

# Industries

## Retail + CPG

The company turned a product that's fundamentally food into something that looks more like a software platform with continuous updates and an open-source ethos. That lets Soylent get the benefits of launching (hype, new learnings from your customers) on an ongoing basis. Soylent's customers are eager and enthusiastic about updates to the formula and changes to the way the powder tastes. 28,795 Reddit users are subscribed to the main Soylent subreddit, /r/soylent. Hundreds are reading about and reviewing different Soylent shipments at any given time.

Say you want to buy a mattress and you live in New York City. Casper knows this is a great market because the company can deliver in hours, not weeks. So it put a landing page up just for NYC and made sure that anyone searching for terms like "buy mattress NYC" would see it at the top of the search results.

Office management giant WeWork has been a major distributor of coffee, beer, and snacks to its tenants for years. In July, it launched WeMRKT, a new retail space inside WeWork buildings that will stock CPG products made by WeWork member startups. Participants so far include Barnana and Sunniva Super Coffee.

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1. Simplicity. Apply a holistic approach, starting with the consumer in mind. Address complexity drivers throughout the value chain.
  2. Lean Manufacturing. Combine a top-- down approach that focuses on specific costs and a bottom-- up approach that focuses on management skills.
  3. Network Optimization. Align the manufacturing network with a long-term vision of market evolution.
  4. Supply Chain Optimization. Focus on improving forecasting accuracy, inventory management, planning, and manufacturing systems.
  5. Managing Transportation Costs. Integrate transportation into strategic business planning to better manage rising costs, driver and capacity shortages, and other key structural challenges.

### Outcome

**Fewer Missed Sales.** Knowing where demand will occur ensures that the right inventory is in the right place at the right time.

**Higher Customer Service Levels.** With a deeper understanding of both consumer demand and subsequent retailer ordering behaviors, companies can more effectively deploy inventory to provide higher fill rates, improved on-time availability, and fewer stock-outs.

**Lower Working Capital.** Companies can operate with less inventory because they are more confident about demand.

More Efficient Manufacturing. Production schedules can be optimized through a better understanding of demand and the prevention of last-minute changes.

- Less Waste and Spoilage. With less inventory, companies are more likely to sell stock before it reaches its expiration date.
- Reduced Effort. Automating the forecasting function gives the sales force more time to focus on selling, and reduces the time management must devote to overseeing the forecasting process.

#### Four Management Systems for Successful Lean Programs

- Organizations can't rely on any quick fixes when implementing lean practices. But companies can achieve lean goals by focusing on these crucial areas:
  1. Operations. Improve processes and share best practices. Focus on improvement levers, standards, and lean tools.
  2. Business Requirements. Set the right objectives. Decide on customer segmentation, the right 80/20 trade-offs, and the choice between seeking breakthroughs or continuous improvements.
  3. Performance. Steer performance by understanding how to calibrate objectives and incentives, knowing which key performance indicators are best, and outlining the role of functional and central teams.
  4. Personnel. Free up collective intelligence by fostering cooperation, building the right capabilities, and learning how to increase job satisfaction.

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- Regardless of segment or circumstance, retailers should not be afraid to consider an end-to-end transformation to help them stay relevant; develop new offerings, categories, formats, and channels; or expand into new markets and territories.

Transformation journey consists of three important stages:

1. Funding the Journey. Retailers need a quick start and early wins from near-term actions, such as cost reductions or revenue boosts, to establish credibility for the leadership team and generate momentum for the larger effort. These steps also raise cash to fund longer-term investments or initiatives without requiring shareholders to adjust their earnings expectations. Most important, these measures demonstrate to employees and investors that management has a plan for success.
2. Winning in the Medium Term. Medium-term measures create deeper change in a company and establish (or reinforce) a differentiated value proposition for customers. These initiatives can include expanding into new segments of the supply chain; lean operations; and levers to improve the product, category, pricing, and promotions performance. They put the company on a stronger trajectory to grow sales, expand

margin, and execute against its strategy.

3. Building the Right Team, Organization, and Culture. The third stage is crucial for building a sustainable operating model over the long term. The CEO must be fully engaged in the transformation by communicating the overall vision, modeling the right behaviors, and holding himself or herself accountable for its success. Most companies also need to build up new capabilities and skills in their management ranks. Frequent, consistent, two-way communication is crucial to apprise employees of the current status of the eAort and celebrate wins along the way.

