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WHITEPAPER

INTELLIGENT
AND **EFFICIENT**
HUB DEVELOPMENT

In its latest Asia-Pacific Trade and Investment Report (APTIR), the United Nations Economical and Social Commission for Asia and the Pacific (ESCAP) confirms that this region remains the most dynamic pole of the of the global economy, even though trade and investment has yet to return to pre-crisis levels. And although the Report describes commerce as patchy across the region, it asserts that great potential still remains untapped, especially in the services sectors of many countries.

In this regard, the postal and courier sectors are ahead of the curve. Major logistics companies are expanding their operations across the region by opening up, on average, one or two new sorting hubs per month to serve burgeoning commerce. But while a rapid response to new business opportunities is clearly vital in these fast-growing markets, it does present a dilemma. How do posts structure their expansion and create 'pop-up' sorting hubs, whilst remaining open to innovation?

The opportunity to apply some creative thinking in designing a new sorting hub from the ground up isn't just an Asia-Pacific phenomenon, however. PostNL, for example, recently made the choice to go back to basics to re-design its complete parcel network. This European post started with a clean sheet and came up with novel solutions that future-proofs its operation. This is unusual for a Western post whose mail and logistics infrastructure traditionally evolves over a long period of time and can easily become inflexible as a result.

The 'green-field' approach to planning can equally give logistics companies in the Asia-Pacific region enormous scope. They have a golden opportunity to create sorting hubs that meet both current and future need. Processes, systems and software as well as building design and staffing all feed into this mix of ingredients and important lessons can be learned from the PostNL model. So what are the main challenges facing these posts and how can they be overcome?

It stands to reason that understanding the demand curve is vital. Although the lion's share of a post's parcel volume may be in the 20 – 40kg band today, down the line, the dominance may shift to small packets under 2kg. But whilst a good grasp of the economic drivers in the region can help, they offer no certainty and this, in turn, can delay investment in automation. After all, the market is a highly dynamic one and the end game isn't clear.

Investment in the wrong automation is another concern, especially if it is part of a master plan that is to be adopted across multiple sites; the mistake can be compounded over and over again. The clear requirement is to decide on a formula that is both flexible and scalable so it can be easily adapted to meet immediate requirements and changing business needs.

All these issues had to be addressed by PostNL in the process of introducing its radical plan. This post now operates 19, completely re-designed hybrid sorting depots across the Netherlands, where both physical sorting and distribution are undertaken on site. A scalable logistics network is central the set-up so that increasing parcel volumes can be handled in the coming years.

Strong growth in e-commerce means that parcel volume at PostNL is increasing at around 6% per annum but boosting capacity to meet demand wasn't the only factor. The post also wants the freedom to introduce new services and it therefore pursued an IT solution with unprecedented, flexibility to accommodate these plans.

How can the PostNL model inform other posts seeking a similar framework?

TASK FORCE

The appointment of a small and dedicated project team that worked remotely from the mainstream operation proved an excellent decision. This allowed the team to brainstorm and plan without day-to-day business interruptions. The next smart move was to engage the services of a consultancy to steer the process - through network modelling and process design – and specialists in sorting technology, land acquisition and overall implementation.

Of all these specialisms network modelling is, perhaps, the most important to any post wishing to expand its operation as it establishes an intelligent framework into which all the other elements are fitted. By creating a model of the current postal process and infrastructure, posts can simulate future changes and see how they impact on cost and performance.

Based on this framework, they can then accurately calculate the number of machines and also the size of the workforce needed to operate and maintain them. Models can be in line with 1 year or 5 year plans, for example, and include a future hub-network to meet growing volume needs. And by using statistical analysis of the origin and destination of parcels it's possible to model the optimal parcel network structure. The scope of this technology is simply huge. It takes much of the uncertainty out of the process to ensure a cost-effective and efficient outcome.

WHAT ELSE?

Think outside the box – don't just adopt legacy systems because that's an easy choice. Clearly it's a temptation to make use of what's known and available but, the cost associated with integration and ongoing support, can often far outweigh any short term saving in capital expenditure.

