Speedinvest

dealroom.co

Industrial innovation: the next big opportunity in tech.

Powered by

KNAPP

October 2020

Speedinvest

Speedinvest - The VC for European Industrial Tech Startups.

Speedinvest is a leading European, early-stage VC with focused investment teams, in-house expert support, and the networks needed to build category-defining tech companies.

The Industrial Tech team invests in seed-stage startups across Europe that solve complex problems within the industrial world. We love startups that revolutionize complete industries or support the “old economy” in becoming more digital. Our investors are leading industrial corporations eager to collaborate with our portfolio companies.

Learn more about our Industrial Tech, Fintech, Deep Tech, Network Effects, and Health and Consumer Tech teams and our +170 portfolio companies at speedinvest.com.

wefox
CORRUX
TIER
CRATE.IO
SCHÜTTFLIX
byrd
aucobo
CELUS
greyparrot
TWAICE
remberg
tide

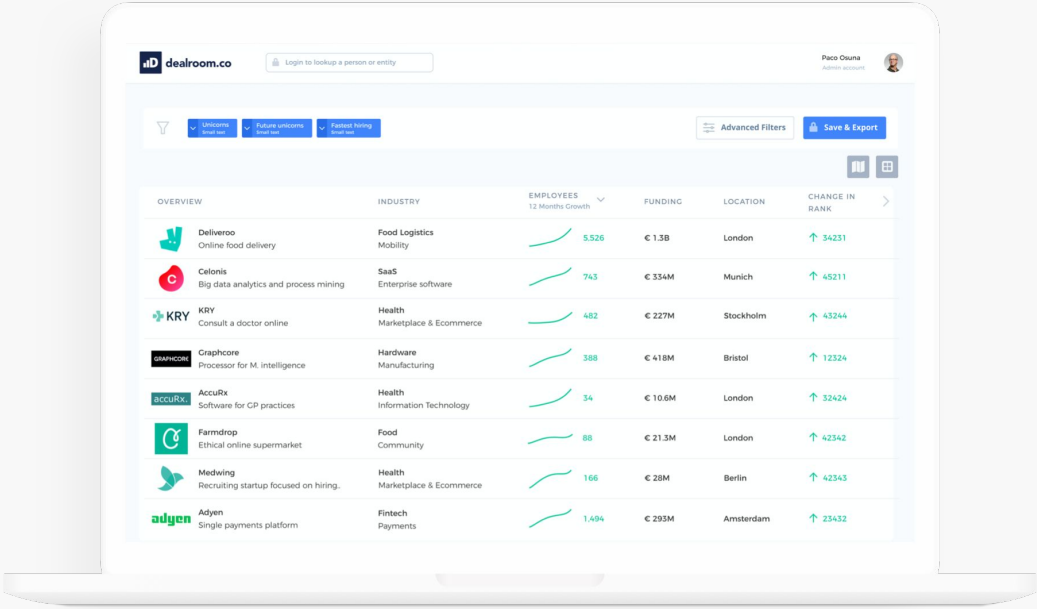
dealroom.co

Global intelligence about promising companies, from startups to unicorns.

Dealroom.co is the foremost data provider on startup, early-stage and growth company ecosystems in Europe and around the globe.

Founded in Amsterdam in 2013, we now work with many of the world's most prominent investors, entrepreneurs and government organizations to provide transparency, analysis and insights on venture capital activity.

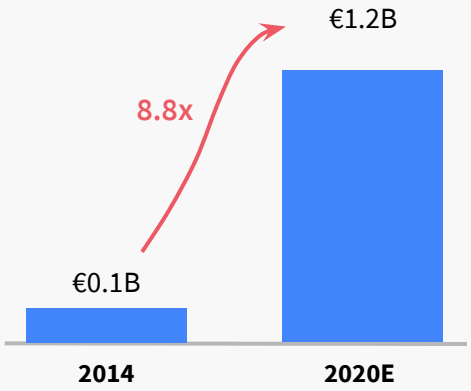
Our offerings include data sets via SaaS and API as well as custom reports and bespoke ecosystem platforms.



After growing 2.7x faster than overall VC, the ecosystem has reached critical mass.

Industrial Tech investment has grown 8.8x between 2014 and 2020, nearly three times faster than overall European VC investment which already grew 3.2x in the same period.

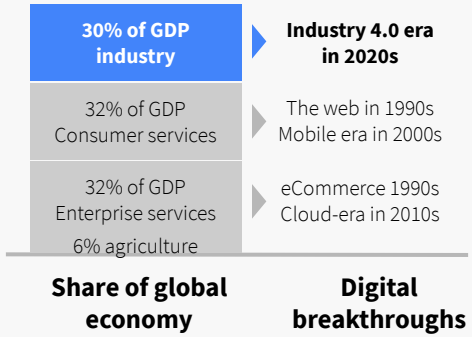
German and French startups lead the way in Europe, having raised €1.9 billion since 2014, roughly 45% of the European total.



A third of the global economy is industrial. A major digitization wave is on its way.

With an output of $23 trillion per year, industry represents roughly a third of the global economy.

Industrial sectors like manufacturing, mining, construction, and utilities have traditionally been among the least digitized. Today, Industrial Tech is at a similar inflection point as enterprise tech/cloud was in 2010. Enter the industry 4.0 era.



Europe is well positioned and European Industrial Tech could soon be a €300B market.

Europe's combined industrial & logistics turnover is €11 trillion. PwC estimates 3% of that being invested in "Industry 4.0 solutions".

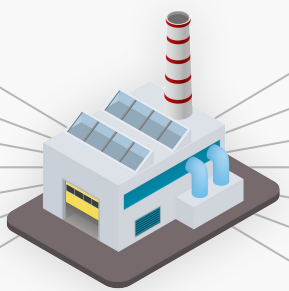
This percentage is consistent with trends seen in enterprise IT investment and implies over €300 billion per year invested in innovations like AI, IIoT, cybersecurity, 3D printing et cetera.

Logistics deserves a closer look, as it's not just about the sector investing in IT, but also about the entire industry itself being revolutionized by new entrants.

The pandemic, political climate and actual climate change have accelerated the sense of urgency around themes like decentralization, cybersecurity, customization, and sustainability. Europe, with its density of high value-add manufacturing, is especially well positioned to lead.

For this report, we've indexed 531 European industrial tech companies with at least €1M in venture capital funding, across 14 core segments.

Industrial tech startups are those companies transforming traditional industrial processes through software and other innovations. While many of these companies use common technologies, their applications are broad. This report explores the following segments.



- Advanced Materials
- Additive Manufacturing (3D Printing)
- Simulation and Advanced Engineering Tools
- Data Analytics and Predictive Algorithms
- Logistics
- Procurement
- Construction
- Energy
- Robotics
- Connectivity and IoT Infrastructure
- Digital Customer Interaction and Industrial Marketplaces
- Industrial VR/AR
- Industrial Cybersecurity
- Industrial Drones and Drone Software

Five trends that are accelerating Industrial Tech

Convergence of Operational Technology (OT) and IT

Real-time visibility and simplified industrial process management.
Drive further automation through machine learning and robotics.

Decentralization of production and customization

Manufacture closer to customer, better customization.
This leads to reduced production time but also new revenue opportunity.

Consumerization of manufacturing

Provide blue collar and white collar workforces with tools that offer same experience as technology in their private life.

Decarbonization of industrial processes

Smarter and more economical usage of energy and a steady shift to renewable energy.

Top-down desire to adopt technological change

A general desire to transform and bring a significant boost in efficiency, improving quality, reducing costs, minimizing mistakes and accelerating revenue growth.

Applications & companies

- Real-time visibility in logistics
- Digital twins
- Solutions for industrial IoT
- Predictive maintenance

- Producers of 3D printers
- Software for additive manufacturing
- Additive manufacturing marketplaces
- On-demand manufacturing

- Smart wearables
- Collaborative robots
- Exoskeletons for heavy duty tasks
- Augmented reality software

- Sustainable logistics
- Sustainable materials
- Energy consumption optimization
- Renewable energy

- Advanced analytics
- Simulation and advanced engineering
- Industrial cybersecurity
- Robotics

Table of contents

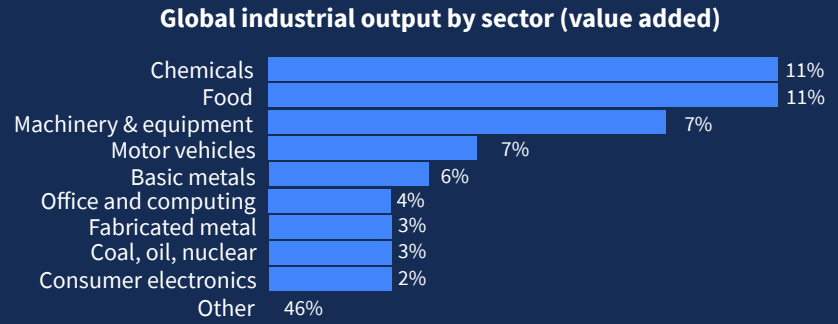
1 $23 trillion industrial sector going digital

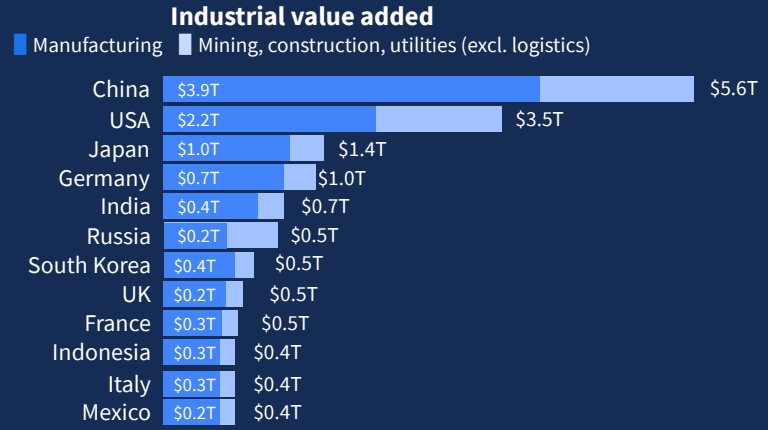
30% of the global economy is industrial; an output of $23 trillion.

Traditional industry - production activity like manufacturing, mining, construction and utilities - is a $23 trillion sector, accounting for 30% of the global economy. The fourth industrial revolution is now under way. Industry 4.0 is finally reaching a moment of critical mass in terms of investment.

