



NEC-Data & Analytics Case Study

A Stax Case and Discussion Document

Stax

BOSTON | CHICAGO | COLOMBO | NEW YORK

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NEC's partnership with Stax Inc.

“As the president of a higher educational institution in a sector undergoing tremendous change, we needed good thinking and sharp technical skills—a true partner who would take the time to understand what we wanted to achieve, and then help us execute on that quickly. In the course of our interviews, Stax really listened. To design, build, and transfer on our timeline was ambitious, but we were able to complete the project within two board meetings, and to great benefit.”

- Andrea Kalyn, President, NEC

“Often for good reason, staff on any team can be worried about sharing data with consultants and changing the way things are done. Similarly, about their participation and voice, and how knowledge will transfer back into the organization. Stax helped us frame the opportunities and was resourceful in how to capture and analyze data, both internally and externally. They were collaborative with our teams, developing insights and building an analytics sandbox that we could work in together. Once completed, they transferred the platform to NEC, which we now use independently as part of our regular processes.”

- Kathleen Kelly, Vice President for Advancement, Engagement, and Partnerships; Chief Strategy Officer, NEC

“Bringing data together from disparate sources, providing insights, analytical infrastructure and processes for continuous improvement gave our executive team effective tools to drive the institution’s strategy and tactics into the future.”

- Tom Blumenthal, Vice Chair and Treasurer, NEC Board of Trustees; Partner, The Baupost Group

NEC's leadership wanted to increase the institution's value to students and add an analytics platform for organizational development

Situation:

- Based in Boston, the New England Conservatory, founded in 1867 is the oldest independent music conservatory in the United States.
- NEC has a reputation for world-class faculty and graduating world-class musicians.
- The world of music and talent development is changing in many ways, as are the opportunities for musicians, and the needs of musicians.
- Entering into the strategic planning process, NEC's Leadership was interested in:
 - Building a fact base of student outcomes, and a process to track outcomes to improve results for students.
 - Adapting programs to a changing music landscape and how to gather and compare student needs in an ongoing way.
 - Building the infrastructure for continuous data capture, analysis, and insights, in a way that would advance a data-driven, analytical culture to inform decision making.
 - Achieving these goals within 6 months.
- The consulting firm selected required expertise in business analysis, analytics implementation, and the ability to work alongside academic teams and the board as true partners:
 - A firm that would listen to their questions, rather than trying to answer what it thought was important.

The operating environment highlighted opportunities for the organization across important areas



People

- Many stakeholders with differing needs from the Board to operational teams required iterative and progressive solutions.



Processes

- Manual processes had led to non-standard, partial data capture which prevented internal teams from using data directly.



Technology

- Disconnected platforms and system changes has led to the development of data silos—making it difficult to access the data for analysis.

Key stakeholders/areas

Steering Committee

- Board
- President’s office
- Head of Strategy

Working Teams

- Alumni Office
- Finance Team
- Head of Strategy

Other

- Students
- Faculty
- Alumni

Alumni data

- Inconsistent alumni reach-outs had led to missing information for recent alumni

Alumni data capture

- Inconsistencies in data entry had led to non-standard data

Student ERP

- Data on academic choices: program, major, classes, etc.

