



الصندوق القطري لرعاية البحث العلمي
Qatar National Research Fund
Member of Qatar Foundation



Academia - Industry Cooperation on Smart Manufacturing

QNRF- TÜBİTAK Joint Funding Program

Call for Proposals (CFP)

Second Cycle

February 2019

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Section 1. Acronyms

AROR	Authorized Research Office Representative
GAG	Grant Application Guide
GS	Graduate Student
IP	Intellectual Property
LPI	Lead Principal Investigator
MRFA	Master Research Funding Agreement
PC	Project Coordinator
PI	Principal Investigator
PP	Project Partner
PR	Peer Reviewer
QMOPH	Ministry of Public Health – Qatar
QNRF	Qatar National Research Fund
QNRS	Qatar National Research Strategy
QRLP	Qatar Research Leadership Program
R&D	Research and Development
RA	Research Assistant
REG	Research Ethics Guide
RIG	Research Integrity Guide
RO	Research Office
SI	Submitting Institution

Section 2. Definitions

Consortium Agreement: An agreement that participants conclude between themselves for the implementation of the project. It allows the participants to determine the detailed administrative and management provisions necessary to carry out their project. With this agreement, parties also outline the rights and responsibilities of each member of the consortium concerning intellectual property. This agreement cannot contradict or negate the provisions established by the project contracts and regulations of TÜBİTAK and QNRF.

Consultant: An experienced individual who is trained to advise the research team in order to help them make the best possible choices during execution of the research project. Consultants are generally considered as service providers and offer only advice or propose solutions to problems, but they do not take on roles of the principal investigators such as designing, conducting or reporting on research. A consultant cannot have any claim on intellectual property related to the project. A consultant requires little or no guidance in providing input.

Grant: Term used to describe the funding instrument used by TÜBİTAK/QNRF for the execution of material support after signing the Grant Agreement/Master Research Funding Agreement.

Intellectual Property (IP): All intellectual property rights, of any kind or nature throughout the world, whether existing now or in the future, including without limitation the rights with respect to (i) inventions (whether or not patentable and whether or not reduced to practice), designs, patents and patent applications; (ii) trademarks and service marks together with all goodwill associated therewith and worldwide registrations, applications and renewals related thereto; (iii) copyrights, copyrightable works (in whatever form or medium), and all registrations, applications and renewals for any of the foregoing; (iv) trade secrets, data, database rights, and confidential information; and (v) all claims, causes of action and remedies of any kind related to the foregoing.

Lead Principal Investigator (LPI): The Principal Investigator who is identified in the research proposal as the leader and manager of the research team in each country and who has the ultimate responsibility for all administrative and programmatic aspects of the proposed project, in addition to their research role.

Principal Investigator (PI): The person designated on the research proposal as a principal individual involved in the scientific development and execution of a project.

The Project Consortium: It represents the whole project and is composed of project Research Teams (RT) from both countries.

Project Coordinator (PC): The person who coordinates the whole consortium. PCs are selected from among the LPIs of any project's research teams.

Project Incentive Premium (PIP): Payments made by TÜBİTAK to principal investigators, researchers and consultants of the accepted projects, according to the amount determined in the project contract. These payments can only be made to permanent staff of public institutions.

Researcher: The person who carries out scientific research as a part of the project research team.

Research End-User: Any entity (including industry, public bodies, service providers, non-profit organizations) that does not have research and development activities as part of its main mission and that can benefit from the research outcome of the project.

Research Team (RT): It is composed of project members from each country's project.

Service: Service is a cost category. A service provider is not involved in the design, conduct or reporting of research; a service provider assists the research team in providing services needed to carry out the research in exchange for a fee. Services may be purchased by either

the awarded or the collaborating institution, and are auxiliary to the main object of the research project. Services usually cover specialized jobs that cannot be carried out by the research team or are employed because it is more efficient to use the services of a specialized organization (e.g. routine analysis, consultancy, communication/outreaching activities, data purchasing and management, statistical analysis, evaluation, auditing etc.). The purchased services shall be provided by third parties contracted by the awardee or collaborating institutions and have no rights or obligations vis-a-vis QNRF and TÜBİTAK.

Submitting Institution (SI): research institution registered inside Qatar that is responsible for submitting research proposals to QNRF. Once awarded, such an entity will be termed as the Awardee. For the Qatari side, SI has to have appropriate research resources specialized in area(s) within QNRS.

Work Package: A major subdivision of work within the research project as a whole. The work package may be composed of one of several tasks (for example, project coordination, literature survey, experimental phase, data acquisition phase, data treatment of modeling phase, implementation phase, dissemination of results and so on).

QNRF Specific Definitions

Awardee: A “Submitting Institution” that is awarded grant(s) from QNRF. The awardee must be a party to the Master Research Funding Agreement.

Capital Equipment: Items which have a useful life of more than one year and a unit acquisition cost of greater than US\$ 5,000 and which are part of the approved budget.

Co-Funding: The mechanism through which the QNRF allows co-funding, in-kind or in-cash, of its calls, from eligible end-users. See QNRF co-funding policy at [link](#).

Collaborating Institution: Research Institution inside or outside the State of Qatar collaborating with the submitting institution in conducting the research proposal. Once awarded, it will be termed as a Sub-Awardee.

Consumables and Materials: Items that are necessary to carry out the project with unit acquisition cost of less than US\$ 5,000.

Direct Cost: Expenses related directly to the performance of the project research activities. Direct cost includes the “Personnel” cost, the “Equipment” cost, the “Travel” cost and the “Miscellaneous” cost.

Graduate Student (GS): A student enrolled for a graduate degree in a university and engaged in research that is in direct fulfilment of a requirement for that degree.

Indirect Cost: Institutional expenses that are not readily identified with the implementation of a research project, yet necessary for the general support of this project by the institution where it is being performed.

Investigator: Anyone responsible for the design, conduct, or reporting of funded or proposed research project.

Post-doctoral Scholar: An individual who has received a doctoral degree (or equivalent) and is engaged in a temporary and defined period of mentored advanced training to enhance the professional skills and research independence needed to pursue his or her chosen career path.

Qatar National Research Strategy (QNRS): A strategy developed by Qatar Foundation Research & Development to address the research priorities of the State of Qatar.

Research Office (RO): A department within the submitting institution responsible for vetting submitted research proposals and administrating awarded research projects

Research Office (RO) Vetting: Administrative procedure required from the Awardee’s RO prior to submitting any proposal, reports or requests to QNRF, through which the RO confirms the accuracy of submitted information and confirms its compliance with the Awardee’s policies and procedures and those of the relevant program/call.

