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Insights from Portugal's research evaluation exercise

A founding preoccupation of **arq**, following the inauguration of the journal in 1995, was the introduction of government-mandated research assessment in British universities, examining the work of architecture schools alongside other disciplines. At that time, architect-scholars in the UK became preoccupied with how designs and disciplinary methods could be acknowledged as research, in a context where traditional gatekeepers of academic methods typically remained sceptical of architectural ways of knowing. Partly as a result of **arq**'s pioneering concerns, creative practice research – or research-by-design – is now well established in the academy. As a result, these pages have not addressed questions of university research assessment for some years. However, this letter from Lisbon returns to the theme. The authors consider Portugal's research evaluation system, reviewing how such exercises might be reoriented internationally in order to support high-quality collaborative research in architecture.

The built environment lies at the heart of many pressing challenges, including climate change, social justice, the growth and distribution of wealth, and the well-being and health of populations. Growing crises in many of these areas demand the creation of new knowledge, including through collaboration between diverse disciplines. Given the extent of what is now expected of built environment research, it is timely to consider how the process of evaluating scholarly activity may actively support high quality collaborative endeavour. The means by which research is assessed, and funding subsequently distributed, undeniably shapes ways in which research is conducted. How can research evaluation exercises be most effectively employed as a tool to stimulate interdisciplinary, collaborative, and adaptive research models and engender a less narrowly competitive research environment?

Many countries grapple with this question. Through sustained self-reflection and the critical review of international practices, Portugal has established a strategy that explicitly encourages the formation of interdisciplinary and interinstitutional research groups well suited to tackling local and global challenges. The purpose of this paper is to share the experience of the authors both as researchers and as members of the 2019 Evaluation Panel for Architecture and Urbanism on behalf of the Portuguese Science and Technology Foundation (FCT), Portugal's national Research Funding Organisation.¹ Introduced in 1996, the Portuguese research

funding and evaluation model overseen by the FCT has led to significant increases in numbers of researchers, outputs, and in EU league-table positioning during this time. We suggest that FCT evaluation processes offer valuable insights into the encouragement of responsive, adaptive interinstitutional and interdisciplinary research. We frame our experience of the FCT evaluation process in relation to the UK's Research Evaluation Frameworks (REF), seeking less a direct comparison than points of intersection where the FCT model may illuminate *other* ways of doing things.

Evaluating research quality in the UK

The UK produces some of the world's most highly valued research and teaching in architecture and the built environment. This happens within, and also because of, an established research evaluation process. The UK's Research Assessment Exercise (RAE), the predecessor to the current Research Excellence Framework (REF), was introduced in 1986 to evaluate the quality of research conducted in UK universities and allocate funding relative to such performance. The process aimed to increase the quality of research being produced in universities, which was felt to be falling behind work in other parts of Europe and the US. Assessments have taken place periodically since 1986 – every five or six years – with the most recent submission in 2021. The REF is based on expert peer review of research 'outputs', research impact, and institutional research environments across all

Higher Education Institutions (HEIs). Three key challenges can be identified within the current REF framework:

- *Resourcing and process.* In 2014, 154 institutions made a total of 1,911 submissions to 36 subpanels, with the work of just over 56,000 staff being returned, and a total of 191,148 outputs.² Aside from the financial and human resource costs involved, the process has become highly specialised in HEIs, many of whom now have dedicated REF teams for extended periods, arguably increasing the distance between those tasked to manage REF and other staff, whether returned or not.
- *Pan-disciplinary.* Because it works across all disciplines, research assessment has to be sufficiently robust to deal with the huge range of diverse academic practices and cultures.
- *Competition between institutions.* Because the REF compares institutions, it accentuates competition between HEIs, potentially exacerbating the distance between what are imagined as high(er) and low(er) performers.

While the REF responds to broad political, societal, and economic mandates, and has undoubtedly secured the production of world-leading research, it is still questionable whether the current structure supports collaborative, intra-institutional, interdisciplinary, adaptive, and responsive research groups. In particular, we suggest that the UK's REF is successful as an auditing process, but less successful in encouraging a reflective and empowering processes. Following our experiences as an evaluation panel in Portugal, we consider which aspects of the Portuguese approach may be transferable. The FCT Portuguese model began with similar intentions to REF, but has since differed significantly, the key being what it intends as *places of research*: the Research and Development (R&D) Units. We will discuss their approach to *collaboration, inclusivity, communication, and legacy*.

