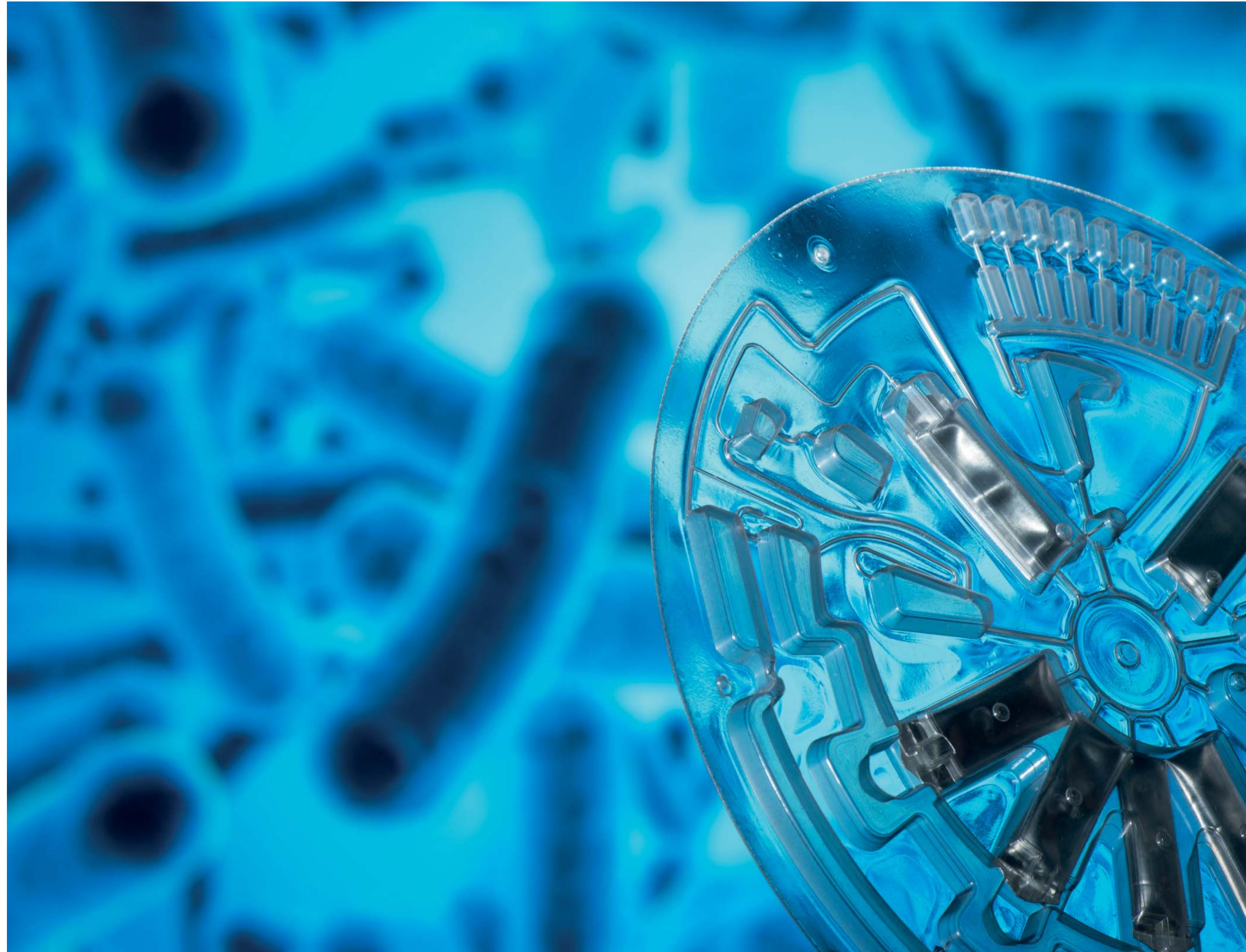




# Chair/bedside Diagnosis of Oral and Respiratory Tract Infections, and Identification of Antibiotic Resistances for Personalised Monitoring and Treatment

## INFECTIOUS DISEASES AND ANTIBIOTIC RESISTANCE ARE GLOBAL ISSUES



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Global healthcare systems are struggling with the enormous burden of morbidity/mortality associated with infectious diseases, as well as the incessant rise of antimicrobial resistance. To adequately address this problem, there is an urgent need for rapid and accurate point-of-care infectious disease diagnostics.

