



French strategies for digitising rural areas

'Nièvre numérique' is a public joint authority set up to build and manage Burgundy's most rural fibre-optic networks and facilitate new digital services to serve its stakeholders and communities. Since 2012 its participation in national and European policy and cooperation projects has networked the good practices of Lormes and the Nièvre into national and European Digital and Rural Agendas and the global rural digital community.

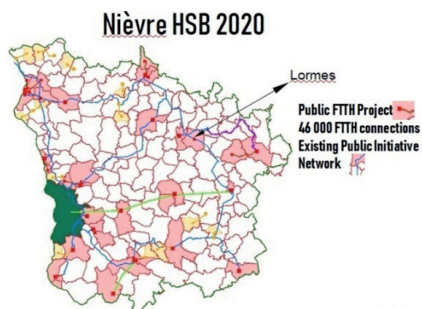
NATIONAL INITIATIVES FOR DIGITISING RURAL AREAS IN FRANCE

France THD/High Speed Broadband – National Plan /Fund for a Digital Society

The Fund for a Digital Society has two key objectives: By 2020, everyone will be guaranteed access to 'good' broadband (>8 Mbit/s) and quality mobile coverage (allowing all 4G Functions). By 2022 all territories will be endowed with advanced digital infrastructures offering access to high speed broadband (>30 Mbit/s, (all technologies). The government has committed €3.3 billion, while local authorities finance €10 bn, of which 60% will be made up of subscriptions from private operators for the use of their networks in low-density areas. €1.4 bn is available for developing innovative digital applications, services and content.

Local Authorities (from Regional Councils to communes) have committed to ensuring HSB coverage of rural areas (comprising approximately 40% of national residential and business premises) by 2022. Central funding of €900 m is available for rural areas to support Public Initiative Networks (PIN), while European programmes provide a further €600 m. www.francethd.fr

Nièvre, local application of France HSB:



Nièvre 2020 - €	Expected €	%
National Subsidy: Fund for a Digital Society	22,97 M €	36,80%
Burgundy Region	9,25M€	14,80%
ERDF	6 M€	9,60%
Département/County	10 M€	16,00%
Public Structures for inter-commune cooperation and Nièvre Numérique	14,28 M€	22,80%
TOTAL	62,5 M€	100,00%
TVA	12,51M€	

Figures 1. and 2.

Strategic Map & Funding Outline for Nièvre HSB 2020

The 'Nièvre HSB 2020' strategic deployment plan is based around a Fiber to the Home (FTTH) project for the county's key rural service centres via the PIN. Lormes was a pilot project.

'Collaborative actions towards the Emergence of an Innovative and Inclusive Digital Society'.

In addition to the objectives for infrastructure (mobile + fixed) development under France HSB, the second priority area is transformation and capacity building. Three initiatives have been designed to provide local authorities with tools to support improvements in digital skills and local/territorial digital transformation.

A. Digital Skills Cheques #APTIC <https://aptic.fr>



◀ Nivernais-Morvan Digital Cheque

The cheque works on the lunch voucher model: a sponsor (local authority, private company, association, etc.) buys the cheques and distributes them to its target beneficiaries (users, employees, citizens, etc.). These can use the vouchers to get training in an authorised place, whose services have been previously validated (e.g. libraries, FabLab, Digital Hubs, Makerspaces). Importantly, the scheme is not only aimed at individual and collective digital upskilling, but also at helping to support and expand the range, scope and geographical spread of digital service/training providers. The Nièvre County Council and the Nivernais-Morvan Digital Hub have put in place the Digital Skills Cheques targeting in particular unemployed or 'digitally excluded' people <https://www.nivernaismorvan.net/index.php/les-cheques-competences-numeriques/>

B. La MedNum:

is a multi-stakeholder community interest cooperative providing networking & services for digital enablers mediators: <http://www.mediation-numerique.fr>

This cooperative brings together the state, local authorities and key digital stakeholders ('enablers' and service providers) to develop/deliver projects. For example:

- digital skills training for public officials;
- support to the creation of digital hubs and networks, e.g. FabLab network in Burgundy France Comté <http://www.net-village.org/fablab/>;
- Cooperation agreements with public, private and third-sector players to advance digital inclusion, such as Braillet programme to support digital inclusion for people with visual impairments <http://www.mediation-numerique.fr/accords-cooperation-soutien-mediation-numerique.html#braille>