## Healthcare

BioAge Labs is an early-stage drug discovery and machine learning startup. The company's drug discovery platform is built in-part with data from the Estonian Biobank, a collection of data from 52,000 donors, which it uses to sift through omics data and medical records. BioAge is initially focused on diseases where aging is considered to be causal, such as Alzheimer's disease, with a long-term goal of addressing aging itself.

As healthcare becomes more customer experience and brand driven, Apple brings several advantages to the space

## Hightech

### Travel, Transport and Logistics

- Companies across all segments should design organization and governance structures to improve efficiency and differentiate themselves through IT and big data capabilities, HR excellence, dynamic value pricing, and balanced portfolios.
- Road--transport companies should design lean operations and improve their overall network's productivity to generate maximum revenues from their fleet. They should also improve capabilities for managing tenders and contracts, and focus their business on the most attractive customer industries and markets.
- Freight forwarders need to achieve scale and rigorously manage capacity. They can differentiate themselves by providing high--quality, end--to--end service and deploying an effective sales force
- Contract logistics providers should design standardized offerings that can be tailored to customers' needs. Building long-term relationships and becoming leaders in innovation will be essential for maintaining a competitive advantage.

## Agriculture

- Growers are using data to optimize agricultural practices by maximizing yield and reducing the need for agricultural inputs and natural resources. New digital tools will enhance transparency into the way that crops are grown, livestock is produced, and food is processed and distributed—and will help satisfy consumers' and regulators' demand for more information about the food we eat.

### The New Agriculture Paradigm

- The agriculture value chain used to be straightforward. Farmers grew crops to provide basic commodities for food processors, which then marketed and sold their products to retailers and consumers. It was essentially a supply-based model—the growers' primary goal was to maximize their crop yields and then look for markets for their crops.
- Now, a new demand-based paradigm is taking over, forcing farmers to balance the desire to boost yield with two other, increasingly critical factors.

### Challenges

1. First, growers are facing rising pressure from regulators and society at large to use the land, water, energy, fertilizers, and crop protection chemicals that go into agricultural production in a more sustainable and environmentally conscious way
2. Second, consumers around the world—particularly in North America and Western Europe—are demanding healthier, safer, more nutritious food.
3. Newly combined companies such as Corteva (the agriculture division of DowDuPont), ChemChina and Syngenta, Bayer and Monsanto, and BASF (which bought parts of Bayer's Crop Science division) will likely control an even larger share of the business in the future.

### Strategy

1. Enhance customer proximity to truly understand customer needs and value.
2. Nurture an innovation-driven and customer-centric culture throughout the organization.
3. Digitize the core of the commercial organization including data-driven marketing, a digitally enabled sales force, and next-generation pricing.
4. Create new customer-tailored and digitally enabled offerings to meet specific customer needs.
5. Continually improve the go-to-market model to capitalize on new opportunities

## Finance

## Automotive

- In a recent BCG survey of 3,000 car shoppers in various parts of the world, we found that the vast majority (95%) spend more than four hours doing research online before they ever visit a car dealer. (See Exhibit 1.) We also found that four out of five car buyers jump between browsing for information online and visiting dealers or other auto sellers
- Another change is that they don't visit dealers as often, a sign of dealers' diminished impact. Over the past decade or so, total dealer visits per sale have dropped from about four to 1.4.
- Ride-hailing services such as Uber and Lyft operate in large parts of the world and have changed attitudes about car ownership, which could drastically affect sales and eventually lead to fleet sales playing a larger role in the industry.
- Drivers who have good credit scores can use facial-recognition technology to sign up for a three-day test drive of models from Ford and other participating automakers. According to the company, the sign-up process takes about 10 minutes. Alibaba expects to open similar auto vending machine-type centers in Beijing, Hangzhou, and elsewhere in coming months, and it may make the technology available industry-wide in the future.

## STRATEGY

1. No-Regret Moves. Starting at the beginning of the sales funnel, automakers and dealers must improve the way they generate sales leads.
2. Test-and-Learn Ventures. While taking steps to streamline marketing and sales, OEMs and dealers must also devote resources and personnel to testing new projects to prepare for the various future scenarios that could take over the market. Projects should incorporate agile ways of working so the organization can generate ideas, test them, and adapt quickly to changing environments or market trends.
3. Include contingencies to fast-track changes. OEMs should build into their transformation plan the ability to fast-track changes in response to unexpected major market disruptions that threaten the status quo. A disruption could be a new market entrant, such as Tesla when it shook up the industry by selling high-end electric cars from showrooms in suburban shopping malls
4. Make people a key part of the transformation. New ways of selling require personnel who have new skills. Automakers and dealers must work together to invest in training and technology to help existing personnel—in particular, dealer sales personnel—obtain those skills. In bygone days, dealers needed salespeople who not only knew a lot about the cars they sold but also were comfortable using aggressive tactics to close a deal. As consumers do more of their own research before visiting a showroom and want a more collaborative experience, dealer personnel must develop appropriate customer-service

skills. We see auto dealers' showroom staff operating in a similar manner to Genius Bar staffers in Apple retail stores, answering questions about product features and options, and providing customers with other concierge-style support. In the auto industry, companies such as Tesla already employ in-store concierges.

