



**Trusted Modeling & Simulation Consulting Partner**

**01**

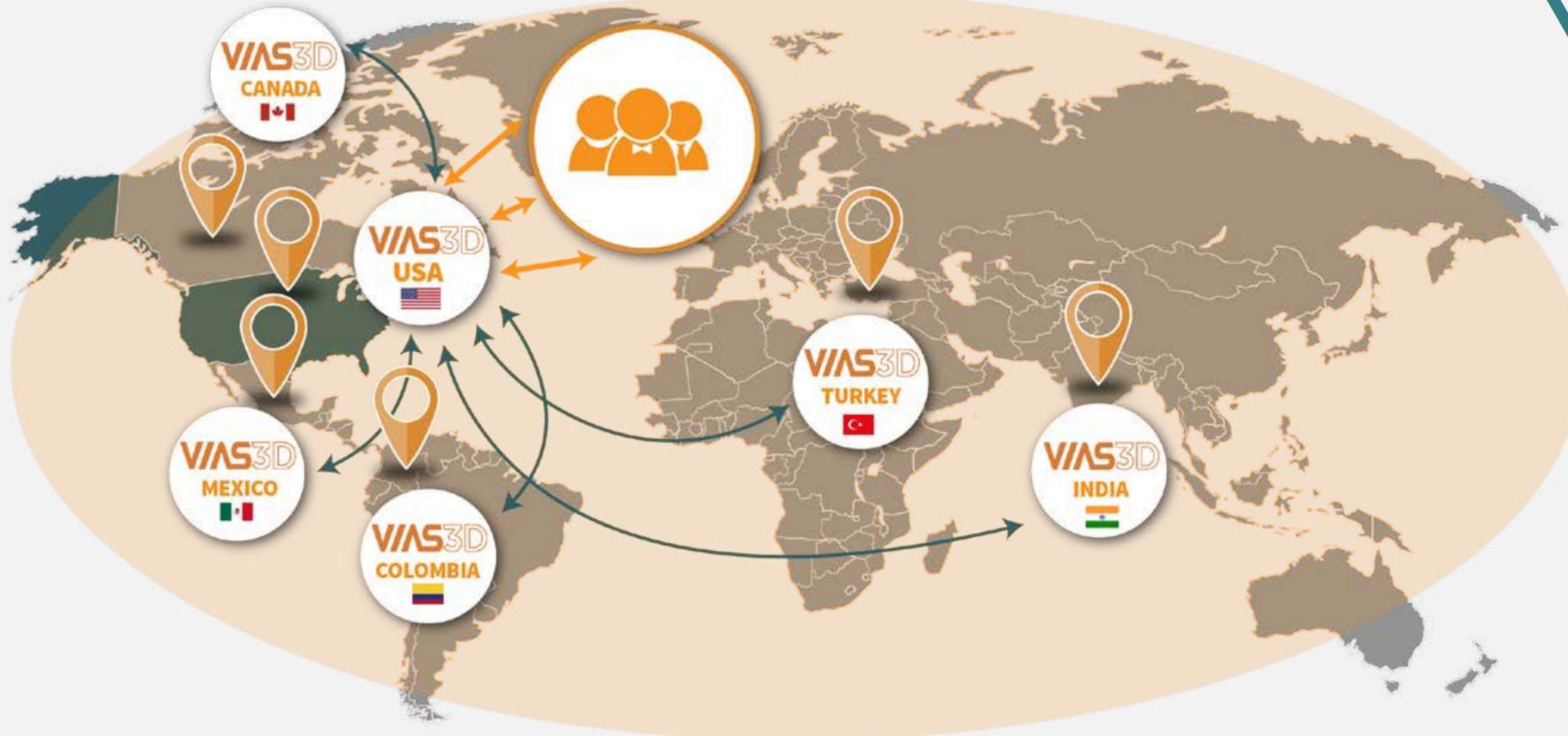
**02**

**03**

**04**

**05**

**06**



### CUSTOMER NEEDS

- Industry Experience
- Software Solution Expertise
- Trusted & Dedicated Collaboration
- Validated Models & Workflows
- Digital Twin & Data Analytics
- Automation & Democratization
- Business & Market Intelligence
- R&D and Innovation Support
- Optimization & Reliability Studies
- Excellent ROI
- Training & Knowledge Transfer

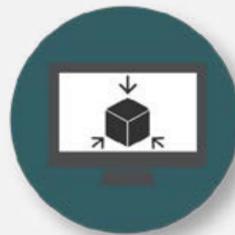
### Client First



**Transparent**



**Simulation Excellence**



**High Fidelity Solutions**



**Technical Excellence**



**Security**



**Efficiency**



**Excellent ROI**



**Scalability & Flexibility**



## CLIENT FIRST

- Long Term Engagement Focused
- Dedicated Customer Satisfaction Manager

## TECHNICAL EXCELLENCE

- Technical Expertise and Industry Experience
- Experience with Regulations
- Codes and Standards Involvement
- Technical Publications
- R&D and Innovation

## TRANSPARENT

- Detailed Report
- Sharing Analysis Files
- Training

## HIGH FIDELITY SOLUTIONS

- Quality of Deliverables
- Verified and Validated Work

## EFFICIENCY

- Execution Efficiency
- On-time Delivery
- Quick Response
- Uninterrupted Support
- Dedicated Client Liaison

## SCALABILITY & FLEXIBILITY

- Scalability of Support Team
- Cloud Computing
- Emergency Support

## SIMULATION EXCELLENCE

- Multiphysics and Multiscale Solutions
- Software Agnostic Approach
- Design, Simulation, Data Analytics
- Optimization & Reliability

## SECURITY

- Data Security
- Secured Collaboration & Communication

## EXCELLENT ROI

- Optimized Cost
- Volume Discount
- Efficient Resource Utilization



## VIRTUAL TESTING

- Democratization of Simulation
- Structural Analysis (FEA)
- Flow and Thermal Analysis (CFD)
- Electromagnetics (EM)
- Fluid Structure Interaction (FSI)
- System Simulations
- Multiphysics & Multiscale
- Optimization & Reliability
- MBSE



## SPECIALIZED AREAS

- User Subroutines
- Failure Analysis
- Material Calibration
- 3DEXPERIENCE / PLM Implementation
- Industrial Automation
- Additive Manufacturing
- Plant Engineering



## 3DEXPERIENCE

- Design and Digitalize workflows
- Project Automation & Templization
- Design and Engineering
- ModSim Onboarding and Best-practices
- Collaboration



## DIGITAL TRANSFORMATION

- Digital Twin
- Data Analytics
- Surrogate Models
- Automation & Web-based Tools



