

From Education to Research: The CITTA R&D Unit as a SPTA spin-off

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Abstract

This paper provides a brief account of the creation and evolution of the CITTA R&D Unit, which, in the early 2000s, emerged from the SPTA, the Planning Division of FEUP's Civil Engineering Department (DEC). Attention is given to the birth of the Centre, marked by the convergence of some favourable external and internal conditions, which also shaped its composition, structure, and scientific scope. The CITTA development phase is then characterised. This phase was influenced by the pluriannual evaluation of the FCT in 2008 and, a few years later, by the integration of a large group of researchers from the University of Coimbra, which justified the profound revision of the CITTA's internal regulations. Finally, the paper addresses the Centre's consolidation phase, emphasising the role and importance of the two last pluriannual FCT evaluations, the relative position of the Centre's publication performance compared to similar centres in Europe, and its strategic plan, conceived around the low-carbon cities paradigm. Author Keywords. civil engineering, Porto Faculty of Engineering, Planning Division

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1. Introduction

The celebration of the 50th anniversary of the FEUP's Environment and Planning Division (referred to in the following by SPTA, the Portuguese acronym for Secção de Planeamento do Território e Ambiente) provides the appropriate motivation to address the foundation of one of its most noticeable spin-offs, the so-called CITTA, the Research Centre for Territory, Transports and Environment (Centro de Investigação do Território, Transportes e Ambiente, in Portuguese). The rationale for the emergence of this R&D centre as part of the SPTA's main activities, and a brief account of its evolution over the past two decades, is the primary objective of this paper. Focus will be placed on shaping the institutional setting that can make research happen and thrive. Although research is the main topic of this paper, this is not a research paper. It is just a personal account provided by an engaged participant observer, of which the reader must be duly aware.

2. Inception

In Portugal, and at FEUP as shown later, the turn of the century constituted a promising period for research policy development. The then Portuguese Minister for Science and Technology, Mariano Gago, had an ambitious vision to transform the national higher education system (HES) that, for many years, was showing signs of stagnation, as compared to other more competitive systems in Europe and North America.

It is true that the Portuguese HES was continuously expanding since the mid 1970s to respond to an increasing number of new candidates each year, in a context of a growing economy, particularly since the mid 1980s, and of the country's accession to the EEC (now EU). However, in the Minister's perspective, backed by the most progressive sectors of the academy, the fundamental challenge facing the Portuguese HES was not quantitative in nature, but rather qualitative, and not so much on the education side but, above all, on the research side. For Mariano Gago, the Portuguese universities (public and private) were then more concerned with attracting more students each year, offering an increasing variety of professional and non-professional graduate and postgraduate programmes, some better equipped than others, one should say, then with their fundamental role of knowledge producers and of highly specialised service providers to society. In his view, research had to become a national priority, to transform the Portuguese HES, contributing, at the same time, to the modernization of the national economy, still then very much dependent on low-tech sectors (see Gago, 1990).

As one would imagine, this novel discourse was not well accepted in many academic circles, particularly in the most conservative ones, often associated to the three oldest and most traditional universities of Coimbra, Oporto, and Lisbon. Fortunately, at FEUP, under the leadership of Marques dos Santos and very much in line with the Minister's vision, a quiet but profound institutional reform was under way, accelerated by the move to a brand-new Campus in 2000. Indeed, the old Faculty building, despite its architectural dignity and prime location in the city centre, was already too exiguous to accommodate all the faculty's activities and development perspectives.

At this time, the Department of Civil Engineering had one single research centre, the CEDEC – Centro de Estudos de Engenharia Civil – including all staff members and covering a wide range of research fields from structures, building construction, transports, spatial planning, hydraulics, construction materials and geotechnics. In the periodic (5-year) FCT evaluation that also coincided with the turn of the century, the evaluation panel recommended the subdivision of this large research unit into three or four smaller, but more coherent units, from a scientific perspective.

Putting these different hints together, the timing seemed just right to advance with the creation of a new R&D unit in the field of spatial and environmental planning. It was true that SPTA, throughout the 1970s and 1980s, was a former INIC Centre. INIC refers to the then National Institute for Scientific Research which was in the origin of the present Foundation for Science and Technology (FCT in Portuguese). With a INIC Centre, the SPTA could count with some supplementary funds to support the development of the division's library, and some individual research initiatives, which outputs were published in a series of internal working papers. In the following decade (1990s), the SPTA with the Urbanism group of the Faculty of Architecture put together a Master in Spatial Planning and Urban Design¹ which, some thirty years on, is still running and is consensually considered a rather successful programme in both

¹The Master's in Environmental Planning and Urban Design was founded in 1993 by Profs. Nuno Portas and Fernandes de Sá from the Faculty of Architecture, and Paulo Pinho and Isabel Breda-Vazquez from the Faculty of Engineering.

