

## DEPARTMENT OF SCIENTIFIC & INDUSTRIAL RESEARCH

### Proforma of application for National Awards for R&D Efforts in Industry-2008 General Information & Important Instructions for all applicants, irrespective of groups/sectors.

- \* All units of Indian industry, which are registered in India as corporate companies, private limited companies, partnership/proprietorship concerns, who are engaged in R&D activities, irrespective of their recognition with DSIR, are eligible for consideration for awards under Groups-I to IV.
- \* A company may compete for award in more than one group in Groups I to IV. However, separate application must be submitted for each award.
- \* Public Funded Research Institutions, **IITs or IISc. or NITs or universities** registered with DSIR and Scientific & Industrial Research Organizations recognised by DSIR may apply for awards under Group-V jointly with industry. If they are declared winners, the award will be given to both the technology partners i.e. institute and industry.
- \* Public Funded Research Institutions, **IITs or IISc. or NITs or universities** registered with DSIR and Scientific & Industrial Research Organizations recognised by DSIR only are eligible for awards under Group-VI.
- \* Applicants are advised to go through the enclosed brochure and select the appropriate application proforma under which they desire to apply. For Groups-I to IV use Proforma-1; for Group-V use Proforma-2 and for Group-VI use Proforma-3. Use of wrong proforma can make the application invalid.
- \* Application should be submitted in **15 sets on A-4 size paper and softcopy in MS-WORD/ PDF format in CD**. Each application should be accompanied by a one page summary of each of the achievements claimed in the application (not more than 5 achievements).
- \* Applications may include additional information neatly typed on A-4 size paper to highlight special merits in respect of the achievements under consideration not covered otherwise in the proforma.
- \* Information provided in the application will be a major factor in deciding on the merits of the claims; applicants are therefore required to give full details in quantitative terms. Application furnishing inadequate/incomplete information may not be considered for award and may be summarily rejected by DSIR. In case it is found that the application contains any wrong information or any important information, having a bearing on the process of selection of award is suppressed, the Department may reconsider its decision on the award and the award may be withdrawn.
- \* The decision of DSIR in respect of selection of awardees will be final.
- \* Please fill in the current proforma as given below. Please don't use old proforma of DSIR.
- \* Please read carefully the information and guidelines appended to this proforma before filling up the application proforma.
- \* Each column of the application proforma must be filled up. Applications not in conformity with the proforma will not be considered. If the information is not available or it is not applicable to your technology developed, it must be specifically stated so. "Dashes", terms like "Not Applicable" etc. will not be considered as full answers.

\* The language of the certificate in Part-C of the proforma is not to be altered. Certificate deviating from the text unless otherwise stated in the relevant section of the proforma, may result in rejection of the application.

\* Application are to be submitted in **15 sets** on A-4 size paper, including relevant colour photographs wherever necessary, along with one page summary and **softcopy on CD by 25<sup>th</sup> July 2008**.

\* Separate applications shall be submitted for awards in more than one group. A mixed-up, inappropriately filled or unsigned application will not be considered.

\* For the award for successful commercialisation of technology(ies) in **Group-V**, the technology should have been upscaled/developed or commercialised by the industry in collaboration with either -

- (i) Any Public Funded Research Institution (PFRI) registered with DSIR **or**
- (ii) Any **Indian Institute of Technology or Indian Institute of Science or National Institute of Technology or a university** registered with DSIR **or**
- (iii) Any Scientific & Industrial Research Organization (SIRO) recognised by DSIR

- PFRI is as defined by the Ministry of Finance in some customs notifications\*\*. Partnerships with laboratories of CSIR, ICAR, ICMR, DRDO can qualify for the awards.

*\*\* As per the Govt. notification no. 51/96-customs dt.23.7.1996 - 'Public Funded Research institution' is defined as a research institution in the case of which not less than fifty per cent of the recurring expenditure is met by the Central Government or the Government of any State or the Administration of any Union Territory.*

- The application should be supported by documents such as MOU/Agreement for collaborative work for development of technology or for transfer of Technology between the industry and the institute.
- In the case of a SIRO the technology should have been developed/upscaled with funding from any department/ministry of central or state Government.

