



Spotlight on Benelux Data & Cybersecurity

Tuesday, 25 January 2022

 **The Benelux team** based in Brussels



Amy Dalton, Regional Director (amy.dalton@investni.com)

Trade & FDI

Sector focus: Technology for Financial Services, Security



Emilien Thorin, Business Development Manager (emilien.thorin@investni.com)

Trade (and reactively, France)

Sector focus: Smart Cities, SportsTech and Construction

➔ We support client companies from all sectors (with an exportable product or service) to understand if there is an opportunity in the Benelux and to sell successfully here.

BENELUX: Belgium, the Netherlands and Luxembourg

- * An open, competitive and affluent European market
- * Existing **business opportunities**: particularly in high-value products and services
- * **English** is a widely accepted business language
- * Significant **exports** possibilities:
 - * Across digital technologies, NI exports into the EU (excluding RoI) are valued at £40mn in 2020.
 - * Financial Services to include Fintech is an additional £10mn in 2020.



- ✿ **Managing risk, cyber security and protection of data is a government priority** across the Benelux and important across a number of industries:



Ports & Maritime



Utilities & Energy



Manufacturing (including Aerospace)



Life Sciences



Financial Services

- ✿ **Digitalisation** within all these sectors is generally **increasing** and changing the structure and key assets of the businesses as cybercrime continues to grow
- ✿ Cybersecurity **budgets are being raised** as dependencies and risks move from standalone to interlinked networks

- ✿ The most commonly feared **threats and risks** among Benelux organisations are:
 1. Data leakage
 2. Phishing
 3. Malware
 4. Vulnerability exploits
 5. Extortion or destruction of the organisation's data
- ✿ Recognition that **collaboration and sharing knowledge** and responsibility is important to combat threat; across academia, government and private sector: this includes initiatives such as the Cyber Security Coalition in Belgium and the Hague Security Delta in the Netherlands
- ✿ The greater **Rotterdam-The Hague** area holds a strong security position in mainland Europe
- ✿ **Belgium** rebooted their Cyber Security strategy in June 2021 for 2021-2025



Why should Northern Ireland cyber and data security businesses consider the Benelux as a target export market?

- ✿ Early adopters of technology
- ✿ Security is an identified government and business priority
- ✿ Range of sophisticated potential buyers across a number of sectors
- ✿ English is widely spoken and widely accepted as the language of business
- ✿ Considered as gateway markets
- ✿ Open and competitive economies



How can Invest NI support your growth in the Benelux?

- ✿ Trade supports to include TAS, TAG, TME (for market information, identification of buyers/partners)
- ✿ Going Dutch (for early stage exporters across all sectors <https://www.investni.com/going-dutch-export-development-programme>)
- ✿ The Hub (to open in 2022)
- ✿ Trade show and travel support
- ✿ Connect into DIT and Embassy network
- ✿ Proactive flagging of business opportunities in focus sectors



The purpose of this webinar is to share insights on the cyber and data security sector and opportunities in the Benelux markets.

WEBINAR AGENDA

1. INTRODUCTION *Invest NI*
2. DUTCH MARKET OPPORTUNITIES *Philip Meijer & Martijn van Hoogenhuijze, Innovation Quarter*
3. ANGOKA CASE STUDY *Daniel Ruiz, Angoka*
4. Q&A

Please contact us to explore market opportunities further



Cyber security in the Netherlands

Value Proposition 2022





CYBER SECURITY IN THE NETHERLANDS

Table of Content

- Key advantages
- Cyber security market in the Netherlands (2)
- World class digital infrastructure
- Dutch digitalization
- Security standards
- Cyber Security collaboration
- Talent and education (5)
- Research, Innovation hubs and collaborations (4)
- Access to capital
- Diverse ecosystem
- Access to market
- Increasing digitalization
- Cyber Security Cross-overs
- International Institutes
- Taxation (2)
- Business climate (2)
- Quality of life (3)
- Invest in Holland network

26/01/2022



KEY ADVANTAGES

Strengths of the Netherlands



Strategic location



International business climate



Exceptional quality of life



Competitive fiscal climate



Highly skilled, productive and multilingual workforce



Political & economic stability



Superior Logistics & Technology Infrastructure



Innovative key industries



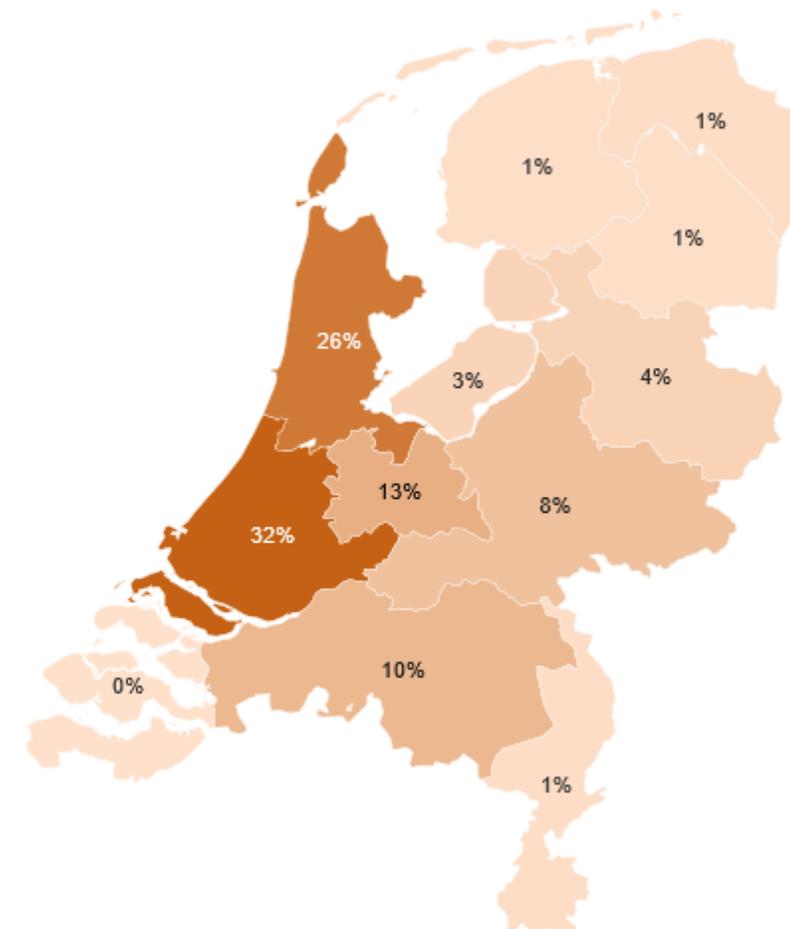


CYBER SECURITY MARKET IN THE NETHERLANDS

Fast growing ecosystem

“The Netherlands is seen as a leader in Europe on Cyber Security with a strong research, startup, and practitioner ecosystem.”

- **678** firms with Cyber security as **core business**
- **2082** firms are active in the **cyber security sector**
- Cyber security firms are **fast growing**
On average these firms have grown by >9% in both 2018 and 2019.
- The sector is internationally orientated:
around **one third** of the cyber security firms in the Netherlands have an **international headquarter**



Concentration of Cyber Security firms in the Netherlands

26/01/2022



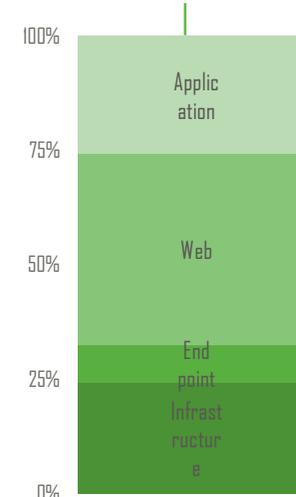
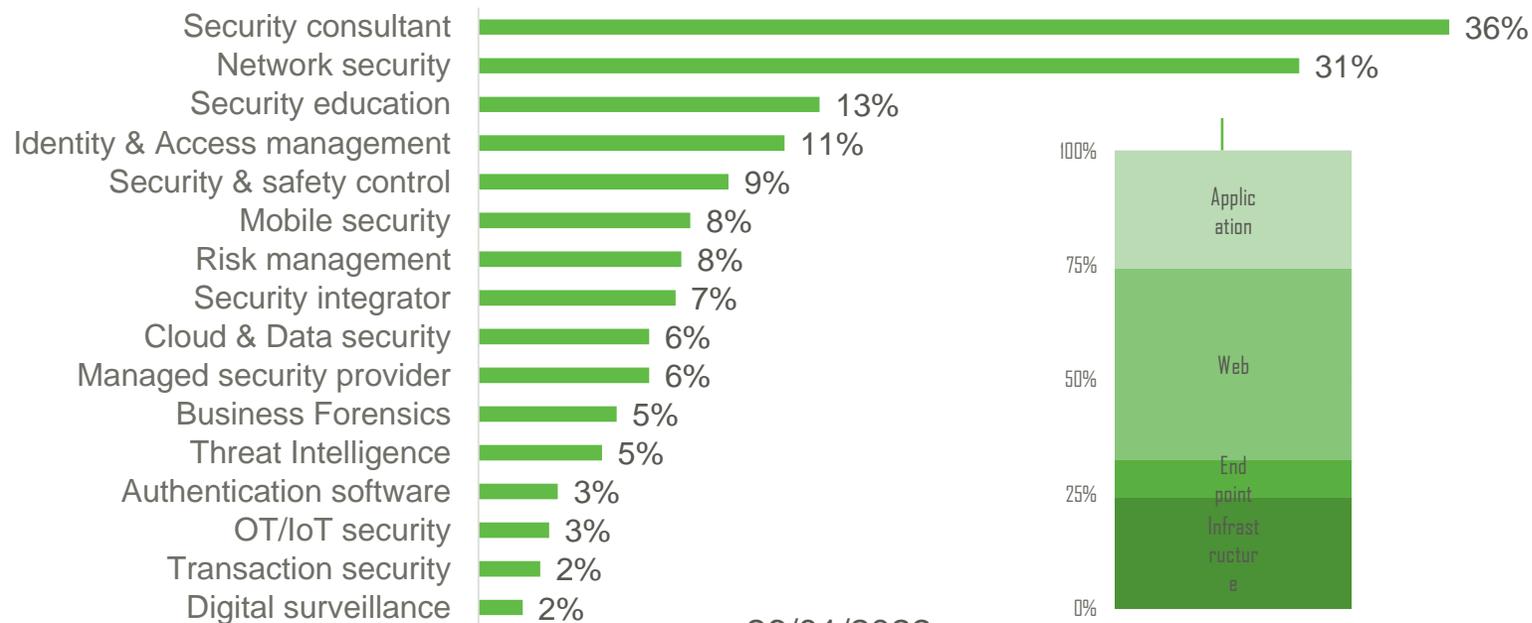
CYBER SECURITY MARKET IN THE NETHERLANDS

