

# THE COST OF DATA ERRORS

Scientific experimentation and research and development (R&D) ventures can often be time-consuming and costly. For example, in the pharmaceutical industry, creating a successful new drug takes on average 10 years<sup>i</sup> and costs \$2.6 billion<sup>ii</sup>.

So, it's vitally important that all data is created and recorded correctly. But what about when it's not?

Poor data quality, redundant data, and lost data can cost companies 15%-25% of their operating budget<sup>iii</sup>

**15%-25%**

**1.97%**

of scientists admitted falsifying their own work

**33%**

admitted other suspect practices

**14.1%**

said they were aware of colleagues who falsified their work

**72%**

said they knew of other suspect practices by colleagues<sup>iv</sup>

## ERROR EXAMPLES



The biggest midday stock market drop in history is believed to have been caused by a trader who wrote a "b" for billion rather than an "m" for million while selling stock futures<sup>v</sup>

## THE SPREAD OF ERRORS

**54%** of rejected scientific papers are eventually published elsewhere<sup>vi</sup>

**The 1-10-100** rule – the longer you leave errors, the more expensive they get



**Disregarding** the source of an error can result in the propagation and magnification of that error<sup>vii</sup>

It takes \$1 to prevent errors upfront, \$10 to correct issues and \$100 per piece of data that's left uncorrected<sup>viii</sup>

## WHAT ERRORS MEAN FOR YOUR BUSINESS REPUTATION

If opinion of your business or product becomes negative, you stand to lose

**4 OUT OF 5**



of your potential customers<sup>ix</sup>

## CONSUMERS HAVE STARTED VALUING COMPANY REPUTATION OVER PRICE<sup>x</sup>



AN EXTREME EXAMPLE OF COSTLY ERRORS IS THE **VOLKSWAGEN (VW)** EMISSIONS SCANDAL THAT OCCURRED IN 2015

In September 2015, VW were told to recall 482,000 cars in the US after being caught deploying sophisticated software to cheat emissions tests

The cars were tested for emissions in safe mode, then switched back. Once on the road the car emitted pollutants 40x above the allowed limit

The carmaker later admitted installing defeat devices in 11m vehicles worldwide to cheat diesel emissions tests

They blamed the scandal on a 'small group' of people and called it 'a chain of errors that were allowed to happen'

Total cost to VW: \$19.2 billion (£15.6 billion) and still rising<sup>xi</sup>

So, to ensure you minimize data errors during research and experimentation, and avoid brand damage to your organization talk to one of our experts today.



<sup>i</sup> [http://www.phrma.org/sites/default/files/pdf/rd\\_brochure\\_022307.pdf](http://www.phrma.org/sites/default/files/pdf/rd_brochure_022307.pdf)  
<sup>ii</sup> <http://www.dilworthip.com/2-6-billion-per-drug-patent-portfolio-strong-enough-protect/>  
<sup>iii</sup> <http://www2.usgs.gov/datamanagement/why-dm/valued-value.php>  
<sup>iv</sup> <http://listserve.com/2015/03/25/10-reasons-scientific-studies-are-surprisingly-unreliable/>  
<sup>v</sup> <http://www.copresco.com/files/10/05101ix.htm>  
<sup>vi</sup> <http://listserve.com/2015/03/25/10-reasons-scientific-studies-are-surprisingly-unreliable/>  
<sup>vii</sup> [http://www.visionlearning.com/en/library/Process\\_of\\_Science/49/Uncertainty\\_Error\\_and\\_Confidence/157](http://www.visionlearning.com/en/library/Process_of_Science/49/Uncertainty_Error_and_Confidence/157)  
<sup>viii</sup> <https://www.linkedin.com/pulse/data-quality-myths-understand-save-money-sumit-jain?trk=prof-post&trkSplashRedir=true&forceNoSplash=true>  
<sup>ix</sup> <https://www.reputationmanagement.com/blog/2015/6/25/the-cost-of-a-bad-reputation>  
<sup>x</sup> <http://www.skyword.com/contentstandard/news/study-finds-brand-reputation-more-important-to-consumers-than-price/>  
<sup>xi</sup> <https://www.washingtonpost.com/news/science/wp/2015/08/05/scientists-share-their-funniest-blunders-with-fieldworkfall/>