in physical assets / revenues" would certainly be more meaningful, but relevant data were not available.

There was generally adequate use of installed capacities in all cases. Both call rates and traffic increased, so that revenues from telecom services improved considerably. Efforts to reduce the number of outstanding debtors proved to be effective. The commercial success of the operations evaluated is therefore not in doubt.

2.5 Economic return

No analysis of economic performance is given in EIB documentation. Even if it cannot be quantified, the impact of a high-density, large, modern and efficient telecommunications network on the development of inaccessible regions is likely to be positive if implemented by a cost-conscious company. In today's world of "real time" decision making, one can even consider such networks as a prerequisite for development⁴.

A comparison (project implementation vs. evaluation) of the average data relative to demand satisfaction, for all projects forming part of the operations studied, confirms this favourable impact **at national level:**

- the growth in main lines, which averaged 5.3% during project implementation, has dropped to 3.5%, indicating a situation approaching saturation in terms of telecommunications availability;

³ The annual Rate of Return on net fixed assets is defined as follows by the International Telecommunications Union :

$$\frac{\text{Operating Revenues} - \text{Operating Expenses} - \text{Depreciation}}{\text{Net Assets}} \text{ (in \%)}$$

⁴ This is in line with the findings of the European Commission's 1996 "First Cohesion Report"

- connection waiting time has decreased from 10 months to two weeks, suggesting that the situation in remote regions has also improved in correlation;
- tariffs have been simplified and are likely to become more "cost-oriented";
- national digitalisation rate, a prerequisite for the development of "intelligent networks" offering new services, has increased from 32% to 72%. Unfortunately, no data could be obtained on the share of these new services in investment programmes, nor in the operators' revenue.

Whether these achievements actually contribute to reducing regional disparities would require data on their regional distribution. Such data are unavailable. Therefore, one cannot conclude from the above that all funds allocated by the EIB under these operations contributed effectively to regional development.

2.6 Impact on the EIB's statutory goals (Regional Development and Infrastructure of Common Interest)

At present, the EIB assumes that any telecommunications investment located within a region eligible under the EU "**Regional Development**" objective (article 198E (a), formerly 130 (a), actually contributes to that objective. This is both inadequate, since it does not indicate if the investments serve the more inaccessible parts of the region, and inappropriate, since investments outside the area (such as digitalisation, satellites...) are also needed to improve communications in the targeted areas.

Furthermore, it is well known that certain less advanced areas, which nonetheless attract a seasonal influx of tourists, are over-equipped - relative to the resident population - in telecommunications infrastructure. Although they benefit from tourism, such zones will benefit only marginally from additional telecommunication installations.

Obviously, more specific criteria are called for.

The EIB's assessment at the appraisal and completion stages contained no indicators for measuring the contribution of the selected investments to regional development. Therefore, EV proposes the use of some or all of the following criteria to assess this contribution:

- Growth of penetration of subscriber lines, preferably differentiated between urban (metropolitan zones, cities, towns) and rural areas; this measures the degree of access to information in the area covered.
- Growth of traffic per capita, particularly national and international traffic from and to the region considered; the traffic should be expressed in duration (minutes), as well as in annual billed amount (ECU per year); this measures the volume of information exchanged by the region and is a proxy-indicator for the development pace of the region.
- Improvement in the quality of service as measured by the percentage of unsuccessful calls and the average waiting time for connection; again, this is a measure of the accessibility to information.
- Digitalisation rate of the system and, in the case of projects with a dominant share of data services, penetration rate of data terminals and volume of data traffic; this measures the capacity of local businesses to use efficiently the different "computer aided" technologies as well as the degree of actual use.
- Improvement in satisfaction of expressed demand (connected subscribers + waiting list) is no longer very relevant in the EU (where waiting lists have generally disappeared), but it could be used elsewhere.

In future, with the increasing share of mobile telephony, these criteria should be verified for the total of both fixed and mobile telephony.

In order to test these criteria, EV applied only the "growth in penetration of subscriber lines" and the "growth in total traffic per capita" over the project period to assess project contribution to EIB objectives (data relative to the other criteria were not available). Since these indicators refer to the entire network and not just to the projects, they were combined with the "share of EIB loans in the total sector investment programme" for the whole country, so as to reflect the significance of EIB financing. On this basis, the results for the nine operations aimed at regional development (one operation not being eligible under this criterion) are as follows:

- one operation makes a significant contribution to this objective;
- 3 make a medium contribution;
- and 5 operations make a contribution which is "limited or nil".

The "share of EIB loans in the sector investment programme" at regional level would be a much more appropriate indicator. This share is known for only three operations and, when applied, the results are as follows:

- the number of operations that make a significant contribution to the objective increases to 2;
- the number that make a medium contribution decreases to 2;
- while the number that make a contribution which is "limited or nil" is unchanged at 5.

The EIB's contribution towards the improvement of **intra-community communication** ("Infrastructure of common interest for several Member States: basic telecommunications networks" article 198E (c), formerly 130 (c)), is more easily measurable. First, all investments eligible under this criterion were found to include components that serve international communications (local or trunk switching equipment, interurban lines). Furthermore, the growth of international traffic per capita could, for instance, be used (instead of the growth of total traffic per capita) to assess achievements against this objective.

EV's proposals above are only illustrative; they certainly contain some weaknesses and should be further refined before being applied. But in the absence of data measuring the EIB's contribution to designated goals, EV cannot demonstrate that selected projects actually contribute to these goals. Therefore, EV strongly recommends that such criteria be developed as standard EIB procedures.

2.7 Project "Sustainability" (lasting characteristics of the actions undertaken)

In spite of the arbitrary definition of the "projects" financed by the Bank (see par. 1.1 above) which led to their being neither comprehensive nor sustainable in isolation, there is no doubt that the overall investment plans of which they formed a part were sustainable.

Liberalisation forced the operators in the eight countries represented in the sample to take the necessary measures to continue to operate efficiently in an increasingly competitive environment.

3. EIB contributions

In order to help assess the EIB's performance, EV visited as many promoters as possible (six out of the original nine) and asked them about their reasons for borrowing from the EIB at implementation time and whether they would still seek EIB loans today.