The first point of interest, collaboration, is discussed below in relation to places of research.

The Portuguese model

In Portugal, research evaluation activities are overseen by the

Research and Development programme of the FCT. The first evaluation exercise of the R&D Units took place in 1996. FCT's model uses international external panels conducting independent evaluations, following a review of the comparative strengths and weaknesses of other models of institutional funding programmes: *Centres of Excellence; a National System of Research Centres; Scientific and Technological Foundations; and University Departments*.

Our focus here is on the *University Departments* model (as applied in the UK) in relation to FCT. FCT's evaluation concluded that here, 'possible advantages of interdisciplinary and cross-departmental organisation are more difficult [to achieve]'. The presence of 'intermediate institutional interlocutors' between the Research Funding Organisation and the active researchers is highlighted as 'diluting research responsibilities and accountability and rendering [it] more difficult to trigger scientific leadership and to tap on new research opportunities'.³

From such critical review, FCT developed 'a flexible layer of R&D Units established at the initiative of the researchers, [...] crossing the more rigid structures of universities and polytechnics, their schools and departments'. For FCT this approach eases 'the emergence of interdisciplinary, interdepartmental and interuniversity R&D Units' that can strategically adapt to new opportunities and evaluations. It also establishes a direct relationship between R&D Units leaders with FCT, which strengthens 'responsibilities, involvement and accountability' and enhances 'the role of R&D Units active researchers in higher education institutions.' The aligned evaluation model bases its assessment on 'Research Units', rather than departments or institutions, with evaluations by independent expert panels, assessing research quality in line with criteria defined by FCT. The panels are actively involved in the allocation of funds. While these fundamentals may seem rather standard and unexceptional, their consequences are significant.

The R&D units: collaboration, then competition

Portugal's R&D Units are initiated by researchers and operate across Higher Education Institutes and

public or private *not-for-profit research centres*. Within the field of Architecture and Urbanism, eight R&D Units exist, varying considerably in size (between seventeen and 152 PhD-holding researchers). The staff of an R&D Unit is categorised into Management, Integrated Researchers, Non-Integrated Researchers, and PhD Researchers. Researchers can – and are encouraged to – belong to more than one Unit, but can only be 'Integrated' in one (they are classed as 'non-integrated' in the additional Units). This self-initiated, grassroots approach to Unit formation contributes to flexibility bringing several advantages.

Clustering of researchers happens where similarities of research ideas or affinities occur among staff. Staff are supported in moving between institutions and units through FCT funding, achieving a degree of established, long-term collaboration that extends beyond specific projects. This is more difficult to achieve where evaluation focuses on departments, portions of departments or even, for example, in Centres of Excellence. These occupy an intermediate space between local and national levels and tend to locate themselves near major universities. They are associated with given faculties, drawing from nearby pools, leaving more peripheral HEIs out of the picture. Portugal's R&D Units are linked directly to FCT, facilitating a degree of inclusivity and contact between 'where research happens' and who enables the research. This direct relationship is harder to achieve in more centralised research systems, which have their own personnel and expectations.

Although the size of the R&D Units varies – they can be larger than many UK University Departments – the FCT panel evaluation site visit brings researchers from all over Portugal to converge at the declared headquarters of each R&D Unit, making logistics of site visits manageable. As an evaluation panel, we met staff from around eleven institutions within one Unit site visit. Given that the focus of research in architecture and urbanism is complex, encompassing a wide range of disciplinary expertise, many scales, and many contexts of considerable

cultural and environmental character, it is reasonable to assume that research should be collaborative in nature. The principle of flexible units of activity is helpful in putting focus on collaborations.

The evaluation process

Our second point of interest concerns issues of *inclusivity, communication, and legacy*, and which we will discuss in relation to the evaluation process.

