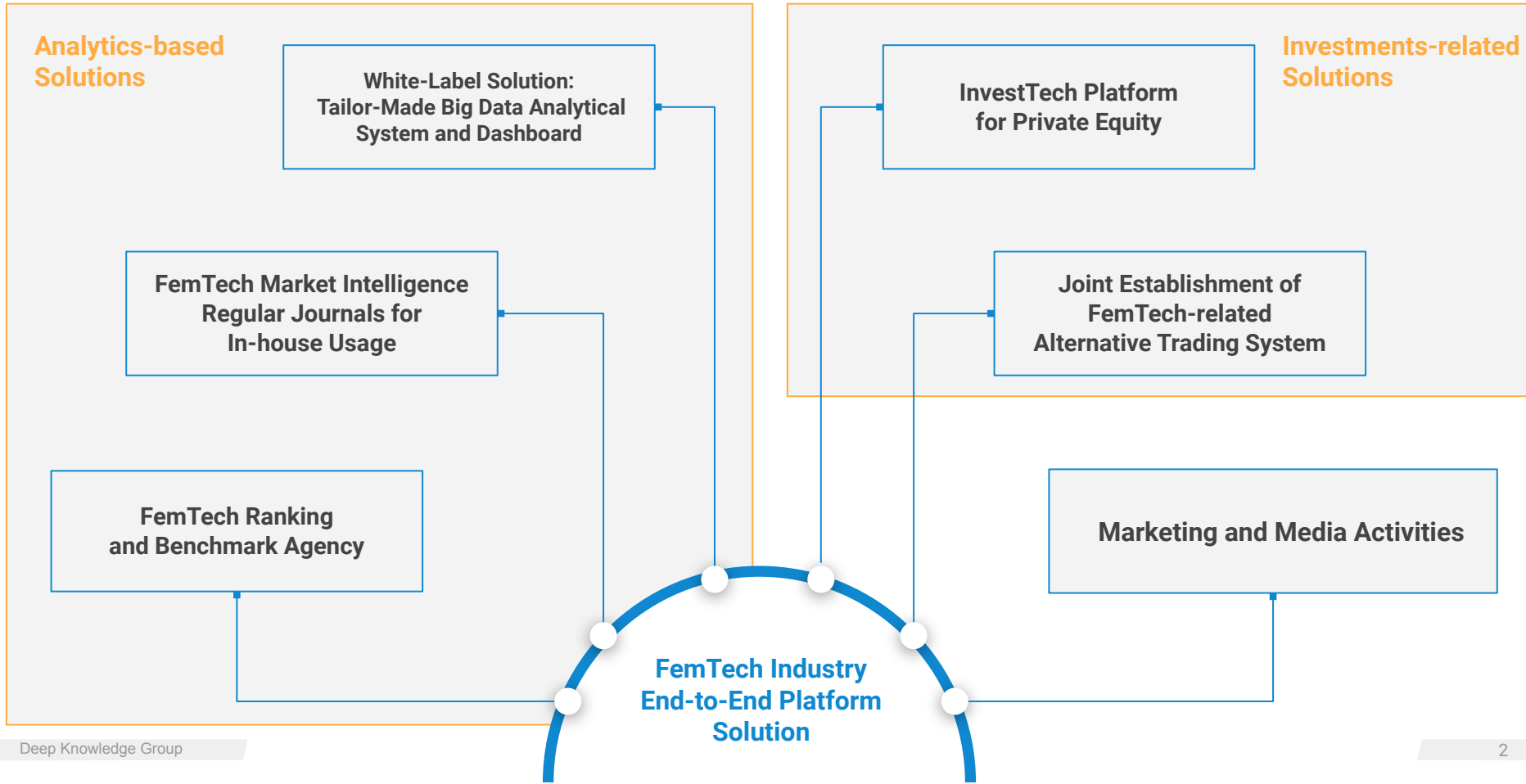


# FemTech Global Ecosystem End-to-End Platform Solution

*Teaser*

# FemTech Global Ecosystem End-to-End Platform Solution



# About Deep Knowledge Group

**Deep Knowledge Group** is a consortium of commercial and non-profit organisations active on multiple fronts in the realm of DeepTech and Frontier Technologies (AI, Longevity, FinTech, GovTech, InvestTech), ranging from scientific research to investment, entrepreneurship, analytics, media, philanthropy and more.

Deep Knowledge Group runs several data-driven **investments and financial vehicles**



DEEP  
KNOWLEDGE  
VENTURES



InvestTech  
Platform



LONGEVITY  
FINANCIAL  
CLUB



LONGEVITY  
CAPITAL



DeepTech and  
Longevity Industry  
Financial Advisors



LONGEVITY CARD

Deep Knowledge Group's **analytical subsidiaries** are world leaders in analytics for DeepTech and Longevity industries



AGING  
ANALYTICS  
AGENCY



Big Data  
Analytics  
Department



GovTech  
Analytics



FemTech  
Analytics



NeuroTech  
Analytics



DEEP  
KNOWLEDGE  
ANALYTICS



SpaceTech  
Analytics



DEEP  
PHARMA  
INTELLIGENCE

Deep Knowledge Philanthropy pioneers several infrastructural **social impact projects**



DEEP  
KNOWLEDGE  
PHILANTHROPY



5th Industrial  
Revolution  
Institute



LONGEVITY  
INTERNATIONAL



ATLAS



Swiss  
Longevity  
Valley



Biogerontology  
Research Foundation  
Prevent. Restore. Preserve.

**FemTech Analytics (FTA)**, an analytical subsidiary of **Deep Knowledge Group**, is a strategic analytics agency focused on the emerging FemTech sector. FTA offers a range of services including research and in-depth analysis on the FemTech industry; profiling of companies and government agencies according to their innovation potential and business activity; and consulting and analytical services to advance the FemTech sector as a whole.

## FemTech is Focusing on Three Key Activities:

### Conducting Market Intelligence

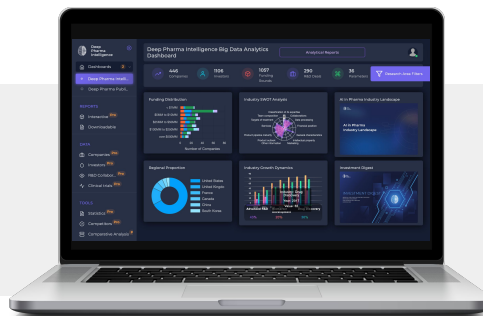
Producing regular **open-access and proprietary reports** on the emerging topics and trends in the FemCare industry. All reports are supported by our back-end analytics systems and tools that allow to receive fresh insights and updates about opportunities and risks.

