TechnoPro India Company Profile

Dated: 16-2-2023
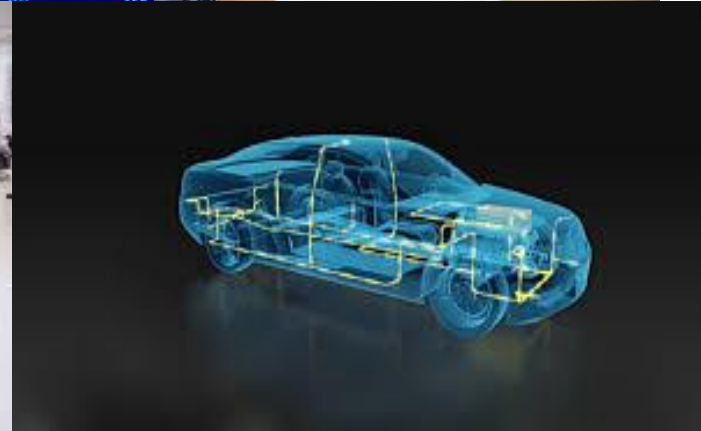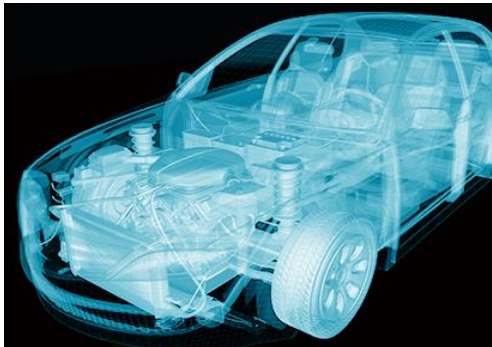
Focus-Innovate-Expand & Differentiate

TechnoPro Group

Corporate Name	## TechnoPro Holdings, Inc.
Business Outline	Technology-focused staffing and service companies with more than 25,000 engineers and researchers, with expertise in fields such as machinery, electrical/electronic engineering, information systems, chemistry, biotechnology, and energy
Head Office	35F, Roppongi Hills Mori Tower, Roppongi 6-10-1, Minato-ku, Tokyo, Japan
Established	April, 2012
Company CEO	Takeshi Yagi
Employees	25000+
Annual Sales	158.4 billion yen ≒ 1.5 billion USD
Branch Offices	127 sales offices Development Center : 27 Branches Training Facilities : 63 Locations

TechnoPro Holdings, Inc. Head Office

TECHNOPRO

TechnoPro Overview : Established in June 1997

Competitive Edge

✓ Listed on Tokyo Stock Exchange: Market Cap of JPY **398.04 Billion**
✓ **Aim** : **Global Expansion** through **Organic and M&A Route**

