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This action is funded by the European Union

ANNEX

of the Commission Decision on the financing of the Annual Action Programme 2018 in favour of the Republic of Mauritius

Action Document for "Support Mauritius' development and youth employability through post-secondary education, training and innovation initiatives"

1. Title/basic act/ CRIS number	Support Mauritius' development and youth employability through post-secondary education, training and innovation initiatives. CRIS number: MU/FED/038-556 financed under European Development Fund (EDF)	
2. Zone benefiting from the action/location	Republic of Mauritius The action shall be carried out at the following location: Republic of Mauritius	
3. Programming document	National Indicative Programme (NIP) between the European Union and the Republic of Mauritius for the period 2014-2020	
4. Sector of concentration/ thematic area	Tertiary Education and Research and Development	DEV. Aid: YES[1]
5. Amounts concerned	Total estimated cost: EUR 8 100 000 Total amount of EDF contribution: EUR 7 900 000 This action is co-financed in parallel co-financing by the Government and private sector of Mauritius for an amount of EUR 200 000	
6. Aid modality and implementation modality	Project Modality: Indirect management with the Republic of Mauritius	
7 a) DAC code(s)	11420, 11430, 11130, 11182	
b) Main Delivery Channel	Public sector Institutions - 10000	

[1] Official Development Aid is administered with the promotion of the economic development and welfare of developing countries as its main objective.

8. Markers (from CRIS DAC form)	**General policy objective**	**Not targeted**	**Significant objective**	**Main objective**
	Participation development/good governance	☐	☐	**X**
	Aid to environment	**X**	☐	☐
	Gender equality (including Women in Development)		**X**	☐
	Trade Development	**X**	☐	☐
	Reproductive, Maternal, New born and child health	**X**	☐	☐
	RIO Convention markers	**Not targeted**	**Significant objective**	**Main objective**
	Biological diversity	**X**	☐	☐
	Combat desertification	**X**	☐	☐
	Climate change mitigation	**X**	☐	☐
	Climate change adaptation	**X**	☐	☐
9. Global Public Goods and Challenges (GPGC) thematic flagships	N/A			
10. Sustainable Development Goals (SDGs)	**Primary SDG:** **Goal 4** - Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. **Target 4.4**: By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship. **Goal 9** - Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation. **Target 9.5:** Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending. **Target 9.b:** Support domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities. **Secondary SDG:** **Goal 8** - Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all. **Target 8.5**: By 2030, achieve full and productive employment and decent work for all women and men, including young people and persons with disabilities, and equal pay for work of equal value. **Target 8.6**: By 2020, substantially reduce the proportion of youth not in employment, education or training.			

SUMMARY

The general objective of National Indicative Programme (NIP) between the European Union and the Republic of Mauritiusis: to contribute to enhance the competitiveness and productivity of the country through the improvement of the post-secondary education, in particular at technical level; and the transformation of Mauritius into an innovative knowledge hub. This will contribute to achieving sustainable growth and job creation as well.

Under the proposed programme, these two NIP priorities will be addressed under two separate Specific Objectives.

For the Post-Secondary Technical Training sector, the main objective is to contribute to improve the relevance of higher education so as to reduce the skills mismatch between supply and demand in the labour market, in order to tackle the high level of youth unemployment. This will namely be achieved by increasing the offer, relevance and quality of polytechnic education in Mauritius; supporting the development of a career guidance system in Rodrigues; and by improving the employability of vulnerable groups through the Dual Training Programme, i.e. a programme coupling on-the-job training and work experience with higher education studies.

For Research and Innovation, the aim is to put in place the necessary framework, facilities and funding to enhance applied research and innovation capacity (i.e. promoting collaboration between academia and industry and by supporting the development of industry driven research and innovation projects). In particular, the project will support the development of Nanotechnology research in Mauritius and its concrete product application, while in Rodrigues it is expected to accompany the setting up of a business incubator for the development of innovative information, communication and technology (ICT) and agro-industry start-ups. Moreover, a Call for Proposal component is proposed to give to private sector operators the opportunity to promote in-house research for applied product and process innovation. In the long term, it is expected that this component will create a multiplier effect with concrete and long lasting impact on the Mauritian economy at large, by enhancing competiveness and productivity of the Mauritian private sector. In fact, by demonstrating replicable good practices, the research and development (R&D) activities should encourage further private sector investment and trigger creation of high value added jobs, eventually helping the Republic of Mauritius in graduating as a High Income Country.

1. CONTEXT

1.1 Sector and Country context

Mauritius is classified as an Upper Middle-Income Country with a Gross National Income (GNI) per capita of USD 10,454 in 2017. From a mono-crop, inward looking economy reliant on the sugar sector in the early days of independence, Mauritius has gradually and successfully shifted to an export-oriented, diversified economy producing a wide range of goods and services. As such, in 2017, the main sectors driving growth were tourism, financial services, retail trade and information, communication, and technology (ICT).

Amid an uncertain external environment, Mauritius has continued to grow at a good pace (3.8 % in 2017) with stable political and macro-economic conditions. The country faces the challenge of avoiding the "middle-income trap" and moving to a higher income status. Productivity gains have been declining in the past decades while unemployment rate has risen since 2008 and stagnated around 8 % in the past 5 years, particularly affecting the youth with an unemployment rate of 23.6 % in 2016. The World Bank, in its Systematic Country Diagnostic, advocates that the country must boost productivity and competitiveness by investing in education and skills upgrades and increase efforts to spur innovation.

The 2017 Global Innovation Index report identifies lack of university-industry collaboration as a major weakness for the country's economic outlook. Efforts will have to be made, inter alia, in the quality of scientific research institutions, company spending on R&D, university-industry collaboration in R&D, procurement of advanced technological products, for Mauritius to evolve to a high income, innovation-driven country.

Furthermore, the World Bank notes[2] that skills mismatch grew by 30 % during the past decade, signalling the urgent need to support high tech and services-oriented sectors. In addition, an adequate framework needs to be designed to support research and development, and innovation which are key to boost productivity.

The tertiary education landscape in Mauritius is quite diversified and encompasses 65 institutions - 10 public and 55 private. In 2016, the student population enrolled in tertiary education was 48,089 (57 % female), including 1 736 international students.

The NIP identifies three key challenges to move to a high income country status: 1) Skills mismatch in the labour market, that directly triggers youth unemployment and should be "remedied by improving the relevance of tertiary education to make it more responsive to the needs of the labour market"; 2) Ensure equitable access to tertiary education; 3) Enhance the quality of tertiary education to attain international standards, including an improved research capacity. Finally, the NIP points to "the specificity of the island of Rodrigues", as the island faces more stringent educational and socio economic constraints than Mauritius. Rodriguans have limited opportunities to educational and entrepreneurship development; are more prone to unemployment and remain, on average, poorer. Given the inexistence of career guidance, the choice of study areas of the Rodriguans often does not reflect the needs of the economy, hence being forced to move to Mauritius Main Island or abroad to find employment.

1.1.1 Public Policy Assessment and EU Policy Framework

As outlined in its Vision 2030, the Government of Mauritius aims to achieve the High-Income Country status and to address unemployment in the coming decade by "Building an Innovative Mauritius" and "Investing in Skills Development".

Enhance relevant skills and employability of youth in the Republic of Mauritius

The country has adopted a "**Tertiary Education Strategic Plan 2013–2025 (TESP)**". The first two goals of this plan seek to "widen access and ensure equity", and "improve the quality and relevance" of tertiary education. The key activities of the TESP relate to capacity building of teaching staff and the strengthening of collaboration between tertiary education

[2] "Inclusiveness of Growth and Shared Prosperity" report (2016)

and industry. In addition, an **Action Plan for the TESP**[3] has been elaborated and puts the emphasis on the diversification of post-secondary education through the strengthening of the **Technical Vocational Education and Training (TVET)** and **Polytechnics subsectors.**

The "Nine Year Basic Education"[4] Reform introduced a holistic education identifying **Polytechnics** as an alternative to University, with programmes jointly worked out with industry, leading to the award of a diploma in career-oriented fields. The Budget 2015/2016 made provisions for the setting up of three Polytechnics campuses to house courses in ICT, Engineering, Hospitality, and the Paramedical sector, as per the Tertiary Education Commission (TEC) priority areas and the TESP (2013–2025). The government will invest Rs130 million (EUR 3.2 million) towards the operational costs of the three Polytechnics (Budget Speech 2017/18). Polytechnics launched its inaugural programme, a National Diploma in Nursing, in November 2017.

