





Civil unmanned aircraft systems

in the capital region Berlin-Brandenburg

THE GERMAN CAPITAL REGION excellence in mobility

Manufacturers and developers AiDrones **APUS** Aeronautical ArrowTec BÄRDRONES DrohnenShop Berlin DROTEC ECARYS Engineering FLIGHTCOPTER FlyingMachines Germandrones **KAPI** electronics Multirotor ProjectAlphaLink Sitebots Skypoint-e

Service providers

4k.branko adKor AIRTEAM ArrowTec avatum BÄRDRONES **BEE2B** Dronesforgood **BSF Swissphoto** CDS Group Germany Copter Squad UAS COPTERview airDATA DiAvEn div-gmbh Drohnen-Finder.com Dronesperhour GmbH eagle eye technologies **Eight Wings** Germandrones LiveFO Masuch Geoinformation meetaa meteomatics Multirotor ÖbVI Strese & Rehs Pix4D ProjectAlphaLink SENSYS GmbH Sitebots Skypoint-e Slice production studios TeaserFilm **TRIGIS GeoServices** Vermessung Diering Vermessung Kaden

Authorities and organisations with security responsibilities DLRG e.V. DRK Landesverband Feuerwehr Potsdam Johanniter-Unfall-Hilfe e.V. Polizei Berlin Polizei Brandenburg



Sitebots surveying drones in action



Research-flight surveying drone ATISS from the TH Wildau

A strong region

The capital region, with six million residents and as a political, scientific and economic centre, is extremely well connected to other growth markets in Europe, making it one of the most important aerospace regions in Germany.

The companies and numerous institutes for science and research based in the region dedicate themselves to diverse key subjects with a high development potential, such as the integration of **unmanned aircraft systems (UAS)** in urban air space or drone defence for security-relevant facilities.

UAS: an economic factor with a future

Modern drones are increasingly taking over lower airspace as flying tools and instruments. Having started out as simple camera carriers for high-resolution aerial images, their development in the civil sector is going down multiple avenues and has already established a new and innovative sector in aviation.

Multicopters and fixed-wing drones are already being used in the capital region for 3D-surveying purposes, for industrial plant surveillance and inspection tasks, for coordinating emergency



»In its role as a management facility, GEOkomm e.V. primarily takes care of networks dealing with issues concerning geoinformatics. The first successful network in the UAS network, SiBeL, is now followed by agrASpace and its use

of aviation technologies (from UAS to satellites) to solve agricultural tasks.«

Dr. Peter A. Hecker, chairman of GEOkomm, Verband der GeoInformationswirtschaft Berlin/ Brandenburg e.V.



»The department of aeronautical engineering at the Wildau University of Applied Sciences (TU Wildau) has focussed on the design, construction, manufacture and testing of civil unmanned flight systems for 15 years now. TU Wildau and

their network partners thus make up a competence cluster in the Berlin-Brandenburg region.«

Prof. Dr.-Ing. Wolfgang Rüther-Kindel, Professor of Aviation Technology/Logistics at, the Wildau Technical University of Applied Sciences

personnel from the authorities and organisations with security tasks, in agriculture, in the film industry, and in the show and event sector. The sizes of the flight devices range from light micro drones at a maximum of 10 cm up to devices weighing well over 100 kg.

A certificate of knowledge is required to fly drones weighing over 2 kg in Germany. Stateapproved training facilities include ArrowTec, DPH Drone Services and COPTERview airDATA in Berlin and CURPAS e.V. and DROTEC in Brandenburg.

Research and development

Institutes for research and science such as TU Berlin, BTU Cottbus-Senftenberg and TH Wildau are involved in shaping this innovative industrial sector and drive its development forwards. Alongside aerospace authorities, leading industrial companies and aerospace associations, EU, federal and state funding programmes all support the use of innovative aviation technologies in opening up possibilities for use in the civil sector.