REASONS FOR BORROWING FROM EIB	AT IMPLEMENTATION (1986 / 92)		AT EVALUATION (1995 / 96)	
	YES	NO	YES	NO
Quality of appraisal : EIB giving "seal of approval" to the Promoter a recommendation to other financing institutions	5	1	2	3
Access to foreign exchange	4	2	0	3
Access to long term funds	6	0	0	5
Access to cheaper funds	4	0	4	2 = ?
Quality of the follow -up	1	4	1	4
Other reasons (which ones?)	3 :At project implementation, EIB was only institution offering L.T. loans 1 : EIB was, and still is, considered as a strong, long term financing partner 1 : Size of loan available		5: No particular reason at present 1 : Good relationship	
Comments (No opinion / No longer interested in EIB loans)	4 of the promoters feel that financial conditions are very important. EIB is always welcome to offer future programme financing with competitive conditions (better rates and less bureaucracy) 1 thinks that revolving credit (overdraft facility) would be desirable; this, a typical element of treasury financing, is the logical consequence of improved cash management by promoters			

This table shows that the **"value added"** to the promoters of EIB intervention was considered greater in the past than it is at present.

The following is a summary of the various promoters' comments received during the study:

3.1 Contribution of the EIB's appraisal process

In most of the cases reviewed, the EIB was the first international investment bank to consider the former public service organisations as "real" business partners and they retain a sense of pride at having received the Bank's approval. Since no company likes to change financing partners without a valid reason, most of the promoters still consider taking up new loans with the EIB: they attach great importance to a long-term professional relationship based on co-operation between two qualified teams (theirs and the Bank's). Promoters would like to continue dealing with the EIB on a more commercial footing.

For three promoters, the quality of EIB appraisal procedures proved useful in dealing with other banks. For one promoter, it helped in identifying project problems and finding appropriate solutions. For three operations, the loans were part of a long term banking co-operation between the EIB and the promoters, and the good working relationship developed by the partners helped cut through red tape to their mutual satisfaction. In one case, the appraisal took place at an advanced stage (works had already been in progress for one year), and was more concerned with the borrower of the funds, a public financing agency, than with the promoter of the project.

The thoroughness and professionalism of the financial analysis and subsequent proposals generally impressed borrowers. Some acknowledged that the EIB's loan appraisal procedure became their own standard for evaluating projects and comparing competing financial offers. However, most of the promoters visited expect fewer administrative hurdles, less "bureaucracy" and faster decision-making in follow-up loans. This expectation seems to be related to the way the EIB "carves out" sometimes disparate investment components to fit its own definition of a "project" excluding elements essential for a comprehensive telephony project such as subscriber lines or switching line units. As mentioned in paragraph "II 1°" before, only two operations constituted really comprehensive and sustainable projects. For three of the 10 operations in the study, the projects were not precisely defined with regard to the questions of "what, where, when and how" and for two of these, the distribution of the investments and their location were quite unclear. The geographical location of the investments is not indicated in the Technical Description for six of the nine operations aimed at regional development. One project even consisted in the refinancing of lease contracts for 36 mini-projects, the borrower being the leasing company and the project promoter the final beneficiary.

The EIB's "Project" definitions seem to have been dictated by the feeling that it could finance only "projects" in the narrow sense of the word (furthermore, a list of specific investments can be controlled more efficiently). On the basis of EV's findings, not only "new and independent projects" or "modernisation or conversion of installations already in place" may be financed, but "projects that cover successive phases of large-scale investment schemes, spread over long periods (company investment programme)" are also eligible.

Nor does there appear to be any need to use this narrow definition to avoid double counting under subsequent loans: double financing is very unlikely in the case of promoters who are highly professional in their financial planning and use borrowing only as a secondary source of funds.

It should be noted that, despite these shortcomings in the "projects" as defined by the EIB, relevant complementary investments were always carried out by the promoters and the overall investment plans into which the projects fit were well designed, balanced and sustainable (as indicated by the general increase in utilisation and in quality of service achieved). Only one exception is to be noted: the promoter remains tied to obsolete analogue technology to an unreasonable extent, for political reasons.

3.2 EIB lending terms and "Subsidiarity"

EIB operations were considered by most promoters as treasury financing. The majority of projects would have been implemented even in the absence of an EIB loan, although in some cases at a later stage, in smaller consecutive annual amounts and with shorter loan maturity. The unit costs (cost per line) might then have been higher and performance of the whole system lower. In countries with a less competitive banking system, repeated EIB long-term financing in the telecommunications sector encouraged local financing institutions to become involved. If "subsidiarity" means that the project would not have been financed without the EIB, this can be demonstrated for only one of the 10 operations.

For the relatively small operators, and four of them in particular, implementation of the projects would have been delayed in the absence of EIB funding and special Community grants (there was no other source providing loans of the required magnitude). In three of the 10 operations, EIB co-financing greatly facilitated their promoters' long term preparation to face challenging market competition. It also improved somewhat their internal cash generation capacity, thus providing the best possible foundation for maintaining and strengthening their position in an open market environment.

Although the EIB's terms and conditions are considered an indisputable model for honest credit handling, promoters nonetheless attribute great importance to the flexibility of their financing partners, including the EIB, in adjusting terms and conditions to changing market conditions.

EIB loan maturities ranged from three to 20 years, with a weighted average of 13 years. It was 15 years or more for 45% of the disbursements. Generally, the earning capacity of the operators, combined with the character of the investments financed (average useful lifetime of 12 to 15 years), do not justify maturities exceeding 15 years (although this is typical for long term business co-operations in programme financing). In four cases, the loan maturity was perfectly in line with the service life of the equipment financed. In three operations, the EIB contribution was quite low (late draw down of funds followed by early repayment). In such situations, the EIB could have shown flexibility by offering a replacement loan at market conditions, rather than losing part of the business shortly after disbursement.

The grace period averaged two years, but for 39 disbursements it ranged from three to nine years (extending to as much as 15 years in one case). Considering the operators' earning capacity as well as the type of investments and construction duration, some of these grace periods appear unwarranted (a grace period of 15 years or longer is rare in the telecom sector).

In general, the EIB helped telecommunications operators become more familiar with international capital markets, and promoters were appreciative of both the large size of EIB loans and its expertise in the field.

3.3 E.I.B monitoring and completion reporting

Of the 18 projects considered, none was visited during construction. No progress report (during construction) was established for 11 projects, five were the subject of one or more such reports, and no information is available for the remaining two. There was no end-of-works visit for 12 projects and the subsequent completion reports were based on information received by mail or telephone from promoters. Of the six completion reports produced following a site visit, only three contain information on these visits. For one project, no completion report could be found in the Bank's archives.

