



FY16 OPERATIONS & ACCOMPLISHMENTS

WITH PERFORMANCE MEASURES

SEPTEMBER 2016

ABOUT THE NYC TECHNOLOGY DEVELOPMENT CORPORATION

The NYC Technology Development Corporation (NYCTDC) is a not-for-profit corporation that was formed in late 2012 to maximize efficient and effective implementation of City IT projects. NYCTDC provides senior project management services to critical, complex and/or high cost IT projects. In general, such projects often have budgets of over \$25 million, involve multiple agencies or constitute Mayoral priorities. In addition, NYCTDC provides other IT management support to agencies managing their own projects.

NYCTDC employees are highly qualified and experienced IT professionals who perform many of the project management, quality assurance and other IT consulting services traditionally delivered by expensive for-profit firms. Using NYCTDC employees to perform these services benefits the City by helping to ensure that knowledge is retained and shared across current and future IT projects. As described in more detail below, NYCTDC already has had a significant impact on IT projects across the City and is delivering its services at a substantial savings to the City compared to the cost of engaging private PM/QA vendors.

NYCTDC has developed a variety of project management and governance tools, including project dashboards, heat maps, and responsibility matrices which are utilized to coordinate and track the progress of projects and identify issues and risks. These tools provide the transparency needed by project steering committees to exercise effective oversight and enable NYCTDC to provide top quality professional management of the projects it is assigned.

Mission

The NYC Technology Development Corporation (TDC) is a non-profit information technology (IT) consulting organization whose sole client is the City of New York. TDC provides senior management and other IT consulting services for selected complex or significant technology initiatives.

The TDC's mission is to maximize efficiency and effectiveness in IT initiatives and operations by developing best practices and retaining skilled resources to provide services that would otherwise be performed by for-profit entities.

SERVICES PROVIDED

Under contract with the City of New York, NYCTDC provides senior management services which include:

- Instituting robust management procedures and risk tracking;
- Developing program plans and schedules;
- Monitoring budgets and overall execution against milestones and deadlines;
- Coordinating inter-agency meetings, communication and information sharing;
- Providing technical and architectural advisory services;
- Ensuring deliverables are reviewed in a timely manner;
- Identifying issue/risk ownership and escalating when necessary;
- Introducing best practices for project management and governance;
- Tracking key performance indicators;
- Defining high-level application /solution architecture specifications;
- Providing unified governance for vendor management and multi-agency program management.

NYCTDC provides portfolio management and additional IT consulting services in support of Information Technology for the City as directed by the Chief Technology Officer.

NYCTDC PERFORMANCE MEASURES

In Fiscal Year 2016, NYCTDC achieved the following:

- NYCTDC provided various types of *assistance to nineteen (19) projects*:

- **ACS CCMS** (<\$5MM)
- BIC System Assessment (<\$5MM)
- CCHR Systems (<\$5MM)
- DCA Child Savings Act (<\$5MM)
- DCA IT Org Assessment (<\$5MM)
- DOB Inspection Ready (\$5-25MM)
- DOB Now (\$5-25MM)
- DOE Impartial Hearing System (<\$5MM)
- **DOE Pre-K for All** (<\$5MM)
- **DOF Property Tax System (\$5-25MM)**
- DoITT 311 Re-Architecture
- MOCS Citywide Procurement Innovation (>\$25MM)
- MOCS Labor Compliance Management (<\$5MM)
- **MOIA ActionHealth (<\$5MM)**
- SBS IT Org Assessment (<\$5MM)
- **SBS Small Business First** (<\$5MM)
- **MOTI Advisory Services**
- **MOTI Online Voter Registration** (<\$5MM)
- MOTI Open FOIL.

- NYCTDC provided Senior Management Service to seven (7) projects (in **bold** above).
- In January 2015, NYCTDC began tracking its projects by *budget categories* consistent with its contract. Of the seven projects receiving Senior Management Services, NYCTDC supported the following (in parenthesis above):
 - 1 project with a budget between \$5-25 million;
 - 5 projects with a budget between \$0-5 million;
 - 1 projects with no budget approved (in planning and/or procurement).

- NYCTDC provided various types of assistance to fourteen (14) unique agencies:

- Administration for Children's Services
- Business Integrity Commission
- City Commission on Human Rights
- Department of Buildings
- Department of Citywide Administrative Services
- Department of Consumer Affairs
- Department of Education
- Department of Finance
- Department of Information Technology & Telecommunication
- Mayor's Office of Contract Services
- Mayor's Office of Immigrant Affairs
- Mayor's Office of Operations
- Mayor's Office of Technology and Innovation
- Small Business Services

- NYCTDC *utilized nine (9) different tools and best practices* to provide oversight, transparency, and identification of issues and risks;
- In FY2015, the NYCTDC Board of Directors governance committee adopted an engagement reporting methodology based on industry standards and best practices. Information about that methodology and NYCTDC *effectiveness in providing oversight, transparency, and early identification of issues and risks* can be found in subsequent pages of this report.
- *Sixteen full-time NYCTDC employees* were providing IT professional assistance as of June 30, 2016. (*Rounded 15.93 Service Professionals*).