This report looks at software-enabled innovations (including robotics and advanced materials) transforming industrial processes. Logistics, while adjacent to industry, is included in this report as an important industry-intersecting and connecting segment.

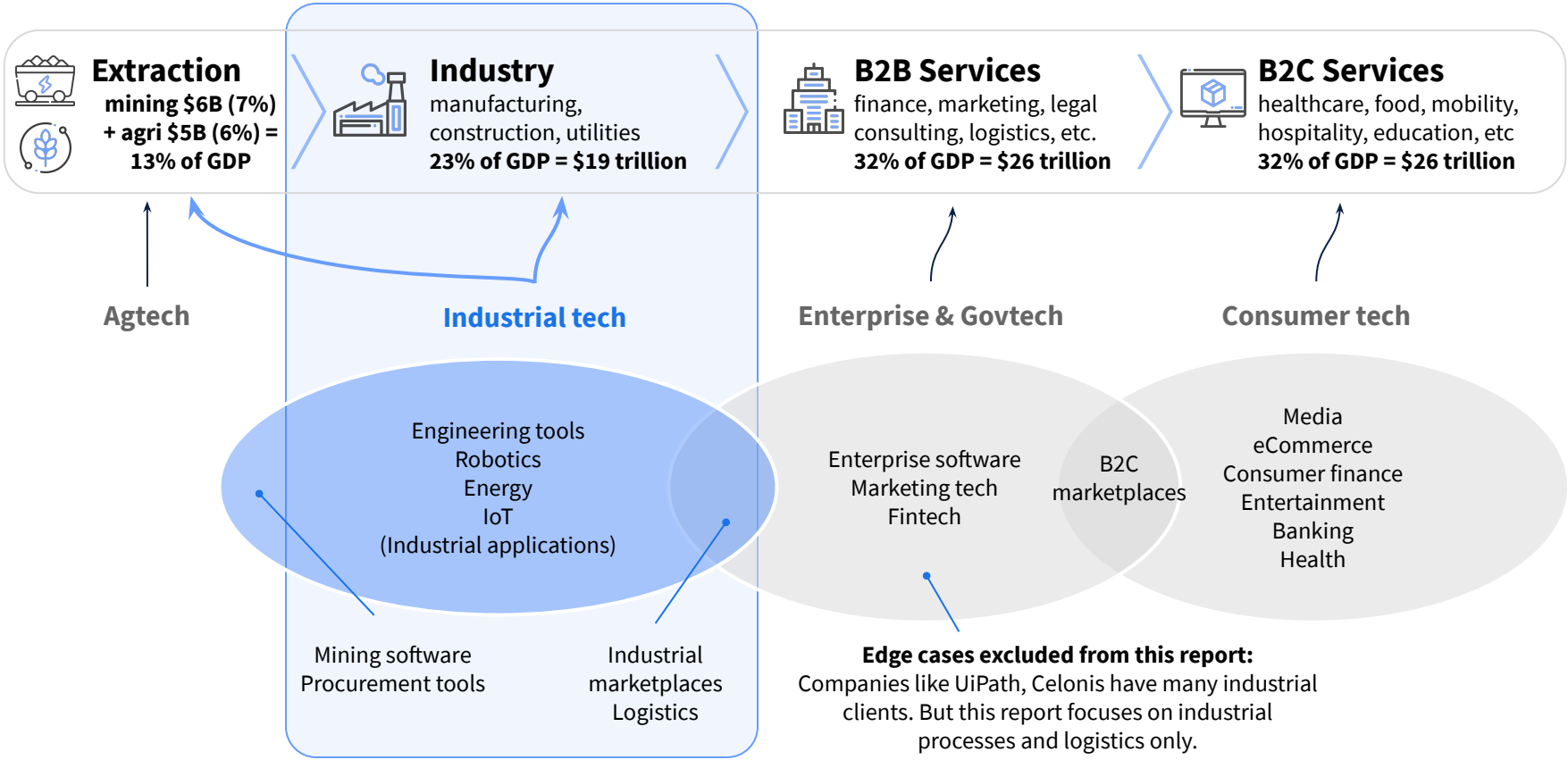
This year, the Covid-19 pandemic has added another vector: decentralization. Software could play a key role in making supply chains, from production to distribution, more agile and able to cope with global disruptions and uncertainty - making Industry 4.0 more pressing than ever.





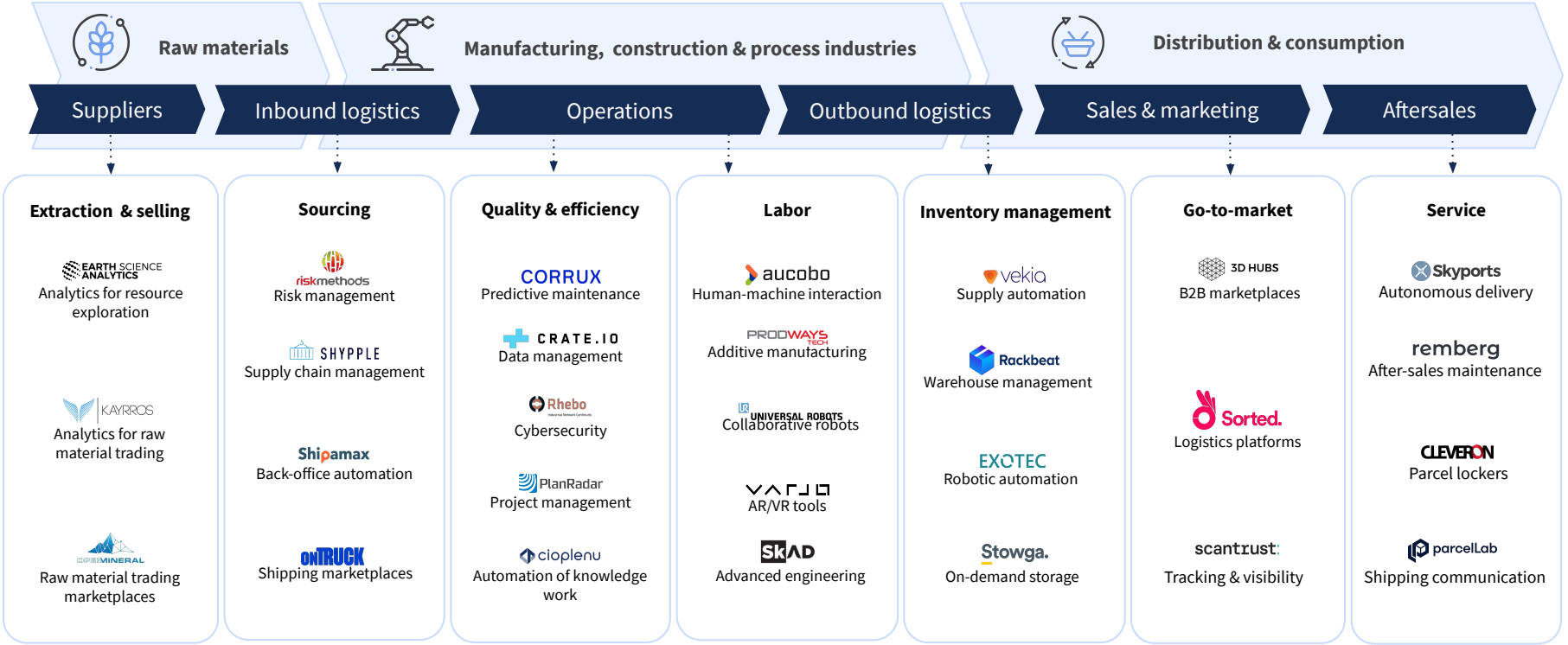
Dealroom analysis of data by World Bank and United Nations (mostly 2018 data).
Value added is turnover minus cost of inputs. This measure avoids double counting when looking at multiple sectors.

Industrial tech's position relative to enterprise & consumer tech.



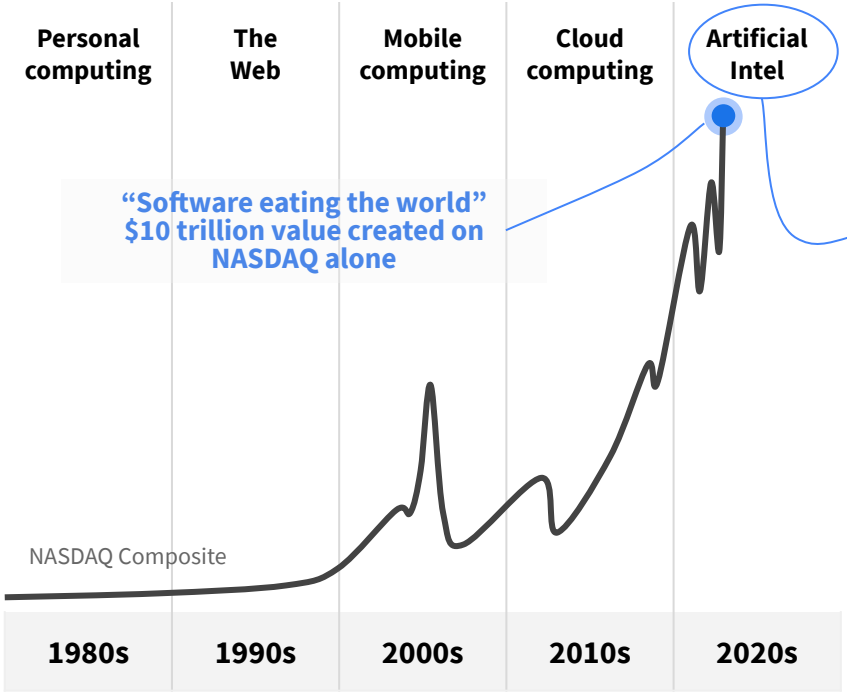
Dealroom.co analysis. GDP data by World Bank. GDP split between B2B and B2C is indicative based on Eurostat data. Industry including

Industrial tech is about the transformation of industrial processes, through software and other innovations.



Dealroom.co analysis with some inspiration from various McKinsey reports.

