

# QHealth: Quantum pharmacogenomics applied to ageing

## [Industry report]

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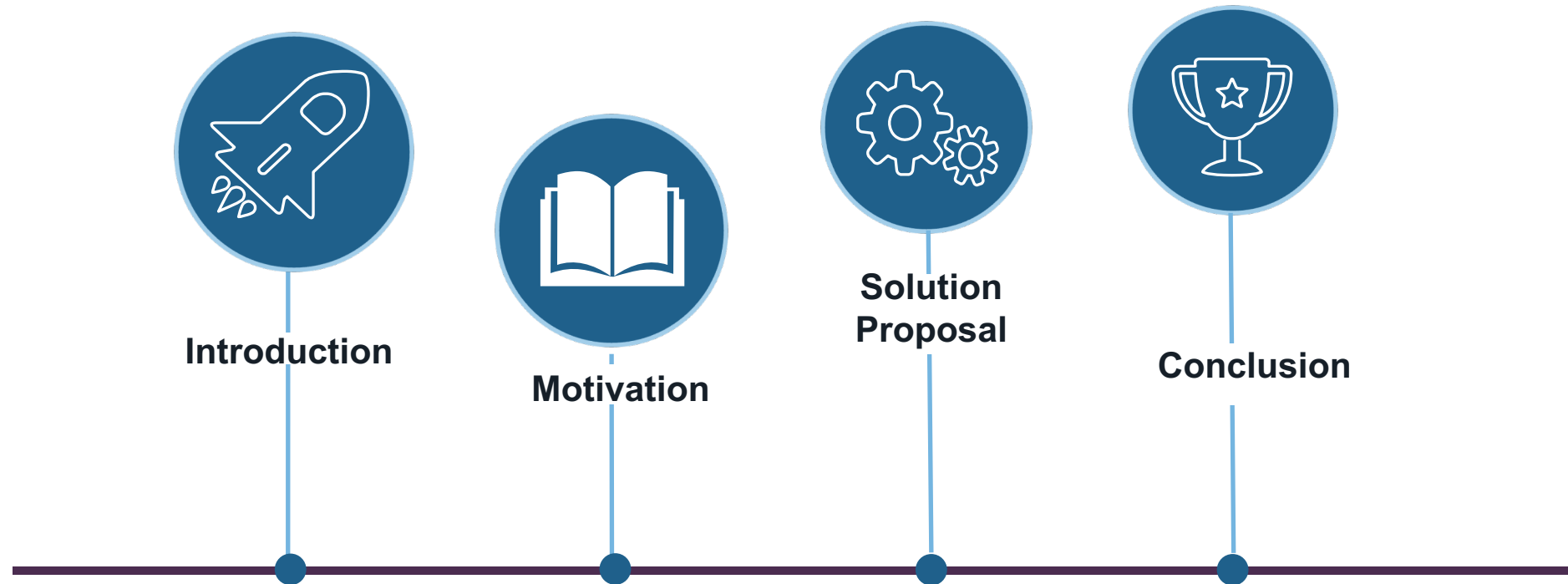
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QUERCUS