\* For the Best Invention Award in **Group-VI**, the technology can be in any sphere/sector/area. The award is open to Public Funded Research Institutions (PFRI) or **Indian Institute of Technology or Indian Institute of Science or National Institute of Technology or a university** registered with DSIR or Scientific & Industrial Research Organizations (SIRO) recognised by DSIR only. Even though commercialisation of the technology will be the main criteria for the award, it may be considered for award, if it has a potential for commercialisation in the near future. For the purpose of benchmarking the applications, the claim should preferably be supported by an international patent. Mere paper models or ideas, even if patented, are not eligible for the award. The invention should have relevance to industry and should be usable by the industry.

*An invention is basically a new form, composition of matter, device or process. It may be based on pre-existing forms, composition, processes or ideas. Some times, there may be radical breakthroughs, which may extend the boundaries of human knowledge or experience. An invention that is novel and not obvious to those who are skilled in the same field may be able to obtain the legal protection of a patent.*

## Proforma-1

### **Application Proforma for the award for outstanding R&D achievements in specified industrial sector/area (Group Nos. I to IV in the brochure)**

#### **Specific Information and Guidelines for filling the Application**

- \* An application for award for Outstanding R&D Achievements in specified industrial sector/area (Group Nos. I to IV in the brochure) can cover details in Part-B of not more than five projects/programmes/products of the applicant company. The date of technology/product development shall not be older than 5 years from the date of application i.e. it should have been developed not before June 2003 and commercialized after 2003. The technology/product should be in commercial production/use currently and should have users' acceptance.
- \* Corresponding sector/area of award should be indicated in response to Item 1 (Part-B) of proforma.
- \* In response to Item 2 (Part-B) give titles, month of start, month of completion and cost incurred in respect of five best R&D projects/programmes (not more than 5 in number) in tabular form. All subsequent answers in the application should be related to these projects/programmes only.
- \* In response to Item 4 (Part-B), give full details of the achievements of the projects/programmes listed against Item 2, in quantitative terms and comprehensive manner.
- \* In response to Item 7 (Part-B), give month and year of start and completion of design of pilot plant/prototype, upscaling/prototype development, basic engineering package for commercial plant, development of production tooling/specialised capital goods needed if any, trials at the company-site/outside-field-trials, test marketing, modification, certification, if any obtained, setting up of commercial manufacturing facility, start of commercial production, to the extent available.
- \* In response to Items 8.1 to 8.7 (Part-B), give details of expected benefits against each in quantitative and financial terms, to the extent possible.
- \* Against resource utilisation in Item 8.1 (Part-B), (i) state if the achievements lead to beneficiation/upgradation or conservation of country's scarce resources or utilisation of waste products and give details thereof (ii) details of raw materials conservation, if any.
- \* Against import substitution in Item 8.2 (Part-B) give details, if the achievements lead to import substitutions.
- \* Against export potential in Item 8.3 (Part-B), give details, if the achievements have any export potential in identified countries/regions. Also, give estimates of possible foreign exchange earnings as a result of export of the technology or products manufactured.
- \* Against energy conservation in Item 8.4 (Part-B), state clearly savings in power, coal, oil, steam etc. specifically in relation to the projects/programmes mentioned against Item 2 (Part-B).
- \* Against Environmental protection in Item 8.5 (Part-B), state clearly the impact of the developments on the environment and ecological balance to the extent relevant.
- \* Against cost reduction in Item 8.6 (Part-B) give estimates of the same in terms of the specific unit cost, if any, associated with the product(s)/process(es).

