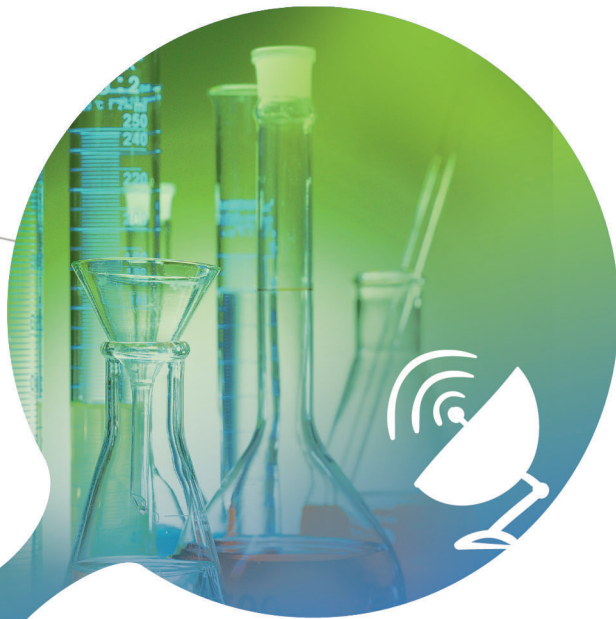
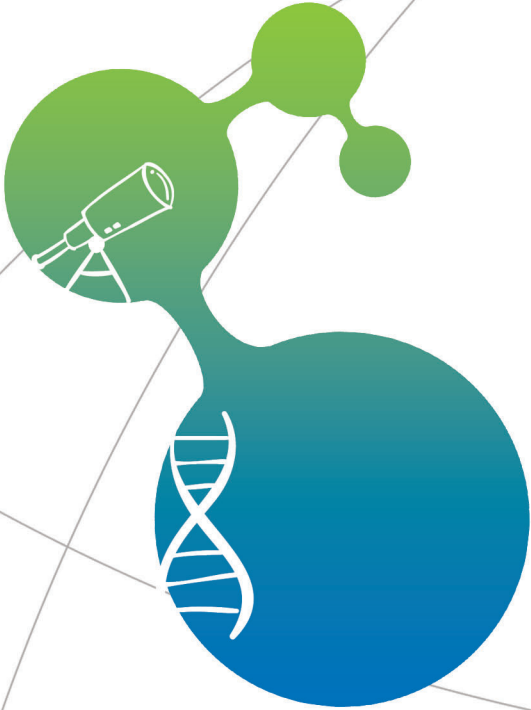


# 2014 Implementation Plan for Basic Research Programs



Ministry of Science, ICT and  
Future Planning



Ministry of Education



National Research  
Foundation of Korea

2014

# Implementation Plan for Basic Research Programs



# C · O · N · T · E · N · T · S



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DIRECTORATE FOR BASIC RESEARCH  
IN SCIENCE AND ENGINEERING



# I . Outline of Basic Research Programs

2014  
Implementation Plan for  
Basic Research Programs





## | The Role of Basic Research |

By creating new knowledge and nurturing creative human resources, basic research provides a 'science base' to ensure stronger national competitiveness.

### ● Legal Basis for Program Implementation and Management

- The「Basic Research Promotion and Technology Development Support Act」 and 「Act on Sciences Promotion」
- The「Regulation on Management of National Research and Development Programs, etc.」 and the 「Regulation on Management of Research and Development in Science and Technology Overseen by the Ministry of Science, ICT and Future Planning (MSIP)」
- The「Regulation on Management of Research and Development in Science and Technology Overseen by the Ministry of Education (MOE)」

### ● Research Support Programs

#### ○ Individual Research Support

- The Individual Research Support, through phased support adjusted to differing levels of capability of individual researchers (Young · General Researcher → Mid-career Researcher → Leading Researcher), helps researchers build stronger creative basic research ability and deepen their research work.
  - ※ Young Researcher Program (Young, Career, Women), General Researcher Program (General individual, Less Favored, Research Fellows, Scientists in local universities, Mid-career Researcher Program (Core Research, National Research Lab), Leading Researcher Program (Creative Research, National Scientist)

#### ○ Group Research Support

- The Group Research Support organizes researchers working at Korean universities into research groups by specific fields and provides those groups with concentrated financial support so that the participating researchers may augment their competence.
  - ※ Advanced Research Center Program (SRC, ERC, MRC, NCRC), Basic Research Lab Program (BRL), Global Research Lab Program (GRL)

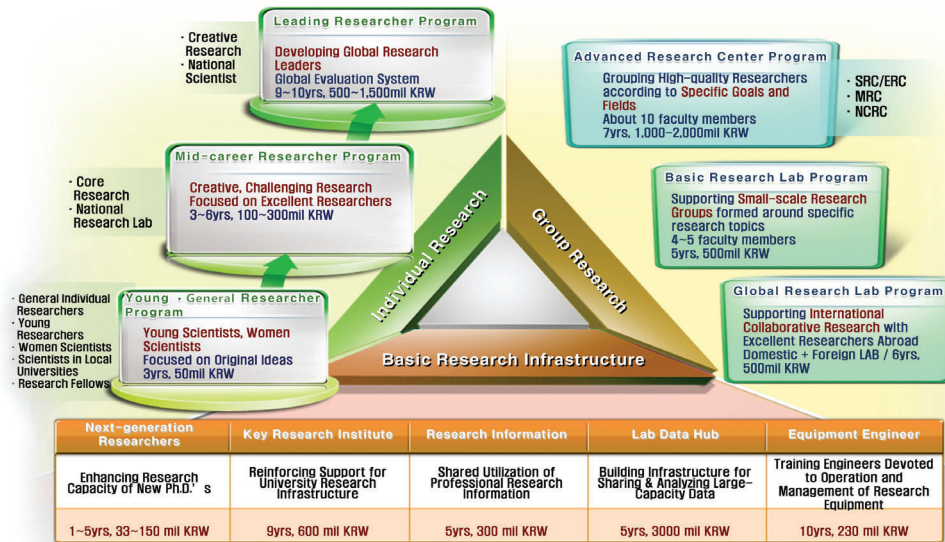
#### ○ Basic Research Infrastructure Support

- The Research Infrastructure Support Program helps solidify the basis for Korea's basic research capability by providing research information and experimental data, supporting research infrastructure, and fostering post-doctoral researchers and experts trained to handle research equipment.
  - ※ Fostering Next-generation Researcher Program, Key Research Institute Program, Utilization of Research Information Program, Global Lab Data Hub Program, Fostering Research

### ● Sequential Linkages between Programs

- Systematic support for a life-time research career customized to fit the specific stages of research development
  - Individual Research: Young · General Researcher → Mid-career Researcher → Leading Researcher
  - Group Research: Global Research Lab/Basic Research Lab → Advanced Research Center

## ● Basic Research Program Structure



## ● Program Details

### ○ Individual Research

Program		Objectives and Features	Target Grantees	Funding Amount (Million KRW)	Standard Funding Duration	Maximum Funding Duration
Title	Subprogram					
Young Researcher Support	Young Researchers	To motivate young researchers and train them to be next-generation leading researchers by enlarging research opportunities	S&E faculty (full-time, part-time) or researchers of public or private research institutes who are within 7 years after the obtainment of a Ph.D degree or are of 39 years or under	50	3yrs	6yrs
	Women Scientists	To nurture female scientists and strengthen their research capability	Female S&E faculty (full-time, part-time) or female researchers of public or private research institutes	50	3yrs	6yrs
	Career Scientists	To maximize research capability of experienced career scientists	Researchers who have R&D experience of 25 years or longer and are able to conduct research until the completion of the given project	50	3yrs	6yrs
General Researcher Support	General Individual	To facilitate S&E grass-roots basic research	The fifth clause of Article 2 of the 「Act on Sciences Promotion」 Research fellows employed by universities according to the Research Fellows Program	50	3yrs	6yrs
	Less Favored	To guarantee stable support for less favored academic fields that need political considerations		50	3yrs	3yrs
	Research Fellows	To support Ph.D researchers at universities by providing them with innovative research opportunities		50	3yrs	3yrs
	Scientists in Local Universities	To strengthen regional S&T research capability and nurture excellent local researchers		50	3yrs	6yrs

Title	Program	Objectives and Features	Target Grantees	Funding Amount (Million KRW)	Standard Funding Duration	Maximum Funding Duration
	Subprogram					
Mid-career Researcher Support	Core Research	To support highly creative individual research to nurture excellent basic research capability and to encourage further growth of mid-career researchers	S&E faculty(full-time, part-time) or researchers of public or private research institutes	100~200	3yrs	6yrs
	National Research Lab	(Challenging Research) To further develop and deepen promising areas from among the previous research work of principal investigators (Strategic Research) To enhance national competitiveness by providing top-down support for strategic basic research areas of economic and social significance at the national level	S&E faculty(full-time, part-time) or researchers of public or private research institutes	300	3yrs	9yrs
Leading Researcher Support	Creative Research	To identify next-generation researchers of high potential and develop them into global research leaders (10% mandatory elimination according to phased evaluation) *Continuing support for the existing National Scientists	S&E faculty(full-time, part-time) or researchers of public or private research institutes	500~800	9yrs (3+3+3)	9yrs (3+3+3)

### O Group Research

Title	Program	Objectives and Features	Target Grantees	Standard Funding Duration	Maximum Funding Duration
	Subprogram				
Advanced Research Center	Science/Engineering Research Center	To form goal-oriented research groups at premier S&E universities to nurture globally competitive leading scientists	Universities that offer master's and doctoral programs in S&E	1,000~1,500	7yrs (4+3)
	Medical Research Center	To foster research capability and high quality human resources at universities with premier programs in medicine, dentistry, and oriental medicine	Colleges of medicine, dentistry, oriental medicine	700~1,000	7yrs (4+3)
	National Core Research Center	To promote creative basic research and HRD in future convergence technologies, with focus on ground-breaking technologies	Universities that offer master's and doctoral programs in S&E	2,000	7yrs (4+3)
	Basic Research Lab	To help developing small-scale research groups at the departmental/college level centered around specific research topics and fields	Research groups formed at the departmental/college level (4~5 faculty members)	500	5yrs (3+2)
	Global Research Lab	To strengthen global collaborative networks and enhance domestic research capability through deepened international joint research with excellent researchers abroad	S&E labs equipped with international collaborative networks	500	6yrs (3+3)

### O Basic Research Infrastructure

Program	Objectives and Features	Target Grantees	Standard Funding Duration	Maximum Funding Duration
Fostering Next-Generation Researchers	To provide Ph.D researchers with research opportunities at institutes so they may continue and improve their research	Researchers who possess a Korean or foreign doctoral degree	33~150	1~5yrs
Key Research Institute	To promote specialization of university-affiliated research institutes and nurture them into base centers for innovative research	University-affiliated research institutes in S&E	600	9yrs (3+3+3)

## ○ Basic Research Infrastructure

Program	Objectives and Features	Target Grantees	Standard Funding Duration	Maximum Funding Duration
Utilization of Research Information	To collect professional research information, reproduce it into valuable research data, and supply them to researchers for shared utilization	S&E faculty (full-time, part-time) or researchers of public and private research institutes	300	5yrs (2+3)
Global Lab Data Hub	To build infrastructure to share large-capacity data produced by state-of-the-art research equipment, large observation facilities, and mock experiments	Government-funded research institutes	3,030	5yrs
Research Equipment Engineer Training	To enhance the utilization of research equipment and create S&E jobs by training expert engineers devoted to operation and management of research equipment	Universities, government-funded nonprofit research institutes	230	10yrs (2yrs×5)

