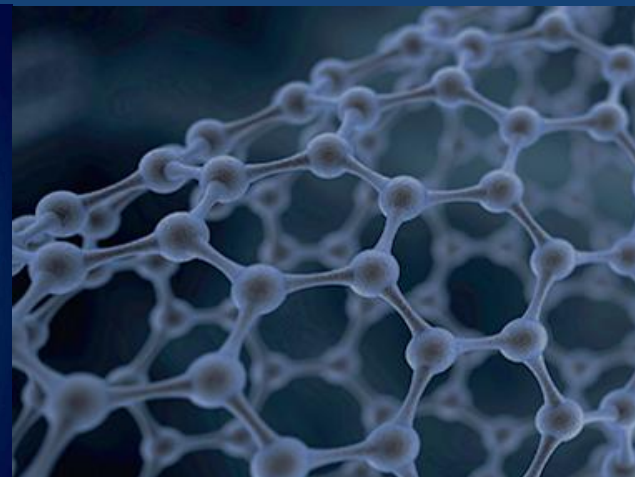
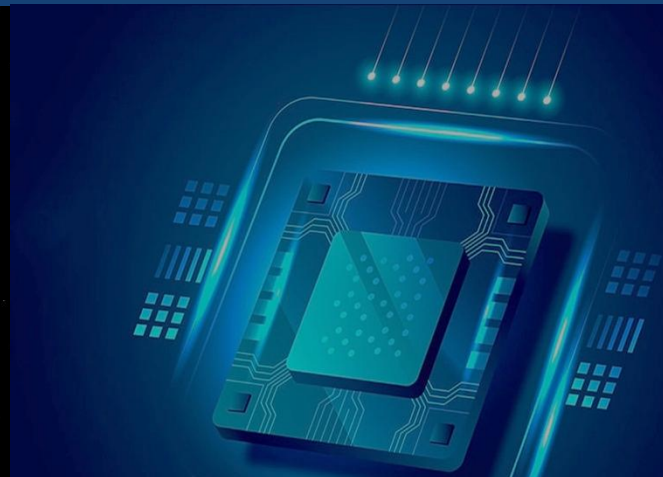


Technology Clusters **AeroSpace.NRW** and **NMWP.NRW** in North Rhine-Westphalia

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

NMWP.NRW & AeroSpace.NRW



North Rhine-Westphalia: 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



Düsseldorf
Köln

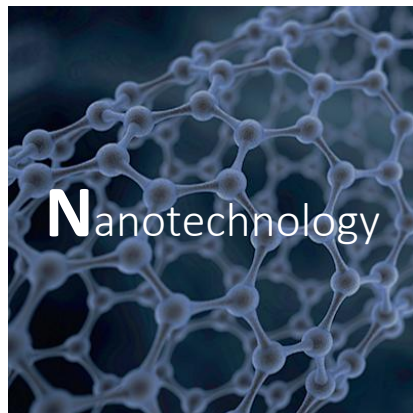
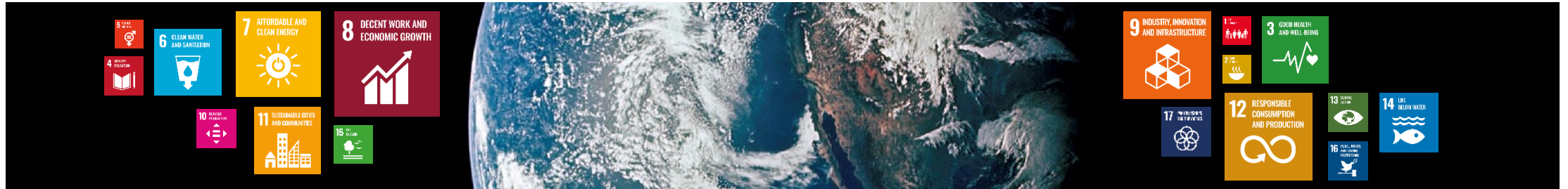
EUROPE'S ||| HEARTBEAT

871.9 billion euros

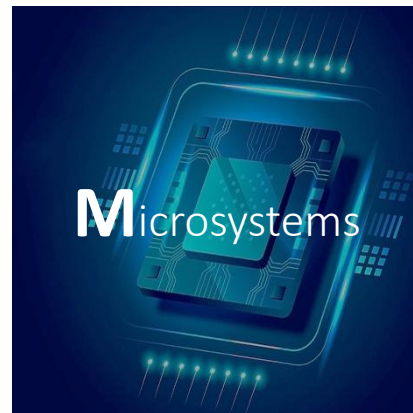
4.8 percent of the EU's GDP

are generated in the state – the highest gross domestic product of all German states and one fifth of the GDP of Germany as a whole.

