Governing the aerotropolis

How are today's airport regions being administered? The Kenan Institute's Dr Stephen Appold and Dr John Kasarda investigate.

Aviation-linked commercial development, once confined largely to airport property and its immediate environs, is rapidly spreading outward. In the process, a new airport-anchored urban economic region is forming – the aerotropolis. The aerotropolis encompasses the airport city and the air commerce driven areas surrounding it.

Some of these airport-linked developments primarily serve passenger-driven retail, restaurants, accommodations, and conference and exhibition facilities. Other airport areas have a heavy concentration of freight-handling facilities, while others are oriented towards filling regional office space needs.

Indeed, most large airports now anchor an extensive region with multiple aviation-oriented functions.

Given that these functions often encompass multiple jurisdictions, planning and co-ordinating aerotropolis development is frequently intertwined with issues of governance (administrative control).

A successful aerotropolis requires co-ordinated investments in land use and ground transportation that leverage each other to the economic and environmental benefit of businesses, land owners, local governments, and the broader region.

Three types of governance structures have evolved over time. These can be categorised as market, hierarchy and network. In practice, hybrid forms are most common.

Market-driven
The earliest aerotropolis forms to appear were market-based. That is, individual firms located near airports to maximise their own economic benefit given the evolving real estate supply and demand situation.

In the US, airport cities surrounding Atlanta, Dallas/Fort Worth (DFW) and Chicago O'Hare international airports typify marked-based processes. Hotels sprung up first off airport grounds, but later penetrated inside the airport fence. Nearby office space developed as city centres could no longer meet demand and busy executives required quick airport access.

Freight-handling facilities developed both inside and outside the fence in a manner depending mainly on the airport's speed of reaction to supplier and customer demands. O'Hare and Atlanta have seen major exhibition and conference facilities develop with convenient access to their passenger terminals.

Aerotropolis facilities typically have different owners and – quite often – are spread over multiple government jurisdictions.

Market-based aerotropolises have evolved incrementally in absence of any common strategic vision or any coordinated planning – and they look it. Under market-based development, it is often difficult to co-ordinate land-use decisions among owners. While organic development may reflect market needs at the time of development, its spontaneous, often haphazard nature impedes longer-term aerotropolis economic efficiency, aesthetics and environmental sustainability.

Hierarchy-driven
Among many major new airport cities with an intercontinental reach, hierarchy-based governance is common. Governance comes through top-down directives.

Most of theses airport cities are anchored by greenfield (built-from-scratch) airports in Asia and the Middle East where rapid economic growth overwhelmed the capacity of the existing airport.

As the replacement airport is planned, land is acquired to accommodate an anticipated expanding range of airport-linked commercial activities. Substantial amounts of land are also often controlled by a single powerful owner, making for efficiency in planning phased development.

The new Hong Kong International Airport, for example, allows for phased development of retail, hotels, entertainment, offices, exhibition space, and ground transportation. Because the gateway is owned by the Hong Kong Government, highways and express train links were also closely coordinated with the airport's opening.

The common ownership of open land allotted to commercial functions means that the Airport Authority Hong Kong, which is charged to operate as a business, can more quickly react to increases in demand while not being tempted to devote land to non-compliant uses should anticipated demand be slow to materialise.

The common ownership also means that the aerotropolis is guided by a common vision. Land uses can be grouped together to increase efficiency and enhance passenger and other users' experiences.

Incheon International Airport's aerotropolis development project is also guided by a top-down governance structure. The airport area will develop in three phases over approximately fifteen years beginning with an airport support community of related

industries (primarily logistics), commercial services, and housing for airport area employees and their families.

The second phase entails the development of an international business city and free economic zone including a 360-acre international business centre composed of four office complexes, a shopping mall, convention and exhibition facility, and two five-star hotels with another 220 acres devoted to logistics and manufacturing.

The third phase will be to create a full-blown free trade aerotropolis including tourism and leisure activities such as a 384-acre water park and a 250-acre fashion complex.

Again, the large footprint and the centralised governance of land allow the timing of development to be triggered by market demand. It also permits the co-ordination of land uses to create themed economic zones.

A similar centralised governance structure characterises the massive (25,000-acre) properties being developed around Kuala Lumpur International Airport and the 38,000-acre Dubai World Central anchored by the new Al Maktoum International Airport.

Network-driven
The third governance form is network-based. As suggested above, common governance often stops at the airport fence, yet actual aerotropolis development may span several political units with the right to regulate land uses.

To complicate matters further, the airport may be owned by a government unit, often a major city, but located on land under the control of another municipality. DFW, for example, is owned by the cities of Dallas and Fort Worth but occupies four other municipalities in two counties. Amsterdam Schiphol's major shareholder is the city of Amsterdam, but it is located in another municipality.

The split in government regulatory authority whether between air and land or on the ground between separate jurisdictions is the source of much governance stress. In such cases, land-use decisions need to be negotiated through formal or informal structures.

Many airports maintain and participate in such structures to arrive at a consensus on airside issues, mainly noise related problems and runway expansion. Ground access often requires citizen buy-in as well.

