
# TURNING INFORMATION INTO MONEY

## BECOME A DATA-DRIVEN ORGANIZATION

# What's Inside



# Intro

In today's world, Information is the only asset a company has to make informed decisions and guide strategies that can ensure survival through the exponential changes taking place. Already companies failing to change are disappearing after many years of existence.

No longer can you rely on gut feel or conventional wisdom to make the decisions and design the strategies that will move your company forward. You must learn how to turn your information into money and ensure your company is ready to take on the challenges of an exponentially changing world. Your company's very existence depends on it.

In this eBook we'll help you understand the nature of this Information explosion and how Cadeon has successfully tackled this problem with our clients – how we literally turn Information into money.

*From the beginning of time until 2003 humankind created 5 exabytes of digital information. In the year 2010, the human race is generating 5 exabytes every two days. By the year 2013, the number will be 5 exabytes produced every 10 minutes.*

***Eric Schmidt, Executive Chairman, Google***

# The State Of Exponential Growth

# What Is Exponential Growth?

## The State of Exponential Information Growth

An Exabyte is a unit of information equal to one quintillion ($10^{18}$) bytes, or one billion gigabytes.

This is a staggering amount of information. Schmidt's message is that the growth of digital data is exponential and the result is we are overwhelmed – literally exhausted – and as he indicates, this growth of data is only going to accelerate going forward in an exponential way – we are experiencing all of us exponential information growth.

## So how big is exponential growth?

# The Difference Between Linear and Exponential Growth

## The State of Exponential Information Growth

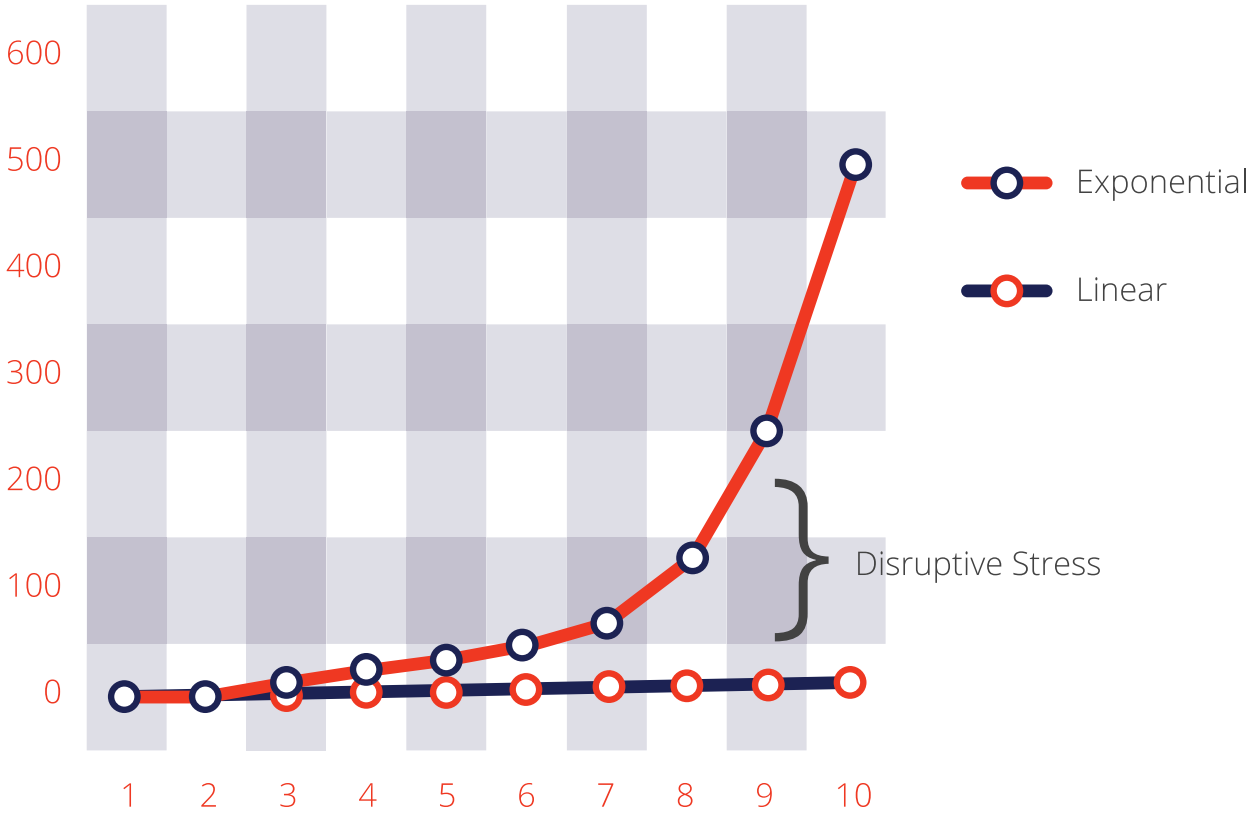
We've been fortunate to meet and listen to Peter Diamandis on this very topic. Peter is founder and CEO of the X Prise Foundation – the organization responsible for the competition to send the first privately developed rocket with three passengers into space. Peter is an amazing individual and you are encouraged to listen to his 2012 TED talk and read his book "Abundance". In his talk Peter described how humans have evolved to think linearly but now live in an exponential world. He goes on to explain the difference between linear and exponential growth. Here is how he did that:

- If I take 30 steps from where I stand, I'll end up approximately 30 feet away – this is a linear progression.
- If instead I take 30 exponential steps – in other words each step is double the length of the one before where do you think I'll end up?
- 30 exponential steps will take me 26 times around the world!

# The Difference Between Linear and Exponential Growth

## The State of Exponential Information Growth

**Peter Diamandis uses a graph like the following to demonstrate the difference between linear and exponential growth:**




Note that in the early period of exponential doublings, it is difficult to distinguish the difference between linear and exponential growth.

When the difference starts to appear and the difference becomes dramatically noticeable, that difference becomes the source of disruptive stress.

It is this disruptive stress that is the source of the exhaustion that Eric Schmidt spoke of around information.

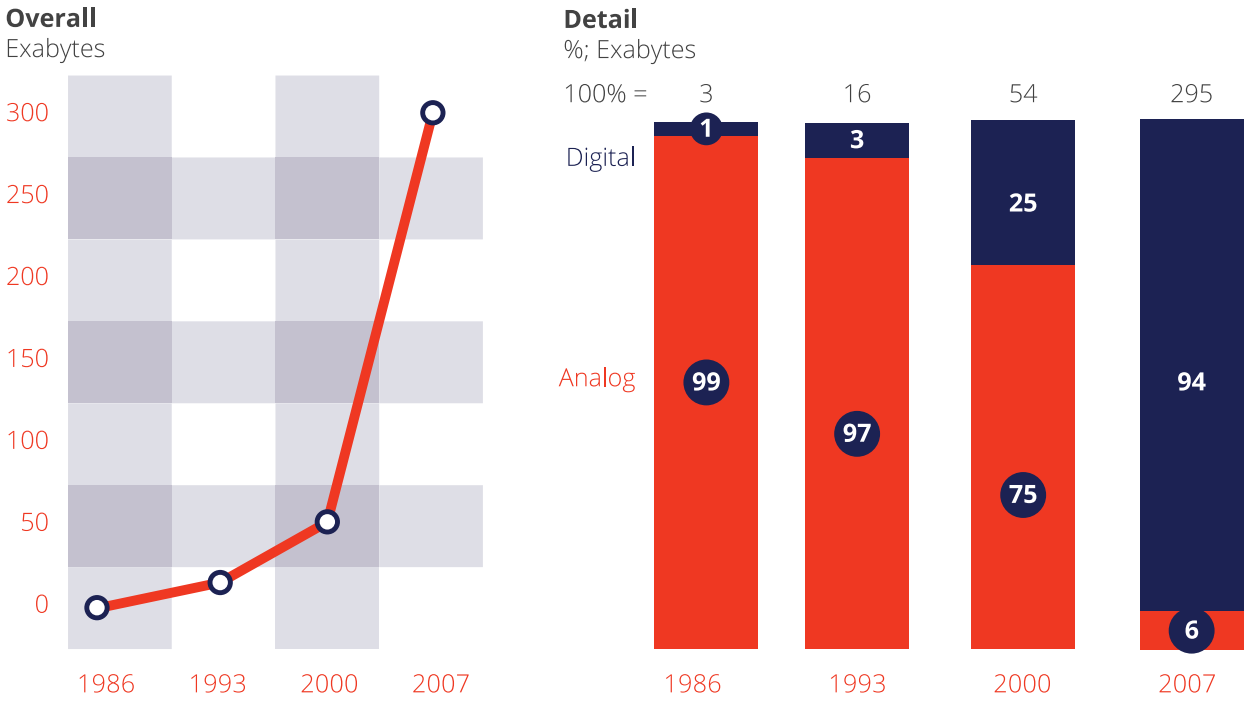
# Digitization of Information

## The State of Exponential Information Growth

**These graphs from a study by Hilbert and Lopez published in 2011 illustrate the exponential growth of information and shift to digital storage between 2000 and 2007.**

