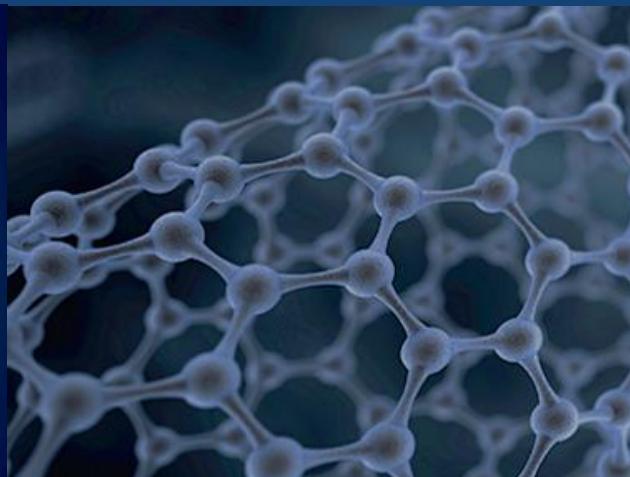




Technology Clusters AeroSpace.NRW and NMWP.NRW in North Rhine-Westphalia

Dr.-Ing. Harald Cremer, Dr. Stephan Recher

NMWP.NRW & AeroSpace.NRW



North Rhine-Westphalia

North Rhine-Westphalia: The heart of Europe

Europe's most populous region:



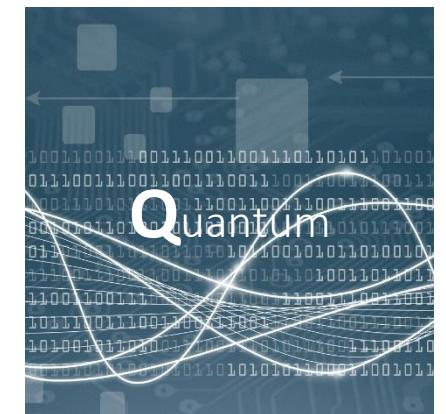
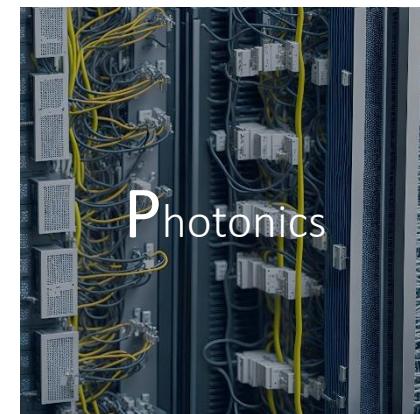
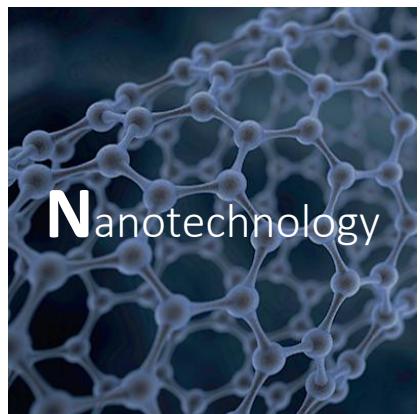
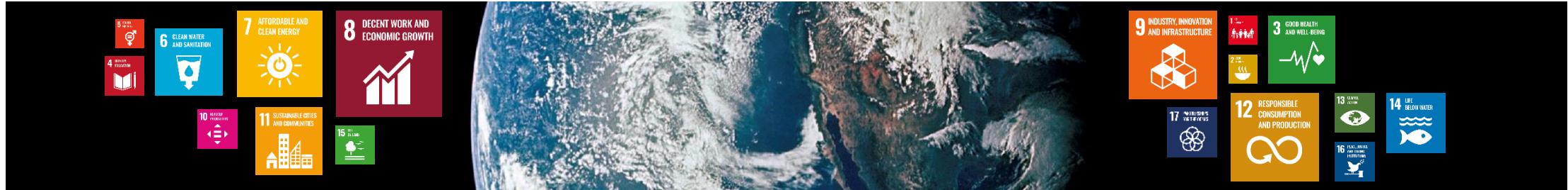
18.1 million inhabitants in NRW



160 million people live within a 500 km radius of the state capital Düsseldorf



Hardware is core of our world.
Key enabling technologies are at the core of hardware.

