

ANNEX F

RELEVANCE HEI.2

1.1 Did your university have programs on innovation capacity before the STRIDE intervention?

PROGRAM'S ON INNOVATION CAPACITY BEFORE THE STRIDE INTERVENTION							
THEME	NATIONAL		HEI = 11		REGIONAL		RESPONSES
	f	%	f	%	f	%	
Benchmarking Setting standards to the university from other HEIs that is also aligned to the thrust of the HEI			2	18.18			<p>“The research agenda in our university, that is one. Even in my predecessor, we have to do something with research because XU is a teaching university, but we are moving to research, and we are still in the transition. That is a big opportunity that the university has that vision already. We have already created a research office in the university and a research council. We also funded internal projects with limited funding.” (XU)</p> <p>“The experience showed them how big universities in the US promote commercialization of research outputs – commercialized technologies.” (USC)</p>
Overall Capacity building Refers to the Strengthening the capacity of the HEI’s researchers, faculty, and students by creating infrastructure and programs for the development of R&D in the HEI.			14 (10 HEIs)	90.90			<p>“The representatives of the university received a lot of trainings and were sent on study visits in the US as culminating activity facilitated by RTI (Feb. 2015: first batch out of two batches, with 6-7 trainees) together with other institution beneficiaries (Mindanao State University of Iligan (MSUIT – with Dr. Patricia Cruz as representative), Dela Salle University (represented by Atty. Christopher Cruz) and Visayas State University (VSU), etc. They attended a conference on the Association of Technological Managers Annual Meeting in New Orleans; visited technological transfer offices in big universities such as John Hopkins University, Rutgers’s University, and North Carolina State University.” (USC)</p> <p>“Yes, we had the DLSU Innovation and Technology Office. (DITO) The students in the STEMS discipline should have an outlet on the outside world. There was a trip to the US. In this case we reformed some of the policies and processes of running the office. We also modified them to be more efficient and realistic. That’s why I think even if we had that pre-STRIDE – being able to benchmark with universities who have been doing this for decades was really valuable to us.” (DLSU)</p>

Technical Assistance refers in providing technical assistance through research grants.	1	9.09	“We are under recipient of the research grant, CARWIN. Collaborative research with the industry. There are two (2) in the College of Engineering, one of whom is me, the other one is Jeff on Electronics Engineering. A grant was only given to Dr. Lubguban in the PUREgrant of USAID STRIDE. Two (2) from CARWIN and one (1) PURE grant.” (MSU-IIT)
---	---	------	--

1.2 What was the value addition of the STRIDE intervention?

VALUE ADDITION OF THE STRIDE INTERVENTION							
THEME	NATIONAL N=		HEI = 11		REGIONAL		RESPONSES
	f	%	f	%	f	%	
Benchmarking refers in setting the standards of the key players and from its partner industry.			3	27.27			<p>“Even with funding, STRIDE provides opportunities for government agencies to align their efforts in terms of direction shaping and direction setting” (BSU)</p> <p>“It allowed us to benchmark what we’ve done so far in collaboration with different university partners. Our mentors were part of the Philippines. They were already mentors for DOST and USAID STRIDE.” (UPD)</p> <p>“This was similar to a project in US that enabled customer discover. So, you take whatever you have in your lab and talk to potential business partners or clients and get a sense of the market.” (DLSU)</p>
Overall Capacity Building refers in the enhancement of the skills and linkages of the faculty/researchers in the R&D from the seminars and trainings that were conducted.			11 (8 HEIs)				<p>“Substantial Human Capital Development for the training series attended by CITU’s TBI & KTTO. There was fundamental transfer of knowledge from their speakers which operationalize the said R&D offices.” (CITU)</p> <p>“STRIDE helped in building capacity in the research and IP commercialization through the KTTO; capacitating IP commercialization” (USC)</p> <p>“Through STRIDE, there was increased awareness among faculty management on value of innovation and technology transfer.” (UP CEBU)</p>
Collaboration Refers to the fostering of industry linkages to the industry and to other partners			10 (6)	54.54			“It restrengthened our efforts/initiatives on higher education research and academic programs and linkages with the industry” (UPLB)