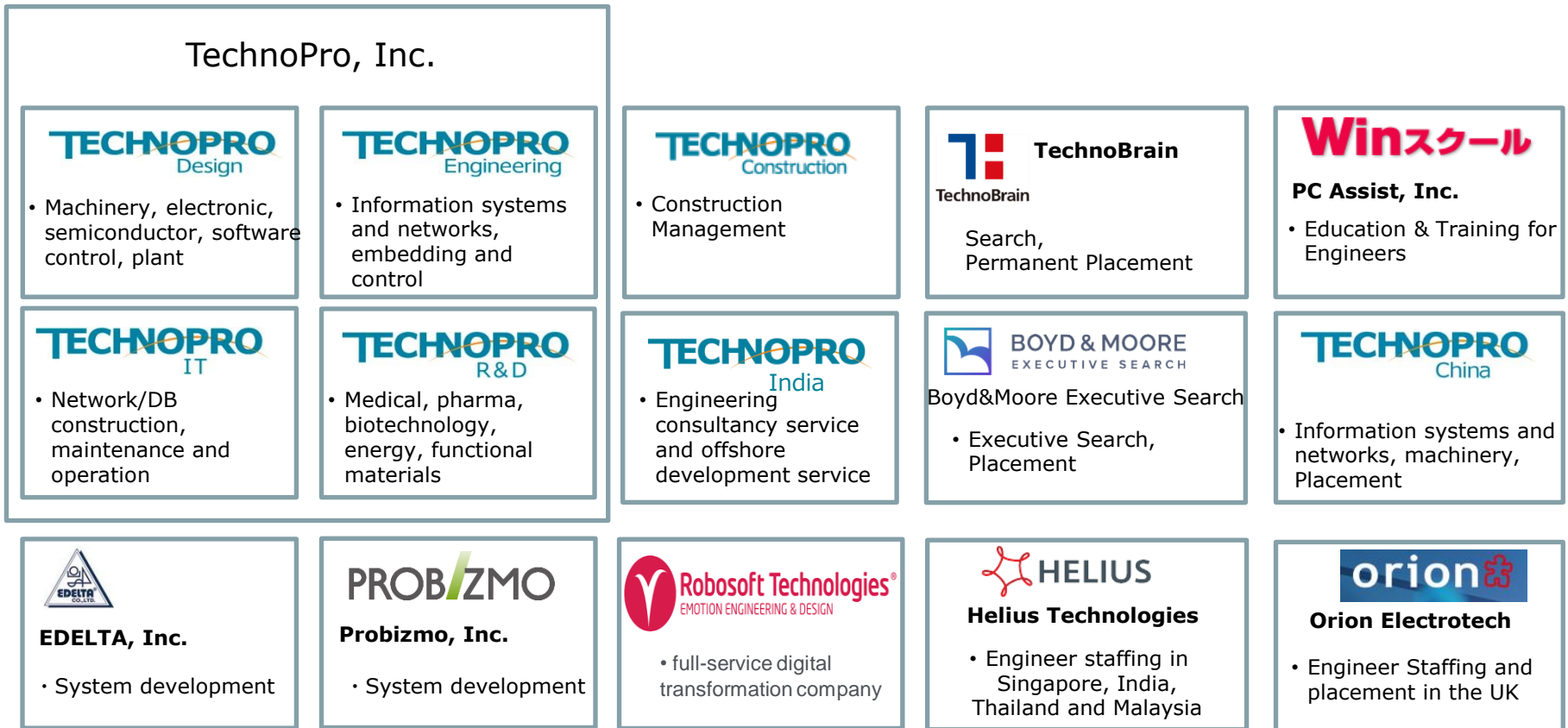|	
Market Leader	■ **Market Leader with** 8% Market share in **Professional Services (Specialized Engineers)** in Japan ■ Comprehensive Engineering Consulting footprint in Japan
Diversified Client Base	■ Over **2,200 clients** among well-diversified industries with Long Term Strategic relationships ■ Top 10 Customers account for **13%** of total Sales; One of the best **Customer Diversification** in the Industry
#1 Engineer Base with Best Recruiting Team	■ Wide range of Technology offerings with over **25,000 engineers** ■ Strong capability to recruit new engineers (nearly **4,300 new hires**)
Management Capability Mitigates Bench Risk	■ Over **95% Resource Utilization** by Robust & Structured management system – (All Engineers are engaged as as full-time employee) ■ Established **Training & Educational capability** to improve engineer quality

TechnoPro Group

■ Group Companies

TechnoPro Group got its start as a collection of multiple companies that work together while engaging in appropriate competition. We have a culture of growing through cooperation and in-house competition.

TechnoPro, Inc.

