Graffiti-Free NYC

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Executive Summary

Involved Entities

NYC EDC: Economic Development Corporation

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NYC Office of the Mayor

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DSNY: Department of Sanitation

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= Graffiti-Free NYC Program

DSNY Graffiti Tracking | NYC Open Data

Graffiti-Free NYC | NYCEDC

High Level Problem + Solution

- Ultimate goal: Have NYC be graffiti free

- Obstacle: 10,000+ annual incidents reported; months pass before removal

- Solution: Prevent instances before they happen by pinpointing major spots and times

Strategy Framework

Strategy

Strategy: Ensure NYC's aesthetics by reducing the amount of graffiti needing to be cleaned.

Approach:

- Scorecard
- Business Model Canvas
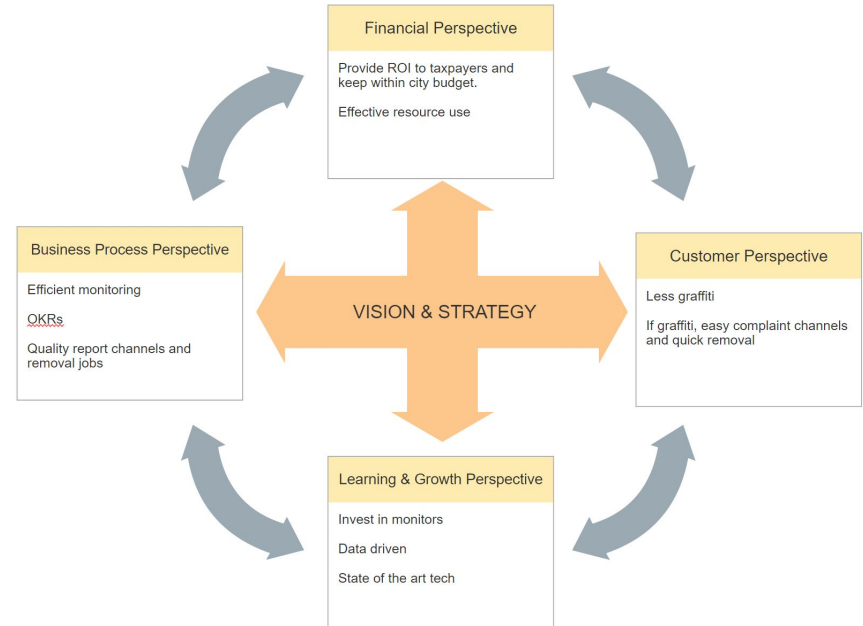- OKRs

Scorecard

- Customer Desire ➜ Less Graffiti

Drives

- Our strategy ➜ Monitoring program, analyzing data and prediction

Drives

- Business Processes ➜ Monitoring routes, OKRs, work with data

Drives

- Financial Perspective ➜ Remaining on budget, ROI for taxpayers

Financial Perspective

Provide ROI to taxpayers and keep within city budget.

Effective resource use

Business Process Perspective

Efficient monitoring

OKRs

Quality report channels and removal jobs

VISION & STRATEGY

Customer Perspective

Less graffiti

If graffiti, easy complaint channels and quick removal

Learning & Growth Perspective

Invest in monitors

Data driven

State of the art tech

OKRs

Objective 1: Reduce graffiti in NYC

- KR: Catch 20% of graffiti instances before they happen in first year
- KR: Improve AI accuracy in predicting new graffiti occurrences by 5% (AI optimizes police patrol routes)
- KR: Remove 75% of graffiti instances reported this year

Objective 2: Remain in budget

- KR: Reduce graffiti cleaning costs per square foot by 10%
- KR: Allow 10% of graffiti instances to be covered by artists (for free)
- KR: Check in with budget managers quarterly