## Aerospace

- We are designing, over six to ten years, a very complex product—probably the most complex product to be manufactured. And each time you get it wrong, for whatever reason, you have to modify it. And digitization will make a difference of hundreds of billions of dollars in redesign.
- Typically the opportunities involve re-creating digital continuity. When you look at the data across the supply chain and down to the operations level for each aircraft, you start to visualize larger patterns that you can fix much more easily than if you address discrete issues in piecemeal fashion. Otherwise, the silos of the industry prevent you from seeing these patterns.
- Probably the starting point was a series of exploratory visits in Silicon Valley. We were also affected by new entrants, like SpaceX in the space business and in UAVs. Not because we were always engaged in direct competition, but because the new entrants were starting to enter a new dimension. The range of cost was absolutely staggering, and the innovation potential of these companies was very impressive. Also, the introduction of complex innovations close to our business led us to question our own methodologies. [AIRBUS]
- Understanding the power of data integration led us to build a data lake for Airbus. And now, for the industry, we have the Skywise platform, where we convinced ourselves through pragmatic, use -case- driven implementation that the technology was ready for us to leverage the incredible amount of data that we have—in our factories and engineering departments, and in service aircraft, and on board the aircraft, and in the supply chain—to resolve use cases.
- Yes, we currently have nine roadmaps of digital capabilities that we are sourcing, partnering, and prototyping in our business for implementation and industrialization. These range from IoT [Internet of Things] to virtual IoT to competence in the Industry 4.0 revolution around cobots, robots, and additive manufacturing.
- How do you see Airbus in five years? I don't see it precisely, and I truly think this is a good answer. There are some things about it, of course, that are visible. I will implement the digital workplace and Industry 4.0 on the shop floor. We have clear targets about digital design and manufacturing deployment and new ways of working. At the same time, even in aerospace, with Skywise especially, we are starting to see improvements. Thanks to digital, we are piloting potentially new business models, where we are starting

to talk about a platform for aerospace, and where we are already talking about third-party developers and APIs [application programming interfaces] for open ecosystems. We're starting to sound very techy and very software. So I really believe it's leading to far greater efficiency at an industrial scale of several billion dollars. Each time we have applied these technologies, we have been looking for two-digit improvement—nothing less—so we have to choose the right fights. But the reward is there.

#### CHALLENGES AIRLINES ARE FACING

1. Silos. KPIs addressed in isolation, single department mentality between planning and execution cycles, and independent analytics teams.
2. Lack of Insights. Multiple data sources, meaningless meetings and reports, and reinventing the wheel every day.
3. System Focus. Limited differentiation and testing, “keep the system running at all cost” mentality, and frontline not allowed to use judgement or involved in improvements.
  1. Integral Decisions. Optimizing tradeoffs, integral perspectives on planning and execution, and co-creating and implementing between analytics and frontline stats
  2. Actionable Insights. Understanding systematic issues and trends, perspectives on both internal and external performance, and support tools with live dashboards acting as a single source of truth.
  3. People Focus. Appetite to test new ideas and fail fast, operations control focus on the most important decisions, and frontline stats are equipped and engaged to decide and inform

#### Electric Power

#### Public Sector

#### Metals + Mining

- Next-- generation mining is all about fundamentally transforming mining methods and operating models through step changes in physical processes, the way people work, and the use of information and technology in order to deliver improved economic, safety, and environmental outcomes.
- For mining, the so-called “Industrial Internet” is empowered by five important technology trends:
  1. Low-cost IP--connected sensors and actuators

2. Powerful on-board control systems
3. Ubiquitous highspeed network connectivity
4. Scalable variable cost processing and storage
5. Advanced algorithms and analytics.

Mining's next generation will be marked by safer, more productive operations that are less subject to the constraints of geography and better positioned to make the most of capital expenditures.

