Waste Scoring

Waste makes up 40% of a Nike product’s footprint. In the Tool, users are asked to enter the pattern marker efficiency for each fabric; something typically provided by a cutting facility or garment factory. Marker efficiency details how a pattern best utilizes the fabric surface area. The conventional function of a marker identifies how much material a factory needs to purchase. Material usage is also important in calculating garment cost. Nike, however, also views the efficiency as a reflection of waste - the amount of dollars and fabric lost on the cutting room floor. Knowing the marker efficiency provides a designer an opportunity to directly influence their product’s environmental impact. Being open to design line adjustments and tightening up a marker saves resources, money, and reduces waste.

Nike designs a wide variety of apparel silhouettes, ranging from basketball shorts that may contain efficient rectangular pattern pieces, to highly engineered sports-specific technical products with elaborate, less efficient pattern pieces. Lacking a universal material utilization standard to rely on, we initially analyzed nearly two hundred different styles of men’s and women’s silhouettes across several sport categories. Most of the product’s efficiency ranged between 80% - 83%; an average that remained consistent throughout subsequent product evaluations and became the baseline standard for the Index waste scoring. (shown in chart above)

Products with higher marker efficiency are generously rewarded. Lower percentages receive point deductions. (Shown in scoring triangle below)

There is always room for improvement. Assessing marker efficiency helps increase awareness of how design decisions directly affect the waste footprint.