

# Palmhouse Dairies' Journey to Implement the Dairy Sustainability Framework in Kenya - Case Study



## About the project

Dairy for Social Impact, a project funded by the International Fund for Agricultural Development (IFAD) and Global Dairy Platform (GDP), assists dairy organisations in emerging dairy markets to implement the Dairy Sustainability Framework (DSF). This process includes the review and prioritisation of sustainability challenges and establishment of a local management group (LMG) to act as an advisory board for sustainability topics. This ensures that improvement strategies are effective and deliver tangible results. The objective is to capture the dairy organisations' experiences throughout different geographies and markets to provide guidance to others.

The partners in this pilot are Palmhouse Dairies, a mid-size dairy processor in Kenya, and the DSF, a non-profit organisation developed by the global dairy industry to monitor and report the aggregate sustainability progress of the sector and to provide a platform for pre-competitive collaboration and knowledge sharing.

Eric Kimani and Margaret Munene co-own Palmhouse Dairies, which has 50 employees, processes 6,000 litres of milk per day and, produces eight different dairy products. Milk is sourced from 400 dairy farmers in the region, most of whom are women with three cows and less than an acre of land with zero or near zero grazing. All products are sold locally, with approximately 85% being supplied to cafes, hotels and hospitals.



Soil testing on the farms

## Executive Summary

From 2020 to 2022, Palmhouse Dairies implemented the DSF approach.

A key learning for Palmhouse Dairies was the value of data and intelligence to understand the root causes of their sustainability challenges. Insights from a survey of factory staff helped the management of Palmhouse Dairies understand staff struggles and key areas for intervention. A second key learning was the importance of an outside perspective. Discussing and reflecting

with both value chain stakeholders and DSF helped Palmhouse Dairies to understand the root causes of on-farm challenges. For example, the relationship between soil fertility and milk production, low soil fertility results in low fodder production, leading to underfed cows that produce less milk than if fed a more substantial and balanced diet.

Review and prioritisation of sustainability challenges confirmed that the company was on the right track with existing sustainability

efforts. Two new topics emerged from the assessment that required additional action: improving milk yields to boost farm income and milk supply, and improving working conditions for manufacturing site staff.

To enhance milk yields, a soil analysis program (funded by farmers) and an aligned training initiative was established to ensure soil improvement was done in a scientific and targeted manner.

Based on the findings of a staff survey, Palmhouse Dairies transitioned several contracted staff to permanent employees; improved the food provided for all staff; and took action to enhance working relationships between managers and their teams. Within

a very short time, these simple steps resulted in considerably lower staff turn-over; higher participation in team meetings; and lower production costs due to increased operational efficiency. A stronger relationship between employees and their managers also emerged within a short timeframe.

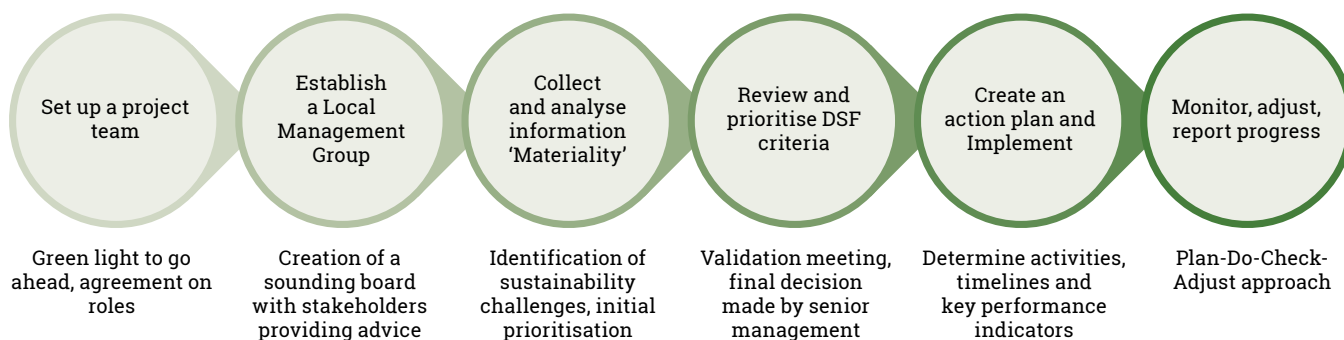
Overall, the pilot project (which continues to evolve beyond the life of this project) has been extremely successful, with Palmhouse Dairies committing to continually improving the sustainability of their business and those of their supplying farmers as members of the Dairy Sustainability Framework.

