



TEMPO Summer Meeting

July 2023

Topics

- Decision Lens Overview
- How we work with Texas
 - Prioritization
 - MPO examples
 - Regional Mobility Plans
 - Bike-Ped Plans
- Budgeting & Scheduling – Best Practices

Decision Lens develops integrated planning software which creates a sustained operational advantage by modernizing how government prioritizes, plans, and funds.

Company Background

- ✓ Established in 2005
- ✓ FedRAMP & TX-RAMP Certified
- ✓ Customers across Federal, State & Local Government Agencies

Decision Lens at TXDOT

- ✓ Licensed at TXDOT since 2015
- ✓ No additional cost or contracting required
- ✓ Cloud-based software – ability to collaborate with all stakeholders

Data-Driven Planning & Programming

For What:

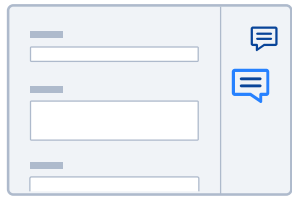
- Long-Range Statewide Transportation Plans
- Metropolitan Transportation Plans (MTPs)
- Statewide and Metropolitan Transportation Improvement Programs (STIPs/TIPs)
- Program-area Plans

How:

- Take a strategic & data-driven approach
- Set goals and objectives
- Investment prioritization
- Using data to inform policy decisions

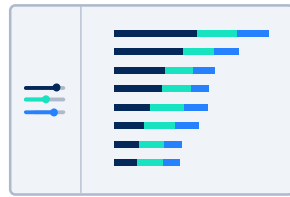


Decision Lens Workflow



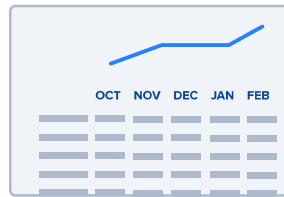
Project Intake

Centralize and standardize data collection or connect to existing projects repositories; allow stakeholders to comment/discuss



Evaluation & Prioritization

Projects are prioritized using a strategic, dynamic prioritization process; Can be automated with data or use subjective inputs



Budgeting & Funding

Selected projects are scheduled, and budgets tracked



Resource Capacity

Algorithms determine optimized planning scenarios, resolve bottlenecks over multiple years



Scenario Planning

Evaluate alternative approaches to achieving performance goals

Continuous/Automated Process

Prioritization

Our prioritization toolkit provides different methods for the requirements to be prioritized

- Prioritize based on planning goal
- Collaboratively assess projects
- Establish priorities among key leaders
- Run “what-if” scenarios
- Move projects above or below the cut line
- Gain full visibility into requirements
- Create defensible 1-n list

Alternatives 28	Cost	Value ↓	0.25	0.5
Wireless Network Upgrade	52500	0.906	<div><div></div></div>	<div><div></div></div>
Research and Development	162000	0.891	<div><div></div></div>	<div><div></div></div>
New Headquarters Construction	700000	0.833	<div><div></div></div>	<div><div></div></div>
Software Licenses	102000	0.634	<div><div></div></div>	<div><div></div></div>
Testing and Evaluation	106000	0.633	<div><div></div></div>	<div><div></div></div>
Pollution Control Equipment	144000	0.566	<div><div></div></div>	<div><div></div></div>
Equipment Modernization	110000	0.551	<div><div></div></div>	<div><div></div></div>
Logistics Support	240000	0.542	<div><div></div></div>	<div><div></div></div>
Training Facility Construction	175000	0.541	<div><div></div></div>	<div><div></div></div>
▲ 9 Alternatives	59.717%	51.868%		
Cybersecurity Equipment	78000	0.531	<div><div></div></div>	<div><div></div></div>
Repairs	60000	0.500	<div><div></div></div>	<div><div></div></div>
	65000	0.475	<div><div></div></div>	<div><div></div></div>
	216000	0.423	<div><div></div></div>	<div><div></div></div>
	4800	0.403	<div><div></div></div>	<div><div></div></div>
	36000	0.402	<div><div></div></div>	<div><div></div></div>



Benefits

Standardized and transparent evaluation framework

- Increase buy-in to the process
- Defensible process regardless of final decision

Centralized and concurrent access to planning data

- Increase accuracy of data availability
- Unified location for all stakeholders
- Provide access to input and update project information

Remove versioning

- All stakeholders are accessing the most up to date data
- Capture communications, questions and decisions



