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Research Assessment Reform as Collective Action Problem: Contested Framings of Research System Transformation

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Abstract The rise of managerial logics in research policy and universities in many countries over the past decades, has met with concerns and criticisms about dysfunctional effects of research evaluation and indicator regimes. Recently, concerted trans-national and national reform efforts have emerged seeking collective action to redress this complex, multi-level issue. For some actors in science systems, however, research assessment reform threatens the common good. In this study, I describe and theorize the contours of public debates in the Netherlands, over its national initiative for research assessment reform, Recognition and Rewards. Formally launched in 2019 to coordinate system-wide changes in assessment practices across the Dutch science system, the initiative has so far proved effective in uniting support from multiple influential national stakeholders. Simultaneously, though, it has provoked criticisms and animated debates, with concerns raised over the Netherlands ‘going it alone’ in pursuing reforms. This study makes two original contributions. The first is conceptual: drawing on a *collective action frames* perspective, I analyze a large corpus of publicly available documents and statements and provide a framework for navigating how the case for collective action on assessment reform is constructed and contested. The second contribution is to call for expanding the agenda of science studies, where existing literature remains centered on critiquing performance indicators and the excellence regime. I argue a new research focus is urgently needed, focusing on the emerging realities, value conflicts, and ambiguities catalyzed by research assessment reform movements.

Keywords Research assessment reform · Collective action dilemmas · Reward system of science · Frame analysis · Science reform · Science policy

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Introduction

Recent times have seen the rise and increasing momentum of a trans-national movement for reforming academic research assessment. Calls for collective action have been based on claims regarding a broken scientific reward system, in which assessments of various kinds (individual, funding selection, organizational) adhere rigidly to ways of evaluating quality that is incentivizing overly narrow outputs and goals among individuals, groups, departments, universities and other knowledge producing entities (Grant 2021; Wilsdon 2016). The movement proposes instead a reward system in which qualitative peer review is empowered and in which invisible or under-rewarded quality criteria are brought to the fore, such as open science, team science, and equity and inclusion (Curry, Gadd, & Wilsdon 2022; GRASP-OS 2023; Oancea and Wilson 2024; OSEC 2022). Arguably the most prominent among such initiatives to date is the Coalition on Advancing Research Assessment (CoARA), an advocacy network set up by the Council of European Union and Science Europe that has subsequently received funding from the European Commission (CoARA 2022). Launched in 2022, CoARA has sought to provide common vision, engagement platforms, and issue exposure for this change agenda. As of December 2024 it has over 800 signatories from 55 countries (<https://coara.eu/agreement/signatories/>). CoARA builds on earlier initiatives such as San Francisco Declaration on Research Assessment (DORA), which started as a website gathering signatures of individuals and organizations pledging publicly to abandon uses of Journal Impact Factors and other journal-based metrics in hiring, promotion and funding assessments. DORA later evolved into an engagement platform to support campaigning, mutual learning and communication about research assessment reform (Hatch and Curry 2020). In December 2024, DORA's website reported over 25,000 individuals and organizations have signed its declaration to date, representing 166 countries (<https://sfedora.org/signers/>). Outside the Global North, the FOLEC-CLACSO network campaigns for assessment reform across Latin America and the Caribbean (<https://www.clacso.org/en/folec/>).

The emergence and expansion of this reform movement should be of interest for science studies, not least because it is seeking to redress problems with practices and institutions which have long been studied by sociologists of science and science policy researchers: evaluation, peer review, evaluative bibliometrics, gatekeeping, academic careers, reward systems, stratification, funding, priority setting and so on (Chubin and Hackett 1990; Cole 2024; Crane 1972; Lane, Fealing, Marburger, & Shipp 2020; Simon, Kuhlmann, Stamm, & Canzler 2019; Whitley 2000; Zuckerman 1988). Clearly, critical interest in the rise of managerialism in science and higher education in general (Deem and Brehony 2005; Elzinga 2012; Neave 1998), and in 'evaluation machines' (Dahler-Larsen 2012) like quantitative performance indicators (Burrows 2012; Weingart 2005) and league table rankings (Espeland and Sauder 2016; Hazelkorn 2015) in particular, have been widely studied (Rijcke et al. 2016) and debated (Hallonsten 2021; Schneider, Horbach, & Aagaard 2021). A key thread across critical

scholarship has been laying out the socially constructed nature of performance indicators and competitive, ‘excellence-based’ funding and assessment systems, to reveal power relations and ambiguities masked by the rhetoric of these ‘evaluation machines’ (Dahler-Larsen 2012). What is arguably novel about the recent rise of the research assessment reform movement is not necessarily the concerns being articulated, but that such concerns are no longer confined to esoteric specialist communities or the grumblings of isolated academics or administrators. Instead, critiques of research assessment are now the basis for concerted, organized, collective action, leading to familiar complaints and ambiguities becoming much more widely discussed—and contested—as they move onto the radars of science policymakers and other science system actors (albeit in some regions and countries more than others so far). In short, many longstanding concerns of science studies scholarship are ‘going mainstream’ and being taken-up and translated by new spokespersons, including activist academics and research policy support professionals.¹ Within science studies, a small number of exceptions aside (Abramo 2024; Morgan-Thomas, Tsoukas, Dudau, & Gaška 2024; Peruginelli and Pölönen 2023; Ross-Hellauer, Aubert Bonn, & Horbach 2024; Rushforth and De Rijcke 2024; Rushforth and Hammarfelt 2023; Varga, Kaltenbrunner, & Woods 2024), this turn of events has not yet caught the levels of attention it arguably merits. How collective action in pursuit of research assessment reform is organized and contested, are timely questions for sociologists of science and science policy to investigate—and serve as the entrance point for this study.

