

FemTech Industry

Landscape Overview Q4 2021



Foreword from Kate Batz

Director of FemTech Analytics Managing Partner at Deep Knowledge Group



Welcome to our second edition of the Global FemTech Report, which covers a collection of advanced analytics on the FemTech sector, interviews with the industry leaders, and case studies shared by prominent FemTech companies. I hope that our stakeholders will make use of the valuable information provided herein.

The Global FemTech Report Q4 2021 is based on our updated methodology, along with our new database to maintain focus on core FemTech companies.

At FemTech Analytics, we believe in the power of data. It is essential for us to present data that tells a story about key trends, including unique growth opportunities and investment prospects.

This report profiles companies, investors, and R&D centers based on their innovation potential and business activity across the globe. Several countries have been advancing their FemTech agendas in line with their women empowerment policies. The US continues to lead in FemTech while the UK and Israel boast the highest number of FemTech companies in their respective regions. Asia's undisputed leader is India, which accounts for 4% of the global FemTech companies.

In line with our reports, we continue to offer public webinars, business advice, and regular updates to raise awareness about FemTech. Based on the data generated, we aim to deliver comprehensive analytical case studies, which start-ups, companies, and investors can utilize when making strategic decisions and to remain competitive.

Contents

Introduction	3
Report Contributors	4
Report Methodology and Approach	8
FemTech Market Definition	10
Executive Summary	15
FemTech Industry in Figures	16
Market Ecosystem	19
Industry Breakdown	20
Investment Overview	31
Global FemTech Survey Q3 2021 Results	42
Interviews with FemTech Leaders	55
Transforming Illegible Medical Test Reports: a Case Study	70
Menopause Telemedicine — a Digital Revolution	74
Navigating the Data Explosion in the FemTech Market Leveraging AI/ML	77
What Are the Problems Women Face Today: Key Facts and Figures	83
The Future of FemTech Postpartum	86
FemTech and Longevity: Today and Tomorrow	88
Biomarkers in FemTech	92
Contribution of FemTech to Women's Longevity	96
Key Market Trends	105
Top 150 FemTech Leaders	114
Key Takeaways	131
Disclaimer	135

Introduction

FemTech Industry Landscape Overview Q4 2021 summarizes vital observations in the FemTech ecosystem, a rapidly evolving and growing industry. Based on the assembled and analyzed data, the report reveals vital features, trends, innovations, technologies, market size, among other perspectives. The analytics in the report are based on information about 2,600+ organizations, including 1,300+ FemTech companies selected by sector, 1,290+ investors, 14 R&D centers, and 22 community organizations. The report also depicts the top 150 FemTech personalities and their contributions to the development of the industry. FemTech Analytics views FemTech as software, diagnostics, products and services that use technology to focus on women's health and wellness. FemTech encompasses ten subsectors such as Menstrual Health, Reproductive Health & Contraception, Longevity, Pregnancy & Nursing, General Health Care, Mental Health, Menopause Care, Sexual Health, Pelvic & Uterine Health Care, and Women's Wellness. We acknowledge that scope and priorities may change as the industry grows, especially in an ever-evolving industry like FemTech. We continuously improve the methodology as the industry progresses.

The report includes interviews with FemTech leaders and case studies shared by FemTech companies to showcase the current industry state and highlight key topics such as Menopause Care, Al and ML in FemTech, Postpartum, Longevity, etc. In addition, the report includes an advanced study on Longevity female biomarkers.







FemTech Collective offers products and services that help female focused health technology startups overcome barriers to success. Startups are able to connect with fellow FemTech startups, mentors, investors, and consumers via

person events, online media outlet and dedicated platform for communication.



FemTech Summit offers series of talks and round tables with leaders in the FemTech industry about: The link between gender and effective therapy in medicine, how to bridge the missing data gap, how new and innovative screening and tracking technologies are revolutionizing care, the personalization of contraception and fertility, etc.

Cycle addresses a major issue in female health and well-being by empowering women to create a better lifestyle. Cycle offers education about all aspects of the female body, quality products and open-minded community. All Cycle experts have years of experience in the field of the female body and well-being and are among the top in their field.



LEIA is an individual program, supporting in postpartum journey. A personal health plan consists of information, tips, and advice developed together with a team of experts in breastfeeding, physical and mental recovery, and parenting.



Tech4Eva is a 9-month start-up acceleration program, aiming to help the selected start-up companies refine their business models and go-to-market process strategy, meet investors and potential customers through thematic

workshops, roadshows as well as personalized technical and business coaching.



Groupe Mutuel is a Swiss insurance company. It is active in the fields of health, life, heritage, and business. With more than 1.3 million insured, it is one of the leading health insurance companies in Switzerland.

Active in occupational pensions and life insurance, it offers the entire range of personal insurance.



breathe ilo is the first fertility tracker worldwide, which uses CO₂ measurements to identify the fertile days of women. breathe ilo is a small handheld device synced to a smartphone app.

Thanks to its innovative technology the time of ovulation can be defined in real time with considerable accuracy using a breath analysis.



The **DeepH** app helps to become more active and live a healthier and happier life, collecting data from person's daily activities. It enables to estimate the overall status of well-being and use it to improve DeepH score.





MyMenopauseRx is an online doctor's office devoted to evidence-based menopause treatment and education. The company is on a mission to build healthcare bridges for menopause care and midlife wellness.

Mimicking the in-office experience in a virtual format, women enjoy medical and wellness experience they need without the hassle of a trip to the clinic.



Emerging Technologies Sweden is an accelerator offering business consulting, strategic advice, and working with multi-planetary social and technological impact challenges thanks to our expertise in entrepreneurship, research, and

innovation. Besides that, we deliver disruptive technology solutions and accelerated educational expert training.



PadCare is an innovative and sustainable menstrual hygiene management system. It is completing the loop of the menstrual hygiene economy by providing solutions across four segments: 1) menstruation awareness,

2) accessibility of period products, 3) safe and hygienic disposal of the same, and 4) the novel technology of recycling plastic-based sanitary pads and converting them into plant pots.



Orgasmic Leadership tells the story of what drives, inspires and sustains entrepreneurs in the rapidly growing global women's sexual health and wellness space.



SG Analytics SG Analytics is one of the leading research and analytics firms to offer data-centric research and contextual analytics services.

With a presence in the USA, the UK, Switzerland, and India, SG Analytics has been consistently meeting and exceeding customer expectations through its knowledge-based ecosystem and impact-oriented solutions.



Medicus is a leading technology company supporting the diagnostic industry with an innovative digital health solution.

Medicus' licensed, integrated, and white-labeled B2B2C platform empowers users to visualize and interpret health data from blood tests and medical reports, helping patients and users better understand and manage their health.





Rachel Braun Scherl (US)

Rachel Braun Scherl is a champion for women's health and a pioneer in the space where she has passionately focused on driving the conversation in and the growth of women's sexual and reproductive health companies.



Barbra Hanna (US)

Barbra is founder and CEO of MyMenopauseRx A modern woman with modern ideas, Dr. Hanna embraced technology and telemedicine to break down barriers in women's healthcare.



Veronica Chiaravalli (Sweden)

Veronica Chiaravalli is a founder and CEO at Emerging Technologies Sweden. Strategic advisor and mentor to startups and organizations on strategy, exponential organizations and technologies, leadership, etc.



Megan Capriccio (Australia)

As an entrepreneur, product manager, and business strategist, Megan has dedicated her career to ensuring that women have more control over their realities: Health, education, and career.



Nadine Nehme (UAE)

Nadine Nehme is Co-Founder & Chief Science Officer at Medicus Al. She has a wide experience in medical research. Her interest ranges from developing diagnosis to research and healthcare/medical counseling in the Arab region.



Dr Siddhartha Dutta (India)

Dr Siddhartha Dutta is a Practice Head at SG Analytics Inc. He has been working in this industry for the last 22 years and has previously worked in a US-based hospital and Indian hospitals besides consulting firms.





Oriana Kraft (Switzerland)

Producer and Host at FemTech Summit, ETH Zurich, Program Associate at Women At The Table, medicine student at ETH Zurich, aspiring medtech founder, Fellow at Sigma Squared Society.



Joanna Krahe (Germany)

Joanna is FemTech researcher with Masters degree background in philosophy, politics and economics. Taking advantage of a multi-disciplinary approach and using a local German and international network base.



Kanchi Baldwa (India)

Kanchi Baldwa is Marketing Lead at PadCare Labs. As a poet, former science student, an adherent of Patti Smith,, she has rigorously honed her social, professional, and research skills to contribute to the world with her creative pursuit.



Ksenia Tugay (Switzerland)

Ksenia Tugay is a Strategic Innovation Expert at Groupe Mutuel, leading Swiss Health Insurance. Ksenia is responsible for identifying start-ups, trends and best practices of strategic interest to Groupe Mutuel.



Lisa Krapinger (Austria)

Lisa is Chief Marketing Officer of Carbomed Medical Solutions and a real FemTech enthusiast. Her main driver to go to Carbomed was that Lisa wanted to do Marketing for a product that clearly helps people.



Olga Pavuka (Latvia)

Olga Pavuka is Founder & CEO at DeepH. The DeepH App was born to support people on the path to optimal health, lasting happiness and profound healing.

Report Methodology and Approach



Containing a comprehensive overview of the FemTech Industry, the report relies on various research methods and analytics techniques. Although there are varying views on the definition of FemTech, our definition on p. 10 is based on industry research, ecosystem feedback, and expert advice. This definition guides the research of this report. FemTech Analytics is not responsible for the quality of the secondary data presented herein; however, we do our best to minimize possible risks by cross-checking data and using different analytics techniques. Please note that we did not deliberately exclude certain companies from our analysis due to the data-filtering method used or difficulties encountered. In fact, the main reason for their non inclusion was incomplete or missing information in the available sources.

FemTech Analytics *Grouped by but not limited to

Report Methodology and Approach

Company

We consider a **company** to be FemTech if

- Female health technologies is the core for company operations/production;
- The company's activity description includes a clear and straightforward affiliation to the FemTech Industry;
- The company develops FemTech-focused products/services/projects;
- At least one self-sufficient department or direction of activity work in the FemTech Industry;
- The organization has a subsidiary that works in the FemTech Industry.

Investor

We consider an investor as FemTech-focused if

- the organization is a venture fund investing in high-growth companies that significantly improve access, care, and outcomes in women's health;
- the organization focuses on emerging technologies, products, and services improving women's health and wellness for all age categories.

We acknowledge that scope and priorities may change as the industry grows. We continuously improve the methodology as the industry progresses.

Technologies Used in Our Research



Data Aggregation and Analysis



Clusterization and Competitor Analysis

Supervised and unsupervised Machine Learning

Brownian motion modeling for stock market forecasts

Deep neural networks

Real option analysis, scenario planning

Natural language processing

K-means algorithm for companies clusterization

Data parsing

Calculation of the distance between companies in multidimensional space

GARCH model

Using tag clouds to categorize companies

FemTech Market Definition

FemTech Definition

FemTech (Female Technology) is technology 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, including but not limited to those who identify as cisgender women and gender or sexual minority women.

Product Types Apps / Software





Devices (Wearables. Hardware, etc.)



Drugs, vitamins & supplements



Consumer **Products**

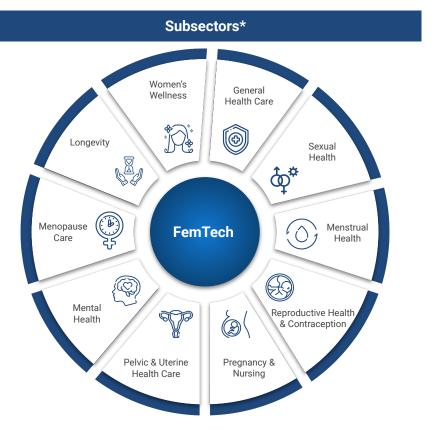


Telehealth

Services



Digital Platform



^{*}There is overlap between the subsectors but FemTech ensures more holistic health care for women therefore subsectors work in alignment to support the overall health of women.

FemTech Market Definition



General Health Care includes health promotion, preventive care (immunization, general health screening), hormonal health, treatment of acute and chronic illness, autoimmune diseases, breast and ovarian cancer, and appropriate referral for more specialized needs where required. Also this subsector includes testing through the women's healthspan. Some examples, but not limited to, are osteoporosis testing, breast and cervical cancer testing, infectious disease testing, ultrasound tests. The category embraces any health conditions, not included in other specific subsector.



Sexual Health companies focus on the physical, emotional, mental, and social well-being related to sexuality and sex and intimate hygiene. Sexual health is another area continuing to emerge with new mobile app solutions to help women obtain contraception, innovative hardware to achieve orgasms, prevent, test and treat STDs, and access sex education tools and resources.



Menstrual Health includes products, services, and initiatives that address issues of those who menstruate through the four phases of the menstrual cycle (menstruation, the follicular, ovulation, and the luteal phase) to achieve the complete physical, mental, and social well-being. This category also considers femcare products such as innovative, natural, and sustainable hygienic pads, tampons, cups, period-proof underwear, etc.



Reproductive Health and Contraception includes fertility solutions and tracking, contraception, at-home fertility monitoring, ovulation and pregnancy testing, products and services for Polycystic Ovary Syndrome (PCOS) patients addressing infertility, software and applications to improve women's reproductive health and fertility knowledge.



Pregnancy and Nursing include a variety of solutions on maternal, fetal, neonatal health to assist throughout the pregnancy and post-natal period and help to be connected to healthcare professionals. The category includes solutions addressing the decrease of maternal and child mortality, preterm births; prenatal genetic screening and carrier testing; physical and mental female wellness during pregnancy, postpartum, and parenting; education on pregnancy and lactation, tracking of feeding time and health of the child.

FemTech Market Definition



Pelvic and Uterine Health Care includes solutions to improve pelvic organs as it plays an important role in complete physical, mental, social, and sexual well-being. The subsector includes preventive care, treatment, diagnostics, testing, and screening of pelvic organs (uterus, cervix, ovaries). Conditions are, but not limited to: prolapse of the organs, problems with bladder and bowel function, weakening of pelvic muscles and connective tissues, cancers, endometriosis, incontinence, and others affecting the proper function of a woman's pelvic organs.



Mental Health includes technologies and software to improve emotional, psychological, and social well-being. It affects how women's think, feel, and act. These companies also help determine how women handle stress, relate to others, and make choices as well as empowerment solutions.



Menopause: FemTech start-ups address the symptoms of menopause in innovative ways to improve life for those who are experiencing menopause, as well as better predict when it is likely to hit the menopause phases, how menopause could be affected due to experiences in other life phases (menstruation, fertility, pregnancy, etc.), and better community support for those who are experiencing menopause at this stage of life.



Longevity includes technologies and software to advance women's healthspan and increase Longevity. The Longevity category includes solutions for detection, monitoring, and treatment of chronic diseases as well as biometrics and lifestyle solutions.

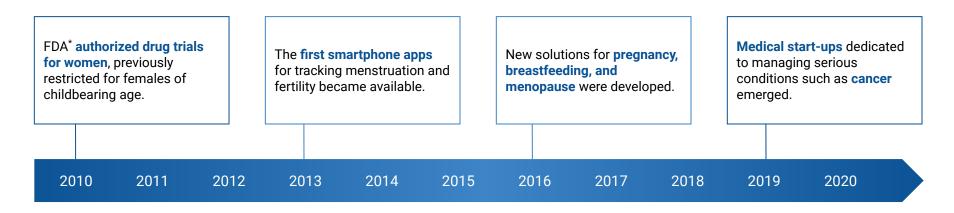


Women's Wellness includes innovative femcare (except products for menstruation) products, nutrition and fitness solutions, and products and companies that encourage a holistic approach to wellness. Nutrition and Fitness comprises solutions specifically for women, with a focus on body positivity, fitness apps that adjust workouts to health phases, and nutritional programs/apps specific to women's health realities. Examples are an app that provides workouts as it adapts to the phase of a menstrual cycle or an app that assists with nutrition for those who have PCOS and endometriosis.

FemTech Industry Development

Being a relatively new industry, FemTech includes a broad spectrum of digital technologies dedicated to the improvement of women's health and well-being. By developing technological solutions for pregnancy and nursing care, women's sexual wellness, reproductive system health care, menopause solutions, female oncology, and general health care, FemTech seeks to fulfil unmet women's health needs. The FemTech market includes a wide range of wearable and clinical devices, diagnostic appliances, products, platforms, software, apps, or services.

FemTech has only been around for 6 years; however, the issues it is facing have been unresolved for decades. Being a distinct form of health care, female health care has gone through **several phases of development**:



FemTech Industry Development

Only a few years ago, global investments in the FemTech sector barely totalled \$134 million¹ per year. One of the first FemTech start-ups, <u>Glow</u>, a period- and ovulation-tracking app, was founded.

FemTech is not solely defined by babies and breasts but also addresses intimacy and sexual wellness. Female founders turned this "uncomfortable talk" into a business opportunity. About \$503 million¹ was invested in the FemTech companies in 2016.

