ATTACHMENT No.2

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| OO Smart City Project Proposal (summary) |

*※ Must not exceed 2 pages, Write an abstract of the Attachment No.3(1.1~5.1)*

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| **1. Project Outline** | **Applying Organization/**  **Department** | * *Republic of Chile / CORFO, belonging at Ministry of Economy, Development and Tourism* * *Corporación de Fomento de la Producción (CORFO)/Dirección Regional Metropolitana/Director Regional Metropolitano/Alvaro Undurraga* * *Fundación País Digital/ Sé Santiago Ciudad Inteligente/ Gerente Programa / Luz María García (Tel. +569-8159-0539, email luzmaria@paisdigital.org)* * *Universidad Santiago de Chile / Programa Centro Smartcity-Lab / Director / Dr. Pedro Palominos (Tel. +569-6677-6846, email: pedro.palominos@usach.cl)* |
| **Person in Charge** | María Elizabeth Díaz, Ejecutiva de CORFO Región Metropolitana. |
| **Applying Project Name** | ***Master Plan for a Smart Campus of the University of Santiago of Chile: A Living-Lab approach.*** |
| **Project Summary** | *The development of a Master Plan, the analysis of the feasibility and the implementation of a Living Lab pilot in the territory of the USACH campus.* |
| **Project Type** | *Intelligent Campus for the University of Santiago by developing a Campus Living Lab, allowing the interaction between the different actors to co construct innovative solutions for the campus territory.* |
| **Required Format and Scope of the Technical Assistance** | *Format: Master planning, Feasibility study and Pilot projects implementation.*  *Scope: Urban planning and pilot projects implementation* |
| **List of Resources That Can Be Provided** | *a) Office physical space to work within the campus of the University of Santiago, with internet connectivity.*  *b) Secretary support to coordinate meetings with local institutions*  *c) Support associated with obtaining data in the field, surveys, statistics, etc.*  *d) Safe travel to visit the university campus. It is important to notice that the University has an emergency contingency plan for the COVID pandemic situation, allowing restricted access to the facilities, and carrying constant testing for the campus personal.* |
| **2. Project Implementation history** | **Current Status and Necessity of the Project** | *The 32-hectare campus of the University of Santiago supports 8 faculties, a sports area with a stadium, and multiple green areas. The user population of campus space is 25,000 people on a typical day, with an approximate 23,000 students, who use a total of 217,839 m2 of constructed buildings. Of this number, 27,177 m2 correspond to 450 laboratories and workshops that provide services to the USACH community, it is proposed to develop a systemic approach that allows integrating the various areas of interest in the territory, considering the participation of all the actors of the university community* |
| **Relevant Plan and Implementation Plan** | *The Living Lab on the campus of the University of Santiago corresponds to the understanding of the university territory as an Ecosystem composed of multiple systems that interact, in a co-creation approach, integrating public and private actors in the research and innovation activities of the university community, placing the inhabitants of the university space at the center of innovation.*  *The expected results of the development of a Living Lab on campus correspond to a set of collaborative experiences between actors from all these areas to propose cases and innovation models that provide answers to problems present in the territory.* |
| **Project Progress** | * *The research center, Smart City LAB USACH, develop inter and trans disciplinary research on smart city* * *Development of various undergraduate and master's theses on relevant topics for implementation.* * *management of technology donations from private companies.* * *management for the implementation of 5g networks on campus.* * *Publication of the methodological guide of master plans for enabling infrastructure of smart cities.* * *Creation of a working group dedicated to the management of a smart campus pilot project.* |
| **3. Project Implementation Plan** | **Project Amount** | * *The total estimated cost of the Project is US $ 402,984* |
| **Project Structure** | *Global Cooperation Program 2021. Technical entities of the Pais Digital Plan (technical counterpart) and Smartcity-Lab of the University of Santiago (Project executor). Operation, maintenance and viability of the Project once implemented will be in charge of the University of Santiago de Chile and donations from Chilean or foreign companies.* |
| **Future Schedule** | *The project has a programmed duration if 12 months,* |
| **Financing Plan** | *The financial plan for the Project is:*  *a) CORFO*  *b) University own funds*  *c) Regional Government Funds (GORE).*  *d) Ministry of Education of Chile*  *e) Donations from technological companies* |
| **Financing and Attracting Investment Plan** | Corfo promotes Chile as a destination for foreign direct investment in the global market, articulating the interests of foreign investors with the business opportunities that the country offers. We provide world-class services in line with the country's economic development policies. |
| **Land Acquisition** | *Acquisition of land, licenses and permits is not required for the project.* |
| **Project Participants Selection** | 4.7 How to Select Investors and Project Participating Companies  *Chilean public procurement system:*  *a) public bidding,*  *b) private bidding,*  *c) direct dealings and*  *d) framework agreement.* |
| **4. Others** | **Related Departments/**  **Organizations** | Generation of contact with the South Korean commercial agency Kotra, who has offered us the possibility of applying and constant support on program inquiries. |

