CO-OPERATIVES UK

INFRASTRUCTURE COLLABORATION: A CO-OPERATIVE MODEL FOR UK DIGITAL GROWTH

Shaun Fensom, Networks.coop



Infrastructure collaboration: A co-operative model for UK digital growth

The Thin Layer Model offers a practical way to build and share the fibre, 5G and data-centre infrastructure Britain needs for growth, sovereign AI and better public services – combining commercial investment with cooperative governance and greater public control.

Executive summary

Britain's ambitions for growth, artificial intelligence and better public services depend on digital infrastructure it does not yet have, particularly outside London and the South East. The present model cannot simply be scaled indefinitely. Hyperscale data centres require large commitments of capital, land, electricity and sometimes water; face long planning and grid-connection times; and increasingly encounter opposition from communities concerned about their local environmental impact. At the same time, dependence on a small number of overseas technology companies exposes Britain to commercial lock-in and foreign jurisdiction.

The question is therefore not simply how much infrastructure Britain should build. It is how infrastructure can be developed that the UK can trust, influence and expand over time, without requiring government to own and operate it all or crowding out private investment.

British fixed-network policy chose infrastructure competition. This mobilised investment and accelerated fibre deployment, but it also produced duplicated civil works, fragmented assets and financially vulnerable networks built on assumptions of local market share that could not always be sustained. The conventional alternative - a single monopoly infrastructure - avoids some duplication but concentrates ownership, capital requirements and control. A third possibility has received much less attention: **infrastructure collaboration**, including at the most fundamental layer, between assets that remain separately owned.

The neutral **Thin Layer Model** makes that collaboration possible. Public bodies and commercial companies retain ownership of their ducts, fibre, sites, buildings, data-centre space and equipment. A co-operative establishes common rules, technical standards and terms of access, and owns the enabling infrastructure required to join those assets into a coherent shared resource. Participants collaborate where it creates value and remain free to invest and compete both within the infrastructure layer and in the services above it.

This is not a theoretical model. Cooperative Network Infrastructure (CNI), incorporated in Greater Manchester in 2018, has more than 50 public- and private-sector members and approaching 300 kilometres of fibre, most of it owned by the cooperative. Its members include local and combined authorities, NHS bodies, colleges, telecommunications operators and technology businesses. CNI demonstrates that public assets can remain firmly in public ownership and control while becoming more valuable through connection to complementary infrastructure and demand, strengthening the investment case for extending them. Commercial members gain neutral access to infrastructure and opportunities that would otherwise be unavailable or uneconomic.

As Jonathan Reynolds said after visiting CNI's Ashton Old Baths data centre: "I want to see more and more projects like CNI, that make commercial sense and offer value to communities all at once."[1]

The model can now be applied more widely:

- In **fibre**, it can join public and commercial networks, make spare capacity available on neutral terms and reduce unnecessary construction. Members decide what they contribute, mutualising infrastructure where doing so improves utilisation, releases capital or preserves open access, without surrendering control of the rest of their networks.
- In **5G**, it can support neutral-host small cells where no mobile network operator can justify building alone. Sites, power, fibre and enabling equipment can be shared while operators continue to compete. Cooperative governance supplies a neutrality lock: no host owner or mobile operator can control the shared platform or set preferential terms for itself.
- In **data centres, cloud and AI**, CNI makes possible a distributed model, using dedicated dark fibre to link capacity in geographically separate, appropriately scaled facilities so that, where the workload permits, they operate as a larger virtual resource. The combination of predictable, high-capacity connections and common cooperative governance makes the distributed model viable. It can provide earlier capacity for AI inference, sovereign cloud and public services, complementing hyperscale sites and national supercomputers.
- Across the **public sector**, including during local government reorganisation, it can connect assets and organisations quickly without requiring a complex joint venture, premature consolidation or extensive new governance.
- Beyond digital infrastructure, the model could enable **energy peering**: mediating value between renewable generators, storage providers, data centres, heat

[1] Jonathan Reynolds MP, A Cooperative Tameside Success Story, 3 August 2023.

networks and local users through one cooperative framework rather than a web of bilateral contracts.

The benefits are economic, public and environmental. The model encourages more rational use of existing assets and investment by making collaboration easier and protecting neutrality; it does not require government to plan the network. It can lower barriers to entry, reduce duplicated cost and street works, retain value in the places that create it, strengthen sovereignty and resilience, and help public bodies convert service expenditure into enduring infrastructure rights. It gives practical form to the government's ambitions for growth in every postcode, procurement that backs British businesses and expansion of the cooperative and mutual sector.[2]

The Budget of 28 October 2026 creates new opportunities for the model. The **Data Centre Covenant** asks data centres to deliver local benefit, reuse heat, back UK suppliers and provide resilient compute for public services, in return for faster grid connections. The **Sovereign AI Fund** and its procurement scheme back British AI companies. **Local AI Partnerships**, led by Mayoral Strategic Authorities, will bring councils, colleges and businesses together around AI adoption.[3] Each depends on infrastructure that public bodies can trust and influence. The Thin Layer Model offers a practical way to provide it: distributed capacity whose strategic value could be recognised collectively; compute under UK control for sovereign AI services; and a ready-made vehicle through which local partners can share infrastructure as well as skills.

