SCIENCE & TECHNOLOGY AND INFORMATION TECHNOLOGY DEPARTMENT

GOVERNMENT OF KHYBER PAKHTUNKHWA

PC-1

Merged Areas Digital Connect

ADP Code	210016
Forum	PDWP
Total Duration	3 Years
Total Cost (Million PKR)	834.061

Prepared by:

KHYBER PAKHTUNKHWA INFORMATION TECHNOLOGY BOARD

GOVERNMENT OF KHYBER PAKHTUNKHWA

Nov 2021

#	Description	Detail
1	Name of the Project	Merged Areas Digital Connect
2	Location	Across Newly Merged Areas
3	Authorities responsible for: (i) Sponsoring (ii) Execution (iii) Operation and Maintenance (iv) Concerned Federal Ministry	 (i) Science & Technology and Information Technology Department, Government of Khyber Pakhtunkhwa (ii) Khyber Pakhtunkhwa Information Technology Board (KPITB) (iii) Khyber Pakhtunkhwa Information Technology Board (KPITB) (iv) N/A
4	(a) Plan provision (i) If the project is included in the medium term/five-year plan, specify actual allocation. (ii) If not included in the current plan, what warrants its inclusion and how is it now proposed to be accommodated. (iii) If the project is proposed to be financed out of block provision, indicate: Total Block Provision: Amount already committed: Amount proposed for this project: Balance available:	 (i) N/A (ii) N/A (iii) N/A

	(b) Provision in Current Year ADP 2020-21	*Total Cost:* 1000 million PKR *Allocation in FY 2021-22*: 40 million PKR
5	Project Objectives	**Objectives** i. To establish **seven (07) Digital Connects** across the newly merged Districts. ii. To establish **350 co-working seats**, having **50 seats** at each Digital Connect. iii. To establish **7 training/computer labs, 1 at each** Digital Connect. iv. To train **7,250** youth from the province in a range of digital skills including foundational, advanced and high impact digital skills in **three (03) years**. **Intended Impact** 1. To create a critical mass of skilled graduates specializing in **in-demand skills** and knowledge areas required by local and foreign industry. 2. To position Khyber Pakhtunkhwa as a **hub of digital skilled workforce** through a consistent talent pipeline. 3. To increase the **market-share of KP** further in the massive **freelancing** market worldwide. 4. To bridge the **skill gap** of graduates between the time of graduation and the time they acquire through industry usable skills for commercial products/services. 5. To increase **employment ratio** in youth of Khyber Pakhtunkhwa in the local ICT industry. 6. To enhance **gender inclusivity** by enabling female graduates avail the benefits of the freelance digital economy. 7. To enable establishment of a **thriving ecosystem** supporting innovation with a core foundation of large digital skill workforce. 8. To boost the share of Khyber Pakhtunkhwa in the **global digital economy** by enabling equitable digital dividends through advanced digital skills.
6	Description, justification and technical parameters	**1. Background and Rationale** In an ever-evolving digital world, where emerging technologies drive the demand for highly-specialized digital skills at an unprecedented pace, it has become extremely critical to re-evaluate academic curriculums and bridge the Academia-Industry skill gap. Capitalizing on the opportunity in the growth potential in the Digital Economy, the Government of Khyber Pakhtunkhwa through its cabinet approved the first 'Digital Policy in November 2018' with a prime focus on Digital Skills and Digital Economy. The Khyber Pakhtunkhwa Digital Policy foresees the following outcomes;

- Improved digital literacy and skills, especially through formal education and vocational training
- Khyber Pakhtunkhwa produces successful technology innovators, startups and digital freelancers
- Local small and medium ICT enterprises and startups grow in revenue and numbers, creating jobs and developing a digital workforce
- Better opportunities, access and services for women, youth and marginalized groups.

Unemployment and low growth are challenging in the province of Khyber Pakhtunkhwa (KP) especially in the Newly Merged Districts due to years of regional instability underpinned by decades of poor governance, which has affected the youth by confronting the challenges of limited economic opportunities and employment possibilities. With a population of approx. 5.01 million people, the unemployment in youth (between the ages of 18-30 years) is 11.8% as compared to 5.6% in rest of the country. The challenges of inclusion and empowerment of these youth will only continue to grow when governments are unable to foster work opportunities and platforms for expression and engagement.

