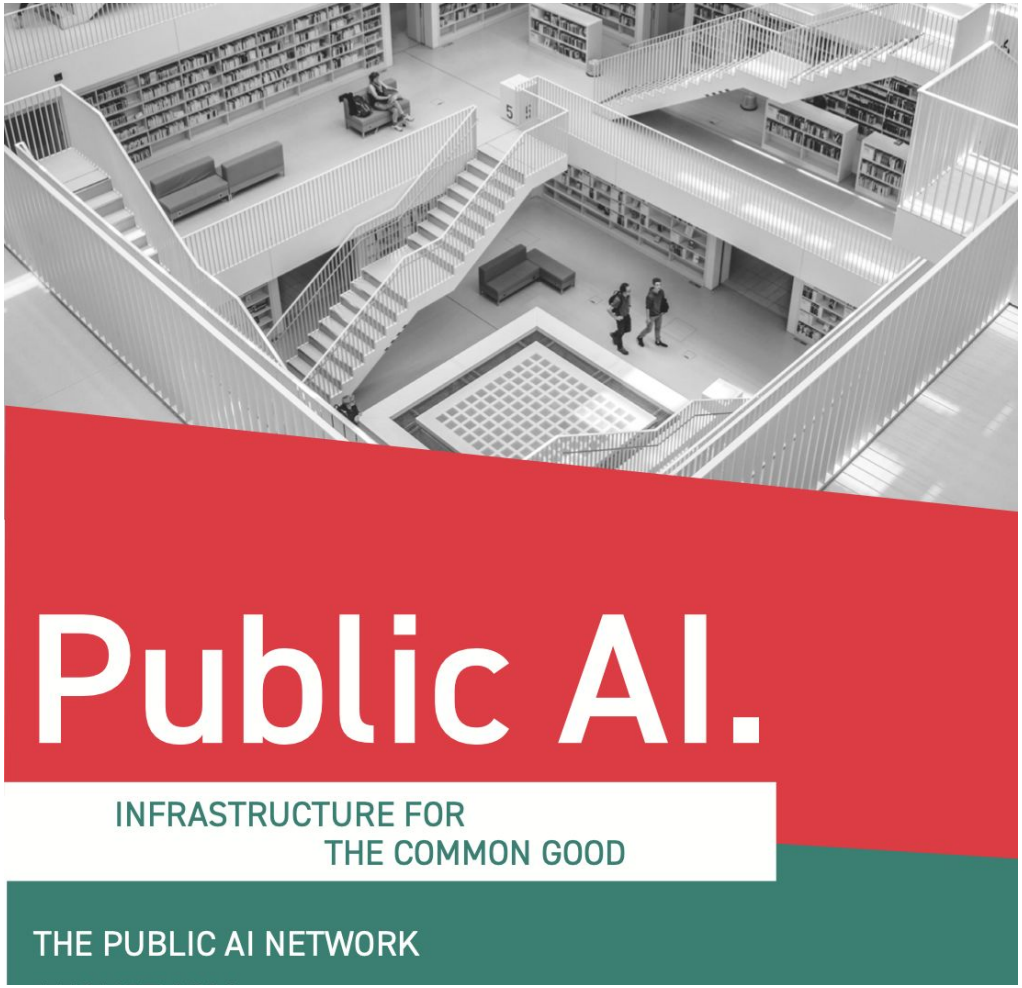
EXPANDING ACCESS TO PUBLIC AI MODELS

Brandon Jackson / November 2024

ASPEN DIGITAL
aspen institute



Link to White Paper

	**Public Access**	✔ Expands access to essential capabilities ✔ Levels the playing field ✔ Universally available for free or at-cost
	**Public Accountability**	✔ Prioritizes public benefit ✔ Aligned with public goals and values ✔ Public has ultimate control
	**Permanent Public Goods**	✔ Sustainably funded and maintained ✔ Rewards shared effort ✔ Prevents private enclosure

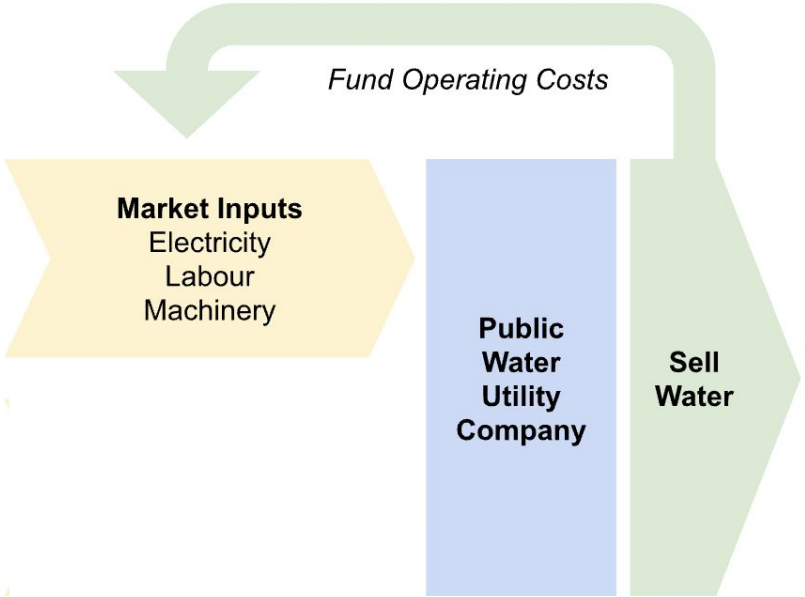
LESSONS FROM THE HISTORY OF PUBLIC INFRASTRUCTURE