Interest in the model is also international. At the Cooperative AI Bootcamp held in Rome in October 2026, convened by Legacoop with the involvement of the International Cooperative Alliance, participants from cooperative organisations in several countries discussed the Thin Layer Model as a way to bring AI computing infrastructure under cooperative governance. With CNI already operating the model in fibre and colocation, the UK movement is well placed to lead on extending it to AI.

Government can accelerate adoption by recognising cooperative neutral infrastructure in digital, data-centre and sovereign AI policy; enabling public bodies and places to aggregate demand and invest in shared, cooperatively governed infrastructure; supporting demonstrators and patient capital in fibre, 5G and distributed compute; and supporting international cooperation on interoperable,

---

[2] HM Treasury, Chancellor John Healey delivers speech to Treasury staff, 21 July 2026; HM Treasury and Department for Business and Trade, New champion to be appointed for Britain's mutuals and co-operatives, 12 June 2026.

[3] HM Treasury, Budget 2026, 28 October 2026. The Budget provided an additional £60 million for the Sovereign AI Fund for direct investment in UK AI companies, £80 million for the Sovereign AI R&D procurement scheme, and announced Local AI Partnerships with three Mayoral Strategic Authorities. See also techUK, Autumn Budget 2026: techUK Analysis.

cooperatively governed infrastructure. The institution and fibre network already exist; the next applications can begin now.

1. The infrastructure challenge - and the missing model

Digital infrastructure is becoming foundational to almost every part of the Government's programme. AI adoption, cloud migration, industrial digitisation, defence and cyber capability, better connected public services and dense 5G all require more data-centre capacity and fibre in places that today's infrastructure was not necessarily designed to serve. **Household full-fibre coverage is therefore not a measure of completion**. Ofcom reports year-on-year growth of around 18 per cent in monthly mobile data traffic and around 53 per cent in 5G traffic; connecting small cells, data centres and public assets will create different and continuing demands for fibre.[4]

The government's Compute Roadmap recognises the need for a diverse and resilient mix of public and private systems, national platforms and regional innovation hubs. It distinguishes the tightly coupled computing used for model training from cloud and more distributed resources suited to inference and a much wider range of users. [5] The government is right that Britain needs both. But tightly coupled does not mean hyperscale. Isambard-AI in Bristol, the UK's most powerful AI supercomputer, draws about 5 MW and is housed in a modular data centre assembled in 48 hours: a fraction of the power of a hyperscale campus.[1] The largest commercial models are trained on far bigger clusters, but much of the training Britain needs for research, public services and its own models can take place at this scale, in facilities the UK can own and control. Hyperscale campuses, with their capital, power and water demands, long development times and concentration in a few places, are one option among several, not the only route to AI capability.

These constraints are becoming political as well as technical. Local government has reported increasing public concern about the electricity and water used by data centres and about development imposed without clear local benefit. Contracted demand connection offers rose from 41 GW in November 2024 to 125 GW in June 2025, and in July 2026 Ofgem attributed at least 80 GW of demand applications to data-centre projects. These are applications and offers rather than operating

[4] Ofcom, Connected Nations 2025, November 2025. Figures are year-on-year comparisons based on July 2025 operator data.

[5] Department for Science, Innovation and Technology and UK Research and Innovation, *UK Compute Roadmap*, updated April 2026.

demand, but they show the scale of pressure on the grid.[6] A strategy based only on ever larger sites risks delay, community opposition and a growing imbalance between London and the South East and the rest of the country.

The organising model matters. Britain chose infrastructure competition for fixed networks. It mobilised private capital but can also encourage several operators to dig parallel routes, each depending on enough customers to recover high fixed costs. The railway investment mania of the 1840s offers a warning: genuinely transformative infrastructure attracted a frenzy of competing schemes and speculation, followed by a collapse that destroyed investor value.[7] The lesson is not that government should centrally plan every route. It is that infrastructure competition without effective arrangements for collaboration can waste capital as well as create it.

A monopoly network is not the only alternative. Owners can collaborate at the passive and active layers while retaining their assets, pursuing their own investment strategies and competing in the services above. The challenge is to make that collaboration simple and trustworthy. Participants need confidence that sharing will not hand control to a competitor; public bodies need transparent terms, lawful procurement and protection against subsidy; and multiple parties need something simpler than a proliferating set of bilateral contracts. The Thin Layer Model provides the neutrality lock, common rules and commercial machinery that remove this friction.

