What is Europe's *Status Quo*?

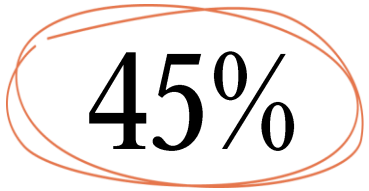
EXISTENTIAL THREATS

critical technologies vital to Europe's economic security are led by global rivals.

TECHNOLOGY LAGGARD

Technology firms worth more than $10 billion in the US and Europe respectively.

FRAGMENTED SINGLE MARKET



Effective tariff on manufactured goods caused by internal EU regulatory barriers.

EUROPEAN STRENGTHS

of the world's top startup ecosystems are in Europe.

We are in a *middle technology trap*

The US Average Age – 38.8 Years		The UK Average Age – 115.6 Years		Germany Average Age – 120.2 Years		France Average Age – 152 Years		Italy Average Age – 143.8 Years		Japan Average Age – 84 Years	
Company	Age	Company	Age	Company	Age	Company	Age	Company	Age	Company	Age
Microsoft	49	Shell*	134	Linde	145	LVMH*	281	Ferrari	85	Toyota Motors	87
Apple	48	AstraZeneca*	111	SAP	52	Hermès	187	Intesa Sanpaolo*	171	Mitsubishi UFJ Financial*	144
NVIDIA	31	HSBC	159	Siemens	177	L'Oréal	115	UniCredit*	199	Tokyo Electron	61
Alphabet*	26	Arm Holdings	34	Allianz	134	TotalEnergies	100	ENI	71	Keyence	50
Amazon	30	Unilever*	140	Porsche	93	Dior	78	Generali	193	Sony	78

[1]Market Cap data from companiesmarketcap.com. Taken on 26th March 2024.

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Are we living a European-wide, tech *Cateau-Cambresis*?

Treaty of Cateau-Cambresis, April 1559

US-China bilateral meeting, October 2025

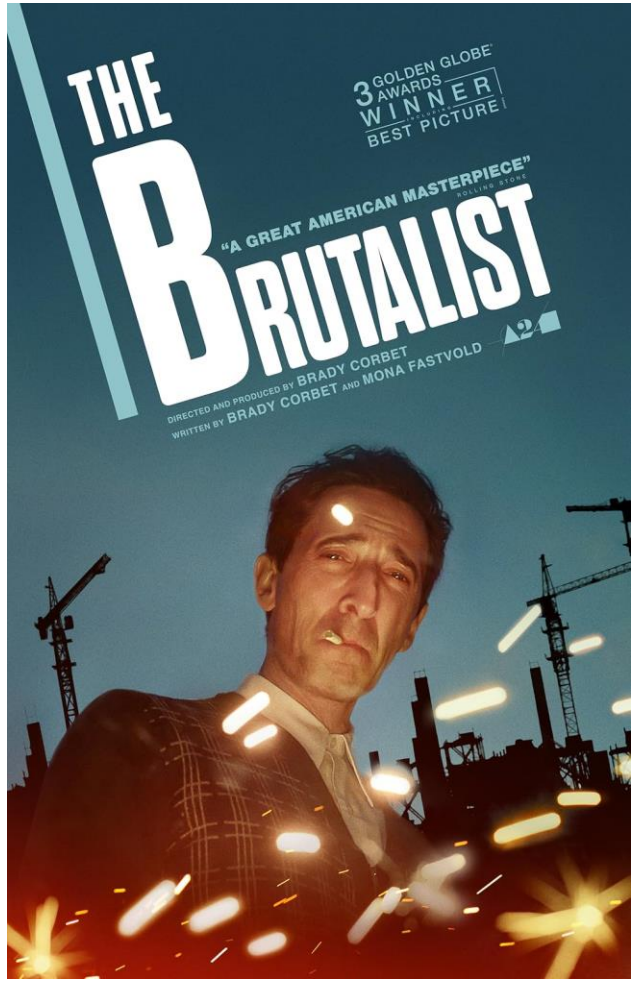
We can reverse course, but we must address issues of innovation policy and scale ...

Case Study: AI & Copyright

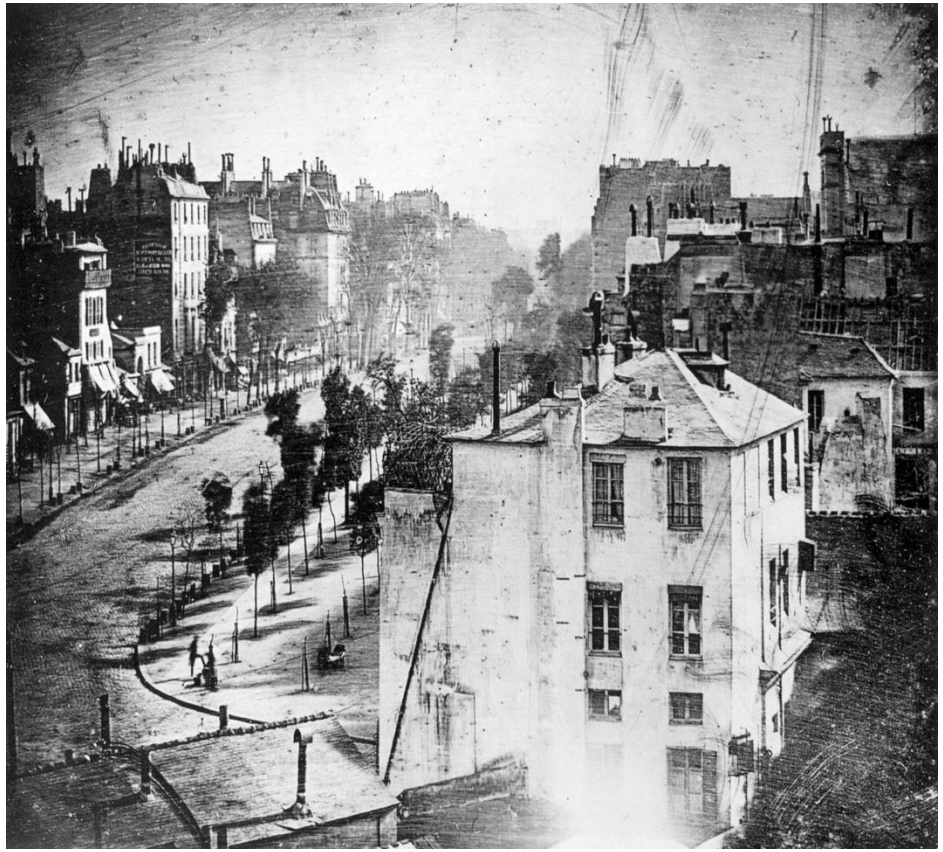
The question of how copyright law applies to the training of AI models has rightly attracted much debate. Data are the lifeblood of artificial intelligence, and large language models, such as ChatGPT, have mainly been trained on vast amounts of publicly available data sets containing content scraped from the internet.

