

# Results Framework Document (2011-2012)

for

**Department of Science & Technology**



सत्यमेव जयते

विज्ञान और प्रौद्योगिकी विभाग  
**Department of Science & Technology**  
**Ministry of Science & Technology**  
**Technology Bhavan, New Mehrauli Road**  
**New Delhi - 110016**

## Section 1: Ministry's Vision, Mission, Objectives and Functions

### The Vision

*To enable India becoming a global knowledge power by promoting basic research, development of cutting edge technologies and innovation for globally competitive and inclusive growth to power technology-led economic progress of the society.*

### The Mission

To strengthen the R&D base of the country through funding, development and utilization of technologies, building entrepreneurship and innovation, fostering international S&T cooperation, popularization and demonstration, generating S&T database, mounting mission mode initiatives, attracting talent to science and rejuvenating research in university and promotion of public-private partnerships.

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• **Objectives**

- ❖ Formulation of Science, Technology and Innovation policy and other enabling policies for the R&D sector
- ❖ Strengthening Basic research and Expanding R&D base -Human Capacity
- ❖ Strengthening Basic research and Expanding R&D base -Institutional Capacity
- ❖ Implementing Technology Development Programs
- ❖ Societal interventions of S&T
- ❖ S&T co-operation / Partnerships and Alliance

• **Functions**

1. Formulation of policies relating to Science and Technology.
2. Matters relating to the Scientific Advisory Committee of the Cabinet (SACC).
3. Promotion of new areas of Science and Technology with special emphasis on emerging areas.
  - (i) Research and Development through its research institutions or laboratories for development of indigenous technologies concerning bio-fuel production, processing, standardization and applications, in co-ordination with the concerned Ministry or Department;
  - (ii) Research and Development activities to promote utilization of by-products to development value added chemicals.
4. Futurology.
5. Coordination and integration of areas of Science & Technology having cross sectoral linkages in which a number of institutions and departments have interest and capabilities.
6. Undertaking or financially sponsoring scientific and technological surveys, research design and development, where necessary.
7. Support and Grants-in-aid to Scientific Research Institutions, Scientific Associations and Bodies.
8. All matters concerning:
  - (a) Science and Engineering Research Council;
  - (b) Technology Development Board and related Acts;
  - (c) National Council for Science and Technology Communication;
  - (d) National Science and Technology Entrepreneurship Development Board;
  - (e) International Science and Technology Cooperation including appointment of scientific attaches abroad (in close cooperation with the Ministry of External Affairs);

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- (f) Autonomous Science and Technology Institutions relating to the subject under the Department of Science and Technology including Institute of Astrophysics, and Institute of Geo-magnetism;
  - (g) Professional Science Academies promoted and funded by Department of Science and Technology;
  - (h) The Survey of India, and National Atlas and Thematic Mapping Organisation;
  - (i) National Spatial Data Infrastructure and promotion of G.I.S.;
  - (j) The National Innovation Foundation, Ahmadabad.
9. Matters commonly affecting Scientific and technological departments /organisations/institutions, e.g., financial, personnel, purchase and import policies and practices.
  10. Management Information Systems for Science and Technology and coordination thereof.
  11. Matters regarding Inter-Agency/Inter-Departmental coordination for evolving science and technology missions.
  12. Matters concerning domestic technology particularly the promotion of ventures involving the commercialization of such technology other than those under the Department of Scientific and Industrial Research.
  13. All other measures needed for the promotion of science and technology and their application to the development and security of the nation.
  14. Matters relating to institutional Science and Technology capacity building including setting up of new institutions and institutional infrastructure.
  15. Promotion of Science and Technology at the State, District, and Village levels for grass-roots development through State Science and Technology Councils and other mechanisms.
  16. Application of Science and Technology for weaker sections, women and other disadvantaged sections of Society.