The FemTech market is represented by **1,000+ start-ups**, a significant number of which are run by women. The key focus areas include reproductive health, pregnancy and nursing, menstrual and sexual health.

2013 2016

2019

2020

2027

Ida Tin is credited with coining the term "FemTech." She is a Danish internet entrepreneur, co-founder and CEO of the women's menstruation-tracking app <u>Clue</u>, founded in 2013.

In 2019, the FemTech market grew to \$18.7 billion¹. Advancements in service development technologies has improved its potential in basic research and clinical applications.

By 2025, the global FemTech market is projected to be almost **2 times larger** than it was in 2020, and it is expected to exceed **\$75 billion**. The CAGR is estimated at 13.3% over 2020-2025 period³.

The FemTech sector is developing fast and has impressive potential. Founders are dedicated to normalizing the conversation around taboo topics and putting more innovation around menopause, pelvic health care, chronic disease management, sexual wellness and education, and urinary health.

Executive Summary

The FemTech market has developed into a robust ecosystem. Startups and tech companies are creating products to address women's health care needs. The World Population report revealed an estimated 49.6% of the world's population.

With women's health becoming increasingly popular in the healthcare industry, market prospects for FemTech solutions are tremendous.

The past few years witnessed a steep rise in FemTech solutions due to the adoption of new technologies, new business models, and new avenues, thereby transforming the way women access healthcare.

FemTech market size accounted for \$40.2 billion in 2020 and is projected to grow an average CAGR of 13.3% from 2020 to 2025 to reach \$75.1 billion².

Globally, about 37% of the FemTech market belong to Pregnancy & Nursing and Reproductive Health & Contraception subsectors; however, it is not only limited to these categories. Other important FemTech subsectors include Women's Wellness, Menstrual Health, Longevity, General Health Care, Mental Health, and Pelvic and Uterine Health Care.

Lack of investments remains the key barrier for FemTech development along with insufficient R&D funding and lack of public support. The negative impact of economic slowdown on FemTech along with taxation risks weakens gradually.

Key Figures and Facts



of FemTech companies generate less than \$10M revenue



of FemTech companies are located in the US



of FemTech companies addressing Pregnancy & Nursing



of FemTech companies work in a Consumer Products segment



of total market capitalization is represented by Pregnancy & Nursing



of tech investment in life science target FemTech³.



FemTech Industry in Figures

FemTech Industry at a Glance



1,300+ Companies



1,290+
Investors



22 Community Organizations



14 R&D Centers



10 Subsectors



\$45.5B¹ Market size in 2021



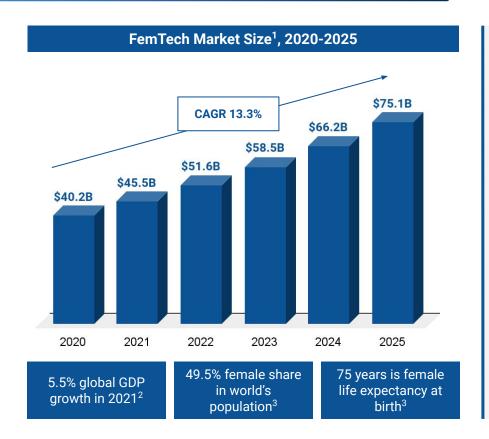
Covered by top-4 subsectors



150 FemTech Leaders

The FemTech Industry can be divided into 10 subsectors covering all aspects of women's health, ranging from Reproductive Health and Contraception to Longevity and Mental Health. The report covers 1,300+ companies and 1,290+ investors. Pregnancy and Nursing, Reproductive Health and Contraception, Menstrual Health and General Health Care are the largest subsectors, accounting for 65% of the entire industry.

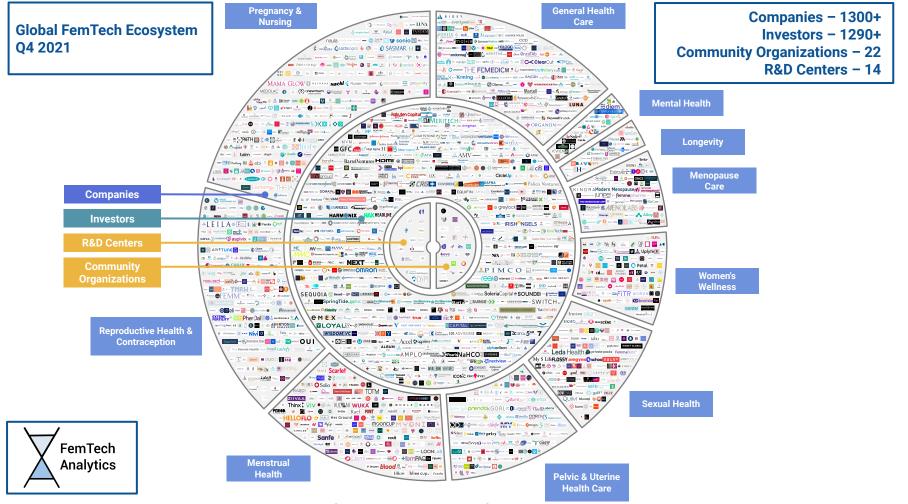
The Global FemTech Economy



The global FemTech Market Size accounted for \$40.2 billion in 2020 and is projected to grow at an average CAGR of 13.3% from 2020 till 2025 to reach \$75.1 billion. Despite increasing interest in recent years, the industry remains underestimated and has high growth potential.

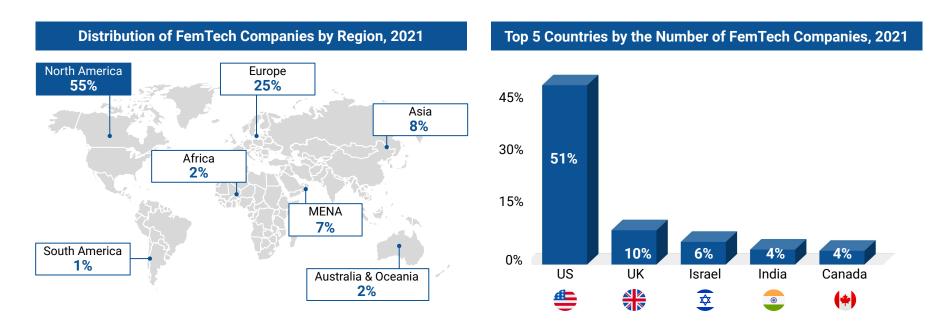
Market drivers:

- Growing interest of VCs and Angel investors;
- Inclusive solutions for women's health and well-being;
- Increasing demand for reproductive health;
- Overall increasing demand for digital health solutions;
- Normalizing the conversation around taboo topics in women's health;
- Promoting women's sense of self-worth;
- Product innovations and partnerships to widen offerings.



www.mindmaps.femtech.health/global-femtech-ecosystem-q4-2021

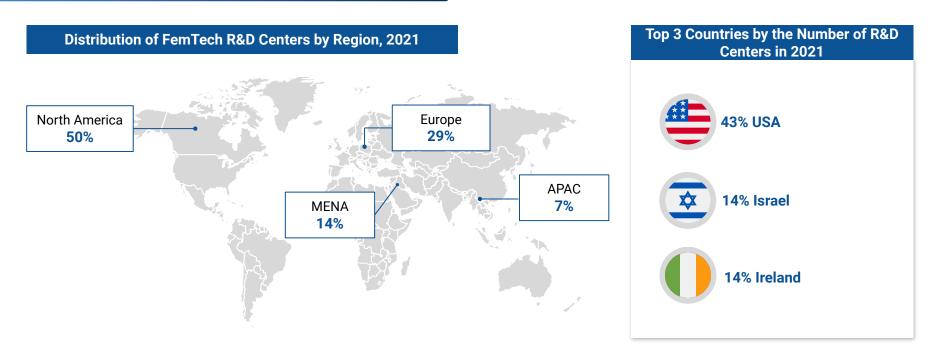
FemTech Companies: Regional Distribution



North America is the undisputed leader. Accounting for nearly 55% of the total number of FemTech companies, it beats other regions by a wide margin. Europe is the second, at 25%, followed by Asia with 8% and MENA with 7%.

The US and the UK are the two countries with the highest number of FemTech companies.

R&D Centers: Regional Distribution

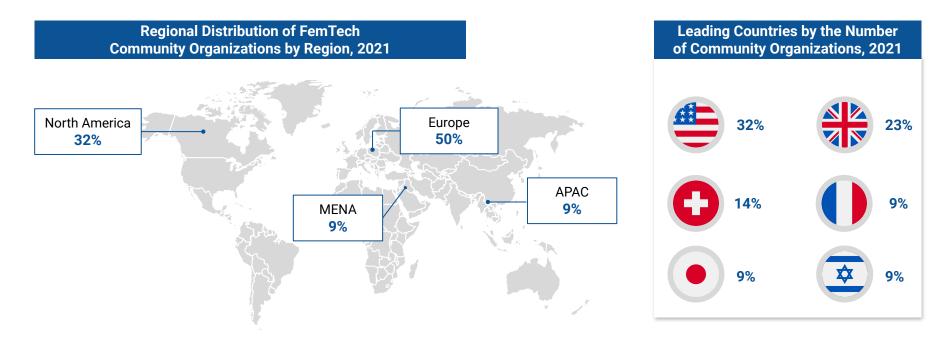


The US far outranks all other countries worldwide, hosting the global headquarters of six large FemTech R&D centers (<u>Women's Health Initiative</u>, <u>DSP Clinical Research</u>, <u>Magee-Womens Research Institute</u>, <u>OBGYN Research Laboratory (Atrium Health</u>), <u>the Society for Women's Health Research</u>, and <u>Evestra</u>). Israel and Ireland are ranked second.

FemTech R&D Centers

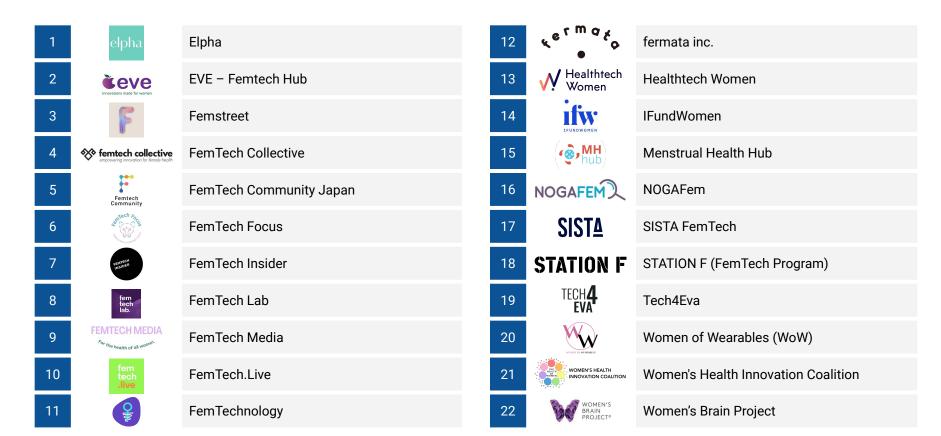
Jabrehoo Med Tech Alpha Tau Medical Jabreh∞ **AlpheTAU DSP Clinical Research** Magee-Womens Research Institute NanoPaz Pharma 3 Duchesnay 10 **DUCHESNAY** Pharma Ltd Norwegian Centre for Mental Disorders **Emotional Brain** 4 EMOTIONAL ABRAIN Research (NORMENT) 5 European Institute of Women's Health **OBGYN Research Laboratory (Atrium Health) Atrium** Health 6 The Society for Women's Health Research Evestra Society for Women's Health Research EVESTRA Infant **INFANT** 14 Women's Health Initiative

Community Organizations: Regional Distribution



FemTech community organizations include global networks and acceleration programs aiming to help to develop, grow, and thrive FemTech businesses. The US had more FemTech community organizations than any other country. Five communities are located in the UK and three – in Switzerland.

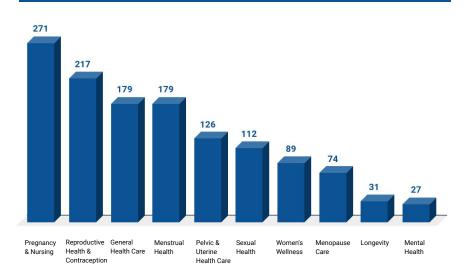
FemTech Community Organizations

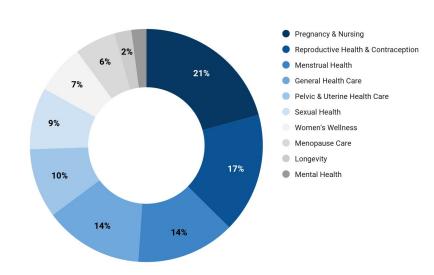


FemTech Companies by Subsector

Number of FemTech Companies by Subsector, 2021

Share of FemTech Companies by Subsector, 2021



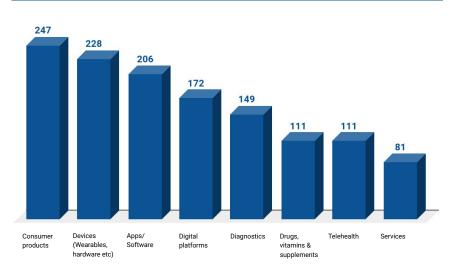


Accounting for 21% of the total market, Pregnancy and Nursing (e.g., <u>Baymatob</u> and <u>Expectful</u>) is the largest subsector of the FemTech Industry by the number of companies. It is followed by the Reproductive Health and Contraception subsector (e.g., <u>Carrot</u> and <u>Phexxi</u>), which accounts for 17%, and Menstrual Health (e.g., <u>Gals Bio</u> and <u>March Health</u>) together with General Health Care (e.g., <u>Syantra</u> and <u>Tia</u>), both occupying the third place and 14% each. Together, these top subsectors comprise 65% of the entire FemTech market.

FemTech Companies by Product Type







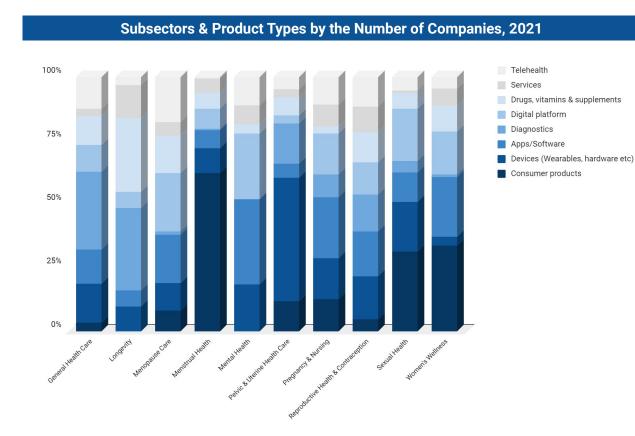






The FemTech sector primarily addresses women's health, including consumer products such as innovative femcare, a wide range of devices addressing Sexual Health and Reproductive Health along with software and apps for pregnancy and nursing care, women's wellness, Longevity, and menstrual health. Products for dealing with menstrual flow – such as reusable absorbent underwear, the reusable cup, and flushable pads – are now competing to provide the safest, most convenient, affordable, and environmentally friendly option to the hundreds of millions of people worldwide who are actively in need of them.

FemTech Subsectors and Product Types



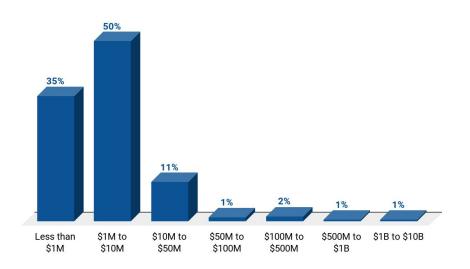
The sector breakdown shows that the Consumer Products segment leads only to Menstrual Health, Sexual Health, and Women's Wellness.

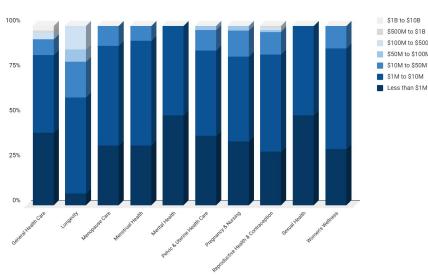
In the General Health Care subsector, 31% of companies address diagnostic solutions. Mental Health is dominated by Apps and Software (33%).

Revenue Breakdown by Subsectors

Breakdown of FemTech Companies by Estimated Revenue, 2021

FemTech Subsectors by Estimated Revenue, 2021





The FemTech industry is a diverse and rapidly growing market that includes early-stage startups, middle-market companies to publicly traded companies. However, 85% of all FemTech companies generate less than \$10 million annual revenue each.

FemTech Analytics Source: Crunchbase 2.