ASPEN DIGITAL
aspen institute

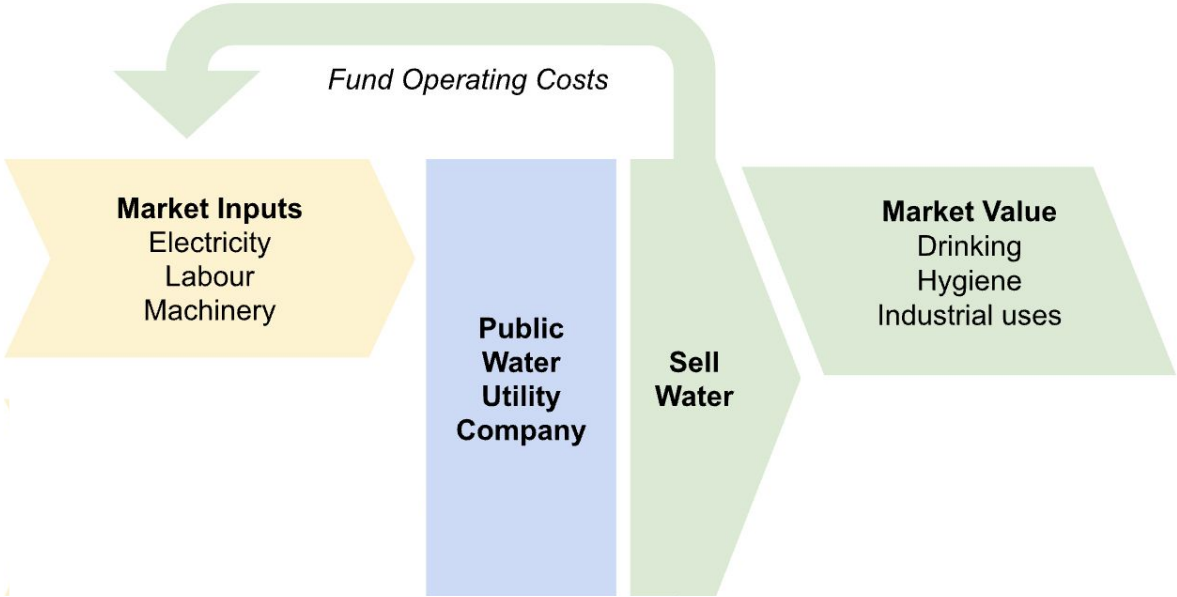
Public infrastructure expands access to commodities our society depends on:

Water
Power
Transportation
News
Books
Healthcare

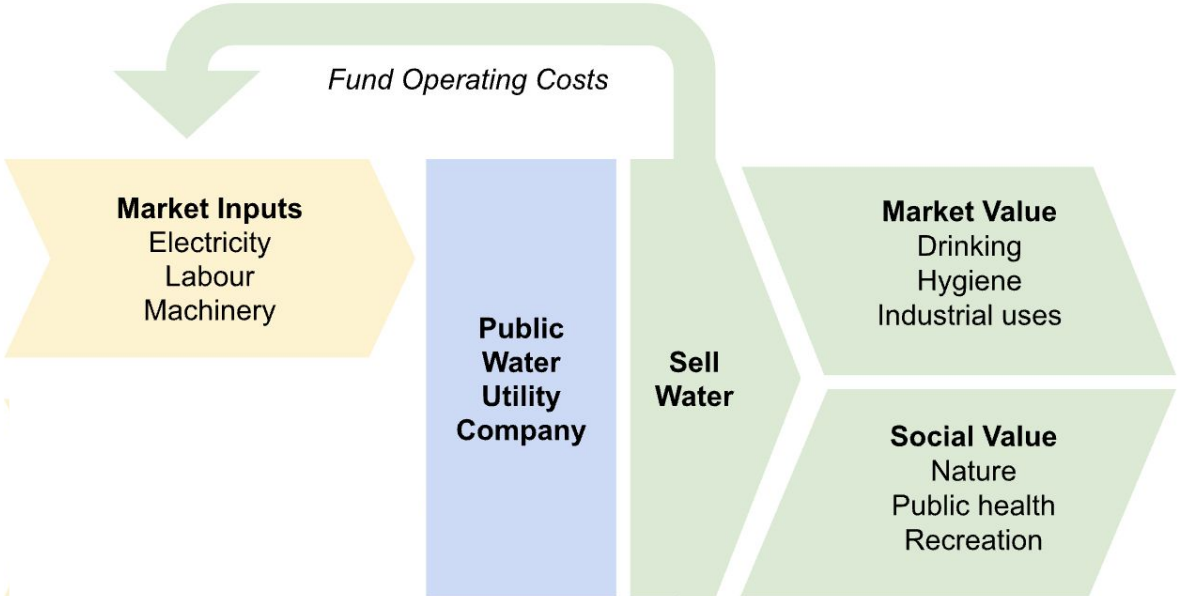
Like any firm, utilities charge consumers to cover operating costs...