ATTACHMENT No.3

*※ Must not exceed 20 pages*

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| ○○ Smart City Project  Proposal (full version) |

\_\_\_\_, \_\_\_\_, 2021

Ministry of \_\_\_, \_\_\_\_\_\_

**1. Project Outline**

1.1 Project Name

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| ***Master Plan for a Smart Campus of the University of Santiago of Chile:***  ***A Living-Lab approach.*** |

1.2 Project Summary

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| *Location: Campus of the University of Santiago de Chile, Estacion Central, Santiago, Chile*  *32-hectare campus of the University of Santiago supports 8 faculties, a sports area with a stadium, and multiple green areas. The user population of campus space is 25,000 people, with an approximate 23,000 students, who use a total of 217,839 m2 of constructed buildings. Of this number, 27,177 m2 correspond to 450 laboratories and workshops that provide services to the USACH community. The main areas of work in the operation of the campus are:*  *- Administration and management of energy and water resources.*  *- Safety and mobility for pedestrians, vehicles and services within the campus.*  *- Maintenance of green areas and recreational spaces*  *- Maintenance of laboratory buildings, rooms and offices.*  *- Distribution of operating inputs of the various units*  *- Solid waste management*  *- Security and access control*  *- Cleaning and gardens maintenance services.*  *Scope of the project: Urban planning and pilot projects implementation.*  *Format of the technical assistance: Master planning, Feasibility study and Pilot projects implementation.*  *Site map with a brief demonstration of the area conditions:*  *3d gral.jpg*  *General view of the Campus.*  *PLANO BASE 1.jpg*   |  |  | | --- | --- | | **Project Summary** | | | Name of the Project | *Master Plan for a Smart Campus of the University of Santiago of Chile: A Living-Lab approach.* | | Location of the Project | *Central Station district, Santiago of Chile.* | | Project Site Area | *0.32* (km2) | | Project Schedule (Period) | *12 months ( 2/2021 - 1/2022 )* | | Current Status / Usage of the Site | *University Campus* | | Other Info |  | |

1.3 Implementing Agency / Relevant Institutions

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| * *Republic of Chile / CORFO, belonging at Ministry of Economy, Development and Tourism* * *Corporación de Fomento de la Producción (CORFO)/Dirección Regional Metropolitana/Director Regional Metropolitano/Alvaro Undurraga* * *Fundación País Digital/ Sé Santiago Ciudad Inteligente/ Gerente Programa / Luz María García (Tel. +569-8159-0539, email luzmaria@paisdigital.org)* * *Universidad Santiago de Chile / Programa Centro Smartcity-Lab / Director / Dr. Pedro Palominos (Tel. +569-6677-6846, email: pedro.palominos@usach.cl)* |