Section 3. Call Snapshot

SCOPE			
Competition opens	04 February 2019 (12:00 pm, Istanbul/Doha time)		
Submission deadline	Final date for proposal submission is on 13 May 2019 (23:59 pm, Istanbul/Doha time) for TÜBİTAK and 14 May 2019 (12:00 pm, Istanbul/Doha time) for QNRF.		
Announcement of results	October 2019		
Anticipated project start date	Project activities can begin only after the Master Research Funding Agreement (MRFA) with QNRF/grant agreement with TÜBİTAK and other related agreements have been signed. This process can take up to 60 days from the time of the award announcement and this should be taken into consideration when preparing the implementation timeline of the application.		
Academia-Industry Cooperation Program objectives	The aim of the call is to intensify cooperation between Turkish and Qatari participants in science and industry by means of Academia-Industry Cooperation projects. The theme of the second call is Smart Manufacturing. “Academia-Industry Cooperation Projects” are R&D projects, which require the participation of at least one Turkish research institution/university/training and research hospitals and one Qatari research institution/university as well as at least one Turkish commercial company and one Qatari commercial company or research end-user. The funding is intended to enable foundations to be laid for a lasting R&D innovation partnership.		
Specific Research Priority Areas	<ul style="list-style-type: none"> • Additive manufacturing • ICT in manufacturing • Production systems, organization, logistics and supply chain • Sustainable manufacturing 		
Eligible applicant	<table border="0" style="width: 100%;"> <tr> <td style="vertical-align: top; width: 50%;"> <p>For the Qatar-based Team The LPI from academic/research institution must be a researcher who holds a research oriented doctorate or any of the approved terminal degrees as defined under the approved list of terminal degrees and has at least five peer reviewed publications. The LPI from a research end-user entity may not hold a terminal degree, however they must have a track record in managing technology development projects and/or research projects, and a minimum of five publications, technical reports or authored patent applications/patents. The LPI must be affiliated with an institution inside Qatar.</p> </td> <td style="vertical-align: top; width: 50%;"> <p>For the Turkey-based Team The Principal Investigator (PI), including the Lead Principal Investigator (LPI), is expected to hold a PhD degree if they are from academia. If the LPI and/or the PI is from the private sector, they must be working there full-time for a minimum of 6 months and must have a BA/BSc Degree. The higher education institutions, as well as, training and research hospitals that will be successful within the scope of QNRF-TUBİTAK Joint Funding Program and including in Higher Education Law, public centers and institutions that are authorized for conducting research and development by their relevant regulations, also without taking in to account firm size, industrial enterprises in Turkey that creating value-added and has a business registration certificate will be supported in accordance with the TUBİTAK 1071- Capacity to Benefit from International Research Funds and the Support Program</p> </td> </tr> </table>	<p>For the Qatar-based Team The LPI from academic/research institution must be a researcher who holds a research oriented doctorate or any of the approved terminal degrees as defined under the approved list of terminal degrees and has at least five peer reviewed publications. The LPI from a research end-user entity may not hold a terminal degree, however they must have a track record in managing technology development projects and/or research projects, and a minimum of five publications, technical reports or authored patent applications/patents. The LPI must be affiliated with an institution inside Qatar.</p>	<p>For the Turkey-based Team The Principal Investigator (PI), including the Lead Principal Investigator (LPI), is expected to hold a PhD degree if they are from academia. If the LPI and/or the PI is from the private sector, they must be working there full-time for a minimum of 6 months and must have a BA/BSc Degree. The higher education institutions, as well as, training and research hospitals that will be successful within the scope of QNRF-TUBİTAK Joint Funding Program and including in Higher Education Law, public centers and institutions that are authorized for conducting research and development by their relevant regulations, also without taking in to account firm size, industrial enterprises in Turkey that creating value-added and has a business registration certificate will be supported in accordance with the TUBİTAK 1071- Capacity to Benefit from International Research Funds and the Support Program</p>
<p>For the Qatar-based Team The LPI from academic/research institution must be a researcher who holds a research oriented doctorate or any of the approved terminal degrees as defined under the approved list of terminal degrees and has at least five peer reviewed publications. The LPI from a research end-user entity may not hold a terminal degree, however they must have a track record in managing technology development projects and/or research projects, and a minimum of five publications, technical reports or authored patent applications/patents. The LPI must be affiliated with an institution inside Qatar.</p>	<p>For the Turkey-based Team The Principal Investigator (PI), including the Lead Principal Investigator (LPI), is expected to hold a PhD degree if they are from academia. If the LPI and/or the PI is from the private sector, they must be working there full-time for a minimum of 6 months and must have a BA/BSc Degree. The higher education institutions, as well as, training and research hospitals that will be successful within the scope of QNRF-TUBİTAK Joint Funding Program and including in Higher Education Law, public centers and institutions that are authorized for conducting research and development by their relevant regulations, also without taking in to account firm size, industrial enterprises in Turkey that creating value-added and has a business registration certificate will be supported in accordance with the TUBİTAK 1071- Capacity to Benefit from International Research Funds and the Support Program</p>		

		for Increasing Participation in International R & D Collaborations.
Awards parameters	QNRF funds up to US \$250,000 per project per year. The proposal duration is up to three years.	TÜBİTAK funds up to four million Turkish Liras per project (excl. overhead and Project Incentive Premium (PIP)) per project. The partner from academia cannot get more than 40% of the total project budget. The proposal duration is up to three years.
Co-funding parameters	QNRF encourages co-funded (in-kind or in-cash) proposals in this program, however fund matching is not applicable.	
How to apply	Qatar and Turkey-based LPIs should prepare their joint application offline and each of them should submit it to their respective funding agency. Qatar-based LPI needs to register and submit through www.qgrants.org	For Turkey-based LPI, proposal submission is made using E-Signature. For details (Link) . Proposal submission is made through TÜBİTAK's Project Application System (http://uidb-pbs.tubitak.gov.tr).
Reference Documents	<p>For the Qatar-based Team Research Ethics Guide (REG): (Link). Research Ethics and Regulatory Requirements document (link). Qatar National Research Strategy (QNRS) (Link). Travel Policy (Link). Data Management Policy Plan (Link)</p>	<p>For The Turkish Team 1071-Programı Usul ve Esasları: (Link). Araştırma Projelerinde Uygulanacak İdari ve Mali Esaslar (Link). ARDEB Tarafından Yürütülen Programlara İlişkin Yönetmelik (Link). TÜBİTAK- Harcamalarının Gerçekleştirilmesine İlişkin Esar ve Usuller (Link). TÜBİTAK-Özel Kuruluşlar ve Vakıf Üniversitelerine Proje Karşılığı Aktarılacak Tutarların Esasları (Link). Etik Kurul Onay Belgesi Bilgi Notu (Link). Yasal/Özel İzin Belgesi Bilgi Notu (Link). TÜBİTAK Araştırma ve Yayın Etiği Kurulu Yönetmeliği (Link). Proje Teşvik ve Destekleme Esaslarına İlişkin Yönetmelik Uyarınca Desteklenen Projelerde Uygulanacak Fikri Haklar Esasları (Link). (Specific rules concerning this call will be provided in Annex III).</p>
IP	http://www.qnrf.org/en-us/Funding/IP-Policy .	Please refer to Annex II
Contact Person	QNRF http://support.qnrf.org/index.php?Tickets/Submit .	TÜBİTAK Mrs. Nihad Nassar uidb@tubitak.gov.tr .

