ToxGenSolutions

Customised systems-based testing and assessment

www.ToxGenSolutions.eu

Preventing Alzheimer's

- Recognizing Alzheimer's disease before it damages the brain enhances changes of successful treatment and increases the quality of life of the patient -

The baseline

ToxGenSolutions

Customised systems-based testing and assessment

www.ToxGenSolutions.eu

- Every year ~10.000.000 new Alzheimer's cases worldwide
- No easy way of diagnosing early Alzheimer's
- No effective treatment

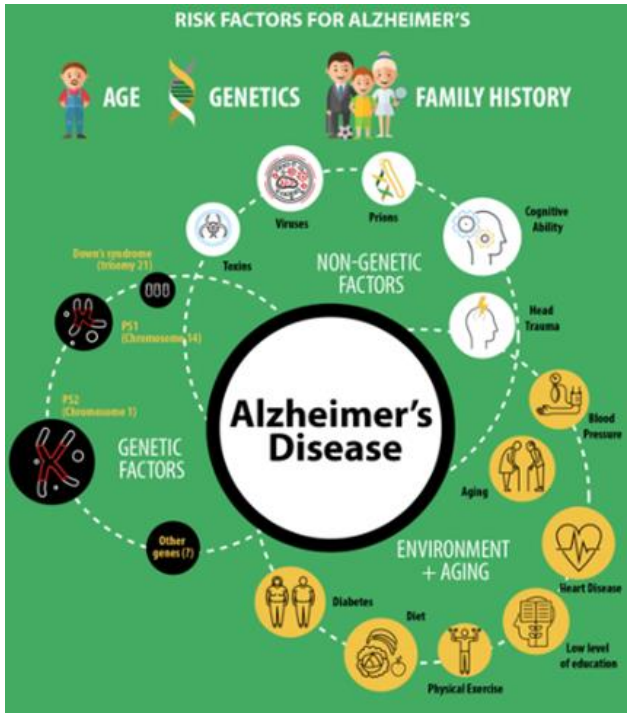
The problem

ToxGenSolutions

Customised systems-based testing and assessment

www.ToxGenSolutions.eu

- Research focus on genetic risk factors (<5% of all cases)
- Research focus on patients with irreversible brain damage
- Disproportional little focus on non-genetic risk factors (> 95% of all cases)



The solution

ToxGenSolutions

Customised systems-based testing and assessment

www.ToxGenSolutions.eu

- A simple, cost-effective diagnostic test using blood samples
- A test using human-relevant biomarkers for processes triggered by non-genetic risk factors
- Biomarkers for processes activated before any significant irreversible brain damage

Proprietary technology

ToxGenSolutions

Customised systems-based testing and assessment

www.ToxGenSolutions.eu

- Domain:
  - Biomarker-based *in vitro* tools for preventive medicine
- Proprietary products for three high impact pathologies:
  - Immunosuppression
  - Cancer
  - Neurodegeneration

