



Corporate profile:
how resourceful ideas have made us who we are today



Resourceful ideas have made us who we are today

Logi-D provides supply chain automation solutions for hospitals. We began as TRIAX Consulting®, a consulting services group specializing in healthcare logistics. From the beginning, in addition to carrying out our own research on leading supply chain practices, we collaborated with researchers from HEC Montréal, the oldest business school in Canada and one of the largest in North America.

Through this research, we soon realized that hospital resources, far beyond those assigned and controlled by Material Management, were impacted substantially by supply chain practices. And the closer we got to the point of use, the greater this impact was.

It also soon became clear that some of the world's leading logistics practices were not readily available to our clients and that the healthcare sector could benefit from borrowing practices from industrial supply chains and adapting them to the hospital environment.

Because some of these practices were also difficult to implement, Logi-D filled the gap by becoming a hospital logistics solutions integrator of leading practices, providing turnkey solutions to its clients.

Resourceful ideas generate value

Logi-D's mission is to enhance the efficiency of healthcare systems through the constant improvement of the hospital supply chain.

To achieve this mission, we track leading international supply chain practices and innovate constantly. Our strength lies in our ability to customize these practices according to our clients' specific needs.

We offer unique turnkey automation solutions that include storage equipment, related technology solutions and consulting services. Each of the projects we have been a part of has been recognized for its quality and propelled us to the forefront of innovation in our sector.

“The system has enabled our hospital organization to make substantial productivity gains and has allowed nursing personnel to spend more time with patients.”

Resourceful ideas will transform your environment

We strongly believe that an end-to-end solution generates the best results, given the dynamics of the supply chain, and that the standard solutions available on the market today do not always solve the issues. It is with this in mind that we have developed our iD suite, a unified solutions platform of best of breed solutions designed to interface easily to host applications.

At the core of our offering is 2BIN-iD, our unique RFID-enabled two bin replenishment solution, which combines an internationally recognized high-density storage system, a proven inventory concept inspired by the lean Japanese kanban system, and leading-edge RFID technology. This is supported by extensive knowledge of healthcare point-of-use needs, which translates into the optimal implementation of each individual solution.

Turnkey offering

In addition, our global offering is unique in that we can provide a complete transformation process, from conception to completion. The process can begin with the development of a business case; the solutions we recommend as a result include implementation support to ensure that anticipated gains are captured throughout the transformation process; and finally, post implementation measures are conducted as required to confirm that the anticipated gains have been realized. It's a methodology that assures significant gains are achieved across the entire supply chain.





**Resourceful ideas
free up time**

Resourceful ideas simplify inventory management

Logi-D's 2BIN-iD is unique in that it requires no counting or data entry in the user department and only limited involvement from users. It also facilitates inventory turnover and control of inventory levels, and it helps prevent the expiration of products.

Resourceful use of RFID technology

The replenishment concept behind the 2BIN-iD replenishment system consists of dividing a single quantity of supplies between two compartments of a storage module. Once the first compartment is empty, users remove a label holder that contains a passive RFID transponder. They affix it to an RFID-enabled replenishment board and begin using supplies from the secondary compartment. The replenishment board connected to the IT network transfers the information to the LogiDATA-iD application, thus alerting it that a product is due for replenishment.



Resourceful data collection

The information gathered through LogiDATA-iD is then transferred to the hospital's material management information system, which either generates a picklist or creates requisitions for direct purchase (non-stock) items.

Resourceful inventory turnover

When new supplies arrive, items remaining in the secondary compartment are transferred to the primary compartment. The newly delivered items are then placed in the secondary compartment to ensure inventory turnover. At this time, the applicable label holders are taken from the replenishment board and placed back on the front panel of their compartments.

