

Speaker notes Holland High Tech

Holland High Tech

High Tech Systems and Materials (HTSM) sector in the Netherlands

A Vibrant and Competitive Ecosystem

- ⤴ Introduction: the priority sector HTSM is a major engine and driver of our economy. HTSM stands for a knowledge-intensive and high quality range of products and services, ranging from sustainable design and manufacturing of components, controls, appliances and machines for business end users, to complex manufacturing systems for mass production. Dutch companies and knowledge institutes in the high-tech systems and materials (HTSM) sector are renowned for their technological excellence and are leaders in their market segments.
- ⤴ The Compact Disc, which revolutionized the music industry, was developed, in part, by engineers from Philips. WiFi too, has Dutch roots. The global standard for wireless internet, WiFi, was developed in the Dutch city of Nieuwegein, by a subsidiary of NCR Corporation/AT&T. Likewise, Bluetooth, the wireless technology that is used for connecting gadgets such as headsets to mobile phones and mice to computers, was developed by Dutch engineer Jaap Hartsen. And high-tech systems from Dutch companies are used in 90% of all silicon chips produced worldwide.
- ⤴ The priority sector High-Tech Systems and Materials (HTSM) includes a number of manufacturing industries that are leading in high tech equipment, components and materials.
 - In 2009, the export value from the HTSM sector was 32 billion euros, the production value 73 billion euros, and the added value 23 billion euros.
 - This industry is capital intensive, and collectively invests over 2.2 billion euros per year in research and development, almost 50 percent of all private R&D in the Netherlands and 10 percent of the sector's added value.
 - Some companies export more than 90% of their production, others invest up to 20% of their turnover in R & D.
 - Around 400.000 people work in the sector, generating over 23 billion Euro added value per year

Ages of experience in technical solutions

- ⤴ Examples of Dutch ingenuity range from the sawmill to the screw pump, from the microscope to the submarine, from the 6-cylinder engine to the variomatic and from navigation systems to systems that transform waste and food crops into energy.

Dutch Way of Working

- ⤴ Based on centuries of experience in technical inventions, the Dutch have demonstrated ingenuity, pragmatism, entrepreneurship, openness and willingness to cooperate, which is ideally suited for the field of high technology.
- ⤴ These qualities make the Netherlands the perfect place to find solutions to the challenges society is facing today in the areas of health and wellness, security, renewable energy, mobility, and the climate (water, environment, climate change mitigation and climate adaptation). Solutions that, due to the complexity of the challenges, are primarily found by cross-overs in technology, in interdisciplinary and multidisciplinary cooperations within the high-tech sector, bringing products to the market that push the borders of manufacturability again and again.

The champions league in High Tech!

- ⤴ Working with companies in the Dutch high-tech and materials sector means access to the top players in their league.
- ⤴ The Netherlands has a densely-populated and thriving electronics 'ecosystem', in which parties closely work together: the government works closely with universities, specialist research institutes and the private sector.
- ⤴ The Netherlands offers education and top jobs for knowledge workers on all levels in technology.
- ⤴ In terms of scientific achievements in beta and engineering science, the Netherlands is leading in the world. The Netherlands belongs to the top three in nanotechnology research, with the world's highest scientific impact. Three of the Dutch technical universities are in the top 10 of the world's best 300 universities in working with industry.
- ⤴ The region around the city of Eindhoven is actually known as 'Brainport region Eindhoven' and was declared 'the world's smartest region' in 2011 by the Intelligent Community Forum (ICF).
- ⤴ The Netherlands is known for having one of the least hierarchical cultures in the world. This makes the cooperation between scientific and manufacturing employees easier. They can truly communicate with each other.

- ⤴ This makes the Netherlands a country that offers excellent business conditions for domestic and foreign technology companies alike.
- ⤴ It is an attractive place to live and work for entrepreneurs, researchers and students.

High Tech Solutions for Global Challenges:

- ⤴ Dutch companies and knowledge institutions in this sector are distinguished by their technological excellence, and are among the world's best in their market segments and niches. These properties make the Netherlands also an excellent "place to be" for the solutions to the current economic challenges, as described in the text 'Science for Society' of the European agenda Horizon 2020:
 - health, demographic change, and well being
 - secure, clean, and efficient energy
 - smart, green, and integrated transport
 - climate action and resource efficiency, including raw materials
 - inclusive, innovative, and secure societies
- ⤴ A range of Dutch examples in these fields of interest are shown on the following slides.

