



An overview of trend & technology evaluation criteria in the Innovation OS

Can Corporate America Go Plastic-Free How One Business is Eliminating Plastic Entirely

We're familiar with the common edict to "reduce, reuse, and recycle" in order to help reduce the amount of waste we leave in the environment. And while we should all be looking for a ways we as individuals can help keep our planet healthy, to truly...

United States of America Environmental Issue Global Warming Recycling

Ban on single-use plastic by July 1, is India Inc ready?

The government is all set to implement the ban on single-use plastic from July. Minister Narendra Modi spoke about India's move in this direction from the Raj Ghat on January 26, 2019. Thereafter, in a notification that was...

Google Commits to Plastic-Free Packaging

Google also set the goal of using recycled or renewable material in at least 50 percent of all plastic used across hardware products by 2025. By Stephanie Mlot Oct. 27, 2020, 8:55 p.m. (Photo by Alex Tai/SOPA Images/LightRocket via Getty Images)

United States of America Supply Chain Google Nest Plastic

ITONICS Insights

1. Trusted sources
News Patents
RSS Publications

2. Signals scanning
Monitor and collect signals across sources in Insights

3. Automated insights
Tag and organize meaningful signals using NLP

4. Critical analysis
Identify patterns pointing to drivers of change, enrich and contextualize

5. Analyst ratings
Rate drivers to enable easy evaluation and sensemaking

6. Continuous monitoring
Track signals and existing and emerging drivers of change

Output: Signals Trends and Technologies Opportunities

Recommended Action

Build Buy Partnership

Description

Reebok officially launched a new line of sneaker which is "made primarily corn and cotton. The new shoe, called the NPC UK, has Department of Agriculture as 75 percent made with bio-based corn."

Sources & Links

Bill McCreary of Greater Boston Postcard for the

Rating

Complementarity to Business of IT... 23

0-2 years 3-5 years **6-10 years** 11-15 years 15+ years

Degree of Innovation 15

Very Low **Low** Medium High Very High

Disruptive Potential 16

Very Low Low **Medium** High Very High

Business Relevance 27

Very Low Low **Medium** High Very High

Level of Awareness 33

Very Low Low **Medium** High Very High

Willingness to Cooperate 19

Very Low Low **Medium** High Very High

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The ITONICS Methodology: How we define trends & technologies

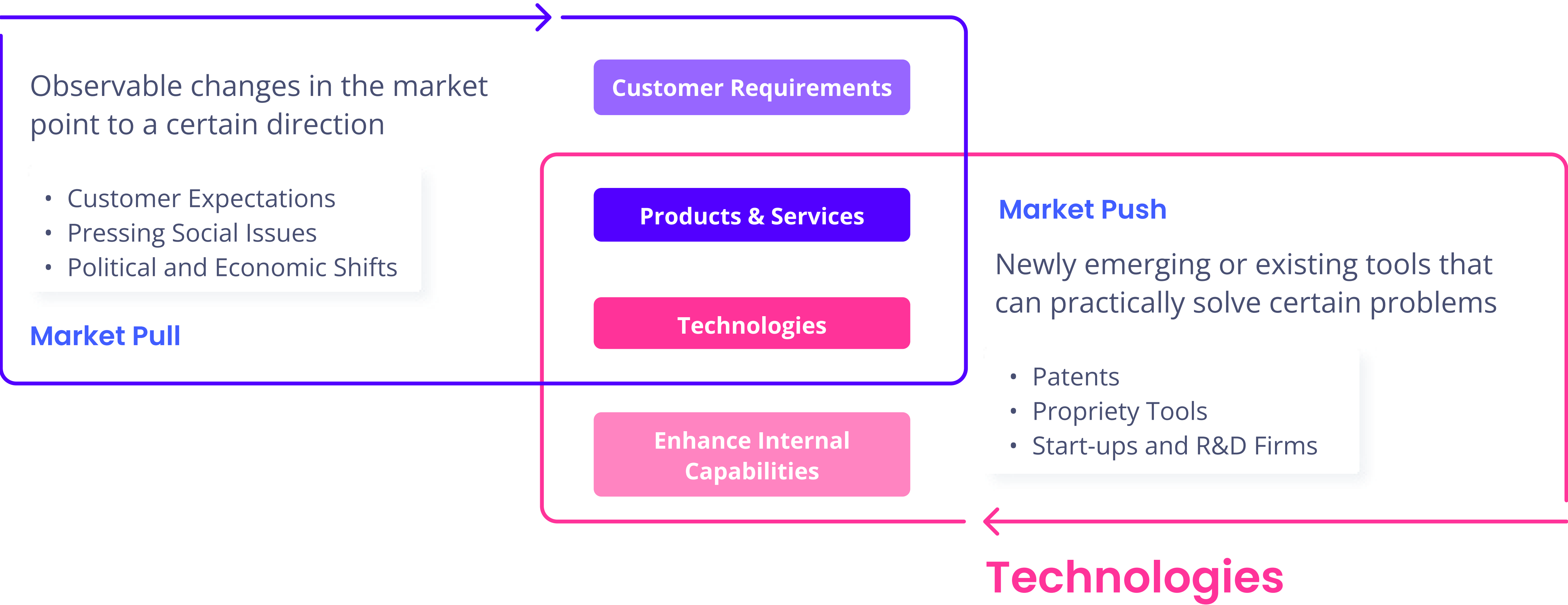
At ITONICS, we view **Trends** as demand drivers that indicate market pull; they guide innovators in knowing what consumers need and desire. Demand drivers help innovators better understand market and consumer shifts.

We define **Emerging Technologies** as solution drivers that represent a market push. They provide disruptive, game-changing solutions to problems faced in the market.



Understanding the interplay between **demand drivers** and **solution drivers** builds the strategic intelligence needed to discover opportunities and direct innovation objectives.