Oil



## Post and Parcel

- Government-owned postal organizations are being challenged to transform their traditional role as domestic mail carriers into preferred e-commerce shipping partners, and in some instances to become global parcel operators.
1. Understand the evolution of market requirements. Focus on overall volume, product mix, and future service definitions—by customer and by product segment. This understanding should be based on deep knowledge of both sender and receiver requirements (consumer and business).
  2. Develop a clear view of the competition—both direct competition from other postal operators and indirect competition from other communications and media channels.
  3. Determine the target picture of the service and network model. Account for various tradeoffs, such as network economics versus product service differentiation. Similarly, evaluate whether to use pricing to match volumes to capacity versus designing enough capacity to accommodate all possible volumes in order to prevent competitors from building economies of scale.
  4. Define the phasing of the long-term migration. This requires the evaluation of different options to sequence the major changes required to reach the target model. Consider the viewpoints of all stakeholders: senders, receivers, employees, unions, regulatory bodies, and shareholders.

## Insurance

- In most cases, however, their mindsets are either additive (focused on using data science to incrementally augment what they already do) or aspirational (dedicated to building capabilities that may yield results only in the very long term)
- The only way to realize the full potential of data science is to use it to systematically shape the what and the how of decision making, thereby redefining roles and reshaping organizational cultures.
- To overcome their hesitation, insurers should focus on three dimensions when managing their initial investments in data science projects:  
Certainty—the likelihood of success  
Time—the speed of execution  
Value—the benefits relative to costs
- Viewing their objectives through such a 3D lens, insurers have started their data journeys along one of three paths.
- Most have invested in a large number of small projects that have a high likelihood of success and should show results reasonably quickly, but are unlikely to generate much value. Such projects may yield interesting tools, but their impact on the company's top line and bottom line will be marginal.
- Proofs of concept for business ideas in narrow, marginally strategic lines of business and geographic markets. Those efforts may yield interesting anecdotal evidence about the potential of data-based decision making, but they rarely have a significant impact on the organization or move the needle in critical parts of the business.
- Still other insurers have kicked off experiments that amount to moon shots, embodying a research thrust but likely to have limited commercial impact. Such projects are meant to overcome technical challenges in the long run, if ever, and thus contribute to valuable business strategies. Although intriguing, they usually end up as thought leadership seminars and have low relevance to insurers' financial performance.

But most such projects don't occur at the efficiency frontier of certainty, time, and value; and as a result, their connection to gaining scale and boosting profits is tenuous.

- Insurance companies would do better to start out by addressing the sweet space in the three- dimensional vector—what we call core projects.

Core projects are problems that companies will be able to solve (certainty) in a 12- to 24-month period (time) to produce financial results that make a difference to the insurer's bottom line (value).

- Predicting Cash Flows in Real Time. Most insurers currently analyze aggregate data in spreadsheets to predict the adequacy of their reserves to cover payments when adverse events occur. Their approach to predicting loss ratios and cash outflows is prone to a great deal of noise, and usually it provides snapshot views in hindsight
- Deepening Customer Understanding. Until now, quantifying the future net present value of a customer relationship by measuring how, when, and why it will change hasn't been a consistent priority for insurers. Building data-based applications that can assess the attrition risk, embedded value, and cross-selling potential of each customer can shape insurers' capital allocations.
- Augmenting Human Judgment with Machine Intelligence. Historically, in commercial insurance, decisions about underwriting and claims have relied on expert judgment.
- The art of Managing Data science Projects  
To successfully execute data science projects designed to alter their decision-making processes, insurers must focus on five issues:
  1. Ensure that top management sponsors all data science projects and gives them constant attention. At least once a month, insurers' executive committees should discuss the progress made, with each initiative staying on its agenda for 24 to 36 months. Throughout the process, C-suite leaders should develop and refine a point of view about how data-driven insights will deliver innovation
  2. Involve all stakeholders at every stage. Top management must formally acknowledge businesses as product owners when those businesses set up pilots. At the same time, the IT function must be free to build the technology stacks, and the data owners should monitor governance issues
  3. Establish a centralized data science function to create critical mass. The organization structure can turn into a hub-and-spoke arrangement or become more decentralized over time.
  4. Develop an obsession with scaling or industrializing experiments. After setting up a few value-creating experiments, insurers must solidify their learning quickly—understanding the business issues, building models, and assessing their feasibility.
- To ensure that its choice of pilots matched its vision for change, the planning team stipulated that every pilot must meet at least two of the following four criteria:
  1. It must offer a better definition of a business problem.
  2. It must make better use of data, in the form of either a larger volume of data or new sources of data.

