



ICT CASE STUDY: FRANCE

Plan France Très Haut Débit (Rural Highspeed Broadband)

Location

Grand Est Region, France (rural areas)

Owner

Région Grand Est

Private Partner

Losange (Caisse des Dépôts et Consignations, Fonds Quaero Infrastructure, Fonds Marguerite (22%), NGE Concessions, Altitude Infrastructure)

PPP Model

Design-Build-Finance-Operate-Maintain (Concession contract)

Operating Term

35 years

Contract Value

EUR 900 million/USD 1 billion¹

Asset Class

Information and Communication Technology (ICT (Broadband))

Awards

- Infrastructure Journal – European Telecoms Deal of the Year (2018)

In 2013, the French government launched the *Plan France Très Haut Débit*; a high-speed broadband development strategy aimed at connecting 100% of households and companies by 2022. The program had EUR 20 billion public investment from the French government and European Union.

Since 2014, several Public-Private Partnership (PPP) projects under concession contracts were signed to allow broadband network roll-out and operation in the rural areas of France between local authorities (regions and departments) and Private Partners (construction companies, network operators and infrastructure investment funds). As the density in rural areas in France is very low (average of 25 inhabitants per square kilometre for some departments), the investment cost is high, and network operators cannot reach financial profitability. Therefore, PPP contracts providing public subsidies are signed to allow deployment in these areas.

At the end of 2018, 12% of the network in the rural areas were deployed through these PPP contracts. At the end of the government’s program, it will represent 17 million individual connections (households or companies). This strategy will result in France, which was in the low-ranking part of Europe in terms of high-speed broadband availability, becoming one of the first European countries to achieve a 100% coverage of its territory. This project has become the country’s largest fibre to the home (FTTH) broadband PPPs and one of the largest PPPs in Europe.

The Grand Est Region, located in Eastern France, awarded a PPP contract in July 2017 for the design, construction, maintenance and operation of the network in the rural areas of the region. At the end of the construction period, lasting six years with the target completion in 2022, almost one million connections (households and companies) will have access to a high-speed broadband network across more than 3,000 municipalities.

Output Specifications Development Approach Used

The PPP contracts are concession agreements signed between the local authority (region or department) and the Private Partner. It states that the Private Partner is responsible for the design, construction, financing, maintenance and operation of the high-speed broadband network in the rural areas. In particular, it includes the lifecycle operations and the handback of the network to the local authority after the end of the concession agreement (between 20 years and 35 years). The Private Partner is in charge of the commercial development, meaning the commercial risk is transferred to the Private Partner during the operating term.

A global standard specification has been elaborated by the France Mission Très Haut Débit, an entity of the French Ministry of Economy and Finance,

notably in charge of advising local authorities on the procurement of projects. During the procurement process development, local authorities also develop their own output specifications, depending on their needs and the local context. They are usually supported by companies specialised in advisory to public entities, as well as information and communication technology (ICT). The output specifications are then further detailed in the cahier des charges (technical specifications), included in the procurement documentation and attached to the PPP contract.

In some areas of the project, the specifications are highly prescriptive and similar to technical specifications adopted on projects delivered using traditional delivery models.

¹ Assumed conversion rate of EUR/USD = 1.12 as at May 15, 2019.

Alignment to QI Focus Areas	Mechanisms used to achieve QI alignment	Market Comparison Analysis
<p>Sustainability and longevity of an infrastructure asset.</p> <p>Ability of the asset to meet the needs of end users</p> <p>The PPP contract has a 35-year term which incentivises the Private Partner to make long-term maintenance and lifecycle decisions. The performance measures are then intended to align these long-term decisions with Owner objectives and end user expectations.</p> <p>Once the 35-year term has expired, the assets will be transferred back to the local authority. Therefore, the Owner has an interest in promoting and tracking lifecycle investment, as well as the management of asset information. The contract includes the renewal of active equipment during project life, with the same technology. The average active equipment lifetime is seven years. The costs include equipment, staff, subcontracting and overheads.</p> <p>The performance measures focus on meeting end user requirements.</p> <p>The main end user requirements are:</p> <ul style="list-style-type: none"> • Access: Any internet service provider¹ shall be able to use the network to commercialise internet subscriptions to end users. • Level of service: The network must provide satisfactory access to the internet (level of service, incidents monitoring, intervention delay). 	<p>Monitoring lifecycle spend and asset information in preparation for handback: The Private Partner must provide the list of renewal works and their amount in its annual report to the Owner. All invoices related to these works must be provided.</p> <p>Once the renewal works have been undertaken, design documentation must be updated accordingly. Renewal works need to be integrated in the annual report provided to the Owner. If the annual report or updated design documentation is delayed by more than a month, financial deductions may be applied.</p> <p>In addition to the renewal works plan over the project duration, the Private Partner and the Owner meet to elaborate the lifecycle plan for the three last years of the project, in anticipation of the handover. This handover process also includes a preventive maintenance plan with actions for the last three years of the project.</p> <p>If these actions are not undertaken by the Private Partner, the Owner will be able to retain a holdback on the guarantee scheme provided by the Private Partner.</p> <p>Performance measures for level of service: The three main KPIs observed related to the level of service are:</p> <ul style="list-style-type: none"> • Availability rate: measuring the time during which the network is unavailable for any reason. The rate of availability must be above 99.5%; • Guaranteed Intervention Time in case of an incident occurring on site: between one hour and eight hours depending on the type of client; and • Guaranteed Restoration Time of the network following an incident: between 2 hours and 24 hours depending on the type of client. <p>Penalties can be applied if one of these KPIs are not observed.</p> <p>Performance measure for access: A key requirement of the project is to provide high-speed broadband connection access to 100% of the territory, including isolated companies and households (located more than 1km from another premises). The following are the network access requirements:</p> <ul style="list-style-type: none"> • All premises of the territory must have access and the option to have an internet subscription. It will be checked by the Authority through visual inspection on site, and signature of take-over documentation; and • There is an exception for isolated sites, for which another technological solution (satellite) can be proposed, in accordance with the authority. 	<p>The contract term of the concession agreements in the ICT industry in France usually ranges from 20 to 35 years.</p> <p>By comparison the Mackenzie Valley Fibre Link (MVFL) Project in the Northwest Territories in Canada is a PPP (design-build-finance-operate-maintain) project with a 20-year term. The MVFL is a 1,154km cable which was developed to deliver a high-speed service to the Inuvik Satellite Station Facility, while also providing connections to remote communities to improve programs and services such as distance education and telehealth. The design took into account anticipated permafrost conditions along the proposed route and considered the potential for forest fire events³. Where permafrost was present, the cable was placed within the active layer, reducing potential effects on permafrost⁴.</p>

