PERSPECTIVE

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BUILDING A HEALTH DATA SOCIETY. EVERYWHERE.

This publication captures key insights from the Executive Dialogue on "Building a Health Data Society. Everywhere." held in Berlin as part of the Data2Value Initiative. The Dialogue brought together health system leaders and innovators to explore how data can be better utilized to improve patient care, support evidence-based management, and accelerate medical research. We thank all participants for their valuable contributions.

A special thanks goes to **our Partners** for contributing their expertise and supporting the Data2Value Initiative:

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DATA2VALUE INITIATIVE

THE FUTURE OF MEDICINE WILL NOT BE BUILT IN ISOLATION

If academic medicine is to remain globally competitive, we need a shift in mindset. Advancing data-driven healthcare means making data usable, AI trustworthy, and collaboration the rule rather than the exception. This depends on three conditions:

First, universities and hospitals must move beyond pilots and bring digital solutions into everyday care. Innovation matters only when it reaches patients.

Second, we need clean, interoperable, internationally compatible data infrastructures. AI creates value when data flows reliably across institutions. Fragmentation slows entire systems.

Third, we must rethink structures. Modern medicine requires stable processes, transparent communication, and teamwork across disciplines. AI will deliver only when clinicians, data scientists, and administrators work together – and when public trust is earned.

University Medicine Essen is comparatively strong in digitalization: clinical, imaging, and molecular data are already integrated, giving us a clear head start. But a digital lead only matters when it reaches everyday care – in our ambulances, on our wards, in our operating rooms, and in our administrative workflows. Lighthouse projects do not transform a healthcare system; daily routines do.

That is why we are focused on bringing digital solutions into real clinical practice and on strengthening our network of cooperation. No institution can move forward alone – not in oncology, not in AI, not in translation. The potential is enormous, but it will be realized only if we act consistently, collaboratively, and with a clear focus on patient care.

Prof. Angelika Eggert
is Chair of the Executive Board and Medical Director, University Medicine Essen.

PROGRESS IS A TEAM SPORT

At the Data2Value Executive Dialogue – *Building the Health Data Society. Everywhere.* – we welcomed 80 leaders from Germany, Switzerland, Denmark, Spain, Israel, Ghana, Morocco and the Netherlands who came together around a shared conviction: the future of healthcare depends on how well we use the knowledge already living in our data.

With its "everyone's a speaker" format, our Dialogue turned each session into a collective conversation, drawing insight from everyone in the room. What emerged was a clear picture: while countries differ in structure, scale, and resources, the questions they face are remarkably similar – and the solutions increasingly universal.

From these shared discussions, several lessons crystallized:

- Culture shift is the real engine of transformation.
- Clear governance and aligned incentives are enablers of innovation.
- Interoperability is a leadership challenge, not a technical one.
- Hospitals must evolve from service providers to innovation partners.
- International collaboration accelerates what no system can achieve alone.
- Engaging hospital staff ensures they benefit from data, unlock its value, and improve data quality.
- Digital readiness depends on people, skills, and trust.

The Data2Value Initiative exists to connect these efforts.
As Europe's first not-for-profit leadership network dedicated to accelerating health data value creation, we focus on three goals: enhancing digital maturity, expanding data literacy, and driving cultural change to democratize health data access and use across institutions.
Thank you for joining us.

Prof. Irit Nachtigall (Director, Institute for Hygiene and Environmental Medicine, Vivantes; MSB Medical School) and **Lea Ledwon** (Senior Manager Initiatives, Lemonmint)

VALUE DRIVES PROGRESS

Accelerating progress also requires overcoming structural barriers. **Jeffrey Lazarus** noted that institutions that choose openness are driving disproportionate gains in innovation and outcomes. Yet in countries with decentralized governance – such as Spain with its 17 regional health systems – fragmentation complicates collaboration. To move faster, Lazarus argued, a strong national vision is needed: shared goals, aligned policies, and clear direction for data use. Without this, efforts risk remaining fragmented and underfunded, especially when accessing anonymized data for research.

Prof. Jeffrey V Lazarus
Associate Professor at University of Barcelona, Head of ISGlobal

Each health system lives in its own bubble, built by its context and constraints. Berlin's bubble is defined by partnership, openness, and real-world care integration; a hub where data innovation can truly thrive.

Antonia Jung
Berlin Partner

Physicians and frontline staff often lack the training needed to meaningfully engage with innovation. Targeted education and capacity-building must be part of any innovation agenda.

Dr. Felicitas Muth
VDI/VDE-IT

Trust can become an excuse for inaction. What matters is how we build and advance trust through deliberate and inclusive processes. Power and governance are equally important.

Dr. Lars Münter
Nordic Wellbeing Academy

A DATA-DRIVEN POWERHOUSE?

Can Europe's hospitals evolve fast enough to keep pace with a world where health data grows exponentially but usable insight remains scarce? In the opening session, **Anke Diehl** welcomed leaders from Denmark, Germany and Spain, outlining what it will take to turn hospitals into true engines of data-driven innovation.

