

Supplementary Table Assessment of evidence that the tobacco industry is transforming

Criterion	Key indicator(s)	Tobacco Transformation Index assessment 20-22	Other evidence
<p><b>1. Evidence of substantial progress towards eliminating the production, distribution, marketing and sales of conventional tobacco products within 5 years</b></p>	<p><b>OUTCOME INDICATORS:</b> Evidence of substantial and rapid decline in production and sales of conventional products (including cigarette, cigar and cigarillo) over and above pre-existing trends.</p> <p>Evidence of rapid declines in consumption of conventional products over and above existing trends.</p> <p>Evidence of decline in smoking prevalence.</p> <p><b>PROCESS INDICATORS:</b> Goal with defined date within short timescale (&lt; 5</p>	<p>TTI report provides estimates of conventional and new product sales volumes and value, and recent trends and ratios using publicly available company documents, information from financial databases such as Euromonitor International, and interviews with industry experts. The exact basis of the estimates is not described.<sup>17</sup></p> <ul style="list-style-type: none"> <li>• Estimated global cigarette sales volumes of the 15 leading tobacco companies reduced slowly from 4.9 trillion to 4.8 trillion sticks (-1.2% Compound Annual Growth Rate (CAGR) between 2017 and 2019.</li> <li>• Estimated sales volumes fell 1.2% per annum from 2017-19 in high medium income countries but in LMICs <b>grew</b> annually by 1.7%.</li> <li>• TTI report concludes: <i>“This level of change is unlikely to result in a meaningful public health gain, nor will it lead to an end to smoking within this generation.”</i> and <i>“there is little evidence that they (companies committed to harm reduction) are committed to reducing high-risk product sales faster than the natural decline already occurring.”</i></li> </ul> <p>TTI report finds some companies have expressed a commitment to ‘harm reduction’ (not defined), but</p>	<p>A global assessment of recent smoking prevalence trends reports that declines in smoking prevalence were less from 2015-19 than from 2010-2015.<sup>33</sup></p> <p>We conducted an analysis of Euromonitor data and found no evidence of an accelerating decline in global cigarette sales trends since 2017, rather the rate of decline may have decreased.</p> <ul style="list-style-type: none"> <li>• Analysis of Euromonitor data shows that global retail cigarette sales volumes reduced more slowly after 2017; declining from a peak of 5,957 billion cigarettes in 2012 to 5,408 billion in 2017 (CAGR 2012-17, -1.9%, average decline = 110 billion per year), and then to 5,279 billion in 2019, (CAGR 2017-19, -1.2%, average decline = 65 billion per year).<sup>21</sup></li> <li>• For PMI, analysis of Euromonitor data shows that global cigarette sales volumes declined at a similar rate before and after 2017: decreasing from a peak of 880 billion in 2012 to 750 billion in 2017 (CAGR 2012-17, -3.2%, average decline = 26 billion per year) and to 692 billion in 2019 (CAGR 2017-19, -3.9%, average decline = 29 billion per year).<sup>21</sup></li> </ul> <p>Where stated, goals for ending tobacco product production and sales are inadequate:</p>

	<p>years) for ending conventional tobacco product production and sales.</p> <p>Action plan, internal systems and structures to ensure achievement of goal including implementation difficult to reverse measures and a monitoring framework and mechanisms to assess progress towards goal.</p> <p>No evidence of actions seeking to increase sales or product portfolios for conventional products</p>	<p>concludes that targets are limited and approaches to highest risk tobacco products are ‘vague’:</p> <ul style="list-style-type: none"> <li>• 6/15 companies have some sort of goal or commitment, but these generally focus on growing sales of new products, rather than reducing or eliminating conventional products like cigarettes.</li> <li>• The other nine companies have no goal or commitments in relation to conventional product elimination or harm reduction.</li> <li>• <i>“A small group of companies have made public commitments to harm reduction, but none have shifted their focus enough to ensure the accelerated decline of cigarettes and other high risk products.”</i><sup>17</sup></li> </ul> <p>The TTI report provides no evidence of any company having a detailed strategy and action plan, and comprehensive supporting processes and structures, to achieve the elimination of tobacco product sales and production.</p> <p>TTI report includes evidence that companies continue to expand their conventional product portfolios through mergers and acquisitions. This data is wholly inconsistent with goal of eliminating conventional products e.g. JTI concluded deals in the Philippines, Indonesia, Ethiopia, Russia and Bangladesh in 2017-18.