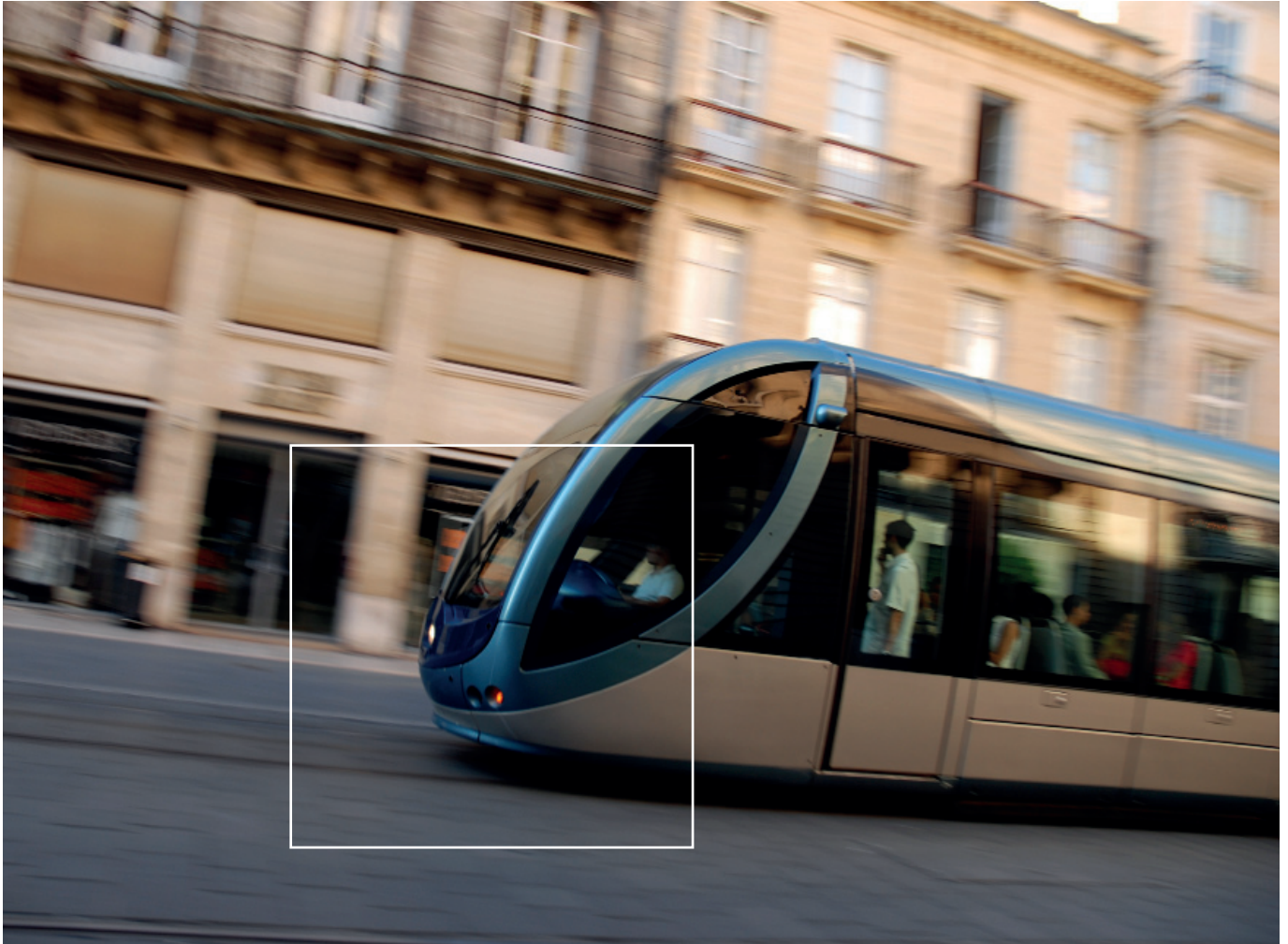


# Finding the right track

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*Strategic challenges for Nordic Public Transport Operators*



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# Executive summary

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Public transport in Northern Europe is changing rapidly with increased outsourcing, shifts in the public's traveling needs and significant regulatory changes. These trends put pressure on traffic operators to not only improve operations but also to rethink their strategic and tactical agenda.

