



Guidance Note

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Theme: 2011 035 PL KE TEL Lower Silesia - Guidance Note on the Feasibility Study and Annex XXI

Main points

Horizontal and General observations

1. Jaspers appreciates the scale and depth of the analysis. Our comments in this document are based on the European Commission's (EC) "Guide to COST-BENEFIT ANALYSIS of investment projects" (Referred to in this document as "**CBA guidelines**").
2. Comments refer to the **Feasibility Study (FS)** and Financial and Economic Model received on June 6th and the **Application Form (Annex XXI)** received on June 16th. The FS and the Annex XXI were translated internally.
 - a. Jaspers is available to share its internal translation of the FS and Annex XXI in English – it is strongly recommended to provide English version of the final text to the European Commission to speed up the process of decision-making.
 - b. Jaspers is not commenting on the sections of the FS related to the tender procedures but is available to discuss it if requested.
3. Please consider the comments in this note to be complementary to:
 - a. information disseminated by JASPERS during the Working Groups on Broadband (organized on January 26th and June 21st 2011).
 - b. JASPERS comments on prenotification documents sent on June 28th.
 - c. Draft guidelines on how to complete Annex XXI (draft version shared on September 12th).

State Aid and broader implication to the project preparation

State Aid: because state aid is addressed in the FS and in Annex XXI in different sections, we consolidate our main comments on State Aid in this heading (this is in addition to our email from June 28th).

1. As Annex XXI is not a state aid notification document, but an application form for funding, please bear in mind that the information on state aid will have to be presented in Annex XXI mainly in Section G.1. In other sections of the Annex XXI references to state aid should be presented only if relevant to the question. The results of the state aid notification (decision on State aid issued by DG COMP) will be taken into consideration in the process of analysing the application for assistance (by DG REGIO).
2. Concerning the analysis of the required investment in the Black, Grey and White areas, – the methodology presented in the Feasibility Study is not clear (e.g. Table 5; Chapter 7):
 - a. In our opinion, the methodology should be more specific as to the description in which grey areas investment is possible and services will be offered (for example: the criterion

of Local Loop Unbundling, as in the proposed notification documents of Eastern Poland: http://www.forumszerokopasmowe.pl/aktualnosci.php?news_id=1950).

- b. A white area is defined as an area where it is not technically possible to have broadband access. This statement should be explained. Table 32 in the Feasibility Study suggest that effect in white areas will only be 1.9% and in grey, 13.4%. In total 15.3%. 3.1% white areas will remain. Results related to progress in white areas seem very moderate against the objectives of the project
 - c. Moreover, the impact on “black” areas is not clear and raises concerns as to compatibility with state aid rules (e.g. the statement of the “cooperation of the Infrastructure Operator (IO) with last mile operators in black areas.”¹)
 - d. The “red-yellow-grey-black” approach is being used in the document. We recommend that it is clearly explained how it relates to “black-grey-white” approach (as defined in the Broadband guidelines) and in case of differences: an explanation why it is preferred should be provided. We note that any deviation from the State Aid Guidelines on Broadband will be questioned by the European Commission.
3. We also note that is not clear who would pay the real estate tax. No such cost seems to be assigned to the Operator, nor to the public authority. Please note that if the IO is exempt from the obligation to cover real estate tax, this should be clearly described in the (pre)notification documentation, and demonstrated in the calculation of the level of aid.
 4. We understand that the pre-notification phase was initiated and the Beneficiary is awaiting opinion from the Polish Institutions (UKE, UOKiK) on the project. Should there be decision to modify the scope of the project or its main assumptions; JASPERS is available to provide its assistance on working basis.

Comments to particular sections of Annex XXI (if relevant, impacting also the analysis of the Feasibility Study)

Section B

1. B.2.3. As regards territorial dimension, we note that the project is located in rural areas (as it is: code 05). We have doubts whether the identified location of the project should include “urban areas” (01) – please reconsider. Instead, we would recommend to consider and include 04 Sparsely and very sparsely populated areas.
2. B.2.4. Please verify this information: codes for the economic activity dimension should be applied here, that is, in our opinion, **10 Post and telecommunications**. Note that code 10 in this section relates to the different classification than code in B.2.1 (10 Telephone infrastructures (including broadband networks)) which coincidentally is also “10”. Information on the codes that should be applied is available in Commission Regulation (EC) No 1828/2006.
3. B.4.1:
 - a. Please clarify what the scope of the project is: basic broadband or hybrid (basic and NGA broadband).
 - i. We note that the information on the functional definition of internet is provided in Section C, however, please consider providing an indication of the bandwidth applied, e.g. for the purpose of inventory and categorization of services. Please note that in State Aid cases analysed to date, the European Commission has accepted 2Mb/s as minimum speed for traditional broadband internet connection. Please clarify if the Broadband Inventory in the region is conducted in line with 2 Mbps speed threshold.
 - b. Please provide more concrete information on the location of the project and quantify the problems and gaps (e.g. % of population in white-grey-black areas).
4. B.4.2:

¹ p. 23 "Będzie współpracował z operatorami „ostatniej mili” działającymi w miejscowościach „czarnych”."

