



STATE OF HAWAII  
DEPARTMENT OF EDUCATION  
P.O. BOX 2360  
HONOLULU, HAWAII 96804

OFFICE OF THE SUPERINTENDENT

March 13, 2018

TO: The Honorable Kenneth Uemura  
Chairperson, Finance and Infrastructure Committee

FROM: Dr. Christina M. Kishimoto  
Superintendent

A blue ink signature of Dr. Christina M. Kishimoto, written in a cursive style.

SUBJECT: **Presentation on Overview of Department of Education's ("Department") Office of Information Technology Services and Department's Five-Year Technology Plan**

1. DESCRIPTION  
Presentation on Overview of Department of Education's ("Department") Office of Information Technology Services and Department's Five-Year Technology Plan.
2. PRESENTATION  
DOE Technology Strategy
  - a. Relation to DOE Strategy
  - b. Overview: Five Year Technology Plan
  - c. Capabilities Framework
  - d. Required Characteristics

CMK:BC:ap

c: Office of Information Technology Services

# **Presentation on Overview of Department of Education's ("Department") Office of Information Technology Services and Department's Five-Year Technology Plan**

*Presented to FIC*

March 13, 2018



# Agenda

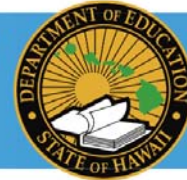
- Relation to DOE Strategy
- Overview: Five-Year Technology Plan
- Capabilities Framework
- Required Characteristics



