Erasmus MC Executive Board response to the SEP evaluation 2013-2018 (September 2021)

The Executive Boards of the Erasmus University Rotterdam (EUR) and of the Erasmus University Medical Centre Rotterdam (Erasmus MC) would like to jointly thank all nine evaluation committees¹ for their careful and critical evaluation of our research. In an unprecedented Corona pandemic period, in which priorities and focus shifted dramatically to the role and impact of medical science, to (the limitations of) basic and advanced hospital care and to revalidation of patients, we express our sincere gratitude to the unabated work of the committees, researchers and support staff for their intense cooperation to make each digital site-visit a success.

Due to the COVID-19 pandemic, we regret intensely that committee members were unable to witness first-hand our Rotterdam culture and experience our new hospital buildings. Given the unique circumstances, it is a testament to the committees that they were able to get to the heart of the Erasmus MC mission and ambition and were able to make many positive remarks and constructive recommendations to improve the quality and societal impact of our research, strategy, PhD training and working environment.

Erasmus MC is proud of the overall ratings that our research received and wholeheartedly thanks all researchers, past and present, for their dedication and commitment in pursuing excellence in healthcare through research and teaching. Erasmus MC research departments scored 'very good' to 'excellent' in each of the evaluation categories (i) quality of research, (ii) relevance and (iii) viability. Specifically, 22 departments scored 'excellent' in quality of research and 23 departments scored 'very good'. The relevance of all research was rated 'good' or higher with over half of all departments scoring 'excellent'. Viability tended to be rated slightly lower although still very good, substantiated by a need for Erasmus MC and departments alike to increase attention to succession planning of senior researchers. Four departments, namely, Ophthalmology, Viroscience, Radiology and Nuclear Medicine and Molecular Genetics obtained triple excellence in all three evaluation categories, a well-deserved accolade.

Each department has been requested to formulate an action plan based on the comments and recommendations from the committees. These plans will be discussed yearly as part of the Erasmus MC quality assurance cycle and will form a starting point for the next scheduled SEP site-visit evaluation in 2025. Whilst the evaluation reports primarily focus on assessing departments, analysis of all nine committee reports led to the identification of eleven common topics relevant to central Erasmus MC strategy and policy. Given the importance of these topics for departments and for our employees, we feel it is right to take this opportunity to reflect on the points raised and formulate relevant targets for the coming years².

Erasmus MC Research strategy and vision

The SEP review committees noted in their findings that Heads of Departments are sufficiently aware of the ambitions of Strategy23³, however, several committees question how this strategy is actively being translated into departmental strategy? Whilst data and technology form one of the pillars within Strategy23, and therefore form a foundation for the Convergence programme together with TU Delft

¹ Erasmus MC comprises 47 research departments bundled into nine themes. The themes themselves are not research units but were used to organize the site-visits.

² The order of the topics has no bearing on their importance or priority for the organisation.

³ Strategy23 (Technology and Dedication) is an Erasmus MC five yearly overarching strategy plan, setting out the importance of patient as partner, innovation with data and technology and personal attention to individual employees.

and Erasmus University, we acknowledge that a more specific strategy for research, including which societal challenges will specifically be addressed, is warranted. We are pleased to learn that the committees see great potential in converging knowledge in engineering, data science and medical technology and we will increase our efforts in this direction. The committees acknowledge some impressive collaborations with TU Delft and EUR that were already in place before the start of the Convergence programme, and see many new initiatives emerging. However, more can be done to stimulate sustainable strategic and structural partnerships, both at theme and Erasmus MC levels. Based on these findings Erasmus MC has formulated the following goals for the coming five years.

- We will develop a coherent and realistic long-term Erasmus MC research strategy, including which societal challenges will specifically be addressed, incorporating the ambitions of the Convergence programme. The research strategy should provide input for Strategy28.
- We will develop evaluation criteria to measure the scientific, societal and economic impact of the Convergence programme.
- We will stimulate departments to align their strategies with Erasmus MC central strategy in order to strengthen the unity and impact of the theme(s) as a whole.
- We will promote structural collaborations of departments with TUD and/or EUR by active stimulation and central support.

