

# Beyond Efficiency Gains: Measuring AI's Impact on Your Workforce – Introducing ‘Human Power’

## I. Introduction

Companies are racing to deploy AI and automation, aiming for efficiency gains and cost reductions by replacing predictable, repetitive tasks.

This moment echoes the late 1700s, when steam and combustion engines replaced horses as the primary source of physical power. Back then, to make sense of a machine's capabilities, James Watt introduced “horsepower” – a relatable metric comparing engine output to the pulling strength of a horse (33,000 pounds per hour). It was a bridge between the old world and the new, helping people grasp an unfamiliar technological leap.

Today, AI is the new “engine,” poised to replace not animal muscle but human tasks and skills. To navigate this shift, leaders need a comparable metric – ‘Human Power’ – to quantify the impact on the workforce, enabling smarter decisions on talent, risk, and competitiveness.

## II. The Challenge of Measuring AI's Impact

AI's impact is unlike anything we've faced before. Traditional productivity metrics – revenue per employee, cost per unit, output per hour – measure “what” is produced, not “how” it's produced or whose skills are being replaced.

### Why these metrics fall short:

They mask skill displacement

A sales increase driven by AI-automated customer service may reduce human agent roles while creating demand for AI system specialists. Old metrics show only the revenue gain, not the shift in capabilities.

They ignore deskilling risks

Automating repetitive tasks can erode once-valuable skills, lowering engagement and adaptability. Output may rise, but long-term innovation capacity can decline.

They lack granularity

Broad averages hide which departments are most affected, making it harder for leaders to anticipate disruptions and plan targeted interventions.

Ignoring these realities creates risks: widening skill gaps, accelerating inequality, eroding engagement, and weakening resilience to future disruptions.

## II. Introducing ‘Human Power’

Human Power is a framework to measure Skill Displacement Units (SDU) – the net change in workforce skills caused by AI adoption.

### How it works:

1. Identify tasks and roles being automated.
2. Identify new roles and skills created to manage, maintain, or leverage AI.
3. Subtract new skill creation from skill displacement to get the SDU value.

This gives leaders a clear, quantifiable view of where human capabilities are shrinking, where they’re growing, and what the net impact means for competitiveness.

**Human Power reframes automation as neither purely good nor bad – but as a transformation to be measured, understood, and managed.**

## III. Strategic Applications & Recommendations

With an SDU profile, leaders can:

### Forecast workforce needs

Go beyond headcount projections and model role-by-role changes.

### Target skill development

Direct reskilling budgets toward high-SDU areas where gaps are emerging.

### Manage organizational risk

Identify vulnerable functions and build adaptability before disruption hits.

**Most importantly, Human Power shifts leadership focus from efficiency alone to workforce resilience and sustainability. It enables CEOs to pair productivity gains with talent strategies that protect adaptability, engagement, and innovation capacity.**