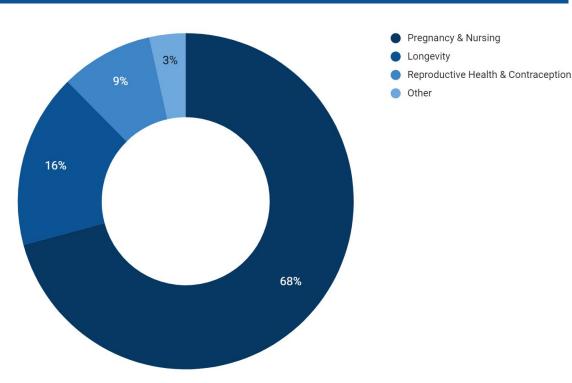
Top 20 Publicly Traded Companies by Capitalization in 2021

1	<u>Pulsenmore</u>	\$47.3B	11	Aspira Women's Health	\$219.8M
2	<u>Natera</u>	\$8.8B	12	<u>TherapeuticsMD</u>	\$187.5M
3	<u>Progyny</u>	\$4.6B	13	<u>ObsEva</u>	\$172.3M
4	<u>Invitae</u>	\$3.8B	14	Daré Bioscience	\$162.6M
5	Myriad Genetics	\$2.1B	15	Minerva Surgical	\$161.1M
6	Myovant Sciences	\$1.5B	16	IceCure Medical	\$155.8M
7	Mithra Pharmaceuticals SA	\$900.9M	17	BARD1 Life Sciences	\$95.2M
8	<u>Owlet</u>	\$454.8M	18	Agile Therapeutics	\$85.7M
9	Progenity	\$447.0M	19	Evofem Biosciences	\$66.9M
10	Sera Prognostics	\$307.2M	20	Context Therapeutics	\$60.5M

FemTech Analytics Source: Yahoo Finance 2

Publicly Traded Companies by Subsectors

Market Capitalization of FemTech Publicly Traded Companies by Subsectors



As of December 8, 2021, the total market capitalization of 28 FemTech publicly traded companies was almost \$70 billion.

The Pregnancy and Nursing subsector is the largest public sector accounting for 68% of total market capitalization. The subsector is represented by HeraMED, Owlet, Prognostics.

With a market capitalization of \$47.3 billion, <u>Pulsenmore</u> was the largest company.

The Longevity subsector is represented by <u>Context Therapeutics</u>, <u>IceCure Medical</u>, <u>Invitae</u>, <u>Myriad Genetics</u>, and Natera.

FemTech Analytics Source: Yahoo Finance 30



Investment Overview

Investment Landscape



4%¹
of tech investment in
life science target
FemTech



\$1B¹ the global VC investment in FemTech in 2021



\$14B
Total reported funding
by sector

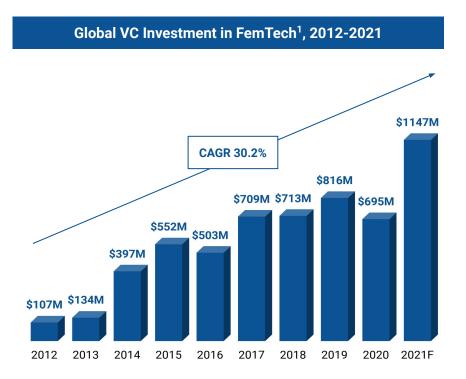


\$10B+ Invested in US-based companies

There is a growing interest in FemTech companies. However, women's health still takes up a small percentage of all tech investments in life science. It only makes up 4% of global funding. More than half of all FemTech companies are seed-stage and have revenue of less than \$10 million.

FemTech Analytics Source: (1) Pitchbook Data 32

FemTech Investment Landscape Overview: 2012-Present



As of now, only 4% of tech investment in life science targets FemTech¹.

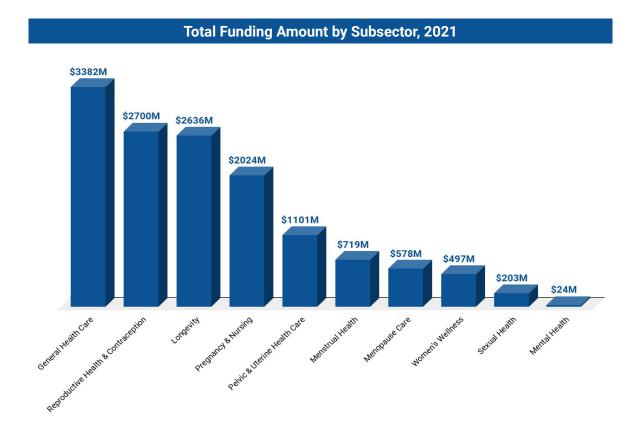
In 2021, the global VC investment in FemTech crossed \$1 billion for the first time.

One of the reasons why the industry is not getting significant VC funding is the **poor track record of sizable exits**.

Unfortunately, it is still comparatively **low levels of investment in FemTech**, which represent a fundamental challenge across the sector.

FemTech Analytics Source: (1) Pitchbook Data 33

Total Funding Amount by Subsectors



As of December 2021, the total funding to the FemTech sector was about \$14 billion.

The General Health Care subsector leads the market by total fundings of approximately \$3.4 billion at the end of 2021.

The two other largest subsectors by funding are Reproductive Health and Contraception (\$2.7 billion) and Longevity (\$2.6 billion).

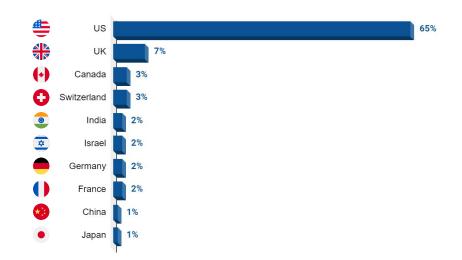
The top 10 most well-funded VC backed FemTech companies are:

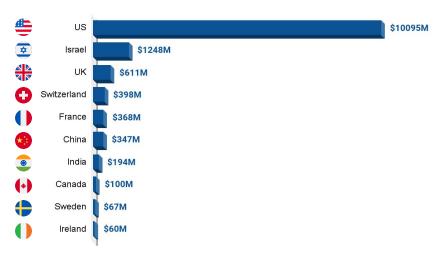
- Invitae
- Insightec
- TherapeuticsMD
- Hologic
- Evofem Biosciences
- Natera
- <u>Everlywell</u>
- Sanofi
- <u>LetsGetChecked</u>
- Sera Prognostics

FemTech Investors Distribution by Countries and Funding









Many companies have gone through significant improvements and changes during the last few years. The more companies become FemTech-focused, the more investment appears in the industry, and therefore, new players and decision-makers emerge on the global FemTech market. Accounting for nearly 65%, the US has a leading number of FemTech investors (in FemTech focused companies). More than \$10 billion was invested in US-based companies, as of December 2021.

Notable FemTech Deals of 2021

Date	Company	Description	Acquirer	Exit Value
Oct 2021	NĀTALIST	Natalist offers women's health, conception and pregnancy products, such as prenatal supplements and pregnancy and ovulation tests.	Everly Health	N/A
Sep 2021	elvie	Elvie is a health and lifestyle brand developing smarter technology for women.	Hiro Capital, IPGL, Lightrock, Octopus Ventures, Westerly Winds	\$97M
Sep 2021	Rescripted.	Best Shot, and The Fertility Tribe have announced the launch of Rescripted , a merger between the two companies. The new brand represents the technology-enabled care platform and digital platform, providing tools and resources to fertility patients.	Best Shot; The Fertility Tribe	\$2M
Jun 2021	kindbody	Kindbody is a health and technology company providing fertility, gynecology, and family-building care.	RRE Ventures, Rock Springs Capital	\$62M
Jun 2021	COMANCHE BIOPHARMA	Comanche Biopharma is a provider of compounds for the treatment of preeclampsia aimed to lower the risks of pregnancy and prematurity.	F-Prime Capital	\$36M

Top FemTech Breakthroughs in Q4 2021



\$38M

Former Livongo
executive Dr. Kimon
Angelides announced
the launch of FemTec
Health, a women's
health sciences and
beauty company with
\$38 million in funding
focused on using
technology and data to
transform the total
healthcare experience
for women.



\$7.6M

Marani Health, a digital prenatal and postpartum care solutions innovator, completed of a \$7.6 million seed funding round. The funding will support the development and launch of Marani's digital prenatal and postpartum care platform



\$4.6M

Tuune has raised a total of \$4.6 million in funding over 2 rounds. Their latest funding was raised on October 6, 2021 from a Seed round to launch in the US market. Tuune provides a detailed, holistic report of a user's hormonal health

ROSY

\$2M

Rosy, a US-based women's health and wellness platform, raised \$2 million in seed funding.
The round was led by True Wealth Ventures with additional participation from Portfolia's FemTech II Fund and Mindshift Capital.



£1.6M

UK-based healthtech start-up Forth raises £1.6 million to launch innovative FemTech product (Female Hormone Mapping).

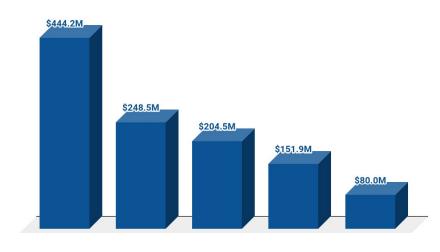
Forth tracks over 50 key internal biomarkers integral to good health.

Top 5 Investment Deals in FemTech in Q4 2021

Selected of the major deals included:

- **Evofem** \$444.2 million, biotechnology company that develops reproductive and contraceptive care products for women worldwide (Post-IPO Equity)
- Progenity \$248.5 million, clinical laboratory services to provide physicians and patients with accurate, timely and state-of-the-art test results (Post-IPO Equity)
- Agile Therapeutics \$204.5 million, pharmaceutical company developing contraceptive health care products for women. (Post-IPO Equity)
- Elvie \$151.9 million, a British FemTech company developing smart technology for women (Series C round)
- The Mom Project \$80 million, a digital talent marketplace helping women remain active in the workforce (Series C round)

Top 5 Investment Deals





FemTech Analytics Source: Crunchbase

Investors Exclusively Focused on FemTech

1



Avestria Ventures Management LLC is a venture capital firm based in California that invests in early stage women's health and life science companies.

2



Unorthodox Ventures is a venture capital firm that supports small companies with big potential with developing enduring, attractive brands.

3



Coyote Ventures is a venture capital fund investing in early stage start-ups that develop innovative products in the field of women's health and wellness.

4



Portfolia designs investment funds for women supporting the innovations they want to see in the world, for profits and impact.

5



Rhia Ventures' is a venture capital firm with a mission to create a vibrant US market for sexual, reproductive, and maternal health that develops equitable outcomes for everyone.

6



Arboretum Ventures venture capital firm based in Michigan that invests in medical technology and healthcare companies.

SPVs Becoming More Important Financial Instruments in the Industry

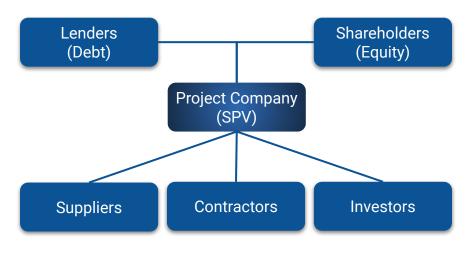
A particular purpose vehicle (SPV) is a subsidiary company formed to undertake a specific business purpose or activity. SPVs are commonly utilized in specific structured finance applications, such as asset securitization, joint ventures, property deals, or to isolate parent company assets, operations, or risks. One of the SPVs' key features is enhanced trackability compared to classic investment vehicles or other relevant entities



SPV standard usage practices include:

- 1. Pooling Investment Capital. Today's most common use for SPVs is a deal-by-deal investment into early-stage startup companies.
- Risk Sharing. Specific projects entail more financial risks than others. If a company foresees involvement in a high-risk project by creating an SPV, that company can legally isolate the project risks.
- 3. Securitization. Another common reason to create an SPV is that securitization enables assurance of return on investment.
- 4. Asset Transfer. Some assets can be more complicated than others. To make these assets easier to transfer, a parent company can build an SPV to own those hard-to-transfer assets. When the company wants to sell those assets, it can sell the SPV itself, completing a merger and acquisition process with the purchasing company.
- 5. Property Sale. Another common use of SPVs is for sales of property. If the taxes on a specific property sale outweigh the gain from the sale, an SPV is a solution.

SPV in FemTech and HealthTech





In 2020, \$520 million of VC capital was invested into FemTech. However, investors who want to participate in the FemTech industry face several barriers, which an SPV structure can solve. Relatively new and complex, it is an industry that can be difficult to understand. Identifying investment targets backed by an established company makes it easier to evaluate and participate in the investment process.

The SPV could be utilized to reduce the credit risk for the stakeholders. The shareholding of the SPV remains separate from the shareholding of the parent company, and it remains undiluted throughout the lifetime of SPV. The credit rating of the SPV remains to be favorable, and it attracts new investors to invest in such companies.

One of the most recent cases of SPV usage in the FemTech industry is an SPV formed by Westerly Winds and Hiro Capital. It has come together to invest in Elvie, the revolutionary health and lifestyle brand developing iconic products for women, as part of the FemTech firm's \$97 million Series C funding round.



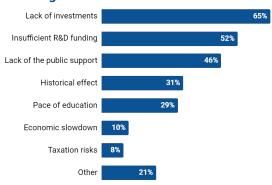
Global FemTech Survey Q3 2021 Results

Global FemTech Survey 2021

Do you believe global FemTech industry growth will improve, stay the same or decline over the next 12 months?



What are the major FemTech threats/ challenges?*

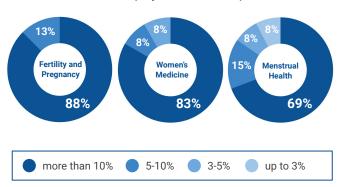


^{*}A respondent could choose one or more options

Which of the following opportunities in the FemTech industry will you focus on over the next 12 months?*

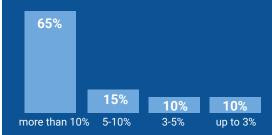


How do you see your projected sales growth over the next 12 months (Top 3 subsectors)?

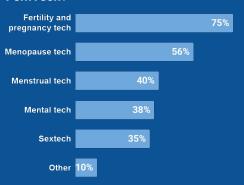




How do you see your projected sales growth over the next 12 months (general results)?



What are the primary trends driving FemTech?*



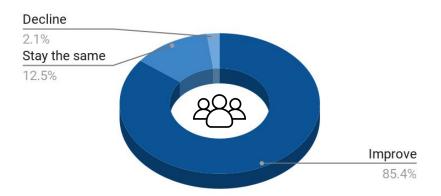
Survey Methodology



Quarterly, FemTech Analytics surveys FemTech founders and CEOs worldwide about their plans to respond to emerging opportunities and new threats as they grow their companies. This survey's fundamental goal is better to assess market size, trends, and growth while projecting the future of the FemTech market. In September 2021, FemTech Analytics surveyed 48 FemTech personalities in 16 countries to gather intelligence on FemTech's future trends. The survey was conducted online. We outreached FemTech personalities via newsletters and social media channels.

FemTech: Prospects for Growth

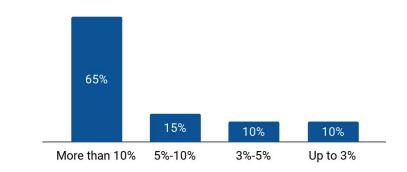
Do you believe global FemTech industry growth will improve, stay the same or decline over the next 12 months?



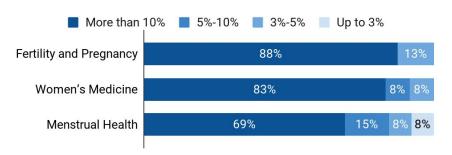
The vast majority of FemTech market players (85%) anticipate positive growth in the space for 2022. At the same time, 12.5% of respondents, most of which operate in Women's Medicine, believe in further stability.

In general, 31 survey participants (65%) project their **sales growth** to be 10% and more next year. Subsector-wise, the percentage for this option in the Top 3 subsectors is higher than in general.

How do you see your projected sales growth over the next 12 months (general results)?



How do you see your projected sales growth over the next 12 months (Top 3 subsectors)?



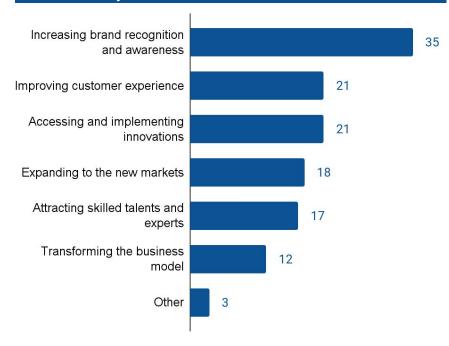
Opportunities in FemTech

To achieve the above-mentioned positive results, business owners and managers will firstly focus on increasing their brand recognition and awareness (73% of respondents chose this option). Customer experience, innovations, new markets, and skilled specialists are essential for industry development. "Other" option includes expanding to new subsectors, advocating for more investment in the space, and monetizing user traction.

