



Transforming your biomedical data into actionable insights

Data challenges in biomedical research

Challenges

- Unnecessary repetition of experiments, for which public data are already available
- Too much data for manual evaluation
- Trial-and-error based discovery & development
- Understanding the biomedical significance of vast amounts of data is challenging



Solutions

- Data mining: High-throughput screening of public high-quality data for better development choices
- Data management: Making data FAIR (Findable, Accessible, Interoperable, Reusable) between users and programs
- AI & Data analytics: Processing very large, FAIR datasets to accurately predict drug behaviour
- IT architecture: Setting up a (cloud) software framework, to make processes and data (e.g. in the lab) interoperable between users and programs
- Software engineering: Tailor-made software solutions for bespoke applications

The opportunities with advanced analytics & AI

Faster, more efficient target- and drug discovery

- AI-based drug discovery platforms reduce candidate identification time by 71%, from 5.2 to 1.5 years

Increased clinical trial success rates

- AI-driven drug candidates boast a 32% success rate in phase 1 clinical trials, surpassing the 13.8% industry average

Significant cost reduction in early-stage discovery

- Estimated 70% cost reduction driven by AI in drug discovery

Multidimensional modeling of biology

- Data-driven transformation of complex data, which is difficult to deal with manually, into actionable biological insights

Predictive & prognostic biomarker development

- *In silico* prediction improves candidate selection from the beginning of discovery & development pipelines

Truly personalized medicine

- AI-driven patient stratification and personalised medicine has already shown promise

Critical gaps when data science meets biology



Computer and data scientists lack the **deep biological knowledge** required to uncover the most relevant scientific insights



Biologists lack high quality **advanced data analytics skills** required to reveal all insights encompassed within data



Scientific data require **scalable data management strategies** to allow data-driven target-, drug- and biomarker discovery and R&D

Why BioLizard?



Expertise

- Unique combination of knowledge in bioengineering, mathematics, computer science and biology
- Dedicated teams for AI & analytics, software & IT architecture, bioinformatics and data & infrastructure management
- Robust experience working in biotech, animal health, and food and agriculture R&D



Service

- Truly understand your biomedical data challenges and software/IT requirements
- Transparent, tailor-made solutions, including seamless adaptation to data environments
- Supporting biotech, pharmaceutical and diagnostic companies to enable genuinely data-driven discovery, preclinical, translational and clinical R&D processes

BioLizard core competences

Bulk, single-cell & spatial, (multi-) omics bioinformatics and biostatistics

Data mining & integration, public data repurposing

AI/ML-based biomarker, drug- or target development

Data governance & infrastructure management

Data visualization & self-service exploration

Software engineering & pipeline automation

BioLizard DNA

Consultancy company

Preferred partner for support in:

Data
architecture,
management &
governance

IT & software
development

AI and analytics

Bioinformatics



Strong team

- Multidisciplinary team of 50 bright, highly-qualified Lizards
- We stay on top of the latest developments in the field so that you don't have to – providing top-notch strategic consultancy & professional services

Customer base

- (bio)pharma – Dx – CRO globally
- 75 customers +90% recurrent business
- > 90% customer satisfaction
- > 300 projects

Bio|Verse

- State-of-the-art, modular analytics [platform](#)
- Comprises 3 applications for AI-empowered [multi-omics data analytics](#), [microbiome data analysis](#), & [unbiased literature review](#)

Social responsibility

- Strong focus on diversity, equity, & inclusion
- Alignment with the sustainable development goals

How we work



Personalized, agile service model for truly impactful results

Multidisciplinary

We collaborate with wet lab researchers, clinicians, IT experts, data scientists, bioinformaticians, etc.

Tailored outcomes

Reporting & visualization
Software solutions for any environment
Scalable data & infrastructure management



Efficient communication

Responsive & cross-functional
Regular status updates
Adaptive actions for successful project management

