



NSE TATAELXSI/ BSE 500408  
Reuters TTEX.BO/ Bloomberg TELX@IN

Rating  
**BUY** Target  
**440**

# Tata Elxsi Ltd

Risk  
**LOW** CMP  
**333.85**

22<sup>nd</sup> June 2007

Sector

Market Capitalization

Free Float

52 week H/L

**IT – EDS, S.I.**

**Rs. 1040.61Cr**

**33%**

**364.70/147.00**

Company  
Research



## Growth by Design

**A little known fact about TEL is its role in Dhoom2!** Visual Computing Labs (VCL), a division of Tata Elxsi, did the pre-visualizing for all the action scenes that appear in Yash Raj Films' production. It is this shift of focus towards high growth entertainment and engineering design, which will set it on a fast track to soon become a large-cap company.

Both, entertainment and engineering design have huge export potential as India has a large pool of skilled manpower available at low cost. The global firms have already started outsourcing their work to India and the benefits are clearly visible in the bottom-line of companies working in this field. This is going to be a profitable sector for India for a number of years as it has a negligible (less than 0.5%) share of a massive \$80 billion global market. Tata Elxsi is definitely moving on a moneymaking path.

### Projections

(Rs.Crores)

Particulars	2005	2006	2007(Unaudited)	2008 (E)
Sales	185.8	235.6	308.0	399
PAT	26.27	34.33	52.12	68.4
EPS (Rs.)	8.51	11.02	16.74	21.97

### Our Views

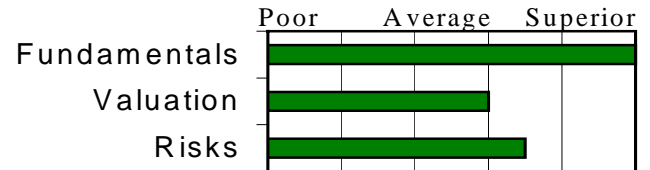
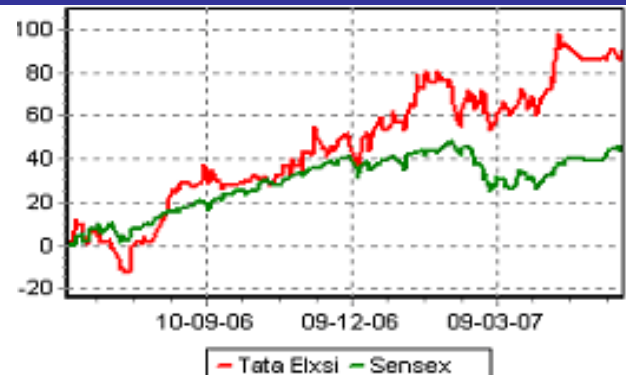
- The company is on a transition phase from focusing on hardware to software. Almost 80% of the service revenues come from Software Design Services and 20% from System Integration. The shift in the revenue mix is in favour of the high-margin SDS business has significantly improved the company's operating margins in the past years.
- Tata Elxsi Ltd (TEL) has built the required scale of operations and established strong client relationships with leading global companies to effectively tap the enormous opportunities emerging in the niche segment of product design and engineering space.
- The company has also made significant progress in the animation special effects business. TEL has identified Visual Computing Labs (graphics and animation content division) as its future growth driver. TEL was involved in design animation work for the movies like 'Dhoom', 'Hum Tum', 'Kal Ho Na Ho' and 'Swades'. TEL is looking at co-producing a full-length feature film and in the long term, the company wants to produce a feature film on its own and distribute it.
- TEL is investing in expanding its delivery capabilities both in terms of capital expenditure (capex) on the physical infrastructure and aggressive employee addition.
- The company wants to leverage its intellectual property rights through licensing the usage of its various components. By licensing the components, TEL will derive recurring income in the form of royalties. For example, the company has IPR in compression algorithms. All digital camera manufacturers need compression algorithms
- The company has signed several turnkey projects over the last few months and expects a jump in royalty revenues for its intellectual property to the tune of 20 % of its earnings in the next few quarters from the current 3 to 4 %.
- With TCS showing interest in product design, R&D, process engineering, plant automation and enterprise asset management of engineering companies services, we might see TEL absorption by TCS.
- We expect the company to record growths in revenue of 29% in FY08, and in profit of 30%. Given its potential to scale up, we recommend an **OUTPERFORMER** rating, with a target of Rs.440 (20x FY08 estimates).

**Overview**

**Tata Elxsi Ltd (TEL)** was promoted as a joint venture between Tata Industries, Tata Elxsi (Plc.) and TEPL, Singapore in the year 1989. TEL offers Systems Integration solutions in the Indian market, and design & development services in the international market. In systems integration, it offers consultancy and integration in areas such as CAD/CAM, film & video, scientific computing and enterprise computing. The software business comprises design & development, systems development, networking, visual computing and storage systems. TEL has presence in the USA, UK, Germany, Canada and Japan. TEL has strategic alliance with SGI, Compaq, Alias, Wavefront, SDRC, Discreet Logic, Nortel Network, Lucent and Cambridge Animation. Promoters have a shareholding of 38.15%, public 35.49%, institutions 22.22% and other investors 3.96%.

