WAREHOUSING & LOGISTICS INTERNATIONAL

www.warehousinglogisticsinternational.com

The online journal of the International Federation of Warehousing and Logistics Associations

CargoWise
Warehouse Management Systems
Turn Business Around

Bendi
ARCTIC

A global crisis that demands a global solution

A glance at the statistics of international trade will reinforce the sometimes well hidden fact that we need each other. I am of course talking about the relationships between countries. My interest lies in the commercial interaction. I leave the political interaction to others, and although social and cultural activities play a part in the commercial arena, it is not the main driver.

I would be interested to hear from readers from countries which neither import nor export anything. And I would be interested to hear also of examples of countries which only import, or only export. The list will not be long.

The current global financial crisis (and I make no apology for naming it 'global') will only be solved by the world. We all know that the current (vvv serious) pressure on the Eurozone is not going to be solved by the Euro zone countries alone.

And, there is no country in the world who has declared that their own long term interest will be served by the erosion of the members of the Euro zone.

In my role as Secretary General of the International Federation of Warehousing Logistics Associations (IFWLA), I am in contact with the vast majority of the G20 countries (they are members). For nearly 40 years we have met; discussed operational best practice; exchange views; established new contacts and international partnership; seen each others' countries; and shared each others' problems. We have also thoroughly enjoyed each others' company.

It seems to me that it is essential for global logistics that organisations such as IFWLA should continue to grow. IFWLA is a not- for- profit organisation. It is run by logistics operators ; for logistics operators. To make it fully effective, it needs to engage with more countries and the wider logistics sector. This magazine was launched earlier this year to start the process of engagement.

We meet each year for a convention which provides relevant operational presentations; one- to- one networking meetings; high level technical visits; and, of course, an element of productive relaxation! In 2012 we hold the convention on Rome from 13 – 16 May 2012. Further information can be obtained from www.ifwla.com . Our President –Carlo Mearelli of Italy is determined to make the convention a success (despite the efforts of his political masters), and I am confident we will have a fantastic event. It would be great to see you there.

Roger Williams,
Secretary General,
IFWLA

Contents

Warehousing and Logistics International is an official publication of the IFWLA, www.ifwla.com.
The International Federation of Warehousing and Logistics Associations [IFWLA] Secretariat is based at the offices of the United Kingdom Warehousing Association, Walter House, 418-422 Strand, London WC2R 0PT England

Warehousing and Logistics International is published by Quad Publications Ltd
Publisher: Daren Thomas;
T: 0044 [0]771 9740736 E:daren@warehousinglogisticsinternational.com
Skype: daren.thomas1
Business Development Director: Richard Davies
T:0044 [0]7970101515
E:richard@warehousinglogisticsinternational.com
International Sales - Germany, Austria and Switzerland: Lilian Hatje, IMP Intermediapartners
T: +49 202 2716914 E: lh@intermediapartners.de
Far East Correspondent: Mark Millar
T: Hong Kong +852 9468 5295
T: China +86 136 3217 3885
E: mark@markmillar.com
Skype: mark.millar88

Russian logistics exhibition success

With around 120 exhibitors, the second CeMAT RUSSIA was a success

On 27 September 2011, the second round of CeMAT RUSSIA was held at the Crocus Expo International Exhibition Center in an exhibition area that has grown considerably since last year's edition. During the four-day event, around 120 exhibitors, including market leaders such as Bito, Cascade, Dematic, Jungheinrich, Knapp, Still, Stöcklin, SSI Schäfer and Viastore presented their intralogistics-related products.

Frank Apel, Executive Director of Viastore systems in Stuttgart sees strong potential in Russia: "We feel that the Russian market is currently on quite a dynamic growth course; we hold an optimal position in this market with our automated warehouse solutions and warehouse management systems for both manual and automated logistics and goods distribution centers. CeMAT Russia plays a key role in the development of this market. At last year's exhibition we learned about numerous projects that gave rise to concrete commissions, and the level of inquiries was just as high at CeMAT Russia 2011. CeMAT Russia is the only trade fair in which we take part in Russia. It does an excellent job of covering the market thanks to the diversity of services represented there and its high number of visitors.

The Russian logistics sector is experiencing stable growth and therefore rising demand for industrial trucks, cranes, aerial work platforms, shelves and complete logistics systems. Russia's harbors are once again approaching full capacity. Billions of euros are currently being invested in construction here in order to generate additional storage capacity.

"At last year's CeMAT RUSSIA we took on the topic of intralogistics in Russia. This year's success shows that our timing was just right. We are seeing growth in the Russian economy again, and with it, an increase in the volume of goods handled. As a result, transport and logistics prices are rising, leading to demand for greater management and logistics chains efficiency. So for the intralogistics industry and its products, the Russian market provides tremendous potential," says Deutsche Messe Senior Vice President Wolfgang Pech.

This year for the first time, the BVL (German Logistics Association) organised a forum to accompany the trade fair program. The forum was dedicated to current economic developments and strategic prospects in the Russian Federation. The focus on the morning of 29 September was on challenges in the logistics industry. High-level representatives of Russian and German companies discussed new developments, identified strategies and trends, and present ed fitting solutions.

The afternoon was dedicated to intralogistics. Discussions revolved around logistics processes for organization and control through modern IT applications, as well as the development of new energy-efficient technologies for operating intralogistics systems. How can intralogistics projects be managed on the Russian market? What challenges exist when it comes to the technical connectivity of transport, storage and picking systems?

Investment plans

Under the umbrella brand "Industrial Trade Fair Moscow" (ITFM), Industrial Automation RUSSIA and Surface RUSSIA was held from 27 to 30 September alongside CeMAT RUSSIA and MDA RUSSIA. These four fairs present ed technological solutions from the fields of propulsion and fluid technology, industrial automation, surface technology and intralogistics. The fairs are jointly organized by OOO Deutsche Messe RUS, Moscow, a newly formed subsidiary of Deutsche Messe, and ITC Group Plc., an English trade fair organizer with branch offices in eleven countries. The group organizes 50 exhibitions and conferences each year in Russia alone.

Two hundred sixty-nine exhibitors and around 5,000 visitors, predominantly from Russia, attended the ITFM premiere in 2010. Approximately half of the visitors came to Moscow with concrete investment plans. Eighteen percent were of executive level, while an additional 34 percent held management positions in their companies. In terms of industry distribution, 25 percent came from mechanical engineering, 16 percent from transport and logistics, and 12 percent from electrical engineering and the energy sector.

Untapping the supply chain potential of Sri Lanka

The Chartered Institute of Logistics & Transport – Sri Lanka's recent annual conference showcased the value of logistics and the untapped potential of logistics and supply chain in Sri Lanka. H Nilès Perera reports

Chartered Institute of Logistics & Transport – Sri Lanka (CILT-SL) hosted its annual International Conference in Colombo on the 28th October 2011. Choosing "Success of Delivery" as the theme for the day, the event showcased the value of logistics and the untapped potential in logistics and supply chain in Sri Lanka.

The International Conference unfolded in front of a packed house with the participation of distinguished guests ranging from the President of Chartered Institute of Logistics & Transport International, Professor Alan Waller OBE to government ministers. Six presentations were made during the course of the day on how logistics has helped the growth of six different fields, namely retail chain, airline, garment manufacturing, Business Process Outsourcing (BPO), shipping and academic sectors.

According to the Chief Guest, Dr. Sarath Amunugama, Senior Minister in International Monetary Co-operation, the government is committed to making Sri Lanka the "Miracle of Asia" by 2016 by making it a regional hub in five disciplines including maritime and air. The world's busiest seaway falling a few nautical miles away from the Sri Lankan shore was cited as one of the key ingredients in transforming Sri Lanka to the said hub status. Dr. Amunugama also praised the Chinese Premier Wen Jiabao's vision of making transport & logistics a driver of China's growth, and elaborated that the Sri Lankan government plans to follow the example. He was very appreciative of CILT-SL and its commitment to taking logistics & supply chain in Sri Lanka to a higher level. He wanted the CILT-SL to be a key player in guiding and supporting the country in becoming a logistics hub in the near future. The senior minister went onto say "in this case, logistics and transport becomes absolutely crucial – we need to reform and improve the transportation sector for our country and we look forward to even greater cooperation and achievement from CILT-SL in the future".

Professionalism in Supply Chain

Professor Alan Waller OBE, the President of Chartered Institute of Logistics & Transport International delivered the keynote address of the day. He highlighted the value of CILT Sri Lanka to CILT International and the importance of developing professionalism in this budding field. It was his opinion that CILT has a major role to play in doing so and expressed great joy about the steps taken by CILT-SL in this regard.

Professor Waller discussed how globalisation and competition has influenced the boom of the Supply Chain industry at large, which has become a game changer in the modern world. This has created newer global markets with added demands from the customers. He reiterated the fact that supply chain should be seen as a value adding function rather than a necessary evil which eats into an organisation's profit margins.

He went on to say "the concept of the free movement of goods, people and money is a regional model clearly replicated in other areas and Europe has certainly led the world in developing a seamless logistics

capability" citing that Sri Lanka can use the blueprints set by Europe in its quest to become a logistics hub. Professor Waller was also confident that the present Eurozone crisis was only a blip in the radar and will not affect the growth of the supply chains the world over.

Sustainability of business was cited as a major concern with the recent green wave that has arisen in the world. But Professor Waller was clear that it does not mean "hugging trees". He spoke about giving more power to supply chain managers across organisations to perform in their roles. He presented his findings on how a supply chain expert with good communication and leadership skills can innovate while finding hitherto unseen solutions to add value to the organisation.

Logistics in Retailing: Key for Success

Next up was Ranjit Page, Managing Director & Deputy Chairman of Cargills (Ceylon) PLC, owner of Cargills Food City. In his presentation "'Logistics in Retailing: Key for Success" he spoke about the critical role of logistics, not only in the success of the company, but also in empowering the farming communities across the nation. Mr. Page elaborated on how he embarked on implementing logistics in 1999 to sustain a retail chain that was running with low returns despite the opposition from within the organisation. He highlighted wastage of produce during transport as a black hole that many organisations fail to see. It was this understanding that drove Page and Cargills to collect produce straight from the farmers by establishing collection centres. Cargills did not stop there. They went on to distribute plastic crates among the farming communities to reduce wastage during transportation to the collection centres. Cargills had to face stiff opposition from the established cartels and middlemen in its journey to the top, including the bombing of one of its retail stores, but Page stood true to cause as he felt "Cargills was not depriving anybody".

Cargills has gone beyond being just a retailer to being a manufacturer. According to Page, "no retailer in the world today to my knowledge gets involved in manufacturing, but we have done it in Sri Lanka and through it we have been able to ensure that the wastage that happens along the supply chain between the farmer and the consumer is reduced. We create processing value addition, the value we bring to the farmers and to the consumers". In addition to this the extensive research and development work and the modern information technology utilisation has made Cargills a major player in the Sri Lankan economy. This was further emphasised when Page disclosed that Cargills amounts to 1.7% of the national agricultural produce which can be bought at a static price across 171 stores located across the island republic.

Page made it very clear that Cargills is not a charity, and are concerned about their bottom line. However, Cargills' aim was to earn good profits while doing justice to its suppliers as well as consumers by streamlining its supply chain. Page remarked that the purpose of Cargills is to "help Sri Lankans spend less on food" as he closed his presentation emphasising that the future sustenance of food lies with supply chain management and reduction of wastage.

Success of Air Hub: Need for Integration

G.T. Jayaseelan, Chief Marketing Officer of Sri Lankan Airlines delivered his thoughts on how to make Sri Lanka a regional air hub. He highlighted the

close knit relationship between tourism and the growth of air traffic in Sri Lanka. The government plans to attract 2.5 million tourists by the year 2015 puts in place many challenges to Sri Lankan Airlines, the national carrier, which accounts for approximately half the passenger movement to and from Sri Lanka. He went on to share how Emirates had played a critical role in making Dubai the undisputed aviation hub of the Middle East since its inception in 1985 and showcased that Sri Lankan Airlines could be the catalyst that makes Sri Lanka the undisputed aviation hub in the Indian subcontinent.

Mr. Jayaseelan also remarked that the rapid growth of the Indian and Chinese markets pose a great opportunity for Sri Lanka to become an aviation hub by putting the required infrastructure in place.

Three important ingredients indentified, to attain the hub status were - coordinated schedule, strategic location and good airport facilities. Unlike the success stories in Frankfurt Am Main and London, Sri Lanka wishes to entwine tourism as a key player in becoming an air transport hub. The flight schedules of Sri Lankan Airlines need to be revised so as to allow foreign transit passengers to use Sri Lanka and Sri Lankan as their preferred transit airport and airline. In order to achieve that, Sri Lankan is also planning to work closely with Mihin Lanka, the government owned budget carrier, to facilitate seamless transfers. Sri Lankan has already set into motion an aircraft replacement programme where they are procuring state of the art Airbuses to increase the frequency and destinations covered by the national carrier. Jayaseelan stated that the Bandaranaike International Airport in Colombo should take steps to face the imminent capacity crunch beyond 2011 while praising the construction of the island's second international airport which is being built in the outskirts of Hambantota in the deep south of the country.

ABOVE: Professor Alan Waller OBE, the President of Chartered Institute of Logistics & Transport International (right) delivered the keynote address of the day.

Jayaseelan conceded that Sri Lankan has failed to make significant inroads in the recent increase of passenger numbers at the airport but reiterated that they will try harder. Sri Lanka's strategic location near India, China and Indonesia was cited as a big advantage not

only in becoming a transit point but also as a tourist destination. Sri Lankan is planning a major expansion in 2016 to target all these market segments.

The Chief Marketing Officer also pointed out that effective rail and road linkages are of great importance to making the hub strategy a reality. However when asked whether Sri Lankan would work in tandem with other institutions to make the rail and road links a reality he reiterated that Sri Lankan had decided to stick to its core business for the time being and establish itself as a preferred airline in the aviation industry.

