



# The “Florida Plan”

*Industry-aligned, credential-based technical education*

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[www.fl-ate.org](http://www.fl-ate.org)

[www.madeinflorida.org](http://www.madeinflorida.org)

.org

Florida Advanced Technological Education Center

**FLATE**

*A National Science Foundation Regional Center of Excellence*



**FLATE** will be Florida's leading resource for education and training expertise, leadership, projects, and services to promote and support the workforce in the high performance production and manufacturing community.

**Impact locally. lead nationally.**



Impact Florida. Lead Nationally.

# NSF Advanced Technological Education

# ATE CENTERS



[www.atecenters.org](http://www.atecenters.org)

*Partners with Industry  
for a New American Workforce*

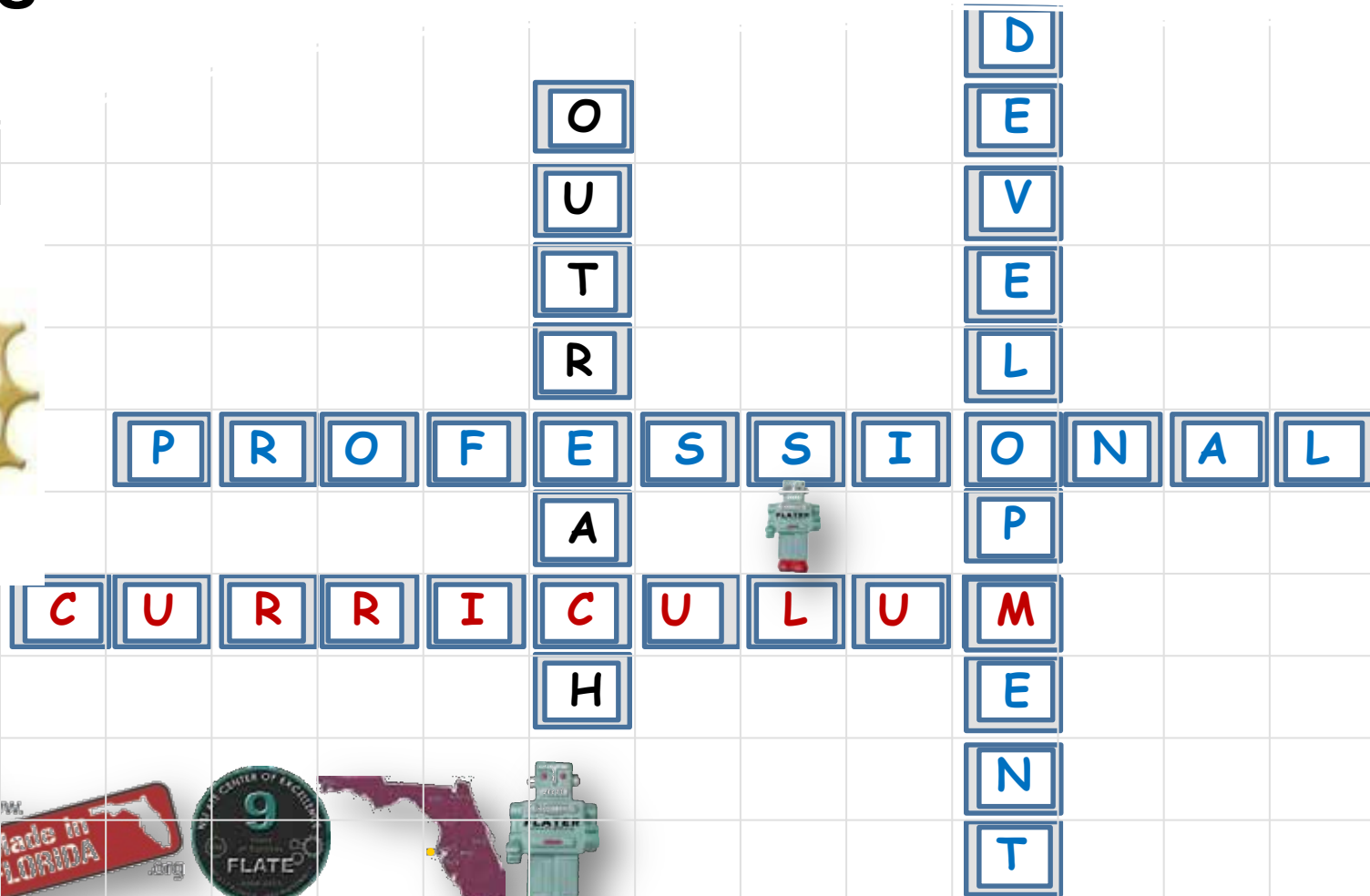


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# The Florida Advanced Technological Education Center

A National Science Foundation Advanced Technological Education  
Center of Excellence

## Our Goals



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# The Florida Advanced Technological Education Center

*A regional ATE Center that impacts manufacturing and related technology education at the national level*

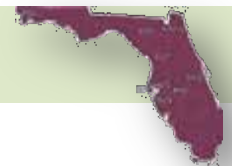


**IMPACT LOCALLY - LEAD NATIONALLY**



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## The Florida Plan for Technical Education



**Statewide promotion of technical careers**

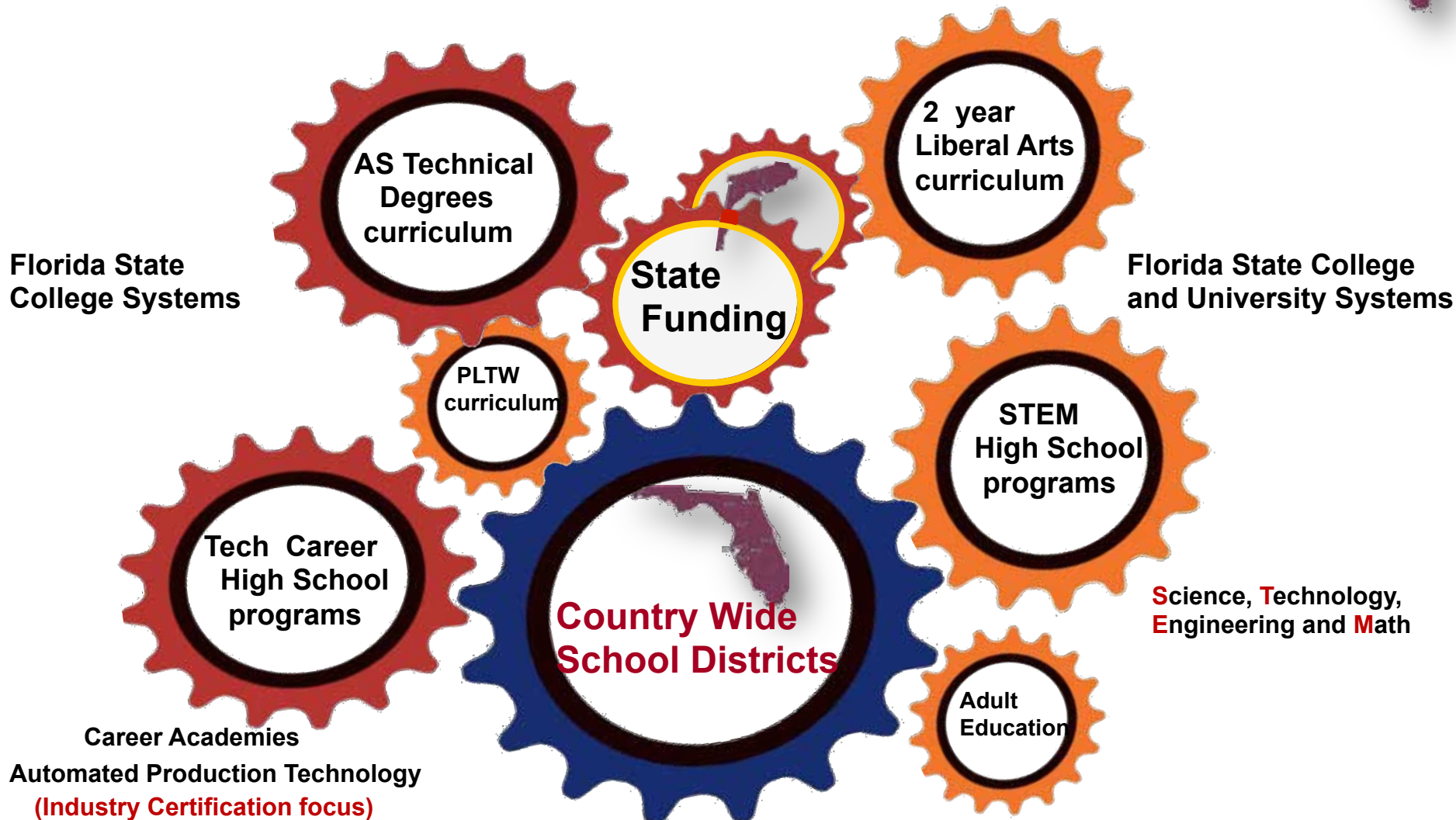
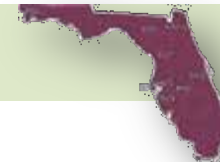
**Statewide unified A.S. Engineering Technology degree and career pathways`**