Trends

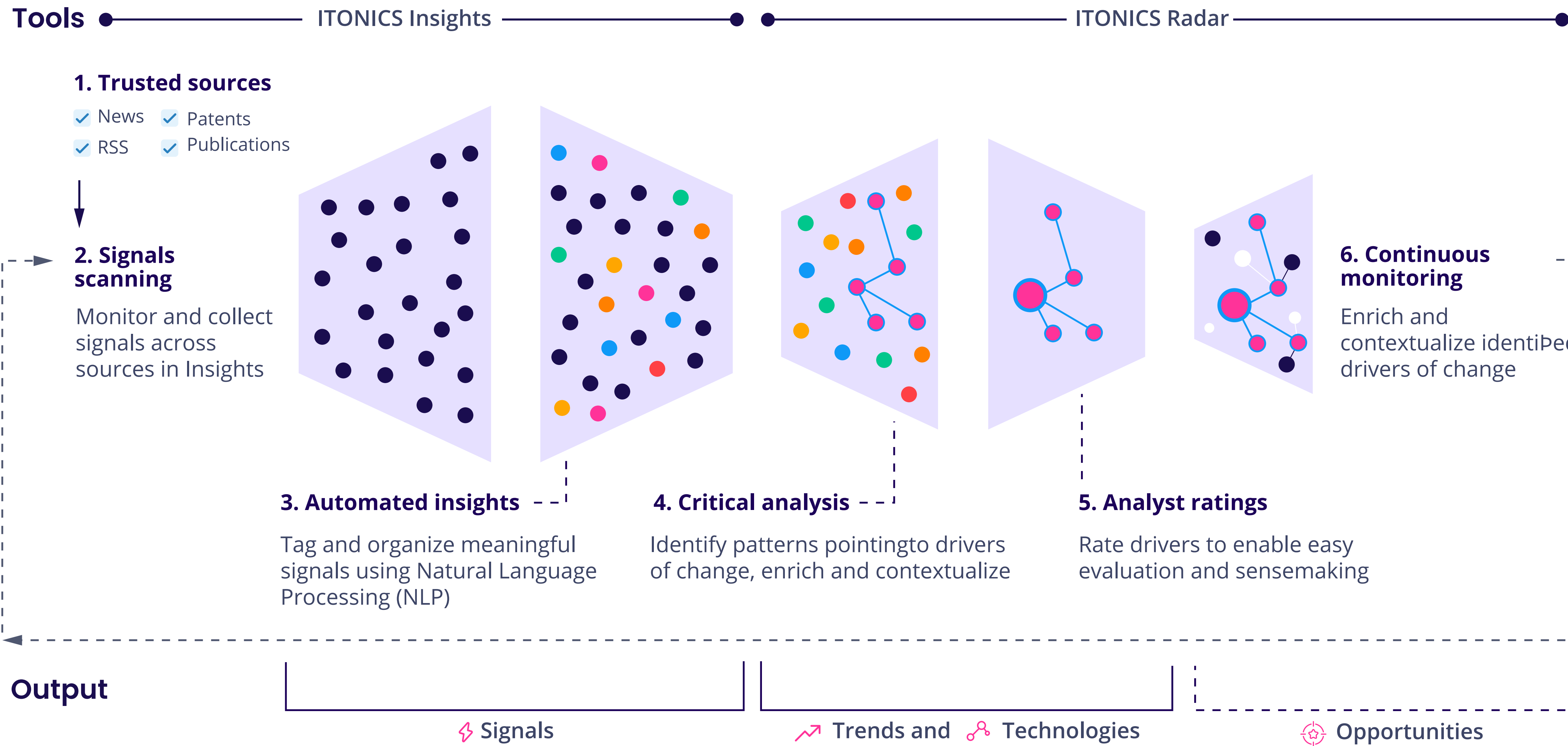


Moving from environmental scanning to actionable insights

Activity	Innovation problem it solves	Overview	Stage in the innovation process	Desired outcome	What to do next
Scanning	Do opportunities exist that could help us develop our innovation strategy?	Scanning is the first step that keeps a birds-eye view on the corporate environment to identify areas of interest, opportunities or risks. <i>Undirected & Exploratory</i>	Where to Play	Attain a high-level perspective on the topics relevant to your sector and organization as well as finding topics of interest.	Whittle down topics of interest and match them with larger strategic goals to start scouting more specific fields.
Scouting	How can we gather actionable information about areas of interest related to our strategic goals?	Scouting focuses on searching out further topics, be they emerging technologies, competitors or startup activity within a broad area of interest. <i>Directed & Time-Sensitive</i>	Where to Play & How to Win	Internalize external information and build a more realistic innovation strategy based on scouting insights.	Gain organizational consensus on which trends, emerging technologies and startups will be monitored continuously over a set time period.
Monitoring	How can we continuously track the development of this topic of interest such that we can operationalize our innovation strategy?	Monitoring takes a more focused approach, sourcing granular insights continuously into a specific area of interest. <i>Focused, Collaborative & Strategic</i>	Where to Play, How to Win & What To Execute	Determine which topics of interest the organization will invest in and create organization-wide alignment.	Invest in technologies, build partnerships or acquire startups that will help execute your innovation strategy.

 Scanning, Scouting and Monitoring require **different expertise**. Consider which team members are best suited to do **exploratory research**, which team members can **scout deeper** into certain topics and which team members can begin **integrating insights** and technologies into business functions.

Continuous foresight methodology, combining human and machine intelligence



How ITONICS Ratings can help optimize your innovation journey

In the ITONICS OS, users can create and rate a **range of elements** that can assist in optimizing the scanning, scouting and monitoring process. These include, but are not limited to the following:

IDE Idea

An Idea is a novel suggestion, concept, or solution that addresses an existing challenge or opportunity. This includes idea management which is the prioritization and implementation of ideas

COM Competitor

Competitors can range from businesses with similar service offerings or a startup pushing a novel technology which could potentially disrupt the business's offering and wider industry

OPP Opportunity

An Opportunity is a potentially rewarding business situation in which an organization can create significant benefits by addressing previously unmet customer needs uniquely and/or introducing new, better solutions to existing customer needs

INS Inspiration

An Inspiration is evidence of how organizations or individuals are responding to a trend or technology in the real world. Inspirations serve as springboards for ideation, helping innovators connect information, and nurture fresh thinking.

Note: Inspirations cannot be rated but users can comment and relate them to other rated elements.

RIS Risk

A Risk represents an event that can potentially result in a negative impact on an organization's ability to conduct business. It implies a level of uncertainty regarding future expected outcomes and stability

SCE Scenario

A Scenario is a postulated sequence or combination of events projected to take place that could hold relevance to the organization's future state

How can ITONICS Ratings help to identify relevant trends and emerging technologies?

Each trend and emerging technology in the ITONICS Showroom is presented with ratings that indicate penetration, scope, and adoption metrics. Understanding what these ratings mean and how they are derived helps organizations focus their attention and identify Where to Play.

Our team of analysts uses advanced queries and the [ITONICS Insights](#) tool to collect relevant information from quantifiable historical and present data. This is supported by qualitative research to statistically derive the ratings.

**General purpose robotics operating system with unmanned and autonomous vehicle extensions**

PATENT

Jun 25, 2019

USPTO

United States

The present disclosure provides a general purpose operating system (GPROS) that shows particular usefulness in the robotics and automation fields. The operating system provides individual services and the combination and interconnections of such...

