Tilburg University

We are living in interesting times

We are Living in Interesting Times

Inaugural address by

Prof. Dr. Jens Prüfer

Tilburg University

Understanding Society

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Prüfer's research spans institutional and organizational economics, law and economics, industrial organization, political economy, economics of religion, and digital economics. In digital economics, his publications analyze competition on data-driven markets, mandatory data sharing, cloud governance, and search engine economics. In organizational economics, he studies nonprofit competition, cooperative governance, standard-setting organizations, and organizational choice. In the economics of religion, his work examines religious identity's impact on nonprofit management. In political economy, he analyzes democracy and bounded rationality, collective enforcement institutions, platform power, democratic erosion, and AI governance.

His research on data-driven markets has had substantial policy impact. The 2012 paper with Cédric Argenton introduced data-driven indirect network effects in search markets, and the 2021 paper with Christoph Schottmüller extended this analysis to data-driven markets generally. These papers directly influenced the Digital Markets Act (DMA) and Digital Services Act (DSA). DMA Articles 6(10) and 6(11) implement the data-sharing policy first proposed in 2012. The DSA's governance structure, combining national Digital Services Coordinators with a European Board for Digital Services, reflects work co-authored with Inge Graef. His work is cited in the 2023 Economic Report of President Biden and the 2023 Report on AI of the Dutch Scientific Council for Government Policy (WRR).

Prüfer has advised the European Commission (DG ECFIN, DG CNECT), UK Competition and Markets Authority, Dutch Authority for Consumers and Markets, German Federal Finance Ministry, and OECD Network of Economic Regulators. He served on the EU Observatory on the Online Platform Economy expert group (2021–25) and has spoken at the European Parliament.

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Delivered at Tilburg University on 12 June 2026

ISBN: 9789465268194

www.tilburguniversity.edu/nl

We are Living in Interesting Times

For Patricia. And for Laurin, Berenike, and Jarlo.

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Introduction

Dear rector magnificus, dean, heads of department, coauthors, colleagues, students, family and friends:

When thinking about this lecture, in line with the Chair's title, I first wanted to talk about Economics, Governance, and Technology.

- **Technology,** because technological progress since the 1990s, in particular the commercial internet, social media, and artificial intelligence (AI), has dramatically affected our world, for good and for bad.
- **Governance,** because we have a broad toolkit of institutional and organizational mechanisms that can mitigate problems for politics, markets, and societies stemming from technological progress.
- **Economics**, because this most quantitative of the social sciences only has a few fundamental theoretical concepts but a very rich methodological arsenal to study all kinds of questions arising in the social sciences, where groups of people make decisions affecting each other.

But then I realized that this is all of secondary importance in itself. Maybe you attended the lecture (or sneaked into the written form) out of politeness, or you expect an academic to do some navel gazing and telling you how influential his previous work and how smart his ideas have been. I will not do that. By contrast, **I want to use your attention and make a case for a certain type of research** to be conducted by any of us - and many of us - because **we are living in interesting times**.[1]

The world is largely changing for worse, and everybody, including academics with a fine seat in the ivory tower, have a duty to contribute to solving the myriads of issues that lie ahead of our societal decision makers (politicians, policy makers, regulators, business leaders, and other elites). I will make the case that there is a value chain from a new idea to the implementation of a new governance institution (a new law or regulation or contract, a new social norm, new ethics, ...). Good decisions along this value chain crucially depend on the initial idea, which is often born in an academic's mind.

1 The title of this lecture refers to the expression "May you live in interesting times," widely known as an ancient Chinese curse - though no such expression exists in Chinese, and the phrase most likely originated in the British diplomatic service in the 1890s before being popularized in the English-speaking world by Robert F. Kennedy in 1966. Its irony remains intact regardless of origin: "interesting" times are not times of comfortable progress but times of turbulence, uncertainty, and consequential decision-making, which is precisely the character of the 2020s.

This lecture has three parts. Part I will give a brief account of the world in spring 2026 from a European perspective. Part II will suggest some solutions, all based on my ongoing (that is, unpublished and hence non-peer reviewed) research. Part III will close the circle, reflect on the role of academics in society, and propose further action.

Part I:
Th World is Burning

1.1 War, Rearmament, and the Return of Geopolitical Risk

For three decades after 1989, Europe built its prosperity on a tacit assumption: that the continent's security could be treated as a solved problem. That assumption was shattered on 24 February 2022, when Russia launched a full-scale invasion of Ukraine. Europe's response has been a historic reversal of post-Cold War demilitarization: NATO members are now projected to spend collectively over U$470 billion on defense in 2025, with 18 member states meeting or exceeding the 2% GDP threshold. [2] This is not merely a budgetary adjustment. It signals a structural shift in Europe's threat perception, which will shape governance priorities, fiscal choices, and international alliances for a generation. The post-Cold War peace dividend, which the continent has enjoyed since 1990, has been definitively withdrawn.[3]

1.2 Europe's Growth Problem: The Productivity Gap and the Technology Deficit

In parallel, Europe's relative economic decline is measurable and significant. Between 2000 and 2024, the EU's share of global GDP (in current USD) fell from approximately 26% to 17.5%, while the United States maintained roughly 25–26% and China rose from around 4% to 17%.[4] In GDP per capita terms, the EU stands at roughly 70% of the US level. The Draghi Report (2024) attributes approximately 70% of this gap to lower productivity, which is itself traceable to underinvestment in research and digital technology. [5] European firms account for only 4 of the world's 50 largest technology companies by market capitalization, compared to 30 for the United States and 10 for China (Draghi, 2024).

These figures document a real structural problem. But they do not tell the full story of economic welfare in Europe.

1.3 Growth for Whom? A More Complete Welfare Account

So far, so bad. However, the habit of comparing economies by headline GDP or **average** income growth is misleading in at least one crucial respect: it conceals **who**

[2] https://www.nato.int/en/what-we-do/introduction-to-nato/defence-expenditures-and-natos-5-commitment

[3] Financial Times (2025). "The costly end of Europe's 'peace dividend' ", 17 March 2025, https://www.ft.com/content/cf1638c4-45ed-4671-8c42-3136e7bda7d5

[4] IMF World Economic Outlook, April 2025. https://www.imf.org/-/media/files/publications/weo/2025/april/english/text.pdf

[5] The Draghi Report: A competitiveness strategy for Europe (Part A) (2024). P.45. https://commission.europa.eu/topics/competitiveness/draghi-report_en#paragraph_47059

receives the gains. By contrast, when the comparison is reframed around the income of the **median**, rather than the **average**, worker, and when it includes the full range of social outcomes, relative performance looks substantially different.