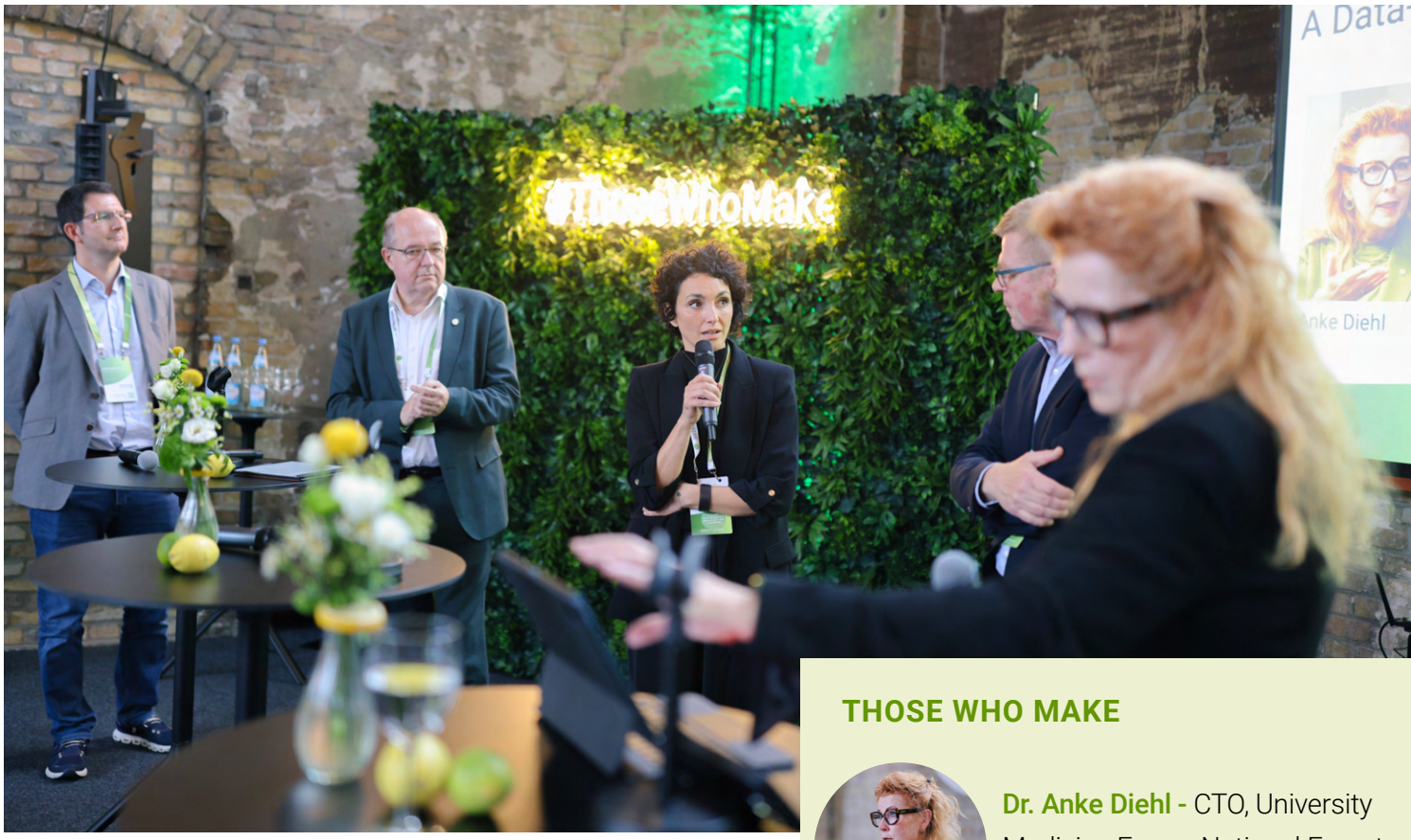
Denmark's experience shows what structural reform makes possible – and where the limits still lie. As **Erik Jylling** emphasized, consolidating hospitals, EHR systems, and workforce management has created the foundation for a more holistic model of care. Yet despite a strong national ID system and a long tradition of data collection, much of the country's information remains siloed. Citizens are willing to share their data, he noted, but future systems must meet their rising expectations.

People want to share experiences and benefit from them, not just "donate data".

From Berlin, **Peter Gocke** warned that hospitals cannot innovate at scale until they resolve three structural gaps: fragmented data, low adoption of AI, and the unclear role of hospitals as data stewards. Federated data models, continuous AI validation, and a European liability framework are essential, he argued. Because AI will develop at the speed of trust.

Mariam Khalil Fernández, who joined from Madrid, shifted the focus to evidence. The bottleneck, she explained, is not data scarcity but the 20-year delay between the generation of new evidence and its clinical use. Real-world interaction with information systems – 120 updates per minute in her environment – offers powerful insights into clinical decision-making, but only if clinicians can access validated knowledge at the point of care. Spain's national partnership with UpToDate, with more than five million annual accesses, illustrates how quickly usage patterns reveal local needs.

Finally, **Jorge Juan Fernández García** pointed to governance and data quality as make-or-break factors. Hospitals often assume their data is reliable, he said, yet thousands of unnecessary data points can accumulate simply because recording systems were not turned off. His hospital created a dedicated governance unit



embedded where work happens, not at the top of the hierarchy – because incentives, not authority, determine whether digital transformation succeeds.

Drawing on her work at University Medicine Essen as well as the German Interoperability Council, moderator **Anke Diehl** stressed that even Europe's largest hospitals lack the volume and quality of data needed to train robust AI systems. The EHDS can help address this by standardizing access and enabling interoperable, regulated data flows across borders.