Subsectors and Dutch expertise

The Dutch cyber security sector offers a wide variety of solutions

- The biggest subsectors are security consultancy, network security and security education
- Thanks to the strong industrial economy, Dutch security companies have special expertise about Operational Technology (OT) and Industrial Control Systems (ICS)
- A lot of research is focused on Internet of Things (IoT) security

Dutch Cyber Security companies sorted by offered solutions



*Cyber security firms can offer multiple solutions, the analysis adds up to more than 100%. Infrastructure, End point, Web & Application security is a collection of solutions in network security with different specialisations.

26/01/2022



WORLD CLASS DIGITAL INFRASTRUCTURE

Digital Gateway to Europe

Hub

of (Intercontinental) Connections
11 of 15 transatlantic sea cables
come ashore here

#1

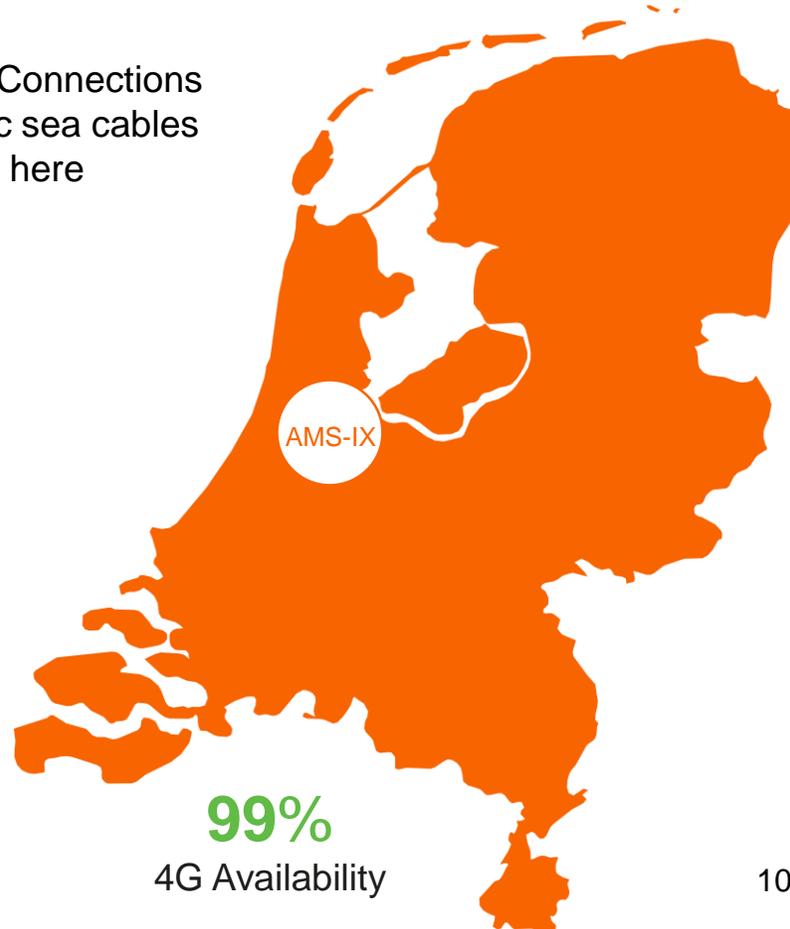
most Connected
Country in the World

3

in the world for
ICT infrastructure

#1

in the EU for
outstanding use of ICT



99%

4G Availability

#1

for broadband connections
(100 Mbps) in the EU

>290 Data Centers

One of the world's
largest Internet Exchanges

880+ networks are
connected
within AMS-IX

99.8%

of Dutch households have
broadband connections (>4mb)

State-of-the-art

100% digital, advanced fiber-optic network

26/01/2022



DUTCH DIGITALIZATION

Digital Economy

- Results **World Digital Competitiveness** ranking 2020

Capital	2nd
Talent	3rd
Future Readiness	4th
Digital competitiveness	7th

- The Dutch rank **1st** with their above basic overall **digital skills**
- The Netherlands is the **4th** most advanced **digital economy** of Europe
- The Dutch government is the **10th most digital government** worldwide when looking at e-Government services

26/01/2022

Sources: Institute for Management Development (IMD) World digital competitiveness ranking 2020 | Eurostat 2019 ranking | Digital Economy and Society Index (DESI) 2020 | UN E-GOVERNMENT SURVEYS 2020





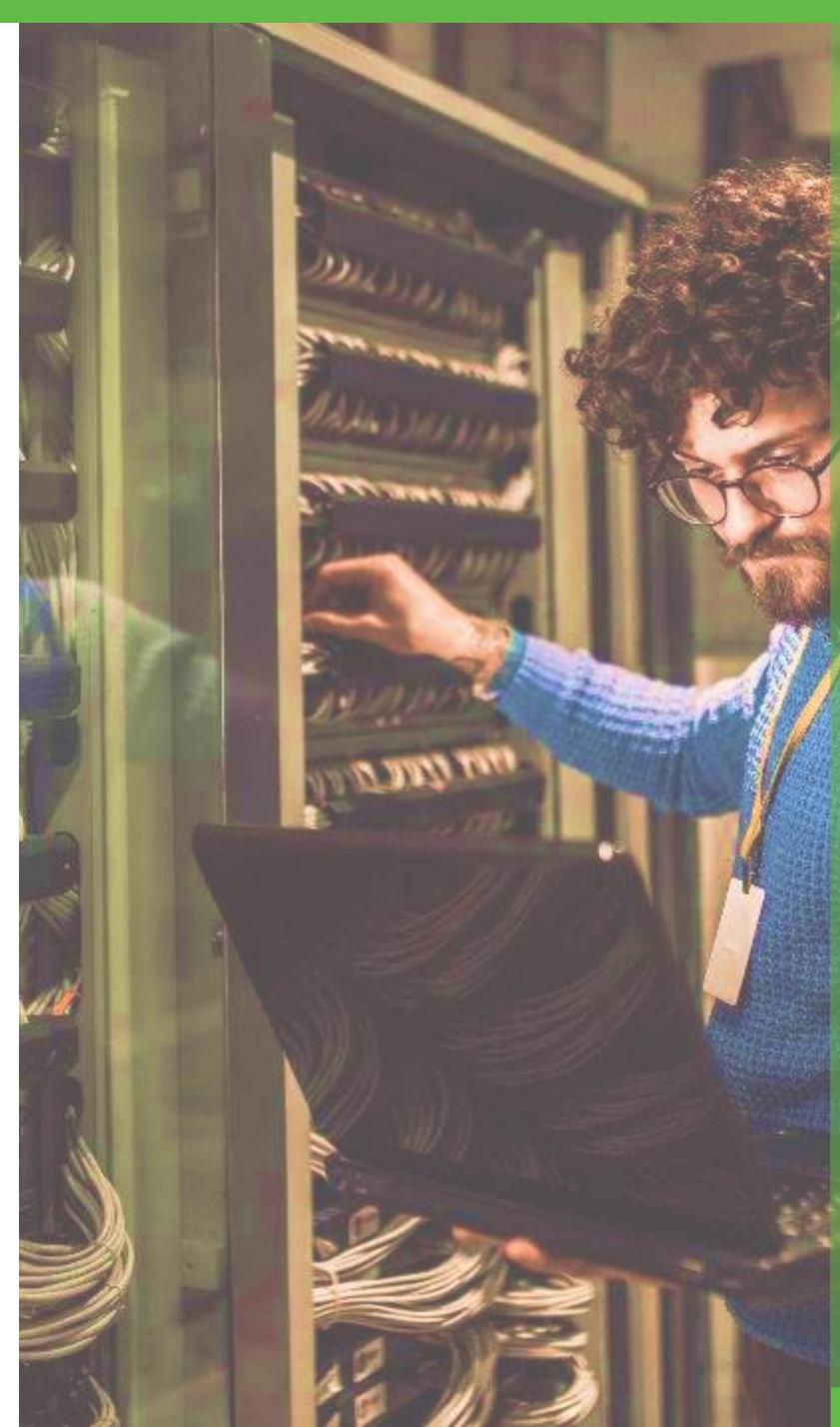
SECURITY STANDARDS

European and Dutch legislation

Dutch laws and regulations are aligned with European standards

- **The EU General Data Protection Regulation (GDPR)** is directly applicable in the Netherlands and is supplemented by the Dutch GDPR Implementation Act (*Uitvoeringswet Algemene verordening gegevensbescherming*)
- **The Network and Information Systems Security Act "NISSA" or "Wet beveiliging netwerk- en informatiesystemen"** implements European NIS Directive 2016/1148
- **Dutch Telecommunications Act "TA", or "Telecommunicatiewet"** implements European ePrivacy Directive 2002/58/EC and also includes provisions on unsolicited electronic communications and the use of cookies
- **The Data protection authority** is the controlling authority. Formally appointed **data protection officers** must be registered with the Dutch Data Protection Authority

