The pattern that emerges is that the lead party who had heroically shoul-dered too much of the problem-solving responsibility is just one step away from deep frustration. This party will see the involvement of others as "inter-ference," and feel misunderstood and unappreciated in their implacable moti-vation. These are strong sentiments that easily turn into anger, and often cause them to stop listening to others altogether.

"FREEZE THE WORLD"

Conventional problem-solving processes tend to be curiously static. Appar-ently, conventional problem-solving requires us to stop the world, isolate the problem, and come up with a one-off solution. But in an environment that is very dynamic and open, this approach just isn't realistic: the influence of time and connectedness means that the borders around the problem situation are very permeable, and that the rules of the game keep changing over time. The presence of such a "freeze the world" practice is indicated by telltale signs like endless amounts of preliminary research and interminable working group discussions before a project is allowed to start. The problem solver tries to carefully understand the problem situation before deciding on an elegant and convincing solution. This approach is curiously nonexperimental, and under-lying it is the apparent need to attain complete closure before the solution is put into action. When the problem solvers realize they have failed to contain the problem-solving situation and are swept along in a dynamic process, or "thrown" into situations (Winograd and Flores 1986, quoting Heidegger) that are not of their making, they feel they are losing control. Forced to improvise when they are unwilling or ill-equipped to do so, they might just stop in their tracks. This is called the "freeze the world" syndrome.

"THE SELF-MADE BOX"

All organizations will initially try to approach a new problem in ways that have worked in the past. This reaction is completely understandable—it is prudent to avoid the investment and hassle that always accompanies change unless it is really necessary. Even organizations that pride themselves on being innovators in their field aim to be just ahead of the others, and avoid unwarranted innovation. But in these case studies, we have seen that there is a great reluctance to change tack even when these trusted practices are clearly not delivering the desired results. The organizations seem to be trapped by their habits.