Abstract

This paper stresses the main results of a study on the modalities and benefits of collaboration between universities and local governments. It has been prepared in the context of the Erasmus + CityLab project: Engaging Students with Sustainable Cities in Latin America which aims to stimulate the development of active pedagogies in undergraduate and postgraduate courses promoting collaborative work of students with representatives of local governments, based on a problem-based teaching methodologies. But, the object of this study goes beyond the pedagogical task of the universities. It aims to understand the conditions in which this collaboration is developed and its impact. A questionnaire was applied to 80 institutions in Latin America (most of them) and Europe. The most interesting responses were selected to develop 20 in-depth interviews with university representatives. Then, a comparative analysis was carried out to better understand the main dimensions of the collaboration. The small size of the sample does not allow it to be representative. However, it allows to stress some aspects that foster successful collaborations, since there is a common pattern in several of the analyzed cases. At the same time, the heterogeneity of cases and their contexts help to understand the factors of success and the obstacles of collaboration. It is not intended, in any way, to offer a model, but to present some hypotheses and points of reflection that might help city and university leaders to improve their current collaboration. This reflection is based mainly on the perception of the universities and the perspectives from the academy, derived from the surveys and interviews developed with a group of them and will serve as the basis for a later work with local governments.

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1. IT TAKES TWO TO TANGO. Modalities and benefits of collaboration between universities and local governments

This paper aims to present the main results of the study on the modalities and benefits of collaboration between universities and local governments. It was born in the context of the Erasmus + CityLab project: Engaging Students with Sustainable Cities in Latin America\(^1\) which aims to stimulate the development of active pedagogies in undergraduate and postgraduate courses promoting collaborative work of students with representatives of local governments, based on a problem-based teaching methodology. But, the object of this study goes beyond the pedagogical task of the universities. It aims to understand the conditions in which this collaboration is developed and its impact.

A questionnaire was applied to 80 institutions in Latin America (most of them) and Europe. The most interesting responses were selected to develop 20 in-depth interviews with university officials and, in some cases, local governments authorities\(^2\). Then, a comparative analysis was carried out to better understand the main aspects of this collaboration.

However, it allows to stress some aspects that foster successful collaborations, since there is a common pattern in several of the analyzed cases. At the same time, the heterogeneity of cases and their contexts help to understand the factors of success and the obstacles of collaboration. It is not intended, in any way, to offer a model, but to present some hypotheses and points of reflection that might help city and university leaders to improve their current collaboration.

This reflection is based mainly on the perception of the universities and the perspectives from the academy, derived from the surveys and interviews developed with a group of them and will serve as the basis for a later work with local governments.

1.1 Origin of collaborations: individual or institutional initiatives?

Reaching a win-win collaboration requires the will of both local government and university representatives. The study carried out shows that the initiatives come from the university in general but that they only thrive when they find fertile ground.

Naturally, universities that are born with an impact mission in the territory are more open to this type of collaboration. We can characterize them as regional universities, with academic programs and services related to the economic actors and the social context of the region in which they exist.

On the other hand, the interest of local governments authorities is greater when the region is facing a reconversion process for which it does not have yet the necessary human resources. They are often medium-sized or small cities. In many of the situations they are polycentric regions with several smaller urban centres, without an administrative structure that coordinates their policies and resources. In the case of larger cities, collaboration is focused on functional or zonal sub-structures.

There seems to be a directly proportional relationship between the administrative structure of the country and the size of cities open for collaboration: the greater the centralization

\(^1\) The CityLab project, funded by the European Commission, took place between 2015 and 2018, integrated by 17 European and Latin American partners, under the coordination of the University of Antwerp, Belgium. More information https://www.uantwerpen.be/en/projects/citylab/

