

Proposal for discussion

Ofcom

Scoping an NGN industry body

9 December 2005

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0 Executive summary

0.1 Introduction

In its “Next Generation Networks: Further consultation”, held between 30 June and 12 August 2005, Ofcom proposed the creation of an industry body tasked with the co-ordination of the UK telecoms industry’s transition to NGN core networks. The respondents to the consultation generally agreed that there was a need to address NGN issues that are currently not being covered by existing bodies. However, there was less consensus as to how to do this, and many respondents questioned what the purpose, scope and mechanics of a new NGN Body would be.

This report outlines a proposal for the purpose and role of an NGN Body. It also sets out a proposed organisational and governance structure. It does not include a review of Ofcom’s proposal to establish an Operational Adjudicator.

The recommendations in this document are based on a series of 32 interviews with representatives from the industry, Ofcom, and other industry bodies. We have endeavoured to reflect the views of the majority of stakeholders interviewed and to suggest pragmatic solutions to concerns raised. We expect that the proposals set out in this report will be refined as Ofcom embarks on further engagement with key stakeholders in the NGN transition.

0.2 Summary of recommendations

We recommend that Ofcom and the stakeholders in the UK telecoms industry proceed with setting up an NGN Body. We believe that such a body would benefit all stakeholders in the transition of the UK telecommunications industry to NGNs and help to ensure a smooth transition for both industry and end-users.

We propose the creation of an NGN Body in accordance with the following guidelines:

- The body’s purpose should be to develop a joint vision and framework for the transition to NGNs that encompasses commercial, technical and operational issues
- It will issue recommendations to the industry
- In order to function effectively, the body will require a stringent governance and organisational structure:
 - its membership should be inclusive; stakeholders will be able to participate in workgroups on specific issues independent of size and degree of infrastructure ownership
 - in order to function effectively, the NGN body will need a strong figurehead as a chairman supported by a well-resourced management team equipped with strategic, technical and programme management expertise
 - a board consisting of 8-10 industry representatives needs to be appointed to approve the body’s recommendations and to drive its agenda forward
 - the organisation will be independent, accountable only to its members
 - Ofcom should adopt the role of an active observer
- The body should be owned and funded by industry in order to enable its independence. However, Ofcom will need to play a leading role during the set-up phase
- The body is required as soon as possible and should be set up within the next six to seven months; it is expected to have a lifetime of 3-4 years

0.2.1 Why an NGN Body is needed

An NGN Body will bring benefits to all stakeholders in the process and address a range of concerns expressed during the interviews. More specifically, it will:

- Increase the degree of certainty for investment plans and business models for all stakeholders in the transition to NGNs
- Address the need for greater transparency of BT's and other operators' migration processes
- Offer a neutral ground for negotiation between BT and the rest of the industry
- Build a central point for the debate allowing operators and service providers to exchange views more efficiently, and thereby helping players with limited resources to make themselves heard

During our interview programme, the majority of stakeholders felt that there were a number of questions that were not being covered sufficiently by existing organisations. In particular, there was a perceived need to develop an overarching framework for the transition, as well as a strong need to speed up the debate on commercial principles for the transition. As shown below, we propose that these questions be at the centre of the body's agenda.

0.2.2 The proposed purpose and remit of the body

In order to address the needs expressed by industry, we propose the creation of an NGN Body with the purpose of bringing stakeholders in the UK telecommunications industry together to formulate a joint vision and framework for the transition to NGNs.

Exhibit 1: Purpose, vision, mission statement and operating principles of the NGN Body

Purpose

The NGN Body will bring stakeholders in the UK telecommunications industry together to formulate a joint vision and framework for the transition to NGNs that provides guidelines on commercial, technical and communications issues, in order to facilitate the industry's smooth and efficient migration to NGNs.

It will:

- Develop a strategic framework for the NGN transition, encompassing commercial, technical and operational issues;
- Set and answer commercial, technical and operational questions relevant to the successful transition
- Be the central forum for the commercial debate;
- Form a 'neutral ground' for exchange of information, debate and decision making.

Vision

The NGN Body will aim to facilitate the successful transition to an NGN environment for all stakeholders in the process, in compliance with the UK regulatory and legal framework. Its focus will be on:

- Enabling the transition of the industry to converged all IP core networks by 2012 (illustrative date)
- Creating a vibrant and sustainable competitive environment that supports multiple competing NGNs and stimulates industry growth
- Establishing a framework that provides fair conditions for stakeholders in the market and balances diverging interests
- Ensuring a smooth transition process for both industry stakeholders and their end-users

Mission statement

The NGN Body will achieve its vision by:

- Taking a lead in defining solutions to questions that require cross-industry co-ordination and ensuring that decisions that need to be made are made in a timely manner
- Balancing different stakeholders' interests in the transition to NGNs and seeking solutions that provide the greatest possible benefit to the parties involved and their customers

Operating principles

In pursuing its vision, the NGN Body will adhere to the following principles:

- Contributing to the NGN transition process in a manner that is transparent, fair and in line with Ofcom's stated regulatory principles and UK competition law
- Ensuring that its members receive an opportunity to contribute their views in the process
- Ensuring that end-user concerns are being heard and taken into account by industry

Questions that the body might address in order to fulfil its purpose include:

- What is the industry's vision for the transition to NGNs?
 - by when should the transition be completed?
 - what are criteria for a successful transition?
- How will the environment for retail services evolve in an NGN world?
 - how quickly will nomadic voice services evolve and what are their implications for the interconnection framework?
 - what types of players will emerge and how they should 'plug into' NGNs?
- What wholesale services are required to support the future market?
- What commercial principles should apply in the new interconnection world?
 - what charging models are appropriate? Should they vary by service type and quality?
 - what elements should be included into SLAs between operators and what QoS levels are recommended for specific services?

Further topics on the agenda of the NGN Body should include deciding on the interconnection framework (in order to support the commercial debate), the requirement for new wholesale services, end-user issues and the need for joint management of the transition by all stakeholders.

0.2.3 Decision-making power of the organisation

The NGN Body should develop industry guidelines for each of the questions it addresses. This reflects the broad consensus among stakeholders interviewed that a pure discussion forum would not be able to address the co-ordination needs of the industry. The governance principles outlined below are aimed at generating the buy-in from key stakeholders required to ensure adherence to these guidelines across the industry.

The body's recommendations will need to be in line with the UK regulatory framework and legal environment.

0.2.4 Membership, organisational structure and governance principles

The NGN Body needs to address the challenge of being inclusive and effective at the same time. It will need to take into account the interests of all stakeholders in the telecommunications services value chain. In order to achieve a workable membership structure, we propose to limit membership to:

- Network infrastructure operators, and
- Businesses that provide communications services to end-users.

The NGN Body will consist of a board, which approves its work programme and budget and proposed industry guidelines. The board will be headed by a chairman who will provide strategic input to the body's agenda and drive the decision-making process forward. The work on specific questions will be carried out by workgroups consisting of members of the body. These workgroups will be tasked with solutions to specific industry questions which, once approved by the NGN Body board, will become industry guidelines. Workgroups will be empowered to create virtual project teams to resolve specific issues.

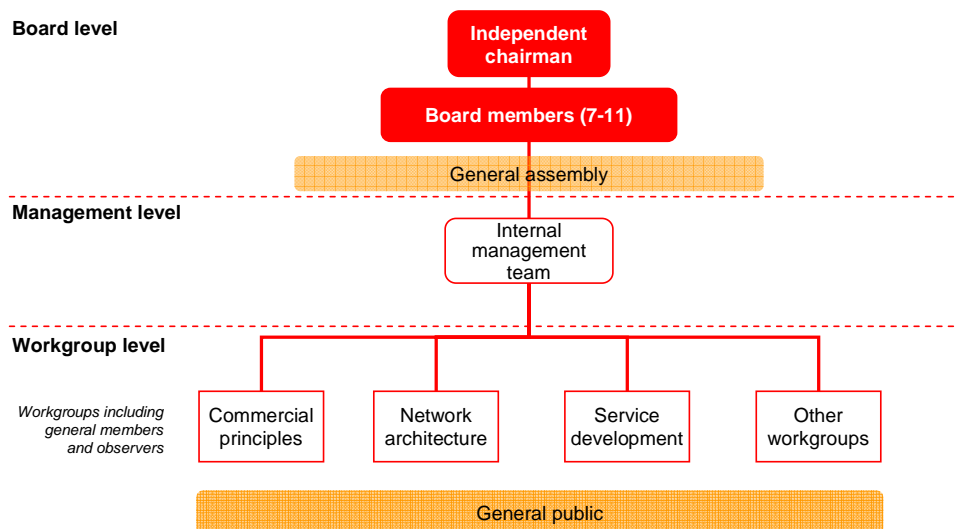
Board decisions will be made by consensus.

The role of the chairman was seen as critical by all of the stakeholders interviewed by us. The chairman needs to be an individual enjoying wide respect within the industry and a reputation for impartiality and objectivity. He will need a solid understanding of the subject matter. While the candidate should not currently be employed by any of the major operators, long-standing industry experience will be pivotal.

We propose that the chairman should not have adjudication powers, so as not to compromise his credibility as a neutral mediator.

In order to drive the agenda of the organisation forward, we propose that a permanent management team employed by the NGN Body be established. The team should consist of a CEO, CTO and three to four programme directors, who guarantee the smooth functioning of the organisation, co-chair workgroups, contribute inputs to the debate and programme-manage the process. The management team should be supported by an Executive Assistant.

Exhibit 2: Proposed organisational structure of the NGN Body



In order to enable effective decision-making processes, we propose a tiered membership and decision-making structure:

- **General members:** all members of the organisation, with equal time and financial commitment, participate in workgroups and project teams, and will receive updates on board decisions and the overall progress of the organisation in half-yearly general assembly meetings
- **Members with board representation:** 8-10 companies represented on the board by a senior executive, with strong time and financial commitment and participation in board decision-making; participants will be drawn from key industry players according to a set of rules to be agreed between Ofcom and industry

Exhibit 3: Proposed process for the selection of board members

Board membership should be open to those industry stakeholders committed to investing in NGN infrastructure. The board composition should:

- Reflect Ofcom's strategy of fostering competition at the deepest level of infrastructure sustainable
- Ensure a fair representation of key industry players with effective involvement in NGN deployment
- Ensure representation of a broad range of stakeholder constituencies, e.g. BT, cable operators, altnets, mobile operators, ISPs, service providers
- Ensure buy-in by all stakeholders through the appointment of senior individuals with relevant experience
- Be limited to a workable number of seats (8-10 members)

Organisations which wish to have board representation need to be ready to contribute to the body financially, over and above the general membership fee.

Candidates should be put forward by member companies interested in a seat on the board. The board members will then be appointed by the NGN Body's chairman in consultation with Ofcom and the general members of the body. The selection will be based on the criteria established above.

We strongly recommend that the appointment process be designed and operated on a transparent and non-discriminatory basis in order to ensure compliance with competition law.

The NGN Body will be independent and accountable only to its members. Ofcom should have an observer status, and a right to attend board meetings. However, Ofcom will retain its statutory right to be involved in policy decisions as it sees necessary.

The NGN Body will also liaise with other organisations on a regular basis on issues that fall within the remit of these organisations, e.g. it will provide the NICC with a commercial steer and seek its advice on technical issues. The NGN Body's board and workgroups can invite the NICC and other external organisations such as Consult 21, the DTI, end-user associations or vendors, to provide inputs on specific questions and observe the debate.

0.2.5 Legal framework, ownership and funding

We propose that the NGN Body be set up as a Company Limited by Guarantee. This will provide the organisation with an established, yet flexible, framework for the formulation of its governance structure, as well as a legal personality, allowing it to enter contracts and employ staff on its own behalf. As a legal personality it can also protect its staff from personal liability.

The organisation should be owned and funded by its members in order to enable its independence. We propose that general members contribute a fixed fee of £5,000 each. Board member organisations will contribute a fixed fee of £20,000 each plus an additional financial contribution, dividing the remainder of the budget between themselves in proportion to their revenues.

We estimate that the required annual budget will be of the order of £1.4m.

However, we believe that Ofcom should drive and fund the initial set-up process, in order to ensure that the organisation gains momentum early on.

0.2.6 Lifetime of the organisation

The NGN Body is required immediately, in order to shape the NGN transition debate from its early stages.

We estimate that it will take approximately 6 months to set up the organisation, with launch envisaged for July 2006. Its lifetime is expected to be 3-4 years. A regular review cycle, starting with a first progress update after 6 months in operation (end of 2006) will ensure that it fulfils its purpose. A first review for closure is expected for July 2009.

0.3 Steps towards implementation

Considering the set-up phase for the NGN Body lasting 6 months:

- We estimate that during the first three months Ofcom will need to take the lead in the set-up process and put an interim management team in place in order to drive the process forward
- After three to four months, a CEO and programme management team should begin to replace the Ofcom team

Ofcom’s immediate priority should be to seek support in principle for the organisation in its proposed format.

Below we outline what the body should aim to achieve within two and six months respectively.

Exhibit 4: Features of the NGN Body after two months and six months

NGN Body after 2 months (end of February 2006)	NGN Body after 6 months (end of June 2006)
<p>The ‘strawman’ of the organisation will have been established</p> <ul style="list-style-type: none"> • A senior figurehead within Ofcom, acting in an interim chairman capacity and promoting the organisation to key stakeholders • Proposal of a legal framework (articles of association, shareholders agreement) • First group of major stakeholders has agreed to participate 	<p>The body is ready to launch activities</p> <ul style="list-style-type: none"> • Chairman and board are in place • An initial workplan and budget have been agreed • The body has its own management team, own premises, and a website is in place to share information • The body has announced its name and logo • Approx. 30 members have signed up and met for an inaugural / goal setting workshop • Workgroups are being set up

1 Context of this report

1.1 Purpose of the report

This report outlines the proposed purpose, role, scope and organisational set-up for a cross-industry body tasked with developing a vision and roadmap for the UK telecommunications industry's transition to all-IP core networks across different groups of stakeholders and ensuring the smooth co-ordination of transition to this new environment.

The report was developed by Spectrum Strategy Consultants for Ofcom in order to provide a view of whether there is a need for such a body and the basis for establishing the organisation. Advice on legal questions has been provided by Towerhouse Consulting.

It builds on Ofcom's consultation held between 30 June and 12 August 2005, subsequent consultation responses and views of Ofcom and industry stakeholders by us through an extensive series of interviews. The proposals contained in this report have been developed over a period of five weeks during November 2005. A list of the stakeholders interviewed can be found in Appendix A.

We have endeavoured to reflect the views of the majority of stakeholders interviewed and to suggest pragmatic solutions to concerns raised. We expect that the proposals set out in this report will be refined as Ofcom embarks on further engagement with key stakeholders in the NGN transition.

1.2 BT's 21CN plans and the need for a cross-industry co-ordination body

In summer 2004, BT announced a far-reaching investment programme for its core network called '21st Century Network' (21CN). It stated the objective to move its entire core network to IP supporting MPLS QoS, and to introduce broadband dialtone to all its subscribers by 2009.

BT's move will trigger profound changes in the way network operators and service providers in the UK telecommunications industry interact with each other. It will require a reconsideration of the entire system of existing interconnection and wholesale arrangements, from a technical as well as a commercial point of view. It will lead to the need for changes to operators' network topologies and, accordingly, to new investments. In some cases BT's move may force industry stakeholders to reconsider their entire business model depending on how BT's wholesale services portfolio evolves.