TECHNOPRO Design
- Machinery, electronic, semiconductor, software control, plant

TECHNOPRO Engineering
- Information systems and networks, embedding and control

TECHNOPRO Construction
- Construction Management

TechnoBrain
Search,
Permanent Placement

Winスクール
PC Assist, Inc.
- Education & Training for Engineers

TECHNOPRO IT
- Network/DB construction, maintenance and operation

TECHNOPRO R&D
- Medical, pharma, biotechnology, energy, functional materials

TECHNOPRO India
- Engineering consultancy service and offshore development service

BOYD & MOORE EXECUTIVE SEARCH
Boyd&Moore Executive Search
- Executive Search, Placement

TECHNOPRO China
- Information systems and networks, machinery, Placement

EDELTA, Inc.
· System development

PROBIZMO
Probizmo, Inc.
· System development

Robosoft Technologies
EMOTION ENGINEERING & DESIGN
- full-service digital transformation company

HELIUS
Helius Technologies
- Engineer staffing in Singapore, India, Thailand and Malaysia

orion
Orion Electrotech
- Engineer Staffing and placement in the UK
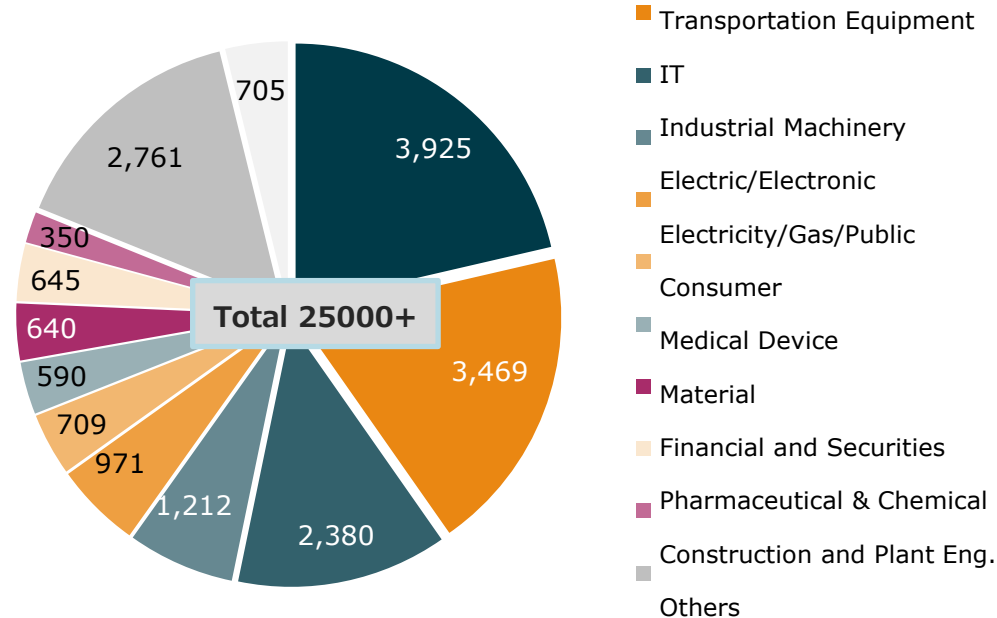
TECHNOPRO

TechnoPro Group

■ Global Network

TechnoPro is driving growth towards becoming a global human resource services company with technology at its core. Having Boyd & Moore Executive Search (BMES) in July 2017, and Helius Technologies in March 2018, Orion in October 2018 in our Group, the Group's operations is extending beyond China and into Singapore, India, Thailand, Malaysia, and UK.

UK
Reading, Aylesbury
Orion Managed Services Limited

China
Dalian, Shanghai, Hefei, Guangzhou
TechnoPro China

Japan（HQ）
TechnoPro Group
Boyd & Moore Executive Search

India
Bangalore:
TPRI Technologies

Hyderabad:
Helius Computech

Pune:
Boyd & Moore Executive Search India Private Limited

Udupi: Robosoft Technologies

Singapore
Helius Technologies Pte. Ltd.

Boyd & Moore Executive Search PTE. Ltd.

Thailand
Helius Technologies (Thailand). Ltd.

Malaysia
HELIUS TECHNOLOGIES SDN BHD

TechnoPro Global Customer Base

Serving through 25 Years of different Industry

Pie chart values:
- 705
- 2,761
- 350
- 645
- 640
- 590
- 709
- 971
- 1,212
- 2,380
- 3,469
- 3,925

Total 25000+

Legend:
- Transportation Equipment
- IT
- Industrial Machinery
- Electric/Electronic
- Electricity/Gas/Public
- Consumer
- Medical Device
- Material
- Financial and Securities
- Pharmaceutical & Chemical
- Construction and Plant Eng.
- Others

- # of clients is over **2,200** as of June 2022.