Arthur D. Little has identified six success factors that characterize "cost effective innovators" in the industry:

- Build processes for continuous innovation – beyond the basics
- Be in the forefront of understanding customer needs
- Continuously improve cost efficiency
- Excel in writing and packaging attractive tender offerings
- Build a systems capability and mindset
- Strategic approach to competence management

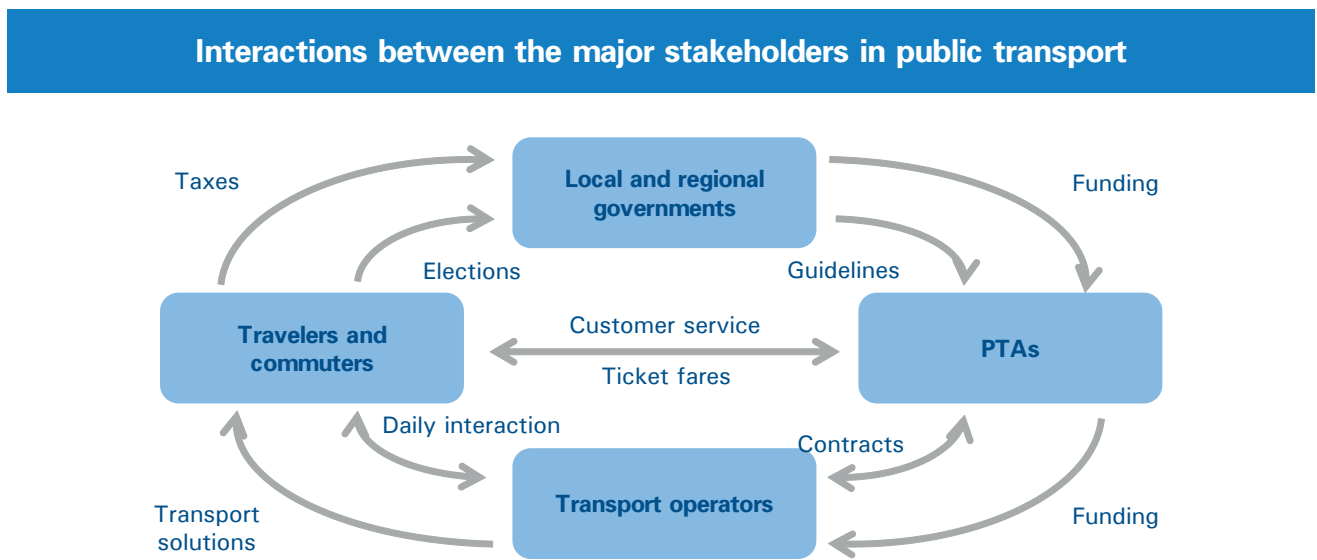
The true winners are the operators that effectively manage all the six building blocks for success in a structured manner. Arthur D. Little advocates creating an integrated portfolio of the six dimensions above while following a structured roadmap, implementing initiatives to become cost effective innovators and successfully adapting to the changing competitive landscape.

# Introduction

Travelers and commuters are more than ever concerned about public transport from perspectives like convenience, work life balance, environmental impact, economy and safety. Travelers and commuters are tax payers and voters, with influence indirectly through the political process. Furthermore, they have more immediate influence by direct interaction with the public transport authorities (PTAs) as well as through their daily interactions with the transport operators. Figure 1 illustrates the most important stakeholders in public transport and the means by which they influence each other.