In this paper I analyze the meaning-making tactics deployed by supporters and opponents of a prominent national multi-stakeholder initiative for assessment reform in the Netherlands, Recognition and Rewards. The Netherlands is something of an ‘early adopter’ of assessment reform agendas. Formally launched in 2019, Recognition and Rewards has been relatively effective to date in bringing together influential national stakeholders, including the research-intensive universities, University Medical Centres, the national research funding council and Royal Academy, and has been championed by successive Ministers for Education, Culture and Science (Rushforth under review). The Netherlands has been highlighted as a role model for assessment reform, featuring as a case study for good practice on the DORA website, and inspiring establishment of ‘National Chapters’ within the CoARA network (working groups designed to coordinate change and facilitate mutual learning among national-level stakeholders in a given country) (<https://coara.eu/coalition/national-chapters/>). Nonetheless, expanding the initiative has not been without frictions, with debates having played out in public forums like the national parliament and national media. As a leading example of a national research assessment reform initiative, the Dutch case affords timely insights into how arguments for and against

¹ The Global Research Council, an international network of public funding agency staff, and INORMS, an international society for research management professionals, both have working groups now dedicated to the issue of research assessment reform.

collective action have been constructed and contested, which may inform understanding and responses to debates unfolding elsewhere.

I approach Recognition and Rewards controversies through applying a frame analysis lens to an extensive corpus of publicly available documents relating to the initiative. Frame analysis is a well-established approach that holds policy-related disputes as “symbolic contests over the social meaning of an issue domain, where meaning implies not only what is at issue but what is to be done” (Shön and Rein 1994: 28-29). Frame analysis is particularly useful for making sense of contested and intractable elements of Recognition and Rewards debates, by helping to conceive of competing positions as being organized around differing, often incompatible sets of values, beliefs, and perceptions about whether research assessment constitutes an important problem meriting collective action for Dutch academia. Frame controversies are rarely resolved by winning opponents over to one’s own way of thinking, or through citing additional evidence in favor of a position (Shön and Rein 1994).

The paper is structured as follows. The following section introduces the frame analysis toolkit and key theoretical concepts, followed by an account of the methods used to gather and interpret documentary sources. Via a conceptual framework adapted from this toolkit, the findings section then presents prominent modes of meaning making the initiative’s supporters and opponents have employed for and against collective action on research assessment reform. The paper ends by suggesting the theoretically-informed insights generated provide useful preliminary resources for science studies researchers and others to begin navigating often discordant and complex debates emerging around academic research assessment reform movements, which tend to be characterized by broadly framed challenges, ‘high wickedness’ levels and divergent views on solutions (c.f. Wanzenböck, Wesseling, Frenken, Hekkert, & Weber 2020). The paper ends with calls for science studies to expand its focus towards the new, contested realities catalyzed by assessment reform movements.

Recognition and Rewards: Controversies as Frame Conflicts

Launched in 2019, Recognition and Rewards is an initiative that advocates for changes in research assessment practices within Dutch academia, by attempting to coordinate multiple actors within the Dutch system to move in a common direction. As ‘networked’ governance structures, such initiatives face certain challenges in mobilizing collective action on a complex, multi-level issue like assessment reform. In particular, they rely upon persuading various, relatively autonomous professional organizations and actors with their own complex institutional dynamics and interdependencies, to notice and identify with their cause, to enact their vision, while for the most part being able to call only on ‘soft governance’ tools (such as information campaigns, shared agreements, local self-regulation, and mutual learning), not traditional governmental instruments like regulation or financial incentives (Peruginelli and Pölönen 2023). This makes research assessment reform initiatives vulnerable to being ignored by the very actors that are needed to commit and fulfil their visions and to free-rider

problems (c.f. Mena and Palazzo 2012). When operating in liberal democracies, there is also strong potential for opposing forces or sceptics to voice disapproval and undermine publicly the need for reform. Perhaps unsurprisingly, then, the Recognition and Rewards initiative has attracted its share of opposition and controversy since its launch in 2019. This study focuses on how frame conflicts have played out in public debates.

Frames were defined famously by Goffman (1974:11) as “definitions of the situation [which] are built up in accordance with the principles of organization which govern events—at least social ones—and our subjective involvement in them”. For this constructivist area of inquiry, conflicts over issues and ideas grow when different frames clash, making them particularly useful concepts for studying conflicts surrounding the meanings of policy-related issues between pro-change actors and detractors of change. Frame conflicts often appear intractable and “resistant to resolution by appeal to facts or reasoned argumentation, because the parties’ conflicting frames determine what counts as a fact and what arguments are determined to be relevant and compelling” (Shön and Rein 1994: 23). As will become evident when the empirical findings are presented, conflicts surrounding the Recognition and Rewards Initiative conforms to this broad characterization of a frame controversy.

Frame analysis has also been highly productive within studies of social movements, where the notion of *collective action frames* has been useful in examining how multi-stakeholder backbone initiatives and advocacy coalitions seek to coordinate collective action within a field of policymaking or institutional activity. Broadly speaking, collective action frames refer to “shared understandings of some problematic condition or situation [that adherents] define as in need of change, make attributions regarding who or what is to blame, articulate an alternative set of arrangements, and urge others to act in concert to provide change” (Benford and Snow 2000: 615). The collective action frames toolkit equips analysts with sophisticated ways of investigating the mobilizing of ideas and meanings – and to study counter-mobilizations against pro-change frames.