FemTech continues to struggle with various obstacles and challenges, which can be treated as opportunities. For example, **attracting capital is the industry's biggest concern**, but with more unicorns and exits emerging, investors will see the potential. One of the key issues for the whole industry is to reach decision-makers (primarily male) who control budgets and get them on board to understand the business case and the growing, cost-saving, and profit potential of FemTech solutions.

Access to the first financial round often is the most complicated. However, backing companies throughout growth stages are no less important than giving founders the runway to keep leaning into the vision.

Which of the following opportunities in the FemTech industry will you focus on over the next 12 months?



A respondent could choose one or more options

Opportunities at the Local Level Over the Next 12 Months

USA: Telemedicine and virtual care.

Consolidation of competitors in key spaces, including fertility, menopause, and period care.

The USA's healthcare system is plagued with misogyny and racism. There is much room for opportunities beyond the traditional idea of "women's health," mainly since women are the leading healthcare consumers for their families.

Tying hormonal health and wellbeing with other healthcare outcomes will be more accessible.

Growing the conversation and education about taboo topics, women know solutions exist.

Menopause is still an incredibly underserved market globally, especially in the USA. Most investment in FemTech flows to pregnancy and fertility, ignoring the 1/3 of a woman's life that is the most critical when it comes to symptom impact and duration, the demise of earning potential, and being forced into retirement while the health industry turns its back.

Access to insurance coverage for FemTech devices.

Increased funding is available from a broader range of sources.

Many liquidity events include SPAC, IPOs, and M&As.

The FemTech industry is ripe for innovation as women's health is (finally) getting attention and priority in research. A group of investors specializing in FemTech will open new opportunities. Women, in general, are having a louder voice and advocating for improved health policy, which is impacting healthcare and creating change.

Canada: The FemTech market in Canada is ripe for innovation and more companies in the menopause, heart health, and digital health services markets.

Nicaragua (and the rest of Central America) is a fertile land for FemTech. There is so much need on every level menopause care, digital health for rural regions (SRH), diagnostics, menstrual health and equity.

Create an app that gives women in the most vulnerable areas the opportunity to learn about sexuality and empowerment of their bodies.

Opportunities at the Local Level Over the Next 12 Months

Israel: Many new innovative start-ups in the sector. Openness to hear about new emerging markets.

Digital health has been exploding, although the market for those products is outside of Israel primarily, and the companies need to focus on a business model that will be sustainable.

The most significant trend is in cosmetics as Israel is a center for manufacturing leading treatments for women's aesthetics.

UAE: Upcoming wave in women's feminism and personal health care market

India: Awareness increasing among women.

A vast opportunity exists in menopause, fertility, and sexual wellness segments. If planned and mentored correctly, these can be good revenue earners.

FemTech is growing by leaps and bounds in the services area. The time is now ripe for device and pharmacological, product-based opportunities to take off in the market. As the investor community becomes more focused on monetization, this is the natural next step for innovation in this geography.

Australia: Sufficient R&D funding and government grants.

Diverse and aging population.

Government support for nationwide female health initiatives.

A growing interest in professionals wanting to shift careers towards FemTech.

Opportunities at the Local Level Over the Next 12 Months

Switzerland: is rated one of the top countries globally for innovation with access to top Universities, research centers, and corporates in the health sector. There are many opportunities for early-stage start-ups to set up and receive government funding. Many programs supported by Innosuisse exists to support these start-ups in their journey with relevant training.

Increasing access to female health to the best technologies in the country.

Enabling health affine users in the interpretation and action-taking for their health journey.

The increase in mental health, menopause, and content-driven solutions for new parents.

More communication about sexual health: STD is the primary cause of infertility; preventing these is proactive rather than "fixing" infertility once it is there.

The hype about FemTech; lots of successfully closed start-up financing rounds.

Sweden: Postpartum tech, sextech, menopause tech, telehealth.

With increased focus on Gender Science, awareness, functional medicine, and finally growing feminist trend, FemTech will strengthen.

Poland: FemTech opportunities in Poland expand far beyond reproduction and fertility. Early detection of hormonal issues is another area ripe for disruption. Statistics show that as many as 1 in 3 women suffers from hormonal health problems that go undetected or are detected too late. By harnessing Al-powered algorithms, emerging technologies can help women see early disease signals, like polycystic ovarian syndrome, thyroid problems, or endometriosis.

A lot of VCs are looking into the health-tech market right

Hungary: Online retail has increased by almost 20% and that includes FemTech products, which might benefit from this trend even more because these are mostly digital solutions.

United Kingdom: Personalised treatment plans, at-home testing kits, and holistic offers (cyclical offering).

Treatment of female illnesses such as endometriosis, customized treatment for females, e.g., cardiovascular diseases.

A lot of VCs are looking into the health-tech market right now.

Austria: Opportunities of early-stage funding. There are a lot of investors seeing the trend of FemTech, but lack of companies focusing on female health at the moment.

FemTech attracts more attention from media and society, so now is the right time to start a business in this area.

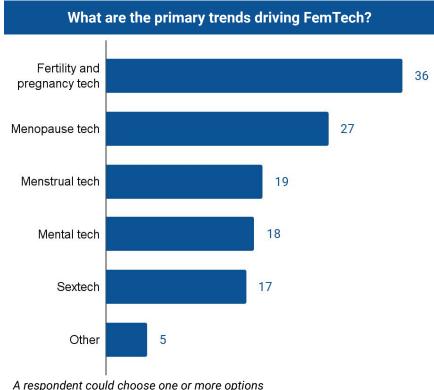
Key FemTech Trends

Most respondents to the questionnaire consider fertility and pregnancy technologies, menopause technologies, and menstrual technologies as the Top 3 trends driving FemTech nowadavs.

In particular, experts highlighted increasing interest in non-hormonal methods of contraception (e.g., fertility awareness), subfertility issues and later age pregnancies (people wanting cycle insights when trying to conceive), management of majority female illnesses (endometriosis, PCOS, autoimmune diseases), vaginal health.

While fertility and pregnancy technologies were submitted by 75% of survey participants, menopause technologies are gaining momentum with the second-highest result (56%) and surpassing menstrual technologies (40%).

Still, menopause is particularly underserved with a substantial addressable market. By 2025, there will be 1.1B women in menopause. Fertility in conception is a more mature area (because it's both female and male issues). Still, there is massive potential to introduce cost-saving and more efficient solutions.



Challenges and Obstacles in FemTech

Lack of investments remains the critical barrier for FemTech development, admitted by 65% of respondents. About a half of them consider insufficient R&D funding and lack of public support. The negative impact of economic slowdown on FemTech and taxation risks gradually weakens.

In addition to that, the industry collides with many other challenges:

Complicated integration with Lack of understanding of the national health care systems and market size & problem by investors players Lack of academic research and Access to advertising, bans and censure innovators Political roadblocks in ability to Complex and different from country to county law regarding reach those with the worst health sensitive data collection outcomes Lack of accessibility for

marginalised groups due to typical price-points (among

for-profit companies)

Insufficient R&D funding Lack of the public support Historical effect 15 14 Pace of education Economic slowdown Taxation risks Lack of regulation particularly around privacy and marketing Other 10 threatening to undermine trust in the industry A respondent could choose one or more options

Lack of investments

What are the major FemTech threats/challenges?

31

25

22

Challenges at the Local Level Over the Next 12 Months

USA: Lack of research, funding, education, and cultural acceptance of prioritizing women's healthcare. FemTech needs buy-in from potential customers who see the value and will pay.

Investment in women's health will always take a back seat to investment in men's health. Women's health is historically perceived as private and not covered in socialized medicine. It limits commercial prospects if market participants can't get coverage.

It is harder for female CEOs running a FemTech company in the US to acquire capital than men.

Up to 50% of the states will likely remove women's health rights and access based on the same decision in Texas, where it was done at the policy level. At the same time, Texas has recognized continued support for postpartum mental wellness for state-sponsored health insurance plans. This strange balance of expanding care access and removing rights poses unique challenges for providers to educate women on their bodies, rights, and why they may have mental stress.

Menopause is so stigmatized and ignored that pregnancy and fertility will garner investment before menopause is a massive market.

COVID has allowed businesses the space to pivot and advance in new ways. However, the shift from in-person to virtual is difficult in some areas.

Canada: FemTech is behind where it has to be, so the key challenges are the same as the industry at large: time, money, and public support. Vast data gap in women's health: clinical trials, research, and development.

FemTech companies need more investment, whether in government grants or VCs.

Brazil: The main challenge is cultural, so the focus is on education and knowledge, in addition to innovations.

Nicaragua: Lack of innovative ideas available to LATAM. Lack of investors. Political and economic instability has the enormous potential to scare investors away.

Challenges at the Local Level Over the Next 12 Months

Israel: Lack of funding. Israel is a start-up nation mostly seeking cyber, fintech, cloud, AI, etc. investments.

Israel is not a good place to deal with FemTech, there is very little support from the government.

Lack of good and competent workers.

Elective procedures have been limited and the entrance of new technologies into hospitals has been rather limited due to the pandemic.

UAE: Lack of investors who are keen on investing in women derived products. Changing women's mindset to prioritize their own health.

India: FemTech has become a "No Man's Land" over the years. The movement has to include men, women and cross genders from all across the globe. Lack of inclusiveness, data and insights. It still remains localized with limited access. There are no worries about the growth of this segment, but concern that the growth will take more time than anticipated if everyone is not made part of it. If women can sell ED drugs to men, men can also promote sexual wellness and menopause products to women.

The challenge will remain educating the market and exhibiting revenue growth at scale. The customer is getting steadily more educated but, with competition in the space, is keen to shop around for a customized mix of services, and due to existing social biases, remains reluctant to spend on female wellness.

Australia: Small investment pool means founder eventually have to go off-shore. Isolated from the rest of the world. Female health education, and education of FemTech as a tech category.

Challenges at the Local Level Over the Next 12 Months

The United Kingdom: Investment and R&D funding is shockingly little.

The biggest challenge of the industry is to attract capital. Competition in Seed Stage.

Another key challenge is getting access to public

decision-makers and effectively lobbying governments on the importance of the industry.

Sweden: Investment, health care system culture.

Lack of resources and a considerable need to catch up in Health care and research after the COVID pandemic.

Still conservative thinking about gender science and accepting differences between sex.

technologically advanced reproductive and hormonal health solutions remains a challenge. While much has improved in the area of reproduction, as the use of various menstrual apps is common, there is still a lot of catching up in hormonal health. Using technologies based on big data and AI certainly helps shorten the path to treatment and is not meant to replace the doctor. However, the value of such advanced home-use solutions still needs to be conveyed to key opinion leaders to adopt the idea.

Poland: Convincing both women and doctors to use

Switzerland: What is supposed to be an integrated and patient-centric health ecosystem is a fragmented market working in silos. That hampers innovation on too many levels. Female health knowledge and its importance, its necessity to be improved. Multiple taboos still surround women's health. Predominantly managed by females for whom it is more challenging to secure funding. Investors remain very conservative. Recognition of women's achievement in the FemTech start-ups. Lack of FemTech investors and players will drive start-ups to set up in other countries to grow and expand.

Hungary: Low-income customer goods prevail, which hinders breakthrough innovations with higher capital needs.

Austria: Funding after Seed round is a huge challenge. Lack of local investors, which can fund more prominent companies. Finding talent in the growth stage is also really challenging.

Italy: Parental care law, cultural issues, research funds.



Interviews with FemTech Leaders

Why FemTech is becoming one of the key trends to advance women's health and wellness?



Why FemTech is becoming one of the key trends to advance women's health and wellness?



Rachel Braun Scherl
Co-Founder, Managing Partner & Chief Vagipreneur
at SPARK Solutions for Growth

"I believe it is a combination of entrepreneurs developing breakthrough ideas, more creative sources of capital (not just traditional VCs who are generally less comfortable with this area) and the result of relentless effort on the part of all players in the ecosystem."



Ksenia TugayPhD, Strategic Innovation Expert, Groupe Mutuel

"FemTech is gaining momentum because more and more women have decision and purchase power, and after centuries we are slowly moving away from multiple taboos surrounding women's health."



Lisa Krapinger
CMO at Carbomed Medical Solutions

"Due to the fact, that women were underrepresented in healthcare, clinical trials and the whole health systems it is now important to catch up on female health."



Megan Capriccio
CEO of FemTech Collective, Innovation Consultant

"FemTech is gaining traction due to many complex factors: Women are fed up and taking it upon themselves to provide new health solutions, women as consumers are making the health decisions for themselves and their families, and investors are starting to recognize the opportunity in the space."

Why FemTech is becoming one of the key trends to advance women's health and wellness?



Oriana Kraft
Producer at FemTech Summit

"Due to its potential to personalise women's health. Historically, women have been excluded from medical trials and even to a certain extent the medical curriculum. FemTech is a movement bringing awareness to the fact that women have manifest symptoms to diseases differently, suffer at a different prevalence from certain diseases, are often underdiagnosed or prescribed medication at a dose that is incorrect for the way their body metabolises drugs. It is one of the key trends quite simply because it is one of the few trends to take into account the way women have been left out of medical innovations on such a large scale."



Joanna Krahe, University of Witten-Herdecke

"Because through the commodification of women's health issues previously much needed but missed or ignored data is now filling the gaps."



Kanchi Baldwa Marketing Lead at PadCare Labs

"I think the fourth wave of feminism has really been able to bring about a paradigm shift in global sociocultural nuances. The way we look at women and femininity has changed, womens' place in the society is progressing at a fast pace, and that's certainly one of the most important driving factors in the rapid adoption of technology in advancing and prioritizing women's health across the world. Increasing awareness and rising focus on community education is making room for technologies of early self-detection of various kinds of diseases, better management of illnesses by women of all ages, and medical accessories specially made for women rather than being unisex."



Olga Pavuka, Founder & CEO at DeepH

"FemTech is a sector which was underestimated for a long time, now balance is restoring."

2

How did FemTech evolve in the last years?

How did FemTech evolve in the last years?



Rachel Braun Scherl
Co-Founder, Managing Partner & Chief Vagipreneur
at SPARK Solutions for Growth

"Investors started to realize that women's health solutions are needed for big problem and bigger solutions which will result in BIG business opportunities."



Megan CapriccioCEO of FemTech Collective, Innovation Consultant

"FemTech has developed from an industry revolving around menstruation and pregnancy to a holistic approach industry that supports women throughout their lifespan."



Lisa Krapinger
CMO at Carbomed Medical Solutions

"FemTech evolved from a niche sector to a well known branche interesting not only for female founders/small companies, but also for investors and big corporates. Thankfully they figured out that there is lots of potential."



Ksenia Tugay

PhD, Strategic Innovation Expert, Groupe Mutuel

"We have seen an increase in different types of mobile apps and trackers for fertility and pregnancy as well as increase in different types of period products as women started to seek sustainable and organic options."



Joanna Krahe

University of Witten-Herdecke

"From fertility apps to incorporating all aspects of women's health, not just focusing on reproductive questions. Admittedly this is just the tip of the iceberg."

How did FemTech evolve in the last years?



Oriana Kraft
Producer at FemTech Summit

"To start with the term itself was not coined until 2012. And at the time the focus was largely around period-tracking apps and the fertility space - very important components of women's health to be sure. But since then the FemTech space has slowly evolved to include the entirety of the female lifecycle.

Yes, women's reproductive challenges must be personalised and improved (that is to say women should be given the tools to manage and monitor fertility and pregnancy) but women's health stretches far beyond that as well. It encompasses gynaecological diseases that have long been discounted, misdiagnosed or under diagnosed. It encompasses the changes perimenopausaul, menopausal and postmenopausal women's bodies undergo that have long been discounted but is now, finally, beginning to be addressed. It encompasses the different rate and symptomatic manifestation of diseases women experience as opposed to men etc. etc.

In short, FemTech has evolved to not only include reproduction but the entirety of women's health."



Kanchi Baldwa Marketing Lead at PadCare Labs

"In my opinion, FemTech boomed for the first time, really only after Clue had made itself heard. The evolution has not only been in terms of the economics or the increasing userbase. The gadgets are much more educated and sophisticated than when FemTech first appeared. Apps like Emjoy enable women to prioritize their sexual pleasures over their partners and understand their own needs better, which is a huge step for a world with our cinema. There are apps for fertility advice, breast cancer support, postpartum depression, and other aspects of women's health which have often been overlooked beneath the shadows of period problems."

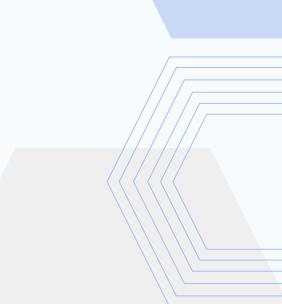


Olga Pavuka Founder & CEO at DeepH

"More and more women founders, project managers and other experts are working in FemTech showing great results and bringing innovative ideas."

