

Creating a brighter future

Submission to Green Paper consultation 'Long Term Financing of the European Economy'

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Management Summary

The FTTH Council Europe is an industry association which seeks, inter alia, to ensure that there is sufficient investment in Communication Network (specifically FTTH and FTTH ready solutions). While long term investments might be seen as a demand side issue, it is the flip-side of the long term financing which is the supply of available finance. The FTTH Council for its part sees problems on the financing side of communications networks which in turn are feeding back to distort the demand side. The FTTH Council engages in this public discussion because we are convinced that important insights can be gained by understanding market and industry dynamics of a specific sector. The FTTH Council Europe has been actively involved in the analysis of why financing represents a bottleneck for the roll-out of next-generation access (NGA) networks. As part of that activity it has engaged the investment community directly, hosting conferences and workshops on this particular topic and working on concrete projects to deepen our understanding and experience.

The FTTH Council is convinced that market forces are best placed to move the mass market but it does not believe that society should be denied the benefits of FTTH networks over prolonged periods and sees that deeper Government involvement may be appropriate in certain circumstances. The FTTH Council sees the absence of large-scale private FTTH deployments pointing to an on-going and continued need for public support.

In this response, the FTTH Council argues that the old model of fixed telecom infrastructure funding no longer works. This is in contrast to recent efforts by the Commission for the Digital Agenda that sees adjusting regulation of incumbents as an effective measure to increase investments in networks. to the critical problem with this policy approach is that it ignores severe 'budget constraints' under which incumbent operators now operate. Through a variety of past activities (M&A, dividend payments etc) large incumbents in Europe have net debt to cashflow ratios which are at or above the levels that are considered prudent. This financial constraint will very likely render such measures which by themselves are unlikely to have a significant bearing on this critical metric in the short to medium term, unsuccessful from the outset.

Since the industry itself will not be able to self-finance the necessary roll-out to achieve the 2020 DAE targets, then Europe needs new investable entities that can make the necessary investments. These entities must offer risk-return profiles that make them attractive for long-term investors (incl. PE, pensions and infrastructure funds and insurance companies).

It appears to the FTTH Council that the European Commission does not yet see the need to attract "external" capital to the telecom sector, thus preventing the development of corporations or investment vehicles that might be appropriate for long-term financing. In fact, the FTTH Council Europe sees a contradiction in the objectives stated in the Green paper in long-term financing and what is proposed in the EC draft recommendation on non-discrimination and costing methodologies¹.

The FTTH Council Europe proposes that the Digital Single Market should - at a minimum - facilitate a market structure in way that reflects the different economic and risk profiles of different assets (i.e. passive telecom infrastructure v active technology equipment) and advocates open access networks so that consumers can enjoy innovative service from all players, including incumbents. The FTTH Council notes that the current industry structure in communications is vertically integrated, that is communication networks and services integrate a large utility

¹ <https://ec.europa.eu/digital-agenda/en/news/draft-commission-recommendation-consistent-non-discrimination-obligations-and-costing>

component (perhaps as much as 90%) with a small minority technical component. The unfortunate result is that finance views the entire project as one which is technology driven and therefore seeks a higher return over a shorter period. A different structure in the industry could allow a vast amount of investment to be rerouted. Telecom Italia whose own ability to raise capital is severely constrained with a net debt to cashflow ratio of 3.4 has recently chosen to pursue structural separation as a means to release value for shareholders while simultaneously facilitating new capital-raising.

A separate entity would also face the problem that the structure of the project debt has a major impact on its attractiveness to investors. Projects which can be paid on availability (e.g. a school or hospital) are much lower risk project than projects whose return is dependent on demand or usage (toll-roads, energy generation and communications networks). Clearly, communication networks as currently structured and financed have a significant level of demand risk attached. Within the community of projects for long term financing, communication networks will likely sit a long way down the preference order.

However, the covenants attached to such projects in terms of buying commitments may ameliorate that situation and a movement to new structures such as “wholebuy” agreements (where customers of the infrastructure commit to a minimum buy) or underwriting by the Government (or some combination) could push preferred projects even with higher risk back up the preference order. Therefore the FTTH Council believe that in this critical sector, the European interest would be improved if the public debate would also include aspects such as ‘Wholebuy’ and not only ‘Wholesale’ business models. The standardisation of interfaces between network layers is instrumental for new services, innovation and new business models to be deployed at scale. In particular, Wholebuy commitments from network operators have the potential to attract the interest of long term investors by lowering covenant risks. This is all the more important as the current debate is centred on existing debt and equity investors the interest of investment banks in significant M&A fees.

The FTTH Council sees such a change in approach requiring a deeper level of knowledge to support such an approach in the banking sector and believes that this is where multilateral, national and regional development banks can play a pivotal role to provide sector expertise and engage in capacity building. The FTTH Council suggests that the formation of Broadband Competence Centres at these institutions can be a major enabler of project finance. These banks could fulfil the following functions alongside the provision of capital: (1) Develop a capacity for technical and commercial due diligence, (2) Scrutinise the planning process, (3) Be a support function for local/regional public or private banks, and (4) Provide a “rubber stamp” for other commercial banks.

The FTTH Council Europe notes that information contained in published financial statements is an important lens through which the performance of a company can be analysed. But there is a widening recognition that other perspectives included in an integrated reporting scheme add value to internal and external investment decisions. The FTTH Council believes that the analysis of ESG factors requires deep sector know how. It is all the more surprising that the development of industry-specific telecom metrics has not progressed: The Global Reporting Initiative (GRI), which is one of the co-founders of the IIRC, published a GRI Telecommunications Sector Supplement in July 2003 (i.e. it is 10 years old) but it has not been updated since. The processing of information induces costs, including fiduciary costs. This is even more important as more relevant information beyond traditional financial reporting is available. However financial institutions might be slow to invest additional resources to cope with this. Hence, the Broadband Centres of Competence would alleviate such concerns by including ESG factors in their due diligence services

Therefore the FTTH Council Europe's main points elaborated in this submission are:

1. The eCommunication industry is not in a position to self-finance the level of investment currently required for next generation networks. Efforts to alter this in the current industry structure are unlikely to succeed.
2. The current industry structure mitigates against long term investment and hence financing.
3. The financial covenants that attach to new long term communication infrastructures have the capacity to make these investments significantly more attractive to investors. 'Wholebuy' commitments will be central to attracting new long term finance.
4. A financial framework needs to be established to support the potential new sources of finance. Broadband Centres of Competence should be established to this end.

The FTTH Council Europe Position and Input

The FTTH Council Europe (hereinafter the FTTH Council) welcomes the opportunity to participate in the Green Paper consultation 'Long Term Financing of the European Economy'.

The FTTH Council is an industry organisation with a mission to accelerate the availability of Fibre To The Home (FTTH) access networks to consumers and businesses. The Council promotes this technology because it will deliver a flow of new services that enhances the quality of life, contributes to a better environment and increased competitiveness. The FTTH Council consists of more than 150 member companies. Its members include leading telecommunications companies and many world leaders in the telecommunications industry (additional information is available at www.ftthcouncil.eu). Telecoms operators are not members of the FTTH Council and we have our own perspectives regarding the appropriate regulatory policies to accelerate NGA deployments.

Long-term financing and long-term investing are two sides of the same coin. Thus, we agree that, as the Working Document suggests, the terms "financing long term investments" and "long term financing" can be used simultaneously. The FTTH Council strongly believes that in the end it is the attractiveness of the investment opportunities that will fuel interest in capital markets: smart money will, in general, find its way to smart projects. This does not imply that inefficiencies in the process of information gathering, analysis and decision-making (i.e. the allocation of long-term capital to projects) do not exist. However, the FTTH Council wants to make the point that the fact that certain projects cannot get long-term funding doesn't mean that either inefficiency or current/proposed regulation of capital markets is the root cause or the only of the problem. The FTTH Council believes that market structures within the sector stifles demand for long term investment which in turn has had an impact in terms of the long term financing structures that the sector faces. The FTTH Council engages in this public discussion because we are convinced that important insights can be gained by understanding market and industry dynamics of a specific sector.

The FTTH Council Europe has been actively involved in the analysis of why financing represents a bottleneck for the roll-out of next-generation access (NGA) networks. The FTTH Council has hosted conferences and workshops on this particular topic and worked on concrete projects. The FTTH Council notes that there is a global trend of reduced bank investment in Long Term Infrastructure financing. The cost of such financing has risen considerably reaching a level of around 3% over London Interbank Offer Rate (LIBOR). While new funds will seek the higher yields, it is not clear whether new sources of finance will make up the shortfall. The FTTH Council believes that the decision by the Member States to reduce the Connecting Europe Facility (CEF) for broadband networks to zero has aggravated worries that the EU runs a huge risk of widening the gap to other developed - and increasingly - developing nations by ignoring the social and commercial benefits of a modern communication and information infrastructure.

While individual Member States have the possibility to allocate national finance (or indeed regional or structural funds) to communication networks and a range of approaches from France's commitment to invest €20bn FTTH to no FTTH commitment by the German government. Europe again risks a fragmented approach which implies a loss of scale and attractiveness both from a demand and supply perspective.

Naturally, any expertise in financial regulation is tangential to the FTTH Council's core mission and the FTTH Council will therefore concentrate its answers on questions where we have proven expertise.

- 1) Do you agree with the analysis out above regarding the supply and characteristics of long-term financing?*
- 2) Do you have a view on the most appropriate definition of long-term financing?*
- 3) Given the evolving nature of the banking sector, going forward, what role do you see for banks in the channelling of financing to long-term investments?*

1) The FTTH Council agrees that the role of banks is changing and believe that banks will continue to play a reduced role as a provider of long term finance, not least because equity requirements limit their willingness to commit long-term capital (see Chart 1 below for global banking investment trends). The FTTH Council would also argue though that there is not necessarily a scarcity of capital if the right structures are in place. Based on discussions with investors, the FTTH Council understand that many investors are looking for an adequate maturity match and opportunities to avoid the low interest rates on top-quality/low risk government bonds. This has resulted in pressure to invest in longer maturities, higher risk or both. One pension fund spoken to with €8bn of assets under management (AUM), has zero exposure to government bonds. In addition, the FTTH Council would refer to our earlier opinion that lack of long-term financing could be a reflection of an unconvincing business case derived from existing sector structures or firm specific aspects.

