

Innovation and Value-Based Procurement in EU Healthcare

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An international team of innovation and procurement experts from policy, practice and education recently co-developed a roadmap for improving innovation and value-based procurement in their national and regional healthcare ecosystems. This article is an outcome of this collaborative effort. The named authors wrote the article. They wish to acknowledge the contribution of all team members to the ideas and information presented.

Executive Summary

By driving adoption of novel technologies and care models, innovation and value-based procurement can help healthcare systems respond to demographic pressures, rising costs, and the need for more personalised, integrated services. Innovation Procurement (IP) enables healthcare organisations to procure novel solutions that satisfy unmet needs while delivering better outcomes for patients, service users, and society. Value-Based Procurement (VBP) focuses on buying outcomes rather than products. It is a powerful instrument for "reshaping commercial relationships and models to move beyond price and allow holistic appraisal of medical products through real-world evidence"¹. VBP aims to maximize overall value for patients, health systems, and society. These complementary approaches drive product and process innovation, yet both remain underutilised in healthcare across the European Union.

There are multiple root causes which limit uptake of IP and VBP, including risk aversion among public buyers, skill gaps in innovation management, regulatory and administrative complexities, insufficient funding, and significant fragmentation across the healthcare ecosystem. Overcoming these barriers requires fostering entrepreneurial behaviours: embracing calculated risk-taking, encouraging iterative experimentation, and promoting genuine collaboration through public-private partnerships.

Equally important is multi-stakeholder engagement and education. Such programmes must target procurement professionals, healthcare providers, policymakers, and innovative enterprises, equipping them with the knowledge and skills to navigate IP and VBP complexities and cultivate a culture of innovation.

1. Introduction: The Imperative of Innovation Procurement and Value-Based Procurement in EU Healthcare

European Union (EU) healthcare systems face many, interconnected challenges and escalating demands that call for innovation. Healthcare is being reshaped by an ageing population, the rising incidence of chronic diseases, advances in technology and innovation, and upward pressures on wages, energy, and medical supplies generated by sustained inflation. These forces change how services are delivered, coordinated, and experienced in hospitals, care homes, and old people's homes. As staff shortages and rising demand put pressure on systems, care delivery must become more flexible, efficient, and patient-centred. This transformation is driven by a combination of demographic pressures, evolving technologies, and changing governance models.

Innovations, from AI diagnostics to community prevention, must be embedded within new care pathways and supported by proactive innovation procurement (IP) and agile, value-based procurement (VBP) strategies.

The ultimate aim of IP is to enable healthcare organisations to procure novel solutions that satisfy unmet needs while delivering better outcomes for patients, service users, and society. Complementing this, the main aim of VBP is to deliver better, fairer outcomes for citizens in a way that is financially viable, environmentally responsible, and socially inclusive.

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Innovation is increasingly systemic, cutting across functions and sectors and requiring collaboration among hospitals, community providers, municipalities, funding bodies, and SMEs.

¹ Implementing Value-Based Healthcare in Europe: handbook for pioneers – EIT Health – European Commission.

Models such as hospital-at-home and community-based care are breaking down traditional boundaries, highlighting the need for integrated solutions that respond to real-world needs. We witness three overarching and intersecting themes/challenges which shape the policy landscape, all of which require new approaches in both IP and VBP:

- **Digitalisation of Health**

Digital technologies, including AI, telehealth, and data analytics, are transforming healthcare delivery by improving efficiency and access, though implementation faces challenges around costs, resistance to change, and sustainability concerns.

- **Environmental and Social Impact, and the Circular Economy**

The healthcare sector accounts for nearly 5% of global greenhouse gas emissions, driving efforts to implement green procurement, circular economy practices, and social value requirements that reduce environmental impact while promoting equity.

- **Security of Supply and Healthcare Resilience**

The COVID-19 pandemic exposed critical vulnerabilities in Europe's medical supply chains, prompting strategic initiatives to strengthen resilience through technological innovation, circular solutions, and strategic procurement rather than simple reshoring.

