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Manufacturing Africa: Strategic levers for transformation

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Key terminology: Ambition and risk

Manufacturing Africa's support aims to create and accelerate economic, social and environmental impact. This report refers to ambition and risk to describe how deals pursue these transformative goals and the difficulty of achieving them.

Ambition is the extent to which businesses pursue deep structural transformation through complex, high-impact deals. It brings together transformation depth, transformation breadth and scale.

Transformation depth is the intensity of a deal's contribution to inclusive economic transformation (IET), independent of size, measured through Manufacturing Africa's IET framework.

Transformation breadth is the number of Manufacturing Africa's five levers a deal activates. It measures how many individual dimensions of impact (jobs, climate, inclusion, multipliers, IET) a deal engages, rather than how intensely it engages any single lever.

Scale refers to deal size, measured by target foreign direct investment (FDI).

Two types of risk should be distinguished:

Closure risk is the probability that a deal does not reach financial close following Manufacturing Africa support.

Growth risk is uncertainty about whether projected impacts will materialise following financial close[1].

[1] As most deals are yet to employ, produce, or export at scale, growth risk is beyond the reach of quantitative analysis and is addressed through qualitative research.

Introduction

Background

Manufacturing is a proven engine of structural transformation[2]: it moves labour and capital from low-value activities into higher-value, higher-productivity activities, creating better jobs and lifting incomes.

Across Africa, promising manufacturing firms struggle to raise capital. Companies lack the advisory support to become investment-ready, while investors, lacking reliable local deal information, perceive the risk as too high. Good deals thus go unfunded.

In 2025, Africa accounted for just 432 venture capital deals worth USD 2.1 billion out of a global venture capital market worth USD 425 billion (African Private Capital Association (AVCA), 2025). This is less than 0.5% of global deal value, despite representing a significant share of global population and economic growth potential.

Over the past five years, Manufacturing Africa has facilitated strategic transactions and provided technical assistance towards the closure of manufacturing and agri-processing deals in six sub-Saharan African markets. The current portfolio spans 262 deals, 55 of which have reached financial close or post-investment monitoring and a projected USD 2.49 billion in foreign direct investment (FDI). These 55 deals are projected to create 46,589 direct jobs and 112,407 indirect jobs, a considerable impact on a continent plagued by underemployment and capital constraints.

These achievements stem from addressing a persistent market failure: information asymmetry. Promising deals that could create inclusive and sustainable jobs cannot access the capital they need because investors perceive them as excessively risky or comparatively less profitable than other ventures with limited structural transformation impacts.

Strategic levers of economic transformation

A distinctive feature of Manufacturing Africa's operating model is that its support targets the deals that best promote broader economic transformation in Africa. Measuring transformation potential relies on a framework of five indicators, the so-called strategic levers of economic

[2] The reallocation of resources (labour, land, capital) from low-value activities into higher-value activities, as firms gain the skills, technology and know-how to move up the value chain. The report assesses contribution, not strict attribution, i.e. it identifies how Manufacturing Africa helped, not what would have happened without it.

transformation. These five indicators reflect four avenues or levers of economic transformation: employment; sustainable industrialisation; socioeconomic inclusion; creation of value-chains; and a composite measure. The levers are deemed to be activated or non-activated depending on deal characteristics that correspond to an arbitrary threshold (see methodology section). Potential deals are assessed in terms of these levers, with deals considered to have the highest impact potential prioritised for support.

The levers and the relevant avenues of transformation are:

- **Jobs & Livelihoods:** This lever reflects the most direct route through which manufacturing investment drives development. It captures projected direct and indirect employment created by a deal closing, the quality and reach of work created, the livelihoods effects in the surrounding supply chain, and the proportion of locally sourced inputs and services contributing to indirect job creation.
- **Climate & Environment:** This lever captures the extent to which a firm's operations are aligned with or actively contribute to a low-carbon, resource-efficient economy. This ranges from firms whose entire business model is built around environmental impact, such as waste conversion or electric vehicle (EV) manufacturing, to firms that embed sustainable practices into otherwise conventional manufacturing operations.
- **Gender, Economic and Social Inclusion (GESI):** This lever is activated when the benefits of an investment reach those most excluded from formal economic participation, covering women's ownership, leadership and workforce inclusion, as well as Black ownership and management.
- **Multiplier Effects:** This lever captures whether a firm's impact extends beyond its own operations to reshape the broader economic environment, including through first-mover advantages, new value chain creation, technology introduction and cluster and spillover effects.
- **Inclusive Economic Transformation (IET):** This lever is the composite measure of the framework. It assesses the overall quality and ambition of transformation across all dimensions simultaneously, distinguishing firms where transformation is structural and self-reinforcing from those where transformation effects are limited. As the composite summary of transformation quality, IET is also the basis for the Foreign Commonwealth & Development Office (FCDO)'s payment-by-results (PbR) framework, which links transformation assessment to programme accountability.

Objectives of this study

This report arises from a need to assess (1) the impact of the programme via the five strategic levers of transformation, and (2) the optimal strategy for deal selection for support, including use of the lever measures to select deals.

First, the report identifies the mechanisms through which each lever drives structural and economic transformation, examining whether and how different levers interact. It also tries to establish the deal characteristics or combinations of characteristics that are associated with real-world transformation.

Second, the report identifies whether broader transformation (as measured by the five-lever framework) is related to commercial outcomes, i.e. whether activating multiple levers leads to stronger business outcomes (proxied by closure rates and speed to closure). It aims to make portfolio recommendations promoting the selection of deals with both high potential impact and a good likelihood of closure.

Third, the report identifies evidence (or lack thereof) for a trade-off between impact ambition and the probability of deal closure. This includes identifying the potential trade-offs between impact (depth and breadth, as measured by the levers) and closure potential. If such a trade-off exists, it would create a need to overhaul the levers of transformation as a tool for deal selection, i.e. it would undermine the strategic levers as fit-for-purpose for the underlying framework of a prudent portfolio strategy.

Fourth, the report translates findings related to the previous objectives into practical recommendations for both investors and development finance institutions (DFIs) to inform their portfolio selection strategies.

Specific research questions are:

- What is the best portfolio approach for closure?
- What is the best portfolio approach for broader economic impact?
- What are the mechanisms by which the levers can contribute to firm growth?
- What are some trade-offs to consider between the different levers of impact?
- What are the trade-offs to consider between transformation and commercial outcomes? i.e. Is there a penalty for transformation ambition?

Key findings

The report has four key findings.

Ambitious deals are slower to close than less-ambitious deals and the analysis did not produce conclusive evidence for or against a penalty for ambition[3]. Closure-impact profiles are inconclusive, with near-identical closure for lower and higher deals by depth of transformation. Ambitious and non-ambitious deals close at near-identical rates (67% vs 63%, respectively); greenfield deal closure rates are not notably different from brownfield deal closure rates; there is no notable difference between median deal size for closed deals and median deal size for pipeline (not yet closed) deals.

While there is no evidence for a trade-off based on transformative depth (as measured by the intensity of activation per lever), there is some evidence for a penalty on transformational breadth. Deals activating few levers are moderately overrepresented among deals that have reached financial close. Few-lever deals close at a higher rate than multi-lever deals (89% vs 55%, respectively). This finding should be read cautiously, as the sample size of few lever deals is just 18. The small sample means the report cannot conclude that high-ambition deals are systematically harder to close than lower-ambition deals. Reduced statistical power (from the small sample size) also precludes any opposite conclusion.

What is clear is that ambitious deals are slower to close. Deals that flag the multiplier effects lever measure are a good proxy for impact in terms of broader economic transformation goals, such as value chain creation, import substitution and export market support, and are observed to close more slowly.

There is no evidence that deals from a particular sector or geography are more likely to close. Closure speed differs by sector and no sector offers both meaningful volume of available deals and high likelihood of closure. Kenyan deals are the quickest and most reliable route to close. Ethiopian, Nigerian and Rwandan deals take longer, but overall close rates are similar.

Deals with higher projected jobs numbers do not guarantee better transformation outcomes. Projected jobs numbers are closely linked to sectors with low economic transformation potential. Portfolio selection should balance across volume (jobs and livelihoods), job quality and inclusion (GESI). It is recommended that a consistent set of indicators or measures for job quality be incorporated into the existing Jobs & Livelihoods lever measure.

Inclusive transformation flags (GESI, which measures gender and race ownership) decline as deal sizes increase. This illustrates the importance of targeting smaller deals, as

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[3] *Ambition is measured by the IET lever indicator*

women and previously disadvantaged groups tend to be concentrated in micro, small and medium-sized enterprise (MSME) ventures.

The report did not find a statistically significant relationship between deal size (value of the deal) and breadth of transformation (number of levers activated), supporting the argument for including small deals in a balanced portfolio. This is indicative evidence that small deals can contribute meaningfully to positive economic transformation across multiple areas beyond inclusion (by promoting the circular economy, job quality improvements, economic multiplier effects, etc.). This is an important finding, as large deal opportunities tend to be rarer and it is worth confirming that small deals have a place within a balanced portfolio for meaningful impact.

Overall, the report finds that transformational impact is well reflected by lever impact depth (intensity of transformation by lever), volume (deal size and lever breadth) and market demonstration. The binding constraint on portfolio optimisation is the scarcity of large, ambitious deals. Given that scarcity, smaller deals are important for socioeconomic inclusion and continued impact.

Recommendations in brief

For investors: Include ambitious deals such as greenfield, innovative and first-mover projects. There is no evidence that these features worsen closure and indicative evidence that transformation depth and commercial viability move together. Ambitious deals close at the same rate as others (about 67% vs 63%), although they may take slightly longer. Greenfield and brownfield should not be treated as risk tiers, as closures split roughly 51 to 49, despite greenfield being more complex. As no sector or country offers both high volume and high closure, diversify and sequence the portfolio so that fast closers, such as Kenya and light industry, fund patience on the scarcer, larger, slower deals.

Looking at sectors, the circular economy is a high-conviction fill (best closure at 58%, but thin pipeline), light industry is the efficient core (104 jobs per USD 1 million of FDI), heavy industry and machinery & electrical suit selective large-ticket plays, agri-processing is suitable for volume, given its faster, larger deals (biggest pipeline, but slow closure, at 30%), and pharmaceutical (pharma) & chemicals suits early positioning (slowest closure, at 28%).

Looking at countries, Kenya is best for speed and volume, Nigeria for scale and ticket size, Ethiopia for patient larger deals, and Tanzania and Senegal for early positioning (they are slower only because their portfolios are younger).

For development finance institutions: Assuming the goal is realised transformation impact, maintain a diversified portfolio and select by project-level transformation characteristics rather than targeting any single sector. No sector is best on every dimension: light manufacturing is strong on inclusion and job quality but weakest on climate; circular economy closes best (58%) and leads on climate but not inclusion; agri-processing has the largest pipeline and most jobs but closes slowly (30%) and is low-skill; heavy industry and machinery & electrical lead on multiplier and IET, but score poorly on GESI; and pharma & chemicals closes slowest (28%) but is strategically crucial for long-term health security.

Looking at deal size, back large deals where they exist (same closure rate, more FDI, more indirect jobs, uniquely stronger multiplier effects, no size penalty). Ring-fence an allocation to smaller, inclusive deals and build the track record that makes later large deals fundable: the largest are least inclusive, with GESI falling by roughly half across quartiles and deals below USD 8 million disproportionately women-owned and Black-owned. As there is no closure penalty for greenfield, use deal type deliberately, favouring brownfield where inclusion is the priority.

Looking at country, all mature markets reach similar closure rates and the difference is speed, not closure: Kenya closes fastest but transforms least (27% reach four or more levers); Ethiopia and Nigeria lead on multiplier effects; Tanzania and Ethiopia lead on inclusion; and Tanzania and Senegal warrant longer timeframes because their portfolios are younger. High-ambition deals close just as reliably in the long term but are scarce, thus impact comes from the volume of viable deals and from each close signalling that a sector is investible.

Treat inclusion as a deliberate, separate objective because GESI is the least-activated lever (about 46%) and the only one that does not improve as deals grow larger or more transformational, with small and brownfield deals carrying the strongest inclusion.

Looking at jobs, select for quality as well as headline counts: agri-processing maximises raw numbers but is lower-skill, while light industry creates fewer, higher-quality jobs and the most per dollar, so weight the direct-to-indirect ratio and quality over counts.

Finally, hard, high-impact markets such as pharma & chemicals and Tanzania should not be overlooked, as a bias toward easy closes quietly penalises those markets where catalytic support adds the most.

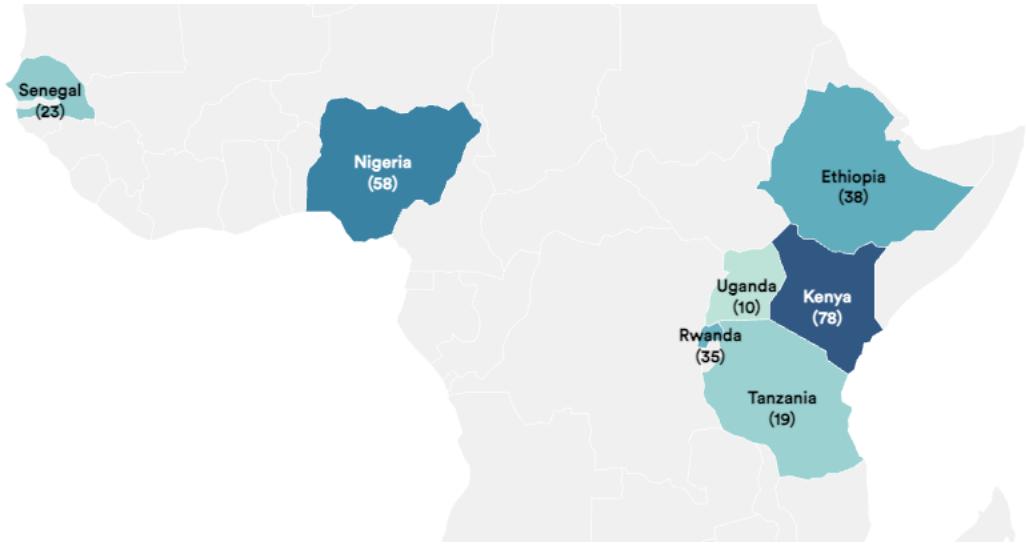
Data and methodology

Portfolio description

The dataset of deals examined is concentrated in East Africa. Kenya sees the most observations (78 deals), followed by Nigeria (58) and Ethiopia (38). Rwanda, Tanzania and Senegal account for the remainder. As of 2021, Manufacturing Africa no longer supports deals in Uganda.

Figure 1: Geographical scope

Countries of deals supported by Manufacturing Africa



Source: *Authors' elaboration.*
Notes: *Excludes one cross-country deal. Uganda, shown above, exited the Manufacturing Africa programme post-Covid.*

Target FDI for deals range USD 1 million to USD 1.4 billion across the full pipeline, with most deals falling between USD 5 million and USD 29 million. The median pipeline deal size is USD 11 million. Of the 55 deals that have reached financial close, the median deal size is USD 12 million, with individual deals ranging from under USD 1 million to USD 300 million.

The portfolio is balanced across complexity and 17 sectors[4]. Agri-processing deals represent the largest share, with 89 deals (34% of the portfolio), followed by pharma & chemicals, with 26

[4] To support coherent analysis, the 17 granular sectors are consolidated into six broader sector groups: Agri-processing; circular economy; heavy industry (cement & building, electronics, iron & steel, machinery & electrical equipment, metals, vehicles); light industry (apparel, leather, packaging, paper & wood, rubber & plastic, textiles); pharma & chemicals; and other (deals not elsewhere classified).

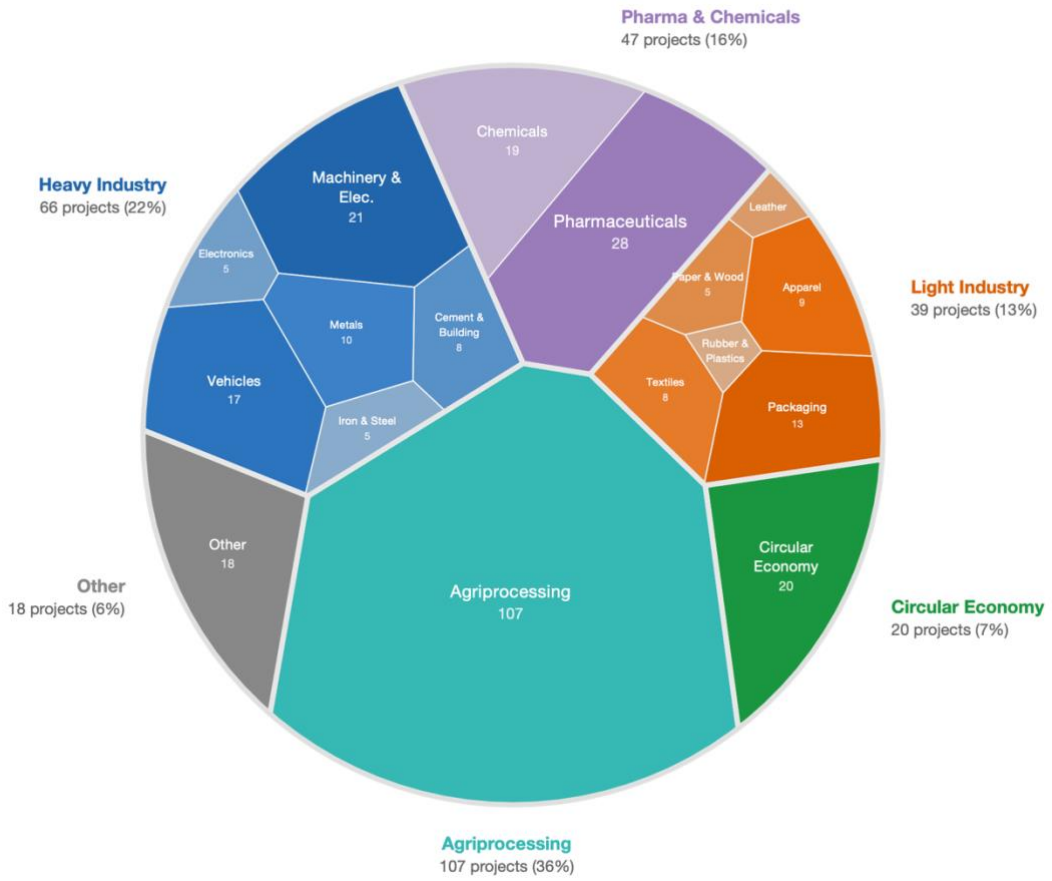
deals (10%) and machinery and electrical, with 20 deals (8%). The remaining 48% of the portfolio is spread across 14 other sectors.

Sector breakdown

Agri-processing is the dominant sector across every market, with 19 deals in Ethiopia and Kenya, followed by Nigeria (18), Rwanda (10), Tanzania (11) and Senegal (eight). Composition then diverges. Nigeria has a diverse portfolio, with strong concentrations in heavy industry (19). Kenya's portfolio is the most varied overall. Its profile mixes heavy industry (21 deals) and light industry (11 deals) alongside its agri-processing base. Ethiopia and Senegal both combine agri-processing with significant pharma & chemicals (five and six deals, respectively). Rwanda's portfolio beyond agri-processing is split across heavy industry, light industry, pharma & chemicals. Tanzania's is the most concentrated, with agri-processing accounting for 11 of its 19 deals and heavy industry at four deals.

Figure 2: Deals by sector

Sectors of deals supported by Manufacturing Africa



Source: *Authors' elaboration.*

Notes: *Granular sectors grouped into six broader sector groups.*

Methodology: mixed-methods approach

The report is built on a thorough analysis of lever activation and portfolio characteristics, using Manufacturing Africa's deal portfolio data, including selected lever of transformation indicators. These findings were supplemented by interviews with firms, investors and Manufacturing Africa staff[5].

The quantitative analysis consisted of coding for "lever activation" deal characteristics and closure data spanning the 262 deals Manufacturing Africa had facilitated by February 2026.

The qualitative strand explains the mechanisms behind the portfolio patterns and provides implementation-focused insights into whether the balanced portfolio strategy is fit for purpose. The approach consisted of semi-structured interviews with seven firms across the portfolio, plus Manufacturing Africa team input, analysed thematically.

Interviews explored five areas: Business and programme background; deal journey and experience of working with Manufacturing Africa; lever activation and mechanisms; role of the external ecosystem (investors, regulators, buyers, infrastructure); and overall reflections on Manufacturing Africa's contribution. For each lever, firms were asked about impacts, how a lever manifested or was activated in practice, outcomes, and whether it supported or constrained growth. The interviews also probed complementarities and trade-offs between levers.

Interview findings should not be relied on in isolation, but significantly contribute to a holistic understanding of what drives or inhibits transformation and growth[6]. Figures are firm-reported and, in pre-operational cases, prospective.

Measuring lever activation

The analysis uses Manufacturing Africa's five levers to understand the potential for each deal to bring about durable and meaningful structural change. IET is the foundation of the analysis, complemented by four additional levers capturing specific dimensions of impact. This configuration means that IET provides a strong guide on the overall intensity of transformation, with the four additional levers providing signals on breadth.