**Faculty Professional Development**

# The Florida Advanced Technological Education Center



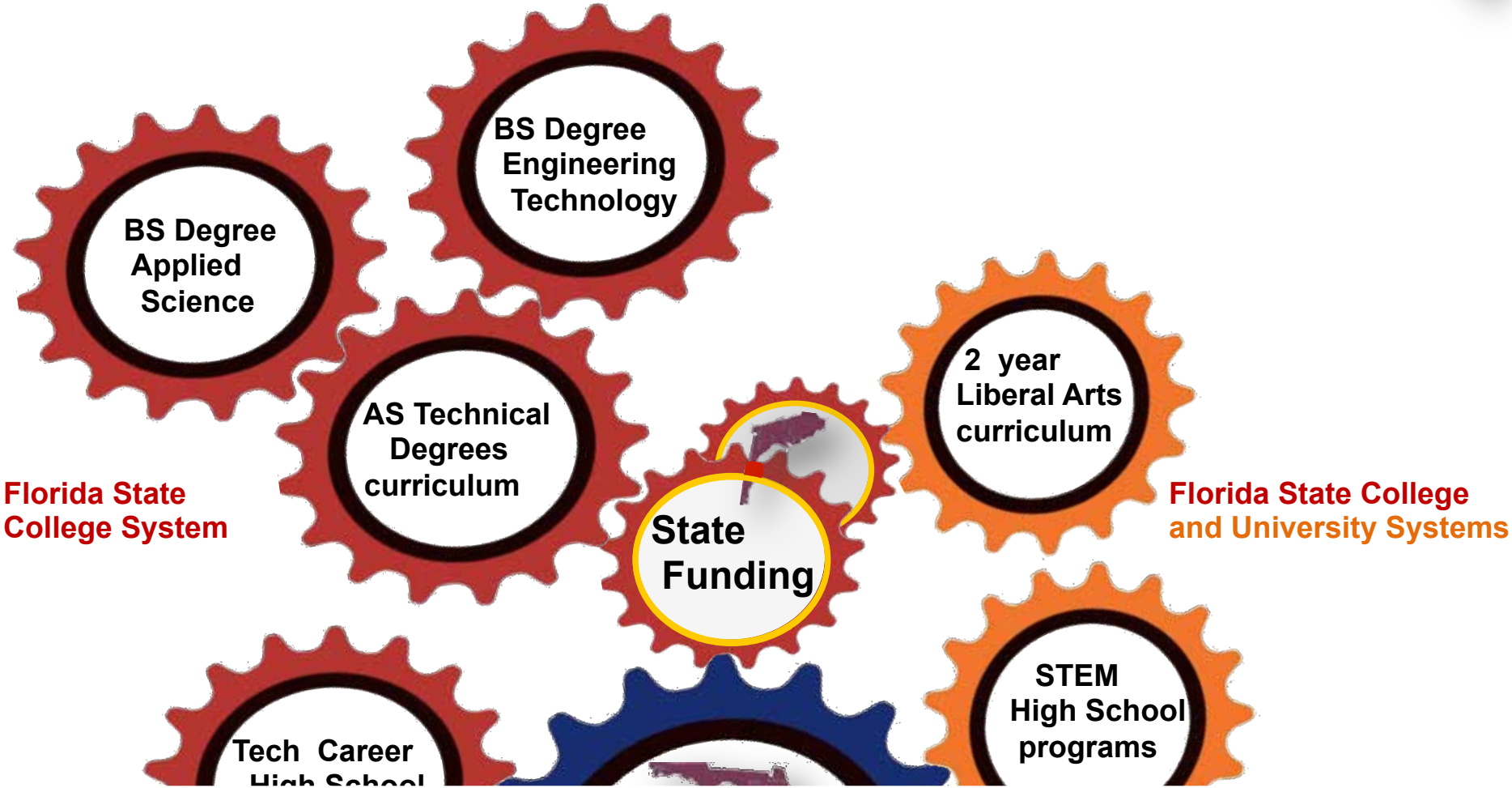
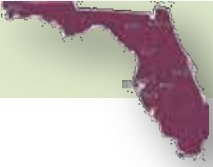
## The Florida Plan for Technical Education



“K through 14” education options



## The Florida Plan for Technical Education



Florida State  
College System

Florida State College  
and University Systems

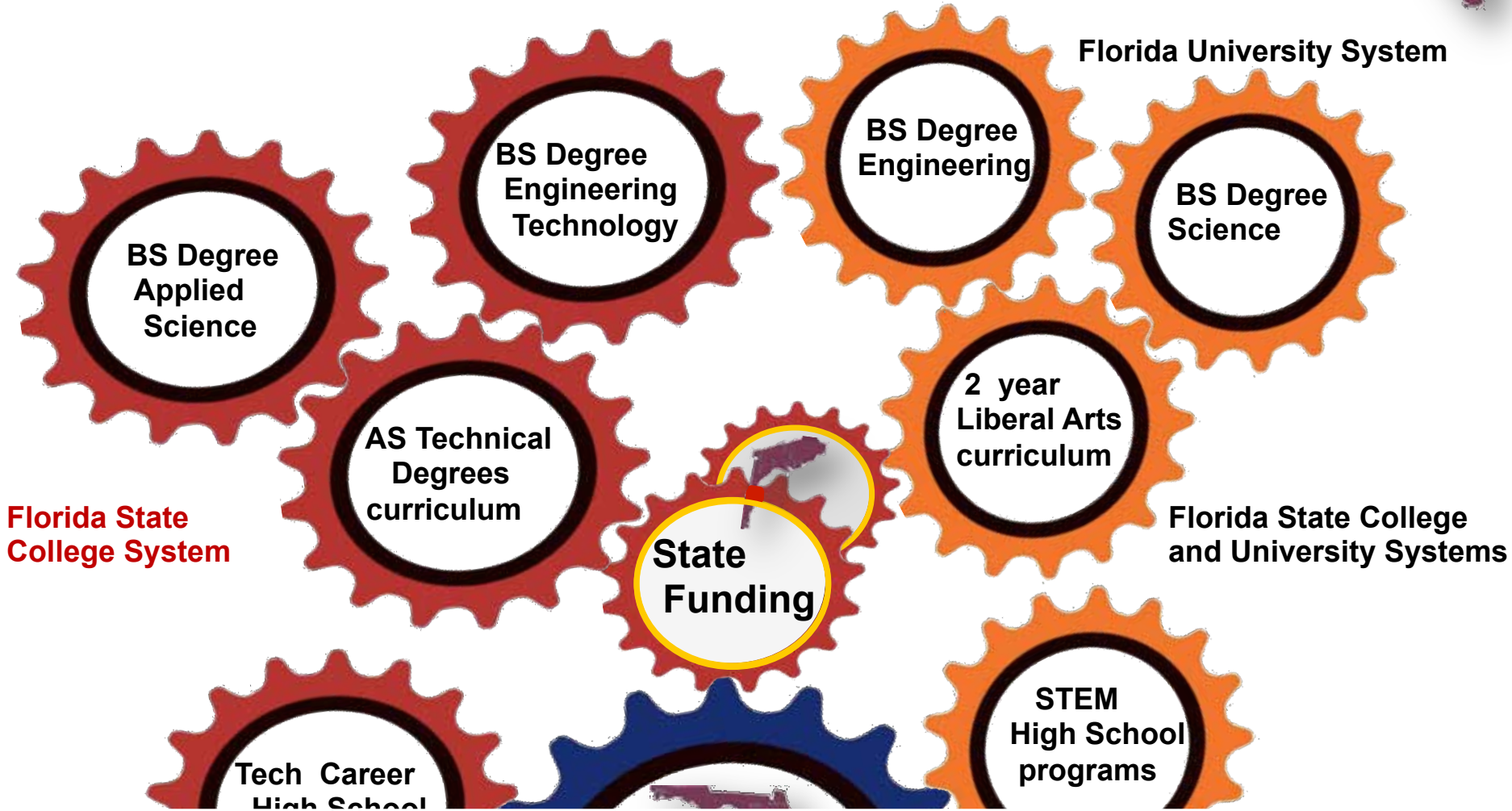
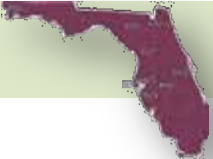
**Florida State College and University System**  
Education options