<sup>17</sup></p>	<ul style="list-style-type: none"> <li>• No tobacco company has set a target date for eliminating production and sale of conventional tobacco products.</li> <li>• PMI claims to be working to achieve a smokefree future and its mission is <i>‘to one day stop selling cigarettes,</i><sup>148</sup> but states that this outcome is not anticipated soon.<sup>27</sup> It further states that it will continue to sell cigarettes <i>‘as long as there is significant legitimate demand’.</i><sup>26</sup></li> <li>• PMI’s ‘Integrated report’ includes an ‘aspirational’ goal of less than 550 billion units (from 732 billion in 2019) of ‘combustible product shipments’ by 2025 – an average decrease of 30.3 billion per year. This rate of decline would not result in zero shipments until 2043.<sup>26</sup></li> <li>• PMI’s projected reduction in shipments from 2019-2025 is slightly <u>less</u> than annual reductions observed (31.4 billion per year) in PMI’s global cigarette shipments from its peak in 2012 of 927 billion cigarettes to 707 billion in 2019, if that annual rate of decline in sales was maintained zero sales would be achieved by 2042.<sup>21</sup></li> </ul> <p>Evidence on action plans, internal systems and structures and monitoring mechanisms for achieving tobacco product reduction/elimination is not available.</p> <p>We are not aware of evidence that any company is taking hard-to-reverse measures such as systematically closing production facilities and distribution networks, or reducing the number of</p>
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<p><b>2. No obstruction of core and innovative tobacco control measures in any jurisdiction</b></p>	<p>Non-obstruction of the implementation of tobacco control measures, including innovative ‘endgame’ interventions.</p> <p>Implementation of supporting actions to facilitate implementation and enhance the impact of tobacco control measures.</p> <p>Compliance with and non-obstruction of Article 5.3 of the FCTC.</p>	<p>The TTI does not assess tobacco company actions in relation to the implementation of tobacco control policies or compliance with FCTC Article 5.3 other than assessing marketing expenditure from 2017-19 on high risk products as share of net smoked tobacco product sales and as a ratio to new product marketing expenditure.</p> <ul style="list-style-type: none"> <li>• Almost two-thirds of marketing expenditure is on smoked tobacco products, though six companies were spending over half of their marketing budget on new products.</li> <li>• Even among six companies with commitments to harm reduction 30-55% of their marketing budgets is devoted to high risk conventional products.</li> <li>• PMI still spent 44% of its marketing budget on smoked tobacco products.</li> </ul>	<p>Tobacco industry in general, and PMI specifically,<sup>58</sup> continues to oppose, obstruct and undermine tobacco control measures. Current and recent examples include:</p> <ul style="list-style-type: none"> <li>• Action by tobacco companies in multiple jurisdictions to block, repeal or undermine implementation of bans on menthol cigarettes and tobacco,<sup>109</sup> including launch of menthol capsule cigarillos and menthol-flavoured cigarette papers,<sup>59 61 63 66-70</sup> and impeding the removal of all additives in Brazil.<sup>64</sup></li> <li>• Litigation by PMI affiliate tobacco company in India against enhanced pictorial health warnings on packs.<sup>60</sup></li> <li>• Continued litigation by tobacco companies against standardised packaging legislation in France.<sup>65</sup></li> <li>• Budget brand proliferation, differential price increases (under-shifting) and other strategies to minimise the impact of tobacco tax increases.<sup>62 71</sup></li> </ul>

			<ul style="list-style-type: none"> <li>• Litigation against proposed new US health warnings by multiple tobacco companies.<sup>74-76</sup></li> <li>• BAT 2018 analyst report celebrates continued innovation in smoked tobacco products such as ‘triple filters’, new capsule cigarettes, ‘super slims’ and pack redesigns.<sup>123</sup></li> <li>• BAT (and Imperial and JTI) have expressed opposition to New Zealand’s action plan for achieving its smokefree goal and BAT has been accused of supporting retailer groups to oppose the plan.<sup>79 80</sup></li> </ul>