THINK. ACT. HEALTH.

Hospitals will only become data-driven powerhouses when evidence flows freely across systems, data quality and governance become everyday practice, and clinicians can turn insight into impact – supported by interoperable infrastructure, shared standards, and a truly European approach to data.

THOSE WHO MAKE

Dr. Anke Diehl - CTO, University Medicine Essen; National Expert Panel, Interop Council

Dr. Erik Jylling - Executive Medical Officer, The Capital Region Denmark

Jorge Juan Fernández García - CIO, Hospital Clínic de Barcelona

Mariam Khalil Fernández - Assoc. Dir. Clinical Effectiveness, Wolters Kluwer Health

Dr. Peter Gocke - CDO, Charité – University Medicine Berlin; Member of EUHA

REBUILDING HEALTHCARE FOR A NEW ERA

Denmark is redesigning its healthcare system for a future defined by rising demand, workforce pressure, and the need for integrated, real-time insight. As **Erik Jylling** outlined, the reforms underway are building the foundations of a system that is digital, coherent, and deeply interconnected across sectors.

Consolidation as a Catalyst
The country reorganized into five healthcare regions, reduced the number of hospitals, and consolidated digital systems to only two national EHRs. Workforce management is coordinated nationally. These structural decisions created the conditions for aligned planning and a shared digital backbone – essential for any data-driven transformation.

A holistic vision of health requires data not only from hospitals, but also from social services, the private sector and others.

Beyond Hospitals: A Holistic Health Model
Denmark is shifting from a hospital-centric approach to a broader understanding of health that integrates somatic, mental, and social wellbeing. Hospitals increasingly function as "residual structures", serving patients whose needs cannot be met elsewhere. Linking data across healthcare, social services, municipalities, and the private sector is becoming central to this new model.

A New Generation, New Expectations
Citizens are generally willing to share data, but younger generations expect tangible value in return. Even routine acts – like blood donation – now carry personal meaning. Systems must therefore be transparent, participatory, and designed to offer visible benefits.

Yet, new generations want to share their story, not just their data, and they expect something meaningful in return.

EHDS as an Accelerator
The European Health Data Space offers Denmark an opportunity to strengthen interoperability, standardize access, and expand usable datasets. Denmark's new strategy embeds research, treatment, co-value creation, and healthcare innovation as core pillars. The aim is to accelerate system-wide progress in the months ahead.

Why Change Is Urgent
Despite its strong reputation, Denmark faces the same pressures as other European systems: staff shortages, rising demand, and too few physicians. These pressures make structural reform unavoidable. The future lies not in more hospitals, but in a distributed, data-enabled ecosystem built around people's lives.

THINK. ACT. HEALTH.

Denmark's experience shows that even in one of the world's most advanced digital health systems, the path to integrated, people-centered care requires constant adaptation, coordination, and renewal.

Dr. Erik Jylling is Executive Medical Officer of the Capital Region, Denmark

CAN HOSPITALS JOIN THE INNOVATION RACE?

Hospitals across Europe want to innovate – but wanting is not enough. In this session, **Florentine Kanieß** and her guests examined what it takes to move from isolated digital projects to transformation that improves care and accelerates learning.

Opening the discussion, Kanieß highlighted the complexity of university hospitals, where innovation must scale across thousands of staff and entrenched workflows. On top, public funding limits, fragmented incentives, and pilot-heavy approaches still slow progress. Innovation is not a goal; it is a tool for sustainable care; cultural and structural alignment will determine whether change becomes real.

