Corporate Presentation for Investors

February 2005
This presentation may contain certain “forward looking” statements, which involve a number of risks, uncertainties and other factors that could cause actual results to differ materially from those that may be projected by these forward looking statements. These uncertainties have been detailed in the reports filed by Wipro with the Securities and Exchange Commission and these filings are available at www.sec.gov. This presentation also contains references to findings of various reports available in the public domain. Wipro makes no representation as to their accuracy or that the company subscribes to those findings.
Wipro’s Global IT business – An overview

**Partner to industry leaders and challengers**
- 89 global 500 clients
- 151 clients among Forbes 2000

**Global footprint**
- Listed on NYSE
- 35 countries
- 9 near shore development centers

**Diverse talent pool**
- 23 nationalities
- 2000 domain consultants

**Sustained growth**
- CAGR of 45% in last 5 years
- Part of NYSE’s TMT (Technology-Media-Telecom) Index, NSE Nifty Index and BSE Sensex

* Ranked leader by IDC, MetaGroup, Forrester – 2004
* Awarded the highest rating in Stakeholder Value Creation & Corporate Governance by ICRA, an Associate of Moody’s Investor Services

**Based on actuals till Dec 2004 and guidance for quarter ending March 2005**
Our Recent Performances

**Total Revenue (Rs M)**
- 5 Quarter CQGR: -9.1%
- Q4 2003: 13,506
- Q1 2004: 15,621
- Q2 2004: 17,614
- Q3 2004: 17,696
- Q4 2004: 19,797
- Total: 71,942

**Net Income (Rs M)**
- 5 Quarter CQGR: -13.2%
- Q4 2003: 2,294
- Q1 2004: 2,663
- Q2 2004: 3,254
- Q3 2004: 3,254
- Q4 2004: 4,271
- Total: 13,506

**Global IT Services Revenue ($ M)**
- 5 Quarter CQGR: -9.7%
- Q4 2003: 222
- Q1 2004: 250
- Q2 2004: 276
- Q3 2004: 300
- Q4 2004: 327
- Total: 1,175

**Global IT Services Operating Margin**
- Expansion of 560 basis points over last 5 Quarters

**Expansion of 560 basis points**
- Operating Margin = Earnings before Interest & Taxes / Revenue

*Sustaining momentum – delivering growth*
Highlights of the Quarter ended December 31, 2004

- Net Income growth of 60%, Global IT Revenue at $352M ahead of guidance of $347M
- Broad based growth across key Verticals; Financial Services, Telecom and Manufacturing leading the pack with double digit sequential growth
- Our differentiated services - Technology Infrastructure Services and Testing Services sustained momentum, posting 34% seq (80% YOY) & 15% seq (79% YOY) growth respectively
- Europe geography grew 10% seq (66% YOY); fourth consecutive quarter of double digit sequential growth
- Over 30% of our top 50 customers grew double digit, indicating a broad based growth in demand
- Combination of customer mix, service mix and continued operational improvements led to a 1% sequential growth in price realization for Onsite as well as Offshore projects
- 26 new customers added during the quarter including 4 Fortune 1000 / Global 500 customers
- Attrition came down to 12% in IT Services, a sharp decrease from previous quarters

Strong performance by balancing the short term and long term
Platform for Sustainable Growth

No. of Active Customers

<table>
<thead>
<tr>
<th>Month</th>
<th>Dec 03</th>
<th>Sep 04</th>
<th>Dec 04</th>
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<tbody>
<tr>
<td>332</td>
<td>370</td>
<td>386</td>
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</table>

Annualized Revenue per Customer

<table>
<thead>
<tr>
<th>Month</th>
<th>Dec 03</th>
<th>Sep 04</th>
<th>Dec 04</th>
</tr>
</thead>
<tbody>
<tr>
<td>$2.68 m</td>
<td>$3.14 m</td>
<td>$3.24 m</td>
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Million dollar Revenue Customers

<table>
<thead>
<tr>
<th>Month</th>
<th>Dec 03</th>
<th>Sep 04</th>
<th>Dec 04</th>
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<tr>
<td>25</td>
<td>128</td>
<td>149</td>
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<tr>
<td>31</td>
<td>153</td>
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</table>

Price Realization

<table>
<thead>
<tr>
<th>Month</th>
<th>Dec 03</th>
<th>Sep 04</th>
<th>Dec 04</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offshore: $3.966 m</td>
<td>$10,096</td>
<td>$11,033</td>
<td>$11,139</td>
</tr>
<tr>
<td>Onsite: $4,219 m</td>
<td>$4,262</td>
<td></td>
<td></td>
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</tbody>
</table>

Data for quarter ended respective months
Metrics excluding BPO

Revenues from Fortune customers—69% for quarter ended Dec 2004
Future Belongs to Differentiated & Broad Range of Services

Wipro’s Global IT Revenue pie

R&D Services 27%
Testing Services 7%

Q3 2004-05
$352 M

Indian Export Potential*

<table>
<thead>
<tr>
<th>Service Type</th>
<th>2003</th>
<th>2008</th>
<th>CAGR 2003-2008</th>
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<tbody>
<tr>
<td>IT Enabled Services / BPO</td>
<td>13.5</td>
<td>21</td>
<td>25%</td>
</tr>
<tr>
<td>Package Implementation</td>
<td>4.5</td>
<td>3.1</td>
<td>30%</td>
</tr>
<tr>
<td>IT Enabled Services / BPO</td>
<td>21</td>
<td>3.1</td>
<td>30%</td>
</tr>
<tr>
<td>Infrastructure Outsourcing</td>
<td>3.6</td>
<td>1.3</td>
<td>38%</td>
</tr>
<tr>
<td>SI/Consulting</td>
<td>0.2</td>
<td>0.8</td>
<td>40%</td>
</tr>
<tr>
<td>Custom App Dev &amp; Maintenance</td>
<td>0.1</td>
<td>4.9</td>
<td>91%</td>
</tr>
<tr>
<td>R&amp;D Services</td>
<td>0.4</td>
<td>2.3</td>
<td>70%</td>
</tr>
</tbody>
</table>

Source: Mckinsey-NASSCOM Study, NASSCOM, Company estimate (all figures in USD B)

Percentages below the pie chart represent Wipro’s distribution of Revenues for the quarter ended Dec 2004

Constantly incubating newer services
Strength of Business Model reflected in 3-Dimensional Growth

**Revenue Mix**

**Vertical distribution**
- Telecom OEM: 17%
- Embedded: 15%
- Telecom Service Providers: 5%
- Manufact-uring: 12%
- Energy & Utilities: 11%
- Finance: 18%
- Retail: 12%
- Others: 10%

**Geographical distribution**
- Japan: 4%
- Europe: 30%
- North America: 66%
- Others: 10%

**Growth rates**

<table>
<thead>
<tr>
<th>Service Lines</th>
<th>YOY Growth rates</th>
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<tr>
<td>Technology Infrastructure Services</td>
<td>80%</td>
</tr>
<tr>
<td>Package Implementation</td>
<td>43%</td>
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<tr>
<td>ADM</td>
<td>35%</td>
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<tr>
<td>Business Process Outsourcing</td>
<td>48%</td>
</tr>
<tr>
<td>Testing &amp; Interops</td>
<td>79%</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Business Lines</th>
<th>YOY Growth Rates</th>
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</thead>
<tbody>
<tr>
<td>R&amp;D Services</td>
<td>41%</td>
</tr>
<tr>
<td>Financial Services</td>
<td>52%</td>
</tr>
<tr>
<td>Enterprise Solutions</td>
<td>35%</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Geographies</th>
<th>YOY Growth Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>31%</td>
</tr>
<tr>
<td>Europe</td>
<td>66%</td>
</tr>
<tr>
<td>Japan</td>
<td>34%</td>
</tr>
</tbody>
</table>

For Quarter ended Dec 2004 for IT Services only

Diversified revenue stream with broad-based growth
Sustained leadership position in India as reflected by customer confidence
- Leading Systems and Network integrator
- Successful Total Outsourcing deals
- Multiple end-to-end ERP rollouts

Incubator for Global IT Services business:
- R&D Services – 1992
- Technology Infrastructure Services - 1998
- Telecom Service Providers practice – 2000
- Infrastructure Security – 2001

Significant progress in penetrating Middle East markets

Increasingly becoming a Services centric business - 37% Revenues from Services, 63% from Hardware
Looking Ahead

“For the quarter ending March 2005, we expect our Revenue from our Global IT Services business to be approximately $370 million.”

