PUBLIC SERVICE OBLIGATIONS: Neutrality, Transparency, Checks & Balances

People's Capitalism Briefs

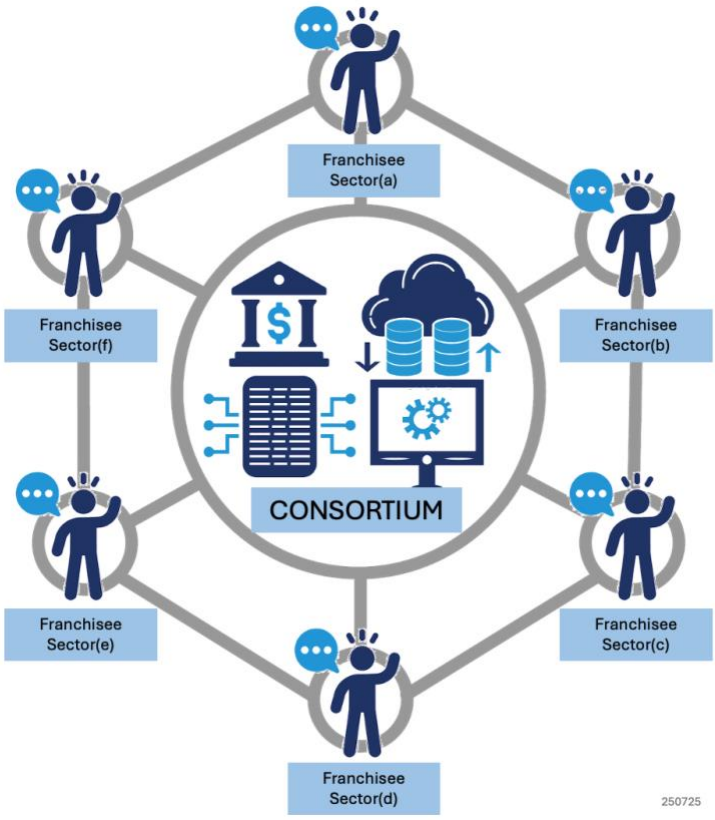
In today's consumer-facing online platforms that match buyers and sellers of any resource, design priorities typically include profit extraction, price uplifts, disadvantaging competing markets and lock-in of users. These features are so subtly embedded it can be easy to miss the ways they distort and disadvantage. They can be demonstrably designed out in an alternative system of markets.

Other pivotal technologies - water supply, electricity, railways, roads - are each subject to strict governance requirements to ensure safety and public service. Companies running these facilities may make healthy profits, but their power over the public is capped.

This paper sets out a comparable governance regime for "POEMs" (Public Official E-Markets), a comprehensive system of interlocking e-markets initiated by a government concession. Aiming for a trustworthy service that can be taken for granted as part of a democratic market economy, there are three planks to good governance. Neutral treatment of users must be a given along with accountable transparency and a balance of powers between government, operators and users of the markets.

DEFINITION OF "OPERATORS"

Control of POEMs must be split between a core consortium that wins a concession and their franchisees; businesspeople locally who then purchase the right to design, promote, run, and profit from, one of the system's front-end markets (flower sales, nursing, petcare, bricklaying, or toy rental are examples).



- The consortium is a group of banks, developers, and hosting providers. It runs POEMs' servers/code and creates a suite of screen elements that franchisees use to build the best interfaces for their market sector.
- Income from each sector is split between franchisee and consortium according to a formula they agree.
- In this briefing "Operators" refers to the dynamic balance of a winning consortium and their franchisees. More details in our Decentralization brief.

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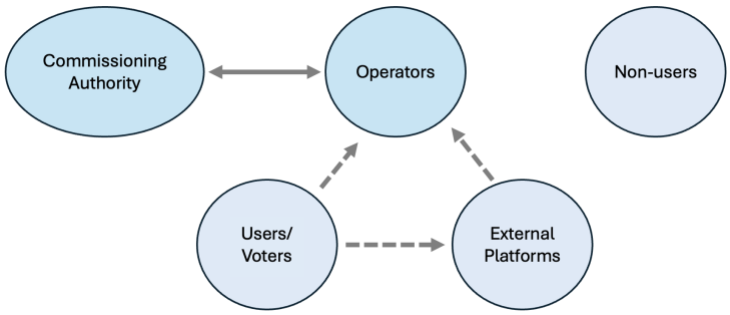
1) Key Actors in a POEMs Implementation

Equilibrium of power around any implementation of POEMs involves 5 constituencies, each with rights. Some also have obligations.



Actors become involved through this sequence:

- **Commissioning Authority initiate a concession**: The authority will most likely be a national or regional government. But in cases where government is dysfunctional or lacks legitimacy it may be a supranational body acting in a temporary capacity until a robust, democratic, government is ready to take over as the Commissioning Authority regulating POEMs during the concession period. The authority may be split across levels of government, for example the European Union might initiate an overall program with member states choosing the extent to which they vary rules for their users. Legitimacy of this entity is important; in most circumstances it should be the authority that ensures power supply, water supply, and comparable facilities for the region.
- **Operators win the concession**: A fair, transparent, open, bidding/award process will confer legitimacy. The concession should have a fixed term, 15 years perhaps, during which operators can uniquely access specified official facilities if remaining complaint with their obligations.
- **Citizens/businesses choose whether to use POEMs**: The new markets system must be universally accessible. Users have rights but must respect operators' freedoms and obligations. Users will also be voters, able to punish politicians for a scanty or lopsided concession.
- **Nonusers are protected**: No-one is to be compelled to use POEMs (outside of an employer having a right to mandate an employee use their organization's preferred technology as is already the case). This freedom is vital to continuing legitimacy of the platform, as is the ability for any user to become a nonuser with minimal obstacles.
- **External platforms can choose to interact**: POEMs must be ready to support a surrounding ecosystem of unregulated apps each able to draw on POEMs' data, functionality, and user records (with user-permission). External apps can add their charges to POEMs' basic markup.

a) Shaping a New Institution: POEMs' Operators

POEMs should be independent of government. This requires a constituent policy in enabling legislation; the creation of an entity that designs, funds, and runs POEMs for the duration of a concession period. This should be a for-profit organization so that maximizing returns becomes its transparent motivation

when dealing with nuances of implementation and operation. Continued licence to operate must be dependent on compliance with public service obligations in the legislation.

Online markets are natural monopolies; sellers want to be where there are most buyers, and vice versa. Purely private-sector market operators have established near monopolies in multiple countries, Uber's dominance in taxi journeys for example. POEMs offers citizens and businesses a choice of *de facto* monopolies; global verticals in each sector, like Uber; or horizontal (all-sectors in the micro-economy) across one region. (POEMs' concession must offer only a minimal monopoly, explained in this briefing.)

Operators of any monopolistic e-market accrue enormous power, often opaque. Operators' corruption of their markets with hidden charges, favored sellers, or withheld data, are now routine in business models. Assuming enforcement of POEMs' user protection through traditional models of regulation by civil servants when software is this potent, complex, and easily changed, may be naive.

PANEL: Motivating operators as a counterweight

Politicians will have powerful incentives to interfere in POEMs. Enabling legislation should incentivize operators to act as a bulwark against this.

