ROMAIN

Transforming emergency care by improving quality while reducing operational burden on healthcare teams

iAVC

Un temps d'Àvenir

A first scientific committee and iAVC's team



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Vice-Président de la SFNR



Pierre-Olivier Bussière
Président



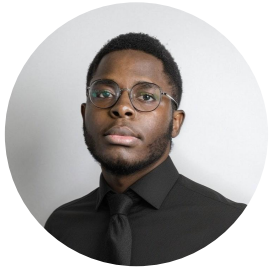
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Mathis Lambert
Chargé de missions



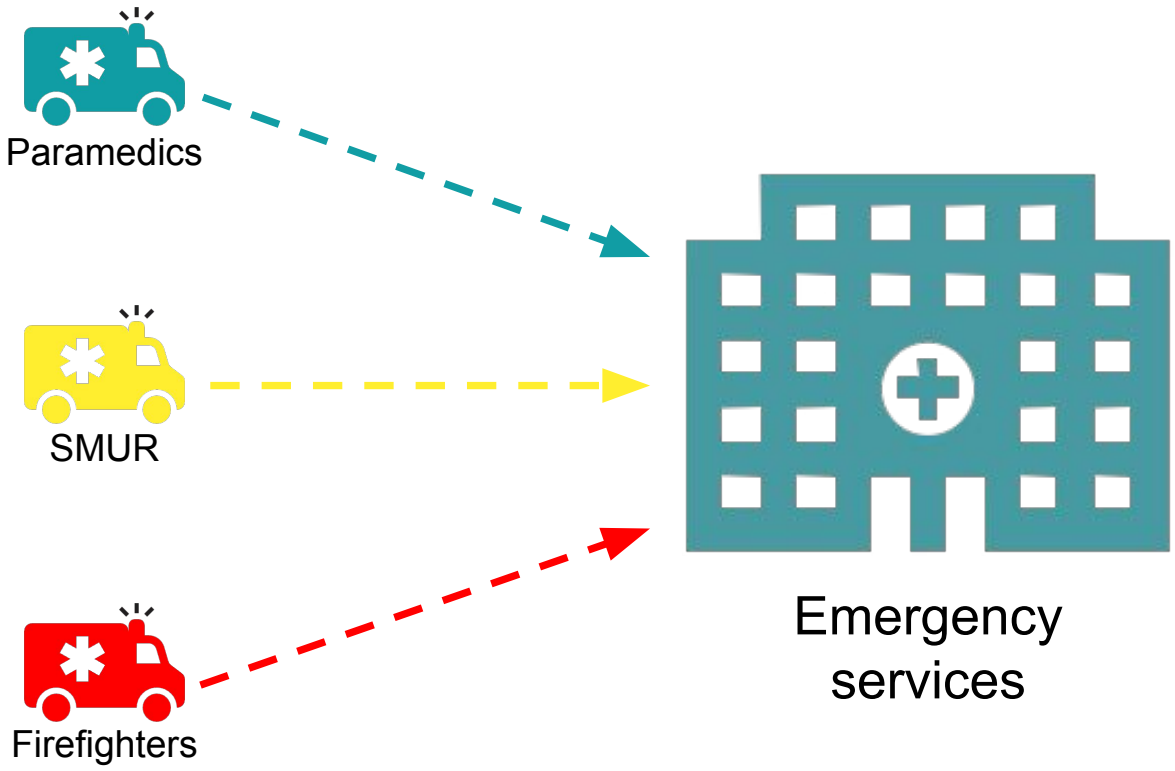
Rich Tsague
Développeur full-stack

Groundwork begun in 2021 to create iAVC in February 2023

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SAMU coordinates over 6 million emergency missions annually





In France, an emergency vehicle is dispatched every 5 seconds

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The challenge of managing emergency services flow



➔ Uncertainty about patient arrival time

- <u>During the day</u> : inefficient resource allocation (both human and technical) due to late or premature mobilization (patient care delay, unnecessary downtime for professionals, reduced operational efficiency)

- <u>On-call periods</u> : reduces quality of life due to unpredictable mobilizations.