Ultimately, follow-up of the projects (progress reports and completion reports) can be considered satisfactory for two of the 10 operations. For the others, no significant contribution is apparent. **In all cases, the quality of these reports is inadequate.**

Promoters do not mind assisting the EIB in its monitoring procedures but, with more and more information being required and given their reluctance to provide highly confidential data, they feel that they might not be able to comply with all such requests in the future. This response also reflects the way EIB projects are defined and the absence of commonly agreed targets or quality standards more easily verified at completion.

3.4 E.I.B. contribution to dealing with unusual risks by applying special conditions to project financing

In none of the cases reviewed were there any special conditions attached to EIB loans. With regard to the promoters' relationship with the controlling public authorities, the EIB's presence pushed the latter into paying greater attention to the promoters' short term and long term investment programmes, particularly those of the smaller operators.

In one operation, the EIB insisted on a tariff revision before granting a second loan and the relevant authorities complied. However, in five of the six operations where tariff changes were necessary, it was considered unlikely that they would be acceptable to the promoters. Given that tariffs were raised progressively as a result of normal market forces, EV considers that it was indeed judicious on the part of the Bank not to have interfered in these questions during loan discussions.

In view of the generally low ratio of "long term liabilities vs. permanent capital", the high average annual cash-flow generation, and the excellent quality of the loan guarantees (as indeed required by EIB statutes), none of the loans actually involved any financial risk. In one particular case where, at appraisal, LT debts were equal to four times the permanent funds, 93% of net profits were paid as dividends to the sole shareholder (the State) over the project period, while a mere 7% were used to strengthen the company's legal reserves. It was only long after project implementation that these LT debts were reduced to 68% of permanent funds.

4. Overall rating of the operations evaluated

The system used to rate the operations' contribution to EIB objectives is currently being developed by EV and will have to be revised in the light of experience. It is briefly explained in Annex 2. When tested on the 10 operations evaluated, it gives the following results (these are summarised in Annex 3):

4.1 Operations' performance ("Overall Success Rating")

The performance of operations has been rated on the basis of five sets of criteria:

- conformity of their implementation with the original plan;
- efficiency of operation inputs;
- efficiency of operation output;
- impact of projects' existence and operation on their surroundings;
- possibility of duration of the actions undertaken (sustainability).

The "Overall Success Rating" of a given operation is the average of the ratings of these five sets (on a scale of 1 to 5 for all ratings).

For the 10 operations considered, the "Overall Success Rating" ranges from "3.6" to "4.3" (with an average of 4.1), indicating a generally "successful" performance.

As mentioned before, the projects are "highly successful" with regard to their sustainability, "successful" as far as the efficiency of inputs and output is concerned (average "3.9" and "4.3"

respectively) and in conformity with regard to implementation (average "4.1"). They are only "partially successful" in terms of their impact (average "3.5").

4.2 Compliance of the operations with EIB objectives ("Compliance Rating")

Compliance with Bank objectives has been rated on the basis of two criteria:

- relevance of the projects to EIB objectives;
- subsidiarity of EIB financing.
-

The "Compliance Rating" of a given operation is the product of these two ratings (on a scale of 0 to 2).

Of the 10 operations, only one is "fully in compliance" with the objectives (rating "2"), five show some compliance but could have been financed by other sources (rating "1" or "1.5") and four show little compliance (rating "0.5").

4.3 Contribution of the operations to EIB objectives ("Contribution Rate")

The "Contribution Rate" is very much dependent on the "Compliance Rating" since it is the product of the latter (which is based on only two criteria) by the "Overall Success Rating", a composite of some 22 different criteria.

The "Contribution Rate" of the operations ranges from 1.8 to 8.4, with an average of 4.1, on a scale of 0 to 10. Only one operation shows an outstanding contribution to Bank objectives, with a rating of 8.4: it has an excellent performance and is very relevant to EIB objectives. Four other operations are above the average rating and the remaining five contribute very little with ratings of 1.8 to 3.7. Three operations are both very good performers and highly relevant to EIB objectives. Conversely, two operations are simultaneously poor performers with low relevance.

Since this study is one of the first produced by EV, there are no established yardsticks against which to measure these ratings. However, they are coherent with the measurement of the operators' contribution to EIB objectives when the loan amounts are compared to the operators' funding within the targeted regions (see par. 2.6).

5. Conclusions and Lessons

5.1 Project definition, implementation and outcome

Under its statutes the EIB is required to finance "investment projects". These can cover the "financing of successive phases of large-scale investment schemes, spread over a long period (... a company investment programme...), ... infrastructure of the same type undertaken in separate and operative sections (... telecommunications networks...), ... simultaneous implementation of a number of independent works, functional within themselves ... but all targeted toward the same economic goal..." (Board of Directors decision of 23 February 1993).

All projects under review were part of such overall continuous investment programmes, mostly aimed at developing and expanding national telecommunications networks and converting them to digital technology. However, at the time of appraisal, a somewhat arbitrary selection of components out of those investment plans was made. Nonetheless, although essential elements for a comprehensive telephony project were not included in most of the project descriptions attached to EIB loan contracts, relevant complementary investments were always carried out by the promoters and the overall investment programmes into which the projects fitted were indeed found to be well designed and comprehensive.

All projects, as well as the programmes of which they formed a part, were **implemented in conformity with original plans**, although sometimes with delays, irrespective of whether the promoter was a private or a public operator. Costs of the physical investments were, on average, close to original forecasts thus proving that initial provisions for price and technical contingencies were adequate.

In terms of **performance**, all projects were rated "successful" under EV's rating system. Without exception they increased staff efficiency, improved service quality and reduced operating costs (thanks to digitalisation). Overall, staff reductions combined with a greater number of lines in service led to a 60% increase in productivity, somewhat less than the European average.

Measuring **project profitability** proved difficult because project-specific benefits and costs were hard to distinguish from those resulting from other related investments (again, partly due to project definition). No profitability rates were computed for any project at any stage: appraisal, completion, and evaluation.

Whenever overall **company profitability** could be assessed, it improved slightly during the project implementation period but this improvement could not be attributed with certainty to project implementation.

Actual **impact on employment** was estimated for half of the operations at appraisal and verified for a few at completion of works. The current evaluation shows that telecommunication operators have tended to shed unskilled labour and keep specialists. The total number of jobs has been reduced.

The EIB's access to international capital markets and expertise in banking helped wean State monopolies away from government funding towards the international capital markets. In nearly all cases, the promoters' financial planning was very professional. They usually considered **EIB loans** as treasury financing. At the time of appraisal (mid 80's to early 90's), promoters welcomed large-size loans and long maturities, which perhaps explains the unusually long maturity and grace periods of EIB loans to the sector. During the period considered, and although interest rates were comparatively high, EIB loan repayment annuities were not an excessive burden in proportion to the companies' cash-flow, and remained well within their debt servicing capacity.