A 1988 ban by the British government on broadcasting voices of Irish republican leaders illustrates the ethos legislation could foster. The licence-fee funded BBC, as well as commercial broadcasters reliant on government issued licences, circumvented the ban's intent. They started conducting interviews then dubbing an actor's voice to mirror the banned leader's words. It was commercially vital to retain viewers' trust and not be seen kowtowing to political edicts.

A rule that POEMs' users can easily, fully, transfer their data to any other system will help heap comparable pressure on its operators.

Legislation should curb operators' potential power over the regional economy, not their earnings. Essentially, it offers its winning consortium a pact: *As long as you won our jurisdiction's concession in a genuinely competitive bidding process and abide by its obligations, there will be no constraints on how you structure, curate, or present your markets; nor will there be any cap on your revenue from operations.* This means operators have room to innovate, they can trial and make mistakes, as long as their only motivation remains striving to legitimately grow activity in their markets.

The public service obligations must therefore align operators' earnings with needs of the regional micro-economy. Consortium members and franchisees can get rich only by increasing activity and opportunity at the economic base without favor; not through leveraging their officially bestowed benefits in any other way in the jurisdiction. This pact will be strengthened if core consortium members operating POEMs are international. Reputational risk to each brand should follow any misbehaviour.

Imagine - as a random example - the concession to operate a country's POEMs markets system was won by a consortium comprising MacQuarrie Bank (Australia), Red Hat software (Canada), Oracle databases (US), 1&1 Ionos hosting (Germany), Thales payment systems (France), and Dentsu front-end design (Japan). Each might have set up a standalone entity for a joint venture, to comply with a concession's stipulation of independence from external control; but these internationalists are sufficiently brand sensitive to be jeopardized by any suspicion they were underhand or destabilizing democracy anywhere.

b) Rights and Obligations of Each Actor

POEMs needs a healthy polity both within its own operation and in the surrounding public institutions on which it relies (trustworthy courts to act as final arbiters in any dispute between market users for example). There should be responsive checks and balances between the key actors. Anyone wanting to assess potential legislation might look in particular for embedding of these rights and responsibilities:

How Legislation Enabling POEMs Should Create Checks And Balances for Each Party			
Actor	Notes	Key rights relating to POEMs	Obligations in respect of POEMs
Commissioning Authority	This is the body that ultimately sets up and runs the concession for POEMs in any jurisdiction by which the operators are selected; typically a national government.	Ability to view system data, code, transparency closures, and other details on the same basis as any other user for the purposes of policymaking or planning interventions. Readiness for terminating and re-awarding a concession if operators breach rules. Legal right to do so with a court ruling.	Run a transparent, fair, unambiguous, concession award process that confers legitimacy on the operators. All communications with operators to be transparent. No POEMs-only regulations or taxation beyond stated scope of concession. Maintain alternative channels for interactions with government to serve non POEMs users.
POEMs' Operators	"Operators" means the combined consortium providing servers, software and central administration plus independent franchisees operating the user-facing parts of POEMs.	Unique - legally enforceable - access to officially bestowed benefits for the concession period, subject to compliance with stipulated public service and funding obligations. No cap on earnings from a flat rate percentage markup on each purchase (the rate must be clear before acceptance of the concession). No windfall taxes. Right to a "profit maximization" defence against accusations of non-neutrality: operators only have to show they acted *in the belief* that their structuring/curation would maximize their legitimate revenue from POEMs if it is challenged.	Pay any bond demanded of the concession winner. Controls on operations including: • Maximum average transaction size • Standalone entity • Neutrality • Decentralization • Transparency • Non-revenue generating functions • Permit any other market operator to interface • Orderly handover of concession if obligations not met Fiduciary duty to users (including government), enforced by a "*no bailouts in case of failure*" rule in the legislation.

POEMs' Users	Who qualifies to register on POEMs as a seller or buyer is a political decision. Citizens and businesses registered in the jurisdiction are obvious candidates. Issues arise around - for example - undocumented residents. Are they allowed to work through the system? Buyers can be a wider constituency. Foreign entities, such as tourists, should be welcome as buyers but possibly not permitted to sell or work through POEMs (because of counterparty risks or legal controls).	Neutral access to system functions and sectors, transparency, inspectable code running the system. Other protections for users to be embedded in enabling legislation include data portability: an unfettered right to take an activity record and details from POEMs in a form that can be ported to any alternative platform.	Respecting operators' right to structure, design, and curate POEMs markets as they wish to maximize their legitimate returns during the concession period.
Nonusers	This is anyone (business or citizen) who chooses not to use POEMs, or to limit their usage to certain types of transactions.	No obligation to use POEMs: all the legal functions of citizenship and interaction with government can be performed through other channels. Delegated-user accounts, e.g. for employees of a business that uses POEMs. (The employee is known to POEMs only in relation to the employer with no link to any personal data.) Taxpayer funds directed towards POEMs have to be justified on a "best value" basis. Advance notice of details of POEMs' expansion plans (e.g., new sectors).	None
External Platform Operators	This constituency is a mix of established companies (such as Doordash, Airbnb, or Walmart.com) and emerging players who build businesses specifically around interface into POEMs. Either may choose to link into POEMs as they wish.	Right to link an app into POEMs subject to compliance with objective security protocols. Validation of data on activity via POEMs.	If choosing to interface into POEMs', respecting operators' protocols, system security needs, and obligation to publish anonymized activity data. No impeding of POEMs transaction processes or user relationships.

2) Levels of Decision Making that Shape POEMs in any Region

Any POEMs implementation will be legitimately shaped by three levels of decision making: foundational, political, and operational. Legislation must be clear about who decides in each case.

This tiered shaping can be seen in existing public utilities, such as roads. A commitment to solid surfacing, consistent signage, standardized junctions, and enforced rules of driving coupled with universal access are foundational to a modern system of highways. Without them, road transport in any region will be severely handicapped. But where roads go, which cities they bypass, and whose land they cover, are decisions, right or wrong, made by political leaders within the noisy, imperfect, mechanisms of democracy. Finally, commissioned roadbuilders may be left to determine operational matters such as the camber for rainwater runoff, banking on individual curves, or the siting of central reservations.

Foundational decisions are usually drawn from past experience, and little argued. Some political decisions and operational decisions become charged. Foundations for a public water supply, for example, requires a maximum acceptable level of particulates and set pressure at point of delivery. But whether to add fluoride at source is a contested political decision with negligible operational impact; pump stations simply adjust their settings based on the amount decided by lawmakers.

