

# France's VDSL Plan: Original governance by the state, local authorities and operators

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## **Abstract:**

As an example of an industrial policy jointly designed by the state, operators and local authorities, France's plan for a very-high-bit-rate digital subscriber line (VDSL), launched in 2013, will cover the whole country within ten years. Designing this plan had to take account of the existing playing field — a variety of public institutions, private operators, investors, equipment-makers, etc. — and of the various levels of local authority. This plan, which does not spring from naught, seeks to transform the initially complex situation into an asset thanks, in particular, to an original form of governance.

Given the complexity inherent in France's plan for a very-high-bit-rate digital subscriber line (Plan France Très Haut Débit, PFTHD), one of the first conditions for its success is to have a form of governance for convincing the various parties involved in its implementation to adhere to its objectives, means and assessment tools.<sup>1</sup>

## **A digital plan with an unprecedented ambition and complex legacy**

The PFTHD's objective has no precedent in previous digital programs for the nation's territory. Starting out from a refusal of making a clean slate of the past, the design of this plan had to take account of the various preexisting local or national programs and their stakeholders.

### **Coverage of the whole nation with VDSL within a ten-year period**

Launched in the spring of 2013,<sup>2</sup> the PFTHD seeks to provide VDSL (very-high-bit-rate digital subscriber line) coverage to all of France within ten years. All households, administrations and firms should be able to have access to the Internet with a connection at a speed equal to, or higher than, 30 Mbit/s. Since this plan gives priority to fiber-to-the home networks (FTTH), the bids submitted to the state are verified to see whether they meet up to this "FTTH ambition". Nonetheless, the plan allows for, and subsidizes, other forms of technology: radio (land or satellite) or the adaptation of

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1 This article has been translated from French by Noal Mellott (Omaha Beach, France)..

2 "Arrêté du 29 avril 2013 relatif à l'approbation du cahier des charges de l'appel à projets 'France très haut débit — Réseaux d'initiative publique'", *Journal Officiel de la République Française (JORF)*, n° 0102 of 2 May 2013, available via [https://www.legifrance.gouv.fr/affichTexte.do;jsessionid=E5E3AC1A9C09D00ABE3CCDEDE220B9F4.tplgfr21s\\_3?cidTexte=JORFTEXT000027378795&dateTexte=&oldAction=rechJO&categorieLien=id&idJO=JORFCONT000027378790](https://www.legifrance.gouv.fr/affichTexte.do;jsessionid=E5E3AC1A9C09D00ABE3CCDEDE220B9F4.tplgfr21s_3?cidTexte=JORFTEXT000027378795&dateTexte=&oldAction=rechJO&categorieLien=id&idJO=JORFCONT000027378790).

The technical specifications for the PFTHD are available via [https://www.economie.gouv.fr/recherche-resultat?search\\_api\\_views\\_fulltext=cahiers+des+charges](https://www.economie.gouv.fr/recherche-resultat?search_api_views_fulltext=cahiers+des+charges).

copper lines when they are to be reused for FTTH. Furthermore, this plan foresees reaching its goal in phases: 50% of VDSL within five years and quality VDSL for all by 2020.

The PFTHD's technical goal can be compared to the laying of lines for networks in yesteryear. A new local loop has to take the place of the network of copper lines, which were laid over several dozen years under the direction of a single organization (the public administration of telecommunications) and in line with a major plan (Delta LP) for speeding up the process at the end of the 1970s.