## The Project

Palmhouse Dairies is committed to helping the local community by supporting their supplying farmers to earn a decent living. The company has conducted a series of sustainability-related initiatives, including tree planting and farmer training sessions, prior to becoming part of this project.

This project received high priority, with bi-weekly project meetings between DSF and the project team at Palmhouse Dairies, and progress discussed within internal weekly management meetings.

### Steps to implement the DSF approach



## Creation of a Local Management Group

A (multi-stakeholder) Local Management Group (LMG) is composed of senior management of the DSF member organisation plus external stakeholders with an interest in the business' sustainability efforts and performance. The member selects which organisations will be represented – farmers, customers, suppliers, investors, local authorities, NGOs, academia, etc. The role of the LMG is to serve as a local sounding board and provide input that is applicable and appropriate to that region, while the member organisation makes all final decisions. The LMG therefore provides input during the collection and analysis of information and prioritisation of sustainability topics. Later in the process, the LMG can guide the organisations in developing targets and action plans and targets to address the priority criteria identified by the member organisation.

- Farmers
- Feed suppliers
- Farm trainers
- Customers

Palmhouse Dairies invited representatives of these four groups, while keeping an open door for other stakeholders to join later. To provide business insight, two senior staff of Palmhouse Dairies also joined the LMG.

Due to the COVID-19 pandemic, Palmhouse Dairies was only able to connect virtually with their LMG. They met at key times during the process when decisions were needed, or guidance was required. One of the challenges was to connect online with the farmers with limited infrastructure, so the company provided farmers internet access.

Palmhouse Dairies did not have an LMG as part of their previous sustainability efforts, so one was initiated as part of the project. The project leads listed key stakeholders that included:

As Palmhouse Dairies mostly serves larger customers, the LMG had the added benefit of strengthening the relationship between the company and its customer base.

# Materiality Assessment:

Materiality assessment is the process of identifying, refining, and assessing numerous potential environmental, social, and economic challenges to the business. These challenges are then condensed into a shortlist of priority areas that inform and guide company strategy, actions, targets, and progress reporting. The DSF recommends members prioritise a small number of sustainability criteria on which to focus efforts for action. Over time and as resources permit, other sustainability criteria can be targeted. Project participants were guided by the following sentiments:

- › Progress over perfection.
- › Strive for continuous improvement.
- › Start with a small number of priority criteria areas and build momentum from there.

The involvement of the LMG and the validation meeting, where the identified priorities are presented to stakeholders, ensures that the stakeholders support the plans, implement them with the organisations and advocate for the initiatives in their own communities.

To undertake the materiality assessment component of this project Palmhouse Dairies was supported by an external organisation that specializes in corporate responsibility and reporting. This support also included the sharing of the principles and practices of materiality with the Palmhouse team as they progressed, empowering the Palmhouse team with the skills to undertake their own materiality assessment in 4-5 years' time as required by the DSF.












The team organized an initial meeting with the LMG to connect, discuss Palmhouse Dairies' journey to become more sustainable, and to inform the stakeholders about the materiality assessment. It also allowed the group to provide some initial input.

*"A lot of these things have been validated by this particular survey. There are things we've been doing, or let me say kind of doing, but we weren't sure that we were on the right track. But this particular survey now just goes to show that yes, we are on the right track, and we need to keep just doing what we are doing."*

**Dennis Kabutha, Management Team member at Palmhouse Dairies**

To be able to prioritise criteria, the project team collected a wide range of information on the 11 DSF criteria, both globally and locally.