This table illustrates where decisions that will shape POEMs and its potential power should be made:

Levels of Decision that Shape a POEMs Implementation		
Level of decision	Explanation	Example decisions
Foundational	Core rules embedded in enabling legislation without which the service is not defined as "POEMs".	• Operators are independent of government • Operators are decided through open concession bidding • Decentralization is forced on operators • Maximum Average Transaction Size formula imposed • Neutrality between market users mandated • Open data obligatory • Transparency of operations enforced
Political	Further stipulations in the legislation decided by the Commissioning Authority.	• Is tax deduction from sellers mandatory (or can they opt out and declare/pay tax liabilities through other routes). • Framework for a POEMs' regulator. • Composition of the Maximum Average Transaction Size formula. • Are some sectors (eg gambling) banned on POEMs?
Operational	Decisions by operators to maximize their returns within the framework of foundational and political stipulations.	• Taxonomy of sectors • Design of screen interfaces • Curation of options for any user (which must be objective) • Tone of reporting/advocacy • Marketing messages

3) Enforcing Neutrality

Operators of POEMs (Public Official, E-Markets) have only one source of revenue, derived from a fixed percentage mark up on each transaction the platform enables. They cannot sell, buy, invest through or take any position in any market they oversee. Nor can they set prices. All these functions are to be openly available to anyone else to do competitively, subject only to legal controls. These restrictions create a clear path to profitability for operators: attract as many users as possible to markets that treat everyone involved the same. Within this overriding framework there are some nuances to consider.

a) Ranking of users

Assessing a counterparty's reliability is vital to purchasing or booking with faith in any marketplace. Today's online exchanges typically rely on subjective rankings, sellers rise up from zero to five stars based on buyers writing nice comments about them with star-studded assessments. These rankings are easily gamed, sometimes on an industrial scale. Even when the intent is pure they are based on individuals' expectations and judgements which will be inconsistent, possibly prejudiced.

Contrast this with holding a clean driving licence. It comes not from other drivers having written nice things about your driving but from not being caught breaking rules that keep roads safe for all. If an infraction is detected the process of deciding a penalty, through courts, strives to be objective, transparent, based on clear case law and can be challenged through an appeals process.

Forced into neutrality between users, POEMs must operate a rankings system that any user can opt in or out of based only on objective performance of any buyer or seller. It has a unique depth of data on which to do this for any user who wishes to monetize reliable trading by attracting higher paying buyers or lower charging sellers, limiting - for example - rental of their gardening equipment to demonstrably trustworthy neighbors.

The most likely mechanism is a universal table covering perhaps 10 grades of proven reliability. So, starting with no grade, completing a first 5 transactions with no more than one being successfully disputed (see separate briefing for this process) moves the person or organization up to Grade One, the next rung might be dependant on a further 10 transactions with one or less defaulting, and so on. The aim is to make attainment of higher grades a significant boost to earnings and affordability for those who wish to pursue a righteous path in their activity across thousands of market sectors.

There must of course be nuances. One obvious scam to be kneecapped is building up a reliable record in transactions with an average value of $50 with a view to pulling a heist with a dodgy sale worth thousands. Weighting based on a user's track record for purchases or sales relevant to each new transaction would be a safeguard. Operators must be free to construct these rules as they believe best attracts activity to their markets but those rules must be published openly in their entirety.

Anyone using POEMs who hankers for robust personal opinions about a counterparty is always free to interface into Yelp or other standalone rating systems. If Yelp were willing, their metrics could guide ordering of counterparties for any intended transaction in POEMs for those willing to incorporate Yelp's business model alongside POEMs' transaction charge.

b) Avoiding careless favoring of users

Charging providers for enhanced listings, artificially inflating prices during peak demand, secreting data and other corrupting practices are often can be core to operators' business plans in today's e-markets. Although explicitly outlawed in POEMs, they could occur inadvertently or through lack of oversight of independent franchisees.

An area to watch is editorial content of any sector within POEMs. Operators will want to make their exchanges intuitive and enticing for buyers particularly. Neutrality obligations should not be taken to mean ordering of options for any purchase are just a long list of every possible way that need could be met, there can be creative highlighting of some sellers but it must be openly formula driven.

Take overnight accommodation as an example. A panel atop search returns showing "*Our recommended stays*" would, in other e-markets typically feature hotels who bid the highest for above-the-scroll display. That income source is barred for POEMs which must treat the biggest chain hotels, small guesthouses, people offering a spare room when not needed and even homeless hostels as available beds to be given equal treatment within whatever filters a buyer has set for their desired prioritization ("*I need wifi, don't like historic buildings and expect to pay $75-$100 a night*").

POEMs can still highlight options likely to be of interest to the buyer, but it must be driven by a formula published openly. For example "*The top 5 most heavily utilized rooms at your destination based on the last 10 week's bookings data, available over your intended stay and in your price band*" (display wording would be zippier of course). This formula is inspectable and testable by anyone (see next section).

But a wily franchisee covering the mid-tier of overnight accommodation might construct a formula that favors their family's bed & breakfast for many buyers' needs. The core consortium might not spot this. The consortium is of course entitled to enforce rules on algorthims within POEMs constructing editorial content. The extent to which they do so would be a key point for POEMs' monitors, official or self-appointed to scrutinize.

c) Government as a market user

Government initiates POEMs and uses it. For clarity and convenience there should be some ways that public agencies have preferential status in the system, that must come with responsibilities not placed on private users.

Key areas where an official agency might have preference in listing, buying or selling include:

- **Tax**: Anyone can construct a POEMs fund that deducts a percentage of the income from specified activities for any user choosing to opt-in. The system will use the same software for a church wanting to offer congregants a chance to have 5% of their earnings around the neighborhood tithed to a steeple repair fund as for a governemnt-created fund that can deduct 3.5% sales tax on any purchase of adult clothing at source. But it needs to recognize the later is more important, and can be more prominent in its listings.
- **Voting**: Again, if POEMs is permitted or compelled to operate plebiscites, running a referendum on wether a given street should be closed to traffic on weekends requires similar code to that organizing a national election for operators. Both must confirm eligibility and guard against

double voting, then allow monitoring and accountablity while preserving ballot box secrecy. But one is clearly entitled to far more significance than the other.

- **Communications**: Public agencies may issue product recalls if consumer danger is detected. It's one example of how editorial algorithms in POEMs can be overridden by official messages only.
- **Pre-emption rights**: In an officially declared emergency, public agencies may be given abilities to pre-empt existing bookings of vehicles, supplies and qualified people in POEMs. The extent of this must be clear in the initiating concession and again, no other user or system operators can have this right.
- **Categorized sales**: In POEMs' finance markets, government bonds could be a uniquely attractive investment as they are in larger-scale markets globally. Granting them their own category is not a betrayalof neutrality obligations that can be cited by other providers of debt instruments to POEMs' users.

In return for this enhanced status, legislation enabling POEMs might mandate any government run fund or facility within POEMs must be set at full public reporting. Any user can open for example, the accounts for a fund collecting tax on rental of cement mixers, drilling down to the extent of seeing a few cents' payment deducted from their latest booking of a mixer - with identifying details removed from public display - then likewise exploring what those aggregated dollars were used to buy in POEMs or to where they were transferred.

d) The customer service dilemma

POEMs' operators cannot offer a helpdesk. By solving the problems of callers, staff would inevitably be favoring one user. They can of course maintain a system page for queries from users then answer them publicly so any knowledge imparted is shared.

To allow individual support, operators could publish a manual specifically targeting technologically literate workers and colleges. Any educator might use the manual as basis for a course in becoming an accredited POEM's Support Assistant. The platform would provide a market for these trained people in which any could sell and be booked by users with a problem for whatever charges each worker wished. Operators might be compelled to place a sum in bond that covers charges of the lower priced providers for users with, for example, a disability that inhibited their interactions with POEMs.