<p><b>3. Evidence of action to reduce uptake and eliminate disparities in use of conventional tobacco products</b></p>	<p><b>OUTCOME INDICATORS:</b> Reduction in numbers of new smokers; rapid reductions in smoking prevalence among youth, young adults and marginalised groups.</p> <p><b>PROCESS INDICATORS:</b> Goals and supporting strategy in place to achieve reductions in smoking uptake and disparities in smoking.</p> <p>Full compliance with all marketing, tax legislation (including no actions to undermine tax policies) and all other tobacco control policies</p>	<p>The TTI has no assessment of tobacco company actions or their impacts to minimise uptake of smoking by minors and young people, or to reduce smoking among marginalised groups.</p>	<p>No tobacco company has set global, regional or national goals or introduced strategies to reduce smoking uptake or disparities in smoking, or to minimise the contribution of its brands to smoking uptake and disparities.</p> <p>The tobacco industry in general, and PMI specifically, continues to obstruct and undermine relevant tobacco control measures, and take actions that undermine reducing smoking uptake and smoking disparities. Current and recent examples include:</p> <ul style="list-style-type: none"> <li>• Lawsuits against Tobacco-Free Generation ordinances in Balanga, Philippines by group representing multiple tobacco companies including PMI.<sup>106</sup></li> <li>• Continued design, production and sale of products that appeal to youth (e.g. capsule and flavoured cigarettes, cigarillos)<sup>107</sup> and selected population groups (e.g. menthol cigarettes for</li> </ul>

	<p>Non-obstruction of public health policies and measures to reduce smoking uptake and address disparities in smoking prevalence.</p> <p>Implementing supporting actions to reduce smoking uptake and address disparities in smoking prevalence.</p>		<p>African Americans in USA, <sup>108</sup> ‘slims’ for women). <sup>115</sup></p> <ul style="list-style-type: none"> <li>• Evidence of widespread marketing of flavoured and capsule cigarettes and sale of loose cigarettes at retailers close to schools in Latin America, <sup>110</sup> and tobacco industry opposition to bans on flavours like menthol that appeal to youth and some minority populations. <sup>61 63 66-70 109</sup></li> <li>• Current or recent evidence of promotion of tobacco products to youth and marginalised groups including ethnic minorities, low SES people, women, Indigenous peoples and LGBTQ communities. <sup>90 92 94 111-114</sup></li> </ul>
<p><b>4. Replacement of conventional tobacco products with acceptable alternative products or services</b></p>	<p>Goals, supporting strategy and evidence of diversification into alternative products such as new nicotine and tobacco products to replace or other harmless and non-addictive products or services.</p>	<p>TTI assesses diversification into new products using a range of metrics. Overall the report concludes harm reduction progress is ‘<i>extremely limited</i>’:</p> <ul style="list-style-type: none"> <li>• Some companies have harm reduction goals based on diversification into new nicotine and tobacco products e.g. PMI has set a goal that 45% of volume shipments are ‘reduced risk products’ by 2025 (it was 19% in 2019).</li> <li>• However, in 2019, 97% of sales volumes across 15 participating tobacco companies were from cigarettes, ‘dwarfing’ sales of new products, and was 88% even among six companies with commitments to moving to reduced risk products. <sup>17</sup></li> <li>• There were limited examples of supporting strategies and processes for diversification into new products in the 15 TTI companies, with the</li> </ul>	<p>We know of no evidence that tobacco companies are diversifying into harmless non-nicotine products and services, other than recent examples of PMI acquiring pharmaceutical development companies. <sup>116</sup></p> <p>Some tobacco companies have set goals and developed strategies for diversification to new products, but it is not clear that these strategies aim for new products to replace conventional products and the timelines are vague and protracted:</p> <ul style="list-style-type: none"> <li>• PMI’s website states: “<i>We’re building PMI’s future on smoke-free products that are a much better choice than cigarette smoking. Indeed, our vision ... is that these products will one day replace cigarettes.</i>” <sup>8</sup></li> </ul>

	<p>New product portfolios are independently established reduced risk products (with the product portfolio weighted towards the least harmful products) designed and effective at replacing conventional product use among existing smokers.</p>	<p>strongest evidence from increasing allocation of Capital and R&amp;D investment– around 50% of total at 3 companies and &gt;80% at 3 other companies.</p> <ul style="list-style-type: none"> <li>• At PMI, the corporate strategy, performance frameworks and R &amp; D investment were reported as geared to the development, production and sale of new nicotine and tobacco products.<sup>17</sup></li> <li>• However, the TTI report noted that companies offered more new products in HICs than in LMICs; and pricing strategies, particularly a high relative price for HTPs, did not provide economic incentives for smokers to switch away from conventional products.