# 30 Action Items

## HAWAII STATE DEPARTMENT OF EDUCATION IMPLEMENTATION PLAN 2017-2020

State Superintendent Dr. Christina M. Kishimoto

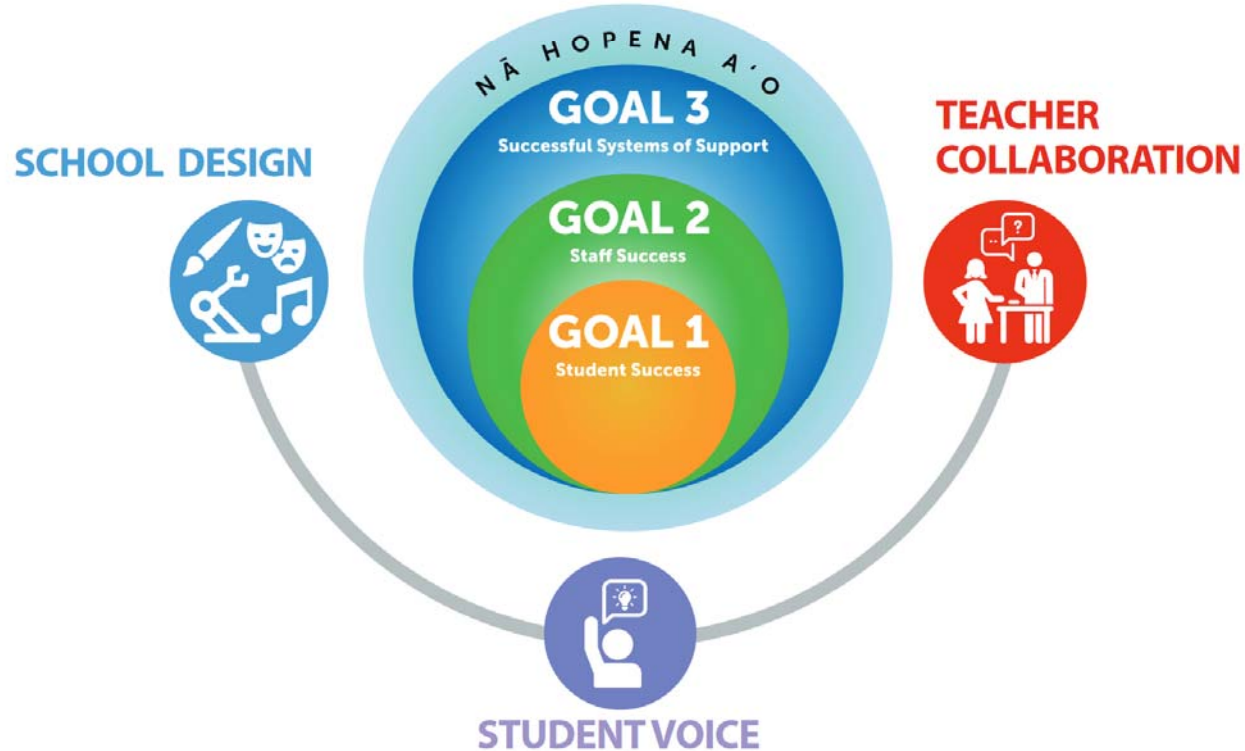


STRATEGIC PLANNING

STRATEGIC THINKING

STRATEGIC ACTION

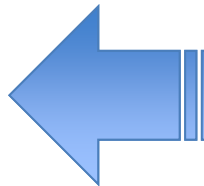
To advance the goals of the Strategic Plan, the HIDOE team will engage in targeted work around three high impact strategies.



# 14 Strategic Success Indicators Moved by 30 Key Action Items

- An Office of the Department is Accountable for each Action Item
- Action items also need work from other Responsible Offices
- This plan covers School Design 5 (SD5) and Teacher Collaboration 8 (TC8)
- This plan supports effective tracking of all Strategic Success Indicators
- This plan supports effective implementation of all 30 Key Action Items

STUDENT SUCCESS INDICATOR	2016 BASELINE	2020 TARGET
1. <b>Chronic Absenteeism.</b> Percentage of students who are absent for 15 or more days during the school year.	15%	9%
2. <b>School Climate.</b> Percentage of students reporting positive school climate as measured by the school climate dimension of the Tripod Survey.	TBA <sup>1</sup>	TBA <sup>1</sup>
3. <b>Inclusion Rate.</b> Percentage of students receiving special education services who are in general education classes for 80 percent or more of the school day.	37%	51%
4. <b>3rd Grade Literacy.</b> Percentage of 3rd graders demonstrating reading of "At or Near" or "Above" grade-level expectation on Smarter Balanced Assessment.	65%	76%
5. <b>9th Grade On-Track.</b> Percentage of first-time 9th graders promoted to 10th grade on-time.	90%	94%
6. <b>Academic Achievement.</b> Percentage of students meeting achievement targets on statewide assessments in English Language Arts/Literacy, Mathematics, and Science.	ELA	51%
	Math	42%
	Science	43%
7. <b>Achievement Gap.</b> Performance differential between high-needs students (e.g., economic disadvantage, special needs, English learners) and their peers.	ELA	33 pts
	Math	29 pts
8. <b>High School Graduation.</b> On-time rate based on federal methodology for Adjusted Cohort Graduation Rate of students for earning a diploma within four years.	82%	86%
9. <b>Career &amp; Technical Education Concentrator.</b> Percentage of 12th graders who complete a CTE Program of Study.	38%	50%
10. <b>College-Going Rate.</b> Percentage of high school completers enrolled in postsecondary institutions nationwide—vocational or trade schools, 2- or 4-year colleges—in the fall following graduation.	56%	62%
11. <b>Teacher Positions Filled.</b> Percentage filled by teachers with State Approved Teacher Education Program (SATEP) as of August 1 each year.	93% <sup>2</sup>	96% <sup>2</sup>
12. <b>Teacher Retention.</b> Percentage of teachers retained after five years.	52%	60%
13. <b>Repair &amp; Maintenance Backlog.</b> Dollar amount in list of unfunded or deferred major R&M projects.	\$279M	\$239M
14. <b>Family Engagement.</b> Percentage of parents reporting positive responses on the modified 2017-18 Involvement/Engagement dimension of the School Quality Survey.	TBA <sup>4</sup>	TBA <sup>4</sup>