3. It must lead to the creation of new data-based tools.
4. It must foster the development of data-based technologies.

- To execute the strategy, the company first recruited a central pool of data scientists.

Insurance companies are not magnets for digital talent, but the company managed to attract top-notch talent by arguing that it offered opportunities to tackle “wicked” problems and to extend the boundaries of how the company worked

- The insurer also took care to develop some executives who could serve as conduits between the digital function and the businesses. These were not analytics practitioners, but analytically savvy agents of change who worked with the businesses to identify their key problems and connected them with people in the central function who could help them overcome those challenges.
- Over time, the insurer added a small corps of software engineers who could deliver data science as a service—as opposed to engineers who could only write code—and could structure requests and need appropriately
- In the first year of full operations, the company generated a return of approximately 5 times its investment; a 15-times return on investment seemed likely in three years’ time.

Data science is not hype. It has real potential.

- Data science can help deliver steady profits, and it can also serve as a powerful tool in decision making. Leaders do, however, need to reimagine its potential for core activities and to invest boldly in developing digital capabilities. Indeed, it is better to err on the side of overinvestment than underinvestment in this regard.
- Above all, insurance CEOs must commit themselves and their organizations to digital transformation, realizing that data is reshaping the industry’s value chains in ways that represent a step change from the past.

## Telecommunication

A data explosion that doesn't generate revenue growth. Ongoing market consolidation. Value migration. Rapidly changing business models. Technology disruption. It's all changing the face of the telecommunications industry. Providers who can safely navigate these waters and keep value-based growth top of mind will emerge as winners, regardless of their size, maturity, or geographic location. How? By purposefully overhauling their operating models and focusing on growth beyond the core.

# PHARMA

- DCG provides fresh insight by identifying and quantifying the circumstances surrounding the prescription of treatments.
- They could not agree on how to allocate scarce sales and marketing resources among the products, how to promote each product, and which messages and tactics to double down on and why. Extensive primary and secondary market research delivered a host of conflicting results but no answers about where to find a source of new growth.
- Developed initially for consumer goods companies, DCG has proved highly accurate at assessing and predicting demand in multiple industries, among them, travel, hospitality, retail, and financial services. DCG is a two-stage process. The first stage uncovers the principal drivers of demand and determines how to act on them; the second sets a strategy and a plan of execution (across functions) for the organization to follow.

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- Research and development is the lifeblood of the biopharma industry and the ultimate source of the economic value it creates.
  - R&D allows companies to generate new products that will eventually lead to growth and save lives. The ultimate importance of R&D is noted clearly in the more than 30% of market capitalization attributable to the value of the most successful biopharma company pipelines.
  - Biopharma companies first and foremost must construct R&D portfolios that will drive value creation.
  - This requires a thorough look at their organization's ability to be first-in-class or truly best-in-class in the therapeutic areas where they decide to play.
  - the most successful R&D organizations have a deep understanding of their distinctive capabilities and leverage these to gain competitive advantage. A strong focus on operational excellence and innovation are critical to ensure shorter time-to-market.
  - overcome the critical organizational dynamics that have been a barrier to R&D productivity.
  - Through approaches that leverage "Smart Simplicity," these organizations
  - have increased productivity despite R&D investments through more targeted drug development

- improved decision making and sharper prioritization, as well as through better collaboration with the commercial organization.
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- The past two decades can be seen as a golden age for generics, thanks to a strong pipeline of blockbuster drugs coming off patent and the persistent push to cut costs by insurers and governments.
  - Competition has intensified, particularly in undifferentiated solid oral-dose products.
  - Efforts by generics companies to address these challenges by cutting costs and generating scale through vertical integration have largely run their course. Maintaining the industry's momentum will require new approaches.
  - An important strategic consideration now is to drive differentiation in both drugs and markets served. By necessity, that will mean more complex and hard-to-make generics with higher barriers to entry, such as inhalables and patches, or a focus on areas with fewer reimbursement pressures.
  - Biosimilars could also offer promise for long-term growth for companies that can navigate the near term challenges. The resulting, more sophisticated product portfolios will require differentiated commercial models and better pricing strategies with more skilled engagement with payers and important accounts.
  - Successful generics companies also need to exploit M&A and partnership opportunities, targeting in particular relationships with companies that have differentiated and sustainable products themselves or presence in fast growing markets.
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- Exploiting technology is a complex challenge. Leaders in biopharma are taking a more strategic approach to technology in several important areas: digital, big data and advanced analytics, simplified technology, capability building, and technology-enabled transformation.
- The winners in the digital arena will be companies that take an agile approach to strategy, digitize the core business, create disruptive products and services, capture value from data, and build capabilities and a differentiated ecosystem