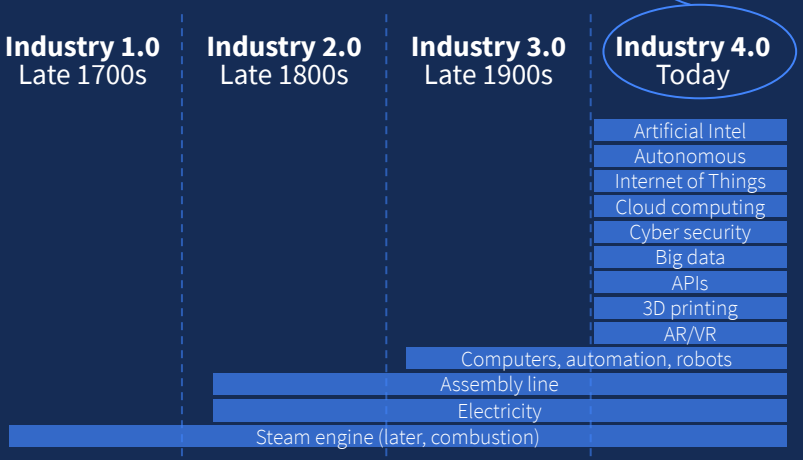
Industrial tech is at a similar inflection point as enterprise cloud was in 2010.



Technology has been "eating the world", creating well over $10 trillion in value (the NASDAQ alone representing most of that). So far, this has mostly addressed consumer and enterprise services.

Now - enabled by AI and other advancements - technology is moving into more complex physical spaces, such as factories, trucks, robotics and entire manufacturing processes.

Each industrial revolution has been triggered by major technological breakthroughs. Industry 4.0 is describing several technological advancements happening all at once.



In Europe alone, Industrial Tech could soon be a €300 billion market.

Europe's industry is a €11 trillion turnover sector, with 45 million employees. Based on a 2016 survey, PwC estimates that European manufacturing will invest 3.3% of their annual revenues in "Industry 4.0 solutions" by 2020. This percentage is consistent with trends seen in enterprise IT investment. It implies €300 billion per year in Industrial Tech revenue in Europe alone.

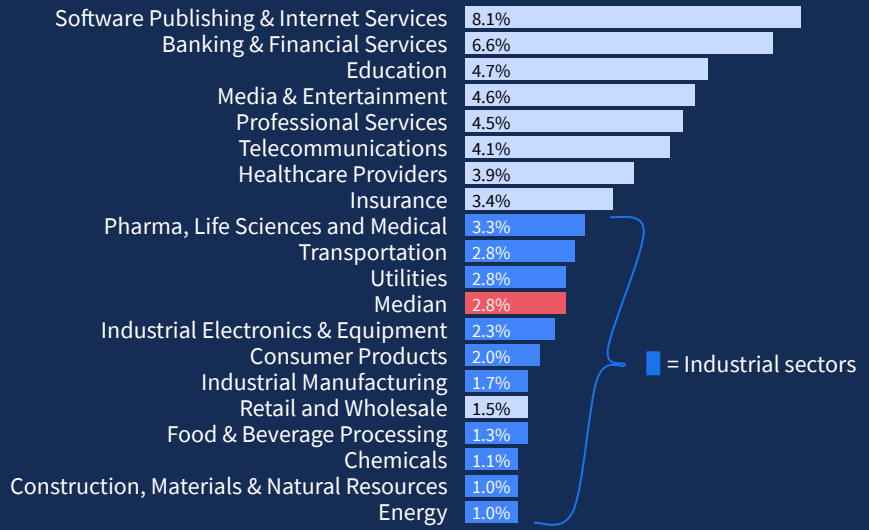
	Turnover	Value added *	Employees
Manufacturing	€7.9T	€2.0T	31M
Logistics **	€1.4T	€0.5T	10M
Energy	€1.3T	€0.2T	1.1M
Construction	€500B	€120B	2.9M
Mining	€100B	€60B	0.4M
Total	**€11.2T**	**€2.8T**	**45M**
	x 3% =		
	€300B+		

* Value added is turnover minus cost of goods sold.
** Logistics are normally included in services, not industry, but it's closely related and highly relevant, therefore included here.

European businesses on average spend 3% of their turnover on IT. Industrial sectors have historically spent even less (1-2%). However, R&D spending is 14x higher in industrial sectors than in services (as a percentage of output, as per World Bank data), which shows a strong drive to innovate.

Morgan Stanley estimates that manufacturing will be responsible for 40% of global investment in AI, Autonomous Vehicles, IoT, Industrial Software, Robotics and Semiconductors in the next decade.

IT spending as % of turnover, by sector



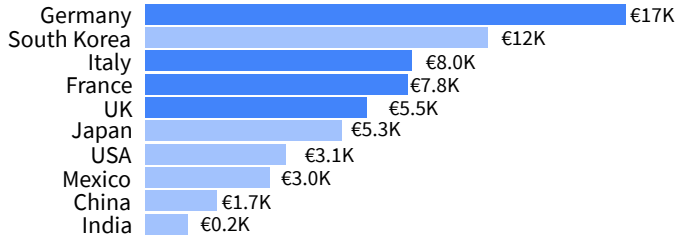
Sources: Morgan Stanley, Bain, LocalGlobe analysis of Gartner and Fortune data.

Europe is well placed to play a leading role in industrial tech.

European manufacturing is skewed towards high value add sectors including machinery, automotive and pharma. These sectors are characterised by a relatively high share of knowledge workers. The propensity to optimize productivity through automation and digitization is therefore high.

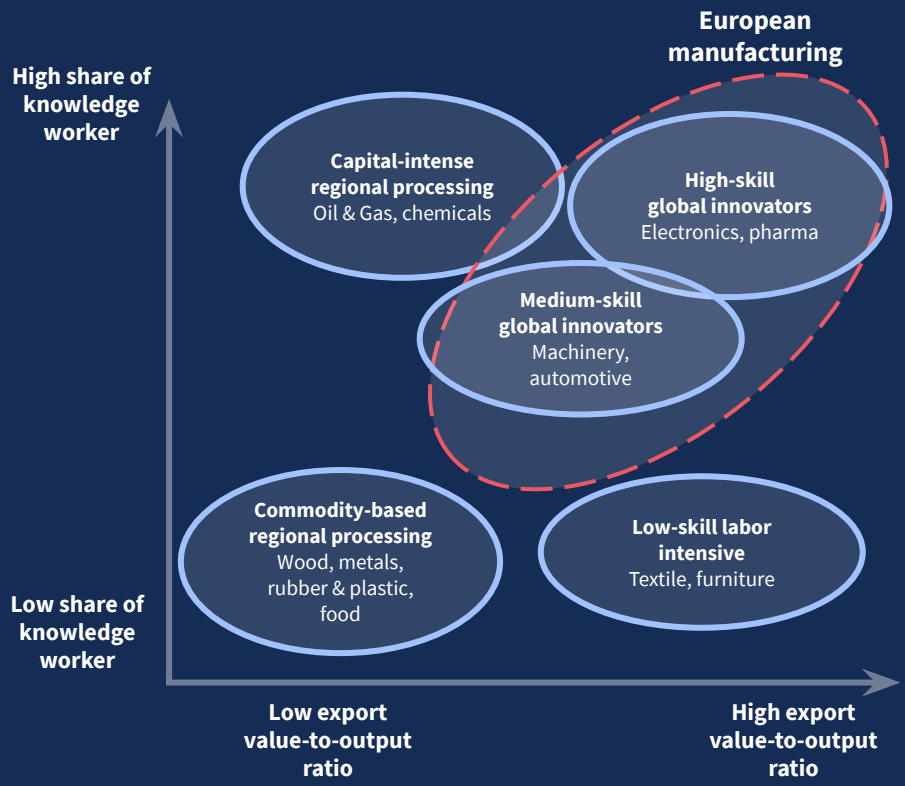
Germany, Italy and France are among the biggest exporters per capita globally, focused on automotive and machinery.

Global rank of manufactured exports per capita
(10 biggest manufacturing countries)



UN and World Bank data.

Manufacturing sub-sectors by characteristics



World Bank report “Trouble in the making?” adapted by Dealroom.

2 Industrial tech startup & investment landscape is maturing

Industrial tech is reaching critical mass.

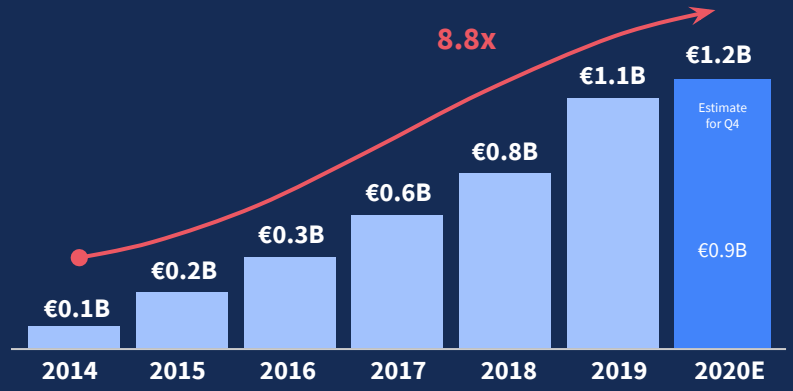
European Industrial Tech investment passed €1B for the first time in 2019 (€1.1B), and is on track for another record year in 2020, having raised €912M in the first three quarters of 2020.

Industrial Tech investment has grown 8.8x between 2014 and 2020, more than twice as fast as all-industry European investment in the same period (3.2x).

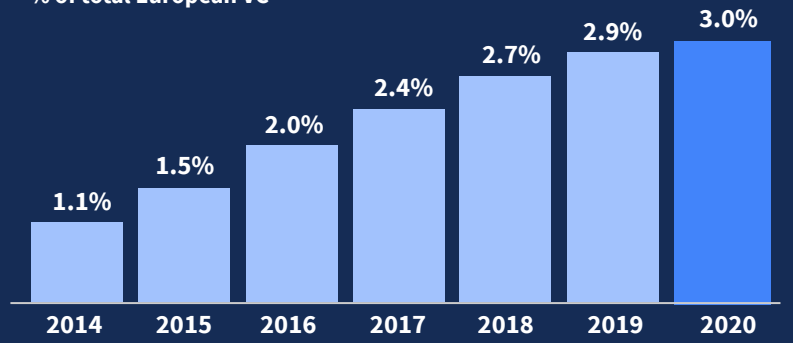
This growth is fueled by both a rise in late-stage funding in Industrial Tech, but also an increase in overall deal count. More companies are getting funded, and the pipeline is growing.

However, while the growth has been rapid, Industrial Tech funding makes up just 3.0% of European VC investment. With Industry contributing 25% of the European economy (and 30% of the global economy). Therefore Industrial Tech investment still has significant headroom.

Venture capital investment in European Industrial Tech companies



% of total European VC



Later stage rounds (Series B and beyond) are starting to take off.

9 companies raised €25M+ in the last 12 months, more than any previous 12 month period. These are the signs of a maturing industrial tech ecosystem.