Alumni CRM

- Alumni professional information
- Contact information

Finance ERP

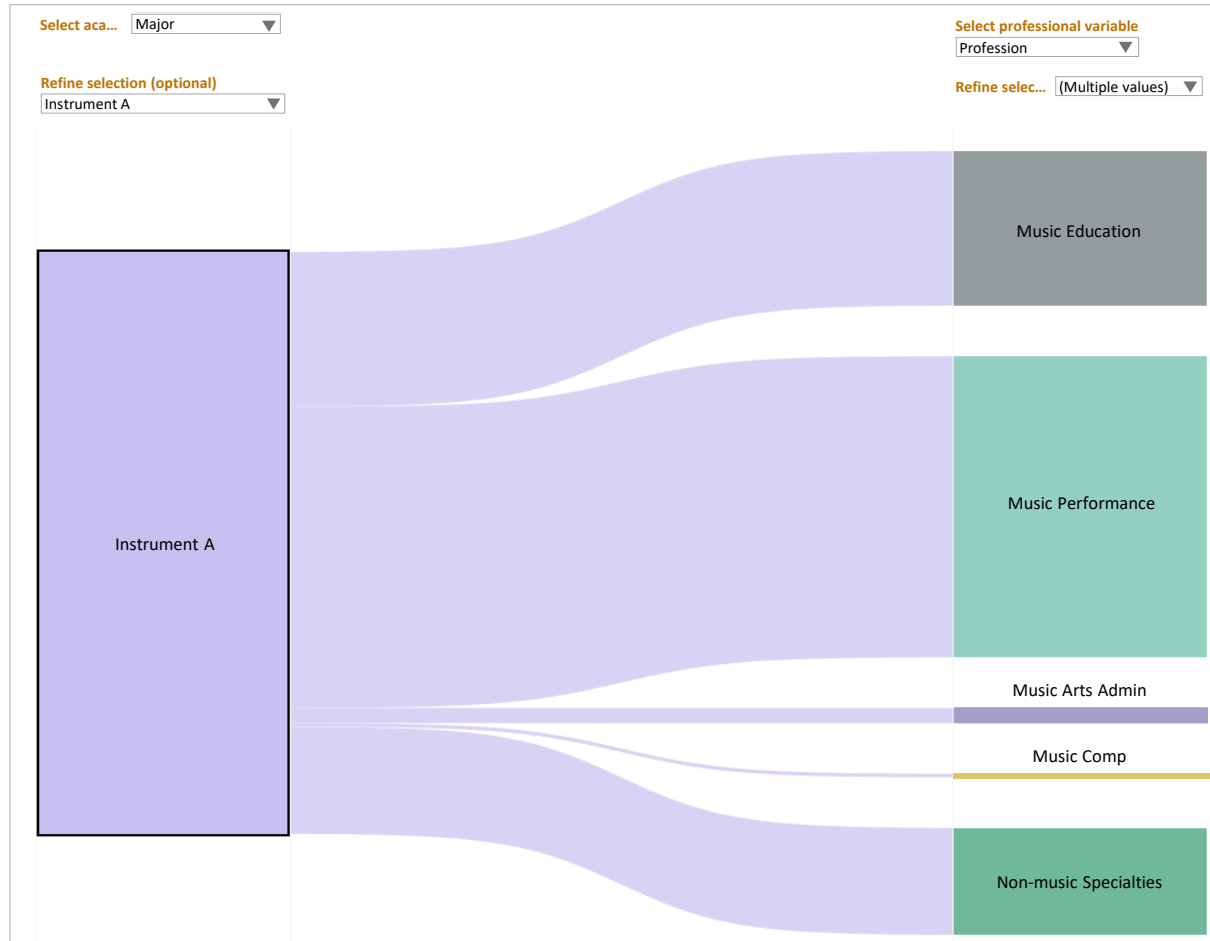
- Departmental costs

Salesforce

- Community partnership activities

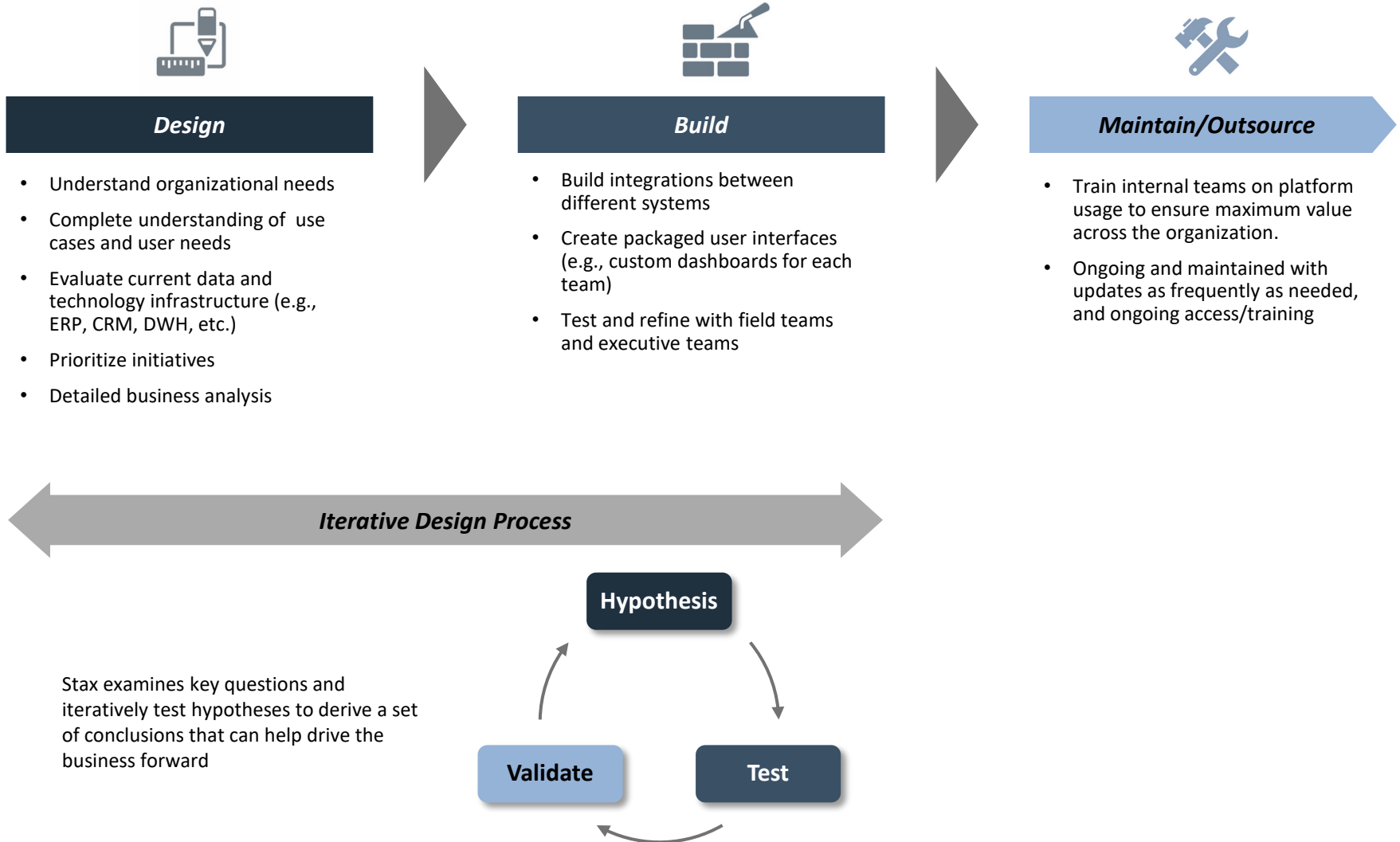
Within 4 months, NEC could see what students studied, how much scholarships they received, what jobs they secured, and alumni engagement—sorted any which way, in real time

Data and analytics have permanent pipes into dashboards, that are hosted in the cloud, so management and the board could sort the data in real time.