The EU's 2025 Code of Practice for the AI Act sets clear rules on transparency, safety, and security in AI development.
For leading AI providers, these obligations are manageable: models can now auto-report on design, testing, and safeguards, so compliance adds little cost or friction.

Copyright compliance is far harder. Requirements to disclose dataset origins, license protected material, and track a growing number of opt-outs under the 2019 Copyright Directive drastically narrow the pool of trainable data and raise its cost. This puts the EU in a bind: strict enforcement protects creators but risks throttling AI innovation and weakening Europe's competitiveness against the U.S. and China.

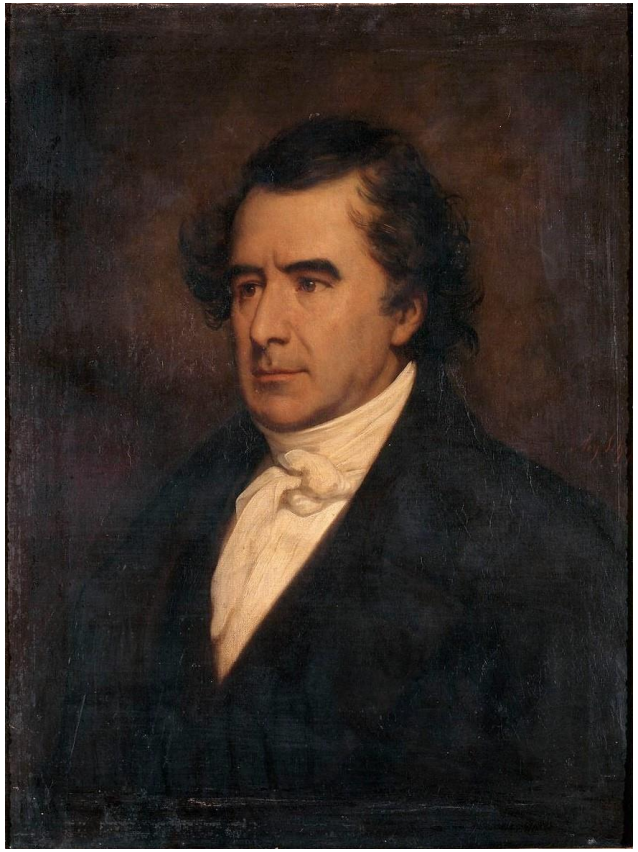


The Daguerreotype as a blueprint for innovation policy



Louis Daguerre, *View of the Boulevard du Temple*, (1839)

Louis Daguerre (1787 - 1851)



Francois Arago (1786 - 1853)

LES MERVEILLES
DE LA SCIENCE

OU

DESCRIPTION POPULAIRE DES INVENTIONS MODERNES

PAR

LOUIS FIGUIER

MACHINE A VAPEUR — BATEAU A VAPEUR
LOCOMOTIVE ET CHEMIN DE FER — LOCOMOBILES — MACHINE ÉLECTRIQUE
PARATONNERRES — PILE DE VOLTA — ÉLECTRO-MAGNÉTISME.

PARIS
FURNE, JOUVET ET Cie, ÉDITEURS
45, RUE SAINT-ANDRÉ-DES-ARTS, 45

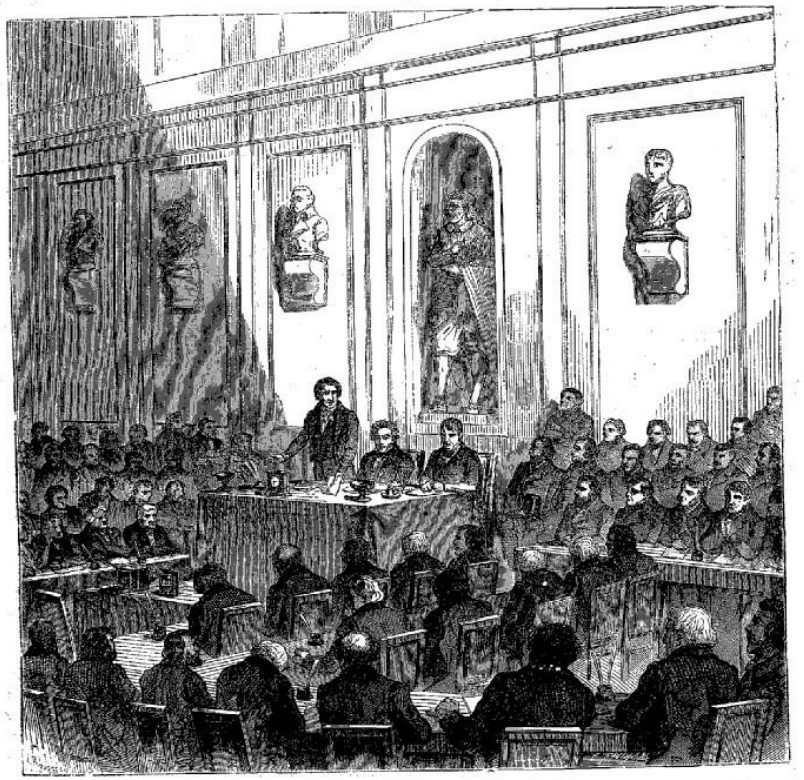


Fig. 12. — Arago annonce la découverte de Daguerre, dans la séance publique de l'Académie des sciences, du 10 août 1839 (page 44).

les bases les plus avantageuses, et les procédés ne pourront être rendus publics, qu'autant que la souscription atteindrait au moins le nombre de cent; alors, dans le cas contraire, les associés aviseront à un autre mode de publication.