			“We are able to connect with the industry and HEIs and those expert professors coming from the US universities.” (UPLB)
Funding opportunities Refers in exploring to the funding agencies to fund projects.	3 (2 HEIs)	18.18	“it allowed faculty to explore the funding agencies. In XU we had our own internal funding for research. It also gave u the confidence to seek other funding agencies to submit proposals.” (XU)
Building of infrastructures and programs refers to the building of KTTO and other related offices for the improvement of R&D programs	8 (6 HEIs)	54.54	“Stride developed different mechanisms to fund projects” (DLSU) “it was the establishment of the KTTO. They guide us to establish that office. Our director, Pat Cruz, trained on how to manage the KTTO.” (MSU-IIT)
Link to industry refers to the establishment of linkages to industry partners for future programs.	1	9.09	“The focus on Research and Development that is really very important. That is the importance of STRIDE of what we really have, the innovation programs in the university.” (XU) “Fostering of Industry Linkages for CITU’s engagement with the future offering of PSM Industrial Automation (with Knowles Electronics Philippines), and IBR Program (with CCCI, DTI, and DOST)” (CITU)
Technical support refers to providing assistance in implementing programs.	2 (1 HEI)	9.09	“The partners would give you practical problems and how to solve them along with the recipients of the programs.”

1.3 Based on your perception, how has the STRIDE intervention contributed to improvement of the innovation ecosystem in your university? Rate according to high, medium, or low the influence of the five elements. Explain the enabling environments for each rating.

STRIDE'S INTERVENTION THAT CONTRIBUTED TO IMPROVEMENT OF THE INNOVATION ECOSYSTEM IN THE UNIVERSITY

THEME	NATIONAL N=		HEI = 11		REGIONAL		RESPONSES
	f	%	f	%	f	%	
Benchmarking refers to the setting of standards based on the activities that we made by other universities.			1	9.09			“The director in John Hopkins University showed us how things could be done, it enabled our institution.” (DLSU)
Overall capacity building refers to the strengthening of the capacity of the university/researchers/faculty to do research activities through various sessions, activities, and building linkages.			24 (11)	100			<p>“Prototype Research Project. This is a very competitive grant, and we are just so happy that we were able to get this one project in. This project enhanced research and knowledge creation.” (TIP)</p> <p>“Given the budget constraints, the idea of STRIDE would be to improve scalability of these programmes. Having innovative degree programs as well as skills building programmes, research and faculty exchange, are essential elements in building STEM. So that’s why I rate them as high.” (DLSU)</p> <p>“The USAID STRIDE helped us to capacitate the USTP in IT, Technology Assessment Promotion, Technology Transfer Negotiation, and the KTTO Basic Training. Also, the tactics on how to execute on what we have learned from the four (4) succession of capacity building [activities] for the whole duration of one year, we were able to practice the concepts and the cases studies that were being presented during our training for four (4) quarters. It showed in 2021, that we were able to execute what was being told to us.” (USTP)</p>
Collaboration refers to the building of partnerships between the academic and non-academic institutions/organizations			10 (8)	72.72			<p>“There was a tendency for our researchers to think in isolation. So, we really pushed for seeking out academic and non-academic partners to collaborate with them. A lot of this has to do with what STRIDE did in the previous decade.” (DLSU)</p> <p>“STRIDE introduced their networks to Batangas State University. But I cannot still rate. Nagkaroon ng bunga at partnership because of STRIDE.” (BSU)</p> <p>“We collaborate with the industry, the MERAV Pharma. We also had a collaboration with a big company, Technologies Inc. This is on our WARP grant. We started the collaboration last year (2020) and we will finish this December 2021.” (MSU-IIT)</p>