One of the reasons that controversies over collective action have emerged around Recognition and Rewards, I contend, is due to the often implicit character of the framings disputants have mobilized for or against collective action. In employing frame analysis, I aim to make visible recurring assumptions and beliefs from both sides, thereby enabling more systematic understanding of these debates.

Method

A corpus of 66 texts (in English and Dutch) relating to national debate on Recognition and Rewards was assembled, spanning the period 2019–2024. Although there were pre-cursors to debates on issues surrounding research assessment dysfunctions in the Netherlands, it made sense to limit analysis to a focus on the initiative’s starting date and subsequent reception, as the initiative’s launch elevated controversies out of niche academic debates and policy circles into wider settings like national media and parliament. From 2022 until 2024, I collected relevant documents I encountered on an ad hoc basis, through snowballing hyperlinks, and through following reference chains in documents. The assembled corpus is not intended to be

exhaustive: not every text that could possibly relate to Recognition and Rewards has been included. Instead inclusion of documents was made interpretively, through a process of initial identification and reading, leading to a decision being made about their relevance based on criteria like whether they sought to inform and influence the Dutch national debate, whether they taught me something new about the debate, and whether they were publicly available online. This led to a diverse set of documents being accumulated for inclusion, ranging from parliamentary statements to FAQs about the initiative on university websites, to media articles, open letters, and organizational position statements and reports published by various stakeholders. I also extracted and cleaned audio transcripts from roundtable discussions held at annual Recognition and Rewards Festivals, 2021-2023, available via the Recognition and Rewards' official YouTube channel. Together these provided rich data sources through which to identify conflicting arguments regarding the promises and threats of taking collective action. A full list of documents/videos can be found in the supplementary file at <https://osf.io/6mzx2/>.

The texts were imported into Atlas Ti to support familiarization and coding. Analysis proceeded via a constant comparative approach, moving back and forth between data and theory. Through this iterative process of familiarization, coding, and reading literature it became clear that concerns regarding research assessment as a problem requiring collective action (or not), was becoming increasingly foregrounded. Benford and Snow's (2000) influential version of frame analysis, including their concepts of *diagnosis* (what is the problem with research assessment), *attribution* (whom are what is to blame), and *prognosis* (what is to be done to correct the problem), were especially useful for making sense of conflicting accounts. Furthermore, opposition to the case for collective action could be well understood through Benford and Snow's concept of *counter-framing*, as the diagnoses, attributions and prognoses articulated by Recognition and Rewards' proponents were being rebutted, undermined and neutralized by critics, who provided alternative diagnostic, attributive and prognostic framings regarding research assessment as a problem meriting collective action. Lastly, responses made by the initiative's main partner organisations and supporters towards opposition counter-framings were conceptualized as examples of *frame repair*, which aimed to "ward off, contain, limit, or reverse potential damage to... previous claims or attributes" (Benford and Snow 2000: 626).

As this conceptual focus became clearer, analysis moved from exploratory open coding to coding larger bodies of text with these concepts. Together with memo writing, I was able to identify and interpret recurring metaphors, myths² and arguments mobilized by different parties within Recognition and Rewards debates. Eventually the findings were refined, organized and written up into three sections,

² 'Myths' here does not necessarily mean false accounts, but 'deep-seated and definitive descriptions of the world that ontologically ground the ways in which we frame and see the world around us' (Christensen and Cornelissen 2015: 132).

which together form an overarching narrative of national debates on Recognition and Rewards as frame conflicts.

Findings

Findings are organized into three sections, the first outlining *initial frame articulations* produced by the Recognition and Rewards initiative and its supporters, whereby the initial case for collective action is made to convince and mobilize the wider world of Dutch science into action. The second section addresses the *counter-framing* tactics mobilized against the initiative, by opposing or sceptical actors within the Dutch system. The third section focuses on *frame repairing* tactics used by supporters to respond to criticisms and reaffirm the case for assessment reform. Selected quotes from the analysed documents are used to illustrate aspects of these framing categories.

Initial Collective Action Framing

The first type of framing activity, initial frame articulation, describes the varying ways that research assessment reform is imagined and enacted as a problem that requires collective action as its corrective. Recognition and Rewards' diagnostic accounts, as seen in formal statements from the initiative and its partner organizations, assumes a common, recognizable lived experience of dysfunctions surrounding research(er) assessments. The construction of a shared consciousness is achieved rhetorically through recurring stories, symbols and metaphors. The threat of quantitative performance indicators is one major recurring theme in Recognition and Rewards' diagnostic framings. As is common in sceptical framings of quantitative indicators (Rushforth and Hammarfelt 2023), bibliometric measures have been attributed as a major driving force of dysfunctions in the Dutch science system (what Benford and Snow (2000) term blame attribution). The following passage includes several oft-repeated concerns within the Recognition and Rewards discourse regarding quantitative performance measures:

The implicit and overly one-sided emphasis on traditional, quantifiable output indicators (e.g., number of publications, H-index and journal impact factor) is one of the causes of a heavy workload [for Dutch academics]. It can also upset the balance between academic fields and is inconsistent with the San Francisco Declaration on Research Assessment (DORA) principles. After all, bibliometric indicators tell a story, but not the whole. For example, they are not equivalent across academic disciplines, and so do not do justice to the diversity that exists within academic domains and academic practice. Relying too strongly on such indicators can disrupt diversity and the societal impact of research, as well as impede the practice of open science. It is important, therefore, to recal-

ibrate and broaden the assessment system for research. (VSNU, NFU, KNAW, NWO, & ZonMw 2019)

This diagnosis attributes quantitative indicators as driving a modernist, rigid style of checklist evaluation that erases other humanistic evaluative skills and sensibilities, like judgement and discretion.³ Indicators are also attributed as a major cause of higher workloads⁴ and undermining a collaborative ethic within science. The diagnostic account is presented through language of conviction and emotion, rather than facts and data:

Many academics *feel* there is a one-sided emphasis on research performance, frequently leading to the undervaluation of the other key areas such as education, impact, leadership and (for University Medical Centres) patient care. (VSNU et al. 2019, emphasis added)

The position paper thus advances the often-mobilized critique that indicators skew missions of universities and academic work almost exclusively towards research over other activities. The reductionism in turn leads to ignoring hidden, under-appreciated talents of individuals (hence the forward-looking slogan *Room for Everyone's Talents*). The core missions of Dutch universities and their mandate for receiving public funds are thus being eroded due to dysfunctions in research assessment, resembling Bozeman and Sarewitz's (2011) account of 'public value failure' in research evaluation.

The Recognition and Rewards diagnosis utilizes, implicitly and explicitly, familiar myths in science policy. The notion of a *contract* between science and society, foundational of so many science policy interventions (Elzinga 2012; Guston 2000), is evoked here in arguing that the contract needs repairing. Further diagnostic metaphors include: the current regime posing an urgent threat to the 'health'⁵ of the science system (imagined as a body) and that universities have become a 'monoculture'.⁶ This situation leads to waste, in the form of overproduction of research and researchers that score well on narrow performance criteria, but produces outputs and outcomes that fall short of public value expectations invested in science and universities. This waste in turn creates negative consequences, be they important contributions and thankless tasks going unrewarded and disincentivized, or aforementioned losses that occur through rejecting diverse talents because of rigid adherence to narrow assessment criteria and career profiles.

If these are the problems (diagnosis) and reasons for them (attribution), then for the Recognition and Rewards initiative, the solution (prognosis) is a particular kind of collective action. Each actor in the Dutch science system affected by the current dysfunction is tasked with enacting reforms within their own organizational setting.

³ Interview with then ZonMw chairman Jeroen Geurts in DUB online magazine, 13 May 2019.

⁴ See also Maastricht Young Academy position paper on Recognition and Rewards, publication date not found.

⁵ Interview with ZonMw chairman Prof. Arfan Ikram in ScienceGuide, 19 April 2023.

⁶ Comment from NWO Board Chair Marcel Levi, Recap Recognition & Rewards Festival 2022, YouTube video, 17 May 2022.

This multi-level, multi-actor solution tallies with Engwall and colleagues' recent modeling of dysfunctions associated with academic research evaluation regimes as emerging from interactions between funders, evaluation suppliers, researchers, and universities (Engwall, Edlund, & Wedlin 2022). Like them, the *Room for Everyone's Talents* position paper sees 'modernization' of Dutch assessment systems as requiring transformation of the entire system:

Modernization asks for a uniform, integral approach involving all actors concerned in the Netherlands, while also taking account of the international context in which academics operate. To achieve this, board members from across the entire knowledge chain, both national and international, need to take a clear position. (VSNU et al. 2019: 3)

Recognition and Rewards champions often depict the Netherlands as a putative leader in the global movement for assessment reform, while also relying on collective action from other international actors to support its efforts. Tensions between national and international collective action is a point that critics of the initiative have latched onto (discussed further in the next section on counter-framings).

Given the 'whole system' changes needed nationally, the scope of the position paper's framing spans beyond reforming only the immediate practices of research assessment. The desired endgame of reforms is thus a reward system that:

1. Enables the diversification and vitalization of career paths, thereby promoting excellence in each of the key areas [research, education, valorization, leadership and patient care (in the context of UMCs)], in a more diverse and valuable way;
2. Acknowledges the independence and individual qualities and ambitions of academics as well as recognizing team performances;
3. Emphasizes quality of work over quantitative results (such as number of publications);
4. Encourages all aspects of open science; and
5. Encourages high-quality academic leadership. (VSNU et al. 2019: 3)

Changes in assessment practices thus need to be matched by changes in career systems, leadership and human resource management, and scholarly communication systems (de Haan, Boselie, Adriaanse, de Knecht, & Miedema 2024). This framing appears to have been relatively effective in engendering buy-in from multiple powerful Dutch stakeholders, who can adapt this abstract flexible vision to their own interests and situations (Rushforth under review). However, this collective action framing has also been contested on several fronts.

Counter-framing

Within frame conflicts, one group's proposed solution is often another group's perceived threat. In opposing the solution set out by advocates of Recognition and Rewards (collective action to achieve assessment reform), critics set forth competing diagnoses of what has gone wrong in Dutch academia and what is to blame. From there flow different solutions.

The most visible counter-framings to date have come from concerned professors, principally in the life sciences, who have accessed various forms of media (written op-eds, signing open letters, appearing in radio and television debates and using social media) to voice their disquiet. In 2022 their concerns were picked up and amplified by a politician from VVD, a prominent right-of-center party within the ruling coalition government.