Underlying factors:

• Sustained volume growth in IT Services

• Pricing to move in a narrow range after significant up-tick in previous quarters

• Leveraging Utilization & Onsite-Offshore mix for optimal efficiency

• Increasing campus mix to optimize cost levels

• Rupee appreciation would impact Operating Margins
Our DNA

Building a self-reinventing Business Model

Consistent on Growth Quality Innovation

Delivered results

Industry vertical structure Service line incubation Expand addressable market

High focus First globally - CMM, CMMi, P-CMM Six Sigma

Scalability Practices

Quality

Pride of place as employer of choice Constantly augment talent sources Audacious Articulated

Long term Vision + Short term Results + Scalable Processes = Stakeholder Value Creation

Sustainable Value Creation for all stakeholders
TO SUM UP

Widest Range of Services

Indian Export Potential*

- Q3 2004-05
- $352M

Diversified Vertical Expertise

- Vertical-wise composition (% of Revenue for quarter ended Dec 2004)

Strong Financial Position

- Cash & Cash equivalents (Rs M)

Strong Customer Relationships

- Average annualized Revenue per Customer
Establishing global process leadership

The Wipro Q-cult journey

Sambuddha Deb
Chief Quality Officer

February 25th 2005
Simultaneous focus on timeliness, defects and productivity

Customers view of quality – Tracking critical parameters for performance improvement

Field Error Rate (Defects / Mloc)

- Lower maintenance cost

- Lower development cost

- Lower schedule overrun cost

- Lower development cost

- Lower maintenance cost

- Productivity Index
Quality processes that ensure lower TCO

Regular development process

Wipro development process - OTIS

Development costs | Schedule overrun | Maintenance costs

Wipro development process - OTIS

- Rework effort reduced from 14% to 7%
- 81% of errors found in CUT* phase
- Maintenance costs

Greater productivity

Zero schedule overrun

*CUT- Coding & Unit Testing

Lower TCO: 30–40%

Higher productivity

37% higher productivity than industry ratio*

Lower costs

Higher productivity

Schedule adherence

91% projects completed on time, industry average of 76%*

On time delivery

Post delivery defect rate

120 defects/MLOC

55% lower than industry*

Assured quality

* Worldwide IT Benchmark report 2004 – META Group and Bangalore SPIN

Taking your offshore engagement to another level
Q-cult: Enterprise-wide quality culture for continuous improvement

Software process achievement Award 2003 from IEEE USA
Integrate people, processes & technologies

Organizational capability

People

PCMM
- Competencies
- Talent

Continuous improvement

- Six Sigma
  - Waste elimination
  - Cycle time reduction

Process

- ISO 9000
- SEI CMM
- SEI CMMi
- BS7799

.... To operationalize strategy and accomplish the Vision
Defects cost the U.S. economy $59.5 billion* a year; about 0.6 percent of gross domestic product
- 2002 Report from US Dept. of Commerces National Institute of Standards and Technology

A significant Measure -
Changing requirements
Manage requirements volatility
Integrating six sigma in software development

Software development life cycle

Customer interaction

Rigorous design & implementation

<table>
<thead>
<tr>
<th>TOOLS</th>
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<tbody>
<tr>
<td>VOC</td>
<td>Concept generation</td>
<td>Design FMEA</td>
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<tr>
<td>Kano model</td>
<td>Pugh matrix</td>
<td>Correlation</td>
</tr>
<tr>
<td>QFD</td>
<td>FMEA</td>
<td>Regression</td>
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<tr>
<td>Benchmarking</td>
<td></td>
<td>Hypothesis testing</td>
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<tr>
<td>DOE</td>
<td>Orthogonal arrays</td>
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</table>
## OA Test result summary

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<thead>
<tr>
<th>Business Function</th>
<th>Factors</th>
<th>Levels</th>
<th>Total runs</th>
<th>Actual runs by OA</th>
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<td>Hierarchy Library – Process</td>
<td>3</td>
<td>6, 4, 2</td>
<td>48</td>
<td>28</td>
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<tr>
<td>Hierarchy Library – Activity</td>
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<td>6, 4, 2</td>
<td>48</td>
<td>28</td>
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<tr>
<td>Hierarchy Library – Risk</td>
<td>3</td>
<td>9, 4, 4</td>
<td>144</td>
<td>43</td>
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<tr>
<td>Hierarchy Library – Control</td>
<td>3</td>
<td>9, 4, 5</td>
<td>180</td>
<td>45</td>
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<tr>
<td>Process Hierarchy - Process</td>
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<td>4, 2, 4</td>
<td>32</td>
<td>23</td>
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<tr>
<td>Process Hierarchy - Activity</td>
<td>3</td>
<td>4, 2, 4</td>
<td>32</td>
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<tr>
<td>Process Hierarchy - Risk</td>
<td>3</td>
<td>4, 2, 4</td>
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<td>23</td>
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<tr>
<td>Process Hierarchy - Control</td>
<td>3</td>
<td>4, 2, 4</td>
<td>32</td>
<td>23</td>
</tr>
</tbody>
</table>

236 test runs against 548 – more than 50% savings in testing
Next S Curve in Ops Excellence

Context

- Omnipresence of CMMI & 6S
- Customer preference of risk sharing contracts
- Shift from technical to business metrics
- Need to improve/sustain margins

Lean in ‘Wipro’

- Focuses on **cycle time & throughput** improvement without compromising quality
- Key principles:
  - Pull – Deliver customer value earlier
  - Flow – Wait states reductions, reducing handoffs, quick feedback
  - In station Quality – to improve defect resolutions upstream

Applying ‘Lean’ to move up the next S-Curve in Ops Excellence

- Concurrent Engineering
- Early Feedback
- Pull
- Load Balancing (TAKT)
- In station Quality
- Continuous Integration
- Standardization
- Automation
- Test Setup Reduction
- Test optimization
An incentive system for a top automobile manufacturer

Context
- Large scale software development for common repository of incentive payment data and collaborative tools
- Complex project involving cutting edge Data warehouse technology

Lean Principles Implemented
- Concurrent Engineering
- Rapid Prototyping for early feedback
- Workload balancing and customer Pull based scheduling
- Visual Charts for Control
- Poke Yoke for Quality

15% effort savings in software lifecycle
Quality journey – An organization wide participation

Quality

- Process definition
- Process adherence
- Product quality

Operations

- Development
- Product quality
  - Development

Tools

- Knowledge management
- Six sigma
- Process definition
- Process adherence

1992 → 2004

“Quality is everyone’s responsibility” - Deming
Customer satisfaction – we are not the only ones saying it

"I was very impressed with the commitment and execution that Wipro developed in a very aggressive time frame. They stepped up to the challenge and delivered an industry exclusive system that will benefit our Builder/Distributors."