### Data storage has grown significantly, shifting markedly from analog to digital after 2000

Global installed, optimally compressed storage

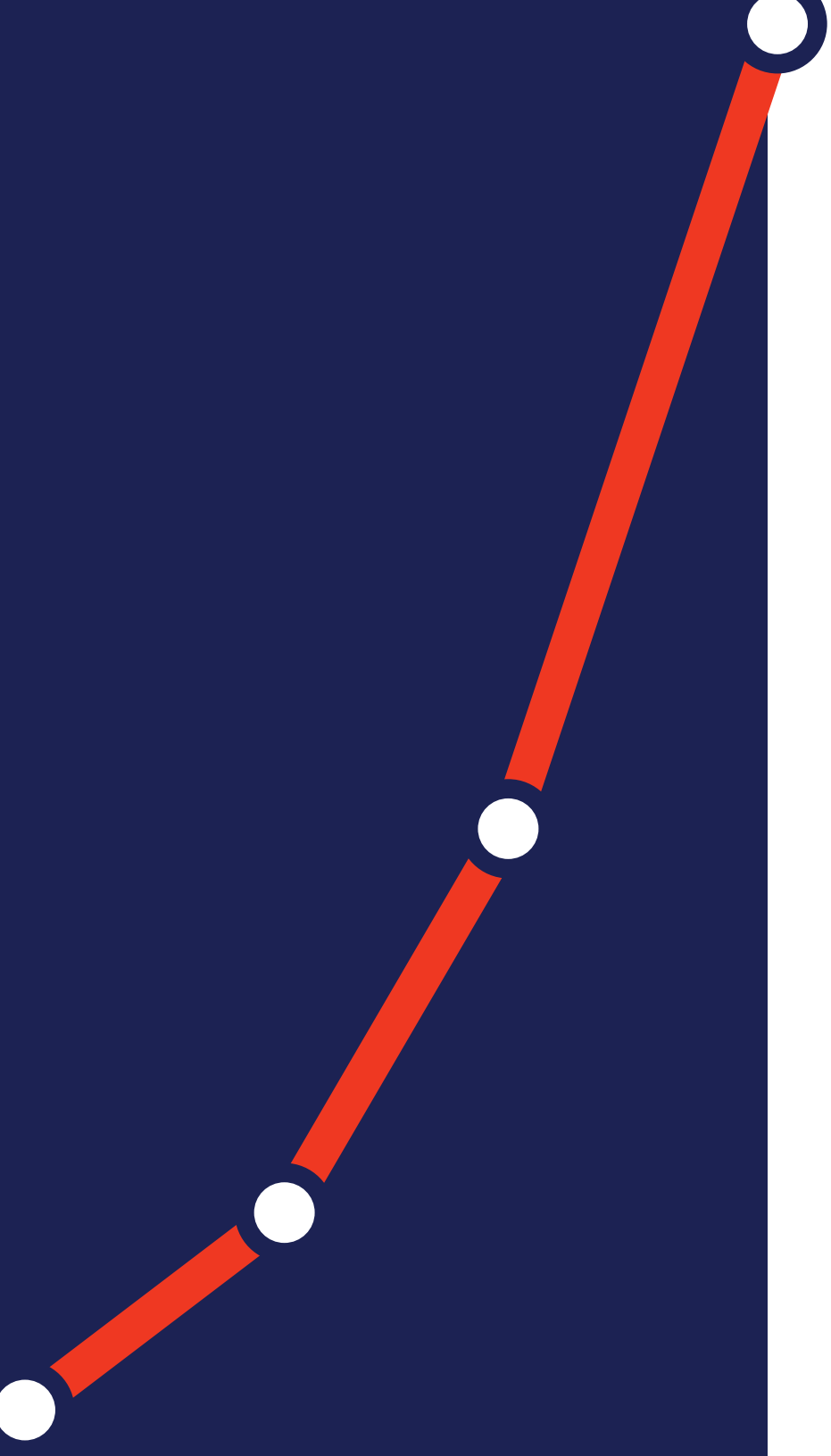



The authors of the study found that global storage capacity grew from 50 exabytes in 2000 to 290 exabytes in 2007 for both analog and digital media.

You can also see in the graph on the right the exponential shift from analog to digital storage. In 2000, the percentage of data stored in digital form was 25%, but rose to 94% in 2007, through such media as hard drives, CDs, and digital tapes.

**NOTE: Numbers may not sum due to rounding**

**SOURCE: Hilbert and Lopez, "The World's technological capacity to store, communicate, and compute information," Science, 2011**



# Digitization of Information

## The State of Exponential Information Growth

What the previous graphs illustrate is both the exponential growth of information and the exponential digitization of information. Driving digitization of information is the shift from things like photographic film to High Definition video, records albums to CDs to MP3 players, and paper to content management systems. In the future, the exponential connection of more devices and sensors across the planet to the Internet will continue to fuel this exponential growth of digital information.