This Arthur D. Little paper focuses on transport operators and their interaction with PTAs, with an emphasis on the Nordic region. The paper reflects on the key current trends affecting public transport operators in the Nordics and how operators can meet these challenges. The conclusions are based on Arthur D. Little’s insights from our daily involvement with leading industry players in the Nordics, continental Europe and the UK.

Figure 1. Simplified overview of the interactions between the major stakeholders in public transport



Source: Arthur D. Little analysis

# Trends affecting transport operators

Some 20 years ago almost all public transport was planned and operated by PTAs or companies under public control. PTAs also managed much of the public transport system such as maintenance of infrastructure (e.g., rail tracks and real estate), customer service, ticketing, etc. Today, outsourcing in public transport has come a long way in the Nordics, particularly in Sweden and Denmark. Outsourcing has opened up a market for private public transport operators, many of which are global players such as MTR, Veolia, Arriva, Keolis and Deutsche Bahn, to name just a few.

This relatively new market is characterized by a number of significant trends:

- Transition from production orientation to customer focus
- Transition from price competition to functional contracts and quality-based procurements
- Incentive and net contracts implying a shift of the operational and commercial risk to the operator
- Continuous deregulation of the whole industry

PTAs used to be highly production oriented, maximizing the production of passenger kilometers and minimizing price. Customer satisfaction was less in focus. Recently, PTAs have become increasingly strategic in their ambition to increase the quality and market share of public transport through increased customer orientation. This is supported by a general political ambition to increase public transport's market share.

To address this, PTAs are moving from a cost-focused procurement of a predefined service to a functional procurement focusing on both cost and customer satisfaction. Many PTAs gradually rely more and more on the transport operators concerning how to satisfy the customers. Hence, tender evaluations are increasingly about both quality and price.

As a result of this increasing quality and customer perspective, PTAs are changing the way they govern their contracts. In the old production-oriented model the operators were paid a fixed fee per passenger kilometer or departure. In the new model, the operators are, to an increasing extent, paid a fixed fee for the entire range of operations within a traffic area and receive bonuses if they succeed in attracting more passengers and

Figure 2. Sample of recent public transport tenders in Sweden

PTA	Procurement	Contract start	Value (SEKm)	Awarded operators	Degree of quality orientation in the tender evaluation	
					Low	High
Västtrafik	Commuter trains 2010	December 2010	~ 2 600	DSB first		
	Bus 2011	December 2010	~ 1 400	Orusttrafiken		
	Bus (central Gothenburg)	June 2010	N/A	Veolia Transport		
Skånetrafiken	Bus	2009	~ 970	Swebus, Orusttrafiken Veolia Transport etc.		
Stockholms Lokaltrafik	Metro in Stockholm	November 2009	~ 35 000	MTR		
	Bus (Ekerö and Märsta)	August 2008	~ 300 per year	Arriva		
	Bus (Huddinge/ Botkyrka/ Söderort and Nacka/Värmdö)	August 2011	~ 10 000	Contract not awarded yet		

Source: Arthur D. Little analysis

increase customer satisfaction. Similarly, the penalties can be high for not meeting the functional requirements. Figure 3 illustrates this. The trend is towards transferring operational risk (the cost of operations) as well as commercial risk (the revenue from ticket sales) from the PTA towards the operators.

Alongside the market trends discussed above, competition among operators is increased by the regulatory changes sweeping across the industry, aimed at deregulating passenger transport in general.

The Swedish government's legislative proposal aiming to restructure the logic of public transport provision is one example of this. The essence of the proposal is to allow operators to compete freely in any area and on any routes. New regional authorities with a strategic responsibility for regional public transport are supposed to ensure that areas or lines with no traffic or insufficient traffic will be complemented with publicly procured traffic to create a viable market.