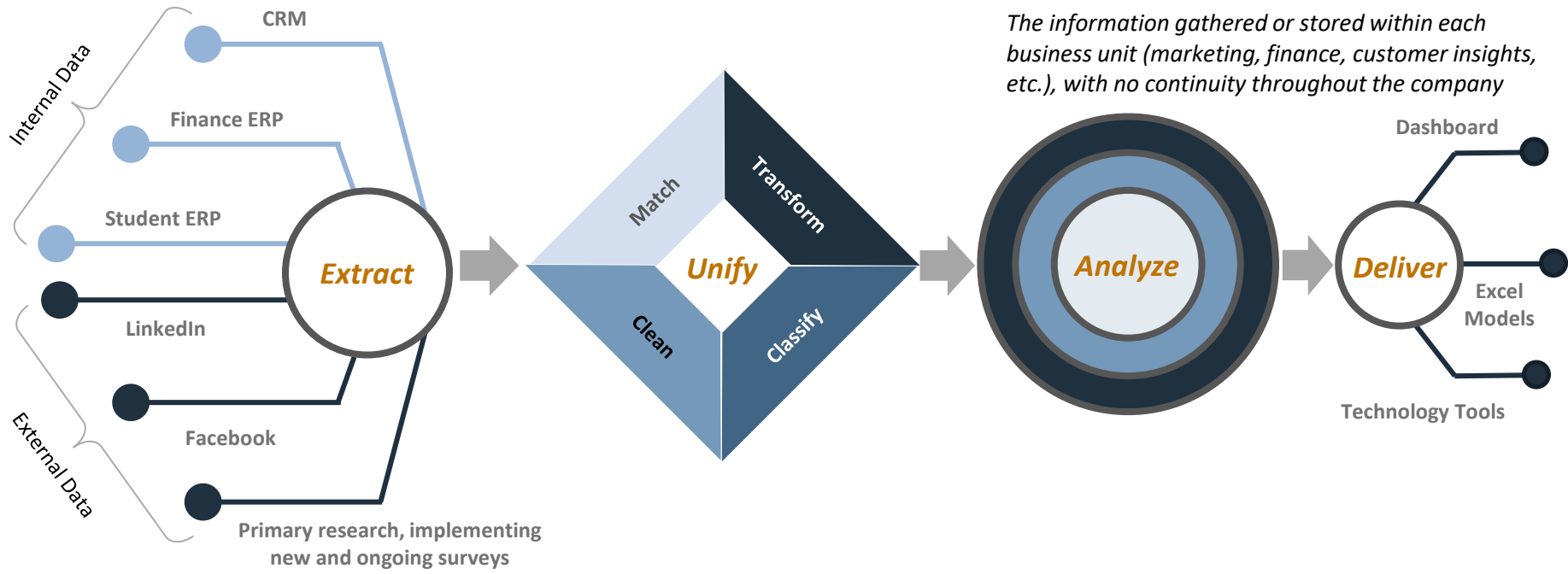
Stax utilized an iterative process, a Design-to-Impact™ Analytics Process

Design what is *Important, Actionable, and Practical* to Implement



Stax’s technical approach is comprised of four main phases—Extract, Unify, Analyze, and Deliver