## Upskill-Homogenize-Workforce Reskill

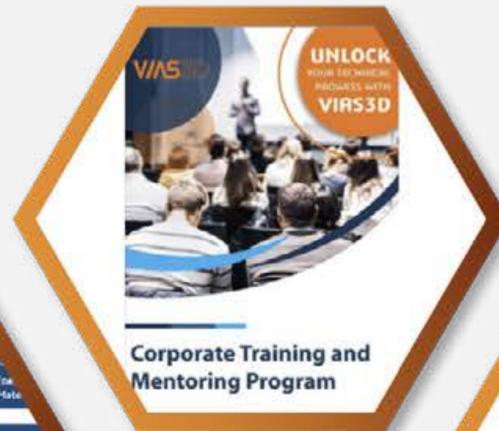


In-class / Onsite / Online Training

Focus on Industry Workflows



Multi-year Technical Training Program



Project Execution with Knowledge Transfer



Introductory, Advanced and Custom Courses



Certifications



Mentoring and Customization



## The VIAS3D Approach

MAP

Ambition and Required Skills to Deliver Results

CREATE

Detailed and Customized Training Path

TRANSFORM

Workforce at Scale with Sustained Learning

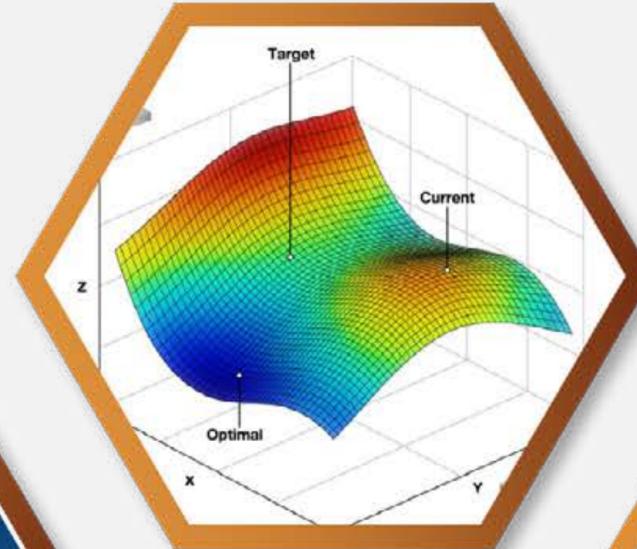
EXPLORE OUR BROCHURE



Digital Twin



Surrogate Modeling



Cloud Integration



Automation & Web Based Tools



Data Analytics, IoT



3DEXPERIENCE



**FOCUS ON STRATEGY, LEAVE EXECUTION WITH VIAS3D**



## BUSINESS GOALS



- Reduce design iterations and enhance productivity
- Reduce risk and improve reliability
- Accelerated time to market
- Reduce dependency on Physical tests
- Knowledge capture and democratization
- Reduce overall cost

## BUSINESS CHALLENGES



- Increasingly complex and multidisciplinary products
- Increased demand for energy efficiency, lower carbon-footprint, lightweighting
- Satisfying increasingly complex requirements and regulatory oversight
- Assuring product reliability
- Assuring long-term, after-market performance
- Design-Test-Improve cycle too slow for rapidly shifting consumer needs

## ROLE OF MODELING & SIMULATION



- Virtually test complex designs and responses under life-like normal and extreme conditions
- Evaluate designs fast and at a significantly reduce cost
- Capture multidisciplinary and multiphysics aspects
- Detailed insight into product performance for reliability and future enhancements
- Guiding companies to establish first simulation approach