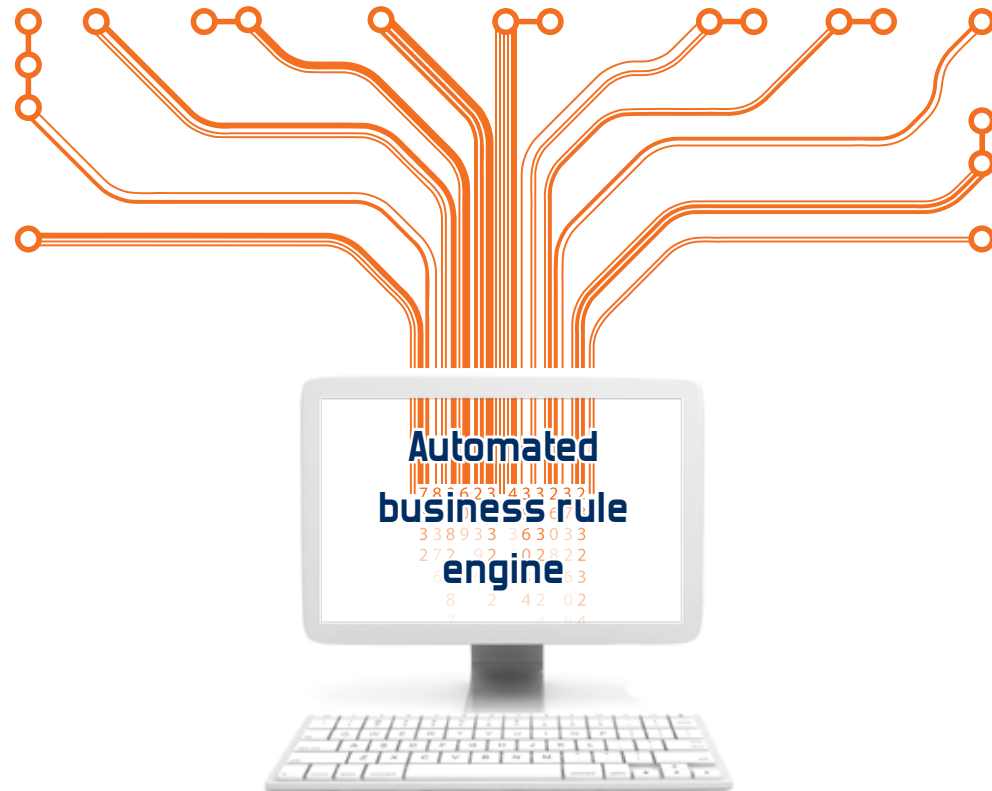
Resourceful patient charging

With Logi-D's PC-iD solution, chargeable items are physically isolated. These items are then linked to a patient using an RFID or barcode ring scanner or a touchscreen.



LogiDATA-iD

Logi-D's data collection and management system



Resourceful technology delivers efficient automation

The LogiDATA-iD data collection and management system supporting Logi-D's solutions is a technological breakthrough developed by Logi-D.

It automates data collection at the point of use, provides access to remote data without incurring staff movements, and changes the replenishment cycles to an "as need" basis rather than a "just in case" basis.

LogiDATA-iD automates business rules. For example, in the case of 2BIN-iD, LogiDATA-iD can generate automatic replenishments based on the processing of events according to business rules. Some of these business rules might include the economic order quantity (EOQ) of line items to pick, a maximum period of time that a label can remain on the board, and labels for critical products or situations.

PA-iD

Logi-D's voice-directed put away solution



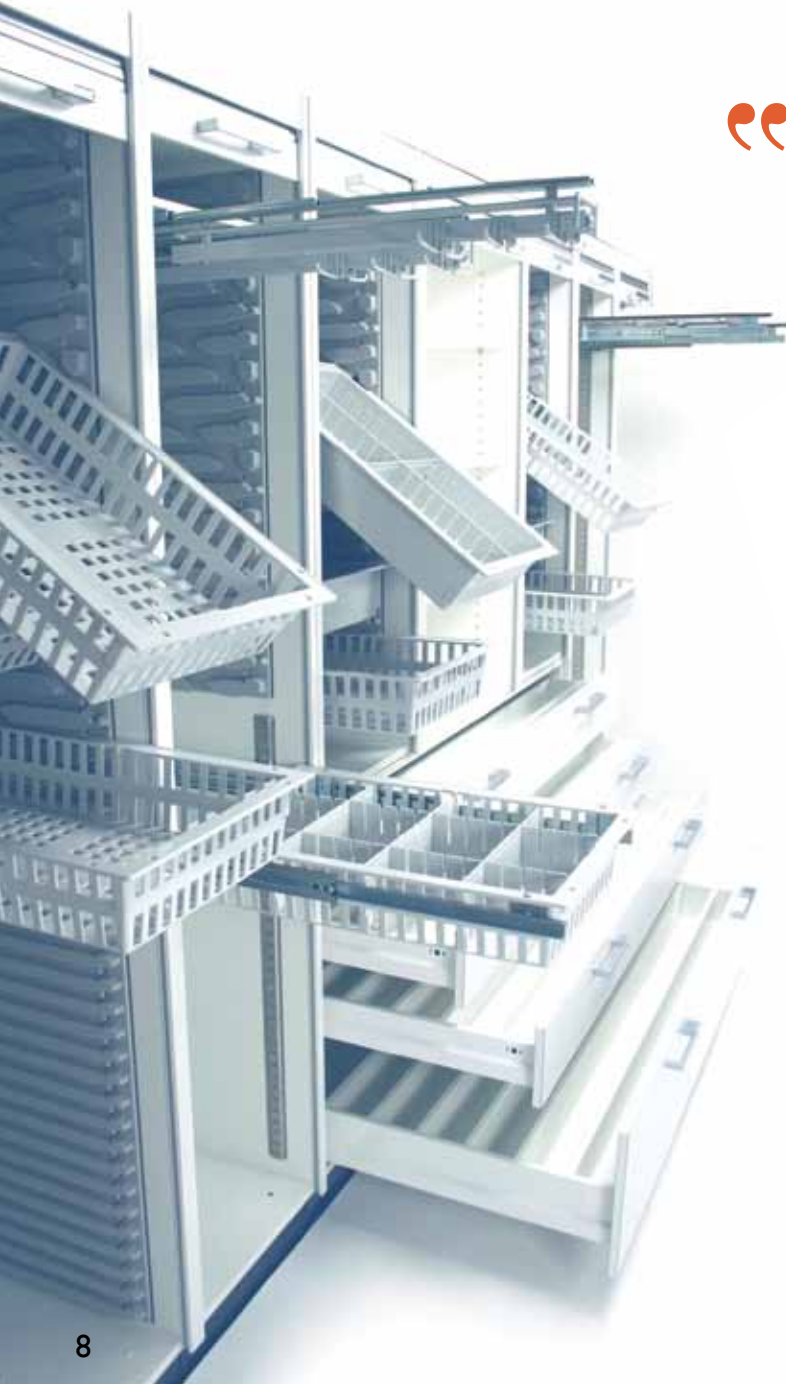
Automating the put away process A voice command idea

