

RCA Programme Advisory Committee (PAC)

Prioritization of RCA Project Concepts for the 2024/2025 TC Cycle

50th RCA GCM held in September 2021 approved 18 RCA Pre-Concepts for further development subject to a maximum of two Concepts per GP, according to RCA GOR. Accordingly, the RCA Chair invited Project Concepts for the approved pre-Concepts on the 1st of October 2021, with 31st of December as the deadline for submission.

PAC received 18 Project Concepts up to 7th of January 2022. Three GPs submitted more than two Concepts. The received Concepts were reviewed by PAC and its recommendations were forwarded to the relevant GPs by the RCA Chair on 25th of February along with the template for ranking the Project Concepts according to their individual priorities, with 18th of March as the deadline for submission. PAC received prioritizations of 18 GPs up to 1st April 2022.

PAC has determined the overall rankings in two ways: 1) based on the priorities assigned to Project Concepts by the NRs **only in the high priority areas** of the GPs, and 2) based on the priorities assigned by the NRs **to all the Project Concepts**. These rankings are given respectively as Rank 1 and Rank 2 in Annex 1. Annex 2 contains the prioritizations of the individual GPs.

IAEA TC resources available for 2024/25 are 1.47 million Euros. This will be sufficient for 4 new projects at an average annual budget of 184,000 Euros per project (recommended) or for 5 projects at an average annual budget of 147,000 Euros per project. Details are given in Annex 3. PAC recommends one additional project that could be implemented if Extra Budgetary funds become available.

The first 6 projects according prioritization based on Rank 1 are given in Table 1.

Table 1

No.	Project Title	Lead Country	Thematic Area
1	Improving the Radiotherapy Capacity of Newcomer RCA Governmental Parties	JPN	Human Health
2	Strengthening cancer care and research by training radiation oncology health professionals in RCA Member States in data collection through radiation oncology electronic management systems	AUL	Human Health
3	Mutational Bio-fortification for Improving the Nutritional Quality of Food Crops in Asia and the Pacific Region	CPR	Agriculture
4	Strengthening and empowering the role of radiology medical physics services in clinical practice through regional cooperation	AUL	Human Health
5	Introducing Theranostics In Nuclear Medicine	PAK	Human Health
6	Application of isotope techniques for evaluating the efficacy of artificial recharge to groundwater in water scarce RCA region	IND	Environment

If the first four projects of Table 1 are selected for further development, the RCA Programme for 2024/25, including ongoing projects, will comprise 3* projects in the Agricultural Sector, 1 project in the Environmental Sector, 6 projects in the Human Health Sector and 2 projects in Industrial Sector. The details are given in Annex 4.

*One project will be closed in 2024

Proposed Action

A decision of the NRM regarding the preferred ranking technique, and based on that preference, the number and the titles of the projects to be further developed. Priorities assigned to Project Concepts by the NRs only in the high priority areas of the GPs (Rank 1) were used in developing the RCA Programme for 2022/23.

RCA Programme for 2024/2025**Prioritization of Concept Papers****(First 10 priorities)**

Concept No.	Thematic Sector	Project Title	Rank 1*	Rank 2**
12	Human Health	Improving the Radiotherapy Capacity of Newcomer RCA Governmental Parties	1	1
8	Human Health	Strengthening cancer care and research by training radiation oncology health professionals in RCA Member States in data collection through radiation oncology electronic management systems	2	2
3	Agriculture	Mutational Bio-fortification for Improving the Nutritional Quality of Food Crops in Asia and the Pacific Region	3	4
10	Human Health	Strengthening and empowering the role of radiology medical physics services in clinical practice through regional cooperation	4	5
13	Human Health	Introducing Theranostics In Nuclear Medicine	5	3
6	Environment	Application of isotope techniques for evaluating the efficacy of artificial recharge to groundwater in water scarce RCA region	6	6
11	Human Health	Enhancing the Capability of Medical Physicists in Performing Advanced Radiotherapy Dosimetry Audit via Establishment of Inter-Regional Dosimetry Audit Network	7	9
15	Environment	Radiation Processing Applications for Wastewater Treatment and Recycling in the Asia-Pacific Region	8	10
17	Industry	Augmentation of regional NDT resources based on nuclear and related techniques for industrial growth and societal benefits	9	11
18	Radiation Protection	Developing theoretical and technical capabilities in Occupational Radiation Protection	10	12

***Rank 1 – Overall rankings based on the average of the individual ranking of projects only in the high priority areas of the GPs**

