



# California Summit 2019

*“Recipient of CCA’s 2018 Technology  
Trailblazer Award”*

# Ad Astra Solutions Portfolio



- *Astra Schedule*™ - an enterprise class scheduling system that integrates with student information systems to optimize and analyze space utilization, create “what-if” scenario models, and manage rooms for classes, exams, and other resource scheduling. This robust tool also produces custom calendars and reports to enhance visibility into campus scheduling.



- *Platinum Analytics*™ - a patented, predictive course demand analysis system that assesses student course needs and suggests high-impact schedule changes to advance student program completion and operational efficiency. This analytics package is coupled with professional consulting to enhance application of the data.

# Ad Astra Solutions Portfolio



- *Strategic Scheduling Services* - the HESI is the industry's only peer comparison database of performance indicators for the allocation of faculty and academic space. The HESI Dashboards provide access to this database to benchmark your institution. Your data is refreshed once each major academic term and provides longitudinal tracking and insight to opportunities for balancing instructional resources.



- *HESI™ Dashboards* - The HESI is the industry's only peer comparison database of performance indicators for the allocation of faculty and academic space. The HESI Dashboards provide access to this database to benchmark your institution. Your data is refreshed once each major academic term and provides longitudinal tracking and insight to opportunities for balancing instructional resources.

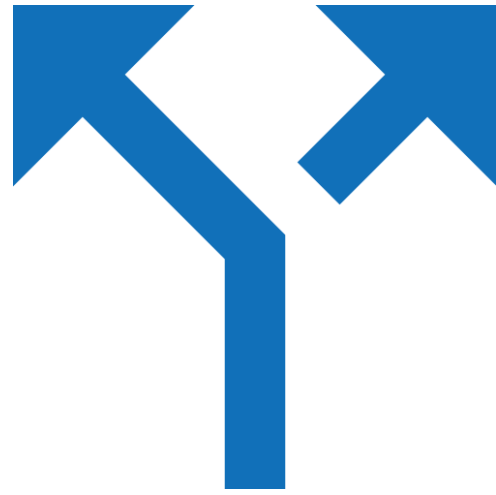
# Recent Partner “Wins”

- **Stephen F. Austin State University** - (February 2018)
  - "AASCU - Everyone Wins"
    - Faced with substantial budget cuts, the SFASU team's story is about partnering with their Provost, CFO, deans/department chairs to leverage data to increase immediate revenue opportunities, student access to high demand courses, and faculty hiring rubric support.
- **Eastern Kentucky University** - (October 2017)
  - "Building Effective Schedules Leveraging Ad Astra's Services"
    - This presentation highlights the impact of initial benchmarking (HESI™), data/reports that are being leveraged by their deans/department chairs, campus revitalization projects utilizing Astra's space efficiency tools/reports, and financial gains realized through course adjustments (\$450K in cost savings avoidance from Spring 2017 alone).
- **John Tyler Community College** - (October 2017)
  - "Our Story of Scheduling Change at John Tyler Community College"
    - This presentation highlights the transformation of JTCC's schedule development process by infusing analytics into their processes. JTCC's already experienced increases in average student credit hours, class fill rates, and ongoing change management discussions using data to supplement strategic initiatives.
- **Kennesaw State University** - (October 2017)
  - "Future of Academic Scheduling"
    - This presentation showcases their improvements in classroom utilization and meeting pattern allocation, their approach to adoption/buy-in from their academic stakeholders, and their role as a design partner with Ad Astra in creating one application for course and space analytics.

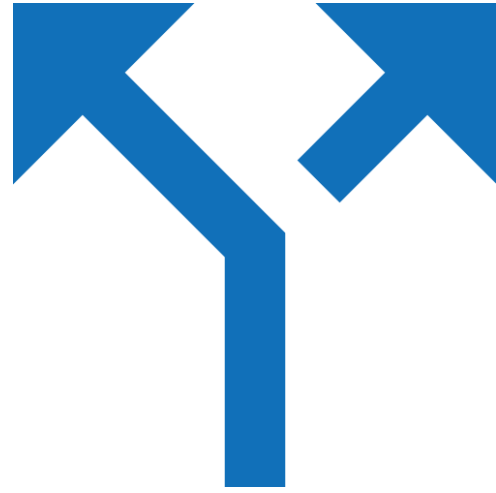
Industry trends...



