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Workshop Report - Exectuvie Summary
First French - American Workshop
Public Transportation & Innovative Financing

Office of Research Management - International Public Transportation Program

Preface

On behalf of the Secretary of Transportation and the Federal Transit Administrator, I am pleased to present this **Final Report - First French-American Workshop on Public Transportation and Innovative Financing**. The report includes expanded presentations representing the views and insights of international experts from the French and U.S. governments, and from specialists on both local and federal government and private sector participation in and public-private partnerships worldwide.

Both the U.S. Department of Transportation and the Federal Transit Administration want to extend our appreciation and thanks to the French Ministry of Ecology, Energy, Sustainable Development and Land Planning, our French hosts for the two-day conference in France: the Rhone-Alps Region and the city of Saint-Etienne; Sebastien Gourgouillat, former Transportation and Construction attaché of the French Economic Mission in Washington D.C., architect of the conference proceedings; Matthieu Desiderio, for his assistance in editing and producing the report proceedings including an on-line shorter version; the American Public Transportation Association and its representative Art Guzzetti; and our hosts for the U.S. segment of the conference-- San Diego Metropolitan Transportation System, Caltrain, San Francisco Metropolitan Transportation Authority and the Bay Area Rapid Transit District.

This report is the result of an international collaboration to advance the proposition that when public demand for new transit infrastructure exceeds public resources, needed capital transportation projects can be financed, built and operated efficiently and effectively with private sector partners.

The presentations and tours of Private-Public Partnership (PPP) examples in France and in the U.S. focused on best practices and their implications for the future. That made this first joint conference unique: It blended theory with real world examples to point the way forward for this complex method of project financing and development, synthesizing expert opinions on various types of PPPs and their ongoing evolution to wider acceptance.

For that reason, this report provides a subsection on biographies and the latest contact information for conference participants. Transit managers in both the public and private

sectors now have a convenient international resource to assist them before launching a major capital project.

This report also provides a link to a website containing all of the Power Point presentations given at the workshop in France. Each of these presentations is also summarized in the report.

The subject matter of presentations in this report ranges from the traditional contracting of transit service (delegation of service) to more complex concession agreements and the newest form, a Partnership Contract *(Contrat de Partenariat).*

The concept of a partnership between government and private enterprise has a long and rich history in both France and the US. In France, however, the PPP method has been used more extensively, especially since the end of WWII, notably in construction of its 5000-mile highway network. Today the PPP model continues to enjoy strong support. For example, U.S. participants learned that, contrary to popular perception, the subsidized public French transit industry relies heavily on market competition to deliver bus and rail service under the "delegation of service" model. And 90 percent of French transit authorities contract out for their transit service.

The major components of a full-blown contemporary PPP were addressed in detail by the speakers at the workshop, each one reflecting his or her unique role in advancing project development to a successful conclusion. It is hoped that the transit community can benefit from these international experts focusing on elements of the highest forms of PPPs as well as how the concept can be applied differently in each project.

Several speakers mentioned that the PPP option generally works best when there is political support for infrastructure projects that cannot be constructed and operated under constrained public agency budgets. PPPs are rooted in the goal of finding new sources of capital and exposing projects to market discipline to drive down expenses. The key drivers for a PPP alternative are discussed in the report with emphasis on agencies achieving "value for money" by private sector innovation, limiting public sector financial burden and properly assigning risk.

Other speakers addressed specific advantages of PPPs such as no over-investment in design, flexible public staff management, functional RFPs, and achieving the optimal risk sharing mix between the private partner and the public sector owner. Others dealt with the public sector role in a "good PPP," which includes strong political leadership, community support and a team of investors, builders and operators determined to succeed.

Some speakers delved into the structures and framework of PPPs. The report discusses the specific roles of each PPP party -- the public authority; the Special Purpose Company representing individual contractors and the operator; and equity shareholders and lenders. Allocation of risk was also a major topic of discussion. The report also highlights key legal documents including the Project Agreement and the Credit Agreement.

Workshop participants also discussed specific projects such as the LESLYS PPP rail project, from Lyon city centre to the Saint Exupéry Airport, featured on the cover of this report. Under a Joint Powers Agreement between two public authorities, surveys and studies were completed in 10 months. The private partner, RhonExpress (RE) agreed to construct the line in 22 months and operate and maintain it for 27 years. The LESLYS PPP provides a possible model for light rail projects in the US.

The report also discusses high speed rail projects in France, including the completed Perpignan-Figueras High Speed Rail Link, a PPP project. Once in operation this line will provide a high speed passenger and freight link between France and Spain.

Several examples of the emergence of the PPP model in both real estate and transit operations in the U.S. were also presented. Property of the San Francisco MTA for example is being developed as a 199 – room hotel under a long term PPP contract, to revert to SFMTA ownership in 2067. San Diego's light rail system has also recently benefited from joint development agreements.

Conferees also learned about two of the most successful PPP-type rail projects in the U.S., the the Hudson-Bergen Light Rail system and the South New Jersey Diesel Light Rail. BART's Oakland Airport Connector (OAC) project, an FTA Penta P Project, was also presented to the international audience.

The **First French-American Workshop on Public Transportation and Innovative Financing** which took place in Lyon followed by a one-day APTA-FTA conference in California attended by a French delegation presented a broad spectrum of PPP success stories which can benefit the global transit industry. These international events aimed both to educate in the present and lay the groundwork for increased international cooperation in the future.

I also want to also thank Jean-Claude Ziv, Jafar Kahn, Simon Murray and Francois Bergere for their expertise in assisting our consultant, Jim Seal, in completing this comprehensive PPP report.

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http://en.transport-expertise.org/index.php/2008/09/04/first-french-american-workshop-on-public-transportation-innovative-financing-23/

EXECUTIVE SUMMARY

The Federal Transit Administration of the United States Department of Transportation, the French Trade Office of the French Embassy in the United States, and the French Ministry for Ecology, Energy, Sustainable Development, and Land Planning held a workshop on how to use private investment and innovative financing to develop effective mass transit systems from July 6th to July 8th, 2008. This first France/USA Public-Private Partnerships (PPP) conference took place in Lyon and St. Etienne, France.

The French-American workshop took place at a time when -- even before the global financial crisis struck in the third quarter of 2008 -- infrastructure in both the United States and Europe was in dire need of refurbishing, upgrading, and enhancement. That need provides great opportunities for Public Private Partnerships (PPPs). Following the financial crisis, as European and North American governments formulate stimulus plans to jump-start spending and investment, this opportunity has increased.

The optimistic forecast for PPPs is rooted in sound logic. The financial industry regards large, long-lasting and fixed physical such as new rail lines as attractive investment options, especially when credit markets are constricted. The right infrastructure project will have a risk profile likely to attract private debt and equity

investors. And transit agencies benefit overall when private investors are willing to expand the pool of capital projects.

There is now a tremendous and rare opportunity for PPP infrastructure financing. The Royal Bank of Scotland's PPP analysis of June 2008 estimated that the amount of money raised by infrastructure funds is "considerable" and leveraged capacity "immense." Total investment capacity exceeds $500 billion. For example, the Goldman Sachs Infrastructure Fund has raised $6.5 billion for infrastructure projects including transportation. In the U.S., PPPs will be integral to financing infrastructure improvements.[1] Infrastructure spending will be an integral part of a new Congressional stimulus package and of the reauthorization of SAFETEA-LU later in 2009.[2]

Expanding the PPP option for transit capital projects offers the possibility of lower project capital costs, a more efficient operating regime and a shorter timeline between the planning phase and start-up. Presentations in this report attest in great detail to the viability of PPPs and other forms of expanded private sector partnerships. Following are the main points made by the workshop presenters:

PPP BASICS

Private infrastructure financing of transportation systems in the US is not new. Colonial legislatures, for example, granted toll road franchises. Railroads were

[1] Prediction by Jane Garvey, a member of the Obama transportation transition team and chief of PPP's at JP Morgan, Chase at a December 2008 transportation summit.

[2] As institutional investors move towards infrastructure fundamentals, the market has created "a perfect storm for transportation asset formation" with availability payment transactions being "attractive. ": Peter Luchetti, partner at Table Rock Partners, LLP, FTA PPP conference, early 2008.

developed through a private-public partnership, with the government providing public lands as well as direct grants to private investors. A significant portion of the New York City subway system was privately financed and operated initially by private companies.

Present-day definition of a PPP

PPPs are characterized by a contractual agreement between a consortium of private sector parties and a public authority. It is much more complex than the separate agreements for each private party used for the more traditional Design-Bid-Build (DBB) arrangement. In the DBB option, the public entity assumes most of the risk of the capital project. For example, project design changes are always resolved by the public authority by issuing "change orders" during the construction phase and the contractor passes on these added expenses or additional liabilities, to the agency. Once completed in the traditional method, the public entity is usually responsible for operating and maintaining of the system. However, under a PPP arrangement private investors and other private businesses enter into a grand partnership with a public agency for the purpose of designing, financing, constructing and operating an infrastructure project normally provided by the agency.

SESSIONS

Sessions at the two-day workshop explored the methods of the new PPP wave through examples. They addressed financial engineering, contract management, risk allocation, and tasks to assign to private partners, discussing PPP projects current and past in France and the U.S. The goal was to prepare all participants to expand the traditional role of the private marketplace to achieve a better value for taxpayers. It helped transit managers better understand how PPPs can be an effective mechanism to

provide new transit services in an era when demand exceeds the financial capacity of local and state governments and the federal government. The forum deepened understanding of both what the private sector can provide and what the public expects of transit managers.

INTRODUCTION

U.S. Delegation Chief and FTA Deputy Administrator Sherry Little opened the conference by welcoming Representative John Mica[3] (R-FL) and Representative Loretta Sanchez[4] (D-CA). Deputy Administrator Little focused on the importance of sharing the experiences of public sector authorities in tapping the potential of private markets in both France and the United States. More than 20 speakers from both the private and public sector followed, covering phases of PPPs from project development to final contract agreements and service delivery.

FTA began to lay the groundwork for successful transit PPPs by supplying the intellectual and technical foundation for enactment of SAFETEA-LU in 2005, which authorized three PPP Pilot Projects. This conference continued FTA's ongoing outreach and consultation with France and other countries to learn from their PPP failures and successes.

France similarly engaged in extensive consultations with the United Kingdom and other countries before reforming its national and local statutes aiming through PPPs to unleash the power of market forces to fulfill unmet government infrastructure needs. [6]

[3] Representative John Mica (R-FL): http://www.house.gov/mica/
[4] Representative Loretta Sanchez (D-CA): http://www.lorettasanchez.house.gov/

Needs and Opportunities: a Robust Future for PPPs

Even before the global financial crisis struck in the third quarter of 2008, infrastructure in the US and Europe was in acute need, providing great opportunities for Public Private Partnerships (PPPs). [5] As European and North American governments formulate stimulus plans to jumpstart spending and investment, that need and opportunity have only increased.

PPPs are likely to be integral to financing the infrastructure deficit in the US. Infrastructure spending will be an integral part of a new Congressional stimulus package and of the reauthorization of SAFETEA-LU later in 2009. Institutional investors are moving move towards infrastructure fundamentals, and total investment capacity of private infrastructure funds may exceed as much as $500 billion, and the leveraged capacity is immense. For example, the Goldman Sachs Infrastructure Fund has raised $6.5 billion for infrastructure projects including transportation.

Unlike other credit risks, large, long-lasting and fixed physical assets like new rail lines are regarded by the financial industry as attractive investment options, especially when credit markets are constricted. The right infrastructure project has a risk profile favorable to attracting private debt and equity investors. The current availability of private investment capital can benefit transit agencies, which in the past may not have considered private sector involvement in operating and maintaining a project.

[5] Pellegrin, Greg PPP Bulletin (Dec. 23, 2008)

Expanding the PPPs option for transit capital projects offers the possibility of lower project capital costs, a more efficient operating regime and a shorter timeline between the planning phase and start-up. Presentations in this report attest in great detail to the viability of PPPs and other forms of expanded private sector partnerships as a credible option.

Maximizing US Public Transit's Role in Infrastructure Expansion

Transportation Infrastructure Financing – The New Imperative

In the context of severe economic downturn in the US and abroad, transportation experts and many economists agree that economic recovery and future growth and prosperity in the US will require capital investment in mobility improvements far beyond the means of current federal and local government budgets. To provide these necessary mobility improvements, bolder initiatives and additional resources from private sector investors may well be needed.

Since balances in the Federal Highway Trust Fund started to decline in 2000, such consideration of new financing and delivery options such as Public-Private-Partnerships had already been building momentum. As the New Year begins, a new economic recovery package from Congress and the new Administration will include spending on new transportation infrastructure initiatives and should consider all possible financing options and partnerships to maximize federal dollars. Transit agencies will most likely need all available financing tools to substantially expand transit's role in urban mobility.

History and Purpose of Highway Trust Fund

Created by the US Congress in 1956 (Public Law 84-627), the Highway Trust Fund (HTF) was designed to ensure a stable growth-oriented funding source for financing the start of the US interstate highway system and the growing Federal-aid Highway Program.

Before 1956, motor fuel and vehicle taxes had been directed to the US General Fund. After that date the taxes went to the HTF, which had a sunset date of 1972. That year, however, Congress made the HTF permanent. Since then, all transportation reauthorization bills have directed revenues to the HTF.

The HTF was originally dedicated to highways. However, Congress later authorized a portion of the fund for transit purposes when it increased the gas tax from four cents to nine cents. Presently, 2.86 cents is allocated to the Mass Transit Account.

Impact of Transportation on Economic Life

Americans rely on our multimodal transportation infrastructure every day for the efficient movement of goods, and for safe and affordable travel to work, school, shopping, and recreation. In most instances, multiple modes -- autos, trucks, freight trains, and mass transit -- exist side by side.

In one measure of efficiency, prices for US transportation goods and services in 2002 were lower than those in 18 of 24 OECD countries (BTS 06 P19). Maintaining this advantage will require additional resources and efficiencies from both the public and private sector.

Transportation remains an integral part of the economy of all developed nations. In the US, for example, demand for transportation-related hardware and services accounted for **10%** of US GDP in 2004 (BTS 06 p19)

National Mobility & Economic Data

What is the extent of the vast American transportation stock funded partly by the Federal government and partly by private interests?

The US has more than 2.6 million miles of paved roads (more than 8.3 million lane miles BTS 07) and162,000 miles of rail (class 1, regional and local railroads and Amtrak). Laid end to end, American railroads would circle the earth more than five times (BTS 07).

The paved roads are for the most part publicly funded, while the railroads are mostly privately financed.

In addition, the public transit component of our transportation system operates (BTS 07):

- more than 165,000 directional route miles of bus (2004);
- more than 8,000 directional route miles of commuter rail;
- 1,622 heavy rail directional routes miles, and;
- 1,188 light rail directional routes miles.

What are public transit outputs by mode (as of 2007)?

- 82 ,000 public transit buses serve over 21.8 billion passenger miles;
- 11 ,000 heavy rail cars serve over 14.4 billion passenger miles;
- Six thousand commuter rail cars and locomotives serve over 9.4 billion passenger miles.

Total passenger miles traveled (pmt) from all US transportation modes "…exceeded 5.0 trillion pmt's in 2004, or about 17,500 miles for every man, woman, and child." (BTS 06)

Vehicle miles traveled (VMT) are increasing exponentially. VMT for all modes increased by almost 600 billion between 1994 (BTS 06) and 2004. . Similarly, transit VMT increased by 26% between 1994 and 2003.

Public transit has greatly benefited from the recent precipitous rise in gas prices. For example the American Public Transportation Association (APTA) recently reported that in 2007, "10.3 billion trips were taken on US public transportation – the highest number of trips taken in fifty years. In the first quarter of 2008, public transportation continued to climb, rising by 3.4 percent."

According to the US DOT's Bureau of Transportation Statistics 2008 Report, using 1980 as the base period (1980 Index = 100), total passenger miles increased by 2004 to an index of 188, and population increased to 129. Thus pmt growth has outpaced population increases.

Other mobility trends also signal the extent of future passenger travel demand. They include increases in trip frequency and length, and significantly, changes in mode choice. All three changes, according to the National Surface Transportation Policy and Revenue Study Commission (NSTP&RC), have occurred over the past quarter-century. "In some recent years," the Commission notes, "transit use has grown at a faster rate than VMT, for the first time in decades."

At the same time, inflation-adjusted (chained 2004 dollars) GDP more than doubled from $5.648 trillion (2004 dollars) to $11.713 trillion in 2004. Economic growth of such magnitude adds to the stress on the transportation network. To prepare for a future increase in economic activity, transportation infrastructure will have to expand to ensure productivity improvements in the multimodal transportation sector.

Looming Deficits plus Population Factor

The NSTP& RC's just-released final report to Congress estimates that the HTF Highway Account will show a negative balance of about $4.3 billion by the end of FY 2009. It also estimates that the HTF Transit Account will decline to -$0.7 billion in 2012.

But the US population is growing rapidly. The Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat estimates, for example, that between 2005 and 2030 the US population will increase by more than 60 million -- a number equal to the current population of France.

Thus, investment in mass transit from sources other than the federal government will be needed to keep pace with the demand generated by US population growth

Demand Exceeds Supply

SAFETEA-LU in 2005 authorized $6.6 billion ($1.6 billion annually) beginning in fiscal year 2006 through 2009. $600 million of these funds are reserved for "small

starts" – fixed guideway projects costing less than $250 million. These projects would require less than $75 million in FTA matching funds. FTA recently estimated that over 330 projects across the country are competing for these funds. In addition, FTA (Region IV) estimates that FTA is tracking more than "100 planning studies considering major transit capital investments." (Overview of New Starts and small Starts programs FTA Region IV 2008 Conference.)

FTA has long recognized that "…demand for New Starts funding has historically been far in excess of the funding available." (Proposed Guidance on new Starts/Small Start Policies and
Procedures FTA Office of Planning and Environment Feb 5, 2007).

Given the rapidly increasing demand, effective utilization of the US Federal Transit Administration's (FTA) New and Small Starts discretionary funding program (Sec 5309) --which leverages locally planned and financed fixed-guideway projects -- is crucial.

FTA Targeted International PPP Successes

Experiences of other developed countries harnessing the efficiencies and resources of the private marketplace may provide clues for expansion of transit in the US.

Over the past several years FTA has provided critical leadership in examining how Public Private Partnerships work abroad, especially France, the primary focus of this report.

National and regional governments in France, other European countries, and now India have led the way in transforming conventional procurement practices which circulate separate solicitation documents for design and construction and sometimes operations, into a streamlined single procurement document. This document allows one entity, a private consortium, to perform all or most of the functions of a capital project. As will be explained later the consortium assumes a greater amount of risk after extensive consultation with the public authority. (FTA Report to Congress, December 2007).

FTA Launches Transit PPP Initiative

Before enactment of SAFETEA-LU in 2005 FTA worked closely with Congress to produce the landmark Public Private Partnership Pilot Project provision. To date, this statute has encouraged at least three new rail transit PPP projects:

BART's Oakland Airport Connector

Denver RTD Gold Line Rail Corridor Project

Houston Metro North & Southeast Corridor High Capacity Transit Extension

To complement FTA's PPP direction, in October 2006 APTA, which represents public transit authorities and private contractors nationwide, created a 12-person Public Private Partnership Task Force, with both public and private sector members. The task force aims to assess opportunities for PPPs to develop and operate new public transit operations, and to promulgate best practices for doing so.

FTA's efforts to expand the use of private financing and operation to expand transit choices culminated in the historic French – American Workshop on Public Private Partnerships US/France Public Private Partnership Workshop, July 6 to July 8 2008, in Lyon and St. Etienne, France. Led by FTA Deputy Administrator Sherry Little, a US delegation learned how France is using the private sector to develop, finance and operate the most efficient transit infrastructure projects possible with limited public sector funding. Deputy Administrator Little set the terms of two-day joint conference in her opening remarks, when she said, "France has shown impressive leadership in implementing public-private partnerships on a range of public works projects -- from highways, tunnels, and viaducts to high-speed rail."

How to Expand Fixed Guideways - a Growing National Consensus

A SAFETEA-LU-mandated transportation report recently released by **NSTP&RC** discussed appropriate levels of capital investment. The commission concluded that if present levels of governmental transportation investment from were sustained, transit market share would decline. (Exhibit 4-8)

Some commissioners disagreed over viable investment scenarios for increasing investment in public transit. They suggested a wide range of capital investment proposals based on different assumptions of future passenger travel numbers. The highest assumption was a $6 billion annual federal commitment. (Final report – Volume 1)

Despite disagreements over funding levels, NSTP&RC Commissioners agreed that many more rail passenger projects than government can fund today would provide benefits outweighing their costs. They also agreed that, as new capacity is added, additional resources will be needed to recapitalize and that planning and environmental processes must be streamlined, and --- as this report will show from extensive experience in France --- ” more efficient investment in, and operation of, the transportation system” is needed.

The NSTP&RC report singles out public, private partnerships as both a financing mechanism and a way to achieve maximum efficiencies in the design, building and operation of systems. Private sector participation, adds the report, is not just about supplying additional revenues. It also helps prioritize projects that achieve highest returns on investment, improves life cycle investing, and provides incentives for the most efficient operation and maintenance of systems.

Finally, the Commission specifically encourages strategic use of the public-private partnerships, already started by FTA in the Public Private Partnership Pilot Program (Penta P) authorized by SAFETEA-LU.

Public-Private Partnerships, French Practices and PPP Development

What are Public-Private Partnerships?

The concept of Public-Private Partnerships (PPPs) is broad and difficult to define due to varied international interpretations. One common definition of a PPP is "*a government service or private business venture which is funded and operated through a partnership of government and one or more private sector companies.*" More commonly, the term "Public-Private Partnership" covers all forms of private sector participation in financing and execution --- of design, building, operation, management, and maintenance -- of public infrastructure and services. It is important to note that a PPP involves private sector financing in the capital investment phase, and that minimal private involvement, solely in transit systems operation, does not constitute a PPP.

Absent a PPP private financing component, another form of private sector participation in the US – the Design, Build, Operate and Maintain (DBOM) option – depends on the efficiencies and cooperation of the private marketplace from the design phase forward to system operation far more than the traditional service contract.

It is quite plausible to have a broad view of PPP's great potential. The private sector, represented by a consortium of private entities for bidding purposes, is usually able to share its expertise and its ability to manage people and operations. The public body then pays back the private entity for its shared experience and management in the

form of “availability payments” over multiple years, subject to the system being delivered and operated or, in other words, being made “available”.

One might assume that any transit service provided by a private business to government is a form of a PPP. In the US this model gradually grew in importance since the early 1980’s. Foothill Transit, a presenter in Lyon, is an excellent example of this relationship.

In France public transit operations developed far earlier in its transit history according to the *Délégation de Service Public* (DSP) model. France’s DSP later matured into the more complex “concession”– a longer contract duration term of 20 to 30 years plus private investments under public ownership of the assets.

United Kingdom and the Private Finance Initiatives

Another form of a PPP is the Private Finance Initiative (PFI) in the UK. With the intent of launching capital projects much earlier than possible in the government sector, the UK Government announced the PFI model in 1992. The intent was to forge closer relationships between the private sector and government financing of a public project, similar to PPPs. The PFI replaced the UK’s “Ryrie Rules” which were established in 1981 to introduce private capital into nationalized industries of that time. These rules were later revised to take into account privatization of previously nationalized industries and the introduction of contracting out and mixed partnership arrangements. Closer partnerships were to be achieved both at the local authority level and central government levels.

Unlike France's experience of private sector cooperation with the government reaching back to the days of Napoleon, the UK's PFI process began a trend of transferring public sector workers to the private sector to meet public needs that were once reserved only for the public sector workforce. This conversion beginning in the early 1980's was, according to K & L Gates in the UK, a contributing factor in creating negative publicity for PPPs whereas in France the maturation of PPPs proceeded over a much longer period of time and is arguably engrained in France's economic culture. PPPs in France are viewed as expansive projects rather than conversions from the public sector to the private sector.

Success or failure can turn on how risks are properly allocated. One important lesson from the UK is that the uncertainties are too great when fare box revenue risk is fully assigned to the private sector. The Transport for London buyout of the Croydon Tramlink operator project was likely the result of too optimistic revenue projections which ultimately led to the local government takeover.

The UK offers a future model to the US on how to centralize government guidance on all aspects of infrastructure procurement, standardized contracts. In the UK the Treasury through its Partnerships UK assists public sector partners with operational PPP issues. For example the Nottingham Express Transit is one such successful example.

Enhancing performance of both public and private sectors

PPPs aim to combine the best skills and qualities of the public and private sectors. By utilizing innovative financing processes, private sector creativity, cost schedule and performance guarantees, and optimal risk-sharing between the public and private partners, PPP contracts can provide faster project deliveries. At the same time, the private and public responsibilities may vary greatly according to the agreements concluded for each PPP project.

For example, a sampling of some of the "risk factors' that must be resolved between the public and private sector and, when appropriate, reflected in contract documents, are:

- Ridership projections – Are they realistic?
- Revenue/Fare Structure – Day Pass, Monthly Passes, Disabled/Seniors fares based on public input
- Right of Way Cost
- Liability & Defects
- Life Cycle Costs
- Regulations
- Compensation Terms/Termination
- Engineering & Capital Cost of Construction (Not to be underestimated)
- O&M Costs
- Payment Structure

Other intangibles like the political environment for a particular PPP should be addressed and possibly factored in to the overall project costs.

PPPs in the United States: an emerging concept

Interest in PPPs and their derivatives is growing in the United States and there are real examples to cite for record.

Recently the U.S. Department of Transportation analyzed the various forms taken by PPPs (see Figure 1: PPP options defined by the FHWA), according to the level of private sector involvement. A summary is available on the Federal Highway Administration (FHA) website at http://www.fhwa.dot.gov/PPP/options.htm. (Since they do not involve private sector financing of initial infrastructure, some of these options may not be strictly classified as PPPs.)

Figure 1: PPP options defined by the FHWA

Source: Federal Highway Administration

French PPP history: from the "*Canal du Midi*" to the "*Contrats de Partenariats*"

France has a long tradition of public-private cooperation in building infrastructure, beginning with its first public project during the *ancien régime.* Public-private

cooperation fostered the construction of canals and bridges throughout the 16th and 17th centuries.

The *Canal du Midi*, in the south of France, provides one of the first pioneering PPP examples in the world. Concession contracts were granted to finance and construct both the Canal du Midi and the Canal de Briare.

The 19th century urban modernization of Paris by Haussmann was also financed though PPP-like agreements. From the end of 1851 to 1870 Haussmann, appointed Prefect of Paris, undertook urban reconstruction without parallel in the world. He gave Paris a rational plan complete with entry points and a coherent traffic network. He leveled entire districts to make way for a network of wide avenues and neo-classical facades of modern Paris. These were largely self financed by the private sector. As Thomas Hall explains in *Planning Europe's Capital Cities* (Routledge, 1997), land was bought or expropriated, more than was needed for the wide avenues, and then new building plots were sold to finance both demolition and street construction.

In that same era French government collaborated with private sector to build railway and metro networks, water and sanitation facilities, and electrical infrastructure projects. During the 20th century, highways and waste management plants were built also under public-private contracts, some according to the concession model detailed later in this report. Finally, PPP projects have flourished in the last decade, enabling

the building of stadiums, museums, hospitals, prisons, and many other public facilities.

Building the highway network through a concession model

Very early on, the PPP relationship gave birth to "*concessions,*" and the operating form called "*affermage*," which consists in the transfer or "*delegation*" of a public service to a private company. Private involvement in all phases of infrastructure projects, from designing, financing and building, to operating and long-term maintenance began in 1955. That allowed France to finance public facilities with little public funding. However, such projects remain under the government control, with private business usually paid from user fees, such as road tolls.

In the French experience, a concession model has the following characteristics:

- The public authority entrusts a private partner to design, finance (either partially or fully), build, operate and maintain the system.
- The partner receives toll revenues from users. Thus its revenue is narrowly related to the provided service.
- The system remains publicly-owned and regulated. The public entity controls the level of service and price, and is responsible for safety and accountability.
- The private partner assumes all operating risks (ridership, quality of service) but has a right to a balanced contract.
- Risk allocation and performance goals are specified in detail by a contract.

- The public authority remains the last guarantor. The duration of the contract is determined by the public entity, depending on the time needed to pay off the investment and on the service provided. (For example, heavy maintenance and upgrades would call for a relatively long duration.)
- If a public investment is needed to be financially viable, it must be predefined and inclusive. The overall financial equation must allow reasonable profitability.

PPPs emerging in every public infrastructure project

The PPP idea has spread widely in France. It is used not only to finance transit infrastructure, but also to finance any project deemed in the public interest by local, regional, or national government. Any project needing large capital investment may be financed through *Contrats de Partenariat* or *CP*s (Partnership Contracts.) These include waterways, railways, bridges, tunnels, highways, power supply facilities, waste and water treatment plants, public transportation, hospitals, prisons, stadiums, and airport management.

Even though France has been using PPP financing models since the 1950s, when its highway network was built using the concession model, PPPs have emerged in mass transit quite recently. In the past, most public transit infrastructure financing came from a transit tax imposed in the 1970s by the Federal government. However, infrastructure developers are expected to use PPP financing contracts for mass transit projects increasingly in the coming years. As in the United States, federal funds for infrastructure projects in France are diminishing and not meeting the mobility needs

of a growing and aging population. So private funding presents a solution to the shortfall in government subsidies. At the same time, local governments in France are investing larger amounts of money in infrastructure projects. That means that total public and private investment in mass transit is growing.

Definitions & Regulations – Guidance for PPPs in European Union

"Public-Private Partnership" has neither been defined, nor expressly regulated by the European Union. However, if a public authority entrusts the provision of an economic activity to a third party, then this will attract the EC Treaty, and therefore be subject to the principles of freedom of establishment, and freedom to provide services. In addition, where the EC Directives apply, provisions relating to coordination of procedures for the award of public contracts will apply. Many forms of PPP are used, covering a variety of different risk allocations, ranging from almost a complete risk transfer from the public sector to the private sector, to a more collaborative approach involving a genuine sharing of risk between the public sector and the private sector. In all instances however, the public sector usually tests the business case for a PPP by ensuring that the PPP model represents best value for money for the public.

The Commission does distinguish between *different types of* PPP structures from the more traditional and most basic, competitive contracting, in France its "Delegation of Service", to more innovative and complex structures such as Institutionalized Public-Private Partnerships (IPPP) for example. What is an IPPP? It is a different species of PPP usually found in the more lucrative or inherently profit making sectors such as the water, gas and energy sectors in France and Germany. It is also likely to be used

in area where the public sector wishes to maintain a greater degree of control, such as, essential services.

IPPP differs from traditional PPP because it is more collaborative in nature, achieved by the special purpose vehicle (or SPV) that contracts with the local authority being partly owned by the public sector. In a traditional PPP arrangement, or SPV, it is wholly privately owned. In an IPPP, the separate new entity is called a mixed capital entity (MCE), the shares of which are held by the public partner and the private partner. Sometimes the public partner is a majority stakeholder. In this way, the public partner can maintain a greater degree of control over essential services such as water, gas and energy. It also allows the public sector to develop experience in running and operating such projects, and hence represents a skills transfer from the private sector to the public sector.

The MCE however cannot avoid a full public procurement process by being the "in-house" provider when a new contract is to be awarded above and beyond the original procurement for a MCE private sector partner, mainly due to the fact that the MCE is not actually an "in-house" provider, but a separate legal entity over which the public sector does not have complete control. Accordingly, the Community law on public contracts and concessions will apply, despite the public sector shareholding in the MCE. All conditions governing the creation of this MCE entity must be clearly disclosed when issuing the call for competition.

As well as contributing capital and other assets, the private sector actively participates in managing and operating the contract. MCEs are a viable structure to carry out infrastructure projects or providing services for the public. These arrangements, which typically involve complex legal and financial arrangements, have been developed in

several areas of the public sector and are widely used within the EU, in particular in the areas of transport, public health, public safety, waste management and water distribution"(European Commission –Green paper on PPPs).