## The DSF Sustainability Criteria and Strategic Intent

Criteria	Strategic Intent
<b>Economic</b>	
 <b>Market Development</b>	Participants along the dairy value chain are able to build economically viable businesses through the development of transparent and effective markets.
 <b>Rural Economies</b>	The Dairy Sector contributes to the resilience and economic viability of farmers and rural communities.
<b>Environmental</b>	
 <b>Greenhouse Gas Emissions</b>	GHG emissions across the full value chain are quantified and reduced through all economically viable mechanisms.
 <b>Soil Nutrients</b>	Nutrient application is managed to minimise impacts on water and air, while maintaining and enhancing soil quality.
 <b>Soil Quality and Retention</b>	Soil quality and retention is proactively managed and enhanced to ensure optimum productivity.
 <b>Water Availability and Quality</b>	Water availability, as well as water quality, is managed responsibly throughout the dairy value chain.
 <b>Biodiversity</b>	Direct and indirect biodiversity risks and opportunities are understood, and strategies to maintain or enhance it are established.
 <b>Waste</b>	Waste generation is minimised and, where unavoidable, waste is reused and recycled.
<b>Social</b>	
 <b>Animal Care</b>	Dairy animals are treated with care, and are free from hunger and thirst, discomfort, pain, injury and disease, fear and distress and are able to engage with relatively normal patterns of animal behaviour.
 <b>Working Conditions</b>	Across the dairy value chain, workers operate in a safe environment, and their rights are respected and promoted.
 <b>Product Safety and Quality</b>	The integrity and transparency of the dairy supply chain is safeguarded, so as to insure the optimal nutrition, quality and safety of products.

For an internal business review, the team studied documents and conducted interviews. Interviews with in-house experts were structured by topics covering milk supply and farmer relations; production and operations; logistics; employment and working conditions; product development; strategic overview; and market development. The interviews were also structured using the 11 DSF criteria as a basis for collecting information on each criteria of importance for the business strategy; current performance; impact on the business; leverage to improve performance; interconnections between the criteria and current data records;



and reportability of progress. This structured approach helped Palmhouse Dairies to identify interconnections between criteria and subsequently dive deeper into the causes of the identified challenges.

For an external landscape review, the project team studied global and regional sustainability standards and frameworks to learn more about how sustainability challenges are addressed by other initiatives. The team mapped Kenya's national and governmental priorities to learn about different sustainability perceptions in Kenya.

*"I think this survey is a good insight in terms of what we're seeing today, and this is the beauty of having a survey, because if we were to go through this without a survey, then I would have picked the market development criteria. But looking at this survey, I think, now it is giving us a clear picture as a company, as Palmhouse areas where we need to put priorities."*

**Andrew Oduor (General manager - Palmhouse Dairies)**

The project team developed and circulated a related survey to capture and integrate the wider perspectives of internal and external stakeholders. This online survey was designed to take less than ten minutes. Respondents were asked to rank the criteria that are most important (1) to them; (2) for Palmhouse Dairies to focus on in the coming years; and (3) to rate Palmhouse Dairies' current performance according to the criteria.

To better understand the views of the stakeholders and to clarify responses, the project team organized a focus group discussion with the LMG to seek their input to the process and support interpretation of the results of both the desktop research and survey that initiated the criteria prioritization process.

The prioritisation integrated all intelligence, including document reviews, interviews, the survey, and inputs from the LMG.

The team then discussed the initial findings with Palmhouse Dairies management staff and organised a validation meeting with members of the LMG and other stakeholders. The team checked in

with the stakeholders to ensure that the prioritised criteria aligned with their interests and to ask for their support in collaboratively addressing these criteria. The identified priorities largely validated Palmhouse Dairies' existing sustainability programme. A key takeaway from the project was stakeholders' willingness and eagerness to help Palmhouse Dairies address both the identified criteria and their sustainability journey going forward.

*"Many hospitals would wish to engage with their suppliers, because then you [are] able to have an informed decision, even when you're choosing sources of supply for patients who are vulnerable; and whatever they take is very passionate [and] it means so much to their healing process. So yes, it is a very important conversation."*

**Peter (Palmhouse Dairies customer and member of the LMG)**

The project team and senior management met to discuss the outcomes of the materiality assessment. Their approach was to retain the existing work programs and select a short-list of DSF criteria that required more immediate attention. Palmhouse Dairies selected the following criteria:

**Rural Economies:** Palmhouse Dairies selected this criteria based on their business-oriented goal to secure and increase milk supply and value-oriented goal to help their farmers earn a higher income. The team knew that individual cow milk yields were relatively low, but it was through structurally reviewing the DSF criteria and conversations with DSF and other specialists that they realized the underpinning causes of the low yields, and interconnections between the criteria. They came to understand that to address Rural Economies, they would need to take a more holistic approach that included all farm production processes and all DSF criteria.