Student Completions



Pathways



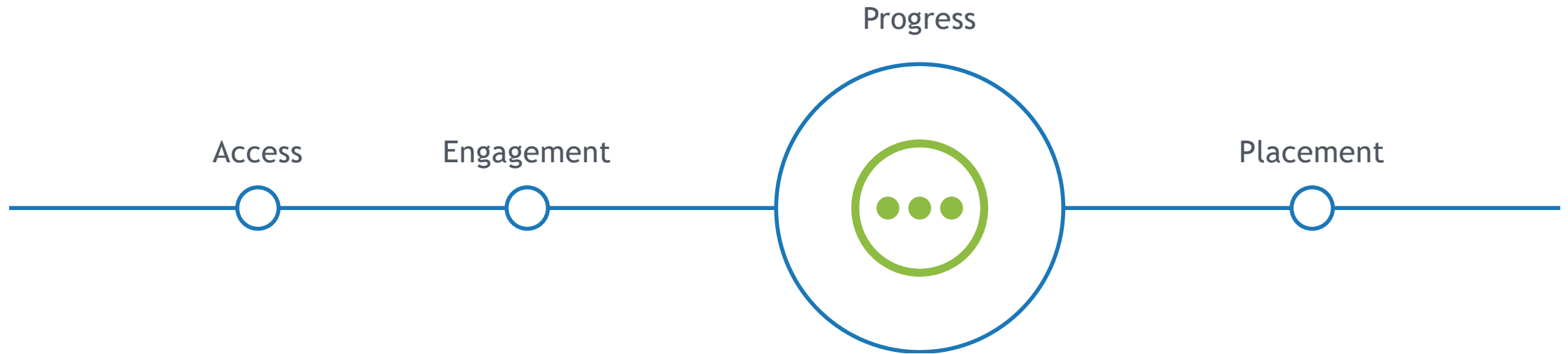
# Integrated Planning and Advising





Actionable Data

# Where do we fit...





What's new?



# Momentum to Completion



# Momentum Year Defined

**Momentum Year** is the beginning point for students that helps them find their path, get on that path, and build velocity in the direction of their goals.

*Complete College Georgia*

# Momentum Year Metrics

Momentum Year Metrics include completion of:

- Core English
- Core Math
- Nine Credits in the Students academic focus area
- 30 credits in their first year

# Why is it Important?

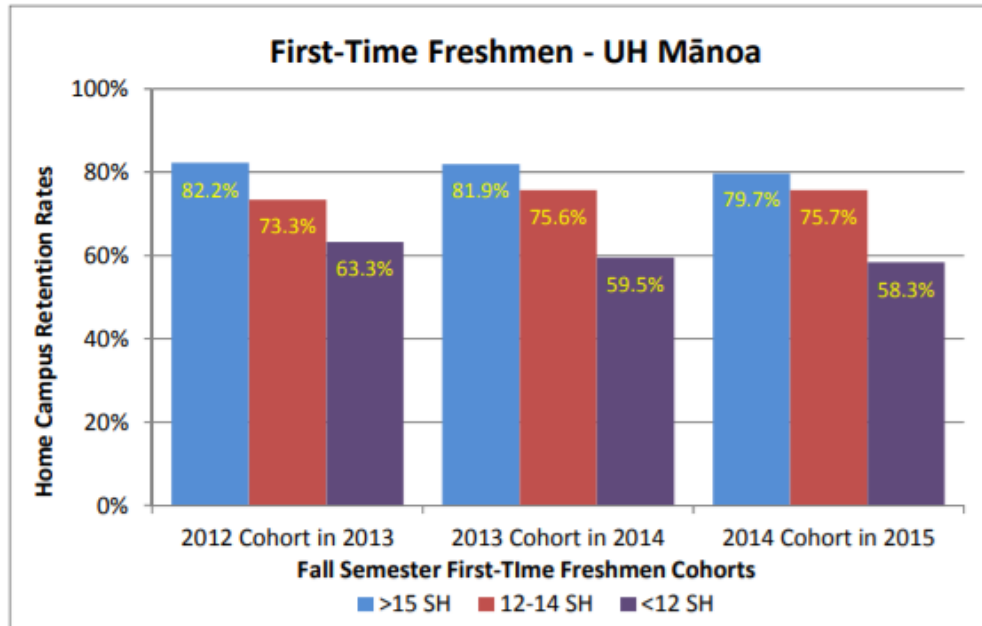
“Data shows that *time*, not tuition is the enemy of college completion.”