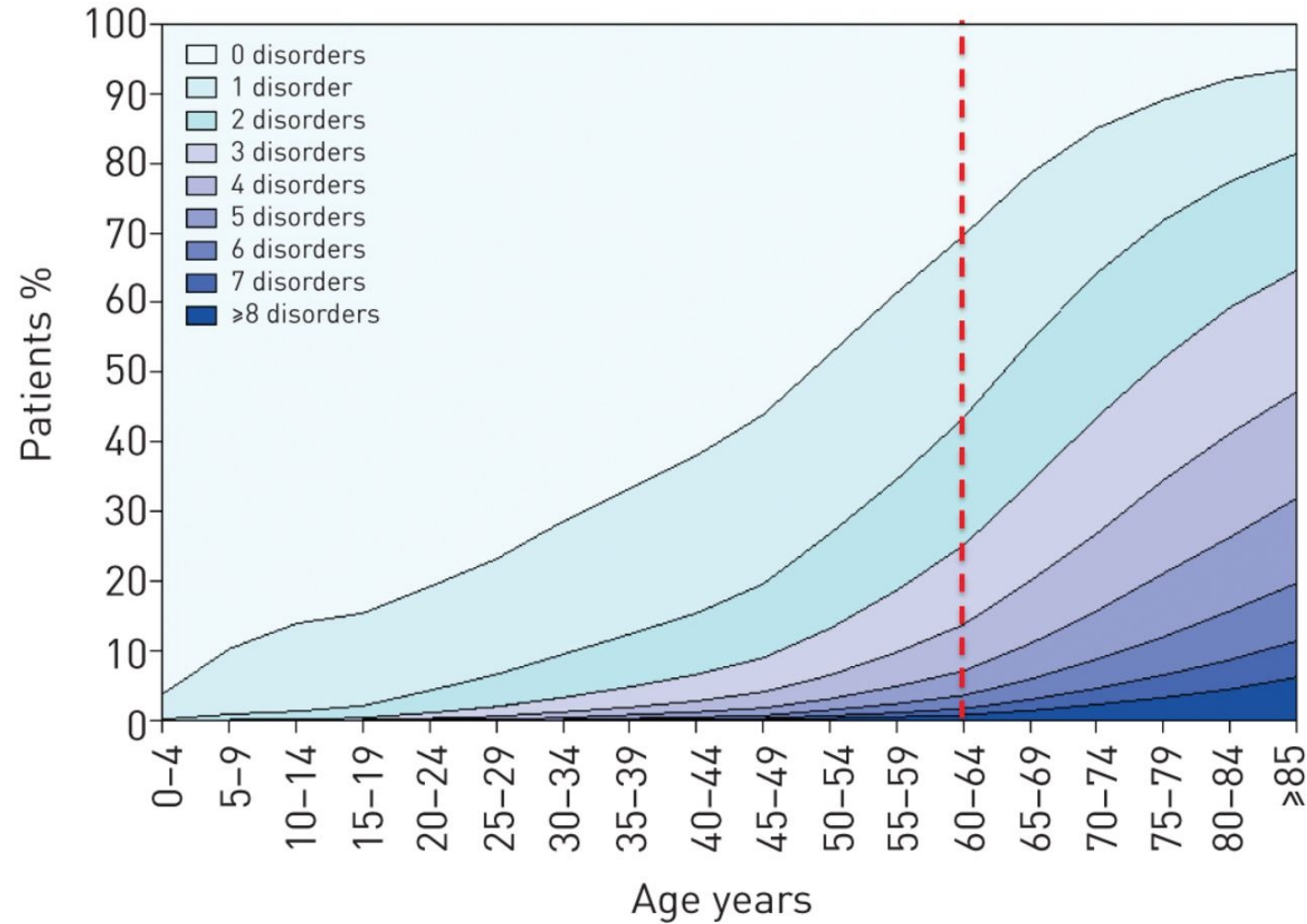
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