Real median household income, which is a good proxy for how the "average citizen" is doing, grew by approximately 18 percent in the United States between 2004 and 2024.[6] The EU-27 average grew by roughly 22 percent over the same period.[7] Admittedly, this figure is driven significantly by Eastern European catch-up growth, while median household income in Western Europe grew more modestly, still roughly on a par with the United States. Table 1 presents these data systematically.

Table 1. Real Income Growth of the Median Household, 2004–2024

Region / Country	Real income growth 2004–2024	Measure	Source
United States	+18%	Real median household income	U.S. Census Bureau, CPS P60-286 (2025)
EU-27 average	+22%	Real household income per capita	Eurostat, nasa_10_ki (Nov 2025)
— of which Eastern EU (Slovenia to Romania)	+40–134%	idem	Idem
— of which Western/ Northern EU	+15-25%	idem	Idem
Netherlands, France	+20%	idem	Idem
Spain	+13%	idem	Idem
Germany	+24%	idem	Idem
Sweden	+27%	Idem	idem
Italy	−4%	idem	idem
Greece	−5%	idem	Idem

Source: Eurostat nasa_10_ki (Nov. 2025); U.S. Census Bureau CPS Report P60-286 (2025) [8]

6 US Census Bureau data (2025). "No Significant Change in Estimated U.S. Median Household Income." Accessed 24 March 2026. https://www.census.gov/library/stories/2025/09/median-household-income.html

7 Eurostat (2025). "EU household real income per capita up 22% since 2004." Accessed 24 March 2026. https://ec.europa.eu/eurostat/web/products-eurostat-news/w/ddn-20251125-2

8 https://ec.europa.eu/eurostat/databrowser/view/nasa_10_ki__custom_18762441/default/table ; https://www.census.gov/library/stories/2025/09/median-household-income.html

Moreover, the lead of the US in **average** income growth has been heavily **concentrated at the top of the distribution**. The share of pre-tax income held by the top 1 percent in the United States rose from 11 to 21 percent between 1980 and 2017, while the equivalent share in the EU rose far more modestly, from 8 to 11 percent.[9] Americans across all wealth levels are more likely to die than their European counterparts, and the wealthiest Americans have survival rates comparable to the poorest citizens in Western Europe.[10]

Hence, **the European social model has *systematic advantages***, which become visible when the comparison moves from income aggregates to social outcomes. The table below documents the scale of the difference.

Table 2. Societal Outcome Indicators: European Union vs. United States

Indicator	European Union	United States	EU advantage	Source
Life expectancy at birth	81.5 years (2023)	78.4 years (2023)	+3.1 years	Eurostat; US Health System Tracker[11]
Infant mortality	3.2 per 1,000 live births (2023)	6.0 per 1,000 (2023)	~2x lower	World Bank WDI[12]
Relative poverty rate (below 50% of median)	10% (2024)	18% (2021)	8 pp lower	Eurostat; OECD[13]

9 Blanchet, Thomas, Chancel, Lucas, and Amory Gethin (2022). "Why Is Europe More Equal than the United States?", *American Economic Journal: Applied Economics,* 14(4): 480–518. https://doi.org/10.1257/app.20200703

10 Machado, Sara, Kyriopoulos, Ilias, Orav, E. John, and Irene Papanicolas (2025). "Association between Wealth and Mortality in the United States and Europe," *New England Journal of Medicine*, 392:1310-1319. DOI: 10.1056/NEJMsa2408259.

11 https://ec.europa.eu/eurostat/web/products-eurostat-news/w/ddn-20240503-2; https://www.healthsystemtracker.org/chart-collection/u-s-life-expectancy-compare-countries/

12 https://data.worldbank.org/indicator/SP.DYN.IMRT.IN?locations=EU; https://data.worldbank.org/indicator/SP.DYN.IMRT.IN

13 https://tradingeconomics.com/euro-area/dispersion-around-the-at-risk-of-poverty-threshold-at-risk-of-poverty-rate-cut-off-point-50percent-of-median-equivalised-income-eurostat-data.html; OECD (2024). Society at a Glance 2024, p.88. https://www.oecd.org/content/dam/oecd/en/publications/reports/2024/06/society-at-a-glance-2024_08001b73/918d8db3-en.pdf

Income inequality (Gini coefficient)	29.4 (EU-27, 2024)	~39–40 (OECD estimate)	~10 pp lower	Eurostat Key Figures 2025; OECD[14]
Homicide rate	0.6-1.3 per 100,000	5.8 per 100,000 (2023)	~5-6x lower	UNODC Global Study on Homicide[15]
Incarceration rate	122 per 100,000 (2024)	360 per 100,000 (2023)	3x lower	Council of Europe SPACE; Bureau of Justice Statistics[16]
Female labor-force participation	70.8% (ages 15–64) (2024)	57.5% (2024)	13 pp higher	Eurostat LFS; U.S. Bureau of Labor Statistics[17]
Top 1% (1.0%) pre-tax national income share	Top 1%: 11%, Top-10%: 36% (2023)	Top 1%: 20.7%, Top-10%: 46.9% (2022)	Top 1%: double share	World Inequality Database[18]
Public debt / GDP	81.5% (EU-27, Oct 2024)	123% (Oct 2025)	~31 pp lower	Eurostat; IMF WEO[19]

These data establish a point that is important for the lecture's normative argument. **Europe's growth problem is real, but** aggregate GDP is a poor measure of societal welfare when productivity gains are concentrated at the top. **On the metrics that bear most directly on the quality of citizens' lives - namely health, safety, equality, and social cohesion - Europe consistently outperforms the United States**.

