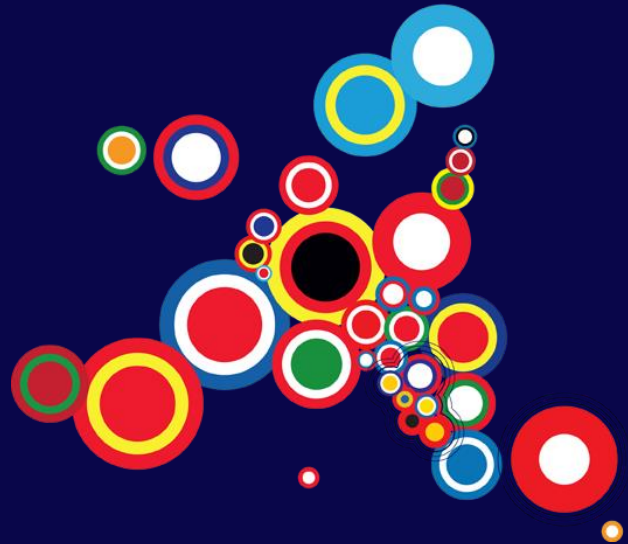




INSTRUMENT FOR PRE-ACCESSION ASSISTANCE (IPA II) 2014-2020

TURKEY

EU Support to IPA Turkey Future Fund (TFF)



Action summary

The action aims at supporting Turkey's efforts to develop its innovation capacity, with a view to increase its ability to face the competitive pressure of the EU Single Market.

The IPA Turkey Future Fund (TFF) Action aims to encourage the commercialisation of research and development activity to foster technology based entrepreneurship in Turkey by providing a financing facility, that directly invests in the establishment of start-ups and commercialisation of innovation.

Moreover, the Action contributes to the consequent fulfilment of Turkey's international human rights commitments, including the International Covenant on Economic, Social and Cultural Rights and the Convention on the Elimination of All Forms of Discrimination against Women.

Action Identification	
Action Programme Title	Annual Action Programme for Turkey (2019)
Action Title	EU Support to IPA Turkey Future Fund
Action ID	IPA 2019/042-290/Turkey/TFF
Sector Information	
IPA II Sector	Competitiveness and Innovation
DAC Sector	32130 - Small and medium-sized enterprises (SME) development
Budget	
Total cost	EUR 80.000.000
EU contribution	EUR 17 000 000
Budget line(s)	22.020302
Management and Implementation	
Management mode	Indirect management with entrusted entity
<i>Indirect management:</i> National authority or other entrusted entity	European Investment Fund (EIF)
Implementation responsibilities	EU Delegation to Turkey
Location	
Zone benefiting from the action	Turkey
Specific implementation area(s)	Turkey
Timeline	
Final date for concluding Financing Agreement(s) with IPA II beneficiary	31 December 2020
Final date for concluding procurement and grant contracts and contribution agreements	3 years following the date of conclusion of the Financing Agreement, with the exception of cases listed under Article 114(2) of the Financial Regulation
Final date for operational implementation	6 years following the conclusion of the Financing Agreement
Final date for implementing the Financing Agreement (date by which this programme should be de-	12 years following the conclusion of the Financing Agreement

committed and closed)			
Policy objectives / Markers (DAC form)			
General policy objective	Not targeted	Significant objective	Main objective
Participation development/good governance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aid to environment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gender equality (including Women In Development)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Trade Development	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Reproductive, Maternal, New born and child health	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RIO Convention markers	Not targeted	Significant objective	Main objective
Biological diversity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Combat desertification	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Climate change mitigation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Climate change adaptation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

1. RATIONALE

PROBLEM AND STAKEHOLDER ANALYSIS

R&D creates, innovation changes but commercialization matters. Interest and the allocated resources in the commercialization of technology and technology entrepreneurship has been increasing significantly in the developed and emerging industries during last four decades.

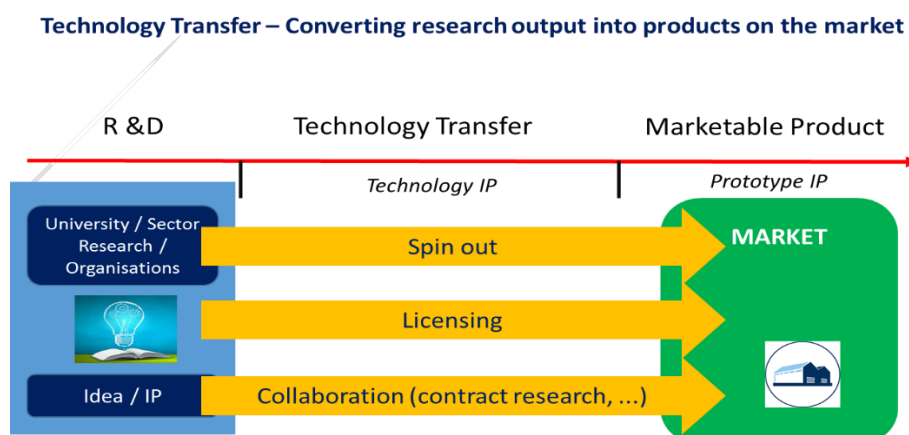
Technology Transfer / commercialization is the course of actions taken in converting scientific knowledge into useful products or services for the benefit of society. This process often involves a broader understanding of innovation context and specific strategies and mechanisms for facilitating equitable **access to innovation**.¹

There are various actors such as duty-bearers: government agencies, universities, public research institutions; and private sector companies amongst others as well as civil society organizations, involved in the innovation landscape. The interactions among each of these players and with external players influence the system.

On the other side, research institutions, design centers, incubation centers, fab-labs and universities may be classified as knowledge or invention creators within this context. Their roles are strengthened if they are well connected. That is, they are stronger if they function in partnerships that extend beyond their primary missions and include others who can turn inventions and knowledge into products and services that become economically successful or that have major and sustainable social and humanitarian impacts.

In addition to this, dissemination of created knowledge and commercialization of IP rights are closely connected to the different phases of growth of technology start-ups/spin-offs. They broadly evolve through the following phases of development from downstream to upstream investment²:

- **Technology transfer phase:** from invention and IP generation to business concept, proof-of-concept phase and first customers;
- **Venture phase:** developing a product line, broadening the customer base and establishing a full-fledged business;
- **Expansion phase:** Once the business opportunity is proven, the business needs to expand, distribution channels need to be set up, marketing efforts need to be developed and large-scale production capabilities need to be put in place.



¹ Baregheh A, Rowley J and Sambrook S.(2009) Towards a multidisciplinary definition of innovation, *Management decision*, vol. 47, no. 8, pp. 1323–1339

² Financing Technology Transfer / Working Paper 2009/002/EIF

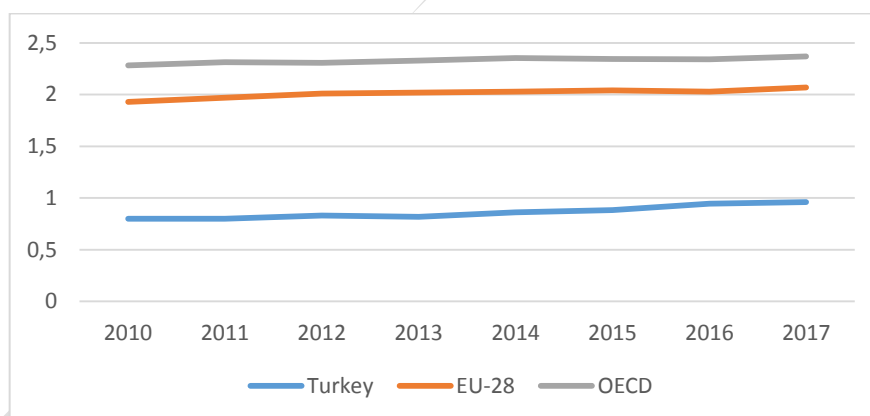
According to above classification, Turkey can be considered as the infant market depending on its limited capacity to convert scientific breakthroughs and technological achievements into industrial and commercial successes.

From the broader point of view, one of the major obstacles in front of the competitiveness of Turkey is “**accessing to finance**”, especially for groups that are underrepresented in this sector. According to the World Economic Forum (WEF) Competitiveness Index, access to finance is considered as the 2nd most problematic factor for doing business.

On the other hand women are strongly underrepresented in economic leadership (12 % of members of boards of publicly traded companies were women in 2018) and women have less opportunities for accessing finances. Statistics show that women have more difficulties getting funded by male-dominated VC firms. According to the Crunchbase Women in Venture Report which was published in October 2017, only 10 percent of venture dollars globally between 2012 and Q3 2017 went to startups with at least one woman founder. This is an important factor explaining the underrepresentation of women in the Technology start-up sector. In Europe, the share of male startup founders remains almost constant at 85.2%, while 14.8% are female. Overall, fewer than 2% of women are starting ICT businesses. Gender gaps are widest in ICT, where women compete at one-third the level of men on average. According to Startups.watch, proportion of women entrepreneurs in the venture ecosystem in Turkey is around 15%. Moreover, between January – September 2017 only 15% of the venture investment in Turkey went to startups with at least one woman founder. When we look at the most active VC firms in Turkey based on the StartupsWatch data (ACT VC, DCP VC, 500 Istanbul, TRPE, Growth Circuit, Earlybird, Revo, Zorlu Ventures) we see that just 3 of them (500 Istanbul, TRPE, Growth Circuit) have a female partner³.

One of the main indicators for the competitiveness of a given country is **percentage of R&D** in the GDP. Within this scope, the expenditure of Turkey has been gradually increased and stabilized during last 10 years but still remains below the EU and OECD average.