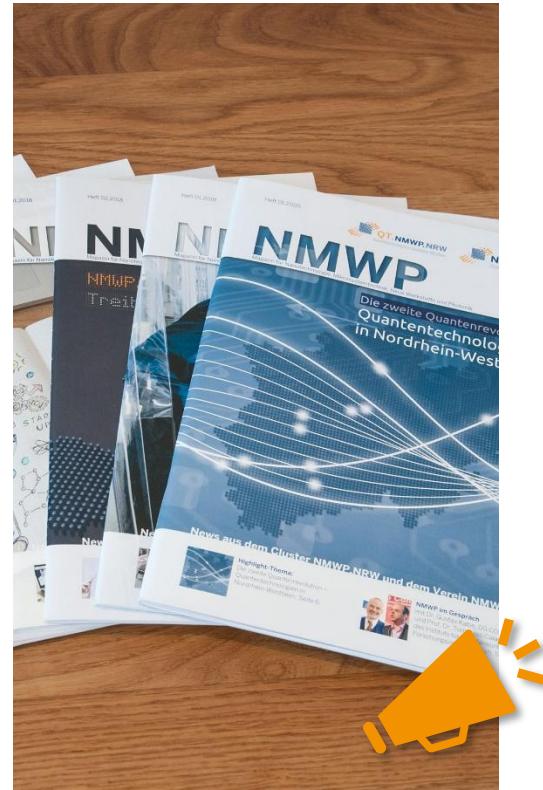


We connect KET-stakeholders by



Networking

Events as an opportunity to connect stakeholders – across borders, technologies, etc.



Information

The NMWP magazine, newsletter and social media as sources of information for the community.



Projects

Targeted information on relevant funding opportunities. Building up projects.



Strategy

Feedback from the community of technology developers and users as a basis for strategic advancement.

public

Advanced and Sustainable Materials – NRW Provides an Excellent Ecosystem of Companies and Sciences

Steel and Aluminum
Plastics and
Hybrid Materials
Glass, Ceramics and
Nano Materials



726.000 Employees

200 Billion € annual revenue

6.110 Companies and Research institutes



Source: NMWP.NRW: Study „Werkstoffe in NRW“



Chemical
Industry



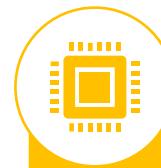
Energy
Economy



Automotive/
Mechanical Engin.



Environment
Economy



Electronic
Industry

...

public

AeroSpace.NRW in a nutshell

- ↗ Initiated by the NRW government in March 2021
- ↗ Brings together economy, research and politics to advance the aerospace industry in NRW
- ↗ In close exchange with public authorities in NRW, Germany and the EU
- ↗ Open to anyone interested
- ↗ Supported by an advisory board
- ↗ In close cooperation with other regional aerospace networks in Germany