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



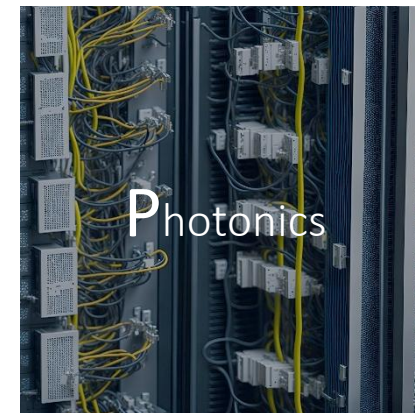
Nanotechnology



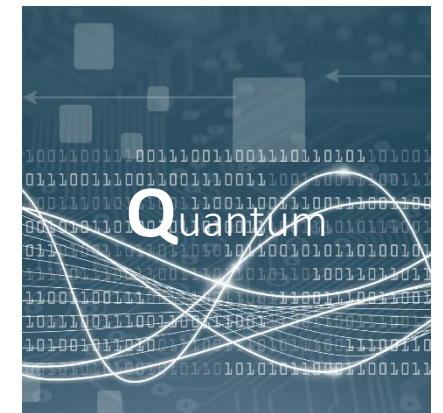
Microsystems



Materials



Photonics



Quantum



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.

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



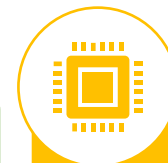
Energy
Economy



Automotive/
Mechanical Engin.



Environment
Economy



Electronic
Industry

...