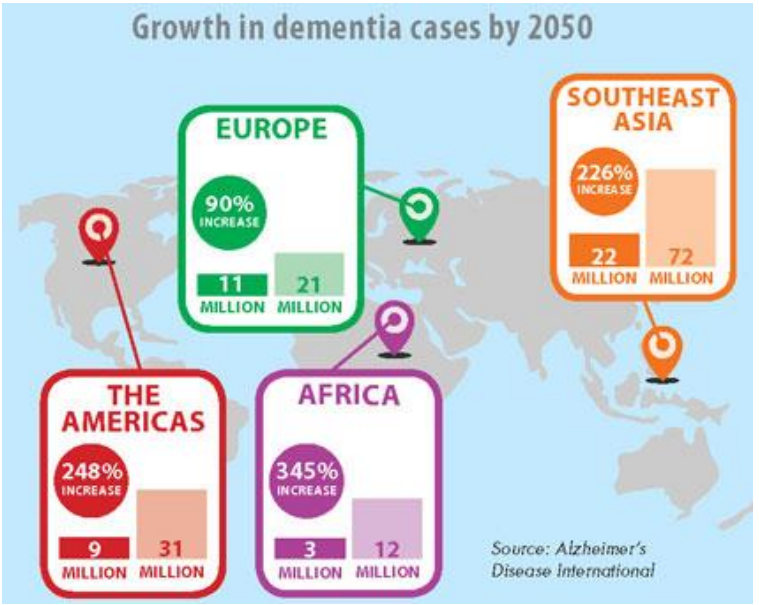
Market validation

ToxGenSolutions

Customised systems-based testing and assessment

www.ToxGenSolutions.eu

- ~10.000.000 new cases every year worldwide
- Worldwide demand for a simple, cost-effective and non-invasive solution

