HELASTEL —
EXPERTS IN HEALTHCARE SOFTWARE

HELASTEL

EXECUTIVE
SUMMARY

HELASTEL IS A SPECIALIST HEALTHCARE SOFTWARE DEVELOPMENT COMPANY, HIGHLY EXPERIENCED IN CREATING AND DELIVERING INNOVATIVE SOLUTIONS THAT ENABLE MEDICAL, CLINICAL AND PHARMACEUTICAL ORGANISATIONS TO OPERATE EFFICIENTLY, SAFELY AND SUCCESSFULLY.

Our experience with pioneering digital healthcare projects has bred an in-depth understanding of the unique challenges and opportunities affecting this sector. Close working relationships with healthcare organisations and pharmaceutical companies have accelerated our competencies and specialisation in the UK healthcare arena. This has been the catalyst for a host of compliance accreditations, and several independent awards.

Our focus upon four specific data-related challenges exclusive to the healthcare sector has accumulated a wealth of relevant skills and expertise. Each of our solutions is built upon a robust, proven platform which is customised accordingly. And because every new challenge is different, our team of business analysts, project managers, data scientists and software engineers is highly motivated to create a unique solution tailored to the needs of all stakeholders, and adaptable to change as new circumstances dictate.

HELASTEL
MARKET
PERSPECTIVE

THERE IS SIGNIFICANT DIGITAL CHANGE OCCURRING WITHIN THE HEALTHCARE SECTOR.

Spurred on by advances in data science, the ubiquity of mobile communications and the emergence of cloud and the Internet of Things, today's healthcare and pharmaceutical sectors are fertile ground for innovation.

Every aspect of healthcare processes, from the clerical to the clinical, is benefiting from new ways of using data and engaging patients.

Data, it seems, is now everywhere. The exponential increase in data supply is increasing, rather than decreasing, the value of information. Data means business intelligence for healthcare managers and pharmaceutical R&D teams alike. Using data in different ways changes the patient experience; even how patients are treated.

But creating that value is not straightforward. Adhering to the necessary governance and compliance requirements is beset with challenges. Improving patient care through new digital approaches is difficult and complex.

Helastel's view is that every digital advance in UK healthcare is underpinned by the intelligent, strategic use of software.

Software is needed to overcome age-old challenges associated with the inherent complexity and scale of disparate legacy healthcare IT systems. Software will enable smart, connected devices that monitor and record patient medical data to push bureaucratic paper-based protocols aside. Integrations between systems that were once considered impossible or too resource-intensive to affect, will underpin robust platforms for a variety of bespoke applications that drive new process efficiencies and improved patient outcomes. Clinical commissioning groups have a clearer opportunity than ever before of seeing best-practice consistently implemented.

Helastel believes that true digital transformation is possible with strong leadership and the right software-driven strategy.

Compliance Credentials

Helastel is committed to delivering the safest and most robust software for the healthcare and pharmaceutical sectors. We achieve uncommonly high standards for information security, data governance and quality assurance. These are independently validated by recognised certification bodies in all areas relevant to our work in healthcare and pharmaceutical industry applications.

Helastel is compliant with, and/or accredited for:

- **Information Governance (IG)**
- **CyberEssentials**
- **ITK**
- **N3**
- **GPSoC**
- **And many more**

We have extensive experience working with legacy systems such as NHS Spine, EMIS etc., plus the principal commercially-available ERP systems (SAP, MS Dynamics) and many other IT systems used in the healthcare industry.

In addition to our own accreditations, we routinely develop software to achieve ongoing adherence to security and governance standards, such as PCI DSS and the EU GDPR, on behalf of our customers. Our user interfaces are designed for a multitude of accessibility scenarios, ensuring that no user is consciously discriminated against or prevented from creating and deriving maximum benefit.

Helastel is also dedicated to the understanding of emerging standards, ensuring that deployed software solutions remain fit-for-purpose as new compliance requirements dictate.

Structured Education

HELASTEL IS QUALIFIED AND EXPERIENCED IN PROVIDING ROBUST STRUCTURED EDUCATION SOLUTIONS FOR CHRONIC CONDITIONS AND PROGRESSIVE DISEASES, DELIVERING PROVEN IMPROVEMENTS TO PATIENT OUTCOMES.

Patients with chronic conditions achieve better outcomes when they are well-involved with their long-term treatment. The challenge is to create ways to educate and motivate patients as part of a continual engagement process.

Technology offers a powerful opportunity in the form of structured education solutions that equip patients to engage, interact and proactively manage their condition. These software-driven solutions take their lead from evidence-based clinical guidance to support the safe, ongoing monitoring of medical data and the timely provision of prompts and reminders. The continuity provided by such 'patient companion' software eliminates the risk of conflicting or contradictory information, is far more empowering that routine classroom training sessions, and typically improves the patient's engagement with their prescribed pharmaceuticals.

The critical elements of a structured education solution are:

- **User Experience.**
  This must be extremely intuitive and habit-forming, so that patients sustain their engagement indefinitely. Helastel has designed and implemented user environments that are proven to stimulate proactive patient engagement and maintain it at high levels over long periods of time.

- **Content & Functionality.**
  The selection of content and functionality must satisfy both the needs of the patient and the best-practice clinical treatment of the specific chronic condition or progressive disease. Helastel's pioneering work on structured education around type-II diabetes is a notable example of successful collaboration in action, and has resulted in measurable improvements to patientoutcomes. View case study.

- **Data Integration.**
  This is critically important to providing a coherent, non-contradictory content experience across user devices. By integrating patient medical data into the solution, Helastel en sures that clinical commissioning groups can use structured education software to capture and interpret real-time information about each patient's treatment journey.