In practice, the PFTHD is based on complementary actions by private operators (who had indicated in 2011 that they were willing to roll out, without state support, their own high-speed networks in dense urban zones) and local authorities (with aid from the state in the rest of the nation). The regulatory framework for "aid from the state" under this policy foresees limiting public investments to zones where private investments fall short: the so-called "white" or "gray" zones where private operators have not made commitments.<sup>3</sup> In urban areas, private operators have made the commitment to roll out FTTH in nearly 3600 communes, which account for 55% of the French population, for an investment ranging from six to seven billion euros. Elsewhere, local authorities have the job of massively providing for VDSL networks. There too, most of these networks will be FTTH, but other forms of technology are also being used to provide very high-speed connections to 45% of the population at a cost of from thirteen to fourteen billion euros. The state has promised to provide €3.3 billion in subsidies.<sup>4</sup>

### *Different problems for the state, local authorities and private operators*

The necessary complementarity between the actions of private operators and public authorities is a source of complexity for implementing the plan. From the very start, it has given rise to problems specific to each of the two aforementioned zones:

- IN THE "PRIVATE" (DENSE URBAN) ZONE: create the tools for turning private operators' intentions for installing FTTH into actual realizations so that local authorities refrain from intervening in their stead; introduce the tools to local authorities for monitoring whether private operators keep their commitments; design the procedures for reporting breakdowns in the process involving private operators so that, as a consequence, local authorities may take back control.
- IN THE "PUBLIC" ZONE: make sure that local authorities' plans adhere to the standardized technical conditions used at the national level for the granting of state subsidies (lessen keep the networks built by local authorities from being too technically diverse); respect local authorities' autonomy and freedom of choice; and promote plans on a geographical scale that allows as many operators as possible to bid on the projects proposed by local authorities.

### *No clean state: Integrating a complex legacy*

The landscape where VDSL is to be rolled out was not empty in 2013. The PFTHD has had to take account of what already existed. Besides the actions undertaken by private operators in "dense" urban zones, the plan seeks to organize its operations and establish governance by paying attention to: *a*) the experiments and projects conducted during the past ten years by local authorities under the public network initiatives program (Réseaux d'Initiative Publique, RIP);<sup>5</sup> and *b*) the experiment launched in July 2011 under a national program for "very high connection speed" (PNTHD: Programme National Très Haut Débit).

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<sup>3</sup> Communication from the Commission (2013) "EU Guidelines for the application of state aid rules in relation to the rapid deployment of broadband networks", 2013/C 25/01 available via [https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52013XC0126\(01\)](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52013XC0126(01)).

<sup>4</sup> In the "public zone" however, private operators under specific arrangements (concessions, leases, etc.) put up a sum equal to more than half of allocated public investments. Agence du Numérique, Rapport d'activité 2015-2016, p. 23. Available from [https://www.entreprises.gouv.fr/files/files/directions\\_services/agence-du-numerique/rapport-activite-Agence-du-Numerique.pdf](https://www.entreprises.gouv.fr/files/files/directions_services/agence-du-numerique/rapport-activite-Agence-du-Numerique.pdf).

<sup>5</sup> Local authorities were competent for this under Article L. 1425-1 of an Act n° 2004-575 of 21 June 2004 "for confidence in the digital economy". Available at <https://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT00000801164>.

The RIPs, which some local authorities have adopted since the turn of the century, mainly provided for building multifunction networks for a local-loop unbundling of copper-wire networks.<sup>6</sup> The purpose was to offer connections to public establishments (educational, cultural, administrative, medical) via optical fiber to offices (FTTO). These so-called “first-generation” RIPs differed considerably as to the local head of the project (whether a group of communes or a department), economic results, technical architecture, etc. Moreover, the regulations on state aid have changed significantly since they were formed.<sup>7</sup> Considerable differences existed between local areas on these and other questions. The RIPs could not be sustained once the objective became to provide homogeneous national VDSL coverage. However it is necessary to benefit from these local experiences so as not to halt the momentum imparted by local officials and their services and in order to reuse as much as possible the public infrastructure laid during the previous ten years.

At the state level, the PNTHD program, launched in 2011, provided for a “declaration of intention to invest”.<sup>8</sup> This declaration identified the areas where private operators were already active in FTTH. Although this program had a few weak points — limited funding (less than one billion euros), absence of a national steering committee of a suitable size, etc. — it somewhat prefigured the PFTHD. This new plan wants to advance without giving up the achievements made under the previous program. For example, it offers to local authorities who had already received state aid the possibility of freely choosing whether or not to modify their projects. In the spring of 2013, a dozen local projects were receiving state aid under the PNTHD, and half of them chose to switch to projects under the PFTHD.