## ● FY 2014 Program Budget

(In one million KRW)

Subprogram	2013(A)	2014(B)	B-A	(B-A)/A
<b>Total</b>	<b>1,024,598</b>	<b>1,028,033</b>	<b>3,435</b>	<b>0.34%</b>
<b>【Individual Research】</b>	<b>519,000</b>	<b>542,100</b>	<b>10,100</b>	<b>1.23%</b>
○ Young Researcher	146,100	141,937	Δ4,163	Δ2.85%
- Young Researchers	106,100	103,860	Δ2,240	Δ2.11%
- Women Scientists	30,000	28,077	Δ1,923	Δ6.41%
- Career Scientists 1	0,000	10,000	0	0.00%
○ General Researcher	303,500	290,500	Δ13,000	Δ4.28%
- General Individual	240,827	230,750	Δ10,077	Δ4.18%
- Less Favored	2,173	1,500	Δ673	Δ30.97%
- Research Fellows	32,500	33,250	750	2.31%
- Scientists in Local Universities	28,000	25,000	Δ3,000	Δ10.71%
○ Mid-career researcher	322,000	348,795	26,795	8.32%
- Core Research	160,000	193,492	33,492	20.93%
- National Research Lab	162,000	155,303	Δ6,697	Δ4.13%
○ Leading Researcher	50,900	51,368	468	0.92%
- Creative Research	45,700	46,368	668	1.46%
- National Scientist	5,200	5,000	Δ200	Δ3.85%
<b>【Group Research】</b>	<b>151,014</b>	<b>146,485</b>	<b>Δ4,529</b>	<b>Δ3.00%</b>
○ Advanced Research center	109,000	103,471	Δ5,529	Δ5.07%
- SRC/ERC	65,800	60,280	Δ5,520	Δ8.39%
- MRC	29,800	29,791	Δ9	Δ0.03%
- NCRC	13,400	13,400	0	-
○ Basic Research Lab	20,500	20,500	0	-
○ Global Research Lab	21,514	22,514	1,000	4.65%
<b>【Basic Research Infrastructure】</b>	<b>8,380</b>	<b>8,078</b>	<b>Δ302</b>	<b>Δ3.60%</b>
○ Fostering Next-Generation Researchers	16,080	17,190	1,110	6.90%
- Post-doctoral training in Korea	3,960	3,960	0	-
- Post-doctoral training abroad	3,870	1,980	Δ1,890	Δ48.84%
- Presidential Post-doctoral Fellowship	8,250	11,250	3,000	36.36%
○ Key Research Institute	26,624	23,680	Δ2,944	Δ11.06%
○ Utilization of Research Information	2,280	2,280	0	-
○ Global Lab Data Hub	3,100	3,028	Δ72	Δ2.32%
○ Research Equipment Engineer Training	3,000	2,770	Δ230	Δ7.67%



## ● Limitations in Program Application

Division	Contents
Common	<ul style="list-style-type: none"> <li>○ Participation in R&amp;D programs is limited to 3 projects for principal investigators and 5 projects for participating researchers*.</li> <li>* Projects whose remaining research period is less than four months, the young Researcher Program (exception: Excellent Young Researchers and the Adventurous Research), and General Researcher Program, are not subject to this restriction.</li> <li>○ Within the same program units (Young · General, Mid-career, Leading, Group), one may apply as principal investigator for only one project per half year (one in the first half year and one in the second half year, only one project may be selected).</li> <li>* Program units: Young (Young/Career/Women), General (General/Less Favored/Research Fellows/Local Universities), Mid-career (Core/National Research Lab), Leading (Creative), Group (Advanced Research Center/BRL/GRL).</li> <li>○ Researchers currently participating in Individual Research Program (Young · General, Mid-career, Leading) may not apply for a new project in the Individual Research Program, and researchers currently participating in Group Research Program (ARC, BRL, GRL) may not participate in a new project in the Group Research Program</li> <li>* Inapplicable if the existing project terminates within 10 months after the initiation of the new project.</li> <li>○ Researchers may carry out only one project in the Individual Research Program (Young · General, Mid-career, Leading).</li> <li>○ Researchers may carry out only one project in the Group Research Program.</li> <li>○ Researchers who have been restricted from taking part in national R&amp;D programs for a certain period are allowed to apply for new projects, on condition that their restriction period terminates prior to the due date of new research application.</li> </ul>
Young Researcher	<ul style="list-style-type: none"> <li>○ The Young Researchers Program is open to full-time or part-time faculty or researchers of public or private research institutes who are within 7 years after the obtaining of a Ph.D or are of 39 years or under.</li> <li>○ The Career Scientists Program is open to full-time or part-time faculty or researchers of public or private research institutes who have R&amp;D experience of 25 years or longer, including researchers who meet the above qualification criteria of Young Researchers.</li> <li>○ The Women Scientists Program is open to full-time or part-time female faculty or female researchers of public or private research institutes.</li> </ul>
Mid-career Researcher	<ul style="list-style-type: none"> <li>○ The Mid-career Researcher Program is open to researchers with two or more SCI(E), A&amp;HCI, SSCI articles as a corresponding author or with two or more obtained patents within the past five years.</li> <li>* Must be the first author for an SSCI article but may be a co-author for an article in mathematics, particle/field/astronomical physics.</li> </ul>
Leading Researcher	<ul style="list-style-type: none"> <li>○ Principal Investigator of Creative Research, as of the date of initiation of the new project, must maintain participation rate of 70% or above in the project of concern and is allowed to lead only one other government R&amp;D project simultaneously as PI.</li> <li>* Researchers who are, as of the date of initiation of the new project, PI's of Group Research Program projects (ARC, BRL, GRL) and MOE's Key Research Institute in S&amp;E may not apply.</li> </ul>
Advanced Research Center	<ul style="list-style-type: none"> <li>○ Principal Investigator (center director) must be a regular full-time faculty member of the applying university with a secured term of service for the duration of research.</li> <li>○ Principal Investigator (center director) must maintain participation rate of 60% or above in the project.</li> <li>○ MRC must consist of researchers of the same university and college.</li> <li>○ Researcher may apply for only one project as either Principal Investigator (center director) or joint (core) researcher.</li> </ul>
Basic Research Lab	<ul style="list-style-type: none"> <li>○ Researcher may apply for only one project as either Principal Investigator or joint researcher.</li> </ul>

## ● Monthly Implementation Timeline for 2014

Program		Division	January	February	March	April	May	June	July	August	September	October	November	December	
Young Researcher	Young Researchers	New	Call for projects	Research proposal submission	Selection screening	Selection screening Final selection	Type I Research project initiation								
		Continuing			Idea evaluation & selection	Type II Preliminary research	Main proposal evaluation & selection	Type II Research project initiation							
	Women Scientists	New						Call for projects	Research proposal submission		Selection screening Final selection			Research project initiation	
		Continuing			Annual review	Annual review									
	Career Scientists	New	Call for projects	Research proposal submission	Selection screening Final selection	Research project initiation									
		Continuing			Annual review	Annual review			Annual review	Annual review		Annual review			
	Individual Researcher	General Individual	New						Call for projects	Research proposal submission	Selection screening & selection	Final selection		Research project initiation	
			Continuing			Annual review	Annual review			Annual review		Annual review	Annual review		
		Less Favored	New						Call for projects	Research proposal submission	Selection screening & selection	Final selection		Research project initiation	
			Continuing							Annual review		Annual review	Annual review		
		Research Fellow	New	Call for projects	Research proposal submission	Selection screening	Final selection	Research project initiation							
			Continuing			Annual review	Annual review			Annual review		Annual review	Annual review		
Scientists in Local Universities		New	Call for projects	Research proposal submission	Selection screening	Final selection	Research project initiation								
		Continuing			Annual review	Annual review						Annual review			
Mid-career Researcher		Core Research	New	Call for projects	Research proposal submission	Selection screening Final selection	Research project initiation								
			Continuing		Annual review	Annual review Final evaluation	Annual review			Annual review Final evaluation			Annual review		
		National Research Lab	New	Call for projects (Challenging)	Research proposal submission	Selection screening Final selection	Research project initiation Call for projects (Strategic)	Research proposal submission	Selection screening Final selection	Research project initiation					
			Continuing		Annual review Final evaluation	Annual review Phased evaluation	Annual review	Annual review		Annual review Phased evaluation Final evaluation		Annual review	Annual review		

Program			Division	January	February	March	April	May	June	July	August	September	October	November	December	
Individual Research	Leading Researcher	Creative Research	New	Call for projects	Research proposal submission	Selection screening Final selection		Research project initiation								
			Continuing		Annual review Phased evaluation			Annual review			Annual review					
		National Scientist	Continuing				Annual review				Annual review					
Group Research	Advanced Research Center	S/ERC	New	Call for projects	Research proposal submission	Selection screening Final selection		Research project initiation								
			Continuing		Annual review	Final evaluation				Phased evaluation	Annual review					
		MRC	New	Call for projects	Research proposal submission	Selection screening Final selection		Research project initiation								
			Continuing		Annual review	Final evaluation					Phased evaluation	Annual review				
		NCRC	Continuing		Phased evaluation Annual review											
			Basic Research Lab (BRL)	New	Call for projects	Research proposal submission	Selection screening Final selection		Research project initiation							
	Continuing					Final evaluation				Phased evaluation	Annual review		Annual review			
	Global Research Lab (GRL)	New	Selection of technological areas to call for projects		Call for projects	Research proposal submission	Selection screening Final selection		Research project initiation							
		Continuing			Annual review					Annual review Phased evaluation	Annual review	Final evaluation	Final evaluation	Annual review		
	Infrastructure Support	Fostering Next-generation Researcher	New	Call for projects	Research proposal submission	Selection screening		Final selection	Research project initiation / Call for projects	Research proposal submission / Selection screening	Final selection		Research project initiation			
			Continuing									Annual review	Annual review			
		Key Research Institute	New					Research proposal submission	Selection screening		Final selection	Research project initiation				
Continuing					Annual review	Annual review			Annual review	Annual review						
Utilization of Research Information		Continuing		Phased evaluation		Annual review										
Global Lab Data Hub		Continuing		Annual review												
Research Equipment Engineer	Continuing			Strategic Forum		Annual review of training institutions	Call for recruitment of trainees	Selection of trainees	Research equipment training initiation					Strategic Forum		

\* Schedule of individual programs subject to change due to changes in conditions and circumstances

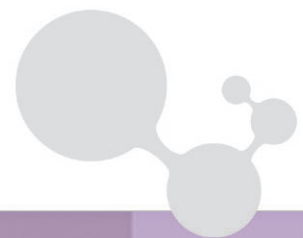


DIRECTORATE FOR BASIC RESEARCH  
IN SCIENCE AND ENGINEERING



## II. Detailed Implementation Plan for Each Program

2014  
Implementation Plan for  
Basic Research Programs



# 1 Young Researcher Program

## A. Program Outline

### ● Objectives

- To train excellent researchers by motivating young researchers and increasing their research capacity
  - To considerably increase the quality of basic research by intensively supporting research projects based on creative and challenging ideas, with a view to achieving world-class science and technology and enhancing Korea’s national competitiveness

### ● Grant Details

#### ○ Target grantees

Division	Young Researchers	Women Scientists	Career Scientists
Target grantees	S&E faculty (full-time, part-time); researchers of public or private research institutes (candidates must be within 7 years after the obtainment of a Ph.D or of 39 years or under)	Women faculty in S&E (full-time, part-time); women researchers of public or private research institutes	S&E faculty (full-time, part-time) or researchers of public or private research institutes who have R&D experience of 25 years or longer and are able to conduct research * Those who meet the qualifications for Young Researchers participate as joint researchers

#### ○ Scope and duration of support

Division	Young Researchers	Women Scientists	Career Scientists
Duration of support	Maximum 3yrs	Maximum 3yrs	Maximum 3yrs
Funding per project*	About 50million KRW/yr (No separate grant for preliminary planning research for Type II)	About 50million KRW/yr	About 50million KRW/yr

\* Inclusive of indirect costs, in the case of a new research project funded for the first year in 2014

## B. Core Policy Directions for 2014

- To augment support for future-oriented, challenging Young Researcher projects focused on creative ideas (10,800million KRW for new projects in 2013, 178 projects → 28,704million KRW for new projects in 2014, 570 projects.)
  - For Type II Young Researchers, projects will conduct the main research after collecting ideas and carrying out preliminary planning research. (Type II projects will get about 50% of Young Researchers budget for new projects.)
    - \* The ratio between Type I and Type II of Young Researchers will most likely be 5:5 but will be subject to adjustment, reflecting the actual application status (acceptance rate cannot exceed 30%.)