Schiphol participates in a number of informal consensus-forming consultative organisations for these purposes. Perhaps the most well known case of consultation is the mediation process conducted surrounding the recent expansion of Frankfurt Airport.

Some airports, seeing their role as transportation service providers rather than as de facto economic development organisations, have shied away from participation in consultative arrangements to coordinate broader airport area land uses. In such cases, interested parties in the private sector may take the lead in promoting and even co-

ordinating airport area real estate development. Such organisations have emerged around Denver and Washington Dulles Airports.

Schiphol has taken the opposite tack. It has formed a real estate subsidiary for the purpose of developing its airport commercial property and is also partnering with nearby government entities to guide and develop outside-the-fence property (Schiphol Area Development Company).

Such dual inside/outside the fence governance membership might be key to improved coordination between airside functions and aerotropolis land uses.

Hybrid forms
As noted above, hybrid forms are common. Market components of the aerotropolis exist side-by-side with hierarchies. For example, Hong Kong's Disney World is just a few minutes' away from HKIA, attracted by available land and the superb air and ground connectivity of Lantau Island.

Similarly, Incheon's second aerotropolis growth pole (New Songdo City) is not controlled by the governance structure of the airport and its expansive associated commercial property but rather two private sector firms – New York's Gale International and South Korea's POSCO E&C.

Hybrid governance forms surrounding some airports have risen to address spontaneous, haphazard development fostered by market processes and to promote and guide more beneficial aerotropolis development. Detroit and Memphis are notable examples.

In 2006, nine governments near Detroit Metropolitan Wayne County Airport and Willow Run Airport signed a memorandum of understanding to co-operate in region-wide planning. The following year, a 35-member public-private leadership task force was established to oversee the formation of an aerotropolis strategy.

A Detroit Region Aerotropolis strategic plan, completed in 2008, identifies 13 primary development sites for airport-linked commercial development covering approximately 5,000 acres of land with potential expansion to 60,000 acres.

An Aerotropolis Development Corporation (ADC) is currently being formed which will provide for a unified, cross-jurisdictional mechanism for moving the Detroit Region Aerotropolis forward. The ADC will collaborate with local governments on four primary activities (1) marketing and business attraction, (2) master planning and design standards, (3) regulatory assistance and incentives, and (4) inter-governmental communication and coalition building, including outreach to businesses, citizens, and landowners.

It will promote long-term partnerships among communities, build relationships with existing businesses in the region, co-operate with other economic development entities

in the region, and work with the State of Michigan to provide financial incentives to attract air commerce businesses to the Detroit Region Aerotropolis.

The ADC is being funded through membership fees by local government signatories (who compose the Corporate Board) and private-sector contributions. Reporting to the ADC Corporate Board is a 10-12 member executive committee of public and private sector participants, providing continuous oversight of the Development Corporations activities.

## Detroit Region Aerotropolis Governance Structure
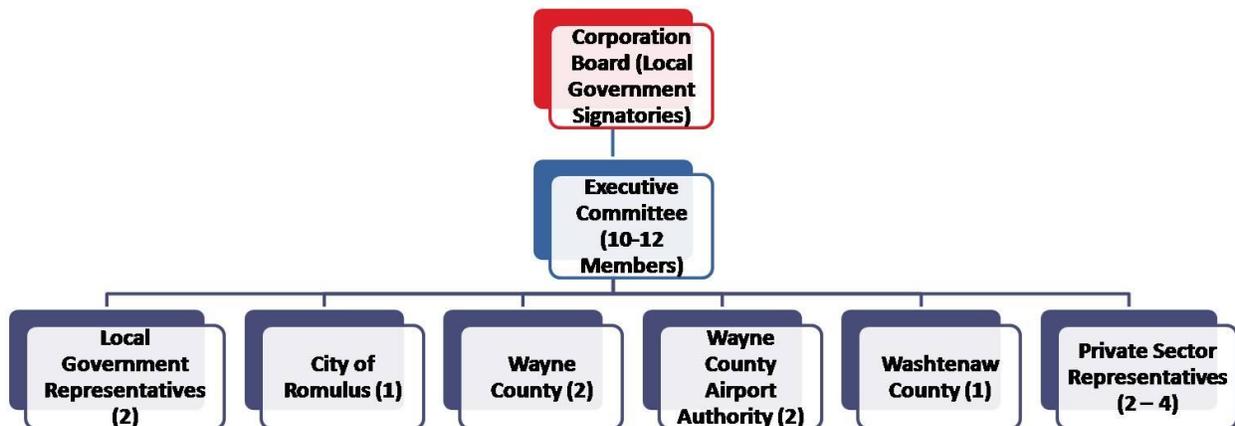
Source: Wayne County Department of Economic Development

With the leadership of Wayne County executive Robert Ficano, the complexities and challenges of creating a unified, cross-jurisdictional approach to aerotropolis development are being addressed, though not without some understandable frustrations, including the current economic recession.