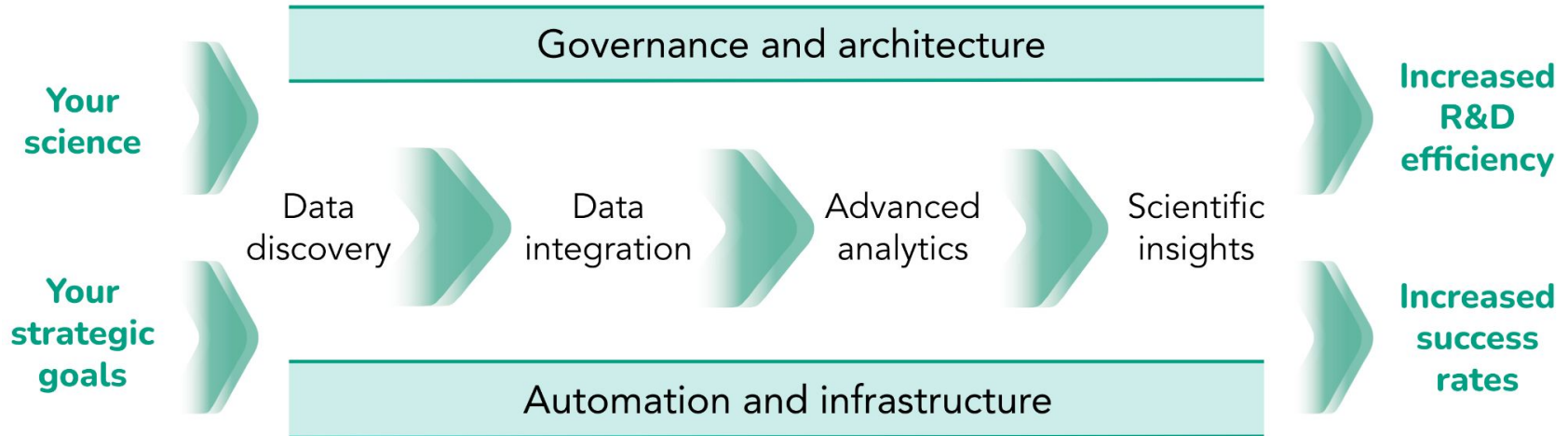
Focus in excellence

Complete documentation & compliance
DevOps, MLOps
Reproducible analytics

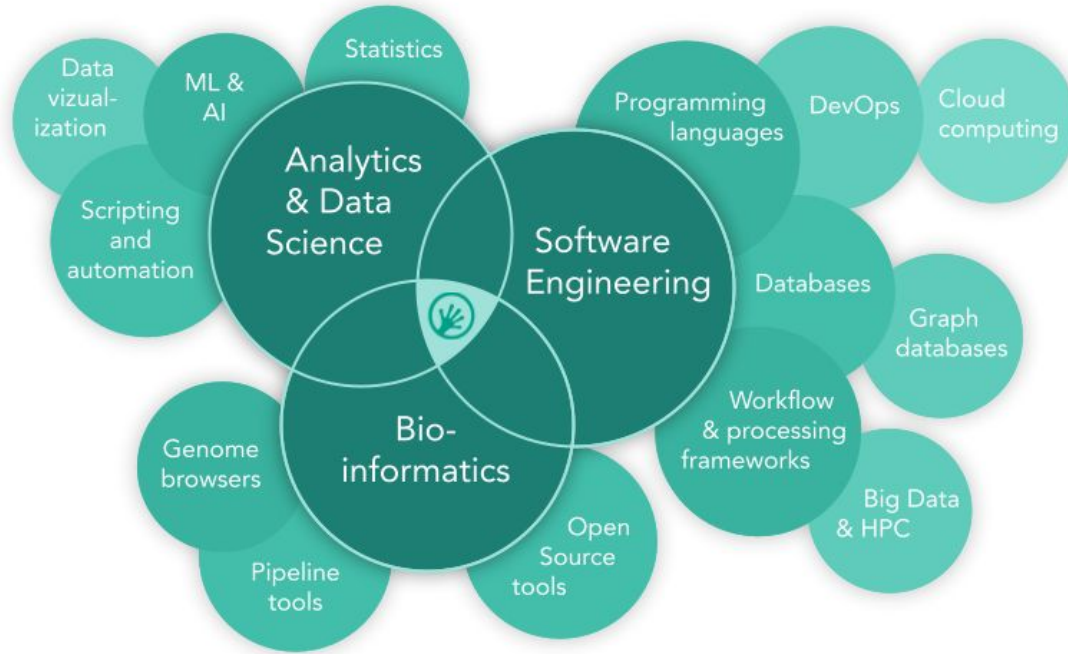
Unlock the power of data to extract insights