# The Florida Advanced Technological Education Center



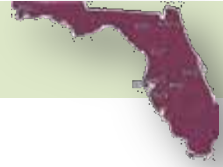
## The Florida Plan for Technical Education



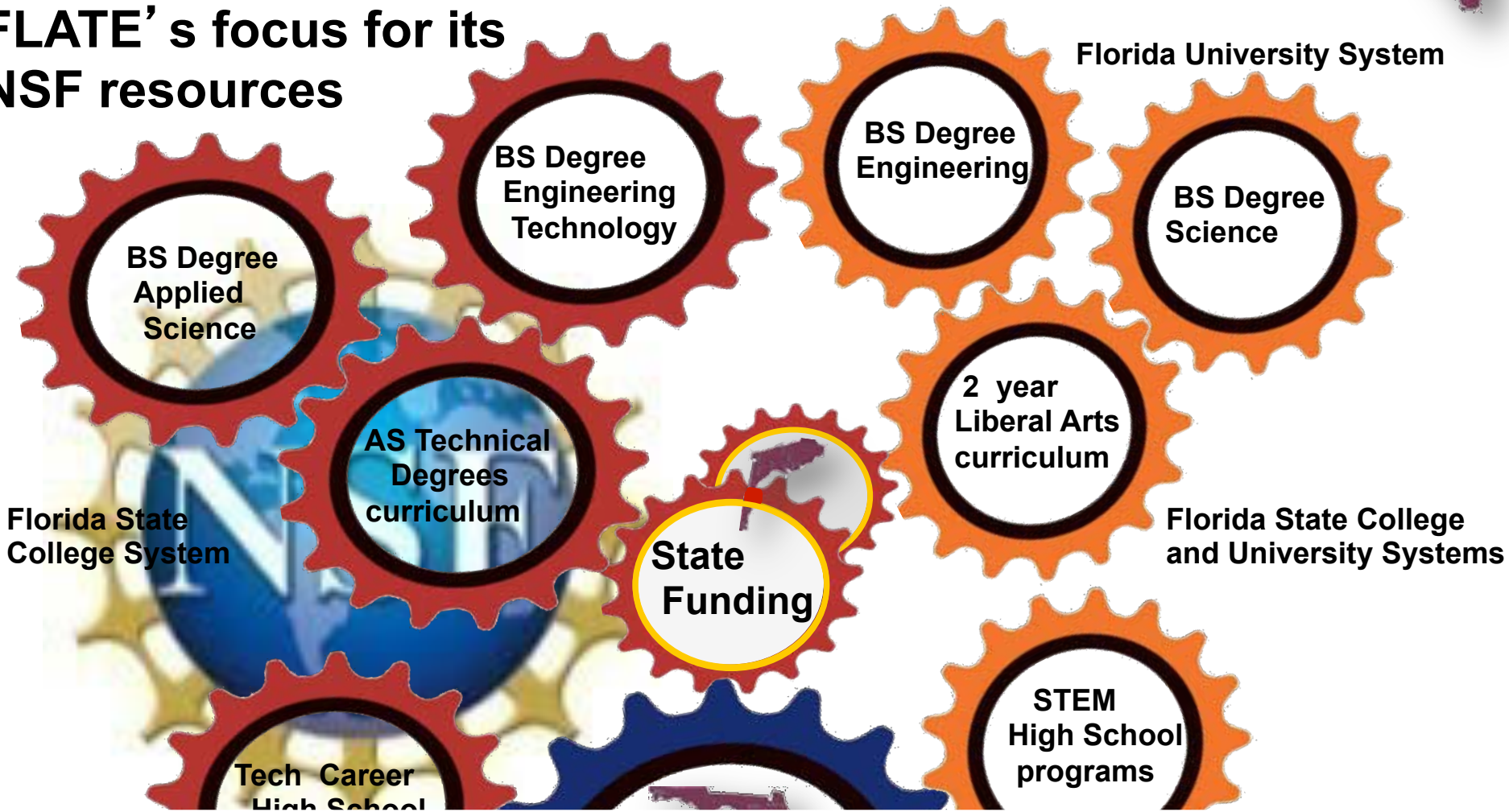
**Florida State College and University System**  
Education options



## The Florida Plan for Technical Education



**FLATE's focus for its NSF resources**



Florida University System

Florida State College System

Florida State College and University Systems

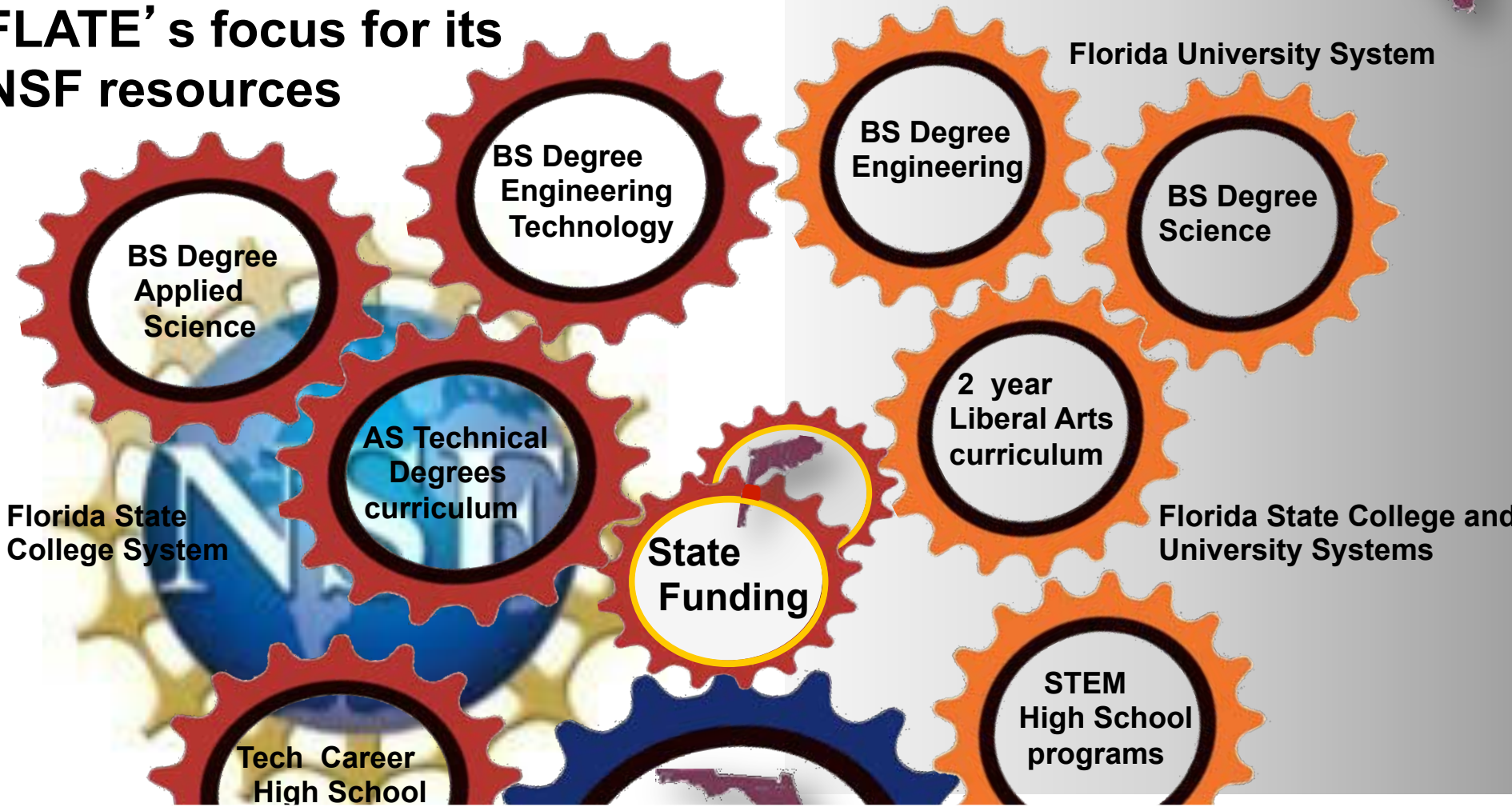
**Florida State College and University System**  
Education options