« Si avant l'ouverture de la souscription, on trouvait à traiter pour la vente des procédés, ladite vente ne pourrait être consentie à un prix au-dessous de deux cent mille francs.

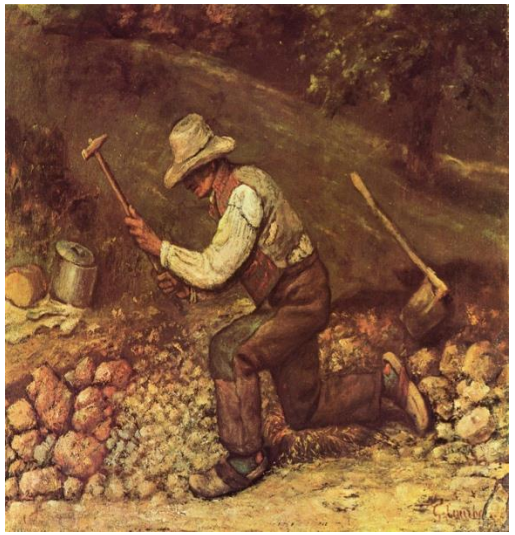
« Ainsi fait double et convenu, à Paris, le 13 juin 1837, en la demeure de M. Daguerre, au Diorama, et ont signé

« ISIDORE NIÉPCE. DAGUERRE. »

Après la signature de cet acte définitif, les deux associés s'occupèrent de l'exploitation de la découverte. Comme on vient de le lire dans le traité précédent, on voulait faire appel aux amateurs des beaux-arts et aux capitalistes, pour lancer des actions dans le public. La souscription fut, en effet, ouverte le 15 mars 1838; mais elle n'obtint aucun succès, on ne put réunir aucuns fonds.

Il fut alors décidé que le procédé serait cédé au gouvernement. Il était évident, en effet, que l'invention ne pouvait être sauvegardée par un brevet, car, dès que les principes

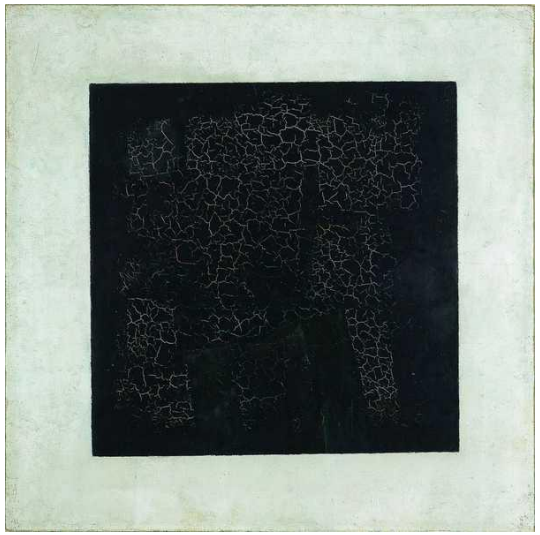
Did this trigger the end of Art? No, only of the one they knew...



Courbet (1849)

Monet (1892 - 94)

Monet (1914)



Malevič (1915)

LEVEL OF ABSTRACTION

What is the Blueprint?

Policy Choice	Outcome
State championing innovation (releasing the IP)	Rapid diffusion, global creative explosion
Inventor rewarded directly (pension)	Incentive preserved without monopoly
Science - politics collaboration (Arago's mediation)	Public legitimacy

Imperfect analogies: CERN releasing the World Wide Web in 1993, NIH's Human Genome Project making data public in 2003, Open-source AI

The Tech Competitiveness ills long predate the suite of EU digital regulations...so this as a single explanation falls short ...we must do more and address issues of scale

Bangemann Report 1994

ERISA: Turning savings into innovation capital

- The Employee Retirement Income Security Act Set fiduciary standards for pension funds, creating institutional investors
- 1979 “Prudent Man Rule” revision: pension funds could invest in venture capital
- Made risk capital systemic

Impact:

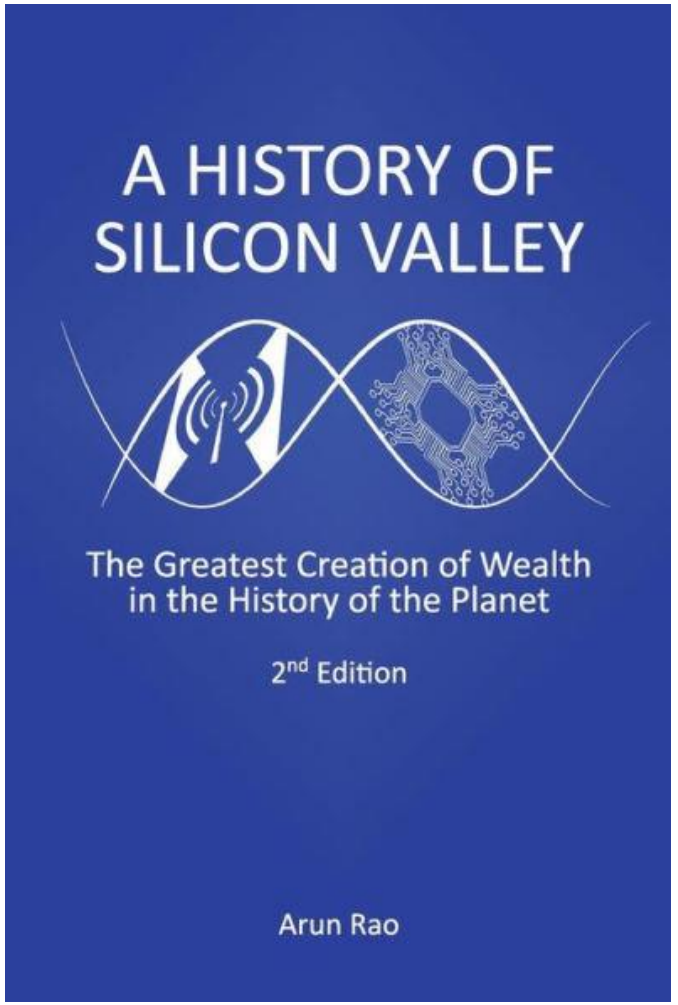
- Institutional money flowed into Kleiner Perkins, Sequoia Capital, and Venrock fueling the Silicon Valley boom (e.g. Apple, Genentech, Intel, Sun)
- Enabled U.S. to pivot from heavy industry to knowledge economy much faster than Japan and Europe.