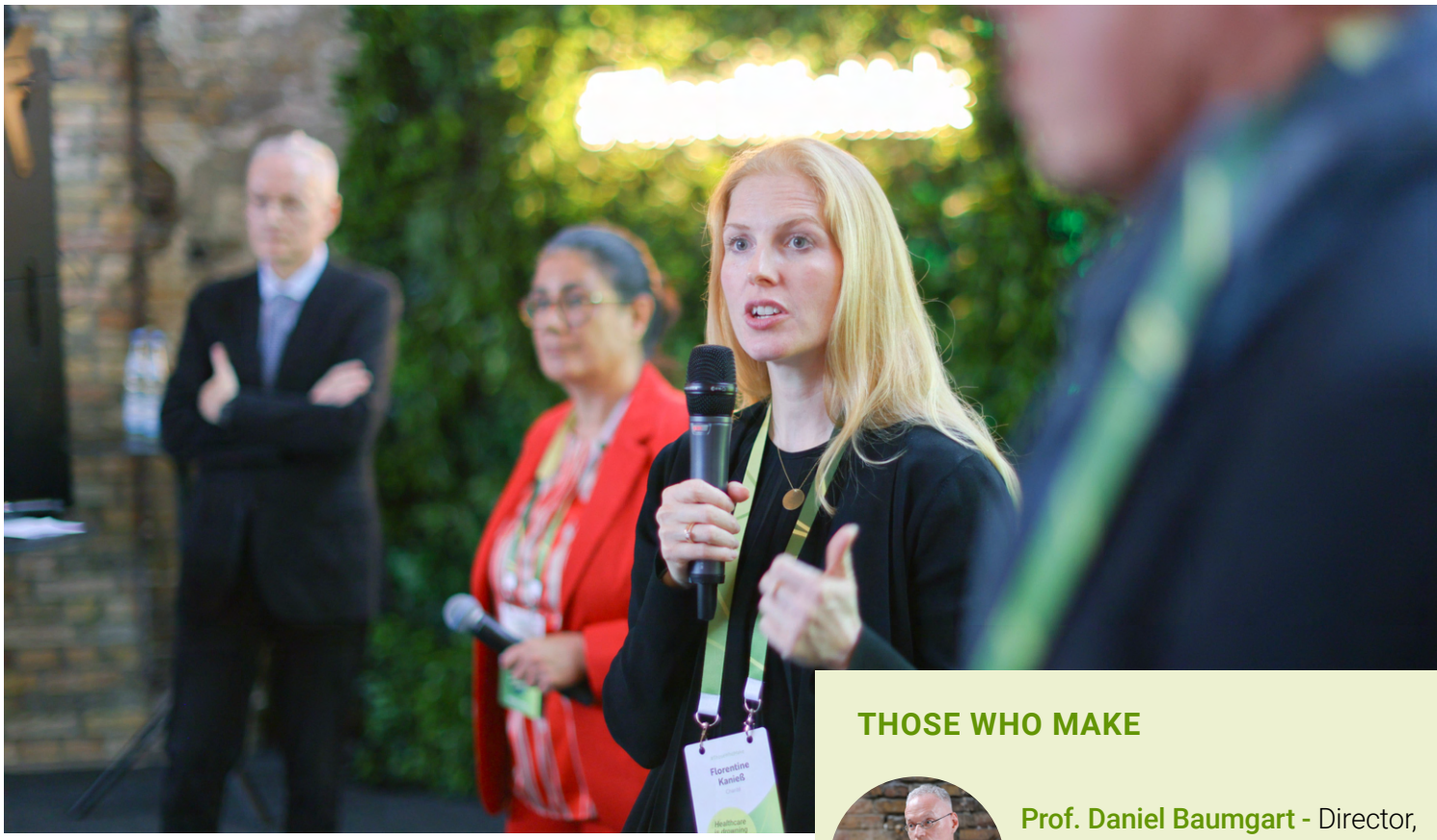
Representing gematik – Germany's National Digital Health Agency, **Laila Wahle** described how reform is shifting strategy toward patient-oriented ecosystems that connect inpatient and outpatient care. Fragmentation remains high: many initiatives exist, but few are mapped or coordinated. Teleconsultations rise where shortages force change, yet uptake elsewhere remains inconsistent. Sustainable funding and coordinated architectures, she argued, are essential.

Offering an international lens, **Daniel Baumgart** reflected on lessons from Canada, where coordinated investment in infrastructure, legislation, public trust, and training enabled universal EHR access and learning health systems across vast and sparsely populated regions. He emphasized that repetitive tasks should not consume skilled professionals when technology can perform them more efficiently.

Is this really a legal issue, or is it a broader societal discourse we need to have?

Preserving publicly funded care will require reallocating workforce capacity and strengthening digital health literacy. Baumgart also underscored the need for citizen participation: in Canada, policy moved only when consensus was clear. Digitalization exposes structural weaknesses – visibility that should be used as a catalyst for reform, he said.

THE HOSPITAL OF TOMORROW



Adding the industry perspective, **Michael Sahnau** illustrated how existing health data, enhanced with AI, can materially improve clinical decision-making. The goal, he emphasized, is not automation but augmentation: AI should act as a co-pilot, providing recommendations and evidence while keeping physicians firmly in charge of clinical decisions. Proof points already show that combining available data with AI can support clinicians in delivering better patient outcomes – without replacing their judgment.

THINK. ACT. HEALTH.

Hospitals will join the innovation race only when culture aligns with strategy, funding supports ambition, and technology empowers clinicians. Real progress comes from ecosystems that connect care and scale what works – not from pilots that never reach patients.

THOSE WHO MAKE

Prof. Daniel Baumgart - Director, NSERC CREATE From Data to Decision, University of Alberta, Canada

Dr. Florentine Kanieß - Strategic Advisor to the CEO, Charité – University Medicine Berlin

Laila Wahle - Sen. Mgr. Clinical Processes and Interoperability, gematik – National Digital Health Agency

Michael Sahnau - Director Health & Life Science, Microsoft Germany

LET´S GAIN SPEED

Dr. Christoph Polkowski
Deputy Chief Medical Information Officer

Frankfurt University Hospital

Knowledge can only be created when health data is systematically gathered and made usable, said **Christoph Polkowski**. With workforce pressures rising, Frankfurt is expanding its digital healthcare center to involve more professionals in digital projects. Polkowski called for clearer regulation on de-identified data and stressed that the EHDS creates a legal basis for secondary use through an opt-out model. Because uncertainty remains around GDPR, he argued that the discussion must now shift to technical implementation – especially how hospitals will track opt-out status reliably.

Prof. Angelika Eggert
CEO

University Medicine Essen

Germany's slow digital progress stems from years of underinvestment, noted **Angelika Eggert**. With SAP exiting the healthcare sector, around 60% of hospitals must now replace their IT systems – exposing how fragmented the landscape has become. Instead of coordinated national solutions, individual hospitals pursued their own paths, creating inefficiency and slowing progress. Eggert argued that this lack of alignment is a key reason why Germany is falling behind in modern health data infrastructure.