The Panel

Evaluations Panel are commissioned and remunerated by the FCT to undertake an evaluation of Units every four years. The Panel is established through the appointment of a Chair who, on the basis of the subject areas covered by the work of the R&D Units, forms an international team of five experts with comprehensive, complementary expertise. Both Chair and Panel must be international, and not based in Portugal to maximise neutrality and increase international awareness of Portugal's research activities. The limited number of Panel members enables a concentration of the assessment process over intense bursts of work. This helps in making the assessment less anonymous, because the Panel can work closely together to arrive at a consensus position by the end of the evaluation period.

The Panel is involved in both remote preliminary evaluations and intense on-site visits. Pre-submitted data, including evidence of R&D outputs, environment, plans, CVs, and requests for resources are independently evaluated by the Panel members against FCT criteria. These preliminary evaluations are shared among panel members prior to the visit, and further probed during organised visits to each Unit.

Site visits

Following a briefing with FCT representatives, the Panel visits each R&D Unit for half a day. The same format applies to all site visits: a plenary presentation of the Unit with all its members attending, followed by submeetings with all staff (integrated or non-integrated researchers), Post-Doctorates and PhD students, visits to facilities and presentations/exhibitions. The

Panel can ask questions about the pre-submitted work to these groups separately. This extended interface offers the opportunity for all Unit researchers to take part directly in the evaluation process.

Over the five days of our visit, our Panel visited two Units per day, supported by administrators, translators, drivers, and on-site contacts. This team was deployed by the FCT to ensure efficiency and consistency, and to create an atmosphere of professionalism and respect. Each of the Units responded with their own scenographic interventions, building up exhibitions to physically manifest research processes and outcomes staging collegial atmospheres through roundtable talks. The Panel also tried to assert control over discussions through our own acts of staging and spatial organisation. We requested where possible that we were not positioned on a stage. We staged coordinated break-out discussions, with researchers at different stages in their careers, or divided the group along disciplinary lines. We kept an eye on who was given room to speak, and on gender distribution in the space. These physical cues, while not formal 'evidence' of research excellence, were useful in formulating questions that could be directed to various members of the organisation. Those answers were, in turn, helpful in understanding how 'immaterial' issues like ethics, diversity, equal opportunity, and even innovation were being handled.

With site visits, small group meetings gave room for different active researchers to express varied views, giving the panel a more rounded understanding. This practice has one main benefit: contact with the assessors for everyone belonging to the Unit, irrespective of their position, potentially makes the research assessment a clear, significant process for all concerned.

On the last day of our visit, we convened at FCT's headquarters to complete a Collegial Evaluation Report for each R&D Unit and to write the overall Final Evaluation Report including evaluations, recommendations, and allocation of funding, verified by the FCT Representative.

Criteria of evaluation

The Panel assesses three areas according to declared criteria:

1. The quality, merit, relevance, and internationalisation strategy of the activities of the Integrated Researchers in the R & D Unit for the five-year period preceding the evaluation.
2. The merit of the team of Integrated Researchers.
3. The appropriateness of objectives, strategy, the plan of activities and organisation for the following five-year period.

Of these three areas, the FCT's guidance directs evaluators to consider (1) as the most important, followed by (2) and then (3). Each R&D Unit is evaluated as excellent, very good, good, weak or insufficient. There is an explicit emphasis on quality over quantity of outputs, prioritising the 'development and qualification of the national research system and its impact in society'.⁴ The emphasis on quality is aligned to FCT's shift over the last decade from quantitative growth to fostering qualitative growth.⁵

Funding

Funding allocated by the Panel to the Units is of two kinds: base, and programmatic. Base Funding, which accounts for two-thirds of the overall FCT budget, is allocated according to FCT rubric factoring in the 'size' of the Unit and the final evaluation score. This funding is used to run the Unit. Only Units scoring Good or above receive Base Funding. Programmatic Funding, which accounts for the remaining funds, is allocated at the discretion of the Evaluation Panel. The tailored distributing of Programmatic Funding can generate impact in several ways. (The best Unit doesn't necessarily get the most). It can give a chance for smaller, less established Units to grow and find their feet, to support the development of non-mainstream areas of research, or to fund ancillary initiatives to support research work (for example secretarial support, facilities, equipment and travel). Units scored 'weak' are not necessarily deemed unviable, but receive a formal warning along with recommendations on strengthening the Unit, and with no funding for the next five years period. Units that score 'insufficient' are advised that they should reconsider their mission, structure, and composition.

