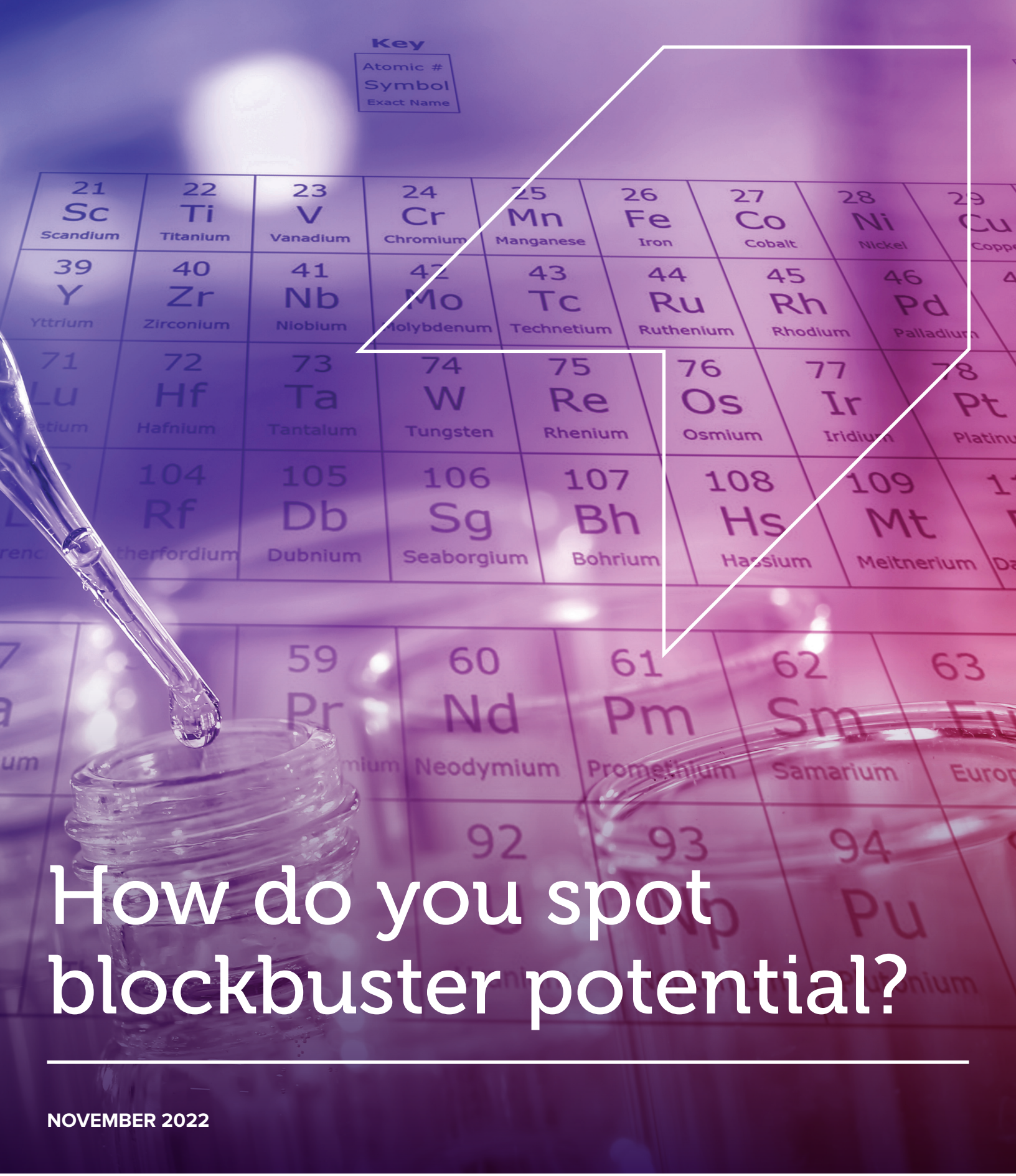

How do you spot blockbuster potential?

NOVEMBER 2022

ARTICLE

Evaluate
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The $600 Billion Problem