- *Stan Jones, President of Complete College America, 2012*

[https://www.washingtonpost.com/opinions/obamas-tuition-plan-fallsshort/2012/02/02/gIQA NouznQ\\_story.html?noredirect=on&utm\\_term=.378cd3bb4339](https://www.washingtonpost.com/opinions/obamas-tuition-plan-fallsshort/2012/02/02/gIQA NouznQ_story.html?noredirect=on&utm_term=.378cd3bb4339)



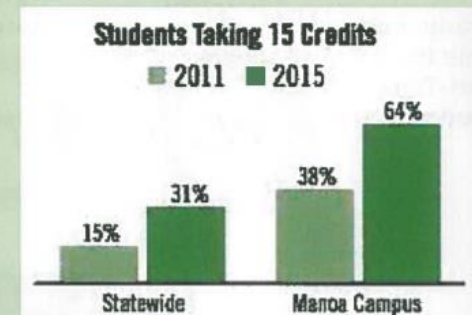
# Momentum Impact on Retention



## Want to graduate more students on time?

The University of Hawai'i, where 15 to Finish originated, launched an aggressive marketing campaign to inform students of the importance of taking 15 credits per semester or 30 credits per year. In just one year, the state saw double-digit increases in the percentage of students taking 15 credits.

At the Manoa campus, the percentage of students taking 15 credits jumped from 38% to 64%.



**COMPLETE COLLEGE AMERICA**

# Momentum Impact on Graduation

Figure 4: Impact of Finishing 30 Credit Hours the First Year on Graduation Rates of Student Cohorts at Kentucky's Public Universities

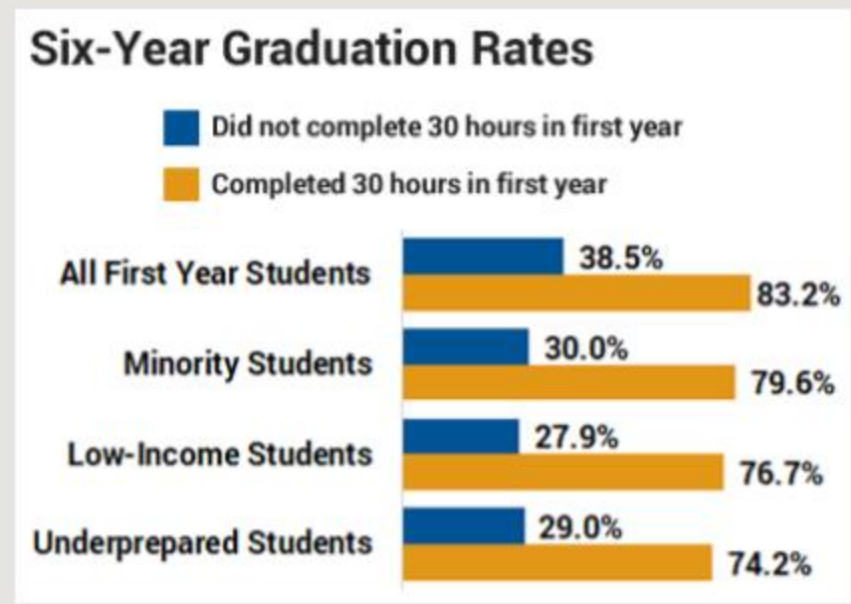
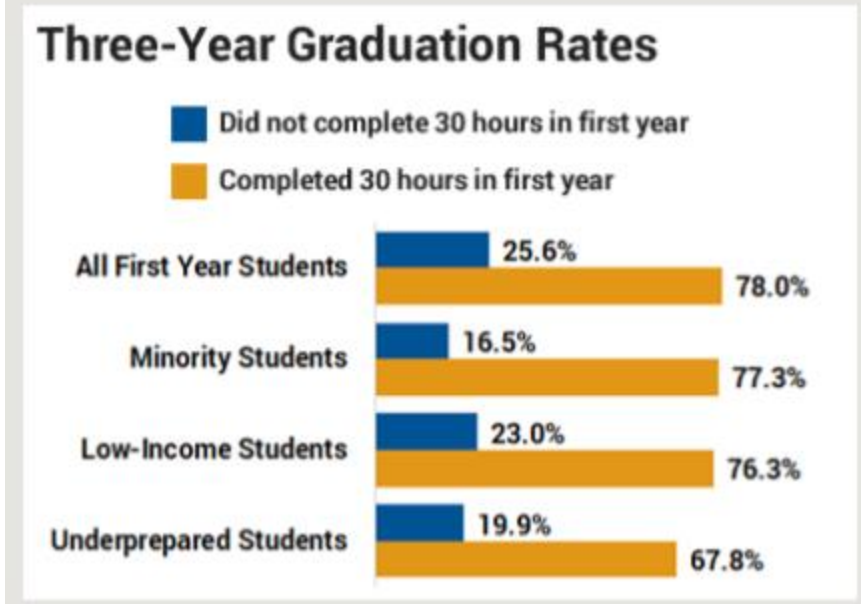