Graphic 1: % R&D Expenditure



Source: OECD

Apart from being the regulatory authority, the **interventions of the public sector** mainly concentrate on establishment of physical infrastructure and providing exemptions on certain initiatives such as VAT exemptions, supporting university – industry collaboration. On the other hand, policies implemented to strengthen the R&D and innovation capacity has increased the resources allocated to R&D and R&D expenditures along with the number of researchers working in private sector. Women are also an import

³ Entrepreneurship & Technology Commercialization Report 2017: Global Trends and Specific Look at Turkey, http://ttatourkey.org/upload/haberler/Entrepreneurship_TechCommReport2017_final.pdf

trigger for R&D, especially in a country where female population nearly counts for the half of the inhabitants. However, only 31,4 % of R&D personnel are women⁴.

The major indicators of the current R&D capacity of Turkey are given below.

Table 1: Basic Figures of Technology Development Zones (TDZs) – 2018

<i># of Technology Development Zones (TDZs)</i>	83*
<i># of Firms Operating in the TDZs</i>	5.345
<i># of FTE Researchers</i>	43.776
<i># of R&D Projects (on -going)</i>	8.976
<i># of Patents (national and international)</i>	1.063
<i># of patent applications</i>	2.296
<i># of software IP</i>	205
<i>Exports (USD - Billion)</i>	4,1

* 20 of them under construction

Source: Ministry of Industry and Technology – DG for R&D Incentives

Table 2: Basic Figures of R&D Centers and Design Centers (2018)

	R&D Centers	Design Centers	Total
<i># of centers</i>	1.156	341	1.497
<i># of staff</i>	57.920	6.883	64.803
<i># of patents</i>			
<i>applications</i>	11.849	126	11.975
<i>obtained</i>	4.395	143	4.538

Source: Ministry of Industry and Technology – DG for R&D Incentives

With regards to the commercialization; the sector analysis underlines the major weakness as follows;

- **First**, commercialization stage is the most resource-intensive stage of the innovation process and calls for substantial investments in marketing. However, SMEs usually do not possess the financial resources to finance this costly stage of the innovation process.
- **Second**, introducing an innovative product to the market is a challenging process that requires not only a lot of persuasion (marketing), but also upfront investment in certification, after-sale, services etc.
- **Third**, the level of public financial support to the commercialization stage of the innovation process is much lower when compared to those available for earlier stages.
- **Fourth**, existing venture capital funds and accelerators in Turkey have limited financial capacity to invest in start- ups.

According to the *Access to Finance Market Assessment (AFMA)* Report which was prepared under a service contract⁵ managed by EUD in Turkey in 2015, the equity market is underdeveloped compared to other EU Member States in Turkey. The report also demonstrates that the culture of equity funding from third party investors is not a common practice locally, and may be most relevant only for young, high growth companies.

The AFMA report also verified that the Turkish market for equity investments is lower in terms of actors and invested amounts than in most EU Member States. Nevertheless, through the efforts of private and public actors the market grew considerably during the last decade.

⁴ Idem

⁵ Carrying out a gap analysis for the design of financial instruments in Turkey: FwC No: 2014/350689

The amount of early-stage VC Funding in technology startups in Turkey was \$59.2 Million in 2018 (including Angel Investors). According to the Figure 1 provided by startups.watch, this amount puts Turkey in the 4th group of countries in a 5-level scale based on amount of total VC funding. However, the situation is even worse than that, when a per-capita comparison is made. Turkey is among the lowest 3 countries in Europe with less than \$1 VC Funding Per Capita as shown in Figure 2.

Figure 1: 2018 Angel and VC Deals Heatmap

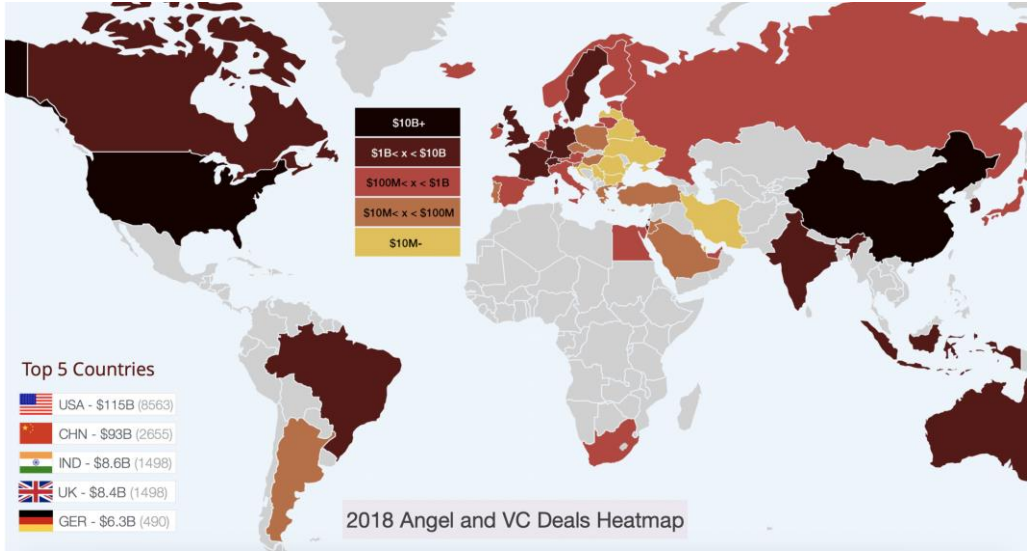
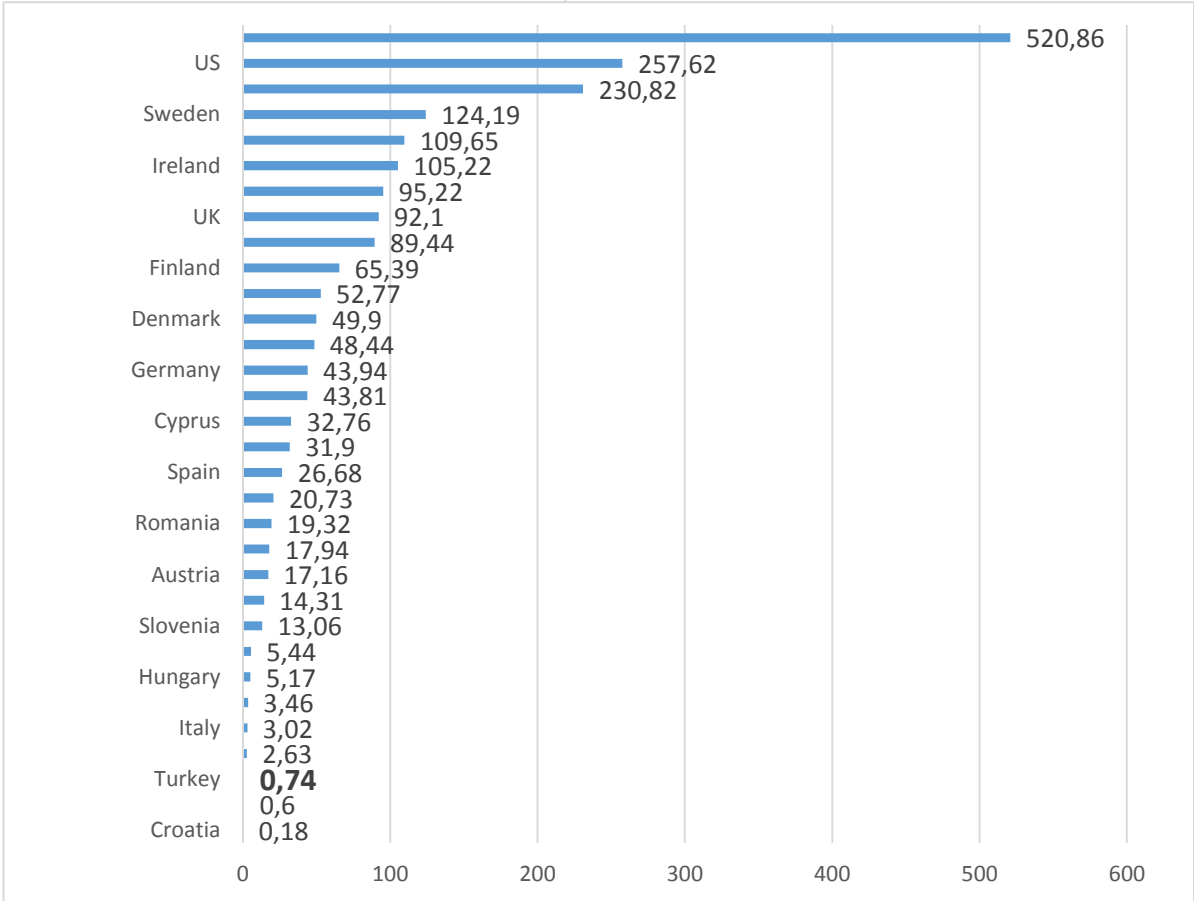


Figure 2: VC Funding Per Capita, \$US



VC Funding, with inclusive and diversified start-up portfolio⁶, is an essential component in an innovation system to transform “R&D Expenditures” into “R&D Investments”. Expected impact of R&D expenditures are mostly economical; increased competitiveness through commercialising innovative products and services. However, in most cases, R&D results cannot be directly commercialised. New technology ventures play a critical role in this process. Therefore, boosting VC Funding to increase the number of new ventures has been a popular policy tool in modern economies to enhance the commercialisation of R&D results. The knowledge created by the R&D expenditures applied, exploited and commercialised in products and services through VC Funding. In addition, the potential of a country to commercialise more innovative products lies within the R&D expenditures. VCs can access better opportunities, competitive technologies and talent in Countries which have higher R&D spending. The VC market has been well developed in countries which have higher R&D intensity. Thus, the amount of VC Funding in technology start-ups and Gross Expenditure on R&D (GERD) are interrelated indicators in an Economy. They are mutually affected and influenced by each other.

