

Deregulation and Consumer Welfare on the Telecommunications Market

Breakfast Debate on Invitation of the Federation of German Consumer Organisations (vzbv) on 22 November 2017

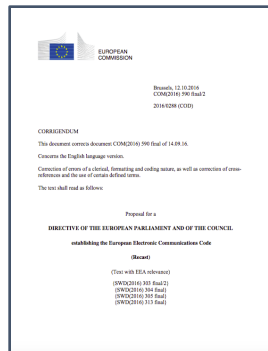


Institut für das Recht der Netzwirtschaften,
Informations- und Kommunikationstechnologie

in cooperation with

Prof. Dr. Jörn Sickmann

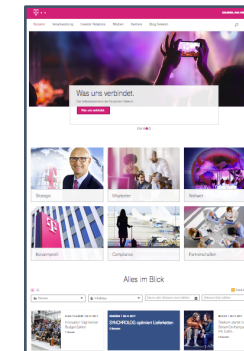
Background of the study



Art. 74 of the proposal for an European Electronic Communications Code: Deregulation of new network elements deployed on the basis of a co-investment offer (under certain conditions)



Federal Ministry for Economic Affairs and Energy, White Paper on Digital Platforms: Regulatory exemptions for „new markets“ beyond co-investments (under certain conditions)



Deutsche Telekom AG: Full deregulation of fibre access networks

Key aspects of the study

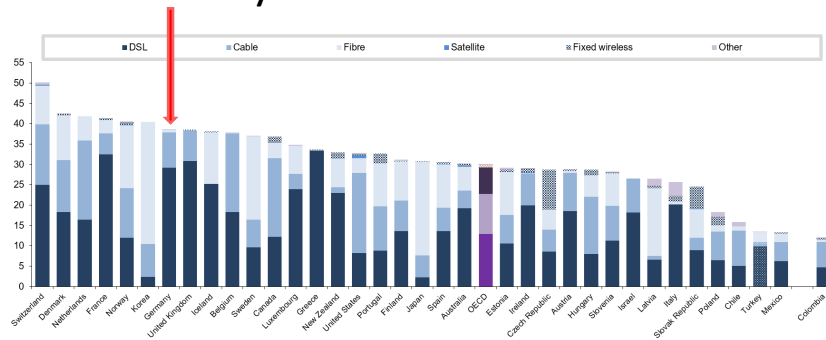
Analysis of the expected effects of different policy options on market concentration and finally on consumers

Focus on German telecommunications market

Current situation in Germany (or: There are always two sides to every story)

Bright side: Germany is not lagging behind in the broadband age

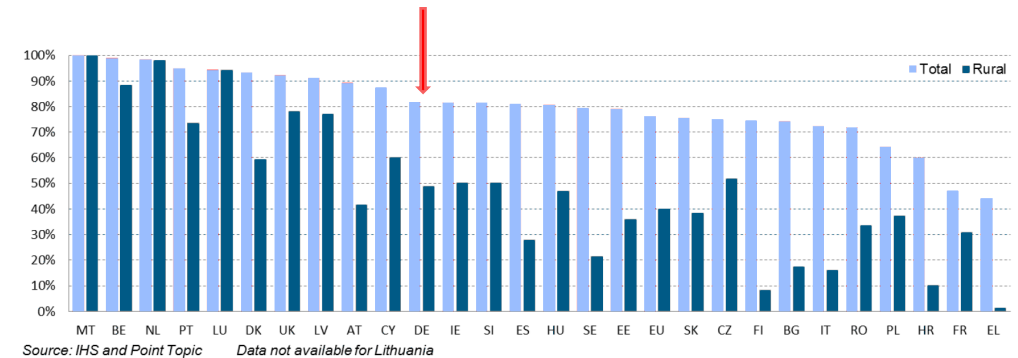
Traditional access networks are available almost everywhere and are used intensively



Germany takes the 7th place for broadband uptake in the OECD, ahead of Great Britain, the USA and Japan

Source: OECD, Broadband Portal, Figure 1.2.1, 12/2016

Rollout of NGA networks is also progressing



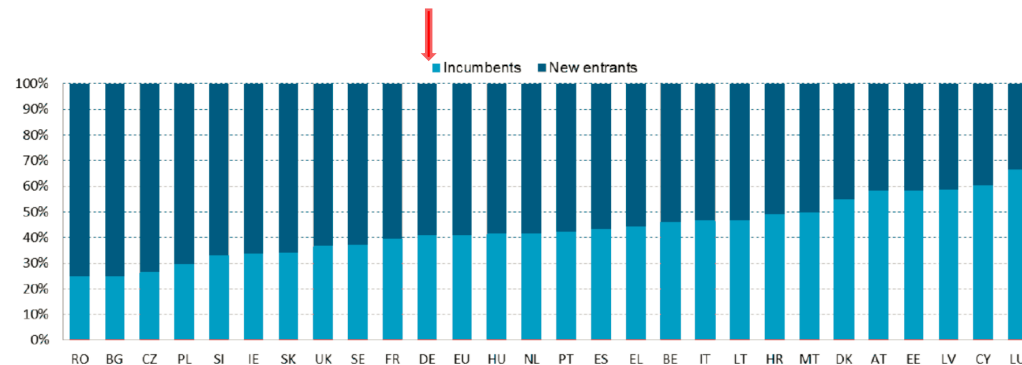
NGA networks (FTTP, VDSL and DOCSIS 3.0) available for 82 % households overall and 49 % in rural areas (EU: 76 % / 40 %)

Source: Commission, Europe's Digital Progress Report 2017, p. 8 et seq., 6/2016

Current situation in Germany (or: There are always two sides to every story)

Bright side: Germany is not lagging behind in the broadband age

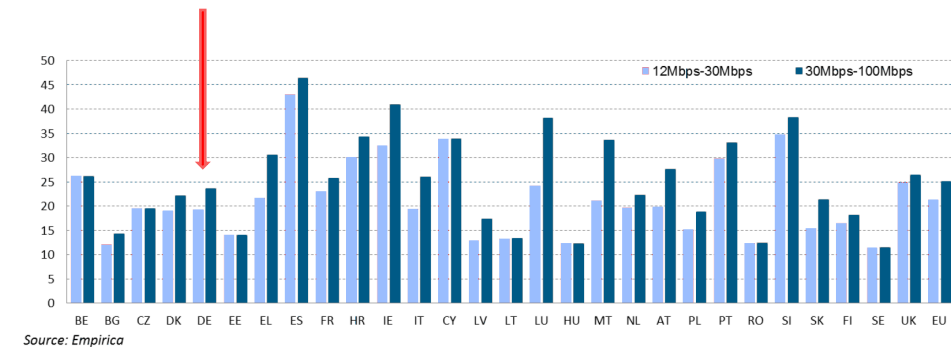
Competition has grown and is still growing



Market share of new entrants for fixed broadband subscriptions in Germany corresponds to the EU average

Source: Commission, Europe's Digital Progress Report 2017, p. 24, 7/2016

Retail price level is competitive, including price for higher bandwidth products



Fixed broadband retail prices (EUR PPP) for standalone offers are (slightly) below EU average (autumn 2016)

Source: Commission, Europe's Digital Progress Report 2017, p. 31, autumn 2016

Current situation in Germany (or: There are always two sides to every story)

Dark side: Shortcomings in rural areas and with regard to FTTH/B ...