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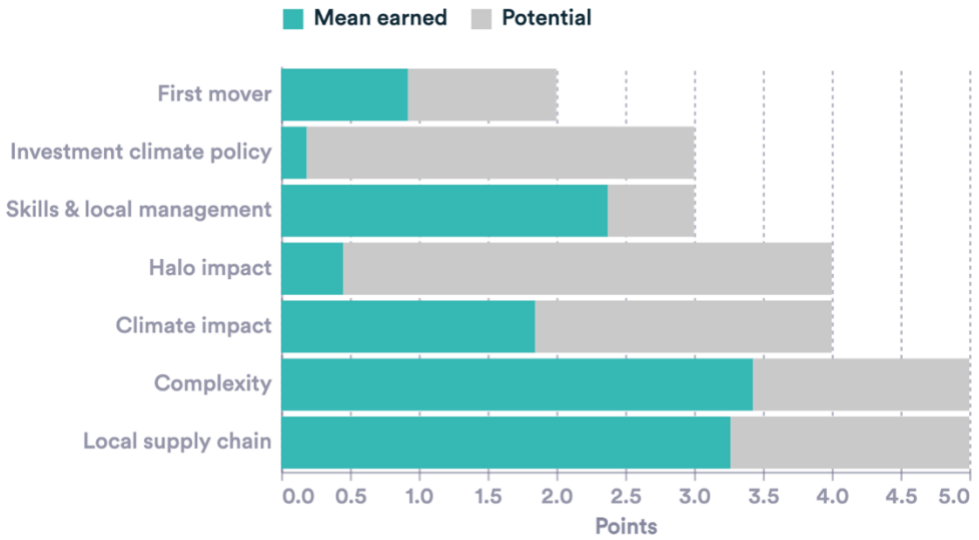
[5] Eight interviews.

[6] Notable limitations: eight interviews, with three programme countries unrepresented; a small, Manufacturing Africa-selected sample skewed toward climate and circular economy firms. The strand is illustrative of mechanisms and is not statistically representative.

The first lever, IET, serves as a composite measure of the quality and depth of impact. It is scored across seven categories: first-mover status; halo and spillover effects; complexity and value-add; use of local supply chains; positive climate impact; investment climate policy change; and skills development and local management. IET captures the breadth and depth of a deal's contribution against a 26-point scale. Rather than recording the presence or absence of specific characteristics, IET assesses cumulative quality and ambition. It is also the basis for integration with the FCDO's PbR framework, which links transformation assessment to programme accountability.

Figure 3: Scoring IET activation for the indicator

Potential points in each IET sub-category and the mean achieved by deals



Source: *Authors' elaboration.*
Notes: *Two years into the programme, the IET scoring system was updated with a rebalancing of categories. This chart includes scores only under the new system.*

IET is the primary indicator of transformation potential for both practical and substantive reasons. Substantively, its scope makes it a strong composite of durable transformation, rather than a measure of any single dimension. Practically, its 26-point scale captures the presence and, crucially, the intensity of activation, setting it apart from the binary indicators used to construct the other levers. It provides finer-grained differentiation to pull deals apart.

The IET foundation is extended by four dimension levers, each capturing an important aspect of transformation and measured as follows:

- **Jobs & Livelihoods** lever activation is measured by the direct and indirect employment created by a deal. The strongest deals are those where success leads to substantial employment within the deal's operators and in supporting businesses.

- **Climate & Environment** lever activation is measured by deals' sustainability commitments and climate risk management. The Climate & Environment score is incorporated through a three-point (10%, 50%, 100%) conformity with the FCDO's International Climate Finance (ICF) framework.

- **GESI** lever activation is measured by the extent to which a deal advances gender equality and inclusive ownership. It includes the 2X Challenge standard for gender-lens investment and BII (British International Investment) Black Ownership and Leadership for Development (BOLD) criteria. Deals that perform strongly are those with underrepresented groups in ownership, workforce and management.

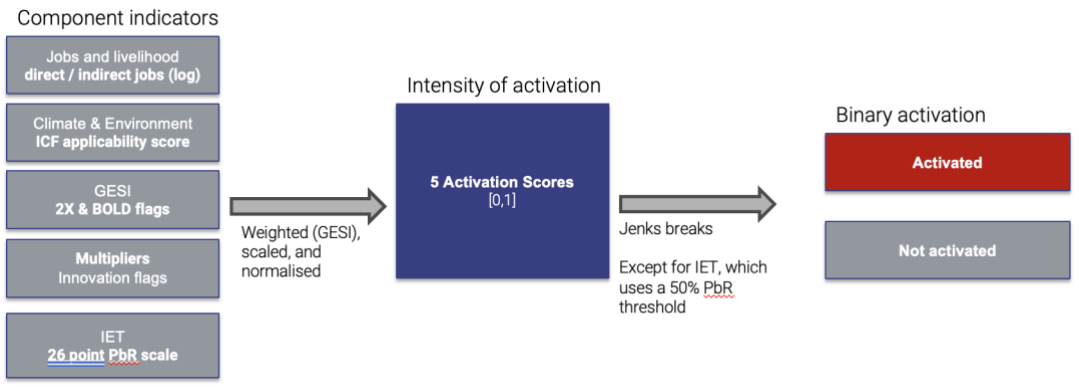
- **Multiplier Effects** lever activation is measured by how far a deal's transformation extends beyond the firm's immediate context. It captures the breadth of a deal's spillover potential, incorporating new value chains, cluster effects, new technology, and transformative scale likely. Deals that activate this lever are those with the potential to shift the structure of an entire sector.

Table 1: Measuring lever activation

	IET	Jobs & Livelihoods	GESI	Multiplier Effects	Climate & Environment
What do these levers help to measure?	Composite transformation measure of quality and depth of impact	Direct and indirect employment created by a project	Women's ownership, leadership and workforce inclusion, alongside Black ownership and management	How a firm's impact extends beyond its own operations	Extent to which a firm's operations are aligned with or actively contribute to a low-carbon, resource-efficient economy
Components	First-mover	Direct jobs	2X Challenge	Spillover potential	FCDO's ICF framework
	Spillover effects			New value chains	
	Complexity			Cluster effects	
	Local supply chains	Indirect jobs	BOLD BII		
	Climate impact			New technology	
	Climate investment			Transformative scale	
	Skill development				
		IET is Manufacturing Africa's primary metric for transformative impact; composite of seven sub-scores on a 26-point scale		Four supporting levers: Jobs & Livelihoods, GESI, Multiplier Effect, Climate & Environment. Each capture distinct aspects of project impact, providing a broad understanding across a wide set of desirable dimensions	

The study identifies lever activation from 29 deal characteristics coded and supplied by Manufacturing Africa. The data are combined, weighted and normalised to produce scores on both the intensive and extensive margins: continuous intensity scores reflect the degree of lever activation within a deal; binary activation flags transform these into a simple activated/not-activated indicator (see Box 1).

Box 1. Coding the strategic levers of economic transformation



Most lever input variables are binary flags recording the presence or absence of a characteristic.

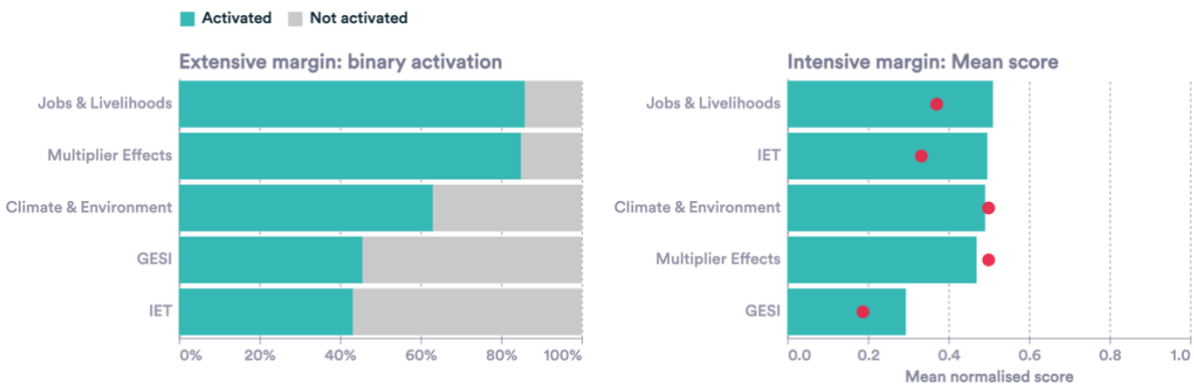
For these, sum within each lever and normalise by the number of sub-indicators to produce a score on [0, 1]. Where a lever contains clear variable sub-groupings, apply additional weighting before computing the lever score. In GESI, for example, 2X (gender) and BII BOLD (race) criteria are treated as equal-weight sub-components rather than allowing the larger number of 2X flags to dominate.
Direct and indirect job counts are continuous. Apply a log transformation to each before normalising to preserve variation in deal scale, while preventing a small number of outliers from compressing the rest of the distribution toward zero. This transformation means that the deals projected to create the most jobs are scored highest on this lever, while allowing differences between other deals to be meaningfully distinguished. For example, the top deal by indirect employment, with 250,000 indirect jobs, receives the maximum indirect score of 0.50. A deal reporting 100 indirect jobs scores 0.19 on this component, while one reporting 2,000 scores 0.35. Without the log transformation, both would score below 0.01 and be indistinguishable from one another.

Intensity scores, produced by weighting and normalising the binary and continuous variables are then turned into binary activations. Jenks natural breaks are applied independently to each lever's score distribution to identify the threshold that minimises within-group variance. This approach is used instead of an arbitrary fixed threshold (e.g. 50%) to find the cut that minimises within-group variance in each lever's score distribution and sets thresholds around where deals cluster.

An exception is made for IET, which uses the standard 50% applicability threshold. This means the IET threshold is set at 13 of 26 points.

Figure 4: Lever intensity and activation

Binary activation (left) and intensity of activation (right, with thresholds shown)



Source: *Authors' elaboration.*

Notes: *Of 203 deals that have entered or concluded support.*

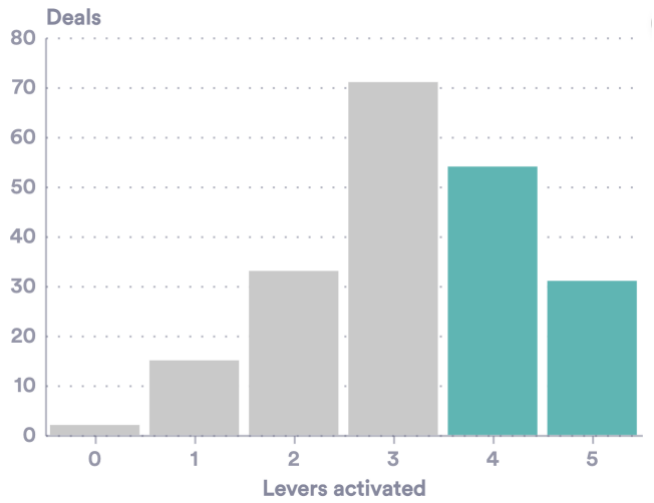
Part 1: Strategic levers of economic transformation

Strategic levers: Transformation across the portfolio

Most deals activate at least three levers. The modal deal activates exactly three (34% of the portfolio), the mean sits at 3.23, and three-quarters of deals activate three or more. At the top end, 15% activate all five levers. This lever breadth serves as an additional measure of deal transformation.

Figure 5: Multi-lever activation

Distribution of levers activated



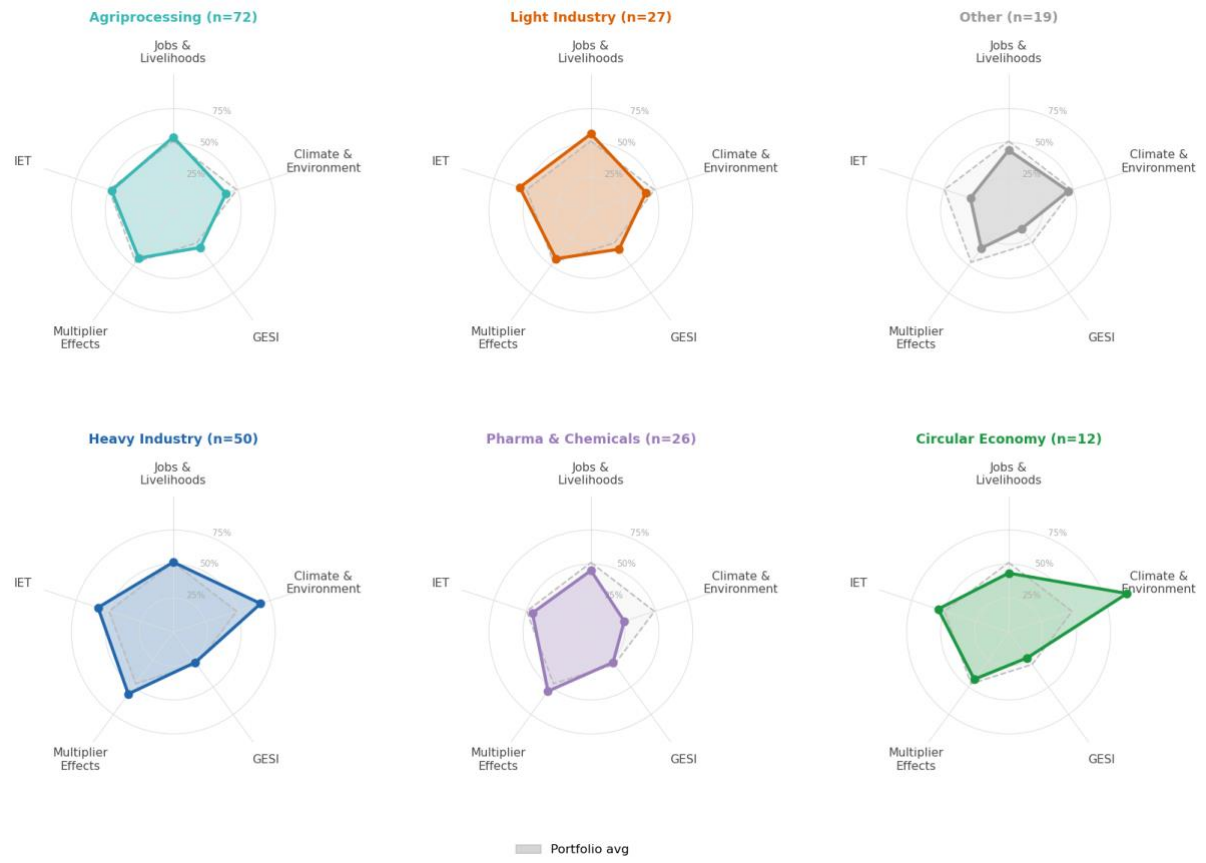
Source: *Authors' elaboration.*
Notes: *Of 203 deals that have entered or concluded support.*

Multi-lever deals are spread broadly across the portfolio, with the sole exception of the 'other' sector, which falls well below the norm. Circular economy, heavy industry, and light industry have the highest shares of 4+ lever deals (58%, 56% and 56%, respectively). The 'other' sector is the clear outlier, with just 16% of deals reaching four levers. By deal size, mean lever counts are flat across the bottom three quartiles (sitting between 3.29 and 3.34) and only a small dip among the very largest deals (2.98). Greenfield and brownfield deals follow a similar pattern, with 44% and 38%, respectively, reaching four or more levers, and the 55 high-breadth deals split almost evenly between the two types.

Lever activation is not uniform across sectors, although variation is modest. For most sector groups, the portfolio average is a close fit. All sectors are within a standard deviation of the mean for 4+ lever activations. In particular, Jobs & Livelihood and Multiplier Effects intensity are consistently strong across all groups, reflecting their near-definitional character for manufacturing investment.

Figure 6: Sector profiles

Lever intensity, by sector group



Source: *Authors' elaboration.*
Notes: *Of 203 deals that have entered or concluded support.*

Circular economy deals show the sharpest break from the portfolio mean, with the most significant correlation between sector and lever. Despite their perfect Climate & Environment score, with 100% of deals activating the Climate & Environment flag, the average GESI score is low compared to other sectors.

The two industry groups, heavy industry and light industry, present somewhat different transformation profiles. Heavy industry shows the strongest Multiplier Effects activation of any

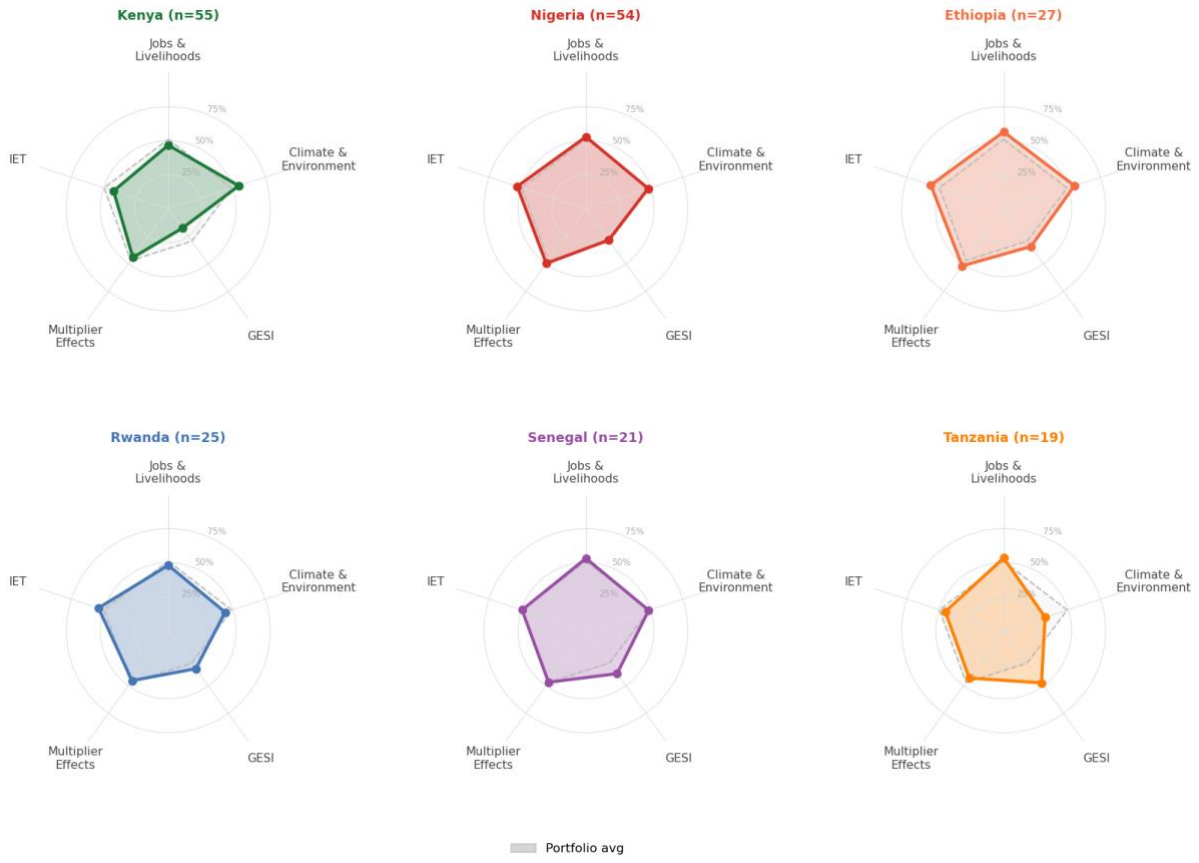
sector, and strong IET activation, driven by its concentration of first-mover, export-oriented, and technologically novel deals. However, it has average GESI activation at 42%. Its transformation is structural and deep, but middling in who it reaches, with the third largest deals in the portfolio by median FDI (USD 13.5 million), but the fourth most jobs of any sector (979 median total).

Light industry activates similar levers across all five dimensions. On the extensive margin, levers are activated for 96% of deals on Jobs & Livelihoods, 63% on Climate & Environment, 70% on Multiplier Effects (low compared to the rest of the portfolio, especially heavy industry), and 52% IET. Some 56% of deals reach four of more levers, with a mean of 3.3. Despite a smaller median deal size (USD 9.8 million), it has nearly twice the median jobs (1,283).

The extent of sectoral variation in transformation should not be overstated. The overall pattern is of broad similarity, with most differences between sector pairs statistically indistinguishable. A full 71% of pairwise differences on the extensive margin (activation or not) and 57% on the intensive margin (magnitude of activation) are not statistically significant at the 5% confidence threshold. Variation between sectors explains only 14% of total variation: differences between deals within a sector are far greater than between sectors.

Figure 7: Country profiles

Lever intensity, by country



Source: *Authors' elaboration.*

Notes: *Of 203 deals that have entered or concluded support.*

Country variation is even more limited than sectoral variation. Across 75 pairwise country comparisons (36 country pairs across five levers), 94% are statistically indistinguishable on binary activation and 87% on continuous scores. A deal's country explains at most 17% of the variance in any individual lever (GESI) and less than 4% for the Multiplier Effects lever. Where a deal sits geographically says relatively little about its transformation profile; transformative deals can happen anywhere.