**○ To support groups that require policy consideration, such as women scientists and career scientists**

– We will strengthen substantive support for women scientists by selecting Women Scientists projects separately in the second half of the year, thereby increasing the number of application opportunities for women scientists from once to twice.

\* (At present) One application opportunity for project per year ⇒ (Improved) Most individual basic research projects such as Young/Mid-career/Leading are selected in the first half of the year (once) + Separate selections for Women Scientists projects in the second half of the year (once) ⇔ twice in total.

– We will restructure the Career Scientists Program into career-young scientists partnership program in order to transmit the high-quality intellectual assets of experienced researchers to younger researchers.

**○ Research duration and funding per project up to 3 years, about 50million KRW (inclusive of indirect costs)**

Program	Amount (100million KRW/yr)	Maximum duration of support	Note
Young Researchers	0.5	3yrs	Type II – No support for preliminary planning research
Women Scientists	0.5	3yrs	
Career Scientists	0.5	3yrs	

**○ To expand follow-up support for completed projects with excellent outcomes:**

– We will give follow-up support for top 20% or so in 2014.

\* Budget allocation is subject to adjustment, taking into account target projects and application status.

– Terms of support: equivalent to support for a new project, for 3 years.

※ Method of selection: review of excellence of research outcomes. (selection criteria and methods will be separately established and enforced.)

**C. Implementation Timeline**



Date	Schedule
Jan.~Feb. 2014	– Finalize and initiate implementation plan for the 2014 Young Researcher Program – First half year call for new projects (Young Researchers/Career Scientists) – Accept research outcomes for completed projects applying for follow-up support * Projects completed in the second half year will be supported in the first half of next year
Mar. 2014	– Selection screening for new projects in the first half year (including completed projects applying for follow-up support) – Annual review of continuing projects (selected in the first half of 2011~13)

Date	Schedule
Apr.~May 2014	<ul style="list-style-type: none"> <li>- Final selection of new projects for the first half year (Type I) and project initiation</li> <li>- Initiation of preliminary planning research for Young Researchers Type II projects</li> <li>- Project initiation for continuing projects in the first half year (selected in the first half of 2011~12)</li> <li>- Accept research outcomes for completed projects applying for follow-up support</li> </ul>
Jun. 2014	<ul style="list-style-type: none"> <li>- Launch research of continuing projects in the first half year (selected in the first half of 2013)</li> <li>- Second half year call for new projects (Women Scientists)</li> <li>- Selection screening and selection of Young Researchers Type II main research</li> </ul>
Jul.~Aug. 2014	<ul style="list-style-type: none"> <li>- Accept new project proposals for the second half year (Women Scientists) and selection screening</li> <li>- Initiation of main research for Young Researchers Type II projects</li> <li>- Annual review of continuing projects (selected in the second half of 2011~12)</li> </ul>
Sep. 2014	<ul style="list-style-type: none"> <li>- Second half year selection screening of new projects (Women Scientists)</li> <li>- Launch research of continuing projects in the second half year (selected in the second half of 2011~12)</li> <li>- Annual review of continuing projects (selected in the second half of November, 2011)</li> </ul>
Oct. 2014	<ul style="list-style-type: none"> <li>- Selection of new projects for the second half year (Women Scientists)</li> <li>- Annual review of continuing projects (selected in the second half of December, 2013)</li> </ul>
Nov. 2014	<ul style="list-style-type: none"> <li>- Launch research of new projects in the second half year (Women Scientists)</li> <li>- Launch research of continuing projects in the second half year (selected in the second half of November, 2013)</li> </ul>
Dec. 2014	<ul style="list-style-type: none"> <li>- Launch research of continuing projects in the second half year (selected in the second half of December, 2013)</li> </ul>

#### D. 2014 Budget Investment Plan

(In one million KRW, number of projects)

Program Title		2013 Outcome	2014 Plan	Increase/ decrease
Young Researchers	Budget	106,100 (New 41,503)	103,860 (New 28,704)	Δ2,240 (New Δ12,799)
	Projects	1,802 (New 611)	1,811 (New 570)	9 (New Δ41)
Women Scientists	Budget	30,000 (New 9,991)	28,077 (New 6,921)	Δ1,923 (New Δ3,070)
	Projects	629 (New 202)	571 (New 140)	Δ58 (New Δ62)
Career Scientists	Budget	10,000 (New 5,208)	10,000 (New 1,084)	- (New Δ4,124)
	Projects	190 (New 105)	191 (New 20)	1 (New Δ85)
Total	Budget	146,100 (New 56,702)	141,937 (New 36,709)	Δ4,163 (New Δ19,993)
	Projects	2,621 (New 918)	2,573 (New 730)	Δ48 (New Δ188)

※ Size of support for 2014 is subject to change due to application status and evaluation outcomes

## 2 General Researcher

### A. Program Outline

#### ● Objectives

- To support researchers of public and private research institutes by providing them with innovative research opportunities and activating creative research

#### ● Grant Details

- Target grantees

Division	General Individual	Less Favored	Research Fellow	Scientists in Local Universities*
Target grantees	The fifth clause of Article 2 of the 「Act on Sciences Promotion」		Research fellows employed by universities according to the Research Fellows Program	S&E faculty(full-time, part-time) of universities outside the metropolitan area

\* Universities located in regions other than the Metropolitan area (Seoul, Gyeonggi, Incheon), with the exceptions of KAIST, DGIST, UNIST, and POSTECH)

#### ○ Scope and duration of support

Division	General Individual	Less Favored	Research Fellow	Scientists in Local Universities
Duration of support	Maximum 3yrs	Maximum 3yrs	Maximum 3yrs	Maximum 3yrs
Funding per project*	About 50million KRW/yr	About 50million KRW/yr	About 50million KRW/yr	About 50million KRW/yr

\* Inclusive of indirect costs, in the case of a new research project funded for the first year in 2014

### B. Core Policy Directions for 2014

- To carry on a model “Korean-style SGER\*\*” to support creative · revolutionary research (up to 5% of new projects in General Individual category.)

\* SGER (Small Grant for Exploratory Research): a system to support new ideas or high-risk researches without any evaluation.

- To set up the research period\* temporally to enhance the selection rate for General Individual and Less Favored researcher projects.

\* Research period : 3yrs→2.5yrs (The number of new projects : 550→1,100)



## C. Implementation Timeline

Date	Schedule
Jan.~Feb. 2014	<ul style="list-style-type: none"> <li>Finalize and initiate implementation plan for General Research Program</li> <li>Open calls for new projects(scientists in Local Universities and Research Fellows)</li> </ul>
Mar.~Apr. 2014	<ul style="list-style-type: none"> <li>Selection screening for new projects(scientists in Local Universities and Research Fellows)</li> <li>Annual review of continuing projects(selected in the first half of 2010~13)</li> </ul>
May 2014	<ul style="list-style-type: none"> <li>Select new projects(scientists in Local Universities, Research Fellows)</li> <li>Launch research of continuing projects(selected in the first half of 2010~12)(5.1)</li> </ul>
Jun. 2014	<ul style="list-style-type: none"> <li>Launch research of new projects(6.1)</li> <li>Launch research of continuing projects(selected in the first half of 2013)(6.1)</li> <li>Accept research outcomes for completed projects applying for follow-up support</li> <li>Open call for new projects(General Individual, Less Favored)</li> </ul>
Jul.~Aug. 2014	<ul style="list-style-type: none"> <li>Annual review of continuing projects(selected in the second half of 2010~12)</li> </ul>
Sep.~Oct. 2014	<ul style="list-style-type: none"> <li>Selection screening for new projects(General Individual, Less Favored)</li> <li>Launch research of continuing projects(selected in the first half of 2010~12)(9.1)</li> <li>Annual review of continuing projects(selected in the second half of 2013)</li> </ul>
Nov. 2014	<ul style="list-style-type: none"> <li>Launch research of new projects(General Individual, Less Favored)(6.1)</li> <li>Launch research of continuing projects(selected in the first half of 2013)(11.1)</li> </ul>

## D. 2014 Budget Investment Plan

(In one million KRW, number of projects)

Program Title		2013 Outcome	2014 Plan	Increase/ decrease
General Research	Budget	241,786	230,750	Δ11,036
	Projects	5,005 (New 1,727)	5,425 (New 1,100)	420 (New Δ627)
Less Favored	Budget	1,902	1,500	Δ402
	Projects	35 (New 15)	32 (New 6)	Δ3 (New Δ9)
Research Fellows	Budget	31,812	33,250	1,438
	Projects	633 (New 549)	661 (New 45)	28 (New Δ504)
Scientists in Local Universities	Budget	28,000	25,000	Δ3,000
	Projects	586 (New 189)	508 (New 100)	Δ78 (New Δ89)
Total	Budget	303,500	290,500	Δ13,000
	Projects	6,259 (New 2,480)	6,626 (New 1,251)	367 (New Δ1,229)

### 3 Mid-career Researcher Program

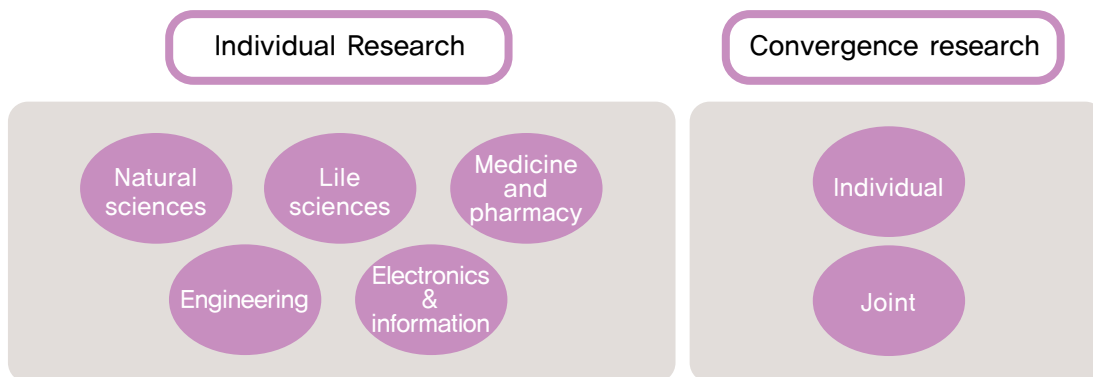
#### A. Program Outline

##### ● Objectives

- To reinforce basic research capabilities and nurture top-notch researchers by promoting highly creative research in all fields of science and technology.
  - To continually support mid-career researchers who have made excellent achievements in national R&D programs, so that they can contribute to the further development of national science and technology as well as competitiveness.