Exotec
$90M
Series C, Sep 2020

Scoutbee
$60M
Series B, Jan 2020

SkyCell
$62M
Apr 2020

Forto
€25m
Sep 2020

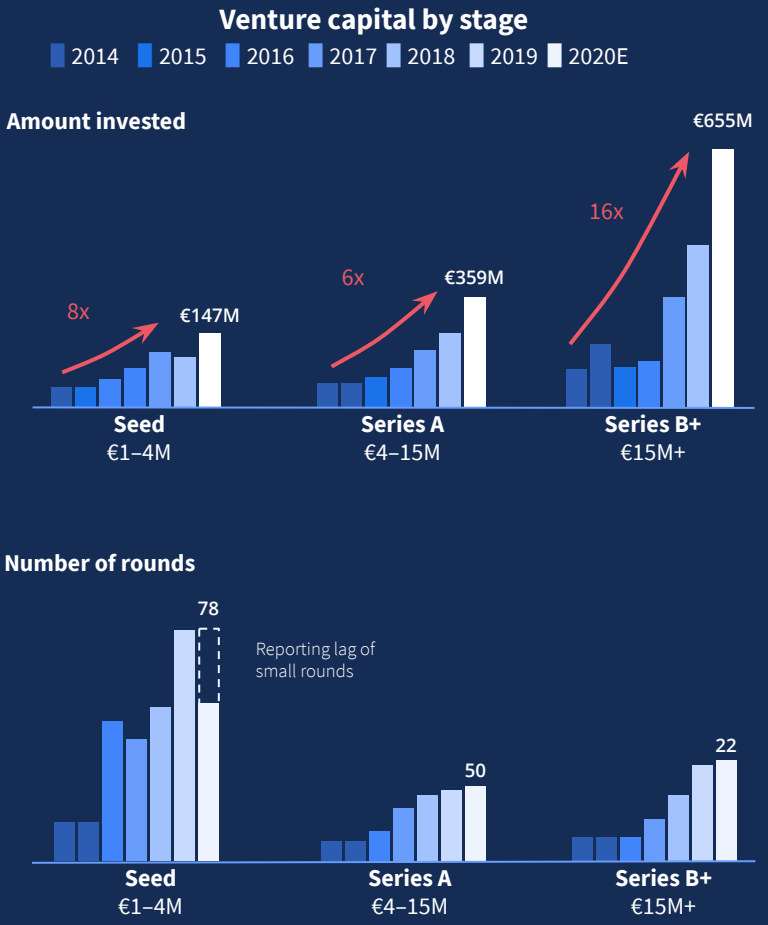
Screening Eagle
CHF55m
Apr 2020

SimScale
$29.8M
Series C, Jan 2020

Wandelbots
$30M
Series B, Jun 2020

OTTO Motors
$29M
Series C, Jun 2020

PlanRadar
€30M
Series A, Mar 2020

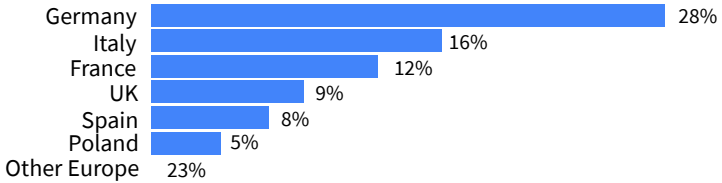


Germany and France are the European leaders in both industry and industrial tech.

European manufacturing is led by Germany, Italy, and France. By VC investment in industrial tech Germany and France lead which corresponds with industrial output. The UK has the fourth largest industrial output in Europe, but third by Venture Capital, given its overall larger startup ecosystem.

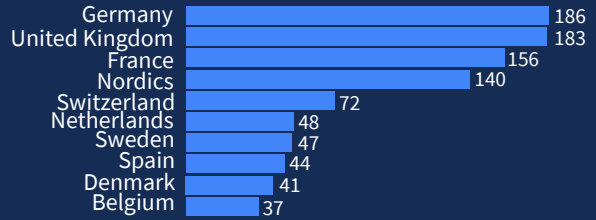
Germany really stands out: it is responsible for 28% of European output and also ranks #1 globally by Competitive Industrial Performance. It's key manufacturing sectors include machinery and equipment and automotive.

European manufacturing (% of output)

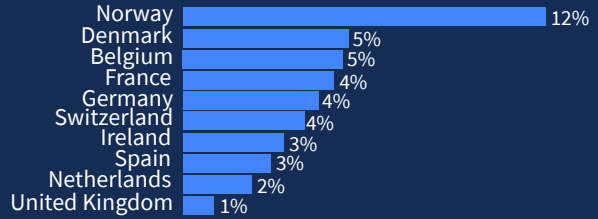


Amount invested since 2015

Number of rounds since 2015

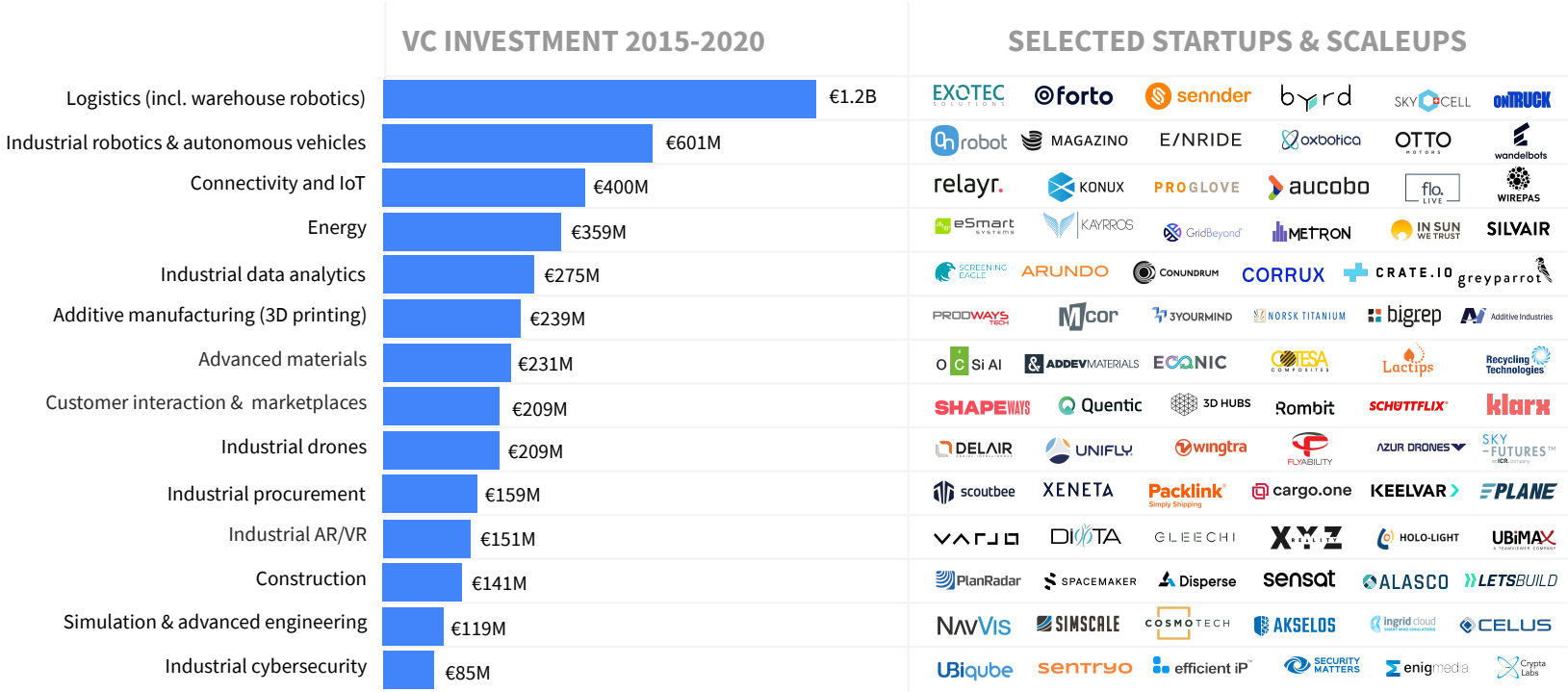


Industrial tech as % of total VC



Companies with €1M+ in total funding.

Logistics and autonomous machinery attract the most investment.



The chart is based on companies with total funding EUR 1M+ (inclusive)

Real-time customer & supplier interaction and 3D manufacturing.

Logistics

What's included: both software- and hardware-focused startups utilizing novel technologies and/or business models in logistics.

Purpose: boost efficiency in logistics operations, cut timelines, costs, improve employee safety and productivity.

Examples

fretlink, SEVEN SENDERS, SHIPPEO, Sorted., zencargo, INSTAFREIGHT, XENETA, Controlant

Procurement

What's included: software solutions for purchasing management that employ novel technologies and business models.

Purpose: cut purchasing management costs and boost efficiency by automating repeatable tasks.

Examples

sourcingbot, PER ANGUSTA, DEEPSTREAM, Ignite Procurement, inpera, SourceDogg, Sievo, archlet

Customer interaction and industrial marketplaces

What's included: industrial customer service software and marketplace platforms for industrial use.

Purpose: streamline the process of industrial supplier/buyer search and management; enhance customer interaction.

Examples

AMCS, SCHÜTTFLIX, metalshub, SCHROTT 24, tracktor.fr, OPEN MINERAL, Warmango, KREATIZE

Additive manufacturing

What's included: solutions across the entire AM value chain, e.g. engineering and software, materials and powder technologies, AM machines and printers, post processing solutions and services.

Purpose: minimize lead time, simplify inventory management, cut shipping volumes and costs.