This is not an argument for complacency: the productivity and technology gap is a structural threat that requires urgent attention, as Mario Draghi pointed out. But

14 https://ec.europa.eu/eurostat/statistics-explained/SEPDF/cache/67011.pdf ; OECD (2024). P.87. https://www.oecd.org/content/dam/oecd/en/publications/reports/2024/06/society-at-a-glance-2024_08001b73/918d8db3-en.pdf

15 https://data.unodc.org/datareport/hom-victim

16 Council of Europe (2024). "Prisons and Prisoners in Europe 2024: Key Findings of the SPACE I survey." https://wp.unil.ch/space/files/2025/07/250715_key-findings-space-i_prisons-europe-2024_full.pdf. U.S. Department of Justice (2025). "Prisoners in 2023 - Statistical Tables". https://bjs.ojp.gov/document/p23st.pdf

17 Eurostat (2025). "Employment – annual statistics." https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Employment_-_annual_statistics https://www.bls.gov/emp/tables/civilian-labor-force-participation-rate.htm

18 https://wid.world/news-article/inequality-in-2024-a-closer-look-at-six-regions/, https://wid.world/country/usa/

19 https://ec.europa.eu/eurostat/web/products-euro-indicators/w/2-22102024-bp; https://theworlddata.com/us-debt-to-gdp-ratio/ (Nov 1, 2025).

it does suggest that "falling behind" is not the whole story, and that **the governance institutions responsible for Europe's welfare advantages deserve protection rather than dismantlement**.

1.4 Democratic Erosion in the United States

The return of Donald Trump to the US presidency in January 2025 has introduced unprecedented stress to the institutional architecture of American democracy. The V-Dem Democracy Report 2026 classifies the United States as having entered a trajectory of "autocratization," documenting measurable declines in judicial independence, media freedom, and the rule of law since 2021. The country lost its long-term status as a liberal democracy - for the first time in over 50 years![20] The administration's use of executive orders to bypass legislative authority, its restructuring of federal scientific advisory bodies to replace independent expertise with political loyalty, and its deployment of tariffs as instruments of coercion against longstanding allies have damaged both the internal legitimacy and the external credibility of US democratic institutions. Consequently, **Europe cannot plan its security, its trade policy, or its digital governance on the assumption that the United States will remain a predictable partner operating within shared norms and treaties.** This is a structural shift, not a temporary deviation, and hence **the design of European institutions must be adjusted to function as autonomous as feasible.**

1.5 China: The Long-Term "Systemic Rival"

China has become the world's largest economy by purchasing power parity and has rapidly closed the gap in technological capability: it now accounts for 26% of global patent filings[21] and leads globally in AI research publications and patent grants. However, the EU designated China a "systemic rival" already in 2019.[22] **China operates according to a model of political economy that is diametrically opposed to that of liberal democratic societies**: one-party rule, state-directed industrial strategy, the subordination of the rule of law to political objectives, and the systematic deployment of economic relationships as instruments of political influence. Still, many European firms remain deeply exposed to Chinese supply chains and Chinese

[20] V-Dem (2026). V-Dem Institute's Democracy Report 2026, p.7. See also https://www.v-dem.net/news/press-release-democratic-backsliding-reaches-western-democracies-with-us-decline-unprecedented/

[21] https://www.wipo.int/web-publications/global-innovation-index-2025/en/gii-2025-results.html

[22] European Commission (2019). "European Commission and HR/VP contribution to the European Council EU-China – A strategic outlook." 12 March 2019. https://commission.europa.eu/publications/eu-china-strategic-outlook-commission-and-hrvp-contribution-european-council-21-22-march-2019_en

market access, which exposes them to hard-to-control risks of exploitation and dependence.[23]

More insidiously, as British journalist Ian Williams (2024) documents, China's strategy includes systematic economic and technological espionage, which is sometimes even conducted openly, through academic and research partnerships.[24] This is a vulnerability that European universities and research institutes have been slow to recognize and acknowledge. It is also important for Tilburg University and asks for special scrutiny regarding double-degree programs, exchange programs, and especially when admitting students with known links to the Chinese Communist Party.

1.6 Democratic Erosion Within Europe: Populism, Disinformation, and the Role of Social Media

Unfortunately, the threats to liberal democracy are not only external. Within Europe, a number of member states are governed by parties that actively contest the norms of liberal constitutionalism: Slovakia and Hungary (which just changed course for good in April 2026) have moved well down the path of democratic backsliding, according to V-Dem metrics; Italy has recently been added to the list of autocratizing countries (V-Dem, 2026). Across Western Europe, right-wing populist parties have achieved electoral breakthroughs in France, Germany, the Netherlands, and Sweden, among others.

The external threats documented above are amplified by a structural intra-European transformation in how citizens obtain information and form political preferences. Social media platforms systematically favor emotionally provocative, morally charged, and identity-affirming content.[25] In a systematic review of worldwide causal and correlational evidence on digital media and democracy, Lorenz-Spreen et al. (2023) find that the associations between digital media use and trust in democratic institutions were “overwhelmingly pointing in directions detrimental to a functioning

[23] Al-Haschimi, Alexander, and Tajda Spital (2024). “The evolution of China's growth model: challenges and long-term growth prospects,” ECB Economic Bulletin, Issue 5/2024. https://www.ecb.europa.eu/press/economic-bulletin/articles/2024/html/ecb.ebart202405_01~a6318ef569.en.html

[24] Williams, Ian (2024). *Vampire State: The Rise and Fall of the Chinese Economy*. Birlinn publishers.

[25] Regehr, Kaitlyn, Shaughnessy, Caitlin, Zhao, Minzhu, and Nicola Shaughnessy (2024). “Safer Scrolling: How algorithms popularize and gamify online hate and misogyny," UCL/Kent/ASCL report. https://www.ascl.org.uk/ASCL/media/ASCL/Help%20and%20advice/Inclusion/Safer-scrolling.pdf

democracy," and that measures of hate, polarization, and populism were widely reported to show detrimental associations with digital media use.[26]

People who use social media for news have lower news knowledge, lower trust in institutions and are more polarized.[27] Social Media is addictive, like cigarettes.[28] Burstyn et al. (2025) ran an experiment with users of social media platforms TikTok and Instagram.[29] They find positive welfare of social media use based on the literature's standard measures, but *negative* welfare when accounting for non-user externalities. This suggests *product market traps*, where active users of a platform prefer it *not* to exist but nobody dares to leave individually due to fear of missing out (FOMO).

Looking backward twenty years, social media platforms were built to maximize engagement. They were not built to sustain the normative and ethical conditions that liberal democracy requires. The consequences of this design choice are now visible across Europe and North America. They are the result of a market failure stemming from too little knowledge about how social media platforms work and what they cause, paired with too much hesitation in large parts of the Western world to intervene in "innovation markets." Fortunately, Europe has started to tackle the problems with bold regulation, but this regulation came late, is selective, completely relies on state capacity, and has serious issues with enforcement.