public

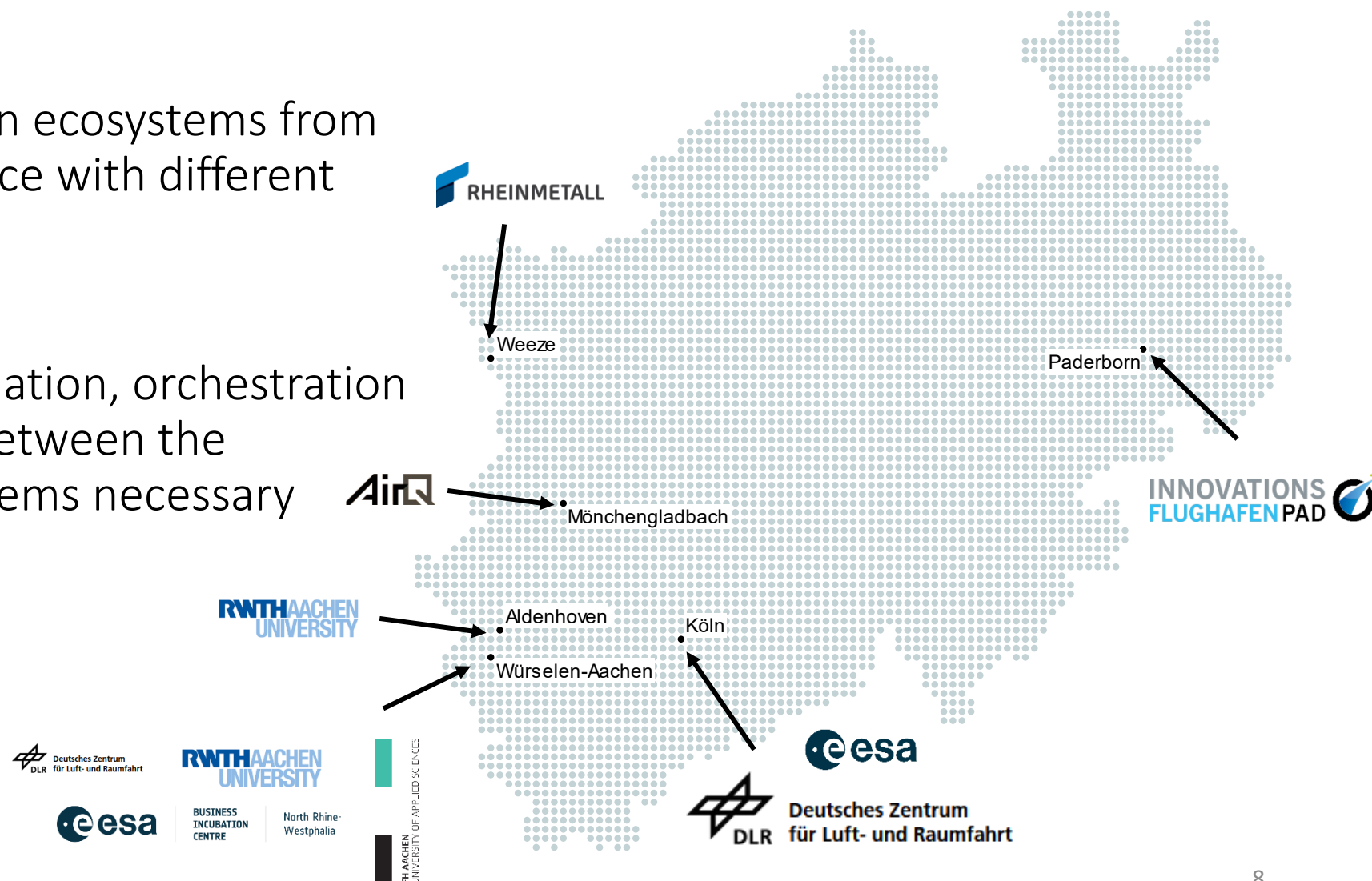
AeroSpace.NRW in a nutshell

- 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



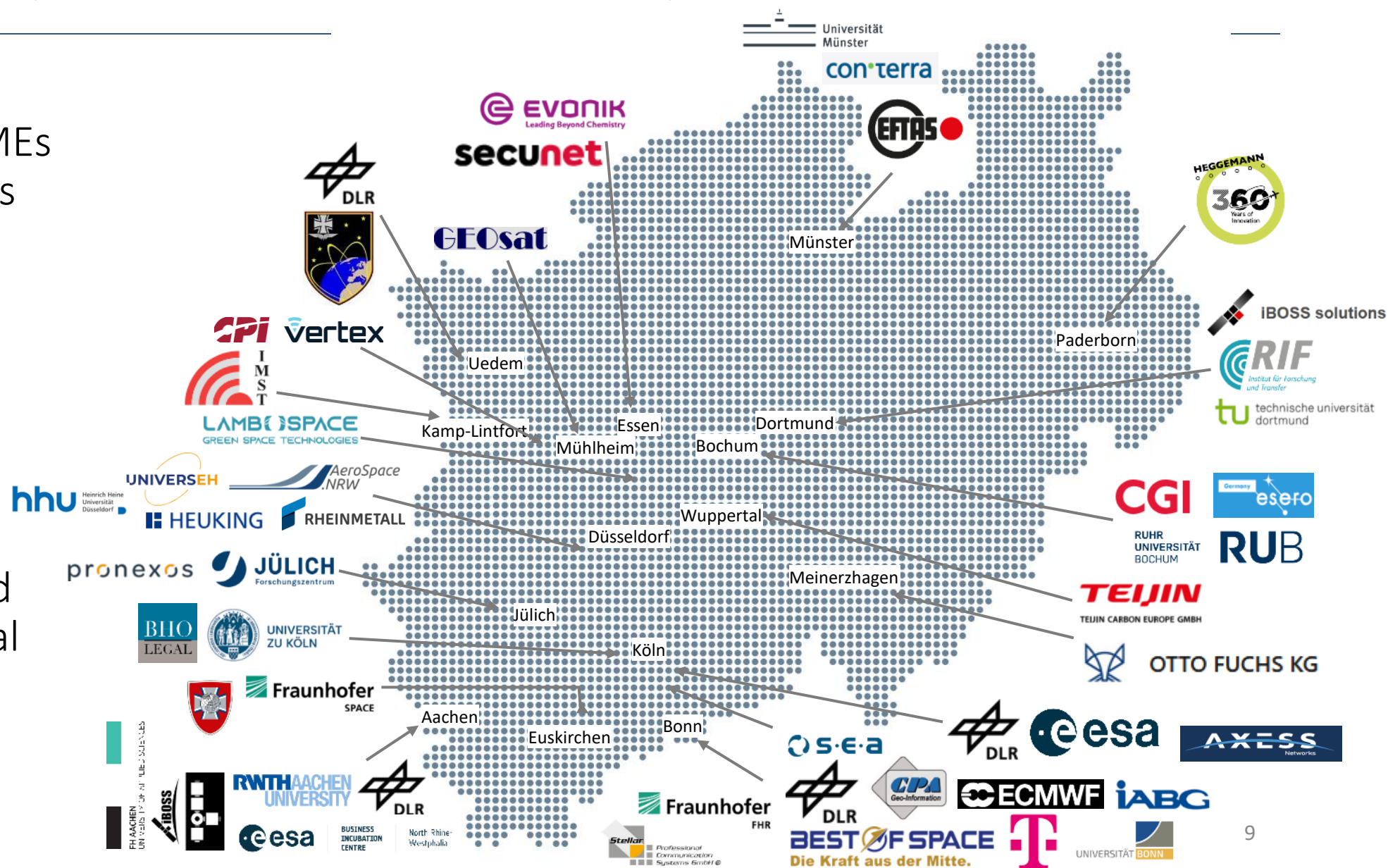
Selected locations in NRW: Research in aviation