Figure 3. Classification of various public transport contract types



Source: Arthur D. Little analysis

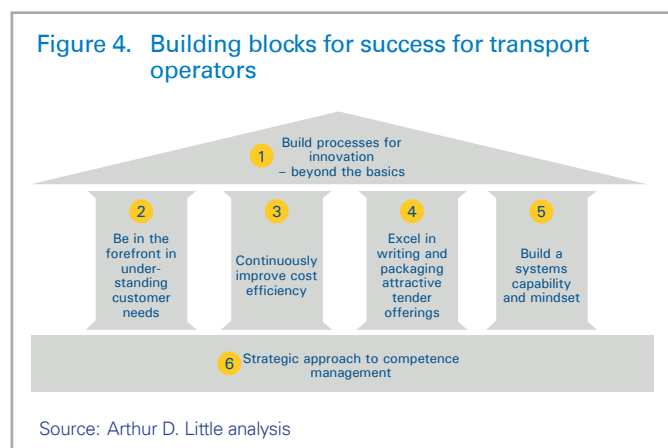
# How Public Transport operators can ensure competitiveness in a changing competitive landscape

To increase market shares and efficiency – to achieve profitable growth in the transforming market described above, public transport operators compete by being not just cost effective operators but also cost effective innovators.

The value of innovation excellence is significant in most industries and in Arthur D. Little's 2009-2010 global study on this theme we saw how the top innovators systematically appear as the most profitable and fastest growing players in their respective industries. The public transport sector was no exception.

At the same time, the transport sector has been under cost pressure for many years and price is a constant success factor to gain and keep market share. Hence, cost leadership is a key enabler for growth and strategic freedom.

Arthur D. Little works regularly with PTAs and public transport operators across the Nordics, continental Europe and the UK. In recent years we have learnt how the largest international operators as well as regional operators and PTAs face different variations of the challenges described in the previous chapter. Deregulation, competition, cost pressure, consolidation and outsourcing have swept across most European public transport markets.



Markets have their commonalities and differences and every industry player's challenges are unique. However, we see some fundamental capabilities that distinguish the winners. For public

transport operators there are six central building blocks that characterize cost effective innovators of the industry illustrated by figure 4.

## Build processes for continuous innovation – beyond the basics

Many large contracts already stipulate increasing punctuality, functionality, customer satisfaction and services as not only desirable but absolutely required in order to fulfill contracts. Basic requirements must be continuously exceeded in order to qualify for bonus revenues. Positive, but still insufficient development may even lead to penalties under aggressive contracts. Continuously improved services, exceeding expectations while managing costs, implies doing things differently; differences in practices and differences from competitors. This requires structured innovation. Examples of innovation initiatives include integration of transport modes, information and service hosts to support travelers, availability of extra stand-by train/buses to be able to manage disruption, on-board telecom solutions, easier travel for children, the elderly and other groups with special needs; the list goes on.

The innovative capability of an operator determines the creativity, quality and timeliness of its services to meet and exceed customer expectations as well as its ability to manage never-ending cost pressure.

## Be in the forefront of understanding customer needs

The preferences, needs and expectations of the customer become more important. To be able to offer services that can retain the current travelers and attract new ones, public transport operators develop their processes, routines and competences to continuously track what customers want in order to persuade them to choose public transport instead of going by car, taxi or other means of transport. Public transport operators need to identify and interpret customer requirements and meet them more rapidly and more consistently than ever before.

Operators are investing significant efforts into much more than punctual service. Customer expectations that were considered

futuristic just a few years ago are now becoming the accepted norm: for example real time information in the case of delays, news and information throughout the duration of the journey, free WiFi connections on buses, smoother and simpler ticketing, trip planning through cell phone applications, etc.