Life science critics' counter-framings have used a variety of rhetorical tactics to dispute and undermine the calls for collective action on reform. These include threats that collective action would bring to the wellbeing of particular actor categories like Dutch postdocs and PhD researchers, as a precarious labor group and the future generations of scientists. As well as senior life science academics citing threats, another open letter signed by concerned 'young Dutch researchers', highlighted risks of collective action on this issue to their long-term security within science, arguing changes to NWO's individual talent programs will harm Dutch science and prevent the most talented researchers being rewarded. This open letter was referenced by senior, tenured academics warning against the Netherlands being first-mover (i.e. changing before the whole international system changes). Counter-arguments seek thus to wrestle back allyship with early-career researchers from the Recognition and Rewards cause, whose advocates also claim to be acting in the interests of future generations of scientists.

Aside from threats to early career researchers, critics warned the Netherlands taking collective action on research assessment *on its own* would harm Dutch science. A prominent spokesperson for critics of reforms, Professor Raymond Poot, outlined this threat in an op-ed attached to an open letter signed by other life sciences professors:

Dutch science is still in the top 5 in the world on the most important [ranking] lists. That was not always the case. In the 1980s, Dutch science was not doing well; by international standards, both productivity and quality were low. NWO was founded in the late 1980s, which introduced measurable quality criteria as a condition for research funding. Later, NWO set up talent programs through which young researchers could finance their own line of research. It is not far from the truth to then say 'and the rest is history'; Foreign countries now view with admiration how the Netherlands achieves such good scientific achievements with a limited budget...

The perfect storm of a shortage of funds for science, the unbalanced distribution of those funds and the abandonment of international evaluation criteria is a threat to Dutch science that we cannot afford.

(from an open letter sent to ScienceGuide, 9 December 2021)

By 'going it alone', the Netherlands risks isolating itself from the rest of the scientific world to the detriment of quality, reputation and economic growth. As Professor Poot further explained in one of his own reports, problems in Dutch science actually stem from relatively low levels of public investment in science, particularly in exploratory research, which should continue to be judged according to competitive, quantitative performance indicator-informed evaluation practices. In an interview to online magazine ScienceGuide, Member of Parliament Hette Van de Woude,

further echoed the risks of collective action on this problem by the Netherlands travelling solo:

“I want it to be explained well why Recognition and Rewards does not threaten our international position”

“...to put it bluntly, removing every incentive to ambition from the system doesn't seem right to me if you want to belong to the top of science as a country and not lose ground to countries where thousands of people are fighting hard.

(from an interview feature in ScienceGuide, 22 February 2022)

Such counter-framings against collective action utilize a range of rhetorical resources, including critics positioning themselves as custodians of the national interest, citing threats to Dutch science that would come from dismantling commitments to competition, meritocracy, objective measurement, evidence-based policy-making, and economic growth. All of these virtues, they contend, are safeguarded by the current evaluation regime. Critics draw also on longstanding canards of science policymaking, including the ‘endless frontier’ myth and the often critiqued linear model of innovation (where technological innovation is a stepwise sequential process starting with scientific discoveries and moving to commercialization and successful application, leading to conclusion that increased investment in fundamental research yields greater economic growth) (Godin 2006).

Particularly pronounced were realist claims of bibliometrics as measures of research performance that are objective, reliable, and thus preferable to ‘biases’ of qualitative peer review.⁷ Similarly, realist attacks on lack of ‘objective evidence’ for reform were amplified by MP Van de Woude, who observed in Recognition and Rewards a ‘tendency to push objective standards into the background’.⁸ The MP also channeled concerns of critics that the reform process lacked legitimacy due to inadequately listening to these concerns – despite democratic rhetoric invoked by supporters of the initiative.

"It strikes me that a fairly large group of scientists have very factual concerns about these developments, while I hear from others that it is actually a good idea; but I don't hear any arguments from them that are based on facts. I don't see that the concerns of the first group are being addressed," she explains.

(from an interview feature in ScienceGuide, 22 February 2022)

A recurrent target of criticism for their position on reforms has been the country's primary distributor of external competitive funding, the Dutch Research Council (NWO). NWO's role as founding coalition partner of the Recognition and Rewards initiative, and subsequent change activities it has pursued to broaden the quality criteria it would consider in individual award programs and adopt ‘evidence based CVs’ (akin to the more familiar title Narrative CV), have been held up by life science

⁷ From an interview feature with activist opponent Prof Raymond Poot, in Erasmus Magazine, 24 February 2022.

⁸ From an interview feature with politician Hatte van de Woude in ScienceGuide, 22 February 2022.

and parliamentary critics as problematic. Given NWO's historically self-professed status as a major pillar of competition-based research excellence within the Netherlands, critics have contended that NWO should not expand the breadth of quality criteria it asks peer reviewers to judge competitive proposals against, and should abandon novel forms of CV practice. In countering this solution, critics simply reject the idea research excellence can be expanded by encouraging peer reviewers to consider a broader range of quality criteria in their assessment processes (a core claim of Recognition and Rewards and of trans-national initiatives like CoARA). Such a move could instead only dilute and divert from what excellence 'is'. Recognition and Rewards and NWO's alignments with the DORA initiative (which commits them to abandoning use of Journal Impact Factors in research assessment – a widely-recognized symbol of research excellence culture (Rushforth and de Rijcke 2015)) has been, in turn, interpreted as further sign of the excellence regime being under alarming attack.

