

PHAXIAM

PHAXIAM

---

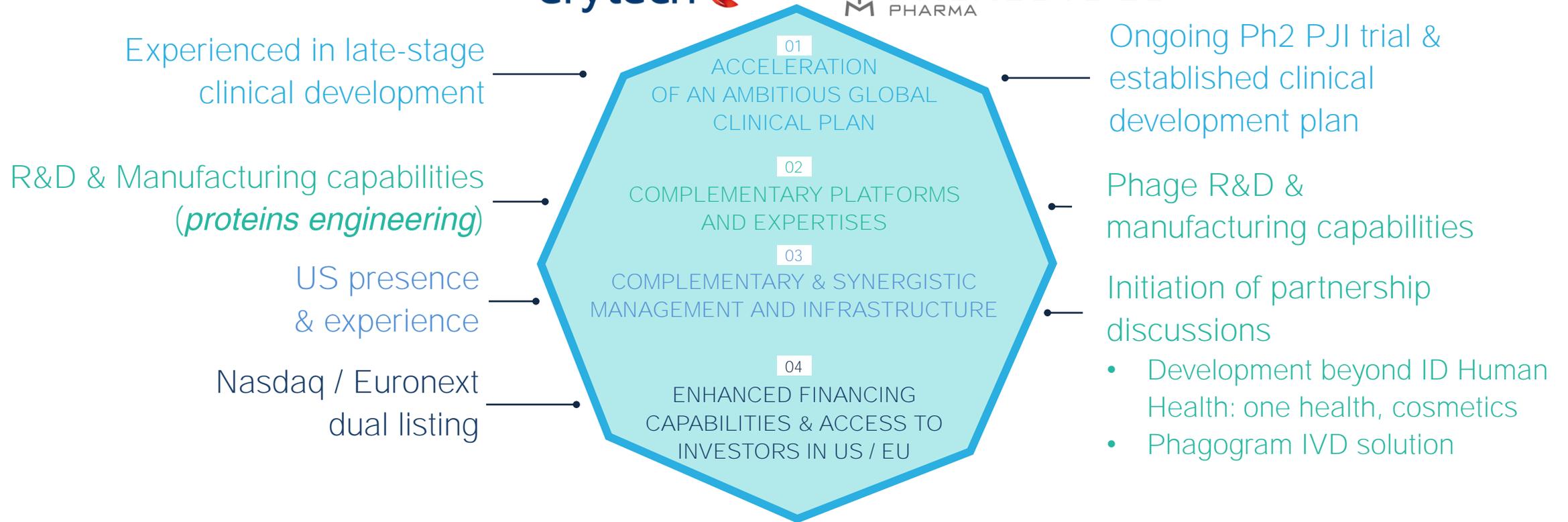
# Building a Global Leader In Phage Therapies

---

November 2023

PHAXIAM

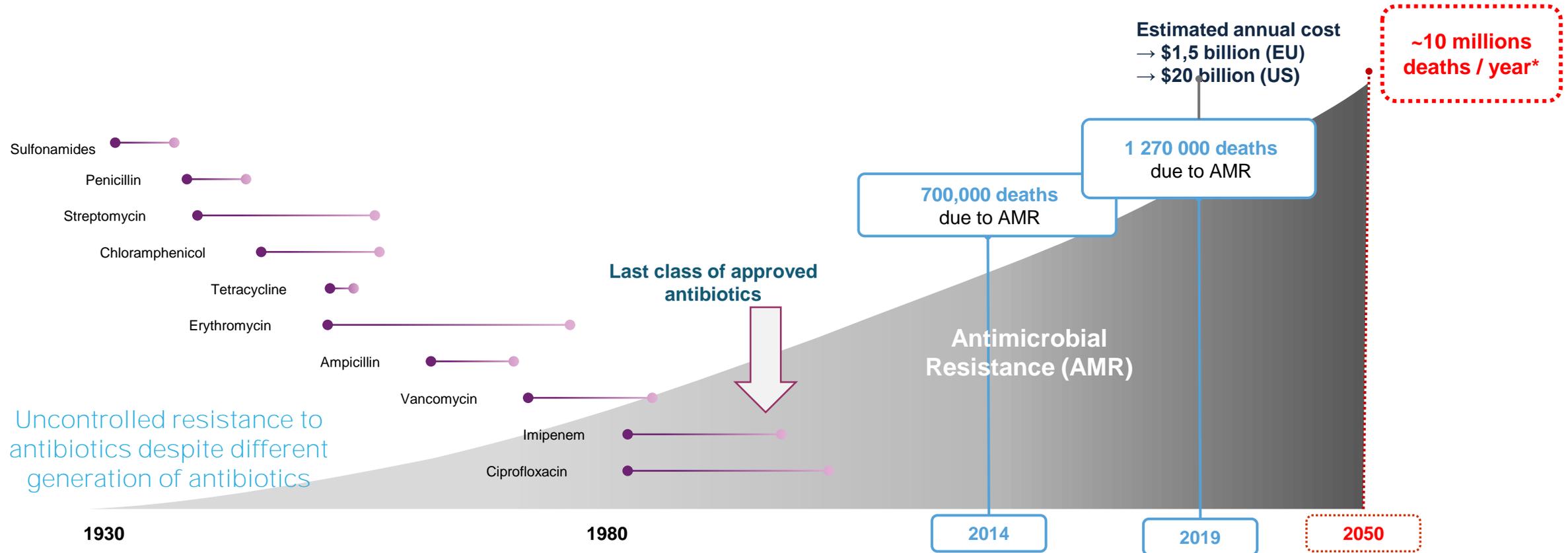
# Building on Complementary Capabilities



