Additive manufacturing is becoming an increasingly important key technology with regard to industrial applications. The various innovative processes are on the agenda of large corporations, SMEs, and research institutes from almost all manufacturing industries. There is particular potential for development in the fields of aerospace, mobility and automotive, tool and mold making, as well as medical and dental technology, which are among the strengths of the capital region.

In recent years, Berlin-Brandenburg has become an important location for 3D printing technology developers, users, and service providers. For example, the medical technology company Otto Bock produces individual and custom-fit prostheses and orthoses using additive manufacturing. Siemens uses the technology for complex metallic components of gas turbines and Deutsche Bahn uses it to print spare parts for trains and infrastructure. Researchers at the Bundesanstalt für Materialforschung und -prüfung (BAM) have succeeded in developing 3D printers based on powder-based additive manufacturing in weightlessness for use in space travel.

Companies and scientific institutions in Berlin today represent the entire value chain of additive manufacturing. As an important interface between the digital economy and manufacturing industry, the sector also benefits greatly from the dynamic Berlin startup scene. In addition to hardware development, startups from Berlin also offer innovative solutions along the data-driven value-added process of 3D printing. CellCore develops component optimization software based on bionic principles to improve lightweight structures. Trinckle offers cloud-based software that enables the customization of 3D-printable products. Botspot is one of the leading international specialists for professional 3D scanning.

Companies (selection)
3Bots 3D Engineering
addmotion
Alexander Daniels Global
Autodesk
BASF Schwarzheide
Berlin Tech Academy
BigRep
Botspot
Carl Zeiss Meditec
Cellbricks
CellCore3D
clois
Druckerfachmann.de
EBK Krüger
F&B rapid production
Fab Lab Berlin
Fastpart Kunststofftechnik
flying-parts
formlabs
Gefertec
Hewlett-Packard
IFA 3D Medical Solutions
KleRe Roboterautomation
Kreatize
Metalprint130-XXXL
MotionLab.Berlin
Novoval
Next Dynamics
Orion Additive Manufacturing
Ottobock
Photon
PSC Technologies
PYOT Labs
Ricoh Deutschland
Raajan Design
Siemens
SKLT Strahlkraft LaserTechnik
Thiele+ Wagner
Time Tool Rapid Prototyping
Trinckle 3D
Trumpf
voxelwerk
werk5
XERION Berlin Laboratories
xalo
YOUin3D.com

«Formlabs is a young, innovative company that produces user-friendly and affordable 3D printing systems. These systems are used worldwide in the mechanical engineering & manufacturing industries, as well as in dentistry and education & research. Our headquarters are located in Boston, USA and our EMEA office in Berlin has been growing rapidly since 2015 – not least because of the high availability of young international talent, the excellent start-up ecosystem and the city’s strong 3D printing community. »

Stefan Holländer
Managing Director EMEA
Formlabs GmbH

Complete value chain

Small and large-format printers for professional and industrial applications have been conquering the international market for several years. Various processes are used, from stereolithography and laser sintering as with the printers from Formlabs to fused filament fabrication/fused deposition modeling (FDM) from companies such as BigRep and F&B rapid production, to Gefertec’s innovative 3D metal print process.
based on arc welding technology. In addition, Berlin is home to a number of experienced companies in materials science, such as 3dk.berlin, which continues to develop a large number of plastics, and Nanoval, a specialist in the production of high-quality metal powders. In the field of bioprinting, the three-dimensional printing of living cell tissue structures, the new company Cellbricks is a pioneer in tissue engineering applications and the development of artificial organs for transplantation medicine.

**Excellent science**

Berlin’s outstanding scientific landscape makes important contributions to technology development. Among others, its primary focuses are in digital 3D modeling at the Technische Universität of Berlin, printable ceramics, biomaterials, and quality control at the Bundesanstalt für Materialforschung und -prüfung (BAM), printed electronics at the Fraunhofer IPK and the Beuth University of Applied Sciences. The integration of additive manufacturing in the context of Industry 4.0 and the digital factory is being advanced by the Hochschule für Technik und Wirtschaft Berlin.

**Global networks**

Today, the German capital is an internationally renowned location for innovation, new technologies and additive manufacturing. For this reason, the 3D printing network MGA (Mobility/Medical goes Additive) was established here recently. Another milestone for 3D printing is the establishment of a center for additive manufacturing in the south of Berlin. The Industrial Additive Manufacturing Hub Berlin (IAM Hub) is a place to go for young 3D printing companies and scientific institutes. Innovative ideas are born and groundbreaking 3D printing projects are implemented on the rapidly developing campus, and there is also an attractive offer of co-working space.

In addition, the nationwide AM association Verband 3DDruck and other networks operate from Berlin and represent a strong community on various aspects of technology, law and standardization.
Our goal: your success!

Berlin offers excellent starting conditions for growth, production, research and development. Economic policy focuses on innovation and technological performance.

Our goal is to help companies and scientific institutes start up, develop and network here.

We support you with:

• Finding a location
• Funding and financing
• Technology transfer and R&D cooperation
• Collaborative networks
• Recruiting strategy
• Visa applications
• International market development

The new competence atlas for additive manufacturing in the capital region is online.
Register your company free of charge!

www.businesslocationcenter.de/industrieatlas

Follow us on Twitter!
@BerlinPartner

Photos:
Cover: Rocket Chamber, CellCore & SLM Solutions
Inside: Gefertec, BigRep, Steve Bergmann, Fraunhofer IPK, Michael Danner (Prof. Rethmeier)
Design: design pur GmbH, Berlin, Druck: Laserline, Berlin
© March 2020