It is meaningful to compare VC investments in countries according to their GERD as explained below:

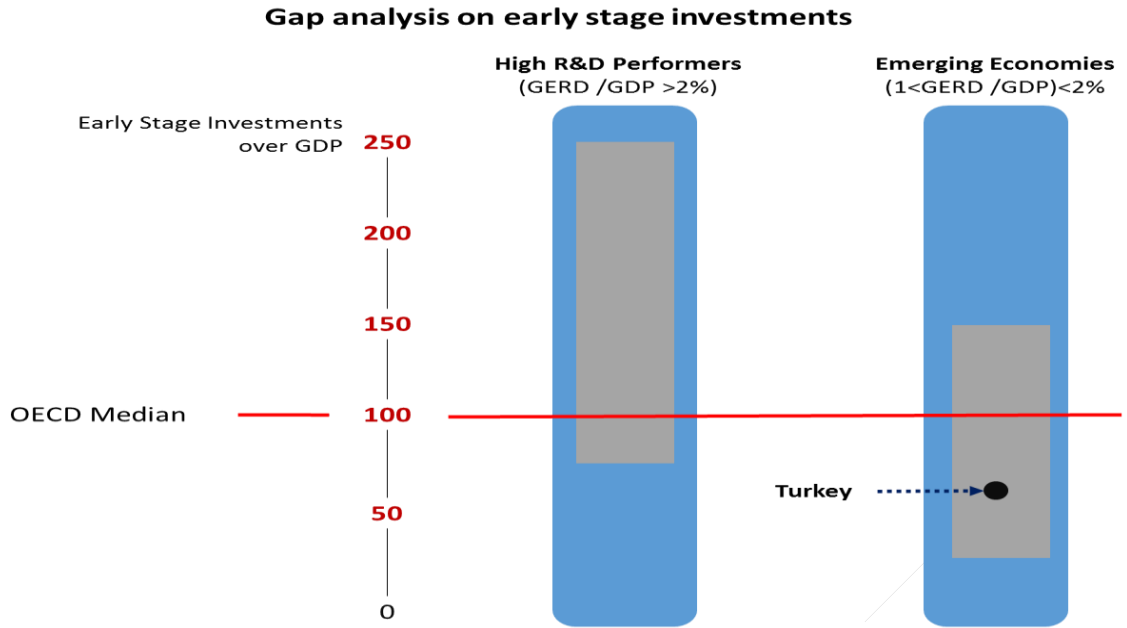
- In Figure 3, countries are grouped into two as;
 - ✓ High R&D Performers which have GERD/GDP greater than 2%, and,
 - ✓ Catching-up Economies which have GERD/GDP between 1% and 2%.
- According to the 2017 data, Turkey is very close to 1% (0.961 %) GERD/GDP and positioned in the catching-up category.
- OECD Median for early stage VC Funding is taken as “100” in the Figure and the closest country to the median has EUR 120 Million VC Funding per annum.
- The average VC Funding has been around \$60 Million per annum in Turkey in the last 3-4 years. It was \$66.1 Million in 2015, \$51.5 Million in 2016 and \$59.2 Million in 2018. 2017 was an outlier year for Turkey with \$110 Million as the two EU&TR IPA TTA Funds (ACT and DCP) had a deadline to invest all funds before the end of 2017. These two Funds’ investments were significant in 2017 total funding.
- Turkey’s performance in VC Funding amount is much worse than expected, considering its latest available GERD/GDP data (0.96% in 2017) and compared to the other countries in the catching up category. **Turkey has one of the lowest VC Funding among countries which have GERD/GDP between 1% and 2%.** With this GERD/GDP level, there should have been **EUR 120 Million VC Funding per annum** in Turkey.⁷
- VCs generally have 5-year investment period and invest 15-30% of their total funds under management annually. Taken as 20% annual funding as an average, EUR 120 Million VC Funding per annum requires EUR 600 Million of funds under management in Turkey at any time. Current level is around 10-15% of this amount.

⁶ Allyson Kapin, “10 Stats that build the case for investing in women-led startups”, FORBES,

<https://www.forbes.com/sites/allysonkapin/2019/01/28/10-stats-that-build-the-case-for-investing-in-women-led-startups/#71dde31e59d5>

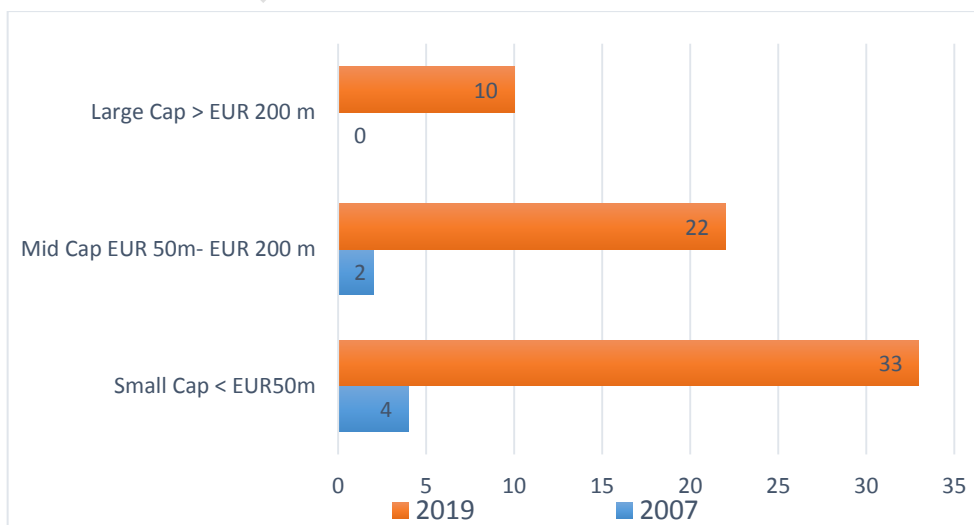
⁷ Calculated by ACT; Data Source: OECD,EC,WB

Figure 3: Gap analysis on early stage investments



The private equity/venture capital market evolution in terms of number of venture capital funds active in the years 2007 and 2019 is given in Figure 4⁸.

Figure 4: Number of VC funds by target company size



⁸ EIF Fact Sheet / Turkish Future Fund

Although the TTA Turkey Project has substantially contributed to the development of technology transfer ecosystem in Turkey, there is an emerging need to set up a framework mechanism in the form of a **Fund of Funds investing in Accelerators and Early Stage/Seed Stage Venture Capital Funds/Technology Transfer Funds with a strong focus on innovation.**

A Fund of Funds has the **most convenient structure** for;

- blending resources (combination of EU funds with contributions from International Financial Institution (IFI), national public and private sectors);
- leveraging resources and increasing impact;
- ensuring efficiency and effectiveness gains due to revolving nature of funds;
- attracting private sector support and financing to public policy objectives and
- directing public resources to profitable investments.

IFI contribution will not only providing additional finance but also “expertise” which triggers the “signal effect”. The involvement of EC and IFI to such instrument will create a signal effect and contribute for further third-party investment to the fund. TFF will show the market positive effects of creation of a FoF by bringing the international expertise and pooling resources to further increase the appetite to invest in technology.

During the implementation, attention will be paid on involving gender focal points/units of indicated stakeholders whenever possible/applicable.

OUTLINE OF IPA II ASSISTANCE

The overall objective of this Action is to strengthen Turkey’s research, technologic development and innovation capacity. The specific objective is to ease the commercialisation of R&D and innovation and to promote technology transfer by bridging the financing gap between innovative ideas and equity investors. The Action is in line with the overall objective of the IPA sector support, as articulated in the Country Strategy Paper, which is “to improve the business environment and strengthening research, technologic development and innovation”.

The Action is designed to support commercialization process through bridging the gap between the innovative entrepreneurs/SMEs, including those groups with huge potential that have less access to resources (for example, women entrepreneurs⁹), and equity investors (e.g. venture capital companies, private equity companies etc.) as well as large-scale companies that can facilitate commercialization of innovation through equity investments and acquisitions. In order to achieve this, the Action will set up a Fund of Funds (FoF) structure as the first layer by pooling resources from IPA II funds, EIF and public and private sectors. The FoF will support the underlying early and seed stage venture capital funds and accelerators which will in return make investment into start-ups and spin offs for commercialisation of innovation

TFF Action is a financial instrument operation foreseeing the establishment of a Fund of Funds (FoF) structure. Therefore, it is not a direct repetition of TTA where with TTA only two technology transfer funds were established as the very first pilot funds in technology transfer area in Turkey.

By designing a new initiative, TFF follows the footsteps and legacy of TTA in terms of being the pioneer in the market in the Turkish technology-funding ecosystem. In this context, building on the TTA’s experience

⁹ Or companies that are either led or co-led by women

TFF takes it to next level that triggers the creation of a Turkey’s first Fund of Funds only focusing on R&D and innovation by pooling public and private resources.

Final recipients targeted by the Action are early stage technology and innovation-based spin-offs and start-ups having a viable product/system/application having a commercialization potential which are seeking for funding at the early stage (from PoC to TRL 9) at the pre-seed and seed level, whenever possible with specific actions to overcome the obstacles that prevent more women from becoming entrepreneurs in the sector.

