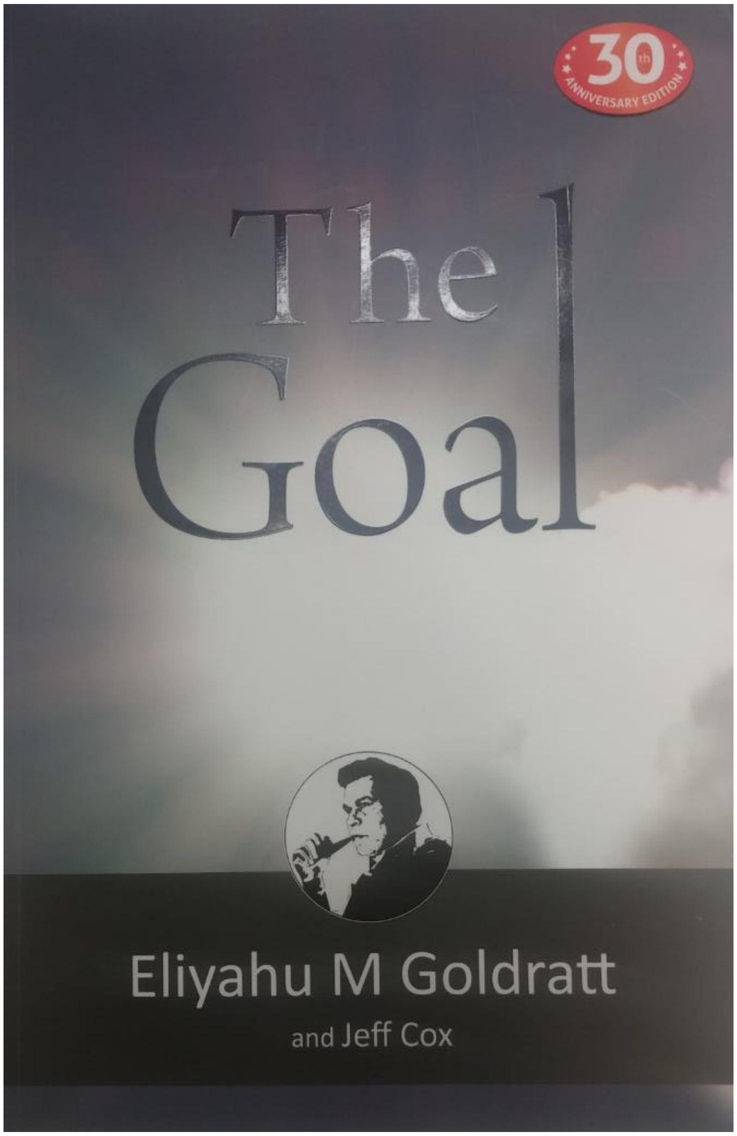

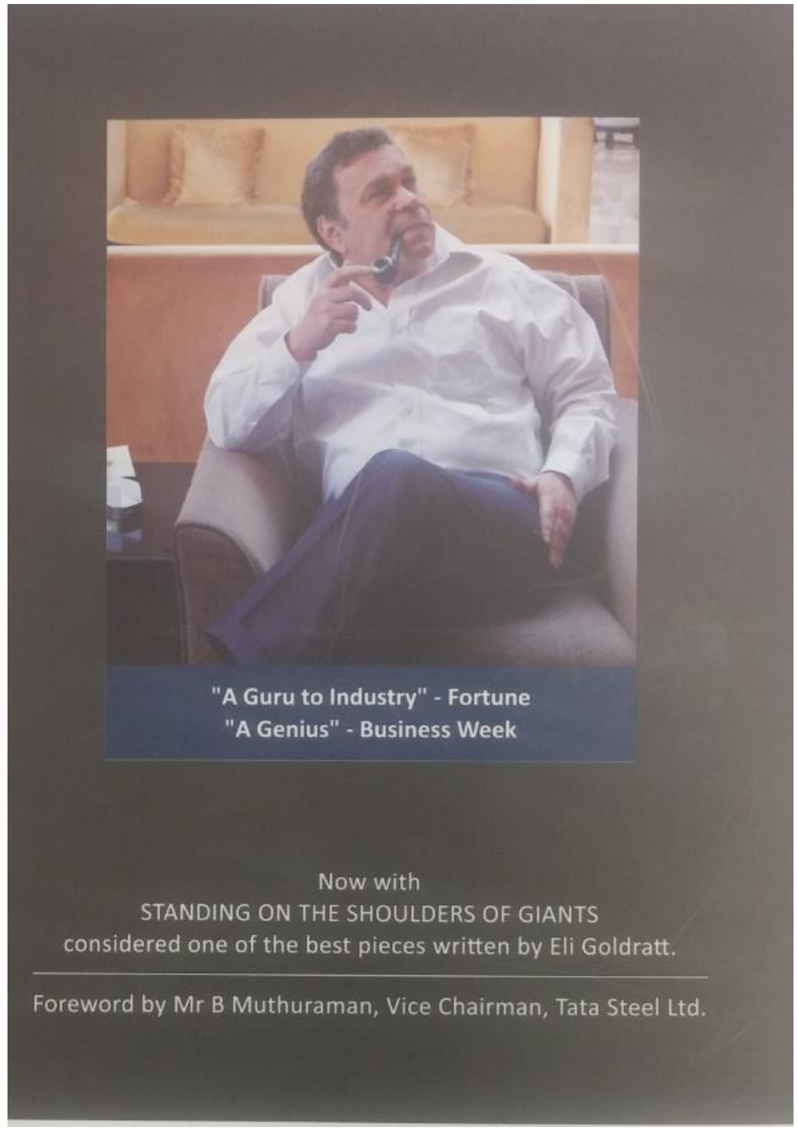

FOREWORD BY MR. B. MUTHURAMAN, VICE CHAIRMAN TATA STEEL LTD.

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FOREWORD

The first time I met with Eli Goldratt was in March 2004. Almost at once, we got into a bit of an argument. I disagreed with him as to what we could achieve in Tata Steel. Having been an integral part of the process of improvement in Tata Steel for several years and having achieved, what I considered, as some fundamental breakthroughs, I could not accept what Eli was saying. Eli, in fact, was saying that he would double our profits in two years, without considering any change in raw material or steel prices and at current sales volumes. I proceeded to give him a lecture on what Tata Steel had done over the years in terms of implementing an array of improvements and told him that what he was telling me was not possible to achieve. Patience was not one of Eli's virtues. All through, he was teasing me, taunting me and provoking me. I cooled down and then we had an intense conversation. I described to him what I wanted Tata Steel to achieve beyond the seemingly impossible task of doubling the profit in two years time. Throughout the conversation, my young colleague, Bimlendra Jha was present and he, over time, became an exponent of Eli's teachings and one who understood Eli's thoughts better than anyone else I know.

Steel is, historically, a cyclical industry. Everyone has come to accept it including the steel industry. Prices fluctuate widely. Over a six year period, prices could vary by as much as six times! I asked Eli if he could fix that and make it constant or at least less cyclical for Tata Steel. Can he make Tata Steel's price realization curve less cyclical and higher than the market throughout a business cycle? Eli looked at me, went out for a smoke, came back and said it can be done. This was the beginning of a new journey for Tata Steel, an exhilarating and rewarding one. It was also the beginning of a friendship that I will cherish for my life.

Eli taught us many things – that it is easy to fall into the conventional trap of looking for complicated solutions, that we need to search for the inherent simplicity in every problem, that we need to rigorously challenge the basic assumptions in order to achieve breakthroughs, that, "throughput, inventory and operating expense" are the only three relevant measurements in a manufacturing plant and how to set 'goals' for anything we do. But the most important thing that Eli taught us was how to "think".