**Working Conditions:** The materiality process confirmed to the management team that working conditions were an issue at Palmhouse Dairies. Investigating this in more detail revealed that staff turnover was high, and engagement in staff meetings was low, and that costs of wastage and equipment breakdown and maintenance were increasing. This was an opportunity for focused change.



Training the farmers

# Developing an action plan

Following the materiality assessment and the selection of priority criteria, the next stage of the project focused on developing a strategy to address the prioritised criteria and ultimately the Strategic Intent for each. The Strategic Intent is the ambition to achieve as an outcome for each criteria in the DSF (see also page 3).

## Rural Economies

### Strategic Intent for this criteria

**The dairy sector contributes to the resilience and economic viability of farmers and rural communities**

The focus of the strategy and delivery programme for Rural Economies was to improve milk yields, which would increase the milk delivered to Palmhouse Dairies and ultimately, support farmers in generating more income. Prompted by conversations around the 11 DSF indicators and reflecting on the learnings of their own sustainability initiatives, the team focused on identifying the reasons behind persistent low milk yields. Initially suspecting poor animal husbandry practices, the team discovered that in reality, it was a nutrition issue, and greater effort was required to ensure the cows received appropriate nutrition. Farmers struggle to grow sufficient forage on their smallholdings, but to source external forage stocks was expensive and the quality was never guaranteed.

The increased cost of additional purchased forage is hard for farmers to afford, so Palmhouse Dairies has previously supported its farmers by purchasing forages in bulk, thereby achieving a more favourable price. In the long term, however, farmers needed to improve fodder production on their own farms. Essentially, it was necessary to go back to the basics, developing an action plan to understand soil fertility and amending where necessary to increase productivity.

In addition, Palmhouse Dairies created five model demonstration farms as a valuable resource in delivering educational development programs. These farms provided suitable venues and practical examples for training with which Palmhouse Dairies farmers were familiar. The model farmers received resources and advice and shared their knowledge and experiences with their peers.

A key action was to contract a soil testing and training organisation to take soil samples from supplier farms. Palmhouse Dairies negotiated a group price for the farmers not just for the soil sampling, but also for the interpretation of the results and subsequent soil improvement strategies. An initial group of twenty-one farmers stepped up and paid for the testing services. When the testing reports were finalised, Palmhouse Dairies and the organization met again with the farmers, discussed the findings, and provided targeted recommendations to improve the quality of the soil. Often, the advice was extremely simple though critical to progress (e.g. the fertilizer for forage production is very different to that used for tea production). Palmhouse Dairies and the farmers continue to monitor the progress of these actions.

Palmhouse Dairies are also very aware of the interrelationships between the DSF criteria – effective growing of forage and increasing milk production, not only provide economic benefits, it will also have a positive impact on GHG emissions!

**Measuring Progress:** As of this publishing date, farmer training and soil testing has recently been implemented, and therefore the impact on fodder production cannot yet be measured. Already, additional farmers are coming forward and are willing to invest in soil-testing services with the aim of increasing their home-grown forage production and ultimately the efficiency of their milk production.

## Working Conditions

### Strategic Intent for this criteria

**Across the dairy value chain workers operate in a safe environment and their rights are respected and promoted**

Palmhouse Dairies' senior management shifted their thinking regarding the employment status of their staff. Rather than looking at staff as merely workers, they viewed them as key stakeholders for the company. To develop an action plan on working conditions, the team wanted to understand the challenges and motivations of their staff.

A survey was generated and circulated covering topics including their motivation to work at Palmhouse Dairies, the management style, work-life balance, the working environment, how satisfied they are with their role, and what improvements they would like to see.

The survey was designed to be quick and easy to complete. This was the first time in their history that Palmhouse Dairies requested formal feedback from employees in the form of an anonymous survey.

The survey indicated that the staff were not happy with the quality of the free lunch provided by their employer to a point where nearly half the staff were not taking advantage of it.

The survey confirmed that non-permanent staff were disengaged and felt that they were not part of a team. The survey also indicated that some managers were not connected with employees or not including them in decision-making processes.

The Palmhouse Dairies project team engaged senior management to determine collectively how to address these fundamental challenges. Subsequently, they then shared the key outcomes of the survey with staff and committed to addressing the identified issues within a three-month period.