Faculties. In another words, some valuable research activities were already carried out at SPTA.

However, the conceptualization of a true independent research unit, as a SPTA spin-off, with its own strategy and corresponding budget, and officially recognised by the FCT, was a far more ambitious project. Unsurprisingly, the idea deserved some initial passionate discussions among the more senior staff members, very much attached to the Planning Division. Soon it was realised that the initiative of creating a Planning research unit would benefit from the inclusion of colleagues from the Transport Infrastructures Division, widening the scope of the current research activities carried out by the SPTA group, and gaining all the synergies of putting together the fields of planning and transports.

The idea got a catchy name – CITTA, and rapidly gained wider support, not only within SPTA and the Transports Division, but also at the Departmental and Faculty level. In January 2002, a letter was sent to FCT asking for the pre-registration of a new R&D Centre. Soon after the FCT's provisional approval was received and started all the organizational and bureaucratic procedures to make possible the official launching of the Centre. First it was necessary to design, draft and submit to the Faculty Board, the Centre's internal regulations (CITTA, 2002), including the structure, the organisation and the configuration of the different research groups, the management system, and the role and composition of the Centre's Scientific Council and of the External Advisory Board. By early 2003 the CITTA had been officially approved as a new R&D Centre by the FCT, and able to apply for that year's tender of the national R&D Units' pluriannual financial programme.

3. Development

The first years of the Centre were not easy. In the 2003 FCT evaluation of all Portuguese R&D Centres, we managed to put together 5 small research groups² and a common research strategy exploring the then emerging topics of urban sustainability and energy-efficient transport infrastructures (CITTA, 2003). The evaluation mark was Good, right in the middle of the FCT 5-grade scale. A good enough mark to receive a modest financial support for the following five years and, more importantly, the first recognition of our pioneering initiative of creating an independent R&D centre in Planning and Transports, away from the dominant scientific disciplines of Engineering, Architecture or Geography. A real daring!

Given the small size of the Centre, one of the first management priorities was to create the necessary conditions to increase the total number of its members. As the enlargement of the academic staff was virtually impossible in view of the prevailing strict university rules and financial constraints, the only option left to increase the centre's membership was to attract the best possible PhD students that could later, after three or four years, and as new doctorates, be integrated into the Centre's research teams. Indeed, the implementation of this strategy enabled, in the medium to the long run, the steady and sustainable growth of the Centre, but it was unable to produce practical results in the short run, when it was most needed.

²RG1 on environmental assessment, coordinated by Paulo Pinho; RG2 on urban policies, coordinated by Isabel Vazquez; RG3 on transport management, coordinated by Álvaro Costa; RG4 on traffic analysis, coordinated by A Pires da Costa; RG5 on Transport infrastructures, coordinated by A Sousa Melo.

In May 2008, the first CITTA's annual conference took place (Pinho & Oliveira, 2009). To our knowledge this was the first international conference, organised in Portugal and by a Portuguese R&D Centre, exclusively dedicated to planning research. The conference was a clear success. Counting with the presence and active participation of all the eminent members of the Centre's External Advisory Board³, it was also able to attract the most senior and respected researchers in this field from other Portuguese universities and research institutes. The national and international recognition of this emerging research centre called CITTA was under way.

Later, in that same year, CITTA was subject to the second pluriannual FCT evaluation (CITTA, 2008). By an unfortunate coincidence, two of our senior coordinating members coming from the Transport Infrastructures Division (SVC) had to resign a couple of months before, one due to retirement⁴ and the other⁵ to assume an important management position in a recently created Metropolitan Transport Authority. From five research groups, CITTA was left with only three groups⁶, and less than a dozen senior researchers. The areas most affected were in the transport engineering field, exactly the dominant areas of specialization of the members of the evaluation panel.

The final result was far worse than we could ever expect. CITTA got a grade of *Fair*, fair enough to lose the FCT credit and, with that, the possibility to apply for any of the Portuguese research funding programmes. We had been kicked off from the national R&D network. A real disaster. In the panel's final report, one could read:

"(...) The total number of staff associated with the unit is relatively small (six) and there is clear evidence of the work of the unit being spread too thinly across too many topics.

(...) It is right to observe, however, that the 2007 publications are indicative of an acceleration in publication in journals of international standing.