****Rank 2 - Overall rankings based on the average of the individual rankings of all projects**

Annex 2

.Government Party		AUL	BGD	CAM	CPR	FIJ	IND	INS	JPN	ROK	LAO	MAL	MON	MYA	NEP	NZL	PAK	PAL	PHI	SIN	SRL	THA	VIE				
No of high priority projects		4	8	7			8		2	10	7	6	6	6		5	7		6	12		10	5				
No	Project Title	Rankings																				Avg.1*	Avg.2**				
1	Improved harmonization of food safety legislation to increase the adoption of phytosanitary irradiation in the Asia Pacific Region	15	7	4	18		14	4	15	11		6	1	17		12	16				13		17	13	14.22	11.44	
2	Enhancing Regional Laboratory Capabilities to Generate Reliable Data on Multi-Chemical and Associate Microbial Hazards in Food	18	6	2	15		16	10	17	16		16	2	18		11	15				11		15	15	14.56	12.69	
3	Mutational Bio-fortification for Improving the Nutritional Quality of Food Crops in Asia and the Pacific Region	13	1	16	1		8	8	8	13		2	3	3		13	3				1	12		3	8	9.50	6.82

.Government Party		AUL	BGD	CAM	CPR	FIJ	IND	INS	JPN	ROK	LAO	MAL	MON	MYA	NEP	NZL	PAK	PAL	PHI	SIN	SRL	THA	VIE		
No of high priority projects		4	8	7			8		2	10	7	6	6	6		5	7		6	12		10	5		
No	Project Title	Rankings																				Avg.1*	Avg.2**		
4	Impact of COVID-19 pandemic on the chemical compositions, sources, and health relevance of fine particulate matter in the Asia pacific	17	18	4	16		15	3	18	17		18	4	16		10	17			17		18	17	15.50	14.06
5	Enhancing Regional Capability to Study the Impact of Climate Change on Water Resources using Isotopic Techniques	6	14	2	11		18	9	9	14	7	11	5	14		14	2		13	14		12	10	14.00	10.28
6	Application of isotope techniques for evaluating the efficacy of artificial recharge to groundwater in water scarce RCA region	7	16	16	9		1	5	4	10	4	12	6	5		4	13		3	16		6	11	10.94	8.22
7	Application of Advanced Radio Isotope Monitoring Techniques in the Optimization of Marine Radiation Monitoring Network	9	11	18	2		9	11	13	15		5	7	9		8	4		5	4		2	14	13.22	8.59

.Government Party		AUL	BGD	CAM	CPR	FIJ	IND	INS	JPN	ROK	LAO	MAL	MON	MYA	NEP	NZL	PAK	PAL	PHI	SIN	SRL	THA	VIE			
No of high priority projects		4	8	7			8		2	10	7	6	6	6		5	7		6	12		10	5			
No	Project Title	Rankings																				Avg.1*	Avg.2**			
	in the Asia Pacific Region																									
8	Strengthening cancer care and research by training radiation oncology health professionals in RCA Member States in data collection through radiation oncology electronic management systems	1	8	11	7		3	1	3	2	6	13	8	12		2	9		2	5		1	2	8.22	5.33	
9	To implement Quality Management Systems and Quality Assurance programs in Nuclear Medicine Practices in developing countries by providing education, leadership and training support	3	4	10	13		12	6	9	3		14	9	7		16	8		12	1		14	7	13.72	8.71	

.Government Party		AUL	BGD	CAM	CPR	FIJ	IND	INS	JPN	ROK	LAO	MAL	MON	MYA	NEP	NZL	PAK	PAL	PHI	SIN	SRL	THA	VIE		
No of high priority projects		4	8	7			8		2	10	7	6	6	6		5	7		6	12		10	5		
No	Project Title	Rankings																				Avg.1*	Avg.2**		
10	Strengthening and empowering the role of radiology medical physics services in clinical practice through regional cooperation	4	12	14	14		5	12	2	5	2	15	10	1		15	5		11	2		11	5	10.50	8.06
11	Enhancing the Capability of Medical Physicists in Performing Advanced Radiotherapy Dosimetry Audit via Establishment of Inter-Regional Dosimetry Audit Network	10	13	1	12		6	7	14	6	8	1	11	11		17	7		14	3		13	3	11.56	8.72
12	Improving the Radiotherapy Capacity of Newcomer RCA Governmental Parties	8	5	3	5		4	2	1	1	5	4	12	2		1	11		4	9		7	9	6.94	5.17
13	Introducing Theranostics In Nuclear Medicine	5	3	7	3		13	13	7	4		7	13	6		3	1		7	8		10	4	10.72	6.71