RACI of Thirty Action Items										
	Design	SD5	TC8	SD5	TC8	SD5	TC8	SD5	TC8	
SD1	A	C	C	C	C	C	C	C	C	Design
SD2	A	C	C	C	C	C	C	C	C	Design
SD3	A	C	C	C	C	C	C	C	C	Design
SD4	A	C	C	C	C	C	C	C	C	Design
SD5	A	C	C	C	C	C	C	C	C	Design
SD6	A	C	C	C	C	C	C	C	C	Design
SD7	A	C	C	C	C	C	C	C	C	Design
SD8	A	C	C	C	C	C	C	C	C	Design
SD9	A	C	C	C	C	C	C	C	C	Design
SD10	A	C	C	C	C	C	C	C	C	Design
SD11	A	C	C	C	C	C	C	C	C	Design
SD12	A	C	C	C	C	C	C	C	C	Design
SD13	A	C	C	C	C	C	C	C	C	Design
SD14	A	C	C	C	C	C	C	C	C	Design
SD15	A	C	C	C	C	C	C	C	C	Design
SD16	A	C	C	C	C	C	C	C	C	Design
SD17	A	C	C	C	C	C	C	C	C	Design
SD18	A	C	C	C	C	C	C	C	C	Design
SD19	A	C	C	C	C	C	C	C	C	Design
SD20	A	C	C	C	C	C	C	C	C	Design
SD21	A	C	C	C	C	C	C	C	C	Design
SD22	A	C	C	C	C	C	C	C	C	Design
SD23	A	C	C	C	C	C	C	C	C	Design
SD24	A	C	C	C	C	C	C	C	C	Design
SD25	A	C	C	C	C	C	C	C	C	Design
SD26	A	C	C	C	C	C	C	C	C	Design
SD27	A	C	C	C	C	C	C	C	C	Design
SD28	A	C	C	C	C	C	C	C	C	Design
SD29	A	C	C	C	C	C	C	C	C	Design
SD30	A	C	C	C	C	C	C	C	C	Design
TC1	A	C	C	C	C	C	C	C	C	Design
TC2	A	C	C	C	C	C	C	C	C	Design
TC3	A	C	C	C	C	C	C	C	C	Design
TC4	A	C	C	C	C	C	C	C	C	Design
TC5	A	C	C	C	C	C	C	C	C	Design
TC6	A	C	C	C	C	C	C	C	C	Design
TC7	A	C	C	C	C	C	C	C	C	Design
TC8	A	C	C	C	C	C	C	C	C	Design
TC9	A	C	C	C	C	C	C	C	C	Design
TC10	A	C	C	C	C	C	C	C	C	Design
TC11	A	C	C	C	C	C	C	C	C	Design
TC12	A	C	C	C	C	C	C	C	C	Design
TC13	A	C	C	C	C	C	C	C	C	Design
TC14	A	C	C	C	C	C	C	C	C	Design
TC15	A	C	C	C	C	C	C	C	C	Design
TC16	A	C	C	C	C	C	C	C	C	Design
TC17	A	C	C	C	C	C	C	C	C	Design
TC18	A	C	C	C	C	C	C	C	C	Design



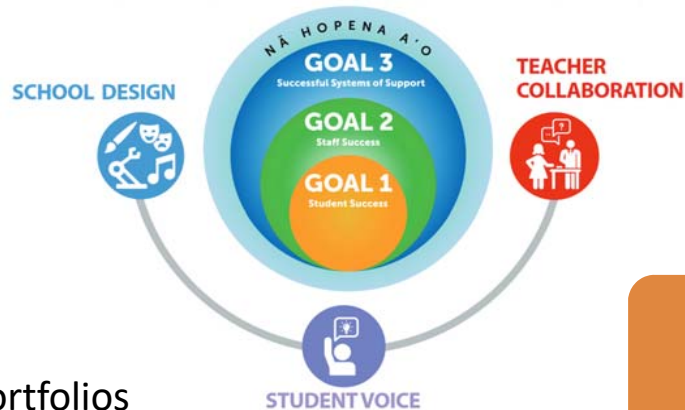
# School Design 5, Teacher Collaboration 8: Five-Year Technology Plan

- An architecture identifying capabilities for the HIDOE
- A list of characteristics required for implementations of capabilities

*A directional approach: Technology will change*



# Capabilities Grouped in Three Layers



## Playground

e.g., 1-1, Minecraft, student portfolios

## For the Instructional

e.g., student information, learning management, individual plans, Federal and state reporting