Design

Personas help us understand the needs

Marvel

Goals

Reduce the graffiti removal program's annual budget

Prevent new graffiti

Protect areas that have been cleared

Improve graffiti cleaning efficiency

Frustrations

The budget grows every year

New Graffiti appear all the time

Cleared areas are always covered with graffiti again

Citizens often complain the low efficiency

General info

Age	38
Location	New York City
Occupation	Offical

Personality

Extrovert — Introvert

Sensing — Intuition

Thinking — Feeling

Judging — Perceiving

The most important job

Budget

Prevent new graffiti

Protect cleaned areas

Reduce complaint Improve efficiency

Bio

He serves in the New York City government.His job is to run the Graffiti Free Project in New York City.3.4 Million Square Feet of Graffiti Removed in The Bronx from 2014 to 2017.But new graffiti appears in a different place every day.This has led to a budget of $3 million for the Graffiti Free project by 2020.
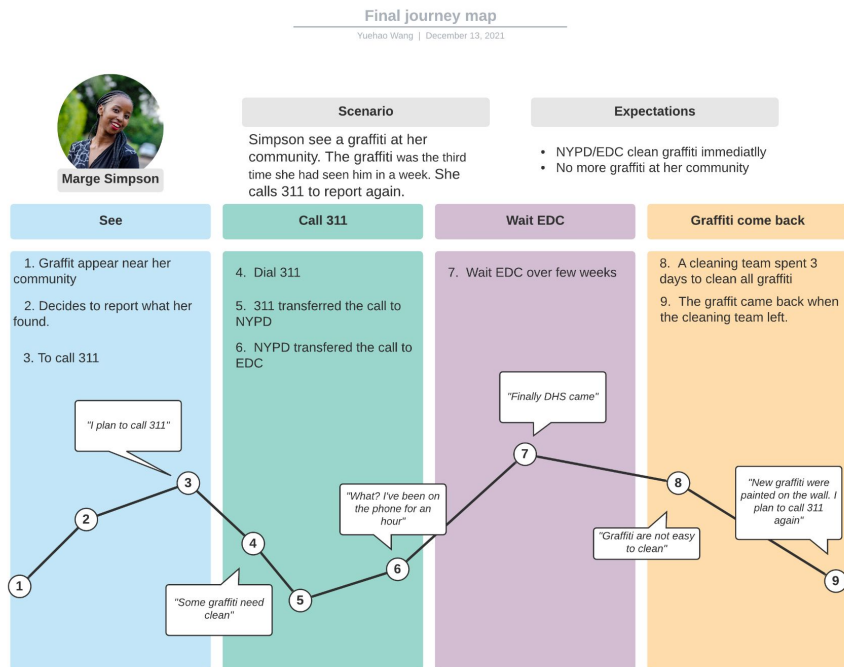
Preferred Methods

Data Analysis

Optimize Workflow

Hire mroe

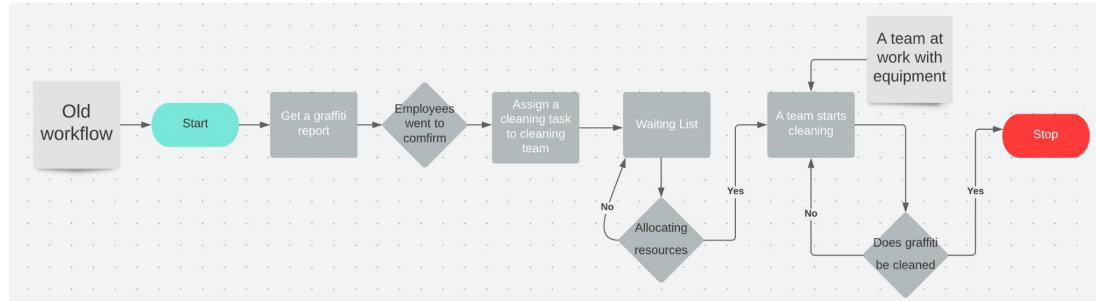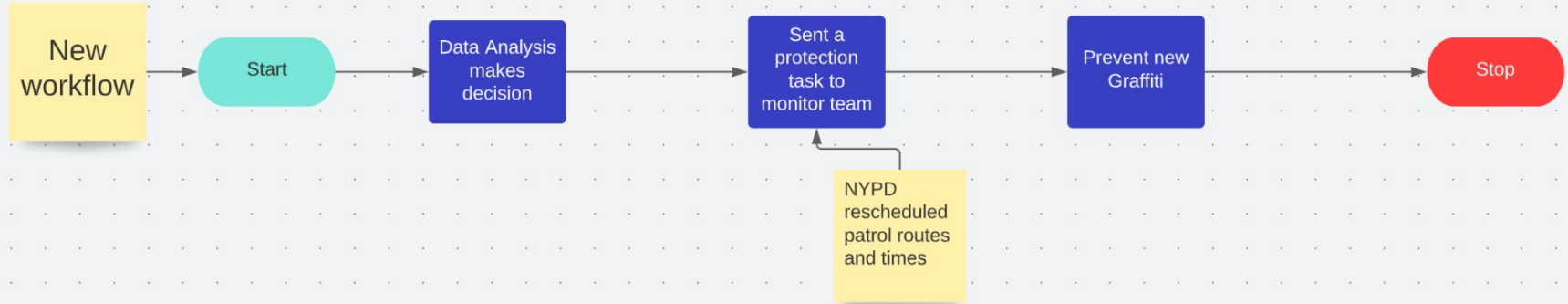Catch people who paint Graffiti illegally