Moreover, in view of addressing **youth unemployment, skills mismatch, and the scarcity of skilled labour** in Mauritius, the **Dual Training Programme (DTP)** was introduced in 2014. The DTP is a mix of practical, remunerated on-the job training and tertiary institutions' studies leading to accredited Diploma or Degrees. The programme, under the aegis of the Ministry of Labour, Industrial Relations, Employment and Training, provides the opportunity for a direct match between demand and supply of labour, in line with companies' requirements, with employers and the government sharing the training costs. The Ministry of Labour, through the Human Resource Development Council (HRDC), contributes up to 50 % of training fees during the period of the DTP diploma or degree course. At the end of July 2017, 25 companies have registered in the DTP and have enrolled 127 trainees.

One of the key objectives of the **Island of Rodrigues** Government Programme for 2017-2022 is to promote a qualified human resource matching the demand of the labour market and the economic needs of the island. In the Rodrigues Regional Assembly (RRA) Budget 2016, the creation of a Career Guidance Unit was announced under the aegis of the Commission for Training in cooperation with the Commissions for Education and for Employment. With the re-engineering of the Employment Service, and in collaboration with Ministry of Labour, Employment officers in Rodrigues are now being trained as Employment Counselors. It is to be noted that the National Employment Department Act 2017 provides for an appropriate and modern legislative framework to support the labour market, e.g. reducing skills mismatch, unemployment and anticipating future needs and expectations of jobseekers and employers.

Transform Mauritius into an innovative knowledge hub

The **National Innovation Framework for 2016-2020** has put major emphasis upon the need to increase local research efficiency and technology use for innovation by local industries. It consists of a set of practices to trigger innovative approaches and schemes to support research and innovation, commercialisation of advanced concepts and capacity building.

[3] The Action Plan, commissioned by the Delegation of the European Union to Mauritius was adopted by Cabinet on 7 April 2016

[4] The specific objectives of the NYBE are to (i) promote the holistic and integral development of learners, (ii) provide learning opportunities to all students for high levels of achievement commensurate with their abilities and strengths (iii) inculcate in learners a set of values and sense of moral responsibility and belonging to the country (iv) give greater recognition to TVET in building human capital for transforming the economy into one which is knowledge-based and skills-driven (v) equip all students with knowledge, foundational skills and attitudes for future learning and (vi) achieve a smooth transition to and completion of secondary education.

The Government of Mauritius has identified **nanotechnology as a potential niche area**[5] for economic growth, as an emerging area with concrete opportunities for society and industry. It may have a leverage effect on a country's R&D because it pools together researchers from biosciences, biotechnology, bioengineering, bioinformatics, chemistry and pharmaceutics. The Ministry of Technology, Communication and Innovation initiated discussions on the applications of nanotechnology and the development of a nanotechnology industry in Mauritius in collaboration with the Centre for Biomedical and Biomaterials Research (CBBR) at the University of Mauritius. A Research Collaborative Agreement (RCA) has been signed between Centre for Nanotechnology & Advanced Biomaterials (CeNTAB, SASTRA University, Thanjavur, India) and the Mauritius Research Council (MRC) to promote research and innovation in the area of biomedical nanotechnology. In addition, the MRC is working towards the setting up of a Nanotechnology Research Cluster. Nanotechnology industry comes with some ethical risks, but the Government of Mauritius has always put in place necessary mechanisms to monitor safety and ethical issues via a Biosafety and Bioethics Committee.

The **Rodrigues Regional Assembly** (RRA) has set entrepreneurship to become the backbone of the local economy. RRA stressed that to build the capacity of young people to create sustainable and innovative business ventures, instruments and structures such as business incubators and accelerators would be promoted. The RRA is thus putting emphasis on two sectors with high growth potential, i.e. **ICT and agri-businesses** and has earmarked a total of MUR 7.6 million in 2017-2019 for the creation of a business incubator in Rodrigues. Moreover, the RRA also plans to develop a techno park at Baldirou in collaboration with Landscope Mauritius, as announced in the budget speech 2018/2019, to facilitate growth and creation of innovative companies, provided that additional means are made available.

EU policy framework

The European Commission Consensus on Development (2016)[6] highlights the importance of Education, including technical and vocational training, and of Research and Innovation in meeting the objectives set out for 2030. The document stipulates that "Ensuring access to quality education for all is a prerequisite for long-lasting development" and that the EU will "support inclusive life-long learning and equitable quality education at all levels, with special attention to education and training opportunities for girls and women." Moreover, the focus will be on "meeting the needs of youth and improving their future prospects, to increase quality employment and entrepreneurship, supported by effective education, vocational training, skills development, and access to digital technologies and services."

For Research and Innovation, the New European Consensus on Development specifies that "Public sector investment in research and innovation capacity in developing countries can also help unlock private sector investment and help drive economic and social development." Furthermore, the New European Consensus on Development acknowledges the role of the cultural and creative industries to promote inclusive development thus help achieve the development goals.

[5] As per Cabinet Decision of 22 April 2016 (http://pmo.govmu.org/English/News/Pages/Cabinet-Decisions---22-April-2016.aspx)

[6] OJ C 210 of 30.6.2017

1.1.2 Stakeholder analysis

The National Authorising Officer (NAO), i.e. the Ministry of Finance and Economic Development will be the signatory of the Financing Agreement and has relevant experience regarding EU procedures and an excellent knowledge of the education as well as research & innovation sectors through dedicated focal points for these sectors. However, to ensure additional capacity is available, the Ministry will be supported in the implementation of the project by a Project Management Unit and technical assistance in the different areas of intervention.

The Ministry of Education and Human Resources, Tertiary Education and Scientific Research will have the responsibility to oversee the Specific Objective 1 (see section 4.1). The main strength of the Ministry is that it has under its aegis, specialised agencies like the Human Resource Development Council, Polytechnics Mauritius Limited (a private company owned by the Government), Mauritius Institute of Training and Development, which are well positioned to foster synergistic effect in addressing skills mismatch and enhancing employability of youth. Polytechnics Mauritius Ltd has facilitated the dialogue on the Education Component of this intervention. The Board of this Company is composed of representatives of both the public and private sectors and has a clear vision for the future of Polytechnics in Mauritius, which is demand driven and market oriented in terms of training to offer.

The specific activities related to the Dual Training Programme will fall under the responsibility of the Ministry of Labour, Industrial Relations, Employment and Training. The Government On line Centre (GOC) hosts a Labour Market Information System (LMIS) put in place by the Ministry to ease the registration of both jobseekers and employers. This allows job matching, placement of redundant workers as well as employment counselling.

The HRDC (Human Resource Development Council) has the responsibility to look after and promote the development of the labour force in Mauritius in line with the requirements of the economy. The HRDC consists of a Chairperson and 10 members, representing the Government, the key economic sectors, trade unions and persons having experience in the field of HRD. All the Ministries involved and benefiting from the proposed programme and the University of Mauritius are represented as members of this Council.

The Ministry of Technology, Communication and Innovation will oversee the Specific Objective 2, i.e. *Transform Mauritius into an innovative knowledge hub,* as per its mandate to promote innovation and supervises the Mauritius Research Council. The latter will be involved in the implementation of the grants complement and is present in Rodrigues through a local office, so it will also collaborate to support the incubators to be set up in the island.

The Centre for Biomedical and Biomaterials Research (CBBR), which will implement the activities related to nanotechnology, is already undertaking research in this field and collaborates with well-known international research institutions where their personnel is continuously acquiring capacity in their respective fields. Business Mauritius is the coordinating body for the local business community and is already implementing projects with EU funding. The proposal regarding nanotechnology was already discussed with Business Mauritius before it was submitted to the EU for funding. The Mauritius Chamber of Commerce and Industry also supported this project and its members demonstrated interest in the call for proposals component.