Although EIB co-financing greatly facilitated both the promoters' long term preparedness to face challenging market competition and their relationship with the controlling public authorities, most of the projects would have been implemented even in the absence of an EIB loan: **subsidiarity** of EIB financing (if it is so defined) cannot be demonstrated.

Currently, promoters seem to find less "value added" in their relationship with the EIB than in the past. Local EIB offices, however, are reported to be highly appreciated and play a significant role in maintaining client relations. According to the majority of the promoters included in the survey, the liberalisation of the telecommunications sector will require increased external financing for future investment programmes. In this context, the EIB could be a welcome financing partner, provided it offers attractive conditions and its eligibility criteria could be met.

5.2 Contribution to EIB Objectives

EIB's role is to foster the objectives of the European Union, primarily regional development. This assumes that EIB loans can be shown not only to support profitable operations, but also to help reduce income disparities among European regions.

Whether public or private, all the operators in the study appeared to have acquired the organisation and management necessary to confront the competitive environment associated with liberalisation.

They appreciated the positive aspects of **the EIB package**, but asked the EIB to reduce bureaucracy; adapt the concept of "project lending" to encompass "investment programme lending"; and shorten approval procedures. They attached great importance to the flexibility of their financing partners, including the EIB.

Overall, **project follow-up and completion reporting** by the Bank were inadequate. Apart from two out of the 10 operations analysed, progress reports were lacking (even for projects known to be experiencing difficulties) and when end-of-works reports were compiled, they were rarely preceded by field visits. A majority of promoters would have appreciated more effective and more consistent follow-up. Better **client relations** can be developed and reconciled with the reduction in "bureaucracy" only once project definitions become more operational and purpose oriented.

With regard to its **contribution to regional development**, this evaluation shows that the geographical location of the investments, the only eligibility criterion retained by the EIB, is totally inadequate in isolation.

EV does not deny that the projects financed by the Bank might contribute to its objectives ("Regional Development" and "Infrastructure of common interest for several member-States" in the present case), but it was unable to find in EIB's current procedures any criteria or data allowing this contribution to be measured.

Therefore, EV tested a system developed for the purpose of this evaluation study. Based on this system, EV found that a minority of the projects analysed can be demonstrated to actually contribute to regional development. Improvement to communication among Member- States could have been more easily demonstrated. Weaknesses in the proposed system have been identified and EIB services are better placed to develop a more relevant set of criteria. In the meantime, however, EIB's contribution to regional development, when it exists, appears to be fortuitous rather than the outcome of a corporate strategy aimed at achieving a priority objective.

6. Recommendations

RECOMMENDATIONS	EIB RESPONSE
<p>6.1 The EIB should replace the narrow concept of "new and independent projects" or of "modernisation or conversion of installations already in place" by a "programme approach" better suited to more comprehensive telecommunication sector financing.</p>	<p>Some adaptation has taken place in the recent past. There is, however, general agreement that this pragmatic approach, although already applied in certain sectors, should be given greater emphasis in the future. Procedures need to be further adapted in order to make greater recourse to purpose-based financing.</p>
<p>6.2 Although there are difficulties inherent to the telecommunications sector, the EIB should assess project profitability more systematically.</p>	<p>Operational services consider that this recommendation runs contrary to the current drive toward modulation in project appraisal because it implies additional resources; it is also perceived as conflicting with a greater recourse to programme financing (see above).</p>
<p>6.3 The impact of projects on employment (if possible direct as well as indirect) should be systematically estimated at project appraisal and verified against actual achievements at project completion.</p>	<p>Same remarks as 6.2 above. However :</p> <ul style="list-style-type: none"> - direct permanent employment could be estimated and recorded at project appraisal and verified at completion; - direct temporary employment could be estimated on the basis of investment cost if figures are not available from project promoter; - it is not possible to give specific figures for indirect employment, but this could be done on a sectoral basis.
<p>6.4 The maturity and grace period of EIB loans should be more closely related to the characteristics of the investment financed (average project life) and to the earning capacity of the operators.</p>	<p>Bank Directorates do not agree that any specific action needs to be taken.</p>
<p>6.5 Project monitoring and completion reporting need strengthening from an EIB point of view. At the same time, clients want greater attention to their specific needs and less bureaucracy in their relations with EIB.</p>	<p>Action has been initiated to improve project monitoring and completion reporting. First results are expected at the end of 1998.</p> <p>Annual reviews of ongoing operations will be carried out for all sectors.</p>
<p>6.6 EIB should develop specific criteria to measure the contribution of projects to statutory objectives, and establish clearly defined targets and quality standards against which project performance, all along the cycle, can be checked. This would provide an indication of how and where the EIB's "value added" proves most effective in helping the Bank achieve its objectives.</p>	<p>For a test sample of projects in different sectors, a set of simple criteria to measure the Bank's contribution to regional development will be developed and applied by the operational services during project appraisal.</p>

**QUESTIONNAIRE SUBMITTED TO PROMOTERS
(Supplementing the data available in EIB files)**

1. PROJECT BACKGROUND AND ENVIRONMENT

- In your opinion, has the project contributed to actual regional development? Can this contribution be quantified?
- Is the project currently fulfilling its purpose? Are you satisfied with its operation?
- Were the project goals attained (totally or only partially)?

2. PROJECT FINANCING

- Overall suitability of the project financing:
- * Was the timing of the E.I.B. loan satisfactory in relation to actual outlays for the project?
- * Was the loan duration indeed comparable to the economic life of the assets in your sector?
- * Have the currencies used proven to be adequate?
- * Promoter's other financing sources.
- * Nature of and justification for grants. Did the grants contribute much to the success of the project?
- * Reasons for early repayment of the loan (in part or in totality), if any.
- Reasons for differences, if any, between planned and realised data.
- Comparison between project implementation and operation timing and loan repayments flows (is cash flow generated by project operation sufficient to cover these reimbursements?).
- Promoter's other capital expenditure during the project period.

3. PROMOTER OF THE PROJECT

- Comments on changes in the organisation since appraisal and completion.
- Comments on and explanation of recent financial statements and financial ratios.

4. PROJECT OPERATION AND MARKET

4.1 Project implementation and investment cost

- Please verify and complete Annex 4, to the extent possible (missing information about actual implementation and breakdown of actual expenses).