And this same explosion is happening within every company on the planet – talk about a problem of epic proportions! No wonder we are exhausted. What we have as a result is a corporate digital landfill that continues to fill up at an exponential rate. Every day more emails, more documents, more data! Companies are frozen – unsure what to do, afraid to move. People struggle to deliver using poorly designed technology and lots of manual work. Executives receive poor quality information but don't even know it – yet critical corporate strategies are based on this information. And lots of decisions continue to be made with gut feel when information is not available at all.

# Success Factors To Consider

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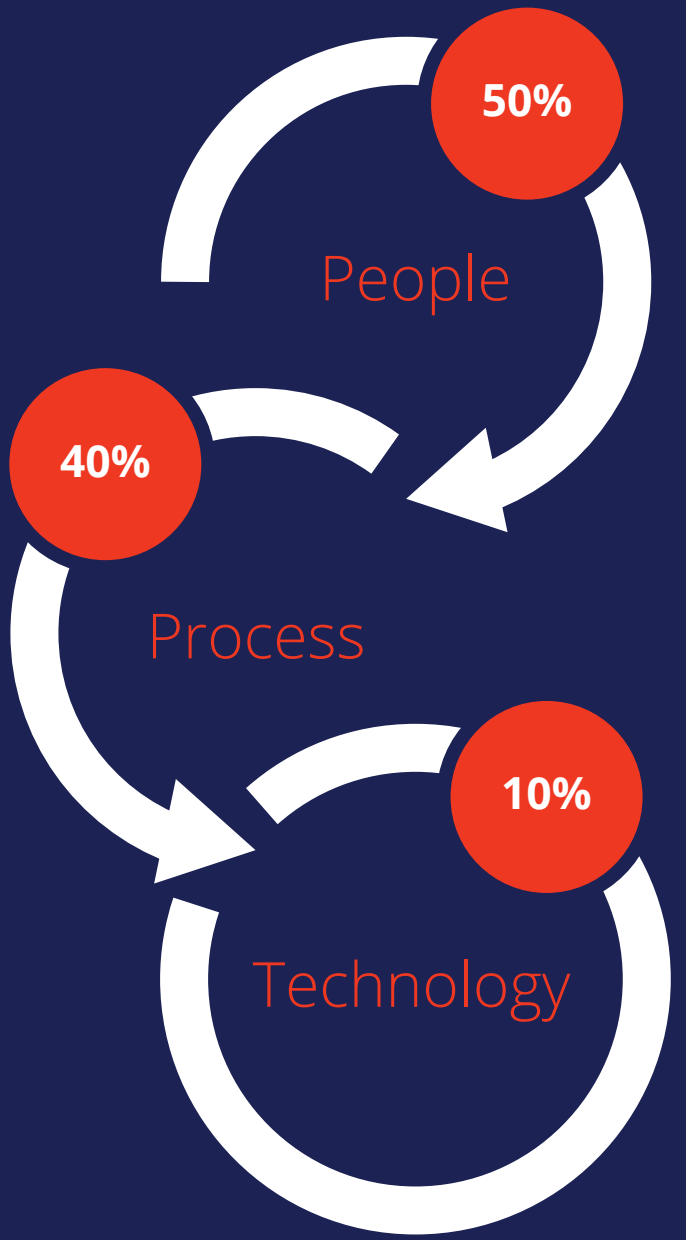
## Where does the answer lie?

As shown in this success formula originally developed by Gartner, factors to success information are a combination of the People, Process and Technology that make up your company. But those success factors are not evenly distributed.

People account for 50%, Process for 40% and Technology is a mere 10% of the factors of success with Information. Where do you focus your efforts to succeed with information?

If 90% of what it takes to be successful at turning information into money is within the People and Processes of an organization, what do you need to do to improve your success?



# 1. People

## People are the most important factor of success.


Cultivate and drive change in your organization towards a data-centric culture – ensure that everyone in the organization realizes the value of information and treats it accordingly in all the work that they do. Make data quality critical to their performance and success.

Do this not just by telling but by showing – giving everyone in your organization methods to realize and support the value of information. Adopt shared Information principles and policies without exception as the common guide for all decisions related to information.

# 2. Process

Companies must incorporate Information governance and stewardship throughout their business processes.


- In your organization, teach and support the use of analytical decision making for all decisions and strategies.
- Make use of data in the fact – foresight and data after the fact – hindsight.
- Mature your predictive capabilities within your processes – look for previously unknown correlations between events and determine new outcomes or understandings based on those correlations.

# 3. Technology


10% does not mean that technology can't make a difference – but it must have the right characteristics to succeed in an exponential world. Technology that delivers in a linear way won't cut it – it just can't keep up. You need technology that can be deployed rapidly and can respond to change just as rapidly. You need to use technology that supports self-service and collaboration. It must be highly productive and all-encompassing no matter what form that information takes.