PENSION FUNDING FOR VC IN 1970s

$2-100 mn

PENSION FUNDING FOR VC IN 1980s

$4 bn



NMSIA: Turning regulation in market scale

- **Before 1996, U.S. startups raising capital across states had to comply with 50 different "blue sky" laws**. Each state imposed its own disclosure, filing, and fee requirements. A company issuing shares in multiple states faced *duplicative compliance*.
- For example: "If a startup in Seattle issued shares to investors in Washington, California, New York, and Texas, it had to comply with all four states' laws." (Ewens & Farre-Mensa, 2020)
- **Congress didn't harmonise the regimes, but bypassed them.** The National Securities Markets Improvement Act (NSMIA, 1996) created *federal pre-emption*: SEC-defined private offerings automatically exempt from state law.

Impact:

- Late-stage firms became 4× likelier to attract out-of-state investors.
- The private-offering market expanded from $1.3 bn in 1995 to $33 bn (2015).

AVERAGE ROUND SIZE GROWTH

1. Reform Europe's Regulations for a Strong Digital Future

Unleashing growth and innovation will require Europe to launch a bold reform agenda to modernise its digital regulations and unify its markets.

Recommendations

- Accelerate regulatory reforms at the EU level to create a harmonised, innovation-friendly digital single market.
- Fast-track the implementation of a Savings and Investment Union, and a 28th regime (EU INC) to unlock capital and create a foundation for innovation.
- Introduce a Flexicurity regime

Recently released reports on European competitiveness

What is the European Regulatory Deal?

- **More rules, prevalence of ex ante regulation**
- **Lower legal risk**

- **Less rules, prevalence of ex post oversight**
- **Higher legal risk and Litigation**

This Deal is Broken

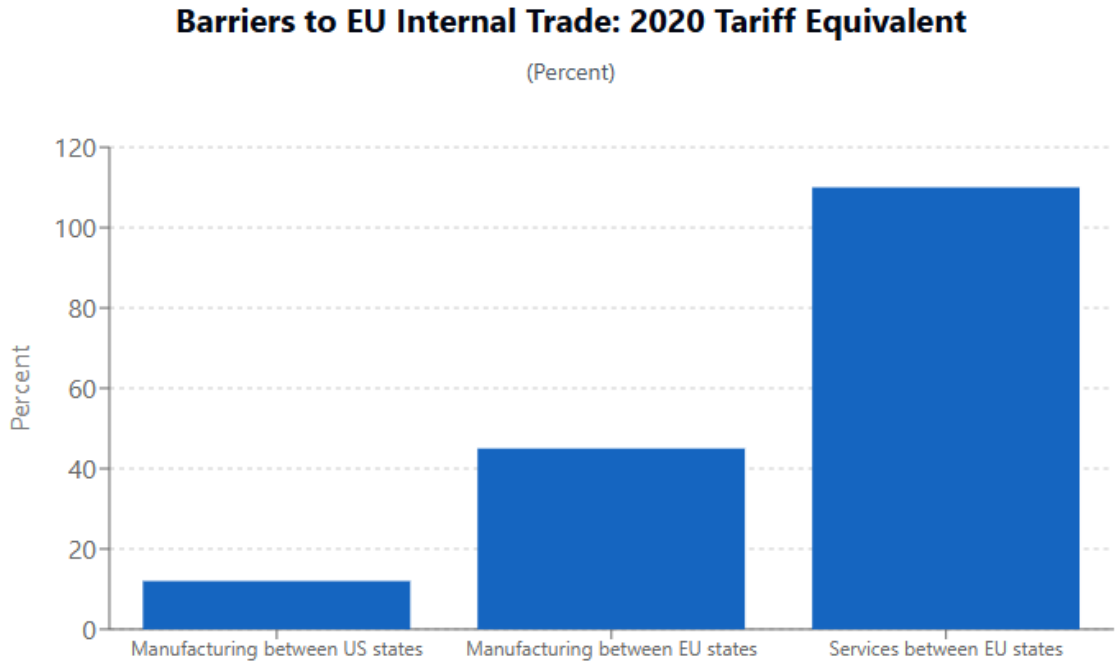
Ambition

Problem 6: Fragmented measures create obstacles for a cross-border AI single market and threaten the Union's digital sovereignty

In the absence of a common European framework to address the risks examined before and build trust in AI technology, Member States can be expected to start taking action at a national level to deal with these specific challenges. While national legislation is within the Member States' sovereign competences,[163] there is a risk that **diverging national approaches will lead to market fragmentation** and could create obstacles especially for smaller companies to enter multiple national markets and scale up across the EU Single Market. Yet, as noted in section 1.2., AI applications are rapidly increasing in scale. Where advanced models work with billions of parameters, companies need to scale up their models to remain competitive. Since the high mobility of AI producers could lead to a race to the bottom where companies move to Member States with the lightest regulation and serve the entire EU market from there, other Member States may take measures to limit access from other Member States, leading to further market fragmentation.