### Creating Big Data Analytical Dashboards

Building a comprehensive **Big Data Analytical Dashboard** (SaaS) as a one-stop-platform for all market and business intelligence operations our customers may need, including profiling thousands of companies, market signals and trends based on tens of millions of constantly updated data points.

### Producing Scientific Content

FTA provides a **full-cycle development of articles, scientific journals, and books**. We are ready to develop a detailed Requirement Specifications document, including layout of the journal, fully designed brand book, with example templates for each chapter.





# Global FemTech Ecosystem Q2 2022

Reproductive Health & Contraception

Pregnancy & Nursing

Companies – 1,400  
Investors – 1,300  
Community Organisations – 25  
R&D Centres – 15

- Companies
- Investors
- R&D Centres
- Community Organisations

- Mental Health
- Longevity
- Menopause Care

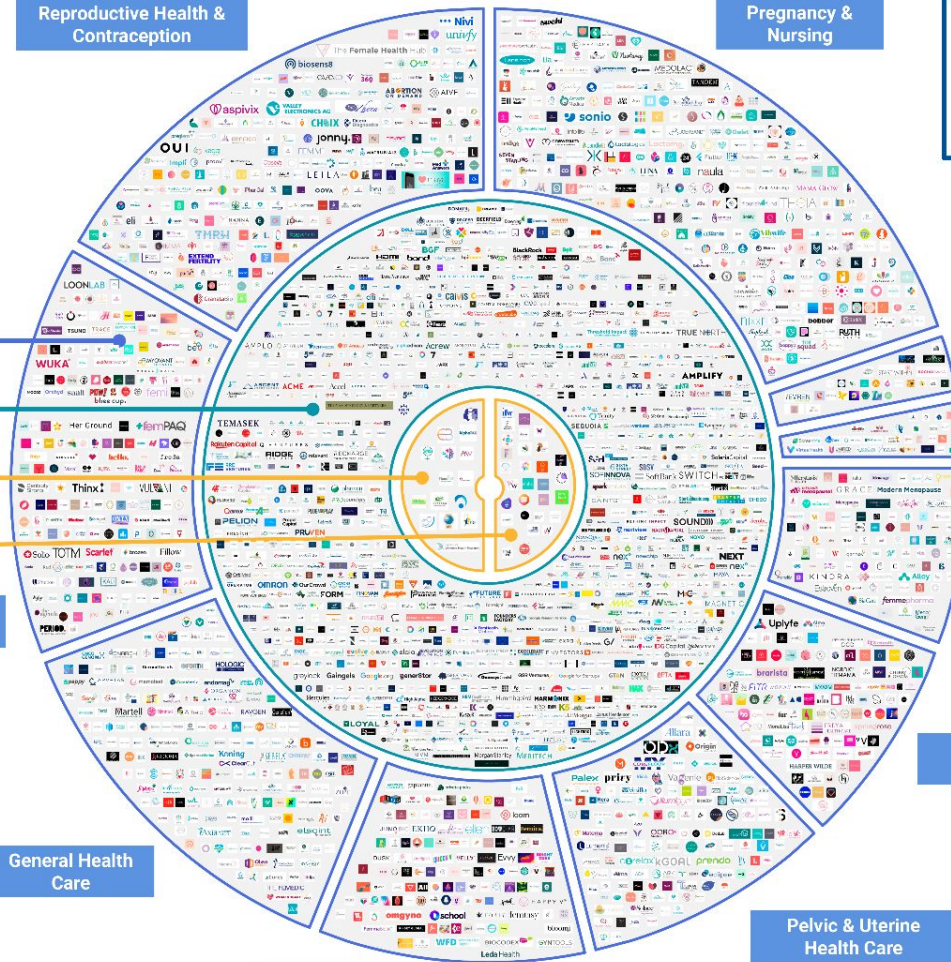
Menstrual Health

General Health Care

Women's Wellness

Sexual Health

Pelvic & Uterine Health Care



# FemTech Industry Framework

**FemTech**, also referred to as **Women Health Technology Industry**, involves the wide range of technologies empowering women's health and well-being. This term is often applied to products, services, applications and software, medical devices, telehealth, wearables, hardware, therapeutic drugs, vitamins and supplements, digital platforms, and consumer products designed to improve or support women's health. FemTech industry attempts to create targeted solutions to meet the needs associated with women's health.

## FemTech Industry Framework

### Industry Segments

Women's Wellness

General Health Care

Sexual Health

Menstrual Health

Reproductive Health

Pregnancy & Nursing

Pelvic & Uterine Health Care

Mental Health

Menopause Care

Women's Longevity

### Product Types

Diagnostics

Apps / Software

Devices  
(Wearables,  
Hardware, etc.)