(...) The level of internationalisation achieved in terms of publications and research projects is acceptable. Similarly, across the unit, there are adequate levels of conference organisation and obtaining of project funding.

(...) Articulation of strategy was weak and, as above, a small unit is split into too many groups trying to work on too many topics. Research focus appeared to be determined by the (not inconsiderable) energies of some key individual staff, rather than as a result of a considered decision. As a result, there is little hope of establishing the critical mass to develop a profile of international excellence." In Evaluation Panel's General Comments on CITTA (CIVE-Norte-Porto-699).

The evaluation results were contested with the full support and active participation of all the members of our External Advisory Board but, in the end, the FCT classification was not changed. The message was clear. In view of the prevailing national research policies, designed to encourage the creation of large research units in dominant research fields, a small research centre like CITTA, on a marginal research field like urban planning and transport policy, was not supposed to thrive as part of the national network of R&D centres.

³Professors: Patsy Healey (UK), Klaus Kunzmann (DE), Kenneth Button (US), Jean-Paul Carrière (FR), David Perry (US).

At present the External Advisory Board includes the following Professors: Cynthia Barnhart (US), Kenneth Button (US) Javier Gutiérrez Puebla (ES), Luca Bertolini (NL), Luis Valente de Oliveira (PT).

⁴Prof. Arnaldo Sousa Melo

⁵Prof. Américo Pires da Costa

⁶RG1 on planning and environmental assessment, coordinated by Paulo Pinho; RG2 on urban planning and housing, coordinated by Isabel Vazquez; RG3 on transport planning and logistics, coordinated by Álvaro Costa.

This death sentence was meant to be a blow to our hopes, but we did not give up. We had invested too much to close down CITTA just because the evaluation panel (in the Civil Engineering area) was not able to see our commitment, the quality of our research work, and the virtues of our project. And this project, as we later wrote in the Centre's website, was the foundation of an innovative, creative, dynamic, and productive European research centre, developing inter and multidisciplinary research, policy, and design oriented, in the complementary fields of Spatial Planning, Environmental Policy, and Transport Planning and Engineering.

In the aftermath of these disturbing evaluation results, one thing was clear in our minds. To pursue the CITTA project we had to make changes to our development policy, looking more intensely to external partners and to EU research funding programmes, the only ones we could apply for in the meantime. And that was precisely what we did. Soon, as we will see, a big problem turned into a big opportunity.

It is true that by then we already had good contacts with quite a number of colleagues and researchers in other European research centres. It was only necessary to embark on common research projects, joining our expertise and experience with theirs. Our participation in the SUME (Sustainable Urban Metabolism for Europe) project⁷, funded by the 7th EU Framework Programme, is illustrative of this policy change. With a total budget of over 3 million euros and coordinated by our Austrian colleagues from OIR – Vienna, CITTA as the second partner in the consortium, managed to receive almost half a million euros. At the time, it was one of the best funded R&D projects in the Oporto Faculty of Engineering, and a total surprise to some of our colleagues because it was coming from a R&D Unit which had been declassified by the FCT.

The returns of this policy change – speeding up the internationalisation of the Centre – started to become visible. Our scientific production increased sharply and CITTA's researchers became a common presence in the most prestigious planning and transport conferences in Europe and also in the US. CITTA's annual conferences became known in Portugal and elsewhere, attracting every year more researchers. The centre was growing, incorporating a young generation of new researchers that, in the meantime, were finishing their own PhD thesis, and attracting researchers from elsewhere in Portugal and abroad.

In 2010 we were approached by a group of colleagues from the University of Coimbra, belonging to CIEC, a FCT R&D Unit, with a classification of Good, with a proposal to join our Centre. The group, headed by Prof. António Pais Antunes, was dominantly formed by researchers on Transport Planning and Engineering with an impressive track record in these fields, what seemed to complement very well our then stronger fields of research on urban and environmental planning.

After countless meetings and lengthy discussions, a decision was made in 2012 to restructure and enlarge CITTA and prepare new internal regulations to accommodate these colleagues and their expertise (CITTA, 2012). A fourth research group was added on Transport Engineering and Management and substantial internal changes were carried out in the

⁷The CITTA team was constituted by Paulo Pinho (Coord), Sara Santos, Vitor Oliveira, Mafalda Silva and Magda Barbosa.

existing Transport Planning group which was renamed Transport Analysis and Planning⁸. CITTA had gained a second life.