- Many have made well-intentioned investments, acquisitions, and attempts at decentralized, organic business development. But more often than not, the resulting hodgepodge has left senior leaders contemplating how to create value from a portfolio of service businesses that are dispersed across the company, buried in product-based business units, and generally isolated and segregated.
  - To unlock real value, service-based businesses must be scaled up. This requires an approach that drives service revenue and profits in addition to product sales.
1. The first and biggest part is traditional product-related services, where there is plenty of room for growth. Sales of medtech companies' services, such as the financing, maintenance, and repair of small equipment and surgical devices, are growing at 4% to 5% a year—the upper range of sales growth for traditional medtech products
  2. The second and fastest-growing part is value-added services. Making money in services also depends on adopting a service-oriented business model, which will require making choices—ones that may differ significantly from the choices made under a product sales model.
  3. Medtech companies should ask themselves the following questions:
    - a. How should our company-wide portfolio of service offerings be characterized and managed?
    - b. Where should we be investing or divesting across the services portfolio?
    - c. How should we extract the most value from traditional product-related services?
    - d. How should we move beyond small bets to scale up the services that are core to a broader solutions offering?
    - e. For which product-related services should we adopt new digital tools and build new capabilities?
    - f. Which organizational capabilities should we develop internally, acquire, or obtain through partnerships?
- Customers buy services from medtech manufacturers less than 40% of the time (using third-party providers or self-servicing the remainder of the time). And medtech companies successfully attach product-related service contracts to only approximately 33% of new-equipment sales.
  - Customer service satisfaction levels, as measured by the net promoter score, are above average, from 45% to 55%, but those are still far from world class. (Apple and USAA score above 80%, for example.)
  - Strategic Intent. What is the role of services in the company's business portfolio? Along a continuum from the costs of doing business to the differentiated drivers of value, where does the current service offering stand?



- The Service Delivery Model. Companies will need to develop a model and processes for delivering high-quality services. In fact, some services or components of services may be more effectively outsourced and delivered by others
- Cultural Change. Because few medtech companies actively sell services, a cultural change toward a more sales-oriented way of working will likely be required. Most companies will need to overcome internal barriers in order to align the organization around the strategic role of services, create the perception that services are a critical component of the initial product sale, and embed the expectation that everyone contributes to the sales process.
- Adopt feedback loops with product development to ensure design for serviceability, product differentiation, and connectivity that reduces down time by, for example, enabling predictive maintenance.

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- Medtech companies have also been experimenting with value-added services, striving to help their provider customers achieve better patient outcomes and operate more effectively while generating new revenue streams for themselves.
  - Value-added services can supplement health care procedures and add value along patient care pathways. But the investments can be significant, and for med-tech companies themselves, unlocking real value means scaling up service-based businesses by driving service revenues and profits. This requires a different approach than the traditional focus on product sales.
  - The biggest part of the market is product-related services, but value-added services is the fastest-growing segment. Some categories are seeing annual growth rates approaching 50%.

#### Services That Provide Links to Patients Beyond Episodes of Care.

Leveraging smart devices and digital technologies to offer services—such as remote patient monitoring and data collection—can extend the traditional parameters of care, adding value for patients, providers, and the medtech company.

- Devices That Represent More Than 20% of the Overall Cost of a Procedure. The greater the role of a medtech device in a treatment or procedure—and the device's cost as a percentage of an overall cost is a good proxy for determining this—the more the provider looks
- to the medtech device partner for related clinical assistance or a risk-sharing solution linked to outcomes, particularly in the context of value-based care.

- Products That Can Benefit from Clinical Differentiation. Services can help differentiate a product in a crowded marketplace, improve outcomes by producing results that the product alone cannot achieve, and provide access to profit pools along the continuum of care that are not available from product sales alone.

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- Some of the most innovative companies—so-called “high science” companies—are outperforming their peers.
  - While success stories vary in detail, certain innovation levers seem to increase the likelihood of success. They include:
    1. Placing big bets on fewer, but larger innovation projects  
Moving from traditional, incremental product innovation to disruptive and customer--focused technology and business model innovation
    2. Finding the right mix of internal and external innovation sources
    3. Leveraging world-class, clinical-trial capabilities to create medical or financial proof early on
    4. Establishing greater alignment within the organization