Smart & green mobility

- ⤴ Smart Mobility: Intelligent Traffic Systems (ITS) can improve mobility and safety. Traffic management continues to be a relevant topic for all of our lives. Our roads are becoming more congested and there is an increasing need to find solutions to keep our roads moving, beyond continued spending in road expansions. Intelligent Traffic Systems have the potential to utilise the existing road network more effectively as well as increase its total throughput. Better information can also improve safety on the roads, for instance when approaching sharp corners, or providing alerts to drivers on imminent danger ahead. The DITCM (Dutch Integrated Test-side Cooperative Mobility) initiative is defining an open and scalable platform for future systems, and exploring new techniques in cooperative driving and mobility, to contribute to a more efficient and sustainable mobility solution. In-vehicle solutions will ensure a connected link between the vehicle and the outside world. To achieve the targets set by the Dutch government with respect to mobility in 2020, intelligent traffic systems (ITS) play an essential role, since they contribute to minimising traffic congestion, as well as the requirement for extra roads and infrastructure, and increase optimal fuel consumption. The Netherlands has a unique set of innovative companies such as TomTom, NXP, 3TU, TNO, the AutomotiveNL campus in Helmond, and others, who are working

on solutions that can help to address these problems and at the same time create sustainable value.

- E-Call (a Europe-wide project): A car equipped with ITS automatically calls emergency service after an accident. The car gives its position and opens a sound connection between the car and emergency services. Alternatively, the car 'talks' to other cars, and gets information about the distance between it and the other cars on the road. Driving on highways after accidents will be much safer this way. These NXP chips save many lives in European traffic.
- Another ITS example (not mentioned in the slides): The Connect & Drive project uses the latest technology to gain surprising benefits from the number one driving annoyance. The closer together that cars drive, the less road space they take up, and the lower the average wind resistance. It also means a big reduction in congestion and CO2 emissions. Cars travelling in 'platoons' can also respond much more effectively to situations far ahead of them. This new kind of driving is based on existing technologies such as ACC, Intelligent Cruise Control and vehicle-to-vehicle communication.

▲ Green Mobility:

- The new Dutch standard for environmentally-friendly distribution by trucks: DAF LF Hybrid. By using a diesel engine in clever combination with an electric motor, fuel consumption, and thus CO2 emissions, can be reduced by 10 to 20%, depending on the application.
- The Side Wing is a polyester 'wing' that can be mounted under a semi-trailer. Most turbulence in lorries takes place in the area below the loading box, behind the wheels of the truck but in front of the wheels of the trailer. There the wind spins inwards in an unfavourable way, which has an inhibitory effect on the freight car. The truck does not slow down but consumes more fuel. This polyester wing also really works like a wing. It conducts the wind in such way that there is no inhibitory effect; in fact it creates a positive stimulation at higher wind speeds.

Smart Solutions for Healthcare (*Medical Technology*)

- ▲ The Dutch have a small but strongly defined field of expertise in technologies that help to diagnose and treat diseases.
 - Philips Healthcare, part of the world-renowned Philips Group, has an extensive portfolio of medical systems. Its technologies include: X-ray; ultrasound; magnetic resonance; computed tomography; nuclear medicine; PET; radiation oncology systems; patient monitoring; information management; and

resuscitation products. Philips collaborates with Dutch universities, health care providers, patients, the healthcare industry, and insurance companies to research and develop medical innovations. The goal is find solutions which show their added value as soon as possible, for the patient as well as society.

- Nucletron, develops some of the world's most innovative products for cancer treatment. It has several products in development within the fields of Brachytherapy and Oncology Software Solutions.
- Robots for surgery and surgery support. For example eye surgeons must be extremely careful in their operations to prevent damage to very fragile tissues. Robots can help them and keep them in their job longer. The master surgeon interfaces are designed to be comfortable, and intuitive for the surgeon to use.

Smart Energy / Solutions for renewable energy

- ⤴ The Netherlands are at the forefront of Smart Grid solutions: Intelligent electricity networks that regulate the individual generation and distribution of energy. Smart grids or ' intelligent energy ' networks play an important role in the energy supply of the future. Technological innovations and new services should keep our future energy supply affordable and reliable, and aid in the transition to sustainability. Decentralized energy generation, storage, and consistency in the regular grid, as well as interaction with the end user, and two-way traffic between energy users and suppliers are essential elements of this smart grids. More than 20 organisations in the Netherlands are working together, and cooperate in finding and testing solutions.
- ⤴ Another example: To manage both climate and light intensity in a glass façade, while keeping the building design and installation simple, Smart Energy Glass is able to diminish solar radiation, and at the same time convert light into electricity. The goal is to develop Smart Energy Glass and bring this into production for the market. (see more info on internet on PEER+)
- ⤴ Solliance and Holst Centre are working on technologies for organic and flexible solar cell production technology.