## The Florida Plan for Technical Education



**FLATE's focus for its NSF resources**



**Florida State College and University System  
Education options**

## The Florida Plan for Technical Education

### Criteria:

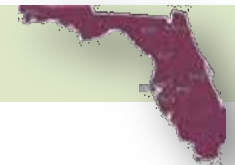
- Increase enrollment in college programs
- **Minimize duplication**
- Provide multiple entry & exit options
- **Unify marketing and recruitment strategy and efforts**
- Meet industries' needs for skilled technicians



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## The Florida Plan for Technical Education



### Criteria:

- Align with industry recognized national certifications
- Offer consistent programs statewide
- Include statewide articulations
- Integrate industry into education process
- Provide accelerated academic programs

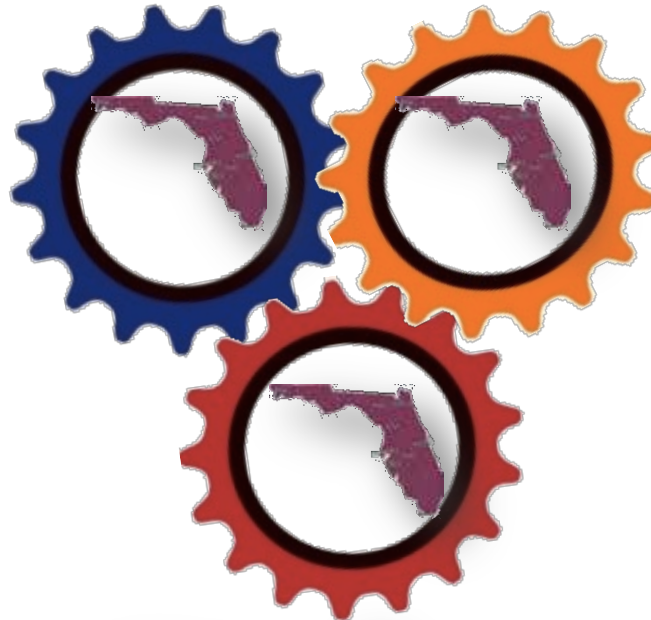


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## The Florida Plan for Technical Education

### FLATE's Approach

*Trained employees contribute to production.*  
***Educated** employees create productivity.*



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## The Florida Plan for Technical Education

### FLATE's Approach

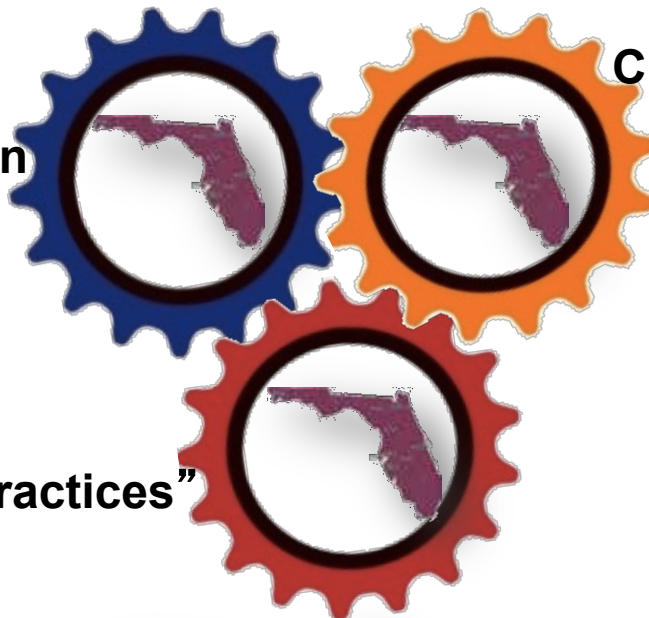
***Trained employees contribute to production.***

***Educated employees create productivity.***

Support infrastructure  
for building Florida Plan

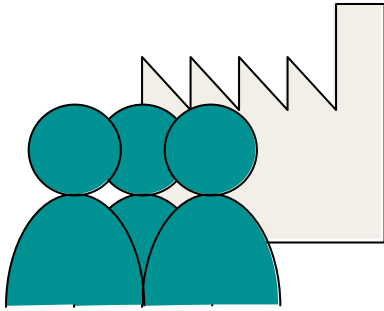
Create a "Learn and Earn"  
environment

Develop a  
"Community of Practices"

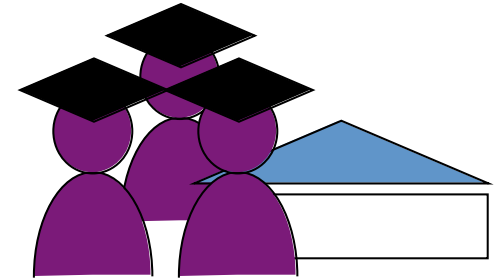
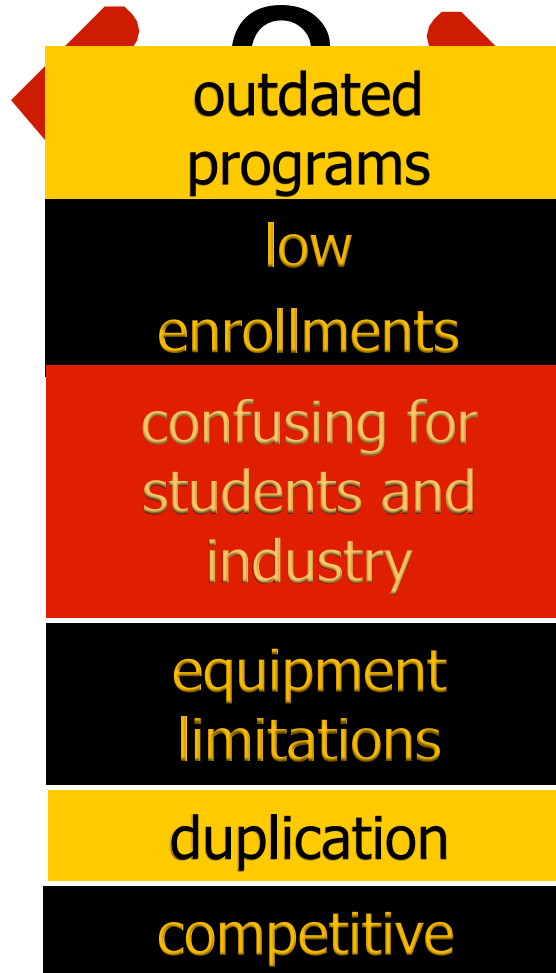


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# The Florida Advanced Technological Education Center