- 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)

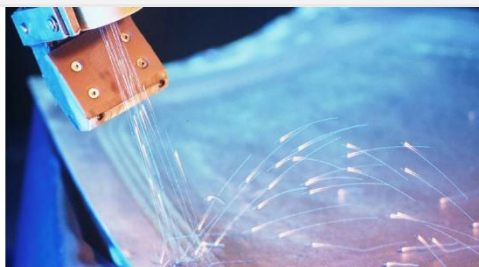
- Industry, SMEs and Startups
- Research Institutions
- (Technical) Universities
- Operating Sites – national and international



Selection of hardware suppliers



Weststraße 22-24
52074 Aachen
+49 241 87 97 95 0
info@ksa.de.com
www.ksa.de.com



KSA Kugelstrahlzentrum Aachen GmbH

TEIJIN CARBON

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



Teijin Carbon Europe GmbH

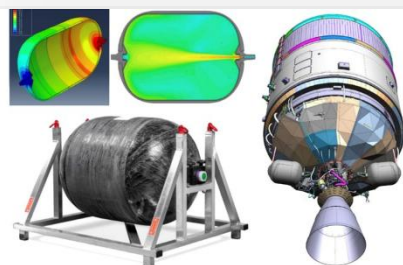


Zeppelinring 1-6
33142 Büren/Airport PAD
+49 2955 7610-100
info@heggemann.com
www.heggemann.com



HEGEMANN AG

Components for launchers



pronexos

Stettener Staatsforst
52428 Jülich
+49 2461 65 7300
contact@pronexos.com
www.pronexos.com

Pronexos

**FIBRE
COAT**

Dennewartstraße 25-27
52068 Aachen
+49 241 936 885 30
info@fibrecoat.de
www.fibrecoat.de



Fibrecoat GmbH

Materials & Structures



OTTO FUCHS

Derschlagers Straße 26
58540 Meinerzhagen
+49 2354 73-0
aerospace@otto-fuchs.com
www.otto-fuchs.com