## Enterprise

e.g., Identity, communication, resources, talent

Where students learn

Where schools are managed

Where the Department is managed





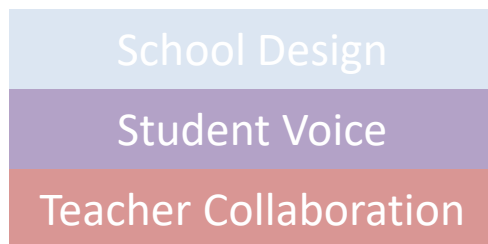
## Playground: Capabilities for Learning

Operated by technical staff, supported by instructional systems, actively used by teachers and students

Protected but flexible

Broad support for all Student Voice action items

Computer science and digital literacy initiatives are strongly supported and present here



### Lesson plans

- Capabilities for teacher specific curricula, curated materials, and class-specific approaches
- Depends on Learning Management and Assessment capabilities but brings in outside resources, teacher-created content
- Supports SD3, SV1, SV2, SV5, SV6, SV10, TC1, TC2, TC3, TC7

### Grading

- Capabilities for student feedback
- Depends on Student Information, Assessment, and Reporting capabilities, plus collaboration enabled by Unified Communication capabilities
- Support for SD3, SD4, SD7, SV7, SV8, TC3, TC4

### In-class activities

- Capabilities for engaged learning
- Depends on Learning Management, Student Information, specialized capabilities
- Computer science, games, programming, makerspace equipment, science and art equipment
- Support for SV1, SV2, SV6, SV8, SV10

### Project portfolios

- Capabilities for students to gather and showcase their work, individually and as groups
- Depends on Lesson Plans, In-Class Activities, Unified Communication, but brings in outside resources, student-created content
- Direct support of SV1, SV2, SV4, SV6, SV7, SV8, SV9, SV10

### Personal learning

- Capabilities to tailor or customize capabilities across this layer to support varied student needs and goals
- Depends on Student Information, Unified Communication, Learning Management
- Depends on Lesson Plans, Grading, In-class Activities, Project Portfolios



# Instructional: Capabilities for Educational Organizations

Operated by technical staff, configured by dedicated teams, used actively by schools

Administration runs the school with these capabilities

Teachers prepare with these capabilities

Avenue for feedback from Principals through school planning, school operation, and reporting

Students use them occasionally  
e.g., for a standardized test

Parents use them occasionally  
e.g., for enrollment  
e.g., for a report card  
e.g., for an IEP

School Design

Student Voice

Teacher Collaboration

Student  
information and  
management

- Capabilities to enroll and track students through their entire education
- Critical for school operation and all capabilities
- System of record for students
- Includes student information systems, student support, longitudinal data
- Direct support for key strategic metrics, SD6, SV6, SV9

Learning  
management

- Capabilities supporting curricula
- Critical for school operation
- Direct support for SD3, SD4, SD6, SV7, SV8, SV9, TC5, TC10

Assessment

- Capabilities to track student progress
- Mandatory testing capabilities
- Direct support for key strategic metrics
- Support for SD6, SD7, SD8, SV1, SV6

School planning

- Financial management within school context
- Critical for school operation
- Support for SD1, SD2, SD6, SD8, SD9, SV6, SV9, TC4, TC6, TC7

School operation

- Day-to-day school activities
- Food services, maintenance requests, bells and paging, scheduling, alerting, time and attendance
- Critical for school operation

Reporting

- Required capabilities for Federal and state information sharing
- Critical support for all key strategic metrics
- Leverage point for data science "playgrounds" across HIOE and within schools
- Leverage point for financial support, e.g., Federal impact aid, eRate, Medicaid

## Enterprise: Capabilities for Large-Scale Organizations

Operated by technical staff, used invisibly by everyone

Scale comparisons:

25000 full time employees, 20000 part time employees, comparable to a Fortune 500 corporation, largest state government agency

180000 full-time students equivalent to a major commercial service

Approximately 300 locations equivalent to a major retail chain

School Design

Student Voice

Teacher Collaboration

### Identity

- Foundation for management across the enterprise
- Students, employees, systems
- Directly enables SV6, SV9

### Network

- Foundation for all technology capabilities
- Critical to most SV and TC action items

### Devices

- Foundation for future-ready and 1-1 programs
- Comprehensive refresh approach

### Unified communication

- Combine Identity, Network, Devices with collaboration technology
- Critical to safety and security initiatives
- Support for SD3, SD4, SV10, TC2, TC3, TC10

