Guide to 『K-Lab Laos Cooperation & Support Project』 Public Offering in 2021

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National IT Industry Promotion Agency

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Ⅰ Project Overview

□ Purpose

○ To nurture makers suitable for the local situation in developing countries with weak manufacturing business, discover start-up ideas and support commercialization, discover new economic opportunities and strengthen international development cooperation by reinforcing ICT innovation capabilities through the installation and operation of K-Lab* in developing countries

   * K-Lab (Korea Fabrication-Laboratory) is a digital fabrication infrastructure that is a Korean Fab Lab

□ Main contents

○ (Creation of K-Lab infrastructure) Establishment of an ICT-based digital manufacturing capability support system for installing and utilizing digital manufacturing equipment (3D printers, laser cutters, etc.) in consideration of developing countries' willingness to cooperate and local demands and support for strengthening digital innovation capabilities

○ (Operation of K-Lab facilities) Operation of fabrication space for program planning and spread of start-up culture such as technical training for equipment utilization, maker mentoring for discovering and implementing imagination and ideas, and start-up consulting for discovering prospective entrepreneurs

○ (K-Lab network cooperation) Discovery of opportunities for domestic companies and products to advance into partner countries by expanding cooperation such as exchange of K-Lab-based ICT technology, companies, and human resources, analysis and provision of local industry information, and establishment of cooperation projects and networks between the two countries

Key Directions for K-Lab in 2021

○ (Demand customized operation) Rather than uniform operation, differentiated operation reflecting user characteristics and local environment after building facilities and equipment

　* Laying the foundation for sustainable operation such as establishment of facilities and equipment in consideration of the expansion of potential users, including students as well as the general public, planning operation programs, and services to be provided

○ (Reinforcement of cooperation hub) Creation of results through various opportunities for exchange and cooperation among various actors such as technology, companies, universities, people, etc. away from facilities and equipment-centered operation

　* Providing digital experiences through "creative" digital production and "leading" technology exchange, not "making" or "following" education, and encouraging start-up and employment opportunities by cultivating people of talent

Ⅱ   Details of the Project Contest

☐ Project name: K-Lab Laos cooperation & support project

☐ Application period: Date of signing of the agreement ~ December 31, 2021

☐ Qualification for application

○ Companies or organizations that have expertise in K-Lab installation and operation, and that can realize the project purpose of supporting digital competency innovation in developing countries and expanding digital cooperation between the two countries

　* Companies (small and medium-sized companies, etc.) and for-profit/ non-profit organizations are allowed, consortiums can be formed

○ If you organize and participate in a consortium, clearly classify the division of roles between the host organization and the participating organizations in advance and write it in the project plan in detail

☐ Amount of support: A total of 600 million won, one executing organization (free contest)

○ The total project period is up to 5 years (3+2), but whether to continue support is determined through the annual evaluation
○ If the evaluation result is very poor, measures may be taken such as suspension of the project or agreement may be canceled.
○ Support for additional two years is decided through mid-term evaluation of the performance for the first three years
○ Project scale (government subsidy) and applicable regulations are subject to change according to annual government policy

☐ Support details

○ Support for expenses necessary for K-Lab creation, operation and cooperation including equipment purchase/management, space construction, operation of training programs operation, opportunities for experience/collaboration, networking

- (K-Lab installation and operation - Target country and place) National University of Vientiane, Laos
  * A new space is provided by National University of Laos

□ Conditions of support

○ **(Private matching)** The total project cost consists of government subsidies and private contributions, and the executing organization participating in the project must pay the private contribution (cash + in-kind) for expenses excluding the government subsidies out of the total project cost.

- Total project cost = Government subsidy (Less than 90% of total project cost) + Private contribution (More than 10% of total project cost)

- Private contribution = Cash (more than 10% of private contribution) + In-kind (less than 90% of private contribution)

< **Criteria for organizing private contributions** >

Classification	Share of government subsidies in total project cost	Share of cash out of private contributions
Executing organization	90% or less	10% or more

○ **(Facility construction)** Since it is necessary to create and operate an environment in which digital production equipment can be introduced and utilized, facility construction should be prioritized at the beginning of the project and be organized every year in accordance with annual plans during the project period.