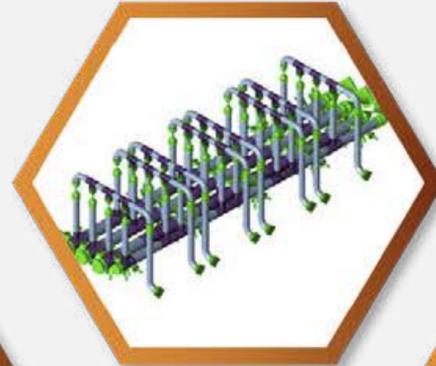
*Adoption Needs Strategic Approach*



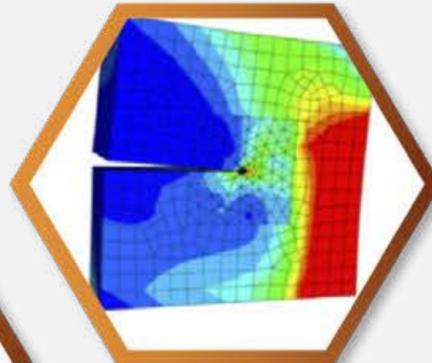




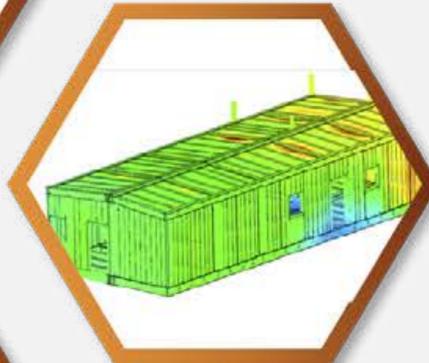
Plant Engineering



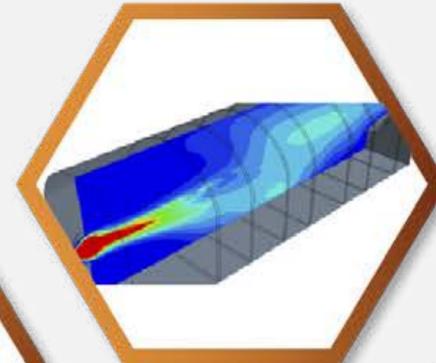
Fracture and Failure



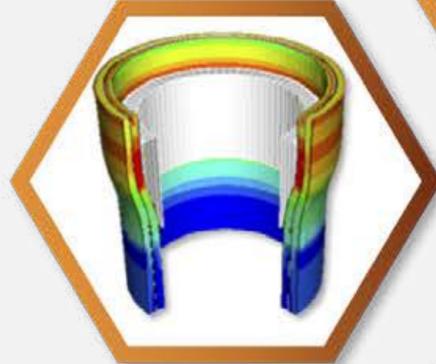
Fire and Blast Assessment



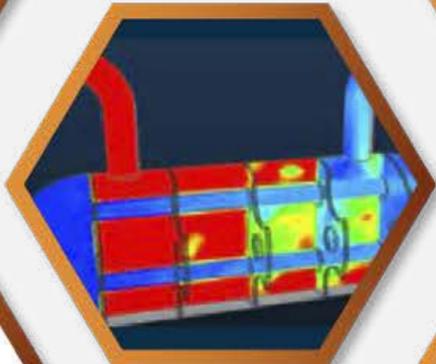
Combustion



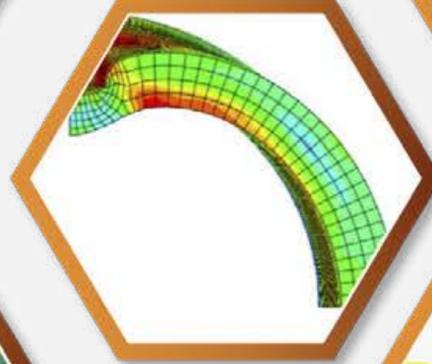
Component Design



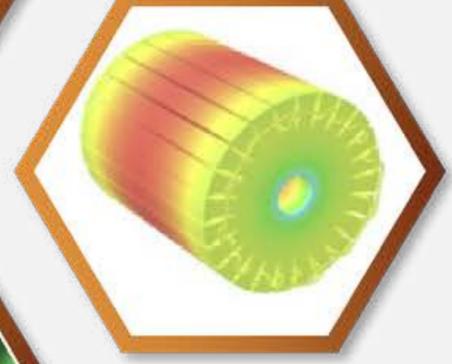
Heat Transfer



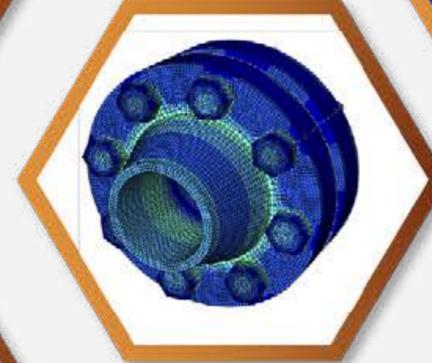
Pipeline Integrity



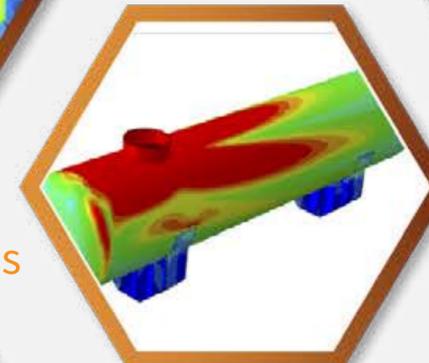
Electromagnetics



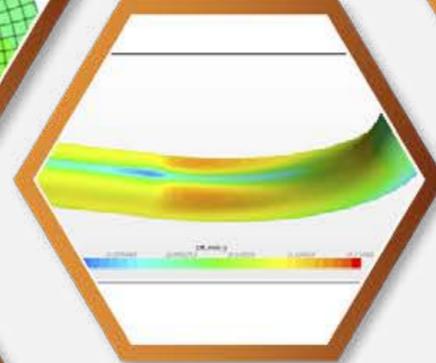
Flange Integrity



Fitness for Service



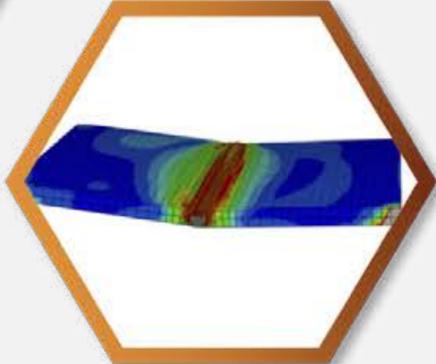
Erosion / Corrosion