With the growth of IPPPs, practitioners are demanding clarity about the creation of public-private undertakings when awarding a contract or concession. The Commission has issued guidance on setting up IPPPs on February 5, 2008. Demand for government guidance is certainly transferable to the US when the federal government participates in and is a funding partner in complex public-private partnerships.

With PPP contracts increasing throughout Europe, the European Commission needs to standardize the process, to ensure equal treatment of private contractors throughout the EU. Indeed, a European regulation is anticipated soon. The Interpretative Communication on the Application of Community Law on Public Procurement and Concessions to Institutionalized Public-Private Partnerships (IPPP) is available at http://ec.europa.eu/internal_market/publicprocurement/ppp_en.htm.

PPPs have a legal framework in France

In France, the *Contrats de Partenariats* (CP), or Partnership Contracts, provide the legal framework for PPPs. In 2004 these Partnership Contracts were defined and then elaborated upon in two decrees that allow all public entities – national and local governments, other public entities, and corporate bodies responsible for government public services -- to use them.[6] Later that same year, the French government created

[6] Defined in *the Ordonnance n°2004-559 du 17 juin 2004*, also known as *"Ordonnance sur les contrats de partenariat*" (NOR: ECOX0400035R, publié au

the French Treasury PPP Taskforce.[7] This taskforce of the Department of Economy, Industry and Employment *(Ministère de l'Economie, de l'Industrie et de l'Emploi*) give technical help and consultation to public entities and governments participating in Partnership Contracts. This French Treasury PPP Taskforce (MAPPP) can also evaluate and rate PPP projects. [89]

Other French governmental agencies also provide information about specific PPP Regulations. One division of the French Ministry for Ecology, Energy, Sustainable Development, and Land Planning (*Ministère de l'Ecologie, de l'Energie, du Développement Durable et de l'Aménagement du Territoire, MEEDDAT*) is in charge of highway concessions (*Service de la Gestion AutoroutièreDélégué.*) A second division is in charge of PPP expertise (*Mission Intermodale d'Expertise sur les Partenariats Public-Privé*). An agency at the Ministry of Justice is in charge of project management and PPP financing (*Agence de Maîtrise d'Ouvrage des Travaux du Ministère de la Justice, AMOTMJ*).

A regulatory framework for French PPPs

To facilitate the use of PPPs, the regulation governing them have recently been reviewed and extended. This was necessary since Partnership Contracts were initially created only to ensure better and faster development of emergency public projects or

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JORF n° 141 du 19 juin 2004 page 10994).

[7] (*Mission d'appui à la réalisation des contrats de partenariat*, MAPPP[7]) by decree (*Décret n° 2004-1119 du 19 octobre 2004 portant création de la mission d'appui à la réalisation des contrats de partenariat, JO du 21 octobre 2004*).

[8] See the references at the end of this report from the magazine Le Moniteur. The full file about PPP is regularly updated and available in Le Moniteur (subscription needed): http://www.lemoniteur.fr/dossierWeb/dossier.asp?id=3

[9] [7] See the French Treasury PPP Taskforce website on: http://www.ppp.bercy.gouv.fr/

those that were particularly complex. In February 2008, the French Government proposed a new regulation to make PPPs both more attractive to private investors, and more flexible for public entities. Proposed by Economy Minister Christine Lagarde, the bill included new opportunities for project managers to establish PPPs.

In the summer of 2008, the French National Assembly and Senate voted to adopt this proposal. Public entities can now use PPPs whenever it would require less public money than would the traditional contracting-out process. This law is available at: http://ameli.senat.fr/publication_pl/2007-2008/425.html

The PPP market in France, as of February 2008

In January 2008 a Department of Economy, Finance and Employment study estimated that PPP contracts then under development in France totaled €10 billion, of which €7.2 billion will probably be signed as Partnership Contracts. That excludes €40+ billion in highway and high-speed rail programs to be implemented through concession contracts. At the end of 2007, 135 projects were identified for potential financing through a public-private partnership. Twenty-seven were finally concluded. Buildings accounted for 28%, urban equipment for 28%, transportation projects for 16%, and sports and cultural projects, such as museums, for 15% of all proposed projects. Out of the 27 Partnership Contracts signed as of February 2008, 20 were established by local public authorities, and seven by the French provincial or by national public authorities.

The following figures give an overview of PPP-financed projects from the past several years:

- Water and waste treatment plants: 12,000 contracts. Two-thirds of the French population is served by private operators.
- Highways: 80% of the 10,000 km network built and financed through concession contracts.
- Energy supply: 99% of the French population receives energy supply from contractors, through concession contracts, such as with the EDF.

Even though France uses PPPs in many different sectors, most of its experience lies in the traditional user-financed PPP contract. France's toll road operators, previously public concessionaires, have been fully private since 2007. They now sell their expertise worldwide.

The following table gives a snapshot of the PPP market in France:

Figure 2: PPP market in France, 2005 data

Sector Market	Size (2005 data)	% Private
Water	€11.5 billion	71%
Urban waste	€5.9 billion	73%
District heating	€0.9 billion	93%
Urban transit	€8.7 billion	16%
Toll motorways	€6.0 billion	100%
Parking lots	€0.8 billion	59%

Source: presentation by Mr. François Bergère: Government drivers for PPP: the French experience, World Bank Institute, Washington DC, 7-8 June 2007.

Examples of recent PPP agreements in France

As previously noted, at first transit infrastructure accounted for most of the PPP contracts in France. However, these public-private contracts have spread to many other sectors. The French highway network --10,000 km of roads, of which 8,000 km were built with concession contracts -- was built under one of the first PPP contracts of the modern era. Next came the following:

- the 2,460-meter long, 245 meter-high Millau viaduct (a €400 million, 78-year concession),
- the A-86 super-ring in southwest Paris (€1.7 billion, a 70-year concession), and
- the A-41 highway link between Geneva and Annecy (€871 million euro, 55-year concession.)

The following PPPs have been successfully implemented in the railway sector:

- A 300-kilometer high-speed rail line (€7.2 billion project) to the southwest of France is to be built under a concession contract. A public subsidy will cover rail track construction costs.
- A 182-kilometer high-speed line extension (€2.4 billion project) to the west of France is to be built under a DBFO contract.

- A concession contract is being negotiated to build and manage a 32-kilometer light rail link between Paris and Charles de Gaulle International Airport (a €640 million project). Scheduled to begin operation in 2012, this line will be built without public funding.
- A 45-kilometer cross-border high speed line from Perpignan to Barcelona (a€952 million project), financed 40% by private funds under a 50-year concession contract. The major public commitment is due to the high capital costs of an 8.2-kilometre tunnel crossing the Pyrenees Mountains.

More detailed French PPP examples are available at the end of this report in the Appendices, *Part 6.2 Eleven examples of PPPs in France*.

The French Institute for PPP (*Institut de la Gestion Déléguée*, or IGD) gives the following examples other public infrastructure projects using the Partnership Contracts model:

- A €430,700,15-year contract for public lighting in Thiers in central France, financed by Vinci Energies
- A €13.2 million, 20-year contract for waste treatment and management (project in Antibes in the south of France, financed by VALOMED)
- A €540,000, 20-year contract for a parking garage in Châteauroux in central France financed by GTM Génie Civil et Services
- A €1.035 million, 12-year contract to equip all high schools in the Eure-et-Loire department with computer systems and networks, financed by Access Data Network (AND).

Toward PPP contracts for mass transit networks

Fifteen major transportation projects under PPP contracts are underway in France. Furthermore, a recent overview of public environmental policies has led to an ambitious new public transit program, including a €40 billion, 2,000-kilometer upgrade to the high speed rail network. Also, following the conclusions of the Environment Roundtable, the French national government and local authorities are planning to build up to 1,500 kilometers of Bus Rapid Transit and associated systems, which may be financed through PPPs.

French experience in PPP contracts is quite broad. The concession/*affermage* model --- designing, building, financing, operating, and maintaining a network of user-financed roads and highways -- is probably the most successful.

Not all PPP contracts end successfully. Although PPP agreements often aid tremendously government entities that face restricted public funding, PPPs are neither the only nor the best way to develop public infrastructure. A careful evaluation of each project is always needed to ensure a sufficient quality of service, user satisfaction, and reliable and sustainable infrastructure. PPP financing cannot turn a bad project into a good one.

Speakers at this two-day French-American workshop addressed PPPs and private investment with a critical eye. A summary of their speeches follows.

SESSION SPEAKERS

Mr. Bernard Soulage, 1st Vice-President in charge of transportation,

Rhône-Alpes Region

Mr. Soulage welcomed attendees to the first day of the conference. He reported on the efforts of the Rhône-Alpes region to involve all transportation entities in the development of mass public transport systems. He discussed the region's goal of creating a single transport authority in the Lyon area, and recent improvements in the operation of regional rail transit systems and intermodalism.

New technologies, such as the recently-introduced OùRA smartcard, are helping to coordinate the various transportation modes in the Rhône-Alpes region. However, such improvements are costly. Twenty-five percent plus all additional revenues of the Rhône-Alpes region budget were spent to finance transportation services and the project.

Transportation needs financing to maintain and develop it wisely, as politicians and other government officials are well aware Nevertheless, local, regional and national governments should not use their citizens' taxes to finance transportation. Other infrastructure financing methods are more equitable. Indeed, the transportation sector should produce more revenues, and even become self-sufficient.

More users and dedicated taxes, focused on both direct and indirect beneficiaries of the transportation services, can ensure sustainable transportation funding. Then, and

only then, can private involvement follow. Private financing of public projects must, however, be clearly defined and regulated.

Mr. Soulage raised the following questions:

- Should private money finance capital investment or operating expenses?
- Is private financing of public projects always the best financing method?
- Local, regional and national governments may need private money to survive the global shortfall in public funding, but these public entities should use these financing mechanisms carefully and wisely.

Since, as many have said, "mobility on four-wheels is the promised death of our planet," we need to find a way to finance more mass public transportation very soon. Collaborating and exchanging best practices in involving the private sector in this first French-American workshop is a first step toward this goal for both France and the United States.

U.S. Delegation Chief Sherry Little, Deputy Administrator, Federal Transit Administration, U.S. Department of Transportation

Delegation Chief Sherry Little thanked and welcomed U.S. Representatives John Mica (R-FL) and Loretta Sanchez (D-CA), both financing and transportation experts in the U.S. House of Representatives. Ms. Little said that public transportation is taking an increasingly important place in the American mind. As gasoline prices have risen, driving in the United States declined, for the first time in more than 60 years, by 4% between January and June 2008. Transit ridership, on the other hand, increased

25% compared to the same period in 2007. Thus gas tax revenues, which fund the Mass Transit Account (MTA) of the Highway Trust Fund (HTF), are declining at the same time that mass transit ridership is rising. That increase in mass transit ridership means, according to American Society of Civil Engineers data, that the U.S. needs up to $22 billion per year until 2024 to finance public transportation improvements. Finally, Ms. Little said the U.S. not only needs to leverage funds for its transit system, but it also has to let government, citizens, and private business know about both the needs and the available options for infrastructure project development. These three sectors must work together if PPPs are going to be successful.

Raymond Cointe, Administrator of the Directorate for European and International Affairs at the French Ministry for Ecology, Energy, Sustainable Development

Mr. Cointe emphasized the environmental challenge to the transportation sector in the coming years, as France and the other 26 European countries aim to reduce greenhouse gas (GHG) emissions to the 1990 levels by 2020. At the end of 2007, France held an "Environment Roundtable" (*Le Grenelle de l'Environnement*), an overview of French public policies related to environmental issues, involving local and national governments, non –profit organizations, industry and labor unions. That led to a new global environment-minded framework for French public policy, including the determination that to meet its GHG emissions reductions goal, Europe will have to build 1,500 kilometers of regular transit systems (TCSP) and 2,000

kilometers of high-speed rail lines. A law codifying the conclusions of this Environment Roundtable is expected in the near future.

Also, the 27 European transportation ministers met in September in La Rochelle to discuss further how to reduce GHG emissions from the transportation sector, which is the greatest energy consumer and produces the largest percentage of greenhouse gases of any sector. PPPs will help reverse this trend by financing new mass transportation systems.

It should also be noted that in 2002, the 22 French *Régions* became the public transit authorities for regional networks, such as regional bus and rail services. Regional public transit had previously been managed by the national government. Since this transfer of management, there have been major upgrades and service improvement, and a consequent two-digit annual growth rate in ridership.

U.S. Representative John Mica

America is addicted to fossil fuels and is paying a price for that addiction, said U.S. Representative Mica. He praised Europe, and particularly France, for thinking about the need to develop mass transit and investing in it early on. In the United States all levels of government and the private sector will have to invest up to $2.2 trillion over the next five years to maintain all modes of transportation infrastructure at the same quality of service, according to recent estimates by the American Society of Civil Engineers.

The U.S has not made major transportation plans since the establishment of the National Highway System by President Eisenhower in 1956. When the transportation budget act SAFETEA-LU expires in 2009, Congress will need to quickly vote on a new bill that will plan transportation investment over the next five or six years. It will be critical to define clearly the roles in project development of the federal, state, and local governments on the one hand, and of private partners on the other. While the key issue for expanding transportation networks will be financing, public money will not be sufficient to fund all the projects for meeting mobility needs, and innovative financing mechanisms will be necessary, to leverage as much private money as possible. "If you finance the deal," concluded Representative Mica, "you do the deal."

U.S. Representative Loretta Sanchez

U.S. Representative Sanchez discussed the effect of security issues on transportation financing, including the recommendations of the 9/11 commission in 2007. Transit systems should be built to maximize security, said Rep. Sanchez, even though that will increase capital and operational costs. Public subsidies will not be sufficient, however and therefore Rep. Sanchez said that she is particularly interested in bringing the best French PPP practices back to the U.S.

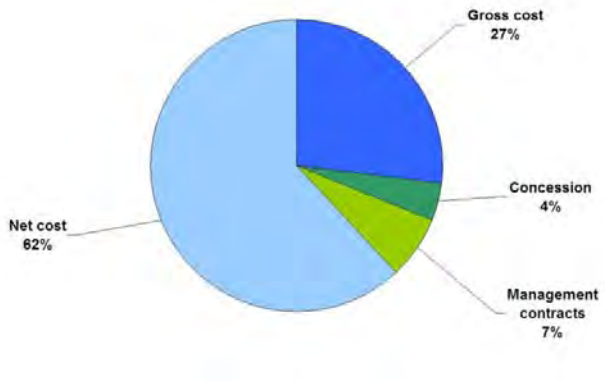
Chantal Duchêne, Chief Executive of the Association of French Transportation Authorities (*Groupement des Autorités Régulatrices de Transit,* GART)

Ms. Duchêne shared insights on the French experience with planning and financing public transportation systems. Local transit authorities are key, she noted, because local control of transit operations can meet user needs best.

French transit authorities (*Autorités Organisatrices des Transits Urbains, AOTU*) have to choose whether to operate transportation services themselves or to contract them out to one or more private operators. The transit authorities' goal is to meet user needs. Thus, while private operators would only be interested in operating profitable lines, the authorities have to regulate the market to focus on quality of service, not simply on receiving money from operators.

Type of Urban Transit contracts (2004)

Delegated management outside Paris region



Source: Groupement des Autorités Régulatrices de Transit, GART

Unlike the U.S. arrangement, most French transit authorities ---approximately 90%-- "delegate" (*Délégation de Service Public*, DSP) or contract out transit services to a

private operator, usually under a five to 10-year contract. (Only 10% operate transit systems “in house.” These are mostly in Paris and Marseille.) The transit authority owns both the infrastructure and the rolling stock, but can “delegate” operation of all or part of their networks to private operators.

Requests for Proposals (RFP) vary in detail and precision, said Ms. Duchene, depending on the transit authority’s control of the network. Sometimes these contracts seem too complicated and it would be advantageous to simplify the process. The RFPs define the quantity and quality of service (routes, network, etc.) and the fare structure desired. An RFP may not include a large number of details, most of which the operator will define in a way that meets the objectives set by the local authority. Finally, the local authority will decide on the type of contract: Gross cost contracts (no contractor revenue risk) allow for better control than net cost contracts.

David Dowall, Director of the Institute of Urban and Regional Development at the University of California, Berkeley

Built largely the 1950s and ’60s, the U.S. transportation infrastructure is aging. Yet federal and local government budget constraints limit the ability to upgrade the system. As a result, architectural and engineering firms, contractors, and investors are joining to look at ways to help the government solve its problems through PPPs. To give just one example: rolling stock manufacturers are looking for ways to help finance rail systems.

That means US policymakers are interested in learning the international experience with PPPs. The UK has a great deal of experience and France is a clear leader. There are also new models and lessons to be learned from Canada, Australia, Spain, and Italy.

PPPs enable the private sector to unleash not only its financial power but also its expertise. This is all the more important since when it comes to PPPs, it’s not “one size fits all.”

What makes a good PPP? They’re effective when they expose projects to market discipline and reduce dependence on government. Government is good at vision and long-term thinking, but they aren’t necessarily the best partners for project execution and management. PPPs are often innovative, because they enable infrastructure investments off the balance sheet.

PPPs can be used for a well-established range of projects: tunnels, bridges, parking lots, seaports, intercity heavy rail, and metropolitan rail systems. While Europe and the U.S. both have PPP experience, strategies are still in early stage of development. Financing structures are still immature, and precedents and market structures are evolving. PPPs accrued lots of hype in early 1990s, but they were oversold. Now we are thinking about them harder and deeper.

The good news is that investor base and interest have grown. Many financial institutions have put together funds as specific vehicles for infrastructure investment. Investment houses control major infrastructure funds, as do institutional investors such as pension and mutual funds and insurance companies. Strategic equity investors have set up infrastructure shops, creating an opportunity for dialogue. There's also vendor financing. These different players have different perspectives on risk, return and reward.

Infrastructure investments bring risk. Will the project work? Will demand solidify? For example, Mexican toll roads present a world-class horror story of overstating demand. There are also credit risks: how secure are you? Are you in the first position, or subordinate? There are political risks, and technical risks: is the project sustainable? Endurable? Easy to maintain? Legal and regulatory issues, such as environmental scoping, homeland security and equity issues must also be considered, although infrastructure is not a good vehicle for income redistribution.

What factors drive financing structure?

- Project structure
- Legal and financial covenants
- Project economics: profit margins, cash flows, equity positions
- Risk profile
- Length of development: some projects take 15 years or more.

PPPs take many different forms. They run on a continuum from fully private to fully public. There are straight privatizations, concessions, leasing, super-turnkey and temporary privatization. There are different kinds of financing. Each model has its advantages and disadvantages. Managers need to have the professional skill sets to coordinate governments, concessionaires, contractors, operators, investors, and banks. Understanding the risk-sharing arrangement between the public and private entities is particularly important.

In the end, it's as Deng Tsiao Peng said: "Who cares if a cat is black or white, just so it catches mice?" It's all about delivering services to the client.

Ronald Hartman, Vice President for Business Development in North America, Veolia Transportation

Mr. Hartman discussed translating the French experience and best practices into American use. Since very little of its transit operation market is contracted to private operators, there's a great deal of opportunity for PPPs in the United States.

The French "*delegation*" model, in which an elected political body sets policy, regulations and results but then turns the operation over to a private operator, is an impressive one. The operator takes on a comprehensive role, including operation, maintenance, planning, analysis customer relations, communications, and marketing, and often operates several integrated modes in one city. Furthermore, the operator may supply, finance and/or own the equipment. That arrangement, used in the majority of French transit networks, has never been used in the U.S.

However, "*delegation*" does not involve financing capital investment through PPPs. On the other hand, both in France and all over Europe, operators often take fare risks, bidding on revenue, keeping or sharing new revenue generated. That's not done in the U.S. There's an extensive incentive/penalty regime. PPPs often include a long-term engagement: 10 to 30 years is not unusual.

In the U.S., there is a strong tradition of public development and operation because the public sector stepped in when private operators who made money until the 1960s then began to cut service or fail entirely. At that point government got involved, and

today there is a $15 billion public transit market. Only about 10% of that is operated under contract to private operators. But now there's more ridership demand than capacity in the U.S., especially with the rise in gas prices. Transit agencies are facing cutbacks, and asked to do more with less. There's growing competition for federal assistance, a desire to deliver projects more efficiently, and a need to counter ballooning costs. Therefore now is a good time to consider PPPs. They could help remedy this imbalance between supply and demand by providing capital investment for new infrastructure.

Most private investment today is in highways and airports, although it's very limited. There are very few successful examples of or even attempts at PPPs in public transit — with one or two notable exceptions -- but now is the time to undertake them. Public agencies, however, are suspicious of PPPs. They perceive private involvement as a loss of control, a threat. For example, a congressional staff member recently asked, "Doesn't buying a train for project give you [the private entity] control and power?" The answer was, "No, it only gives the agency new trains and lower maintenance costs. At the end of the contract we turn trains over to the agency. So, for them it's a win-win."

To build trust, instead of talking about privatization and outsourcing, we talk about partnering and competitive contracting. We also point out that both public and private sectors bring their own strengths to the table. The answer is to bring both together and not replace one with the other.

Profit is a dirty word in transportation, perhaps because it's a public service. What private companies do is in line with the public interest, and yes, they do make money. But it's not an extraordinary profit. Furthermore – despite any suspicions to the contrary – private company concern with bottom line doesn't trump quality, because if we cut corners and provide inferior service, we will lose the business. The public sector demands quality.

Finally -- again, despite any suspicions -- we're labor-friendly. We have good relationships with unions. That doesn't mean we're pushovers, however. French unions are a bigger challenge than the American unions --for example, they struck for an eighth week of vacation!

Private sector financing isn't the answer to every problem. Public entities often call us, saying they're out of money and would like private companies to come in. However, it's not simple. The can be good and bad managers in public or private entities; the key is bringing together strengths of the public and private sectors. We can bring strengths to the table that the public sector has difficulty mustering. The public entity should set policy and regulations, and then carry it out. We, on the other hand, are flexible and can adapt quickly as well as launch innovations, because, operating in 500 cities, we have experience worldwide and can bring it to bear locally.

We also offer one-stop accountability: the buck stops with us. Our cost-savings comes not because we pay people less, but because we have a leaner management structure. We don't have the overhead of a public agency. One reason is that we

separate policy from operational execution. We are truly interesting in making change, consistent with public policy.

PPPs are in their infancy in North America, and there's a desperate need for education about how to define the project, about the procurement process, the needs of the client and the needs of the team, team structures, and the management of a PPP team. (Public agency procurement is not set up for choosing and structuring a PPP team.) We also need education about financing, which are often sophisticated and complex, and about risk-sharing and mitigation. Incentives and penalties and results orientation also are important. When it comes to PPPs, it's not about simply choosing the low bid. Public agencies don't have that expertise because they haven't dealt with this question before.

Commitment to making a project work is key, but it's not simple. Definitions are the most important element. The public authority has to be clear on what it wants, both the price and the result. And the model has to be very carefully designed. Three months is never sufficient for putting a project together. In Europe it takes 3-5 years. Nor is it all about money. Never go for the low bid. Instead, it's about joint accountability. Who will do what and when?

And it's also about mutual respect.

Frank Russo, Director, Frank Russo Consulting LLC

We tend to think of public private partnerships as a relatively new business model, fashioned by modern business managers and built on creative finance. But in fact, the United States has a long and storied history of public private partnerships, especially in the transportation industry.

The first good examples began in the early and middle 19th century, with the emergence of our railroads. The nation desperately needed a unified transportation system that could provide access to its interior resources, like coal and lumber. The new technology of rail transportation looked promising, but lines were exceptionally expensive to construct. The private railroad companies were anxious to build, but finding the capital they needed proved to be difficult. The government responded by providing land grants to the railroads and charters for the right of way. The railroads then took these exclusive business rights to investors to raise the money they needed to build the infrastructure and purchase the rolling stock. Many of these charters also contained provisions that required the railroads to operate passenger services. This was a condition of their rights to the business. The result was the construction of the largest rail transportation network in the world, and an excellent example of an effective public private partnership.

In the early part of the 20th century we saw the growth of inner city transportation. These were also the result of public private partnerships. The first stages of the New York City subway system were built under franchise agreements very similar to what we see today. Streetcar system sprung up in every city, through charters very similar to the railroads, and interurban systems were built to connect small communities to

major centers of commerce. In Philadelphia, PA we ran an interurban service to the western suburbs at 100 mph…in the 1930's.

Contrary to popular belief, very few of these passenger services actually made money. Many city streetcar systems delivered freight at night to cover the cost of carrying passengers during the day. Others built amusement parks at the ends of their lines to generate ridership and create other sources of revenue. In New Jersey, public transportation was provided by the utility companies. They were granted rights to condemn land to create corridors for the distribution of gas and electricity, provided they also built and operated electric streetcar systems in those same corridors. Again, the result was the largest streetcar network in the United States and another example of an effective public private partnership. The Public Service Electric and Gas Company continued to operate all public transportation in New Jersey until the formation of New Jersey Transit.

It's safe to say that until the middle of the 20th century, there was no "public" in public transportation. These systems were built and operated entirely by private corporations, and all of the passenger services were subsidized by private revenues from their other business sources. This effective collaboration of government and private enterprise resulted in economical public transportation systems, and the first real examples of public private partnerships.

So what happened? In the 1950's the nation was wealthy. Tax dollars were readily available. Suburban communities were growing quickly and the automobile was affordable. The interstate highway system and airports were being built and public transportation ridership and revenues were shrinking. We decided, for many reasons,

some good and some not so good, that the future of public transportation lay in government control. As the private companies went out of business, or simply shed their passenger business, these responsibilities fell on the shoulders of newly created public transportation agencies. And subsidies for service now passed from private revenue sources to taxpayers. Costs grew, but the true cost of these services became invisible…buried in our tax structure. Even today, given the multitude of tax sources that fund transportation, and the complex bureaucracies of public agencies, it's difficult to identify the real cost of public transportation. But one thing is intuitively obvious to everyone in this business…it is more expensive than ever.

What has generated this renewed interest in public private partnerships and using private enterprise to provide public transportation? It's simple really…basic need. Ridership is on the rise, agency dollars have begun to shrink, and many find themselves ill equipped to deal with growing transportation demands and major system expansion programs. They are being increasingly pressured to improve their efficiency and deliver their services more cost effectively. They are also finding it difficult to attract people with the skills to manage projects with values of several hundred million dollars, of even billions of dollars, and just as importantly, it is nearly impossible to reduce staff when the projects are complete. Public agencies simply can not grow and shrink their human resources as easily as the private sector.

They also need to start sharing the risk of large, complex projects. The most common characteristics of every large transportation project are that they are late, over budget, and sometimes even fail to deliver on their performance and transportation objectives.

So, what is the solution to this dilemma? Does it lie in these new business models? Do these models look anything like their ancestors? In fact, their heritage is unmistakable. They look very much the same. Proving once again the old adage that "there is very little new under the sun".

This is a fairly typical business structure for a concessionaire model. The benefits for the public sector are obvious. The concessionaire assumes a large portion of the performance risk and even some financial risk. This model has proven to be very effective in our toll road business, mainly because they are money making enterprises. In fact, this model is readily transferable to any business that generates a profit. But how well does it work in public transportation, where are businesses routinely operate at a loss?

Almost universally, these business models are based on the premise of investing equity at risk. But how do you value equity in a business that does not have an opportunity for both profit and loss. And for the purpose of these projects, how do we even define equity? I believe equity represents real ownership in a business or property, and carries with it a financial interest in the performance of a business or the future value of that business. If you accept that description, it is easy to understand why the concession model works well for toll roads. The profit and loss opportunities are obvious. But how does it work in public transportation? In public transportation projects this equity can not be recovered through profits. So it is almost always backed by a promise to pay from the public sector. So the question becomes "is it really equity or just expensive debt"? Because we can not measure equity risk against profits, we have now tried to tie it to performance. Recently we have chosen to put

equity at risk through very complex payment provisions, the so called "availability payment" that puts capital expenditures, debt, operations and maintenance costs, and equity recovery at risk against some standards of project performance. This has led to confusing business relationships and extremely complex allocation of risks…the unintended consequence of which is higher project costs. Why does this happen? Consider the modern concessionaire structure applied to our personal lives. Would it be reasonable to present our mortgage banker with a list of our family's housing needs, and ask him to contract with an architect and builder to deliver our home? Imagine if we further complicated this relationship by requiring the mortgage payment to be at risk if the roof leaked. How would the bank respond? How would the architects and builders become part of this business relationship, or interact with us? How would each of them cover their risk? Which one of them would actually guarantee performance (cost and quality), which is what we are really looking for? And would our home cost more or less?

If it sounds like I am debating the value of public private partnerships, I assure you I am not. I've been a vocal advocate of these business models for many years, long before they became popular. I simply ask you to think carefully about the complexities of these business arrangements, your real objectives, and how to structure a partnership that has the best chance of accomplishing your goals.

I managed the development and construction of the first public-private transportation project in the United States, the Hudson-Bergen Light Rail Line in New Jersey. At more than $1B, it was the largest public works project in the history of the State, and it turned out to be quite a success. I think it was successful because our goals for the partnership were clear. We needed the private sector to accomplish what we had been

historically unable to do…deliver a very large and complex project on time and on budget, that met all of the quality standards our taxpayers deserved. Consequently, we structured a single contract to design, build, operate and maintain the system for 15 years, and we required private sector guarantees for cost, schedule, quality, integration (including vehicles), and performance. We did not require equity, because we acknowledged early on that we could afford the project. We did require debt financing because our ability to pay was based on 20 years of anticipated income and we wanted the project delivered in three. We also wanted to guarantee performance through creative payment provisions, so we included what we now call "availability payments" for both construction and operations. But those bonus payments were based on real value, and the penalties were based on real loss and damages, not an arbitrary interpretation of equity risk.

The second project I developed was the South Jersey Diesel Light Rail System. This project also used a single contract to design, build, operate and maintain the system. We did not require any equity, and did not even ask for private financing. So how is this a public private partnership? Because the partnership was built on sharing risk, not return on investment. Like Hudson-Bergen, the private partner was entirely responsible for cost, schedule, quality, and performance risk, and the agency was responsible for income risk, political risk and community risk. Third-party performance risk was shared.

This is what our business structure looked like. As you can see, it is much simpler than the concessionaire structure we are used to seeing. We have all funding organized at the owner's level and only debt financing at the Special Purpose Company level. In both projects the SPC was made up of builders and operators.

They were the companies that would supply our guarantees, so they were the companies we wanted a direct relationship with. Financing was handled separately.

So, how did they work? Very well!

We developed the DBOM concept for Hudson-Bergen in 1994. By 1996 we awarded the contract. In those two years we completed our environmental clearance, put our financial plan in place, developed the preliminary engineering and performance requirements, re-wrote our contracts, developed new procurement standards, conducted an intensive industry review, received three proposals, and convinced our political leadership that this was the smart thing to do. During those same two years, we also pioneered all of the regulatory streamlining that is now part of the FTA's Penta-P program. We received our environmental clearance, signed the federal full funding grant agreement, briefed our Governor and legislature, and awarded the DBOM contract all in the same month. This was unprecedented. The project has met all of our expectations. It was delivered precisely on time and on budget, there were no claims, and it has operated flawlessly from "day 1". It opened for service in 2000 and now carries more than 1 million riders per month. It is still considered the gold standard for project performance in the United States.

The South Jersey project may be the best kept secret in the United States. The project was built entirely with local money, which was unheard of at the time, and projects that do not use federal funding simply do not get much press. I consider this an even greater success than the Hudson-Bergen project. One of our major breakthroughs was the operating agreement we were able to structure with the freight railroad. On some portions of the alignment we actually operate on common right of way, on standard

13’ track centers, with no time separation. This is a revolutionary concept in the United States, and has not been duplicated anywhere else.

What was the reason for their success? Our public sector objectives were very clear. We didn’t confuse ourselves with the concept of equity as financial risk. We structured a comprehensive procurement process that was transparent at every level, and we were very careful about how we allocated risks. We understood that people do business, not companies, so we used the year of industry outreach to forge strong and lasting business relationships. Lastly, we were willing to modify our internal business practices to incorporate this new idea of “partnership”. This was the most critical element of success, and the most difficult to accomplish, because it required us to change the way people think. We considered our private sector partners as “true partners” in every respect, not just hired help.

