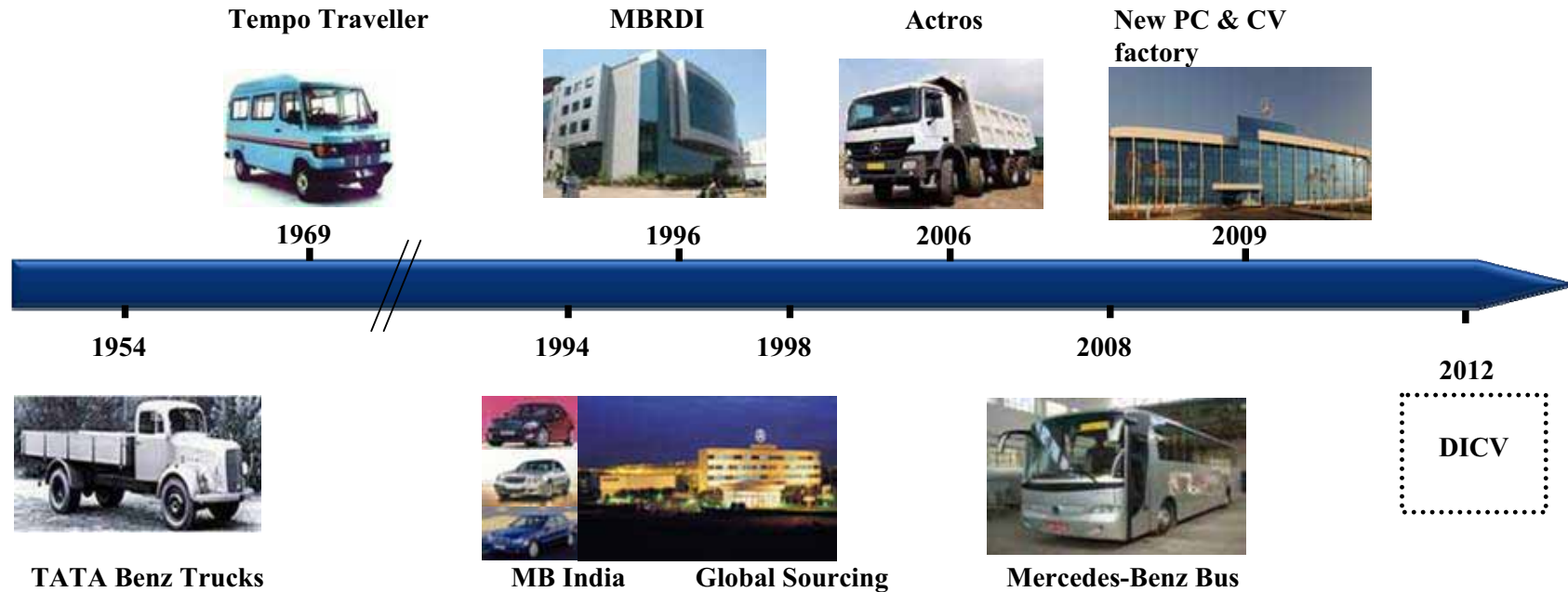


 Mercedes-Benz



**Mercedes-Benz in India**

## Mercedes-Benz Actions for India Today



TATA Benz Trucks



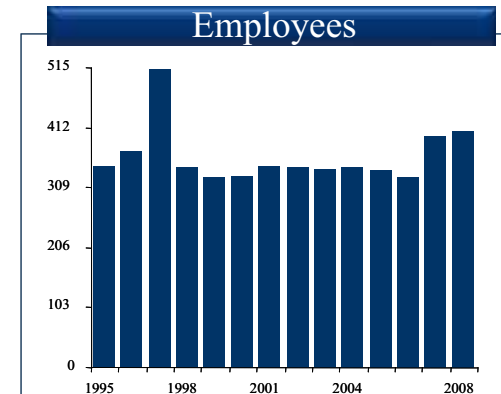
MB India



Global Sourcing



Mercedes-Benz Bus



## Mercedes-Benz India executed in 13 months own ‘State of art facility’ at Chakan Industrial area, Pune and started operations from 2009

### 2009 onwards

- 100% own Mercedes-Benz India facility at Chakan industrial area
- Project started in 2006
- Execution started in 2007
- Located in automobile hub western region of India along with General Motors, VW and Mahindra new factories
- Present models – W204, W211, V221, Actros, Bus chassis