26/01/2022



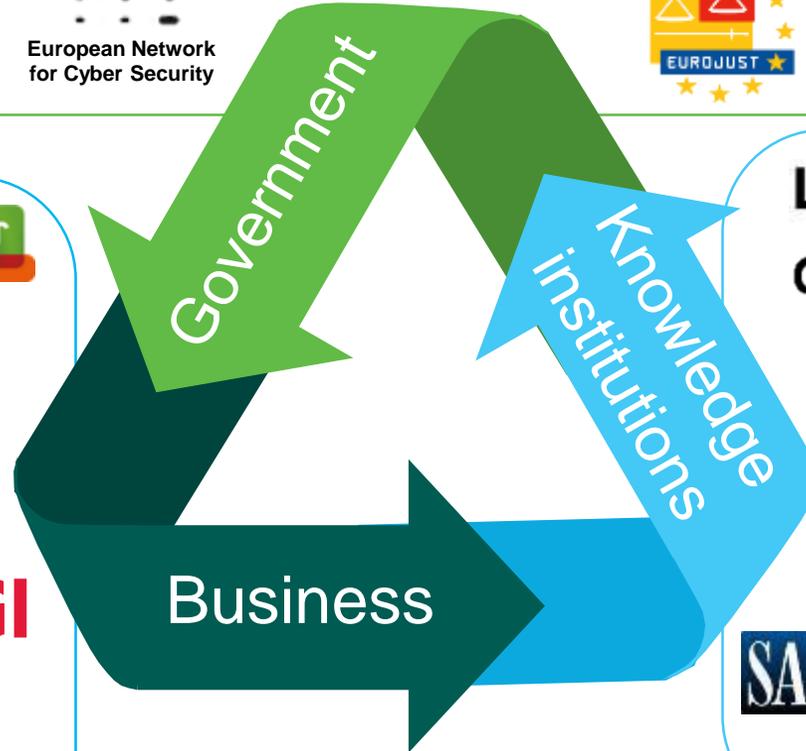


CYBER SECURITY COLLABORATION

Triple Helix

Joint activities

- R&D/ Innovation
- Knowledge dissemination
- Education



26/01/2022



TALENT AND EDUCATION

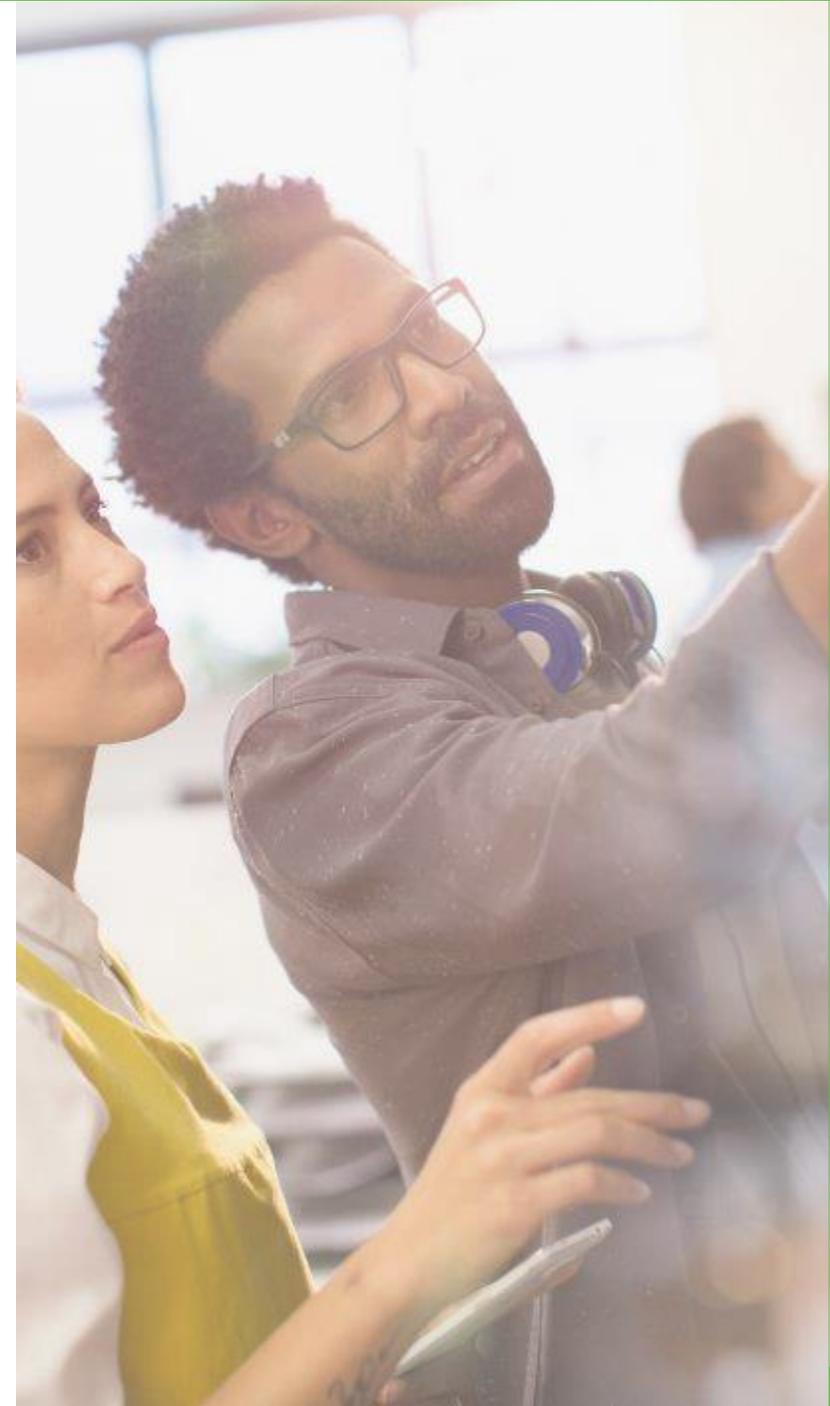
Highly skilled labor market

The Netherlands has a strong IT sector with a focus on security

- The IT sector employs approximately **452,000** IT professionals
- IT professionals constitute **6%** of the labor force
- Around **26,000** Cyber Security specialists in the security sector
- The Dutch Metropolitan Randstad area is the **3rd largest pool** of cyber security professionals in Europe
- **83%** of the professionals in the Metropolitan Randstad area has a Bachelor or Master degree

Although the IT labor market is tight, like elsewhere:

- The Netherlands has a **flexible IT labor market**
11% of IT professionals joins a new employer each year
- Dutch (regional) government invests heavily to **train IT professionals**
- Security Delta HSD launched the **Human Capital Agenda Security 2019-2023** to train 1200+ professionals in cyber security



26/01/2022



TALENT AND EDUCATION

Dutch Cyber Security Talent

- The Netherlands is one of EU's **leaders** regarding the number of **scientific cyber security publications**
- **26 research groups** connected to 20 institutes are active in the field of cyber security
- Researchers are funded by **scholarships from the prestigious European Research Council** on topics such as crypto, Computational Law, Quantum computation and Complex Software Engineering
- All Dutch academic universities are in the **World Top 200**
- Every year the number of **IT students increases**



>8% Of all new students choose an IT degree



11 Universities offer 'pure' Cyber Security degrees



1300 Cyber Security students



150 Cyber Security PhD's researchers

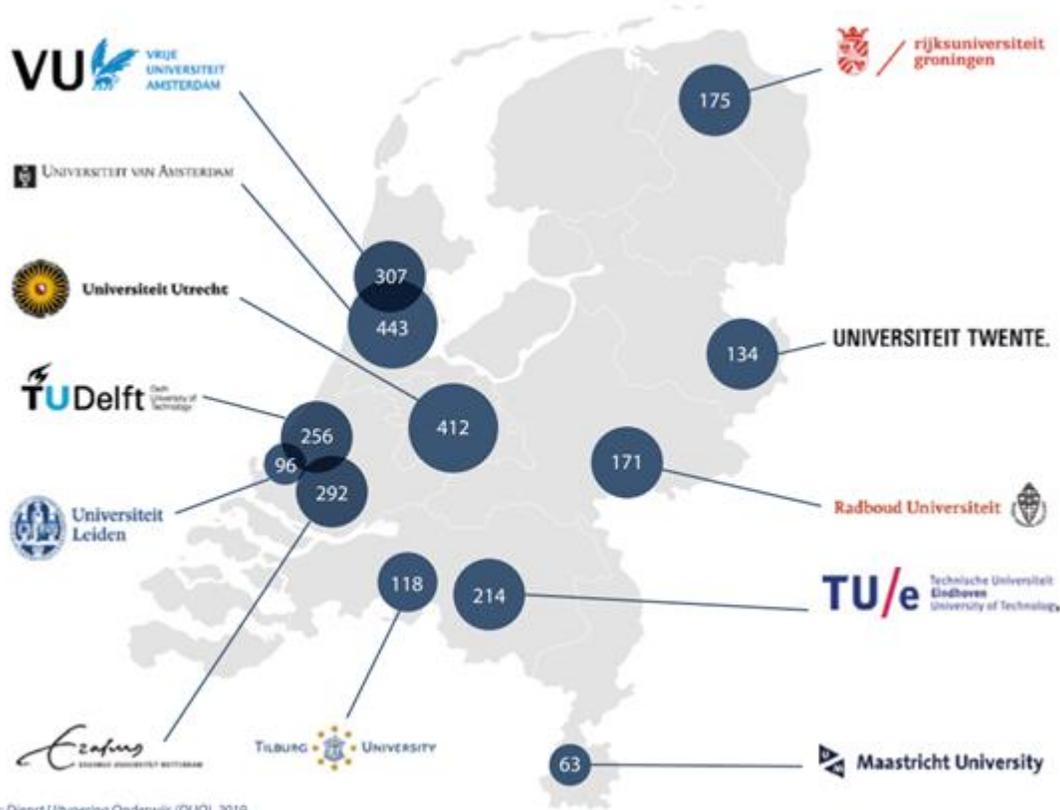
26/01/2022



TALENT AND EDUCATION

Universities in the Netherlands

Academic IT graduates



Source: Dienst Uitvoering Onderwijs (DUO), 2019

IT graduates of Applied Sciences



Source: Dienst Uitvoering Onderwijs (DUO), 2019

26/01/2022



TALENT AND EDUCATION

Academic Universities with Cyber Security Studies

University of Amsterdam / VU

- Security and Network Engineering
- Computer Security

Leiden University

- Security Studies
- Cyber Security
- Crisis and Security Management

Delft University of Technology (TU)