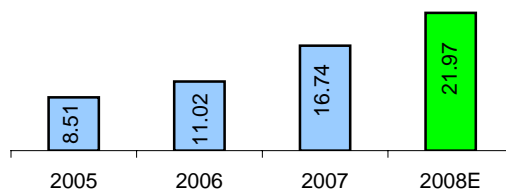
**Key Indicators**

CAGR %	18.9	NPM %	17.8
P/E	19.8	Key Inputs	Technology
Industry PE	33.2	Critical Factors	ESO, Media

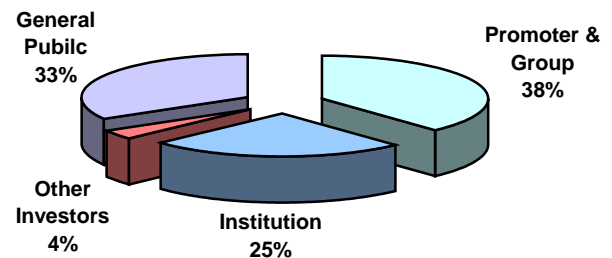
**Scorecard****Price Chart****Peer Group Comparison**

Company (2005-06)	Market Capitalization* (Cr)	Sales (Cr)	PAT (Cr)	CAGR-%	OPM-%	NPM-%	RONW-%	Price/BV*	PE*
KPIT Cummins	1050.6	262.14	27.02	53.5	12.1	10.3	22.2	5.51	23
Rolta India	3518.9	456.73	139.4	6.53	37.3	30.5	8.73	3.43	21.4
Onward Technology	54.55	30.76	3.35	-15.7	16.4	10.9	26.7	-	68.7

\*Latest

**Valuations****Annual EPS Trend****P/E Multiples**

	2007	2006	2005
Company	19.76	19.22	24.08
Industry	33.22	19.01	16.88
Market	15	13	12.5

**Shareholding Pattern****% of Holding**

## Company Background

### Origin

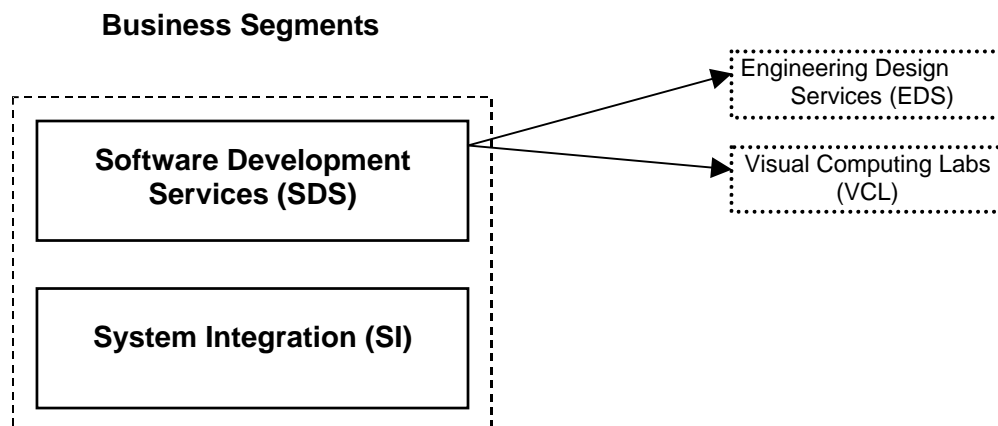
Tata Elxsi was created as a joint venture between the Tata group and Elxsi, which produced mainframe computers. In the early 1990s, however, Elxsi went out of business because of the general shift away from the use of mainframes in the global computer industry and the advent of the personal computer. The Tata group kept the name Tata Elxsi but it now belongs to the Tata group of companies.

### Management

- **Syamal Gupta, Chairman**, a professionally qualified Mechanical Engineer, is a Fellow of the Imperial College of Science, Technology & Medicine, U.K. and a Foreign Member of the Royal Academy of Engineering, U.K. He has also completed Advanced Management Program at Harvard Business School. Mr. Gupta has been with the Tata Group for the last 46 years. He is currently the Chairman of Tata International Limited, Tata Elxsi Limited, Tata BP Solar India Limited, TCE Consulting Engineers and few other TATA Companies. He is also on the Board of Tata Sons Limited and several other companies and has a long and valuable corporate experience in India and abroad.
- **S. Ramadorai, Vice Chairman**, has a Bachelors degree in Physics from Delhi University, India, a Bachelor of Engineering degree in Electronics and Telecommunications from the IISc, Bangalore, India, and a Masters degree in Computer Science from the University of California, USA. He has also attended the Sloan School of Management's highly rated Senior Executive Development Program. He is currently the CEO, Tata Consultancy Services.
- **Madhukar Dev, Managing Director**, has over 20 years of experience in Sales & Marketing. He joined Tata Elxsi in 1991 and since then has held various positions in Sales & Marketing. In 2002 he was designated as Chief Executive Officer. Prior to joining Tata Elxsi Madhukar has worked in industries spanning Information Technology, Power Electronics and Publishing where his work experience included roles in Field Sales, Product Management and Market Development. Madhukar is a qualified MBA from IIM Bangalore and has also completed his M.Sc in Physics.

### Businesses/Products

Its business can be broadly classified into two segments: **Software Development Services (SDS)** and **System Integration (SI)**. The SDS business contributed around 80% of the total turnover in FY2006 and can be further categorized into four divisions: Product Design Services (PDS); Innovative Design and Engineering (IDE); System Integration (SI) and Visual Computing Labs (VCL).



