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The product offerings by providing commuter services during peak times and leisure services during off-peak times. Leisure services are usually more profitable than commuter services, since visitors and other leisure users are more willing to pay a premium price to use waterborne services. This is the case in Bermuda and with many operating authorities in the UK and Italy. Many cities provide a variety of services to diversify revenues while improving the overall efficiency of their operations. This illustrates how waterborne transport authorities can improve the cost effectiveness of their service while contributing to the PTx2 objective to double the public transport market share worldwide by 2025.

Improving the cost effectiveness of providing waterborne transport

Waterborne transport can be expensive to provide. Vessel construction, operational and fuel costs all contribute to the high cost of operating waterborne services. Nevertheless, there are methods to make waterborne transport more cost effective. These include diversifying

Conclusions

This Focus Paper illustrates that waterborne transport can continue to evolve from a ‘niche’ mode of transport to become an important part of the transport network and waterfront redevelopment initiatives. By focusing on service quality and integration with other modes of transport and waterfront development projects, waterborne transport has a bright future in the overall mobility options for cities on water. As cities return to their waterfronts, the opportunity arises for waterborne transport to make a major contribution to enhancing the quality of life and lifestyle choices for residents and tourists, thereby contributing to the UITP strategy to double the market share of public transport worldwide by 2025.

Recommendations for waterborne transport and its contribution to UITP’s PTx2 strategy

• Integrate waterborne transport with other public transport modes by providing good intermodality and common ticketing, when it makes economic sense to do so.
• Integrate waterborne transport into the overall urban planning schemes, in particular for waterfront enhancement projects.
• Provide good accessibility to vessels and terminals to ensure smooth boarding for persons with reduced mobility.
• Diversify revenues and services by providing both commuter and leisure services, thereby maximising the potential for waterborne transport to contribute to reducing congestion during peak times and providing off-peak services for leisure journeys.
• Develop alternative technologies to reduce reliance on fossil fuels and reduce emissions.
• Reduce on-land congestion by providing high-quality waterborne services that meet the travel needs of commuters and tourists.

Waterborne transport: definition and history

Waterborne transport is the use of ferries or other waterborne vessels in the transportation of passengers via waterways (sea, rivers, lakes, lagoons, canals, etc.). Long before urban sprawl and motorways, waterways represented the original corridors of commerce and transportation. In the late 19th and early 20th centuries, many waterways became centres of industrial activity including ship building, warehousing and other land uses reflecting the industrial era which existed until the mid 20th century. Many cities in the latter part of the 20th century experienced a decline in industrial activity on their waterfronts which,
Accessibility of waterborne transport in London.

Transport on waterborne - fixed or curtailing services. At one time the primary mode of transport, such as London, Liverpool, Gothenburg, to name but a few, all experienced similar decline along with motorways, thus contributing to urban development schemes.

Urban rejuvenation

It has only been over the past 30 years that urban planning initiatives have focused on revitalising waterfronts, while using waterborne transport as a catalyst for sound land-use planning, including residential, commercial and recreational uses. Today, many waterfronts of many cities are the ‘place to be’ and have become an integral part of many urban centres. Many older cities in the UK and elsewhere in Europe have redeveloped their waterfronts while incorporating waterborne transport into their plans. Newer cities such as Brisbane, Sydney and Dubai recognised that their waterfronts offered great potential as an important part of urban life, and incorporated waterborne transport into their urban planning schemes early in their development. In the United States, cities such as San Francisco, Boston and Seattle have removed elevated highways that once blocked access to the waterfront, in order to link the waterfront with the urban core of the cities. As cities return to the waterborne transport, it is often easier and more sustainable than land-based transport services since there is extra space to accommodate persons with reduced mobility.

Using a natural transportation corridor (water) that has existed since the beginning of time negates the need to develop expensive and potentially disruptive dedicated rights-of-way for tram, metro, BRTs and other modes of transport requiring dedicated corridors. Waterborne transport offers a unique contribution to the overall redevelopment of the waterfront, in order to link the waterfront and the services that operate on the water when it makes economic sense to do so.