The total number of researchers almost doubled. Indeed, the number of Coimbra based researchers was only marginally smaller to the Oporto counterparts. In total, from slightly above 50 researchers we almost reached the 100 figure, equally divided (50/50) between senior members (with a PhD), and junior members, mostly PhD students enrolled in associated PhD Programmes in Planning and Transports, and young trainee researchers (with an MSc). By FCT standards, CITTA could no more be classified as a small R&D Unit. The size could not be a handicap anymore in future FCT evaluations. Furthermore, a beneficial balance had been achieved between planning-oriented researchers, organised in two research groups, and transport-oriented researchers, also split in two research groups.

In the following year, 2013, a new FCT evaluation of R&D units took place. The CITTA's report was carefully prepared, as well as the visit of the external evaluation panel, by all the RG leaders and the Centre's Secretary, Prof. Paulo Conceição. The overall scientific strategy moved forward from the sustainability agenda to the post carbon cities agenda. A few months later into 2014, the final evaluation results were announced. The CITTA got the *Very Good* mark. Reading the panel's report, we all wondered why CITTA could not reach the Excellent mark because most of the comments were extremely positive and encouraging, as follows:

"The research vision was clearly articulated around the concept of a post-carbon city – this is novel, genuinely interdisciplinary and was convincingly presented, though young researchers and post-docs seemed to be not as involved as expected. The management of the Unit is challenging given the fact that they have to deal with two different universities with their own, separate rules. There is excellent evidence of strategic fit to regional and national policies and of international visibility and engagement. There is evidence of service to the community through, for example, the Azores regional spatial plan and the development plans for the Porto and Coimbra metro systems. The level of international collaboration and visibility is high, with joint supervision of PhD students and involvement in international collaborative projects. Overall this is a very good Unit, with an excellent vision and potential for the future. The size of the Unit is appropriate, and the Panel found the research vision to be convincingly stated." In Consensus Report CITTA R&D Unit no. 4427 Ref 14-FCT-235 – Panel 07 Multidisciplinary.

Nonetheless, coming from a *Fair* mark, we were all very pleased with the recognition of the value of our scientific work and with the financial support received. It seemed that the most difficult times had passed, and it was time to look to the future while maintaining the ambition and enthusiasm of making CITTA a reference centre in Europe with regard to planning and transports research.

⁸RG1 on planning and environmental assessment, coordinated by Paulo Pinho (at present by F Brandão Alves); RG2 on urban planning and housing, coordinated by Isabel Vazquez (at present by Paulo Conceição); RG3 on transport analysis and planning, coordinated by A Pais Antunes; RG4 on transport engineering and management, coordinated by Álvaro Seco (at present by Adelino Ferreira).

4. Consolidation

In the following years the number of research projects and our productivity rates increased, as well as our capacity to attract and mobilise new financial resources, combining FCT, EU, and specialised consultancy funding. Our annual conferences have become recurring with a stable format and audience, ranging between 120 and 150 participants. Throughout the academic year a series of internal research seminars was regularly organised and became the ideal place to present and discuss the progress of our own projects in combination with the presentations of external speakers and foreign researchers that happened to be visiting the Centre.

Figure 1 shows how CITTA was comparing with similar centres in Europe, in the period 2012 to 2016, as far as publication productivity in ISI/SCOPUS journals is concerned. This benchmarking exercise is, obviously, very incomplete, in the sense that publication is just one output from many others which are expected from a research centre. Nevertheless, in the absence of better indicators, these metrics are still widely used, particularly in comparative evaluation exercises of R&D centres.