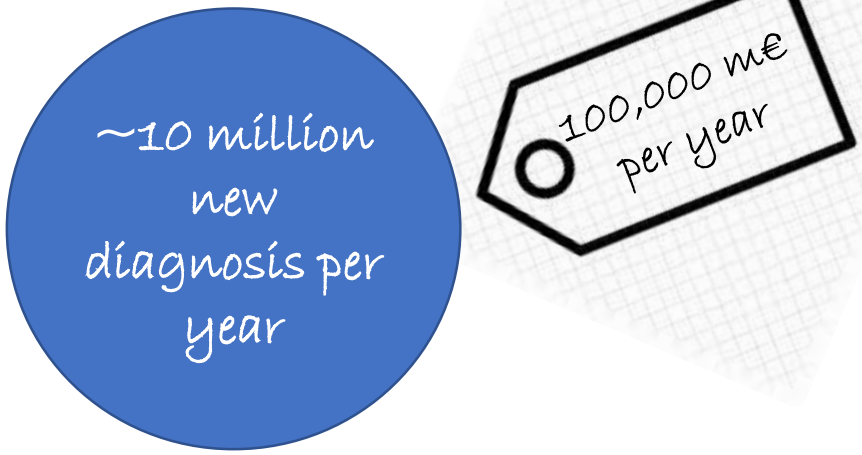


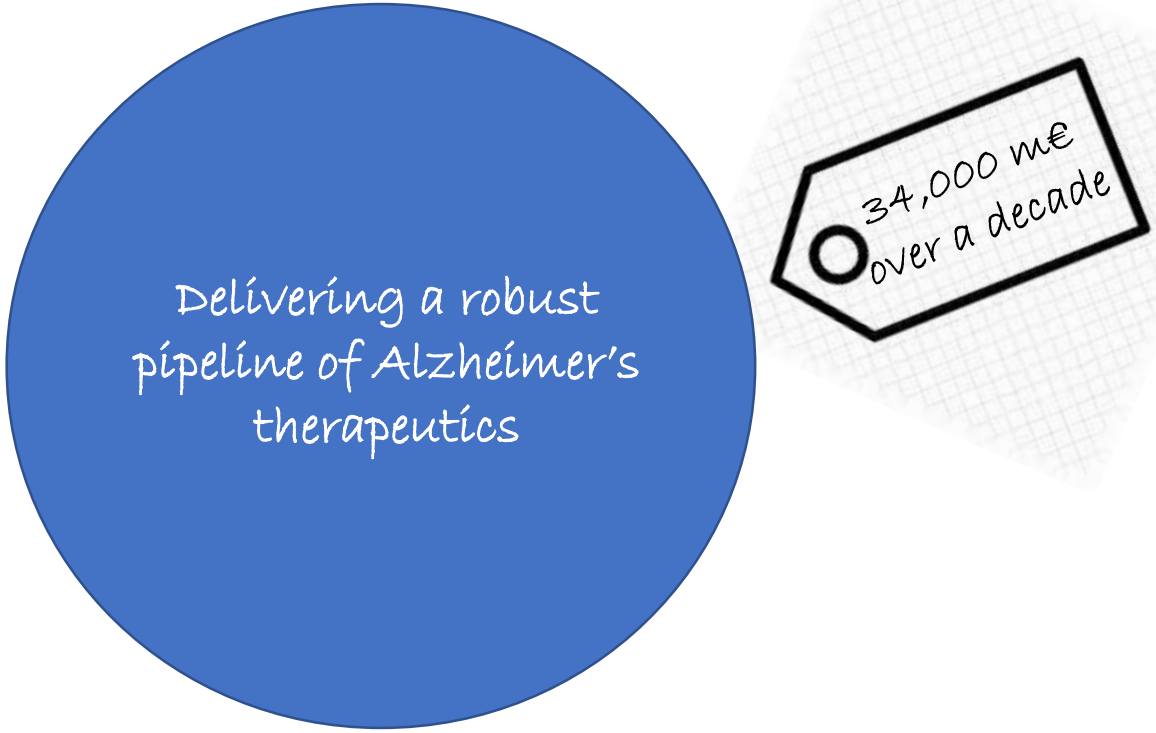
Market size

ToxGenSolutions

Customised systems-based testing and assessment

www.ToxGenSolutions.eu





About 30% accessible for the blood test (33,000 m€)

About 10% accessible for the blood test (340 m€/year)

The product

ToxGenSolutions

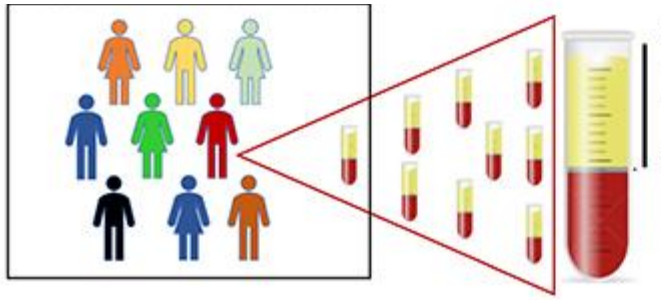
Customised systems-based testing and assessment

www.ToxGenSolutions.eu

(1) Liquid biopsy

Advantages over traditional tissue-specific biopsy

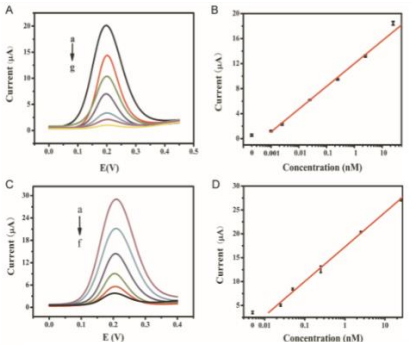
- Quick and easy to obtain,
- Minimal pain and risk,
- Minimally invasive



(2) Enrichment from plasma/serum of circulating microRNAs

(3) Simple testing device carrying the ToxGenSolutions Alzheimer's microRNA biomarker profile

- Biosensor device for microRNA are available for other diseases,
- Easy to use,
- Low costs



(4) Read-out

Impact on clinical care

- Screening of individuals >60 years of age
- Diagnosis, staging, Prognosis
- Therapy selection (Response and follow-up)
- Monitoring (Disease evolution following therapy)

The business

ToxGenSolutions

Customised systems-based testing and assessment

www.ToxGenSolutions.eu

Full growth potential

Focus segments until 2024

Pricing based on current average costs without scanning + 20%

Net profit by 2025 (EU+USA)

(Target: 20,000 tests)

CRO activities

~10 million new diagnosis per year

Europe ~2.45,000 new diagnosis per year

North America ~475,000 new diagnosis per year

€2,600 per sample

9-10 m€

Net profit by 2030

(Target: 10% of the global market)

400 m€

License agreements

Worldwide

single €125,000 fee and 5-7% royalties per year

(~5,000 test per licensee)

Net profit by 2025:

(Target: 10 licences)