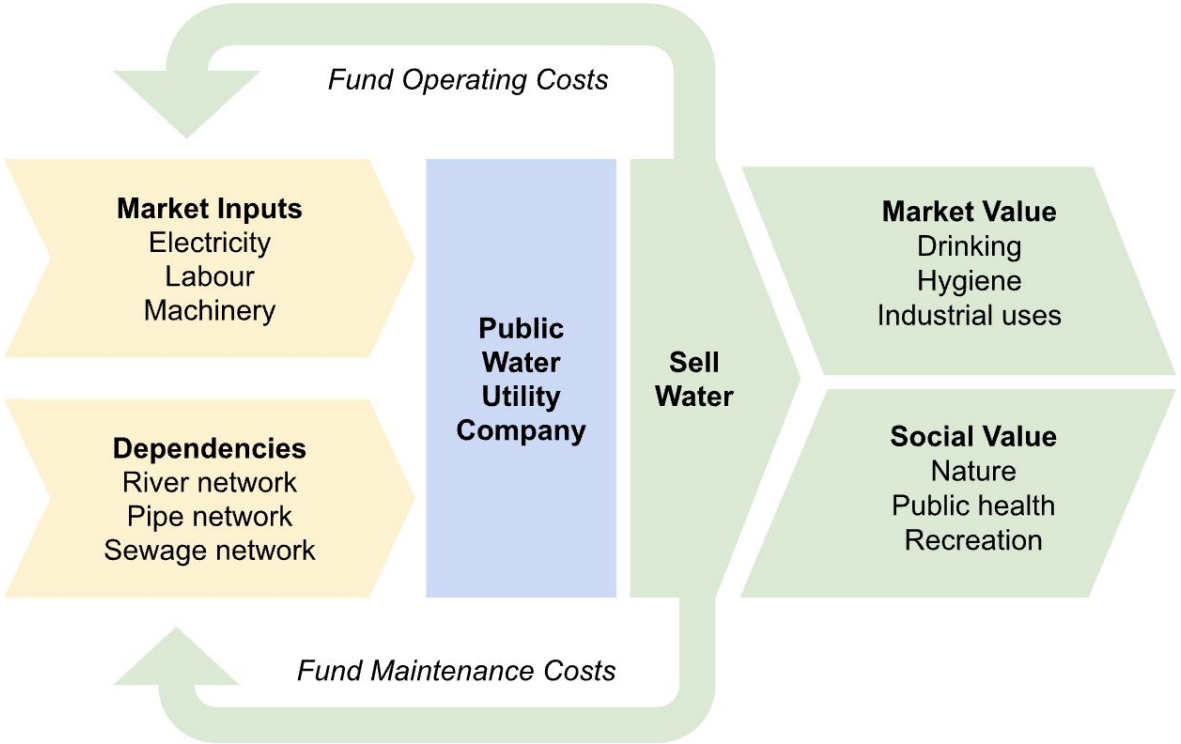
...and create downstream market value.



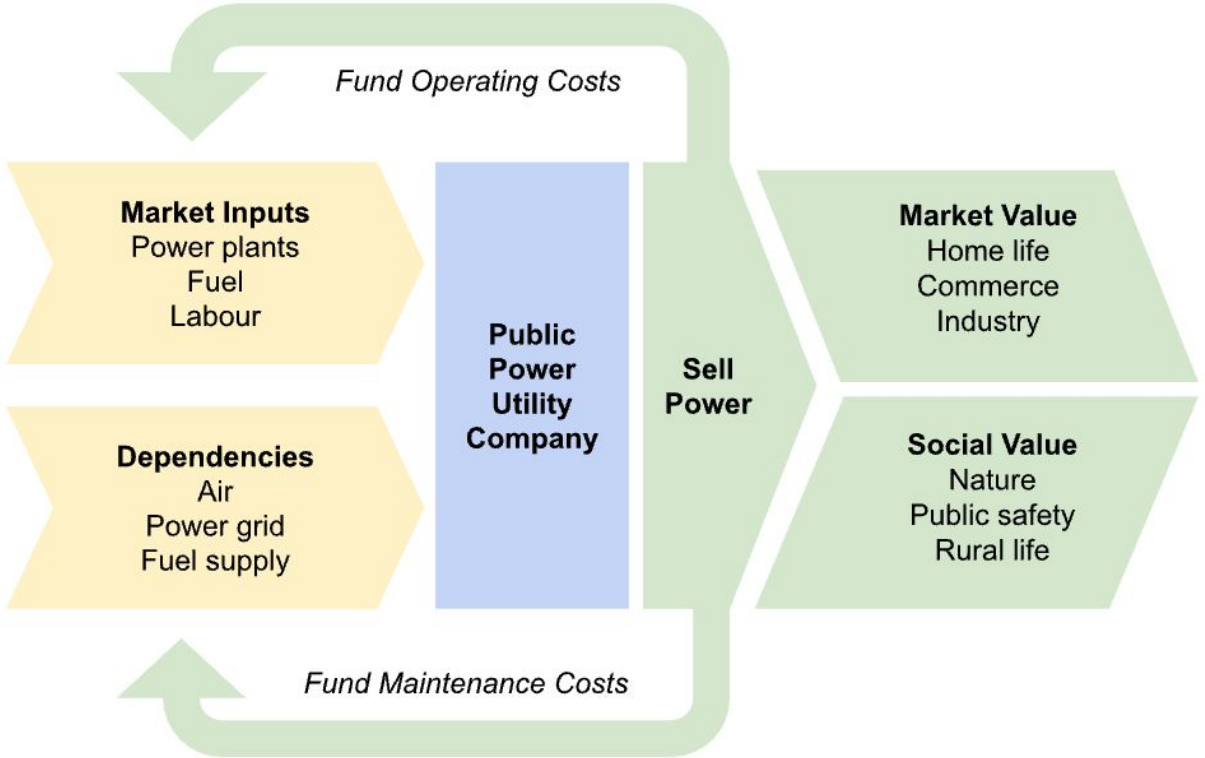
But public infra can *also* prevent market failures and create unique forms of social value...