##### ● Grant Details

- Target grantees
  - S&E faculty(full-time, part-time) in Korean universities and junior colleges
  - Researchers of national, public, government-supported, or private research institutes
    - ※ For detailed qualifications for each program, refer to the announcement to be made with call for projects.
- Areas supported
  - ① Core Research Program: With a view to establishing a life-time support system for researchers, this program supports the individual and interdisciplinary joint research of mid-career researchers who possess a certain level of research capability.



- ② National Research Lab Program: This program intends to augment the research capability of mid-career researchers by providing support in research areas of high potential or meriting governmental assistance.
  - (Challenging Research): Bottom-up support for researchers with excellent outcomes so that they can further deepen and develop their existing research to produce more excellent outcomes.
  - (Strategic Research): Top-down support for basic research areas of great national economic and social importance or with promising ripple effects.

### ○ Duration and scope of support

Division	Core Research	National Research Lab
Funding duration	Standard 3yrs, Maximum 6yrs(3+3')	Standard 3yrs, Maximum 9yrs(3+3 <sup>2</sup> +3 <sup>3</sup> )
Scope of funding per project and per year*	Individual: About 100million KRW Convergence: About 100~200million KRW <sup>#</sup>	Challenging: About 300million KRW Strategic: About 300million KRW

\* Inclusive of indirect costs, in the case of a new research project funded in 2014.

※ 1, 2, 3: Final outcome evaluation every three years; if PI's of excellent projects desire additional support, they will be provided with 3-year follow-up support (1, 3: newly created in 2012.)

※ 1, 3(about top 15% of completed projects), 2(about top 80% of completed projects.)

※ 4: Joint core research will be supported only if it is convergence research.

### B. Core Policy Directions for 2014

- To strengthen support for mid-career researchers who are the main engine for creating excellent basic research outcomes:
  - We will continue to expand the Mid-career Researcher Program, as the demand for researchers with adequate research capability grows as a result of the expansion of basic research infrastructure.
    - \* 314.7billion KRW, 2,028 projects in 2013 → 348.8billion KRW, 2,291 projects in 2014
  - We will contribute to the training of high-quality researchers through predictable and stable research support.
- To explore ways to improve the acceptance rate for the Mid-career Researcher Program:
  - We will try to reduce excessive competition and maintain a proper acceptance rate\*\* by adjusting the application period for new projects and specifying new application qualifications,\* (eventually increasing it to 20%)
    - \* Researchers with two or more SCI(E), A&HCI, SSCI published articles, or two or more obtained patents in the past five years (must be the first author for an SSCI article but may be a co-author for an article in mathematics, particle/field/astronomical physics).
    - \*\* Acceptance rates : ('11) 18.4% → ('12) 11.3% → ('13) 9.9%
- To expand support for women scientists in the Mid-career Researcher Program:
  - We will increase the proportion of women in Mid-career Researcher (Core) to 13.0% in 2014 and will continue to increase the rate thereafter.
    - ※ Proportion of women: 12.2% in 2011 → 12.3% in 2012 → 12.5% in 2013
- To ensure the validity of evaluation by enhancing its fairness:
  - We will delete applicant's personal information (such as institutional affiliation and education) on individual research proposals in the selection screening for new projects for the Mid-Career Researcher Program to enhance the fairness of evaluation and to prevent the applicant's 'halo effect'.

○ To augment qualitative evaluation based on the innovative and challenging nature of the proposed project:

- We will increase the weight of qualitative indicators such as creativity or originality in selection screening, and will establish qualitative performance objectives in advance to encourage researchers to set challenging goals.

\* Proportion of innovative and challenging nature of the project in evaluation: 30% in 2013 → 50% in 2014

○ To continue to improve and develop an outcome-oriented support system that rewards excellent projects:

- We will establish an inter-ministerial linkage support system by implementing linkage support for excellent projects of MOE's General Researcher Program by MSIP's Mid-career Researcher Program, thereby building a researcher-oriented support system. (Support based on inter-agency linkages.)

- We will give additional support to grantees of Core Research Phase 1 and National Research Lab Phase 1 or 2 who have generated excellent research outcomes, if they submit applications for further support. (Follow-up support for excellent projects.)

☞ 3-year additional support of an amount equal to that for a new project

(Core) : [2011] 3yrs ⇒ [From 2012] Standard 3yrs, maximum 6yrs(3+3)

(National Research Lab) : [2011] Maximum 5yrs(3+2) ⇒ [From 2012] Standard 3yrs, maximum 9yrs(3+3+3)

※ Follow-up support for up to 15% of excellent completed projects in Core Phase 1 and National Research Lab Phase 2

※ Follow-up support for up to 80% of excellent completed projects in National Research Lab Phase 1

- Excellent completed projects in Core Research Phase 2 will be supported by the National Research Lab Program. (Linkage support with higher-level programs.)

☞ 3-year additional support of an amount equal to that for a new project in the National Research Lab Program

(Core) : [2011] No basis for support ⇒ [2012] Support possible: New project in the National Research Lab Program

※ Top 10% of completed Core Phase 2 projects will be supported in linkage with the National Research Lab(New) Program (effective in 2015)

- Final evaluation will be omitted for Core Phase 1 and National Research Lab Phase 1 or Phase 2 completed projects that are selected for follow-up support. (Simplification of the evaluation procedure.)

※ Submission of research outcome reports will be required

☞ Projects selected for follow-up support will receive 3-year additional support of an amount equal to that for a new project

(Background) : We will simplify administrative procedure to avoid repetitive evaluation (research outcomes of completed projects being considered for follow-up support have already been verified) and to allow researchers to focus on research

## C. Implementation Timeline

Date	Schedule
Jan. 2014	Announce implementation plans for Basic Research Programs for 2014 Open 1st half-year calls for new Mid-career Researcher projects (Core(Individual, Convergence), National Research Lab(Challenging))
Feb. 2014	Accept new project proposals for the 1st half year: Core Research(Individual, Convergence), National Research Lab(Challenging), Follow-up Support Annual review of continuing projects: Core Research(Individual), National Research Lab(Challenging)Final Evaluation of projects completed in February: National Research Lab(Challenging)
Mar. 2014	1st half-year selection screening of new projects: Core Research(Individual, Convergence), National Research Lab(Challenging), Follow-up Support
Apr. 2014	Selection screening of new projects: Core Research(Individual, Convergence), National Research Lab(Challenging), Follow-up Support Selection and announcement of new projects: Core Research(Individual, Convergence), National Research Lab(Challenging), Follow-up Support Phased evaluation for continuing projects: National Research Lab(Challenging) (research launched in May) Annual review of continuing projects: Core Research(Individual, Convergence), National Research Lab(Challenging) Final Evaluation of projects completed in April: Core Research(Individual)
May 2014	Launch research of new projects: Core Research(Individual, Convergence), National Research Lab(Challenging), Follow-up Support Announce selection screening results for new projects in the Mid-career Researchers Program (National Research Lab(Strategic), Follow-up Support) Annual review of continuing projects: Core Research(Individual, Convergence), National Research Lab(Challenging) Final Evaluation of projects completed in May: National Research Lab(Challenging)
Jun. 2014	Accept new project proposals for the 2nd half year: National Research Lab(Strategic), Follow-up Support Annual review of continuing projects: National Research Lab(Challenging) Final evaluation of projects completed in June: National Research Lab(Challenging) Collect customers' opinions by providing a briefing session on research management for selected grantees of new projects(Core, National Research Lab)
Jul. 2014	2nd half-year selection screening of new projects: National Research Lab(Strategic), Follow-up Support Analyze screening results for new projects selected(Core, National Research Lab)
Aug. 2014	2nd half-year selection screening of new projects: National Research Lab(Strategic), Follow-up Support Phased evaluation for continuing projects: National Research Lab(Strategic) (research launched in September) Annual review of continuing projects: Core Research(Joint), National Research Lab(Strategic) Final Evaluation of projects completed in August: Core Research(Joint), National Research Lab(Challenging)

Date	Schedule
Sep. 2014	Launch research of new projects for the 2nd half year: National Research Lab(Strategic)
Oct. 2014	Launch research of new projects: Follow-up Support Annual review of continuing projects: National Research Lab(Challenging, formerly Excellent Scholars)
Nov. 2014	Annual review of continuing projects: Core Research(Individual, Convergence), National Research Lab(Challenging, formerly Excellent Scholars)
Dec. 2014	Establish implementation plans for Basic Research Programs for Science and Engineering for 2015

#### D. 2014 Budget Investment Plan

(In one million KRW, number of projects)

Program Title		2013 Outcome	2014 Plan	Increase/ decrease
Core Research	Budget	162,329	193,492	31,163
	Projects	1,482 (New 452)	1,759 (New 832)	277
National Research Lab	Budget	152,348	155,303	2,955
	Projects	546 (New 69)	532 (New 98)	△14
Total	Budget	314,677	348,795	34,118
	Projects	2,028 (New 521)	About 2,291 (New 930)	263

\* The working budget for each program is subject to change due to application status and evaluation outcomes

## 4 Leading Researcher Program

### Creative Research Program

#### A. Program Outline

##### ● Objectives

- To identify researchers who possess creative ideas and knowledge, and to nurture them into world-class research leaders.

##### ● Grant Details

- **Scope of support** : About 500~800million KRW per project per year. (theoretical fields such as mathematics are provided with about 300million KRW.)
- **Duration of support** : Maximum nine years(3+3+3)
- **Support conditions** : Funding continuation is decided upon evaluation every three years; different amounts of support depending on the results of phased evaluations.
  - Grantees at the bottom 10% of evaluation results are eliminated.
- **Target grantees** : Researchers capable of fully engaging in research work for a minimum ten years.

##### ○ Areas supported

Area	Research Contents
Investigative research on natural phenomena/principles or newly created research areas	Establishing new research areas or proposing innovative research applications through the investigation of natural phenomena and principles
Exploration and seed sprouting of new S&T fields	Developing creative research for new S&T fields that are in their embryonic stage in advanced countries
Breakthrough research that overcomes the limits of the current S&T field	Exploring breakthrough ideas that are capable of overcoming the limits of existing S&T development trajectories

#### B. Core Policy Directions for 2014

- To establish support areas differentiated from those supported by IBS Research Centers, thereby avoiding overlaps:
  - We will specialize in those areas not supported by IBS Research Centers (with respect to new projects in Creative Research.)
- To help to train global research leaders:
  - We will use excellent researchers overseas as evaluators.
  - We will focus on researchers' capacity in selection screening, and will focus on the quality of research outcomes in final evaluations.

- To conduct selection screening, phased and final evaluations, in close linkage with performance measures of the Leading Researcher Program:
  - We will require achievement exceeding the program performance measure (number of articles published in IF top 10% journals,) in order to increase program performance.
- To tighten conditions for project discontinuation in order to increase budgetary efficiency:
  - When a researcher wants to discontinue a project to switch to another project, we will allow such a switch only if the 1st, 2nd, and final phase objectives have been attained at each terminal phase (3rd, 6th, 9th years), and only if the current Creative Research project has a clear linkage with the new project to which the researcher wants to switch.
  - We will not allow in principle discontinuation of projects in the middle, and if violated, will limit future applications and seek recovery of paid grant money as penalty.

