

Management Summary | 29 March 2019

On behalf of

Flemish government – Department of Economy, Science and Innovation Koning Albert II-laan 35, bus 10 1030 Brussels Belgium

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1 / ITM

The Institute for Tropical Medicine Antwerp (ITM) was founded in Brussels in 1906 during the colonial activities of Belgium in Congo. Since then, ITM has grown into an internationally recognised and renowned knowledge institute in tropical medicine. It is a world leader in both (scientific) research and education in tropical medicine, AIDS and other infectious diseases and health care in developing countries.

In 1999, the Institute was appointed by Flemish Parliament Decree as a public utility institute for post-initial education¹, scientific research and scientific activities. These three mandates are financed through various agreements with Flemish and federal government bodies:

- 1. Education ITM's educational mandate is part of the management agreement between ITM and the Education and Training policy domain of the Flemish government as set out in the "Codex Hoger Onderwijs"², the main Flemish legislation about higher education.
- 2. Research The research activities of ITM are partly financed through the management agreement with the Education and Training policy domain. In addition, ITM must make its research policy explicit in a strategic plan that is submitted for funding and approval to the Flemish Minister for Innovation. This plan provides the basis for concluding a covenant between ITM and the Economy, Science and Innovation policy domain as is outlined in the W&I decree³.
- 3. Scientific activities/services The agreements with federal and Flemish governments also provide funding for development cooperation, medical and scientific activities/services. The main agreement for this core task of the Institute is the framework agreement between ITM and the Directorate-General for Development Cooperation and Humanitarian Aid (DGD) of the Federal Public Service (FPS) Foreign Affairs, Foreign Trade and Development Cooperation. Furthermore, ITM also has a framework agreement with the FPS Public Health, Food Chain Safety and Environment relating to medical services.

¹ Post-initial education comprises educational programmes leading to a Master's degree and for which registration is primarily open to persons already in possession of a Master's degree (source: Codex Hoger Onderwijs).

² The Codex Hoger Onderwijs concerns the codification of 11 October 2013 of the Flemish Parliament Decrees about higher

³ Flemish Parliament Decree of 30 April 2009 about the organisation and funding of (Flemish) Science and Innovation Policy.

2 / Policy context of the evaluation of ITM and its research assignment

ITM is governed by the Flemish Parliament Decree of 30 April 2009 about the organisation and funding of the (Flemish) Science and Innovation Policy (hereafter referred to as the W&I ("Wetenschap en Innovatie") decree). According to the W&I decree ITM, as an institute for post-initial education, qualifies to receive an annual grant from the Government of Flanders for carrying out scientific research. The support thus provided for ITM is mainly in line with the policy objectives formulated in both the policy brief about Work, Economy, Science and Innovation 2014-2019 and the subsequent (annual) policy letters about Work, Economy, Science and Innovation to invest in an excellent knowledge base and in European, international and interregional networks. This fits in with the ambition of the Flemish coalition agreement (concluded in 2014 and) for the period 2014-2019 entitled "To trust, to connect, and to make progress", to spend at least 3% of the gross domestic product per region on R&D by 2020.

The grant to ITM is regulated by a long-term covenant between ITM and the Flemish government (Economy, Science and Innovation policy domain). The covenant lays down the mutual rights and obligations regarding ITM's scientific research assignment. Both the W&I decree and the 2013-2018 covenant stipulate that an evaluation of ITM's research assignment has te be conducted before the current covenant expires.

As an institute of post-initial education, ITM is also governed by the Codex Hoger Onderwijs. The Codex Hoger Onderwijs relates to the core tasks of ITM, namely education, research and scientific activities. In accordance with the Codex Hoger Onderwijs, a management agreement has been concluded between ITM and the Flemish government (Education and Training policy domain) that provides an annual grant to ITM to support the execution of these core tasks. The current management agreement spans the period 2015-2019 and stipulates that an evaluation of the functioning of the ITM should be carried out before April 1st 2019.

However, the time frame of the previously mentioned covenant does not correspond to that of the 2015-2019 management agreement. In order to align both agreements and the associated evaluation processes as closely as possible, the 2013-2018 covenant between ITM and the Economy, Science and Innovation (Economie, Wetenschap en Innovatie, EWI) policy domain was extended by one year, which is why henceforth the covenant is referred to as "the 2013-2019 covenant" in this evaluation. The necessary adjustments were also made in the Education and Training (Onderwijs en Vorming, O&V) policy domain (the planned period for conducting the evaluation of the management agreement for instance was one of the adjustments made) ensuring that the results of the evaluation of ITM's research assignment as outlined in the 2013-2019 covenant⁴ may serve as input for the subsequent evaluation outlined in the 2015-2019 management agreement (with O&V)⁵.

The EWI Department coordinated the evaluation of ITM's research assignment, and the evaluation assignment was conducted by the company IDEA Consult⁶. In accordance with the evaluation practices of the EWI Department, the evaluation was supervised by a steering group composed and chaired by the evaluation unit of the EWI Department. The steering group's role was to monitor both the quality and the progress of the evaluation of ITM, as well as to ensure that the execution of the evaluation results in concrete recommendations. During the evaluation, IDEA Consult discussed its approach and progress with the steering group several times, and the steering group commented on the draft report and finally validated it. In addition and in line with the evaluation practices mentioned above, ITM was given the opportunity to review the draft report with an aim to correct any material errors. The errors thus identified were corrected before finalising the report.