Examples

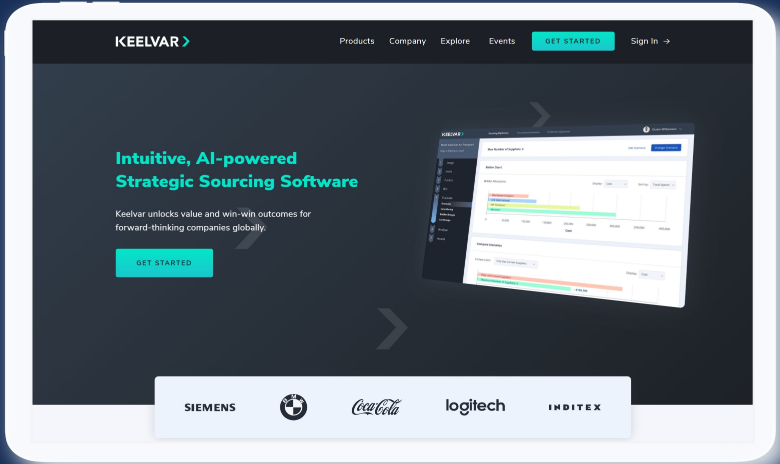
3D HUBS, XJEL, 3YOURMIND, MOBBOT, Roboze, Additive Industries, DYE MANSION, sculpteo

KEELVAR

Founded: **2013**
Location: **Cork, Ireland**
Valuation: **€65-98M**
Latest round: **$18m Series A in June 2020**

AI-enabled sourcing and fulfillment automation platform for procurement teams, a spin-out from University College Cork (UCC). Manages over $90bn in spend annually. Customers include Siemens, Coca-Cola, BMW and Samsung

- Competitive supplier bidding
- Enhances process visibility
- Boosts speed by eliminating repetitive manual work
- Manages and mitigates spend risks



Software-enabled hardware that's transforming industrial processes.

Robotics & autonomous vehicles

What's included: autonomous vehicles for industrial use, industrial robots and related software.

Purpose: automate industrial processes, from item transportation, sorting, to high-precision complex electronics assembly.

Examples

EXOTEC, drag&bot, synapticon, EASY MILE, SLAMCORE, ZENROBOTICS, micropsi industries, arculus

Connectivity and IoT Infrastructure

What's included: solutions that enable connectivity on the shopfloor and in logistics, both software and hardware.

Purpose: enable real-time critical asset visibility to predict failure points, control quality & extend asset lifetime.

Examples

hiber, SYNAOS, aucobo, TERABEE, sensolus, DISRUPTIVE TECHNOLOGIES, KNL NETWORKS, azeti

Drones & Drone software

What's included: drones for logistics and heavy industrial applications, as well as related software.

Purpose: enable automation, from goods transportation in logistics to industrial site supervision.

Examples

SKY-WATCH, Auterion, ELISTAIR, prodrone, CYBERHAWK, AERONES, ALTITUDE ANGEL, SITEMARK

AR/VR

What's included: both software and hardware solutions that use AR/VR technology applied to industrial settings.

Purpose: boost efficiency of industrial operations, from eliminating errors with high-precision real-time inspections, to enabling knowledge transfer with immersive employee training.

Examples

MASTERS OF PIE, oculavis, Innoactive, hololight, xmreality, HOLO-LIGHT, igloo, RE'FLEKT

EXOTEC

Founded: **2015**
Location: **Croix, France**
Valuation: **€327—491m**
Latest round: **$90M Series C in Sept 2020**

Intelligent intralogistics systems based on fleets of robots operating in three dimensions. Clients include Cdiscount, L.Eclerc, Carrefour, XPO Logistics, showroomprive.com.

- Cuts order preparation time
- Lowers energy consumption & environmental footprint
- Improves employee productivity & safety
- Operates 24 hrs per day
- Fast and flexible to set up and extend

Software to improve industrial process efficiency.

Data analytics & predictive algorithms

What's included: industrial data analytics, predictive maintenance and process parameter optimization tools.

Purpose: analyze massive amounts of industrial data and make predictions that drive positive business outcomes.

Examples

Xcrosser · senseye · IOTech · BRAIN CUBE · AISIGHT · NANOLIKE · EARTH SCIENCE ANALYTICS · Greenbird

Simulation & advanced engineering tools

What's included: solutions for mathematical modelling of real-world systems.

Purpose: test and optimize industrial system performance at a design / redesign stage, to cut time and costs.

Examples

SHORELINE · CELUS · cevotec · TOffeeAM · HCS · ELISE · wisebatt · NOMOKO

Cybersecurity

What's included: cybersecurity solutions with the focus on industrial space.

Purpose: ensure asset availability and mitigate risks by protecting critical assets from cyber threats.

Examples

CYBEROWL · EXEIN · KETS · CRYPTO QUANTIQUE · BIOSITE · KOSEC · Rhebo · CYBEROWL

Advanced materials

What's included: novel materials with unique or enhanced properties relative to conventional materials, and related processing technologies. Most startups here have hardware characteristics.

Purpose: provide more robust, lasting, and often more sustainable alternatives to traditional materials.

Examples

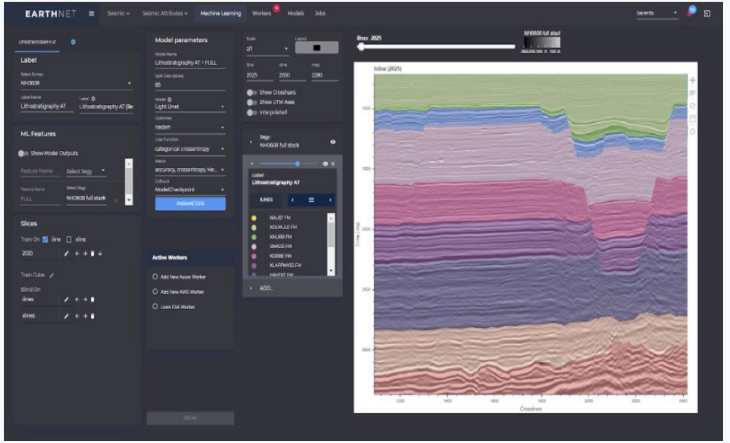
GrapheneTech · GRAPHENEST · inmaterial · Composites Evolution · Xampla · Ecoat · TEYSHA TECHNOLOGIES · FenX

EARTH SCIENCE ANALYTICS

Founded: **2016**
Location: **Stavanger, Norway**
Valuation: **$33-50M**
Latest round: **NOK75m Series B in Sept 2020**

Data-driven analytics for geoscience powered by AI and machine learning.

- Provides decision-makers with data-driven support to increase operational precision
- Cuts project time and costs
- Improves communication between project stakeholders with interactive data visualizations



Novel technologies reshaping traditional industries.

Construction

What's included: startups utilizing novel technologies and business models in construction.

Purpose: boost construction process efficiency, from enhancing precision, cutting costs and timelines, to improving collaboration, communication and worker safety.

Examples

imerso · Building Radar · 3D REPO · SABLONO · CAPMO · CORRUX · WIZZCAD · HEGIAS

Energy

What's included: novel solutions along the energy value chain. Although a lot of solutions here have a hardware angle, the report focuses on software and IoT-enabled software tools.

Purpose: enable efficiency and sustainability across the value chain with advanced analytics, simulations predictive insights

Examples

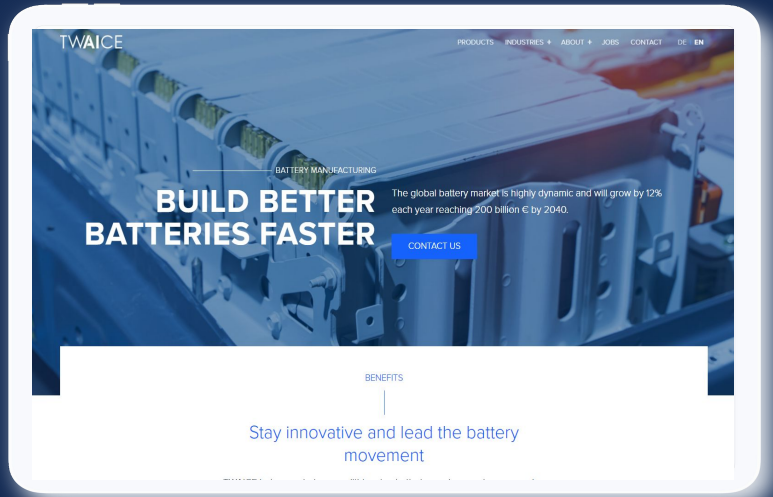
upside · PEXAPARK · TWAICE · VORTEXA · energisme · ENERGIENCY · envelio · enmacc

TWAICE

Founded: **2018**
Location: **Munich, Germany**
Valuation: **$44-66M**
Latest round: **€11m Series A in March 2020**

Predictive battery analytics software based on digital twins.

- Optimizes complex battery systems with digital twin based predictive analytics
- Accelerates transition to green energy
- Flexible, configurable, highly accurate and easy to deploy



Industrial tech Startups in Speedinvest portfolio.

Schüttflix
Digital marketplace for bulk construction supplies

Aucobo
Industry Wearable Platform for the manufacturing industry

TWAICE
Digital-twin based industrial solutions

Xapix
Data integration and orchestration platform

Pylot
Teleoperation platform for fully driverless vehicles

Conundrum
Predictive maintenance and quality control software

Greyparrot
AI-based waste recognition

Crate.io
Database for industrial IoT

Celus
AI-based electronics engineering platform

Metis Labs
Software to boost performance of industrial processes

Remberg
Cloud-based asset relationship management system

Drag&Bot
No-Code robot programming solution

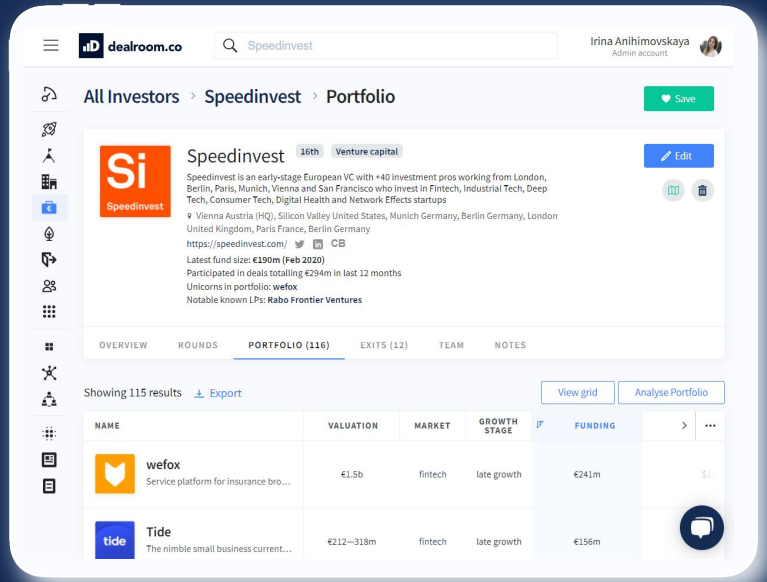
Corrux
Analytics for industrial equipment on the construction site