OTTO FUCHS KG

Selection of engineering service suppliers

dSPACE

Rathenaustraße 26
33102 Paderborn

+49 525 11 638-0
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

Industrielle Computertomographie
Unser Spektrum von Mikro bis Linac CT

diondo
x-ray systems and services

Ruhrallee 14
45525 Hattingen

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



diondo GmbH

Satellite Communication

IMST

Carl-Friedrich-Gauss-Str. 2-4
47475 Kamp-Lintfort

+49 2842 981-191
contact@imst.de
www.imst.de



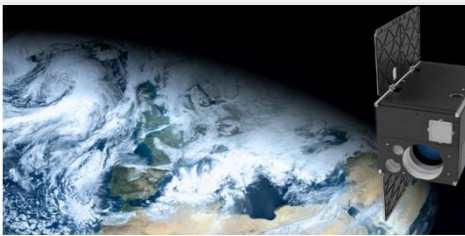
IMST GmbH

Software Engineering, Cyber, IT

Fraunhofer SPACE

Appelsgarten 2
53879 Euskirchen

+49 225 1180
aerospace@int.fraunhofer.de
www.space.fraunhofer.de

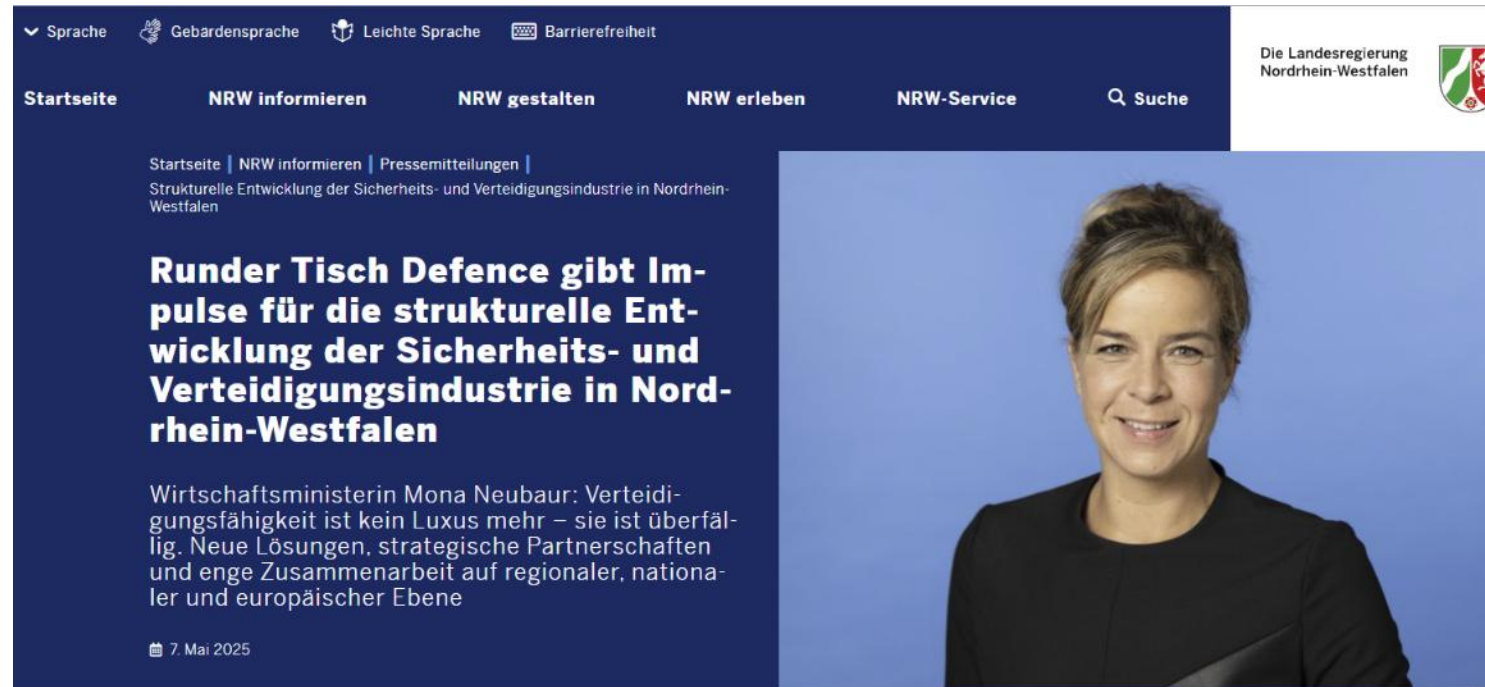


Fraunhofer-Allianz Space
Angewandte Forschung für die Raumfahrt-Industrie



North Rhine-Westphalia **connects** Defence ...