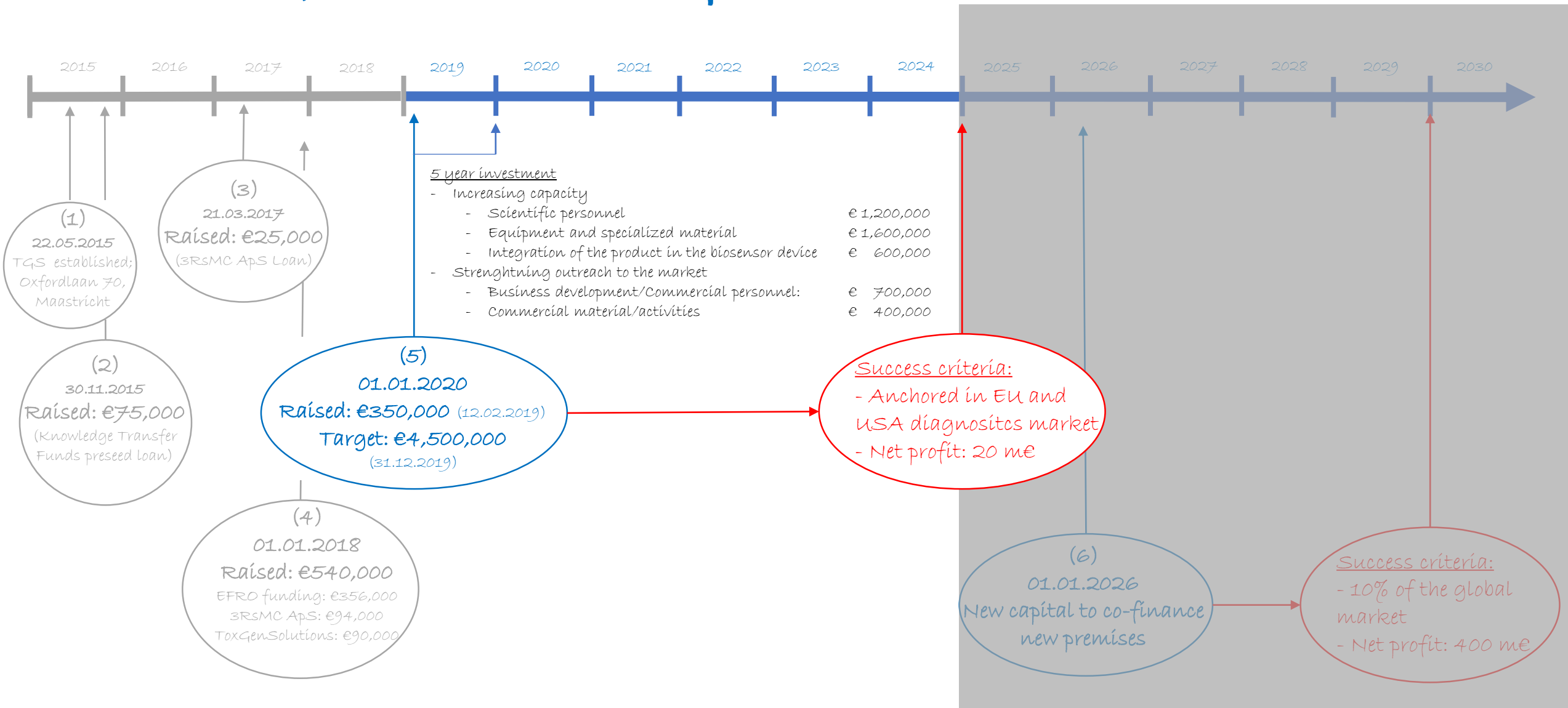
~13 m€

The financial plan

ToxGenSolutions

Customised systems-based testing and assessment

www.ToxGenSolutions.eu



Market adoption

ToxGenSolutions

Customised systems-based testing and assessment

www.ToxGenSolutions.eu

Events (Presentations + exhibitions)