**2. Summary of K-City Network Application**

2.1 Project Type

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| *The project of an Intelligent Campus for the University of Santiago, requires a particular and strategic view. An university campus must establish a balanced relationship between academic and research activities, but also with the operational activities of the university territory. We propose to achieve this by developing a Living Lab in the campus, allowing the interaction between the different actors to co construct innovative solutions for the campus territory.*  *A Master plan for the campus of the University of Santiago de Chile is proposed, to transform it into an intelligent territory, through the initial implementation of a Living-Lab. This experience will allow experimenting with the integration of technologies to the territory, but also the development of a participatory process where all the actors of the university community can collaborate from the different areas to propose and collaboratively build responses to the territorial challenges of the campus.*  *For this, the communications infrastructure will be improved, to establish an integrated network that allows communication of the various components of acting and sensing of the system (smart lights, sensors, smart irrigation, smart security, etc.) to address and improve campus services. And at the same time, this infrastructure will allow the development of academic and research experiences with students, researchers and campus administrators, with the aim of developing initiatives of common interest in the campus space.*  *This will have an impact on the quality of life of the university community (actors of the territory), product of the development of applications and / or city solutions that can be tested before being implemented in a larger territory (city) and also be a showroom so that technology companies associated with the university can develop empirical tests of their technologies and be able to present results applied to a real territory to their potential clients.*  *The University of Santiago is a complex institution, where 8 faculties organize a total of 73 undergraduate careers, 57 postgraduate programs, with 23,000 students and 2,626 academics in a territory of 32 hectares. The integration potential of the various disciplines and research areas that coexist in the campus territory, makes the development of an intelligent territory detonated by a Living Lab, an important initiative for the advancement of interdisciplinary work and the integral development of the University. Along with this, the development of a smart territory pilot of a Living Lab will be an opportunity to present technological integration processes in university research to achieve innovative smart city solutions, which can be replicated in other national campuses or in other areas urban, as well as commercialized in association with private companies in the industrial area.* |

2.2 Required Format of the Technical Assistance

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| *The required format for the Technical Assistance would be to assist in the development of the concept plan of the Living Lab for the campus USACH, and in the design of the Master Plan for the technological implementation of the systems involved in enabling a smart territory. The format of the technical assistance corresponds to 3 consecutive stages:*  - *The generation of a Master Plan to achieve an intelligent University campus from a Living-Lab approach, associated with the United Nations Sustainable Development goals of the 2020 agenda. Considering the implementation of technological communications systems, like a infrastructural support of 5G mobile network or others, the development of sensor-acting systems on the territory, data management (Big Data), and the development of collaboration and participation projects to generate innovation*  *- The development of a feasibility study of the Master Plan and the associated Living Lab, in terms of technical, economic and financial viability. The analysis of financing management, survey of technology providers and public-private partnership models, and association with state and international financing programs.*  *- The methodological development for the implementation of a Living Lab pilot, defining stages and objectives, training mechanisms for stakeholders and administrative management. And next to this, the implementation and technical execution, stages of development, testing, execution and evaluation.*  *The development and implementation of the master plan through the Living Lab for the USACH campus, will be integrated into the processes currently under development at the university, by the Smart City LAB research center and the 5G working team.* |

2.3 Scope of the Technical Assistance

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| *The scope of the technical assistance to be developed will correspond to the technical assistance for the formulation of the master plan for a Living Lab on the campus of the University of Santiago, considering advice for:*  *- identification and evaluation of technological components.*  *- methodological definition for feasibility assessment*  *- analysis of similar experiences and state of the art*  *- training for stakeholders*  *- Methodological definition for the development of the Living Lab pilot.*  *Three work stages are proposed: master plan development, feasibility study and pilot development.*  *- Master Plan: That considers the investigation of basic data, definition of the projects to be carried out, associated with the sustainable objectives of the United Nations, in the scope of a Campus Living-Lab.*  *- Project implementation system, technical feasibility study and project investment plan, as well as partners or strategic alliances to carry them out (public and / or private organizations).*  *- Implementation of pilot Living Lab in the territory of the University of Santiago, identification of intervention areas, definition of project typologies and participatory methodologies, technological implementation, operation and evaluation.*  *It is expected that the technical assistance will allow the incorporation of the experience developed by the "Smart City Korea" initiative and specifically the Campus Challenge, in the sense of being able to present and commercialize university research content and innovative smart solutions to other university campuses and regions through industry- cooperation academy.* |