Cooperative departments

NYC Department of Finance
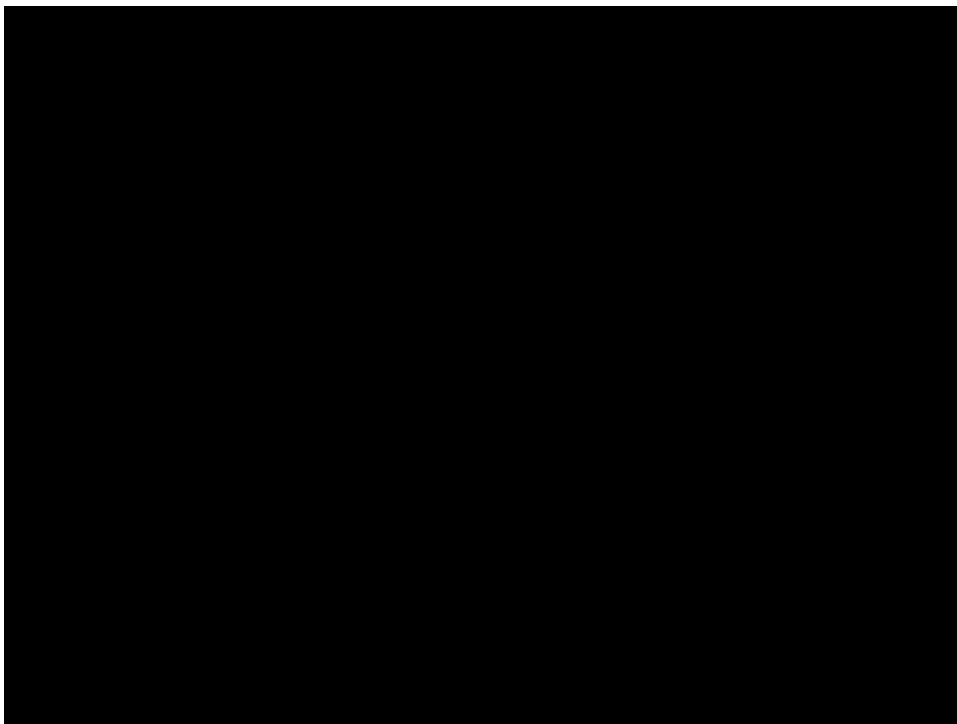
NYC / EDC

NYC 311

Journey Maps help us understand the pain points

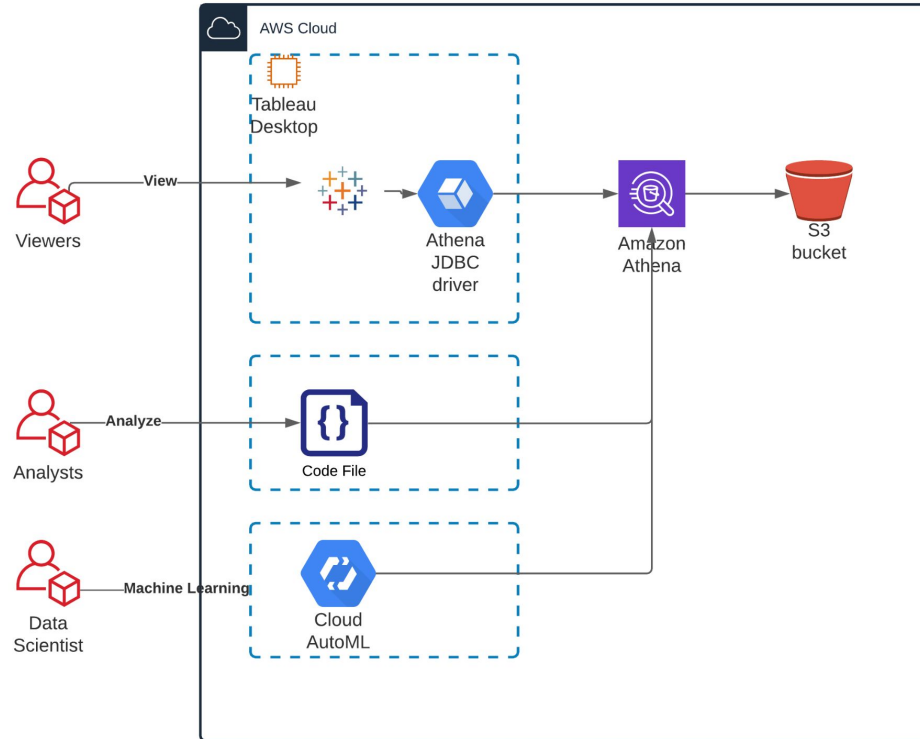# Process flow diagrams optimize resource utilization

Analytics use case, dataset, data dictionary, and business glossary.

Star Schema simplifies reporting logic

We provide up-to-date analysis by Cloud Architecture

Visualization (Demo)

Link to Tableau Demo

https://public.tableau.com/views/Book1_16402274563980/Dashboard1?:language=en-US&publish=yes&:display_count=n&:origin=viz_share_link

Challenges

Challenges:

- Coming up with a realistic strategy
- Coming up with OKRs
- Deciding on the dataset

Lessons Learned + Improvement

What We Might Do Differently:

- Get started earlier
- Examine the NULLs

Enhancements:

- More data sets
- More connecting to EDC
- Go further into what constitutes graffiti

Thank you for listening.