Figure 5: Impact of Finishing 30 Credit Hours the First Year on Graduation Rates of Student Cohorts at KCTCS



# Financial Impact of Momentum

Effects\* of Taking at least 30 Credits in 1st Year on Six-Year Outcomes

Tennessee Board of Regents Institutions, FTEIC Fall 2008 Cohort

	Community College Students	University Students
Additional credits earned	22	27
Probability of degree attainment	18pp (25% vs. 43%)	19pp (38% vs. 57%)
Tuition and fees per degree	-20%	-20%
Expenditures per degree	-14%	-23%
Tuition and fees avg.	+\$1,740	+\$4,890

\*Adjusted results, controlling for student characteristics; Source: Belfield, Jenkins, Lahr, 2016.

REPORT | SEPTEMBER 2018

## Building Guided Pathways to Community College Student Success

Promising Practices and Early Evidence From Tennessee

Davis Jenkins | Amy E. Brown | John Fink | Hana Lahr | Takeshi Yanagiura



<https://ccrc.tc.columbia.edu/media/k2/attachments/building-guided-pathways-community-college-student-success.pdf>

# Momentum Year Setup

Momentum Year Settings

Home

Calendars

Analytics

Academics

Events

Reporting

Settings

sysadmin

SaveSave and CloseCancel

Momentum Year Settings

The following settings will be used by Student Progress Analysis when calculating Momentum Year progress for students.

English Gateway Requirement

Select a Course

ENG 110

Select a Course Group

Math Gateway Requirement

Select a Course

MATH 120

Select a Course Group

Pathway Progress

Pathway Progress Goal (hrs):

9

Select Course Group:

Momentum Year Courses

☒ Use Students' Pathways (if available)

Momentum Year Hours

Momentum Year Goal (hrs):

30

☐ Apply transfer courses toward momentum hours

# Momentum Year Results

HomeDashboardsCalendarsAnalyticsAcademicsEventsReportingSettings

sysadmin?

Momentum Year Report

Select Start Term: 201708 x Total Students: 5484

### Momentum Year Metrics for Fall Semester 2017

Metric	% of Students Completed
Momentum Year Complete	25%
Momentum Year Hrs	48%
Pathway Progress	77%
Math Gateway	62%
English Gateway	62%

Students At Risk (Momentum Year Complete)

Last Name ^1	First Name	ID	Program	Major	Pathway	English Gateway	Math Gateway	Pathway Progr...	Momentum Year Hours	Hours Completed
Aanenson	Geralyn	5517905	BUBBA_MK	MK		Yes	Yes	Yes	No	25
Abair	Stuart	5522362	BUPHD_FI	FI		No	No	No	Yes	75
Abarquez	Elizabet	5556350	EHEDS_SCO	SCO		No	No	No	No	24
Abbo	Edward	5557291	BUBBA_PMK	PMK		No	No	Yes	No	9
Abdelrahim	Marielle	5549742	BUEDB	EDB		No	No	No	No	18
Abesamis	Rosalind	5544354	ASAB_AN	AN		Yes	Yes	Yes	No	28
Abfall	Rubin	4575266	ASMS_BGY	BGY		Yes	Yes	Yes	No	26

