

# The Daily Telegraph

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## CADCAM COST JUSTIFICATION

CADCAM remains a relatively expensive technology and so a sound cost justification is essential. Many companies impose a limit of three years or less on pay-back periods for CADCAM due to the rate of technological change and the risks involved.

### Costs

Costs are generally easier to assess than benefits but it is important to ensure all the relevant costs are properly considered, for example:

#### A System Costs

Analyse the vendor's quotation carefully and check the hardware is not under configured and that all the software options you need are actually included. Also the total bill for installation, furniture, cabling, modems, etc, can be surprisingly large.

#### B Training Costs

In addition to the cost of the actual courses there is the cost of productive time lost as staff are being trained.

#### C Maintenance Costs

Typical hardware and software maintenance charges are 10% or 12% per annum of the capital cost of the system. Software maintenance and licensing is a difficult legal and commercial area, so check carefully.

#### D Staffing Costs

System management is an important aspect and salary premiums for operators and system managers may be required.

### Benefits

Direct time savings are the most obvious benefit of CADCAM and these can improve profitability in two ways:

- Reduced head count
- Achieve more with the same staffing levels

Many strategic benefits can be gained from CAD/CAM, for example:

- A Reduced lead times
  - Engineering is usually on the critical path
  - Reduced lead times improve cash flow
  - Quicker throughput leads to fewer projects in progress at any one time, and results in easier management control
- B Improved market image
  - Especially important in high tech markets
  - Better and more detailed quotes can lead to improved customer enquiry to order conversion ratios
- C Better design
  - CAD/CAM allows more alternative design solutions and manufacturing methods to be studied in the time available
  - Better analysis can lead to improved product performance
- D Design rationalisation
  - Parametric design is a powerful CAD/CAM technique for companies producing families of similar-to products
  - Design classification coding and retrieval systems can help reduce design variety
  - Easier access to designs encourages engineers to build on previous work rather than re-invent the wheel each time
- E Better customer communications
  - Faster response to customer enquiries can be achieved
  - Links with customers' CAD/CAM systems can result in significant competitive advantage by locking competitors out

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