BT's move to its 21CN will be complex. It will be further complicated by the need to be compliant with BT's Undertakings agreed with Ofcom at the end of the Telecoms Strategic Review, which are resulting in significant organisational and process changes within BT, some of which may have a knock-on impact on the degrees of freedom BT has in embarking on its NGN transition programme.

BT's move to NGNs is consistent with an overall trend in the telecommunications industry towards all-IP networks. Many UK telecoms players, in particular in the fixed sector, have embarked on their own transition programmes and consider a transition to an all-IP environment unavoidable. However, the degree of alignment of BT's investment rollout plans with other operators' own network strategies and equipment replacement cycle varies greatly.

Most UK industry stakeholders agree that co-ordination within the industry is required in order to ensure that the transition to NGNs proceeds in a manner that:

- Is beneficial to the UK telecommunications industry as a whole, as well as its end-users

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- Avoids creating a situation of market foreclosure and continues to allow for effective competition in the market
 - Takes into account the needs and concerns of different stakeholders in the process.

To date, NGN co-ordination needs on a policy level have been addressed by Ofcom through two consultations and subsequent ongoing work. Communication between BT and other industry players has been taking place through BT's 'Consult21' initiative, which is a forum under which BT shares information on its NGN plans and solicits feedback from other players. NGN standards issues are debated under NICC, whose focus is to ensure agreement on technical standards for the UK market and to liaise with international standards bodies.

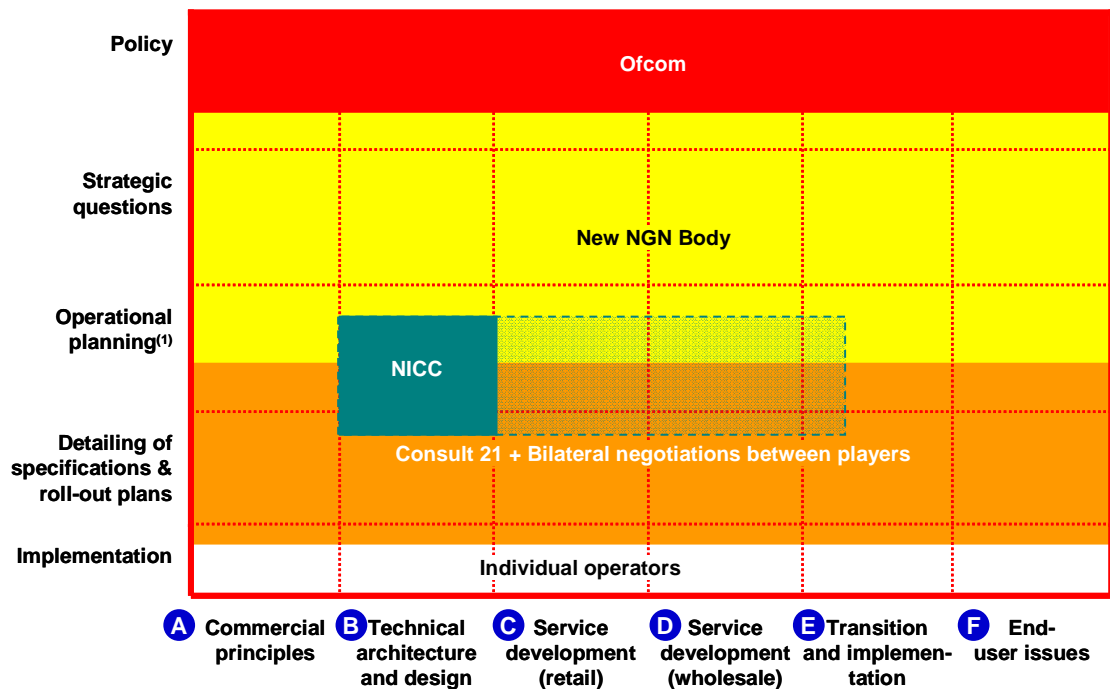
However, industry stakeholders have a number of concerns:

- That BT's 21CN initiative is one step ahead of policy decisions, creating much uncertainty for the market (e.g. what will IP interconnect look like? how will it be charged?)
- That Consult 21 is a BT-led initiative and a forum under which BT shares information with other industry players. However, it has been slow in dealing with many of the issues that matter most to industry participants, such as commercial interconnect arrangements. It also does not deal with cross-industry issues.
- That while NICC is an effective forum for dealing with technical standardisation issues, there is no commercial input into NICC
- That there is no single body tasked with developing a framework for the transition that takes into account both commercial and technical aspects and creating an independent forum for different stakeholders to communicate their needs and expectations and raise their concerns.

We therefore believe that Ofcom and industry should proceed with setting up an NGN Body which bridges the gap between Ofcom's policy role and the detailed planning activities of NICC, Consult 21, and bilateral negotiations between industry participants.

Below we highlight the areas where industry believes a new NGN Body has a role to play.

Exhibit 5: Proposed focus area for a new NGN Body¹



Note: (1) Includes commercial, contractual and technical issues, as well as customer communication issues

This report outlines a proposal for the purpose, remit and governance structure of a body designed to take on this challenge, as well as the implications for its relationship with existing industry organisations.

1.3 Benefits of an NGN Body to stakeholders

The view that an industry body was needed was shared by the majority of the 32 stakeholders interviewed by us during the course of this project.

The majority believed that such a body could be beneficial to the industry, as long as it takes into account a number of governance principles to guarantee its effectiveness, including:

- A clearly defined remit
- A strong governance structure
 - leadership by an independent chairman or facilitator to move the organisation forward
 - an effective decision-making process
 - sufficient management team resources to support the process
- Commitment by key industry players, in particular BT, and substantial senior involvement of its members overall

However, some players – in particular the mobile community – voiced a number of concerns. The greatest concerns were the potential duplication of effort between industry bodies (Consult21, NICC) and risk of

¹ A definition of each level of issues as well as of the role of each organisation can be found in Chapter 2.

ineffective governance leading to a ‘talking shop’. Smaller players also highlighted concerns about the potential burden placed on them by additional resource requirements.

Most industry stakeholders interviewed by us are looking to Ofcom to take the lead on the development of this body.

Exhibit 6: Selected views on the need for an NGN Body

Do you see a role for a new cross-industry body?

Positive views

- “Yes, there is a need for a body to have a policy debate and discuss commercial issues” (Fixed operator)
- “Yes, there is a need for such a body. It should focus on the questions that other bodies are not addressing very well (e.g. commercial issues)” (Fixed operator)
- “There is a role for a new body with a more commercial focus than NICC and a more independent remit than 21Consult” (Fixed operator)
- “This would be an opportunity to have stronger negotiation power with BT” (Fixed operator)
- “Current talks between operators are bilateral, an NGN Body would be helpful for sharing information” (Mobile operator)
- “An NGN Body would be helpful in the planning of the network transition. It could pool people’s views and concerns (at the moment we liaise with other operators separately). However, many issues get worked out bilaterally anyway.” (Mobile operator)
- “Some cohesion and aggregation may be interesting to help sort out NGN issues. Currently, the regulatory framework for NGNs is being set up by Consult21, including some aspects of SMP products – if this continues as it is, more involvement from Ofcom is required” (Service Provider)

Positive but with a diverging view on the purpose

- “Yes, there is a need for a body that looks at longer term strategic issues. But other operators will only feel compelled to work together if there is a threat that requires a response. Ofcom should not create an NGN Body until such time as there is more common ground – lots of tactical issues are dealt with in existing fora” (Fixed operator)
- “What is really needed is a high-level body that defines a public policy target – this could be within Ofcom, if not, it needs an independent chairman” (Service provider)

Neutral and sceptical views

- “An industry body should help to address co-ordination questions. It will be very difficult to set up a ‘one size fits all’ organisation though, because interests in the industry are so different” (Service Provider)
- “In general yes, but it won’t be able to make decisions instead of Ofcom: I don’t believe in a negotiated solution - there will be trench warfare again” (Fixed operator)
- “I don’t have a particular view on an NGN Body. Dialogue would be beneficial, insofar as discussions are focused on areas where BT has SMP.” The respondent did not have a view, whether the level of discussion provided by Consult 21 was sufficient or not (Service provider)
- “We don’t want to see an additional body. There is a need for a strategic view – but this could be done as an extension of NICC.” But would participate in an organisation, if it was set up (Mobile operator)
- “We prefer to innovate in our sector – we are focused on delivering innovative services to our customers and would prefer to continue to do so – the NGN transition is a distraction of resources” (Mobile operator)

Overall we believe that an NGN Body could address a number of issues that stakeholders have voiced during our interviews to help all concerned make the transition to NGNs as smooth as possible.

The table below outlines how the body would benefit different stakeholder groups.

Exhibit 7: Concerns of industry stakeholders and benefits of an NGN body

Stakeholder Groups	Challenges and concerns	How this could be addressed through the NGN body
BT	<ul style="list-style-type: none"> No delays to roll-out plans Certainty over BT's own investment plans 	<ul style="list-style-type: none"> Consensus-based process with industry involvement that ensures no need for costly re-negotiation and re-engineering as a result of disputes Opportunity to present suggestions in an environment seen as less partisan Marks on the side of compliance with the Undertakings
Altnets	<ul style="list-style-type: none"> Lack of transparency of the current process Concerns that BT could exploit its 21CN programme to cement its market power Certainty for investment plans Clarity over future interaction with each other and BT Clarity over future service opportunities and business models 	<ul style="list-style-type: none"> Strengthening of the voice of major NGN investors in an independent body Opportunity to participate in the development of a joint industry vision for an 'all IP' world Opportunity to take a lead in the process, jointly with other operators
ISPs	<ul style="list-style-type: none"> Future of existing business models based on broadband wholesale products Concerns that BT could exploit its 21CN programme to cement its market power Resource requirements to handle the transition process 	<ul style="list-style-type: none"> Opportunity to participate in the development of a joint industry vision for an 'all IP' world Efficient communication of concerns and counter-proposals by the ISP community to one central NGN Body
Mobile operators	<ul style="list-style-type: none"> Uncertainty over future cost inputs Worries over potential deterioration of call quality Diversion of resources from other priorities (e.g. 3G roll-out), investment requirements that are not aligned with own network strategy 	<ul style="list-style-type: none"> Opportunity to participate in the development of a joint industry vision for an 'all IP' world Efficient communication of concerns and counter-proposals by the mobile industry to one central NGN Body
Service providers	<ul style="list-style-type: none"> Uncertainty over future business models Resource requirements to handle the transition process 	<ul style="list-style-type: none"> Opportunity to deal with one body that addresses all 'big ticket' items related to the NGN transition (single interface)

In addition to specific benefits for individual stakeholder groups, the NGN Body would offer efficiency benefits to all parties involved, by providing a focal point for the debate, and allowing operators to communicate their concerns and proposals to all industry stakeholders through a single interface.

The following chapter outlines the proposed scope of the industry body in more detail.

2 Objective and scope of the NGN Body

2.1 The new NGN Body and its place within the NGN transition

2.1.1 Stakeholder views

This chapter outlines a proposal for the purpose and scope of the new body. As highlighted in the previous chapter, many operators feel a need for a body that allows a discussion on neutral ground, pools different views and provides a forum for establishing commercial principles for the transition.

Exhibit 8: Interviewees views on the purpose and role of the new body

Need for discussion on 'neutral ground'

- "There is a role for a new body with a more commercial focus than NICC and a more independent remit than 21Consult" (Fixed operator)
- "BT is currently driving the process, everyone else is following" (Mobile operator)

Need for a commercial discussion

- "There is a need for a commercial debate forum (not policy and not technical). For example, what should products look like? How will interconnect work? How will access to network hooks be provided? How will FMC work?" (Fixed operator)
- "The body should focus on the questions that other bodies are not addressing very well (e.g. commercial issues)" (Fixed operator)
- "There is no commercial model so far" (Mobile operator)
- "The body should focus on commercial terms for interconnection, call quality issues and other operators' plans" (Mobile operator)
- "Today there is a great uncertainty over the conditions we are going to operate in and what the business case for the different BT products will look like" (Service Provider)
- "At the moment the main unresolved problem is the cost of new services" (Service provider)

Need for a central point to exchange information

- "An industry body could pool people's views and concerns" (Mobile operator)
- "An industry body would be helpful for sharing information" (Mobile operator)

Dissenting views

- "We need to work out what is technically feasible and then look at commercial issues" (Fixed operator)
- "It will be very difficult to set up a 'one size fits all' organisation, because interests in the industry are so different" (Service Provider)

Further topics for the NGN Body mentioned in the interviews were the future interconnection framework (in order to support the commercial debate), need for new wholesale services, end-user issues and the need for joint management of the transition by all stakeholders.

While few interviewees thought that the NGN Body should have a long term "blue sky" strategic vision, we believe that the organisation needs to: (i) operate at a high enough level to oversee the smooth transition of industry to NGNs, (ii) challenge views put forward that may be short-termist in nature and seek to merely replicate the current industry status quo in an NGN environment. Its core focus, though, should be on putting in place a framework and structure around which industry can address commercial, technical and operational issues.

2.1.2 Our recommendation

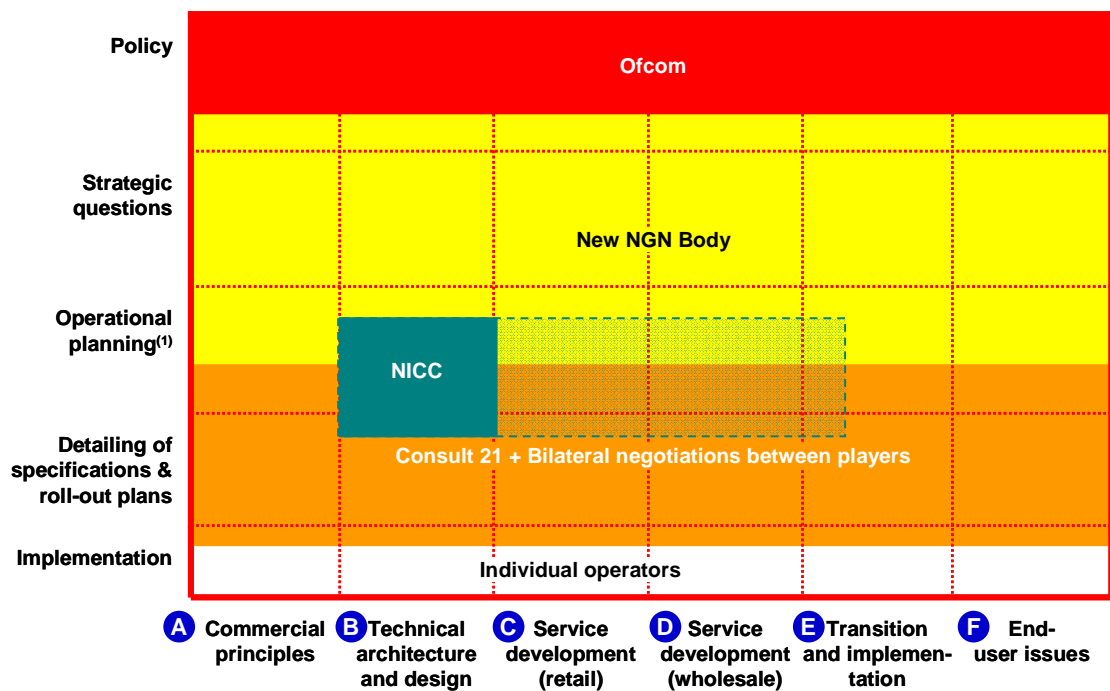
We therefore propose that the NGN Body's purpose should be to:

- Develop a strategic framework for the NGN transition, encompassing commercial, technical and operational issues;
- Set and answer commercial, technical and operational questions relevant to the successful transition
- Be the central forum for the commercial debate and resolution of issues;
- Form a ‘neutral ground’ for exchange of information, debate and decision-making.