Besides the questions related to private operators and local authorities, state authorities, while drafting the PFTHD, have had to pay attention to other stakeholders essential to the plan’s success: the manufacturers of components and optical fiber, engineering offices, investment funds, etc.

## **Working together to implement and assess a plan codesigned by stakeholders**

Rather than being a quest to design totally new tools, governance of the PFTHD tends to be a method whereby the state, local authorities and private operators work together. This “cooperative” method, galvanized by a “mission” set up within the state, seeks to systematically bring all parties to share an operational plan and the responsibility for its success.

### **A national “mission” for technically steering the PFTHD**

In 2013, the state set up a single structure for steering the PFTHD: the Very High Bit-Rate Mission (Mission Très Haut Débit, MTHD).<sup>9</sup> The MTHD was assigned the tasks of preparing the call for projects, following up on local authorities when they draft their projects, and technically examine projects in view of subsidizing them.

Through this “light” organization (15-20 employees), by definition not permanent, the state wants to see to it that its role is not restricted to funding the projects proposed by local authorities. It wants to set high standards for upholding uniform technical requirements nationwide, supporting

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<sup>6</sup> Unbundling means, in the case of an optical fiber network, collecting from the previous operator the nodes of subscriber connections so as to facilitate the entry of newcomers in the market (whether French telecommunications firms or startups that propose bitstream-based offers with the intention of reselling their customers to other firms).

<sup>7</sup> An approach based on “services of general economic interest” and individual notifications has gradually been abandoned for a national framework regrouping local projects.

<sup>8</sup> National “very high connection speed” program: Call for a declaration of intentions to invest (2011). Available via <http://www.observatoire-des-territoires.gouv.fr/observatoire-des-territoires/sites/default/files/AMII.pdf>.

<sup>9</sup> This Mission Très Haut Débit became part of the national Agence du Numérique in 2015, (Decree n° 2015-113 of 3 February 2015).

the autonomy of local authorities in organizing their projects (priorities for the rollout, business models, funding, etc.). This role is, of course, possible owing to the state's financial leverage via its investment program ("Investissements d'Avenir"). However what makes it credible is that local authorities and private operators accept the MTHD.<sup>10</sup>

### *Making state officials, local authorities and private operators work together*

The state wants projects to be designed jointly by the principal stakeholders (itself, local authorities and private operators). The call for tender "France Très Haut Débit" was drafted following dozens of hearings (with various parties — local authorities of various levels, groups of elected officials, private operators, public administrations, etc.) at the end of 2012 and start of 2013. This call for tender was based on a national roadmap endorsed by the parties concerned.<sup>11</sup>

A local adaptation of this method was soon proposed, in October 2013, namely: standard conventions (CPSD)<sup>12</sup> for planning and monitoring the rollout of FTTH by private operators in dense urban zones. These agreements, which the state, local authorities and private operators have to discuss and sign locally, are to turn the intentions of private operators for rolling out FTTH into genuine commitments to doing so, commitments to be regularly and jointly monitored at the local level.<sup>13</sup>

Beyond this co-drafted roadmap and the signature of these local conventions, the PFTHD relies, above all, on these parties talking together: an informal dialog via daily exchanges between the MTHD, local authorities and private operators; and a more formal dialog via *ad hoc* tools of governance, mainly the CCFTHD (to be discussed shortly).

In practice, the MTHD oversees this ongoing collaboration with local authorities and private operators. To this end, it organizes nearly a hundred meetings a year with the heads of projects and their executive committees, attended, if need be, by other state services, such as the CGET, DGCL or ARCEP. The purpose of these meetings is to technically examine projects and propose eventual modifications. In turn, the state's services modify their own views in the light of the operational problems reported by local authorities and private operators. To ensure this collaboration, several MTHB staffers travel weekly to local areas to meet elected officials and engineers.