In his last days, Eli seems to have been possessed. He was in search of the Holy Grail of management sciences – a unified theory of management. Being a scientist by training, he challenged himself and others to the limits of conventional wisdom by questioning the validity of fundamental assumptions that often lock us in a given state. His premise was that every situation can be improved no matter how much has been achieved in the past.

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Eli wrote 'Standing on the Shoulders of Giants' (SOG) in 2008 but it remained as a draft for a long time and he chose not to publish it. SOG, however, became the theme of what he taught to a select group of TOC experts and practitioners in his last days. "The Goal" has now published this article as a tribute to Eli and a reminder to the rest of us that there is always hope for the future if only we stick to his ultimate exhortation, "Never say, I know!"

Eli is no more. I often think that his ideas were far beyond his time. His ideas, simply because of their simplicity escaped the complex minds of today. Organisations that understood him and his thoughts derived enormous benefits, far beyond what the organizations rewarded him. But it is unfortunate that there were several who did not understand him. It is like the case of many fundamental researchers or original artists whose work gets better understood and recognized only after they are gone.

I have read the book, "The Goal" three times in the last 20 years. The first time was in 1992 on a flight from New Delhi to Paris. I read the 'plant' part in great detail and the 'life' part did not interest me then. The second time I read the book was in 2005 in preparation for my first meeting with Eli. It was a more balanced and wholesome reading of both the 'plant' and 'life' parts of the book. The third time was now as I was asked to write a foreword to the 20th Anniversary edition of the book. The 'plant' part sounded all too familiar, having implemented parts of it in Tata steel. I read the 'life' part in great detail and focused on Rogo the husband and Julie the wife. After I finished reading, I recounted the whole story to my wife. She listened patiently, looked up and said, "So, what is different to what you have been doing?"

I would encourage and urge everyone, students, managers and senior executives to read this book – the younger generation to read, understand and internalize the character of Alex Rogo and for the senior generation to be a mentor like Jonah – who allows Alex to invent the solution himself and thereby be charged by the emotion of an inventor whereas the more experienced and mature Jonah enjoys the spectacle of his pupil growing wiser and stronger.

Mr. B. Muthuraman
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