



<b>Equipment Control</b>	Accelerator equipment control & tools/GUIs	FESA																1
	Power converter control (all)																	1
	Ring RF equipment control																	1
	Pulsed power systems control																	1
	Stepping motor control																	1
	Beam instrumentation systems																	1
	Maschine-specific FESA classes (various)																	1
	Digitizer Systems & Generic DAQ App																	1
	...																	
	Expert tools & GUIs (per device/machine)																	
	DCT																	
	ACT																	
	FCT Ring and Transfer Lines																	
	BPM (by type/machine)																	
	RSA, SIS-Radio																	
	Lassie																	
	IPM																	
	BIF																	
	Profile grids																	
	Cameras																	
	HV control																	
	MAPS2																	
	BIF																	
	BTF Scan																	
	IonSource GUI																	
	UNILAC Energy measurement (ToF)																	
	Schottky – Machine																	
	Schottky – Experiments																	
	...																	
	Fast-Beam-Abort-System (Controller)																	
	Bunch-2-Bucket System (low-level timing)																	
	Device Control GUI																	
	Actual-vs-Reference-Monitoring/Interlocking																	
	Integration of generic sensor data and actuators (e.g. cryogenics, vacuum)																	
Data Concentrators (PBM, ...)																		
<b>Generic Services</b>	LSA-Settings-Management	LSA																
	Device setting supply (drive)																	
	Muti-Parameter-Beam infrastructure																	
	Management of Critical Settings	MCS																
	Front-End Software Architecture	FESA																
	Generic Control Room Apps (not machine specific)																	
	Beam Request System to users (App, API)																	
	Machine-Experiment Data Exchange Interface																	
	Archiving-Service																	
	Archiving System																	
	Generic data visualisation and retrieval																	
	Role-Based-Access Management	RBAC																
	Sequencer Service	Sequencer																
	Diagnostic Logging																	
	Post-Mortem-System	PM																
	Generic Digitizers (non-BI)																	
	Measurement data visualisation	chart-[fx,Qt]																
Middle-Tier-Services (equip. & beam-based))																		
...																		
<b>IT Infrastructure</b> (for services / für Dienste)	Accelerator IT cluster system																	
	General services																	
	Development environment & tools																	
	Continuous int. & dev. Environment (CI/CD)																	
	Container management services																	
	Version control systems																	
	Electronic log book (operation)																	
	User-account management (auth services)																	
	Accelerator Databases																	
	Network Infrastructure (technical networks)																	
	Ethernet, Profinet, White Rabbit																	
	Active components (switches, firewall, ...)																	
	Technical equipment Control Room (FCC)																	
...																		