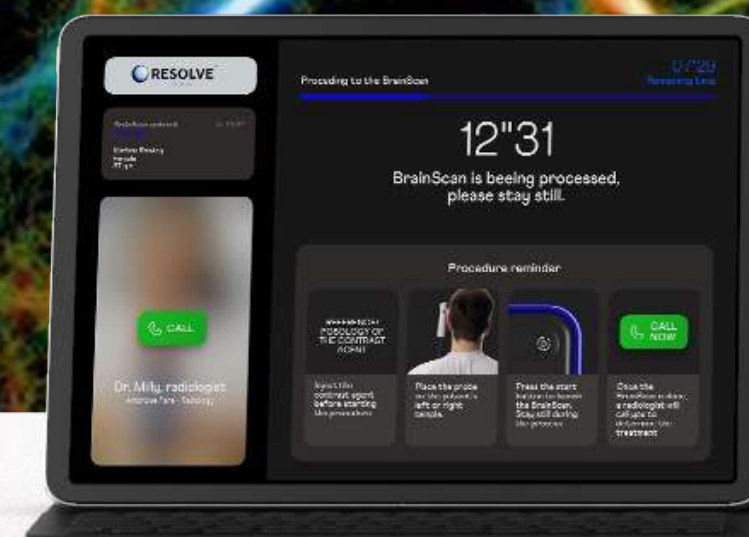




RESOLVE STROKE



November, 2022

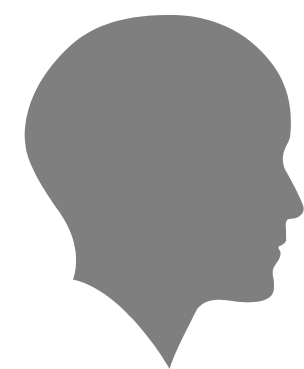
Executive summary



**RESOLVE
STROKE**

- **Many unmet medical needs due to the limitations of current imaging devices:** fixed, user-dependent, not very accurate, not repeatable, expensive...
- A **disruptive, safe, non-user dependent, portable ultrasound-based imaging tech.** discovered by our co-founder Olivier Couture: a worldwide acknowledged technology through a publication in “Nature”
- An ambition: **significantly reduce mortality and disability from stroke** and **lead the next medical imaging leap** by seizing opportunities from bedside stroke monitoring to future life-saving discoveries.
- Resolve Stroke is expected to **decrease the EUR +110 bn in direct healthcare costs associated with stroke** in the US and Europe by improving stroke management
- A vision: Resolve Stroke now has all the tools to **bring the platform to the market and capture the upcoming outstanding discoveries thanks to data never seen before**
- A **derisked roadmap** by first capturing clinically & tech. proven applications with **already secured clinical trial partnerships in 2023** before expanding to other applications

Many unmet medical needs due to the limitations of current imaging devices



Moreover, any **additional information** provided by a new imaging modality could **provide critical data to physicians** and result in **a significant reduction in death and disabilities**



	(MRI)	(CT scan)	(Conventional Ultrasound)
Bedside	✗	✗	✓
Vascular resolution	800µm	500µm	1000µm
Non-user dependent	✓	✓	✗
Affordable ^(EUR) / scalable	c.2m *	c.1m *	4k-200k
Large field-of-view	100%	100%	Often limited (slice only)
Safety / repeatability	✓	✗	✓