This concludes Part I of this lecture. The six reported trends - military threat, economic divergence, concentrated growth, democratic backsliding, systemic rivalry, and information disorder - are not independent. They are connected by a common thread: the **concentration of unaccountable power**, whether in the hands of foreign states, private platform firms, or domestic populist movements, **that erodes the institutional architecture of liberal democracy**. Part II presents ongoing research that diagnoses this concentration and proposes governance mechanisms to address it. This is the realm of institutional economics and economic governance.

26 Lorenz-Spreen, Philipp, Oswald, Lisa, Lewandowsky, Stephan and Ralph Hertwig (2023). "A systematic review of worldwide causal and correlational evidence on digital media and democracy," *Nature Human Behavior* 7, 74–101. https://doi.org/10.1038/s41562-022-01460-1

27 https://www.ofcom.org.uk/siteassets/resources/documents/research-and-data/multi-sector/media-plurality/annex-3-survey-analysis.pdf?v=328776

28 Allcott H, Gentzkow M, Song L. 2022. Digital addiction. *American Economic Review*, 112(7): 2424–63.

29 Bursztyn, Leonardo, Handel, Benjamin, Jiménez-Durán, Rafael, and Christopher Roth (2025). "When product markets become collective traps: The case of social media," *American Economic Review*, 115(12): 4105-36.

Part II:
Adressing Challenges

The problems described in the first part of this lecture are not merely political or technological. They are, at their core, **problems of institutional design: who gets to set rules? How are those rules enforced?** Do the resulting arrangements serve general welfare or the narrow interests of the most powerful actors?

I will now briefly present **six pieces of ongoing research** that address these questions. Each studies a separate question and uses a customized methodology. Together they form a research program. All six are presented through the same internal logic (which I tend to preach to my students):[30]

1. Research question and motivation
2. Methodology and setup
3. Results
4. Policy implications
5. Core insight

2.1 The Foundation: Economic Governance and Institutional Design[31]

Before asking how to regulate digital platforms or artificial intelligence, one must answer a more fundamental question: **what makes any rule - a law, a social norm, a contract, or a certification scheme - actually work?** Practitioners often design institutions by improvisation. Legislators sometimes copy foreign models without understanding why those models succeeded elsewhere. Regulators propose remedies whose compliance mechanisms are regularly poorly matched to the underlying incentive problem. This paper builds the theoretical scaffolding that all subsequent papers apply.

I introduce a **typology of economic governance institutions** organized around several overlapping dimensions, which uniquely single out any institution from all others (see Figure 1): whether a rule is enforced through **public ordering** (by the state, courts, or regulators) or **private ordering** (through associations, platforms, or social norms), and whether the incentive to comply rests on **coercion** or on the threat of exclusion from long-term membership benefits (**ostracism**). By mapping governance problems onto this typology, the paper identifies the circumstances under which each institutional form is **effective**, **efficient**, or neither.

[30] All details, incl. literature reviews and proper embedding in the respective literatures, are in the original papers.

[31] Prüfer, Jens (2024). "Economic Governance and Institutional Design." TILEC Discussion Paper 2024-10.

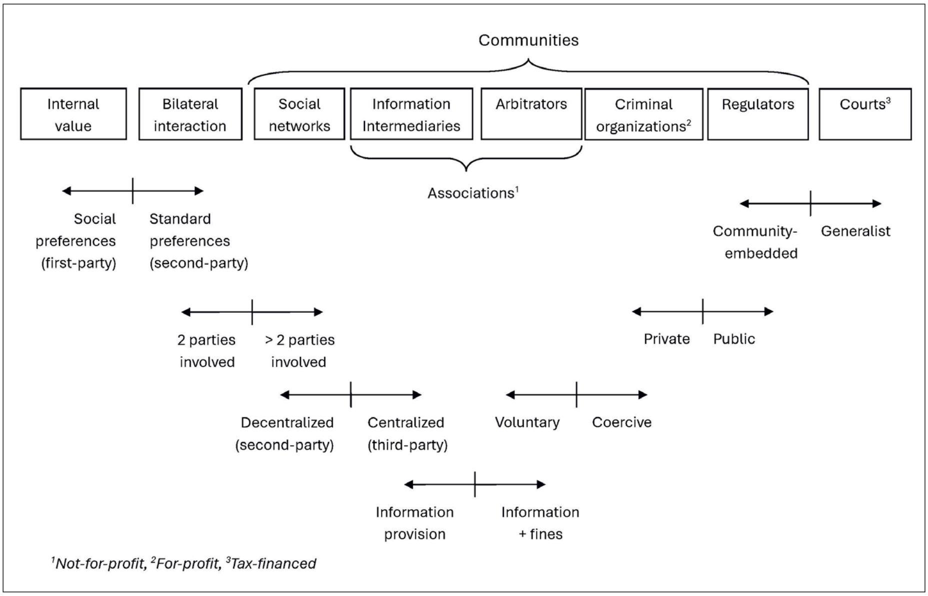

Figure 1. Economic Governance Institutions
Source: Prüfer (2024)

The central finding is that institutional mismatch, i.e., choosing the wrong governance mechanism for a given compliance problem, is a leading cause of regulatory failure. The EU's Digital Markets Act and AI Act impose obligations whose enforcement architecture has not yet been matched to their incentive structure. The paper's direct lesson for any regulator is that the question "what should be required?" is inseparable from the question "what institution will actually deliver compliance?" Getting the match wrong is as consequential as getting the substance of the rule wrong.

The framework established in this paper clarifies what a well-matched governance institution looks like in the abstract. The papers that follow apply that lens to concrete problems. One immediate concern are Large Language Models (LLMs) that are rapidly displacing social media and search engines as the primary interfaces through which citizens encounter synthesized knowledge and whose content choices are invisible by design, embedded in model architecture long before any user poses a question.

2.2 Voluntary Algorithmic Censorship[32]

Large language models and AI content moderation systems enable platforms to exercise editorial power over public discourse by deciding what content to show and what to exclude. This paper examines **voluntary algorithmic censorship**: prompts that LLMs refuse to answer without any legal obligation to do so. To what extent do **structural censorship differences exist across US, Chinese, and European LLMs? What drives these choices? And how could they be governed?**

Using an original dataset of 551 refused prompts drawn from social media discussions of censored LLM queries, the paper tests ChatGPT (US), DeepSeek (China), and Mistral (EU) across free and paid model versions and across English and Mandarin. Refusals are coded across five content domains: politics, violence, sexuality, misinformation, and hate speech.