Drone application areas:

- Aerial photography | Photogrammetry
- Construction supervision and documentation
- Inspection | Maintenance | Surveying
- Agriculture and forestry
- Weather services
- Thermography
- Logistics, parcel and delivery services

- Research | Science | Archaeology
- Film and television industry
- Shows and events
- Search and rescue services
- Disaster prevention and environmental protection
- Munitions detection
- Surveillance | Safety and security

The data required and transmitted by the unmanned flight devices further form the working foundation for secondary industry branches such as software development, geodetics, and data analysis. The logistics industry and lifesaving services are actively pursuing the objective of using drones as autonomous transport platforms.

In the field of research and development activities concerning the sustainable technical and organisational guarantee of security in European and international aerospace, the European Aviation Security Center (EASC e.V.), with premises at the Schönhagen commercial airfield and in the Adlershof Technology Park, sees itself as a manufacturer-independent facility for aerospace safety in Europe.

Excellent networking

Strong associations and cooperation networks, made up of renowned manufacturers and users from the most diverse sectors, have established themselves in the capital region in all areas of unmanned aviation.

The CURPAS e.V. association based in Wildau networks manufacturers, suppliers and users and promotes the innovative further development of carrier systems.

Via the support from companies and scientific institutions in identifying suitable development and project partners, the networks and associations, such as SiBel, MoDiSem and SIBB e.V., help to strengthen the business location and its competitiveness as well as supporting the regional-political reinforcement of relevant activities in the capital region.

DroneMasters, the world's largest cross-sector platform for automated vertical mobility and drones, are also based in the capital region. Events and conferences organised by



» CURPAS e.V. focusses on UAS in the civil sector. With over 40 members from science and industry, CURPAS is the most innovative UAS association in Germany and the EU. True to the slogan 'We initiate innovation', the

association brings industry and science together, initiates research projects, and shares its specialist competence with numerous national and international committees.«

Prof. Dr. Uwe Meinberg, chairman of the board and chair of Industrial Information Systems at BTU Cottbus-Senftenberg

DroneMasters have been bringing thousands of experts and enthusiasts together since 2015.

By supporting these efforts, the Cluster Transport, Mobility and Logistics also enhances Berlin-Brandenburg as a quality location.



» Accelerated by digitalisation and electromobility, drones are opening up a new area of transport which makes it possible to connect city and countryside much more efficiently. The capital region offers dozens of industry-relevant appli-

cation cases and test fields for this purpose.«

Frank Wernecke, founder and managing director of DroneMasters, Berlin

Science **BTU** Cottbus-Senftenberg DAI Labor Deutsches GeoForschungsZentrum Potsdam (GFZ) EASC e.V. Embry-Riddle Aeronautical University Berlin **FIB** Finsterwalde FU Berlin HU Berlin Leibniz-Institut für Agrartechnik und Bioökonomie Leibniz-Institut für innovative Mikroelektronik - IHP GmbH Frankfurt/Oder Leibnitz-Zentrum für Agrarlandschaftsforschung TH Brandenburg TH Wildau TU Berlin

Drone pilot training

ArrowTec (DE.AST.002) COPTERview airDATA (über UAV DACH DE.AST.001) CURPAS e.V. (DE.AST.046) mit den Betriebsstätten: Multirotor, BTU Cottbus-Senftenberg, Sitebots und avatum DPH Drone Services UG (DE.AST.035) DROTEC (DE.AST.027)

Networks and

associations BBAA e.V. BVZD e.V. CURPAS e.V. DRONEMASTERS GEOkomm e.V. MoDISeM ZIM-Netzwerk NiELS eG SIBB e.V. GRW-Netzwerk SiBeL ZIM-Netzwerk Verband Unbemannte Luftfahrt vom BDL+BDLI

Test sites

BAM TTS Baruth¹ Flugplatz Eggersdorf/ Müncheberg Flugplatz Eisenhüttenstadt Flugplatz Schönhagen¹ Flugplatz Strausberg¹ Flugplatz Welzow Modellfluggelände Borkheide

¹ separate permits required

Our objective: your success!

Berlin and Brandenburg fund the field of action aerospace via a cross-state economic policy in the Cluster Transport, Mobility and Logistics. The cluster is managed by the Berlin Partner for Business and Technology and the Economic Development Agency Brandenburg.

Feel free to contact us! www.mobilitaet-bb.de

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