That is why Member States in general support a common European approach to AI. In a recent position paper 14 Member States recognise the risk of market fragmentation and emphasise that **the 'main aim must be to create a common framework where trustworthy and human-centric AI goes hand in hand with innovation, economic growth and competitiveness'.**[164] Earlier, in its conclusions of 9 June 2020, the Council called upon the Commission 'to put forward concrete proposals, taking existing legislation into consideration, which follow a risk-based, proportionate and, if necessary, regulatory approach for artificial intelligence.'[165]

Reality



Source: IMF 2020

Precautionary principle

The precautionary principle is an approach to risk management, where, if it is possible that a given policy or action might cause harm to the public or the environment and if there is still no scientific agreement on the issue, the policy or action in question should not be carried out. However, the policy or action may be reviewed when more scientific information becomes available. The principle is set out in Article 191 of the Treaty on the Functioning of the European Union (TFEU).

The concept of the precautionary principle was first set out in a European Commission communication adopted in February 2000, which defined the concept and envisaged how it would be applied.

The precautionary principle may only be invoked if there is a potential risk and may not be used to justify arbitrary decisions.

1. Regulatory Pivot

Focus not just on safety but also on value capture and diffusion.

Use market access to enforce openness, not control.

2. Interoperability & Fair Competition

Mandate standardized APIs for foundational models to prevent vendor lock-in.

Require data portability & ban exclusive deals.

PSD2 precedent: Open APIs incentivised fintech innovation.

3. Build Data Advantage

Create sectoral data commons (e.g. *Manufacturing-X*).

Pool anonymized data for industrial & medical AI training.

4. Reward Sharing & Open Data

Enforce public/open dataset rules; publish EU-wide data map.

Incentivize data release via grants/tax credits.

EUMS

EU-INC

COMPANY SET UP

Online, API, English

'Once-only'

Fast, cheap

EU-REGISTRY

Country-specific registration

- Complex process
- Language barriers
- Very costly & slow

INVESTMENT

Standard EU contracts

Simple, fast, familiar

"No surprises"

EU-FAST

Country-specific contracts

- Small local investor pool
- Reluctant international investors:
  - Unfamiliar with Belgian law
  - Fear hidden 'gotchas'

ATTRACT TOP TALENT

EU-wide plan

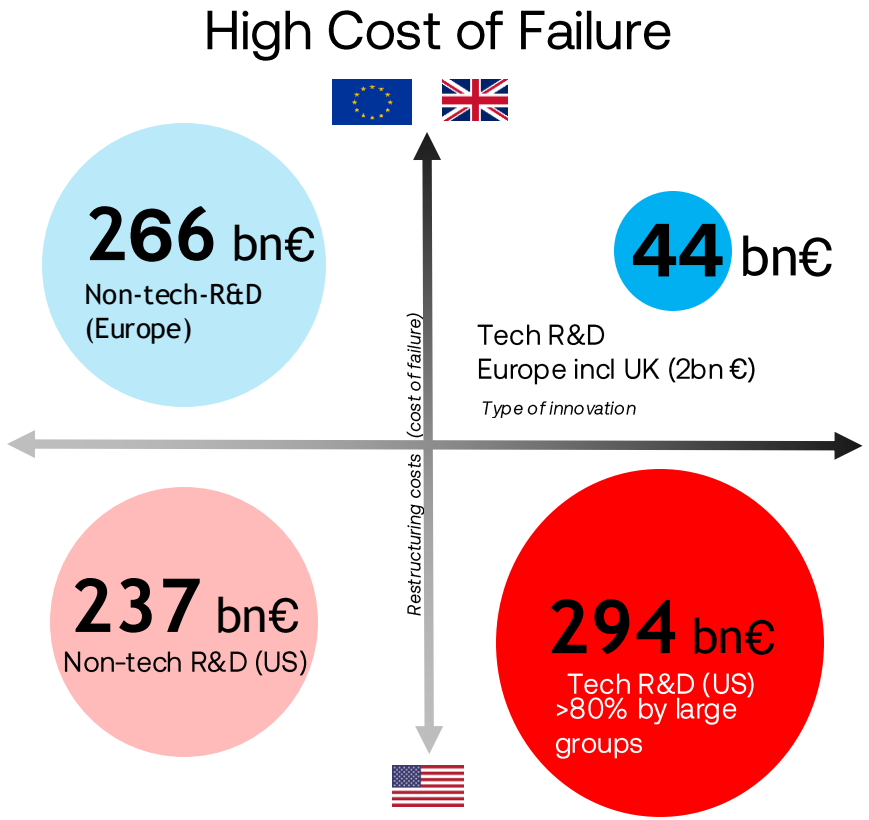
Same rules:
when & how taxed

EU-ESOP

Country-specific stock options

- Unfavourable taxes (dry tax)
- Stock options vary per country
- Stock options costly to transfer

Disruptive Innovation vs Incremental Innovation



Non-Tech (Mostly Incremental Innovation)

Tech (Mostly Disruptive Innovation)