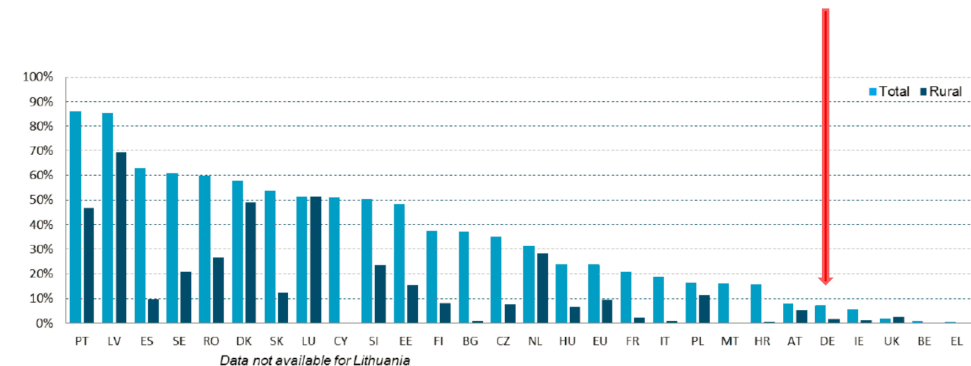
Rural areas lag behind

	VDSL	FTTH/B	CATV
Urban	52,4 %	10,9 %	81,3 %
Semi-urban	40,0 %	2,2 %	49,4 %
Rural	21,4 %	2,1 %	14,8 %

Broadband coverage > 50 Mbps poor in rural areas

Source: TÜV Rheinland, Bericht zum Breitbandatlas Ende 2016, Part 1, 2017, p. 9

Availability of FTTH/B very limited



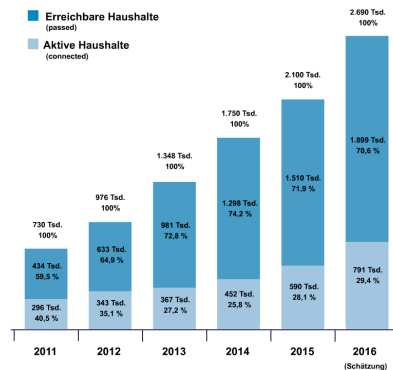
Germany takes one of the last ranks regarding fibre access networks

Source: Commission, Europe's Digital Progress Report 2017, p. 10, 6/2016

Current situation in Germany (or: There are always two sides to every story)

... but (and this is a big but)

Still low demand for high bandwidths, even where available



Only 30 % of FTTH/B households passed are in fact connected

Source: Dialog Consult/VATM, 18. TK-Marktanalyse Deutschland 2016, Figure 14

Successive and widespread rollout of fibre components in HFC (DOCSIS 3.0, 3.1) and DSL networks (effect of „Vectoring“ on fibre rollout to street cabinets for ≥ 80 % of German households)

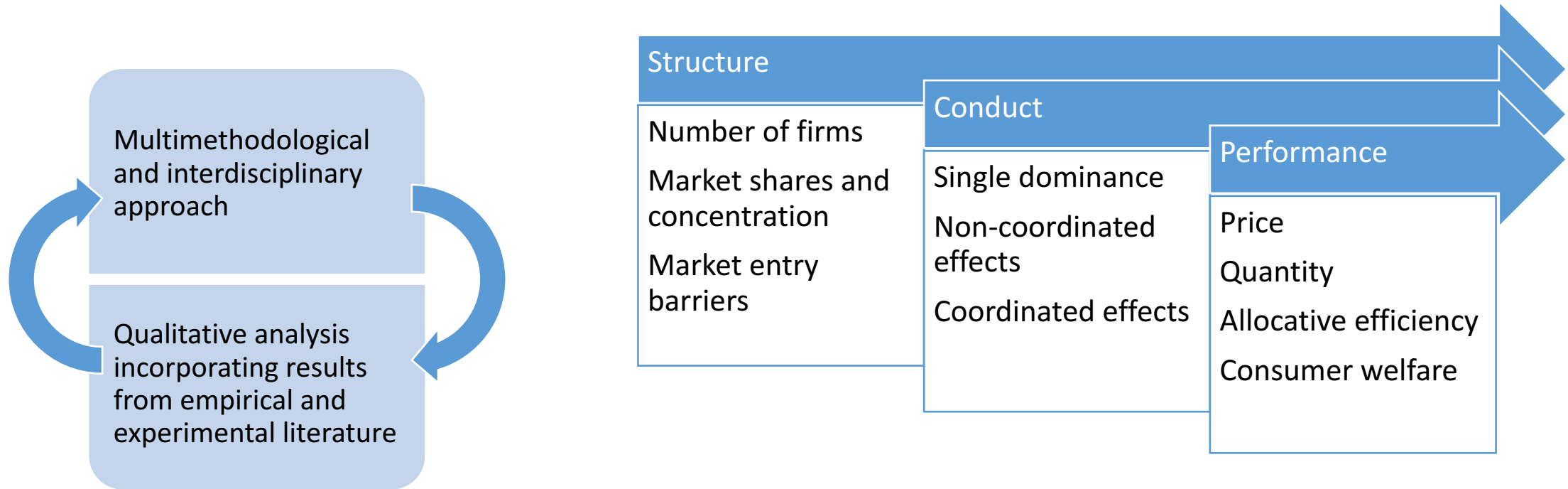
Regulation ensures physical or at least virtual access to the incumbent's access network on a non-discriminatory basis, including fibre connections

Where do we (want to) go from here? Policy options analysed

Status quo	Baseline scenario Results that would be expected in the future without a corresponding deregulation of companies with significant market power
Full deregulation	Most far-reaching policy option Complete deregulation for „pure“ fibre optical networks (FTTH/B) Assumption that regulated access to copper or equivalent will be maintained
Deregulation limited to co-investments	Intermediate policy option Scenario closest to Art. 74 discussion