Pherecydes and Erytech merged to build PHAXIAM and create a Global Leader In Phage Therapies (June 2023)

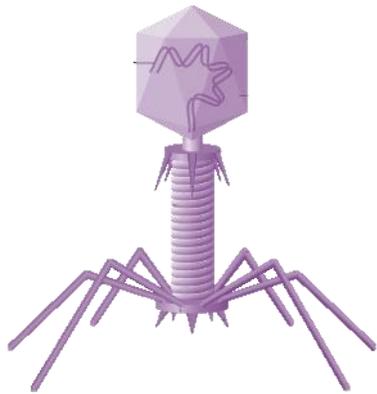
Final Location: Lyon, ~50 people

# Growing Burden Of Antimicrobial Resistance (AMR)

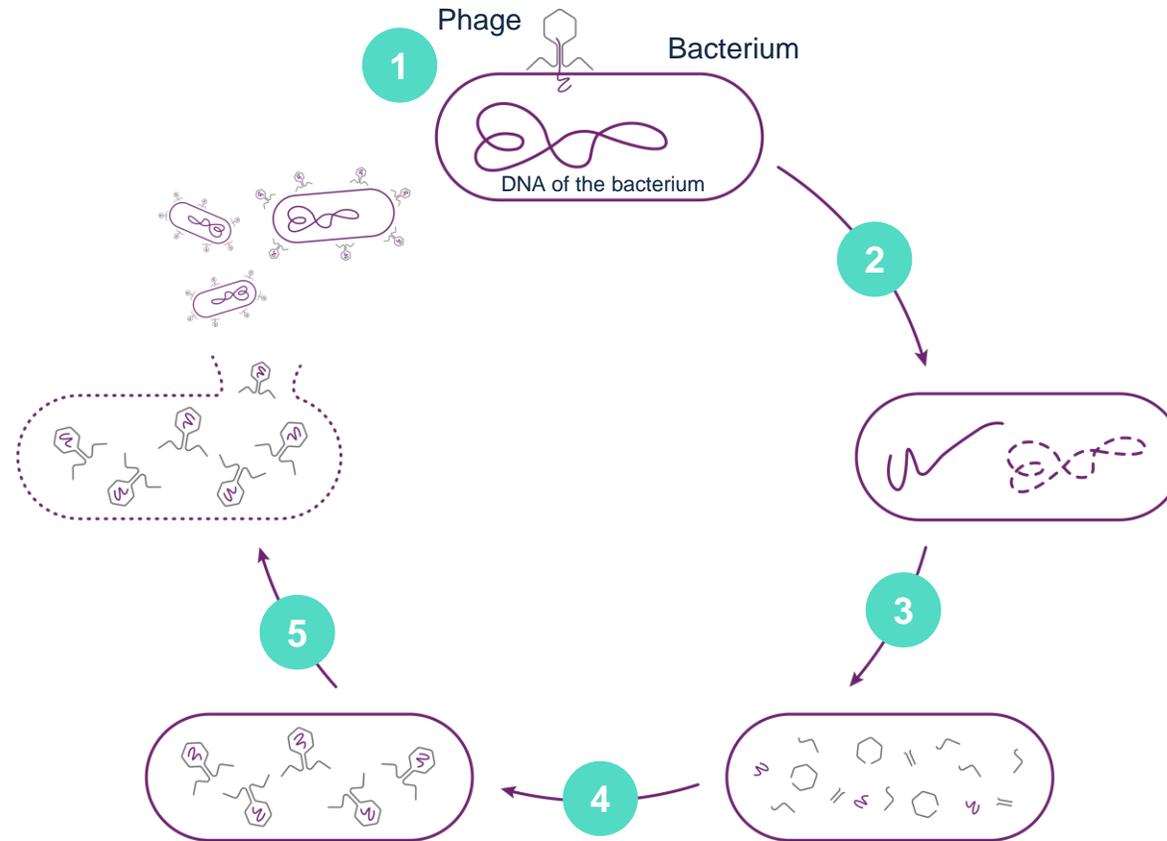


Critical need to address Antimicrobial Resistance and growing awareness on a major public health and economic issue worldwide

