



# THE FLC: A HOW-TO GUIDE FOR ACCESSING FEDERAL RESOURCES



*John Dement*

*Chairman, Federal Laboratory Consortium for Technology Transfer*

## WHAT IS T2 VIDEO



You can use this video for your T2 purposes!



Laboratory to Market

The FLC's mission is to ***promote, educate, and facilitate*** **federal technology transfer** (T2) among its member labs and institutions so they can easily reach their commercialization goals, and create social and economic impacts with new, innovative technologies.



**PROMOTE**



**EDUCATE**



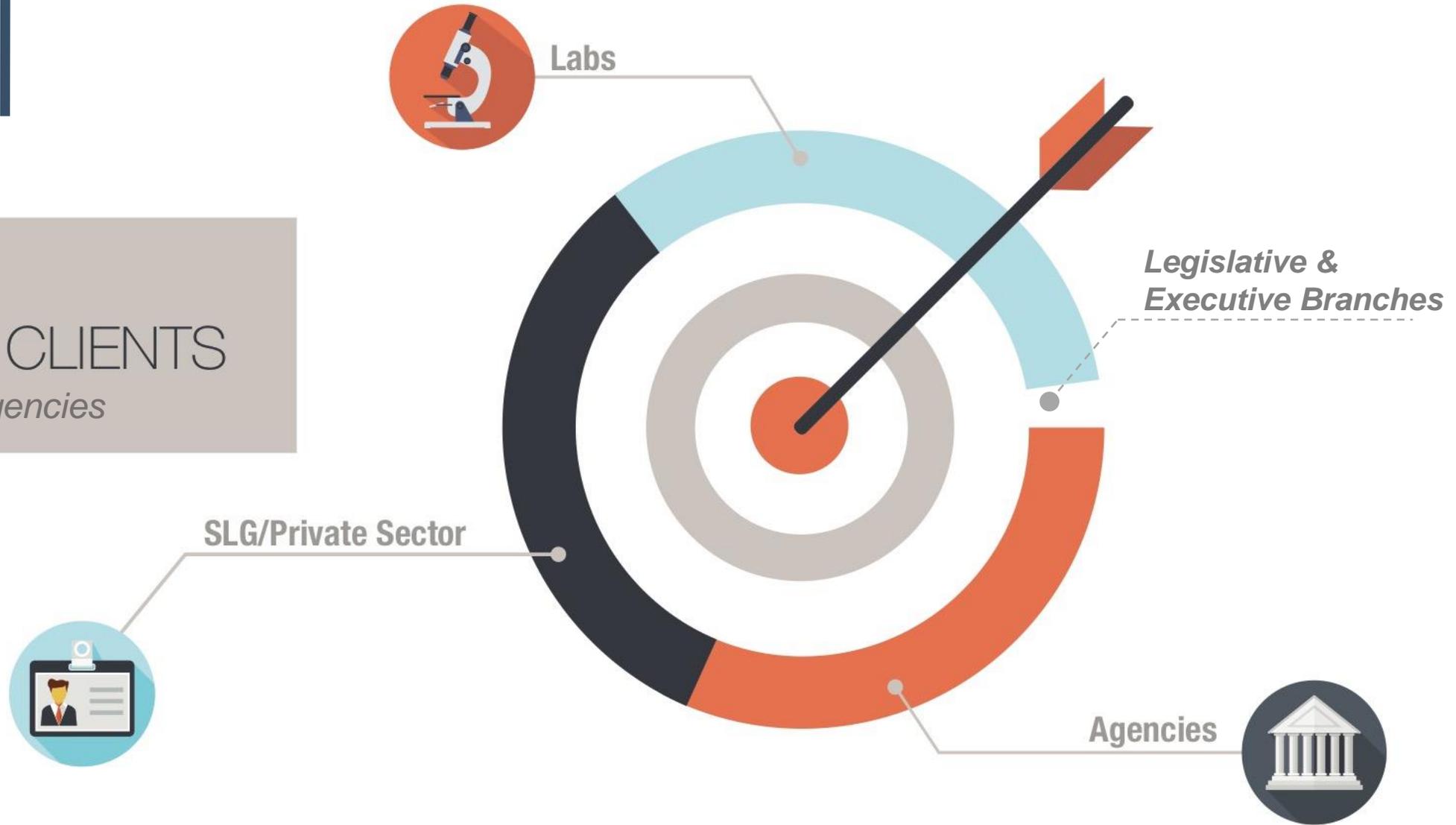
**FACILITATE**



Federal Laboratory Consortium  
for Technology Transfer

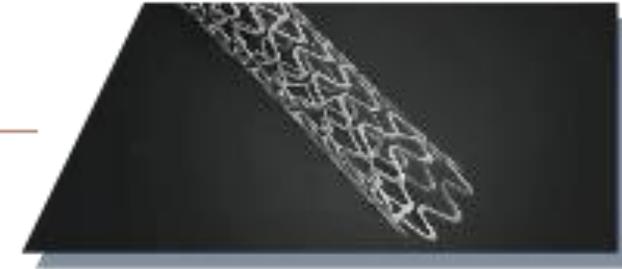
# 3 SETS OF LEGISLATED CLIENTS

*300+ labs and 18 agencies*



# TECHNOLOGY TRANSFER IN YOUR LIFE

## CASE STUDY: PtCr ALLOY CORONARY STENTS



## CASE STUDY: INVISIBLE BRACES



## CASE STUDY: SIRI





## LABTECH IN YOUR LIFE

LabTech in Your Life is a virtual experience that reveals the common technologies people use every day that were originally developed inside a federal lab and later introduced to the commercial marketplace.