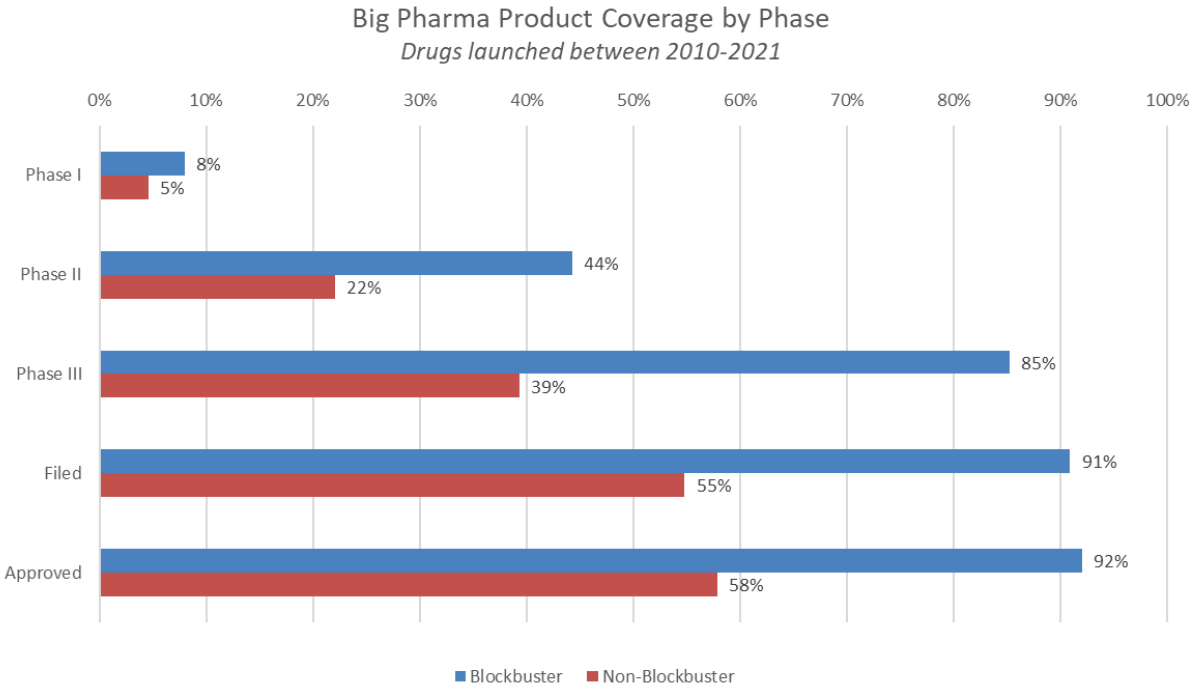
In 2021, the pharma industry invested over $600 billion in R&D, M&A and licensing in search of the next life-changing and market-leading products[1]. With a patent cliff in 2028 looming, the race is on to identify the assets that will drive the next wave of success.

But further analysis found that **just 20% of marketed drugs generate 90% of commercial returns**, suggesting that pharma's investment in novel molecules may not always deliver the returns expected.

Developing a blockbuster drug requires the right combination of transformative science, unmet need, competitive positioning and pricing. But there is no magic formula and building accurate forecast and valuation models based on these complex factors is both time intensive and difficult to replicate at scale. Not ideal for strategy, commercial and business development teams that need to make value-based decisions on tight timelines.

Third-party valuations from equity researchers or consensus forecast providers have long been the go-to option for pharma companies. In many cases, this is fine, but it does tend to leave a gap around coverage for early-stage assets. A recent analysis of equity analyst forecast availability showed that of blockbuster product launched in the past decade, less than half had forecast available in Phase II. For non-blockbuster products, just 22% had coverage in Phase II.

1. Evaluate Pharma



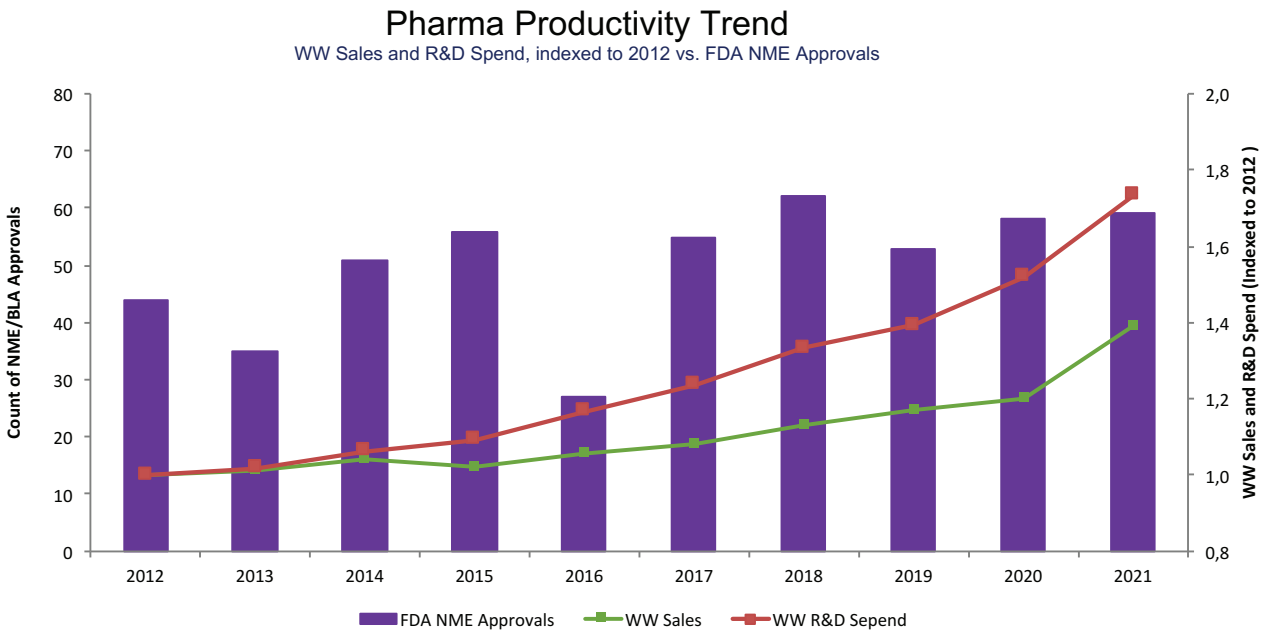
HOW THE EARLY-STAGE INFORMATION GAP LIMITS R&D PRODUCTIVITY