While base funding allows groups to function, programmatic

funding targets activities, research, and assets, importantly, are provided following a direct engagement with a wide range of active researchers in the R&D Unit rather than through a distant auditing process alone. This represents a key merit of the site visits, in which Units of all sizes with good ideas are actively incentivised. Final evaluation reports are published in an open access format in line with FCT's expressed prioritisation of accountability and direct relationships between research units and funding bodies. All evaluations by the Panel are made public, and R&D Units can appeal final assessment and allocation.

Evaluating an evaluation: lessons learned

We argue that the Portuguese system has three main strengths:

Interdisciplinary and interinstitutional

Once an area of interest is established, the FCT explicitly encourages the net to be cast as wide as possible to include interdisciplinary and interinstitutional collaborators into R&D Units. Accountability 'downwards' (from the Unit to institutions) and 'upwards' (from the Unit to FCT) – combined with FCT employing disciplinary responsible points of contact – guarantees both granularity and strategy avoiding the pitfalls of excessive centralisation. Units are intermediate layers between individual talent and strategic overview.

Direct engagement and accountability between researcher and funder

The FCT funding approach challenges researchers across institutions to think specifically about what it means to be a research centre, by assembling or consolidating interdisciplinary research collaborations. Visions and ethos, and the buy-in of all staff at all levels are considered by the assessment process.

The split between Base and Programmatic funding guarantees both the Unit's performance between review periods, and boosts latent potential. Importantly, Programmatic Funding doesn't necessarily go to specific areas of research, but can support the Unit's infrastructure to free up researchers' time, introducing flexibility to benefit the Unit's position to succeed.⁶

Flexibility and adaptability to respond to opportunities and evaluations

The review process focuses on past and current performance as well as on future plans, forcing each Unit to clarify and declare its strategy and the path to achieve it. While this focus receives less weight for Base funding, it can play a major part in the distribution of Programmatic Funding, encouraging the Unit to develop credible plans and request commensurate resources. In other words, nobody is doomed if they are not currently at their best. This also puts the responsibility on the Unit to clarify succession plans: a beneficial tool that affords a sense of opportunity to younger staff and of responsibility to senior staff.

Conclusions

Despite the intellectual and immaterial nature of knowledge production, research is nonetheless an activity that takes place within bounded geographic and institutional spaces, by specific constellations of individuals, who hold unique perspectives and subjective experiences of their work and contexts. The situated nature of research is recognised in the FCT's Evaluation process. A level of respect for the activity of research was thus demanded by the FCT and actively performed during the exercise, across the entire period of the Evaluation. In general, we were struck by how the FCT emphasises nurturing of direct relationships with various inter-institutional research groups, generating an aspirational and supportive environment, helping HEIs and research units to reflect deeply on how to raise their game and implement restructuring in response to emerging opportunities. While we experienced a highly choreographed process, the chance to meet and discuss with different tiers of research and researcher gave us a better sense of an R&D Unit being much more than the sum of its outputs. If collaboration is truly one of the values we hold in highest regard in research, our assessment of the product must make space for a sensitive assessment of the process and infrastructure as well, and FCT has developed good practice in this area.

Because all staff views are included in the assessment visit, there is encouragement towards and inclusive development of long-term strategy. Perhaps our nearest UK equivalent to such an

interaction is the RIBA validation process for the accreditation of architecture schools. This can have the feel of a celebratory event and it prompts a degree of self-reflection, here encouraging relationship-building between the Panel and FCT itself.⁷ Overall, we were impressed by the vision that shaped the process, and the means by which it was implemented and managed.

We acknowledge that the scale of Portugal's research landscape is significantly smaller than the UK's. This scale contributes to the development of collegiate relationships between R&D Units, and between Units and the FCT, giving us the sense that a tangible research community exists across the country that shares ambitions and standards.⁸ In a larger context like the UK, such direct interaction would be challenging to replicate. Nevertheless, change and improvement can be made if there is a shared recognition of the possible advantages.