United States of America

Electromechanics

Automation

**Image Output Device**

PATENT

Dec 8, 2021

EPO

Korea, Republic of

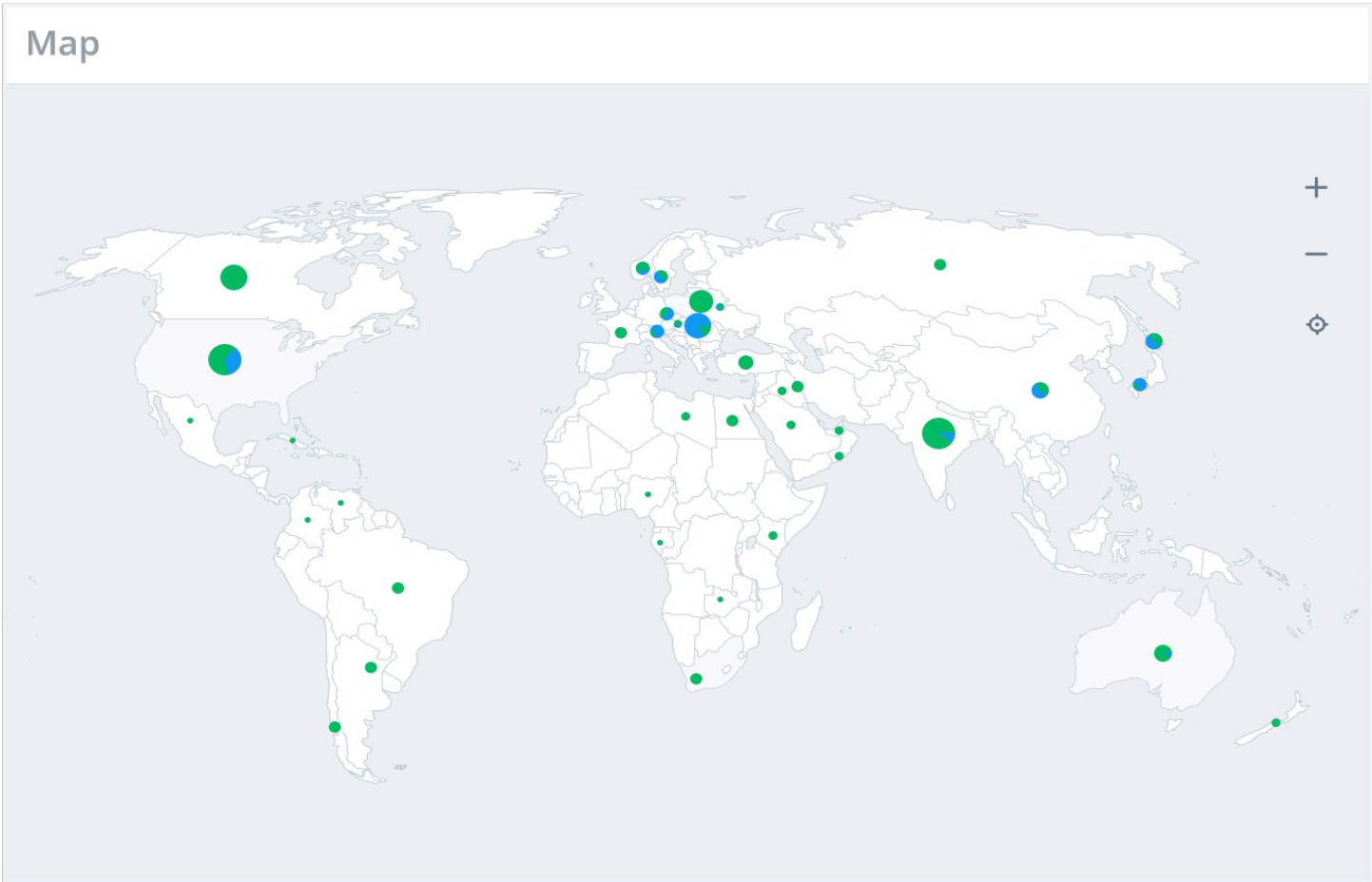
The present invention relates to an image outout device mounted on a vehicle to implement augmented reality. One or more of an autonomous driving vehicle, a user terminal, and a server of the present invention can be linked to an artificial...

Augmented Reality

Alternate reality

Virtual Reality

Patent Data on ITONICS Insights



Signals Visualisation Tool on ITONICS Insights

Filter

Visualize

Signal Types

☐ News 20K

☒ Patents 220

☐ Publications 1K

☐ RSS 5

Past Quarter

Companies

ETAK Systems, LLC

AMAZON TECHNOLOGIES, INC.

Metal Raptor, LLC

LG ELECTRONICS INC.

Wing Aviation LLC

5 of 100+ shown [Show More](#)

Products

Location Based Services

Satellite Imagery

Petroleum

Insulator

Tesla Model X

and 20 more selected [Show More](#)

Product and Companies Signals on ITONICS Insights

How can ITONICS Ratings help to identify relevant trends and emerging technologies?

Trends:

- Scope
- Potential Impact
- Time to Market Impact
- Adoption Stage

Emerging Technologies:

- Scope
- Potential Impact
- Complexity
- Technology Readiness Level (TRL)
- Technology Attractiveness



Drone Freight Delivery

TREND

Aging Reinvented

PUBLISHED

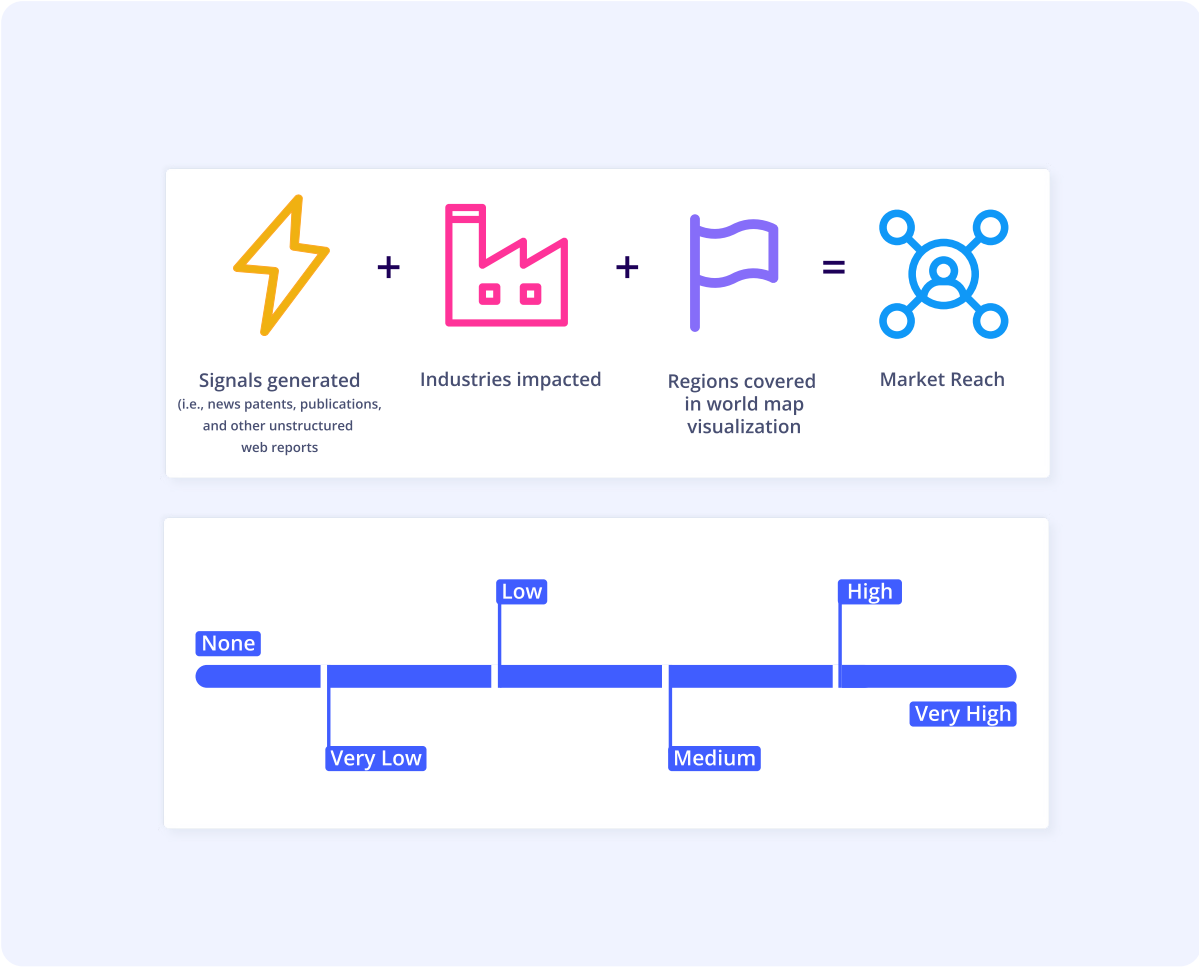
Aging Reinvented refers to the disruption of stereotypical roles and expectations that society places on older generations. Many aging individuals are pursuing their own vision for their “golden years”. They are rejecting the traditional milestone and phenomena that were once accepted as inevitable-retirement, increased dependency, a more sedentary lifestyle, and loneliness. However, issues of ageism prevail, particularly in the workplace. This must be...