C. A platform (under construction) of good practices and tools to facilitate the implementation of local digital strategies

Impact Analysis and Strategic Studies

Analysis of the Return on Investment (ROI) of Public Digital Policies and Services: At national level the CGET (General Commission for Territorial Equality) is coordinating a study, launched in 2017, on the research and development of modelling procedures to analyse and predict the global return on investment of public investment in the digital domain. The aim is to assist in the optimisation of investments through a kit (to be available in 2019 <https://numericuss.com/2017/10/25/analyse-du-retour-sur-investissement-des-politiques-numeriques-publiques-le-cget-ouvre-la-voie/>).

Nièvre Numérique, as Lead Partner of the ERUDITE Interreg Project, has created SEROI+, a value-led roadmap for service co-creation with impact analysis for smart rural communities and ecosystems. The project is also developing new key rural digital services in Burgundy www.interregeurope.eu/erudite



Multi-stakeholder service co-creation workshop in Lormes. ▲

Other national Initiatives

RURALiTiC or 'Le Smart Village' is a major annual gathering of public and private promoters and deliverers of rural/territorial digital transformation <https://ruralitic-forum.fr>

Villes Internet is a national association providing a classification and labelling system (much like for 'blooming' or flower-friendly towns/villages) where villages are rated based on the level of their digital services/ambitions www.villes-internet.net/atlaas

A 'fact-finding mission/strategic study' by the French Prime Minister's Office on the impact of digital transformation' for the development of rural areas was launched in May 2018 with the support of CGET, the Digital Agency and the Inter-ministerial Directorate of information and communication systems. The mission is carrying out a dual work of diagnosis and proposals, identifying good practices and challenges encountered in the Territories and proposing measures for rural areas and territorial cohesion. Special attention is being given to available governance tools: Clusters, PETR (Collective Strategic Structures of Rural Town/village councils) and Rural contracts.

Rural contracts ('Contrats de ruralité') are strategic territorial strategies for economic and social development which are signed between the PETR (on behalf of their members – associations of local town/village councils), the county and regional councils and the state and provide a key framework for 'Smart' or 'Future' Village initiatives when integrated with HSB and digital mediation-inclusion strategies.

State	Region	Department / County	PETR (Unit for Rural Territorial Balanced Development) Pays (4 CC)	Communauté / Grouping of Communes (CC) – 34 Communes	Commune
	Burgundy Franche Comté	Nièvre	Pays Nivernais Morvan	Morvan, Sommets et Grands Lacs	Lormes
The PETR negotiates with higher level public administrations relating to support for the strategic Rural Contract			Signs + Manages Rural Contract / Contrat de ruralité	DEFINE STRATEGY for Rural Contract	

Figure 3. Rural contracts – upstream and downstream in the Nivernais-Morvan

Regional and County Digital Plans:

Regional "coherence" strategies for digital development – SCORAN – were developed in 2015 by regional councils at the request of the State under the State-region plan (CPER) 2015-20. The SCORAN are validated by regional digital planning commissions (CCRANT), which bring together the stakeholders involved in the development of infrastructure and digital services (health, research, education, economics, culture, e-administration) and county level authorities responsible for the infrastructure plans (SDAN/SDNAT) to collectively contribute to more service-focused regional plans.



The SCORAN provide a framework for digital service/application development; for example, in Burgundy a current priority is to extend the scope and services of the regional e-service platform 'Digital Territories of Bourgogne-Franche-Comté' (Public Interest Group) to all the public actors and companies of Burgundy and Franche-Comté www.e-bourgogne.fr.

This structure offers about 20 digital services (for example e-tendering); it supports the digital administration of small and medium-sized local authorities through digitalisation of administrative procedures and supports the digital upskilling of civil servants and officials in order to operate new services for citizens and businesses www.e-bourgogne.fr/organisme-public. The region has also set up a fab-lab network www.net-village.org/fablab/

In addition, each French county/department has to set up a territorial master plan for Digital Development (SDAN). This blueprint is a strategic framing tool that details their aims relating to the deployment of HSB throughout the territory, including the funding arrangement (see figures 1 and 2). Example from the Nièvre, including linking of strategic rural villages, are available here: www.nievrenumerique.com/SDAN-de-la-Nievre

Local digital strategies

Lormes 'Petite ville du futur'

Lormes is a small market town (1 300 residents) located in the Morvan area, the northern tip of the Massif Central in the county of the Nièvre, Burgundy.