Initiating equity analyst coverage in late-stage development makes sense; there is little point in creating detailed forecast models for products that may never reach the market, or that are not likely to contribute to company revenues within the forecast horizon. But this tendency also means that pharma is often without independent, readily available valuation data to inform their pipeline decisions.

With the bulk of R&D spending required in Phase III, plus the higher price tags that later-stage assets command in licensing or M&A transactions, earlier insight into product value could dramatically increase the productivity of R&D investments.

A separate analysis found that growth in R&D spending from 2012-2021 outpaced growth in sales revenue, even as the number of novel drugs approved steadily increased over this same period of time. This suggests that pharma may be investing their R&D budgets in products with limited commercial potential.

What's needed is a new approach to forecasting the commercial potential of early-stage assets that reduces the need for complex manual forecasting, allows products to be valued at scale and delivers the speed and accuracy needed to make time-sensitive licensing or R&D portfolio decisions with confidence.



REDUCED PRODUCTIVITY AND THE FUTURE R&D LANDSCAPE

The drug development landscape is a complex system with many forces impacting innovation. Drug development cycles are long and unpredictable, and it takes time for changes to truly propagate. The less productive the development activities of industry, the less attractive the proposition for investors. Are we approaching the productivity threshold that will lead to an overall decline of the overall drugs being approved?

Step forward, machine learning.

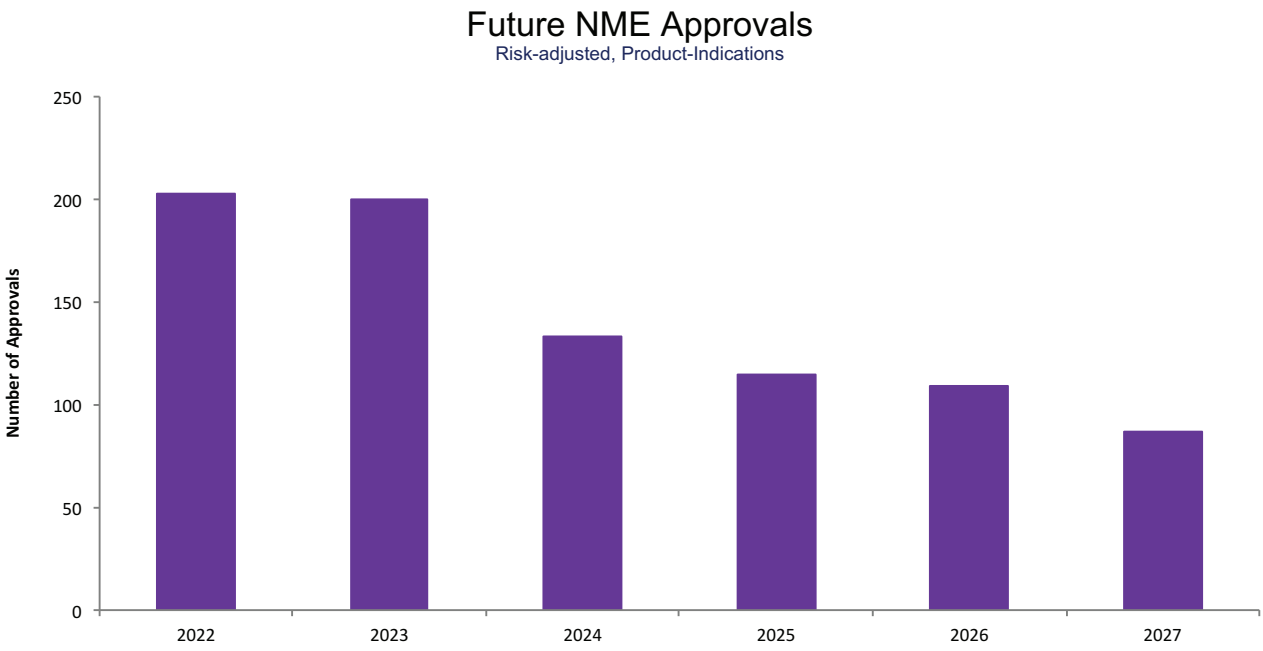
Machine learning algorithms are already used across the pharma industry to generate new insights from complex datasets. Using thousands of historical datapoints Evaluate has developed transparent models that can not only accurately predict the probability of successful launch but also the date of phase progressions for specific drugs. A risk-adjusted analysis of the new molecular entity pipeline has shown a future reduction in total number of product-indication being approved. This most likely is caused by a combination of fewer NMEs being approved and a more targeted indication strategy. Further segmentation by indication or technology can reveal further insights of the landscape.