Where do we go from here? Certainly, on to bigger and better things. Public private partnerships are here to stay. Provided we can accommodate these new business relationships into our thinking, they offer us opportunities for success that we haven’t seen in a very long time. But they are not a magic formula for success. Like most other things in business, and in life, they can be done well, and they can be done poorly. So my point today is simple…don’t treat them as “cookie cutter” solutions. I would encourage you to think clearly about your needs and objectives, and build the business solution that works best for you.

Vincent Piron, Vinci Concessions

Mr. Piron said that the private sector brings experience and efficiency to every stage of a PPP project:

- Maximum efficiency in design with no over-investment
- Whole life cost optimization .
- Commercial efficiency (marketing the service)
- Flexibility in staff management
- Optimum risk-sharing matrix, and profit sharing procedure
- Permanent co-operation with the grantor and the administrative bodies (adjusting goals, optimizing the procurement in a long-term view)

PPP financing allows the public sector to maximize capital fund leveraging, because the public entity can guarantee the repayment of any loans, and thus ensures low borrowing rates. Banks are willing to lend larger amounts of money to either private or public investors, leading to faster financing and delivery of the projects.

The relationship between the private sector and the grantor is key to the success of a PPP. It's not just a contracting-out relationship, but more cooperative, more of a marriage. Both partners must be confident in each other.

The main contract is between clients and concessionaire. But the population also must have confidence in government having chosen the right way to go. For example, regarding the Orange County toll road, the first step was a good one. The County then bought back the infrastructure, and left operation to concessionaire.

Funding and financing are two different questions. Funding means where the money will come from and who will pay --- will taxes pay or will there be another method? It can be fully paid for the by the government, but when the end user pays it's more effective, because you save the opportunity cost of public funds.

It's important for Americans to understand that in Latin countries -- France, Spain, and Italy -- the civil code works better for long- term contracts than does common law, because it contains fairness clauses.

Vinci looks at an urban transportation system not as an aim in and of itself, but as a tool for improving public welfare and shaping of the city. The company has an urban model, not a transit model. How will a project affect the shape of the city? That kind of thinking gives a better understanding of the value of land and of who will inhabit it.

Simon Murray, Director of Acumen Ltd. (United Kingdom)

WHAT CONSTITUTES A GOOD PPP: THE UK EXPERIENCE

Introduction

In the UK we like to think that we have recently invented PPPs. Whilst we can claim to have invented the Private Finance Initiative (PFI) as a vehicle for private investment in public infrastructure, partnerships between the public and private sectors go back about two hundred years in the UK.

The history of the development of our transport infrastructure is important because it sets the context for the PPP projects that we do today. Our infrastructure and the

organizations that own it are the product of history. And the attitudes of the public, politicians and the media to the private sector's participation in infrastructure have been determined by history.

In my presentation today I propose to give a brief summary of the history of the UK's transport infrastructure highlighting some lessons along the way. I will then go on to examine some of the factors that determine the success of PPP projects in the UK. My presentation will focus on railway and transit projects. But we should bear in mind that this is only a small part of the total investment in PPP projects in the UK today.

A brief history of the UK's transport infrastructure

The development of the UK's transport infrastructure began in the early 19th Century with the construction of canals and railways. They were the first reliable and efficient means of transporting goods over long distances on land. And they were developed by private companies established for the purpose and granted the necessary powers by Act of Parliament.

In the second half of the 19th Century the first public authorities were set up to solve particular infrastructure problems. Amongst the best known was London's Metropolitan Board of Works which was formed in 1848 to construct a system of sewers for London. It was set up as a matter of necessity when the smell from the sewage floating in the Thames became so bad that Parliament was unable to meet when the weather was hot.

As the public sector began work on London's new sewers, the private sector was planning the first section of London's underground railway. In the first half of the 19th Century the population of London doubled and by the 1850s traffic congestion was so bad that people could not travel between the new railway stations in the city. The entrepreneur Charles Pearson came up with the idea of an underground railway that would link the three major stations to the north of London. In 1853 Parliament approved the project. Pearson raised the finance through private investors and in 1863 the Metropolitan Line was opened.

Over a period of a hundred years between the 1850s and the 1950s the UK's national railway system and London's underground railway as we know them today were developed largely by the private sector under powers granted by Parliament. But in spite of the private sector's enthusiasm for building railways, their business model could not support their investments. As the railway historian Christian Wolmar said with reference to London Underground, the early railway men "were building a fantastic resource for Londoners whose value could never be adequately reflected through the fare box which was their only source of income."

These economic fundamentals led inexorably to the public ownership of the national railway networks. In 1933 London Transport was formed to bring the underground railway system into public ownership. And in 1948 the post-war Labor Government nationalized the private railway companies and brought them together as British Railways. What had begun as many small private companies investing in railways to make money had become two large national institutions.

Public ownership turned out to be just as insecure as private ownership had been. In the post-war period successive governments were forced to cut back on investment in British Rail and London Underground. The quality of the infrastructure declined and little was done to develop new infrastructure. In London only two new underground lines have been built since the 1930s – the Victoria Line and the Jubilee Line.

Public ownership also created cultures within British Rail and London Underground that were not conducive to efficient investment in new infrastructure. Both organizations did a good job of managing their networks with limited funds and declining infrastructure. But at their centre was an engineering culture that was deeply conservative and at the same time prone to bursts of technical innovation. One such innovation led to costly delays in the delivery of London's Jubilee Line Extension and Government began to lose confidence in the public sector's ability to manage large projects.

With the arrival of Margaret Thatcher's Conservative Government in 1979 the relationship between the public and private sectors changed again. This time the change was driven as much by ideology as by necessity. Mrs. Thatcher believed that the private sector, with its positive attitudes and management efficiency, could do things with infrastructure that the public sector was incapable of. And the private sector could also provide the money to enable the UK's infrastructure to be upgraded to modern standards without overstressing the public finances.

Over the next eighteen years the Conservative Government returned much of the UK's transport infrastructure to private ownership. It began in 1987 with the stock market flotation of BAA – the owner of London's three major airports. In 1992 they privatized the bus and coach operator, National Express. And finally in 1996 the Government privatized the national rail network forming Railtrack to operate the infrastructure.

In parallel with the privatisaton of the infrastructure companies, the Government launched the Private Finance Initiative to encourage the private sector to invest in infrastructure projects. The Government quickly established the framework of legislation and standard processes to enable PFI to be applied across the public sector. And it set in motion the developments that led to PPPs as we understand them in the UK today.

When Tony Blair's Labor Government was elected in 1997 many people expected the privatizations to be reversed and private investment in PPPs to stop. In the event the opposite happened. New Labor embraced the private sector with as much enthusiasm as their predecessors developing close relationships with Railtrack and BAA and accelerating the PPP program. They even pushed through the PPP contracts for the maintenance of London Underground's infrastructure against opposition from the Mayor and the Transport Commissioner Bob Kiley.

If we step back and look at the impact of privatization and PPPs on the UK's transport infrastructure, there have undoubtedly been some failures. But there have also been some great successes. Today we have many essential transport links and transit

systems that would not be there without the contribution of the private sector through PPPs.

The most successful projects have been on the national highway network where the private sector has provided critical links to relieve traffic congestion. The Queen Elizabeth Bridge over the Thames at Dartford, the Second Severn Crossing and the M6 Toll Road are al relatively simple projects that have guaranteed revenues from motorists who are glad to pay the tolls to bypass the traffic congestion. Their success can be judged by the fact that few people realize that they are owned and operated by the private sector.

Close behind these highway projects are the city transit systems. The Docklands Light Railway, Manchester Metrolink, Sheffield Supertram and Croydon Tramlink have all been developed in collaboration with the private sector. They have made a major contribution to public transport in the areas that they serve but they have generally required financial subsidies to supplement their income from fares.

The least successful projects have been the large and complex investments that have been undertaken by the private sector. The Channel Tunnel Rail Link and Terminal 5 at Heathrow Airport are triumphs of engineering but in both cases the difficulties of financing them have stretched the relationship between the public and private sectors to the limit. And in the case of Terminal 5, the chaos surrounding the opening has damaged the reputations of BAA and their owners Ferrovial.

Lessons from the UK experience

PPPs have been at the centre of the development of the UK's transport infrastructure for nearly two hundred years. And much has been learnt from the successes as well as from the failures. The lessons are relatively simple but have a profound influence on the decisions that we make about PPPs today.

The first lesson is that it is not possible to be involved in a PPP in the transport sector without becoming involved in the political process. In the UK, public transport is up there with education and healthcare as a key political issue in the minds of the public, politicians and the media. However rational we are as planners, engineers and investors, in the end it is politics that shapes these projects. And if things go wrong, we are pushed out there with the politicians to face the wrath of the media.

The second lesson is that it is difficult to finance railway and transit projects on the revenues from fares alone. The Holy Grail for PPP projects in the transport sector is to find ways in which the project can take a share of the increases in property values that are brought about as a result of the improved transport service. Attempts were made to do this for the Channel Tunnel Rail Link and the Jubilee Line Extension but without any real success. Until we find a solution to this problem, PPP projects will continue to rely on public subsidies to supplement revenues from fares.

The third lesson is that the engineering of railway and transit projects is usually complicated and the capital costs are difficult to forecast. This is partly due to the fact that these projects are usually integrated with the existing urban and railway infrastructure whose condition is often unknown. But it is also due to the

conservative and risk-averse culture that pervades much of the UK's rail industry. I can see a time when we will invest in guided bus systems rather than conventional transit systems just to avoid the complexity and costs of the rail industry.

The final lesson is that the process of winning a PPP project and obtaining the approvals and powers to build it can be long and expensive and is certainly not for the faint-hearted. The cost of bidding for PPPs has become a significant issue for investors and contractors and has led a number of companies to withdraw from the market. The Government has recently announced its intention to simplify the process of obtaining statutory approvals but there is no sign yet of practical proposals.

What constitutes a good PPP?

In conclusion, I will try to answer the question "What constitutes a good PPP?"

First and foremost, a good PPP project has strong political leadership and clear support in the communities that it serves. Without leadership and community support, a PPP project is just a good idea and investors and contractors should keep well clear of it.

A good PPP project has simple interfaces with other urban or transport infrastructure and is clearly defined in engineering terms with proven engineering systems. It is difficult enough to forecast the capital costs of PPP projects without having to cope with other peoples' infrastructure and innovative engineering solutions.

A good PPP project has a robust business plan based on realistic forecasts of passenger numbers, fares and operating costs. Bent Flyvbjerg has suggested in his book Megaprojects and Risk that revenues are typically overstated by 40% and capital costs understated by 40%. It would be prudent to test the business plan for these two cases.

Finally a good PPP project has a team of investors and contractors that is determined to win and that can cope with the bidding program and the costs of bidding becoming twice what was forecast at the beginning. If you are not determined to win, don't enter the competition.

Current PPP transit projects in France and the United States

Moderated by Ms. Rita Daguillard, Director of the Office of Research Management of the Federal Transit Administration (U.S. DOT), this session gave an overview of current public projects with a private involvement, especially through capital investment financing.

Keith Parker, Chief Executive Officer of Charlotte Area Transit System

Mr. Parker discussed several transit and urban development projects in Charlotte, emphasizing the strong links between public transportation networks and public facilities such as the NASCAR Hall of Fame, Time Warner Cable Arena, and Epicentre.

New transit developments in Charlotte include the light rail line LYNX, a 9.6-mile, 15-station line with seven park-and-ride lots. The project, which cost $462.7 million, opened in November 2007 and in six months had already surpassed ridership expectations. Much of its financing came from real estate developers, who had also financed the public facilities that they serve. LYNX provides a good example of Transit Oriented Development. (See details of the TOD program planned over the next 30 years in the Appendix and slideshow.) More capacity is envisioned and PPPs may well provide it.

Georges Barriol, Vice President for Transportation, Conseil Général du Rhône and Luc Borgna, Chief Executive Officer of RhonExpress

Mr. Barriol and Mr. Borgna described two transit projects now under development in the Greater Lyon area: the light rail line "Lea" and the express light rail line "LESLYS." Lea is managed by the Lyon transit authority (SYTRAL).

LESLYS links Lyon city centre to the Saint Exupéry Airport east of Lyon – a 25-minute light rail ride. Its first segment runs on Lea's tracks, but its second segment, which runs outside the Lyon city limits, was financed through a PPP under a 30-year concession contract. This project is the first light rail concession granted by a local authority to be funded on a project finance basis. The total investment is about €110 million.

The concessionaire RhonExpress has taken the investment risk and there is a cap on the public investment – a local authority €31.5 subsidy.

RhonExpress has also taken the revenue risk. The private consortium benefits from low loan rates, guaranteed by the AAA bond rating of the public authority, the *Conseil Général du Rhône*. This transit PPP can serve as a model for other project developers.

RhonExpress is a consortium composed of Veolia, Vinci, Vossloh, Caisse des Dépôts, and Cegelec.

Nathaniel P. Ford Sr., Executive Director and CEO of San Francisco Municipal Transit Agency (MUNI)

Mr. Ford gave an overview of projects that could be financed through PPPs in the San Francisco area. They include Caltrain electrification, BART extensions and the California High Speed Rail Authority.

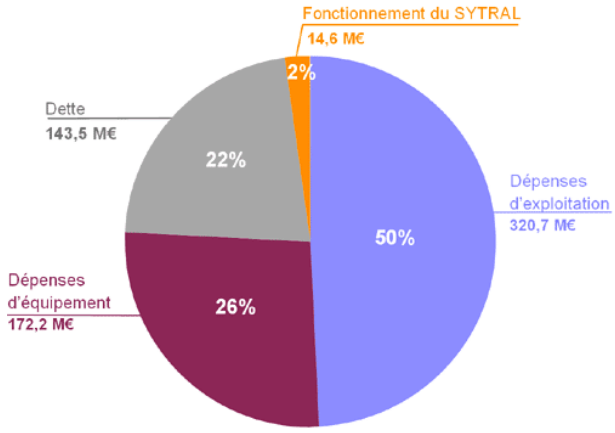
He outlined the MUNI board policy whereby public agencies and private entities add value in their respective areas of expertise. To this end a developer, Emerald Fund/Joie de Vivre built and opened the Hotel Vitale in 2005 on Muni-owned property. Emerald Fund/Joie de Vivre also operates the hotel. The joint development includes a restaurant, bar, spa and 199 guest rooms and suites. Over $4 million in revenue has been generated for MUNI since 2005.

The centerpiece of joint development projects will be the Transbay Terminal serving over 20 million passengers annually. This underutilized terminal will be turned into a thriving transit-oriented neighborhood with 3,450 new homes and two million sq. ft. of retail space, projected to generate $2.6 billion in incremental tax revenues over the life of the redevelopment plan.

Bernard Rivalta, President of Greater Lyon Transit Authority (SYTRAL, Syndicats des Transports de l'Agglomération Lyonnaise)

Mr. Rivalta discussed the "*delegation*" model used in Lyon transit operations by Keolis, a major French transit operator. Lyon is the second largest city in France. Seventy-three percent of the SYTRAL fleet is electric. Twenty-three percent of operating revenues derive from the fare box, 21% from local financing, 36% from the transit tax **(***versement transport)*, 15% from loans, and 5% from sundry revenues. Of the system's €651 million in expenses, 50% go to the operator, Keolis: 22% to repay loans, 26% for facilities, and 2% for administration. Park-and-ride lots near transit stations outside the Lyon area are free for drivers who ride transit.

Operating expenses and revenues, SYTRAL Source*: SYTRAL, 2008*



Source: Sytral, 2008

Art Guzzetti, Vice President for Policy, American Public Transportation Association (APTA)

Mr. Guzzetti discussed the newly -formed APTA Public-Private Partnership Task Force, for which details are available at http://www.apta.com/about/committees/public_private/index.cfm.

The two most important ingredients for private investment in public projects are a growing transit market (which the United States has had since 1995), and public and private sector commitment and common interest. This growth in demand, sharpened by rising gasoline prices, along with growing environmental considerations, mean that transit authorities need to finance projects faster than previously. However, before entering into a PPP, it's important to ask why governments need the private sector, and for the public entity to clearly define the private entity's role, which may comprise financing, building, expertise, network management, or network operation. The private company of course has to make sure it has a foolproof path to payment.

SAINT ETIENNE, SAINT ETIENNE METROPOLE – JULY 8, 2008

The second day of the conference took place in Saint Etienne, where the delegation was welcomed by representatives of both the city of Saint Etienne and of Saint Etienne Métropole (Greater Saint Etienne).

Developing the transit systems of the future through PPPs

This session was moderated by Jean-Claude Ziv, Chairman of the Transit, Logistic and Tourism Department at the *Conservatoire National des Arts et Métiers* (CNAM) in Paris.

Thierry Gouin, Mobility and Transportation Department of the Institute for Urban Transit, Networks and Planning Studies (*Centre d'Etudes sur les Réseaux, les Transports, l'Urbanisme et les Constructions Publiques, CERTU*)

Mr. Gouin gave a snapshot of French urban public transportation history. The "transportation tax" (v*ersement transport*), which equals 1.75% of the salaries paid by companies with more than nine employees, was imposed in the 1970s, first in Paris, and then in other regions. This tax finances about 30% of the operational cost of transit networks in France. It is the country's only tax dedicated to transportation. This funding source allowed some of France's largest cities -- Lyon, Lille, Marseille, and Toulouse -- to build metro networks in the 1970s.

In 1982, the "Domestic Transit Orientation Law" (*Loi d'Orientation sur les Transports Intérieurs*) launched a period of decentralization, and in 1996 the "Air Law" (*Loi n° 96-1236 sur l'air et l'utilisation rationnelle de l'énergie*) allowed state government subsidies to transportation and defined public transportation service regulations more precisely.

These laws favored the resuscitation of tramway systems, but France needed to find cheaper ways to build and operate its mass transit systems, especially after the 2003

decentralization led to the disappearance of state subsidies for public transit. Bus Rapid Transit systems or BRTs (in French, *BHN*s, for *Bus à Haut Niveau de Service* or High Level Service Buses) came on the scene as a solution to the shortfall in public funding. However, except in those cities which already had rapid transit networks, public transit modal share began to decline.

Nineteen cities today operate light rail systems in France: Paris, Bordeaux, Caen, Clermont-Ferrand, Grenoble, Lille, Lyon, Le Mans, Marseille, Montpellier, Mulhouse, Nancy, Nantes, Nice, Orléans, Rouen, Saint-Etienne, Strasbourg, and Valenciennes. Additional light rail lines are under construction in Angers, Lyon, Marseille, Mulhouse, Nantes, Reims, and Toulouse.

Even though public transportation networks are widespread in France's large urban areas, there is still a great need for investment. A new transit system development plan was drawn up in 2007- 08, after the national "Environment Roundtable" (*Grenelle de l'Environnement.*) As a result, there may be new government subsidies and the private sector will likely be more involved in public transportation system financing.

There are not yet many examples of PPP financing of mass transit in France. However, there were concessions in Caen, Rouen, Strasbourg and Toulouse in the 1990s, and PPPs are now in the works in Paris, Reims, Lyon and La Réunion (for more details on these projects see the slideshow referenced in Part 6 Appendix).

Dorothy Dugger, General Manager of San Francisco Bay Area Rapid Transit District (BART)

Ms. Dugger discussed the Oakland Airport Connector project, a 35-year contract with a $650 million investment, of which $490 million will be public investment, and up to $160 million will come from a private consortium. The contractor will take the risk of design, construction, testing, and start-up, and will be responsible for operation and maintenance. Project details are available in the slideshow attached to this report.

Money leveraged from a $15.5 million land sale will allow BART to invest in construction of the new line and stations, dubbed the West Dublin Station Birds' Eye View project.

Guy Bourgeois, Managing Director of the French National Institute for Transportation and Safety Research (*Institut National de Recherche sur les Transits et leur Sécurité, INRETS*)

INRETS is a large research organization studying both France and Europe. It has many relationships with American research teams and with the Transportation Research Board of the National Academies, with whom it recently signed a cooperation agreement.

Mr. Bourgeois gave a presentation on the European strategic agenda for transportation research.

For long time urban mobility was not an important issue for European Union. But in 1997 the EU started looking at and financing research on urban public transit. In accord with this increased interest in urban mobility by the EU, France considers transit a national priority. As a result the *Agence Nationale de la Recherche* (ANR) has issued national call for competitive procurement, and urban mobility has become a priority of the national research program (PREDIT). Furthermore, the Environment Roundtable ("*Grenelle de l'environnement*") concluded that developing transit is a high priority. France's position as EU president until December 2008 should also keep transit and urban mobility high priorities at least until that time.

The increased interest of the European Union in urban mobility has also led to a leading position for INRETS in joint-research programs such as the European

Conference of Transit Research Institutes (ECTRI) and CIVITAS, a program for clean urban transit, encompassing policy and technology aiming for more sustainable, clean, and energy- efficient urban transportation system. Finally, the French Government, through the French National Institute for Transportation and Safety Research *(Institut National de Recherche sur les Transits et leur Sécurité, INRETS*) has a strong interest in joint transportation research programs with other countries, and especially with the U.S. FTA.

The main problem faced by researchers in pubic transportation is how to move from research to innovation. Innovation requires experimentation, which in turn requires strong involvement of cities, and the cooperation of local authorities. But rules usually prevent innovation. It's important to figure out how to solve this problem.

There are several possible solutions:

- Joint procurement possibilities -- e.g. several cities could work together, even five or ten cities.
- The state could select relevant innovations and allow cities to launch the competitive procurement process on these innovations.
- Create at the state or national level a special fund to support experimentation in demonstration cities
- Industry must work closely with cities and other local authorities.

There are currently two such examples of private involvement in urban public transportation research and innovation, the microbus project and the European Bus of the Future, or Hynovis.

The microbus project arose to fulfill the need for a small but very attractive bus. The bus manufacturer GRUAU; French operators including RATP, Veolia, and Keolis; and several cities, including Laval and Clermont-Ferrand, agreed to share among them the costs of research and development for 100 microbuses. There are now 150 microbuses and an electric version is ready for launch. A new hybrid version is also in the works.

The European Bus of the Future, Hynovis, is the project of a consortium of Portuguese, German, Italian, and French bus operators who started to work together in 2000. Since many people prefer to ride in cars, planes, the TGV, and trams, they decided to update the bus, and make it a more popular means of travel. The French launched a competition among designers and in 2006 common specifications for bus manufacturers were agreed upon. In 2008 a French company presented the new bus, dubbed HYNOVIS, It's a hybrid with a low floor and large windows. Hopefully it will prove very attractive and popular.

Peggy Delach, Chairwoman of the Board of Foothill Transit Agency

FOOTHILL TRANSIT: A PUBLIC-PRIVATE PARADIGM AT WORK

Located in one of the most traffic congested regions of the United States, Foothill Transit provides fixed route bus service to over 327 square miles of eastern Los Angeles County, also known as the San Gabriel and Pomona Valleys. Service includes both local connectors and commuter express services that travel into Downtown Los Angeles and Pasadena. We cover this wide ranging territory with 314 vehicles – most of which are compressed natural gas.

How did Foothill Transit's public-private model come about?

In 1988, the regional transit provider for all of Los Angeles County decided to impose steep service cuts and fare increases that disproportionately negatively impacted the San Gabriel and Pomona Valley cities east of Downtown Los Angeles. With the population booming and transit need rising, the region united to fight the changes with the introduction of a new transit model that would give local powers more direct control over their own public transit; improve responsiveness to community needs, and retain intense public oversight while employing the flexibility and innovations of the private sector.

As a new agency, Foothill Transit relied on the private sector to provide the basic infrastructure needed to run the new transit system until it had the capital to build. The first operations facility in Pomona opened in 1997 and was followed by a new state-of-the-art operations facility to the west in Arcadia in 2002. Up until these

facilities were established, private contractors had to provide their own operations and maintenance facilities within the agency's service area.

Foothill Transit is unique in that is has no employees. Private contractors operate both the agency's administrative management and operations. All staff members on both the administrative management team and in the operations yards are contracted employees. Quality, a key factor in our mission statement, is the driving aspect behind choosing our contractors. Maintaining that quality through longevity with proven partners means we don't have to reinvent the wheel when it comes to planning new transit projects

Foothill Transit is governed by a joint powers authority of elected officials from 21-member cities and appointed representatives from Los Angeles County. The JPA selects five members to represent their region on the agency's Executive Board, meeting monthly to provide leadership on Foothill Transit's regular operations and performance.

Foothill Transit is a major regional leader in transportation innovations – a key part of our mission statement. We're looking to implement each of these projects in the coming year – key among them being the universal Transit Access Pass, a smartcard fare system usable on most regional transit systems; traffic signal priority for one of our most popular and longest east-west routes – Line 187; a new congestion pricing demonstration for our busiest east-west corridors; several infrastructure projects, and front-line customer contact development.

Since its inception, Foothill Transit has outperformed expectations and has become the premier transit agency it set out to be. It is a recognized regional leader and is respected for its commitment to the communities that it serves. The Foothill Transit paradigm blends the accountability and community focus of the public sector with the best practices and innovations of the private sector. This allows the leadership to focus on key, big picture transit issues while allowing a lean and efficient business staff to execute service on the street.

Foothill Transit was designed to be responsive to the community thanks to strong local controls. The agency pays acute attention to the growth and planning of its region's cities and has the flexibility to adapt accordingly.

Bruno Faivre d'Arcier, Professor, Lyon 2 University, Department of Transportation Economics

The main objective of urban transportation policy, said Professor Faivre d'Arcier, is to reduce car use by attracting automobile drivers to public transportation. Public transportation in turn aims to fluidize traffic, improve social well-being, protect the environment and promote city and land use planning. Those challenges are interrelated: urban sprawl increases road traffic, which causes congested networks that harm people -- through increased transportation costs and time spent in traffic -- as well as the environment.

Mr. Faivre d'Arcier pointed out that allocating a dedicated right-of-way for public transportation systems guarantees speed and reliability and decreases traffic congestion.

Light rail transit systems, he pointed out, are often a very good way to meet these challenges because

- They cost less than an underground solution.
- They occupy the streets, thus penalizing car use.
- They provide opportunity to renew public spaces, maintaining the attractiveness of city centers and creating new urban poles, both central and peripheral.
- They can add value to connected projects, such as housing, entertainment, and sports, which also can be financed through PPPs.

A December 2007 survey found that the most-cited reasons for past car usage and future car use reductions are

- Price of gasoline
- Parking difficulties
- Environmental awareness

People also shifted from car to transit use when public transportation networks improved their service and frequency.

The charts below synthesize survey results:

Figure 3: Reasons for using car yesterday (452 drivers - Dec. 2007)

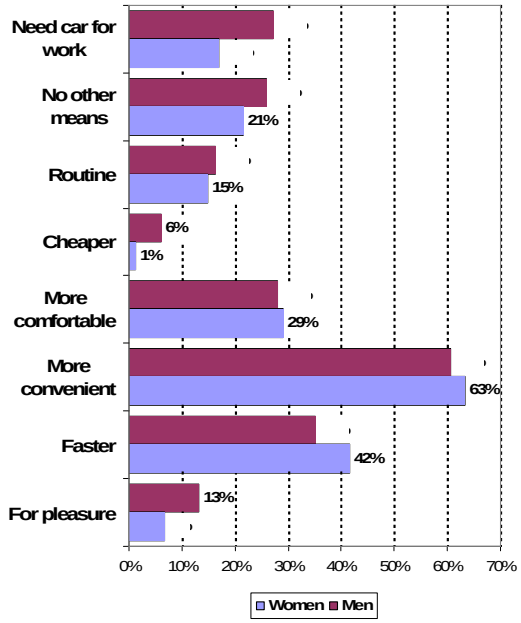
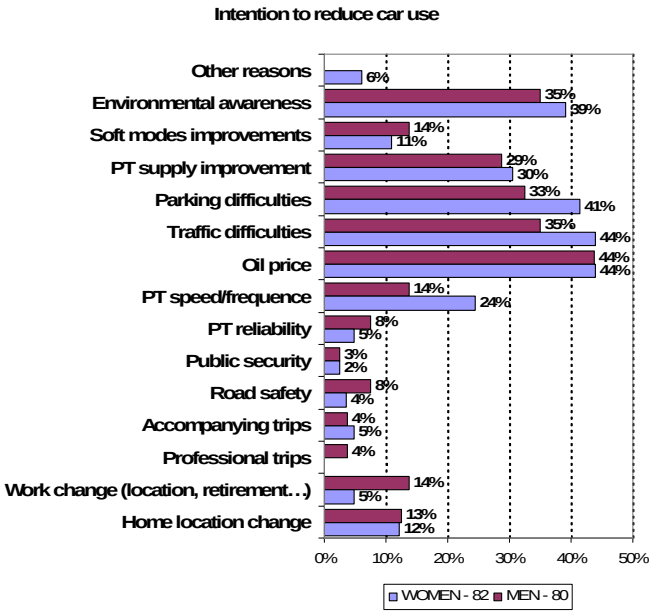


Figure 4: Reasons for reducing car use tomorrow (452 drivers - Dec. 2007)



Source: Lyon 2 University, Transit Economy Department, Pr. Faivre d'Arcier

The challenge public planners now face is determining which transportation system fits which needs, and who will finance the investments.

PPPs are of course one of the options. They are quite new in the U.S., and might not apply to all project types. Government officials then have to take into account the complexity of these agreements which require experienced legal and financial advice. The public entity needs to apportion risk appropriately, while allowing the private partner to be creative, keeping competition alive, and most importantly, educating all the stakeholders involved.

Pierre-Denis Coux, Deputy Director for Concessions, General Directorate for Roads, French Ministry of Ecology, Energy, Sustainable Development and Land Planning (MEEDDAT)

Mr. Coux discussed 50 years of experience in French highway concessions. Twelve thousand kilometers of highways were made possible because of the system of "adossement", which allowed new sections of road to be funded by revenue generated from older, profitable ones. At present however concessions are funded through a competitive process. That allows more accountability and gives the public entity more choice. All new sections must be economically viable. If necessary, there is a public subsidy to offset the concession.

Right now there are nine ongoing competitive procurement contracts. Five contracts are in progress and four soon to be launched.

The Millau Viaduct provides a good example of a concession project. It is a bridge 2460 meters long and 245 meters high. One of highest concrete viaducts in the world, it is as high as the Eiffel tower. It completes the third north-south highway axis in France. The concession contract was signed in August 2001. Construction ran from the end of that year until 2004, and the bridge opened to traffic in the beginning of 2005. It cost €400 million and was financed by a private partner. The contract covers 78 years of concession, including three years of construction, and 75 years of operation. The bridge structure is guaranteed for a lifespan of 120 years. The concession holder CEVM (*Compagnie Eiffage du Viaduc de Millau*) is a subsidiary of Eiffage, the 3rd largest French contractor.

Refinancing is planned after 2009. The debt has been refinanced with EIB loans.

Fare for this bridge is approximately six Euros for light vehicles. About half of the rest of the route from Paris to the south of France is toll-free on the A75 highway.

The bridge was designed under a long-term public-private technical partnership between the public office of road engineering, private engineering companies, and Norman Foster Architects. It was then built as a private venture, under public technical and financial control.

Traffic crossing this bridge has already exceeded preliminary assessment levels, and contributes to a surging economic development in the region.

We may find a new way to finance this project; now it's financed mainly by the bank. We're trying a new system where the funds come from a contract which includes laddered payments – more than one source.

This concession contract and awarding process illustrate the importance of risk sharing: balancing the commitments expected from the private partner with the risks taken by the public entity. A concessionaire must design build and operate infrastructure and has the right to collect tolls. Design, building, financing and operating are risks of the concessionaire.

The hardest part of the process is selecting the preferred bidder. There are two phases – first, receiving and accepting bidders; second, choosing from among the bids. There

is a predefined legal framework, so bidder can't change the contract, only the numbers in it. You can combine several criteria to make most effective choice.

So the risk is taken by the private sector. There is no contractual guarantee (especially on traffic forecasts) and there are no financial restraints on granting of a concession.