While higher yields are starting to bring in new sources of finance such as sovereign wealth funds (with a 3% premium over government bonds, see Chart 2 below), there is no evidence that higher yields are pulling in new funds at a level that fully offsets the exits of bank finance.

Furthermore, the structure of the project debt has a major impact on its attractiveness to investors. Projects which can be paid on availability (e.g. a school or hospital) are much lower risk project than projects whose return is dependent on demand or usage (toll-roads, energy generation and communications networks). Clearly, communication networks as currently structured and financed have a significant level of demand risk attached. Within the community of projects for long term financing, communication networks will likely sit a long way down the preference order.

The covenants attached to such projects in terms of buying commitments may ameliorate that situation and a movement to new structures such as “wholebuy” agreements or underwriting by the Government (or some combination) could push preferred projects even with higher risk back up the preference order.

Chart 1: Global Project Finance Spending

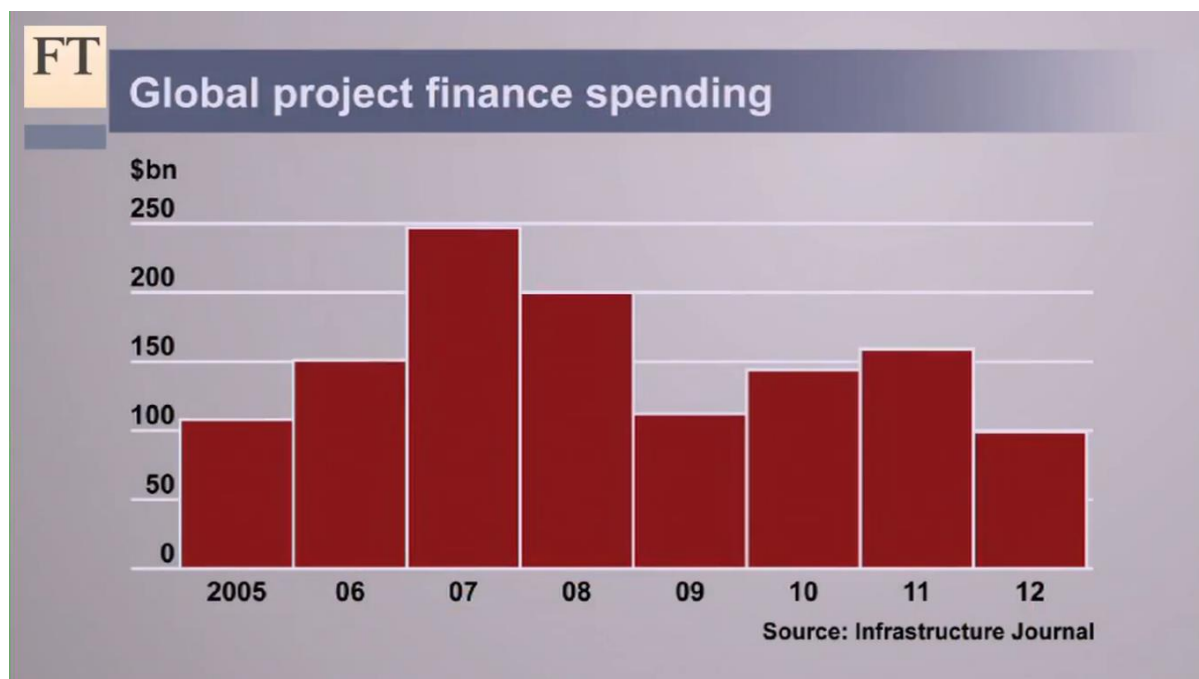
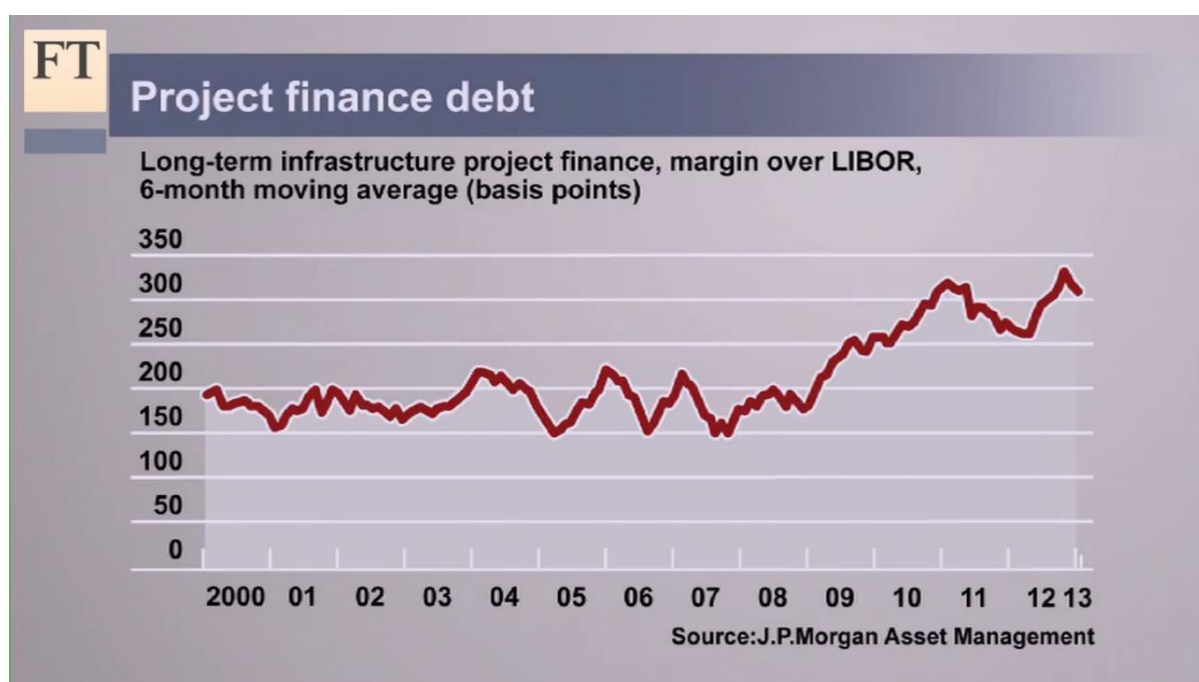


Chart 2: Project Finance Debt



2) Within the realm of our business, the FTTH Council thinks that the investment horizon of a typical Private Equity Fund (5 to 7 years) should be seen as the minimum for a definition of long term financing. However, it may be more useful to discuss the interdependence of primary and secondary markets and the existence (or lack thereof) of exit options for early stage investors (such as Venture Capital but also PE).

3) As noted, the FTTH Council agrees that banks will continue to play a reduced role as a provider of long term finance due to equity requirements and other factors. With reference to (2) above, the recent development of emerging debt funds which buy bank debt and pool them in funds² is important. This might be an additional exit option which would mitigate the equity requirement concerns. Banks might then be willing to play a more important role in project evaluation and corporate advisory, comparable to the M&A business. These services could be offered together with traditional lending business or on a stand-alone basis. This in turn would necessitate investment in expertise which is lacking for now.

4) How could the role of national and multilateral development banks best support the financing of long-term investment? Is there scope for greater coordination between these banks in the pursuit of EU policy goals? How could financial instruments under the EU budget better support the financing of long-term investment in sustainable growth?

5) Are there other public policy tools and frameworks that can support the financing of long-term investment?

4) The question that then arises is if and when private banks will start to build up expertise appropriate to the Communications sector. It is prudent to assume that such a process would start once clear business opportunities will exist: private banks will be fast followers, but not leaders in the FTTH area.

The FTTH Council believes that this is where multilateral, national and regional development banks could play a pivotal role. The FTTH Council suggests that the formation of Broadband Competence Centres at these institutions would be a key enabler of finance. These banks could fulfil the following functions alongside the provision of capital:

(1) Develop a capacity for technical and commercial due diligence. While the former would have to be bought in, the latter could be done internally with support from external consultants. Benefits would arise from a) experience gathered over time and b) a cost-efficient, 'industrialised' approach towards due diligence work.

(2) Scrutinise the planning process. Having participated in the German Banks Workshop on Broadband (hosted by the Bundeswirtschaftsministerium für Wirtschaft & Technologie (BMWi)) the Council noted that it is out of the ordinary that some project sponsors look at broadband projects with a high degree of energy and motivation but lack experience and expertise in business planning, organisational skills and a basic understanding of funding requirements.

(3) Be a support function for local/regional public or private banks that do not have the capacity to develop broadband expertise internally. This could be of particular benefit for broadband projects in areas where population densities make business cases more marginal, the so called 'grey or white' areas.

(4) Provide a "rubber stamp" for other commercial banks to join consortia of banks for larger projects. This has already been the case when assessing Reggefiber funding rounds, for example. The FTTH Council understands that without the involvement of the EIB, most of the six commercial banks involved would not have been able evaluate the investment proposition.

² see, for example, BörsenZeitung (06.10.2012): Interessante Nische für institutionelle Investoren

5) The FTTH Council is of the opinion that public policy can use various measures beyond direct funding or provision of financial instruments that can lower the cost of capital. With regard to the telecom sector in particular, the FTTH Council believes that

(1) ... a new approach to telecom regulation is needed which provides more incentives and opportunities for infrastructure investors. In cases where such regimes have been implemented (e.g.: the co-investment model in France which introduces the role of a 'building operator'³) it is necessary to ask for feedback from non-traditional telecom investors and include them in the consultation process.