## Company Background

1. **Software Development and Services** is broken up into three distinct business groups: -
  - Engineering Design Services - This business unit offers product design and development services for embedded products in industries such as Automotive, Consumer Electronics, Media, Networking, Semiconductor, storage and Telecom. The range of services offered includes:
    - Hardware design including VLSI, FPGA & Boards
    - Development and integration of embedded software including firmware and middleware
    - Development and integration of Device drivers and tools
    - Full product and system-level integration

These services are enabled by technology and domain expertise in areas such as, Graphics, Imaging & Image Processing, Multimedia, DSP Software, Routing & Switching, VOIP, Network Management, Storage & File-systems, Real time Control systems
  - Visual Computing Labs - The visual computing lab division of Tata Elxsi is focused on providing world-class, quality animation (2D & 3D), special effects, and gaming services to customers worldwide. This division has already done some great projects in the domestic market including movies like *Bose*, *Bunty aur Babli*, *Neal N Nikki*, *Salaam Namaste*, *Rang De Basanti*. There are some big projects in the pipeline including Karan Johar's *Kabhi Alvida Na Kehna*, *Dhoom 2* and two other big films. The company has also done some big projects in Hollywood such as *XXX2* and *Into the Blue*, and is also working on one top of the league Hollywood film scheduled to release end 2007, and another horror movie with an A-grade Hollywood actor. Once this division establishes itself in Hollywood, revenue can grow much faster with better profit margin.
2. **System Integration** - In systems integration, Tata Elxsi offers consultancy and integration services to Indian customers in areas such as CAD/CAM, film and video, scientific computing, storage and enterprise computing. This is more of an ancillary service offered along with other value-added services.

### Tie-ups

Over the years, Tata Elxsi has built strong alliances with various industry leaders. The company has a tie up with Silicon Graphics for distributing its machines and also provide customization services. Also, it has tie up with Hitachi to provide and develop engineering software solutions, for all its divisions. Some of the other alliance partners include Compaq, Alias Wavefront, Discreet Logic, Molecular Simulations, Lucent and Cambridge Animation Systems. The company has several strategic alliances with international companies such as Compaq and Molecular Simulations to distribute their products in India. In the CAD/CAM arena, Tata Elxsi has tie-ups with companies like Silicon Graphics and Matra Datavision. Tata Elxsi also has alliances with Discreet and Cambridge Animation Systems for film and entertainment markets.

### Clients

TEL has Clients across industry segments and regions.

#### Automobile

- General Motors
- MG Rover
- Toyota
- Jaguar cars
- Mack Trucks
- Tata Johnson Controls
- Lear Seating

#### Packaging

- Unilever Faberge
- Hindustan Lever
- Glaxo Smithkline
- Procter & Gamble
- Cadbury

#### Consumer Appliance

- Whirlpool Appliances
- Maytag Appliances
- Kenstar Appliances
- Akai
- Sansui
- Encore Software

#### Design Firms

- Frog Design, SFO
- Frog Design, Germany
- Seymour Powell, UK
- PSD Fitch, UK
- Holmes & Merchant, UK
- PSI Design, USA

## Industry Outlook

### A. Current Scenario

#### Engineering Design Services Industry

Automotive design is estimated to constitute 68 percent of the global engineering design market. With India on its way to establishing its credentials as the leading outsourcing destination in the world, the list of companies outsourcing engineering design work to India is on the rise. Even though, this number might not match the client size of the software services market, it nevertheless holds considerable potential.

The first generation of outsourcing was mostly CAD related work at the low end—a design would be done in the US and some detailing of the design or conversion into a different format would happen in India. But now, In addition to 2D and 3D detailing, activities such as computer aided engineering and analysis (such as static, dynamic and thermal) are being outsourced to India. There are engineers who are sitting in India and designing power trains. Newer activities being carried out in India are noise and vibration analysis, creation of physical prototypes, and their lab testing. The current trend in the global engineering services outsourcing is to consider China as the world's workshop and India as its laboratory. For now the deals are still small, sometimes as small as \$500,000. But there are plenty of them. The trend now is that firms are trying to grow those contracts. Ultimately, we could see contracts reach a size as big as \$20 million.

*Why India is becoming the outsourcing hub for EDS?*

- Highly skilled, Technology savvy & Low Cost Manpower
- Increasing competition in international end user segment resulting in thrust on cost cutting through outsourcing

#### Animation Industry

Currently 300 animation companies employ approximately 12,000 people in India. Industry estimates indicate that nearly 3,000 freelancers also work in the industry. The number of professionals employed by the Indian animation industry in 2006 is estimated at 16,500. This figure is forecast to increase at a CAGR of 14-15% and exceed 26,000 by 2010. The key constraint is the growing demand-supply gap in manpower availability that is expected to restrict the Indian animation industry's growth to \$869 million against its potential of exceeding \$1 billion.

