Action Plan accompanying the recommendations in the "Assessment Report Wageningen Food & Biobased Research"

WFBR management, 1 June 2022

The assessment visit of WFBR took place from 15-17 September 2021. This visit constituted the culminating point of the Assessment Committee's task, which was preceded by a thorough analysis of WFBR's self-assessment report. The Assessment Committee members were Dr Michael O'Donohue (Chair), Dr Kerstin Pasch, Prof. Katja Loos, Dr Marcel Wubbolts and Ms Irénke Meekma. The committee has presented WFBR with a number of useful recommendations. The following sections present the response to each recommendation as well as the related actions that WFBR will take.

General

1. The Committee invites WFBR management to identify best practice in each business unit and ensure that this is adopted across the Institute.

The committee indicates that over the previous period, WFBR has made progress in numerous areas, defining best practices that underpin ongoing gains in performance. Nevertheless, not all best practice is completely shared among the two BUs. Whenever this is achieved it will not only enhance performance, but also integration of activities in both BUs.

Response:

WFBR's management team endorses the benefit of further identifying best practices in the business units and integrating them in the institute. This process was already initiated early 2021 and recently was accelerated by the fact that both WFBR business units are since end of September 2021 led by the one BU manager. A plan to further develop the BU Biobased Products has been made, which also includes alignment and optimization of procedures and ways of working in/at the business units based on identified best practices. This will be combined and integrated by the recently adopted strategy to raise the quality awareness and practices within WFBR by developing a WFBR Quality Management System based on ISO9001 principles.

1.1	2022: execution of the plan to develop the BU biobased products which also
	includes several initiatives to share and implement best practices
1.2	Early 2024: Develop and implement a professional WFBR Quality Management
	System across the 2 business units based on ISO 9001 principles.

2. WFBR has made efforts to link its activity to that of more fundamental science groups. The Committee suggests that these efforts should be pursued, deepening and broadening these collaborations.

The committee indicates that collaboration between WFBR and fundamental research stakeholders, particularly WU chair groups, is hampered by external factors related to funding. The committee further notes that, despite this, here and there WFBR staff members have shown a lot of creativity in solving problems (e.g., joint WU-WFBR professorships, shared PhD students etc). In conclusion the committee suggests that experience shows that the creation of joint staff positions is one way to achieve this.

Response:

WFBR management appreciates the added value of the cooperation between WFBR and the university science groups. As the committee also points out, many efforts have been made in recent years to improve and expand cooperation at various levels. The most prominent example is the collaboration in the domain of Nutrition and Health whereby the experts from WFBR and their WU counterparts from HNH started to work together as one team. WFBR will continue to stimulate similar collaboration in other domains as well, starting with Biobased Materials.

Action:

- 2.1 Develop the structural collaboration between experts from WFBR and their counterparts at the Wageningen University in more domains to start with Biobased Materials.
- 3. National funding rules for TO2 institutes are hampering collaborations with university groups. WUR senior management should use its influence to lobby for systemic change in national funding schemes.

The committee states regarding the hurdles that hamper collaboration between WFBR and fundamental research stakeholders, that, while the institute's staff have devised solutions, changing the system is not within their power. The committee therefore suggests, considering the influential status of WUR at the national level and the fact that it hosts both a TO2 institute and a university, WUR senior management to lobby for systemic change in national funding schemes.

Response:

WFBR management endorses this and will (continue to) bring this to the attention of the Executive Board of WUR.

Action:

3.1 Initiate a dialogue with the Executive Board of WUR to discuss options to discuss this topic with the highest level of policy makers at the Dutch ministries.

4. Specifically, regarding the BU BBP, the Committee recommends it to maintain a well-focused project portfolio, using a clear analysis of its core skills and expertise to appraise new opportunities.

While the Committee recognizes the intrinsic relevance of BBP's different subject areas to the overarching framework of the circular economy and the fact that BBP is often focusing on generic platforms (e.g., biotechnology for a variety of application areas), it encourages BBP staff to be more selective. For this, the committee states, it is necessary to consider the availability and strength of knowledge and skills across the research continuum, from fundamental research (developed by WU chair groups) to applied research in the application area itself (not always present in WFBR). When stronger expertise is available elsewhere, the Committee advises WFBR to establish strategic alliances with the leaders in these fields. Moreover, the committee suggests, any opportunities to link BBP and FFC strengths within the framework of the circular economy should be seized.

Response:

WFBR management agrees with this recommendation and has included this as part of an improvement plan for the BU BBP.

Actions:

A formal review of scope and definition of all WFBR programmes (linking BBP and FFC strengths) has been initiated and will be concluded in 2022. The recommendation of the committee to take the Bioresource-Water-Energy nexus of a circular economy as a starting point for our strategic positioning and narrative will be taken into account in this process.