"Let's Invent together the rural territory of the Future" is the slogan of the 'Petite ville du futur' project, initiated by Lormes in 2015 and now supported via the Nivernais Miorvan Rural Contract. This is the latest step in its digital and social journey towards being a village of the future, which began in the late 1990s and early 2000s, with a ground-breaking territorial 2.0 policy to foster the economic and social potential of ICT and Internet for remote rural areas. Co-designing that Future with the community has been a cornerstone of the process since the beginning, as well as a key to its success. In 2003 they set up the first 'Digital Mission' association to provide digital inclusion and education support to the community.

“ Our aim has been to co-create an 'intelligent' rural town, which ensures that its key resource, its citizens, are the primary actors in shaping their rural town of the future. Digital infrastructure, tools and skills are fundamental partners in this transformation. ”

Mayor of Lormes and County Council Deputy Chair Fabien Bazin



The Rural Digital Hub in Lormes, which houses the 'Mission Numérique' of the Nivernais Morvan, is a co-working community, a space for digital training and education, video-conference and meetings and a FabLab. It offers individual offices with tailored ICT support. ▲

The "Digital Mission" describes itself as an 'Accelerator of Digital Transformation' for the territory and has been the focus of digital innovation since 2003. The Hub opened in 2008 (in a former derelict slaughterhouse), offering training and educational facilities and eight small offices, and expanded in 2015 with a FabLab, improved office space for six more businesses and meeting-training facilities. It has a 300 Mbit/s connection.

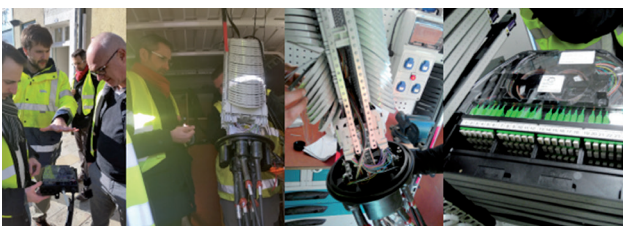
Funding for the first phase of the Hub (ca. €600 000) was obtained via a call for projects of the DIACT (French National Agency for Regional/Local Development – formerly DATAR) in 2007. The second phase was financed by ERDF funding (€197 000, 39% of the total) and State funding (€76 500 DETR fund for rural investment). The Mission serves all 166 Communes in the Pays Nivernais, and now manages a satellite working space and FabLab in two other towns.

A partial study on the social and economic return on investment undertaken via the Interreg IVC project MICROPOL estimated that the total €800 000 investment has generated €3.4 m for the local economy. www.micropol-interreg.eu/IMG/pdf/MICROPOL_SROI_Study_2014.pdf

The Mission's team of rural digital experts provides strategic digital support and free training to all levels of local government to develop their local digital strategies. It also functions as a Competence centre for businesses, the public and community sectors, delivering training and mediation services on behalf of the county and the region through two conventions at county level, the Lormes and Luzy FabLabs are supported to provide local education and training, digital services for business and inclusion. On behalf of the region, they provide information and training on:

1. Digital Innovation and experimentation
2. Transition to HSB (to accompany the arrival of FTTH)
3. e-Education
4. Information and communication
5. The digital economy
6. Co- and remote working

The Mission is part of a regional network of Fab/Maker labs www.net-village.org/fablab/, which is itself supported by a national initiative under the France HSB programme, MEDNUM <https://lamednum.coop/>, a Multi-Stakeholder Community Interest Cooperative providing a networking, service-partnership structure for digital enablers/mediators.



Regional and county FTTH Pilot

Lormes was chosen in 2014/5 as one of four regional pilots to test the deployment of an FTTH network in the view of the future 2020 national plan. Community participation in service design and inclusion support was a pillar of the pilot. The 'technical' aspect of the pilot helped establish realistic budgets for wider fibre rollout and confirmed the validity of a 'rural service centre' approach, where HSB investments would be focused on connecting (FTTH) and inter-connecting towns and villages with distinct territorial service infrastructures.