Equipment Acquisition refers to the capacity to generate quality equipment for the research project.	2	18.18	<p>“We were able to build equipment with our research collaboration. So even beyond this, the research will be sustainable. The equipment built and bought will still be used” (UPD)</p> <p>“Able to acquire equipment to generate quality products from mango waste products through Green Enviro Mgt (GEMs) system/program of the university; able to hire people who were formerly scavengers from the dumpsite; (processing system)” (USC)</p>
Financial assistance refers to the provision of research grants to fund the project.	1	9.09	<p>“They were able to provide grants. Well in my case, in 1 year, hindi na siya na renew, iba ata yung dahilan kung bakit na renew. In terms of knowledge creation, it’s still ongoing. We were able to build equipment with our research collaboration. So even beyond this, the research will be sustainable. The equipment built and bought will still be used.” (UPD)</p>
Industry responsive curriculum refers to the effect of human capital, education, and bridging the gap between industry and the academe.	3 (2 HEIs)	18.18	<p>“Not only in KTTO, but we also tap Career Center, a partner with STRIDE, I think there is also an impact when it comes to human capital and education as much as the establishment of the Career Center” (USTP)</p> <p>“From day 1 the attack was really not to keep the isolation of researchers and the academe but to find ways to bridge the gap to the market” (DLSU)</p>
Institution Building refers to enhancing the capability of the HEI in R&D through infrastructure development, provision of staff, human capital and reengineered curriculum.	2	18.18	<p>“Cannot quantify either as low, medium, high because innovation is an ecosystem which involves not only capability building but also infrastructure development including laboratories and Center for Innovation, provision of staff, and reengineered curriculum. If we can cost it, BSU has allocated big amounts already because we have programs on innovation before STRIDE came. STRIDE is more on capability building. Di pwede capability building is just one intervention. I [President Ronquillo] have not received any monetary intervention from STRIDE.” (BSU)</p> <p>“Not only in KTTO, but we also tap Career Center, a partner with STRIDE, I think there is also an impact when it comes to human capital and education as much as the establishment of the Career Center” (USTP)</p>
Protection of Intellectual property referring to building awareness raising on intellectual property and value of technology	1	9.09	<p>“Creating awareness on the value of technology and IP generated by research among the stakeholders especially among faculty and students.” (USC)</p>

Knowledge creation refers to the provision of research grants and research experts.	5	45.45	<p>“Since we are grantees and we had 3 grants. It was only for College of Engineering and Technology. There were 3 of us who were faculty in the College of Engineering and Technology, at the same time, there were 2 of us who were grantees who are in the same department.” (MSU-IIT)</p> <p>“STRIDE sent very knowledgeable experts whose expertise ay hindi matatawaran.” (UPLB)</p>
Knowledge transfer Breaking the isolation of the researchers and academe to the industry by fixing their gaps and attending the needs of the market	21 (9 HEIs)	81.81	<p>“We transfer some of the knowledge that we worked with after STRIDE, not within the STRIDE period. We were able to share what we have learned our technology to vegetable farmers and LGUs” (XU)</p> <p>“With that knowledge, we were able to transfer it into a modular program for our students so that they will be career ready.” (USTP)</p> <p>“Linkages with the MSMEs, non-profit organizations and government offices have paved way for the University to extend and consequently expand its innovation capacity.” (CITU)</p>
Procurement Challenges refers to the challenges with the procurement system in an institution.	1	9.09	<p>“Before, those sessions were conducted, my impression is that some universities and institutions are okay with the current procurement system. I have realized the need to influence decision makers to make the procurement system more responsive. After attending these sessions, the university leaders tell the staff to make it more efficient.” (UPLB)</p>
Capacity in creating Research Grants refers to becoming more confident in making proposals for research grants.	1	9.09	<p>“The three (3) of us who were grantees were capacitated. We started from the USAID grants. Because of the training, confidence, and we had outputs, we went to a higher grant, DOST PCIEERD” (MSU-IIT)</p>
Scalability of programs refers to the enhancement of the feasibility of the program that will be provided.	1	9.09	<p>“Human capital and education -High -Given the budget constraints, the idea of STRIDE would be to improve scalability of these programs. Having innovative degree programs as well as skills building programs, research and faculty exchange, are essential elements in building STEM. So that’s why I rate them as high.” (DLSU)</p>
Responding to MSMEs refers to giving solutions to the problems of the MSMEs.	1	9.09	<p>“This research solving the problem of one of the MSME in Cagayan de Oro. That research is improving a certain equipment, an extruder machine. That is a product of the ideation workshop conducted by USAID STRIDE with the partner industry.” (USTP)</p>
Lack of Start-ups and spin- offs refers to the innovation on start-ups and spin-offs that were still lacking	5	45.45	<p>“This is one of our areas of improvement. We don’t have the mechanism yet in the university.” (XU)</p> <p>“The innovation on start-ups and spin-offs were still lacking in STRIDE.” (TIP)</p>