***“The contextual journey planner” – Example of an innovative value add service for travelers and commuters developed by Arthur D. Little and Cambridge Consultants***

- *The contextual journey planner provides real-time, context-aware services that act as true assistants for passengers in making travel choices*
- *The contextual journey planner will help to attract more customers that would otherwise use other, more flexible, modes of transportation*
- *The contextual journey planner extends beyond the web-based and mobile phone planning tools by tailoring the journey to meet specific passengers requirements and maintaining an awareness of the expected and actual status of other transport modes*
- *Embryonic applications of the contextual journey planner already exist and development continues*

**Continuously improve cost efficiency**

Globally, the public transport industry is used to price pressure. The Nordic markets are no exception and operators live with challenging low operating margins. Limited operating margins are due not only to price pressures, but also to high competitive intensity and a fragmented competitive landscape. To stay competitive, operators need to be cost leaders and service innovators.

Arthur D. Little worked with the leading German public transport operator, with its regional bus operator subsidiaries across Germany and its suburban trains operators in the largest cities to radically cut costs through an Activity-Structure-Analysis. This methodology is put in the hands of the client organization and helps identify resource efficiency in all processes across the company. It creates an involvement and transparency that no business control systems can match. The Activity-Structure-Analysis maps resource spend against organizational unit on the one hand and against detailed process elements on the other.

One of the most profitable Nordic transport operators, Nobina, has managed to increase its planning efficiency continuously by centralizing certain functions, replicating best practices across the organization and delivering many small incremental improvements, all adding up to significant results.

**Excel in writing and packaging attractive tender offerings**

Traffic tenders used to be relatively straightforward: PTAs set minimum requirements and the operators needed only to show that they had the ability to fulfill these. Those operators that fulfilled the quality thresholds were then compared on price.

As tenders move from strict price competition to functional and quality orientation, so the traffic operators’ ability to package and describe their services and innovation capabilities become crucial. Public transport operators are required to thoroughly describe how they intend to work in order to achieve high quality standards and how the quality they intend to deliver will develop over time.

Well-conceived and superbly crafted descriptions of how operations will be conducted, managed, controlled and continuously improved have become a key success factor in communicating the distinguishing capabilities of an operator.

**Build a systems capability and mindset**

Typically in an integrated transport system investments and innovation in one area will have wider benefits and implications – while economies elsewhere may have downsides that emerge only later. Few operators’ operations can be meaningfully



addressed in isolation, so a systems perspective is important. Only in this way can upsides be maximized (and monetized) and downsides mitigated and managed. Operators should thus prioritize systems thinking and collaboration with PTAs, municipalities, authorities, adjacent traffic operators and other key stakeholder groups. Understanding the systems issues (both in operators' own systems and via the interfaces to others' systems) will enable operators to:

- Offer a more seamless and better integrated proposition to the customer and to the PTA
- Find and exploit leverage opportunities for investment
- Diagnose possible problems and issues with a proposition or a service before they escalate

Systems thinking and collaboration is highly relevant for the Nordic markets today after drastic outsourcing and reshuffling of roles and responsibilities that previously used to be under one roof (typically the PTAs responsibility). Collaboration opportunities, especially to deliver win-win outcomes, depend upon a systems view. Arthur D. Little is helping the whole railway sector in the UK to take account of systems issues and to create a "systems leadership function" to increase effectively managed and introduced innovation. Collaboration is increasingly a key part of this, especially in a world of "open innovation." We see the same need for collaboration addressed by the Swedish city of Sundsvall where the PTA Din Tur innovates in their route networks and service offerings. The innovation work is driven by a project group composed of all key stakeholders, so enabling trade-offs to be made with a truly systems perspective. Public transport consumption has increased by 11% in only a few years, in part due to the better integration of connecting services.

Operators that master systems thinking will have a competitive advantage, both strategically in positioning themselves over time and tactically in operations and negotiation. They will be able to recognize where the highest added value can be exploited and commercialized. Operations can be optimized against the best measures to drive effectiveness and efficiency – a focus on cause and not just symptoms. Negotiation can be focused on the issues that drive system performance, cost-effectiveness and profitability. A true systems capability and mindset will also integrate all the other building blocks that characterize cost effective innovators.

### Strategic approach to competence management

The challenges outlined above imply that public transport operators need to excel in more and different capabilities than before.