**INDUSTRY**



**COLLEGE PROGRAMS**

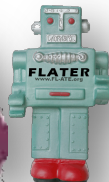
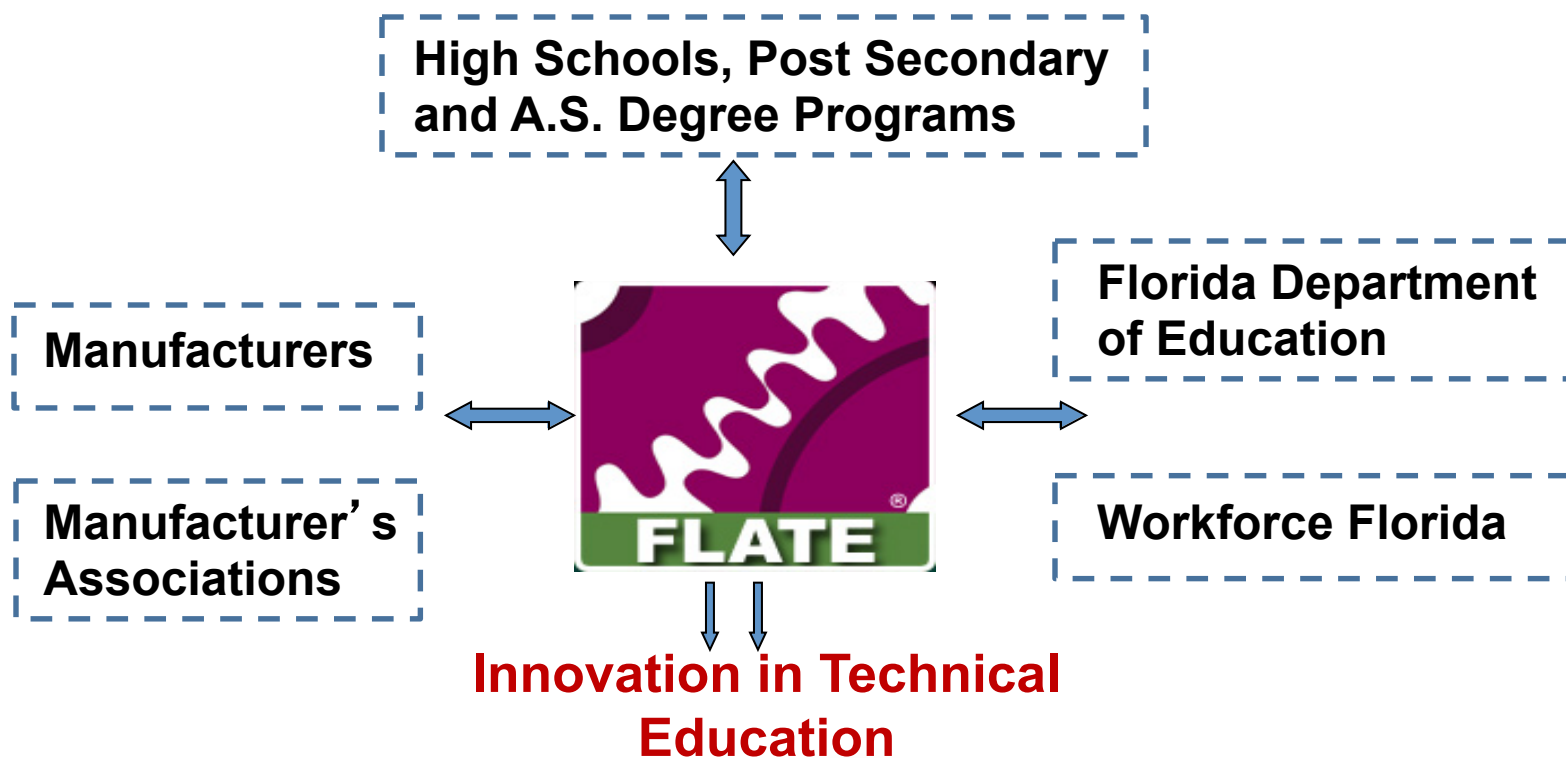


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## The Florida Plan for Technical Education

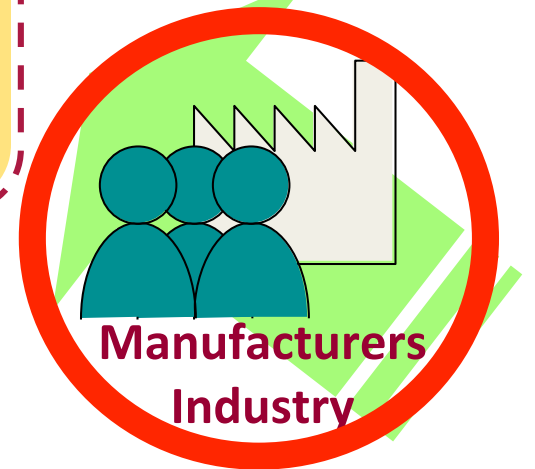
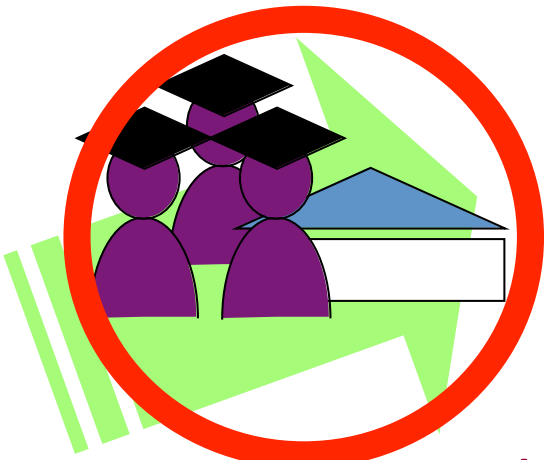
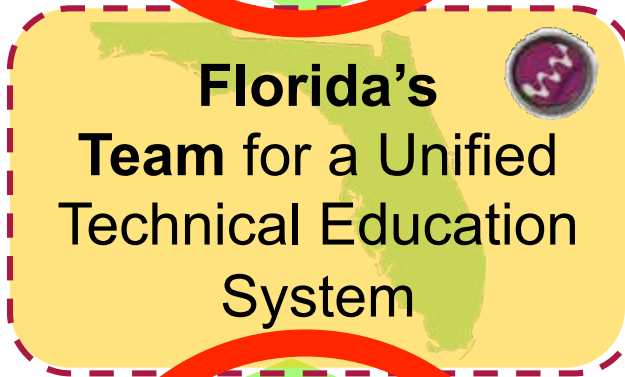
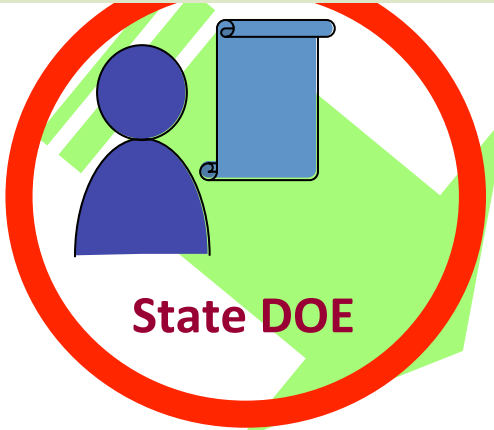
### Collaborative Exercise