The evaluation of the research assignment of ITM took place in the period from November 2018 to February 2019.

⁶ The evaluation assignment was awarded by a public procurement procedure (entitled "Specifieke opdrachten in het kader van de evaluatie (van de onderzoeksopdracht) van het Instituut voor Tropische Geneeskunde" [specific assignments related to the evaluation (of the research assignment) of the Institute for Tropical Medicine] and described more detailed in terms of reference with number EWI-2018-14).



⁴ That is managed by the EWI Department.

⁵ It is managed by the Agency for Higher Education, Adult Education, Qualifications and Study Allowances (AHOVOKS).

3 / Design of the evaluation of ITM

The objective of this evaluation assignment is to carry out an evaluation of (the research assignment of) ITM. This evaluation concerns the operation and functioning of the ITM in the context of its research assignment, its role and position in the research landscape, and its performance and impact. The table below summarises the subject of this evaluation from a dual perspective: on the one hand, an ex post perspective is used to look back at the performance during the current covenant period (2013-2019), while the analysis of the draft research policy plan for 2020-2024 requires an ex ante perspective.

Table 1: Subject of the contract

Ex post and ex ante	Evaluation topics
perspectives	
Ex post perspective	Analysis and assessment of the way wherein ITM has fulfilled its mission, objectives and assignments in the period 2013-2019, both in the context of the covenant and in the framework of the broader policy (both locally and internationally). This includes a substantive analysis, a financial analysis (e.g. use of grants and accountability about this use) and an assessment of the covenant (e.g. building up reserves) and the planning/justification provided by ITM.
	Analysis and assessment of the performance and results of ITM for the period 2008-2018. This includes an analysis and assessment of the results obtained on relevant indicators, as well as the performance and results in terms of research output, attracting external funding, the contribution to the development of research potential, communication actions, etc.
	▶ Analysis and assessment of the impact of ITM in the 2008-2018 period, at the scientific, social and economic levels as well as at the Flemish and international levels. This takes into account the achievements in relation to the resources deployed.
	Analysis and assessment of the way wherein and the extent to which the results and recommendations of previous evaluations were taken into account by ITM (we refer here to the previous evaluation of 2012 concerning the research assignment (covenant) and, where relevant, the evaluation of ITM's general mandate (management agreement - mainly in relation to the research assignment)).
	► International benchmark of ITM with comparable institutions.
	Analysis and assessment of the policy framework and the policy and other objective(s) wherein ITM is embedded. The latter also refers to international policy and other developments and not only to the relevant Flemish science and innovation policy, as well as to the education regulations and the education policy.
	 Analysis and assessment of the (strategic) co-operations and other joint ventures (and the added value generated) and the valorisation achieved.
Ex ante perspective	Analysis and assessment of ITM's draft research policy plan for the period 2020-2024 and this within the framework of the evolving policy context.
	Analysis and assessment of future plans and opportunities.

To provide a substantiated answer to the identified evaluation questions, we use a mix of methods ("triangulation"). These methods were used in a targeted and combined way to provide a reply to the various evaluation questions. The following methods were used for this evaluation:

- Document analysis;
- Stakeholder interviews (24 in-depth interviews);
- Benchmark with three institutions comparable to ITM (Liverpool School of Tropical Medicine (LSTM), Swiss Tropical and Public Health Institute (Swiss TPH), Bernhard Nocht Institute for Tropical Medicine (BNITM));
- Bibliometric analysis;
- Site visit by a panel of international experts (Anna-Karin Hurtig (University of Umeå, Sweden), Albrecht Jahn (Heidelberg University Hospital, Germany), Carine Ronsmans (London School of Hygiene & Tropical Medicine, United Kingdom), Erwin Schurr (McGill University, Montreal, QC, Canada)).



4 / Conclusions of the evaluation

4.1. Reporting in the context of the covenant

Due to the various agreements with regional and federal governments, ITM has to comply to a diversity of reporting requirements. This leads to the latter being perceived as relatively heavy compared to the resources provided. At the same time, it was emphasised during the interviews that the EWI resources were and are very important to enable independent academic research within the Institute. The EWI reporting also introduced the focus on KPIs and bibliometrics within the Institute. From this perspective, the investment ITM made in reporting has also rendered a return on ITM's the strategic approach to its research activities.

However, this does not detract from the fact that there are still areas for improvement in the field of reporting. For example, the mixed language use for reporting (i.e. both Dutch and English) raises practical questions. In the period 2013-2018, annual reporting was done in Dutch, while ex post and ex ante self-evaluations were made in English. However, the covenant (Article 13 §6) states that the reporting must be in English, while the language legislation in Belgium requires the reporting of organisations located in Flanders to be done in Dutch and on the other hand, the reporting for the Education and Training policy domain within the framework of the management agreement has to be in Dutch as well. The reporting of ITM to the O&V policy domain and to the EWI Department thus differs both in the time of delivery/submission of the report as in the language used.

