ASUB-Tech
University
Berlin

Team05 — University FM/CREM Department

EAM Pitch — Enterprise Architecture for Campus Digitalization

Hochschule für Technik
und Wirtschaft Berlin
University of Applied Sciences

M22 Enterprise Architecture Management
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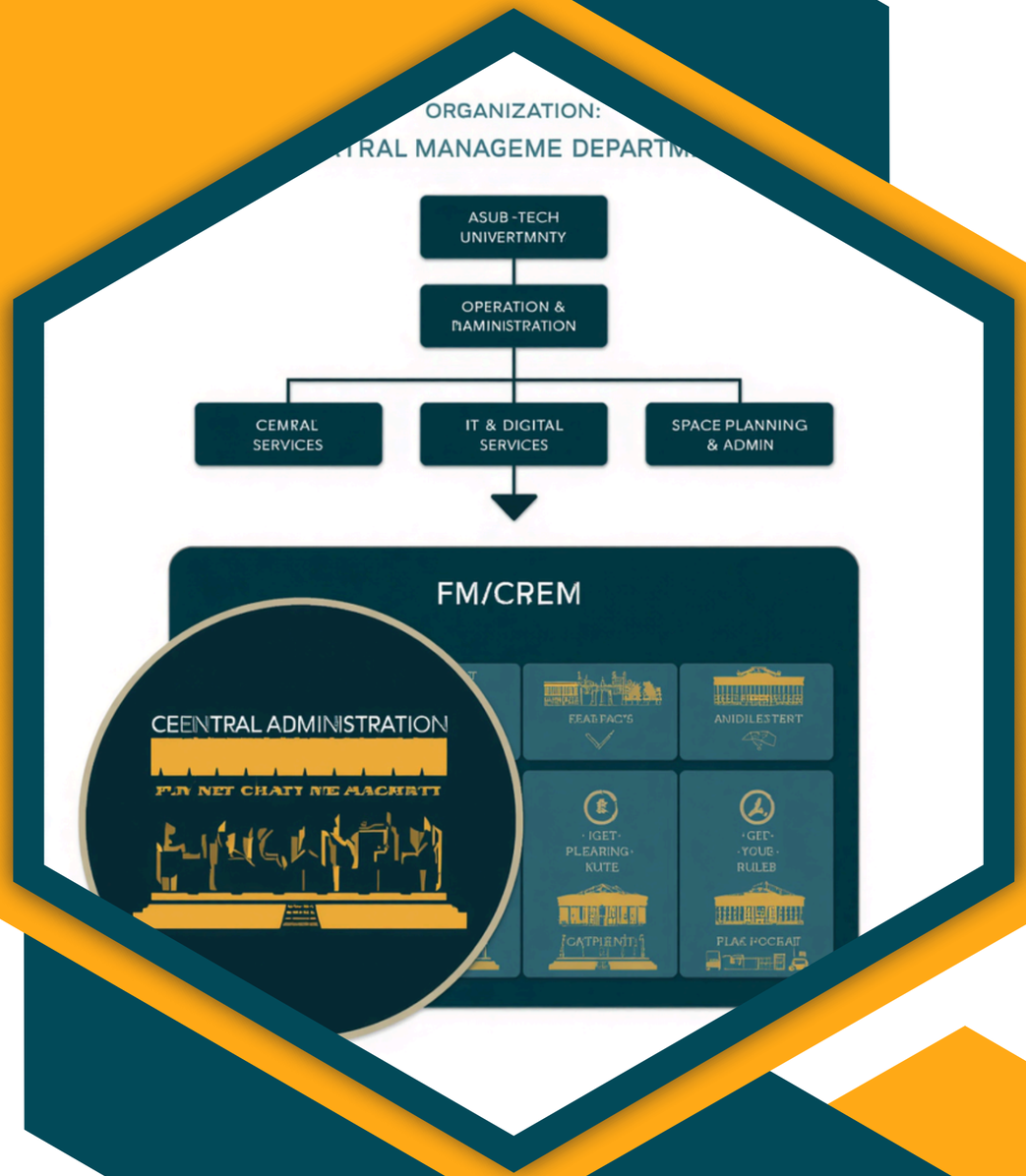
For Whom? Organizational Structure



ASUB-Tech University — FM/CREM Department: 50 staff across 4 operational units. Central Admin oversees campus facility management, real estate, and digital infrastructure services.

Operations & Maintenance (20)

Day-to-day facility upkeep, preventive maintenance, spare parts, and repairs via IBM Maximo.

IT & Digital Services (15)

Manages campus IT infrastructure, building automation integration, IoT sensor networks, and digital platform support across Siemens Desigo CC, MS 365, and enterprise system interfaces.

Space Planning & Admin (10)

Occupancy data and room allocation via Planon IWMS.

Finance & Budget (5)

Oversees cost control, procurement approvals, and financial reporting via SAP S/4HANA.