- a. Section c) Please note that the beneficiaries of the ERDF are not identical to the beneficiaries of state aid. We recommend to remove the references to the beneficiaries of state aid, and, instead, complement the information (e.g. in a table form) with the beneficiary population in the project area (in total and broken down by municipality and/or other administrative units, in % of total population of the region) number of institutions/businesses, and taking account of white/grey/black areas. Identification of the main beneficiaries should be consistent with demand analysis and CBA (main impacts of the investment should be analysed and monetized in CBA).
- b. Section d) the business model does not seem to be consistently presented (both in the Annex XXI and in the Feasibility Study in chapter on Intuitional and legal aspects). In the section B.4.2 you present information that a carriers' carrier would be selected (Infrastructure Operator); while in the Section D of the Annex, there is information about DBOT approach (implying a single contract covering both construction and operation phase). As different definitions or concepts may stand behind the acronym, please verify or provide explanation what the DBOT stands for in the project. For example of possible approach, please take note of the concept applied in the Jaspers manual:

Issue	Design & Build (D&B)	Design-Build-Operate (DBO)	Design-Build-Finance-Operate (DBFO)
Who designs and builds the asset?	Private sector	Private Sector	Private Sector
Who operates the asset?	Public Sector	Private Sector	Private Sector
Who finances the project?	Public Sector	Public Sector	Private Sector
Can EU Grant funding be used to fund capital expenditure?	Yes	Yes	Yes, but financial structuring may be more complex than in the case of a DBO
Are payments made to the private sector during construction?	Yes	Yes	No, the concessionaire finances construction
Are payments made to the private sector during operation?	No, the public sector operates the asset	Yes	Yes
Who takes on risk during the construction phase?	Private Sector	Private Sector	Private Sector
Who takes on risk during the operational phase?	Public Sector	Private Sector	Private Sector
Who monitors the concessionaire during the operational phase?	N/A	Public Sector	Public Sector

Source: http://www.jaspers-europa-info.org/attachments/129_JASPERS%20DBO-Grant%20Funding%20Working%20Paper%20Dec%202010.pdf. DBO model is defined in the manual as comprising of “a single concessionaire (likely to include a construction contractor who will build the asset, and an infrastructure operator, responsible for the long-term maintenance and operation of the facility and answerable to the contracting

authority through a contract which specifies performance standards) is contracted to design, build and then operate an infrastructure asset or group of assets for a designated period of time.”

5. Statement about the impact on individual groups is not clear².
6. B.5.1
 - a. We recommend providing quantified information, preferably in the table form: (i) specific project objectives/targets; (ii) current situation, (iii) project impacts and (iv) project outputs. It is also recommended to specify the contribution of the project to the Digital Agenda (quantify targets: e.g. the objective is to reach [X]% of households and [X]% of businesses with traditional and/or NGA broadband infrastructure – if applicable).
 - b. This comment is closely related to the table *Wskaźniki produktu (project results)* presented in section B.4. In our opinion, the application form should contain information also on the current status of those parameters which will measure the results of the project (e.g. number of households/ population currently connected to broadband)
7. B.5.2.
 - a. Please consider reformulating this section so that it clearly indicates projects’ socio-economic objectives, rather than characteristics of information society or information on the objectives of the socio-economic analysis. We recommend that details of the calculation of socio-economic objectives should be kept for section E.

Section C

1. The purpose of this section is to assure the funding agency (EC) that the best possible solution to the problem was sought and found.
2. C.1.:
 - a. We make the below comments aware of significant difficulties related to predicting future broadband demand and we recognize the complexity of the demand analysis conducted.
 - b. This section should not focus on presenting the consistency with state aid. State aid will be covered in section G; while compatibility with Community Policies and law will be presented in section I.
 - c. Please provide information on all the pre-feasibility and feasibility studies conducted.
 - d. Complete the information already provided, so that this section provides information on the results of the feasibility studies, presenting the results of the options analysis, briefly indicating the main conclusions with regards to the following aspects:
 - i. System analysis: availability of infrastructure/services vs. needs/demand of different customers groups;
 - ii. Technological issues, i.e. description of technology chosen, specifically information on technology neutrality, open access, wholesale provisions;
 - iii. Operational issues, i.e. business model, control, clawback mechanism.
 1. An analysis of the different investment models has to be included and the choice must be soundly justified from technical and economical points of view in section C.1.2
3. . C.1.1
 - a. This section should also provide information on the current demand (existing market situation). Information on the type and quality of services should be addressed

² **PL:** „Przyjmuje się przy tym, że ilościowo zakres oddziaływania na beneficjentów pośrednich będzie zgodny z zakładanymi wskaźnikami oddziaływania na wymienione grupy.” **ENG:** “It is assumed that the quantified scope of impact on the indirect beneficiaries will be consistent with the assumed indicators of impact on those groups.”

(including benchmarks or main assumptions on traffic forecast), level of prices, market regulations, etc. Such presentation should be concise.

- b. As indicated in the Section on state aid, the scope of the project is not clear or not clearly described – especially with relation to black areas. Information on the methodology applied as well as the key conclusions related to the: population expected to be served with the network (including growth rate), assumptions on the future services, structure of revenues, market share should be briefly presented.