Section 4. Background

QNRF and TÜBİTAK are jointly launching the Academia-Industry Cooperation call with the aim of supporting joint research projects in the areas of application-oriented research and development. The theme of the second call is **Smart Manufacturing**.

The vision of Qatar National Research Fund (QNRF) is to enable research and development excellence in Qatar to achieve a sustainable, diversified economy through the advancement of research and education by providing funding opportunities for original, competitively-selected research and development at all levels and across all disciplines with emphasis on the following four pillars of the Qatar National Research Strategy (QNRS):

- Energy and Environment
- Computer Science and ICT
- Health
- Social Sciences, Arts and Humanities

The Scientific and Technological Research Council of Turkey (TÜBİTAK) is the leading agency for management, funding and conduct of research in Turkey. It was established in 1963 with a mission to advance science and technology, conduct research and support Turkish researchers. The Council is an affiliated institution of the Ministry of Industry and Technology and is governed by a Governing Board whose members are selected from prominent scholars, universities, industry and research institutions. TÜBİTAK is responsible for promoting, developing, organizing, conducting and coordinating research and development in line with national targets and priorities. In addition, TÜBİTAK carries out and monitors international scientific and technological collaboration activities with the rest of the world through the Directorate for International Cooperation.

Section 5. Call Objectives

This call focuses on Smart Manufacturing as a promising development sector for Qatar and Turkey. In both countries, Smart Manufacturing is specifically aimed at transforming the key strategies and operations of the energy, secondary processing (steel, polymer and aluminum), renewables, tertiary manufacturing (e.g., sports equipment and medical wearables), and lifeline (e.g., water, food, security and transportation) sectors through wider deployment of the latest innovations including the internet and interface of things, advanced materials, additive and hybrid manufacturing processes and artificial intelligence.

The call aims to enhance Public-Private Partnership in R&D projects by involving academia, research institutions, industrial companies and research end users with the aim to help both countries' industry to meet increasing global consumer demand for greener, more customized and higher quality products through the necessary transition to a demand-driven industry with less waste and sustainable use of resources.

Section 6. Research Priority Areas of this Call

The call concentrates on Smart Manufacturing research, development and innovation (RDI) to increase the technological basis of Qatar's and Turkey's manufacturing portfolio, with the ultimate aims of:

- Underpinning Qatar's and Turkey's industrial competitiveness;
- Addressing global demand for affordable, personalized and eco-efficient products;
- Adapting manufacturing to a smart, green and inclusive economy;
- Reinforcing the role of manufacturing for growth and jobs.

The research priority areas of this call are:

6.1. Additive manufacturing

1. 3D Printing, Jetting
2. Biomaterials and tissue engineering (electrospinning, etc.)
3. Defect detection in materials
4. Functional nanocomposites (sensors, electronics, etc.)
5. High temperature alloys and super alloys (aerospace applications, etc.)
6. Laser processing, surface property manipulation and extrusion
7. Membranes (desalination, gas separation, etc.)
8. Prediction of material properties
9. Spare parts production

6.2. ICT in manufacturing

1. Big data analytics, machine learning and artificial intelligence
2. Industrial Internet of Things
3. Modelling, simulation and visualization
4. Nondestructive testing (NDT)
5. Predictive maintenance
6. Smart products (context-aware, adaptive, self-organized, pro-active)
7. Virtual Reality, Augmented Reality

6.3. Production systems, organization, logistics and supply chain

1. Adaptive production systems
2. Automated warehouse
3. Autonomous supply and loading
4. Decentralized production and control mechanisms
5. Intelligent decision support systems
6. Last mile optimization and scheduling for delivery to consumer
7. Logistic visibility and track & trace
8. Optimized process modeling and process monitoring

6.4. Sustainable manufacturing

1. Heat recovery techniques (e.g. using sophisticated heat pipes, leakage control by NDT, monitoring high pressure tanks)
2. Improvements in work practices and maintenance
3. New product design to minimize environmental impacts throughout the product lifecycle
4. New technologies to enable lower resource consumption, waste generation & emissions
5. Process optimization to make adjustments to processes to increase efficiency
6. Raw material substitution to shift to more environmentally sound inputs

The above applies to the following industrial sectors:

1. Oil & Gas
2. Petrochemical Industry (e.g. Polymers)
3. Transformative Industries (e.g. Plastic Industry)
4. Aluminum and Metal Industry
5. Food and Agriculture
6. Healthcare and Pharmaceutical Industry
7. Energy (included renewable energy)
8. Water and Desalination Industry

9. Automotive & Aviation Industry
10. Sports
11. Construction
12. IT, Telecom, Electrical and Electronics Industry
13. Electro-mobility (e-Mobility)

Section 7. Scope of the Call

7.1. Funding Available

As a rule, Turkish academia and industry teams that are eligible for funding can receive up to approximately (4 million Turkish liras (excl. overhead and Project Incentive Premium (PIP)) of funding per proposal in total. The partner from academia cannot get more than the 40% of the total project budget.

The Qatar-based team that is eligible for funding can receive up to US\$ 250,000 per project per year for up to three years. 100% of the proposed QNRF funded portion of research budget must be spent inside Qatar.

The size of the grant may vary depending of the needs of each project and must be fully justified.

QNRF-funded costs of each grant will be issued and managed by QNRF in accordance with its funding guidelines and procedures. Similarly, TÜBİTAK-funded costs of each grant will be issued and managed by TÜBİTAK according to its funding guidelines and procedures.

Applicants need to ensure that supported elements of the proposal abide by all regulations for each funding agency.

7.2. Duration of the Project

The duration of the projects will be up to three years.