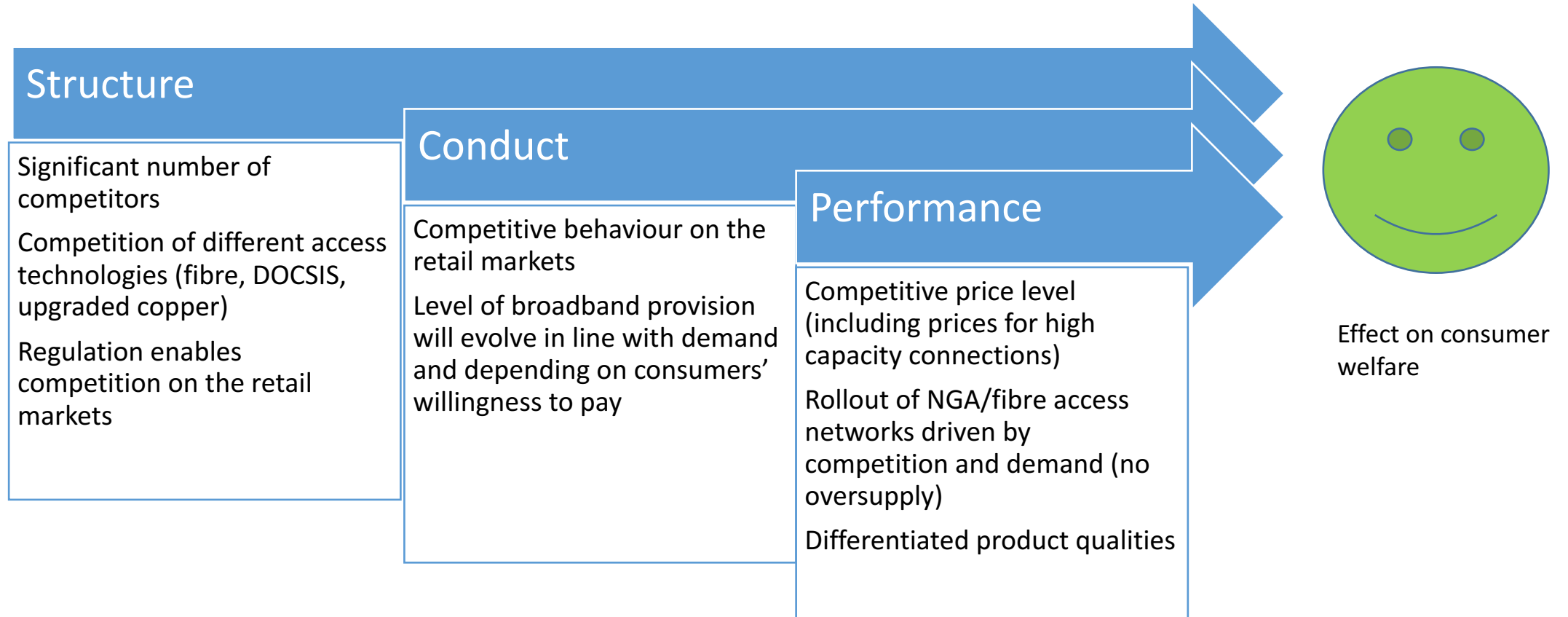
Focus of today's presentation

Analytical method and parameters

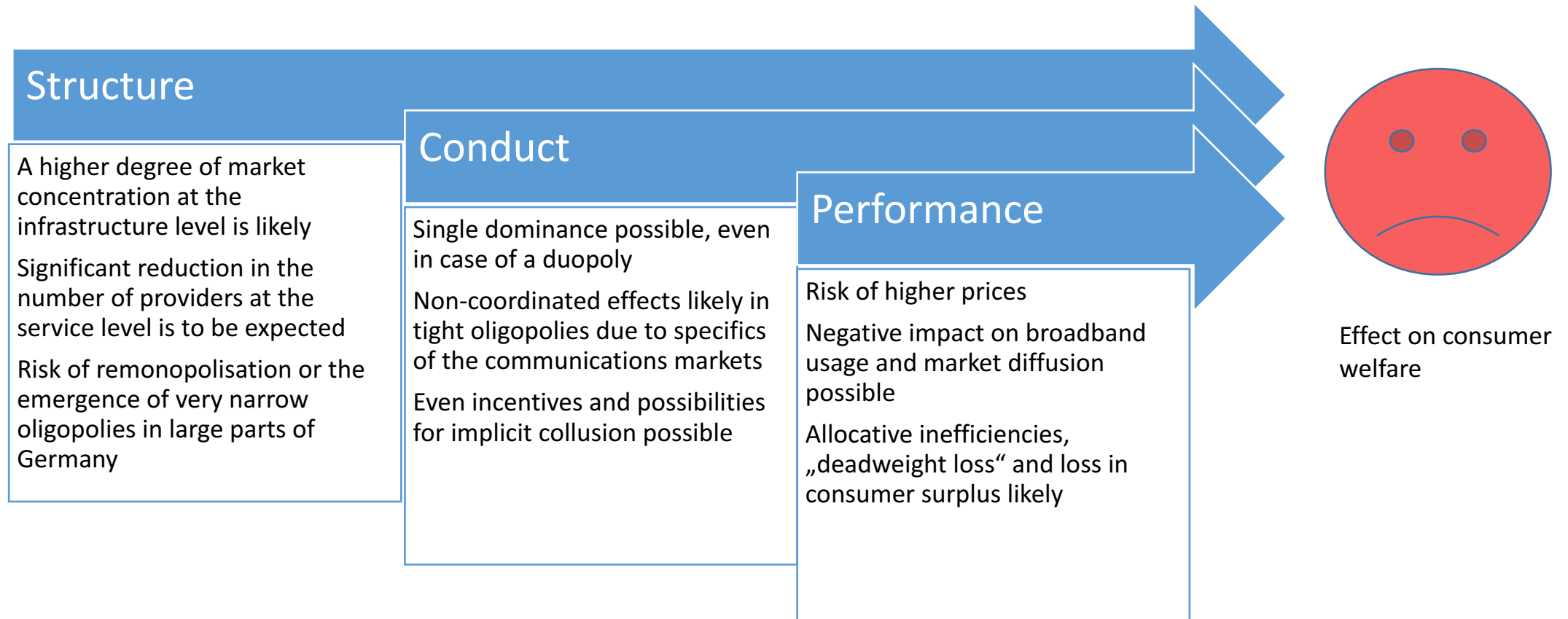


S-C-P categories used as an organising scheme for the analysis and not to imply a direct one-way chain of causation.

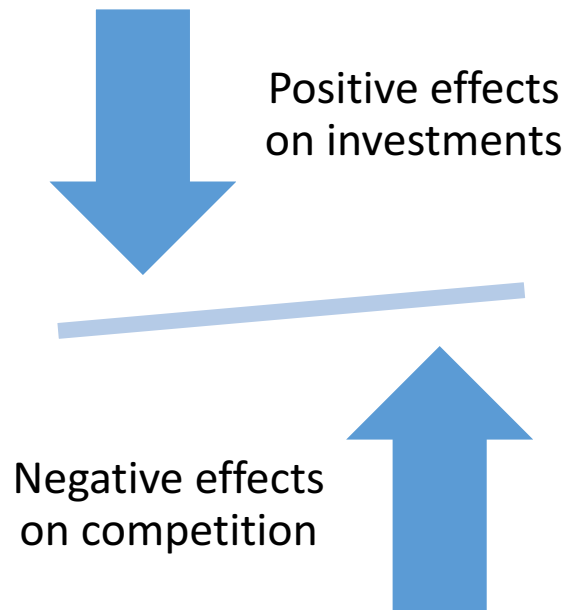
Status quo scenario (in a nutshell)



Full deregulation scenario (in a nutshell)



Co-investments: A possible trade-off?



Most academic literature supports positive (but limited in scope) effect on investments (e.g. *Kirchner*, 2009; *Kühling/Heimeshoff/Schall*, 2010; *Inderst/Kühling/Neumann/Peitz*, 2010; *Inderst/Peitz*, 2011; *DotEcon*, 2012 and *Bourreau/Cambini/Hoernig*, 2012).

In principle, co-investments can positively or negatively impact competition and result in an increase or a decrease of market concentration on both the infrastructure and the service level.

Effects characterised by a high degree of complexity, depend on a large number of possible constellations and will vary from region to region. Evaluation depends on the counterfactual (status quo vs. full deregulation scenario).

From the consumer's point of view, there could be a certain trade-off between a stronger rollout and an –however limited– impediment to competition (and its adverse effects on consumers).

Structure: Potential concentration reducing and competition enhancing effects

Infrastructure Level

Positive effects i.p. if deployment would not be possible without the co-investment agreements.