4) Radical Transparency

Anyone should be able to check POEMs is doing what operators say it does and nothing more. Rigorous checking should be welcomed, conspiracy theorists must be serviced. Government and operators should assume they must constantly prove the service is trustworthy. The only factor that trumps transparency of government or operators' actions and decisions protection of users' security.

a) Structural transparency

- **Open lobbying**: Government and operators will want to pressure, advise, and enquire of each other throughout the concession period. It must all be open, with correspondence and records of meetings published on a reporting section of the POEMs website. Likewise, dialogue with suppliers or submissions to courts around pending cases must all be open and searchable.
- **Shared Regulation**: Any public regulator for POEMs must, again, be obligated to declare interests and publish details of its internal workings and findings with system security as the only higher consideration.=
- **Relationship reporting**: Users are entitled to probe the business connections of consortium members, franchisees, and senior staffers. It all has to be declared, as should salaries of personnel, including bonus metrics.
- **Published correspondence**: POEMs' consortium or franchisees may dialogue with buyers sellers, investors, or nonusers. Such communications must be electronic and again available for anyone to read but with external parties' details anonymized unless they specify otherwise. This enforces neutrality, one user must not know information about or possible plans for the system that others don't. Operators can produce training manuals, updated guidance on how to exploit the system or any other materials they wish but they can't charge for them or restrict their circulation any other way.

b) Operational transparency

- **Open data**: There should be only three categories of data about activity on POEMs; (a) owned by the user (b) published openly with anonymization (c) data that are not compiled. There is no category of privileged information for market operators. That means system performance metrics, server capacity, and other information usually secreted by platform operators has to be published; if operators can see it, so can users.
- **Open code**: Operators must publish their specifications for POEMs in a form that is easily understandable (business rules and screen mock-ups for example) plus the actual code.
- **Mirror system**: A second version of the system must be maintained, it runs the exact code currently on POEMs. No validation is required to set up an account for the mirror and there are no payment mechanisms for real money. User data is cleansed regularly to deter usage for actual transactions. This allows anyone with a theory about how the markets may be corrupted to register fictitious POEMs users then run interactions between them which they can document to test, possibly prove, their concern. Users wanting to access the parallel system as senior staffers who can make changes to market structures may set up a separate installation to do so.

- **Human interface**: Military protocols developed for missile launch point to protections that could be mandated around updating POEMs code, or any backdoor access (such as acting on a search warrant to open a user's activity details). System configuration might, for example, ensure update or viewing an individual user's activity was only possible when three randomly selected staffers each entered parts of a multi-sourced security key with updating of the mirror code and news of the entry automatically published simultaneously. Crucially, there must be no untraceable "quickfix" channel into the system. Anyone fearing such a channel can commission whoever they wish to register as a senior system staffer on the mirror system and seek ways to bypass this protection.

PANEL: Systemic support for Whistleblowers

Anyone with a POEMs' staffer's login at consortium or franchisee level must be able to access a publicly available site maintained at operators' cost but run independently. It offers a way to openly yet anonymously post concerns about system or management integrity.

Once logged in with their insider credentials, a person can post any message they wish. Operators can respond, but not amend posts which would be anonymous but validated. Anyone suspicious of operators might elect to receive alerts about new posts from the site.

Operators should not have legal protection from these claims. Only if the site is misused to libel an external party, can posts be redacted by court order. There will be junk messages and crackpot theories, that's the chaff among which scrutineers have to seek the wheat of actionable concerns.

- **Multifaceted inspection**: The composition and responsibilities of any regulatory agency overseeing POEMs is a political decision. But a body appointed by the Commissioning Authority should never be viewed as the entirety of POEMs' monitoring. Published code and the mirror system should allow any organization of any nationality or ideological persuasion to scrutinize the system and share findings as they wish. This won't entirely quell concerns such a vital system might be corrupted, but proactively serving anyone, however outlandish their theories, who wants to poke around POEMs' foundations should reflect the value of those people in reassuring less vigilant users.

5) Democratic Checks & Balances

If widely used, POEMs could accrue significant power over its users and the regional economy. Legislation enabling POEMs can ensure that this power is capped, and its operators are incentivized to use their leverage as advocates for the economic potential of workers and small sellers while acting as a counterweight to the interests of big players in the economy or illegitimate government manipulation of its markets.

Enabling legislation should ensure the potential harm of malfeasance or incompetence of any party involved in POEMs will be constrained as other actors have means and motivation to protect the overall system's integrity. Checks and balances around POEMs could secure its place as a stable pillar of the microeconomy even in a region beset by political or economic turmoil.

Overall, legislation should aim to keep (a) the system responsive to users' needs (b) operators in fear of losing public trust (c) government honest (d) an unregulated ecosystem of external apps thriving. This section offers a checklist of sample points against which legislation can be checked by anyone concerned about the balance of powers in a region's economy after POEMs is implemented:

PANEL: Why do Checks & Balances matter?

Any public utility wields power over users who rely on it. With established infrastructure a culture of high standards has allowed most of us to slip into complacency about this. E-markets are more nuanced and harder to check, keeping key actors in dynamic tension can keep everyone on edge.

Who regularly checks composition of water piped into their kitchen? But when public water supply was proposed, Victorians feared centralized operators would intentionally poison entire cities. In reality, apart from mistakes or unjustified cost cutting, utility companies have no reason to do so. Short of blatantly degrading service to certain districts, there is little they could do to favor or disadvantage certain users for commercial or ideological reasons.

In a POEMs implementation, a spectrum of stakeholders gain motivation to distort the service and means to do it in hard-to-detect ways. Where legislators are willing to cede power to a new institutions, the right concession can make new markets a tool for expanding democracy with the collective operators incentivized, even obligated, to act as a voice for players across the micro-economy.

a) Clarity of Motivation

It should be clear what each party aims to get out of POEMs' launch, with underhand gains avoided:

- **Commissioning Authority**: Leaders are entitled to kudos, with voters particularly, for a well-constructed concession that attracts competing bidders while maximizing outputs of POEMs for users and the economy. They can of course milk this in their timings and framing. But a POEMs concession must not lead to politicians gaining ways to influence economic activity outside of open lawmaking across the economy and transparent processes.
- **Operators**: Should get a potential revenue stream and further business opportunities outside the jurisdiction, but not possibilities for illegitimate leverage over the regional economy. Enforcing this requires that operators comprise a standalone entity with no external business

relationships that could tempt them to structure POEMs' markets to favor particular sectors, buyers, or sellers. For example, it would be unacceptable for operators to offer consultancy in how to use POEMs domestically because they would then be incentivized to retain information for paying clients or subtly elevate clients' interests in market activity.

Operators should be allowed only two sources of revenue from POEMs:

- **A fixed percentage markup** on each transaction: When a buyer purchases anything, the system adds, perhaps 2% to the price which it then retains as funds are transferred to the seller. (This is subject to a Maximum Average Transaction size formula.) Crucially, this only applies when POEMs transfers payment. This is to reward operators for end-to-end markets, not just crude bulletin boards with off-platform transfer of funds.
- **External sales**: Outside the jurisdiction, operators can market their software and expertise enabling POEMs in any way they wish (as long as the domestic system's neutrality or security is not compromised). This incentivises them to see early launches as a loss leader: they invest in technology for perhaps a small country knowing they can take it as a proof-of-concept to larger territories.