Companies must get unfrozen and moving and they need to do it fast – traditional technology is not able to do that. Managing exponential information growth requires the use of "exponential technology".

# Auditing Existing Information Management

# Case Study: Retail

## Auditing Existing Information Management

### Value in the information you already have

What can you expect to find when you spend the effort to align your people, processes and technology around information? Millions in hidden value!

### Challenge:

An innovative CIO at one of our client companies recognized that problem was a lack of high quality information and clearly defined KPIs. The current tactics were taking significant effort and manual work to deliver the existing KPIs.

As well, the understanding of the existing KPIs was skewed – there were just too many KPIs. As well, important KPIs that could support tactical and strategic decisions were missing all together. The reality is they needed to find a better way and fast – this company didn't have the luxury of time in their highly competitive market

# Case Study: Retail

## Auditing Existing Information Management

**Solution and Result:**

Through the acquisition of technology designed to deliver information rapidly in support of a key KPI in a matter of a few weeks and months and a realign of people and processes to support those KPIs – the result has been immediate savings in the millions of dollars.

Recognizing the significant value of this initial work, this CIO has continued with the creation of an Enterprise Information management (EIM) strategy and a program to deliver that strategy.

Without having an information strategy there is no way to prove when conventional wisdom is wrong. Organizations have a lot of wasteful practices simply because that's the way it's always been done!

# Case Study: Oil & Gas

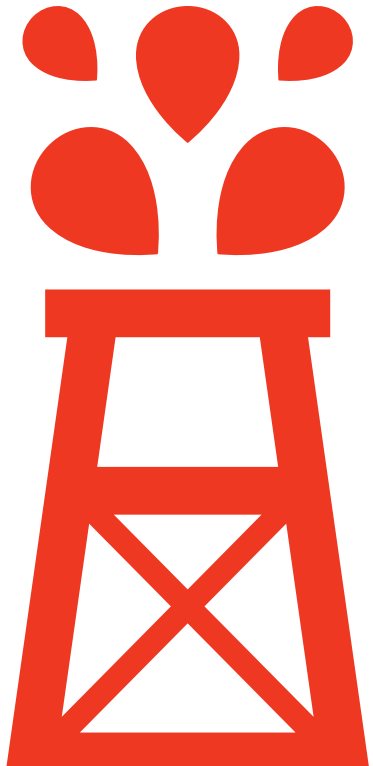
## Auditing Existing Information Management

**Challenge:**

We worked with a production engineer who had a particular problem he had to solve – the oil & gas wells that were his responsibility regularly filled up with water, reducing or in some cases shutting off production flow.

Conventional wisdom said “we should dewater every well every three months” – “that’s the way we always do it”

They didn’t have the information to do it differently.



# Case Study: Oil & Gas

## Auditing Existing Information Management

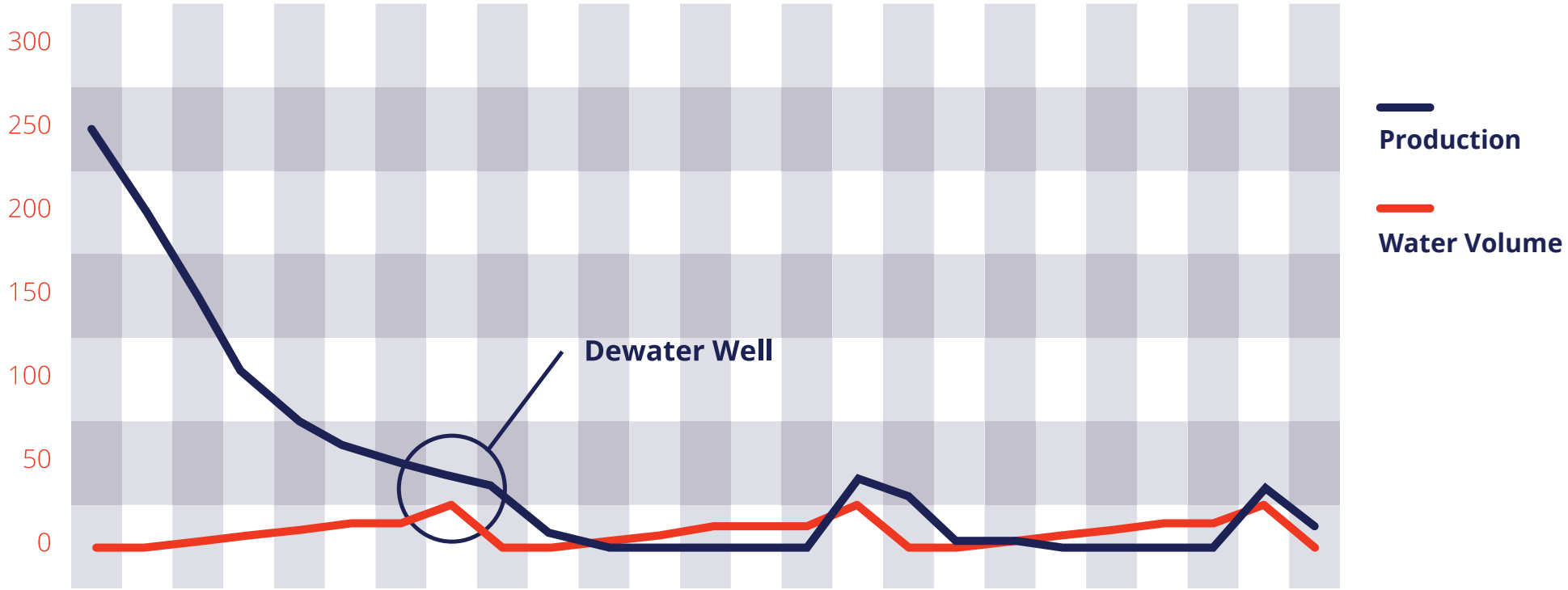
Unfortunately he spent most of his time collecting and formatting the data he needed to perform this analysis – it would take 20 minutes to complete this data collection for a single well – he had no idea how to do this with all 2500 wells.

