

# Remedies for failure costs

# Failure costs bring companies into a head-on collision with economic reality

Failure costs bring companies into a head-on collision with economic reality. New products have a 10% chance of success<sup>1</sup>, 96% of the innovations do not even return their cost of capital<sup>2</sup>, the 5-year survival of new companies is around 40% and has been for the past 40 years without any sign of improvement<sup>3</sup>, the implementation of ICT projects wastes between US\$ 150 and 225 billion annually<sup>4</sup> and the US\$ 2.7 trillion of annual technology investments contains an estimated US\$ 500 billion in failure costs<sup>5</sup>. Why do we learn so little and so slowly about the causes behind failure costs?

## Least squares mathematics is generally used to trace economic reality to its drivers

To trace economic reality to its underlying drivers, we use quantitative tools. Think of regression analysis which we teach to students in business, econ, psychology or medicine. ARIMA stock analysis, or Financial Risk Management tooling. Even the self-learning algorithms, so popular for outsmarting humans in the recognition of faces, prospective mechanical failures or even cancer spots on XRays. Regression analysis, alike the other tracing tools, uses a generally accepted and very powerful engine: the mathematics of 'least squares'.

### Least square mathematics has a serious design flaw when tracing failure costs

When tracing the causality of failure costs, 'least squares mathematics' appears to have a design flaw: 'least squares' allows for negative quantities of the underlying drivers. Imagine the recipe for pizza allowing for negative amounts of ingredients: 1 crust + 1 spoon of tomato sauce + 2 cups with topping - 20 minutes in the oven delivers 1 pizza.....

#### We provide you with a scientifically tested alternative

Fortunately, there is an alternative. This engine is also frequently used, for example for Skyping, MRIs, live TV broadcasts, data encryption, or the discovery of oil and gas. At XSeed Technologies. we have adapted this engine to trace failure costs. We have developed solutions for (1) startups, scale – ups and young grownup firms and (2) business/ICT projects. Both solutions have been tested in ongoing scientific research programs. At XSeed Technologies, we have anchored this engine in an easy-to-use SaaS app. The SaaS app is a proven diagnostic for failure costs. The SaaS app enables entrepreneurs, project managers and other stakeholders to do better what they like the most.

#### www.xseed.nu

<sup>&</sup>lt;sup>1</sup> Nielsen Breakthrough Innovation report. European Edition – September 2014.

<sup>&</sup>lt;sup>2</sup> Fast company, April 4, 2012.

<sup>&</sup>lt;sup>3</sup> Knaup, A.E. (2005). Survival and longevity in the Business Employment Dynamics data. Monthly Labor Review, 128(5), 50-56; Phillips, B.D., & Kirchhoff, B.A. (1989). Formation, Growth and Survival; Small Firm Dynamics in the U.S. Economy. Small Business Economics, 1(1), 65-74; Stangler, D., & Kedrosky, P. (2010). Neutralism and Entrepreneurship: The Structural Dynamics of Startups, Young Firms, and Job Creation. Kauffman Foundation Research Series: Firm Formation and Economic Growth, Kansas City, KS: Kauffman Foundation, 1-23; Wamba, L.D., Hikkerova, L., Sahut, J.M., & Braune, E. (2017). Indebtedness for young companies: effects on survival. Entrepreneurship & Regional Development, 29(1-2), 174-196.

<sup>&</sup>lt;sup>4</sup> Dalcher, D. & Genus, A. (2002). Introduction: Avoiding IS/IT Implementation Failure. *Technology Analysis & Strategic Management*, 15(4), 403-407.

<sup>&</sup>lt;sup>5</sup> Klein, K.J. & Knight, A.P. (2005). Innovation Implementation. Overcoming the challenge. *Current directions in Psychological Science*, 14(5), 243-246.