Waterborne transport, a unique contribution

Consistent with the renewal of waterfronts worldwide, waterborne transport authorities have worked hard to ensure that waterborne transport contributes to the overall redevelopment and mobility schemes. Initially, many waterborne transport operators and authorities focused on recreational uses consistent with redevelopment plans along the waterfront. However, once the waterfronts evolved into multi-use developments as commercial and residential uses, it became a focus of many operators to pursue better integration into the main-stream public transport operations by providing better connectivity, such as integrated schedules.

Although waterborne transport remains a ‘niche’ player in the overall transport schemes of many cities, this unique mode of travel offers significant benefits compared to land-based transport.

- Travel by ferry is often a more pleasant experience than other transport modes. No other mode offers a deck for when the sun is shining, on-board concession areas, a guaranteed seat and plenty of space to appreciate the views.

- With less physical restrictions than land-based modes, waterborne vessels offer plenty of space for cars and bicycles.

Accessibility on waterborne services is often easier and more sustainable than land-based transport services since there is extra space to accommodate persons with reduced mobility.

When properly implemented, water borne transport can continue to evolve from a ‘niche’ mode of transport requiring dedicated corridors, to a fully integrated mobility scheme into a fully integrated ticketing system. The Cais do Sodré Terminal (Lisbon) provides intermodal connections between all modes of transport, with full accessibility for mobility impaired passengers and a fully integrated ticketing system.

Effective elements of a successful waterborne system

Development of visionary plans and policies and intermodality

Until recently, many waterborne systems operated independently from policies that guide land-based urban planning and transport policies. Successful systems today, whether they be leisure, commuter or long-distance transport, are designed to de sign services that are consistent with, and integrated into, the overall urban planning and mobility schemes in the areas and cities where they are located. In most applications, ferry stops are located in close proximity to land-based transportation systems, to minimise the walking distance between modes while encouraging connectivity between the modes. Urban and transportation planners designed visions and policies to ensure that the water services were consistent with the overall guidelines being considered for redevelopment of the waterfront areas. Well thought through water services are an important criterion for waterborne transport to be successful, and the appeal of waterborne transport and the desire to use this transport mode as a viable alternative to other land based modes, vessel and terminal design requirements are almost always driven by the ‘unique’ operating conditions where waterborne transport operates. For this reason, most ferry vessels are designed and built by ship builders with a keen understanding of the environmental design which is an important criterion for waterborne transport. The Cais do Sodré Terminal (Lisbon) provides intermodal connections between all modes of transport, with full accessibility for mobility impaired passengers and a fully integrated ticketing system.

Focus on service quality and meeting the needs of the public

In a similar way to land-based transport systems, waterborne transport systems must provide a product that focuses on service quality and meeting the needs of travellers, whether the journey be for leisure or commuting. This includes taking advantage of the ‘unique’ qualities that travel on water provides, such as the vessel design optimising the view from the interior of the vessel, comfortable seating, and on-board amenities such as concessions. Providing these improvements enables waterborne transport to contribute to reducing congestion on land and enhancing the overall mobility objectives and policies.

Waterborne transport has a tremendous appeal consistent with other modes of travel, but only if planners and operators concentrate on meeting the unique needs of the travelling public by taking advantage of the unique qualities that waterborne transport offers.

Provision of infrastructure investment to enhance the appeal of waterborne transport

Unlike traditional land-based transport modes, vessel and terminal design requirements are almost always driven by the ‘unique’ operating conditions where waterborne transport operates. For this reason, most ferry vessels are designed and built by ship builders with a keen understanding of the environmental design which is an important criterion for waterborne transport. The Cais do Sodré Terminal (Lisbon) provides intermodal connections between all modes of transport, with full accessibility for mobility impaired passengers and a fully integrated ticketing system.

Access to floating pontoons. Ease of access is an important criterion for waterborne transport, which enhances the appeal of this transport mode as a viable alternative to other land-based modes of transport. Environmental design is taken into account as well, and some cities heavily invest in their terminals to ensure that they blend in with the natural environment while being directly and easily connected to the land-based public transport network.

Many places have invested in infrastructure projects to enhance the viability and appeal of waterborne transport and to ensure that integration with other modes of public transport is achieved. In all cases, this has led to an increase in journeys made using waterborne transport, thereby securing a higher modal split, which contributes to achieving the PTX objectives.