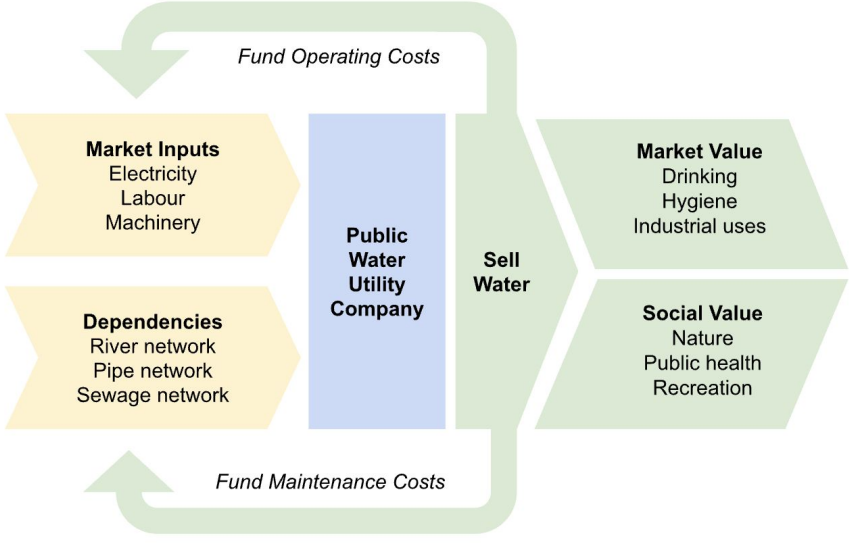
...*if* it uses its revenue to reinvest in the networks it depends upon.

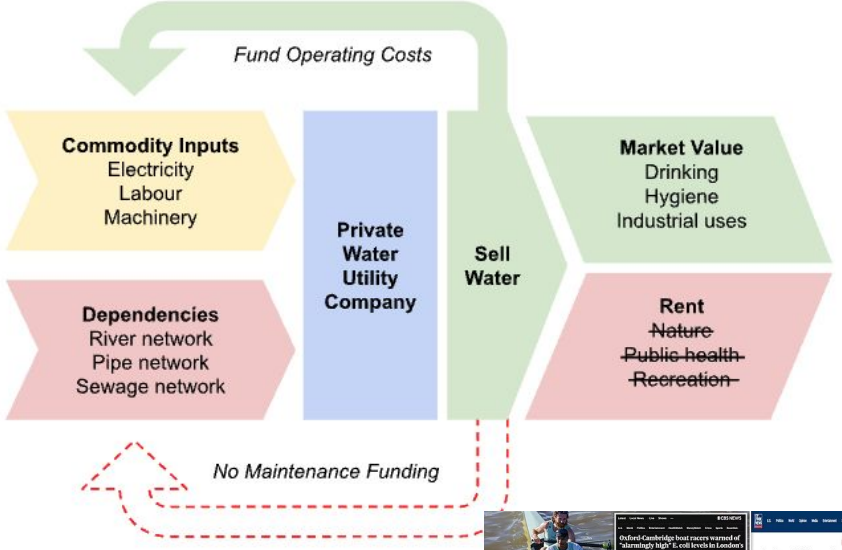


This template can be applied to many forms of public infrastructure, like power and media.