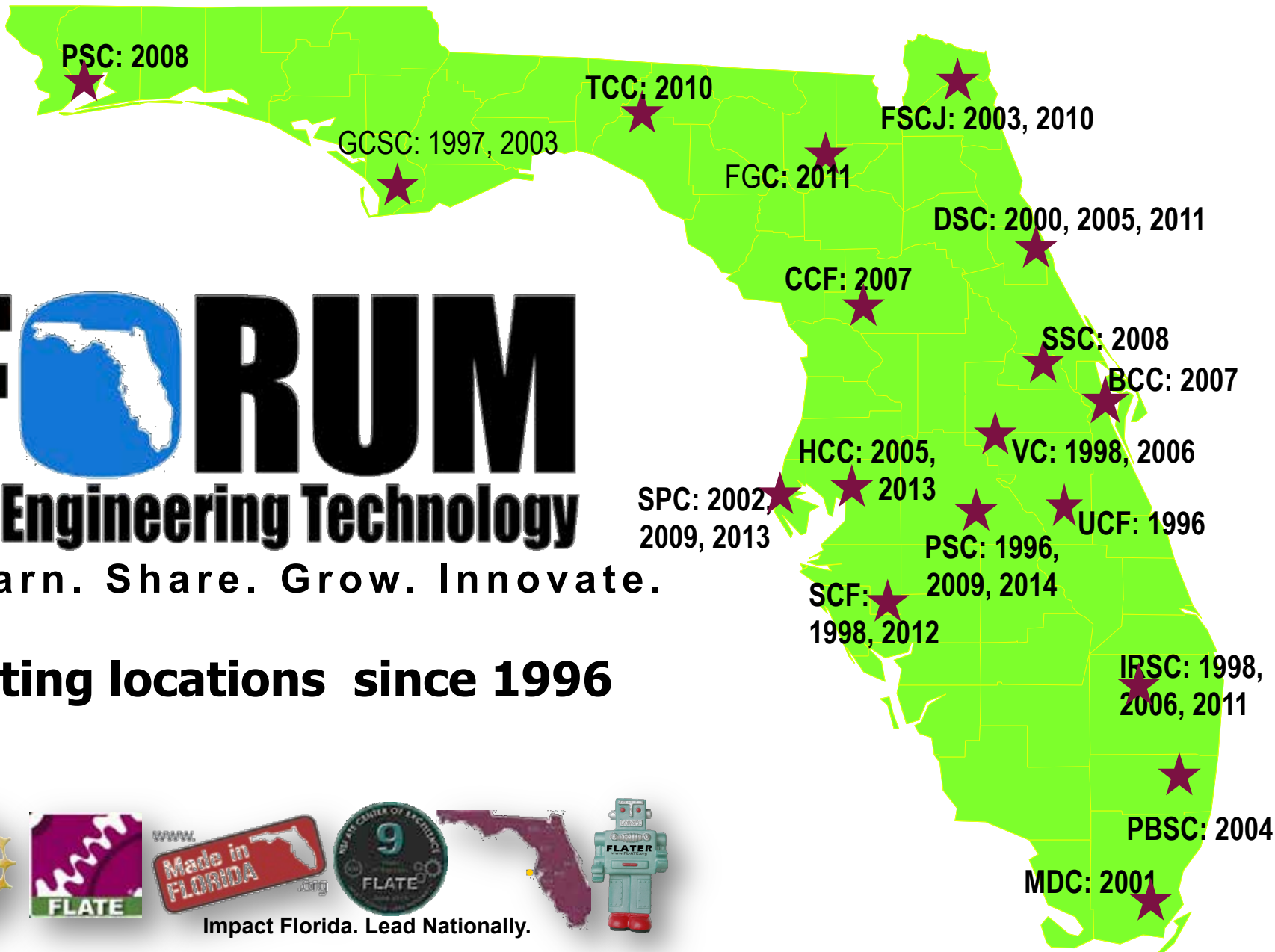
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## The Florida Plan for Technical Education



# The Florida Advanced Technological Education Center

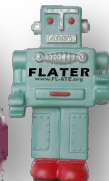


# FORUM

on Engineering Technology

Learn. Share. Grow. Innovate.

## Meeting locations since 1996



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# The Florida Advanced Technological Education Center

# FORUM

on Engineering Technology



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# Engineering Technology A.S. Degree

60 semester hours

**I. General Education – 15 - 18 credit hours**

**II. ET Core - 18 credit hours**

**III. 10 Specialization Tracts – 24 to 27 credit hours**



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# Engineering Technology A.S. Degree

**60 semester hours**

## I. General Education – 15 - 18 credit hours

English

Science

Math

Social Science

Humanities

## II. ET Core - 18 credit hours

Computer Aided Design

Electronics

Manufacturing Processes & Materials Quality

Mechanics & Instrumentation

Safety



## III. 10 Specialization Tracts – 24 to 27 credit hours

Advanced Manufacturing

Advanced Technology

Biomedical Systems

Alternative Energy System

Digital Manufacturing

Digital Design & Modeling

Electronics

Mechanical Design & Fabrication

Quality

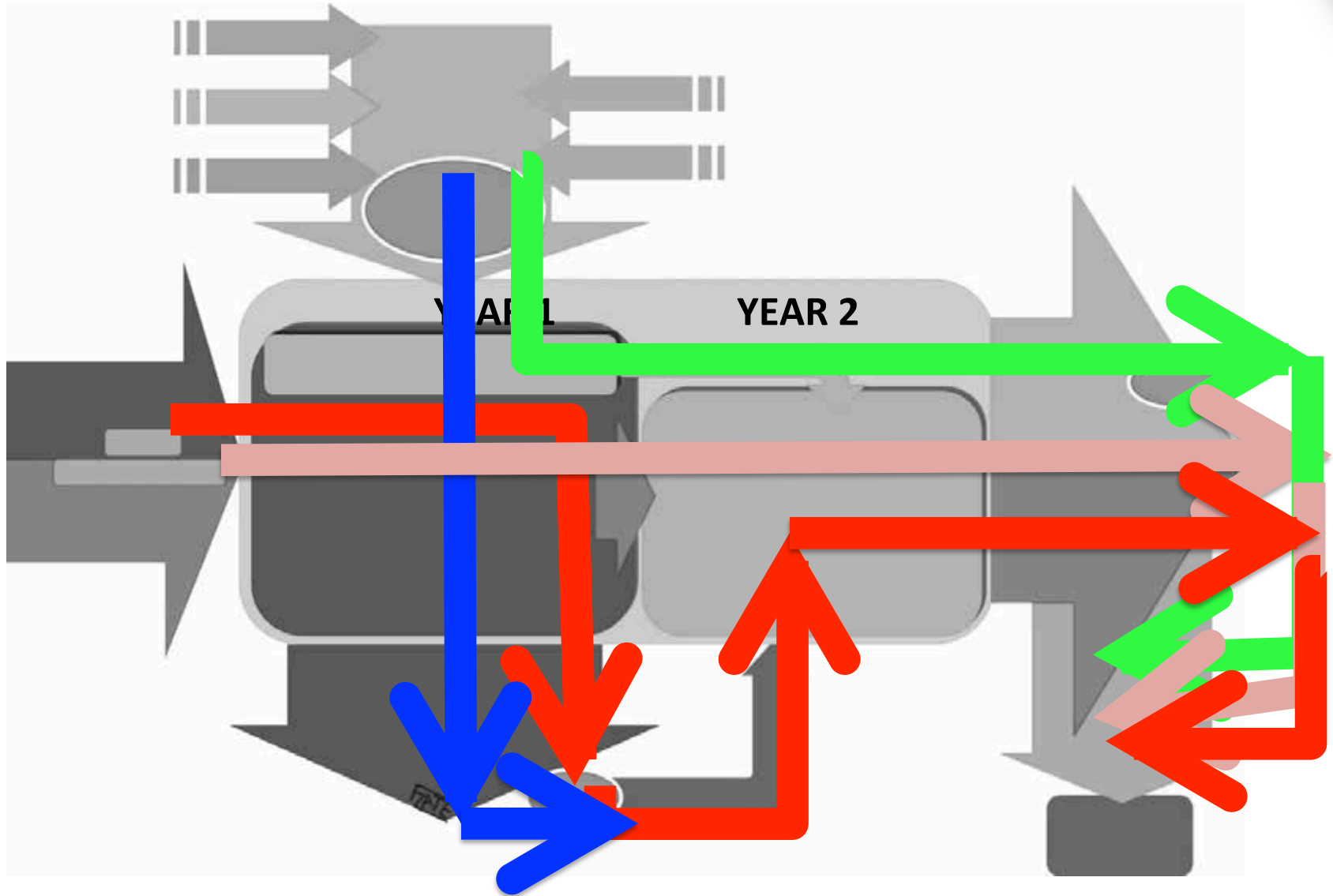
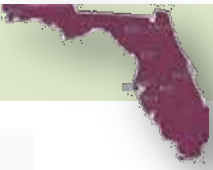
Industrial Energy Efficiency