Smart & invisible security systems

- ⤴ Vanderlande Industries installs worldwide automated material luggage and parcel handling systems at Airports, with integrated security measures.
- ⤴ Advanced camera systems to measure human behaviour in crowds, without violation of privacy regulations. (see more info on internet on Eagle Vision)
- ⤴ In one of the oldest industries in the Netherlands, the maritime sector, a new range of patrol vessels is currently developed, a highly innovative patrol vessel suitable for anti-piracy missions off the coast. The innovation of this ship lies in

the application of a wide range of new technologies. Furthermore, this ship can perform its tasks with a very small crew.

- ⤴ Security also has a human face: advanced electronics are developed for near field communication, focused on human well being.

Smart solutions for climate change

- ⤴ Ten Cate developed inkjet technologies whereby coating particles are applied at nano-scale with great precision and speed to textile-related materials. This means huge savings in water and energy
- ⤴ Fokker Aero structures develops new materials for lighter airplanes. For example GLARE is a composite material. Its properties and fabrication are very similar to bulk aluminium metal sheets. It has far less in common with composite structures when it comes to design, manufacture, inspection or maintenance. GLARE parts are constructed and repaired using mostly conventional metal material techniques. GLARE is a very successful FML, patented by Akzo Nobel in 1987, that entered commercial application in the Airbus A380, which has received a full type certificate from the FAA and European Aviation Authorities. Also, NASA is interested in reinforcing metal parts with composite materials as part of the Space Shuttle programme, which has led to the introduction of fibres to the bond layers. Advantages are better damage tolerance, behaviour, corrosion resistance and fire resistance, and lower specific weight.
- ⤴ Smart green chips by NXP save energy in the standby mode of electronic devices.

Key enabling technologies

- ⤴ The Netherlands are strong in key enabling technologies. The HTSM sector is an important "enabler" for many other application sectors such as energy, chemistry and life sciences. It focuses on high added-value products and services in a number of specialized areas such as: High Tech Materials and Systems, Embedded Systems, Photonics, Mechatronics and Manufacturing, Components/Circuits, and Nanotechnology.
- ⤴ Institutes in the framework of open innovation in High Tech Systems and Materials:
- ⤴ Open Innovation and Public-Private programs:
 - Holst Centre, Embedded Systems Institute (ESI), and the Materials Innovation Institute (M²I)
 - In innovation organizations such as Point-One and HTAS, large companies, SMEs, institutes and universities work together to develop research roadmaps and mobilize and strengthen the innovation ecosystem from the inside out.

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- Dutch knowledge institutes with the support of the government and industry in a number of public-private programs are: HTSM NanoNextNL (nanotechnology), MEMPHIS (photonics) and COMMIT (ICT).
- The open innovation philosophy is pre-dominantly found on the High Tech Campus in Brainport Eindhoven region, where more than 90 companies and institutes and over 8,000 researchers, developers, and entrepreneurs work together share and R&D facilities. Other familiar Dutch campuses are the Knowledge park Twente and Yes!Delft.
- Specialized R&D programs, particularly in Embedded Systems and Nanotechnology, are resulting in innovations, patents, products and spin-offs. In the field of Nano science, the Netherlands belongs to the top three worldwide, together with Switzerland and the US.
- Around 80 Dutch companies specialize in the development of embedded systems, and a further 150 consider embedded systems an important part of their business. Thousands more use embedded systems in their products and production processes.
- A key feature of the Dutch electronics ecosystem is that powerful multinationals such as Philips and ASML work closely with smaller, specialized SMEs, creating a competitive combination of R&D funding and innovative ability. It also acts as an Open Innovation Model with the participation of large and small companies, and also research institutes such as TNO, GTI, NLR, and universities. An example is the joint forces of tier-one, tier-two and tier-three suppliers in the open (high-tech) supply chain Brainport Industries.