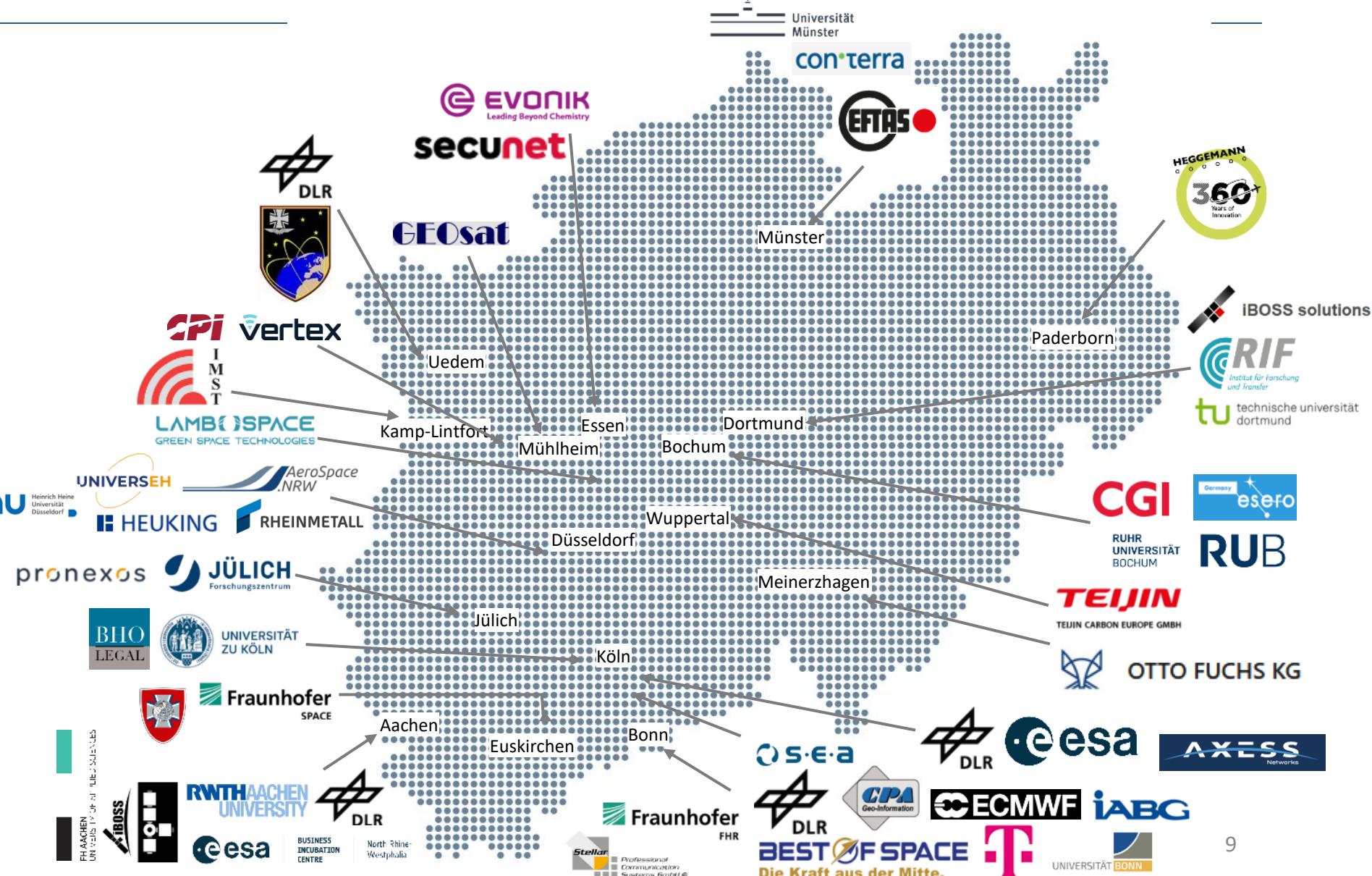
Selected locations in NRW: Research in aviation

- Regional innovation ecosystems from business and science with different thematic foci.
- NRW-wide coordination, orchestration and cooperation between the innovation ecosystems necessary



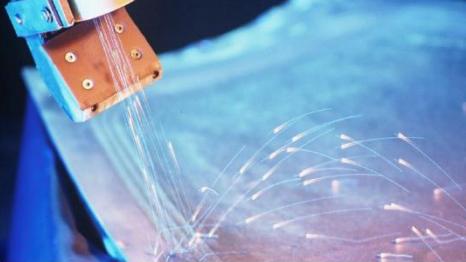
Space Industry and Research in NRW (excerpt)

- Industry, SMEs and Startups
- Research Institutions
- (Technical) Universities
- Operating Sites – national and international



Selection of hardware suppliers

KSA
process automation



Weststraße 22-24
52074 Aachen
+49 241 87 95 0
info@ksa.de.com
www.ksa.de.com

KSA Kugelstrahlzentrum Aachen GmbH

TEIJIN CARBON



Kasinstraße 19-21
42103 Wuppertal
+49 202 32-4109
aerospace@teijincarbon.com
www.teijincarbon.com

Teijin Carbon Europe GmbH

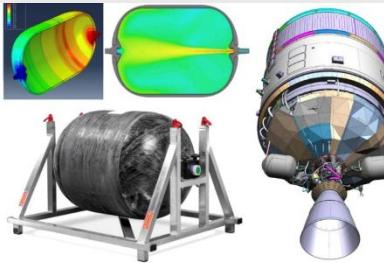


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www.heggemann.com

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Components for launchers



pronexos

Stettiner Straße 52428 Jülich
+49 2461 65 7300
contact@pronexos.com
www.pronexos.com