And even if he could do it for all 2500 wells – the next time new data came available he'd have to start all over again. On top of that, he had limited ability to manipulate this data to uncover the correlation between dewatering a well and the subsequent production improvement – if any - that resulted. Never mind doing that with just a single well, to do this with 2500 wells was daunting.

# Case Study: Oil & Gas

Auditing Existing Information Management

## Conenvtional “Wisdom” is Wrong



# Case Study: Oil & Gas

## Auditing Existing Information Management

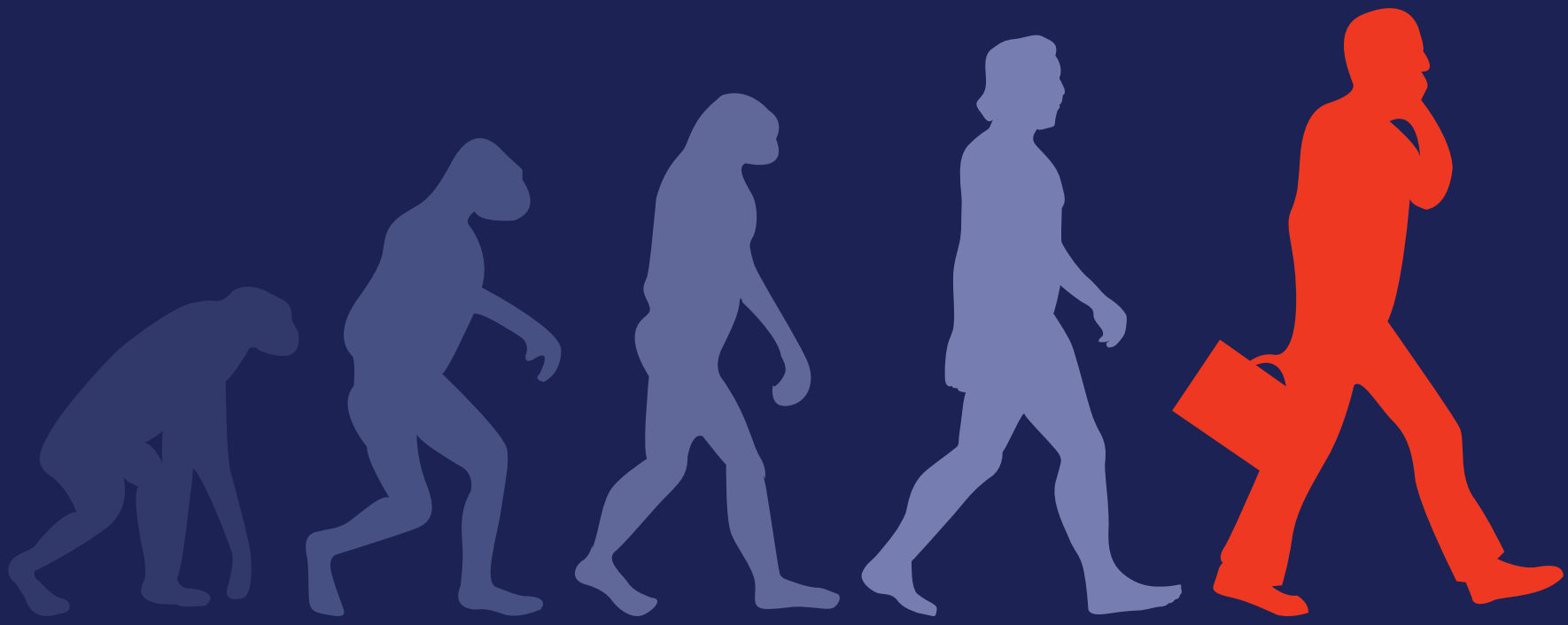
### Solution & Result:

Imagine if this same engineer had access to all the information about those 2500 wells in a way that allowed him to correlate the production over time from all the wells alongside the cleanout activities that have been happening for years.