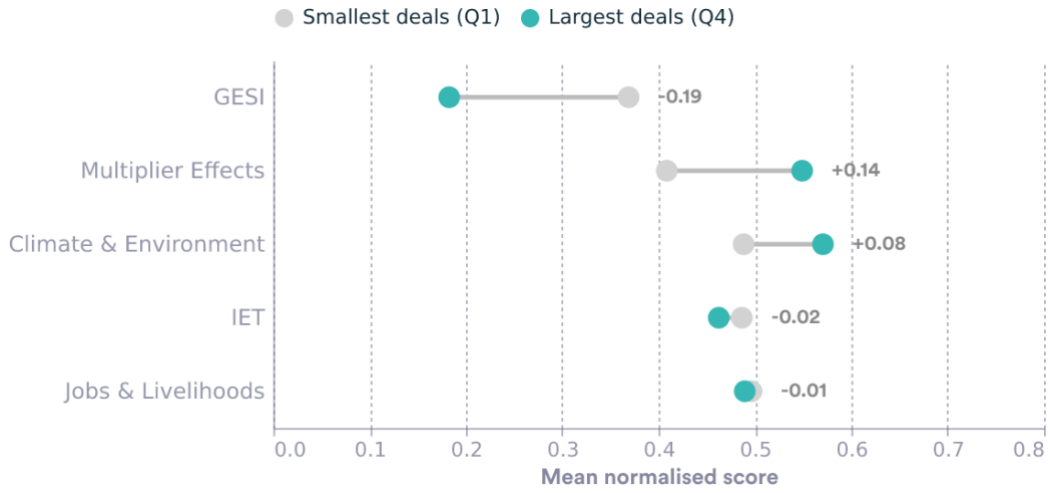
What is associated with lever activation?

Deal size has minimal impact on most lever scores. When comparing the smallest and largest FDI quartiles across all five levers, three dimensions remain consistent: Jobs & Livelihoods, IET, and Climate & Environment exhibit nearly identical mean scores, regardless of whether a deal is below USD 5 million or above USD 40 million.

Two exceptions emerge. Multiplier Effects increase with deal scale (+0.14), reflecting the tendency of larger investments to support broader supply chains and export linkages. In contrast, GESI declines significantly as deal size increases (-0.19), with the largest deals scoring less than half as well as the smallest deals on gender and racial inclusion criteria.

Figure 8: Deal size and lever activation

Mean normalised score for smallest (Q1, <USD 5 million)

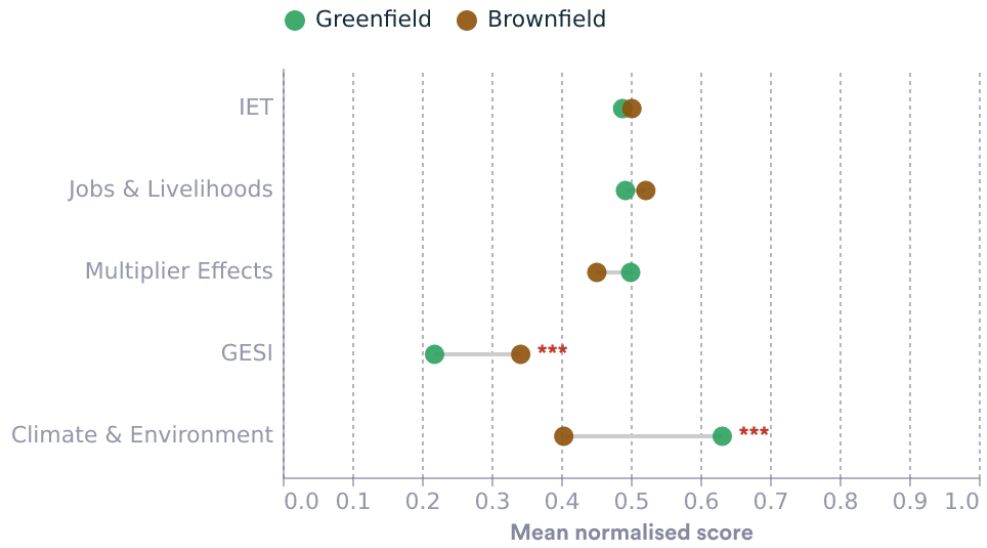


Source: *Authors' elaboration.*

Notes: *Of 135 deals that have concluded support.*

Figure 9: Greenfield and Brownfield lever scores

Mean normalised lever score, by deal type



Source: *Authors' elaboration.*

Notes: *Of 203 deals that have concluded support.*

Greenfield and brownfield deals activate a similar number of levers on average, but their compositions differ slightly. Greenfield deals score higher on Climate & Environment, consistent with new facilities embedding environmental standards and supply chain linkages from the outset. Brownfield deals score higher on GESI. Jobs & Livelihoods and IET show no significant difference by deal type.

The evidence points to one consistent pattern: most dimensions of transformation are aligned. Deals that score high on IET tend to activate more levers, attract more FDI and create more jobs. This holds across sectors, deal sizes and deal types.

The exception is the GESI lever, which does not increase alongside IET nor correlate with deal size, sector or deal type. Inclusion outcomes therefore require separate attention. Without targeted action on inclusion, a portfolio emphasising ambitious, high-IET deals will not yield broader GESI outcomes, despite strengthening Multiplier Effects, Climate & Environment and Jobs & Livelihoods outcomes. This highlights the need for distinct strategies or interventions to improve GESI impact.

Sector choice modestly shapes transformation profiles but does not force hard trade-offs. Most pairwise sector differences are statistically indistinguishable and within-sector variation far exceeds between-sector variation. The sharpest signal is between pharma & chemicals, which underperforms on IET and Climate & Environment despite its economic complexity, and machinery & electrical, which activates levers most comprehensively. Agri-processing sits close to the portfolio mean across all dimensions. Country differences are even flatter.

The greenfield/brownfield balance serves as a natural hedge. Greenfield deals bring stronger Climate & Environment and Multiplier Effects profiles. Brownfield deals bring stronger GESI scores. Total lever breadth is identical across the two types. Mixing both preserves balance across dimensions that may pull in opposite directions.

These findings narrow the scope of the portfolio strategy question. If pursuing deeper transformation does not come at the cost of breadth, except inclusion, the remaining test is whether it comes at the cost of closure.

IET and complementarities between levers

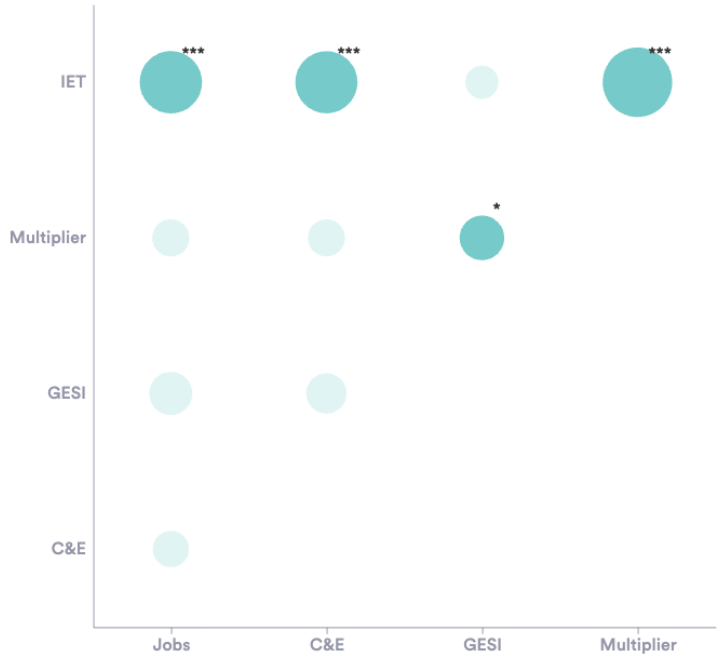
Activation of IET is driven by high complexity deals with deep supply chain integration. Manufacturing Africa scored deals across seven categories, with a potential maximum of 26 points. Most points are available in complexity and local supply chain. The average deal achieved 12 points, of which supply chain impacts (3.12 points), complexity (3.24) and skills

and local management (2.44) contributed most. Two categories, halo impact and investment climate policy change, score near zero on average, contributing little to the distribution. Following PbR activation rules, the activation threshold is set at 13 points (half of the total available), a bar met by 44% of A4+ deals (i.e. close out process of support).

For most dimensions of transformation, activation of other levers is a strong predictor. IET correlates significantly with Jobs & Livelihoods (ρ=0.29), Climate & Environment (ρ=0.29) and Multiplier Effects (ρ =0.37). The Jobs & Livelihoods, Climate & Environment and Multiplier Effects lever activations show no significant pairwise correlations with each other. GESI lever activation is the clear exception, showing no significant correlation with any lever except a weak association with Multiplier Effects (ρ=0.14). The result confirms that inclusion outcomes are structurally independent of other transformation dimensions.

Figure 10: Lever score correlations

Spearman correlations between normalised lever scores (intensive margin)

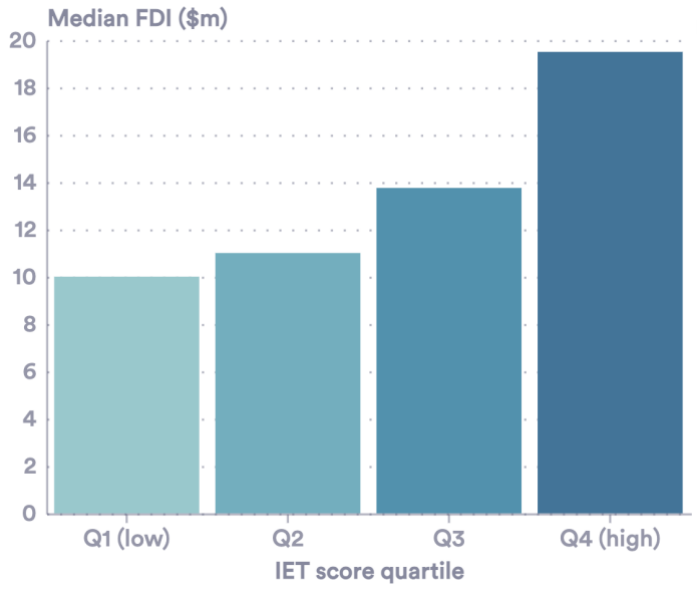


Source: *Authors' elaboration.*
Notes: *Of 203 deals that have entered or concluded support. Statistically significant correlations indicated with * (p<0.05) and *** (p<0.001).*

Deals that score high on IET in the PbR system tend to be larger, bring higher employment and activate other levers more intensely. IET is activated in 43% of deals, aligned with PbR eligibility and defined as coverage of more than 50% of available points.

Figure 11: IET score distribution and deal size

Median FDI, by IET score

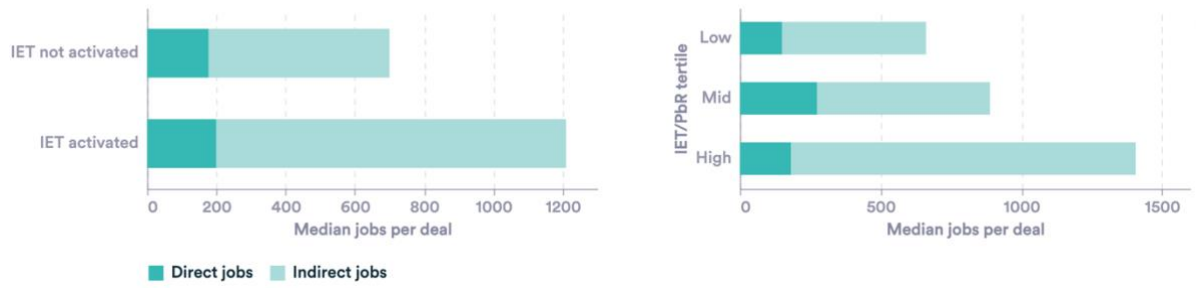


Source: *Authors' elaboration.*
Notes: *Of 135 deals that have concluded support.*

Deeper transformation is associated with larger deals. Among IET-active deals, median FDI is USD 15 million. Breaking this down, the relationship is inconsistent across quartiles. Deals in the lowest IET quartile have a median FDI of USD 14 million, dipping to USD 10 million in Q2, then rising to USD 13 million in Q3 and USD 17.5 million in the highest scoring quarter.

Figure 12: IET activation and jobs

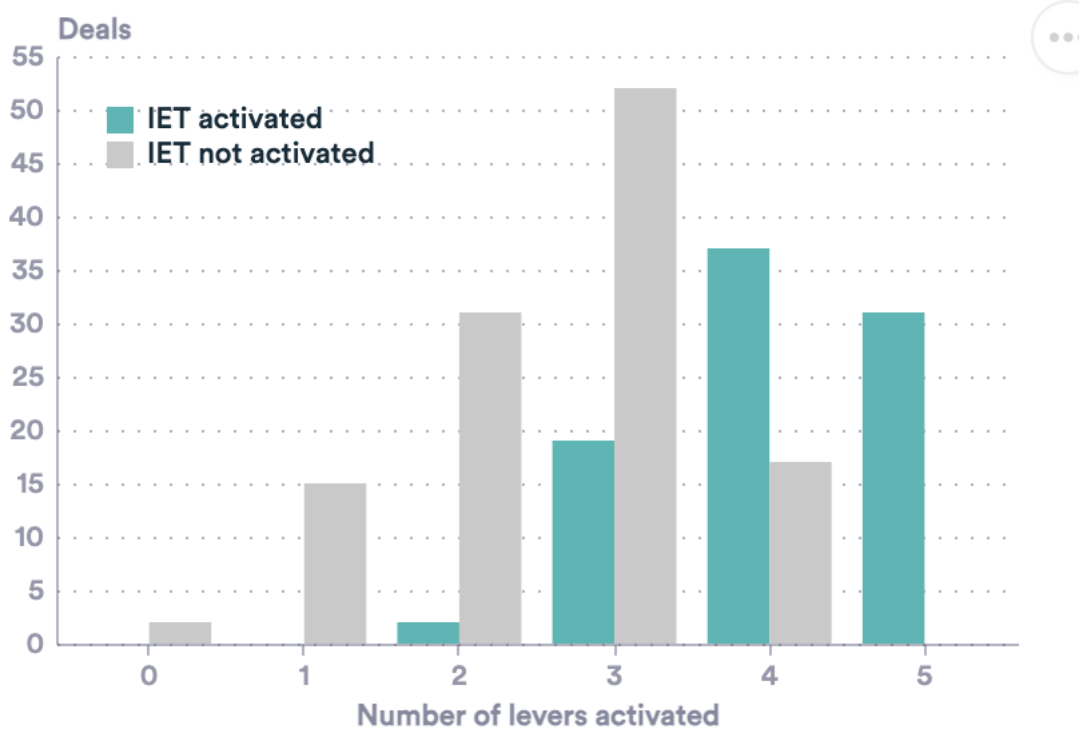
Jobs, by IET activation and score



Source: *Authors' elaboration.*
Notes: *Of 203 deals that have entered or concluded support.*

Figure 13: PbR lever activation

Intensity and lever count



Source: *Authors' elaboration.*

Notes: *Of 203 deals that have entered or concluded support.*

IET-active deals bring stronger employment outcomes. Median direct jobs are higher among IET-active deals (200 vs 178) and the gap is more pronounced for indirect employment (1,010 projected indirect jobs for active deals vs 522 for inactive deals).

Broken down by transformation depth, projected indirect jobs more than double from low to high IET tertiles. Low-IET deals have a median of 514 indirect jobs, rising to 614 in the middle tier and 1,357 among the highest scoring. Direct jobs show a different pattern, rising from 150 to 219 among high-IET deals.

More transformational deals activate other levers more intensely across almost all dimensions. IET-active deals show higher activation on Jobs & Livelihoods (92% vs 81%), Climate & Environment (78% vs 52%) and Multiplier Effects (93% vs 77%) and carry a substantially higher mean lever count (4.1 vs 2.6). The exception is the GESI lever, where activation rates are near-identical between IET-active and IET-inactive deals (46% vs 45%). GESI is the only lever that does not co-move with IET.

The GESI lever gap represents the clearest trade-off in the PbR portfolio. High-IET deals are not systematically more inclusive by gender or race criteria. This is a dimension where pursuing

deeper transformation does not deliver broader impact. Racial and gender equity appears to be largely independent of other levers.

The most transformative deals by IET scores attract 31% more investment at the median than the least transformative (from USD 11.4 million to USD 15 million). The distribution is also more skewed at the top. In the highest and lowest IET tertile, mean FDI (USD 76.5 million and USD 65.7 million) are five to six times their medians, driven by a small number of high transformation deals that pull the distribution. In the mid tertile, the mean and median sit closer together. The most transformative deals are not uniformly large; they span all sizes but disproportionately attract the portfolio's largest single investments.

Table 2: Deal size by transformation depth

Median and mean FDI, by IET score tertile

IET group	Median FDI (USD)	Mean FDI (USD)	N
Low tertile	11.4 million	65.7 million	78
Mid tertile	13.0 million	26 million	60
High tertile	15.0 million	76.5 million	66

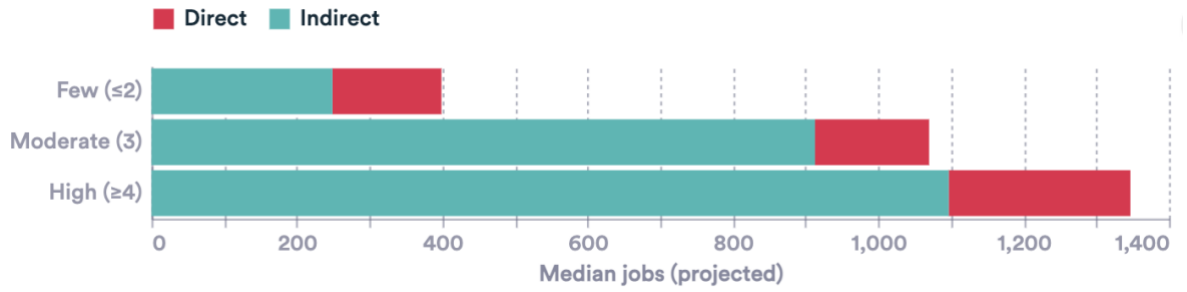
Source: *Authors' elaboration.*
Notes: *Of 203 deals that have entered or concluded support.*

Companies activating four or more impact levers generate a median of 1,519 total jobs, more than double the 576 jobs generated by companies with two or fewer levers. The difference comes from indirect employment: high-lever companies produce a median of 1,097 indirect jobs, compared to 249 for low-lever companies, a four-fold gap. Direct job creation stays in a narrow band across all three categories, which suggests that it is Multiplier Effects, not headcount alone, that drives the separation.

Interviews suggest that multiple-lever activation can contribute to better growth and traction outcomes. However, in some cases, lever activation that was deep, genuine and well-evidenced almost failed due to capital constraints, suggesting that lever depth is not a sufficient condition for sustainable growth when the broader financing environment is unfavourable to the asset class.

Figure 14: Direct and indirect jobs created by intensity of lever activation

Job creation, by number of levers activated



Source: *Authors' elaboration.*
Notes: *Of 203 deals that have entered or concluded support.*

Adding value despite infrastructure and service delivery gaps

Interviews suggest that IET lever activation is most notable in deals that address public sector structural failures. More specifically, by providing capital to business models seeking to address a local problem with underutilised, available resources to meet unmet demand.

This has included (within the sample portfolio) converting waste into tradable commodities or food products, formalising previously unstructured input markets, integrating dispersed supply chains through modern processing infrastructure, and enabling access to productive assets for MSMEs. In each case, firms do not displace existing systems, but, rather, build where systems are incomplete, generating both commercial returns and broader economic value.

Similarly, the interviews indicate that business models targeting structural economic gaps as commercial opportunities can sometimes support firm growth through three primary mechanisms.

1. Generate durable and self-reinforcing demand by serving previously excluded or underserved market segments, where customer success feeds back into increased demand and validates the underlying business model.
2. Create structurally low-cost input bases by incorporating informal, unpriced or inefficiently utilised resources into formal production systems, enhancing competitiveness and supporting resilience, even under financial stress.
3. Strengthen the investor proposition by embedding clear social and economic impact within the business model, enabling access to concessional finance and expanding the

pool of potential investors, particularly where commercial returns alone may not yet be sufficient.

Jobs & Livelihoods

The Jobs & Livelihood lever is the most widely activated (85% of deals), reflecting the expectation that virtually all deals create a substantial number of jobs. Job prospects are dominated by indirect employment, averaging 2,100, with a maximum of 35,000 through supply chain, ecosystem and spillover effects. For 7-in-10 deals, indirect employment exceeds direct employment, averaging 2,900. To weight between the two and adjust for clear outliers, the direct and indirect scores are individually logged and normalised. The lever activates at a normalised threshold of 0.42, with 85% of deals clearing that bar[7].