*including installation costs

A colossal impact

In the , every

40 s

someone has a **stroke**

and every

4 min

someone **dies of it**

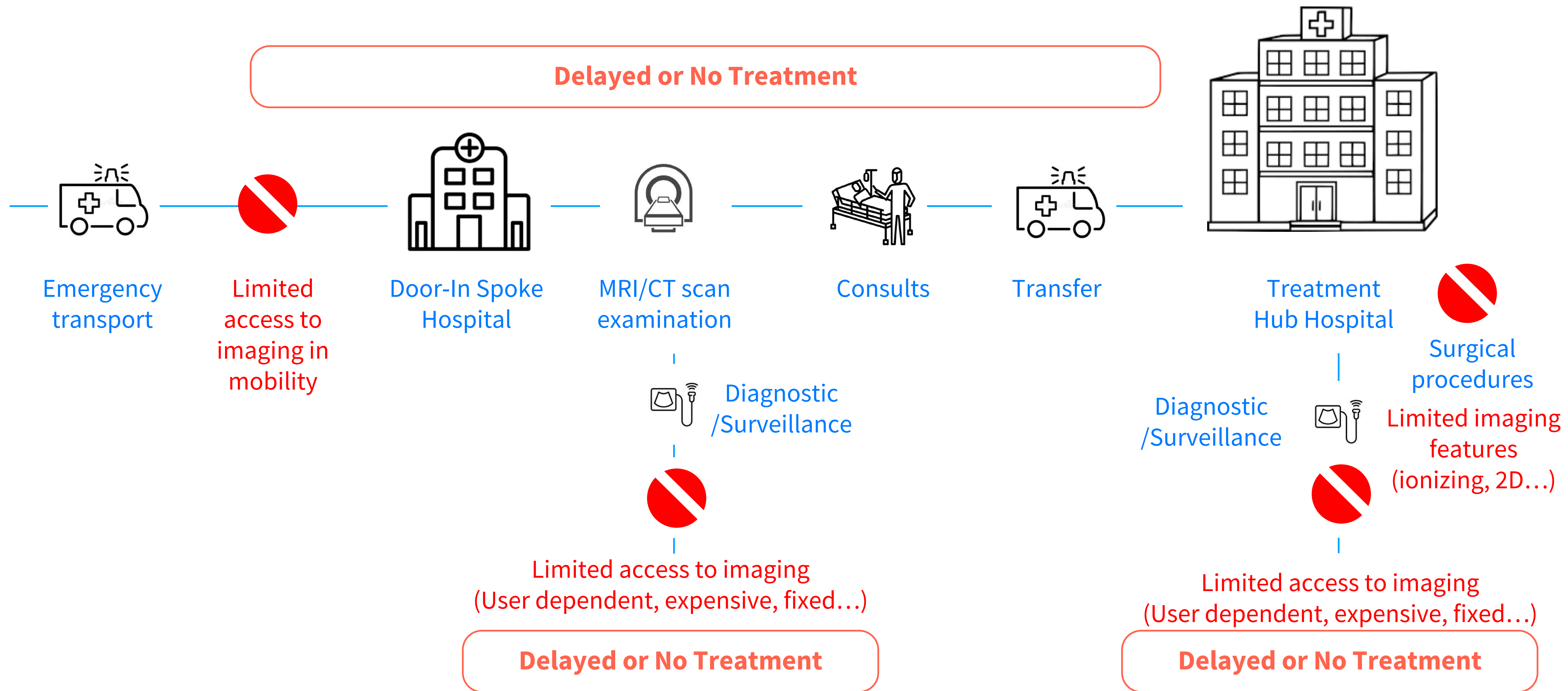
which **costs**

\$53 bn

In direct healthcare cost

Source: CDC, Report on stroke

An inefficient workflow



Acute Stroke Management is limited by the **lack of access to MRI / CT scans**

Today, **70 %** of Stroke patients **are too late to receive a treatment**

For hospitals, **Early Detection** and Timely Treatment **Drive Reimbursement**