(2) ... in the end, it is always the customer (retail or business subscriber) that finances a new infrastructure via product purchases. Thus, it is the product that must be central to public policy. In the broadband market, a concept of "bandwidth" is too abstract. It is necessary to demonstrate how better broadband creates value and triggers demand. Policy can act to constrain misleading advertising where a certain service level is promised but not provided, this is a major problem in the sector.

(3) ... the EC should update its broadband targets by including upload capabilities and minimum performance criteria in heavy load scenarios. This would immediately induce more transparency on product capabilities. It would become apparent, what type of infrastructure can really deliver a stated Quality of Service. As an interesting aside, the FTTH Council notes the US-based provider of Online TV and video services regularly publishes an index of streaming performance among ISPs.⁴

(4) ... the objective of Consumer Protection⁵ has not been given the priority it needs so far. The FTTH Council welcomes the EC Transparency initiative⁶ in conjunction with the Green Paper "Preparing for a Fully Converged Audiovisual World: Growth, Creation and Values"⁷. These measures are regarded these as first and important steps into the right direction.

(5) ... the EC may want to consider to educate local institutions, national and local governments, to purchase communication services from provider that uses infrastructure capable of fulfilling Digital Agenda for Europe (DAE) targets.

(6) ... the uptake of superfast broadband services accelerates once a threshold level of c. 15% of penetration is reached in line with standard product diffusion models. It might therefore be worthwhile to consider to support roll-outs in an early stage with guarantees and/or tax incentives.

6) To what extent and how can institutional investors play a greater role in the changing landscape of long-term financing?

7) How can prudential objectives and the desire to support long-term financing best be balanced in the design and implementation of the respective prudential rules for insurers, reinsurers and pension funds, such as IORPs?

8) What are the barriers to creating pooled investment vehicles? Could platforms be developed at the EU level?

9) What other options and instruments could be considered to enhance the capacity of banks

3 ARCEP Decision No. 2010-1312 of 14 December 2010 specifying the terms and conditions for accessing ultra-fast broadband optical fibre electronic communication lines on the whole territory except very high-density areas

4 <http://ispspeedindex.netflix.com>

5 See, e.g., Directive 2005/29/EC on Unfair Commercial Practices protects consumers from misleading or aggressive marketing, and ensures that any claim made by traders in the EU is clear, accurate and substantiated;

6 see <https://ec.europa.eu/digital-agenda/en/line-public-consultation-specific-aspects-transparency-traffic-management-and-switching-open>

7 see https://ec.europa.eu/digital-agenda/sites/digital-agenda/files/convergence_green_paper_en_0.pdf

and institutional investors to channel long-term finance?

10) Are there any cumulative impacts of current and planned prudential reforms on the level and cyclicity of aggregate long-term investment and how significant are they? How could any impact be best addressed?

6) In this response, the FTTH Council argues that the old model of fixed telecom infrastructure funding no longer works. This is in contrast to recent efforts by the Commission for the Digital Agenda that see a slight adjustment the current regulation of incumbents as an effective means to increase investments in networks. This approach appears to ignore that the incumbent sector faces severe 'budget constraints' which will very likely render such measures unsuccessful from the outset.

It is clear that the telecom sector cannot self-finance the move to NGA networks. For more than a decade, the incumbent sector has been seen as a defensive sector in stock markets thanks to its utility-like business model characterised by a large customer base and stable cash flows. However, this perception has changed somewhat as incumbents are now facing a number of challenges ranging from changes in regulation (e.g. cuts in mobile termination rates), weakening demand in Southern Europe, technology changes (e.g. the evolution from 3G to 4G and from copper to fibre; the move towards all IP networks) and, last but not least, the strength of Over-the-Top (OTT) and cable players.

All this has had a negative impact on dividend pay-outs⁸ across the sector. According to the Signalling Theory in Finance⁹, dividend cuts signal that management's expectations of future business trends have worsened. And indeed, this was apparently anticipated by equity investors as the following charts suggest. The performance gap becomes even more visible when we exclude the troubled Financials Sector from the analysis (see Chart 3).

Chart 3: STOXX Telecommunications Fixed-Line vs STOXX Europe 600 (Net return)



Source: Stoxx.com

⁸ e.g.: <http://www.cnbc.com/id/100467543>: Telecom Cash Cows Scare Some Dividend Investors

⁹ Copeland/Weston (1988), Financial Theory and Corporate Policy 3rd ed. pp.564-565

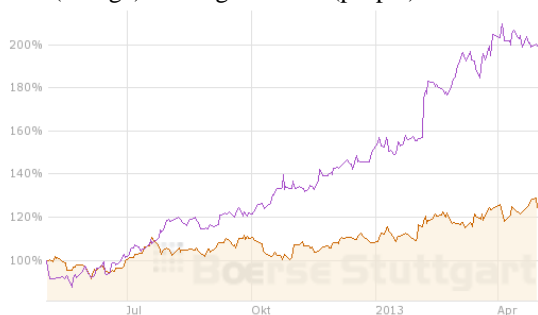
Chart 4 EURO STOXX Telecommunications vs EURO STOXX (ex Financials, net return)



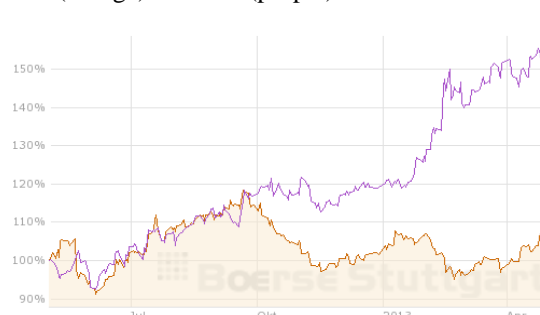
Source: Stoxx.com

A comparison of the relative performance of incumbents versus national cable players illustrates expectations of what type of player will flourish: A "long cable - short incumbent" strategy would have yielded excellent returns. We concede that some of the outperformance can be explained by announced takeover bids (Liberty Global for Virgin Media) or M&A speculation (Vodafone for KDG. Liberty Global for Telenet). Yet, this cannot explain all of the performance gap which widened in Q4 whereas takeover story started to have an impact in Q1 2013. As an interesting note, the introduction of Vectoring in the Belgium market could not shield the Belgacom share price.

BT (orange) vs Virgin Media (purple)



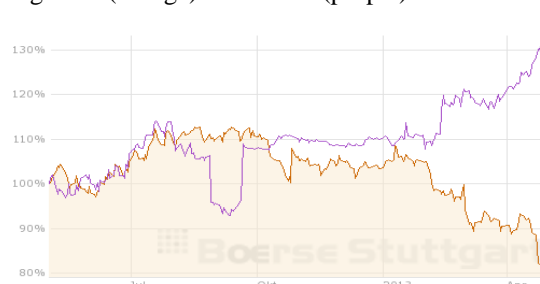
DT (orange) vs KDG (purple)



KPN (orange) vs Ziggo (purple)



Belgacom (orange) vs Telenet (purple)



Source: Börse Stuttgart (price charts 01.05.2012 – 01.05.2013)

This clearly reflects an understanding that a more profound network upgrade will need to be undertaken and indeed it raises doubts about the incumbents' ability to lead that network upgrade to FTTH/B. Their degree of freedom to invest is already restricted. Although some players such as DTAG (S&P long rating: BBB+, outlook: stable) and France Telecom (BBB+, outlook: stable) can get debt funding at historically low rates, we think that this also related to a deleveraging focus and restrictive net debt to cash-flow from operation targets of 2.0x+. And when cash-flow does not grow, there is less potential for raising debt. As the data in Table 1 below clearly shows, the average net debt to cash flow from operations ratio for the 'Big 5' in Europe is already over 2.9. In general, incumbents enjoy excellent access to capital markets and, in a worst case, can tap equity markets as recently shown by KPN. Our point here is that raising capital while generally possible is not a realistic option for financing network investments at this scale.

The FTTH Council notes that the current industry structure in communications is vertically integrated, that is communication networks and services integrate a large utility component (perhaps 90%) with a small minority technical component. The unfortunate result is that finance views the entire project as one which is technology driven and therefore seeks a higher return over a shorter period. A different structure in the industry would allow the vast amount of network investment to be rerated.

The FTTH Council also notes that smaller operators who when investing in new networks have created a new dynamic (Portugal, Spain, France) face far greater challenges accessing finance than the incumbent operators.

Cash flow trends of major European incumbents

The FTTH Council looked at the financial data of the five largest European incumbents. We chose reported cash flow from operations instead of EBITDA for our analysis. In the FTTH Council's view, this represents a more suitable financial metric as it is a cash flow measure by definition and an after tax number. Thus, it represents cash generated available for investments on the one hand and returns to share- and debt holders on the other hand. It can be observed that the combined cash generated was relatively stable at slightly below €60bn. A decline in the years 2009 and 2010 in the aftermath of the Lehman collapse was neutralised in 2011. As changes in cash from operations can be a result from M&A we also looked at reported net debt levels. We also find relatively stable levels of €162-172bn.

Table 1: Cash flow and net debt development of leading European incumbents

€bn	2007	2008	2009	2010	2011	2012
Cash flow from operations						
Deutsche Telekom	13,7	15,4	15,8	14,7	16,2	13,6
France Telecom	14,6	14,7	14,0	12,6	12,9	10,0
Telefonica	15,6	16,4	16,2	16,7	17,5	15,2
Telecom Italia	8,8	8,4	5,5	6,9	8,5	8,5
BT (€)*	7,0	5,1	5,4	5,2	4,3	6,2
Total	59,7	60,0	56,8	56,1	59,3	53,5
Net debt						
Deutsche Telekom	37,2	38,2	40,9	42,3	40,1	36,9
France Telecom	38,0	35,9	33,9	31,8	32,3	30,5
Telefonica	45,3	42,7	43,6	55,6	56,3	51,3
Telecom Italia	35,7	34,0	34,7	32,1	30,8	29,1
BT (€)*	12,1	11,1	10,3	10,1	10,9	9,2
Total	168,2	161,9	163,5	171,9	170,4	147,8
Net debt to CF from operations	2,82	2,70	2,88	3,07	2,87	2,93

* converted from BpD using average annual FX rates (source www.oanda.com); FY March 2010 used as a proxy for CY 2009, for example.