We document three findings. **First**, the three LLMs reveal **systematic censorship differences that reflect institutional, not universal safety, preferences**: DeepSeek concentrates 84.3% of its refusals in historical/cultural and political/ideological themes, directly mirroring Chinese state censorship policy. ChatGPT emphasizes technical and behavioral restrictions (46.3% of refusals), aligning with Western corporate risk management. Mistral employs a pedagogical refusal style with contextual explanations, reflecting EU transparency norms. **Second**, **monetization creates commercially stratified content access**: paid GPT-4o responds to substantially more sensitive prompts than free ChatGPT. **Third**, all three models show **different moderation patterns in English versus Chinese**, i.e., some questions are (not) answered just by changing the input language. This confirms that training is language-specific and that language groups are treated unequally.

The paper also shows that **the EU's Digital Services Act (DSA) could regulate generative AI chatbots by treating LLMs as "intermediaries"** and identifies specific DSA provisions capable of transforming opaque self-regulation into accountable governance without stifling innovation.

[32] He, Kun, Ashok, Pratiksha, and Jens Prüfer (2026). "Voluntary Algorithmic Censorship," mimeo.

Documentation of these biases is a first step. A more fundamental question is how the firms that develop and deploy these platforms acquire the power to resist the democratic oversight that could constrain them. What is the mechanism through which an economic actor accumulates leverage over a sovereign government, and when does that leverage become structural?

2.3 From Economic Power to Political Power[33]

In 2024, Elon Musk's platform X clashed with Brazil's Supreme Court over content moderation of hate speech on X, only complying with Court orders after months-long struggle. Google, Meta, and OpenAI have similarly leveraged their powers over users to resist or influence regulation in Australia and the EU. We study **under what conditions can a firm or a foreign government successfully challenge a sovereign state?** The mechanism identified applies regardless of whether the actor seeks profit (US platforms) or political control (China's Belt and Road Initiative): whenever a government relies on a firm's or foreign government's co-investment in critical infrastructure, e.g., in cloud computing, payments, or data, that firm acquires leverage it can use for profit or for political goals.

We develop **a series of game-theoretic models** of Firm-Government interaction over regulatory compliance. The firm co-invests in infrastructure that the government needs. Then, the government is happy to invest its own budget elsewhere (e.g., on health care) but thereby creates dependence on the firm. The firm can threaten the government to withdraw its co-investment overnight, unless the government accepts a societally harmful action (such as hate speech on social media). Our models vary the degree of dependence, time horizon, and the government's outside option. Our dynamic model shows **democratic erosion** over time: if a government accepts a firm's negative spillovers onto society once, its enforcement credibility declines. Repeated concessions erode the government's bargaining position: the firm's political power grows and the downward spiral accelerates.

The models yield three main results. **First**, **a firm's economic power,** measured by the utility the government derives from its co-investment in public infrastructure, **sets an upper bound on the firm's political power**, defined as the maximum societal

33 Khomyanin, Ivan, and Jens Prüfer (2025). "From Economic Power to Political Power," TILEC Discussion Paper 2025-07; CCP Working Paper 25-07.

damage the firm can impose and the government will accept. **Second**, **the more valuable the future relationship is to the firm, the more willing it is to carry out its threat and stop co-investing in infrastructure temporarily** even if it costs short-term profits, in order to expand its political influence. **Third**, the **conversion from economic to political power occurs in threshold jumps** when enforcement costs exceed accommodation costs. China's Belt and Road Initiative (BRI) illustrates this mechanism with a foreign government instead of a firm: infrastructure lock-in extracts political concessions from states across Asia and Africa.

What to do? We show that **two targeted measures can break the democratic erosion spiral:** (1) **Public media investment** provides credible information to citizens countering the firm's narrative control and strengthening democracy. (2) **Civil society organizations** (CSOs) can monitor platform behavior, impose reputational costs, and neutralize political gains.

Therefore, governments should design credible commitments, such as independent regulators with ring-fenced budgets, and financially support non-partisan CSOs. For the BRI specifically, requiring portability of services, diversifying infrastructure suppliers, and commissioning CSO-led threat assessments all reduce dependency without requiring technological autarky.

The democratic erosion spiral identified in this paper is only one threat for liberal democracies whose citizens are users of dominant platform services. Disciplining a platform that is already dominant in a market, even if we ignore geopolitical power games for a moment, requires a governance institution suited to the specific market failure at stake. The next paper confronts that institutional design problem directly.

2.4 Platform Governance Under Economic and Political Constraints[34]

How should democratic societies govern technology firms whose profit-maximizing algorithms create societal harm via addictive features, the production of echo chambers, or the dissemination of disinformation, while users are trapped by network effects and the fear of missing out (FOMO)? The empirical record from Part I establishes that **social media platforms create massive harm**. At the same time, **concentrating more power in state regulators**, as the EU is doing, **is a double-edged sword** in periods when populist governments can potentially

[34] Prüfer, Jens (2026). "Platform Governance Under Economic and Political Constraints," in progress.

direct regulatory policy. **The question is which governance institution resolves this conundrum.**

I construct a **game-theoretic framework** where a monopolistic platform chooses how "addictive" to make its algorithm, trading off advertisement revenues against user welfare. Users face a coordination problem: even if most would prefer the platform did not exist, no one wants to exit alone: the FOMO trap identified by Burstzyn et al. (2025). I systematically compare performance of five governance institutions within the same model environment: (i) state-owned platforms, (ii) legislative regulation, (iii) independent agencies with multi-stakeholder governance (iv) industry self-regulation, and (v) decentralized user governance (direct democracy).

I show that without intervention, platforms over-invest in addictive features because they internalize advertising revenues but not the social costs borne by users. Low-valuation users (those who would not use the platform absent social pressure) bear the greatest harm, trapped purely by FOMO. Across the five governance institutions, a clear welfare ranking emerges. For platforms at the scale of billions of users, ***multi-stakeholder independent agencies*** with civil-society and technical-expert supermajority **maximize social welfare**: they combine high legitimacy (which reduces monitoring costs), technical expertise (setting the right standards), and scalable enforcement. By contrast, ***industry self-regulation*** **performs worst of all,** even below no regulation at all, because it delivers profit-maximizing outcomes exploiting users while on top wasting resources on window-dressing. I also find that **decentralized user governance** functions well for small communities but is overwhelmed by free-rider problems on a global scale. **Legislators and courts** provide moderate improvement on no regulation but face binding information constraints. **State ownership** of the platform avoids monitoring costs but introduces political bias and organizational inefficiency.