According to recent research from RAND Europe on behalf of SalesForce[1], the digital skills gap has hit an inflection point and it comes at a cost, 14 of G20 countries could miss out on $11.5 trillion cumulative GDP growth. The ICT industry is facing a new challenge in a digital-first world: there's just not enough people with the right digital skills to power the transformation now and in the future. There is low supply and high demand for digital skills, and the gap continues to widen due to an array of factors ranging from new emerging technologies to systemic social and economic inequities. Making the decision now around how — or whether — to solve the digital skills gap will echo for future generations.

There are multiple drivers of the skills gap:

- The demand for tech talent is outpacing an already short supply
- Emerging technologies amplify the need for digital skills
- High costs and disorganized approaches with traditional education increase barriers to learning
- Access to necessary infrastructure and skills is limited by socio-economic status

The inconsistency between the adequacy of the aspirant and the skill

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[1] https://www.salesforce.com/news/stories/digital-skills-gap/

requirement of employers can accelerate labor market pressures and deepen variations. To benefit the most from the digital dividends, which are on offer in the digital economy, the digital divide needs to be bridged. The most important component to bridge the digital divide is that the ICT infrastructure needs to be significantly improved.

Because of KPITB's previous digital skills initiatives, more than 35% of the respondent trainees have reported starting to generate income from the imparted skills. After a deep dive into the analysis, a trend was observed that more than 40% of income-generating youth earn their bread and butter from Freelancing, which can only be possible with the availability of internet connectivity and a proper ICT infrastructure in the area, considering the lack of both in the target areas.

A holistic approach is needed to train the youth of merged areas in skills of the future, complement these skills with imparting approached for monetizing these skills and provide infrastructure which they can utilize for furthering their careers in freelancing and income generation. With the right strategy and approach, the youth of the merged areas can be engaged, enfranchised, equipped, and empowered with the right skills and opportunities to make substantial inroads, contribute towards socio- economic development, and avail the right employment options. The proposed plan is in line with the KP's Digital Policy and Sustainable Development Goals.

Although there are many efforts in place by different actors to promote digital literacy and skills among the youth, the initiatives are either at university level or they may require another two to three years before they can either find a respectable job or launch their own product/ services into market. Additionally, these efforts are being made in the settled districts and no such efforts being made in the Merged Districts. The proposed structure will enhance the digital skills to the youth of the target areas and will help improve their chances to get into the industry or start their own ventures.

Subsequent to the foregoing gaps in the supply and the ambitious targets set in the Khyber Pakhtunkhwa Digital Policy, The Khyber Pakhtunkhwa Information Technology Board (KPITB) proposes to establish ICT Community Center with the name of Digital Connects on District level across the Newly Merged Districts.

2. Site for Center for Digital Connects for Merged Areas

The sites proposed for the Digital Connects are vacant government buildings, preferably at district headquarters. The proposed area of the buildings based on the requirements is between 5000 to 6000 sq.ft.

3. Infrastructure Development and Renovation

At the outset of the initiative, the facility/building for the establishment of the Digital Connects will be renovated to match the requirements of the ICT centers. Details of the renovation are at **Annex – D.**

4. Project Human Resource

The project team will consist of PMU and Digital Connect staff, details are at **Annex – I.**

5. Project Framework for Digital Connect in Merged Areas

The Digital Connects are intended to be the first public body to strive towards the *Digital Inclusion* for the youth merged areas by empowering them with employable digital skills and at the same time provide the required ICT infrastructure for enabling them to play their part in the digital economy of Khyber Pakhtunkhwa in specific and Pakistan in general. Outlined below is the proposed project frame work for the initiative;

5.1. Establishment of Digital Connects

Seven (07) ICT Community Centers, "Digital Connects" will be developed at locations provided by the District Administration specifically for the establishment of the Digital Connects. These Digital Connects will be equipped with state-of-the-art IT infrastructure including:

- Computers
- Internet Availability (broadband)
- Electricity with Power Backup.
- Furniture

These will be multi-purpose facilities and can be utilized for the following;

- **Training Centers** for the youth on Employable Digital Skills.
- **Co-Working Space** for the trained youth, where they can work on freelancing and earn money.
- **ICT Community Space,** where the local youth can utilize the space to fulfill their daily ICT needs.