Source: company reports

However, data for the year 2012 suggests that financial performance has deteriorated: combined cash flow from operations declined by 9.7% to €53.6bn. At the same time, the Net debt/cashflow operations ratio worsened from 2,87 to 2,93. This is in spite of the fact that BT demonstrated a significant improvement in both metrics. However, it must be said that this improvement can be related to two financial, not operational factors as the cash flow statement reveals: a) the pension

deficit payment decreased from GBP 2.0bn to GBP 0.325bn yoy and b) the amount of taxes paid decreased from GBP 400m to GBP 64m yoy. Yet, a look at Other comprehensive income shows that this number decreased from GBP -2.152bn in 2011/12 to -2.916bn in 2012/13. So, underlying quality of the results are debatable.

A closer look at the amount of capital invested in national markets would require detailed regional reporting which is not always provided. Instead we concentrate on guidance statements from top management made during Q1 2013. The message is clear: no CAPEX hike can be expected to accelerate the FTTH/B footprint further.

- In mid 2011, **France Telecom** stated that €1bn will be spend on FTTH in France during 2011-13 and 2014-15 with a strong focus on very densely populated markets. In March 2013, FT said "... the targets for the coming years are to lower OPEX and CAPEX." (Source: France Telecom Investor Relations website)
- For Spain, **Telefonica** reported a CAPEX decline by 18.3% however with fibre spend being up by 32%. Operating business priorities for 2013 call for lower OPEX and CAPEX. For Germany, top management of its listed German subsidiary made it very clear, that no fixed line investments plans are on the cards¹⁰ Instead, TelefonicaO2 Germany signed a so-called *VDSL-Kontingentvertrag* with Deutsche Telekom.
- **Telecom Italia** guided for a low single digit decline in revenues and EBITDA in its home market for the period 2013-15 with CAPEX to be kept stable at around €9bn.
- **Deutsche Telekom** gave an outline of its FttC/Vectoring CAPEX plans for Germany during its December 2012 Capital Market Day: CAPEX in Germany is planned to increase from €3.4bn in 2013E to €4.1bn in 2014E and €4.3bn the year after. The entire increase is related to the modernisation of the fixed access network. Over the longer period 2013-2020 however, the net increase in CAPEX amounts to a mere €1.6bn (FttC Vectoring CAPEX of c. €6bn partly offset by €4.4bn in other segments). We note that the CAPEX plan does not show any FTTH/B plans as DTAG expects that Vectoring can extend the lifeline of copper by up to 10 years up to 2026-27 (!) for most regions. (Guidance was reiterated in the Q1 2013 report, published on May 08)
- BT guided stable CAPEX levels in FY 2013/14 and 2014/15 compared to 2012/13. Dividend payments are expected to grow by 10-15% pa in addition to a share buy-back programme of GBP 300m pa. According to a presented "Openreach scenario", BT sees a CAPEX run-rate in the order of GBP 300-400m over the next three to four years. After that, CAPEX would fall to "tens GBpm". This implies that the more than 50% of the GBP 2.5bn BDUK subsidy (2,5bn - c. 4x 350m) was already spent over the past 2 years or so! This conclusion raised some eyebrows in the UK market.

As the Telefonica Germany example mentioned above already indicates, the FTTH Council thinks it is unrealistic to assume that altnets or cable can lead the FTTH/B investment cycle. In a recent webinar, the FTTH Council Europe presented results of a study by Comsof and Greenwich consultants¹¹ which provided a cost estimate of €46.4bn¹² for a network upgrade in Germany. This would equal an annual capex (2014-2020) in excess of €6.6bn for FTTH/B alone, compared to a

¹⁰ see Börsen-Zeitung (16.03.2013)

¹¹ http://www.ftthcouncil.eu/documents/Webinars/Webinar_23April2013.pdf

¹² Several scenarios were discussed. Cost estimates range from €32bn to €67bn. The cost estimate of €46.4bn is for an optimal hybrid PON/P2P network with a high share of trenching.

total net increase for Vectoring of €1.6bn. The FTTH Council notes that smaller operators who invest in new networks have created a new dynamic in those markets where they have invested (Portugal, Spain, France and even the Netherlands) though in general, altnets face an even more difficult task raising finance than incumbent operators.

This does not mean that foreign subsidiaries of incumbents are not investing in FTTH/B at all (examples are: Vodafone-Orange in Spain, Deutsche Telekom in Eastern Europe). However, the FTTH Council doubts that this will drive a landmark change¹³ in themselves.

Another source of finance could be the cable sector. A quick glance at the financials of the most important holding company in this regard, Liberty Global, shows that such hopes are misplaced¹⁴: cash flow from operating activities amounted to USD 2.9bn and CAPEX to USD 1.9bn in 2012. Significant investments are made for M&A (a 13% stake bought in Dutch Ziggo, bid for Virgin Media announced) while the CAPEX to sales ratio declined by 200bps.

All in all, the first conclusion reached is that the industry itself will not be able to self-finance the necessary roll-out to achieve the 2020 DAE targets. As a corollary, if the telecom sector can neither create enough internal cash flow or is willing (or unable) to tap equity or debt markets to fund NGAs, then Europe needs new investable entities. These entities must offer risk-return profiles that make them attractive for long-term investors (incl. PE, pensions and infrastructure funds and insurance companies).

The current situation

The extent of indirect benefits derived from fibre rollout is supported by a number of studies¹⁵. While this is particularly true in more isolated areas where end-users face significant travel requirements and even more pronounced inability to engage with others and consume public services off-line, similar benefits can be anticipated in urban areas. In terms of usage, the study found that users largely consumed the same services and used fibre in much the same way, but importantly, that users of fibre used much more of these services. For instance, those tending to work from home spent over 20% more time working from home once they had upgraded to fibre. Similarly, users of education, eHealth, and eGovernment all increased usage once they had migrated to fibre.

In the context of positive externalities, greater public intervention can be justified (indeed this is the rationale behind State Aid in the first instance) and indeed, where investments are being systematically blocked and impeded by actors in the private sector, the State may justifiably move into the network ownership mode itself so that the externalities can be realised.

However, the evidence to date suggests that the private sector in European Markets will deliver short term solutions to meet current demand. Already vDSL or FTTc upgrades in Europe reached more than 20% in mid-2011¹⁶, over which period FTTc deployments have accelerated with the UK's deployment reach increasing from 7 million homes to over 12 million. It must also be considered that many European countries have either a FTTH focus or have a delayed deployment, notably France and Spain have a strong FTTH focus while Italy has yet to commence large scale network upgrades. This effectively means that 33% of households are 'out of scope' implying an

¹³ <http://blogs.informatandm.com/4250/incumbents-in-eastern-europe-right-to-proceed-with-caution-in-ftth-investment/>

¹⁴ <http://www.lgi.com/PDF/presentations/LGI-2012-Investor-Call-Presentation-FINAL.pdf>

¹⁵ For example: Enck J. and Reynolds T. (2009) 'Network Developments in Support of Innovation and User Needs' OECD. See also: Ovum 2009 'Fibre: the socio-economic benefits'

¹⁶ <https://ec.europa.eu/digital-agenda/sites/digital-agenda/files/BCE%202011%20Research%20Report%20Final%20-%20Format%20No%20Image%2020121001.pdf>

effective FTTc deployment rate in ‘FTTc countries’ of over 30% in 2011. This has grown from virtually zero in 2009 and today the FTTc rate is likely to be over 50%. Therefore there is little evidence that upgrading copper networks requires a State intervention and a number of countries have reached complete or virtually complete FTTc coverage without State support. This is especially true in urban areas.

It is against this background that the Commission ‘Recommendation on consistent non-discrimination obligations and costing methodologies to promote competition and enhance the broadband investment environment’ which encourages upgraded copper networks must be assessed. The FTTH Council believes that market forces are best placed to move the mass market it does not believe that society should be denied the benefits of FTTH networks over prolonged periods and sees that deeper Government involvement may be appropriate in certain circumstances. The FTTH Council sees the absence of large-scale private FTTH deployments pointing to an ongoing and continued need for public support.

The difficult balancing act of achieving static and dynamic efficiency

One of the cornerstones of European telecom regulation is the regulation of the so-called last mile access to the incumbent’s fixed access network. Various regulated and unregulated wholesale products were introduced by incumbents¹⁷: basic resale, bitstream access, line-sharing local loop and sub-loop unbundling. The pricing of such products has two objectives as clearly stated in the European regulatory framework for electronic communication services: Regulation is to “... promote competition in the provision of electronic communication networks, electronic communication services and associated facilities (...) to encourage efficient investment in infrastructures and to promote innovation.”¹⁸ Clearly, there is an inherent tension between these two objectives as, on the one hand, static efficiency calls for the price to be equal to marginal costs whereas, on the other hand, dynamic efficiency requires a safeguard to invest in some form of a ‘total cost+’ approach.

There is currently no uniform approach across the EU neither for a standardised costing methodology nor for an outcome that falls within a narrow range¹⁹. Rather than discussing the sometimes obscure details of costing methodologies, the FTTH Council would make the point that there has been too much focus on the dynamic aspect of ULL pricing recently. Some commentators even going so far as saying that a paradigm shift²⁰ is underway, noting that the incentivisation of investments has turned into a dogma. The FTTH Council see the following issues with ULL regulation as a dynamically efficient policy instrument:

- First and foremost, ULL pricing is very unlikely to be effective in stimulating investment, given the high capex requirements and budget constraints of incumbents (see above)
- It appears that the EC DAE has adopted an intra-industry view of how the NGA conundrum shall be solved. The EC draft recommendation implicitly assumes that the SMP will continue with a vertically integrated business model using the term "downstream business" in the context of an SMP several times.
- It is not yet clear how incumbents could be legally forced to actually invest cash received from their own subscribers and their competitors in NGA networks. Accounting separation

¹⁷ see for example BEREC (2010), Next Generation Access -Implementation Issues and Wholesale Products (pp 12-13)

¹⁸ see Framework Directive, Article 8.2.