○ The executing organization must organize equipment introduction costs every year according to the characteristics of the project and annual plan
○ In the first year, major equipment and basic facilities must be met for facility opening and pilot operation
○ The facility construction cost should be organized to meet the maximum share (80% or less) and the minimum share (20% or more) of the government subsidies each year

Ⅲ　Details of the Project Proposal

□ Creation of K-Lab infrastructure

ㅇ (Facility construction) New digital production space for equipment installation, equipment utilization, technical education, networking and collaboration for digital production

- Space construction, introduction of major equipment in consideration of local facilities and user characteristics

- Free space composition such as education spaces, work spaces, storage rooms, offices, networking spaces, rest spaces and others according to facility operation and user characteristics

- Spatial and functional separation and operation plan included

- Establishment of environment necessary for stable use of digital production equipment and facility operation (eg, dust collection facilities, power generation facilities, etc.)

ㅇ (Operation management) Dedicated personnel suitable for local characteristics of K-Lab, such as equipment introduction, operation, and management, and presenting and performing efficient plans for operation management

- Security and safety management of infrastructure such as equipment

- Equipment maintenance and failure management, efficient material management, etc.

- Efficient and stable operation of equipment and facilities in consideration of the local environment (power generation facilities, operating hours, etc.)

- After building facilities, derive efficient operation plans through pilot operation
  * Opening of facilities and pilot operation in the 4th quarter of 2021

<K-Lab digital production equipment installation (example)>

Equipment name	Function
Laser cutter	Prototyping by cutting MDF and acrylic by computer numerical control
Vinyl cutter	Printing paper and films as the drawings entered into the computer
3D printer	Melting plastic to make a prototype as the same model as the information entered into the computer
CNC router	Producing products by cutting wood, acrylic, and metals with a cutter rotating at high speed
Table CNC	Precision work for circuit types such as PCB

ㅇ (Technical support) Proposal and implementation of technology support service strategies and methods in response to local demand, and measures to improve service utilization rates

- Demand customized support strategies and plans such as production support and technical support services

- Technical support service operation plan (target, characteristics, usage procedure, service time, etc.)

Information on K-Lab construction and utilization space (draft)

ㅇ **(Operating body)** National University of Laos, Faculty of Engineering
 * Related departments: Computer Engineering Information and Communication Science, Electronic Communication, Electrical Engineering, Mechanical Engineering
 * The Faculty of Engineering of National University of Laos will be in charge of K-lab operation in the future

ㅇ **(Scale)** New building of The Faculty of Engineering of National University of Laos (area 700㎡)

1 design room, 3 production labs, 1 conference room (draft)				
Smart system design room	IoT system device production room	Mechanical and Electronic Engineering System device production room	AI system equipment production room	Conference room/Seminar room
150㎡	150㎡	150㎡	150㎡	100㎡

 * National University of Laos is constructing new buildings and spaces for K-Lab operation

□ Operation of K-Lab facilities

○ (Facility utilization) Establishment and execution of differentiated digital production space utilization and operation plans reflecting the characteristics of users such as students and the general public

- Creation and operation of shared space with tools, making activities, mentors, and communities to challenge one's own making through digital production

- Joint development of a linkage program to strengthen the use of facilities and digital capabilities of the general public, high school students, educational institutions, companies, local communities, and related industrial workers as well as the use of facilities focused on university-related students and faculty

- Operation of a space where users can experience start-up support through discovery, verification, and implementation of ideas, and education for creative digital competency innovation

- Spreading youth start-up and start-up culture such as seminars and education related to start-up to discover prospective entrepreneurs, linking mentor-mentee matching, and global internships

- Creating an environment to reinforce ICT digital capabilities, such as independent competency and utilization competency for the operation of digital production facilities, e.g.) Establishment of online meetings to meet the increasing demand for non-face-to-face economy

○ (Program operation) Operation of various programs using facilities such as making activities using digital production equipment, equipment utilization and operation training, technology seminars, etc.

- Establishment of program operation plans based on analysis of local industry and market (technology, manpower, etc.)