Putting supplies away is part of the replenishment process. It is time consuming and depends on staff knowledge of products and storage locations at the point of use.

In order to facilitate this process, Logi-D offers PA-iD, a voice-directed put away solution, offered as an optional module to complement 2BIN-iD. The system guides users through the put away subprocess by interrogating a database via a voice prompt. In addition to reducing dependence on the specific knowledge of staff members, it shortens the put away process substantially. This innovative technology is enabled by top-VOX, an internationally renowned voice technology solutions provider.



Point of use storage solutions



“Recovers up to 50% floor space and increases workflow productivity.”

Resourceful ideas in space allocation

Logi-D's integrated solutions are enhanced by the use of an extensive modular storage and transport system. Designed and produced by Scan Modul System of Denmark, an international leader in its field, the system includes an impressive range of stationary and mobile units. Scan Modul is a subsidiary of Stanley Works Corporation, a US company.

Designed specifically for healthcare institutions, this continually evolving system includes a number of features not available in any other system of its kind.

The system offers considerable added value compared to other storage systems by reducing the space allotted to storage, providing maximum benefits from the space used, improving ergonomics, and supporting the optimization of material management processes.

Ergonomic ideas that save space and facilitate planning

Compared to other systems, space savings can reach 50%. The storage and transport units can accommodate a wide variety of interior modules specifically designed for hospital storage requirements. The flexibility offered by the dividers facilitates organization and helps keep supplies in order.

Secondary location storage solutions



Resourceful logistics

In order to manage supplies up to the point of use, secondary storage locations can be employed in certain cases to balance process and inventory costs. Secondary storage locations are areas of the nursing unit replenished from a primary storage location on the unit rather than from an external source. As an option, Logi-D can implement adapted replenishment systems to manage these locations.

CIRCUIT-iD

Logi-D's automated case management solution



Resourceful ideas for clinical specialty areas...

Cost capture ideas

Our CIRCUIT-iD solution has been developed to fully integrate and automate all clinical specialty area material management processes, including charge capture. Our cost capture model uses information from preference cards linked to patient treatments and procedures. Predictable items are recorded in the case cost as soon as a picklist for the case is generated, thus requiring no additional human intervention. Data on unpredictable items is added right before or during procedures using RFID-enabled technology to minimize user involvement, and returns of unused supplies are recorded at the end of the case using our PB-iD voice-activated application or touchscreen, which once again keeps user involvement to a minimum. Combining information on picked and returned items results in an industry-leading case costing model.