4. C.1.2

- a. The following approach and description is recommended for this section:
 - i. List and briefly describe the options considered in the FS at the strategic/system level, technological and operational level;
 - ii. present a comparison table including the criteria assessed;
 - iii. indicating also which the preferred option is.
- b. We note that in the Feasibility Study, the option analysis is conducted on the basis of possible use of infrastructure (rail; roads and energy infrastructure). The Annex XXI describes only an option of using WiMAX technology. Please expand the section in Annex XXI to provide information on the options analysed carried out in the Feasibility Study.
 - i. As regards the use of infrastructure of one operator (TK Telecom in the variant chosen), the document suggests that one preferred option has already been selected. It is not clear, however, whether a dialogue with the operator has been started or completed and how it is in line with the procurement rules.
 - ii. Moreover, some information is not clear:
 - 1. As this is not clear why radio technology (WiMAX) would not require EIA assessment, and as this is not the criterion on the basis of which the option is being chosen, please consider removing it.
 - 2. It is not clear how relevant the 40% of coverage is to the objectives of the project.
- c. Moreover, it is recommended that option analysis is based also on the quantitative analysis: based on the cost effectiveness analysis (in case of options with very similar objectives, and similar outputs and externalities) or on the basis of cost benefit analysis (when the expected options vary significantly). In the first case, the cost estimation shall include all costs required to implement individual options, minored by revenues from sales of products and the residual values for investment components whose economic lifetime exceeds the chosen reference period. In the second case, the options should be compared and ranked in an economic cost- benefit analysis, where these externalities are explicitly evaluated. Option analysis, as it is conducted for DSS lacks quantification – either quantification of costs (in the first approach); or evaluation of economic costs and benefits. Please consider enhancing the analysis along this recommendation.

Section D

- 1. We note that the timeline requires updating (please ensure that following update, the information in D.1. is consistent with information in D.2.1 – D.2.4), as well as in the Feasibility Study.
- 2. Tender procedure should be presented (in D.2.1). Please ensure consistency with information in other sections (please take note of the comment related to the DBOT approach (in section B of this document)).
- 3. Please ensure that the status (maturity) of the documentation is provided, necessary authorizations listed, actual/expected dates provided (e.g. section D.2.2. lists the administrative documents foreseen, but it is not clear what the status is).
- 4. D.2.3. Please provide more details on the date of decision and the level of funding secured.

Section E

1. We note that the final version of the document will need to be presented in EUR.
2. Please confirm in the application whether the analysis is conducted in line with the methodological guidance documents issued by the EU (hereafter referred to as the “CBA Guidelines”):
 - a. WORKING DOCUMENT 4 (WD4), Guidance on the methodology for carrying out Cost-Benefit Analysis (DG Regio, August 2006),
 - b. Guide to COST-BENEFIT ANALYSIS of investment projects - Structural Funds, Cohesion Fund and Instrument for Pre-Accession (DG Regio, June 2008)
3. Our assessment of the calculation of financial and economic performance indicators (FNPV and ENPV values) shows that the analysis is conducted net of VAT; and depreciation has been eliminated Please consider underlining the later information in the Annex XXI (information on VAT is provided).
4. We note that due to the requirements in the Polish guidelines, a third indicator (FNPV/Cd) is being calculated. JASPERS is only verifying these calculations which are required by the EU guidelines. Our focus is on the return on investment (FNPV(C)) and on the return on national capital (FNPV(K)). In the application form, we recommend providing the results of this two indicators to avoid confusion.
5. Please verify why the reference to Podlaskie region is made.
6. The introduction of the need to calculate funding gap is not consistent with information presented in table E.1.2. (no calculation of funding gap due to the application of art. 55.6 of the Regulation 1083/2006). If the project is subject to State Aid, the EU grant is not necessarily determined on the basis of the funding-gap calculation. Subject to any comments from the Managing Authority, as the project is subject to state aid rules the Art. 55.6 applies, therefore the funding gap will not have to be calculated, but the state aid ceiling has to be respected.
7. Table E.1.2: point 3 is not completed.
 - a. Total Investment Costs in line 3 should include both eligible + ineligible project cost, but without VAT, and excluding contingencies. This value is undiscounted.
8. For consistency, please consider leaving table E.1.2 point 10 uncompleted (as it is in point 9).
9. For ease of verification of macroeconomic assumptions, please reference the source(s) instead of indicating that it is “*own analysis*”: We note that the macroeconomic data (GDP, inflation, wage increase, unemployment rate, exchange rate, WIBOR) are based on the Ministry’s forecast of economic indicators in the baseline scenario.
10. E.1.4 please ensure consistency with regards to information between FS, Annex XXI and Excel calculations: e.g. regarding the first year of operation of IO – will it be in 2012 or 2013; as well as the year from which the profitability for the IO is assumed.
11. E.1.4.b setting wholesale tariffs should not be an “internal matter of OI”, especially as the service is foreseen in areas which lack competition – will the National Regulator (UKE) be consulted on price levels?
12. E.1.4c) we recommend to provide information if the payments are proportional to the services offered (how the price for services is estimated – is there any relationship with the amount of bandwidth provided to operators in the transmission services; length of infrastructure leased, etc.) – part of answer from section 3.1.4 b) could be as well presented here.
13. Section E.1.4 b ii. does not seem to provide answers to the questions – please verify (as there are payments foreseen, the answer should be, in our opinion, instead “not applicable”). In our opinion, the information currently presented in E.1.4 b ii can be moved to the relevant sections: B.4.2 c (how the infrastructure will be managed) and E.1.4 a) how the tariffs will be set.
14. The financial discount rate presented in Annex XXI is 5% (real prices); while the financial discount rate applied in the Feasibility Study is stated to be 8% (nominal (current) prices have been used). Please correct / ensure consistency, also with calculations in Excel.
 - a. JASPERS notes that the three remaining projects in Poland followed by JASPERS conduct analysis in real prices and apply the rate of 5%. Given the flexibility provided by

the CBA guidelines, both approaches are considered acceptable, however i) consistency between data in the FS and in Annex XXI needs to be assured, and ii) it is recommended to coordinate the approach across different projects in one country.

