Pillar IV: Support in defining the required state support for commercially unviable areas

In order to facilitate investment into the third conceptual case (the "white areas"), some form of state intervention is required. There are several options, each with advantages and disadvantages which, because public money is being used, need to be put to full public scrutiny and stakeholder consultation before decisions are made. Each country will have different views, depending on the levels of state intervention required (and the associated state budgetary constraints) and taking account of the existing ownership and governance structures for the existing operators. The state-aid funding can take several forms, including direct investment in state-owned infrastructure, commercial stimulus or "gap financing" i.e. providing additional funds to induce commercial investment. Finally, there are various forms of public-private-partnership (PPP) participation — build, operate, transfer or joint equity models. These models offer different levels of public ownership and commercial stimulus.

For technical, commercial and financial reasons the commercial stimulus option appears to be the optimal proposal. Before a decision is made, the level of commercial interest in bidding and participation in the subsidised network scheme needs to be assessed. Governments should remain open to views on the optimum ownership arrangements as part of the proposed intervention strategy.

Approach to joint commercial/ state investment schemes

Commercial investors use rational criteria to decide if and when to invest. For example, Vodafone's investment criteria are typically based on a minimum IRR return normally in excess of 15%. Other criteria for investment on this scale is also factored into the proposal. For example, Vodafone may partner with an infrastructure provider (e.g. Axione or Alcatel) and some risk can be removed from the project and a lower IRR accepted. A factor normally considered to support the business case is whether the access requirement in the contract is strong enough. In these situations, operators may not bid for National Broadband Plan schemes on the basis that they will get access to the wholesale fibre at low prices and there is no need to participate in the scheme.

In National Broadband plans, given the one-off nature of such investment operators such as Vodafone include a 'Strategic Business Case' which assesses the impact on the market of other operators winning the plan. This will include assumptions on the impact on the market landscape, development of access products and the future regulatory environment. A lower IRR project will be accepted if the 'strategic' business case is strong or considerable threats emerge from not participating. A key factor to consider is the level of funding available for such investments and the concern that the funding is given to your competitor.

Where a commercial investment is currently below the profitability criteria that will justify investment, and therefore where no efficient broadband infrastructure is expected to be built within the target timeframe for universal broadband access, then the government can decide to intervene with some form of mechanism to fill the investment gap. This intervention can take a number of forms, as described above, the main mechanisms being investment via state ownership, or some

stimulus mechanism whereby the commercial investors are offered some kind of benefit, in order for their own investments to improve from non-viable to viable.

The advantages and disadvantages of the two main types of state intervention are summarised above, with the resulting preference for the commercial stimulus method. This can take a number of forms, including;

- "Gap financing" whereby the state tops up the investment by an amount that makes the commercial operator ready to invest. The amount needed should normally be determined either by some form of public subsidy auction.
- Subsidies in kind. In this case, some form of advantage is given to the investor in order to make the investment attractive enough.
 - A good example is for additional spectrum to be released by the state at a price well below that expected in a typical "scarce resource" spectrum auction. In the case of Germany in 2010, followed by several other EU countries, LTE/ 4G spectrum was first released for auction to bidders that will be obliged to serve remote "white areas" first, before expanding their 4G services to the profitable geographical areas. This meant that the bidding prices at the auction were well below the prices that would have been expected had the bidding been for companies that could immediately roll out services in profitable areas. The winners therefore received spectrum at a significantly cheaper price, making their business plans could include investment into the unprofitable areas. This is a form of state subsidy because the government knowingly received less spectrum receipts in order to ensure that universal broadband coverage was achieved.
 - Other examples of subsidies in kind are the granting of special tax status on broadband investors and the granting of a right to use existing state assets, including network infrastructure.

A further option is joint management and control through public/ private ownership. These models are typical in transport and other major state investments however in the case of broadband in most countries an existing market exists with market players who in many cases already have infrastructure in rural areas. In most national broadband schemes the key criterion for governments is adherence to the state aid guidelines. As the obvious partner is the incumbent fixed operator and EU rules prevent subsidies being given directly to a state operator in a competitive market. Equally, the Government has difficulties developing PPP arrangements with operators given the state aid rules. Governments are also in a position to ensure the project is completed and to set criteria to ensure their policy objectives are met through strong procurement and contract rules.