### C. Implementation Timeline

Date	Schedule
Jan. 2014	Establish implementation plan for the Creative Research Program and open calls for new applications
Feb. 2014	Accept preliminary proposals for new projects
	Conduct 3rd-year and 6th-year phased evaluation(projects selected in 2008 and 2011)
	Review annual outcomes of continuing projects(launched in March)
	Conclude contracts and provide funding for continuing projects (launched in March)
Mar. 2014	Conduct preliminary evaluation of new projects
	Conduct main evaluation of new projects
May 2014	Select new projects, conclude contracts and provide funding for new projects
	Review annual outcomes of continuing projects(launched in June)
	Conclude contracts for continuing projects(launched in September.) and conclude contracts and provide funding for continuing projects(launched in June.)
Aug. 2014	Review annual outcomes of continuing projects(launched in September.)
	Conclude contracts and provide funding for continuing projects(launched in September)
Through 2014	Publicize outcomes of Creative Research
Every week	Run the 'Friday Science Touch' program

### D. 2014 Budget Investment Plan

(In one million KRW, number of projects)

Division	2013 Outcome		2014 Plan		Note
	No. of projects	Funding amount	No. of projects	Funding amount	
New	3	2,355	2	1,539	Incl. indirect costs
Continuing	66	43,345	66	44,829	
Total	69	45,700	68	46,368	

\* Size of support for 2014 is subject to change due to application status and evaluation outcomes



## National Scientist Program

### A. Program Outline

#### ● Objectives

- To identify leading researchers who have produced original research outcomes of world-class quality and to provide them with support so that they may further enhance their research quality and capability.

#### ● Grant Details

- Target grantees: Leading researchers who have produced original research outcomes of world-class quality and who are capable of fully engaging in research activities for a minimum five years.
  - Scientists of Korean nationality residing in Korea or abroad, who are capable of conducting research at a Korean institution.
- Scope and duration of support: Maximum 1.5billion KRW per project per year, maximum 5+5 years.
  - Funding continuation and duration are decided upon by phased evaluation results.

### B. Core Policy Directions for 2014

- Stop selecting new projects for the National Scientist Program (we will only support continuing projects,) and restructure the program centered on Creative Research.
- Conduct the third-year review of each phase in the form of consultative on-site inspection in order to enhance performance.
- Tighten conditions for project discontinuation to increase budgetary efficiency.
  - When a researcher wants to discontinue a project to switch to another project, we will allow such a switch only if the 1st and 2nd phase objectives have been attained at each terminal phase (5th and 10th years,) and only if the current National Scientist project has a clear linkage with the new project to which the researcher wants to switch.
  - We will not in principle allow discontinuation of projects in the middle, and if violated, will limit future applications and seek recovery of paid grant money as penalty.

### C. Implementation Timeline

Date	Schedule
Apr. 2014	Conduct annual review of continuing projects(selected in 2010), conclude contracts and provide funding for projects
Aug. 2014	Conduct annual review of continuing projects(selected in 2012), conclude contracts and provide funding

### D. 2014 Budget Investment Plan

(In one million KRW, number of projects)

Division	2013 Outcome		2014 Plan		Note
	No. of projects	Funding amount	No. of projects	Funding amount	
New	-	-	-	-	Incl. indirect costs
Continuing	5	5,200	4	5,000	
Total	5	5,200	4	5,000	

## 5 Advanced Research Center Program

### A. Program Outline

#### ● Objectives

- To identify and support high-quality research groups that possess world-class creativity and excellence and to develop them into a creative reservoir to solve scientific puzzles and resolve social issues, thus facilitating the advancement of national R&D.
  - To support advanced research centers that classify and group high-quality research personnel at Korean universities according to specific purposes and fields and to foster sustainable and viable research groups.
- To train creative, convergence-oriented experts through group research and to provide high-quality jobs to young researchers.

#### 〈 Goals of Advanced Research Centers 〉

Field	Contents
Natural sciences – SRC (Science Research Center)	To organize and run research groups at premier universities with research infrastructure and potential in natural sciences in order to develop excellent academic outcomes and to nurture globally competitive leading research groups.
Engineering – ERC (Engineering Research Center)	To form research groups that can systematically organize goal-oriented and organic research projects to produce excellent basic research outcomes, and to support their development into industry-university hubs at universities.
Basic medical sciences – MRC (Medical Research Center)	To produce bioengineering knowledge and to train personnel in basic medical sciences by organizing core research entities in medicine, dentistry, and oriental medicine for the development of basic medical sciences that probe human life-related phenomena and disease mechanisms.
Convergence – NCRC (National Core Research Center)	To develop globally competitive research centers that can produce new knowledge in strategic and future oriented convergence science and technology and to train experts specialized in convergence research and ground-breaking technologies.

#### ● Grant Details

- Grant period : maximum 7 years (4+3yrs)
- Qualification : Research group composed of about 10 excellent researchers

○ Scope of support and target grantees

Division	SRC/ERC	MRC	NCRC
Scope	1.3~1.5billion KRW per center per year	1billion KRW per center per year	2billion KRW per center per year
Target	Universities that offer master's and doctoral programs in S&E	Colleges of medicine, dentistry, oriental medicine that offer graduate programs in basic medical sciences/medicine	Universities that offer master's and doctoral programs in S&E

B. Core Policy Directions for 2014 

○ To strengthen strategic basic research in various fields, focused on interdisciplinary convergence research that can produce better outcomes through group research

- (SRC) We will select and support projects focused on big scientific puzzles with significant academic diffusion potential to enhance the level of the nation's basic research capabilities.
  - Distinct from IBS, we will support group research for special purposes.
- (ERC) Rather than emphasizing academic outcomes, we will support projects that can contribute to the creation of seed technologies in the fields of national strategic importance, with a view to developing break-through original technologies and making linkages with applied research.
  - Rather than focusing on academic performance (e.g., academic articles,) we will focus on patents, technology transfers, and level of industry-academia cooperation, in order to develop specialized evaluation criteria and to evaluate the qualitative level and utilizability of outcomes.
  - We will encourage researchers to set outcome utilization goals focused on the nation's strategic and core technologies.
- (MRC) We will give concentrated support for research in basic medical sciences that can contribute to improved therapy, health technology (HT), and creation of new industry, and will augment linkages with clinical research.
  - To increase utilization of research outcomes, we will strengthen hospital-hospital linkages, and will constitute an advisory committee consisting of medical equipment engineers, clinical researchers, medical staff, and industry experts.
  - In addition to basic medical scientists, we will include as joint researchers clinical professors or researchers from industries (up to 30%.)
  - When selecting new projects, we will additionally consider possibilities of linking with policy research in biotechnology and translational research by the Ministry of Health and Welfare.

○ To promote substantive joint research and facilitate the generation of high-quality research outcomes by supporting group research by excellent researchers:

- In selection screening and phased evaluation, we will focus on evaluating 'research group' by measuring the joint research environment within the university and organic cooperation among researchers, rather than the researchers' (PIs') capacities.
  - ※ We will ask applicants to establish performance goals related with joint research and review level of their achievement in phased and final evaluations (ex: The contribution of joint research to the total research outcome is over 50%.)

- We will improve the quality of research outcomes, including the increase in the number of articles published in journals of JCR top 5% category in each field\* (goal in 2014: 200 articles)
  - \* MSIP's 2014 Performance Plan, performance measure for group research(Advanced Research Center)
- We will strengthen the role in group research of goals such as training of human resources and creating jobs.
  - We will train next-generation high-quality researchers by expanding the participation of post-doctoral researchers, young faculty members, and other young researchers.
    - ※ (Ex) Out of ten joint researchers, use two or so young professors.
  - We will contribute to R&D job creation by increasing the usage of research fellows.
    - ※ We will give priority to job creation effect when recommending placement of ARC expert researchers.
- We will improve project management to suit the purposes of group research.
  - We will change the hierarchical organization of center-general-special for joint research, and instead use simple 'small group' configurations to remove walls between group members and increase the flexibility within joint research.
    - \* We will remove general/special project manager and will focus on the center director in implementing research and disbursing budget.
  - We will conduct consultations on center operation, for example on the promotion of joint research in the second year of the first phase, and consultation on performance outcome utilization in the second year of the second phase (one year before completion.)
    - \* Consultation on center operation applies to all centers, whereas consultation on outcome utilization applies first to ERC/MRC
  - To build a virtuous cycle of group research, we will give extra credits when a research group (with 80% or more existing personnel) with excellent outcomes in a previous BRL project applies for a new center project.

### C. Implementation Timeline



Date	Schedule
Jan. 2014	<ul style="list-style-type: none"> <li>- Establish detailed implementation plan for the Advanced Research Center Program</li> <li>- Announce selections of new centers</li> </ul>
Feb. 2014	<ul style="list-style-type: none"> <li>- Accept research proposals for new centers</li> <li>- Conduct phased evaluation for NCRC(2) selected in 2010</li> <li>- Annual review of continuing projects (launched in March)</li> </ul>
Mar. 2014	<ul style="list-style-type: none"> <li>- Select new centers for 1st and 2nd evaluations</li> <li>- Final evaluation of SRC/ERC(9) selected in 2005</li> <li>- Final evaluation of MRC(4) selected in 2005</li> </ul>
Apr. 2014	<ul style="list-style-type: none"> <li>- 2nd evaluation of new centers and final selection May 2014</li> <li>- Launch research for new centers</li> </ul>
Jul. 2014	<ul style="list-style-type: none"> <li>- Conduct 1st-phase evaluation of S/ERC(7) selected in 2010</li> <li>- Conduct 2nd-phase evaluation of MRC(2) selected in 2009</li> </ul>
Aug. 2014	<ul style="list-style-type: none"> <li>- Annual review of continuing projects (launched in September)</li> </ul>

## D. 2014 Budget Investment Plan

(In one million KRW, number of centers)

Program Title		2013 Outcome	2014 Plan
SRC/ERC	Budget	65,350 (New 679)	60,280 (New 3,656)
	No. of Centers	60 (New 1)	54 (New 3)
MRC	Budget	29,750 (New -)	29,791 (New 3,441)
	No. of Centers	31 (New -)	31 (New 4)
NCRC	Budget	13,400 (New -)	13,400 (New -)
	No. of Centers	6 (New -)	6 (New -)
Total	Budget	108,500* (New 679)	103,471 (New 7,097)
	No. of Centers	97 (New 1)	91 (New 7)

\* Budget adjustment according to the 1st-year adjustment of research period for new projects (Δ500million KRW).

※ Scope of support for continuing/new projects subject to adjustment after phased evaluation or grant amount adjustment.

6

## Basic Research Lab Program

### A. Program Outline

#### ● Objectives

- To strengthen universities' research cohesiveness and capability and to promote the formation of spontaneous research groups by nurturing and supporting small basic research units focused on specific research topics, thereby helping those units grow into excellent research groups, expanding the nation's fundamental research base and enhancing national competitiveness.
- To strengthen joint research capacity of local universities that lack research personnel and to develop them into local joint research centers through department/college level specialization.
- To train creative and convergence-oriented next-generation researchers through group research and to provide young researchers with high-quality jobs.

#### ● Grant Details

- Duration of funding: Maximum 5 years (3+2 yrs)
- Amount of funding: Differentiated support depending on the type of lab (theory-oriented or experiment-based)
  - Theoretical research: about 300million KRW; Experiment-based research: 500million KRW (including indirect costs)
- Target grantees
  - Small-sized research groups that possess basic research infrastructure for certain research topics, centered around S&T-related academic departments/colleges/majors of the same university,\* consisting of 4~5 faculty members including the PI
    - ※ The PI must be a full-time faculty of the applying university; participating researchers may include full-time endowment professors, research professors, et al. (Faculty members who are scheduled to be hired before the initiation of the project may apply and participate.)
    - \* The same university means the same campus: a local campus is considered to be a different university.
  - Faculty members from other departments/colleges may participate, but at least 50% of joint researchers must consist of faculty members belonging to the same department/college/major as that of the principal investigator.
  - Applying unit
    - When only departments or colleges exist: departments/colleges should apply.
    - When majors exist in colleges: majors may apply.
    - When only departments exist in graduate school: departments may apply.
    - ※ No limits on the number of applications from the same department/college/major, but only one project may be selected and conducted.

