Engineers address the hype cycle when designing data-rich systems.

The world today has seen many advancements, and that will continue. Technology is the use of scientific research for practical human benefit or the modification of the human system. Each new year ushers in a slew of cutting-edge technologies and applications businesses implement to improve their operations and database management. To implement new technology, the organization must know if it is mature enough or if further research is needed. Gartner established the hype cycle, which depicts a technology's life cycle stages graphically. According to Fenn's book, the Hype Cycle comprises five different components.[[[1]](#endnote-1)](file:///Jackie Fenn and Mark Raskino, Mastering the Hype Cycle/ How to Choose the Right  Innovation at the Right Time (Boston, MA/ Harvard Business Press, 2008), 7.) The audience becomes aware of the early hype of an idea. Here, word of the breakthrough spreads swiftly. A new product, company wants to launch. The engineer must analyze the new product thoroughly to determine the future success of the product. In the second phase, the Peak of Inflated Expectations, Engineers tests the new idea. The press is positive. After excitement rises, disillusionment sets in. Consumers lose interest in an idea after the first enthusiasm and buzz. This happens when numerous adopters, including corporations and sectors, forsake a new technology due to wrong public perception. The engineer can gain insights by analyzing early product datasets to find the possible implications of a new product that can cause disillusionment. The invention may still need to be added to the Slope of Enlightenment of the Hype Cycle. Many firms' targeted testing and actual experience enhance technology applicability, risks, and benefits. Collateral financing assists Slope manufacturers. Second and third-generation goods and development processes and tools are introduced. Service lowers as a proportion of sales. Early adopters receive advantages and learn where the innovation may be applied successfully. When an innovation's long-term benefits are built into daily activities and work practices, it is at its most productive. This makes adopting it less risky. Each supply chain stakeholder is responsible for their own production. Their goal is to finish their puzzle piece rather than the whole. Manufacturer data, for example, focus on how they make an element, not its end use or the knowledge needed to inspire a design or how to operate or maintain it. Each party standardizes and optimizes for its benefit. So, Engineers will ensure that the supply chains are cohesive; people store and manage data similarly.[[[2]](#endnote-2)](https://www.bimplus.co.uk/driving-adoption-dat-rich-design/)

According to Mastering the Hype Cycle, engineers should balance the three criteria.

1) The innovation's worth to the firm;

2) Its maturity;

3) Company's risk tolerance.

Not all technologies or tools are helpful in all institutions. The value of an invention should be measured against its maturity, and where the firm intends to enter the cycle may depend on its institutional personality.[[[3]](#endnote-3)](https://doi.org/10.5860/llm.v28i4.7083) Adoption decisions depend on the company's needs and stakeholders. Engineers should evaluate risk tolerance in addition to innovation value and maturity when designing data-rich systems. In Mastering the Hype Cycle, defining an organization's personality may assist in managing risk. In decision-making, engineers must identify a company's superior qualities. During the Plateau of Productivity, Type C enterprises prefer to let others take risks. Type B firms seek the hype cycle midway. Type A organizations teach them, but they want to be current. Engineers must also know the hype cycle's flaws: Too-early, too-soon, or too-late experimentation with a novel idea. Engineers must refrain from employing or abandoning technology when expectations are high or low. The Hype Cycle explains why the recommendations of technology planning committees may differ from media stories. Planners of technology caution against excessive expectations. When designing a data-rich system, engineers must maintain the below critical findings: Overlook the hype. Accept only if it is strategic. Let others learn from their mistakes. In the Trough of Disillusionment, technology planners advocate examining the technology now because there are robust products in development and practical knowledge on how to use it.

**Application

Description automatically generated with medium confidence**Appendices:

**Figure 1.** [**[[4]](#endnote-4)**](https://en.wikipedia.org/wiki/Gartner_hype_cycle)

Chart

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**Figure 2.** [**[[5]](#endnote-5)**](https://www.gartner.com/resources/770700/770739/Figure_1_Hype_Cycle_for_Data_Management_2022.png?reprintKey=1-2B6AXOGW)

References:

1. Jackie Fenn and Mark Raskino, Mastering the Hype Cycle: How to Choose the Right

   Innovation at the Right Time (Boston, MA: Harvard Business Press, 2008), 7. [↑](#endnote-ref-1)
2. <https://www.bimplus.co.uk/driving-adoption-dat-rich-design/> [↑](#endnote-ref-2)
3. <https://doi.org/10.5860/llm.v28i4.7083> [↑](#endnote-ref-3)
4. <https://en.wikipedia.org/wiki/Gartner_hype_cycle> [↑](#endnote-ref-4)
5. <https://www.gartner.com/resources/770700/770739/Figure_1_Hype_Cycle_for_Data_Management_2022.png?reprintKey=1-2B6AXOGW> [↑](#endnote-ref-5)