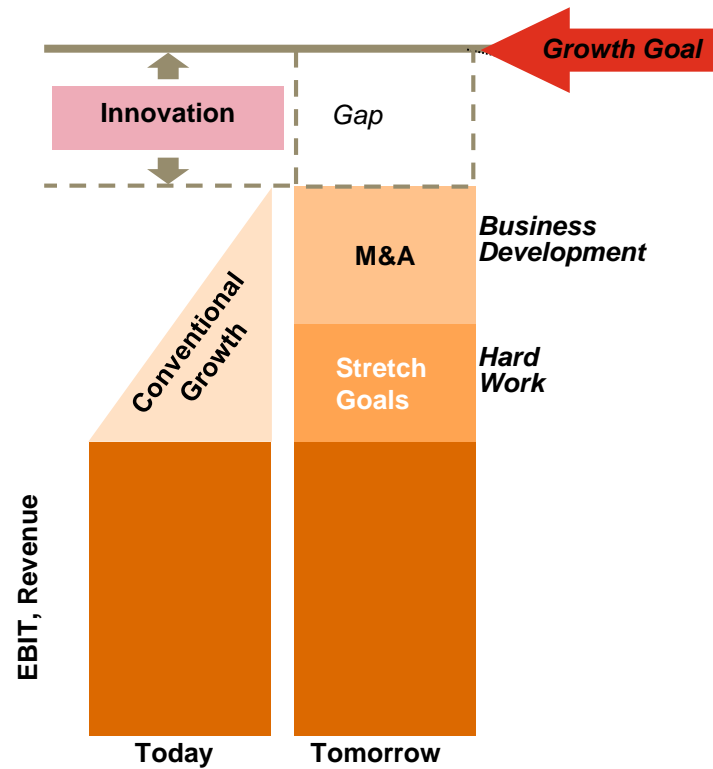


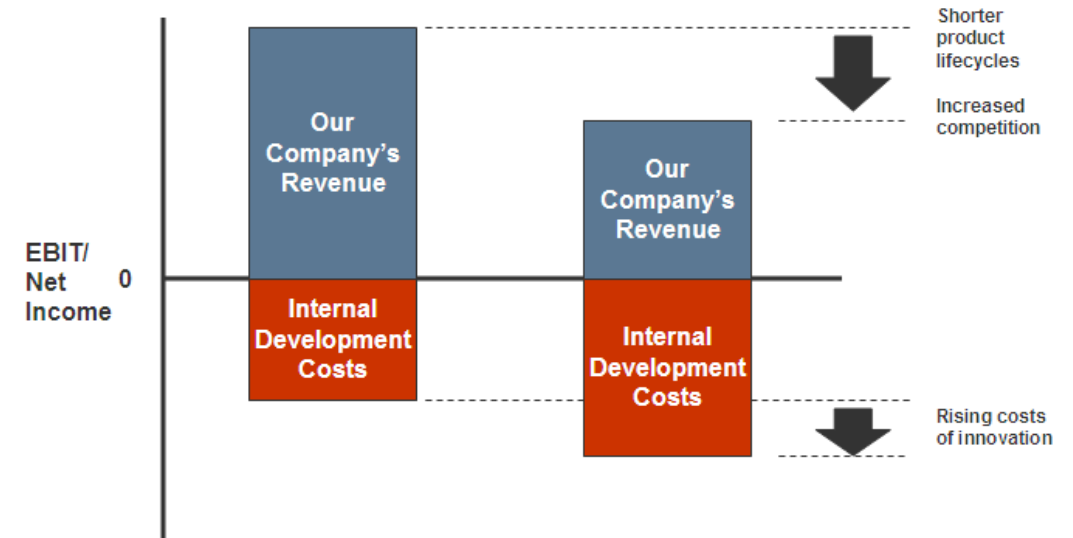
Innovation as an imperative

Ever-increasing challenges