Memphis is vigorously pursuing a similar cross-jurisdictional aerotropolis development initiative. In 2006, Memphis area public and private sector leaders (with the support of the Memphis Regional Chamber of Commerce) established a Memphis Aerotropolis Steering Committee.

The steering committee, chaired by Tom Schmitt (CEO and president of FedEx Global Supply Chain Solutions) defined three geographic areas of focus – the property inside the fence of Memphis International Airport; the Airport City, composed of an area roughly within a five minute drive around the airport; and the aerotropolis, which includes the broader region within approximately thirty minutes driving time from the airport.

Memphis Airport City and Aerotropolis
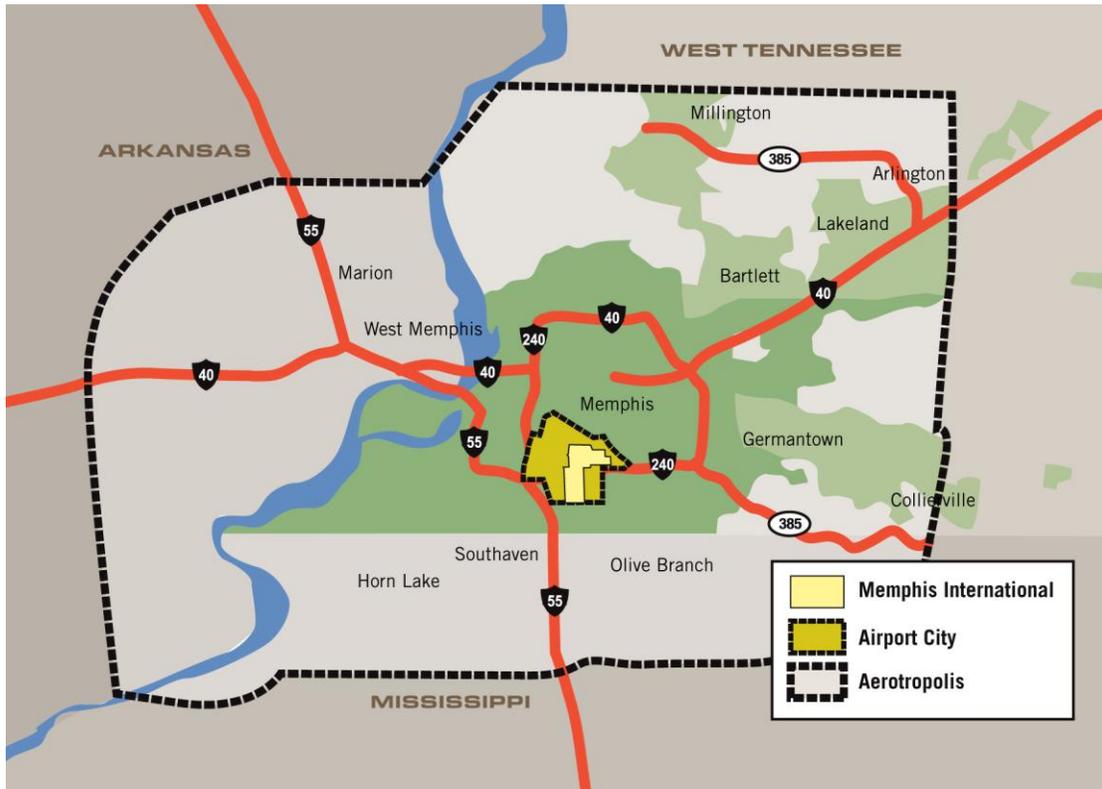
The committee has formed four task groups to focus on (1) corridor and cluster development; (2) access and transportation; (3) gateways and beautification; and (4) aerotropolis marketing and branding.

An Airport Area Development Corporation with a full-time executive director was created to improve the appearance of and upgrade businesses in the immediate airport area. To oversee and drive broader aerotropolis development, a full-time vice-president of logistics and aerotropolis development was established at the Memphis Regional Chamber.

Considerable progress has been made in coalition building, advancing the Memphis Aerotropolis brand, and communicating with local citizens and regional stakeholders about the importance of the Memphis Aerotropolis to the region's competitiveness and future prosperity.

Building better governance structures
Successful aerotropolises have emerged using all three forms of governance. It should be stressed that they do not choose their form of governance rather it is typically thrust upon them by established laws and institutions.

Network and hybrid forms of governance arise as a response to the coordination failures of land markets and the inability of developers to acquire large tracts of land near busy airports.

Three key performance criteria stretch across all three forms of governance and can vary from situation to situation. The first is the degree of response to market demands. These shift constantly and cannot be well predicted.

The second is the speed with which disputes can be settled. Disputes are inevitable – even sometimes positive – for aerotropolis governance. Disputes can sharpen responses to market needs. They must be settled quickly, however. German airports, especially Frankfurt and Munich, have been able to accomplish this relatively well.

The third criterion is the established trustworthiness of the airport and other public and private actors.

Some airports have diminished their ability to reach goals by acting high-handedly or even disingenuously. Such lack of civic responsibility undermines goodwill and limits prospects for mutually beneficial aerotropolis development.

Ends
1,888w