

BUSINESS **FINLAND**

An aerial night view of a city, likely Helsinki, with a dense network of glowing white lines connecting various points across the skyline. The lines form a complex web, suggesting a global or digital network. The city lights are visible in the background, and the overall color palette is dominated by blues and whites.

Bruno Leiniö
Latin America Health Day

Content

- Diagnostics Opp.
- Brazilian National Development Bank – IOT Opp.
- TechEmerge Program Opp.

Diagnostics

75% of the population depend on the universal public system SUS (150 million).

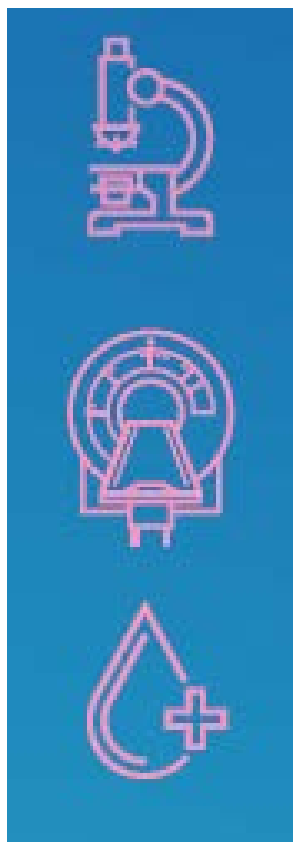
25% of the population have private health insurance (50 million).

Total Medical Examinations (2015):

- Private sector: Over 700 million exams
- Public sector SUS: over 1.2 billion
- Total: 2 billion exams



Diagnostics



- Lab exams: 600.6 M
- Image exams: 71.6 M
- Other exams: 74.6 M
- Private Health operators expenditure with exams: 25,1 Bi BRL (8 billion USD).
- Over 200,000 people work directly with diagnostic services in Brazil.



Diagnostics

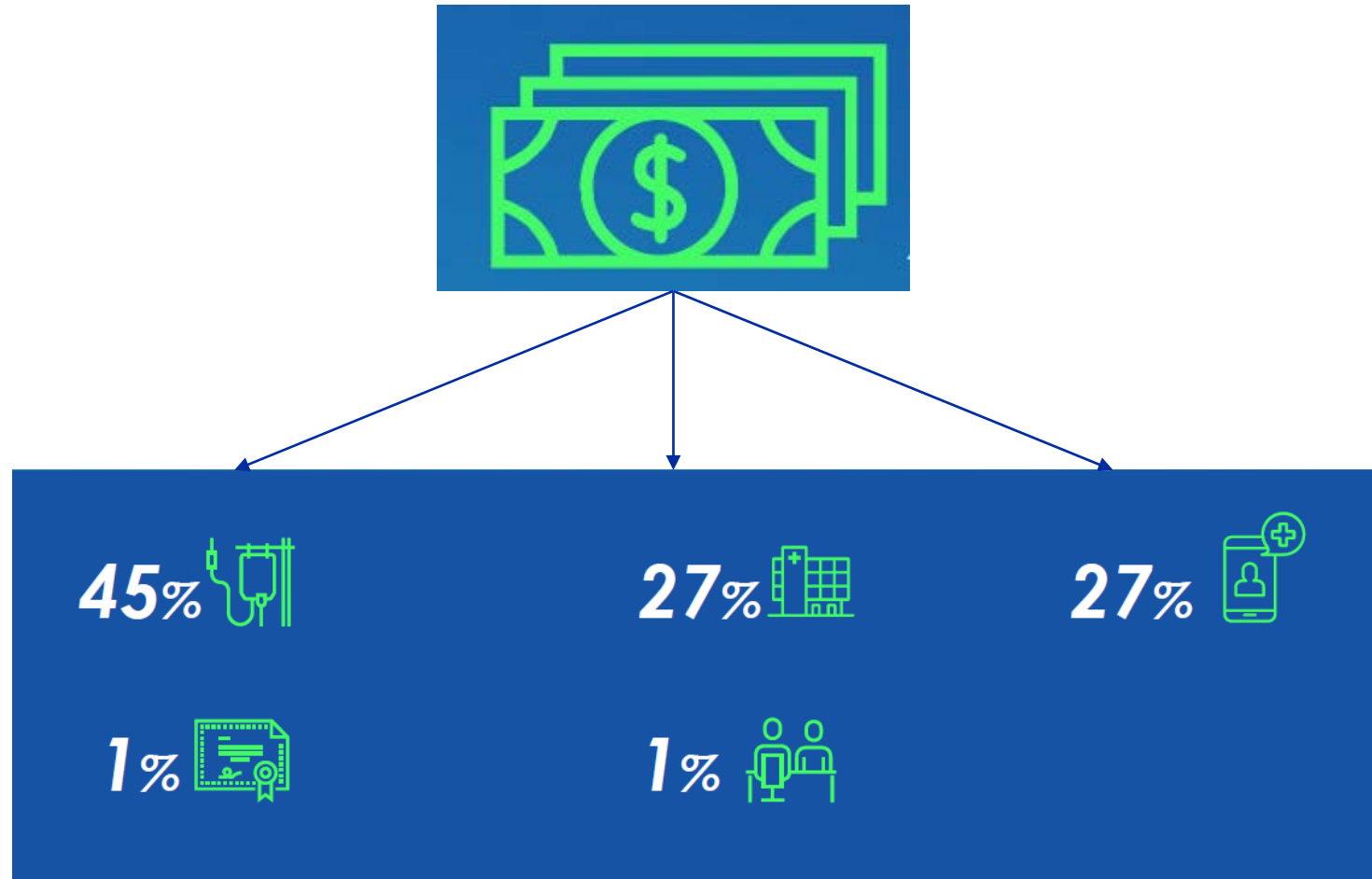
- The diagnostic medicine sector in Brazil registered total revenues of around 10 billion USD.
- From 2009 to 2015, the accumulated increase of revenues in the sector was of 121%.
- In 2016 the increase was of 11.5% over 2015. Several Laboratories are also announcing expansions through new units and renovations and enlargement of existing units.
- Projections indicate that the demanded exams should more than double in the Brazil until 2030.
- Most recent study made by “Valor Economico” (most recognized Economics Newspaper in Brazil) shows that the diagnostic medicine segment is still characterized by a great fragmentation, with several players.