➔ Wrong orientation of paramedics

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The critical role of time in Stroke care



Long term impacts
Every 30 minutes results in additional 15% of irreversible disabilities



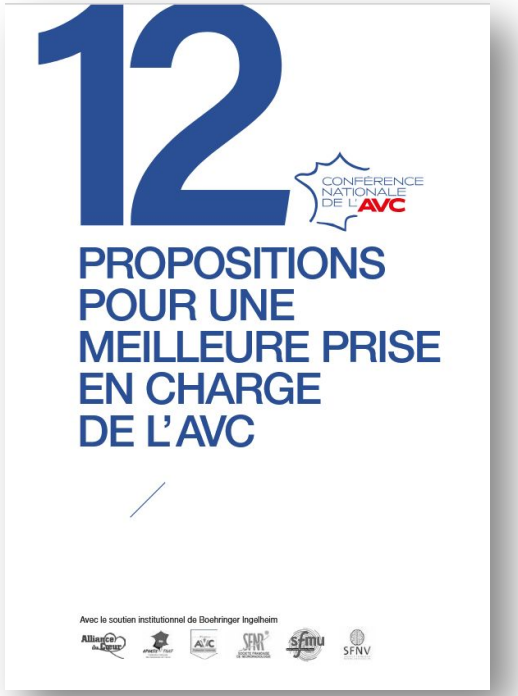
Brain tissue loss
2 million neurons die every minute



Economic burden
Acute phase : €1.8 billion
Long term disabilities :€2.6 billion

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Recommandation #3 from stoke expert's white paper



*« **Strengthen and improve coordination** among all stroke care team, at every stage of the patient journey, by leveraging new technologies. Members of the Stroke Conference propose the development and systematic use of a dedicated mobile application for **real time data sharing** across all the care pathway.*

*Healthcare professionals should find key data such as patient's **estimated time of arrival** at the stroke unit and even **updates on transport delay**. **Real time patient tracking is also useful**. »*

A recognized challenge - and waited solution by medical experts since 2020

Timeframe targets for mechanical thrombectomy (MT)

HAS HAUTE AUTORITÉ DE SANTÉ

RECOMMANDER
LES BONNES PRATIQUES

GUIDE

Guide du parcours de santé – Accident vasculaire cérébral de l'adulte

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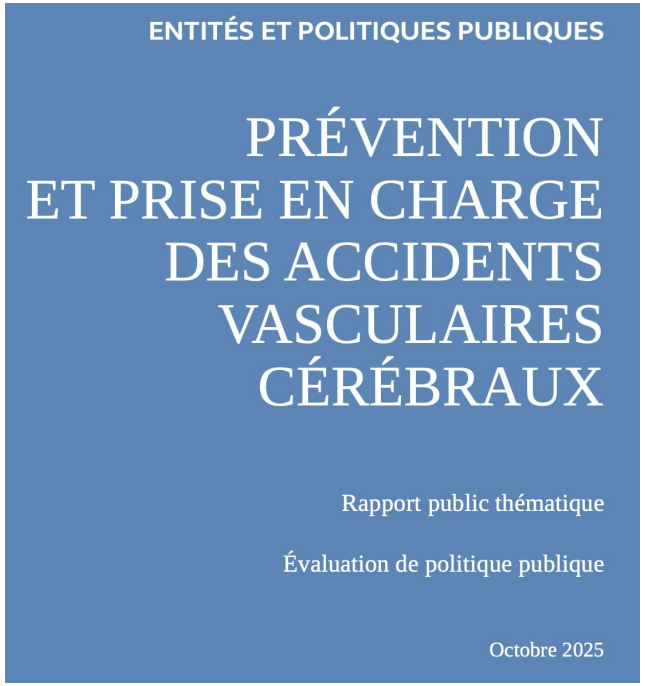
"Target median time is :

- *less than 90 min **between arrival** in the hospital **and MT** (mothership organization) ;*
- *less than 90 min between **arrival** in initial hospital and **departure** to the specialized hospital for MT (drip and ship organization) ;*
- *less than 25 min between **arrival** in specialized hospital (after patient transfer) and **MT** (drip and ship organization).*

The goal is to reduce these delays as much as possible."