2.4 List of Resources That Can Be Provided

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| *The list of support resources for Korean consulting would be as follows:*  *a) Office physical space to work within the campus of the University of Santiago, with internet connectivity.*  *b) Secretary support to coordinate meetings with local institutions*  *c) Support associated with obtaining data in the field, surveys, statistics, etc.*  *d) Safe travel to visit the university campus. It is important to notice that the University has an emergency contingency plan for the COVID pandemic situation, allowing restricted access to the facilities, and carrying constant testing for the campus personal.*  *In relation to potential local consultants or organizations that support the basic information gathering, there is the Smart City Lab Center of the University of Santiago, Sé Santiago, ACTI (Chilean Association of Information Technologies), Chilean Association of Digital Transformation AG, among others .* |

2.5. Other Instruction or Request

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| *Other Korean institutions that can participate in the project are private companies that develop technologies applicable to the development of smart territories, specifically those dedicated to:*  *- communications and networks, 5G and sub 1Ghz radio frequency systems.*  *- development of sensor systems of various types to capture ground information.*  *- development of smart lighting systems for public spaces.*  *- development of Big Data management systems and data management centers.*  *- other similar.*  *We expect that the technical assistance will help to identify and contact specific institutions or private stakeholders to invite to participate in the project.* |

**3. Necessity and Current Status of the Project**

3.1 Current Status of the Site and Rationale/Necessity of the Project

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| *The 32-hectare campus of the University of Santiago supports 8 faculties, a sports area with a stadium, and multiple green areas. The user population of campus space is 25,000 people on a typical day, with an approximate 23,000 students, who use a total of 217,839 m2 of constructed buildings. Of this number, 27,177 m2 correspond to 450 laboratories and workshops that provide services to the USACH community.*  *The complexity of the various academic, teaching, research and operational activities in the campus area make it difficult to size and control the resources involved in the operation of the different systems of the university. The main areas of work in the operation of the campus are identified:*  *- Administration and management of energy and water resources.*  *- Safety and mobility for pedestrians, vehicles and services within the campus.*  *- Maintenance of green areas and recreational spaces*  *- Maintenance of laboratory buildings, rooms and offices.*  *- Distribution of operating inputs of the various units*  *- Solid waste management*  *- Security and access control*  *- Cleaning and gardens maintenance services.*  *When facing the development of a Living Lab in the territory of the campus, it is proposed to develop a systemic approach that allows integrating the various areas of interest in the territory, considering the participation of all the actors of the university community.*  *The University of Santiago has a strategic development plan for the year 2030, which proposes as one of the fundamental objectives, responding to climate change considering the SDGs (sustainable development goals). The efficient use of energy and resources, the environmental sustainability of the exterior and interior spaces of the campus, the efficient management of the various systems present in the university territory, are objectives of this plan, and the development of a Living Lab as a starting point for the development of a smart campus, will allow dimensioning the actions necessary to face these challenges, involving the various actors and generating an advance in the institutional culture to create a collective awareness of the university community about these problems.*  *The priority areas of development for the proposed Living Lab arise from the various systems identified, and correspond to:*   * *Mobility System: Considering public road networks external and internal to the campus, accessibility and security control, cycle paths and sustainable mobility, and air and noise pollution associated with mobility.* * *Network System: electrical, water and gas service networks, communications, considering, intelligent measurement, reaction to failures, performance analysis,* * *Collaborative systems: considering shared use spaces, creation of shared work areas and their impact on the campus and on the public space.* * *Environmental System: considering the environmental conditions that affect the campus territory such as sunlight, natural ventilation, rain and others.* * *Green Areas System: considering the effect on environmental quality of public spaces, heat islands, control of plant species, intelligent irrigation and efficiency in the use of water.* * *Climate System: considering the behavior of variables such as temperature, humidity and wind, and their effect on the environmental comfort of users of the university area both in open and closed spaces.* * *Social Use System: considering pedestrian mobility behaviors, security in public spaces, evacuation mobility in emergencies, intensity of use of public space according to activities and identification of dominant routes in campus spaces.*   *In all these systems, it is possible to determine fields of research and experimentation where the various types of actors can collaborate, both from academia and research or from the campus operation, as well as from the private area.*  *The development of a Master Plan, the analysis of the feasibility and the implementation of a Living Lab pilot in the territory of the USACH campus, will allow the execution of various participatory projects co-built by all the actors in the territory, which will allow the experience to be scaled up to other areas of the campus. This experience will also allow to establish the methodological bases to replicate it in other urban contexts, ensuring the training of various specialists in particular smart city issues.*  *This initiative is consistent with the guidelines set forth in the CNDU (national council for urban development), in the National Urban Development Policy, where in its commitments it establishes the need to define actions to respond to climate change to ensure the urban sustainability of national cities.*  <https://cndu.gob.cl/download/politica-nacional-de-desarrollo-urbano/>  (pág. 47) |