4.2 Present project operation and traffic

- Please update Annex 5, to the extent possible.
- Is the project operating satisfactorily?
- Are actual project operation and traffic evolution in line with those forecast originally?
- Does the project place the promoter in a better competitive position in advance of sector liberalisation.

4.3 Project capacity and demand

- Please complete Annex 2, to the extent possible.
- Based on prevailing traffic conditions, is current project capacity sufficient to satisfy present traffic and demand and to keep failed calls at a minimum?
- Forecast evolution of demand since project completion.
- Present traffic situation.

4.4 Market and marketing

- Please update Annexes 1 & 2, to the extent possible.
- Prospects after liberalisation for basic and specialised services.
- Please quantify market shares in the different market segments?
- Expected loss of market share following liberalisation?
- How well are the projects integrated into their economic environment and into the promoter's strategy?
- Expected share of international activities in future total revenues?

5. PROCUREMENT

- Has the procurement procedure followed proven to be of benefit to the promoter of the project (lower prices / better quality / more advanced equipment)? Has it led to a reduction in final project cost or in operating expenses?

6. ECONOMIC INTEREST AND JUSTIFICATION OF THE PROJECT

6.1 Employment

- Has the project had an effect on employment throughout the promoter entity (inter-plant transfers / lay-offs in other plants / etc.).
- Impact of the project on "induced" employment (employment outside promoter entity).
- Possible professional training programme required in order to adapt to liberalisation?

6.2 Regional impact

- *Have the objectives set at appraisal been met? How? (Objectives of the regional plan / Implementation of the support measures and success thereof)*
- *Influence of exogenous factors.*
- *What has been the impact of the project on:*
 - * Creation of new businesses / industries.
 - * Relocation of industries and businesses.
 - * Redistribution of employment.

6.3 Tariff

- Is the present tariff policy adequate? How should it be changed?
- Has project implementation led to a change in the tariff policy?
- Will the regulating authority let you change your tariff policy, as and if needed, in order to *adapt to changes in the situation?*

7. FINANCIAL PROFITABILITY

- Have the projects had an impact on your overall financial situation?
- Evolution of the financial profitability since project completion.
- Explain as appropriate, the reasons for this evolution.
- Are there other ratios that could have been used?

8. EIB INTERVENTION

- Is there any lesson (positive or negative) which you have drawn from the implementation and operation of the project(s)?
- How do you foresee the evolution of the telecom sector?
- How do you envision the position of the EIB in this evolution? How should it intervene?
- How do you view the future? Do you fear take-over by a competitor? Do you believe that joint ventures or alliances with competitors will be necessary?

- Although financing in the telecommunications sector has been covered mainly by operators' cash-flow in the recent past, EIB feels that needs will remain substantial in the next few years. Since liberalisation of the sector will probably lead to a reduction of such available cash flow, recourse to external financing should increase. Redirection of investments toward mobile telephony and services, to the detriment of fixed telephony, could also occur. Do you agree with this feeling?
- In your relationship with the EIB,
 - * which aspects would you leave unaltered?
 - * what do you feel should be changed? How? Why?
 - * what changes or innovations should be introduced?
- Have you found any "value added" in your relationship with the EIB? In which respect? Have the EIB loans helped you prepare for a liberalised market and improved your competitiveness? Has the EIB intervention been really useful in the financing of your investment plan?
- Would you consider embarking on a new operation with EIB? Why? (see the following table):

	AT PROJECT IMPLEMENTATION	TODAY
Access to foreign exchange (Y / N)		
Access to long term funds (Y / N)		
Access to cheaper funds (Y / N)		
Quality of appraisal: EIB giving "seal of approval" to the Promoter valuable to other financiers (Y / N)		
Quality of the follow-up (Y / N)		
Other reasons (which ones?)		
Comments (No opinion / No longer interested in EIB loans)		

A PROPOSED SYSTEM FOR EVALUATING THE OPERATIONS' RATE OF CONTRIBUTION TO EIB OBJECTIVES

NOTE:

When it is sufficiently tested on actual cases, this proposal will require a complete review with regard to the "Compliance Rating".

- *the "Relevance to EIB Objectives" should be rated according to criteria to be established for each sector;*
- *the "Subsidiarity of EIB financing" should be better defined and appropriate criteria to measure it established.*

The present evaluation system is based on a combination of two factors:

- the degree of compliance of the project with the Bank's objectives (eligibility criteria), assessed by a "**Compliance Rating**";
- the degree of success of the operation or the project assessed by an "**Overall Success Rating**".

The product of these two ratings is the "**Contribution Rate**" of the project to the Bank objectives.

The system is intended to facilitate comparison amongst projects and sectors and to aggregate ratings Bankwide.

1. THE DEGREE OF COMPLIANCE OF AN OPERATION WITH EIB OBJECTIVES ("Compliance Rating")

1.1 Principle

The compliance of the project with Bank objectives and the requirements of its statutes, is first assessed by the evaluator on the basis of project conformity with two criteria:

- A) The **Relevance** of the Project to EIB Objectives (as defined by the Eligibility Criteria).
- B) The **Subsidiarity of the EIB Financing**, i.e. the relevance of EIB funding to the realisation of the investment.

A rating is attributed to each of these two criteria and the Project "**Compliance Rating**" is then calculated as the arithmetic average of these two ratings.

1.2 Rating scale

The degree of compliance for each of the two criteria is measured on three levels:

- **Fully in compliance:** (2)
- **Project in compliance but which could have been financed otherwise**
(Depending upon type and location of investment / Timing of financing / Very large and reputable promoter / Economic and financial profitability / Other financing sources / etc): (1)
- **Not in compliance:** (0)

2. THE DEGREE OF SUCCESS OF AN OPERATION ("Overall Success Rating")

2.1 Principle

The degree of success of an operation or project is then assessed according to the extent to which it satisfies different criteria, grouped in 5 sets:

- 1) **Conformity of the actual implementation with original Plan** (Effectiveness of Implementation).
- 2) **Efficiency of the Inputs** (Use of least costly resources necessary to achieve project objectives).
- 3) **Efficiency of the Outputs** (Project Operation Efficiency & Profitability).
- 4) **Impact of the Operation** (Effects of the Project on its surroundings).
- 5) **Project Sustainability** (possibility of continuation of actions undertaken).

An individual rating is attributed to each criterion, in the 5 sets, relevant to the operation.

Since each of the individual performance criteria is more or less important to the achievement of the project objective(s), it must be weighted differently for each case. This relative importance is assessed by the evaluator through a weighting coefficient, according to 3 degrees as explained below.