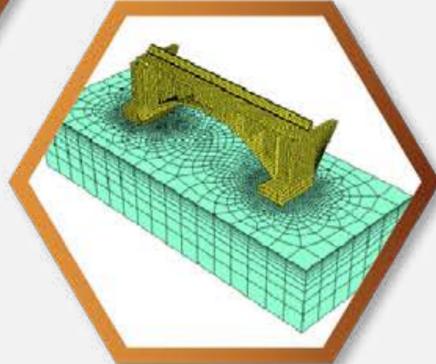
Wind Flow



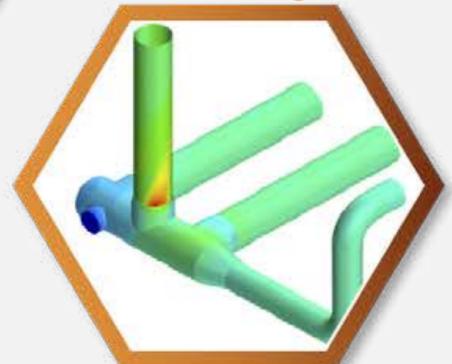
Welding Analysis



Geotechnics

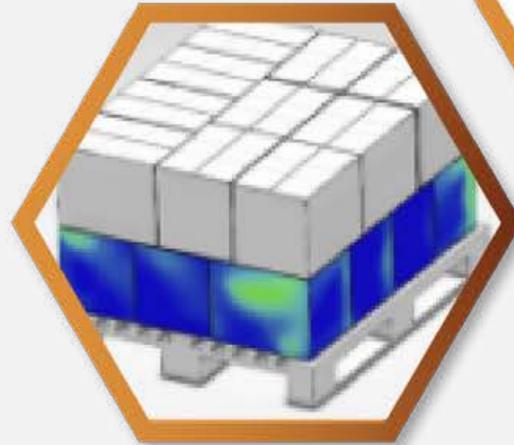


Thermal Mixing

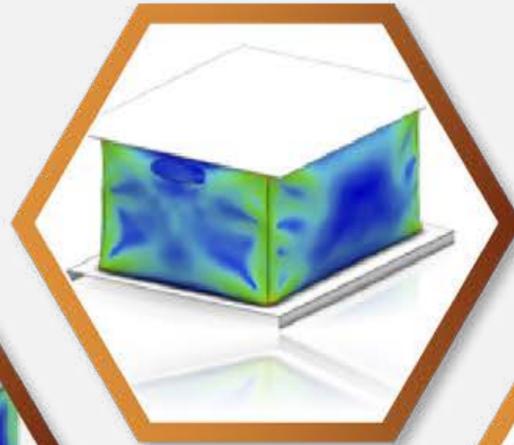




Palletization & Transportation



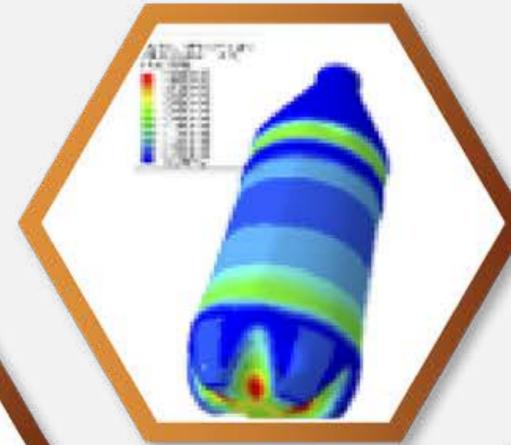
Compression Testing



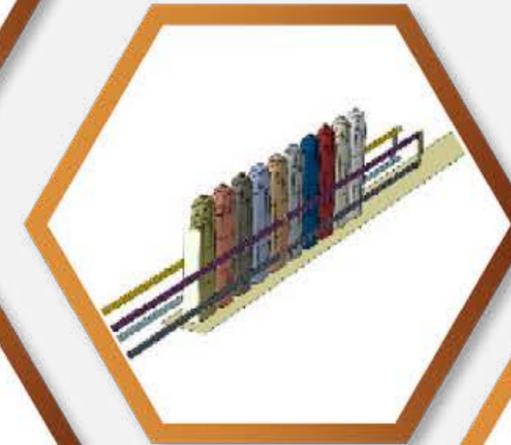
Filling



Gas Diffusion



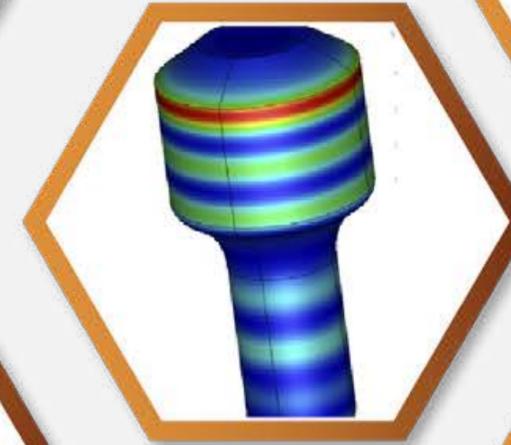
Conveying



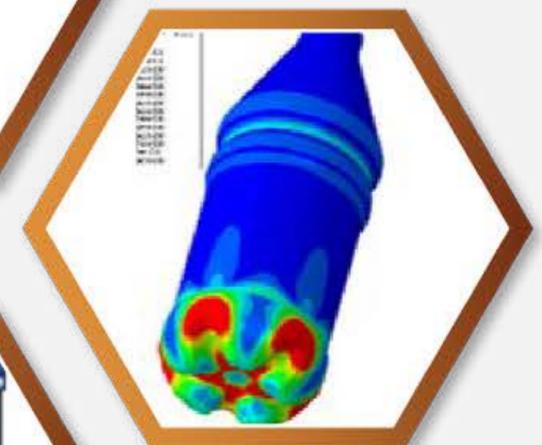
Concept Design



Induction Heating



Top Load



Bottle Squeeze



Glass Modelling

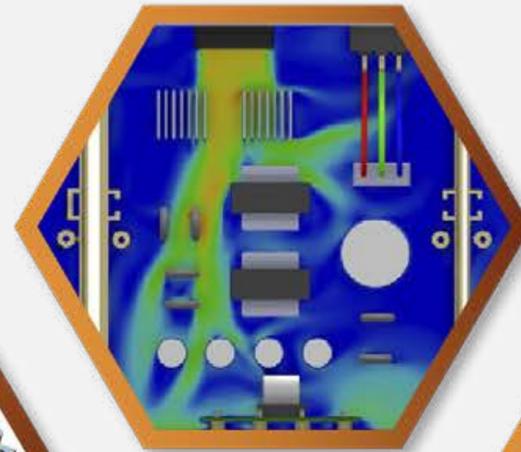


Energy Optimization

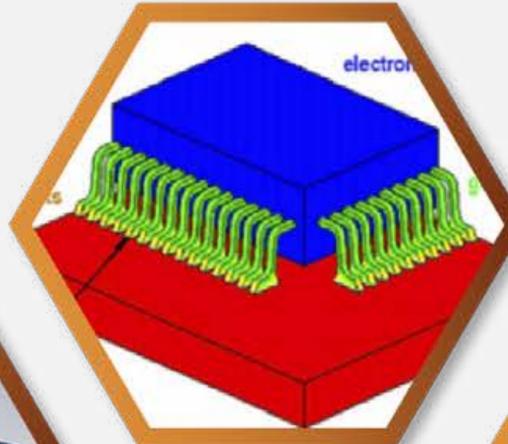




Flow Efficiency



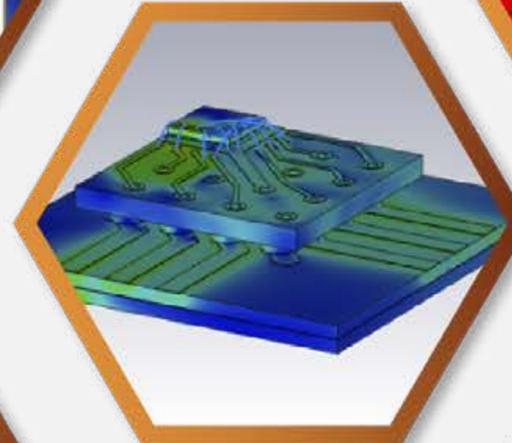
Solder Joint Fatigue Analysis



