

(level of service, incidents monitoring, intervention delay).

Partner and the Owner meet to elaborate programs and services such as

distance education and

telehealth. The design took into

account anticipated permafrost

conditions along the proposed

the lifecycle plan for the three last years

handover. This handover process also

includes a preventive maintenance plan

of the project, in anticipation of the

Project Name	Plan France Très Haut Débit (Rural Highspeed Broadband)		
PPP Model	Design-build-finance-operate-maintain (Concession contract)	Operating Term	35 years
Contract Value	EUR 900 million / USD 1 billion <sup>i</sup>		
Asset Class	Information and Communication Technology (Broadband)		
Awards	Infrastructure Journal – European Telecoms Deal of the Year (2018)		
Output Specifications Development Approach Lead			

## **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.

Alignment to QI Fo	cus Areas	Mechanisms used to achieve Ql alignment	Market Comparison Analysis
Sustainability and ongevity of an nfrastructure asset.	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.	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	The contract term of the concession agreements in the ICT industry in France usually range from 20 to 35 years.
Ability of the asset to meet the needs of end users		Owner. All invoices related to these works must be provided. 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.	By comparison the Mackenzie Valley Fibre Link (MVFL) Project in the Northwest Territories in Canada is a PPP (design-build-finance-operatemaintain) project with a 20-year term. The MVFL is a 1,154km cable <sup>iii</sup> which was developed to deliver a high-speed service to the Inuvik Satellite Station Facility, while also providing
	The performance measures focus on meeting end user requirements. The main end user requirements are:  • Access; any internet service provider <sup>ii</sup> shall be able to use the network to		

Alignment to QI Focus Areas	Mechanisms used to achieve QI alignment	Market Comparison Analysis
	with actions for the last three years of the project. 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.	route and considered the potential for forest fire events. Where permafrost was present, the cable was placed within the active layer, reducing potential effects on permafrost.
	Performance measures for level of service: The three main KPIs observed related to the level of service are:	
	<ul> <li>Availability rate, measuring the time during which the network is unavailable for any reason: the rate of availability must be above 99.5%.</li> </ul>	
	Guaranteed Intervention Time in case of an incident occurring on site: between 1 hour and 8 hours depending on the type of client	
	Guaranteed Restoration Time of the network following an incident: between 2 hours and 24 hours depending on the type of client	
	Penalties can be applied if one of these events occur.	
	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:	
	<ul> <li>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.</li> </ul>	
	there is an exception for isolated sites, for which another technological	

telecommunications and

internet access to communities in the Mackenzie Valley; provide jobs, training, and economic growth for local communities; enable improved

Alignment to QI Fo	ocus Areas	Mechanisms used to achieve QI alignment	Market Comparison Analysis
		solution (satellite) can be proposed, in accordance with the authority.	
		Termination events: Consistently failing to meet the performance requirements could lead to termination of the contract. The major termination events are:	
		<ul> <li>Dysfunction of more than 50% of the plugs over 60 consecutive days;</li> </ul>	
		Failure to comply with connection delivery schedule two consecutive years.	
		<ul> <li>Failure to meet the public service conditions defined in the project agreement;</li> </ul>	
		<ul> <li>Reaching the penalty cap defined in the project agreement;</li> </ul>	
		Takeover cumulated period of 6 months;	
		<ul> <li>Reaching a delay of 12 months to meet the overall delivery date (5 years and 6 months).</li> </ul>	
Job creation, capacity building and transfer of knowledge and expertise	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).  In addition to the training policy, the Private Partner has obligations related to	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	On other ICT projects in France, the Private Partner creates partnerships with local training centres (public and private).
	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: "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."	(subcontractors included) respecting the integration clauses. A penalty per hour may be incurred if the objectives are not met.	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

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Alignment to QI Fo	ocus Areas	Mechanisms used to achieve QI alignment	Market Comparison Analysis
			delivery of health, education, and social services programs. <sup>vi</sup>
Ability of the asset to respond to changes in resource availability, population levels, demographics and disruptive technology	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 "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."  To take into account demographic growth over the duration of the project, the Private Partner should:  provide additional capacity of 20% in the design of the network.  check with local authorities if real estate developments are planned in the future.	If the Private Partner fails to meet these compliances, the subsidies that make the project commercially viable could be retained.	The same requirements are observed in other ICT projects in France, especially the additional capacity of 20%.

<sup>&</sup>lt;sup>i</sup> Assumed conversion rate of EUR/USD = 1.12 as at May 15, 2019

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.

iii Futher information available at: https://mvflproject.com/faqs/

<sup>&</sup>lt;sup>N</sup> 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

v Refer to: https://mvflproject.com/faqs/

vi Further information available at: https://www.pppcouncil.ca/web/pdf/mackenzie fibre link news winter2015.pdf