Job quantity: employment

Of all 262 pipeline deals, the median projected direct employment is 182 jobs per deal, rising slightly to 200 among closed deals. Indirect employment has a pipeline median of 1,000 jobs per deal. Direct jobs range from five to 22,000 per deal across all deals, with indirect employment (estimated using deal-aware multipliers) reaching considerably higher.

Of the 55 deals that have reached financial close, Manufacturing Africa-supported firms are projected to create 46,589 direct and 112,407 indirect jobs. Indirect employment dominates: the median closed deal brings 200 direct jobs and 825 indirect jobs per deal, with individual deals ranging from 30 to 15,000 direct jobs and considerably wider variation in indirect employment[8].

The sectoral and geographical distribution of projected jobs among closed deals reveals where employment impact is concentrated. Agri-processing dominates indirect employment, with a median of 1,626 projected indirect jobs per closed deal, reflecting the deep supply chain and smallholder linkages characteristic of the sector. Direct employment among closed deals is less concentrated, with light industry standing out at a median of 510 direct jobs per deal. By country, Nigeria leads direct employment, with a median of 500 direct jobs per closed deal, well above the portfolio median of 200. Ethiopia leads indirect employment, at a median of 3,306 projected indirect jobs per closed deal, reflecting the scale of its agri-processing and food system investments. Despite leading the portfolio on deal volume, Kenya lags on indirect job creation, with a median of 537 indirect jobs per closed deal.

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[7] This means that each direct job is weighted much higher than each indirect job. As indirect job projections are much larger than direct job projections (mean 3,262 vs 751; median 694 vs 191), the log compression means an additional indirect job contributes much less to the lever score.

[8] All figures should be treated as projections; employment typically lags financial close and in most cases is not yet fully realised.

Job quality improvements

Broadly speaking, job quality across the portfolio has been improved by the following mechanisms:

- Income increases;
- Upskilling and training schemes incorporated into the business model;
- Fformalisation of labour (including the formalisation of payment methods and "banking" previously unbanked workers, creating a financial footprint for rural workers);
- Pipeline creation for skilled labour and the mitigation of "brain drain".

Formalisation of labour: quantity and quality of job improvement

The informal sector dominates labour absorption across the continent, leaving workers in low-skilled, low-paying jobs that often fail to translate into sustainable livelihood improvements that ensure social security and income stability. Achieving "decent work" relies on increasing the number of direct and indirect jobs created and on social impact factors that allow workers to receive consistent, reliable payment and see their working conditions improve. Some firms across the portfolio, including one in the cocoa farming and processing industry, have set up payment platforms or incorporated payment-to-account of their suppliers and unbanked rural informal workers, creating reliable sources of income and payment year-round.

Income multipliers

The most direct channel is wage impacts at the base of the supply chain. One firm interviewed has approximately quadrupled earnings for some 1,200 women in Ethiopia, a group facing compounded economic exclusion in a sector invisible to formal labour market measurement. The founder describes individual cases in which increased earnings enabled women to take on dependants, make household investments and move out of precarity. While these outcomes are anecdotal and not directly scalable in statistical terms, they illustrate the human impact of these income additions.

Pipelines for skilled jobseekers

Brain drain remains a structural challenge across African economies. Evidence across the portfolio indicates that successful deals can support job creation in sectors requiring skilled labour within local markets. For example, a bio-food processing firm in Senegal established an early partnership with the country's main national university, creating a pipeline for technicians required for its bioconversion processes; its workforce, including PhD-qualified researchers, is sourced entirely locally.

Jobs & Livelihoods lever activation and growth: possible mechanisms

- Formalisation of supply chain labour as a source of input supply stability: Interviews revealed that where firms depend on resource flows from informal workers (often women and, notably, waste pickers, smallholder farmers and micro-distributors), the

deliberate regularisation of those relationships reduces input uncertainty and lowers the risk premium that investors attach to the business.

- Livelihood impact (in the context of infrastructure failures) as the firm's primary value proposition: Africa faces persistent constraints from inadequate infrastructure, including unreliable electricity, weak waste management systems and poor road networks. Around 600 million people in sub-Saharan Africa still lack access to electricity[9]. These conditions raise operating costs for MSMEs, limit formalisation and restrict firm expansion. Evidence across the portfolio suggests that where firms offer products that directly enhance customer livelihoods, firm growth and improvements in customer livelihoods tend to be jointly determined and mutually reinforcing.
- Livelihood support as a retention and productivity tool: Interviews reveal that incorporating livelihood support into service packages can function as a retention and productivity tool.

Trade-offs between Jobs & Livelihoods lever activation and business growth

Interviews note a repeated trade-off between Jobs & Livelihoods lever activation and profitability, citing the perceived risk associated with higher running costs because of good-job creation. This often creates a choice between workforce contraction or capital scarcity.

Interview evidence indicates that firms in capital-intensive sectors face particular pressure to prioritise early profitability over employment expansion. In some cases, this has coincided with Manufacturing Africa-supported firms choosing workforce contraction or delayed hiring, despite otherwise viable business models.

Climate & Environment

Climate & Environment's representation in the lever framework has its foundation in ICF applicability, supplemented by layered qualitative and narrative detail drawn from deal records. The ICF score takes one of four values (0.1, 0.5, 0.9, 1), measuring conformity with FCDO's ICF framework. No deal records zero applicability and the portfolio distributes as follows: 37% at low conformity, 35% at medium, 4% at high and 24% at full conformity. Activation requires reaching the medium tier, which is met by 63% of deals. The base provided by ICF scores is then expanded through a three-layer framework that distinguishes integration into three layers of environmental impact.

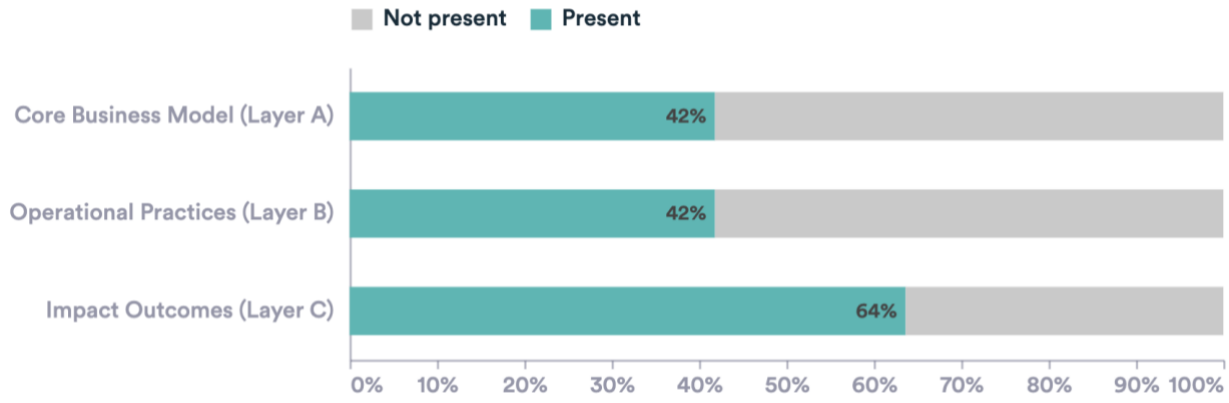
[9] International Energy Agency (IEA). 2025. *Financing Electricity Access in Africa*. IEA. https://www.iea.org/reports/financing-electricity-access-in-africa.

Across the 55 deals that have reached financial close, nearly two-thirds (63%) activate the Climate & Environment lever. Going beyond this headline figure, three layers of environmental impact are identified:

1. Integration into the core business model (Layer A);
2. Embedding sustainable practice (Layer B);
3. Realisation of measurable environmental outcomes aside from business models (Layer C).

Figure 15: Three forms of environmental activation

Proportion of financially closed deals with environmental integration into core business models, operations, outcomes



Source: *Authors' elaboration.*
Notes: *Of 55 deals that have reached financial close.*

Environmental integration into business models (Layer A)

For many Manufacturing Africa-supported deals, particularly those in the circular economy or EV sectors, environmental impacts are a core feature. This deep integration is associated with deep and broad environmental impacts: all 23 closed deals (42%) that integrate environmental sustainability into their core business score highly on ICF scores and bring about documented environmental impact outcomes (Layer C).

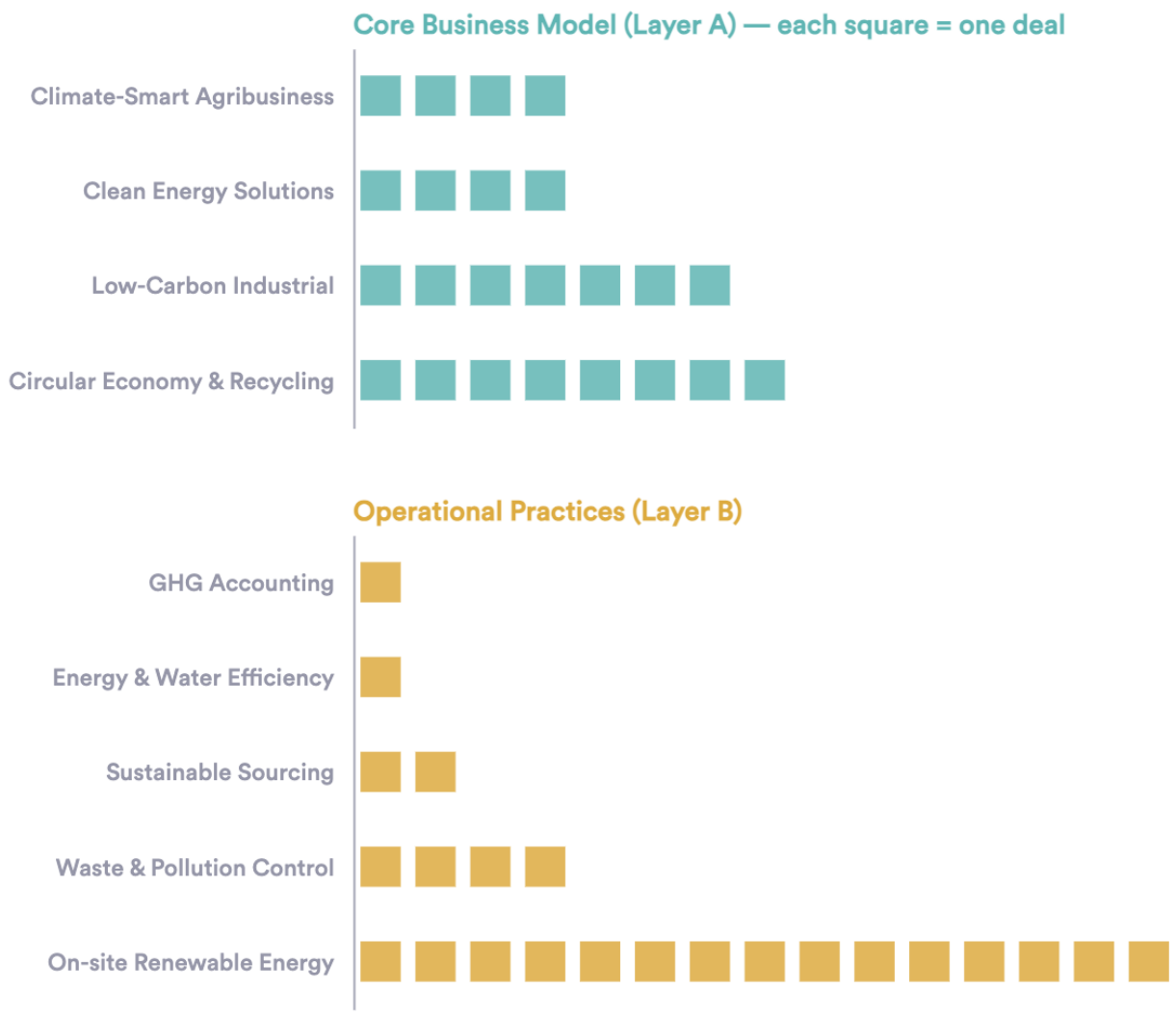
These 23 deals are found across five groups: EVs; circular economy and recycling; clean energy manufacturing; climate-smart agribusiness; and low-carbon industrial production.

EV deals form an important part of the portfolio's environmentally centred deals. For example, a Kenyan EV firm is preparing to produce the first indigenously developed two- and three-wheel EV in East Africa, another is producing the first locally designed and manufactured motorcycle

frames and a Rwandan EV truck manufacturer is transferring technology from the United Kingdom (UK) and providing affordable rural transport solutions.

Circular economy deals span plastic recycling, e-waste, organic waste bioconversion and construction material from recycled inputs. These deals are often first movers without national or regional precedent.

Figure 16: Business and operational integration



Source: *Authors' elaboration.*
Notes: *Of 55 deals that have reached financial close.*

Environmental integration into operational practices (Layer B)

Many deals embed environmental practices into their operations, regardless of their sector. Of the 55 deals that have reached financial close, 23 embed environmental practices into how they operate rather than (or in addition to) what they produce. These integrations include:

1. On-site renewable energy. Many firms plan the installation of captive solar energy, often on rooftops, to power manufacturing or processing operations. For example, a Ugandan coffee processor has installed a smart technology solar plant to power its production facility.
2. Efficient resource (re)use. Other deals have employed innovative operational practices to reduce resource use. A Kenyan apparel manufacturer, with USD 39 million in FDI, has deployed certified chemicals, water recycling, sludge upcycling, solar and biomass energy, and automation specifically to reduce water consumption. Similarly, a Tanzanian cashew processor uses cashew nut shells as its own energy source for production and supplies surplus energy to a cement company, simultaneously reducing its greenhouse gas (GHG) emissions, fuel costs, and waste disposal needs.
3. Sustainable and certified input sourcing. Other firms generate environmental impacts through their careful selection of inputs. Business rationales are both demand-side (e.g. an Ethiopian bamboo manufacturer is pursuing Forest Stewardship Council (FSC) certification to meet European and Middle Eastern buyers' needs) and supply-side (e.g. an Ethiopian plastic waste-to-fuel company is recycling plastic waste because of its availability).

Environmental impacts (Layer C)

Beyond business model design and operational practice, firms in the Manufacturing Africa portfolio demonstrate significant measurable environmental outcomes captured in stakeholder engagement.

Deals contribute to Climate & Environment via:

- Plastic waste diversion;
- Production of alternative fuels (to traditional fossil fuels);
- Use of renewable energy in production processes;
- Making renewable energy-powered products affordable and accessible to consumers;
- Reducing food spoilage and waste;
- Agri-businesses related to cocoa farming: taking away incentives to participate in deforestation with the monitoring of suppliers;
- Emission-offsetting activity.

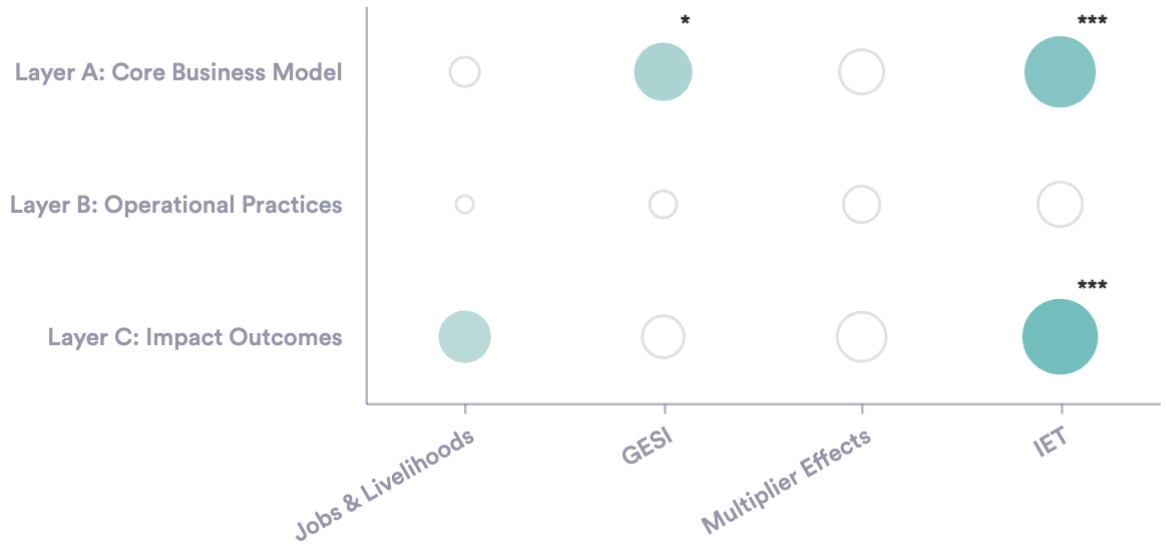
Environmental firm growth complementarities

Quantitative analysis of Manufacturing Africa's portfolio and interviews with firms reveal broad complementarities between environmental impacts and other aspects of transformation. Sustainable business practices bring environmental benefits while also promoting firm growth.

Quantitatively, the business benefits of environmental integration can be seen through an investigation of the three environmental layers and other levers. Deals where environment is the core business model (Layer A) score significantly higher on the IET lever (correlation coefficient of 0.44, p=0.001 within the financially closed deal portfolio). These deals with environmental core business models score higher on the GESI lever (r=+0.29, p=0.034); 22% of Layer A (core business model) deals have products that specifically benefit women, compared to 3% of other closed deals. Similarly, 39% of Layer A deals have significant female representation in their supply chains, compared to 19% of non-Layer A deals.

Figure 17: Environmental integration correlations

Correlations between environmental integration and other levers in financially closed deals



Source: *Authors' elaboration.*
Notes: *Of 55 deals that have reached financial close. Statistically significant correlations indicated with * (p<0.1) and *** (p<0.01).*

Across the portfolio, environmental performance is demonstrably connected to improved commercial outcomes via the mechanisms of improving product competitiveness and access to a broader pool of finance.

Climate & Environment spillovers into economic transformation

Climate & Environment activating business models both reduce the negative climate externalities of existing economic activity and contribute to broader structural shifts towards environmentally friendly outcomes. Key areas of impact include providing good, private substitutes for failing public infrastructure (especially electricity, fuel and waste disposal), as well as food security and health and safety concerns. There is also evidence that the firms promoted have seen changes to local business perceptions of alternative fuels, encouraging more firms to reduce their emissions.

GESI

The GESI lever indicator combines two distinct inclusion frameworks into a composite indicator, constructed using 12 binary indicators across two classifications: the 2X Challenge for gender and BII BOLD for Black ownership and management. Eight gender-related indicators capture women's participation in management, ownership, the workforce and customer base, while four indicators capture Black ownership and leadership. The activation threshold is set at 0.25, requiring that, on average, at least one-quarter of the criteria are met within each framework. Overall, 46% of deals in the sample meet this threshold, representing the lowest activation rate among the five levers. Across the portfolio, 77% of deals meet at least one 2X gender criterion and 67% meet at least one BOLD criterion, although many individual criteria are infrequently observed. Only 15% of firms are women-founded and 33% are Black-founded.

These shares are broadly consistent with e thcountry patterns observed in World Bank Enterprise Survey data:

- The share of surveyed firms corresponding to Manufacturing Africa's active country portfolios that report any female ownership ranges from 13.2% in Tanzania to 37.8% in Rwanda, with most countries clustering between 18% and 36%.
- Majority female ownership remains significantly lower, ranging from 8.4% in Nigeria to 27.2% in Rwanda, and typically well below 15% in most markets.

In this context, the share of women-founded firms in the Manufacturing Africa portfolio (15%) is aligned with, and in some cases slightly greater than, observed country-level benchmarks for female ownership.

Three features of GESI lever activation stand out.

1. GESI lever activation does not co-move with any other transformation lever. Deals scoring highly on IET activate the Jobs & Livelihoods, Climate & Environment and Multiplier Effects lever indicators far more often than IET-inactive deals (89%, 77% and

89% vs 76%, 40% and 67%, respectively), but GESI activation is near-identical between IET-active and IET-inactive deals (47% vs 48%). A portfolio that pursues deeper transformation as conventionally measured by IET will not, of its own accord, yield broader GESI outcomes.

2. GESI lever activation declines with deal size. The largest deals score less than half as well as the smallest on gender and racial inclusion criteria, a drop of 0.24 on the normalised scale. GESI is the only lever on which large deals systematically underperform. Multiplier Effects, by contrast, rises with scale, by 0.13.
3. GESI lever activation is higher in brownfield than greenfield deals. Established operations appear to bring workforce and community relationships that translate into inclusion outcomes more readily than newly constituted greenfield facilities. Sectorally, heavy industry i.e. complex manufacturing has the second-lowest GESI activation at 27%, despite the sector's strength on Multiplier Effects and IET lever activation. Machinery & electrical activate GESI more evenly, alongside all other levers. The clearest orthogonality pattern[10] is visible in precisely those sectors that are otherwise most transformational.

GESI lever activation - impact mechanisms

Firms with high scoring on gender workforce share and gender management shares have at least two broader structural impacts, according to stakeholder engagement and desk research findings: (1) financial market inclusion; and (2) changing social norms.