Criteria Weighting

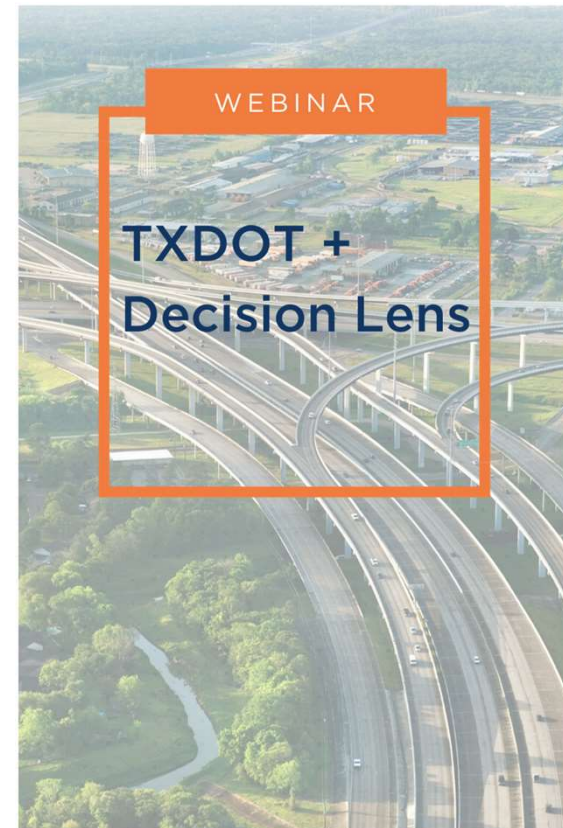
Establish your relative criteria weights by collecting stakeholders' inputs in a structured process.

- Leverage subject matter expertise
- Capture inputs via desktop or mobile
- Client core team to review results.

The screenshot shows a web-based interface for criteria weighting. At the top, there's a navigation bar with 'HOMEPAGE' and 'PRIORITIES OVERVIEW'. The main title is 'Prioritize Criteria for Portfolio Goal: Prioritize TxDOT Project Data'. On the right, there's an 'OVERALL PROGRESS' bar and a 'View Results' link. The main content area asks 'Which is more important with respect to the Portfolio Goal?'. Below this, there are two boxes: 'Safety' (purple) and 'Preservation' (pink), separated by 'OR'. A horizontal scale below these boxes ranges from 'EXTREME' to 'VERY STRONG' on both sides of a central 'EQUAL' point. A purple circle with an upward arrow is positioned on the 'STRONG' side, favoring 'Safety'. Below the scale, it states 'Safety is **Strongly More Important** than Preservation.' and there is a 'Clear Vote' button. At the bottom, there are 'Previous' and 'Next' buttons, and a set of icons for navigation and help.

MPO Uses

- Webinars
 - MPO Planning at TXDOT
 - El Paso
 - Lubbock
 - Bryan-College Station
 - Bike and Ped Planning with Decision Lens
 - Bryan College Station
 - Greater Nashville Regional Council
 - Delaware DOT
- TXDOT Community Page
 - dlu.decisionlens.com/txdot



Budgeting and Scheduling

Develop and balance your plan in a centralized planning solution.

- Balance the budget based on expected amounts
- Compare to last year's data
- Collect new requirements
- View ongoing "status" and make adjustments
- Filter, tag, and categorize data
- Submit a defensible budget


Budgets by Cost 4		FY2022	
		Budget	Availability
1	Totals	1,220.00	283.00
2	Travel (k)	300.00	210.00
3	Supplies (k)	70.00	10.00
4	Contracts (k)	550.00	74.00
5	Other (k)	300.00	-11.00

Requirements 28		Status	Request	Approved	Diff
1	Totals		3,605,300.00	566,000.00	-3,039,300.00
2	Building Maintenance and Repairs	FUNDED	60,000.00	30,000.00	-30,000.00
3	Contractor Support	FUNDED	240,000.00	458,000.00	218,000.00
4	Cybersecurity Equipment	FUNDED	78,000.00	78,000.00	0.00
5	Electrical and Wiring	UFR	45,000.00		
6	Equipment Modernization	UFR	110,000.00		
7	Financial Services	UFR	240,000.00		

Budgeting and Scheduling

VCRB Framework

Drag and Drop your fields into a Portfolio Dimension to receive recommendations from our Algorithms. Click on a Field to open edit field details.

**Value**

5

Performance objectives
1-5 recommended

Bridge Deck Area

NUMERIC

Jobs

NUMERIC

Regional Score


NUMERIC

TTS

NUMERIC

VHD

NUMERIC

**Cost**

12

Portfolio constraints
1-25 recommended

1

NUMERIC

2

NUMERIC

3

NUMERIC

4

NUMERIC

5


NUMERIC

6

NUMERIC

7

NUMERIC


**Risk**

0

Uncertainty factors
1-3 recommended

Add Risk Field

Probability of Success

**Balance**

3

Portfolio categorizations
1-3 recommended

Project_Type

CATEGORY

Region_Type

CATEGORY

Rural_Urban

CATEGORY

Other

18

All other project information

Accessibility Score

NUMERIC

ADD

CATEGORY

Asset Managemen...