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**Section 2: Inter se priorities among key objectives, success indicators and targets**

**Table 1**

Objective	Weight	Actions	Success Indicator	Unit	Weight	Target / Criteria Value					
						Excellent 100%	Very Good 90%	Good 80%	Fair 70%	Poor 60%	
<b>1. Formulation policies relating to Science and Technology</b>	<b>13</b>	<b>Existing activities</b>									
		<b>Activity 1</b> Finalization of National Science, Technology and Innovation Policy	Date of finalization of National Science, Technology and Innovation Policy	Date	4	27.02.12	07.03.12	14.03.12	21.03.12	31.03.12	
		<b>Activity 2</b> Finalization of National Data Sharing on Access Policy Framework Document	Date of finalization of National Data Sharing on Access Policy Framework Document	Date	3	05.09.11	12.09.11	19.09.11	25.09.11	30.09.11	
		<b>New activities</b>									
		<b>Activity 3</b> To develop suitable measurement systems for the science, technology and innovation output indicators for India	Date of development of the measurement system	Date	3	27.02.12	07.03.12	14.03.12	21.03.12	31.03.12	
<b>Activity 4</b> To devise Performance related Incentive	Date of developing the System	Date	3	27.02.12	07.03.12	14.03.12	21.03.12	31.03.12			

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		Systems for promoting basic research in the country									
<b>2. Strengthening basic Research and Expanding R&amp;D base: Human Capacity</b>	<b>17</b>	<b>Existing activities</b>									
		<b>Activity 1</b> Number of INSPIRE awards released	Number of students covered as an indicator of penetration of INSPIRE	Number	3	200000	190000	180000	170000	160000	
		<b>Activity 2</b> Number of INSPIRE internships covered through winter camps	Realization of quantitative target for number of youth attracted to summer/winter camps	Number	3	50000	45000	40000	35000	30000	
		<b>Activity 3</b> Number of scholarships for Higher Education awarded	Number of scholarships released	Number	4	2000	1900	1800	1700	1600	
		<b>New activities</b>									
		<b>Activity 4</b> Institution of INSPIRE faculty position	Number of INSPIRE faculty position	Number	4	50	45	40	35	30	
		<b>Activity 5</b> To establish new alliances with the Ministry of Human Resources	Date of establishing the alliance	Date	1.5	30.06.11	07.07.11	15.07.11	25.07.11	30.07.11	

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		Development for strengthening institutional capacities in the area of Research and Development								
		<b>Activity 6</b> Mapping of the publications/patents of the Indian researchers in Indexed Journals as an indicator of competitiveness of India	Number of status reports prepared per year	Number	1.5	5	4	3	2	1
<b>3. Strengthening Basic research and Expanding R&amp;D base-Institutional capacity</b>	<b>13</b>	<b>Existing activities</b>								
		<b>Activity 1</b> Capacity building through Fund for infrastructure strengthening S&T (FIST)	Level of utilization of competitive grants	%	4	100	98	95	92	90
		<b>Activity 2</b> Development and proactive promotional programmes for strengthening institutional capacities through Promotion of University Research and Scientific Excellence (PURSE)	Number of Universities supported	Number	4	30	25	20	15	10

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		<b>Activity 3</b> Development and proactive promotional programmes for strengthening Women Universities through Consolidation of University Research Innovation and Excellence (CURIE)	Number of institutions supported	Number	2	6	5	4	3	2
		<b>New activity</b>								
		<b>Activity 4</b> Expanding S&T infrastructure through special packages like those presently available for J&K and NE state	Date of delivery of the package	Date	3	31.12.11	07.01.12	15.01.12	20.01.12	27.01.12
<b>4. Implementing Technology Development Programmes</b>	<b>18</b>	<b>Existing activities</b>								
		<b>Activity 1</b> Number of technologies assisted for application and absorption	Number of technologies applied and promoted	Number	2	40	35	30	25	20
		<b>Activity 2</b> Implementation of Public-Private Partnership (PPP) programmes under Drug and Pharma Research Programme	Level of fund utilization	%	2	100	98	95	92	90



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	<b>Activity 3</b> Number of convergent technology solutions for water challenges identified and selected	Number of technology solutions for water found out	Number	2	5	4	3	2	1
	<b>Activity 4</b> Initiation of Programmes envisaged in Detailed Project Report for indigenous Solar Energy Research initiative	Number of research projects supported	Number	1.5	8	6	5	4	2
	<b>Activity 5</b> R&D programmes under Security Technology initiative	Number of research projects supported	Number	1	10	8	6	4	2
	<b>Activity 6</b> Implementation of application oriented nano S&T R&D projects in Public-Private Partnership (PPP) ventures under nano mission	Number of PPP projects sanctioned under Nano Mission	Number	1.5	5	4	3	2	1
	<b>Activity 7</b> PhD/M.Tech. students trained in the area of nano science and technology in the country under nano mission	Quantitative number of PhD/PG outputs	Number	2	130	120	100	90	80