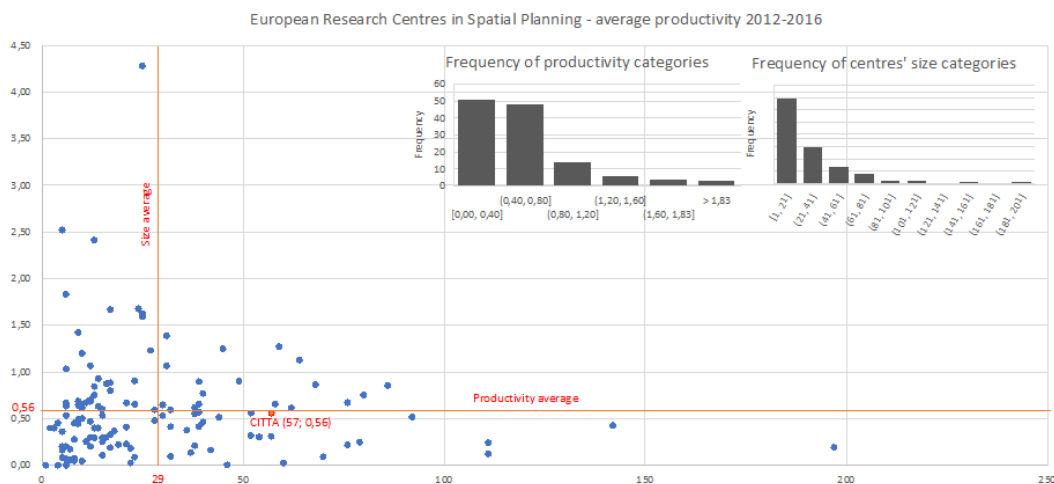


Figure 1: Average productivity 2012-2016 measured in the total annual no. of published ISI/SCOPUS papers per total no. of senior researchers belonging to European Research Centres in Spatial Planning (sample of the 126 most representative R&D Units).

In this period, the CITTA size, measured in number of senior researchers, was well above the European average size of Planning and Transports related R&D Centres and yet, the corresponding publication productivity, which tends to sharply decrease with the size of the centre as shown in the graph, was right on the European average, with 0.56 papers per year per senior researcher.

By 2017, FCT announced another round of evaluations of the R&D Units. Like in previous evaluations, all the CITTA members, senior and junior, were mobilised to prepare the pluriannual report of activities and the strategic plan in a truly collaborative and engaging exercise, jointly coordinated by the board, the centre's secretary, and the RG leaders. The panel visit took place in 2018 and, in the overall, was quite impressed with the quality and quantity of research carried out in the different CITTA's groups. A couple of months later, the final evaluation results were made public and, finally, CITTA reached the Excellent mark, with maximum scores in all the evaluation criteria. That was the classification we were all looking for and had been working for many years. In the panel's words:

“CITTA is a Research Unit of the FEUP and FCTUC. This distinctive disciplinary lineage characterises the Unit’s rigour, remit, and approach. In addressing the overarching theme of post-carbon city, CITTA has distinguished itself theoretically, methodologically, and practically at national and international levels, in the areas of transport planning and management, environmental assessment and spatial planning.

(...) Despite (its) complex profile, CITTA is a coherent Unit, which encourages, supports, and manages diversity.

This coherence is intrinsic to all its operations and transpires from the written submission, staff profiles and exemplars of work, and was confirmed by the site visit of the Panel.

(...) CITTA is much more than the sum of its parts; it is a well-crafted, and experienced organisation. Its location in FEUP/FCTUC is key: despite having a majority of staff with an engineering background, it accommodates a wide range of humanistic and design-based disciplines and interests, hence it operates across a good balance of quantitative and qualitative approaches, theoretical and applicative.

(...) CITTA is extremely productive, with multiple excellent projects (many of which are European or International); collaborations with municipalities; numerous international accolades; several established collaborations with many countries around the world; extremely rich number of scientific articles published in ISI and Scopus journals, many other reports and publications and n of PhDs. The average rate of publications is close to 0.8 papers/researcher/year which is quite satisfactory and close to well established European research centres.

(...)The impact of CITTA’s work is necessarily complex and multifaceted, since its work spans across so many domains and has so many different target groups. It is encouraging to see that its staff pursues and values impact of different nature, ranging from academic metrics, to influence on policy making to consultancy and collaboration with industry (not many yet but growing), to relationships with local communities and established disciplinary organizations. This is a testament of the richness and resilience of the Unit.

Of particular relevance is the Units’ explicit ambition to contribute, through its work, transformative impact to policy making, in the broader framework of the post-carbon city. This is ultimately what the best research should aspire to, and CITTA seems fit for achieving this goal.” Extracts from the detailed 4-page Evaluation Panel Report on Arts and Humanities – Architecture and Urbanism on the CITTA Research Centre Ref 4427-FCT.

With the Excellent stamp of quality, came, for the first time, a generous pluriannual financial envelope (2020-2023), designed not only to cover current expenses and PhD Fellowships but also, and foremost, to allow for the development of the strategic plan⁹. The plan included the recruitment of technical and managerial supporting staff, of several new researchers, and the reequipping of the Traffic Analysis and the Pavement Mechanics Laboratories, at FEUP and at FCTUC, respectively. Clearly the Centre had finally reached the consolidation phase as a European research institution and could look into the future with enthusiasm and grounded optimism.