Diagnostics

- How Labs invest their money

Average of 7,6% of the turnover for Investments:

- **45% Equipment**
- 27% Properties/Buildings
- 27% IT & Communication
- 1% Certifications
- 1% Training/Education of employees

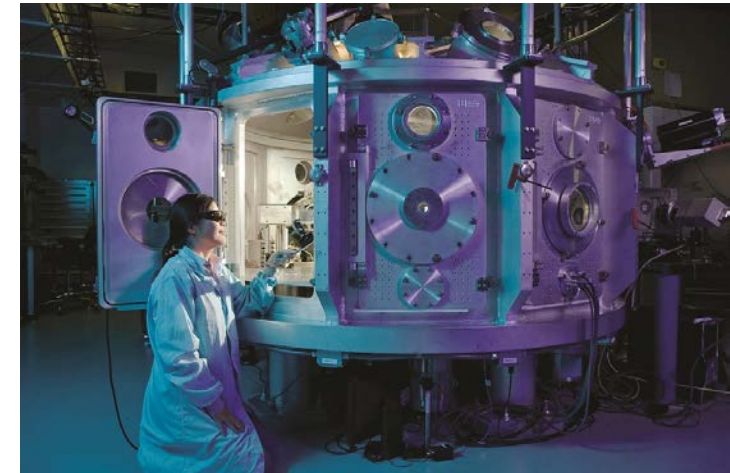


Diagnostics Plans of the main Labs

DASA <http://dasa.com.br/> – It is the biggest diagnostic laboratory chain in Brazil (and according to some data, it is the 4th biggest chain worldwide). Dasa has 590 lab units in 10 Brazilian States. 50 new units/year for the next few years. Eg. In 2017 the budget for organic expansion was of 100 million USD.

Fleury <http://www.fleury.com.br/> - It is the second biggest chain in Brazil, they have around 140 lab units, and the expansion plan oversees a growth of 65% for the next 5 years. The goal is to open between 73 and 90 new unities. From that over 70% are going to offer just in vitro diagnostics and ultrasound exams. Fleury is owner of A+ laboratories as well.

Hermes Pardini www.hermespardini.com.br/ – The third biggest lab chain in Brazil, Hermes Pardini just raised USD 280 million in its IPO in the beginning of the year. According to the company is to be used in the expansion of its labs and some acquisitions. Hermes has around 100 labs in Minas Gerais, São Paulo and Goiás States.