.Government Party		AUL	BGD	CAM	CPR	FIJ	IND	INS	JPN	ROK	LAO	MAL	MON	MYA	NEP	NZL	PAK	PAL	PHI	SIN	SRL	THA	VIE		
No of high priority projects		4	8	7			8		2	10	7	6	6	6		5	7		6	12		10	5		
No	Project Title	Rankings																				Avg.1*	Avg.2**		
14	Enhancing Capacity and Capability for the Production of 18F-based Radiopharmaceuticals for Targeted Bioactive Molecules	16	2	9	17		17	16	16	18		10	14	15		18	18			10		16	16	16.61	14.25
15	Radiation Processing Applications for Wastewater Treatment and Recycling in the Asia-Pacific Region	12	9	8	4		10	15	12	9			15	4		5	14		6	15		4	6	12.78	9.25
16	Enhancing capacity of applying artificial intelligence (AI) to Interpretation of radiographs in industrial radiography testing in the RCA region.	11	15	6	8		11	14	5	12		3	16	13		7	10		9	18		5	1	14.28	9.65
17	Augmentation of regional NDT resources based on nuclear and related techniques for industrial growth and societal benefits	14	17	12	10		2	8	10	8	3	9	17	8		6	6		10	7		8	12	12.89	9.28

.Government Party		AUL	BGD	CAM	CPR	FIJ	IND	INS	JPN	ROK	LAO	MAL	MON	MYA	NEP	NZL	PAK	PAL	PHI	SIN	SRL	THA	VIE		
No of high priority projects		4	8	7			8		2	10	7	6	6	6		5	7		6	12		10	5		
No	Project Title	Rankings																				Avg.1*	Avg.2**		
18	Developing theoretical and technical capabilities in Occupational Radiation Protection	2	10	13	6		7	12	6	7	1	17	18	10		9	12		8	6		9	18	13.11	9.50

*Avg. 1 = Average of rankings of high priority projects (with a ranking of 18 assigned for low priority projects)

**Avg.2 = Average of the rankings assigned to all project

TC Funds for RCA Projects in 2024/25**Ongoing projects**

No	Project Number	Title	Budget			
			2024	2025	2026	2027
1	RAS1028	Improving the Quality Management Practices in Radiation Processing Facilities for Better Performance and Applications (RCA)	141,225	162,225		
2	RAS1029	Enhancing Regional Capabilities in Advanced Non-Destructive Testing Techniques for Improved Safety and Inspection Performance in Industries (RCA)	169,575	145,950	107,100	
3	RAS5088	Enhancing Crop Productivity and Quality through Mutation by Speed Breeding (RCA)	68,250			
4	RAS5091	Assessing and Mitigating Agro-Contaminants to Improve Water Quality and Soil Productivity in Catchments Using Integrated Isotopic Approaches (RCA)	26,250	63,000		
5	RAS6098	Standardizing Radiotherapy in Palliative Care (RCA)	190,050	139,650		
6	RAS6100	Strengthening Clinical Application of Hypofractionated Radiotherapy (RCA)	118,125	118,125		
7	RAS6101	Improving the Quality and Safety of Radiation Medicine through Medical Physicist Education and Training (RCA)	183,750	112,875		
8	RAS7040	Improving Water Resources Management Practices by Enhancing the Regional Collaboration in Environmental Isotope Analysis and Applications (RCA)	149,100	141,750		
TOTAL:			1,046,325	883,575	107,100	
Funds available for new projects*			653,675	816,425	1,592,900	1,700,000

TC funds for new projects in 2024/25

1,470,100

Funds available for 5 new projects in 2024/25

147,010 per project per year

Funds available for 4 new projects in 2024/25

183,763 per project per year

*Assuming 1.7 million Euros of TC funds per year

Projects in 2024/25 by Thematic Sector

Thematic Sector	Ongoing projects		New Projects		Total
	No. of Projects	Project Number	No. of Projects	Priority Order (LC)	
Agriculture	2	RAS5088* RAS5091	1	3 (CPR)	3
Environment	1	RAS7040	0	-	1
Human Health	3	RAS6098 RAS6100 RAS6101	3	1 (JPN) 2 (AUL) 4 (AUL)	6
Industry	2	RAS1028 RAS1029	0	-	2
Energy Planning	0	-	0	-	0
Radiation Safety	0	-	0	-	0

*Will be closed in 2024