Using GeoDOT for Integrated Geospatial Project Management

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MassDOT
GeoDOT

- MassDOT’s Enterprise Geospatial Platform
- Integrated geospatial data analysis, management, and visualization
- GeoDOT as the nerve center for Highway projects

Initiation + mapping + integration + scoring + reporting
MaPIT

• MaPIT is being updated to a v.5.0 on a new platform

• WHY is it being updated?

• WHAT are the changes?

• WHO is affected?

• WHEN is this happening?
WHY is MaPIT Being Updated?

• We always aim to improve the user experience for MaPIT

• The old application is older and has limited ability for improvement

• The new product is a better tool from a development and user standpoint

• MassDOT is upgrading their infrastructure with more powerful servers to support the platform

• New policies are always being implemented requiring their inclusion in the Project Initiation Process; some of those are being added now
Recap and Future MaPIT Developments

• Final development of MaPIT 5.0 is being conducted now

• Training sessions on the live tool in May 2024

• We are working on better automation between project screening and pre-25% scoping meetings

• When Pinfo 2.0 goes live more changes to MaPIT are expected to improve integration between both systems
PINFO

- Project Information for all Highway division projects
  - design and construction status
  - milestones
  - contracts and funding
- 2.0 Coming Soon
Transportation Improvement Program (TIP)

- Created by each Metropolitan Planning Organization (MPO)
- MPOs are policy and decision making entities
- Select highway and transit projects to fund
- MPOs score projects to select projects
- STIP = 13 TIPs +

For example:
- Interstate pavement projects
- Bridge projects
- Mobility projects
Transportation Improvement Program (TIP)

- Each MPO uses their own criteria
- Dependent on paper and manual data processes
- Dependent on pulling project data out of GeoDOT
- Manual process to ultimately update eSTIP
TIP Scoring Tool

- GeoDOT Application for MPOs to score and submit to eSTIP
- Technology:
  - Experience Builder
  - VertiGIS Studio Workflow
  - ArcGIS Enterprise/Online
TIP Scoring Tool

New Tool

• Direct connection to GeoDOT – MaPIT project data
• Flexible and digital scoring form within GeoDOT
• Brings together all GIS data necessary for analysis and scoring
• Retains historical scores for export and reporting
• Automatically updates eSTIP
TIP Scoring Tool

Customized by MPO
TIP Scoring Tool

Select a project
TIP Scoring Tool

Score a project
TIP Scoring Tool

Submit a score
Project Viewer

- Federally required project viewer GIS tool
- All federally funded projects (originally just Highway)
- 2023 - Expanded to CIP projects and CIP comment tool
- 2024 - Expanded to STIP Viewer
Project Viewer

Now with CIP Projects
Project Viewer

Updated selected project view
Project Viewer

Now with STIP Viewer
Conclusion

• MassDOT is continuing to advance project management using GeoDOT through enhancements to MaPIT, Project Viewer, eSTIP/TIP tools, as well as project datasets
• Adding new MPOs to the TIP Scoring Tool
• Increasing access of project data to stakeholders and the public
  • New GeoDOT
  • New GeoDOT Local
  • Additions to GeoDOT Open Data Hub
Thank you!

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GeoDOT - https://massdot.maps.arcgis.com