The RRA will directly supervise the interventions of the project activities concerning Rodrigues Island. The RRA has a good experience in managing EU projects as it benefits from different bilateral and regional projects funded under the EDF. The RRA has committed to create the post of Career Counsellor, in charge of the management of the Career Guidance Service at the Commission of Training; meanwhile the RRA has given its commitment to recruit Career Officers through the Rodrigues Education Development Company Ltd.

The MRC is an executing agency that promotes and finances innovation activities and serves as a one-stop shop for innovation-related inquiries. It is in charge of national research and innovation strategies. In view of the strategic directives from the National Innovation Council (NIC), MRC will develop, monitor and manage innovation programmes and report to NIC. The MRC promotes Public-Private Partnerships to encourage innovation, research and business development. The Board of the MRC includes representatives of the private sector and manages a National Innovation and Research Fund, to finance research in public and private institutions. Given its experience in managing research grants, it will be fully involved in the grants component of this intervention.

The **target groups of this programme** are tertiary students, researchers and prospective students, with a particular focus on: school leavers, young graduates, students (Grade 7 to Grade 11) in need of career guidance, young people from disadvantaged background and unemployed youth. The action will also target the business community including small and medium enterprises (SMEs) and youth and women entrepreneurs in both Mauritius and Rodrigues.

The **final beneficiaries** include the youth, research institutions and the private sector, particularly SMEs, which will complement each other's' interest. After the programme it is expected that the youth will be better equipped with the required skills for the labour market and able to engage in applied research and innovation thanks to an enabling environment. The private sector will benefit from grants for R&D and from a pool of skilled labour that meets their needs as well as from the set-up of an effective framework for applied research that can be used to improve their competitiveness and productivity through innovation.

1.1.3 Priority areas for support/problem analysis

Improve the quality of Post-secondary Technical Training for young people

25 % of young Mauritians are unemployed, i.e. 3 times more than the national average and they constitute 46 % of all unemployed people in the Republic. Although the Gross Tertiary Enrolment Ratio (GTER) has increased from 15.1 % in 2000 to 46.6 % in 2016, 23 % of the total current unemployed in Mauritius have a degree and, according to the World Bank, 54 % of Mauritian firms indicated that they could not recruit the desired number of candidates due to skill mismatch. This contributes to the high rate of unemployment among youth.

To improve the employability of young Mauritians and provide local companies with the profile they require, the Government focuses on improving their skills and employability. One of the main actions in this sense has been the setting up of a **polytechnic education system,** whose educational offer has been aligned with the priority fields identified by the Tertiary Education Commission following national consultations, also with the private sector. Polytechnics are tasked to increase access to quality and relevant tertiary education, fostering strong partnership with industry in order to deliver skills that meet the needs of employers.

According to the World Bank Report on "*Inclusiveness of growth and shared prosperity"* (2016), in Mauritius, people who complete tertiary education tend to belong to families with a

more advantaged background. The lack of inter-generational mobility among the poorest families (in particular those inscribed in the Mauritian social register), results often in kids achieving the same level of education of the previous generation,[7] forcing them to accept low-skilled occupations. As a result, their income level will probably remain low for the entire life and their children would bear the same risk to end up as disadvantaged individuals.

One of the objectives of the EU programme will be to increase the proportion of young people from disadvantaged background (i.e. disabled and/or the poorest) enrolled in tertiary diploma or degree courses, in fields required by the labour market. The Government programme to serve this purpose is the **Dual Training Programme (DTP).** The DTP, in addition to a post-secondary diploma, guarantees practical on-the-job training, a stipend during the whole duration of the training and high chance of a placement directly in the same industry. The EU contribution will be used to scale up the size of the DTP and widen the offer to reach out to the mentioned vulnerable groups. The DTP could provide many youths with the education and skills necessary to obtain high skilled and well paid jobs in the medium term, thus increasing inter-generational mobility for disadvantaged families.

Since a few years, the Island of Rodrigues has started registering unemployed graduates, due to the saturation in traditional fields. There is a definite need to equip Rodriguans with some career guidance and employment counselling, to better inform students and the unemployed on the choice of their field of studies in light of future labour perspectives and employment opportunities. Some guidance is provided by the RRA Commission for Training and a Career Guidance Fair is organised twice a year, but there is no structured career guidance framework in Rodrigues that could guide secondary students in their choice of either tertiary/vocational education or to facilitate the integration of job seekers in the labour market.

Increase the use of high-tech, innovative and industry related education in Mauritius

Mauritius ranks 64th on the Global Innovation Index (GII), second only to South Africa in the whole African Continent, still it is considered as an "inefficient innovator" compared to its gross domestic product (GDP) per capita level, according to the same research. This is mainly due to weaknesses in the "innovative output component", i.e. although the inputs, e.g. economic and human resources conditions are conducive to innovation, Mauritius cannot reap the benefit of it. In particular, the 2017 GII reports that no patents were registered, very little Mauritian academic research is cited, while just 1 out of 1000 Mauritian enterprises is a high tech or medium tech company and high tech goods represent 0 % of Mauritian exports.

As Mauritius seeks to graduate to a High-Income Country, a new growth model must be developed, around higher value-added sectors and based on improving productivity, resource-efficiency and competitiveness. Such a strategy requires a shift from what the country produces and exports to how it is done, building upon talent and nurturing technology.

This needs to be accompanied by proper incentives that are conducive to innovation, as the private sector contributes marginally to national expenditures on R&D[8]. Only few SME's are currently involved in high-tech areas due to the a lack of appropriate mechanisms and incentives to encourage the emergence of knowledge based economy, although the newly

[7] Among people living in households headed by someone who did not complete any education level, 33 % were in the poorest income quintile while 83 % of people living with heads who completed tertiary education level were part of the richest quintile.

[8] A mere 0.3 % of total GERD is financed by businesses.

introduced funding schemes of MRC under the National Innovation Framework could improve this situation. The development and scaling up of any applied R&D intensive technology is hindered by a lack of collaboration between Industry and Universities and by the limited availability of development facilities (e.g. for research scale-up and technology transfer), to translate research findings into tangible products ready for commercialisation.

In this sense, the **Nanotechnology** sector is promising and has been identified as one of the sectors with the highest possibility of concrete product applications. In particular, the CBBR of the University of Mauritius has already proven that this technology can offer new perspectives to existing industries by developing pilot products in the textile, energy, health and plastic domains. Business Mauritius has already conveyed the interest of some of its members in venturing in the nanotech sphere, to increase their competitiveness and exports.

To nurture this prospect, a further reinforcement of human resources capacity for research, industrial technology development and emergence of SMEs is required through technical assistance and up-scaling of existing CBBR facilities. Besides this, concrete examples of cooperation between research and enterprises will be showcased to stimulate replications, by financially supporting R&D applications and by strengthening the development of appropriate platforms for dissemination of R&D intensive technology applications.

To further develop R&D concrete applications nationwide, also beyond the domain of nanotechnologies, the programme propose a sizeable call for proposals component to stimulate research and innovation for productive purposes. The call for proposal will contribute to the existing Collaborative Research and Innovation Grant Scheme (CRIGS) and will be managed by the Research and Development Working Group (RDWG), more details in section 3.1). Priority will be given to proposals that can generate sustainable new jobs, for companies to be able to generate added value in their production, mainly, but not only, linked to the preparation, design and launch of innovative products and improvements in business processing. Where possible, synergies with Universities will be privileged but, under no circumstances, will the call finance pure research projects without concrete practical applications. The call for proposal instrument will stimulate the role of private stakeholders in innovation and create interest that could have multiplicative effects in the long term.

Although the Island of Rodrigues envisions transforming its economy by making entrepreneurship one of the main drivers of its growth, the SME sector is very much entrenched in traditional activities (i.e. agriculture, animal rearing and handicraft). The RRA already developed incentives to facilitate the implementation of ICT business in Rodrigues, but if the island is to shift towards higher valued products and develop sectors of potential high growth, a proper enabling environment and framework should be set up. In terms of internet connectivity, it is encouraging to note that by November 2019 a connection of Rodrigues to Mauritius with an internet bandwidth capacity of 2 GB will start operating.