- Planning education, experience, and practice programs tailored to the local environment and culture, and diversification of pilot, specialized, regular, and short-term programs for local users

- Training qualified human resources in the digital manufacturing field through

K-Lab

- Competency training necessary for the local situation to expand ICT theory and practical knowledge, application experience, etc.

○ (Cooperation hub) Not only training local youth makers through making activities, but also expanding the exchange of domestic companies, talents, and technologies through the spread of manufacturing start-up culture

- Promotion of cooperation such as local employment and start-up of excellent human resources through the K-Lab program, domestic inflow, and corporate linkage

- Discovering cooperative projects suitable for the local market environment and technical capabilities and preparing the foundation

- Analysis of local industry status and regular provision of information

- Establishment and promotion of sustainable cooperation measures such as linking ICT and digital manufacturing with Korea, linking domestic companies wishing to enter the local market, and signing MOUs

< K-Lab operation program (example) >

○ (Education on use of digital production equipment) Education on how to use digital production equipment and software
○ (Entrepreneurship education) Entrepreneurship education of challenge, innovation, and creation to strengthen the competence of local entrepreneurs
○ (Make A Thon) A problem-solving prototype production contest for two days without night
○ (Start-up mentoring) Prototype production and start-up mentoring such as discovery, verification and implementation of start-up items
○ (Global Internship) Planning for the use of local facilities for Korean youth and connection with Korea
○ (Professor training) Planning to utilize digital manufacturing equipment and strengthening educational capabilities of professors at local universities
○ (Training lab managers) Training operating personnel through local production space operation practice and training
○ (Invited training) Providing an opportunity for benchmarking of excellent cases by inviting local managers (related parties) to Korea
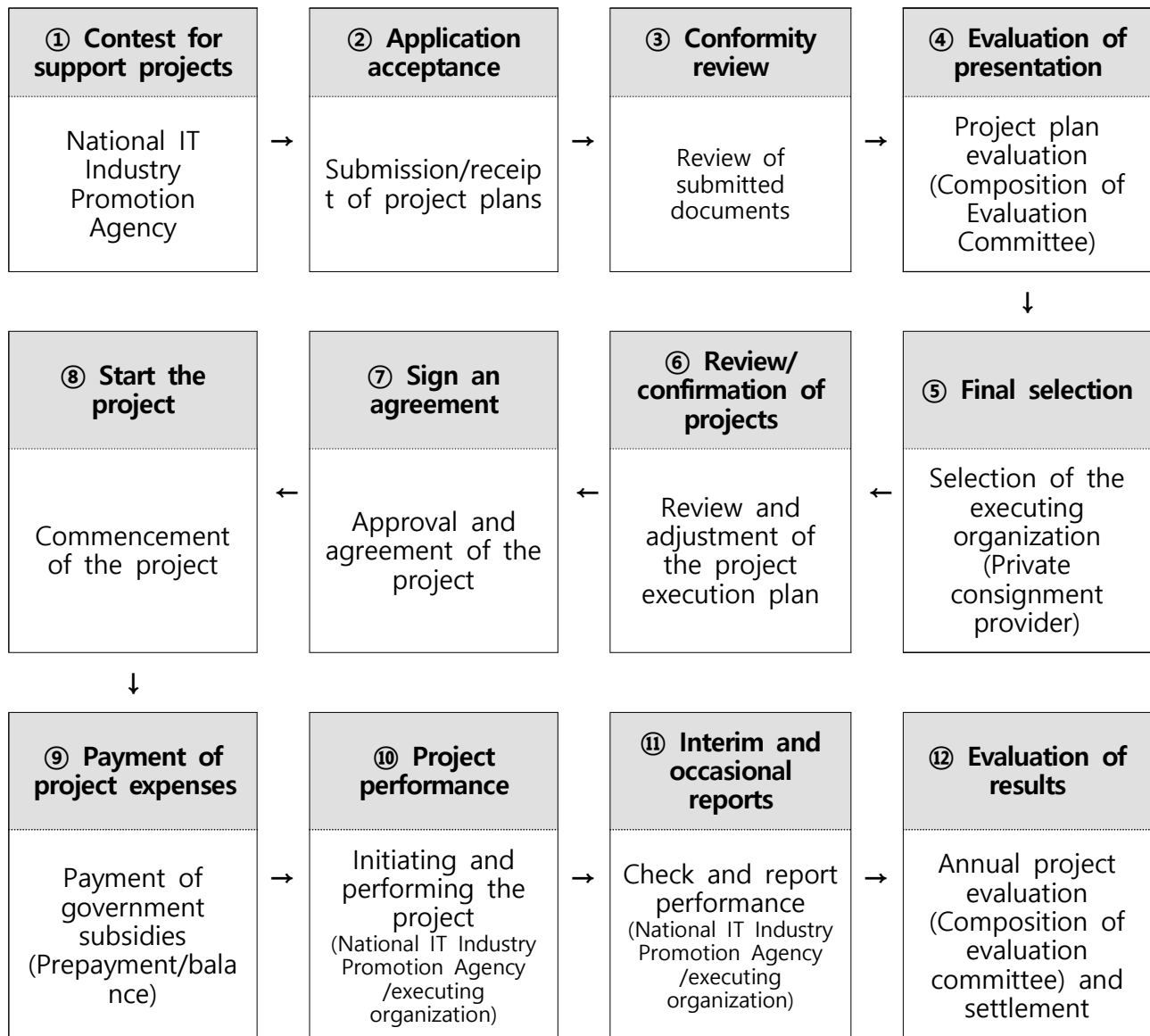
□ K-Lab network cooperation