Electronic Cooling



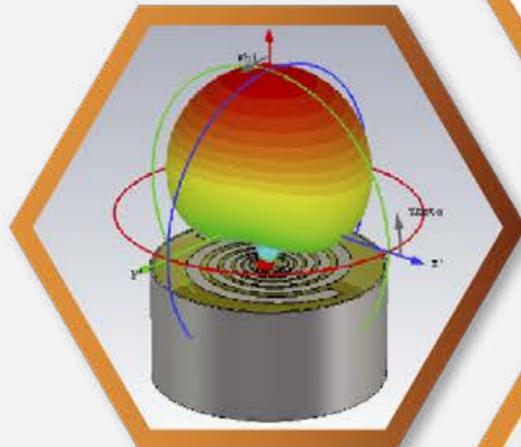
PCB / Package Design



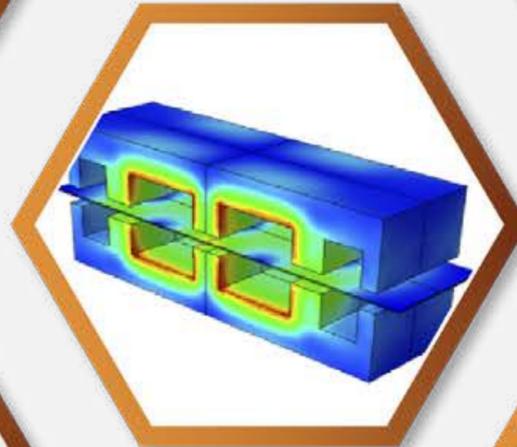
Vibration Analysis



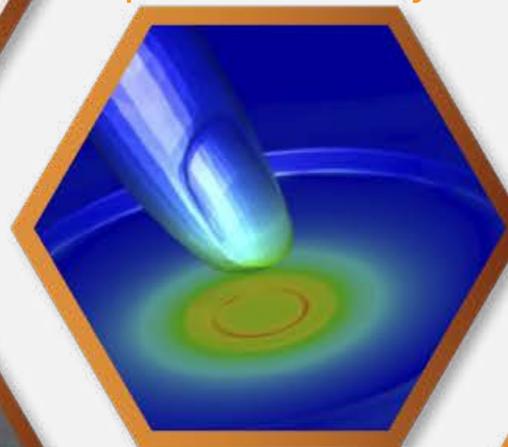
Antenna Design



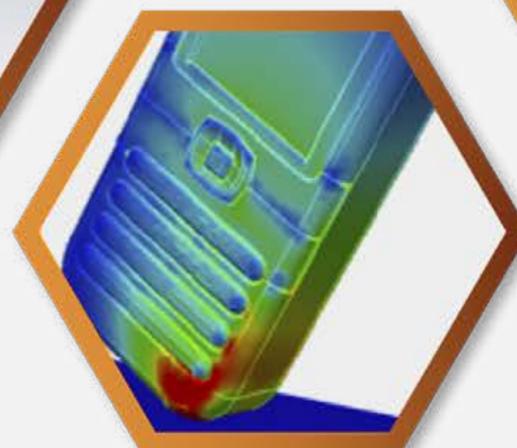
Electrostatics



Capacitance Analysis



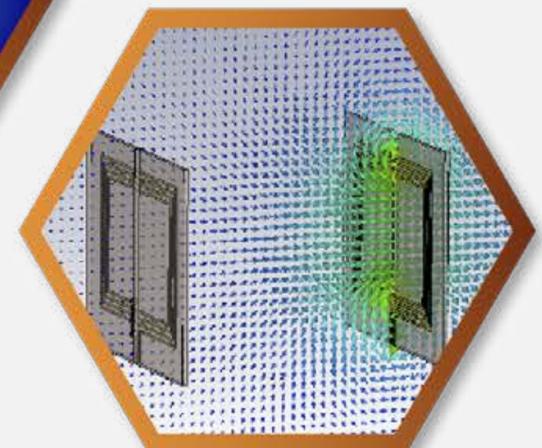
Drop Test



Signal Integrity

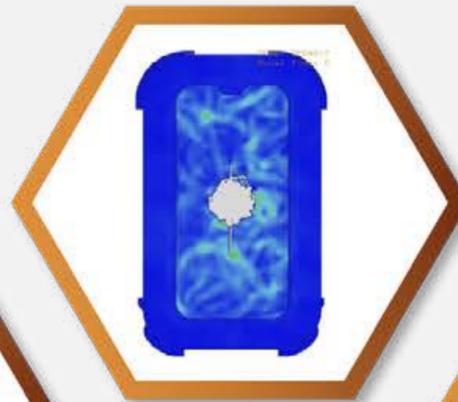


Wireless Coupling

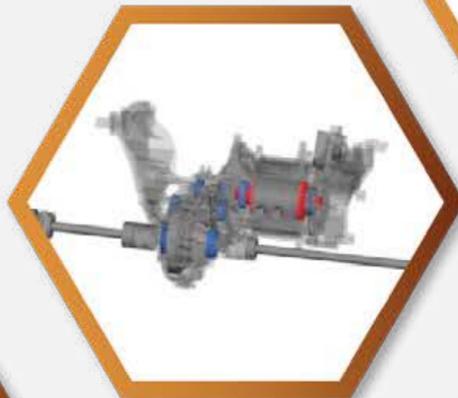




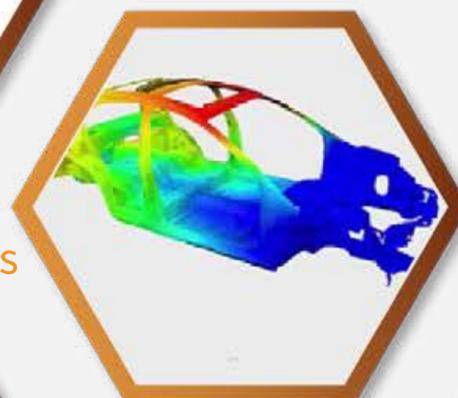
Impact Analysis



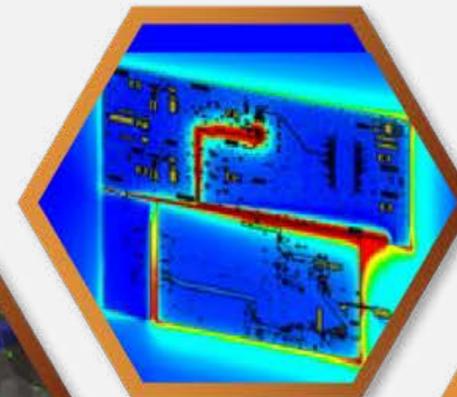
Electric Drive Engineering



NVH



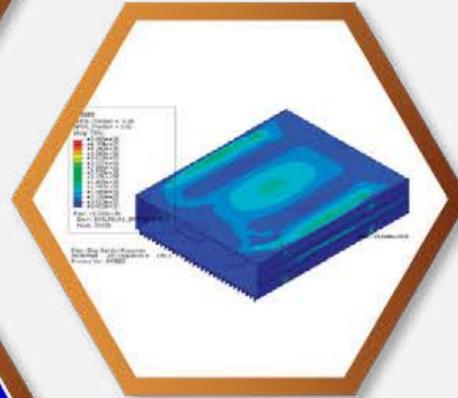
Electronics Design



Acoustics / Aerodynamics



Vibration Analysis



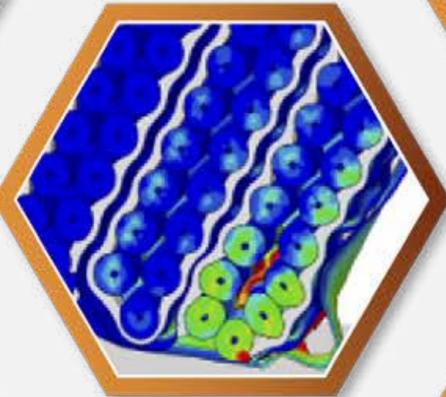