Dan Claypool

"Wipro has consistently delivered offshore projects on time, on budget and at required levels of quality. The relationship is very cost effective for PacifiCorp, saving as much as 35%"

David Maudin

2003-04 survey was done with a redesigned survey with Gallup’s help

<table>
<thead>
<tr>
<th>Year</th>
<th>Delivery</th>
<th>Quality</th>
<th>Service</th>
<th>Overall</th>
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</thead>
<tbody>
<tr>
<td>2000-2001</td>
<td>3.95</td>
<td>3.86</td>
<td>3.91</td>
<td>3.85</td>
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<td>2001-2002</td>
<td>4.27</td>
<td>4.13</td>
<td>4.2</td>
<td>4.27</td>
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<td>2002-2003</td>
<td>4.35</td>
<td>4.21</td>
<td>4.38</td>
<td>4.31</td>
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<tr>
<td>2003-2004</td>
<td>4.05</td>
<td>3.88</td>
<td>3.88</td>
<td>4.1</td>
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<table>
<thead>
<tr>
<th>Year</th>
<th>Delivery</th>
<th>Quality</th>
<th>Service</th>
<th>Overall</th>
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<td>2000-2001</td>
<td>78</td>
<td>68</td>
<td>55</td>
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<td>2001-2002</td>
<td>88</td>
<td>77</td>
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<tr>
<td>2002-2003</td>
<td>90.4</td>
<td>82.3</td>
<td>82.9</td>
<td>89.5</td>
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<tr>
<td>2003-2004</td>
<td>81</td>
<td>74</td>
<td>72</td>
<td>82</td>
</tr>
</tbody>
</table>
Providing high quality processes

“Through a single-minded but judicious emphasis on quality as a guiding principle throughout its delivery processes, Wipro has shown impressive improvements in delivery capabilities, client satisfaction, and the ability to continually reduce the cost of services.”

Wipro: Best Practices in CMM-Based Software Delivery, Gartner 27 May 2003

“The prime differentiator of Wipro’s service proposition was its approach to quality management and processes.”

Scottish Parliament votes for offshore service firm, Butler Group Review, July 2003

“…..With the combination of SEI Level 5 certification and Six Sigma, Wipro can offer its customers extremely high quality, low risk services.”

Mapping offshore – A new competitive landscape, IDC, May 2004

“Wipro clients see additional application maintenance productivity of 10% to 15% from added familiarity with systems; another 10% to 15% raise in productivity after applying Wipro’s CMM-based methodology and consolidating redundant programs applications; and yet another 3% to 30% productivity improvement thanks to process automation and tools.”

Offshore Outsourcing: The complete guide, Forrester, Sep 2004
“If I had 8 hours to chop down a tree, I’d spend 6 sharpening the axe.”
- Abraham Lincoln

Quality – The cutting edge
Talent Availability 2005-06

Laxman Badiga
Feb 25th 2005
NYSE
Agenda

- Industry scenario and Academic alliances
- Wipro Technologies
  - Talent Sourcing
  - Talent Retention
  - Talent Transformation
Current Scenario of IT Manpower

IT MANPOWER EMPLOYED (2004 – 2005 Estimated)

- 1.05 m (203K higher than 2003-2004).
  - 697K in IT sector (Export, Domestic & Captive)
  - 348K in ITES
- Percentage growth of 24% over 2003-2004

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<tbody>
<tr>
<td>IT Software Services</td>
<td>242</td>
<td>360</td>
<td>416</td>
<td>490</td>
<td>588</td>
<td>697</td>
</tr>
<tr>
<td>IT Enabled Services</td>
<td>42</td>
<td>70</td>
<td>106</td>
<td>180</td>
<td>254</td>
<td>348</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>284</strong></td>
<td><strong>430</strong></td>
<td><strong>522</strong></td>
<td><strong>670</strong></td>
<td><strong>842</strong></td>
<td><strong>1045</strong></td>
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<tr>
<td>% increase in Total Manpower</td>
<td>51.41</td>
<td>21.40</td>
<td>28.35</td>
<td>25.67</td>
<td>24.11</td>
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<table>
<thead>
<tr>
<th>IT Software Services (Break Up)</th>
<th>242</th>
<th>360</th>
<th>416</th>
<th>490</th>
<th>588</th>
<th>697</th>
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</thead>
<tbody>
<tr>
<td>Software Exports Sector</td>
<td>110</td>
<td>162</td>
<td>170</td>
<td>205</td>
<td>270</td>
<td>345</td>
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<tr>
<td>Software Domestic sector</td>
<td>17</td>
<td>20</td>
<td>22</td>
<td>25</td>
<td>28</td>
<td>30</td>
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<tr>
<td>Software - captive in user organizations</td>
<td>115</td>
<td>178</td>
<td>224</td>
<td>260</td>
<td>290</td>
<td>322</td>
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</tbody>
</table>

Source: NASSCOM
Manpower Supply – Engineering

<table>
<thead>
<tr>
<th>Year</th>
<th>Annual Admission</th>
<th>Annual Total</th>
<th>IT Graduates Degree</th>
<th>IT Graduates Diploma</th>
<th>Total IT Pool</th>
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<tbody>
<tr>
<td>2001-02</td>
<td>333</td>
<td>234</td>
<td>109</td>
<td>125</td>
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<td>2002-03</td>
<td>366</td>
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<td>2003-04</td>
<td>303</td>
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<td>112</td>
<td>103</td>
<td>95</td>
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<tr>
<td>2004-05</td>
<td>398</td>
<td>284</td>
<td>155</td>
<td>129</td>
<td>100</td>
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<td>2005-06</td>
<td>481</td>
<td>348</td>
<td>210</td>
<td>138</td>
<td>111</td>
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<tr>
<td>2006-07</td>
<td>527</td>
<td>382</td>
<td>235</td>
<td>147</td>
<td>117</td>
</tr>
</tbody>
</table>

Source – NASSCOM

- Over 380 Universities i.e.. > 920 colleges (Engineering Degree/ Diploma) providing computer education
- Wastage Ratio is assumed as 21% for Degree & 36% for Diploma holders as per historical trends
- Actual number of IT graduates has shown an increase from the projected numbers especially diploma
- However admission to engineering and annual pass out (including Non IT) has shown a steep decline
# Total Supply Entering IT Workforce

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<tbody>
<tr>
<td>Number of Engineering Graduates</td>
<td>201</td>
<td>234</td>
<td>259</td>
<td>215</td>
<td>284</td>
<td>348</td>
<td>382</td>
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<tr>
<td>Degree (4 year course)</td>
<td>82</td>
<td>109</td>
<td>129</td>
<td>112</td>
<td>155</td>
<td>210</td>
<td>235</td>
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<tr>
<td>Diploma (3 year course)</td>
<td>119</td>
<td>125</td>
<td>130</td>
<td>103</td>
<td>129</td>
<td>138</td>
<td>147</td>
</tr>
<tr>
<td>IT Graduates (CSC, Elect, Telecom)</td>
<td>94</td>
<td>115</td>
<td>127</td>
<td>141</td>
<td>165</td>
<td>181</td>
<td>193</td>
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<tr>
<td>Graduates Degree</td>
<td>53</td>
<td>71</td>
<td>82</td>
<td>95</td>
<td>100</td>
<td>111</td>
<td>117</td>
</tr>
<tr>
<td>Graduates Diploma</td>
<td>41</td>
<td>44</td>
<td>45</td>
<td>46</td>
<td>65</td>
<td>70</td>
<td>76</td>
</tr>
<tr>
<td>Workforce Entering IT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering Degree (IT Graduates)</td>
<td>43</td>
<td>57</td>
<td>47</td>
<td>55</td>
<td>58</td>
<td>64</td>
<td>68</td>
</tr>
<tr>
<td>Engineering Diploma (IT Graduates)</td>
<td>32</td>
<td>34</td>
<td>25</td>
<td>25</td>
<td>36</td>
<td>39</td>
<td>41</td>
</tr>
<tr>
<td>Non IT Engineers</td>
<td>32</td>
<td>36</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Other Graduates (Other Disciplines)</td>
<td>27</td>
<td>32</td>
<td>35</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Total Supply Entering IT Workforce</td>
<td>134</td>
<td>159</td>
<td>147</td>
<td>150</td>
<td>164</td>
<td>173</td>
<td>180</td>
</tr>
</tbody>
</table>