Adoption Stage: Improving

active seniors age discrimination ageism

Trends & technology rating criteria at a glance

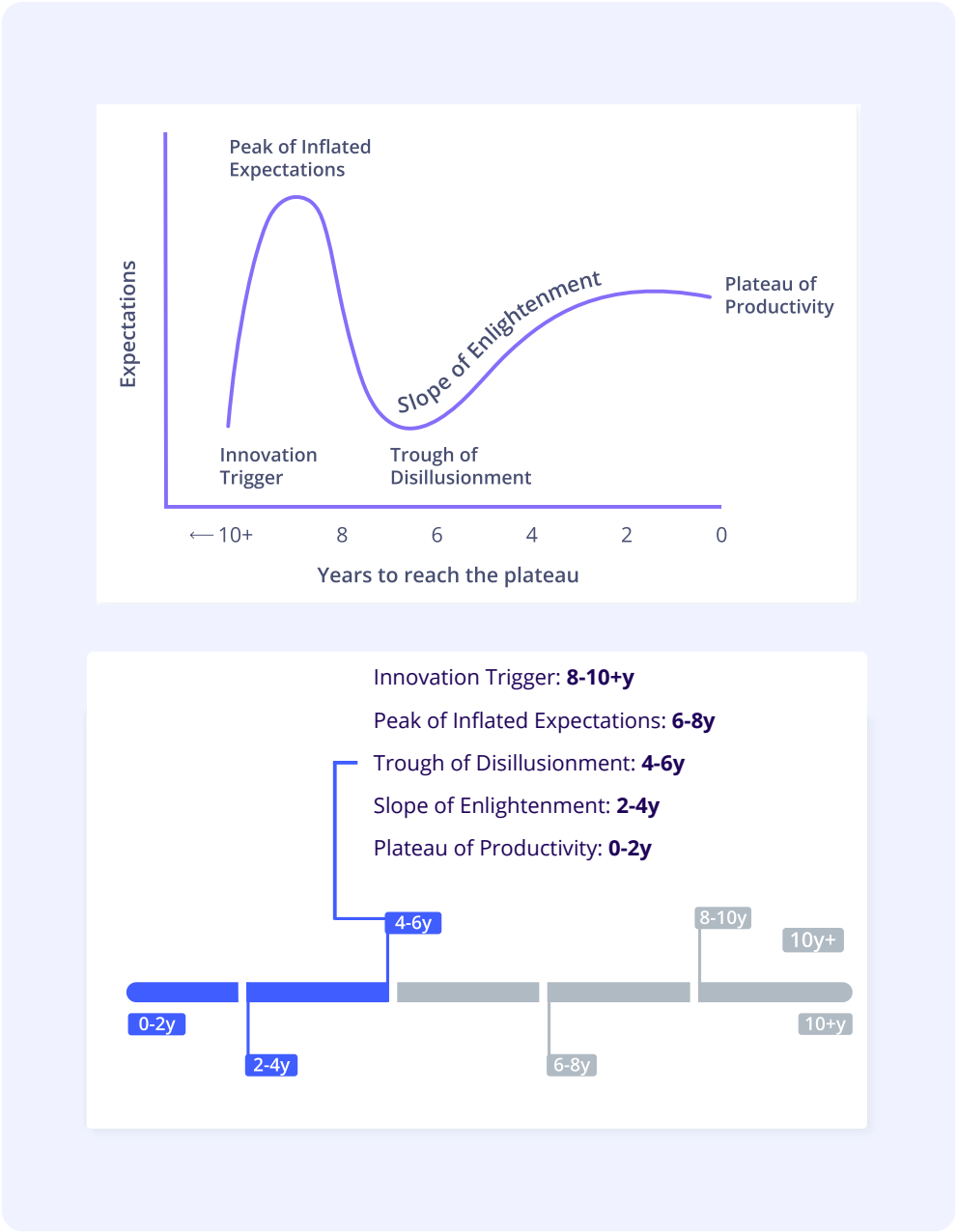
Scope



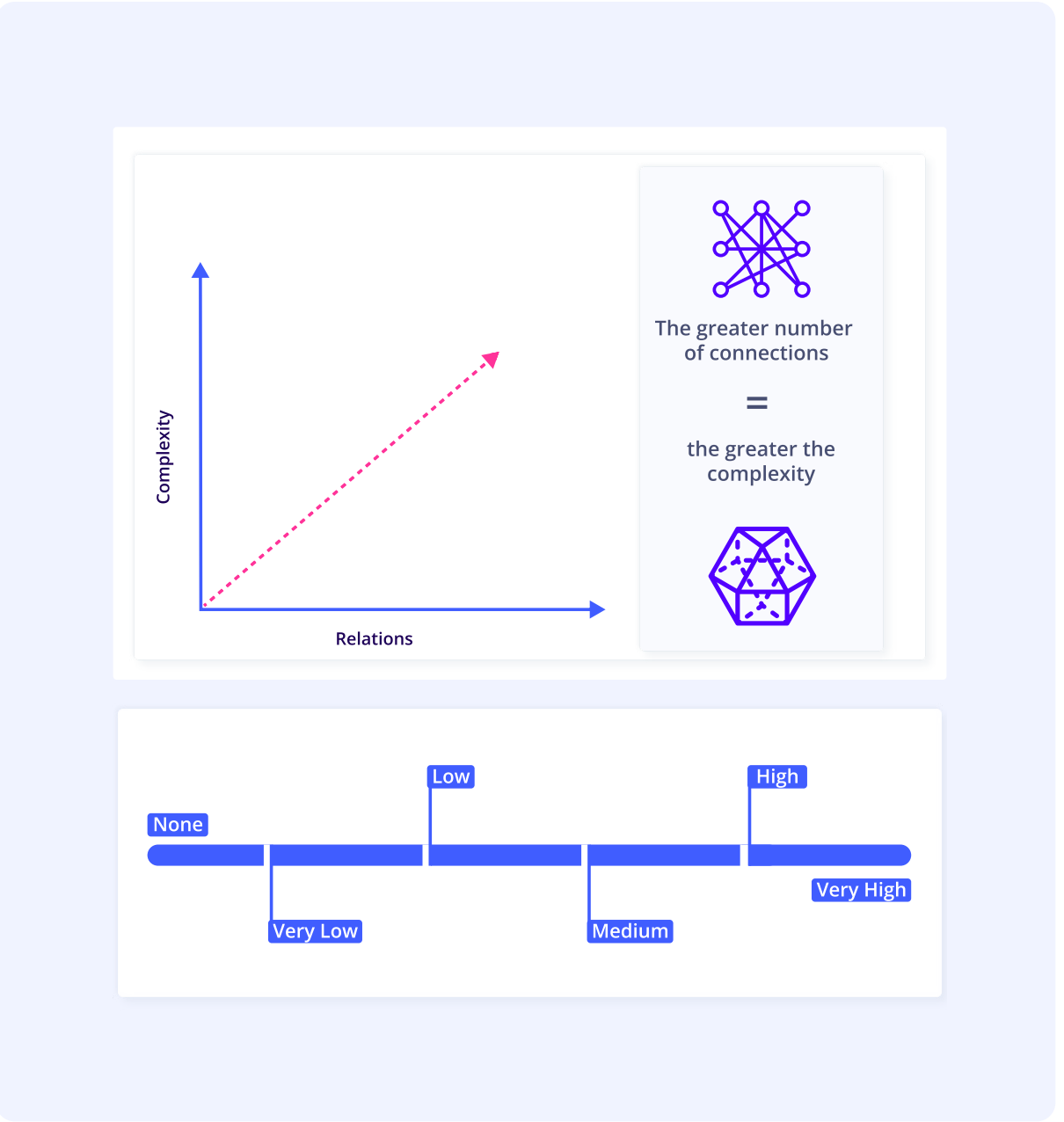
Technology attractiveness



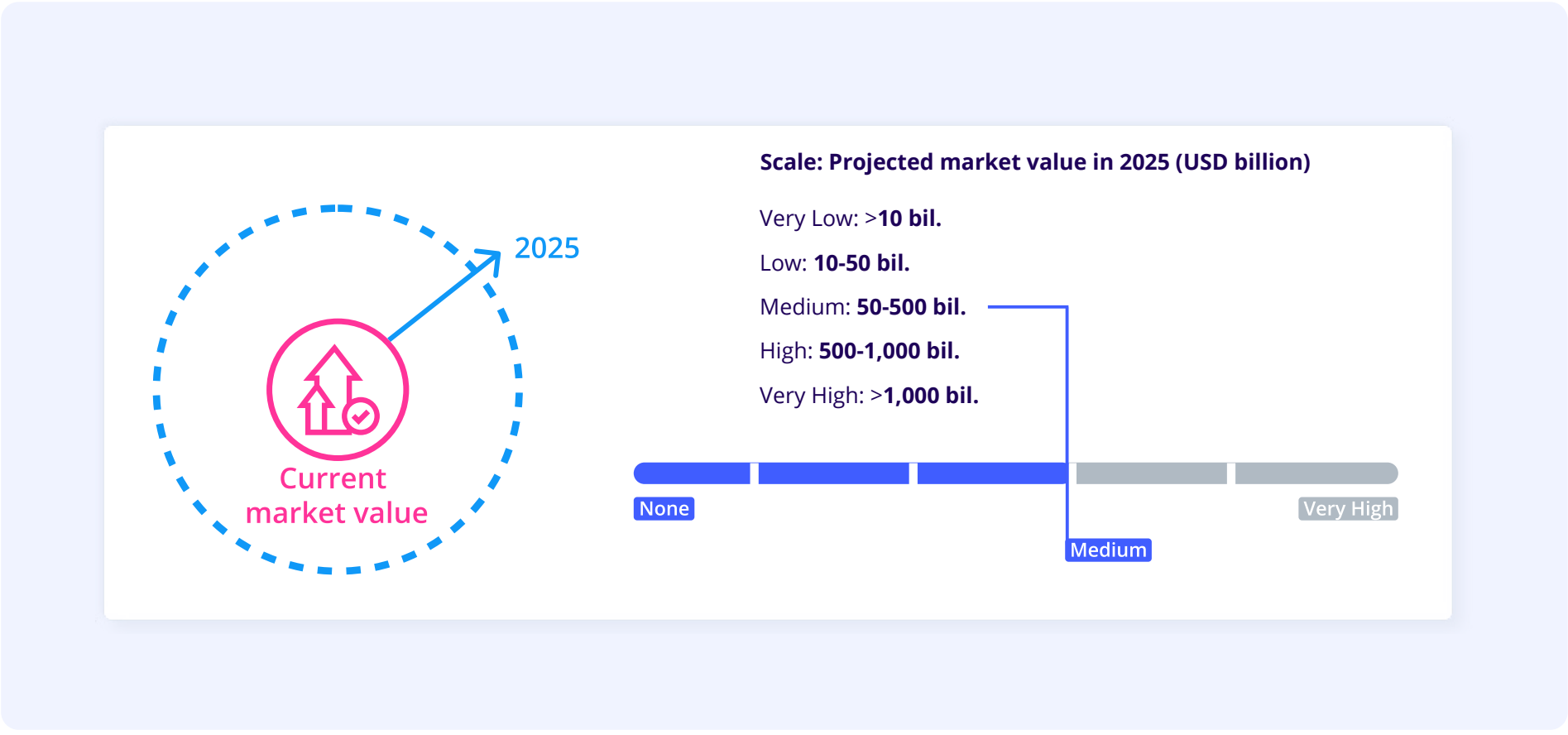
Time-to-market impact



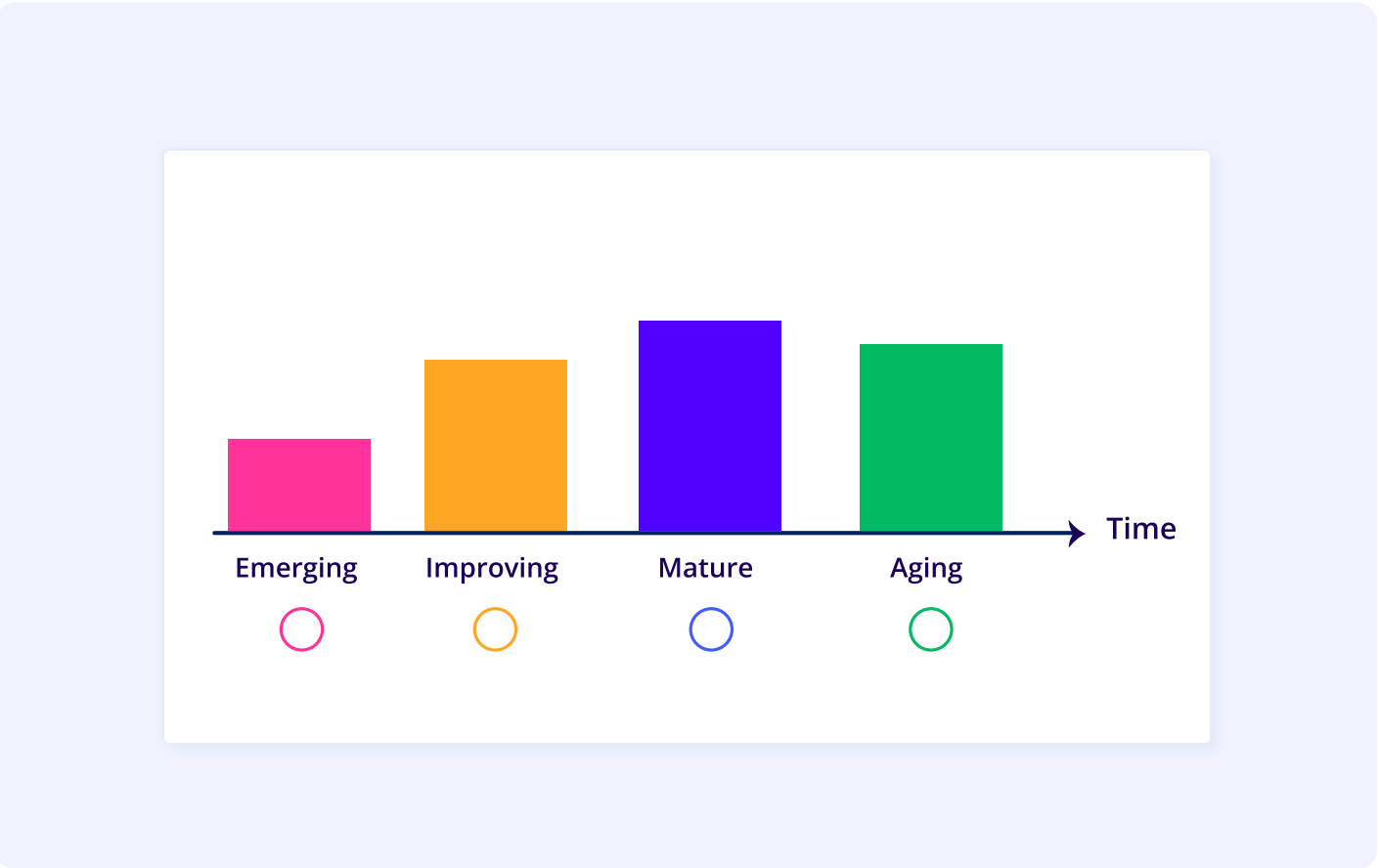
Complexity



Potential impact



Adoption stage



Technology readiness level

PHASE	TRL	DEFINITION
RESEARCH	TRL 1	Basic principles observed
	TRL 2	Concept formulated
	TRL 3	Experimental proof of concept
DEVELOPMENT	TRL 4	Validated in lab
	TRL 5	Validated in relevant environment
	TRL 6	Demonstrated in relevant environment
DEPLOYMENT	TRL 7	System prototype demonstrated in operational environmental
	TRL 8	System complete and qualified
	TRL 9	Actual system proven in operational environment

Scope

How far-reaching is the potential influence of this element on the market?