- \* Against other economic benefits in Item 8.7(Part-B) give details of quality improvements, product performance, productivity and other intangible benefits associated with projects/programmes mentioned against Item 2 (Part-B).
- \* Against Item 9.2 (Part-B), state if product(s)/process(es) mentioned in response to Item 2 (Part-B) have been developed at laboratory/bench/pilot/commercial scale. Also, give the scale and approximate number of runs conducted at each stage.
- \* Against societal impact in Item 12 (Part-B), following details should be given in relation to the projects/programmes mentioned in response to Item 2 (Part-B).
  - (i) employment potential
  - (ii) direct influence on work habits, leisure, comfort, efficiency of the users, if any.
  - (iii) nature of environmental problems and how they are handled.
  - (iv) safety requirements to be considered while commercialisation.
- \* Against scientific and technical advancement in Item 13 (Part-B), following details should be given in response to Item 2 (Part-B).
  - (i) Give details, if scientific contributions made belong to frontier areas of science which are likely to have significant influence on further research in that area.
  - (ii) Also, state, if the research findings are likely to influence other areas of economic activity.
  - (iii) Papers published related to the project(s)/programme(s).
  - (iv) Spin-off technologies generated/likely to be generated.

**PART-A**  
**(General information)**

1. Name & address of the applicant firm and location of the in-house R&D centre, along with fax numbers and e-mail, name and telephone number of the contact person.
2. Nature of business (products manufactured).
3. Company structure:  
(Indicate sector and also foreign equity, if any)
4. Category of the firm:  
(SSI, LSI, others)
5. Technical and financial collaborations, if any (give details of year of collaboration, name of collaborator, item of manufacture, technology payments, assistance provided by collaborator etc. Enclose a copy relevant collaboration agreement)
6. Annual R&D expenditure as percentage of annual turnover for the past three years:

Year	Annual R&D expenditure (in Rs. lakhs)	Annual turnover (in Rs. lakhs)	R&D expenditure as percentage of turnover

7. R&D manpower (scientific & technical only):
  - a) Full time
  - b) Part time and
  - c) Total

## **PART-B**

1. Industrial sector/Area of award.
2. Title(s), of the R&D project month of start, month of completion, month of start of commercial production and cost incurred on most successful R&D projects/programmes (not more than five in the order of importance for which you are making a claim for the award).
3. Name, qualifications and designation of the R&D personnel associated with achievements claimed, separately for each achievement.
4. Nature and full details of achievements (product/process/new services) claimed in quantitative terms, separately for each achievement.
5. Explain the novelty of the development with respect to competing technologies available/in use (in India/internationally), separately for each achievement along with following details:
  - a) Give names of competing products/processes and names of the suppliers/developers of products/processes and users separately for each achievement.
  - b) Give a comparison of your technology/product/process, separately for each achievement with competing technologies in India/globally in respect of material usage, energy usage/saving, cost, environmental protection, pollution/emission levels, serviceability/ease of maintenance, any other aspect (pl. specify).
6. Details of patents/designs/copyrights obtained/applied for including name of patentor, assignee (if any), name of inventor, date of IPR application, separately for each achievement.
7. Chronology of development and upscaling, separately for each achievement.
8. Economic potential of the project (s) separately for each project/achievement/programme(s), realised so far, expected to be realised in future with respect to:
  - 8.1 Resources utilisation
  - 8.2 Import substitution
  - 8.3 Export potential
  - 8.4 Energy conservation
  - 8.5 Environmental protection
  - 8.6 Cost reduction
  - 8.7 Other economic benefits

9. Status of commercialisation (separately for each project/ achievement).
  - 9.1 Status of development (state whether successfully developed and commercialised or in prototype stage only etc).
  - 9.2 Investment in plant/machinery
  - 9.3 Production so far, year-wise quantities and value (specify units)
  - 9.4 Quantities sold so far in India, year-wise quantities & value of sales starting from the latest completed accounting year.
  - 9.5 Exports (year-wise & country-wise break up in terms of quantities and value of sales starting from the latest completed accounting year.)
10. Give a write up on difficulties encountered during development, if any, and remedial measures taken, separately for each achievement.
11. Please give details separately for each achievement of consultancy support, outside R&D assistance obtained, if any, etc., giving quantitative figures wherever possible, such as the nature of assistance, fees paid. Enclose copy of agreement/MOU entered into in this regard.
12. Societal impact, separately for each achievement.
13. Scientific and technological advancement resulting out of project/programme, spin-off benefits, if any, separately for each project.
14. In case the product/process developed by you uses any imported raw materials, components, assembly or capital goods, please give following details for each of achievement given in award application:
  - a) Names of each major raw material, component, sub-assembly and capital goods.
  - b) Share in the ex-factory price (exclusive of excise duty) of
    - cost of imported raw materials
    - cost of imported components
    - cost of imported sub assemblies
  - c) Cost of imported capital goods in the total cost of the plant set up for commercialisation of each of the R&D achievement.