1. Reducing financial barriers for women: Gender disparities in the workforce remain pervasive across Manufacturing Africa's target destinations, albeit to varying degrees. Across the board, African women often face greater obstacles to obtaining loans and financial support to access productive resources, compared to men (ISS, 2026). One observed impact pathway to activating positive GESI outcomes is to reduce the financial barriers facing women in accessing productive assets.
2. Changing societal narratives: The issue of gender inequality is reflected in systemic financial barriers because it is deeply embedded in the social fabric, where female-dominated activities are often undervalued. Shifting societal narratives around women in employment is imperative to achieving improved GESI outcomes.

[10] *Changing the one component has no unintended impact on the other component*

Indicative evidence for GESI activation and growth links

The interviews provide evidence that gender inclusion may positively impact firm commercial success via access to niche finance sources. Gender inclusion appears to increase access to a category of impact-oriented investors and development finance instruments that would otherwise be unavailable. Interviews revealed that in several cases this access has been directly consequential for the trajectory of the firm.

The portfolio data and strategic engagements show no evidence to support GESI activation constraining firm growth.

Multiplier Effects

The Multiplier Effects lever indicator is activated in 82% of closed Manufacturing Africa deals, second only to Jobs & Livelihoods. The lever is constructed from six binary criteria: deal scale above USD 20 million; export focus; import substitution; new value chain creation; cluster effects; and new-technology or new approach introduction. The average deal meets 2.8 of these criteria. Two criteria are near-universal in the portfolio: 80% of deals are classified as export-focused and 79% as import-substituting. At the other end of the distribution, new value chain creation activates in only 10% of deals, underlining the rare nature of genuine new market creation, compared to entry into or expansion within existing value chains.

Multiplier Effects is the only lever that sees activation rise with deal size (by 0.13 across quartiles). This pattern reflects the structural tendency of larger investments to anchor broader supply chain and export linkages. Activation is also higher in greenfield deals, which by design introduce new production capacity, new supply chain relationships and new technology.

By sector, Multiplier Effects lever activation is most pronounced in complex manufacturing, which combines first-mover, export-oriented and technologically novel deals at disproportionate rates. Machinery & electrical activates the Multiplier Effects lever in 92% of its deals and also records the highest IET activation of any sector (46%) and the highest closure rate (80%), making it the most comprehensively transformational sector. Pharma & chemicals is a notable outlier: despite high economic complexity, the sector underperforms on Multiplier Effects lever activation because of weak local supply chain integration.

Stakeholder engagement shows that Multiplier Effects lever activation is achieved through two observed mechanisms of change:

- Local value chain creation;
- Innovation and technological diffusion.

Despite the different country contexts and varied operations, the following inputs (firm activities) featured as drivers of those spillover effects: leveraging first-mover advantages and developing technology-based partnerships.

Creating local value chains and export orientation: By virtue of its manufacturing-concentrated activities, the heavy industry sector demonstrates the strongest activation rate of the Multiplier Effects lever, mainly driven by its first-mover advantages, export orientation and technological advancements.

Innovation and technological diffusion: Technological adoption can induce Multiplier Effects flag indicator activation by generating intersectoral benefits through shared infrastructure, upskilling labour and generating knowledge spillover effects to neighboring regions. Upgrading manufacturing equipment and technology for African firms in Sub-Saharan Africa is reported to be 35-39% more costly compared to the United States (US) (World Bank, 2024). These high costs also apply to technologies used in the agriculture sector, posing constraints to upgrading productivity and competitiveness.

Evidence for Multiplier Effects lever activation promoting firm growth

The interviews provide evidence that first-mover status and demonstrated innovation can contribute to firm growth. The primary mechanisms are improved access to investment and the ability to attract strategic partners that add value beyond capital.

- Investment access through demonstrated scale: Interview responses confirm that rapid expansion in production or operational capacity is associated with improved access to follow-on financing (as expected). Evidence from portfolio firms suggests that visible scaling can strengthen investor confidence and support successive fundraising rounds.

- Strategic partnership attraction: Early-mover positioning is associated with the ability to attract partnerships with larger, established firms. These partnerships often emerge where firms provide access to infrastructure or capabilities that partners would not efficiently develop independently, particularly within broader value chains.

The evidence points to a third possible reinforcing mechanism, namely scale, innovation and technological adaptation in linking Multiplier Effects lever activating firms to firm growth outcomes. Firms that adapt technologies to local conditions, retain intellectual property and develop context-specific solutions reduce dependence on imported inputs and strengthen operational efficiency, while also signalling adaptive capacity to investors.

Linking Multiplier Effects lever activation to firm growth challenges

Multiplier effect lever activation does not typically constrain firm growth directly. First-mover positioning and novel business models, in isolation, are commercially advantageous. However, two structural constraints emerge from the evidence that shape how this lever should be interpreted.

The first constraint is the fragility of first-mover advantage. Across the portfolio, Multiplier Effects potential is evident but contingent on firm survival. Evidence shows that early-stage firms operating in challenging capital environments or volatile external conditions face delays, restructuring or prolonged scale-up timelines. In such cases, the capacity to generate sector-level spillovers remains, but only if firms achieve sufficient operational scale. The broader implication is that multiplier effects are conditional on sustained firm-level support. Without adequate capital and time horizons, firms may not survive long enough to realise the spillovers implied by their models.

The second constraint is that Multiplier Effects lever activation is forward-looking and difficult to verify in the short term. Several firms position their models around demonstration effects, such as proving the viability of new production systems or value chains in underdeveloped markets. While these models have the potential to catalyse new segments of economic activity, realising such effects depends on firms reaching full commercial or industrial scale. At earlier stages, investors are effectively backing anticipated multiplier effects that have not yet materialised. This introduces uncertainty about the timing and magnitude of impact.

The structural implication is that the Multiplier Effects lever generates most of its value after firms cross a threshold of operational scale.

Part 2: Risk, ambition and closure

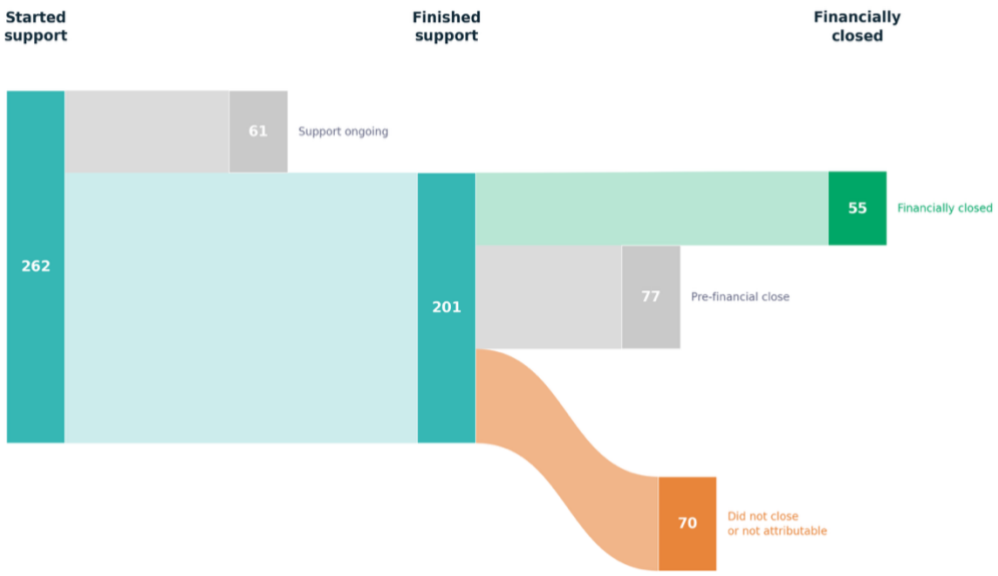
Risk, ambition and closure

To assess the current portfolio strategy against risk, closure and exit rates are analysed for deals that have concluded Manufacturing Africa's programme of support[11]. As of March 2026, 55 deals (27%) have reached financial close, 77 remain in pre-financial close stages and 70 have not closed or are not attributable. A further 61 deals have ongoing support.

Descriptive statistics: deals reaching financial closure

Figure 18: Deal stages

Progression of deals into different stages



Source: *Authors' elaboration.*
Notes: *Of all deals across the full pipeline.*

[11] This addresses closure risk, but cannot reveal downstream businesses risk, i.e. threats to impact following business close.

Deal value

Of the 55 deals that have reached financial close, the median deal size is USD 12 million with individual deals ranging from under USD 1 million to USD 300 million. Kenya leads on total FDI, at USD 807 million, followed by Nigeria, at USD 473 million, and Ethiopia, at USD 404 million.

Total closed FDI is concentrated in a small number of very large deals. The five largest transactions alone account for a disproportionate share of the USD 2.49 billion total. Portfolio-level FDI figures should be read knowing they present a skewed distribution rather than a broad base of similarly sized closures.

Median deal size varies considerably by country. Kenya and Nigeria tend to see similar sized deals close, both with a roughly USD 15 million deal median. Rwanda sees the smallest median deal size, at USD 5 million.

The largest closed deals span countries in the portfolio. The three largest single transactions are in Nigeria (USD 300 million), Ethiopia (USD 265 million) and Senegal (USD 229 million). This suggests that very large deal closure is not confined to one geographic area.

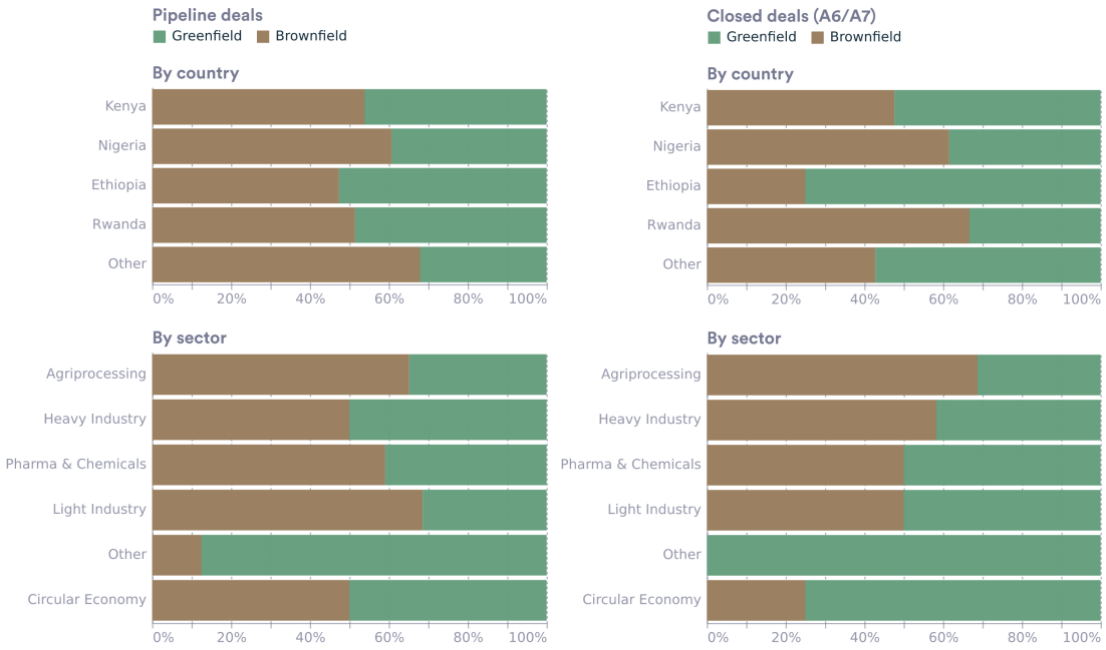
Among closed deals, the largest deals are in pharma & chemicals, which have the highest median FDI among closed deals, at USD 117 million and USD 51.8 million, respectively. This is well above their pipeline medians of USD 95 million and USD 11 million.

For agri-processing, smaller deals closed more than larger deals. Agri-processing closes at a median of just USD 3.3 million, below its pipeline median of USD 10 million.

Deal type, by greenfield/brownfield

Figure 19: Brownfield and greenfield deals for 262 pipeline and 55 closed deals

Brownfield and greenfield breakdown, by country and sector



Source: *Manufacturing Africa data.*

Notes: *Excludes 4 deals (1.4%) not classified as greenfield or brownfield.*

Greenfield deals have slightly greater success at securing deal closure. The portfolio splits 57% brownfield and 43% greenfield across the full pipeline, but closed deals are almost even, at 49% brownfield and 51% greenfield.

This is counter to the expectation that brownfield investments are generally perceived as lower risk and greenfield investments are associated with higher investment risk profiles, given their industry novelty, innovator or first mover status within a particular business environment.

This trend is driven by Ethiopian greenfield success, with other countries following the expected pattern. Closed Ethiopian deals are 75% greenfield, with just 53% of deals still in the pipeline classified as greenfield.

Kenya sees a largely even portfolio split, with 6% more Kenyan closures greenfield, compared to greenfield Kenyan pipeline deals.

Nigeria and Rwanda are in line with expectation. Lower perceived risk results in deal closure, with 62% (Nigeria) and 67% (Rwanda) of closures consisting of brownfield deals. In the pipeline, brownfield deals make up 59% and 51%, respectively.

The difference across the Rwandan pipeline to closure may indicate that Rwanda is a particularly risk sensitive environment.

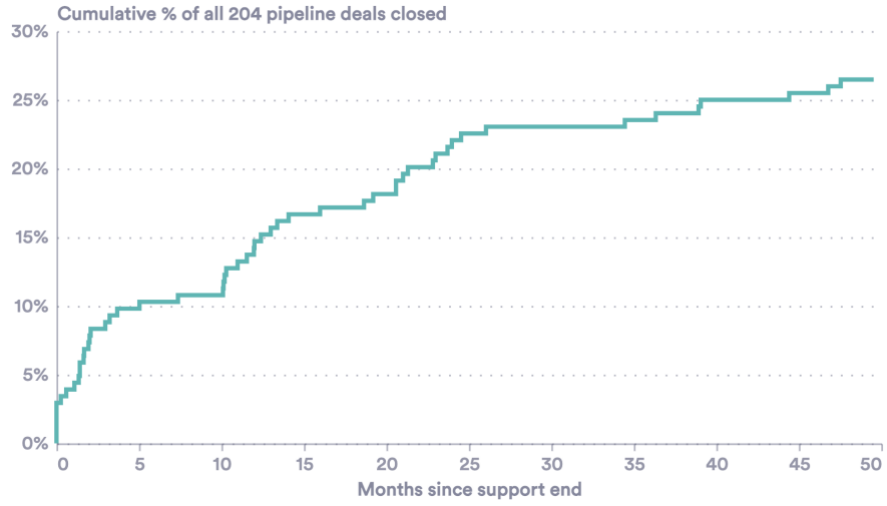
Looking at sectors, agriculture and heavy industry show favour towards low-risk, brownfield deals; while circular economy and light industry see a greater share of closures classified as greenfield.

- Agri-processing remains consistently brownfield across both pipeline (65%) and closed deals (69%).
- Heavy industry moves in the same direction, falling from 50% greenfield in the pipeline to 42% at close.
- Circular economy moves against this trend, shifting from 50% greenfield in the pipeline to 75% at close, suggesting that the most innovative environmental business models are among the stronger closers in this sector.
- Light industry shows a similar if less pronounced shift, rising from 31% to 50% greenfield at close.

Time-adjusted financial closure assessment

Figure 20: Closure rates over time

Mean normalised lever score, by deal type



Source: *Authors' elaboration.*

Notes: *Of 204 deals that have concluded support, including those that have exited (stage AX).*

The quantitative analysis here considers cumulative closure over the months since the support-end date. This allows consistent comparison across deals, regardless of when they entered the programme. Deals that have yet to finish support are excluded as they are, by definition, pre-financial close and cannot appear as a closure event. The overall closure rate among concluded deals is 26.5%. The analysis also considers closure rates of mature deals, drawing the line at 24 months while accepting that some deals will take longer to close. Among the subset of deals where at least 24 months have elapsed since support ended, the rate rises to 35.6%.

Country differences

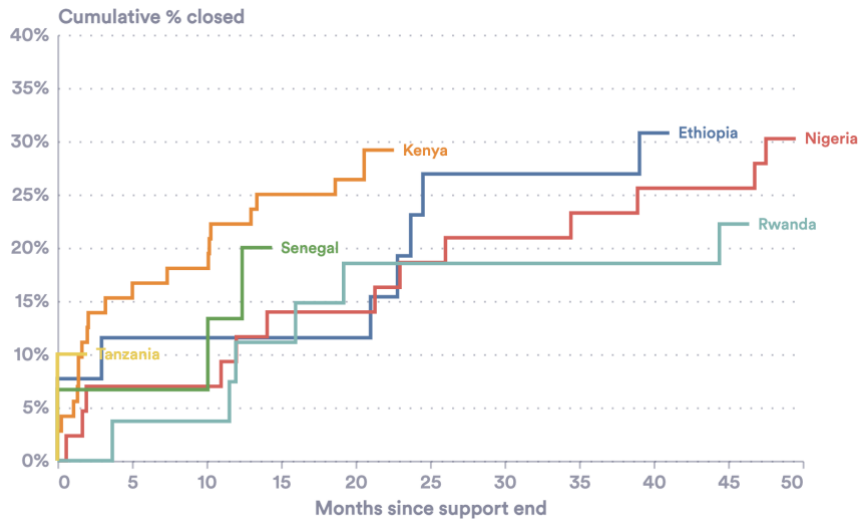
Of the four countries that constitute the largest portion of Manufacturing Africa's portfolio, closure rates in the mature cohort are broadly similar: Nigeria at 44%, Kenya at 39%, Ethiopia at 36% and Rwanda at 29%[12]. More notable is the different timeframes in which deals reached these rates: 20% of Kenyan deals reached financial close within 10 months of support ending, 16 months sooner than Nigerian deals, 14 months sooner than Ethiopian deals, and 34 months

[12] Senegal and Tanzania deals form an important part of the portfolio but their concluded support deal counts (15 and 10, respectively, with four closures between them) are too small to support any inference. Closure rates for Senegalese and Tanzanian deals should be a future target for analysis, as more exit support and approach financial close.

sooner than Rwandan deals. Some of this reflects portfolio age: Kenya has the most mature portfolio, with a median support start in late 2022, while Nigeria and Ethiopia are roughly one year behind and Rwanda's pipeline is younger still.

Figure 21: Country closure rates

Aligned to support end

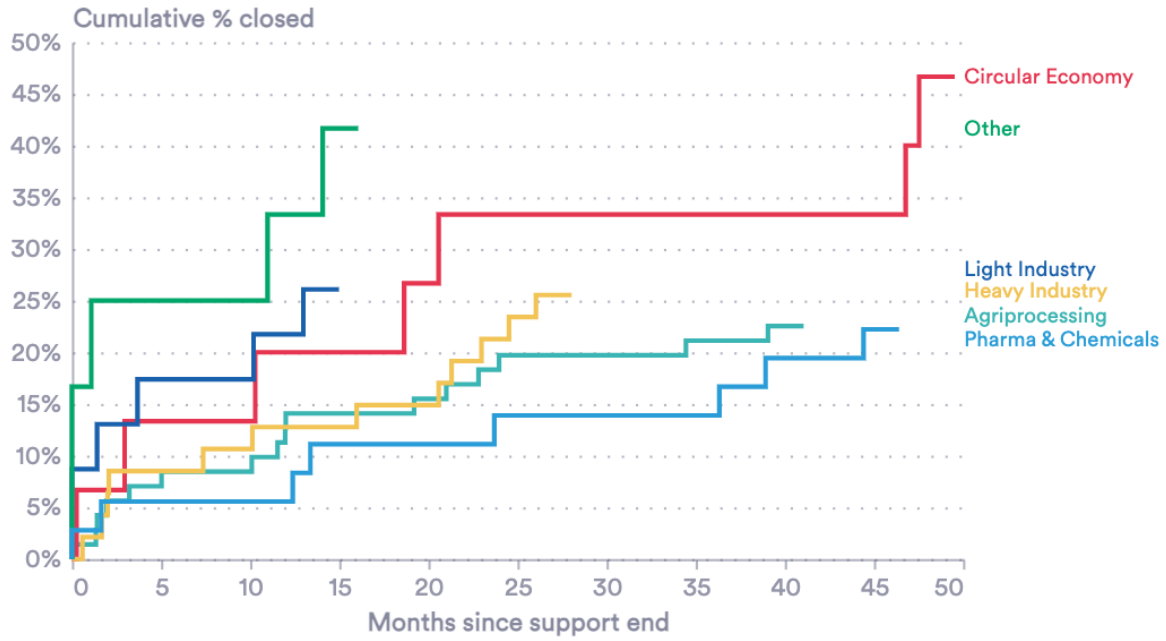


Source: *Authors' elaboration.*

Notes: *Of 204 deals that have concluded support, including those that have exited (stage AX).*

Figure 22: Sector closure rates

Aligned to support end



Source: *Authors' elaboration.*

Notes: *Of 204 deals that have concluded support, including those that have exited (stage AX).*

Turning to sector groups, circular economy deals stand out, with 7 of 12 mature deal cohort deals having closed, well above the 28–40% range in other sector groups. Agri-processing (30%) and pharma & chemicals (28%) have the lowest closure rates among the major sectors. Light industry (36%) and heavy industry (40%) sit in between. The sector groups are small and the patterns are fragile, thus these differences should be read as portfolio-specific, rather than signals about which sectors are inherently easier or harder to close (see Box 2).