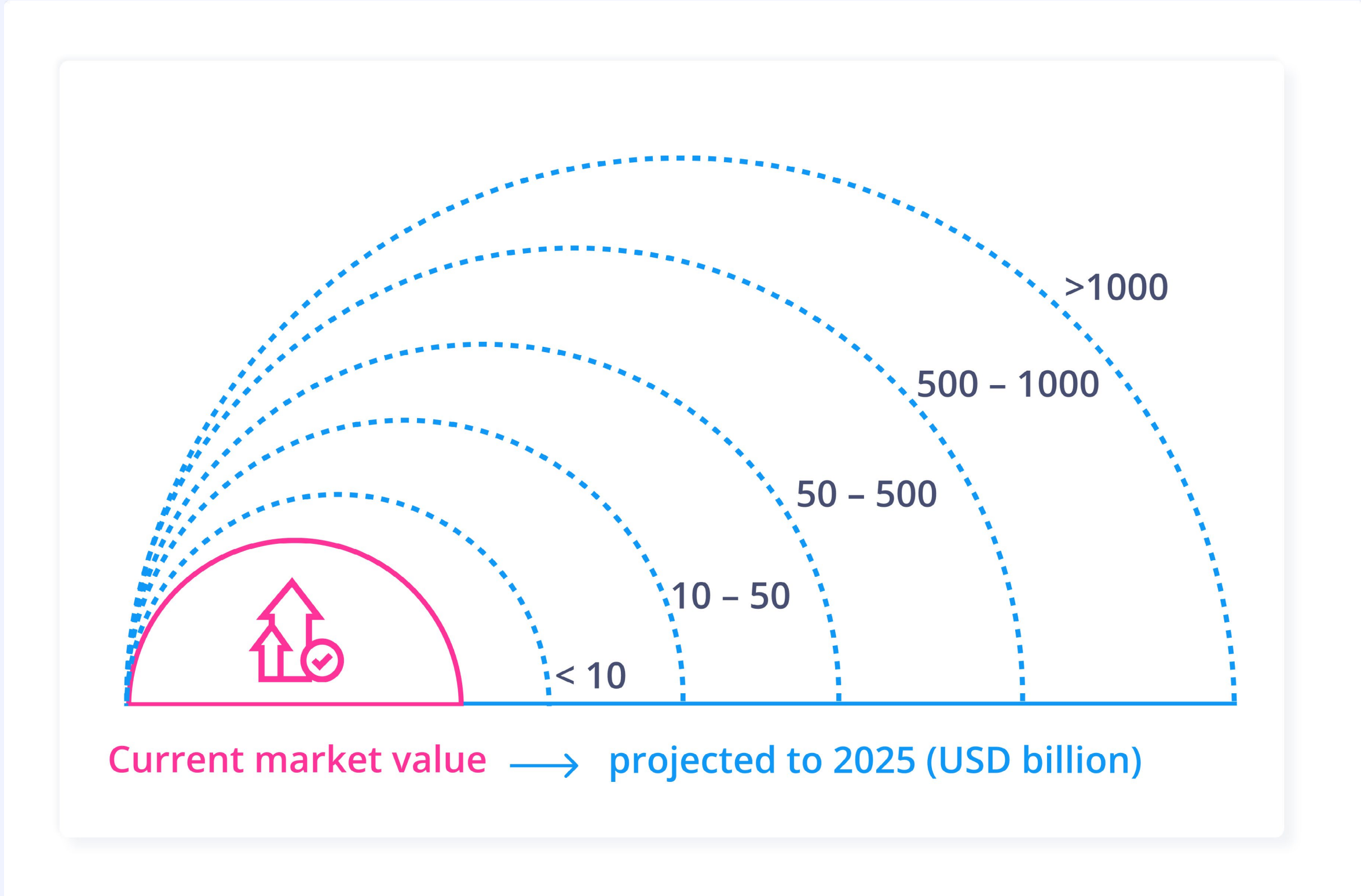
Using data from [ITONICS Insights](#), we measure occurrences of keywords associated with each trend and technology across three dimensions: signals, industries, and regions. From this data, we derive a weighted mean value to indicate market reach.



Potential impact

How high is the potential impact of the driver on the market?

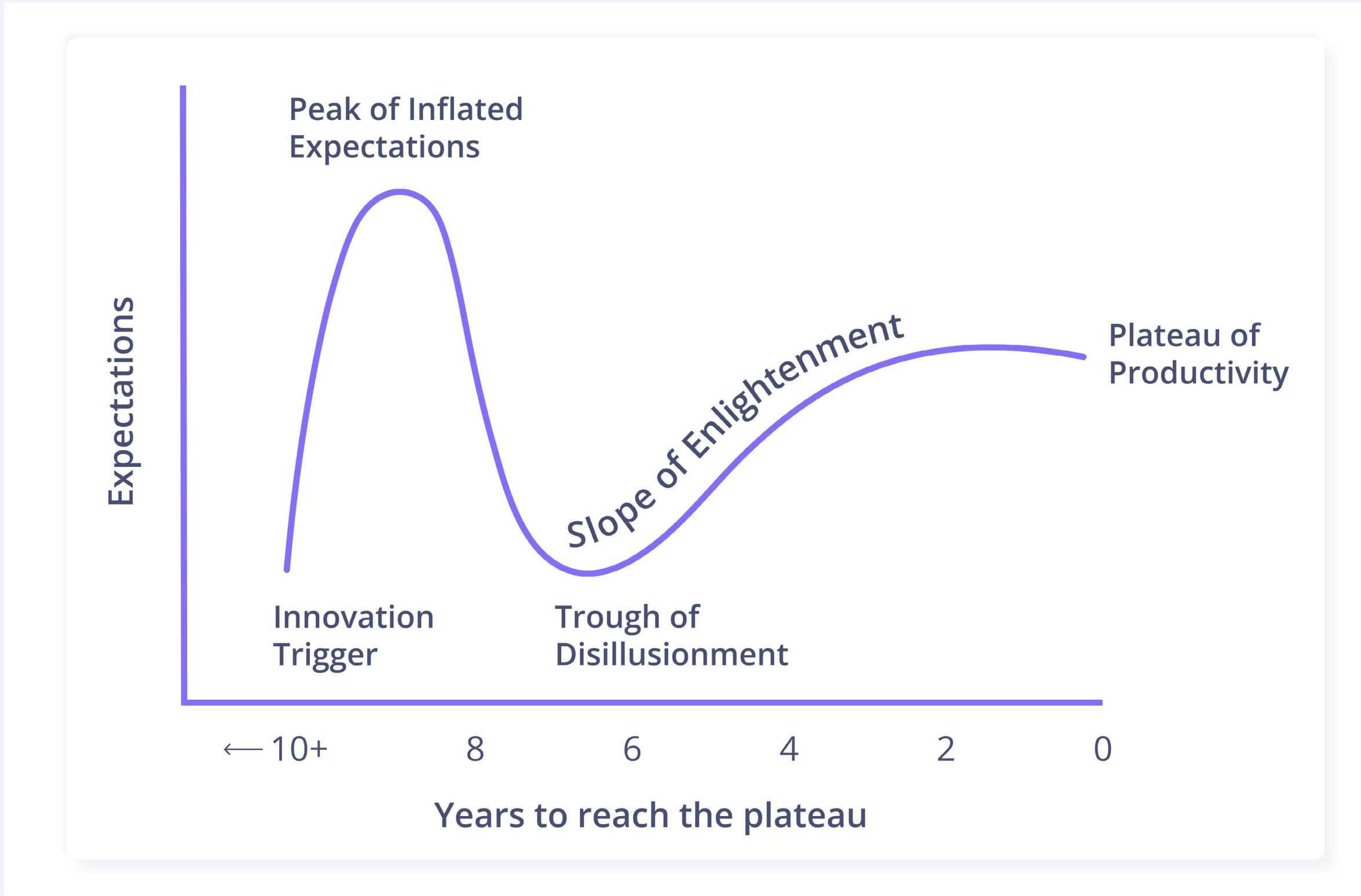
We collect market growth data from multiple sources, accounting for variation by aggregating this information and extrapolating it to arrive at a projected market value in 2025 for each trend and technology.