- Computer Science (Cyber Security Specialization)

Tilburg University / TIAS

- Information Management (cybersecurity risk management)
- Executive Master of IT-Auditing (cyber Security component)

University of Twente

- Computer Science (Cyber Security Specialization)

Radboud University

- Computer Science (Cyber Security Master)

Eindhoven University of Technology

- Mastertrack Information Security Technology (cyberattacks, network security & defensive software)

Maastricht University

- Advanced Master in Privacy, Cybersecurity, Data Management and Leadership

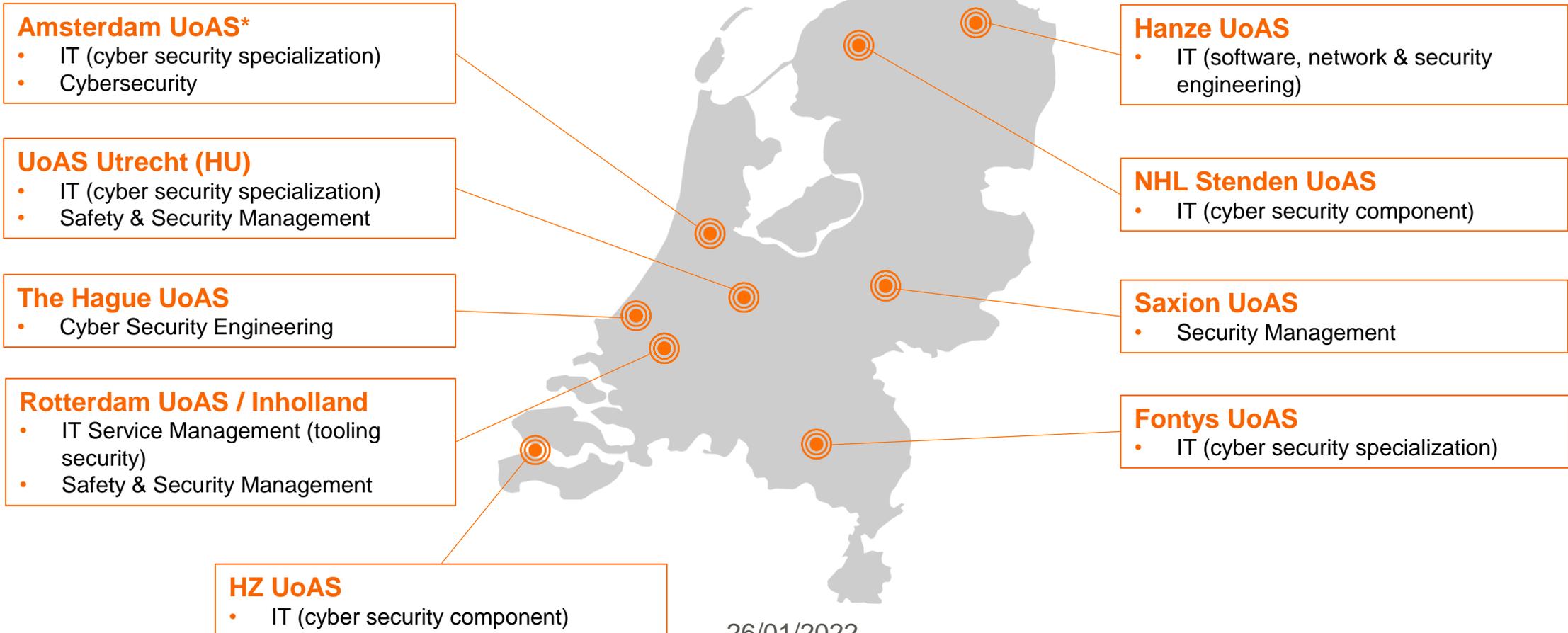


26/01/2022



TALENT AND EDUCATION

Universities of Applied Sciences with Cyber Security Studies



26/01/2022

*UoAS = University of Applied Sciences



RESEARCH, INNOVATION HUBS AND COLLABORATIONS

Research initiatives

Amsterdam

- Financial centre of the Netherlands
- [AMSec](#) brings together experts from a variety of disciplines to study all aspects of cyber security.

The Hague

- Governmental centre of the Netherlands:
- EU European Cybercrime Centre, Europol, Eurojust, European Network for Cyber security and NATO Cyber security Agency
- Security Delta [HSD](#) with Campus (Plaza, Offices, Education Centre and Living Lab)
- The [Cyber Security Academy](#) facilitates joint development of professional education
- InnovationQuarter Investment Fund for Security
- [TNO](#) centre for applied research

Maastricht

- Maastricht European Centre on Privacy and Cyber security, focused on legal issues related to personal data protection and Cyber Security



Enschede

- Twente University Centre of Cyber security research ([TUCCR](#))
- [Digital Society Institute](#): Largest IT research institute of the Netherlands that connects security research with other disciplines, such as critical infrastructure, terrorism and transport networks

Eindhoven

- Dutch Institute for Technology, Safety & Security ([DITSS](#)) connects public and private parties to solve security issues through technological and social innovations
- [Cyber Resilience Center Brainport](#) supports the high-tech and manufacturing industry
- [JADS](#) Academy of Data Science in Den Bosch
- [BrainBloC](#) ecosystem with focus on blockchain for data protection

26/01/2022



RESEARCH, INNOVATION HUBS AND COLLABORATIONS

Security Delta HSD

- Home to the European Cybercrime Centre, Europol, Eurojust, European Network for Cyber Security and NATO Communications and Information Agency.
- The Cyber Security Academy (CSA) for research and education with partners such as the universities of Delft and Leiden.
- InnovationQuarter Investment Fund for Security
- HSD Campus (Plaza, Offices, Education Centre and Living Lab)
- SME Service Desk (Advice/Matchmaking)
- Strong ties with a.o. ASIS and US Homeland Security





DIVERSE ECOSYSTEM Dutch Cyber security Market Landscape



Q3 2021 - For questions or suggestions, please contact: linda.dekker@innovationquarter.nl



ACCESS TO MARKET

Sales Partners



350+ sales partners
Active on the Dutch market

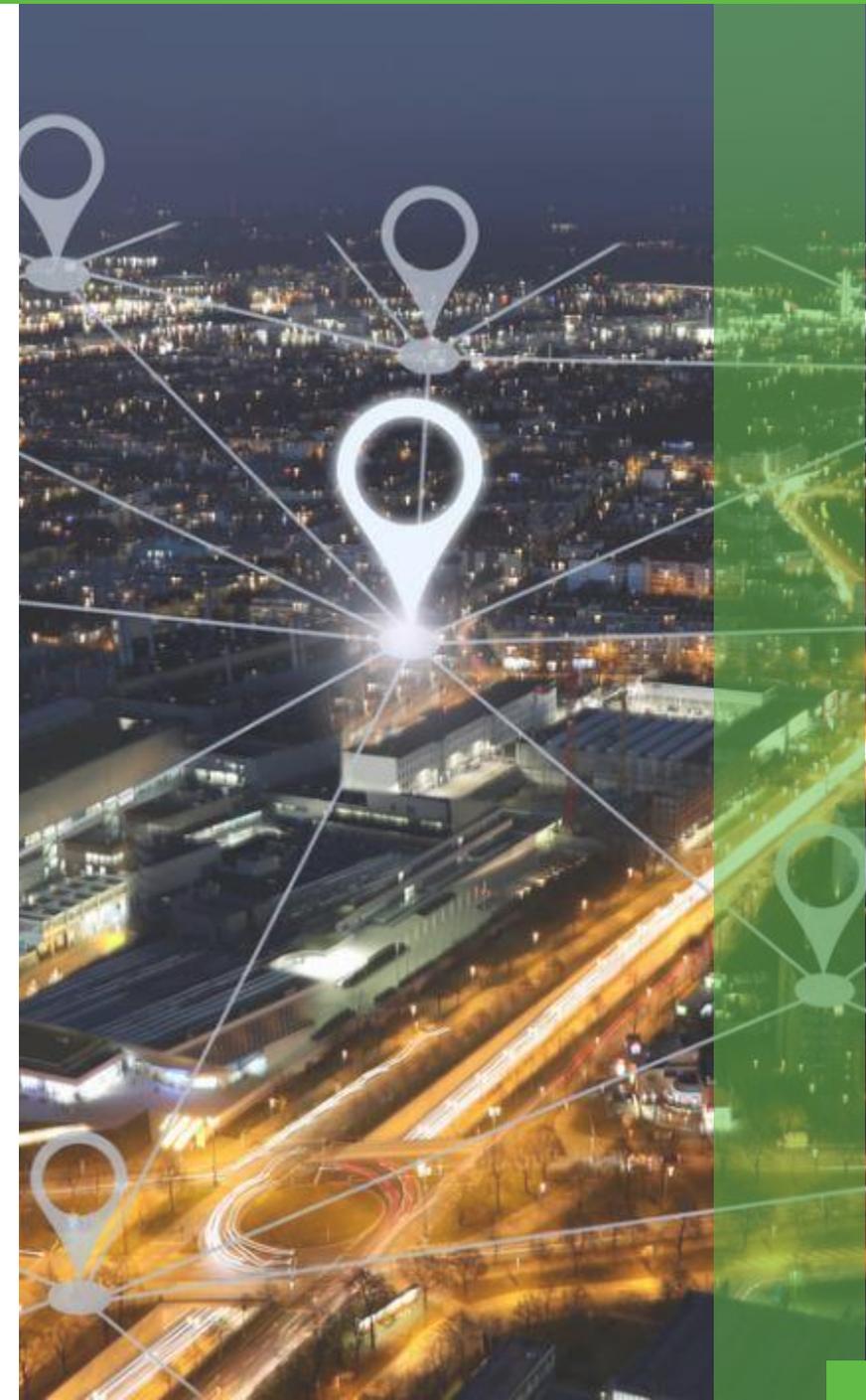


Find your preferred partner
Resellers, Vendors, System Integrators,
Distributors, Outsourced Business
Developers, or MSSP's



Connect with
IT-partners and partners with excellent cyber
security expertise

26/01/2022





“The Dutch banking sector was among the first in the world to digitalize its business and services, creating new demand for Cyber Security solutions. These conditions pulled the Cyber Security industry into maturity fast.”