Box 2. What closure patterns can and cannot reveal
The country and sector figures here are descriptions of closures in Manufacturing Africa's portfolio over the past five years. They are not reliable guides to the underlying tendency of deal types to close. The portfolio's closures are economically significant, representing hundreds of millions of dollars of FDI and thousands of direct jobs, but statistical significance is harder to establish. The sectoral and country closure patterns observed could be consistent with large true differences in the underlying probability of a deal closing in each country or indeed consistent with no difference at all.

The differing closure rates by country and sector are not statistically supported findings about population differences. Such claims would require more closure events, disaggregated into subgroups small enough to be analytically useful.

This limitation is easiest to see by country. With 204 deals it is possible to look at how wide a range of country closure rates could be expected just from chance, even if every country had an identical underlying tendency to close.

Using the actual country deal counts and a common closure rate of 26.5%, a spread of at least 10 percentage points (pp) between the highest and lowest country rates would arise by chance alone 77% of the time[13].

Deal ambition and closure

First mover/innovator status does not harm deal closure prospects

Greenfield and brownfield deals close at near-identical rates after two years (34% and 38%, respectively, p=0.778). An ambition-closure trade-off is therefore not visible by deal type; if it were, a higher closure rate would be expected among brownfield deals. Practically speaking, greenfield investment is structurally more complex to close than brownfield expansion (requiring new land, organisation and administrative approval) and this may weigh in favour of concentrating on brownfield investment in light of deal facilitation effort (man-hours spent on technical support for deal facilitation).

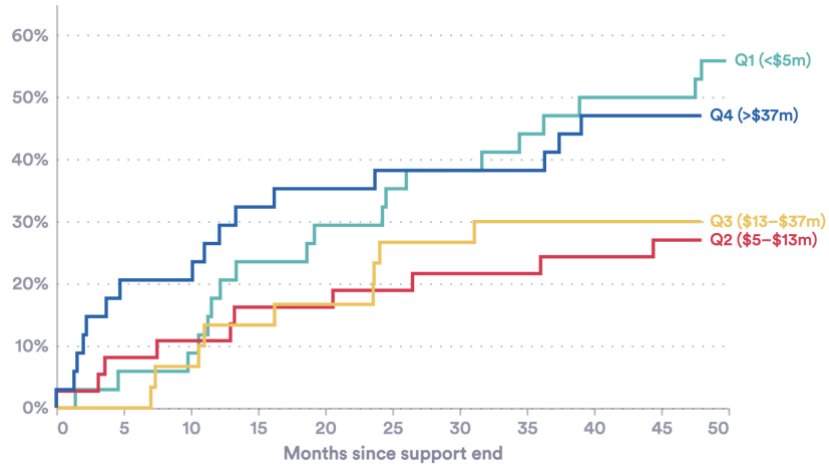
There is no evidence for a trade-off between deal closure and deal ambition by size.

The deals projected to receive the most and least FDI have closed at the highest rates. The smallest quarter of deals (Q1, <USD 5 million) and large deals (Q4, >USD 30 million) have closed at 56% and 47%, respectively, while mid-size deals (USD 5–30 million) close at only 27–30%. There is no evidence that larger deals suffer from a deferred closure penalty, as might be expected if the ambition-risk trade-off held true.

[13] The analysis ran 100,000 draws from independent binomial distributions with n=72 (Kenya), n=43 (Nigeria), n=26 (Ethiopia), n=27 (Rwanda) and an identical closure chance of p=26.5%. In each draw, the range between the highest and lowest simulated country rate was recorded. 84% of simulations produced a range at least as wide as 9 pp. Individual 95% expected ranges: Kenya 17–38%, Nigeria 14–40%, Ethiopia 12–42%, Rwanda 11–44%.

Figure 23: Closure rates by FDI

Aligned to support end



Source: *Authors' elaboration.*

Notes: *Of 204 deals that have concluded support, including those that have exited (stage AX).*

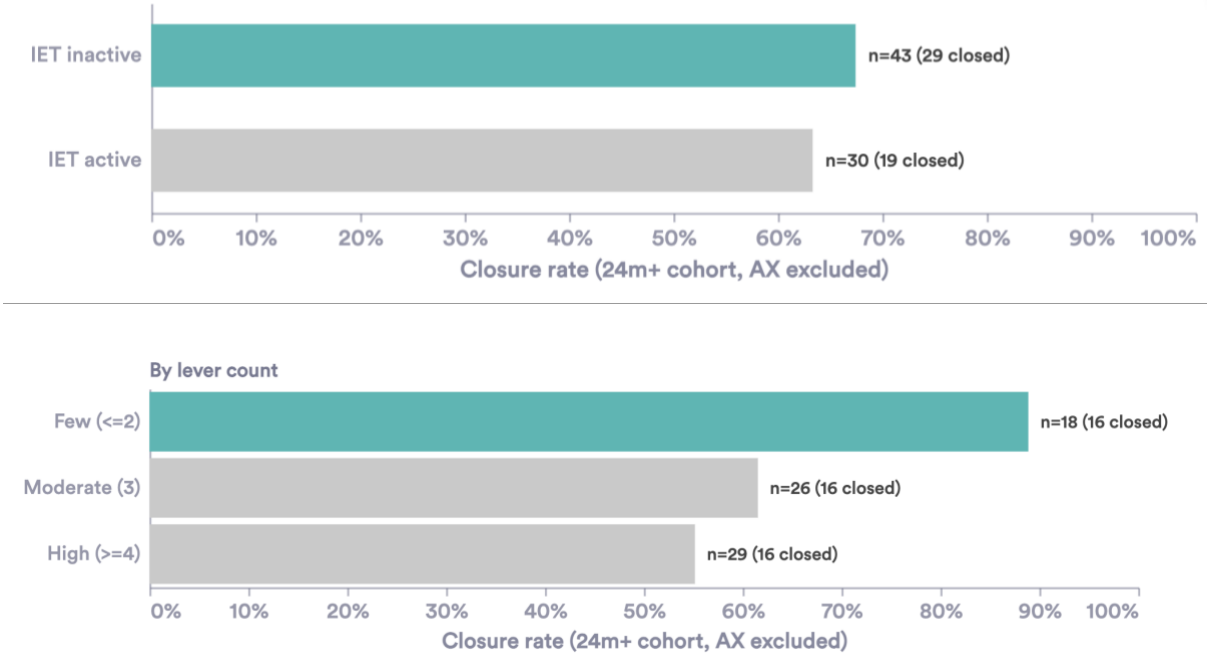
Intensity and breadth of transformation lever activation: no impact on closure

Intensity and breadth of transformation lever activation appears to have little bearing on closure[14]. After two years, PbR eligible deals have closed at a near identical rate to PbR ineligible deals (20%). While most (60%) financially closed deals have not satisfied at least half of PbR criteria, this tracks the overall portfolio division closely.

[14] A lack of transformation characteristics, including lever indicators and PbR scores, for deals that have exited without financial close makes closure rates difficult to assess against ambition. Only the impact data can be used to consider affirmative signals (a deal financially closing) rather than negative signals (a deal failing). To partially address this constraint, the analysis focuses on deals where at least 24 months have elapsed since support ended. Deals that remain open after two years account for a diminishing share of eventual closures, meaning that the two-year window provides a reasonable approximation of which deals are likely to close and which are not, while acknowledging that some deals may take longer.

Figure 24: Closure by transformation depth and lever count

Closure rates among 73 deals at least two years after support ended



Source: *Authors' elaboration.*

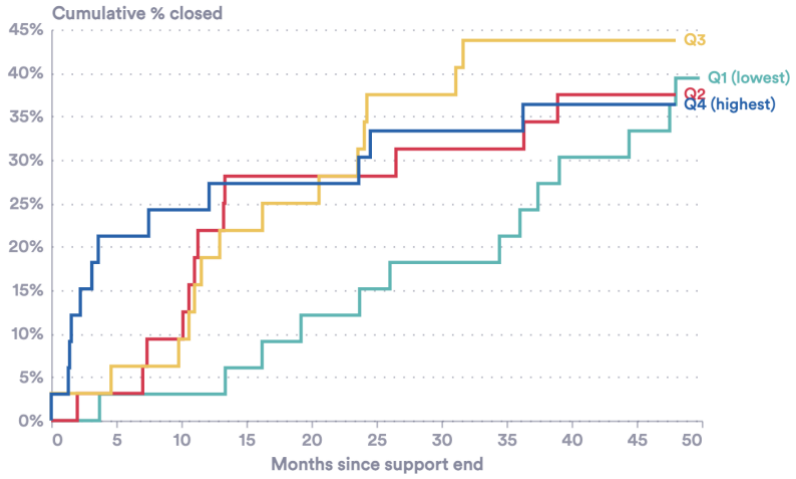
Notes: *Does not include deals that exited the programme and did not close.*

Few-lever deals are mildly overrepresented in the set of deals that have reached financial close. Across the set of deals over two years since support-end, just 18 deals activate fewer than two of the five levers, but 16 of these have reached financial close. These 16 deals have tended to activate just the Jobs & Livelihood and Multiplier Effects levers. This may suggest a closure penalty to breadth of impact, if not the depth of transformation as measured by the 26-point IET system.

Job creation ambition shows no meaningful relationship with closure. The four quartile curves follow almost identical paths across the full-time horizon and eventual closure rates vary little, ranging from 36–47%, easily within the range of variation expected by chance. The portfolio's most ambitious deals on job creation do not close at a systematically different rate from less ambitious deals.

Figure 25: Closure rates by job projections

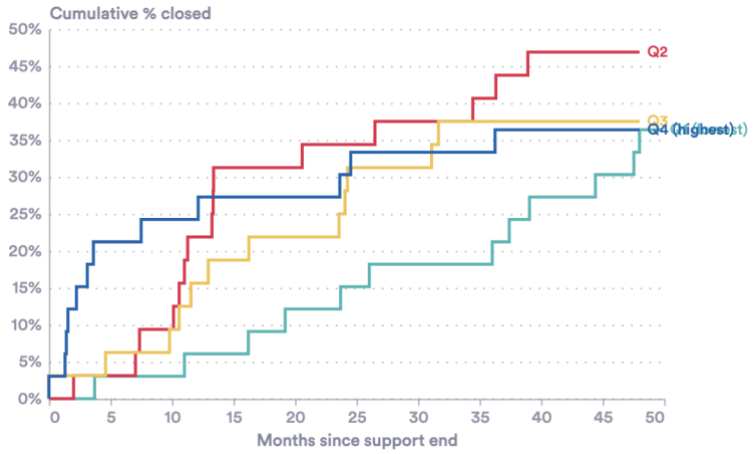
Including both direct and indirect employment



Source: Authors' elaboration.

Notes: Of 204 deals that have concluded support, including those that have exited (stage AX). Direct and indirect employment are combined into a single score following the construction of the Jobs & Livelihood lever and split into four quartiles.

Box 3. Does accounting for job quality impact closure conclusions?
A limitation of this analysis and the underlying data is the absence of job quality information. As a partial window into varying job quality, jobs in deals classified as complex manufacturing are weighted higher than those in simpler operations, on the basis that these roles carry greater skill content and wage premia.



Closure rates with adjusted job scores

Doubling the weight of direct jobs in complex manufacturing deals, then recalculating the jobs lever score using the standard log-normalised formula, has little effect on the closure picture. After weighting in favour of jobs in advanced manufacturing jobs, the second quartile closure rate increases but all other gaps are compressed. Formally, the correlation between the quality-adjusted score and closure is statistically insignificant in both cases.

Irrespective of measurement, job ambition does not appear to carry a significant closure cost.

Discussion: Portfolio strategy and financial close

Risk, ambition and closure

Closure rates do not systematically decline with deal size, transformation depth or job intensity. As no closure penalty is detected, the data support continuing to back high-ambition projects. Projects activating fewer levers make up a larger share of closures (89%, compared to 55% for high-lever deals), but this does not mean targeting simpler deals; rather, the strategic implication is to understand why high-lever deals take longer, not to avoid them. Manufacturing Africa delivers similar levels of technical assistance regardless of deal size and backing bigger deals carries no additional operational cost to the programme.

Several caveats temper these conclusions. With only 55 closure events, the analysis is limited: finding no difference does not prove that no difference exists. As FDI and jobs figures are projections, the question of whether ambition translates into actual growth remains to be established. The pipeline of large deals is thin: Kenya's entire venture capital market, at USD 335 million in 2025, is comparable to a single large Manufacturing Africa-supported deal. The portfolio is not a random sample and patterns reflect Manufacturing Africa-selected projects only, not the broader investment population.

Transformation depth and commercial viability move together

Transformation depth does not come at a cost to closure. IET-active and inactive deals close at near-identical rates, at 67% and 63%, respectively. Few-lever deals close at a higher rate (89%) than high-lever deals (55%), which may suggest that simpler deals are easier to close; however, the numbers are too small to draw firm conclusions. Targeting high-transformation deals does not mean waiting longer to close. The data show no closure penalty for backing more ambitious projects and depth of impact can be pursued without sacrificing speed or reliability. The exception is inclusion: almost every dimension of transformation is aligned with closure,

except gender and racial inclusion, which does not improve as a by-product of pursuing more ambitious deals. Without action, a portfolio of high-ambition projects will be strong on Jobs & Livelihoods, Climate & Environment and Multiplier Effects, but weak on GESI, necessitating deliberate, targeted support.

Ambition affects speed, not success

Complexity is evident in how long a deal takes to close, not whether it closes. Of the 55 closed projects, four of five complexity flags are associated with longer close times, with Multiplier Effects projects linked to greater job quality taking longest. The trade-off is closure duration, not closure probability.

Closure by country

By country, Kenya closes fastest: 20% of Kenyan deals closed within 10 months of support ending, some 16 months ahead of Nigeria, making Kenya the most reliable route to a quick close. All four main markets reach similar closure rates once deals have had enough time to mature. Among deals 24 or more months since support ended, closure rates are 44% in Nigeria, 39% in Kenya, 36% in Ethiopia, 29% in both Rwanda and Senegal[15]. The difference between countries is in how quickly deals close, rather than whether they close at thus country choice should not be driven by closure rates alone. Tanzania and Senegal look slow largely because their portfolios are younger. This does not make the markets less viable, but simply that investors and programmes should expect longer timeframes there. The trade-off is that Kenya, which closes fastest, has the weakest transformation profile of any main market, with just 27% of Kenyan deals reaching four or more levers. Choosing the easiest market to close does not mean choosing the most transformative market, and programmes optimising for speed of closure may underinvest in deals with the greatest long-term impact potential.

Closure by sector

By sector, circular economy closes at the highest rate, at 7 of 12 deals, standing out as one of the strongest closers on the strength of innovative environmental business models. These deals combine high closure rates with strong environmental credentials and may become increasingly attractive as climate commitments grow. Agri-processing creates the most indirect jobs through supply chain and ecosystem effects but closes more slowly than most other sectors. Programmes concentrating on agribusiness should therefore expect a longer wait for closure outcomes. Of the deals 24 or more months since support ended, closure rates are 58% for circular economy, 40% for heavy industry, 36% for light industry, 30% for agri-processing and

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[15] *0% in Tanzania, whose portfolio is the youngest and whose deals have not yet matured*

28% for pharma & chemicals. The trade-off is clear: circular economy closes at the highest rate but has the smallest number of deals, while agri-processing has the most deals but one of the lowest closure rates. A portfolio concentrating on the highest-closing sectors would quickly exhaust the available pipeline, while one optimising for volume would be dominated by slow-closing agri-processing. No single sector offers both high volume and high closure.

Closure by deal type

Closed deals split almost evenly, at 51% greenfield and 49% brownfield, despite greenfield being structurally more complex. Greenfield investments involve building something entirely new, yet reach financial close at the same rate as deals expanding something that already exists. This is largely driven by Ethiopian greenfield success, which accounts for 75% of that country's closed deals, while Nigeria and Rwanda see brownfield deals dominate closures, at 62% and 67%, respectively; circular economy stands out, shifting from 50% of the pipeline to 75% at close. Backing greenfield deals does not mean accepting a higher risk of failure: Manufacturing Africa's support helps these more complex deals to reach close at the same rate as simpler deals, itself evidence of the difference programme support makes. The trade-off is that greenfield deals are harder to find and take more effort to structure, meaning that a strategy concentrating on greenfield deals is necessarily limited by the number of strong opportunities.

Part 3: Conclusions and recommendations

Optimising strategic lever activation

Jobs & Livelihoods

Jobs & Livelihoods is the most widely activated lever, but the analysis shows that job numbers and job quality point toward different kinds of deal. For direct jobs, light industry (apparel, textiles, leather, packaging, paper & wood, rubber & plastic) leads, with a median of 300 direct jobs per deal across all projects and 510 among closed deals. For indirect jobs, agri-processing leads, with a median of 1,688 jobs per deal across all projects and 1,262 among closed deals. Pharma & chemicals is the weakest performer on the combined score. The most useful efficiency measure is jobs per dollar invested: light industry delivers 104 direct jobs per USD 1 million of FDI, the highest of any broad sector, while agri-processing delivers 33 indirect jobs per USD 1 million, making light industry markedly more capital-efficient despite scoring lower than heavy industry on IET.

Larger deals of USD 20 million and above create the most direct jobs among closed deals, mid-sized deals of USD 8 million to USD 20 million lead on indirect jobs, and small deals below USD 8 million create the fewest jobs. However, as small deals are disproportionately women-owned and Black-owned, forgoing them compromises inclusion goals. Country differences in job creation are driven largely by sector mix and deal size rather than by country characteristics, making it difficult to justify targeting any particular country on jobs grounds alone. Greenfield deals create more direct jobs and brownfield deals more indirect jobs across the full pipeline. Among closed deals that difference disappears, suggesting that deal type is not a meaningful factor for promoting Jobs & Livelihoods lever activation.

Whether business models that promise the most jobs (usually agri-processing) should be targeted for support depends on quality as well as quantity. As job quality is often difficult to measure from outside the business, the study does not recommend selecting firms on expected job numbers alone. Interviews identified several ways firms can improve job quality: wage improvements; better working conditions and access to additional benefits; upskilling and training; formalisation of previously informal work; banking of informal workers; and the development of skilled labour pipelines. Firms pursuing job quality grow through three mechanisms: supply chain stability, where formalising relationships with informal workers

reduces supply disruption and lowers the risk premium investors attach to the business; a customer growth loop, where improving the livelihoods of customers who are themselves small business owners increases repayment reliability and deepens product engagement; and worker retention, where embedding support services into the offer keeps workers longer and maintains productivity. The trade-off is that firms creating large numbers of formal, quality jobs face higher running costs. Some monitored firms have had to reduce their workforce or delay hiring because investors pushed for early profitability before the firm had reached sustaining scale.

Promoting Jobs & Livelihoods

The best Jobs & Livelihoods outcomes do not come from a single deal type. Agri-processing maximises raw numbers, light industry maximises quality and efficiency per dollar, and small deals protect inclusion. The strongest strategy balances volume against job quality and inclusion rather than optimising for any single outcome. Two trade-offs recur: maximising total jobs points toward agri-processing but neglects job quality, while avoiding smaller deals below USD 8 million to chase job numbers would compromise GESI because small deals are more likely to be women-owned or Black-owned.

Climate & Environment

Some 63% of closed deals activate the Climate & Environment lever, with environmental integration taking three forms. In the first, the product or service is itself the environmental solution and environment is the core business model; these deals score significantly higher on IET and are far more likely to have products specifically benefiting women, at 22%, compared to 3% of other deals. In the second, sustainability is embedded into how the firm operates regardless of what it makes, present in 42% of closed deals. In the third and most common form, the firm produces documented, measurable environmental outcomes, present in nearly two-thirds of closed deals; deals with full ICF conformity close at 38%, above the portfolio average of 26.5%.

Infrastructure failures across the sample raise consumer costs and customers adopt environmental products primarily for cost efficiency and reliability rather than climate intent. This is how commercial and environmental outcomes reinforce one another – scaling-up automatically amplifies climate impact without requiring it to be the primary motivation for purchase.

High ICF conformity scores strengthen investor propositions and open eligibility for development finance grant funding. Firms that embed environmental credentials into their model, rather than treating them as a reporting requirement, access a broader and more favourable pool of capital.

Core environmental deals activate IET and GESI (this does not mean that circular economy sector deals activate GESI, rather that these activations co-move across deals) more strongly than others. Climate & Environment shows no significant correlation with Multiplier Effects, meaning that deals with strong environmental profiles are not systematically generating broader sector spillovers or export linkages. Environmental impact and scaled economic transformation are largely independent in this portfolio.