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	<b>Activity 8</b> Implementing new thrust areas: Cognitive science	Number of researchers supported	Number	1	60	50	40	30	20
<b>New activities</b>									
	<b>Activity 9</b> R&D programmes for establishing knowledge networks in the areas of climate change and clean energy	Number of programmes taken up	Number	1	10	8	6	4	2
	<b>Activity 10</b> Programme initiation for promotion of PPP for R&D areas and increased engagement of Private sector in R&D	Number of study reports generated	Number	1	5	4	3	2	1
	<b>Activity 11</b> To create a test bed for potash technology from sea water with a capacity of 0.75 TPD and provide inputs to evidence based policy inputs to Ministry of Chemicals and Fertilizers	Date of commissioning of the unit	Date	1	27.02.12	07.03.12	14.03.12	21.03.12	31.03.12

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		<b>Activity 12</b> Strengthening and Promotion of Innovation clusters	Level of fund utilized	%	1	100	98	95	92	90
		<b>Activity 13</b> Preparing independent status report on impact/outcome of Technology Development Programmes	Number of Projects reviewed and status reports submitted	Number	1	5	4	3	2	1
<b>5. Societal interventions of S&amp;T</b>	<b>14</b>	<b>Existing activities</b>								
		<b>Activity 1</b> Assisting Technology Entrepreneurs under the National Science & Technology Entrepreneurship Development Board	Number of entrepreneurs assisted	Number	2	125	120	110	100	80
		<b>Activity 2</b> Assisting micro enterprises under the National Science & Technology Entrepreneurship Development Board	Number of micro enterprises assisted	Number	2	2550	2540	2500	2450	2400
		<b>Activity 3</b> Support to Women for gender parity in S&T	Number of projects supported	Number	3	165	160	150	140	130

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		<b>Activity 4</b> Projects supported for S&T inputs for developments of weaker sections for equity	Number of projects supported	Number	3	60	55	50	45	40	
		<b>Activity 5</b> Field projects and research programmes supported for science popularization and communication	Number of projects supported	Number	2	230	225	220	215	210	
		<b>Activity 6</b> Child Scientists participation in National Children Science Congress	Number of children participating the event	Number	1	1100000	1000000	950000	900000	850000	
		<b>New activities</b>									
		<b>Activity 7</b> To develop a sustainable model for S&T backed entrepreneurships for tribal population	Date of development of the model	Date	1	27.02.12	07.03.12	14.03.12	21.03.12	31.03.12	
<b>6. S&amp;T co-operation/Partnership and Alliances</b>	<b>10</b>	<b>Existing activities</b>									
		<b>Activity 1</b> Signing agreements, MOUs and protocols for S&T cooperation and partnerships	Number of agreements signed	Number	2	45	40	35	30	25	

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	<b>Activity 2</b> Development and synergy of National Knowledge Network for S&T cooperation	Number of Nodes developed and synergized	Number	2	24	22	20	18	16
	<b>Activity 3</b> Exchange of professional for international cooperation	Number of exchange visit facilitated	Number	2	1200	1150	1100	1050	1000
	<b>Activity 4</b> Developing State S&T Councils mechanisms for S&T outreach	Ratio of programmatic fund released to state S&T Councils as a percentage of core grants sanctioned for manpower	Ratio	2	1.10	1.05	1.00	0.50	0.25
<b>New activities</b>									
	<b>Activity 5</b> Projects sanctioned through the Joint research fund	Number of research Projects funded under the Joint research fund	Number	1	12	10	8	6	4
	<b>Activity 6</b> Innovation Funding through NASSCOM (National Innovation Fund)	Number of innovative companies supported	Number	1	4	3	2	1	0