Primary FemTech trends and opportunities for 2022





FemTech Trends and Opportunities for 2022



Rachel Braun Scherl
Co-Founder, Managing Partner & Chief Vagipreneur

Primary trends driving FemTech: *Menopause tech, Sextech.*

at SPARK Solutions for Growth

Upcoming trends and opportunities: There has been over \$1B invested in FemTech since the beginning of 2021. The media is engaged and interested. Consumers are demanding solutions. Collaboration, consolidation and acquisitions are opportunities for the market development in the USA.

I am focusing on: The collaboration between entrepreneurs, strategic partners and investors to identify the winners in each areas.



Ksenia TugayPhD, Strategic Innovation Expert, Groupe Mutuel

Primary trends driving FemTech: Fertility and pregnancy tech, menopause tech.

Upcoming trends and opportunities: *Menopause health.*

I am focusing on: Services related to pregnancy.



Lisa Krapinger
CMO at Carbomed Medical Solutions

Primary trends driving FemTech: Fertility and pregnancy tech.

Upcoming trends and opportunities: Women understanding more and more that their female cycle says a lot about their overall health status. Tracking her cycle becomes important for every woman, regardless of whether she is trying to conceive or not. We can see a major trend here. Also education is very important. The new generations are very inquisitive and much more open-minded.

I am focusing on: Awareness for cycle tracking and fertility tech.



Megan Capriccio
CEO of FemTech Collective, Innovation Consultant

Primary trends driving FemTech: Fertility and pregnancy tech, Menopause tech, Sextech, Contraception

Upcoming trends and opportunities: Menopause, Fertility, and advancing access and education in emerging markets.

I am focusing on: Education and research in the FemTech space to help support new innovations and provide a better understanding of female health and the FemTech industry more broadly.

Primary FemTech trends and opportunities for 2022



Oriana Kraft
Producer at FemTech Summit

Primary trends driving FemTech: Diagnostics and care.

Upcoming trends and opportunities: Telehealth consultations to be able to more comfortably and more rapidly discuss highly sensitive issues, communities to be able to exchange with others who have gone through the same experience, a better understanding of how female health and reproductive health influence each other and disease manifestation, just a general increase in the quantity and quality of solutions available in the FemTech space.

I am focusing on: Personalization of contraception, innovations in female health diagnostic space, innovation in gynaecological therapeutics.



Olga Pavuka, Founder & CEO at DeepH

Primary trends driving FemTech: Fertility and pregnancy tech, period tech, mental tech.

Upcoming trends and opportunities: A raise in mental health, mindfulness, spirituality products demand.

I anticipate: Increasing of VC, angel investors funding in FemTech.



Kanchi BaldwaMarketing Lead at PadCare Labs

Primary trends driving FemTech: Menopause tech, Sextech, period tech.

Upcoming trends and opportunities: Birth control, menopause, breastfeeding aids.

I am focusing on: Certainly sustainability. More ideas, more innovation, and ultimately, more choice for women while deciding their preferences for an eco-friendly period.



Joanna Krahe, University of Witten-Herdecke

Primary trends driving FemTech: Fertility and pregnancy tech, period tech, mental tech.

Upcoming trends and opportunities: Fawcett Society's studies on the impact of menopause for working women in London's financial centre.

I am focusing on: Menopause as this stage of life lays the foundation for the following years in terms of physical and mental health.

Key opportunities in the FemTech Industry on your local market



Key opportunities in the FemTech Industry on your local market



Switzerland

Ksenia Tugay: "Historically Switzerland is very strong in the development of medical devices. Therefore medical devices related to gynecology and obstetrics are clearly on the strong trends in the Swiss FemTech market."

Oriana Kraft: "Key opportunity would be to use the top-rated EPFL and ETH educational institutions to combine the different range of expertise they have housed under one house, from the mechanical engineering side to data science to medical to pharmaceutical to be able to come up with a range of solutions in the FemTech space."



Joanna Krahe: "The topic of menopause in Germany is still very hidden and the chance to access a large new market with tech savvy 'middle-age' women is huge.

In the UK and the USA this is already being observed."



Latvia

Olga Pavuka: "Latvia is a small European country, there are not many products designed for women in digital market.

But at the same time a lot of women are choosing digital professions. So there is a huge opportunity in this field "



Megan Capriccio: "FemTech as an industry in Australia is very much growing, but still quite nascent compared to the US and UK.

With more education and awareness, Australia has a great infrastructure for FemTech to thrive."



India

Kanchi Baldwa: "One of the most lucrative opportunities in India is medtech for women-centered illnesses such as menopause, breast cancer, PCOD, uterine cancer, etc."



FemTech threats and challenges on the global and local market

FemTech threats and challenges on the global and local market



Rachel Braun Scherl
Co-Founder, Managing Partner & Chief Vagipreneur at
SPARK Solutions for Growth

"Funding, access to advertising and societal comfort are the Top 3 FemTech challenges globally. In the US we are flush with good ideas, but execution on a large scale will be critical."



Ksenia TugayPhD, Strategic Innovation Expert, Groupe Mutuel

"For the industry in general, the challenge is that it's still wrongly considered "niche" market. Other key barriers are taboos and lack of investment.

For the local Swiss level I would say taboos and lack of FemTech investors are challenges also, as well as **fragmentation** of the market."



Lisa Krapinger CMO at Carbomed Medical Solutions

"Both for the global and European level, the main issues are lack of female data in healthcare, advertising restrictions and lower number of investors than in other tech branches."



Megan CapriccioCEO of FemTech Collective, Innovation Consultant

"There is a need for more data and research, less fragmentation across the global industry, and more investment at the pre-seed and seed stage."

FemTech threats and challenges on the global and local market



Oriana Kraft
Producer at FemTech Summit

"Lack of recognition from the general healthcare ecosystem (FemTech seen as a niche) and over-segmentation is an issue.

In Switzerland there is a lack of understanding on the healthcare side (by providers and insurers) on what to do with the information collected and how to incorporate it into optimal care for their patient."



Olga Pavuka Founder & CEO at DeepH

"Fewer venture capital funds historically going to women start ups. Women's health topics still are not openly discussed. Less research on specific topics.

Regarding Latvia, I would like to emphasis lack of support, information, FemCommunity in Tech."



Kanchi BaldwaMarketing Lead at PadCare Labs

"Overbearing social stigma, lack of funding and privacy concerns are the major threats in FemTech.

In a country like India, where **period is not just a taboo, but also a mythologically decided factor for untouchability**, there's a long way to go when it comes to and sincerity of efforts in community education. Brands like Nua, PeeSafe, Sanfe are trying to break the barriers and think beyond these cultural constraints, and we stand in solidarity with them."



Joanna Krahe University of Witten-Herdecke

"In my opinion, Top 3 FemTech challenges are lack of financial investors who ignore women's issues, male dominance in venture capital, and taboo topics. The last one is actual for Germany as well."

Transforming Illegible Medical Test Reports: A Case Study



Transforming Illegible Medical Test Reports: A Case Study



1. Context



2. Challenge



3. Process



4. Future



The Non-invasive Prenatal Testing (NIPT) is a screening method that helps to determine if the baby is at risk for genetic abnormalities, such as chromosomal disorders, in the first trimester of pregnancy.

NIPT is an elective test that can be strongly recommended Healthcare Professionals (HCPs) based on risk factors such as maternal age (≥35 years old) and personal or family history of a pregnancy with a chromosomal abnormality. lt has been recurrently reported by pregnant women and, sometimes HCPs, that NIPT reports are hard to parse for non-specialists.

Why not transform the NIPT illegible report content into user-friendly reports that can better inform pregnant women and support them in making shared decisions with their HCPs?

After all, these illegible reports hold valuable and vital information for pregnant women and the HCPs.

NIPT reports don't have to be unintelligible. With more understanding of their cryptic content, pregnant women can become participants in their own family-health decisions.

3.1. Basic Principles

When tackling new challenges, we make sure that the approach we are proposing is in line with our mission and vision:

"rendering health information accessible to everyone: easy, clear, simple, and relevant".

We base our strategies on increasing pregnant women's knowledge and engagement in order to foster shared decision-making and increase their to reliable health access information.

As with all our products and features, the NIPT report augmentation will be assessed continuously and developed further through:

- Conducting post-marketing analyses
- Enhancing our products based on feedback from clients and users
- Customizing content for our target populations
- Expanding the knowledge base that we share with our users

The aim is to create smart content that is automatically tailored for different conditions and NIPT results. This will be backed by a more comprehensive NIPT guide that provides pregnant women and their families with more details related to the test, its potential outcomes, and the next steps after receiving the result.

Transforming Illegible Medical Test Reports: A Case Study



Understanding & Analysis

Conducting a thorough analysis of current report, NIPT testing market, medical literature, and patient blogs is key to setting the first stone in this transformation.



Performing due diligence on available NIPT reports on the market and assessing the strengths and weaknesses of each type of report including visuals and content.



Break down each report into components and assessed the aim, structure, and shortfalls of each one.



Review the medical literature to assess the detailed content of each report.



User feedback analysis - HCP

investigated the perception and attitudes of OB/GYN specialists towards current NIPT reports: how easy it is for them and their patients to understand these reports? How confident they are in discussing the results with their patients.



User feedback analysis - pregnant women - Review blog articles to better understand the experiences and expectations when receiving these reports.

Transforming Illegible Medical Test Reports: A Case Study



Execution and Outcome

Delivering an end-product is visually-appealing, self-explanatory, patient-centered, user-friendly, and scientifically and medically-sound NIPT report.

A patient-centered augmented NIPT report based on leveraging our expertise in the health-technology sphere, and in augmenting, providing, insights.

Addressing patients" and clinicians' concerns and bridging gaps in the currently available report.



Validating the outcome by conducting a structured review process by Medicus-affiliated healthcare professionals, external experts in the field, and a general audience.

Tailored the content to suit different audiences including pregnant women and healthcare professionals.

Menopause Telemedicine — a Digital Revolution



Menopause Telemedicine — A Digital Revolution



Menopause can be a confusing time in a woman's life. Brain fog, poor memory, and fatigue are just a few contributing symptoms. Finding midlife health and wellbeing for women should not be difficult, yet it is. Many women complain their menopause symptoms are dismissed and with good reason. Most primary care providers and ob/gyn get little to no formal training in treating menopause. Since better healthcare during perimenopause and menopause can positively impact women's health risks later in life, midlife women need improved access to menopause specialists. Menopause care is women's healthcare. Telemedicine platforms like MyMenopauseRx revolutionize menopause care through its easy and convenient digital healthcare journey.

Vital to encouraging patient compliance with self-care, the clinical team at MyMenopauseRx serves as a woman's partner in perimenopause and menopause. Women enjoy unlimited HIPPA compliant messaging with clinical staff, recommended personalized lifestyle interventions, supplement recommendations, evidence-based treatments, and aftercare summaries, all available from their patient dashboard. Easy access to personalized healthcare recommendations is essential since 40-80% of the medical information provided by healthcare providers is forgotten immediately by patients.

Empowering women with education, value and choice are paramount to creating a satisfying healthcare experience.



40-80% of medical information provided by healthcare providers is forgotten immediately by patients.

Menopause Telemedicine — A Digital Revolution



MyMenopauseRx begins each woman's digital healthcare journey with on-demand scheduling of virtual menopause visits, thus eliminating the average 24 day wait time for a new patient appointment at a primary care provider or ob/gyn. Appointment booking times are flexible to fit their busy schedules, eradicating a woman's need to miss work or significant life events.

No different from ordering off a menu in a restaurant, women confidently know the cost of their healthcare visit before it begins. The MyMenopauseRx telemedicine platform includes transparent fixed out-of-pocket costs that take the guesswork out of healthcare expenses. Point of care payment options right on the patient dashboard make paying for one's care a breeze.

Since midlife women transitioning through menopause are at increased risk for chronic diseases such as high cholesterol, diabetes, and osteoporosis, many women find lab testing helpful to reinforce their lifestyle choices and self-care. Other midlife women are re-entering the dating world and require confidential testing for sexually transmitted infections. MyMenopauseRx made obtaining traditional prescription-based lab testing easy. Women can self-order lab testing on-demand from their patient dashboard with price transparency for each test. Lab testing is completed at national standardized facilities, no different than receiving a lab order at a traditional in-person doctor's visit. Results are reviewed by clinical staff and then made available for viewing on one's patient dashboard once complete.



The HIPPA compliant patient dashboard at MyMenopauseRx serves as the women's command center for menopause care, putting all the needed resources at their fingertips. Women who utilize telemedicine platforms like MyMenopauseRx enjoy convenient, evidence-based digital healthcare journeys, finding the menopause health and wellbeing they deserve.





The Puzzle Around FemTech Data

We have been tracking the 'FemTech' industry for the past 6 years and have keenly observed the hype and enthusiasm. In the past 2 years, we had the opportunity to speak with several FemTech opinion leaders across the globe. Quite a few interesting observations came out during such interactions. Most of them firmly believed that this segment had the potential to disrupt the future of healthcare. Currently, this space is driven by selected female entrepreneurs due to their personal experiences and aspirations.

Many service providers were dependent on their existing client pools and were busy retaining them compared to planning a new market entry. Players based out of crucial US states were not well informed about the preferences and sentiments of women across Western Europe, China, or India. Every player in the market had a reliable source of data that they were using. We doubt if there was any validation of these numbers.

Who Validates the Market Numbers?

While the internet and social media are full of optimism, no validated and actionable numbers support the phenomenon. FemTech has garnered much attention ever since its inception. An article published in Forbes claimed that \$800 million were invested in FemTech start-ups in 2019 (Jaramillo n.d.).

For 2020, the investment was projected at \$1.3 billion ("Despite Industry Buzz, FemTech Funding Still Lags" 2021). One of the leading 'FemTech' promoters in the US and my mentor who got me interested in 'FemTech' stated, "Digital health investment in 2020 was \$14.1 billion out of which, 'FemTech' was only \$254 million, around 1.8% of the total investment," while projecting the market to reach \$1.15 billion by 2025 ("The COVID-19 Pandemic & a Rising Focus on Women's Untapped Healthcare" n.d.).

Several published reports also projected global investments of \$520 million in 2020. However, other sources claimed investments to reach \$22.8 billion in 2020 ("FemTech Market Size 2021-2027 | Growth Forecast Report" n.d.).



Who Validates the Market Numbers?

Proving the actual worth of this FemTech market is a struggle as the numbers do not match. In the blockchain and data engineering era, 2 plus 2 is just not adding up to 4. We sincerely love this optimism, though we can see other ambiguities as well.

In article published in Forbes claimed that \$800 million were invested in FemTech start-ups in 2019 (Jaramillo n.d.).

For 2020, the investment was projected at \$1.3 billion ("Despite Industry Buzz, FemTech Funding Still Lags" 2021).

"Digital health investment in 2020 was \$14.1 billion out of which, 'FemTech' was only \$254 million, around 1.8% of the total investment"

The market is projected to reach \$1.15 billion by 2025 ("The COVID-19 Pandemic & a Rising Focus on Women's Untapped Healthcare" n.d.).

Several published reports also projected global investments of \$520 million in 2020

Other sources claimed investments to reach upto \$22.8 billion in 2020 ("FemTech Market Size 2021-2027 | Growth Forecast Report" n.d.).



Ambiguity in Coverage

While some leaders promote menstrual health, PMS, and sexual wellness, other key healthcare bodies claim anemia in pregnant women, breast cancer, and CVD equally important. When we think of 'FemTech,' why only think of menstruation and childbirth? Menstrual issues are also related to PCOS, endometriosis, stress, lifestyle, and other conditions. All these are interconnected. While we have medicines for some, we don't have products and services for others. The definition of 'FemTech' and 'female health' remains disconnected. While we have data for some (even as old as 2015), we have data missing in others. It was surprising to track the prevalence of anemia in pregnant women on a critical global healthcare data site that added 2019 data in 2021.

Data available in today's market lacks uniformity and validation and is not statistically significant. This leads to monetary losses, and eventually, slower segment growth. Most of the FemTech service or product manufacturers rely on their end clients for perception, sentiments, and market demands.

Use Case - Same Product, Different Prices, Similar Perception

Recently, we did a perception analysis of US women and Indian women who used intimate wipes regularly. While herbal, pH balance, or natural categories were typical, we were surprised to find users paying 3 times more in the US than in India.

A pack of hygiene wipes (40 wipes) was priced INR175/USD2.37 in India compared to USD 9.99 in the US.

The fact that the same product with the same quality can be manufactured and sold at a lower cost went unnoticed, increasing the user base. However, such studies and data are not available anywhere.



The same product with the same quality



Possible Scenarios and Solutions

If there are problems, then there must be solutions for solving these problems. Let's talk!