\(^2\) The list of the universities interviewed is the following: Universidad Austral de Chile, Chile; Universidad de la Sabana, Colombia; Instituto Tecnológico de Costa Rica, Costa Rica; Universidad de Aveiro, Portugal; Universidad Rovira I Virgili, España; Universidad de Talca, Chile; Universidad Nacional Autónoma de Nicaragua, Nicaragua; Universidad de Caldas, Colombia; Universidad de Buenos Aires, Argentina; Universidad Nacional de Córdoba, Argentina; Universidad Simón Bolívar, Venezuela; Antwerp University, Belgium; Université de Technologie de Compiègne, France; Instituto Tecnológico y de Estudios Superiores de Monterrey, México; Pontificia Universidad Católica de Valparaíso, Chile; Universidad Autónoma de Yucatán, México; Universidad de Sonora, México; Universidad del Salvador, Argentina; Universidad Minuto de Dios, Colombia.
of the national system, the greater the possibility of collaboration with larger cities that do not have the attributions, nor the trained personnel to face the challenges. The more decentralized the system is, the cooperation is focused on smaller cities or sub-structures of larger cities. In many situations, collaboration responds to the need of local governments to outsource certain functions (administrative logic), but in others, responds to the development of competencies to enable the acquisition of greater powers and resources (political logic).

Five types of situations have been identified that stimulate the interest of the local government authorities to cooperate with the University:

- a socio-economic crisis;
- approval of new regulations or policies, for example, regarding sustainable development goals and their compliance at the local level,
- the development of public policies with financial incentives,
- the desire to innovate in the planning processes and in the design and implementation of projects;
- the interest in addressing social requirements (employability, equity, accessibility, mobility, etc.).

In some of the cases studied, cooperation with the public sector has a greater impact on the territory and social organizations; when the private sector is also involved and the relationship becomes triangular. The private sector gains competitiveness, the university acquires greater relevance and legitimacy, and the local government improves the socio-economic sustainability of its region. When cooperation is based on these three pillars, it is more likely to transcend possible political changes and achieve a greater impact on the territory.

On the side of the universities, the leadership of these kind of collaboration come from the institutional level (Principal’s team) or from the academic units or support structures. To a large extent, this depends on the institutional culture. In many of the analysed cases, there is a sum of partial initiatives until the institution integrates all such partial efforts into a strategic cooperation plan encompassed generically within its "third mission". In general, cooperation does not begin with a strategic plan if it is not supported by specific experiences and actors. The ideal combination of stable collaboration is based on a clear institutional mission (for example, integration in the pedagogical model), the existence of interface units and the involvement of academic units. We can consider this combination as a "golden triangle".

In the case of the University, the triggers can be multiple. In general consultancy opportunities, continuous training, or the interest in offering students a context in which they could apply the acquired knowledge. In this sense, the opening of the University to its environment is a fundamental cooperation stimulus for academics. Nevertheless, although this mission is often declaimed not always it is reflected in concrete operations.

A particularly interesting aspect is the role of the staff that hold a position at the local government and at the same time are linked to academic activities of the University. They function as a "revolving door", with interchangeable roles that allow them to communicate with academia and local politics with equal efficiency, and therefore play a fundamental articulating role.

1.2 Environment and territory: characteristics of the cooperating regions

In small or medium-sized cities, the most fertile territories for a cooperation between the local government and the universities arise from the need of a reconversion, in general by the decline of a productive activity, typically primary. In larger cities, governments and
universities share common problems of cities (mobility, waste, water use, regeneration of urban spaces). In this context, the concern to develop an "intelligent specialization" arises.

The context determines to a large extent the areas of intervention for which cooperation begins. These could be specific interventions with a direct impact, or of a more global nature. In the first group, we find the development of tourism, technological development linked to the creation of jobs, urban planning and even issues directly linked to the objectives of sustainable development: solid treatment, water management, mobility, urban planning, etc. In one case (Rovira I Virgili University) the topic of climate change was addressed but linked to vine cultivation, in direct relation with the private sector.

Among the actions of a more global nature, tasks are related to the revision of regulatory plans, monitoring of investments, development of human resources at municipalities and development of strategic plans.

The characteristics of the territory might have an impact on the type of strategy that makes possible the collaboration. Starting from a typology of regions that are below or above the national GDP combined with situations of economic growth or decrease four types of situations can be identified:

1. Cities with lower GDP, and in a situation of decrease.
2. Cities with lower GDP, but in growth situation.
3. Cities with equal or greater GDP in growth situation
4. Cities with equal or greater GDP in a situation of decrease.

The following table shows the situation of the cases studied. None of the cases analyzed correspond to cities or regions in decline (situation 1 and 4). Some of them are in situation 2, regions in growth but with a regional GDP per capita below the national average. This correspond to cases mainly in Colombia, Chile, Portugal and France. On the other hand, some represent cities or regions with a GDP per capita higher than the national. This is mainly in Spain, Argentina, Belgium, Mexico. In general, the contribution of universities is to a large extent, conditioned by the characteristics of the environment.