Quality

5. Focus across the WFBR project portfolio must be a managerial priority.

The committee indicates that this is necessary to ensure that research performed by the institute is fully geared to produce impact. According to the committee this implies, that in the vast majority of cases projects should focus on areas that are well-aligned with strategy and use the expertise of WUR. Projects that relate less to strong, fundamental expertise present in WU chair groups should be left to more expert groups elsewhere based on a strategic collaboration with WFBR. Moreover, in general terms, projects should fall within well-managed, impact-driven scientific programs, aligned with strategy. This will stimulate creativity, inspire staff and leverage collaborations and synergies within the institute, the Wageningen campus and beyond.

Response:

In addition to the actions described in recommendation 4, the programme review will also be broadened to BU FFC.

Actions:

5.1	After the programme review (action 4.1) is completed, (re)new(ed)
	programme teams led by a programme manager will be formed to take
	responsibility to create balanced project portfolios in each programme based
	on their strategic scope maximizing societal impact.

6. Devise a new program that will create further opportunities for (1) BBP to deepen its work on chemicals and materials and (2) for both BUs to combine forces to better tackle societal challenges.

Regarding new strategic programs, the committee believes that the WUR sustainable fossil free society in 2050 challenge might provide an appropriate basis to devise a new program that will create further opportunities for (1) BBP deepen its work on chemicals and materials and (2) for both BUs to combine forces (also with WU), frame strategy and improve synergies with the aim of maximizing impact in key societal challenge areas.

Response:

Management of WFBR fully supports this recommendation which will be included in the programme review as described under Action 4.1

7. Accelerate the percolation of data management practices throughout WFBR.

Regarding digitalisation, the committee strongly believes that WFBR must use early achievements to accelerate the percolation of data management practices among all WFBR staff, using all necessary means (including training) to achieve this. According to the committee, in the short-term this will contribute to research quality and then to WFBR's ability to conduct data-driven research. In this regard, considering the size of the task in hand, the committee also believes that WFBR is correct in its strategy of mutualizing skills and people across WUR.

Response:

The committee rightfully emphasizes the priority and potential of more focus on data management practices throughout WFBR. To achieve this, a concerted action was already initiated in 2019 in BU FFC and based on the recommendation of the committee this will be accelerated throughout the institute the coming period. A start has been made with data stewardships to attend to the data management of each singe project. On FFC side, a successful traineeship program has taken place to be able to perform more data driven research. Some programs have made a start in adopting data driven research as a proposition. To further percolate these current initiatives, we define the following actions:

7.1	Further implement and professionalize systematic data management principles
	and practices throughout the institute by incorporating this in the QMS and
	continuous trainings

Societal and economic impact

8. WFBR is encouraged to set as a priority the identification of the right (mix) of methods/instruments to single out and target those stakeholders who will contribute most to impact

The committee acknowledges the good efforts to create impact. However, because the committee recognizes that generating significant and timely impact in the real world is difficult, it encourages WFBR staff to set as a priority the identification of the right (mix) of methods/instruments to single out and target those stakeholders who will contribute most to impact.

Response:

Management of WFBR fully supports this recommendation which will be included in the programme review as described under Action 4.1

9. The committee advises WFBR staff to adopt impact planning and measurement methods and contribute to their development.

The committee states that the design of impact pathways and the measurement of impact success are both difficult to achieve. The committee concludes however, that a variety of ex ante and ex poste methods are available, and others are under development. This should help WFBR to better define the impact of its research.

Response:

Management of WFBR fully supports this recommendation which will be included in the programme review as described under Action 4.1

Action:

9.1	WFBR management will continue its dialogue with impact experts within WUR
	to assess if mixed method approach for impact measurements could be
	developed for our response.

Viability

10. The Committee advises WFBR to update its analysis of the most urgent societal challenges and identify the pathways to greatest impact.

Considering that the committee would have liked to see a slightly more detailed strategic plan, it recommends that WFBR continues to elaborate this plan, providing more foresight and details about how WFBR will respond to the constantly evolving social and economic contexts. In addition, the committee suggests that the work performed on the WUR sustainable fossil free society in 2050 challenge seems to be an excellent starting

point to insert WFBR into a Bioresource-Water-Energy nexus, where bioresources serve to produce food and biobased goods within a resource sober, circular system.

Response:

WFBR management welcomes the idea to take the Bioresource-Water-Energy nexus as a starting point for our strategic positioning an narrative and will take this as a basis for the programme review as described in action 4.1.