Process Landscape
Three Layers

01 Management Processes

Strategic Planning · Financial & Budget Management · Sustainability & Compliance — Governance-level direction setting and institutional oversight for all FM/CREM operations.

02 Core Processes

Campus Energy & Sustainability · Facility Ops & Maintenance · Campus Infrastructure Digitalization · Real Estate & Space Management — ★ Pilot: Spare Parts Procurement (within Facility Ops & Maintenance).

03 Support Processes

IT Infrastructure Support · Procurement & Contract Management · Reporting & Data Analytics — Enabling services that underpin all core and management process execution.

Vision 2030 — Strategic Objectives

North Star Vision: Long-term Institutional Excellence — a fully digitalized campus delivering operational efficiency, sustainability, and enhanced academic quality at ASUB-Tech University.

Academic Excellence Pillar

Hybrid Smart Infrastructure · Data-Driven Space Planning · IoT-based Energy Efficiency · Predictive Maintenance Improvement via CMMS integration

Financial Sustainability Pillar

Non-Tuition Revenue Streams · Digital Asset Management & Lifecycle Optimization · Strategic Industry & Research Partnerships

Improve Your Environment

Hybrid classroom infrastructure · Smart room booking via Planon · Solar & HVAC energy dashboards · Maximo-driven maintenance KPIs

Use All Your Time

Digital marketplace for campus assets · BIM/Digital Twin for asset valuation · Partnership portal with SAP billing integration

IT Landscape Overview — Core Systems & Interfaces

IBM Maximo (CAFM & Maintenance)

Manages work orders, asset tracking, spare parts procurement, and preventive maintenance workflows. Receives Purchase Orders from SAP S/4HANA.

Planon IWMS (Space & Occupancy)

Handles space planning, room booking, and occupancy analytics. Receives Work Order and Asset data from IBM Maximo for integrated facility management.

Siemens Desigo CC (Building Automation)

Controls HVAC, energy systems, and IoT sensors across campus. Receives Sensor and Occupancy data from Planon IWMS for automated building control.

SAP S/4HANA (ERP & Billing)

Central ERP for financial management, billing, and procurement. Sends Purchase Orders to IBM Maximo, enabling end-to-end procurement integration.

Autodesk Revit & MS 365 (BIM & Collaboration)

Autodesk Revit provides BIM and digital twin asset management. MS Teams / M365 enables collaboration, document sharing, and communication across all FM units.

Integration Matrices — People, Processes & IT

IT Applications by Roles

Role → System Mapping:
✔️ Maint. Tech: Maximo, Desigo
✔️ Ops Manager: Maximo, SAP, Planon
✔️ IT Specialist: All 6 Systems
✔️ HSE Specialist: Maximo, Revit
✔️ Finance Officer: SAP, Maximo
✔️ Procurement: SAP, Maximo
All roles are fully covered — no orphaned users detected across the IT landscape.

IT Support of Business Processes

Process → System Mapping:
✔️ Facility Ops & Maint.: Maximo
✔️ Space Management: Planon, Revit
✔️ Energy & Sustainability: Desigo, Planon
✔️ Procurement & Contracts: SAP, Maximo
✔️ Reporting & Analytics: SAP, MS365
✔️ Campus Digitalization: Revit, Desigo
All core & support processes are IT-backed — no process gaps identified.

Pilot Process — Spare Parts Procurement

14-step BPMN flow from defect detection to ticket closure. Six roles collaborate across Maximo & SAP systems. Key KPI: Mean Time To Repair (MTTR) — measured end-to-end across all process stages.

Process Roles & Swimlanes

6 roles involved: Maintenance Technician, Operations Manager, IT Specialist, HSE Specialist, Finance Officer, Procurement Specialist — each mapped to specific process steps in the BPMN flow.