EWARD DRIEHUIS

Senior Vice President of strategy at [Cybersprint](#)



CYBERSPRINT
BREAKTHROUGH SECURITY

26/01/2022

Source: news item on investinrotterdamthehaguearea.org





INCREASING DIGITALIZATION

Growing demand and spending on cyber security

- **Growing dependence** on online systems
- Dutch business community one of the largest users of the **cloud**
- **96%** of Dutch businesses use **digital tools** such as video conferencing, **88%** structurally have possibilities for **working remotely**
- The Dutch police registered **10.714 cybercrimes** in 2020
- **+227%** cybercrimes compared to 2019

Annual growth of cyber security companies



Facts and figures



€62.2 bln.

IT investments
public and private sector



€61.1 bln.

import of IT goods



€39.2 bln.

export of IT goods



€36.5 mln.

damage due to phishing

26/01/2022



CYBER SECURITY CROSS-OVERS

Strong sectors of the Netherlands and their security challenges



Life Sciences & Health

Corona accelerated the adaptation of e-health. 71% of Dutch healthcare directors prioritize the realisation of digital or remote healthcare, which goes hand in hand with security challenges



Agrifood and Horticulture

The horticulture sector is highly dependent on the use of sensors and computers in climate control, water management, CO2 and fertilization



High Tech Systems and Materials

The Dutch HTSM sector annually produces a value of €139 bln. and invests € 4 bln in R&D. Cyber Security and Secure Industrial IoT are essential for the sector



Maritime and Logistics

The #1 port of Europe in Rotterdam is highly automated. Cyber attacks happen on a daily basis, reports the Port Cyber Resilience Officer



Finance

The Netherlands has a strong financial sector that includes banks, worlds 6th largest pension capital, the leading venue for European share trading (AEX) and a growing fintech community



Energy and water

26 percent of the Netherlands is below sea level. It is also an exporter of energy. The Cyber Security law was put in place in 2018 to ensure critical infrastructure for utilities is secure

26/01/2022



INTERNATIONAL INSTITUTES

Presence of governmental and international organisations

The Netherlands is home to numerous international organizations that are dependent on adequate security

- Permanent Court of Arbitration
- The International Court of Justice
- Europol - Interpol
- The EU European Cybercrime Centre
- Organisation for the Prohibition of Chemical Weapons
- UNICRI Centre for Artificial Intelligence and Robotics
- NATO Cyber security Agency
- European Medicine Agency (EMA)
- European Space Research and Technology Centre
- Benelux Organisation for Intellectual Property
- European Patent Office

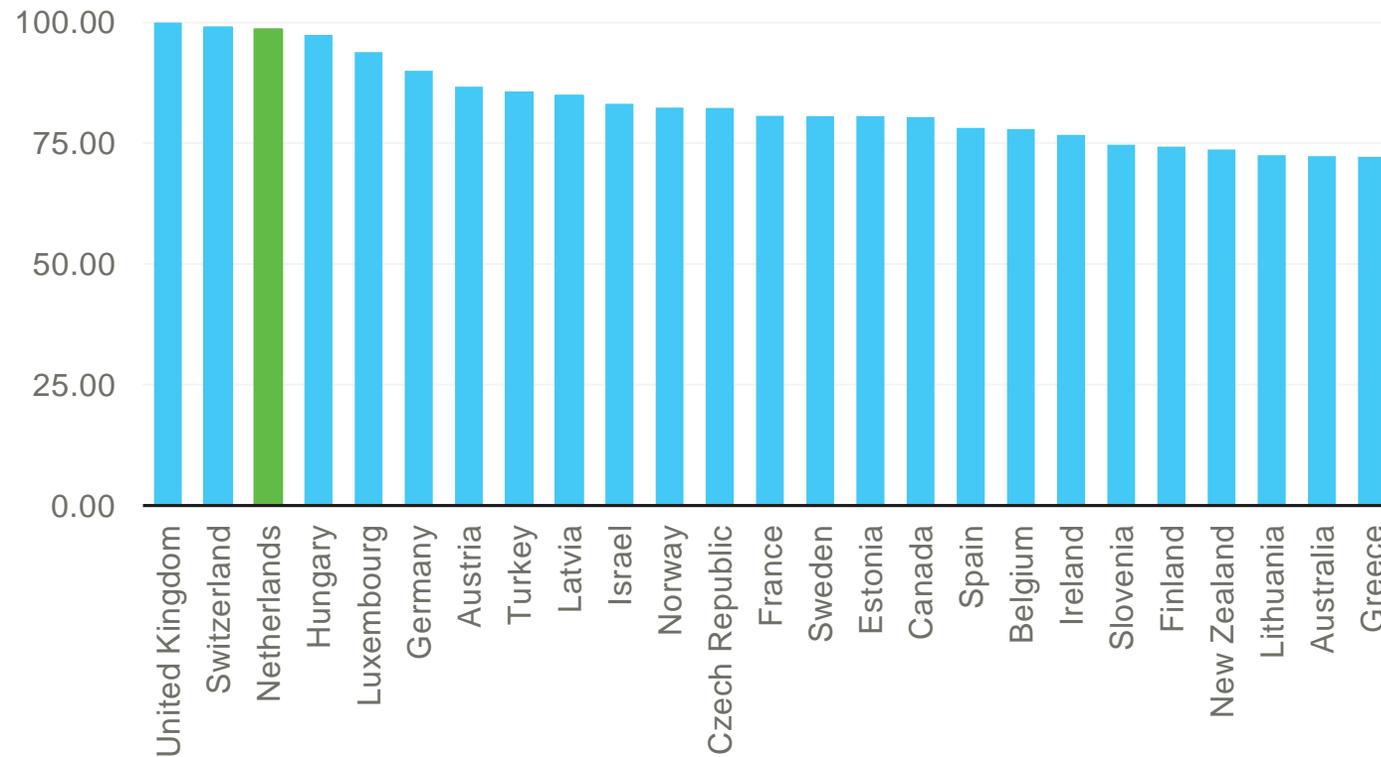
26/01/2022





TAXATION

Cross-border tax rules



The International Tax Competitiveness Index (ITCI) seeks to measure (INDEX 0-100) the extent to which a country's tax system adheres to two important aspects of tax policy: competitiveness and neutrality. The Netherlands ranks 3rd overall in the category Cross-Border Tax Rules.

26/01/2022



TAXATION

Incentives and taxes

- The **Corporate Income Tax** for profits up to €395.000 is **15%**
The general corporate tax rate above €395.000 is **25,8%**
- A wide network of nearly 100 bilateral tax treaties to **avoid double taxation**
- **Advance tax ruling** and advance pricing agreement from tax authorities
- The **30% ruling** allows employers to offer **30% of employee salaries tax free** when bringing employees from abroad
- **Tax credit** for qualifying **R&D wage costs** and other related costs and investments (WBSO).
- **Innovation Box** tax rate as low as 9% for profits on self-developed intangible assets in NL



26/01/2022



BUSINESS CLIMATE

Excellent country for business

The Netherlands

Rank	Topic	Organisation	Year
1	Global Talent Competitiveness Index	Insead	2020
1	Global Connectedness Index	DHL	2020
1	Flexible work arrangements Global Competitiveness Report	World Economic Forum	2020
2	Globalization Index	KOF	2020
4	Best Countries for Business	Forbes	2020
4	World Competitiveness Scoreboard	IMD	2020
5	Global Innovation Index	Insead	2020

26/01/2022



BUSINESS CLIMATE

Competitive landscape

Overall in 2020

300+ international companies chose the Netherlands creating **8,600** direct jobs



The Netherlands is strategically located in continental Europe with access to **170 million** consumers within 500 km and **244 million** consumers within 1,000 km



The Netherlands offers a highly skilled, productive and **multilingual workforce**

90% of Dutch people are fluent in English and many speak German or French as well

