



PINNACLE SYNERGY ENGINEERING SYSTEMS LLC

Engineering • Trading • Services • Digital Solutions

Innovate. Integrate. Deliver.

Sales@pinnacle-synergy.com

+966 533 88 2310

www.pinnacle-synergy.com

INTRODUCTION

Pinnacle Synergy is a multidisciplinary engineering and technology company delivering integrated engineering, EPC support, sustainability, and digital transformation solutions for energy, process, infrastructure, and industrial sectors.

Our organisation is driven by highly experienced engineering professionals with expertise across:

- Process Engineering
- Mechanical Engineering
- Piping Engineering
- Civil & Structural Engineering
- Electrical & Instrumentation
- Pipeline Engineering
- Data Centre Infrastructure
- Artificial Intelligence & Digital Engineering

We are committed to deliver innovative, sustainable, and cost-effective engineering solutions aligned with global standards and industry best practices.



OUR FOUNDATION

Guided by integrity, driven by innovation, and committed to engineering sustainable growth.

Core Values



Integrity

Ethical, transparent, and professional conduct.



Innovation

Driving continuous improvement through technology.



Client Commitment

Building long-term partnerships through quality.



Sustainability

Delivering responsible and future-ready solutions.

Our Purpose

To enable industries to build smarter, safer, and more sustainable assets through engineering excellence and innovation.

Our Vision

To be a trusted global engineering partner delivering innovative, sustainable, and transformative solutions across industries.

Our Mission

To deliver integrated engineering, EPC, and digital solutions that enhance performance, sustainability, and long-term value for our clients.

COMPANY IN A GLANCE

**Multidisciplinary
Engineering Company**

1

**Sustainable Energy
Solutions**

5

**EPC / EPCM / PMC
Capabilities**

2

**AI & Digital Engineering
Integration**

6

**Experienced Engineering
Team (10–30+ Years)**

3

**End-to-End Project
Execution**

7

**Global Engineering
Exposure**

4

**International Engineering
Standards Compliance**

8



BUSINESS FOCUS AREA

SAFETY

Ensuring safe engineering practices and compliance across every project stage.



RELIABILITY

Delivering dependable and high-performance engineering solutions.



INNOVATION

Integrating modern technologies and smart engineering methodologies.



SUSTAINABILITY

Promoting environmentally responsible and energy-efficient solutions.



QUALITY ASSURANCE

Maintaining global engineering standards and project quality excellence.



COST OPTIMIZATION

Providing technically optimized and commercially viable solutions.



OPERATIONAL EFFICIENCY

Enhancing productivity and performance through intelligent engineering.



CLIENT COMMITMENT

Building long-term partnerships through trust, transparency, and timely delivery.



STRATEGIC BUSINESS UNIT (SBU)

Strategic transformation journey from assessment to sustainable excellence delivery

SBU - 1

DESIGN & DETAIL ENGINEERING

Identify gaps, analyze capabilities, set metrics, prioritize improvements.



SBU - 2

DATA CENTER & MEP SERVICES

Identify gaps, analyze capabilities, set metrics, prioritize improvements.



SBU - 3

AI & DIGITAL ENGINEERING

Identify gaps, analyze capabilities, set metrics, prioritize improvements.





SERVICES

PROCESS ENGINEERING



Enhancing plant efficiency through advanced process design, simulation, and performance analysis.

Developing innovative process systems that improve safety, reliability, and operational excellence.

SPECIALISATIONS:

- FEASIBILITY STUDIES
- PROCESS SIMULATION
- PFD & P&ID DEVELOPMENT
- HYDRAULIC CALCULATIONS
- PROCESS OPTIMIZATION
- EQUIPMENT SIZING
- HAZOP STUDIES
- UTILITY BALANCE CALCULATIONS
- SMART P&ID DATABASE DEVELOPMENT

SOFTWARE:

- ASPEN
- HTRI
- PIPENET

MECHANICAL ENGINEERING



Delivering reliable static and rotating equipment designs compliant with international standards.

Ensuring long-term operational efficiency through robust mechanical engineering solutions.