15. FRR(C) (in Polish FSZ/C) equals -5.2% in the FS and the Excel document. In Annex XXI -5.3% is presented. Please correct / ensure consistency.
16. Shadow prices have not been used – explanation provided in the Feasibility Study is that this is due to the scale of the project and procurement. Please consider clarifying if the project is developed and operated in the open economy, with no restrictions on the availability of resources and materials.
17. It is noted that the ENPV and ERR values indicate disproportionate economic benefits as compared to other projects presented in the CBA guidelines (see table 2.11 in CBA). We are of the opinion that the section on economic and social analysis, as presented in the Feasibility Study and Annex XXI, requires important modifications to be in line with the CBA guidelines. Please address the following issues:
 - a. **Economic analysis** should be conducted in **constant (real) prices** (no transfer from nominal to real prices is conducted in the analysis). Discount rate of 5.5% should be applied to real not nominal prices. Polish guidelines also confirm this approach.³ It seems that no transfer from nominal prices to real prices is conducted in the Excel document.
 - b. Methodology overview informs about 15-year reference period, only for the time of operation.⁴ Economic analysis should be conducted for the time of the investment and of the operation of the project. Conducting analysis only for the period of operation is not correct. In the DSS project, it is our conclusion that the calculations of ENPV are conducted for the period of investment and operation. However, the table E.2.2 indeed presents costs and benefits only from the perspective of the operation of the network. Please correct.
 - c. In addition, wages should not be treated as economic benefit. It is possible to correct the cost of employment by applying shadow wage, in case labour market is imperfect, or there are macroeconomic imbalances (e.g. due to high unemployment).
 - d. Residual value is not discounted in the table E.2.2., impacting the share of the residual value as benefit.
 - e. Values of discounted operating costs presented in table E.2.2. are not clear – especially if compared to the values presented in table E.1.2 (we understand that no correction factors have been applied and it is not clear why there is such a major difference in value).
 - f. Please describe the methodology and confirm whether the assessment of benefits has been done on incremental basis – only new users who without the project would not have broadband access or would not have access at market prices.
 - g. We note that Economic Analysis includes revenues as benefits, without any correction applied. Usually, financial values are not to be considered for the economic analysis except in those cases where financial values can be considered as a good proxy for the economic values. Deviations from this rule should be appropriately explained and substantiated, including explanation, why revenues are considered to be a good proxy of the economic benefit. Quantification of additional benefits needs to ensure that there is no double counting.

³ „Koszty i korzyści są ujmowane w ramach analizy ekonomicznej w cenach realnych. W związku z tym, w przypadku, gdy analiza finansowa przeprowadzana była w cenach nominalnych, w ramach analizy ekonomicznej należy dokonać korekty cen o inflację.” Za: *Narodowe Strategiczne Ramy Odniesienia 2007-2013 Wytuczne w zakresie wybranych zagadnień związanych z przygotowaniem projektów inwestycyjnych, w tym projektów generujących dochód*, Ministerstwo Rozwoju Regionalnego, Warszawa, 15 stycznia 2009 r.

⁴ „15-letni horyzont czasowy. Założono, że wartości korzyści społecznych faktycznie liczone są od 2014 r., czyli po zakończeniu inwestycji”

- i. For information and possible use, please take note of a possible approach used in another broadband project to calculate economic benefits (presented in Annex I).
 - ii. In the section on non-quantified benefits, it is not clear how the project will result in standardization of administrative data. Please clarify / remove.
18. E.3.3.: We note that the FS conducts a detailed identification of strategic, economic and financial, legal, technical, and institutional risks and provides information on steps taken to mitigate the risk. Please present a conclusion of this detailed analysis, specifically, assessment of risk of the project (probability, impact) following the mitigation measures.
19. The sentence “Ktore wartosci zmiennych krytycznych podlegaja zmianom” in the English version means: “Which are the switching values of the critical variables”. It means that for each of the key variables identified above, indicate what is the variation (in percentage) required to make the NPV =0. This is intended as support to assess the risk of NPV of the project to fall below acceptable level of profitability.
20. Sensitivity analysis table seems not to present the data required by the form:

Variable tested	Financial Rate of Return variation	Financial Net Present Value variation	Economic Rate of Return variation	Economic Net Present Value variation ⁵

- a. Sensitivity analysis lacks analysis of economic variables and indicators.
- b. „State the percentage change applied to the variables tested” (or in Polish “Określić stopę zmiany zastosowaną do badanych zmiennych”) refers to the % change of the variable – in the DSS application form, the value “5%” is indicated; however the table offers information on other % changes (e..g 10% change for demand; 20% change in the budget of the investment). Please ensure consistency in information presented. Please note that according to the CBA guidelines, a general recommendation is to apply 1% change of variables. Jaspers guidance offer additional guidelines on the methods of calculation of sensitivity analysis.