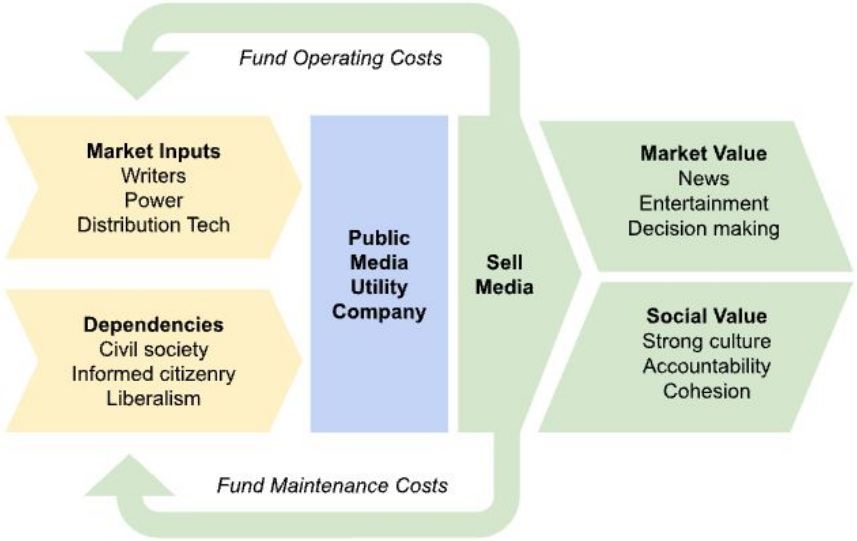


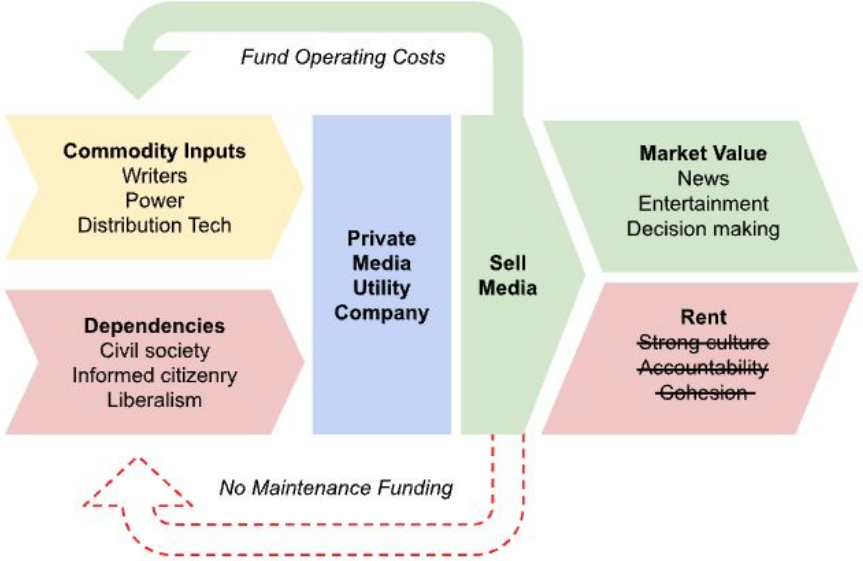
When private firms don't reinvest to look after the upstream commons and downstream social impacts, rivers can become health risks...





...and information ecosystems can start to undermine culture, social cohesion and democratic accountability.