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<b>7. Mandatory Objectives</b>										
<b>Objective</b>	<b>Weight</b>	<b>Actions</b>	<b>Success Indicator</b>	<b>Unit</b>	<b>Weight</b>	<b>Target / Criteria Value</b>				
						<b>Excellent</b>	<b>Very Good</b>	<b>Good</b>	<b>Fair</b>	<b>Poor</b>
						<b>100%</b>	<b>90%</b>	<b>80%</b>	<b>70%</b>	<b>60%</b>
<b>Efficient functioning of the RFD system</b>	<b>3</b>	Timely submission of Draft for Approval	On-time submission	Date	2	07/03/2011	08/03/2011	09/03/2011	10/03/2011	11/03/2011
		Timely submission of Results	On-time submission	Date	1	01/05/2011	03/05/2011	04/05/2011	05/05/2011	06/05/2011
<b>Improving Internal efficiency /Responsiveness /Service delivery of Ministry/Department</b>	<b>10</b>	Identify potential areas of corruption related to departmental activities and develop an action plan to mitigate them	Finalize an action plan to mitigate potential areas of corruption	Date	2	10/02/2012	15/02/2012	20/02/2012	24/02/2012	29/02/2012
		Ensure compliance with Section 4(1) (b) of the RTI Act 2005	No. of items on which information is uploaded by February 10, 2012	Number	2	16	15	14	13	12
		Develop an action plan to implement ISO 9001 certification	Finalize an action plan to implement ISO 9001 certification	Date	2	10/02/2012	15/02/2012	20/02/2012	24/02/2012	29/02/2012
		Implementation of Sevottam	Resubmission of Revised draft of Citizens'/ Clients Charter	Date	2	15/12/2011	20/12/2011	25/12/2011	28/12/2011	31/12/2011

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			Independent Audit of Implementation of public grievance redressal system	%	2	100	95	90	85	80
<b>Ensuring compliance to the Financial Accountability Framework</b>	2	Timely submission of ATNS on Audit paras of C&AG	Percentage of ATNS submitted within due date (4 months) from date of presentation of Report to Parliament by CAG during the year	%	0.5	100	90	80	70	60
		Timely submission of ATRs to the PAC Sectt. on PAC Reports	Percentage of ATRS submitted within due date (6 months) from date of presentation of Report to Parliament by PAC during the year	%	0.5	100	90	80	70	60
		Early disposal of pending ATNs on Audit Paras of C&AG Reports presented to Parliament before 31.3.2011	Percentage of outstanding ATNS disposed off during the year	%	0.5	100	90	80	70	60
		Early disposal of pending ATRs on PAC Reports presented to Parliament before 31.3.2011	Percentage of outstanding ATRS disposed off during the year	%	0.5	100	90	80	70	60
<b>TOTAL WEIGHT =</b>					<b>15%</b>					

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**Section 3: Trend values of the success indicators**

**Table 2**

Objective	Actions	Success Indicator	Unit	Actual Values for FY 2009-2010	Actual Values for FY 2010-2011	Target Values for FY 2011-2012	Projected Values for FY 2012-2013	Projected Values for FY 2013-2014
<b>Objective 1</b> <b>Formulation policies relating to Science and Technology</b>	<b>Action 1</b> Finalization of National Science, Technology and Innovation Policy	Date of finalization of National Science, Technology and Innovation Policy	Time line	-	-	05.03.2012	-	-
	<b>Action 2</b> Finalization of National Data Sharing on Access Policy Framework Document	Date of finalization of National Data Sharing on Access Policy Framework Document	Time line	-	-	10.09.2011	-	-
	<b>Action 3</b> To develop suitable measurement systems for the science, technology and innovation output indicators for India	Date of development of the measurement system	Time line	-	-	05.03.2012	-	-



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	<b>Action 4</b> To devise Performance related Incentive Systems for promoting basic research in the country	Date of developing the System	Time line	-	-	05.03.2012	-	-
<b>Objective 2</b> <b>Strengthening basic Research and Expanding R&amp;D base:-</b> <b>Human Capacity</b>	<b>Action 1</b> Number of INSPIRE awards released	Number of students covered as an indicator of penetration of INSPIRE	Number	50000	180000	200000	200000	200000
	<b>Action 2</b> Number of INSPIRE internships covered through winter camps	Realization of quantitative target for number of youth attracted to summer/winter camps	Number	40000	50000	50000	55000	60000
	<b>Action 3</b> Number of scholarships for Higher Education awarded	Number of scholarships released	Number	900	1300	1900	2500	3200
	<b>Action 4</b> Institution of INSPIRE faculty position	Number of INSPIRE faculty position	Number	-	-	40	80	120