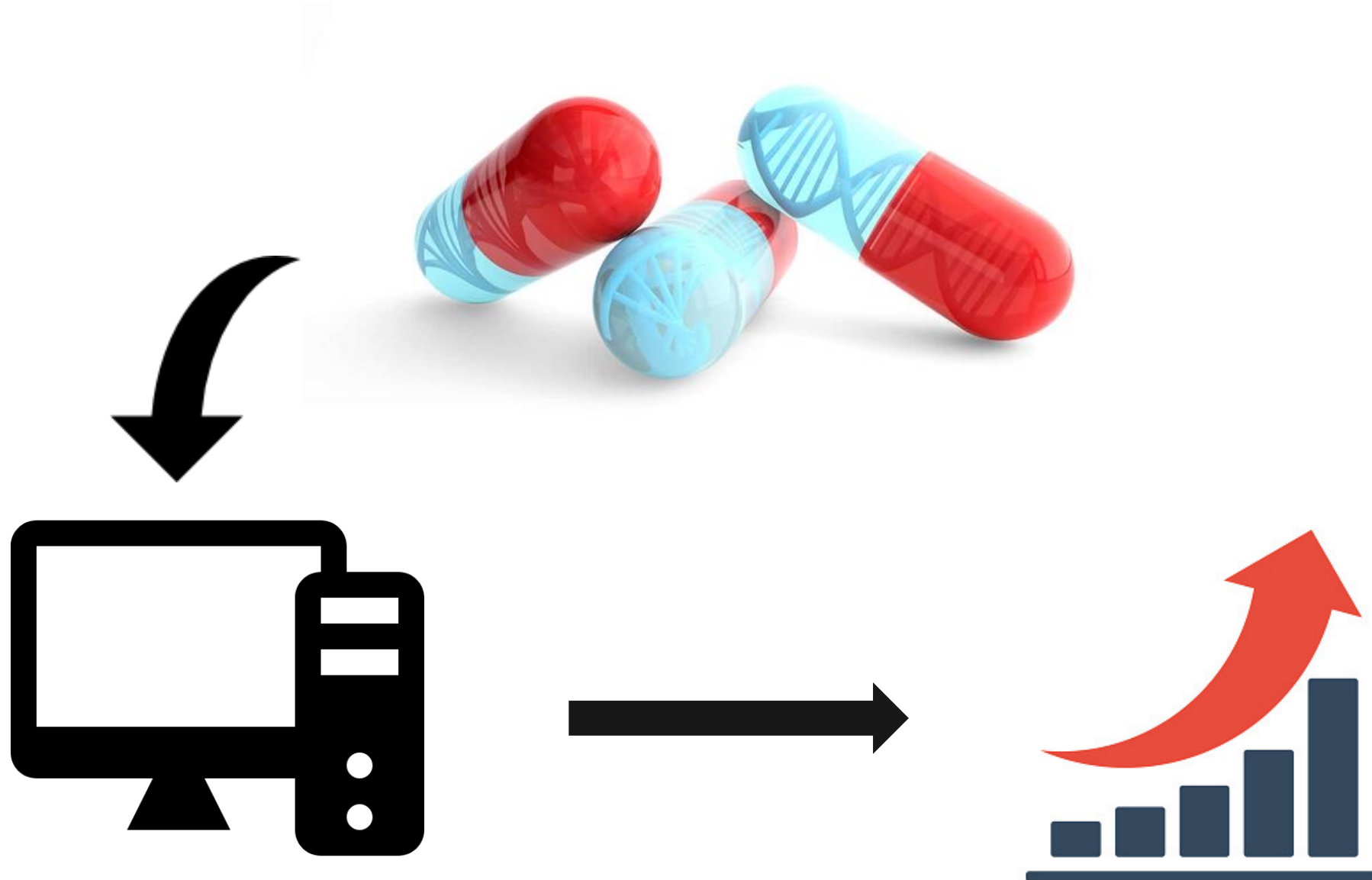
# OUTLINE