- Top 10 clients accounts for **13%** of total sales.

TechnoPro India Customer(s):

- TOYOTA
- HONDA
- TADANO
- faurecia
- TTEI India
- nexar

Trusted and Diversified Customers across Various Industry Sector

Transportation	IT	Telecom	Machinery	Electronic	Pharma And Chemical	Construction
NISSAN, TOYOTA, YAZAKI, HONDA, Pioneer, BRIDGESTONE	HITACHI Inspire the Next, FUJITSU, IBM, NEC, Rakuten	NTT docomo, KDDI Designing The Future, SoftBank, MITSUBISHI SPACE SOFTWARE CO., LTD.	IHI, HITACHI, KOMATSU, MES, Kawasaki	MITSUBISHI Changes for the Better, FUJITSU TEN, SANYO, RICOH imagine. change., KONICA MINOLTA	IDEMITSU, Kaneka, TEIJIN TEIJIN PHARMA LIMITED, MITSUBISHI CHEMICAL, astellas Leading Light for Life, SEKISUI SEKISUI CHEMICAL CO.,LTD.	TAKENAKA, OBAYASHI, TAISEI, SHMZ, KAJIMA CORPORATION, KANDENKO

Introduction of Services

Embedded Engineering Services

Mechanical Engineering Services

TPRI Services

IT Services and Application Development

Artificial Intelligence & Machine Learning
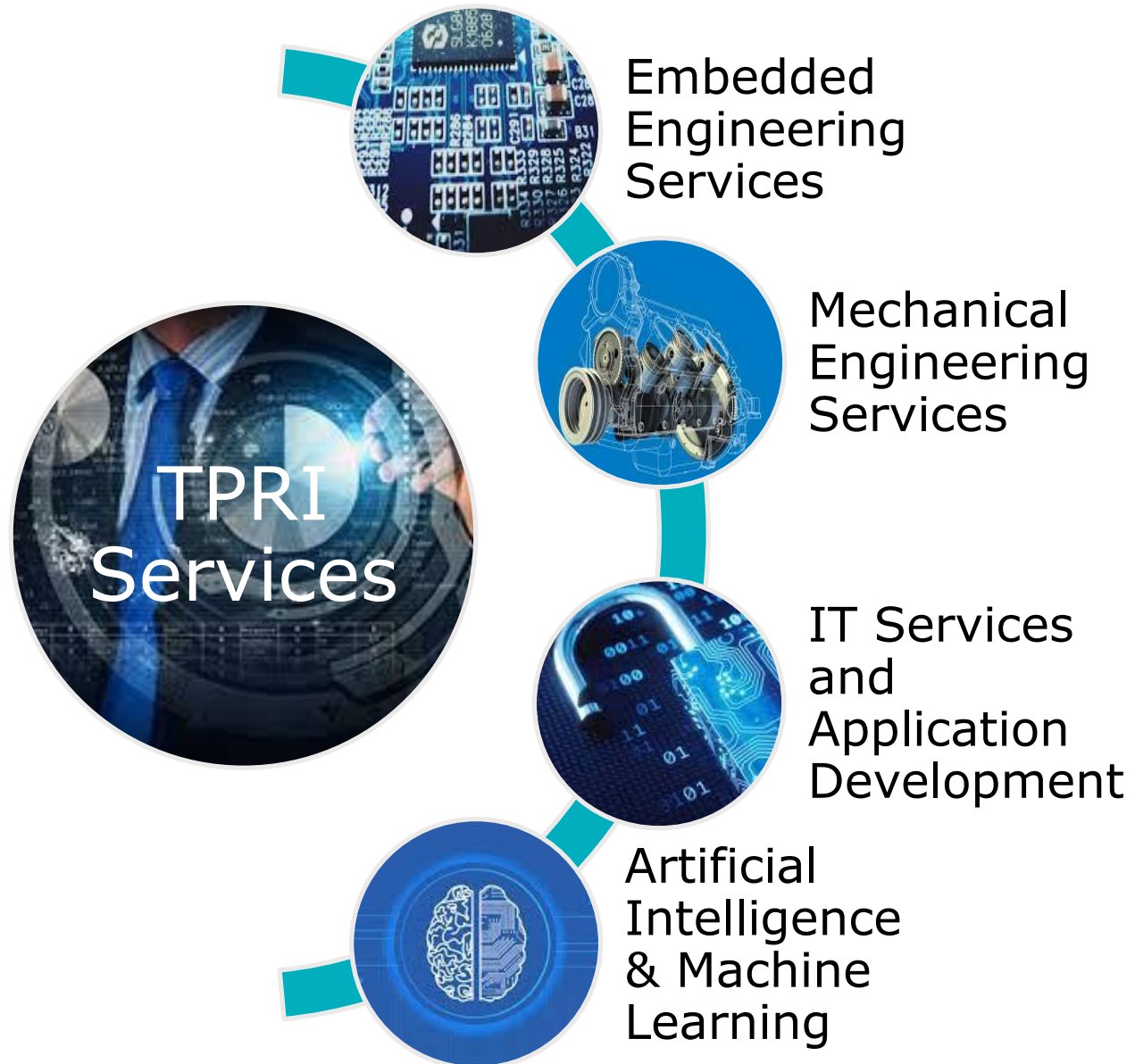
Service Offerings