In order to fulfil this role, the new NGN Body will need to interface closely with other organisations involved in the NGN process, namely NICC, Consult 21 and, naturally, Ofcom.

Below we illustrate how we see this new body fitting alongside other NGN focussed fora and bodies. We then outline our views on the types of questions / issues we would expect each of these bodies to address.

Exhibit 9: Position of the proposed NGN Body in the NGN transition process



Note: (1) Includes commercial, contractual and technical issues, as well as customer communication issues

We see the overall NGN process as consisting of five levels, starting with the development of a policy framework and ending with implementation by each individual operator. We envisage that the NGN Body would operate primarily at the strategic and, to a certain extent, the operational planning level. Below, we outline our views on the scope of each of the levels identified. The list of questions does not aim to be exhaustive.

Exhibit 10: Definition of levels of the overall NGN transition

Level	Description	Illustrative questions
Policy	Principles that guide the overall process	<ul style="list-style-type: none"> • Should there be a level playing field for established and new NGN operators or should the new environment seek to reward previous investments? • How does deep infrastructure-based competition manifest itself in an NGN context? • Where are there likely to be enduring bottlenecks in an NGN environment? • How should NGN markets be defined? Who will have SMP in an NGN world? • What cost models will be used for the establishment of regulated prices? • Are there minimum end-user information requirements that operators should comply with?
Strategy	Overarching guidelines, long-term action plan and objectives for each of the functional areas (A to F) above	<ul style="list-style-type: none"> • What is the industry's vision for the transition to NGNs? • What commercial principles need to apply in the new interconnection world? • What should the NGN interconnection architecture look like? • How will the environment for retail services evolve in an NGN world? • What wholesale services are required in the new environment? • How should the transition and implementation plans be managed? • What end-user communication issues should be addressed jointly by industry members?
Operational planning	Establishing decision-making rules by which operators can negotiate and develop their individual implementation plans	<ul style="list-style-type: none"> • How quickly will nomadic voice services evolve and what are their implications for the interconnection framework? • What new types of players will emerge and how can / should they 'plug into' NGNs? • What charging models are appropriate? Should they vary by service type and / or quality? • What elements should be included into SLAs between operators and what QoS levels are recommended for specific services?
Detailing of specifications & roll-out plans	Specifications, protocols, contractual conditions and roll-out dates for individual services and locations	<ul style="list-style-type: none"> • What price per kbps should operators charge each other for a specific service? • What technical interfaces should be implemented at an exchange level? • On which day will NGN transition happen in Bristol? • What information needs to be captured in the provisioning interface? • What systems / processes are required to ensure effective provisioning?
Implementation	Detailed scheduling and execution of the plan by individual operators	

Below we formulate a view of the role different bodies could play in the NGN transition and how these questions could map onto the different bodies involved in NGN transition.

Exhibit 11: Role of each body in the transition to NGNs

	Role	Example of questions to be addressed
Ofcom	<ul style="list-style-type: none"> Establish policy guidelines for the transition Monitor whether proposals of industry bodies and individual players are in line with these guidelines 	<p>Policy questions (illustrative)</p> <ul style="list-style-type: none"> Should there be a level playing field for established and new NGN operators or should the new environment seek to reward previous investments? How does deep infrastructure-based competition manifest itself in an NGN context? Where are there likely to be enduring bottlenecks in an NGN environment? How should NGN markets be defined? Who will have SMP in an NGN world? Are there minimum end-user information requirements that operators should comply with?
NGN Body	<ul style="list-style-type: none"> Provide a strategic framework for the transition to NGNs, in particular in relation to commercial questions Provide inputs into Ofcom's policy development Provide commercial and strategic inputs for the formulation of a technical framework by NICC Provide strategic inputs for service development and implementation planning by Consult 21 	<p>Questions at a strategic level (illustrative)</p> <ul style="list-style-type: none"> What is the industry's vision for the transition to NGNs? What commercial principles need to apply in the new interconnection world? What should the NGN interconnection architecture look like? How will the environment for retail services evolve in an NGN world? What wholesale services are required in the new environment? How should the transition and implementation plans be managed? What end-user communication issues should be addressed jointly by industry members? <p>Questions at the operational level (illustrative)</p> <ul style="list-style-type: none"> How quickly will nomadic voice services evolve and what are their implications for the interconnection framework? What new types of players will emerge and how can / should they 'plug in' the NGNs? What charging models are appropriate? Should they vary by service type and / or quality? What elements should be included into SLAs between operators and what QoS levels are recommended for specific services?
NICC	<ul style="list-style-type: none"> Establish technical standards for the UK NGN environment <ul style="list-style-type: none"> network interfaces APIs systems QoS management 	<p>Questions at the operational level (illustrative)</p> <ul style="list-style-type: none"> Are QoS levels proposed by the NGN Body achievable? What network architecture is best suited to guarantee the QoS levels considered adequate? What signalling protocols should the industry adopt? What amendments to ETSI or ITU protocols are required to implement changes to the number portability regime?
Consult 21	<ul style="list-style-type: none"> Negotiate detailed conditions of NGN interconnection and transition between BT and the rest of the industry – in particular in areas where BT is deemed by Ofcom to have SMP 	<p>Questions at the implementation planning level (illustrative)</p> <ul style="list-style-type: none"> How can the individual wholesale services identified be implemented? <ul style="list-style-type: none"> detailed service specification transition schedule migration processes What will the underlying provisioning and support systems look like? Which regions does BT plan to migrate to NGN in October 2006?
Bilateral negotiation	<ul style="list-style-type: none"> Negotiate detailed conditions and contractual arrangements for NGN interconnection and transition between two individual players 	<p>Questions at the implementation planning level (illustrative)</p> <ul style="list-style-type: none"> What are the exact contractual conditions for delivering a specific service? When should service delivery commence? What actions need to be taken on both sides to guarantee the implementation? What SLAs are required?
Individual operators	<ul style="list-style-type: none"> Develop and carry out own rollout plans 	

Due to its statutory role, however, Ofcom will not be limited to the role and questions outlined above. It will also have a role in monitoring the overall process and ensuring that industry proposals are aligned with its regulatory objectives. Ofcom will need to intervene as appropriate if there is evidence of competition issues arising, or as a result of the standard disputes and complaints processes. It will also have a role in resolving questions that industry stakeholders cannot agree on or that concern services in which an operator is deemed to have SMP.

2.1.3 *Breadth of questions the NGN Body might address*

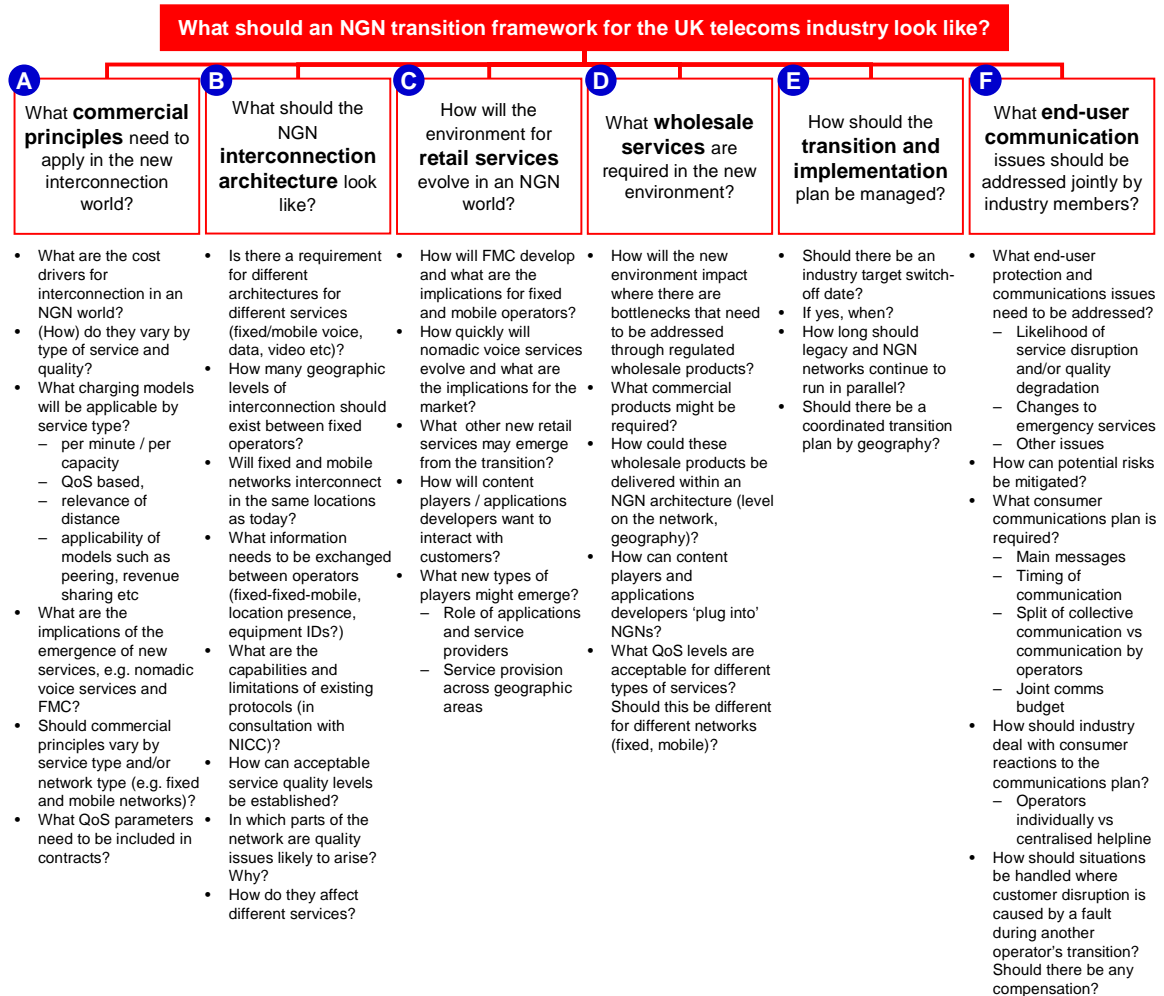
As outlined in section 2.1.2 we see a role for the NGN Body in providing an industry framework, across several functional areas, such as commercial questions, network architecture, service development and end-user communication. We have grouped the strategic and operational questions the body may have to address by area as follows:

- A. Commercial principles
- B. Interconnection architecture
- C. Service development (retail)
- D. Service development (wholesale)
- E. Transition and implementation
- F. End-user communication

Exhibit 8 shows the breadth of the range of issues that the body may have to cover in order to provide a coherent industry framework. Further questions will naturally arise during the working process.

Stakeholders may also feel that selected questions are already being addressed through the NICC and Consult21 process and decide to exclude them from the NGN Body's agenda.

Exhibit 12: Illustrative questions that the NGN Body could address



In Chapter 3 of this report we propose that the NGN Body should begin its operations with a workshop focused on establishing its work programme. This would include prioritising the questions the body should initially focus on and forming project groups that elaborate proposals for their resolution.

2.2 Interaction between the NGN Body stakeholders in the NGN transition process

In order to fulfil its purpose, the new body will have to work closely with other bodies. Below we outline the different types of interactions with individual stakeholders in the process and other organisations that the new body would need to maintain in order to fulfil its purpose. The components of these interactions are outlined below:

a) Building a focal point for the strategic and commercial discussion on NGNs

As the NGN Body is tasked with setting the commercial framework for the industry's NGN transition and providing overall strategic guidelines, it needs to:

- Drive the decision making process forward
- At the same time ensure that a broad range of stakeholders are involved in the process and enable efficient exchange of information within the industry

- Be mindful of duplication of effort between organisations involved in the transition

b) Channelling industry views into Ofcom

The strategic and commercial debate within the NGN Body will, in many cases, touch upon issues that are adjacent to and overlap with questions that Ofcom will consider policy issues.

The NGN Body should be able to:

- Provide suggestions on policy issues
- Highlight to Ofcom when a need for a policy steer is required
- Refer issues that cannot be resolved within the industry to Ofcom for resolution

The majority of interviewees suggested that Ofcom should be involved in the new NGN Body but in a neutral / observer capacity. We believe that it is important for Ofcom to follow the debate within the NGN body closely and suggest that Ofcom should have a special observer status within the organisation. This would involve sending a senior delegate to board meetings and workgroup sessions.

We do not see any need for setting an ‘upward boundary’ between the new NGN Body and Ofcom, given that Ofcom wishes to pursue a ‘light touch’ approach to regulation. Ofcom will retain its statutory right to be involved in policy issues as it sees necessary.

c) Liaising with other bodies

The body will also need to liaise with other industry organisations in order to ensure that there is no duplication of effort, facilitate the exchange of relevant information and request inputs for its work.