Services

Drugs, vitamins & supplements

Consumer Products

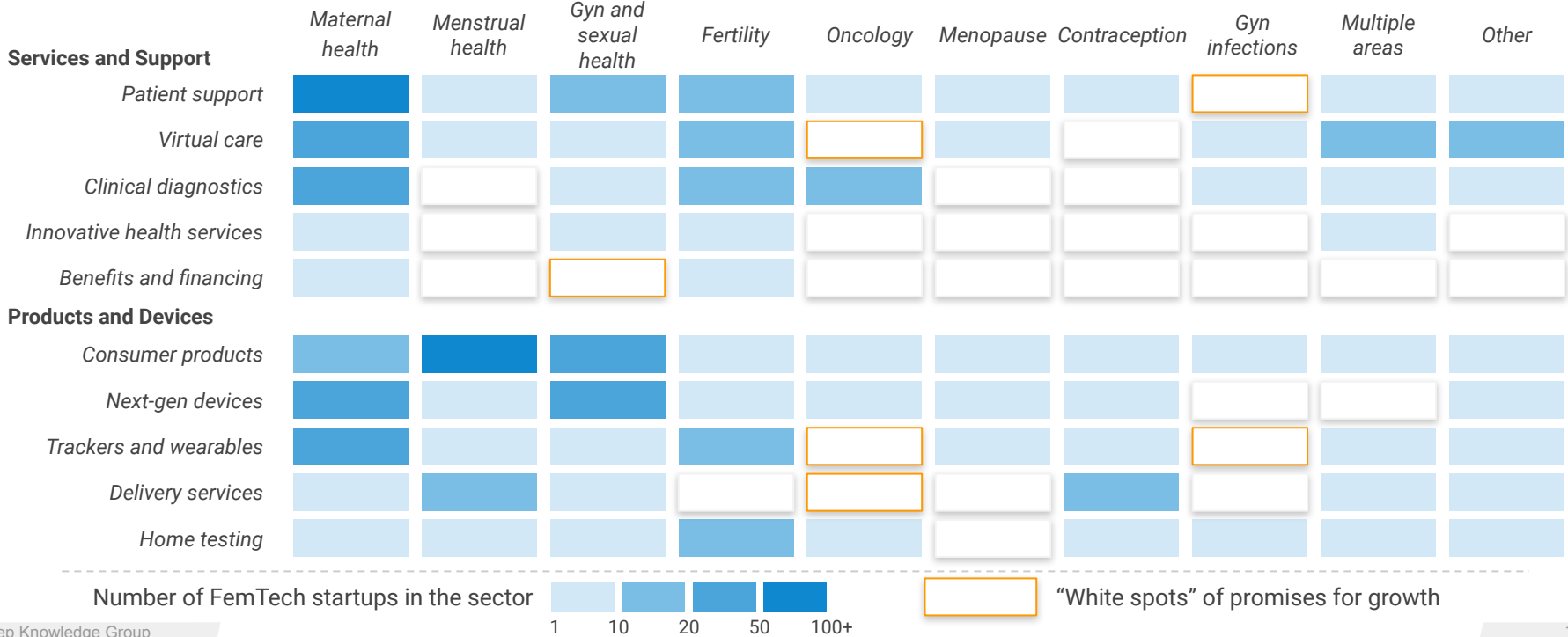
Telehealth

Digital Platforms






# Platform Solution to Detect White Spots of FemTech Industry

Currently, FemTech companies are filling gaps not yet addressed by biopharma and device incumbents, such as in the area of maternal health. Yet this is clearly, and promisingly, only the beginning of what FemTech can address. **To this end, the End-to-End Platform Solution aims to detect and meet such 'white spots' in the FemTech Industry and assist in achieving the market dominance of the client.**

## White Spots of the FemTech Industry Currently not Sufficiently Met by Startups







# Comparative SWOT Analysis Example by Major Parameters

Parameters / Companies					
<b>Key Research Areas</b>	Toxicology, Chemistry, Endocrinology, Dermatology	Psychiatry, Neurosciences, Oncology	Endocrinology, Oncology, Psychiatry, Neurosciences	Hematology, Oncology, Toxicology	Endocrinology, Oncology, Neurology
<b>Number of peer-reviewed scientific publications</b>	10,576	35,646	35,406	7,505	4,839
<b>Highly Cited Papers</b>	18	288	211	29	80
<b>Number of completed clinical trials</b>	121	1,054	1,882	1,663	2,202
<b>FDA Fast Track Designation Approvals (since 2012)</b>	-	9	6	(7)	-
<b>FDA Breakthrough Therapy designation (since 2013)</b>	-	7	4	(2)	-

**400+ Additional Parameters in the Final Solution**

# Comparative SWOT Analysis Example by Major Parameters

Parameters / Companies		L'ORÉAL			
<b>Key Areas in Cosmetic development</b>	Skin care, Personal care	Hair color, Skin care, Sun protection, Make-up, Perfume, Hair care	Skin care, Hair care, Oral care	Skin care, Hair care	Skin care, Make-up, Fragrance, Hair care
<b>Number of peer-reviewed scientific publications</b>	1032	92	389	106	9
<b>Presence of Research centers</b>	3 Research centers and 3 Labs	21 Research centres	3 Research centres	5 Research centres	Collaborations with other
<b>Investment in R&amp;D in 2021</b>	\$200M	\$1029M	\$1B	\$504M	\$307M
<b>Patents in Science</b>	2060	517	20000	22164	4276
<b>Alternative methods for products testing</b>	Multi-organ chips	First reconstructed skin, Digital and modeling methods	Computer modelling and Cell culture-based experiments	Phenion skin model, Computer-aided analysis	Synthetic skin technology

**400+ Additional Parameters in the Final Solution**

# Strategic Advantages of FemTech End-to-End Platform Solution

FemTech End-to-End Platform Solution serves the business needs of large corporations working in the FemTech Industry. The products and services outlined in the current deck will help the corporation to become a global leader within the FemTech industry and will secure its constant strategic competitive advantages.

**The unique advantages FemTech End-to-End Platform Solution can be defined as follows:**

## **Client-centric approach: permanent enhancement of solutions to satisfy the strategic goals of the client**

The most fundamental competitive advantage of FemTech End-to-End Platform Solution lies in the ability to constantly adjust features to the specific business goals of the client. The every component of the platform solution takes into account the strategic goals of improving the competitive positions of the client through providing the valuable market analytics tools, conducting investment- and marketing-related activities, increasing the media presence etc.