#### System Integration

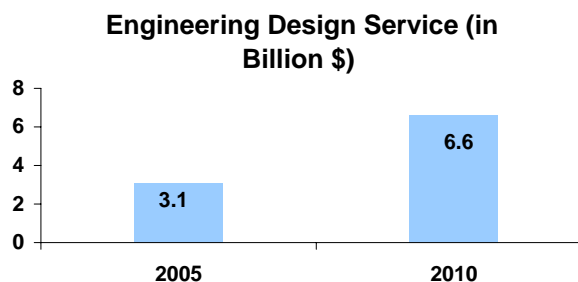
System integration is big business and getting bigger every year, today representing close to \$20 billion in engineering services and related hardware and software revenues worldwide.

It is a number that is growing at a rate of 10% a year, fueled by the continued downsizing of plant engineering staffs, ever-changing technology, increasingly sophisticated projects, and the growing confidence and comfort in the outsourcing of control system and information integration assignments.

### B. Growth Potential

#### Engineering Design Services

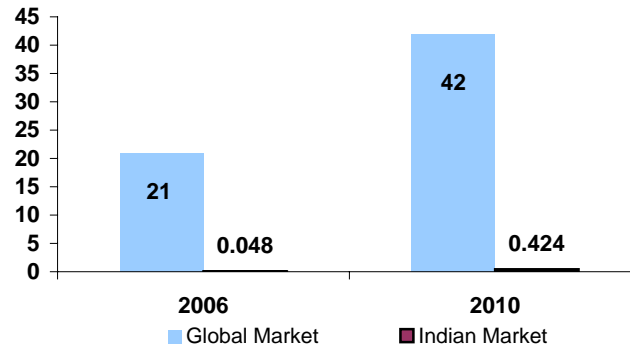
The size of the outsourcing potential in the engineering design service space is estimated to more than double to \$6.6 billion by 2010, up from around \$3.1 billion in 2005.



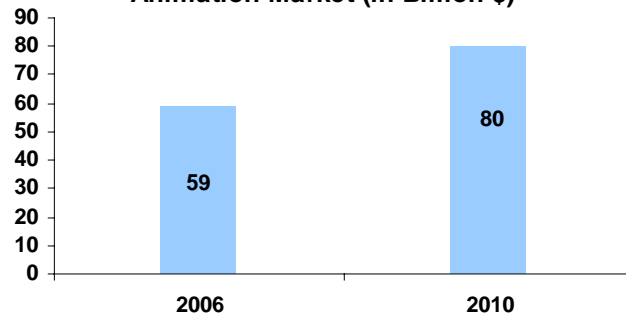
## Industry Outlook

### Animation and Gaming Industry

Gaming Market (in Billion \$)



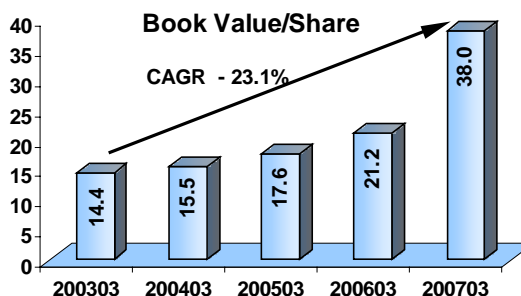
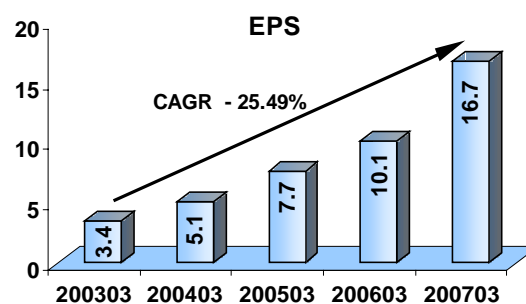
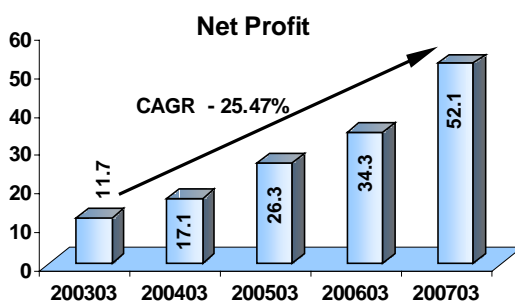
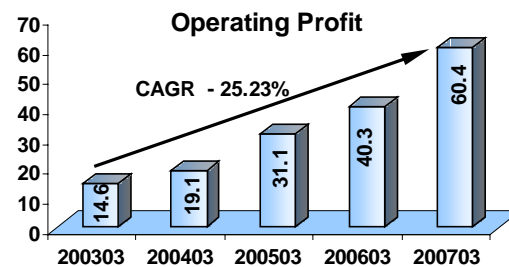
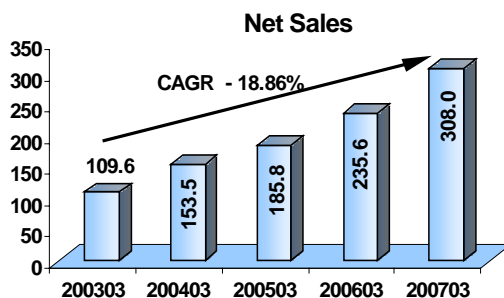
Animation Market (in Billion \$)