Operators' upfront investment in the technology of POEMs should act as a bond they have paid against future profits. Ensuring a clear path to those returns as long as they remain compliant with the concessions' terms will lower their risks, and therefore costs charged in the fixed percentage markup. To keep operators robustly independent with the profit incentive and reputational risk outweighing any perceived benefits of cosying up to government, legislation should make independence of government an obligation for operators while ensuring:

- **Shared cost estimates**: Invitations to bid for the concession should breakdown costs a winner will have to meet, so for example each government department details its IT infrastructure into which POEMs will have to interface. These systems should be opened to putative bidders so each can form their own opinion of each department's realism (and any likelihood operators will have to activate their right to take legal action against public agencies that obstruct POEMs).
- **Entrenched provision:** As far as possible the legislation should stop any change of government rescinding any detail of the concession if it disadvantages the operators, by nationalizing POEMs as an extreme example. If the commissioning authority is supranational this should be binding on a future democratic government for the region, achieved perhaps by making respect for the concession a condition of ongoing support from the commissioning body. The new government can of course create its own terms for a reissued concession at the end of a current period.
- **Phased functionality**: Not all POEMs functionalities and protections need to be ready on day one. The concession could allow for progressive waves of software development as merited by usage milestones. Again, making set up costs manageable keeps the concession attractive to competing bidders.
- **Transparency on charges**: A concession may wish to impose fines on operators for late launch, not meeting activity targets, or other failures. This all needs to be clear in the concession.

b) Limits to Official Benefits

POEMs' operators gain unique benefits from government for the duration of a concession. This must not be a path to "easy money", only access to a range of facilities that can be leveraged alongside operators' investment into market growth. So operators can't just run basic technology or minimize market development knowing they have protected status, the concession should mandate:

- **Minimal monopoly**: Operators are not to be granted a monopoly on anything other than a set of officially bestowed benefits that could not realistically be shared among multiple, or all, online markets without dissipating the value of the facility in each case. For example, spreading public sector spending across countless platforms loses the leverage that spend could gain to improve the jurisdictions' economic infrastructure.

- **Value test**: A commitment that all domestic public spending will go through POEMs is subject to the relevant agency or another party not being able to prove better value available through an alternative channel. That can't be demonstrated by bundling requirements, such as cleaning of public buildings, into big contracts for corporate outsourcers. If POEMs can break the need down to unlock pools of empowered local janitors and supervisors that must happen unless someone else can sustainably do the same for less or with demonstrably better quality.

  To enforce this, operators need a right to sue. If they believe a public agency is inhibiting interfacing with their systems or not putting spending through POEMs without justification, courts can force the agency to prove the value test. So, for example, it should be clear most defense spending won't go through POEMs, it inevitably involves irreducible large contracts. But if an agricultural ministry decides to stick with paper-based distribution of farming wage subsidies because of civil servants' opposition to automation, operators should win a challenge.

- **Automated interactions mandated**: Operators might gain a right for their software to pass cases into the court system or to court appointed mediators where a buyer or seller are in dispute. This could be conditional on mediation software that proposes resolutions, perhaps including impacts on users' valuable records of reliable activity, which must achieve a mutually acceptable settlement in at least 80% of such disputes. Operators cannot passively rely on the state to resolve market issues.

- **Nonusers**: All governmental interactions of a citizen, or lawful entity, in the jurisdiction must remain achievable without a POEMs account throughout the concession period. POEMs may be used to vote, respond to conscription notices, pay taxes, claim assistance, register a change of address and so on. But convenient alternative channels must remain. Operators and government need to show that citizens and entities using POEMs are doing so from choice.

- **Repositories for exiting users**: In pursuit of the above reassurance, a user must be able to transition to nonuser status easily. The complicating factor is records of activity which are held jointly with a counterparty. For example, someone who has completed ten bookings as a truck driver cannot be allowed to just wipe their records; doing so could be used to avoid detection in case of wrongdoing on those bookings. So, operators might be mandated to fund a minimum 25 data depositories, across the geographic and ideological spectrum, licenced to receive exiting POEMs users' records and hold them for a defined period. POEMs then replaces user details with an anonymized unique identifier cross-referencing to the repository after exit. Each departing user chooses which of the diverse repositories funded by operators they trust to hold their historical data.

c) Support for Democracy

India's Aadhaar official digital identity system has empowered voters but ignited concerns about a centralized government database. Legislation should aim to foster both POEMs' arm's length from government and its optionality for users with measures such as:

- **Full independence**: It took time for governments to relinquish control over central banks. POEMs must not give politicians another opportunity to indirectly shape economic activity around election cycles for instance. A concession's documentation should be scrutinized to establish that independence from government is enshrined as a right, and an obligation, for POEMs' operators. If it is ever compromised without operators raising the alarm publicly, the consortium's integrity and individual brands' reputations would be damaged.

- **Role of a Regulator**: Terms of reference and remit of any entity set up to regulate POEMs in the jurisdiction would be akin to gambling commissions overseeing state or national lotteries. The body should be accountable in its inspections of course, but there is an additional function it could perform as the voice of users for operators: filtering user comments.

  Operators should not be obligated to respond to queries or concerns from individual users, it would make them vulnerable to trolling and could detract from their growth mission. A regulator could act as independent clearing house for issues, summarizing and ranking them in perhaps monthly published communiques to which operators do have to respond. Users are then able to assess sincerity and competence of selected messages to gauge regulators' efficacy.

- **Expansion of voting**: There is a balance between protecting against fraud and making voting effortless for users. Setting the limits of who can vote through POEMs should be watched for any attempts to keep some people forced to physically attend a voting station because of their political affiliation, real or perceived. For example, a stipulation that only users who have been registered over a year with no issues about their identity arising across a minimum 10 interactions with different counterparties would be neutral, a rule that local governments decide which of their districts will allow voting through POEMs clearly invites bias.

Also to be assessed by concession watchers: the extent to which POEMs will allow anyone to set up a petition calling on government to act and the weight attached to upvoting by registered users. A robust democracy will allow voters to challenge officialdom or POEMs' operators with a specified threshold of support for any petition triggering mandated levels of response.

- **Independence of interfacing**: Linking diverse official databases to POEMs requires an intermediary layer of software such as Estonia's X-road system. This protects citizens by stopping databases blending information about an individual while allowing any other system to be plumbed in. POEMs must adopt comparable open-source solutions for this function.

d) Transparency of Concession Award

The selection of a consortium that wins the concession enabling POEMs in any jurisdiction is key to the winners' legitimacy as a de facto voice of the economic base and defender of market integrity. An objective selection criteria such as "whoever commits to running the markets system for the lowest percentage markup on each transaction wins", with eligibility perhaps limited to consortia willing and able to put a specified sum into bond in case of failure seems ideal. This can be part of the pact with a populace; no caps on earnings or windfall taxes because we came in cheaper than anyone else and deserve the rewards of our risk taking and implementation success.