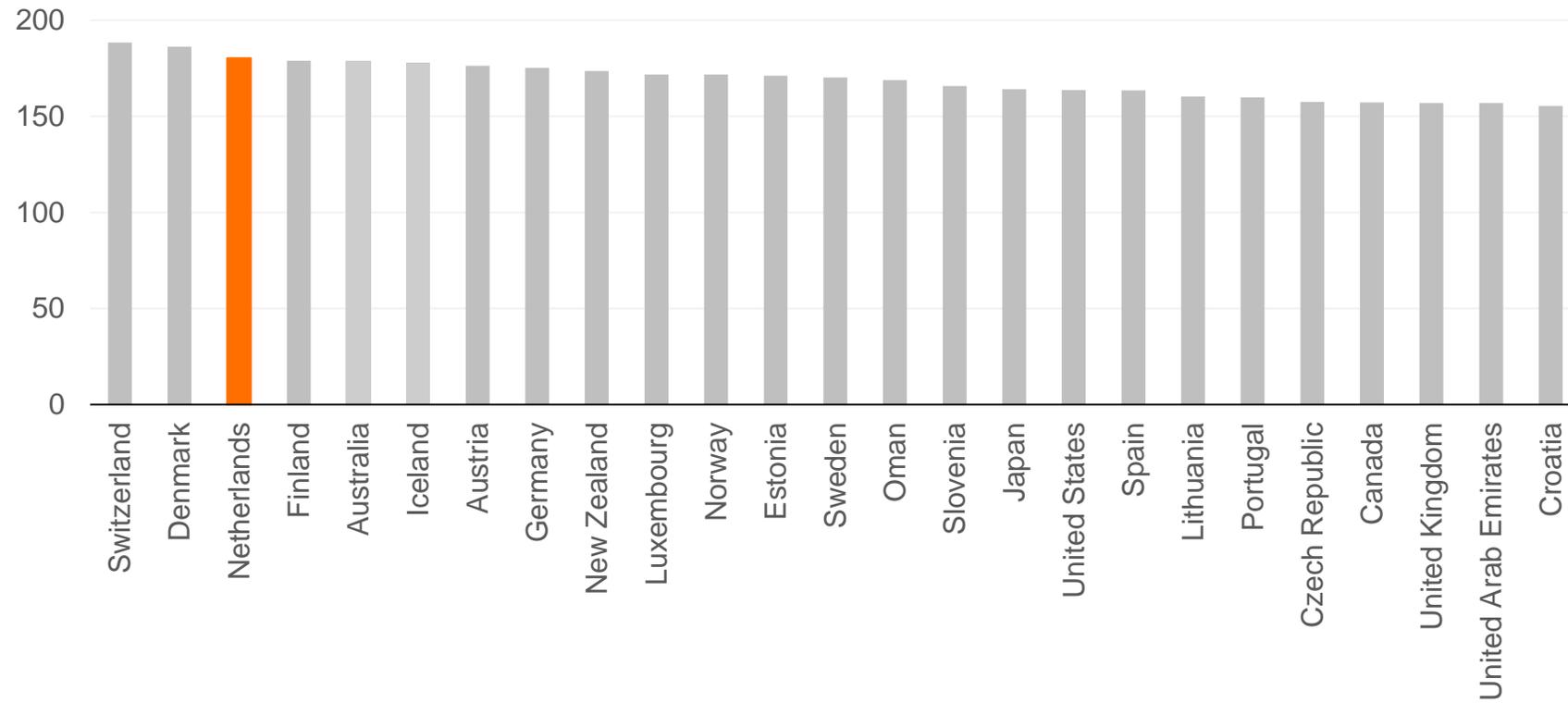
The Netherlands is the **5th** largest in the European Union with a GDP of over **€812 billion**. According to the IMF, the Netherlands is consistently among the **3 largest** source and recipient economies for foreign direct investment (FDI) in the world

26/01/2022



QUALITY OF LIFE (INDEX: 0-200)

Quality of life (worldwide)



26/01/2022



QUALITY OF LIFE

Top 20 most livable locations for European expats

Country	Rank	Country	Rank
Copenhagen, Denmark	1	Dublin, Ireland	9
Bern, Switzerland	1	Aarhus, Denmark	12
The Hague, Netherlands	3	Rotterdam, Netherlands	12
Geneva, Switzerland	3	Zurich, Switzerland	14
Stavanger, Norway	5	Bonn, Germany	15
Eindhoven, Netherlands	5	Munich, Germany	15
Amsterdam, Netherlands	7	Vienna, Austria	17
Basel, Switzerland	7	Hamburg, Germany	17
Luxembourg, Luxembourg	9	Stockholm, Sweden	19
Gothenburg, Sweden	9	Edinburgh, United Kingdom	19

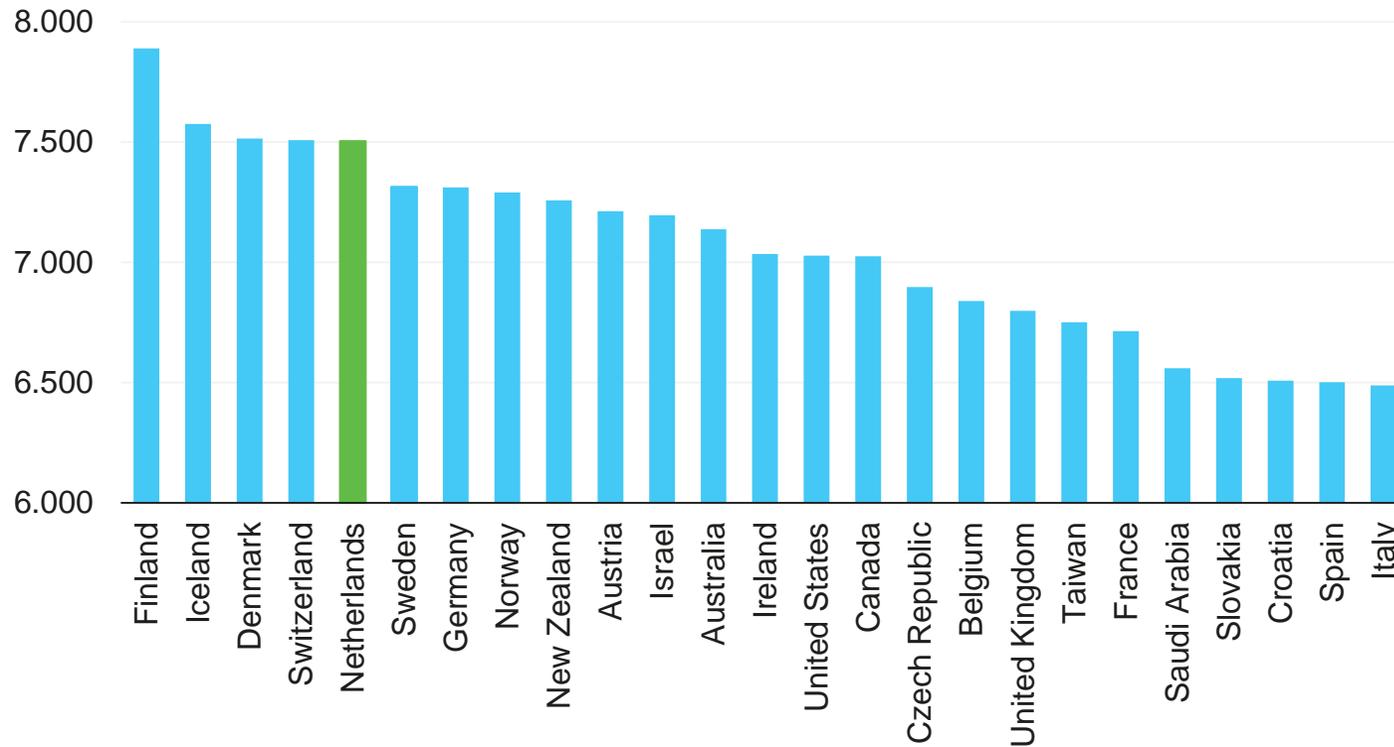
The Netherlands ranks high on ECA's 2020 list of most livable cities in Europe for European expats with four Dutch cities in the top 20.

26/01/2022



QUALITY OF LIFE

Happiness levels across the globe



The World Happiness Report 2021 ranks 149 countries by their happiness levels

In 2020, the Netherlands was ranked **5th happiest in the world.**

26/01/2022



“It is noticeable that our opinion - the Dutch opinion - matters in international associations. It has a highly motivating effect to be part of a world-leading community and knowing how high the level of expertise of the surrounding people is.”

JEROEN DE MUIJNCK

Managing Director at Sectra Communication Nethe

SECTRA

26/01/2022

Source: news item on investinrotterdamthehaguearea.org





DUTCH CULTURE

Doing business in NL

- **Typical Dutch characteristics?**
Direct, opinionated, happy, realistic, punctual and cheap
- **Hierarchy in Dutch business culture - egalitarianism and openness**
Horizontal structures
Executives only display power when really necessary
Boss is part of the group
Employees take initiative and responsibility while working independently
- **Dutch business strategy and planning**
cautious and pragmatic about their strategy with step-by-step planning
The manager is not an expert, but rather a problem solver or facilitator
- **Business decisions**
Most decisions are based on consensus, suggestions from all workers are welcome
Reaching decisions sometimes time-consuming, but implementation is fast and efficient





DUTCH CULTURE

Doing business in NL

- **Meetings in the Netherlands**

Usually informal meetings

Held on fixed times. Protocols and agendas are often part of it

Everyone expected to make a contribution, regardless of position – come prepared

Foreigners often perceive Dutch meetings as ineffective, Dutch make sure everyone is heard

- **Negotiations in Dutch business culture**

Get right down to business, proceed at a rapid pace

Tough and persistent negotiators, but also honesty and reliability

- **Time perception and keeping appointments**

'Time is money', not too much small talk

Structured agendas in business and social life

5-10 minute flexibility, otherwise unreliable

- **Wining and Dining**

Lunch is a necessity, not a social event. Sandwiches behind computer, during a meeting, everywhere

During dinner some small talk, but business is main topic. Topics outside business: home country, cultural events, sports, family, hobbies

26/01/2022





INVEST IN HOLLAND NETWORK

We roll out the orange carpet

Netherlands Foreign Investment Agency



Invest in Holland is the national network of the Netherlands Foreign Investment Agency (NFIA), an operational unit of the *Dutch Ministry of Economic Affairs and Climate Policy*, and our regional and local partners. Together we support foreign companies to set up and expand their business in the Netherlands.