4.2. ITM's Research Policy

General organisational structure

The main governing bodies of ITM are the General Council, the Board of Governors and the Management Committee. The General Council provides strategic advice and ensures that management, policy and administration are in accordance with the purpose, identity and integrity of the Institute. It is a highly diverse body and includes key stakeholders of ITM (including government stakeholders, university representatives, ITM staff and students, alumni). This Council also elects the members of the Board of Governors (who are appointed based on their capacities and their (research) profiles and experience, regardless of their affiliation). The Board of Governors is an independent decision-making body that determines the strategy of ITM and monitors its management performance. Finally, the Management Committee supports the Director in the day-to-day management of the Institute and carries out the instructions and strategy established by the Board of Governors.

ITM's research is carried out within three research departments that focus on ITM's most important areas of expertise. These departments are structured around three Ps (pathogens, patients and populations): the Department of Biomedical Sciences (pathogens), the Department of Clinical Sciences (patients), and the Department of Public Health (populations).

During the current covenant period (2013-2019), ITM's organisational structure has undergone an important transition. Several bodies have been given a different interpretation or remit, and new administrative bodies have also been established. The current organisational structure has grown organically but is also the result of the vision document ITG2020+7 and the governance review (launched by the internal Audit Committee) in 2016, which both identified potential conflicts of interest and had questions about the composition and decisiveness of the very broad Board of Governors. The governance review also highlighted the under-representation of important stakeholders (such as staff, students, alumni) in the main governing bodies of ITM. The main changes in the organisational structure can be summarised as follows: (i) a General Council was established (operational as of February 2018), (ii) the Board of Governors was given a different mandate and composition (February 2018) and established an Audit Committee and a Nomination and Remuneration Committee, (iii) the Scientific Advisory Council was given a new mandate, and (iv) the Research Office and Education Office were installed (as of 1 March 2018).

In summary, it can be said that ITM's organisational structure has changed substantially over the past covenant period. As most of these changes have taken place only recently, today the Institute is still in transition. Consequently, it is difficult to adequately assess the exact impact of these changes. Moreover, time will tell whether all these different governing bodies will not make the structure of the organisation too cumbersome. Additionally, the possibilities for interaction and the division of roles between the various organisational bodies are not yet sufficiently clarified, a finding that is also supported by the panel of experts. In our opinion, the renewed Board of

⁷ Through the internal vision document "ITG 2020+", the Institute has embarked on a new path by striving for an international position in which scientific excellence and innovation are paramount, not only academically but socially as well.



Governors - the composition, size and mandate whereof have been changed - should improve the transparency and efficiency of decision-making. Moreover, the recently established Research Office and Education Office are considered as positive achievements. They clearly fill a gap in the organisation and, in our view, contribute significantly to internal efficiency. The experts also stressed this during their site visit. The Research Office will also ensure that the leverage of EWI grants towards more external funding will only increase. In this respect, the Research Office ensures, among other things, a better screening of domestic and international calls using targeted communication, and during recruitment procedures more attention is given to profiles who have experience in applying for scholarships.

Research activities within ITM's organisational structure

In recent years, ITM has undergone profound reforms based on a vision of the future rooted in scientific excellence. This focus on research excellence is also clearly integrated into ITM's general strategy. The Institute considers scientific excellence and international impact as its main driving forces - in an era beyond development aid - and sees excellence and relevance as two sides of the same coin. This vision for the future is in line with the "Switching the Poles" philosophy in its capacity-building programme wherein which the decision-making and effectiveness are the responsibility of the Southern partners themselves. This focus on research and research excellence has also been translated into the way in which ITM's organisational structure was constructed. The following are the most important elements thereof:

- Research within ITM is structured within three disciplinary research departments under the leadership of a department head with hierarchical authority. Before 2012, there were five departments that were managed "collectively";
- Within the research departments, efforts are being made to generate more critical scientific and other mass by integrating research units into larger research groups;
- The research departments are also more involved in defining ITM's strategy;
- ► The Research Office was established in March 2018 aiming at improving research productivity and output of ITM;
- Research excellence is strongly emphasised in ITM's Structural Research Funding ("Structural Onderzoeksfinanciering ITG", SOFI) programme supported by EWI grants. This programme provides financial support for internal and promising projects (see also next section). Applications within this programme are assessed by an external and international panel of experts, and within the assessment criteria used, no less than 80% of the weight is allocated to scientific excellence;
- Innovative research ideas at an early stage of conception are supported through the recently established Pump Priming Projects. Through these projects, ITM wishes to develop new research ideas with targeted financial support into fully-fledged research projects that can be submitted to external financers (or within the internal SOFI programme) within the year;
- Research activities and excellence are also strongly encouraged within the Clinical Trials Unit (CTU) and within the Outbreak Research Team (ORT), both established with support from EWI grants⁸;
- There is also a PhD Committee within ITM that advises on the academic admission to the ITM PhD programme and more specifically on the selection of the "sandwich" PhD students⁹.

This strong focus on research excellence and related investments also seems to lead to positive research results and output. For example, the number of publications has increased significantly in the past decade and substantially exceeds the targets linked to ITM's key performance indicators (KPIs) included in the 2013-2019 covenant. During the covenant period, ITM has also further strengthened its leading role in epidemiological research and is leading important research into resistance to drugs for leishmaniasis, tuberculosis and salmonella.