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Velocity Impacts  
Course Demand

# What are Pathways?

*Pathways represent the idealized way for students to complete a program of study.*

- Prescribed, sequenced set of courses or course groups a student must complete to graduate
- Serves as framework to apply academic history for planner analysis
- Makes enhanced reporting and benchmarking opportunities for student success available

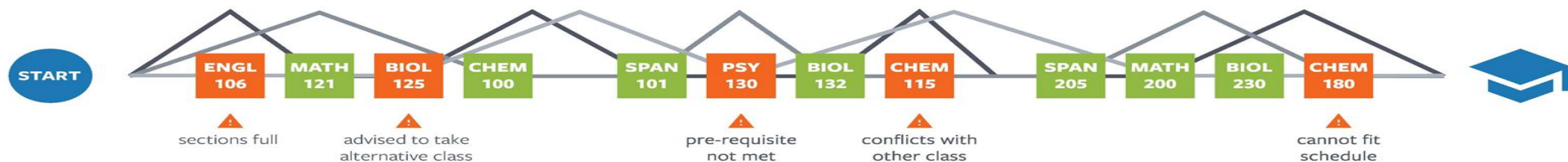


# Pathway Progress

Example: On Path Student



Example: Off Path Student





# What are Student Planners?

- Student and/or advisor facing systems
- Wide range of functionality
  - Can build degree templates/pathways and assign to students as a starting point
  - Auto-update a student's progress each semester
- Data footprint of planned courses/pathways and are much less complicated than degree audit
- Data gaps
  - New students
  - # of students who participate in planning
  - # of students who complete plan

# Plans/Pathway Data Integration Approach

Student Planner Data Integration Institution has a Student Planner System	Pathways Data Integration Institution does NOT have a Student Planner
<ul style="list-style-type: none"><li>• Student and/or advisor plans courses for terms in a system</li><li>• Import student planned AND pathways data</li><li>• Apply student planned data in student progress analysis</li><li>• Supplement student planned data using pathways and academic history (as necessary)</li><li>• Student plan is completed (for analysis term and future terms)</li></ul>	<ul style="list-style-type: none"><li>• Institution has sequences for programs of study but does not have student plan data</li><li>• Import pathways data</li><li>• Apply academic history to pathways in student progress analysis</li><li>• Student plan is completed (for analysis term and future terms)</li></ul>

# Operationalize Pathways

Home
Dashboards
Calendars
Analytics
Academics
Events
Reporting
Settings
sysadmin

Save
Save and Close
Cancel

601

PROGRAMS OF STUDY

7

STUDENTS PER PROGRAM OF STUDY

0

COMPLETION VELOCITY

0

PRODUCTIVE CREDITS

Programs of Study List

Edit Credits To Complete

<input type="checkbox"/>	Program of Study	Program Options	Pathways <span>▼ 1</span>	Students	Credits To Complete	Graduation
<input type="checkbox"/>	<a href="#">U1BS_BENG:BENG</a>	<a href="#">12</a>	2	483	0	101
<input type="checkbox"/>	<a href="#">U1BA_ANTH:ANTH</a>	<a href="#">15</a>	1	186	0	43
<input type="checkbox"/>	<a href="#">U1BA_ANTH:U1BA_SOC:ANTH/SOC</a>	<a href="#">2</a>	0	0	0	0
<input type="checkbox"/>	<a href="#">U1BA_PSY/U1BS_MGMT:MGMT/PSY</a>	<a href="#">1</a>	0	6	0	5
<input type="checkbox"/>	<a href="#">GPHD_IGPH:IGPH</a>	<a href="#">0</a>	0	3	0	2
<input type="checkbox"/>	<a href="#">U1BS_MATH:U1BS_ME:MATH/ME</a>	<a href="#">2</a>	0	0	0	0
<input type="checkbox"/>	<a href="#">U1BA_GASP:GASP</a>	<a href="#">3</a>	0	6	0	0
<input type="checkbox"/>	<a href="#">U1BA_ENG:U1BA_SPAN:ENG/SPAN</a>	<a href="#">1</a>	0	0	0	0
<input type="checkbox"/>	<a href="#">GPHD_IH:IH</a>	<a href="#">0</a>	0	33	0	4