○ (Continuous utilization) Local active participation, expansion of space and program utilization, development direction establishment and utilization plan to secure sustainability

- Staged and mid- to long-term development plans such as establishment of facilities, operation, expansion, and self-reliance
- Plans to expand the use rate of K-Lab, such as related network construction and connection plans
- Seeking activities for university professors and students to utilize technology and secure practical skills
- Establishment of plans for sustainable use, such as plans for securing finances for sustainable operation of K-Lab, and seeking cooperation projects
  * Plans for cooperation projects and exchange activities between the two countries to continue education and training in cooperation with educational institutions, local communities, and businesses / industries

○ (Spread of publicity) Expanding the accessibility of students and the general public to digital manufacturing equipment and K-Lab, and preparing a plan to raise K-Lab awareness

- Prediction and expansion of annual users and beneficiaries by diversifying programs such as exhibitions, experiences, visits, and tours
- Public relations (on/offline) and sharing of K-Lab news, operation details, and achievements
- Encouraging cooperation such as sharing of best practices and achievements such as presentation of best practices and mentoring for preliminary startups, networking among participants, sharing of local information, etc.

○ (Performance creation) Plans to derive practical cooperation outcomes through technology exchange between the two countries and strengthening digital capabilities such as training digital talents and youth start-up

- Discovering global cooperation projects according to the local market environment and technical capabilities
- Implementation plans to achieve digital cooperation performance goals and digital competency enhancement support results

Ⅳ Plans to Select Projects

☐ Project procedure

① Contest for support projects	② Application acceptance	③ Conformity review	④ Evaluation of presentation
National IT Industry Promotion Agency	Submission/receipt of project plans	Review of submitted documents	Project plan evaluation (Composition of Evaluation Committee)

→ ↓

⑧ Start the project	⑦ Sign an agreement	⑥ Review/ confirmation of projects	⑤ Final selection
Commencement of the project	Approval and agreement of the project	Review and adjustment of the project execution plan	Selection of the executing organization (Private consignment provider)