The private partner must provide the right service at the right time, completing it on time, maintaining infrastructure in good condition, and providing funding guarantees. The public entity risks include interruption or delays in the program, and the risk of service disruptions and budgetary surcharges. There are also political risks from community residents and users.

The public entity must deliver all permits and approval on time and pay subsidy provision, if granted, but cannot interfere in construction, financing and operation of the project unless the operator is not delivering the service as agreed to, which would mean that penalties would be assessed.

If there's a unilateral cancellation of a contract or buyout of a contract then there must be compensation. The contract is long-term so there are provisions for periodic revision. But there is no automatic renegotiation of the contract. The principal of equilibrium of the contract must be reflected, and legislation can affect this equilibrium.

Under the new Partnership Contracts, public bodies signing agreements will need new ways to pay the private partner, probably not only during the construction phase but also throughout the contract life cycle.

Eventually, Partnership Contracts will fit with projects in which offsetting the costs by tolling the infrastructure can be difficult or even impossible.

Finally, Mr. Coux gave examples of roads in Paris, Albi, Avignon and Marseilles that will be financed through PPP agreements.

Projects now underway include enlargement of *Route Nationale 8* for at least 100 km, and a huge and very difficult *peripherique* project in Marseille.

Philippe Payen, Chief Strategic Officer, Veolia Transit

Mr. Payen said that Veolia has 15 years of experience with PPPs, including metro light rail and regional train projects.

Today there is a need for infrastructure everywhere, and the question is, how to build it quickly and efficiently – especially given the constraints of the public budget.

PPPs are an attractive solution, especially for complex systems like light rail. They are a good financing method for governments since they allow faster project delivery, and reduce costs to the public body, if the risk transfer is well balanced. In addition to creating additional financing capacity, they help compensate some lack of technical

skills for such large and complex projects and might facilitate reform the public sector.

A successful PPP requires strong cooperation between the partners, as demonstrated by four PPP-financed projects in which Veolia Transport is involved (for details on these projects, see the slideshow referenced in Part 6 Appendix).

Consortium governance issues are key to ensuring successful PPPs. Projects can fail unless private company decision makers are empowered to make strong decisions from the beginning to the end of the contract. Also key is a strong decision process in the governance of the project between private consortium and all public entities involved. The operator has a long term interest in the good delivery of the services and should be a long term partner in the Special Purpose Company (SPC), the entity formed for the project by the consortium companies. On the other hand, there should only be a single turnkey construction contract with the builders in order to reduce all interface risks during construction

The key steps to take for a solid project include:

- Conduct a preliminary assessment of political involvement and likely risks. Ensure support of every party to the project.
- Secure key partners, including rolling stock manufacturer, operator, local civil works contractors, and other partners, through RFQ schemes. Make each party clarify all issues, insuring a low level of contingencies.

- Focus intensively on project governance and risk allocation (transit authority/concessionaire/operating and maintenance company.) Ensure a good balance between up-front investment and yearly operational subsidies.
- Conduct a sound competitive procurement process. Choose limited number of groups and organize a dialog with them on main options and contractual terms
- Clarify all issues before signature and closing, allowing for a smooth start.

Anne Sheehan, Member of the Board of Directors of the California Public Employees' Retirement System and the California State Teachers' Retirement System

Ms. Sheehan discussed the infrastructure investments of the California Public Employees' Retirement System (CalPERS), and the California State Teachers' Retirement System (CalSTRS), the largest and second largest U.S. public pension funds respectively, with $235 billion and $163 billion in assets. Both in the United States and globally, pension funds could provide a means of low-cost public infrastructure financing.

Pension funds define infrastructure as a unique asset class that offers investors a diversified source of stable, inflation-linked returns. They include but are not limited to energy and other utilities, water systems, transportation, ports, communications, and social infrastructure.

Pension funds are interested in investing in infrastructure that provides

- Capital-intensive assets with 25 to 99-year contracts, and similar duration if liability
- Inflation protection, with revenues typically linked to Consumer Price Index
- Monopoly or quasi-monopoly with high barriers to entry due to scale and capital cost
- Steady cash flow, producing strong and predictable yields
- Low correlation, providing portfolio diversification and low beta

- Inelastic Demand with little volatility, and therefore little susceptibility to economic downturns

Infrastructure needs are growing, not only in mass transit, but also in all transportation and public facilities sectors. It is a unique asset class offering investors a diversified source of stable, inflation-linked returns. With $1.6 trillion required on infrastructure projects over the next five years in the United States and all level of government facing budgetary shortfalls, pension funds may well serve as private partners of public developers in the coming years.

Raphaël Rivalland, Department of Export, Finance and PPP at the Royal Bank of Scotland France

Mr. Rivalland gave an overview of the French PPP market since 2004, according to project size, type of infrastructure, change in the number of projects, and other characteristics (for more details, see the slideshow referenced in Part 6 Appendix).

http://en.transport-expertise.org/index.php/2008/09/04/first-french-american-workshop-on-public-transportation-innovative-financing-23/

Pierre Van de Vyver, General Delegate of the French Institute for PPP (*Institut de la Gestion Déléguée*, IGD)

Mr. Van de Vyver discussed the different contracts available to project managers. PPPs emerged when governments needed to improve both quality of service and efficiency. The level of private involvement varies in each transportation project. Each PPP has its own degree of the risk transfer from the public to the private partners. From the point of view of the community, neither the kind of financing nor operation by a private company is as important as whether or not the service meets the needs of the public. Therefore the public entity must evaluate which contracting mechanism best meets those needs for reliable service, and must ensure that both financing and funding are in order. Once the public entity is sure that its project serves the public interest, then and only then should it evaluate the risk transfers and

verify the means of payment of the private operator, in order to ensure customer satisfaction in the long run.

Competition in transportation has features particular to the sector that don't occur in other sectors. Transportation modes are multiple and compete with each other.

Many of its benefits and costs -- fighting pollution, the space you use, and the time you save -- don't have monetary value. The services are financed not only by users, but also by public authorities, and they often have a deficit. Financing by a transportation tax means that financing is quite complex and making sure that public transportation can support competition with other transport modes is not simple.

Therefore, there are several imperatives for healthy public governance:

- The principle of responsibility. Anglo-Saxons are ahead of Latin countries in this respect. They really manage and expect results. Accountability is very important. They have better degree of transparency resulting from participatory management.
- The principle of efficiency requires managing with scarce resources, especially capital.

There are huge problems in management of capital resources, human resources, energy and raw materials.

The fundamentals of PPPs are emerging. First, you have to identify the best method of delivering a project based on the most accurate projection of all cost factors including life cycle costs.

Value added taxes and business taxes on occupying public space adjacent to the project's corridor must be considered. We should minimize debt for future generations. We shouldn't make others pay too far in the future because we haven't set up a cost-effective method to pay for and operate the project.

Give operators incentives to reduce energy consumption and increase ridership. If you consume less energy, that benefits the entire community. Most long-term contracts haven't looked at these types of possibilities. Most award more money if you get more riders.

PPPs have different contracts covering a wide range of different risks and risk levels assigned to each party. There is maximum risk transfer when you deal with a concession verses a traditional subcontract.

It's important not to forget interconnection between components of the project without being too restrictive on concession bidders. The authority has to understand aims of shareholders while establishing good indicators of performance. This is based on repeated functional performance.

There should be no areas of non-liability and we're vulnerable to this when there's a piecemeal contract.

Once the public body is convinced that its project serves the public interest, then and only then, should it verify the risk transfers and method of payment to the operator.

Michael Schneider, Managing Partner of InfraConsult LLC and Co-Chair of the APTA Task Force on Public-Private Partnerships

The United States doesn't have a smoothly-functioning, modern national transportation system. However, we are moving toward such a system, largely through the efforts of APTA, FTA and others who are working toward authorization of a new surface transportation act. We are beginning a major national debate for the first time since the 1950s, when Eisenhower promoted the Interstate Highway Act.

Infrastructure isn't sexy to talk about if you're running for office, because it's not cheap. Infrastructure doesn't happen overnight, yet it is the backbone of commerce, society, and our daily lives. Politicians don't talk about infrastructure unless bad things happen to good bridges. But industry can help move infrastructure up higher on the national list of priorities.

Public assistance to mass transit began in the United States in the mid-1960s with the formation of the Urban Mass Transit Association. In the 1970s, however, an aversion to taxing ourselves for infrastructure arose. In the traditional model, government bodies levy taxes to be used for infrastructure. PPPs on the other hand are agreements between government and private entities for providing and operating transit. The objective is to increase funding and financing. Thus government

financing to support the public half of PPPs is extremely important. It's crucial for leveraging private funds. Resources must come from all sides to even get into the discussion of risk-taking. At present, however, such cooperation takes place frequently in the U.S. than it does in other countries.

The private sector is always looking for increased investment opportunities that offer an acceptable rate of return. The public wants and expects better service, reduced risk, better managerial expertise, and perhaps new technologies. PPPs can help satisfy all these needs, both public and private.

The private sector is willing to partner with the government and looking for opportunities to work together. However, some in government believe that the only time to turn to private entities is when there is no more federal money, the state no longer interested in infrastructure, and there are no local funding sources. But this is not a good idea because the key to PPPs is leveraging public resources. There has to be public money to ensure a private fund contribution. Without enough public investment, PPPs can't take place. (We could only dream about 3.5% of income generated by companies of nine or more people be made available for transportation!)

The seesaw has to balance at equilibrium: we have to know how to tap the resources and skills of private sector and learn how to expedite the development process.

We also need more conducive government policies and to develop balance so that each side wins. Lots of jurisdictional and other matters need to be clarified.

The four requirements of PPPs are:

- Stability
- Predictability
- Continuity
- Acceptability

Political process is difficult. We need public sector champions and processes that will outlast political consensus.

APTA PPP Task Force will discuss the guiding principles of PPPs. The basic principle is that we need to seek bold new approach in authorizing pubic transportation without additional resources.

Francois Bergère, Secretary General of the French PPP taskforce (Mission d'appui à la réalisation des contrats de partenariat, MAPPP)

PPPs have played an historic role in France, in the: construction of canals and bridges during the16th and 17th centuries, the building of railways in the 19th century, of highways in the 20th century and finally, during the last decade, tramways and airports.

The Partnership Contract *(Contrat de Partenariat)* recently set up by French government is a new type of PPP that could fill a significant niche. France is a country of civil (written) law and everything has to be specifically adopted legislatively before it can be implemented. It took three years to adopt the Partnership Contract, finally adopted in 2004. It provides the missing link between a concession and a traditional procurement contract (tender) - a public sector partner to bridge a financing gap.

One of the main differences between the two long-term financing models, concessions and Partnership Contracts, is that in concessions, the private partner finances the equipment at its own risk, with no recourse to the public sector.

Generally in a concession, the private party (concessionaire) takes on the demand or traffic risk inasmuch as it is to recoup its investment through tolls or user fees. In a

partnership, the service is rendered to and paid for by the public procuring party: The private partner only bears construction and availability risks.

Partnership Contracts allow the private partner to pre-finance the equipment usually the infrastructure part (rails, traffic regulation systems) but can also include rolling stock and to be repaid for its investment by the public entity over the duration of the contract.

In a concession model, however, the private company is paid only from user-fees revenues such as by the user of a toll road paying tolls.

The concession model has limits. In particular, it requires a solvent user ready to pay user fees. That's not readily applicable to social infrastructures, such as mass transit, which clearly plays a social role. It's not always possible to offset expenditures with user fees. Today in France user fees only cover 40% of expenditures and operating costs. Thus we need a new instrument to bridge that gap. There's much more risk involved in a concession contract than in a Partnership Contract.

A Partnership Contract is a 10-35 year contract between public entity and a commercial firm covering the DBFO (Design, Build, Finance, Operation) of a public asset. There are strings attached: it has to go through a preliminary assessment demonstrating project eligibility, legality, and urgency, or some rigorous form of cost comparative analysis between the public sector and the anticipated cost of the private sector.

A Partnership Contract entails an off -balance sheet treatment of debt at the macro economic level (national accounts). It won't therefore show up as public debt, when, for example, the EU examines public debt. But in most cases it would still impact public commitments and debt of the procuring authority.

There have been five applications of this new form of PPP to date. None has been signed in mass transportation. But two significant projects have started the process and are now engaged in the competitive procurement process. One of these is the €1.5 billion LRT planned for La Reunion in Indian Ocean.

Both in France and in many other developed countries, the public sector has not been able to handle the increasing demand of infrastructure since the 1980s. Thus there has been a slow deterioration of both infrastructure and services. Mr. Bergère explained that PPPs are now needed for social infrastructures, i.e., services not fully-financed by end-users. In France there are differences among procurement contracts like the newly-formed Partnership Contracts as opposed to the old concession model.

Again, one of the main differences between the two long-term financing models, concessions and Partnership Contracts, is that in concessions, the private partner finances the equipment at its own risk with no recourse to the public sector.

Partnership Contracts, on the other hand, allow the private partner to pre-finance the equipment and/or other infrastructure and to be repaid only through public payments.

In a concession model, however, the private company is paid solely from user-fee revenues.

Over the coming years PPPs will likely be used to finance development of rail systems, tramways, and road network projects costing more than €500 million. Public entities will likely have to rely on new financing tools including bonds and pension, mutual, or equity funds.

Jafar Khan, Associate, K&L Gates

I work for the law firm, K&L Gates, which is one of the largest firms in the world with over 1,700 lawyers worldwide. I have been working on PPP deals for almost seven years.

In the two transportation PPPs I have worked on, the public sector has not paid for any construction costs upfront. The construction costs are paid for later on, during the service period, hence mitigating the construction risk for the public sector. This is why PPPs are a much favored method of procuring capital intensive infrastructure by the public sector.

The two primary documents in any PPP transaction will be the Project Agreement and the Credit Agreement.

The Project Agreement is essentially an amalgamated construction contract and maintenance contract between the public authority and the SPV. The credit agreement

is between the funder and the SPV, under which the SPV borrows money to construct the infrastructure required for the PPP project.

We have heard much about pass through contracts and risk transfer, but we have not yet touched on how this is achieved from the project agreement, through the SPV to the contractors, and why pass through and risk transfer is important.

One of the drivers for PPPs from the public sector's point of view is affecting risk transfer from the public sector to the private sector. However, a better view is that risk is best borne by the party best placed to accept or manage the risk. As the public sector contracts with the SPV under the project agreement, the SPV is not ideally placed to take on that risk, and will look to pass it through to the contractors performing the construction and maintenance.

Let us look more closely at the SPV. The PPP structure will include an SPV (Special Purpose Vehicle.) which will enter into the contracts with the public authority, and the funders. The SPV will however generally not have any money or assets, and so will not be in a position to take on any real risk. Ideally, the SPV will seek to pass through all risk. If the risk is not adequately passed through, or covered in some other way, the funder is unlikely to fund the project. Funders will look for two things, that risk is properly passed through, and that there will be adequate cash flow for the SPV to meet its finance payments.

Equity providers (or project sponsors) like Vinci put equity into the SPV. Funders want to see equity in the same way that they insist on a deposit when you buy a home.

The private sector party will invest equity and give loans to the SPV, usually to the level of 10% of the entire of the capital required by the SPV. The SPV will usually obtain a loan from the funder for the remaining 90%. In this way, if you are going to build a station, the public sector practically does not put in one cent until the station is built. There's no risk to the public sector. So how will the building contractor get paid? By the SPV, which takes out a loan and pays the building contractor during construction phase.

You will recall I said that the basis of the project agreement is a standard construction contract and a maintenance contract: That is, you'll build me a station by the completion date. Once the station is built, you'll operate it for between 20 to 30 years. Why is the maintenance contract 20-30 years long? Because that's how long it will take the SPV to pay off the loan. Essentially, the SPV pays off the loan using the service payments paid by the public authority. Those service payments only commence once the facility is complete and it operational. The SPV uses those payments to maintain the facility under the maintenance contract for the maintenance period, and also to repay the funders for the loan given to build the facility.

Key issues to be aware of are extensions of time and services commencement dates. This is because the loan repayments commence when the services are due to commence. Late completion of the construction will delay service commencement, and the SPV must ensure it has cash flow to make loan repayments until service commencement is actually achieved.

Another key issue is properly developing the output specification. The public sector is gaining more experience with PPPs. It must use this experience to ensure that its objectives are met. The public sector needs to make sure the output specification is robust enough to allow for changes to be made by the public sector without incurred additional cost, but sufficiently tight and functional so the public sector gets what is desired. If the building or project doesn't work, often the public sector is quick to blame it on the consortium or private sector for the failure.

Many of the speakers have spoken about "pass-through" of risk. Pass-through of risk is a legal term in which the SPV has a contract with a contractor that has the same obligations on the contractor, as those imposed on the SPV by the public authority. For example, if the project agreement says build a 5- story building by Oct. 31, those same terms will be in the pass through contract too, but imposed on the building contractor. This applies to all obligations in the project agreement. They are mirrored in the pass through contracts, so that the obligations on the SPV in the project agreement are "passed through" to the contractors under the relevant contracts. The SPV will want to make sure that if it is to build a station, that the station is completed on time and before the service commencement date, as the public sector won't commence paying the SPV until that date. The SPV will need to make finance repayments however on the agreed date when completion is required to occur.

So to manage time frames for completion, you need to slow the time frames down so the station is completed on time. The SPV will also need to incorporate buffers to take into account the possibility of delay by the building contractor.

Such flow through of risk by the SPV to the contractors is likely to be resisted by the contractors. Contractors will say they can't take the risk, and sometimes that's okay. One way around this is to keep a cash reserve to take on such risks that can't be passed through. Say, for example, the escalator doesn't work in the train station. When the SPV gets a service payment from the public body it puts a portion of that payment aside for such unforeseen problems. That way the risk can be managed, if it can't be passed through.

Contractors will often seek to impose caps on liability. Caps on liability are common practice now and are difficult to avoid. This means that some of the risk, that is, that which is in excess of the cap, will be retained by the SPV. So in the real world, you need to expect that you can't pass all risk down, but risk that cannot be passed through does need to be managed, insured, or subject to a cash reserve.

Stéphane Roberlin, General Delegate, Arcurial

Arcurial provides private companies, public entities, and associations with educational services to help them navigate the complex world of PPPs. That includes training in legal aspects, competitive angles, sectoral approaches, fiscal approaches, risk management, risk savings and financing.

Aline Delaye, Infrastructure PPP Specialist with the General Directorate of Sea and Transport at the French Ministry for Ecology, Energy, Sustainable Development and Land Planning

Ms. Delaye discussed the regulatory details of PPP contracts. Each PPP project brings its own questions and problems, especially when organizing the financing methods. (See Part 6 Appendix for more regulatory details and references.) The differences between the delegation model and the Partnership Contract for transit projects lay mainly in the way risks are shared among partners.

The delegation model, or the traditional subcontracting model, is often characterized by increased risk transfer to the private operator, compensated by expected gains. Therefore, the risk transfer from the public to the private partner is offset by the expected increased operating revenues, due to contractor efforts to attract more users.

In a Partnership Contract agreement, the private partner takes the construction and performance risk, but not the revenue risk. Those who hold Partnership Contracts are paid by public bodies in the form of "availability payments." Revenues are fixed and guaranteed by the public entity, for the entire course of the contract. Private investors are compensated through monthly availability payments. The definitions of quantity and quality of service during the competitive procurement process also differ.

Finally, the delegation model is based on proposals mostly elaborated by the private bidders, whereas Partnership Contracts are based on a detailed request for proposals from the public entity but not necessarily too detailed as to drive up the costs unnecessarily**.**

For transit and rail development, the delegation model might be more flexible than a complex Partnership Contract agreement unless the partnership includes the design, construction and operation of the project and the project requires a private financing component.

When executed properly PPPs can enable faster project completion and delivery, project cost savings, improved quality and system performance, innovative management techniques, and access to private capital that makes up for public resource shortfalls. However, PPPs have a dark side as well: we might end up financing only revenue- generating projects, and not public "social projects" such as a public transit project.

Also, small businesses without the ability to invest large amounts of money could be left out. Finally, project expediency might lead to poor land planning and a lack of environmental consideration.

Before figuring out financing and engaging the private sector, the public entity needs to make sure that the proposed service will serve the public and evaluate the need and the possibility of entrusting the private operator with a public mission.

This evaluation must calculate, for example, the potential benefits of greater transfer of risk to the private consortium and of realizing economies of scale from greater

private sector coordination, as opposed to the public sector assuming all project risks and bidding out discrete functions to private bidders.

If the public body chooses PPP financing, then both public and private sector need to understand the rules and consequences – especially how the risk allocation will play a significant role in the success or failure of any project.

CONCLUSION

This two-day conference demonstrated that PPPs have been successful in several infrastructure sectors. It is a viable option in particular for urban transit projects. However, before signing a PPP contract, the parties must carefully evaluate risk and plan its allocation between public and private partners. Analyzing the successes and failures of PPPs and the best practices to date will help allow PPPs to advance in the United States.

The French PPP models: already in America

Vinci, a major concessionaire and toll road operator in France and globally, was awarded the contract to operate the SR-91 Express Lanes in California in 1995 through its subsidiary Cofiroute. This project was the first PPP in the United States.

Public entities in the U.S. can now benefit from many success stories in Europe. They will however still have to gain the confidence of both politicians and the public. They may be able to do so by showing that PPPs will be a wise use of public money, helping to reduce public debt and make public investment accountable, while speedily serving the public interest.

The PPP market is quite mature in Europe, with companies already exporting its expertise. With most western countries facing shortfalls in public funding, their Governments tend to delay projects to reduce spending. However, to leverage private

money for PPPs, some public investment must function as a "starter" to build public confidence. In addition, U.S. public officials will have to provide evidence showing that PPP financing will lead to faster development of transit projects, while limiting public spending and benefiting the broad population.

PPPs have launched well in the United States, and will continue to develop either as road infrastructure or public transit projects. In France, construction infrastructure and operating companies are going even farther. This report gives examples of different kind of projects financed through PPPs including roads, hospitals, bridges and prisons. One of the next major PPP projects steps will be the financing of the French high-speed rail network in Southwest France. Among other companies, Alstom, the French high-speed train manufacturer, and other companies are already involved in this project.

And with the passage of the high-speed rail bond in California in November 2008, we may soon see a PPP in that state.

References on PPPs in France

Most of these references were gathered by the *Le Moniteur des Travaux Publics*, a French magazine covering public policy, transportation, construction, public works, and urbanism. They provide a good overview of Public-Private Partnerships in France and in Europe.

The French Ministry of Ecology, Energy, Sustainable Development and Land

Planning website also lists some PPP examples in Europe14. Another page on that same website discusses the promotion of PPPs15.

1.1.1.1

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1.1.2 Speaker profiles

Georges Barriol

Conseil Général du Rhône, SYTRAL, Vice-président

Born in Saint Etienne in 1939, Georges Barriol served as the mayor of Sainte Consorce (Rhône) between 1989 and 2001. A substituting member of Parliament, he is now a County Councilman of Département du Rhône and serves as Vice President in charge of transportation.

In addition, Mr. Barriol is Vice President of SYTRAL (Syndicat des Transports de l'agglomération lyonnaise), which rules public transportation (bus, BRT, metro and light rail services) in Lyon and its urban area and is the second-largest public transportation authority in France.

Francois Bergère

Mission d'appui aux Contrats de Partenariats, Secrétaire Général

François Bergère, 50, has diverse professional experience in the fields of public management and infrastructure finance as a "Conseiller Maître" (Senior Auditor) with the Cour des comptes, France's national audit office (a member of external audit teams for multilateral organizations including UNDP, WMO, UNHCR, and OECD). Mr. Bergère worked first as Administrative and Financial Corporate Manager, then as Managing Director of Technical Subsidiaries in Energy and Environment for the Caisse des Dépôts Group from 1989 to 1997. He also served as Manager of Multinational Investment Funds for Southeast Asian and European Infrastructure from 1997 to 2002. In April 2005, he became Secretary General of the newly established "Mission d'Appui aux Contrats de partenariat" (PPP task force) within the French Ministry of Finance.

François Bergère is a graduate of HEC (a top French business school) and the Ecole Nationale d'Administration (ENA). He holds a Master of Economics degree from the University of Paris I-Sorbonne. Mr. Bergere is also the author of "Guide opérationnel des PPP" from Le Moniteur Publishing (2007).

Guy Bourgeois

INRETS, Directeur Général

Guy Bourgeois (INRETS) has been the Director General of the French National Institute for Transport and Safety Research since January 2003. With its 600 employees, INRETS covers almost all fields of land transport research and is involved with road and rail safety, freight and passenger mobility, new technologies for transport, energy, and telecommunications.

Mr. Bourgeois is a civil servant who graduated from two top French universities (Ecole Polytechnique and Ecole Nationale d'Administration). After having worked at the French Ministry of Education and Research, he moved to the public transport

sector where he was appointed as a delegate to the French Transportation Association (UTP-Union des Transports Publics). He gained experience in public transport working for eight years as the Head of Research and Strategy of RATP (Régie Autonome des Transports Parisiens) in Paris. He is involved in managing the French National Program for Research and Innovation in Transport (PREDIT), and he also deals with the new “competitiveness domain” created in France to promote public-private partnerships within the automotive and rail industries. He was elected in 2006 as Chairman of ECTRI, the European Conference of Transport Research Institutes.

Raymond Cointe

MEEDDAT, Direction des Affaires Européennes et Internationales, Directeur

Raymond Cointe is a graduate of the École Polytechnique (Paris) and of the ENPC (Ecole nationale des Ponts et Chaussées) school of engineering. He also has a PhD in Mechanical Engineering from the University of California (Santa Barbara) and the Ecole Nationale des Ponts et Chaussées. He was a professor of Mechanical Engineering at the Ecole Polytechnique between 1993 and 2000.

Mr. Cointe has worked in several capacities for the French government since 1986. He was Deputy Secretary General of the SGCI (General Secretariat of the Inter-ministerial Committee for European Economic Cooperation Affairs) between 2001 and 2007, and is now Administrator for European and International Affairs at the Ministry of Ecology and Sustainable Development.

Pierre Denis Coux

MEEDDAT, Direction Générale des Routes, sous-direction de la Gestion Déléguée

As graduate of ENTPE (Ecole nationale des Travaux Publics de l'Etat) and the Ecole Nationale d'Administration (ENA), Pierre Denis Coux has held various positions in the French Ministry of Transportation, specifically in the domain of financing. Between 2000 and 2004, he was Deputy Financial Director at the Ministry of Transportation and Public Works, in charge of urbanism and construction. He currently works for the Direction Générale des Routes (Motorway Administration), where he is Managing Director. He is in charge of PPPs and prepares and controls PPP contracts.

Peggy A. Delach

Foothill Transit Executive Board President

Covina Councilmember Peggy Delach was appointed to the Foothill Transit Executive Board in May 2005 and has been an active member of the Foothill Transit Governing Board since her election to the Covina City Council in 2003. Her various community involvements include the Covina Sunrise Rotary, the Covina Chamber of Commerce, the League of California Cities, and the Covina Playhouse. In 1999, she was awarded Woman of the Year by the Los Angeles Chapter of Women at Work. Councilmember Delach is also a Project Executive for the Southern California Region of Swinerton Builders, a nationally-recognized construction firm based in San Francisco, CA. She is a graduate of the University of Rochester and Cal Poly Pomona.

David Dowall

UC Berkeley Institute of Urban and Regional Development, Director

David Dowall is Director of the Institute of Urban and Regional Development, and Professor of City and Regional Planning at the University of California at Berkeley.

Dr. Dowall specializes in infrastructure planning, policy and finance in OECD and developing countries. He has researched and published extensively on infrastructure policy issues, including “Making Room for the Future: Rebuilding California’s Infrastructure”, and “California's Infrastructure Policy for the 21st Century: Issues and Opportunities.” Dr. Dowall consults widely on infrastructure and urban development and has worked in over 100 cities in over 40 countries. He holds a BS in Economics from the University of Maryland, and a MURP and Ph.D. (Economics) from the University of Colorado, Boulder.

Chantal Duchène

Groupement des Autorités Responsables de Transport, Directrice Générale

Chantal Duchêne has two Master's Degrees, in economic science and public law. She was appointed Secretary General of GART (Association of Transport Authorities) in 2001. Ms. Duchène previously worked at the Regional Public Works Headquarters of Île-de-France where she was Director of Transportation and Infrastructure. In this capacity, she set up a project to plan urban transportation and helped to reform the STIF (Ile-de-France public transportation Authority).
Previously, Ms. Duchène was Head of the Department of Mobility, Transportation and Urban Services for CERTU (Center for studies on urban planning, transportation and public facilities). She also served as Project Manager in the Ministry of Public Works with responsibility for the environment and European cooperation.

Dorothy W. Dugger

San Francisco Bay Area Rapid Transit, General Manager

On August 23, 2007, the BART Board of Directors appointed Dorothy W. Dugger as BART's eighth general manager, the first female to hold the District's top position. Dugger joined BART in 1992 as the Executive Manager of External Affairs, overseeing the Customer Services, Government & Community Relations, Marketing & Research, Media & Public Affairs, and Planning departments. Her mission for those five departments was to understand the concerns of BART riders, taxpayers and elected officials and to implement effective strategies that focused on fulfilling their needs.

Then in 1994, she was promoted deputy manager– making her second in command at BART, serving first under Dick White and subsequently Thomas Margro. During Dugger's tenure, she has fought hard to define, fund and deliver several key projects that have dramatically improved customer service. One of them was BART's first generation reinvestment program. In the mid 1990's, BART began a $1.5 billion, ten-year Renovation Program that refurbished all 669 rail cars and replaced all of BART's fare equipment, elevators and escalators. Consequently, riders now enjoy a 95% passenger on-time performance and rarely face mechanical problems with equipment. Dugger has also played a key role in securing approval of funding from local, state and federal agencies for the nearly nine mile, $1.5 billion, five-station extension to San Francisco International Airport (SFO) and Millbrae. The world-class "train-to-plane" connection opened in June 2003. Now, for only $5.15 passengers can get between downtown San Francisco and SFO in just 30 minutes. The success of the SFO extension and the Renovation Program helped BART mark two major milestones in 2004. That year BART achieved an 86% customer satisfaction rating – the agency's highest ever. Also that year, the American Public Transportation Association named BART the #1 Transit System in America - the highest honor any transit agency can receive.

Prior to BART, Dugger spent a decade at the Port Authority of New York and New Jersey. Between 1982 and 1992, she held a wide range of prominent public affairs and public policy positions, culminating with the agency's Director of Government and

Community Affairs. She has also served as legislative director for the American Civil Liberties Union and has held several key positions in congressional and state legislative campaigns. Dugger earned her BA from Rutgers University in 1973. She also attended the program for Senior Executives in State and Local Government at Harvard's Kennedy School of Government.

Bruno Faivre d'Arcier

Université Lumière-Lyon 2, Laboratoire d'Economie des Transports, Professor

A graduate of the Ecole Centrale Paris, Bruno Faivre d'Arcier holds a PhD in Economic Science. He is currently a researcher at the LET (Transportation Economics Laboratory) specializing in the financing and evaluation of transportation projects. His research includes evaluations of PPPs and suggested methods to improve them, and some other researchs in the field of urban and regional passenger transportation. He is also a Professor at the Lumière Lyon 2 University.

Nathaniel P. Ford, Sr.

San Francisco Municipal Transportation Agency, CEO

Nathaniel P. Ford, Sr. has over 25 years of experience in the public transportation industry. Mr. Ford currently serves as the Executive Director / Chief Executive Officer of the San Francisco Municipal Transportation Agency (SFMTA) and has responsibility for over 5000 employees, a $780 million operating budget, and a $4.8 billion 5-year capital budget. The SFMTA is comprised of the Municipal Railway (Muni), the Department of Parking and Traffic and the San Francisco Parking Authority. Muni is one of America's oldest public transit agencies, the largest in the Bay Area and seventh largest system in North America, currently caring over 200 million riders per year.