Erasmus MC research organization

Each committee made the observation that the internal organization of research is difficult to comprehend for external parties. Whilst historical clinical considerations can explain the thematic structure, we realize that this structure doesn't always suit the research strategy of the departments within the theme (it was never intended to do so). To promote cross-departmental and cross-thematic collaborations, Academic Centers of Excellence have been initiated, in some cases leading to the formation of new research institutes. Finding a balance between a stable line management organizational structure and a structure that facilitates collaboration in a dynamic setting of research remains a challenge faced by many academic medical centers.

Subsequent to the development and approval of an Erasmus MC research strategy, we will
initiate an internal advisory committee to advice the Executive Board on the (simplification of
the) internal organization and external profiling of research.

Collaboration in and between themes

The evaluation committees noted that the theme construction (as administrative structures as opposed to strategic entities) leads to missed opportunities for collaboration and sharing resources. In several themes, departments operate largely independently from each other. Whilst ACEs/institutes have been initiated to promote collaboration between all departments, in the eyes of the committees, intrathematic collaboration seems to receive less attention than it perhaps ought to. Furthermore, the evaluation committees noted that themes could do more to merge and share (clinical) resources/infrastructure and actively exchange know-how. All these points are essential as a potential boost of efficiency and cost-saving. Based on these findings Erasmus MC has formulated the following goals for the coming 5 years.

- The Executive Board will give Theme Chairs and Directors the explicit assignment to actively
 encourage themes to identify and explore mutual and synergistic research interests.
- We will encourage themes to merge and share (clinical) resources/infrastructure and actively exchange know-how in order to boost of efficiency and cost-saving.

Research Funding distribution and trend

The evaluation committees noted the strength of a University Medical Center in combining research, education and clinical care in a single campus. At the same time, the committees emphasize that it takes effort and financial investment to actively connect these activities and reap the benefits for patient care innovation. We are tremendously pleased that the quality of Erasmus MC research is broadly speaking rated as very good to excellent and we acknowledge that maintaining this position is dependent on strategic distribution of decreasing scarce internal funding. The approach to distribution of direct funding is pointed out by the committees as "problematic". Historical budgeting indicators can outweigh the actual research performance of some departments and don't necessarily favour niche or upcoming strategic research areas. Direct (first stream) funding is essential for matching external subsidies, for tenured/fixed positions, for time allocation for research (esp. clinical researchers) and also a buffer to deal with fluctuations in other income streams. Historically Erasmus MC has a broad research portfolio, this has always been a strength. However, we take to heart the committees 'warning' that the quality of our research can also be impacted by "spreading ourselves too thin". In turn this may also make Erasmus MC a less attractive place for researchers. The committees noted that with administration burden increasing for clinicians, that this is often at the expense of (clinical) research time. Based on these findings Erasmus MC has formulated the following goals for the coming 5 years.

- We will accelerate the development a new balanced system for the allocation of internal research funding that fosters (i) alignment with Erasmus MC research strategy, (ii) "academic freedom", (iii) smart innovation with return-on-investment, and (iv) development of sustainable Erasmus Research Infrastructure, resources and services for research communities to conduct top level research (and education).
- We will develop policies to protect research time of (clinician) researchers thereby forming a pre-requisite for high quality translational research

Erasmus MC Infrastructure

The committees applauded the significant steps taken by Erasmus MC to improve research infrastructure. In particular, the implementation of Core Facilities and the Research Suite. Centralisation of core facilities and storage/compute facilities is a must to maintain affordable state-of-the art infrastructure necessary for excellent research. However, a balance is needed between centralisation of expertise and equipment for the masses versus solutions for departments with tailor-made needs e.g. data management/storage/processing. Based on these findings Erasmus MC has formulated the following goal for the coming 5 years.

 We will actively engage departments in (i) finding a balance between their specialized needs and the (cost) benefits of centralized infrastructure, and (ii) the management and budget of centralised facilities/services.

Erasmus MC website

Although not a formal point of evaluation, one SEP evaluation committee noted (rightly) that the English website of Erasmus MC is in need of an update to better showcase individual researchers and research topics. Erasmus MC has formulated the following goal for the coming 5 years.

 We will improve the external visibility of Erasmus MC research and researchers by implementing personal web-based researcher profiles.