Senseforce
Machine data management solution

Meisterwerk
Field Service Management solution focused on craftsmen

Prewave
Supply chain and sustainability risk predictions

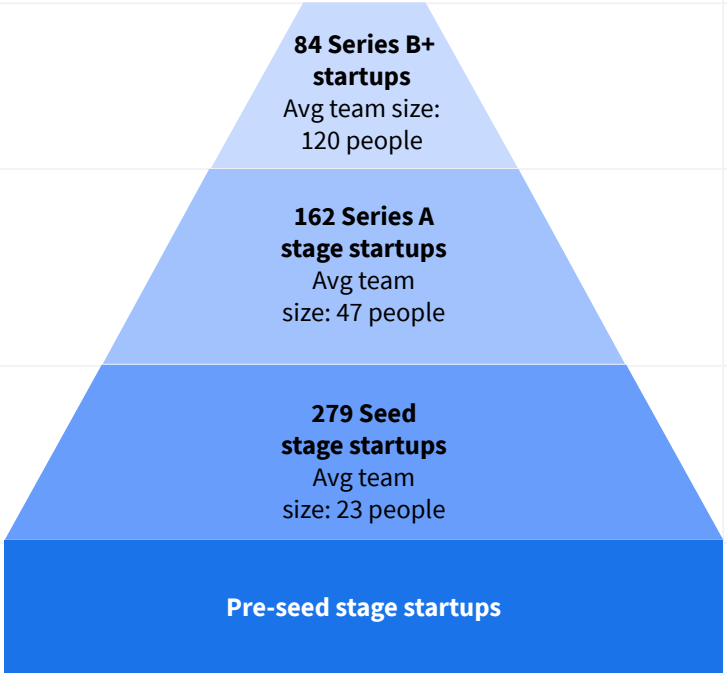
Speedinvest - the VC for European Industrial Tech Startups.



View Speedinvest on Dealroom

3 VC landscape and M&A activity

European VC firms at each stage have started to create dedicated industrial tech focus, which is key to the maturing of the ecosystem.



Known dedicated industrial tech focus

McRock Capital, emerald Technology Ventures, DIGITAL+ PARTNERS, MVP

VINCI, VITO VENTURES, LEAD VENTURES, aster, btov, innovestor, EEC, future industry ventures, eCAPITAL ENTREPRENEURIAL PARTNERS

Speedinvest, Fraunhofer VENTURE, starquest, DYNAMO, High-Tech Gründerfonds, MARTIN, MOVENS CAPITAL, UNTERNEHMERTUM VENTURE CAPITAL, mercia asset management, MOMENTA PARTNERS, VFE

ETH zürich, UNIVERSITY OF OXFORD, University of St.Gallen, Sting, EPFL, VENTURE KICK, Fraunhofer, WARWICK, TU WIEN, TUM, ENTREPRENEUR FIRST, KIT, eit Digital ACCELERATOR, THE FAMILY, UNIVERSITY OF CAMBRIDGE, REPLY BREED, Agoranov

Other relevant investors

Accel, etf partners, SEQUOIA, NEA, woodford, Draper Esprit, KKR, SUMMIT PARTNERS, iris capital, HIGHLAND EUROPE

atomico, EQT VENTURES, EARLYBIRD, SENOVO, HV, daphni, investiere venture capital, Project A, MMC, Mosaic Ventures, octopus ventures

vsquared ventures, JOIN CAPITAL, INVENTURE, Bayern Kapital, Point Nine, 42CAP, LocalGlobe, almi invest, VEKSTFONDEN, Alpana Ventures, LEA PARTNERS, LA FAMIGLIA

Source: Dealroom.co

Many of Europe's Industrial Tech companies are supported by the continent's leading Universities and Research Institutions.

View all spin-offs on dealroom.co

Countries

Universities/ Research Centres

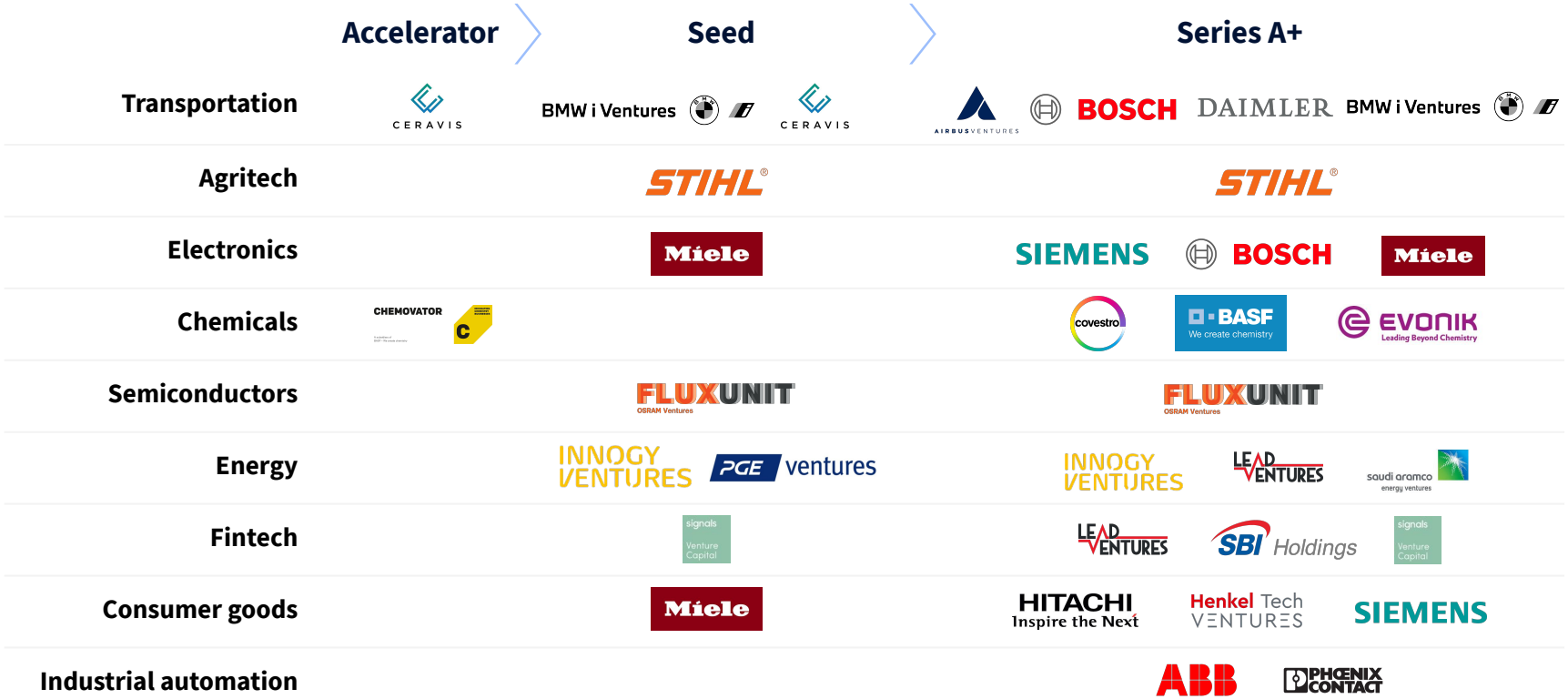
Startups

Numerous major global industrial consolidators, keen to innovate through investment and M&A.

M&A powered by Flow Partners
www.flowpartners.io

	HQ	Market cap.	Selected industrial tech investments	Selected industrial tech acquisitions
SAMSUNG	South Korea	€294B	Grabit, nuTonomy, Filament, Vinli	ZHilabs
SIEMENS	Germany	€95B	Sennder, Skydio, Seeq, Varjo, Turvo, Markforged, Wandelbots, Gecko Robotics, Veo Robotics	Mentor Graphics, Mendix, iMetrex Technologies
Shell	Netherlands	€85B	InstaFreight, Sense Photonics, Osprey Informatics, SteamaCo	-
TOTAL	France	€79B	SHYFT Power Solutions, Hyzon Motors	G2MOBILITY
Volkswagen	Germany	€73B	Hubject, Northvolt, Trinamic Microchips	Volvo WirelessCar
DAIMLER	Germany	€52B	ChargePoint, FleetMaster, Starship Technologies, Vantage Power, Hubject	Torc Robotics, Fleetboard
BASF	Germany	€52B	BigRep, Pulisheng Electromechanical Technology	Cloudfarms, Sculpteo
AUTODESK.	US	€43B	Bridgit, UrbanSim, Modbot, Rhumbix, Vela Systems	Pype, Gentry Systems, Micro Application Packages, EAGLE Software, netfabb
DASSAULT SYSTEMES	France	€42B	InfoVista, Gehry Technologies, NuoDB	IQMS Software, Ortems, ICEM Surf, Next Limit Dynamics, Exa Corporation, Centric Software, SquareClock
innogy	Germany	€23B	ShieldIOT, weAre, GreenCom Networks	Recargo
BOSCH	Germany	-	FogHorn, Poka, Xometry, TrunkTech, Sensoro	ProSyst, GFR

Corporate Venture arms are active across different industrial sectors.



“In our experience, Europe is a fantastic ecosystem for industrial tech. European markets bring to the table deep technical expertise from top universities and some of the world’s largest industrials companies.”

This year, NEA has already invested in startups providing automation and optimization solutions for logistics (Berkshire Grey, ClearMetal). Are there any other niches in logistics / warehousing automation that you find especially promising and interesting from the investment perspective?

We’re excited to be partnering with game-changing logistics platforms like Berkshire Grey, ClearMetal, Outrider, and Upskill and we think there is always more work to be done in optimizing modern logistics!

Consumer demand for a clean and efficient supply chain is growing rapidly alongside the rise of ecommerce, but logistics software and hardware is evolving at a startling rate to meet that demand. A few areas that we’re particularly focused on at the moment include warehouse robotics, third-party logistics (3PL) stacks, last-mile delivery, and supply chain sustainability.

A few areas that we’re particularly focused on at the moment include warehouse robotics, third-party logistics (3PL) stacks, last-mile delivery, and supply chain sustainability.

Some time ago, NEA invested in the European industrial IoT company Konux. With mostly US-based companies in your portfolio, what has been the major reason behind investing in Konux?

Our team at NEA looks to invest in best-in-class companies that are creating a vital change in the world. Although the majority of NEA’s investments are based in the US, we have always invested globally when we identify special companies. Konux is one of those companies marrying a massive market with differentiated technology and a fantastic team. The company is tackling predictive maintenance for railroad switches with cutting edge sensor technology and a robust AI platform to interpret sensor data holistically in real-time.

We continue to be bullish on Konux's progress and potential.

How does European industrial tech startup ecosystem look from the US-investment perspective? An how compared to those of the USA and China?