It is necessary to know and assess patient's care times

French Cour des Comptes report



*"**Anticipating the arrival time** of suspected stroke patients regulated by emergency dispatch service enables hospital teams better organization to **optimize the patient's in-hospital journey**." "CHU de Lille is trying such a system, developed by start-up **iAVC**" (P.72)*

*"This also applied to the assessment of benefits from the experimentation in Hauts-de-France of the **« iAVC »** patient geolocation system during transport, **enabling "just in time" mobilization of on-call teams**." (P.109)*

A solution recognized by the French Cour des Comptes

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ROMAIN : The solution that already exists in the stroke pathway

ROMAIN



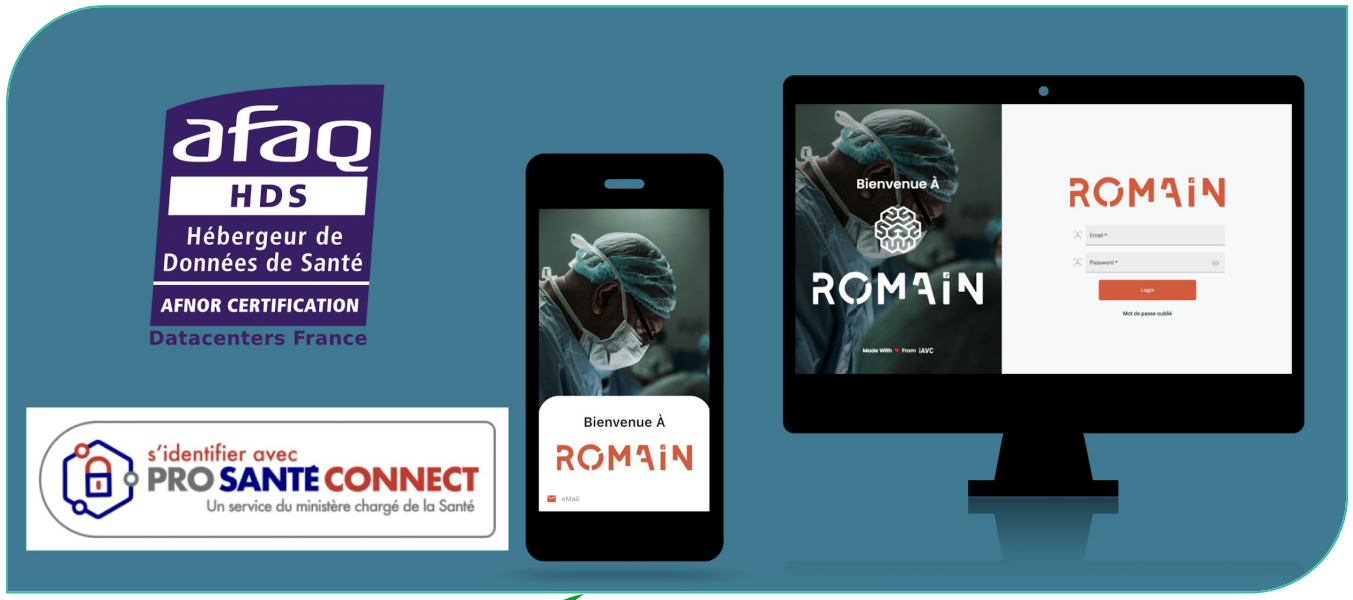
Patients geolocation during their inter-hospital transfer to the operating room