This article examines why a new approach to procurement, embracing IP and VBP, is needed within the EU healthcare sector.

Each of the three policy landscape themes above are set out in more detail, before illustrating the current state of IP and VBP adoption across several member states, and describing the multifaceted challenges hindering their implementation. Suggestions to improve their adoption are provided.

Furthermore, the article explores the critical role of fostering entrepreneurial behaviours within healthcare administrations and outlines the implications for education, including identifying key stakeholders and necessary content for robust capacity building.

The overarching objective is to provide actionable insights and recommendations for policymakers and stakeholders committed to harnessing IP's and VBP's transformative potential for a more innovative and resilient EU healthcare landscape.

2. The Policy Landscape

2.1 Digitalisation of Health

The demographic shift in Europe, with an ageing population and increased burden of chronic illness, is putting pressure on care systems and care budgets².

Simultaneously, there is a staffing crisis; in 2022, there was an estimated shortage of approximately 1.2 million doctors, nurses and midwives³.

Digital solutions can reshape healthcare delivery by enhancing efficiency, personalisation, and access:

- **Artificial Intelligence (AI)** is streamlining operations, forecasting patient needs, and enabling remote and personalized care. AI promises efficiency, but also raises sustainability concerns due to energy use, material demands, and e-waste, underscoring the need for greener innovation.
- **Telehealth and Remote Care** expand access to and reduce strain on hospitals by enabling care at home, particularly for underserved communities. These technologies enable early intervention and promote proactive, inclusive service models. However, their implementation demands significant managerial time and financial investment, and they do not necessarily reduce the overall costs of care.
- **Data Utilisation** enables predictive planning, personalised treatment, and better financial management. Interoperable and secure systems are essential to realising the full value of health data. Addressing data privacy and security slows the rate of uptake.
- **Innovation in Clinical Practice**, such as minimally invasive procedures and image-guided therapies, is improving outcomes and recovery. These advances rely on integrated systems and innovation ecosystems tailored to local needs. Some new technologies involve significant changes to clinical practices and can generate resistance.
- **Workforce Support** through digital tools and robotics is easing administrative burdens, supporting healthcare professionals and helping extend care delivery in both clinical and home settings. Such technologies can be met with resistance where they are seen as threatening jobs or reducing social interaction between care givers and recipients.

² OECD/European Commission (2024), *Health at a Glance: Europe 2024: State of Health in the EU Cycle*, OECD Publishing, Paris, <https://doi.org/10.1787/b3704e14-en>.

³ Ibidem

2.2 Environmental and Social Impact and the Circular Economy

The environmental impact of health and social care delivery is significant. The sector is estimated to account for about 4.4% of greenhouse gas emissions worldwide and, without radical action, it is expected to grow in the coming years. Furthermore 71% of emissions are Scope 3 (i.e., in care providers' supply chains), so engagement with suppliers is essential⁴. Addressing this challenge is closely aligned with the United Nations Sustainable Development Goals, particularly SDG 3 (Good Health and Well-being) and SDG 13 (Climate Action), which call for integrated approaches to protect both human health and the planet. A wide range of interventions have proven effective but require strategies for systemic change to the organization of healthcare⁵. These include three strategies:

- **Green Procurement and Environmental Impact:** Health systems need to reduce their environmental footprint across multiple dimensions, from emissions and energy use to material extraction and pharmaceutical pollution. This includes prioritising low-emission materials, efficient production processes, and cleaner distribution models in procurement. Digital tools can support greener decision-making.
- **Circular Economy:** New models focused on reuse, refurbishment, and longer product lifecycles are helping to reduce waste and material dependency. Digital platforms and tracking systems enable circular practices such as equipment leasing, remanufacturing, and resource-efficient procurement. Embedding these approaches into public procurement criteria is key to scaling impact and stimulating market innovation.
- **Social Value and Inclusion:** Procurement can also be a lever for social change, promoting fair labour practices, equitable access to care, and better working conditions. Embedding social value requirements into tenders helps ensure that innovation benefits diverse communities and supports a more inclusive health and care system.

