Offshore Engineering Development Center for world's largest Independent Diesel Engine Manufacturer

Executive Summary

The case study outlines KPIT Cummins success story in Setting-up and building one of the largest third party engineering ODC in India. In this process, we achieved client's strategic sourcing objectives while enhancing our profile from a service provider to a technology and engineering partner. Today we work on some of the most advanced and futuristic programs for our customers.

Client

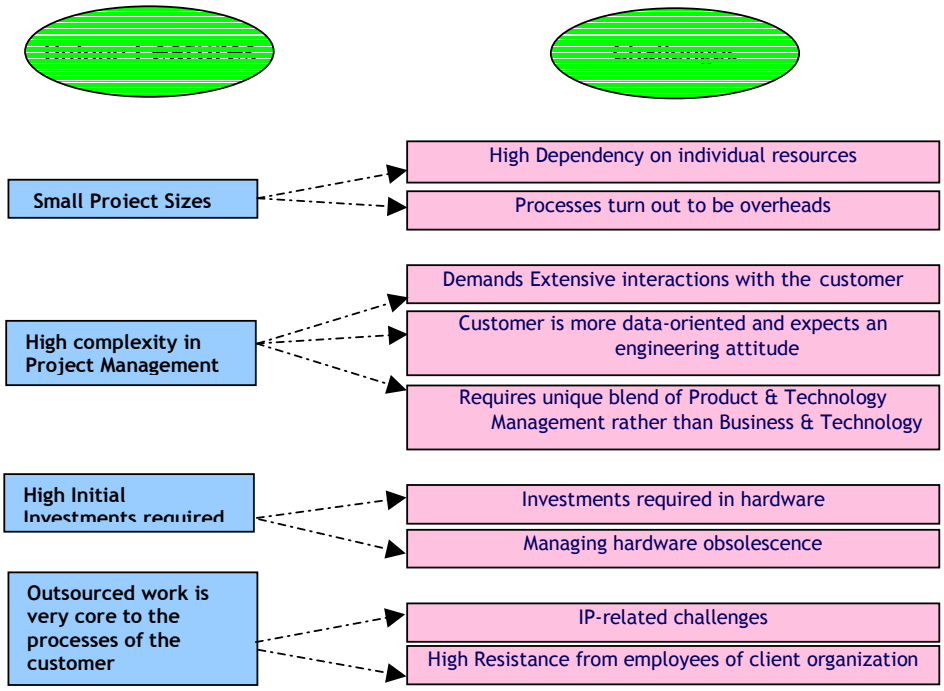
The Client is the world's largest independent Diesel engine manufacturer, With revenue figures exceeding $10+ Billion.

Engagement Metrics

- Contract Value: Approximately US$ 10+ Mn (April 2005-06)
- Duration: 4 calendar Years- 500 person years
- Global delivery: Yes
- Share of work done in India: 95%
- Estimated Savings to client
  - $ 13 Mn over last 3 and half years

Business Issue(s) Addressed

Engineering Service Outsourcing for Automotive Electronics: Unique features & Challenges.



Key Achievements / Deliverables

- Accelerated time-to-market for important product programs.
- Scalability Engineering Development center, from 2 to 150 in 2 years.
- Partnership in
  - Design & Operational innovation
  - Contribution for technology planning & strategy
- Significant savings and ROI

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How KPIT Cummins Helped

KPIT Cummins Tackled these challenges in three horizons:

1. ***Build trust***
2. ***Enable growth***
3. ***Create Value***

The strategic initiatives under each of these horizons

Trust:

1. Initiated pilot engagements using Engineering Tools, Testing tools, MATLAB and Evaluation boards
2. Set-up the offshore team with a team size of 90, trained the team on tools & processes
3. Processes and frameworks were familiarized for the project organization
4. Set-up effective communication mechanisms.

Growth:

1. Deepened the domain knowledge by working on areas such as Embedded systems for Powertrain, Clusters, Telematics etc …
2. Team size was ramped up to 170 and number of projects increased to 29
3. Initiated Project and Program Management methodologies and demonstrated results with metrics
4. Enhanced customer satisfaction by using strategic initiatives like "*Voice of the customer*".

Value:

1. Ventured into complex areas of work such as "model based embedded software development for engine control module"
2. Team size ramped-up to 300 and established an extended arm of client's R&D and Application testing teams
3. Actively partnered the client's "next generation product programs" and "Technology planning"
4. Took part in the end-to-end product life cycle engineering program of the client that consists of 16,000 end users.

Tools	Methodologies
• Rational Suite and Microsoft Developer Studio • Matlab, Simulink, Stateflow, Beacon, RTL, DOORS • CAN, J1939, J1850, LIN, CANoe, CANalyzer, • Compilers and emulators • Evaluation boards and Debuggers • RTRT, QAC/PC-Lint	• Model based development, Validation and Implementation • Software in Loop, Hardware in Loop Testing • Product/ Application Engineering • Technology R & D • Application prototyping • Value engineering • Reverse Engineering

Engagement Profile:

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Engagement Profile:

- Work areas - ETOOLS, Embedded, after market products, Telematics, Engineering knowledge management, Tool chain integration.
- Services - Model based development, embedded test and validation, PC Tools development and support etc.
- Tools & Infrastructure - Hardware in loop setup, Software in loop setup, load benches, Rational tool chain etc.

Company Profile:

At KPIT Cummins, our vision is to be a global **Engineering partner of *first* choice** for Automotive & Semiconductor companies.

- **Aiming for Leadership in Automotive Electronics & Semiconductor** through *integrated Advanced Technology Solutions:*
  - 1000+ Engineers; 3000+ person years & 750+ projects in Automotive & Semiconductor
  - **Partner for World's top 5 Automotive OEMs & 25+ Tier 1's** in
    - Powertrain, HVAC, Clusters, Safety, Body Electronics & Telematics
    - IP based solutions for In-vehicle Communication
    - *One of the largest 3rd Party ODCs (Offshore Development Centers) in Automotive*
  - **Partner for 6 out of the top 20 Global Semiconductor companies** in
    - AMS, SOC, FPGA & Contract IP development
    - Tools & solutions for single & multi-core chip development
    - *One of the largest 3rd Party ODCs in Semiconductor*
  - **Premium member of AUTOSAR consortium & SPICE Level 3**
  - **Among 100 Transitioning Medium Enterprises in India - Citigroup IMA-June'06**

3000+ People | US, UK, Germany, France, Poland, India, Japan |

www.kpitcummins.com

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