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<tr>
<th>Cities with lower GDP, but growing.</th>
<th>Cities with equal or greater GDP in growth situation</th>
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<tr>
<td>Cundinamarc, Colombia</td>
<td>Tarragona, Spain</td>
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<td>Caldas, Colombia</td>
<td>Córdoba, Argentina</td>
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<td>Maule, Chile</td>
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<td>V Region, Chile</td>
<td>Ciudad Mexico, Mexico</td>
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<td>Aveiro, Portugal</td>
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<td>Oise, France</td>
<td>Yucatán Mexico</td>
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1.3. Scope of interventions in terms of human and financial resources and duration.

In a few of the analyzed cases the interventions of the University have depended exclusively on resources mobilized by the University. Collaborations achieving an impact have always count on resources from the public or private sector. In many cases, the University and the local government have come together to cover project financing. In other cases, both organizations have responded together to a national call for a competitive fund, a European or an international fund. In some cases, financial support is multi-year such as the case of Uniminuto in Colombia, Cordoba in Argentina, while in others, such as Rovira and Virgili, are renewable annual contracts, which can be explained by a political interest in assuming functions that until then depend on a supra regional instance.
Financing is a decisive factor although not the only one, for the development of significant and sustainable initiatives. In general, such financing depends on the relevance of the proposed initiatives. The university-local government collaboration has a positive impact for both parties: it allows the local government to increase the amount of financed projects and stimulates the diversification of funds at the University. Although there is no evidence that this has occurred significantly in the cases analyzed, the diversification of financing is one of the characteristics identified by Burton Clark as important for the development of an entrepreneurial university (Clark, 1998).

Another decisive factor for achieving more extensive interventions is trust building. All the analyzed cases show that this trust takes time but once it is achieved it allows stabilizing the collaboration and multiplying it on several fronts. In short, it also affects scalability. It starts from an initial nucleus and progressively new actors are incorporated thanks to an articulating role of the University (in particular at polycentric regions where there is no association of municipalities or the region does not have sufficient power). As for initiatives on a larger scale, usually it becomes necessary to establish a specific organization. This institutionalization in turn helps to increase the scalability of initiatives.

In several cases such as those of Rovira I Virgili, Sabana, El Salvador, Yucatan, Aveiro, Caldas and Nicaragua, the financing of public or private international organizations acted as trigger for the collaboration. Its importance is double. On the one hand, it gives access to freely available resources. That is, they are not committed to recurring tasks on the part of local governments. On the other hand, it is well known that international financing enhances the integration among diverse stakeholders around a common objective. A third favorable impact of the intervention of international financing organizations is to "shield" the projects against eventual political changes.

1.4. Effects and Impacts of collaboration

Beyond the concrete impacts of each initiative the collaboration brings more general benefits from the point of view of the local government: the improvement of the profile of the region, the attraction of investments, the attraction or retention of population, a greater tax collection and development of productive activities.

The fundamental mission of the university is to generate human resources. First of all, in several of the cases analyzed, it has been perceived an improvement in the development of human resources and the hiring of graduates in the local government, who often are familiar with local governments thanks to the completion of an internship; for example, in the case of the University of Talca in Chile. Secondly, the private sector also benefits from a greater availability of qualified human resources thanks to graduates of universities or to the continuous training of its staff. In part of the cases, they offer continuing education activities even if this doesn't acquire a central dimension within the collaboration strategy. Thirdly, the training of human resources has an impact on the encouragement of entrepreneurs, particularly significant in regions with relatively high youth unemployment rates, as in the cases of Nicaragua and Caldas, Colombia. When the incubation activity acquires greater maturity it may include access to seed and risk capital.

Five collaborations had as objective or expected impact the improvement of infrastructure: Simon Bolívar (Venezuela); Córdoba (Argentina); Buenos Aires (Argentina), Compiègne (France) and Antwerp (Belgium). These are specific interventions ranging from the improvement of housing, buildings or public spaces, to others of greater scope, such as the design of proposals for territorial planning or the creation or modification of urban regulations. In these, the technical capacity of the University is used for phases of diagnosis, design and development of proposals. In several of the cases, the local government also takes advantage of the technical capacity, the legitimacy and the neutral role in politics that the University can play to stimulate participatory planning...
methodologies such as *Participplan* in Buenos Aires (Argentina) and *Habitat Popular* in Cordoba (Argentina).