Indeed, as **Figure 2** illustrates for the period 2017-2021, the overall CITTA’s publication productivity increased significantly, as compared to the previous period, from 0.56 to 1.03 papers/ researcher/ year. It also took off from the European average, which has increased between the two studied periods, but at a much lower rate, standing in the latter period at

⁹Base Funding for (2020-2023): 777 K€ plus Programmatic Funding: 1015 K€, including for 3 (Principal) New PhD Researchers Contracts + 16 PhD Fellowships.

0.82 papers/ researcher/ year. Between these two analysis periods, the size of CITTA and of the other European centres did not change significantly.

From a quantitative point of view, the CITTA size and overall productivity have already reached very satisfactory levels by European standards. The real challenge ahead will certainly lie in the qualitative aspects of the centre's research, such as deepening the theoretical and practical relevance of the research produced and the ability to influence decision-making through the mobilization of scientific evidence¹⁰.

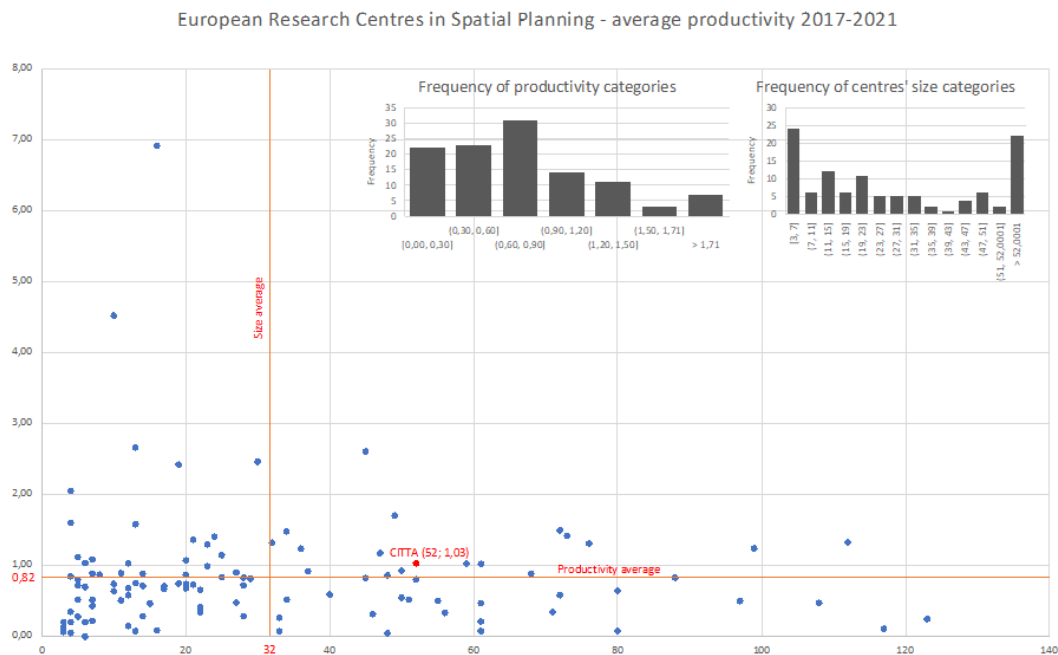


Figure 2: Average productivity 2017-2021 measured in the total annual no. of published ISI/SCOPUS papers per total no. of senior researchers belonging to European Research Centres in Spatial Planning (sample of the 111 most representative R&D Units in that period).

The rationale of the current Strategic Plan can be seen in diagrammatic form in **Figure 3**. CITTA's research focuses on the roles of cities, urban systems and transport infrastructures and services, considering the complex interactions between the societal system (above in the diagram) and the environmental system (below). The societal system comprises citizens and communities, institutions, and governance, and all the economic structures (public and private). These, all together, are capable of shaping labour markets which, in turn, have a strong and transformative influence on cities and regions.

The environmental system comprises the landscape and the natural resources, the different energy sources and the geophysical resources. The interaction between the societal and the environmental systems generate a wide range of issues and conflicts which are, to a significant

¹⁰The "SPLACH – Spatial Planning for Change" Project is a good example in this respect. This research project, led by CITTA with the collaboration of DINÂMIA'CET and GOVCOPP, and with a total budget of 1.87 million euros, aimed at guiding the Portuguese planning practice towards a transition to a low carbon and social inclusive urban system.

extent, encapsulated by the current climate change debate, which, in turn, calls for effective, efficient and socially responsive adaptation and mitigation strategies.