Longer-term threats to Dutch science posed by these developments, coupled with rumors that standards of assessment are slipping at NWO, for critics, threatens the very mandate of NWO to exist as the body responsible for distributing public funds to 'the best' research projects and applicants. This charge rests on the myth of competition ensuring cream rises to the top (c.f. Lamont 2009), and on realist ideals of assessment as akin to highly controlled settings like scientific laboratories that continuously produce consistent results across different review mechanisms. Such assumptions were evident in one biologist's claim that reforms to NWO were flawed because they had been successful in winning a prestigious European Research Council grant for the same proposal that had been rejected by NWO's national talent program selection committee shortly beforehand.⁹ According to the scientist, this outcome served as evidence that NWO's assessment reforms were undermining the legitimacy of its peer review process (with the European Research Council selection process presented as a reliable bench-marker of excellence).

These various narrative resources were summoned to make the case against funding agencies like NWO participating in Recognition and Rewards. For critics, where discontent with academic careers and talent selection exists, these are in fact the responsibility of universities and their HR departments alone to fix. Likewise rather than Dutch science requiring system-wide change, the government should increase funding. This counter-framing thus rejects all aspects of Recognition and Rewards collective action framing: the diagnosis that *all* research assessments and the selection criteria they use are harming the quality of Dutch research; attributing any problems to overreliance on certain flawed or limited criteria and indicators; and the prognostic solution that research assessment is a problem requiring whole system change. Reforming the excellence regime is in short the wrong solution to the wrong problem.

Alongside these more hotly contested counter-framings, other, less visible counter-framings have also featured within the national debate over Recognition and Rewards. Overall these tend to be less critical, for instance, by questioning

⁹ Quoted in Times Higher Education, 2 January 2024.

whether the coordination of the collective action as proposed and enacted by the initiative so far, is as effective as it should be. According to Eppo Bruins (who later became the Minister for Education, Science and Culture) who at the time had just chaired an advisory board that oversaw a parliamentary review into whether Recognition and Rewards threatens the quality of Dutch science:

“The higher education institutions are all handling the shift to ‘recognition and rewards’ in different ways, which also comes with risks.... we believe that the institutions should develop their assessment procedures together instead of trying to invent the wheel separately.”

(From news feature in Cursor, 19 December 2022)

These more constructive criticisms, in recognizing the problem while questioning some of the solutions, are of course less threatening to the initiative’s framing. They can be presented by champions of the initiative as a sign that there are opportunities for learning and improvement and that the reform process is proceeding in a democratic, consultative manner. In contrast, more forceful counter-framings provided far greater challenge to the initiative’s champions, requiring them to generate a range of *frame repair tactics*.

Frame Repairing: Negotiating the Counter-framings

Efforts to repair Recognition and Rewards’ collective action framing against counter-framings of opponents have employed several tactics. Arguments for reform are patched up by defenders of Recognition and Rewards through: appropriating and reworking the language of their adversaries; re-asserting optimism about future pay-offs and downplaying concerns; incorporating new evidence and testimony of credible spokespersons to support their positions; and appealing to the democratic legitimacy of the process and resolution through dialogue.

One example of defenders appropriating terminology of critics can be seen in attempts to wrestle back the term ‘excellence’, by claiming the initiative is also motivated by Dutch science being ‘world-leading’. In a press release in response to criticisms by life science critic Professor Raymond Poot’s claim that Recognition and Rewards had affected its peer reviewers’ ability to identify ‘excellence’ was jeopardizing Dutch science, NWO stated:

“Science is the intellectual and technological resource of a country and should certainly not be seen as a luxury or as something you do on the side.” NWO wholeheartedly agrees with Dr. Raymond Poot on this. Dutch science is still among the best in the world and we would like to keep it that way. And NWO is committed to this. It is not without reason that NWO’s mission is still to promote world-class scientific research; research that has scientific and social impact.

(From opinion piece published in ScienceGuide, 11 January 2024)

This goes to the heart of the framing controversy, whereby a competitive, performance-indicator conception of evaluating good science is being challenged by an alternative conception of good science oriented around a broadened range of quality criteria. As is common in more stubborn areas of policy conflict, here defenders of the reforms are ‘repeating louder’ initial motivations for change. Such repair tactics clearly cannot ‘resolve’ frame conflicts, and risks instead exacerbating them, by not directly engaging critics’ points.

Repair tactics also included attacking the values undergirding diagnoses, attributions and prognoses of opponents’ counter-framings. For example, defenders downplayed concerns that the Netherlands risks dropping in international university rankings, by attacking the underlying values and thus undermining the legitimacy of this concern:

A professor who prefers to remain anonymous due to circumstances has a different opinion. “Will Recognition and Rewards influence the position of Dutch universities in the rankings? Yes. But is that the most relevant question? No.

“Anyone who is concerned about a position on those rankings would do well to first consider how those rankings work and what they are designed for”; viewed from the perspective of public values, he thinks the revenue model of these rankings is quite broken.

(From news feature in ScienceGuide, 8 March 2022)

Recognition and Rewards advocates downplay concerns by attacking the economic interests behind rankings and highlighting technical limitations of rankings and indicators like JIF and H-index as scientific measures.