The logic of this welfare ranking (especially the superb performance of multi-stakeholder independent agencies) is driven by the assumption that governance institutions with higher perceived legitimacy, as created by broad stakeholder inclusion, procedural fairness, and transparency, face increasingly lower monitoring costs. Therefore, **legitimacy is not a normative preference here. It is an economic force that determines whether an institution is efficient**.

Notably, **the EU's Digital Services Act comes closest to the paper's optimal design**: it mandates multi-stakeholder governance through the European Board for Digital Services, imposes transparency requirements, and requires systemic risk assessments for Very Large Online Platforms (unfortunately, all under *public ordering*). **This paper provides a theoretical rationale for why this architecture is welfare-superior to the US approach** (Section 230 plus market self-regulation, which fails on coordination) **and the Chinese approach** (state control, which introduces political bias). The practical implication for current EU enforcement is that **the DSA's institutional structure should be defended and deepened, not hollowed out in deference to the platforms it regulates**.

The conclusion that multi-stakeholder independent agencies are welfare-superior holds within a functioning democratic constitutional order. But what happens when the background conditions for that order, including independent courts, free information environments, and sovereign enforcement capacity, are threatened themselves? When AI is deployed not as a commercial platform with private players but as an instrument of national power with state actors, the governance problem changes fundamentally. The next paper provides an analytical framework to better understand that threat.

2.5 AI as a National Security Threat: A Domain-Modality Framework[35]

Artificial intelligence is not a single technology. It encompasses rule-based algorithmic systems, machine-learning models, physically embodied autonomous systems, and large-scale generative models. Each operates through a different technical logic, deploys in different institutional contexts, and generates a different risk profile for national security in other countries. Given the very quick technological progress in AI-development, we need a **framework that categorizes types of AI through the lens of national security** – and then can **signal policy makers where exactly to intervene**. **We ask how risks from AI-development elsewhere to national security in Europe can be classified in a way that is both conceptually coherent and policy-relevant**.

[35] He, Kun, and Jens Prüfer (2026). "AI Risks to Nations: A Domain-Modality Framework for Risk Assessment," in progress.

In this conceptual paper, we conduct a systematic review of 68 peer-reviewed articles and policy documents, extracting and coding 136 individual cases along two dimensions: the **risk domain** (what kind of security consequence is at stake) and the **AI modality** (through what technical mechanism that consequence is produced).

We identify **six risk domains: (i) power imbalance and AI hegemony; (ii) military risk** from autonomous weapons systems; **(iii) cyber and information risk** from AI-enabled offensive operations and disinformation at scale; **(iv) political risk** from algorithmic manipulation of democratic processes; **(v) economic dependency** from supply-chain leverage; and **(vi) ethical risk** from the erosion of accountability across all other domains. These are mapped onto **four AI modalities: (i) algorithmic AI; (ii) machine-learning AI; (iii) embodied AI,** and **(iv) generative AI**. This methodology hence produces 24 qualitatively distinct risk profiles, each requiring its own governance response.

The paper further distinguishes **four threat-transmission channels through which AI development in country A translates into threats for country B**: **(i) A's technological capability**, stemming from the 6x4 Domain-Modality framework; **(ii) A's domestic institutional guardrails** (or absence thereof); **(iii) B's own defensive technological capacity**; and **(iv) B's institutional infrastructure** (the political, legal, and social rules that reduce exposure to A's capabilities). This framework allows precise assessment of which country-pair combinations are most dangerous, rather than treating "AI risk" as uniform.

Within the ongoing AI4POL Horizon Europe project in a work package on "AI in Autocratic Countries", together with colleagues from Centerdata we **operationalize the theoretical framework as a real-time *dashboard* for European policy makers:** it will be fed with data on six domains and four modalities of AI development in China and Russia, automatically flagging materializing threats for Europe and suggesting targeted defensive responses.

Across the five papers just presented, one pattern is hard to miss: it is often a European institutional model that emerges as the closest real-world approximation to the theoretically optimal solution. This is not a coincidence, and it is not primarily a matter of institutional engineering. It raises a deeper question: ***despite their underwhelming reputation among European citizens, why do European institutions so often***

get it right?*[36] *What makes them structurally disposed to produce governance that approximates social welfare rather than the interests of the most powerful actors? The answer does not lie in institutional design alone. I argue that it lies in the* ***values on which those institutions rest *and in* ***understanding what we are ultimately defending****.*

2.6 From Values to Political Institutions[37]

Amid the external shocks and internal populist threats mentioned above, what defines Europe's institutional "core" worth defending**? How do "European values," the general focus on secular-rational authority, self-expression, and universalism, shape supranational institutions to generate political legitimacy, and how are the values shaped by those institutions?**[38] Can institutional design protect this value-institution relationship against erosion, especially in the context of the European Union?

This is a conceptual paper synthesizing political theory (Rawls, Habermas, Kant), with institutional economics in the tradition of Acemoglu and Robinson's *inclusive versus extractive institutions*, Greif and Rubin's account of *political legitimacy*, and Greif and Tabellini's distinction between *clan-based and corporation-based social organization*. This theoretical framework is anchored empirically in data from the *World Values Survey* and *European Values Study* (2017-22 wave). The paper traces Europe's philosophical roots from the Enlightenment with Kant's cosmopolitan federalism and Locke's and Montesquieu's separation of powers, to the EU's Lisbon Treaty, Article 2, which codifies the **Union's foundational values: dignity, freedom, democracy, equality, the rule of law, and human rights**. It integrates conceptions of *output legitimacy* (created by a state's performance), *input legitimacy* (created by the right procedures and values), and *endogenous legitimacy* (created by independent legitimating agents).

We combine three key empirical and theoretical findings. **First**, building on Inglehart and Welzel (2005), we confirm that **Europe** (in particular Western and Northern Europe) **scores highest globally on the combined dimension of secular-**

[36] Already in 2014, the Slovenian music group Laibach prophetically sang in their song *Eurovision*: "In the absence of war we are questioning peace."