As a result, the following changes were introduced:

- The employment status of the majority of temporary staff were made permanent.
- Managers committed to be more open and take a genuine interest with all staff.
- Management also committed to creating a stronger sense of team.
- Efforts in the processing site have been extremely encouraging.
- There has been a considerable reduction in staff turnover with no staff leaving since the introduction of the changes.
- Managers now have an open-door policy.

- Staff are involved in planning and are taking a genuine interest in management feedback. This has significantly improved the relationships between managers and staff.
- There has also been a 90% reduction in production costs across the factory due to lower maintenance costs, breakages, and downtime.
- Team meeting attendance has shifted from 70-80% attendance to 100% staff participation.
- Staff are now voluntarily working after hours, whereas previously this was a major issue, with staff unwilling to commit to additional hours.
- Employees genuinely enjoy what they do. To them, now working for Palmhouse Dairies is more than it being just a job.

Palmhouse Dairies will report annually their progress to the DSF to contribute to the aggregate global reporting of the dairy sector. To do this, they will also include the DSF High Level Indicator metric for both the Rural Economies and Working Conditions criteria.

### DSF high level indicator metrics for the two prioritized criteria

**Rural Economies: Total annual payments made to farmers for milk**

**Working Conditions: Facility Plan implemented to ensure worker safety**

The company also (as encouraged by the DSF approach) wants to develop additional local metrics and will undertake this process

with the support of the LMG, developing targets, key performance indicators, and appropriate timelines against which to monitor progress.

### Outcomes for Palmhouse Dairies

- Implementing the DSF approach has reinforced Palmhouse Dairies' commitment to sustainability. The identification of the 'right' criteria to focus on will ensure that their sustainability strategy will be effective.
- The company has appreciated using data and a range of intelligence to better understand the breadth of potential sustainability challenges and the interrelationships between them.
- Building on this, the company have recognised the value of stakeholder perspectives. Engaging with Palmhouse colleagues and external stakeholders on the DSF criteria helped Palmhouse Dairies to understand the underlying causes of their challenges.
- The review and prioritisation of sustainability challenges validated that the company was on the right track with existing sustainability efforts and focused attention to two additional criteria that required action.
- Overall, the DSF implementation (which continues to evolve beyond the life of this project) has been extremely successful, and Palmhouse Dairies is motivated to keep improving the sustainability of the business and of course their farmer suppliers.

## An interview with Andrew Oduor of Palmhouse Dairies

Andrew Oduor is the project lead and general manager of Palmhouse Dairies. He has been with the company for 3 years.

### *Why did Palmhouse Dairies decide to take part in the pilot project? What was the main takeaway for your organisation?*

Sustainability is very important to us, as it strongly affects the quality of life for our farmer suppliers and employees. We initially wanted to take part in this project to connect with others working on sustainable dairy production – to learn from them and share experiences and ideas. Reflecting on the key outcomes of the project and going through the process of implementing the DSF model made us take a step back from what we have been doing so far to identify the underlying root causes of the challenges and to identify new areas of focus. Implementing the DSF model gave us the necessary direction as it provided a framework of different topics to examine and opened our eyes to the value of generating data to better understand how we and our farmers are working. Importantly, we were always 'in control'. The DSF model kept us in command with outcomes that were totally owned by us as an organization.

### *How did you get started?*

Initially we had several meetings to understand what the project was designed to achieve and, importantly, what we were committing to as an organization. Two staff members were assigned to lead the project, one of whom served as the key point of contact for DSF and the other responsible for internal and the local liaison needs for the project. Using the DSF process, we were

then able to design the implementation plan and take the staff on the journey with us.

### *What went well?*

Palmhouse Dairies wanted to achieve two key deliverables for our farmers: increase milk yields and improve management of our supplier farms. These helped to frame our thinking when considering the outcomes of the materiality analysis, deciding on the priorities and developing improvement plans. We saw that farmers started to change the way they operated their farms and the strategic actions they implemented. For example, recording data, vaccinating animals against disease and using artificial insemination to increase the genetic potential of their herds. One key strategic action Palmhouse Dairies implemented was to establish model farms as an educational resource.