A further tactic for repairing Recognition and Rewards’ collective action framing involves re-emphasizing the positive promises, rather than dwelling on the risks. For example, concerns that the Netherlands is ‘going it alone’ as a country, have been countered with references to growth of trans-national initiatives like CoARA. Quoted in a magazine interview, the then parliamentary review chair Eppo Bruins, argued the Netherlands is in fact not an exposed, solitary figure, but a forerunner within a growing global movement:

[Bruins quoted] “This [research assessment reform] isn’t just happening in the Netherlands. It’s a global movement. That doesn’t mean every country has to clear its own path, but it’s good to be one of the frontrunners. Because that presents certain opportunities. For example, the Netherlands could become more attractive to international researchers if they know that we take a nuanced view of quality here. It also puts you in a position where you’re able to help determine the course.”

(From news feature in Cursor, 19 December 2022)

In this calculation, *when* (not *if*) other nations follow suit, the Dutch science system’s changes will be mimicked, promising strategic, possibly competitive, pay-offs for the Netherlands in attracting diverse talents within international

academic careers markets. Recognition and Rewards thus promises to serve as a collective good for science, not only in the Netherlands, but globally.

Counter-attacking the credibility of opponents' claims is also performed through adopting evidence-based policy rhetoric. In response to claims that the Netherlands will drop in league table rankings because of the reforms, 'lack of evidence' for these concerns is cited by defenders of the initiative. When quoted in a news feature, the Minister for Education, Culture and Science used this tactic to reject charges that the initiative would affect the health of the system:

It is conceivable that, "as in every transition", it [reform] could affect individual scientists in the international field. The minister has "not yet seen any sign, however" that it could affect [Dutch] science as a whole.

(From news feature published in DUB, 4 January 2022)

Defenders also deflated the severity of concerns forwarded by critics through downplaying the impact that collective action will have on research and providing reassurances that Recognition and Rewards is a reform rather than revolution - a counter-balancing rather than complete replacement of the current regime:

[Professor Cecile] Janssens [Emory University] also thinks it is a misconception that stopping the use of indicators is equivalent to removing 'incentives for ambition'. "Researchers will continue to publish in [the journal] Science if their work is worthy of Science. They are not suddenly going to switch to the unknown Scientific Reports. Every field has its top journals, the researchers know which they are, and some will remain ambitious enough to want to publish in them".

(From news feature in ScienceGuide, 8 March 2022)

One further tactic to escape from intractable frame conflicts is to claim that dialogue and listening is occurring and that more of this in future will help resolve conflicts. Such claims articulate the (perhaps illusory) belief that frame conflicts can always be ironed out through dialogue – and that the democratic processes and forums such as the annual Recognition and Rewards Festival meetings are doing their jobs by allowing criticisms to be raised:

Important takeaways [from an internal workshop] were: Recognition and Rewards is alive, there is space for different opinions, and there is work to be done on how to proceed further... The most important takeaway is that open discussion contributes to the further development of Recognition and Rewards. That may be stating the obvious, but the absence of a 'contrary voice' would be worrying.

(Twente University, Recognition and Rewards | Service portal, p7).

[Minister of Education, Culture and Science] Dijkgraaf is aware, by and large, of "the concerns people have". But he also believes there are "many academics who derive hope from this cultural change". In his opinion it is of "the utmost importance that academics are heard" and "that they themselves have an effect on this cultural change".

(From news feature in DUB, 4 January 2022)

Through the lens of frame analysis, such appeals to virtues of co-creation and deliberative, democratic, participatory processes, where complaints can be heard, are best understood as argumentative ploys to negotiate criticisms and navigate discord within public debates. This is a useful frame repair tactic for pro-reform champions: in democracies, after all, not everyone will get what they want, but at least everyone should be heard. Related to the rhetoric of participatory processes is the acknowledgment that change is complex and intended change audiences move at different paces:

All change is difficult and often met with resistance.
(From opinion piece in ScienceGuide, 11 January 2024)

While there is some acknowledgement that change is difficult and (some) criticisms are valid, less flattering characterizations of critics also tend to be circulated. There is, for instance, a propensity to portray opposing voices as being traditional rather than modern, as being stubborn and out of touch, and as putting self-interest ahead of the collective good.

Out of the 172 researchers who signed Poot and Mulder's letter, 143 are professors. Critics [of the open letter] suggest that many of the signatories are bound to favour the old system, because it helped them get where they are today.
(Nature article, p5, 9 August 2021)

Statements that Recognition and Rewards would harm early career researchers (outlined in the previous section) were countered by another open letter published by 113 early-career researchers that claimed that critics' did not speak on their behalf and that they in fact supported the Recognition and Rewards initiative (From Nature article, 9 August 2021). Defenders of Recognition and Rewards have referenced this letter, to weaken critics' rhetorical tactic of positioning themselves as spokespersons for this vulnerable population and to blunt the attack line that they will be harmed by collective action. This repair move repositions Recognition and Rewards as acting in the interests of future scientists.

Together, this patchwork of frame repair tactics has been mobilized in the hope of undermining opposition counter-framings about risks of collective action. How effective these have been will now briefly be interpreted.