## Fundamental Analysis

### Past Growth

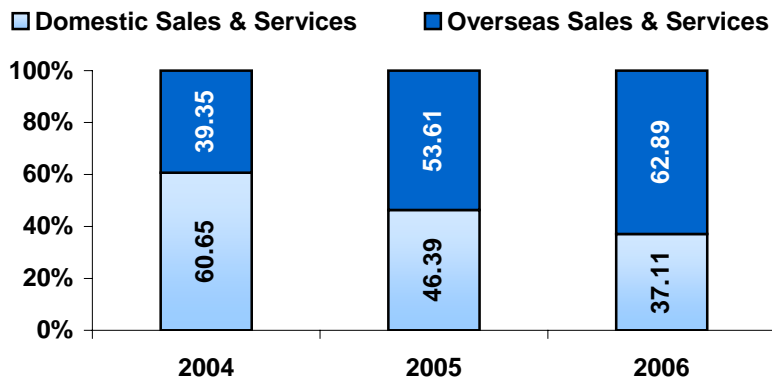
Not only TEL is showing vigorous growth in sales but revenue mix is also moving towards high margin business. For the year ended March 2007, the company reported 31% growth in the net sales to Rs.307.96 crore backed by 39% growth in software development to Rs.262.58 crore. However there was de-growth of 4% in System Integration to Rs.45.55 crore. Net sales has shown 18.86% CAGR during FY2003 - FY2007. High Sales growth also added to high CAGR in OP, NP, EPS, and BV/Share, each showing a CAGR of more than 23%.



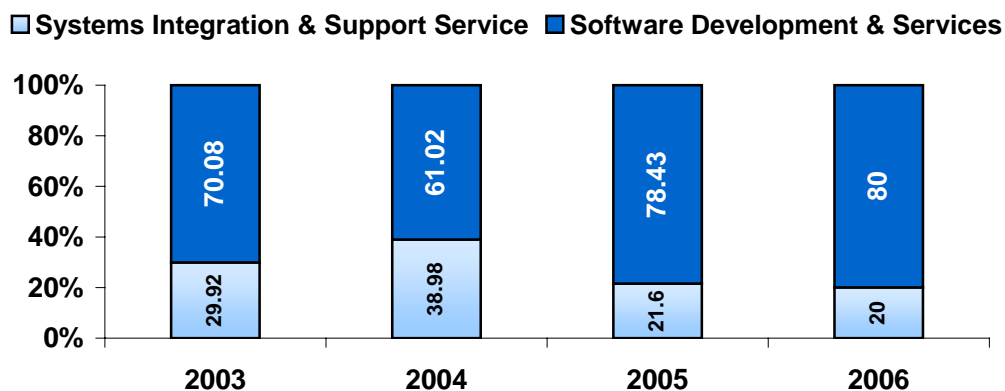
## Fundamental Analysis

### Sales & Expenditure Analysis

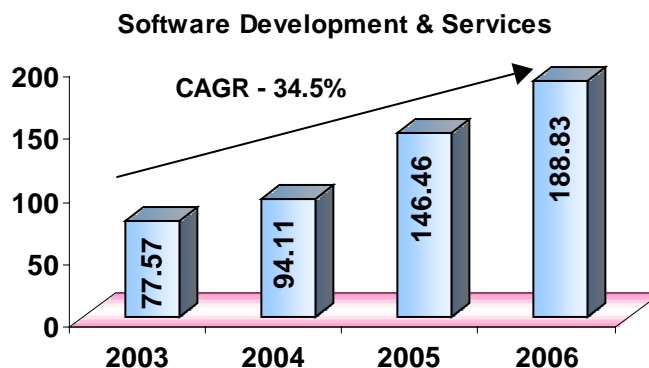
- Domestic V/S Overseas Sales.....*Escalating overseas Sales*



- Segment wise Sales.....*Transition towards more profitable business "SDS"*



- SDS Growth... .. *Higher CAGR in SDS revenue as compared to over all revenue growth*

