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S T R A T E G Y T W O

Democratize Information

Summary

Adopted in 2008, MetroFuture is Greater Boston's long term regional plan. The foundation of the plan is a well-defined vision for the region. Thirteen implementation strategies were included to support progress towards the vision. An extensive community engagement process ensured that MAPC constructed the vision and strategies from the hopes and dreams of the region. In anticipation of an update to the regional plan, MAPC is evaluating the extent to which regional actors, either intentionally or unintentionally, implemented these strategies. The authors gathered the information that follows through conversations with MAPC staff and content experts.

Strategy #2, Democratize Information, envisioned how data and information at the local, regional, and state level could inform a coordinated, proactive and efficient approach to achieving MetroFuture's regional vision. This was a response to limitations in data availability and capacity, which resulted in reactive policy responses to crises rather than pro-active, data informed strategies. Ten years later, access to data has significantly improved and more municipalities are taking advantage, but challenges persist.

Since the release of MetroFuture, the Commonwealth transitioned from having data and technology embedded in state departments to creating a data and technology department (MassIT), and then to creating a data and technology secretariat in the Executive Office of Technology Services and Security (EOTSS). In doing so the state embraced the increasingly powerful role of data in decision making, both in regards to increasing public access to data and using technology to increase efficiency and effectiveness.

Regional entities and non-governmental organizations also contributed to democratizing data. Agencies, including MAPC, collected a variety of critical datasets, making them available to the public, and using them to inform policy and decision-making. MAPC has built a variety of data tools, which agencies, municipalities, consultants, and citizens use to make policy and planning decisions.

The embrace of data is also apparent at the local level, but progress varies. Boston and Cambridge are national early adopters of open data and many other Inner Core communities followed suit. In other parts of the region municipal planners often strive to publish data predictably and uniformly, but due to lack of incentives and limited capacity, data is published frequently. Still, every municipality in the region has a website and nearly all of those websites offer online services as well as access to government documents, studies, and meeting minutes, which greatly increases transparency and information sharing.

A factor unaccounted for in MetroFuture was the industriousness and curiosity of private citizens to make data public. A number of individuals proved instrumental, either by advocating for public data and/or by publishing it themselves, in pushing local and state government agencies to commit to open data. Another emerging topic in Democratizing

BARRIERS TO PROGRESS:

- Collecting, cleaning, and analyzing data is very time consuming, which makes it expensive to maintain accurate, current, and comprehensive data about the region.
- Municipalities store and maintain their own data and that data is generally not available in a machine-readable and standardized format.
- Municipalities are not incentivized to create their own data and, in some cases, are outright opposed to making data available.
- Lots of useful data exists in inaccessible and unconventional platforms, such as administrative records and online sources. The administrative records platforms are not conducive to collecting clean data nor data that researchers could track change over time. Accessing data from entities like Uber and Airbnb could have huge policy implications, but other than a one off data exchange between the City of Boston and Uber, private companies heavily guard their data.

Sub-Strategy B: Improve state and local capacity to utilize planning and decision support tools

EXAMPLES OF PROGRESS:

- The [See Click Fix](#) system allows residents to inform municipalities of public works issues and then track the complaint through resolution. The system has greatly increased the timeliness and efficiency of fixing infrastructure issues.
- MAPC has led the charge in offering data tools to support decision making on the state and local levels.
 - MAPC's [Regional Indicators Program](#), including the [State of Equity Indicators](#) report details how the region is progressing towards or away from the goals of MetroFuture. The findings of the indicators inform MAPC's legislative agenda and policy priorities at the local and state level.