SPECIALISATIONS:

- PRESSURE VESSEL DESIGN
- HEAT EXCHANGERS
- API STORAGE TANKS
- REACTORS & COLUMNS
- STATIC & ROTARY EQUIPMENT
- FABRICATION DRAWINGS
- THERMAL DESIGN
- FEA ANALYSIS

STANDARDS:

- ASME
- API
- TEMA
- BS / EN

SOFTWARE:

- PV ELITE
- ANSYS

PIPING ENGINEERING



Creating efficient plant layouts and piping systems for safe and optimised operations.

Ensuring piping integrity through advanced stress evaluation and support engineering.

SPECIALISATIONS:

- PLOT PLANS
- EQUIPMENT LAYOUTS
- PIPE STRESS ANALYSIS
- ISOMETRIC DRAWINGS
- SUPPORT ENGINEERING
- MATERIAL TAKE-OFF (MTO)
- SUBSEA PIPELINE ANALYSIS

SOFTWARE:

- CAESAR II
- PLANT 3D

CIVIL & STRUCTURAL ENGINEERING



SPECIALISATIONS:

- STRUCTURAL ANALYSIS
- PIPE RACK DESIGN
- FOUNDATION DESIGN
- SEISMIC ANALYSIS
- SKID STRUCTURAL DESIGN
- INDUSTRIAL BUILDINGS
- STRUCTURAL DETAILING

SOFTWARE:

- STAAD PRO
- SACS

Designing safe and durable structures capable of meeting demanding industrial requirements.

Providing stable and cost-effective foundation solutions for critical infrastructure projects.

ELECTRICAL & INSTRUMENTATION



Delivering efficient electrical solutions that ensure uninterrupted plant operations.

Integrating advanced instrumentation and control systems for enhanced productivity.

SPECIALISATIONS

ELECTRICAL ENGINEERING:

- POWER SYSTEM STUDIES
- SUBSTATION DESIGN
- LOAD FLOW ANALYSIS
- EARTHING & PROTECTION
- SOLAR INTEGRATION

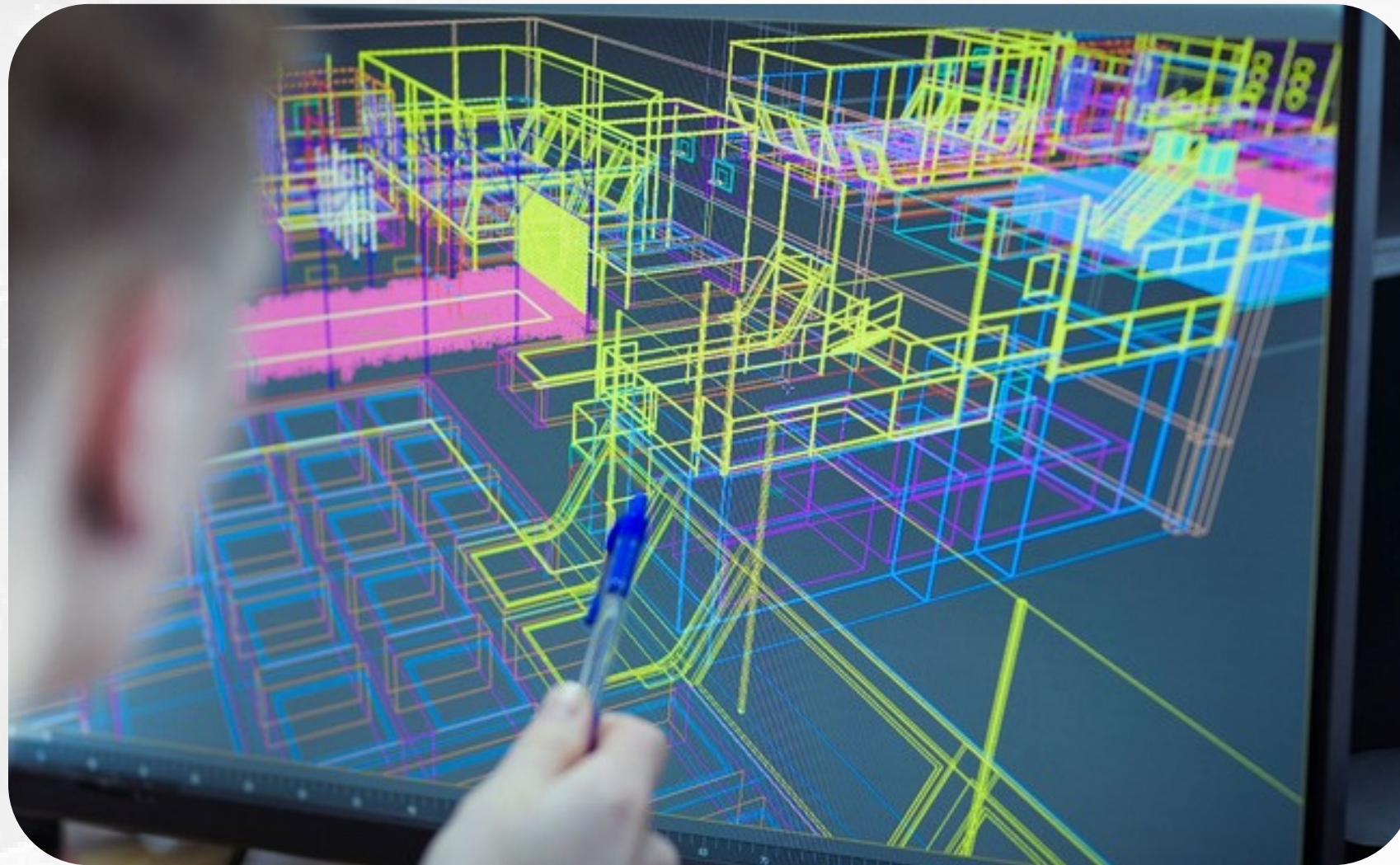
INSTRUMENTATION:

- PLC / DCS SYSTEMS
- SCADA
- SPI ENGINEERING
- FIELD INSTRUMENTATION
- AUTOMATION SOLUTIONS

SOFTWARE:

- ETAP
- SKM
- DIALUX
- SPI

3D MODELLING & DIGITAL ENGINEERING



Developing intelligent 3D models for improved design coordination and project accuracy.

Transforming engineering information into actionable digital assets for project success.

SPECIALISATION SERVICES:

- 3D MODEL DEVELOPMENT
- AS-BUILT DRAWINGS
- LASER SCANNING
- CAD DRAFTING
- MTO EXTRACTION
- INTELLIGENT MODELLING

SOFTWARE:

- E3D
- AUTOCAD PLANT 3D
- CADWORKS

PIPELINE ENGINEERING



Providing comprehensive pipeline engineering solutions from routing to commissioning.

Ensuring safe and efficient transportation through advanced analysis and monitoring.

SPECIALISATIONS:

- CROSS-COUNTRY PIPELINE DESIGN
- STRESS ANALYSIS
- HYDRAULIC ANALYSIS
- PIPELINE ROUTING
- BOTTOM STABILITY ANALYSIS
- CATHODIC PROTECTION

STANDARDS:

- ASME B31.3
- ASME B31.4
- ASME B31.8

GREEN ENERGY SOLUTIONS



Supporting sustainable energy projects through modern engineering and technology.

Driving energy transition with efficient and environmentally responsible systems.

SPECIALISATIONS:

- **SOLAR ENERGY PROJECTS**
- **COMPRESSED BIO GAS (CBG)**
- **GREEN HYDROGEN**
- **WASTE-TO-HYDROGEN**
- **BIOFUEL & BIO-OIL SYSTEMS**
- **RENEWABLE ENERGY INFRASTRUCTURE**

WASTE TO ENERGY PROJECTS



Converting waste streams into valuable energy resources through innovative technologies.

Reducing environmental impact while creating reliable energy alternatives.

SPECIALISATIONS:

- MUNICIPAL SOLID WASTE (MSW) PROCESSING
- RDF PROCESSING
- THERMAL CONVERSION SYSTEMS
- WASTE-TO-ELECTRICITY PROJECTS
- BIOMASS-TO-ENERGY SYSTEMS

SERVICES:

- PROCESS DEVELOPMENT
- DESIGN ENGINEERING
- EPCM SERVICES
- GRID INTEGRATION

ENVIRONMENTAL SUSTAINABILITY SERVICES



Helping organisations minimise environmental impact through sustainable practices.