Detail at **Annex – F.**

5.2. Digital Skills Training

To impart the digital skills to the youth of Merged Areas, the services of professional training firm/s will be procured. Indicative TORs for the training firm/s are attached as **Annex – L.** The major lines for the digital skills in line with the TORs are as follows;

- Intermediate Level Digital Skills
  - Web Development
  - Graphics Design
  - Animation
  - Digital Marketing
- E-Commerce
- Big Data Engineering
- AI and Machine Learning
- Computer Networking
- Business Intelligence

The digital skills will be imparted by a team of professional trainers using the tailored curriculum. The trainings will focus more on practical learning through practice labs and interactive classroom environment. The trainees will be assessed through a final assessment at the end of the batch and assignments during the trainings. The final assessment will be on the pattern of global standards for the respective digital skill area, to ensure good quality.

The digital skills for the trainings will be selected after a thorough market study by the consultants and approval of the Steering Committee, however tentative list of digital skills is provided, that can be used to determine the final list. A total of **7,250** youth will be trained during the project life-span.

5.3.   Co-Working Spaces

Co-Working Spaces of **50** seats each will be developed at each Digital Connect. This will be a happening place and will keep the youth engaged. These spaces can be used by the trained youth for furthering their freelancing careers.

These spaces will provide seating area, workstations and basic amenities to the youth availing the facility. This will enable the trained youth to utilize the skills imparted during the training and grab various online earning opportunities and start generating income. The project team will motivate the trained youth to utilize the facility and benefit as much as possible from the established infrastructure.

5.4.   Marketing and Outreach

Marketing and outreach activities will be initiated prior to the establishment of digital connects to make the youth aware of the available facilities and opportunities i.e. trainings and mentorship. These activities will include road shows at different educational institutes and locations across the Merged Areas to highlight the objective of the Digital Connects and attract eligible

applications from youth of the province. The DC office would be requested to help promote these activities through their means of communication with the public and social medial channels.

Different mediums including print, electronic media, radio and social media will be taken into account (where possible) to undertake the outreach campaign.

5.5.   Eligibility Criteria

The basic eligibility criteria for various courses will depend upon the nature of the courses of the courses. As mentioned in 5.2. Digital Skills, a variety of skills will be imparted to the target audience. Some of these skills require academic concentration of Information and Communication Technology (ICT), whereas some courses, youth from any background education can apply.

Given below is a basic eligibility criterion, however the final criteria based on this will be finalized by the Project Steering Committee;

- Valid CNIC holder, with age under 30 years on the date of application.
- Merged Areas (Erstwhile FATA) Domicile holder.
- Has completed Bachelors Degree of is studying in the final year of Bachelors.
- Basic Computer Literacy

Apart from this the following course specific criteria will also be considered;

• Foundation Level Digital Skills o Graphics Design o Animation o Digital Marketing • E-Commerce • Business Intelligence	• Youth with any academic concentration will be eligible to apply. • Completed Bachelor's Degree or enrolled in final year of Bachelor's Degree.
• Foundation Level Digital Skills o Web Development • Big Data Engineering • AI and Machine Learning • Computer Networking	• Academic concentration of Information and Communication Technology (ICT). • Completed Bachelor's Degree or enrolled in final year of Bachelor's Degree.

5.6.   Selection Process

At the outset of each batch applications will be invited for enrollment at Digital Connect Center. The advertisements will be made through print and social media. The application form will be online and will assess the applicants based on their responses.

After the initial scrutiny, screening tests will be conducted for the final

selection of the trainees. The candidates passing the tests will be invited for final interviews to be conducted by the relevant trainers and Digital Connect Staff.

5.7.   Career Guidance and Mentorship

The role of Digital Connects will not only be limited to imparting of digital skills and providing favorable conditions but it in envisioned through these Digital Connects it would be made possible to mold the trained youth into key players for boosting the digital economy of the province.

6. Steering Committee

The Digital Economy and Skills Center will have a steering committee whose main role will be to overview its progress, ensure the intended impact of the institute, and suggest changes in the advanced digital skills as per market requirements. The committee will comprise of 11 members out of which 5 will be permanent members whereas the remaining 6 will be nominated by the Project Director –DESC as per need and requirement of the meeting. The composition of the committee will be as follows;

1	The Secretary, ST&IT Department	Chairman
2	Managing Director, KPITB	Member
3	Director (Technical), KPITB	Member
4	Project Manager - MADC	Member-cum-Secretary
5	One member from the Board of KPITB	Member
6	Two members from Academia	Member
7	Two Members from Federal / Provincial relevant bodies	Member
8	Two members from the ICT Industry.	Member

Table 1: Composition of Steering Committee for MADC

The detailed TORs of the Steering Committee are annexed at **Annex – M.**

7. Web Portal

A state-of-the-art web portal will be developed, that will have information regarding Digital Connect and the services it offers. This portal will also have Learning Management System (LMS) for the students. Access to the LMS will be provided to the trainees enrolled at DESC. The LMS will have the following features;

- Access to the training material of the digital skills the trainees is enrolled in.
- Assignments for the trainees.
- Training Progress.
- Discussion Forum for the trainers to interact with the trainees.