Mr. Ford oversees Muni's historic streetcars, modern light rail vehicles, diesel buses, alternative fuel vehicles, electric trolley coaches and the world famous cable cars, as well as bicycling, pedestrian planning and accessibility, and traffic engineering. Prior to joining the San Francisco Municipal Transportation Agency in 2006, Mr. Ford served as the General Manager / Chief Executive Officer for the Metropolitan Atlanta Transportation Authority (MARTA), the ninth largest transit system in North America. Mr. Ford began his public transportation career at the Metropolitan Transportation Authority New York City Transit, North America's largest system. He first worked as a train conductor and progressively advanced through numerous managerial positions. In 1992, he joined the San Francisco Bay Area Rapid Transit District (BART) as an Assistant Chief Transportation Officer. After BART, he headed south to MARTA where he assumed the position of Senior Vice President of Operations which eventually led to his appointment as General Manager / Chief Executive Officer in 2000.

Mr. Ford earned his Bachelor of Applied Studies in Organizational Leadership from Mercer University. He has received numerous civic and professional awards, as well as served on executive committees and the Boards of Directors of the Conference of Minority Transportation Officials (COMTO) and the American Public Transportation Association (APTA). Mr. Ford currently serves as Chairman of the Transbay Joint Powers Authority (TJPA) Board of Directors, which is charged with designing, building, operating and maintaining a new Transbay terminal and surrounding facilities in San Francisco; and is a member of the Peninsula Corridor Joint Powers Board, which oversees the administration of Caltrain, a regional commuter rail system. Also, he serves as Chairman of the "TransLink" Regional Smartcard Management Group.

Thierry Gouin

CERTU, Département Mobilité et Transports, Chef du groupe Organisation et Evaluation des Réseaux

Born on February 27, 1959, Thierry Gouin a degree in engineering from the Ecole Centrale de Lyon and a PhD in Literature from the Lyon 2's University. He worked as a geotechnical engineer and then as the head of the Organization of Transports group (Towns and Territories department) in Ministry of Public Works at the Center for Technical Studies (CETE) in Lyon.
He currently works at CERTU (Center for studies on urban planning, transportation and public facilities) as the head of the Organization and Evaluation of Transportation Networks unit (Mobility and Transportation department). His main fields of intervention are institutional organization of public transport, legal framework for the organization of public transport, adaptation of public transport supplies to territories, and PPPs. He also teaches at ENTPE and other famous French Universities.

Sharon M. Greene

Sharon Greene and Associates, President

Sharon Greene has been instrumental in the planning and implementation of major transit, highway and goods movement projects across the country and abroad since establishing Sharon Greene and Associates in 1980. As an expert in financial analysis and evaluation of major transportation system capital investments, she has developed and implemented financial models and funding and financing programs for numerous agencies and authorities, and has provided financial consulting services that were key to obtaining federal funding for new rail transit systems for the Utah Transit Authority (Salt Lake City), Valley Metro Rail (Phoenix AZ), Pasadena Gold Line (Los Angeles CA), and BART (San Francisco CA). Sharon is currently providing financial consulting services to transportation agencies in Santa Clara (CA), Honolulu (HI), and Jacksonville (FL), all in various stages of the Federal Transit Administration (FTA) New Starts process. Sharon also evaluates New Starts financial plans directly for the FTA. Her work is frequently cited by the U.S. Department of Transportation (DOT), the FTA, and her local clients as an example of the state of current practice in financial analysis and evaluation methodology for major transportation projects.

In addition to transport finance and economics, Sharon has been at the forefront of the emerging focus on innovative project delivery. Under contract to the Alameda Corridor Transportation Authority (ACTA), a joint venture of the Ports of Los Angeles and Long Beach, the City of Los Angeles and private railroads, she was responsible for grants management and securing innovative funding for the Corridor. This project was the first of its type to utilize a targeted federal loan combined with private finance and traditional grants. In the transit field, Sharon has been Utah Transit Authority's (UTA) financial management consultant for over two decades. Her current role with the agency is oversight of the $4.5 billion multi-corridor Transit 2015 Program, reflecting a new approach to partnership in project delivery between the federal government, local governments and the private sector. Sharon has also consulted outside the United States, in particular on rail transit programs in Tel Aviv and Jerusalem, Israel and in Guanajuato, Mexico.

Sharon is an active member of the boards of key transportation organizations, including American Public Transportation Association (APTA), Transportation Cooperative Research Program (TCRP), and the Transportation Research Board (TRB). Sharon is currently First Vice-Chair, (incoming Chair), of the APTA Business Member Board of Governors. She is also a member of APTA's Task Force on Public-Private Partnerships, Legislative Steering Committee and Major Capital Investment Subcommittee. Additionally, Sharon recently served as Chair of the TRB Transit Cooperative Research Program, and serves on several TRB committees. Sharon has an undergraduate degree in English and Economics from Tufts University and a Master's degree in Urban and Regional Planning from the Kennedy School at Harvard University. She is a frequent speaker at industry meetings, professional seminars and academic institutions, and an accomplished author of numerous papers and articles on the subject of transportation management, finance and economics.

Ronald J. Hartman

VEOLIA Transportation, NA, Senior Vice President – Business Development

Ronald J. Hartman has had over 20 years of distinguished management experience at the highest level of public and private transportation organizations. In his current role with VEOLIA Transportation, he is responsible for managing a comprehensive business development program and related activities for the United States, Canada, and Mexico. Prior to this, he served as Executive Vice President of Yellow Transportation, with responsibilities for its operations, business development and administrative functions. Yellow was acquired by Connex North America in 2001. In the late 1990s, Ron was the Amtrak Vice President for Planning and Development of this $2.5 billion corporation where he successfully negotiated numerous service contracts. Ron served first as Deputy Administrator and then General Manager of Maryland's Mass Transit Administration for more than a decade. As Chief Executive Officer of the then-$300 million public transit agency, he managed 2,800 employees, 1,000 vehicles, including buses, subway, light rail and commuter rail cars, moving more than 315,000 people each day. During his tenure, Ron opened a new 17-mile light rail system in record time with the lowest cost-per-mile of any similar project in the country. Under his guidance, MTA was awarded the Most Outstanding Public Agency of 1992 by an industry association and given the US Department of Transportation's Outstanding Service Award. Ron was written up for his leadership abilities in Tom Peter's book, "Thriving on Chaos." Ron started his transit career with the American Public Transit Association where he developed policy, legislative proposals, and technical assistance to advocate the interests of the public transit community.

Ron received his undergraduate degree from State University of New York at Stony Brook and his Master's Degree from the George Washington University. He is a visiting scholar at NYU's Transportation Policy and Management Center. Ron is a member of Leadership Washington's Class of 2003, an organization of senior executives with the top companies and non-profit organizations in the national capital region. He serves on a number of non-profit boards including the Downtown Partnership of Baltimore.

François Lacote

Alstom Transport, Senior Technical Vice President

François Lacote graduated from the Ecole Polytechnique in 1966 and from the Ecole Nationale des Ponts et Chaussées in 1971. From 1974 to 1981, he held various technical management positions within the SNCF at maintenance sites around France. In 1981, he became Head of Locomotives, Traction Design and Procurement within the SNCF's Rolling Stock Division. In 1983, he was appointed Head of the SNCF's high speed train ("TGV") projects, where he supervised the commissioning of the first TGV ("PSE" – Paris Sud-Est) and managed the design and procurement of all subsequent TGV generations, including Duplex & Thalys. During this period that he managed the SNCF project that broke the world speed record for rail travel on May 18, 1990. In 1990, he became Vice President of SNCF's Rolling Stock Division (design, testing, procurement, commissioning) and took charge of all SNCF maintenance depots and workshops (28,000 employees). As a Vice President, he expanded these activities to international markets. In 1997, he was appointed Vice President of SNCF International and in 1998 he became Director of Research and Technology. In November 2000, he started working for ALSTOM Transport as a Senior Consultant. Since March 2002, he has served as Senior Technical Vice President for ALSTOM Transport.

Sherry E. Little

Former Deputy Administrator, Federal Transit Administration, U.S. DOT

Ms. Sherry E. Little is one of a trio of high profile former FTA and transit industry officials who just recently joined forces under Spartan Solutions, New York, Philadelphia and Washington DC, to provide to both the public and private sector comprehensive strategic for capital transportation projects.

Ms. Little was sworn in as Deputy Administrator of the Federal Transit Administration on February 20, 2007. Ms. Little joins Administrator James S. Simpson in leading a staff of more than 500 in Washington, D.C., and 10 regional offices around the United States, and managing an annual budget of approximately $10 billion.

During her tenure, Ms. Little has played a leading role in helping the agency to implement its regulatory and legislative agenda. She has acted to develop and promote public-private partnerships throughout the country, ensuring that the private sector takes an active role in financing and developing the nation's public transportation infrastructure. And she has overseen efforts to improve key accountability measures in public transportation, such as ridership forecasts. Ms. Little has made the development of international and strategic relationships a priority, leading missions to India, Africa, France, and China. Ms. Little received the Secretary of Transportation's Gold Medal award for her efforts to streamline federal requirements and deliver resources to aid in Minnesota's recovery from the collapse of the I-35W bridge in August, 2007.

Prior to joining the Bush Administration, Little served as a senior staff member of the United States Senate Committee on Banking, Housing and Urban Affairs. As the Chairman's primary advisor on public transportation, she authored the Senate's version of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) which authorized the Nation's $53 billion public transportation program that President Bush signed into law in August 2005.

John L Mica

United State Representative (Florida – 7th district)

John L. Mica was first elected to the United States Congress on November 3, 1992, to represent the 7th Congressional District of Florida, which stretches across six counties from the suburbs of Orlando to Jacksonville. He is currently serving his eighth term in the 110th Congress, which began January 4, 2007. In the 110 th Congress, Mica serves as the Republican Leader of the House Transportation and Infrastructure Committee, the largest committee in Congress. As the House Transportation GOP Leader, Mica serves on all six Transportation and Infrastructure Subcommittees. These subcommittees include Aviation; Coast Guard and Maritime Transportation; Economic Development, Public Buildings and Emergency Management; Highways and Transit; Railroads, Pipelines and Hazardous Materials; and Water Resources and Environment. He has been recognized as a national leader on a variety of transportation issues.

As a recognized national transportation leader, Rep. Mica was named Chairman of the Subcommittee on Aviation in 2001 and served through 2006. After the September 11th terrorist attacks, Rep. Mica led the effort in Congress to restore stability to the aviation industry and co-authored the Aviation and Transportation Security Law. Mica is a senior Member on the House Oversight and Government Reform Committee, and former Chairman of two of its Subcommittees : the House Civil Service Subcommittee (1995-1999), where he authored landmark legislation dealing with veterans preferences, expanding healthcare access for military dependents and establishing one of the federal government's largest employee stock ownership programs, and the Subcommittee on Criminal Justice, Drug Policy and Human Resources (1999-2001) where he became an awarded, national principal leader in the development of the USA's counter-narcotics policy.

Prior to his election to Congress, Mica established several successful business ventures including real estate, communications, international trade consulting and governmental affairs firms. As a member of the Florida House of Representatives (1976-1980), Mica served on the Appropriations, the Select Energy, the Ethics and Elections and the Community Affairs Committees. From 1981 to 1985, Mica served as Chief of Staff and Administrative Assistant to Florida Republican United States Senator Paula Hawkins.

The Congressman graduated from the University of Florida (1967) and Miami-Dade Community College (1965). Mica has also been awarded honorary doctorate degrees from Bethune-Cookman University, Flagler College and Stetson University and an honorary degree from Daytona Beach Community College.

Simon A Murray

Acumen Ltd (UK), Director

Simon Murray is a chartered civil engineer who specialises in the development of infrastructure projects. He graduated from the Imperial College in London in 1973 and gained experience with UK consultant Arup working on infrastructure projects in

Africa and Asia. He has held senior management positions in the UK's privatised airport and railway infrastructure companies and has been responsible for the planning and delivery of several major investment programmes including the Channel Tunnel Rail Link and the West Coast Route Modernisation. Simon has a particular interest in improving the performance of the construction industry and in the development of lean construction techniques. He is Chairman of UK contractor Osborne and practices as an independent consultant.

Philippe Payen

Veolia Transport, Director of Strategy

Philippe Payen is a graduate of the École Polytechnique and of the Ecole des Mines de Paris engineering school. Currently the Director of Strategy for VEOLIA Transport, he is in charge of VEOLIA Transport vision for the future and of the associated forward planning that will keep VEOLIA ahead of the competition. He also supervises PPP projects for the company. In November 1999, Philippe Payen was appointed Major Transport Projects Director of CONNEX (former name of VEOLIA Transport). From 1999 until July 2003, Mr. Payen played an important role in the development and expansion of CONNEX, especially in the United States and with its Light Rail PPP projects in Barcelona, Dublin, and Jerusalem. In August 2003, he was promoted to Deputy Director of Development with responsibility for Group strategy. He has extensive experience with large infrastructure projects and the transportation industry in addition to his background in commercial and operational engineering. His industrial background has been an asset to his work in developing the transportation service market. He is particularly involved with the development of projects in the United States and Israel. In July 2006, Mr. Payen was appointed to his current position as Director of Strategy for VEOLIA Transport. Previously, Philippe Payen worked for the French company ALSTOM.

Bernard Rivalta

Syndicat des Transports de l'Agglomération lyonnaise, Président

Bernard Rivalta was born in 1947. Between 1969 and 1999 he worked as an engineer for the SOCOTEC society, a French technical control company. He is now County Councilman of Rhône, Vice President of Urban Community in Lyon.
Mr. Rivalta is also the head of OPAC (Public Office of Urban Planning and Construction) in Villeurbanne, and is the President of SYTRAL. (cf G. Barriol)

Frank Russo

Frank Russo Consulting LLC, President

Mr. Russo is a registered professional engineer with more than 25 years experience in the transportation industry. He has held responsible positions in public agencies and private corporations for over twenty years, In the last ten years he has directed the development and implementation of 4 world class transportation projects with a combined value in excess of $8.0b, including the first design-build-operate-maintain (DBOM) public transportation contract in the United States. His experience covers nearly every mode of public transportation, including light rail, streetcar, commuter rail, rail rapid transit, and bus rapid transit. Most importantly, he has a proven record of achievement in large, complex transportation programs and has been an industry leader in the public-private arena.

Mr. Russo led the development and implementation of the Hudson-Bergen Light Rail System (HBLRT). The Hudson-Bergen project was the first, and still the most successful, public private light rail system in North America. The total value of the

initial award exceeded $1B. the project was delivered precisely on time and on budget, and has operated to the highest standards of quality, availability and safety since April, 2000. The HBLRT System continues to set ridership records each year, and has been the catalyst for the revitalization of the New Jersey Hudson River Waterfront.

He was also responsible for a number of other large transportation projects, including the South Jersey Light Rail System and most recently the "Metro Solutions" program, Houston Metro's $2B regional expansion plan. The "Metro Solutions" program was accepted by the Federal Transit Administration as one of only 4 Public Private Partenership demonstration projects.

Mr. Russo's achievements with public-private partnerships and structuring of project development agreements and funding programs include development of federal full funding grant agreements for Hudson-Bergen Light Rail, state funding agreements for Southern New Jersey Light Rail. He also prepared federal project development agreements for the Houston Metro "Metro Solution – Phase 2" program, prepared the Public Private Partnership Pilot Program (5P) application to the FTA for the Houston Metro "metro Solutions – Phase 2" program, advised the FTA on the requirements and guidelines for their Public Private Partnership Pilot Program (5P program), and advised the US Congress on transportation legislation, including the Public Private provisions of SAFETEA-LU.

Mr. Russo is also providing a wide range of advisory services to a number of other projects currently under consideration, including the development of business plans, technical and performance guidelines, contracts, procurements, and program level budgets and schedules.

Loretta Sanchez

United State Representative (47th District of California)

Congresswoman Loretta Sanchez represents the California 47th Congressional District of California, which encompasses the cities of Anaheim, Garden Grove, Santa Ana and some of Fullerton in Orange County. She began her congressional career in November 1996, and is serving her sixth term in the House of Representatives. Loretta is known for two things: accessibility and collaboration. Those traits have served her well, both in Washington and in Orange County. Loretta has focused much of her time on issues such as education, public safety & crime reduction, economic development, and protections for our senior citizens. Born and raised in the district she serves, she is acutely aware of the issues facing her constituency.
Since entering Congress in 1996, Loretta Sanchez has brought millions of dollars in federal funding back home to Orange County for local projects including: transportation improvements, crime prevention, community centers, flood prevention, environmental preservation and much more. She has worked hard to improve the infrastructure and quality of life for this fast-growing suburban county through various transportation, education, environmental, and crime reduction projects.
Loretta is a businesswoman. Prior to her work in Congress, she was a financial manager at the Orange County Transportation Authority. She was an assistant vice president at Fieldman Rollap and Associates, specializing in advising clients of the firm in the area of municipal finance—a skill that serves her well in her role as Congresswoman. Loretta was an associate at Booz, Allen and Hamilton, putting financial plans together for municipalities as well as private companies. She eventually started her own consulting business in Santa Ana, assisting public agencies and private firms with financial matters, including cost-benefit analysis, strategic planning and capital acquisition. She received industry recognition when the State of

California selected her to independently review the financial status of Orange County's first toll road to save about $300 million in financing costs.

Congresswoman Sanchez attended Chapman University, in Orange, California, where she was selected in January 2002 to serve as the university's first Latina member of the Board of Trustees. She received her bachelor's degree in economics in 1982 (voted "Business Student of the Year"), and then entered American University in Washington, D.C. to obtain her master's in business administration with an emphasis on finance, which she received in 1984. During the second year of her MBA program at American, Loretta spent a year in Rome, Italy, attending European Community's Market Management School.

Congresswoman Sanchez is the ranking woman of the House Armed Services Committee and sits on the Oversight and Investigations, Readiness, and Military Personnel Subcommittees. She has fought for pay raises, improved healthcare and a myriad of benefits for military families including: educational benefits; quality child care; military housing and support services. She has served on the Terrorism Panel of this Committee, where she joined other Members to investigate intelligence progress and terrorist threats to the United States.

Congresswoman Sanchez was selected by Democratic House Speaker Nancy Pelosi to serve as Chairwoman of the Subcommittee on Border, Maritime and Global Counterterrorism were she works to improve the nation's homeland security policy by strengthening and allocating federal funding to protect against potential terrorist plots. The Committee provides oversight to the Department of Homeland Security to assure it is working effectively and quickly. The Committee has legislative jurisdiction over matters relating to the Homeland Security Act and plays a central role in fighting the war on terrorism. She is also a member of the Emergency Communications, Preparedness and Response Subcommittee.

Congresswoman Sanchez is a member of the Blue Dog Democrats, the New Democratic Coalition, and the Congressional Human Rights Caucus. She also is a member of the Women's Congressional Caucus, the Older Americans Caucus, the Law Enforcement Caucus, and the Congressional Sportsman's Caucus. She serves on various boards. She is past president of the National Society of Hispanic MBAs, a member of the Los Amigos of Orange County, the Rotary Club of Anaheim, and the Anaheim Assistance League.

Michael I. Schneider

Managing Partner, InfraConsult LLC

Michael Schneider is founder and managing partner of InfraConsult LLC, a management consulting firm specializing in the development and financing of sustainable infrastructure projects and solutions. Most recently, Mike has focused his practice on two primary areas: innovative project development and delivery strategies, principally in the transport domain; and public-private partnerships (PPPs) for transportation and infrastructure development.

Mike co-chairs the American Public Transportation Association (APTA) Task Force on Public-Private Partnerships, and over the last 20 years has been instrumental in planning and/or financing many well known public-private partnership projects. As chairman of California Transportation Ventures (CTV), Mr. Schneider led the development of the SR 125 South Bay Expressway toll road east of San Diego, which opened to revenue traffic in December 2007. To date, this project – one of California's AB 680 pilot public-private partnership projects – remains the only fully private project to be built using a federal TIFIA loan and private bank financing.

Mr. Schneider is also a director of the private/governmental consortium for the Second Vivekananda toll bridge in Calcutta, India, built with private investment and opened in July 2007. He has been involved in many other projects in which the public and private sectors partnered, including the E-470 Toll Expressway in Colorado; the Dulles Greenway in Virginia; the Orange County (CA) toll road program, including the San Joaquin Hills and Foothill/Eastern Corridors; the Tel Aviv and Jerusalem (Israel) metro light rail projects; and the SR 91 (Riverside Freeway) HOT lanes, among others.

Prior to founding InfraConsult, Mr. Schneider was with international engineering firm Parsons Brinckerhoff for over 30 years, most recently as Executive Vice President of the parent corporation, PB Inc., and founder and President of its management consulting group, PB Consult. He has been active for many years in civic and professional activities and has written and lectured extensively on alternative project delivery mechanisms and infrastructure program management, and is acknowledged among of the nation's most prominent authorities on private investment in public works. Mr. Schneider serves on the Board of Directors of the Business Council for International Understanding (BCIU), and is a member of the RAND Corporation Advisory Board for Environment and Infrastructure, a member of the International Advisory Board of the Women's Transportation Seminar (WTS), and Chairman of the Laguna Beach (CA) Transportation Commission. Mr. Schneider holds an undergraduate degree in civil engineering and a Master's degree in Urban and Regional Planning and Economics from the University of California, Los Angeles.

Mr. Schneider co-founded InfraConsult in 2006. The firm's partners, senior staff and consultants are involved in a variety of projects involving strategy, project development, finance, facility planning and design, program management, public-private partnerships, and operation and maintenance of infrastructure facilities in the U.S. and overseas. While specializing in complex infrastructure programs in public transit, toll facilities, highways, bridges, railroads, aviation and ports, InfraConsult also provides advisory and consultative services to public authorities and private sector organizations seeking to enhance the quality of life through improvements to the built environment.

Anne Sheehan

California Department of Finance, Chief Deputy Director

In August 2004, recently elected Governor Arnold Schwarzenegger recruited Anne Sheehan to join his new administration as the Chief Deputy Director for Policy of the California Department of Finance. In this capacity, she represents the Governor on

more than 80 state boards, commissions and public authorities. These various entities cover a very broad spectrum of topics and policy issues. They include such diverse organizations as the State Teacher's Retirement Board, the Commission on State Mandates, the California Public Works Board, the State Lands Commission, and the Infrastructure and Economic Development Bank. Additionally, Anne also has staff oversight responsibility for managing the Governor's Council of Economic Advisors. Ms. Sheehan also serves as a member of the State Personnel Board.
Ms. Sheehan has nearly three decades of management and leadership experience in major policy positions at both the state and federal levels. At 29 she was appointed by President Ronald Regan as the Deputy Assistant Secretary for Congressional Affairs in the Department of Energy. She had the distinction of being the youngest person to hold such a position in the Regan administration.

Upon her departure from Washington, Ms. Sheehan came to California and served two Republican governors in a variety of senior positions culminating in her appointment by Governor Pete Wilson to the cabinet position of Secretary of California's State and Consumer Affairs Agency. This organization has 14,000 employees and an annual budget of $1.7 billion.

In addition to her regular job responsibilities at the Department of Finance, Governor Schwarzenegger has twice called upon her to undertake special projects for him. At the beginning of his administration, she was on special assignment as the Executive Director of the California Performance Review Commission, which reviewed and analyzed a series of recommendations to restructure and reorganize the state government to make it more responsive to the needs of the citizens. During 2007, Anne was responsible for directing the Governor's Post Employment Benefits Commission that was established to analyze the seriously unfunded pension and health care liabilities of all the cities, counties, and public agencies in California. Finally, Ms. Sheehan is the only non-constitutional officer in the state to be serving simultaneously on the board of directors of both the California State Teachers' Retirement System (CalSTRS) and the California Public Employee Retirement System (CalPERS). These two organizations – in combination – have responsibility for managing over $400 billion in investment assets.

In September, 2008, Ms. Sheehan was appointed Director of Corporate Governance for the California State Teachers' Retirement System (CalSTRS

Bernard Soulage

Région Rhône-Alpes, 1er Vice-président en charge des Transports

Bernard Soulage, 58, is the First Vice President of the Rhône Alpes region in charge of transportation. He is also responsible for economic affairs in the Socialist Party (PS) and is a member of the European Regions Committee.
Mr. Soulage is a graduate of the Political Institute of Paris and holds two PhDs, in Urbanism and Landscape Use and in Economic Science. He is also a professor of Economic and Social Sciences at the Political Institute, University of Grenoble.

Previously, Mr. Soulage was member of the Public Policies Evaluation Council and worked on industrial service for the Commissariat General du Plan (General Planning Commission).
He is the author of several books and research articles on economy.

Pierre Van de Vyver

Institut de la Gestion Déléguée, Délégué Général

Pierre Van de Vyver is a graduate of the École Polytechnique (Paris) and of the ENPC (Ecole nationale des Ponts et Chaussées) civil engineering school. He has served as a General Delegate of IGD (a French PPP Institute) since 1999. Between 1985 and 1994, he worked for EDF as the director of a nuclear power plant. In 1994, he became a delegate in charge of organizing public services and community coordination for the National Federation of Licensing Authorities.

1.1.3 Final program, proceedings list

1.1.3.1 Session 1: What's the point? Private sector involvement in developing and implementing transit systems

Presentation title:	Private sector involvement in developing and implementing transit systems
Speaker:	Chantal Duchêne, Groupement des Autorités Régulatrices de Transport (GART)
File name:	Session01-DUCHENE.pdf
Presentation title:	Institutional and Financial Options for Procuring Transportation Infrastructure Investments
Speaker:	David Dowall, Institute of Urban and Regional Development, University of California at Berkeley
File name:	Session01-DOWALL.pdf
Presentation title:	Translating the French Experience
Speaker:	Ronald Hartman, Veolia Transportation
File name:	Session01-HARTMAN.pdf
Presentation title:	A Contracting Model for the 21st Century
Speaker:	Frank Russo, Frank Russo Consulting LLC
File name:	Session01-RUSSO.pdf
Presentation title:	Realizing the full potential of private companies in developing transportation systems
Speaker:	Vincent Piron, Vinci Concessions
File name:	Session01-PIRON.pdf
Presentation title:	What Constitutes A Good PPP? The UK Experience
Speaker:	Simmon Murray, Acumen Ltd.
File name:	Session01-MURRAY.pdf

1.1.3.2 Session 2: What's hot? Current transit PPP projects in France and the United States

Presentation title:	Charlotte's Story
Speaker:	Keith Parker, Charlotte Area Transit System
File name:	Session02-PARKER.pdf

Presentation title:	Leslys Lyon Centre < > Aéroport
Speaker:	George Barriol, Conseil Général du Rhône
File name:	Session02-BARRIOL.pdf

Presentation title:	Public-Private Partnerships in San Francisco
Speaker:	Nathaniel P. Ford Sr., San Francisco Municipal Transport Agency (MUNI)
File name:	Session02-FORD.pdf

Presentation title:	SYTRAL: The transit authority of the Rhône County and the Lyon metropolitan area
Speaker:	Bernard Rivalta, Syndicats des Transports de l'Agglomération Lyonnaise (Sytral)
File name:	Session02-RIVALTA.pdf

1.1.3.3 Session 3: What's new? Developing the transit systems of the future through PPPs

Presentation title:	The French Approach to Rapid Transit Mode Selection
Speaker:	Thierry Gouin, Centre d'Etudes sur les Réseaux, les Transports, l'Urbanisme et les Constructions Publiques (CERTU)
File name:	Session03-GOUIN.pdf

Presentation title:	BART Projects - July 2008
Speaker:	Dorothy Dugger, Bay Area Rapid Transit District (BART)
File name:	Session03-DUGGER.pdf

Presentation title:	The European strategic agendas for research in Europe and their implementation by INRETS
Speaker:	Guy Bourgeois, Institut National de Recherche sur les Transports et leur Sécurité (INRETS)
File name:	Session03-BOURGEOIS.pdf

Presentation title:	Foothill Transit: The public-private paradigm at work
Speaker:	Peggy Delach, Foothill Transit Agency
File name:	Session03-DELACH.pdf

Presentation title:	Public Transportation planning as a major tool for making modal shift and sustainable development become reality
Speaker:	Pr. Bruno Faivre d'Arcier, Lyon 2 University in the Transport Economy Department
File name:	Session03-FAIVREDARCIER.pdf

1.1.3.4 Session 4: Now, how do we get there? Financing public transportation projects

Presentation title:	50 years of experience in Frence motorway concessions
Speaker:	Pierre-Denis Coux, General Directorate for Roads, French Ministry of Ecology, Energy, Sustainable Development and Land Planning (MEEDDAT)
File name:	Session04-COUX.pdf

Presentation title:	Growing with Public Private Partnerships (PPP), An alternative solution
Speaker:	Philippe Payen, Veolia Transport
File name:	Session04-PAYEN.pdf

Presentation title:	The Basics and the Development of Private Financing for Public Projects Financing Public Transportation Projects Railways Financing
Speaker:	Raphael Rivalland, Royal Bank of Scotland
File name:	Session04-RIVALLAND-01.pdf Session04-RIVALLAND-02.pdf

Presentation title:	CalPERS and CalSTRS Infrastructure Investing: A Long-Term Opportunity
Speaker:	Anne Sheehan, California Public Employees' Retirement System, California State Teachers' Retirement System
File name:	Session04-SHEEHAN.pdf

1.1.3.5 Session 5: Legal toolkit: the abcs of PPPs

Presentation title:	Legal toolkit: the abcs of PPPs La boîte à outils juridique et contractuelle des PPP
Speaker:	Pierre Van de Vyver, General Delegate of the French Institute for PPP (*Institut de la Gestion Déléguée*, IGD)
File name:	Session05-VANDEVYVER.ppt
Presentation title:	Developing PPP Projects: Framework for the Future
Speaker:	Michael Schneider, Managing Partner of InfraConsult LLC and Co-Chair of the APTA Task Force on Public-Private Partnerships
File name:	Session05-SCHNEIDER.ppt
Presentation title:	Transport infras:Cost savings & improved efficiency thru PPPs
Speaker:	Francois Bergère, Secretary General of the French PPP taskforce (Mission d'appui à la réalisation des contrats de partenariat, MAPPP)
File name:	Session05-BERGERE.ppt
Presentation title:	PPP Contract: the legal documentation, a key issue
Speaker:	Jafar Khan, K&L Gates
File name:	Session05-KAHN.pdf

Presentation title:	La formation à la gestion et aux financements des contrats de Partenariat Public-Privé
Speaker:	Mr. Stéphane Roberlin, General Delegate of Arcurial
File name:	Session05-ROBERLIN.pdf
Presentation title:	Les procédures d'attribution et les outils contractuels au service du transfert de risque.
Speaker:	Mrs. Aline Delaye, Infrastructure PPP specialist with the General Directorate of the Sea and Transport with the French Ministry for Ecology, Energy, Sustainable Development and Land Planning
File name:	Session05-DELAYE.ppt

1.2 Eleven examples of PPPs in France

1.2.1 Highways

Whatever the PPP profile, State remains the owner of the infrastructure and the concession granter and controller. Concession companies used to be public-private ventures, but since 2006 there is no more State shareholding, and the State controls the enforcement of the contract through the General Directorate for Roads. Four historical major private firms operate the French highways: Cofiroute (subsidiary of Vinci and Bouygues), APRR (Autoroutes Paris-Rhin-Rhône, subsidiary of Eiffage and Macquarie), ASF (Autoroutes du Sud de la France, subsidiary of Vinci) and Sanef (Société des Autoroutes Nord et de l'Est de la France, owned by a venture of Spanish highway company Abertis and several French banking corporations). New highways are built and operated by ad hoc companies spread out from these four ones, as European regulations now oblige the State to grant the new concessions through a competitive process. Only the two Alpes tunnel companies (Autoroute et tunnel du Mont Blanc, Société française du tunnel routier du Fréjus) remain under State shareholding control.

1.2.1.1 A28 highway – concession

- Description: in Normandy, 125 km between Rouen and Alençon. Completes the North-South axle of western France.
- Cost: 917 million euros financed 60% by the concession holder, 20% by a French state subsidy and 20% by a subsidy from local authorities.
- Contract: The contract is a full concession (finance, build, operate and transfer) with construction cost risk and traffic risk managed by the holder company. Concession runs for 62 years since the road opened on the 27th of October 2005. Full fares are 12,5 euros for cars and 37,90 euros for trucks for the whole run of 125 km. Passes tickets are available. The partner company ALIS (www.alis-sa.com) is a venture from Bouygues Travaux Publics (contractor), Egis (engineering), Sanef and SAPN (historical highways operators) and financing and local companies. The contract was granted after a request for proposal at the EU level.