ChatGPT

Disruptive Innovation

70-80%

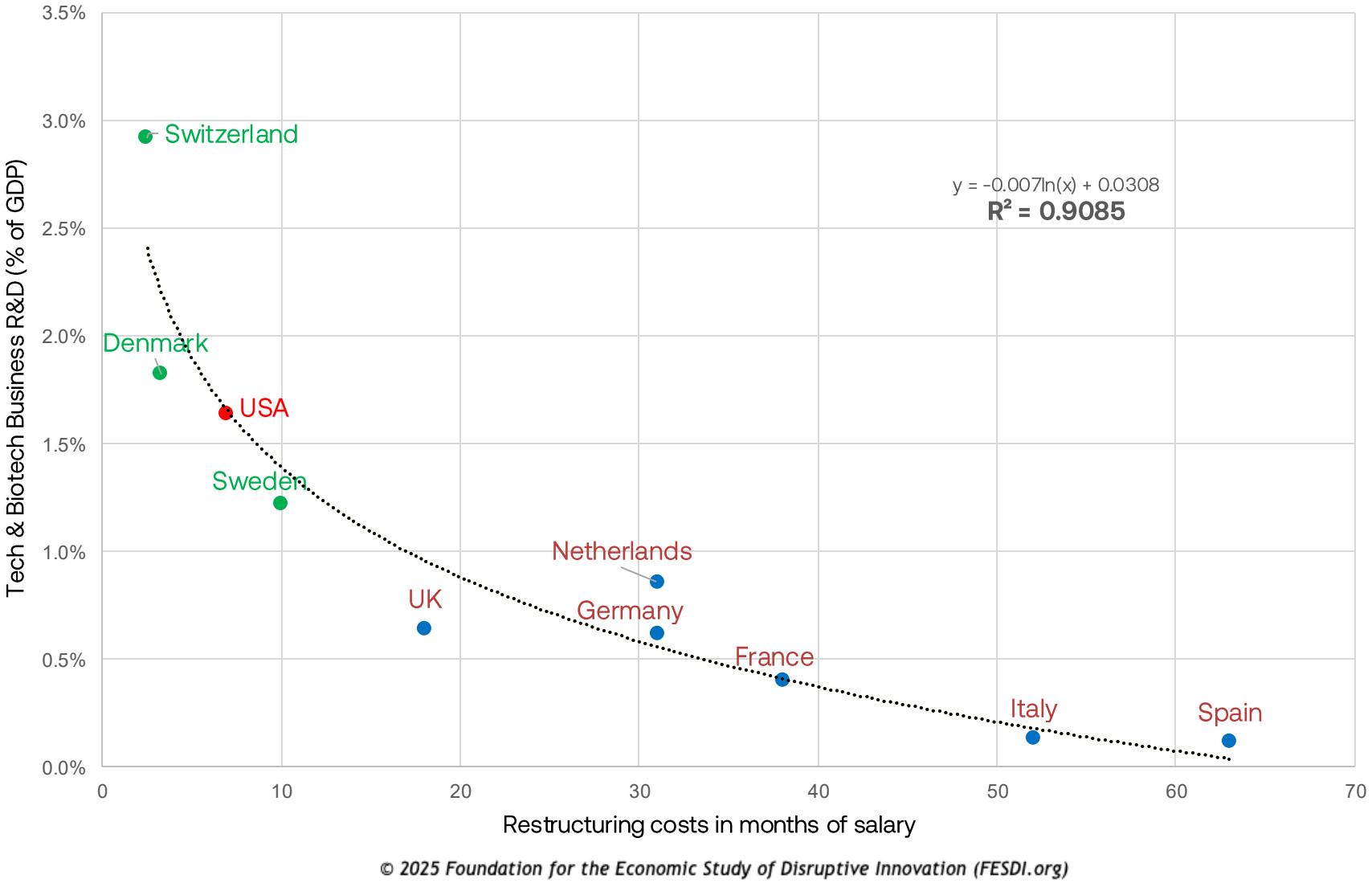
Failure Rate

Incremental Innovation

20%

Failure Rate

The Potential of the *Flexicurity* Model



The UK, Germany or France invest 3x less than Denmark, Switzerland or the US in tech and biotech.

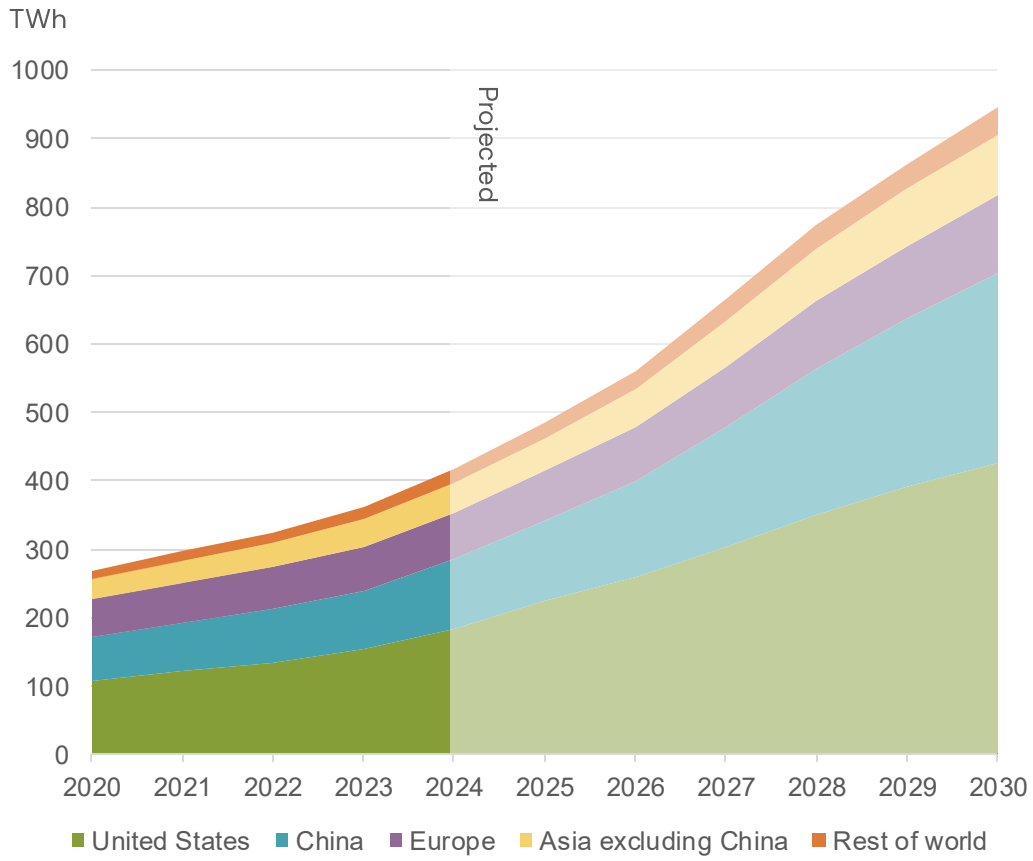
The higher the cost of failure, the less companies invest in promising and risky industries.