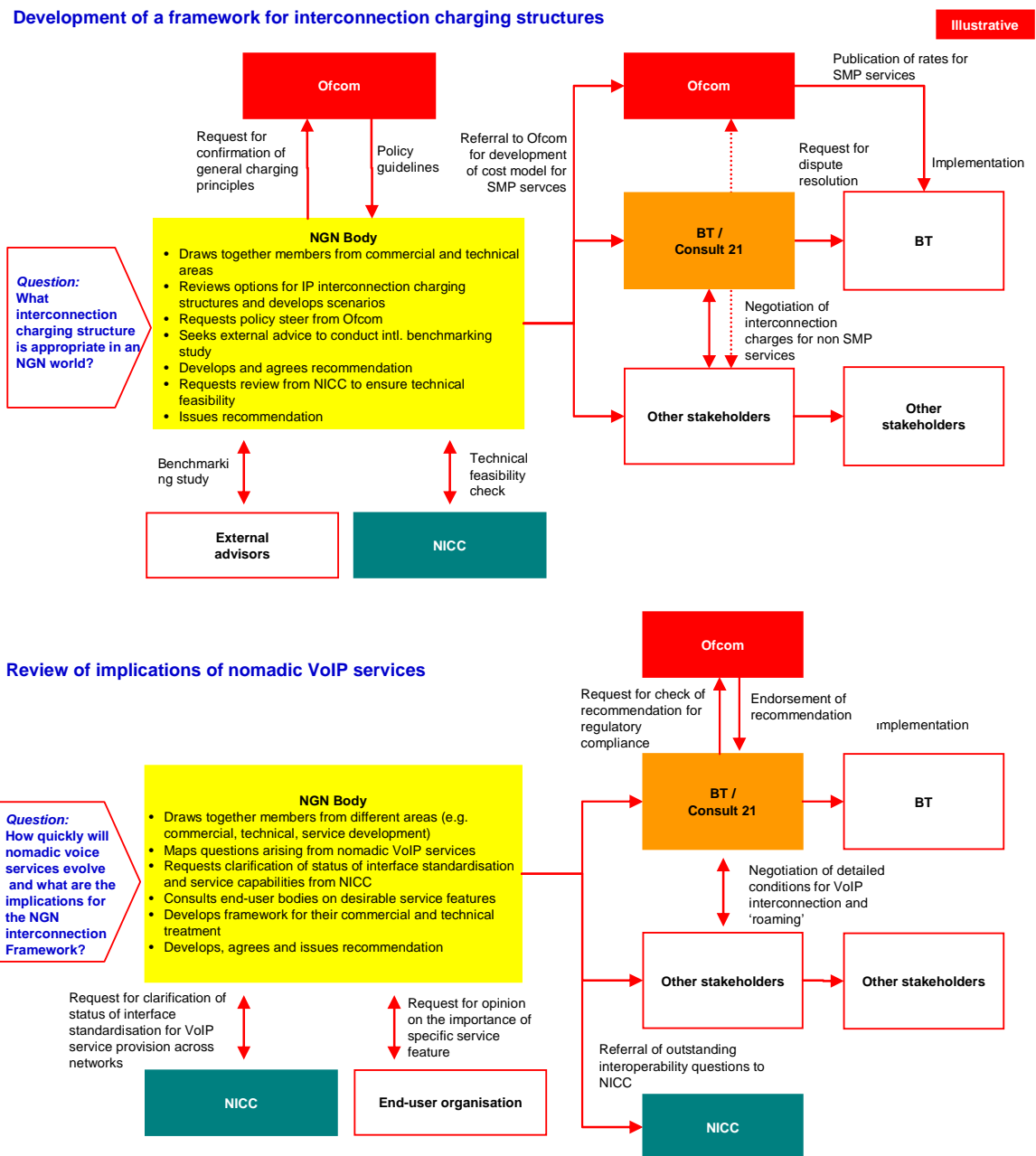
This interaction with other bodies needs to include:

- Giving a commercial steer to NICC and seeking NICC’s advice on technical issues
- Providing inputs to BT and the Consult21 discussions
- Referring operational disputes to the Operational adjudicator (if an operational adjudication process is established by Ofcom)
- Liaising with government regarding UK PLC issues, such as the provision of emergency services
- Liaising with consumer and industry bodies regarding end-user issues

Below we provide an illustration of how the different bodies might be involved in dealing with the issues arising from the industry’s transition to NGNs. We have chosen two examples:

- Developing a framework for interconnection charges
- Review of the implications of nomadic services for industry’s interconnection framework

Exhibit 13: Illustrative processes for the NGN Body



Appendix B of this report provides some further examples of the types of questions we see being addressed by the different fora / bodies involved in the NGN transition process.

2.3 Formation of a vision and objectives for the new organisation

In order to guarantee that the body’s activities are focused on fulfilling the purpose outlined in section 2.1.2, the new NGN Body will need to set itself long-term goals for its performance (vision) and translate these into a workable statement (mission). This statement will provide a focus for its activities and enable it to formulate concrete targets that allow it to measure the success of its operations and the progress against its vision.

Below we have drafted a long-term vision and mission that Ofcom and industry stakeholders can build upon. These will have to be discussed and confirmed with inputs from the new body's members during its set-up phase.

Exhibit 14: Proposed purpose, vision, mission statements and operating principles for the NGN Body

Purpose

The NGN Body will bring stakeholders in the UK telecommunications industry together to formulate a joint vision and framework for the transition to NGNs that provides guidelines on commercial, technical and communications issues, in order to facilitate the industry's smooth and efficient migration to NGNs.

It will:

- Develop a strategic framework for the NGN transition, encompassing commercial, technical and operational issues;
- Set and answer commercial, technical and operational questions relevant to the successful transition
- Be the central forum for the commercial debate;
- Form a 'neutral ground' for exchange of information, debate and decision making.

Vision

The NGN Body will aim to facilitate the successful transition to an NGN environment for all stakeholders in the process, in compliance with the UK regulatory and legal framework. Its focus will be on:

- Enabling the transition of the industry to converged all IP core networks by 2012 (illustrative date)
- Creating a vibrant and sustainable competitive environment that supports multiple competing NGNs and stimulates industry growth
- Establishing a framework that provides fair conditions for stakeholders in the market and balances diverging interests
- Ensuring a smooth transition process for both industry stakeholders and their end-users

Mission statement

The NGN Body will achieve its vision by:

- Taking a lead in defining solutions to questions that require cross-industry co-ordination and ensuring that decisions that need to be made are made in a timely manner
- Balancing different stakeholders' interests in the transition to NGNs and seeking solutions that provide the greatest possible benefit to the parties involved and their customers

Operating principles

In pursuing its vision, the NGN Body will adhere to the following principles:

- Contributing to the NGN transition process in a manner that is transparent, fair and in line with Ofcom's stated regulatory principles and UK competition law
- Ensuring that its members receive an opportunity to contribute their views in the process
- Ensuring that end-user concerns are being heard and taken into account by industry

3 Proposed organisational mechanics

3.1 Governance principles

There was broad consensus among industry stakeholders that the body should have strong overall governance principles. This reflects concerns about the effectiveness of the body and its power to reach agreement on contentious issues. Our proposed principles consider the concerns raised by industry and draw on some principles adopted by other industry bodies such as Consult21, NICC and the OTA. These include the areas outlined below.

Exhibit 15: Governance principles for the NGN Body

Area	Comments
Membership	<ul style="list-style-type: none"> The body will lead the development of an NGN framework for the UK telecommunications industry; it should therefore offer an opportunity for a broad range of stakeholders who have an interest in NGNs to follow the NGN debate <ul style="list-style-type: none"> this potentially covers fixed and mobile network operators, ISPs, service providers, virtual operators, content and applications players, technology players, Government and Ofcom we propose that restrictions apply to players who not own networks or provide services via telecommunications networks, in order to establish a meaningful boundary In order to facilitate decision-making, we propose the establishment of a board with 8-10 members led by an independent chairman
Decision-making powers	<p>The organisation should aim to be a decision-making body that issues guidelines to the industry:</p> <ul style="list-style-type: none"> Interviewees highlighted that the industry does not need a 'talking shop' Binding decisions are likely to be not achievable and not enforceable – the organisation could provide recommendations to the industry and to Ofcom The decision-making process needs to contain a mechanism to reflect dissenting views
Decision-making process	<p>To issue industry guidelines or approve administrative measures, decisions should be made on a consensus basis by the members of the organisation's board</p> <ul style="list-style-type: none"> The creation of a weighted decision making system would be highly contentious, and negotiating it would slow down the process of setting up the organisation A voting system would trigger disputes and not lead to lasting decisions Establishing a board with a limited number of members will allow consensus-based decision making.
Organisational structure	<p>The organisation will need an independent chairman whose role is to drive the creation of the body and effective ongoing operation:</p> <ul style="list-style-type: none"> The chairman of the organisation should be a senior individual with a strong understanding of the industry, but not currently employed by a UK operator and respected as impartial (possibly somebody who has only recently left the industry) He should not have an adjudication role- this should be separate in order to guarantee his impartiality The chairman should be supported by an effective, well resourced management team to include a CEO, CTO and programme directors who act as coordinators as well as provide a facilitation role within workgroups formed by the NGN Body's members
Membership composition	<p>We propose two tiers of membership:</p> <ul style="list-style-type: none"> Members with a representative on the board General members who can contribute to the debate through workgroups <p>Stakeholders who do not fulfil membership criteria (i.e. who are not network operators or provide services via telecommunication networks) can still be invited as observers or advisors of key workgroups</p> <p>Additionally, the body will offer a communications forum for any interested party to access information and / or communicate with the NGN Body (e.g. in the form of a website where recommendations and meeting minutes are published).</p>
Role of Ofcom	<ul style="list-style-type: none"> Ofcom should be a close observer of the process, but not a decision-maker – It should appoint a senior person to this role Ofcom also needs to drive the set-up process of the organisation
Ownership and funding	<ul style="list-style-type: none"> The body will be owned by its members and funded by their contributions Ofcom should fund the set-up phase only
Sunset clause	<ul style="list-style-type: none"> The organisation should have a limited lifetime (expected to be 3-4 years) Its board should review its performance and ongoing necessity regularly

3.2 Membership

Most interviewees we spoke to expressed the view that the body needs to be inclusive but effective. The body will need to take into account the interests of all players in the telecommunications services value chain.

However, in order to provide a workable boundary to membership we propose to limit it to:

- Network infrastructure operators, and
- Businesses that provide services to end-users via telecommunications networks.

These include:

- Network infrastructure operators (fixed and mobile)
- ISPs
- Service providers and virtual operators
- Content players and applications developers
- Technology solutions providers

This rule will help provide a flexible limit to the organisation's membership.

It was felt that Ofcom should have a role to play in terms of observing the activities of the new body and providing a level of non-binding guidance. Additionally, interviewees highlighted that there may be a need for Government departments to provide a "UK Plc" steer to the body on specific issues, such as for example, emergency services provision. Vendors and end-user associations may also be invited as advisors in certain topics.

Most interviewees stressed that in order to make the body effective, there will need to be some form of tiered membership which enables a small core of players to take the lead in terms of driving the NGN agenda forward, otherwise this risks becoming a "talking shop". On balance, most interviewees felt that the board membership should comprise of only 8-10 organisations, likely to include representatives from operators who are making substantial investments in NGNs. We support stakeholders' views on the involvement of non members and the need for a board with limited membership. We discuss the specifics of how the body's membership organisation could be structured in Section 3.4.

3.3 Decision-making system

3.3.1 Decision-making powers

The overwhelming majority of industry stakeholders interviewed during the course of this project agreed that the NGN Body needed to be more than a 'talking shop'. However, they also felt that the body could not make binding decisions on behalf of the industry.

Exhibit 16: Interview quotes regarding the decision making powers of the NGN Body

- "The body must answer questions, not just set them" (Fixed operator)
- "The body must be more than a discussion forum and should involve BT and the rest of the industry" (Fixed operator)
- "We are open minded about the decision-making power of the body, but it should not be talking shop" (Mobile operator)
- "It won't help, if it is just a talking shop" (Mobile operator)
- "There is a danger that the discussion will remain at the top level where everybody agrees, while the devil is in the detail" (Service provider)
- "Need to steer away from a high level strategy body like the BSG – this can't operate in a vacuum. It needs to balance short-term needs" (Fixed operator)

The exhibit below shows our suggested approach to the decision-making power of the NGN Body, based on a mid-way approach:

Exhibit 17: Suggested decision-making powers for the new NGN Body

- The NGN Body should make **non-binding recommendations** to the industry and provide **guidelines** for NGN roll-out to all industry stakeholders. It should also act as an advisor to Ofcom on policy related issues
- Adherence to these recommendations will be encouraged by the NGN Body's executive team through the generation of buy-in from key industry stakeholders in the decision-making process

3.3.2 Decision-making process

In order to be effective, the NGN Body needs a decision-making process that is both efficient and generates sufficient buy-in from key stakeholders into its decisions:

- Decision-making should take place on a consensus basis
- Establishing a board with limited membership (8-10 organisations) will ensure that achieving consensus is actually possible

Ofcom and industry stakeholders should consider establishing a voting process for administrative questions, in order to ensure their efficient resolution

Exhibit 18: Pros and cons of different decision-making procedures

	Pros	Cons	Proposed way forward
Consensus-based decision making	<ul style="list-style-type: none"> • Buy-in from all major stakeholders will give recommendations weight • Ensures that major views have been heard and that the resulting compromise is as beneficial as possible to all participants 	<ul style="list-style-type: none"> • Risks slowing down decision-making processes • High dependence on effective facilitation • Could result in large number of dispute references • Risk that those with "loudest" voice drive decisions 	<ul style="list-style-type: none"> • Recommended approach for new body
Voting based system	<ul style="list-style-type: none"> • Possibility of relatively rapid decision making • Avoids blockade of the decision-making process by individual organisations 	<ul style="list-style-type: none"> • The need to agree an acceptable voting system will delay the set-up of the NGN Body • The voting system – whether weighted or not, whether based on 75% or 66% majority – will be highly contentious • Appeals against decisions will be very likely 	<ul style="list-style-type: none"> • Avoid for subject matter decisions • Potentially use for administrative decisions / staff appointments
Decision-making by arbitrator	<ul style="list-style-type: none"> • Possibility to make decisions and resolve disagreements quickly 	<ul style="list-style-type: none"> • High risk of lack of buy-in by industry and acceptance of decisions • "Remote" decision making, bound to be flawed and not to reflect operators' commercial and technical realities • Acceptance very dependent on the personality of the arbitrator • Possibility of complaints and appeals 	<ul style="list-style-type: none"> • To be used for dispute resolution (e.g. through mediation efforts initially within the NGN Body and subsequently through Ofcom or an Ofcom backed adjudication scheme – if it is established)

In any event, there will need to be a clear process to ensure that members with grievances can escalate their issues, initially within the new body and ultimately with Ofcom. As an interviewee pointed out: "If it is a decision-making body, active participants should have the opportunity to veto a decision or take an issue to Ofcom".

3.4 Overall organisational structure

There was strong consensus amongst the organisations interviewed that the NGN Body needed an independent leader (chairman) to drive its agenda and decision-making process forward. It was also suggested that an internal team comprising a CEO, a CTO and a number of programme directors would be important for the effectiveness of the body, especially the activities within the workgroups formed by industry participants.

Below we describe our thoughts on how this body could be structured.

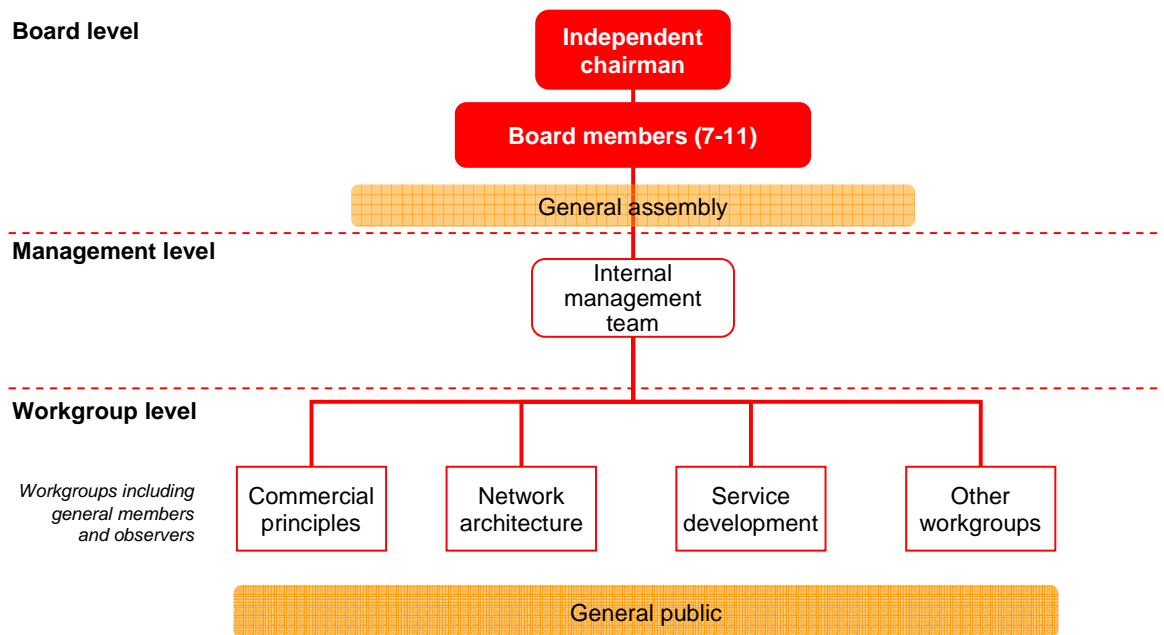
3.4.1 Underlying structure

Based on suggestions made by interviewees and structures adopted by established bodies such as NICC, Consult21, Digital UK and the OTA we have proposed an underlying structure for the new industry body that envisages three levels of hierarchy. These consist of a decision-making board, an internal management team and workgroups covering specific topics. Below we briefly outline the principles of the organisation's structure:

- The organisation will have an **executive board** formed by senior executives of the board member companies and facilitated by an independent chairman
- The key issues and achievements would be discussed periodically (e.g. every 6 months) in a broader group, the **general assembly**, which would include all members of the organisation
- The board would be supported by an **internal management team** composed of a CEO, a CTO, and at least three programme directors and one executive assistant
- The programme directors would guarantee the smooth functioning of the organisation (e.g. help to co-chair workgroups, stimulate the discussion with inputs to proposals, programme manage the process, ensure timely invitation to meetings and their preparation and manage the distribution of agendas and meeting notes)
- The **workgroups** would be formed based on proposals made by the board and approved by the CEO and Chairman; the workgroups would be composed mostly of members' representatives with a reasonable breadth of representation from the industry, but with specific selection criteria based on their expertise in the relevant field; the workgroup leader would be defined by the participants
- The workgroups can establish temporary project teams to resolve specific issues

The body will be independent, accountable only to its members.