Thermal Performance



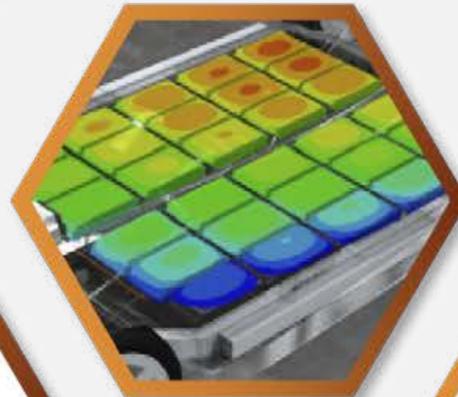
Crashworthiness



Battery Drop / Impact



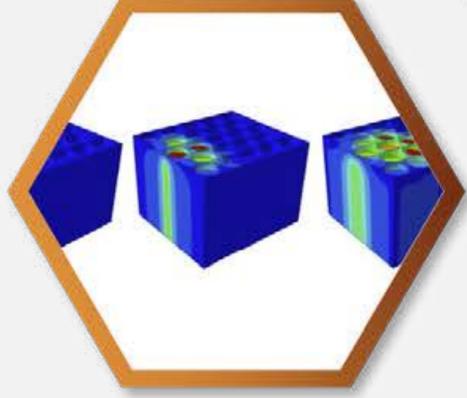
Battery Packaging



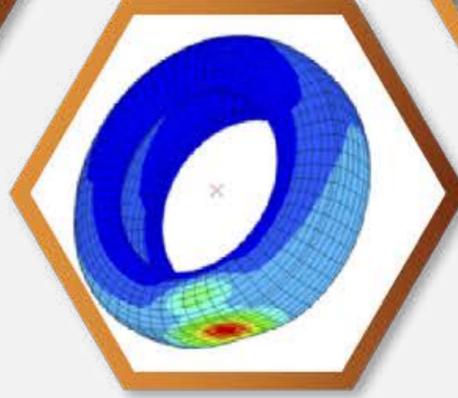
Durability



Battery Thermal Management



Tire Analysis



Antenna Design



Multibody Analysis

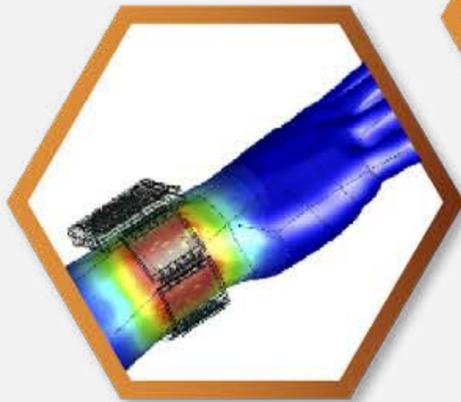




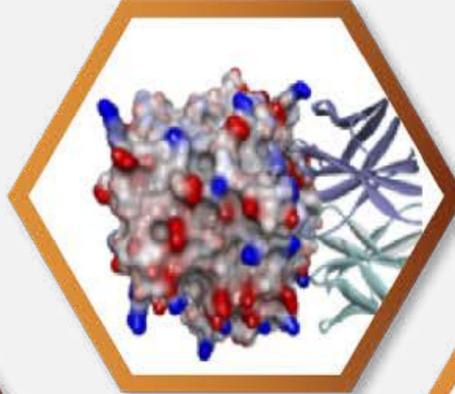
Additive Manufacturing



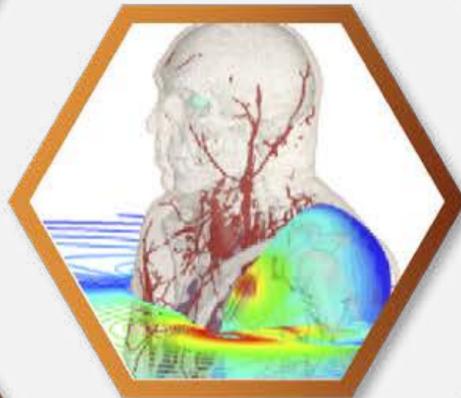
Sensor / Wearables Analysis



Molecular Docking



Electromagnetic Analysis



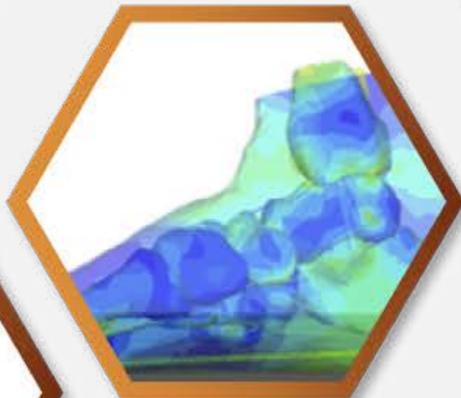
Heart Modeling



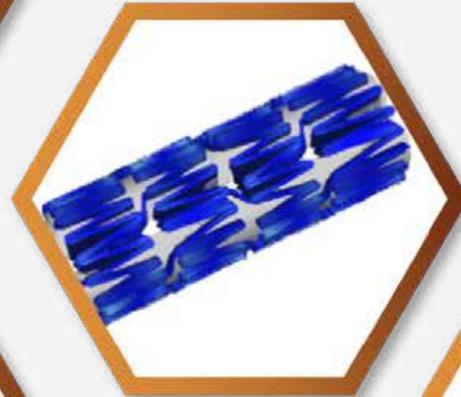
Blood Flow Modeling



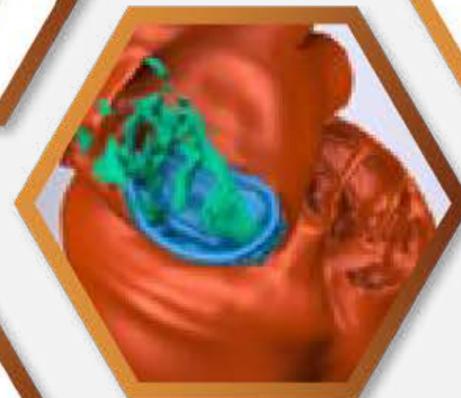
Foot Modeling



Stent Modeling



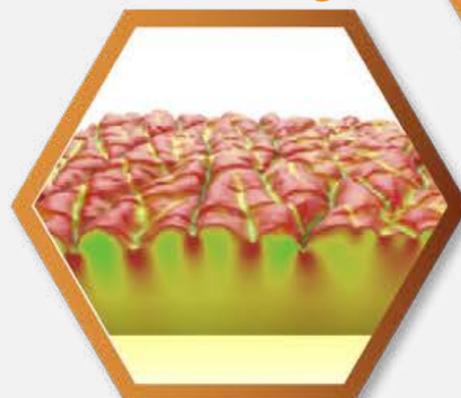