Data in ‘000

**Source: Nasscom**

Total Supply Entering the workforce has increased

Increase in Engineering Degree Graduates is almost the same as projected earlier

Increase in Engineering Diploma graduates entering the workforce has been higher than projected
### Demand – Supply Scenario

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Manpower in IT</td>
<td>522</td>
<td>670</td>
<td>842</td>
<td>1045</td>
<td>1316</td>
<td>1662</td>
<td>2110</td>
<td>2662</td>
</tr>
<tr>
<td>Additional Manpower required</td>
<td>92</td>
<td>148</td>
<td>172</td>
<td>203</td>
<td>271</td>
<td>346</td>
<td>448</td>
<td>552</td>
</tr>
<tr>
<td>Total Manpower in IT Services</td>
<td>416</td>
<td>490</td>
<td>588</td>
<td>697</td>
<td>839</td>
<td>1010</td>
<td>1215</td>
<td>1462</td>
</tr>
<tr>
<td>Additional Manpower Required in IT Services</td>
<td>56</td>
<td>74</td>
<td>98</td>
<td>109</td>
<td>142</td>
<td>171</td>
<td>205</td>
<td>247</td>
</tr>
<tr>
<td>Supply of IT Engineering Degree Graduates</td>
<td>71</td>
<td>81</td>
<td>95</td>
<td>100</td>
<td>111</td>
<td>117</td>
<td>123</td>
<td>129</td>
</tr>
<tr>
<td><strong>Manpower Excess</strong></td>
<td><strong>15</strong></td>
<td><strong>7</strong></td>
<td><strong>-3</strong></td>
<td><strong>-9</strong></td>
<td><strong>-31</strong></td>
<td><strong>-54</strong></td>
<td><strong>-82</strong></td>
<td><strong>-118</strong></td>
</tr>
<tr>
<td>Supply of IT Engineering Graduates (Degree &amp; Diploma)</td>
<td>115</td>
<td>127</td>
<td>141</td>
<td>165</td>
<td>181</td>
<td>193</td>
<td>203</td>
<td>213</td>
</tr>
<tr>
<td><strong>Manpower Excess</strong></td>
<td><strong>59</strong></td>
<td><strong>53</strong></td>
<td><strong>43</strong></td>
<td><strong>56</strong></td>
<td><strong>39</strong></td>
<td><strong>22</strong></td>
<td><strong>-2</strong></td>
<td><strong>-34</strong></td>
</tr>
<tr>
<td>Total Supply Engineering (Non IT + Graduates Entering IT)</td>
<td>67</td>
<td>74</td>
<td>70</td>
<td>70</td>
<td>70</td>
<td>70</td>
<td>70</td>
<td>70</td>
</tr>
<tr>
<td><strong>Manpower Excess</strong></td>
<td><strong>126</strong></td>
<td><strong>127</strong></td>
<td><strong>113</strong></td>
<td><strong>126</strong></td>
<td><strong>109</strong></td>
<td><strong>92</strong></td>
<td><strong>68</strong></td>
<td><strong>36</strong></td>
</tr>
</tbody>
</table>

- **Source:** Nasscom
- **Projection for 2009 IT growth – 50Bn**
- *70,000 is the inflow from Non-IT streams*
- **Out turn of 540,000 from science streams funneled for ITES space**
## ITES

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Manpower in ITES</strong></td>
<td>106</td>
<td>180</td>
<td>254</td>
<td>348</td>
<td>477</td>
<td>653</td>
<td>895</td>
<td>1200</td>
</tr>
<tr>
<td><strong>Additional Manpower Required in ITES</strong></td>
<td>36</td>
<td>74</td>
<td>74</td>
<td>94</td>
<td>129</td>
<td>176</td>
<td>242</td>
<td>305</td>
</tr>
</tbody>
</table>

### Supply of Graduates 2004 E

<table>
<thead>
<tr>
<th>Category</th>
<th>Supply</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts</td>
<td>1150000</td>
</tr>
<tr>
<td>Science</td>
<td>540000</td>
</tr>
<tr>
<td>Commerce</td>
<td>480000</td>
</tr>
<tr>
<td>Engineering Degree (Non IT)</td>
<td>15000</td>
</tr>
<tr>
<td>Engineering Diploma (Non IT)</td>
<td>65000</td>
</tr>
<tr>
<td>Engineering Diploma (Non IT) abs.</td>
<td>40000</td>
</tr>
<tr>
<td><strong>Total Supply (ITES)</strong></td>
<td>2180000</td>
</tr>
<tr>
<td><strong>Demand</strong></td>
<td>128760</td>
</tr>
<tr>
<td><strong>Excess Manpower</strong></td>
<td>2051240</td>
</tr>
</tbody>
</table>

Source: NASSCOM, Institute of Applied Manpower Research, Ministry of Human Resources
WASE - An Innovation in Talent Farming

WASE program provides live project exposure and an opportunity to pursue an 8-semester (four year) Off-campus collaborative MS program from Birla Institute of Science & technology (BITS), Pilani (India)

- 550 students have graduated through WASE so far
- 1500 intake planned for 2005-06

Since 1995 and growing
Attracting Talent – The Wipro Way

Data for year 2004-05

- **Wipro Database**
  - Active: 320,000
  - Latent: 300,000
  - Emp Ref / Direct: 96%
  - Search Firms: 4%

- **YTD Joinees (IT + ITES)**: 23800

**WT Manpower Figures**

- 2004-05*: 14160
- 2003-04: 24800
- 2002-03: 9800
- 2001-02: 9900
- 2000-01: 5561
- 1999-00: 15000
- 1998-99: 9300
- 1997-98: 3441
- 1996-97: 3176

**Recruitment Funnel**

- Career Site
  - Candidate Applications: 100
  - Screen / Manage: 15
  - Evaluation: 4
  - Offer: 0.8
  - Join: 0.7
  - Retain

*YTD
Snapshot of Wipro’s Talent Pool

Young and experienced
- Average age of employees – 28 yrs
- Average tenure of top 100 managers - 11 years

Geographically dispersed
- 39000+ employees
- Approx. 6000 spread across North America, Europe and Japan
- Approx. 33000 working offshore in India

Strong education
- 66% University graduates
- 28% Masters degree holders
- 50+ Doctorates

Multicultural
- Workforce comprising people of 23 different nationalities
Talent Transformation - Across all Aspects

**Business skill transformation**
- Leading the client – CLIP/ACLIP programs
- 7 domain knowledge courses

**Technology transformation**
- 4 technology streams covering 78 courses
- Automated assessment center catering to 30+ technologies
- Project readiness and architect readiness program

**Culture transformation**
- Cross cultural training programs for US, UK, Japan, India, etc.
- 9 month Japanese certification program – Shimpo
- 160-hour certification program French (Alliance Françoise), German (Max Mueller)

**Behavioral skill transformation**
- Behavioral ladder training – FMP->GMP -> VMP
- Communication skill, Interpersonal skills, relationship management training

**Training infrastructure**
- Pioneers of the web based “World Campus” initiative providing courses to 1000 employees worldwide at a single time
- Ability to conduct training for 1200 persons at one time
- 40 state-of-the-art training rooms
- 2,40,000 man days of training annually, 70 full time instructors
Talent Engagement