- Status: The contract was signed in November 2001 and the highway was built in 47 months.

1.2.1.2 A19 highway -concession

- Description: in central France (Centre region, in the south of Paris area), 101 km from Arthenay to Courtenay with a one-kilometre bridge on river Loing.
- Cost: 700 million euros among which 80 million of public subsidies (State and local authorities). The expected public share was first 160 million euros, but efficient financial and technical integrated engineering enabled to reduce it by half. 70,8% of the cost is financed by the debt. Traffic in 2010 is estimated at 8500 vehicles per day and 17500 in 2030. expected revenue is 30 million euros per year in 2010.
- Contract: full concession for 65 years. The partner is ARCOUR (www.arcour-a19.com), subsidiary from VINCI Concession. Design and construction operated by a venture from VINCI subsidiaries (Eurovia, Vinci Construction Grands Projets, Sogea Construction, GTM Construction). The motorway will be operated by COFIROUTE (subsidiary of VINCI, operates 900 km in Western France, operates in the USA and several countries).
- Status: the contract was signed in April 2005. Construction began on July 2006. The motorway is supposed to be opened to traffic in august 2009. Since the project was decided, 8 business and industry centres were built in the immediate vicinity of the highway and 2500 to 5000 new jobs are expected as indirect effects of the highway.

1.2.1.3 A41 highway – concession

- Description: in the northern Alps, 20 km link from Annecy to Geneva (missing link, substitute to a 45 km highway link). One 3-kilometers tunnel and 4 viaducts. Mainly used by commuters (90% + automatic passes tickets). Local development is a major issue of his project, as far as the highway area will take benefit from the rapid growth of the Geneva area.
- Cost: 871 million euros 100% financed by private equity. 80% is debt and 20% own equity. At first, a public subsidy of 260 million euros was expected to be required but as the project is highly profitable (high income users), the bid process generated a struggle between the applicants, which resulted in a bargain for the public authority.
- Contract: a full 55 year concession with ADELAC (www.adelac-a41.com), a venture of AREA (historical highway operator in the Alps, subsidiary of APRR which is one of the Big three), Bouygues Travaux Publics and local companies, plus a banking corporation (Groupe Caisse d'Epargne) which is full part of the group.
- Status: the contract was signed on October 2005. Construction began immediately for 29 scheduled months. The motorway is supposed to be opened to traffic in spring 2008.

1.2.1.4 Millau viaduct – concession

- Description: a 2460 meters-long, 245 meters-high bridge completing the 3rd north-south highway axle in France.
- Cost: 400 million euros financed by the private partner.
- Contract: full concession of 78 years (3 years of construction, 75 years of operation). The bridge structure is guaranteed for 120 years. The concession holder CEVM (Compagnie Eiffage du Viaduc de Millau) is a subsidiary of Eiffage, the 3rd French contractor. Full fare is about 6 euros for cars (about half of the rest of the itinerary from Paris to the South is toll-free by th A75 highway).
- Status: the concession contract was signed in august 2001. Construction ran from the end of 2001 to the end of 2004 and the viaduct was opened to traffic at the beginning of 2005.

1.2.1.5 A86 Paris super-ring – concession

- Description: two tunnels (10 and 7.5 km) and interchanges in Western Paris area, completing the A86 super-ring. The longer one, called the "A86 duplex", is a two-level tunnel dedicated to cars and light trucks. A tunnel solution was chosen to preserve the forested land, historic monuments and inhabited areas in this region. The aim is to relieve congestion and improving the quality of life in surface, while providing a highest level of safety.
- Cost: 1,700 million euros financed 100% by the partner.
- Contract: full concession of 70 years awarded to Cofiroute. Cofiroute has entrusted construction to a venture of Vinci, Eiffage and Colas, in the framework of a turnkey design and build contract. Toll fares are changing during the day under the principle of congestion-pricing (2 to 7 euros).
- Status: the concession contract was signed in 1999. The 1st section of the main duplex tunnel (north) was dug from 2000 to 2003 and will be opened to traffic in 2008. the second section (south) will be commissioned in 2010.

1.2.1.6 The Avignon East-West link (LEO) - Partnership contract (shadow toll)

- Description: a 32 km highway link between A9 (to Spain) and A7 (to Marseilles and the French Riviera) in the South of Avignon. The central section of about 13 km is to be built under the new framework of Partnership Contract. 28000 to 39000 vehicles per day are expected in 2015.
- Cost: 370 million euros. 1st phase of 120 million euros has already been funded by public subsidies.
- Contract: a 250 million euros shadow-toll contract for the construction of the 2nd and 3rd parts. The contractor is in charge of the construction with technical and delivery requirements by the State, and will finance the project. The highway will be operated day per day by the public roads administration but the general technical maintenance comes to the private partner. The State will pay a rent to the contractor, linked to the achievement of operating performance goals (for a 30 year-contract of 250 million euros, the annual rent is preliminary estimated a bit less than 25 million Euros). Under this framework, the public authority keeps assuming a large part of the risks

(related to traffic forecasts, legal requirements…) while the private partner comes with his ability to fund and achieve a complex project under severe delivery requirements.

- Status: construction of the 1st step (funded by public subsidies) has begun and will be operated since 2008. The whole project will open to traffic in 2015. A request for proposals has been published in 2006 for the 2nd and 3rd steps. The contract has not been awarded yet.

1.2.1.7 The Marseilles Northern link (L2) – Partnership contract (shadow toll)

- Description: the Northern highway ring of Marseilles has still to be completed by a 9 km link between the A7 highway (West) and the A50 highway (East). It has 3 sections : Eastern, Central and Northern. The Central section and some parts of the Eastern one have already been built but given the complexity (60% in tunnel, dense urban area), this section is still under construction. Marseilles is the only 1 million+ inhabitants urban area not to have a complete ring.
- Cost: 600 million Euros for the Eastern section, among which 245 million Euros of public subsidies. About 500 million Euros for the Northern section.
- Contract: a Partnership contract with shadow-toll is preferred because of the complexity (dense urban area) and emergency of the project. It will be toll free and rents will be paid by the State. Traffic expected is about 100 000 vehicles per day. The operation and maintenance of the system will be shared by the public administration and the partner.
- Status: still under study. A request fort interest has been published in 2006, the contract is supposed to be signed in 2008. The Eastern part should thus be completed through 2010.

1.2.2 Railways / High-Speed Rail lines

In the upcoming years, Réseau Ferré de France (RFF) will build at least three high speed lines projects at the same time.

1.2.2.1 LGV Sud-Europe Atlantique (South East Atlantic High Speed Line) – concession

- Description: a 300-kilometre high speed railway from Tours (240 km Southwest from Paris) to Bordeaux, completing the TGV Atlantique network to the South-West. The trip Paris-Bordeaux will take 2 hours and 5 minutes instead of 3 hours nowadays. 40 kilometres of new subsidiary railways will complete the project in order to serve the economic growth of the neighbourhood. The HST project will also relieve congestion on the existing network, allowing to improve the regional links.
- Cost: 7.2 billion euros (opening 2015). Given the importance of the project, a public subsidy will be necessary. Neither the detailed studies, nor the negotiation are finished now, so it is not possible yet not know precisely the breakdown of stakes between public and private, but the public share might be around 50% +/- 10% of the investment (personal estimation !).
- Contract: a full concession which duration remains to be defined after negotiation (40 years +). The partner will design, build, maintain and finance the network at its own risks. Its revenue will come from the duties paid by the companies operating the train services for accessing the tracks. The network will remain publicly owned and ruled (technical standards, safety, access granting).

- Status: the design studies are still going on. Public utility inquiry has been implemented last November. A request for interest was published in March 2007, the operation manager Réseau Ferré de France (the rail track public authority) has decided on last 9th November to go forward through negotiation with 3 applicants (groups leaded by the 3 biggest contractors in France: Bouygues, Vinci and Eiffage). The contract is supposed to be signed in early 2009 for an opening to train operation at the end of 2015.

1.2.2.2 LGV Bretagne-Pays de la Loire (Brittany and Loire Country High Speed Line) – Partnership contract or concession TBD

- Description: a 182-kilometre new high speed line and 32 kilometres of local connections extending the TGV network to the West, from Le Mans (200 kilometres South East from Paris) to beyond Rennes (capital of Region Bretagne). The trip from Paris to Rennes will take 1h and 27 minutes instead of a 2h 10 minutes average (1h52 from Paris to Nantes, 3h20 from Paris to Brest).
- Cost: estimated 2.375 billion euros (September 2004), among which 158 million euros for environmental features. A public subsidy will be necessary to reach the balance between the partner's expenses and revenue.
- Contract: the framework is still under negotiation between the State and the track manager RFF but the contract is expected to be a Partnership Contract : a DBFO with shadow toll and risk assumed by the private partner in the fields of construction, maintenance, financing and partly traffic. The public authority would get the access fees from the train operators and pay rents to the track partner related to its efficiency.
- Status: the public utility was made on October, the 28th of 2007. RFF and the State railway administration are now putting together the details of the legal and financial framework in order to publish a request for interest (timetable not defined yet).

1.2.2.3 Charles de Gaulle Express link – concession and private management of service

- Description: a 32-kilometer dedicated fast rail link between the centre of Paris (gare de l'Est) and Charles de Gaulle International Airport. The project will partly use existing right of way and will partly be in tunnels. It aims at separating the airport users from the commuters who currently ride the RER B, as a share use of this existing link is inconvenient for both kind of users, and at offering to highways users a sustainable alternative.
- Cost: 640 million euros among which 120 million for the rolling stock. 100% financed by the private partner thanks to the use of existing right of way and to the expected high profitability of the project.
- Contract: a full concession including the definition of the service policy (finance, design, build, operate the tracks, provide and maintain the rolling stock), under control of the State. The revenue comes from the access fees, directly perceived by the partner. The concession has not been granted yet. It will be at least 40 years long.

- Status: the request for interest was published in July 2006, the partner will be decided in early 2008. The construction will begin in 2008. Operations are supposed to start in 2012.

1.2.2.4 New cross-border HSL Perpignan-Barcelona (Spain) - concession

- Description: a 45-kilometres new high speed rail way (passengers and freight) including a 8.2-kilometres tunnel to cross the Pyrenees. Will shorten the trip from Paris to Barcelona to 5h and 30 minutes since 2009.
- Cost: 952 million euros (in 2003) funded 60% by the States and 40% by the private partner.
- Contract: a 50 year concession (design-construction-maintenance) granted to a Franco-Spanish venture called TP FERRO (Eiffage-ACS-Dragados).
- Status: the contract was signed in February 2004. Works are underway, for 60 months: operations on the new line are supposed to be started in 2009.

1.2.3 Examples of French PPP in other fields

PPPs have been implemented in many fields and for many years in France (canal du Midi in 1670, railways in the XIXth century), at local as well as national levels. The legal and financial model is still improving. For instance, here are some of the major contracts already granted under the new 2004 formula of Contract Partnership:

- The Seine to North canal (a 106-kilometer, 3 billion euros inland waterway creating an access to the Northern Europe network, opening 2013)
- Four prisons in Lyon, Roanne (department of Loire), Nancy (Eastern France) and Béziers (Southern France), opening since 2008
- French Air Force bases computer network.

Other PPPs are still granted under the concession framework. The major fields, out of ground transportation, are ports and airports and major features (stadiums, for instance).
At a local level, PPPs are the most spread way to operate public utilities as in the fields of transportation, water supply and wastewater. The new Partnership contract has widened the field of PPPs to public lighting, public building construction and maintenance, sport and cultural equipments, computer network, security services hardware, etc.

1.3 Contacts

For further information please contact the following persons.

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Implementation of Public-Private Partnerships for Transit

Surface Transportation Reauthorization: The Transit Industry Perspective

Michael Schneider

Managing Partner

InfraConsult LLC

Co-Chair, PPP Task Force

American Public Transportation Association

InfraConsult

What's the Situation?

- National debate on funding, priorities, and appropriate roles of the federal, state, and local governments… and the private sector
- National fiscal crisis affecting projected revenues, access to credit, interest rates
- Not since 1956 and 1964 has there been a discussion of such fundamental nature in the way we finance the business of moving people and goods in America…

Unprecedented Opportunities and Risks

Opportunities

- High transit ridership
- Public, media & political interest
- Economic stimulus

Risks

- Systems at capacity
- Local financial strain

The National Council for Public-Private Partnerships

InfraConsult

FTA Federal Transit Administration

Potential Game Changers

- Federal funding: Approach and magnitude
- Economic recovery and workforce development
- Energy independence: Attention to climate change
- Sustainability: "Green Tea?"

Partnerships in Public Transportation

Partnerships are about…

- Development and delivery of new capital projects
- Rehabilitation and extensions to existing transit systems
- Delivery of service to the traveling public
- Operations and maintenance

…improved delivery of projects and services

Let's Be Clear…

Our principal objective is *to implement and operate transportation programs that improve public mobility, in an efficient and effective manner*…

…it is *NOT* to create public-private partnerships.

PPPs Are About Project Delivery

"...a partnership between governmental agencies and private entities for the primary purpose of effectively developing, operating and/or maintaining public infrastructure traditionally in the domain of the governmental sector..."

Perspectives and Expectations

- *Overall Objective*: To increase funding and financing opportunities and/or to better facilitate project delivery and provision of service
- *Private Sector Expectations*: To provide financial/investment opportunities at acceptable rates of return; to provide increased opportunities for provision of services at a reasonable profit
- *Public Sector Expectations*: To achieve a combination of lowered cost; improved service quality; new technology; increased technical and managerial expertise; greater depth of available resources; and appropriate risk allocation...

Private Investment Risk…

Some Believe That…

- When there are no federal grants
- When there is no state money
- And when no local sources of funds are available…
- *…then (and only then) is a project a candidate for private sector involvement*

LEVERAGING PUBLIC ASSETS
IS THE KEY TO SUCCESS

Potential Negative Impacts of Public-Private Partnerships

- Comprehensive planning may take a back seat to expedient project development
- Projects that are inherently capable of generating a revenue stream may take precedence over those that are "non profit"
- Government may abdicate its role to provide equality of access and social justice
- Smaller firms may be left out of the game
- Environmental stewardship may be overlooked in favor of project expediency
- There has been a tendency for government to assume that the private sector will happily lose money in order to be awarded a concession

What Have We *Really* Learned?

Without significant public resources dedicated to public transportation, there cannot be public-private partnerships in transit development and operation

APTA Public-Private Partnerships Task Force

Policies and Principles For The Transit Industry

APTA: Cross-Cutting Issues

- Framework for the Future:
  Four new cross-cutting initiatives
  - Sustainability
  - Enhanced mobility
  - Intermodal focus
  - *Public-Private Partnerships*

Policy Premises

- Public transportation should be viewed as a key component of the "*modal mix*" in primary corridors
- Transit should be included in enabling legislation for PPPs
- PPP focus should not diminish the crucial governmental role in providing financial resources for transit development and operation
- PPPs cannot substitute for public policy, oversight and resources

Guiding Principals for PPPs: Transit Industry

1) PPPs are a tool in the transit toolbox, not an ultimate solution
2) PPPs must be structured to sustain the public interest
3) PPPs should achieve public goals and support regional planning
4) PPPs are possible only where long-range revenue streams exist through direct user fees and/or dedicated tax revenues
5) Funding and financing are not the same

Guiding Principals (Cont'd)

5) PPPs should be based on appropriate and beneficial sharing of risk between the sectors
6) PPPs should be used to increase procurement flexibility and effectiveness of project delivery
7) PPPs focused on tolling and highway pricing should be structured to promote increased transit use

APTA Task Force Recommendations

- Support federal tax incentives to enhance attractiveness of transit investment
- Increase effectiveness of methods for encouraging real estate investment (TOD, TIF, *value capture* mechanisms)
- Integrate transit into tolling projects ("*high performance corridors*")
- Seek a bold, new approach in reauthorizing surface transportation program: Without public resources, there is no opportunity for partnership

The National Council For Public-Private Partnerships

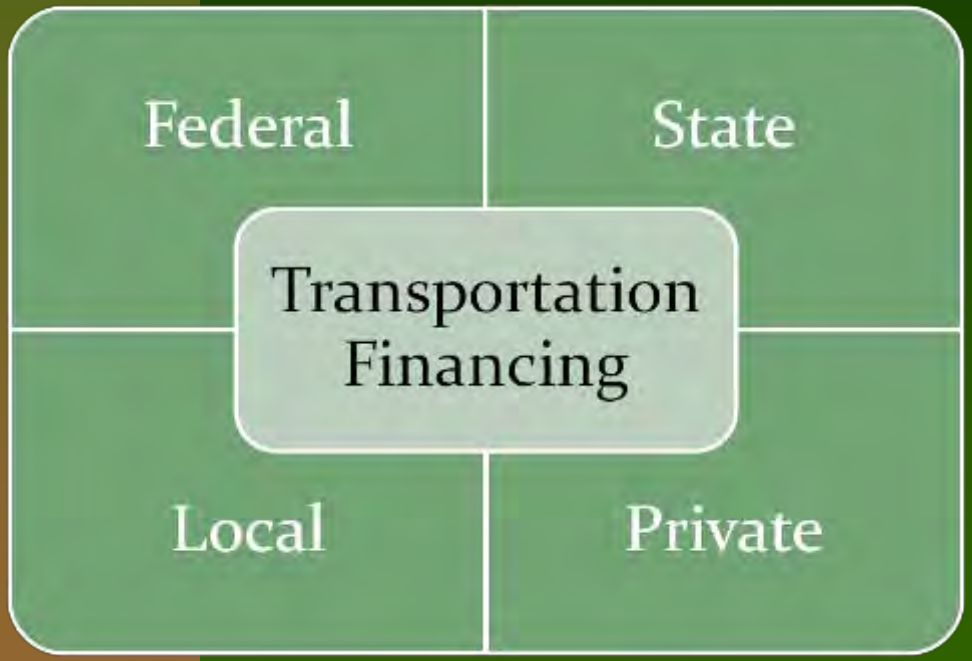
InfraConsult

FTA Federal Transit Administration

Federal Reauthorization Recommendations

- Provide incentives for using a variety of project delivery methods
  - Expedited review, "credit" for private sector involvement
- Clarify and expand *Penta-P* Program; create new programmatic options for partnerships
  - Expand options for innovative project and service delivery
- Improve project delivery procedures
  - Streamline project approval and delivery procedures
  - Streamline procurement and contracting guidelines
- Utilize a broader range of operations and maintenance service delivery models

A Vision for New Financing



- Financing should be tied to long-term policy and performance outcomes
- All modes should be planned, managed and financed as interrelated elements of a system

A Comprehensive Approach

- Focus on road pricing / congestion pricing / tolls
- Use fuel taxes as a *bridge* to future vehicle miles traveled (VMT) fees
- Undertake annual indexing of the fuel tax
- Utilize future VMT fees as a m*ulti-modal* funding source
- Create federal and state infrastructure banks
- Mainstream tax-credit bonds
- Utilize revenues derived from future carbon taxes and / or cap & trade for transportation improvements
- Build and incorporate carbon offset markets
- Make private investment attractive; derive revenue from *value capture* and *user benefits*

Primary Reauthorization Recommendation

Public-private partnerships should supplement – *not replace* – funding and financing provided through transportation authorizing legislation

The National Council For Public-Private Partnerships

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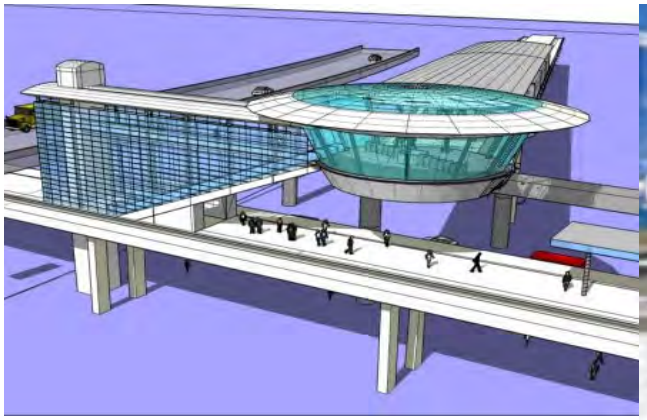
FTA Federal Transit Administration

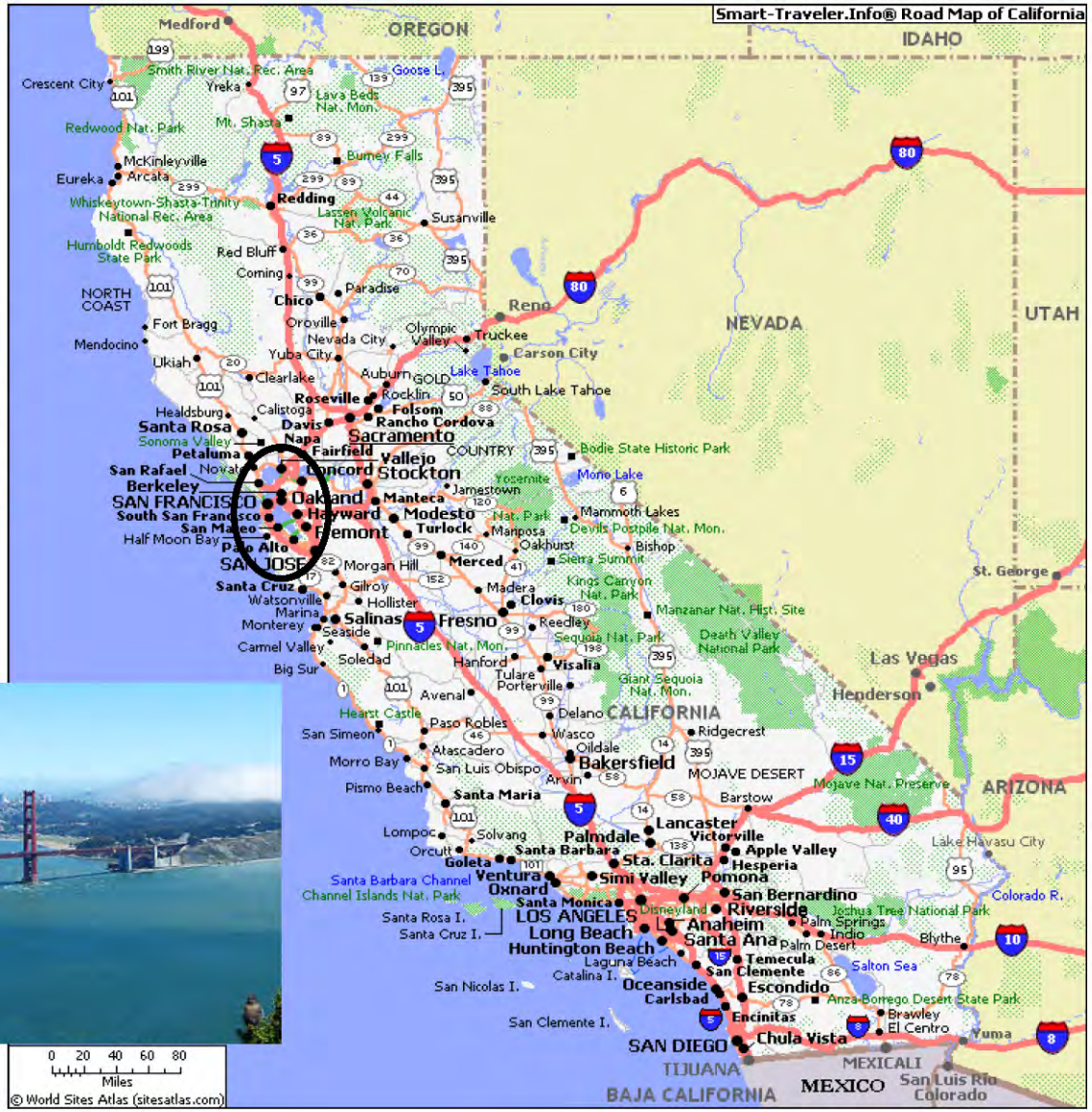


French/US Workshop on Public Private Partnerships

BART Projects - July 2008

San Francisco Bay Area Rapid Transit
BART

- Population ≈ 4M
- 500k Hectares
- 4 Counties
- 59 Cities



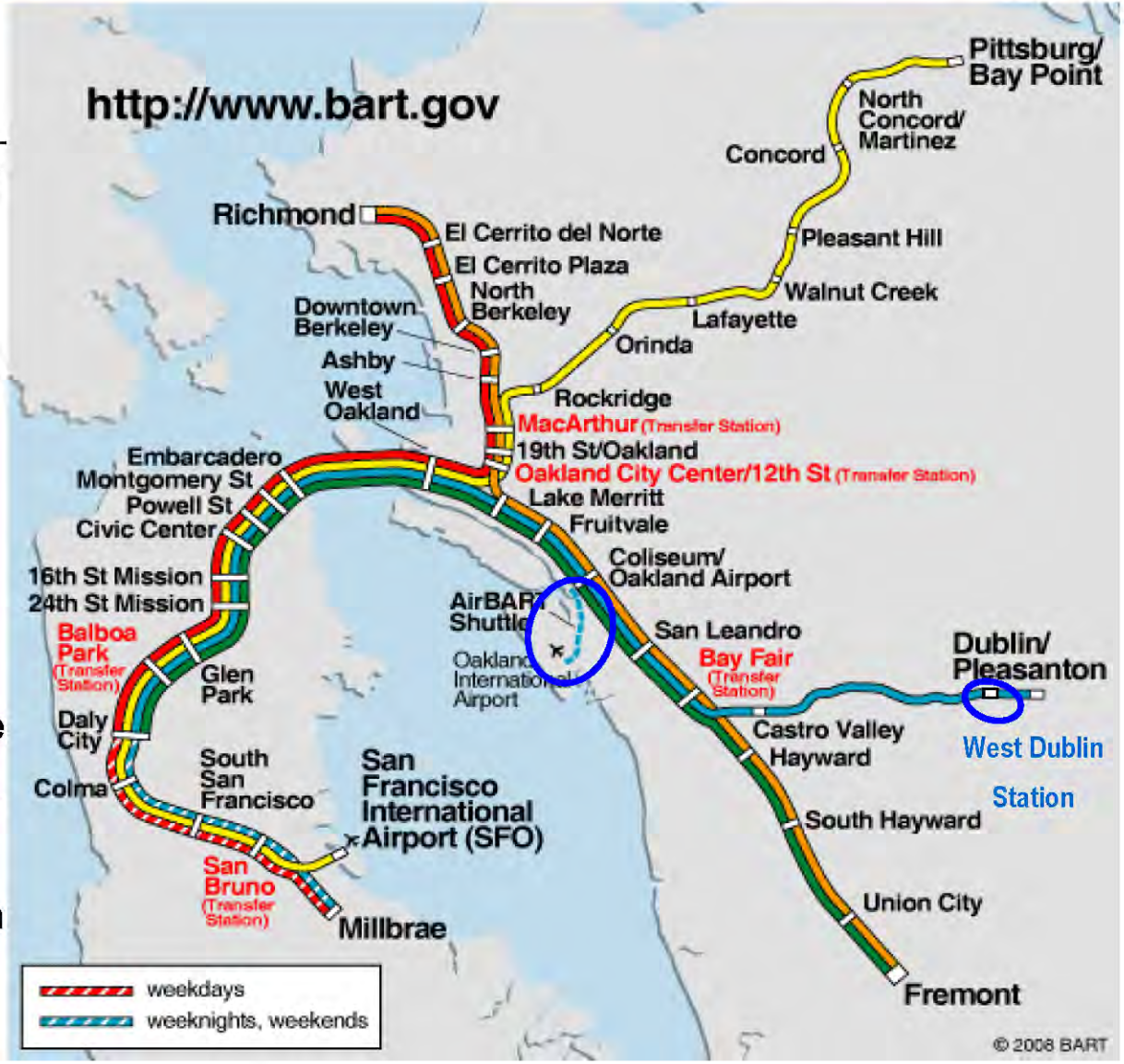
Bay Area Rapid Transit System

Oakland Airport Connector (OAC)

- 5.1 km system connecting BART to Oakland International Airport
- AirBART bus serves OAK
- FTA P5 Project
- Farebox Revenue to Cover Financing and Operations
- BART already serves SFO Airport

West Dublin Station and Transit Village

- Infill Station on existing BART line
- Leverages property owned by BART to generate capital for station construction



About the Oakland Airport Connector Project

- Connecting BART to the Oakland International Airport
- Driverless Automated People Mover System
  - Safe, Highly Reliable, Fully Automated, Driverless Vehicles
  - Proven Technology
  - Meets capacity needs
  - Low Cost to Operate and Maintain
  - Seamless integration into the BART
  - Reduce Traffic Congestion
  - Fares Sustain Operation
  - Replacing successful AirBART Bus System

OAC From Birds Eye View

Why Public Private Partnership (P3)

Series of Events

2002 – Board Adopted the Project

2002-2004 Design Build Operate & Maintain (DBOM) Procurement (5 – 10yr O&M)

Estimated Capital Cost ≈ $380M Public Grants ≈ $260M

- Funding shortfall would only get worse
- Steady growth at the Oakland Airport & limited airport parking
- Strong growth of AirBART bus ridership
- Demand for reliable service

2004 – 2005 Investigated P3

- Conservative financial model
- Outreach to Private Industry
- Enabling Legislation - California Infrastructure Finance Act
- BART Board approved

2006 Prequalified 3 Prospective Concessionaire Teams

2007 Concession Agreement Released for Proposals

- 2 of 3 proposer teams withdraw

Estimated Capital Cost ≈ $480 Public Grants $350M

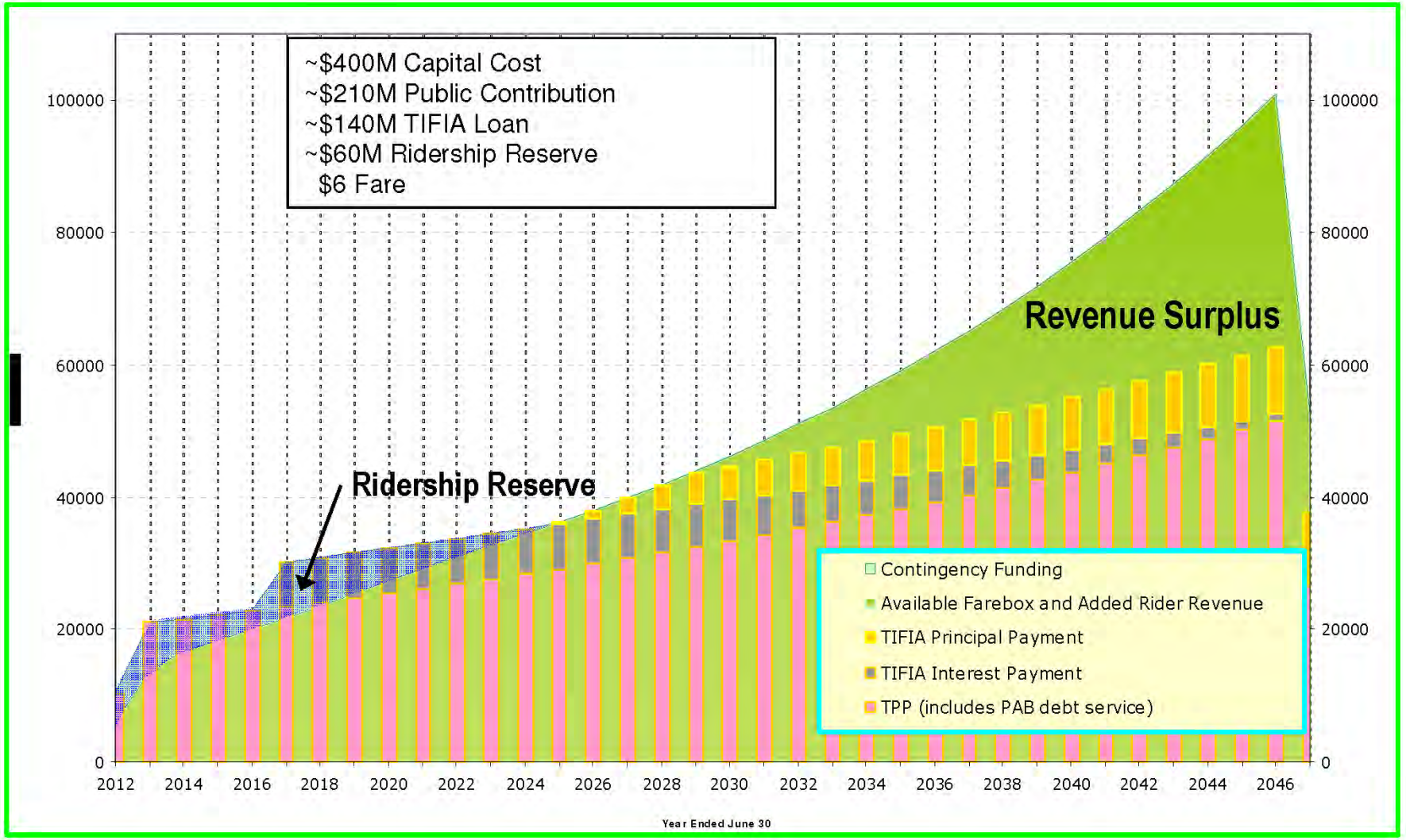
Pre-qualified Prospective Project Companies & Technologies – Sept. '06

	bbm AiRail Transfer Team	Oakland Airport Access Team	Airport Connector Team
PPC	Balfour Beatty Mgmt Inc & Mitsui	Sumitomo & Tutor-Saliba	Babcock & Brown
Finance	Citigroup Global/Mitsui/Balfour	NORD/LB & Bank of Tokyo/Mitsubishi	Merrill Lynch & Co. Inc.
Design	STV, Inc.	DMJM Harris	Parsons Transportation Inc.
Civil	Balfour/Shimmick	Tutor-Saliba/O&G, JV	FCI Constructors
Systems	Ishikawajima-Harima	Mitsubishi	Bombardier
O&M	Veolia	Mitsubishi	Bombardier