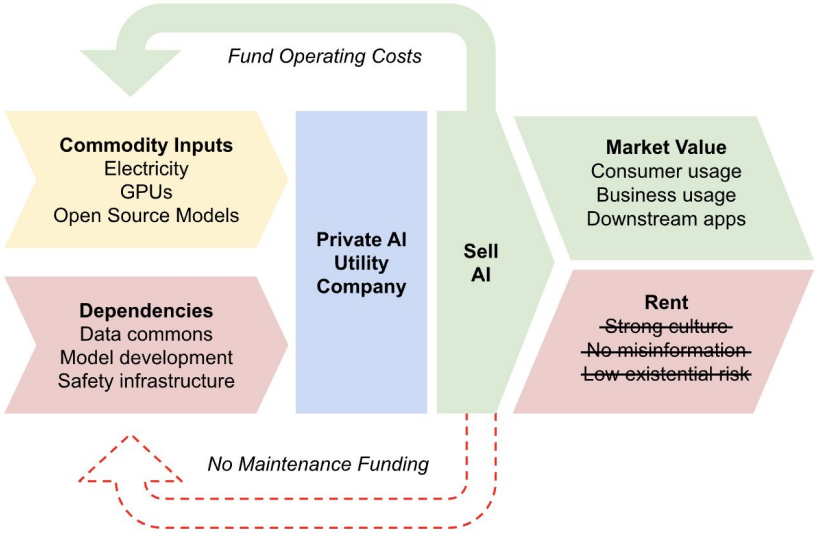




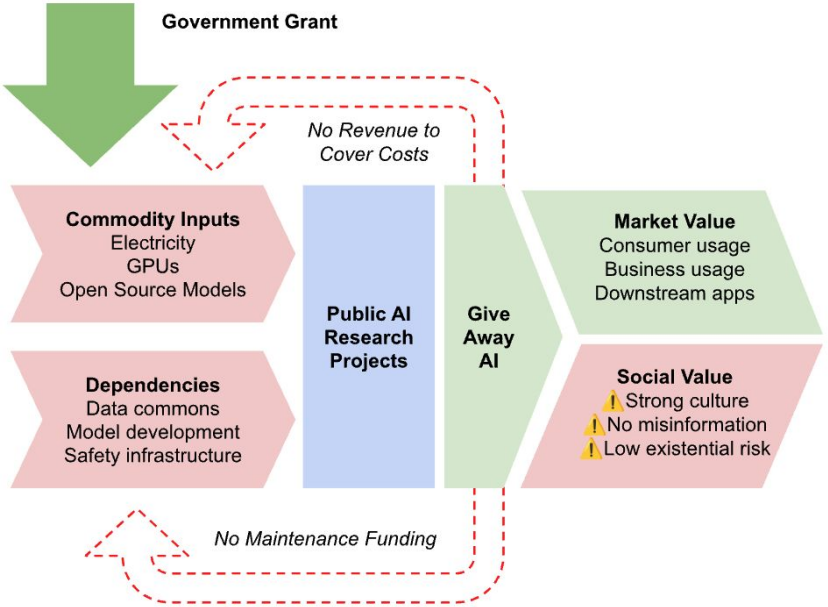
BBC

TikTok

AI Foundation Models need to be built with the long-term in mind, too. But current models don't deliver sustainable revenue to fund resilience.



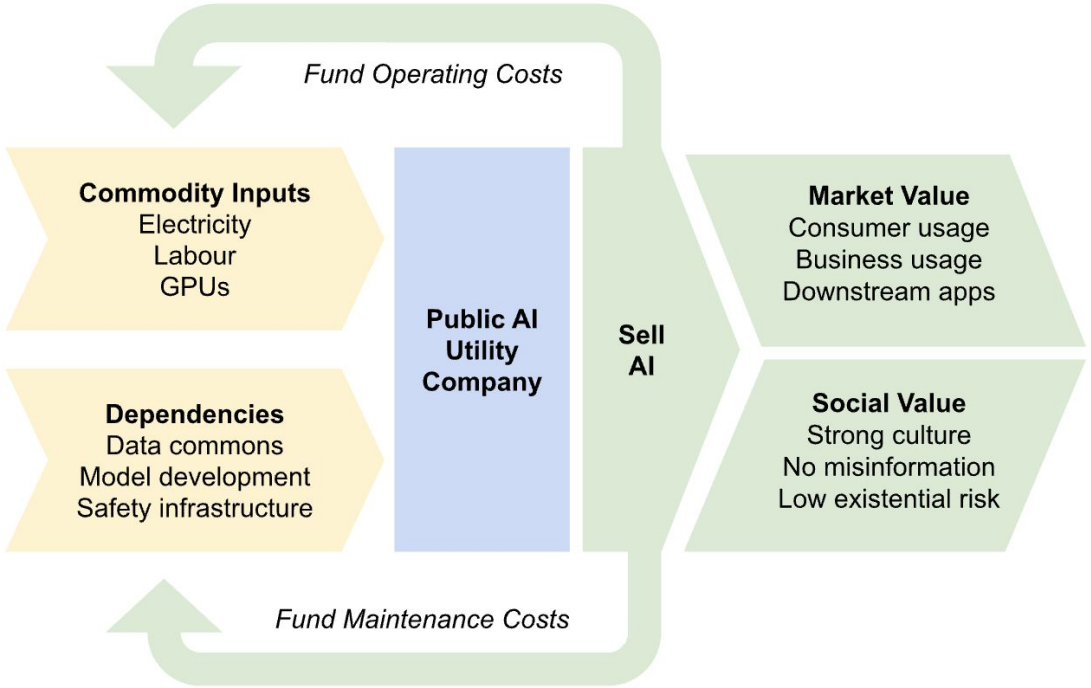
Private AI labs have revenue but are underinvesting in social value and maintenance.



Public AI research projects that open source models don't have revenue to support long-term goals.

That's why we need **Public AI utilities** that can:

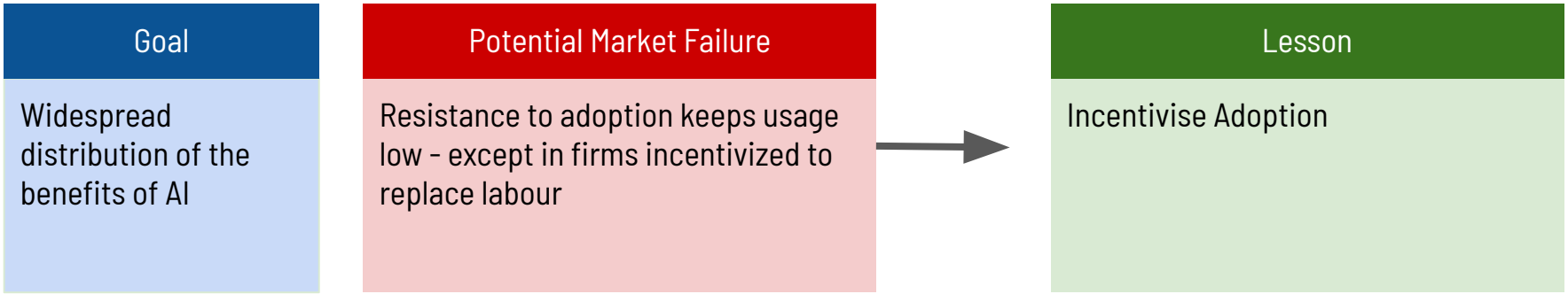
- Drive adoption across society
- Raising revenue to fund operating costs
- Create unique social value
- Reinvest for resilience



Four Lessons from the history of Public Utilities

Public infrastructure can go above and beyond market solutions, creating social value and addressing some of the most likely market failures.