## **Validated and operational solutions**

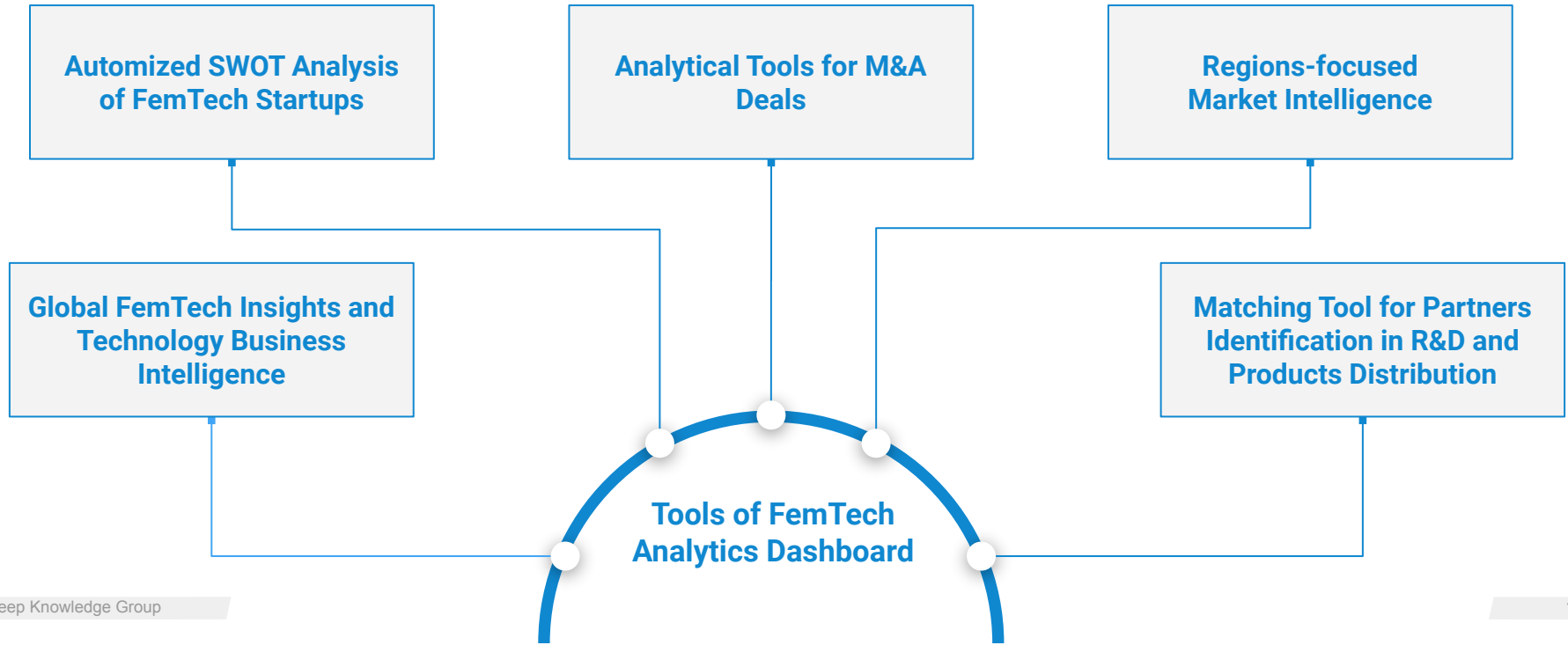
The platform solution involves the components validated on the market and meet the goals of one or more already-launched projects under the umbrella of Deep Knowledge Group. Once assembled into one new integrated system within 3-6 months as a spin-off from Deep Knowledge Group subsidiary companies and adjusted to the needs of the client, the end-to-end platform solution will be able to save time for the realization of go-to-market strategy. FemTech End-to-End Platform Solution can be purchased by interested counterparties and subsequently enhanced according to specific needs of the buyer.

## **Reliance on industry knowledge of Deep Knowledge Group and FemTech Analytics**

The partnering organization will leverage our deep expertise in the FemTech Industry and holistic approach applied to the creation of wide range of solutions of crucial importance for the players in the FemTech Industry.

# FemTech Tailor-Made Analytical Dashboard

Deep Knowledge Group has a broad expertise in creation of analytical solutions called Big Data Analytical Dashboards. To date, we have created the Dashboards focused on Longevity and DeepTech domains which were validated by the market needs. There is an opportunity to create the analytical dashboard focused on FemTech market and tailored to the specific business needs of consumer oriented corporations with FemTech focus. The following scheme presents the major components of the Dashboard.



# Region-focused Market Intelligence

## FemTech Big Data Analytics Dashboard for Region-focused Market Intelligence

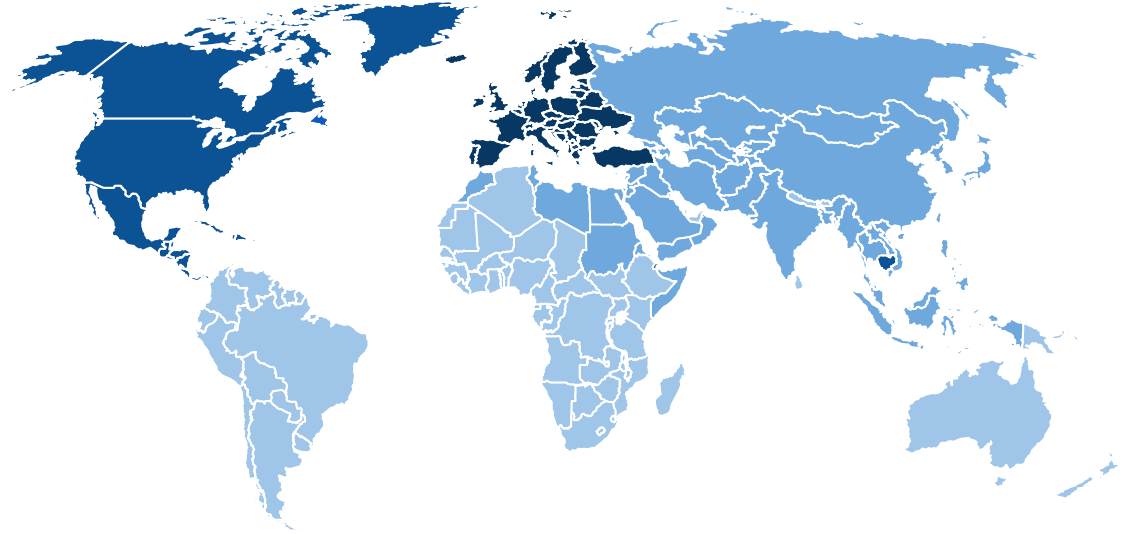
### Geography Scale of Insights

Global

Continent

Region

Country



The Dashboard is set to be the white-label solution exclusively designed for FemTech market participants. Dashboard aims to serve as a first-of-its-kind resource for knowledge-based, validated partnering insights covering the major FemTech industry domains. It includes a sophisticated cloud-based engine for advanced market and business intelligence, infrastructure for expert data curation, knowledge graphs and competitor analysis across various geographical domains.



# Tool for Market Intelligence: Automated SWOT Analysis of FemTech Startups

Automized SWOT Analysis can be a handfultool for the market intelligence of the FemTech Industry and identifying the market positions of startups.

## Main Features

Aggregation of different types of market data and representation of derived insights in user-friendly form