FILLING THE GAP WITH MACHINE LEARNING

By applying machine learning algorithms to commercial forecasting, data providers can analyse millions of product-level data points to identify the product characteristics that most directly correlate to commercial performance, as well as forecast each product's potential based on its unique combination of attributes.

By removing the time and capacity limitations of human forecasters, machine learning platforms can deliver commercial forecasts at a scale not previously available, providing a more complete view of commercial potential across all phases of clinical development, including the early-stage or privately-owned drugs that are not covered by equity analysts or consensus models.

Machine learning allows pharma teams to identify drugs with blockbuster potential as early as Phase I,



so they can better direct R&D investments towards the pipeline products most likely to generate significant returns or make more informed licensing and acquisition decisions. In particular, machine learning allows pharma teams to:

- Reduce the likelihood of over-investing in products with limited commercial futures
- Better prioritise portfolio drugs with market-changing potential
- Quickly and accurately quantify the value of external assets to make rapid go/no-go decisions
- Identify potential portfolio gaps for where additional R&D spending, licensing or acquisition is needed

The return from leveraging machine learning correctly could be substantial. Further analysis from Evaluate suggests that better focusing R&D investments on products with the greatest commercial potential could add as much as $50 billion in market value in the US alone. Companies eager to capture their share of the potential value created would be wise to take advantage of these new tools.

Evaluate Omnium

Find out more

Talk to our team about how Evaluate uses artificial intelligence and machine learning to provide commercial coverage for eight times more of the market than consensus forecasts, while also delivering a 53% improvement in accuracy when predicting the commercial potential of early-phase assets.

GET IN TOUCH

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Evaluate provides trusted commercial intelligence for the pharmaceutical industry. We help our clients to refine and transform their understanding of the past, present and future of the global pharmaceutical market to drive better decisions. When you partner with Evaluate, our constantly expanding solutions and our transparent methodologies and datasets are instantly at your disposal, along with personalised, expert support.

Evaluate gives you the time and confidence to turn understanding into insight, and insight into action.

Evaluate Pharma offers a global view of the pharmaceutical market's past, present and future performance with best-in-class consensus forecasts to 2028, unique broker forecasts, and the application of proprietary methodologies to support highly robust, detailed and accurate analysis.

Evaluate Omnium provides a complete, dynamic view of development risk and commercial return across all phases of the clinical lifecycle – including early-phase and privately-developed drugs not covered by analysts' forecasts. With product-specific data including Predicted Peak Sales, Probability of Technical and Regulatory Success (PTRS), R&D Costs, Net Present Value, Time-to-Peak and more, Evaluate Omnium makes it easier than ever to quantify and compare risk and return across the full pipeline landscape.

Evaluate Epi is curated by epidemiology experts and delivers comprehensive, global epidemiological data in granular detail, on a highly interrogatable platform. Customers have access to impartial data for 15 therapeutic areas, and over 230 indications and 9,500 sub-populations across 27 core markets (up to 49 for some countries).

Evaluate Medtech provides a transparent and trusted source of market intelligence and consensus forecasting for the global medical device and diagnostic landscape, using the same proprietary methodologies as Evaluate Pharma. Customers can quickly understand how the market views products and portfolios – and where their opportunities, risks and priorities lie.

Evaluate Consulting & Analytics are specialists in solving unique and complex biopharma pipeline, portfolio and commercialisation challenges with best-in-class datasets, powerful analytical capabilities, and deep therapy and commercialisation expertise.

Evaluate Vantage provides award-winning, thought-provoking news and insights on current and future developments in the pharma, biotech and medtech industries, and is the only news service underpinned by Evaluate's commercial intelligence and data.

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