NUMERIC

Benefit Cost Score

NUMERIC

BSAF

NUMERIC

City

CATEGORY

Congestion Score

NUMERIC

Decision Lens

10
9

Budgeting and Scheduling

Scenario 1

...

Projects

Budgets

Schedule

Budgets by Cost 12		FY2023			FY2024		
		Budget	Availability		Budget	Availability	
1	Totals	600,000,000.00	416,490,123.00		600,000,000.00	173,983,378.50	
2	1	50,000,000.00	45,650,000.00		50,000,000.00	14,900,000.00	
3	2	50,000,000.00	38,505,000.00		50,000,000.00	8,399,997.50	
4	3	50,000,000.00	30,250,412.00		50,000,000.00	17,562,600.00	
5	10	50,000,000.00	38,460,000.00		50,000,000.00	4,000,000.00	
6	12	50,000,000.00	40,654,000.00		50,000,000.00	33,692,520.00	

> Projects 255 of 374

Search

Status ↑

Start

End

Request

Allocated

Diff

Request

Allocated

Diff

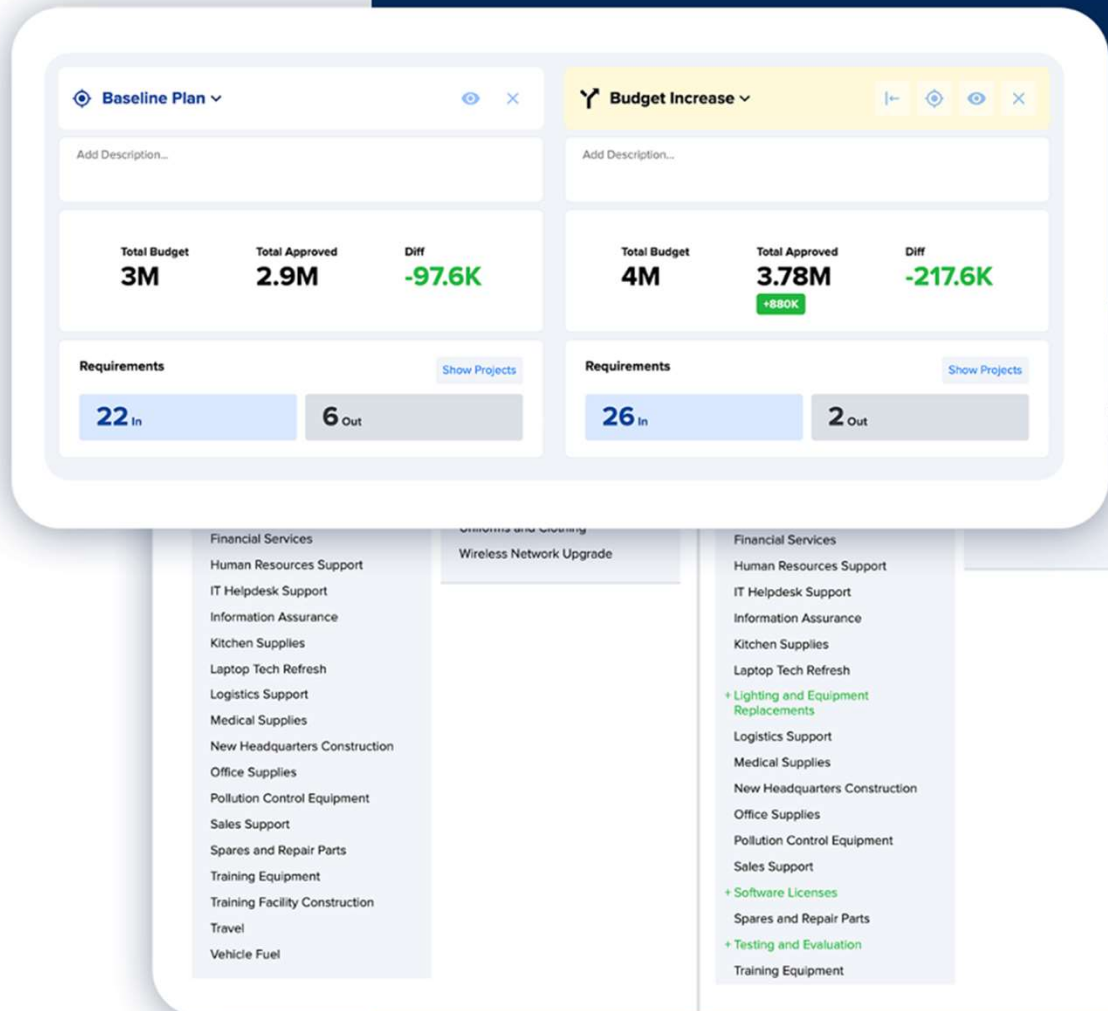
1	Totals				333,452,...	183,509,8...	-149,942,...	837,706,9...	426,016,6...	-411,690,3...
2	> IP20160093	SCHEDULED	Jun 2022	Jun 2023			0.00			0.00
3	> IP20200030	SCHEDULED	Jul 2023	Jul 2027			0.00	600,000.00	600,000.00	0.00
4	> IP20070247	SCHEDULED	Jul 2023	Jul 2028			0.00	132,000.00	132,000.00	0.00
5	> IP20150089	SCHEDULED	Jun 2022	Jun 2028			0.00	390,000.00	390,000.00	0.00
6	> IP20190111	SCHEDULED	Jun 2022	Jun 2026			0.00	70,000.00	70,000.00	0.00
7	> IP20190110	SCHEDULED	Jun 2022	Jun 2028			0.00	2,600,00...	2,600,00...	0.00
8	> IP20060210	SCHEDULED	Jul 2023	Jul 2029			0.00	1,240,000...	1,240,000...	0.00
9	> IP20150106	SCHEDULED	Jul 2023	Jul 2023			0.00	250,000.00	250,000.00	0.00
10	> IP20200029	SCHEDULED	Jul 2023	Jul 2027			0.00	500,000.00	500,000.00	0.00
11	> IP20120046	SCHEDULED	Jul 2021	Jul 2025			0.00	141,000.00	141,000.00	0.00