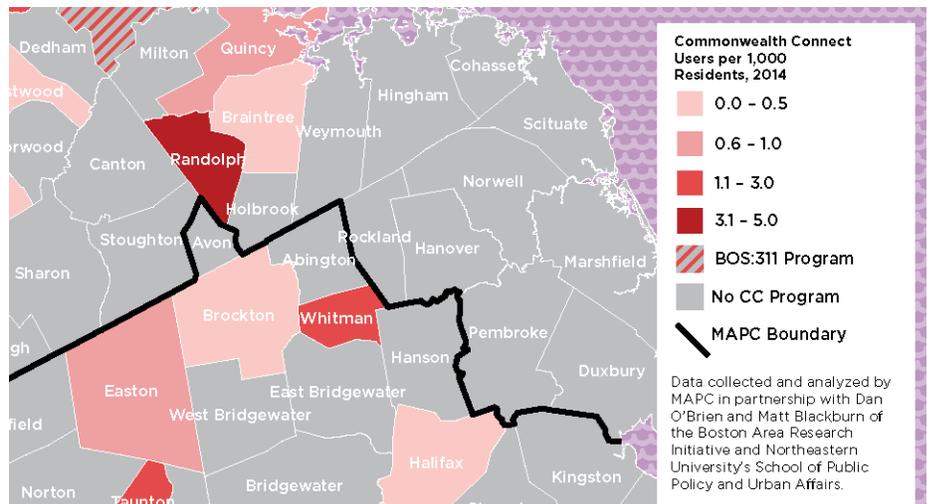


Figure 2: Example of MAPC's Commonwealth Connect app

- [Local Access Score](#) helps MAPC, consultants, and municipalities prioritize sidewalk and bike route improvements. MassDOT has identified it as a Complete Streets 'best practice'.
- MAPC's Priority Area Screening tool supports collaborative efforts by identifying priority areas for development and preservation. The tool has been used in multiple sub-regional planning efforts.
- MAPC has used GIS-based scenario planning tools to guide master plans and local area plans in Hingham, Ashland, Marshfield, Manchester, and Woburn. This tool provides an integrated forecast of land use, water demand, transportation needs, tax revenue, and school enrollment under various user-specified zoning and growth assumptions.
- MAPC's [Commonwealth Connect](#) app is a mobile application that allows residents to report non-emergency issues to their municipal government. The system, modeled off Boston's highly successful Citizens Connect app (now Bos:311), logged 65,000 issues in 76 municipalities from 2013 to 2015 and is an important example of how technology can radically transform and improve the relationship between residents and government.
- MAPC's [Population and Housing Projections](#) are used as key inputs to the Boston MPO's Long Range Transportation Plan, MassDEP water demand forecasting, development of housing policy, and many other decisions.

BARRIERS TO PROGRESS:

- Despite verbal commitments to be more data driven in making decisions, municipalities have taken limited action. Political agendas/imperatives and individual crises still drive local policy agendas.
- The inconsistency of state commitment to the Priority Area framework has also undermined the utility of the screening tools and process.
- Some municipal planning departments are not only under-staffed and under-resourced, but in many cases lack technical expertise.
- Some data resources and analytical tools are highly relevant and useful at the regional level, but not at the municipal/neighborhood level.

Sub-Strategy C: Support State and Regional Data Intermediaries

EXAMPLES OF PROGRESS:

- The creation of [MassIT](#) which transitioned into the secretariat level Executive Office of Technology Services and Security, establishes data collection and analysis as a central tenet of state government and created a place to join data, digital, GIS, etc.
- [MassGIS](#) sets standards and manages geospatial information across state agencies.
- Following the adoption of MetroFuture, MAPC consolidated its data capacity in a new [Data Services](#) department, creating a robust data intermediary for the region.

BARRIERS TO PROGRESS:

- MassIT faced substantial barriers in standardizing data and making it available.
- MAPC Data Services has limited core funding to support its role as a data intermediary.
- The region lacks public resources dedicated to design and visualizations. MAPC increased effectiveness after bringing design in-house, but many agencies do not have this capacity, which makes it difficult to effectively communicate findings.

Sub-Strategy D:

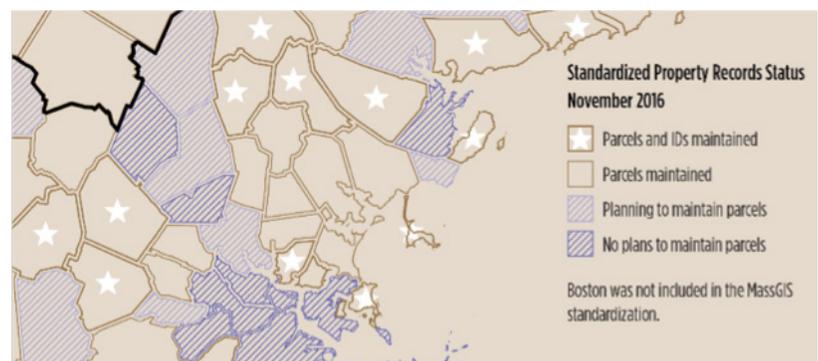
Build and maintain strong “information infrastructure”

EXAMPLES OF PROGRESS:

- Massachusetts was at the forefront of the open data movement. Boston was among the first in the nation to adopt an open data policy.

Figure 3: Status of Property Records in the Region

In 2013, MassGIS established digital standards for parcel and assessors' data, and enlisted contractors to upgrade records from every city and town to meet those standards



- The Massachusetts legislature made all municipal and state data public record. Many municipalities complied, but capacity issues prevent 100% compliance.

- The state established parcel data standards, which has increased consistency and allowed for more opportunities to analyze trends across the region. Unfortunately, fully-maintained data are only available for about half of the state's cities and towns.
- MAPC built and maintains its own "information infrastructure," in the form of a centralized database and made it accessible to 3rd party websites.
- Many municipalities publically track the performance of their various departments both to show what they've accomplished and how much it costs to accomplish what they've accomplished. This increased transparency increases the effectiveness of services rendered and increases government accountability.
- In 2017 MAPC began the Perfect Fit Parking initiative to develop the data and tools that communities need to establish informed, sustainable, and economical parking policies.

BARRIERS TO PROGRESS:

- Data sharing is not "mission critical" to the day to day mission of cities, towns, and companies.
- We still lack the digital applications and software needed to support the management and analysis of data resources. Commercial solutions are often user-friendly but excessively expensive. Open source models are cheaper, but require more expertise.
- Technology advances extraordinarily quickly resulting in cities and towns using distinct platforms that don't work well together.

Emergent Themes

- Unconventional and proprietary data sources developed into critical repositories of information, but are largely inaccessible due to expense or access.
- The growth of the sharing economy, whether it be shared cars, housing, or bikes and their reluctance to make their data accessible. It arose so precipitously that agreements were overlooked. Developing ways to inexpensively and frequently access these data sources would enable policy makers the foresight to make better informed policy decisions.
- In 2008, MetroFuture overlooked the roll or the potential of an enterprising individual, or group of individuals, to move into the public realm to design and/or to implement data platforms and to publish data.