Team building training day for the Palmhouse processing plant staff



### *What, if anything, surprised you about the DSF process implementation?*

We were undertaking this project during the COVID pandemic, so no face-to-face meetings were possible. The LMG included several farmers who had limited or no internet connection on their farms and were also unfamiliar with on-line communication platforms such as Zoom or Teams, although we use these platforms in the office every day with our clients and suppliers. As a result, we had to invest time in securing reliable internet/data connections with appropriate bandwidth for our farmer LMG members who accessed these calls via their phones. Furthermore, we invested time in training them in the use of virtual communication platforms. Surprisingly, the LMG has been extremely effective without ever meeting face-to-face – yet we plan to rectify this omission in the near future!

Another issue, which is a cultural aspect of farming in Kenya, is that day-to-day farming activities are undertaken predominantly by women, but the farms are owned by their husbands, who also do the farm planning for women to implement. Men often work in other jobs away from the farm for long periods of time. Therefore, while we are training the women in improved animal husbandry and farming practices, it can take weeks until they are able to share this new knowledge with their husbands and receive 'permission' to actually implement these changes.

To manage this, we did some forward planning.

We realised that there was no way that this process would work by only involving the women.

We had to change our implementation plan, firstly allowing women to seek permission to engage in the process from their husbands before we started any training. Given that the husbands were away,

the necessary permissions would sometimes take a couple of weeks to obtain.

We recognised the importance of women seeking and husbands granting this permission for any changes to be successful. This slowed progress somewhat, though the Palmhouse Team were confident that the wait would be time well-invested as the gains from the DSF project would positively impact both the entire farm and the wider community.

### *How did implementing the DSF model impact Palmhouse Dairies' sustainability programme?*

Our programme now relies on using data and other intelligence as decision-making tools. We learned the value of deep dives to identify the causes of challenges we are experiencing. In addition, we are also working together with the LMG and their input gives us more confidence to make decisions.

We have now developed and implemented action plans that increase the profitability of our farmers; enhance working conditions for our staff, and improve the sustainability of our business as a whole. The new topics we are now focused on were the result of the materiality assessment.

### *Do you have advice for other dairy companies that are interested in improving the sustainability of their business?*

My advice would be to collect data to better understand the underlying causes of sustainability challenges, and to encourage external perspectives in developing your sustainability programme. Finding somebody on the outside with experience and expertise in sustainable dairy, like DSF, can help you to look at sustainability challenges and solutions from a fresh and more holistic perspective.

## About the Dairy Sustainability Framework

The DSF is a monitoring and reporting initiative that tracks the aggregated sustainability progress of the global dairy sector. Launched in 2013, it provides a universal platform for the sector to align, quantify and demonstrate the difference that the sector is making as a result of a range of sustainability actions. The DSF is a unique approach in that it is neither a standard nor a certification, but rather an aspiration for continuous improvement and alignment of reporting. It is a pre-competitive and collaborative initiative that encourages the sharing of both challenges and solutions between its members, who operate across the value chain. To achieve this, the DSF establishes a number of different knowledge sharing and solution finding platforms that brings the DSF membership together to accelerate the solution finding and implementation process.

To encourage the implementation of sustainability programs tailored to local circumstances while achieving international alignment, the DSF focuses on 11 sustainability criteria identified from an extensive global analysis. Each criteria is linked to a strategic intent, which can be described as the ambition of the global dairy sector to achieve as an outcome. Though the strategic intents are globally consistent, the way in which they are achieved in different geographies will be very different, recognising a diverse global dairy sector.

Using these 11 criteria as the basis, DSF members decide which criteria they prioritise through a process known as a materiality assessment. Identifying priorities help members focus on where they need to invest immediate or targeted effort. It also ensures that programs are effective and deliver tangible and quantifiable results. You can read more about the process in the [DSF Materiality Briefing Paper](#).

After prioritisation, members create improvement and improvement plans for their selected criteria. These plans aspire to deliver Strategic Intents associated with each criteria (see table on page 3). The criteria have high-level indicator metrics that allow the DSF to monitor continuous improvement over time, enabling the DSF to align the global dairy sector's sustainability efforts. In addition, the DSF requires members to adopt their own specific, local key performance indicators and timelines for each of the initiatives they implement. The DSF endorses a Plan-Do-Check-Adjust approach.

This involves regular reviews to monitor impact and to make amendments if the progress is not aligning with the original design. Members report their performance to the DSF on an annual basis, using the high-level indicators associated with their prioritised criteria. This information is kept confidential, with sector progress only [published](#) at an aggregated level.