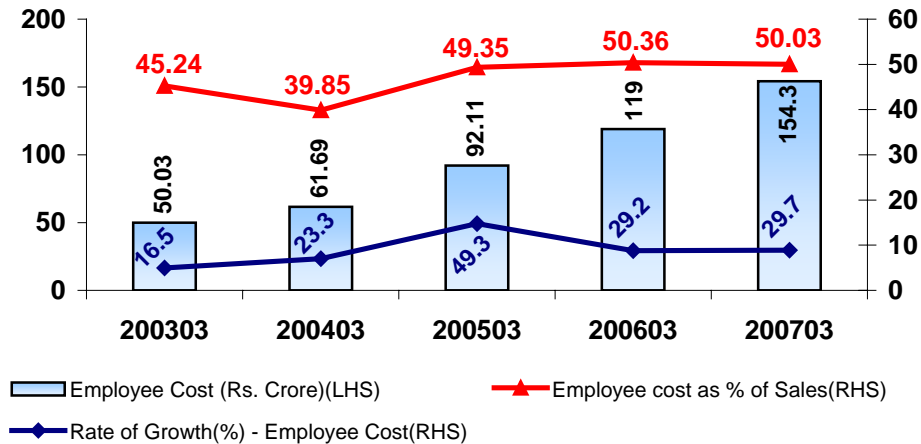


## Fundamental Analysis

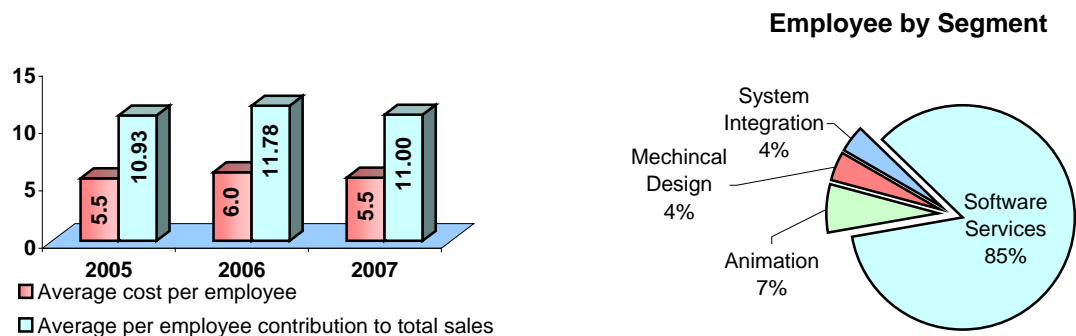
### Sales & Expenditure Analysis

- Employee Cost.....Increasing due to increased Man Power and Employee Welfare programme

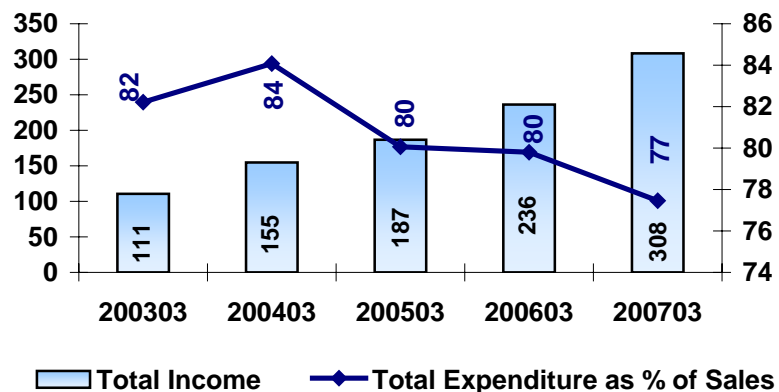
The employee cost has increased by 29.7% from Rs.119cr. in 2005-06 to Rs.154.3 cr. in 2006-07 corresponding to the increase in the revenues of the Software Development and Services Segment and is due to increase in the employee strength, overseas deployment of marketing and engineering personnel and salary revision costs. The company is also taking large-scale employee welfare measure, to attract and retain its human talent.



During the year the average cost per employee has declined from Rs.6lac in 2006 to Rs.5.5lac in 2007. However, due salary revision and increased training need of the employees the employee utilization saw some dip. The average per employee contribution to total sales dipped to Rs.11lac from Rs.11.78lac in 2006.



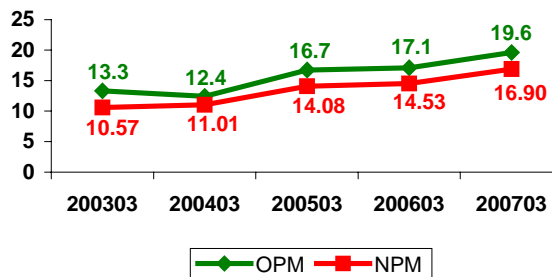
- Total Expenditure as % of Sales.....On decrease



## Fundamental Analysis

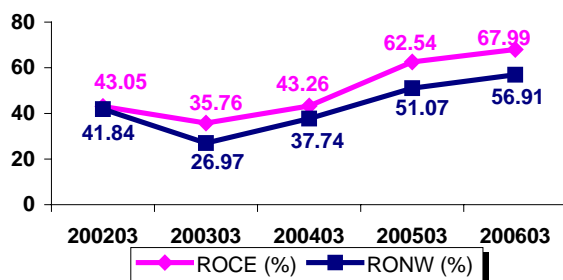
### Margins

Despite its aggressive expansion plans and growing employee cost pressures, TEL is expected to not only sustain its profitability but also improve its operating profit margin (OPM) in the years to come. In the past also, the OPM has shown a continuous rising up trend, in FY07 the OPM has been 19.6%, up by 250 basis points from 17.1% in FY06. Similarly, NPM is also making newer highs year by year, in FY07 NPM increased by 237 basis points from FY06. The margin expansion was largely driven by favourable shift in revenue mix towards more profitable business of SDS. We expect this Favourable trend to continue.

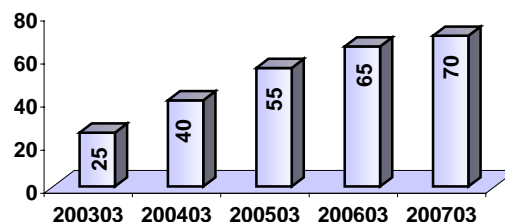


### Profitability

Increasing profit margins have helped TEL in improving its profitability. In FY06 the ROCE was 68%, up by 545 basis points from 62.54% in FY05. RONW has also moved up by 584 basis points during the same period.