# Phage Therapy, a Solution for Resistant Infections



**Bacteriophages:**  
viruses, natural  
predators of  
bacteria



## Unique mode of action

- **Specificity**
- **Speed**  
(less than 45 min)
- **Self-replication** down to the last bacterium

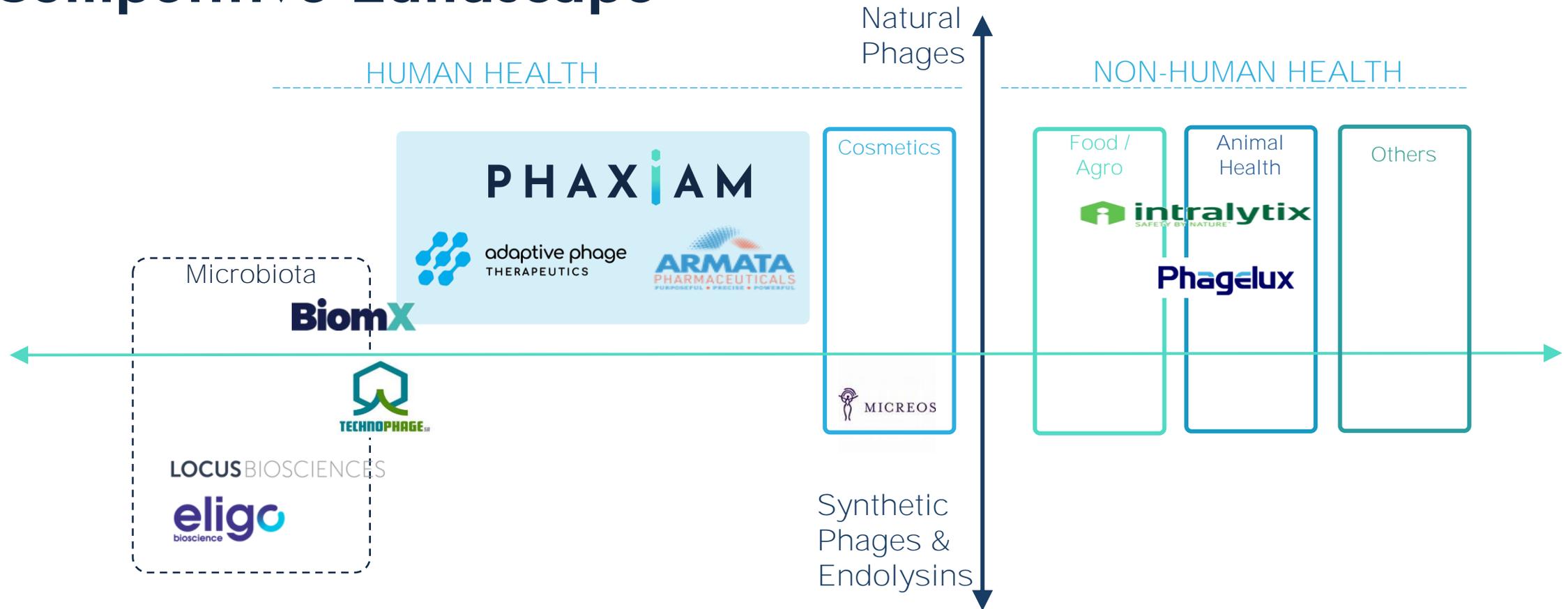
Phage Therapy allows simple, effective and well-tolerated treatments