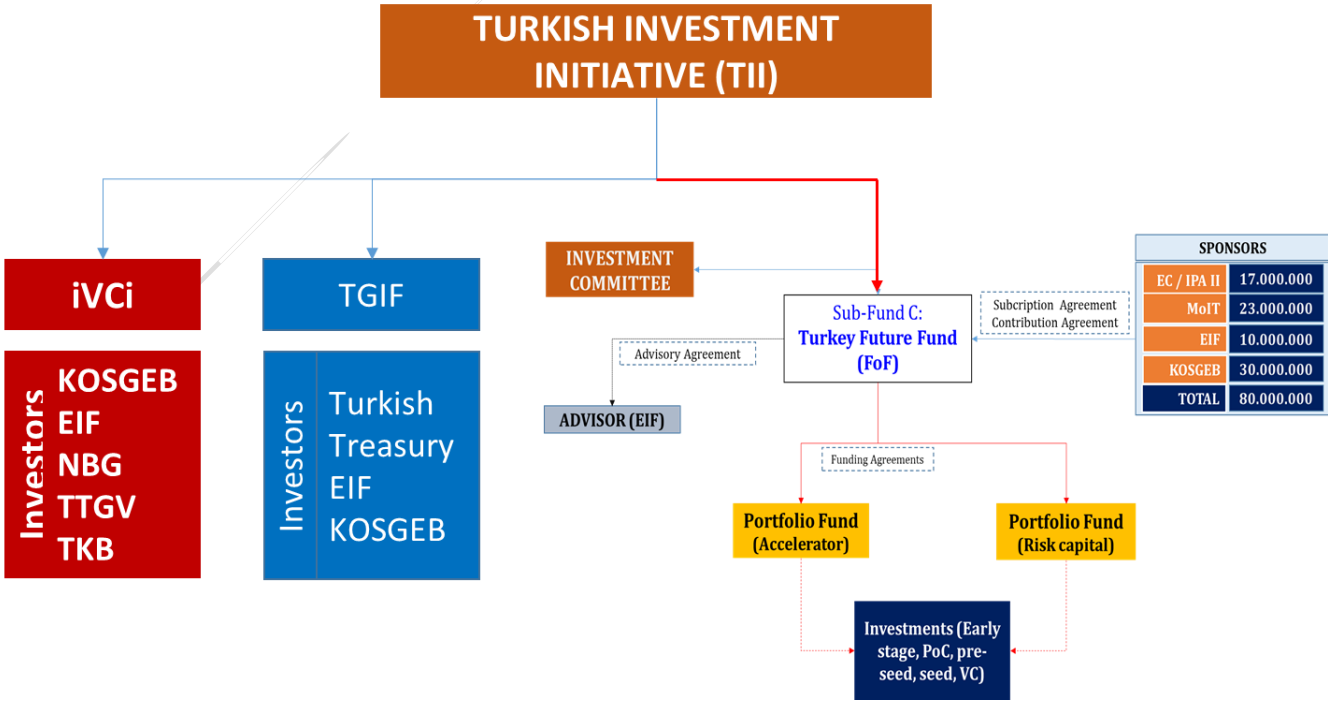
The proposed usage for IPA II assistance is as a shareholder in the already existing Turkish Investment Initiative (TII), a dedicated Fund of Funds vehicle advised by the European Investment Fund. EIF and other stakeholders will establish a separate Fund of Funds under TII dedicated to investing in Turkish equity investors who will in return fund innovative entrepreneurs and SMEs in Turkey. The envisaged size of the Fund of Funds will be minimum EUR 80 million, but can reach up to EUR 200 millions, thereby pooling the IPA II funds with other resources and increasing IPA II’s leverage effect across the ecosystem.

Within the scope of the TFF Action, fund raising will take place at two levels, firstly at the level of the FoF during its first and final closing, secondly at the underlying funds level during the investment period. A Fund of Funds (FoF) structure will consist of funds additional to IPA II assistance from various private and public sources, creating at least a 5X leverage effect. Besides, the underlying funds to be invested by the FoF are expected to raise minimum 50% of the invested capital from 3rd party investors.

The first most important and concrete result of the Action will be its capital contribution to a Fund of Fund that will scale up the technology transfer market in Turkey and invest in the commercialisation of R&D results to foster technology-based entrepreneurship in Turkey, with an attention paid to women’s entrepreneurship in the sector. Thanks to the investment support provided to start-ups and spin offs under the Action, new and innovative products will be developed, prototyped and commercialised.

Figure depicting the structure of the TII and foreseen structure and possible commitments to the Turkish Future Fund is given below.

Figure 5: Structure of the TII and TFF



The added value and differences of the TFF in comparison with the previous and existing products in the venture capital ecosystem is briefly explained below.

TECH-InvesTR programme

Based on the successful results of the TTA project and thanks to the technical assistance provided under the TA component of this project, the Turkish Scientific and Research Council (TÜBİTAK) has designed and launched the TECH-InvesTR programme in 2018 by the support of Turkish Treasury. Although the programme is an important tool for the development of the VC market in Turkey, resources planned to be dedicated by the Treasury seems insufficient compared to the needs in the market. Ministry of Treasury and Finance plans to commit to selected VC Funds a maximum of EUR 60 million (TL 400 Million) within next 5 years. However, the financing gap for early stage investment is estimated around EUR 120 million per annum. There is still huge financing gap especially for seed and early stage investments, which are seen as the most risky investments by private investors.

Besides, TECH-InvesTR is currently only public initiative providing capital to early stage corporates in the process of commercialization of their newly developed R&D products and technologies. However, it is still an early initiative that has been launched recently and does not have a track record. Up to date, one call has been launched and 10 funds have been selected conditionally, but the Treasury has not provided required funding to the selected Fund Managers yet. The programme does not also comprise international practice.

As there is a market failure in the financing of R&D and innovation in Turkey, public intervention is needed. TFF Action would support the current supply of early stage equity financing in Turkey. It would also help attracting new investors from Turkey and abroad and it would finally allow greater diversification of the risks taken by the investors.

Furthermore, it should also be indicated that TechInvesTR is mostly helping local Universities to participate in the VCs as Limited Partners and enhance their fund management capacity. The programme has attracted 10 applications, most of which are local oriented funds. In addition, the budgetary limits of the Universities will not attract the establishment of large VC funds. Most of the Universities which have participated in this programme committed the minimal contribution limit; TRY 4-5 Million in total for 5 years, which is less than \$1 Million. 5 Universities with minimal commitment can only raise less than \$4.5 Million. With a 30% share in the Funds they are participating, the total Fund size would make only around \$10 Million. A global potential seed stage venture requires \$2-3 Million to achieve a Startup stage in global scale. A Fund with \$10 Million total size can only invest in 3-4 global potential start-ups in the whole investment period.

It should be indicated that while the support given under the TECH-InvesTR leads to the establishment of small scale and local oriented VC funds, the TFF will lead to establishment of large VC funds investing in global potential technology start-ups and spin-offs.

Istanbul Venture Capital Initiative (iVCi)

The Istanbul Venture Capital Initiative (iVCi) was Turkey's first ever dedicated fund of funds and co-investment programme. The investors in iVCi were the Small and Medium Enterprises Development Organisation of Turkey (KOSGEB), the Technology Development Foundation of Turkey (TTGV), the Development Bank of Turkey (TKB), Garanti Bank, National Bank of Greece Group (NBG) and the European Investment Fund (EIF).

iVCi has acted as a catalyst for the development of the venture capital market in Turkey. By leveraging on EIF's experience, iVCi has provided access to finance to Turkish companies through investments in independently-managed funds and co-investments.

iVCi has now successfully completed its investment period having fully committed to 10 portfolio funds and leveraged over EUR 1.5bn third-party capital. iVCi is already making returns for its investors.

While iVCi was focused on providing financing in the form of equity to all SMEs, TFF will have a singular focus of providing equity to innovative and technology based start-ups in Turkey. TFF will solely focus on SMEs that are in the process of productizing a technological solution for the global market. The accelerator investments made under TFF will encourage and enable technology-based start-ups with viable products to commercialize their operations and get to global markets efficiently and competitively.

Turkish Growth and Innovation Fund (TGIF)

The Turkish Growth and Innovation Fund (TGIF) has been established by EIF, Undersecretariat of Treasury, Small and Medium Enterprises Development Organization of Turkey (KOSGEB) and the Industrial Development Bank of Turkey (TSKB) in May 2016 to support equity investments in traditional sectors as well as innovative and technology oriented businesses with a rapid growth potential.

With EIF's commitments of EUR 60 million for a total fund size of EUR 200 million, TGIF aims at investing in fast growing and/or innovative companies, following the successful implementation of the predecessor initiative, iVCi (Istanbul Venture Capital Initiative), Turkey's first fund-of-funds launched in 2007 for which resources are fully allocated into some of Turkey's most successful funds in the country.

TGIF, launched in 2016, is still in its investment period with four investments signed and three more approved to date. Its investment period shall expire in 2021.

Building on the success of iVCi and TGIF, MoIT and EIF is stepping up efforts on this front and setting up Turkey's next generation Fund of Funds, TFF, focusing on innovation to contribute to commercialisation efforts of R&D and innovation results.

The major added value of TFF is its focus on risk capital that will be provided to technology based start-ups in Turkey. iVCi had no dedicated technology compartment whereas TGIF only had a EUR 80M innovation window that comprised only 40% of TGIF's total commitments. It is envisaged that TFF will devote 100% of its resources to technology based start-ups via:

- VC funds specializing in sectors including but not limited to, clean-tech, nanotech, med-tech, TMT, life-sciences, ICT, automation, advanced production techniques, biotechnology and other sectors where technology and innovation play a role and;
- Accelerators that provide much needed start-up capital along with know-how, mentoring and infrastructure to seed stage entrepreneurs.

The additional value added to be created by the TFF is summarised below:

- It is the first FoF structure investing in accelerators and early/seed stage VC and TT funds for the commercialisation of innovation and R&D results;
- It will lead to establishment of large VC funds investing in global potential technology start-ups and spin-offs;
- It will support the creation of global potential technology start-ups and spin-offs;
- High leverage effect to be triggered by the allocation of IPA II funds and
- It will also encourage youth and women entrepreneurship and employment by investing in youth and women entrepreneurs and by creating jobs for women researchers.

As a result, IPA Funds are essential in attracting additional funding to establish large size VC funds, creating global potential technology start-ups and spin-offs and closing the market gap in financing of R&D and innovation.

The part of action supported by IPA funds should support R&D activities on energy efficiency, clean technologies, industrial symbiosis and the green economy, the priorities identified in the revised the Indicative Strategy Paper for Turkey for the period 2014-2020 adopted in August 2018, in the comprehensive manner.

RELEVANCE WITH THE IPA II STRATEGY PAPER AND OTHER KEY REFERENCES

Turkey is categorised as a ‘moderate innovator’ in the European Commission’s ‘Innovation Union Scoreboard’. R&D expenditure, as a percentage of GDP, increased and stands at 0.96% which is still below the EU average and would more effectively support the necessary reforms if it were higher. Significant weaknesses and challenges for Turkey’s attaining its aim of private sector development towards higher value added include limited conditions supporting innovation and competitiveness such as very low rate of commercialisation of R&D results and patents; insufficient integration of concepts such as green growth, limited access to finance, particularly for SMEs; the need to increase the competitiveness of the services sectors, which produces high value added products, creates employment and generates foreign exchange revenues among others.