The **overall success rating** for the operation or the project is then calculated as the geometric average of the 5 set ratings.

The geometric average is used so as to introduce a "killing factor": if ALL the criteria in a set are weighted or rated as "0", the weighted rating for the set is also "0" and therefore, the overall success rating of the project (which is the geometric average of the set ratings), hence its Contribution Rate, is "0" (the project is either a very bad performer or its objectives do not meet those of the Bank).

2.2 Weighting of the performance criteria

The relative importance, **in relation to project objective(s)**, of each of the performance criteria, is assessed according to three degrees: "Essential", "Important" or "Not Applicable". These degrees correspond to 3 weighting coefficients ("2", "1" and "0" respectively):

-	Essential	:	(2)
-	Important	:	(1)
-	Not Applicable or Not Important	:	(0)

This assessment of importance should ideally be made at the appraisal stage of the project (this would then make it possible to better modulate project appraisal and monitoring by focusing on the most important aspects).

2.3 Rating Scale

The success of the operation (or the project) being evaluated with regard to the different individual performance criteria, as well as its overall performance, is measured by ratings. These individual ratings (for each criterion), as well as the set weighted ratings and the overall success rating (for the operation) are allocated on a six-point scale from " 0 " to " 5 " according to the following degrees:

- (5) **Highly Successful** : Objectives exceeded
- (4) **Successful** : Objectives completely achieved, very significant overall benefits in relation to costs
- (3) **Partially successful** : Objectives largely achieved, significant overall benefits in relation to costs
- (2) **Largely unsuccessful**: Some objectives achieved, some significant overall benefits
- (1) **Unsuccessful** : Very limited achievement of objectives, few significant benefits
- (0) **Failure** : Objectives not achieved, no significant benefits / Project abandoned / Insufficient information about a criterion

3. THE EFFECTIVENESS OF AN OPERATION ("Contribution Rate to EIB Objectives")

The "**Contribution Rate**" of the operation or project to the Bank's objectives is defined as the product of the "Compliance Rating" (0 to 2) by the "Overall Success Rating" (0 to 5). It can therefore have a value from " 0 " (no contribution) to "10 " (maximum contribution).

<p>Contribution Rate = Compliance Rating x Overall Success Rating</p>
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In particular, one can see that a project which is "highly successful" (overall success rating of "5") but which is "not in compliance" with the eligibility criteria under which it was financed nor with the subsidiarity requirement (compliance rating of "0") will have a "contribution rate" of "0". Its contribution to the achievement of the Bank's objectives will also be nil.

Conversely, a project which is "partially successful" (overall success rating of "3") and which is "fully in compliance" with its eligibility criteria and with the subsidiarity requirement (compliance rating of "2") will have a "contribution rate" of "6", indicating a highly acceptable contribution to Bank objectives.

The different performance criteria, the summary table as well as a rating example are given below, as they appear in an "Operation Evaluation Report"

EFFECTIVENESS RATING OF THE PROJECT	
Country :	
Sector :	
Promoter :	
Objectives targeted by the Project :	Regional development.
Special Financing Conditions :	NONE
STATUS ("A" : at appraisal - "M" : during monitoring - "RFT" : at work completion reporting - "EV" : at evaluation) :	EV
PROJECT CONTRIBUTION RATE TO EIB OBJECTIVES (0 to 10) (= Compliance Rating x Overall Success Rating) :	5

COMPLIANCE OF THE PROJECT WITH E.I.B. OBJECTIVES	
A) Relevance of the Project to EIB Objectives (0 to 2) :	2
B) Subsidiarity of EIB Financing (0 to 2) :	1
COMPLIANCE RATING (0 to 2) * :	1.5

PROJECT PERFORMANCE		
PROJECT PERFORMANCE CRITERIA	WEIGHTING **	RATING ***
1) - Conformity of actual Implementation with original Plan :	6	3.7
1.1. Implementation in line with project definition (technical description).	2	4
1.2. Implementation within budgeted cost.	2	3
1.3. Implementation within time schedule.	1	4
1.4. Compliance with procurement procedures.	1	4
1.5. Compliance with financing conditions, if any (see above).		
2) - Efficiency of the Inputs :	5	2.8
2.1. Quality of the project design.	2	4
2.2. Comparison of unit costs & other ratios with similar projects.	0	3
2.3. Quality of financing implementation (financial engineering / timing).	1	2
2.4. Value Added by E.I.B.	2	2
3) - Efficiency of Outputs :	7	3.7
3.1. Operational Performance (efficiency of the production setup).	2	5
3.2. Commercial Success (efficiency of the marketing strategy).	2	3
3.3. Capacity of the Facilities vs. Market Demand.	1	4
3.4. Project Financial Performance (financial profitability / financial structure and balance).	2	3
4) - Impact (actual effects of the project existence and operation on its surroundings) :	4	3.3
4.1. Technical.	0	3
4.2. Environmental.	2	3
4.3. Energy.	1	4
4.4. Employment.	0	5
4.5. Economic Impact (economic profitability & other non-quantifiable effects specific to sector).	0	2
4.6. Impact of the project on the Promoter's financial situation.	1	3
5) - Project "Sustainability" (possibility of durability of actions undertaken) :	3	4.0
5.1. Operational Sustainability (Industrial Strategy).	1	4
5.2. Financial Sustainability.	0	4
5.3. Environmental Sustainability.	2	4
OVERALL SUCCESS RATING (0 to 5)	$\sqrt[5]{(1) \times (2) \times (3) \times (4) \times (5)}$	3.5

*** Compliance Rating.**

Attributed according to the degree of compliance of the project with Bank objectives, on the following scale :

Fully in Compliance	2
In Compliance but which could have been financed by other sources / No information	1
Not in Compliance	0

**** Weighting Coefficients.**

Indicate the importance of the criterion being rated in relation to the project objectives, on the following scale :

Essential in order to reach Project Objectives	2
Important to reach Project Objectives	1
Not Applicable or Not Important	0

***** Performance Ratings.**

Attributed according to the degree to which each applicable criterion is satisfied, as follows :

Highly Successful (objectives exceeded)	5
Successful (objectives completely achieved)	4
Partially successful (objectives largely achieved)	3
Largely unsuccessful (some objectives achieved)	2
Unsuccessful (very limited achievement of objectives)	1
Failure (objectives not achieved) / Project abandoned / Insufficient information about a criterion	0