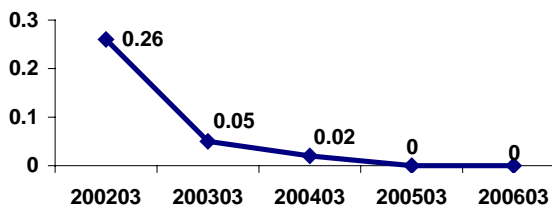
Dividend Payout-%



### Leverage

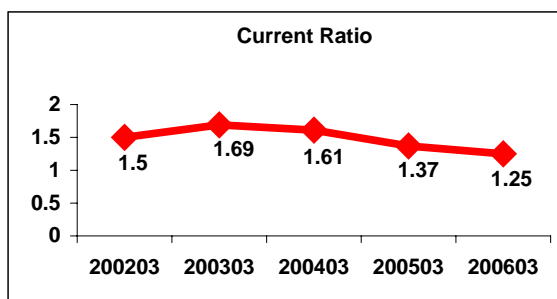
In 2005, TEL has repaid all its long term Debts. Hence, its D/E Ratio is zero from 2005 onwards.

Debt-Equity Ratio

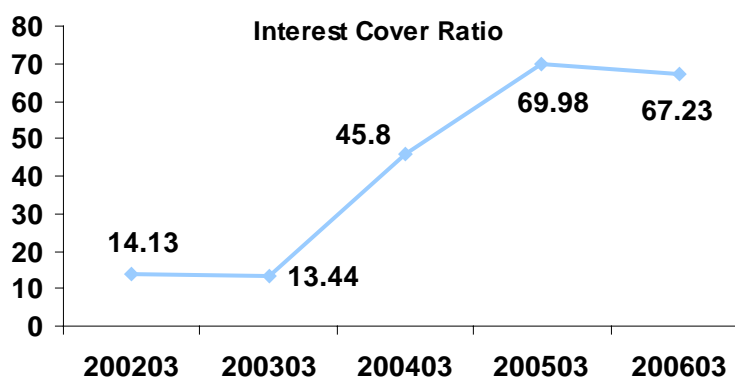


## Fundamental Analysis

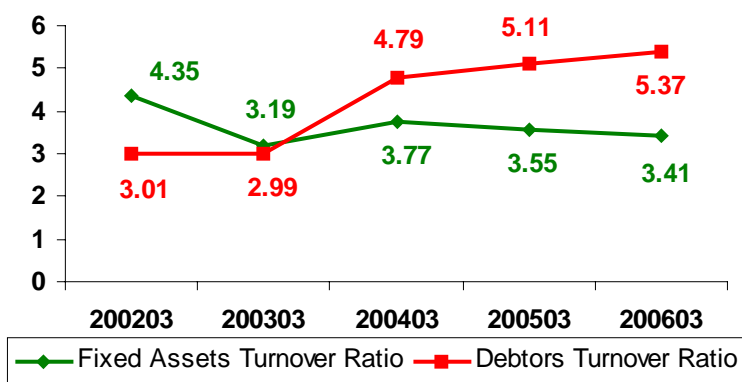
### Liquidity



### Debt Service Capability



### Operational Efficiency



## Fundamental Analysis

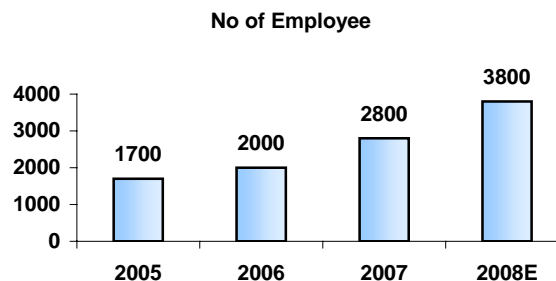
### B. Future Plans

#### ▪ Aggressive expansion plans

TEL has aggressive expansion plans in terms of the capital expenditure on physical infrastructure and employee addition. During the year TEL has spent Rs.260m in the expansion mainly at Bangalore and Chennai. It is in the course of a three-stage expansion at Thiruvananthapuram where it plans to employ 1,500 professionals with 500 people in each phase. The first phase would be completed by the end of second quarter of FY08 and the entire development center would be completed by the end of first half of FY09. The company plans to spend Rs. 250m in capex FY08, which include its Bangalore expansion. We expect TEL to generate sufficient cash flows from operation to meet its expansion plan through internal accruals.

#### ▪ Increase in head count

At present TEL employs 2,800 professionals and plans to add 1,000 more in this year. Looking at the high growth in the automotive and chip designing the company plans to give more emphasis on this segment for growth. Company also plans to enter into aerospace sector for higher growth opportunity.



With such huge employee base the company has built the requisite scale to leverage its inherent strengths and effectively tap the enormous opportunity emerging in the product engineering and design service space.

### C. SWOT

#### Strengths

- Tata Elxsi Ltd (TEL) has built the required scale of operations and established strong client relationships with leading global companies to effectively tap the huge opportunity emerging in the niche segment of product design and engineering space.

#### Weakness

- TEL is running in a business segment of derived demand.

#### Opportunities

- Enormous opportunity in Product Design Services, Animation & Design Services both overseas and in Indian market.

#### Threats

- Companies like HCL Technologies, Satyam, Tata Consultancy Services and Wipro are expanding their portfolio of offerings to include product design, R&D, process engineering, plant automation and enterprise asset management of engineering companies services.

### D. Cautions

- The business requires highly skilled human resource because of which company faces a problem of inadequate talent mainly in the areas of animation, computer graphics and special effects.
- Threats from the grey market are also present as they erode the topline growth of the company.
- The recent rally in INR may affect TEL's profitability.