2.3 Security of Supply and Healthcare System Resilience

The COVID-19 pandemic and the invasion of Ukraine highlighted the reliance of the EU on non-European sources for critical medical supplies, pharmaceuticals and digital infrastructure.

The European Commission and national governments now aim to strengthen EU resilience as a strategic priority.⁶

- **Strategic Autonomy and Global Dependencies:** The EU is advancing a model of open strategic autonomy, prioritising resilience while maintaining international cooperation. Rather than focusing solely on reshoring, efforts within the EU are turning to innovation and advanced technologies to strengthen supply security across health and social care.
- **Technological and Circular Solutions:** Digital tools and AI are being used to map risks, forecast shortages, and optimise logistics. At the same time, modular and automated manufacturing systems support more flexible, localised production. Circular economy models - enabled by digital tracking and refurbishment platforms - help extend the life of equipment and reduce dependency on raw materials.
- **Strategic Procurement and Investment Alignment:** Building robust supply systems requires more than physical infrastructure. Smarter procurement strategies, pricing reforms, and coordinated public investment are essential to aligning resilience with innovation and equitable access.

In this context, strong capabilities in IP and VBP are essential. While procurement has traditionally been viewed as an operational function focused on acquiring goods and services and directed at minimising costs, it is now emerging as a powerful mechanism to tackle these 'wicked problems' within healthcare⁷. Advances led by care providers working in consortia or individually do not just benefit the direct participants; there are 'positive spillover' effects as novel technologies become better established in a market, or clinicians and procurement experts share new practices through their professional networks.

To unlock this mechanism, procurement staff, innovation experts and care providers must adopt an entrepreneurial mindset and work closely together to mobilise suppliers to provide innovative products and services which truly address unmet needs. Likewise, innovative firms need to collaborate effectively with care providers throughout the innovation cycle. In the highly regulated context of health and social care, working across disciplinary, functional, professional and organisational boundaries to articulate unmet needs, is especially challenging.

⁴ *Health Care Without Harm (Global). (2024). Retrieved from <https://global.noharm.org/resources/health-care-climate-footprint-report>*

⁵ Zeynep Or, Anna-Veera Seppänen, *The role of the health sector in tackling climate change: A narrative review*, Health Policy, Volume 143, 2024, 105053, ISSN 0168-8510, <https://doi.org/10.1016/j.healthpol.2024.105053>.

⁶ *CRMs for medical devices - RMIS - Raw Materials Information System* - European Union, accessed April 17, 2025, <https://rmis.jrc.ec.europa.eu/crms-for-medical-devices-17d964>

⁷ *Environmental & Social Value in Procurement* - MedTech Europe, accessed April 17, 2025, <https://www.medtecheurope.org/environmental-and-social-sustainability/environmental-social-value-in-procurement/>

And many care providers and their suppliers need to navigate public procurement regulations, which involve a steep learning curve and substantial up-front resources despite the fact that some (of these regulations) are designed specifically to facilitate innovation⁸.

3. Defining Innovation and Value-based Procurement in Healthcare

3.1 Outcomes vs Process in Innovation Procurement

IP is the process by which healthcare organisations procure novel solutions to satisfy unmet needs, fostering innovation while delivering better outcomes for patients, service users and society at large. By driving the uptake of novel technologies and care models, IP helps health and social care systems respond to demographic pressures, rising costs, and the need for more personalised, integrated services. IP can take two main forms⁹:

Buying the outcomes of innovation: Public Procurement of Innovation

In the public sector procuring new-to-market solutions with substantially novel characteristics is known as Public Procurement of Innovation (PPI). In PPI, public authorities act as early adopters, leveraging their purchasing power to shape markets and accelerate the diffusion of innovation. PPI facilitates the adoption of cutting-edge, market-ready innovations, enabling healthcare systems to quickly integrate advanced solutions into their operations.