We connect you

with local networks, regulators, clusters and consultants.



We inform you

about incentives, business locations, regulations and procedures.



We organize

custom-made fact finding trips for your investment project.



We provide

confidential and free support.



RESECONPOLIS



Martijn van Hoogenhuijze

Teamlead Smart & Secure / Senior Account Manager
Cyber Security

martijn.vanhoogenhuijze@innovationquarter.nl

InnovationQuarter

+31 6 5330 4281



Philip Meijer

Senior Account Manager Cyber Security

philip.meijer@innovationquarter.nl

InnovationQuarter

+31 6 2475 6710

26/01/2022



Peace Palace The Hague, since 1913



Nuclear Security Summit In The Hague, 2014

ANGOKA

Embedding Trust Into Connected
Devices

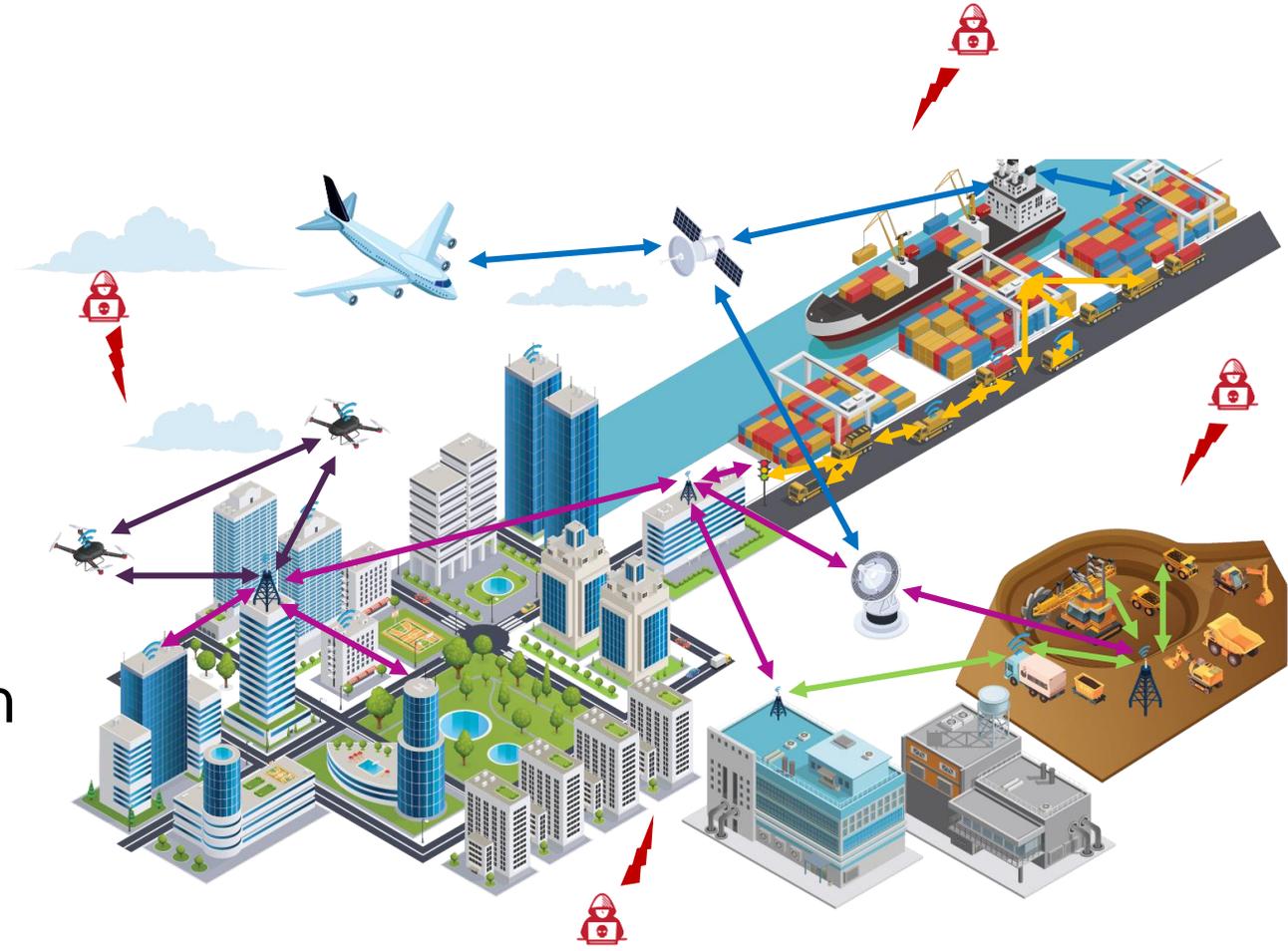
InvestNI
January 2022

Daniel Ruiz
Director Smart Cities
and Mobility

Opportunities in the Netherlands

The Problem

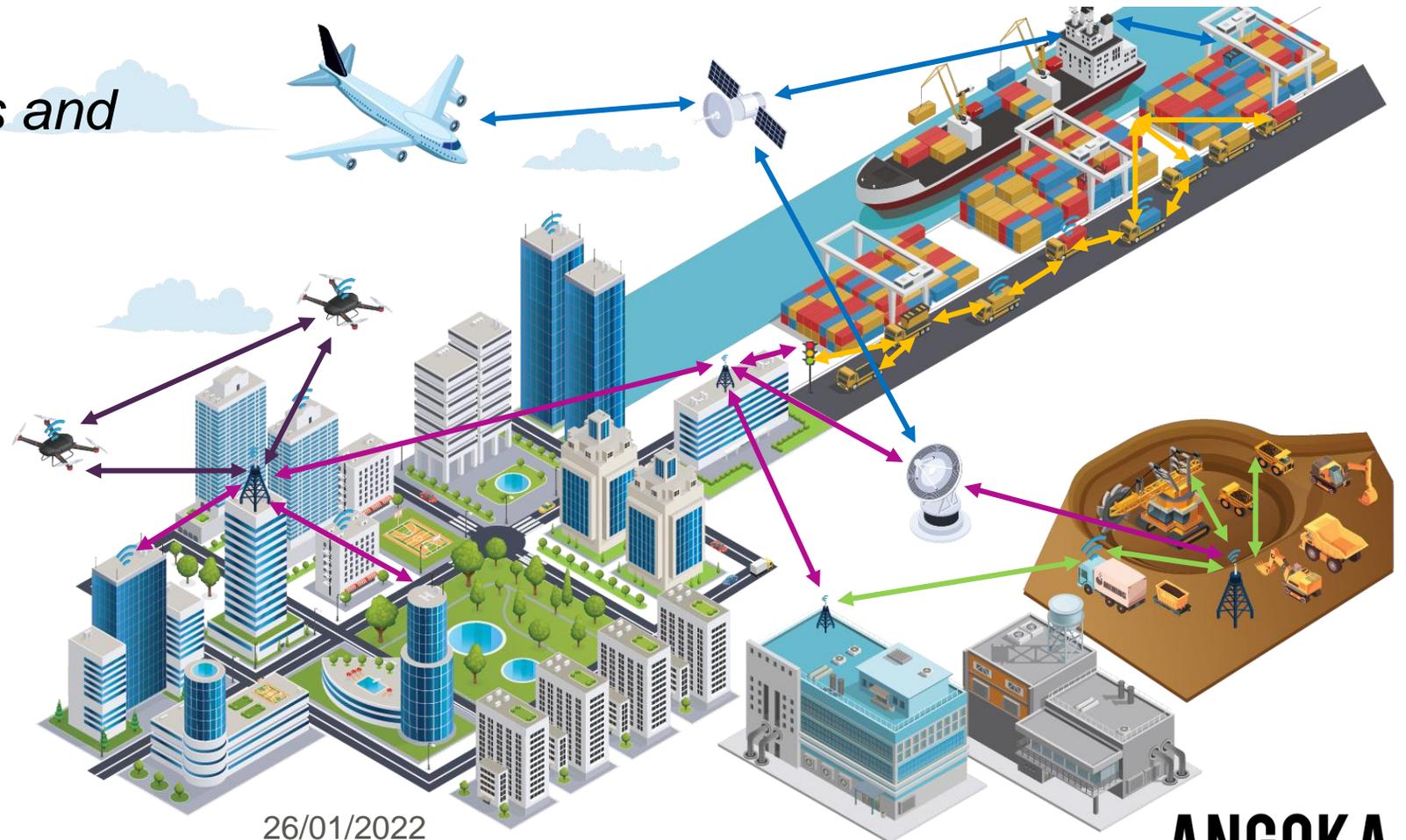
- Up to **1 Trillion** connected devices
- **Attack Surfaces** increase exponentially
- **Quantum** threat is growing
- **Traditional Security** not workable in the long run



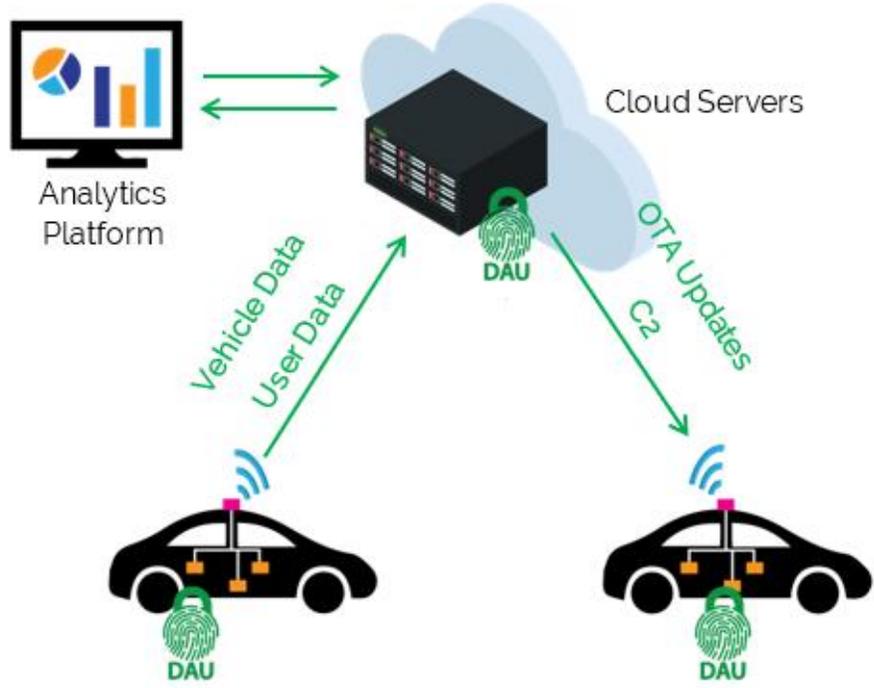
Angoka – The global standard for IoT Security