to achieve growth goals

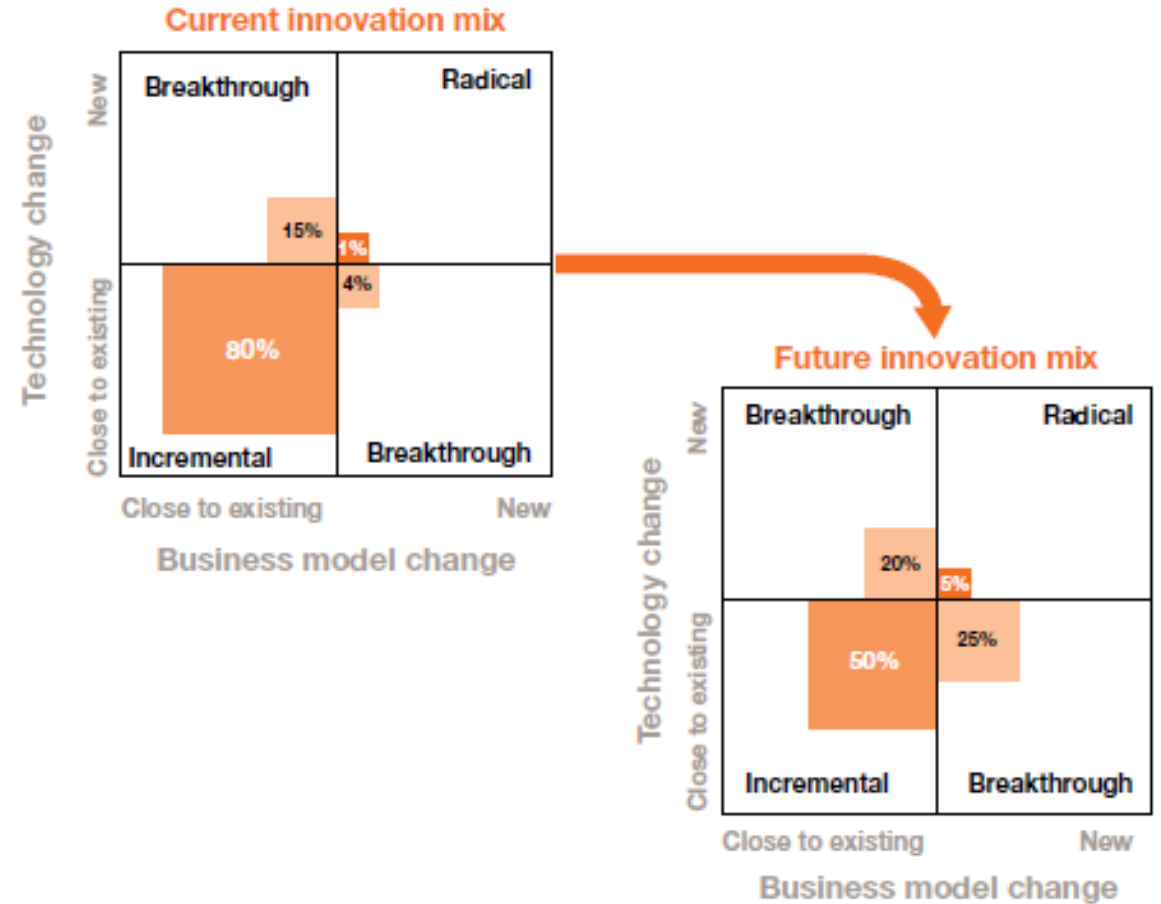
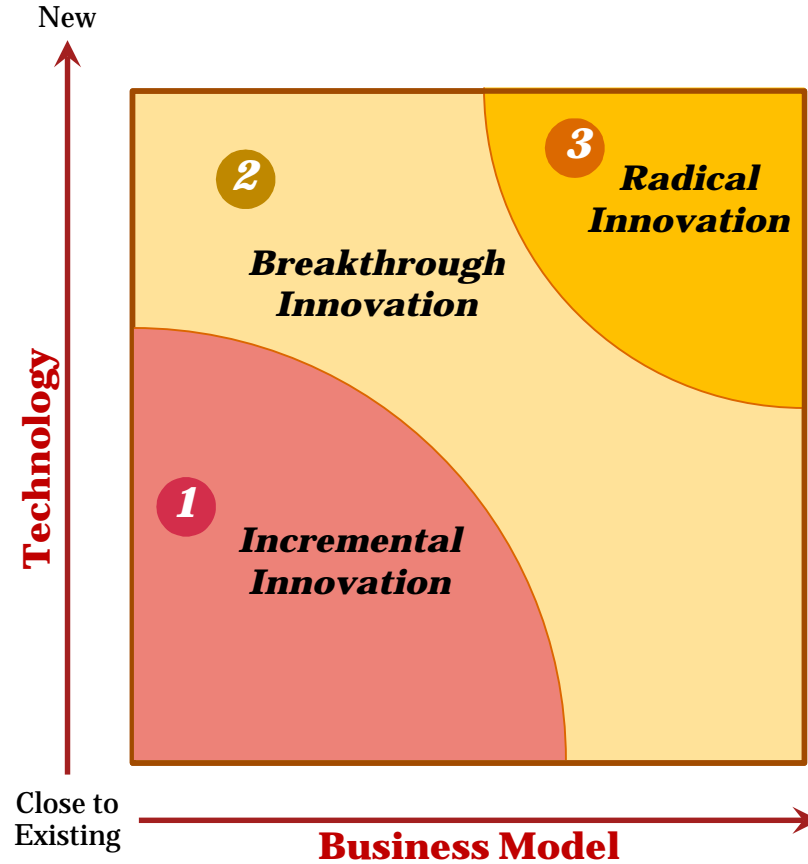
Today's Growth Realities...