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	<b>Action 5</b> To establish new alliances with the Ministry of Human Resources Development for strengthening institutional capacities in the area of Research and Development	Date of establishing the alliance	Date	-	-	05.07.2011		
	<b>Action 6</b> Mapping of the publications/patents of the Indian researchers in Indexed Journals as an indicator of competitiveness of India	Number of status reports prepared per year	Number	-	-	4	5	6
<b>Objective 3 Strengthening Basic research and Expanding R&amp;D base- Institutional Capacity</b>	<b>Action 1</b> Capacity building through Fund for infrastructure strengthening S&T (FIST)	Level of utilization of competitive grants	%	100	100	100	100	100
	<b>Action 2</b> Development and proactive promotional programmes for strengthening institutional capacities through Promotion of University Research and Scientific Excellence (PURSE)	Number of Universities supported	Number	-	14	25	30	30
	<b>Action 3</b> Development and proactive promotional programmes for strengthening Women Universities through Consolidation of University Research Innovation and Excellence (CURIE)	Number of institutions supported	Number	-	2	5	6	6

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	<b>Action 4</b> Expanding S&T infrastructure through special packages like those presently available for J&K and NE states	Date of delivery of the package	Date	-	-	05.01.2012	-	-
<b>Objective 4 Implementing Technology Development Programs</b>	<b>Action 1</b> No. of technologies assisted for application and absorption	Number of technologies applied and promoted	Number	30	32	35	40	45
	<b>Action 2</b> Implementation of Public-Private Partnership (PPP) programmes under Drug and Pharma Research Programme	Level of fund utilization	%	100	100	100	100	100
	<b>Action 3</b> Number of convergent technology solutions for water challenges identified and selected	Number of technology solutions for water found out	Number	10	10	4	4	4
	<b>Action 4</b> Initiation of Programmes envisaged in Detailed Project Report for indigenous Solar Energy Research initiative	Number of research projects supported	Number	-	-	6	8	10
	<b>Action 5</b> R&D programmes under	Number of research	Number	-	-	8	10	12

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	Security Technology initiative	projects supported						
	<b>Action 6</b> Implementation of application oriented nano S&T R&D projects in Public-Private Partnership (PPP) ventures under nano mission	Number of PPP projects sanctioned under Nano Mission	Number	-	3	4	5	6
	<b>Action 7</b> PhD/M.Tech. students trained in the area of nano science and technology in the country under nano mission	Quantitative number of PhD outputs	Number	-	110	120	130	140
	<b>Action 8</b> Implementing new thrust area: Cognitive Sciences	Number of researchers supported	Number	40	50	55	60	65
	<b>Action 9</b> R&D programmes for establishing knowledge networks in the areas of climate change and clean energy	Number of programmes taken up	Number	-	-	8	10	12
	<b>Action 10</b> Programme initiation for promotion of Public Private Partnerships for R&D areas and increased engagement of Private sector in R&D	Number of study reports generated	Number	-	-	4	5	6

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	<b>Action 11</b> To create a test bed for potash technology from sea water with a capacity of 0.75 TPD and provide inputs to evidence based policy inputs to Ministry of Chemicals and Fertilizers	Date of commissioning of the unit	Date	-	-	05.03.2012	-	-
	<b>Action 12</b> Strengthening and Promotion of Innovation clusters	Level of fund utilized	%	-	-	100	100	100
	<b>Activity 13</b> Preparing independent status report on impact/outcome of Technology Development Programmes	Number of Projects reviewed and status reports submitted	Number	-	-	5	5	5
<b>Objective 5</b> <b>Societal interventions of S&amp;T</b>	<b>Action 1</b> Assisting Technology Entrepreneurs under the National Science & Technology Entrepreneurship Development Board	Number of entrepreneurs assisted	Number	90	100	123	130	135
	<b>Action 2</b> Assisting micro enterprises under the National Science & Technology	Number micro enterprises assisted	Number	2100	2200	2500	2600	2650