Section IX Environment

- 1. Please see separate section on the EIA assessment provided on the following page ([please click here for reference](#)).

Section H

- 1. H.3. We assume that this section will be updated.

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Badana zmienna	Zmiana finansowej stopy zwrotu	Zmiana finansowej zaktualizowanej wartości netto	Zmiana ekonomicznej stopy zwrotu	Zmiana ekonomicznej zaktualizowanej wartości netto

Comments to particular sections of the FS

The FS is one of the basic documents required by Art. 40 of the Council Regulation (EC) No. 1083/2006. Sound preparation of the FS is required for the confirmation of assistance. The conclusions in the FS will be used to complete the Request for Confirmation of Assistance Form (Annex XXI). Therefore changes made to the FS will result in changes to the Annex XXI.

In the revision of the FS, we would strongly encourage a review of the document also against repetitions so that more clarity can be gained. In case of detailed sections (details on procurement, obligations of operators etc.), putting the information into Annexes is an option to consider.

The below comments are in addition to the observations made on Annex XXI.

Chapter 1

1. We note that the % cost of Main Engineer (at 3.6%) is higher than in other projects in Poland (estimated at 2% of the total investment cost in other project). However, as the Main Engineer will be selected in line with public procurement process, we understand that this assumption will be further verified.
 - a. As a general comment, we would recommend not to detail institutional setup in this chapter (e.g. the function of the contract engineer), only to provide summary information.

Chapter 2

1. We note that the introduction is a repetition of previous chapter – we recommend avoiding repetitions.
2. The EU2020-targets and the Digital Agenda objectives should be emphasised instead of the key reference being made to the Lisbon Strategy and the i2010 programme (Europe 2020 is the new strategy that is a continuation of the Lisbon Strategy; and the Digital Agenda is a new programme “replacing” the i2010 targets).
3. We would recommend to avoid detailed conclusions from every chapter (which are again repeated in respective chapter), and instead we would recommend that a more concise summary information is provided (including concise information on the cost components, financial sustainability, economic and financial analysis).

Chapter 3 Macroeconomic environment and trends

1. Please ensure that the investment plans of TP SA for 2011-2012 and the location of 8.4 projects of last mile infrastructure have been taken into consideration in defining the scope of the project.⁶

Chapter 4 Logic of Intervention

1. Section 4.3.2: Please consider rephrasing the statement that the DSS project is one of the strategic challenges of the regions.⁷ It seems that the realization of the DSS project is one of the critical means to meet the region's socio-economic objectives.
2. Section 4.3.3 and Section 4.4.1: It is recommended to focus more on the Digital Agenda (correctly included in the list of objectives) than the i2020 goals (as per above comment related to Chapter 2); and specifically clarify **how** the DSS project contributes to the goals of the Digital Agenda (considerable increase of traditional broadband availability to 90%; implementation of a future-proof and scalable NGN fiber infrastructure significantly decreasing the cost of and enabling the NGA services). Note that the Digital Agenda is one of the flagship initiatives of the Europe 2020 strategy (not of the Lisbon Strategy).

⁶

http://www.uke.gov.pl/uke/index.jsp?place=Lead04&news_cat_id=19&news_id=6360&layout=1&page=next

⁷ „Biorąc pod uwagę opisane powyżej spodziewane rezultaty projektu, a także obecne uwarunkowania społeczno-ekonomiczne regionu, należy stwierdzić, iż realizacja projektu budowy sieci szerokopasmowej w województwie dolnośląskim, jest jednym ze strategicznych wyzwań dla rozwoju tego województwa”

3. You mention that “The DSS project involves the construction of ICT infrastructure to supplement existing resources belonging to different providers.” We would ask to clarify what it means (e.g. does it concern the (regional) backbone, or also parts of the distribution network; what is the management structure of operation foreseen). We note our comment in this chapter, but observe that this can be addressed in a concise matter in the general project overview chapter.
4. We note that this section includes SWOT – please consider if this information would not be better aligned with analysis done in the market analysis chapter.
5. Similarly, this section considers logical framework matrix. Perhaps this section would be better positioned in the project overview section.
6. We invite you to critically reassess the benefits foreseen as the results of this measure: e.g. will increase in trade be a direct result of this project (or a more specific benefit such as possibility to access information on the European and global trade); will the mere availability of broadband result in better education (or better access to educational material – as it is also pointed out). It is also unclear how will the standardization of information from the public administration or the number of public online services be a result of this project.

Chapter 5 Market Analysis

1. We recommend avoiding repetitions with Chapter 3: Market Analysis builds on the macroeconomic environment and trends presented in the previous chapter, and any unnecessary repetition of data should be avoided.
2. Information on the target market share of the Infrastructure Operator should be clearly presented in the Feasibility Study – especially in the context of the grey areas.
3. We recommend clarifying with the Managing Authority the interpretation of IRU as an eligible cost.
4. Section 5.6.8: The description of the legal basis regarding the use of the network by the public administration does not conclude with the recommended approach; neither provides information if and how the revenues from the public administration are included in the forecast model. Please consider updating this information. Implications for state aid also need to be taken into consideration.
5. We would recommend to clarify the following information:
 - a. 25% of people claim that they do not need Internet. There are measures foreseen to awareness training (chapter 13), which we understand are intended to address this gap. Please clarify if this is the case and consider providing more information if the measures related to training have already the budget allocated and decisions have been made to launch the programme.
 - b. Please consider providing a table that give a breakdown of usage and availability of different bandwidth in Lower Silesia