Onset
Declaration of the symptoms

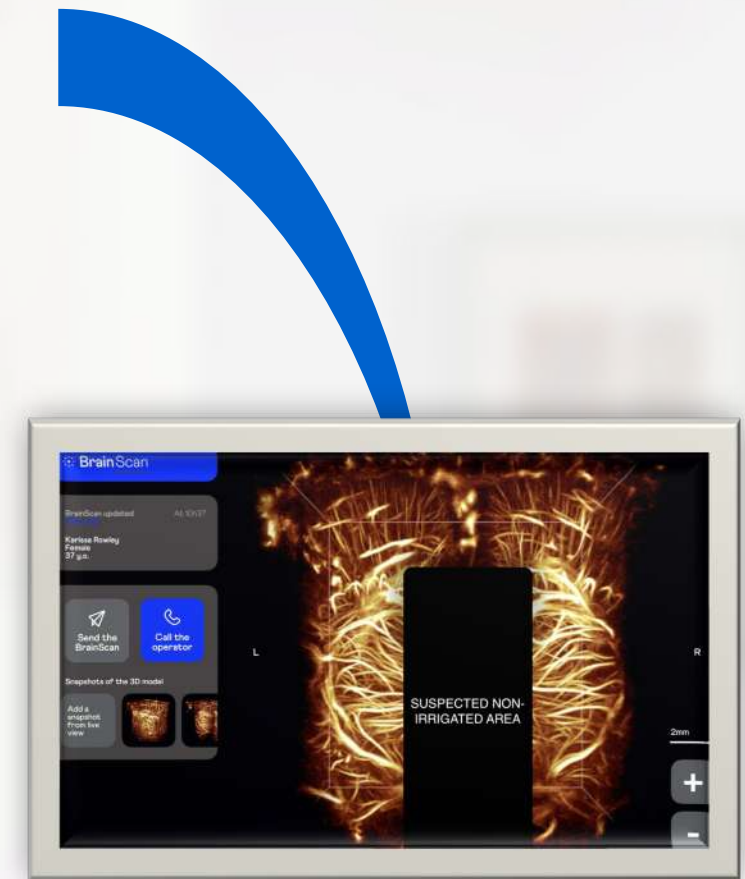
Alarm
Call to emergency service

First hospital transfer
Arrival at the hospital

Imaging
Diagnostic with CT or MRI

Treatment Hospital transfer

Treatment
Thrombolysis with rt-PA or Endovascular Thrombectomy

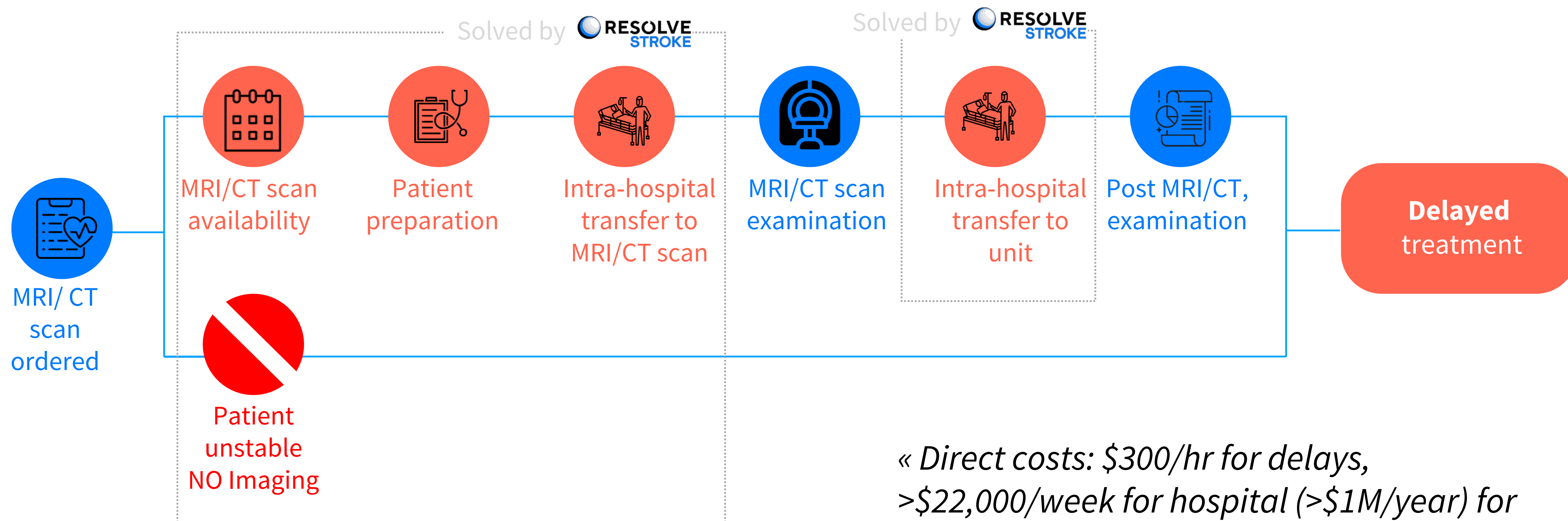


RESOLVE STROKE

In mobility

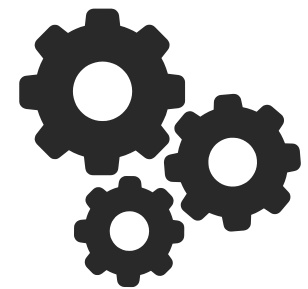
Solve the inefficiency of the current ICU imaging workflow