Speed to market

Mahesh Amalean, Chairman of MAS Holdings, a Chemical Engineer who turned the family knitting business into a US$ 970 million revenue per annum entity was the next to preside the lectern. He started off by conceding that he had very little regard for logistics & supply chain and its importance to the business when he began a few decades ago. Amalean went on to share how he stumbled across the fact that logistics could be used for MAS's advantage rather than considering it a necessary evil. Presently MAS Holdings, which is a key supplier of world renowned brands such as Victoria's Secret, Nike, Marks & Spencers and many other iconic fashion brands, considers logistics and supply chain as one of its core competences. The value of logistics and supply chain is such that MAS has managed to stamp a regional & global presence in the recent years, especially by investing in plants in India, China & Bangladesh and offices in London, New York & Hong Kong.

Amalean laid emphasis on the part supply chain & information technology has to play in the success of a modern day organisation and commended the role played by CILT-SL in promoting these aspects among the industry. He elaborated on how MAS considers innovation a key part of its success adding that investing in talent, training & development and R&D being of great importance. That, along with its strong values, has made MAS one of the most sought after employers among the youth of Sri Lanka.

As part of the presentation, Amalean highlighted the company's commitment towards the development of Sri Lanka. He was very proud to share that MAS was planning to launch two production plants in Kilinocchi, in the Northern Province, thereby creating much needed employment among the youth of the war ravished region as well as being a welcome addition to the country's insurgent economy. Amalean also spoke about how MAS stood with Sri Lanka in the darkest hours of the nation, such as the Asian Tsunami in 2004. None of this would have been possible if MAS chose to stick with manufacturing excellence instead of using new concepts such as supply chain to streamline operations and increase profitability.

Amalean revealed how the introduction of MAS Operating System, which was inspired by a visit to Japan to witness the streamlined operations at manufacturing plants, helped them to emerge from the global financial crisis without any major setbacks.

MAS changed its philosophy drastically and used supply chain as a vantage point to build relationships. Amalean remarked "We localised regions, changed our suppliers and took control and managed our product right from the doorstep of our supplier. At the same time we looked at how we can reduce the outward bound speed at which we took our goods to our customers. The customers played a larger role as it was their need, but, we engaged with them to expedite the outward bound service". In addition, MAS introduced a demand pull strategy which further streamlined operations. These measures helped reduce the internal processes at MAS by reducing the average production time of over 50 days to somewhere between 14-18 days. This was a major achievement for MAS as it was a critical success against the Chinese manufacturers who were threatening to eat into MAS's business.

In 2008 MAS had 44 customers, however today they have only 16 customers. By having a narrow market and penetrating deeper into it, MAS has strengthened its ties to its customers and shared a larger percentage of its supplier needs. Amalean reiterated that to be the best in class the organisation needs to constantly adapt to be aligned with the requirements of the customer.

Amalean called for reforms in the Sri Lankan logistics system, including the formation of a new regulatory body to oversee logistics. He observed that the Customs Ordinance of the country needs to be revised to facilitate seamless goods movements. Another point that received the scrutiny of Amalean was the lengthy paperwork required in Sri Lanka to clear or export cargo. This was cited as a major step, if taken, to the benefit of all stakeholders involved in the trade.

Amalean elaborated on Sri Lanka's "tremendous opportunity" to become a regional apparel centre and that MAS was willing to take the initiative given that the necessary groundwork is available.

What is Success?: Logistics in BPOs

After a brief recess for lunch the International Conference recommenced with the presentation of Dr. Arul Sivagananathan, Managing Director of Hayleys Business Solutions International.

Sri Lanka was revealed as one of the growing BPO destinations in the world, but Dr. Sivagananathan was quick to add that Sri Lanka only had a 0.1% share of the global industry that was worth US$ 450 billion in 2010. While Sri Lanka has lagged behind, countries like Philippines and Vietnam have made major strides in increasing their BPO market share. Although Dr. Sivagananathan conceded that BPOs will not create

many millions of jobs, it was cited as an industry which yields high revenues. He went on to remark that BPOs are an area which tends to grow in times of a recession or economic crisis. Dr. Sivagananathan laid down that Sri Lanka will require increased infrastructure, government support and service maturity in order to establish itself as a serious BPO destination.

He also quoted that the lack of the required skills, outside Colombo, was a cause for concern for the industry despite the opportunities. Another key factor for the growth of the industry is high quality IT infrastructure that would facilitate the high speed turnaround time of the industry. The importance of a strong transport infrastructure was also cited as a key requirement for growth as a predominant share of the work is carried out at night where over 50% of the employees are females. Dr. Sivagananathan also pointed out that in other countries BPOs are operated via the internet from the homes of the employees but Sri Lanka is yet to embrace this philosophy which will bring down embedded costs drastically. This stands to give a cost advantage to the Sri Lankan BPO industry if implemented.

Hayleys has recently set up its first BPO centre in Jaffna, the capital of the once war torn Northern Province and urged the government to provide special incentives to take BPOs to places outside of the commercial capital Colombo.

It was pointed out that parallels should be drawn from countries such as China and Philippines where regulation and investment in the IT sector and establishment of IT Parks laid foundation to success. This was suggested as a necessary step to further consolidate the bearing of the local BPO market. Dr. Sivagananathan was optimistic that by carrying out the suggested changes and with a labour law change to facilitate fewer holidays and giving females the freedom to work during night shifts Sri Lanka can go a long way in becoming a BPO hub in the years to come.

Dr. Sivagananathan's presentation opened eyes among many who had not thought of BPOs as an industry that relies heavily on logistics.

What it takes to be the Number One?: The Past and the Future

Prithwijit Maitra, Senior General Manager of Maersk India Cluster Operations was the next on hand to disseminate his knowledge on the challenges in the shipping industry.

Mr Saliya Senanayake, Immediate Past Chairman CIL SL & International VP, Prof Amal Kumarage, Chairman CILT SL with Mr Derek Bell, International VP and delegate from Maldives

Maitra shared the story of how containerisation came into being and how Maersk embraced this change by investing in a major overhaul of its ships, terminals, transport carriages and other equipment as they were quick to determine that containerisation was the future. Today over 90% of bulk cargo is transported through containers and the shipping industry has grown exponentially to accommodate the changes. Services such as E-booking, online tracking and tracing, new commodities such as reefer technology have become game changers. The increasingly larger vessels have also been a pivotal part of the shipping industry's march to reaching economies of scale in operation.

But according to Maitra, a lot needs to be done to streamline operations as he showed growing concern about on-time delivery of containers as surveys have shown that 55% of the shippers think that shipping is the most complex industry to deal with. It was his opinion that Maersk has to continuously rethink their business and add value wherever possible to highlight their belief that customer is king.

Maersk is planning to address this by ensuring cargo is delivered on time to ease business of the customer while also emphasising on environmental performance. Reducing the carbon footprint of its operations is considered to be a major goal of Maersk. Maitra retorted that "reliability is the new rate war" and as an industry only one out of two containers are delivered on time jeopardising the customers' business operations.

So far Maersk has been successful in attaining its goals as it has been constantly ranked at the top of the Drewry's Scheduled Reliability rankings ensuring customer satisfaction. This has resulted in Maersk being the preferred choice of many shippers.

Maitra also shared the innovations that Maersk is contemplating to address these points. In the forefront was the introduction of the new triple E vessels which emit 50% less CO2 per container, consume 35% less fuel per container and an estimated recycle ratio of 90%. Equally important is Slow Steaming which will bring down CO2 emissions by approximately 7% per container.

All in all Maersk is focussed on delivering containers on time and beating environmental expectations while making the placement of a shipping order as easy as buying an airline ticket.

Economic Growth through Sustainable Supply Capability

Last but not least Dr. Lee Styger, MBA Director of the Sydney Business School took over the lectern. He shared his research on supply and balance of payment gaps. He was very critical on establishing a new world economic model while strengthening the grassroots of suppliers. Dr. Styger believed that the supply chain was at the root of any business and hence had a key role to play in the economic development of the world in the years to come.

This concluded what was a very successful International Conference which will no doubt serve as a precursor to the CILT International Conference which is scheduled to be hosted in Colombo, Sri Lanka in a couple of years' time.

www.intlcargo.us

International Cargo

Jim Martin gives an insight into the company

INTERNATIONAL CARGO was formed at the beginning of the new Millennium by a team of seasoned freight professionals who, between them, possess over 110 years of combined experience in the multi-global freight industry. All share the same approach to business ethics, the same positive attitude towards developing and maintaining a range of services designed to ensure customer satisfaction.

Through its U.S. based operation, and through an independent worldwide network of agents and partners, INTERNATIONAL CARGO offers a multitude of logistics solutions.

- Export
- Import
- Air
- Ocean
- Overland
- Customs Brokerage
- Warehousing
- Documentation
- Insurance

The options are many and varied.

Questions asked by the Warehouse International editorial team:

Tell us Jim what is your role in the company.
PARTNER IN THE BUSINESS , SALES AND MARKETING IS THE ROLE

And your background in the freight sector?
28 YEARS IN THE GAME, SPENT 26 YEARS IN USA PROMOTING BUSINESS BETWEEN US / UK

What specialist services do International Cargo offer its clients?
DDU/PACKING/WAREHOUSE/ PROJECT WORK/WE THINK OUTSIDE THE BOX ALL THE TIME, DOMESTIC TRUCKIN / GOV PROJECTS / SERVICE ALL THE US BASES EACH DAY/BIG INTO VEHICLES / TRUCK AND CARS .

From your experience what should a customer expect from its logistics/ freight supplier?
ONE PHONE CALL IT DOES IT ALL, DONT HAVE TO WORRY , WE WILL TAKE CARE OF EVERTHING: '' YOU DO WHAT YOU DO AND WE DO WHAT WE DO''

How long how has International Cargo's sister company, Fast Track Logistics, been operating and what are its specialist areas?
8 YEARS SPECIALSIE IN FTL/GOV AUTIONS/ PACKING AND SHIPPING

What future challenges can you see for the sector and how are International Cargo preparing for these?
WE ARE SMALL AND FLEXIBLE ENOUGH TO BE ABLE TO MOVE WITH THE TIMES, WE WILL DO ANYTHING TO GET OUR CUSTOMERS TRUST

INTERNATIONAL CARGO can also offer, through its sister company, Fast Track Logistics, domestic US transportation services, go to www.fasttracklogistics.net

With the latest financial reporting season upon us, Analytiqa's **Mark O'Bornick** has taken a look at the results of some of the world's leading 3PLs to identify the latest trends and performance issues in their contract logistics operations

Mixed results

Challenging market conditions in France led to margin pressure at Kuehne + Nagel

In the first nine months 2011, the Kuehne + Nagel Group delivered stable results despite divergent economic conditions and slowing market growth. Net earnings improved by 1.1% (currency adjusted: by 15.6%) whilst EBITDA was 2.4% below (currency adjusted: 11.5%) the figure of the previous year's period. Turnover decreased by 3.8% (currency adjusted: increased by 10.1%) to CHF14,598.0 million.

In Contract Logistics, net invoiced turnover declined by 5.7% (currency adjusted: increased by 7.9%). The focal point of the business unit's strategy has been the expansion of services for multinational customers and the consolidation at strategic logistics hubs. The integration of contract logistics services into end-to-end solutions has been an integral part of this strategic approach. The challenging market conditions in France led to margin pressure, restructuring measures and a negative impact on results. Compared with the previous year's period, EBITDA in contract logistics was reduced by 11.5%; currency adjusted it remained stable. The EBITDA margin decreased from 4.1 to 3.7%.

Continued upward trends in logistics at Norbert Dentressangle

Q3 at Norbert Dentressangle saw the Transport and Logistics businesses demonstrating satisfactory organic growth, with the Freight Forwarding business on track to generate euro 100.0 million in annual revenue. The Company's operating margin continues to improve, with a strong like-for-like performance. In the first nine months of 2011, Norbert Dentressangle's consolidated revenue totalled €2,640.0 million, up 24.9% on a published basis and 6.1% on a like-for-like basis.

Logistics revenue grew 25.8% on a published basis, to reach euro1,155.0 million, thanks to the integration of TDG, which continued to increase its contribution to Norbert Dentressangle's revenue stream following its consolidation into the Group as of 1 April 2011. On a like-for-like basis, logistics revenue at Norbert Dentressangle increased by 4.1% in the first nine months of 2011, with a continued uptrend reported notably in the UK, Norbert Dentressangle's leading logistics market. Q3 Logistics revenues grew 33.2% on the same period of 2010, to reach euro424.0 million, representing 3.8% organic growth.

Higher volumes and new business boost operating revenue at Ryder

In the US, Ryder System, Inc. has reported Q3 earnings from continuing operations of US$56.9 million, up 44.0% from the year-earlier period. Total revenue for Q3, 2011 was US$1.57 billion, up 19.0%, reflecting the benefit of acquisitions and organic growth.

In the Supply Chain Solutions (SCS) business segment, Q3, 2011 total revenue was US$406.1 million, up 26.0% from the comparable period in 2010. Operating revenue (revenue excluding subcontracted transportation) was US$326.8 million, up 26.0% compared with the same quarter a year ago. SCS total revenue and operating revenue comparisons benefited from the acquisition of Total Logistic Control (TLC) in December of 2010. Operating revenue also benefited from higher volumes and new business.

The SCS business segment's pre-tax earnings in the third quarter of 2011 were US$22.4 million, up 47.0% from the same quarter of 2010. The improvement was driven by the TLC acquisition, higher volumes and new business, partially offset by increased compensation-related expenses.

DSV sees excess warehouse capacity contributing to fierce price competition

For the nine month period to 30 September 2011, DSV reported a 4.2% increase in revenue, reaching DKK32,787.0 million. Operating profit before special items (EBITA) increased 12.1%, corresponding to an EBITA margin of 5.6% (2010: 5.2%).