NYCTDC PERFORMANCE MEASURES (CONTINUED)

- Compared to the \$7.62-9.93MM in estimated costs that would have been incurred for comparable services from for-profit consultants, *NYCTDC saved the City \$3.41-\$5.72MM in FY16.*
- On a scale of 1 (Strongly Disagree) to 5 (Strongly Agree) NYCTDC clients responding to close-out surveys gave NYCTDC an *average rating of 4.5* to the following statements:
 - I would engage NYCTDC again to support a large, complex or high priority project (4.5)
 - I would recommend NYCTDC services to a colleague (4.5)

PROVIDING OVERSIGHT, EFFICIENCY, AND STRATEGIC OPPORTUNITY ALIGNMENT

In FY2016, NYCTDC continued expanding its management and reporting methodologies to help provide oversight, transparency, and the identification of issues and risks by continuing to provide:

- Oversight by rating the health support of Critical Success Factors (CSF) and an “outside view” of forecasts and risks;
- Efficiency by monitoring resource allocations and forecasted projections of employee utilization against projects;
- Strategic Opportunity Alignment by Incorporation of a Project Opportunity Pipeline which enables the organization to tactically vet IT Project Opportunities and measure them against resource availability and Subject Matter Expertise.

Overall Ratings

NYCTDC monitors the current health of projects where a baseline has been established for scope, schedule and quality. By monitoring variances between planned and actual values in these core indicators, NYCTDC can ensure projects stay on track.

Risk Ratings

Identification and on-going evaluation of risks provides an indication of a project’s likely health in the near-term. Through identification, NYCTDC is able to implement tactics that exploit or mitigate these risks before a negative impact is realized by the project. NYCTDC evaluates risks using a probability-impact matrix for all projects and translates this evaluation into a detailed register for executive understanding and action.

Critical Success Factors Ratings

Empirical studies have shown that successful projects exhibit many of the same characteristics. Understanding these factors helps ensure the long-term health of the project. NYCTDC regularly reviews and rates twenty (20) critical success factors to ensure project activities and processes are aligned for long-term success.

Tools and Best Practices

Below is a sample of the tools and best practices used by NYCTDC staff in their engagements:

- Business Process Diagrams
- Customer Feedback
- Governance Review Meetings
- Letter of Engagements
- Program/Project Dashboards
- Responsibility Matrices
- Risk Surveys
- Stakeholder Interviews
- Critical Success Factors
- Risk Registers

ACCOMPLISHMENTS

NYCTDC uses these practices and tools to create solutions that address challenges and achieve positive impact. Below is a sample of projects on which NYCTDC has worked in the last year:

Pre-K for All

"I am thrilled that a record number of children will begin Pre-K for All today across New York City. Our high-quality pre-K programs offer children from every neighborhood a foundation for a bright future and I am proud that so many families are able to take advantage of this opportunity."

- **Deputy Mayor for Strategic Policy Initiatives Richard Buery**

"TDC has been very valuable, in particular, for assisting with cross-agency and cross-divisional collaboration. [TDC] has been a critical support in managing this large-scale project and has been a joy to work with."

- **David Price, Chief Data Officer, Business Technology Strategy Group,
Office of the Chancellor, NYC DOE**

Challenge

In time for the 2016-2017 school year, the City sought to expand upon its mandate and register more than 70,000 4-year old children residing within City boundaries for the pre-kindergarten (Pre-K) program. The Pre-K team needed to conduct a coordinated outreach to tens of thousands of households to promote awareness and pre-enrollment. While the system to collect, enhance and rationalize data from multiple sources, allow supervisors to distribute call volumes across call centers and volunteers existed the challenge was to provide for cleaner and more accurate data to achieve higher quality Outreach contact calls to reach the City target.

Multiple school/program types (District Schools, Pre-K Centers, NYC Early Education Centers, ACS Education Centers, and Charter schools) all using different pre-registration and enrollment processes and systems makes citywide data aggregation and reporting difficult. Policy allows families to pre-register at multiple schools and makes it difficult to understand where the student intends to actually enroll in the fall.

Solution

NYCTDC served in the program management role for the optimization and process re-engineering of the Pre-K outreach systems which included the Outreach Data Warehouse, Microsoft Dynamics CRM, PreKIDS, Data and Analytics Reporting Mart, Pre-K Finder application and all of the supporting

software and processes to address this challenge. The main efforts completed to achieve this goal included an earlier application period – more than one month earlier than last year, more detailed program information through the Pre-K finder web application, improving the quality of the Outreach data resulting in more than double the contact rates (38.8% vs. 18%), a mobile reporting platform with detailed dashboards, and providing NYC Early Education Centers with the capability to self-manage site, staff and class information. In addition, were able to process additional agency data from NYC Housing Authority, Access NYC and NYS data from Westchester, Rockland and Nassau hospital births for parents that reside in NYC.