Concession Agreement Risk Allocation – Key Components

Concessionaire	BART
Concessionaire takes the risk of design, construction, testing, start up and responsibility for **35 years** of operation and maintenance • Responsible for all defects & flaws •Includes capital reinvestment & refurbishment costs • 5 years of useful life at handover	BART maintains a contingency fund for 3rd Party delays, unforeseen conditions, and revenue shortfall. BART sets and collects fares BART makes Performance Payment to Concessionaire (for **35 years**) from fare revenues and Ridership Reserve Fund, for the capital investment + operating expenses + reasonable return on investment
Portion of Performance Payment is based upon service availability and ability to meet performance criteria: • Schedule of deductions for less than 99.5% System Availability (on-time performance, reliability, etc.) • Deductions for failure to meet minimum amenity standards (cleanliness, upkeep of facilities, etc.)	BART monitors Concessionaire performance and adjusts Performance Payment accordingly BART budgeted **$60M** of Public funds for Ridership Reserve to cover revenue shortfalls during the ridership ramp up period
10% of Payment is based on actual ridership. Periodic rebasing to limit long-term losses and windfalls.	Revenue surplus shared but capped (no concessionaire windfall)

Revenue Projection and Repayment Plan



San Francisco Bay Area Airports
Recent Market Shifts

Airports serving the Bay Area

- San Francisco (SFO)
- Oakland (OAK)
- San Jose (SJO)

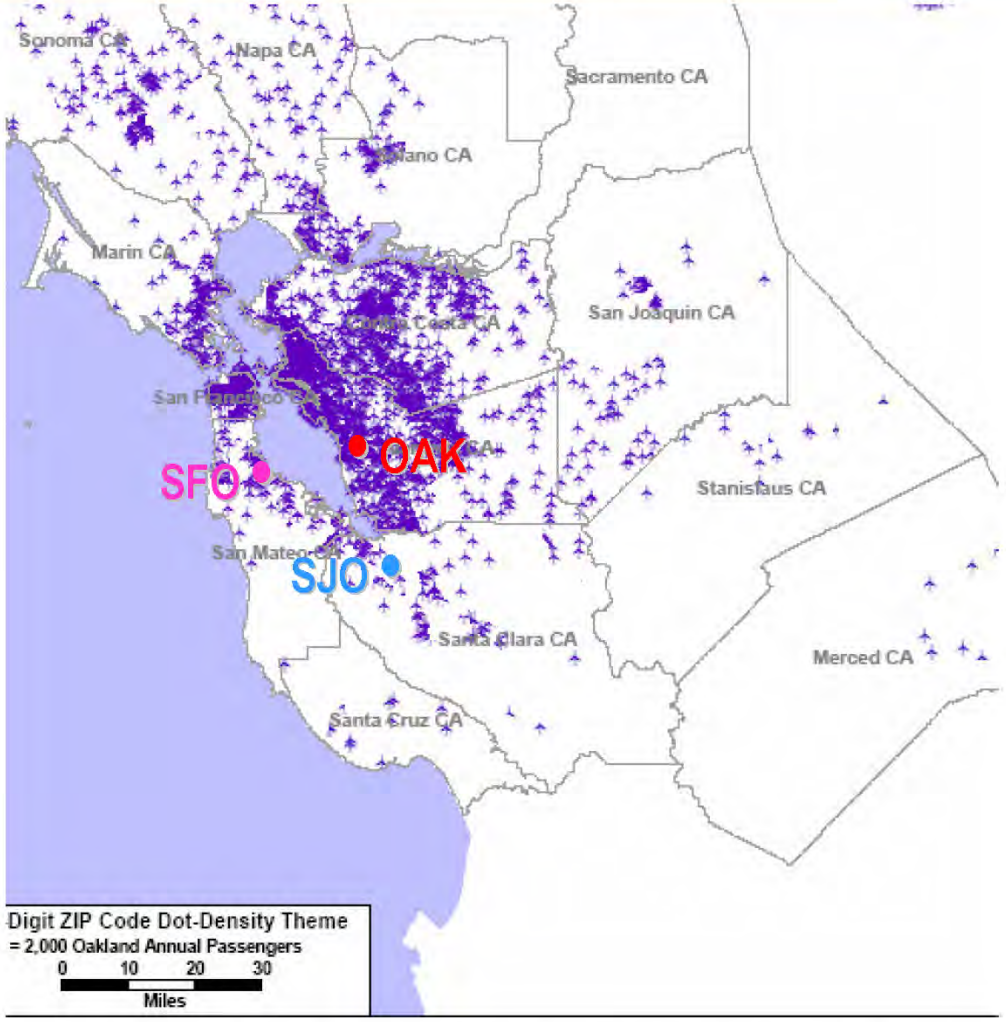
OAK down 20%

SFO up 20%

Airline consolidation

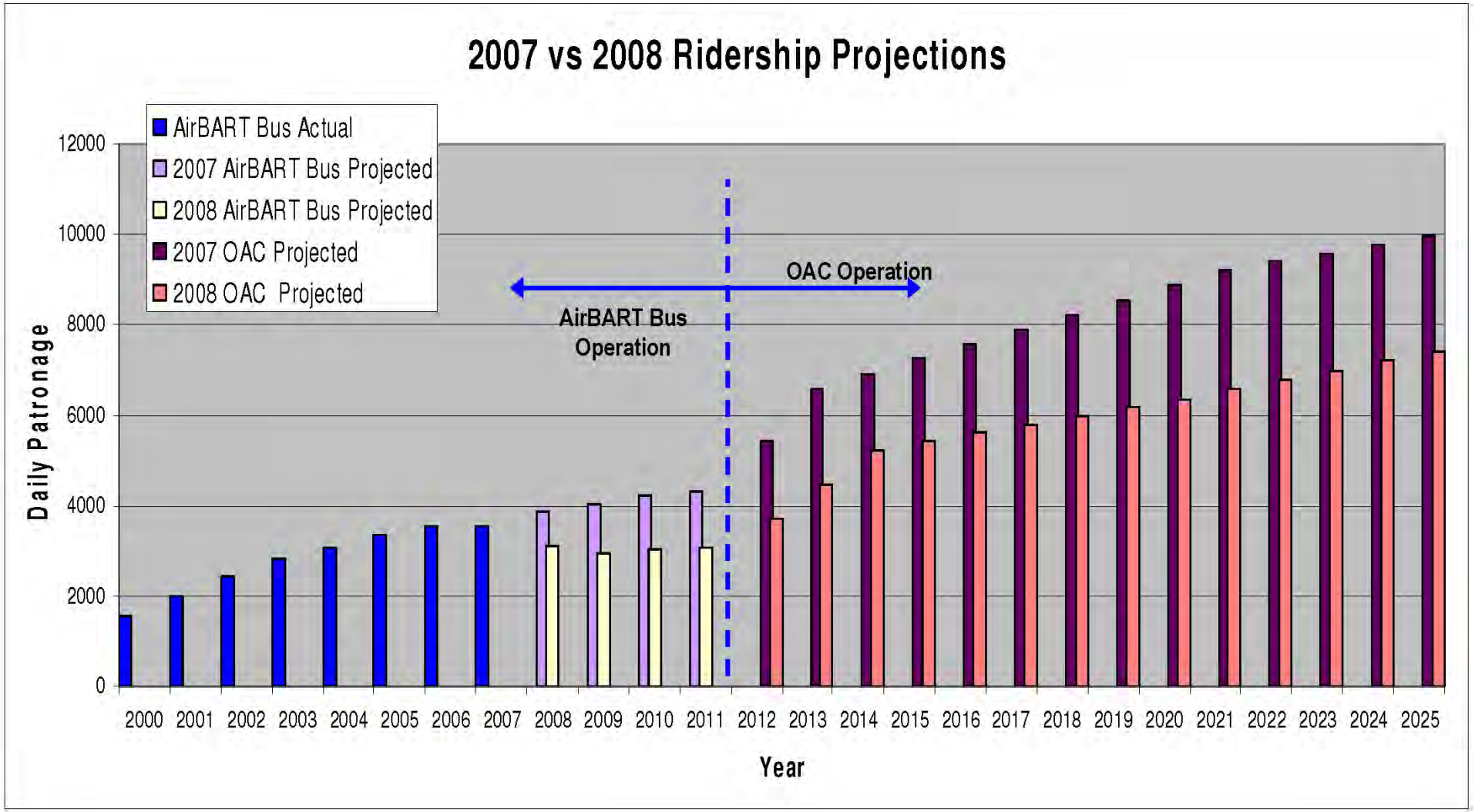
Fuel cost increases

Competition



Oakland Airport - Originating Passengers by Zip Code

2007 vs 2008 Ridership Projections



OAC - Where We Are

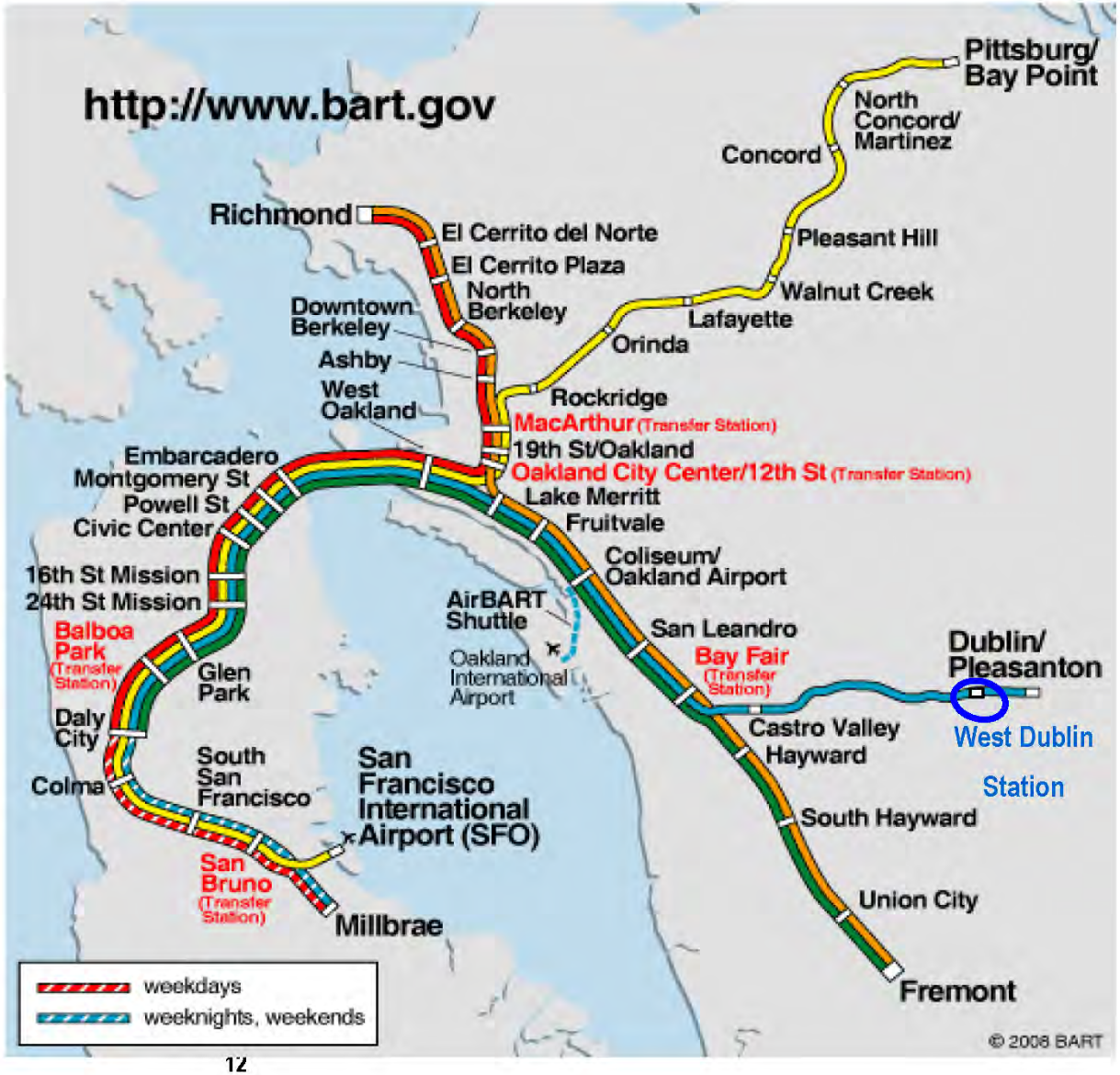
- Escalating costs continue to be a challenge
- US and Bay Area air-travel market is dynamic

Reassessing project to align revenue projections with financing options

- Additional Public Funds
- Other revenue sources / ridership backstop
- Financing options based upon current ridership
- Modification to procurement approach

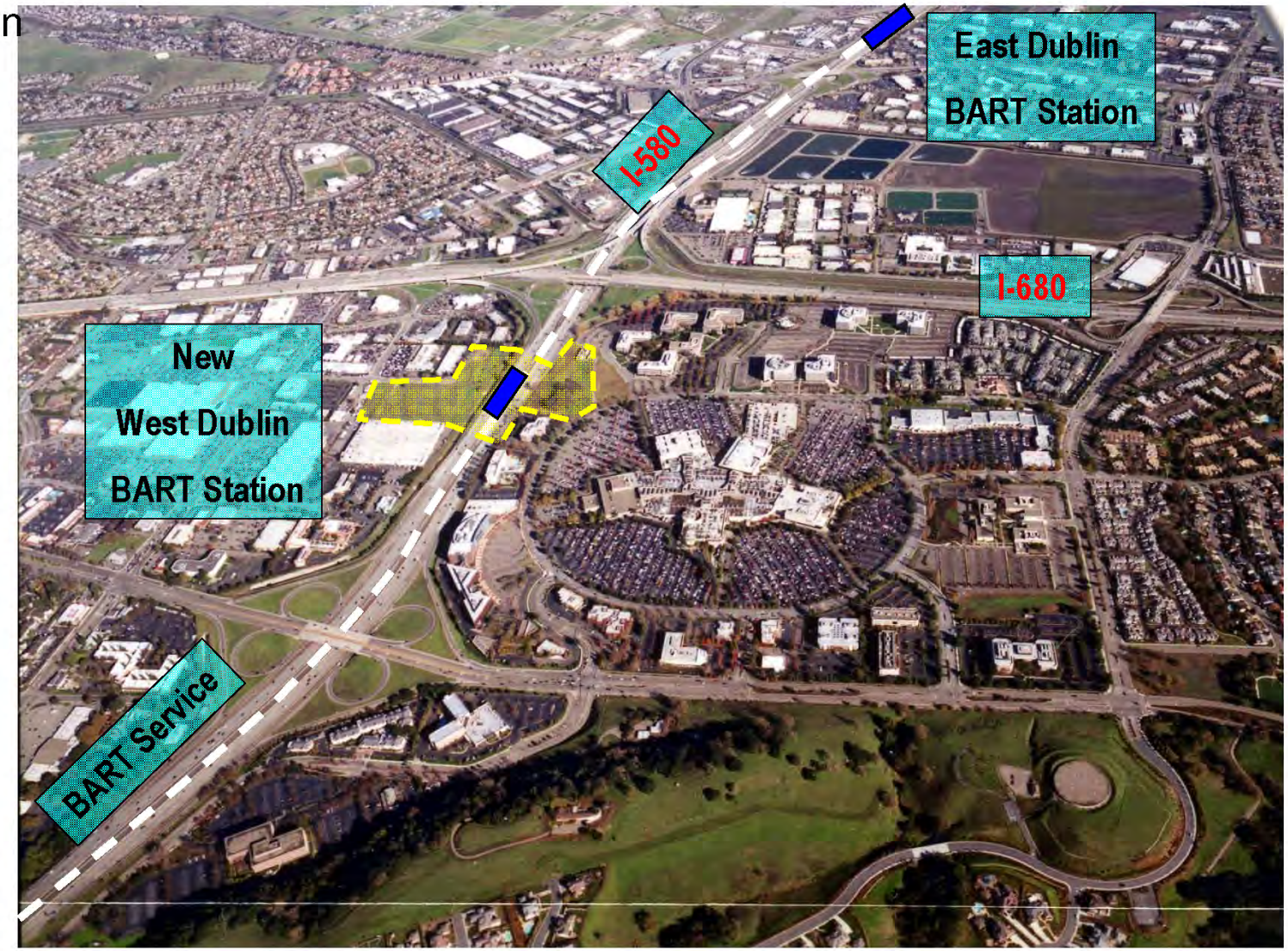
West Dublin Station

- 2 Station 23km extension opened 1997
- Extension Ridership ≈ 20,000 day
- Projected ridership increase ≈ 4000 – 8000 day
- Foundation piles and crossovers installed for future infill station



West Dublin Station Birds Eye View

- Suburban location
- Near Major Interchange
- Highway median
- 6.9 Hectares



Project Components

Master Developer Builds

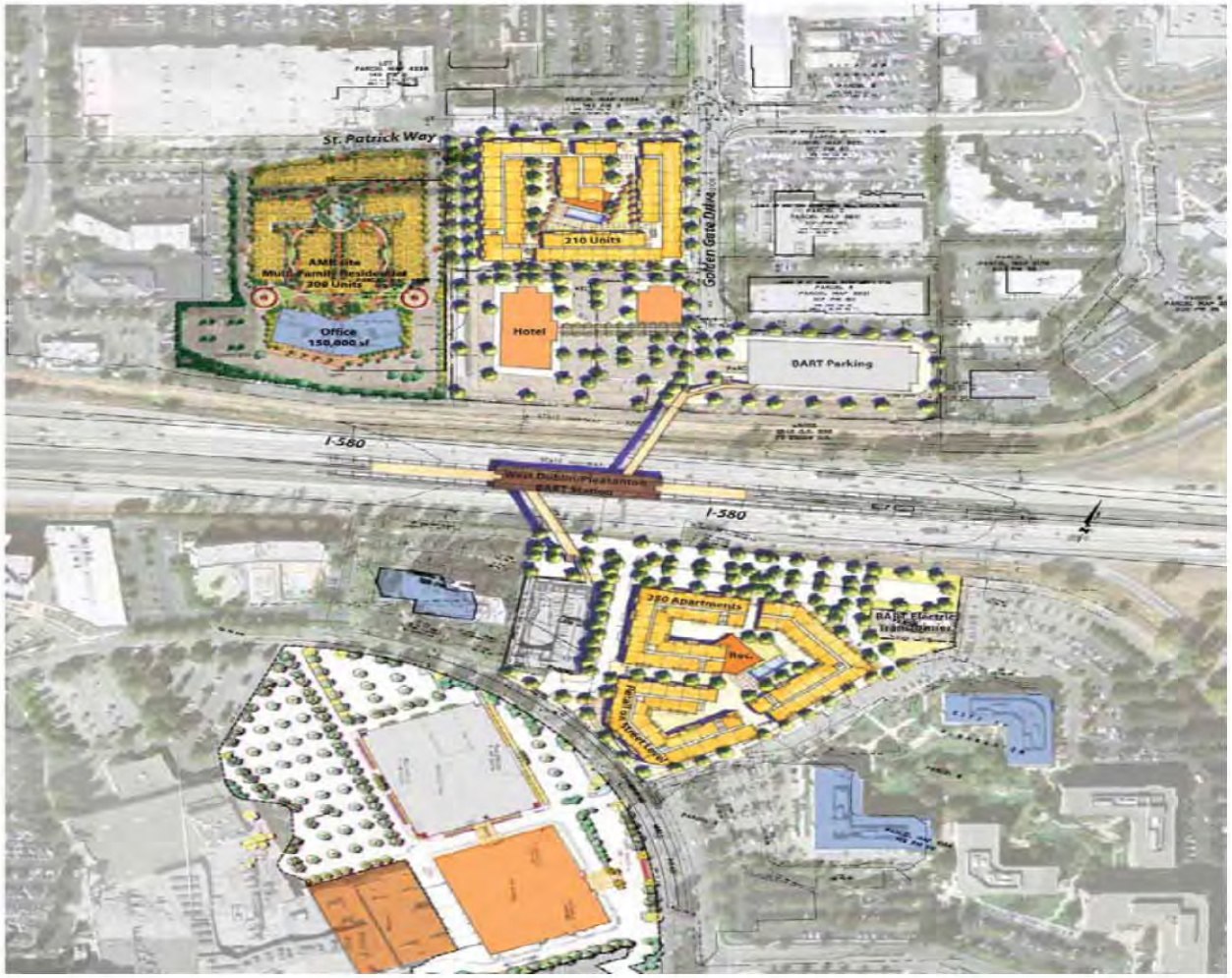
- BART Station & 2 pedestrian bridges
- 2 BART parking garages

Private Developer bought rights to build

- 350 Apartments
- 309 Condominiums
- 150 room hotel
- Retail

Land sale generated $15.5M for station construction

Land lease generated $3M with future revenue sharing



Cost and Funding

- Public Facilities Cost = $88M

Funding Sources

- Public Grants = $14M
- Bonds Sale = $58.5M
- Private Development = $15.5M

- Fare box revenues expected to cover bond repayment. Bond repayment and operating costs backstopped by cities and county up to $8M to cover early ridership risk.

West Pleasanton Parking Structure

West Dublin/Pleasanton Station Steel Erection

PPP Lessons Learned to Date

- New to US market - may not apply to all project types (transit typically subsidized)
- PPP agreements are very complex – require experienced legal and financial advice
- Complex construction and systems contracts will be priced conservatively
- Apportion risk appropriately - risk transfer to private partner will be costly
- Don't be prescriptive – allow private partner to be creative
- Try to keep competition involved in the process
- Third party involvement is a large factor for U.S. transactions
- Education of stakeholders is required

SFMTA PPP Summary N. Ford

- Thank you once again for joining us here in San Francisco. SFMTA and our regional partners – BART, MTC – have been happy to host all of you here for this informative discussion.

- We have spoken today about a number of different viable PPPs options, the status of some current and completed projects, and even what some states have done to help create a more favorable climate for these types of financing tools.

- What I view as one of the most important benefits of holding this first meeting here in San Francisco is that we can show you a number of PPP projects, as well as illustrate the direction and types of opportunities that we are exploring.
    - Perhaps more importantly, our projects not only help drive ridership and generate revenue, but simultaneously incorporate and encourage the many other modes that we oversee, including pedestrians, bicycles, parking, and traffic management.
    - These efforts to leverage private funding and a variety of financing mechanisms have been in the works in San Francisco for over a decade now. In fact, our City Charter requires us to use our assets to help identify new and innovative funding sources.

PPP in San Francisco

- In the past year, we have embarked on a number of initiatives that will help diversify the number of different revenue streams, while simultaneously improving access to transit and providing market-based incentives for people to utilize transit and other modes such as walking and cycling.
    - SFMTA has recently finalized a **contract for transit shelters** and advertising that will bring $15 million per year.
    - **Transit Impact Development Fees**, a tool developed to ensure that funds for transit development are collected as new office construction comes to fruition, have brought the City nearly $115 million since the program began in the early 1980s.
    - In an effort to properly value the on- and off-street parking assets we manage, **SF*park*** will employ cutting edge technology as part of a demand-based parking program whereby the price of parking will truly be based on market demand in a particular area of the city and at a given moment in time.
        - This is being pursued with a U.S. Department of Transportation UPP grant that will underwrite in-street sensors to identify vacant parking spaces and multi-space parking meters with convenient payment options including credit/debit cards and possibly payment via cell phone. On the horizon: The ability to locate an open parking space on your computer, cell phone or PDA, which will reduce aimlessly searching for a space and associated emissions and congestion.

- SF laid the foundation with an **asset redevelopment study** in 1996 to look at ways to leverage vacant or underutilized property to generate revenue, primarily through redevelopment:
    - This resulted in a number of different projects, the most recent of which is the **Hotel Vitale,** a landmark program that produces ongoing revenue to the SFMTA and will result in our owning the hotel in 2067.

- We are incorporating **Transit oriented development** to not only stimulate economic development and encourage additional ridership, but to leverage that impending growth to finance projects, and perhaps remove the need for private financing. Some examples of that include proposed developments at our current **Kirkland Yard** facility and on **Treasure Island**.
- An excellent example of the effective use of **TOD** is the **Transbay Transit Center**, the largest such transit hub this side of the Mississippi, that will spawn both commercial and residential development as well as accommodate California High Speed Rail.
- And we're just getting started - there are a number of other potential projects being considered for future development throughout The City.

- In taking on this challenge, it is important to consider the local political landscape and gauge public and political support – is this even a realistic option? For example, in SF:
  - Our citizens and elected officials believe that we have a responsibility to own and operate our transit system.
  - Obviously, development of any kind in a landlocked geographic area y is not only politically contentious, but requires significant financial resources – it is a long and expensive process to build anything in San Francisco.
  - As has been the case with many transit agencies, we have been experiencing very real declines in federal and state funding for capital projects and operating expenses.
  - Meanwhile, there is significant demand for more projects that promote connectivity, and a real desire for projects that help foster these connections and reinforce the use of transit alternatives throughout the Bay Area.
  - And even with all of these challenges, our top priority remains our regional commitment to connectivity and maintaining the region's transit corridors.

- We all face unique local challenges, but some very similar financial constraints drive us to be innovative about new funding solutions

Lessons learned

- Take the time to educate folks on the benefits of these projects.
  - Focus on the value added by the project, and what each project partner brings to the table, be it funding, development expertise, etc.

- Make sure your expectations are realistic.
  - Especially in turbulent political climates, it is important that you plan for the inevitable problems and project delays.

- Know your strengths and weaknesses.
  - Particularly in these types of development opportunities, it is important to know where you have internal capacity and expertise, and when consultants are the better option. It may save a lot of time to hire consultants given the need for specific expertise, but building capacity is also an important investment.

- Always use these projects to encourage or develop transit ridership.
  - Revenue is great, but using these types of opportunities to make some money and encourage use of transit is a win-win situation.

- Remember that public-private partnerships are not the end-all, be-all.
    - These should be just one of many strategies employed to generate sustainable revenue for operations and capital improvements.

- At the end of the day, it is still about running the best transit system, and ultimately delivering the best transit service possible to current and future cusotmers.

- Thank you again for joining us here in San Francisco.

Topic Overview
The following is background information projects featured in your Powerpoint presentation.

Hotel Vitale

October 9, 2003 – groundbreaking
March 9, 2005 – opening
Developer: Emerald Fund
Operator: Joie de Vivre Hospitality, Inc.
Architect: Heller Manus

Luxury boutique hotel located at on the revitalized Embarcadero waterfront.

Features:

- 199 guestrooms and suites with Bay, Embarcadero, and / or downtown views
- Americano Restaurant and bar with al fresco seating
- Penthouse level day spa, soaking tubs, and yoga studio
- Rent-free retail space next to the historic streetcar stop for a transit memorabilia shop and museum operated by the Market Street Railway non-profit organization
- Dedicated Muni historic streetcar stop and within walking distance of every major Bay Area public transportation system including BART, Ferries to the North and East Bay, Muni Metro, buses, light rail, and cable cars

The Hotel Vitale is an innovative development of property, owned by the City and County of San Francisco (CCSF) and under the jurisdiction of the SFMTA.

The site was formerly used a layover area for Muni buses.

The site was identified in the 1996 Municipal Railway Assets Development Study for commercial development to increase Muni's revenues. This study concluded that a hotel would be the use that would be the most compatible with the surrounding area and, hence, the most successful.

Third Street Light Rail and Central Subway

The two-phase Third Street project will unite the City's established civic, business, retail, and cultural centers with the diverse communities along the light rail line, support the revitalization and economic development of communities in the Third Street corridor; and provide access to the Mission Bay development, including the new University of California campus that is now under construction at Mission Bay.

The Central Subway will extend light rail service in a subway under the South of Market, Union Square and Chinatown neighborhoods.

It will operate as an extension of the Third Street light rail line which opened for full service in April 2007.

The Central Subway has received over $56 million in New Starts federal funding to date for preliminary engineering activities. The project is scheduled to open in 2016.

The projected number of future boardings for the T Third Line, including the Central Subway, is 78,000.

The Central Subway segment will reduce travel time between the Caltrain station at Fourth Street and King Street to Chinatown from 20 minutes to 7 minutes.

It will serve regional transit connections, major tourist destinations, convention facilities and the large number of residents in the corridor who do not have cars.

25-Year Strategic Plan (the Plan) for SFMTA Facilities and Transit Oriented Development

[Note: The following talking points for this project are based on the Draft Scope of the RFP for the Plan and interviews with relevant staff.]

A continuation of the of the 1996 Assets Development Study, the Strategic Plan builds on the SFMTA's desire to leverage its assets and improve transit connectivity in San Francisco.

This long-term contract will ask the chosen firm to spend at least 5 years developing a comprehensive assessment of the SFMTA's facilities and potential for development and partnerships.

SFMTA facilities include buildings attached to property owned by CCSF, which are under the jurisdiction of the SFMTA. This Strategic Plan will include the full inventory of SFMTA properties that do not conflict with sister departments (e.g. the parking garages underneath Rec and Park properties: Union Square and Portsmouth Square).

To accommodate an ever increasing population and demand for housing, services and infrastructure, the City will pursue strategies to sustain growth while concurrently increasing the tax base without upsetting the qualities that make our communities desirable places to live and work.

The SFMTA has three goals that it wants to achieve with this project:

1. Transit Oriented Development
2. Income to the SFMTA to support transit service in San Francisco
3. Improvement of SFMTA operating facilities

The opportunities for private partnerships will be evaluated through the Plan based on the following incentives.

The basis for investment in TODs from the perspective of the public partner, the SFMTA in this example, is as follows:

- To increase ridership
- Generate non-tax income from land leases and income participation from joint development projects on sites adjacent to or above stations
- Generate tax revenue and transit impact development fees
- Reduce traffic congestion

- Reduce environmental pollution

By participating in joint development TOD projects, the private partner realizes investment upside as well including but not limited to the following:

- Capture premium rental rates
- Increase density of development
- Increase net proceeds from sale of TOD
- Increase retail sales from transit riders
- Increase advertising income
- Avoid the cost of urban sprawl

Kirkland Yard

The Kirkland Bus Yard is one of four deployment and maintenance facilities for our motor coach service.