Overall technical assistance refers in acquiring equipment to generate quality products. Also, it refers in provision of training and session to enhance skills in running a program or activity.	6 (4)	36.36	“Malaking bagay ang pag-implement of the PSM for our graduate students. PSM is STRIDE and not UPLB. These are individually initiated wherein many faculty members and students were sent abroad, although a few did not come back after the USAID STRIDE Program.” (UPLB)
			“There is an impact in terms of technical assistance that was given to us the by the USAID STRIDE. They trained us and sent us to Florida State University. They trained us on how to run the program in the Career Canter. With that knowledge, we were able to transfer it into a modular program for our students so that they will be career ready. The output, the employment rate of our graduates is high. Six (6) months after graduation, they are already employed. That is the impact of the training given to us by the USAID STRIDE through the Career Center.” (USTP)
			“Mentorship and the development of the PSM program. PSM was something that we never knew about, similar to KTTOs which we only knew about due to STRIDE.” (TIP)

1.4 What are the challenges and opportunities for your university to foster a robust innovation ecosystem given the STRIDE interventions?

CHALLENGES AND OPPORTUNITES FOR THE UNIVERSITY TO FOSTER ROBUST INNOVATION ECOSYSTEM GIVEN THE STRIDE INTERVENTIONS

THEME	NATIONAL N=	HEI = 11	REGIONAL	RESPONSES
-------	----------------	----------	----------	-----------

	f	%	f	%	f	%
Alignment to thrust of HEI refers to the transitioning of the HEI's agenda to research	1	9.09				
						<p>“The research agenda in our university, that is one. Even in my predecessor, we have to do something with research because XU is a teaching university, but we are moving to research, and we are still in the transition. That is a big opportunity that the university has that vision already. We have already created a research office in the university and a research council. We also funded internal projects with limited funding.” (XU)</p>
Bureaucracy refers to the present policies that hinders in the development of programs and activities of the project.	4	36.36				
						<p>“When it comes to government funding meron talagang problem, gusto ng private company ng ano but the tech transfer law states that the ownership goes to the implementing agency which is the university. Yung negotiation na nangyayari is right to first refusal. When it comes to government funded projects may qualms talaga ang industry.” (UPD)</p> <p>“It is difficult to seek approval for changes in the curriculum. There are universities which are able to institute PSM like MMSU and Adamson University. It is okay for the private university because they have the leeway to do it. CHED has to revisit its policies.” (UPLB)</p>
Establishing collaboration refers to establishing a rapport to the partner industry	7 (5 HEIs)	45.45				
						<p>“We still have 2 DOST CRADLE projects. Because of the experience that we had, there were many opportunities that opened up. I knew how to make a proposal and I know now how to engage with the industry. I learned all of this from CARWIN.” (MSU-IIT)</p> <p>“The advantage of having a CARWIN is you have an industry collaborator. The industry has a different mind-set from that of the researcher. As a project leader or a principal investigator, I have to understand their mind-set as well in a business sense point of view. They will not undergo into a certain enterprise if they cannot get any profit.” (MSU-IIT)</p> <p>“The university to have a strong linkage to an industry. For example, an Ideation Workshop cannot be successful if it is not participated by the industry, the right person to participate. For example, a technical person or even a CEO of a particular industry participating in a workshop can [provide] link. That is one important aspect to have a robust innovation ecosystem, is the strong linkage with the stakeholders, the government, industry, academe, and even the community.” (USTSP)</p>
Aligned academic programs refers to academic policies that needs to be reviewed in response to the intervention that has been given.	6 (3 HEIs)	27.27				
						<p>“Design of academic programs. For example, the current curricular programs have required number of academic units to graduate. The PSM has certain standard that could be adopted by the University but there is inconsistency in terms of the higher number of units required under PSM.” (UPLB)</p>