### *Tools of governance for concerted efforts*

Besides the regular collaboration that reinforces the experience of an ongoing three-party governance, the major formal structure set up under the PFTHD is the CCFTHD (Comité de Concertation France Très Haut Débit), which organizes monthly meetings attended by the representatives of local authorities, private operators and the major state administrations involved in rolling out the plan. At these meetings, local authorities present the major lines of strategy in their projects; and this committee formulates an opinion about them. A negative or conditional opinion from the CCFTHD would be a major impediment to pursuing a project. However this risk of what would amount to a veto is very unlikely thanks to the joint work done earlier (while drafting the project). The committee makes recommendations to improve such and such an aspect of the project (such as its scope, choice of governance, technological "mix" or funding scheme). In fact, many local authorities have modified, sometimes significantly, their projects following a hearing by this

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10 Given the special position of an "administration of mission" alongside "administrations of management" — with reference to the distinction made by Edgar Pisani (1956) "Administration de gestion, administration de mission", *Revue française de science politique*, 6(2), pp. 315-330.

11 Mission THD (21 January 2013) "Projet de feuille de route pour une stratégie nationale de déploiement du Très Haut Débit", available via <http://www.lagazettedescommunes.com/telechargements/Projet-de-feuille-de-route-THDvfinale.pdf>.

12 PFTHD CPSD (October 2013) "Convention de programmation et de suivi des déploiements FttH", a template for CPSDs, available via <https://www.arcep.fr/fileadmin/reprise/LH/divers/PFTHD-Convention-CPSD.pdf>.

13 By early 2017, 90% of stations in urban zones where private operators were busy with FTTH were already, or going to be, under a convention signed between the three parties.

committee. The CCFTHD's power thus materializes the coresponsibility at work among the three parties to the plan.

The CCFTHD also examines all the other dimensions of the PFTHD: the efficiency of the tools for steering the project, an assessment of whether objectives and schedules are being met and, in particular, an evaluation of private operators' commitments for rolling out FTTH in urban areas.

Other circles of cooperation also contribute to the governance of the PFTHD. On the initiative of the MTHD, work groups are formed (on technical standards, the architecture, information systems, the access to infrastructures, the problem of addresses, etc.) that open the three-party dialog to other parties (consultants, electricity grid operators, etc.). At the prefect's prompting, a regional committee of digital strategy<sup>14</sup> brings together representatives from the various levels of local authorities, from state administrations and from private operators. These regional committees have two roles: share information in the region about how the PFTHD is advancing and make an inventory of local problems.

## **Conclusion**

As experience has proven, the success of the PFTHD (coverage, the scope of local projects beyond the optimistic initial hypotheses, the number of VDSL connections actually made or scheduled, etc.) can largely be set down to its original form of governance. This governance has managed to obtain endorsement of the plan from all parties concerned and to create the conditions for an exacting, ongoing collaboration among these parties.

The infrastructure is an issue of the long run. An industrial policy such as the PFTHD, to stay its course, must adapt to a context that does not stand still: the consolidation under way in telecommunications, investors' preference for concessions, trends in radio technology, the growing demand for mobile coverage, proposals from FTTH operators, and so forth. To achieve this delicate balance, the form of governance must be adapted and kept fully aware of the everyday activities of the parties rolling out the plan. Thanks to this governance, projects have emerged that are designed so as to take into account changes and be regularly evaluated. The call for projects under the PFTHD has been updated several times (in particular in 2015 and 2017) to take account of feedback from local authorities and private operators.

Governance of the PFTHD is not unusual; it suits its purpose. It is not a theoretic construct; and the parties involved have never touted it as a model. Without being fully reproducible, it could probably serve as a useful experience for the Agence Nationale de Cohésion des Territoires (ANCT), which is to take over steering of the PFTHD.

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14 *In compliance with a circular of 17 February 2017.*