JOURNEY I

SYSTEMIC FAILURE

CHAPTER 1

WHERE WE START FROM

What we call the beginning is often the end
And to make an end is to make a beginning.
The end is where we start from.

—T.S. Eliot, *Four Quartets*

This is a book about problem-solving, but with a difference. We recognize three vital characteristics, which for far too long have been overlooked or neglected by problem-solving books.

First, we identify that while solutions undoubtedly "deal with" the problems to which they relate, they also create a new wave of problems in their wake. In our complex world, this problem-generating characteristic of solutions cannot be ignored, and problem-solving itself must take care not to become problem-spreading in nature. It has been widely recognized for some time that problems themselves can spread or cascade, as in the case of electricity

supply networks (e.g. New York City blackout) or the growth of cancer in the human body (e.g. prostate cancer in adult males). But the realization of problems elsewhere caused by the creation of a solution in some particular area of interest, removed from these affected other regions, is both alarming and unsettling. The way forward that we propose in this book gives due recognition to this phenomenon.

Second, the emergence of a class of person known as problem-solver, identified by skills in problem-solving, has reduced the burden on the class known as problem-owner, to the extent that the latter has effectively transferred the problem and subsequently lost ownership, and in so doing created a false picture for the former who cannot therefore avoid endowing the solution with the problem-spreading gene. This distinction of classes, one which effectively divorces the two, must be overcome, and problem-solving in our complex world must restore the vitality of problem-ownership among those who sense the problem in the first instance.

The third characteristic is something we can more easily recognize if we stand back from the first two. When a solution to a given problem also leads to a wave of new problems, then problem-solving essentially becomes problem-spreading. When problem-solving attracts a new breed of person, who become known as problem-solvers, then responsibility for the problem is in effect transferred—from those it first affects or who sense it, with attendant diminution in problem-ownership. We might say problem-solving becomes problem-dispossession. So standing back leads us to conclude that the originating problem is strongly connected to a host of "accompanying apparatus," including owners, solvers, and problem-solving approaches. It is this connectedness that marks out this third characteristic, which we believe has hitherto been sorely neglected and about which this book has much to say. Moreover, this book has much to offer by way of a responsive way forward.

Our way forward is what we call *systemic thinking*. It is a way of thinking that emphasizes connectedness and enables people to see the bigger picture; one in which owners, solvers, solutions, problem-solving methods, and problem descriptions are portrayed as a whole system.

As you traverse through this book, we see it as a passage into Worlds of Systems. As such, the book is in three parts, which we have rightfully named Journeys. We sincerely hope that these Journeys will form a coherent whole, that when you are done will bring you to a place you were not before you started. In Journey I, we describe systemic failure—an increasingly popular term among politicians *inter alia* for describing the meltdowns and near catastrophes involving multiple stakeholders and systems—as the representation of problems, which cascade. This term applies when there is evident lack of problem ownership coupled with piecemeal approach to problem-solving and reliance on unsustainable solutions.

When confronted with a problem that appears to be without solution, we apply frameworks from our intellect to shine a light on a potential path. In Journey II, we present a system of ideas, which helps us to form a language that better enables us to describe specific systemic failures, and in so doing forming more well-rounded problem descriptions. This is our framework for enlightening a path.

In Journey III, we introduce the idea of systemic diagrams, which we call systemigrams. These are our maps to systemic problems. We provide numerous examples of specific instances of how systemigrams have helped overcome piecemeal problem-solving by drawing together owners, solvers, problem descriptions, and relevant solution. Journey III gives the reader a comprehensive opportunity to learn what systemigrams are, how they are created and put to effective use, and why they are an efficacious approach to complex problem-solving.

These are our journeys into Worlds of Systems and systemic thinking.