Section 8. Eligibility

8.1. Eligibility of Proposal

8.1.1. It is a prerequisite that proposals include the participation of:

- at least one Qatari research institution/university and one Turkish research institution/university/training and research hospitals
- at least one Turkish commercial company and one Qatari commercial company or research end user for Academia-Industry Cooperation proposals.

QNRF and TÜBİTAK will cover the costs of their respective country's teams.

8.1.2. The proposal must be within one or more of the specific research priority areas described in **Section 6**.

8.1.3. Turkish and Qatar-based teams must be led by a Lead Principal Investigator (LPI), each.

8.1.4. Each proposal should have a Project Coordinator. The Project Coordinator will be selected from the LPIs of the proposal. The Project Coordinator is responsible for coordinating the application form and progress reports.

8.2. Eligibility for the Turkish Team

The Turkish team will receive funding through TÜBİTAK 1071 Programme.

All Turkish researchers applying to this Programme should be registered to TÜBİTAK ARBİS (Researcher Information system) through the following link: <https://arbis.tubitak.gov.tr>.

Rector, Chief Physician, Hospital Manager, General Manager cannot be a Principal Investigator in projects if their duties continue at the time of application. Members of the Group Executive Committee and the Advisory Board, who are in charge of this position at TÜBİTAK,

cannot serve as a Principal Investigator or advisor if their duties continue during the time of application but can serve as researchers within up to 2 projects.

8.2.1. Eligibility to Become Principal Investigator, Researcher (except researchers abroad), and Advisors:

8.2.1.1 University staff must hold a PhD degree (Proficiency in art/specialty in medicine. This rule is for employees of training and research hospitals).

8.2.1.2 If employed at public or private sector, they must hold at least a BA/BSc Degree.

8.2.2. Lead Principal Investigator and Principal Investigator:

8.2.2.1 **The projects have to be composed of sub-projects managed at different institutions.** The Lead Principal Investigator (LPI) is selected from the principal investigators (PI) of these sub-projects with a Protocol ([Link](#))

8.2.2.2 The LPI and PI must be employed as permanent staff of the project proposing institution.

8.2.2.3 LPI, PI and researchers (except researchers abroad) must reside within the borders of the Republic of Turkey. A foreign national can take place in the project provided that he is employed at an institution within the borders of Turkey.

In projects to be carried out in public institutions or higher education institutions, the principle investigator must be permanent staff of the said institution / organization (full-time employee for foundation universities).

In projects involving the private organization, the principle investigator must be working at the relevant private organization for at least six months before the deadline for submission of the program.

8.2.3. Researchers and Advisors:

8.2.3.1 Anyone with a contribution rate below 10% cannot be assigned to the project as a researcher.

8.2.3.2 In order to assign an advisor to a project, the project must have specific topics or topics that require special expertise and this should be justified in the project proposal. The number of advisors who will be employed in a project is limited to the number of topics required for that particular project.

Within the scope of the projects, and under the supervision of the principle investigator or the researchers, personnel who are not mentioned in the results report and worked for full or partial time in the execution of the project for limited duration of the project like technical staff, technician, laborer, worker and similar auxiliary can be employed.

8.2.4. Scholarship Students:

8.2.4.1 Undergraduate and postgraduate "Students" continuing their education in higher education institutions in Turkey or "Research Assistants" (RA) with student status and postdoctoral researchers can take a place in the project team as scholars.

8.2.4.2 Additional scholarships may be paid for post-graduate and post-doctoral scholars who receive full scholarships from BİDEB.

8.2.4.3 The sum of the additional scholarship payments from the BİDEB scholarship and the project cannot exceed the determined monthly scholarship limits ([Link](#)).

8.2.4.4 Participants who receive partial scholarships from BİDEB will not be awarded a scholarship from the project budget.

8.2.4.5 Those who receive scholarships from any project supported by TÜBİTAK cannot receive scholarships from a second publicly funded ongoing project.

8.2.5. Post-Doctoral Fellowship Requirements:

8.2.5.1 Must hold a PhD degree and must not be affiliated to any institution.

8.2.5.2 Must not hold a title of Associate Professor or above.

- 8.2.5.3 The period between the date of receipt of the degree of PhD / specialization in medicine and the deadline for the application of the relevant program must not be more than seven years.

8.3. Eligibility for the Qatar-based Team:

The Qatar-based team will be funded by QNRF.

8.3.1. Eligibility of Submitting Institution

- 8.3.1.1 Institutions inside Qatar with approved Research Offices (ROs) are eligible to submit proposals. See submitting institution and RO roles in the “Institution’s Responsibilities and Post-Award” document available at [link](#).
- 8.3.1.2 Submissions should be within the research area(s) of the submitting institutions, as declared by the approved ROs.
- 8.3.1.3 Authorized Research Office Representatives (ARORs) and other members of the RO are not eligible to participate in any project under this call.

8.3.2. Eligibility of Lead Principal Investigators (LPis)

- 8.3.2.1 The LPI must be affiliated with a submitting institution inside Qatar. He/she is the individual eligible to apply for a grant under this call. The LPI may collaborate with other research organizations located inside Qatar.
- 8.3.2.2 An eligible LPI from academic/research institutions must hold a research-oriented doctorate or any of the approved terminal degrees as defined under the approved list of terminal degrees available at [link](#).
- 8.3.2.3 The LPI should have at least five single- or co-authored peer-reviewed publications uploaded in their profile in the QNRF online submission system. Types of publications accepted by QNRF include journal papers, full paper conference proceedings, books, book chapters or patents by the LPI. In addition, QNRF accepts peer-reviewed creative works that cover the following research areas: performing arts, visual arts, creative writing, design works, and communication media. These creative works are only accepted when the LPI provides an “attestation letter” from the LPI’s affiliated institution, indicating that these particular creative works are acceptable research outcomes.
- 8.3.2.4 The LPI from a research end-user entity may not hold a terminal degree, however he/she must have a track record in managing technology development projects and/or research projects, and a minimum of five publications, technical reports or authored patent applications/patents.
- 8.3.2.5 LPI must be registered with QNRF on [link](#).
- 8.3.2.6 A post-doctoral scholar is not eligible to act as an LPI (see definition at [link](#))

8.3.3. Eligibility of Principal Investigators (PIs)

- 8.3.3.1 A PI must be affiliated with a submitting institution in Qatar or a collaborating institution inside Qatar.
- 8.3.3.2 An eligible PI must hold at least a university post-graduate degree and they should have a suitable research experience relevant to the area of the proposal and the tasks assigned to them.
- 8.3.3.3 PI must be registered with QNRF on [link](#).
- 8.3.3.4 A post-doctoral scholar is not eligible to act as a PI (see definition at [link](#))

8.3.4. Other Research Team Members

Post-doctoral scholars, graduate students, research associates, research assistants, undergraduate students, lab technicians and engineers are considered research team members.