Pragmatic Resolution as a Way Out of Intractable Framing Conflicts

To date the counter-framings have slowed down and modified the advance of Recognition and Rewards reforms within the Dutch science system, without managing to reverse or significantly stall them altogether (Rushforth under review). Frame repairing can help take some heat out of frame conflicts around research assessment reform, but on their own, frame repair tactics are not sufficient to account for how intractable policy-related controversies, like Recognition and Rewards, get negotiated and settled. Powerful actors that support Recognition and Rewards in these

debates have not relied entirely on persuading the other side around to their way of thinking through counter-framings, but have also sought *pragmatic resolutions* of conflicts. This was apparent in the case of Minister of Education, Culture and Science Robert Dijkgraaf's responses to counter-framings that life science critics advanced through media and taken up by a parliamentary sceptic. In 2022, a parliamentary research committee was set up to perform an enquiry into whether Recognition and Rewards threatened Dutch science and in particular its positions in international league tables and rankings (the subsequent AWTI report came down against the counter-framing, finding no indication that this drop would occur). In 2023, Minister Dijkgraaf also commissioned a third party to set up and run the 'cultural barometer', a survey of Dutch academics to be repeated annually in order to map attitudes to the Recognition and Rewards initiative and allow for evidence of discontent to be made visible.¹⁰ Counter-framings led reform proponents to employ discursive frame repair tactics *and* pragmatic resolutions (Shön and Rein 1994).

Conclusion

Research assessment reform as a movement concerned with transforming the reward system of science, funding, peer review, performance indicators, publishing, university rankings, and the wider research culture of academia, has gathered momentum in a number of regions and countries in recent times. Given these targets of change, this reform movement has attracted surprisingly little systematic interest from science studies scholars to date. This paper has sought to present a theoretically-informed account of research assessment reform controversies in the Netherlands, taking the first five years of its national initiative, Recognition and Rewards, as the empirical focal point. Adopting a frame analysis approach, I focused on how disagreements over assessment reform as a collective action problem were constructed and organized within publicly available discourse. This involved presenting a three-part conceptual framework, adapted from the social movement literature on collective action frames, amplifying: a) how the case for collective action on transforming research assessment was constructed by advocates of the Dutch reforms, b) how the case for collective action was framed as hazardous by critics, and c) how in turn defenders of reforms sought to repair the frames in light of challenges (Benford and Snow 2000).

This exploratory study brings an original perspective to this under-researched problem area, firstly, by showing that conflicts over collective action exacerbate because disputants do not share the same criteria of what constitutes either the common good or common reasoned sense. This suggests there is no simple way of arbitrating or managing conflicts over research assessment reforms and there is no 'objective' agreed-upon criteria for settling larger disagreements on whether research assessment reform is a problem meriting collective action. However,

¹⁰ "In Dijkgraaf's view, the possible effects [of Recognition and Rewards] need to be monitored closely in the time ahead." (From news feature published in DUB, 4 January 2022).

analysts can at least make visible conflicting and at times incompatible ways of interpreting and presenting proposed change processes. The findings and conceptual framework presented here can hopefully provide useful resources for science studies scholars and wider stakeholder groups interested in (or even actively engaged in) conflicts over assessment reforms in the Netherlands and elsewhere. For instance, collective action dilemma concerns about whether reforms will work out for future generations of academics, or disputes about whether reforms will serve or harm the national interest (or some other greater good), will surely also feature in other academic contexts where efforts to re-imagine and remake the excellence regime gather momentum, even if they do not unfold in identical fashion.

This study confirms insights from earlier research on the inherent ambiguities of evaluation machines, echoing Dahler-Larsen's (2012) argument that performance indicators, despite rationalistic pretensions, are socially constructed, and thus characterized by interpretive flexibility (see also Kaltenbrunner and de Rijcke 2019; Robinson-Garcia, Costas, Nane, & van Leeuwen 2023; Ross-Hellauer et al. 2024). The section on counter-framings provides further compelling evidence of their ambiguity, by showing how one group's attempts to problematize and reform these evaluation machines encountered pushback from parts of the academic community for whom these devices still hold immense value. For reform sceptics, each dimension of the collective action framing advanced by the Recognition and Rewards initiative was problematic – the diagnosis, prognosis, and blame attribution – and counter-framings were offered. This suggests that mooted or actual assessment reforms within academic settings are not issues on which 'the facts' or 'evidence' can speak for themselves unmediated. Instead research assessment reforms will unfold in social contexts where multiple orders of worth are in play, leading to moral controversies and value conflicts where different personal experiences, beliefs, traditions, interests, priorities, and power relations will meet, possibly in combustible fashions.

Finally, while building on these aforementioned insights from science studies and related critical literatures on research evaluation, this study points also to a critical blindspot. Much critical scholarship has provided invaluable contributions by exposing the ambiguities and dysfunctions of the managerialist performance regime. However, as initiatives like Recognition and Rewards and trans-national efforts such as DORA, CoARA, FOLEC-CLACSO, and others work to redress these dysfunctions, attention to the fragile new realities being forged via this scientific reform movement is needed. This study highlights therefore the potential for a new research agenda - one that might tentatively be called the *social studies of research assessment reform*. Such an agenda should extend beyond simply critiquing metrics and the excellence regime, and examine research assessment reforms *in-the-making*. As this study shows, it is not simply performance indicators, competition, and excellence which carry ambiguities. Positively presented solutions in reform discourses, such as 'peer review', 'evidence', 'narrative CVs', 'portfolio assessments', 'openness', 'equity', 'team science', 'quality', 'values', 'responsible metrics', 'responsible research assessment', and indeed the very word 'reform', are all ambiguous and thus potential objects of contestation. Without building such an agenda, science

studies risks having little to say about developments unfolding in its own intellectual backyard.

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