Supporting clients in achieving sustainability goals and regulatory compliance.

SPECIALISATIONS:

- LIFE CYCLE ASSESSMENT (LCA)
- CARBON FOOTPRINT ANALYSIS
- ESG REPORTING SUPPORT
- CIRCULAR ECONOMY SOLUTIONS
- ENVIRONMENTAL IMPACT REDUCTION
- ENERGY OPTIMIZATION

DELIVERABLES:

- LCA REPORTS
- SUSTAINABILITY RECOMMENDATIONS
- COMPLIANCE REPORTS

EPC / EPCM SOLUTIONS



Managing projects efficiently from conceptual design through commissioning.

Ensuring quality, safety, and schedule adherence throughout the project lifecycle.

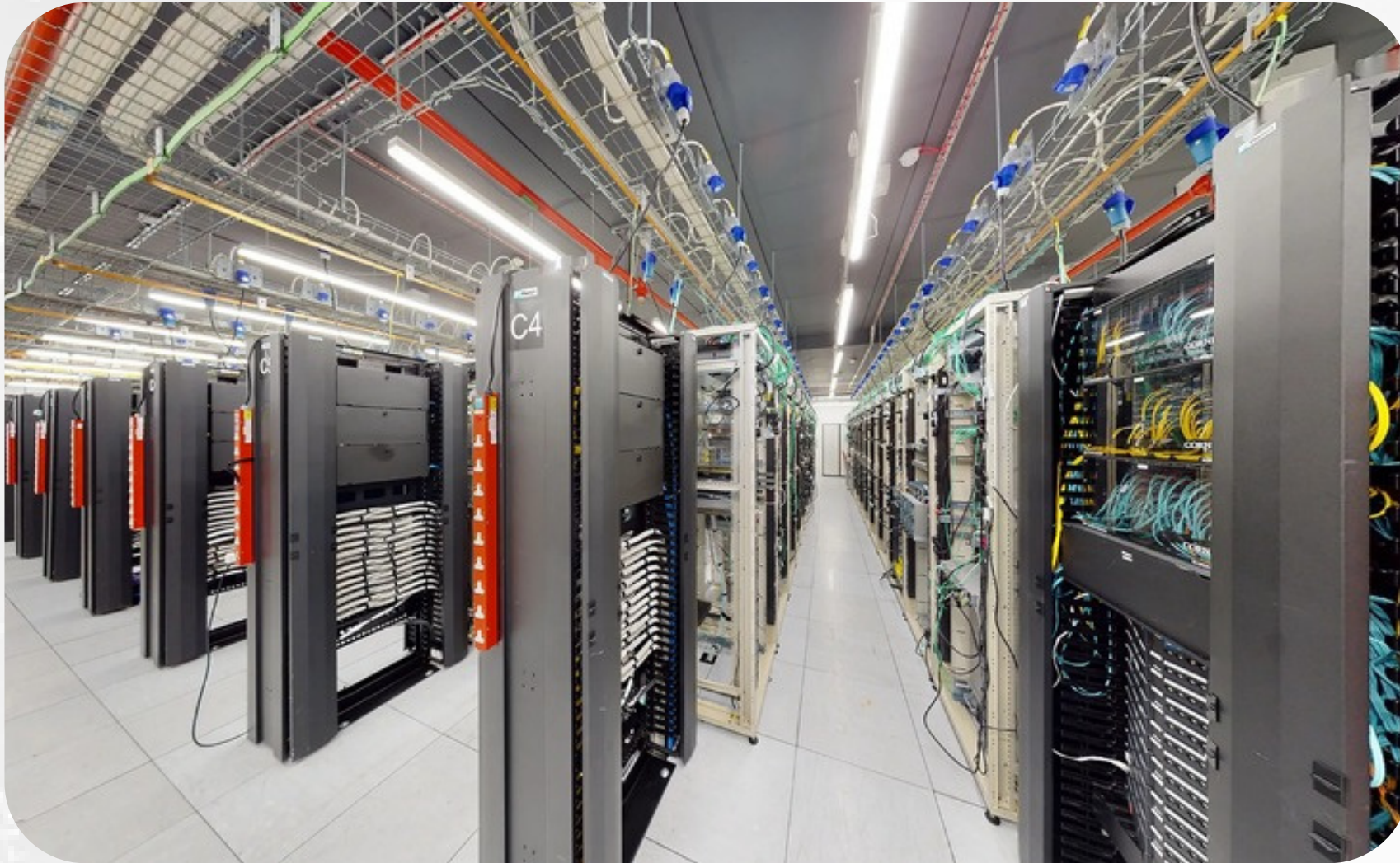
SPECIALISATIONS:

- TURNKEY PROJECTS
- PROCUREMENT SUPPORT
- VENDOR MANAGEMENT
- CONSTRUCTION SUPERVISION
- COMMISSIONING SUPPORT
- QUALITY ASSURANCE

INDUSTRIES:

- OIL & GAS
- CHEMICAL
- POWER
- RENEWABLE ENERGY

DATA CENTRE & MEP SERVICES



Delivering reliable MEP systems for high-performance data center environments.

Ensuring efficiency, resilience, and uptime through integrated engineering solutions.

SPECIALISATIONS:

- TIER 3 / TIER 4 DATA CENTRES
- HVAC SYSTEMS
- ELECTRICAL SYSTEMS
- MEP INFRASTRUCTURE
- EHV SUBSTATIONS

SERVICES:

- CONSTRUCTION SUPERVISION
- QUALITY INSPECTION
- TESTING & COMMISSIONING

TESTING & COMMISSIONING SERVICES



Verifying operational readiness through comprehensive testing and commissioning.

Ensuring systems perform reliably before final client acceptance.

SPECIALISATIONS:

- CHILLERS
- HVAC
- COOLING TOWERS
- FIRE FIGHTING SYSTEMS
- UPS SYSTEMS
- TRANSFORMERS
- GENERATORS
- BUSDUCTS
- LIGHTING SYSTEMS
- EARTHING SYSTEMS
- PLUMBING SYSTEMS

AI & DIGITAL ENGINEERING



SPECIALISATIONS SOLUTIONS:

- AI-BASED ENGINEERING AUTOMATION
- SMART DESIGN TOOLS
- DATA ANALYTICS
- PREDICTIVE MONITORING
- INTELLIGENT REPORTING SYSTEMS
- PROCESS OPTIMISATION TOOLS

Leveraging AI and digital technologies to improve engineering efficiency and accuracy.

Transforming operational data into actionable insights for smarter decision-making.

Process

- Aspen
- HTRI

01

Electrical

- ETAP
- SKM

05

Mechanical

- PV Elite
- ANSYS

02

Drafting

- AutoCAD

06

SOFTWARES

Piping

- CAESAR II

03

3D

- E3D
- Plant 3D

07

Civil

- STAAD Pro

04

Solar

- PvSyst

08

WHY CHOOSE PINNACLE SYSTEMS?

Delivering engineering excellence through innovation, technical expertise, and a structured project execution approach.

01 **Multidisciplinary Expertise**

Integrated engineering capabilities across process, mechanical, piping, civil, electrical, instrumentation, and digital engineering.

02 **Global Project Exposure**

Experience supporting projects aligned with international engineering standards and industry best practices.

03 **Sustainable Engineering**

Delivering future-ready solutions through renewable energy, environmental responsibility, and operational efficiency.

04 **AI & Digital Integration**

Leveraging digital engineering, automation, and intelligent tools to improve project outcomes.