# INTRODUCTION



# INTRODUCTION



# MOTIVATION

- New technological paradigm: **quantum computing**
- For sanitary workers it is a field that is far from their competences
- Provide a graphical tool that serves as a technological support for these experts for the visualization and preparation of data for the optimization of medicine administration



# MOTIVATION

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Salud y envejecimiento

Nueva Industria

Agroalimentación sostenible

Energía Limpia

Movilidad Inteligente

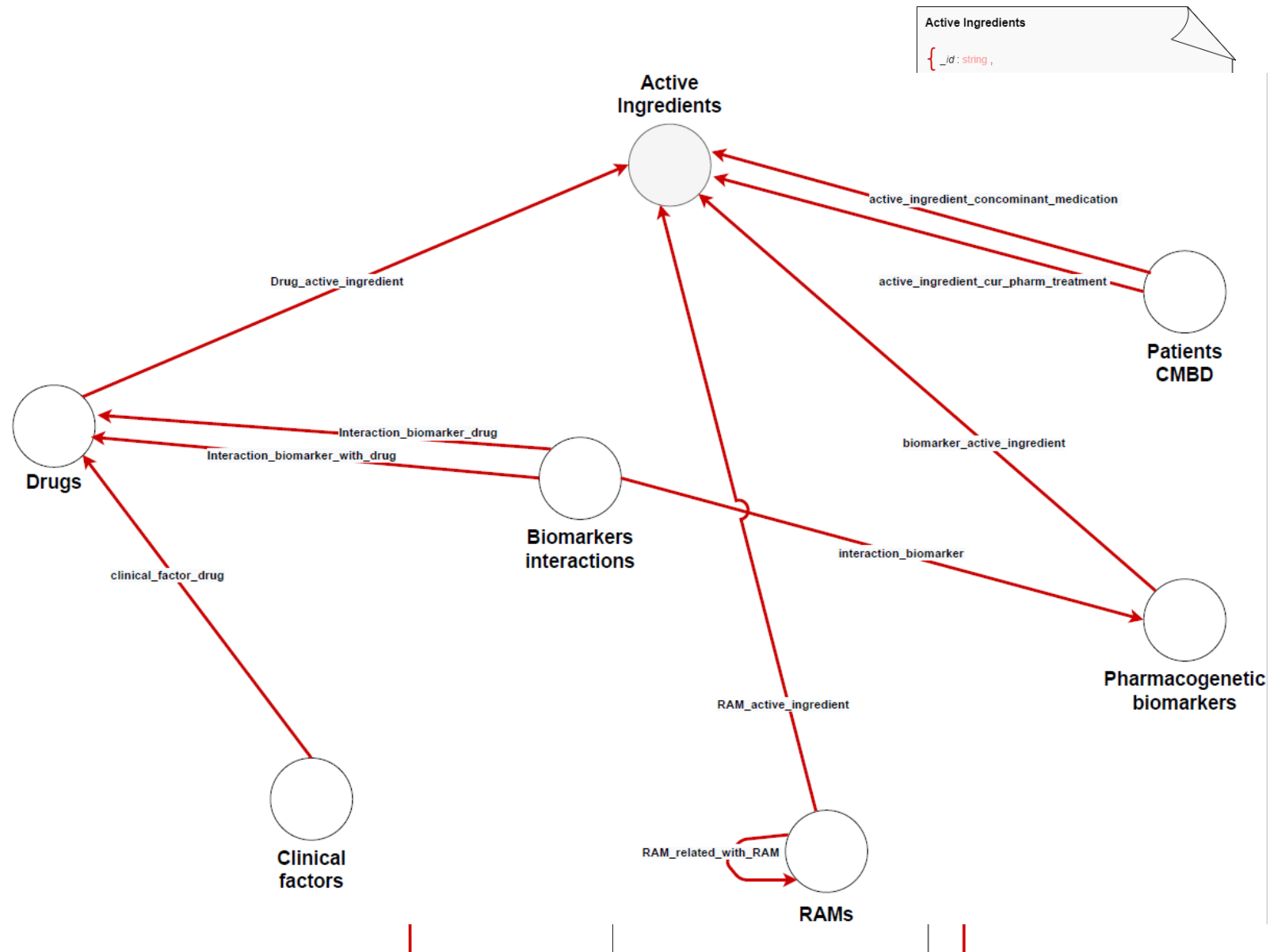
[www.cdti.es](http://www.cdti.es)