Use of the annual EWI grant

During the last evaluation period, the annual EWI grants were allocated to the following four areas:

- The Structural Research Funding (SOFI) programme;
- Co-funding for participation within the European Research Area (ERA);
- ► The Clinical Trials Unit (CTU);
- ▶ The start-up of the Outbreak Research Team (ORT).

⁸ The CTU was established in 2004 and the ORT in 2017.

⁹ PhD students from the South who conduct part of their research at ITM and the other part at their home institution.

An analysis of the use of the EWI resources for research shows that the internal allocation of these resources is clearly aimed at stimulating outstanding research activities. ITM has also indicated on several occasions that the EWI resources have been important in making the shift towards science-driven and curiosity-driven research. The EWI resources made it possible for ITM to conduct targeted research with fewer directly visible applications (no longer research because of the "usefulness", but for academic purposes). ITM also stresses the fact that the availability of internal funds for research benefits scientific independence. After all, in ITM's research domains it is often difficult to steer one's own course independently of the funding source, especially if that source has its own specific agenda.

Within ITM, the SOFI programme appears to be very important to stimulate and develop research excellence. The size of the scholarships within the programme also allows promising new research lines to be started and to be developed further, or for joint research platforms, consisting of researchers from different departments, to be set up. However, the impact of the SOFI programme on supported projects or follow-up projects has not been monitored nor assessed by ITM. The programme could also be used more as a lever to obtain more external funding. For example, SOFI funds could be applied more as co-funding for other external projects.

As an evaluator, we see the CTU as an important asset of ITM. The clinical studies supervised by the CTU are unique in their kind and are a well of information that not only benefits the Clinical Sciences Department but the other research departments as well. In this way, the CTU stimulates research activities in all research departments. The added value of the CTU for Flanders and Belgium will also only increase as ever more clinical studies are being conducted in Belgium and as research topics that are becoming more relevant for the local population are being addressed. In this way, we can state that the local impact of the CTU/ITM will only increase in the future.

The ORT can be seen as a remarkable initiative that builds on both the strengths of ITM (namely the wide range of research expertise ranging from fundamental to implementation research, and the strong disciplinary foci ranging from clinical sciences to health systems and laboratory sciences) and the robust embedding of ITM in the South. In order to direct the research team within the ORT, a "hybrid" organisational structure has been set up whereby the members of the ORT are also embedded in the various research departments. This organisational structure seems very relevant to us because it seems to optimally stimulate and support interdisciplinarity within ITM. Important to note in this regard is that this structure may at the same time lead to frictions between the research departments and the ORT as the ORT team members have responsibilities both within the ORT and the research departments.

Personnel deployment

An analysis of the deployment of personnel within ITM shows that, in addition to scientific personnel, ITM also employs a large number of administrative, technical and support personnel, and that the share of scientific personnel decreased slightly in the period 2013-2018. Moreover, the research capacity is not evenly distributed across the three research departments, which means that the critical mass for certain lines of research is limited, especially in the Clinical Sciences Department.

The current generational transition of ZAP (Senior Academic Staff) members offers significant opportunities to attract new profiles and strengthen research activities. The panel of experts pointed out the major challenges that the "ZAP succession plan"¹⁰ entails, including the need for clear mechanisms for decision-making and accountability. These requirements are necessary to ensure that the appointments of new ZAP members tie in with the long term strategic priorities of ITM.

Moreover, the analyses show that the ZAP succession plan must pay sufficient attention to diversity. Although ITM mainly employs female employees, female professors are a minority within ITM. The figures also show that ITM predominantly employs Belgian professors. The diversity of the workforce in terms of nationality barely changed in the 2015-2017 period. Attracting new ZAP members thus also offers an opportunity to increase diversity among professors.

As for the career possibilities of researchers, the panel of experts considers the new "expert track" a welcome addition to the traditional ZAP statute, as it offers researchers the opportunity to focus more on one of the three core tasks (education, research and services). However, the experts point out the need for more clarity about the precise roles and responsibilities of researchers in the statute of "expert" and the mutual relationship with the ZAP statute. Various activities are, after all, only possible within a ZAP statute (such as acting as the promoter of a PhD student, as the main applicant for research funding, etc., although post-doctoral researchers within ITM can also be the main applicant for Horizon 2020 projects).

¹⁰ In 2018, the department heads presented their respective plans for the succession of departing ZAP members to the new Board of Governors. Based on the feedback received, they will present their final plans in March 2019 and integrate them into the policy plan 2020-2024, which will be submitted to the Flemish government by mid-2019.

4.3. Financial analysis and assessment of the funding model

ITM's annual budget increased from EUR 52 million in 2013 to EUR 56 million in 2017. ITM is mainly financed through public funds to fulfil its core activities in the fields of education, research and services. In 2017, 66% of ITM's budget constituted of funding through agreements with regional and federal governments. The large share of public funding in ITM's budget puts the Institute in a vulnerable position because it largely depends on policy decisions to secure its core funding. The EWI covenant funds constituted 5% of the total ITM budget in 2017. Other sources of income include funding through external research projects, income from medical services and other revenues (from investments and exploitation).