Embedded Engineering Services

Electric Mobility
- BMS
- Motor Controller
- DC/DC Converter

Model Based Development

Model Based Testing

Mechanical Engineering Services

New Technology Development

Product development for Automotive

Sustaining & Manufacturing Engineering for Automotive

IT Services and Application Development

Application Development & Maintenance

Rapid Control Prototyping

TAAS (Testing as a Service)

VAPT(Vulnerability and Penetration Testing)

Artificial Intelligence & Machine Learning

Data Preparation: Collection and Cleansing

Signal and Image Processing

Feature Engineering & Annotation

Data Modeling & Optimization

TECHNOPRO

Software Development Process: V-model

Software Requirement analysis and management

System Testing

Software Acceptance Test

Software Architect

SWRS

MATLAB SIMULINK

Software High level Design

Rapid control prototyping

Integration Testing

Software Integration Test(HIL)

dSPACE

Software Lead

Architecture interface

Software LLD model development

Module Testing

Unit Testing

MATLAB SIMULINK

MIL

Autocode Generation

MATLAB SIMULINK

SIL

Model Based Development Services

Model Based Development Services
- Model Development
- MAAB Guideline Check(Model Advisor)
- AutoCode Generation using Embedded Coder
- Static Code Analysis using Polyspace

Model Development

Static Code Analysis

Model Based Development

MAAB Guideline Check

Autocode Generation

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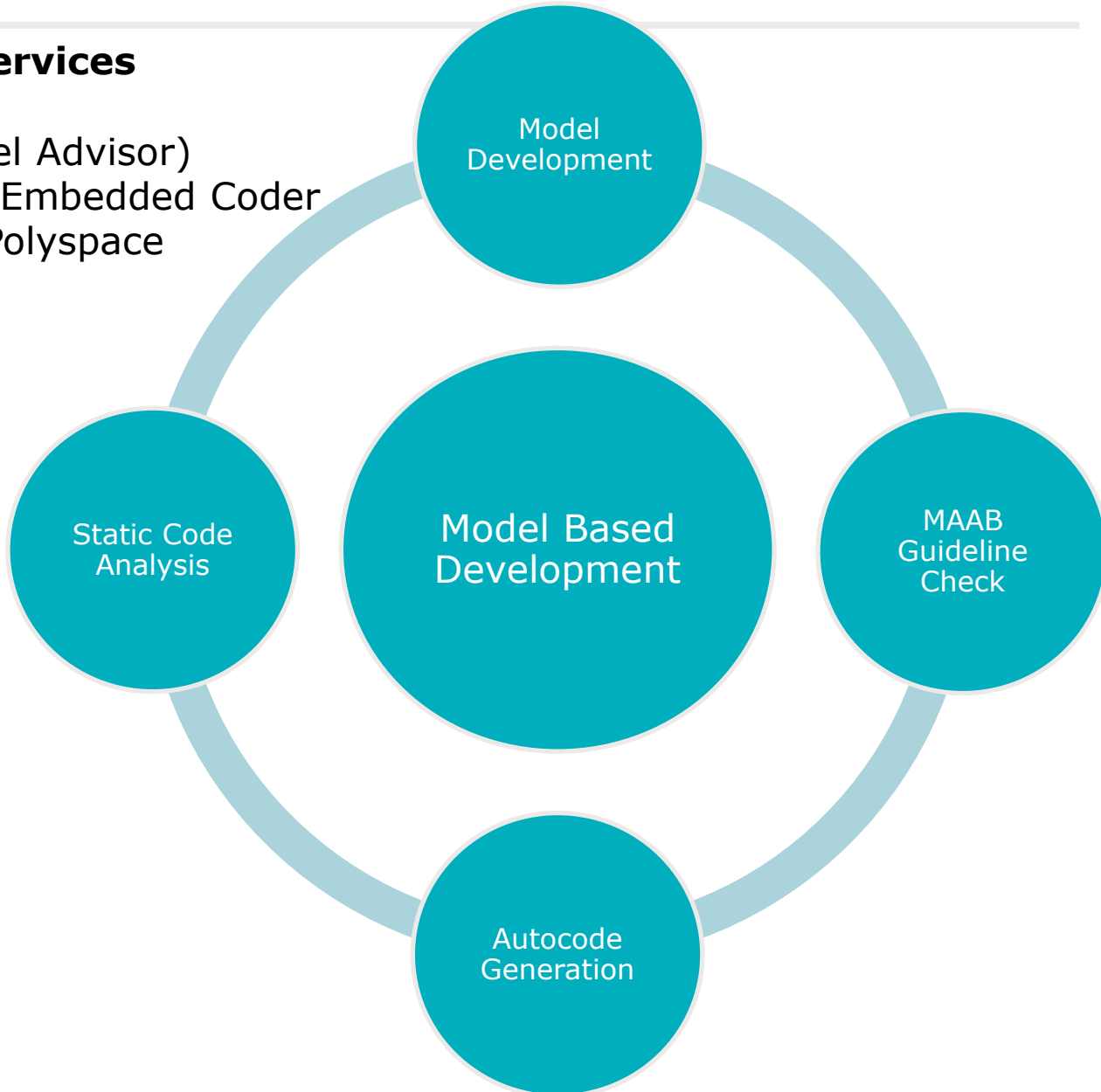
Model Based Development Services
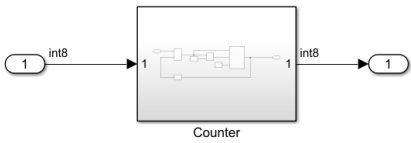
Model Development Services
- Customer Input Analysis
- All the supporting documents
- Start Model Development
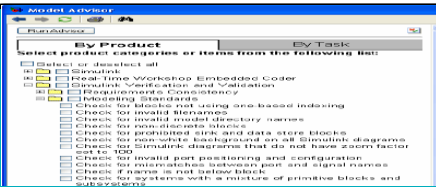
MAB Guideline Check Services
- MAB Guideline Check
- MAB Guideline Report
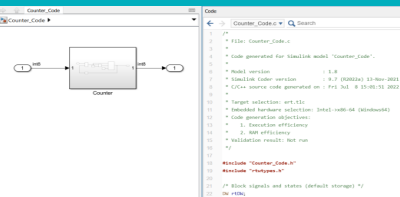
Autocode Generation Services
- Model files as input for Autocode Generation
- Autocode Generation using Embedded Coder
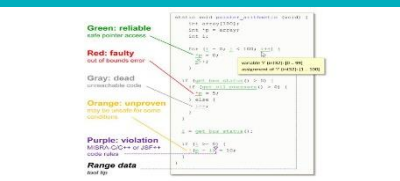
Static Code Analysis Services
- Static Code Analysis using Polyspace
- Polyspace Reports