Exhibit 19: Proposed structure for the organisation



3.4.2 Membership tiers

In order to function effectively, the body will need to have a tiered membership structure with major industry players at the centre.

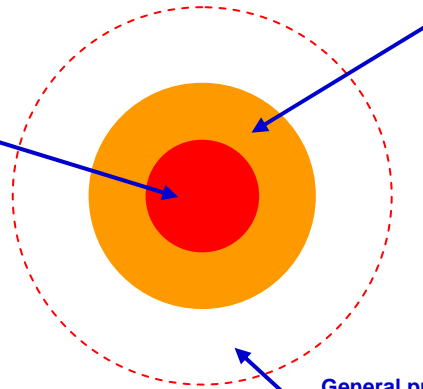
We propose three basic tiers:

- **Members with board representation:** 8-10 companies represented on the board by a senior executive, with strong time and financial commitment and participation in board decision-making; participants will be drawn from key industry players according to a set of rules to be agreed between Ofcom and industry
- **General members:** all members of the organisation, with equal time and financial commitment, participate in workgroups and project teams, and will receive updates on board decisions and the overall progress of the organisation in half-yearly general assembly meetings
- **General public:** we propose that the organisation set up a website and interface for communication with the industry and other interested parties (e.g. press, consumer bodies, etc); we do not foresee, however, the industry body interfacing with end-users

Exhibit 20: Membership tiers

Board members

- Part of decision-making process
- Limited membership, criteria defined in organisation's statutes
- Significant contribution to the organisations financing
- Commitment to regular participation at senior level



General members

- Suggest topics for discussion and contribute to workgroups
- Consultation by board members on topics being discussed
- Open membership with limited commitments
- Attend regular update events (general assembly)

General public

- Access to information via website
- Communication channels with new body

General membership should be open to all network operators and companies providing services to end-users via telecommunications networks, as outlined in section 3.2. This will allow a broad range of players to participate and contribute their views to the process, including new entrant VoIP players and content and applications developers, as far as they fulfil this criterion.

These general members would be able to participate in the working groups and general quarterly meetings (general assembly) aiming to communicate progress and discuss broader issues.

Throughout our interview process we have tested views on the potential involvement of industry stakeholders outside the telecoms operator community. The table below summarises these views.

Exhibit 21: Inclusion of stakeholders in the process

Stakeholder	Status
Ofcom	<ul style="list-style-type: none"> • It was suggested by the majority of interviewees that Ofcom maintain a close relationship with the organisation, but without involvement in its decision making process, so as not to compromise its role as policy maker and potential dispute mediator • We, therefore, suggest that Ofcom be given an observer status with participation in all board meetings, and also the ability to attend all workgroup sessions.
Government	<ul style="list-style-type: none"> • The government, in particular the DTI should have an observer status and be given the opportunity to attend workgroup meetings where Government input is required
Vendors	<ul style="list-style-type: none"> • Most interviewees, who were predominantly from the operator and service provider community, felt that vendors should not be members of the organisation due to potentially conflicting interests between vendors and their customers • Vendors could be involved in the workgroups as technical advisors
End-user representatives	<ul style="list-style-type: none"> • Possibly in an observer role on specific issues within the workgroups
NICC	<ul style="list-style-type: none"> • The body should have clear linkages with the NICC. However, NICC does not need to be represented on this body • The body is likely to request technical inputs from the NICC to specific workgroups

3.4.3 Board composition

a) Independent chairman

i) Role of the chairman

The main role of the NGN Body's chairman should be that of a facilitator of the discussion between the organisation's members. He should:

- Provide strategic input to the body's agenda
- Appoint the CEO (subject to subsequent approval by the board)
- Drive the discussion forward and facilitate the decision-making process at board level
- Play a mediation role in cases where there are disagreements between participants

In contrast to the Telecommunications Adjudicator, the chairman should not have adjudication / decision making powers, so as not to compromise his credibility as a neutral mediator.

In any event Ofcom will provide a backstop for dispute resolution in cases where the body's members cannot reach agreement.

ii) Characteristics of the candidate

The chairman should be an individual enjoying wide respect within the industry and a reputation for impartiality and objectivity.

A solid understanding of the subject matter was considered more relevant by interviewees than absolute independence. While the candidate for the position should not currently be employed by any of the major operators, long-standing industry experience was considered to be pivotal. The role is likely to be on a part-time basis given that there will be dedicated resource supporting the Chairman, including a CEO.

Aside from these qualities, the chairman should have a true interest in moving the NGN transition in the UK forward and taking ownership of the NGN Body's agenda and progress.

b) Board members

i) Role of board

The main role of the board members would be to sign off the organisation's agenda and endorse proposals for industry guidelines made by workgroups. It will:

- In consultation with and based upon proposals from the organisation's members:
 - define what the body's agenda should be (i.e. questions that the body needs to answer)
 - decide what working groups are required and set objectives, milestones and deliverables
- Ratify the nomination of the CEO
- Review and endorse proposals for industry guidelines made by the workgroups
- Set targets and measures for success of the organisation and monitor progress against objectives

Board members will be senior representatives from selected member companies (e.g. CEOs, CTOs, Commercial Directors).

ii) Selection of board members

Qualification for board membership should be based upon a set of rules to be agreed between Ofcom and industry. We recommend the following guiding principles for establishing these criteria:

- Reflect Ofcom's strategy of fostering competition at the deepest level of infrastructure sustainable
- Ensure a fair representation of key industry players with effective involvement in NGN deployment
- Ensure representation of a broad range of stakeholder constituencies, e.g. BT, cable operators, altnets, mobile operators, ISPs, service providers
- Ensure buy-in by all stakeholders through the appointment of senior individuals with relevant experience
- Be limited to a workable number of seats (8-10 members)

We strongly recommend that the appointment process be designed and operated on a transparent and non-discriminatory basis in order to ensure compliance with competition law. This is particularly important in the case that there is higher interest in board membership than the number of seats available.

The candidates for board membership could be put forward by member companies, interested in a seat on the board.

The board members would then be appointed by the organisation's chairman in consultation with Ofcom and member companies of the body. The selection should take into account the criteria above and / or further rules established by Ofcom and industry stakeholders. A representative board might have the following composition assuming a total of eight members:

- The fixed incumbent (BT Wholesale)
- One cable operator (NTL)
- Three altnets
- Two mobile operators
- One ISP or service provider

In addition, we would propose ruling out the possibility of a vertically integrated company with different subsidiaries (e.g. Orange, Wanadoo and Equant) having more than one seat.

In terms of financial contribution, we are proposing a tiered structure (see Section 3.7.2). Board members will be expected to make a more substantial financial contribution to the organisation than general members of the body.

3.4.4 The organisation's management team

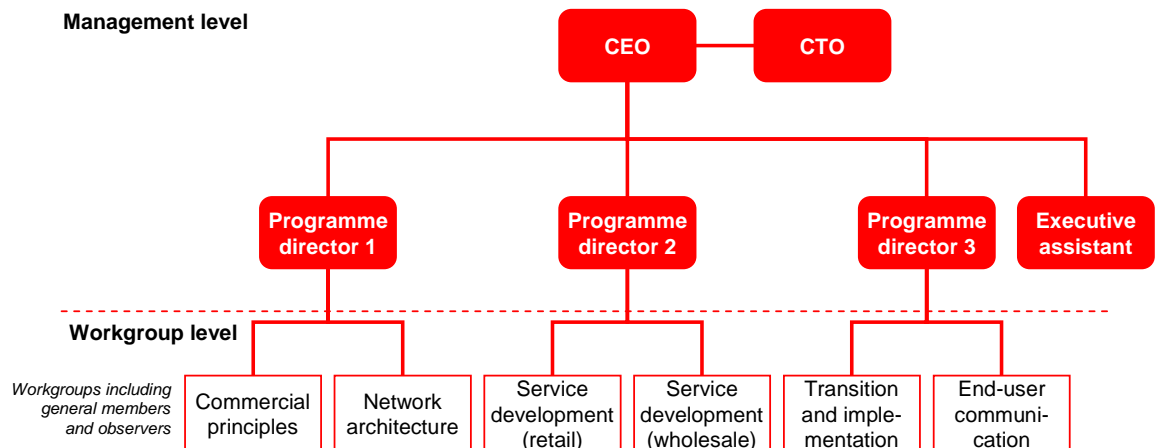
The NGN Body's internal management team would co-ordinate the activities of the organisation overall, overseeing the workgroups and projects in specific areas. The team would be composed by:

- A CEO (Chief Executive Officer) responsible for the overall co-ordination of the efforts of the internal management team and the workgroups
- A CTO (Chief Technology Officer) responsible for providing technical direction to the body and supporting the CEO and the programme directors on such matters
- Three to four programme directors responsible for the co-chairing of specific workgroups and the smooth functioning of the organisation overall

- An executive assistant responsible for office management and providing secretarial support to the internal team and the chairman

The exhibit below shows the overall composition of the internal management team and an example of how, potentially, the workgroups could be distributed between the programme directors.

Exhibit 22: Internal management team composition and linkage with workgroups (illustrative)



Below we describe the main roles and responsibilities of the different positions in the organisation, as well as the key characteristics required from the candidates for the positions.

a) CEO

The main role of the CEO should be drive the organisation's activities on a day-to-day level and to co-ordinate the working groups in line with the chairman's and board's steer. He would:

- Ensure that workgroups make progress against the NGN Body's agenda
- Ensure that projects conducted by the working groups are managed effectively and comply with the timelines and objectives agreed with the board
- Present working group proposals to the board with support from workgroup leaders
- Oversee administrative staff in daily operations of the office
- Propose a budget for board approval and ensure resources are deployed efficiently
- Represent the body externally
- Represent the body to Ofcom

The CEO will be an important point of liaison between the board and the industry working groups and as such would require full time commitment. He should be supported by at least three programme directors and one executive assistant.

The CEO should be an individual with significant knowledge of the issues in the area and strong managerial skills. He / she needs to have experience in dealing with large scale projects involving several stakeholders and have a complete understanding of the dynamics of decision-making process at board level.

In order to set up the organisation quickly, Ofcom could look to second a senior executive from industry to ensure the body is fully operational from the start, or provide an interim director to cover the start-up phase until a candidate is found.

b) CTO

The role of the CTO would be to provide the organisation with the necessary technical understanding of the opportunities, implications and risks in relation to the industry's transition to NGNs. He would provide advice on issues arising from workgroup discussions and recommendations and comment on specific issues. Specifically the CTO's responsibility would be to:

- Provide technical direction to the body in the transition to NGNs
- Provide an understanding of the technical implications of questions it aims to resolve
- Provide an expert technical opinion on proposals made by workgroups
- Give input to workgroups on contentious technical issues
- Assist the CEO in liaising with technical bodies, e.g. the NICC

The CTO should have substantial experience in a senior technical position, such as CTO or Network Planning or Product Development director, in a major network operator, IT services company, or equipment vendor and have an in-depth understanding of the technical issues related to NGNs. He / she needs to have experience in dealing with significant technology breakthroughs and the wider impact on stakeholders.

c) Programme directors

The main role of the programme directors is to support the workgroup leaders and facilitate and co-ordinate the workgroups' activities, contributing to the content of the discussion and driving activities forward. Each programme director would be responsible for one or two workgroups and would report directly to the CEO. Programme directors will be expected to:

- Help organise board presentations and progress reports
- Structure and organise workgroup meetings, workshops and open forums
- Provide a facilitation role in workgroup and project session
- Provide thought leadership to the debate and propose solutions where appropriate
- Establish meeting agendas and ensure independent notes are taken
- Organise liaison with NICC and Consult21 at workgroup levels
- Ensure commitment from workgroup members
- Be responsible for the quality of workgroup deliverables and time management for their activities

The candidates for the position must have prior experience in managing large scale projects, as well as knowledge of the key issues in the NGN process. They would also need to have proven strategic planning skills, as well as organisational and negotiation skills.

The CEO would be responsible for the selection of the programme directors in agreement with the board. He / she would also oversee the co-ordination of their activities.

d) Executive assistant

The main role of the Executive Assistant would be to organise the working group meetings (e.g. invitations, scheduling), ensure the publication of key documents on the website and provide office and administrative support to the Chairman, the CEO and the programme directors.

The candidates for the position need to have prior experience in assisting senior executives and knowledge of human resources and finance activities. Additionally, the candidate would need to have experience in producing and publishing reports on the web.

The CEO would be responsible for the selection of the Executive Assistant.

3.4.5 Workgroup level staff

a) Workgroup leader

The main role of the workgroup leader is to ensure the projects and tasks allocated to the workgroup by the board are managed effectively and produce results. The workgroup leaders would be jointly responsible for the progress of the workgroup together with the programme directors. Workgroup leaders would be expected to:

- Take the joint leadership in the workgroup process
- Liaise with the programme directors and the CEO regarding the progress of the group
- Jointly, with the programme director, establish project teams to tackle specific issues
- Lead and facilitate workgroup sessions
- Attend board meetings upon request from the board or the CEO to explain work progress or discuss specific issues

The leader should be an industry participant with significant knowledge of the issues related to the workgroup. He would need to have excellent leadership skills to drive the workgroup towards effective proposals to be approved by the board.

The CEO would be responsible for selecting the leader amongst the participants in the workgroup in consultation with workgroup members and the programme directors.

b) Workgroup participants

The participants in the workgroups should come from varied backgrounds within the telecommunications industry, depending on the subject. They will be responsible for the activities of the workgroups, as well as the formation of project teams to deal with specific issues.

The criteria for the selection of the participants should be open, but the companies that appoint them must ensure that they are equipped with the skills required for the workgroup (e.g. commercial background), as well as the leadership skills to drive the discussion forward.

Each general member would define their members. In the event that levels of participation are low, the workgroup leader could request the board members to provide more resources for the group.