CC-iD

Logi-D's item level capture solution



Resourceful technology for item level traceability

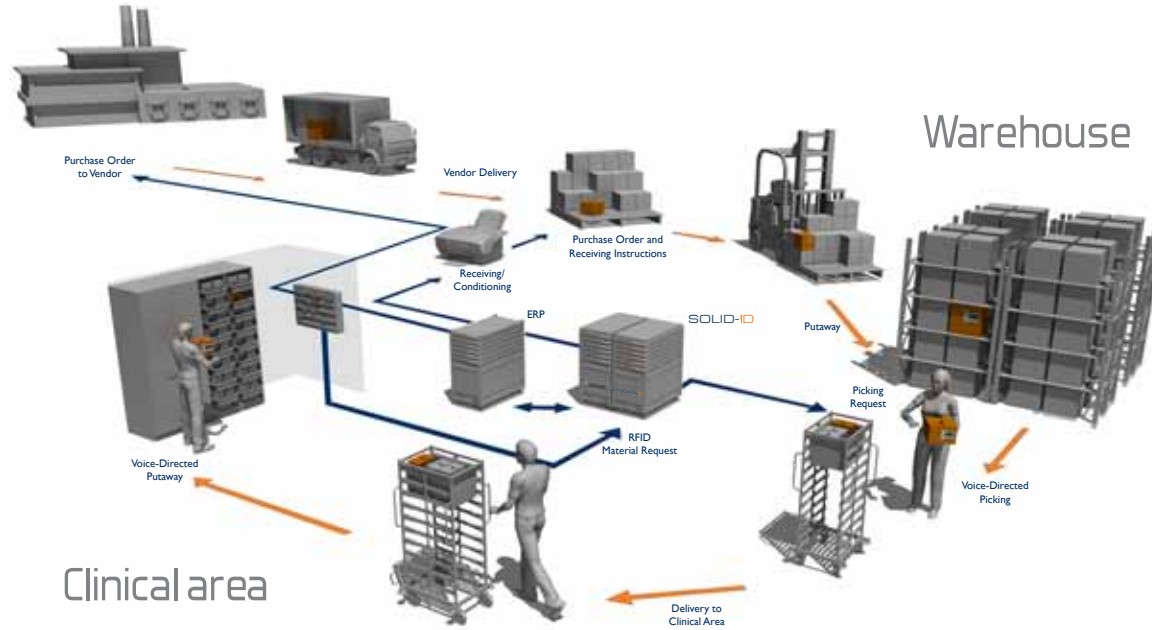
Logi-D's CC-iD data collection and management system automates the management of items that require item level traceability, such as consignment items. Through the innovative use of leading-edge RFID technology, CC-iD substantially reduces the involvement of clinical staff in this process while enhancing the quality and availability of pertinent information.

Data gathering is facilitated and used for the automatic replenishment of items and the transfer of information to other systems, such as the electronic medical record, thus eliminating the need to write down serial numbers, product numbers and other such information.



SOLID-iD

Distribution automation from receiving dock to point of use



Resourceful ideas optimize distribution activities

Extending material management services to the point of use puts additional pressure on supporting departments. In order to support the complete automation of the internal supply chain, Logi-D also offers SOLID-iD. This solution integrates the award-winning SOLOCHAIN WMS from Sologlobe and Logi-D's 2BIN-iD replenishment system. This combined application automates and optimizes physical and information flows into and out of the warehouse and controls all internal operations needed to manage these flows.

Resourceful traceability from the receiving dock to the point of use

SOLID-iD also provides real time visibility of expiry dates and lot numbers for selected supplies. Not only does it offer this feature for high-value and consignment items, it is also unique in its ability to do this for all supplies that would benefit from it – including those of lower value, such as IV solutions – from receiving dock to patient and with minimal human intervention.

PTL-iD

Logi-D's voice-directed put-to-light solution



Resourceful picking ideas

Where picking activities in stores are not automated, it is also possible – with or without the SOLID-iD solution – to use the voice-directed PTL-iD solution. Developed using the top-VOX voice recognition engine, PTL-iD significantly improves the order picking process by combining a put-to-light cart with voice command technology. This enables multiple orders to be picked at once, substantially increasing productivity and accuracy by reducing the risk of errors.



“A track record of industry-leading supply chain transformation paybacks.”

Resourceful consulting services

Originally created as a hospital supply chain consulting group, Logi-D not only offers a comprehensive solution platform of automation technologies, we also provide consulting services aimed at developing solid business cases for automation. With a proven track record of industry-leading paybacks backed by post-implementation gains, we can clearly demonstrate and accelerate your supply chain automation gains.

We are also recognized for our ability to integrate leading practices into the physical design of facilities in a variety of departments, including nursing units, operating rooms, labs, central stores and distribution centers, either during the transformation of existing facilities or the construction of new ones.