- **Recruit**
- **Induct**
- **Train**
- **Allocate**
- **Retrain**
- **Reallocate**
- **Nurture**
- **Engage**
- **Retain**

- **Employee Self Service**
  - Fully Customizable
  - Cost Effective

- **Improved Productivity**
  - Collaboration & Community
  - Knowledge Management

- **CHANNEL[W]**
  - Strengthened Teamwork
  - Enhanced Knowledge Sharing

- **Fast Deployment**

- **“Eye of an employee” for complete information updates about Wipro**
- **Ensure** employee empowerment
- **Enables employees to have a two-way communication with the company**
- **Bring together the growing community across the globe**
FINANCE SOLUTIONS

Girish Paranjpe
President Finance Solutions
Finance solutions

Banking and Financial Services (17)
- Deposits
- Wholesale Banking
- Consumer Credit
- Payments

Securities & Capital Markets (22)
- Brokerage
- Global Custody
- Asset Management
- Transfer Agency
- Exchanges
- Wealth Management
- Retirement planning

Insurance (13)
- Life
- Property & Casualty
- Brokerage
- Reinsurance

Integrated portfolio of Services
- Enterprise Applications
- Package Implementation
- Business Process Outsourcing
- Consulting
- Technology Infrastructure Services

Figures in brackets represents number of clients
Our idea so far

Win new deals

Penetrate into key competition accounts

Ensure growth of accounts

The roadmap

<table>
<thead>
<tr>
<th>Strategic Level</th>
<th>Domain Competency</th>
<th>Engagement model</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>360° service portfolio</strong></td>
<td>Leverage business knowledge to suggest innovative solutions</td>
<td>Focused hunters with select target accounts supported by pre sales excellence</td>
</tr>
<tr>
<td>Position as both an “integrated provider of solutions” and offering a “range of options”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leverage distinctive service lines like BPO, TIS, Quality Consulting, Testing etc</td>
<td>Understand business and proactively suggest solutions</td>
<td>Experienced hunters, consultative selling, innovative pricing models, supported by pre sales excellence</td>
</tr>
<tr>
<td>Cross sell and up sell different service lines</td>
<td>Business Analysts in each account to analyze pain areas and propose solutions</td>
<td>Dedicated client engagement managers for high potential accounts and delivery excellence</td>
</tr>
</tbody>
</table>

Build on 3 axes simultaneously
360° Service Portfolio: Leading Life & Annuities insurance company

Service Portfolio

- Business Process Outsourcing
  - Including Senior Underwriting
  - Claims Processing Inbound customer

- IT Consulting & Business Analysis
  - Quotation System
  - In-force Quotation System

- Custom Development
  - Web Enabling

- Application Enhancement
  - Quotation System
  - Pension Claims
  - Pensions Accounting

- Application Maintenance
  - New Business
  - Product Launches

- Sales & Marketing
  - New Business Underwriting
  - Policy Admin & Customer Services
  - Finance & Actuaries

- Life Insurance
- Pensions Business

- Dedicated ODC for mainframe support

Engagement roadmap
- February 2001: Relationship started with ADM engagement
- May 2001: Offshore development centre set up in Bangalore, later extended to another location
- Early 2003: BPO of underwriting, with claims processing and customer servicing added in the middle of 2004

- Involved in a variety of projects including:
  - Business analysis and IT consulting
  - Mainframe maintenance
  - Client server development and migration
  - Multiple PC application support
  - Web enabling and maintenance of web based applications
  - Design and development of customized applications
  - IT infrastructure support
Domain competency

Dedicated Practice Groups of Business Consultants

- Insurance
- L&A
- P&C
- Brokerage
- Reinsurance
- Banking and Financial Services
- Deposits
- Wholesale Banking
- Consumer Credit
- Payments
- Securities and Capital Markets
- Exchanges
- Brokerage
- Global custody
- L&A
- Deposits
- Exchanges
- Brokerage
- Global custody
- Securities and Capital Markets
- Asset Mgmt
- Wealth Mgmt
- Transfer Agency

Roles

- Practice Building
  - Thought Leadership
- Sales & Solution
  - Closely involved in sales and execution
- Training
  - Domain training for projects & practice

Acquisition of NerveWire to build domain skills and move up the value chain
Practice building: Thought leadership

Published whitepapers

Insurance
- Underwriting Transformation: Surviving the troubled waters
- UK Insurance Regulations: FSA and beyond

Banking and Financial Services
- Are FSIs leveraging reference data management to cut costs and manage risk

Securities and Capital Markets
- Regulation NMS and fast market
- The changing landscape of the US equity options market

Internal weekly magazine
- Covering region wise industry news, knowing your customers and competitor information, targeted at all the consultants in the vertical

Interaction with industry analyst groups & forums
- Close consulting and research interactions with Gartner, MetaGroup, Forrester, Celent
- Participation in industry forums
Sales and solution: Domain involvement at every stage

**Maintenance and enhancement project**

- **Sales Process/Solution Design**
- **Maintenance Planning**
- **KAP**
- **System Maintenance**
- **Testing/Test Cases**
- **Implement**

**New development project**

- **Sales Process/Solution Design**
- **Training**
- **Requirement Capture**
- **Analysis/Design**
- **Testing/Test Cases**
- **Implement**

**Business process outsourcing**

- **Sales Process/Solution Design**
- **BPO Planning**
- **Process Transformation**
- **Process Transition**
- **Training**
- **Operation Support**
## Training: “Lines of Code” to “Lines of Business”

<table>
<thead>
<tr>
<th>Course</th>
<th>Insurance/Finance 101</th>
<th>Insurance/Finance 102</th>
<th>Insurance/Finance 103</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audience</td>
<td>Targeted at all Software Engineers</td>
<td>Targeted at Module Leaders, PMs and above</td>
<td>Targeted at Domain Consultants</td>
</tr>
<tr>
<td>Coverage</td>
<td>Provides an overview of the insurance/finance industry.</td>
<td>Provides an in-depth coverage of the insurance/finance industry.</td>
<td>Industry qualifications</td>
</tr>
<tr>
<td>Delivery</td>
<td>CBT based course available on Wipro Intranet</td>
<td>8-day course conducted by an external agency</td>
<td>As per syllabus of industry organizations</td>
</tr>
</tbody>
</table>

Additionally, project specific training is conducted by the domain team.
Engagement model: Front end - Dedicated sales and solution design team

- Dedicated Sales Team in each geography focused on Insurance, Banking & Financial Services and Securities and Capital Market accounts ONLY
- Select list of target accounts including those of competition
- Focused teams for hunting and dedicated client engagement manager for key accounts
- Consultative sales model through Strategy Solutions Group and Wipro NerveWire
- Each target account also mapped to horizontal sales team like BPO, testing, quality for joint approach

- Dedicated Solutions Design team for Insurance, Banking & Financial Services and Securities and Capital Market
- Each account (prospect/existing) has a domain person/persons mapped to it
Engagement model: Back end – Execution through mature governance model

A leading insurance company

- Program Manager L o B
- Programme Manager L o B
- Delivery Manager L o B
- BA for each L o B
- BA for each L o B
- BA for each L o B

- Global Programme Director
- Client Engagement Manager
- Software Quality Assurance Manager

Review Frequency:
- CXO Level: Yearly
- IT Directors Level: Yearly
- Company Level: Custom built
- Business Unit Level: Custom built
- Project level: Custom built

Reporting Frequency:
- CXO Level: Quaterly
- IT Directors Level: Quaterly
- Company Level: Monthly
- Business Unit Level: Monthly
- Project level: Monthly

Template:
- IT Weekly Report Review pack
- IT Weekly Report BU specific review pack
- IT Weekly Report Work Pack Report BU specific review pack