Moreover, the youth needs guidance on how to structure, administer and support a real business, which is why the RRA is currently planning for the setting up of **incubator facilities** and of a **Technopole of Rodrigues,** which also includes the ICT Centre for Excellence. Building on the ongoing assistance received from La Réunion, this programme will support the start-up of the Technopole, to ensure that both ICT and more traditional sectors of Rodrigues, such as agriculture and agri-business, are strengthened, modernised and value is added to them.

2. RISKS AND ASSUMPTIONS

Risks	Risk level	Mitigating measures
Delay in the implementation of the project due to lack of comprehension of EU financial rules.	M	• The project will be directly supervised by the national authorising officer (NAO) office, which has a good understanding of EU procedures and is supported by Technical Assistance (TA) in its different sectors of intervention. • For the call for proposals and recruitment of TA, technical meetings will be organised with all stakeholders to explain EU procedures and their implementation.
Financial sustainability of the measures implemented after then project ends.	L	• The components of the project will be integrated in the respective ministries/institutions budget, so as to ensure their sustainability after the duration of the project.
Low involvement of industry and the private sector in the implementation of the project and its components.	L	• Representatives of the private sector at the highest level have shown interest in the programme and will be part of: the Project Steering Committee overseeing the implementation of the project and the technical committees for the components of the project. This will ensure their full involvement and that the project is implemented, building on the needs and requirements of the private sector.
Management and coordination risks related to the substantial number of stakeholders and sectors/subs sectors.	M	• The project proposes to set up a Project Management Unit with experienced personnel and set up special Technical Committees under the Steering Committee to oversee the results.
Gender related risks in access to polytechnics and nanotechnology related fields.	L	• The training offer in polytechnics education encompasses a variety of training fields including engineering, ICT, tourism, hospitality, nursing and paramedical clusters that will be able to attract an equal number of participants from each gender. • In the nanotechnology related research fields there more female students and researchers than men in Mauritius
Assumptions		
• Both the Government of Mauritius and the RRA remain committed to the identified pathways for addressing the issue of skills mismatch and to promote research and innovation. • Sufficient number of interested SMEs, research and educational centres to establish long-term partnerships. • Sufficient interest and motivation of SMEs and educational centres to follow-up and replicate the successful cases, best experience and projects.		

3. LESSONS LEARNT, COMPLEMENTARITY AND CROSS-CUTTING ISSUES

3.1 Lessons learnt

The **Dual Training Programme (DTP)** launched in 2014/2015 is gaining much momentum in Mauritius. In 2015, the Mauritius Export Association (MEXA), in collaboration with Université des Mascareignes, developed a Diploma in Electrical and Mechanical Engineering for Industries. Building on the success of this first programme, two similar courses have been developed and launched in 2016, leading to a Diploma in International Business and Logistics and one on Industrial Refrigeration. The Mauritius Commercial Bank has also launched a similar programme leading to a Diploma in Banking with the Mauritius Chamber of Commerce and Industry (MCCI) Business School. At end of July 2017, about 127 students enrolled in the programme and the some 25 private companies also participated. This intervention will provide financial support the DTP with the objective of increasing the number of beneficiaries namely by facilitating access to vulnerable students including girls and disabled students.

In the Innovation and Research sector, the **Calls for Proposals intervention** would be built upon the dynamism already instilled in the field of research and development through an existing funding scheme, (the Collaborative Research and Innovation Grant Scheme (CRIGS)), established in 2014 by the Ministry of Finance & Economic Development in collaboration with the Mauritius Research and Innovation Council (MRC) and Business Mauritius. The main objective of CRIGS is to improve the competitiveness of firms, through collaborative framework between research and industry. It emphasises the commercialisation and competitiveness prospects of the product/service/process under development. A matching grant of up to MUR 5 million (EUR 125 000) is awarded per project, for a duration of normally up to 24 months, but higher contribution is needed to have more cost effective and ambitious research projects.

A Research and Development Working Group (RDWG), co-chaired by the Executive Director of the MRC and the Director of Business Mauritius and comprising representatives of the Ministry of Finance & Economic Development and the Ministry of Technology, Communication, and Innovation, has been set up to oversee the scheme. To date, the RDWG has received some 40 proposals, 23 have been approved, one has been completed project and six projects are near completion. Main lessons learnt:

a. This is the first time that a matching grant scheme was available for Research and Innovation through a collaborative effort of the private sector and academia and there has been a keen interest from the private sector to apply for this grant. As such, there is a need for continued public funding and support in various stages of the product development lifecycle from early stages of idea development to later stages leading to prototypes with commercial potential.

b. The success of the scheme with its matching grant has led to the creation of other matching grant schemes. The National SME Incubator Scheme, The Research and Innovative Bridge, the Pole of Innovation Grant Scheme, the Proof of Concept Scheme and the Fighting Diabetes at the Workplace Pilot scheme.

c. One of the enabling factors has been allowing the collaborators to retain Intellectual Property Rights (IPR) developed as a result of the project.

d. Each project funded under this scheme is broken into several milestones. A crucial part of the monitoring for this scheme is having both a Technical and a Financial

Evaluation carried out at the end of each project milestone; the same approach will be maintained under the EU Call for Proposal.

e. SMEs find it difficult to provide in-cash contribution.

Mauritius is eligible for a number of programmes promoting Higher Education, but the participation of the country in these programmes has been rather limited. For example, in the last 5 years, only 13 Mauritian students have benefited from the Erasmus mobility programme, all coming from the same Higher Education institution (i.e. University of Mauritius). This points to a strong need to give ample publicity to every activity taken under this action, so that possible applicants are aware of opportunities and know how to profit from them.

The **European Union** has funded the organisation of two workshops for the CBBR (2013-2014) in close collaboration with European partners. These workshops have shown that the strategy in driving the nanotechnology industry forward should be inspired from the so-called Singapore model of its biomedical industry that pools together Government, research organisations and private sector.

3.2 Complementarity, synergy and donor coordination

Mauritius has developed an international networking to help addressing the learning gap and skills mismatch in tertiary education.

The Ministry of Education and Human Resources, Tertiary Education and Scientific Research (MEHRTESR) has benefitted since September 2015 from the technical assistance of the **World Bank** for the design and implementation of the Nine Year Basic Education Reform.

The **Commonwealth Secretariat** has supported the drafting of the revised Higher Education Bill, in view of developing a regulatory framework for the sector, and the review of the Nine Year Basic Education Curriculum Framework. The Commonwealth Secretariat will also support the MEHRTESR in steering the complete process of education reform through a long-term Senior Education Advisor. The Commonwealth Secretariat is also assisting the HRDC for "Assessing, proposing and setting up of a Career Counselling System in Mauritius".

The **Agence Française de Développement (AFD),** through the envelope "Formation professionnelle" is supporting: the HRDC in the formulation of a national strategy for the development of professional and technical training programme for the period 2017-2022; the Mauritius Institute of Training and Development (MITD) in conducting a need assessment study on green and eco-friendly jobs in Mauritius and Rodrigues in view of integrating green competencies in professional and technical training programmes; and the RRA in conducting a feasibility study on professional and technical training needs in Rodrigues that will be used as a basis for career guidance. Besides, with the re-engineering of the Employment Service, the AFD is funding training courses for employment officers enabling them to perform in their new roles as Employment Counsellors.

Partnership agreements have been initiated with leading **foreign Polytechnic systems** in Germany, New Zealand, Australia, Canada New Brunswick and Singapore to kick-start the programmes for courses in Tourism and ICT. For instance, in 2017, the MEHRTESR has signed agreements with: "Le Collège Communautaire du Nouveau-Brunswick" of Canada to obtain trainers in ICT; the Edith Cowan University, Australia to obtain expertise in teachers' education, nursing, paramedicine, hospitality and tourism; and with the South Metropolitan

Technical and Further Education (TAFE) Western Australia and Deakin Universities to obtain expertise in training and development and higher education and scientific research respectively.