Apart from the portal will also be used for posting relevant jobs from the

relevant fields.

8. Monitoring and Evaluation

The internal monitoring of the project would be performed by the Monitoring and Evaluation Officer, who in coordination with the project manager and AD Monitoring - KPITB would devise mechanism to monitor, control and evaluate the project. A formal progress evaluation would be completed for each digital connect after six months of starting and reports would be provided to all partners.

The progress of inducted trainees will be tracked from start till employment and further coordination with trained youth will be conducted to track employment status. For this, KPITB intends to develop a reporting dashboard using state-of-the-art data analytics tools. The reporting dashboard will give an insight on the number of applications received, trainees selected trough the screening test, youth who have successfully completed their trainings, youth who have obtained global certifications and employed as a result of the digital skills imparted at the Digital Connects.

For monitoring and evaluation purposes the performance indicators for the project shall include the following.

- **Daily Log:** The number of youths, coming to the digital connect on a daily basis and making use of the facilities, daily log to be maintained at each center.
- **Capacity Building:** Capability and commitment of the trainees to continue practicing and implementing the skills after completion of the project, quantified through a survey.
- **Skills & Knowledge Transfer:** The centers would have co-working spaces; surveys would be conducted to gauge transfer of knowledge and skills between the participants.
- **Employment:** The number of attendees successfully employed within one year of coming under the umbrella of Digital Connects.
- **Feedback:** Evaluation of project performance through trainees' and feedback collection for trainings and the participants' feedback regarding the facilities at the Digital Connect.
- Performance measures can be modified as the project evolves and matures over time.

9. Sustainability Plan

In order to ensure the sustainability of the project, the operational expenditures will be covered by charging a reasonable amount of fee from

| | | the students. Furthermore, funding in the form of grants and scholarships by the federal and provincial government, development and private sector partner agencies will be explored in order to minimize the burden of fee on the students.

MADC will be a revenue generating body, and the fee charged against each digital skill will be decided by the Steering Committee to be notified for the center. The fee will be decided keeping in view the operational cost, number of trainees inducted and the prevailing market rates. In addition to this, revenue sharing model can also be pursued. Various professional training providers can be reached out to provide trainings at MADC after project life, in order to generate revenue for sustainability.

In addition to the trainings, the co-working spaces will also be a revenue generation stream. The trained youth availing these facilities will be charged a nominal fee to be decided by the Project Steering Committee. If the Co-Working Spaces are charged a minimum of PKR 5,000 per seat per month the, annual expected revenue from the 7 MADCs will be PKR 21 million. |
|---|---|---|
| 7 | Capital cost estimates | Details at Annex - A |
| 8 | Annual operating and maintenance cost after completion of the Project | PKR. 72 million

Details at Annex - A |
| 9 | Demand and supply analysis | According to Microsoft, within the next two decades, 90% of jobs will require some level of digital proficiency, while the shortage of technical skills continues to grow. However, while there's a growing need for digital skills, a higher demand for digital skills to give the youth of Pakistan in general and Khyber Pakhtunkhwa in specific, a competitive edge in both national and global job market.

The demand of digital skills over various industries is evident from the job opportunities and freelancing gigs project available online. Here is a glimpse of some basic to medium level digital skills based on a simple online search as September 2021. |

Digital Skills	Fiverr	Upwork	LinkedIn Jobs	Rozee.pk	Total
Graphics Design	14,805	23,959	176	150	39,090
Digital Marketing	3,025	10,897	273	130	14,325
E-Commerce	1,325	10,949	209	160	12,643

Content Writing	12,831	18,012	82	160	**31,085**
Block Chain	4,325	2,902	501	27	**7,755**
AI and Machine Learning	375	2,365	430	105	**3,275**
Computer Networking	3,330	5,637	230	50	**9,247**
Cyber Security	846	261	120	15	**1,242**
Cloud Computing	520	836	450	20	**1,826**
Business Intelligence	1,517	965	370	30	**2,882**
Web Development	11,821	45,601	1230	107	**58,759**
Data Science	1,285	5,907	350	35	**7,577**
App Development	21,688	23,734	950	80	**46,452**
Total	**77,693**	**152,025**	**5371**	**1069**	**236,158**