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	Entrepreneurship Development Board							
	<b>Action 3</b> Support to Women for gender parity in S&T	Number of projects supported	Number	120	140	160	170	175
	<b>Action 4</b> Projects supported for S&T inputs for developments of weaker sections for equity	Number of projects supported	Number	40	50	55	65	70
	<b>Action 5</b> Field projects and research programmes supported for science popularization and communication	Number of projects supported	Number	175	200	220	225	230
	<b>Action 6</b> Child Scientists participation in National Children Science Congress	Number of children participating the event	Number	900000	1000000	1050000	1100000	1200000
	<b>Action 7</b> To develop a sustainable model for S&T backed entrepreneurship for tribal population	Date of development of the model	Date	-	-	05.03.2012		
	<b>Action 1</b> Signing agreements, MOUs and protocols for S&T	Number of agreements signed	Number	40	40	42	45	50

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<b>Objective 6</b> <b>S&amp;T co-operation/Partnership and Alliances</b>	cooperation and partnership							
	<b>Action 2</b> Development and synergy of National Knowledge Network for S&T cooperation	Number of Nodes developed and synergized	Number	21	22	23	28	30
	<b>Action 3</b> Exchange of professional for international cooperation	Number of exchange visit facilitated	Number	1000	1100	1150	1200	1250
	<b>Action 4</b> Developing State S&T Councils mechanisms for S&T outreach	Ratio of programmatic fund released to state S&T Councils as a % of core grants sanctioned for manpower	Ratio	1	1	1.05	1.1	1.2
	<b>Action 5</b> Projects sanctioned through the Joint research fund	Number of research Projects funded under the Joint research fund	Number	-	-	10	12	14
	<b>Action 6</b> Innovation Funding through NASSCOM (National Innovation Fund)	Number of innovative companies supported	Number	-	-	3	4	5

## **SECTION 4: Description and Definition of Success Indicators and Proposed Measurement Methodology**

A total number of 14 new initiatives are being proposed under all the six objectives of the Department. Total of 40 success indicators for covering the six overall objectives have been selected with a blend of 37 non-financial and 3 financial targets. Wherever more than two types of outputs and external actions (like peer review, recommendations of Expert committees for decision making, etc.) are involved, for convenience, measurement of performance and success of actions is linked to financial delivery. Performance indicators for non-linear processes in Science, Technology and Innovation require some process innovations based on global bench marks. Performance improvement through enhanced system efficiencies of a department like DST with a mandate to expand the R&D base in the country can be assessed by measuring the expansion of the stake holder base. Specified and number based quantitative targets have been selected wherever appropriate. For improving State-Center cooperation in S&T, a new parameter like ratio of programmatic fund to core fund has been designed for measuring S&T outreach and it is proposed to fine tune the same during the next year. Strengthening of the institutional capacities and scientific excellence based on measurement of global bench marks like H-index for institutions to provide research incentive grants and special packages for North East and J&K regions are based on transparent parameters. Transparent decision logic is embedded in financial targets wherever feasible.

### **Objective-wise Measurement System**

1. For the formulation of policies relating to S&T, keeping in view, the consultation process involved among stake holders, a completion date has been selected as the success indicator.
2. In the category of strengthening basic research and expanding R&D base with human capacity interface two types of success indicators are used namely number and date. The implementation of INSPIRE Awards, INSPIRE Internships, Scholarships for Higher Education (SHE) and INSPIRE Faculty positions are captured by number of awards/internships/scholarships/ faculty positions awarded. The number of such components clearly demonstrates the depth of penetration of these schemes across the country. The modalities of grand alliance with the Ministry of Human Resource Development for strengthening institutional capacities in the area of Research and Development is being worked out, therefore a date target has been assigned to this activity for measurement. To measure the R&D competitiveness of the country, it has been proposed to generate the status reports on mapping of the publications/patents of the Indian researchers in Indexed Journals as an indicator of competitiveness of India. A number of status reports prepared will give the right measurement method.
3. Apart from a financial delivery target, there are number and date indicators used in the category of strengthening basic research and expanding R&D base with institutional capacity. A developmental programme like FIST where the infrastructure building is a centre of concern, the level of funds utilized is appropriate success indicator. PURSE is an evidence based incentive programme. Hence, the *number* of Universities fall under the umbrella of PURSE shows the enhancement of quality of research in the global setting. CURIE Programme is also measured in number. A proactive initiative to offset the setting of regional imbalances in the S&T system is proposed to be tackled by introducing special packages. One regional package per year is envisaged. Hence the date of delivery of the package is set as a success indicator.