2. What the Thin Layer Model is

The Thin Layer Model is a neutral cooperative framework through which independently owned infrastructure can be joined and used as a shared system. Its defining principle is **aggregation without consolidation**.

Digital networks are conventionally understood as a stack. At the bottom is passive infrastructure: ducts, fibre, buildings, sites and other physical assets. Above it is active infrastructure: the electronics that light the fibre, move traffic between

---

[6] Local Government Association, Local government response to sustainability of data centres in the UK, 6 July 2026; Ofgem, *Demand connections update*, 6 November 2025; Ofgem, Ofgem acts to free up grid capacity by tackling speculative data centre projects, 29 July 2026.

[7] Mark Casson, *The World's First Railway System: Enterprise, Competition, and Regulation on the Railway Network in Victorian Britain*, Oxford University Press, 2009; Andrew Odlyzko, *Collective Hallucinations and Inefficient Markets: The British Railway Mania of the 1840s*, University of Minnesota, 2010. Casson examines the overcapitalisation and excessive duplication produced by the competitively constructed network; Odlyzko describes the investment mania and subsequent financial collapse. The analogy concerns the risks of fragmented infrastructure investment, not the substantial economic and social value ultimately created by the railways.

connected devices and route it onwards across networks. Services and applications sit above that. Vertically integrated operators may control all three; wholesale models separate the layers to some degree.

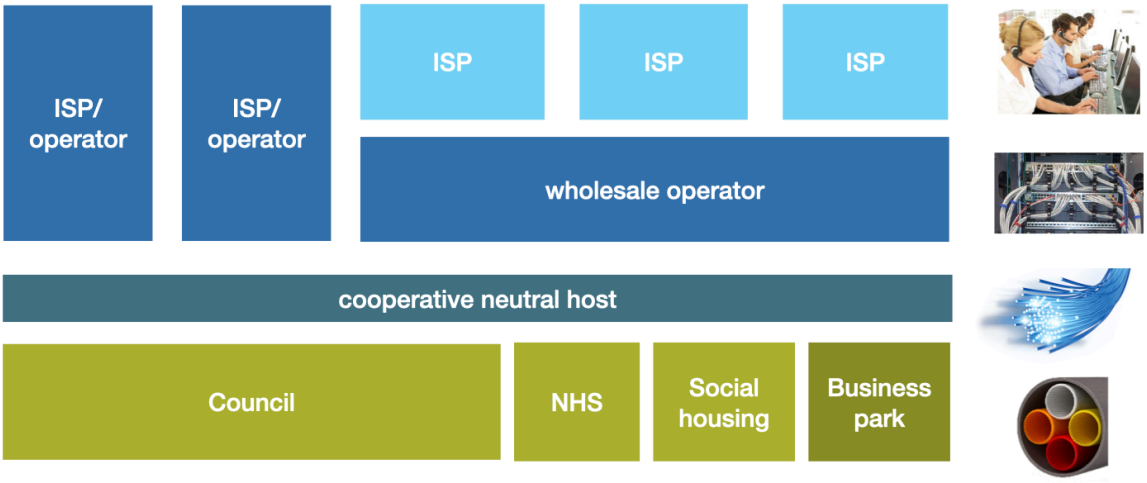


Figure 1. The cooperative neutral host joins infrastructure belonging to multiple owners into a shared layer, while wholesale operators and ISPs continue to provide competing networks and services above it.

The thin layer is positioned wherever it removes most friction from collaboration. In conventional colocation and fibre networks, that is above the most basic physical assets, around the level at which fibre belonging to different owners is joined into a usable network. CNI can use ducts belonging to councils and other members, join routes together and own fibre required to make the network coherent. Members then light the fibre, carry packets and provide services. Collaboration therefore takes place at the fundamental infrastructure layer as well as above it; it does not depend on creating one owner of all passive infrastructure.

This distinguishes the model from Stockholm's Stokab, for example. Stokab's publicly owned fibre network provides a neutral passive layer over which operators compete. The CNI model achieves a related outcome where the bottom layer has multiple owners: the cooperative sews those assets together, supplementing them with its own infrastructure where necessary.

"Thin" does not mean asset-less, and it does not describe an informal exchange of spare capacity. It means that the cooperative owns and operates only what is required to enable collaboration. The thin layer position can change with the application. For example, GPUs are much more expensive and depreciate much faster than fibre or data-centre buildings. In a distributed compute model, GPU capacity would therefore normally be financed and owned beneath the thin layer, with common access, orchestration, portability and governance above it (see Section 4 and Figure 2).

Co-operative governance provides the neutrality lock. Public and commercial members agree common rules and participate on a one-member, one-vote basis; control is not determined by capital contribution or market power. Members retain their assets and decide where they will share. Commercial providers can use the common infrastructure to deliver their own services, but cannot capture the cooperative to exclude competitors. Public bodies gain durable influence without taking responsibility for operating the entire system.