The *environmental dimension* seems to be an emerging theme of collaboration between universities and local governments. In the cases, the Universities can play a role stimulating with the results of their investigations the discussion on environmental issues in the political agenda as in the case of the University of Sabana (Colombia) or the conservation zones at the University El Salvador (Argentina). University can support the development of the agenda of sustainable development goals, particularly those related to Climate Change (the case of the Autonomous University of Yucatan, Mexico) or intervening more directly in the resolution of specific problems (the cases of Uniminuto, Colombia and Rovira I Virgili, Spain).

The impact of universities located in peripheral cities and neighborhoods has a stimulating effect on territorial development. In one way or another all the explored collaborations have social effects. However, some acquire more significance when the social impact becomes the initial motivation for a collaboration between Universities and Local Governments. This is the case, for example, of social enterprises generation by older adults in Valparaiso (Chile), the improvement of accessibility for people with disabilities (Universidad Iberoamericana), the improvement of science teaching at primary and secondary schools (Uniminuto) or the improvement of higher education coverage (Caldas, Nicaragua). Other examples are the projects aimed at the reduction of violence rates, such as the case of Jalisco with the *Social Inclusion Centres* or the training of young people in the Colombian coffee sector affected by the conflict.

The University has a direct impact on public governance when it manages to locate its graduates in public positions of local governments. In universities where this is an explicit objective, it’s translated into a continuing education offer for local government officials or internship programs for professionals. In the long term this becomes a fertile ground for the collaboration between both organizations, as in the cases of Talca or Yucatan.

1.5 Disciplines prone to collaboration and interdisciplinary approaches: which ones are more open to establish a collaboration across academic units?

Collaborations have rarely depended on the performance of a single discipline and this is partly a response to the complexity of the problems in the different territories. An interdisciplinary approach is facilitated by some type of structure or unit capable of integrating or channeling the demands between the academic and support units within the Universities, such as the Technological Platforms in Aveiro (Portugal), the Social Innovation Park of Uniminuto (Colombia) and the Entrepreneurship and Projects Unit in Valparaiso (Chile). In general, the greater the link is with the territory and the more concrete are the addressed problems, the greater the facility to establish an interdisciplinary collaboration.

The disciplines most prone to collaboration are architecture and urbanism, political science, public management, civil engineering, electronics and computing, sociology, economics and administration. Other areas are related to the specific environment characteristics, such as tourism, sustainable rural development, urban studies, some of them created exclusively to give interdisciplinary answers to the demands of cities, as is the case of the Urban Studies Centre of the University of Antwerp.

In few cases a virtuous circle has been established between training, research, consulting and continuous training activities. These synergies allow Universities to take advantage of all emerging opportunities but they require an organization that favors them.
1.6 Main competences that the University puts at stake in order to establish a collaboration with a city or local government.

Universities that manage to establish substantive cooperation with local governments put their knowledge, skills and connections at stake.

Their knowledge is directly related to the quality of their academic resources. It is the "Stimulated Academic Heartland" identified by Burton Clark as one of the five characteristics of entrepreneurial universities (Clark, 1998). In some way all the explored cases support this hypothesis.

Their competences are mainly of two types: technical competences and political competences (mainly linked to decision-making). Those universities that manage to put into play both kinds of competences, usually have a strategic vision and knowledge of the environment, backed by top management. This is key when the University assumes a broker role of between different local, private and public entities.

When universities, especially public ones, know how to take advantage of their position, they are perceived as safeguards of stability, continuity and political neutrality, allowing, in some cases, to make alliances that go beyond local governments, involving civil society, companies and other types of institutions, such as international organizations. This can result in a distinctive seal and a comparative advantage of the University over traditional consulting firms that offer advice to local governments in the same areas.

Their connections refer both to their access to national government instances, to other actors of the local environment, as well as to their international connections. The latter are significant, when it comes to supporting the development of tourism or to obtain resources from international cooperation. These connections constitute an asset for the articulating role of the University.

1.7 Obstacles from the University and local government: lack of political will and resources

The main obstacle on the side of local government is the lack of political continuity, which limits the time needed to build trust. In some cases, local government authorities are not fully aware of the challenges facing their environments and in these cases the University must invest itself to gain legitimacy and share analysis or concrete possibilities of progress.