Buying the process of innovation: Pre-commercial Procurement

Pre-Commercial Procurement (PCP) is the procurement of R&D services to co-develop solutions that do not yet exist. PCP specifically focuses on the R&D phase of innovation procurement. The public buyer describes an unmet need for a product/service which does not yet exist on the market, prompting businesses and researchers to develop a novel products/service to meet the need¹⁰. It enables public buyers to procure R&D services in a phased approach (solution exploration, prototyping, and testing) without committing to acquiring the final product. PCP helps de-risk innovation and supports SMEs and start-ups in bridging the "valley of death" between research and commercialisation¹¹.

PCP is ideally suited to addressing grand challenges that necessitate breakthrough solutions, pushing the boundaries of what is currently possible.

3.2 A shift towards value-based procurement

IP, through PPI and PCP, calls for a shift from a transactional approach to value-driven and outcomes-based approaches to procurement, and for the need to be able to measure the impact of innovations either directly on patient outcomes or on wider goals. This is what VBP is all about.

VBP is an innovative approach that moves beyond traditional volume- and price-based purchasing to focus on achieving outcomes that matter most to the (health) service in question. It aligns procurement with broader goals like quality of care, sustainability, and equity. It often requires new business models and collaborative supplier relationships. Within healthcare, VBP is an emerging approach in which there is a shift in emphasis from a reduction in product costs to working with clinical staff, industry and patient associations to consider technologies and drugs that can influence a reduction in total costs within the patient pathway. Though the development of VBP has tended to focus on existing or near-market solutions, VBP capabilities match the shift in perspective and new expertise needed for effective IP. Together, these approaches aim to use public spending, which accounts for around 14% of EU GDP, to deliver not just cost-efficiency but also broader societal value.

4. Current Landscape of Innovation and Value-Based Procurement in EU healthcare

Despite the strategic imperative for innovation, and its compelling benefits, uptake of IP and VBP within the EU public sector, including the critical healthcare domain, remains low. This section provides a brief overview of adoption and challenges encountered within four European countries.

THE NETHERLANDS

The Dutch health and social care system involves a diverse but fragmented ecosystem of stakeholders. Public procurers include university hospitals, municipalities, and national agencies, while most hospitals operate privately and fall outside EU procurement rules.

⁸ *Public procurement contracts; Public tendering rules in the EU - Your Europe*

⁹ *Guidance on Innovation Procurement (2021/C 267/01) Commission Notice — Guidance on Innovation Procurement. See also: Andrews, M. R., Long, P. A., Ahlberg, M., Balvert, F., Alessandrello, R., Lazzari, A., Timmermann, M. M., Nouri Janian, M., Rantaniska, M., & Spence, A. (2023). A European arena for joint innovation in healthcare: The Platform for Innovation of Procurement and Procurement of Innovation (PiPPi). *Frontiers in public health*, 10, 1000590. <https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2022.1000590/pdf>*

¹⁰ *Ibidem*

¹¹ Ellwood, P., Williams, C., & Egan, J. (2022). Crossing the valley of death: Five underlying innovation processes. *Technovation*, 109, 102162. <https://doi.org/10.1016/j.technovation.2020.102162>

Group Purchasing Organizations (GPOs) are common but decentralized, limiting coordinated strategy. Private actors, especially health insurers and care providers, play a central role in contracting with providers for care services. On the supply side, SMEs and startups drive innovation but face barriers such as limited access to piloting, unclear reimbursement pathways, and high entry costs.

Despite the Netherlands' strong overall innovation capacity, healthcare IP lags behind. Key national strategies acknowledge innovation but often overlook procurement as a lever for system change. The sector remains risk-averse and resistant to disruptive solutions, particularly from startups. Challenges include fragmented procurement practices, underdeveloped training tailored to daily practice, staff shortages, and weak cross-sector collaboration. Meanwhile, shifting toward preventive, citizen-driven care is gaining momentum but is hampered by structural limitations and financial constraints. A further source of momentum comes from a growing number of initiatives on green procurement, which are often necessarily tightly linked to innovation and value mapping.