- In „black“ areas positive business case for fibre rollout by competitors might exist in a specific region but pooling financial resources and customer base might be necessary.
- In „grey“ areas bypass investments to copper bottleneck infrastructure could be enabled.

Positive effects in principle also possible if incumbent is involved in co-investment agreement, but profound competitive assessment necessary.

Positive effects expected with regard to co-investments for basic infrastructure (ducts etc.).

Competitive evaluation more positive for multifibre compared to point-to-point.

Service Level

Key positive effect is that access to „insiders“ is granted even in absence of regulated access (counterfactual of full deregulation).

Evaluation depends heavily on specific implementation (e.g. “offer” vs. “agreement”, no. and type of insiders required for deregulation, competitive safeguards).

Structure: Potential concentration increasing and competition reducing effects

Infrastructure Level

Co-investments can prevent parallel network deployment. Incentives exist because of cost savings. Can result in establishment of fibre-based monopolistic bottlenecks.

Negative effects if co-investments beyond basic infrastructure (passive and i.p. active network elements). More likely in case of single fibre.

Negative effects more likely if incumbent is involved.

Overall tendency that duplication of infrastructure will become less likely finds support in early theoretical model studies (*Inderst/Peitz, 2011*).

Service Level

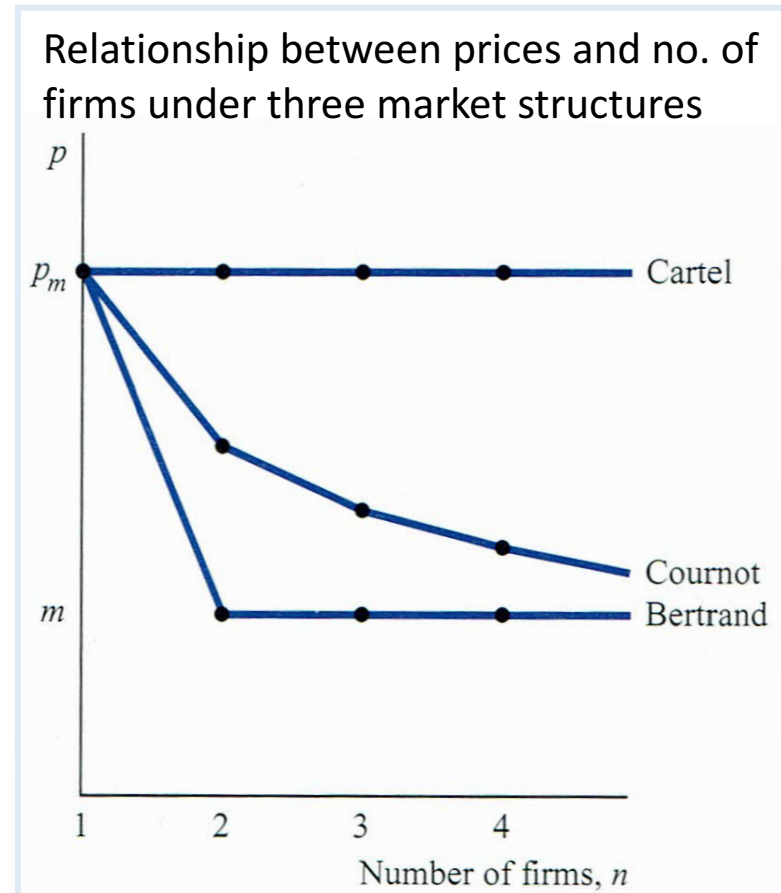
Main negative effect is the possibility to exclude (or vertically foreclose) „outsiders“. Can be used to monopolise if co-investment „offer“ is sufficient.

Evaluation depends heavily on specific implementation and on counterfactual.

Overall, increasing concentration & reduction in no. of market participants expected if compared to status quo scenario. Higher no. of competitors and lower concentration expected if compared to scenario of complete deregulation.

Co-investments: Analysis of probable conduct & performance

Single market dominance	Relevant if strategic misuse possible to escape regulation Likelihood depends on specific design of rules and competitive safeguards Expected effects in principle analogue to complete deregulation
Non-coordinated effects	Possible in oligopoly markets and probable if certain conditions met Inefficient outcome if conditions of „Bertrand“ violated
Coordinated effects	Gains importance i.p. due to expected increase of concentration Economic criteria for likelihood of coordination / analogue legal criteria Explicit vs. implicit collusion



Carlton/Perloff, 2015, p. 294

Single market dominance

Conduct

Co-investment offers might be used strategically to escape regulation.

Asymmetric negotiation power could be used to create agreement conditions unfavourable to competition leading to quasi monopoly or single dominance below monopoly threshold.

If regulatory framework only requires coinvestment „offers“, firms might offer unfavourable conditions not acceptable to any potential coinvestor gaining an unregulated monopoly position.

Financial investors as co-investors might not sufficiently discipline the communications provider as they would have economic incentives to participate in a possible monopoly rent.

Performance

Allocative, productive and dynamic inefficiencies possible where strategies are successful.
Potential harm to consumers.

Non-coordinated (unilateral) effects

In oligopolistic markets economic inefficient market results are possible even in the absence of any coordination.

While allocative efficiency will result under the strict assumptions of *Bertrand* price competition, study reveals that these assumptions cannot be considered as being fulfilled with respect to the German communications markets.

Complementary analysis of „factors favourable to inefficient oligopoly outcomes“ as suggested by BEREC comes to similar conclusion.

Some connection to „oligopoly regulation“ discussion, but different argument.

Non-coordinated effects: Supply side factors favourable to inefficient outcomes

Factor	Effect	Explanation
High supply side concentration	✓✗	Depends on no. of „insiders“ and existence of parallel infrastructure.
High market entry barriers, no sign. potential entrants	✓✓	Economies of scale, scope and density in connection with sunk costs.
High level of product differentiation	✓✗	„Connectivity“ itself rather homogeneous and substitutional but differentiated service offers (upload & download speed, latency, double, triple play offers). Somewhat ambivalent.
Mature technologies, i.e. little incentive to innovate	✓✗	Innovation & continuous technological progress. However, alternative access technologies with comparable quality characteristics not to be expected.
Capacity constraints	✗	No practical relevance with regard to infrastructure, some constraints might result from necessary administrative processes, billing etc.

Non-coordinated effects: Demand side factors favourable to inefficient outcomes

Factor	Effect	Explanation
No countervailing buyer power	✓✓	Very low concentration in mass market for broadband services.
Low price-elasticity & cross-price elasticities	✗	Elasticity at least not as extreme as assumed in Bertrand. Some customers locked into long term contracts, some switching costs (e.g. hardware).
Low growth of demand/mature market	✓✗	Traditional broadband markets saturated, „market“ for fibre broadband still establishing, increasing demand expected in the future.

Conclusion non-coordinated effects

Non-coordinated effects possible that could result in inefficient market outcomes.

As exact no. of competitors and market shares resulting from deregulation of co-investments cannot be determined, some degree of uncertainty with regard to the relevance and strength of non-coordinated effects will remain.

Different market results also depend on specific terms of the agreements and will differ from region to region.

Non-coordinated effects would become more relevant the lower the number of firms (both „insiders“ and „outsiders“). Problems to be expected i.p. in duopoly situations and in tight oligopolies with 3-4 competitors.

Coordinated effects

Analysis above abstracted from possibility to collude. Analysis gains complexity often a combination of unilateral and coordinated effects can be observed.