2. Build Europe's Foundations for the AI Era

Building cheap, abundant and sustainable compute and electricity is necessary for powering Europe's AI-enabled future.

Recommendations

- Secure and maintain a minimum 10% of global compute capacity for Europe to remain competitive in the AI age.
- Complete the Energy Union with harmonised rules and Europe-wide planning, in order to lower electricity costs and improve resilience.
- Initiate a continental energy programme to coordinate the building of new nuclear power plants, and accelerate permissions for renewables, grids and storage.



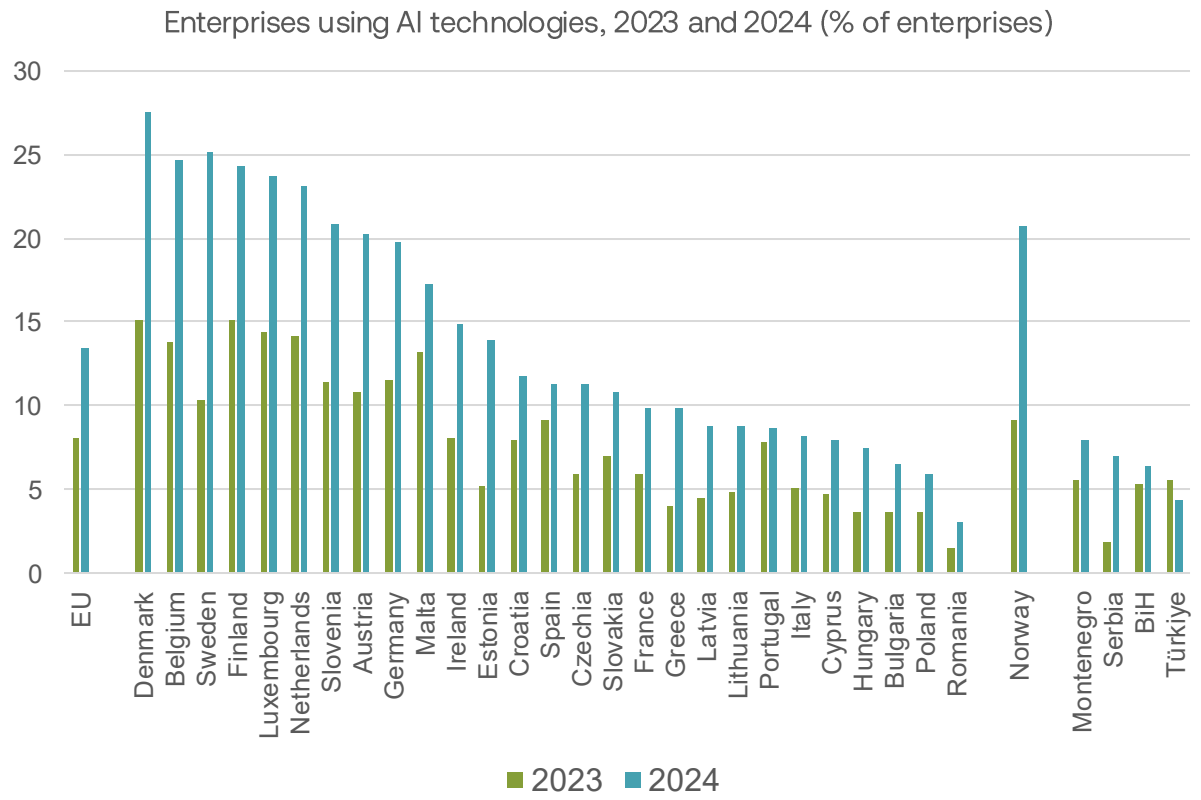
Source: IEA

3. Accelerate AI Adoption to Power Europe's Digital Transformation

Adopting AI across the European economy, supported by open-source innovation, practical applications and world-class talent, will be central to securing Europe's digital competitiveness.

Recommendations

- Accelerate AI adoption by building a trusted, interoperable ecosystem based on Europe's leadership in open data and open-source innovation.
- Promote sector-specific AI-adoption regulation packages that provide regulatory clarity and fast-track approval paths.
- Align university systems with the needs of the innovation economy to attract researchers and strengthen Europe's talent base.



Source: Eurostat

Volume 25, Issue 61
1 January 2010

JOURNAL ARTICLE

The governance and performance of universities: evidence from Europe and the US

Get access

Philippe Aghion, Mathias Dewatripont, Caroline Hoxby, Andreu Mas-Colell, André Sapir

Economic Policy, Volume 25, Issue 61, 1 January 2010, Pages 7–59,
https://doi.org/10.1111/j.1468-0327.2009.00238.x
Published: 07 August 2014

EUROPEAN SOCIAL FUND BUDGET

€127 bn

Autonomy

Universities perform best when they operate independently from bureaucratic control in terms of:

- Freedom to manage budgets and authority to set faculty pay based on merit
- Control over faculty hiring and student admissions and independence in designing their curricula

Competition

Autonomy is most effective when paired with competition. Universities become more innovative and productive when they must:

- Compete for research funding through grants
- Attract top faculty and students

Table 4 Financial autonomy ranking

Rank	System	Score | Financial autonomy
1	Latvia	90%
2	England (UK)	89%
3	Scotland (UK)	80%
4	Estonia	77%
5	Luxembourg	75%
	Romania	75%
7	Flanders (BE)	74%
8	Switzerland	72%
9	Georgia	71%
10	Italy	70%
11	Czechia	69%
	Denmark	69%
13	Slovakia	68%
14	Finland	67%
	Portugal	67%
16	Netherlands	66%
	Slovenia	66%
18	Ireland	63%
19	Lithuania	61%
20	Iceland	60%
	Poland	60%
22	Austria	59%
23	Sweden	56%
24	Wallonia-Brussels Federation (BE)	54%
25	Spain	52%
26	Croatia	46%
27	Brandenburg (DE)	44%
	France	44%