As explicitly mentioned in the Revised Indicative Strategy Paper for Turkey for the period of 2014-2020 (version adopted on 10.08.2018 by the Commission) **“Turkey needs to develop better and more targeted financial instruments oriented towards investments in research and development and innovation, other than the conventionally used interest-rate subsidy schemes. Venture capital, credit guarantees and business angels are not widespread and well-developed tools.”** This Action directly contributes to this need through the establishment of an independent funding mechanism purely dedicated to the commercialisation of the innovative products.

Furthermore, the Competitiveness and Innovation Sector Operational Programme (CISOP) aims to;

- Support the establishment and operationalization of innovative start-ups/entrepreneurs in the country,
- Accelerate commercialization of innovative products,
- Bridge the financing gap between the innovative ideas and equity investors,

Therefore, the Action will contribute to the achievements of the CISOP objectives substantially in terms of the expected results to be followed on the basis of respective indicators (no. of products successfully commercialized, no. of SMEs benefited from equity financing mechanisms etc.).

The link with the national sector strategies and how the Action will serve to these strategies are also briefly explained below.

As set out in Turkey Economic Reform Programme (ERP) for 2019-2021 period, one of the most important factors needed to transform the ideas of technological and innovative entrepreneurs into products and services is to find the source of finance. Source of finance consists of government incentives, investors, tax exemptions and exceptions. However, it is necessary to develop models to meet investors with entrepreneurs and convince them to ensure that they become partners of the companies. Although the ecosystem in Turkey has reached a certain stage, it needs to be further developed.

In the ERP, three reform measures have been identified in the fields of “Research & Development and Innovation” aiming to increase the number and efficiency of business development, incubation and accelerator centers, to enhance the R&D and innovation activities of SMEs and to support competent research infrastructures. Although these measures, which are under the responsibility of the MoIT and the KOSGEB, are critical for supporting entrepreneurship and technology transfer and commercialization, they are not sufficient to close the gap in the start-up ecosystem as they lack a dedicated financing mechanism/vehicle directly investing in Venture Capital/Technology Transfer funds having a strong innovation focus. As the VC Funds in general are the blood of the start-up ecosystem, they have to be supported both through EU and national funds.

The Action has also strong interaction with Turkey Industry Strategy Paper (2015-2018). One of the strategic objectives of the Industry Strategy Paper is the development of high value added production based on knowledge and technology. Under this strategic objective, “technological transformation of industry” and “increasing SMEs access to finance” are identified as key policy areas. Under these policy areas, specific actions aiming to commercialise R&D results and to increase the number of early stage venture capital funds

and amount of investment in start-ups are also identified. TFF Action directly contributes to the attainment of these objectives.

National Science, Technology and Innovation Strategy (2011-2016) has also aimed to encourage the commercialisation of R&D results through providing financial supports to innovative start-ups and spin-offs.

The new Turkish Industrial Strategy and the National Science, Technology and Innovation Strategy are planned to be drafted within the framework of the 11th Development Plan, which is currently under preparation.

The Action may contribute directly to the EU Gender Action Plan II objective(s) 14. Access to decent work for women of all ages; AND 15. Equal access by women to financial services, productive resources including land, trade and entrepreneurship. Moreover, the Action directly promotes the working principles of the rights-based approach (RBA): participation, non-discrimination and equal access, accountability and transparency. The Action also contributes to the consequent fulfilment of Turkey’s international human rights commitments, including the International Covenant on Economic, Social and Cultural Rights and the Convention on the Elimination of All Forms of Discrimination against Women.

LESSONS LEARNED AND LINK TO PREVIOUS FINANCIAL ASSISTANCE

Technology Transfer Accelerator Fund - Turkey (“TTA Turkey Project”) was put in operation on 25 July 2014, with the collaboration and consensus among EIF, EC, EUD, MoIT and TÜBİTAK under the Regional Competitiveness Operational Programme (RCOP) within the IPA I period. TTA Turkey project budget, initially EUR 30.5 million was increased to EUR 50.5 million in December 2014, and was further increased by EUR 3.26 million in December 2017 reaching a total of EUR 53,760,000.

Thanks to the TTA Turkey project, the first two early stage technology-based start-up VC funds have been established in Turkey. Both funds have invested in commercialisation of innovative spin-offs and start-ups in Turkey. As of 31 December 2017, i.e. end of the operation implementation period, the two funds selected under TTA Turkey operation have drawn 100% of their committed capital available for investments exceeding their target of number of companies to be invested. From 2015 to the end of 2017, these funds invested a total of EUR 53.4 million for 62 projects/start-ups. Their effect in VC Funding in Turkey was significant, particularly in 2017. Annually \$60 Million level has been broken, and a record high year achieved with \$110 Million VC investments in 2017.

The specific contribution of the TTA Turkey in the entrepreneurship ecosystem has been for enhancing the start-ups which have global potential. The funds were used to commercialise R&D results which are competitive in global level and create start-ups which can expand their commercial activities in abroad. This was certainly different than what has been done in the last 4-5 years in Turkey. Before TTA, the main focus of venture capital investments in the country has mainly been investing in start-ups which have a potential to become local champions. Technological superiority and global potential were not primarily sought in those investments. Today, the share of the investments which are based on previous R&D and innovation projects are increasing with the contribution of TTA in the ecosystem.

Beyond the full absorption of the funds’ commitments, the TTA Turkey Project has also led to the successful outcomes in terms of jobs created and number of innovative products supported. In this regard, 342 research jobs were created; also, the two TTA Turkey funds have supported development and commercialisation stage of 62 innovative projects/start-ups and led to substantial IRR (Internal Rate of Return) increase in invested start-ups and spin-offs.

The results and achievements of the TTA is briefly explained below:

Indicators	Realisation (as of 31.12.2017)	Realisation (as of Q1 2019)
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Number of products successfully commercialized	21	48
Number of new and innovative products developed and prototyped	41	58
Number of national patents obtained	2	4
Number of international and regional approved patents (PCT + EPC)	1	7
Number of national patent applications	12	24
Number of international and regional patent applications originated from Turkey (PCT + EPC)	23	53
Number of innovative enterprises created (Disaggregated by female/male owned)	1/18 (19 in total)	1/18 (19 in total)
Number of innovative enterprises financially supported (Disaggregated by female/male owned)	5/29 (34 in total)	5/29 (34 in total)
Number of research jobs created (Disaggregated by female/male)	54/176 (230 research jobs in total)	82 /260 (342 research jobs in total)
Amount of third party funding raised	8.025.421 €	8.304.383 €
Number of projects/start-ups invested by underlying venture capital/technology transfer funds	62	62
Amount of capital invested in innovative projects by underlying venture capital/technology transfer funds	53.419.263 €	53.419.263 €

Furthermore, the purposes of the Technical Assistance component of the TTA Turkey Operation were also achieved through advisory and training services and networking and business development activities. The capacity of selected 20 TTOs was strengthened based on a progressive approach: their development needs were thoroughly identified in dedicated assessment studies, and, subsequently, they started to develop strategies and action plans. Further on, the TTOs were individually mentored during expert visits. Ten TTOs have been paired with TTOs either from the US or France in 2016 for mentoring and staff exchange and they visited their paired organisations in 2017 (i.e. eight TTOs went to the US and two TTOs to France).

The advancement of TÜBİTAK's capacity on technology transfer and commercialisation of R&D was also based on a thorough status and needs assessment. TA activities focused on concrete assessments of TÜBİTAK's 1512 Techno-Entrepreneurship Support Programme and 1513 Technology Transfer Offices Grant Programme which resulted in a comprehensive set of models, mechanisms and recommendations on several areas to be improved/complemented.

During the investment period, the major difficulty faced was the shorter than usual investment periods given to the fund managers resulted from the deadlines of the IPA programme. Accordingly, the fund managers had three years or less for their investments, where the industry standard is five years. Nevertheless, they achieved to invest all the resources made available to them for investments.

One of the major lessons learned during TTA Turkey was the misalignment of some TTA Turkey terms with the market at large. These points of misalignment were:

- ✓ Investment periods allowed to the fund managers resulted from the timing limits of the Regional Competitiveness Operational Programme (RCOP) implemented under IPA I period. Accordingly, the fund managers had three years or less for their investments, where the industry standard is five years plus one year (if needed). This resulted in a crunched timeline and unavailability of follow-on funding to successful SMEs after the investment period which is the market standard.
- ✓ Venture Capital funds typically charge management fees of 2.5% per annum during their lifetimes (in total approximately 18-22% of the commitments). TTA Turkey funds received these fees in line with how they have been stipulated in the contribution agreements. However, due to management costs limitations imposed by the IPA I legislation, namely the Financing Agreement for the RCOP and IPA I Closure Guidelines, it was challenging process to uphold TTA Turkey's contractual arrangements with the underlying VC funds while still adhering to IPA legislation.
- ✓ Also, the investment related advisory services costs (e.g. financial, legal, tax, and operational due diligence and transaction legal costs) are typically considered as part of the investment by the market

players. However, it is understood that IPA I legislation has foreseen only the amounts invested into the companies are considered as investment and else should be considered as part of the management costs, which contradicts with the market practices.