In the Solutions division (contract logistics), operating profit before special items increased 5.1% in 9M, 2011 through organic growth. Increased demand for warehouse solutions continued, but excess capacity still caused fierce price competition. Revenue in the division grew by 2.1% over the same period of 2010 to reach

DKK3,738.0 million (DKK3,434.0 million excluding intercompany revenue), as the EBITA margin reached 5.5% in 9M, 2011, against 5.3% in 9M, 2010.

Q3 saw good and stable results in the Solutions division, with particularly strong performances from Benelux, Italy and Sweden. The division is rolling out a new IT platform which will increase productivity and efficiency and it also has a strong pipeline of customers, especially in the pharmaceuticals sector in the Benelux and France, and the electronics sector in the Benelux region.

Asia-Pacific, Life Sciences & Healthcare and Automotive drive growth at DHL Supply Chain

Deutsche Post DHL boosted revenues and significantly improved its profitability in Q3, 2011. Compared with the previous year, Group revenues increased by 2.5% to euro13.1 billion between July and September. All of the Group's divisions contributed to the Company's strong performance:

At euro3.3 billion, revenues produced by the SUPPLY CHAIN division during Q3, 2011 remained at last year's level. However, this figure reflects the division's actual operating performance only to a limited extent. Adjusted for exchange-rate and consolidation effects, such as the divestment of a subsidiary in the US that was not part of the division's core business, revenues generated by the SUPPLY CHAIN division actually rose by 6.2% during Q3.

Growth was fuelled in particular by significant growth in the Asia-Pacific region as well as the Life Sciences & Healthcare and Automotive sectors. At euro280.0 million, the volume of new contracts concluded with new and existing customers remained very high. The margin gains achieved in these new contracts also underscored the division's ongoing successful performance. A further demonstration of this success was the steep rise in operating earnings. EBIT rose from euro83.0 million in Q3, 2010 to euro99.0 million in 2011, reflecting an increase of nearly 20.0%.

ABOVE: Wincanton Group's transformation from a pan-European supply chain solution provider to a UK & Ireland focused business is now well underway.

Contract Logistics boosts Q3 results at CEVA

CEVA Logistics has reported Q3, 2011 revenue of euro1.76 billion and EBITDA of euro86.0 million, up year-on-year by 1.2% and 5.8% respectively, at constant exchange rates. A good performance in Contract Logistics was partly offset by lower rates and volumes in Freight Management. Q3 saw continued good progress in Contract Logistics (CL), which grew revenue 2.5%

year-on-year. CEVA's EBITDA margin increased year-on-year from 4.7% to 4.9%. This was driven particularly by improvements in leveraging the Company's Freight Management network and in improving CL contracts.

With external markets remaining volatile, however, CEVA expects the uncertainty of the last few months to continue.

High price of diesel impacts Contract logistics earnings at Logwin

In spite of the slowdown in economic momentum, the Logwin Group generated sales of euro1,009.2 million in the first nine months of the year, maintaining the same level as the previous year. Operating income (EBIT) increased by 23.7% to euro23.8 million. The Company's Solutions business segment generated sales of euro542.7 million in the first nine months of 2011, exceeding the previous year's figure by 5.5%. A major contribution was made by the special networks operating under Transport and Retail Networks, as well as General Cargo activities. The latter benefited in particular from continued growth in the automotive sector. Contract logistics activities showed satisfactory development primarily due to the well-filled order books of customers in industry-related fields. However, continuing high capacity-related freight rates and the continuing high price of diesel had a negative effect on earnings. Operating income (EBIT) amounted to euro7.7 million, which was slightly below the figure for the previous year (2010: euro8.1 million). The figure for the comparative period in 2010, however, still included proceeds from the sale of fringe activities in the amount of euro0.7 million. The 9M operating margin fell to 1.4%, from 1.6% in the same period of 2010.

ABOVE: Norbert Dentressangle's operating margin continues to improve, with a strong like-for-like performance.

Wincanton's transformation begins

Wincanton has announced its results for the six months to 30 September 2011. Revenue at its continuing operations was £625.4 million, down 8.1% against last year. Underlying operating profit at the continuing operations was £22.3 million, down 11.2% representing a decrease of £2.8 million compared with last year. This resulted in overall margins of 3.6%, in line with the equivalent six months last year (2010: 3.7%) and the 3.5% for the full year ended March 2011. The total operating result for the period after exceptionals and amortisation of acquired intangibles of £5.0 million (2010: £5.5 million) was a loss of £66.5 million (2010: £20.6 million profit). After net

financing charges of £9.0 million (2010: £8.9 million) the profit before tax for the year is a loss of £75.5 million (2010: £11.7 million profit).

The Group's transformation from a pan-European supply chain solution provider to a UK & Ireland focused business is now well underway. The Group's strategy is to achieve a clear leadership position in the UK & Ireland market based on expertise in solution design and operational capabilities in warehousing, multi-modal transport and specialist services across a broad range of market sectors such as retail, defence, consumer goods, construction, milk and energy.

The major variances in the UK & Ireland half year's performance have been within Wincanton's Foodservice business and as a result of the disposal of Recycling in August 2010. Whilst Wincanton made good progress in winning and renewing business, these developments were offset by reduced volumes in the Container logistics sector and by two retail customers going into administration.

In July 2011, Wincanton completed the sale of the Netherlands business and in August 2011 it completed the sales of the German Road operations and of the businesses in Central & Eastern Europe. It announced the proposed sale of its remaining Mainland European operations to Rhenus, a transaction scheduled to complete later this year. Wincanton is also undertaking a phased withdrawal from its Foodservice business, which has been loss making for some time. On completion of these two remaining steps, it will have exited from all of the sub-scale or underperforming areas of its business.

The greatest challenge in terms of achieving profitable growth lies in areas of the contract logistics business such as the traditional retail and consumer goods contracts and the more mature milk and fuel tanker operations. At the extreme, the basic open book warehouse contract is a commodity service and margins have declined year on year. While these services continue to be an important part of Wincanton's business mix, it will focus on driving margin improvements by adding value through additional services, streamlining customers' supply chains or providing systems capabilities that will help them manage challenges presented by multi-channel retailing.

Elsewhere.... some of the industry's larger 3PLs presented a mixed set of results, with revenues and profits, up or down, depending on where you look. **APL Logistics** reported Q3 revenue of US$333.0 million, up 10.0% from a year ago. Q3 Core EBIT was US$16.0 million, down 11.0% from a year ago. Year-to-date in 2011, APL Logistics has reported revenue of US$1.0 billion, up 15.0% from 2010. The Company achieved its highest average weekly revenue ever during Q3, but at the same time, it is actively managing costs as a reflection of uncertain economic conditions.

At **Panalpina**, Logistics net forwarding revenues fell 4.5% in Q3, 2011 to CHF210.0 million and in the 9M period increased by 2.6% to reach CHF667.0 million. Gross profits fell 8.0% in Q3, to CHF81.0 million and decreased by 3.3% in the 9M period, to CHF261.0 million.

Year-to-date, **Damco's** Supply chain management volumes were 3.0% lower than in the same period in 2010 due to a relatively weak consumer demand in North America and Europe.

Menlo Worldwide Logistics sustained its quarterly earnings momentum. Stable customer volumes and good cost controls enabled Menlo to deliver growth in net revenues and profits, as demand for high-value contract logistics and supply chain management services continued to gain traction. For Q3, 2011, Menlo Worldwide Logistics reported revenue of US$417.1 million, an increase of 12.7% from the prior year third-quarter. The quarter benefited from increased revenue in both transportation management and warehouse management services. Net revenue reached US$154.7 million, a 9.9% increase from the previous year third quarter. Operating income of US$12.7 million was compared to an operating loss of US$6.3 million in Q3 of last year.


we were born in Italy to go
beyond the sky
ARGOL AIR
LOGISTICS
ITALIAN LOGISTIC AWARD
FOR INNOVATIVE APPROACH
IN THE AIRFREIGHT BUSINESS
www.argolairlogistics.com

Dave Bull, business development manager at Dematic, explains how the profile of automation is changing as solutions offer greater accessibility, flexibility and resilience as well as a faster return on investment

Automation's changing profile

Say the word 'Automation' and many in the logistics world will immediately think of Automated Storage and Retrieval Systems (ASRS). This established technology allows for dense storage of both pallets via automated stacker cranes allowing heights of up to 40 metres and for smaller unit loads, such as totes or full cases, in miniload and multi-shuttle systems.

However the profile of automation is changing, particularly in retail. With most retailers now having some form of Internet business many distribution centres now serve multichannel retail operations supplying stores and internet orders – both to the customer's home and as a 'click and collect' operation, where the online order is being picked up in the store.

So technologies that are likely to have an impact on automated warehousing over the next couple of years will be those that can provide solutions for maintaining high customer service levels in multichannel operations – particularly those that have increased their e-commerce volumes rapidly. These technologies include multi-shuttle systems. Although not new these systems are still very much an emerging technology and the uses for which they are deployed are constantly evolving. Very much interlinked with shuttle technology are

While traditionally picking has been the most labour intensive activity within a warehouse, and has seen the biggest efficiency gains through capital investment in automation, other areas are emerging that can give a good ROI as automation technology becomes more flexible and accessible. The packing process is one such area ripe for improvement, especially within e-commerce operations

the very high productivity 'Goods to Person (GTP) stations', which allow picking rates in excess of 800 lines per hour per operator. Both of these technologies are ideally suited to single item picking and therefore Internet retailing.

While traditionally picking has been the most labour intensive activity within a warehouse, and has seen the biggest efficiency gains through capital investment in automation, other areas are emerging that can give a good ROI as automation technology becomes more flexible and accessible. The packing process is one such area ripe for improvement, especially within e-commerce operations.

Automation is also changing its profile in terms of scale. Improved accessibility to automation means that the solution is no longer synonymous with large investment and systems integration. Entry level technologies such as voice picking or laser guided trucks can provide an almost instant win and a base from which customers can then ramp up the level of automation over the years as their business grows. These 'pockets' of automation, often referred to as 'mechanisation' can provide specific, immediate and obvious benefits such as a simple transport conveyor linking two processes or a standalone ASRS store for minimising the storage footprint. It has become essential for a systems integrator to offer these less complex systems, which are more attractive on a price point, in addition to having a capability to provide a fully integrated automated system.

Dematic, for example, is well known as a large systems integrator but its products division, which offers customers simple automated solutions such as voice, conveying and pick to light, is thriving. These solutions can be implemented without major upheaval and require only a relatively small investment. If you can tell a customer that they will get their investment back in 12 months time and then reap pure profit, they will see opting for the automated route as less of a challenge.

These solutions also present an entry level develop-

"It is important for customers to be able to speak through their account manager to somebody involved in modernisation and upgrades to discuss ideas and costs for such enquiries. By putting together a concept and costings and then explaining and demonstrating its features, benefits and the return on investment, they can help customers remove obsolescence and refurbish equipment to extend the life of their current systems to ensure they continue to meet business objectives thus ensuring that their automated solution's profile does not resemble that of a white elephant."

Dave Bull, Dematic (left)

ment route for small companies on a growth path, allowing them to start with a relatively small investment in automation, such as voice picking, then graduate to Warehouse Management Software before stepping up to a small conveyor system.

When investing in any kind of automation it is vital to look at the total cost of ownership rather than the initial purchase price. The full lifecycle costs should be laid out in detail, including factors, such as power consumption, which are critical to ensure a system's 'green' credentials are fully understood.

To give the customer full visibility of the full life cycle cost of a system most service contracts are now negotiated as part of the main bid process. If you are investing a great deal of money in automation to improve material flows it is absolutely vital that downtime is minimised and peak performance maintained so that the systems deliver their full productivity, accuracy and cost reduction benefits and continue to do so well beyond the payback period. Today's automated systems are hugely reliable yet any mechanised system needs to be regularly maintained and serviced to deliver optimal performance and uptime.

Automated warehousing systems will play a central role in the support of increasingly complex supply chains and will also form the foundation for future development. This means that making price-based decisions for short term savings by selecting automated solutions with reduced maintenance and service packages will only increase the risk of extended downtime and decreased productivity. Ultimately this will result in greater costs over the long term. Looking back just five years ago few companies considered the customer service side of their automated system investment. Today's increasingly competitive supply chains however have banished complacency and customers are taking a more holistic approach and so customer service for automation is becoming the key differentiator.

Successful businesses do not stand still and keeping up with growth-based change means keeping an eye on the future - particularly for a customer that has stepped on the first rung of ladder with their investment in simple automation. In a further example of how automation has developed, a systems provider should now continue to work in partnership with its client and anticipate any ongoing system and training needs as well as supporting any requests for upgrades and modernisation. This may mean updating software or controls; it could see individual components or modules being replaced or upgraded; it might also require new solutions - for example, a customer having started in the shallow end of automation now needs to put a further 1000 pallets through its warehouse or wishes to reduce the number of staff required for picking.

It is important for customers to be able to speak through their account manager to somebody involved in modernisation and upgrades to discuss ideas and costs for such enquiries. By putting together a concept and costings and then explaining and demonstrating its features, benefits and the return on investment, they can help customers remove obsolescence and refurbish equipment to extend the life of their current systems to ensure they continue to meet business objectives thus ensuring that their automated solution's profile does not resemble that of a white elephant.

Warehouse automation frequently fails to live up to expectations. However, **Andrew Robinson** of Unipart Expert Practices (UEP) argues this should never arise if the correct approach is taken and a strict methodology applied - one that takes an 'end-to-end' view of the supply chain.

How to ensure payback on automation

Implementing an automated warehouse is a complex, expensive and sometimes risky venture. According to a recent survey conducted by Cranfield University into 27 warehouse automation projects, 'there are real concerns about disruption to the ongoing operation in the short-term and the degree of future flexibility in the longer-term' (1)

An investment in automation - whether it is a storage and retrieval system, sortation project, order forwarding process or, for that matter, any other activity - may not necessarily slash costs, eliminate bottlenecks or boost capacity in the ways expected. Indeed, quite the opposite can happen.

The resultant soul searching and identification of a suitable scapegoat is a painful process for all. So, are there some general rules on how this can all be avoided? Can you make sure your automation project pays-back in an acceptable timescale and delivers what you expect?