SPAIN

In Spain, the health and social care system is shaped by a multi-level structure involving national, regional (Autonomous Communities), and local stakeholders¹³. Public procurers include regional health ministries (e.g., Servicio Madrileño de Salud) and public hospital consortia (e.g., Consorci de Salut i Social de Catalunya), municipal governments, and national agencies like the Ministry of Health and INGESA. Centralised and regional purchasing bodies are gaining importance. Entities like AQUAS (Catalonia) and Fundación Progreso y Salud (Andalusia) act as enablers in innovative procurement in Spain. Essentially, they function as knowledge brokers, capacity builders, and facilitators of EU-aligned innovation procurement. Private actors, particularly in mixed health systems, also influence procurement practices. While SMEs and startups in digital health and medtech are active innovators, they face significant barriers in accessing complex public procurement pathways.

Despite promising initiatives, particularly in regions like Catalonia, Andalusia and Galicia, IP remains fragmented, administratively rigid, and insufficiently embedded in national health strategies. Key challenges include risk-averse procurement cultures, siloed institutions, and limited piloting opportunities for startups.

¹³ <https://www.projectprocure.eu/observational-study>

¹⁴ *Performance Hospitalière pour des Achats Responsables*

¹⁵ *Agence Nationale d'Appui à la Performance*

¹⁶ *Fédération Hospitalière de France*

¹⁷ *Patient-Reported Outcomes Measures*

¹⁸ *Patient-Reported Experience Measures*

Yet, there is growing momentum to shift toward preventive, person-centred care supported by digital innovation and improved procurement professionalism.

FRANCE

France's publicly funded health and care system combines universal coverage with a mix of public and private service provision. While most hospitals are publicly owned, physicians typically operate independently, reimbursed by the state. IP is increasingly recognised as a strategic policy lever and is supported by advanced legal, regulatory, and managerial tools, including value-based and innovation-oriented procurement approaches.

Key actors include PHARE¹⁴ and ANAP¹⁵, which set and support procurement policy, alongside powerful Group Purchasing Organisations (GPOs such as UniHA, RESAH, UniCancer). The GPOs drive large-scale, innovation-led purchases. Supporting institutions like Agence Innovation Santé, FHF¹⁶, and the Digital Health Delegation, along with academic partners and patient advocacy groups, strengthen the broader ecosystem and ensure user-centric, collaborative approaches. UniHA in France has demonstrated innovation readiness through concrete projects, such as VBP using PROMs¹⁷ and PREMs¹⁸, performance-based hospital lighting contracts, and environmentally responsible sourcing for anti-infective drugs.

However, challenges persist, legal complexities hinder early supplier engagement; hospital IT systems suffer from poor interoperability; and eco-innovation is limited by difficulties in assessing environmental impacts. Fragile supply chains and a funding imbalance, where support such as grants and subsidies often prioritises companies over care providers, also constrain progress. Still, France stands out for its strong institutional commitment, active experimentation, and systemic alignment of procurement with health innovation, sustainability, and resilience goals.

SWEDEN

Sweden's publicly funded, decentralized healthcare system is managed by 21 self-governing regions responsible for health services. Key public procurers include regional health authorities (e.g., Region Skåne, Region Västerbotten, Region Stockholm, and Västra Götalandsregionen), municipal care departments, and shared procurement centres like Inköp Gävleborg. National coordination and guidance are provided by SALAR (Swedish Association of Local Authorities and Regions) and Upphandlingsmyndigheten (National Agency for Public Procurement), while innovation policy support is led by Vinnova, Sweden's innovation agency.

Despite Sweden's strong performance in the European Innovation Scoreboard, the use of IP tools, such as PCP, innovation partnerships, and outcome-based approaches, remains limited and inconsistently applied across regions. Key actors in the ecosystem include healthtech SMEs, academic institutions like Karolinska Institutet, Chalmers, and Umeå University, and network organisations such as Medtech4Health, Swelife, and Swecare. Regional innovation hubs and testbeds, like those found in Skåne and Västra Götaland, offer promising platforms for co-creation, yet they are often disconnected from formal procurement processes. Challenges include a lack of strategic procurement capabilities, limited SME access, fragmented responsibilities between regions and municipalities, and weak integration of innovation into procurement pipelines. Furthermore, IP tends to rely on short-term projects without lasting institutional anchoring, and circularity and digital interoperability are rarely embedded in tendering. Despite these barriers, regions like Skåne are beginning to institutionalize IP through dedicated units, offering a model for broader systemic adoption. Addressing fragmentation, therefore, requires entrepreneurial and systemic strategies that promote cross-organizational and cross-border collaboration. This could involve joint procurement initiatives, the establishment of shared platforms for knowledge exchange, and the development of harmonized strategic visions that transcend individual institutional boundaries.