1. Use AI/ML to generate and analyse data

It's a universal fact that in today's world, 2 plus 2 is not adding up to 4. However, using ML tools, running surveys, and analyzing perceptions, sentiments, and more, data can be generated by ethnicity, usage, price, age group, and more. The fast-track data-gathering process has replaced the rudimentary excel sheets, and there is no harm trying them at least once. Manufacturers and service providers must create these databases. It will save them money and effort and keep them updated on demands.

2. Make this segment inclusive

'FemTech' by women and for women is great, but we also have men driving product portfolios in female health across pharma and medical devices. Inclusiveness is imperative for the success of this segment and will add value. At the same time, gathering data, including the buyers (women) and facilitators (men who sometimes buy or sell these products). Inclusive data gathering has far more impact than one-sided data. Inclusive data has helped many players save money and time.

3. Break the taboo

Social media awareness campaigns are running across the public domain. Companies are conducting webinars, podcasts, and conferences. Is there a measurable account of the impact of these initiatives? Probably not! Measure the impact of campaigns such as menstrual leave in a workplace, men/boyfriends/fathers buying tampons for their loved ones, and so forth. Running such campaigns can break the taboo and create more awareness.



The struggle has just begun, and only data can consolidate this market. With no data in hand and no coordinates to look up to, it appears to be an uphill task in 2021. I am reminded of a recent poem that gathered much attention on social media. "The hill we climb, if only we dare...." She read Amanda Gorman's poem at the inaugural ceremony of the Presidential swearing-in ceremony in the US. This poem states the accurate picture of the 'FemTech' industry today. Yes, it is true that out of the 3.9 billion women population globally, only some of the brave hearts have dared to challenge the status quo and break the female health glass ceiling. It's challenging to find sufficient and reliable data to accelerate the 'FemTech' phenomenon. Hence, manufacturers, social media advocates, 'FemTech' promoters, and buyers must come together to increase data. The future is female, but not without data.

References:

- 1. Jaramillo, Estrella. n.d. <u>"FemTech in 2020: Investors Share Trends and Opportunities in Women's Health Technology."</u> Forbes. Accessed September 28, 2021
- 2. <u>"The COVID-19 Pandemic & a Rising Focus on Women's Untapped Healthcare."</u> n.d. Insights.frost.com. Accessed September 28, 2021
- 3. "Despite Industry Buzz, FemTech Funding Still Lags." 2021. MobiHealthNews. July 16, 2021
- 4. <u>"FemTech Market Size 2021-2027 | Growth Forecast Report."</u> n.d. Global Market Insights, Inc. Accessed September 28, 2021.

What Are the Problems Women Face Today: Key Facts and Figures



What Are the Problems Women Face Today: Key Facts and Figures

cycle

At least 48% of Dutch women deal with one or more sexual issues. Low libido or difficulty reaching orgasm are common problems. Causes may vary from traumatic experiences, a lack of proper education and access to reliable information.

More than 3/3 of the women we surveyed state they feel they don't have sufficient knowledge about their own body concerning their cycle and hormones. The main reasons many women have this sentiment are because of a general lack of education and because they have no clue where to get reliable information.

It's estimated that **endometriosis affects** 1 in 10 women, meaning it would affect approximately **176 - 200 million women in the world.** Endometriosis affects women most in their reproductive years (25-35). It may even affect women in their youth, starting as early as age 11.

The average time before a diagnosis is reached is 7 to 9 years. Endometriosis can significantly impact the quality of life of whoever suffers from it. There is currently no known cause of endometriosis, nor is there a cure.

Polycystic ovary syndrome (PCOS) is a health problem that affects 1 in 10 women of childbearing age and is one of the main reasons women experience difficulties getting pregnant.

The risk of absenteeism1 is exceptionally high during (peri)menopause. At least ½ of absenteeism is related to (peri)menopausal symptoms such as fatigue, depressive feelings, or lack of concentration. It's a shame that it's not often recognized as a symptom of menopause because of the risk of misdiagnosis.

What Are the Problems Women Face Today: Key Facts and Figures



Heavy Menstrual Bleeding

- Between 10% and 35% of women experience heavy menstrual bleeding, which can severely impact daily life.
- Only 5% of women on average contact their doctor to discuss this.
- Most women do not consider this a health issue to be dealt with but rather see it as 'normal.' In most cases, however, there is an underlying issue that can be solved.

Perimenopause

- More than 50% of women state they are not well informed about (peri)menopause and what to expect.
- Perimenopause lasts between 5-12 years and tends to be quite a transformation.
- Women are often misdiagnosed with burnout when they experience (heavy) menopausal symptoms.

Influence of Menstruation on the Lives

- The influence of menstruation on women's lives and society is heavily underestimated.
- Studies show that women lose 9
 productive days per year on
 average caused by menstrual
 issues.
- When they call in sick for work or school, only 1 out of 5 will share the real reason for staying at home that day.
- There are still lots of taboos surrounding periods.

The Future of FemTech Postpartum



Female Health is currently undergoing intense digital disruption. Postpartum care, however, has been left behind with devastating consequences. 9 out of 10 women giving birth are presently experiencing mental and physical difficulties the following year, affecting not only them but their families as well.

The months following birth are critical, setting the long-term health and wellbeing stage. To optimize recovery, postpartum care should be an ongoing process, rather than a single encounter, with services and support tailored to each woman's individual needs.

LEIA's vision is to redefine postpartum health through digitalization and AI and help women worldwide have a happier and healthier entry into motherhood. We use AI to offer personalized and actionable insights to optimize women's post-pregnancy recovery by taking a data-driven, prevention-focused, and person-centered approach. By tracking the user's mental and physical wellbeing, we also can detect signs of postnatal depression and postpartum complications at an earlier stage and refer them to the relevant caregiver enabling earlier treatment and preventive measures.

One of the key challenges in building FemTech products is the lack of data and research in this field, as it's been under priority historically. By creating a data set of key factors affecting mental and physical health postpartum, we will be able to apply machine learning to the data and, together with our research partners, help form the future of postpartum health.



- Powered by Al
- Personalized & Actionable insights
- Early detection and preventive measures

FemTech & Longevity: Today & Tomorrow



FemTech & Longevity: Today & Tomorrow



FemTech plays a very important role in the present and the future. We are seeing more and more events about FemTech and it is time to learn more about it.

Why Do FemTech Businesses Struggle with Funding?

People are too busy building their business, learning new skills to stay ahead of the competition, and also surviving the global impact of the Covid-19 pandemic. Even though technology advances exponentially, we still have to work hard to bridge the knowledge gap and gender equality gap. Today we need to be more aware of the solutions that FemTech brings to the table, which are many and have a considerable impact on health and women. In short, we need a change of mindset.

The solution is first to change the mindset by publishing more books, inviting different networks, writing more articles, etc. We need to spread the word among other groups. FemTech should be included as part of the education since we are moving towards a world where we will be even more connected than we are today. This world has avatars, flying cars, the Internet of Senses (loS), and the Internet of Everything (loE).

Health plays a crucial role as we live longer and have several different generations working together.

It is essential to build this ecosystem where elders have personal assistants, health apps, and FemTech at their reach. FemTech is about innovation, and as such, it has to go through the famous innovation chasm. This means that it takes time for people to trust the new technologies before they adopt them in their lives. The pandemic has created more uncertainty even among the investors. But challenges also bring opportunities. Education is also moving fast, which is very important because people will learn more quickly. There is an issue with the trust that companies are seeing in people. Marketing and sales are changing on an ongoing basis, and marketing specialists keep track of trends every day.

We also need a change of mindset on how we approach our lifestyle and investments. People should not expect to get things for free. Technology costs money, and to support these companies working with FemTech; we have to invest.

FemTech and Longevity: Today and Tomorrow



Why Should We Invest in FemTech?

Investing in FemTech means investing in health, wellbeing, and the future of humanity. We have to be prepared for possible future pandemics or similar challenges. These challenges have an enormous impact on the global economy as well.

Looking into the near future, we have the Artemis program that will send both women and men to the moon, where they will be stationed. This marks the beginning of a new era where women will be in space. This raises many questions: How much do we know about the effects that space has on women?

There is a world of opportunities for FemTech and investors, in other words, the possibility of creating products for people traveling outside of the Earth or stationed on the Moon or Mars.

Take a look at the company <u>Space Perspective</u> as an example.

There is absolutely no doubt that there will need for FemTech that offers innovative products and solutions. Most of all, what FemTech does is open up and talk about crucial topics without any problem. This goes straight to the hearts of the people that are in need.

Health is a responsibility and is now in people's hands thanks to apps monitoring the pulse and more. This offers safety, knowledge, and speed because as soon as the person notices that something is wrong thanks to the app or device that detected it, they can contact the doctor and be on time to get the proper treatment.

Another advantage of FemTech is that it provides fast virtual assistance. Gone are the days when you had to wait for a long time to get help.

The healthcare system has not provided the best service during the years, and it is time to change this.

Download the report" <u>Current State and Future of the FemTech Industry</u>" published by <u>the Untitled Kingdom</u>.

FemTech & Longevity: Today & Tomorrow



The Future of FemTech & Longevity

Peter Diamandis and Steven Kotler talked about the future of exponential and converging technologies. They stated "there are many changes and to make things manageable, we focus on six shifts we are seeing in technology: four are technological and two are paradigm shifts."

They clarify as follows:



"On the technological front, every step in the medical treatment train is being re-invented. The convergence of sensors, networks, and AI is upending medical diagnostics on the front end. In the middle, Robotics and 3D printing are changing the nature of medical procedures. On the back end, AI, genomics, and quantum computing are transforming medicine themselves. Concurrently, two major paradigm shifts are underway due to these convergences. The first is the shift from sick care to healthcare, from a retrospective, reactive, and genetic system to one that is prospective, proactive, and personalized. The next is a change in management. For most of the last century, the healthcare industry was an uneasy partnership between big pharma, big government, and the full spectrum of doctors, nurses, and trained medical professionals. Now we're witnessing an invasion. Many of the big technology companies are getting into this game, all intent on making an impact."

(from the book "The Future is Faster Than You Think")

I can only stress that we should embrace FemTech and support it because it clearly represents the world that we are moving into.

And all this is just the tip of the iceberg.



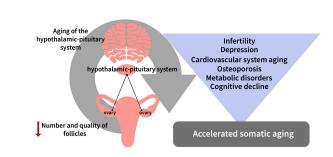
Biomarkers in FemTech

Biomarkers in FemTech

The term "biomarker," a short version of "biological marker," refers to a broad subcategory of medical signs. Biomarkers represent a considerable part of precision medicine. Biomarkers can be classified based on different parameters, including their characteristics, such as imaging biomarkers (computed tomography, positron emission tomography, magnetic resonance imaging) or molecular biomarkers.

Biomarker sets depend on the purpose, health state, sex and age. Gender differences influence health (and, consequently, the necessary biomarkers set) in a variety of ways:

- Biological differences, such as, genes, hormones, and different morbidity risks
- Acquired risks, such as, risk of disease and risk of accidents in the workplace, due to free-time activities, lifestyle, psychological distress, and social environment
- Psychological aspects of symptoms and treatment including how symptoms are perceived and rated in terms of severity, as well as reaching a decision and implementation of treatment



From a biological point of view, **reproductive aging (r-Aging)** is essential in women. Female reproductive aging is, in a way, a biological phenomenon that develops along canonical molecular pathways; however, it has particular features. It was shown that reproductive aging has complex connections with the aging of other systems (somatic aging) and can impact aging processes in an organism at multiple levels (cells, tissues, organs, and systems).

Biomarkers and FemTech

Biomarkers of Female Cancers

Detection cancer as age-related disease

- Breast Cancer
- Ovarian Cancer
- Cervical Cancer
- Endometrial Cancer

Biomarkers of General Women's Health

Aging process evaluation and CVDs detection

- Complex Health Assessment
- Biomarkers of Cardiovascular Diseases
- Skin Biomarkers

Biomarkers and FemTech

Pregnancy Biomarkers

Successful and controlled pregnancy results in better mothers health

- Pregnancy trackers
- Pre-natal testing
- Neo-natal testing

Biomarkers of Female Reproductive Health

Reproductive system aging evaluation and impact on the population's Longevity

- Vaginal Microflora
- Endometriosis Biomarkers
- Infectious Disease Biomarkers
- Biomarkers of Pelvic Floor Disorders

Fertility Biomarkers

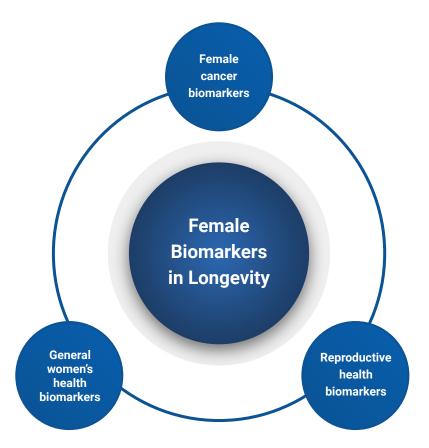
Controlling pregnancy is increasing health of kids

- Ovulation Trackers
- Menopause Biomarkers
- Hormonal Biomarkers
- Ovarian Reserve

Female Biomarkers in Longevity

The aging process leads to the loss of functions in several physiological systems, which are often accompanied by age-related diseases. Biomarkers of aging are tools used to provide a quantitative foundation to estimate the overall health status and the therapeutic efficacy of clinical, healthspan-extending interventions¹.

Female biomarkers provide specific information about functional activity and the overall health status of only female organisms. Thus, detecting and analyzing female biomarkers enables a personalized approach in the aging-related field. Nowadays, many aging biomarkers define not only a restricted set of physiological functionalities whose disruptions are known to trigger the onset of specific aging-related disorders. Furthermore, the following female biomarkers can be linked with Longevity: biomarkers of female cancer as one of the leading causes of mortality (breast, ovarian, cervical, endometrial cancer), reproductive health biomarkers as the indicator of population aging. And finally, biomarkers of general women's health.



Source: (1) Ageing Research Reviews



Contribution of FemTech to Women's Longevity

The Impact of FemTech on Woman's Longevity

Aging is a progressive functional decline with age, ultimately culminating in death, including a deterioration in available physiological capacity (to maintain the baseline homeostasis) and in hormonal activity, a reduced fitness, an increase in vulnerability, and irreversible age-related process of loss of viability and a decrease in fecundity. Globally, the median age of the population is increasing. There are numerous ill societal and economic consequences of an increasingly aging population. These consequences can be circumvented by ensuring that while older adults grow, there is a corresponding increase in the age at which people remain healthy and productive.

Women live longer than men and are more susceptible to mental health disorders such as depression, which also has a knock-on effect on physical health and Longevity. Additionally, women's reproductive age is a lot shorter than men's. Men produce millions of sperms starting from puberty till they die. However, a female fetus is born with a predetermined number of eggs that she will have starting from puberty till her mid to late forties. Therefore, reproductive health is not only sexist but also ageist.

Like any other normal physiological process, aging has some predetermining factors such as genetics and ethnicity. However, these factors cannot be changed. Some practical ways and tools can be implemented to control aging.

Ways & Tools to Control Aging

Regular Check Ups

Stem Cells Therapies

Improved Sleep Hygiene

Use of Skin Health Tools

Hormonal and Genetic Diagnostic

Wellness Treatments

Physical Exercise

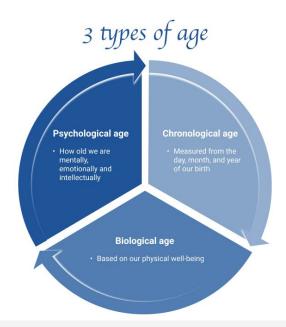
Aging Theories: Review

The general concept of Aging includes 3 aspects:

Chronological age, determined by the life expectancy of a person according to the passport.

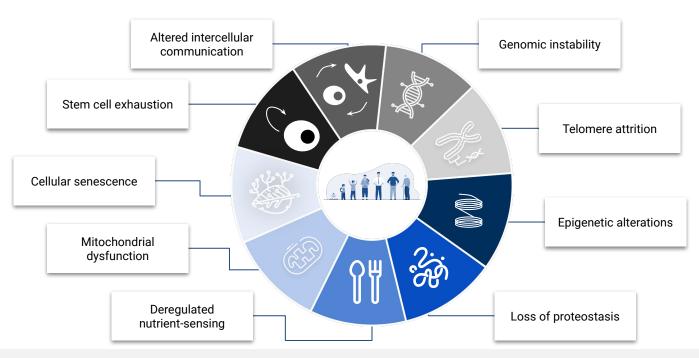
Psychological age denotes a particular, qualitatively unique stage of ontogenetic development, conditioned by the formation of the organism, living conditions, and learning.

Biological age reflects the degree of the morphological and physiological development of the organism. The introduction of 'biological age' is explained by the fact that chronological age is not a sufficient criterion for an aging person's health status and working capacity.



Biological age during aging manifests itself by the deterioration of vital functions of the body, slower adaptation to environmental and internal changes, the occurrence of age-related diseases inevitably leading to death and shortening of life expectancy. These features reflect the course of biological time and the associated increase of biological age. Today, some biomarkers allow us to estimate a person's biological age, which may differ from the chronological age.