Prof. Holger Holthusen
Medical Director

Knappschaft Clinics

Joining the innovation race begins with examining everyday practice. A benchmarking analysis revealed that some ICUs in **Holger Holthusen**'s hospital group performed up to three times more lab tests than the benchmark – often out of convenience or fear of missing something. By removing overused test profiles and creating a central laboratory and data repository, the group now orders tests based on patient condition rather than habit. With all 23 hospitals using the same laboratory information system, Holthusen is preparing for AI-supported decision tools to reduce unnecessary testing even further.

VALUE BEGINS AT THE FRONTLINE

How can healthcare systems turn the data they already have into real, measurable value. **Ziv Ofek** noted that the real challenge is not the volume of data, but the ability to use it meaningfully.

"Data is like stars in the sky. There's no shortage of them – but what we see is from millions of years ago. The question is: how do we use data to see what is truly relevant right now?"

For Ofek, creating value starts with asking whether institutions have the freedom and capability to pose their own questions and complete the full cycle from idea to impact. That capacity, he said, is what shapes the mindset, skillset, and toolset needed for effective data use.

He described the transformation at Sheba Medical Center, where becoming a value-based hospital meant shifting focus to the frontline. Success came not from technology alone but from clinicians, nurses, and support staff driving their own data-driven initiatives. Today, a team of just five people manages 150 active projects – all initiated by frontline teams.

If he were leading a hospital today, Ofek said he would focus less on technology itself and more on change management: start with the most relevant use case for the team and expand from there.

Without a learning ecosystem, digitalization cannot achieve its promise.

The data for that already exists; the challenge is governance, transparency, and turning that data into improved clinical outcomes.

Ziv Ofek is the President and Founder of MDClone

LEADERSHIP DRIVES PROGRESS

Armin Scheuer
Lemonmint

Although healthcare generates roughly a third of all global data, only about 5% is currently used for clinical research. Unlocking this value requires a toolset to access data, a skillset to use it, and a mindset capable of driving cultural change.

The Data2Value Initiative focuses on developing leadership for data-driven systems, strengthening data literacy among professionals, and advancing digital maturity so hospitals can operate as truly data-enabled institutions. Using data effectively can create impact far beyond individual clinical decisions – it can help strengthen healthcare as a foundation of our society.

Building bridges between academia and industry strengthens the entire ecosystem. Connections created across sectors enable collaboration that drives shared progress.

Dr. Christina Golfieri
Personalized Health Basel

Delivering the right treatment to the right patient at the right time is only possible when data is connected and truly usable across the system.

Prof. Malek Bajbouj
Charité – University Medicine

We must ensure that innovators who want to bring AI to the market actually have the regulatory and institutional support to do so.

Nick Schneider
Federal Ministry of Health Germany

WHATEVER YOU DO: RULES ARE YOUR FRIENDS

Across Europe, regulation is often portrayed as the reason progress is slow. But: laws are not the obstacle – misunderstanding them is. Joined by experts from Germany, the Netherlands, **Petra Wilson** outlined how regulation, when properly used, can accelerate innovation, strengthen trust, and unlock the full value of health data.

We need to stop treating regulation as an excuse to say no, Wilson said. Existing frameworks already offer more flexibility than many institutions assume; the real issue is that laws are rarely interpreted with innovation in mind.

Louisa Specht-Riemenschneider explained why the panel's title sounded ironic to many. Regulations are often viewed as burdensome, but their purpose is to provide clarity – not confusion. The EHDS follows this logic by shifting from consent-based to rights-based control, giving citizens new authority over their data while enabling safe, lawful secondary use.

We don't protect data for its own sake. We protect people.

Data protection has deep roots in medical ethics, and modern regulation continues this lineage by ensuring reliability, safety, and trust.