# Phage Therapy Is Currently Gaining Strong Momentum

Critical needs for new alternative technologies	➔	Increasing threats & incidence of difficult-to-treat resistant infections Rising concern among public authorities and medical community → strong interest in alternative technologies
Promising real life clinical data	➔	Favorable safety and promising clinical benefits from real life treatments Increased probability of success from early clinical evidence
Attractive Regulatory context	➔	Active collaboration with regulatory agencies Strong support to define clear development guidelines and accelerate development paths
Maturity of the technology	➔	GMP standardization & CMC developments Identification of well characterized phages and development of robust GMP processes
New solutions to potential phage resistance	➔	New tools & development to address potential resistance emergence Better understanding of resistance mechanisms and new tools emergence

- The WW concern on AMR creates a unique opportunity for the development of Phage Therapies
- In 2023, the World Economic Forum has cited phages in the Top 10 innovations to be developed

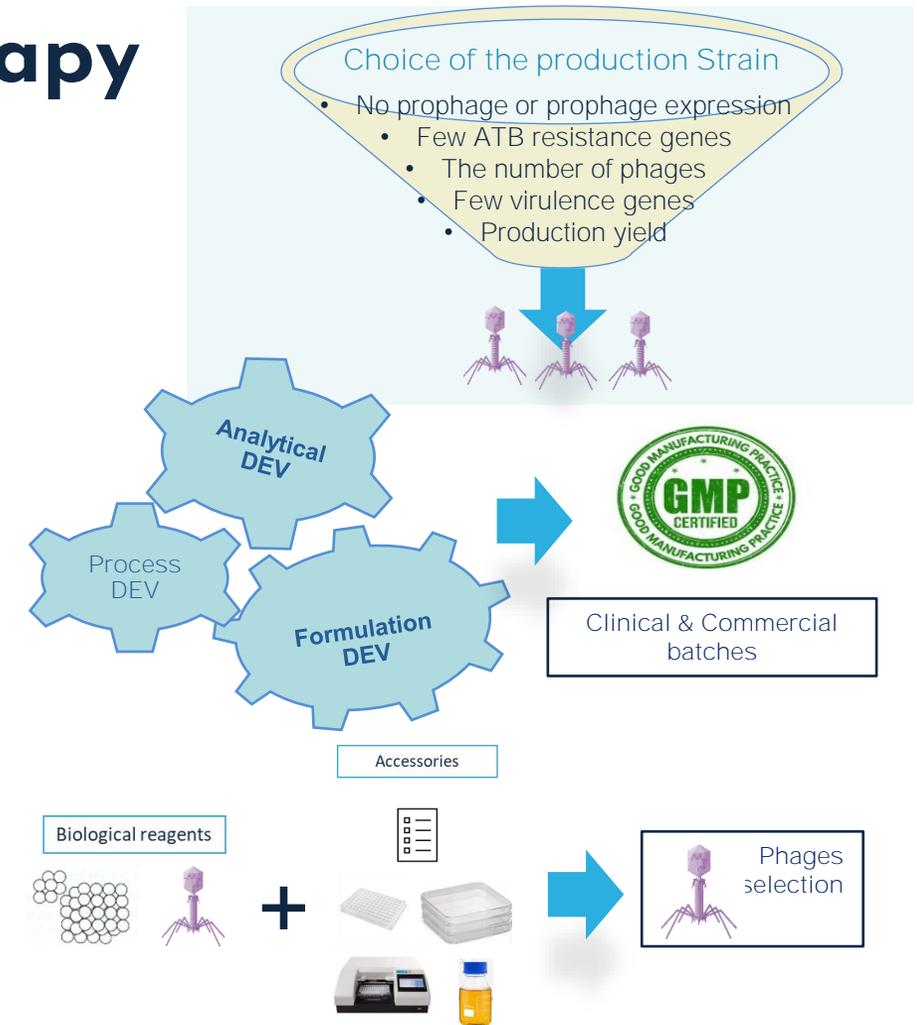
# Competitive Landscape



PHAXIAM is the European leader in Phages Technology, directly competing with ARMATA (US – Approx. \$100M mkt Value) and adaptive Phage Therapeutics (US - Private)