			“Review of policy on academic loading to encourage researches towards commercialization.” (USC)
Financial resources refers to the funding support coming from different institutions or agencies.	7 (6 HEIs)	54.54	“Funding is a big challenge. STRIDE intervention is very innovative but the University that would wish to join may not do so because of funding and human resource requirements. There are universities without staff trained to respond to STRIDE intervention” (UPLB) “We have the research funding, the legislation in place, it’s just a matter of some smart research group and some company to use these resources to provide something.” (DLSU) “More potential funding for innovative projects is made possible by government agencies, non-government and civil society organizations” (CIT)
innovation driven refers to the interventions that are responsive to the industry.	4 (3 HEIs)	27.27	“Faculty and students need to be sensitized further about the actual problems in the society in general in order to conceptualize more technologies that are relevant and impactful” (CIT) “There are many actors in the IE. We have to look at innovation capital, human resource, curriculum, and infrastructure. We might have a program but if the other players do not conform. Our challenge is to produce the output, meaning how to implement ideas which means infrastructure like laboratories. It cannot be done overnight by anyone. Even us or STRIDE cannot do that.” (BSU)
Knowledge protection and creation refers to the establishing of knowledge through collaboration and establishing sharing scheme of technology between university and industry partners.	12 (8)	72.72	“The plan is to establish a Science and Technology Park. If there is a strong collaboration with industries and government agencies, with the help of STRIDE, I think we can pursue as much as we can the establishment of Science and Technology Park.” (USTP) “USAID STRIDE was able to enhance the understanding to build capacities, to cultivate research culture, and that the procurement process should be well-in place. Researchers would be discouraged to build more capacities if they will still attend to the nitty-gritty of the procurement processes.” (UPLB) “Vibrant startup ecosystem in the locality whereby the University can contribute given that its RDCO, KTTO, ITSO & TBI can work together to address specific needs of these startups” (CIT) “Our strength is we are engaged with the communities, and we cannot compete with state universities and college in terms of cutting edge research. Our opportunity is more on social development related research. We do not have the equipment, but we are strong in forming leaders.” (XU)
Lack of knowledge	5	45.45	“Constrained pool of in-house experts that can be deployed to handle collaborative industry-based projects and/or programs” (CIT)

refers to the deficiency of awareness of programs that are being provided. As a result, there is a lack of capability and confidence to engage with different projects.			<p>“One challenge that we have at present in the university is the capability and confidence of other researchers to engage with STRIDE. We need to prepare more and equip our faculty researchers. In the policy of the university, to support the innovation ecosystem. We are still in the transition although we are moving towards that direction, as we want to be strong in our research, but not only research but also finding the results, what do we do with them? We must do extension, communication, policies, innovation, development, we should have done that in the university. Little by little if we have the mechanism, resources, and people to do it, I think we can move forward and sustain our programs and projects started with STRIDE. We do not have KTTO.” (XU)</p>
Leadership refers to leading an institution to establish its research agenda.	2 (1 HEI)	9.09	<p>“The research agenda in our university, that is one. Even in my predecessor, we have to do something with research because XU is a teaching university, but we are moving to research and we are still in the transition. That is a big opportunity that the university has that vision already. We have already created a research office in the university and a research council.” (XU)</p>
Linkages refers to the government, academe, and industry were able to build linkages and collaborate with their programs, outputs, and activities.	8 (7 HEIs)	63.64	<p>“If there is a strong collaboration with industries and government agencies, with the help of STRIDE, I think we can pursue as much as we can the establishment of Science and Technology Park. There is a potential in this region to have a Science and Technology Park, specifically that there are industries that are willing to partner with the academe or with the university. For example, the PHIVIDEC is an industrial zone so many industries wanted to go there. In fact, we will be establishing an academic institution in that area. It is already approved and there is already a Republic Act establishing a campus. In fact, the industries are willing and the PHIVIDEC and USTP underwent an agreement for the location of the academic institution. We have started talking to industries, industry locators and they are willing to partner with us in converting to the Industrial Park to a Science and Technology Park. That is an opportunity were STRIDE can help us” (USTP)</p> <p>“We are very open to have engagement with other groups, especially with government agencies and international [agencies/groups]. In fact, we have several research partnerships with the international groups also. We are also addressing the problem even in the students. We have service-learning program where students are engaged with communities or even institutions in trying to address problems. The training and mind-set are set at the early stage. This can go a long way. Our strength is we are engaged with the communities, and we cannot compete with state universities and college in terms of cutting edge research.” (XU)</p>
Low innovation	2	18.18	<p>“Develop an army of hard science researchers who will be trained purposively on innovation. There is a need to find a good number of researchers and</p>