3.2 Relevant Upper Plan and Implementation Plan

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| *The vision that we propose for the development of a Living Lab on the campus of the University of Santiago corresponds to the understanding of the university territory as an Ecosystem composed of multiple systems that interact, in a co-creation approach, integrating public and private actors in the research and innovation activities of the university community, placing the inhabitants of the university space at the center of innovation.*  *In this way, a University Living Lab can be understood as a form of government, or experimental governance of the territory, through which the actors of the academy, research and campus operation, develop and test technologies, products, services and ways of life, to produce innovative solutions to problems of the university space to face challenges such as climate change, resilience and sustainability.*  *A University LIVING LAB must consider:*  *- Be participatory, include all actors in the community.*  *- Develop experiment and testing in a real environment, considering the uncertainty.*  *- Promote interdisciplinary work*  *- Involve the institutional, public and private sector.*  *The objectives for the development of a Living Lab on the USACH campus must consider the synergistic interaction of at least the three fundamental areas of university work; research, teaching, and campus operation; In order to achieve an interdisciplinary work space.*    *The expected results of the development of a Living Lab on campus correspond to a set of collaborative experiences between actors from all these areas to propose cases and innovation models that provide answers to problems present in the territory.*  *This type of initiative is part of urban and regional governance and management policies currently under development in the country. The next process of decentralization and election of regional governors by popular election will imply defining management processes with a focus on a more participatory urban management, where the local actors of the territory will play an important role in the generation of proposals for the territory.*  *It is expected to make a contribution to national urban management, and participate in the formulation of methodological plans and the implementation of smart city models in the different regions of the country. To achieve this, there is a collaboration agreement with the GORE (Regional Government) of the Metropolitan region. Thus, the experience to be developed on campus may generate an escalation towards national policies.* |

3.3 Current Project Progress

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| *The development of a smart campus has been an initiative proposed for several years at the University of Santiago. To date, various studies and pilot plans have been carried out regarding some specific areas of work to implement it, but generally in a partial and disaggregated ways. Among other initiatives, it is possible to highlight, distributed photovoltaic generation projects on campus building roofs, solid waste management, security plans and access control, air quality measurement on campus, among others. But these initiatives have generally been developed by research groups without a coordination towards an integrated development of the campus space.*  *The research center, Smart City LAB USACH, was formed in 2015 in order to develop inter and trans disciplinary research on smart city issues, and has been forming work teams from various disciplines such as: engineering, architecture, urban planning, psychology, computing, geography, and others. Among other studies carried out by the center, in 2019 the development of a consultancy for CORFO began, aimed at developing a methodology for the implementation of enabling infrastructure for smart cities. This study allowed to identify the technological, technical, political, legal and economic variables involved in the development of a system for the implementation of an open smart city in the national reality of Chile, and as a result delivered a methodological proposal for the implementation of this type of urban projects.*  *During the development of this expert assistance to CORFO, the implementation of a pilot was designed in an urban area of the city of Santiago, involving public actors of the local government, private parties as providers of technological solutions, and users of the territory as subjects of analysis for the identification of the objectives of the project. This experience was truncated by the social events of the end of 2019, but at the beginning of 2021, the possibility of transferring this initiative to the University campus was raised.*  *This year 2021 the integration of other initiatives to this objective has been proposed, forming a working team that is dedicated to the formulation of a smart campus project that considers the implementation of 5G communication networks and others, and the development of a pilot of Living Lab in one area of the campus. This initiative has the support of the Rectory for its development.*  *Currently, methodologies for raising objectives are being defined in a participatory way, to achieve the identification of a specific area of implementation within the campus, and together with this the definition of priority work topics for the university community.*  *Various actions have been developed that allow generating a work base for the implementation of the Living Lab on the University campus:*  *- Development of various undergraduate and master's theses on relevant topics for implementation.*  *- management of technology donations from private companies.*  *- management for the implementation of 5g networks on campus.*  *- Publication of the methodological guide of master plans for enabling infrastructure of smart cities.*  *- creation of a working group dedicated to the management of a smart campus pilot project.* |