The IT system's infrastructure should enable easy, modular expansion to integrate back-office systems, databases and other information streams that will allow new business ideas to be developed. This should be supported by a high-speed data backbone to ensure fast communication with local servers, remote services and the cloud.
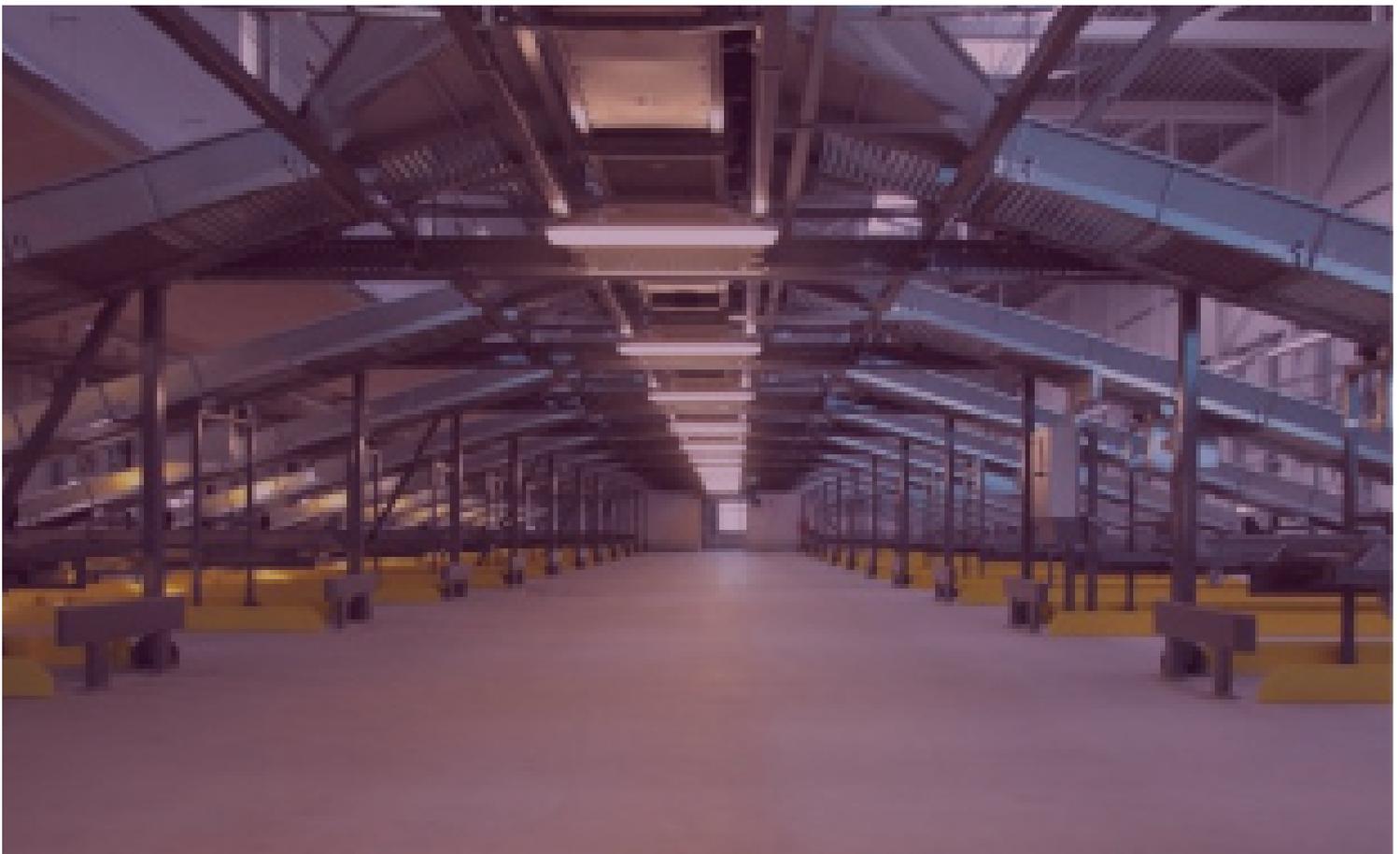
Posts should also make sure their choice of automation platform gives them complete control over how the operation expands in the future. The problem with proprietary, locked-down systems is that they put the vendor, not the post, in the driving seat. Naturally the vendor's approach will be in line with its own future plans and not necessarily the best way forward for the post.

Essentially, intelligence should remain in the post's domain, not at system or sorter level. And by choosing an automation infrastructure with open architecture it will work with best of breed equipment that is optimal to the task.

Once all these elements have been considered, it's then time to put the new system through its paces and what has worked well for PostNL and others is to nominate an established location to be a pilot centre or centre of excellence. This way the system or innovative method can be proven alongside operations with minimal impact.

Job done! Well not quite. That's just the start of the process. The only way to ride the tide of business fluctuation and seize new and profitable opportunities is to keep innovating. This has been PostNL's secret weapon for many years and it continues to serve them well.