FSI Modeling



Implant Modeling



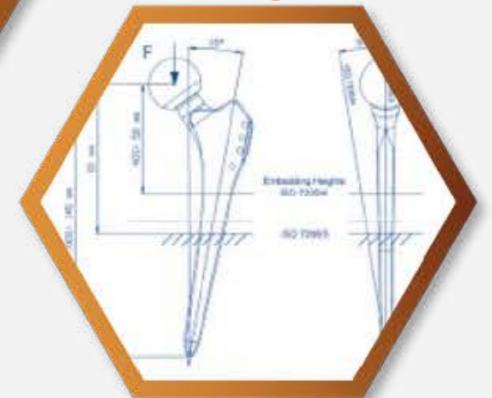
Tissue Modeling



Patient Specific Care

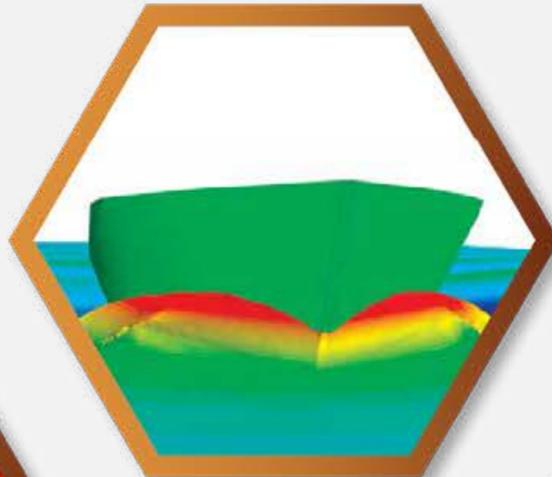


Product Design

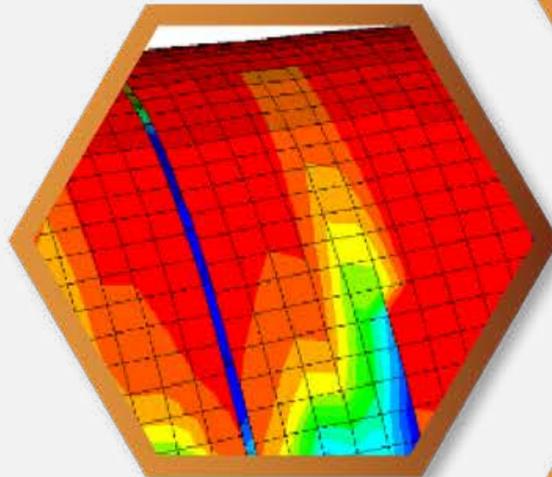




Hydrodynamics



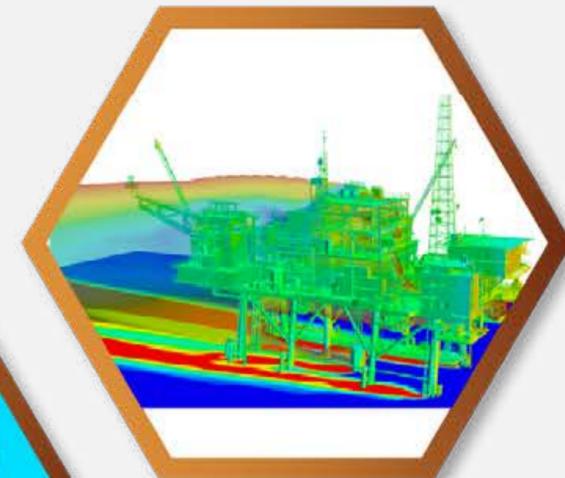
Composites and Elastomers



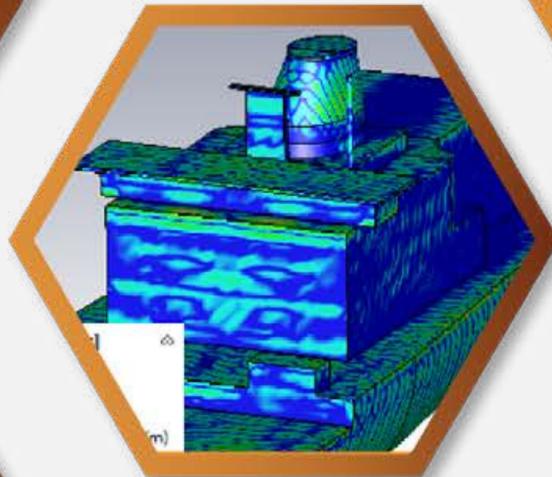
Pipeline Buckling



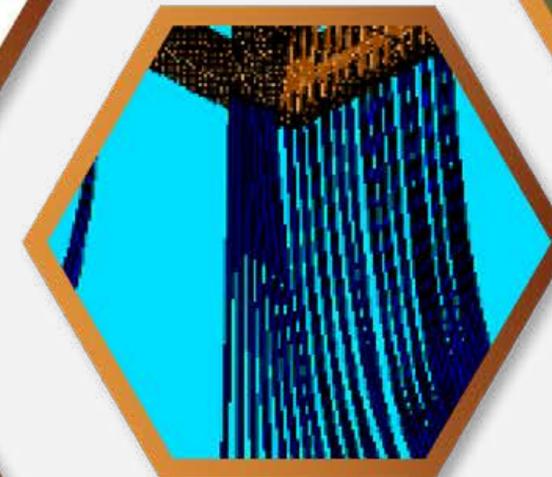
Gas Dispersion



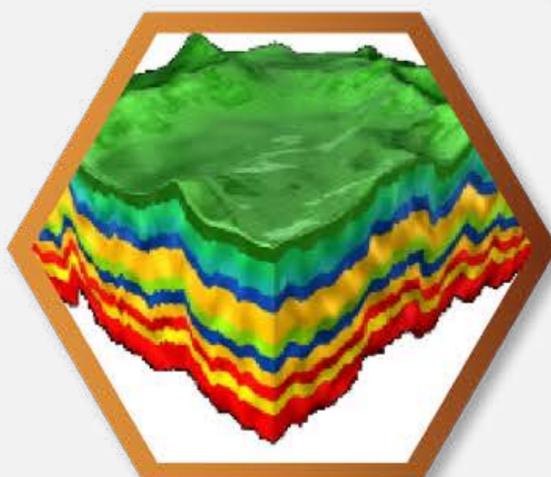
Shielding



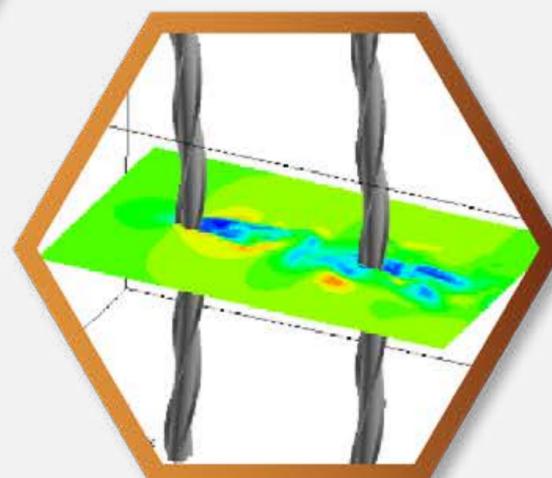
Risk Based Assessment



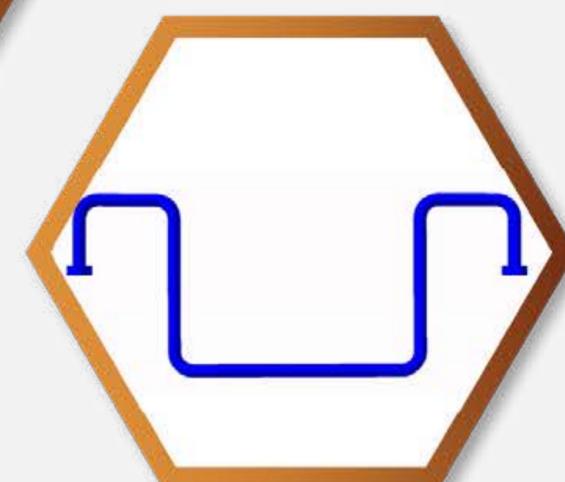
Basin Geomechanics



Riser VIV

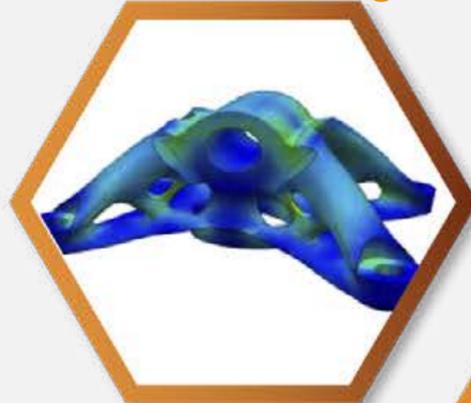


Jumper Analysis





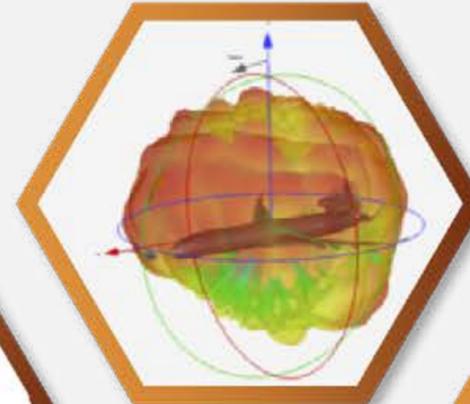
Additive  
Manufacturing