ROMAIN : the solution dedicated to hospital healthcare professionals

GPS bracelets in a first hospital



Application in the destination hospital



Doctrine of digital health

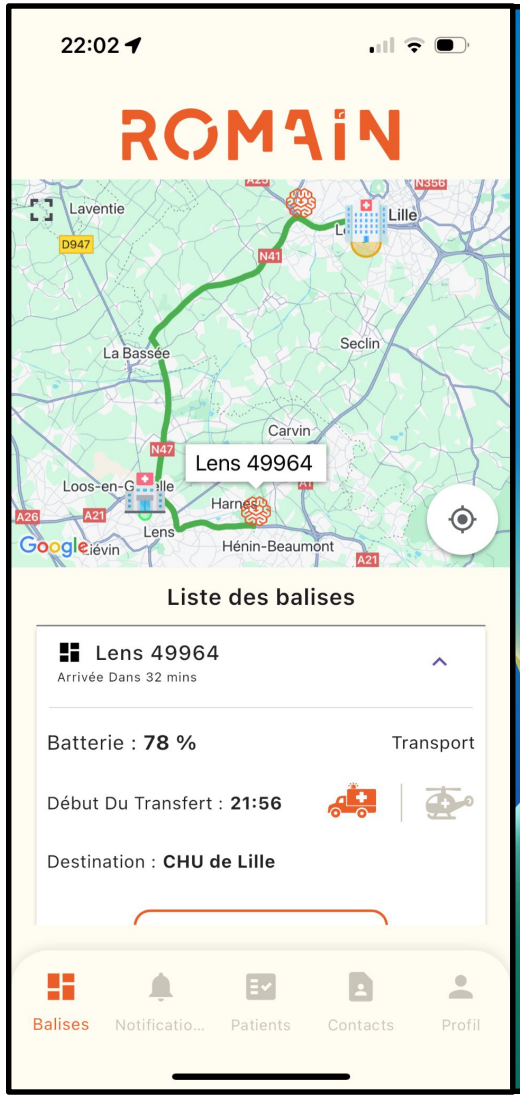


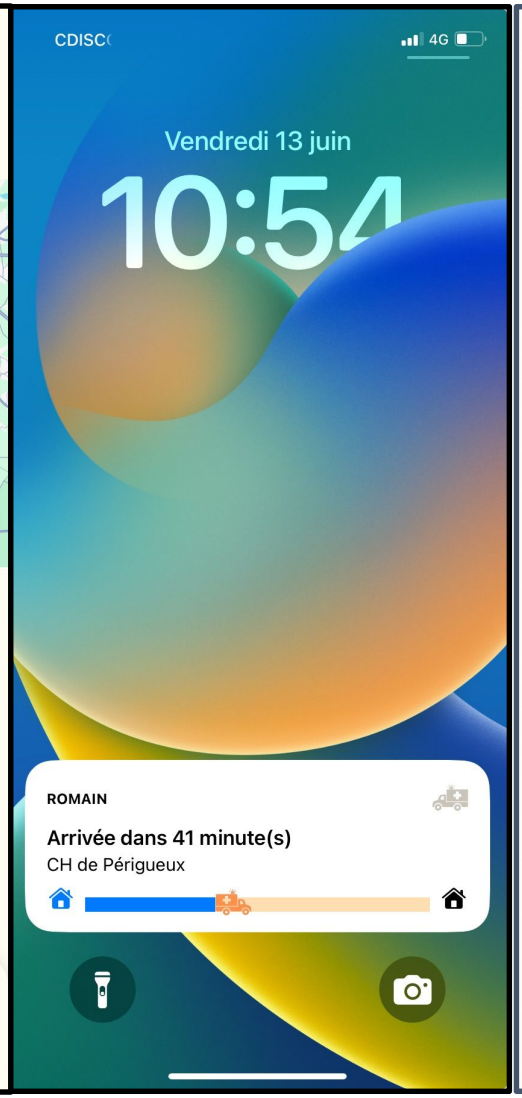
<u>French patent issued:</u> (No. FR2302503 on 17/03/2023):

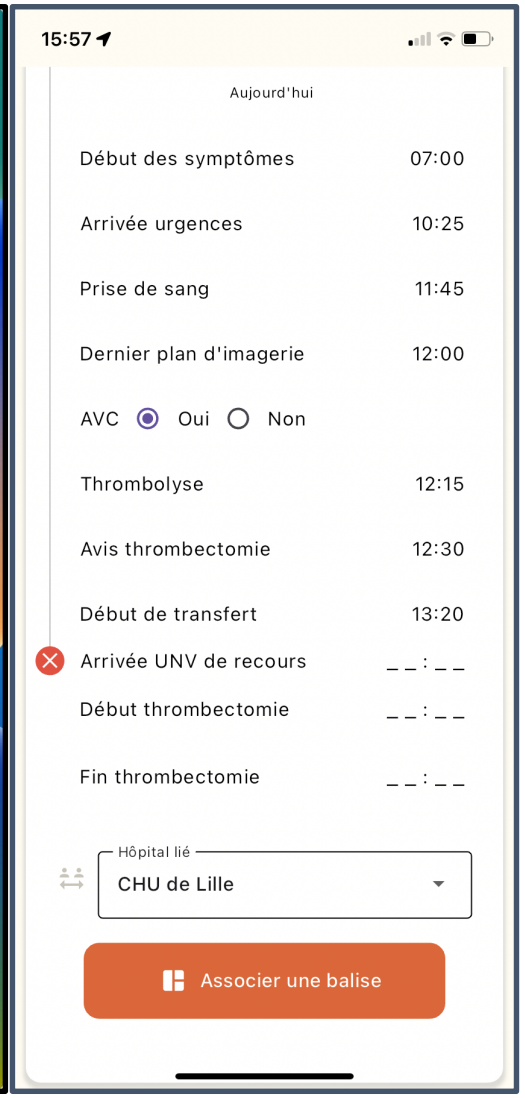
"Synchronization of individuals at an intervention site"

Extension in Europe, the USA and Saudi Arabia.

ROMAIN's features







Real time tracking of patient and estimated time of arrival.