¹⁹ see BEREC Opinion on "Commission draft Recommendation draft on non-discrimination and costing methodologies (26. March 2013) and EC Recommendation on consistent non-discrimination obligations and costing methodologies to promote competition and enhance the broadband investment environment (2012)

²⁰ wik Newsletter 90, March 2013, p.2

has not been implemented in every market and it is not clear that all regulators would have the will or political support for automatic sanctions.

- Separation is only mentioned in the context of functional separation when "other appropriate obligations (...) have failed to achieve effective competition".²¹ The business model option of vertical disintegration is not mentioned at all.
- In a similar vein, real world examples such as the spin-off of Chorus, the fixed access business of Telecom New Zealand, are not considered²². Again, we do not argue that this would be the only or best approach to be universally implemented across the EU²³. Nevertheless, we find it peculiar that this topic has somehow not succeeded in entering the policy debate.
- Although the EC advocates co-investments, this appears to be an agreement for intra-industry players and ties shared CAPEX to lower access prices and commitments on long-term (volume) contracts²⁴.
- The EC seems to have abandoned (or misinterpreted) technology neutrality (see below)

In summary, it appears to us that the EC DAE does not see the need to attract "external" capital to the telecom sector, thus preventing the development of corporations or investment vehicles that might be appropriate for long-term financing²⁵. In fact, we see a contradiction in objectives of what is stated in the Green paper in long-term financing and what is proposed in the EC draft recommendation on non-discrimination and costing methodologies.

Getting the paradigm shift right

Technology neutrality - at any cost?

The FTTH Council is concerned at the on-going interpretation of technological neutrality which appears to be non-realistic. It remains unclear why the EC in its draft recommendation stated that "... NRAs should consider an FttC network to the modern efficient NGA network"²⁶ when there seems to be consensus in the industry that FttC can only be an intermediate step²⁷. This is despite of the fact that many operators consider, plan or have already started to upgrade to Vectoring. And even with Vectoring only a limited number of subscribers with a loop length of less than 500m at maximum will get download speeds of 100MBit/s. Additionally, the regional overlap with cable networks is likely to be considerable. This will diminish the positive effect on achieving the DAE targets.

21 See EC Recommendation on consistent non-discrimination obligations and costing methodologies to promote competition and enhance the broadband investment environment (2012), p. 4

22 For a critical analysis, see for example: <http://www.diffractionanalysis.com/blog/2012/09/18/report-can-the-new-zealand-nga-model-be-replicated.html>

23 Most interestingly, we note that at least one European incumbent has repeatedly been rumoured to consider such a move and now seems even prepared to give the majority in a fixed-line spin-off." Telecom Italia could spin off its fixed network and sell up to 60 percent of the new company to investors, according to a report by local daily Il Messaggero. Citing a draft copy of a term sheet prepared by the operator's management, the paper claims 30-40 percent of the capital would be floated on the Milan Stock Exchange and 15-20 percent sold to the Italian Strategic Fund, a state fund owned by financing company Cassa Depositi e Prestiti (CDP). Telecom Italia termed the report speculation and said it was too soon to talk about such deals (source: telecompaper.com)

24 see EC MEMO/107424 Broadband: Commission sets out common EU approach on ultra-fast broadband networks

25 We note that BEREC in its response BoR (13) 41 appears to recognise the existence of non-telco investors: "3. The Commission's Digital Agenda for Europe (DAE) sets out ambitious roll-out and take-up targets; to reach these, European operators - SMP and alternative operators as well as cable and other infrastructure operators - will need to undertake significant investments.", p.3 no. 3 (marked in bold by the FTTH Council)

26 <https://ec.europa.eu/digital-agenda/en/news/commission-seeks-berec-opinion-draft-recommendation-consistent-non-discrimination-obligations>, p. 9

27 We note that this also the opinion of the German Monopolies Commission (Presentation of Dr. Holthoff-Frank given on April 16 2013 at the BREKO Breitbandmesse)

In essence, the EC appears to have abandoned the principle of technology neutrality by advocating a technology that is widely believed NOT to be a modern efficient asset or as BEREK puts it: "A number of NRAs do not consider FttC as the NGA technology that an efficient operator would choose to deploy today; which would be more likely to be an FTTH network."²⁸

The FTTH Council thinks technology neutrality needs to be specified once broadband targets (such as the DAE metrics) have been defined. In our view, it is implausible to include technologies such as FttC in the set of suitable technologies. Setting targets which include as many technologies as possible is, the Council believes, not technologically neutral and is a misinterpretation of the principle. The FTTH Council is strongly in favour of more measurable targets that could measure metrics like latency and jitter (critical to the deployment of certain services) as well as taking into account average bandwidth at peak times and include targets for upstream bandwidth.

The FTTH Council acknowledges on-going efforts to increase transparency of network performance and actual vs advertised speeds though notes also the continuing delays in that timetable. In the interest of consumer protection, the Council believes that published results should make possible a comparison of network technologies and service providers. Excluding unsuitable technologies would still provide the market with a set of options, ranging from PON variants to P2P, cable network modernisation and even G.fast (which in some scenarios would be part of an FTTB roll-out).

The Ladder of Investment (LoI) impact on regulation

The LoI concept was introduced in 2001²⁹ and has since then garnered a lot of academic attention and regulatory relevance. In a nutshell, the LoI approach describes a process that gives challengers („new entrants“) a phased access to an existing incumbent's network. Thus, service based competition will gradually develop to facility-based competition over time and offer more opportunities for innovation and growth. This can be explained by the modernisation of existing physical infrastructure from narrowband to broadband, steep growth in subscriber figures and the very early signs of mobile data networks (UMTS or, more general 3G). To illustrate this point³⁰, French regulator ARCEP cited the LoI as a building block of its approach. The concerned here is not the empirical validity of the theory but its implicit assumptions which may not be relevant to the transition to FTTH:

- a) A market structure with a given access network which is a non-replicable asset. This asset is owned by the incumbent.
- b) The asset is a modern network, the well known "modern equivalent asset" capable of serving end-user demand with no technological limitations.

We question whether the LoI is still a useful concept to be used by regulators to promote a widespread roll-out of NGA networks. This is for three main reasons:

- (1) Assumption b) is no longer fulfilled. Broadband targets of the Digital Agenda for Europe³¹ are significantly above what DSL and FttC networks (even with Vectoring) can offer in many regions. The ability of competitors to "gradually" climb up the investment ladder is impossible when an

²⁸ BEREK Opinion on the Commission draft Recommendation on non-discrimination and costing methodologies (26 March 2013), p. 26 no 133

²⁹ See for example Cave, M. and Porsperetti, L. (2001), European Telecommunications Infrastructures, Oxford Review of Economic Policy, 17 (3), 416-431

³⁰ Bourreau, M., Dogan, P. and Manat, M. (2010), A Critical Review of the Ladder Investment Approach, Telecommunications Policy 34(11), 683-696

³¹ see <http://ec.europa.eu/digital-agenda/en/scoreboard>

existing or anticipated bandwidth demand can no longer be matched by a given copper infrastructure: the ladder itself would come to an abrupt end.

Interestingly, this has been conceded by the EC by having approved the de-facto neutralisation of some physical unbundling regimes (e.g. in Belgium, Austria, Ireland and potentially in Germany): One important ladder rung is being removed. That is not to criticise this facet of a "paradigm shift"³² per se but see this as a sign that old concepts have passed their heyday.

(2) The LoI has a service-to-infrastructure motivation. If the LoI becomes the core concept for regulation then regulation might perpetuate a particular business model which would not persist in a different regulatory environment. Vertical integration which is just another term for climbing the ladder becomes deeply embedded into the system. Regulation runs the risk of perpetuating the market structure of the copper age which might not be appropriate for the adoption of next-generation access (NGA) networks.

The FTTH Council has observed that Member States have opted to go either FTTH or FTTc. There has been no evidence of an evolution path from FTTc to FTTH in any country in the EU or in the World.

Interestingly, where FTTH is deployed the FTTH Council notes that entrant operators tend to account for 20-40% of access paths whereas FTTc markets have little or no altnet participation.

(3) Last, but not least, the concept prescribes that either market entrants can generate enough operating cash flow or access capital markets or both to finance CAPEX in facilities. This is not necessarily the case.

Chart 5 gives an overview of potential deployment models and their characteristics. We believe that there isn't a unique or universal deployment model that might solve Europe's NGA problem. In practice, it is likely that combination of several models will emerge with models changing and adapting over time as well.

³² wik Newsletter, (90) March 2013, 1-3

...from very small to extra-large..