refers to the low innovation capacities of the researchers to engage in a project.			determine what percentage of them would go to science, technology, and engineering. We need a good number of innovation leaders.” (BSU)
Mapping of experts (Human resource, curriculum and infrastructure) refers to the identification of researchers to do innovation projects that could address the needs of the industry through collaboration with the different actors.	8 (6 HEIs)	54.54	<p>“There are many actors in the IE. We have to look at innovation capital, human resource, curriculum, and infrastructure. We might have a program but if the other players do not conform. Our challenge is to produce the output, meaning how to implement ideas which means infrastructure like laboratories. It cannot be done overnight by anyone. Even us or STRIDE cannot do that.” (BSU)</p> <p>“Faculty and students need to be sensitized further about the actual problems in the society in general in order to conceptualize more technologies that are relevant and impactful” (CIT)</p>
Limiting factors refers to the situations where a researcher is hindered to do interventions on the program.	9 (6)	54.54	<p>“Also, the current situation of the pandemic (COVID-19), we cannot have our workshop or we cannot proceed. We plan to have more workshops with industry, a face-to-face workshop, but the challenge we cannot make it. I think there is already a design on how we can conduct it virtually, by talking with Academe and Industry and other agencies.” (USTP)</p> <p>“One of the challenges is the procurement of the equipment. Since USAID STRIDE has a definite schedule, they will release the funds if we have completed a milestone. Since we are an SUC, sometimes we have to control on the procurement of the materials and chemicals, thus there is a delay on the experiment. We negotiate with them if we got delayed. That is why we had an extension of six (6) months.” (MSU-IIT)</p> <p>“Review of policy on academic loading to encourage researches towards commercialization.” (USC)</p> <p>“Fear of faculty to divulge and share researches because of ownership (IP) and patent concerns” (USC)</p>
cultivating partnerships refers to the support in the development of scaling up of the project that was implemented by the partners.	5 (3 HEIs)	27.27	<p>“We had a grant with a company, and we still work with them now in our Laguna Campus. We need to scale these up however, so that we can do it in 10-12 different universities and have constant contact with them. This also applies to different universities in the Philippines.” (DLSU)</p> <p>“On the policy development, we have an innovation act that incentivises industry start-ups.” (DLSU)</p>
Technical assistance refers to the support given to the institution to develop its implemented programs.	2 (1 HEI)	9.09	<p>“TIP was able to ensure the approval of programs without the STRIDE but leveraging on this, when the STRIDE name came along it was additional magic. It was very value adding because you can just imagine ano yung growing behind the strength and experience of the institutions in the US and applying them to</p>

			ours. This is why the continued engagement of the STRIDE project in the PH will really help. Why will we invent something that is really out there.” (TIP)
Building of trust refers to the confidence of the partnership that was established through active collaboration.	2	18.18	“Because of the experience that we had, there were many opportunities that opened up” (MSU-IIT) “There is no natural culture of trust yet, but it has been cultivated with STRIDE with some selected companies in the Philippines.” (DLSU)
Weak collaboration refers to organizations that are not convinced with the plans of the academe.	2	18.18	“Industry problems. I think problema to sa mga industries na inaapproach namin. They are not convinced with our plans and the trust is not there yet. Transferring samples is a problem also. We have Material Transfer Agreements pero yun lang yung ibang industries hesitant talaga. Slowly we are gaining their confidence.” (UPD)