Hallmarks of Aging



Aging research has experienced an unprecedented advance over recent years, particularly with the discovery that the rate of aging is controlled, at least to some extent, by genetic pathways and biochemical processes conserved in evolution. For the first time in 2013, a classification of 9 potential vital traits that are common for the aging process was formed.

Longevity in FemTech

Being an essential part of the FemTech Industry, FemTech Longevity focuses on technologies, services, and research related to extending women's healthy lifespan. FemTech Longevity companies are engaged in research, treatment, and diagnosis of age-related diseases and research in the field of regenerative medicine. Menopause Care and Mental Health Solutions are also contributing significantly to improving women's Longevity.

By focusing exclusively on female health, a tech sector will inevitably acquire special significance for areas inextricably linked to the aging process (e.g., effects of menopause and lifestyle biomarkers). Hence, FemTech has formed a synergetic connection with the Longevity Industry. The FemTech Longevity sector was popularized after creating the Centre for Female Reproductive Longevity and Equality at the Buck Institute for Research on Aging – a center for FemTech in all but name.

In the years 2015-2020, women's life expectancy averaged 83.4 years.¹

Globally women on average live longer than men.

Men's life expectancy is almost 7% (or about 8 years) less than women's.1

The difference in life expectancy between women and men may seem to be explained only by biological reasons. However, women face a lot more difficulties on their way to Longevity. The high mortality rate among mothers is reason enough for men to be seriously concerned. Women's health is also strongly affected by social background (employment, income level, family responsibilities) and environmental conditions.

FemTech Analytics Source: (1) World Bank

Longevity in FemTech

LONGEVITY

Longevity represents an emerging field focused on healthy aging, including technologies and software to improve women's healthspan and lifespan.

The Longevity industry presents solutions for the detection, monitoring, and treatment of chronic diseases along with biometrics and lifestyle solutions. Wile is an excellent example of FemTech Longevity company. It is a holistic, plant-based wellness line for grown women 40-plus, rooted in hormonal and emotional balance. Evanna develops fast-track diagnostic tools and treatment for those vulnerable to CIDs and alDs. The focus surrounds precision healthcare technologies for chronic inflammatory bowel, brain, and skin diseases.

MENTAL HEALTH

In general, women do not experience more emotional disorders than men. At the same time, they are more susceptible to anxiety and depression. In addition, FemTech contributes to the intersectional lens and can help deepen understanding of identity, lived experience and mental health as well as improve mental health for minority women.

According to the World Health Organization, about 10% of pregnant women and about 13% of postpartum women experience mental health problems, depression.

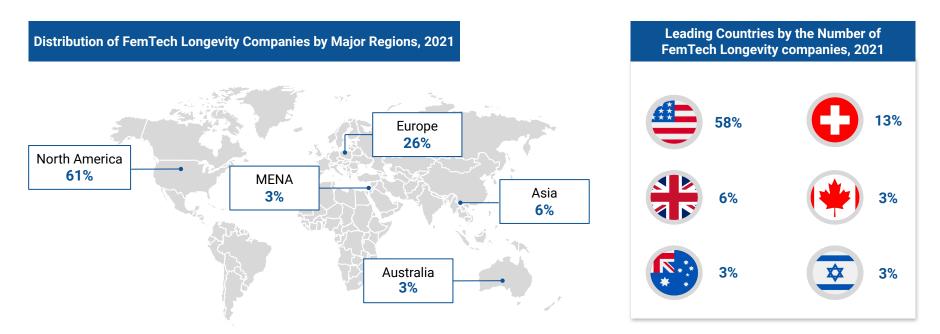
Unfortunately, few women today are aware of companies that can help them deal with mental health challenges. <u>Butterfly XR Studio</u> and <u>Clementine App</u> are only two examples from the long list of such companies.

MENOPAUSE SOLUTIONS

It is a well-known fact that menopause can cause an increase in the accumulation of abdominal adipose tissue. Aging can also trigger weight gain, increasing the risk of developing serious diseases, such as cancer, hypertension, type 2 diabetes, stroke, and osteoarthritis.

In the past two decades, evidence of the benefits of calorie restriction for Longevity in women has begun to emerge. It has been found that calorie restriction without malnutrition can improve the situation with markers of aging and age-associated diseases, such as Type 2 diabetes, cardiovascular diseases, cancers, and neurological disorders.

FemTech Longevity Companies Regional Distribution

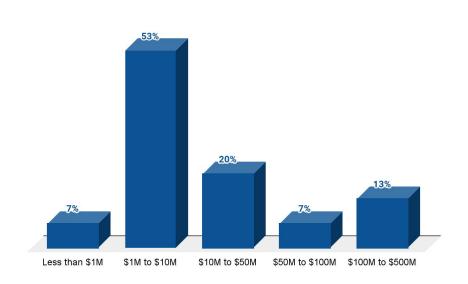


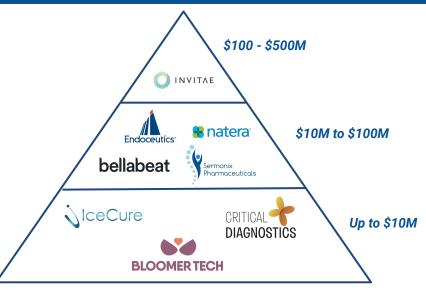
Geographically, most FemTech Longevity companies are based in North America, particularly in the US (58% of companies). There is only one company in Canada with a Longevity focus — <u>Endoceutics</u>. Europe is the second-largest region, with a 26% share. The FemTech Longevity subsector somewhat less represents Asian countries, MENA, and Australia.

FemTech Longevity Companies by Revenue Overview







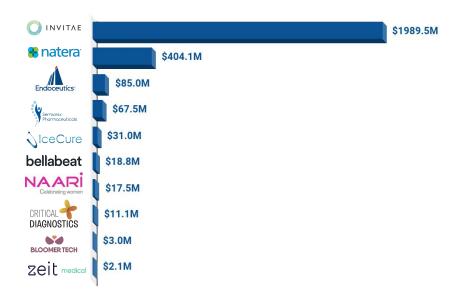


The largest number of companies comprising 53% out of total in the FemTech Longevity subsector show revenue, estimated in the range from \$1 million to \$10 million. The revenue of about 7% of companies does not exceed \$1 million, while 20% of players have revenue from \$10 million to \$50 million.

FemTech Analytics Source: Crunchbase

Longevity in FemTech: Companies Funding

Top 10 Companies by Total Funding Amount, 2021



Top 3 Companies by Total Funding Amount in 2021

Invitae Corporation



Invitae is a **genetic information company** with the headquarter in San Francisco Bay Area that is aimed to **incorporate genetic information into everyday medical practice** to boost the quality of healthcare for billions of people.

Natera Inc.



Natera is a company with the headquarter in San Francisco Bay Area that specializes in **cell-free DNA testing oriented on women's health, oncology, and organ health**. Their main idea is to change the management of disease worldwide.

Endoceutics, Inc.



Endoceutics is a **private pharmaceutical company** having the headquarter in Quebec, Canada and **operating in the area of women's health and hormone-sensitive cancer prevention** and treatment.

Funding of companies in the FemTech Longevity subsector totaled over \$2.6 billion in 2021, with 81% falling to the top 10 market players.

FemTech Analytics Source: Crunchbase



Key Market Trends

Key Market Trends

AI FOR FEMTECH

The application of AI is a noticeable trend in a number of FemTech sub-categories (e.g., diagnostics, sexual and general health care, and fertility solutions).

TRACKING APPS

Since Clue, the first ever period and ovulation tracker, became available, there has been a growing demand for various apps dedicated to tracking menstrual cycles, menopause, and different stages of pregnancy. Patient self-monitoring would allow for better holistic and long term care.

WEARABLE DEVICES

By 2025, the device segment of the FemTech market is expected to reach 16% of the total market. Companies are focusing on the development of innovative technologies such as breast pumps and pelvic floor exercise devices.

IN-HOME TESTING

Due to an increase in women's healthcare awareness, there is a growing demand for early disease detection. The development of portable devices that can be used at home and software for the analysis of health indicators are noticeable trends on the market.

ENDOMETRIOSIS

Endometriosis is a health disorder that affects 1 in 10 women. Within the next several years, the global market is expected to reach \$2.3 billion in size. That has already led to the emergence of numerous endometriosis-focused startups.

FERTILITY

Innovative FemTech technologies have led to an increase in demand for embryo scanning, egg storage, and other forms of assisted reproduction. A number of start-ups are currently entering the fertility market.

MENOPAUSE

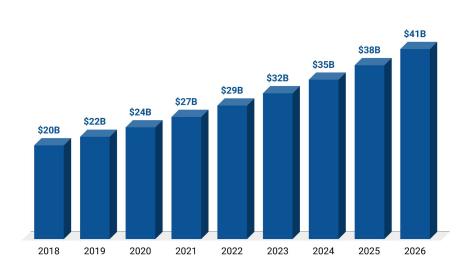
Until recently, the menopause solution market has remained underdeveloped. However, as the number of women approaching the age of menopause is steadily increasing (due to the so-called Silver Tsunami), it is beginning to attract more attention.

PERSONALIZATION

Currently, the FemTech Industry includes personalized and female-oriented approaches to health and disease management, with a focus on heart health, pain management, and diabetes and general health care.

Key Market Trends: Fertility Solutions

Global Fertility Services Market Size, 2018-2026¹



The global fertility services market is expected to almost double by 2026, becoming a \$41.4 billion industry.

The biggest cause of the current trend is that women are more likely to choose having a baby at a later age. The **mean age of women giving birth** to their first child was **29.4 years** in 2019 in Europe.

A growing number of people are also experiencing trouble conceiving, and therefore the market for fertility services has continued to grow.

Latest technologies implemented:

- In vitro fertilization (IVF)
- Egg freezing
- Blood-based hormone home tests
- Saliva home tests for ovulation.

FemTech Analytics Source: (1) Statista 107

Key Market Trends: Menopause Solutions

85% of women

experience at least one menopause-related symptom¹

1 billion women

will be experiencing menopause by 2025

93% of menopausal women

are interested in non-invasive tech solutions

Menopause Solutions stands out as one of the most significant trends in the FemTech Industry. There are a variety of treatments currently available to relieve **symptoms of menopause** – including hot flushes, night sweats, weight gain, and insomnia – including hormone replacement therapy and supplements. Menopause often accompanies other diseases; low levels of estrogen and other changes related to aging can raise your risk of heart disease, stroke, and osteoporosis. Many women are looking for **alternative digital solutions**, as for now the most common treatment is still **hormonal replacement therapy (HRT)**, which may cause side effects.

Latest technologies implemented:

- Wearables to manage symptoms
- Symptom tracking apps
- Telemedicine and digital therapeutics
- PharmTech for alternative therapy

FemTech Analytics Source: (1) MDPI 10

Key Market Trends: Wearable FemTech

Worldwide shipments of wearable devices reached \$153.5 million¹ in the fourth quarter of 2020 (Q4 2020), a year-on-year increase of 27%. The growing demand for direct-to-consumer devices in FemTech, such as wearables, is caused by the overall comfort and reduced side effects from their utilization. Smart wearable devices allow females to measure variable biomarkers and body performance; track their monthly cycles, including ovulation and periods; and test their urine or breast milk.

The company Elvie offers The Elvie Trainer, an app-connected pebble-shaped pod that provides pelvic floor muscle exercise programs for women who experience bladder control problems or who wish to improve their pelvic health for better intimacy or faster postnatal recovery.

One of the solutions for physical and mental wellbeing is various smartwatches and smart bracelets. The Bellabeat wellness tracker can monitor health, fitness, menstrual cycles, sleep patterns, meditation, and stress levels and provide analyzed data and personalized content, helping women understand themselves better.

Among a number of devices helping women in their postpartum period and babycare start-ups are the different types of wearable breast pump. For example, the Willow wearable breast pump fits inside a woman's brassiere, works with an app, and promises a no-spill hands-free pumping experience.

FemTech Analytics Source: (1) Statista 10

Key Market Trends: Tracking Apps

\$3.9 Billion

Women's health app market size by 2026

The Asia-Pacific region

is expected to have the world's fastest growth rate in the women's health app market by 2026¹

The key players

in the tracking apps market are Flo, Clue, and Eve

The market trend of tracking apps has included the development of apps for tracking ovulation, the fertility window, periods, pregnancy, or menopause symptoms and apps for general physical or mental wellness and female disease management. All of these solutions are helping women to better understand and take care of their bodies and their cycles. By tracking symptoms, they can identify irregularities and spot any potential concerns.

The menstrual health applications segment held the largest market share in 2020. Period apps are able to track ovulation and the fertility window and guide women who are trying to conceive or avoid pregnancy. Some widely known examples include Clue, Glow, Eve, Flo, Natural Cycles, My Calendar, and many others. Other top companies in this space such as Cora provide subscription services to deliver feminine hygiene products to customers' doorsteps.

One of the **latest collaborations** in this sphere was between Clue and Fitbit's ionic sports watch. The joint project offers a first-period tracking app compatible with the Fitbit OS.

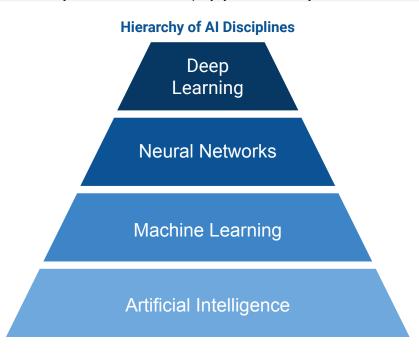
FemTech Analytics Source: (1) Bloomberg 110

Artificial Intelligence in FemTech

Artificial intelligence (AI) is a technology based on the brain's biological neural network, which uses multiple layers of information, including algorithms, pattern matching, rules, deep learning, and cognitive computing, to understand and process data. All can have a profound impact on women's health outcomes in areas including ovarian, breast and cervical cancers; fertility; endometriosis; and polycystic ovarian syndrome.

Applications of the virtual branch of AI in medicine include the following:

- Al diagnoses breast cancer from X-rays faster and more efficiently than doctors according to a study published in the journal Nature. Al cannot replace the diagnostician, but it can facilitate the diagnostician's task by acting as an examiner instead of a second radiologist. Experts note the much greater efficiency of using a neural network in the formulation of radiological diagnosis: Al describes an X-ray image in 3 seconds; a specialist describes an image in up to 20 minutes.
- Al can provide fast and reliable analysis of tissue samples to detect breast cancer metastases at the performance level of a seasoned pathologist, who has an unlimited amount of time. In addition, algorithm-assisted pathologists perform particularly well in the detection of micrometastases compared to unassisted pathologists and are more time-efficient in detecting these findings.
- Al-enabled tools can discover important relationships in the analyzed data and are used in many areas of medicine including drug development, diagnostics of various pathologies, treatment decisions, patient care, and financial and operational decisions.



FemTech Companies That Use Al



United Kingdom



Israel



USA



Kheiron

Subsector: General Health Care **Product**: Diagnostics



Nuvo Group

Subsector: Pregnancy & Nursing **Product**: Devices



Flo Health

Subsector: Menstrual Health **Product**: Apps/Software



Nurturey

Subsector: Pregnancy & Nursing **Product**: Apps/Software



Gina Life

Subsector: General Health Care

Product: Diagnostics



Bloomlife

Subsector: Pregnancy & Nursing

Product: Diagnostics



France



Estonia



CureMetrix

Subsector: General Health Care

Product: Diagnostics



Apricity

Subsector: Reproductive Health &

Contraception

Product: Apps/Software



Velmio

Subsector: Pregnancy & Nursing **Product**: Apps/Software



Austria



iSono Health

Subsector: General Health Care

Product: Devices



Fizimed

Subsector: Pelvic & Uterine Health Care

Product: Devices



SteadySense

Subsector: General Health Care

Product: Apps/Software

Key Factors in the Development of the FemTech Market

Accessibility

for women in rural areas and developing countries, with a view to increasing patient care

Favorable regulation

by governmental institutions through simplified policies and reimbursement.

B2B partnership

with large public hospitals, companies, public health entities, and NGOs.

Customization

including customized revenue models based on the application of FemTech solutions.

Affordability,

which ensures that FemTech solutions are available to women at various income levels.

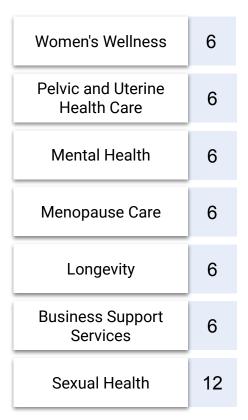
As already mentioned, the FemTech market has great untapped growth opportunities. The above-presented factors will lead to the fulfilment of market potential in the near future. Despite the market share having enormous potential, women represent only half of the planet's population, and so far, the development of the FemTech market has occurred predominantly in the developed world. That is why it is crucial to make FemTech products and solutions accessible and affordable.