## Valuation

TEL is making a planned step-wise progression. With increase in its headcounts to around 3800 professionals, the company is adopting a layered competency approach to conquer excellence in embedded product design. We believe, TEL will continue to show strong growth momentum in the Product designing space in the coming year. The ability to step up and affect IP sales and successfully switch from Bollywood to Hollywood films would aid in improving profitability and in catapulting the company into the bigger league.

We expect the company to record growths in revenue of 29% in FY08, and in profit of 30%. Given its potential to scale up, we recommend an **OUTPERFORMER** rating, with a target of Rs.440 (20x FY08 estimates).

### Projected Profit & Loss Account

Particulars	2003	2004	2005	2006	2007*	2008E
<b>Revenues</b>						
Gross Sales	109.6	153.48	185.77	235.63	307.96	399
Less Excise Duty	0	0	0	0	0	0
Net Sales	109.6	153.48	185.77	235.63	307.96	399
Other Income	1.68	1.53	1.08	0.68	0.43	-
<b>Total Income</b>	<b>111.28</b>	<b>155.01</b>	<b>186.85</b>	<b>236.31</b>	<b>308.39</b>	<b>399</b>
<b>Expenditures</b>						
<b>Total Expenditure</b>	<b>90.92</b>	<b>130.14</b>	<b>149.42</b>	<b>188.57</b>	<b>238.87</b>	<b>307.2</b>
<b>PBDIT</b>	<b>20.36</b>	<b>24.87</b>	<b>37.43</b>	<b>47.74</b>	<b>69.52</b>	<b>91.77</b>
Depreciation	3.41	4.04	5.02	6.73	8.7	11.15
<b>PBIT</b>	<b>16.95</b>	<b>20.83</b>	<b>32.41</b>	<b>41.01</b>	<b>60.82</b>	<b>80.62</b>
Interest	1.21	0.45	0.46	0.61	0.29	0.15
<b>PBT</b>	<b>15.74</b>	<b>20.38</b>	<b>31.95</b>	<b>40.4</b>	<b>60.53</b>	<b>80.47</b>
Provision for Income Tax	3.37	2.61	5.44	6.07	8.41	12.07
Extraordinary items	-0.01	0.5	0.02	0	0	0
<b>PAT</b>	<b>12.38</b>	<b>17.27</b>	<b>26.49</b>	<b>34.33</b>	<b>52.12</b>	<b>68.4</b>
No. of Equity Shares	3.114	3.114	3.114	3.114	3.114	3.114
<b>EPS</b>	<b>3.98</b>	<b>5.55</b>	<b>8.51</b>	<b>11.02</b>	<b>16.74</b>	<b>21.97</b>

\*Unaudited

## Valuation

### Projected Balance Sheet

	2003	2004	2005	2006	2007E	2008E
<b>Sources of Funds</b>						
Equity Shares Capital	31.14	31.14	31.14	31.14	31.14	31.14
Reserve & Surplus	13.61	17.11	23.56	34.80	65.12	110.16
<b>Shareholder's Funds</b>	<b>44.75</b>	<b>48.25</b>	<b>54.70</b>	<b>65.94</b>	<b>96.26</b>	<b>141.30</b>
Long Term Secured Loan	0.00	0.00	0.00	0.00	0.00	0.00
Unsecured Loan	2.29	0.00	0.00	0.00	0.00	0.00
<b>Total Liabilities</b>	<b>47.04</b>	<b>48.25</b>	<b>54.70</b>	<b>65.94</b>	<b>96.26</b>	<b>141.30</b>
<b>Application of Funds</b>						
<b>Fixed Assest</b>						
Gross Block	37.33	44.13	60.44	77.69	91.93	123.91
Less: Depreciation	15.84	19.87	24.85	31.57	40.27	51.42
Less: Impairment of Assets	0.00	0.00	0.82	0.82	0.82	0.82
Net Block	21.49	24.26	34.77	45.30	50.84	71.67
Capital work in Progress	0.19	0.27	1.09	3.14	29.14	54.14
<b>Total Fixed Assets</b>	<b>21.68</b>	<b>24.53</b>	<b>35.86</b>	<b>48.44</b>	<b>79.98</b>	<b>125.81</b>
<b>Current Assests</b>						
Cash & Bank Balance	4.10	17.40	14.11	14.55	8.63	13.95
Inventories	1.80	0.74	0.31	0.14	0.23	0.32
Sundry Debtors	32.60	31.53	41.14	46.64	61.59	83.79
Loans & Advances	17.52	22.77	28.18	35.77	44.71	55.89
<b>Less: Current Liabilities &amp; Provisions</b>						
Current Liabilities	10.08	20.22	26.11	37.46	50.16	70.66
Provisions	17.63	26.66	36.49	38.67	48.19	59.67
<b>Net Current Assets</b>	<b>28.31</b>	<b>25.56</b>	<b>21.14</b>	<b>20.97</b>	<b>16.82</b>	<b>23.62</b>
Deferred Tax Assets	0.29	0.27	0.41	1.06	4.51	0.32
Deferred Tax Liabilities	3.24	2.11	2.71	4.53	5.05	8.45
Net Deferred Tax	-2.95	-1.84	-2.30	-3.47	-0.54	-8.13
<b>Total Assets</b>	<b>47.04</b>	<b>48.25</b>	<b>54.70</b>	<b>65.94</b>	<b>96.26</b>	<b>141.30</b>

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