2. INTERVENTION LOGIC

LOGICAL FRAMEWORK MATRIX

OVERALL OBJECTIVE	OBJECTIVELY VERIFIABLE INDICATORS (*)	SOURCES OF VERIFICATION	
To strengthen Turkey's research, technologic development and innovation capacity	<ul style="list-style-type: none"> • Doing business – Distance to Frontier – score (WB) • Global Competitiveness Report – score (Technological Readiness, market size, business sophistication, and innovation) (WEF) 	World Bank Report Global Competitiveness Report	
SPECIFIC OBJECTIVE	OBJECTIVELY VERIFIABLE INDICATORS (*)	SOURCES OF VERIFICATION	ASSUMPTIONS
To improve the commercialisation of R&D and innovation and promote technology transfer by bridging the financing gap between the innovative ideas and equity investors,	<ul style="list-style-type: none"> • Number of products successfully commercialised • Number of new and innovative products developed and prototyped • Number of innovative enterprises created (Disaggregated by female/male owned) • Number of innovative enterprises financially supported (Disaggregated by female/male owned) • Number of research jobs created (Disaggregated by sex and age) • Number of national patents obtained • Number of international and regional approved patents (PCT + EPC) • Number of national patent applications • Number of international and regional patent applications originated from Turkey (PCT + EPC) • Gender gap in wages, by sector in economic activity (SDG 5.1) • Proportion of women in managerial 	Progress and Final Reports Impact Assessment Report	Increase in the R&D expenses of public and private sectors

	<p>positions (SDG 5.5.2)</p> <ul style="list-style-type: none"> • N# of women accessing EU supported financial services (EURF) 		
RESULTS	OBJECTIVELY VERIFIABLE INDICATORS (*)	SOURCES OF VERIFICATION	ASSUMPTIONS
<p>Result 1: A Fund of Funds compartment established</p>	<ul style="list-style-type: none"> • Amount of third party funding raised • Number of underlying venture capital/ technology transfer funds/ accelerators invested • Amount of investment made in underlying venture capital/technology transfer funds/ accelerators 	Progress and Final Reports	<p>Presence of competent fund managers investing in commercialisation of RTDI results</p> <p>Existence of investable innovative project portfolio</p>
<p>Result 2: Innovative and early stage companies with “high growth” potential supported</p>	<ul style="list-style-type: none"> • Number of innovative companies invested in key enabling technologies (e.g. clean-tech, nano-tech, med-tech, life sciences, bio-technology, ICT, automation, advance production techniques) by underlying venture capital/technology transfer funds (disaggregate female-led) • Amount of capital invested in innovative companies by underlying venture capital/technology transfer funds • Number of very early stage companies invested by accelerators (disaggregate by female-led) • Amount of capital invested in very early stage companies by accelerators 	<p>Progress and Final Reports</p> <p>Quarterly Reports of the underlying venture capital/ technology transfer funds</p>	Continuation of FI support mechanisms

(*) All indicators should be formulated as measurement, without specifying targets in the Logical Framework Matrix. The targets should be included in the performance measurement table in section 4. More detailed guidance on indicators is provided in Section 4 on performance measurement.

(**) Relevant activities have to be included only in the following sub-section.

DESCRIPTION OF ACTIVITIES

Under Result 1: A Fund of Funds (FoF) compartment established

- ✓ The legal status of the FoF will be a sub-fund under Turkish Investment Initiative (TII).
- ✓ The Subscription Agreements with other shareholders will be prepared and signed.
- ✓ The FoF will be advised by the EIF. The selection of fund managers on a rolling basis will be done per EIF policies and procedures.
- ✓ Undertake 1st (first) screening of management team proposals
- ✓ Undertake a 2nd (second) screening for successful teams.
- ✓ Undertake due diligence on the selected management teams.

Approval of the selection procedure by the dedicated investment committee which includes all shareholders of the FoF.

Under Result 2: Innovative and early stage companies with “high growth” potential supported

- ✓ Incubation of the Funds and the Accelerators
 - Implement advisory services activities such as mentoring, trainings and networking events to elevate the capabilities of the underlying Funds and the Accelerators in the portfolio, special focus will be paid on inclusion and equal participation of youth and women, particularly from disadvantaged groups.
 - Advise the management teams of the underlying Funds and the Accelerators on the operational implementation when required.
 - Provision of EIF’s extensive network for the management teams to establish contacts throughout Europe, which in turn will establish a connection between the IP in Turkish universities and the wider international Technology Transfer community.
 - Familiarise the management teams with the required tools to accurately determine the potential of patent and patent portfolios. The tools to effectively analyse existing IP and accelerate Technology Transfer process will also be introduced to the management teams.
 - Familiarise the management teams with the UN Guiding Principles on Business and Human Rights
 - Serve the management teams in counselling roles through seats in their Advisory Board Committees.
- ✓ Operations and monitoring of TFF Action performance by TII Sub-fund Investment Committee and TII Sub-fund Advisory Board
 - Screen, select and invest in commercialisation projects by the underlying Funds and the Accelerators as per their respective investment strategy
 - Report progress of the Funds in line with Luxembourg SICAV standards and already existing reporting for TII.
 - Check eligibility in accordance with the term sheet and monitor overall risk profile of the portfolios.
- ✓ Financing the Funds and portfolio
 - Management of capital calls
 - Disbursement of management fees

RISKS

Risks	Potential Adverse Impact	Risk Level	Risk Management Strategy	Responsibility
No management team applies to the sub-fund TFF committed	High Adverse Impact leading to inability to deliver	Low	Wide coverage, marketing and dissemination of operation in the industry and at local level	European Investment Fund (EIF)
Applications are of poor quality	High Adverse Impact leading to suboptimal allocation of resources	Medium	Work together with applicants in an inclusive and transparent way strengthening their proposals	EIF
Management teams selected does not perform or winds down operations	Suboptimal allocation of resources	Low	Legal clauses in fund legal documentation	EIF
Management teams does not find suitable investment targets	Suboptimal allocation of resources	Medium	Increased origination efforts	Management team
Higher risk projects getting targeted by the underlying Funds	Having a portfolio of high risk projects	Medium	Try to do syndicate investments as much as possible to diversify the risk	Management team
Rights-holders targeted by the Action are not fully aware of the possibilities offered by the Action	Certain groups will be left behind	Medium	Focus will be paid on transparent and inclusive information sharing to reach all population groups leaving no one behind (considering local languages, means of communication etc.). Special focus will be paid on inclusion of youth and women, particularly from disadvantaged groups.	
Risk of human rights	Adverse impact	Medium	Private sector will abide	

violations committed by the private sector	on human rights, including labour rights and child rights (employment of children)		by the UN Guiding Principles on Business and Human Rights. A human rights and gender equality impact assessment will be conducted during the inception phase as part of activities. Civil society will have a "watchdog" role during the implementation.	
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CONDITIONS FOR IMPLEMENTATION

In order to increase the leverage effect of the Action, to reach the maximum fund size targeted and to raise additional third party funding, interest in VC in Turkey by private and semi-private investors should be sustained allowing the underlying Funds and Accelerators to close the Funds and invest as per their portfolio model. Finalisation of agreements and all other necessary actions for approval of the co-financing of other contributors in the action (MoIT, KOSGEB and EIF).

IMPLEMENTATION ARRANGEMENTS

ROLES AND RESPONSIBILITIES

The institution responsible for the execution of the Action is the EIF. The EIF will be entrusted for implementation of the financial instrument. The EIF's role will be setting up a sub-fund under the Turkish Investment Initiative by subscribing investors and advising the sub-fund during its investment and divestment periods. That includes the cash flow management of the sub-fund. As part of the governance structure of the TII there will be an Investment Committee that is responsible for the investment decisions (i.e. committing to underlying funds) and an Advisory Board Committee and the European Commission/EUD as donor, will be represented in these committees. The Ministry of Industry and Technology of Turkey will be national competent authority (duty-bearer) involved in the project.

European Investment Fund (EIF)

EIF will manage IPA funds via a dedicated bank account, TFF-Turkey Special Account; and commit IPA funds to the TFF, managed by an Investment Committee composed of the representatives of all shareholders of the Fund namely; Ministry of Industry and Technology (MoIT), SME Development Agency of Turkey (KOSGEB), the EIF and third party contributors to decide on the Portfolio Funds to be invested. The Investment Committee convenes on a regular basis.

EIF will be responsible for providing advisory and counselling services both at FoF setup phase and during the operational implementation. Selection of fund managers on a rolling basis per EIF policies and procedures, undertaking first and second screening processes of portfolio funds management teams as well as the due diligence of the selected teams will be performed under the coordination of EIF services.

Access to EIF's extensive network for the management teams will also be facilitated to enable them to establish contacts throughout Europe, which in turn will establish a connection between the IP in Turkish universities and the wider international Technology Transfer community. EIF will familiarise the management teams with the required tools and take part in their Advisory Boards.

Monitoring and performance of the Action will also be ensured by EIF services including the monitoring of the overall risk profiles of the portfolios. All required monitoring reports will be submitted to MoIT and to the Commission by EIF, at agreed intervals. Management of capital calls and disbursement of management fees will also be carried out by EIF. As the party of which budget implementation tasks are conferred, EIF responds to the Commission.

Ministry of Industry and Technology (MoIT)

MoIT, as the Operating Structure responsible of this Action Document and the principal duty-bearer, has the primary role in terms of monitoring the proper implementation of the Action and to track whether the TFF will reach the envisaged outcomes within the agreed time horizon. With the aim of strengthening Turkey's research, technologic development and innovation capacity, MoIT is attaching utmost importance to the commercialisation of R&D and innovation and promoting technology transfer by bridging the financing gap between the innovative ideas and equity investors. By taking a pioneering role in the design of TFF, MoIT intends to catalyse this process from a strategic point of view through the establishment of a Fund of Fund mechanism, which will substantially contribute to the enrichment of the ecosystem.

From the operational point of view, based on the reporting to be received from EIF and underlying fund management teams and Accelerators, MoIT will inform European Commission services regularly to enable them to take necessary actions contractually, if required.

Early and Seed Stage Venture Capital Funds, Technology Transfer Funds and Accelerators

Management teams, which will be selected among the accelerators, technology transfer funds and early-stage and seed oriented venture capital funds performing in Turkey market, will be responsible for the operational implementation of TFF-Turkey. The teams will monitor execution of due diligence process, including compliance checks and use of external legal counsel for legal documentation check during individual transactions.

The team composition and dynamics are of paramount importance for the successful implementation of the Fund. The team needs to be experienced with the market and be technology savvy at the same time while having a start-up environment understanding. All sorts of network support and internal advice should be provided in order to maintain a healthy growth of the investee companies. TFF-Turkey should also aim to build the capacity to provide the non-physical infrastructure to investee company portfolio, easing the day to day operations of researchers/entrepreneurs; such as accounting, certification, and legal and other consultancy services.