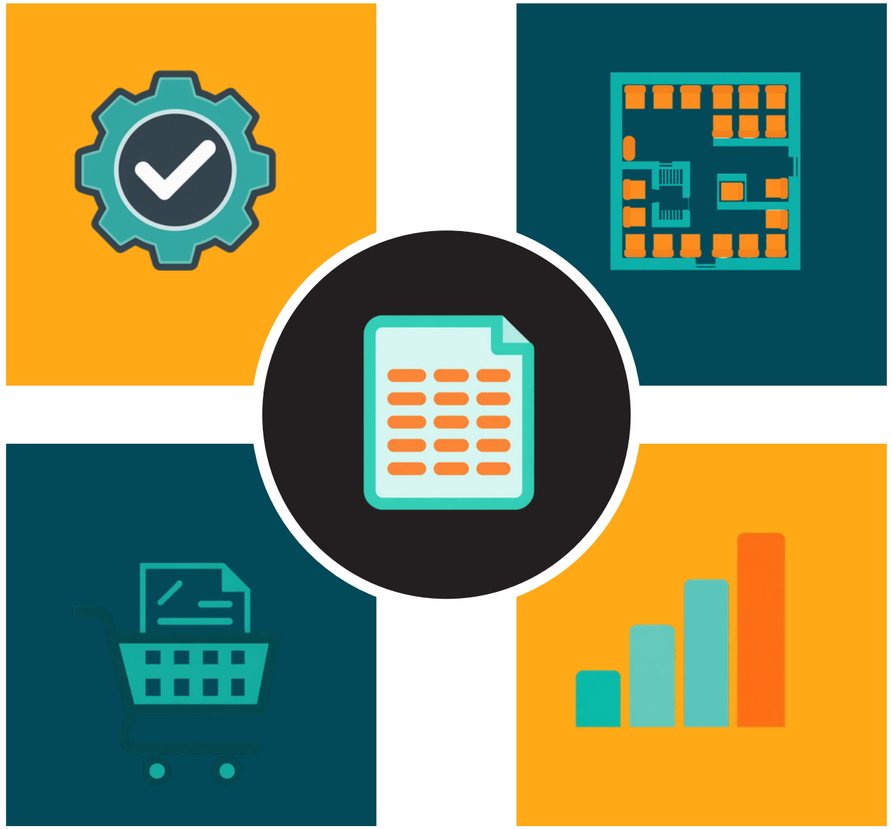
14-Step End-to-End Workflow

From defect detection & Maximo ticket creation → diagnosis → spare parts request → HSE check → procurement via SAP → delivery → assembly → quality check → ticket closure & MTTR logging.

KPI: MTTR & System Integration

Mean Time To Repair (MTTR) tracked via IBM Maximo. Purchase orders automated through SAP S/4HANA. Real-time status updates shared across Operations Manager and Finance Officer roles.

Selected Requirements
IT Benefits Overview



Objective | Requirement | System | Effort | Complexity

06

Energy Efficiency | HVAC Automation via IoT Sensors | Siemens Desigo CC + Planon | 18 days | HIGH
Maintenance Improvement | Preventive Maintenance Scheduling | IBM Maximo | 12 days | HIGH

06

Space & Asset Management | Digital Space Booking & Occupancy Tracking

Space & Occupancy | Digital Room Booking & Occupancy Tracking | Planon IWMS | 10 days | MEDIUM
Asset Management | BIM-Based Asset Lifecycle Tracking | Autodesk Revit + Maximo | 15 days | HIGH

06

Procurement & Finance Integration

Procurement Digitalization | Spare Parts Procurement Workflow Automation | SAP S/4HANA + Maximo | 14 days | HIGH
Financial Reporting | Automated Budget & Cost Reporting | SAP S/4HANA | 8 days | MEDIUM

06

Data Analytics & Collaboration

Reporting & Analytics | Real-Time KPI Dashboard & Data Analytics | Planon + SAP | 9 days | MEDIUM
Collaboration & Ticketing | Mobile Work Order & Request Management | IBM Maximo + MS Teams | 7 days | LOW
★ KPI Focus: MTTR reduction, energy savings %, occupancy rate, procurement cycle time

Economic Benefits — Balanced Scorecard View

Finance

Digital procurement via Maximo + SAP reduces manual PO processing. HVAC automation tied to real-time occupancy (Siemens Desigo) cuts energy costs. KPI: 20% reduction in procurement cycle time; 15% energy savings.

Customer

Web & mobile service requests via IBM Maximo improve response times. Room booking & space management via Planon IWMS enhances user experience. KPI: 30% faster request resolution; 95% room utilization accuracy.

Process

IoT sensor network (Planon + Desigo CC) enables predictive maintenance. Automated work order tracking via Maximo eliminates manual handoffs. KPI: MTTR reduced by 25%; 40% fewer unplanned outages.

Innovation

BIM/digital twin via Autodesk Revit enables virtual asset lifecycle management. IoT backbone uptime monitoring via Planon + Desigo supports smart campus vision. KPI: 99.5% IoT uptime; full digital twin coverage by 2030.

One Coherent Architecture

From Strategy to Systems — A unified EA concept delivering measurable value across organization, strategy, IT, and operations at ASUB-Tech University.

WHO: Organization & Roles

FM/CREM dept: 50 people, 4 units. Operations & Maintenance (20), IT & Digital Services (15), Space Planning (10), Finance & Budget (5). 6 key pilot roles identified.

WHAT: Vision 2030 Objectives

Two strategic pillars: Academic Excellence (hybrid infra, data-driven space, energy efficiency, CMMS) & Financial Sustainability (revenue, asset mgmt, partnerships).

HOW: IT Landscape & Flows

6 integrated systems: IBM Maximo, Planon IWMS, Siemens Desigo CC, SAP S/4HANA, Autodesk Revit, MS 365. Key flows: SAP→Maximo, Maximo→Planon, Planon→Desigo.

PROOF: Pilot Process & BSC

14-step Spare Parts Procurement pilot. KPI: MTTR reduction. BSC: Finance, Customer, Process & Innovation quadrants — all supported by integrated IT systems.

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Thank You

Questions & Discussion Welcome

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