Traditional MRI/CT scan workflow can lead to **prolonged delays** in patient care and **higher resources consumption**



« Direct costs: \$300/hr for delays,
>\$22,000/week for hospital (>\$1M/year) for
large academic center »

Resolve Stroke, a **disruptive imaging** **platform**

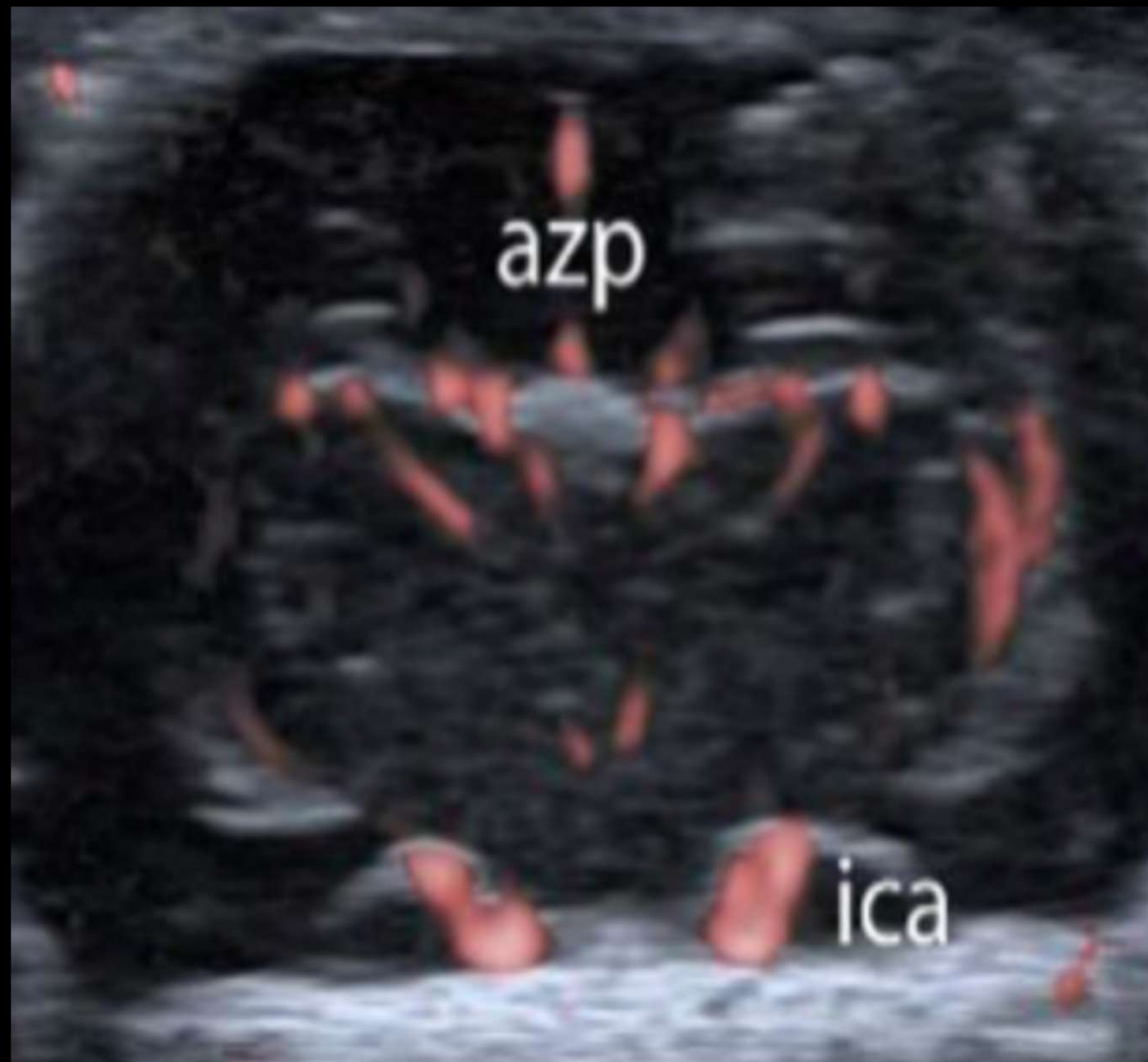


1. Point of Care / portable
2. Non-invasive, non-ionizing, repeatable (Ultrasound)
3. Non-user dependent (3D)
4. Real-time
5. AI-Ready
6. Intelligent Care coordinator