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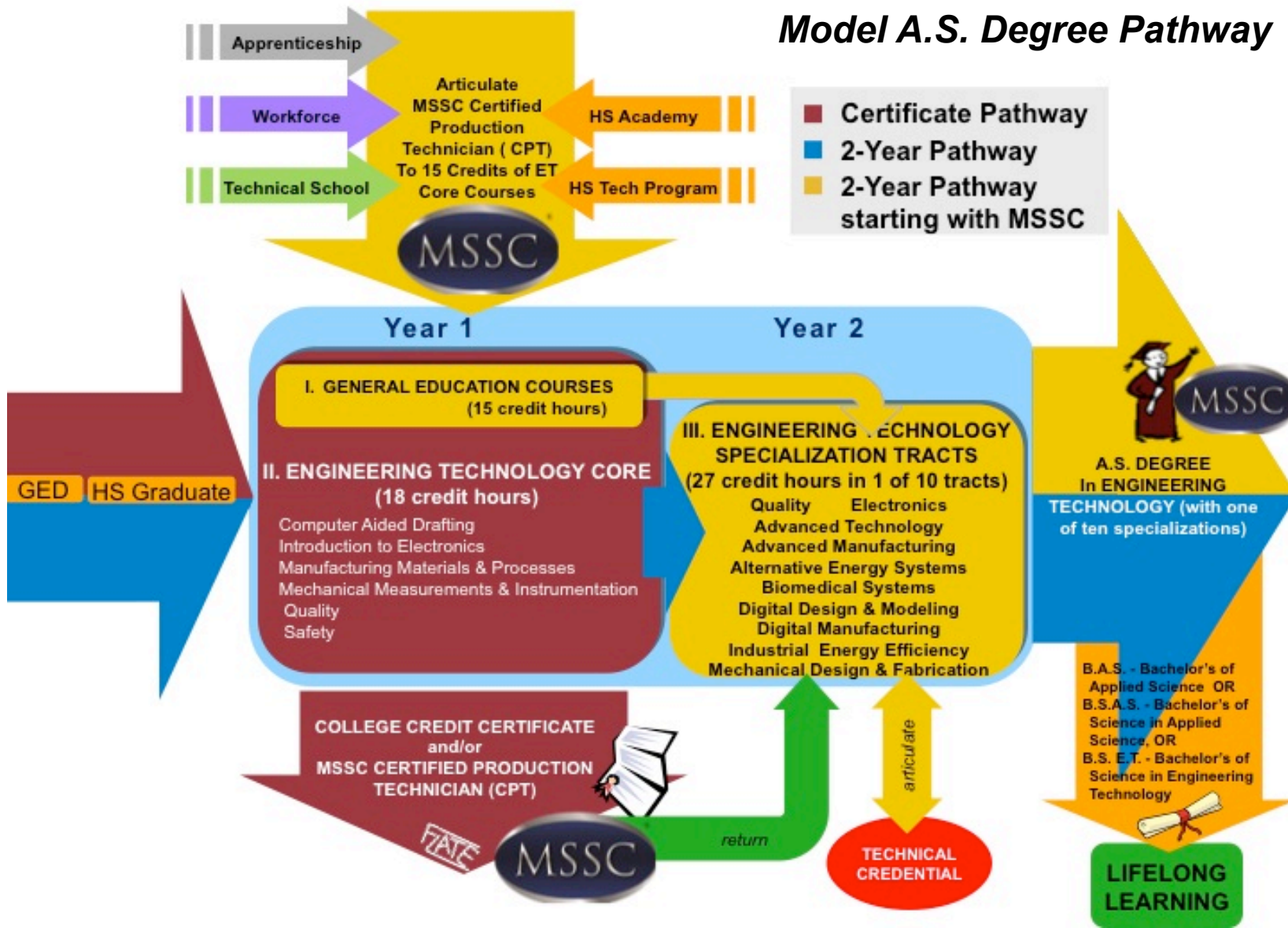
## The Florida Plan for Technical Education



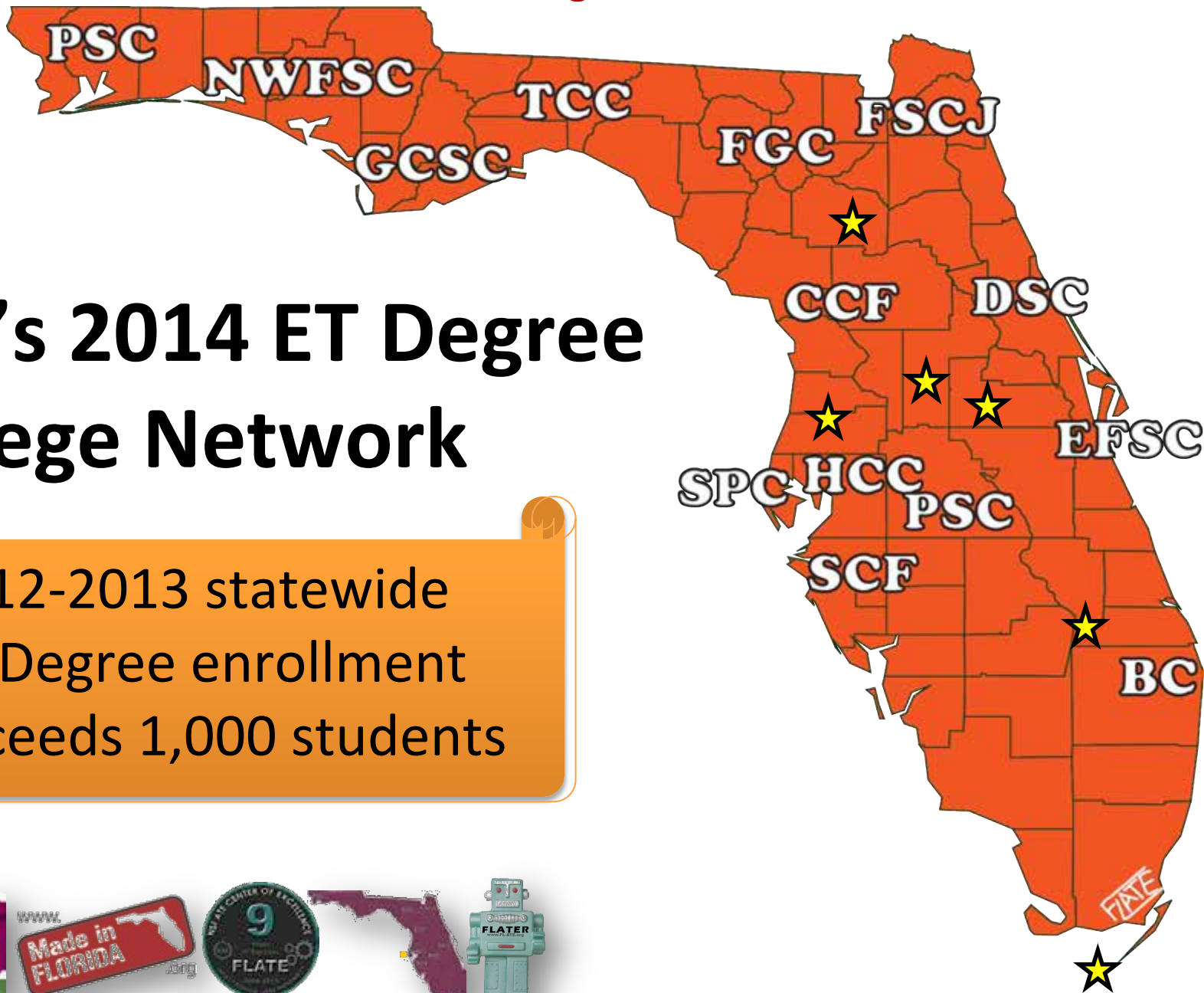


## The Florida Plan for Technical Education

### Model A.S. Degree Pathway







# FLATE's 2014 ET Degree College Network

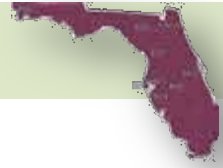
2012-2013 statewide ET Degree enrollment exceeds 1,000 students



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# The Florida Advanced Technological Education Center

## The Florida Engineering Technology Degree



Excellence in engineering technology education.