Cutting-edge Natural Language Processing algorithms

Coverage of large number of startups

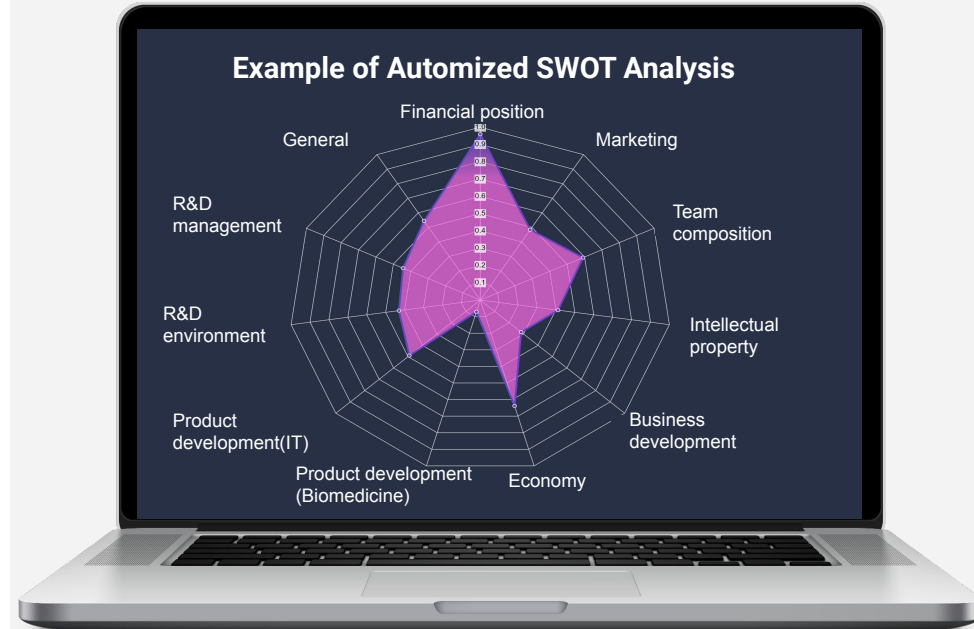
Comprehensive assessment of business activity based on variety of parameters

Market niche- and regions-based coverage

Cross-validation made by industry experts

Elimination of Intellectual Property Rights infringement

Automized SWOT Analysis embedded in Longevity and DeepTech Big Data Analytical Dashboards of Deep Knowledge Group generates market intelligence for 11 business domains based on 170 parameters.



# FemTech Market Intelligence Regular Journals for In-house Usage

Whereas Big Data Analytical System and Dashboard aims to accumulate the advanced tools for data analysis, FemTech market intelligence journals can serve as the summary of analytics, containing descriptive content, infographics and conclusions. Such thematic journals may serve the multiple needs: they may be distributed across the employees of the company or shared with interested parties. Such digests may be devoted to predefined topics and can be released on the regular basis to keep the readers' awareness on the key trends in the industry and analytics-backed projections.

### Epigenetic Ageing Clocks: Milestones

**Horvath** (2011) - CpG clock based on 353 CpG sites. First widely used and as a reference for other clocks.

**GrimAge** (2013) - CpG clock based on 353 CpG sites. First widely used and as a reference for other clocks.

**PhenoAge** (2015) - CpG clock based on 353 CpG sites. First widely used and as a reference for other clocks.

**DNAmT** (2017) - CpG clock based on 353 CpG sites. First widely used and as a reference for other clocks.

**GrimAge 2.0** (2018) - CpG clock based on 353 CpG sites. First widely used and as a reference for other clocks.

**DeepMeth 2021** (2021) - CpG clock based on 353 CpG sites. First widely used and as a reference for other clocks.

**Source:** Longevity Biomarkers Landscape Overview<sup>1</sup>

**The DNAm clocks** also known as **epigenetic ageing clocks** were developed very dynamically in the past decade as a promising analytical tool for age prediction. Competition for the most successful ageing clock developers increased drastically. At home kits are designed as a convenient way for patients to estimate age and the risk of age-related conditions. Recent products (TruAge (TruSight) lab), DeepMeth 2021 (Deep Longevity) are empowered with AI for more precise biological age prediction.

### Clinomics Ageing Clocks: Choice of Biomarkers Set

**Source:** Longevity Biomarkers Landscape Overview<sup>1</sup>

**Clinomics, an analysis of clinical lab data, is an important part of multi-omics ageing clocks because of data availability and informativity. The main current direction is the optimization of the set of analysed biomarkers to find the most relevant ones and to reduce the overall number of lab tests that need to be performed. Blood glucose, triglycerides, and LDL, and HDL Cholesterol are essential to estimate the risk of cardiovascular and metabolic**

<sup>1</sup> <https://data.longevityinternational.org/longevity-biomarkers-report.pdf>  
<sup>2</sup> <https://www.agrnanalytics.com/regenerative-medicine-2022>

Longevity Science 69 | Longevity Industry 2022

diseases and are part of most clinomics. Biomarkers of the liver (albumin, ALT, AST, AP, bilirubin), kidney (blood urea, AP, creatinine) function, inflammation (ESR, C-reactive protein, TNF-alpha), and health state (Complete Blood Count indexes) are also present in the minimal 'core' set of biomarkers in clinomic ageing clocks.

### Sample Type vs. Ageing Clocks: State in 2021

**Source:** Longevity Biomarkers Landscape Overview<sup>1</sup>

**Ageing clocks** are supposed to be performed regularly and therefore their non-invasiveness is one of the most important demands. Most conventional ageing clocks (55.6%) utilize data obtained from analysis of blood samples. Saliva is used as a sample in 19.4% of analysed ageing clocks. Other possible samples involve urine, cells, tissues, gut bacteria, images, and questionnaires. It should be emphasized that blood samples provide material for a variety of analyses: from common blood works to protein profiling, genomics, epigenomics, transcriptomics, etc.

### Types of Commercial Ageing Clocks and Companies: State in 2021

**Source:** Aging Analytics Agency Analysis<sup>2</sup>

<sup>1</sup> <https://data.longevityinternational.org/longevity-biomarkers-report.pdf>  
<sup>2</sup> <https://www.agrnanalytics.com/regenerative-medicine-2022>

Longevity Science 70 | Longevity Industry 2022

The vast majority of R&D centres that conduct anti-ageing research are located in the United States, where 80% of the whole range of analysed R&D centres are located. The United States is distantly followed by Germany and Finland, which together account for 16% of all R&D centres. The main domain of anti-ageing research studies the biology of ageing and searches for new potential therapeutic targets and pathways. Around 85% of centres conduct research in this field.

### BioTech Companies Founded in 2021 by Region

**Source:** [www.agrnanalytics.com/regenerative-medicine-2022](https://www.agrnanalytics.com/regenerative-medicine-2022)

Companies that were created in 2021 are referred to in the report as 'New Companies'. The global economic crisis has affected the development of this market, and 87 new BioTech companies and start-ups were created in 2021. Some 70% of these new companies are located in the USA, with an additional 13% in the European Union, 6% in the United Kingdom, and 5% in Switzerland. The majority (70%) of companies conducting anti-ageing research in 2021 are located in the United States. The United States is distantly followed in this regard by the United Kingdom, the European Union, and Switzerland, which together account for 21% of the total number of companies analysed.

### Distribution of New BioTech Companies by Hallmarks of Ageing, %

**Source:** [www.agrnanalytics.com/regenerative-medicine-2022](https://www.agrnanalytics.com/regenerative-medicine-2022)

Longevity Science 25

In 2021, the Regeneration sector (cell therapy and organ engineering) and the Mitochondrial Disorders sector had the largest shares of the BioTech market, at 25% and 17% respectively, even exceeding the rates of previously more popular sectors such as Calorie Restriction and Telomere Attrition.