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4. In implementation of technology development programmes, number, date and level of fund utilization are used as success indicators. Using a *number* target in technology assisted, convergent water technology solutions, projects supported under Solar Energy Initiative, cognitive science and Security technology, Nano Mission programmes, knowledge networks in climate change and clean energy will clearly demonstrate the progressive development, reach and depth of penetration of the programme. In drug and pharma PPP models, where both loan and grants are involved, the level of fund utilization has been used as a success indicator. The same parameter is used in measuring the impact of promotion of innovation cluster ecosystems. Creation of a test bed for potash technology from sea water and its delivery capacity for this year has been fixed. Hence, the date of commissioning has been chosen as the success indicator.
5. Apart from setting a date indicator for developing a model for S&T backed entrepreneurship for tribal population and all other activities under the societal interventions are measured in number terms. Here also the number of entrepreneurs assisted and projects developed for tribal and other weaker sections indicates the reach of the programme.
6. International S&T cooperation was well captured in terms of the number of MoUs signed, visits facilitated. For improving State-Center cooperation in S&T, a new parameter like ratio of programmatic fund to core fund has been designed for measuring S&T outreach.

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**SECTION 5:  
Specific Performance Requirements from other Departments**

<b>Department</b>	<b>Relevant Success Indicator</b>	<b>What do you need?</b>	<b>Why do you need it?</b>	<b>How much you need?</b>	<b>What happens if you do not get it?</b>
State Science & Technology Department	Number of Students covered across the country under INSPIRE and SHE	Partnership in implementation	They have presence at the implementation levels and are linked to the State mechanism	Their partnerships would enhance the effectiveness of the Programme	We will have to identify alternate mechanisms
State Department of Education	Number of Students covered across the country under INSPIRE and SHE	Partnership in implementation	They are the controlling department for and would help in identification of students to be supported	Their partnership would increase the reach and spread of the Programme	Their support is vital and critical
Ministry of Human Resource Development	Number of Students covered across the country under INSPIRE and SHE	Partnership in implementation	They are the controlling department for and would help in identification of students to be supported	Their partnership would increase the reach and spread of the Programme	Their support is vital and critical
	Date of establishing the MHRD-MoST Grand Alliance		Strengthening institutional capacities in the area of Research and Development	Their partnership will strengthen the R&D capacity of institutions	This will affect the increase in research base planned under the Grand Alliance
Ministry of External Affairs	Number of International MoUs agreements and protocols signed	Partnership in implementation	They are the main Ministry for external relations and our agreements are within the frame work of country cooperation	For enhancing Technology Diplomacy with relevant Nations their support is required	The number of agreements, MoUs and protocols will get affected
Ministry of Chemicals & Fertilizers	Date of commissioning of the unit	Partnership in implementation	They are the main partner Ministry in Technology Transfer	Their full co-operation in implementing the project	The partnership will address subsidies in fertilizers

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**SECTION 6:  
Outcome / Impact of activities of department ministry**

**Table 3**

1	2	3	4	5	6	7	8	9	10
S. No	Outcome / Impact of Activity	Jointly responsible for influencing this outcome / impact with the following department (s) / ministry(ies)	Success Indicator	Unit	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
1.	Strengthening the basis R&D base of the country	Central ministries, state government, industries, research centers, universities	Increased R&D spend by Industry	Rs. In crores			TDB		
2.	Improved commercialization of technology (except those covered by DSIR)	R&D organizations, Industry Associations	No. of innovative products/ processes successfully demonstrated & and commercialized	No.			TDB		
3.	Improved Institutional Capacity	Universities and Scientific institutions/ colleges, M/o HRD	Total no. of seats available in Institutions	No.			TDB		
4.	Enhanced human capacity	Universities and Scientific institutions/ R&D organizations	Total no. of scientists with super specialized degree in S&T -No. of patents filed	No.			TDB		

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5.	Enhanced International cooperation	International S&T community, M/o. External Affairs	Total no. of JV/International S&T project funded	No	40	40	42	45	45
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**Minister of Science & Technology**

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**Secretary,  
Department of Science & Technology**

**Place: New Delhi**  
**Date: April 05, 2011**