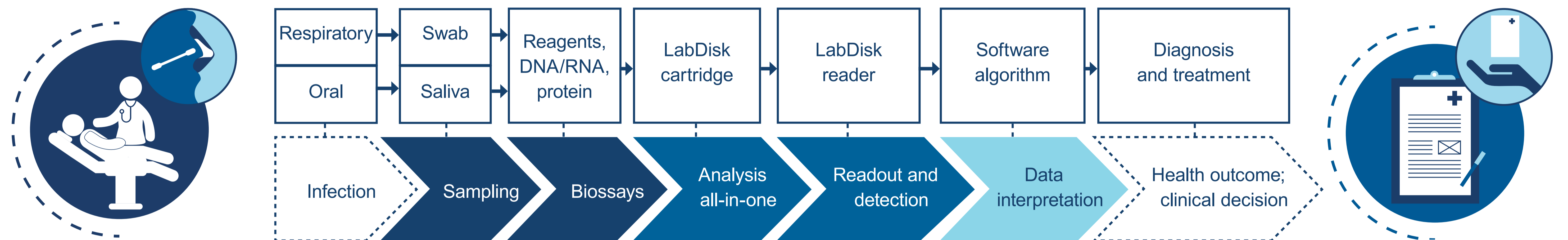
With funding from the European Union's Horizon 2020 Programme and the collaboration of 9 organisations from 7 countries, the DIAGORAS project utilises research and innovation technologies from the lab to the market in order to address major health concerns: oral and respiratory infections, with associated antibiotic resistance.

The DIAGORAS project will develop a point-of-care microbiological diagnostic platform for use in general practitioner offices, dentist practices and hospital emergency rooms.

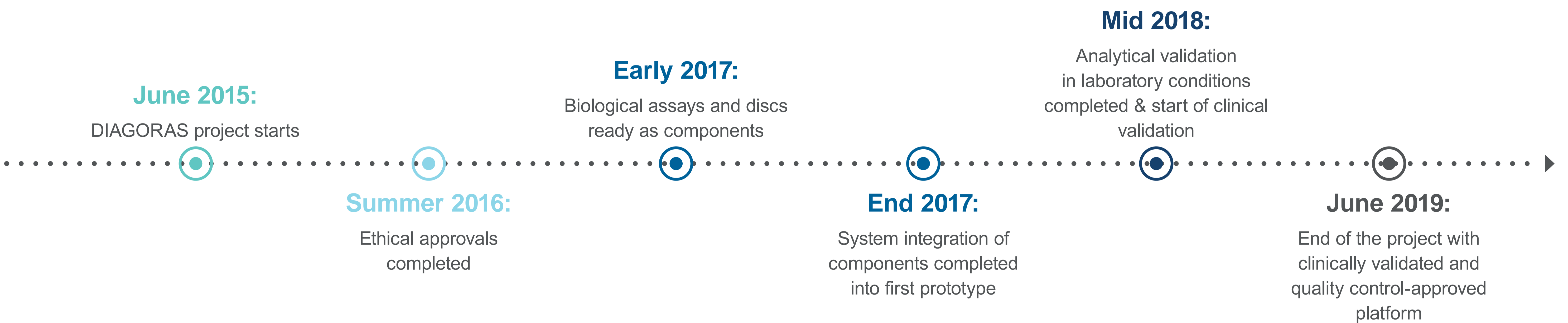
### The DIAGORAS platform will:

- Improve patient management through accurate differentiation between bacterial and viral infections with similar clinical symptoms
- Prevent antibiotic overuse based on antimicrobial resistance screening for targeted therapy
- Increase accessibility by allowing more widespread of epidemiological data
- Early diagnosis and determination of disease level via quantitative bacterial DNA assays and host response protein biomarker detection
- Personalised monitoring for status control during the entire period of treatment

## DIAGNOSTIC WORKFLOW



## DIAGORAS MILESTONES 2015-2019



- Hahn-Schickard COORDINATOR**  
Microfluidic design, simulation, and integration; disc and test cartridge manufacturing
- AIT Austrian Institute of Technology GmbH**  
Saliva sampling strategy, nucleic acid assay development
- University of Zurich**  
Center of Dental Medicine, Clinic for Preventive Dentistry, Periodontology and Cariology, clinical validation / Section of Oral Microbiology and Immunology, assay development for oral infections
- Erasmus University Medical Centre Rotterdam**  
Laboratory testing, clinical validation, future-proofing, development of a central server for data processing
- ASKION GmbH**  
Development and manufacturing of LabDisk reader
- MagnaMedics Diagnostics.B.V.**  
Protocols for samples and isolation of nucleic acids, implementation of quantum dots as optical detection nanoparticles
- ClinicaGeno Ltd**  
Software algorithms for analysis and interpretation, user interface, data storage
- BioVendor Laboratorni Medicina**  
Antibody production, immunoassays, manufacturing of PCR kits, commercialisation
- Sparks & Co**  
Communication and dissemination

**9 Institutions** (Including SMEs, universities, research and medical centres)

**4 YEARS** (2015-2019)

**5.6 million €**  
(4.7 M€ from EU with an additional 0.9 M€ contribution from Switzerland)

**Want to know more?**

**@DiagorasEU**

[www.diagoras.eu](http://www.diagoras.eu)