Diagnostics

- Several Finnish companies may offer equipment, devices and consumables for diagnostics laboratories, and IT and communication technologies. Both in what is called “in vitro” diagnostics and image diagnostics.
- Due to the high volume of investments in Brazil in this sector and the lack of recognized local technology providers, it can figure as a good opportunity for Finnish companies.
- **How to seize the opportunity**
 - Individual advice
 - TechEmerge Program (Registration opens today)
 - Hospitalar trade fair (May 22-25)
 - Possible delegation from Finland to Brazil in order to meet with the management of main laboratories locally.
 - Local Partner (Partner Search)

IOT in Health – Brazilian Development Bank

- "Internet of Things: An Action Plan for Brazil"

1 Health care: Aspiration and Strategic Objectives

Aspiration

Contribute to **increased access to quality healthcare** in Brazil through **decentralized health care, integration of patient information and improvement of healthcare units' efficiency**



Strategic Goals



Chronic diseases

Improve the **effectiveness of treatments** for people with chronic diseases by means of **continuous monitoring** of patients



Promotion and Prevention

Prevent risk situations and control the emergence of **epidemics** and **infectious-contagious diseases** with IoT solutions



Management Efficiency

Increase the **efficiency of the SUS hospitals** and primary health care units by adopting IoT solutions



Innovation

Promote the **adoption of solutions developed** locally for the environment's challenges

Illustrative initiative example

Hospital 4.0

- Call for pilot project(s) for use of IoT in health units with different suppliers

Is your company a possible technology provider? Let us know!

TechEmerge Program - Brazil

IFC WORKS WITH THE PRIVATE SECTOR IN DEVELOPING COUNTRIES TO CREATE MARKETS THAT OPEN UP OPPORTUNITIES FOR ALL

- International Finance Corporation (IFC, a member of the World Bank Group) is the **largest global development institution focused on the private sector in emerging markets**
- Headquarters in Washington DC, with offices in 100+ countries
- More than **2,000 client businesses worldwide**
- **\$19.3 billion** in investments, leveraging the power of the private sector to help end poverty and boost shared prosperity
- Dedicated Venture Capital Group, investing in technology and innovation
- For more information, visit www.ifc.org



**Support the commercial adoption of
new technologies in Brazil, with
the dual goals of improving
healthcare delivery and patient
outcomes**





Example health-tech needs identified in Brazilian market

Patient Engagement / Education



- Tools that support outreach & communication with patients through text and/or voice messaging
- Mobile apps based medication/therapy adherence tools

Point of Care Diagnostics



- Mobile, low cost diagnostic tools with cloud-based data collection systems

Clinical Data Analytics



- Data platforms to analyze trends and support clinical decisions-making by doctors
- Tools to analyze lab/test results

Artificial Intelligence / ML



- Predictive modeling to drive intelligent strategic decisions and create personalized solutions
- Behavior-based systems to increase security in health systems (e.g. make passwords optional)

Operational Efficiency/ Workflow



- Enterprise applications to support cloud-based data transmission
- Including payment processing/ dispute settlement

Training tools



- Software applications for onboarding, testing and training of professionals

Strong network of Brazilian healthcare providers looking for new tech solutions

Example Partners Participating in TechEmerge Health Brazil

- includes multi-specialty hospitals, labs and diagnostic centers, home healthcare providers, etc.



ALBERT EINSTEIN

SOCIEDADE BENEFICENTE ISRAELITA BRASILEIRA



HOSPITAL
SÍRIO-LIBANÊS



Associação do Sanatório Sírio



Local partners



The National Private Healthcare Association – with 85 members representing 16% of private healthcare in Brazil providing over 20,000 beds

