

Knowledge Exchange:

Building on the experience from SUTP



Ministry of Housing
and Urban Affairs
Government of India



THE WORLD BANK

Learnings from ITS project implementation

- Project Planning and Procurement Phase
- Project Implementation Phase
- Operations Phase

Technology is the means, not the end



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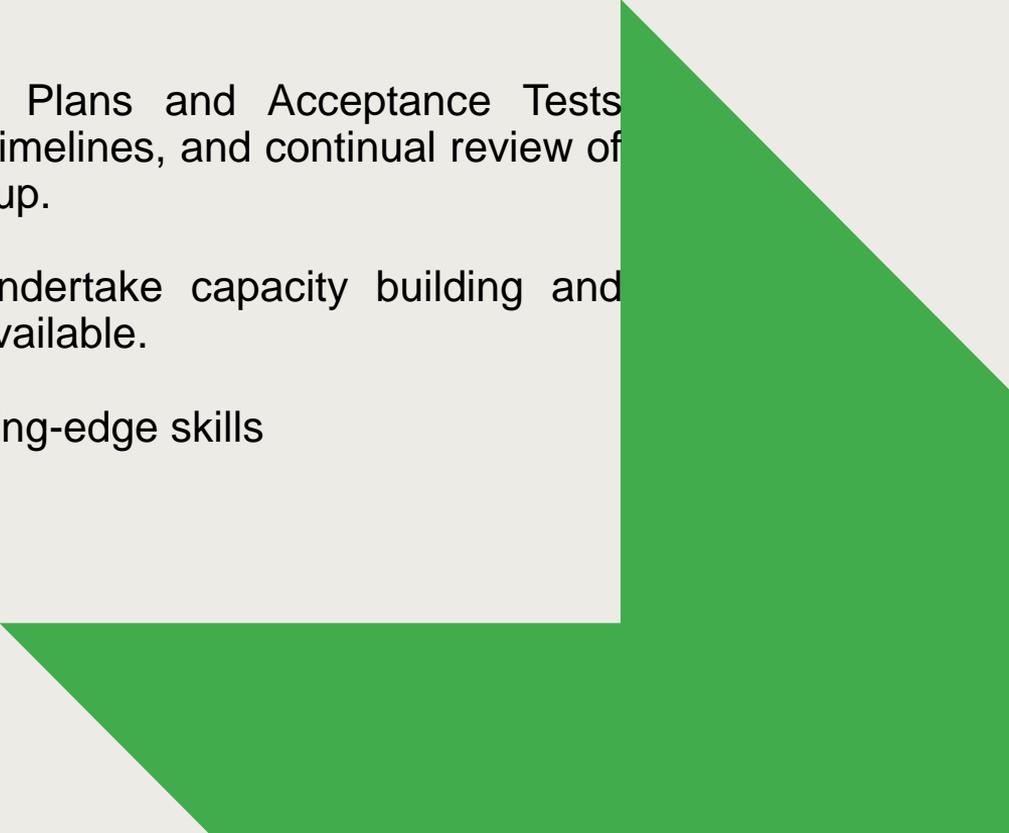
Project Planning and Procurement Phase

- The organisation's vision on its outcome must be clearly articulated before project design. ITS Objectives should get defined in terms of organisation requirements from the perspective of bus station management, bus operations requirements, commuter requirements, data management, MIS reports, etc.
- The approach of evolving designs with changing perspectives add costs to the city and the systems integrator.
- Irrespective of technological changes/upgrades, the functional requirements should spell out the deliverables from each of the sub-systems and Technical Requirements must lay emphasis on Interfacing, regulatory/compliance, and security requirements etc.
- Engagement of a PMC before procurement, and throughout the installation and commissioning is essential. Consultation with experts are best done before components selection and all hardware make/specifications approval obtained before despatch. Analysis on Budget Estimates, financial viability and business plans must be undertaken beforehand.
- There needs to be clarity on the Purchaser and Supplier responsibilities and of a flexible approach to the dispute resolution mechanism in the contract.

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Project Implementation Phase

- Project Implementation Plan, Test Plans and Acceptance Tests schedules need to employ practical timelines, and continual review of the progress and resources as lined up.
 - Implementing Agencies need to undertake capacity building and acquiring ITS skills while Vendor is available.
 - Cutting-edge innovation calls for cutting-edge skills
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Operations Phase

- An overlap of the Operations phase with the implementation stage is unavoidable and in fact, desirable. Pilot, Rollout, Stabilisation and Operational Acceptance succeeds best as a team work involving the operator, crew and other staff, the city management and the vendor's staff.
- The bus operation timings generated out of ITS application need to be used for timetable revision and Depot Managers need to effect changes in schedules without delay.
- On stabilisation of the project, the project implementing agency will need to take up a Public Outreach Programme. Value additions to the project like Mobile Apps, Open Data Policy to be developed and deployed for an enriched experience.
- Review of Data generated from the ITS application for optimal use of use of road, traffic and travel data. Travel companies are known for capturing and storing massive amounts of data. This information can be put to use to make the customer feel more appreciated and better serviced, resulting in more revenue and higher profits.