### MB India New Facility



### Project milestones

- Land leveling was finalized by May 2007
- Foundation laying ceremony held on May 09, 2007
- Contractor took over the site from August 2007
- Production halls finalized for installations by August 2008
- Phase wise relocation went through as per time line
- SOP January 2009 as per time line planning

### Key factors for Automobile factory location

#### Indian Automobile Industries

Availability of skilled labor

Availability of Infrastructure

Government support

Availability Cheap Land

Proximity to target market

Availability of Supplier Base

Proximity to port and inland container terminal

Distance from International Airport

## New MB India facility achieved multidimensional goal in time for implementation of future strategy by overcoming challenges during the project

### Pre-execution preparation

- Five work shops conducted to finalize design, drawings and BOQ of plant before selection of contractor
- Arranged visit of probable contractors to recently built Daimler plant -China
- Contract awarded as item rate contract rather than lump sum contract
- Advance planning in time schedule with some buffer period

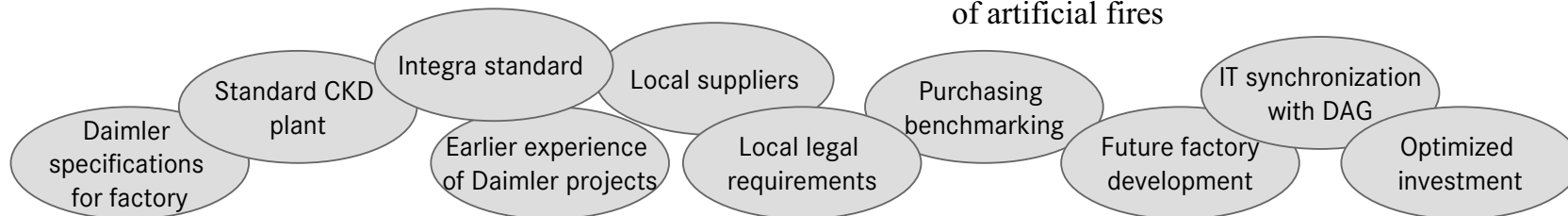


Item No.	Description	Unit	Rate	Amount
1	...	...	...	...
2	...	...	...	...
3	...	...	...	...
4	...	...	...	...
5	...	...	...	...
6	...	...	...	...
7	...	...	...	...
8	...	...	...	...
9	...	...	...	...
10	...	...	...	...



### Cost optimization

- Value Engineering work shops evaluated more than 100 proposals
- Implemented proposals (e.g.)
  - Jet nozzles for air circulation at shop floor
  - Concrete paving blocks
  - Two layer steel reinforcement for slabs instead of artificial fires



Mercedes-Benz India



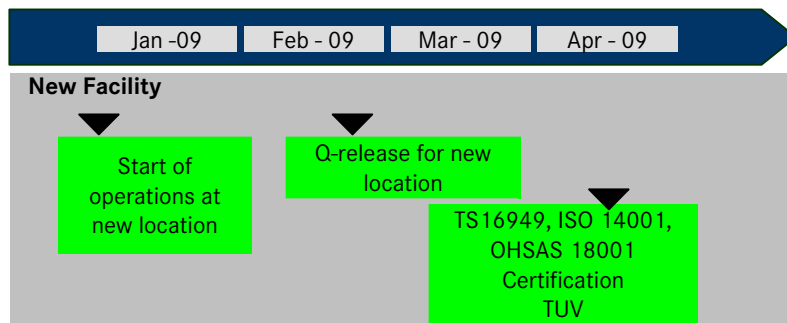
## Relocation opportunity utilized to standardize the facility, layout, buildings and processes

### Base requirements

- Establish the manufacturing facility for current business
- Replication of administrative area of current facility
- Keeping the current cost structures at new location

### Challenges for the project

- To keep the cost within approved budget
- Timely completion of the project to avoid
  - Loss of production and subsequent market supply
- Compensate for the over seen issues during planning phase
- External factors during the project
- Absorb the cost effect because of market situation
- First MB India infrastructure project



### Opportunities

- Implementation of standard general development plan as per Daimler standard
- Standardized production halls and other buildings as per CBU plants
- Implementation of Standard CKD assembly process
- Consideration of future possible models base creation in planning phase to avoid repeat investment or necessary major changes in future

### Resources

Support from Germany  
 MB India team  
 Approved budget  
 Available know how  
 Market situation

### Project execution

### Target

State of art facility  
 In time line  
 Cost optimization

### Business partners

- Local business partners offered competitive cost structures for the project
- Cost structure offer was benchmarked locally and with earlier projects along with expatriates