- Dedicated Delivery team for Insurance, Banking & FS and Securities & Capital Market
- IDEA GENERATOR FORUMS consisting all hands in account to proactively suggest solutions
- Quality processes (Six Sigma, CMMI) to ensure predictable delivery
## Finance solutions 2004-05: The returns

<table>
<thead>
<tr>
<th>Category</th>
<th>2000-01</th>
<th>2004-05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues</td>
<td>50 million USD</td>
<td>Over 200 million USD (annualized)</td>
</tr>
<tr>
<td>Clients</td>
<td>Primarily from 2-3 midsized clients</td>
<td>About 15 large marquee accounts which can scale</td>
</tr>
<tr>
<td>Contribution to WT revenues</td>
<td>12%</td>
<td>18%</td>
</tr>
<tr>
<td>Employees</td>
<td>Average 700</td>
<td>3600 – November 2004</td>
</tr>
<tr>
<td>Service lines</td>
<td>Primarily application development/maintenance and e business</td>
<td>Basket of services (EAS/TIS/Testing/E Biz/Consulting) being provided to most key customers</td>
</tr>
<tr>
<td>Domain strength</td>
<td>Minimal</td>
<td>Significant presence</td>
</tr>
</tbody>
</table>

- **CAGR: 44%** - Higher than our competitors
- **50 clients:** 1 client > 20 Million and 8 clients > 10 million annual run rate
Offshoring in financial services is becoming mainstream

- Within six years (2010), more than one-fifth of the financial services industry’s global cost base will have shifted offshore, resulting in an average savings of 37% per relocated process. *

- Overall, the top 100 global financial services institutions – those with market capitalization exceeding $10 billion – will offshore approximately $210 billion of their cost base, with an average cost savings of more than $700 million by the end of 2005. *

- Celent estimates a potential to shift US$17.5 billion in operational and technical costs overseas by 2010, only emphasizing the urgency for financial institutions to incorporate offshoring into their service delivery models

- Change in financial services mega deals: Traditional outsourcers such as IBM, CSC, and EDS will have to make increasing room for non-traditional offshore vendors – Tower Group

* “The Titans Take Hold”: How offshoring has changed the competitive dynamic for global financial services institutions, May 2004 Deloitte
Survey based on responses from 43 financial institutions based in seven countries and included 13 of the top 25 financial institutions in the world by market capitalization
**Opportunities**

The growth in market size ensures share for all players

- Deloitte Research estimates overall spending on offshoring will increase to $261 billion by 2010. The primary destination for financial services offshoring continues to be India, which receives approximately 80% of all financial services offshoring activity.

- Offshoring isn’t just for tier-one FIs any more. Faced with ongoing IT budget cuts and pressure to manage operating costs, mid-sized (tier-two) insurance and financial services companies are now using offshore services.

Offshoring in financial services is moving to the “NEXT LEVEL”

- Financial institutions will pursue more deals targeted to specific vertical and horizontal IT functions or business processes.

- As offshoring acceptance and experience grows, the types of IT work performed in offshore locations may include a company’s core competencies creating an element of competitive advantage.

- Functional offshoring, which involves business processes, is rapidly gaining momentum. FIs are outsourcing many of their back-office and other operations overseas to cut costs.
Threats

Environment

- Backlash and increased political scrutiny in most countries, against offshoring

- Compliance with the regulations imposed by regulators and rating agencies in the new offshore locations

Customer moves and concerns

- New offshoring strategies, such as captive centers in the financial space

- Intellectual property issues - More than 60 percent of respondents said management of intellectual property is important in the Deloitte survey

Competition

- Outsourcing to US firms with offshoring capabilities.

- Competition from local Indian firms
The pieces are in place to take advantage of the “Next Level” of financial offshoring that would require...
R&D outsourcing

Dr. A L Rao
President - Telecom Solutions

12th January, 2005
R&D Services – Opportunity Size

ABOUT 1.5 - 1.8 MILLION ENGINEERS ARE DEPLOYED IN RELEVANT R&D SERVICES

Per cent; ‘000 of engineers

<table>
<thead>
<tr>
<th>Category</th>
<th>E&amp;D</th>
<th>Systems</th>
<th>Silicon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>14</td>
<td>206</td>
<td>55</td>
</tr>
<tr>
<td>Computing &amp; Storage</td>
<td>23</td>
<td>113</td>
<td>90</td>
</tr>
<tr>
<td>Automotive</td>
<td>180</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Industrial Automation</td>
<td>60</td>
<td>75</td>
<td>~150</td>
</tr>
<tr>
<td>Aerospace/military</td>
<td>90</td>
<td>45</td>
<td>~150</td>
</tr>
<tr>
<td>Consumer electronics</td>
<td>30</td>
<td>30</td>
<td>~100</td>
</tr>
<tr>
<td>Other **</td>
<td>240</td>
<td>45</td>
<td>~300</td>
</tr>
</tbody>
</table>

* Includes ~85,000 engineers in Silicon space
** Includes Industrial machinery, metal fabrication, medical equipment, non-electronic office equipment

Constitutes ~65% of total engineering pool
**Current ‘true’ R&D outsourcing level (without staff augmentation) is fairly low (5-10 per cent)**

<table>
<thead>
<tr>
<th>Area</th>
<th>Current level of outsourcing</th>
<th>Per cent of effort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering services</td>
<td>8 - 10%</td>
<td>~5%</td>
</tr>
<tr>
<td>Embedded software &amp; hardware*</td>
<td>&lt;5%</td>
<td>&lt;5%</td>
</tr>
<tr>
<td>Communications*</td>
<td>~5%</td>
<td>&lt;5%</td>
</tr>
<tr>
<td>Computing platforms*</td>
<td>~10%</td>
<td>&lt;5%</td>
</tr>
<tr>
<td>Silicon space</td>
<td>~10%</td>
<td>8 - 10%</td>
</tr>
<tr>
<td>Packaged software*</td>
<td>&lt;5%</td>
<td>&lt;5%</td>
</tr>
</tbody>
</table>

**About 50-65 thousand design engineers are employed in the product engineering services market in India**

- **Total product engg.:** 50 - 65
- **3rd product engg. services:** 28 - 35
- **Captive product engg. services:** 22 - 30

**“Companies are outsourcing primarily in sustenance services... No more than 5% of total R&D would be outsourced currently”**

- McKinsey expert

- **“While OEMs are outsourcing 20% of their manufacturing, they are outsourcing less than 10% of their designs”**

- Industry analyst

- **“29% of the US companies with annual sales of over $10 mn and almost 36% of the companies with sales over $50 mn outsource”**

- Outsourcing institute

- **“We currently outsource less than 10% of our R&D. But will increase this significantly”**

- Telecom equipment customer

**Source:** McKinsey Analysis, Company estimates
Outsourcing opportunities across the R&D service chain

- **Evolution**
  - Large portion of core IP
  - Standards based development like Protocol Stacks, EMS, etc
  - Testing and Interoperability
  - IP/Stacks/Components

- **Deployment**
  - Small portion of core IP
  - New feature development
  - Current engineering/sustenance
  - New board/interface development

- **Sustenance**
  - Negligible portion of core IP
  - Complete product outsourcing
  - Customer support through the end of the lifecycle
  - Technical Assistance Center

- **Services**
  - Product Design
  - System Integration and Consulting
  - Maintenance
  - Product Support

- **Measurable value delivered**
  - Faster time to market
  - Complement in-house expertise
  - Help maintain market share through continuous product development
  - Help align costs to reducing margins
  - Keep costs low
  - Allow internal resources to focus on new product development

- **Standards based development**
- **Interfaces**
- **Core IP**
Wipro R&D services: Global leadership

Proof points

- **20+ years** of R&D services experience
- World leader in independent product engineering services
  - 8000+ world class Product engineering workforce
- **15% market share** of outsourced product design services worldwide**
- **33% share** of product design services outsourced to India**
- **One of the world's largest** independent software verification & validation group in telecom space
- **One of the world's largest** independent VLSI/system design services group

Sustained innovation

- Technology innovation through
  Centre of Excellence (COEs)
- IP & Component stack across technology/domain areas
- **Strategic outsourcing calculator** for maximizing client benefits
- **3+1 model** of technology transfer which ensures the client an optimized “return of knowledge” during product maintenance phase.
- **EagleVision** – A proven methodology for ASIC & hardware development

** McKinsey Analysis

Wipro is the largest global R&D services provider for ‘TRUE’ outsourcing.