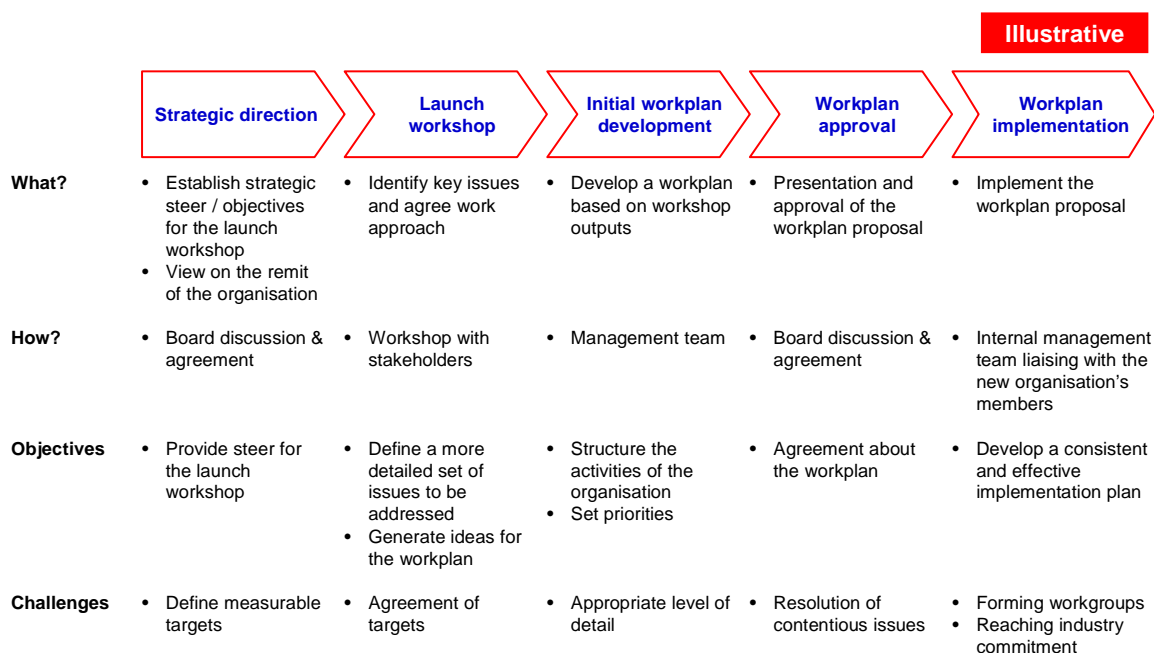
3.5 Overall working process

We envisage two types of process within the organisation to fulfil its purpose effectively. An initial start-up process, in which priorities for the organisation would be set and the overall workplan developed; and a “business as usual” working process which involves establishing and executing the annual plan for the organisation, as well as dealing with ad hoc issues that arise.

3.5.1 Initial start-up process

We believe that it will be important for the organisation to set a strategic direction at the outset, but also to then move on quickly to the resolution of more concrete questions at the operational planning level. The initial start-up process will focus on setting this strategic direction for the body and planning the necessary work streams.

Exhibit 23: Initial start-up process flow



The objectives of the initial start-up process are to create an overall plan for the activities of the NGN Body and kick-off the implementation. The participation of the internal management team (either interim or definitive) at this stage will be crucial for the success of the process. The key activities within the process are shown in the exhibit below:

Exhibit 24: Key activities in the initial start-up process (Illustrative)

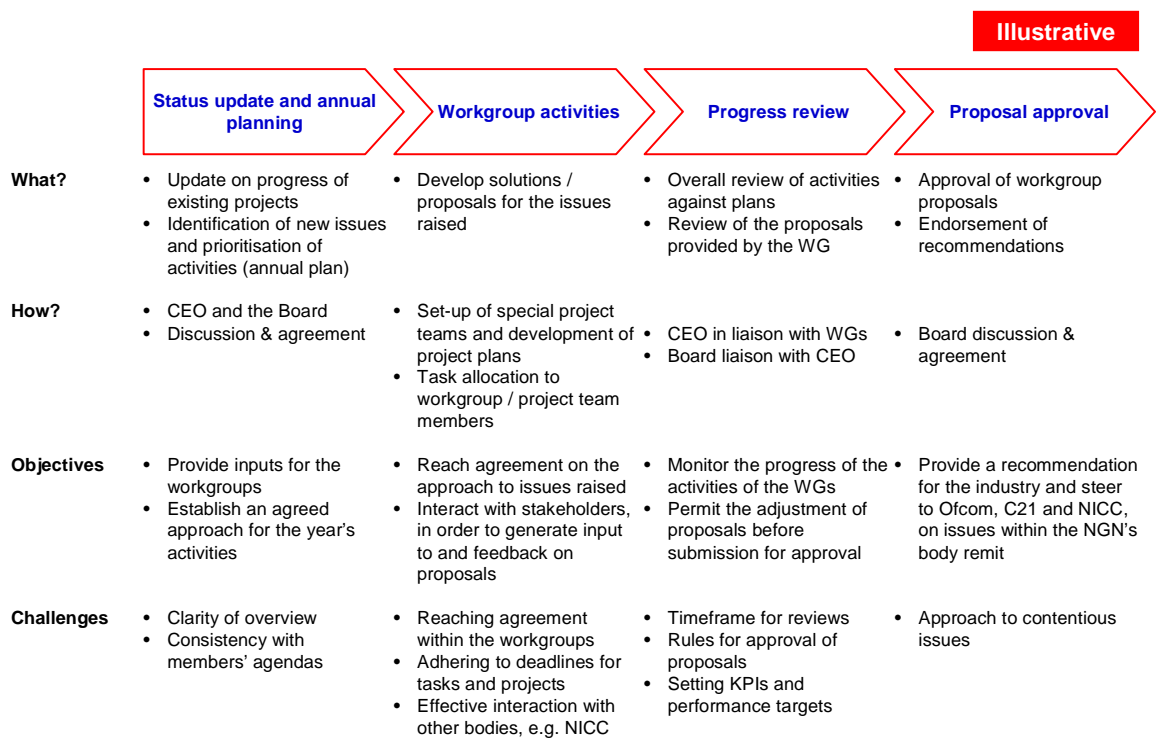
Step	Activities
Strategic direction	<ul style="list-style-type: none"> Develop vision for the NGN transition Set broad agenda for the organisation (high level issues)
Workshop	<ul style="list-style-type: none"> Establish a level playing field for the debate on the NGN transition process Prioritise and agree the issues to be resolved Define approach to the working process, including likely workgroups
Workplan development and approval	<ul style="list-style-type: none"> Set initial workgroups, composition, governance and targets Develop a project plan for the workgroups Establish the procedures for workgroups (e.g. frequency of meetings, responsibilities,

	<ul style="list-style-type: none"> etc) • Set a budget for the first year • Secure approval from the board
Workplan implementation	<ul style="list-style-type: none"> • Launch and hold the first workgroup meetings • Establish contact points with the industry and other stakeholders (Ofcom, Consult21, NICC)

3.5.2 Business as usual working process

The overall working process of the organisation follows a similar structure to the principles applied during the start-up phase but is more focused, since the tasks are more tightly defined and operational. This process will need to be iterative over time, as workgroups produce initial outputs and identify new issues and the effectiveness of the organisational set-up becomes apparent.

Exhibit 25: Outline business as usual working process flow



Below we present the key activities in each step of the process.

- **Status update and annual planning** – conducted by the CEO and the board with inputs from workgroups relating to progress of existing activities. The key activities within this step are:
 - update on the progress of the workgroups and analysis of performance against key milestones
 - identification and prioritisation of existing and new questions to be addressed
 - development of an annual work plan and guidelines for the workgroup activities
 - discussion of the need for external support on critical issues
- **Workgroup activities** – the activities of the workgroups are reviewed by the CEO and the workgroup leaders in line with the annual principles agreed by the board or following issues raised during the course of the year. The key activities within this step are:

-
- agreement between the CEO and workgroup leaders on the activities to be conducted by each workgroup
 - set-up of special projects to address issues of concern
 - task allocation within the workgroups
 - liaison with other bodies on technical issues (NICC), policy issues (Ofcom) or BT implementation issues (Consult21) depending on the ongoing work
 - regular review by workgroup leaders of progress on projects and tasks
 - monitoring of the activities by the CEO and the programme directors
 - preparation of recommendations for the CEO and the Board
 - **Progress review** – the review of workgroup progress and proposals for industry guidelines will be discussed between the individual workgroups and the CEO, as well as the CEO and the board. The key activities within this step are:
 - presentation of initial proposal by the workgroup to the CEO
 - adjustment on the proposal by the WGs in line with feedback received
 - presentation of the proposal by the CEO to the board, with the support of WG leaders
 - adjustment of the proposal by the CEO and WGs in line with feedback received
 - **Proposal endorsement** – once a proposal for an industry guideline has been reviewed by the CEO and the board, the proposal will be submitted to the board for final approval and then communicated to industry stakeholders. The key activities within this step are:
 - final approval of the proposal and announcement of the body's endorsement
 - communication of the body's recommendations
 - referral of open questions to stakeholders, other bodies and Ofcom
 - monitoring of the implementation of the recommendations by industry conducted by workgroup leaders and the CEO

3.6 Budget and funding

The majority of operators we interviewed, when prompted, indicated they would be willing to pay a membership fee to join the new body, if they saw a clear business case.

Most interviewees initially suggested that the new body should be funded by Ofcom or BT or a combination of the two. However, when probed if they would refuse to take part, if a membership fee was levied, most stated that they would not be averse to such a fee provided there was a demonstrable benefit to their organisation.

Below we present a first cut view on the likely level of funding required for the NGN Body, both during the set-up phase and once it is operational.

3.6.1 Budget

a) Indicative start-up costs

We have estimated that the start-up phase during which the organisation will be set up will require a circa £500k budget. These costs would include:

- **Interim management** – consisting of a programme leader, a project manager and an assistant over a minimum period of 3 months (60 man days) and accounting for around 30% of the start-up budget
- **Legal support** – comprising the costs associated with the incorporation of the organisation and representing roughly 15% of the start-up budget
- **Recruitment / headhunting** – includes the costs associated with the recruitment of the CEO, the CTO, the programme directors and the executive assistant and represents around 45% of the start-up budget
- **Office and computer equipment** – comprising systems requirements and office furnishing and representing roughly 10% of the start-up budget

b) Indicative operational costs

We have estimated an indicative operational budget (i.e. excluding the start-up costs) for the body of £1.4m per year. This is made up as follows:

- **Internal staff** – composed of the Chairman (part-time), the CEO, CTO, three to four programme directors and one executive assistant; salaries are fully loaded and include a 20% annual performance related bonus; internal staff costs would represent around 57% of the total budget
- **Office space and maintenance** – comprising rental costs of office space in a Central London location with capacity to host board meetings and potentially workgroup sessions (i.e. besides the work place for the internal staff, it would include at least two meeting rooms – a small one for up to 10 people and a large one for 15-20 people); we have also included service charges (i.e. security, external maintenance, etc) and utilities (water and electricity); office space and maintenance would represent around 5% of the total budget
- **Administrative support** – to cover outsourced finance, accounting and human resources support; we have also included an outsourced receptionist, as well as printing, stationery, postal services, cleaning, travel costs and insurance; this would represent around 7% of the total budget
- **IT support** – to include outsourced maintenance, connectivity and hosting, and telephony, and representing roughly 2% of the budget
- **Legal and consulting support** – comprising an initial budget for external legal and consulting support and representing around 29% of the budget
- **Other** – additional costs could be incurred to set-up the general assembly or other events which have not been considered in this budget

c) Extraordinary costs

The board would also be able to ask for additional funding depending on the development of the body's activities (e.g. to fund external consultants on specific projects). This would then require a cash call from the board members. Each member of the board would contribute in the same proportion to their total membership fees (see below).

3.6.2 Funding composition

We propose different funding criteria for the start-up and operational phases.

a) Start-up costs

For the sake of expediency and in order to create an industry-pull, we propose that Ofcom fund the start-up phase of the body.

b) Operational costs

We propose that the funding mechanism be based on a fixed contribution plus a variable contribution based on members' turnover.

- **Fixed contribution**

We propose a fixed contribution of £20k for members with board representation, totalling £160k for 8 members.

Each general member would contribute a small fixed amount. We propose that this be set at £5k per general member.

- **Variable contribution**

Each member with board representation would also contribute with a variable amount over and above the fixed amount outlined above. This would be expected to fund the budget shortfall as outlined below:

- Total operational costs: £1,400k
- Fixed contribution from board members: £160k
- Fixed contribution from general members (assuming 30 members): £150k
- Total fixed contribution: £310k
- Outstanding budget requirements to be shared between board members: £1,090k

We propose that the outstanding funding requirements be split between the board members in relation to their turnover.

3.7 Lifetime and progress reviews

Most organisations interviewed stressed the necessity for a limited lifetime for the organisation as well as a regular review cycle, in which the performance of the organisation is reviewed by its board and general assembly.

Interviewees stressed the need for a sunset clause in order to ensure that the organisation does not become self-perpetuating (the membership fee and senior representation at board level should help ensure that this is taken seriously).

Interviewees agreed with a performance review cycle following the schedule below:

- Initial progress update after 6 months: does the organisation have the correct remit? Is it moving in the right direction?
- Performance review after 18 months: how is the organisation performing against its objectives?
- Review for closure after approximately 3 years: is the organisation still necessary?

However, the sunset clause should not be too strict, otherwise the organisation might lose credibility if it does not achieve its purpose by the first deadline.

Exhibit 26: NGN Body – proposed series of reviews



The reviews should be complemented by regular monitoring at board level (either monthly or quarterly) of the organisation's performance and its impact on the NGN transition process. To inform these performance updates, the organisation needs a communication programme comprising annual plans and reports, and supported by a set of published objectives and KPIs, as described below.

a) Need for published annual plans and annual reports

The organisation should develop and publish an annual plan with the key objectives for the organisation throughout that year. This should include target KPIs to help ensure that the achievements of the organisation are consistent with the objectives set beforehand (see section 3.6 for a description of the process).

Published performance reports would help provide a regular check on the organisation's performance and would serve as inputs for the review cycle after 18 months and 3 years.

b) Need to define objectives and establish KPIs

The NGN board and management team need to establish a set of objectives and KPIs in order to provide a basis for monitoring performance throughout the lifetime of the organisation. These will be based on the targets set out in the annual plan. Below we provide an illustrative sample of possible indicators to be used to measure the organisation's performance against its stated objectives.

Exhibit 27: Illustrative set of indicators for performance measurement

Effectiveness of internal processes	<ul style="list-style-type: none"> • Adherence to deadlines (e.g. projects, publication of documents) • Number of issues unresolved and referred to Ofcom • Budget compliance
Industry acceptance	<ul style="list-style-type: none"> • Attendance and involvement • Implementation of recommendations • Ofcom disputes raised as a result of debates within the organisation • Level of satisfaction with organisation’s performance
Industry outcomes	<ul style="list-style-type: none"> • BT and other operators’ progress in the transition • Operators’ perception of the transition • Level of investment
End-user outcomes	<ul style="list-style-type: none"> • Service quality performance • Queries and complaints • Outages

3.8 Legal framework

Implementing formal structures for this new body that will meet the necessary organisational and governance requirements is feasible but is likely to be relatively complex. The proposal needs to also consider potential competition law risks which will have to be managed carefully.