### Distribution of New Companies by Specialisation

**Source:** [www.agrnanalytics.com/regenerative-medicine-2022](https://www.agrnanalytics.com/regenerative-medicine-2022)

The main areas of specialisation of BioTech companies are Anti-Ageing, Therapy, Diagnostics, and AI and Machine Learning for R&D, which account for 58%, 17%, and 17% of all companies respectively.

### The Biggest Acquisitions Among BioTech Companies in 2021

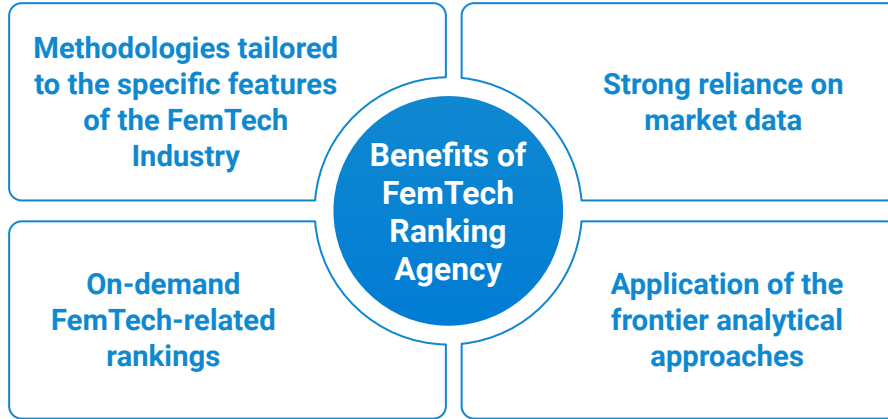
**Source:** [www.agrnanalytics.com/regenerative-medicine-2022](https://www.agrnanalytics.com/regenerative-medicine-2022)

Longevity Industry 2022

# FemTech-Focused Ranking Agency

Deep Knowledge Group has extensive analytical capabilities that have already led to the creation of analytics in the form of sophisticated IT products and proprietary reports which cover the most advanced technological domains.

Such expertise allows to initiate the establishment of FemTech Ranking and Benchmark Agency aiming to deliver the industry-related analytics, rankings and benchmarks for making the strategic decisions, proper market intelligence and defined business needs.



## General Ranking Parameters\*



# InvestTech Platform

Deep Knowledge Group aims to remove existing barriers to investing in private equity markets and to add value for all stakeholders with its **InvestTech Platform**. This end-to-end solution allows investors to deploy capital quickly in an efficient, timely manner enabling startups to raise funds and keep growing. Innovative LegalTech tools and e-documentation provide a clear, step-by-step investment process which is enhanced by additional service integrations such as investment and financial analytics, specialized CRM and corporate payment solutions.

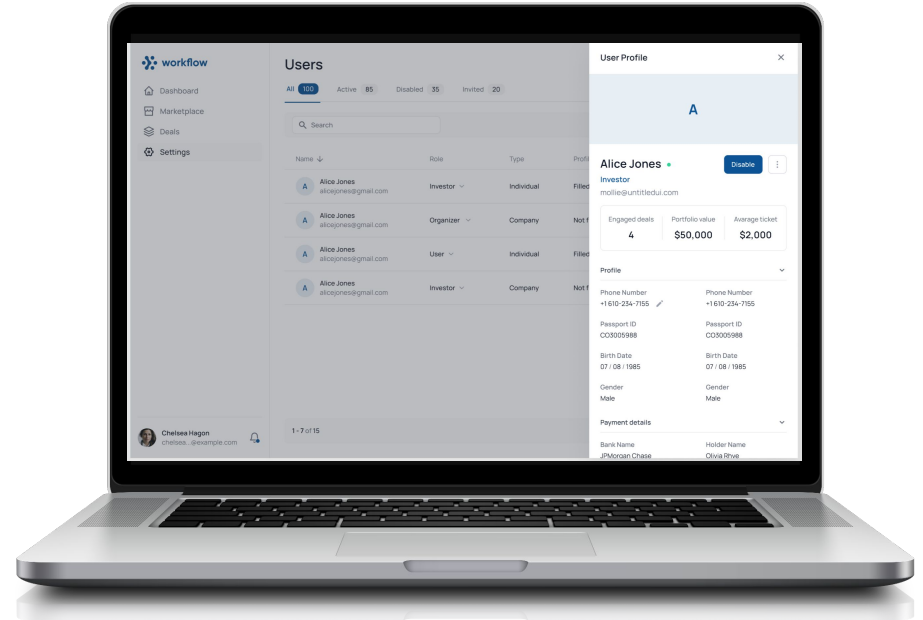
## InvestTech Platform Benefits

End-to-end LegalTech IT-based System

Full Scope of Investment Transactions  
for Private Equity Markets

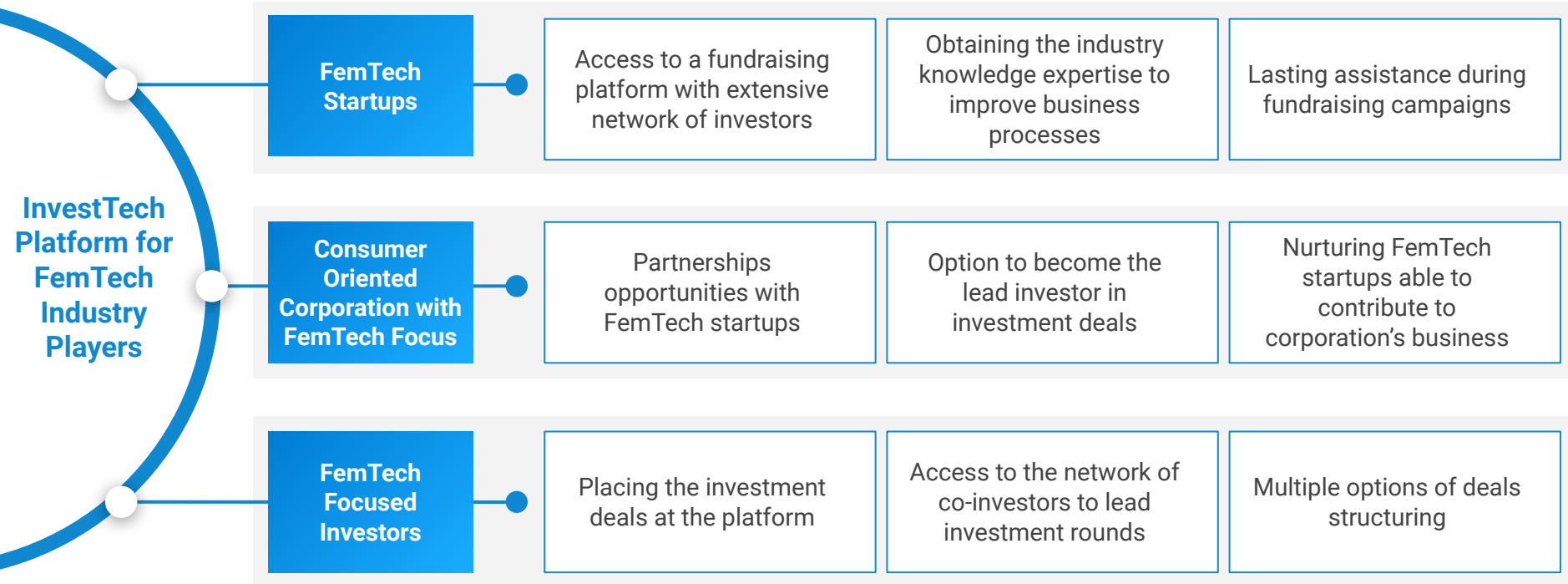
Intellectual Property  
Investment & Trading Platform