...Pressure Innovation Economics



Innovation Strategy - Different innovation types serve different objectives

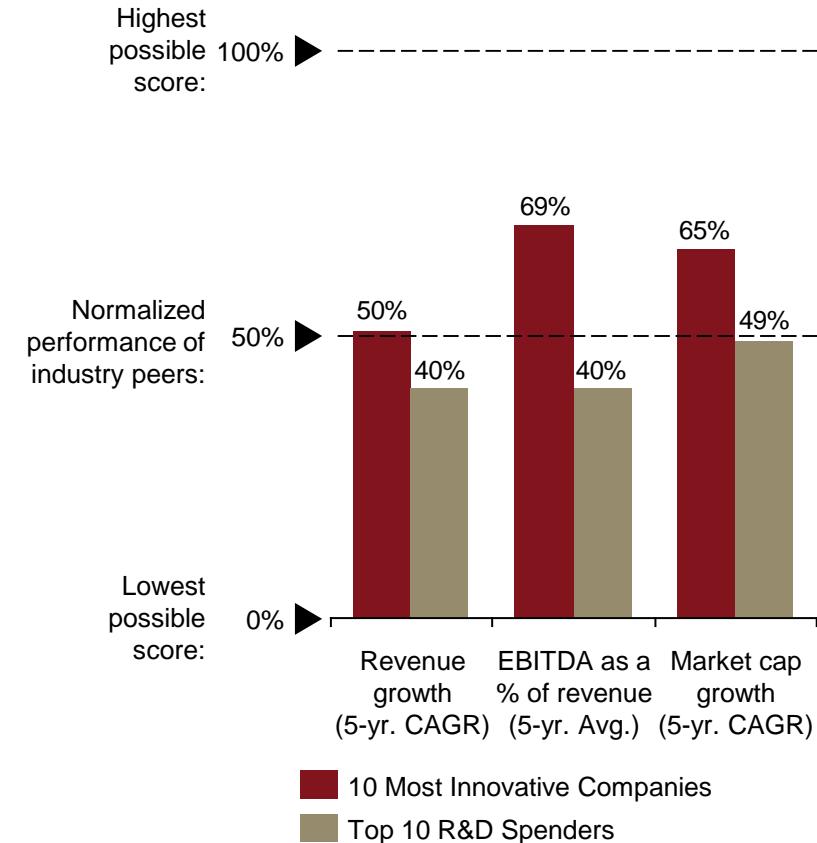


Source: PwC analysis.

For seven straight years, the 10 Most Innovative Companies have outperformed the Top 10 R&D Spenders

10 Most Innovative Companies* vs. Top 10 R&D Spenders

Rank	10 Most Innovative Companies	2016 R&D spend (US\$ Bn)	R&D intensity	Top 10 R&D Spenders	2016 R&D spend (US\$ Bn)	R&D intensity
1	Apple Inc	8.1	3.5%	Volkswagen AG	13.2	5.6%
2	Alphabet Inc	12.3	16.4%	Samsung Electronics Co Ltd	12.7	7.2%
3	3M Co	1.8	5.8%	Amazon.com Inc	12.5	11.7%
4	Tesla Motors Inc	0.7	17.7%	Alphabet Inc	12.3	16.4%
5	Amazon.com Inc	12.5	11.7%	Intel Corp	12.1	21.9%
6	Samsung Electronics Co Ltd	12.7	7.2%	Microsoft Corp	12.0	12.9%
7	Facebook Inc	4.8	26.9%	Roche Holding AG	10.0	19.9%
8	Microsoft Corp	12.0	12.9%	Novartis AG	9.5	19.2%
9	General Electric Co	4.2	3.7%	Johnson & Johnson	9.0	12.9%
10	International Business Machines Corp	5.2	6.4%	Toyota Motor Corp	8.8	3.7%



Source: 2016 Global Innovation 1000 study. The 10 Most Innovative Companies are named by respondents to the 2016 survey of global innovation experts.

*Facebook did not have Market Cap data spanning back 5 years.

These Five Behaviors Do Create an Innovation Culture

- 1. Build collaboration across your ecosystem**
- 2. Measure and motivate your intrapreneurs**
- 3. Emphasize speed and agility**
- 4. Think like a venture capitalist (VC)**
- 5. Balance operational excellence with innovation**