# MOTIVATION



# SOLUTION PROPOSAL

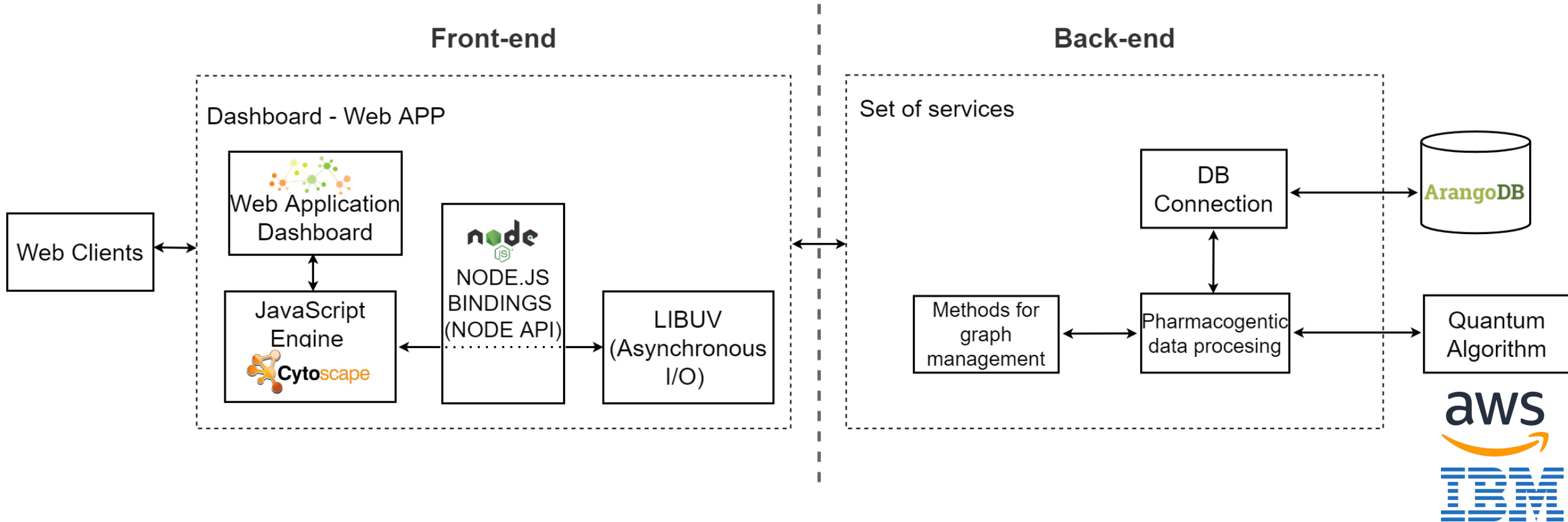
## DATA MODEL





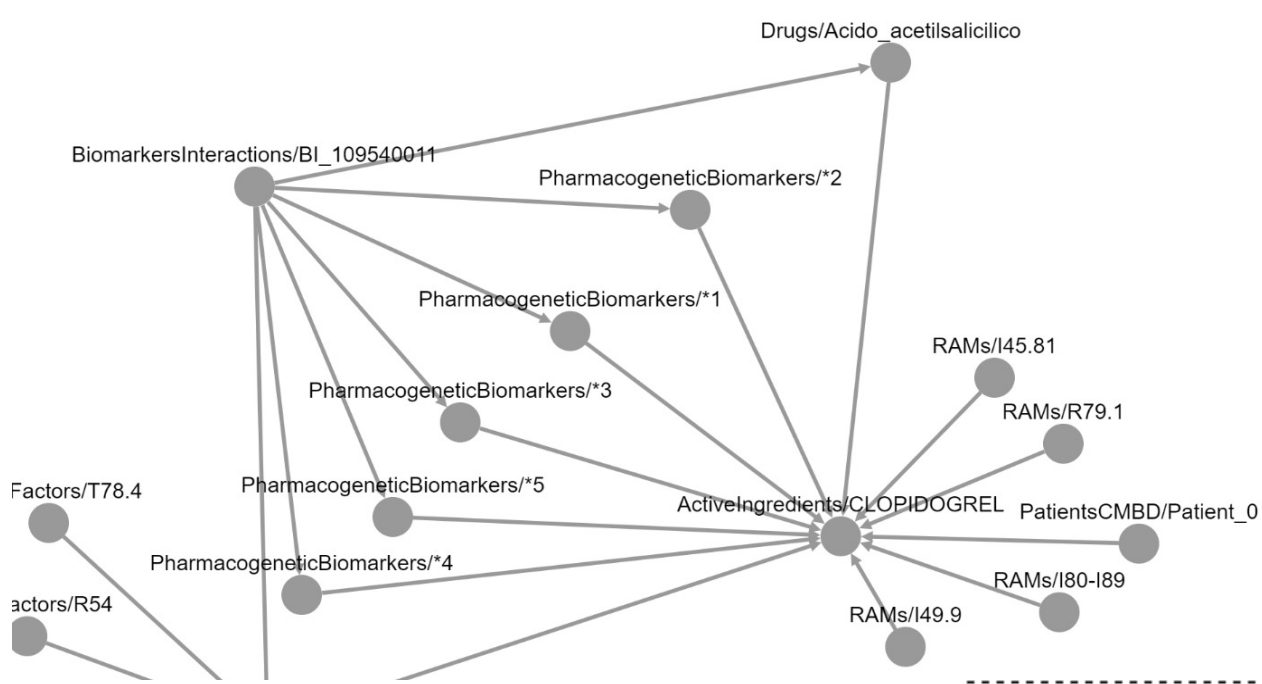
# SOLUTION PROPOSAL

## GENERAL ARCHITECTURE

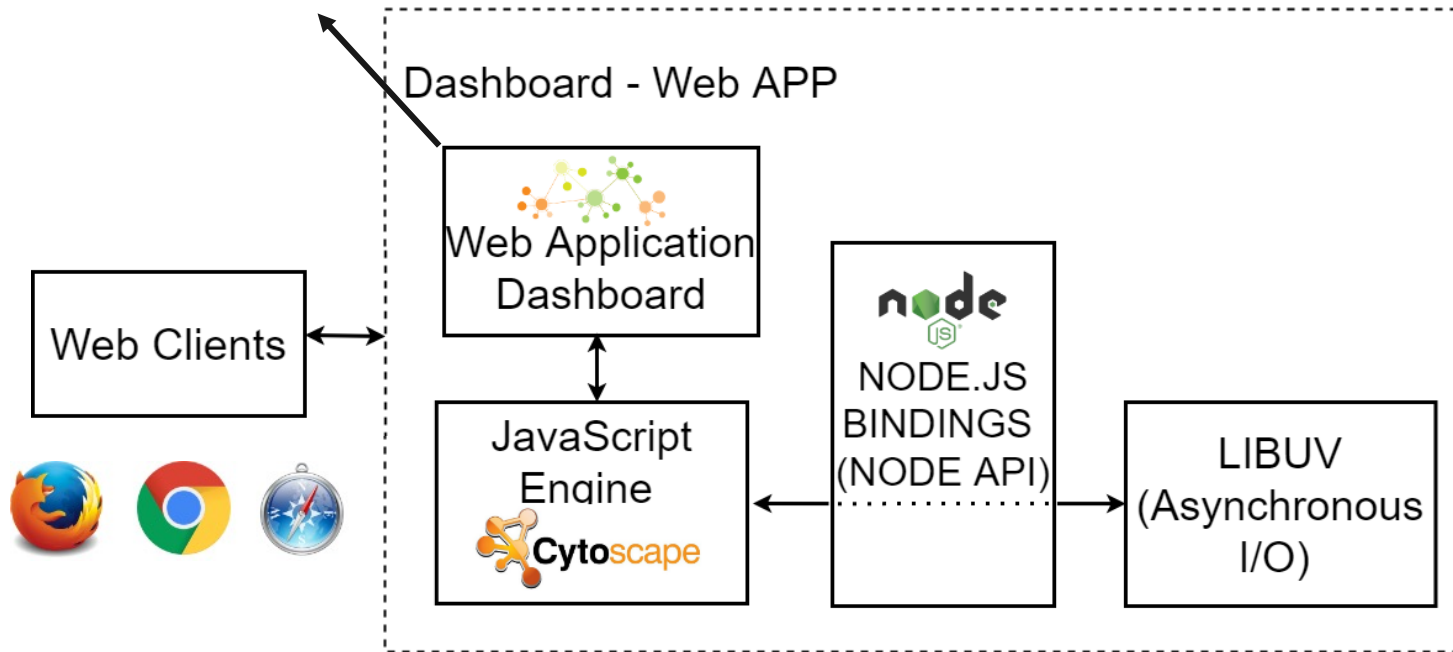


# SOLUTION PROPOSAL

WEB APP AND GRAPH VISUALIZATION

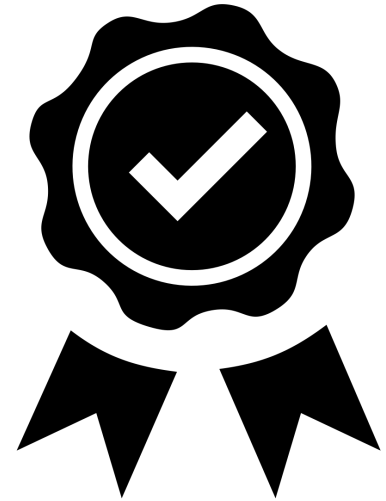


Front-end



# CONCLUSION

- Healthcare solution that uses quantum computing to optimize medicine administration
- Hybrid classical/quantum system, which is able to perform optimizations and simulations to predict the possible adverse effects of a given medicine on the elderly
- Emerging work that will bring a technological revolution in the health sector





## 4th International Workshop on Quantum Software Engineering and Technology

*Co-located with IEEE International Conference on Quantum Computing and Engineering (IEEE Quantum Week).  
September 15-20, 2024, Montréal, Québec, Canada*

<https://qserv.spilab.es/q-set-2024-home/>



## ICSOC 2024

### 1<sup>st</sup> International Workshop on Services and Quantum Software Acronym (SQS)

#### Chairs:

- Johanna Barzen, University of Stuttgart, Germany
- Schahram Dustdar, TU Wien, Austria
- Frank Leymann, University of Stuttgart, Germany
- Jose Garcia-Alonso, University of Extremadura, Spain

<https://sqs2024.spilab.es>

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