At the same time, working-age women spend 29% more per capita on healthcare than men and are 75% more likely to use digital tools for healthcare. Customized revenue models – for example, the renting of devices for a limited period of use – will stimulate this trend. Since 2016, a number of government initiatives have been launched to support modern digital applications for the treatment of common women's health issues.



Top 150FemTech Leaders

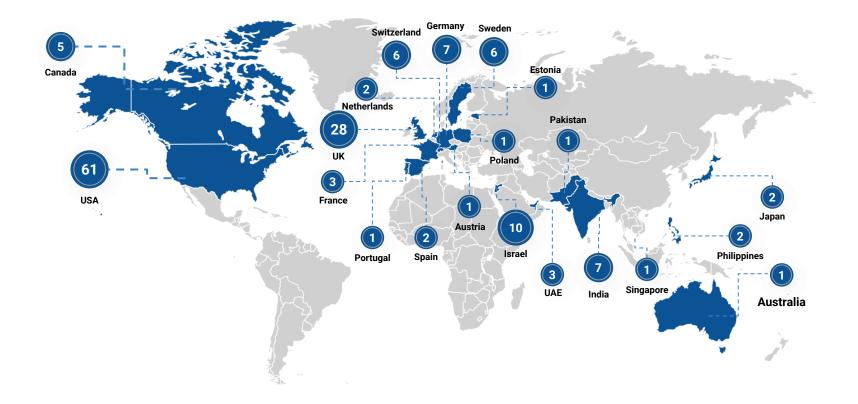
Top 150 FemTech Leaders by Subsector







Top 150 FemTech Leaders by Country



General Health Care

General Health Care



Amy Thomson Founder at Moody



Asmita Sharma Co-Founder and Director of Pharmaceutical Healthcare Research at Intelligence



Brian Bernick Co-Founder and CSO at TherapeuticsMD



Carolyn Witte Co-Founder and CEO of Tia



Christina Östberg Lloyd CFO at Pharmiya AB



Dr Michelle Perugini CEO and Co-Founder at Presagen



Elissa Baker Managing Partner at Phase2 Health



Eva Galant Founder and CEO at Hashiona



Eyal Shamir



Halle Tecco Executive Vice President. CEO of IceCure MedicalWomen's Health at Everly CEO and Founder at Health



Julie McClure Hello.Me



Kaile Zagger CEO of Aspira Women's Health



Marine Wetzel Co-Founder of Imana.care



Maryam Ziaei CEO and Co-Founder of iSono Health

General Health Care

General Health Care



Oriana Papin-Zoghbi CEO and Co-Founder of AOA Dx Inc



Petronela Sandulache Founder of CorDiFio Health



Reenita Das Partner at Frost & Sullivan



Robert Finizio CEO, Co-Founder, and Director at TherapeuticsMD



Sharda Agarwal Co-Founder at Sepalika



Susan Stover
Marketing and Brand Manager
at Hyivy Health



Swarnima Bhattacharya Founder of TheaCare



Tlalit Bussi Tel-Tzure

VP of Business Development and
Global Marketing at IceCure Medical



Sean Glass
Founder and Board
Member of
Advantia Health



Sophie Smith Founder and CEO at Nabta Health

Reproductive Health & Contraception

Reproductive Health & Contraception



Aagya Mathur Co-Founder of Aavia



Abi Hannah Co-Founder & CEO at Fertility Circle



Afton Vechery
Co-Founder and CEO
at Modern Fertility



Alyssa Atkins CEO and Founder at Lilia



Amy Beckley Owner and CEO of MFB Fertility



Eirini Rapti Founder and CEO aofInne



Elina Berglund Scherwitzl
CEO and Co-Founder of Natural
Cycles



Gina Bartasi Founder and CEO of Kindbody



Ida Tin Co-Founder and CEO of Clue



Jo Living Co-Founder and COO Fertility Circle

Reproductive Health & Contraception

Reproductive Health & Contraception



Laurence Fontinoy CEO and Co-Founder of Woom



Lea von Bidder Co-Founder and President at Ava Science



Saundra Pelletier CEO, President, and Executive Director at Evofem Biosciences



Sophia Yen CEO and Co-Founder of Pandia Health



Claire TomkinsCEO of Future Family



Dr. Belinda CokerFounder, CEO, and Coach at
Your Trusted Squad



Mylene YaoCo-Founder and CEO
of Univfy



Keren LeshemCEO at OCON Healthcare



Sylvia Kang Co-Founder and CEO of Mira

Investors / Accelerators

Investor / Accelerators



Anu Duggal
Founding Partner at
Female Founders Fund



Corinne Nevinny Managing Director at Avestria Ventures



Cristina Ljungberg
Co-Founder at The
Case For Her, Partner
at Influence Film



Deepali Nangia Venture Partner at Speedinvest



Sophia Bendz Partner at Cherry Ventures



Fiona Pathiraja Managing Partner at Crista Galli Ventures



Heather Henyon Founding Partner at Mindshift Capital



Jessica Karr Co-Founding General Partner at Coyote Ventures



Linda Greub General Partner at Avestria Ventures



Lucy Chow
Director at Women's
Angel Investor Network



Erika Davies CEO at Rhia Ventures



Shalini Sardana Co-Founder and Investment Strategist at She Raises Capital

Investors / Accelerators

Investor / Accelerators



Trish CostelloFounder and CEO of
Portfolia



Gerda Larsson Co-Founder of The Case for Her, CEO at Curitas Ventures



Triin Linamagi Co-Founder at Sie Ventures



Sharon Rashi-Elkeles Founder and CEO of EVE-FemTech Hub



Nicolas Loeillot
Co-Founder and Co-Director at
Tech4Eva and Chief
Innovation Officer at Groupe
Mutuel



Wendy Anderson
Partner and Co-Founder at
The Case for Her

Menstrual Health

Menstrual Health



Ajinkya Dhariya Founder and CEO at PadCare Labs



Ann Roberts Chief People Officer at Flo Health Inc.



Ann-Sophie Claus Founder of The Female Company



Cindy Belardo Co-Founder and CEO at Menstrual Mates



Claire Coder CEO and Founder of Aunt Flow



Tanvi Johri Co-Founder and CEO of Carmesi



Dmitry Gurski Co-Founder and CEO at Flo Health



Gabby Edlin CEO and Founder of Bloody Good Period



Jan Deruyck Founder of Guud



Kristy Chong CEO and Founder of Modibodi

Menstrual Health

Menstrual Health



Claire Crunk Founder of Trace Femcare LLC



Thang Vo-Ta CEO and Co-Founder of Callaly



Crystal EtienneFounder of Ruby Love



Mark Amouzgar Co-Founder and CEO of March Health



Yanghee Paik CEO and Co-founder of Rael



Saba Khalid Founder of Aurat Raaj



Margaux Aliamus Founder at Circles



Hilla Shaviv
Founder, Inventor and
CEO at Gals Bio Ltd

Pregnancy & Nursing

Pregnancy & Nursing



Anish Sebastian Co-Founder and CEO of Babyscripts



Astrid Gyllenkrok Kristensen Co-Founder and CEO at LEIA



Avital Beck CEO of DiagnoseStick



Eric DyCo-Founder and
CEO of Bloomlife



Joyce Knappe CEO and Founder of Pro Parents



Juan Segura Co-Founder and President of Babyscripts



Kate Torgersen Founder and CEO of Milk Stork



Katherine Ryder Founder and CEO of Maven



Maria Berruezo Co-Founder of LactApp



Oren Oz
Founder and CEO of
Nuvo



Padmini Janaki CEO and Co-Founder of Mind and Mom



Victoria Engelhardt CEO at Keleya



Jane van Dis Co-Founder and CEO at Equity Quotient

Community Organizations

Community Organizations



Amina Sugimoto
CEO and Co-Founder at
fermata inc



Anja Streicher CMO at Women of Wearables



Brittany Barreto
Co-Founder, Executive
Director, and Podcast
Host of FemTech Focus



Christina Vanvuren Founder and CEO of FemTech Media



Karina Vazirova Co-Founder at FemTech Lab



Kathrin Folkendt Founder of FemTech Insider



Marija Butkovic Founder and CEO of Women of Wearables



Megan Capriccio
CEO and Co-Founder
of FemTech Collective



Nicole Dahlstrom Co-Founder and COO of FemTech Collective



Terri Harris Head of Media at FemTech Lab



Tomoko Minagawa Founder of FemTech Community Japan



Katia Lang Co-Founder of FemTech Lab

Sexual Health

Sexual Health



Billie Quinlan Co-Founder and CEO at Ferly



Bryony Cole Sextech School Founder



Dr. Anna Hushlak Co-Founder and CSO at Ferly



Rachel Braun Scherl Co-Founder and Managing Partner at SPARK Solutions for Growth



Jingjin Liu CEO and Founder at ZaZaZu



Lea-Sophie CramerFounder of Amorelie



Lyndsey HarperFounder and
CEO of Rosy



Manuel Schuster Co-Founder of Lauvette



Nienke Helder Co-Founder of Sexual Healing



Farah Kabir Co-Founder at HANX



Stephanie Alys Co-Founder of MysteryVibe



Lora Haddock Founder of Lora DiCarlo

Business Support Services and Longevity

Business Support Services

Longevity



Ari Krzyzek
UX and digital brand
strategist for FemTech DTC
and women-led brands



Bérénice Magistretti TVC-in-residence at Visionaries Club



Dr. Siddhartha Dutta *Head of SG Analytics*



Anastasia Georgievskaya CEO of Haut.Al



David Geliebter
Co-Founder and Executive
Chairman at Critical
Diagnostics



Dennis TurpinPresident and CEO
at Endoceutics



Estrella Jaramillo Ríos Enterprise Leadership, Consultant at BetterUp



Mai Bantog-Cruz Owner of Mai the Writer



Piotr Zajac CEO at Untitled Kingdom



Inbal Zafir-Lavie
CEO and Co-Founder of
Gina Life



Nicole Lambert
President of Myriad
Genetic Laboratories



Shlomit Yehudai-Reshef Founder and CSO at Gina Life Diagnostics LTD

Menopause Care and Mental Health

Menopause Care



Alessandra Henderson Co-Founder and CEO of Flektra Health



Dee Murray CEO at Menopause **Experts Group Limited**



Denise Pines Founder of Tea Botanics and WisePause



Edwige Guinet Co-Founder at Soleil One



Mental Health

Kim Palmer Co-Founder of Clementine App



Nuala Murphy General Manager at Ladies Who Launch



Dr. LaReesa Ferdinand Founder and CEO of The Estrogen Doctor Company, LLC



Jannine Versi Co-founder and COO of Elektra Health



Jill Angelo CEO and Founder of Genney



Sara Campin Founder and CEO of The Nourish App



Sheila Pande CEO and Founder of Tandem Community



Sonali Quantius Founder of Haplomind

Pelvic & Uterine Health Care and Women's Wellness

Pelvic & Uterine Health Care



Deana Mohr-Haralampieva CFO and Co-Founder at **MUVON Therapeutics**



Dr. Elan Ziv of ConTIPI I imited & ConTIPI Medical I td



Hélène Antier Founder and CEO at Lyv



Rachel Bartholomew CEO and Founder at Hyivy Health



Heather Bowerman Founder, inventor and CEO CEO and Founder of DotLab



Rachel Blank Co-Founder of Allara

Women's Wellness



Helene Guillaume Founder and CEO at WII D.AI



Linda Wonneberger Founder and CFO of Comfexy GmbH



Mary Fenske CFO and Founder of Posture Wings



Sis Timbera Co-Founder of Circles



Tania Boler Founder and CFO of Flyie



Wendy Powell Founder and CEO at MUTU System, Transformative Digital Prenatal and Postnatal Care



Key Takeaways

Key Takeaways: Opportunities and Challenges

Opportunities

Challenges

Health Monitoring

FemTech helps women understand their bodies and provides comprehensive medical expertise to improve Healthspan. Women understand more and more what that their bodies are telling them, allowing for the earliest possible diagnosis of health issues.

01

Raising Capital for Female-Led Startups

One of the key issues is the challenge for female-led start-ups of raising capital. Given that most investors are men, the lack of understanding of female health care needs makes them reluctant to invest in female-related products.

Media Engagement to Build Investor Relations

A successful investor engagement strategy requires companies to look at all investors and stakeholders, including those groups that may appear inactive or less active. Social media and stock forums, while not always the most reliable source of information, have empowered online shareholder communities in unprecedented ways, and so it is important that investors receive the correct information from a reputable source; it's important for FemTech companies to tell their own story.



02

FemTech Funding Lags Behind

FemTech investment is heating up, with new funds dedicated to the sector launched. In 2021, the global VC investment in FemTech crossed \$1 billion for the first time.

Unfortunately, there are still relatively low levels of investment in FemTech; this represents a key challenge across the sector. One of the reasons for the low levels VC funding is the poor track record of sizable exits.

Community-Driven Investment and Acceleration Programs

Start-up accelerator programs came into existence precisely to help early-stage start-ups choose their route as a way to receive start-up funding and mentorship. This allows founders to pick the brains of successful entrepreneurs who have conquered the same hurdles as them.



Lack of Openness Around Taboo Subjects

For a long time, women's health has been a taboo subject. The lack of openness around subjects such as sexual and menstrual health has an impact on women's health and well-being. FemTech breaks this taboo through applications, devices, products, diagnostics, and services providing for the needs of women's health.

Key Takeaways

- Although there are varying views on the definition of FemTech, we view FemTech as a term applied to technology empowering
 women's health and well-being, including but not limited to those who identify as cisgender women and gender or sexual
 minority women.
- The FemTech sector is developing fast and has impressive potential. Founders are dedicated to normalizing the conversation around taboo topics and putting more innovation around menopause, pelvic health care, chronic disease management, sexual wellness and education, and urinary health.
- Globally, about 65% of the FemTech market belongs to the Pregnancy & Nursing, Reproductive Health & Contraception, Menstrual Health, and General Health Care subsectors; however, it is not only limited to these categories. Other important FemTech sectors include Sexual Health, Women's Wellness, Longevity, Mental Health, Menopause Care, and Pelvic and Uterine Health Care.
- The growing interest of VCs and Angel investors can help solve the issue of insufficient funding. The USA accounts for nearly 65% of FemTech investors (investors in FemTech-focused companies). More than \$10 billion was invested in US-based companies in 2021.
- The USA is the undisputed leader in the FemTech market. Accounting for nearly 51% of the total number of FemTech companies, it beats other regions by a wide margin. Europe is second at 25%, followed by Asia at 8% and MENA at 7%.
- The FemTech Industry is a diverse and rapidly growing market that includes early-stage startups, middle-market companies, and publicly traded companies. However, 85% of all FemTech companies generate less than \$10 million in revenue each.
- FemTech Longevity, an important part of the FemTech Industry, focuses on technologies, services, and research related to extending women's healthy lifespan. Geographically, the vast majority of FemTech Longevity companies are based in North America, particularly in the USA, where 58% of companies are located.

About FemTech Analytics

A subsidiary of <u>Deep Knowledge Group</u>, <u>FemTech Analytics (FTA)</u> is a strategic analytics agency focused on the emerging FemTech sector. It provides insights into key subsectors such as Reproductive Health & Contraception, General Health Care, Longevity, Mental Health, Menstrual Health, Pregnancy & Nursing, Sexual Health, Pelvic & Uterine Health Care, Menopause Care, and Women's Wellness. 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.

Our Activities

Analytical Case Studies

Preparing open-access studies focused on the global FemTech Industry landscape for a wide range of customers and highlight the industry's importance.





Proprietary Analytics

Delivering proprietary analytical services in accordance with customers' particular needs. Strategic partnership with leading organizations, investment institutions, and governments across the globe.

Governments



Investment Institutions

Interactive IT-Platforms

Providing a framework for a better understanding of FemTech including personalities, companies, investors, R&D centers, and connections between market players.





E-mail: info@FemTech.health Website: www.FemTech.health

FemTech Analytics (FTA) Disclaimer:

The data and conclusions in this analytical report were prepared by FemTech Analytics. All information contained herein is from sources deemed reliable but the report may contain errors, is not warranted and subject to revision. There is no guarantee that the views and opinions expressed in this communication will materialize. FTA may provide, may have provided, or may seek to provide advisory services to one or more companies mentioned herein. In addition, employees of FTA may have purchased or may purchase securities in one or more companies mentioned in this report. Opinions, estimates, and analyses in this report constitute the current judgment of the author as of the date of this report. They do not necessarily reflect the opinions of FTA and are subject to change without notice. FTA has no obligation to update, modify, or amend this report or to otherwise notify a reader thereof in the event that any matter stated herein, or any opinion, estimate, forecast, or analysis set forth herein, changes or subsequently becomes inaccurate. This report is provided for informational purposes only. It is not to be construed as an offer to buy or sell or a solicitation of an offer to buy or sell any financial instruments or to participate in any particular trading strategy in any jurisdiction.