### **PART – C**

I certify that all particulars furnished above are correct and complete and I agree to abide by the decision of the DSIR in all matters relating to the award(s).

I also certify that no technology was imported directly or indirectly for the product/process for which award for indigenous technology development has been applied for.

Place:  
Date:

Signature of the Chairman/Managing Director  
Name & Designation

## Proforma -2

### **Application Proforma for the award for successful commercialisation of technology(ies) developed/upscaled under public funding model (Group-V in the brochure).**

#### **Specific Information and Guidelines for filling the Application**

- \* Applicant for the award for Successful Commercialisation of Technologies under Public funding model (Group-V in the brochure) should be jointly submitted by both the technology partners i.e. industry and institute. The Part-B of the application should be filled jointly by both the industry & institute.
- \* The source of technology should be indigenous. Every application should give details of not more than 5 technologies in Part-B, the date of acquisition of which shall not be older than 5 years from the date of application and the product/process should have already been in commercial production.
- \* The application should be supported by documents such as MOU/Agreement for collaborative work for upscaling/development of technology or for transfer of Technology between the industry and the institute.
- \* The role of the institute in this case should not be limited to mere transfer of technology only but should include substantial assistance/joint work in the form of technical consultancy or any other service while developing/upscaling the technology.
- \* In response to Item 9 (Part-B), state if the personnel of the applicant firm, particularly those from in-house R&D unit were involved in prototype development of the product or pilot/demonstration scale runs before designing a commercial scale plant.

### **PART-A**

#### **General information about the industry**

1. Name & address of the applicant firm and location of the in-house R&D centre, along with fax numbers and e-mail, name and telephone number of the contact person.
2. Nature of business (products manufactured).
3. Company structure:  
(Indicate sector and also foreign equity, if any)
4. Category of the firm:  
(SSI, LSI, others)
5. Technical and financial collaborations, if any (give details of year of collaboration, name of collaborator, item of manufacture, technology payments, assistance provided by collaborator etc. Enclose a copy relevant collaboration agreement)
6. Annual R&D expenditure as percentage of annual turnover for the past three years:

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<b>Year</b>	<b>Annual R&amp;D expenditure (in Rs. lakhs)</b>	<b>Annual turnover (in Rs. lakhs)</b>	<b>R&amp;D expenditure as percentage of turnover</b>
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7. R&D manpower (scientific & technical only): a) Full time b) Part time and c) Total

**General information about the institute**

1. Name & address of the institute and location of the laboratory, along with fax and e-mail numbers and name and telephone number of the contact person.
2. Areas of research (products/technologies engaged in).
3. Nature of the institute:  
(Indicate whether PFRI or IIT/IISc./NIT/University or a SIRO)  
(In case of SIRO, give the details of funding for the project and also submit documentary proof of public funding)
4. Annual R&D budget of the institute & sources of funding for the past three years:

<b>Year</b>	<b>Annual R&amp;D Budget (in Rs. lakhs)</b>	<b>Sources of funding</b>

5. R&D manpower (scientific & technical only): a) Full time b) Part time and c) Total

**PART – B**  
**(to be filled by both partners)**

1. Title of the project(s)/programme(s).
2. Source of technology/know-how and the agency from whom it was acquired. (give details)
3. Level/scale of technology acquired (for instance lab scale technology, pilot scale, commercial scale etc).
4. Details of the technology as obtained from the institute and efforts made in implementing/commercialising the technology package.
5. Indicate efforts put in upscaling the technology and innovation, if any, involved in the process of upscaling.
6. Scale of operations upon commercialisation.
7. Role of financial institutions, if any.
8. Role of in-house R&D centre in successful commercialisation of the know-how obtained.
9. Agency which carried out the design/basic engineering/detailed engineering. Role of consultants/NRDC, if any, in commercialisation.
10. Name, qualification and designation of R&D personnel involved in the project with their areas of specialisation.
11. Date of commissioning of the plant.
12. Installed capacity vis-à-vis present capacity utilisation (year-wise details for last 3 years).
13. Annual production turnover and exports if any, of the product/process commercialised (year-wise details in quantity and value for last 3 years).
14. Estimate of foreign exchange saved/earned by way of commercialisation, if any (year wise for last 3 years).