Model Based Testing Services

Model Based Testing Services

- Requirement Based Testing
- Automatic Test Case Generation
- Model-In-Loop(MIL) Testing
- Software-In-Loop(SIL)Testing

Requirement Based Testing

Automatic Test Case Generation

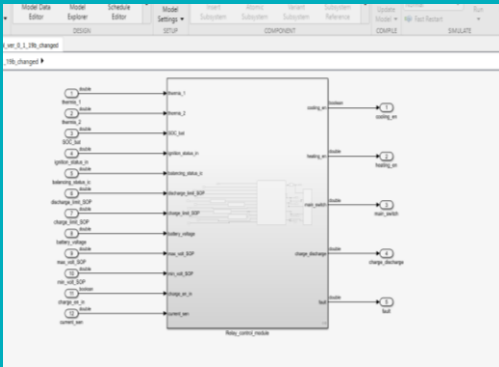**Model-In-Loop(MIL) Testing**

Software-In-Loop (SIL) Testing

Model Based Testing

Requirement Based Testing on Simulink Model

- The Requirement Based testing is similar to functional testing.
- Writing the functional test cases based on the Requirement provided by the customer.
- Software Requirement Documents are inputs to write the Test cases.

Software-In-Loop(SIL)Testing

- Check the Behavior of MIL vs SIL, If any differences.
- Validating the Code against Test cases(functional and Coverage Testing).

Model-In-Loop(MIL) Testing

- Checking the Model Behavior with software Requirement.
- Validating the Model against Test cases(functional and Coverage Testing).

Automatic Test Case Generation

- Automatically generating the test cases based on model and Supporting files using the Reactis Tools.
- After Test cases are generated and export .CSV file to write additional test cases to cover 100% MCDC Coverage.

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Model Based Testing Services

Model-In-Loop(MIL) Testing
- Check all the inputs for MIL Testing
- Develop test cases for MIL Testing
- Checking the Model Behavior with software Requirement
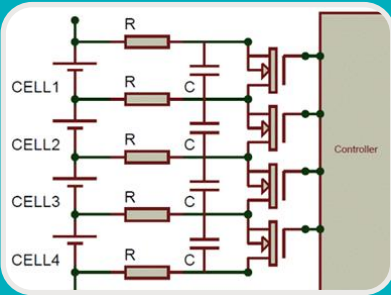- Validating the Model against Test cases
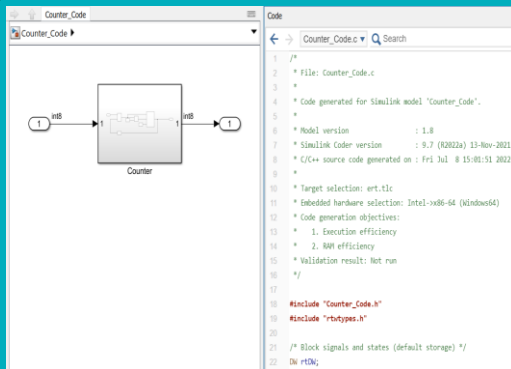
Software-In-Loop(SIL) Testing
- Reuse the test cases from MIL to SIL Testing
- Check the Behavior of MIL vs SIL, If any differences
- Validating the Code against Test cases

Battery Management System (BMS) Services

Algorithm Development

- Requirements gathering and system design Development.
- Model Based Development in MATLAB/Simulink/Stateflow.
- MAAB Guideline Check
- Auto code Generation using Embedded Coder
- Static Code Analysis using Polyspace
- Custom Stack Development.