A vexed question likely to reoccur in concession eligibility requirements: favoring of national players. Many jurisdictions will want to see their domestic finance and IT sectors exploiting, or developing, capacity to deliver such an ambitious project. But a search for checks and balances actually makes a case for multinational consortium members. They will be less susceptible to government pressure, nuanced (reduced likelihood of members' parent companies winning public sector contracts if not malleable) or overt (threatened tax hikes on large IT companies' earnings). Any favoring of homegrown companies should cause the antennae of anyone monitoring POEMs' probity to twitch.

There is a comparable issue around public involvement in concession award. Deciding a consortium that will gain access to public institutions and be trusted to run vital economic infrastructure could be an exciting exercise in direct democracy; possibly even to the extent of deciding a winner based on a reality TV show style text vote. That would arguably bestow legitimacy beyond any decision by mandarins. But it invites huge expenditure in the machinery of mobilizing a popular vote; marketing, political consultants, social media storms built on shaky facts, and attack adverts. This haemorrhagic spending would have to be recouped in a higher usage charge or diminished investment in system functionality. Voters in this poll would have limited comeback if disappointed, the concession has to be fixed term to merit the investment requirement.

Our hope is that at least some political leaders will see the concession as a chance to engage their public, encapsulate the issues and priorities, and be clear about judgements they have inevitably been called on to make and their rationale for decisions. Anyone serious about understanding the role POEMs could play in national development should give credit to politicians who operate with this level of maturity.

e) Rules Covering Amendment of a Concession

Constant readiness to absorb failure or significantly changed circumstances will be key to POEMs' stability. This requires clear rules covering any evolution of the concession after it has been awarded. Key points to watch include:

- **Code in registry**: Aside from the mirror platform, operators must keep a ready-to-go further copy of each iteration of their code in escrow. Under conditions defined in the concession, public authorities can extract this to enable continuation of service if current operators lost their concession.

- **Franchisee registry**: Anyone can look up name, accounts, and business details of the person shaping any sector on POEMs. Opaqueness here could foreshadow unfair control of a sector.

- **Independence for franchisees**: The core consortium cannot implement any contractual, technological, or operational barriers to any franchisee crossing to a new operating consortium in the event of a change of concession awardee.

- **Removal of a franchisee:** The consortium is entitled to select and oversee their franchisees as in any comparable business relationship. Government or users cannot decide who wins a franchise or any sanctions applied for underperformance or non-compliance.

  A key metric for POEMs watchers to check: the pool of approved franchisees awaiting a market sector. Robust numbers signal freedom and reasonable rate-splits with the consortium for franchisees. For the consortium a healthy pool is key to expansion into new or recently split sectors and replacements for sanctioned franchisees.

- **Preparation for concession end**: Operators must evidence plans for smooth handover of data and functions to an alternative concession holder, either at the end of their period or in case of failure to comply with obligations. Government should own the system's brand which it can transfer to another operator when a concession ends.

- **Failover obligations for operators**: In case of governmental collapse, legislation should make clear operators' priority is protection of users and continuation of service. To take an extreme example, the rules might mandate that operators maintain failover facilities outside the jurisdiction.

  This constantly backed up parallel set of servers would mirror everything on the main POEMs infrastructure. If the jurisdiction was invaded, concession language could make clear operators would be expected to wipe all data in their core facility and continue service from the secondary site with their brand reputations as a key assurance for citizens needing economic activity in troubled times.

6) Interaction with External Platforms

A concession should stipulate that POEMs can be accessed by any externally operated platform (web, mobile, or future technologies) whenever a user wishes. This maximizes choice and innovation for users wanting to tap into their regional markets system but wishing to bypass stodginess or lack of convenience - real or perceived - stemming from POEMs' need to maintain neutrality, transparency and caution within checks & balances.

As a simple example of external platform access, a fashion app may offer recommendations of pre-owned clothes that its algorithm finds for sale in POEMs. When a user who is also registered on POEMs clicks to buy an item the purchase flows through POEMs as normal, incrementing the counterparties' activity records, holding fees in escrow, and adding the system's flat-rate percentage charge. The fashion site add an additional fee of their choice to fund their curation.

The user's relationship with the fashion site has to be independent of POEMs. POEMs' operators have no control over the site's business model, quality of service, user experience or relationships. The site can offer any mix of POEMs or non-POEMs transactions and decouple from POEMs any time. This can all be enshrined in the enabling legislation.

a) Why Mandate Interaction with External Systems?

- **Choice**: POEMs will be regulated with the aim of shaping a dependable, trustworthy, public utility unthinkingly relied on for daily life. This will inevitably limit operators' ability to experiment with edgier technologies, offer functionality - such as subjective ratings or advertising driven services - which would breach its neutrality obligations, or innovate around business models.

  A POEMs concession must not allow the system's convenience and low charges to corral users into a monolithic market structure. Any other business - domestic or international - should be free to loop the benefits of government-bestowed benefits into their offerings subject only to allowing POEM's core charge for usage into the value chain. For any need, any user must be able to choose between a basic POEMs transaction, an enhanced experience through any number of competing external platforms interfacing with POEMs, or a completely off-POEMs interaction.

- **Resilience**: POEMs' operators may fail or become complacent. By forcing them to allow other operators to interface, users develop other places to go if the main system is not meeting their needs adequately. If, for instance, POEMs is lacklustre with operators lazily relying on their officially-bestowed benefits for revenue rather than growing possibilities in the micro-economy, external platforms would be incentivized to start collaborating; knitting their services together to create a comprehensive, seamless, alternative with its own transaction engine to which POEMs' users could be invited to shift.

  POEMs' reliance on public spending going through its markets is subject to a "best value" test. If alternative markets, bypassing POEMs' base charge, fulfill the needs of any public agency better

than POEMs, officials could switch their buying to an alternative platform, or aggregation of markets, further weakening POEMs' dominance. Thus, encouraging external interfacing drives enduring low overheads in public expenditure.

- **Innovation**: By offering a very low cost, end-to-end, transaction engine for the jurisdiction, POEMs should remove multiple costs for e-commerce startups. This should encourage new thinking, around the use of A.I. in compiling vacation itineraries as one example, to be trialled by rival players each able to focus on the cutting-edge part of their proposition with the mechanics of purchasing outsourced to POEMs.

  This could become crucial if a radically better technology or business concept challenged the value of POEMs' standardization. A situation to be avoided is revealed in the history of railways. Standardized width between rails to make journeys across multiple regional railroads seamless was a key stipulation of early railway acts with four feet, 8 inches selected based on early trials. But later testing revealed a much broader gauge improved speed and comfort. Attempts to make that new standard dominant were swamped by the installed base of narrower rails. It should be a policy aim to constantly pave the way for better alternatives to POEMs to flower in case they become ready to emerge as a replacement.

b) How Interaction Might Work

POEMs' operators are obligated to provide:

- **Interfacing Tools**: An Application Program Interface enabling access to POEMs' functions and records by other systems. This must include verifiable checks that a user has given permission for interface into all or specified parts of their records on POEMs.
- **Cross-Registration**: Any user wanting to use their POEMs' record to register with any other service can do so easily. An external system wanting to offer its users registration on POEMs should be free to populate POEMs' registration screens for the user with POEMs' validation processes then triggered.
- **Validation**: A user in an external platform who has been switched to interacting through POEMs in any transaction must have this made clear, perhaps through a watermark or icon that the user has previously specified to POEMs, for that part of their interaction.
- **Directory**: POEMs' public displays should include a list of external platforms that currently maintain a connection with POEMs plus a list of those that have done so in the past.