The core take-away from our experience in Portugal is the enduring value of inclusive in-person discourse as a catalyst for progress. This 'intimacy' forms a dividing line between the quantitative evaluation of research outputs and the institutional desire to reflect critically upon, and ultimately nurture, research culture. As Bruno Latour and feminist Science and Technology scholars such as Isabelle Stengers have consistently argued, research – even in its most positivist, laboratory-bound forms – remains an embodied practice undertaken by networks of human and non-human actors.⁹ These networks are marked by affective drivers, collaborative impulses, subjective experiences, and organisational logics. The production of knowledge cannot be divorced from the production of research cultures, and evaluation exercises present an opportunity to nurture – rather than just account for – environments of knowledge production within architecture and urbanism. It is most significant that the FCT nurtures as well as audits.

Recent years have had significant consequences for everyone around the world, including the impacts of the Covid-19 pandemic and climate change. If new walls have been built, old ones have come down – research being a good example. Current global challenges call for shared and collaborative efforts in

searching for solutions and producing new knowledge to alleviate the global impact of development. Competition must make way for collaboration. The first step should be for the assessment and support of research to acknowledge this. Given the time elapsed since REF 2021 in the UK, we invite those who have experienced other assessment processes internationally to a shared discussion on what knowledge production is, and what forms it should take towards collective progress.

Notes

1. The Panel consisted of Professor Christopher Platt (Chair), Dr Ombretta Romice, Dr Mhairi McVicar, Dr Stephen Walker, and Dr Helen Runting who all participated in the site visits. Panel Member Anna Mansfield was a contributing evaluator but did not take part in the site visits.
2. REF2014 Submission Data. Available at <<https://www.ref.ac.uk/2014/results/analysis/submissionsdata/>> [accessed 22 June 2023]; Kristine Farla and Paul Simmonds, 'REF Accountability Review: Costs, Benefits and Burden' (17 July 2015) <https://www.technopolis-group.com/wp-content/uploads/2015/11/REF_costs_review_July_2015.pdf> [accessed 22 June 2023].
3. Fundação para a Ciência e a Tecnologia (FCT), *Evaluation Guide for R&D Units Evaluation 2017–18*, Unpublished Guide (January 2018), pp. 2, 3.
4. *Ibid.*, p. 4.
5. Fundação para a Ciência e a Tecnologia (FCT), *FCT Self Evaluation Report* (January 2015), p. 6.
6. Some support goes beyond administrative activities in science management and includes science communication and outreach and technology transfers.
7. Fundação para a Ciência e a Tecnologia (FCT), *FCT Self Evaluation Report* (January 2015); Fundação para a Ciência e a Tecnologia (FCT), *Report of the Evaluation Panel* (January 2015) <<http://www.fct.pt/index.phtml>> [accessed 24 July 2020].
8. It should be noted that FCT does not only assess and fund R&D Units, but also laboratories, and research proposals. Combined, these three levels of funding managed by the same body – and often involving some of the panel members across each area –

imparts a sense of wholeness and coherence to the research project. The REF process, and the 'quality-related' (QR) funding it ultimately distributes, is now part of UK Research and Innovation (UKRI) along with the seven Research Councils, Innovate UK and Research England, although the REF has historically been more separated from the main UK Research Funding Councils, perceived as separate entities with distinct identities.

9. Bruno Latour and Steve Woolgar, *Laboratory Life: The Construction of Scientific Facts* (Princeton, NJ: Princeton University Press, 1986); Isabelle Stengers, 'Introductory Notes on an Ecology of Practices', *Cultural Studies Review*, 11:1 (2005).

Competing interests

The authors declare none.

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Christopher Platt is co-founder of Studio KAP architects and Professor Emeritus, Glasgow School of Art, where he was previously Head of The Mackintosh School of Architecture. He spent twenty years practice in Glasgow, London, Oxford, Ethiopia, and Berlin followed by twenty years combining academia with independent practice in Studio KAP and practice-based research.

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Stephen Walker trained as an architect and worked for architectural and design practices in the UK and Spain. He combined practice with teaching at the Faculty of Art and Design at Nottingham Trent University. He has subsequently taught at the University of Sheffield, and has been at the University of Manchester since 2017, where he is currently Professor of Architectural Humanities.

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