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Program of Study Pathway List - U1BS_BIOS:BIOS						
Add Pathway						
Pathway ^1	Active Studen ▼	Total Courses	Credits To Complete	Catalog Version	Default	
✗ BS Biological Sciences Developmental Biology Pathway1	0	38	112	201610	<input type="checkbox"/>	
✗ BS Biological Sciences Ecology and Evolutionary Pathway1	0	37	101	201610	<input type="checkbox"/>	
✗ BS Biological Sciences Human Biology Pathway 1	3611	39	114	201610	<input checked="" type="checkbox"/>	
✗ BS Biological Sciences Micro and Immunology Biology Pathway1	0	38	114	201610	<input type="checkbox"/>	
✗ BS Biological Sciences Molecular and Cell Biology Pathway1	0	39	113	201610	<input type="checkbox"/>	
✗ Part time BS Biological Sciences Human Biology Pathway 1	0	39	114	201610	<input type="checkbox"/>	

Pathway - BS Biological Sciences Human Biology Pathway 1 (Default)

SaveSave and CloseCancelSet as DefaultCloneView Students

Name: \*BS Biological Sciences Human Biology Pathway 1

Credits to Complete: 114

\*Catalog Version: 201610

Campuses: M

Pathway Courses

+ Add

Credit Load: Full Time

	Sequence ^1	Pathway Course	Pathway Course Group	Credit Hours	Calculated Probability	User Probability	MileStone	Gateway
✖	4	BIO 001L		1			<input type="checkbox"/>	<input type="checkbox"/>
✖	5	CHEM 002		4			<input type="checkbox"/>	<input type="checkbox"/>
	15 - 30							
✖	6	CORE 001		4			<input type="checkbox"/>	<input type="checkbox"/>
✖	7	MATH 012		4			<input checked="" type="checkbox"/>	<input type="checkbox"/>
✖	8	BIO 002		4			<input type="checkbox"/>	<input type="checkbox"/>
✖	9	BIO 002L		1			<input type="checkbox"/>	<input type="checkbox"/>
✖	10	CHEM 010		4			<input type="checkbox"/>	<input type="checkbox"/>
	30 - 45							
✖	11	CHEM 008		3			<input type="checkbox"/>	<input type="checkbox"/>
✖	12	CHEM 008L		1			<input type="checkbox"/>	<input type="checkbox"/>
✖	13	PHYS 018		4			<input type="checkbox"/>	<input type="checkbox"/>
✖	14	MATH 015		2	37.58		<input type="checkbox"/>	<input type="checkbox"/>
✖	14	CSE 020		2	42.4	30	<input type="checkbox"/>	<input type="checkbox"/>
...	14	CSE 005	Select...	2	20.02	32	<input type="checkbox"/>	<input type="checkbox"/>
✖	15	SocSciGenEd		4			<input type="checkbox"/>	<input type="checkbox"/>
✖	16	PHYS 019		4			<input type="checkbox"/>	<input checked="" type="checkbox"/>
	45 - 60							
✖	17	PSY 010		2	79.67		<input type="checkbox"/>	<input type="checkbox"/>
✖	17	MATH 018		2	20.33		<input type="checkbox"/>	<input type="checkbox"/>
✖	18	HumFineArtsElective		4			<input type="checkbox"/>	<input type="checkbox"/>