The research budget increased from EUR 18.5 million in 2013 to EUR 19.8 million in 2017, while the EWI grant remained stable (approximately EUR 2 million in 2013-2016 and EUR 2.8 million in 2017¹¹). The EWI budget is also considerably lower than the EWI budget ITM envisioned in its 2013-2018 research policy plan (i.e. EUR 3.4 million). An increase in funding obtained through foreign non-profit organisations was the main reason for the budget increase between 2013 and 2017. The limited share of EWI funding in ITM's total research budget indicates that ITM researchers succeed in attracting alternative funding, particularly at the international level.

The current monitoring of ITM expenditure does not make it possible to determine what proportion of the expenditure is spent on scientific research. After all, research activities fall under two cost items, namely "projects and the DGD programme" and "research and education", and as a result the research expenditure cannot be filtered out of the reported information. A renewed registration system established at ITM should make research-related revenue and expenditure more transparent in the future.

The main advantages that ITM experiences within the current funding model are the stable income within a given period via the various agreements, including the covenant, and the freedom the covenant provides to spend the covenant resources. A disadvantage of the current covenant is the limited amount¹² that can be passed on to a subsequent covenant year, as it prevents the SOFI programme from working periodically. After all, it takes some time to prepare both the call itself and the assessment panel and to ensure that the budget can be spent right from the start of the covenant period, an advance must be made on the following period. In addition, reference was also made to the administrative overhead costs that can be included in the financial reporting (within the covenant, e.g. a maximum of 10%). These do not correspond to the actual overhead costs (which, according to internal ITM calculations, amount to 23%).

4.4. Role and position of ITM

ITM has developed and engaged in various cooperation partnerships throughout the covenant period to fulfil its research task with partners in the North and the South.

- There is cooperation with Flemish universities through formal cooperation agreements that mainly focus on cooperation within the context of the PhD programmes¹³. However, cooperation between researchers is mainly stimulated bottom up and generally develops organically.
- ▶ Within the framework agreement with DGD, ITM cooperates with eighteen partner institutions in ten institutional capacity-building projects in ten low-income and middle-income countries. ITM also cooperates structurally with the Institute of Public Health in Mozambique, supported by the Flemish Development Cooperation. The partner institutions are always academic or research institutions with a direct impact on clinical practice and public health.
- ▶ ITM has a worldwide network of research partners with whom it has produced co-publications in the period 2012-2018. In almost every country in the world, ITM has a number of international research partners with whom it regularly cooperates on research projects. Furthermore, the self-evaluation carried out by ITM shows that almost 87% of all the publications produced by ITM between 2012 and 2018 came about through international cooperation.
- ▶ ITM participates in national networks. For example, ITM coordinates the Belgian network "Be-cause health". This network, financed by the Belgian federal government, consists of institutional and individual members

¹³ As an institute for post-initial education, ITM is not authorised to award PhD diplomas. This is only possible through cooperation with a university and the degree will be awarded by the university in question.



¹¹ The increase mainly relates to the addition of the ORT project to the operations of ITM from 2017 onwards by means of an addendum to the covenant.

¹² The covenant stipulates that ITM may transfer a maximum of 10% per annum of the grant provided in a given year as a reserve to a subsequent operating year and that the total of accumulated reserves may at most amount to 50% of the annual grant.

who are directly or indirectly involved in the Belgian Development Cooperation in the field of international health and healthcare.

▶ ITM's coordinating role in the Be-cause health network ensures that researchers have direct contact with other relevant organisations and developments in the field. Moreover, ITM is also connected to other networks in Belgium, Europe and the rest of the world through its active role in the Be-cause health network.

In the international research landscape, ITM positions itself as an autonomous institute that adheres to its values and principles. This contributes to ITM's worldwide reputation, which facilitates attracting top international talent. As an institute active in a specific niche, ITM has specific expertise, which many researchers combine with field experience through cooperation with partners from the South. In addition, the extensive population of travellers provides a unique set of information for additional research. In terms of research, there is increasing interest in interdisciplinary interaction as ITM has different disciplines under one roof with very short lines of communication.

4.5. Performance, results and impact in the 2008-2018 period

Both ITM and the ORT programme must meet specific key performance indicators (KPIs), as laid down in the covenant. Between 2013 and 2018, ITM achieved at least the annual target for each KPI every year. This is a very good result, especially since ITM's 2013-2018 strategic research policy plan initially assumed an increase in the research grant through the covenant to EUR 3.4 million per year with corresponding higher targets for the KPIs, while the grant amounted to only EUR 2.8 million in 2017¹⁴. ITM even achieved the targets set out in the initial strategic research policy plan for 2013-2018 for a number of the KPIs. However, the evaluation of the KPIs shows that the KPIs must be substantially revised to better reflect the strategic goals and the functioning of ITM for the period 2020-2024. For example, most of the KPIs do not seem challenging enough, and some of them appear less relevant. There is also a need for new KPIs, such as those concerning attracting research and other talent, obtaining funding via the Research Foundation - Flanders (Fonds Wetenschappelijk Onderzoek - Vlaanderen, FWO) and about communication. Currently, important achievements by ITM are not captured by the KPIs (e.g. the realisation of an adapted rabies vaccination scheme that has gained worldwide recognition). Qualitative KPIs can provide a solution for this.