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Key points of considerations - AFC Solution

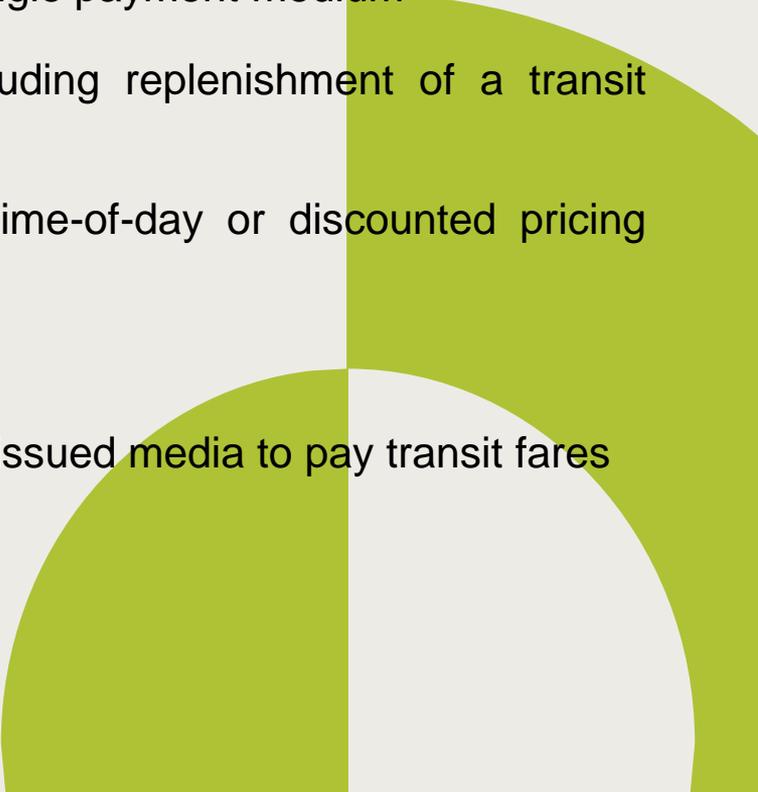
- What are the investment objectives and desired outcomes?
- What are the key business drivers for a decision?
- What are the findings of a condition assessment of the current fare system?
- What fare policy objectives and options are under consideration?
- How will the initiative be funded: capital funds, operating funds, or a combination; federal, state, or local funds or a combination; single year or multi-year availability?
- What will the solicitation framework look like—performance-based or directive-based?
- What procurement and contracting methodology will be used for the process?
- What key organizational issues must agencies address to ensure success?

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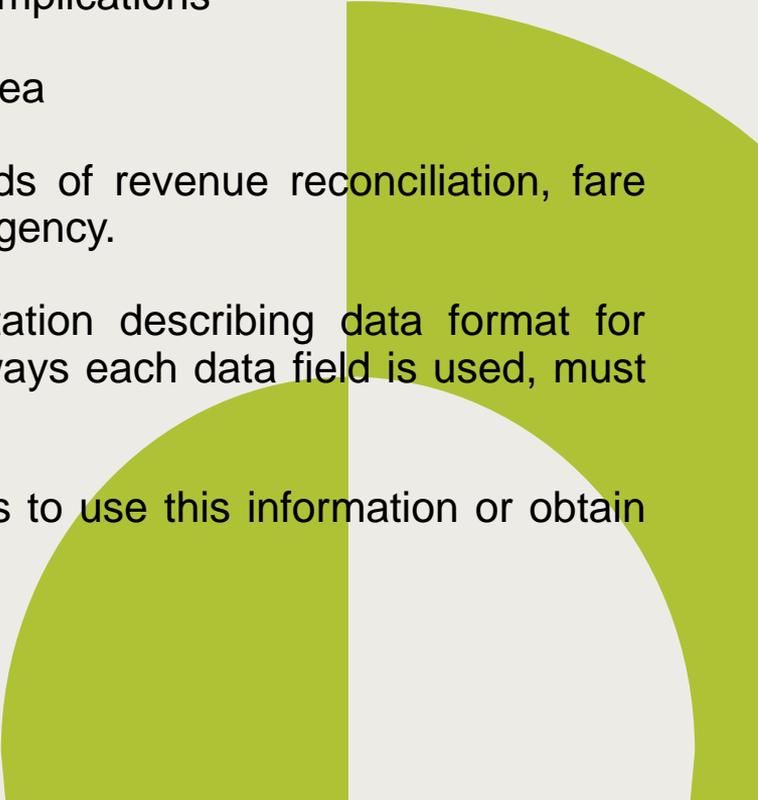
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Factors influencing AFCS Implementation