- Annual congress on Neurology and Neuroscience
- World Congress on Alzheimers Disease and Dementia
- World Congress on Neurology and Neuroscience
- International Conference on Neurology and Mental Disorders
- Alzheimer's Disease and Dementia Conference
- European Dementia Conference
- World Congress on Advances and Innovations in Dementia
- International Conference on Neurology and Cognitive Neurosciences

Industrial Partnerships

Diagnostics industry

✓ Firalis

✓ reMYND

✓ Icometrix

❑ …

Pharma/Biotech industry

❑ Janssens Pharmaceuticals

❑ Roche

❑ …

Competition

ToxGenSolutions

Customised systems-based testing and assessment

www.ToxGenSolutions.eu

TGS test

Non-invasive

Aβ1-42-test (Ruhr University (D))

Tau-test (Brigham and Women's Hospital Boston, (USA))

NfL-test (Washington University School of Medicine (USA) and German Center for Neurodegenerative Diseases, Tübingen (D))

CexCgat

Proteome-test (Kings College, London (UK))

microRNA-test (University of Otago, Otago (NZ))

Diagnostic microRNA kit (Amoneta Diagnostics (F))

IRS-1-test (UCSF Geriatric Research Center, San Francisco (USA))

Based on genetic risk factors (<5% of the Alzheimer's cases)

APOE4-test (LabCorp, USA)

A genetic non-diagnostic test

No irreversible brain damage

Mild cognitive impairment

Dementia

Lumipulse® G NeuroAssay (FujiRebio)

Invasive

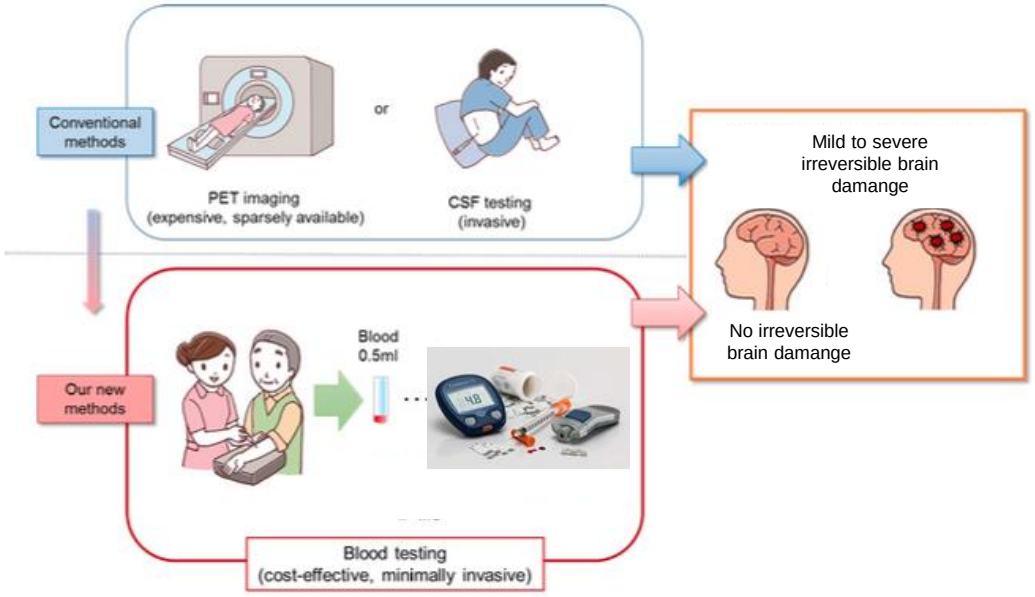
Competive advantages

ToxGenSolutions

Customised systems-based testing and assessment

www.ToxGenSolutions.eu

- ✓ Test predicting non-genetic Alzheimer's potential before irreversible brain damage occurred



- ✓ Addressing the urgent need of patients organizations, medical staff, society and industry
- ✓ Manageable weaknesses and threats