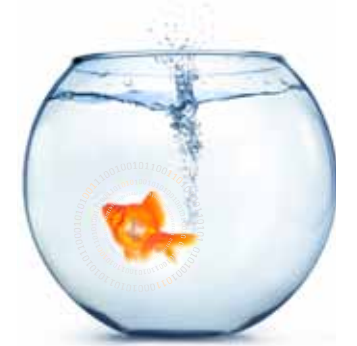
To a great degree, although not limited to this focus, our consulting services are used to simulate impacts and ensure the optimal use of Logi-D's leading-edge automation solutions. We begin with an assessment of the organization's existing situation. Our approach then consists of identifying and measuring the impact of changes made through automation and physical transformation to free up manpower hours, minimize clinical staff involvement in material-related processes, and optimize inventory levels and the space allotted to storage.



Resourceful simulation

Our proprietary TRIAX-iD consulting methodology, initially developed with HEC Montréal and improved over time by Logi-D, is specifically adapted to the healthcare sector. It consists of a series of steps based on reengineering models, including activity-based costing (ABC) and time and motion studies.

This methodology allows us to precisely simulate and measure the impact of improved productivity and the reduction of non value-added activities, inventory levels and shrinkage through the implementation of leading supply chain practices. By appraising financial impact and accurately evaluating required resources, our methodology has led to the development of many sound and successful business plans, which have resulted in the anticipated payback following implementation.



Resourceful implementation

Logi-D also supports the entire implementation of its solutions in order to ensure that the results of the project are aligned to your objectives. Our implementation support is backed by a unique and proprietary methodology. This proven methodology is adapted to each client's needs and context and takes into account the hospital's internal resources assigned to the transformation project.



Case study

Making the case for resourceful ideas

Hôtel-Dieu de Lévis Hospital located on the outskirts of Quebec City, Canada, mandated Logi-D to conduct a supply chain analysis and build a business case for its optimization. This teaching and research hospital affiliated with Laval University offers general and specialized care.

The supply chain process costs for nursing units and the operating room were estimated at more than \$1.6 million annually. It was calculated that the following gains could be generated by implementing the leading practices recommended by Logi-D:

- Annual recurrent replenishment process productivity gains: over \$360,000
- Reduction in nursing personnel movements and the time spent looking for supplies in storage areas: more than \$280,000 annually
- Reduction in supply costs due to a decrease in inventory shrinkage: close to \$330,000 annually
- One-time inventory reduction savings: close to \$1.5 million

The investment required to automate the supply chain through the implementation of the leading practices identified, including the establishment of an off-site warehouse, was estimated at just over \$2.9 million.

Non-salary savings alone would allow for a payback period of less than four years, and productivity gains of more than \$600,000 annually would be realized upon completion of the project.

Proportionally, the results of this analysis are representative of the potential gains identified in all of the business case development projects led by the Logi-D consulting group.

“Any supply chain transformation project starts with a convincing business case.”



Key resources

Logi-D's strategic partners



Scan Modul System of Denmark is a subsidiary of Stanley Works Corporation, a US company. Scan Modul System is an internationally recognized leader in the design and manufacturing of vertical high-density storage and transport systems. Released initially in the 1970s, the Scan Modul System high-density storage system is a complete offering consisting of an impressive range of stationary and mobile storage units. Designed specifically and sold only to healthcare institutions, this continually evolving system includes a number of features not available in any other product of its kind.



Founded in 1997, Sologlobe develops, distributes, deploys and supports the SOLOCHAIN suite of software. This solution allows manufacturing as well as logistics companies to optimize operations across their supply chain. SOLOCHAIN is a complete warehouse management system (WMS). It provides a scalable and easily adaptable platform, which integrates the latest technologies for multi-mode operations data capture (barcode, RFID and voice command).



top-VOX, a US subsidiary of German firm Top System, specializes in speech-based logistics applications. top-VOX is the largest provider of voice-enabled picking systems in Europe. The unique advantage of top-VOX's applications is that they feature both speaker-dependent and speaker-independent technology. top-VOX's extensive experience and know-how make it an ideal and reliable partner in the introduction of voice technology and the automation of logistic processes.



A research and education partner of Logi-D, HEC Montréal, founded in 1907, is the oldest business school in Canada and one of the largest in North America. Its International Projects department has extended its reach to more than 40 countries. HEC Montréal's CHAÎNE research group, which focuses on the supply chain, has developed a particular interest in the healthcare sector.

Putting resourceful ideas to work