Chapter 6 Institutional and Legal analysis

1. It's recommended to add a statement that, in line with state aid guidelines, certain provisions must be in place for a given period of time: e.g. wholesale access for more than 7 years, claw-back mechanism for minimum 5 years.
2. Availability of funds should not be the reason to invest in infrastructure; moreover, no decision has yet been made as to the use of funds in the next programming period. To avoid confusion, please reconsider the second paragraph in section 6.5.2.3.⁸
3. As outlined in the earlier section on Annex XXI, the information on the business model is not clearly presented and conclusions of the analysis should be provided (e.g. will the design and construction be done by the voidvoideship (assisted by contract engineer) – if yes, what the

⁸ „W przypadku wykorzystywania funduszy unijnych okres, w którym można je wykorzystywać, jest ograniczony, a co za tym idzie, interwencja z ich wykorzystaniem musi być dokonana w ciągu najbliższych 3–4 lat lub wcale.”

benefits are of such approach; will the operation be a concession or a PPP (the two models seem to be discussed)?; will an SPV be formed? Etc.)

Chapter 7 Technical and technological analysis

1. Section 7.1. We are concerned that the information that planning **and construction** of the network should be done independently of the backbone operators⁹, as it is not possible to rely on the information received from the operators, will challenge the conditions of the use of existing infrastructure presented in the State Aid Guidelines on Broadband. Please clarify how the condition of not duplicating existing infrastructure will be met.
 - a. Please clarify if/how IRU is included in the calculations. Is it as lease from TK Telekom?
2. Jaspers recommends conducting also option analysis from the point of view of business models considered, preferably with a “do minimum” scenario.
3. We would greatly appreciate to have more understanding regarding the basis/assumptions on which the option analysis has been conducted, e.g. what is the basis of the cost foreseen in different variants.
4. Note that the option analysis should be carried out on an incremental basis, i.e. on the difference between (i) with a project scenario; and (ii) a scenario without the project (do nothing or, in some cases, do minimum).
5. We would recommend providing information on the time schedule in a separate chapter, which could also include other information related to the implementation of the project, such as: procurement, quality assurance and monitoring).

Chapter 8 Implementation of the project

1. Please clarify how the prices of the wholesale service will be set and controlled (structure, formula to calculate and how it is approved). Jaspers notes that the FS analyzes different options, but it is not clear what the conclusions are.
 - a. Different options (benchmarking, retail minus, cost-plus) are being described. Please clarify the approach that is recommended.
 - b. Please clarify also how the values of revenues forecast in the FS were calculated. Methodology should be clearly described.
 - c. Please clarify the role of UKE and Marshall Office for setting and controlling the prices.
 - d. Please clarify what the basis is for assuming that the prices of individual services will be +/- 20% or -20% of the benchmarked market prices and if these values were consulted with UKE. Specific concerns raise the plan to oblige -20% price for services that have a competitive price. We are concerned that in case where the service is offered in grey area where TP SA is bound by its framework offer (oferta ramowa), the IO may unduly benefit from the competitive advantage and prices lower than the price on the market. Similarly, all users would benefit from 20% advantage in case of services that have competitive price. We note that modification of this assumption may have an impact on the Financial analysis.

⁹ „W związku z tym należy przyjąć, że sieć DSS powinna zostać zaprojektowana i zbudowana w sposób niezależny od operatorów szkieletowych, gdyż nie można w pełni polegać na informacjach przez nich udzielonych podczas inwentaryzacji i zaprojektowanie sieci w oparciu o sieć szkieletową tych operatorów byłoby obciążone bardzo dużym poziomem niedokładności i niepewności dostępu do infrastruktury.”