The first question to ask - and the one most frequently forgotten - is 'do I really need to automate the process?' Baker and Halim (1) cite three key motivating factors for implementing automation:

- To accommodate growth
- To reduce operating costs
- To improve customer service

However, none of these reasons necessarily require an automated solution. Significant

improvements in all three can frequently be achieved by redesigning existing business processes.

For a given, repeatable, task applying automation can typically achieve higher levels of productivity than a manual solution. It is this productivity gain that normally sits at the heart of any justification for a piece of automated equipment. The constraints of a manual process - be it the speed of people, space needed to complete the work, presentation of material to the operative, or removal of work-in-progress - means the manual process usually has a finite capacity. By adding a level of automation the intention is to remove that constraint; either fewer things happen or those things that happen do so faster and with greater reliability. However, as Baker and Halim point out, this may be at the cost of flexibility in the long term.

There are two steps to ensuring payback on an automation project. The first is to see if an improvement could be made to the current manual process that alleviates the constraint without the need for investment in automation. The second is to invest in a way that ensures productivity levels go up in the way intended. Let us take each of these steps in turn. Improving manual processes As any 'lean' practitioner will tell you, a large proportion of the activity involved in a process is non value adding. By analysing what happens in the operation and gaining an in-depth understanding of what needs to be done, as opposed to what actually happens, the elements that are not required can be identified. Typically these fall into the categories of 'The seven wastes': Transportation, Inventory, Motion, Waiting, Over processing, Over production and Defects.

These are sometimes remembered by the acronym TIM WOOD (or WOODE if environmental waste is added).

By tackling these wastes in a systematic way, it is usually possible to increase capacity, reduce costs and improve flexibility. Making a heavy investment in automation and then simply continuing to do the same wasteful activities but at a faster rate is not money well

spent. There is no benefit in financing non value adding activities. If the manual process has been fully investigated and action taken to remove waste, there will be a sound basis against which to measure the expected benefits of automation.

However, by improving the current (manual) performance, capital investment in automation will be less attractive. But, it does ensure that the investment appraisal is against a sound base and increases the probability of achieving the benefits identified in the business case. So if, having explored the manual processes, you are still of the opinion that automation offers the answer, you can now proceed.

Getting the full picture

The automated systems supplier has confirmed the capacity and given you run rates. These have been reduced for start-ups, changeovers and down time. You have all sorts of stats and specs and have gone to see and touch some of the kit in a working environment. You have no doubt that it will do 'what it says on the tin'. You have even explored how the machinery is going to remove travel or other waste, making your processes leaner. What can possibly stand in the way of that pat on the back for a job well done as the benefits start rolling in? Well, the first port of call, as with the manual improvements, is to understand the current processes. Are there any complexities that need unearthing sooner rather than later? It might be that what appears to be a standard repeatable process that lends itself to automation has all sorts of exceptions and variations. It may be that, 'that leaflet to be included with the order shouldn't go with the exports, and certainly not to that major customer, who needs to have his own, different shaped insert instead'.

Other questions need to be asked too. Are there occasionally products to be handled that fall outside the capability of the machinery? Is that barcode always on the top, except for the ones from supplier 'X', who only charges half the amount of the other suppliers but slaps the barcode on the side? While on the subject of variation, are the volumes to be handled subject to variation across the week or year? If so, the automation will need to cope with peak, even if this means it is underutilised during the remainder of the year. Furthermore, are the current processes really the ones to be understood? Nothing ever stands still and the automated equipment is going to be used in the future, not today. What if volumes rocket and the machinery can not cope with demand? Can additional units be bolted on or is it a matter of throwing it away and starting again? And what happens if the product range changes to items that are bigger or smaller, or that are packaged differently? It may be that the profile of work simply changes, so orders arriving in peak need to be processed and out-the-door more quickly than the machinery is capable of. No automated solution can deal with any and every eventuality, but it is necessary to explore likely future business changes and the impact these would have. It would be a bad decision to invest in new equipment only to find that in three years' time it can only handle a small percentage of the through-put.

Understanding the system interfaces

This new piece of equipment will need to fit with other processes upstream and downstream. When looking at the solution, you will need to understand how these systems will interface, in terms of people, product and data. Does the machinery need a steady feed of materials or is there a buffer? Is additional software needed to get the automation's software to talk to your warehouse management system (WMS)?

When understanding the new world that will exist after investment, the processes sitting either side of the new operation are critical to calculating the productivity of the whole. One of these may well become the new constraint on capacity once the current constraint is eliminated by automation. Unless you know how these processes are going to behave there may be surprises regarding payback.

Although you can never know everything about how the automated system will work in your operation, there are some obvious ways to reduce the risk. Are there reference sites that the automation supplier can show you? How similar is this to your own operation? If you are leading the way and there is no existing instance of the technology being used as you intend you may want to consider simulation. Simulation software can go a long way to replicating the expected complexities of the operation and can verify likely productivity levels. It can also help in scenario planning. What if volumes stay the same but order size halves? What if we have to start picking singles rather than cases? What if a new product range is introduced? What if a customer wants some form of customisation? A simulation can test the solution's sensitivity to such changes.

So you have a clear understanding of how the automation is going to be used, what else will be happening around it, how the operation will cope with exceptions and business changes. You have done everything to ensure that the automation is highly productive, well integrated and flexible. Are there any unexpected costs that might be incurred? Have you factored in those costs beyond the purchase price that you might expect to be associated with a project of this size? For example, additional maintenance, purchasing of spares or training of additional staff.

Plan for disruption

Inevitably, there will be disruption to the existing operation before you are up and running. There will be a period of testing and bedding in of new processes during which productivity is likely to fall rather than rise. Additional space may be needed during the implementation. And there are changes to running costs to consider. Will you be using more or less consumables?

Finally, if the main aim was to save money through higher productivity, this is normally only realised once people have been deployed elsewhere, left through natural wastage or are made redundant. If the first two are not options, then the costs of redundancy need to be built into the payback calculation. The new operation may require a workforce with different skills, such as maintenance engineers or software programmers, and these people will need to be recruited and trained.

Once you have a full understanding of both one-off and on-going costs associated with the change you are then in a position to get the agreement of the decision makers.

A controlled step

There are strong arguments for undertaking a move to automation. However concerns over the risks of what is often considered a leap into the unknown can hold back investment. To make the change less of a leap and more of a controlled step, a systematic approach is called for, summarised in the diagram (left).

First understand the process, then identify the bottlenecks to that process, assess what can be improved manually before evaluating the options for automation. As part of that evaluation ensure you have a full picture of the costs and an awareness of what will make the investment redundant. In a world where nothing stays still for long this might be range, volumes, customer expectations or a host of other variables.

While certainty is never achievable some risks can be mitigated through flexibility, phased investment and modular designs. By working through the options objectively and systematically the business can make a rational decision over the expected payback on the investment.

Andrew Robinson is a Senior Consultant at Unipart Expert Practices

References

(1) Baker, Peter and Halim, Zaheed, Supply Chain Management: An international journal. Volume 12, Number 2, 2007

(2) Supply Chain Consultancy White Paper 4 of4

Current Process Automated Solution Analyse Understand Improve Process improvement without automation Assess options Evaluate range of scenarios select supplier plan implementation Approach to ensuring payback on automation

Warehouse management systems turn businesses around

Mark O'Connell, Product Manager for CargoWise, considers the benefits that an intergated warehouse management system can bring to a business

In these challenging economic times logistics operators like all businesses are under pressure to do more with less. Many have in fact mothballed facilities altogether. Personnel costs in particular are one area where warehouse operators are under pressure to economise.

A robust warehouse management system can deliver the economies of scale and streamline the process to help companies improve, or at the very least, improve their bottom line.

Earlier this year the UK Warehousing Association warned that the industry faces a looming skills shortage. To meet this challenge £3.25 million has been allocated through the Skills Funding Agency to the National Skills Academy for Logistics. However the logistics industry must do more to promote the image of logistics as a skilled profession that involves working with leading edge technology. A recent survey of third-party logistics operators found that Europe and the Asia-Pacific region are particularly affected by a shortage of both operational and managerial talent.

Information technology, already an integral component of most supply chain processes, will become a critical aspect of all logistics activity as the industry is compelled to do more with fewer albeit higher-skilled personnel.

Even when the global economy revives, the "lean logistics" business model embraced in the wake of the downturn as means of self-preservation will likely continue a key strategy for minimising risk on the one hand whilst maximising ROI on the other. The CEO of a major logistics service provider recently commented that the industry has become "leaner and more adaptive" in just the last few years and better positioned to take a proactive approach to innovation which would provide the basis for future growth. This has been particularly visible at Small-to-Medium Enterprise level where smaller operations have taken the opportunity to outmanoeuvre larger competition.

Lean processes

Indeed, the adoption of lean processes by supply chain users such as manufacturers and retailers virtually obligates the providers of supply chain services to maintain a similarly trim operational profile. For all participants in the supply chain the key objectives of lean logistics are waste reduction and minimisation of future expenditure. Both of these objectives are attainable through cost-effective technological solutions.

Warehouses and distribution centres are more than just a way point between different stages of the supply chain, which we often speak of as if it were a neat linear flow from sender to receiver. But the truth of course is that it is more like a network.

Warehouses and DCs are the nodes in this network which prevent it from descending into chaos. Multiple streams of cargo flow converge on these nodes where they are disentangled and allowed to diverge from each other heading in the right direction.

It is not a job for just anybody, an attentive mind and an organised approach to work is required. This makes the task all the more difficult to manage as the number of eyes, and minds, on the job is reduced. Worse, the trend is for logistics operations to become more rather than less complex.

Increasingly, technology is making up for the missing hands, eyes, and to some extent minds on the warehouse floor. In much of the developed world at least, innovations as simple as bar codes to more sophisticated RFID mobile devices have long taken over the work

once done by pen and paper whilst automated material handling and more recently autonomous robotic systems have quite literally been taking much of the leg work out of picker's jobs.

In April this year, UK retailer John Lewis reported significant growth in its online sales thanks in no small part to efficiencies achieved through the automation of its main distribution centre in Milton Keynes.

Though battery powered minions navigating amongst the racks and pallets like the "Scutters" from Red Dwarf is a visually impressive demonstration of the advance of logistics technology, the most significant advances as a far as the industry is concerned are less tangible. An effective Warehouse Management System (WMS) is vital to the functioning of a modern logistics centre. A lean logistics strategy obligates logistics services providers to place more and more reliance on technological approaches to optimising their processes. The imperative to minimise waste and inefficiency demands a single picture of both in-bound and out-bound logistics. Thus in the context of market conditions that make a lean logistics strategy all but obligatory, an integrated warehouse management system looks less a luxury than an asset without which the physical infrastructure itself is commercially moribund.

The four major benefits of an integrated WMS are:

(1) Client Visibility.
Freight often moves through a network of one or many supply chains where the warehouse serves as just one component of the network. Having an integrated WMS allows clients complete visibility of their freight as it moves from one entity to the next; for example from Warehouse to Forwarding.

(2) Planning.
If the Warehouse has visibility of pending receipts, for example through access to an International Forwarding Purchase Order module, the warehouse can better plan receiving resources and space for more efficient processing.

(3) Lower cost to implement and train.
With a single system approach Warehouses don't need to externally source essential or value add modules for functions such as: Accounting, Workflow, Document Management and Customer Relations Management. They do not need to learn, run and manage a myriad of different systems often requiring different hardware and configurations. This saves considerable costs in unnecessary IT overheads such as training and hardware.

(4) Departments can be centralised for the Logistics Service Provider.
You no longer need a separate department for Warehouse Customer Service, data entry or Sales. These functions can be consolidated with a single system approach. This allows for one Customer Service or Data Entry department using one system with visibility to all the information they need to make decisions for the good of the entire business.

Pick the right system

It is of course important to pick the WMS solution that is right for your business. Like any procurement decision it should be taken at the boardroom level, able to grow with you as your business enters new markets and the challenges that come with it. Most importantly, those who will be using the system must be trained to extract the maximum value from it.

The ROI from a well-chosen and implemented WMS can be dramatic and swift. One recent UK adopter of

Photo courtesy of iForce

the CargoWise ediEnterprise solution, which included as part of a scaled modular package the ediWarehouseManager module, increased the volume of material handled in its pick and pack warehouse so dramatically that overall turn-overs rose 25% in less than a year after the system went live.

Such gains are not just the fruit of additional business that can be taken on when all of a company's resources are mobilised. Integrated WMS's can generate significant savings from reduced handling errors with the reduction in time and financial penalties that follow.

WMSs however are no longer just a means of tracking inventory. They have evolved into sophisticated management tools capable of tracking variables such as the time taken to complete tasks and utilisation of resources. They can even play a role in tailoring services to particular clients, demonstrating not only flexibility in their own role but also the ability to give that flexibility to any part of the business.

Although a WMS is an integral part a logistics centres core infrastructure, its non-physical nature means procurement options are flexible. In fact "procurement" in the traditional sense might not even be necessary. What if it were possible to enjoy the benefits without the overheads and need to sustain non-core technological competencies? With the arrival of Hosted solutions such as those provided by CargoWise this is already possible.

A ready solution for the challenges ahead

Recent years have seen difficult times for businesses of all kinds, but for the logistics industry in particular there has been a watershed moment. To thrive in the coming decade the industry will need to be as dynamic and agile as it has ever been. This means taking leadership in fostering the talent pool and proactively seeking out the most effective technology to enable that talent to deliver value to the business.

CargoWise stands ready to meet the WMS requirements of the industry now and into the future. The Enterprise solution with its WarehouseManager module can provide, if needed, not just an integrated WMS but the whole system with which it is integrated.

New focus on logistics at CeBIT

Hannover. As the world's most important event for the digital economy, CeBIT is set to focus more strongly than previously on the topic of logistics. In future, the "Logistics IT" platform in Hall 5 will offer manufacturers of logistics software new presentation opportunities in the form of a group display and a forum.