Through the Interreg IVC project ENGAGE (Economic Models for HSB in Rural Areas), Nièvre Numérique coordinated a multi-stakeholder digital service co-planning and co-creation process in Lormes to select and prioritise digital services that would meet the needs of the community whilst raising awareness of the potential that the future FTTH network would offer.

The town's stakeholders identified six priority service areas for future 'Smart Town' enhancement:

1. A Smart Work Town focused on the digital hub
2. An e-medical centre
3. A multi-functional public media and video/cinema centre
4. A mediatheque and study space
5. A distribution/collection hub for local consumers, farmers and food processors
6. E-tourism hub and products

Digital Results

By creating an open digital infrastructure and environment in Lormes, new digital innovations and services are being integrated into existing digital and 'future' strategies:

- The LORMES Senior Care Home is the first Burgundian institution able to conduct tele-geriatric consultations.
- The new primary school has been built to respect low-energy standards.
- The Mission Numérique is collaborating with teachers to build digital teaching tools adapted to the special needs of each class – and the fab-lab is kid-friendly, too!
- The town has three free Wi-Fi points.
- A drone service helps map building energy loss, monitor plant growth in the Morvan regional natural Parc and monitor crops for local farmers.
- A community sensor project monitors water, air and energy quality.
- Young 'Fibre Advisers' volunteering for an NGO (Seniors Génération Mouvement) to improve the digital inclusion of elderly people.
- A Knowledge Cooperative functions as a skill-sharing network.
- Partnership with other European 'Future Villages' is a priority for future plans.

Other Initiatives in France

The Pays de Verdun in north-east France and its LAG offer another example of Strategic local and digital development, www.pays-de-verdun.fr/ecosysteme-numerique.php

Communauté de Communes du Pays du Haut Val d'Alzette (near the Luxembourg border), www.ccpva.com/TEPCV

Saint-Sulpice la Forêt (smart grids and energy saving) www.lemonde.fr/la-france-connectee/article/2018/01/26/en-bretagne-la-plus-petite-smart-city-au-monde_5247704_4978494.html

Ayen, a village in Correze www.lemonde.fr/bleds-a-part/article/2017/12/23/covoiturage-et-monnaie-locale-les-atouts-d-ayen-pour-lutter-contre-l-isolement_5233803_5227802.html

Small Town/Village of the Future: following Lormes' pilot experience as a model for local roll-out within the Nivernais Morvan, a number of villages and towns have now adopted a Village of the Future process funded under the rural contract signed in March 2017, mobilising citizens and stakeholders to develop and implement local renewal and development projects, with support by experts and volunteers. A detailed guide based on Lormes' experience has been produced <https://fr.calameo.com/read/0021941966e7fb1e6d095>



Theatre, open air 'action' meetings; multi-generational co-creation characterise the Village of the Future approach in Lormes and Nivernais-Morvan. ▲

As with the first 'digital service' co-creation exercise, one of the priority projects is a local food hub with a single pick-up point, common ordering and coordinated logistics. More immediate actions, such as re-painting the shutters of public and private buildings, help galvanise the community and bring immediate, concrete results.



With the setting up of ICI Morvan Makerspace, Lormes and the Pays NM will be integrated into national & global Maker networks. ▲

Lormes anticipated the national digital transformation strategy by the parallel and complementary development of infrastructure and capacity, ensuring the inclusion of its stakeholders (up and downstream) in the collaborative process.

Lessons learned

Regarding High Speed Broadband:

1. Pilots are essential to understand the real cost of building FTTH networks in the political and geographical landscape of rural areas.
2. Local elected politicians and citizens must be involved before, during and after the building of the network to ensure acceptance, optimise use, design and develop appropriate services. This is part of the digital inclusion process.
3. Rural service centres are the first that need to be connected, as they are the drivers and focus of the local economy and society.

Regarding digital and community services:

1. Rural Digital Hubs/Competence Centres are key to create the basis of a local strategic, technical and skills ecosystem that is responsive to and representative of local priorities and can then bridge regional, national and international networks and support/funding mechanisms.
2. Services must be prioritised and co-designed with local stakeholders and citizens, using a common methodology and professional support.
3. Digital transformation must go hand in hand with the physical, social and environmental regeneration of the village, town or territory.
4. Networking and cooperation between rural communities, their citizens and stakeholders at all levels – from local to global – are essential to maintain dynamic villages/small towns of the future.