8.3.5. Eligibility of the Post-doctoral scholars

- 8.3.5.1. Must hold a PhD degree and must not be affiliated to any institution,
- 8.3.5.2. Must not hold a title of Assoc. Prof. or above,
- 8.3.5.3. The period between the date of receipt of the degree of PhD / specialization in medicine and the deadline for the application of the relevant program must not be more than seven years.

8.3.6. Graduate Students

A graduate student (GS) is permitted to participate in this CFP project provided that they are enrolled in a higher education degree program at the submitting or collaborating institution and that the indicated research activities are related to the GS's degree program. QNRF encourages the applicants to hire QRLP (Qatar Research Leadership Program) graduates and candidates and GSs from Qatar. The QRLP graduates and candidates will be at zero cost to the project.

8.3.7. Undergraduate Students

If necessary, the LPI may include undergraduate students as research team members under the "Undergraduate Student" roles on the QNRF online submission website, provided that their participation complies with their institution's policies.

8.3.8. Consultants

If the need for consultant (see definition) services is anticipated, the nature of the proposed consultant services must be justified and included in the proposal. **The consultant services cannot be considered as scientific or intellectual contribution to the project.**

8.4. Number of Roles

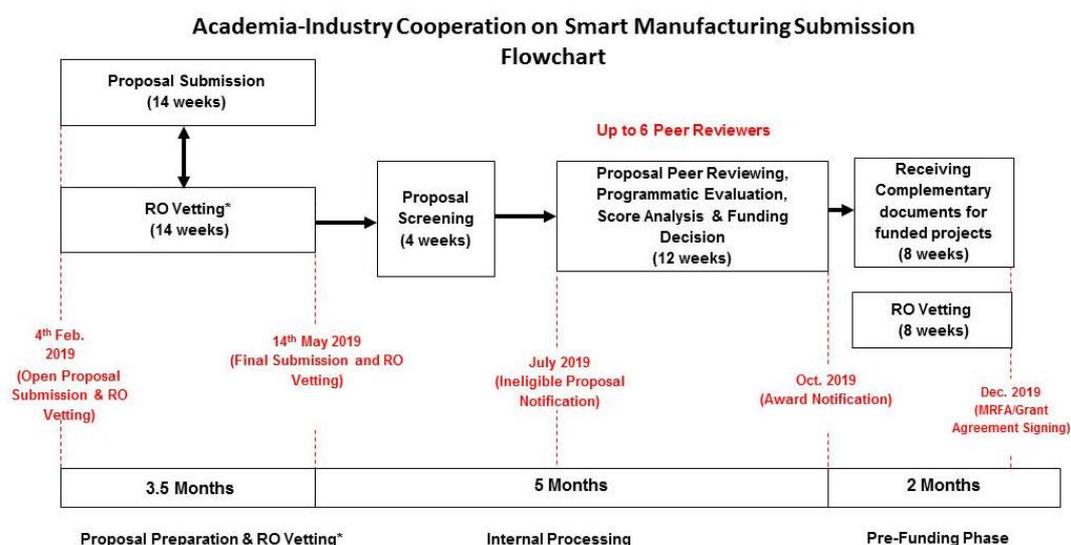
For Qatar-Based and Turkey-based researchers, there will be no limit on the number of participations in this call.

Section 9. Submission Process

9.1. Proposal Submission Flowchart and Timeline

9.1.1. Flowchart

The following flowchart illustrates the steps necessary from proposal submission by the LPI



The following table shows important dates for the call.

Timeline For Academia-Industry Cooperation on Smart Manufacturing	
Description	Dates
Open proposal submission to QNRF and TÜBİTAK as well as RO vetting* process.	04 February 2019, (12:00 pm, Istanbul/Doha local time)
Close proposal submission to QNRF and TÜBİTAK and RO vetting*.	13 May 2019 (23:59 pm, Istanbul/Doha time) for TUBITAK and 14 May (12:00 pm, Istanbul/Doha time) for QNRF.
Notifying ineligible proposals	July 2019
Awards announcements	October 2019

*RO vetting for the Qatar-based Team only.

Section 10. Budget

10.1. Grant and Effort Allocation for the Turkish Team

10.1.1 Budget items to be funded by TÜBİTAK are as follows:

- Personnel Expenses
- Scholarship Student Expenses
- Consumable Expenses
- Travel Expenses
- Service Procurement Expenses
- Tools and Equipment Expenses

10.1.2 A balanced distribution between the project budget items is required.

10.2. Grant Allocation for Academia-Industry partners in the Turkish Team

- Universities and Academic Research Centers and Institutes/ training and research hospitals can receive %100 of the total budget for a project;
- Turkish small and medium sized enterprises (SMEs) can receive %75 of the total project budget;
- Turkish large-scale enterprises can receive %60 of the total project budget.

For the applications from the private companies, the expenses of tool, equipment, mold etc. (excluding computer and software) that are required in the project but can potentially be used for mass production, are supported with a monthly rate of %2 in proportion to the duration of the project. For such expenses, the amount of support is calculated according to the following equation, "cost x duration of the support (month) x %2". The minimum and maximum limits for "duration of the support (month) x %2" are %40 and %72, respectively. However, the minimum limit can be reduced to %25 if the requested tool, equipment, mold etc. are mostly used routine production activities without significant change after being used in the project. The change in project duration during the support period is not taken into account in the calculations.

The project personnel who are not in the positions of public institutions / organizations and universities are paid the fee determined within the scope of the 1007 -TÜBİTAK Public Institutions Research and Development Support Program.

10.3. Grant and Effort Allocation for the Qatar-based Team

- 10.2.1 100% of the proposed funded research effort must be conducted inside Qatar by the Qatar-based research team and 100% of the total annual budget must be spent inside Qatar.
- 10.2.2 Indirect cost shall not exceed a total of **10%** of the project's annual direct cost.
- 10.2.3 For the other budget details of the Qatar-based team, please refer to the Budget Components document available at [link](#).

10.4. Co-funding Rules for the Qatar-based Team

For the Qatar-based team, QNRF encourages co-funded projects in this program. In such a case, applicants are requested to comply with QNRF's co-funding policy. Fund matching will not be provided by QNRF.

Section 11. Online Submission Procedures

A project coordinator needs to be identified by either LPs and he/she will be responsible to coordinating the application form and the progress reports. Turkish and Qatari applicants should prepare their joint application offline. Each LPI will submit it online to their respective funding agencies.