"Logistics services are based on highly dynamic and complex processes – the use of powerful IT solutions is crucial for enhancing efficiency and, most importantly, for making new and intelligent solutions available to users without delay. In the past, many providers of logistics systems have exhibited at CeMAT, which takes place every three years. That's too long for such a fast-moving industry. Thanks to the professional assistance of the CeMAT organizers, we're delighted that we can now offer these providers an extra annual platform," reports Frank Pörschmann, responsible for CeBIT at Deutsche Messe AG.

Exhibitors will include the software firm PSI Logistics from Berlin. Its Managing Director, Wolfgang Albrecht, is one of the driving forces behind the new logistics IT platform: "As software manufacturers with short innovation cycles, we need another trade show alongside CeMAT at which we and other leading suppliers can exhibit new products on an annual basis. CeBIT is ideal for this purpose. It's where we can meet IT decision-makers from the industries that are relevant to us."

CeBIT already uses the ERP-AREA, the Auto-ID/RFID Forum & Solutions Park and the Cloud Computing World platforms to present topics from the logistics industry.

The Logistics IT group display and the forum will be organized by Deutsche Messe AG's CeMAT team. "Looking ahead to CeBIT, we will make use of our proven industry know-how and bring about synergies that will benefit the exhibiting companies," confirms Pörschmann.

www.cebit.de

Competing as a Container Gateway to North America

Despite the recent economic downturn North America will remain the major market destination of products from low cost manufacturing countries in Asia for decades to come **Garland Chow**, PhD, considers key socio-economic factors and business trends affecting the US supply chain

North America will remain the major market destination of products from low cost manufacturing countries in Asia for decades to come. Despite the recent economic downturn, every forecast predicts trade from Asia to resume its growth. The role and competitiveness of Port Metro Vancouver (PMV) to efficiently and effectively enable Asian products to reach their final destination in North America is one aspect of Port Metro 2050. An understanding of key socio-economic factors and business trends affecting off shore trade and the supply chain helps build scenarios for strategic planning.

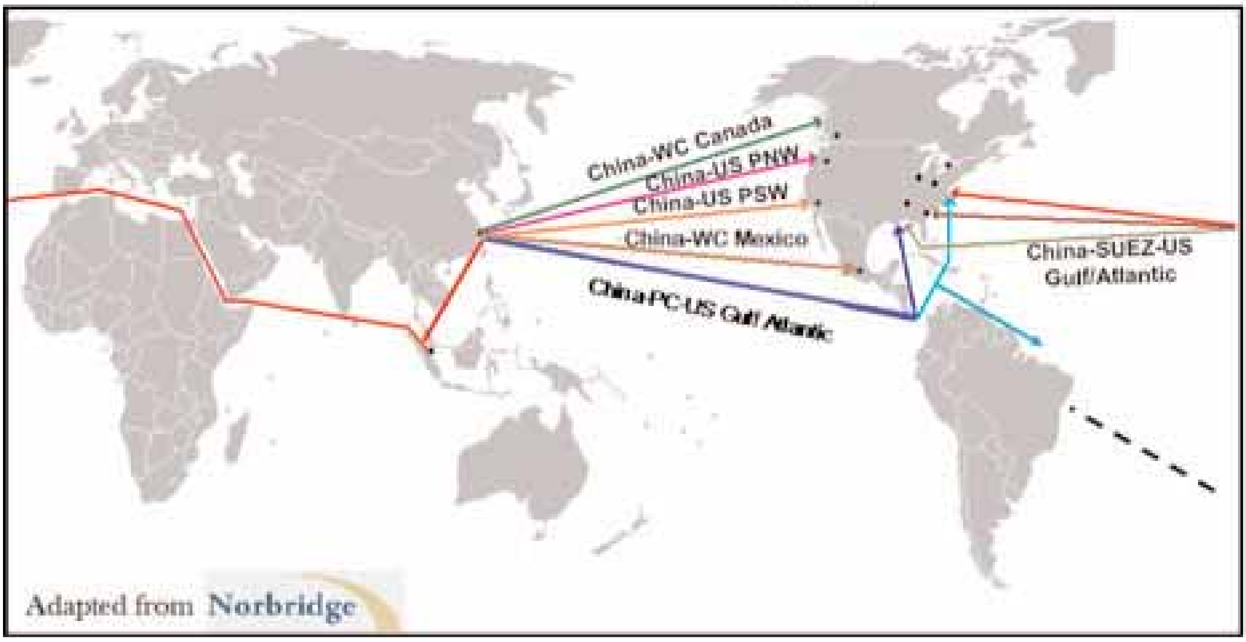
PMV competes as a gateway with other North American commercial ports in trans-Pacific trade lanes. To more accurately categorize trade patterns and the associated logistics requirements, Asia should be defined as being comprised of three distinct zones of production: North Asia, South East Asia and South Asia. On the North American side, commercial and supply relations are best distinguished regionally according to geographic sub-sections that include: Northern, Eastern, Southern, Western and Central regions.

Competitive Position of Pacific Northwest (PNW) Ports and PMV

The PNW ports of Seattle, Tacoma (U.S.) and Vancouver (Canada) are geographically closer than LA/LB, to North Asia, the origin of the majority of Asia's exports. The PNW ports have a sizeable local market for Asian produced goods, possess deep water port capacity, and are reasonably close to north and central U.S. Ocean rates and schedules do not always reflect the shorter distance to the PNW ports as more vessels can completely load or unload in LA/LB resulting in more frequent direct service. In addition, negotiated rates for large shippers including freight forwarders are often equalized across the west coast ports. The PNW ports are a good choice for time sensitive freight moving eastward to destinations in the U.S north central (Chicago) and U.S. south Central (Memphis). Some of the growth in the PNW ports can be attributed to shippers seeking alternatives to the chronic congestion in LA/LB. But as container movement from Asia peaked in 2006 and 2007, PNW ports have also suffered from increasing capacity utilization and congestion. The economic downturn has decreased port usage however, and capacity utilization is no longer a significant differentiation factor between gateway ports at this time.

Asian freight exported to Canadian destinations can be consolidated with U.S. based freight through American ports. But as Canadian volume increases for the individual shipper, the shipper may find that direct movement of this freight through Canadian ports could improve transit time. U.S. railroad service from U.S. ports lack operations in Central and Eastern Canada and must interchange with Canadian railroads to enter that market. This changeover increases transit time while also reducing reliability, which is inherent in any interchange of equipment between rail lines. In contrast, Canadian railroads have coordinated operations into major U.S. hubs and markets including Chicago and Memphis. Combined, the short ocean transit, seamless rail access to the U.S., comparable land transportation and absence of fees such as the Harbor Maintenance Tax, improves Canadian gateway competition for U.S. bound traffic.

Asia-North American Routing Options



Access to this U.S. heartland is increasingly important as population and industry continues to outperform other geographic sections of the United States. The single location for a distribution centre which would reach the largest U.S. population was Bloomington, IN and now has shifted further south to Henderson, Ky. The majority of new auto plants are opening in this region. In other words, the U.S. destinations where PNW ports including PMV are competitive are growth markets.

Inter-port Competitiveness is ultimately Measured by Total Logistics Cost of the Routing

Location gets PMV into the competitive area but the actual freight is delivered by the transportation systems connecting origins in Asia and the destinations in North America. Shippers ultimately choose their routings on based on the door to door logistics costs incurred, the total logistics cost. Total logistics cost includes direct transport costs, inventory costs and the costs of service failure such as stock out, lost sales and down time costs. These costs are largely dependent on the capacity of the transportation and logistics infrastructure and how well the logistics service providers utilize that capacity.

Thus the following factors must be considered:

- Port capacity improvements
- Panama Canal expansion
- Rail capacity improvements
- Highway capacity improvements
- Cost recovery fees such as Harbor Maintenance Tax
- Shipping line scheduling and port strategies (Ocean Carrier Service Deployment Strategies)
- Transport Chain Management (coordination and collaboration)
- Labor and Union industrial relations environment
- Environmental and land use constraints
- Gateway Related Fees
- Security barriers

Long Run Competiveness is ultimately determined by Origin and Destination of Traffic

Shifting trade patterns may be more significant than the initiatives of gateway competitors in determining the competitiveness of an individual gateway and corridor. This is because; the Asia Pacific Gateway Corridor's (APGC) location advantage is positioned for freight originating in North and South East Asia to northern and central North America. If freight growth shifts to other origin–destination trade corridors, the APGC is disadvantaged in receiving North American imports due to its location.

Some of the key factors that are going to affect where products will be produced for import into North America are:

- wage rates
- exchange rates
- fuel/transportation costs.
- Export subsidies (China VAT rebate)
- Internalization of carbon emission externalities as a business cost.
- Demand driven supply chain strategy

In fact, the convergence of the first four factors has resulted in the Total Landed Cost of producing selected products in Mexico and delivering to the U.S. market lower then manufacturing in China and for other products, lower in India or other South Asian countries than in China (see box). For the foreseeable future, perhaps many decades, China will remain the overall low cost

ABOVE: A ship in dock at Port Metro Vancouver

manufacturing country by shifting manufacturing inland, making huge transportation infrastructure investments and maintaining beneficial tax and exchange rate policies. However, the long run trend in every competitive factor indicates that manufacturing costs will increase faster in China than in competing low cost countries. This is compounded by the trend towards demand driven supply chains that seek to postpone the final processing of the product until demand is known with certainty. Mexico is the ideal compromise of low cost and proximity to the U.S. market allowing responsiveness to demand changes. Near sourcing from Mexico will increase and other Asian countries will grab export share. Products manufactured in Mexico will move directly by land while products exported from India are more likely to be transported to eastern and central U.S. markets via East Coast ports. This will reduce the share of inbound containers via the West Coast and the size of the market for which PMV is competitive .

Some of these factors are also impacting the destination of imported goods in North America. For example wage rates have shifted manufacturing growth from north central and east coast location to south central and southwest locations and the population has followed as noted above.

Potential Competitive Scenarios

Based on likely directions in the factors identified above, the following competitive environments and scenarios are posited for PMV over the near, medium and long run. In all of these scenarios, PMV continues to be the dominate gateway for imports from Asia destine to Canada.

2010 to 2015

- The world has recovered from the recession. China continues to be the main source of imports to North America and resumes its high growth in exports to N.A.
- China has maintained it competitive advantage as a low cost manufacturing center by shifting some of its production to inland China where wage costs are lower and connecting those locations to the coastal ports with huge infrastructure improvements.
- Much of the import traffic growth is to the central U.S. with gradual shifting of economic activity further south.
- PMV effectively competes with Seattle – Tacoma and LA-LB for this traffic due to the reliable service reputation that it has earned.
- The reliable service was achieved through joint improvement processes between the gateway/corridor stakeholders, joint (public-private) infrastructure improvements funded through the APGC program and an innovative industrial relations environment affecting labor from port to final destination.
- U.S. gateway competitors make substantial infrastructure improvements but institutional barriers prevent comparable levels of cooperation in competing U.S. gateways and corridors.
- PMV captures larger share of growing traffic base from North Asia to central and south central U.S.

2016 – 2030

- China maintains its low cost country status but growth in exports to North America begins to slow.
- Portion of historically high growth of exports to N.A. lost to countries in Southeast and South Asia where

wage costs were comparable to China of the early 2000s.
• China selling more of its production to domestic and intraregional markets.
• Near sourcing from Mexico grows at rates comparable to growth of Maquiladoras in early NAFTA years.
• The Total Landed Cost of products from Mexico is lower than Total Landed Costs of sourcing from China for many products, a reversal of the situation throughout the period 2000 to 2006.
• The change in comparative costs for serving N.A. markets is due to:
• Continued wage increases in China relative to wages in Mexico • Strength of the RMB versus weakness of peso • Higher transportation costs due to fuel costs eroding low cost manufacturing advantage of Asia • Mexico's National Infrastructure Program is 50 % complete, reducing transportation costs to move products from inside Mexico to U.S.
• Mexico is also preferred for its proximity to the U.S. market as more firms adopt demand driven supply chain strategies.
• West coast gateways start to lose traffic to Panama routed traffic as new canal capacity opened in 2015 (one year late) and multiple rail corridors from east coast ports come on line. Growth rate of Panama routed traffic higher than west coast intermodal traffic to central and south central markets. LA/LB most affected.
• In addition, more products are starting to be manufactured in South Asia making transport direct to the East Coast of N.A. via the Suez more competitive.
• PMV maintains its share of a slower growing traffic base from North Asia to central and south central U.S.

2031 – 2045
• China begins to lose its overall low cost country leadership in Asia to India and other South Asia countries.
• Exports to North America are increasingly routed through the Suez to the East Coast from India and via the Panama to the East and Gulf Coast ports from South Asia.
• Mexico, other Latin American and South American countries have established Total Landed Cost advantage for many products and export growth to U.S. is similar to China's export growth in early 2000s.
• Asian import traffic to central and south central U.S. markets via West coast entry grows slowly but grows at a higher rate via east coast and gulf port gateways.
• U.S. railroads and ports finally forge cooperative agreements modeled after those between the ports and railroads in Canada, reducing competitive advantage of cooperation held by PMV for decade.
• Logistics value added services grow as the Vancouver gateway import DCs start locating in lower mainland to distribute to Western half of North America.
• Climate change favors growth in Plains and Rocky Mountain regions of U.S as well as Prairie Provinces in Canada. Shift in economic growth to these areas increasing demand for imports to these regions. To small degree offsets decline in Asian imports to east via West coast.
• New APGC program emphasizes intermodal and road development to provide access to Western markets. Western regional highway network starts to develop along with regional distribution networks.
• PMV traffic growth levels off in low single digits in last five years of period.