	Community model	Demand aggregation	Anchor-tenant model	Cross-subsidy model	NetCo model	„National“ model
Size* <small>*Combination of projects possible</small>	Very small HH 100s-1,000s Capex < €10m	Small to medium HH 1,000s-10,000s Capex < €10m	Small to medium HH 1,000s-10,000s Capex < €10m	Small to large HH 1,000-100,000s Capex < €10m-€100m	Large to extra-large HH 100,000s Capex < €100m	Extra-large HH 1,000,000s Capex < €1bn
Idea	Bottom-up communitarianism	Contracted revenue before construction	Base utilisation infrastructure assets	Use existing balance sheets and cash-flows	Structural separation and co-investments	Combination of state & private investments
Demand risk mitigation	Investors become customers	Achieving minimum penetration	Long-term contracts with public sector, or companies or ISPs	Indirect via cross- selling potential	Monopolistic	New regulation?
Investment story	Consumer surplus	Avoid Death Valley Early BITDA	Avoid Death Valley Early BITDA	Monetise customer base infrastructure	Regulated, predictable attractive returns	Various
Success factors	Poor broadband Culture, tax regime Local political support	Avoidable DSL Local political support Entrepreneurs	Whole buy attitude Local political support Entrepreneurs	Organisational set-up Strong cash-cow Marketing skills	Market pressure Governance Commitment	Government support Regulation
Examples	Various Swedish Bürger Breitband Netz Broadway Partners Fund	Reggiofiber, Deutsche Glasfaser	CityFibre	wilhelm.tel NetCologne, In-net, beeline, Superonline	Not yet in Europe	France, Lithuania, Andorra

Source: Various case studies, research reports and own analysis

Natural monopolies and infrastructure competition

Competing on the infrastructure layer, in general, is a reasonable policy objective as it drives technology adoption, new service creation and growth in consumer surplus in the long-run. However, it is necessary to specify what kind of infrastructure competition on what network layer is to be evaluated. First, infrastructure competition can take place at core, transmission or access layer in the network. With regard to fixed access networks, we think they show strong characteristics of natural monopolies in certain parts of the access network and the FTTH Council has continuously called for the sharing of in-building wiring and up to the first concentration point. It will also critically depend on where competition takes place and the FTTH Council notes that significant sharing of infrastructures in mobile telephony has not diminished competition as the sharing is concentrated in the passive elements.

The integrated European market and consolidation of the telecom sector

The Digital Single Market is the so-called Pillar 1 of the DAE. According to the EC website "Too many barriers still block the free flow of online services and entertainment across national borders. The Digital Agenda will update EU Single Market rules for the digital era. The aims are to boost the music download business, establish a single area for online payments, and further protect EU consumers in cyberspace."³³

The FTTH Council proposes that the Digital Single Market should - at a minimum - change the market structure in way facilitates new build and advocates open access networks so that consumers can enjoy innovative service from all players, including incumbents. The European interest would be best served if the public debate would also include aspects such as Wholebuy and not only Wholesale business models. The standardisation of interfaces between network layers is instrumental to achieve scale and enable the deployment of new services, innovation and new business models. Especially, Wholebuy agreements have the potential to attract the interest of long term investors by strengthening covenants on projects financed. This is all the more important as the current debate is centred on existing debt and equity investors the interest of investment banks in significant M&A fees.

7) We refrain from a comment as this a question more related to financial regulation.

8) The FTTH Council believes that the creation of pooled investment vehicles could represent a very efficient way to mitigate some, if not many of the long-term financing problems. This would address the issue of prohibitively high transaction and information costs and would enable tier 2 or 3 investors to invest without building up their own expertise for direct investments. It also in this way that the EU, national or regional banks can collaborate with such vehicles. Notwithstanding, we foresee the following potential barriers which would have to be pro-actively addressed pro-actively:

(1) Decision on the scope of infrastructure projects: Shall the fund represent a well diversified portfolio of various infrastructure assets or shall it be more sector-specific? Financial theory and investor practice suggest that diversification can be realised by investor decisions in their own portfolios. In addition, sector Funds would be suitable for developing sector knowledge.

(2) Project life-cycle analysis: Infrastructure investors are not early stage investors that are willing to accept risks (for instance risks relating to deployment, technology, regulation and demand) which are usually borne by equity investors. Consequently, vehicles need to be 'equipped' with guarantees by the EU and/or governments.

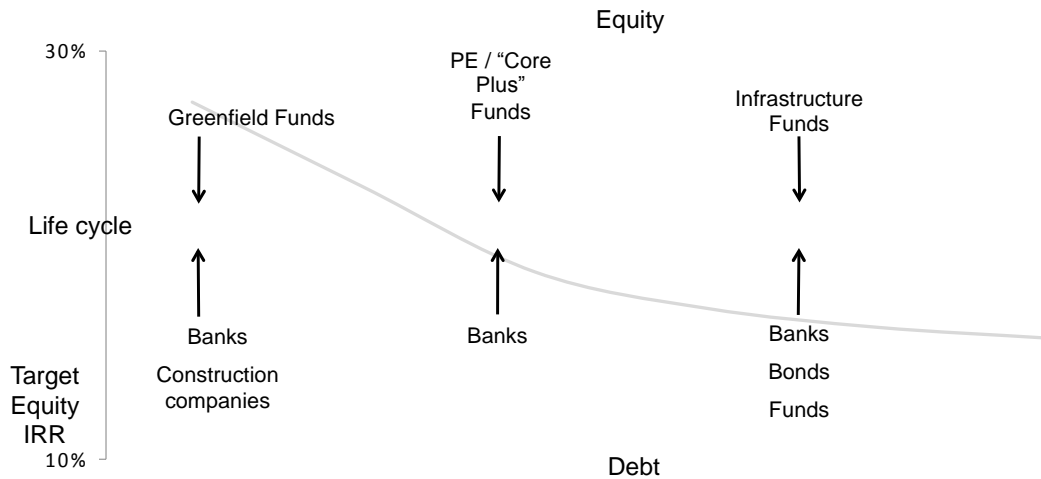
³³ See <http://ec.europa.eu/digital-agenda/en/our-goals/pillar-i-digital-single-market>



What capital is available to fibre operators?



Different stages of an infrastructure project require different sources of funding



11

Source: Macquarie

(3) Issues are related to a potential lack of demand and the allocation process of funds to individual projects. The demand issue does not seem to be a problem on the European scale provided that financing needs of smaller projects can be aggregated. Without aggregation the FTTH Council believes that this might be a challenge for savings account-type solutions (see Question 15). Assuming that a sufficient number of investment opportunities exist fund management has to select projects. If political supersede economic considerations, we see the risk that "bad" projects would be get funded.

(4) Project sponsors need to accept a governance structure that caters for the needs of active investors.

9) We refrain from a comment as we do not consider ourselves experts in banking or measures of support for banking products.

11) How could capital market financing of long-term investment be improved in Europe?

12) How can capital markets help fill the equity gap in Europe? What should change in the way market-based intermediation operates to ensure that the financing can better flow to long-term investments, better support the financing of long-term investment in economically-, socially- and environmentally-sustainable growth and ensuring adequate protection for investors and consumers?

13) What are the pros and cons of developing a more harmonised framework for covered bonds? What elements could compose this framework?

14) How could the securitisation market in the EU be revived in order to achieve the right balance between financial stability and the need to improve maturity transformation by the financial system?

11-14) The FTTH Council will limit its response to these questions since, by the nature of our organisation there is a limited interaction with capital markets, the FTTH Council notes that the following measures could trigger investment in NGA networks:

- Risk mitigation in the early phase of a project. State guarantees would certainly be of help to realise a sustainable leverage ratio without prohibitively high interest rates.
- Projects that can be paid on availability (e.g. a school or hospital) are much lower risk project than projects whose return is dependent on demand or usage (toll-roads, energy generation and communications networks). Clearly, communication networks as currently structured and financed have a significant level of demand risk attached. Within the community of projects for long term financing, communication networks will likely sit a long way down the preference order.
- The covenants attached to such projects in terms of buying commitments may ameliorate the associated risk if underwriting by the Government would push preferred projects even with higher risk back up the preference order.

The FTTH Council thinks that the aspect of Socially Responsible Investments (SRI) is very important. We will address this point in greater depth when answering Questions 23 to 25.

15) What are the merits of the various models for a specific savings account available within the EU level? Could an EU model be designed?

The FTTH Council believes that such a special savings account³⁴ has pros and cons as a tool to finance the roll-out of FTTH networks in Europe. Requirements should be that a) the funds should be collected by a special broadband fund. The fund initiators could be the EIB together with national or regional development banks and private banks. b) The fund should carry a guaranteed, long-term after-tax yield for private investors. Details of such an offer (maximum deposit amount, tax exemption etc.) are mere technicalities, in our view but should make comparisons with other financial products easy.

The advantages of such an approach would be the rating and credibility of the debtor. In addition, marketing such a fund would automatically raise public awareness for broadband topics³⁵. This could entail a bonus yield component dependant on the signing of a service contract for the new infrastructure. Disadvantages relate mostly to the points made with regard to Question 8 (see p. 6). The intermediary has to rely on enough project flow

All in all, this approach has its challenges and can only be successful if a roll-out plan is finalised by the time when funds are collected. Additionally, it would have to be clear from the outset who builds and owns the networks. This carries significant problems for a national scheme as it would represent the renationalisation of a large part of passive infrastructure assets: reactions by the incumbent, any cable operator, the telco regulator and the competition watchdog should be expected. On a local or regional level, such a savings account looks more feasible.

³⁴ As to the instrument of the Bausparvertrag in Germany, it must be said that a loan with a low interest rate necessitates a saving period of around 6 to 7 year by the household. The Livret A, as far as we understand is not tied to specific projects and carries an interest rate of 1,75% by the time of writing.

³⁵ A similar approach has been discussed in Germany by the Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit to fund green energy projects.

In general, the Council believes it would be far more effective and efficient (ie. lower administrative costs) to offer tax incentives for housing associations, homeowners etc. to connect buildings to an FTTB/H infrastructure and to modernise in-house networks.

16) What type of CIT reforms could improve investment conditions by removing distortions between debt and equity?

17) What considerations should be taken into account for setting the right incentives at national level for long-term saving? In particular, how should tax incentives be used to encourage long-term saving in a balanced way?

18) Which types of corporate tax incentives are beneficial? What measures could be used to deal with the risks of arbitrage when exemptions/incentives are granted for specific activities?

19) Would deeper tax coordination in the EU support the financing of long-term investment?

16-19) These questions are of minor direct relevance with regard to investment in passive telco infrastructure.

Question:

20) To what extent do you consider that the use of fair value accounting principles has led to short-termism in investor behaviour? What alternatives or other ways to compensate for such effects could be suggested?