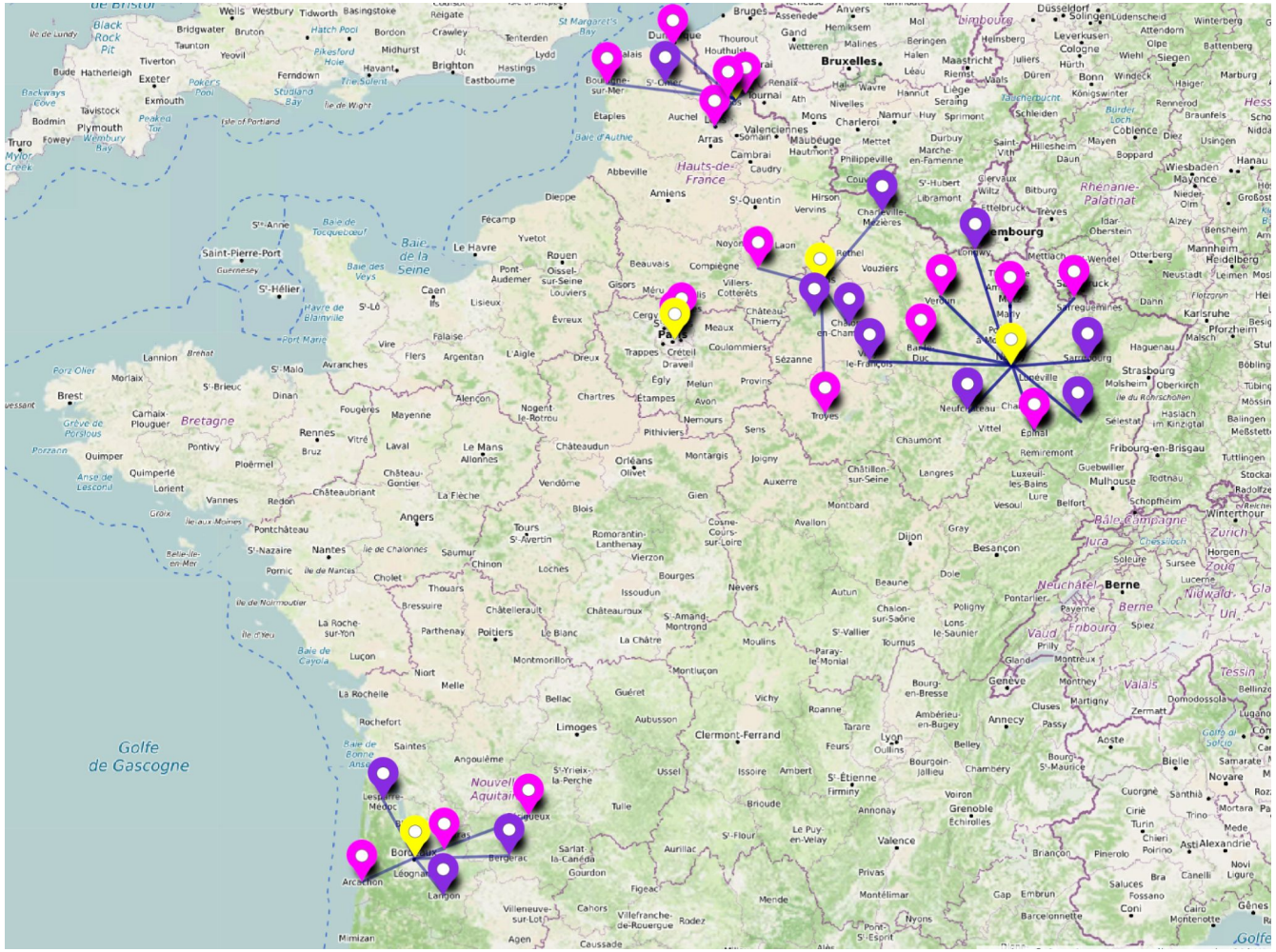
Automatic calls and alerts upon departure and arrival

Creation and collection of data to assess patient care delays (HAS criteria) :

- **Patient departure time (Door out)**
- **Arrival time at specialized center**

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4 stroke care pathways deployed in 2025



CHU LILLE

CHU BDX
CENTRE HOSPITALIER UNIVERSITAIRE BORDEAUX

CHRU NANCY

CHU DE REIMS

- ➔ deployed since February 10, 2025
- ➔ 30 hospital equipped
- ➔ additional deployments in preparation