These different expertise mentioned above are complementary and the Higher Education section of the MEHRTESR, together with the donors, will ensure that the experts fulfil their mission. Terms of reference of TA will be shared to ensure synergy between interventions.

The European Union funds a number of initiatives in education, starting with a support to the MEHRTESR (under the 11th EDF Technical Cooperation Programme), to strengthen the monitoring and functioning of the Tertiary Education sector, including the development of Performance Funding models. The EU also offers short-term mobility grants and scholarships to students and staff through the Erasmus+ programme for staff, institutions, researchers, and students of higher education bodies. So far, some 14 Mauritians have already benefited from Joint Master's Degree and the Mahatma Ghandi Institute and the University of Mauritius signed Memorandums of Understanding (MOUs) with a Bulgarian and a Slovakian University for exchange of staff in the field of Indian studies with the objective to develop capacity of lecturers.

In the framework of the "Programme Innovation Grant Scheme" there is a **regional cooperation between the RRA and the Technopole Réunion**. This cooperation resulted in the preparation of a Concept Note for the ambitious project to set-up a Technopole at Mont Venus, Rodrigues based on the experiences of Technopole Réunion. The proposed programme will build on these activities to strengthen and operationalise the centre. Support is also envisaged from Technopole Réunion within the framework of an INTERREG project, in order to create employment and increase competitiveness through research and development.

3.3 Cross-cutting issues

Women and youth are currently particularly affected by unemployment in Mauritius – the unemployment rate is higher among women at 10.7 % than among males at 4.8 %. Moreover, the unemployment rate is highest at the lowest age groups (24.9 % among those below 25 years).

This project will namely seek to provide women and youth with the necessary skills sought by private enterprises to ensure their employability. Furthermore, the project will also endeavour to provide women and youth with the conducive environment and facility to venture in high tech entrepreneurship.

While seeking to improve the employability of graduates, the project will also help to address the problem of women and youth unemployment bias. Those two groups will benefit fully from the courses provided at the Polytechnics as well as from proper career guidance. The Dual Training Programme scheme will especially target women and youth from the poorest quintile of the population. Moreover, by reinforcing the competitiveness of SMEs through innovation and research, this will help the sector to grow and thus create jobs for women and youth, while in the Long Term competitiveness will be supported by more relevant technical qualifications in the labour market on the supply side. The National Women Entrepreneur Council will be fully involved.

With focus on productivity and competitiveness, the project will also favour innovation of technology that promotes a resilient and green low-carbon economy. Green and resource-

efficient technology is important to achieve a resource-efficient production, increase quality and competitiveness, and overall promote an inclusive green economy.

4. DESCRIPTION OF THE ACTION

4.1 Objectives/results

The **Overall Objective** of this intervention is to support Mauritius' development and youth employability.

The **Specific objectives** in achieving the overall objective are to:

1) Improve the quality of Post-secondary Technical Training for young people in the Republic of Mauritius.
2) Increase the use of high-tech, innovative and industry related education in Mauritius.

The **outputs** under the specific objectives are:

Output 1.1. Enhanced capacity and means for higher relevance and quality of the polytechnic educational offer in Mauritius.
Output 1.2. Strategy and projects for enrolment of young people from disadvantaged background in tertiary education courses under the Dual Training programme are launched or implemented.
Output 1.3. Improved capacity for career guidance in the island of Rodrigues.

Output 2.1. Basic capacities, facilities and study programmes for nanotechnology industry is set up.
Output 2.2. A business incubator for the development of high-tech ICT and high-growth potential agriculture is set-up and operational in the island of Rodrigues.
Output 2.3. Successful pilots and projects in innovative and research-related businesses launched.

This programme is relevant for the United Nations 2030 Agenda for Sustainable Development. It contributes primarily to the progressive achievement of SDGs 4 - Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all and 9 - Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation, but also promotes progress towards Goal 8 - Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all. This does not imply a commitment by the Republic of Mauritius benefiting from this programme.

4.2 Main activities

The achievement of **Specific objective 1** is to be accomplished through:

Activity 1.1: **Support Polytechnic Mauritius in the improvement of the outreach, relevance and quality of polytechnic educational training offer via:**

- Curriculum development, in close collaboration with the private sector, for the learning programme clusters detailed the Tertiary Education Commission (TEC) list of priority areas and the Tertiary Education Strategic Plan (TESP) (2013-2025).
- Training of trainers in the fields in which curriculum has been developed.
- Provision of specialised training facilities and equipment (in the fields indicated above).

- Training instructors and maintenance teams on the training facilities and equipment delivered.

Activity 1.2: **Improve access of young people from disadvantaged background to tertiary education courses under the Dual Training Programme scheme of the Ministry of Labour, Industrial Relations, Employment and Training.**

- Define and implement a strategy to ensure that vulnerable groups and girls are encouraged to register in the Dual Training Programme (DTP).
- Financial support, designed to encourage participation and enrolment of youth from disadvantaged background[9], to the Ministry of Labour's Calls for proposals for Dual Training Programmes.

Activity 1.3: **Set up a career guidance framework in Rodrigues to improve employability of youths.**

- Elaboration of an Employment Strategy and Action Plan in collaboration with Commission for Employment and the Commission for Training of the RRA.
- Development and implementation of a Career Guidance Framework, in cooperation with RRA.
- Development of adequate career guidance materials.
- Training Needs Analysis of educators in secondary schools for carrier guidance.
- Capacity building and training of career guidance officers and employment officers.

The achievement of **Specific objective 2** is to be accomplished through:

Activity 2.1: **Setting up of a conducive environment for the further development of nanotechnology related research.**

- Development of Master level course in nanotechnology and its applications.
- Development of professional training courses to meet the needs of Industry.
- Identification of niche opportunities for applied nanotechnology research projects with SMEs and industry to foster R&D intensive, knowledge-based industry in Mauritius.
- Setting up of a platform for nanotechnology knowledge dissemination (i.e. Nano-Forum), to enhance SMEs' innovation capacity to match SME and research institutions.
- Organisation of workshops 'Nanotech opportunities for SMEs' on nanotechnology applications.
- Purchase specific technical equipment to set-up pilot scale facilities at the Centre for Biomedical and Biomaterials Research (CBBR), to move from "proof of concept stage" to developmental scale for identified niche products
- Consolidation of technical facilities of CBBR for a transition from proof-of-concept stage to product development stage and market introduction of nano products.

Activity 2.2: **Supporting the set-up of a business incubator for the development of high tech ICT and high growth potential agribusinesses in the island of Rodrigues**

- Development and implementation of a framework for setting up of an incubator in agribusiness and ICT at the planned Technology Park at Baladirou in Rodrigues.
- Identification and financing of potential start-ups in agri-business and high-tech ICT
- Capacity building of entrepreneurs and incubates through training and coaching.

[9] At least 25 % of students participating in the Dual Training Programme should come from the poorest 20 % of the population and recruitment will be gender balanced

Activity 2.3: **Call for proposals for research, development and innovation application projects.**

This call for proposal aims at stimulating applied R&D to increase innovation in particular from SMEs; it will also allow public-private partnerships in Higher Education and Research & Innovation activities. The call would allow to:

- Deploy innovative products technologies and or processes, with preference towards green and resource-efficient solutions.
- Strengthen human resources capacity for research and innovation.
- Create new, high value added jobs.
- Enhance innovation capacity and contribute to an enabling environment for technology and process dissemination, deployment and adoption.
- Promote joint industry and academia innovative projects and research.

Potential beneficiaries of these grants will also include the public sector, e.g. local authorities and Higher Education institutions, as well as the civil society organisations. Applicants will have to prove that, in the long term, the action to be financed will contribute to create jobs, mainly in sectors conducive to the transformation of Mauritius into a high income country. In order to avoid duplication and to reduce transaction costs, the grant from the EU to the Ministry of Finance will contribute to the already existing Collaborative Research and Innovation Grant Scheme (CRIGS), which through the Research and Development Working Group and in co-operation with the Technical Assistance recruited for this component, will ensure that the abovementioned criteria are respected. Other details, including the number of lots, the size of the grants, the eligibility criteria, and the nature of activities to be financed under the grants will be developed in the guidelines for grant applicants.