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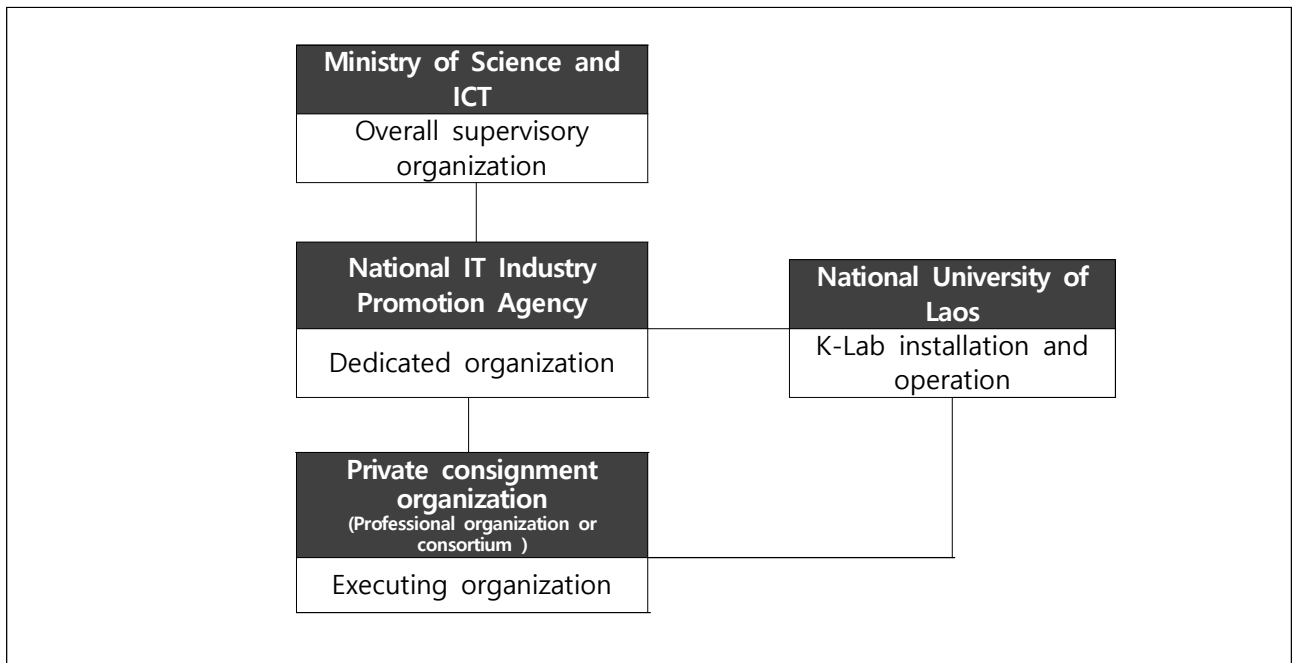| ⑨ Payment of project expenses	⑩ Project performance	⑪ Interim and occasional reports	⑫ Evaluation of results
Payment of government subsidies (Prepayment/balance)	Initiating and performing the project (National IT Industry Promotion Agency /executing organization)	Check and report performance (National IT Industry Promotion Agency /executing organization)	Annual project evaluation (Composition of evaluation committee) and settlement

→ → →

☐ Schedule (draft)

○ Announcement of support projects and receipt: March to April

○ Evaluation (conformity review and announcement) and selection: April to May

○ Conclusion of agreement: June

○ Project performance (facility creation, operation, cooperation): June to December

* The above project schedule is subject to change.

□ Promotion system

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│          │                          │  │ Laos             │  │
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│          │  Dedicated organization  │  │ K-Lab            │  │
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│          │      organization        │                        │
│          │ (Professional organization│                       │
│          │   or consortium )        │                        │
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│          │  Executing organization  │                        │
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□ Evaluation procedure

○ Final confirmation through conformity review and evaluation of project plan presentation (evaluation committee)

Step	Main contents	Remarks
Conformity review	○ Review of the conformity such as qualifications for application and disqualifications, including project plans and confirmations, and documents for submission	NIPA
Evaluation of presentation	○ Comprehensive evaluation of project plans through evaluation of presentation ○ Evaluation of project understanding of the project, implementation system and strategy, competency of the executing organization, project promotion capability and conditions, etc. - Composition and operation of an evaluation committee with about 7 external experts - The presentation evaluation score is calculated by arithmetic average of the remaining evaluation scores excluding the highest and lowest scores among the evaluation scores by each member - Among the projects with an evaluation score of 60 or higher, the target projects are selected in the order of the highest score, but in the case of a tie, priority is given in the order of the project with high scores in the high-scoring items	Evaluation committee

* During the evaluation of presentation, the project manager (PM) must make a presentation.
* Separate announcement will be made upon confirmation of the announcement evaluation schedule, etc.