Chapter 9 and Excel calculations

1. It is recommended to make reference to the CBA methodology.
2. Cell D161 (ineligible project cost) – please verify/correct: we understand that the value should relate to cell D143 (rather than be an unrelated value). It will also ensure coherence with data calculated in the Excel document with table H in the Annex XXI (currently the values differ: 525 092 PLN in H.1 and 536 662 PLN in Excel)
3. In our opinion, explanations related to funding gap are not consistent or not correct (e.g. there is no mention of thresholds of 40% - 60% in art. 55.6 in relation to state aid).
4. It is recommended to complete the analysis with sector financial benchmarks (e.g. WACC for the TP SA). That is to prove that no excessive profits are gained by either of the stakeholders. Jaspers is available to advise on the possible means to calculate state aid intensity.
5. Reference period applied in financial analysis is declared to be 20 years. Jaspers notes that the CBA guidelines allow for individual justification of time horizon. However, in case a 20 years period is chosen for this project, it is not clear and needs to be further address why close to the end of the proposed reference period (in 2028), major replacement costs are foreseen. Such investment in the last years of time horizon seems to be in conflict with the recommendation in the CBA guidelines of choosing the period that ends in “a point in the future when all the assets and all the liabilities are virtually liquidated simultaneously” Jaspers is available to discuss this further as well as possible alternative approaches to define the time horizon (e.g. applying “weighted” approach by calculating the % of investment cost related to the cable infrastructure and other components). Our recommendation is to coordinate this approach with other projects in Poland.
6. FNPV(K): Changes in working capital should not be included in the FNPV(K) calculations
7. We note that the analysis of financial sustainability takes into consideration payments and return of VAT (75% of VAT return is assumed on annual basis; followed by 25% in the subsequent year). Last year of analysis, in addition to 25% of return of VAT from previous year, foresees 100% of return from the given year (2014). Please clarify the reason for such assumption.
8. We noted that the sum of the discounted rent payments made by the Infrastructure Operator is smaller than the sum of the discounted replacement costs borne by the Beneficiary. The FS states that the beneficiary (Marshall Office) will cover part of operating costs during the duration of the project from other sources. Has this been confirmed in any official acts of the Beneficiary; is the forecast amount (contingencies) guaranteed?
9. It is not clear why a comparison is made between one option with and other option without claw-back mechanism. From the point of view of state aid, clawback mechanism is required as a mechanism to avoid overcompensation for the Infrastructure Operator. In addition, please take note of the recommendations of the European Commission regarding clawback¹⁰
 - a. Maintained for min. 5 years after the network is operational.
 - b. Cumulative excess profit (i.e. return higher than the industry average) clawed back in proportion to the aid intensity
 - c. Separate accounts for the subsidized network.
10. It should be clarified whether the Infrastructure Operator is assumed to be an entity in operation. If yes, a proportion of fixed costs (overheads) related to the management and operation should be allocated to other areas of activity of the Operator.
11. We note that, as compared to 2 other projects analysed by Jaspers in Poland, the following differences in the structure and cost of revenues can be observed:
 - a. Significantly lower revenues from transmission services (and lower proportion of revenues from transmission services) (based on the forecast of 1000 Mb/ s in 2014 to 5000 Mb/ s in 2018 of transmission needs).

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http://www.mrr.gov.pl/aktualnosci/fundusze_europejskie_2007_2013/Documents/20100510_EC_G AAL_Broadband_POLAND.pdf

- b. Twice as high the price for lease of backbone and distribution network fibre (5000 PLN) as compared to 2 other projects (2500 PLN / 1 km)

Chapter 11 Risk Analysis

1. Please clarify if the pessimistic scenario has also been referred to in the sensitivity and risk analysis
(http://www.mrr.gov.pl/fundusze/wytyczne_mrr/obowiazujace/horizontalne/Documents/Warianty_rozwoju_gospodarczego_Polski_ver_2010.pdf)
2. Risk Analysis (p. 417) Please verify the statement: „W takiej sytuacji pojawi się zagrożenie, że województwa nie otrzymają zwrotu wydanych środków, oraz nie będą w stanie spłacić pozaciąganych kredytów na realizację inwestycji.” Is not clear: no external financing is presented in the FS.
3. EC Guidance is requesting quantified risk analysis. When limited or no information of probability distribution is available a qualitative risk analysis could be accepted. Annex XXI provides information that a quantitative analysis would not be fully feasible because probability distribution cannot be determined for this project. It is also recommended to provide reference to the national guidelines to confirm that such approach is acceptable.¹¹
4. Please remove the following section in the list of risk: “W trakcie realizacji projektu może zaistnieć sytuacja, że poziom przychodów będzie przekraczał poziom zakładany w Studium Wykonalności, co powiększy lukę finansową i obniży dopuszczalny poziom finansowania” To clarify the wording used, the higher the funding gap, the higher co-financing accepted. Increase of revenues would result in “lower” funding gap („zmniejszy lukę finansową”). This, however, should not be considered as risk requiring mitigating measures– higher revenues should be considered positive, and would allow covering the costs of the project.

Chapter 13 Trainings

1. Please clarify the decision making process related to setting up of the trainings foreseen: has any budget been allocated to this measure. If trainings have a considerable impact on the demand for the project, this should also be addressed in the risk section.

¹¹ Chapter 9 / Rozdział 9 in : „Narodowe Strategiczne Ramy Odniesienia 2007-2013 Wytyczne w zakresie wybranych zagadnień związanych z przygotowaniem projektów inwestycyjnych, w tym projektów generujących dochód, Ministerstwo Rozwoju Regionalnego, Warszawa, 15 stycznia 2009 r.”

Project Note 2011 035

Author: EIA specialist A. Jurkeviciute

Subject: Removal of areas of digital divide and construction of the Lower Silesia Backbone Network

Project background

The project in its scope includes the construction of a regional backbone/distribution network. It should be stressed that the LSBN project involves the construction of ICT infrastructure to supplement existing resources belonging to various providers. The infrastructure will include passive components necessary for the installation and operation of a broadband Internet network, such as technical ducting, cables, optical fibres, wells and locations of telecommunications nodes and active elements in a number needed to achieve the assumed economic.

The project as such is not listed in the annexes to the EIA Directive 85/337/EEC (EEC (as amended by Directive 97/11/EC, 2003/35/EC and 2009/31/EC). Under Polish legislation (Regulation of the Council of Ministers of 2010) the project in question does not qualify as a project likely to have a significant environmental impact either.

Documents provided for review

- Draft feasibility study (dated as of May 2011, Wroclaw);
- Draft FA with some annexes, but not environment related (no declaration and decision on the cancellation of the EIA proceedings).