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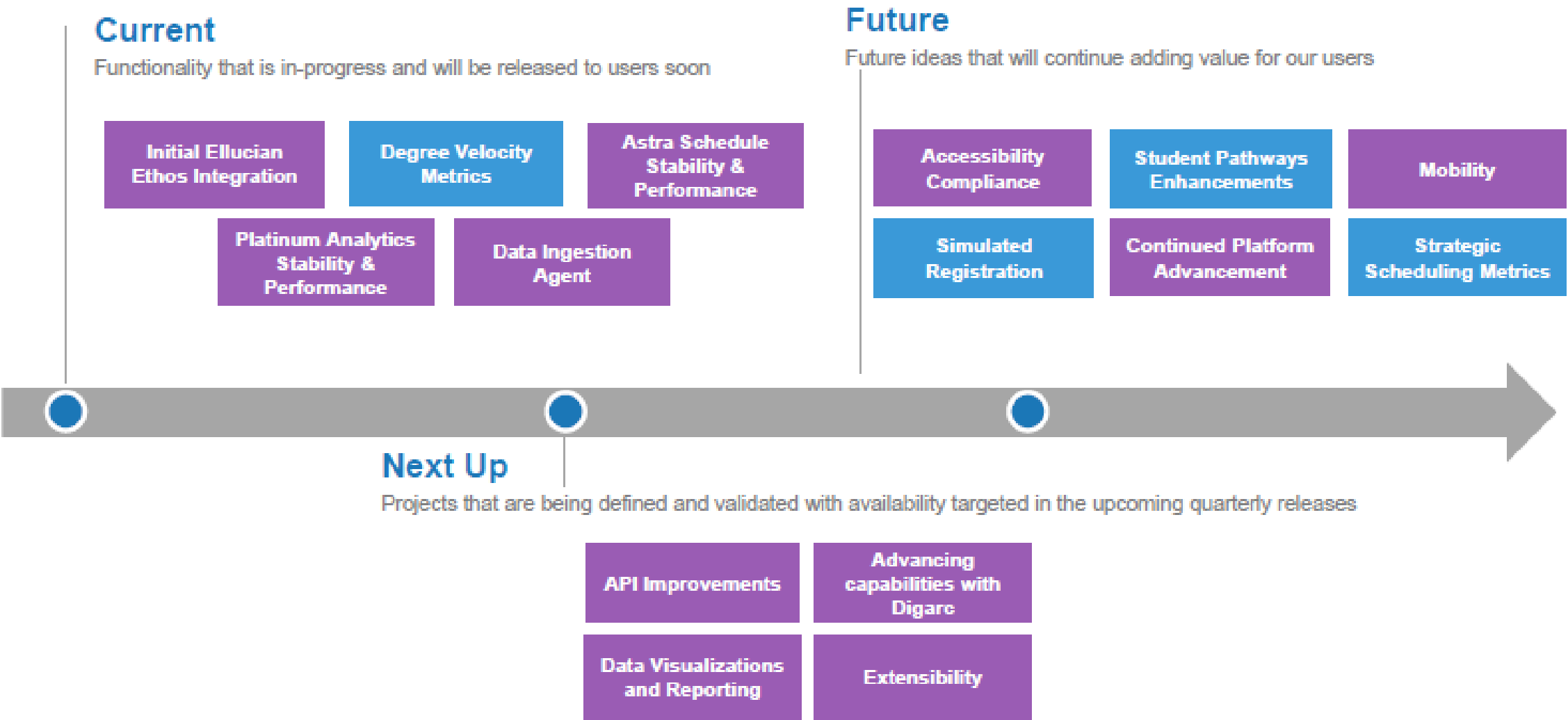
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What's next?

# Ad Astra's Product Roadmap

Ad Astra's purpose is to offer products and services that support higher education in its mission to advance successful, timely student completions.

LEGEND: ■ Academics ■ Platform  
(Academics & Events)



# Productized Services

- Meeting Pattern Analysis
  - This service looks at current Meeting Patterns and gives data to help inform a meeting pattern grid and policy.
- Readiness Assessment
  - Provides a deep dive into all aspects of scheduling on campus. Reviews important components of the scheduling process and provides recommendations for improvements.
- Degree Velocity Reporting
  - Institutions who need additional insight for improving student degree velocity -- information on moving the needle relative to student success by looking at real-time indicators to allow for additional intervention.



# Productized Services

- Structured Scheduling
  - As institutions start to align pathways, advising, registration, and institutional capacity, understanding the options available for structured scheduling is critical. This service uses an institutions student information systems data, along with pathways, to accurately predict course needs and available blocks for scheduling.
- Pathways Design
  - This service will help guide institutions through the process of creating pathway, analyzing them across the curriculum to ensure a successful implementation at scale.
- Instructor Forecasting and Analysis
  - This service reviews instructional needs in the context of scheduling whether its adding instructors for new sections or reviewing adjunct instruction for a downturn in enrollment