He could review the impact of those cleanouts and develop a profile for each well that would predict the results of a clean-out on its production. From this analysis he could determine much more oil and gas is available and over what extended period of time? He could learn which wells benefit most from this and which are a total waste of time and money? He could develop a more cost effective approach to dewatering wells and that is exactly what we did.

**The result was over $800,000 in cost savings and increased production revenue.**

# Become A Transformed Organization



*Transformed organizations that used analytics for competitive advantage were 3.4 times more likely to substantially outperform their industry peers.*

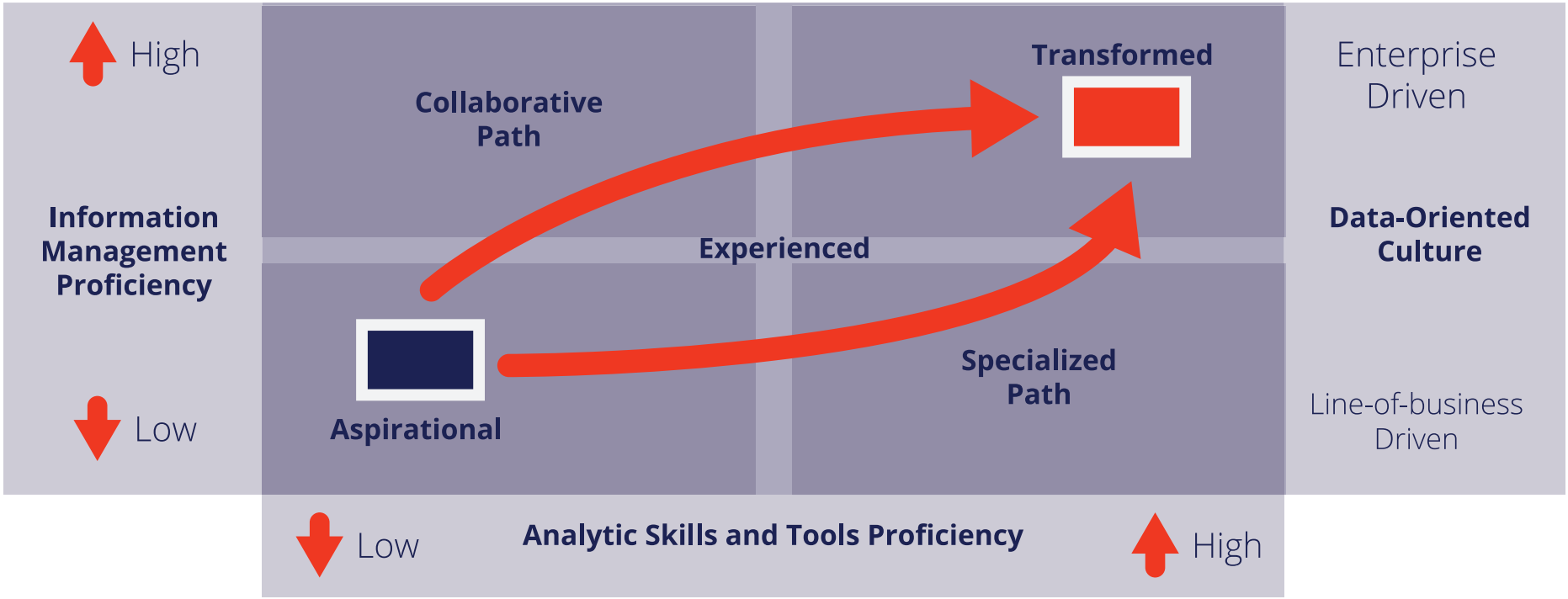
***MITSloan, 2011***

# Data-Oriented Corporate Culture

## Become a Transformed Organization

The result is a transformation to analytical decision making in a data-oriented culture.

An organization making business decisions based on the use of data and insights gleamed through the application of analytics on that data, not based on gut feel.