Apart from the day to day operations of running the Fund, the team should also be able to perform project development, opportunity assessment, team building, coaching, prototype production, go to market strategy generation, business development, legal compliance, licensing and selling tasks. Project management experience, technology understanding, deal sourcing and commercialisation skills will be sought within the management teams.

IMPLEMENTATION METHOD(S) AND TYPE(S) OF FINANCING

This Action will be implemented in indirect management by the EIF in the form of financial instrument. During the investment period of the Action, the selection of fund managers and accelerators will be organised by the EIF.

Types of financing will be venture capital investments into start-ups and spin-offs.

Detailed contribution breakdown presented below:

IPA II funds	EUR 17 000 000 (EU contribution)
MoIT	EUR 23 000 000
KOSGEB	EUR 30 000 000
EIF	EUR 10 000 000

4. PERFORMANCE MEASUREMENT

METHODOLOGY FOR MONITORING AND EVALUATION

Regular monitoring and reporting of the activities of the TFF (a Fund of Funds compartment) and the underlying Funds and Accelerators invested by the TFF shall be conducted as per Luxembourg SICAV standards and already existing reporting for TII.

The reporting at Action level shall contain the following reports to be presented to the Steering Committee:

- ✓ Annual Progress Reports,
- ✓ Quarterly Reports of the underlying Funds and Accelerators,
- ✓ Quarterly Reports detailing the status of the Special Account,
- ✓ Final Report of the Action

EIF shall also provide the information that needs to be presented to the Sectoral Monitoring Committee of the CISOP regarding the progress of the Action and also provide the information to be requested by the DG NEAR during the closure of the Action and the CISOP. Furthermore, according to the new EU Financial Regulation, the Action shall be subject to an evaluation as its budget is above EUR 10 million. As it is a long term Action in terms of implementation timeframe, its evaluation cost will be covered under the technical assistance budget of the next Operational Programme to be implemented by the MoIT under the IPA III period or any similar resources that will be made available to Turkey by the European Commission. In this regard, an impact assessment of the Action will be carried out following the completion of its implementation.

Gender-sensitive evaluation and monitoring, assessment of gender equality results and implementation of rights-based approach working method principles (participation, non-discrimination, accountability and transparency) in terms of implementation of the project and project outcomes will be promoted. Monitoring and evaluation will be based on indicators that are disaggregated by a minimum sex and age, and even further when appropriate with focus on reduction of inequalities. Key stakeholders will participate in the monitoring process whenever possible.

The European Commission may carry out a mid-term, a final, or an ex-post evaluation for this Action or its components via independent consultants, through a joint mission or via an implementing partner. In case a mid-term or final evaluation is not foreseen, the European Commission may, during implementation, decide to undertake such an evaluation for duly justified reasons either on its own decision or on the initiative of the partner. The evaluations will be carried out as prescribed by the DG NEAR guidelines for evaluations. In addition, the Action might be subject to external monitoring in line with the European Commission rules and procedures set in the Financing Agreement.

INDICATOR MEASUREMENT

Indicator	Baseline (value + year) (2)	Target 2020 (3)	Final Target (year) (4)	Source of information
CSP indicator (impact) (1) Distance to Frontier, Doing Business (score)	(0+2010)	71,77		World Bank Report Global Competitiveness Report
CSP indicator (impact) (2) Global Competitiveness Report – rank	(0+2010)	65		WEF
[Technological Readiness Pillar]	(0+2010)	60		
[Market Size Pillar]	(0+2010)	20		
[Business Sophistication Pillar]	(0+2010)	55		
[Innovation Pillar]	(0+2010)	70		
Number of products successfully commercialised	(0+Q1 2019)	0	50 (by the end of the fund)	Progress and Final Reports Impact Assessment Report
Number of new and innovative products developed and prototyped	(0+Q1 2019)	0	80 (by the end of the fund)	Progress and Final Reports Impact Assessment Report
Number of national patents obtained	(0+Q1 2019)	0	15 (by the end of the fund)	Progress and Final Reports Impact Assessment Report
Number of international and regional approved patents (PCT + EPC)	(0+Q1 2019)	0	12 (by the end of the fund)	Progress and Final Reports Impact Assessment Report
Number of national patent applications	(0+Q1 2019)	0	40 (by the end of the fund)	Progress and Final Reports Impact Assessment Report
Number of international and regional patent	(0+Q1 2019)	0	30	Progress and Final Reports

applications originated from Turkey (PCT + EPC)			(by the end of the fund)	Impact Assessment Report
Number of innovative enterprises created (Disaggregated by age, female/male owned)	0 (Q1 2019)	0	3/27 (30 in total) (by the end of the investment period)	Progress and Final Reports Impact Assessment Report
Total number of innovative enterprises financially supported (Disaggregated by age, female/male owned)	0 (2017)	0	26/106 (132 in total) (by the end of the investment period)	Progress and Final Reports
Number of research jobs created (Disaggregated by age group, female/male)	0 (Q1 2019)	0	60/240 (300 in total) (by the end of the investment period)	Progress and Final Reports Impact Assessment Report
Amount of third party funding raised	(0 +Q1 2019)	0	max MEUR 60 (by the end of the investment period)	Progress and Final Reports
Number of underlying venture capital/ technology transfer funds/ accelerators invested	(0+2017)	0	7 (5 VC and TTA funds and 2 Accelerators) (by the end of the investment period)	Progress and Final Reports
Amount of investment made in underlying venture capital/technology transfer funds/ accelerators	(0+2017) ¹⁰	0	MEUR 60 (by the end of the investment period)	Progress and Final Reports
Number of innovative companies invested by underlying venture capital/technology transfer funds	(0+2017)	0	36 (by the end of the investment period)	Quarterly Reports of the Fund of Funds Quarterly Reports of the underlying venture capital/ technology transfer funds
Number of <i>female-led</i> innovative companies				

¹⁰ Utilisation of the total commitments to the TTA Turkey Funds since inception and eligible fund manager fees are considered.

invested by underlying venture capital/technology transfer funds				
Amount of capital invested in innovative companies by underlying venture capital/technology transfer funds	(0 +2017)	0	MEUR 32,4	Quarterly Reports of the Fund of Funds Quarterly Reports of the underlying venture capital/ technology transfer funds
Number of accelerators formed and invested	0	0	2 (by the end of the investment period)	Quarterly Reports of the Fund of Funds Quarterly Reports of the Accelerators
Number of very early stage companies invested by accelerators Number of very early stage <i>female-led</i> companies invested by accelerators	0	0	96 (by the end of the investment period)	Quarterly Reports of the Fund of Funds Quarterly Reports of the Accelerators
Amount of capital invested in very early stage companies by accelerators	0	0	MEUR 24 (by the end of the investment period)	Quarterly Reports of the Fund of Funds Quarterly Reports of the Accelerators

(1) This is the related indicator as included in the Indicative Strategy Paper (for reference only)

(2) The agreed baseline year is 2010 (to be inserted in brackets in the top row). If for the chosen indicator, there are no available data for 2010, it is advisable to refer to the following years – 2011, 2012. The year of reference may not be the same either for all indicators selected due to a lack of data availability; in this case, the year should then be inserted in each cell in brackets. The baseline value may be "0" (i.e. no reference values are available as the Action represents a novelty for the beneficiary) but cannot be left empty or include references such as "N/A" or "will be determined later".

(3) The target year CANNOT be modified.

(4) This will be a useful reference to continue measuring the outcome of IPA II support beyond the 2014-2020 multi-annual financial period. If the Action is completed before 2020 (year for the performance reward), this value and that in the 2020 target column must be the same.

5. SECTOR APPROACH ASSESSMENT

The level of compliance of the Action with the sector approach criteria is considered to be high as its design is resulted from the needs identified in the latest available national sector policies and strategies, namely Turkey Economic Reform Programme (2019-2021), Turkey Industry Strategy Paper (2015-2018) and National Science, Technology and Innovation Strategy (2011-2016) as explained under Section on “*Relevance with the IPA II Strategy Paper and Other Key References*”.

In this regard, its formulation has been carried out in parallel with the national initiatives in the sector. The Action succeeds the previous national initiatives, Istanbul Venture Capital Initiative (IVCi), Turkey’s first ever fund of funds, and Turkish Growth and Innovation Fund (TGIF), and complements the existing ones. The Action will support the establishment of Turkey’s next generation of fund of funds, the Turkish Future Fund (TFF), within the framework of the Turkish Investment Initiative (TII). The Action is not a stand-alone action, but a framework action fostering entrepreneurship and innovation in Turkey.

Brief assessment of the overall compliance of the Action with sector approach criteria is presented below:

National sector policy and strategy

The current basis for medium term national sector policy and strategy is the New Economy Program (NEP) covering the 2019-2021 period. The New Economic Program launched in September 2018 has strategic goals in science, technology and innovation areas. In this program, it is declared that sector focused programmes will be implemented to increase domestic industrial value. Pharmaceuticals, petrochemicals, energy, machinery/ equipment and software sectors will be prioritised to decrease the current account deficit. Large-scale industrial and technological zones geared towards high-tech products will be established. Digital transformation roadmap will be implemented.