# Key steps for PHAXIAM Phage Therapy

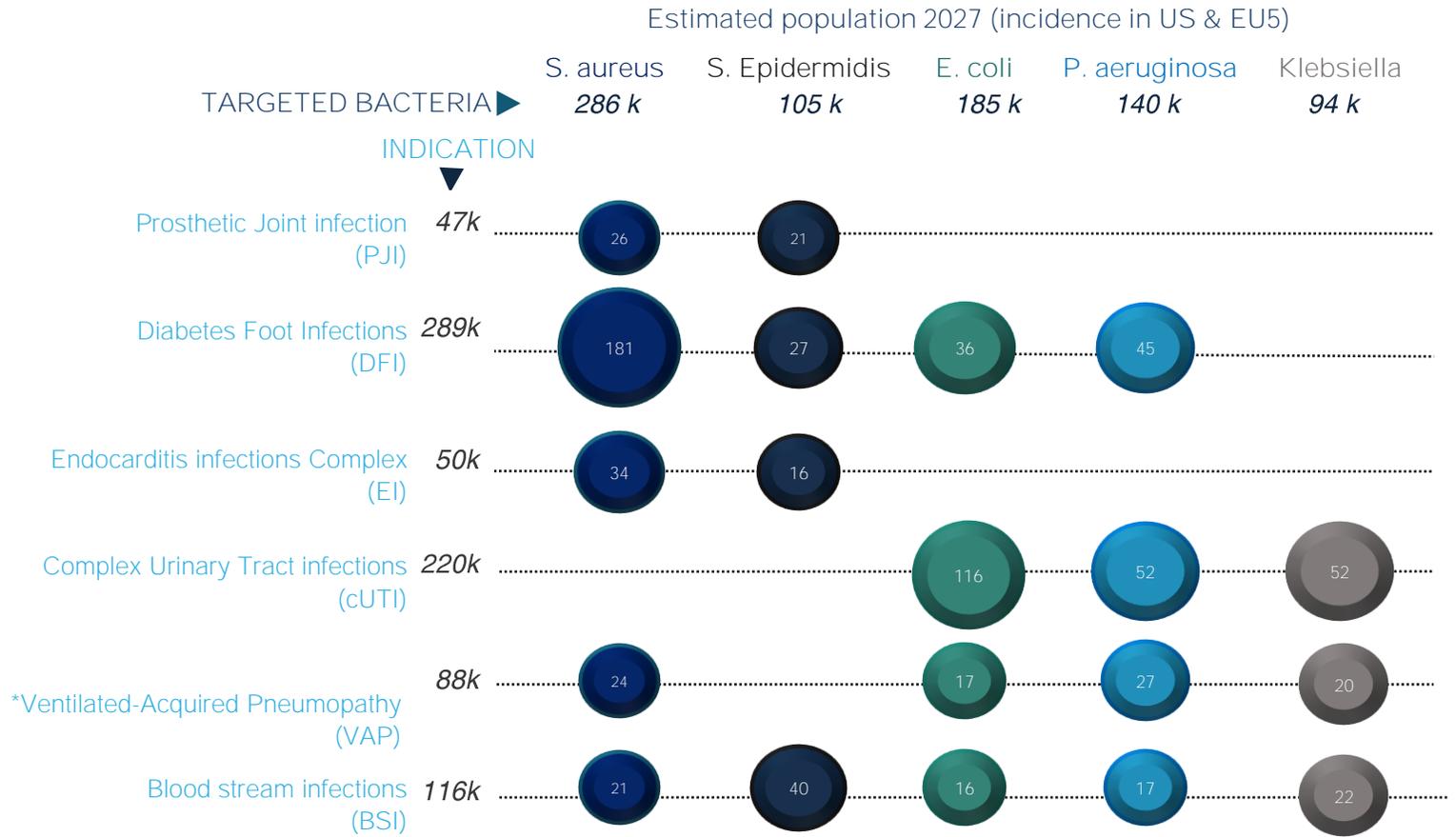
- 1 SELECT** phages to maximize breadth of sensitive strain repertoire  
PHAXIAM technology → screen and characterize large number of clones for optimal selection
- 2 PRODUCE** large scale GMP batches of optimal purity  
Internal process development capabilities and an industrial partnership to produce “off-the-shelf” phages
- 3 TEST** for each patient with the PHAGOGRAM (Phages Susceptibility Testing) to predict the most active phage clone  
Using a proprietary in-vitro susceptibility testing