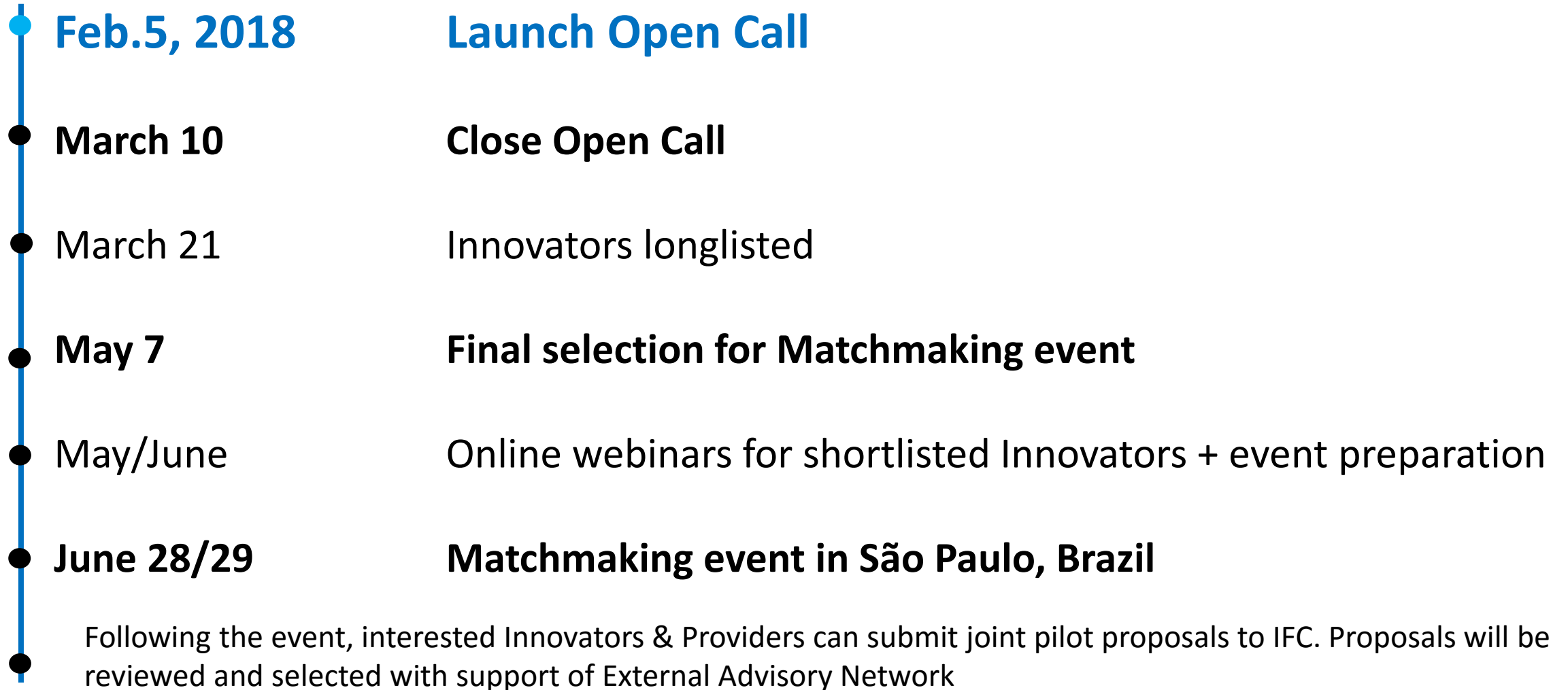


Leading digital platform focused on process management and procurement in Brazil, serving a network over 1,100 hospitals



Produces largest health conferences in Latin America, incl. Healthcare Innovation Show and Saude Business Forum that bring together over 4,000 attendees

Tentative timeline



→ **\$1M in funding available to support local pilot projects**



APPLY NOW!

WWW.TECHEMERGEBRAZIL.ORG

DEADLINE FOR APPLICATIONS MARCH 10, 2018

Market Overview

Profile:

- Largest economy in Latin America,
- +200 million population, 9th largest economy globally. (6th in 2011-2012)
- Finnish exports were 2016 approx. 600 MEUR, 50% of all the Finnish exports to South America.
- Turnover of Finnish subsidiaries in Brazil was approx. 1.6 bi. EUR with 10 000 employees.
- Finnish offering to Brazil is traditionally in:
 - Telecom
 - Energy
 - Pulp
 - Mining
 - Shipbuilding
 - **Health Technoly**



Overview of Health Sector

- Healthcare spending accounted for **9.5% of Brazil's GDP** in 2015. Spending in this sector has **grown by over 50% from 2006**, reaching USD 166.8 billion.
- **The United Nations estimates that the elderly population in Brazil will surpass the number of young people by the year 2030.**
- Brazil the **9th largest** healthcare market in the world. According to Business Monitor International, from 2016 to 2025 - 21% growth (in real terms) is expected, which would make Brazil the 5th largest Health market.

Market Overview

- Mercosur x EU Agreement

- One of the main targets of the government is to sign free trade agreements, including with EU, that has been under negotiation over a decade. The expectation is that in 2018 it is going to signed, and that in 2020 it is going to be operative.



**In Brazil everything is difficult,
but nothing is impossible...**