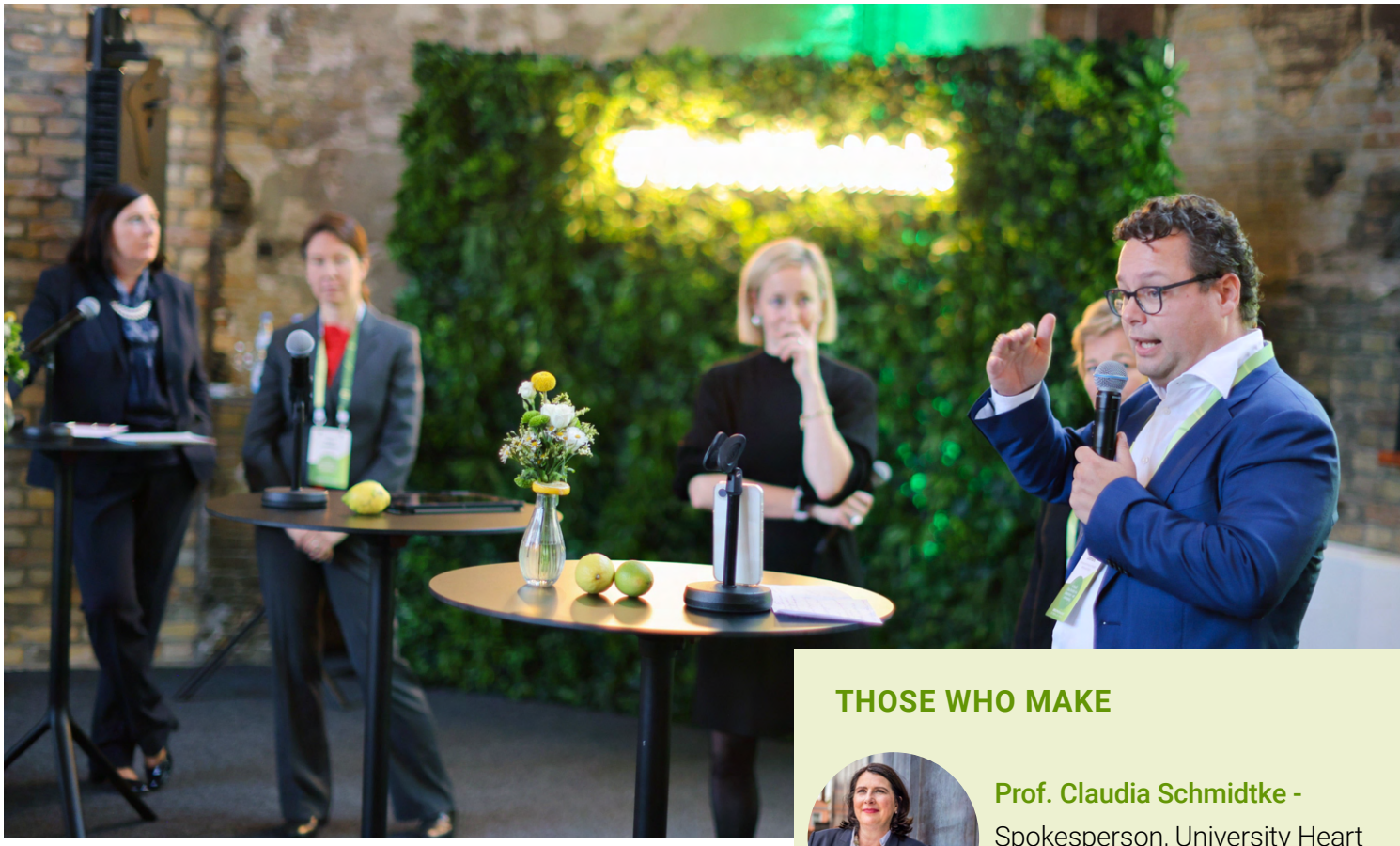
We will determine how society and technology evolve.

Bringing the Dutch perspective, **Herko Coomans** argued that legislation is ultimately an expression of shared societal values. In healthcare, standards convert those values into operational rules that shape how systems are built. Frameworks such as the EHDS, the Data Governance Act, and the Digital Markets Act embed democratic principles into Europe's digital infrastructure – ensuring technology develops in line with public values, not the other way around.

Regulation reflects our values.

Claudia Schmidtke reminded the audience that clear legal frameworks are what make clinical innovation possible. GDPR and the EHDS do not restrict progress – they define what is safe and allowed. Most patients are willing to share their data when the purpose is understood.

RULES, LAWS, AND REGULATIONS



Finally **Mina Luetkens** shifted the conversation toward participation. Citizens often do not feel empowered by data protection laws, she noted, even though these laws are built on self-determination. Instead of framing health data through the lens of ownership – which suggests permanence and commercial control – she urged a shift toward rights, responsibilities, and democratic involvement. In a health data ecosystem, data flows like water; rules act as orchestration mechanisms that make those flows responsible, transparent, and fair.

THINK. ACT. HEALTH.

Regulation is not a barrier but the foundation of trust, safety, and scalable innovation. When hospitals use existing rules with confidence and embed legal clarity into everyday practice, Europe can unlock the full value of health data.

THOSE WHO MAKE

Prof. Claudia Schmidtke - Spokesperson, University Heart Center Lübeck

Herko Coomans - Digital Health Policy Coordinator, Ministry of Health, Welfare & Sport, NL

Prof. Louisa Specht - Riemenschneider - German Commissioner for Data Protection and Freedom of Information

Mina Luetkens - Founder, Patients4Digital

Dr. Petra Wilson - Managing Director, Health Connect Partners, UK

GOOD REGULATION IS A TOOL FOR TRUST

Europe is building some of the world's strongest health data frameworks. But too often, we view regulation as something that limits what we can do, rather than something that enables responsible progress. That tension was at the heart of **Louisa Specht-Riemenschneider's** contribution – a reminder that laws in healthcare exist to protect people – and make data usability safer, not harder.

Many may have read the panel title –*"Rules, Laws, and Regulations are Your Friends"*– and assumed it was meant ironically. Regulations are often perceived as barriers: difficult to understand, costly to implement, and restrictive in practice. But her intention, Specht-Riemenschneider said, is the opposite. She aims to provide clarity and make the law easier to navigate, reducing the uncertainty around what can and cannot be done with data.

We should spend less time assuming the law limits us, she argued, and more time understanding what it enables.

For her, laws function much like trusted partners. They raise uncomfortable but necessary questions because they are designed to protect people. This is especially true in healthcare, where trust, safety, and ethical use of sensitive information are indispensable.

Regulations emerging from the EHDS follow exactly this logic. They are not built to obstruct; they are built to safeguard individuals. "We don't protect data for its own sake," she noted. "We protect people." Without such frameworks, questions of reliability, security, and responsibility would only surface after harm has already occurred.