### Systems management

- Foundation to managing all capabilities delivered by the plan
- Support for SD2, SD8, SD9, SV6, TC2, TC9

### HR management

- Capabilities for all aspects of talent management: employee lifecycle, professional development, compensation
- Critical to key strategic metrics
- Support for SD6, SD7, SD10, TC2, TC3, TC5, TC7

### Financial management

- Capabilities for all aspects of funding: budgeting, payment, transparency
- Critical to key strategic metrics
- Support for SD1, SD3, SD8, SD9, SV8, SV9, TC9

# Characteristics of Components

## Run it Well

### *Comprehensive Operation*

e.g., 24/7, automated, patched, available

## Always Improve

### *Enhancing the Experience*

e.g., always upgrading, robust refresh cycle, no more 30-year-old systems

## Focus on Learners

### *Prioritize the Customer*

e.g., choose projects benefiting learners over state office

## Pilot First

### *Immediate Value, Scaled Over Time*

e.g., make sure it works with a single complex, then scale to all  
DOE has a proven history of successful implementations of change



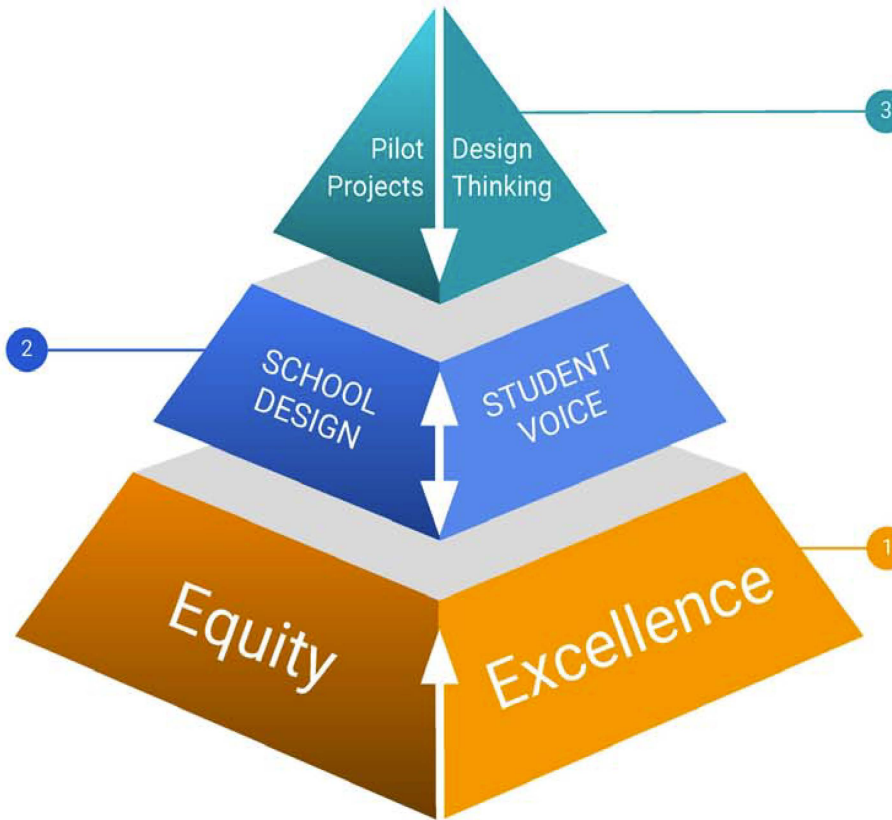


HAWAI'I DOE

# Learning Organization

## Innovating in Support of the Core

New strategies and systems for delivering Teaching & Learning.



## Pipeline of Emerging Ideas

To prepare for emerging trends, advancements and changes that impact education, ideas are tried and vetted by our schools and teams; some will advance to support the core.