**FLATE**  
FLORIDA ADVANCED  
TECHNOLOGICAL EDUCATION  
A NATIONAL SCIENCE FOUNDATION  
CENTER OF EXCELLENCE

Supporting Florida Manufacturers

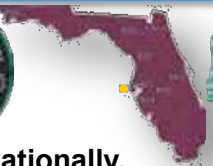
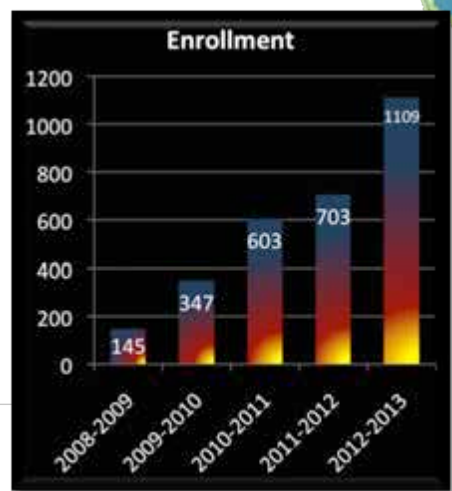
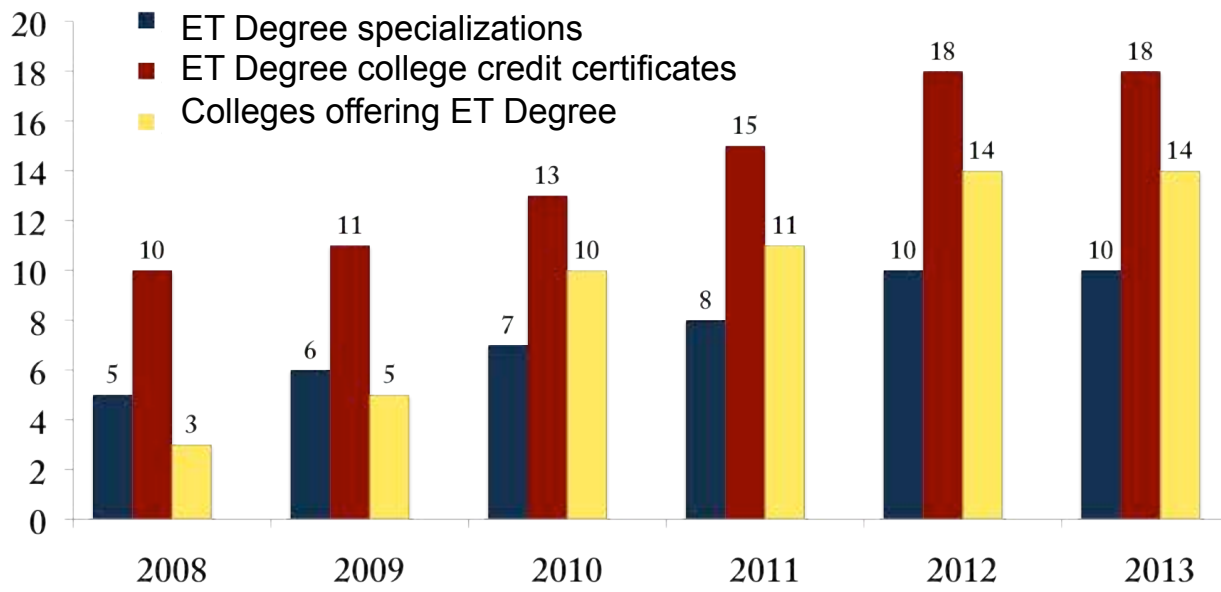
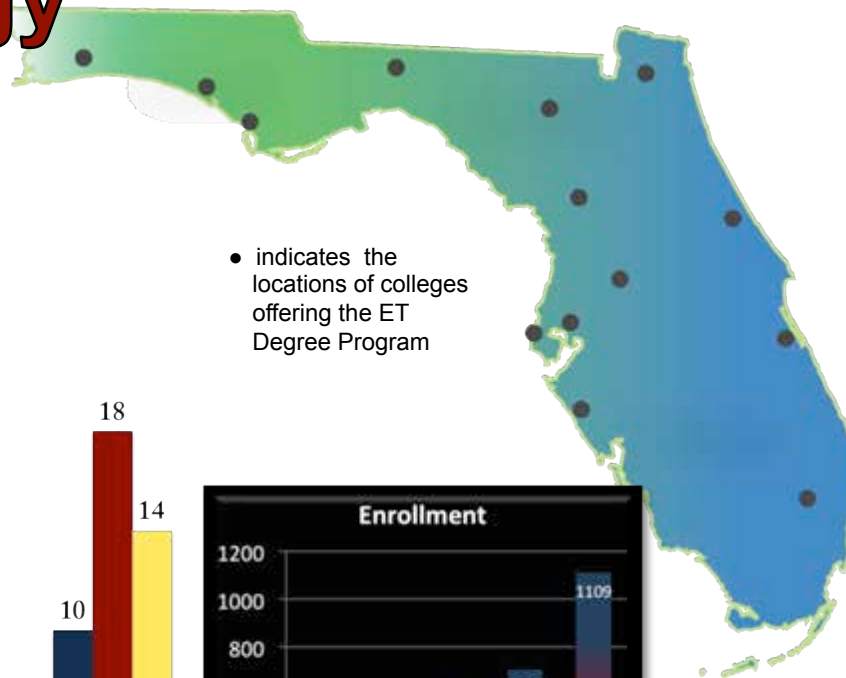


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# Engineering Technology

## A.S. Degree

### Key Milestones 2008 - 2013



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# The Florida Advanced Technological Education Center

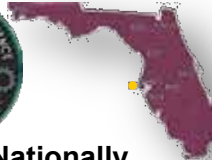
## Florida Colleges on NAM's "M-List"



- ★ [Broward College](#)
- ★ [College of Central Florida](#)
- ★ [Eastern Florida State College](#)
- ★ [Florida Gateway College](#)
- ★ [Florida State College at Jacksonville](#)
- ★ [Hillsborough Community College](#)
- ★ [Gulf Coast State College](#)
- ★ [Indian River State College](#)
- ★ [Pasco-Hernando State College](#)
- ★ [Pensacola State College](#)
- ★ [Polk State College](#)
- ★ [St. Petersburg College](#)
- ★ [State College of Florida](#)
- ★ [Tallahassee Community College](#)



★ ET Degree Colleges



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# The Florida Advanced Technological Education Center

## The Florida Plan for Technical Education



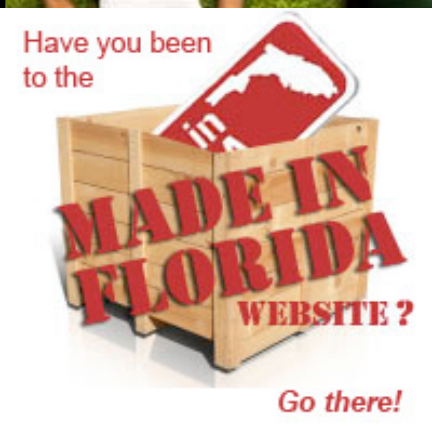
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# MEG DAY™

10.03.14  
FLORIDA!



## Industry Tour Resource Page

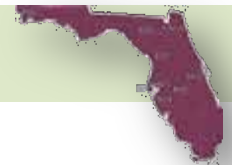


This material is based upon work supported by the National Science Foundation under Grant 09120473.

# The Florida Advanced Technological Education Center



## Educational Resources



# FLATE's wiki

...full of great FREE RESOURCES for you!

- Expanded teacher resources to K-12
- Expanded MIF tour resources
- Added resources for recruiting girls
- Added resources from workshops
  - MSSC and Machining
- Added IAC committee resources

<p>"Made in Florida" and STEM Lesson Plans For Middle &amp; High School Teachers</p>	<p>Career Education Resources</p>	<p>Modules for Advanced Technological Education</p>	<p>The Toothpick Factory A Simulating Game for Soft Skills</p>
<p>Industry Tour Resources</p> <p>Find pre-tour lesson plans, post-tour surveys, presentations and other resources for your <i>Made in Florida</i> manufacturing tour!</p>	<p>Recruiting all GIRLS who love S.T.E.M.!</p> <p>Resources and materials for STEM GIRLS!</p>	<p>FLATE Presentations</p> <p>Find conference and workshop slides here.</p>	<p>High School Technology Initiative</p> <p>Modules for high school sciences that teach fundamental STEM concepts.</p>
<p>Read FLATE's monthly Newsletter! <b>FOCUS</b> Connecting Members, Funders &amp; Students with Florida's Workforce</p>		<p>FLDOE Career Resources</p> <p>Career Education</p>	



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## Florida Colleges on NAM's "M-List"



do the "hard" stuff

define a neutral working space

"work with what you've got"

seize opportunities

accept compromise

nurture relationships

build consensus

share the "win"

listen actively

recognize others

make a team

laugh together

engender trust

Florida's Engineering Technology Degrees  
*supporting Florida's manufacturing workforce needs*



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# The Florida Advanced Technological Education Center



*Thank you!*



Marilyn Barger, Ph.D., P.E.

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**July 21-24, 2014**



**[www.highimpact-tec.org](http://www.highimpact-tec.org)**

*July 21 pre-conference workshops:*

**“Implementing a Systems Approach to Mechatronics Education”**

**“Building and Assessing Your Team for Effective Process Management”**