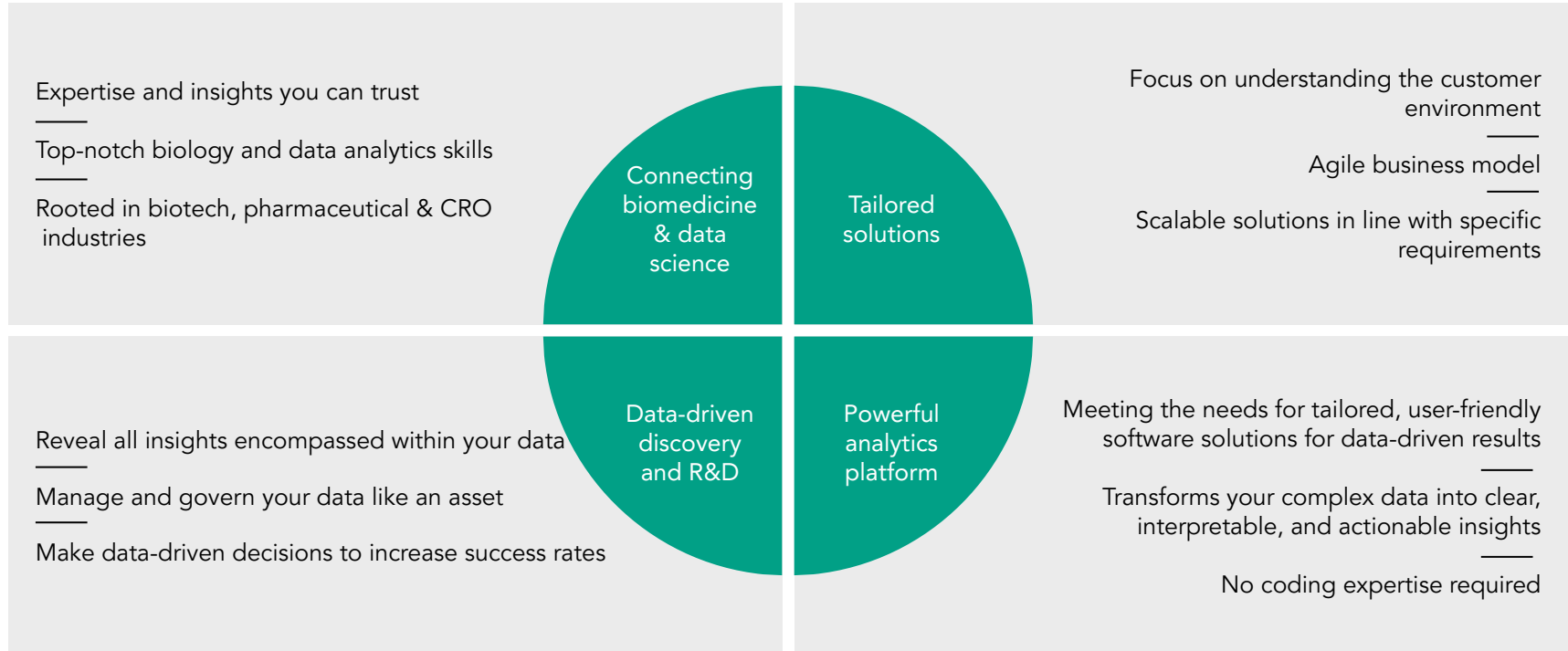
Instituting an effective data strategy allows you to focus on what you are really good at, instead of spending your time finding, organizing, curating, and annotating your data.



BioLizard tech stack: any environment, any tool



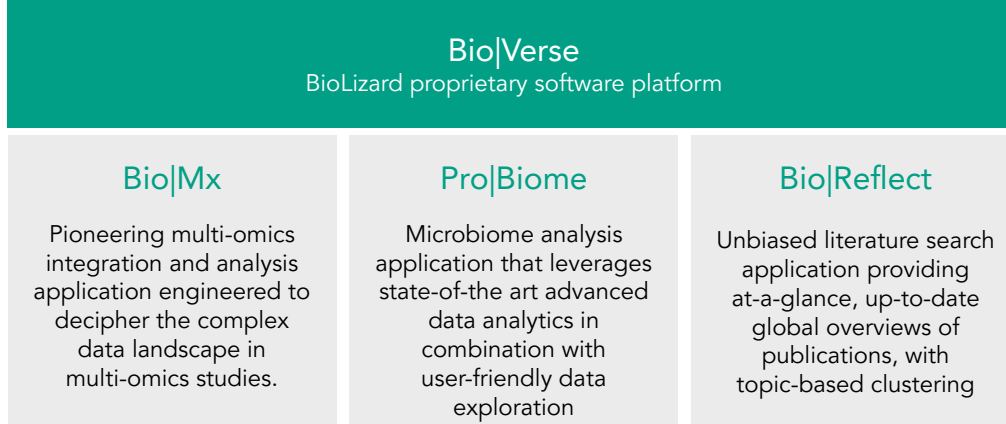
Your benefits when working with us



Bio|Verse: Platform for tailored solutions

Software platform Bio | Verse

- Bioinformatics and AI-driven
- Proprietary products, based on secured intellectual know-how and in-house developed code
- Expanding product & service offering to the broader life sciences community via a platform with bespoke solutions



Platform

User-friendly environment providing interoperability of all Bio | Verse applications

Applications

Facilitating bespoke applications for specific client needs and data environments

Take-home messages



By leveraging bioinformatics, software engineering, data governance expertise, and advanced data analytics & AI, we help you keep your competitive edge.



We customize our state-of-the-art, scalable and modular computational toolset to your data and research needs, achieving tailored outcomes in line with your strategic goals.



Bio|Verse, our powerful bioinformatics and data analytics platform, helps you to unlock the power of data to extract novel insights - no coding expertise required.



ALL PROJECTS ARE BETTER TOGETHER!

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