20) Although the FTTH Council understands that Question 20 addresses the impact of fair value accounting and short-termism within the context of financial accounting, the FTTH Council nevertheless wants to point to another aspect of accounting - Regulatory Accounting³⁶ that is - which has had negative effects on long-term investments, in our view.

This point relates to the regulatory process of ULL pricing (pls refer to our detailed answer to Question 6 and the paragraph **‘The difficult balancing act of achieving static and dynamic efficiency’** in particular). There are at least some markets where the calculation of ULL price could give rise to the perception that it is biased, non-transparent (even for industry insiders) and contradictory in itself³⁷. The structural problem is that some models assume the modernisation of a fictitious network without imposing a reinvestment obligation on the incumbent³⁸. Thus, at least some incumbents have been able to rely on a strong cash cow operation. This has led to short-termism in incumbent (investor) behaviour in the sense that the existence of the copper access network is being perpetuated. Why would an incumbent kill the proverbial goose that lays golden eggs (particularly where policy is indicating future regulated returns will rise)?

36 see BEREC report on the Regulatory Accounting in Practice 2012 (http://berec.europa.eu/eng/document_register/subject_matter/berec/reports/973-berec-report-on-the-regulatory-accounting-in-practice-2012) for an overview of the variety of costing models applied

37 The following quote from a report by the UK House of Lords is quite telling: "While the telecoms industry and the Government are alive to the technical and regulatory issues surrounding wider coverage of enhanced broadband—though it is a matter for debate as to whether they are too tied to models inherited from the past—these are, at best, of marginal interest to most of the general public, and at worst entirely impenetrable." (see <http://www.publications.parliament.uk/pa/ld201213/ldselect/ldcomuni/41/41.pdf> "Broadband for all - an alternative vision", p. 7

38 see a discussion about long depreciated assets in: VenturaTeam/Portland Advisors (2012), Financing Stimulus for FTTH, pp. 19-20

Questions:

- 21) What kind of incentives could help promote better long-term shareholder engagement?
- 22) How can the mandates and incentives given to asset managers be developed to support long-term investment strategies and relationships?
- 23) Is there a need to revisit the definition of fiduciary duty in the context of long-term financing?

21 and 22) Although many of these issues are also valid for other securities (e.g. high-yield bonds or non-transparent credit derivative instruments that led to the US housing bubble³⁹), The FTTH Council thinks that the issues described in the Green Paper (principal-agent problems, remuneration, cost disclosure etc.) mostly relate to listed equity instruments as the term shareholder suggests in Question 21. The best a company can do to promote better long-term shareholder engagement is to communicate a clear strategy, be transparent on governance issues including compensation and to commit to ethical standards. Business logic will then automatically command the active management of ESG factors.

In our view, several distinctions need to be made when discussing long-term shareholder engagement and the role of asset managers.

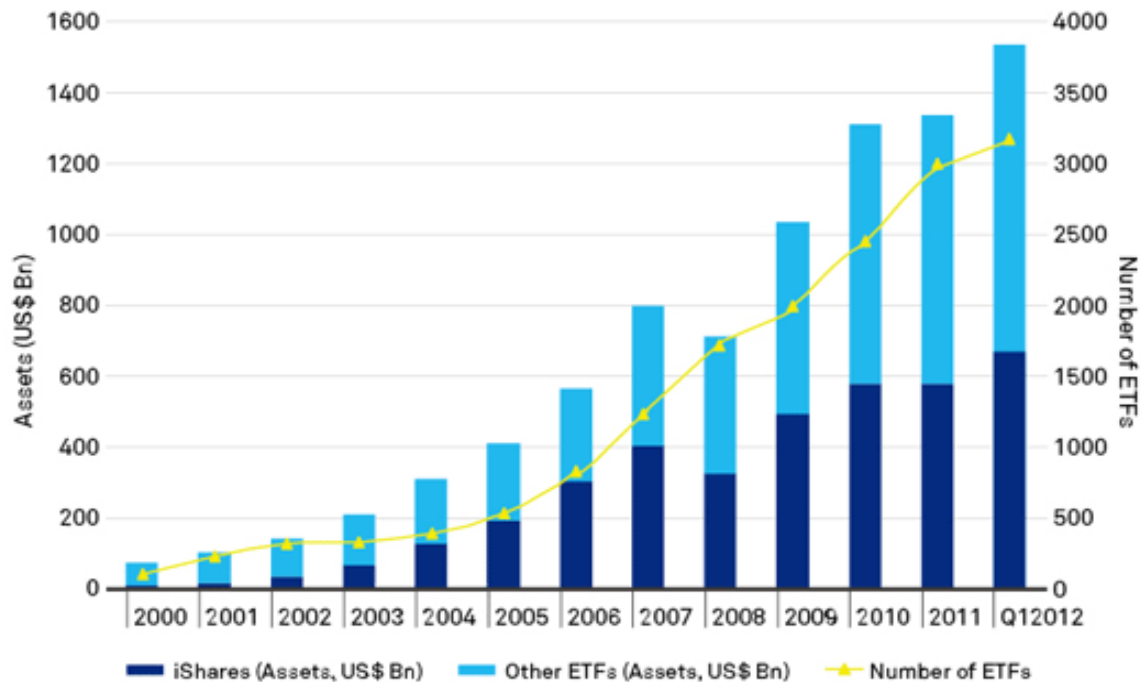
a) Listed vs unlisted equity: Unlisted equity (Private Equity, for example or other closed funds) have a long-term orientation when using our definition in response to question 2. Private Equity sometimes has earned a bad reputation as it is perceived as an investor that is squeezing assets with too much leverage and is not developing an asset. But as the model of Private Equity is exit-driven, the right incentives look to be generally in place. Private Equity also plays an active role as a shareholder due to presence on the board. Listed equity ("stocks") can be highly liquid securities that makes it easy to sell and buy. One group of investors are ultra short-term traders with no interest of productive capital formation and, in the most extreme form, with no interest in individual trades but in algorithms that give automated Buy and Sell orders ("algo traders"). Then there are "traditional" mutual equity funds which have different holding periods. So called "Anchor investors" can be corporations (e.g. America Movil with regard to its holdings in KPN and Telekom Austria) or financial investors that believe in longer-term strategic story (e.g. Blackstone's US\$ 3.3bn investment in DTAG shares announced in 2006). Thus, we believe there is a wide variety of investor types and styles, especially in listed equities, not of all of them are (ultra-) short-term oriented. The fact that algo traders can spoil markets, deter long-term investors and sometimes lead to malfunctioning of trading platforms is a matter which should be addressed by financial market regulation.

b) Primary vs secondary markets: Most of the issues raised concern trading and incentives in secondary markets where financial instruments are exchanged among investors. Hence, shareholder "loyalty" is not a virtue as it limits the competition for the best use of capital. In contrast, companies raise money during primary market transactions for investment purposes. This is the important part when it comes to the funding of long-term investments. Our main point is that a highly liquid secondary market is a positive for primary market activity. In turn, a functioning primary market requires a functioning secondary market (see above).

39 see, for example, US Financial Crisis Inquiry Commission, Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States (Chapter 8: The CDO Machine, pp. 127-155)

c) **Active vs passive strategies:** It is no surprise that high management and selling fees coupled with mediocre performance of the vast majority of funds have led to a surge in demand for Exchange-Traded-Funds (ETF). ETFs were, at least in the beginning, instruments that tracked passively indices and have offered institutional and private investors a cost-efficient way to implement investment strategies. Thus, markets haven taken care of themselves to erode excesses.