17?

Scenario Planning

Run scenarios based on shifting priorities, different allocation amounts, or potential shortfalls.

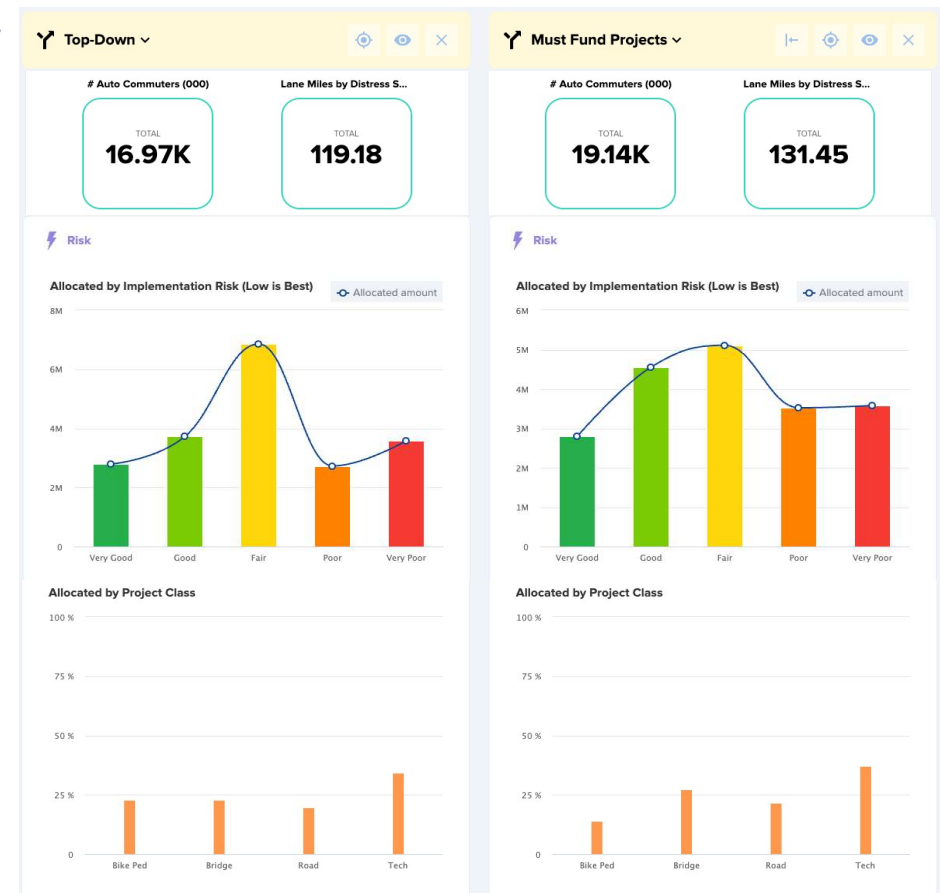
- Compare adjustments to the baseline
- View multiple scenarios at a time
- Focus in on projects around the cutline
- Adjust time periods
- Allow the solution algorithms to make recommendations based on priorities or constraints



Make Informed Decisions

Real-time reporting as part of the process, not an after activity

- Expedite scenario planning by creating different plans under different conditions, iterating, and comparing outcomes
- Justify decisions by conducting what-if analysis to demonstrate the performance of alternative scenarios
- Adapt to changing requirements quickly by understanding the impact of shifting priorities



Contact Us

- Additional Information
- Resources and Training
- Support to start new effort



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