4.3 Intervention logic

At the end of its five years' intervention, it is expected that this programme would have contributed to transforming the Republic of Mauritius into a High Income Country, through a series of measures aimed at enhancing its competitiveness and productivity. This would be achieved through six outputs under two main areas of intervention identified as key drivers for Mauritius to graduate into a High Income Country, namely Post-secondary Education and Innovation.

Under the first area, the outputs are threefold and point to an improvement of skills for the youth (especially from a vulnerable background) on the supply side, while enhancing knowledge of the demand side. First of all, capacity and means of the polytechnic educational offer in Mauritius will be enhanced to improve relevance and quality; secondly, the Dual Training programme will be reinforced, with a strategy and projects for enrolment of young people from disadvantaged background; and finally professional career guidance is going to be established in the island of Rodrigues.

At the institutional level, it is assumed that both the government of Mauritius and the Rodrigues Regional Assembly will remain committed to address the issue of skills mismatch, one of the key issues of the middle income trap situation of the country.

The improvement of the relevance and quality of the polytechnic training offer, which is one of the goals of the Tertiary Education Strategic Plan 2013-2025 (TESP), would also require well-designed campaigns to attract students, since the traditional education system of the

country has always put emphasis on academic studies and it is only recently, through the nine year schooling, that technical post-secondary training is being offered.

Moreover, it is expected that there would be a stable demand for studies in this specific sector to enable Polytechnics Mauritius Limited (PML), as driver of the sector, to obtain a critical mass of students for its training offer. It is also assumed that the a training offer would continue to be in line with the market requirements, as it has been so far by means of market analysis, to address skills mismatch, i.e. a major constraint for youth employability. It has to be noted that the training offer is already the result of a close collaboration between PML, the Human Resource Development Council, the Mauritius Institute of Training and Development and the private sector. Finally, the improvement of the relevance and quality of the Polytechnic training offer would also rely on adequate government's funding. In this sense, it is reassuring that in its budget speech 2017/2018, the Government has committed to invest Rs 130 million to operate the three Polytechnic schools.

Regarding the inclusiveness of the Dual Training Programme for the most vulnerable, its success is based on different assumptions, in particular the collaboration of Non-Governmental Organisations in promoting the programme on the field, the continued receptiveness of private companies to offer traineeships and employment opportunities after their graduation.

In the case of Rodrigues' career guidance, trainings for teachers and employment officers will be delivered and career counsellors introduced in each secondary school and endowed with the necessary soft skills and support material. This career guidance framework is expected to improve the employability of youths by increasing their knowledge of concrete career development options. It is inferred that the institutional set up in Rodrigues and collaboration which was established between the Commission for Training and the Commission for Employment and Industrial development, would continue during the implementation of the programme. The commitment of the RRA is confirmed by its 2017- 2022 programme and by recent budgets that have allocated funds to create post of Career Counsellor for the management of the Career Guidance Service.

Three main outputs are expected under the Innovation component of this intervention to increase the level of innovation in the country. Firstly, the basic capacities, facilities and study programmes for nanotechnology industry is set up, secondly, a business incubator for the development of high-tech ICT and high-growth potential agriculture is put in place in Rodrigues and, thirdly, successful pilots and projects in innovative and research-related businesses are financially supported and launched.

The general assumption behind the above outputs is that both the government and the RRA remain committed to the identified pathways to promote applied research and innovation.

While nanotechnology research at CBBR is quite advanced and produced the first pilot products at laboratory scale, the link with the industrial sector is missing, so research is not currently translated into bankable products. This action aims at creating the required conditions for the successful setting up of the nanotechnology industry, by upscaling CBBR facilities and by advocating and training SMEs on nanotechnology opportunities. The assumption is that enough SMEs and research centres are interested in establishing an output oriented partnership. Similarly, it is assumed that SMEs and the university are motivated to follow-up and replicate the most successful projects. These assumptions are based on the fact that Nanotechnology is a priority area for Government and for the Mauritius Research

Council as this sector has been identified as a potential niche area for economic growth. Collaboration has already started between Mauritius and India through the signature of a Research Collaborative Agreement.

In Rodrigues the RRA's plan to set up a business incubator relies will be supported mainly through technical assistance and small grants to support incubates. To succeed, the following assumptions must hold true: the RRA remains politically committed to facilitate the business and investment climate, funding for incubators is sustainable, start-ups survive beyond the project life time, entrepreneurs put their knowledge in practice and that interest of the SME in replication. These assumptions are supported by the policy and funding of the RRA since 2017, for instance the RRA is cooperating with Reunion Island to develop a techno park with emphasis on the two local sectors with the highest growth potential, i.e. ICT and agri-business.

Through the call for proposals, it is expected that private sector operators would have the opportunity to step up Research and Innovation projects that would increase productivity and promote job creation. It is also assumed that this component would create a multiplier effect with concrete and long lasting effect on the Mauritian economy at large, by putting in place good practices which can be replicated.

Finally, it is important to highlight that all the above mentioned initiatives are coherent with, build on and reinforce already existing or planned Government strategies both in Mauritius and Rodrigues. More interestingly, these initiatives have significant spillover effects on all economic sectors and provide a substantial contribution in addressing skills mismatch, youth unemployment, while fostering applied research, innovation as well as technology intensive applications.

5. IMPLEMENTATION

5.1 Financing agreement

In order to implement this action, it is foreseen to conclude a financing agreement with the partner country.

5.2 Indicative Implementation period

The indicative operational implementation period of this action, during which the activities described in section 4.2 will be carried out and the corresponding contracts and agreements implemented, is 60 months from the date of entry into force of the financing agreement.

Extensions of the implementation period may be agreed by the Commission’s authorising officer responsible by amending this decision and the relevant contracts and agreements; such amendments to this decision constitute non-substantial amendment in the sense of Article 9(4) of Regulation (EU) 322/2015.

5.3 Implementation of the budget support component

N/A

5.4 Implementation modalities

Both in indirect and direct management, the Commission will ensure that the EU appropriate rules and procedures for providing financing to third parties are respected, including review procedures, where appropriate, and compliance of the action with EU restrictive measures affecting the respective countries of operation[10].

5.4.1 **Indirect management with the partner country**

A part of this action with the objective of improving the relevance, quality and equity in tertiary education, and research and innovation, in the Republic of Mauritius may be implemented in indirect management with the Government of Mauritius, National Authorising Officer (NAO), i.e. Ministry of Ministry of Finance and Economic Development according to the following modalities:

The partner country will act as the contracting authority for the procurement and grant procedures. The Commission will control ex ante all the procurement procedures except in cases where programme estimates are applied, under which the Commission applies ex ante control for procurement contracts above EUR 100,000 and may apply ex post control for procurement contracts up to that threshold. The Commission will control ex ante the grant procedures for all grant contracts.

Payments are executed by the Commission except in cases where programmes estimates are applied, under which payments are executed by the Government of Mauritius for ordinary operating costs, direct labour and contracts below EUR 300 000 for procurement for grants.

The financial contribution does not cover the ordinary operating costs incurred under the programme estimates.

The partner country shall apply the Commission's rules on procurement and grants. These rules will be laid down in the financing agreement concluded with the partner country.

5.5 Scope of geographical eligibility for procurement and grants

The geographical eligibility in terms of place of establishment for participating in procurement and grant award procedures and in terms of origin of supplies purchased as established in the basic act and set out in the relevant contractual documents shall apply.

The Commission's authorising officer responsible may extend the geographical eligibility in accordance with Article 22(1) (b) of Annex IV to the ACP-EU Partnership Agreement on the basis of urgency or of unavailability of products and services in the markets of the countries concerned, or in other duly substantiated cases where the eligibility rules would make the realisation of this action impossible or exceedingly difficult.