RATING OF THE DIFFERENT OPERATIONS

DATA FOR THE 10 OPERATIONS	MINIMUM (of weighted ratings)	AVERAGE (of weighted ratings)	MAXIMUM (of weighted ratings)
OPERATION CONTRIBUTION RATE TO EIB OBJECTIVES (0 to 10)	1.8	3.9	8.4
COMPLIANCE OF THE OPERATION WITH E.I.B. OBJECTIVES			
A) Relevance of the Operation to EIB Objectives (0 to 2) * :	0	0.8	2
B) Subsidiarity of EIB Financing (0 to 2) :	1	1.2	2
COMPLIANCE RATING (0 to 2) ** :	0.5	1.0	2.0
OPERATION PERFORMANCE CRITERIA			
1. Conformity of Implementation with original Plan : <i>(weighted rating)</i>	3.5	4.1	4.5
1.1. Implementation in line with project definition (technical description).	8.0	8.2	10.0
1.2. Implementation within cost budgeted.	4.0	4.8	5.0
1.3. Implementation within time schedule.	4.0	8.2	10.0
1.4. Compliance with procurement procedures.	3.0	3.6	4.0
1.5. Compliance with financing conditions, if any.			
2. Efficiency of the Inputs : <i>(weighted rating)</i>	3.7	3.9	4.2
2.1. Quality of the project design.	8.0	8.4	10.0
2.2. Comparison of unit costs & other ratios with similar projects.	8.0	8.0	8.0
2.3. Quality of financing implementation (financial engineering / timing).	3.0	3.5	4.0
2.4. Value Added by E.I.B.	3.0	3.5	4.0
3. Efficiency of Outputs : <i>(weighted rating)</i>	3.2	4.3	4.8
3.1. Operational Performance (efficiency of the production setup).	6.0	9.4	10.0
3.2. Commercial Success (efficiency of the marketing strategy).	6.0	8.4	10.0
3.3. Capacity of the Facilities vs. Market Demand	3.0	4.0	5.0
3.4. Project Financial Performance (financial profitability / financial structure and balance).	3.0	3.9	4.0
4. Impact of the project existence and operation on its surroundings : <i>(weighted rating)</i>	3.0	3.5	3.8
4.1. Technical.	0.0	0.0	0.0
4.2. Environmental.	0.0	0.0	0.0
4.3. Energy.	0.0	0.0	0.0
4.4. Employment.	3.0	3.1	4.0
4.5. Economic Impact (economic profitability & other non-quantifiable effects specific to sector).	6.0	6.6	8.0
4.6. Impact of the project on the Promoter's financial situation.	0.0	6.2	8.0
5. Possibility of durability of actions undertaken (Sustainability) : <i>(weighted rating)</i>	3.5	4.8	5.0
5.1. Operational Sustainability (Industrial Strategy).	6.0	9.4	10.0
5.2. Financial Sustainability.	8.0	9.6	10.0
5.3. Environmental Sustainability.	0.0	0.0	0.0
OVERALL SUCCESS RATING (0 to 5)	3.6	4.1	4.3

INDIVIDUAL OPERATION DATA COLLECTION

		SAMPLE OF THE 10 OPERATIONS			
DATA	UNIT	Minimum	Average	Median	Maximum
1. Project Characteristics and Physical Implementation :					
Actual construction period	Date				
Construction duration scheduled	Month	24	41	36	84
Actual construction duration vs. scheduled	%	100%	132%	117%	220%
Clearly defined project	Y / N				
Project comprehensive & sustainable	Y / N				
Supported network areas (Local / Trunk)	L / T				
Subscriber lines (I.P.)	K DEL	75	930	473	2,698
" " " (R.)	% of I.P.	96%	101%	100%	109%
Switching line units (I.P.)	K LU	98	989	578	2,921
" " " (R.)	% of I.P.	79%	99%	100%	113%
Line units for replacement (I.P.)	K LU	78	523	420	1,070
" " " " (R.)	% of I.P.	65%	126%	100%	212%
Share of digital equipment (I.P.)	%	10%	75%	100%	100%
" " " " (R.)	% of I.P.	75%	96%	100%	100%
Additional main lines in service (I.P.)	K DEL	100	954	700	2,494
" " " " " (R.)	% of I.P.	55%	95%	100%	115%
Overall digitalisation rate - whole Country (during project period)	%	0%	33%	40%	67%
" " " " - " " (at evaluation)	%	37%	75%	77%	100%
2. Project Cost (in 1995 values) :					
Investment cost (I.P.)	M ECU	78	1,957	608	9,167
Price & technical contingencies (I.P.)	M ECU	0	123	41	830
Total investment cost (I.P.)	M ECU	82	2,081	640	9,275
" " " " (R.)	% of I.P.	79%	97%	99%	128%
Interest during construction (I.P.)	M ECU	5	110	26	405
" " " " (R.)	% of I.P.	0%	96%	41%	275%
Total Project Cost planned (I.P.)	M ECU	82	2,180	649	9,615
Actual Total Project Cost (R.)	% of I.P.	78%	95%	98%	115%
Procurement : percentage of international inquiries	%	0%	41%	30%	91%
3. Bank Loan :					
Amount actually disbursed	M ECU	28	640	246	3,767
Amount actually disbursed in % of actual total project cost	%	15%	34%	37%	50%
Maturity	Years	10	14	15	20
Of which "Grace period"	Years	1.8	2.3	2.3	2.8
4. Demand satisfaction :					
Growth in main lines - whole Country (during project period)	%	1.9%	9.2%	4.5%	37.0%
" " " " - " " (at evaluation)	%	1.7%	3.8%	2.9%	6.5%
Demand satisfaction (during project period)	%	54%	87%	97%	100%
" " (at evaluation)	%	77%	97%	100%	100%
Connection waiting time (during project period)	Months	0.1	9.9	4.5	54.0
" " " " (at evaluation)	Months	0.05	0.62	0.37	3.00
5. Utilisation and quality of service :					
Growth in traffic per main line - whole Country (project period)	%	-1.8%	2.1%	2.2%	4.6%
" " " " - " " (at evaluation)	%	-1.3%	4.4%	1.0%	19.7%
Failed call rate - whole Country (during project period)	%	1.3%	2.1%	2.0%	3.8%
" " " - " " (at evaluation)	%	0.6%	1.2%	1.0%	2.5%
Fault rate per line - whole Country (during project period)	Faults/line-year	0.16	0.38	0.34	0.62
" " " " - " " (at evaluation)	Faults/line-year	0.10	0.23	0.17	0.43