**4. Project Implementation Plan**

*\* Write on the follow-up project of K-City Network Program or project aligned with K-City Network Program.*

4.1 Project Amount

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| The total estimated cost of the Project is US $ 402,984, which is broken down as follows:    The details of the costs are in:  a) Annex: Cost of labor and administration expenses  b) Annex: Cost and Investment of the pilot projects |

4.2 Project Structure

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| *The structure of the Project is based on three stages which are:*  *a) Master planning: Funding entity of the K-City Network Plan: Global Cooperation Program 2021. Technical entities of the Pais Digital Plan (technical counterpart) and Smartcity-Lab of the University of Santiago (Project executor).*  *b) Feasibility study: Funding entity of the K-City Network study: Global Cooperation Program 2021. Technical entities of the Study: País Digita (Technical counterpart) and Smartcity-Lab of the University of Santiago (Project executor).*  *c) Pilot projects implementation: Funding entity of the K-City Network Plan: Global Cooperation Program 2021; Technical entities of the implementation: Pais Digital (Digital Country) (Technical counterpart); Smartcity-Lab of the University of Santiago (executor of the project) and private company that is awarded the tender for the implementation of the works.*  *The operation, maintenance and viability of the Project once implemented will be in charge of the University of Santiago de Chile and donations from Chilean or foreign companies.* |

4.3 Future Schedule

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| *The project has a programmed duration if 12 months, according to the Gantt Chart, (also in anexx Gantt PROYECTO -CORFO-K)*    *The project has 3 important milestones that are:*   1. *Definition of Bases for the Construction of a Smart Campus under the Living Lab approach. By month 6 of the Project.* 2. *Preparation of the technical-economic feasibility study document, by month 8 of the Project.* 3. *Evaluation of pilot results and Final Report, by the 12th of the Project.* |

4.4 Financing Plan

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| *The financing scheme is proposed under a public-private figure, between CORFO RM, Fundación País Digital (Sé Santiago), and Universidad de Santiago de Chile (USACH). Under this figure, financing is proposed with a 60% contribution from South Korea, and a 40% contribution leveraged by the participants themselves.*  *The financial plan for the present and future development of the Project is as follows:*   1. *Corfo will be the total administrator of the project's funds, providing the necessary resources to the project's co-executors and associates to effectively and efficiently achieve the project's objectives.* 2. *University own funds, given that by applying the pilot projects associated with smart lights, they can generate savings of approximately 55% of current consumption in that item. In the same way, savings from projects associated with gray water recycling are considered.* 3. *Line of financing by application from the University of Santiago to Regional Government Funds (GORE).* 4. *Line of Financing by the Ministry of Education of Chile, for example, by the Institutional Development Funds (FDI), since there is a change in the teaching-learning process by having some laboratories under the Living-Lab concept.* 5. *Sources of financing by donations from technological companies to the University of Santiago, so that their products in use in real environments can be shown to potential clients and also promote their technologies in the professional training of students.* |

4.5 Financing and Attracting Investment Plan Including Private Capital

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| *The financing plan and attraction of funds, is framed mainly in public-private relations, which are oriented under a common view of social, environmental, economic and territorial development. This relationship of multiple entities also implies constant work for the acquisition of complementary financing lines that successfully ensure the development of the project's objectives, seeking to ensure its continuity. The foregoing is framed by a paradigm shift at the level of development of policies and social projects that seek to generate an impact of sustained and long-term scope.* |