We have considered a number of possibilities for the legal status and formal structure of the new NGN Body. These include:

- Partnership
- Unincorporated association
- Limited company by guarantee (i.e. similar to a company limited by share capital but does not distribute profits to its members).

Below we discuss the benefits and challenges relating to each of these options.

Exhibit 28: Pros and cons of different legal structures

	Pros	Cons	Proposed way forward
Partnership	<ul style="list-style-type: none"> • Could provide more of a sense of “ownership” to its members 	<ul style="list-style-type: none"> • Complex to put in place • Could generate tax complications for members • Assumes that all members are “equal” 	<ul style="list-style-type: none"> • Avoid
Unincorporated association	<ul style="list-style-type: none"> • Flexible as allows for participants to put in place arrangements in standard form 	<ul style="list-style-type: none"> • Absence of formal structure could result in time-consuming efforts to create frameworks • Would not be a legal entity so would be unable to enter into contracts (employ staff, rent premises etc) • Could potentially engage a third party to undertake key activities on behalf of the body (e.g. enter into contracts) but many commercial organisations qualified to take on this role could be conflicted 	<ul style="list-style-type: none"> • Avoid

	Pros	Cons	Proposed way forward
Limited company by guarantee	<ul style="list-style-type: none"> Limited liability to its members Is a legal personality which can enter into contracts on its own behalf (e.g. registering for VAT) Offers flexible governance within an established framework As a legal personality can protect directors and employees from personal liability Allows for different classes of members 	<ul style="list-style-type: none"> Would require a longer set-up time than an unincorporated association Requires more “commitment” than an unincorporated association from its potential members which could result in delays in getting their buy-in 	<ul style="list-style-type: none"> Proceed with this option

On balance, we believe that a company limited by guarantee is the best option for this new NGN Body. This is also the legal structure adopted by Digital UK (formerly known as SwitchCo).

3.8.1 Governance

There are a number of mechanisms which would need to be put in place by a company limited by guarantee. These include:

- A Memorandum and Articles of Association which describe the purpose of the organisation and set out its basic governance (mandatory)
- Supplemental governance documents which define the rules for dealing with day to day issues (optional but recommended for this body). Supplemental governance documents can be varied more easily than the Memorandum and Articles of Association.
- Deeds / contracts which define the relationship between members and the association

3.8.2 Risk factors

We see two main risks on the governance front. These include:

- Competition Law issues
- Liability issues

a) Competition Law issues

We have a number of concerns about the position of this new body and compliance with competition law. While we do not consider competition law compliance issues to be insurmountable, we believe that these will need careful management.

In principle, any body where participants in the same or similar markets are joining to work together ought to raise questions about competition law compliance. This new body, however, presents some particular problems as its subject matter is likely to involve the future direction of the industry. To an extent, these issues can be mitigated by simple rules such as "no member of the body may use this body to exchange price information with another." However, it is possible to envisage greyer areas where clear lines of demarcation will need to be established in order to enable the body to operate effectively. An example of this might be in relation to interconnect standards and processes.

It would be premature to set out a detailed competition law compliance programme for the body before its scope is established in detail. However, we recommend that competition law considerations be borne in mind

in the process of establishing the new body's scope. We also consider absolutely essential that once the body is up and running, clear rules and compliance procedures for competition law are set. In this regard, the active participation of Ofcom as the concurrent competition authority will be an essential constituent in the compliance process.

b) Liability issues

One concern expressed by some industry players is that people participating in the new body (including, potentially, its employees) may end up incurring liabilities, either personally or for their employer, through their work in the body. There is no straightforward solution to this but we believe that a series of measures may prove effective in giving participants comfort. The first is that, as a company limited by guarantee, the new NGN Body will benefit from legal personality implying that its directors and employees will not normally be liable for its actions. Industry participants in the work of the NGN Body could, in theory, also incur liability to other industry players. If industry players remain concerned about this, it may be possible to write certain commitments into the governance structure of the new body which would mitigate the possibility of risk through participation. However, some risks will not easily lend themselves to such mitigation.

3.8.3 Enforcement issues and 'regulatory shopping'

Although the new body's decision will not be binding, it may be desirable to bind the members to the underlying decision-making processes.

In principle there is no reason why processes/decisions made of the new body cannot be binding on the members. However, preventing operators from moving to Ofcom or other organisations in case of dissatisfaction with a decision by the NGN Body will be challenging. Ofcom's participation in the new body, and Ofcom policy in relation to the new body's processes and decisions can, however, be strongly influential (or even decisive) in limiting 'forum shopping' opportunities. In this context, we believe it would be appropriate for Ofcom to adopt a policy pursuant to section 186(3)(a)² of the relationship between the new body's processes and Ofcom dispute handling obligations. Such a policy could operate effectively to preclude the reference of a dispute to Ofcom until the NGN Body's processes have been used to deal with the matter under consideration. Ofcom may also wish to consider adopting a policy about how it will deal with complaints which fall within the subject matter of the new NGN Body.

3.9 Name of the organisation

The name of the organisation should reflect its purpose in relation to the UK telecommunication's industry's transition to NGNs. It should lead to an acronym that is easy to remember, but does not have to be 'catchy', given that – in contrast to Digital UK – it will not have to be established as a consumer brand.

We propose a name consisting of three components:

- The organisation's focus area: UK, NGN, Network, Telecoms, IP
- The question it addresses: transition, evolution, convergence, development
- Its role in the process: steering board, action group, industry panel, strategy board

Ideas for possible names could include:

² Providing Ofcom with the possibility to refer disputes to alternative dispute resolution mechanisms.

-
- UK Next Generation Telecoms Board (NGTB)
 - NGN Action Group (NAG)
 - NGN Strategy Board (NSB)
 - Network Evolution Steering Board (NESB)
 - Network Development Action Group (NDAG)
 - Network Transition Steering Group (NTSG)

4 Steps towards implementation

4.1 General principles

This chapter outlines the main actions that will need to take place in order to establish an NGN Body. We believe that the process will require strong Ofcom leadership during the initial stages.

- We estimate that it will require approx. 6 months to establish a fully operational NGN Body
- During the first 3 months Ofcom will need to take the lead in the set-up process, and put an interim management team in place in order to make things happen
- After 3-4 months a CEO and programme management team appointed by industry should begin to replace the Ofcom team.

As the outline of actions below shows, setting the organisation up in 6 months is an ambitious target in terms of actions required. Whether this target is achievable will largely depend on the time required to develop a legal framework that is accepted by industry, sign up members and put a management team in place.

Below we outline what could be achieved after 2 and 6 months, respectively.

Exhibit 29: Features of the NGN Body after 2 months and 6 months

NGN Body after 2 months (end of February 2006)	NGN Body after 6 months (end of June 2006)
<p>The 'strawman' of the organisation will have been established</p> <ul style="list-style-type: none"> • A senior figurehead within Ofcom, acting in an interim chairman capacity and promoting the organisation to key stakeholders • Proposal of a legal framework (articles of association, shareholders agreement) • First group of major stakeholders has agreed to participate 	<p>The body is ready to launch activities</p> <ul style="list-style-type: none"> • Chairman and board are in place • An initial workplan and budget have been agreed • The body has its own management team, own premises, and a website is in place to share information • The body has announced its name and logo • Approx. 30 members have signed up and met for an inaugural / goal setting workshop • Workgroups are being set up

4.2 Outline of proposed actions and milestones

This section outlines actions to be taken and milestones to be achieved during the first six months of the life of the organisation. We have divided the implementation process into 'immediate priorities' (to be resolved in 2005) and three implementation phases of two months each:

- **Immediate priorities (pre-Christmas):** Finding support in principle for the organisation
- **First two months (Jan-Feb 2006):** Draft a framework for the organisation
- **Months three and four (Mar-Apr 2006):** Establishing team and agenda
- **Months five to six (May-Jun 2006):** Launching the organisation

Pre Christmas and during the first two set-up phases, the implementation process will have to be driven by Ofcom. Once the Board and the NGN Body's management team are in place, they will increasingly take on this role.

4.2.1 Description of worksteps

a) Immediate priorities (pre-Christmas): Finding support for the organisation in principle

During the weeks following the completion of this working document, Ofcom's team should focus on seeking sponsorship for setting up the NGN Body, both from internal and key external stakeholders.

It should also begin to put interim management resources in place.

Workstream	Actions	Milestones to be achieved
Members	Generate sponsorship and buy-in from senior Ofcom and key industry representatives <ul style="list-style-type: none"> Win sponsorship within the Ofcom Executive for the project, agree initial budget and form steering group Gauge level of buy-in into the proposal by key industry stakeholders 	<ul style="list-style-type: none"> Senior sponsor within senior Ofcom team promoting the project Approved outline budget for the first 6 months Commitment in principle from senior management of 2-3 key industry organisations
Management team	Establish interim management team <ul style="list-style-type: none"> Look for an interim project leader (either from within or outside Ofcom) to take ownership of the process Make programme management resources available to drive the development of the organisation; for the sake of expediency they may have to be seconded by Ofcom 	<ul style="list-style-type: none"> Interim management team in place
Workplan development	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> N/A
Organisational set-up	Embark on first steps of setting up the organisation <ul style="list-style-type: none"> Pass outline of the proposed organisation onto legal team with a brief to develop a strawman legal framework for the body (memorandum and articles of association, shareholders' agreement) 	<ul style="list-style-type: none"> N/A

b) First two months: Establishing the framework for the organisation

During the first two months of setting up the organisation, Ofcom should aim to sign-up the first anchor members for the organisation and develop and negotiate its legal framework. In parallel, it should aim to secure broader industry support.

As recruiting the management team for the organisation may take time, Ofcom should start to look for candidates early.

Workstream	Actions	Milestones to be achieved
Members	Continue to sound out support by senior management from major industry stakeholders <ul style="list-style-type: none"> Sign-up initial 'anchor' participants Announce decision to set up the organisation 	<ul style="list-style-type: none"> Announce core initial group of participants Announce plan for the next 4 months
Management team	Finalise selection of interim management team Begin recruitment process for permanent management team <ul style="list-style-type: none"> Continue search for a 'figurehead' (future chairman) for the organisation Begin search for potential candidates for the management team 	<ul style="list-style-type: none"> Announce interim project leader and programme manager

Workstream	Actions	Milestones to be achieved
Workplan development	<ul style="list-style-type: none"> Detail action plan for the organisation for the next 4-5 months (up to end of month 6) 	<ul style="list-style-type: none"> N/A
Organisational set-up	Develop the organisational framework <ul style="list-style-type: none"> Finalise legal framework Consider holding a consultation on the strawman legal framework for the body or seek feedback informally (e.g. as part of seeking stakeholder support) 	<ul style="list-style-type: none"> Put forward proposed legal framework (potentially with the help of a public consultation)

•

c) Months three and four: Establishing team and agenda

Once all major industry players have been approached and the basic legal framework agreed, the members of the new body, together with Ofcom, should embark on establishing the first board of the body and preparing the inaugural workshop.

Workstream	Actions	Milestones to be achieved
Members	Build membership <ul style="list-style-type: none"> Sign up further members from industry Establish first board of the organisation (depending on willingness of organisations to sign up, this might fall into the next phase) 	<ul style="list-style-type: none"> Complete set of members for the first year of operation
Management team	<ul style="list-style-type: none"> Recruit permanent CEO, project management team and secretary in consultation with members (if candidates cannot be found quickly, this may extend into the next phase) Set up workgroups 	<ul style="list-style-type: none"> Executive team in place Beginning of handover to permanent management team
Workplan development	Prepare and hold initial strategic workshop, in order to establish a proposal to the board regarding <ul style="list-style-type: none"> Goals of the organisation Workgroup structure KPIs for the organisation Next steps 	<ul style="list-style-type: none"> Framework to establish an annual plan and budget, as a result of inaugural workshops Established workgroup structure
Organisational set-up	<ul style="list-style-type: none"> Take steps towards the incorporation of the body (e.g. VAT registration) Find premises for the organisation Commission work on branding, corporate identity, distribute proposals among board members Commission development of a website for the organisation 	<ul style="list-style-type: none"> Offices space and preliminary website in place

d) Months five to six: Launching the organisation

During months five and six, the interim management team should hand over its activities to the permanent management team.

The organisation should establish its first annual plan and budget, approved by its board.

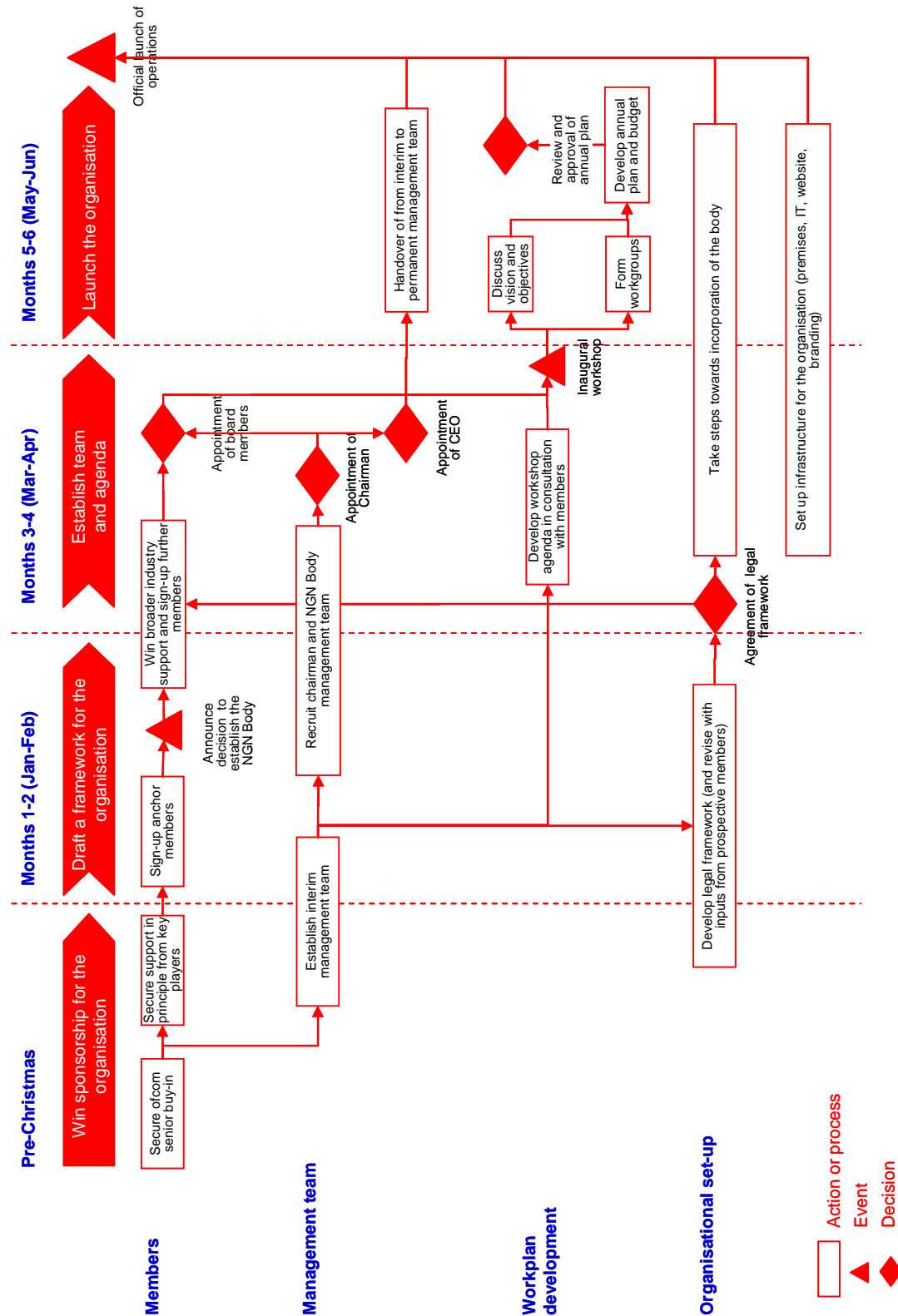
At the end of month six we expect the NGN Body to officially launch operations.