11. WFBR should carefully consider its IPR management options and develop a more detailed strategy.

The committee suggests that WFBR should carefully consider its IPR management options and develop a more detailed strategy. In the process, the institute should draw upon some of its own recent experiences (e.g., the use of creative commons license to accelerate transfer of knowledge) and also consider IPR management in the light of new ambitions (e.g., working with start-up companies). One suggestion might be to develop a more dynamic approach to IPR management, transferring IPR to partners at an early stage or, if no interested parties are identified, making fast decisions on abandonment. This strategy will limit IPR management-related costs.

Response:

WFBR management strongly agrees with this recommendation. A working group, consisting of stakeholders within WFBR and other parts of WUR, will be set up to address this.

Actions:

11.1	Establish a working group to develop a IPR management strategy for WFBR
	based on the WUR policies and considering best practices used in our WUR
	science groups.

12. WFBR management should carefully appraise cost structure, looking for ways to reduce cost burden.

The committee indicates that this analysis should account for One Wageningen ambitions to enhance interactions and increase alignment with WU chair groups. Additionally, the committee suggests that increased alignment and collaboration might provide the basis for more shared facilities within One Wageningen and beyond (e.g., stronger cooperation with field labs outside Wageningen).

Response:

As part of the regular annual planning and control cycle, WFBR will also consider options to share costs for facilities with external parties.

12.1 Initiate a further dialogue within WUR to expand the SRF (Shared Research Facilities) approach to the building based facilities of WFBR including the Food Tech Facility and Biobased Innovation Plant.

13. It is vital for WFBR to strike a good balance between time spent on acquisition and time spent on core research.

The committee states that management should display more awareness of the danger of finance-related pressure. While the Committee fully recognizes the importance of project acquisition and a healthy balance sheet, it believes that it is vital to strike a good balance between time spent on acquisition and time spent on core research that will maintain WFBR's current excellence and build the basis for its future performance.

Response:

This recommendation is strongly supported by WFBR management and already part of the continuous improvement efforts of the primary project management and acquisition process. As a part of this, we are working on a better balance between time spent on acquisition and time spent on core research by working on role clarity and greater efficiency. Focus in programmes and project portfolio also helps with this (see recommendations and actions 4 and 5).

Actions:

13.1 Further implement and professionalize project management skills and practices whereby role clarity on acquisition will get even more focus and whereby the programme manager will get a stronger coordination role in the acquisition process.

14. Regarding client-driven activities, WFBR should be careful to select partnerships that involve the generation of new knowledge.

The committee states that if WFBR intends to work more with start-ups and SMEs, it must be careful to select partnerships that involve the generation of new knowledge. Companies simply requiring basic service support or consultancy should be redirected to partners that are better able to handle this. Moreover, regarding general management of the customer portfolio, WFBR is encouraged to nurture a healthy eco-system (diversity of company type and size) ensuring that it provides the basis for two-way benefits (i.e., transfer of mature WFBR knowledge to clients recompensed with opportunities to challenge new knowledge).

Response:

WFBR agrees with this recommendation and will include this in the strategy of all programmes (see also action 4.1).

15. The committee strongly encourages WFBR management to seize future recruitment opportunities to increase diversity at all responsibility levels.

In this regard the committee points out that, the international student population (MSc and PhD) trained in Wageningen is a fantastic resource that should be better exploited.

Response:

This recommendation is fully aligned to the WUR strategy and AFSG strategic plan 2020-2023 on structurally improving diversity among its employees and leadership teams. In 2022 a Diversity and inclusion action plan was drawn up for AFSG and will be implemented, setting specific targets and actions for WFBR. Part of this plan is an additional budget that is available in 2022 for female AFSG employees to participate in empowerment trainings or coaching to support and stimulate their development within AFSG and WUR. Aim is to stimulate all female employees to invest time for personal growth when they feel they need it. And, of course, also everyone else in relation to any kind of diversity.

Actions:

15.1	Address diversity as standard element of the annual SPP cycle (Strategic
	Personnel Planning) across WFBR.
15.2	Implement AFSG Diversity and inclusion action plan, setting specific targets
	and actions for WFBR

16. WFBR should attract more MSc and PhD students of WU to the institute during their training.

The committee indicates that this will provide WFBR with a reservoir of early career stage candidates that could become future employees. To better capture this talent, the committee strongly advises WFBR management to work closely with VLAG. Moreover, the committee suggests that for rare or difficult to employ skills, WFBR might like to consider extending its successful trainee scheme, already used to employ data science specialists.

Response:

The attraction of MSc and PhD students to WFBR during their training will be part of the plan regarding the improvement of cooperation between WFBR and the university science groups, as elaborated in the response to recommendation 2.

16.1	Address options to use and involve MSc and PhD students and candidates
	structurally in the WFBR activities and include this as standard element of the
	annual SPP cycle (Strategic Personnel Planning) across WFBR.
16.2	Assess the feasibility to establish a continuously trainee program within WFBR
	for recently graduated high potential students.