Incentives to coordinate exist in a scenario of deregulation for co-investments as joint monopoly profit higher than oligopoly profit (holds true regardless of underlying oligopoly model).

While explicit coordination cannot be excluded completely, more implicit forms („tacit collusion“) more realistic.

Influence factors on the likelihood and the probability to succeed have been derived in industrial organisation literature based on rigorous game theoretical analysis. Similar criteria have been adopted in competition law (Art. 2 I subpara. 2 EC Merger Regulation No 139/2004).

Application of these factors to analyse German telecoms markets.

Selected factors favourable to coordination

Factor	Effect	Explanation
High supply side concentration	✓ ✗	Depends on no. of „insiders“ and existence of parallel infrastructure.
Low demand side concentration	✓ ✓	Very low concentration in mass market for broadband services.
Information exchange	✓ ✓	Information exchange for co-investments adds to already existing exchange in the context of interconnection.
High homogeneity	✓ ✗	„Connectivity“ itself rather homogeneous, but differentiated service offers. Somewhat ambivalent.
High market entry barriers	✓ ✓	Economies of scale, scope and density in connection with sunk costs.
Long duration/ multiperiod game	✓ ✓	Very long amortisation periods for network investments.

Summary coordinated effects

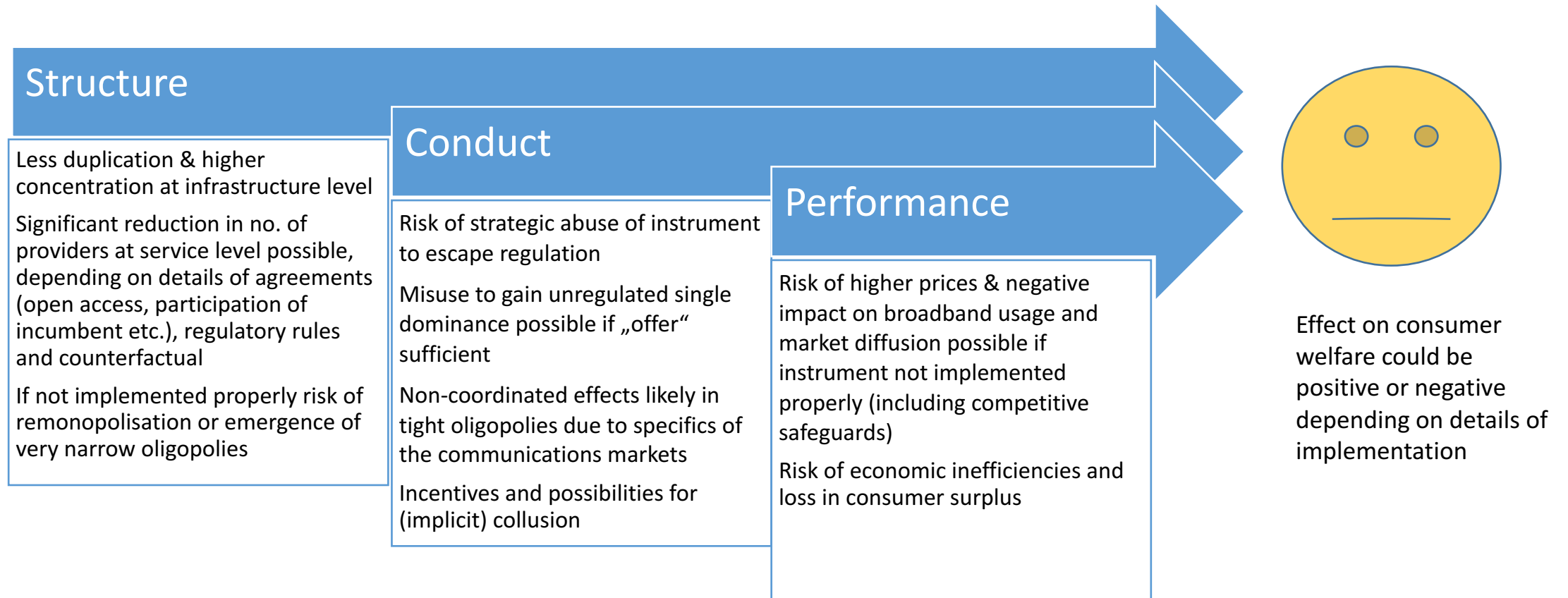
Analysis reveals certain risk of collusion.

Likelihood depends on specific circumstances, in cases of a low no. of insiders & in absence of parallel networks risk can be rather high.

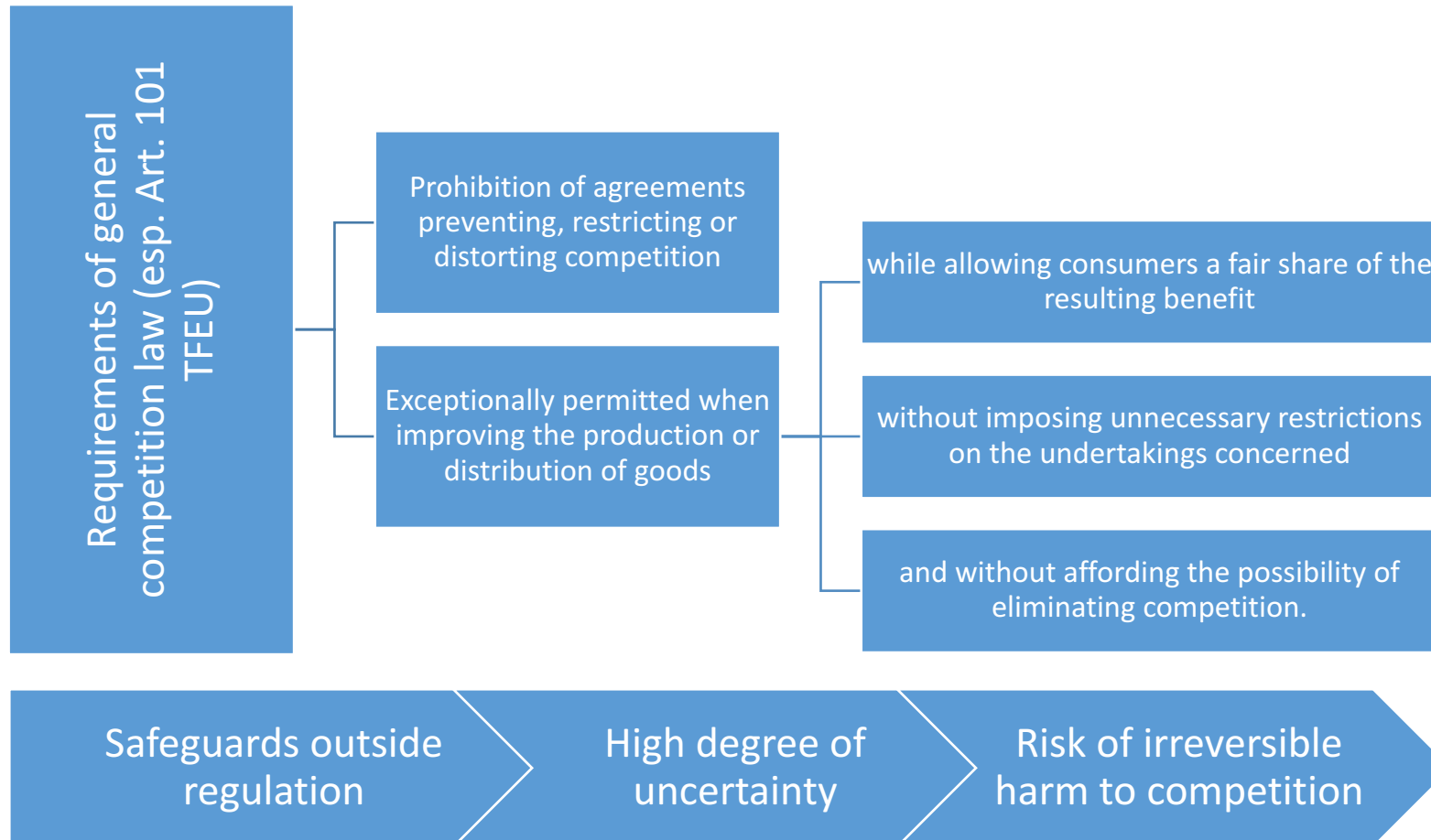
Risk of collusion acknowledged in economic literature and by regulatory and competition authorities (*Feasey/Cave*, 2017; Bundeskartellamt, 2010; BEREC, 2012).