Sensitive customer requirement tracking is an end-customer oriented business process that was not as crucial in the past as it is today. The same goes for innovation. Tender document writing is much more a key success factor today than it used to be and it requires different skills in communication, documentation, management and coordination than before. All these "new" capability requirements demand a strategic perspective on competence identification, development and management. Inversed age pyramids, greater workforce mobility, as well as shorter and more complex technology cycles further accentuates the need for operators to put competence management high on the strategic agenda, which creates opportunities as well as challenges from an HR-perspective.

Arthur D. Little is helping PTAs and public transport operators manage this strategic competence challenge. We assisted STIB/MIVB, the largest Belgian urban public transport company, serving 30 communes within and around the Brussels Capital Region, in the development and implementation of a large strategic and organizational turnaround program. A crucial part of this work has been in strategic competence management.

# Implementing high performance public transport

Arthur D. Little continues to work with leading public transport operators across Europe and has observed patterns among the winners in the game for market share and profitability. The winners are the “cost effective innovators” that effectively manage all the six building blocks for success.

To implement high performance public transport, Arthur D. Little advocates creating an integrated portfolio of the six building blocks while following a structured roadmap consisting of an analysis phase, a planning phase and a structured implementation phase. Figure 5 provides examples of initiatives that operators could undertake to become cost effective

innovators and successfully adapt to the changing competitive landscape.

Arthur D. Little is committed to the public transport sector around the world. We regularly help our clients turn complex strategy, organization, operational efficiency and innovation challenges to their advantage. We work for private and public organizations in all parts of the public transport value chain. Our clients and we learn and build new capabilities from addressing the issues of leading public transport organizations in the world’s most challenging and exciting cities and regions.