In our experience, Europe is a fantastic ecosystem for industrial tech. European markets bring to the table deep technical expertise from top universities and some of the world's largest industrial companies. This proximity matters - in many cases, we see European companies have an edge in finding design partners and discovering early product-market fit (especially common for manufacturing companies). There is some associated risk of developing a product that so specifically meets the need of a single OEM that it doesn't apply to the broader market, but companies can mitigate this risk by starting conversations with multiple strategic partners early in their development processes.

What criteria should a European industrial tech company follow to look attractive to NEA from the investment perspective?

One of the most critical criteria for a firm like NEA is thinking big. When we make an investment in a new company, we need to believe there is a (multi-)billion dollar outcome in that company's future. Especially given the inherent fragmentation of markets in Europe, we always look for a market expansion plan that allows companies to reach massive scale. The intricacies of which markets to launch, how to sequence those launches, how you're building your product to apply to those markets, and how you expect to grow market share are all important details to have ironed out before engaging with a global firm like NEA.

How is Covid-19 impacting industrial tech startups? What opportunities and what challenges has it brought? What factors do you consider the main determinants of industrial tech startup resilience?

COVID-19 has caused many industrial customers to reevaluate their supply chains and technology stacks. At the onset of the pandemic, a series of lockdowns impacted companies with single-source, globalized supply chains and reinforced the importance of redundancy and local production.

Meanwhile, manufacturing and construction businesses redoubled their efforts around safety standards and automation to reduce health risks in their operations.

Although we saw many customers halt their operations and purchasing at the start of the pandemic, we think there is renewed interest and opportunity in products that can help to manage increasingly complex supply chains, safety regulations, and automation schema. Industrials have always been the cornerstone of our societies and economies, and we expect the space to rebound with full force as we continue to combat COVID-19.

NEA®

Portfolio of 590 + companies

$20 billion in committed capital

230+ IPOs, 390 mergers and acquisitions among portfolio companies

Latest fund size: $3.6b (Mar 2020)

Robinhood

BERKSHIRE GREY

workday

mongoDB.

Uber

KONUX

TULIP

UPSKILL

Industrial tech M&A is heating up, from inside the sector, and from outsiders moving in.

M&A powered by Flow Partners
www.flowpartners.io

Two incumbent industrial tech corporates merging

Integration of Aveva's engineering software with OSIsoft's data, modelling & analytics software and cross-sell customer synergies

AVEVA

British engineering IT software provider to the plant, power and marine industries

August 2020
$5bn

OSIsoft

American software platform for aggregation and visualization of real-time industrial data

Enterprise tech player bolstering its industrial tech capabilities

TeamViewer enriched its enterprise-focused industrial offering by integrating its software platform with Ubimax's AR and IoT technology

TeamViewer

German software provider for remote control, Desktop sharing and connectivity

July 2020
$156m

UBiMAX

German industrial wearable IoT devices and augmented reality solutions

Industrial IoT add-on for insurance industry giant

Munich Re improves its telematics insights (car sensors) and risk services (through IoT sensors installed at commercial locations)

Munich RE

German reinsurance corporation and one of the world's biggest reinsurers

Sept 2018
$300m

relayr.

German enterprise middleware and IIoT solutions for digital transformation

European industrial tech is generating significant exit success stories.

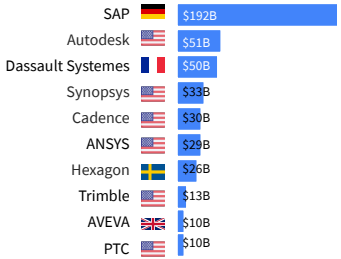
Buyer	Target	Prior funding	Valuation (LTM revenue multiple)	Date
AVEVA ×	**Osisoft** Application software for real-time data management | San Leandro, USA	€127M funding from Technology Crossover Ventures, Kleiner Perkins, Softbank	$5B (6.6x)	Aug 2020
SIEMENS ×	**Mendix** Low-code software to develop apps for industrial use | Rotterdam, Netherlands	€34.5M funding from HenQ, Prime Ventures, Battery Ventures	€628M Acquisition	Aug 2018
Hoffmann Group ×	**Contorion** Marketplace for industrial supply | Berlin, Germany	Funding from Project A, Endeit Capital, Bauer Venture Partners, Kloeckner Ventures	$136M (6.0x)	Jun 2017
Munich RE ×	**Relayr** Enterprise middleware and IIoT solutions | Berlin, Germany	€63.4M funding from Rembrandt Venture Partners, Kleiner Perkins, Deutsche Telecom and others	$300m Acquisition	Sep 2018
TERADYNE ×	**Universal Robots** Collaborative robotic arms for production environment | Odense, Denmark	Funding from Vækstfonden and Enrico Krog Iversen	$285m Acquisition	May 2015
TERADYNE ×	**Mobile Industrial Robots** Collaborative, autonomous mobile robots | Odense, Denmark	Funding from Innovation Fund Denmark, Torben Frigaard Rasmussen, Thomas Visti Jensen and others	$148m Acquisition	Apr 2018
<) FORESCOUT ×	**Security Matters** Network monitoring, intelligence, and protection technology | Eindhoven, Netherlands	€4.5M funding from Emerald Technology Ventures, KPN Ventures, Robert Bosch Venture Capital, Phoenix Contact Innovation Ventures	$113m Acquisition	Nov 2018
	Prodways Industrial 3D printers | Les Mureaux, France	€64.5M from Bpifrance, Fimalac Group, Safran, BNP Paribas Développement, Groupe Gorgé	€58.4m IPO	May 2017
WÄRTSILÄ ×	**Eniram** Technology to reduce fuel consumption for the maritime industry | Helsinki, Finland	€10M funding from Conor Venture Partners, Ferd Venture, Finnish Industry Investment	€43m Acquisition	Jun 2016

Consolidation continues in European logistics M&A.

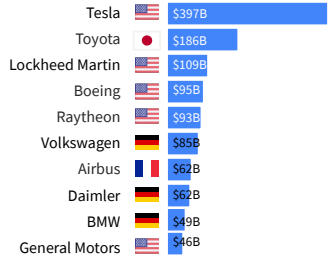
Buyer		Target	Prior funding	Valuation (LTM revenue multiple)	Date
senner	× Uber Freight	**Uber Freight Europe** European freight division of Uber | Amsterdam, Netherlands	Uber	$1.1B	Sep 2020
PORSCHE	× PTV GROUP	**PTV Group** Software for traffic management and transport logistics | Karlsruhe, Germany	-	$338M (2.6x)	Jun 2017
Continental	×	**Zonar Systema** Tech provider of smart fleet management, 81% acquisition | Seattle, WA	€45.5M funding from Daimler and Continental Tire	$280m	Oct 2016
INVESTCORP	× ABAX	**ABAX** Fleet tracking, equipment & vehicle control systems | Larvik, Norway	-	$210M (4.1x)	Jun 2017
FedEx	× P2P	**P2P Mailing** Global e-commerce transportation solutions provider | Basildon, UK	-	$£92M	Mar 2018
	BALYO	**Balyo** Robotic solutions for the automated transportation of pallets | Ivry-sur-Seine, France	€10 funding from Bpifrance, Seventure Partners, Robolution Capital, Linde Material Handling & Amazon	€39.8m IPO	Jun 2017
Elemica	× eyefreight	**Eyefreight** Provider of transportation management systems | Bunnik, Netherlands	-	Acquisition	Jan 2020
postnl	×	**CheapCargo.com** Shipping marketplace | Nijmegen, Netherlands	€0.5M funding from Peak Capital	Acquisition	Nov 2017
GEFCO	× CHRONOTRUCK	**Chronotruck** Logistics platform for freight transport | Paris, France	€3.5M funding from Bpifrance and Seventure Partners	Acquisition	Jul 2019

Leading incumbents in selected key industries.

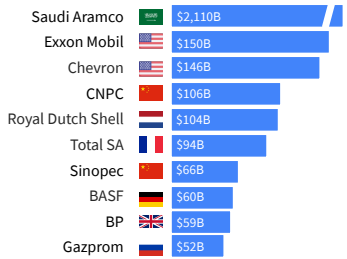
Industrial software



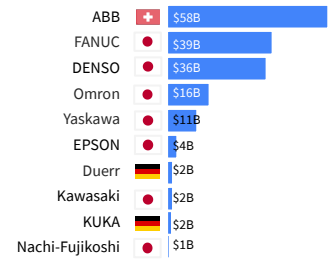
Transport



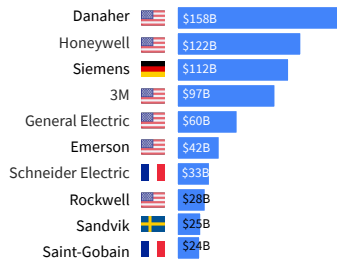
Oil, gas & chemicals



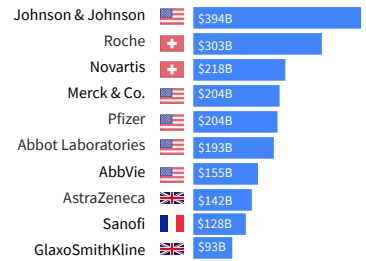
Industrial robotics



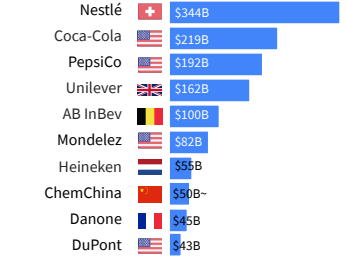
Diversified industrials



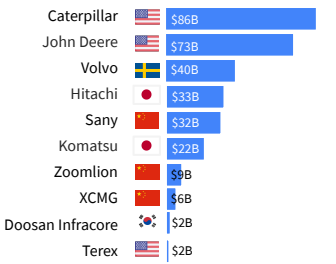
Pharma & medical



Food & agriculture



Heavy equipment



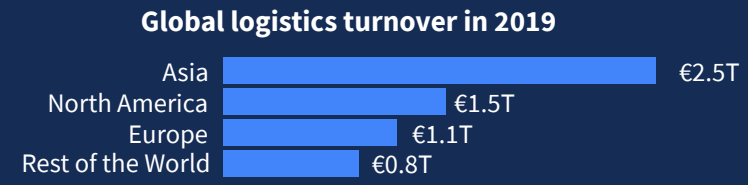
4 A closer look at logistics

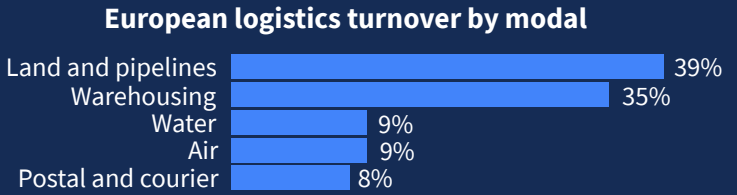
Logistics is a €6 trillion global turnover sector.