Experimental evidence supports risk of collusion (*Krämer/Vogelsang*, 2017), but further research might be required.

Co-investment scenario (in a nutshell)



Co-investments: Resolving the trade-off ... with general competition law?



Co-investments: Resolving the trade-off ... with Art. 74 of the ECC?

	Common issues	Commission's proposal	Council's position	Committee report
The good stuff	• Possibility to participate under fair, reasonable and non-discriminatory terms (and other safeguards for competition) • Protection of outsiders on a fallback level		• Explicit possibility of intervention regarding the co-investment offer	• Actual conclusion of an agreement is necessary • At least some co-investors must be or intend to be (or to host) service providers
The ambiguous stuff	• Possibility to join the agreement later (keeping competition open vs. reducing incentives to bear risks at an early stage)	• Obligatory exemption (legal certainty vs. flexibility and safeguard for competition)	• Obligatory exemption with the option for exceptional regulation (flexibility and safeguard for competition vs. legal certainty)	• Optional exemption (flexibility and safeguard for competition vs. legal certainty)
The bad stuff	• Participation and leading role of the SMP operator • Very complex (and still partly vague wording)	• Co-investment offer probably sufficient	• Extremely complex • Co-investment offer probably sufficient	

Co-investments: Resolving the trade-off ... within the system of market regulation

Co-investment agreements may already be taken into account at every level of market regulation: tendency towards effective competition, SMP, remedies.

This allows a flexible assessment of the respective agreement in the light of the specific market situation ...

... while at the same time facilitating legal certainty by the ex ante character of market regulation.

Leaving the decision to the NRAs (embedded in the consolidation procedures at EU level) would comply with the overall framework of market regulation.

Further guidance –if required– is possible by BEREC guidelines and/or Commission recommendations (potentially on the basis of Annex IV of the current proposals).

➤ **Better don't touch a running system when you're not sure that the alternative will work better!**

Thank you very much for your attention!

Contact information

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Backup: Art. 74 of the Commission's proposal for an ECC (COM [2016] 590 final)

1. A national regulatory authority shall not impose obligations as regards new network elements that are part of the relevant market on which it intends to impose or maintain obligations in accordance with Articles 66 and Articles 67 to 72 and that the operator designated as significant market power on that relevant market has deployed or is planning to deploy, if the following cumulative conditions are met:

(a) the deployment of the new network elements is open to co-investment offers according to a transparent process and on terms which favour sustainable competition in the long term including inter alia fair, reasonable and non-discriminatory terms offered to potential co-investors; flexibility in terms of the value and timing of the commitment provided by each co-investor; possibility to increase such commitment in the future; reciprocal rights awarded by the co-investors after the deployment of the co-invested infrastructure;

(b) the deployment of the new network elements contributes significantly to the deployment of very high capacity networks;

(c) access seekers not participating in the co-investment can benefit from the same quality, speed, conditions and end-user reach as was available before the deployment, either through commercial agreements based on fair and reasonable terms or by means of regulated access maintained or adapted by the national regulatory authority;

When assessing co-investment offers and processes referred to in point (a) of the first subparagraph, national regulatory authorities shall ensure that those offers and processes comply with the criteria set out in Annex IV.

Backup: Annex IV of the Commission's proposal for an ECC (COM [2016] 590 final)

When assessing a co-investment offer pursuant to Article 74 (1) (d), the national regulatory authority shall verify whether the following criteria have been met:

(a) The co-investment offer shall be open to any undertaking over the lifetime of the network built under a co-investment offer on a non-discriminatory basis. The SMP operator may include in the offer reasonable conditions regarding the financial capacity of any undertaking, so that for instance potential co-investors need to demonstrate their ability to deliver phased payments on the basis of which the deployment is planned, the acceptance of a strategic plan on the basis of which medium-term deployment plans are prepared, etc.

(b) The co-investment offer shall be transparent:

- the offer is available and easily identified on the website of the SMP operator;
- full detailed terms must be made available without undue delay to any potential bidder that has expressed an interest, including the legal form of the co-investment agreement and - when relevant - the heads of term of the governance rules of the co-investment vehicle; and
- The process, like the road map for the establishment and development of the co-investment project must be set in advance, it must clearly explained in writing to any potential co-investor, and all significant milestones be clearly communicated to all undertakings without any discrimination.

(c) The co-investment offer shall include terms to potential co-investors which favour sustainable competition in the long term, in particular:

- All undertakings have to be offered fair, reasonable and non-discriminatory terms and conditions for participation in the co-investment agreement relative to the time they join, including in terms of financial consideration required for the acquisition of specific rights, in terms of the protection awarded to the co-investors by those rights both during the building phase and during the exploitation phase, for example by granting indefeasible rights of use (IRUs) for the expected lifetime of the co-invested network and in terms of the conditions for joining and potentially terminating the co-investment agreement. Non-discriminatory terms in this context do not entail that all potential co-investors must be offered exactly the same terms, including financial terms, but that all variations of the terms offered must be justified on the basis of the same objective, transparent, non-discriminatory and predictable criteria such as the number of end user lines committed for.

- The offer must allow flexibility in terms of the value and timing of the commitment provided by each co-investor, for example by means of an agreed and potentially increasing percentage of the total end user lines in a given area, to which co-investors have the possibility to commit gradually and which shall be set at a unit level enabling smaller co-investors to gradually increase their participation while ensuring adequate levels of initial commitment. The determination of the financial consideration to be provided by each co-investor needs to reflect the fact that early investors accept greater risks and engage capital sooner.
 - A premium increasing over time has to be considered as justified for commitments made at later stages and for new co-investors entering the co-investment after the commencement of the project, to reflect diminishing risks and to counteract any incentive to withhold capital in the earlier stages.
 - The co-investment agreement has to allow the assignment of acquired rights by co-investors to other co-investors, or to third parties willing to enter into the co-investment agreement subject to the transferee undertaking being obliged to fulfil all original obligations of the transferor under the co-investment agreement.
 - Co-investors have to grant each other reciprocal rights on fair and reasonable terms and conditions to access the co-invested infrastructure for the purposes of providing services downstream, including to end-users, according to transparent conditions which have to be made transparent in the co-investment offer and subsequent agreement, in particular where co-investors are individually and separately responsible for the deployment of specific parts of the network. If a co-investment vehicle is created, it has to provide access to the network to all co-investors, whether directly or indirectly, on an equivalence of inputs basis and according to fair and reasonable terms and conditions, including financial conditions that reflect the different levels of risk accepted by the individual co-investors.
- (d) The co-investment offer shall ensure a sustainable investment likely to meet future needs, by deploying new network elements that contribute significantly to the deployment of very high capacity networks.