Extra Mile Service Integrations



# InvestTech Platform's Benefits for FemTech Market Participants

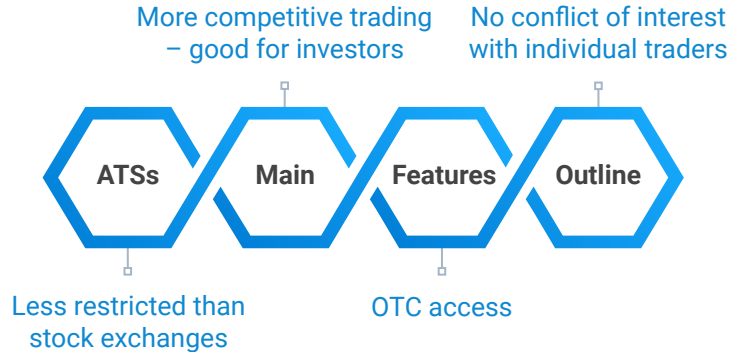
Initially developed as the solution to help innovative tech startups to fundraise and investors to allocate capital, InvestTech Platform is of significant potential to satisfy the business goals of actors within the FemTech Industry, namely FemTech startups, FemTech-focused investors (both individual and institutional) and large corporations.



# Alternative Trading System (ATS) / Multilateral Trading Facility (MTF)

**Alternative Trading Systems (ATSs)** in the United States (also known as **Multilateral Trading Facilities (MTFs)** in European jurisdictions) are trading systems that facilitate the exchange of financial instruments between multiple parties mostly over-the-counter.

ATSs / MTFs allow contract participants to gather and transfer securities, especially those without an official market. Market operators or investment banks control these facilities. Electronic order submission matches buyers and sellers.



Alternative Trading System (ATS) provides the following benefits for its participants:

- 1 Pre-trade transparency** – Buy and sell prices are clearly available through data feeds to traders prior to placing a trade.
- 2 Post-trade transparency** – Trade results are immediately shown in real-time.
- 3 Clear operating procedures** – ATF must include a written rulebook that details how it operates.

Establishment of Alternative Trading System (Multilateral Trading Facility) provides a number of advantages. Consumer oriented corporation with FemTech focus may initiate the establishment of Alternative Trading System (Multilateral Trading Facility) to back promising FemTech companies and bring additional liquidity to them.

# FemTech-related Alternative Trading System

Having significant and long-term expertise in FemTech market, consumer oriented corporations have a potential to initiate the establishment of Alternative Trading System in order to increase the strategic dominance in the industry and to create the pool of FemTech companies seeking additional sources of capital. Ultimately, the creation of ATS or MTF may unlock new revenue streams for such corporations.