Balancing Innovation With Patients' Fundamental Rights

Specht-Riemenschneider highlighted that physicians today are increasingly motivated to use data for research and improved care, but this motivation must be met with strong, transparent legal structures. Patients, in turn, must feel assured that their data is handled in ways that respect their right to informational self-determination. Data protection has deep roots in medicine – from the Hippocratic Oath to the Geneva Declaration – and modern regulation is a continuation of that ethical lineage.

The EHDS Act marks a significant shift by granting citizens new rights over the use of their health data, moving from consent-based to rights-based control. Regulation, she emphasized, can support innovation when well designed.

She also addressed emerging models of trust holders and data trustees. With increasing information overload, consent alone often fails to ensure understanding. Data trustees may help bridge the gap between autonomy and usability, making informed decision-making more realistic in a complex digital environment.

Prof. Louisa Specht-Riemenschneider is the Federal Commissioner for Data Protection and Freedom of Information, Germany

THINK. ACT. HEALTH.

Shift the Perspective on Regulation
Focus on what the law enables, not what it restricts – and use regulation as a guide to safe, responsible data use.

Strengthen Trust Through Clarity
Ensure patients and clinicians understand how data is used by building transparent legal frameworks.

Enable Safe Data Use at Scale
Adopt structures such as the EHDS and data trustees to make complex data decisions manageable, ethical, and usable in practice.

Align Ethics With Everyday Practice
Embed medical principles of data protection into modern workflows so that ethical data use becomes part of routine care.

A MASTERCLASS IN STRATEGIC DELAY

Artificial intelligence is advancing rapidly, yet most health systems remain stuck in pilot mode. In this session, **Petra Wilson** with guest from Israel, Germany, the Netherlands, and the European Commission confronted a central question: how can Europe move from experimentation to large-scale, real-world adoption?

Setting the tone for the discussion, Wilson highlighted a striking imbalance: AI is held to an impossible standard, while healthcare has long learned to function despite human error. The real barrier, she warned, is the lack of structured routes that move AI from trials to routine care, leaving many solutions stranded in perpetual pilot projects.

From Israel, **Ran Balicer** showed what meaningful AI deployment looks like at scale. At Clalit – Israel's largest HMO with 30 years of medical history developed from close to 7 Million patient records – an AI model for Hepatitis C transformed screening from 53,000 tests a year to just 500 while identifying the same number of cases; a striking gain in precision and cost. The lesson, he stressed, is not complexity but usability. With doctors limited to eight minutes per patient, AI must be explainable, simple, and embedded directly into workflow. "You don't need fancy AI", he said – what's needed is accountability, integration, and tools clinicians trust.

Representing the European Commission, **Yiannos Tolias** emphasized that AIA, GDPR, MDR, and the EHDS must be viewed as a connected regulatory ecosystem. The EHDS creates the legal foundation for data access. Deployment still faces technological and data challenges, legal and regulatory challenges, organization and business challenges and social and cultural challenges as identified in an AI Study published by the Commission in July 2025. We now need to effectively, efficiently, safely and equitably scale up AI in healthcare that would provide benefits to patients and healthcare systems.

AI is held to impossible standards, even though healthcare routinely manages human error.

From Germany, **Björn Eskofie**r highlighted that more than 250,000 medical AI studies exist, but fewer than 5% reach use. The barrier is real-world data access and institutional fear disguised as "data privacy." Sandboxes offer a way forward,

providing controlled environments to test and replicate what already works. AI, he argued, “doesn’t have to be perfect – it just has to be good enough to deliver value.”

Closing the session, **Sylvia Thun** described how Germany's digital maturity model development acted as a sandbox for AI development, allowing multiple solutions – from kidney disease to dermatology – to be tested safely through federated learning and standardized datasets. The approach demonstrated that innovation can move quickly when the right structures are in place. The expertise exists. What’s needed now is broader alignment and the courage to use shared frameworks instead of isolated pilots.

THINK. ACT. HEALTH.

Europe will not reach AI readiness by 2040 through more pilots, but through real-world adoption: explainable tools in clinical workflow, interoperable data access, clear regulatory pathways, and evidence-based models that can be shared, validated, and scaled.

THOSE WHO MAKE

Prof. Björn Eskofier - Chair of AI-supported Therapy Decisions, LMU, Munich

Dr. Petra Wilson - Managing Director, Health Connect Partners, UK

Prof. Ran Balicer - CIO & Deputy-DG, Clalit Health Services; Founding Director, Clalit Research Institute

Prof. Sylvia Thun - Director, Core Unit eHealth and Interoperability (CEI), BIH

Dr. Yiannos Tolias - Legal Lead on AI and AI Liability in Healthcare & EHDS Team, European Commission

AI NEEDS AN ECOSYSTEM, NOT A RULEBOOK

Europe's regulatory frameworks must be understood as an interconnected system. AIA, GDPR, MDR, and the EHDS are not standalone instruments but interlinked structures that collectively shape responsible access to health data and the safe use of AI, emphasized **Yiannos Tolias** and focused on coherence, practical guidance, and safeguards that reflect clinical reality.

The EHDS provides a practical and legal foundation for data access, which is essential for building trustworthy AI. A key concern on AI deployment remains performance in real and diverse environments. Therefore, AI systems must be tested across geographical, contextual, and functional environments to ensure they're safe and effective.

We need an ecosystem that combines legal certainty, operational guidance, and clinical validation.

There are currently deployment barriers across four dimensions: technical limitations such as legacy IT infrastructure, regulatory complexity and lack of guidance, organizational challenges in workflow integration, and social and cultural factors including trust and adoption readiness.