Examples of familiar Dutch international companies in HTSM

⤴ *Equipment and Components*

- ⤴ In the field of equipment and components, the Dutch electronics delta has yielded a handful of world-class companies with a network of excellent suppliers:
 - ASML designs and develops advanced systems which help global semiconductor manufacturers to create chips that power a wide array of electronic, communications and information technology products. The company is perhaps best known for its lithography systems that are used by the semiconductor industry to fabricate state-of-the-art chips. ASML also manufactures extreme-precision optical components. ASML delivers equipment to most of the top 20 biggest semiconductor producers. Result is that most IC's used in devices have seen an ASML machine during production.
 - ASM International, or ASMI, is a leading supplier of semiconductor process

equipment, used in wafer processing, assembly and packaging of semiconductor devices. In other words, this company allows other companies to actually produce computer chips that power the world's computers, devices and IT systems.

- Bronkhorst High-Tech B.V. - offers an extensive range of thermal mass flow meters and controllers. These include: gas and liquid flow meters and controllers; vapour delivery systems; pressure meters and controllers; control valves; and calibration equipment. The most recent development is a series of ultra-compact, chip-sensor based instruments for gas flow and pressure measurement and control.
- DAF Trucks N.V. - a subsidiary of PACCAR Inc, one of the largest producers of heavy trucks in the world - is a leading truck producer in Europe.
- FEI –a leading diversified scientific instruments company, featuring electron and ion-beam microscopes and other instruments for nanoscale applications across many industries: industrial and academic materials research, life sciences, semiconductors, data storage, natural resources and more. With a 60-year history of technological innovation and leadership, FEI has set the performance standard in transmission electron microscopes (TEM), scanning electron microscopes (SEM) and DualBeams(tm), which combine a SEM with a focused ion beam (FIB). FEI's imaging systems provide 3D characterization, analysis and modification/prototyping with resolutions down to the sub-Angstrom (one-tenth of a nanometer) level. FEI headquarters are based in the USA, and has approximately 1800 employees and sales and service operations in more than 50 countries around the world. FEI in the Netherlands is located near Eindhoven.
- Nucletron – offers solutions, services and extensive knowledge of precisely targeted radiotherapy which play a vital role in treating cancer successfully. With 35 years of experience, Nucletron is preferred partner in brachy therapy and independent external beam treatment planning for more than 2,500 institutions worldwide. Nucletron continues to build on this with 500 dedicated employees, a global presence in more than 100 countries and an ongoing investment in innovation.
- NXP Semiconductors N.V. – leading semiconductor company founded by Philips more than 50 years ago. NXP creates semiconductors and system solutions. These innovations are used in a wide range of automotive, identification, wireless infrastructure, lighting, industrial, mobile, consumer and computing applications. NXP is a global semiconductor company with operations in more than 25 countries.
- Océ is one of the world's leading suppliers of professional printing and document management systems. For offices, industry, and the graphics

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market, the company develops and manufactures systems for the production, distribution and management of documents, in colour and black and white, in both small format and wide format.

- Philips Healthcare, part of the world-renowned Philips Group, has an extensive portfolio of medical systems. Its technologies include: X-ray; ultrasound; magnetic resonance; computed tomography; nuclear medicine; PET; radiation oncology systems; patient monitoring; information management; and resuscitation products. Next to this, Philips is strong in lighting and consumer products. Philips is a diversified health and well-being company, focused on improving people's lives through timely innovations. As a world leader in healthcare, lifestyle and lighting, Philips integrates technologies and design into people-centric solutions, based on fundamental customer insights and the brand promise of "sense and simplicity". Philips Research is one of the world's major private research organizations. With laboratories in six countries (Germany, the Netherlands, the United Kingdom, India, USA, China), and with around 1,500 employees, Philips Research produces innovations in the areas of healthcare, lifestyle and technology. The company's mission is to create technologies that will lead to products that improve people's lives, and which, to date, has led to more than 130,000 patent (total R&D) and design rights, and the publishing of many thousands of technical and scientific papers.
- Fokker Technologies is strong in aerospace systems and maintenance. A leading innovative player in the market for electrical systems, aerostructures, landing gear, aircraft maintenance, and technical and supply chain management services.
- Tata Steel - The European operations of Tata Steel (formerly known as Corus) comprise Europe's second largest steel producer. With main steel-making operations in the UK and the Netherlands, and a large R&D department in the Netherlands, Tata Steel supplies steel and related services to the construction, automotive, packaging, material handling, and other demanding markets worldwide. Tata Steel is one of the world's top ten steel producers. The combined group has an aggregate crude steel capacity of more than 28 million tonnes, and approximately 80,000 employees across four continents. Tata Steel supplies a variety of innovative solutions to a broad range of markets.
- Ten Cate - TenCate Advanced Composites, as a leading company in the manufacture of advanced thermoplastic and thermoset materials, is now joining as tier 2 member the National Composites Centre based in Bristol, United Kingdom. As a multinational company, TenCate aims at working together with primary centres of excellence on research and application of these advanced composite materials. Ten Cate is strong in innovations

relating to inkjet printing.