NRW Government ready to take on Responsibility

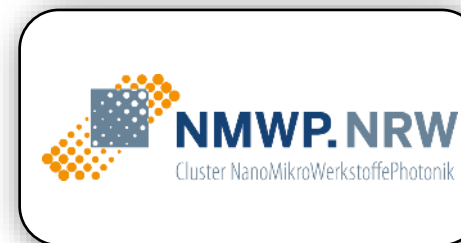


"We have relied on the protection of others for too long - especially the USA. But one thing is clear: our own defense capability is no longer a 'nice-to-have', but long overdue. If we want to secure democracy, freedom and peace, we must be able to defend them. Europe must stand on its own two feet -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

Minister of Economic Affairs Mona Neubaur



Defence.NRW plattform (as of end 2025)

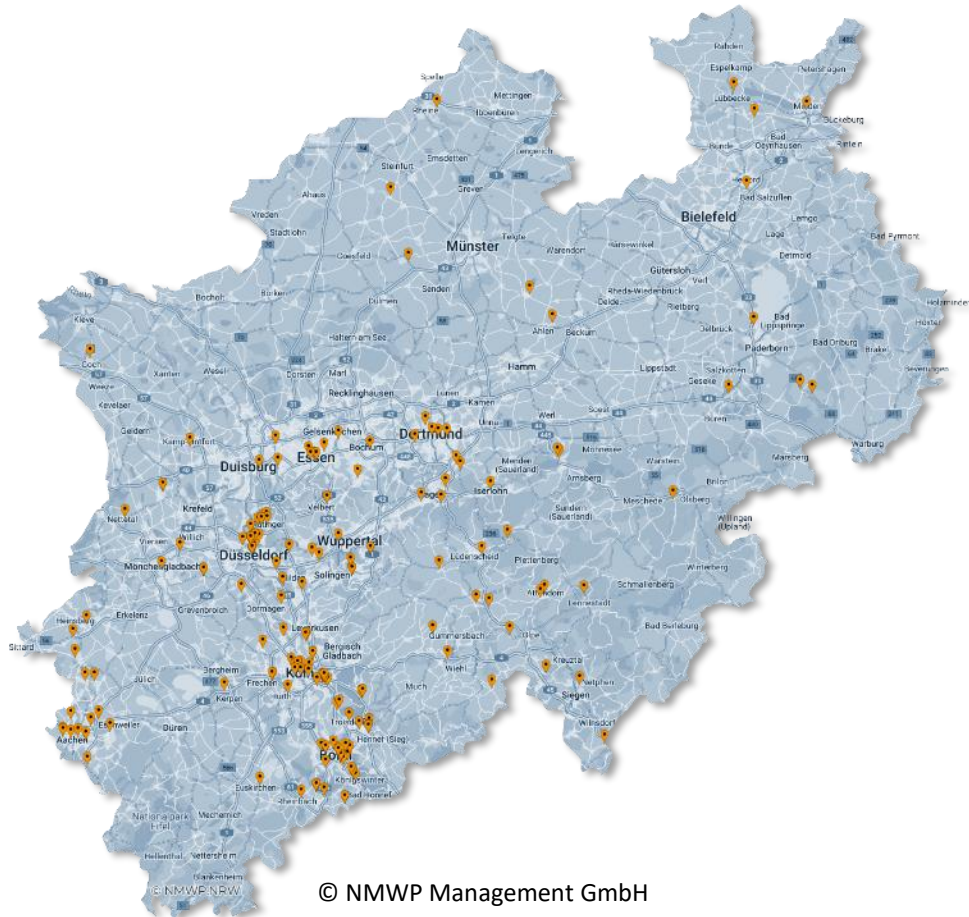


A front-facing view of a modern fighter jet, likely an F-35, on a runway. The aircraft is dark grey with a single pilot visible in the cockpit. The background shows a clear sky and a blurred airfield structure. A semi-transparent blue horizontal band is overlaid across the middle of the image, containing the text.

Defence industry in North Rhine-Westphalia

Safe. Reliable. Ready

Economic numbers from NRW in the security and defence sector



© NMWP Management GmbH

- 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



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





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

NRW delivers digital sovereignty

- 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



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