As part of 2016-2017 school year pre-enrollment process, the city created a separate reporting process and web based delivery mechanism that reconciled pre-registration and enrollment data from multiple sources and created a single operational view of registration counts at the child and school/program level. This contributed to a more accurate picture of pre-registration activity and demand vs supply in terms of seats, resources, staff and even emergency program contract awards.

Impact

With this enhanced process the City utilized the Data Warehouse and CRM as part of the successful outreach campaign to enroll over 70,000 new schoolchildren for the 2016-2017 school year, providing them with the rich benefits of Pre-K and setting them on path toward a lifetime of achievement.

Moving forward the Data and Analytics Department now has an Operational Data Mart for reporting that can filter data based upon class information, teacher information, school program information and student information updated daily.

Citywide Procurement Innovation (CPI)

The direct and impartial opinions were the most valuable aspect of TDC's involvement with this project. The TDC also brought great technical experience and skills that provided valuable insight into the details of the project."

- Michael Owh, Citywide Chief Procurement Officer (CCPO), MOCS

"Evaluating software for complex processes in the complicated regulatory environment common in many public sector organizations is never easy. The TDC team not only showed a deep understanding of the needs of their clients, but were able to quickly grasp the finer nuances of our software and see where opportunities (and gaps) should be considered. In the many proofs of concept that we have done with very sophisticated Fortune 500 companies, the TDC crew distinguished themselves by going deeper in pioneering than all of our prospective clients."

**- Paul Noel, Senior Vice President of Procurement Solutions
Ivalua (final chosen vendor for CPI project)**

Challenge

The City sought to identify a strategy to significantly improve the NYC procurement process, both to improve quality and reduce cycle times. The strategy needed to address business process re-engineering, legislative/policy hurdles, multiple diverse legacy and future state City procurement-related systems, and the selection of one or more software platforms to power the strategy. Multiple projects at agencies across the City were attempting to address similar overlapping challenges.

Solution

Serving MOCS as the primary client, and DoITT and DCAS as well, NYCTDC brought a team to the pre-implementation phase of the project with 1 Program Manager, 1 Project Manager and 2 Business Analysts to address the challenges. We helped a) bring the overlapping projects under one umbrella program, b) Thoroughly research and support a strategy to gain buy-in from City Hall, manage and inform the solutioning and solicitation, staff and produce extensive pre-implementation analysis work. The analysis work included as-is and to-be workflows and traceability from requirements back to legal and policy sources.

Impact

The City leveraged NYCTDC to guide the industry and software research to arrive at a highly-informed solutioning strategy in a complex software landscape. NYCTDC helped the City to be extremely prepared for the beginning of the implementation with extensive work completed in the areas of workflows, business process re-engineering, to-be design, and change management for legal and policy decisions.



NYC Technology Development Corporation

**Performance Measures Report
Fiscal Year 2016**

Direct Cost Savings to the City from NYCTDC Services FY16

Comparison of TDC Cost to Equivalent Vendor Rates

As of June 30, 2016 (Based on FY16 Actual - Cash Basis)

Role	TDC		PMQA Average City Rate			PMQA Highest City Rate			
	# of prof staff (FTE)	Average Hourly Rate ¹	Total annual cost ²	Comparable title	Rate ²	Comparable Total Annual Cost	Comparable title	Rate ³	Comparable Total Annual Cost
Program Manager	2.47	\$157.18	\$ 776,469	Project Manager III	\$ 268	\$ 1,324,867	Project Manager III	\$ 325	\$ 1,605,500
Portfolio Manager	1.00	\$131.37	\$ 262,740	Project Manager III	\$ 233	\$ 466,383	Project Manager III	\$ 300	\$ 600,000
Project Manager	8.00	\$133.82	\$ 2,141,120	Project Manager III	\$ 233	\$ 3,731,067	Project Manager III	\$ 300	\$ 4,800,000
Solution Architect	1.47	\$141.21	\$ 415,157	Specialist III	\$ 274	\$ 804,159	Specialist III	\$ 383	\$ 1,124,550
Business Analyst	3.00	\$101.65	\$ 609,900	Programmer Analyst III	\$ 216	\$ 1,294,000	Programmer Analyst III	\$ 300	\$ 1,800,000
Total personnel cost	15.94		\$ 4,205,387			\$ 7,620,475			\$ 9,930,050

1 Average fully loaded hourly rate based on 2,000 hrs/year

2 Average of all rates for Citywide RMQC Services - Year 1 Contract

3 Highest rates for Citywide RMQC Services - Year 1 Contract

Savings **\$ 3,415,089** **\$ 5,724,663**

% more expensive than TDC 81.2% 136.1%