4.6 Land Acquisition and List of Needed Licenses and Permits, and Institutions in Charge

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| *Since the project will be developed within the territory of the university campus, and with the support of the operational and administrative areas of the university, the acquisition of land, licenses and permits is not required for the project.* |

4.7 How to Select Investors and Project Participating Companies

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| *The Chilean public procurement system is configured as a circuit that clearly recognizes three moments:*  *1) purchasing entity,*  *2) information system and*  *3) conclusion of the contract.*  *It is a normative system configured by different hierarchical sources, the main of which are Law No. 19,886, on the Bases on Supply and Service Contracts (Procurement Law or LCP) and its regulations, contained in Supreme Decree No. 250 , 2004, of the Ministry of Finance. Both regulatory bodies constitute the core of the hard law of public procurement. For its part, soft law is essentially made up of the Procurement Directives of the Public Procurement and Contracting Directorate (DCCP).*  *The Procurement Law applies to the organs of the State Administration, which are generically identified in art. 2 of the Law of General Bases of the State Administration. All onerous contracts entered into by the organs of the State Administration, destined to the supply of movable property and services that are required for the development of administrative functions, must be subject to the Purchasing Law, except for the exceptions that the legal body prescribes.*  *The DCCP, the CGR, the Budget Office (Dipres) and the Public Procurement Tribunal (TCP) intervene directly and daily in the configuration of the public procurement system.*  *The operation of the purchasing processes is divided into 4 main modalities:*  *a) public bidding,*  *b) private bidding,*  *c) direct dealings and*  *d) framework agreement.*  *Each modality has specific procedural and administrative rules so that contracts for the supply and provision of services are perfected. In all these modalities, according to the hypothesis of the amounts involved, the intervention of the CGR is foreseen, both ex ante (taking account of the administrative acts equal to or greater than those established in Resolution No. 8, of 2019, of the CGR ) as ex post, by virtue of auditing processes.*  *The development and implementation of a Smart City project finds opportunities to be deployed in the State's purchasing instruments. For its part, ICTs are key and essential work tools for the configuration of the enabling network for Smart Cities. In this sense, the Purchase Directives provide the guidelines for acquiring information technologies or cloud services, taking into consideration the principle of technological neutrality of the State.*  *The goods and services that make up the core of smart city technologies are likely to be acquired through direct dealings, in order to opt for technologies that are functional to global planning and on an incremental scale. However, for these purposes the considerations must be justified and accredited in the administrative act. Likewise, they must be framed within the hypotheses that the law and the regulations provide for the origin of the deal or direct contracting.* |

4.8 Other Available Supports

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| *In relation to this issue different supports, for example:*   1. *Political: The Government of the Metropolitan Region (GORE) has promoted the development of Smartcities projects and it is of interest to have a pilot at the regional level for demonstration purposes that can promote Smartcities projects in the different communes of the region.* 2. *Education: The Rector of the University of Santiago de Chile is the President of CRUCH (Council of Rectors of Chilean Universities) and is a promoter of ICTs in higher education and especially with this project with the focus of Living- Lab for applied research and the co-creation of disruptive products and services within university campuses.* 3. *Business: The Chilean Information Technology Association (ACTI), has been a promoter of Smartcities projects, in fact, it made a donation of smart lights to the pilot project on Bandera Street in Santiago, which was developed by CORFO. This project can be interesting since associated companies can donate technology to the project so that their clients can see the performance of their technologies in real spaces (Showroom)* |

**5. Others**

5.1. Related Korean Government Ministries and/or Cooperative Institutions(Companies)

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| *We have recently established contact with Kotra, a commercial agency belonging to the Government of South Korea. In this process, they have offered sources of financing to initiate a dynamic of international cooperation for the promotion of smart cities, integrating in this process the Chilean human capital, together with the experience recognized worldwide in this field by South Korea.* |