

Machine / Computing Centre	special hardware / services	test (< 0.1 mio coreh / year)	small	medium	large	very large
Bender / University of Bonn	NVIDIA A40, A100 GPU cluster for teaching activities / courses					
Bonna / University of Bonn	direct support by the HPC/A-Lab / the HPC team at the HRZ	✔ (working group fairshare, rolling)	✔ (working group fairshare, < 0.5 mio coreh / year, rolling)			
CHEOPS / Cologne	none	✔	✔	✔		
CLAIX / Aachen	NVIDIA P100, V100 dedicated performance optimisation support	✔ (PREP, 0.0085 mio coreh, rolling)		✔ (NHR Normal, < 8 mio coreh, rolling)	✔ (NHR Large, < 35 mio coreh, quartely)	
EuroHPC	Various kinds of machines including technologies not available in Germany replaces PRACE open to research groups from anywhere in the EU small, medium, large and very large scale or international projects	✔ (EuroHPC Benchmark Acces, rolling, three months)	✔ (EuroHPC Development Acces, rolling, up to two years)	✔ (EuroHPC Regular Acces, three times per year)	✔ (EuroHPC Regular Acces, three times per year)	✔ (EuroHPC Regular Acces, three times per year)
Hawk / HRLS (GCS)	very large jobs encouraged lots of expertise in engineering sciences NVIDIA A100	✔ (GCS Test, rolling)	✔ (GCS Regular, rolling)	✔ (GCS Regular, rolling)	✔ (GCS Regular, < 100 mio coreh, rolling)	✔ (GCS Large Scale, > 100 mio coreh, twice a year)
Juwels & Juwels Booster / JSC (GCS)	Modular Supercomputer Scalable NVIDIA A100 (Juwels)	✔ (GCS Test, rolling)	✔ (GCS Regular, < 2% of machine,	✔ (GCS Regular, < 2% of	✔ (GCS Regular, < 2% of	✔ (GCS Large Scale, > 2% of

	Booster)		twice a year)	machine, twice a year)	machine, twice a year)	machine, > 45000 EFLOP, twice a year)
Marvin / University of Bonn	direct support by the HPC/A- Lab / the HPC team at the HRZ NVIDIA A40, A100 24 large memory nodes (20 GB / core) 5 very large memory nodes (40 GB / core)	✔ (working group fairshare, rolling)	✔ (working group fairshare, < 2 mio coreh / year, < 36k A100 GPUh / year, < 56k A40 GPUh / year, rolling)			
NHR4CES / Aachen, Darmstadt	NVIDIA V100 (Aachen and Darmstadt), big memory (Darmstadt)	✔ (PREP, 0.0085 mio coreh, rolling)		✔ (NHR Normal, < 8 mio coreh, rolling)	✔ (NHR Large, < 35 mio coreh, quarterly)	
NHR@FAU NHR application	NVIDIA A100, NVIDIA A40 dedicated performance optimisation support	unclear	unclear	unclear	unclear	
NHR@Göttingen / NHR@ZIB (Berlin)	a few NVIDIA V100 (Göttingen), some large memory nodes	unclear	unclear	unclear	unclear	
NHR@KIT NHR application	Future Technologies Partition, Continuous Integration & Testing Platform NVIDIA A100	✔ (Test, up to 2 x 0.5 mio coreh for 6+6 months, rolling)	✔ (Preliminary, 10% of applied for project or 0.5 mio coreh, full project must be under review)	✔ (< 70 million CPU coreh, < 1 million GPU hours, rolling)	✔ (< 70 million CPU coreh, < 1 million GPU hours, rolling)	✔ (< 70 million CPU coreh, < 1 million GPU hours, rolling)
NHR@PC2 NHR application	FPGA, NVIDIA A100 expert support in computational chemistry and solid state physics	✔ (Test, < 0.1 mio coreh, rolling)	✔ (Small, < 4 mio coreh, rolling)	✔ (NHR Normal, < 12 mio coreh, rolling)	✔ (NHR Large, < 60 mio coreh, quarterly)	
NHR@TUD NHR application	Special focus on data	✔ (Trial, 3500	✔ (rolling)	✔	✔ (rolling)	

	analytics (NVME flash file system, NVIDIA A100 GPUs) Processing of extremely large data sets (HPE Superdome Flex 48 TB SMP partition)	coreh / month, 250 GPUh / month, rolling)		(rolling)		
Noctua(2) / Paderborn	FPGA, NVIDIA A100 expert support in computational chemistry and solid state physics	✔ (Test, < 0.1 mio coreh, rolling)	✔ (Small, < 4 mio coreh, rolling)	✔ (NHR Normal, < 12 mio coreh, rolling)	✔ (NHR Large, < 60 million coreh, quartely)	
PRACE	Various technologies not available in Germany is being replaced by EuroHPC very large scale or international projects	✔ (PRACE Benchmark Acces, rolling, two months)	✔ (PRACE Development Acces, rolling, six months)		✔ (PRACE Call for Proposals, twice a year)	✔ (PRACE Call for Proposals, twice a year)
SuperMUC-NG / LRZ (GCS)	thin / fat nodes	✔ (GCS Test, < 0.3 mio coreh, rolling)	✔ (GCS Regular, rolling)	✔ (GCS Regular, rolling)	✔ (GCS Regular, < 45 mio coreh, rolling)	✔ (GCS Large Scale, > 45 mio coreh, twice a year)