Algorithm Testing

- Automatic Test case generation or Manual Test case writing
- For Coverage and Functional Testing
- Model In Loop (MIL) Testing and Software In Loop (SIL) testing
- Customer's algorithm testing

Embedded Engineering: BMS

- System architecture Design
- Software architecture Design
- Software Requirement Document Design.

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Reference Block Diagram of BMS
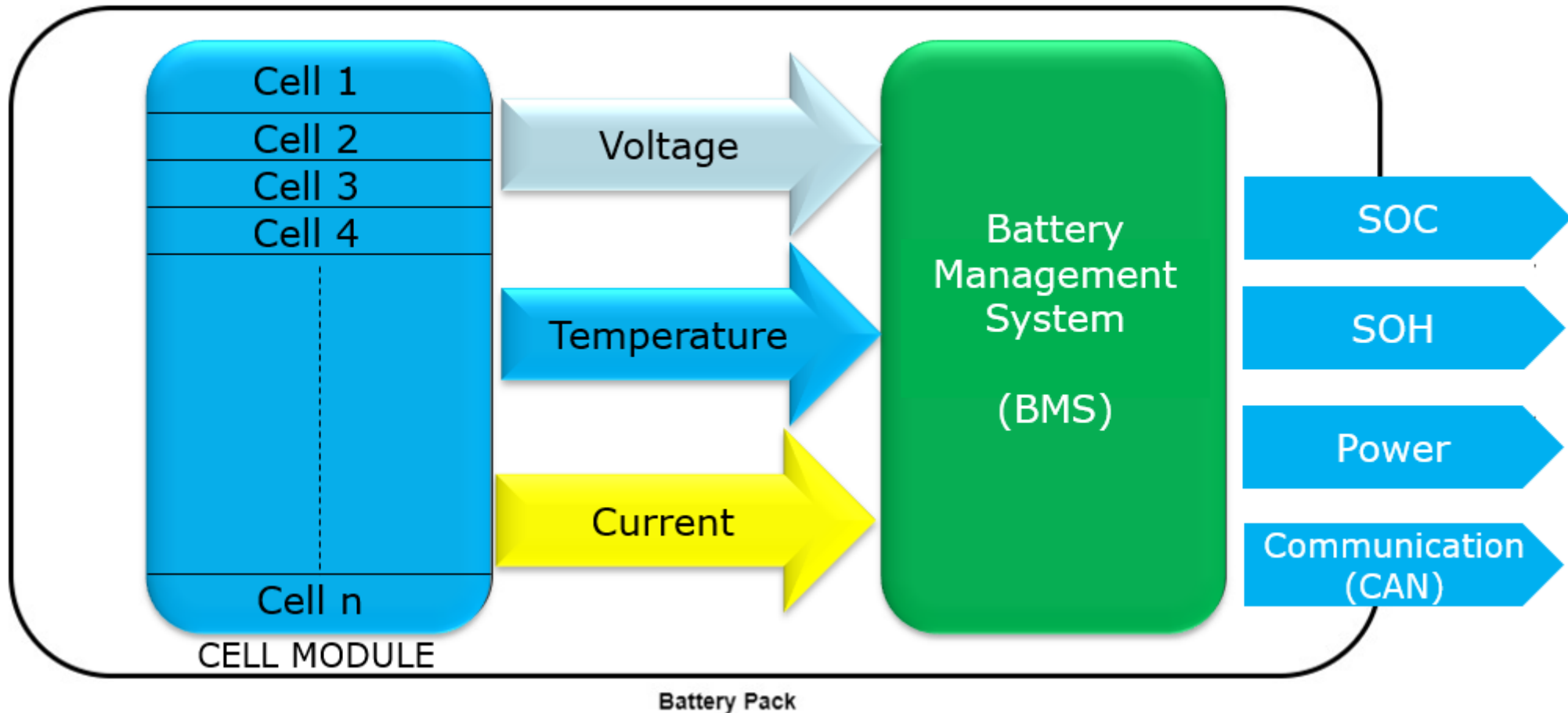
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