2045 and beyond
• Growth in Asian exports to N.A. has leveled off to reflect growth of world economies rather than growth in market share.
• Share of intermodal traffic to eastern U.S. via West Coast intermodal has declined but stabilized.
• However due to land use constraints and significant environmental limits, LA/LB has been forced to pursue a zero growth policy for the foreseeable future. This has in turn diverted west coast intermodal traffic to the PNW ports as well as to Larzaro Cardenas and the Panama routing.
• U.S. gateway and corridor competition has caught up with the APGC in terms of transport coordination between transport providers making service to eastern and central U.S. via U.S. gateways such as Seattle Tacoma comparable if not superior to service via the APGC.
• Growth in regional distribution justifies ProLogis establishment of Distribution Facilities in Lower Mainland (don't quote me!)
• PMV and APGC reinvent itself. PMV seeks to maintain its existing competitive position in long haul West coast intermodal traffic market, particularly in Canada, however growth is developed through movement of imported products through a rail – road network serving the northwest half of the U.S. and the western and prairie province.
• Key to this strategy is a new treaty guaranteeing free and unfettered movement across the Canada – U.S. border (we need to work on it now!).

Many of the assumptions stated in these scenarios are real and occurring at this moment. Others are real and it is not an issue of whether they will happen but when. Some are wishful thinking on one hand but could be a reality if stakeholders in PMV are up to the task. Some may change in timing or direction and of course the quantitative magnitude of change is not measured with any precision.

Garland Chow is the Associate Professor and Director, Bureau of Intelligent Transportation Systems and Freight Security, Sauder School of Business, University of British Columbia.

ProMat and Automate to collocate in 2013

After the success of 2011's event the decision to collocate ProMat 2013 and Automate 2013 was an easy one, say the organisers

Material Handling Industry of America (MHIA) and the Automation Technologies Council (ATC) announce that the Automate Show and Conference will once again collocate with ProMat in 2013. Both exhibitions will be held January 21-24, 2013 at Chicago's McCormick Place.

ProMat is the premier material handling and logistics show held in North America. Automate 2013 is the premier event for robots, vision, motion control and related automation solutions in North America. The collocation of events is the latest effort by MHIA and ATC to help end users find solutions to their manufacturing and supply chain challenges.

"The decision to collocate ProMat 2013 and Automate 2013 was an easy one after the successful collocation of these events in 2011," says George Prest, Chief Operating Officer for MHIA. "The collocation of Automate with ProMat 2013 will allow manufacturing, distribution and supply chain professionals unparalleled education and networking opportunities as well as exposure to the largest equipment and technology display of any show of its kind in North America."

"We had such terrific feedback from attendees and exhibitors in 2011 that it made perfect sense to build upon and expand our collocation in 2013," said Jeff Burnstein, President of ATC. "We're looking forward to an outstanding Automate event that educates current and potential users on how automation solutions can help them improve productivity, boost product quality, speed time to market, reduce costs and become stronger global competitors."

The collocated ProMat 2013 and Automate 2013 will be the largest international event and conference of its kind ever held in the U.S. Over 825 exhibitors are expected to showcase their solutions to some 30,000 professionals from over 100 countries in industries such as warehousing/distribution, automotive, alternative energy, consumer goods, defense, food and beverage, electronics, lab automation, medical, pharmaceutical, plastics, printing, security, semiconductors and more.

MHIA is an international trade association that has represented the material handling and logistics industry since 1945. MHIA members include material handling and logistics equipment and systems manufacturers, integrators, consultants, publishers, and third party logistics providers. Member companies come from all areas of material handling and various parts of the world, making MHIA a strong national and international representative for the material handling and logistics industry. Much of the work of the industry is done within its product-specific Industry Groups. The association sponsors trade events, such as ProMat 2013 and MODEX 2012 to showcase the products and services of its member companies and to educate manufacturing, distribution and supply chain professionals on the productivity solutions provided through material handling and logistics.

ATC is the umbrella group for Robotic Industries Association (RIA), Automated Imaging Association (AIA), and Motion Control Association (MCA).?? RIA, AIA, and MCA combined represent some 625 automation manufacturers, component suppliers, system integrators, end users, research groups and consulting firms from throughout the world. Automate was formerly The International Robots, Vision & Motion Control Show and dates back to 1977 when it began as the ROBOTS show. It is held every two years and showcases solutions for companies looking to use automation in order to be stronger global competitors.

Australia: a multi speed economy

While the economic downturn which began in the USA and spread to Europe has also had a significant impact on the Australian financial sector, Australia is in good shape, says **Bill Henman** National President Australian Warehousing Association

The "lucky country" has now reached a population of 23 million with a rich mix of many cultures and beliefs. It has come a long way from a convict settlement just over 200 years ago. The "lucky country" however is not so lucky for some. The economic downturn which began in the USA and spread to Europe has also had a significant impact on the Australian financial sector which borrows its funds for investment overseas. The Australian government guaranteed the four major trading banks to ensure monetary stability and spent money on a range of projects to stimulate consumer demand. This strategy has worked so far. The result being that Australia is in good shape.

We have a multi speed economy. The mining boom has seen many companies working in, or providing services to this industry sector realising good growth and financial strength. The price for iron ore and coal is at record levels with China being the major customer. It is predicted that if Europe slows further, China manufacturing will also slow resulting in reduced demand for Australia mineral resources. This boom has seen shortages in labour in mainly trade skilled areas. A person driving a dump truck on a mine site earns as a base A$75000 plus benefits and allowances to round out at approx $130000 per annum, for a sixty hour week. This compares to a heavy vehicle driver earning $55000 plus benefits. This boom has seen a lot of skilled workers arrive from Ireland.

Australia has a minority Labour government which is governing with the support of three independents in the House of Representatives (lower house) and with the support of the Greens in the Senate (upper house). It is currently half way through a three year term. The government recently introduced a Carbon tax at $23.50 a tonne due to commence 1July 2012 for three years followed by a carbon emissions trading scheme. This was very unpopular legislation especially in tight times. It is predicted that energy costs will escalate significantly in the next few years as coal powered power stations will need to change to gas or green energy systems. The government is also introducing a mining resources tax. This proposed tax was a contributing factor in removing Kevin Rudd as Prime Minister, the first time in Australia's history that such a thing has happened.

Those in tourism are 'doing it tough' with an Australian dollar on parity with the greenback, the flow from tourists has significantly reduced. This has seen a reduction in tourists of approximately 40%. It is often cheaper to travel overseas than holiday at home. There are many resorts working at half capacity due the high dollar and a severe cyclone followed by flooding in December 2010 that did billions of dollars of damage to infrastructure and property. The agricultural sector also suffered as banana plantations, tomato producers, cane farms and dairy farmers were suddenly unable to operate. Banana prices went from $1.99 kilo to $14.50 a kilo creating a banana index. Prices today are now around $4.50 as production returns to normal. At the same time as half of Australia was flooded, the west of Australia was in drought and experiencing wide spread bush fires – country of contrasts.

Retail operators have been less fortunate with cheap goods from both China and India decimating our manufacturing industry. Australia has four major grocery chains, Woolworths, Coles, Aldi and Metcash (supplying independent operators). 80 cents in every $1.00 spent on food is purchased in either a Coles or Woolworths supermarket. Their "home brand or generic" strategy has seen many well known brands removed from the shelves. These two major companies have moved into liquor distribution, hotels, electronics stores, petrol stations, clothing, home wares, hardware, variety, furnishings, sporting goods, mobile phones and optical supply.

Many large shopping centres are failing or coming under administration as multiple small businesses close due to lower public demand and the flood of cheap imports. Companies are restructuring everywhere and shedding staff. The unemployment rate is 5.2% which is low compared to USA, Greece and UK. The positive news is that people are now paying cash for goods instead of using credit. Personal savings before the GFC was around 2% but today the figure is closer to 10%, a very positive outcome.

New car sales are lower this year compared to last year in all categories. Heavy discounting and cheap finance from manufacturers is everywhere. Heavy truck sales are down approx 20% and new forklift sales down about 35%. Imported forklifts sales will have an impact on the warehousing and distribution industry in the next few years as premium models will be replaced by imported basic models.

Australia is a big user of road transport and a small user of coastal shipping and goods rail. The bulk rail systems are well used with 10,000 tonne single driver trains working 24 hours a day hauling coal from the mines to the ocean ports. We have 24 independent rail owners with government divesting itself of bulk and freight rail systems except for passenger traffic. Statistics confirm that just over 1 billion tonnes of freight is carried by heavy trucks annually between major cities. 46% of freight is carried on B doubles, a single prime mover and driver pulling two trailers. Trials are still underway for the approval of B triples (1 prime mover and 3 trailers) with gross weights of 105 tonnes. Coastal sea freight diminished in the 1980's where unions required costal ship crews of approximately 27 persons for 20000dwt capacity. This compared to international ships with crews of 13 for super tankers of 250,000dwt and container ships of 3000FCLs equivalents. During the same period there were 14 different unions on the waterfront and strikes were very frequent.

Australia has three layers of government; federal, state and local. Business must comply with all layers of government for most business decisions. Moves are under way to try to harmonise all legislation so that each State has common legislation with standard requirements. This should reduce administrative compliance costs for industry significantly if the master plan works. Fatigue management legislation for heavy vehicle drivers that set maximum work and rest parameters has seen transport freight costs rise 17%. The new areas for compliance are now load restraint and speeding. The speed of trucks is monitored between two points on a highway using overhead digital cameras which calculated the average vehicle electronically and issues the infringement notice within five days. The speed on most major highways is 110klm with city and school zones as low as 40klm. The low speeds impact on travel time and productivity.

The world of the 3PL operators is shared between the major players Toll group, Linfox, DHL and Post Logistics. There is growth in this sector as management review financial reports and decide to reduce costs by outsourcing. The downturn has seen a number of causalities in the road transport and 3PL sectors. The trend to have a single contractor instead of having the "best in class" in a particular State is still the norm. As the effects of the carbon tax and the decision to have the source closer to the consumer may change the dynamics. The large 3PL operators often buy the business and run it at a loss for the first few years before 'hiking' the prices. At that time the customer often has little option other than to accept the price rise and trim in other areas.

The baby boomer generation is now due to retire and withdraw from work. The challenge for most business is how to fill the gaps. The younger generation mostly with University degrees do not want to work in the warehousing and distribution sector resulting in a big void. The government has provided significant funding to train unskilled workers to gain knowledge and skills in most industry sectors especially the mining sector. The use of short term work visas are another short term solution. The Australian Warehousing Association (Auswa) has received government funding to assist in providing Diploma level education to individuals who meet the selection criteria.

To further develop forklift operator knowledge and skills the Association hosted a national forklift championship in conjunction with the Sydney Safety Show and Materials Handling Exhibition. Contestants, both male and female demonstrated their forklift driving skills against the Australian loadshifting Standard and were judged by performing a number of set tasks. The winners each received a silver trophy and $1500 prize money. This event continues to grow and be popular as a "must do" event.

As the festive season draws near, may we wish everyone a happy and safe festive season and that 2012 is prosperous.

Australia is a big user of road transport and a small user of coastal shipping and goods rail. The bulk rail systems are well used with 10,000 tonne single driver trains working 24 hours a day hauling coal from the mines to the ocean ports.

Barloworld Supply Chain Software helps identify $1bn saving for Egyptian Government

Barloworld Supply Chain Software's CAST product has helped identify a supply chain saving of $1 billion USD for the Government of Egypt, which is the biggest ever saving recorded in a Barloworld SCS project.

The Government of Egypt (GoE) operates a food subsidy program across the country. As a staple part of the Egyptian diet, Balady bread is considered the most important item in the program. With Egypt's population of 78 million people and a land area four times the size of the UK, the GoE faced a number of challenges within the Balady bread supply chain, and requested the WFP (World Food Programme) to undertake a study (funded by the Dutch Embassy in Cairo) to assess the efficiency and effectiveness of the system.

The WFP selected its global partner, TNT Express, to help develop a supply chain solution. TNT then approached Barloworld Supply Chain Software (SCS) to assist.

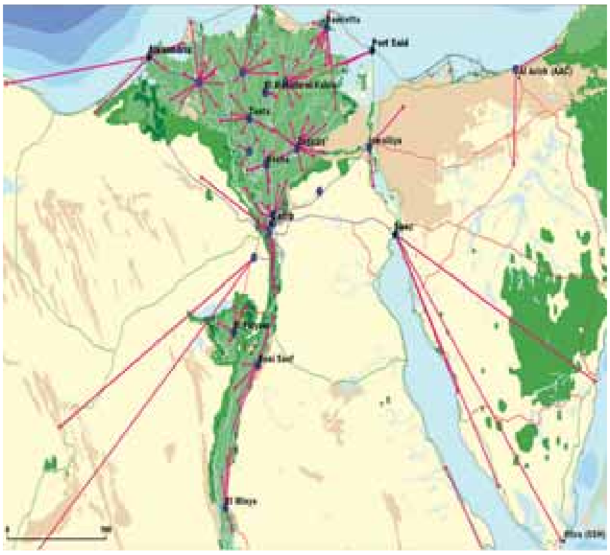
Barloworld SCS supplied the CAST software and training as well as additional support in building and optimising the models.

The CAST supply chain modelling software, developed by Barloworld SCS is a powerful, PC based application used for global supply chain modelling, network design and optimisation. CAST is used to evaluate and identify the 'preferred' or optimal supply chain configuration and to calculate the total cost to market, leading to cost savings and service improvements.

The main project objective was to assess the efficiency and effectiveness of the existing supply chain of wheat flour for the subsidised Balady bread and propose a new efficient system to be piloted in one or two governorates as a best practice model.

Barloworld SCS provided the CAST software as well as additional training and support. Several other international experts were also involved, to help identify further improvement areas throughout the baking and milling processes.

The total annual cost savings calculated are in excess of $1 billion USD, which includes the savings achieved through using 'super bakeries' and eliminating losses in the supply chain, reducing the total amount of wheat required.



Chief Operating Officer at Barloworld SCS, Ewan French, says "The project, which was carried out by TNT for the Egyptian Government, was very successful and has helped to identify savings in excess of $1 billion USD, which is a first for a CAST project." He goes on to explain that further work is required in order to realise the savings identified in the modelling exercise.