Chart 6: Global growth in ETFs

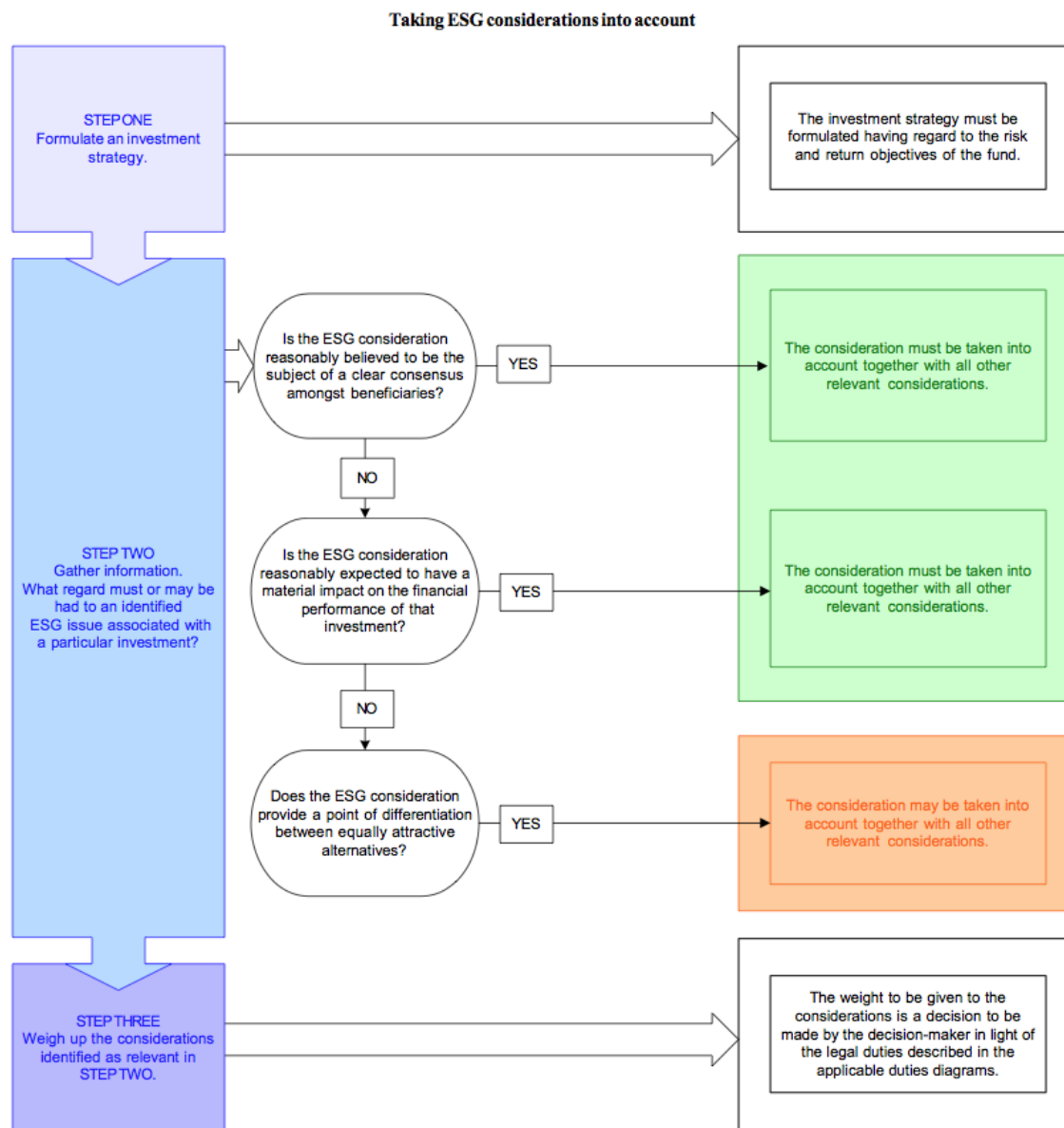


Source: http://sg.ishares.com/understand_etfs/basics/growth_etfs.htm

23) In its widest sense, fiduciary duty is an obligation to act in the best interest of another party. In an investment context, this means that - simply put - the client always comes first: this relates to ethical standards of business conduct and professionalism, ie. using best effort, rigour, skills and diligence. The Council believes that such a definition is sufficient in the context of long-term financing. The more relevant question to ask is, in what way does the investment process take into account peculiarities of long-term investment in productive capital? The Commission Staff Working Document rightly lists the key features of such projects which are highly relevant for greenfield telecom projects: "These assets are likely to be less liquid, have long maturities that extend over the business cycle, yield first returns only after some years and carry significant risks." The aspect of low liquidity and irreversible capex decisions amplifies the need to pay close attention to market dynamics, technology developments and trends in regulatory and economic policy. Thus, we reiterate our point from above (see ad 4)) that the processing of information induces costs, including fiduciary costs. This is even more important as more relevant information beyond traditional financial reporting is available. However financial institutions might be slow to invest additional resources to cope with this. **Hence, the Broadband Centers of Competence would alleviate such concerns by including ESG factors in their due diligence services.** In a landmark report by Freshfields, the authors conclude that ...: "Conventional investment analysis focuses on *value*, in the sense of financial performance. As we note above, the links between ESG factors and financial performance are increasingly being recognised. On that

basis, integrating ESG considerations into an investment analysis so as to more reliably predict financial performance is clearly permissible and is arguably required in all jurisdictions.

It is also arguable that ESG considerations must be integrated into an investment decision where a consensus (express or in certain circumstances implied) amongst the beneficiaries mandates a particular investment strategy and may be integrated into an investment decision where a decision-maker is required to decide between a number of value-neutral alternatives."⁴⁰ They also provide a framework of how to integrate ESG analysis into the investment process.



Source: Freshfields Drucker Deringer

⁴⁰ Freshfield Bruckhaus Deringer (2005), A legal framework for the integration of environmental, social and governance issues into institutional investment

Questions:

24) To what extent can increased integration of financial and non-financial information help provide a clearer overview of a company's long-term performance, and contribute to better investment decision-making?

25) Is there a need to develop specific long-term benchmarks?

24) The necessity to publish an audited Sustainability Report (separately or as part of an integrated report) adds structure to the process, puts pressure on all executives and leads to comparability among companies. The Council thinks that information contained in published financial statements is an important lense through which the performance of a company can be analysed. But there is a widening recognition that other perspectives included in an integrated reporting scheme add value to internal and external investment decisions. This is the main result of a research study carried out by Deutsche Bank. The authors analysed more than 100 studies, 56 research papers and 2 literature reviews and found "... overwhelming academic evidence, with all (100%) of the studies (...) showing that firms with high quality ratings for CSR (corporate social responsibility) and ESG factors have a lower (ex ante) cost of capital in terms of debt (loans and bonds) and equity (...) In some ways, this is the most impressive result as it firmly puts the issue of Sustainability into the office of the Chief Financial Officer."⁴¹. In a similar vein, the International Integrated Reporting Council (IIRC, www.theiirc.org) has published a consultation draft⁴² on integrated reporting (comments will be accepted until 15 July 2013).

The proposed concept focusses on the value creation process. It rests on the assumption that an organisation maximises value when it optimises the use of six capitals called financial, manufactured, intellectual, human, social and relationship. So, an organisation can increase financial capital in the short-term by exploiting its employees or by not investing in innovation. The longer-term effects, however, should be detrimental as employee loyalty degrades, the company will likely find it more difficult to keep and attract talent and must to sell less innovative products with presumably lower margins in the future. The framework also pays close attention to strategic aspects of the business model and risk factors. It is more forward-looking than financial reporting and, as such, can provide more information than the risk disclosure in the Annual Report. It is important to understand that investors remain the main target group as good performance in the six capitals shall translate in the ultimate goal of superior financial returns. We think this is the only realistic approach to attract capital.

25) While these recent developments are promising, the FTTH Council believes that the analysis of ESG factors requires deep sector know how. It is all the more surprising that the development of industry-specific telecom metrics has not progressed: The Global Reporting Initiative (GRI), which is one of the co-founders of the IIRC, published a GRI Telecommunications Sector Supplement in July 2003, ie. it is 10 years old and has not been updated since. This should be seen against the background of the dramatic increase in broadband subscribers, applications (web 2.0, social networking) and technology leaps. The supplements contains a number of aspects that are still valid but might need elaboration while more recent ones are naturally not reflected. The FTTH Council provides an overview as a recommendation for further activities.

EC13. Describe the organisation's indirect economic impacts. Identify major externalities

⁴¹ DB Climate Change Advisors (2012), Sustainable Investing, p. 8

⁴² see <http://www.unpri.org/whatsnew/consultation-draft-of-the-international-integrated-reporting-framework-released/>

associated with the reporting organisation's products and services, ie. the impact on productivity, innovation and competitiveness.

Comment: In this document, The FTTH Council has cited sources that confirm the existence of positive externalities. New developments in energy networks and the introduction of smart grids should also be taken into account. Although smart grids are not "data-hungry" in terms of bandwidth requirements, their reliability and low latency will be essential features. (The FTTH Council has published a White Paper on Smart Grids which is available for download at <http://www.ftthcouncil.eu/home/form-smart-guide>.)

EN7. Description of the major impacts on biodiversity associated with the organisation's activities and/or products and services in terrestrial, freshwater, and marine environments. This indicator should take into account the impacts associated with the development and decommissioning of infrastructure.

Comment: Laying new fibre to customer premises involves significant civil works. Factors that should be considered is the expected number of sites by technology, the expected number of site visits for maintenance and repair and the gains and expenses of removing copper wires. In addition, this point should also be extended from capex to opex in the sense that information on, for example energy efficiency, should be provided. Lastly, incumbents should detail their labour relationships in the fixed business where a significant number of employees are civil servants or have similar rights.

SO6. Court decision regarding cases pertaining to anti-trust and monopoly regulations.

Comment: This should also cover aspects of how regulators or anti-competition watchdog looks at regional monopolies, cable providers or natural monopolies in the passive access segment in general. Clarification on price controls and caps will certainly help to reduce regulatory risk.

IO 1. Capital investment in telecommunication network broken down by country/region

Comment: It would be revealing for stakeholders to know how much a service provider invests in fixed access networks in relation to ULL revenues. The FTTH notes that European regulation already recommends to adopt Accounting Separation (which does not require publication of results). In our view, asset quality - or using the terminology of the IIRC: manufactured capital - is a key indicator for investors.

PA 1. Policies and practices to enable the deployment of telecommunications infrastructure and access to telecommunications products and services in remote and low population density areas. Include an explanation of business models applied.

Comment: This point should be of particular interest for policymakers as a commercially successful roll-out in grey or white areas might prove difficult and, hence, require direct state support. IO 2. dealing with net costs and legislative and regulatory mechanisms of Universal Service Obligations could also become relevant in an NGA context.

PA 10. Initiatives to ensure clarity of charges and tariffs

Comment: This point nowadays corresponds to issues like transparency and service quality with regard to "up to" marketing of broadband speeds. The introduction of data caps and

information about what kind of traffic is subject to caps.

TA 1 Provide examples of telecommunication products, services and applications that have the potential to replace physical objects (e.g. a telephone book by a database on the web or travel by videoconferencing)

Comment: The FTTH Council believes that modern communication networks are conduits for business. Their role will be far more important than being just a pipe for video entertainment. Topics such as e-government and e-health have been long mentioned in this context but more empirical evidence on related benefits and adjustments to other sectors' value chains would be welcomed.

Questions:

26) What further steps could be envisaged, in terms of EU regulation or other reforms, to facilitate SME access to alternative sources of finance?

27) How could securitisation instruments for SMEs be designed? What are the best ways to use securitisation in order to mobilise financial intermediaries' capital for additional lending/investments to SMEs?

28) Would there be merit in creating a fully separate and distinct approach for SME markets? How and by whom could a market be developed for SMEs, including for securitised products specifically designed for SMEs' financing needs?

29) Would an EU regulatory framework help or hinder the development of this alternative non-bank sources of finance for SMEs? What reforms could help support their continued growth?

26-29) These questions are of minor relevance with regard to investment in passive telco infrastructure,

30) In addition to the analysis and potential measures set out in this Green Paper, what else could contribute to the long-term financing of the European economy?