Major sequential steps to select and produce phages batches: discovery, screening, characterization, process development, GMP production

# Targeting High-value Resistant Infections

- PHAXIAM addresses severe resistant Infections → high-risk of mortality or life-threatening conditions
- Small incidence populations (PJI, EI, VAP, ...) → potential orphan status indications, with high pricing claims due to very important unmet medical needs (mortality rate reductions)
- 4 major bacteria → the most severe HA\* resistant Infections



PHAXIAM targets high-value resistant Infections: severe infections, mortality reduction, high budget Impact, high medical needs, emergency cases of life-threatening situations, with the opportunity for favorable pricing in relation with critical clinical claim

# Balanced Clinical Portfolio

Recruiting

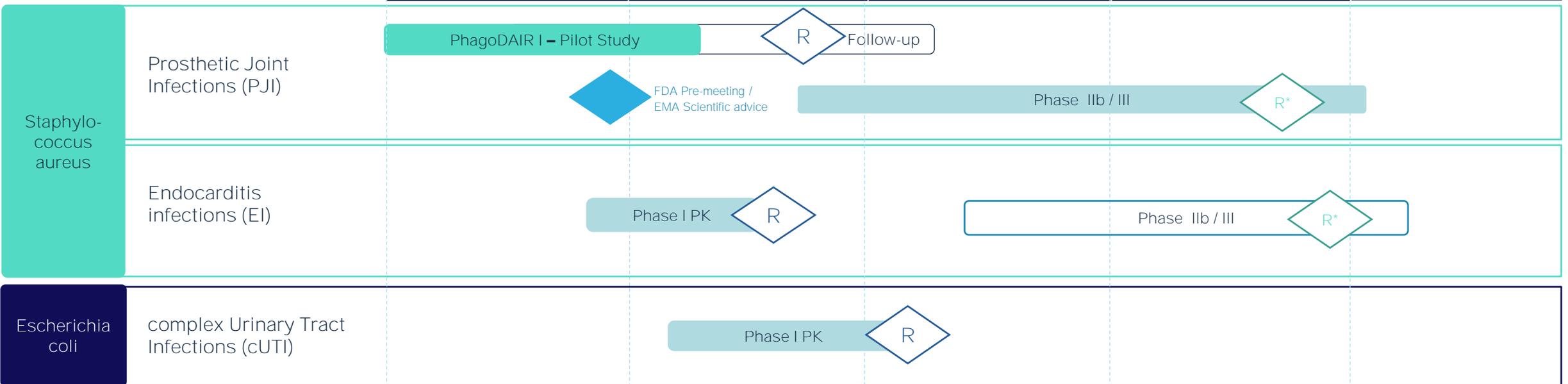
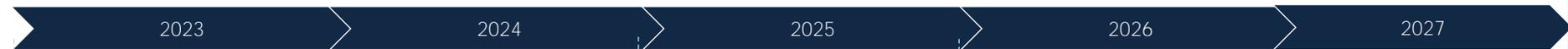
To be started

R

Clinical data

R\*

Phase IIb data

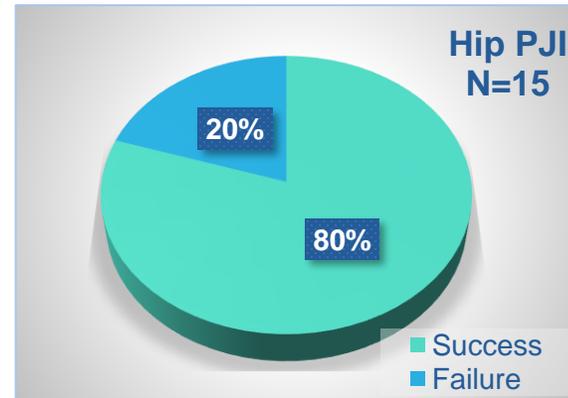
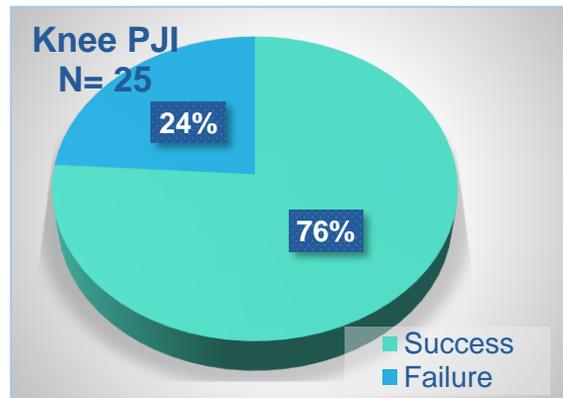