On the side of the University three fundamental obstacles have been identified: insufficient openness to the environment (with consequent disciplinary fragmentation); the lack of flexibility of the pedagogical model (which does not stimulate the participation of students in innovative collaborative initiatives with local governments); and the lack of recognition of the tasks carried out by the academics in the academic load and their progression in the career. In general, strategies for linking and collaborating with the environment are not usually recognized within universities. Teachers who perform well do so by sacrificing work in teaching/research or filling all these requirements with great effort.

1.8 Facilitating elements from the University and local government: incentives, organization, financing.

The main factor facilitating collaboration between universities and local governments is trust. When it exits the relations between both organizations are dynamic and synergetic.

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3 For a development of these three assets in a local context, see Rosabeth Moss Kanter, *World Class, Thriving Locally in the Global Economy*, Simon & Schuster, 1995.
When the University manages to participate in the planning stages of local governments, it increases the likelihood that it will be invited to participate in the implementation phases and thus further extending the cooperation. Another determining factor is having academics who also have functions in local governments, acting as a bridge between organizations with different time scales and detecting needs to offer technical capacities (Universidad Simon Bolívar -Venezuela-, Universidad Nacional de Córdoba -Argentina-, etc.). These people operate as "revolving doors", performing with equal ease in both environments.

When a University knows how to use the academic's competencies to impact its institutional strategy it can even enhance the career of that professor to managerial positions, affecting their teaching activities or research projects as well as the strategy of the schools, faculties and the university third mission (this is the case of the ITESM Mexico and the Universidad Austral in Chile).

Another facilitating element occurs when the University and its campus constitute a laboratory of solutions and innovations. By contributing to the resolution of specific problems the University positions itself as a legitimate actor in areas of interest to local governments. This stimulus can be given through the definition of research agendas on urban problems with the participation of students and teachers.

In several of the case-studies this type of project has set a fundamental precedent for building alliances with the cities top officials and to be invited to participate in projects. We have identified concrete examples in the cases of the Universidad Iberoamericana in Mexico, with the improvement of accessibility for the disabled people that it first implemented in their own campus; ITESM which promoted leadership in students to solve local mobility issues, then establishing the cycle routes. Both cases refer to mobility, but clear examples can also be mentioned in the scaling required by local governments to improve the daily lives of citizens and meet the Sustainable Development Goals.

When the University has a strong third mission's dimension and it is integrated with the academic areas, it creates or strengthens organizational structures with professional staff specializes in the search of external resources for projects of regional impact, it creates incentives for those teachers who develop this type of activities and it improves administrative processes to facilitate access to resources and the development of projects. Some examples showing these facilitating elements are the UBA in Argentina, the Technological Institute of Costa Rica or the PUCValparaiso in Chile.

The development of mixed structures or at least with a representation of the external sector also plays a decisive role: technological incubators, sectoral technological centers, (Virgili), technological platforms (Aveiro). This type of structure confirms the existence of an "expanded periphery", which, according to Burton Clark, characterizes entrepreneurial universities.

1.9 Conclusions

The cases explored for this study show that when Universities and Local Governments join their vision, their energy and their resources, they reach significant achievements. In an initial phase or in the consolidation of specific initiatives, the leadership of universities' principals and mayors is decisive.

Our analysis allows us to anticipate that they are predestined to consolidate and expand their collaboration. Universities and cities have one element in common: they are organizations in transition that must reaffirm their contribution to greater challenges - equity, climate change, social mutations - and in this way reaffirm their legitimacy.
The fulfilment of ambitious goals, as the Sustainable Development Goals, requires partnerships that also include private actors. A common element in the cases analysed is that all the actors stop feeling that they preach in the desert: the real enemy is not globalization but isolation. In particular, for intermediate and small cities the education sector can play a key role in the establishment and consolidation of an international strategy for local governments.

The world is not an even ground, but picky. Beyond phases in which nationalist tendencies seem to win the game, investments, people and ideas will continue to flow and localize in urban agglomerations that offer quality of life, opportunities and human talent. In these scenarios that are simultaneously centrifugal and centripetal, Universities and Local Governments are predestined to consolidate and expand their collaboration. Both are complex organizations, each with their respective visions. The analysed examples show that the collaboration between these two spaces has a positive impact on the territory and life of their citizens.

**Bibliographical references**