A single neutral layer is therefore not a monopoly under another name. Membership is open on equal terms, each member has one vote, members keep their own assets, and competition continues within the infrastructure layer and in the services above it. The layer can extend to new places and applications as members join, rather than requiring a new institution for each.

The commercial mechanism is equally important. In CNI's fibre model, a public body can retain its duct and make it available at a benchmarked market rate. CNI can install and own fibre within that duct, join it to other routes and set charges for access to the resulting network. The model is designed so that **there is no grant of subsidy**: public assets are made available at market rates rather than being transferred selectively to commercial beneficiaries. Each new application must still be structured and documented properly, but the distinction between the public input and the value subsequently created by the cooperative is fundamental.[8]

CNI has also developed a **co-operative right of use**. This is a long-term entitlement resembling an indefeasible right of use, but normally priced by reference to the cost of constructing the infrastructure rather than the maximum obtainable market price. It can give a public body something close to the assurance of ownership and can provide the durable, asset-like entitlement required by a commercial investor.

The model is therefore neither a joint venture that requires assets to be pooled nor a marketplace for occasional swaps. It is an enduring means by which organisations can invest, contribute, gain access and exercise collective influence without giving up ownership or suppressing competition.

[8] Department for Business and Trade, *Subsidy Control rules: quick guide to key requirements for public authorities*, 2025. Whether a particular arrangement constitutes a subsidy depends on its full facts and should be documented and assessed accordingly.

3. Evidence and precedents

CNI: an operating Thin Layer cooperative

CNI grew from work begun by Tameside Council and public-sector partners, including NHS organisations, to aggregate infrastructure built for different purposes. It was incorporated in February 2018 as Tameside Digital Infrastructure Cooperative and adopted its present name as the model expanded beyond the borough. It now has more than 50 public- and private-sector members and approaching 300 kilometres of fibre, most owned by CNI.[9]

CNI shows that councils, NHS bodies and competing network operators can participate in the same neutral vehicle; that separately justified investments become more valuable when joined; and that a cooperative can own enabling infrastructure without absorbing the assets or functions of its members.

Brighton Digital Exchange applied closely related principles to shared data-centre and network infrastructure. Its operation became unviable when Brighton Council decided to close New England House, the site of its data centre. Its members wish to transfer their engagements into CNI and the CNI board has invited them to do so, although the legal process has not begun. This shows that co-operative capability can be combined without transferring members' underlying assets.

Preston: another cooperative layer

Preston Digital Cooperative (PDC) uses a CNI network built with £370,000 of public funding to connect community centres engaged in digital inclusion. An internet service provider member of CNI provides connectivity; the council can use the network to reduce the cost of connecting its own buildings; and the community organisations provide training and support.[10]

PDC sits further up the stack than CNI and shows that cooperative thin layers can address different functions. It could also give companies bidding for public contracts a simple way to meet social-value obligations by funding measurable local connectivity and inclusion rather than making promises that are difficult to fulfil or verify.

---

[9] Current membership and network figures supplied by CNI, August 2026. See also Cooperative Network Infrastructure, *Fibre Tameside* and *How Tameside and Manchester have built advanced digital infrastructure*.

[10] Current funding figure supplied by CNI, August 2026. See also Preston City Council, *Digital Connectivity for Preston Community Centres*, 10 March 2026.

International and cooperative precedents

No exact international replica of CNI has been identified, but its constituent mechanisms are well established. LINX and Amsterdam's AMS-IX demonstrate member governance of shared exchange infrastructure; Stokab provides neutral dark fibre; and Spain's guifi.net applies common rules across multi-owner networks.[11] Producer cooperatives likewise show that members can both contribute assets or products and obtain services.

4. What the model enables

Fibre: getting more from every route

The next phase of UK fibre development should combine targeted construction with much better use of what has already been built. Data centres, 5G small cells, industrial sites, public services and resilient regional networks need routes and capacities different from household access. Meanwhile, alternative networks face consolidation and, in some cases, financial distress after competing builds did not achieve the expected market share.

CNI has helped design the INCA (Independent Networks Cooperative Association) Sharing Framework, through which alternative networks can identify duct, dark fibre or backhaul available for use by others.[12] An operator need not share where doing so would cannibalise its own market. It can collaborate where routes are complementary or spare capacity would otherwise earn nothing. Neutral rules and standard products reduce repeated negotiation and give smaller operators confidence that a larger participant will not control the arrangement.

With patient capital, CNI could acquire backhaul, middle-mile or exchange assets where doing so would preserve useful infrastructure as an open platform. It has recently done this on a small scale, acquiring from a member a network built to support 5G small cells in Worthing.[13] Applied more widely, the approach could release capital while preserving wholesale choice and route diversity that might otherwise be lost through failure or consolidation.