[10] https://eeas.europa.eu/sites/eeas/files/restrictive_measures-2017-04-26-clean.pdf

5.6 Indicative budget

Activity	EU contribution (Amount in EUR)	GOM/Private Sector contribution (EUR)
Specific Objective 1 - "Improve the Relevance of Post-Secondary Technical Training and access to the Labour Market for young people"	3 300 000	50 000
Indirect management with the Republic of Mauritius		
Equipment (Act. 1.1)	1 600 000	
Technical Assistance (Act. 1.1 and 1.3)	1 000 000	
Grants (Act. 1.2 - Dual Training Programme)	500 000	
Programme Estimates (PMU logistics, mission costs and capacity building)	200 000	50 000
Specific Objective 2 - "Support Mauritius to become an innovative knowledge hub"	4 000 000	150 000
5.3.2 Indirect management with the Republic of Mauritius		
Technical Assistance (Act. 2.1; 2.2 and 2.3)	1 000 000	
Equipment (Act. 2.1)	300 000	
Grants (Act. 2.2 and call for Proposals - 2.3)	2 700 000	150 000
5.3.1 Procurement (Direct Management)	420 000	
5.9 – Evaluation, 5.10 - Audit	300 000	
5.11 - Communication and visibility	120 000	
Contingencies*	180 000	
Totals	7 900 000	200 000

* Contingencies budget is to be used subject to a prior approval of the European Commission

5.7 Organisational set-up and responsibilities

The contracting authority for the project will be the National Authorising Officer (NAO) of the European Development Fund (EDF) under the Ministry of Finance and Economic Development of Mauritius. The NAO/Deputy NAO will maintain financial responsibility and monitor the operations regularly. It will submit a report on the implementation progress of the project to the Delegation on a yearly basis. It is tentatively expected that the NAO will sign two service contracts to support the NAO in achieving all the results mentioned in the project. One service contract for the implementation of all activities related to specific objective 1 (education) and another for all issues related to specific objective 2 (research and innovation) including the expertise required for the incubator and calls for proposals.

Five Technical Committees will be set up, each under the technical guidance of the most appropriate minister or institutions who will nominate a contact point.

The first one, under the responsibility of the Ministry of Education and Human Resources, Tertiary Education and Scientific Research, including also Polytechnic Mauritius, will oversee the results of Activity 1.1 (Polytechnics). The second committee will be under the responsibility of the Rodrigues Regional Assembly and will supervise the results of Activities 1.3 (career guidance) and 2.2 (incubator). The third one, at the level of Centre for Biomedical and Biomaterials Research (UOM), will oversee the results of Activity 2.1. The fourth, under the responsibility of the Mauritius Research Council (MRC), will oversee Activity 2.3 (Calls for Proposal) and the fifth one, under the responsibility of Ministry of Labour, Industrial Relations, Employment and Training to coordinate activity 1.2 (DTP).

The Civil Society will participate to these Committees and in particular under the latter it will ensure participation of vulnerable groups in the Dual Training Programme. The five Technical Committees will be assisted each by a dedicated member of the Technical Assistance teams recruited under this project, who will act as Technical Coordinator. The role of technical committees will be to review and support the operational implementation of the programme and to provide strategic policy guidance in their respective fields. The technical committees will meet separately, tentatively twice a year and more often if required. If need be, technical committees could invite members of other committees to ensure synergy between activities of the same nature.

A **Project Steering Committee** (PSC), chaired by the NAO, will manage the programme and provide strategic oversight. The members of the Steering committee include as core members: representatives of the 5 Technical Committees, the public and private stakeholders directly involved in the project, all members of the Technical Assistance team and the representative of the EU Delegation in Mauritius. The Steering Committee shall meet on average once a year. The outputs of the 5 technical committees will feed directly into the Project Steering Committee for overall strategic decision making.

5.8 Performance monitoring and reporting

Indicators and targets are provided in the attached log frame, but it is expected that the baseline and targets of some of them will be developed during the Inception Period. This is partly because some relatively novel activities (i.e. agri-business incubator in Rodrigues, nanotechnology intensive SMEs, etc) provide limited precedent upon which to base expectations. Accordingly, a baseline survey is programmed to occur early in the implementation period (during the inception period preferably) and this will provide a firm

basis for fine-tuning indicators and baselines, plus setting a context for refining realistic targets.

The day-to-day technical and financial monitoring of the implementation of this action and projects resulting from the call for proposals will be a continuous process and part of the implementing partner's responsibilities. To this aim, the implementing partner shall establish a permanent internal, technical and financial monitoring system for the action and elaborate regular progress reports (not less than annual) and final reports. Every report shall provide an accurate account of implementation of the action, difficulties encountered, changes introduced, as well as the degree of achievement of its results (outputs and direct outcomes) as measured by corresponding indicators, using as reference the log frame matrix. The report shall be laid out in such a way as to allow monitoring of the means envisaged and employed and of the budget details for the action. The final report, narrative and financial, will cover the entire period of the action implementation.

The Commission may undertake additional project monitoring visits both through its own staff and through independent consultants recruited directly by the Commission for independent monitoring reviews or audits (or recruited by the responsible agent contracted by the Commission for implementing such reviews).

5.9 Evaluation

Having regard to the importance of the action, a mid-term and a final evaluation will be carried out for this action or its components via independent consultants contracted by the Commission.

The mid-term evaluation will be carried out for problem solving and learning purposes, including assessing the progress regarding S.O.1 and 2 and, in particular with respect to the success in improved employability and access to pertinent tertiary. The evaluation will also determine whether/how to progress implementation of enhanced relevance of polytechnic educational offer.

The final evaluation will be carried out for accountability and learning purposes at various levels (including for policy revision), taking into account in particular the effect on the labour market of the introduction of new curriculum by Polytechnics, enhancement in the employability of graduates, effect of the grants component, improvements in collaboration between academia and industry.

The Commission shall inform the implementing partner at least 3 months in advance of the dates foreseen for the evaluation missions. The implementing partner shall collaborate efficiently and effectively with the evaluation experts, and inter alia provide them with all necessary information and documentation, as well as access to the project premises and activities.

The evaluation reports shall be shared with the partner country and other key stakeholders. The implementing partner and the Commission shall analyse the conclusions and recommendations of the evaluations and, where appropriate, in agreement with the partner country, jointly decide on the follow-up actions to be taken and any adjustments necessary, including, if indicated, the reorientation of the project.

Indicatively, one contract for evaluation services shall be concluded for an estimative amount of EUR 100 000 in Q4 of 2024.

5.10 Audit

Without prejudice to the obligations applicable to contracts concluded for the implementation of this action, the Commission may, on the basis of a risk assessment, contract independent audits or expenditure verification assignments for one or several contracts or agreements.

Indicatively, five contracts for audit services shall be for an estimative amount of EUR 200 000 in Q4 2020, Q42021 Q2 2022, Q2 2023and Q2 2024.

5.11 Communication and visibility

Communication and visibility of the EU is a legal obligation for all external actions funded by the EU.

This action shall contain communication and visibility measures which shall be based on a specific Communication and Visibility Plan of the Action, to be elaborated at the start of implementation and supported with the budget indicated in section 5.6 above.

In terms of legal obligations on communication and visibility, the measures shall be implemented by the Commission, the partner country, contractors, grant beneficiaries and/or entrusted entities. Appropriate contractual obligations shall be included in, respectively, the financing agreement, procurement and grant contracts, and delegation agreements.

The Communication and Visibility Manual for European Union External Action shall be used to establish the Communication and Visibility Plan of the Action and the appropriate contractual obligations.

The implementing modality of procurement is foreseen to be under both direct and indirect management with the Partner Country, which will act as a contracting authority for the procurement procedure.

One contract will be concluded for communication and visibility purposes. The activities to be financed under this contract include: communication on media, organisation of press conferences, the publication of articles on the achievements of the programme as well as the supply of brochures and other communication materials.