- TomTom - a global market leader in personal navigation products and services. Products include all-in-one, user-friendly navigation devices, as well as navigation software products that integrate with third-party devices.
- Vanderlande – Vanderlande Industries is dedicated to improving its customers' business processes and competitive position by providing automated material handling systems and services. The focus is to improve their customers' logistics processes and increase their logistics performance today, tomorrow, and throughout the entire life cycle. Vanderlande systems and associated services enable fast, reliable, labour-saving goods handling in distribution centres and parcel and postal sortation facilities, as well as for baggage handling at airports worldwide.
- De VDL Groep – The VDL Groep is an industrial company focused on the development, production and sale of semi-finished products, buses and coaches and other finished products. It is a conglomerate of 79 companies, spread over 16 countries, with approximately 7,100 employees. The bus division of the VDL Groep operates under the name VDL Bus & Coach. The core activities of VDL Bus & Coach consists of the development, manufacturing, sales, and after-sales service of a wide range of buses, chassis modules and the purchase and sale of second-hand buses. The manufacturing takes place in the Netherlands and Belgium.

Examples of familiar Dutch knowledge institutes

- ⤴ TUD: Delft University of Technology
- ⤴ TU/e: Eindhoven University of Technology. This university is located in the Brainport Region Eindhoven, the technological heart of the Netherlands, and awarded 'the world's smartest region' in 2011.
- ⤴ UT: University of Twente The Kavli Institute of Nanoscience Delft aims to be a quality-driven, intellectually stimulating institute with a broad scope of research in nanoscience and nanotechnology. The emphasis in our research, which ranges from single-molecule biophysics to quantum information processing of nanoscale devices, is on novel concepts and fundamental breakthroughs. The Institute has state-of-the-art general facilities, most notably for nanofabrication in the Kavli Nanolab Delft.
- ⤴ MESA+ : this research institute for nanotechnology located at the University of Twente is one of the largest nanotechnology research institutes in the world, delivering competitive and successful high quality research. It uses a unique structure, which unites scientific disciplines, and builds fruitful international cooperation to excel in science and education. MESA+ has created a perfect habitat for start-ups in the micro- and nano-industry to establish and to mature.

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- ⤴ Kavli Institute of Nanoscience Delft: a quality-driven, intellectually stimulating institute with a broad scope of research in nanoscience and nanotechnology. The emphasis in our research, which ranges from single-molecule biophysics to quantum information processing of nanoscale devices, is on novel concepts and fundamental breakthroughs. The Institute has state-of-the-art general facilities, most notably for nanofabrication in the [Kavli Nanolab Delft](#).
- ⤴ Holst Centre: The open innovation research institute and independent open-innovation R&D centre that develops generic technologies for Wireless Autonomous Sensor Technologies and Flexible Electronics. A key feature of Holst Centre is its partnership model with industry and academia, based around shared roadmaps and programs. It is this kind of cross-fertilization that enables Holst Centre to tune its scientific strategy relating to industrial needs. Holst Centre was set up in 2005 by IMEC (Flanders, Belgium) and TNO (The Netherlands) with support from the Dutch Ministry of Economic Affairs and the Government of Flanders. It is named after Gilles Holst, a Dutch pioneer in Research and Development and the first director of Philips Research. Located on High Tech Campus in Brainport region Eindhoven, Holst Centre benefits from the state-of-the-art on-site facilities. Holst Centre has over 160 employees from 28 nationalities and a commitment from more than 30 industrial partners.
- ⤴ DIFFER: The Dutch Institute for Fundamental Energy Research performs leading fundamental research in the fields of Fusion energy and Solar Fuels. DIFFER works in close partnership with academia and industry and aims for a national coordinating role in fundamental energy research.
- ⤴ NLR: National Aerospace Laboratory - a Dutch organisation that identifies, develops and applies high-tech knowledge in the aerospace sector. The NLR's activities are socially relevant, market-orientated, and are not-for-profit. In this, the NLR serves to bolster the government's innovative capabilities, while also promoting the innovative and competitive capacities of its partner companies. The NLR, renowned for its leading expertise, professional approach and independent consultancy, possesses an impressive array of high quality research facilities. NLR continuously develops new aviation and aerospace technologies, which not only involves conducting scientific research but also applying solutions for private industry and governmental organisations.
- ⤴ ESTEC: European Space Research and Technology Centre. ESA has sites in several European countries, but the European Space Research and Technology Centre (ESTEC) in Noordwijk, the Netherlands, is the largest. ESTEC is the technical heart - the incubator of the European space effort - where most ESA projects are born, and where they are guided through the various phases of development.
- ⤴ ESI: Embedded Systems Institute partners with experts from across industry and academia, to develop and share new approaches and technologies for creating