Examples of models for interaction:

- **Availability Link**: A work-seeker who uses POEMs but enjoys driving through Uber can choose to open their times of availability for work and record of bookings in POEMs to Uber. If Uber chose

to interface with POEMs, they can direct bookings to the work-seeker through POEMs, blocking the person's availability on POEMs for the duration of that journey as a new booking is created.

- **Additional Checks**: A family may wish to book Catholic babysitters. POEMs can of course have an "I identify as a Catholic" tickbox for buyers or sellers and allow filtering on that criteria for any transaction. But it can't verify someone is active and in good standing with the church. An app run by a religious organization may see opportunity in adding this layer of assessment based perhaps on phone interviews. It then uses POEMs to handle purchasing, micro-insurance, and re-assignment of failed bookings while charging an annual subscription fee to users.

- **Subjectivity**: POEMs cannot elevate one seller above others except through transparent objective rules. Its market for overnight accommodation for example could offer a panel "*Ten Sellers at your Destination who had their Hundredth Booking Most Recently*". But a trading record in POEMs is akin to a driving licence; an objective statement of compliant behaviour not an emotional evaluation. Multiple services allowing buyers and sellers on POEMs to rate each other could spring up, perhaps opting to fund themselves through advertising.

- **Data Blending**: POEMs can pull in external data to help its users but only from neutral authorities. This creates opportunity for external systems offering less authoritative information that some users may prefer. Example: an app for farmers that combines agricultural experts' assessments of harvesting conditions with POEMs' feed showing availability and pricing of harvesting equipment and labor rental to plot optimal times to cut any given field. The external provider might charge equipment renters to have their POEMs' listings shown in-app.

- **Gamification**: A youth employment charity may set up an app operating a league of their service users competing to get most work bookings on POEMs each month. POEMs' operators have no incentive to offer such services.

- **Incorporation**: A corporate internal market for services may pull POEMs into their tabs for top-up staffing or hire of vehicles, knowing their company account on POEMs had been preset with their requirements and permission-to-spend levels for individual employees.

c) Rules of External Integration

Obligations on POEMs' Operators:

- **No Control**: POEMs' operators cannot set any conditions on interfacing other than those determined by legitimate system security or user protection needs. They have no duty to police external platforms other than ensuring any interaction by one of their users through POEMs is clearly shown as such.

- **No Charge**: External platforms cannot be charged for access to POEMs (beyond having to incorporate the system's normal charges within each transaction). This rules out bespoke services for external platforms, interactions must be through universally accessible interfacing.

- **Vulnerability to Litigation**: Concerns from external application operators must be responded to publicly as a first step. External providers have a right to sue if POEMs makes their intended interface unduly challenging for example. Operators' available defences include system security or non-existence of the desired functionality. POEMs' operators have no obligation to create functionality for external apps, only allow them access to functionality it provides to its users.

- **Excluded Activity**: Some parts of POEMs may not permit an external platform to be involved in an interaction. Voting is an obvious candidate; to protect citizens from having their vote captured by an unscrupulous intermediary.

POEMs' Operators Rights:

- **Right to Prioritize**: POEMs' operators are permitted to neutrally rank external linkages and queue requests based on, for example, giving priority to applications with the highest number of users interacting the previous day. The intention is to thwart denial of service attacks, or those that request processing-intensive market data rather than revenue generating purchases.

- **Right to Report**: As part of their system monitoring, operators will need to evaluate how many transactions are coming from each external platform. Pursuant to their open data obligations, this information must be publicly available. The directory of linked applications is an obvious place to display patterns of usage for each external application.

d) A Buy-out Formula

There is a scenario unique to public utility e-markets that should be anticipated in enabling legislation: an external platform has invented functionality that works on top of POEMs basic functions, seeing its success POEMs' operators want to incorporate that facility into their basic service for users. As illustration, imagine a small company has developed a way to create improved 3D images of offerings in POEMs' listings of meeting rooms available to rent.

Outside of POEMs, when a dominant platform operator wants to replicate a small provider's functionality, they develop their own version of the software or acquire the startup, paying for the customer base and the technology. But in the case of POEMs, the userbase will be with the big platform already. Balancing the interests of the external inventor with the desire for a fully functioning basic POEMs service for all users is a political judgement.

Options for maintaining this balance include:

- **No Rules:** POEMs' operators could be free to just reverse engineer any improved functionality they see in the array of external platforms drawing on their core system's functions. This would dramatically disincentivize external innovation.
- **Floating Payment**: Operators could be compelled to negotiate a price for external software they want to incorporate into the main platform. This could become complex if more than one external application develops the same functionality and POEMs' operators did not want the actual software of any of them, they wished to rewrite the code for their servers.
- **Fixed Rate**: A formula could be enshrined in enabling legislation governing pay out to an external platform based on number of users of the functionality or frequency of usage. But this underprices the future potential of an invention: POEMs' operators would be incentivized to snap up emerging technologies before they built usage and refined their product.
- **Micro-patents**: A low-cost, easily accessible, form of patenting pertaining only to POEMs in a particular jurisdiction could be offered as part of the public service obligations around POEMs. The rules of this might be:
    - **Operator Disclosures**: Operators can disclose their intended functionality for any app reliant on POEMs. This must be in sufficient detail for others to build further functions on top of the planned software.
    - **POEMs-patent Assessments**: Anyone can pay to file a micro-patent application that takes aspects of POEMs' functionality and details further functions to be performed on top of that. As with normal patents, independent assessors in the nation's Intellectual Property Agency must be satisfied the application is (a) new, not already covered in disclosures or working software by POEMs' operators or anyone else (b) substantial (c) realizable (d) useful. Successful applications are published openly.
    - **Patent Enforcement**: Once issued with a POEMs-patent, the inventor can stop others, including POEMs' operators - offering that functionality. This would extend for a fixed period, perhaps 10 years, allowing them to either grow a business or competitively sell their invention to anyone else, including POEMs' operators.

  As in established patenting, POEMs' specific micro-patents should drive innovation around the platform; encouraging inventors to devise enhancements and, as their applications are made public, creating foundations for additional embellishments by others.

  Additionally, operators would be incentivized to rapidly disclose plans and set standards for interactions to avoid someone else creating an obstructive micro-patent. For example, POEMs' operators may envisage a device that could be installed in trucks selling loadspace that signaled to drivers when they were parking close to another vehicle which POEMs has arranged to take all or part of their load onwards.

  POEMs' operators have minimal incentive to design such a device, they are not permitted to earn from hardware sales. By formally disclosing a standard, POEMs' operators could spur companies to create the kit required with proprietary ownership of standards made impossible by disclosure.

APPENDIX: Mitigation of Specific Risks

The ability of a specific POEMs installation to respond to system shocks can be gauged by checking protections in the enabling legislation. Specific dangers could be caused by one of the key parties involved in POEMs falling short of their obligations or shocks across the wider economy.