Recently KPITB, had invited applications for digital skills in the Merged Areas and a good number of applications were received, showing the interest of the youth of the target area in the subject matter. A total of **3100+** applications were received after scrutiny the number of applications left were **2,873.** Given below is some of the analysis from the applications received that shows the interest of youth from various walks of life in the digital skills.
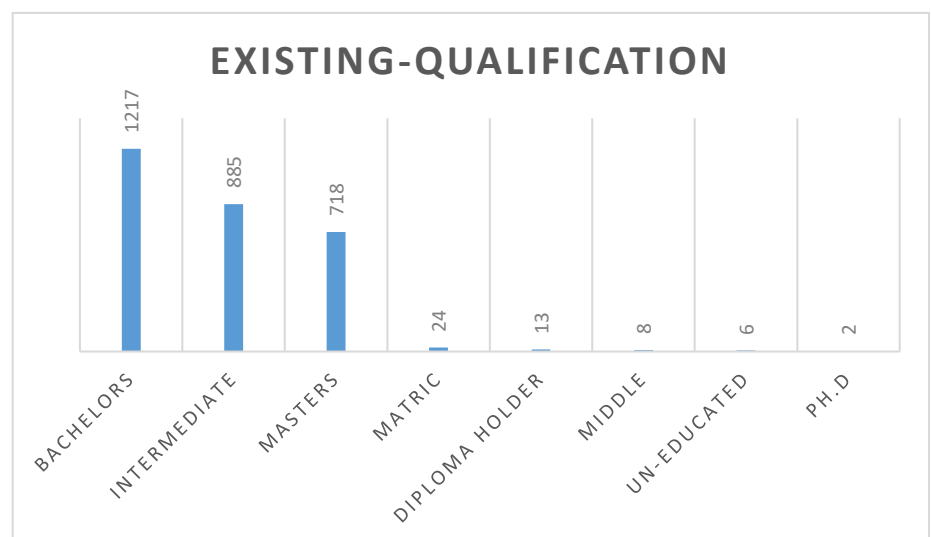
Figure 1: Details of applicants w.r.t to education
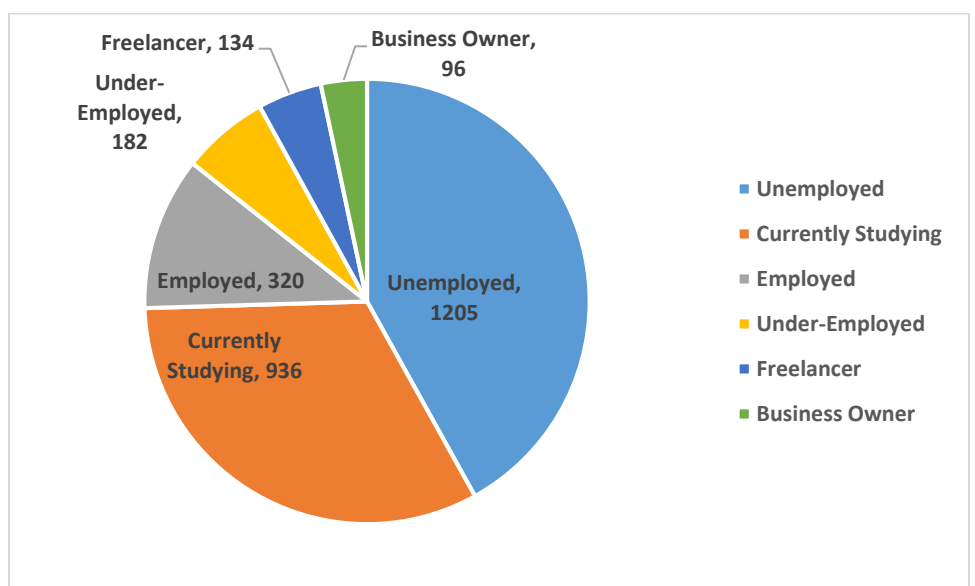
Figure 2: Details of applicants w.r.t. employment status