Time-to-market impact

When can the trend be expected to have a substantial impact on the market?

We map each trend along [Gartner's Hype Cycle](#) to determine its relative market position.



Adoption stage

How mature is the trend in the market?

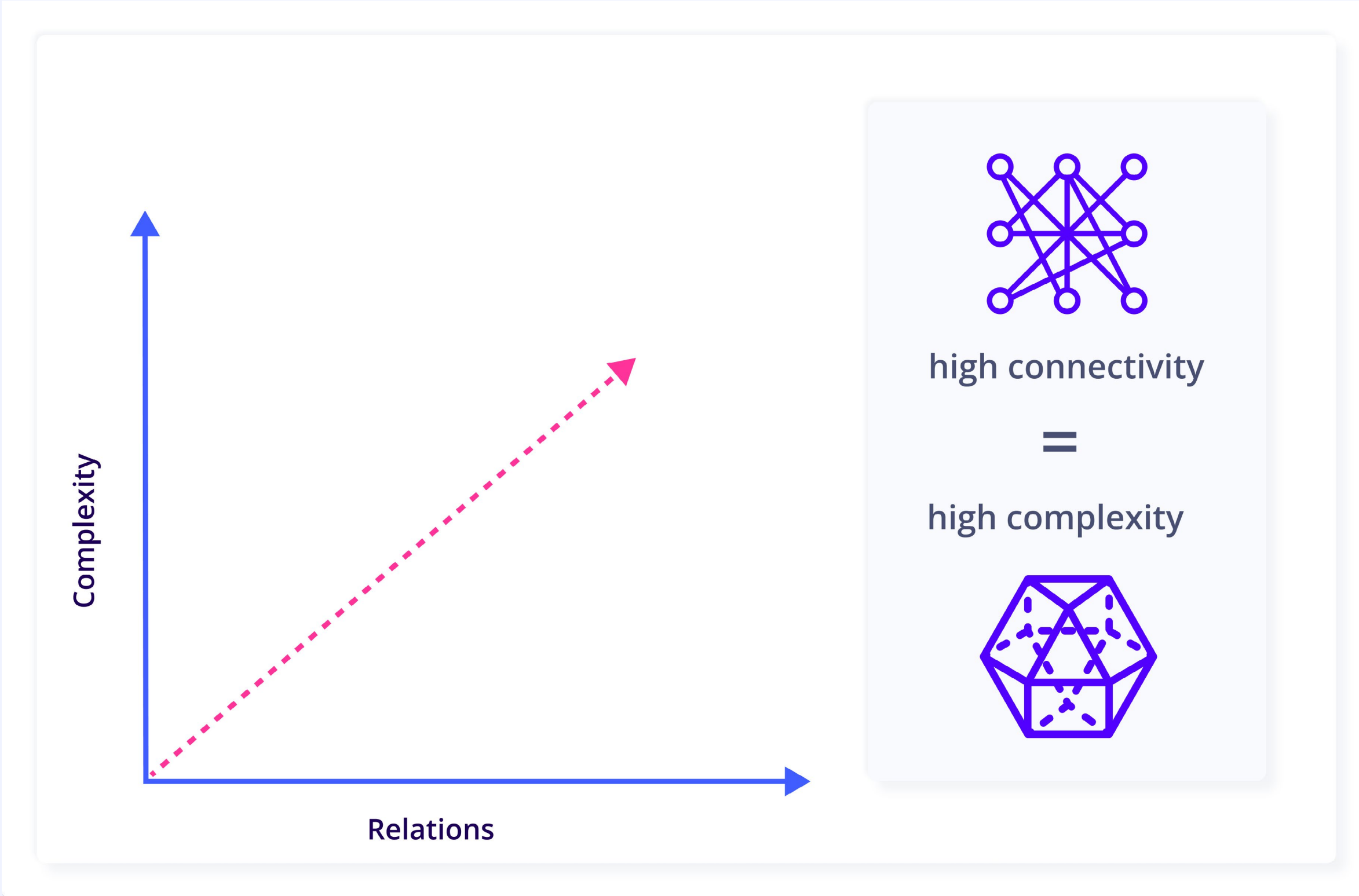
We determine each trend’s relative position on the adoption curve by aggregating the scores across scope, market potential, and time-to-market impact.



Complexity

How high is the complexity of the technology?

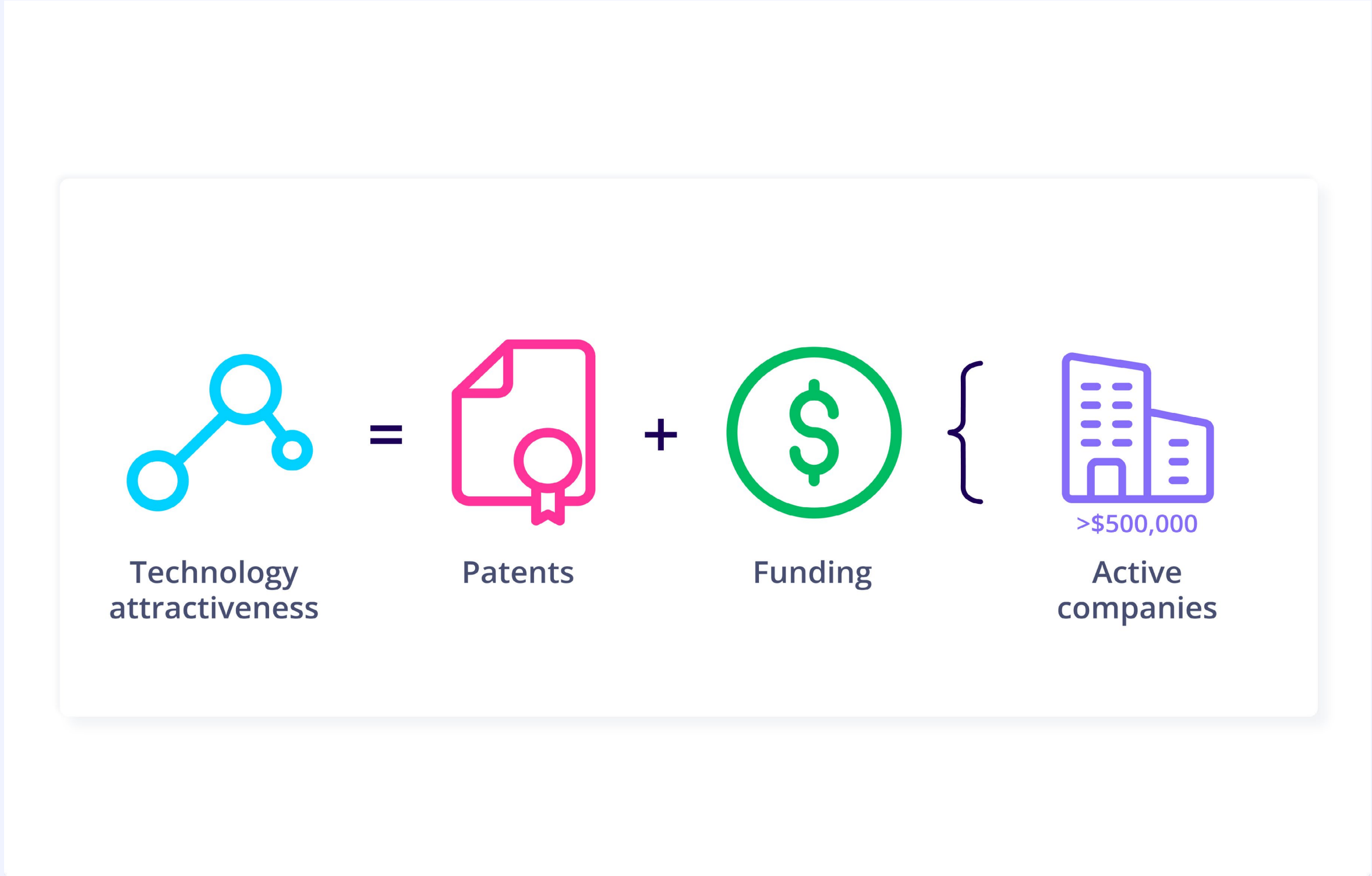
We derive a complexity score based on the number of connections each technology forms with other elements in the Innovation OS.