...thanks to a disruptive tech. bringing **data never seen before**

Conventional Ultrasound



Spatial resolution

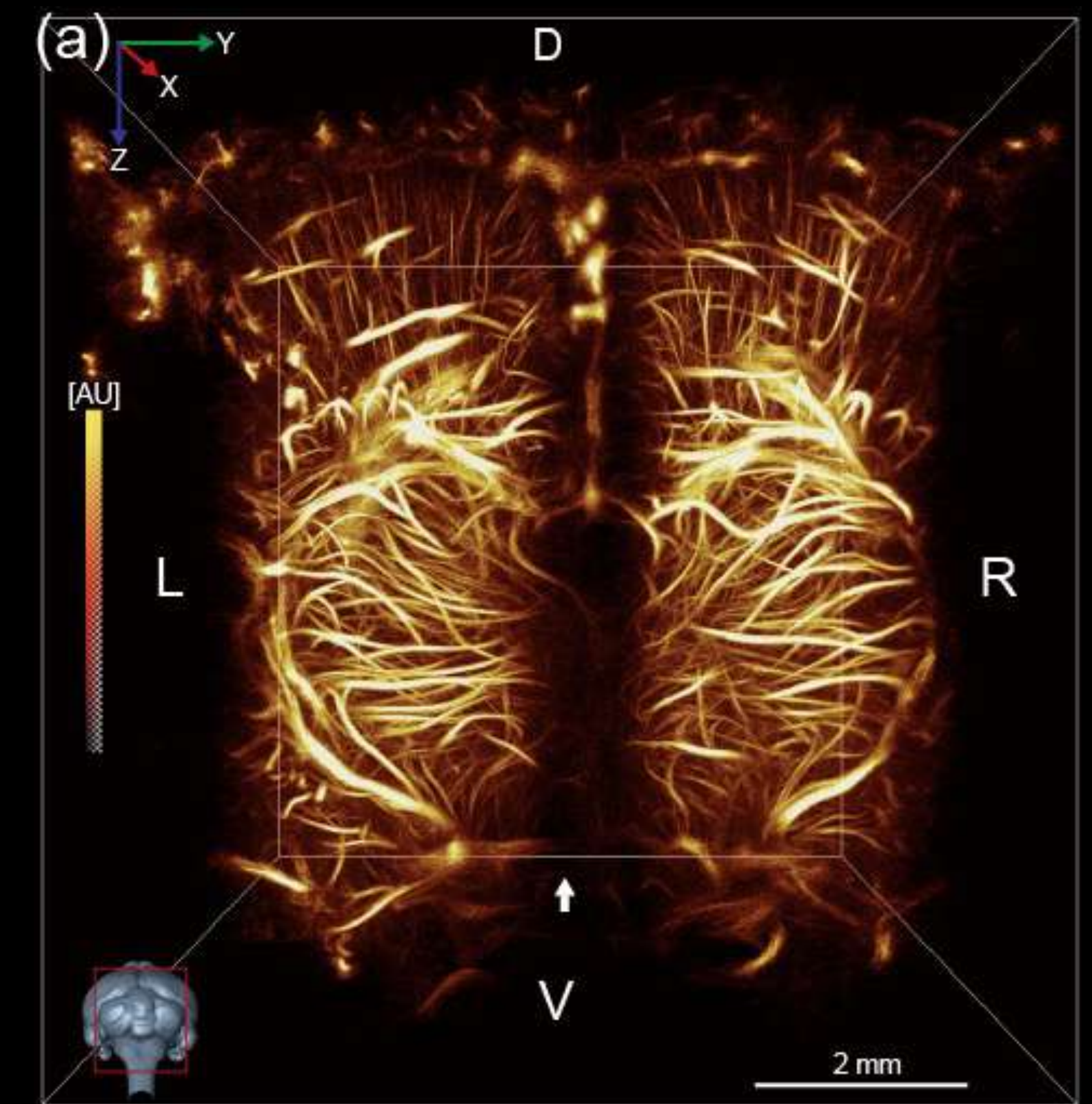
1 mm² **0.1 mm²**

Field of view

2D **3D**

Resolve core tech.

discovered by O. Couture and published in Nature



3D ULM rat brain with L.I.B. prototype. Courtesy A. Chavignon ¹⁾

1) Trough rat skull, acoustic model at the human trans-temporal imaging scale 2) for humans