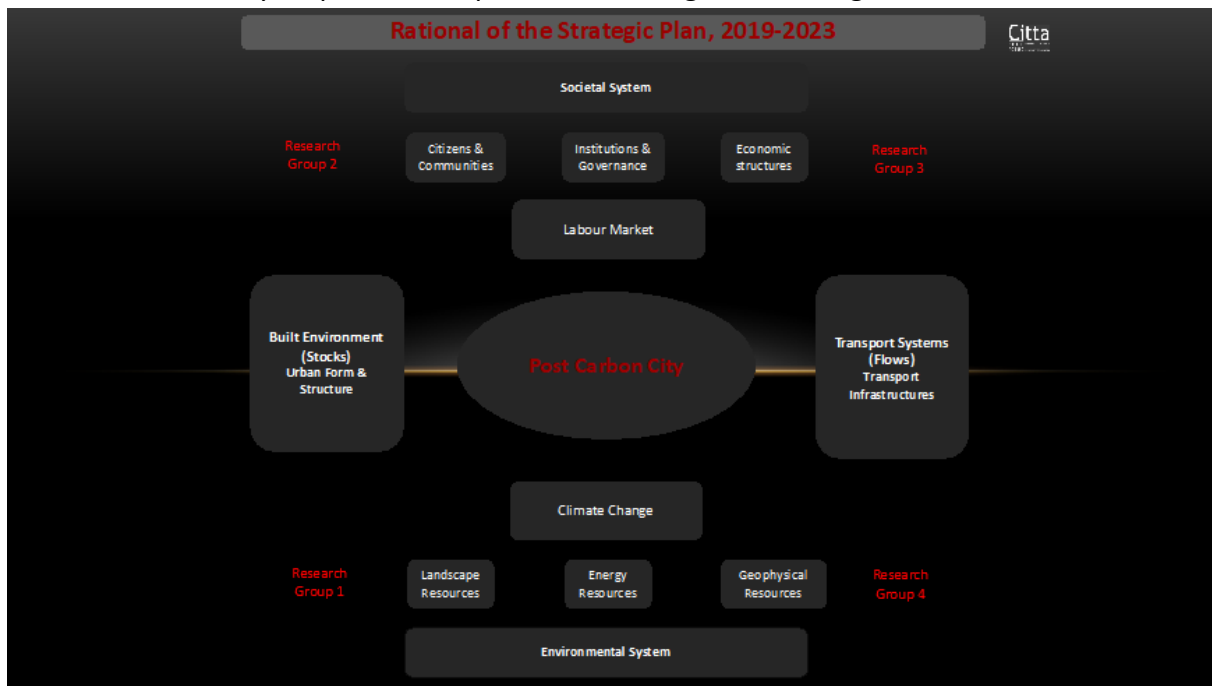


Figure 3: The Rational for CITTA’s Strategic Plan (2019-2023)

Moving from the vertical axis to the horizontal axis, the diagram makes evident how cities can be seen, from a metabolic perspective, as a complex assemblage of stocks (the built environment) and flows (the transport systems).

Right in the middle of the diagram, post carbon cities have been at the heart of CITTA's scientific strategy for the last decade, the unifying ground on which the diversity of the Centre's four research groups is built. That is why each group, according to its own remit and objectives, is placed in one of the four corners of the diagram. In the general fields of Spatial and Environmental Planning and Transports Planning and Engineering, the research challenge is enormous, demanding a vast and multi-disciplinary agenda designed to facilitate the transferability of scientific knowledge into real-world practice (CITTA, 2018). **Figure 4** shows the relative position and importance of the main topics / areas of research pursued by the four CITTA’s research groups in accordance to the Centre’s strategic plan (2019-2023).



“The Planning and Environmental Assessment RG approaches the post-carbon city as an energy-efficient system making the best use of natural and human resources. The city is driven by a sustainable urban metabolism. It offers a healthy environment to its residents and users, who experience high accessibility levels to goods and services. To contribute to the achievement of this vision, this group studies how urban morphology, dynamics of growth or shrinkage, and bioclimatic design influence the overall urban energy performance and carbon footprint. The development of environmental policy instruments (e.g., metabolic impact assessment tools) also features in this group’s portfolio.”



“The Urban Planning and Housing RG looks at the post-carbon city as a just and inclusive environment where social and spatial divides are addressed through responsive and transformative policies. The research conducted by this group is oriented towards facilitating the implementation of such policies. For that, the group critically studies concepts and processes such as institutional innovation, collective capacity building, and policy learning. The co-production of systematic outcome-driven analytical approaches towards urban policies able to encompass and promote social diversity, fairness, and urban justice principles, constitutes not only a key research topic, but also a policy ambition.”

