

Sidebar: Designing Organizations as Systems

A typical organizational design depicts a series of vertical hierarchies of authority linked by a dozen or so end-to-end processes. Many of the vertical hierarchies compete with one another for such things as budget and revenue/profit credit, causing them to suboptimize around their own objectives. Suboptimization is the hallmark of anti-systemic behavior.

Understanding how system designs eliminate suboptimization and why they guarantee coherency begins with a rigorous definition of “system”: a word that is in everyone’s vocabulary, but to which most of us assign different meanings. The definition from Russell Ackoff, one of the fathers of the General Systems Theory, is specific, rigorous, and contains implications for principles to be followed in designing organizations:

A system is a collection of elements that interact to produce an effect that cannot be produced by any subset of the elements.

An obvious implication of this definition is that a designer must be concerned with specifying the interactions, as opposed to the actions, of organizational elements. Therefore, a systems designer needs a consistent way of representing interactions. For human social systems, the best solution is to make roles—rather than departments, divisions and subsidiaries—the organizational unit of choice and to define inter-element interactions as commitments to outcomes between two people: one in a supplier role, the other in a customer role.

Systems design is not the same as “systems thinking.”

System thinking is based on an understanding of the nature and attributes of systems. It is very helpful in discovering, diagnosing and sometimes correcting anti-systemic organizational behaviors. But experts in system thinking are often not good systems designers, and may not even be aware of the principles of systems design. That’s why auto mechanics are rarely good car designers and building contractors are rarely good architects.

The principles of organizational system design are not complicated or arcane. But they are typically unknown, and almost universally violated in large enterprises. Consider these five, ordered in the logical sequence of steps a manager would take to produce an adaptive organizational system design.

1. Establish **organizational purpose** as an effect: a change to be created in an entity outside the boundaries of the organization being designed (NOT in terms of an internal objective).

Example: "We exist to enhance our clients' business performance" vs. "our goal is to become the fastest-growing, most profitable company in our industry."

2. **Decompose** (deconstruct) organizational **purpose into** subordinate subsystems of **roles and outcomes**. (Do NOT integrate existing roles, processes or capabilities into larger components.)

Example: Create a new Role and Accountability Design as part of due diligence prior to a merger or acquisition. This should be done to specify the new value proposition that the merged entity will deliver and to understand what roles and capabilities will be needed to create this newly defined synergy vs. acquiring a company in order to benefit from cross-marketing and then launching a "post-merger integration project."

3. **Specify the interactions** between roles as an exchange of outcomes and effects (NOT the actions of roles as a sequence of tasks and decisions).

Example: "Here's a picture that shows a *structure for* action in terms of who owes what to whom" vs. "here's a picture that shows a *plan of* action in terms of the steps required to transform these inputs into these outputs."

4. **Make roles interoperable and modular** by using a standard protocol for negotiating, renegotiating and tracking commitments to outcomes (NOT by relying on the transmission of orders down the chains of command).

Example: Make individuals in customer roles the evaluators of individuals in supplier roles on the basis of whether or not negotiated commitments to outcomes were achieved vs. tasking managers to evaluate subordinates in terms of objectives assigned by the managers.

5. **Measure enterprise success** in terms of organizational purpose (NOT in terms of the rewards for success).

Example: "Increase in customer productivity" vs. "profit and share of wallet" as the organizational success metric.

Items 1, 2 and 5 apply to the design of both efficiency-centric and adaptive organizations. Items 3 and 4 modularize the organization, and enable it to adapt by rapidly reconfiguring capabilities into a best-fit match with the current opportunity or threat. (See ["FAQs on Organizational Systems Design"](#) for more on this subject.)

The principles of adaptive organization design have been successfully applied to organizations ranging in size from an internal department to a multi-billion dollar collaboration involving thousands of people. In [the case of Xerox](#), the design was of an enterprise-wide project, not of the enterprise itself. The result is a purposeful and coherent organization of roles operating inside a traditionally structured company.