[37] Prüfer, Jens, Engelen, Bart, Prüfer, Patricia, and Tim Reeskens (2026). "From Values to Political Institutions," in progress.

[38] Inglehart, R. and Welzel, C. (2005). *Modernization, Cultural Change, and Democracy: The Human Development Sequence*. Cambridge University Press, Cambridge.

rational and self-expression values, exceeding the United States, China, and Russia. This orientation drives what the paper, following Greif and Tabellini, calls the “corporation model” of universalistic cooperation, in contrast to China's “clan-based” particularism. **Second**, **the relationship between values and institutions is bidirectional**: **European values shape inclusive institutions** (the EU's federal architecture embodies Kantian cosmopolitanism), **but institutions also reinforce values** (the Erasmus program builds pan-European solidarity). **Third, the EU's legitimacy rests critically on independent legitimating agents**, such as the European Court of Justice or the European Parliament, which validate supranational authority without government instruction. **Recent threats erode this virtuous cycle:** populism rejects pluralism, which generates distrust in the system, which weakens the democratic norms and values that the system rests on, which deepens the populist constituency. The spiral is self-reinforcing in both directions.

This has several practical policy implications. Most importantly, the **EU’s policies necessarily have to reflect the values of EU citizens** (e.g., in trade/human rights negotiations). **These values are not just “soft power”,** they are the **EU's strategic core,** the source of its institutional legitimacy and the precondition for the effectiveness of every other governance instrument described in this lecture. **The EU's strength lies in the congruence of its values and institutions**: secular-rational and universalistic values sustain supranational legitimacy. Political institutions protect those values from populist erosion. **Because the reinforcement is bidirectional, active defense is not optional -** it is the condition for the cycle to continue turning in the right direction.

The six papers in Part II share a common logic: in each domain the problems are tractable and feasible institutional remedies exist. We do have theoretical and empirical tools to identify them. What they require is not further data, but the willingness to translate research findings into policy action. That translation is not automatic. It depends on a class of actors rarely discussed in policy debates about technology or democracy: ***academic researchers****. Part III asks* ***what academics owe to the societies that fund them, and why the choice to remain inside the ivory tower is not, at this particular historical moment, a neutral act****.*

Part III:
The Role and Duty of Academics

3.1 The Value Chain from Idea to Societal Impact

Every effective governance institution, every law, every independent agency, every international treaty, was once an idea. Often, such ideas are the outcome of academic research. **Between a scholarly finding and a policy outcome lies a value chain** with at least five steps: **(i)** the **original research** that identifies a problem and proposes a solution; **(ii)** the **verification and testing** of the idea, potentially aided by Civil-Society Organizations, and the translation into formats accessible to policy makers; **(iii)** the **deliberation** among regulators and legislators who adapt it to political constraints; **(iv) implementation**; and **(v)** the **feedback loop** through which institutional performance generates new research questions. The quality of the outcome depends, in part, on the quality of the first step. **A poorly identified problem or a finding that has not been subjected to serious scrutiny from many sides will propagate its weaknesses throughout the chain**.

This value chain is under pressure from several directions simultaneously. In the United States, the second Trump administration dismissed thousands of researchers from agencies including the U.S. National Institutes of Health (NIH) and the Environmental Protection Agency (EPA), cancelled more than 7,800 research grants, and explicitly required that replacement advisory board members align with the administration's political priorities.[39] In Europe, right-wing populist parties systematically frame academic expertise as the opinion of a disconnected elite, delegitimizing it on anti-elitist rather than empirical grounds.[40] At the same time, institutional incentives in many universities reward incremental contributions over the problem-driven, interdisciplinary research that the challenges documented in this lecture require.[41]

The most consequential pressure is a subtler one. On the details of research - the design of a specific regulatory instrument, the welfare effects of a particular platform architecture, or the optimal allocation of enforcement responsibilities - impartiality is absolute and is the principal source of academic credibility. But **whether democratic institutions are worth defending, whether evidence is a**

39 https://www.nature.com/articles/d41586-025-02221-6 , https://www.nature.com/articles/d41586-025-04051-y

40 Segers, Iris B. (2025). "'The Anti-Woke Academy': Dutch Far-Right Politics of Knowledge About Gender," Politics & Gender, 21(2): 195-219. doi:10.1017/S1743923X24000448.

41 Notably, the new Human Resource rules at the Tilburg School of Economics and Management (2023) are revolutionary, for the good, in this regard. See "TiSEM academic careers: Guiding principles & procedures for assessment, tenure, and promotion," November 2023, TiU Intranet.

legitimate basis for collective decision-making, whether fundamental rights are enforceable rather than merely aspirational: these are not open empirical questions. They are the preconditions for academic work to exist and for its findings to have any practical value. **An academic who treats the survival of liberal democracy as one option among several has not achieved impartiality. They have misidentified the level at which commitment is required**.

The practical implication of this conviction is that **researchers with policy-relevant findings carry an obligation** that does not exhaust itself in publication. According to my personal experience, **policy makers often do listen to academic expertise**, provided it is communicated clearly, its limitations are honestly stated, and it is delivered through channels they can access: policy briefs, expert hearings, advisory group memberships, media engagements, and sustained relationships with officials and regulators.

Admittedly, obstacles to bringing our insights to decision makers in politics, business, and society do exist: the mismatched time horizons between academic publication cycles and regulatory decision schedules, the institutional under-rewarding of policy engagement, and the discomfort many researchers feel about operating in environments where precision and qualifications of statements must be traded for clarity and speed. But these obstacles are rather organizational than principled. **The question is whether,** given the situation documented in the first two parts of this lecture, **we are prepared to step outside our institutional comfort zone and make ourselves heard**.

3.2 Interdisciplinary Research Institutes as Institutional Role Models

The problems addressed in this lecture cannot be adequately analyzed using the methods of any single field. **Economists** modelling platform incentive structures **need lawyers** to identify what compliance mechanisms are legally feasible. **Lawyers** analyzing regulatory obligations **need economists** to assess whether those obligations will achieve their stated aims. **Both need political scientists and computer scientists**. Organizational structures that bring these competences together under a common research agenda, with shared methodological standards and a genuine commitment to policy impact, are not a luxury but a precondition for effective scholarly engagement with today's policy problems at large.