## B. Core Policy Directions for 2014

- **To support empowerment of local universities with inferior research infrastructure.**
  - We will expand the quota for local universities\* when selecting new projects: 30% → 50%.
    - \* Universities outside major metropolitan areas such as Seoul, Gyeonggi, Incheon, except the five universities specialized in S&T such as KAIST, GIST, DGIST, UNIST, POSTECH.
  - We will select a research topic based on the specialized topic of a university department/college/major and conduct research to empower participating researchers according to their own characteristics.
    - \* (Ex) Include new faculty members of the department/major as core researchers.
    - \* Recommend the securing of a separate joint research space for basic lab researchers within the established department/college/major.
- **To strengthen the role and status of the lab as the local joint research hub:**
  - We will support locality-friendly research topics based on R&D demand of public organizations and industries in the region, thereby contributing to the local society.
  - We will facilitate cooperation between universities and local R&D entities, by forming joint research projects among public/private research institutes and firms in the region and recommending the securing of matching funds.
- **To strengthen the role of group research in training human resources and creating jobs:**
  - We will promote the training of excellent next-generation researchers by expanding the participation of young researchers such as postdoctoral researchers and young faculty members.
    - ※ (Ex) Out of 4~5 joint researchers, use one or so young faculty members.
  - We will allow faculty members who are to be appointed to participate as co-researchers and facilitate R&D job creation by encouraging the utilization of research fellows.
- **To promote effective joint research by encouraging small-scale group research projects:**
  - In selection screening and phased evaluation, we will focus on evaluating a 'research group' by measuring the joint research environment within the university and organic cooperation among researchers, rather than solely the researchers' (PIs') capacities.
    - ※ We will ask applicants to establish performance goals related to joint research and review level of their achievement in phased and final evaluations. (ex: The contribution of joint research to the total research outcome is over 50%.)
  - To facilitate joint research, we will increase the participating rate of PI to more than 50%, and increase the ratio of SCI articles co-published by 2 or more joint researchers of a BRL\* to the total article performance.
    - \* 11% in 2012 → more than 30% in 2014
- **To improve project management to suit the purpose of group research:**
  - We will give extra credits when a research group (with 80% or more existing personnel) with excellent outcomes in a previous BRL project applies for a new center project in order to build a virtuous cycle of group research.



## C. Implementation Timeline

Date	Schedule
Jan.~Feb. 2014	Open calls for new projects Accept new project proposals
Mar.~Apr. 2014	Screening review of new projects Final evaluation of 10 completed projects selected in 2009
May 2014	Launch research for new projects
Jul.~Aug. 2014	Phased evaluation of 12 continuing projects selected in 2011
Aug. 2014	Annual review of 16 continuing projects selected in 2010, 2012
Sep 2014	Research initiation for 28 continuing projects selected in 2010~12
Oct. 2014	Annual review of 5 continuing projects selected in 2013
Nov. 2014	Research initiation for 5 continuing projects selected in 2013

## D. 2013 Budget Investment Plan

(In one million KRW, number of labs)

Program Title		2013 Outcome	2014 Plan	Increase/ decrease
Basic Research Lab	Budget	20,500	20,500	-
	No. of labs	43 (Continuing 38, New 5)	43 (Continuing 33, New 10)	-

※ Scope of support for continuing/new projects subject to adjustment after phased evaluation or grant amount adjustment.

## 7 Global Research Lab Program

### A. Program Outline

#### ● Objectives

- To strengthen global cooperative networks with excellent research entities overseas in the fields of core basic research and original technology through joint collaborative research, thereby raising Korea's research capacity to the global level.
  - To increase performance by conducting joint research with world-class research groups and individuals.
  - To contribute to Korea's development by securing basic and original technologies derived from the nation's mid- and long-term R&D strategy.

#### ● Grant Details

- Duration of funding: 6 years (3+3yrs)
- Amount of funding: Less than 500million KRW (including indirect costs)
- Target grantees
  - Research unit organizations (such as research centers, labs, research groups) at those institutions that meet the criteria of Article 14 of the 「Basic Research Promotion and Technology Development Support Act」 and have expertise in the relevant fields and infrastructure for international cooperation

### B. Core Policy Directions for 2014

#### ● Core Policy Directions

- To include foreign researchers in evaluation to increase the level of internationalization of Korea's S&T and to promote global standardization of evaluation:
  - We will implement internet-based evaluation in which excellent researchers overseas can participate.
  - In selection screening, we will implement domestic panel evaluation and overseas online evaluation simultaneously.
  - We will conduct global evaluation for final reviews of completed projects, and use the results of global evaluation for domestic final evaluation.
- To diversify cooperation partners of the Global Research Lab Program:
  - We will diversify cooperation partners beyond the US to Europe and Asia.
    - ※ We will strengthen strategic cooperation with EU and Asian countries by giving preferential extra credits for relevant cooperative research projects.



- To move beyond evaluation centered around journal articles to evaluation focused on international patents, etc., in order to emphasize the practical values of research:
  - We will encourage creation of intellectual property rights conducive to generation of added value and job creation, by considering obtained patents in phased evaluation (quantitative evaluation.)
    - ※ We will differentiate domestic from international patents and reflect that in evaluation, adjusted by individual contribution ratios, number of inventors, etc.
- To increase the efficiency of project application and promote international collaborative research by making decisions early on technological fields in which call for proposals will be issued:
  - We will determine (January) and announce (January~February) fields of technology prior to the announcement of call for proposals.
  - We will increase the number of fields of GRL, including IT, CT, and other areas of national strategic value.
- To increase the share of foreign matching funds available to augment the research accountability of foreign PIs':
  - We will implement a system of 'differentiated extra credits' according to the amount of matching funds obtained, thereby gradually increasing the ratio of foreign matching funds in evaluation.
- To give preferential extra credits to those GRL applicants with excellent track records in international collaborative research projects (to be incorporated into the evaluation of the initial preliminary research proposal):
  - We will give preferential extra credits to those projects, such as the Korea–China Center Joint Research Project, the Korea–Switzerland Joint Research Project, expanded collaboration with American countries, collaboration with the USAF, and EU–FP joint research, that have achieved Grade S in the final evaluation.
  - We will give preferential extra credits to GRN projects in S&E with Grade A or above.
    - ※ Specific methods of preferential treatment will be decided upon the finalization of the evaluation plan.
- To adopt a reasonable fund distribution system, tailored to the characteristics of selected projects:
  - We will prepare specific and systematic evaluation criteria that can reflect appropriate levels of funding, in order to achieve more rational distribution of grants.

### C. Implementation Timeline

Date	Schedule
Jan. 2014	Determine fields of technology for 2014 GRL
Feb. 2014	Hold the 5th international symposium on GRL
Mar. 2014	Announce the 2014 implementation plan and call for new projects Annual review (projects selected in 2006 and the first half of 2007)
May 2014	Written evaluation of new projects (1st evaluation—preliminary proposals)
Jun. 2014	Annual review (projects selected in 2009)/phased evaluation (selected in 2008)
Jul. 2014	Annual review (projects selected in 2009, 2012, and GPP transferred projects), phased evaluation (projects selected in 2008, 2011) Presentation evaluation and selection of new projects (2nd evaluation—main proposals)
Aug. 2014	Launch new projects Annual review (projects selected in the second half of 2007, 2010, and the first half of 2013)
Sep. 2014	Final evaluation (projects selected in 2008)
Oct. 2014	Final evaluation (projects selected in the second half of 2007)
Nov. 2014	Annual review (12 GiRC selected projects, projects selected in the second half of 2013)

### D. 2014 Budget Investment Plan

(In one million KRW, number of labs)

Program Title		2013 Outcome	2014 Plan	Increase/ decrease
Global Research Lab	Budget	21,514	22,514	1,000
	No. of labs	48 (Continuing 42, New 6)	50 (Continuing 45, New 5)	2

8

## Basic Research Infrastructure Support

### Fostering Next-generation Researchers

#### A. Program Outline

##### ● Objectives

- The Fostering Next-generation Researchers Program provides researchers who hold doctorates with opportunities to attend training programs at research institutes, thus helping them continue and improve their research.

##### ● Grant Details

###### ○ Target grantees

- Researchers with Korean citizenship and a doctoral degree who possess excellent research achievements and proposals.

Type I (Post-doctoral training in Korea)	Type II (Post-doctoral training abroad)	Type III (Presidential Post-doctoral fellowship)
Those who are within 5 years after the obtainment of their Ph.D degree in and outside of Korea	Those who are within 5 years after the obtainment of their Ph.D degree in Korea	Those who obtained their Ph.D degree in and outside of Korea and who are of 39 years or under*

\* Applicants of 40 years or above may apply if they are within 7 years after the obtainment of their Ph.D degree.

###### ○ Scope and duration of support

Type	Funding Type		Funding amount	Duration	Note
Type I (Post-doctoral training in Korea)	1-year program	individual	33million KRW/yr	1년	
Type II (Post-doctoral training abroad)	1-year program	individual	33million KRW/yr	1년	
Type III (Presidential Post-doctoral fellowship)	5-year program	individual	150million KRW/yr	5년	

## B. Core Policy Directions for 2014

- To relax limitations in national R&D program application (TypeIII):
  - We will change the regulation on the number of R&D projects conducted simultaneously as PIs (1 project → 3 projects.)
  - ※ Personal expenses will not be provided if the grantee gets a regular job.
- To strengthen the connection between the Fostering Next-generation Researchers program and others:
  - ※ We will give preferential treatment for the grantee of Type I (when applying for general research) and the grantee of TypeII (when applying for TypeIII.)

## C. Implementation Timeline

Date	Schedule
Jan. 2014	<ul style="list-style-type: none"> <li>• Establish implementation plans for 2014</li> <li>• Open calls for application(1st half year)</li> </ul>
Feb. 2014	<ul style="list-style-type: none"> <li>• Acceptance of applications for new projects(1st half year)</li> </ul>
Mar.~Apr. 2014	<ul style="list-style-type: none"> <li>• Selection screening for new projects(1st half year)</li> </ul>
May 2014	<ul style="list-style-type: none"> <li>• Select new projects(1st half year)</li> </ul>
Jun. 2014	<ul style="list-style-type: none"> <li>• Launch research/training(new project)</li> <li>• Open calls for application(2nd half year)</li> </ul>
Jul.~Aug. 2014	<ul style="list-style-type: none"> <li>• Acceptance of applications and selection screening for new projects(2nd half year)</li> <li>• Annual review of continuing projects(selected in the 2nd half of 2011~2012)</li> </ul>
Feb. 2014	<ul style="list-style-type: none"> <li>• Selection screening for new projects(2nd half year)</li> <li>• Launch research/training(selected in the 2nd half of 2011~2012)</li> </ul>
Feb.~Oct. 2014	<ul style="list-style-type: none"> <li>• Select new projects(2nd half year)</li> <li>• Annual review of continuing projects(selected in the 2nd half of 2013)</li> </ul>
Nov. 2014	<ul style="list-style-type: none"> <li>• Launch research/training(new project)</li> <li>• Launch research/training(selected in the 2nd half of 2013)</li> </ul>

## D. 2014 Budget Investment Plan

(In one million KRW, number of projects)

Program Title		2013 Outcome	2014 Plan
Post-doctoral training in Korea	Budget	3,960	3,960
	No. of Centers	120 (New 120)	120 (New 120)
Post-doctoral training abroad	Budget	3,870	1,980
	No. of Centers	118 (New 118)	60 (60)
Presidential Post-doctoral fellowship	Budget	8,250	11,250
	No. of Centers	55 (20)	75 (21)
Total	Budget	16,080	17,190
	No. of Centers	293 (258)	255 (201)

## Key Research Institute Program

### A. Program Outline

#### ● Objectives

- The Key Research Institute Program encourages university-affiliated research institutes to pursue specialization and professionalization and to secure full-time research personnel by supporting their research infrastructure.