COURSE WISE APPLICATIONS FOR TRAININGS
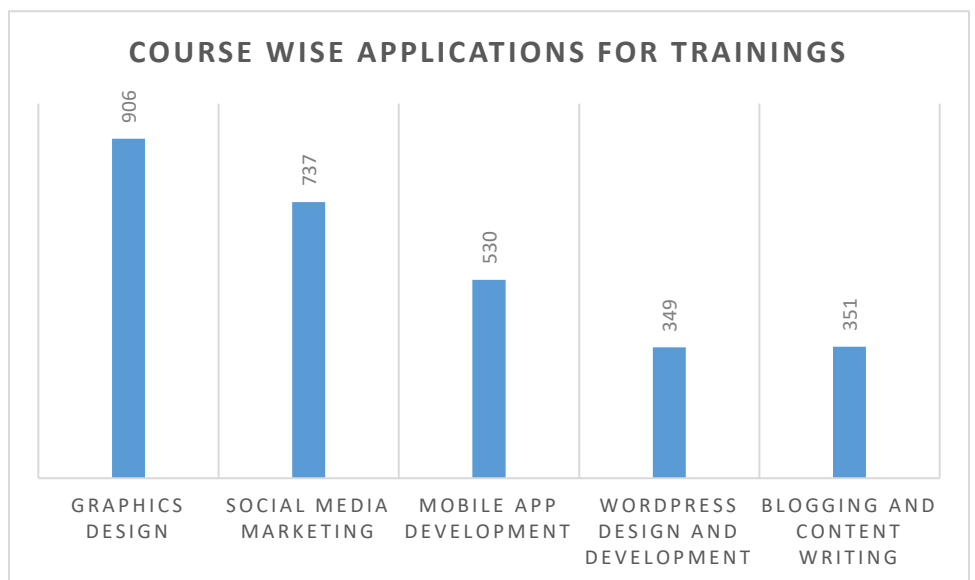
Figure 3: Details of applicants w.r.t. various courses

10	Financial Plan and mode of financing	100% financing by the government of Khyber Pakhtunkhwa.
11	Project benefits	i. A critical mass of skilled graduates created, specializing in in-demand skills and knowledge areas required by location and foreign industry. ii. Khyber Pakhtunkhwa positioned as a hub of digital skilled workforce through the provision of a consistent talent pipeline. iii. A significant number of graduates, joining the global freelance market with high-paying roles through digital skills, resulting in boosting the digital economy of the province. iv. The skill gap of graduates between the time of graduation and the time they acquire true industry usable skills for commercial products/services is bridged. v. The employment ratio of the ICT graduates of Khyber Pakhtunkhwa in the local ICT industry is increased. vi. Gender inclusivity enhanced through the increased interest of female graduates to avail the benefits of the freelance digital economy. vii. A thriving ecosystem established that supports innovation with a core

		foundation of large digital skill workforce.			

viii. The share of Khyber Pakhtunkhwa in the global digital economy by enabling equitable digital dividends boosted.

ix. The fourth pillar of Khyber Pakhtunkhwa Digital Policy implemented.

x. Creating local job opportunities and curtailing the influx of the community to urban areas.

12	(a) Implementation schedule	
	(i) Indicate starting and completion date of the project	Start Date: After the approval of PC-1 Completion Date: Three years after start.
	(ii) Item-wise/year-wise implementation schedule in line chart co-related with the phasing of physical activities.	Annex - J

(b) Result Based Monitoring (RBM) Indicators.

S.#	Input	Output	Outcome	Targeted Impact
1	Digital skills Trainings	The trainees successfully learn digital skills, pass the final exam and get certified to improve their job prospects.	Youth equipped with market relevant and employable digital skills	Developing a cadre of experts on key advanced and highly demanded skills of the market.
2	Mentoring and Career Guidance	Job prospects of the trained youth improved.	Trained youth start generating revenue through the digital skills imparted.	Improving the employment prospects of the youth in both national and global job markets.
3	Co-working Spaces	Youth utilize the co-working spaces to further their freelancing career.	The trainees successfully start generating revenue through gigs/ freelancing/ online jobs.	Digital economy of the province alleviated.

13	Management structure and manpower	
	(i) Administrative	Annex – K

		arrangements for implementation of the project	
	(ii)	Manpower requirements during execution and operation of the project	Annex – C
	(iii)	Job description, qualification, experience, age and salary of each job be provided	Annex – I
14	Additional projects/decisions required to maximize socio-economic benefits from the proposed project to optimize the investment being undertaken on the projects.		N/A

| 1 5 | Certified that the project proposal has been prepared on the basis of Instructions provided by the Planning Commission for the preparation of PC-I for Social Sector projects. | **Prepared by:**

_____
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