- Ability to offer a wide variety of fare options using a single payment medium
 - Expanded adoption of electronic stored value, including replenishment of a transit account
 - Increased flexibility to consider distance-based or time-of-day or discounted pricing options
 - Regional fare integration
 - Influence of the banking industry and the use of bank-issued media to pay transit fares
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Points of considerations – AFCS Implementation

- Closed Loop, Semi- closed loop or Open loop and its implications
 - Multi modal, Multi agencies and multiple application area
 - Agreements for operating rules and policies, methods of revenue reconciliation, fare media distribution, and other responsibilities of each agency.
 - To enable interoperability comprehensive documentation describing data format for recorded on machine-readable fare media, and the ways each data field is used, must be provided.
 - The participating agencies must have perpetual rights to use this information or obtain outright ownership..
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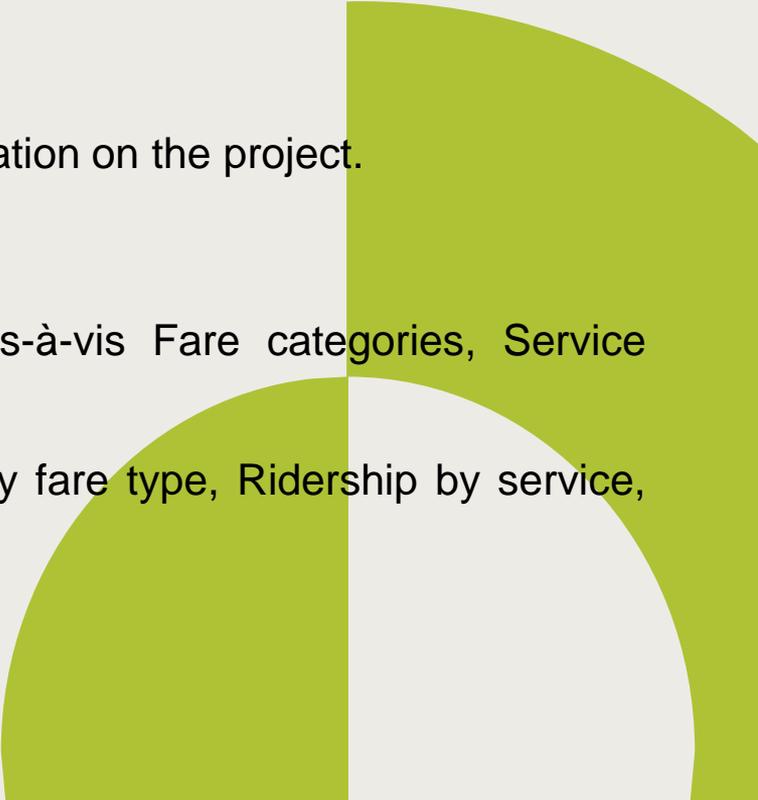
Points of considerations – AFCS Implementation

- What will be the process for collected revenue from the common fare system to be distributed equitably amongst multiple transport operators?
- A totally automated system or a partially automated fare collection system and if consumers be allowed option to pay cash for commuting?
- Who will be the owner / operator of the scheme and take the responsibility? It is of utmost importance to establish an infrastructure for card life-cycle management, including procurement, distribution, replacement and disposal.
- Who will be the Card Issuer? That agency must have a detailed plan to create and maintain a complex customer service organization for fare media sales, commuter inquiries, and dispute resolution.
- Will the acquirer be a single agency or multiple agencies? The acquiring agency must create and maintain a network of devices to distribute and reload fare products.

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Points of considerations - AFCS

- If multiple agencies are participating, who will perform the clearing house functions?
 - Transaction costs – rate & applicability?
 - Float Money - Who would be the custodian? Its implication on the project.
 - On-board or Off-board transaction acquisition?
 - What are the Fare Policies of the organisation vis-à-vis Fare categories, Service classifications and Rider classifications?
 - What are the Ridership Characteristics - Ridership by fare type, Ridership by service, Travel characteristics?
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Points of considerations - AFCS

- How and where will new fare media be sold? If the media is reusable, how and where will commuters be able to replenish value to their existing media?
- The data fields required to properly reconcile accounts between participating agencies are a small subset of the total data that is generated by modern AFC systems. For cost-effective and quality design, it is essential that all required data elements be identified as early as possible.
- Are autoload features being introduced? These features are very popular, but they can be very complex undertakings, both for the agencies and the commuters.

Thank you