Pronexos

FIBRE COAT



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Fibrecoat GmbH



OTTO FUCHS

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58540 Meinerzhagen
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aerospace@otto-fuchs.com
www.otto-fuchs.com

OTTO FUCHS KG

Selection of engineering service suppliers

dSPACE



Rathenaustraße 26
33102 Paderborn
+49 5251 1638-0
info@dspace.de
aerospace.dspace.com

dSPACE GmbH

CPI vertex



Baumstr. 46-50
47198 Duisburg
+49 2066-20960
vertrieb@vertexant.de
www.vertexant.com

CPI Vertex Antennentechnik GmbH

CGI



Alte Wittener Str. 56
44803 Bochum
+49 234 9258-0
info.de@cgi.com
www.cgi.com/de/space

CGI Deutschland B.V. & Co. KG

Engineering Services



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Unser Spektrum von Mikro bis Linac CT

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x-ray systems and services

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45525 Hattingen
+49 2324 3931910
info@diondo.com
www.diondo.com

diondo GmbH



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IMST GmbH

Software Engineering, Cyber, IT



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SPACE

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aerospace@int.fraunhofer.de
www.space.fraunhofer.de

Fraunhofer-Allianz Space
Angewandte Forschung für die Raumfahrt-Industrie



NRW Government ready to take on Responsibility

Sprache Gebardensprache Leichte Sprache Barrierefreiheit

Startseite NRW informieren NRW gestalten NRW erleben NRW-Service Suche

Die Landesregierung Nordrhein-Westfalen

Startseite | NRW informieren | Pressemitteilungen | Strukturelle Entwicklung der Sicherheits- und Verteidigungsindustrie in Nordrhein-Westfalen

Runder Tisch Defence gibt Impulse für die strukturelle Entwicklung der Sicherheits- und Verteidigungsindustrie in Nordrhein-Westfalen

Wirtschaftsministerin Mona Neubaur: Verteidigungsfähigkeit ist kein Luxus mehr – sie ist überfällig. Neue Lösungen, strategische Partnerschaften und enge Zusammenarbeit auf regionaler, nationaler und europäischer Ebene

7. Mai 2025



"We have relied on the protection of others for too long - especially the USA. But one thing is clear: our own defense capability is no longer a 'nice-to-have', but long overdue. If we want to secure democracy, freedom and peace, we must be able to defend them. Europe must stand on its own two feet - together, resolutely, sovereignly."

Minister of Economic Affairs Mona Neubaur



Defence.NRW plattform (as of end 2025)