---

[11] LINX, *Governance*; AMS-IX, *About AMS-IX*; Stokab, *Mission*; Fundació guifi.net, *Commons Network*.

[12] Cooperative Network Infrastructure, *INCA Sharing Framework*, consultation proposal. The framework offers levels of engagement ranging from signalling a willingness to share to standardised CNI products.

[13] Cooperative Network Infrastructure, information supplied August 2026.

For public bodies, once fibre has been built, the marginal cost of carrying more data is very low. Ownership or a cooperative right of use can reduce recurring costs and remove bandwidth constraints that inhibit innovation, allowing organisations to connect additional facilities and share large datasets without corresponding increases in charges. Commercial use improves the return on the investment and helps finance expansion.

Tameside and Glossop Integrated Care NHS Foundation Trust invested £190,000 through CNI in fibre and hardware, receiving cooperative rights of use in return. An NHS blueprint records **£1.2 million in cost avoidance** from the resulting agile working programme and a further £180,000 annually, alongside improved interoperability, flexible working and measurable carbon savings.[14]

5G: a cooperative neutral host

Headline coverage statistics do not describe performance in busy town centres, visitor destinations and transport locations at moments of intense demand. Dense 5G requires small cells, sites, power and fibre backhaul, but no individual mobile network operator may be able to justify building the whole facility for its customers alone.

Ofcom has recognised that neutral hosting can address these economics and make more efficient use of resources.[15] A cooperative neutral host adds governance through which councils, site owners, fibre providers, specialist operators and mobile networks can participate without one party capturing the platform. CNI is supporting small-cell development in Blackpool and Worthing. The same approach can be applied to other high-demand locations and public estates: share the enabling infrastructure, maintain neutral access and allow operators to compete in the mobile services delivered over it.

Data centres, cloud and AI: distributed capacity under common governance

Many cloud and AI tasks do not need large, tightly coupled facilities. Inference, fine-tuning, regulated data, resilience and many public-service applications can use smaller facilities, including capacity that already exists.

---

[14] NHS Tameside and Glossop Integrated Care NHS Foundation Trust, *Delivering a Digital Net Zero NHS - Agile Work Model*, FutureNHS Blueprint on a Page, undated. The reported £1.2 million cost avoidance and further £180,000 annual saving relate to the programme as a whole, rather than solely to its fibre infrastructure. Available from the NHS England Blueprinting programme by request at england.blueprinting@nhs.net.

[15] Ofcom, *5G spectrum access at 26 GHz*, discussion of neutral-host small-cell models.

CNI's existing fibre and colocation operations provide a starting point, although the distributed GPU platform described here is not yet in operation. CNI proposes to link appropriately scaled data centres, initially across Greater Manchester and the North, using dedicated dark fibre and common technical and cooperative arrangements. Capacity in geographically separate facilities could then operate, where the workload permits, as a larger virtual resource. Candidate components include Ashton Old Baths, Oldham Riverside and future capacity at Silicon Sands in Blackpool, alongside other public, commercial and institutional facilities.[16]

The cooperative need not own the expensive, fast-depreciating GPUs. Public bodies, commercial operators and investors can finance capacity beneath the thin layer. Above it, the cooperative can define compatibility, mediate access, aggregate demand and establish the conditions for portability and resilience. Aggregated public-sector demand can provide a distributed platform with strong and durable anchor tenancy. The cooperative can combine demand from several public bodies and place workloads across more than one facility or provider, rather than leaving a regional operator dependent on a single major contract. That makes investment in domestic and regional capacity more bankable while improving resilience: the loss or migration of one customer need not undermine the whole platform. Commercial use of available capacity then broadens the revenue base and improves utilisation.