</li> </ul> <p>The TTI assessment of companies' product portfolios is crude – based largely on the number of countries where a company offers 'reduced-risk' and high risk products (smoked tobacco products) and the ratio of total number of reduced risk products to high risk products within the company's product portfolio.</p> <p>The TTI includes a ranking of companies' new product portfolios based on a range of indicators, but it is difficult to discern the degree of harmfulness of companies' new products and there was no assessment of the efficacy of different products as quitting aids.</p>	<p>There is evidence that some tobacco companies are using new products for market growth and profit maximisation, not transformation away from conventional products:</p> <ul style="list-style-type: none"> <li>• PMI's IQOS heated tobacco products are sold in mainly HICs where tobacco control regulations are stronger and smoking prevalence is declining, often marketed and priced as premium products.<sup>6 134</sup></li> <li>• BAT analyst reports and investor briefings describe the vapour business as 'additive' and growing the nicotine consumer pool through 'new entrants' (i.e. non-smokers). Reports also describe most new product users as 'dual users' or 'poly-users', and comment that prolonged dual use is common among existing smokers.<sup>123</sup></li> </ul> <p>Several major tobacco companies (e.g. PMI, BAT, JTI, China National Tobacco) include HTPs as part of their new product portfolios. These are potentially more harmful than non-tobacco containing new products such as e-cigarettes.<sup>120 121</sup> PMI's new product portfolio consists almost exclusively of HTPs (IQOS).<sup>6</sup> Many studies on HTPs have been conducted by the tobacco industry, and concerns have been raised about the quality of industry-supported studies by independent and ex-industry researchers.<sup>135-137</sup></p> <p>Heated tobacco products are of unproven effectiveness as a cessation product.<sup>120 121 138</sup> Although their introduction has been associated with falls in consumption of smoked tobacco products (e.g. in Japan<sup>144</sup>), falls in smoking</p>
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	<p>Strategy, supporting mechanisms and evidence of success in marketing new products to existing smokers as an aid to quitting or to fully switch away from smoking.</p> <p>Minimal marketing, product appeal and use among non-smokers, particularly youth. No obstruction of and full compliance with measures to minimise new product use among youth. Withdrawal of products proven to be appealing to youth.</p>	<p>The TTI assesses the scope and robustness of marketing and youth access policies, and self-reporting of compliance and responses to violations of the policies. There is no assessment of actual new product marketing strategies or youth (or non-smoker) use of these products.</p> <p>The TTI report finds that a few companies have specific new product marketing policies and companies with commitments to harm reduction are undertaking some youth access prevention activity; however, it notes the impact of these actions is unclear.</p>	<p>prevalence have not been demonstrated, and in many jurisdictions (e.g. Japan and Korea <sup>140-143 146</sup>) most users continue to smoke (dual users) so population health impacts are uncertain.</p> <p>There have been substantial increases in youth use of new products such as e-cigarettes in many jurisdictions. <sup>124-127</sup> Investigations suggest tobacco companies are marketing these products to youth and failing to minimise youth access, product appeal and marketing. For example:</p> <ul style="list-style-type: none"> <li>• PMI's global marketing of IQOS targeted a young and socially mobile audience rather than the wider population of people who smoke. <sup>6 134</sup></li> <li>• Tobacco companies have carried out youth oriented marketing, sponsoring events such as music festivals, and used young social media influencers to promote these products. <sup>128-131</sup></li> <li>• Even in jurisdictions like the UK where there are regulations to control youth marketing, there is evidence that new product marketing (with 90% of expenditure by the tobacco industry) has much greater reach among youth never smokers than adult smokers. <sup>132</sup></li> <li>• Tobacco companies have opposed measures to reduce the appeal and access of youth to new products. For example, recent reports have described tobacco companies providing campaign contributions to politicians in Hawaii who opposed such measures. <sup>133</sup></li> <li>• No tobacco company has withdrawn a product from sale because it appealed to and was used disproportionately by youth.</li> </ul>
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