- **Governance, Compliance & Risk (GRC).** Adherence to GRC strategy is a precursor to extending healthcare into the lives of patients through digital technology. Helastel's expertise with such solutions is benefited by compliance to IG, ITK, N3 and other standards. UK CCGs are already leveraging NICE-approved, Helastel-based structured education solutions to 'prescribe' patient companion software in much the same way as a 'drug'.

Electronic Patient Record System (EPRS)

eliminate unnecessary duplication, improve value-for-money, and better safeguard patients.

This is achieved by creating a secure, centralised, cloud-based patient record system, compliant with the necessary governance standards and fully integrated with all relevant data sources and applications. The resulting patient information is the single, trusted, unified record, continually synchronised in real-time for all agencies and practitioners to access. Helastel's direct experience points to the following benefits of this approach:

HELASTEL ADDRESSES MANY OF THE COMPLEX CHALLENGES ASSOCIATED WITH EPRS WITHIN THE NHS AND OTHER LARGE HEALTHCARE ORGANISATIONS, THROUGH SOFTWARE SOLUTIONS THAT STREAMLINE THE ACCURATE, SAFE AND EFFICIENT PROVISION OF PHARMACEUTICAL PRODUCTS.

When commissioning groups introduce pharmaceuticals and medical consumables, it creates knock-on effects for their EPRS. The key problem is ensuring the integrity of a single, unified patient record related to the use of a given drug or treatment. This is very hard to reconcile across different parts of the NHS, each with its own patient record keeping system.

The answer lies in simplifying the pharmaceutical-specific information associated with each patient. Helastel has worked with pharmaceutical and medical consumables companies to identify software-driven solutions that reduce EPRS-related NHS inefficiency,

- More accurate and reliable management of pharmaceutical use by each patient, reducing risk and improving outcomes

- More granular and enforceable policy-based control over patient usage of pharmaceuticals and medical consumables, to ensure greater consistency of clinical best-practice and compliance

- Improved patient service levels, owing to more rapid delivery of required pharmaceuticals/consumables to individuals

- Significantly enhanced supply chain efficiencies, leading to better real-time budgeting and more accurate replenishment of centralised inventory

- More positive, strategic relationship between the NHS/other healthcare organisations and their pharmaceutical/medical consumable suppliers

Clinical Data Capture

HELASTEL IS INNOVATING SOFTWARE SOLUTIONS TO DRIVE OUT INEFFICIENCIES IN HEALTHCARE PROCESSES CAUSED BY THE OVER-RELIANCE UPON PAPER-BASED DATA COLLECTION/COLLATION IN CLINICAL SETTINGS.

The digital transformation of healthcare-related processes from paper to software application delivers significant, proven advantages to commissioning bodies, medical professionals and patients alike. And yet - for some key services - this transformation remains beyond reach, largely because of the underlying complexities of information governance and the challenge of ensuring continuity between NHS organisations.

Successive studies and hands-on Helastel project experience shows that the reliance upon paper forms to capture clinical data can lead to significant process inefficiencies such as:

- Duplication of effort
- Higher than necessary proportion of clinician's time spent on administration
- Inaccurate or incomplete data records
- Lack of protection against loss, damage or breach of confidentiality
- Problems associated with lack of document/form version control
- Additional training requirements

In some services, paper-based approaches also mean that important opportunities are missed to provide transparency of clinical data to the patient concerned.

Helastel's approach to clinical data capture has successfully addressed these challenges, and been embraced by specialist healthcare providers engaged in NHS service delivery. The resulting solutions involved:

- Rationalising existing clinical data capture processes into more efficient workflows via paperless mobile applications, delivering an optimised user experience.
- Providing offline and online clinician access to data from anywhere, overcoming the technical constraints of patchy WiFi coverage within hospital environments.
- Enabling patients with read-only access to relevant patient information in a controlled and confidential manner, appropriate to their medical needs, on the device of their choice.
- Integrating multiple data repositories and sources (such as EPRS and specialised medical devices e.g. scanners) to ensure accuracy and integrity of patient information.
- Ensuring compliance with information governance requirements including IG, GPSoC and others.

Data Analysis

HELASTEL DATA ANALYSIS SOLUTIONS USE ADVANCED TOOLS AND METHODOLOGIES TO EXTRACT MAXIMUM VALUE FROM MULTIPLE DATA STORES SO THAT HEALTHCARE ORGANISATIONS AND PHARMACEUTICAL COMPANIES CAN DISCOVER NEW INSIGHTS TO INFORM STRATEGIC DECISION MAKING.

The aspirational benefits of 'big data analytics' are becoming widely understood as organisations of all kinds endeavour to invest finite resources as effectively as possible, improve service levels and achieve competitive advantage. In practical terms, this vision can quickly become compromised by the immense technical, legal and operational challenges of leveraging huge, disparate data stores from different places, owners and points in time.

Helastel has accomplished this for healthcare-related bodies in the UK through:

- ◣ The pursuit of highly agile, secure application and storage environments to ensure the maximum protection and availability of critical data, often by supporting the migration of physical and virtual elements to the private and public cloud.

- ◣ The successful adoption of Enterprise Data Models that abstract and transform unrelated data models - across both structured and unstructured data formats - into a common data set that is simple to query and analyse.

- ◣ The development of bespoke data analysis and visualisation tools, dashboards and real-time monitoring systems to empower managers with actionable business intelligence.

This intelligence, in turn, feeds into process efficiency improvements and the optimum prioritisation of human and financial resources. The field of data science and data analysis is dominated by complex and continually evolving governance requirements for data protection, database encryption, data visibility and multi-location data residency. As these requirements become progressively more stringent, and as healthcare organisations seek to exploit the opportunities of cloud computing, storage and other IT services, Helastel is ideally placed to ensure its data analysis solutions remain future-proofed and fit-for-purpose.