#### ● Grant Details

- Target grantees : S&E research institutes affiliated with universities
- Scope of Support : Maximum 500million KRW per year(excluding indirect costs)
  - ※ Support provided for purchase of special equipment only for the first year of each phase (less than 200million KRW for Phase 1, less than 100million KRW for Phases 2~3)
- Duration of Funding : 9 years across 3 phases(3+3+3)

### B. Core Policy Directions for 2014

- To select 4 new local university-centered labs that can be specialized in their own fields by connecting with local industries to promote local universities.
- To improve the system to adjust the percentage of personal expenses depending on the researchers' participation in other research projects and to create a long-serving environment for the full-time researchers in order to promote the self-reliance of labs.

### C. Implementation Timeline

Date	Schedule
Mar. 2014	<ul style="list-style-type: none"> <li>• Open calls for new projects</li> <li>• Annual review of continuing projects(selected in 2010)</li> </ul>
May 2014	<ul style="list-style-type: none"> <li>• Launch research of continuing projects(selected in 2010)</li> </ul>
Jun.~Jul. 2014	<ul style="list-style-type: none"> <li>• Selection screening for new projects</li> <li>• Annual review of continuing projects(selected in 2007, 2009, 2012)</li> </ul>
Sep. 2014	<ul style="list-style-type: none"> <li>• Launch research of new and continuing projects</li> </ul>
Nov. 2014	<ul style="list-style-type: none"> <li>• Final Evaluation of projects selected in 2005</li> </ul>

### D. 2014 Budget Investment Plan

(In one million KRW, number of projects)

Program Title		2013 Outcome	2014 Plan
Key Research Institute	Budget	26,624	23,680
	No. of Centers	45 (New -)	40 (New 4)



## Utilization of Research Information Program

### A. Program Outline

#### ● Objectives

- To collect/process/reproduce professional research information for basic research and produce useful research information to provide valuable research data to researchers so as to promote basic research.

#### ● Grant Details

##### ○ Target grantees

- University faculty(full-time, part-time) and researchers of public or private research institutes

##### ○ Duration and amount of support

Division	Key Center	Centers by Field	Note
Duration	Continuing(evaluation every 3 yrs)	5yrs(2+3)	
Amount	About 200million KRW/yr	About 300million KRW/yr	

##### ○ Support conditions

- All tangible and intangible products created in the course of the program become joint property of the MEST(National Research Foundation of Korea) and the host research institute (Framework Act on Science and Technology, Clause 11(3), Article 1, Subsection 2).
- ※ The host research institute is responsible for maintaining and managing intellectual property and paying the related costs(application, registration, maintenance, etc.)

### B. Core Policy Directions for 2014

#### ○ To strengthen the support system for utilizing professional research information:

- We will integrate equipment support for establishing a consolidated service for the Utilization of Research Information Program.
- We will support standardization and technology to increase operational efficiency of research information centers in specialized fields.
- We will plan joint professional research information utilization projects based on the demand analysis of research fields.
- We will strengthen online/offline multichannel dissemination of research outcomes.
- Will reinforce the main Professional Research Information Centers in individual fields

- To reinforce the main Professional Research Information Centers in individual fields:
  - We will provide research information service by analyzing articles, patents, conference proceedings, utilizing the Big Data method.
  - We will establish a professional research information service system by rearranging research information by fields and will strengthen the role of IP (Information Provider).
  - We will increase the convenience to users by facilitating communities in individual fields through reinforcing networks such as SNS and mobile service.

**C. Implementation Timeline** 

Date	Schedule
Jan. 2014	Accept phase reports
Feb. 2014	Phased evaluation
Mar.~Apr. 2014	Annual review of 7 centers (on-site inspection)
Apr. 2014	Notification of annual review results and conclusion of contracts
May 2014	Launch research (research period: May 2014~Apr. 2015)

**D. 2014 Budget Investment Plan** 

(In one million KRW, number of centers)

Program Title		2013 Outcome	2014 Plan	Increase/ decrease
Key Research Information Center	Funding	200	200	-
	No. of Centers	1(Continuing)	1(Continuing)	-
Research Information Centers by Field	Funding	2,080	2,080	-
	No. of Centers	7(New)	7(Continuing)	-
Total	Funding	2,280	2,280	-
	No. of Centers	1(Continuing), 7(New)	8(Continuing)	-

## Global Lab Data Hub Program

### A. Program Outline

#### ● Objectives

- To support the establishment of infrastructure to promote data-intensive basic research, by obtaining and processing large-capacity data produced by world-class state-of-the-art research facilities.
  - To improve the environment for basic high energy science research by sharing and analyzing large-capacity data produced by world-class particle accelerators (CERN, FNAL, KEK) through grid computing technology.

#### ● Grant Details

- **Managing institution:** Korean Institute of Science and Technology Information
- **Duration of support:** 2010~14
  - ※ After the 2014 project is completed, continuation of support will be decided upon evaluation.

### B. Core Policy Directions for 2014

- To pursue establishment of an exclusive international information network between Korea and Switzerland (CERN) at more than 3Gbps:
  - We will establish an exclusive network between Korea and CERN at more than 3Gbps to ensure speedy and accurate procurement of large-capacity experimental raw data.
- We will pursue establishing the 11th CERN Grid Computing Tier1 Center in the world.
  - We will build computing resource infrastructure to meet the demand for data generated by giant accelerators and will help Korea play the role of a global hub through service upgrading.
    - ※ CERN has recognized Korea as a country having raw data in the field of high energy experimental physics, appreciating KISTI's continuous efforts to obtain computing resources and Korea's capability of handling Big Data based on grid and computing technologies.
- To pursue sophistication of system resources for processing Big Data in various experimental fields of basic science
  - We will pursue the development of technology for optimizing CPU and Core in different experimental fields based on the technical knowhow of running high performance supercomputers.
- To verify large-capacity data and improve user environment
  - We will verify and analyze data in different fields of experiment using GSDC infrastructure.
  - We will revitalize domestic user communities by establishing an ICT-based science portal for data sharing and analysis and will run education and training programs.
  - International joint research to analyze raw data from accelerators.

C. Implementation Timeline 

Date	Schedule
Jan, 2014	- Establish implementation plan for the annual review
Feb, 2014	- Conduct annual review and notify results of the review, receive annual performance plans for the 5th year
Mar, 2014	- Conclude contracts for the 5th year and provide research funds

D. 2014 Budget Investment Plan 

(In one million KRW, number of hubs)

Program Title	2011 Outcome	2012 Outcome	2013 Outcome	2014 Plan	Increase/ decrease
Global Lab Data Hub	1,500	2,500	3,100	3,028	Δ72
	1 (Continuing 1)	1 (Continuing 1)	1 (Continuing 1)	1 (Continuing 1)	-

## Research Equipment Engineer Training Program

### A. Program Outline

#### ● Objectives

- To increase utilizability of research equipment and to create jobs in science and engineering by training research equipment engineers dedicated to operation and management of research equipment.
  - To designate professional training institutions that are able to provide systematic education to nurture field-oriented research equipment engineers through one-year intensive practical training.

#### ● Grant Details

- Target grantees: Nonprofit research institutions at universities, central or local government-funded institutes, and national or public institutes with necessary research equipment and equipment professionals.
- Scope of support: About 210million KRW per institution(18 trainees)
- Support period: 2013~
- Duration of funding: After the initial selection of training institutions, continuation of support will be decided upon the result of annual and phased evaluation every 2 years.

### B. Core Policy Directions for 2014

- To ensure professionalism of trainees through improving curriculum:
  - We will streamline the curriculum by distinguishing three categories (basic, general, and special education,) and will differentiate professional training according to the types of research equipment, thereby helping trainees become professionals specialized in certain types of equipment.

Division	Curricular Contents
Basic	Basic sciences(physics, chemistry, biology), equipment safety and operation, orientation, general education
General	Theory of equipment, core research equipment practice(required), specialized research equipment (optional)
Special	In-depth practice training in each research equipment(required), on-site practice training at the employing institution(optional), field study, job seminar, or other general education (required). * Separation analysis, mass spectrometry, spectroscopic analysis, microscopic analysis, X-ray analysis, property analysis.

- **To minimize dropouts by providing trainee-specific coaching and strengthening motivation:**
  - We will strengthen orientation programs (such as introduction to the curriculum and job prospects,) seminars by invited speakers (such as research equipment masters,) job search support, and one-on-one consultation.
  - We will increase motivation and self-esteem by issuing trainee cards and providing networking opportunities with research equipment professionals in different vocational fields.
- **To improve the quality of basic and advanced educational materials:**
  - We will revise educational materials developed through pilot projects.
  - We will prepare more diverse educational materials by expanding the scope of educational materials to include specialized research equipment.
  - We will standardize and optimize the curriculum by continually improving education materials reflecting research equipment operation knowhow and adding data interpretation and report writing.
  - We will encourage development of course materials detailing specialized research equipment, and release the contents of the materials to the public, in order to get universities to use them for educational purposes.
- **To increase the quality of graduates by recruiting excellent trainees:**
  - We will identify best practices and publish brochures for use in recruiting trainees and will ensure sufficient demand by publicizing the recruitment two months before the beginning of the training.
- **To operate and sophisticate the online support system for research equipment engineers:**
  - We will secure diverse contents for service functions of the online support system and will continually optimize service for different users.
- **To seek accreditation of engineers by running a certification system as a pilot program:**
  - We will create jobs and strengthen the status of research equipment engineers by running a pilot certification program (based on a policy project in 2012) and pursuing an accreditation system.
- **To establish and expand the human network among research equipment engineers:**
  - We will hold a nationwide Strategic Forum for Research Equipment Engineers (SFREE) in which equipment specialists and trainees (including alumni) can participate.
  - We will build a personnel DB and online and offline communities for equipment engineers.
- **To systematically manage programs by establishing operational guidelines and manuals.**
- **To recalculate the estimate of needed engineers for mid- and long-term, through policy study based on analysis of actual conditions of research equipment.**
- **To pursue a hiring policy based on the analysis of actual conditions of equipment personnel and make linkages with employment support programs:**
  - We will analyze the current status of and demand for engineers by studying the actual conditions of equipment personnel and will implement a hiring policy by asking the cooperation of institutes and universities with respect to hiring trained graduates as interns.
  - We will encourage stable employment by linking research equipment personnel with employment support programs.
- **To pursue synergy with other equipment personnel training programs**
  - We will ask trainees and lecturers of other programs to participate in SFREE (seminars and informal talks) to share information and will introduce trainees to other training programs.