5. Navigating the challenges

The limited adoption of IP and VBP in EU healthcare is not due to a single factor but rather a complex web of interconnected challenges. Looking at this holistically highlights four shifts that need to occur:

From risk aversion to entrepreneurial dynamism

Public buyers tend to be risk-averse; they often prefer well-established, proven solutions over innovative ones. This stems from a pervasive fear of failure, potential accountability issues, and the perceived complexities associated with new technologies and uncertain outcomes. To effectively engage in IP and VBP, public procurers must cultivate a more entrepreneurial mindset, actively embracing calculated risk-taking and iterative experimentation. This necessitates a fundamental shift away from a rigid "zero-failure" mentality towards one that views learning from setbacks, coping with uncertainty and adapting strategies as integral to the innovation process. It requires a culture that supports exploration, recognising that innovation is an iterative journey. This implies that promoting entrepreneurial behaviour as part of future education programmes is needed, along with senior management encouraging these new ways of working.

From fearing complexity to systemic transformation

IP and VBP involve long timelines, complex tender processes, and extensive stakeholder coordination, all of which strain limited public resources. To be effective, IP and VBP need to move beyond isolated and opportunistic projects to become part of an integral, coherent, long-term strategic vision for healthcare innovation that addresses the systemic challenges described above. A systemic approach ensures that entrepreneurial behaviours are not isolated efforts but are systematically supported, scaled, and integrated into the broader fabric of public healthcare. This includes bringing different stakeholders together to shape the future, with a clear recognition of the vital role of suppliers and, consequently, of procurement professionals. This also requires re-evaluating performance metrics, developing new incentive systems, and fostering leadership styles that actively encourage innovation and provide psychological safety for experimentation across the stakeholder ecosystem.

From fragmentation to harmonisation

While healthcare systems are inherently fragmented within and across national borders, new initiatives need to aggregate demand effectively in order to attract significant innovation from the supply side. Successful IP and VBP are collaborative endeavours, requiring sustained, deep cooperation not only between procurement professionals and healthcare practitioners but also with innovative companies, including SMEs, and research institutions. Companies' long term success depends on the widespread adoption of high-value innovation; stakeholders within the healthcare system must establish pathways for scaling up.

Ideally, such collaboration should involve early market engagement, co-creation processes, and iterative development cycles, actively shaping the innovation process, providing feedback, and contributing to the development of solutions rather than merely purchasing finished products. Such changes require open dialogue, trust-building, and shared understanding of objectives. Collaboration is key to bridging the demand-supply gap, leveraging external expertise, and ensuring that innovations are truly fit for purpose within the healthcare context.

From a lack of expertise to collective intelligence

A critical skills gap exists across IP and VBP. Group Purchasing Organizations (GPOs) are common but decentralized, limiting coordinated strategy. Private actors, especially health insurers and care providers, play a central role. Stakeholders frequently lack expertise in areas essential for success, including deep understanding of the innovation process, the legal complexities of IP, techniques for assessing value and effective market engagement strategies.

Recent research has highlighted roles that make healthcare procurement a driver of innovation such as acting as a strategic business partner, innovation matchmaker, sustainability and innovation coordinator¹⁹. Education bodies must therefore adopt a comprehensive, ecosystem-wide approach that recognizes successful innovation as a collaborative effort involving diverse actors with distinct roles and knowledge requirements.