## Strategic Benefits for consumer oriented corporations from Establishment of FemTech ATS

**Achieving strategic impact of corporation in private investing at FemTech industry**

**Empowering corporation's competitive positions**

**Extending the network of co-investors**

**Optimized investment strategy of investing in private FemTech companies**

**First of its kind trading venue for FemTech companies**

**Opportunities of M&A transactions**

## Scope of Services Provided by Deep Knowledge Group

**Identification of prospective candidates for listing at ATS**

**Screening of FemTech startups**

**Strategic advisory in FemTech market movements**

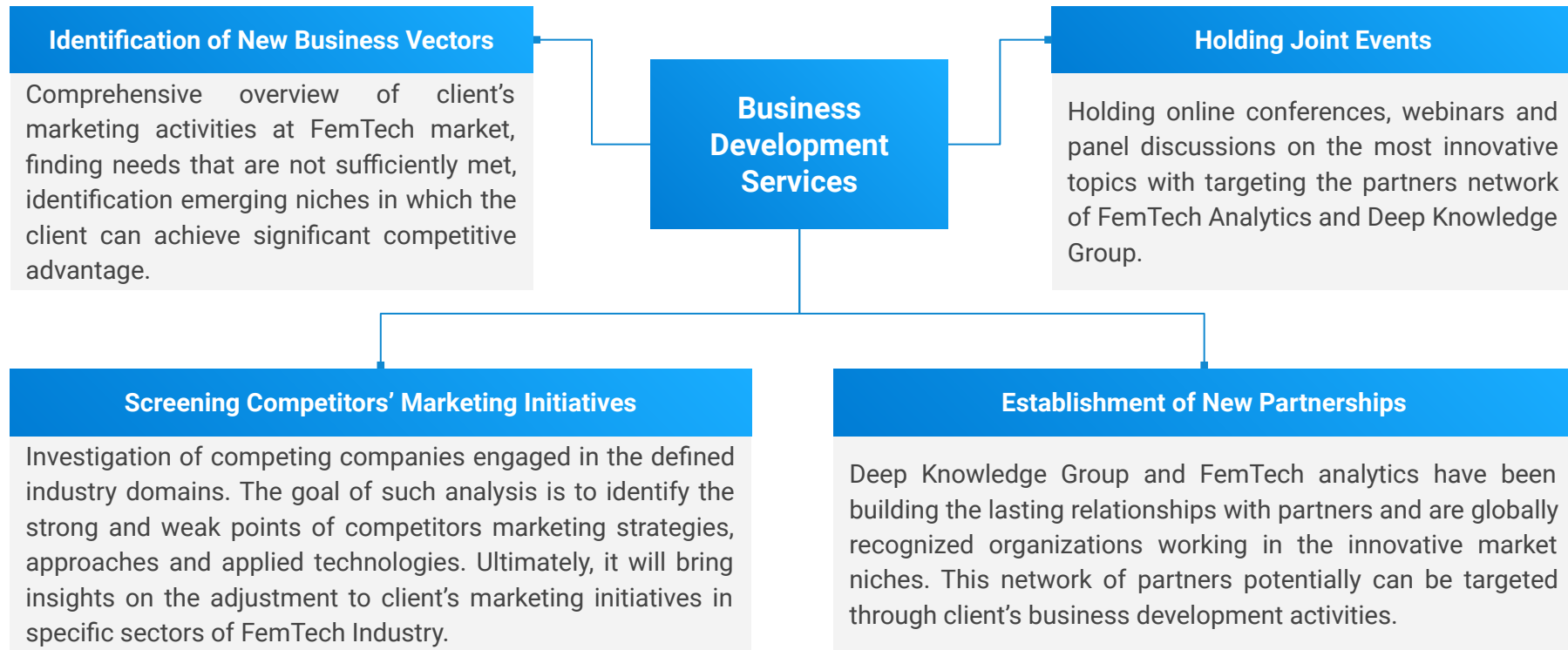
**Providing FemTech market analytics**

**Optimising investing strategy**

**Project promotional activities**

# Business Development Services

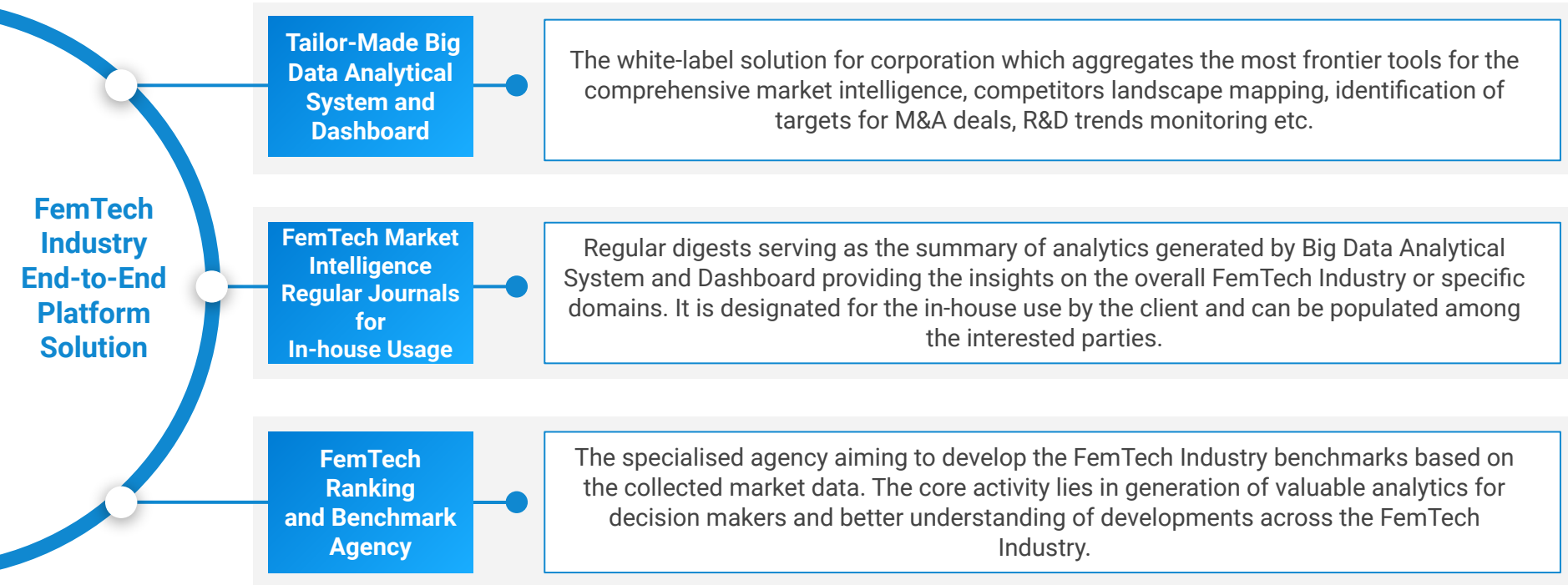
Deep Knowledge Group conducts the range of initiatives related to marketing and business development aimed at improving the competitive positions of consumer oriented corporations with FemTech focus.





# Proposition Summary: Analytics Oriented Solutions

The following three components of the FemTech Industry end-to-end platform solution are the core solutions for providing the high-level analytics required for making strategically vetted decisions of consumer oriented corporations with FemTech focus.



# Proposition Summary: Investment and Marketing Oriented Solutions

The following components of FemTech Industry end-to-end platform involve solutions related to investments and marketing initiatives that are of strategic importance for consumer oriented corporations with FemTech focus.



# Proposition Summary on FemTech End-to-End Platform

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Deep Knowledge Group and FemTech Analytics are building the set of solutions related to FemTech Industry outlined in the current document. To this end, **the auction is planned be made in Q1 2023 among the potential partners across consumer-oriented corporations active in FemTech Industry, which would be** interested in leveraging the End-to-End Platform outlined in the current document.

The project is subject to the sale to the partnering organization with **the opportunity to purchase 51% stake**. Additionally, **50% of all obtained by DKG capital will be allocated to the further development, refinement and adjustment to the defined business goals and other relevant specifics of the partner and overall maintenance of the project for the next 5 years**.

The ultimate goal of post-purchase platform development is to strengthen the competitive positions of the partners we form collaborative relationships with in the FemTech market, further refining the practical outcomes of the FemTech End-to-End Platform.

**The purchase of 51% stake in the FemTech End-to-End Platform will secure the market dominance of the purchaser within the FemTech Industry and their capacity to achieve unparalleled competitive advantages, while also leveraging substantial brand development benefits by highlighting their commitment to the design, development and implementation of most innovative technologies and approaches in the FemTech industry. A consumer-goods oriented corporation gaining the ownership of the FemTech End-to-End Platform would be able to achieve a number of tactical and strategic competitive advantages.**

***Strictly Confidential***

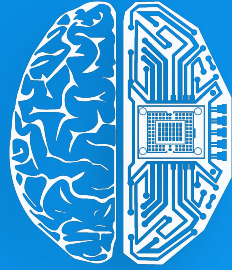
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