Table 6 Academic autonomy ranking

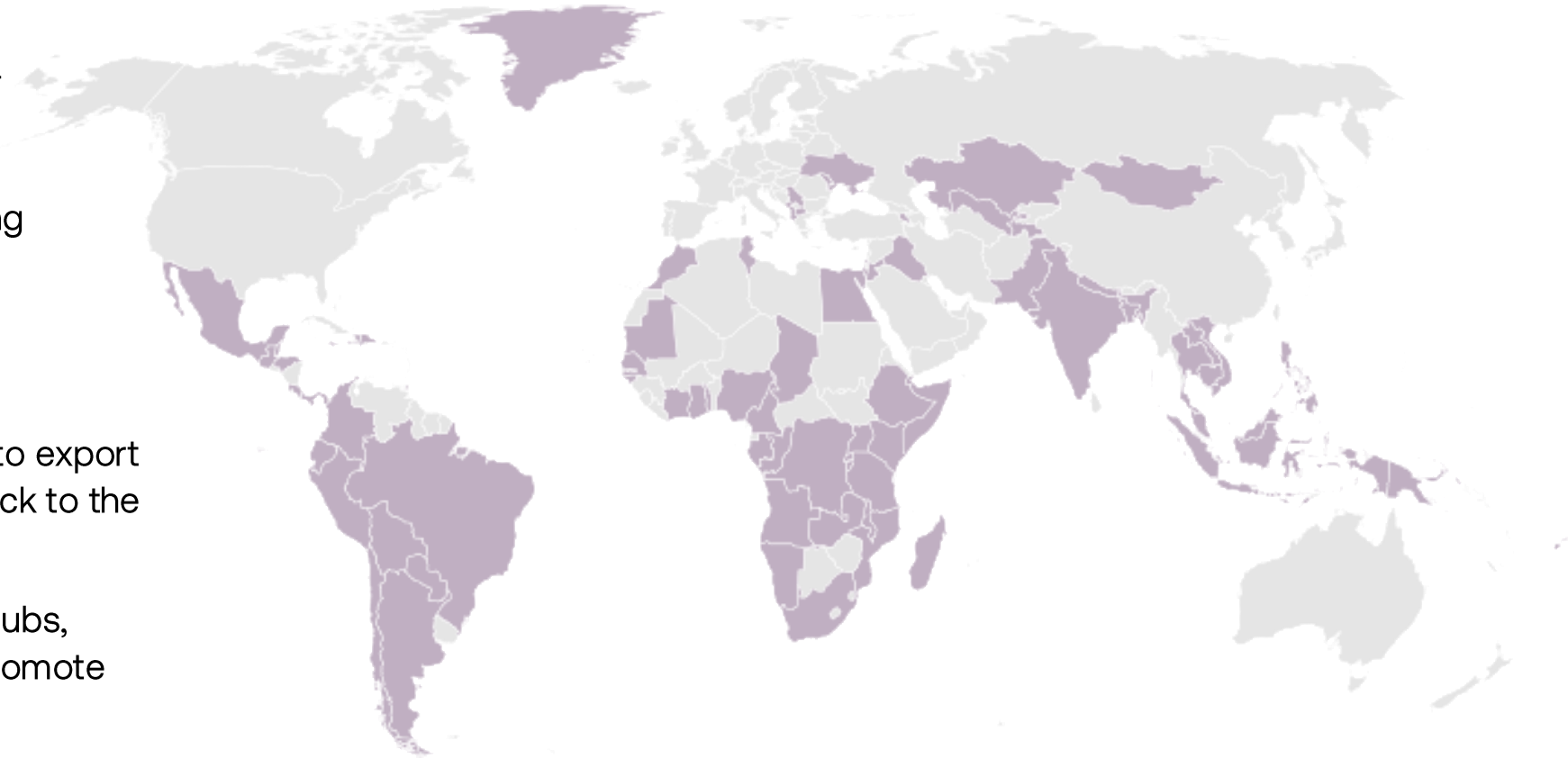
Rank	System	Score | Academic autonomy
1	Estonia	95%
2	Finland	90%
3	England (UK)	89%
	Ireland	89%
	Luxembourg	89%
	Scotland (UK)	89%
7	Hesse (DE)	88%
	North Rhine-Westphalia (DE)	88%
9	Brandenburg (DE)	87%
10	Austria	85%
11	Norway	83%
12	Iceland	80%
13	Czechia	72%
	Denmark	72%
	Switzerland	72%
16	Poland	68%
17	Sweden	67%
18	Romania	61%
19	Spain	57%
20	Italy	56%
	Slovakia	56%
22	Latvia	55%
23	Portugal	54%
24	Flanders (BE)	53%
	Lithuania	53%
26	Serbia	49%
27	Georgia	48%
28	Slovenia	47%

4. Strengthen Europe's Tech Engagement to Increase Global Influence

Actively shaping the AI-enabled world in Europe's own interests – by building, exporting and championing its technological model globally – is key to securing continued global influence.

Recommendations

- Launch a coordinated strategy to export Europe's digital government stack to the world.
- Build new regional technology hubs, staffed with technologists, to promote Europe's tech stack.



Europe's 'Global Gateway' Initiatives

01 ERISA-style reform --- > mobilising savings as innovation capital

02 28th regime (EU INC) --- > enabling start-ups to scale up

03 Flexicurity --- > restoring profitability of VC and offering a safety net for workers

04 Digital Government Stack --- > personalised and proactive government services

05 Regulation centred on value capture --- > catalysing AI diffusion

06 University Autonomy and ESF+ --- > accelerating AI reskilling

We can build a European model that is chosen and not just complied with!

“Freedom is not merely the absence of coercion,
but the presence of possibility”

Isaiah Berlin, Two Concepts of Liberty