1. Invest in Adoption
2. Go the Last Mile to Serve Everyone
3. Focus R&D on Adding Value at Point-of-use
4. Reinvest For Resilience


Goal
Widespread distribution of the benefits of AI
Potential Market Failure
Resistance to adoption keeps usage low - except in firms incentivized to replace labour
Lesson
Incentivise Adoption

Lesson: Incentivize Adoption

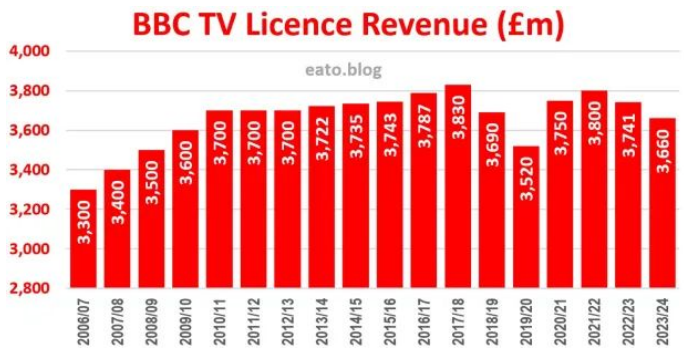
Historical Models:

- BBC's license fee model incentivized it to sell more radios - and then keep audience numbers high
- Underground fare model incentivized it to promote behaviours that would increase number of journeys made by train

Recommendations:

- Build institutions that depend on usage to fund operating revenue
- Identify public use cases and promote via cultural programmes and marketing

Year	Total
1927	2,269,644
1928	2,482,873
1929	2,731,872
1930	3,092,324
1931	3,647,722
1932	4,621,805
1933	5,497,217
1934	6,259,653
1935	7,011,753
1936	7,616,822
1937	8,127,636
1938	8,588,676
1939	8,968,338
1940	8,951,045
1941	8,752,454
1942	8,683,098
1943	9,242,040
1944	9,554,838
1945	9,710,230
1946	10,395,551
1947	10,777,704



Goal	Potential Market Failure	Lesson
AI Works for Everyone	AI underserves many cultures and languages —and works best for English + SF culture	Go the last mile to ensure service to everyone

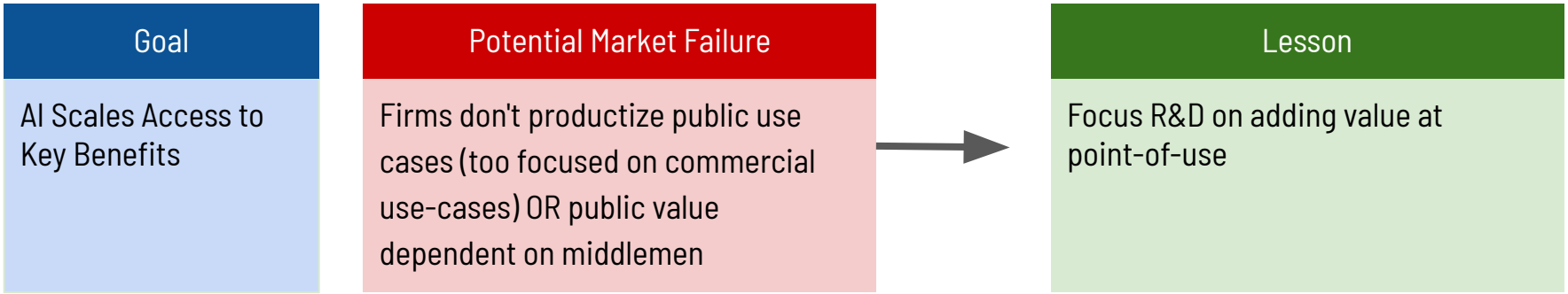
Lesson: Go The Last Mile to Serve Everyone

Historical Models:

- Rural access: (Almost) every US utility has invested heavily in rural access, paying for power lines, roads, and water using revenue generated from usage
- US Postal Service's 1c flat rate pricing policy to anywhere in US was expensive - but meaningfully connected rural communities across the US, and led to 45x growth in usage in 1851
- Libraries station public servants in every community to meet local linguistic and cultural needs

Recommendations:

- Price-in the cost of expanding access so that everyone can participate
- Conduct user research to actively identify unmet needs that are ignored by market


Goal
AI Scales Access to Key Benefits
Potential Market Failure
Firms don't productize public use cases (too focused on commercial use-cases) OR public value dependent on middlemen
Lesson
Focus R&D on adding value at point-of-use