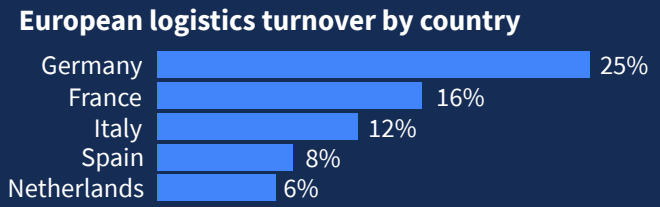
Logistics is one of the largest sectors. In Europe alone, the industry turns over €1.1 trillion per year (Transport Intelligence).

According to Eurostat, 11.5 million are employed by the sector. A recent TradeLink press release noted: “close to 1 billion truck deliveries cross Europe every year. The industry is also highly fragmented. The top 10 logistics companies only account for 11% of the overall market. Germany alone is home to 14,800 forwarding companies.”

Technology and global markets have transformed the consumer and corporate requirements of logistics, but technology is also transforming logistics itself. As a huge complex industry, and innovation growth area, startups are addressing six distinct segments of logistics: supply chain management (incl. TMS, risk and data management), tracking and real-time visibility, freight forwarders and shipping automation, Ecommerce logistics, procurement, and fleet management.

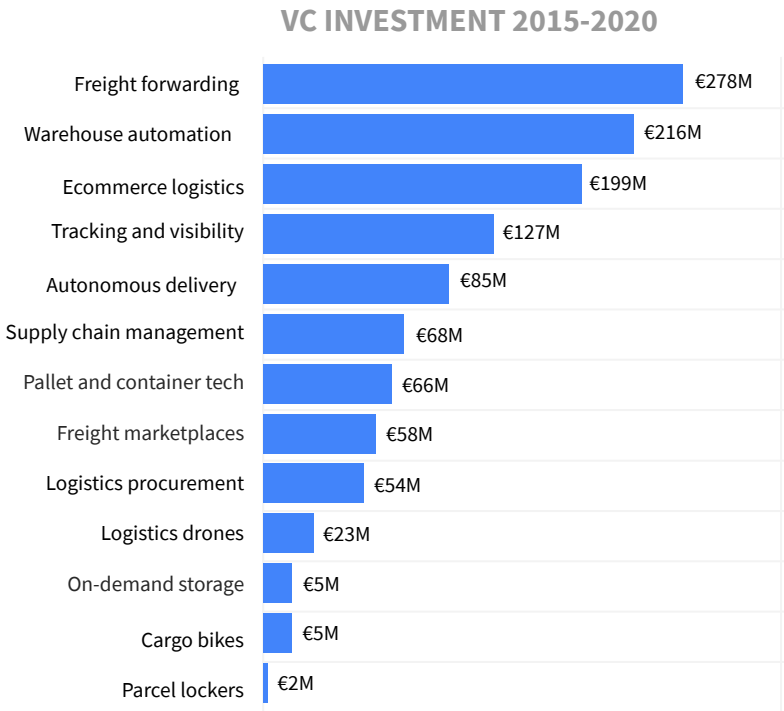






Transport Intelligence 2018 data and 2019 estimate by Dealroom. Eurostat

For this report, we've indexed 108 European logistical tech companies with at least €1M in venture capital funding, across 13 core segments.



“Robots will do even more of the reiterating work in warehouses, but humans will always be needed in other fields, where human advantage and judgement is required.”

What key trend do you see in intralogistics / warehouse automation?

One big trend from the US is so-called Micro Fulfillment - fulfillment of online orders, e.g. groceries, processed close to the customer with a high degree of automation. High urban real estate costs and limited storage capacities mean Micro Fulfillment Centres are typically located directly in an existing supermarket or store. However, Micro Fulfillment will always need a backend of big distribution centres (DC) to deliver products to them in time.

In general, over the last decade automation has happened to a much higher degree in Europe than in the US, due mainly to the differing availability of manual work forces.

What impact has Covid-19 had?

E-commerce is the big winner of Covid-19. The transition from shop delivery to e-commerce fulfillment is one of the biggest goals for many companies.

But technologies like UV-C disinfection enabling Covid-safe manual workplaces are also a growth space.

What are the hottest trends and most high-potential technologies in warehouse tech?

One big trend is data driven logistics and artificial intelligence (AI). Not everything needs to be AI-powered, but taking large amounts of data and using it to make the right decisions will have a huge impact on optimizing and improving warehouses over the next years. AI will be a major part of this. To make this possible, the merge of the typical software layers in the warehouse is mandatory. The control layer and the stock layer need to be embedded into one decision layer.

The field of robotics in goods-to-person systems will also get a boost with AI and the data behind. Robots will do even more of the reiterating work in warehouses, but humans will always be needed in other fields, where human advantage and judgement is required, e.g.: value-added services, monitoring, decision making and maintaining the system. It will be a productive coexistence of intelligent work for humans and simple and reiterating work for robots.

What are the ways for a company to minimize risk and costs while automating the warehouse / intralogistics operations?

Simulations have already been used for years to understand and optimize the logistics. Digital twins are a big success factor when it comes to reducing installation times on site and testing a system in an early project stage.

BPMN (Business, Process, Model and Notation) is one key to better understand the processes and specify the needs for a customer. Based on BPMN software, simulations are available very early in the project phase to test the integration of the warehouse with ERP systems.

The logistics stack - the deep technologies powering logistics.

Big data	AI & analytics	IoT / sensors	Computer vision	Robotics	AR/VR
Shipfix Collaborative platforms		MiR Autonomous mobile robots for warehouses	MANNA Autonomous drone deliveries		insider navigation Indoor navigation software
prewave Risk management		STARSHIP Autonomous delivery in urban spaces	MAGAZINO Autonomous picking robots		
vekia Predictive planning & supply automation		cellumation Smart conveyors	EXOTEC Autonomous storage systems and robotics fleets		UBIMAX Smart glasses
SKYCELL Smart container technology	PROGLOVE Connectivity on the shopfloor			on robot Robotic end-of-arm tools	xmreality AR instructions
TRAXENS Real-time visibility platforms	KONUX Predictive maintenance		ZiVID 3D vision cameras for item inspection	SETUP ROBOTICS Robotic components	iOXP Remote guidance

Logistics startups are using bleeding edge deep technologies, often in combination, to address pain points in the existing logistics industry.

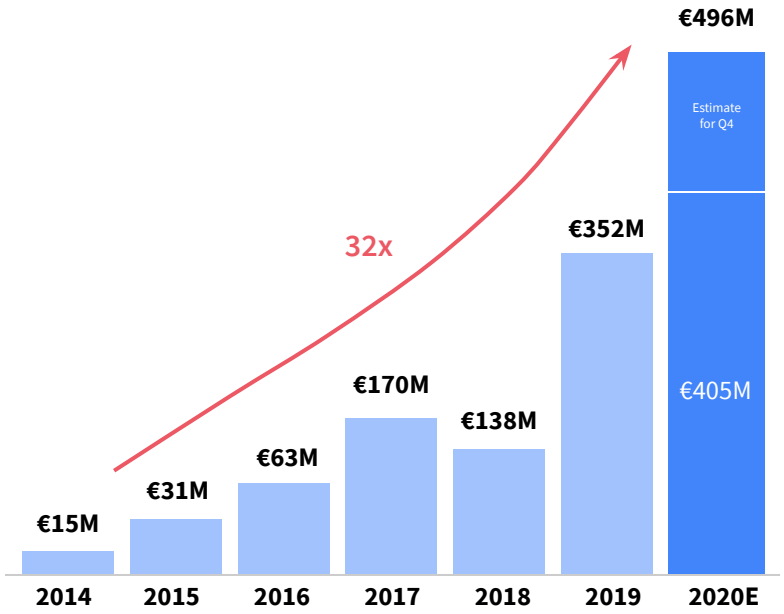
Robotics tech is getting more commonly adopted in warehousing and intralogistics, mainly for moving and handling items. Examples include robot fleets that move heavy items autonomously, automated storage and retrieval systems, advanced conveyor systems, as well as robotics grippers for item sorting and picking.

AR / VR tech is used in smart glasses to assist in warehouse management.

LiDAR is built into autonomous vehicles and robots.

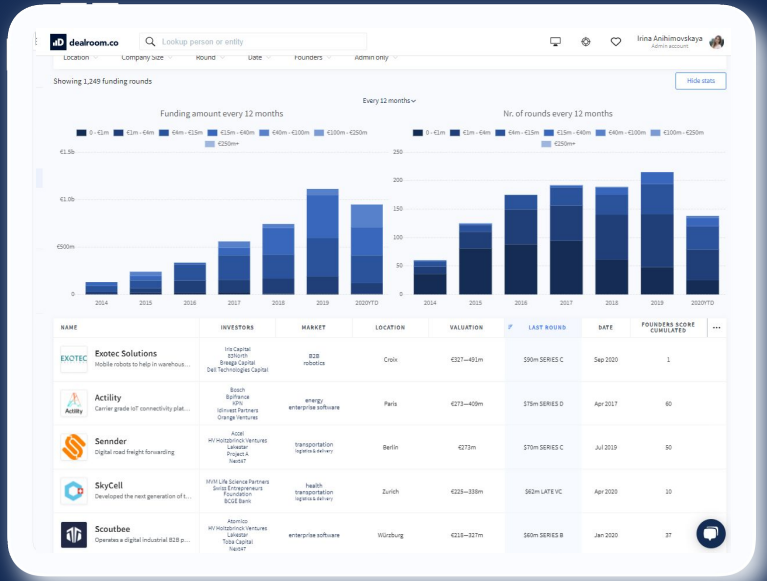
And while not directly addressing logistics, 3D printing is targeting supply chain disruption. The future of warehouses could be virtual - a databases of virtual parts, printed on demand and delivered through last-mile delivery.

Logistics tech investment is growing at a rapid pace.



The chart is based on companies with total funding EUR 1M+ (inclusive)

View European industrial tech investment on Dealroom.co



Visit the platform

Speedinvest | dealroom.co


Si
Speedinvest
dealroom.co