The first year of the ORT programme proved to be very successful. In 2018, the targets were tightened up, which meant that targets a few KPIs were not reached. With regard to the ORT programme, the evaluation also indicated that there is a need for redefining the KPIs to better reflect the efforts and results of the ORT programme.

If we look at the impact of ITM's research assignment, we can state that ITM exerts a broad and substantial impact in the areas of research, society, policy and education. What stands out above all is the strong societal impact, both locally and internationally. This should not be surprising as ITM's largest budget is used for social purposes (e.g. the federal DGD resources for capacity building), but it is still notable that a number of the most important achievements are mainly driven by research activities (such as the research results on tuberculosis and rabies mentioned above). ITM's impact is mainly international, although we can note here that the local impact will only increase in the near future due to important trends such as climate change and sharply increasing migration. Moreover, we also see that ITM is increasingly doing clinical work with relevance for Flanders (as mentioned earlier). What is also striking within ITM is the strong synergistic interaction between the various core tasks. For example, the research carried out ensures better education and vice versa.

During the current covenant period, ITM has put a lot of effort in developing and strengthening its communication policy. At the beginning of the covenant period (2013), ITM did not even have an institutional communication strategy, and its communication responsibilities were widely shared among multiple people within ITM. Since then, various steps were taken to improve communication policy. For example, the current head of communications at the ITM started in 2013 and a central Communication department (part of the Support Services) was installed. An external communication strategy was also developed aiming to protect and strengthen the reputation of ITM. As part of the new communication strategy, the aim is also to disseminate the research results of ITM to the wider population as effectively as possible. As a result, the impact achieved by ITM is growing. Figures about ITM's outreach show that ITM reaches an ever growing audience.

¹⁴ Because the final grant through the covenant was lower than set out in ITM's research policy plan for 2013-2018, the target values for the KPIs in the covenant were also set lower than those included in the research policy plan.

4.6. International benchmark analysis

In the international benchmark, ITM was compared with three leading European institutes for tropical medicine: the Liverpool School of Tropical Medicine (LSTM), the Swiss Tropical and Public Health Institute (Swiss TPH) and the Bernhard Nocht Institute for Tropical Medicine (BNITM). The benchmark analysis focused on vision and mission, background characteristics, international ranking, funding, organisational structure and scientific output. The benchmark analysis showed that ITM had an average score compared to the three other European institutes for tropical medicine.

- Both the budget and the staff of the three benchmark institutes (the LSTM, the Swiss TPH and the BNITM) have grown strongly over the past six years, while ITM's budget and staffing levels have stagnated.
- The bibliometric analysis carried out by the Centre for Research and Development Monitoring (ECOOM) shows that ITM scores well in terms of scientific output and impact. The number of scientific publications with international cooperation is particularly high. In terms of excellence ratio, on the other hand, ITM scores less well. Focusing more on quality, impact and excellence is an important challenge for the future. This is also evident from the annual Scimago Institutions Ranking¹⁵, which indicates that ITM scores lower than the benchmark institutes for research and innovation, but that it does generate more social impact.
- While the other institutes manage to generate more competitive income, ITM is largely dependent on government funding, which puts ITM in a vulnerable position. In the coming years, ITM will have to make a major effort to attract external funding.

4.7. Assessment of the 2020-2024 draft research policy plan

As part of this evaluation, ITM has also drawn up a draft research policy plan for the period 2020-2024. In its new draft research policy plan, the Institute aims to further stimulate the interconnection between relevance and excellence, with a permanent emphasis on equal partnerships with the South, while at the same time seeking to strengthen and further shape synergies with complementary research centres elsewhere. The draft research policy plan also argues that evolutions such as climate change, migration and increasing globalisation will rapidly increase the added value of ITM's expertise to European society and economy.

It is also indicated that in the coming years ITM will try to further improve and better capture and promote its international knowledge and experience in order to provide more service to the Flemish healthcare and health industry. As such, ITM will try to use its international knowledge and experience to generate a stronger impact on the local economy in Flanders (and by extension Belgium)¹⁶. The draft research policy plan also states that the Institute will try to further improve and sharpen its research cooperation projects in the South in order to grow from local to global excellence and relevance. Within this idea, efforts are also being made to better align the scientific programmes and activities. Five important transversal and interdepartmental themes were thus defined, which fit within the so-called "sustainable development goals" (SDGs) defined by the United Nations¹⁷, and which build on the specific expertise within ITM and the interdisciplinary, interdepartmental complementarity of the Institute.

Within these research priorities, the draft research policy plan also indicates what research activities or lines of research will be carried out to meet these priorities. ITM also defined eight KPIs to guide the organisation in the period 2020-2024. The targets for these KPIs are linked to the grants received from the EWI Department. More specifically, the research policy plan defines two different targets for these KPIs that are linked to two scenarios: scenario 1 ("as is") in which the research grant remains at the level of EUR 2.8 million per year, and scenario 2 ("ambitious") in which the research grant increases to EUR 5.4 million per year. In addition to these KPIs, a number of new instruments were proposed that could be launched in the ambitious scenario.