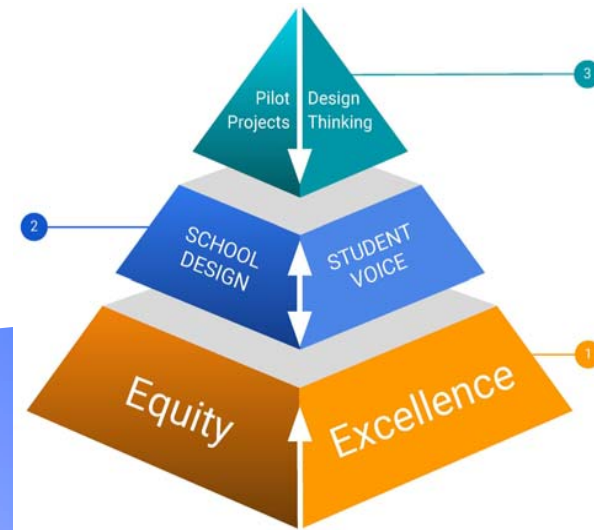
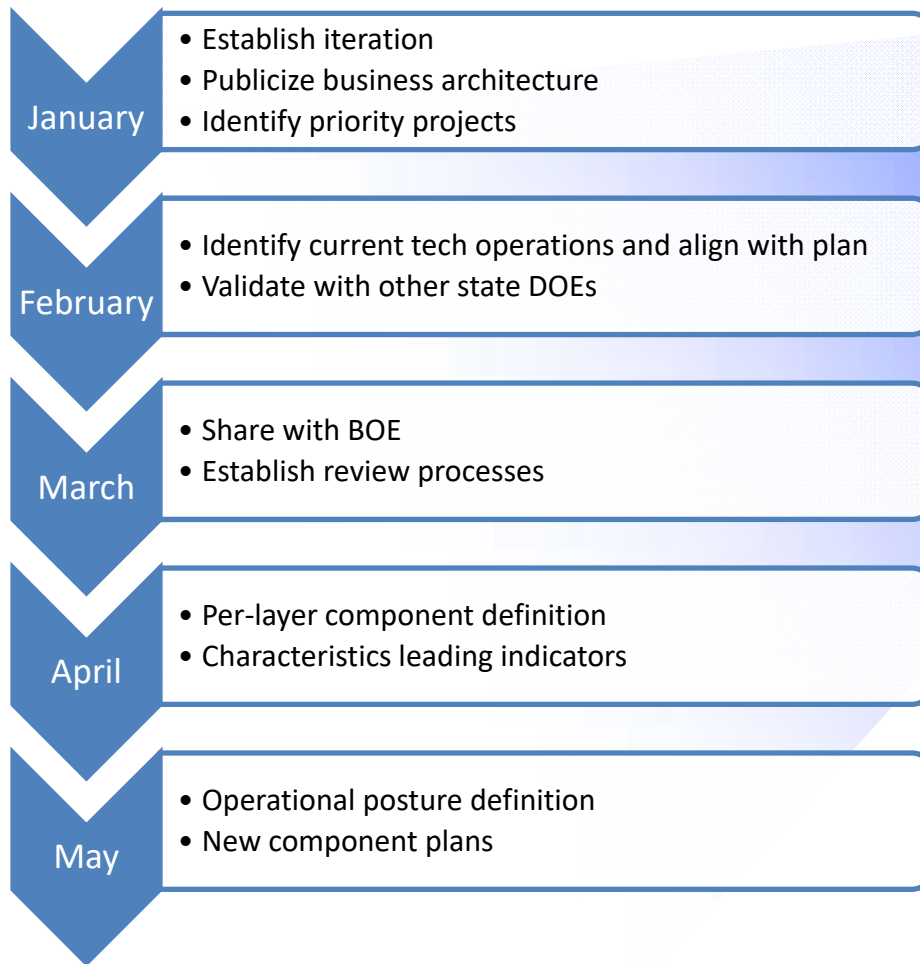
## Teaching & Learning Core

Focus: equity and excellence in core curriculum and supports.

Created Nov. 27, 2017  
<http://bit.ly/HIDOELearnOrg>



# Learning Process





# Next Steps

**Spring:** In progress improvements within this framework

**Start of summer:** Definition of leading indicators for characteristics

**Start of summer:** As-is implementations identified by leading indicators to set priorities

**Summer:** Three successive biennial implementation plans covering the next three biennial requests

Further and repeated updates as requested

# Questions