Following the success of the modelling exercise, TNT has purchased Barloworld SCS CAST software to deploy on other supply chain projects.

Barloworld SCS is a leading global supply chain planning company, providing expertise, tools and solutions to help companies optimise their supply chain networks, inventory and transportation. To find out more about solutions available from Barloworld SCS, visit **www.barloworldscs.com**

Durable Bar Code Labels Become the Foundation of New Warehouse Management System

Camcode Solutions Help Create Defined Warehousing for Building Structure Company

When the structural integrity of a home or building is compromised, Foundation Supportworks, Inc. finds experienced and knowledgeable contractors to help property owners fix their failing foundations. So where does Foundation Supportworks go when it needs help with warehouse management solutions? The answer is Camcode.

In addition to its structural repair contractor network, Foundation Supportworks also manufactures and distributes foundation stabilization systems to its network of certified dealers. The company's main dealer support center, located in Omaha, Nebraska, warehouses a wide variety of stabilization products and equipment, such as steel foundation supports and hardware for installation. With no automated warehouse management system in place and no sections or designated storage areas assigned, the Omaha warehouse became more of a collection area for all products and equipment.

Foundation Supportworks wanted to implement a warehouse management system that would allow individual locations within the warehouse. More specifically, they were looking for durable warehouse floor labels to mark each section. During their search, the one name that kept coming up was Camcode.

"We considered other products and other companies," said Bing Behrens, Manager of Logistics and Process Improvement at Foundation Supportworks. "The other vendors didn't have an answer for our floor application, and didn't have specific industry experience. Camcode had both."

Foundation Supportworks chose Camcode to supply bar code labels for its new warehouse management system. They wanted labels that were scannable at various distances, professional in appearance, and would last while resisting warehouse damage. The company selected Camcode's Multi-Level Rack Labels, Retroreflective Warehouse Signs, and Adhesive Floor Labels.

"We went from virtually one location to 506 locations thanks to Camcode labels," Behrens says. "We can delineate where items are stored, and have better management and control by location."

All of Camcode's labels have made an impact on Foundation Supporworks' warehousing, especially the adhesive floor labels. "The labels fully met our expectations, and the floor labels exceeded my expectations," says Behrens. "They are easy to apply and meet the exact dimensions for our needs."

Should Foundation Supportworks need additional warehouse management solutions for other dealer support centers, they will call on Camcode. "Everything went exceptionally well. The labels were perfect, the count was perfect, and delivery was within our expectations," says Behrens. "I am extremely pleased with my decision to go with Camcode. Their service and quality is exceptional."

CoGri GROUP LTD

The Italian Job

Concrete Grinding Ltd has successfully completed their LARGEST EVER FLOOR GRINDING CONTRACT in linear metres for a global glassware company in Italy.

Concrete Grinding Ltd has successfully completed their LARGEST EVER FLOOR GRINDING CONTRACT in linear metres for a global glassware company in Italy.

The client's new DC floor was originally built by a flooring contractor using Laser Screed construction to meet with DIN 18202 floor flatness specification. Whilst the racking was being installed, Trimmer S.r.l Profilegraph surveyed sample aisles and found they all failed to meet DIN 15185, the required floor flatness standard for VNA operation. Trimmer S.r.l contacted Concrete Grinding Ltd, whom they represent in Italy, and Concrete Grinding Ltd were then commissioned to grind the aisles to tolerance.

The very busy and operational warehouse facility consisted of 64 aisles, which were split in to 7 different compartments, totalling just over 5700 metres. Before corrective work commenced Trimmer S.r.l. surveyed the remaining aisles, Concrete Grinding Ltd analysed the data and identified that only 80% of the total aisle length required remedial grinding. As Concrete Grinding Ltd are the only superflat floor grinding specialist in the industry that could laser ground exact areas out of specification rather than the whole aisle, the client commissioned Concrete Grinding Ltd to grind the aisles to specification. This also benefited the client as precise corrective grinding provided a cost-saving solution.

To meet with the client's deadlines, Concrete Grinding Ltd operated two Laser Grinders and carried out 2 wheel track grinding x 400mm cut paths on 4570 metres of aisles. The facility operates B.T. (Toyota) 4 wheel fork Lift trucks where the wheels fitted perfectly within the 400mm cut path. The grinding program was executed on a 5 aisles rolling program so that the client's warehouse operation could function as normal.

Concrete Grinding were also asked to carry out floor joint repairs in the facility. With assistance from CG Flooring Systems Ltd, the team carried out 110 metres of joint arris repairs and 1200 metres of joint reseal repairs within the 400mm ground path to cater for the wheels of the trucks. This resulted in an additional cost saving as the whole aisle width did not have to be repaired. The saw cut joints were resealed every 4 metres along each aisle. 50 metres of joint repairs were also completed within door openings between the 7 separate compartments. A large portion of the joint repairs were completed immediately after Christmas, during the client's shutdown, ahead of grinding work.

After grinding, Trimmer S.r.l. re-surveyed the aisles using the FACE DIN Profileograph to prove the floor flatness specification had been met.

The client's Managing Director and Project Manager were involved in the project. They were very happy with the work Concrete Grinding Ltd and Trimmer S.r.l had carried out. "We were very impressed with the quality of Concrete Grinding Ltd's and Trimmer S.r.l.'s work and commitment to the project. The Laser Grinding work did not interfere at any time with our busy warehouse operation. We also had a very strict time table and the grinding and repair work went according to schedule. We chose Concrete Grinding because of their precision laser grinding system and their flexible approach to our requirements. We are extremely pleased with the overall results".

About Concrete Grinding Ltd

Concrete Grinding Ltd specialises in the upgrading of aisles in new and existing VNA/narrow aisle warehouse units. Key services are:-

- Laser Guided Grinding up to 'DM1 / Superflat' Standards for VNA / narrow aisle environments using their unique & patented laser grinding technology, the Laser Grinder ®.
- Guaranteed to grind floors to any flatness specification.
- The Laser Grinder ® is a clean and completely self sufficient machine which makes it suitable in operational warehouse including food, pharmaceutical & sub-zero environments.
- Bespoke internal repairs / upgrades tailored to the individual clients' needs.

Concrete Grinding Ltd is part of the CoGri Group of companies, a consortium of international warehouse and industrial floor solution specialists with over 20 years global experience in the design, construction, surveying, testing, upgrading & repair of industrial concrete floors.

For more information, please visit **www.concrete-grinding.com**

Dunhelm Mill and its suppliers transform order management with Kewill Trade Quick Start

Dunelm Mill, Guildford, UK

October 13th, 2011, Guildford, UK – Dunelm Mill, the UK's leading specialist homewares retailer, has expanded its partnership with Kewill, the leading provider of solutions that simplify global trade and logistics, to upgrade its current Kewill Trade Forms solution to the new Kewill Trade Quick Start platform, further improving order management with its suppliers by automating the processing of essential businesses orders.

Kewill Trade Quick Start is a fully scalable and cost-effective hosted order management system, remotely accessible from an online-portal, allowing Dunelm quick electronic transfer and full visibility of all supplier documents, such as invoices.

The new multi-year agreement will enable all of Dunelm Mill's suppliers to migrate onto the new Kewill Trade Quick Start platform over the coming months. Dunelm decided on this upgrade in order to offer improved order management functionality to over 100 of its suppliers.

Peter Kelly, Deputy Finance Director at Dunelm, comments: "Kewill is a key service provider for managing our supplier order process. By upgrading our suppliers to the Kewill Trade Quick Start platform, we are looking forward to providing ever greater functionality and ease of use which will support our business growth plans over the coming years, as well as provide full visibility of order processing".

An off-the-shelf hosted eCommerce solution, Kewill Trade Quick Start is maintenance free and is fully hosted by Kewill. Easily implemented within two-to-four weeks, it is fully scalable for future growth, with no limit on the number of suppliers utilising the system.

Jacquie Boast, COO EMEA at Kewill, comments: "Dunelm has been a valued customer of ours for many years. By upgrading to the latest solution, its suppliers will benefit from the best of breed order management system, making the entire process as simple and effective as possible, while continuing to support the company's growth."

www.kewill.com

Hong Kong — Leading Global Logistics Hub

Hong Kong is one of the world's leading logistics hubs. Its strategic location makes it both the Heart of Asia – half the world's population are within a five hour flight, and China's Gateway – providing access into and out of the world's second largest economy and fasting growing consumer market.

Business Confidence is High

Complementing its leadership role as a global logistics hub, Hong Kong is also one of Asia's leading international business centres – with 3,580 regional office and regional headquarters. Hong Kong is the 11th largest trading entity in the world and business confidence levels are high. The 2010 Business Confidence Survey conducted by the British Chamber of Commerce in Hong Kong found very high satisfaction levels amongst business, with 97% of respondents describing the business environment in Hong Kong as 'somewhat' or 'very' satisfactory. The major reasons cited for this high level of satisfaction were identified as geographical location, taxation system, communication network, public security and safety, infrastructure and free port status.

Trade and Logistics the largest of the Economy's Four Pillars

The world class infrastructure and free port status are significant ingredients in Hong Kong's enduring success as a leading logistics hub. Long established as a regional trading hub and global sourcing centre, Financial Secretary John Tsang recently confirmed that, of Hong Kong's four economic pillars, "Trade and Logistics" is the largest - accounting for 24.1 % of GDP and 24% of employment.

In the 2010 global rankings of cargo volumes, Hong Kong is the world's number one cargo airport and the third largest container seaport.

World's largest Air Cargo Hub

For the last 15 years, Hong Kong International Airport (HKIA) has been the world's busiest airport for international cargo. In 2010, HKIA handled 4.1 million tons of cargo, enabling Hong Kong to overtake Memphis USA to become the world's largest cargo airport.

HKIA's well established global network, accumulated critical mass, extensive connectivity and ecosystem-wide efficiencies all combine to enable Hong Kong's long standing leadership position in air freight - as both a global Hub and a major Gateway. HKIA hosts 90 airlines operating 5,800 flights per week - linking Hong Kong to 117 international destinations world-wide, plus 40 destinations in mainland China. This global network of airline connectivity far surpasses that of Hong Kong's closest neighbours – see chart below.

Hong Kong International Airport is an important part of the local economy - over 30% of Hong Kong's total exports move by air freight, representing over USD$100 million of products. A record 50 million passengers passed through the airport in 2010 and the aviation sector as a whole represents 8% of GDP and employs over 250,000 people in Hong Kong. The airport runs on a dual runway system providing for 60 air traffic movements per hour, and averaging 880 daily aircraft movements.

Hong Kong has an enviable reputation of providing security, transparency, efficiency, speed, and connectivity, which together with its longstanding free-port status makes it the number one choice of transhipment hub. Products that are high value, have short product life cycles, are perishable or are needed urgently, have an intrinsic need-for-speed and there-fore gravitate to the air-freight mode of transport. Consequently, within complex, global supply chain ecosystems, Hong Kong is the default Global Hub and China Gateway for such critical shipments.

World's third largest Container Port

Similarly in the ocean freight sector – which accounts for over 95% of world trade - Hong Kong's far-reaching connectivity and extensive global network make it the largest container port in South China.

Within the South China cluster, the multiple ports process a total of 60 million containers (TEU) per year - of which over 23 million are handled in Hong Kong. Ranking number 3 in container ports worldwide, Hong Kong's nine container terminals are all privately owned and operated with a total of 24 berths. Being served by 80 international shipping lines, providing 450 container-liner services per week to more than 500 destinations worldwide, Hong Kong is a major trans-shipment hub.

Even as the expanding China ports handle more direct cargo movements in and out of the mainland, Hong Kong will leverage it's long and distinguished history as a leading nautical base and continue to expand its role as a leading international trans-ship-ment hub and regional marine services centre.

Government Support for Logistics Industry

The Hong Kong Government fully supports the trade and logistics sector – the Secretary for Transport and Housing confirmed that the Government has "undertaken a number of measures and studies which would help upgrade our facilities for more efficient freight movements and supply chain activities".

Hong Kong has recently signed the Framework Agreement on Hong Kong - Guangdong Cooperation which will advance cooperation between the two territories - across many sectors. Financial Secretary Tsang noted that maintaining close ties with the mainland "will further reinforce Hong Kong's leading position in the global supply chain and enhance our strengths in trade and logistics."

In his 2011 budget address, the Financial Secretary John Tsang vowed to ensure that Hong Kong can cope with air traffic growth and to reinforce the maritime service cluster.

Investment in Infrastructure Mega Projects

In order to further consolidate Hong Kong's position as a regional logistics hub and capitalise on our competitive edge in handling high-value goods and providing high value-added services, the government has three infrastructure mega projects in the works.

The Hong Kong-Zhuhai-Macau Bridge - 29.6 kilometres long - is expected to open in 2016. This bridge will enhance the efficient, cost-effective movement of cargo between Hong Kong and the western Pearl River Delta – still very much the heart of Guangdong province's manufacturing base.

The new bridge "bears strategic and symbolic importance to Hong Kong" said Eva Cheng, Secretary for Transport and Housing and - the improved connectivity will expand our cargo hinterland and open up new consumer markets, bringing new impetus for our freight and logistics sector.

Container Terminal 10 - within the ocean freight sector, much of the container movements are mid-stream trans-shipments, and so the government has commissioned a feasibility study on the development of a tenth container terminal.

Third Runway - at the airport, the current two runway system will be at maximum capacity by 2015 – a new daily flight handling record was set on 30 March 2011 with 983 aircraft movements. Hence, within the framework of the Master Plan 2030 Study, the Airport Authority is now evaluating the feasibility of building a third runway – which is being called for by businesses large and small, throughout both the industrial and the logistics sectors.

Sustainable Competitive Advantage

Hong Kong's sustainable competitive advantage as a leading global logistics hub will revolve around three pivotal competencies – best in class international transhipment hub, centre of excellence for logistics skills and leadership in e-logistics.

As a transhipment hub, Hong Kong will continue to grow. In 2011, the International Air Transport Association (IATA) forecast that Hong Kong will be the world's fastest-growing air cargo market, "growing 12.2 per cent annually over the next two years" such that cargo volumes will increase to 5.3 million tonnes in 2014.