¹ The Private Partner provides bandwidth to the Internet Service Provider, who will provide the Internet subscription to end users. The Private Partner is not allowed to commercialise the Internet subscription itself.

² Further information available at: <https://mvflproject.com/faqs/>

³ Further information is available in the MVFL feasibility study summary: https://www.fin.gov.nt.ca/sites/fin/files/Communications_Summary_Document_Mackenzie_Valley_Fibre_Link_Aug_02_2011.pdf. Refer to: <https://mvflproject.com/faqs/>

⁴ Refer to: <https://mvflproject.com/faqs/>

Alignment to QI Focus Areas	Mechanisms used to achieve QI alignment	Market Comparison Analysis
<p>Job creation, capacity building and transfer of knowledge and expertise</p> <p>To encourage local job creation, the Private Partner is required to organise training in relation to the project. The Private Partner can choose how to implement the training policy. The types of training are specified in the contract (e.g. design technician, optical fibre worker).</p> <p>In addition to the training policy, the Private Partner has obligations related to social integration clauses (employment of long-term unemployed people and previous detained people). The number of hours of social integration varies from 5% to 20% of the total worked time. The clause observed in the concession contracts is: <i>"the Project Company must comply with the 20% of hours (i.e. 1,922,000 hours) in line with social integration criteria, up to 380 staff."</i></p>	<p>Termination events: Consistently failing to meet the performance requirements could lead to termination of the contract. The major termination events are:</p> <ul style="list-style-type: none"> • <i>Dysfunction of more than 50% of the plugs over 60 consecutive days;</i> • <i>Failure to comply with connection delivery schedule over two consecutive years;</i> • <i>Failure to meet the public service conditions defined in the project agreement;</i> • <i>Reaching the penalty cap defined in the project agreement;</i> • <i>Takeover cumulated period of 6 months;</i> • <i>Reaching a delay of 12 months to meet the overall delivery date (5 years and 6 months).</i> <p>The Private Partner must provide a monthly report recording the number of people trained. The Private Partner is required to report the number and ratio of employees working on the project (subcontractors included) respecting the integration clauses. A penalty per hour may be incurred if the objectives are not met.</p>	<p>On other ICT projects in France, the Private Partner creates partnerships with local training centres (public and private).</p> <p>Wider benefits are also reported as quite typical in ICT projects. For example, in addition to the jobs created during the construction of the MVFL project, the long-term project benefits include: improved telecommunications and internet access to communities in the Mackenzie Valley; the provision of jobs, training and economic growth for local communities; the enabling of improved delivery of health, education, and social services programs⁵.</p>
<p>Ability of the asset to respond to changes in resource availability, population levels, demographics and disruptive technology</p> <p>The Private Partner is required to take into account potential demographic growth during the design and construction phase, and be technologically adaptive in case of change of technology. The concession contract stipulates that: <i>"the Project Company must, over contract duration, ensure the technological evolution of the network to comply with the current state-of-the-art and offer the required level of service."</i></p> <p>To take into account demographic growth over the duration of the project, the Private Partner should:</p> <ul style="list-style-type: none"> • provide additional capacity of 20% in the design of the network; and • check with local authorities if real estate developments are planned in the future. 	<p>If the Private Partner fails to meet these compliances, the subsidies that make the project commercially viable could be retained.</p>	<p>The same requirements are observed in other ICT projects in France, especially the additional capacity of 20%.</p>

⁵ Further information available at: https://www.pppcouncil.ca/web/pdf/mackenzie_fibre_link_news_winter2015.pdf