## MB India location has first state of the art low volume production facility for passenger cars

### State of the art manufacturing facility

Ziess Pro-T compact machine – CMM machine



Latest measurement machine for body in whites

X-road – Dynamic testing and programming of cars



Frequency controlled measurements for accuracy

Shower testing cabin – for simulation real rain test



High pressure jets with dynamic movement of cars

EMS – Transfer and production lines



With latest generation controllers

- First manufacturing standard assembly plant with flexible manufacturing
- Faster market delivery with possibility of manufacturing different models from single line
- Infrastructure for uninterrupted manufacturing
- Ergonomic design of manufacturing lines
- At local plant here we are already towards use of ICT to the extent it is required as of date with the volumes and the complexities, ERP systems

- **Synchronized conveyor systems**
- **Latest generation PLC control units for all equipments**
- **Medium frequency adaptive controller IT welding guns**

- **Adaptability with different models on common production lines without loss of production**
- **Standard process from packing till finished car**

## Challenges in vehicle manufacturing – HR issues

### Availability of Trained Manpower

Availability of trained manpower is of critical importance.

- % of employable graduates is low
- Gap exists between technological knowledge & available skills in academics.
- Specific courses related to the automobile sector needs to be developed.
- Focus should be made on following topics :
  - Orient R&D to meet customer demands.
  - Electronics and infotainment in vehicles.
  - Use knowledge of R&D personnel employed by National laboratories and Universities/IITs by employing them in the industry.
  - Encourage OEMs to adopt existing training institutes or to set up new institutes for training.
  - Training in Styling & Design.

### Complicated Labour Laws

Complicated labour laws adversely affect the productivity and the competitiveness.

- Total of 154 labour laws covering 45 Central Acts and 16 associated rules.
- Laws are old & obsolete.
- Enough flexibility is required to hire and retrench the manpower in line with the market demand.
- Flexibility is required in working hours, overtime etc.
- Fixed term contractual employment should be permitted in relation to business needs and market demand.
- Flexibility in lay offs and retrenchment required to meet the market demand.

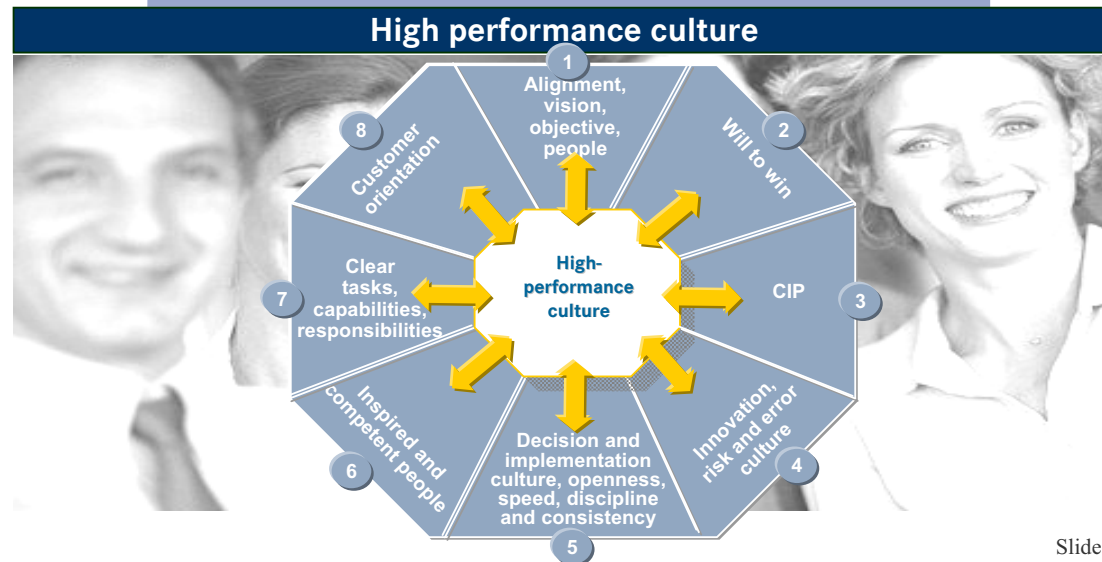
We invest in teamwork through a simple & transparent organisation and an open feedback system

**Efforts**



Only the synergy of Human beings and Technology leads to success

- We follow the Family concept in Organization
- We practice self-certification
- We receive transparent feedback through Q-graph



Thank You !!!