Complementary experienced cofounders



Aritz Zamacola
CEO & cofounder

+6 years' experience in Medtech strat.
Project Manager, **30+ healthcare projects**
@Roland Berger

MSc **Biomedical Eng. @Imperial College**
Engineering degree @CentraleSupélec
MSc Strategy @HEC Paris

Operations & Strategy



Vincent Hingot
CTO & cofounder

+ 6 years' experience with ULM tech
+10 publications & 3 patents
Visiting student @Harvard
IEEE ULM course lecturer

PhD @Sorbonne Université
Engineering degree @ESPCI

Tech & Product



Olivier Couture
CSO & cofounder

+ 20 years' experience
with Ultrasound
World-renowned scientist
+40 publications & +10 patents

Research Director @CNRS
Co-inventor of ULM tech.

Vision & Partnerships



A platform to revolutionize medical imaging

Short and long term opportunities in neuro & many other therapeutic areas



“Diagnosing Acute Mesenteric Ischemia”

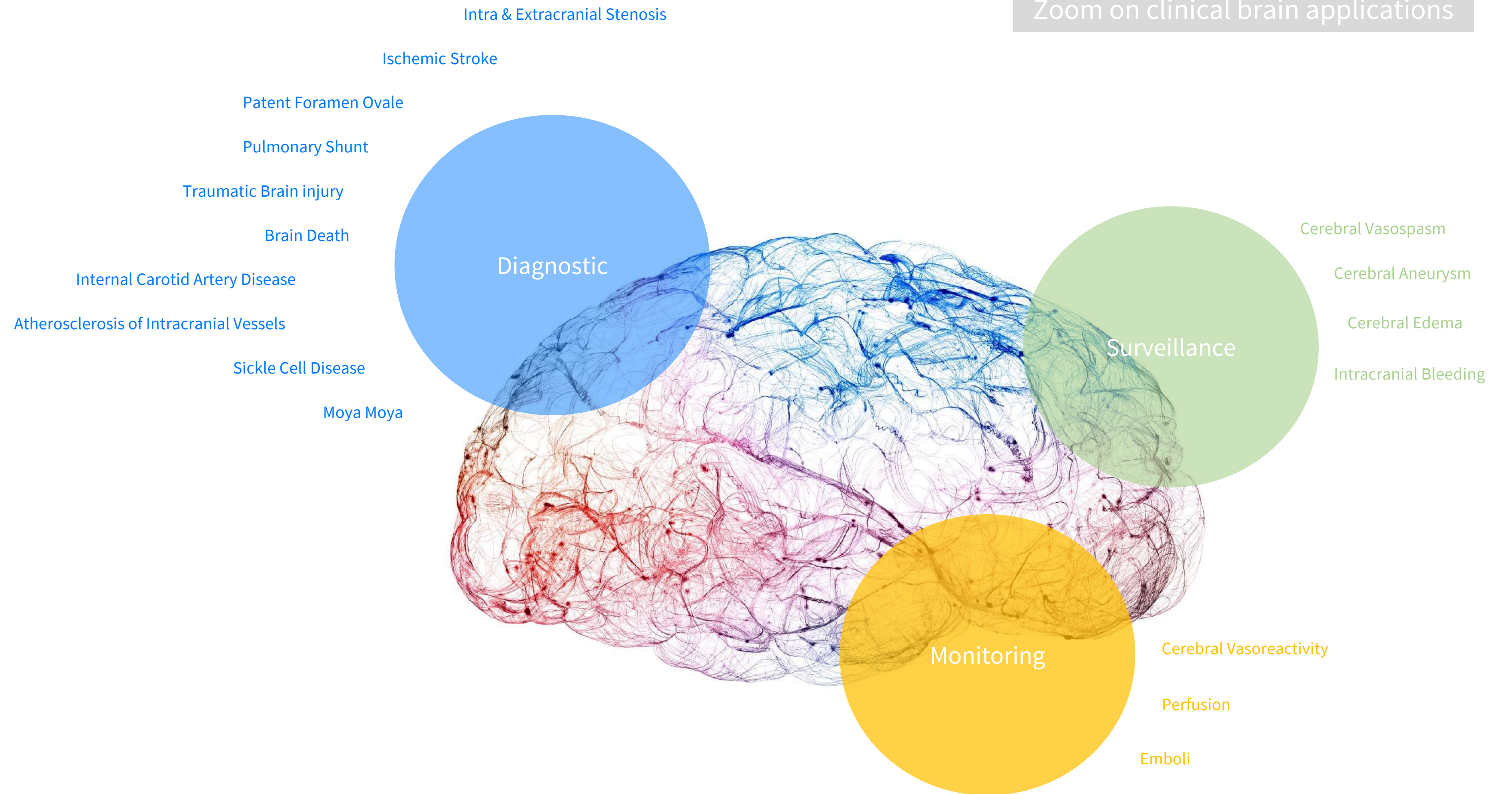
“Integrating ultrasound in mini-invasive/robotic procedures”