Extract, Unify, Analyze, and Deliver



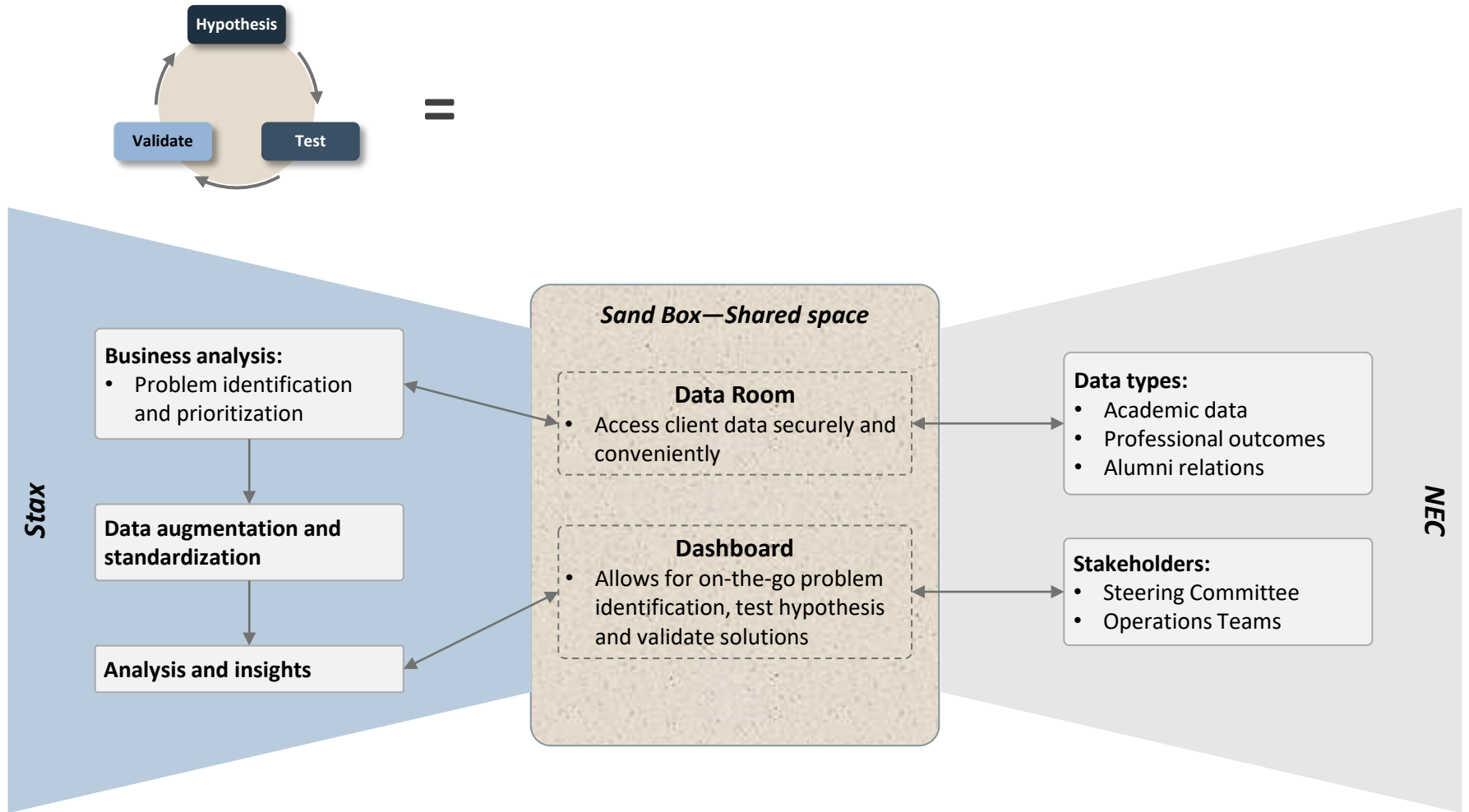
Fact base

- Identifying disparate data sets
- Unifying the data, algorithmically
- Standardizing and increasing data quality

Insights

- Answering key business questions
- Identification of relationships within the data
- Communication to firm business leaders

Inside the iterative design process is the “sandbox” for collaboration with teams and data, ensuring best insights and practical implementation of results



Through this process, NEC's board and teams got answers, a data and analytics management system hosted in the cloud, and cultural change to utilize more data

Results for NEC:

- **Answered big, important questions, including:**
 - Participation of alumni across multiple dimensions
 - Demonstrating outcomes
 - Perspective on historic scholarship allocation
 - Interests and needs of students for curricular development
- **End-to-end view of a business problem:**
 - Ability to connect coursework and financial investments to career outcomes, and how changes in any one area can be seen through the next
- **Unified platform, in the cloud and utilized by multiple teams within the organization:**
 - The platform was developed as cloud-based, with a minimal cost per month to maintain, and quickly deployed for use by multiple teams across the organization, and the executives within the organization
 - A single system of record, allowing for information and analytics to be shared between departments without any integration issues on an ongoing basis
 - A platform that can be updated to whatever schedule is needed and based on the availability of new data
- **Creating a culture of using data and analytics to inform decisions:**
 - Administration, educators, and board members were quickly asking for and accessing information and analysis at multiple levels of depth

