

**Clusters of Excellence: Complete List of Approved Projects  
(Results of the Meeting of the Excellence Commission on 27 September 2018)**

One applicant university (in alphabetical order by city)	Title of the Cluster of Excellence
Rheinisch-Westfälische Technische Hochschule Aachen	Internet of Production
Rheinisch-Westfälische Technische Hochschule Aachen	The Fuel Science Center – Adaptive Conversion Systems for Renewable Energy and Carbon Sources
Universität Bayreuth	Africa Multiple: Reconfiguring African Studies
Freie Universität Berlin	Temporal Communities: Doing Literature in a Global Perspective
Freie Universität Berlin	Contestations of the Liberal Script (SCRIPTS)
Humboldt-Universität zu Berlin	Matters of Activity: Image Space Material
Technische Universität Berlin	Unifying Systems in Catalysis, UniSysCat
Ruhr-Universität Bochum	Cyber Security in the Age of Large-Scale Adversaries
Rheinische Friedrich-Wilhelms-Universität Bonn	Beyond Slavery and Freedom: Agency within Asymmetrical Structures of Individual and Group Dependencies in Premodern Societies
Rheinische Friedrich-Wilhelms-Universität Bonn	Hausdorff Center for Mathematics: Foundations, Models, Applications
Rheinische Friedrich-Wilhelms-Universität Bonn	PhenoRob – Robotics and Phenotyping for Sustainable Crop Production
Rheinische Friedrich-Wilhelms-Universität Bonn	ImmunoSensation2 – the immune sensory system
Technische Universität Carolo-Wilhelmina zu Braunschweig	Sustainable and Energy-Efficient Aviation – SE <sup>2</sup> A
Universität Bremen	The Ocean Floor – Earth’s Uncharted Interface
Technische Universität Dresden	Centre for Tactile Internet with Human-in-the-Loop (CeTI)
Technische Universität Dresden	Physics of Life – The Dynamic Organization of Living Matter
Albert-Ludwigs-Universität Freiburg im Breisgau	Centre for Integrative Biological Signalling Studies (CIBSS) – Signalling across Scales: From Mechanistic Understanding to Control-of-Function
Albert-Ludwigs-Universität Freiburg im Breisgau	Living, Adaptive and Energy-autonomous Materials Systems (livMatS)

One applicant university (in alphabetical order by city)	Titel of the Cluster of Excellence
Georg-August-Universität Göttingen	Multiscale Bioimaging: from Molecular Machines to Networks of Excitable Cells
Universität Hamburg	Climate, Climatic Change, and Society (CliCCS)
Universität Hamburg	Advanced Imaging of Matter: Structure, Dynamics and Control on the Atomic Scale
Universität Hamburg	Quantum Universe
Universität Hamburg	Understanding Written Artefacts: Material, Interaction and Transmission in Manuscript Cultures
Medizinische Hochschule Hannover	RESIST – Resolving Infection Susceptibility
Universität Hannover	PhoenixD - Photonics, Optics, and Engineering – Innovation Across Disciplines
Ruprecht-Karls-Universität Heidelberg	STRUCTURES: A unifying approach to emergent phenomena in the physical world, mathematics, and complex data
Friedrich-Schiller-Universität Jena	Balance of the Microverse
Christian-Albrechts-Universität zu Kiel	ROOTS – Social, Environmental, and Cultural Connectivity in Past Societies
Christian-Albrechts-Universität zu Kiel	Precision Medicine in Chronic Inflammation
Universität zu Köln	Cellular Stress Responses in Aging-associated Diseases
Universität Konstanz	The Politics of Inequality: Perceptions, Participation and Policies
Universität Konstanz	Centre for the Advanced Study of Collective Behaviour
Johannes Gutenberg-Universität Mainz	Precision Physics, Fundamental Interactions and Structure of Matter (PRISMA+)
Westfälische Wilhelms-Universität Münster	Mathematics Münster: Dynamics – Geometry – Structure
Westfälische Wilhelms-Universität Münster	Religion and Politics. Dynamics of Tradition and Innovation
Universität Stuttgart	Data-Integrated Simulation Science (SimTech)
Universität Stuttgart	Integrative Computational Design and Construction for Architecture
Eberhard-Karls-Universität Tübingen	Machine Learning: New Perspectives for Science
Eberhard-Karls-Universität Tübingen	Controlling Microbes to Fight Infections
Eberhard-Karls-Universität Tübingen	Image-Guided and Functionally-Instructed Tumor Therapies (iFIT)

Two applicant universities (in alphabetical order by city)	Titel of the Cluster of Excellence
Freie Universität Berlin / Humboldt-Universität zu Berlin	NeuroCure – Comprehensive approaches to neurological and psychiatric disorders – from mechanisms to interventions
Humboldt-Universität zu Berlin / Technische Universität Berlin	Science of Intelligence
Ruhr-Universität Bochum / Universität Dortmund	RESOLV (Ruhr Explores Solvation): Understanding and Design of Solvent-Controlled Processes
Rheinische Friedrich-Wilhelms-Universität Bonn / Universität zu Köln	ECONtribute: Markets & Public Policy
Technische Universität Carolo-Wilhelmina zu Braunschweig / Universität Hannover	Light and Matter at the Quantum Frontier: Foundations and Applications in Metrology (QuantumFrontiers)
Technische Universität Dresden / Bayerische Julius-Maximilians-Universität Würzburg	Complexity and Topology in Quantum Matter: Fundamental Concepts, Materials Design, and Novel Technologies
Heinrich-Heine-Universität Düsseldorf / Universität zu Köln	CEPLAS Cluster of Excellence on Plant Sciences – SMART Plants for Tomorrow's Needs
Johann Wolfgang Goethe-Universität Frankfurt am Main / Justus-Liebig-Universität Gießen	Cardio-Pulmonary Institute
Ruprecht-Karls-Universität Heidelberg / Karlsruher Institut für Technologie (KIT)	3D Matter Made to Order (3DMM2O)
Karlsruher Institut für Technologie (KIT) / Universität Ulm	Energy Storage beyond Lithium
Ludwig-Maximilians-Universität München / Technische Universität München	e-conversion
Ludwig-Maximilians-Universität München / Technische Universität München	ORIGINS: From the Origin of the Universe to the First Building Blocks of Life
Ludwig-Maximilians-Universität München / Technische Universität München	Munich Center for Quantum Science and Technology
Ludwig-Maximilians-Universität München / Technische Universität München	Munich Cluster for Systems Neurology (SyNergy)
Three applicant universities (in alphabetical order by city)	Titel of the Cluster of Excellence
Rheinisch-Westfälische Technische Hochschule Aachen / Rheinische Friedrich-Wilhelms-Universität Bonn / Universität zu Köln	Matter and light for quantum computing (ML4Q)
Freie Universität Berlin / Humboldt-Universität zu Berlin / Technische Universität Berlin	MATH+ The Berlin Mathematics Research Center
Medizinische Hochschule Hannover / Universität Hannover / Carl von Ossietzky Universität Oldenburg	„Hearing4All“ - Research for personalized treatment of hearing deficits

## New Clusters of Excellence (EXC) as of 1 January 2019

Decision by the Excellence Commission on 27 September 2018