□ Criteria for evaluation

Evaluation item	Details	Score
Appropriateness of project plan (30)	• Feasibility of project promotion strategy - Accurate understanding of and conformity to project purpose - Differentiation of promotion strategies such as understanding of local national conditions and development plans	15
	• Specificity and appropriateness of the project promotion plan - Specificity and feasibility of equipment installation and facility operation project plans - Validity of performance plans such as discovery of potential demand, prediction and expansion of users	15
Expertise in project promotion (40)	• The willingness to promote the project and the originality of project promotion through similar project experiences -Specificity and innovation of mid- to long-term expansion plans -Competitiveness of project promotion through market environment and analysis of domestic and overseas demand	10
	• Validity of K-Lab creation strategy - Validity of infrastructure construction such as facilities, equipment, and space - Appropriateness and efficiency of continuous operation plan after infrastructure installation	10
	• Feasibility of K-Lab operation strategy - Operational differentiation, such as ability to develop and discover operational programs, and a dedicated organization - Its own K-Lab operation (continuous operation) after the project and appropriateness of follow-up management	10
	• Feasibility of K-Lab cooperation strategy - Reality such as appropriateness of connection with domestic companies and possibility of advancing into developing countries - Expertise in global cooperation, such as responding to local demand and applying technology exchange	10

Excellence in project execution (20)	• Clarity of short-term, mid- and long-term performance goals and expected performance - Possibility of implementing management measures such as annual promotion plans and step-by-step strategies - Originality and industrial ripple effect of qualitative and quantitative performance goals	10
	• Innovation and ripple effects of achievements of cooperation between the two countries - Understanding of industry status by country, policy implications, global market expandability, etc. - Possibility of achieving performance goals such as discovery of opportunities for cooperation and ability to derive cooperation outcomes	10
Appropriateness of project management (10)	• The executing organization's performance capability and expertise in manpower composition -Competency to utilize external organizations and experts and connection plan, mutual cooperation plan, etc. • Appropriateness of project management, such as project promotion schedule, output, and project cost composition	10
Total		**100**

Ⅴ	Application and Receipt

☐ Application period: 15:00, 2021. 3. 29 (Mon) ~ 2021. 4. 28 (Wed) (Upon completion of computer registration)

  * Application by mail or in person is not allowed, and online application must be completed through the system before the deadline

☐ How to apply: Online application through the National IT Industry Promotion Agency's website and NIPA Project Performance Management System (SMART)

  * NIPA website (https://www..nipa.kr) / Project performance management system (https://smart.nipa.kr)

  ** After downloading the 'Project Plan (Form)' from the project announcement column, apply online along with the relevant documents

\<Online application procedure\>

Procedure	Main contents
(Step1)	▶ Click "Administrative Support" at the bottom of the center of the National IT Industry Promotion Agency's website (www.nipa.kr)
(Step2)	▶ **Access to the project performance management system (SMART) (log in with the account of the project manager)** - A non-member is required to sign up as a member
(Step3)	▶ **Click on the application menu from the top menu and select the relevant project among projects being accepted** - Click on the project application (click on the name of the project announced to re-check the contents of the announcement)
(Step4)	▶ Check the terms of use, personal information protection, restrictions on participation, etc.
(Step5)	▶ Enter and save basic project information, purpose and contents, institution information, information on participating personnel, project cost, attached data, etc. in the order of tabs (Check required fields) -You can save in the middle, and enter at any time until you click the Complete button
(Step6)	▶ After entering all data, click the Complete button to finally check the registered information and **click the Complete button to complete** - Submitted files do not require a separate printed copy
(Step7)	▶ Check your application number after application is completed

  * For detailed online application process, refer to the [online application manual].

□ Notes on application

○ Online application is not allowed at all after the application period.
  * All application work must be completed within the deadline, including input and correction of contents and upload of documents.