Backup: Art. 74 of the Council's position for an ECC (12797/1/17 REV 1)

1. A national regulatory authority shall not impose obligations as regards new network elements that are part of the relevant market on which it intends to impose or maintain obligations in accordance with Articles 66 to 72 and that the operator designated as having significant market power on that relevant market has deployed or is planning to deploy, if it determines that the following cumulative conditions are met:

- (a) the deployment of the new network elements is open to co-investment offers from any operator over the lifetime of the network, according to a transparent process and on terms which the national regulatory authority considers capable of ensuring sustainable competition in the long term including inter alia fair, reasonable and nondiscriminatory terms offered to potential co-investors; flexibility in terms of the value and timing of the commitment provided by each co-investor; possibility to increase such commitment in the future; reciprocal rights awarded by the co-investors after the deployment of the co-invested infrastructure. Such co-investments offers shall be made public at least 6 months before the marketing of end-user services based on the new network elements;
- (b) the deployment of the new network elements contributes significantly to the deployment of very high capacity networks; and
- (c) access seekers not participating in the co-investment can benefit from the same quality, speed, conditions and end-user reach as was available before the deployment, either through commercial agreements based on fair and reasonable terms or by means of regulated access maintained or adapted by the national regulatory authority;

When assessing co-investment offers referred to in point (a) of the first subparagraph, national regulatory authorities shall ensure that those offers at a minimum comply with the criteria set out in Annex IV and are made in good faith. To that end, national regulatory authorities may in particular:

- (a) request an offer of commitments, including changes to the co-investment offer, from the operator designated as having significant market power, that they may make binding;
- (b) conduct a market test by consulting stakeholders and interested parties, in particular on the offered terms. Such consultation shall allow potential co-investors to provide a counteroffer, identifying where they deem the initial offer not to be in line with the requirements in point (a) or in Annex IV and to determine whether the initial offer is accepted by market participants.

National regulatory authorities shall continuously monitor compliance with the requirements set out in this paragraph and Annex IV and may require the operator designated as having significant market power to provide it with annual compliance statements. BEREC, after consulting stakeholders and in close cooperation with the Commission, shall publish guidelines to foster the consistent application by national regulatory authorities of the criteria set out in this paragraph, in Annex IV and any additional criteria that may be required.

1a. In the absence of an offer pursuant to paragraph 1, where a national regulatory authority is considering to impose obligations as regards new network elements that are part of the relevant market in accordance with Articles 66 to 72, it shall have regard to whether the operator designated as having significant market power on that relevant market offers commercial access agreements to any operator over the lifetime of the new network which in the specific circumstances are reasonably likely to result in effectively and sustainably competitive related retail markets. In so doing, it shall take into account whether:

- (a) a transparent process is in place and on terms which the national regulatory authority considers capable of ensuring sustainable competition in the long term including inter alia fair, reasonable and non-discriminatory terms offered to potential access seekers;
- (b) the deployment of the new network element contributes significantly to the deployment of very high capacity networks;

(c) the offer to enter into such commercial access agreements is publicly available [in a timely manner at least 6 months before the launch of end-user products based on such new network elements];

(d) the commercial access agreement in question is accepted by market participants representing the majority of the market and sustainable service competition is safeguarded; and

(e) access seekers not accepting the commercial access agreement can benefit from the same quality, speed, conditions and end-user reach as was available before the deployment, either through commercial agreements based on fair and reasonable terms or by means of regulated access maintained or adapted by the national regulatory authority.

In order to assess the commercial access agreement, the NRA shall publicly consult stakeholders and interested parties.

2. National regulatory authorities shall review, after having concluded their assessment pursuant to paragraphs 1 and 1a, and in the context of subsequent market analyses pursuant to Article 65, which obligations may be imposed in accordance with Articles 66 to 72, where they conclude that, absent their intervention, effective competition in one or more retail markets would not be achieved by the continued application of the conditions set out in paragraph 1 and of the criteria set out in Annex IV.

2a. Member States may specify a minimum duration not longer than 7 years during which the NRA shall not impose obligations after the assessment referred to in paragraph 2.

3. By way of an exception to paragraph 1, Member States may decide that a national regulatory authority may, in duly justified circumstances, impose, maintain or adapt remedies in accordance with Articles 66 and Articles 67 to 72 obligations as regards new network elements referred to under paragraph 1 in order to address significant competition problems on specific markets, where the national regulatory authority establishes that given the specific characteristics of these markets, these competition problems could not be addressed by the application of the requirements set out in paragraph 1 and in Annex IV, or by the existence of viable and similar means of access, including offers proposed on a commercial basis. Before adopting a decision pursuant to this paragraph, the national regulatory authority shall submit a request to the Commission. The Commission, taking utmost account of the opinion of BEREC and acting in accordance with the procedure referred to in Article 110(3), shall take a decision within three months of the request, authorising or preventing the national regulatory authority from taking such measures.

4. In the event of a dispute arising in connection with co-investment or commercial access agreements, the national regulatory authority concerned shall, at the request of either party, provide dispute resolution in accordance with Article 26(1).

Backup: Annex IV of the Council's position for an ECC (12797/1/17 REV 1)

When assessing a co-investment offer pursuant to Article 74 (1), the national regulatory authority shall verify whether the following criteria have at a minimum been met. National regulatory authorities may consider additional criteria to the extent they are necessary to ensure accessibility of potential investors of the co-investment, in light of specific local conditions and market structure:

(a) The co-investment offer shall be open to any undertaking over the lifetime of the network built under a co-investment offer on a non-discriminatory basis. The SMP operator may include in the offer reasonable conditions regarding the financial capacity of any undertaking, so that for instance potential co-investors need to demonstrate their ability to deliver phased payments on the basis of which the deployment is planned, the acceptance of a strategic plan on the basis of which medium-term deployment plans are prepared, etc.

(b) The co-investment offer shall be transparent:

- the offer is available and easily identified on the website of the SMP operator;
- full detailed terms must be made available without undue delay to any potential bidder that has expressed an interest, including the legal form of the co-investment agreement and - when relevant - the heads of term of the governance rules of the co-investment vehicle; and
- The process, like the road map for the establishment and development of the co-investment project must be set in advance, it must clearly explained in writing to any potential co-investor, and all significant milestones be clearly communicated to all undertakings without any discrimination.

(c) The co-investment offer shall include terms to potential co-investors which favour sustainable competition in the long term, in particular:

- All undertakings have to be offered fair, reasonable and non-discriminatory terms and conditions for participation in the co-investment agreement relative to the time they join, including in terms of financial consideration required for the acquisition of specific rights, in terms of the protection awarded to the co-investors by those rights both during the building phase and during the exploitation phase, for example by granting indefeasible rights of use (IRUs) for the expected lifetime of the co-invested network and in terms of the conditions for joining and potentially terminating the co-investment agreement. Non-discriminatory terms in this context do not entail that all potential co-investors must be offered exactly the same terms, including financial terms, but that all variations of the terms offered must be justified on

the basis of the same objective, transparent, non-discriminatory and predictable criteria such as the number of end user lines committed for.