- McKinsey

Companies, like Wipro in India, have made a sizable business supporting design services.

- Gartner, March 2004

World’s first IT services company to be certified TL 9000.
Focused Industry Segments - Telecom

Whom we Serve

- System integration (OSS / BSS solutions)
- Application development and maintenance services
- Enterprise infrastructure management services
- Business process outsourcing services

Network equipment
- Product engineering services
- Independent verification and validation
- Board/ASIC design services
- Software stacks and design frameworks

Terminal / mobile devices
- Device development & verification services
- Device application services
- Network conformance and interoperability

- Wireless infrastructure
- Enterprise Voice
- Carrier Voice & IN Network
- Broadband Access
- Routing & switching
- Optical Ethernet & NG Sonet
- Telecom Security
- IMS / SDP

- Seris60 and Symbian based handset development
- Mobile MMI and UI toolkit development for WCDMA
- Linux phone development
- Mobile MMI development using BREW
- GSM/GPRS/WCDMA/CDMA testing for mobile handsets
Focused Industry Segments - Embedded

Computing/Storage/Peripherals
- Computers/ servers
- Printer driver / firmware
- Scanners
- MFP
- Migration services
- OS engineering
- Software products
- Storage virtualization
- Fibre channel and SAN
- IP storage
- RAID systems
- NAS systems
- Storage network management

Semiconductors
- C Modeling, Pre and Post silicon Validation, SoC Designs
- Hardware abstraction layers, Diagnostics
- Device Drivers, RTOS Porting
- Complete Reference Designs

Automotive electronics
- Driver information systems
- Multimedia reference platforms
- Navigation systems
- Instrument clusters
- Telematics applications
- Body electronics
- Electronic power assisted steering

Industrial automation & avionics
- SCADA/HMI
- PLC
- System integration
- Firmware development
- Software tools

Consumer electronics
- Set top box
- Digital TV
- Residential gateway
- Media Center
- Security camera
- Portable Media Player

Medical devices
- Diagnostic imaging
- Product realization
- Value engineering
- Data acquisition
- Connectivity solutions
<table>
<thead>
<tr>
<th>Business Area</th>
<th>Revenue ($ M)</th>
<th>Quarter ending</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Telecom &amp; Inter-Networking</strong></td>
<td></td>
<td></td>
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<tr>
<td>(Telecom Equipment Manufacturers)</td>
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<tr>
<td>YoY growth – 42%</td>
<td></td>
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<tr>
<td>Quarter ending Sep 2003: 39</td>
<td>Quarter ending Sep 2004: 50</td>
<td>Quarter ending Dec 2004: 55</td>
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<td>Dec 2003</td>
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<tr>
<td>Quarter ending Sep 2004: 42</td>
<td>Quarter ending Dec 2004: 44</td>
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<td>Dec 2003</td>
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<td>Quarter ending Sep 2004: 33</td>
<td>Quarter ending Dec 2004: 15</td>
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<td>Quarter ending Sep 2004: 15</td>
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<td>Dec 2003</td>
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<tr>
<td><strong>Telecom Service Provider</strong></td>
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<tr>
<td>YoY growth – 63%</td>
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<tr>
<td>Quarter ending Sep 2003: 9</td>
<td>Quarter ending Sep 2004: 15</td>
<td>Quarter ending Dec 2004: 15</td>
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<tr>
<td>Dec 2003</td>
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</tbody>
</table>
Our value proposition

Thought leadership
- Industry understanding
  - 2 decades of experience
  - Product strategy & architecture
- Intellectual property blocks
  - WLAN, H264, 1394, USB
- Solutions
  - Telematics, Linux based Mobile framework, video-over-wireless, Set-top box

Aggregator benefits
- Presence across various stages of the product life cycle
  - Transfer the ‘development’ edge of doing 500 projects a year to customers
- Full spectrum
- Multiple services: software, hardware, verification, system integration, etc.
- Multiple domains, multiple customer segments

Instant organization
- Rapid changes to size of team (up and/or down)
- No negative consequences to changing size of team
- Global delivery model

Safe hands
- Physically separate ODC’s
- Financial stability of partner
- Quality certifications & expertise
  - People management expertise – PCMMI
  - Disaster management – infrastructure etc

Realize new products faster
Maintain existing products efficiently
Localize existing products for new markets

1 2 3

Aim to be among the most preferred partner to clients worldwide
Wipro’s Differentiated Services
An overview

Sanjay Joshi
25th February, 2005
# Our differentiated Services

<table>
<thead>
<tr>
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<th>Services</th>
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<tbody>
<tr>
<td>1</td>
<td>Business Process Outsourcing</td>
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<tr>
<td>2</td>
<td>Technology Infrastructure Services</td>
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<tr>
<td>3</td>
<td>Testing Services</td>
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<td>4</td>
<td>IT Architecting &amp; Consulting</td>
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</tbody>
</table>
Business Process Outsourcing – The India advantage

- 40%-60% cost reduction for offshored process
- Differential in wages from the US or UK parent location at approx 70%-80%.
- Purchasing Power Parity - the reason for cost savings likely to exist for next 20-30 years

- Faster turnaround time
- Time zone difference
- 24X7 service
- Learning curve effect, given increased activity across companies and increased centralization within company

India’s value proposition

Cost

Productivity

Quality

Opportunity for leveraging capabilities from remote location

- Established methodologies and processes being rapidly adopted for better performance
- Well defined quantifiable metrics for quality and process
- Access to highly qualified – skilled pool

Source: Mckinsey
### Wipro’s Business Process Outsourcing

#### Range of Services

- **Customer Relationship Management**
  - eMail / Web / Chat
  - Voice (inbound/outbound)

- **Business Optimization Services (BOSs™)**
  - Finance & accounting services
  - Procurement services
  - HR services

- **Industry/Specialized Services**
  - **Industry Services**
    - Insurance claims processing
    - Mortgage processing
    - Health claims adjudication
    - Credit card processing
    - Bank reconciliation
  - **Supply Chain Services**
    - Inventory management
    - Direct procurement
    - Logistics & dispatch
  - **Knowledge Services**
    - Data analysis
    - Data mining
    - Data management

#### Revenue ($ M)

<table>
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<tr>
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<td></td>
<td>27</td>
<td>37</td>
<td>40</td>
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</tbody>
</table>

YoY growth – 48%

- Among largest third party BPO service provider in India
- Base of 23 active clients and 85 processes
- Voice based business generated 86.5% of Revenues
- Demonstrated track record of Revenue growth & profitability
- Clients are broad based across diverse industries like Computing, Financial Services, Retail, Telecom Service Provider etc.
**Benefits over the entire relationship lifecycle**

- **Wave 1**: Transition
  - Operations
  - Applications

- **Wave 2**: Increasing customer value
  - Operations
  - Applications

- **Wave 3**: Process re-engineering, Process optimization, Cost savings & process standardization
  - Operations
  - Applications
  - Infrastructure

---

**Process**
- Test processes, prove concept
- Maintain quality
- Initial cost savings through arbitrage

**Process + applications**
- Process improvement using Six Sigma and domain expertise
- Knowledge management
- Evaluate technology, automation & consolidation options

**Process + applications + infrastructure**
- Best in class – process and technology optimization
- Consolidation across operations / processes
- Maximize savings through better turn-around and reduced defect rates
Case Study - Underwriting & funding review – consumer direct lender (US)

**The client**
The client is a consumer direct lender dedicated to providing borrowers across the credit spectrum with a more enjoyable and affordable way to obtain mortgage, auto and home equity loans.