To support hospitals and healthcare providers, clearer European-level playbooks and guidance are needed. The European Commission under an EU4Health grant is working on a multi-year initiative (COMPASS-AI) to build a community of experts focused on AI deployment in medicine, create a digital dashboard to connect hospitals and exchange insights on implementation; initially this will concentrate on cancer care in rural areas with potential for broader expansion.

AI may also shift the standard of care, a development that should be reflected in clinical guidelines. Testing AI in virtual environments can also help predict real-world performance and build trust.

Dr. Yiannos Tolias is the Legal Lead on AI and AI liability in healthcare & EHDS Team, at the European Commission's DG Santé

KEY FINDINGS & RECOMMENDATIONS

Turning health data into value for individuals and society is not a future vision, but a practical strategy that delivers immediate impact and helps build the healthcare of the future. These are the key findings and recommendations from the annual meeting of the Data2Value Initiative.

1. Align Regulation with Innovation

GDPR, MDR, and the EHDS already offer clear paths, but most hospitals lack the structures to use them.

What's needed now:

- Build internal policies and roles that translate regulation into daily practice.
- Establish ethics–data governance boards to reduce uncertainty and speed approvals.
- Raise legal and data literacy among clinical and administrative leaders.

2. Turn Hospitals into Innovation Platforms

Siloed systems and rigid procurement slow progress.

Key steps:

- Create Digital Transformation Boards with shared accountability across clinical, legal, IT, and administrative leaders.
- Build cross-functional teams from day one – clinicians, data scientists, compliance experts.

3. Scale National and Regional Strategies

Coherent standards, shared identity systems, and citizen engagement enable data flow.

Priorities for Europe:

- Invest in digital identity, consent frameworks, and national stewardship models.

Include patient and citizen voices in governance and communication to build trust and acceptance.

4. Democratize Data Access

Pivacy-preserving innovations enable data use at scale. Synthetic data, for example, eliminates all barriers to data-driven innovation.

To scale these innovations:

- Provide national guidance on privacy-enhancing technologies and their legal status.
- Develop shared validation protocols.
- Embed these tools into governance frameworks to enable safe, routine secondary use.

5. Move Trustworthy AI Beyond Pilots

Strong results exist in areas like risk prediction, yet scaling AI remains slow due to governance gaps and limited transparency.

Requirements for safe deployment:

- Internal AI governance boards to oversee liability and model updates.
- Open registries of validated algorithms, with mandatory local testing.
- Training programs that build algorithmic literacy among clinicians.

FOCUS ON VALUE

6. Embed Data Literacy Across Health Systems

Digital transformation needs professionals who can interpret, question, and use data confidently.

Actions:

- Provide modular, role-specific training for clinicians, administrators, IT, and legal teams.
- Embed data stewardship and algorithmic reasoning into certification and CPD.
- Foster interdisciplinary collaboration between medical staff, data scientists, and leadership.

7. Interoperability at the Point of Care

EHDS sets standards, but real impact happens where data is produced – in wards, outpatient clinics, diagnostics, and emergency care.

To strengthen interoperability:

- Align procurement and IT architectures with national and EHDS standards.
- Integrate EHRs with lab, imaging, pharmacy, and outpatient systems.
- Use common terminologies and coding
- Provide support to under-resourced institutions.

8. Financing and Procurement Models

Rigid tenders, siloed budgets, and short funding cycles block the adoption of modern digital tools.

Needed reforms:

- Introduce outcome-based procurement and iterative contracting.
- Fund total cost of ownership: integration, upgrades, maintenance, training.
- Involve finance and procurement early in digital planning.

9. Cross-Border Collaboration and Learning .

Structured international collaboration is essential.

To accelerate progress:

- Build peer-learning platforms between hospitals, HDABs, and ministries.
- Support open innovation, federated learning, and pre-competitive collaboration.
- Create shared repositories for legal templates, validated algorithms, training curricula.
- Enable mobility programs for data, legal, and clinical informatics experts.

What We Do to Accelerate Data-Driven Healthcare: Core Priorities of the Data2Value Initiative	
Strengthen the Toolset	Enhance digital maturity to establish a robust technological foundation.
Elevate the Skillset	Expand data literacy to empower healthcare professionals to use data confidently and effectively.
Transform the Mindset	Drive cultural change to democratize health data access and use.

EXECUTIVE DIALOGUE












IMPRINT

LEMONMINT – THINK. ACT. HEALTH.

Lemonmint exists to help build a Health Data Society. Everywhere.
Our mission is to facilitate the growth of key stakeholders and strengthen their impact in a data-driven health system.

ACKNOWLEDGEMENTS

We express our sincere thanks to all the experts who joined the Executive Dialogue in Berlin and have shared their personal opinions in this reports. Special thanks to Adam Skali for his remarks.

The Data2Value Initiative is managed by Lea Ledwon. You can contact us at data2value@lemonmint.org.

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IMAGE CREDITS

Matthias Kindler

CITATION

Democratizing Health Data (Lemonmint, 2025)

DATA2VALUE INITIATIVE

The **Data2Value Initiative** empowers people, solutions and processes to turn evidence into value - at scale.

We act based on four principles:

- **Knowledge** is global.
- **Healthcare** is local.
- **Science** is central.
- **Collaboration** is essential.


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