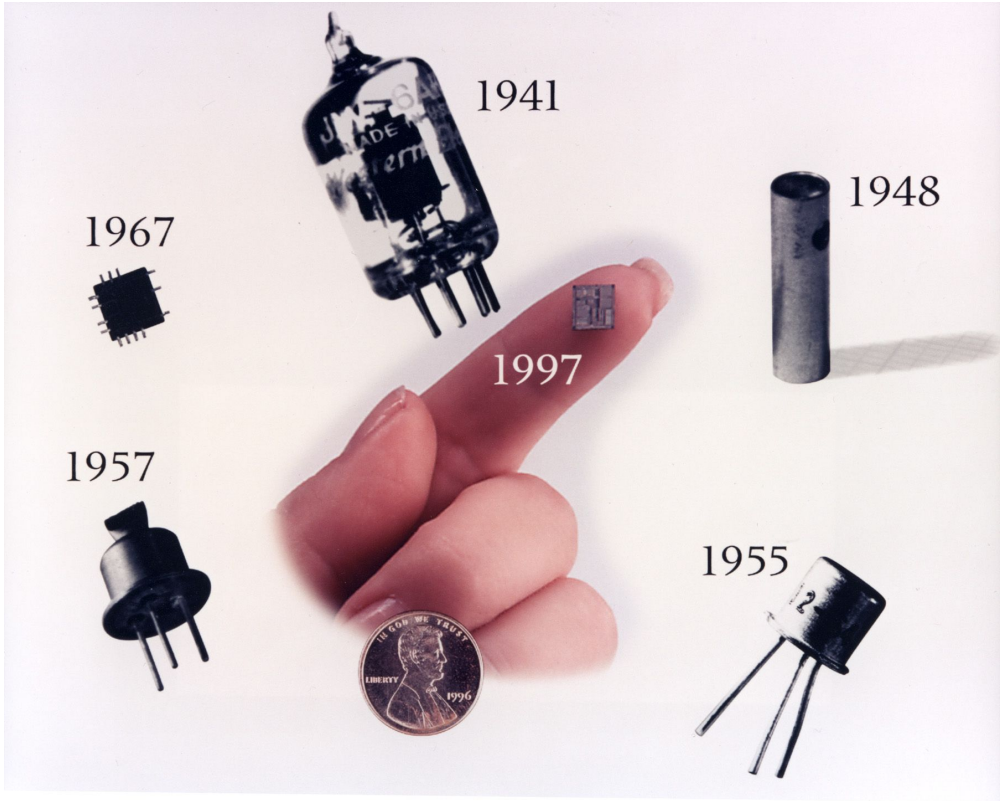
Lesson: Focus R&D on Adding Value at Point-of-use

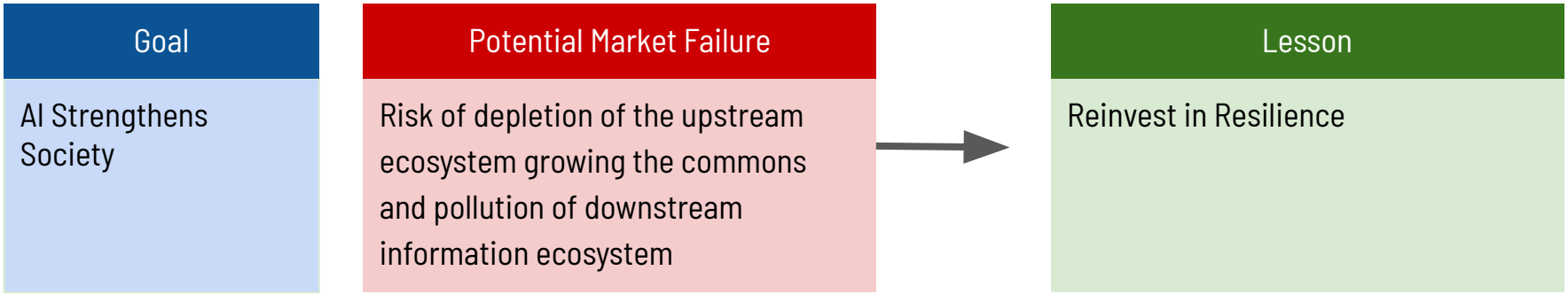
Historical Models:

- Bell Labs focused R&D efforts directly into packing more features into telephone lines eg direct dialing, long-distance calls, DSL
- NHS focus on being "free at point-of-use" has led to innovation as NICE identifies great value-for-money treatments that it can scale direct universal access to

Recommendations:

- Research new capabilities + build directly into infrastructure
- Cut out middlemen and scale direct access to public-interest technologies




Goal
AI Strengthens Society
Potential Market Failure
Risk of depletion of the upstream ecosystem growing the commons and pollution of downstream information ecosystem
Lesson
Reinvest in Resilience

Lesson: Reinvest For Resilience

Historical Models:

- Water networks price-in costs of monitoring / protecting watersheds
- Power networks price-in extensive redundancies + pollution controls

Recommendations:

- Reinvest revenue in supporting upstream commons of knowledge and cultural production
- Reinvest revenue in safety and maintenance costs like continuous auditing, monitoring downstream risks

The great stink of 1858 sparked public investment in maintaining the commons of the Thames

Conclusion

These lessons show that public access infrastructure has the potential to create social value and resilience. However this is only possible if it is structured as a sustainable public utility that raises revenue to reinvest in these things.