Energy and the environment

Historically, waterborne transport has imposed fewer other modes of transport in ensuring that its services have as
in turn, resulted in a decline in waterborne commerce and industry, and the need to move cargoes inland. As cities turned inland and developed motorways, thus contributing to urban sprawl development, many cities turned their backs on their waterways, resulting in further decline. World-class cities, such as London, Liverpool, Gothenburg, Oslo and Hamburg, to name but a few, all experienced similar problems and developed their waterfronts. Waterborne transport, at one time the primary mode of transport for cities on water, also experienced a decline, with many cities reducing or curtailing services.

Urban rejuvenation

It has only been over the past 30 years that urban planning initiatives have focused on revivifying waterfronts, while using waterborne transport as a catalyst for sound land-use planning, including residential, commercial and recreational uses. Today, waterfronts of many cities are the ‘place to be’ and have become an integral part of many urban centres. Many older cities in the UK and elsewhere in Europe have redeveloped their waterfronts while incorporating waterborne transport into their plans. Newer cities such as Brisbane, Sydney and Dubai recognised that their waterfronts offered great potential as an important part of urban life, and incorporated waterborne transport into their urban planning schemes early in their development. In the United States, cities such as San Francisco, Boston and Seattle have removed elevated highways that once blocked access to the waterfront. In order to link the waterfronts with the urban core of the cities, as cities return to the waterfronts, an integrated approach is sought to ensure harmony between the redevelopment schemes and the services that operate on the water when it makes economic sense to do so.

Accessibility

Waterborne transport, a unique contribution

Consistent with the removal of waterways worldwide, waterborne transport authorities have worked hard to ensure that waterborne transport contributes to the overall redevelopment and mobility schemes. Initially, many waterborne operators and authorities focused on recreational uses consistent with redevelopment plans along the waterfronts. However, once the waterfronts evolved into multi-use developments as commercial and residential uses, it became a focus of many operators to pursue better integration into the main-stream public transport operations by providing better connectivity, such as integrated schedules and ticketing systems. Although waterborne transport remains a ‘niche’ player in the overall transport schemes of many cities, this unique mode of travel offers significant benefits compared to land-based transport.

• Travel by ferry is often a more pleasant experience than other transport modes. No other mode offers a deck for when the sun is shining, on-board concession areas, a guaranteed seat and plenty of space to appreciate the views.
• With less physical restrictions than land-based modes, waterborne vessels offer plenty of space for cars and bicycles.
• Accessibility on waterborne services is often even better than land-based transport services since there is extra space to accommodate persons with reduced mobility.
• Using a natural transportation corridor (water) that has existed since the beginning of time negates the need to develop expensive and potentially disruptive dedicated rights-of-way for trains, metros, BRTs and other modes of transport requiring dedicated corridors.

Waterborne transport is a catalyst for encouraging connectivity between the modes. Urban and transportation planners developed visions and policies to ensure that the water services were consistent with the overall guidelines being considered for redevelopment of the waterfronts. This has led to an increase in the provision of land-based transport services with the overall transport and mobility schemes. This, in turn, has led to an increase in the appeal of waterborne transport and operators concentrate on meeting the needs of the travelling public by taking advantage of the unique qualities that waterborne transport offers.

Provision of infrastructure investment to enhance the appeal of waterborne transport

Unlike traditional land-based transport modes, vessel and terminal design requirements are almost always driven by the ‘unique’ operating conditions where waterborne transport operates. For this reason, most ferry vessels are designed and built by ship builders with a keen understanding of the operating conditions that exist throughout the world, with the result often being that each vessel must be designed to do so. In all cases, this has led to an increase in the appeal of waterborne transport, which enhances the appeal of waterborne transport and operators concentrate on meeting the needs of the travelling public by taking advantage of the unique qualities that waterborne transport offers.
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• Using a natural transportation corridor (water) that has existed since the beginning of time negates the need to develop expensive and potentially disruptive dedicated rights-of-way for -
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• Waterborne travel is relatively low cost and travel time is very rarely blocked by congestion.

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accessibility of waterborne transport in London.

The Cats du Sud Terminal (Istanbul) provides a symbolic example of the potential for world class projects to enhance the viability of an existing waterborne system.

