Twelve companies of tomorrow

While we possess no crystal ball, we can imagine the next 20 years giving rise to global companies that exploit the new resource-productivity fundamentals and look different from today’s leaders. Here are 12 possibilities:

1. **Maximum Oil Recovery Enterprise (MORE)** companies would get more oil from wells. They would use advanced sensor networks and operating techniques to recover 60 to 70 percent of the oil in every field, up from the traditional 20 to 30 percent—reducing risk and reducing the need to drill in remote, difficult areas.

2. **Efficient Resilient Grid Operator (ERGO)** businesses would capitalize on the shift from an analog, hub-and-spoke power grid toward an integrated digital network. The new grid would connect many distributed-power generators. It would also incorporate storage so power can be generated at more efficient times, rerouted to handle shortages, and flow in both directions. Digital transformers sharply reduce power losses in transit.

3. **HOme Unified SErvices (HOUSE)** firms would reach into homes more completely than security, utility, and media companies do today, using data from mobile devices to provide services enhancing comfort and convenience. For example, this technology would not only anticipate and recognize your preferences for lighting, temperature, health services, news, education, and music but also use them as you move from place to place.

4. **Convenient Organizer Service for Travel (COST)** companies would efficiently handle travel details, such as rides, rooms, and tickets to events. COST companies would optimize routing and inventory—users would type in where and when they wanted to go and COST handles the rest, choosing among shared, electric, or autonomous cars, trains, and planes.

5. **Global Recovery of Waste (GROW)** companies would be the most profitable miners, using microfluidic technologies to recover high-value products in waste streams: gold and silver from consumer electronics, lithium from geothermal effluent, and high-value rare-earth metals from electronics, for instance. GROW miners would also provide heat, power, and fertilizer from organic waste.

6. **WAter DElight (WADE)** firms would use nonchemical-purification techniques and mineralization technologies to provide high-quality water for agriculture and the world’s best drinking water. Through partnerships that reduced waste, increased recycling, and provided networkwide leak detection and management in cities, such businesses would ensure that water systems needed new water for only 20 percent of their total annual requirement. The health benefits from expanded fresh-water access would more than pay for the infrastructure.
7 Fresh Organic Opportunities Delivered (FOOD) companies would be global, integrated organizations that locally produced high-quality, nutritious food using one-tenth of the water and energy of existing methods.

8 Lightweight Innovation Technology Engineering (LITE) enterprises would make carbon fiber cheaper than aluminum. Cars, trucks, ships, planes, and buildings will become safer and more efficient (and more pleasing, aerodynamic, and comfortable). Additive manufacturing allows for the quick replacement of parts anywhere. Carbon-fiber recycling helps close the loop and promotes a “circular economy.”

9 Government Operations Verified (GOV) firms would be low-cost service providers that let governments use standardized technology platforms to deliver personalized services—for example, passports and drivers’ licenses, health and retirement plans, and tailored career training and advice. Many private companies would deliver efficient, innovative services over the GOV platforms, like apps on mobile platforms today.

10 SEnsor Network SOLutions (SENSO) companies would give businesses trillion-point, integrated sensor networks and access to a marketplace of algorithmic analyses of sensor data. Much as Google search terms created a new field of research, these companies would give small ones access to big data and the tools to make business decisions using it.

11 Equipment As Service for You (EASY) enterprises would expand the experience many companies have with software as a service by developing businesses based on equipment as a service, but on a larger scale than today’s rental companies. Small businesses could get access to the most advanced heavy equipment, with remote-operations capabilities to handle high-value local requirements.

12 Basics All Supplied in Container (BASIC) firms would serve emerging markets and offer companies access to some of the least advantaged people in these regions by delivering essential infrastructure in rugged containers. This infrastructure might include solar power, electrical storage, cell-phone towers, phone charging and service, water pumping and purification, LED lamps, and Internet access (with dedicated channels for information and services). BASIC firms would bring low-cost energy, water, and communications to the next billion consumers in developing markets.