Ensure the **Safety** and
Resilience of Smart Cities and
next generation mobility

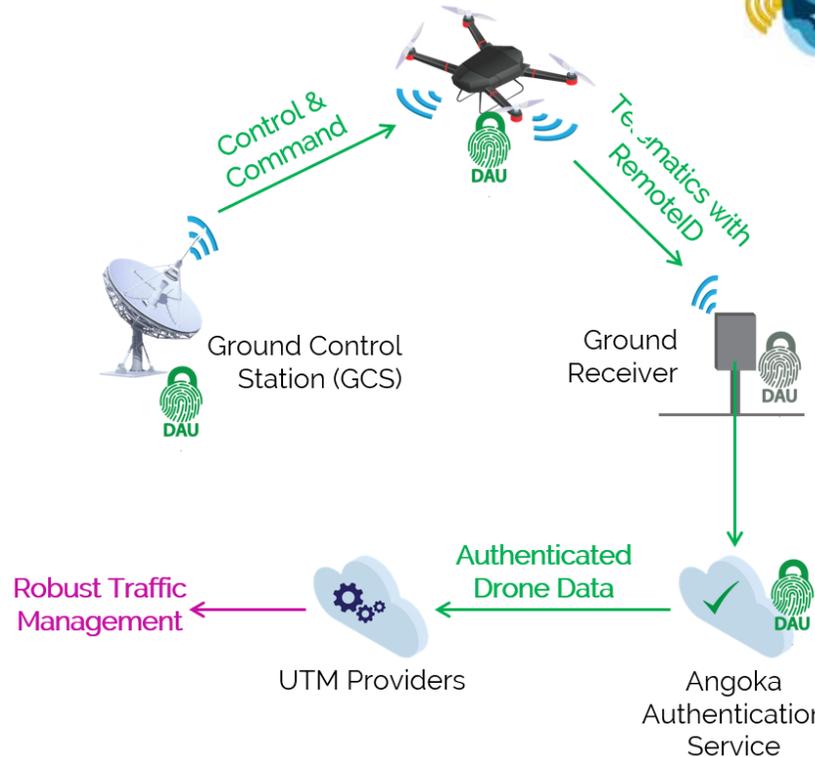
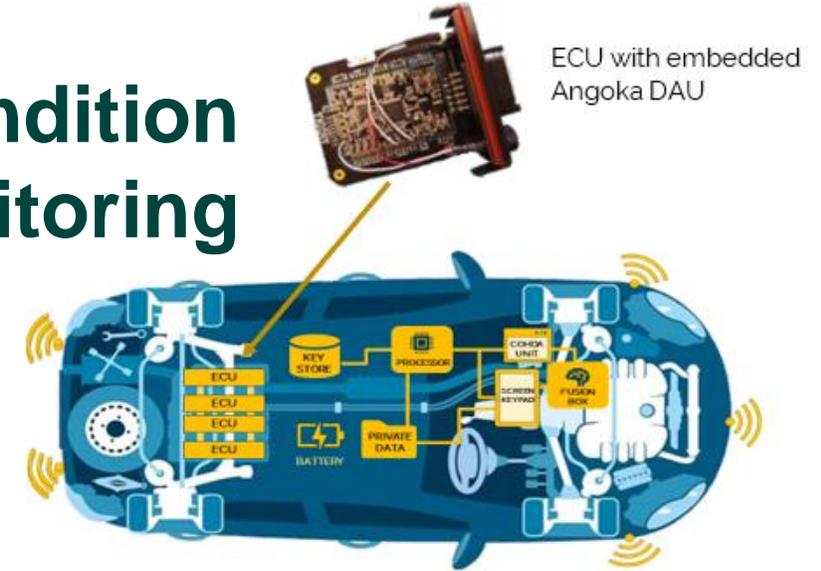


Data security systems for high value assets and processes



Teleoperations

Asset condition monitoring



Air Mobility

Opportunity in The Netherlands

Markets

- Transport and traffic
- Defence
- High value manufacturing
- Agriculture

Politics and policies

- AI and cyber priorities

Our proposition

Data security systems for high value assets and processes

- Teleoperations
- Asset condition monitoring
- Drone operations & traffic control

ANGOKA Strategy – The Netherlands

Industry and network alliances

- E.g. KPN, Dynniq, Swarco

Presence in country

- Office in The Hague
- NL-based, Dutch national on ANGOKA board
- Commitment to partner with NL-based companies and consortia

Funding and Support

- InnovationQuarter
- ZuidHolland and other regions
- Innovate UK
- InvestNI

ANGOKA Progress

Now

- Hampered by Covid
- Good remote relationships
- KPN (Dutch telecoms) acting as advocates
- BD process (pipeline) established
- Project opportunities in the pipeline

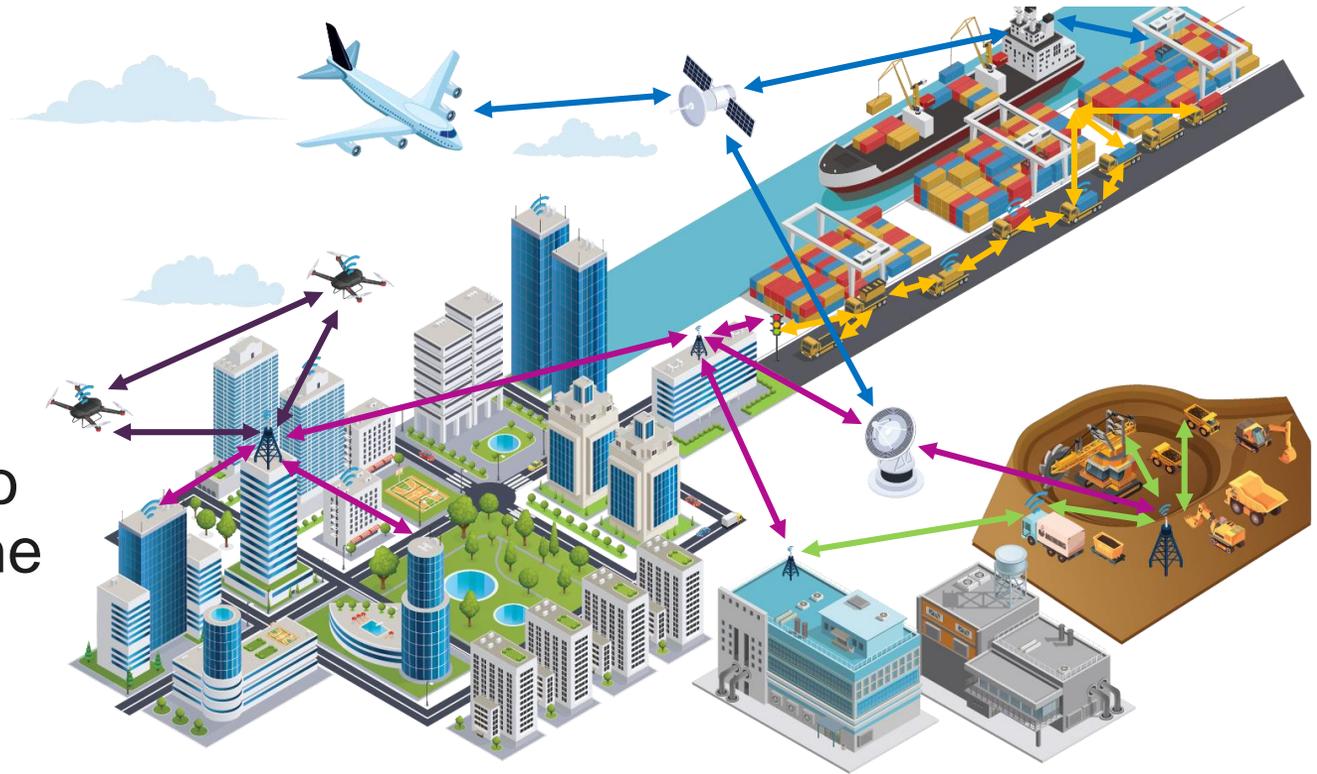
Next

- Face to face visits
- Embed client engagement people
- Proof of Value projects with key clients

Culture

Cultural Aspects

- The majority of country speaks excellent English
- Dutch people are exceptionally open and transparent
- Questions are always welcome
- Working relationships are deemed time effective
- Companies are open and willing to work with businesses outside of the Netherlands



Summary

- Angoka have benefitted from support from Invest Northern Ireland
- Relationship with The Netherlands has benefitted from our foundation based in Belfast
- Funding and support from Invest NI and Innovate UK, and upcoming support from Innovation Quarter has helped business grow in Angoka
- The Netherlands is a forward looking country, opportunities in AI, Cyber Security and similar technologies are increasing

ANGOKA

Embedding Trust Into Connected
Devices

Daniel Ruiz

d.ruiz@angoka.io



InvestNI.com
InvestNI@investni.com