Industry Served



OIL & GAS



POWER



MAINTAINANCE



INFRASTRUCTURE



CHEMICAL



RENEWABLE ENERGY

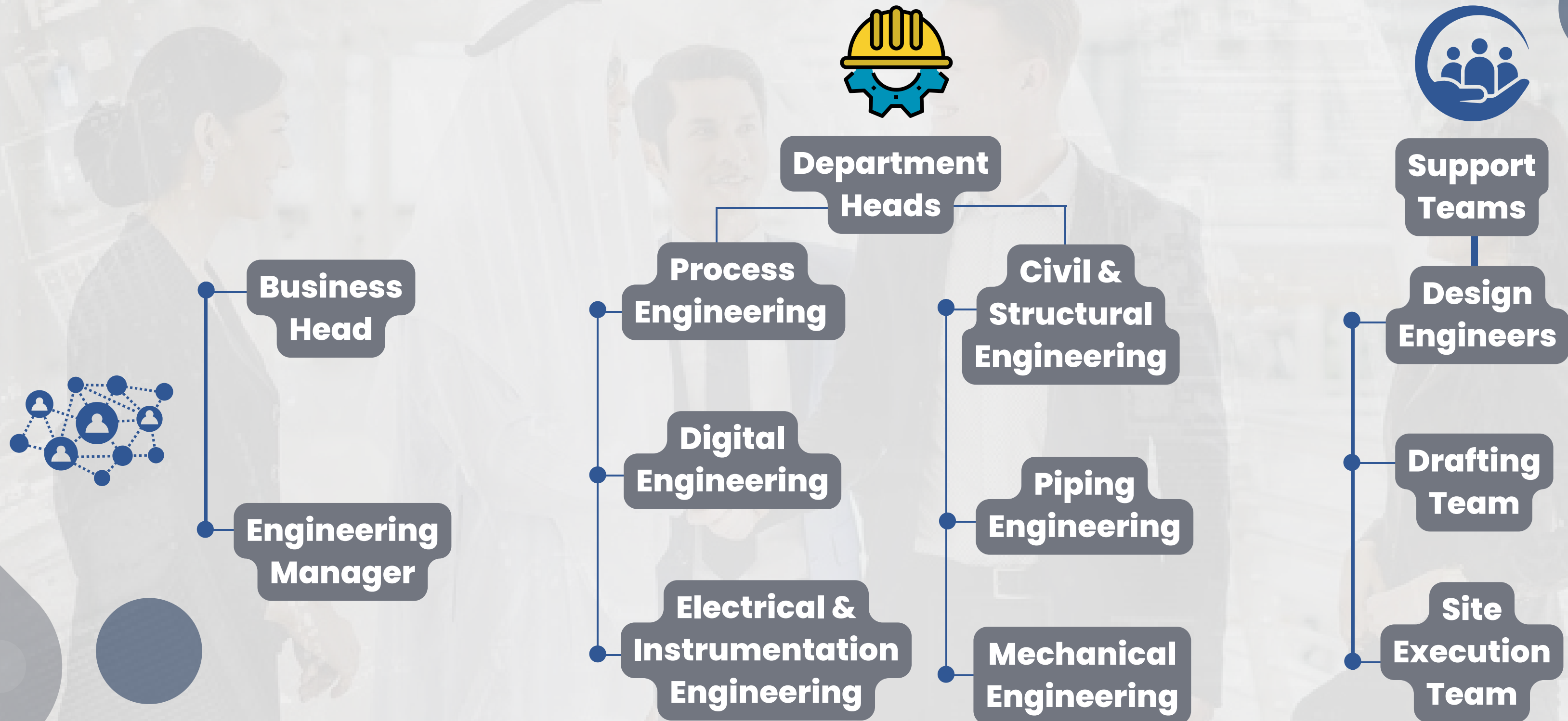


PIPELINES



DATA CENTERS

ORGANIZATION STRUCTURE



GLOBAL PRESENCE

Supporting clients worldwide with multidisciplinary engineering, EPC, sustainability, and digital engineering solutions. Our international reach enables seamless project execution and technical expertise across global industries.



■ Supporting projects across multiple regions. ■ Building long-term relationships across industries.

KEY CLIENTELE



المؤسسة العامة لتحلية المياه المالحة
Saline Water Conversion Corporation (SWCC)



CONTACT US



+966 53 388 2310



sales@pinnacle-synergy.com



www.pinnacle-synergy.com



Office 10, Al Munirah Tower, Prince
Faisal Bin Fahad Road, Al Khobar –
31952, Kingdom of Saudi Arabia

Together, we can achieve more.