The draft research policy plan is still in its early stages, and several issues are insufficiently elaborated or are unclear¹⁸. For example, it is not clear how the defined research priorities have been established and why they should be the right ones (for example, no SWOT analysis was included in the draft research policy plan - only in the ex-post self-evaluation - which means that the necessary substantiation of the research activities is missing from the draft research policy plan). In addition, it is not so clear how the strategic plans of the three different

¹⁸ This was also a comment made by the previous ITM evaluator for the previous evaluation period (2008-2012) on the draft research policy plan drawn up by ITM on the occasion of that evaluation.



¹⁵ https://www.scimagoir.com/rankings.php

¹⁶ As the research domains on which ITM focuses are becoming increasingly relevant to Flanders/Belgium, the impact on the local population will also increase here. In addition, an increasing number of clinical trials are being conducted here and the Institute wishes to establish more partnerships with local partners in Belgium.

¹⁷ https://www.un.org/sustainabledevelopment/sustainable-development-goals/

research departments are linked to the institutionally defined draft research policy plan. In addition, the draft research policy plan does not adequately address the way in which the ZAP succession plan can be used to strategically develop further expertise within certain topics (in line with the institutional strategy).

The draft research policy plan also focuses more on cooperation projects with external research institutions or private companies. However, it is unclear whether concrete steps will be taken in this regard and whether there will be a strategic shift in ITM's position to make this possible. The defined research priorities were also defined with a view to meeting the SDGs (Sustainable Development Goals), but this alignment could be further improved since it also offers more opportunities to obtain external funding¹⁹. ITM is also introducing new instruments in the research policy plan but only wishes to develop these further in the ambitious scenario. However, the interpretation of these instruments is not clear. In addition, it is important for the research infrastructure of ITM to be updated and improved. According to ITM, the programme that it wishes to launch for this purpose can only be initiated in the ambitious scenario. However, it is important to indicate how this infrastructure issue could be tackled in the stable scenario and how external funding could be obtained to accomplish this.

The new set of KPIs introduced in the draft research policy plan also raises various concerns. For example, the targets for most KPIs are not set at a sufficiently challenging level, and this applies to both scenarios. There is also insufficient clarification of the various targets. Only a few of these KPI targets can be considered sufficiently ambitious to stimulate and challenge ITM in both scenarios. Furthermore, not all KPIs are relevant to keep directing ITM sufficiently towards scientific excellence. It is also not entirely clear how certain KPIs will be measured. Additionally, it may be interesting to indicate how ITM currently scores on these KPIs.

5 / Recommendations

5.1. Recommendations for ITM

- It would be advisable to continue along this same path with a strong focus on "excellence" and to strengthen the institutional focus on scientific research. The further expansion of the Research Office can contribute to this significantly, as can attracting more external funding.
- Both the benchmark analysis and the findings of the panel of experts reached the conclusion that it is advisable for ITM to attract more external funding in the coming years. Currently, several researchers within the Institute are already succeeding in attracting external project resources, but the vast majority of these resources are attracted by a limited number of people.
- ▶ The SOFI projects have contributed to strengthening research excellence within ITM, but internal project operations can be optimised even further, for example by making the assessment criteria correspond to the institutional ambition to attract more external funding. The Research Office can also examine whether it is worthwhile to expand the target group for the SOFI projects by opening up the calls not only to ZAP members, but for example also to research experts, post-docs or junior researchers.
- The new job classification, in which a status of "research expert" is introduced in addition to the traditional "ZAP status", must be further clarified. Currently clarity about the role and responsibilities of researchers in the "expert track" is lacking, as a result of which "research experts" do not yet know whether they have the same opportunities as ZAP members, e.g. to act as the promoters of PhDs or to apply for research funding.
- ▶ The role and mandates of the administrative bodies and their mutual interaction are not yet sufficiently clear. It is part of the ongoing transition process to make the necessary decisions in this regard and to clearly communicate about them such that the expectations regarding the members of the various bodies are clear.
- ▶ The introduction of a strategic communication policy is generally seen as an important achievement. Its strategic monitoring shows that the intended results are being achieved. The expert panel did note, however, that remarkable achievements could be highlighted even more. Although this recommendation is in line with the conclusions of the previous evaluation (2012) of ITM's research assignment, the biggest step towards achieving this has already been taken by developing a centralised communication service.

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¹⁹ For external funding (mainly European), it is becoming increasingly important to demonstrate the potential impact of the research proposal, and how it fits in this context with meeting societal challenges. This ties in with the recommendations of the panel of experts.