The SFMTA will offer developers an opportunity to develop a mixed used residential project at the former Kirkland Yard. The SFMTA believes that a mixed use residential development will add value to the surrounding neighborhood and provide a critical resource for re-investment in priority SFMTA needs. Creativity and quality of design are important for any project at Kirkland; therefore, any developer team must include an architect.

Upper Yard

As part of the City's effort, led by the Planning Department, to improve and invigorate San Francisco neighborhoods, the Balboa Park Station Area Plan has been developed to take advantage of City assets around the Balboa Park BART station and the Muni Metro Green Yard.

Upper Yard, continued

A key segment of this project is part of the Green Yard called "Upper Yard." This triangular parcel has been identified for mixed use development of 200 residential units and 5,000 square feet (approx. 465 m^2) of commercial space.

As water and land-locked municipality, San Francisco is eager to find infill development opportunities such as this in order to encourage smart growth and affordable housing.

Treasure Island

- Mixed-use redevelopment project on Treasure Island and Yerba Buena Island
- Sustainable development practices
- 6,000 residential units, 300 acres of public access, parks, open space and shoreline improvements
- Exclusive right to negotiate with developer

AIDS Housing and Job Development Center

- Mixed use development enabling SFMTA to optimize the use of our existing parking lots.
- Development will occur over parking lots, retaining the existing revenue and spaces
- Will include a new SFMTA sales location on the site of the development.

Transbay Terminal

Timeline

2012-2019	Project Construction - Phase II, Downtown Rail Extension
2008-2014	Project Construction - Phase I, Temporary Terminal and Transit Center Building
2008-2012	Transit Center Architecture and Engineering Design
Dec. 13, 2007	California Transportation Commission approves transfer of State land parcels to TJPA, City of San Francisco, and SF Redevelopment Agency

Source: TJPA website 1 Apr 2008

The Transbay Transit Center will:

- Replace the outdated Transbay Terminal with a new regional transit facility at 1st and Mission streets that will accommodate more than 45 million passengers annually

- Provide transportation links to eight Northern California counties including San Francisco, San Mateo, Sonoma, Napa, Marin, Santa Clara, Contra Costa, and Alameda as well as connection to the entire State of California

- Serve nine transportation providers including AC Transit, Golden Gate Transit, Muni (including paratransit for seniors and the disabled), SamTrans, WestCAT, Greyhound, Caltrain, and future High-Speed Rail under one roof, in addition to convenient connections to BART and Muni Metro

- Accommodate the future California High-Speed Rail line which will allow travel between San Francisco and Los Angeles in under two and a half hours and seamless connections between all of Northern California to San Diego, Sacramento and the Central Valley

- Extend the Caltrain rail line 1.3 miles from 4th and King streets to the new Transbay Transit Center near the heart of the Financial District, reducing travel times for Peninsula riders commuting to the City, and closing the gap between East Bay and Peninsula transit services

- Encourage bus and rail ridership throughout the region by improving access and connectivity to public transportation

- Provide the capacity to accommodate the projected number of travelers estimated to use public transit from San Jose to San Francisco and San Francisco to the East Bay in future decades

- Remove more than 8,000 daily auto trips from the Peninsula Corridor roadways, reducing traffic congestion on Highway 101 and I-280

- Improve air quality by decreasing 260,000 vehicle miles per day, and therefore reducing harmful emissions by over 2.5 Tons of Carbon Monoxide per day and one-half ton of NOX (Oxides of Nitrogen) per day from the Caltrain Downtown Rail Extension alone

The project will:

- Transform parking lots and public parcels of land into a new San Francisco neighborhood centrally located downtown next to the waterfront, the Transbay Transit Center, the Financial District and the historic district west of 1st Street

- Build 3,400 new homes, 35% of which will be affordable (1,200 units), reducing San Francisco's chronic shortage of affordable housing

- Include 100% affordable developments, such as extremely low-income housing, and senior housing in addition to inclusionary units within market rate developments

- Serve as a model for transit-oriented development by providing market-rate and affordable housing in a prime, pedestrian-friendly environment where using a car is unnecessary due to its close proximity to downtown employment and safe and efficient transportation options

- Develop Folsom Street as the centerpiece of this new neighborhood, with widened sidewalks, cafes, markets and views of the San Francisco Bay

- The Transbay Joint Powers Authority (TJPA) was created in April 2001 by the City & County of San Francisco, AC Transit and the Peninsula Corridor Joint Powers Board in order to design, build, operate and maintain a new transportation terminal and associated facilities on the site of the current Transbay Terminal at 1st and Mission Streets in downtown San Francisco.

Transit Shelter Agreement
Rights Granted and Ownership:

Clear Channel will have the exclusive right to sell print advertising on transit shelters and kiosks, including on property under the jurisdiction of the Port, subject to the provisions of SFMTA's advertising policy.

SFMTA will transfer title of the existing shelters and kiosks to be purchased from CBS Outdoor to Clear Channel. Clear Channel will own the shelters and kiosks that they construct during the Agreement. SFMTA retains ownership of any other structures covered under the Agreement (e.g. platforms, transit poles).

Term and Payments:

The Agreement is for a 15-year term, with one five-year option to extend the Agreement.

Clear Channel will pay $5,000,000 upon execution of the Agreement.

Additionally, Clear Channel will make annual payments of $500,000 in administrative fees, $200,000 in marketing fees, and $265,000 for the Arts Commission. All these fees will escalate annually according to the Bay Area CPI.

The negotiated Agreement includes Minimum Annual Guarantee (MAG) payments of $6.9 to $10.3 million in 2007-08, escalating to $25.3 to $29.9 million if the contract extends to 2026-27, depending on Clear Channel's total annual gross revenues from the contract.

Structures and Construction:

Approximately 1,100 existing shelters and 39 kiosks must be replaced with new shelters and kiosks no later than six years from the Agreement effective date.

During the term of the Agreement Clear Channel may install an additional 400 shelters and 111 kiosks with the approval of SFMTA and the required permits from DPW.

Shelters will include technology to allow visually impaired persons to hear the NextMuni information, a beacon for waiting passengers to notify approaching transit vehicles, recycled and sustainable materials, solar power, and the most technologically advanced materials available to deter or withstand graffiti.

Clear Channel will install 3,000 transit stop sign poles within seven years.

Clear Channel will be responsible for removing the current NextBus equipment and placing them on the new shelters.

Maintenance Services:

Clear Channel must inspect each shelter and kiosk at least twice per week, except shelters and kiosks on Market Street, which must be inspected at least three times per week. In the course of each inspection of a shelter or kiosk, Clear Channel is required to remove all graffiti, stickers, posters, litter, dust, dirt, and weeds from each shelter or kiosk, and from a five-foot radius surrounding the structure, exclusive of private property and rail right-of-way.

The Agreement requires Clear Channel to make daily inspections of all platforms and pick-up trash, remove graffiti, clean and wash each boarding platform; inspect LED signs and lighting fixtures, and replace defective lights.

Clear Channel will perform maintenance twice a week and repairs to low-level boarding platforms (with or without Shelters) for an annual rate of $300,000, to be deducted from payments to the SFMTA.

Within 24 hours of notification, Clear Channel must repair, replace or remove as appropriate any damage to a structure that is of a hazardous nature (e.g., broken glass) or any damages to light sources.

PROGRAM AGENDA

Partnerships In Transit
July 30-31, 2008
Hotel 480, San Francisco, CA

JULY 30

6:00 – 7:30 pm **NETWORKING RECEPTION**
Hosted by **HERZOG** and **K&L Gates**

WELCOMING COMMENTS: Vice Admiral Thomas J. Barrett*, USCG (Ret.), Deputy Secretary of Transportation*

JULY 31

7:30 am **REGISTRATION AND CONTINENTAL BREAKFAST**
Hosted by

8:00 am **WELCOMING COMMENTS**
Why PPPs are a delivery tool for transit projects and can serve as another resource to help finance a wide array of projects.

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Introduction: **Dorothy Dugger**, General Manager, BART

Key Note: **Sherry Little,** Deputy Administrator of Federal Transit Administration

8:20 am **FUNDAMENTAL AND ISSUES**
PPPs are being used in a broad range of applications, have a long history, and are far more than just concessions of toll roads. This session will discuss different types of PPPs and how to bring the private sector to the table.

Introduction: **Dorothy Dugger**, General Manager, BART

Richard Norment, Executive Director, NCPPP

8:45 am **LOCAL AND NATIONAL STATUTORY PERSPECTIVE**
This session will discuss a national overview of State legislation, which ones include transit partnerships, and what might be model legislation for other States to consider.

Moderator: **Dana Nifosi**, Partner**,** Venable LLC

Panelists: **Stanley Taylor,** Partner, Nossaman Guthner Knox & Elliott

1 Needed

10:00 am **COFFEE BREAK**
Hosted by **CAPITAL PARTNERSHIPS**

10:15 am **CASE STUDIES**

This session will review transit PPPs and discuss how to conduct a system-wide analysis to identify potential PPP projects. It will include the status of ongoing projects in Denver.

Moderator: **Leslie Rogers**, Regional Administrator, FTA (San Francisco)

Panelists: **Kathy Mayo**, Deputy Executive Manager, Transit System Development, Bay Area Rapid Transit District

Pamela Bailey-Campbell, Senior Vice President, Development Services/Public-Private Initiatives, Parsons Brinckerhoff

Michel Thomet, PhD, Michel A. Thomet, PhD EE, MBA, Manager Facilities Planning & Simulation, Bechtel Civil

Noon **LUNCHEON – SETTING THE TONE FOR PUBLIC-PRIVATE PARTNERSHIPS**

Hosted by **PARSONS BRINCKERHOFF**

Introduction: **Robert Tuccillo**, CFO of Federal Transit Administration

Speaker: **David Crane**, Special Advisor for Jobs and Economic Growth, Office of Governor Arnold Schwarzenegger

1:15 pm **GENERATING PRIVATE SECTOR FINANCING**

Industry experts explain sources of financing available beyond the public debt, focusing on options for financing smaller projects. Both construction and operating contracts will be covered in this session.

Moderator: **Steve Howard,** Senior Vice President, Lehman Brothers

Panelists: **Danette Jones,** Vice President, AON Risk Services

Edward Fishman, Partner, K&L Gates

Terence Black, President and CEO, Balfour Beatty Capital

2:15 pm **TRANSIT ORIENTED DEVELOPMENT AND JOINT DEVELOPMENT**

Transit oriented development (TOD) helps generate economic development and brings transit into communities. This session will discuss some successful practices used to engage public-private partnerships for making TOD and joint development a reality.

Moderator: **Kenneth Butler**, Senior Principal, Capital Partnerships

Panelists: **Shelley Poticha**, President/CEO, Reconnecting America

Roger Moliere, Chief Real Property Management & Development, LA Metro

Maria Ayerdi-Kaplan, Executive Director, Transbay Joint Powers Authority

3:30 pm **COFFEE BREAK**

Hosted by **Sharon Greene and Associates**

3:45 pm **ROUNDTABLE – HOW TO APPLY CONCEPTS TO PUBLIC-PRIVATE PARTNERSHIPS**

This plenary session will tackle some of the problems and solutions to current and proposed projects with the assistance of expert resources from the NCPPP's Transportation Institute. The discussion will focus on the following themes:

- Policies and principles for the transit Industry (APTA's PPP Task Force Paper)
- Steps before issuing the RFP
- Structuring the partnership (negotiating the contract)
- Implementing/managing a PPP transit project

Discussion facilitators: **Kenneth Butler**, Senior Principal, Capital Partnerships

Leslie Rogers, Regional Administrator, FTA (San Francisco)

Michael Schneider, Managing Partner, InfraConsult, LLC (APTA Co-Chair)

Dorothy Dugger, General Manager, BART

Dana Nifosi, **Partner,** Venable LLC

Steve Howard, Senior Vice President, Lehman Brothers

5:00 pm **CLOSING REMARKS**

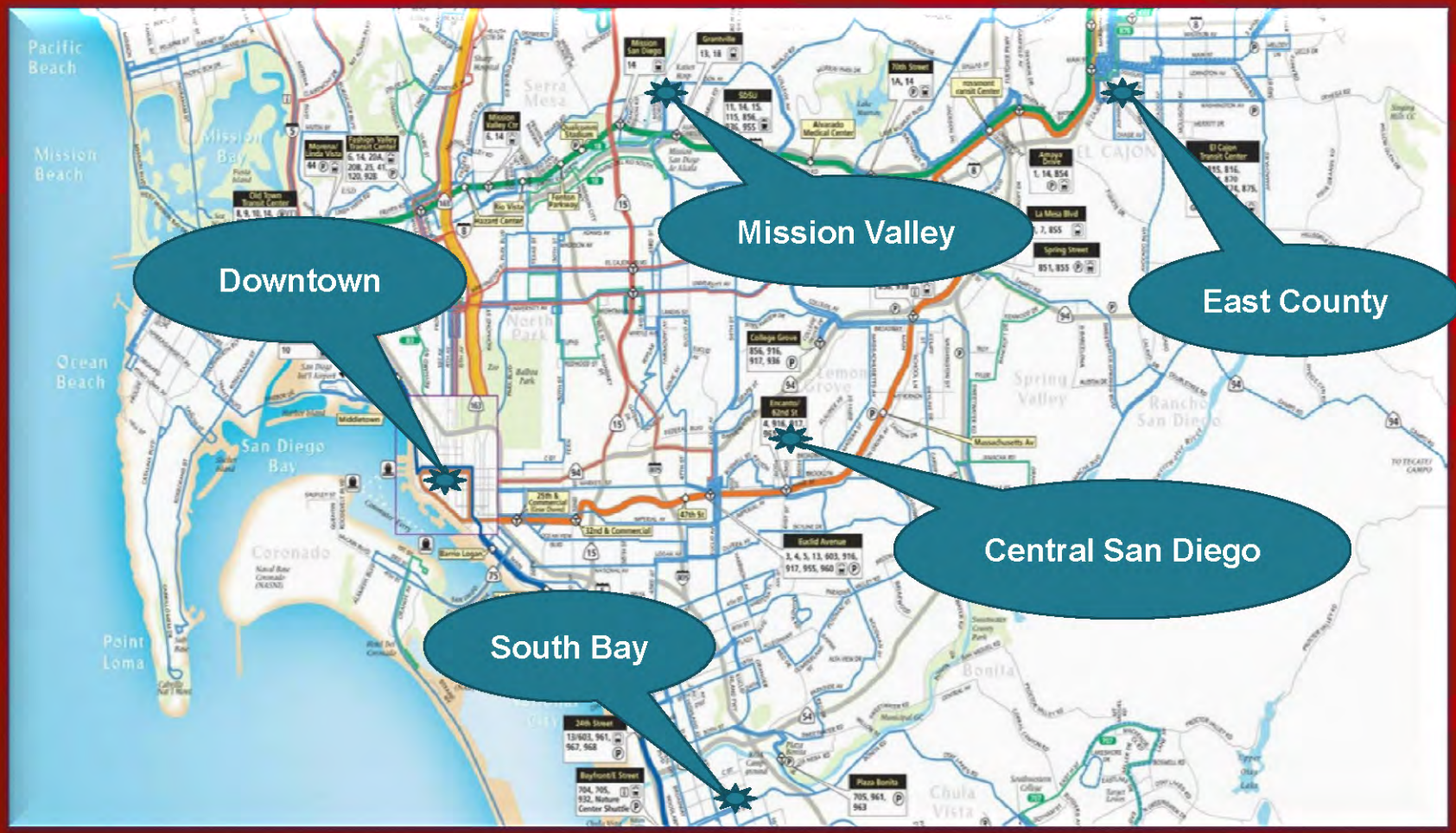
Robert Tuccillo, CFO of Federal Transit Administration

Nathaniel Ford, Executive Director/CEO, SFMTA

5:15 pm **MEETING ADJOURNED**

Joint Development and Transit Oriented Development Projects

Joint Development Opportunities

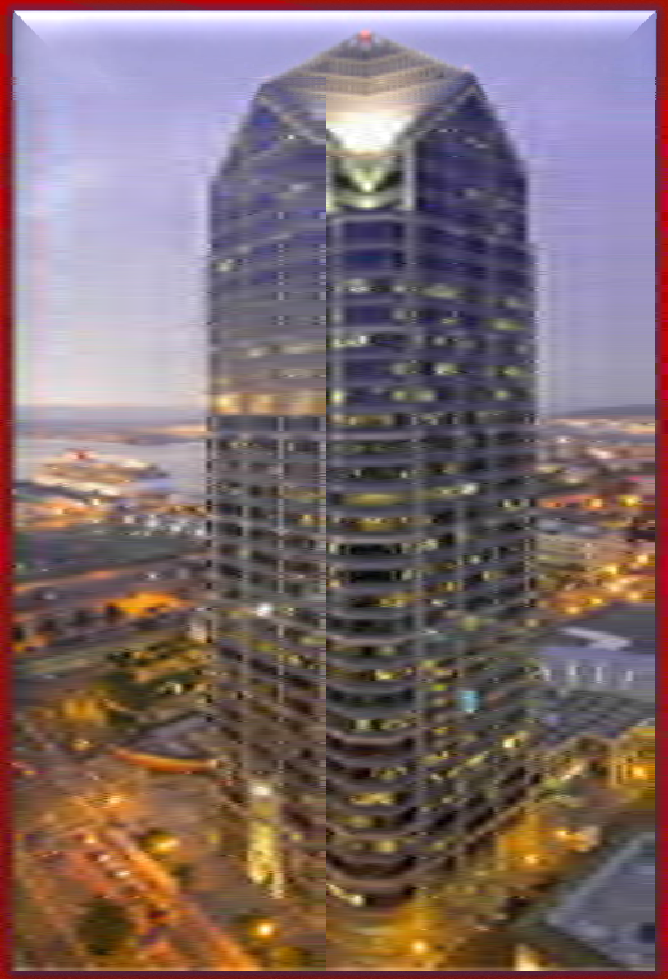


Downtown

America Plaza

- Vertically mixed transit-oriented development.
- Features:
  - a light rail stop built directly into the building
  - 555,000 square feet of office space
  - a specialty retail galleria and food court (17,000 sq ft)
  - the San Diego Museum of Contemporary Art (10,000 sq ft)

America Plaza Station



Santa Fe Depot

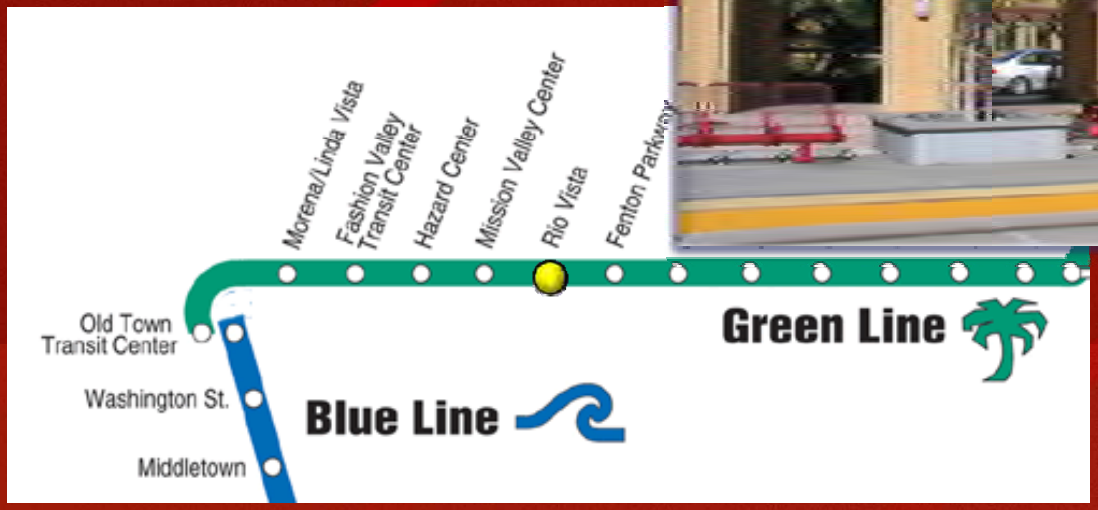
Connectivity with Heavy Rail Passenger Service and Cruise Ship Terminal

Morena/Linda Vista Station

Morena/Linda Vista Station

- $50 million
- 161-unit residential
- 10% affordable housing
- 18,500 sq ft retail
- 200 park-and-ride spaces
- Walking distance to USD

Rio Vista Station



Rio Vista Station

- 94 Acres
- 1,500 residential units
- 50,000 sq ft retail
- Adjacent Big Box Retail

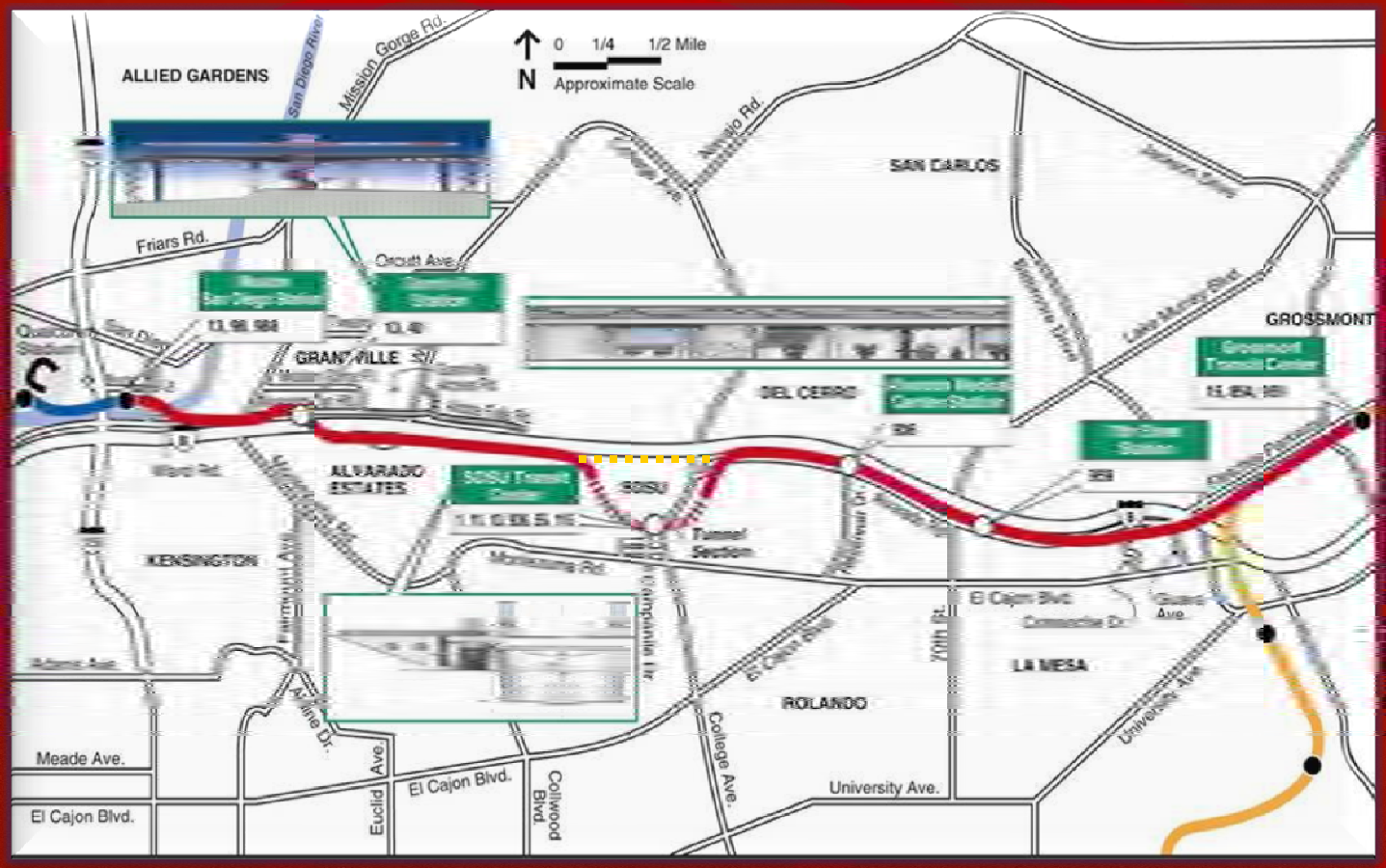
Qualcomm Stadium

Qualcomm Stadium

Special Event Service

Exiting Crowd

Mission Valley East Extension



Mission Valley East Extension

- Opened July 2005
- Miles: 5.8
- New Stations: 4
- Tunnel: 0.6 mile
- Transit Trips/Year: 2.5 million
- Daily Trips: 9,500+
- Cost: $500 million
- Links Blue and Orange Lines
- New low floor service
- Direct access to SDSU

SDSU Transit Center

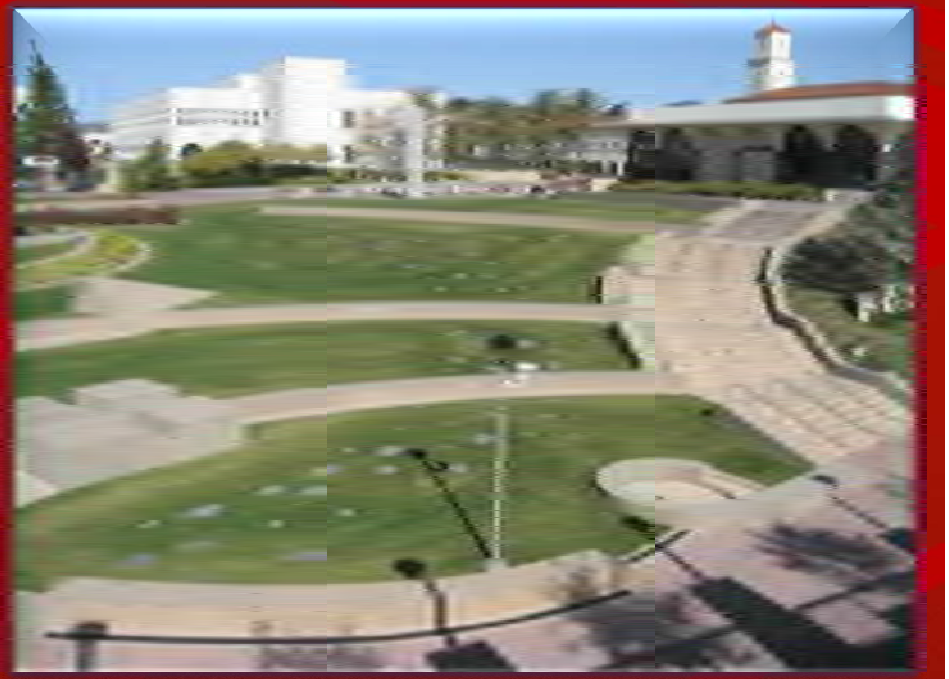
Above ground bus bays, below ground light rail station

SDSU Transit Center

- 35,000 Students, 9500 to 10,500 daily riders
- 12,000 seat Cox Arena
- 2,000 seat Theatre
- Adjacent 53-Acre Redevelopment Area
- Major Bus Transit Center

SDSU Station - Interior

SDSU Transit Center



Grossmont Trolley Station

Existing Parking Lot

Grossmont Trolley Station

- $100 million development project
- 7 Acres
- 527 residential units
- 80-units affordable housing
- 600 parking spaces
- Adjacent to hospital and shopping mall

Grossmont Trolley Station

Grossmont Trolley Station

Proposed Elevator & Bridge

Grossmont Trolley Station

- Disposition and Development Agreement (DDA) and Ground Lease
- Term of Ground Lease: 55-year lease term with two options to renew for 15 years and a third option to renew for 14 years. Total term of 99 years.
- Base Rent: $85,333 years 0-2 or until 1/3 of the units are completed; $170,667 years 2-4 or until 2/3 of the units are completed; $256,000 per year thereafter until year 30.
- Overage Rent: 1.25% of gross
- **$635,000,000 generated over 99 years!**

Grantville Station

Elevated station with surface parking

Grantville Station

- Six Developable Acres
- ½ Mile from SDSU
- Potential Market Rate Student Housing

PPP in Transit

JEAN-CLAUDE ZIV
PROFESSOR OF LOGISTICS AND TRANSPORT AT CNAM, PARIS
CHAIRMAN OF ARCURIAL (SOCIETY FOR TRAINING IN PPP'S)
SPECIAL ADVISER TO VEOLIA TRANSPORT

Rail: general trends in Europe

- The public transport authorities (national, regional or local) usually prefer to own the infrastructure and the rolling stock
- They usually prefer traditional tenders for building the infrastructure and acquiring the rolling stock
- They prefer to delegate or concede the operation
- They will choose the PPP option if they have no other choice

Rail PPP's

- Partnership contracts or concessions
- Consortia that include civil engineering, rolling stock manufacturer, operator and sometimes a bank, a consultant…
- The contrat includes four major phases:
  - Precise definition of the object and preparation of the terms of reference
  - Design and building of the infrastructure and the rolling stock,
  - Operation and maintenance
  - Transfer to the public authority

Precise definition of the object and preparation of the terms of reference

- The public authority must define precisely the project they want to build
- The PPP model in the rail sector is an advantage if the authority knows exactly what it expects from the private sector (detailed network design and expected risk sharing)
- If the terms of reference remain partially vague, the consequences are always delays and lengthy discussions over amendments to the contract
- All details have to be dealt with before the RFP, especially what is expected from the private sector including risk sharing

Design and building of the infrastructure and the rolling stock

- This is an essential part of the PPP contract,
- It cannot be isolated from the operation because the financial balance of the contract can only be evaluated over its entire duration
- For example a tram-train may be globally cheaper than a traditional regional rail line plus a light rail even though the investment might be higher: the need to build more kilometers of new line makes the investment substantially higher whereas the operation of a tram train over a period of 20 or 30 years is cheaper and ridership might be higher

Operation and maintenance

- The success of this stage of the PPP is the critical part of the contract
- It relys on adequate risk assessment and sharing
- The clear definition of risks is difficult because of
  - the many actors involved
  - The « network » or « bottleneck » effect which is specific to rail: a short but saturated part of the network may de facto reduce the expected level of service (ex channel tunnel)
  - In the case of urban and suburban rail, ridership may be hard to predict because of external factors (tolls, parkings, competition with other modes, public fare policies, etc...)

Transfer to the public authority

- The rules for computing the residual value of the system (infrastructure and rolling stock) should be detailed in the initial PPP (partnership) contract
- It is too early to give examples because no PPP rail contract has ended yet and none will for quite a number of years
- The rule is usually that the authority automatically becomes the owner of the system at the end of the contract
- But will authorities want to inherit systems that might need expensive rebuilding and refurnishing?

Role of the operator

- In a rail PPP, the role of the operator should not be underestimated during the early stages of the process
- The operator can assess the risks better than the other partners
- After the building phase, the operator remains as the sole acting partner (except when the manufacturer of the rolling stock is involved in maintenance)
- When the operator is not associated to the design and build, major conflicts may arise with a high probability of lengthy and difficult discussions that may become law suits….

Transit: introducing new paradigm

- In transit (fixed route or paratransit), the issue is not capital investment.
- It is mainly to improve the qualitiy and attractivity of the system to compete with the automobile and coordinate with other modes within a global mobility approach
- It is also to decrease public contribution (as opposed to subsidy) and to make it predictable
- Therefore, it is neccessary to introduce the new paradigm in the US

Risk sharing

- PPP in transit should mean real partnership and that implies some level of risk sharing
- The contract (delegated management) includes a predefined and thus predictable contribution from the authority for the duration of the contract
- The contract includes a rule where profits or losses are shared (to a limit) between the operator and the authority
- This forces the operator to improve productivity but also to increase ridership

Expected consequences

- The result is that the operator is financially interested by ridership, by the quality of service, and to make the system user friendly
- The operator has two clients: the authority and the users
- The field staff (drivers, conductors…) are directly involved and interested in ridership increases. They are the interface between the operator and the users
- There is no more need for the operator to compete with the authority to hire cheaper drivers…