APPENDIX - Indicative Logframe matrix (for project modality) [11]

The activities, the expected outputs and all the indicators, targets and baselines included in the logframe matrix are indicative and may be updated during the implementation of the action, no amendment being required to the financing decision. When it is not possible to determine the outputs of an action at formulation stage, intermediary outcomes should be presented and the outputs defined during inception of the overall programme and its components. The indicative logframe matrix will evolve during the lifetime of the action: new lines will be added for including the activities as well as new columns for intermediary targets (milestones) for the output and outcome indicators whenever it is relevant for monitoring and reporting purposes. Note also that indicators should be disaggregated by sex whenever relevant.

	Results chain	**Indicators**	**Baselines (incl. reference year)**	**Targets (incl. reference year)**	**Sources and means of verification**	**Assumptions**
Overall objective: Impact	Support Mauritius' development and youth employability through post-secondary education, training and innovation initiatives	Real GDP growth (K price % change) Unemployment rate among young is reduced (disaggregated by gender)	3.8% (2017) 23.6% (2016) Male:	4.0% (Average of last 5 years) Less than 21% (2023) Male: below	IMF World Economic Outlook database: http://www.imf.org/external/ns/cs.aspx?id=28 Ministry of Finance and Economic Development (http://budget.mof.govmu.org/budget2018-19/2018_19budg	

[11] Mark indicators aligned with the relevant programming document mark with '*' and indicators aligned to the EU Results Framework with '**'.

			18.3%; Female: 31.2%	18%; Female: below 30%	etsupplement.pdf) ILO, Unemployment rate -- ILO modelled estimates http://www.ilo.org/ilostat/faces/oracle/webcenter/portalapp/pagehierarchy/Page3.jspx?MBI_ID=2	
Specific objective(s): Outcome(s)	**Objective 1.** Contribute to improve the quality of Post-secondary Technical Training for young people in the Republic of Mauritius	1.1 No. of students channelled to polytechnics education for selected clusters of education fields (disaggregated by gender) 1.2 Percentage of students from polytechnics employed after 1 year from the end of the school (disaggregated by gender)	1.1 - 375 (2017) 1.2 – baseline t.b.d. in 2019 (i.e one year after end of first programmes)	1.1 – 2500, aggregate figure (2019-2022) 1.1b - at least 1150 girls 1.2 - > 80%	Ministry of Education Polytechnics	Well-designed campaign to attract students to polytechnics sector Polytechnic Mauritius Ltd targets students for award (Diploma) and non-award programmes (short up-skilling or re-skilling courses in line

						with Industry)
	Objective 2. Support Mauritius to become an innovative knowledge hub	2.1 Increased Gross Domestic Expenditure on R&D (GERD) 2.2 Gross expenditure on R&D financed by business enterprise (percentage of total GERD) 2.3 Improved Global Innovation Index	2.1 - 0.2 % 2.2 - 0.3% 2.3 - 34.8	2.1- 0.6% 2.2 - 3% 2.3- 50	Global Innovation Index Report www.globalinnovationindex.org	Strong policy and institutional structure Enhanced research-business linkage Conducive legal and regulatory framework
Outputs	O1.1 Enhanced relevance and quality in the polytechnic educational offer in	1.1.1 No. of Polytechnic students receiving	1.1.1 – 0	1.1.1 - 100%	Min of Labour	Sustained growth in the Tourism,

	Mauritius	traineeship/internship in private sector** (disaggregated by gender) 1.1.2 No. of new courses introduced which meets the demand of the private sector* 1.1.2a Tourism and Hospitality* (2020) 1.1.2b ICT* (2020) 1.1.2c Nursing and paramedical* 1.1.2d Engineering*	1.1.2 - 3 1.1.2a - 1 (2017) 1.1.2b – 1 (2017) 1.1.2c – 1 (2017) 1.1.2d – none (2017) 1.1.3 - None	1.1.2 - 32 diplomas 18 certificates and 13 short up-skilling programmes (2021) 1.1.2a – 15 diploma 6 certificate and 10 short up-skilling programmes (2021) 1.1.2b - 5 diploma 3 certificate and 3 short up-skilling programmes (2018-21) 1.1.2c – 6 diploma 4 certificate (2018-21)	Statistics Mauritius Min. Education Polytechnic Mauritius report Technical Assistance Reports	paramedical, ICT and engineering sectors. The Polytechnic sector will be attractive for the young

		1.1.3 Number of Labs provided with sufficient, relevant, quality and specialised equipment 1.1.4 trainings of polytechnic teachers** (EURF L2#28)	1.1.4 - none	1.1.2d – 6 diploma/top-up programmes 5 certificate (2018-21) 1.1.3 – Cloud Labs, and Demo labs focused on engineering and languages in polytechnics 1.1.4 – 25 Polytechnic Mauritius teachers 200 trainers trained among external teaching staff (2021)		
	O1.2 Increased participation of young people from disadvantaged background in tertiary education courses under the Dual Training Programme (DTP)	1.2.1 - % of young people from disadvantaged background enrolled under the Dual Training	1.2.1 – 10% (2017)	1.2.1- 25% of the students in the DTP scheme(2022)	Ministry of Labour Surveys/Technical Assistance	Receptiveness of companies; campaign to reach those students

		Programme** 1.2.2 –Overall number of students under DTP	1.2.2- 152 (2017)	1.2.2 – 452 (2022)	Reports	
	O1.3 Improved capacity on career guidance in the island of Rodrigues	1.3.1 – Status of Training needs analysis, Employment Strategy and Action Plan 1.3.2 – Status of Career guidance framework 1.3.3 – Status of Career Guidance Unit in the island of Rodrigues 1.3.4 - Number of career guidance officers per school trained to the appropriate level** (EURF L2#28)	1.3.1 - Nil 1.3.2 - None 1.3.3 - None 1.3.4 - Nil	1.3.1 - 3 documents approved and implementation started 1.3.2 - approved and implemented 1.3.3 – fully staffed (5 staffs) and operational 1.3.4 a- 3 teachers for each secondary school 1.3.4 b - at least 50% of the staff of RRA's employment office	Commission for Employment (RRA) Commission for Training (RRA) Technical Assistance Reports	Close cooperation between Commissions of Training, Employment and Industrial Development at RRA

	O2.1 Setting up of a conducive environment for the further development of nanotechnology related research.	2.1.1 - No of students enrolled in nanotechnology and nanomedicine Masters programme* 2.1.2 No. of participants to professional training courses** 2.1.3 Status of Platform for nanotechnology knowledge dissemination 2.1.4 – Number of workshops 'Nanotech opportunities for SMEs' on nanotechnology applications	2.1.1- Nil 2.1.2 - Nil 2.1.3 - None 2.1.4 - Nil	2.1.1- 15-20 each year (2022) 2.1.2 – 30/year 2.1.3 – established and operational 2.1.4 – 5 by 2021	UoM UoM/CBBR reports Technical Assistance reports	UoM is committed to support CBBR. There is need from entrepreneurs for nanotech based production.
	O2.2 Supporting the set-up of a business incubator for the development of high tech ICT and high growth potential agribusinesses in the island of Rodrigues	2.2.1 – Status of an incubator scheme and framework 2.2.2- No. of entrepreneurs and incubates trained who can demonstrate an increased knowledge in ICT/agribusiness **(EURF L2#28) – gender disaggregated 2.2.3 - No of users registered using Incubator	2.2.1 - None 2.2.2 - None 2.2.3 - Nil (2017)	2.2.1- Approved and incubator in place 2.2.2- at least 70 2.2.3 - 70	Commission for Industrial Development (RRA) TA Reports	RRA remains politically committed to facilitate the business and investment climate

				(2021)		
	O2.3 Increased industry driven research and innovation projects in collaboration with academia	2.3.1 - No. of innovative research projects adopted by the industry* 2.3.2 - No. of R&D spin-offs academia – private sector	2.3.1 – 19 (2016) 2.3.2 -Nil	2.3.1 - 30 (2021) 2.3.4 – at least 4 (2021)	MTCI, MRC - **clarify** MRIC	The policy measure of NIP 2016-2020 to increase local research efficiency and technology use will be implemented. Available R&D capacity of TEIs to resolve complex high-tech problems. Need of industry to develop and use high-tech. A sustainable entrepreneurial ecosystem is set up in close collaboration between MRC and private sector Incubators