- **Public Procurers:** As the primary actors responsible for designing, managing, and executing IP processes, these individuals require specialized and in-depth training. Their education must cover IP and VBP methodologies, the specific legal frameworks governing IP, and advanced contract management skills tailored for innovative projects.
- **Healthcare Providers and Clinical Staff:** As the ultimate end-users of innovative solutions and often the individuals best positioned to articulate unmet needs, clinicians, nurses, and healthcare managers need to understand how to define problems in a way that can be addressed by potential suppliers of innovative solutions. They also require training in how to effectively collaborate with procurers and industry innovators throughout the IP lifecycle and anticipating and valuing the impact of innovation.
- **Policymakers and Legal Experts:** Individuals responsible for setting strategic policy directions, allocating budgets, and interpreting legal frameworks need a comprehensive understanding of IP's strategic potential, its economic and societal benefits, and the practical implications of regulations. This knowledge is crucial for creating and maintaining an enabling policy and legal environment, which depends on long term thinking and extending the time horizon of decision making.
- **SMEs and Innovators:** The supply side, particularly innovative small and medium-sized enterprises (SMEs), needs targeted education on how to effectively navigate complex public procurement processes, understand the specific needs and challenges of the public healthcare sector, successfully participate in IP tenders and contribute to VBP initiatives.

The VBP.O case study on orthopaedics below illustrates some of the key shifts described above, exemplifying how IP can transform healthcare: by unifying stakeholders around patient-centric value, it transforms procurement from a transactional process into a catalyst for systemic innovation.

¹⁹ See Stek, K., Lefers, L., & Pedrosso, C. B. (2025). *Strengthening Innovation Capacity in Health and Care Workforce: A Role-Based Framework for the Procurement Professionals*. Health Policy, 105423.

<https://doi.org/https://doi.org/10.1016/j.healthpol.2025.105423>

²⁰ <https://eithealth.eu/product-service/vbpo/>

Case Study: VBP.O project

A European model for VBP in orthopaedics

The challenge

With 300,000 hip and knee replacements performed annually in France alone, costing €2.5 billion, orthopaedic surgery faces two crises: 20% of procedures are clinically unnecessary, and 20% of patients report suboptimal outcomes. Traditional volume-based procurement models fail to address these inefficiencies, leaving healthcare systems burdened by avoidable costs and unmet patient needs.

A Systemic solution

UniHA and EIT Health launched VBP.O (Value-Based Procurement Orthopaedics), a €1M+ EU-funded initiative, to pioneer a unified, outcomes-driven procurement model across France, Denmark, and Spain. The project unites hospitals, surgeons & scientific society, innovators, and policymakers to:

- Shift from volume to value, tying payments to patient-reported outcomes (e.g., mobility, pain reduction) rather than procedure counts.
- Leverage real-world data via Digikare's Orthense platform, which has collected 15M+ data points to predict surgical success and personalize care pathways.
- Break down fragmentation through cross-border collaboration, aligning procurement practices with clinical evidence from RENACOT's national implant registry.

Keys to success

1. Entrepreneurial Risk-Taking: Public hospitals (CHU Lille, CHU Toulouse, CHU Nice, Vejle hospital, I. Leonor Madrid hospital) partnered with SMEs like Digikare to co-design contracts rewarding innovation, not just cost savings.
2. Unified Stakeholder Action: Surgeons, payers, and tech providers jointly defined outcome metrics, ensuring shared accountability.
3. Data-Driven Culture: Predictive AI models, trained on pre-peri-post-op data, now guide patient selection, reducing unnecessary surgeries.

Impact & lessons

- Early results show improved patient satisfaction and reduced surgery revision rates, and there are plans to liaise those outcomes with pricing models in the medium-term.
- VBP.O proves that overcoming fragmentation calls for aligned incentives, multidisciplinary education, and trust in data, all enabled by collaborative procurement.
- Data-driven economic models are the most appropriate approaches to objectivize performance.