The Turkey-based LPI needs to submit the joint application to TÜBİTAK through <http://uidb-pbs.tubitak.gov.tr>.

The Qatar-based LPI needs to be registered and submit the joint application through <https://www.qgrants.org/>.

To complete the application process, QNRF and TÜBİTAK might need supporting documents.

11.1 The supporting documents for the Turkish applicants are listed below:

11.1.1 For All Partners

- Ethics Committee ([Link](#)).
- Legal/Special Permission Documents ([Link](#)).
- Waiver Form ([Link](#)).
- Certificate of Approval for Foreign Residents, if any, PIP paid in Turkey ([Link](#)).
- Approval of TÜBİTAK 's President (If there is any staff in the project that is affiliated with TÜBİTAK Research Institutes) ([Link](#)).

11.1.2 For the Industry Partner:

- Trade Registry Gazette
- Chamber Registration Record
- Financial Statement of the Past Year
- Signature Circulars and Authority Document (by the firm official)
- Permission Form (If the project is submitted by Technopark companies and the staff of the project is from university) ([Link](#)).
- For SMEs only, SME declaration (KOBİ Beyannamesi)

11.2. The Qatar-based LPI is required to provide the below:

11.2.1 The Qatar-based LPs and PIs need to be registered with QNRF and/or update their profile prior to submitting the application.

11.2.2 After registration, the LPI is required to register the proposal via the following website: <https://www.qgrants.org/> . For more information regarding the proposal registration and submission, please refer to Grant Application Guide (GAG), at [link](#).

- 11.2.3** An applicant is required to use their official work email addresses (if available) when registering. Those who have previously registered do not need to re-register, but will need to update their profile and CV as applicable. Applicants who register with two different emails will be disqualified.
- 11.2.4** Each LPI is required to upload a minimum of five peer-reviewed publications. Research end-users LPIs may include patent applications and technical reports.
- 11.2.5** Applicants from a research end-user entity who do not hold a terminal degree should request an approval from QNRF to act as LPI through the support system.
- 11.2.6** Consultants are required to register and upload their CVs, stating their affiliation.
- 11.2.7** For the requirements regarding online registration, please refer to the Grant Application Guide (GAG) at [link](#).
- 11.2.8** The LPI may use the “Comments to QNRF” box to designate persons they would prefer not to review the proposal and should indicate why. The decision to follow the suggestions or not, however, remains with QNRF. The LPI may also utilize the “Comments to QNRF” box for any other issue they need to declare before submission. The LPI should also identify any research work that they have conducted/are conducting which is similar to the proposal and explain how the latter is distinct.
- 11.2.9** During the “Proposal Preparation,” the LPI has to submit the information according to the online sections listed below as well as upload documents as required. **The LPI must ensure to enter and upload the same information submitted by the Turkish LPI to TÜBİTAK submission system.**
- 11.2.9.1 Proposal Summary:** This should be the same as the proposal abstract/summary used in the application form.
- 11.2.9.2 Submitting Institution’s Information:** A research institution registered **inside** Qatar that has appropriate research resources specialized in area(s) within QNRS and is responsible for submitting research proposals to QNRF. The LPI’s institution in Qatar will be considered as the submitting institution and will be responsible for vetting the proposal.
- 11.2.9.3 Collaborative Institutions’ Information:** Institutions **inside** Qatar, collaborating with the submitting institution in conducting the research proposal. If collaborative institutions are involved in the proposal, the LPI should enter the required information for each institution, including uploading an official support letter at [Link](#). Collaborative Institution must include at least one PI.
- 11.2.9.4 Personnel:**
- **Research Team:** The LPI can nominate research team members (see definitions at [Link](#)) from the submitting and collaborating institutions. PIs are required to be registered in order to be added to the proposal submission. The system will request the PIs to update their profiles with all required documentation/information, including those related to effort, in order to be added to the proposal.
 - **Consultant:** The LPI lists the consultants for the project. Consultants (see definitions at [Link](#)) must be registered in order to be added to the proposal.
- 11.2.9.5 Research Plan:** The LPI should prepare the application form file according to the template available at [Link](#). **Please ensure to upload the same joint application form submitted online by the Turkish LPI to TÜBİTAK.**
- 11.2.9.6 Turkish Collaborator:** Insert the information about the Turkish LPI and PI(s).
- 11.2.9.7 Co-Funding:** In case of co-funding, the LPI is required to provide justification, the total amount of co-funding, including the expected structure of contributions and

upload a commitment letter from the co-funder(s) signed by a dean or equivalent: [Link](#). The template is available at [Link](#).

11.2.9.8 Ethical Compliance: For research involving human subject(s), stem cells in human subject(s), research with laboratory animals, DNA research and biohazards materials, the LPI is required to comply with the regulations and policies set out by the Ministry of Public Health - Qatar (MoPH) for the protection of human subjects and laboratory animals.

11.2.9.9 IP/Market: In this section, there are some questions related to Intellectual Property that need to be addressed by the LPI.

11.2.9.10 Miscellaneous Documents: This section may contain any supporting documents such as tables, appendices, etc. Documents wrongly uploaded under this section will not be considered. All the information required for the evaluation process should be included in the Research Plan.

11.2.9.11 Declarations: The LPI should declare electronically that the proposal is their own work, except where appropriately referenced and that the proposal has not and will not be submitted in whole, or in part, for funding twice within the same cycle, or to other funding programs within QNRF, or other funding agencies.

Section 12. Proposal Screening

All submitted proposals are subject to screening for the Qatar-based team by QNRF according to the screening process outlined at [link](#).

All submitted proposals are subject to screening for the Turkish team by TÜBİTAK according to their national rules.

Section 13. Proposal Evaluation

13.1 Proposal Review and Ranking

The proposal review and ranking process comprises a number of assessment steps that first include peer review by external reviewers, followed by a joint expert panel to perform a programmatic review. The process is detailed below.

13.1.1 Evaluation Criteria

The proposals will be reviewed according to a set of evaluation criteria. The main headings of the evaluation criteria are listed below. Details of each criteria are listed in **Annex-I**.

- Scientific and technological excellence (40%)
- Project management, team and infrastructure (20%)
- Impact of the project (30%)
- Importance of bilateral cooperation (10%)
- “Appropriateness of project expenses” will also be evaluated, but not scored, in order to determine the possible funding to be approved by the funding agencies.

13.1.2 Peer Review

Up to six qualified, international, peer reviewers are going to evaluate each proposal according to the criteria listed below. The reviewers will evaluate **and score** the proposals and provide **written feedback**.