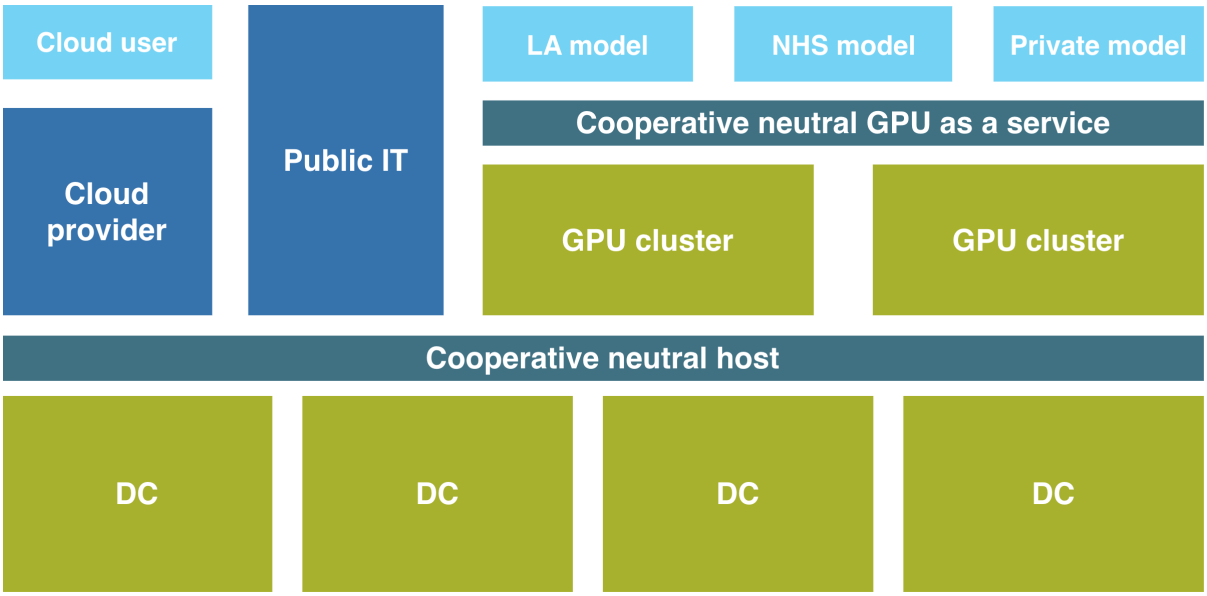


Figure 2. A proposed arrangement for distributed compute, not yet in operation. The cooperative neutral host joins separately owned data centres. GPU clusters, also separately owned, sit above it,

[16] Cooperative Network Infrastructure, *Ethically Powered Data: A Sustainable Future for High-Performance Computing*; Cooperative Network Infrastructure, *Sovereign AI and cloud infrastructure for public services: a cooperative model, operating in the North*, version 1.42, August 2026, prepared as a contribution to the Digital Infrastructure North Alliance of CNI, Greater Manchester Combined Authority and LINX.

and a cooperative neutral GPU service gives public bodies and private users access to them on common terms. Cloud providers and public IT can use the same facilities directly.

Sovereignty depends on control, not simply on where equipment is located or who owns it. Under the US CLOUD Act, the question is whether a provider subject to US jurisdiction has possession, custody or control of data, not where the servers sit.[17] Hyperscale providers now offer "sovereign" services that address part of this, but they rest on one supplier's technology and commercial terms, and deepen lock-in. The thin layer acts as a **sovereignty firewall**. It separates who finances and owns GPU capacity from who controls the data and services that use it. Because common specifications let equipment from different owners work together, workloads can move between facilities and providers. Control stays with the UK bodies that use the infrastructure, built into the technical and contractual architecture and independently assured, rather than resting on any single supplier's promises.

This distributed approach complements AI Growth Zones and hyperscale investment. It can begin sooner, make use of existing assets, support smaller UK providers, strengthen resilience and spread capability into regions with established strengths in health, manufacturing, defence, cyber, science and applied AI.

The Data Centre Covenant and sovereign AI

The Data Centre Covenant, published with the October 2026 Budget, sets five tests that all data centres are encouraged to meet and that strategic data centres must meet to obtain enhanced government support, including faster grid connections. Operators should pay for the energy-system costs they create; agree a Local Benefit Plan with host communities; protect water and nature, report consumption and capture waste heat where practical; create local jobs and prioritise UK suppliers; and provide secure, resilient compute for the NHS and other public services.[18]

The tests are framed around individual developments, and the Government has yet to define which data centres count as strategic. A distributed network could meet many of the same aims collectively. Existing facilities could be reused rather than replaced; sites sized to the power available; heat recovered close to where it is produced; and public bodies and communities could take part in governance on a continuing basis rather than being consulted once. The Government should consider whether its criteria could recognise the strategic value of such a system as a whole,

[17] US Department of Justice, Promoting Public Safety, Privacy, and the Rule of Law Around the World: The Purpose and Impact of the CLOUD Act, April 2019; National Cyber Security Centre, Technically-enforced separation in the cloud.

[18] HM Treasury, *The Data Centre Covenant*, 28 October 2026. The Government has said it will set out the definition of strategic data centres and further criteria in due course, and will consult on a draft Data Centre National Policy Statement.

while each site continues to meet its own planning, environmental, grid and local-benefit obligations.

The Covenant seeks domestic capacity because the UK cannot rely entirely on infrastructure located overseas. It does not, however, address who controls the data and services that use that capacity. The sovereignty firewall described above addresses that gap. The same point applies to the Sovereign AI Fund, which invests directly in British AI companies, and to the announced Sovereign AI R&D procurement scheme.[19] British AI companies, and the public services they serve, will be more sovereign if they can run on capacity under UK control rather than depending on a small number of overseas platforms.