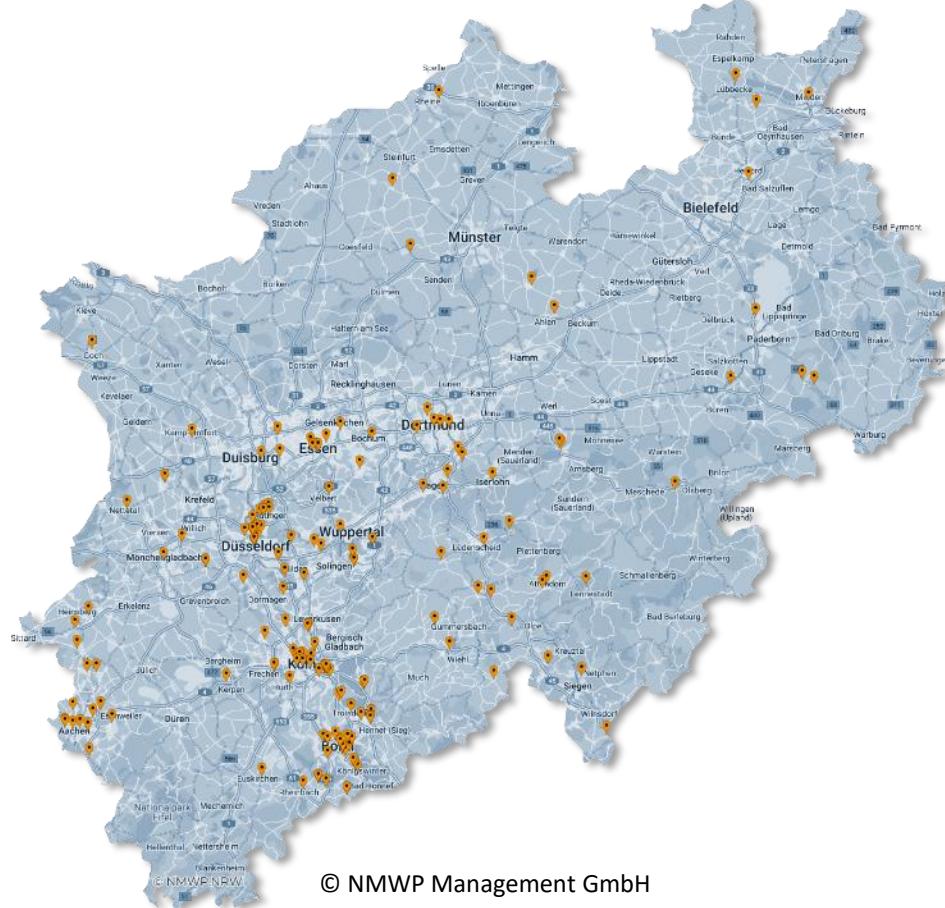


A fighter jet, likely an F/A-18 Hornet, is shown from a low angle, positioned on a runway. The aircraft is angled towards the right of the frame. In the background, a tall, white lighthouse with a dark lantern room stands on a grassy hill. The sky is clear and blue. The overall composition is a composite image where the text overlay is placed on the left side of the jet's fuselage.

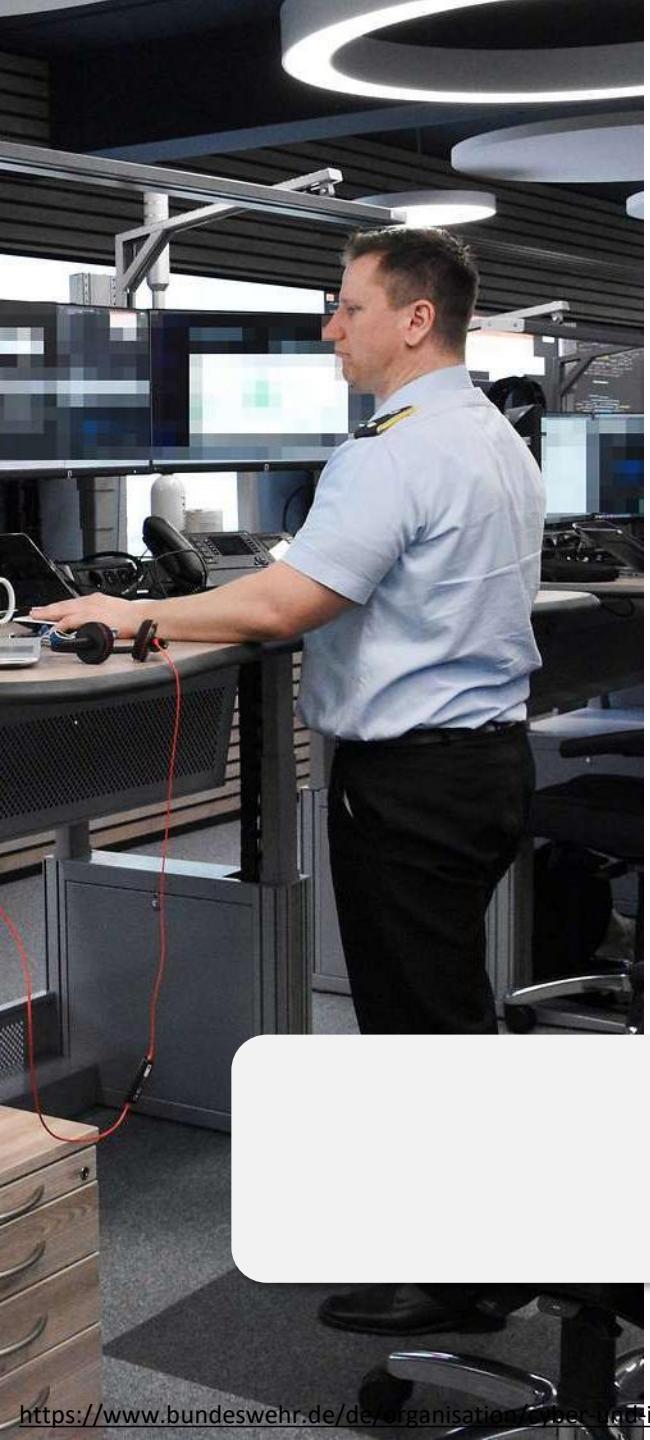
Defence industry in North Rhine-Westphalia