		SAMPLE OF THE 10 OPERATIONS			
DATA	UNIT	Minimum	Average	Median	Maximum
6. Operating efficiency (in 1995 values) :					
Staff efficiency - whole Country (during project period)	DEL / empl.	46	146	146	244
" " " " " " (at evaluation)	DEL / empl.	101	212	210	271
% faults repaired in 2 days (during project period)	%	53%	74%	80%	100%
" " " " " " (at evaluation)	%	66%	87%	91%	100%
Full operating cost per line - whole Country (during project period)	ECU	229	502	492	833
" " " " " " (at evaluation)	ECU	231	470	542	813
Staff cost per line - whole Country (during project period)	ECU	143	182	177	215
" " " " " " (at evaluation)	ECU	115	169	139	286
Revenue per line - whole Country (during project period)	ECU	426	616	549	992
" " " " " " (at evaluation)	ECU	414	602	625	963
Gross profit per line (during project period)	ECU	25.0	133.1	138.0	293.0
" " " " " " (at evaluation)	ECU	76	131	89	359
7. Profitability and Financial Performance :					
"RoR" for overall operations (project period)	%	3.7%	9.7%	8.1%	20.0%
" " " " " " (at evaluation)	%	4.5%	14.2%	15.5%	21.0%
Project-related financial charges, in % of revenues (project period)	%	0.0%	2.0%	1.7%	5.0%
" " " " " " (at evaluation)	%	0.0%	0.7%	0.4%	2.5%
Total financial charges , in % of revenues (project period)	%	2.7%	12.0%	11.2%	21.0%
" " " " " " (at evaluation)	%	1.5%	6.2%	6.6%	11.0%
Total depreciation, in % of revenues (project period)	%	13%	23%	24%	34%
" " " " " " (at evaluation)	%	12%	24%	26%	33%
8. Relevance of Telecom Sector for Regional Development :					
GDP per capita - Country as % of European level (project period)	%	34%	79%	80%	140%
" " " " " " (at evaluation)	%	46%	78%	81%	140%
Penetration rate - whole Country (project period)	DEL / 100 inh.	20	33	32	51
" " " " " " (at evaluation)	DEL / 100 inh.	34	45	44	60
Growth of penetration rate - whole Country (project period)	% p.a.	1.7%	6.0%	4.2%	13.9%
Total traffic growth per capita - whole Country (project period)	%	-0.7%	7.3%	7.1%	25.4%
" " " " " " (at evaluation)	%	0.4%	8.2%	6.8%	25.4%
International traffic per capita - whole Country (project period)	Min. / capita	15	94	31	231
" " " " " " (at evaluation)	Min. / capita	33	220	91	522
International traffic growth per capita during project period	% p.a.	6.6%	20.4%	18.3%	50.6%
9. Contribution of EIB Loan to sector development :					
Total investmt. in telecom sector, in country, during project period	M ECU	352	9,304	5,261	41,245
Share of EIB Loans in country investments during project period	%	0.3%	9.4%	7.9%	21.6%
Total employment - Promoter (project period)	Units	6,345	70,559	51,925	236,000
" " " " " " (at evaluation)	Units	4,705	61,031	47,728	167,660
10. Overall Rating of the Project :					
"Relevance Rating"	0 to 2	0.5	1.1	1.0	2.0
"Overall Success Rating"	0 to 5	3.6	4.1	4.2	4.3
"Contribution of the Project to EIB Objectives"	0 to 10	1.8	4.3	4.0	8.4

NOTES :

" / " : Not applicable

" I.P. " : Initially Planned.

" R. " : Realised actually.

" n.a. " : Information or data not available (neither in file nor during visit to promoter's).

" ECU " : Except where indicated otherwise, the figures in ECU are indicated in "current values". They are conversions of figures in local currency, at the average exchange rate("ECU vs. currency") prevailing at the time indicated, and they can not be compared with each other.

For any comparison to be meaningful, the amounts must be in "constant values" of a given year (1995 for example in above table).

" DEL " : Direct exchange line (subscriber line)

THE EUROPEAN INVESTMENT BANK

The European Investment Bank (EIB) is owned by the fifteen European Union (EU) Member States and has its headquarters in Luxembourg. It supports EU policies on a self-financing basis, raising its resources on the world's capital markets for onlending to sound capital investment projects that promote the balanced development of the European Union.

Set up in 1958 by the Treaty of Rome, the EIB has its own administrative structure and decision-making and control bodies (Board of Governors - usually the Finance Ministers of the Member Countries - Board of Directors, Management Committee and Audit Committee).

As a major international borrower, which has always been awarded the highest "AAA" credit rating by the world's leading rating agencies, the EIB raises large volumes of funds on fine terms. It onlends the proceeds of its borrowings on a non-profit basis.

The volume of the EIB's operations has grown steadily and the Bank is today one of the largest financing institutions of its kind in the world. While the bulk of its loans are within the European Union, the Bank has also been called upon to participate in the implementation of the Union's development aid and cooperation policies through financing for the benefit of some 120 non-EU countries. It therefore supports:

- economic growth in the African, Caribbean and Pacific States and the Overseas Countries and Territories, as well as in the Republic of South Africa;
- a stronger Euro - Mediterranean partnership;
- preparations for the accession of the Central and Eastern European Countries and Cyprus;
- industrial cooperation, including the transfer of technical know-how, with Asia and Latin America.

The EIB began carrying out ex-post evaluations in 1988, mainly for its operations in non-EU Member Countries. In 1995, the Bank established an Evaluation Unit to cover operations both inside and outside the Union. Ex-post evaluations take a thematic approach and are intended for publication. To-date the bank has published:

1. Performance of a Sample of Nine Sewage Treatment Plants in European Union Member Countries (1996 - available in English, French and German)
2. Evaluation of 10 Operations in the Telecommunications Sector in EU Member States (1998 - available in English, French and German)
3. Contribution of Large Rail and Road Infrastructure to Regional Development (1998 - available in English, French and German)
4. Evaluation of Industrial Projects Financed by the European Investment Bank under the Objective of Regional Development (1998 - available in English, French and German)
5. An Evaluation Study of 17 Water Projects located around the Mediterranean (1999 - available in English, French, German, Italian and Spanish).
6. The impact of EIB Borrowing Operations on the Integration of New Capital Markets. (1999 – available in English, French and German).
7. EIB Contribution to Regional Development A synthesis report on the regional development impact of EIB funding on 17 projects in Portugal and Italy (2001 – available in English, French, German, Italian and Portuguese).

These reports are available from:

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