Based on the NEP, Turkey has also prepared the Pre-Accession Economic Reform Programme (ERP) for 2019-2021 period. In the ERP, three reform measures have been identified in the fields of “Research & Development and Innovation”. These measures are explained below:

Reform Measures	Objective	Budget (2019-2021)
Increasing the number and efficiency of business development, incubation and accelerator centres	to increase quantity and quality of Incubators, Business Development Centres and Accelerators	€3 million
Enhancing the R&D and innovation activities of SMEs	to commercialize new products resulting from R&D and innovation activities, to create added value for the national economy and to increase the export of technological products	€100 million
Supporting competent research infrastructures on a performance basis	to support new and existing research infrastructures	€110 million

TFF proposal rather than building on current Government measures, it’s complementing them and trying to meet untapped needs especially from the point of “access to finance”. The three reform measures indicated within the Pre-Accession Economic Reform Programme (ERP) in the fields of “Research & Development and Innovation” and respective explanations how these measures are interacting with the TFF proposal are as follows:

1. Increasing the number and efficiency of business development, incubation and accelerator centers in order to support innovative entrepreneurship: The budget allocated for this measure is €3 million for 2019 -2021 period. This measure envisages the development of support models in collaboration with public sector, private sector and NGOs. It specifically targets “International Incubation Centre and the Accelerator Support Program” and “İŞGEM/TEKMER Support programmes” managed by KOSGEB (SME Development Organisation of Turkey). This measure is at an early stage of its implementation and requiring a preparatory phase comprised of legislative activities, software studies and promotion activities. Subject activities will be performed throughout the year and “İŞGEM (Business Development Centres) /TEKMER (Technology Development Centres) Support programmes” will be put into effect in 2019. The key performance indicators set for this measure is “no. of newly established İŞGEMs”, “no. of newly established TEKMERs” and “no. of supported enterprises in the scope of International Incubation Centre and Accelerator Support Program”. While this measure is mainly supporting the establishment of incubation centres and accelerators from infrastructural point of view, TFF proposal is addressing the need of strengthening financial capacity of limited number of accelerators in addition to the venture capital and technology transfer funds. It’s worth to mention that presence of TFF mechanism will surely trigger the formation of new accelerators and led a competition within the system in terms of reaching the most extensive target group (start-ups, spin offs) both in quantity and quality.
2. Enhancing the R&D and innovation activities of SMEs: This measure is aimed to commercialize new products resulting from R & D and innovation activities in the priority technology fields, to create added value for the national economy and to increase the export of technological products by having a competitive position in international markets. It is aimed to increase the competitiveness of SMEs and contribute to inclusive growth by supporting the investments of the products or services they will produce. The tool to be implied for this measure is the “SME Technological Product Investment Support Program”. The budget allocated for this measure is €100 million for three years and the key performance indicators set are “no. of products in medium-high and high technology areas” and “no. of products in medium-low and low technology areas”. Since TFF proposal is also envisaging an increase in “Number of products successfully commercialised” and “no. of new and innovative products developed and prototyped”, it can be assessed that this measure is quite interrelated with the TFF proposal in terms of the result indicators addressed. The expected outcomes of the TFF proposal will notably complement the long run objectives of this measure and may play a pioneering role in terms of directing the evolution of the respective Support Programme.
3. Supporting competent research infrastructures on a performance basis: Through this measure, it is aimed to improve the financial and managerial capacities of the research infrastructures at universities where qualified researchers are planned to be employed and so develop innovative products at these infrastructures and thus increase the exports of technological products in international markets for the country's economy by creating added value through commercialization of these products. With a budget of €110 m, the sole performance indicator namely “no of research infrastructures supported under Law No. 6550” will try to be achieved. Since this measure is much more R&D infrastructure oriented, there is not too much intersection with TFF proposal from operational point of view. The indirect complementarity might be ensured in case the start-ups and spin-offs to be supported by TFF mechanism will utilise the facilities of research infrastructure.

Furthermore, studies have been launched for the preparation of the 11th Development Plan covering the period of 2019-2023. The new development plan aims to ensure structural transformation of the national economy by focusing on productivity and competitive production. The new national strategy for research, development and innovation (RDI) is planned to be developed and approved by the Science, Technology and Innovation Policy Board in the upcoming period. The main objectives of R&D and innovation policy in the draft national strategy are redounding the technology and innovation activities by increasing the private sector participation, scaling up the commercialisation of research results by creating an ecosystem based on innovation and providing Turkey to achieve high competitive power on a global scale with the high-technology products which have been branded.

The overall objective of this Action is rooted in these national strategies as well as the Revised Indicative Strategy Paper for Turkey for the period of 2014-2020 and the CISOP. Thus, the Action is consistent and coherent with the national sector strategies as well as EU strategies.

Institutional setting and capacity

Institutional framework is clearly defined and institutional capacities are mostly sufficient.

Through the regulations enacted within the scope of the new Presidential Government System, supports and funds in science, technology and innovation areas have been gathered within the Ministry of Industry and Technology (MoIT). Science, Technology and Innovation Policy Board, directly affiliated to the Presidency, has been established by the Presidential Decree No. 1 published in the Official Gazette No. 30474 of 10 July 2018 as the highest advisory body on science, technology and innovation. The members of the Board have been appointed in November 2018. The Board is within the Presidential structure which places it at the top of the decision making process on STI strategies. The Board is able to put its decisions into immediate action. By the establishment of the Board, strategy and policy making is expected to be more effective and centralised.

Formulating policy to encourage and support R&D activities; making recommendations on science, technology and innovation policy; identifying strategic technology areas; preparing mid and long term STI policies; developing strategies on research infrastructures are among the major responsibilities of Science, Technology and Innovation Policy Board. Evaluating the STI ecosystem as a whole, the Board is expected to take STI issues into consideration by making inter-governmental meetings, coordination meetings with other policy boards and meetings with the stakeholders.

Sector and donor coordination

Coordination mechanism on the sector level is inclusive, efficient and effective and donor coordination mechanism is efficient and effective.

The Science, Technology and Innovation Policy Board is the highest authority and coordinating body chaired by the President and composed of permanent board members, which consist of representatives from the public and private institutions and academia.

Sector and donor coordination mechanisms have also been set up under the TII and the Action level. A Board of Directors operating at the TII level with members nominated by the shareholders and the EIF have been established. An Investment Committee with members from each shareholder and some independent Turkish and non-Turkish members having an extensive professional experience in the relevant fields will be set up for the Action. Furthermore, an Advisory Board consists of members appointed by the shareholders will also be established.

Sector budget

There is a medium term expenditure framework designed based on programmes and actions. The link between the national budget allocated to these programmes and actions and sector strategies is strong as the cost of the implementation of these programmes and actions are indicated in these strategy documents. Furthermore, external funding is also aligned with national priorities.

Within the scope of the ERP, roughly €213 million has been earmarked for 2019-2021 period to implement the sector reform measures.

Sector monitoring system

There is a performance monitoring system measuring the progress towards achieving sector policy objectives by means of indicators. Indicators provide information on implementation at four points in the intervention hierarchy, namely inputs, outputs, results and objectives.

In this regard, inputs, estimated costs of activities, and outputs and results have been identified in the ERP. Besides, 2023 targets of R&D ecosystem of Turkey have been identified.

Monitoring system of the Action is designed within the national performance assessment framework and directly contributes to the achievement of national sector objectives.

6. CROSS-CUTTING ISSUES

GENDER MAINSTREAMING

Equal opportunity principles and practices in ensuring equitable gender participation in the Project will be applied. The underlying fund managers will be encouraged during the pre-investment phase to have woman executives and junior staff in their teams. Also at the underlying fund investments level, the number of companies with woman owners will be tracked and at least 20% of companies to be supported will be owned by women.

EQUAL OPPORTUNITIES

Equal opportunity principles and practices in ensuring equitable participation of men and women in the Project will be applied. The underlying fund managers will be encouraged during the pre-investment phase to have woman executives and junior staff in their teams. Also at the underlying fund investments level, the number of companies with woman owners will be tracked and at least 20% of companies to be supported will be owned by women. The project will also encourage women employment and at least 20% of the research job to be created by the end of the project implementation period will be women researchers.

MINORITIES AND VULNERABLE GROUPS

N/A

ENGAGEMENT WITH CIVIL SOCIETY (AND IF RELEVANT OTHER NON-STATE STAKEHOLDERS)

The relevant civil society organisations (including women's business organisations and those representing rights of different groups of rights-holders) will be also the targeted by the visibility events to create awareness and to promote and support inclusion of youth, women and disadvantaged groups in line with gender responsive rights-based approach and UN recommendations for Turkey.

ENVIRONMENT AND CLIMATE CHANGE (AND IF RELEVANT DISASTER RESILIENCE)

The Action has not a direct or indirect link to EU environmental acquis

7. SUSTAINABILITY

The revolving nature of the financial instruments is the core of the sustainability of the TFF Action as the funds stay in the programme area for future use for similar objectives.

A sound sustainability plan involving financial engineering instruments on the utilisation of potential future reflows of the TFF for the benefit of commercialisation of R&D will be developed by the MoIT following the completion of the investment period.

The resources returned to the operation from investments undertaken by the funds, which are attributable to the IPA II contribution to the operation, shall be accrued to the national public contribution to the operation and shall be used exclusively for the benefit of SMEs. This could take any of the following options, all to be further scrutinised at the due date:

- Continuation of the TFF type of action by establishing new Fund of Funds structure.
- Other viable programme proposed by the MoIT, if requested with the support of the EIF.

Based on the outcomes of this Action, elaborations could be done on other relevant support programmes performed by the KOSGEB as well as the TÜBİTAK, affiliated bodies of MoIT, with the aim of ensuring complementarity between national and EU-funded mechanisms. In due course, for capturing an insight vision in terms of identifying the emerging needs, MoIT will liaise with underlying fund management teams and accelerators as well as the investees in a structured manner to programme the funds recycled from the TFF Action.

8. COMMUNICATION AND VISIBILITY

Communication and visibility will be given high importance during the implementation of the Action. The implementation of the communication activities shall be funded from the amounts allocated to the Action.

All necessary measures will be taken to publicise the fact that the Action has received funding from the EU in line with the Communication and Visibility Manual for EU External Actions. Additional Visibility Guidelines developed by the European Commission (DG NEAR) will have to be followed.

Visibility and communication actions shall demonstrate how the intervention contributes to the agreed programme objectives and the accession process. Actions shall be aimed at strengthening general public awareness and support of interventions financed and the objectives pursued. The actions shall aim at highlighting to the relevant target audiences the added value and impact of the EU's interventions and will promote transparency and accountability on the use of funds.