Integrity and research culture

Having had discussions with researchers in various positions in the organization, the SEP evaluation committees noted an open and transparent research culture. The committees recognised our efforts in making available to researchers various centralised integrity and research policies and an Erasmus MC research code. The committees couldn't identify if centralised policy was being followed, but identified no issues as a consequence. Due to the importance of research integrity in creating trust in science and scientists, we will continue our efforts to promote an open research culture.

- We will continue efforts on implementation and monitoring of (centralised) research integrity/culture policy.
- We will develop an (open) data policy regarding e.g. ownership of data, storage in (de)centralised database.
- We will develop an Erasmus MC practical guide to authorship based on ICMJE guidelines.

Diversity

The committees noted that in the last decade Erasmus MC has made significant efforts to enhance (female) career development. In particular the SEP evaluation committees praised the available workshops for female scientists. Data demonstrates that there is a good gender balance at junior and mid-career level but this sea of talent hasn't yet resulted in a strategic management layer that sufficiently reflects the diversity of the Erasmus MC patient population and our international network. We recognise that more needs to be done to promote diversity and inclusion and we commit to the following goals for the coming 5 years.

- Erasmus MC has developed a Gender Diversity and Inclusiveness plan and we commit to the implementation and monitoring of the deliverables outlined in this plan (link).
- We will continue to invest in (female) career development at minimally the current level.
- We will develop pro-active interventions to stimulate recruitment and fast-track appointment of women to higher positions.

Patient participation

A small number of SEP evaluation committees noted that some researchers were active in involving patients in research. In this respect patient involvement could be more prominent on the agenda. Erasmus MC has formulated the following goals for the coming 5 years

• We will initiate a working group to advice on best practices to increase patient involvement in all relevant parts of research and not just as subjects in trials.

Career development

The SEP evaluation committees noted a great atmosphere within Erasmus MC, high intrinsic motivation and good career programmes. The Female Career Development programme was often cited as "impressive and longstanding". We are immensely proud of these observations and feel that these reflect our aim to offer staff, students and volunteers "a pleasant and safe place in which to work, study and fulfil ambitions" (Strategy23). In sentiments echoed by each of the SEP evaluation committees, we take to heart that there are real concerns regarding (research) talent management, leadership succession and support. These concerns are shared by us: (i) advancing diversity, inclusion, personal and professional development, (ii) training of academic leaders that listen to, give positive feedback, reward and compliment employees and students, and (iii) creating a versatile organization with new and diverse career opportunities for academics are priority agenda points and essential factors in building a health working environment where innovation in central to our mission of providing top class patient healthcare. Based on these findings Erasmus MC has formulated the following goals for the coming 5 years.

- We will establish new talent (support) programmes for attracting, promoting and retaining talented researchers.
- We will encourage departments to scout for talent externally and not only rely on homegrown talents. This will stimulate diversity and quality of research in the long term.
- We will implement a 5-year strategic talent management plans per department and increase transparency in promotion guidelines as mechanisms to improve employee comprehension of (their own) career prospects, eligibility for promotion and/or eligibility to talent programmes.
 This will also aid leadership succession planning for managerial positions.
- We will develop protected research time arrangements for fundamental and clinical scientists that should be included in staff contracts, also to help improve work-life balance.
- We will develop a broader view in assessing research(er) performance.

PhD training programme

The SEP evaluation committees were overall very positive about the quality of our PhD training and supervision. Erasmus MC has been running PhD programmes for several decades and has internationally recognized programmes. There is room for further improvement and we acknowledge the committees' judgements that the new Graduate School offers a perfect environment for making adjustments to policy and procedures. Based on committee findings Erasmus MC has formulated the following goals for the coming 5 years.

- We will further realise the new Graduate School governance and mission by repositioning the existing PhD programmes in the four tracks (core, health, clinical and biomedical sciences) of the Graduate School.
- We will streamline and increase the findability of support structures, courses and workshops for PhD candidateswith particular attention to new programs for onboarding, mentorship, buddy system, mental health wellbeing and job market preparedness.
- We will integrate the annual update of Training and Supervision Plans into the annual appraisal cycle of PhD candidates and clarify thesis requirements to ensure Erasmus MC uniform interpretation of the requirements to graduate.
- We will take advantage of Hora Finita management data to routinely monitor PhD duration, drop-outs and delays as essential input parameters for maintaining quality standards.
- We will develop a Basic Qualification of Supervision certificate to maintain quality assurance in guidance and supervision of students (and staff).