6. Strengthening Education for Innovation and Value-Based Procurement in Healthcare

Education as a Catalyst for Systemic Change

The widespread adoption of IP and VBP in EU healthcare requires more than procedural adjustments; it demands a fundamental shift in mindsets and capabilities. Education can serve as the enabler of this transformation, bridging the gap between current practices and the systemic changes outlined earlier. To be effective, this education must move beyond technical training and become a strategic tool for cultural change, fostering the entrepreneurial mindset, collaborative approaches, and risk intelligence needed to overcome entrenched barriers.

The Multidimensional Approach to IP Education

Effective innovation and VBP education integrate four key dimensions, each reinforcing the necessary shifts in procurement culture.

First, it must combine technical learning and change management. While legal frameworks, procurement methodologies and risk management remain essential, programs should equally emphasise innovation strategy, stakeholder alignment, and leadership in uncertainty. This balance ensures that professionals can navigate both the procedural and human complexities of IP and VBP.

Second, education must be continuous rather than episodic. Lifelong learning pathways—peer exchanges, and digital knowledge platforms—help sustain competency development as IP and VBP practices evolve. Just-in-time learning, such as mentorship during live procurement processes, further embeds skills in real-world contexts.

Third, cross-stakeholder learning breaks down institutional silos. Joint training for procurers, clinicians, policymakers, and suppliers fosters shared understanding, while simulation exercises build empathy for each group's constraints. Communities of practice at national and EU levels can then institutionalize collaboration beyond individual initiatives.

Finally, practical application cements confidence. Case-based learning, pilot project mentoring, and innovation labs allow professionals to test approaches in low-stakes environments, reducing the fear of failure that often stifles innovation. Equally important is the systematic sharing of lessons learned from projects, highlighting how barriers and challenges have been overcome, so that good practices can be replicated and scaled across different contexts.

Aligning Education with Systemic Transformation

The four educational dimensions directly support the broader shifts required for IP success:

- **Entrepreneurial dynamism** emerges when education reframes risk as a component of innovation rather than a threat, using real-world examples to demonstrate entrepreneurship
- **Systemic transformation** is accelerated by training leaders in line with long-term strategies, enabling them to align IP and VBP with overarching healthcare innovation goals.
- **Unification across fragmented systems** is strengthened through curricula that emphasise coalition-building, with interdisciplinary training as a standard component.
- **Collective intelligence** replaces isolated expertise when education platforms facilitate cross-border knowledge exchange, creating a living repository of best practices.

7. Conclusion

Innovation procurement and value-based procurement remain underused levers for strengthening European healthcare.

Both mechanisms can accelerate the uptake of novel technologies and care models, enabling systems to cope with demographic pressures, rising costs, and the demand for more integrated, personalised services.

Achieving this potential requires more than procedural change. It calls for a cultural and organisational shift.

Key Directions for Action

- **Foster entrepreneurial behaviours**
Encourage calculated risk-taking, iterative experimentation, and authentic collaboration between public procurers and innovators.
 - **Build multi-stakeholder engagement**
Involve procurement professionals, healthcare providers, policymakers, and enterprises in shared learning and decision-making.
 - **Invest in education and skills**
Create continuous training pathways that combine technical expertise with leadership, change management, and entrepreneurial behaviours.
 - **Go beyond classic education**
Develop platforms, mentorship schemes, and communities of practice to embed new competencies and disseminate lessons from successful projects.
 - **Transform procurement culture**
Position procurement as a strategic driver of innovation rather than a procedural hurdle.
- Finally, scaling up IP and VBP in Europe requires stronger regulatory alignment. Beyond Directive 2014/24/EU and its MEAT contract award criteria, life-cycle costing, and innovation tools, EU guidance should promote risk-sharing contracts, outcome-based payments, and data-driven evaluations to demonstrate performance objectively.
- Linking procurement practices with health evaluation frameworks including the EU HTA Regulation and the Medical Devices Regulation on real-world evidence, and the backing of national health authorities will be essential. IP and VBP can support investment in more effective technologies rather than merely cheaper forms of care, thereby reducing waiting times and generating long-term savings. However, only when procurement frameworks, evaluation policies, and cultural change advance together will IP and VBP move from pilots to routine adoption across European healthcare systems.