Promoting Climate & Environment

Circular economy is the strongest sector both overall and among closed deals, while light industry, agri-processing and pharma & chemicals score worst. Larger deals of USD 20 million and above score highest, with the implication to prioritise deals above USD 8 million. Ethiopia and Kenya lead across all projects and Nigeria and Kenya among closed deals. Generally, greenfield outperforms brownfield. Each of these prioritisations carries a trade-off in the opposite direction: agri-processing and light industry are the strongest jobs sectors, circular economy scores lowest on GESI, larger deals trade off against inclusion, and brownfield is stronger on GESI. Tanzania's and Rwanda's weaker climate scores may reflect younger portfolios and preferring particular markets risks reinforcing a mere artefact of portfolio age.

As Climate & Environment and Multiplier Effects do not correlate, prioritising the most environmentally ambitious deals does not mean prioritising the deals with the broadest economic transformation impact. As the market for core environmental business models is small, concentrating on these deals would quickly exhaust viable opportunities.

GESI

GESI activates in 46% of the portfolio, the lowest of all five levers. Only 15% of portfolio firms are women-founded and 33% are Black-founded. Three patterns stand out.

1. GESI is decoupled from all other levers. It shows no significant correlation with IET, Jobs & Livelihoods, Climate & Environment or Multiplier Effects. IET-active deals activate GESI at 47%, almost identical to the 48% for IET-inactive deals, i.e. pursuing deeper transformation does not deliver better inclusion.
2. GESI declines with deal size. The largest deals score less than half as well as the smallest on inclusion criteria, a fall of 0.24 across quartiles, i.e. the bigger the deal, the less likely it is to be inclusive.
3. GESI is higher in brownfield than greenfield. Established operations bring existing workforce relationships and community ties that translate into inclusion more readily than newly built greenfield facilities, which start from scratch on workforce composition. Complex manufacturing, the strongest sector on Multiplier Effects and IET, has the

second-lowest GESI activation, at 27%, i.e. the most structurally transformative sector is also one of the least inclusive, which could point to a core trade-off.

Interviews identified three mechanisms by which inclusion supports growth. In finance access, GESI activation opens access to impact-oriented investors and development finance instruments that prioritise gender and racial inclusion. In market design, where the customer base or input supply chain is predominantly female and women make up a large share of African micro-business owners, aligning the core commercial model with deliberate inclusion generates GESI outcomes that also serve business growth because the firm grows as its female customers or suppliers succeed. In societal narrative shifts, commercialising inputs traditionally produced by women shifts local perceptions of that work's economic value, deepening supplier participation and strengthening the input supply chain as a commercial by-product.

Promoting GESI transformation

Light industry and agri-processing score highest across all projects and circular economy highest among closed deals, while circular economy scores worst in the pipeline, indicating that many high-GESI deals in other sectors are not closing. Small deals below USD 8 million are disproportionately women-owned and Black-owned and should not be excluded.

Tanzania and Senegal lead across all projects, while Ethiopia and Tanzania lead among closed deals. Tanzanian projects with high GESI scores are also closing and Ethiopia scores well because, having been financially isolated for many years, many of its projects are locally owned. Brownfield models should be favoured where inclusion is the priority.

An important recommendation is to treat GESI as a deliberate, standalone objective. Inclusion does not arise from deeper transformation and declines with deal size, so it must be built into business models from the start. Smaller brownfield deals and markets such as Tanzania and Ethiopia offer the strongest inclusion entry points, while larger complex deals need targeted inclusion design. The core trade-off is that inclusion and scaled economic transformation pull in opposite directions: the deals with the strongest Multiplier Effects and deepest IET scores are among the least inclusive, creating a genuine strategic choice between prioritising smaller, more inclusive deals that are less likely to generate broad economic spillovers or larger, more transformative deals that are less likely to reach women-owned and minority-owned businesses.

Multiplier Effects

Multiplier Effects activates in 82% of projects, second only to the Jobs & Livelihoods lever, with the average deal meeting 2.8 of 6 criteria. Two criteria are near-universal: export focus, at 80%, and import substitution, at 81%. Multiplier Effects is the only lever that rises with deal size, by 0.13 across quartiles.

Multiplier activation follows two pathways: local value chain creation and export orientation, which build domestic capacity that anchors regional supply chains and positions firms for export; and innovation and technological diffusion, which leverages first-mover advantages and technology-based partnerships, introducing approaches that spread beyond the firm.

Heavy industry and pharma and chemicals lead on spillovers, with machinery & electrical the standout, while circular economy is weakest. Large deals of USD 20 million and above lead in size, Ethiopia and Nigeria are the strongest countries, and greenfield outperforms brownfield. Several trade-offs are evident. Circular economy, the weakest multiplier sector, is the strongest on climate and closure. Large, complex deals are rare, slower to close and worst on GESI. The strongest multiplier countries are not the fastest to close. Greenfield is harder to source, while brownfield is stronger on inclusion.

Interviews identified three mechanisms to support growth. In investment access, demonstrable scale-up in production or operational capacity validates the business model and strengthens investor confidence for successive funding rounds, while visible market leadership attracts follow-on financing. In strategic partnerships, first-mover positioning attracts partners that add value beyond capital, particularly where firms offer infrastructure or capabilities that partners would not efficiently build independently. Retaining intellectual property rights to adapted technologies captures value that would otherwise be exported. In policy influence, firms that reach sufficient operational scale and engage closely with municipal authorities can become reference points for sector policy, creating durable structural advantages beyond their own operations.

Promoting Multiplier Effects transformation

If Multiplier Effects lever activation optimisation is the desired outcome, the data point towards prioritising larger deals, as larger investments are structurally more likely to anchor supply chains and generate spillovers beyond the firm.

Machinery & electrical stands out, at 92% Multiplier Effects activation, the highest IET activation of any sector. It also has the highest closure rate in the portfolio, at 80%, giving it the strongest overall profile of any sector group.

New value chain creation is the rarest and most genuinely transformative criterion. Where it activates, deals tend to score higher on IET and project stronger indirect employment, suggesting that genuine market creation goes hand in hand with deeper transformation. However, such deals are rare and hard to find.

Three trade-offs are evident. Bigger deals are harder to find and slower to close, and while the data point towards larger deals for Multiplier Effects, the pipeline of large, complex

manufacturing investments is thin and mid-size deals close faster. Multiplier Effects are conditional on survival, because first-mover advantage is fragile and firms that do not reach operational scale cannot realise sector-level spillovers. Early-stage firms with strong multiplier potential may never realise it if capital constraints prevent them from getting there. New value-chain creation is rare, activating in only 10% of deals, with most Multiplier Effects activation reflecting near-universal export orientation and import substitution rather than distinctive transformative potential.

Promoting overall transformation and IET

Across the portfolio and confirmed in interviews, the firms scoring highest on the IET indicator are those treating structural failures in local economies, such as unmanaged waste, fragmented supply chains and transport links, and poor access to electricity, as their core commercial opportunity rather than as add-on impact. Durable demand arises where serving previously excluded or underserved market segments generates self-reinforcing demand, with customer success feeding back into increased orders and validating the model. This creates commercially resilient growth that does not depend on subsidy.

IET is associated with incorporating waste products or underutilised, abundant resources. A low-cost input base arises where incorporating informal, unpriced or inefficiently utilised resources into formal production creates structurally low-cost inputs, enhancing competitiveness and supporting resilience even under financial stress.

Three trade-offs are apparent:

1. IET depth does not guarantee firm survival beyond closure, as some firms with deep, well-evidenced IET activation have almost failed under capital constraints. The most transformative deals need patient, risk-tolerant capital to reach the scale at which their potential is realised.
2. GESI/inclusion does not automatically follow other types of transformation. A portfolio may be strong on Jobs & Livelihoods, Climate & Environment and Multiplier Effects, but will not deliver on gender and racial inclusion without separate, targeted action.
3. High-IET deals are harder to find because only 43% of the portfolio activates IET. The deals that score most strongly (complex, supply-chain integrated, skills-intensive deals) are not abundant and the pipeline constrains the extent to which a strategy of concentrating on high-IET deals can succeed.

Recommendations for investment and support

For investors

Include ambitious deals (greenfield, innovative, first-mover, etc.) in your portfolio. There is no evidence that these features are determinants of worse closure outcomes in comparison to other deal types. Rather, there is indicative evidence that transformation depth and commercial viability move together, not against one another.

Ambitious deals still close at the same rate, although they may take slightly longer to reach closure. Highly transformative deals close at virtually the same rate as others, at about 67% compared to 63%.

Greenfield and brownfield should not be conflated for risk tiers. Closed deals split almost evenly, despite greenfield being structurally more complex, at about 51% to 49%.

As no sector or country offers both high volume and high closure, investors should diversify and sequence the portfolio. Fast closers, such as Kenya and light industry, can fund patience on scarcer, larger, slower deals.

- At sector level, circular economy closes best, at 58%, but has a thin pipeline, making it a high-conviction fill rather than a volume play. Light industry offers the most output per dollar, at 104 jobs per USD 1 million of FDI, making it a core efficient allocation. Heavy industry and machinery & electrical carry the largest FDI and the strongest scale and multiplier effects but are scarcer and slower, suiting selective big-ticket plays. Agri-processing has the biggest pipeline and thus the most chances to deploy, but is slow to close, at 30%, and least capital-efficient, making it most suitable for volume by picking the faster, larger deals within it. Pharma & chemicals is slowest to close, at 28%, suiting early positioning and longer holds.
- At country level, Kenya is best for speed and deployment volume, Nigeria for scale and ticket size due to its strong FDI and a large market, and Ethiopia for patient, larger deals given its strong multiplier and scale effects but longer timelines. Tanzania and Senegal are best for early positioning and longer holds, being slower only because their portfolios are younger.

For development finance institutions

Assuming the goal of development finance institutions is realised transformation impacts, a diversified portfolio strategy is recommended.

Do not try to target one particular sector. Sector diversity should be maintained because transformation trade-offs run across sectors and no single sector is best on every dimension.

- Light manufacturing sectors are strong for both inclusion and job quality, but score worst for climate and environment outcomes.
- Circular economy closes best, at 58%, and leads on climate, but does not address gender inclusion well. The diversity of the sector complicates general assumptions on multiplier impacts.
- Agri-processing is the largest pipeline and is projected to create the most jobs, but closes slowly, at 30%. However, the jobs created are primarily low-skill and have limited broader transformation potential.
- Heavy industry and machinery & electrical offer the strongest multiplier and IET profiles but perform poorly on GESI activation. Pharma & chemicals close slowest, at 28%, but this strategic sector has enormous transformative potential and is crucial for long-term health security.

The strategic implication is to keep a diversified sector base and select deals for project-level transformation characteristics, rather than concentrating on any single best sector.

Large deals should be backed where possible, but smaller deals should be kept deliberately in the mix. Larger deals close at the same rate as smaller ones, attract more FDI, create more indirect jobs and uniquely strengthen Multiplier Effects lever activation, with no closure penalty for size. However, large deals are rare and the largest are the least inclusive, with GESI falling by roughly half from the smallest to the largest quartile. Smaller deals (below USD 8 million) are disproportionately women-owned and Black-owned and build the track record that makes later large deals fundable. The recommendation is to pursue large deals where they exist, while ring-fencing a deliberate allocation to smaller, inclusive deals to protect inclusion and pipeline-building.

Greenfield should be backed where impact warrants, rather than screened out as higher risk. Closed deals split almost evenly, at 51% greenfield and 49% brownfield, despite greenfield being structurally more complex. This split likely reflects Manufacturing Africa's support reducing information asymmetry. Greenfield carries stronger climate and economic multiplier potential, while brownfield is more gender- and socially inclusive, tending to draw on an existing local workforce. Deal type should therefore be used deliberately, favouring brownfield where inclusion is the priority, rather than driving selection on its own.

Deals close faster in some countries than others and none should be neglected. All mature markets ultimately reach similar closure rates – the real difference is speed, not whether deals close. Kenya closes fastest but has the weakest transformation profile, with only

27% of deals reaching four or more levers. Ethiopia and Nigeria are strongest on Multiplier Effects. Tanzania and Ethiopia offer the best inclusion opportunities. Tanzania and Senegal look slow only because their portfolios are younger, warranting longer timeframes rather than being judged on early closure.

Do not neglect less-ambitious deals where ambitious deals are rarer. While high-ambition deals close just as reliably as simple ones in the long-term, they are scarce. Impact is generated by the volume of viable deals and by each close signalling to the market that a given sector is investible. To maximise reach, it is important to catch viable but less-ambitious or smaller deals.

Inclusion should be targeted deliberately and separately to the other levers. GESI is the least-activated lever, at about 46%, and the only one that does not improve as deals get larger or more transformational by way of the other three levers. Interestingly, small and brownfield deals appear to carry the strongest inclusion. This underlines the recommendation to avoid concentrating solely on large, ambitious deals at the expense of gender transformation and socioeconomic inclusion.

Selection should be based on both job quality and headline counts. For example, while agri-processing maximises raw job numbers, these jobs are lower skill. Light industry creates fewer jobs but the most per dollar and of higher quality. Interviews linked job quality through formalisation, retention and upskilling to firm stability and growth. Institutions should weight the direct-to-indirect job ratio and job quality over headline counts.

Avoid neglecting hard, high-impact markets (e.g. pharma & chemicals, Tanzania). Faster-closing markets tend to have weaker transformation profiles, while slower markets often look slow only because their portfolios are younger. Country and sector choice should be matched to objective and time horizon, as a bias toward easy closes penalises those markets where catalytic support adds the most.

Part 4: Internal feedback for Manufacturing Africa

Programme-specific review

Programme feedback

Manufacturing Africa's mandate addresses a structural market failure. Firms with genuine transformation potential across African manufacturing markets cannot access capital because investors perceive them as excessively risky and because the information and analytical infrastructure needed to make credible investment cases is costly and scarce. The interview evidence suggests that Manufacturing Africa's support is viewed as essential.

Information asymmetry and uncertainty

In the markets of interest (Ethiopia, Kenya, Nigeria, Tanzania, Rwanda, Uganda), investors are weighing known odds and also navigating contexts where the relevant evidence base is often thin, creating uncertainty[16]. Interviews show that Manufacturing Africa's core contribution is to reduce that uncertainty.

- **Case 1:** For one agri-food investor operating across Ethiopia and Kenya, the association with Manufacturing Africa's brand provided a level of confidence that USD 200,000 to USD 400,000 of programme-supported analytical work could substitute for capital expenditure of the magnitude otherwise required to demonstrate viability.
- **Case 2:** For a Nigerian solar refrigeration firm, access to two rounds of McKinsey-supported market assessment and financial modelling at the Series A and Series B stages was central to its ability to attract investment. The calibre of analytical work produced would not have been accessible to a cash-constrained early-stage company without programme support.

[16] A distinction is important here between risk and uncertainty. Risk, in the technical sense, refers to situations where the probability of an outcome is known or can be estimated from prior experience. Uncertainty refers to situations where no such probability distribution exists and where outcomes are genuinely unknown because there is no precedent, insufficient data or too many unquantifiable variables.

Absence of alternatives

Across the interview sample, firms emphasise that Manufacturing Africa's support has few or no credible alternatives for the services and support received.

The costs of commissioning comparable analytical work from management consultancies on a commercial basis would be prohibitive for the early-stage, capital-constrained firms that Manufacturing Africa typically supports.

Network

The network access provided by Manufacturing Africa is a consistent theme. The programme's connections across FCDO, development finance institutions and the impact investment community provide firms with introductions that would have taken considerably longer through independent outreach, if indeed they happened at all. The value of this network function is in both the introductions and in the implicit endorsement conferred by Manufacturing Africa's selection and continued support, particularly in markets where investor confidence is fragile.

Are the strategic levers fit for purpose as a measurement tool?

If the concern is firm growth and commercial viability

The five transformation levers were not designed as indicators of commercial performance and the limitations of this report confirm that they cannot reliably serve that function.

Lever activation describes the presence and intensity of transformation-relevant characteristics at the point of investment assessment. It does not measure revenue growth, profitability, market share or the sustainability of the business model under commercial conditions.

The quantitative analysis here cannot demonstrate that high lever activation causes stronger firm growth, because the data to test this (realised revenue and employment trajectories post-closure, compared across lever profiles) are not available. However, successful stakeholder engagement shows that it is possible to collect this information for at least some sub-set of firms going forward.

The implication for programme design is clear: to understand whether supported firms are growing, becoming more profitable and attracting further investment on their own terms requires direct measurement of firm-level commercial outcomes over time. Revenue trajectories, investor rounds raised following Manufacturing Africa support, workforce growth, and export volumes are the relevant indicators. The levers as measures of transformation are not designed or intended to provide this information.

If the concern is economic transformation and contributions to structural change in the economy

The levers remain well-suited to measuring what they were designed to measure. They capture whether a deal: creates substantial employment, including in the informal sector; integrates environmental sustainability into its business model or operations; advances gender inclusion and Black ownership; creates spillover effects and sector-level change; and is cumulatively ambitious and deep in its transformation potential.

The limitation is not in the levers themselves but in the absence of post-closure data to test whether the transformation potential identified at the point of investment is realised. A deal that scores high on IET at the assessment stage may or may not have demonstrated those transformation effects five years after closure. As yet, the programme cannot answer this question because the data infrastructure to track realised outcomes against initial lever assessments does not exist. This is a data gap rather than a design flaw in the lever framework.

Balancing both concerns

The practical recommendation is to ensure that the data collection infrastructure serves both purposes. The lever framework should continue to function as the programme's primary tool for assessing transformation ambition at the point of investment because it is well-designed for this purpose. Alongside this, the programme should invest in systematic post-closure tracking of firm-level commercial outcomes (revenue, employment, investment attracted, export performance) at defined intervals following financial close. This would allow the programme to test, over time, whether high lever activation at the point of assessment corresponds to stronger commercial and transformation outcomes in practice, and to refine the framework accordingly.

Notwithstanding the challenges, collecting these post-closure data would allow the programme to validate whether the transformation characteristics underpinning selection translate into the durable structural change it promotes.

Appendix 1: Foreword to case studies

Introduction

The following case studies assess how firms supported by Manufacturing Africa generate positive impact across the five levers of strategic transformation, using quantitative and qualitative firm-level analysis. Focusing on firm progress, the case study approach addresses whether and how Manufacturing Africa's levers accelerate or constrain business growth. This exercise feeds into a broader assessment of the viability of Manufacturing Africa's balanced portfolio strategy, highlighting possible trade-offs between transformation ambition and closure risk.

The five levers of transformation, Jobs & Livelihoods, GESI, Climate & Environment, Multiplier Effects and IET, are assessed as distinct case studies to track individual impact pathways, while acknowledging observed cross-lever complementarities. The IET lever serves as the primary measure of durable transformation, providing evidence on the overall intensity and quality of impact.

Section 2 introduces the deal methodology, justifying the approach used for this assessment. Section 3 presents five impact case studies, each focusing on one of the five strategic levers. Specific mechanisms of change are identified and supported by firm-level analyses to assess alignment between business growth prospects and impact across environmental, social and economic objectives.

Methodology

The Manufacturing Africa: Strategic Levers assessment follows a mixed-methods approach. It combines a quantitative analysis of 262 deals spanning Manufacturing Africa's portfolio (55 have reached financial closure; 61 continue to receive ongoing support) with a qualitative analysis of firm interviews. The case studies bring together the quantitative findings and qualitative insights under a coherent narrative of change. They draw on a sample of seven structured interviews with founders and senior representatives of firms across three countries: Ethiopia, Nigeria and Senegal. The selected firms provide meaningful variation across the ambition-risk spectrum, reflecting both breadth and depth of transformation, as well as varying closure status (most have reached financial closure). Combined with the quantitative analysis, the sample is well-positioned to probe the relationship between impact ambition and closure. Outcomes from the case studies are aligned with portfolio patterns across the report.

For the case study assessments, a Theory of Change (ToC) maps the logical sequence of the firm progress from inputs (activity) to the impacts across each of the five levers. ToC is a well-

documented development tool, aligning with the FCDO and Department of International Development (DFID) Framework of monitoring progress. It identifies mechanisms of change, so-called impact pathways, to track the route of change towards achieving a specific impact (environmental, economic, societal change). It focuses on identifying outcome-to-impact firm progression. The analysis takes Manufacturing Africa's support as a catalyst, rather than a central input, to activate individual impact pathways. A preliminary logic model analysis informs the identified impact pathways across each of the five levers. While the impacts are identified *ex ante* based on the five levers, the approach acknowledges that sectoral differences and country-specific contexts influence the pathway by which those impacts are achieved. This is due to differences in inputs and outputs across the surveyed firms. The impact pathways identified are not exhaustive and are primarily driven by the firm-level analysis.