Beyond digital: local energy and heat

The Thin Layer Model could enable energy peering between renewable generators, storage providers, data centres, heat networks and local users. It would establish common technical and commercial rules, measure contributions and settle value while assets remained separately owned. In Blackpool, this could connect curtailed offshore wind, storage, data-centre demand and recovered heat. It replaces a web of bilateral agreements with a neutral framework. The Covenant's expectation that data centres capture waste heat for nearby homes, schools, hospitals and businesses gives this application a direct policy purpose, although it remains a proposed application rather than an operating case.

5. Comparison with other approaches

The Thin Layer Model addresses a recurring infrastructure problem: how public and commercial organisations can combine assets, investment and demand without transferring control of the resulting platform to a single owner. It changes the trade-offs presented by the principal alternatives.

- **Vertically integrated commercial provision** can mobilise capital and offer mature services quickly, but it concentrates control. Once data, applications and operating processes are embedded in AWS, Microsoft Azure or another proprietary environment, switching or multi-cloud operation can become difficult. The Competition and Markets Authority has found that Amazon and Microsoft possess significant market power and that egress charges, interoperability

[19] HM Treasury, Budget 2026, 28 October 2026. The Budget provided an additional £60 million for the Sovereign AI Fund for direct investment in UK AI companies, £80 million for the Sovereign AI R&D procurement scheme, and announced Local AI Partnerships with three Mayoral Strategic Authorities. See also techUK, Autumn Budget 2026: techUK Analysis.

barriers and software licensing restrict customer choice.[20] Reported changes to VMware licensing following Broadcom's acquisition provide a further warning about dependency.[21] The thin layer can preserve alternative capacity, common interfaces and a customer relationship not owned by one supplier. This requires shared technical standards, favouring mature interfaces lower in the stack or open standards and open-source technology higher up.

- **Infrastructure competition** attracts private investment and can accelerate deployment. At the passive layer it can also duplicate construction, fragment routes and leave otherwise useful assets stranded when operators fail or consolidate. The thin layer retains competition and investment choice while allowing owners to share selectively where collaboration makes better commercial sense.
- **A single public or regulated infrastructure owner** can provide coherence, universal access and strong public control. It also concentrates capital requirements, operating responsibility and technology risk in one organisation. The cooperative model provides collective influence without requiring the state to acquire every asset or displacing commercial investment.
- **Joint ventures and special-purpose vehicles** can combine public and private interests around a defined project, but generally require agreement over valuation, ownership, liabilities, control and exit before work begins. They can also leave a public partner owning part of an infrastructure company while still having to procure separately from it. The Thin Layer Model starts from retained ownership: where a public body uses its own fibre or exercises an existing infrastructure right, it may not be buying the same service back from a separate provider. Services that are purchased remain subject to procurement law, but the model can reduce what has to be procured by preserving direct public ownership and rights of use.
- **Bilateral sharing and conventional procurement** are familiar and may be entirely adequate for simple relationships. They become cumbersome as parties and dependencies multiply. Procurement of a service can also leave the public body paying indefinitely without acquiring a durable infrastructure interest. Common cooperative rules reduce repeated negotiation, while cooperative rights of use can convert investment into a long-term entitlement.

---

[20] Competition and Markets Authority, Cloud services market investigation, final decision, July 2025; Competition and Markets Authority, CMA announces package of actions on business software and cloud services, 31 March 2026.

[21] Cloud Infrastructure Service Providers in Europe, *Broadcom's contract termination and new VMware licensing terms*, 19 March 2024. The reported effects are the trade association's claims and are cited here as an illustration of dependency risk rather than as an adjudicated finding.

- **A conventional neutral host** can efficiently share sites or networks. Its neutrality ultimately rests on contracts and the incentives of its owner. In a cooperative neutral host, the infrastructure users and contributors govern the platform and can prevent its capture by a dominant supplier.

The Thin Layer Model therefore adds a capability absent from the conventional choices: it makes collaboration itself durable and investable. Public and commercial organisations can connect assets, pool demand and build common infrastructure without transferring the whole platform to a monopoly owner, merging their organisations or abandoning competition.

6. Ways to accelerate adoption

Government can create the conditions in which infrastructure collaboration becomes a normal, investable option. The October 2026 Budget provides immediate opportunities to do so.

Recognise the model in policy

The UK Compute Roadmap, AI Growth Zones, 5G programmes, fibre policy and relevant infrastructure strategies should explicitly identify the Thin Layer Model alongside commercial provision, direct public ownership and conventional public-private structures. Recognition matters because public bodies and investors are reluctant to adopt unfamiliar arrangements without a policy signal.

Two Budget initiatives offer immediate opportunities. In implementing the Data Centre Covenant, the Government should consider whether the forthcoming definition of strategic data centres could recognise the collective strategic value of a cooperatively governed network of appropriately scaled facilities. In the sovereign AI programme, cooperatively governed distributed compute should be recognised as a potential component of sovereign infrastructure.