“Avoiding kidney biopsy”

“Detecting diabetes earlier”

“Creating a neurovascular database for AI based neurovascular biomarkers”

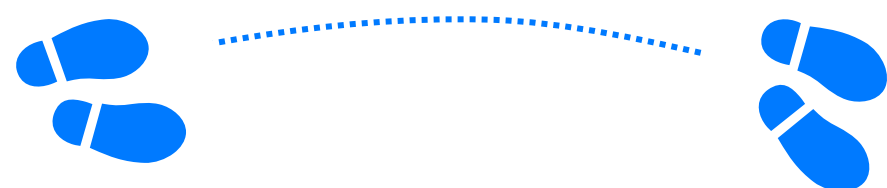
“Monitoring Alzheimer”



Benefiting from outstanding past developments

...-2010

A successful French ecosystem



French ecosystem at the forefront of ultrasound medical imaging
(ex. Ultrafast Ultrasound discoveries)



echosens

ESPCI PARIS



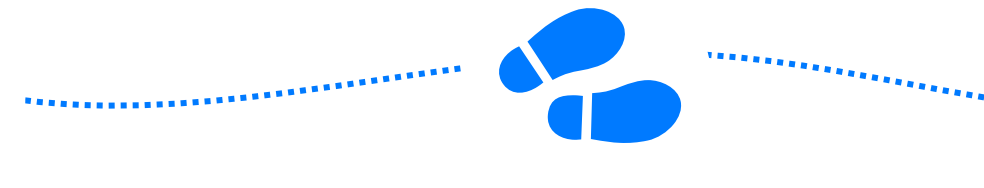
vermon
world leader in Composite Piezoelectric Transducers

Inserm



2010-2015

A breakthrough tech.

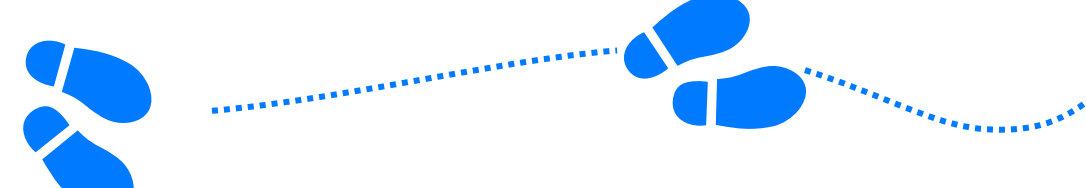


Olivier Couture as the co-developer of the ULM Technology

- **Worldwide recognition** through the **publication** in « **Nature** » (2015) by Olivier
- First **In Vivo demonstration**

2016-2021

Preclinical phases



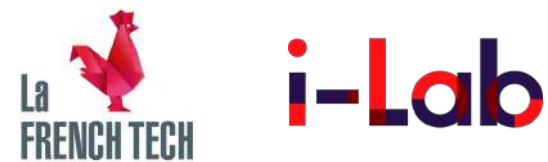
+EUR 2M grant (ERC) for O. Couture

- Development of prototypes
- Successful **preclinical developments**
- ULM recognized in 2021 as a key area of research with dedicated sessions at the annual IEEE conference

2022

Founding of Resolve Stroke

First MedTech leveraging ULM:
Clinical, regulatory and commercialization phases



- 2+ M€ in academic funding (ERC grant) for 1st prototypes & ERC POC partnership for 1st clinical investigations
- Grand prix i-PhD 2021 , i-Lab 2022
- Network & Resolve Stroke's lab
- Grant / support
- Clinical trials partnerships



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