## C. Implementation Timeline

Date	Schedule
Jan. 2014	- Finalize program implementation plan
Mar. 2014	- Hold strategic forum(SFREE)(scheduled)
May 2014	- Annual review of research equipment professional training institutions
Jun. 2014	- Open calls for application
Jul. 2014	- Select trainees, conclude contracts
Aug. 2014	- Launch research equipment engineer training
Dec. 2014	- Hold strategic forum(SFREE)(scheduled)

## D. 2014 Budget Investment Plan

Program Title	2013 Outcome	2014 Plan	Increase/ decrease
Research Equipment Engineer Training	3,000million KRW	2,770million KRW	△230million KRW
	About 10 institutions	About 10 institutions	-

Reference 1 ▾

Implementation System of Basic Research Programs

● Implementation System and Schedule

Division	Contents	Time	Agency
Analysis of policy circumstances	<ul style="list-style-type: none"> <li>• Current status of basic research in academic fields                             <ul style="list-style-type: none"> <li>– Investment, human resources, performance, prospects, etc.</li> </ul> </li> <li>• Requirements for policy improvement</li> <li>• Reporting of analysis outcomes to MSIP</li> </ul>	Nov.~Dec. of previous year	Expert agency(NRF)
Preparation of implementation plan for basic research program	<ul style="list-style-type: none"> <li>• Directions of major policy and program implementation                             <ul style="list-style-type: none"> <li>– Distribution among academic fields, designation of strategic fields, etc.</li> </ul> </li> <li>• Institutional improvement regarding evaluation and program management, etc.</li> </ul>	Dec. of previous year	Gov.
Establishment of implementation plan for basic research programs	<ul style="list-style-type: none"> <li>• Contents of this year's program implementation                             <ul style="list-style-type: none"> <li>– Institutional improvement, issues regarding policy implementation, etc.</li> </ul> </li> <li>• Budget for new and continuing projects, number of projects, etc.</li> </ul>	Jan.	Gov.
Establishment and announcement of this year's evaluation plan	<ul style="list-style-type: none"> <li>• Basic directions and principles of evaluation</li> <li>• Detailed implementation plan for evaluation                             <ul style="list-style-type: none"> <li>– Evaluation indicators, highlights, and selection of evaluators</li> </ul> </li> </ul>	Jan.	Gov.
Implementation of programs	<ul style="list-style-type: none"> <li>• Selection of new projects                             <ul style="list-style-type: none"> <li>– Announcement, acceptance, selection screening, final selection</li> </ul> </li> <li>• Annual review, phased evaluation, final evaluation</li> <li>• Contracts and funding</li> <li>• Publicity campaign of major research outcomes</li> </ul>	All year	Gov., expert agency(NRF)
	<ul style="list-style-type: none"> <li>• Investigation and analysis of basic research outcomes</li> <li>• Collection of opinions about investment strategies of basic research</li> <li>• Request of next year's budget reflecting the nation's basic research strategy and demand from academia</li> </ul>	May~Sep.	Gov.
Collection of opinions from basic research fields	<ul style="list-style-type: none"> <li>• Informal sessions and Q&amp;A meetings among program participants(as necessary)</li> <li>• Council, forum, advisory committees, etc.</li> </ul>	All year	Gov., expert agency, private sector, etc.
Analysis of policy effects and feedback	<ul style="list-style-type: none"> <li>• Researcher satisfaction survey</li> <li>• Collection of opinions about improvements</li> <li>• Analysis of results and reporting to MSIP</li> </ul>	Oct. ~Dec.	Expert agency (NRF)



### ● Implementation Procedures for Specific Programs

Division	Contents	Agency
Establishment of implementation plans for specific programs	<ul style="list-style-type: none"> <li>Improvements and implementation plans for specific programs</li> <li>Budget for new and continuing projects, number of projects, etc.</li> </ul>	Gov.
Announcement of programs	<ul style="list-style-type: none"> <li>Homepages of MSIP and NRF, NTIS</li> <li>Customized mailing service for research information</li> <li>Basic research program briefing session</li> </ul>	Gov., expert agency(NRF)
Submission of applications	<ul style="list-style-type: none"> <li>Submission of new project research proposals(online evaluation system)</li> </ul>	Expert agency(NRF)
Evaluation of new/continuing projects	<ul style="list-style-type: none"> <li>Establishment of plans for selection screening, phased evaluation, final evaluation                             <ul style="list-style-type: none"> <li>Methods, procedures, measures of evaluation and selection of evaluators, etc.</li> </ul> </li> <li>Implementation of evaluation according to evaluation plans (online evaluation system)</li> <li>Reporting of evaluation results(expert agency→MSIP) and finalization</li> </ul>	Gov., expert agency (NRF)
Contracts and funding	<ul style="list-style-type: none"> <li>Overall contracts: MSIP → expert agency</li> <li>Individual contracts: expert agency → institutions in charge (universities, etc.)</li> </ul>	—
Post-funding management	<ul style="list-style-type: none"> <li>Annual review(progress monitoring), phased/final evaluation</li> <li>Investigation, analysis, dissemination of research outcomes</li> <li>Budget settlement, charge of license fees, etc.</li> </ul>	Expert agency (NRF)

### ● Detailed Procedures for Evaluation

※ All evaluation procedures for basic research programs are carried out through online evaluation system established by the expert agency

Division	Contents	Agency
Preparation of evaluation	<ul style="list-style-type: none"> <li>Submission of new project proposals and analysis of research results</li> <li>Annual review of continuing projects/submission of phased evaluation reports</li> </ul>	Expert agency (NRF)
Reporting of evaluation plan	<ul style="list-style-type: none"> <li>Recommendation and selection of evaluators, scheduling of evaluation, etc.</li> <li>(New) Composition of field-specific panels, adjustment of evaluation phases, etc.</li> </ul>	Expert agency (NRF)
Approval of evaluation plan	<ul style="list-style-type: none"> <li>Review and adjustment of evaluation plan considering policy directions and purposes of programs</li> <li>(New) Determination of distribution proportions among fields</li> </ul>	Gov.

Division	Contents	Agency
Recommendation and selection of evaluators	<ul style="list-style-type: none"> <li>• Determination and ordering of evaluators in different fields by RB/CRB and research program managing experts</li> <li>• Contacting and finalizing evaluators according to the ordered list</li> <li>• Reporting of selection of evaluators to MSIP</li> </ul>	Expert agency (NRF)
Implementation of evaluation	<ul style="list-style-type: none"> <li>• Online evaluation, written discussion evaluation, presentation evaluation ※ Reporting of peculiarities in evaluation to MSIP</li> </ul>	Expert agency (NRF)
	<ul style="list-style-type: none"> <li>• Monitoring of evaluation in progress                             <ul style="list-style-type: none"> <li>– Analysis of recommendation and selection of recommenders, relationships between evaluators and evaluatees</li> <li>– Recording of major peculiarities onto the evaluation system and reporting of how those peculiarities are handled</li> </ul> </li> </ul>	Gov.
Deliberation on evaluation results	<ul style="list-style-type: none"> <li>• Deliberation by the implementation committee of basic research programs</li> <li>• Finalization of evaluation results</li> </ul>	Gov.
Notification of evaluation results	<ul style="list-style-type: none"> <li>• (New) Selection results</li> <li>• (Continuing) Phased evaluation grade and contracted funding amounts</li> <li>• (Final) Level of research performance and final evaluation grade</li> </ul>	Expert agency (NRF)

### < Note: NRF's Process for Recommending Evaluators >

- ① Recommendations are made by CRB/RBs and PMs, and chief PMs  
 – In each phase, recommenders log in to the evaluation system to make recommendations

Division	Single CRB field in one panel	Multiple CRB fields in one panel
Recommendation of evaluators (three times of the number of final selections)	RB	RB
A/ B/ C grouping	CRB	PM
Determination of priorities among groups	PM	Chief PM

- ② Check availability of candidate evaluators according to prioritized group list and finalize the list of evaluators.
- According to the relational analysis of candidate evaluators, check special relationships such as advisor–student, PhD students of the same professor, members of the same department(college, lab) of the same institutions, co–researchers(co–authors) during the previous three years, etc.
  - Detailed recording of evaluator recommendation and selection process onto the evaluation system and subsequently review compliance with the priority list.



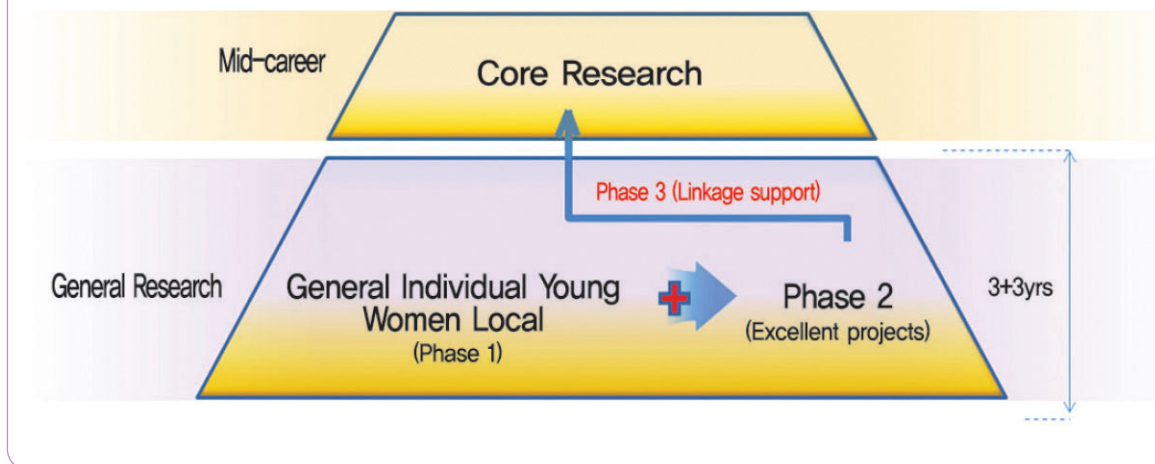
## Reference 2 ▾

## Common Guidelines regarding Program Management

- Tightened procedure for discontinuing research mid-project
  - Discontinuing a project to switch to another project is not allowed in principle when the researcher is in the middle of conducting the project (phase).
    - If discontinued, the project will be considered to be insincere research and the researcher(s) will be punished, by annulling the contract, seeking recovery of all the grant money paid during the research period, and restricted participation in R&D programs for three years.
      - ※ According to the related laws, exceptions will be allowed if there exist unavoidable and justifiable circumstances, such as change in the personal status of the researcher.
  - As a result of phased evaluation, projects deficient in achieving goals will be terminated, and the research will be suspended.
  - As a result of phased evaluation, projects considered to have achieved their goals are in principle expected to continue research in the next phase until project termination.
    - If discontinuation of research is desired, a decision will be made after carefully reviewing the appropriateness of reasons for discontinuation.
    - If reasons for discontinuation are not acceptable, penalties such as those applicable to the project discontinued in the middle will be applied.
- Linkage Support for Excellent Projects
  - **Target grantees:** Excellent projects that apply for follow-up support
  - **Method of support:** According to the functional separation as a result of government reorganization in March 2013, excellent projects among MOE's General Researcher Program will be supported as Mid-career Researcher Program (Core) (an item requiring collaboration with MOE.)
  - **Legal basis:** MEST's 2012 R&D Comprehensive Implementation Plan

- Excellent projects applying for follow-up support will be supported in linkage with higher-level programs

- Excellent projects applying for follow-up support (about 30%) will be supported in linkage with the Mid-career(Core) Researcher Program
- Terms of support: equivalent to support for a new Core Research project



○ Note: Linkage support will be applied first to those projects whose follow-up research ends in 2015.

If you have inquiries about  
2014 Basic Research Programs,  
please contact the following

- NRF of Korea: +82-42-869-6114  
(Computing Help Desk : 1544-6118)
- Natural Sciences: +82-42-869-6521, 6552~4
- Life Sciences: +82-42-869-6531~4
- Medical Sciences: +82-42-869-6549, 6053~5
- Engineering: +82-42-869-6543~6
- Electrical, Information, Convergence: +82-42-869-6562, 6642, 6572~3
- Basic Research Management
  - Basic Research Management and Planning: +82-42-869-6331, 6333, 6336~9
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2014

Implementation Plan for  
Basic Research Programs