**Figure 5. Example activities for implementing high performance public transport**

	Analysis	Planning	Implementation
<b>1</b> Build processes for innovation – beyond the basics	<ul style="list-style-type: none"> <li>Review current innovation processes</li> <li>Study best practice innovation in other industries</li> <li>Analyze specific areas with innovation needs and possibilities to innovate</li> <li>Analyze upcoming tenders and current contract portfolio with regards to need for and potential of innovations</li> </ul>	<ul style="list-style-type: none"> <li>Plan innovation aligned to upcoming tenders</li> <li>Plan innovational work streams in current operations, aligned with incentives and goals</li> <li>Plan rollout of process for continuous innovations and improvement of operations</li> <li>Align innovation and market surveillance processes with the organization and operational control</li> </ul>	<ul style="list-style-type: none"> <li>Implement processes and KPI measurements for innovation and improvement of operations</li> <li>Conduct innovation work streams for upcoming tenders and current operations</li> <li>Ensure alignment with the customer needs</li> <li>Ensure alignment with competitive landscape</li> </ul>
<b>2</b> Be in the forefront in understanding customer needs	<ul style="list-style-type: none"> <li>Analyze customer needs (market surveys, customer workshops etc.)</li> <li>Analyze upcoming tenders and current contract portfolio with regards to how customer needs are looked upon</li> <li>Benchmark more advanced public transport markets</li> </ul>	<ul style="list-style-type: none"> <li>Compile detailed implementation plans</li> <li>Align implementation plans with the organization and operational control</li> <li>Plan rollout according to customer needs, technical developments, current and future contracts etc.</li> </ul>	<ul style="list-style-type: none"> <li>Implement processes and methods as well as KPI measurements for continuous market surveillance and continuous improvement</li> </ul>
<b>3</b> Continuously improve cost efficiency	<ul style="list-style-type: none"> <li>Analyze operational and organizational efficiency improvement potential</li> <li>Benchmark overhead and operational costs with competitors and other industries</li> <li>Study best practices for achieving cost efficiency</li> <li>Analyze possible synergies between current contracts and upcoming tenders</li> </ul>	<ul style="list-style-type: none"> <li>Agree on common methods (e.g. BPR, Lean)</li> <li>Agree on metrics for valuation of improvement projects (e.g. metrics for cost benefit analysis)</li> <li>Decide on cost minimizing initiatives</li> <li>Plan consolidation of different areas to minimize overhead aligned contract portfolio development</li> </ul>	<ul style="list-style-type: none"> <li>Clarify governance structure towards more efficiency and better speed of decision making</li> <li>Ensure that cost efficiency is part of processes for continuous improvement</li> <li>Launch operational efficiency programs</li> <li>Clarify allocation of roles and responsibilities for all key services and processes that include potential centralization of key supportive functions</li> </ul>
<b>4</b> Excel in writing and packaging attractive tender offerings	<ul style="list-style-type: none"> <li>Design processes for tender writing project management</li> <li>Optimize organization, methods and resource base</li> <li>Analyze specific needs in upcoming tender processes</li> </ul>	<ul style="list-style-type: none"> <li>Ensure that planning is aligned with current organization and tender processes</li> <li>Allocate roles and responsibilities</li> <li>Secure resources</li> </ul>	<ul style="list-style-type: none"> <li>Roll out tender writing processes</li> <li>Establish tender writing organization with suitable methods and necessary resource base</li> <li>Establish suitable organization and process for each upcoming tender</li> </ul>
<b>5</b> Build a systems capability and mindset	<ul style="list-style-type: none"> <li>Perform a detailed stakeholder analysis and analyze and understand all external contact points</li> <li>Develop system diagrams and ‘cause and effect’ diagrams to capture corporate insight</li> <li>Perform for all new service offerings a systems analysis that includes all stakeholders, all major interfaces, functions, benefits and economics</li> </ul>	<ul style="list-style-type: none"> <li>Include external stakeholders in action plans</li> <li>In developing plans and proposals, explicitly explore system implications</li> <li>Establish processes to review proposals against system implications and to optimize outcomes</li> </ul>	<ul style="list-style-type: none"> <li>Establish long term working relationships with PTAs, other operators and industry organizations</li> <li>Establish and use industry fora to explore systems issues to expand performance boundaries</li> <li>Develop in-house capabilities in systems engineering and sensitize management to systems thinking</li> </ul>
<b>6</b> Strategic approach to competence management	<ul style="list-style-type: none"> <li>Identify and characterize current competence portfolio</li> <li>Identify critical competencies and people in terms of knowledge gaps</li> <li>Identify roles and responsibilities necessary in upcoming tender processes</li> </ul>	<ul style="list-style-type: none"> <li>Identify competence development strategies focusing on required areas to secure competitive advantages</li> <li>Define resources required in the future</li> <li>Develop knowledge transfer plan for critical competences</li> </ul>	<ul style="list-style-type: none"> <li>Perform key recruitments</li> <li>Roll out training and competence management program</li> <li>Implement governance mechanisms for strategic steering of competences</li> </ul>

Source: Arthur D. Little analysis

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### The tram

Tram, streetcar or trolley systems were common throughout the industrialized world in the late 19th and early 20th centuries, but they disappeared from many cities in the mid-20th century. In recent years, they have made a comeback. Many newer light rail systems share features with trams, although a distinction is usually drawn between the two, especially if the line has significant off-street running.

### Arthur D. Little

Arthur D. Little, founded in 1886, is a global leader in management consultancy; linking strategy, innovation and technology with deep industry knowledge. We offer our clients sustainable solutions to their most complex business problems. Arthur D. Little has a collaborative client engagement style, exceptional people and a firm-wide commitment to quality and integrity. The firm has over 30 offices worldwide. With its partner Altran Technologies Arthur D. Little has access to a network of over 17,000 professionals. Arthur D. Little is proud to serve many of the Fortune 100 companies globally, in addition to many other leading firms and public sector organizations. For further information please visit [www.adl.com](http://www.adl.com)

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