When properly implemented, water -
borne transport can continue to evolve from a ‘niche’ role into a fully integrat -
ed mobility scheme, and provide better services that are consistent with, or commuter services, attempt to de -
velop intermodal connections between all modes of transport, with full accessibility for mobility impaired passengers and a fully integrated ticketing system.

The Cais du Sud Terminal (Istanbul) provides intermodal connections between all modes of transport, and enhances the appeal of waterborne transport.

Elements of a successful waterborne system
Development of visionary urban policies and mobility schemes
Until recently, many waterborne sys -
tems operated independently from poli -
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Because travel on water provides, such as high tidal variations of up to 7 metres, requiring long and expensive ramps to access floating pontoons. Ease of access is an important criterion for waterborne transport, which enhances the appeal of this transport mode as a viable alternative to other modes of transport.

Environmental design is taken into ac -
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port, thereby securing a higher modal split, which contributes to achieving the PFT objectives.

Energy and the environment
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Conclusions

This Focus Paper illustrates that waterborne transport can continue to evolve from a ‘niche’ mode of transport to become an important part of the transport network and waterfront redevelopment initiatives. By focusing on service quality and integration with other modes of transport and waterfront development projects, waterborne transport has a bright future in the overall mobility options for cities on water.

As cities return to their waterfronts, the opportunity arises for waterborne transport to make a major contribution to enhancing the quality of life and lifestyle choices for residents and tourists, thereby contributing to the UITP strategy to double the market share of public transport worldwide by 2025.

Many vessel operators provide public transport during peak times and leisure services during off-peak times. Leisure services are usually more profitable than commuter services, thus visitors and other leisure users are more willing to pay a premium price to use waterborne services. This is the case in Bermuda and with many operating authorities in the UK and Italy.

Many cities provide a variety of services to diversify revenues while improving the overall efficiency of their operations. This illustrates how waterborne transport authorities can improve the cost effectiveness of their service while contributing to the PTx2 objective to double the public transport market share worldwide by 2025.

Improving the cost effectiveness of providing waterborne transport

Waterborne transport can be expensive to provide. Vessel construction costs, capital costs, and fuel costs all contribute to the high cost of operating waterborne services. Nevertheless, there are methods to make waterborne transport more cost effective. These include diversifying

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Recommendations for waterborne transport and its contribution to UITP’s PTx2 strategy

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This Focus Paper is prepared by the Waterborne Transport Committee.

This is an official position of UITP and is readily accessible online. For further information, contact:

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A UITP position paper

WATERBORNE TRANSPORT, A UNIQUE CONTRIBUTION TO ENHANCING MOBILITY FOR CITIES ON WATER

Introduction

In recent years waterborne transport has become an integral part of the urban landscape. Renewed interest in waterfront development and urban rejuvenation, coupled with increased congestion on land-based transportation resources, has provided an opportunity for waterborne transport to play a significant role in urban mobility schemes. To that end, this Focus Paper presents the role that waterborne transport can play in conjunction with PTx2 and working with the public transport market share worldwide by 2025 while enhancing quality of life for those residing in and visiting cities on water.

Waterborne transport: definition and history

Waterborne transport is the use of ferries or other waterborne vessels in the transportation of passengers via waterways (sea, rivers, lakes, lagoons, canals, etc.). Long before urban sprawl and motorways, waterways represented the original corridors of commerce and transportation. In the late 19th and early 20th centuries, many waterways became centres of industrial activity including ship building, warehousing and other land uses reflecting the industrial era which existed until the mid 20th century. Many cities in the latter part of the 20th century experienced a decline in industrial activity on their waterfronts which,
Introduction

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Conclusions

This Focus Paper illustrates that water-borne transport can continue to evolve from a ‘niche’ mode of transport to become an important part of the transport network and waterfront redevelopment initiatives. By focusing on service quality and integration with other modes of transport and waterfront development projects, waterborne transport has a bright future in the overall mobility options for cities on water. As cities return to their waterfronts, the opportunity arises for waterborne transport to make a major contribution to enhancing the quality of life and lifestyle choices for residents and tourists, thereby contributing to the UITP strategy to double the market share of public transport worldwide by 2025.

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A UITP Focus Paper

Focus Paper

WATERBORNE TRANSPORT, A UNIQUE CONTRIBUTION TO ENHANCING MOBILITY FOR CITIES ON WATER

A unique contribution to PTx2

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