Beneficiary: Dolnośląskie region, Poland

Contractor: A consortium of Nizielski & Boris Consulting sp. z o.o., Collect Consulting sp. z o.o., net-ology sp. z o.o. EFICOM S.A., Poland

Scope of JASPERS intervention

This is the first JASPERS review of the documentation for the project.

NOTE: JASPERS remarks and recommendations are provided *in Italics*.

JASPERS remarks and recommendations on the EIA procedure and the FA

Section D.1 of the FA points out that the EIA procedure took place between 28.04.2010 and 09.08.2011, however section D.2.2 does not provide any further details on the procedure and any decisions received from relevant environmental authorities.

- *JASPERS recommends to leave the Section D.1 for EIA blank the reason being the project is not a subject to EIA neither by the EC nor Polish regulations.*
- *Please provide the decision on the cancellation of the EIA proceedings to JASPERS and attach it to the FA. If the decision was requested using an Information Card, please, provide it to JASPERS.*

Section F.1

- *It is recommended to provide answers to each question identified in the section F.1 and mark accordingly. The text in the section is good, but a, b and c has to be marked so the answers are aimed at specific points.*

Section F.2 points out that the Beneficiary consulted with the RDOS (Regional Directorate for Environmental Protection) in Wrocław:

- *It is recommended to cite the most up-to-date Regulation of the Council of Ministers of 2010 regarding qualification of projects for EIA in Poland.*
- *If support letters were requested and received from the competent mining supervision authority, Directors of the relevant national parks, relevant regional water management director, relevant regional conservator and other forestry management divisions, it is recommended for the Beneficiary to attach those supporting opinions and note them in the F.2.*
- *The last sentence in the text box on the impacts of the project has to be reformulated in a way to stress the lack of significant and long lasting negative impacts on the environment by the project and the absence of the requirement to carry out screening or assessment (EIA).*
- *Text in F.2 and F.3.2.3 seems identical. It is recommended not to repeat the text but either to cross reference (link with the above section) or provide direct answer without repetitions.*

Section F.3.3.1 requires reformulation since FS is not the document to be referenced here.

- *Under this section the relevant Operation Programme (Regional Operational Programme for the Dolnośląskie region for 2007-2013) and other strategic documents has to be provided such as Development Programme for the Dolnośląskie region until 2020, Innovation Strategy for the Dolnośląskie region, Long-Term Investment Programme for the Dolnośląskie region in 2007-2013 have to be quoted with the focus on the Strategic Environmental Assessment (SEA) carried out and internet links to the NTS of SEAs, if such has been prepared and approved along with the strategic documents, shall be provided.*

Section F.6

- *Though the project as such will have temporary, short term environmental impact the Beneficiary identified in the FS (p. 441) a number of measures it commits to implement such as working during day hours with minimum noise and air emissions as well as reduced need for tree felling and undergrowth cover removal. It is even mentioned that some replanting is planned therefore it is recommended to include under F.5 and F.6 information on these environmental measures and how they will be implemented even if the costs cannot be estimated or are too small to be noted in terms of budget (such not has to be made nevertheless).*

JASPERS remarks and recommendations on the FS

Chapter 6.4 (Polish text) is dedicated to the formal and administrative preparation of the project as well as Chapter 12 (Polish text) to environmental impact assessment information.

- *Information on the EIA regulations has to be updated in the FS. Currently the new regulation of 2010 is in place instead of 09.11.2004.*

Section 12 of the FS provides information on Natura 2000 which is brief, but to the point and presents the length of the network to be laid inside or on the borders o Natura 2000 sites. The map and description of project overall effects are satisfactory.

- *It would be good to provide a bit more information on what are the protection objectives of the Natura 2000 sites to be touched by the project. If description of the Natura 2000 sites in question is provided in the Declaration, such information placement would be sufficient; however the Declaration was not received.*

Annex I

In order to ensure a more simple assessment of project economic benefits, the assumption was used that project target groups make use of only the following sources of economic benefits:

1. Consumer surplus due to the infrastructure installed:

Change in consumer surplus, which requires the estimation of the demand curve for broadband communication, which is, however, difficult to determine due to limited information on the market to be created and diverse scope of possible applications. It is easier to appraise economic benefits by considering the costs, i.e. how much the consumers pay for connecting to broadband communications. It is natural that the consumer using broadband communication receives/expects to receive benefits that outweigh the costs of using these communications.

It is expected that the implementation of the project will create the conditions to reduce the subscription fee for broadband internet in rural areas. Due to the reduction in prices, the number of users will grow, and the consumer surplus, or net economic benefits, will increase.

The net economic benefits can be calculated using a formula¹²:

$$EN = \frac{1}{2} (\Delta P * \Delta Q + \Delta P * Q_0)$$

EN : the direct net economic consumer benefits;

ΔP : the change in prices;

ΔQ : the change in consumers;

Q_0 : the number of consumers before the implementation of the project.

2. Indirect economic benefits (saved time, saved fuel, life-long learning, more accessible information, less pollution of the environment and others).

While calculating the indirect benefits derived from the project, it is possible to estimate how many new users (households) started to use broadband communications due to the project. This number is then multiplied by the indirect benefits generated by one household (assumed as a projection of the amount of savings : for example on 1-2 trips from rural areas to the regional center and back).

¹² Applying the ½ rule or assuming that the demand curve is a straight line