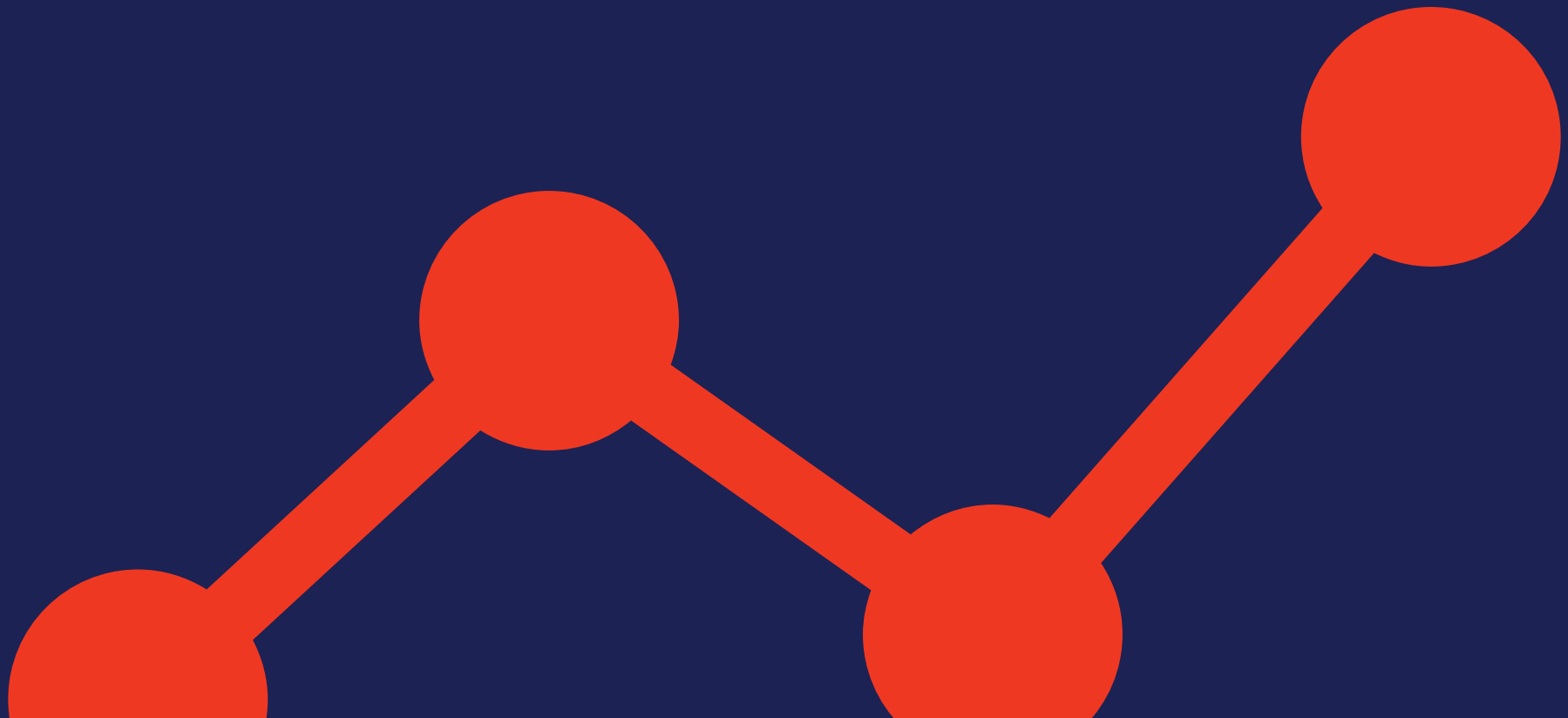


# Data-Oriented Corporate Culture

## Become a Transformed Organization

This graphic is from a 2011 study by MITSloan. According to that study of 4,500 individuals in 120 companies worldwide, “Transformed organizations that used analytics for competitive advantage were 3.4 times more likely to substantially outperform their industry peers.”

Transformed organizations have high information management proficiency. They have high analytic skills and tools proficiency and they have cultivated an enterprise driven data-oriented culture. And the gap is widening between aspirational and transformed organizations.



# Data-Oriented Corporate Culture

## Become a Transformed Organization

As the trusted authority in turning information into money, Cadeon Associates can teach you to manage exponential information growth using people who value information, processes that supports its governance, and delivered with “exponential” technology that delivers results in an exponential world of change. You will learn:

- to focus on finding hidden value & correcting conventional wisdom.
- to see a transformation to an organization which makes decisions based on analytics in a data centric world

**You will become a transformed organization – your company’s very existence depends on it.**

# Contact Us For A Free Consult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## About Cadeon

Cadeon Associates was founded in 2007 with a shared belief that we could deliver IT differently and more effectively using cohesive and cross functional teams with a strong common purpose. In that passion, Cadeon Associates is driven to create a world where companies learn to leverage their most valuable asset, Information, to thrive and grow.

Information is the least understood, least well managed, and fastest growing problem in today's world. It is growing at an exponential rate never before seen in all human history. Today's companies must make decisions supported by high quality information – no longer can a company survive on tribal knowledge, conventional wisdom or pure intuition. Only companies willing to undergo the transformations that enable information as the underpinning of corporate decisions and strategies will succeed in today's exponentially changing business environment.