13.1.3 Joint Expert Panel

Following the peer review, a QNRF/TÜBİTAK joint expert panel will perform a programmatic review. The programmatic review is designed to assess and compare all proposals in a given specific research priority area. It takes into account the peer reviewers' comments and provides QNRF and TÜBİTAK with a ranking list of proposals. The ranking list will be divided into four categories that are “Highly Competitive,” “Competitive,” and “Not Competitive” as shown in the table below.

		Group	Evaluation Outcome	Description
Shortlisted – Programmatic Review		A	Highly Competitive	The proposal was evaluated to be an excellent project during the review process (with minor to negligible weaknesses) and is, therefore, considered “highly competitive” for funding. (Funding decisions are based on the available budget).
		B	Competitive	The proposal was evaluated to be a very good project during the review process (with moderate to minor weaknesses) and is, therefore, considered “competitive” for funding. (Funding decisions are based on the available budget).
		C	Not Competitive	The proposal was considered “not competitive” for funding due to moderate to significant weaknesses identified by the review process.
Not shortlisted		D	Not Competitive	The proposal was not shortlisted and is considered “not competitive” for funding due to significant weaknesses or shortcomings identified by the review process.

13.1.4. Joint Management Meeting

At the end of the review and ranking processes, proposals to be funded will be selected jointly by QNRF’s and TÜBİTAK’s managements after considering their national strategy and priorities.

After the review and ranking processes, proposals are categorized in terms of their competitiveness. The final funding decision will group proposals as shown in the table above.

Section 14. Pre-Funding

14.1 Awarded proposals will go through a pre-funding stage, which starts after the announcement of results, and continues for approximately eight weeks. During the pre-funding period, the awarded institution will be notified about the requirements (possible budget reduction, budget details, timeline changes, etc.).

14.2 During the pre-funding phase, the LPI should submit the data management plan as per the Data Management Policy available at [Link](#).

For Qatar-based team, please see more information on the pre-funding stage in the “Institutions Responsibilities and Post Award” document available at [Link](#).

Section 15. Post-Award

15.1 The Project Coordinator of each project needs to provide the Consortium Agreement to QNRF and TÜBİTAK once the project is awarded and within the first six months of the project start date.

15.2 The Project Coordinator of each project has to prepare an annual financial and scientific/technical progress report to be submitted both to QNRF and TÜBİTAK.

For the Qatar-based team rules and regulations related to pre-funding, fund management, payment schedule and reporting, please refer to the institutions’ responsibilities and post award document available at [link](#).

For Turkish teams,

- The supported projects will be monitored via physical site visits.
- Research Ethics and Regulatory Requirements

For the Qatar-based team, please refer to the Research Ethics and Regulatory Requirements document available at [Link](#). The proposed research must meet all the requirements outlined by Qatar Ministry of Public Health' policies for the protection of human subjects from research risks, and data and safety monitoring (when applicable). Please refer to the Research Ethics and Regulatory Requirements document available at [Link](#).

For the Turkish team, please refer to the Ethics Committee Approval Document, Official Permission Document and Research and Publication Ethics Committee Regulation as you can find on the links [\(Link 1\)](#) [\(Link 2\)](#).

Section 16. Research Integrity

For further information regarding research integrity and other related policies, please see the Research Ethics Guide (REG) at [Link](#).

Section 17. Intellectual Property Policy

QNRF will follow the Qatar Foundation (QF) IP policy. Please consult the QNRF website for details on the applicable intellectual property policy: <http://www.qnrf.org/en-us/Funding/IP-Policy>.

TÜBİTAK will follow the IP policy with reference to the document available at section 3 Specific rules concerning this call will be provided in **Annex III**.

Section 18. QNRF Data Management Plan Policy

This policy supports the development of a robust environment for the sustainable management, use and reuse of QNRF funded research data in collaboration with Qatar National Library (QNL).

QNRF recognizes the importance of data management to protect its investment in research and development by ensuring that research data are findable, accessible, interoperable, reusable (FAIR) which will:

- 1) expedite the scientific process;
- 2) reduce duplication of effort;
- 3) support reproducibility and research integrity;
- 4) optimize availability and reuse of research outputs; and
- 5) facilitate the preservation of the scholarly record of Qatar.

LPIs of the awarded projects should submit the data management plan during the pre-funding phase according to the templates that will be available on QNRF website. The Data Management Plan Policy is available at [Link](#).

Section 19. Inquiries

For any inquiry regarding the Turkish team and the electronic proposal submission process, please send an email to uidb@tubitak.gov.tr.

For any inquiry regarding the Qatar-based team, please use QNRF's **Support link** on the website: (<http://support.qnrf.org/index.php?/Tickets/Submit>).

Section 20. QNRF Research Support Resources

This section describes a number of available research support resources whether within QNRF or inside Qatar. For more details, please refer to the "Research Support Resources" at ["link"](#).

These resources include but not limited to:

- Qatar Biobank (QBB) Data and Samples
- Asset management (for available equipment)
- QNRF Researcher Network (QRN)
- QNRF Awarded projects

Annex I: Evaluation Criteria and Scores

Evaluation Criteria

1. Scientific and Technological Excellence (Maximum Score 40)

- Presentation of the project proposal with concrete / measurable targets, outputs and solution suggestions
- Literature / patent researches made
- Technical feasibility studies and determination of the standards / conditions to be followed for the project output made during the project preparation
- Originality and innovative nature of the project and relationship to the “state of art” of research in the field
- Inventive conceptual/theoretical contributions to the related scientific/technological areas
- Feasibility of the scientific approach
- Innovation level of the project output in the international market
- Research and technological quality including inter-disciplinary and multi-disciplinary aspects
- Level of technical challenge of the proposal
- Use of a technology that is critical to the first-ever development of an industry, product, process in Qatar & Turkey
- Strategic priority of the technology that is to be used in the project for the country
- Distribution of the original contribution of the consortium components to the R & D and technical / technological content of the project

2. Project Management, Team and Infrastructure (Maximum Score 20)

- Feasibility and suitability of the methodology to achieve the project goals
- Feasibility and suitability of the work packages defined to achieve the goals of the project
- Suitability of time intervals and durations of work packages with the goals of the proposal
- Suitability of the person in charge for each work package
- Feasibility of risk management plan for critical risks, relating to project implementation
- Feasibility of risk management plan for critical risks, relating to budget
- Balance of industry and academia roles in terms of R&D in the proposal
- Capability and capacity of the industrial partner(s) in the project team
- Capability and capacity of the academic partner(s) in the project team
- Quality and sufficiency of infrastructure/facilities to conduct the project
- Proper use of human resources and infrastructure