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tomorrow's embedded systems solutions. The ESI aims to lead in embedded systems and has the explicit goal of making its knowledge available for everybody.

- ⤴ TNO: An applied research institute, whose expertise and research make an important contribution to the competitiveness of companies and organisations, to the economy, and to the quality of society as a whole. TNO's unique position is attributable to its versatility and capacity to integrate this knowledge. TNO connects people and knowledge to create innovations that boost the sustainable competitive strength of industry, and the well-being of society. TNO accelerates innovation to create new products that make life more pleasant and valuable, and help companies innovate. TNO helps to find creative answers to the questions posed by society.

Holland High Tech: High Tech Solutions for Global Challenges

- ⤴ The aforementioned examples show that the claim Holland High Tech is proven: The Dutch offer a pragmatic solution for whole technological challenges - from system architecture to creation and execution - on products of vital importance to the social challenges of our time, and which are sold to the world, including added-value services.
- ⤴ The Netherlands is the country for high-end jobs for foreign knowledge workers ("golden heads"), skilled workers ("golden hands"), and education, for research and development in the area of technology and innovation, and for collaboration and technology partnerships. A country that offers excellent business conditions for domestic and foreign technology companies alike. An attractive place to live and work for entrepreneurs, researchers and students.
- ⤴ What does the Dutch high-tech systems and materials sector offer? A pragmatic total solution to technological challenges – from system architecture through to production – for products that are needed to solve today's social challenges and that are sold on the international market. And, of course, the related services. Working with the Dutch, and with Dutch companies is a win-win situation for all involved. You not only gain access to leading technology, you also gain access to the top players in your league.
- ⤴ The Netherlands: one of the top players in the high-tech sector.

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Websites

- www.hollandhightech.nl – Holland high Tech
- www.utwente.nl/en - University of Twente
- www.utwente.nl/mesaplus - MESA+ Research Institute, University of Twente
- <http://tudelft.nl/en/> - Delft University of Technology
- <http://kavli.tudelft.nl/> - Kavli Institute of Nanoscience Delft
- www.tue.nl/en/ - Eindhoven University of Technology
- www.holstcentre.com - Holst Centre open innovation R&D centre, High Tech Campus, Brainport Region Eindhoven
- www.differ.nl/en - Dutch Institute for Fundamental Research
- www.nlr.nl/smartsite.dws?id=8650&l=en – National Aerospace Laboratory
- www.esa.int/esaMI/ESTEC/index.html - European Space Research and Technology Centre
- www.esi.nl/ - Embedded Systems Institute
- www.tno.nl/index.cfm?Taal=2 - TNO, Dutch Applied Research institute
- www.hollandhightech.nl – International website of the Dutch High Tech Sector
- www.brainport.nl/en - Brainport Region Eindhoven, declared 'the world's smartest region' in 2011.
- www.brainportindustries.com/en - Brainport Industries
- www.automotivenl.com - Automotive Campus NL, Helmond
- www.hightechcampus.com – High Tech Campus Eindhoven
- www.spaceoffice.nl - Netherlands Space Office (Dutch language)
- www.nanonextnl.nl - NanoNext NL
- www.dutchhts.nl - Dutch High-tech Systems gateway
- www.nanoned.nl - Dutch nanoscience research program
- www.htsp.nl - High-tech Systems Platform
- www.pointone.nl and www.pointone.com - Point-One High-tech Network
- www.smartmix-memphis.nl/memphis.php - MEMPHIS photonics
- www.m2i.nl - Materials Innovation Institute