Workstream	Actions	Milestones to be achieved
Members	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> N/A

Workstream	Actions	Milestones to be achieved
Management team	<ul style="list-style-type: none"> Finalise handover to permanent management team 	<ul style="list-style-type: none"> Official launch of the operations of the organisation at the end of month 6
Workplan development	<p>Establish the organisation's first annual plan</p> <ul style="list-style-type: none"> Confirm overall objectives and priorities for the first year between Board Members and CEO Hold workgroup meetings to elaborate workplans for the first year (questions to be addressed and their prioritisation, responsibilities, timescales, KPIs, resource requirements) Integrate Board and Workgroup inputs into a proposed workplan and budget for the organisation's first year of operation for submission to the board Work out parameters of first progress review Conduct board meeting to approve workplan and budget Conduct general meeting to generate members' buy-in Publish the workplan 	<ul style="list-style-type: none"> Approved workplan and budget for the organisation's first year in operation Set objectives and KPIs for first progress review after 6 months of operation Improved website
Organisational set-up	<ul style="list-style-type: none"> Agree name and logo Finalise process of incorporation 	<ul style="list-style-type: none"> Announcement of name and logo

4.2.2 Implementation timeline and dependencies

Exhibit 30: Timeframe for implementation of the organisation



5 Key success factors and challenges

During the interview process, the following points were mentioned as critical for the success of the organisation and the effectiveness of its implementation process:

- Very clear scope and agenda at the outset and understanding of the 'big ticket' items that need to be resolved
- Effective governance regime, in particular:
 - the need for a leader (chairman or CEO) to drive the organisation forward
 - tightly managed agenda and effective decision-making processes, in order to avoid the creation of a 'talking shop'
- Ofcom to provide the organisation with the initial momentum
- Need to start the set-up process as soon as possible (concern that otherwise BT may move too far ahead with its plans)
- Ensuring availability of sufficient resources in order to sustain the organisation's momentum
- Commitment from BT and Ofcom to make things happen
- Senior management buy-in from the other participants
- Minimum level of commitment by participants, e.g. regular staff attendance, contribution of staff with suitable skills and seniority
- A broad representation of stakeholders will be beneficial. However, this needs to be managed in a way that does not hold up the decision-making process

6 Appendix A – Interviews

	Sector	Companies
Ofcom	n/a	<ul style="list-style-type: none"> • Andrew Heaney • Justin Moore • Peter Ingram • Sean Williams • Steve Unger
Industry	Fixed network operators / cable operator	<ul style="list-style-type: none"> • BT • C&W / Energis • NTL / Telewest • Kingston • Easynet • Thus • Colt
	Mobile operators	<ul style="list-style-type: none"> • T-Mobile • Vodafone • O2 • Orange • Three
	Service Providers	<ul style="list-style-type: none"> • AOL/Time Warner • Wanadoo • Carphone Warehouse • FCS • Viatel
Others	n/a	<ul style="list-style-type: none"> • Marconi • The CMA • OTA • DTI • SwitchCo / Digital UK • NICC

7 Appendix B – Example questions to be addressed by different industry bodies

In addition to the example outline questions below, Ofcom should provide guidance on overarching policy issues including:

- Determining whether in the NGN environment, established and new operators should operate on a fully level playing field vs. whether established operators should be “rewarded” for legacy investments
- Determining to what extent infrastructure based players should be given more favourable incentives than purely serviced based players
- Conducting market reviews to establish SMP in the new NGN environment
- Making final decisions on the remedies required to address SMP issues in the NGN environment
- Ensuring that any recommendations made by industry / the new NGN Body are compliant with regulatory and legal principles

Exhibit 31 : Illustrative list of questions to be addressed by different industry bodies

	Commercial principles	Network architecture	Retail services	Wholesale services	Transition and implementation	End-user and comms issues	Measures of success
Ofcom	<ul style="list-style-type: none"> • Which operators / types of companies will need to be regulated on NGN issues? • How to take into account new types of players in the market? • How should the costs and benefits of NGN transition be apportioned? • What principles need to apply to NGN SMP product charges? • What should be the charges for SMP services? 	<ul style="list-style-type: none"> • How to ensure that technical architecture solutions proposed by BT / other significant players do not lead to foreclosure? 		<ul style="list-style-type: none"> • What elements of the network will continue to be bottlenecks? • What types of wholesale services should SMP players provide? • What rules for dispute resolution should apply, if operators cannot agree service specifications or are dissatisfied with service delivery? • Is there a requirement for new wholesale services for use by content and applications providers? 	<ul style="list-style-type: none"> • What rules for dispute resolution should apply, in the event that operators cannot agree transition arrangements? 	<ul style="list-style-type: none"> • What consumer protection issues are relevant in the context of Ofcom's consumer policy? • Should Ofcom play a role in consumer communication? • Should operators be given specific obligations / guidelines? 	<ul style="list-style-type: none"> • What determines a successful transition to NGN for the UK telecoms industry? • What industry structure would Ofcom like to see in 5-10 years' time?

Commercial principles	Network architecture	Retail services	Wholesale services	Transition and implementation	End-user and comms issues	Measures of success
<p>NGN Co</p> <p>What commercial principles need to apply in the new interconnection world?</p> <ul style="list-style-type: none"> • What are the cost drivers for interconnection in an NGN world? • (How) do they vary by type of service and quality? • What charging models will be applicable by service type? • per minute / per capacity • QoS based, • relevance of distance • applicability of models such as peering, revenue sharing etc • What are the implications of the emergence of new services, e.g. nomadic voice services and FMC? • Should commercial principles vary by service type and/or network type (e.g. fixed and mobile networks)? • What QoS parameters need to be included in contracts? 	<p>What should the NGN interconnection architecture look like?</p> <ul style="list-style-type: none"> • Is there a requirement for different architectures for different services (fixed/mobile voice, data, video etc)? • How many geographic levels of interconnection should exist between fixed operators? • Will fixed and mobile networks interconnect in the same locations as today? • What information needs to be exchanged between operators (fixed-fixed-mobile, location presence, equipment IDs)? • What are the capabilities and limitations of existing protocols (in consultation with NICC)? • How can acceptable service quality levels be established? <ul style="list-style-type: none"> – In which parts of the network are quality issues likely to arise? Why? 	<p>What retail services may emerge from the transition?</p> <ul style="list-style-type: none"> • How will FMC develop and what are the implications for fixed and mobile operators? • How quickly will nomadic voice services evolve and what are the implications for the market? • What other new retail services may emerge from the transition? • How will content players / applications developers want to interact with customers? • What new types of players might emerge? • Role of applications and service providers • Service provision across geographic areas 	<p>What wholesale services are required in the new environment?</p> <ul style="list-style-type: none"> • How will the new environment impact where there are bottlenecks that need to be addressed through regulated wholesale products? • What commercial products might be required? • How could these wholesale products be delivered within an NGN architecture (level on the network, geography)? • How can content players and applications developer 'plug in' to NGNs? • What QoS levels are acceptable for different types of services? • Should this be different for different networks (fixed, mobile)? • How can QoS for different services be delivered? 	<p>How should the transition and implementation plan be managed?</p> <ul style="list-style-type: none"> • Should there be an industry target switch-off date? • If yes, when? • How long should legacy and NGN networks continue to run in parallel? • Should there be a coordinated transition plan by geography? 	<p>What end-user protection and communications issues need to be addressed?</p> <ul style="list-style-type: none"> • How likely is service disruption and/or quality degradation? What could it be caused by? • How to deal with changes to emergency services requirements? • What other consumer issues are likely to arise? <p>How can potential risks be mitigated?</p> <p>What consumer communications plan is required?</p> <ul style="list-style-type: none"> • What are the main messages that consumers should be given? • When do they need to be communicated? • Which messages should be communicated collectively and which by operators individually? • Should there be a joint consumer communication budget? 	<p>What factors will determine a successful transition for NGN Co?</p> <p>At which points should NGN Body's performance be reviewed?</p> <p>What criteria will determine the end of NGN body's lifetime?</p>

	Commercial principles	Network architecture	Retail services	Wholesale services	Transition and implementation	End-user and comms issues	Measures of success
Consult1	What should an RIO in an NGN world look like?	How can BT's own NGN architecture comply with the vision set by NGN Body?		<ul style="list-style-type: none"> How can the individual SMP services identified be implemented? <ul style="list-style-type: none"> Service specification Transition schedule Transition/migration processes What support systems and processes are required? 	<ul style="list-style-type: none"> How can BT ensure that its transition plan minimises risk to all key stakeholders? What should BT's detailed transition plan be? 	<ul style="list-style-type: none"> What should be BT's communication plan in light of NGN Co recommendations? 	<ul style="list-style-type: none"> How will BT measure success of its own NGN programme?
		<ul style="list-style-type: none"> How do they affect different services? 				<p>How should industry deal with consumer reactions to the communications plan?</p> <ul style="list-style-type: none"> Should each operator deal with its own customer enquiries? Is there a need for a centralised helpline? How should situations be handled where customer disruption is caused by a fault during another operator's transition? Should there be any compensation? 	

	Commercial principles	Network architecture	Retail services	Wholesale services	Transition and implementation	End-user and comms issues	Measures of success
NICC		<ul style="list-style-type: none"> What international standards best fit the technical requirements guidelines set by NGN Co? What efforts are required to drive international standardisation? 	<ul style="list-style-type: none"> How can a single data base for number portability be established? 	<ul style="list-style-type: none"> Through which standards and interfaces can network performance be optimised (on the whole)? Are quality targets established by the NGN Body achievable? If so, what needs to be done, in order to achieve them and how can they be measured? 	<ul style="list-style-type: none"> Establish or confirm communication interfaces between the companies Agree start dates for service delivery Agree detailed installation and transition requirements and dates for SMP services Establish resource requirements 	<ul style="list-style-type: none"> Resolution of incidents (outages, quality deterioration) 	
Bilateral negotiation	What should detailed contract conditions between operators look like?			How can commercial and SMP wholesale services be implemented? <ul style="list-style-type: none"> Service description Commercial terms SLAs Launch schedule Systems (e.g. billing mechanisms) 			
Individual operators		<ul style="list-style-type: none"> Development and execution of own network investment plan Adherence to network parameters agreed within the NGN Body and NICC 	<ul style="list-style-type: none"> Development and launch of retail services 	<ul style="list-style-type: none"> Development and launch of commercial wholesale services Adherence to parameters and processes agreed for SMP services 	<ul style="list-style-type: none"> Development of own transition plan 	<ul style="list-style-type: none"> Communication to customer base at the level agreed within NGN Co 	

8 Appendix C – Proxy organisations

We have reviewed the remit, organisational structure and governance of a number of proxy organisations for the NGN Body in order to gather ideas and learn from the experience of setting up these organisations.

Industry stakeholders have named both the OTA and the NICC as organisations that have been beneficial to the industry and have fulfilled their respective roles well. We have also conducted detailed reviews of the workgroup structure Consult 21 and the organisation and governance of Digital UK (SwitchCo).

We have gathered information about these organisations throughout our stakeholder interviews, from the respective organisation’s website and through interviews with their management. Individuals consulted were:

- OTA: Peter Black
- Digital UK: Barry Cox (Chairman), Andy Townend (Director of Operations)
- NICC: John O’Reilly (Chairman), Peter Clarke (Secretary)

We have also spoken to Jo Upward (BT Wholesale Director of Industry Development, head of Consult 21) as part of our stakeholder interviews.

8.1 Learnings from proxy organisations

The table below outlines the extent to which these organisations are comparable to the NGN Body in their scope and challenges, and how they differ. It also lists similarities between their governance structure and the structure proposed by us for the new NGN Body.

Exhibit 32: Characteristics of industry bodies and learnings for the NGN Body

	Similarities to the NGN Body	Differences	Learnings and ideas for the NGN Body
OTA	<ul style="list-style-type: none"> • Challenge to negotiate the smooth co-operation between BT and other telecommunications operators 	<ul style="list-style-type: none"> • Clearly defined, operational remit • Well known and well understood set of issues to resolve • More limited range of stakeholders (BT and LLU operators) • Funded by Ofcom and BT 	<ul style="list-style-type: none"> • Proposal for a strong, credible and hands-on leader (chairman or CEO, or a combination of the two) to drive the organisation forward • Need for effective operational and administrative support • Importance of Ofcom’s initiative at the outset • Tiered membership structure • Need to keep the ‘inner circle’ or board limited to 8-10 members (current expansion of the MBE beyond these numbers is perceived to be slowing down the process) • Advantage of having decision makers and specialists participating in the process, rather than pure representatives

	Similarities to the NGN Body	Differences	Learnings and ideas for the NGN Body
Digital UK (SwitchCo)	<ul style="list-style-type: none"> Nationwide technology transition of a key communications medium Challenge to co-ordinate the transition across competing organisations Challenge of taking into account the interests of broad range of stakeholders with diverging interests 	<ul style="list-style-type: none"> Government driven transition, with deadline set by the government (which was initially seen by the broadcasting industry as contrary to their interests) Participation in the body for PSB broadcasters and DTT platform owners legally binding, enforced through the BBC Charter review and the PSB licence renewals in 2004 Transition requires change to end-user equipment Management of network roll-out more limited (1150 transmitters in the country, only two transmission suppliers) Non-core costs, in particular consumer communications campaign, funded through BBC licence fee 	<ul style="list-style-type: none"> Importance of a clear remit Importance of early involvement of key industry players in the set-up process in order to generate buy in Concept of a structure that combines a chairman as a figurehead with a CEO in a more executive role Importance of top management of the organisation to be seen as impartial Sharing of core costs of the organisation's members
NICC	<ul style="list-style-type: none"> Cross-industry organisation involving a very broad range of stakeholders 	<ul style="list-style-type: none"> Clear technical remit, not commercially contentious Link into international processes (ETSI, ITU) Set-up as an OfTel initiative (e.g. not an independent industry body), secretary funded by Ofcom 	<ul style="list-style-type: none"> Importance of top management of the organisation to be seen as impartial Working group structure that combines permanent working groups with project groups looking at specific questions Advantage of having specialists / technical experts participating in the process rather than pure representatives of their companies
Consult21	<ul style="list-style-type: none"> Cross-industry process focused on the same range of issues as the NGN Body and involving the same range of stakeholders 	<ul style="list-style-type: none"> Process driven and owned by one operator (BT) Concentrated around BT's transition (BT provides information, and other stakeholders respond), no multilateral discussion Strong focus on operational and implementation issues, has not provided an overarching framework (apart from BT's 21 CN plans) 	<ul style="list-style-type: none"> Working group structure with a chair and co-chair structure (although different in our proposal) Questions that have been raised during the NGN process so far (from session protocols) Benefits of strong programme management and administrative support (Consult21 processes are seen as sluggish)

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