# ISPT: The Innovation Capacity that Industry Chooses to Deploy and Finance

The Dutch economy faces an enormous transition challenge and time is running out. We must decarbonise our industries, reduce dependence on fossil fuels and scarce raw materials, mitigate geopolitical uncertainties, and at the same time maintain our strategic economic position. Achieving this will require more than technological innovation alone. It calls for an industrial sector that is innovative and sustainable, resilient, and versatile.

This is precisely why companies from across the process industry collectively invest in the Institute for Sustainable Process Technology (ISPT) in Amersfoort.

ISPT is an independent, privately funded, non-profit innovation institute that connects industry, knowledge institutions, and governments around some of the most pressing societal and industrial challenges of our time. With more than 150 corporate partners and knowledge institutions, and an active innovation portfolio of approximately €70 million, ISPT coordinates a powerful ecosystem for innovation and pre-competitive research.

Start-ups, scale-ups, and established international companies work closely together to develop more future-proof solutions and roadmaps for industrial processes. Breakthrough innovations that no single organisation could realistically develop on its own. Broad collaboration and open innovation have therefore become essential for maintaining competitiveness, developing new markets, and ultimately ensuring long-term business survival.

The fact that industry itself invests in ISPT's innovation programmes is perhaps the strongest possible evidence of the relevance of these programmes, the commitment of participating companies, and the transition pathways they envision for the future. It also sends an important signal to policymakers in The Hague. Those who choose to participate in or support ISPT programmes can be confident that companies within the Dutch process industry are already actively engaged, recognise tangible opportunities, and have established clear priorities across the many transition challenges facing the Netherlands.

Many of these priorities align closely with the Dutch government's ambitions regarding sustainability, climate policy, and the circular economy. Companies deliberately commit financial resources, expertise, and personnel because they recognise that collaborative innovation is essential both for maintaining their competitive position and for shaping the transitions of the future.

## Innovation as the Foundation of Dutch Prosperity

The Dutch process industry, particularly in the industrial clusters of the Port of Rotterdam, Moerdijk, Zeeland Flanders, Eemshaven-Groningen, Chemelot near Geleen, the Sixth Industrial Cluster spread across the Netherlands, and the North Sea Canal Area, forms one of the principal engines of the Dutch economy. With an export value of approximately €150 billion and around 80,000 highly skilled full-time jobs, the sector makes a substantial contribution to economic growth and prosperity.

The process industry, including oil and gas, chemicals, steel, paper, food processing, and pharmaceuticals, provide high-quality employment, generate exports, drive knowledge development, and contribute to strategic autonomy. They also serve as critical suppliers to the manufacturing sector, which produces the consumer and capital goods that support modern society.

Maintaining this key position requires new process technologies, alternative feedstocks, circular value chains, and new forms of collaboration — not only between companies within value chains, but increasingly across value chains and economic sectors.

ISPT acts as an independent facilitator, connector, and systems coordinator. Companies and knowledge institutions jointly develop innovations, share risks, and create new markets, while governments provide support through policy frameworks, regulation, and funding where appropriate. This approach enables innovative solutions to be developed and scaled more rapidly, while ensuring that economic value, knowledge creation, spin-offs, and employment remain anchored in the Netherlands.

## Three Transitions for a Future-Proof Economy

ISPT's research and innovation programmes focus on three major transitions that are essential for a sustainable and circular industrial economy.

### Energy Transition

The energy transition requires a fundamental transformation of industrial energy systems. Electrification of industrial processes, (green) hydrogen, (green) ammonia and other hydrogen carriers, heat integration, and flexible energy systems (including battery storage and grid management solutions to prevent congestion) are all critical components.

ISPT supports this transition through initiatives such as the Heat Platform, hydrogen programmes including Hydrohub, the Ammonia Platform and its Clean Ammonia Roadmap, and electrification projects such as FlexPower. By bringing together companies, technology developers, and knowledge institutions, ISPT helps develop solutions that contribute to a reliable, affordable, and sustainable energy system.

### Raw Materials Transition

The circular raw materials transition focuses on the shift towards an economy in which strategic materials and resources are reused wherever possible and carbon remains within industrial value chains.

ISPT supports this transition through programmes such as the Circular Plastics Initiative, the Carbon Platform, and projects focused on batteries, advanced plastic recycling, circular carbon chains, and bio-based materials. Through these initiatives, new value chains are being developed in which companies collaborate within consortia to create the raw materials systems of the future.

### Agri-Food Transition

The agricultural and food sector also faces a major transformation challenge. It must contribute to climate goals, deliver healthy and sustainable food, create attractive business models for farmers and companies, and at the same time safeguard the affordability and availability of food for consumers.

Through the *Fascinating* programme, ISPT is helping to develop a future-proof agri-food system in which sustainable food production, bio-based feedstocks, energy generation, nature restoration, and economic development are integrated. Farmers, agricultural cooperatives, food manufacturers, SMEs in distribution, food service and retail, knowledge institutions, and public authorities work together to develop new value chains centred on areas such as plant-based proteins, fibres, regenerative agriculture, hybrid food products, and sustainable processing technologies.

As a result, these initiatives generate not only customer and societal value, but also new economic opportunities for the Netherlands.

## Programmes that Enable the Transitions

In addition to these three societal transitions, industry jointly invests in several long-term programmes that serve as enabling infrastructure across all transition domains.

**The ISPT Long-Term Program** brings companies and universities together around strategic innovation challenges that remain fundamental in nature but explore the technologies that will shape the future.

**The ISPT Water Program** focuses on water conservation, water reuse, drying and dewatering technologies, and resilient water systems. Water is not a transition in its own right, but a critical enabling condition for the energy, raw materials, and agri-food transitions.

**The ISPT Digitalisation Program** uses data, artificial intelligence, and digital technologies to make industrial processes smarter, more efficient, and more versatile. Digitalisation accelerates innovation while strengthening both sustainability and competitiveness.

## Sustainability, Resilience and Versatility Go Hand in Hand

*The challenges facing the Netherlands cannot be addressed in isolation. Sustainability without economic strength is not sustainable. Resilience without innovation leads to stagnation. Versatility without collaboration lacks scale.*

*ISPT demonstrates that these objectives reinforce one another. By connecting more than 150 partners within an innovation portfolio of approximately €70 million, ISPT is helping to build a process industry that is cleaner, stronger, and better prepared for the future.*

*After twenty years of facilitating and orchestrating innovation collaboration between companies and knowledge institutions, ISPT's conclusion is clear: sustainable transitions succeed only when companies are willing to invest collectively in knowledge, technology, and new value chains. The fact that industry itself funds these programmes underscores both the necessity and the value of this approach.*

**ISPT is therefore more than an innovation platform. It is a strategic investment by industry in the Netherlands' future earning capacity, resilience, employment, and international competitiveness.**

Watch our film celebrating 20 years of ISPT, reflecting on two decades of innovation while looking ahead to the opportunities and challenges of the future: Now is the time for open innovation