550 use cases per year

10% of inter-hospitals transfers in France by 2026

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Patient benefits with economical impacts

Reduction of patient wait times

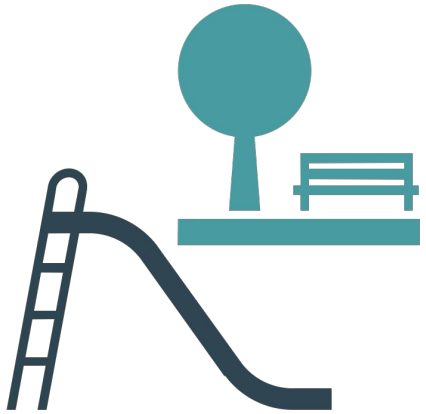
Medical time saving



Cost saving for health insurance system

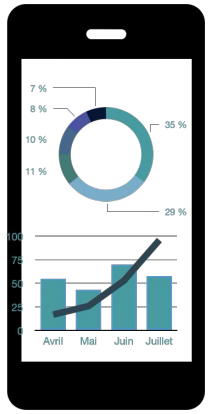
Operating room optimization for hospital

Improved quality of life and working conditions



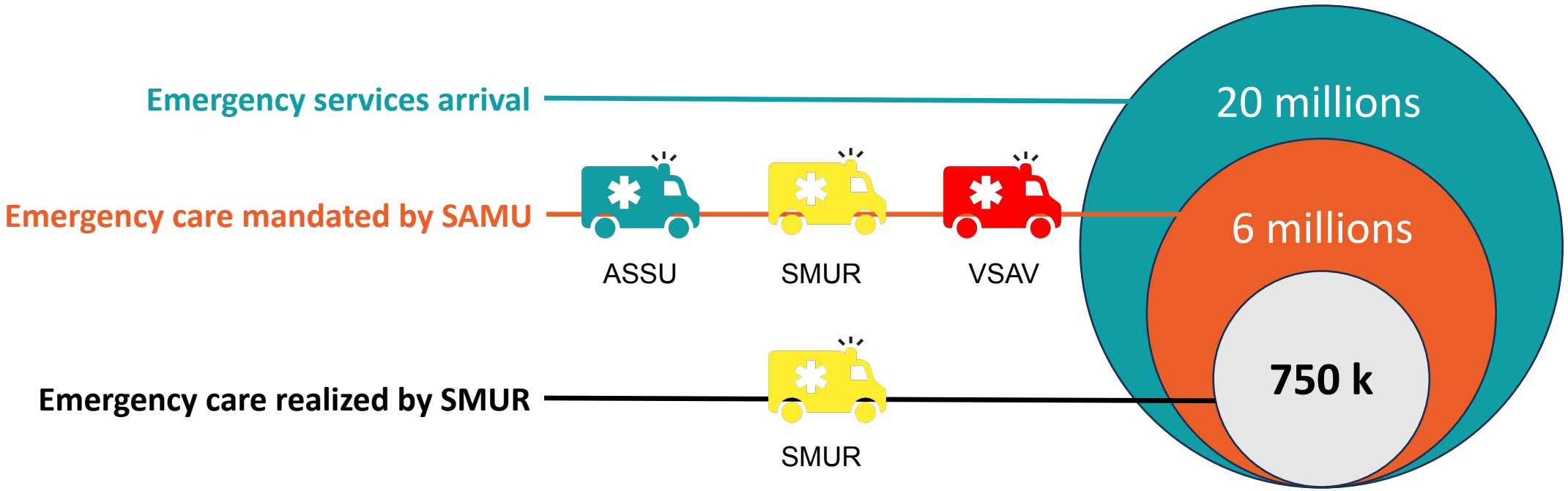
Less stress for medical teams

Better assessment of patient care delays



ROMAIN can help in scientific research

Emergency flows in France



Neurology
150 000 AVC / year

Cardiology
80 000 heart attack / year

Obstetric
40 000 postpartum hemorrhage / year

Neonatality
13 000 cases of urgent transfers / year

Transplants
5 800 / year

ROMAIN's scalability

Because every minute counts !

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- Extending ROMAIN in Interventional Cardiology in France
- Deployed ROMAIN in Europe, Saudi Arabia and the USA

SFNV SOCIÉTÉ FRANÇAISE NEURO-VASCULAIRE

SFNR SOCIETE FRANCAISE DE NEURORADIOLOGIE

FRANCE 2030

La FRENCH CARE

bpifrance

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