○ Membership registration must be made in the name of the project manager at the time of application

○ On the application deadline, it may be difficult to access the system and upload documents due to congestion of server access, so please complete the application 1 to 2 days before the deadline (risk of overload)
  * Any submitted documents will not be returned

< **Tips to enter the contents into the online application system** >

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① Since the entered contents are not automatically saved, **click the "Save" button frequently** while writing the contents.
② On the day of the deadline, there are cases of failure to submit due to unexpected reasons, so be sure to click the "Submit" button after filling out and saving (submitted only after you click the Submit button and click the pop-up window asking if you want to submit)
③ Even if clicking the "Submit" button, you can continue to submit revisions until the deadline.
④ "Submit" is not allowed after the deadline

 * Even if you click the "Submit" button on the application page, submission is not accepted if the final submission is not processed in the SMART

○ Companies (organizations) that are subject to restrictions on participation in government-supported projects as of the deadline for application, their representatives, and companies (organizations) judged to be difficult to carry out projects normally due to default or poor management are not eligible to apply
  * When submitting a project plan, the executing organization must self-check whether it is subject to the exclusion of application

○ If false facts about the submitted information are found later, the selection may be canceled and the agreement may not be concluded.

* In the event of improper performance of the project, illegal use of the project cost and use for other purposes, and disciplinary measures according to the guidelines, disciplinary measures such as refund of support funds and restrictions on participation in accordance with relevant regulations

□ Preparation of project plan and documents for submission

○ Write the project execution plan on the form, and submit related data such as evidence of the contents of the project plan as attached data

Documents for submission	
o Project plan (application) o A certified copy of corporate registration or business registration certificate o Confirmation of intention to participate o Small and medium-sized business confirmation (required for companies) o Management indicators and financial statements	o Certificate of full payment of national and local taxes or tax installment plan o Certificate of full payment of four major insurances o Cash and in-kind investment confirmation o Consent to use of personal information for project participants

Ⅵ Project Management

□ Related regulations and grounds

○ Conducted and managed in accordance with the project guide, agreement, execution plan, support project management guidelines and related regulations

- Regulations on the operation and management of the broadcasting and communications development funds (revised and implemented on February 17, 2021), regulations on the calculation and settlement of information / communications and broadcasting R&D project cost, regulations on information/ communications and broadcasting R&D management, etc. are applied

  * As laws and regulations related to ICT funds (「Regulations on the operation and management of broadcasting and communications development funds」 and 「Regulations on the operation and management of information and communication promotion funds」) were revised and implemented (February 17, 2021), revisions of the related sub-instructions are in progress. Afterwards, related revised and established guidelines will be applied to the project

- Tips for management of NIPA support projects

- For all matters related to project execution not specified in the above regulations, the National R&D Innovation Act (amended and enforced on January 1, 2021), and standards for the use of research and development expenses for national R&D projects (amended and enforced on January 1, 2021) are applied mutatis mutandis

○ For matters and details not included in the project guide, follow the relevant regulations and guidelines. If you any doubt in the interpretation of the relevant regulations and guidelines, follow the interpretation of the National IT Industry Promotion Agency

□ Notes when performing the project

ㅇ The selected executing organization shall sign an agreement with the agency in charge (NIPA) within one month after notification of the selection result, and the government subsidy will be paid in installments twice a year
  * Subject to change depending on budget allocation and security

ㅇ At the time of agreement, the executing organization (hosting /participation) shall submit a performance (guarantee) insurance policy for government subsidies

ㅇ Project expenses (government contributions and privately-paid cash) are managed in a separate account

ㅇ During the project (agreement) period, you shall actively cooperate in reporting and submitting related data

ㅇ Prepare outputs such as plan, result report, progress report (Check progress level), etc. for each major activity*, and actively submit the data requested by the NIPA
  * May be added or subtracted according to project performance such as initiation report, interim check, on-site inspection, on-site due diligence, occasional inspection and monthly report, interim and final report, annual evaluation, performance utilization survey and performance report

ㅇ Submit a monthly report on the status of progress against the project execution plan

ㅇ The performance utilization period of the project performed is 5 years from the year of the termination of the project, and the executing organization shall actively support when the agency in charge (National IT Industry Promotion Agency) requests business cooperation in relation to follow-up measures during the period.
  * The agency in charge may request submission of the status of performance utilization for 5 years after the termination of the project.

○ Submit a settlement report within 2 months after the project is completed

○ Carry out the matters stipulated in related regulations applied to other support projects

□ Contact us

○ Inquiries related to project: Global Cooperation Team, Deputy Director Ko Byung-sun (bsko@nipa.kr, ☎ 043-931-5532)

○ Inquiries related to the computer system: NIPA computer receipt system manager (smart@nipa.kr, ☎ 070-5151-8239)