Form the e-logistics perspective, increasingly widespread adoption of e-freight initiatives throughout the international air and ocean cargo sectors is increasing efficiencies whilst providing environmental benefits such as reducing paperwork. Within the cross border trucking sector, introduction of electronic submission of road cargo information enables seamless customs clearance at the land boundary control points. GPS communications technology is now also widespread in the fleet management of trucking companies, with the On-Board Trucker Information System (OBTIS).

Firmly reinforcing its position as a leading regional centre of excellence for logistics industry skills and talent development, Hong Kong is home to 60 educational and vocational training institutions, offering more than 1,000 programmes and courses related to logistics and shipping. Government funded training allowance s benefit small and medium enterprises.

Conclusion

Looking to the future, I am very confident that Hong Kong will continue its role as a leading global logistics hub – by means of its strategic location, its business-friendly government and its sustainable competitive advantage.

Industry and government together envisage Hong Kong's future positioning as a global logistics hub providing high value-added services and handling high value products - as well as strengthening its role as the logistics gateway to mainland China, with the support of state-of-the-art infrastructural facilities and trade facilitation measures.

Achieving the number one position of the world's air cargo hubs and maintaining its position as the world's number three sea container seaport, Hong Kong is indisputably one of the world's leading logistics hubs - enabling effective and efficient global supply chain ecosystems.

Mark Millar MBA, PMHKLA, FCILT

Mark Millar leverages over 20 years of global business experience to provide independent Consulting, Education and Advisory services that create value for clients by improving the performance of their logistics and supply chain activities in China and the Asia Pacific region.

Acknowledged as an industry thought leader, clients have engaged Mark as Speaker, Moderator, Master of Ceremonies or Conference Chairman at more than 200 functions in 17 countries – including Hong Kong, Singapore, China, Macau, Vietnam, Kazakhstan, Dubai, India, Philippines, Malaysia, Thailand, South Korea, England, USA and Australia. His articles are regularly published by trade magazines in five languages in seven countries.

Mark serves on the advisory board of several leading organisations and his industry contributions have been recognised with a number of accolades, including being named in the "Who's Who of Power Players in Supply Chain Management in China", the "Pro's-to-Know Thought Leaders in Supply Chain" and as "One of the most Progressive People in World Logistics".

Contact him at mark@markmillar.com

Heinz use Joloda to go green!

Joloda have just completed another installation of an automatic loading dock for the famous Heinz company we all know and love.

The Heinz site in Wigan produces all the beans, tomato ketchup and soup we eat everyday and also stores the products there in their NDC for UK supermarket distribution.

By using a Joloda automatic loading system, it reduces the need for forklift trucks which reduces carbon emissions. Also, the automatic system moves the pallets to the very end of the trailer so all space is utilized, meaning less trailer trips needed.

Heinz have already been using 2 Slipchain automatic loading/unloading docks installed by Joloda nearly 12 years ago, one at the factory and 1 at their NDC. However with the increase in product portfolio over the last few years of HP sauce, new flavours of beans and sauces and now also new packaging of beans to suit different lifestyles, their output from their factory has increased extensively that they needed another loading/unloading dock from Joloda to increase capacity.

As well as the automatic dock systems, they have 4 slipchain shuttle trailers 16m long, which travel the distance of ½ mile, around 30 times per day.

The slipchain system they use handles up to 30 pallets per load and the trailers are loaded and unloaded in 2 minutes. This dramatically speeds up the loading/unloading process of using forklifts which can take 30 minutes or more.

The Hydraroll Slip chain system incorporates pneumatically activated rise and fall chain and roller track giving high speed pallet accumulation and loading and unloading of full pallet loads. The pallets are automatically transferred from the dock into the trailers which are also fitted with a Hydraroll slipchain system. The slipchain system is used for short shuttles.

This system is used worldwide by many well known everyday brands, Princes, Nestle, Coors Brewers, Unilever, Proctor & Gamble, Pepsi-co to name a few.

They are saving several hours per day loading automatically instead of forklift loading, saving costs on forklifts and working a much safer and environmentally friendly loading process.

To discuss your loading requirements please contact:
Karen Mc Bride
Joloda International, 51 Speke Road, Garston
Liverpool, L19 2NY

Tel – 0044 (0) 151 427 8954
Fax – 0044 (0) 151 427 1393
Email – sales@joloda.com

Rooflifters
a competitive advantage

During these turbulent economic conditions many logistics, warehousing, and distribution companies must seek ways to achieve a competitive advantage. But too often that goal is hampered by a facility that limits their ability to do so. This is generally due to low clear height, a common feature in older facilities where usable cubic space is scarce.

The ability to expand through additions, new construction, and the costs related to acquire and development new land has made it difficult for many businesses to do so. Yet, the ability to uniquely transform an older building with low clear height exists, and at a fraction of the cost.

By raising the entire existing roof, or a portion of it, buildings can be effectively modernized into valuable and functional facilities.

ROOFLIFTERS, a company that specializes in this type of renovation/rehabilitation, has been providing a cost effective solution a problem that many in the warehousing industry have faced. An entire roof, including lighting, electrical, and mechanical systems can be raised to double or triple the cubic space in a building. In doing so, a building gains increased capacity, efficiency, and property value. This process can also be started and completed far quicker than traditional methods that achieve the same result.

With industry trends moving towards taller warehouse space many older buildings under a 24' are considered outdated. With modern high-reach forklifts, and improved lighting and sprinkler options, businesses are now looking at 32' and higher as the new clear-height standard. According to the ROOFLIFTERS website (www.rooflifters.com) there are a number of significant benefits and advantages of raising a roof.

- Maximize cubic space. Convert buildings with insufficient ceiling heights into modern high-output facilities.
- Remain at your current facility. No need for relocation.
- Faster when compared to other reconstruction methods that add cubic space.
- Eliminate the need for additional real estate.
- Reduce development and construction costs.
- Utilize the existing roof structure. Limiting environmental impact.
- Improve marketability of existing industrial buildings.

Many building owners are using this process to improve their own operations. However, some are doing so to either retain a tenant or acquire a new long term tenant. By raising their building's existing roof owners are not only improving their competiveness, they are also increasing the value and marketability of one of their most valued assets.

Twintec Advisory Paper 1: 21st Century Warehouses & Storage Facilities

Darryl Eddy, Director, Twintec UK

A modern 21st century warehouse is a very different place from its predecessor of the 1980s and 1990's. Developments in logistics technology and software along with advances in storage systems and mechanical handling equipment (MHE) have allowed manufacturers and distribution companies to become dramatically more efficient.

Racking systems are becoming higher, aisles narrower and automated systems commonplace, providing operators with efficient stock retrieval and faster delivery to the customer. These facilities are increasing in size in terms of footprint and height. These facilities place much greater demands on the flooring system including much more aggressive surface wear, much higher loads being imposed on the floor slab and an increase in the flatness tolerances required.

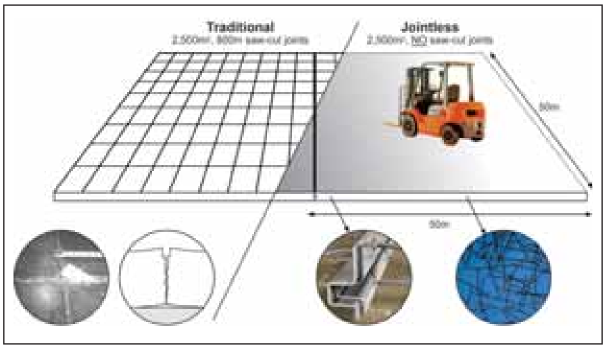
Another consideration that needs to be addressed in such a fast moving industry is 'future-proofing'. Continuing improvements in technology have led some consultants to suggest that changes to the logistics systems in a modern warehouse are needed every 5 – 10 years. This presents an additional problem for clients, tenants and third party logistics (3PL) companies and has a direct bearing on the type of floor specified and constructed in a new facility. Most of the maintenance problems in industrial concrete floors result from unevenness and disruptions of the surface, particularly at joints.

For the operator of a modern distribution facility, down time to repair the floor slab, or MHE damaged by a poor quality floor slab can be very disruptive. In addition, the curling and breakdown of sawn joints in a traditional system can cause major disruption for MHE in terms of picking speed. A further potential problem is the need to respect the designer's criteria regarding proximity of racking legs to floor joints; the more joints there are, the greater the likelihood that conflicts could arise.

Building owners are increasingly aware of such problems associated with saw-cut joints; therefore 'joint-free' industrial flooring systems such as steel fibre reinforced concrete (SFRC) are becoming more frequently specified and have proven to be a successful solution.

A SFRC 'joint-free' slab is designed to eliminate the need for saw cut induced contraction joints. The design is a well proven method with a thirty year track record. Eliminating the saw cut joints has a significant benefit to the end user in terms of increased flexibility of use, improved toughness and durability and reduced maintenance costs for both floor slab and forklifts.

Adopting a SFRC 'joint-free' system will not only minimise the problems identified above, but also improve the flexibility of the building in terms of 'future-proofing' it.



Conclusion

The quality and durability of a modern industrial floor slab is key to the success and efficiency of a modern logistics facility. UK Concrete Society Technical Report No 34 section 2.1 says that "an ideal floor would be perfectly flat and level and have no joints". This is more achievable with SFRC than with lightly reinforced floor slabs as it allows the elimination of saw-cut joints, and therefore ensures better long term flatness.

However, once building owners, consulting engineers, architects and general contractors have decided to opt for a 'joint-free' SFRC slab, they must take precautions in choosing the right specialist contractor for the job by carefully reviewing the following items:

- The contractor's track record in 'joint-free' SFRC floors
- Visit 'joint-free' reference floors and ask the opinion of their users
- Check the site quality control procedures proposed by the concrete contractor
- Ensure that adequate site conditions will be in place before, during and after the works
- Ensure early co-ordination takes place with the contractor to optimise the detailed design and particularly adjoining interfaces
- Limit the number of split responsibilities within the contract
- Be aware of and accept the possibilities of controlled cracks

If these factors are carefully considered, if the planning and design process is integrated carefully with the building and the logistics systems and if the correct contractor and supply chain is selected, then the end result will be that everyone gets exactly what is best for the project.

Twintec Limited, Prospect Park, Valley Drive, Rugby, Warwickshire. CV21 1TF
Tel : 01788 567722 ▪ Email: mail@twintec.co.uk
Website : www.twintec.co.uk

WAREHOUSE SIMULATOR SHOWS THE FULL STORY

Yale's warehouse simulator is an extremely accurate software program designed to provide operators of large warehouses with a sophisticated consultancy solution.

Yale's consultative approach is provided free of charge by the company's warehouse equipment specialists in determining the optimum warehouse design and equipment specification. The program uses the same simulation 'engine' used by major European airports, leading rail infrastructure companies and other blue-chip organisations. It uses intelligent algorithms to write the specialist code bespoke for each end user application, down to the finest level of detail.

The input interface breaks down the sections of the largest warehouse into atomic parts including marshalling, parking and staging areas, the exact type of racking, storage and the fleet to be used. VDI data including speeds and energy consumption, goods flow and order picking and replenishment regimes data can all be input into the program.

The simulation software was recently used to help determine the optimum design and equipment required for one of the largest warehouses in the Middle East, a 375,000 sq ft facility at Jabel Ali South, Dubai, operated by Clarion Integrated Logistics Solutions.

Yale was involved with the development from the earliest planning stages with SSI Schaefer, when Clarion needed to know the maximum number of pallets that could be stored and moved within the available space. To illustrate the potential capacity of the facility the simulation software was used to show how the maximum efficiency could be achieved.

Using six Yale Very Narrow Aisle high level order pickers (MTC) trucks, combined with six counter balance trucks on a wire guided system, the software showed that just under 192 pallet movements per hour could be achieved. Within three hours the simulation identified a congestion issue in the picking operations. This helped provide Clarion with a clear picture of their requirements and gave them the reassurance that Yale was a company with the knowledge, expertise and product range to be able to supply the materials handling equipment for their showpiece warehouse.

The simulator's presentation is unique in that it shows a realistic picture of the warehouse using images of the equipment being proposed and the customer's current or planned assets in situ. In addition, it builds in order picking paradigms and other important details of day to day operations including details of the equipment being specified, speed, braking, lifting and lowering and other performance criteria. The simulation also accounts for power usage and the impact of battery changing and charging on shift performance.

Yale's VNA and warehouse systems manager, Ron Farr, comments: "We can build in accurate break times and interfacing operations as well as congestion within the aisles. All of the data is input and then the simulator itself writes the specialist coding. This enables clients to make easily informed decisions when they can see the full story of what will happen in their warehouse when all the equipment has been commissioned and the warehouse is fully operational.

"The shift pattern system is intelligent enough to handle contract details such as service intervals and can even account for user licences."

As well as calculating hourly usage rates and or KPIs for service agreements, the number of pallet movements and even the number of lorries that are backed up during a period can be seen.

The algorithms can handle seasonal fluctuations, flexible layouts, mixed fleets and additional stand-by trucks to provide a vivid and colourful 3D and 2D representation of the warehouse.

Yale warehouse equipment is provided through Briggs Equipment UK Ltd the exclusive Yale dealer in Great Britain. As one of the leading materials handling specialists, Briggs Equipment has the ability to provide customers with a complete warehouse solution, from assisting in the planning of a new warehouse to the efficient management of the materials handling fleet once the warehouse is operational.

Mark Murfet, VNA and warehouse product manager for Briggs Equipment comments "We understand the importance of getting the most out of any warehouse assets and storage space, as well as ensuring that the facility operates with maximum efficiency. Briggs, in partnership with Yale, offers a consultancy solution as part of our business ethos. The Warehouse Simulator from Yale gives us the ability to analyse data to offer the best solution that is tailored to that exact need of even the most complex warehouse scenarios."

For further information please log on to
www.yale-warehousing.eu