INTERSYSTEMS IMPACT AWARDS WINNER

OPPORTUNITY

CSIRO AEHRC's ADePT Decisions helps hospitals overcome the high cost, slow pace, and complexity of deploying and maintaining AI, replacing custom solutions that often delay automation.

INNOVATION

ADePT Decisions introduces a scalable, standards-based approach to AI deployment, eliminating costly, slow, custom integrations that have historically hindered automation in hospitals.

SOLUTION

Built on InterSystems IRIS® for Health, ADePT is a secure, self-learning platform with low deployment and maintenance needs. Its modular design enables easy, cost-effective updates with minimal customization.

IMPACT

Offering high-accuracy predictions and a rapid deployment, ADePT Decisions can transform hospital planning and management.

CSIRO Revolutionizes Hospital Resource Management with a Rapid, Interoperable AI Platform

CSIRO's **Australian e-Health Research Centre** develops advanced analytics and AI technologies to enhance healthcare delivery. The opportunity for **ADePT Decisions** emerged from the significant challenges hospitals face in deploying and sustaining AI-driven solutions for operational and clinical decision support. Despite the proven effectiveness of advanced algorithms developed earlier by CSIRO, hospitals have struggled to integrate these tools into their existing ecosystems, slowed by high costs, long deployment times, and the need for bespoke, one-off integration projects. These barriers often result in stalled pilots and limited impact, even when the algorithms themselves show substantial improvements in areas such as patient demand forecasting and resource allocation. The need for a more scalable, repeatable, and interoperable approach to AI deployment became evident, as the benefits of these innovations could not be fully realized without addressing the practical challenges of implementation.

Robust, Reliable, Secure, and Interoperable Hospital Management

ADePT Decisions is a platform that optimally manages hospital beds and allocates resources using advanced machine learning algorithms, achieving up to 96% accuracy in predicting patient demand. It is capable of integrating seamlessly with other hospital systems using standards such as HL7® and HL7 FHIR®, allowing for a rapid deployment timeline of 6-10 weeks. This significantly reduces the cost and risk typically associated with AI implementation in healthcare, which can take 8-18 months. The platform's interoperable design enhances its effectiveness and ease of use.

A seamless, trustworthy platform: ADePT Decisions is robust with advanced, enterprise-grade security, audit, API, and self-improving deployment capabilities and ease of integration into existing workflows.

Low-code, error-reducing, and self-improving: Self-improving and self-sustaining, ADePT Decisions is built for long-term effectiveness and scalability. Ongoing maintenance is simplified by use of external standards and low-code implementation.

CSIRO

InterSystems®
Creative data technology

"What's the biggest advantage of ADePT Decisions? Seamless Integration. Instant Impact."

"With ADePT Decisions, we've taken a bold, agnostic, standards-based approach. No standalone systems. No lengthy deployments. Just smooth integration into your existing hospital ecosystem."

"That means your team can jump straight in and start using powerful demand prediction tools within weeks — without the usual delays or disruptions. It's fast, intuitive, and built to work with what you already have."

"This tool isn't just smart tech — it's smart deployment."

Dr Sankalp Khanna, Principal Research Scientist, CSIRO

Versatile, platform-agnostic, and modular: ADePT Decisions works and scales with many different systems and vendors, adapting to different settings without extensive customization. Modular design allows for the easy addition of new AI algorithms.

Primed for large-scale data transformation: Self-adjusting and self-validating, ADePT Decisions ensures that its own algorithm remains accurate and relevant over time. Hospitals can maintain the system with minimal effort, making it sustainable for large-scale, long-term transformation in healthcare.

Groundbreaking, Accurate, and Timely Tools for Hospitals

ADePT Decisions is a machine learning tool that optimizes hospital capacity management by forecasting patient demand with high accuracy, using the CSIRO-developed ADePT algorithm. It can be deployed within 6-10 weeks, significantly faster than the typical 8-18 months, thereby reducing financial and operational pressures. The tool integrates seamlessly with existing hospital systems using standards-based protocols, ensuring a quick and minimally disruptive setup. Its flexible design allows for the integration of various AI algorithms, making it adaptable for tasks such as emergency department management and surgical scheduling.

About the Winner: Commonwealth Scientific & Industrial Organisation (CSIRO)

CSIRO is Australia's national science agency and one of the world's largest multidisciplinary science and technology organizations. With a focus on innovation and practical solutions, CSIRO's Australian e-Health Research Centre (AEHRC) is dedicated to developing advanced data analytics and AI technologies to enhance healthcare delivery and patient outcomes.

About the InterSystems Impact Awards, Selected by an MIT Panel

Each year, select client organizations are recognized at the InterSystems READY conference for projects driving positive change. Nominations are evaluated by independent judges from MIT on three criteria:

- **Makes a significant difference**
- **Breaks new ground**
- **Sets an example**

To learn more about the InterSystems Impact Awards visit **https://www.intersystems.com/intersystems-impact-awards/.**

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