- ▶ In order to effectively realise the potential of the ORT in the coming years, ITM must anticipate situations wherein the researchers involved experience a "double loyalty". When researchers are mobilised from the ORT, they must be mandated to let their ORT responsibilities prevail over their responsibilities in the research department they belong to. Support services and structures must also be coordinated with interdepartmental structures, such as the ORT.
- It is recommended to seek more cooperation at the institutional level. After all, there is still considerable potential to institutionally anchor certain partnerships. Particularly, we are thinking of the cooperation agreements to be renewed with universities, which offer an opportunity to realise synergies in a structural manner (instead of just "ad hoc" and "bottom-up").
- At the level of the research departments, there is a need for a clear strategic plan that not only indicates what the priorities are within each of the three departments, but also indicates how the plans of the departments relate to each other. Given the relatively limited research time and resources, it is important to be able to work in a targeted manner and to liaise with each other where possible.
- ▶ ITM has undergone many transitions in the past years. In the coming years, it will be important to consolidate and then focus on growth in order for ITM to keep pace with the European benchmark institutions, which have grown in terms of budget and personnel. The draft research policy plan 2020-2024 envisages an ambitious growth scenario, but also contains a number of points for attention:
 - It is not sufficiently clear whether concrete steps will be taken to develop partnerships with external research institutions or private companies.
 - Only the ambitious scenario of the research policy plan 2020-2024, in which the EWI resources almost double, provides the necessary resources for an update of the research infrastructure.
 - o ITM should provide more clarity on how the newly defined KPIs will be measured or monitored. The definition of the new instruments that can be developed in the ambitious growth scenario should also be elaborated further.
 - The different targets for the KPIs in the ambitious growth scenario versus the stable growth scenario require further clarification. The differences in targets currently seem quite arbitrary. It is also advisable to explain whether a growth path is planned from the current to the ambitious targets, and if so, how that growth path will be fleshed out.

5.2. Recommendations for the Flemish government

- Despite the limited size of the EWI grant (i.e. 5% of the total ITM budget in 2017), ITM succeeded in achieving and exceeding the proposed targets for the KPIs in the covenant. Given the impact generated by ITM's research activities and growing productivity, even though the budget and the group of researchers remained almost stable, continued support to the Institute is recommended.
- ▶ This evaluation indicates that it is a responsible decision to allocate research resources to ITM during the next operational period, possibly of a larger order of magnitude if the ambition that ITM formulates for the further development of the research activities is followed. In view of the excellence of ITM, the Flemish government should consider providing the Institute, together with other institutions for post-initial education, access to funding channels that are currently only accessible to universities. In terms of FWO funding, we are specifically thinking of funding for medium-scale infrastructure projects via the Hercules programme, funding for a fundamental clinical mandate and funding within the Odysseus programme.
- ▶ If Flanders' policy is to give ITM as many opportunities as other research institutions in Flanders to further develop research activities, it must also be considered whether it might be appropriate to allocate additional resources to ITM if the distribution of the historical recurring budgetary increase of EUR 280 million in 2019 for the EWI policy domain²⁰ were to be reconsidered.
- The covenant states that the overhead costs for the use of the resources are limited to 10%, while according to internal calculations, ITM has a real overhead cost of 23%. The administrative overhead costs that can be included in the financial reporting do not therefore match the actual overhead costs experienced by ITM. Within the legal framework, it must be examined whether the overhead costs for research institutions could be increased.

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²⁰ For an overview of the beneficiaries, we refer to the EWI Department's (Dutch) communication of 8 January 2019: https://www.ewi-vlaanderen.be/nieuws/vlaams-parlement-stemt-met-historische-begrotingsopstap-van-280-mio-eu-2019-voor.

- ▶ The evaluation shows that the KPIs and the corresponding targets included in the covenant need to be revised. Most KPIs do not seem challenging enough, as ITM for most of them scores well above the objectives set in the current covenant. ITM also commented that there is only a limited "fit" between the current KPIs and the operation of ITM.
- The mutual coordination of agreements with institutions for post-initial education, such as ITM, must be continued. For example, the self-evaluation and research policy plan for the evaluation of the covenant with the EWI Department have to be drawn up in English, while the reporting within the framework of the management agreement with the O&V policy domain is done in Dutch. It would therefore be better to leave out §6 of Article 13²¹ in a subsequent covenant and to provide for a different (more pragmatic) solution, in accordance with the language legislation.
- The Flemish government can encourage cooperation partnerships between ITM and Flemish universities, for example by focusing more on sharing infrastructure and on developing a modular training offer. For example, by providing a modular training offer together with ITM (instead of operating on the basis of a semester), the courses of universities could be opened up to students from the tropEd network²².
- ▶ It is recommended that the Flemish government asks ITM to revise the 2020-2024 research policy plan and to pay explicit attention to the following issues:
 - o It is not clear enough how the defined research priorities were selected and how the institutional research policy is related to the departmental research plans.
 - o ITM does not adequately address the anticipated spending of the funds under the ambitious scenario. Moreover, only the ambitious scenario provides for investments in infrastructure.
 - Further explanation is needed on how the KPIs will be measured. The proposed targets also seem to be insufficiently challenging. Moreover, it is not clear how the differences in KPIs between the two scenarios envisaged were determined.
 - The panel of experts advised against linking KPIs to "Open access" because this says nothing about the quality of the publications and also requires additional funding.
 - o In order to better assess the impact of the research activities of ITM, it must be examined whether it is relevant to also include qualitative case studies in the reporting.

²² tropEd is an international network of higher education institutions from Europe, Africa, Asia, Australia and Latin America that offers post-doctoral opportunities for education and training that contribute to sustainable development.



²¹ In the current covenant, among other things, this refers to the language of reporting expected from ITM in this context.

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