Enable public bodies and places to aggregate demand

Public bodies should be able to aggregate demand, combine requirements across organisational boundaries and convert part of their recurring service expenditure into enduring infrastructure rights through shared cooperative infrastructure. Standard procurement routes, access agreements, technical specifications and subsidy-control guidance would reduce transaction costs and make participation

straightforward. The government's forthcoming procurement reforms, including a new definition of a UK supplier, are an opportunity to do this.[22]

Reorganisation and regional investment should build enduring capability. Guidance should encourage public bodies to map digital assets, consider cooperative sharing before procuring replacement services, and assess whether new investment can serve several organisations and local economic priorities. This would turn necessary transition spending into fibre, data-centre and connectivity assets that continue to create public value after institutional boundaries change.

Local AI Partnerships, beginning in West Yorkshire, South Yorkshire and York and North Yorkshire, will bring councils, colleges and businesses together around AI adoption.[23] Local adoption needs connectivity, computing capacity and suppliers as well as skills. Partnerships and combined authorities should be invited to consider neutral co-operative infrastructure as a way to share capacity, support local suppliers and retain economic value. The North West, where CNI already has infrastructure and public-sector members, could provide a further practical demonstration.

Support demonstrators and patient capital

A small programme could test: implementation of the INCA sharing framework across several networks; cooperative neutral-host small cells; shared infrastructure during public-sector or local-government reorganisation; and an initial distributed compute platform linking northern data centres. Funding should cover the practical costs of asset mapping, technical and commercial design, standard products, member recruitment and onboarding as well as equipment. Demonstrators should produce reusable arrangements, not isolated technology showcases.

For distributed compute, the most useful first step would be an assessment of a network linking northern data centres by dedicated dark fibre, covering the engineering, commercial and legal requirements of the sovereignty firewall, while initial public-sector workloads are placed on existing facilities such as Ashton Old Baths. The Sovereign AI R&D procurement scheme is one possible route.

---

[22] HM Treasury, Budget 2026, 28 October 2026, which commits to publishing a new definition of a UK supplier and a National Procurement Policy Statement in 2027. See techUK, Autumn Budget 2026: techUK Analysis.

[23] HM Treasury, Budget 2026, 28 October 2026. The Budget provided an additional £60 million for the Sovereign AI Fund for direct investment in UK AI companies, £80 million for the Sovereign AI R&D procurement scheme, and announced Local AI Partnerships with three Mayoral Strategic Authorities. See also techUK, Autumn Budget 2026: techUK Analysis.

Suitable finance could allow strategically useful fibre to be mutualised, networks to release capital without losing access, data-centre facilities to be adapted and initial compute capacity to be deployed. Investment should sit with the organisations best equipped to own each asset. In particular, expensive GPUs need not sit on CNI's balance sheet simply because the cooperative governs access above them.

Support international cooperation

The co-operative movement internationally is beginning to organise around AI. At the Cooperative AI Bootcamp in Rome in October 2026, organised by Legacoop and Fondazione PICO with the involvement of the International Cooperative Alliance, participants examined the whole AI stack, from data centres and computing infrastructure to models and applications. They recognised that cooperative values cannot be applied meaningfully at the application layer alone, and discussed the Thin Layer Model as a way to bring AI computing infrastructure under cooperative governance without cooperatives having to own and finance all the underlying assets.[24]

These are emerging opportunities rather than established partnerships or funded programmes, but they suggest a natural division of labour. Co-operatives in other countries bring complementary strengths: there are existing technology cooperatives with substantial AI expertise, and networks like Patio[25] link technically capable cooperatives across many countries. The UK's contribution could be the infrastructure layer. With the Thin Layer Model already operating in fibre and colocation, Britain is well placed to lead on extending it to AI compute, so that cooperatively governed infrastructure, models and services can be connected across borders without any single company owning or controlling the whole system. Government could support this through its international digital and trade engagement.

Conclusion

Together, these steps combine public control with commercial investment, make better use of existing infrastructure and turn collaboration into a normal, investable option. The model's significance is not only that it adds to the number of cooperative enterprises. It changes how an industry can operate: independently owned assets are brought together through a mutually governed, neutrality-locked institution, allowing collaboration without eliminating competition and collective control without

[24] The author attended the Cooperative AI Bootcamp, Rome, 12–15 October 2026, on behalf of DotCoop and CNI.

[25] https://www.thenews.coop/patio-a-global-community-of-tech-co-operatives/

Conclusion

Together, these steps combine public control with commercial investment, make better use of existing infrastructure and turn collaboration into a normal, investable option. The model's significance is not only that it adds to the number of cooperative enterprises. It changes how an industry can operate: independently owned assets are brought together through a mutually governed, neutrality-locked institution, allowing collaboration without eliminating competition and collective control without centralised ownership. The Budget has created immediate applications for it. The opportunity is available now.

Shaun Fensom, Networks.coop · November 2026