Sample firms against portfolio benchmarks

All interviewed firms activate at least three of the five levers. Of the sample, two firms activate three levers (Jobs & Livelihoods, GESI, Climate & Environment), aligning with the portfolio mean of 3.23 levers. One firm activates four levers, considering Climate & Environment as a secondary impact. The remaining four firms demonstrate the highest breadth of lever activation across the sample, activating all five levers. Compared to the portfolio's mean, this sample distribution is skewed towards higher lever activation in terms of breadth, which reflects the firms' high transformation ambition. Mapped against closure data, of the seven firms interviewed, most have reached a stage of financial closure, with only two firms in the A4 stage (close out process of support). Both firms operate in Senegal in the agri-processing sector and activate four or more levers.

The sectors represented across the sample reflect the portfolio's broader sectoral composition: dominated by the agri-processing industry (4 out of 7 firms), followed by heavy industry (2) and the circular economy (1).

Of the firms reaching financial closure, deal sizes range between USD 5.2 million and USD 55 million. All are greenfield investments, except for one USD 16 million brownfield investment in heavy industry in Nigeria. Similarly, the two deals not yet closed received investments of USD 3.4 million (greenfield) and USD 24 million (brownfield). In line with the quantitative data, the sample does not point to distinctive trade-offs between ambition-closure or the greenfield-brownfield division.

Projected employment figures, both direct and indirect, vary considerably across the sample, reflecting different country contexts and sector sizes. Combined, the total jobs created by the sample firms amount to 3,833 direct jobs and 37,943 indirect jobs, with the largest contributor a Nigerian EV mobility firm.

Appendix 2: Levers of transformation: case studies

Case study 1: Jobs & Livelihoods

The quantitative data highlight Jobs & Livelihoods as the most activated lever (86%), featuring strongly across all sector profiles. Livelihood standards are concerned with both the quantity of employment opportunities generated (direct and indirect) and with their quality and distribution. Improving job quality entails wage improvements, good working conditions and securing worker benefits.

Impact pathway: Formalisation of labour → Income stability → Jobs & Livelihoods lever improvement

The Jobs & Livelihoods lever was activated across all interviewed firms. The primary mechanism of change was the formalisation of labour and, consequently, income stability. Despite the different country contexts, from waste management in Ethiopia to clean power solutions in Nigeria, similar inputs (firm activities) drove positive outcomes across livelihoods: structured local sourcing, vocational training programmes and accessible financial models.

The informal sector dominates labour absorption across the African continent, leaving workers trapped in low-skilled, low-paying jobs that often fail to translate into sustainable livelihood improvements that ensure social security and income stability (ISS, 2025). Achieving "decent work" relies on increasing the number of direct and indirect jobs created, as well as improving working conditions, workplace security and revenue stability.

For example, one Ethiopian enterprise operating a circular economy business model reported substantial improvements in employment, both in terms of quantity and quality. Having reached financial closure, this firm possessed an above average job creation portfolio compared to the median of deals reaching closure. It generated five times more indirect jobs than the median projected indirect employment figure (825 jobs) and created 175 new direct jobs, sitting just under the median projected direct employment rate (200). Its deal size amounted to USD 5.2 million, sitting within the interquartile range of the full pipeline, yet well below the median deal size for deals reaching financial close (USD 12 million).

Beyond improving the quantity of jobs, this firm contributed to improving job quality through targeted training and *ad hoc* support to its input suppliers, mainly in the informal sector. This activity generated a four-fold increase in income for its female-dominated input suppliers, directly contributing to more stable income streams and welfare improvements. Anecdotally, the firm reported that this income improvement enabled female workers to support dependents with their additional income and make household investments. This impact is particularly

significant in the context of Ethiopian labour force disparities, where women are predominantly responsible for providing care services to dependents, usually with little to no financial support from male members of the household.

A similar impact was observed in the heavy industry (machinery & electrical) sector in Nigeria. One solar-powered cooling systems firm generated a dual impact across jobs and livelihood improvements by targeting two sets of beneficiary groups: its employees and customer base. By sourcing most of its inputs locally, it supported job creation across its local assembly, distribution and services network. As such, it generated 600 indirect jobs and 503 new direct jobs, largely aligning with Nigeria's direct employment profile for closed deals (500 jobs per deal).

The firm's commercial model generated positive secondary impacts on livelihood improvements among its customer base, largely comprising female informal vendors and micro-entrepreneurs. Informal vendors and micro-entrepreneurs often face constraints to accessing productive assets due to their unstable work streams, making it difficult to expand their commercial activities. Through offering a flexible pay-as-you-go financial model, the firm promoted the financial inclusion of informal workers and off-grid entrepreneurs. In contexts characterised by unreliable grid electricity and frequent power outages, as is the case in Nigeria, the product offered, combined with its flexible payment system, provided beneficiaries with business credibility due to reduced food spoilage, thereby supporting the growth and stability of their revenue streams.

Manufacturing Africa catalysed these impacts through technical support, including strengthening investor readiness in the initial stages, market assessment advisory through expert technical assistance, and financial input on model valuation. These means of support facilitated firm activities, such as rollout of training programmes and offering a viable, flexible payment system, generating positive livelihood outcomes for their targeted beneficiaries.

Case Study 2: GESI

The GESI lever has the lowest activation rate of all five levers, at 46% across the full deal pipeline.

As the quantitative evidence shows, improvements in GESI outcomes is largely independent of all other levers and does not co-move with IET. This indicates that inclusion outcomes require a set of deliberate, affirmative action by firms to materialise. In the absence of such targeted action, ambitious high-IET deals will not translate into broader positive GESI outcomes, despite showing strong improvements across all other levers (Multiplier Effects, Climate & Environment, Jobs & Livelihoods).

Impact pathways: Reducing financial barriers → GESI improvement

Gender disparities in the workforce remain pervasive across Manufacturing Africa's target countries, albeit to varying degrees. Compared to men, African women often face greater obstacles to obtaining loans and financial support to access productive resources (ISS, 2026). one observed impact pathway to activating positive GESI outcomes is to reduce financial barriers facing women in accessing productive assets.

A solar-powered cooling systems firm operating in the heavy industry (machinery & electrical) sector in Nigeria adopted a business model founded on the participation of women micro-entrepreneurs. Women make up 40% of all entrepreneurs in Nigeria, but only half of them operate in the formal sector with access to financial services (Organisation for Economic Co-operation and Development (OECD), 2025). Acknowledging the financial constraints facing its target beneficiary group, the firm provided an asset-financing model based on a flexible pay-as-you-go system designed to target the financial barriers facing women entrepreneurs in accessing formal credit and productive assets. It also delivered female-targeted technical training programmes to bring new female entrepreneurs on board. This activity was particularly meaningful, as it upskilled women labourers and equipped them with the technical and financial support to strengthen and formalise their revenue streams and overall standards of living.

Changing societal narratives → GESI improvements

The issue of gender inequality is reflected in systemic financial barriers because it is deeply embedded in the social fabric, where female-dominated activities are often undervalued. Changing societal narratives around women's employment is crucial to achieving improved GESI outcomes.

A Senegal-based agribusiness activated the GESI lever and fostered women's empowerment through its local sourcing model, where over half of its suppliers were women. The firm's founder highlighted that commercialising and adding value to inputs traditionally produced by women shifted local perceptions of their practice as holding greater economic value. This created a movement of change, where the firm's activities and greater dependence on women suppliers reshaped societal narratives about the work's economic significance. The increased participation of women herders in the formal production chain enabled them to manage their household expenditure more effectively, manage production and better support their dependents. The firm also delivered targeted training programmes setting women on 'mini-farm' pathways to upgrade production.

While this firm shows evidence of both depth and breadth of lever activation across four levers, it has yet to reach the stage of financial closure. Nevertheless, its pattern of lever activation has

clearly boosted its business growth prospects by attracting gender-smart investment opportunities that would otherwise be unavailable.

Although the two impact pathways highlight different mechanisms of change (removing financial barriers and challenging societal narratives), they are often considered complementary. Removing the financial constraints facing women entrepreneurs can challenge and shift societal narratives around the economic value of female-led entrepreneurial activities, and vice versa. In these case studies, both streams were underpinned by an affirmative action/input directed by the firms to induce positive transformative change. Both showed an alignment between the core revenue-generating activity and the labour composition being predominantly female-dominated (customer base or input suppliers), lending themselves to positive GESI outcomes.

Manufacturing Africa's technical support catalysed the firms' positive outcomes on the GESI lever and access to gender-related finance by strengthening investment readiness, providing strategy clarification, confirming market dynamics across local production pathways and preparing for fundraising rounds tied to new deals and initiatives.

Case Study 3: Climate & Environment

The Climate & Environment lever is activated by nearly two-thirds of deals reaching financial closure (63%). It features most strongly across circular economy deals (12 deals; 100% activation rate), followed by heavy industry, light industry, agri-processing and pharma & chemicals.

Impact pathway:

Core environmental business model → shifting local perceptions towards sustainable alternatives → Climate & Environment lever activation improvement

The Climate & Environment lever was activated across all interviewed firms, with only one noting it as a secondary impact. The sample's sectoral focus aligns with the broader patterns identified in the quantitative analysis, spanning circular economy, heavy industry and agri-processing in Nigeria, Senegal and Ethiopia. Despite their varied operational activities, all pointed to a primary impact pathway, where their core environmental business models translated into increased market uptake of sustainable solutions, motivated by a) a shift in local perceptions towards climate-resilient solutions, b) long-term cost-efficiency, or c) more reliable resource streams. Despite differing country contexts, common firm activities driving positive outcomes across Climate & Environment included decarbonisation and recycling models, provision of clean energy alternatives and strengthening local value chains.

Among the entire sample of interviewed firms, three follow a core environmental business model, where the main revenue-generating activity revolves around climate-smart design across the waste management, agri-processing and EV sectors. Their activities facilitated a shift in local perceptions towards sustainable solutions, driving an increase in market uptake. The perception shift was notably motivated by a dual driver: increased awareness of the value of adopting climate-aware alternatives and long-term cost efficiency.

Underdeveloped organic waste management systems are a prominent challenge facing African industrial businesses. Transforming municipal waste, 57% of which is organic, into productive, sustainable assets is particularly challenging due to limited availability of local and technical support (United Nations Environment Programme Copenhagen Climate Centre (UNEP CCC), 2026). In addition, out of approximately 70 million tonnes of plastic waste generated per year the majority (80%) ends up in informal waste streams and only 4% is recycled.

The firm-level analysis provides a more optimistic picture. Interviewed firms across Senegal, Ethiopia and Nigeria reported adopting a climate-focused core business model, combining significant emission reductions with commercial viability.

One agri-processing (bioconversion) firm in Senegal operates with a circular economy model that converts organic waste from unmanaged landfills, where over 90% of waste resides, into high-nutritional animal feed proteins and fertilisers. With a 90% ICF applicability rate, this deal is among the 4% of deals across Manufacturing Africa's portfolio that meet high conformity criteria. The model generates measurable climate benefits, such as avoiding a significant 3.7 tonnes of CO_2 emissions per tonne of upcyled organic waste and 11 tonnes of CO_2 emissions per tonne of protein produced, compared to conventional soy-based alternatives. The firm's circular economy model creates a market demand for lower cost and high nutritional animal feed alternatives to farmers and herders, which encourages uptake of more sustainable options. While the firm has not reached financial close, it reported raising approximately 40-50% of its target industrialisation funding required for production at scale. As its operations scale up, it is expected to amplify the reduction of its CO_2 emissions.

Similarly, a circular economy enterprise in Ethiopia has developed a waste-to-materials production model across plastic diversion and construction inputs. With a 100% ICF applicability rate, this deal is among the 24% of deals across Manufacturing Africa's portfolio that meet full-conformity criteria. Its model prioritises the decarbonisation of cement manufacturing by substituting coal for organic waste, avoiding close to one million kilograms of CO_2 emissions to date. Firm operations extend to plastic recycling and it has recycled about 500 thousand kilograms of plastic to date, with the capacity to remove up to 4 tonnes of plastic waste per 70 sqm building. It provides products that are approximately five times less polluting and are of

more durable quality compared to carbon-intensive manufactured cement. This balance has generated a notable shift in awareness among Ethiopian manufacturers, municipalities and large industries of the dual benefits of waste-based fuels for reducing emissions and input costs, incentivising a market shift towards more sustainable alternatives and seeing waste as an income generator rather than a burden.

Unlike the Ethiopian and Senegalese circular waste-to-materials models, a Nigerian firm operating in the heavy industry (machinery & electrical) sector developed its core business model around low-carbon, solar-powered industrial solutions as a direct response to the country's unstable power supply. With a 100% ICF applicability rate, the firm's solar-powered systems deliver significantly higher energy efficiency (up to +55%) than traditional grid-powered alternatives. It also reports emission reductions by displacing diesel generators, as well as reducing food waste through improved cold chain infrastructure. According to the interview evidence, the key driver behind increased uptake of their products among micro-entrepreneurs and small business owners is long-term cost efficiency and energy reliability rather than a clear climate intent. Combined with a flexible asset-financing model to reduce upfront costs and generate suitable payment plans for off-grid customers, the firm ensures long-term reductions in energy costs, longer product life cycles and lower operation costs due to more reliable cold chain during power outages.

Regardless of the primary driver behind shifts in consumer perceptions and market demand for clean energy powered solutions (whether long-term cost-efficiency or awareness of climate impacts), both generate the same outcome towards positive climate and environmental sustainability impacts. All three firms represent strong cases of the impacts generated by core environmental business models through direct emissions reduction and increased market acceptance of alternative sustainable solutions.

The firms' ability to design their core business models around climate and sustainability and turn structural constraints into a commercial opportunity was supported by Manufacturing Africa's technical assistance. This assistance included developing market studies, advancing a pricing strategy for product and model valuation, and facilitating long-term, credible partnerships with local municipalities to enable access to landfill concessions.

Case Study 4: Multiplier Effects

The Multiplier Effects lever features strongly and consistently across all sectoral groups, reflecting its near-definitional character for manufacturing investments. A significant 85% of deals across the full pipeline activate Multiplier Effects by meeting at least two sub-criteria, such as market creation potential or trade orientation. Although the quantitative analysis shows only minimal impact of deal size on most lever scores, Multiplier Effects is the only lever that tends

to increase as deal scale increases. This reflects the tendency of larger investments to support broader supply chains and export linkages.

Impact pathways

The Multiplier Effects lever is directly activated by five out of seven of the firms interviewed. The deal scale for this sample ranges from USD 3.4 million (agri-processing; greenfield; Senegal) to USD 55 million (heavy industry; greenfield; Nigeria). Multiplier Effects were achieved through two observed mechanisms of change: i) local value chain creation and ii) innovation and technological diffusion. Despite the different country contexts and varied operations, the following inputs (activities) drove these spillover effects: leveraging first-mover advantages and developing technology-based partnerships.

Impact pathway 1: Creating local value chains → export-orientation → Multiplier Effects

By nature of its manufacturing-concentrated activities, the heavy industry sector shows the strongest activation rate of Multiplier Effects, mainly driven by first-mover advantages, export orientation and technological advancements.

For example, an EV mobility platform operating in the heavy industry (vehicles) sector in Nigeria and West Africa activated this impact pathway by developing local assembly chains. Over 10 years, the company successfully transitioned from a small-scale mobility platform into a large-scale EV operator across various cities in West Africa, with a fully developed local assembly capacity, generating 3,600 vehicles per month. Building domestic assembly capacity for EVs and battery charging infrastructure was central to building capacity and preparedness for export to neighboring regional markets and achieving Multiplier Effects beyond the firm's immediate operations.

Through its locally assembled EVs, the firm is set to replace imported vehicles. Its first-mover advantage and exponential business growth trajectory, combined with close engagements with municipal authorities and partners, have positioned the firm as a reference point for EV policy in Nigeria and across West Africa. Compared to the portfolio median deal size (USD 12 million) among deals reaching financial close, the firm's large investment deal (USD 55 million) and its growth prospects align with the broader observed trend of increasing Multiplier Effects as deal size increases.

Impact Pathway 2: Innovation and technological diffusion → Multiplier Effects

Technological adoption can induce multiplier effects by generating intersectoral benefits through shared infrastructure, upskilling labour and generating knowledge spillover effects to neighboring regions. Upgrading manufacturing equipment and technology for African firms in

Sub-Saharan Africa is reported to be 35-39% more costly than the US (World Bank, 2024). Those high costs also apply to technologies used in the agriculture sector, constraining productivity and competitiveness upgrades.

An agri-processing (bioconversion) firm in Senegal illustrates how multiplier effects can be activated through localisation of innovation and technological diffusion. The firm sought to reduce market dependency on imported inputs from South America and Eastern Europe by developing a vertical farm for domestic production of alternative animal feed protein and fertilisers. By investing in research and development (R&D) and fostering academic partnerships with an entomology research lab, it was able to replicate the optimal climatic conditions for the inputs in its local country context. This facilitated its import substitution potential and enhanced its innovation footprint. It also partnered with a Chinese technological firm to co-develop equipment for enhancing production, adapted to local conditions and labour force capabilities, with the firm retaining the rights to the adapted technology design. This equipment enhanced productivity and reduced the costs of production. Although the firm has not yet reached financial closure, the depths of its lever activation across Multiplier Effects, Climate & Environment and Jobs & Livelihoods points to its high transformative ambition. As its industrial operations scale, it is set to generate additional spillover effects through broader technological diffusion nationally and into West African markets. Its position as a first mover in its national and regional market, combined with its demonstrated innovation trajectory, amplifies its business growth prospects.

The two cases sit at opposite ends of the deal size range, reflecting the wide-ranging support provided by Manufacturing Africa to support different business sizes and models towards achieving Multiplier Effects. The main catalysts included objective commercial advice, obtaining decision-grade data and analysis for strategy building, and fostering credibility and reach to access regional and global markets via a local strategy firm. Manufacturing Africa's technical assistance offered investor mapping and facilitated introductions with international partners, which later acted as a stepping stone for technological transfers and facilitated export strategies.

Case Study: IET

IET is best understood as the result of business models that integrate value creation and structural transformation. Firms that successfully activate this lever embed transformation into their commercial logic, generating impacts that are self-reinforcing and extend beyond the firm to the wider economy.

IET lever is activated in 43% of Manufacturing Africa portfolio deals, reflecting its role as a high bar for transformation depth under the PbR framework. Deals that meet this threshold are

characterised by stronger supply chain integration, higher economic complexity and greater local value addition.

While IET is difficult to observe directly at firm level, given its combined-lever nature and long-term manifestation, interviews provide indicative evidence of broader system-level effects.

Primary impact pathway: Structural gap identification → value addition through integrated business models → multi-lever activation → system-level transformation

Interview evidence indicates that the IET composite indicator is most strongly activated in firms that treat structural failures in local economies as commercial opportunities. These firms embed transformation within their core business model, rather than viewing it as a secondary impact. Across diverse sectors and countries, firms consistently identify gaps in infrastructure, service delivery or market organisation (e.g. unmanaged waste, fragmented agricultural supply chains, unreliable energy systems, lack of access to finance) and build business models that convert these constraints into sources of value. This generates impact simultaneously across multiple levers, including employment creation, environmental benefits, inclusion and spillover effects.

An overarching finding is that firms generate impact across multiple levers by addressing structural gaps in public infrastructure and service delivery, converting underutilised resources and unmet demand into commercially viable activity.

Similar evidence emerges across the portfolio, with business models consistently premised on identifying inefficiencies or absences in existing systems, such as unmanaged waste streams, limited access to electricity, limited access to productive infrastructure (capital related to traditional manufactures), or barriers to finance. They then introduce processes, technologies or financing models to capture the value currently lost within these systems. Within the portfolio, this includes converting waste into tradable commodities or food products, formalising previously unstructured input markets, integrating dispersed supply chains through modern processing infrastructure and enabling access to productive assets for MSMEs. In each case, firms build where systems are incomplete, generating both commercial returns and broader economic value.

The interviews indicate that business models targeting structural economic gaps as commercial opportunities can support firm growth through three primary mechanisms.

1. Generate durable and self-reinforcing demand by serving previously excluded or underserved market segments, where customer success feeds back into increased demand and validates the underlying business model.

2. Create structurally low-cost input bases by incorporating informal, unpriced or inefficiently utilised resources into formal production systems, enhancing competitiveness and supporting resilience, even under financial stress.
3. Strengthen the investor proposition by embedding clear social and economic impact within the business model, enabling access to concessional finance and expanding the pool of potential investors, particularly where commercial returns alone may not yet be sufficient.

Examples described include:

- **Case 1:** Several firms use waste in unmanaged landfills as core inputs. Their value-addition processes convert that waste into internationally traded commodities.
- **Case 2:** One firm whose business model is premised on the deep structural inefficiency of Ethiopian and Kenyan agricultural supply chains. It capitalised on the opportunity to introduce modern integrated processing infrastructure that captures value currently lost to fragmentation and poor logistics as a result of poor roads or lack of reliable rail.
- **Case 4:** One firm that addresses the capital gap in the Nigerian informal economy by making capital affordable to micro entrepreneurs through asset financing, converting underserved demand into a structured commercial market.
- **Case 5:** One firm that converts the gap between transport demand and formal employment into a structured platform for micro entrepreneur income generation, using technology to reduce the friction and risk associated with vehicle financing for low-income riders.