Several such institutes operate in the Netherlands and serve as instructive reference points. As but one example, the **Tilburg Law and Economics Center (TILEC),** which my chair relates to closely, brings together more than forty legal scholars and economists working on the governance of economic activity in the digital age. Being active since 2003, its research has shaped decisions before the EU and U.S. Supreme Courts, contributed substantively to the design of the Digital Markets Act, the Digital Services Act, the AI Act, and the GDPR, and provided analytical frameworks to competition authorities across multiple jurisdictions. Based on SSRN download statistics, TILEC ranks among the top twenty economics departments *and* the top twenty non-US law schools globally. Whatever the ranking says in detail, it suggests that the academic impact of our work is very large. TILEC is leading in law & economics research in Europe.

What explains these outcomes is not only the quality of individual researchers but the **structural commitment to integrating legal and economic analysis** from the inception of a research question, combined with sustained institutional relationships with regulatory bodies and policy agencies. The **weekly seminars**, in which economists and lawyers jointly interrogate each other's work, is a mechanism for producing insights that neither discipline generates alone and for creating a network of personal relationships that allows its members low-threshold and quick access to feedback from the other discipline.

Another vehicle are **interdisciplinary academic conferences at the research frontier** that deliberately include policy makers as discussants and contributors. For instance, on 11–12 June 2026, just before this lecture, the **TILEC Workshop on Best Practices in Policy Advising** brought together twenty senior European academics, all with extensive policy advising experience, alongside policy makers who regularly collaborate with academic researchers. This model **- frontier research and policy input exchanged in the same room -** is a practical answer to the time-horizon mismatch that otherwise separates academic and policy cycles.

Other interdisciplinary institutes like **Netspar** or **TILT** follow related organizational patterns and are influential in their substantive domains. Tilburg University has institutionalized this approach more broadly through its **Academic Collaborative Centers**, in which researchers from multiple faculties co-create knowledge with governmental bodies, firms, and civil society organizations.

What is needed, in each case, is at least one senior and genuinely committed researcher from each involved discipline, combined with baseline funding and an institutional culture that rewards societal impact alongside academic publication.

3.3 A Call to Action

The threats to European democracy documented in this lecture are verifiable, ongoing, and accelerating. The governance institutions that could address them will not come into existence through academic publishing alone. They require continuous, credible, and evidence-based engagement with decision-makers, which only academic researchers can provide, because only such researchers combine analytical independence, methodological rigor - and they do have enough time to think a problem through thoroughly before giving advice.

Hence, I call upon you. Those whose research already has direct policy implications should communicate them: through policy briefs, opinion pieces, expert hearings, and advisory structures at the European Commission, national ministries, and regulatory authorities. **Those in single disciplines should seek genuine cross-boundary collaboration**, not the superficial multidisciplinarity that produces edited volumes without shared analytical frameworks.

Maintaining the **integrity** of that engagement **is itself a contribution**. In an environment where disinformation is a deliberate instrument of political strategy, the credibility of independent academic expertise is a public good that requires active defense. That means **transparency** about methods, **honesty** about uncertainty, **consistency** in applying evidentiary standards regardless of the political valence of a finding, and the **refusal** to allow institutional affiliation or funding sources to compromise analytical conclusions. **At TILEC, we are proud NOT to be sponsored by big tech firms** these days.

In conclusion, we are, as the title of this lecture suggests, living in interesting times. The phrase captures something real: the compression of historically significant change into a period short enough that the choices made now by democratic societies, and by the researchers who advise them, will determine institutional outcomes that will persist for long. The ideas that will govern AI responsibly, that will constrain the unaccountable exercise of platform power, that will sustain the normative foundations of European democracy: those ideas are being developed in places like this university, in institutes like those described above. The task is to develop them rigorously, communicate them clearly, and ensure they reach the people who need them most.

Acknowledgements

I would like to thank my colleagues at TILEC, the Department of Economics, and TiSEM, as well as Prof. Wim van de Donk and Prof. Antoinette de Bont, Rector and Vice-Rector Magnificus of Tilburg University, respectively.

This is one of Europe's best research universities in economics (and several other fields), and we have seen recently why this is: with the introduction of a new, bold Human Resources Policy in 2024 at TiSEM, which respects not only academic publications but also Teaching, Societal Impact, and Leadership as fundamental academic tasks - and dares to formulate quantitative exchange rates between an academic's performance across these four pillars - TiSEM has put itself in the avantgarde of economics and business schools. Dean Prof. Marike Knoef bears large responsibility for this innovation. The wider this policy is known, the more entrepreneurial and innovative academics will be interested in working in Tilburg, which will positively influence both the quality and atmosphere of being here and the reputation of the university.

On a more general level, I would like to thank the country and the population of the Netherlands for receiving us as a family so well over the last 20 years. When I worked fulltime in the UK in 2022/23, I could see the stark contrast between a country whose public institutions are much more dysfunctional - especially in healthcare, education, transportation and public infrastructures - and whose high level of inequality deteriorates social cohesion, whereas the Netherlands are one of the best-organized countries in Europe, where institutions largely function in the interest of the citizens and where it is consequently a pleasure to live and raise a family.

On a more personal level, I owe to my long-term co-authors, in particular to Cédric Argenton, Johannes Binswanger, Lapo Filistrucchi, Inge Graef, Gillian Hadfield, Tobi Klein, Wieland Müller, Patricia Prüfer, and Christoph Schottmüller, as well as to Eric Brousseau and Sean Ennis, from whom I have learned so much about academic organizations and policy. I also owe to the TILEC Steering Group, most of all Konrad Borowicz and Melika Liporace, who put in their time and energy for free to run and develop the institute. Moreover, I want to thank those people who have helped me at critical junctures of my career. On my long path of failures and rejections, Eric van Damme, Jan Boone, Arjen van Witteloostuijn, Kees Koedijk, Scott Masten, Bob Gibbons - and probably some more who anonymously served in committees deciding my fate - have all been instrumental in giving me

opportunities and second opportunities and supporting me when I was most vulnerable. Thank you! I hope to be able to give the same favor to junior people who deserve it.

Finally, I would like to thank my family, Patricia most of all. We met each other 28 years ago as young students in Tübingen and have gone a long way together, which has led us, professionally, to several co-authored papers and successful grant proposals. Personally, it has brought us a unique family, and we are very proud of Laurin, Berenike and Jarlo, who all walk their individual paths and do not copy what we do. Thank you very much for experiencing this together!

I have spoken. *Ik heb gezegd.*

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