3. Impact of the Project (Maximum Score 30)

- Accumulation of knowledge to be gained through the project's outputs
- Potential to increase high-quality employment in Qatar & Turkey
- Impact of the project output on the competitiveness of the industrial partner and productivity growth
- Potential for economic return
- Adequacy of market research and economic feasibility
- Potential of the project to reduce the external dependency of Qatar & Turkey in the field
- Anticipation of the risks and sufficiency of measures taken against them to execute the project and commercialize the targeted output
- Potential of the project's output to create a new market or use area

- Potential of the project's output to provide efficiency-productivity growth and cost decrease to the industrial partner
- Potential of the project's output to be patented
- Potential of the project to trigger new R & D projects
- Potential to create socio-cultural benefits
- Positive effects of project on the environment

4. Bilateral Cooperation Aspects (Maximum Score 10)

- International strategical value of the technology related to / involved in the project
- Impact of the project to increase international academia-industry collaborations
- Level of collaboration between project partners
- Sustainability of the expected collaboration between project partners
- Quality of the relationship and distribution of roles and responsibilities between industry and academia
- Benefit and contribution of academia to industry
- Clarity of the way to share and embrace the project output between project partners
- Potential for creating long-lasting collaboration between project partners

5. Appropriateness of Project Expenses

- The appropriateness of person-month rates and total person-month value, taking into account the competence of the staff and the current workload
- Travel Expenses (those directly related to R & D activities should be indicated)
- Device / Equipment / Software / Publication Purchases
- Activities Handled by National R&D Institutions (Content, relation with the project, budget, preliminary contact with the related institution, whether or not a contract has been made, repetition, as well as the obligation of obtaining foreign consultancy and services and affordability with domestic facilities etc. should be taken into consideration.)
- Consultancy Services and Other Service Procurements (Content of project consultancy and service procurement and contributions to the project should be examined.)
- Appropriateness of material purchases and quantities for project R & D work
- Patent Expenditures
- If you are interested in improving the quality of the project's R & D, in deepening the scientific and technological dimension, and in increasing the effectiveness of the project, please indicate your suggestions. In case you deem necessary, you can also inform the partners about your suggestions.

Annex II: TUBITAK Intellectual Property Rights

1. Definition of Terms

"Beneficiary" means, in the case of TÜBİTAK, the Party or Parties conducting the work with funding provided by TÜBİTAK.

"Awardee" means, in the case of QF, the Party or Parties conducting the work with funding by Qatar Foundation.

"Parties" means TÜBİTAK Beneficiaries, QF or QF Awardees, and "Party" means any of the Parties.

'Background' refers to any data, know-how or information, both tangible and intangible, including any rights such as intellectual property rights — that:

- (a) is held by the Parties before their accession to the Agreement, and
- (b) is needed to implement the action or exploit its results.

"Intellectual Property" means all intellectual property including, without limitation, copyrights and similar rights, database rights, utility models, trademarks, inventions, service marks, patents, design rights (whether registered or unregistered), topography rights, know-how, trade secrets, confidential information, trade names, rights and applications for any of the foregoing anywhere in the world and all other legal rights protecting intangible proprietary information.

'Results' refers to any output of the action, whether tangible or intangible, such as data, knowledge or information — no matter its form or nature, whether able to be protected or not — that is produced in the action, as well as any accompanying rights, including intellectual property rights.

'Access rights' refers to rights to use results or background under the terms and conditions laid down in this Agreement.

2. Agreement on background

All Background Intellectual Property is the separate sole Intellectual Property of QF, QF Awardees or TÜBİTAK beneficiaries and is not affected by this Agreement. This Agreement shall not be construed as implying that either Party hereto shall have the right to use Background Intellectual Property of the other in connection with this Agreement other than as provided in this Agreement. The Parties shall identify and agree in written form, on the background for the action ('agreement on background').

3. Non-compliance

The grant may be reduced in cases where a Beneficiary breaches any of its obligations under this Article.

4. ACCESS RIGHTS TO BACKGROUND

Exercising and waiving access rights — No sub-licensing

Written request must first be produced in order to exercise access rights ('request for access').

Access rights can only be waived in written form.

Access rights do not include the right to sub-license, unless otherwise agreed in writing.

5. OWNERSHIP OF RESULTS

In the case of work funded by TÜBİTAK, Results are owned by the beneficiary that produces them. TÜBİTAK shall have an unlimited, irrevocable, non-exclusive and royalty-free license to the intellectual property rights of any intellectual product. **Joint ownership by several creators of Results**

Jointly made Results shall be jointly owned by the Parties

Results are jointly owned by two or more Parties if:

- (a) They have jointly produced them and
- (b) It is impossible to:
 - (i) Establish each Party's respective contribution, or
 - (ii) Separate them for the purpose of applying for, obtaining or maintaining their protection.

In order to ensure the joint owners' compliance with their obligations under this Agreement, they must agree in writing on the allocation and terms of exercise of their joint ownership ('joint ownership agreement').

6. PROTECTION OF RESULTS

Obligations of TÜBİTAK Beneficiaries

Each beneficiary is obligated to examine the possibility of protecting its results and must adequately protect them — for an appropriate period and with appropriate territorial coverage — if:

- (a) It is reasonable to expect the results to be commercially or industrially exploited and
- (b) Protecting them is possible, reasonable and justified (given the circumstances).

The beneficiary must consider its own legitimate interests as well as those of the other beneficiaries (especially commercial) when deciding on protection.

7. EXPLOITATION OF RESULTS

Obligation of TÜBİTAK Beneficiaries to exploit the results

Each beneficiary is obligated — up to four years after the start of project— to take measures aiming to ensure 'exploitation' of its results (either directly or indirectly, in particular through transfer or licensing) by:

- (a) Using them in further research activities (outside the action);
- (b) Developing, creating or marketing a product or process;
- (c) Creating and providing a service, or
- (d) Using them in standardisation activities.

Obligations of QF Awardees

QF Awardees agree to promptly disclose all Results produced by them to IPTT in accordance with QF procedures. This includes properly disclosing to IPTT any Intellectual property with sufficient technical detail to convey a clear understanding, to the extent known at the time of the disclosure, of the nature, purpose, and operation of the Intellectual Property. The disclosure should also identify any known actual or potential statutory bars of the invention.

Protection, Management and Exploitation of Jointly Owned Results

In the event that Intellectual Property has been jointly created by TÜBİTAK Beneficiary(ies) and QF, the joint owners shall enter into an Intellectual Property Management Agreement, which shall govern how the jointly owned results will be protected, managed and exploited.