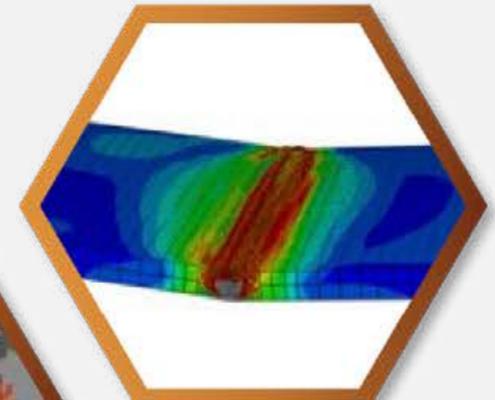
Fuselage  
Design



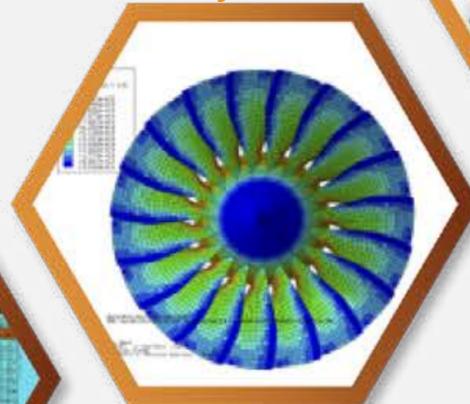
Antenna  
Design



Welding Analysis



Turbo-machinery  
Analysis



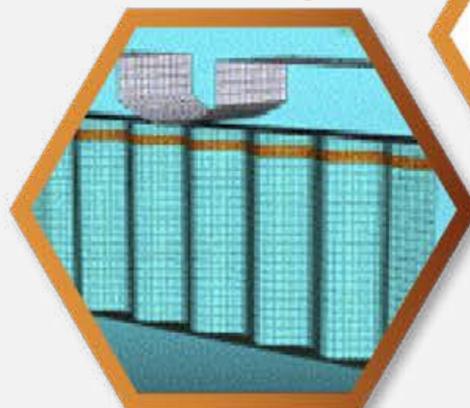
Manufacturing  
Automation



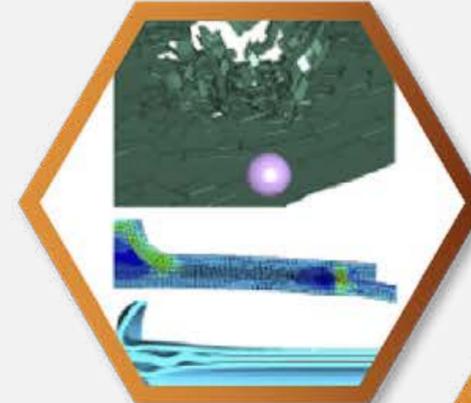
Model Based  
System Engineering



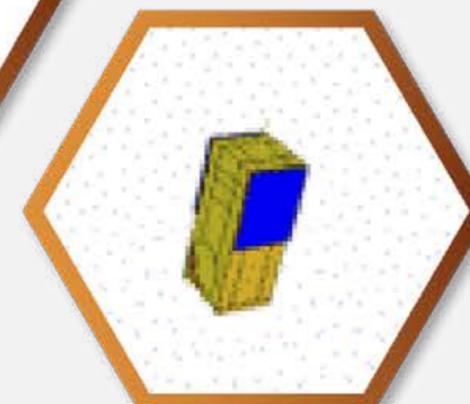
Composites  
Modeling



Damage and  
Failure Modelling



Rigid Body  
Kinematics

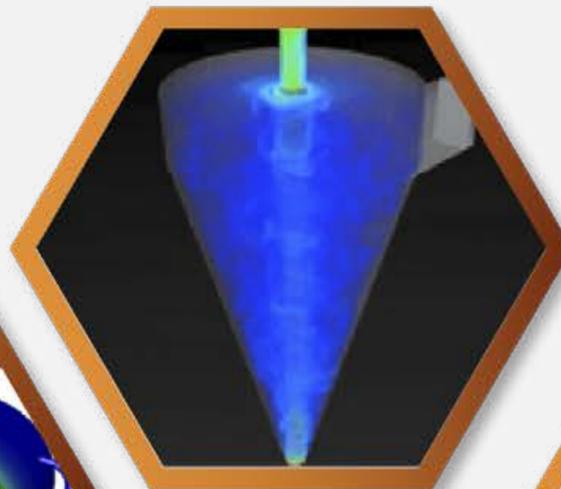




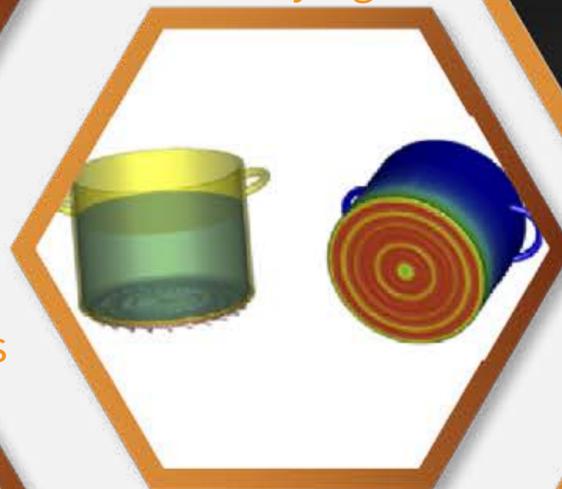
Excavators Durability



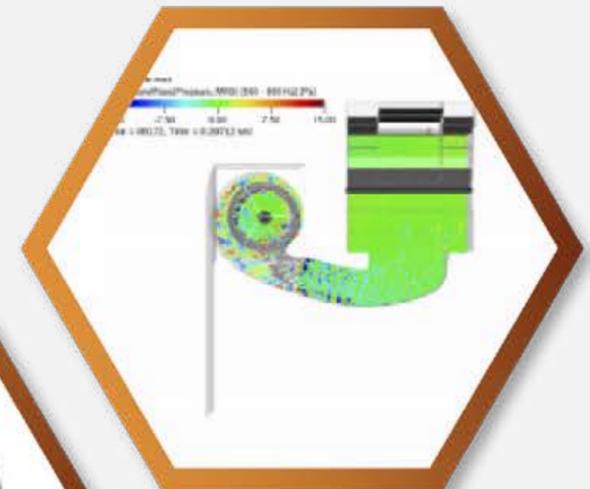
Mixing



Heating and Drying



Acoustic Analysis



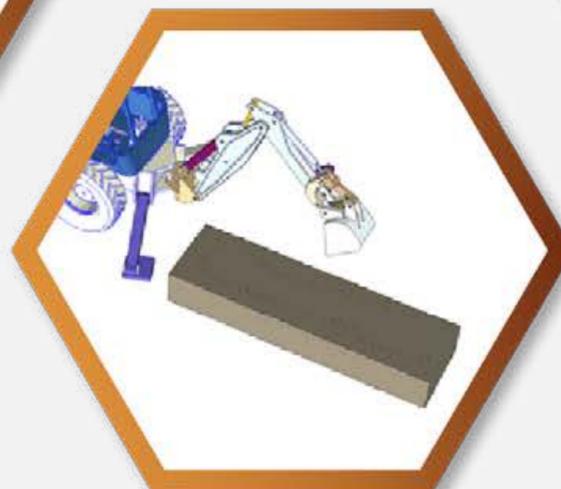
Tire Analysis



Efficiency and Performance Analysis



Kinematics



Gear System Analysis