“The Transport Analysis and Planning RG analyses the post-carbon society as a connected environment from the urban to the global scales. At the urban scale, it pays particular attention to issues such as car-sharing, public transport, and active modes of travelling such as walking and cycling. At wider geographical scales, the focus is on analysing modes of transport such as air, rail, and road travel. The goal is promoting more sustainable mobility from an integrated economic, social, health-related, and environmental standpoint.”

“The Transport Engineering and Management RG looks at the post-carbon city as a safe mobile environment, scientifically developing and actively implementing speed management and traffic calming solutions through corporate initiatives, aimed at creating high-quality liveable pedestrian- and cycle-friendly urban environments. It promotes the recycling of materials and the life-cycle assessment of transport infrastructures. Improving the energy efficiency of urban transport infrastructures constitutes yet another research goal this group has been consistently addressing.”

Figure 4: Mapping the main working subjects pursued by the four CITTA’s Research Groups.
 Source: CITTA Report of Evaluation (2018) and CITTA’s website.

5. Concluding remarks

This paper provides a brief historical overview, necessarily very incomplete and, given the past management responsibilities of the author, hardly entirely impartial, of the inception, development, and consolidation phases of CITTA as a Planning and Transports R&D Unit. This brief overview pointed out how important the timing and the institutional context in which a research centre emerges, as well as the capacity to attract creative and productive researchers and win new research projects under a common and coherent research strategy.

Acknowledging that CITTA can hardly be representative of all other centres, our account provides some evidence of how vital the FCT’s periodic evaluations are. Indeed, the underlying evaluation criteria and funding conditions associated with these pluriannual FCT evaluations

will undoubtedly shape, to a large extent, the R&D Centres' size, format, structure, composition, and research priorities.

Finally, in the context of both the FEUP and the DEC, and the 50th SPTA's anniversary, it seems appropriate to raise the question if, after all, CITTA was an added value to SPTA (and, by extension, to the SVC) or, on the contrary, it was a threat to the upholding of the Spatial Planning Division (and of the Transports Infrastructures Division). The answer to this question would require a similar historical account of the evolution of the SPTA (and of the SVC) highlighting the institutional interactions between both these Divisions and the Research Centre. Unfortunately, this was clearly beyond the remit of this paper. In any case, as an answer, we would not hesitate to advance the hypothesis that the development of CITTA largely benefitted, and in a rather wide range of aspects, both divisions, constituting, in this way, a typical win-win case. Surely the reader will be able to find out some of these beneficial aspects in this text and in the others which make this special issue.

Acknowledgments

The author would like to deeply thank all colleagues and researchers who made possible this adventure of creating CITTA and continue actively engaged at present to secure the future of this Centre and of the scientific research in the fields of Planning and Transports.

References

- CITTA (2002) Regulamento do Centro de Investigação do Território, Transportes e Ambiente, Faculdade de Engenharia da Universidade do Porto (unpublished internal document).
- CITTA (2003) Report for the FCT evaluation of the Portuguese R&D Units, Centro de Investigação do Território, Transportes e Ambiente, Faculdade de Engenharia da Universidade do Porto (unpublished).
- CITTA (2008) Report for the FCT evaluation of the Portuguese R&D Units, Centro de Investigação do Território, Transportes e Ambiente, Faculdade de Engenharia da Universidade do Porto (unpublished).
- CITTA (2012) Regulamento do Centro de Investigação do Território, Transportes e Ambiente, Faculdade de Engenharia da Universidade do Porto (unpublished internal document, amended and expanded version).
- CITTA (2013) Report for the FCT evaluation of the Portuguese R&D Units, Centro de Investigação do Território, Transportes e Ambiente, Faculdade de Engenharia da Universidade do Porto, Faculdade de Ciências e Tecnologia da Universidade de Coimbra (unpublished).
- CITTA (2018) Report for the FCT evaluation of the Portuguese R&D Units, Centro de Investigação do Território, Transportes e Ambiente, Faculdade de Engenharia da Universidade do Porto, Faculdade de Ciências e Tecnologia da Universidade de Coimbra (unpublished).
- Gago, José Mariano. 1990. Manifesto para a ciência em Portugal: ensaio. 1. ed. Lisboa: Gradiva.
- Pinho, Paulo & Oliveira, Vitor (2009) Evaluation in Planning, Proceedings of the 1st CITTA Annual Conference on Planning Research, FEUP Edições, Porto. <https://citta-conference.fe.up.pt/pdf/evaluation-in-planning.pdf>.