- The offer must allow flexibility in terms of the value and timing of the commitment provided by each co-investor, for example by means of an agreed and potentially increasing percentage of the total end user lines in a given area, to which co-investors have the possibility to commit gradually and which shall be set at a unit level enabling smaller co-investors with limited resources to enter the co-investment at a reasonably minimum scale and to gradually increase their participation while ensuring adequate levels of initial commitment. The determination of the financial consideration to be provided by each co-investor needs to reflect the fact that early investors accept greater risks and engage capital sooner.
- A premium increasing over time has to be considered as justified for commitments made at later stages and for new co-investors entering the co-investment after the commencement of the project, to reflect diminishing risks and to counteract any incentive to withhold capital in the earlier stages.
- The co-investment agreement has to allow the assignment of acquired rights by co-investors to other co-investors, or to third parties willing to enter into the co-investment agreement subject to the transferee undertaking being obliged to fulfil all original obligations of the transferor under the co-investment agreement.
- Co-investors have to grant each other reciprocal rights on fair and reasonable terms and conditions to access the co-invested infrastructure for the purposes of providing services downstream, including to end-users, according to transparent conditions which have to be made transparent in the co-investment offer and subsequent agreement, in particular where co-investors are individually and separately responsible for the deployment of specific parts of the network. If a co-investment vehicle is created, it has to provide access to the network to all co-investors, whether directly or indirectly, on an equivalence of inputs basis and according to fair and reasonable terms and conditions, including financial conditions that reflect the different levels of risk accepted by the individual co-investors.

(d) The co-investment offer shall ensure a sustainable investment likely to meet future needs, by deploying new network elements that contribute significantly to the deployment of very high capacity networks.

Backup: Art. 74 of the Committee report for an ECC (A8-0318/2017)

1. Without prejudice to the assessment by national regulatory authorities of co-investment in other types of networks, a national regulatory authority may determine not to impose obligations as regards new very high capacity networks which, if fixed, extend to the premises or, if mobile, to the base station, that are part of the relevant market on which it intends to impose or maintain obligations in accordance with Articles 70, 71 and 72 and that a relevant operator has deployed or is planning to deploy, if it concludes that the following cumulative conditions are met:

(a) the deployment of the new network elements is open to co-investment at any point during their lifetime by any operator according to a transparent process and on terms which ensure sustainable competition in the long term including inter alia fair, reasonable and non-discriminatory terms offered to potential co-investors; flexibility in terms of the value and timing of the commitment provided by each co-investor; possibility to increase such commitment in the future; reciprocal rights awarded by the co-investors after the deployment of the co-invested infrastructure;

(aa) at least one co-investment agreement based on an offer made pursuant to (a) has been concluded and the co-investors are or intend to be service providers, or to host such providers, in the relevant retail market and have a reasonable prospect of competing effectively;

(c) access seekers not participating in the co-investment can benefit from fair, reasonable and non-discriminatory access conditions, taking appropriate account of the risk incurred by the co-investors either through commercial agreements based on fair and reasonable terms or by means of regulated access maintained or adapted by the national regulatory authority;

National regulatory authorities shall determine whether the conditions above are met, including by consulting with relevant market participants in accordance with the provisions of Article 65(1) and (2).

When assessing co-investment offers, processes and agreements referred to in the first subparagraph, national regulatory authorities shall ensure that those offers, processes and agreements comply with the criteria set out in Annex IV.

2. Paragraph 1 is without prejudice to the power of a national regulatory authority to take decisions pursuant to the first paragraph of Article 26 in the event of a dispute arising between undertakings in connection with a co-investment agreement deemed by it to comply with the conditions set out in that paragraph and with the criteria set out in Annex IV.

Backup: Annex IV of the Committee report for an ECC (A8-0318/2017)

When assessing a co-investment pursuant to Article 74 (1) (d), the national regulatory authority shall verify whether the following criteria have been met:

(a) The co-investment shall be open to any undertaking over the lifetime of the network built under a co-investment offer on a non-discriminatory basis. The SMP operator may stipulate reasonable conditions regarding the financial capacity of any undertaking, so that for instance potential co-investors need to demonstrate their ability to deliver phased payments on the basis of which the deployment is planned, the acceptance of a strategic plan on the basis of which medium-term deployment plans are prepared, etc.

(b) The co-investment shall be transparent:

- terms and conditions must be available and easily identified on the website of the SMP operator;
- full detailed terms must be made available without undue delay to any potential bidder that has expressed an interest, including the legal form of the co-investment agreement and - when relevant - the heads of term of the governance rules of the co-investment vehicle; and
- The process, like the road map for the establishment and development of the co-investment project must be set in advance, it must clearly explained in writing to any potential co-investor, and all significant milestones be clearly communicated to all undertakings without any discrimination.

(c) The co-investment shall include terms to potential co-investors which favour sustainable competition in the long term, in particular:

- All undertakings have to be offered fair, reasonable and non-discriminatory terms and conditions for participation in the co-investment agreement relative to the time they join, including in terms of financial consideration required for the acquisition of specific rights, in terms of the protection awarded to the co-investors by those rights both during the building phase and during the exploitation phase, for example by granting indefeasible rights of use (IRUs) for the expected lifetime of the co-invested network and in terms of the conditions for joining and potentially terminating the co-investment agreement. Non-discriminatory terms in this context do not entail that all potential co-investors must be offered exactly the same terms, including financial terms, but that all variations of the terms offered must be justified on the basis of the same objective, transparent, non-discriminatory and predictable criteria such as the number of end user lines committed for.

- It must allow flexibility in terms of the value and timing of the commitment provided by each co-investor, for example by means of an agreed and potentially increasing percentage of the total end user lines in a given area, to which co-investors have the possibility to commit gradually and which shall be set at a unit level enabling smaller co-investors to gradually increase their participation while ensuring adequate levels of initial commitment. The determination of the financial consideration to be provided by each co-investor needs to reflect the fact that early investors accept greater risks and engage capital sooner.
- A premium increasing over time has to be considered as justified for commitments made at later stages and for new co-investors entering the co-investment after the commencement of the project, to reflect diminishing risks and to counteract any incentive to withhold capital in the earlier stages.
- The co-investment agreement has to allow the assignment of acquired rights by co-investors to other co-investors, or to third parties willing to enter into the co-investment agreement subject to the transferee undertaking being obliged to fulfil all original obligations of the transferor under the co-investment agreement.
- Co-investors have to grant each other reciprocal rights on fair and reasonable terms and conditions to access the co-invested infrastructure for the purposes of providing services downstream, including to end-users, according to transparent conditions which have to be made transparent in the co-investment offer and subsequent agreement, in particular where co-investors are individually and separately responsible for the deployment of specific parts of the network. If a co-investment vehicle is created, it has to provide access to the network to all co-investors, whether directly or indirectly, on an equivalence of inputs basis and according to fair and reasonable terms and conditions, including financial conditions that reflect the different levels of risk accepted by the individual co-investors.

(d) The co-investment shall ensure a sustainable investment likely to meet future needs, by deploying new network elements that contribute significantly to the deployment of very high capacity networks.