## **PART-C**

I certify that all particulars furnished above are correct and complete and I agree to abide by the decision of the DSIR in all matters relating to award(s).

I also certify that no technology was imported directly or indirectly for the product/process for which award for successful commercialisation of public funded R&D has been applied for.

Signature of the Chairman/Managing Director  
Name & Designation

Signature of the Director of the institute  
Name & Designation

Place:

Place:

Date:

Date:

### Proforma -3

**Application Proforma for the Best Invention award to  
Public Funded Research Institutions (PFRI's)  
IITs or IISc. or NITs or universities registered with DSIR  
or Scientific & Industrial Research Organizations (SIROs) recognised by DSIR  
(Group-VI in the brochure).**

#### **Specific Information and Guidelines for filling the Application**

- \* Applicants for the award for Best Invention award (Group-VI in the brochure) shall give details of not more than one invention in Part-B, the date of development of which shall not be older than 5 years from the date of application i.e. June 2003.
- \* Even though commercialisation of the technology will be the main criteria for the award, it may be considered for award, if it has a potential for commercialisation in the near future. For the purpose of benchmarking the applications, the claim should preferably be supported by an international patent. Mere paper models or ideas, even if patented, are not eligible for the award. The invention should have relevance to industry and should be usable by the industry.

*An invention is basically a new form, composition of matter, device or process. It may be based on pre-existing forms, composition, processes or ideas. Some times, there may be radical breakthroughs, which may extend the boundaries of human knowledge or experience. An invention that is novel and not obvious to those who are skilled in the same field may be able to obtain the legal protection of a patent.*

#### **PART-A (General information)**

1. Name & address of the applicant and location of the laboratory, along with fax and e-mail numbers and name and telephone number of the contact person.
2. Areas of research (products/technologies engaged in).
3. Nature of the institute:  
(Indicate whether PFRI/IIT/IISc./NIT/University or SIRO)
4. Annual R&D budget of the institute for the past three years:

Year	Annual R&D Budget (in Rs. lakhs)	Sources of funding

5. R&D manpower (scientific & technical only): a) Full time b) Part time and c) Total
6. If any woman inventor is involved, give her name & specify her technical contribution

#### **PART – B**

1. Title of the invention.
2. Description of the invention (should include concept note, principle and originality/novelty)

3. What is the existing state-of-the-art technology in this line and how is the invention different from what is existing.
4. What are the possible innovations that may arise out of the invention?
5. Documentary evidence on the invention such as Patents, papers/articles in journals, peer review etc.
6. Level/scale of technology developed (for instance lab scale/working prototype, pilot scale, commercial scale etc).
7. Details of patents applied/granted for the product/technology (give status of patent in India & abroad along with documentary proof).
8. Details of the product(s)/technology(ies).
9. Indicate efforts put in upscaling the technology and invention, if any, involved in the process of upscaling.
10. Potential for commercialisation, if not commercialised already.
11. Scale of operations upon commercialisation (if any).
12. Name, qualification and designation of Scientist(s)/Technologist(s) involved in the project with their areas of specialisation.
13. Date of commercialisation (if any).
14. Installed capacity vis-à-vis present capacity utilisation (year-wise details for last 3 years).
15. Annual production turnover and exports if any, of the product/process commercialised (year-wise details in quantity and value for last 3 years).
16. Estimate of foreign exchange saved/earned by way of commercialisation, if any (year wise for last 3 years).

### **PART-C**

I certify that all particulars furnished above are correct and complete and I agree to abide by the decision of the DSIR in all matters relating to award(s).

I also certify that no technology was imported directly or indirectly for the product/process for which award for Best Invention award has been applied for.

Place:

Date:

Signature of the Director of the Institute  
Name & Designation