Risk and Mitigation Table Illustrating POEMs Check and Balances			
Non-compliant actor	Risk scenario	Notes	Protections for other parties
POEMs Operators	Failure to launch	A winning consortium could be incompetent or lose interest after winning a concession (because their bid overestimated the scale of opportunity for example).	Surrender of bond paid on winning the concession if usage milestones are not reached. Bond should be sufficient to pay for re-tendering process.
	Illegitimate market structuring: to maximize earnings	Operators may be tempted to maximize profits by favoring the biggest buyers or sellers or adding charges.	Enabling legislation must be clear the only source of revenue for operators is a fixed percentage markup on each transaction paid by the buyer (plus maximum size caps). Non-neutrality is a breach of concession obligations which could trigger a re-award. Operators are obligated to provide a duplicate citizen-testing system allows anyone who believes markets are not neutrally administered to explore and prove/disprove their theory.
	Illegitimate market structuring: for ideological reasons	Operators may downplay in-remit sectors such as abortion services, gun sales, or political merchandise.	
	Over-control of franchisees	A core consortium might deny franchisees freedom to operate their businesses independently.	McDonalds and other large franchisors have developed mechanisms to diminish this threat. Franchisees in POEMs must have purchased their franchise and be permitted to act collectively, creating a counterweight to the consortium's power. Franchise splitting (forcing franchisees to sell part of their rights as activity grows, with no cap on sale charges) stops one franchisee becoming intrenched then unresponsive.
	Over-lobbying for increase in Maximum Transaction Size (MATS)	Operators will want the MATS as large as possible.	Lobbying can only be conducted openly under the concession's terms. Users and lawmakers will see it happening and could respond to a looming threat to their low-value transactions.
	Over-use of security waiver	Operators may claim security issues stops them divulging parts of	The mirror platform becomes invaluable here. Anyone anywhere can create accounts, test boundaries, expose anything untoward.

		POEMs code they want to keep proprietary.	False claiming of security waivers should be framed as a serious offence in the concession, possibly incurring fines.
	Incompetence	POEMs' interfaces may be lacklustre, processing times may be slow, users may not trust security.	Any user can port their full data to any alternative system. (Startups could read POEMs' activity data to assess the opportunity for attracted disaffected POEMs users.) Anyone can plug another app into POEMs, allowing users to transact through that app's interfaces and processors (while updating POEMs' records). Thus a disliked POEMs could cause transactions to flow through other apps creating an added cost to users. If percentage of usage of apps rose above a specified level, concession re-award could be triggered. Operators may wish to pay "bug bounties" to anyone identifying a deficiency in their mirror system.
Market Commissioning Authority	Incompetent concession creation	A government or supranational body aiming to initiate POEMs could create a concession that fails to attract sufficient quality bidders.	Poorly conceived legislation underpinning the concession should be revealed during the bidding process through: • Transparency: This would reveal a lack of bidders • Open querying: A Q+A process in which bidders can seek clarity on any point with their (anonymized) question and the answer published openly would reveal issues deterring bids. If uncorrected, a bad concession will result in no credible bidder and the status quo prevails. Voters can of course pass judgement if the commissioning authority is an elected body.
	Penalising of POEMs' activity	A government wanting to curb POEMs' reach for ideological or tactical reasons could impose disproportionate taxes or bureaucracy on users.	Operators' obligation to proactively and openly report any issue they believe threatens market activity will ensure users/voters are made aware.
	Attempted compulsory usage of POEMs	Officials may seek to make POEMs mandatory for filing citizen taxes, receiving welfare,	A multi-national consortium that is funding and running POEMs, backed by the brands of its members, should resist. Even the perception of an all-seeing government-initiated system could damage their sales

		or other state/citizen interactions.	prospects for other jurisdictions considering a POEMs launch.
	Illegitimate attempts to change operators.	Politicians may seek to unjustly malign current POEMs' operators, for example to pave the way for replacement by more pliant companies.	Again, operators have an obligation to explain their side of what is happening to users/voters and would have every incentive to do so. A right to sue for unwarranted interference could also be activated.
	Illegitimate inflation of micro-economic activity.	Government may want to engineer a pre-election boom through - for example - directing stimulus or tax breaks through back-door access to POEMs.	Any user can access parallel versions of the POEMs code and test, then reveal, if/how this could be done. Operators, needing to protect their brands, would be incentivized to report and resist such activity. Legitimate economic interventions applied through transparent lawmaking are of course not to be resisted and operators would have little incentive to do so.
	Surveillance of users	Multiple government agencies would like to glimpse individual user's activities covering, for example, businesses believed to be dodging tax to suspected terrorists.	The extent to which POEMs balances user privacy with public protection is a political decision to be embedded in the concession legislation. A compromise rule might be: • Security and policing agencies can access a record of a user's activity only with a formal search warrant issued by courts. It can limit scope of the data to be revealed. • Opening the data requires at least three POEMs' senior staff to see the warrant and key in a code simultaneously (this is to stop individual POEMs' staff peeking into user data without a warrant). • POEMs informs a user on next login that their data has been viewed subject to a warrant.
External factors	Currency crash	Soaring inflation or speculative attacks might make a jurisdictions' currency worthless so market activity	Enabling legislation could enforce readiness for a unique-to-POEMs parallel currency that is triggered as part of rollover precautions when certain conditions are met. It may be released in tranches and feature an exchange with the mainstream currency, enabling

		transfers to the barter economy.	operators to recoup their markup in parallel economy tokens at a future point.
	Illegitimate government	Tiny Estonia has extensive e-government databases built up since Soviet occupation ended in 1991. Aware of the danger of Russian re-invasion they host their databases in other countries.	From operators' perspective, the issue is determining when the jurisdiction's government is decoupled from the will of its people: • Before the concession: If an illegitimate government issue a call for bidders to launch POEMs it is likely brand-conscious international corporates with the resources required would not respond, a local operation would have to be built from scratch under illegitimate oversight. • During the concession period: Rollover operations to offshored servers could be mandated in the legislation in case of a non-democratic government takeover.
	Corrupted institutions	Official databases, courts, the POEMs' regulator, and/or other bodies underpinning POEMs could be inept or ideologically aligned.	Again, if this is clear when the concession is issued, it will be factored into international bidders' response. They may for example price in the cost of setting up their own neutral ultimate dispute resolution mechanisms making acceptance of those (accountable) decisions a condition of usage. If decline occurs after award, operators can rely on their right to structure and curate markets as they wish to - for example - offer users a chance to have their activity data turned into an assessment of their driving experience if issue of official driving licences becomes unreliable.

Cyclical heightening of risks

Risks would exacerbate if the end of a concession period ever aligns with a general election in the jurisdiction. Operators might start seeing their licence as a cash cow to be milked with blizzards of "buy now" pop ups for example. Meanwhile politicians expecting to lose their power would have little incentive to react.

Attention rents, mandated towards the end of a concession particularly, could be one solution. This would be analogous to roadmending companies being charged rental for the time they take a highway lane out of use to fix problems. Externalities are avoided as operators pay their users for any unnecessary inconveniencing.