Technology attractiveness

How much interest from patents and funding does the technology attract?

Using data from ITONICS Insights and Crunchbase, we derive a weighted mean score based on the number of patents and total funding amount for active companies (above the threshold of USD 500,000).



Technology readiness level

How mature is the technology?

We map each technology to the technology readiness level (TRL) scale, originally defined by NASA, to determine its maturity.

PHASE	TRL	DEFINITION
RESEARCH	 TRL 1	Basic principles observed
	 TRL 2	Concept formulated
	 TRL 3	Experimental proof of concept
DEVELOPMENT	 TRL 4	Validated in lab
	 TRL 5	Validated in relevant environment
	 TRL 6	Demonstrated in relevant environment
DEPLOYMENT	 TRL 7	System prototype demonstrated in operational environmental
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How the ITONICS Innovation OS visualizes trend & tech ratings

How can visualizations help identify relevant trends and emerging technologies?

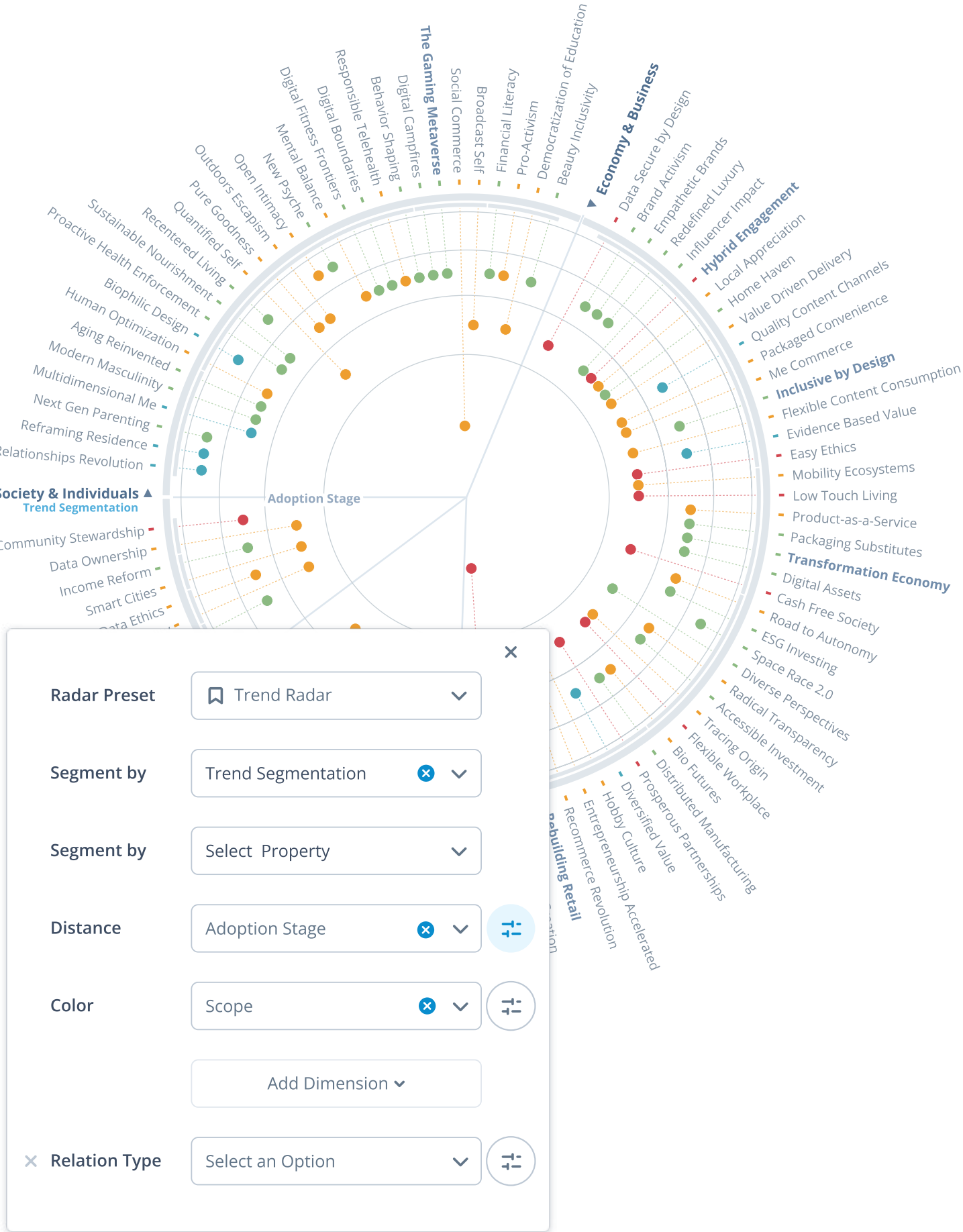
The ability to easily compare and filter trends and emerging technologies allows organizations to focus their attention and identify the elements that are most relevant to their strategic goals. By understanding what the ITONICS Ratings convey and undertaking a process of internal rating, organizations can determine what variables metrics to prioritize.

A [radar](#) can then be set up with different views based on a specific rating criterion and scores. For instance, if an organization wants to view only those emerging technologies that it has collaboratively rated with a high Need for Action, the radar can be set to this view. Additionally, users can save this view as a filter that can be shared and used for future decision-making.



Tip:

The interactive radar can visualize all elements based on their evaluation. This overview helps you to interpret your business situation and deduce possible next steps.



Further resources



— TOPIC

**How to use ITONICS to
monitor drivers of change**

You can find us around the globe





Sebastian Pfingsten

Director of Sales



ITONICS is a leading SaaS provider of systematic innovation management. The ITONICS Innovation OS combined with a systematic framework to steer innovation efforts helps companies to identify emerging technologies, trends, and market potential and to translate them into customized growth strategies.

With more than 150 experts worldwide, we support innovation leaders such as adidas, AUDI, BMW, CISCO, Intel, Johnson & Johnson, and KPMG.

Get a Demo

Let's Chat

Discover more at www.itonics-innovation.com