Safe. Reliable. Ready

Economic numbers from NRW in the security and defence sector



- Countrywide around 275.000 direct employed in security and defence industry
- 22 Mrd. € gross value added in Germany
- Mix of large corporations and Hidden-Champions in NRW
- **Defence.NRW** lists already more than 100 Companies, which are openly active in the defence industry sector, tendency rising



Important structural command units in NRW

In the area of cyberspace

- Command Cyber- and Informationspace; *Bonn*
- Federal Office for Military Counter-Intelligence, *Köln*
- Federal Office for Security in the Information sector, *Bonn*
- Operations center IT-System German Army, *Rheinbach*

The center of the German Army cyber operations is in NRW

Important structural command units in NRW

In Airforce and Space

- Airforcebarracks; *Köln-Wahn*
 - Airforce troop command
 - Center for Air- and Spacemedicine of the Airforce
 - Air transport service of the Federal Ministry of Defence
 - Aviation authority of the German Forces
- Federal Office for Military Counter-Intelligence, *Köln*
- Space command center of the German Forces, *Uedem*



In North Rhine-Westfalia there are several important NATO bases for aerial and space surveillance



<https://www.rheinmetall.com/de/produkte/schutzsysteme/schutzsysteme/schutzsysteme-landfahrzeuge/passivschutz#anchor-gesch-tzte-plattformen&gid=1&pid=1>

North Rhine-Westfalia protects human lives

- By producing high-strength steel alloys and assemblies thereof
- By the development of reactive armor
- By producing modern personal protection systems
- By the development and production of mobile field hospitals



https://dn-defence.com/de/produkte__trashed/vehicle-protection/



Special alloys, armored steel and high-performance ceramics

Passive ballistic protection stays highly relevant and requires the best of material science and lightweight construction

- KNDS Castings und Tracks
- Rheinmetall Protection Service
- Stahlkontor GmbH & Co. KG
- Deutsche Edelstahlwerke
- SPEIRA GmbH
- Schunk Gruppe
- CeramTec Gruppe



https://rp-online.de/mw/staedte/neuss/theinmetall-ruestungskonzern-will-in-neuss-sar-satelliten-bauen-v1_aid-127132601

NRW delivers digital souvereignty

- By developing modern cryptography, for example post-quantum cryptography
- By developing latest computer- and information technology for example Future computing systems and quantum internet
- By producing nano-satellites for guaranteeing independent communication
- By developing and preparing mobile data centers
- By developing and producing radar systems for the protection of terrestrial infrastructure



<https://www.fhr.fraunhofer.de/>

Information security from NRW

- Protection of digital infrastructure for critical civil and military authorities
- Reliable IT-security products and –concepts for command management systems are made since many years in NRW by companies like **INFODAS**, **Secunet**, **CGI** and **ATOS**.
- The **BWI GmbH** is the digitalisation partner of the German Forces and continuous improvement of the command and operational capabilities as well as the combat effectiveness of the armed forces.



Defence Actors in North Rhine-Westphalia (Examples)

Deutz AG



© Bundeswehr/Carl Schulze

Diesel Engine for light military vehicles

Schmees Castings



Foundry for many armoured steel vehicles

KNDS Castings



© Bundeswehr/Marco Dorow

Foundry for armoured steel chassis

Rheinmetall Aviation Services



© Bundeswehr/Marcello Totaro

F-35 Lightning - Production and Assembly of Middle section

Defence Actors in North Rhine-Westphalia (Examples)

AIRROBOT® GmbH & Co. KG



© AirRobot

AR100-H - Tactical reconnaissance drone

Deutsche Edelstahlwerke Witten Krefeld



© ThyssenKrupp Marine Systems

U212 CD - Steel parts for submarines

TITAL GmbH



© Bundeswehr/Andrea Bienert

Housing of the Taurus KEPD-350 guided missile

Dynamit Nobel Defence



© Israel Defense Forces

RGW 110 - Next Generation Panzerfaust