**The challenges**
- High operational costs of running the process in house
- Client strongly felt the need to utilize a 24x7 business model and reduce cycle time for closing of loans

**Wipro solution**
- The client’s operations are managed out of our Chennai location which boasts of high quality talent pool with expertise in the financial domain
- The offshore team consists of senior underwriters to supervise the process
- Wipro was able to provide quick ramp up of the process.

**Business benefits**
- The time zone difference allows our client a faster cycle time to close the loans
- Better customer acquisition and retention performance
- The client has been able to realize the cost savings of process consolidation by merging globally repetitive processes across US, UK and Canada
- 60% savings on cost
- 90% of client’s customers have opted for India
- 60% savings of client’s costs
Technology Infrastructure Services – evolving landscape

Addressing a $90 b opportunity
Wipro’s Technology Infrastructure Services

- More than 140+ customers across the globe and over 550 customers in India for Infrastructure Support Services
- Largest offshore IT Infrastructure Service provider in terms of revenue, people and customers
- Industry expert skills, over 5000 technical specialists
- World’s first BS 15000 certified facility
- Backed by leading technology vendors and our experience of over two decades
Using a distributed global delivery model

Ensuring 99.95% availability of IT infrastructure spread across 118 locations in Europe by delivering remote monitoring and management services from the Global Command Center (GCC) in Bangalore.

**Architecture**
- NOC locations in U.S and U.K
- POP locations in U.S, U.K and Japan
- GCC in Bangalore, India
- GCC – BS15000 certified site

**Services from GCC**
- Monitoring
- Administration
- Diagnostics
- Trend based consulting
- Elements covered: Servers, network, OS, databases, applications, storage and security

**Benefits delivered**
- Proactive 24x7x365 support
- Industry expert skills
- Proven process oriented service operations
- Scalable architecture
- Redundant, fail-proof architecture
Case Study - Large oil & gas major

**Scope**
- Client services
- Server support
- Messaging and active directory
- Secure access
- Problem co-ordination

**Infrastructure**
- 90,000 users
- 2470 file servers
- 97,000 mail boxes and 150 mail servers
- Messaging, AD and secure access for 120,000 users

**Geographical spread**
- Europe (UK & Continental Europe)
- America (North, Central, Latin)
- Middle East & Africa

**Production environment support**
- Wipro’s second line technical support (offshore)
- Problem Coordination
- Non-Break fix support
- Situation Management
- On-Boarding New services
- System Administration
- Reactive Support
- User Training
- Break fix support
- Remote client services
Wipro’s Testing Services

- 8 years of experience in the independent testing services
- Largest offshore testing service provider in terms of revenue, people and customers
- End-to-end testing services offered for all industry verticals
- Strategic alliances with leading testing tools vendors: Mercury, Rational, Compuware, TestQuest, Telelogic

**Testing as Managed Services** (TMS) for end-to-end testing ownership through our Global Delivery Model of Onsite, Offshore, Near-shore and Remote Testing

- Ready-to-use Point Solutions, Frameworks and industry specific Centers of Excellence (CoE)
## Our Service Portfolio

### Test process consultancy
- Understanding Customer environment
- QA process implementation
- Test tools and platform recommendation
- Communication and rollout of plans

### Manual testing
- Design
- Scoping
- Execution
- Maintenance

### Life cycle testing
- Module
- Integration
- Regression
- Acceptance

### Specialized testing
- Automation
- Localization
- Performance testing
- Pre-certification

### Remote testing
- Scoping
- Environment setup
- Remote execution and collation of results
- Maintenance

### Testing as Managed Service (TMS)
- Partnership objectives sign off
- Knowledge acquisition
- Offshore test environment setup
- Complete transition
- Continuous improvement

---

**End-to-end testing services**
Wipro advantage

1. Technology
   - Domain specific skill sets available across all industry domains blended with the best-of-breed test processes, methodologies and frameworks
   - Existing relationships with global leaders in testing tools

2. Experience
   - 8 years of experience in testing services including setting up dedicated test labs for customers and using our Global Delivery Model of Onsite, offshore, Near-shore and Remote Testing
   - Understand the challenges of managing an offshore center

3. Process
   - The Software Test Diagnosis Model [STDM] was developed based on knowledge and experience in independent verification and validation
   - Test processes models developed for Automaton, Remote testing and Performance testing

4. Cost advantage
   - Continuous Improvement using Six Sigma Projects
   - Specific Problem Solving Frameworks:
     - Orthogonal Array Technique
     - Field Error Prediction
   - Lean Management for Waste Reduction

5. Scalability
   - Ability to ramp up quickly in terms of location and people as per our Global Delivery Model of Onsite, offshore, Near-shore and Remote Testing services

6. Quality
   - Offshore delivery ensuring up to 30% ongoing savings due to process and quality improvements
Case Study

Client profile

A leading Wall street Investment Bank

Challenges facing the client

- Lack of a common organizational wide platform to ensure QA of IT initiatives
- To streamline testing efforts within organization and establish a QA cell
  - Frequent changes of requirements
  - Inadequate business application documentation
  - Lack of clear milestones for QA process.
  - Communication gap between development & QA team

Wipro solution

- Implemented Centralized QA process - ensured all business requirements are documented
- Defined and implemented a QA process with clear identification of role of development teams with respect to the QA cell
- Created several client specific artifacts and document templates to help them adopt the QA process with ease
- Rollout to all stakeholders for the need to change the process

Business benefits

- 60% of the test cases were automated
- 100% test execution and coordination from offshore
- Reduced the test cycle from 13 hours to 4.5 hours in some specific applications
IT Architecting & Consulting Services

- **Business focused consulting**
  Acquisition of AMS energy division and Nervewire provide critical domain expertise

- **Process consulting** group for continuous business process improvement

- **Technology consulting**
  - Aligning IT to business strategy
  - Package/technology assessment
  - System integration
  - Architecture and designing
  - Technology visioning

- 200+ member enterprise architecture consulting group to help align IT with business needs
Case Study

The client
A leading North America based food distribution company

The challenges
- High operational costs due to poor forecasting
- Consequent implications for Revenue predictability and inventory management

Wipro solution
- Wipro’s consulting team along with technology and domain teams designed a restructured business process
- Solution also included identification of and recommendations for IT architecture & applications
- Wipro was able to provide quick ramp up of the process.

Business benefits - Customer
- Improved forecasting and better Revenue management
- Higher efficiency
- Significant savings on cost

Business benefits - Wipro
- Significant follow through engagement in the areas of Data Warehousing, Business Intelligence and Application Integration
- Established strategic credibility with the customer organization
Benefits as seen by our customers

- One stop shop for all IT Services needs
- Benefits much more than just cost savings
- Significantly higher quality of service with predictive delivery
- Remote service delivery, monitoring and management and testing – ALWAYS ON service
- Proactive support – a different end user experience
- Flexible model of outsourcing
- Access to best –of-breed process frameworks and talent
Thank you for your time

Our promise

With utmost respect to Human Values, we promise to serve our customers with Integrity, through Innovative, Value for Money solutions, by Applying Thought, day after day.