NB: not including Investigator-sponsored trials

- PJI is the most advanced Indication for PHAXIAM with a strong competitive position to be leveraged with our lead S. aureus program and the first global Ph 2b/3 study

# Real-life Clinical Data From >90 Treated Patients

- Strong support from Regulatory Authorities and > 15 hospitals
- Several routes of administration tested, including intravenous, **nebulisation**, ...
- 7 different indications treated with a majority of PJI



## Promising clinical results (First 50 patients evaluated)

- Excellent results observed in reported cases
  - phages well tolerated
  - beneficial clinical effects: 77% of success assessed after least 3 months follow-up

- Scientific publications of the results



 **frontiers**  
in Medicine

(2020-23)

- Control Rate of infection @ 3months (n=40) for PJI Patients at 77%
- Patient Population with very severe infections (2<sup>nd</sup> / 3<sup>rd</sup> Line Antibiotics): very promising data in this « Hard To Treat » population

# PHAXIAM Leading Phage Therapy Platform

## Leading edge in Clinical Development

- > 90 compassionate patients treated (mostly in PJI indication) with demonstrated clinical benefits
- Competitive Advantage in PJI with first clinical outcomes expected mid-2024 (mono-microbial)
- Preparation for the first global Phage therapy registration trial in PJI (interactions with FDA / EMA)
- Unique position expected in Endocarditis (*S. aureus*)

## European Leadership and frequent interactions with Regulatory agencies

- Most advanced European Phage Therapy company
- 1<sup>st</sup> Regulatory validation with **Compassionate Access Authorization** paving the way for Early access pathway
- Frequent interactions with EU Regulatory agencies to contribute to specific Phage Therapy regulatory guidelines

## Strong internal R&D, CMC & GMP capabilities

- Identify & characterize new phages & new bacteria targets, process development and analytical science capabilities
- 20 cGMP batches produced against *S. aureus* and *P. aeruginosa*
- Optimized formulation to enable storage at 2-8°C with long stability

## Proprietary PHAGOGRAM® IVD solution

- Susceptibility Test for decision in the selection of the most efficient phages against clinical strains from patients
- CE marked solution

## Large Phage bank to target the most critical bacterial infections

- *S. aureus*, *P. aeruginosa*, *E. coli*, *Klebsellia* & ongoing work on new targets

## Strong IP with 87 patents filed

- Issued in the United States, Europe, Japan, Hong Kong, Australia, and Israel

# PHAXIAM

**Developments within a regulatory framework validated by key health authorities**

ansm



Network of prestigious scientific partners

HCL  
HOSPICES CIVILS  
DE LYON



Solid foundation to further build a fully-integrated company in Phage Therapy

# Ambitious Corporate Strategy

## POSITION THE COMPANY AS A GLOBAL PLAYER

- Open new PhagoDAIR clinical study centers in EU
- **Leverage on ERYTECH's US presence**
- Open new clinical trials in EU and the US

## BOOST R&D COMPETENCIES & CAPABILITIES

- Identify new targets / prepare future development programs
- Leverage on strategic Research alliances and open innovation to accelerate & complement internal portfolio
- Develop drug based bacteriophage and bacteriophage-derived enzyme Endolysins

## IMPLEMENT GLOBAL MANUFACTURING STRATEGY

- Consolidate industrial partnerships & supply back-up plans

## EXPAND CLINICAL PORTFOLIO IN HIGH-VALUE INDICATIONS INFECTIONS

- Launch a registration study (Ph 2b/3) in PJI
- Launch 2 new sponsored Ph 1/2 trials in high value clinical settings (2H23, 2024)

## INTENSIFY BD ACTIVITIES & MARKET ACCESS STRATEGY

- Establish research collaborations in Human Health / beyond Human health to leverage on Extended Phage Technology
- Consider strategic alliances with complementary biotechs
- Increase compassionate use revenues & prepare early access market launch



Creating a Global Leader in Phage Therapy

Thanks | PHAXIAM