---

### **LabTech at Home**

The first virtual environment of LabTech in Your Life. Tour living spaces and discover federal innovations that have been further developed and introduced to the market as recognizable household items.



# LabTech

*in your life*

The everyday places and spaces where you find  
and interact with federal technology

### Market Your Tech Successes with LabTech in Your Life

LabTech in Your Life easily functions as a marketing tool for your agency/laboratory to educate the public about technology transfer. Use it as an interactive vehicle to help educate your partners about the importance of T2.

- **Easy to Share**  
Access and present your techs with current and potential partners anytime or anywhere.
- **Promote Your R&D**  
Spotlight your agency or lab's successfully commercialized technologies.
- **Create Connections**  
Help the public identify with commonly-used technologies that were developed in a federal lab through this unique experience.



QUICK MACRO  
(2014-PRESENT)

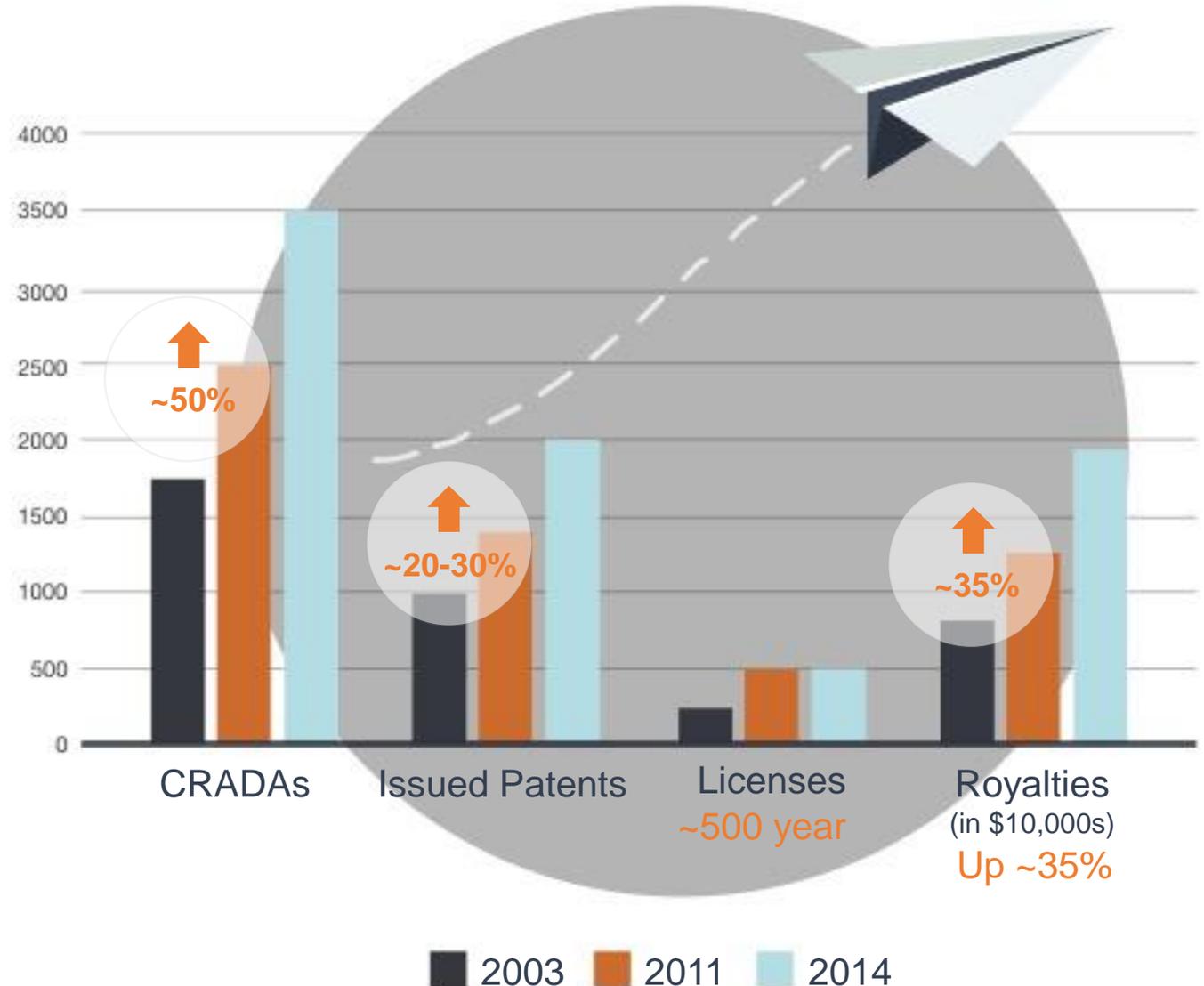
**THE STORY IS:**

**CRADAs ~3,500 per year**

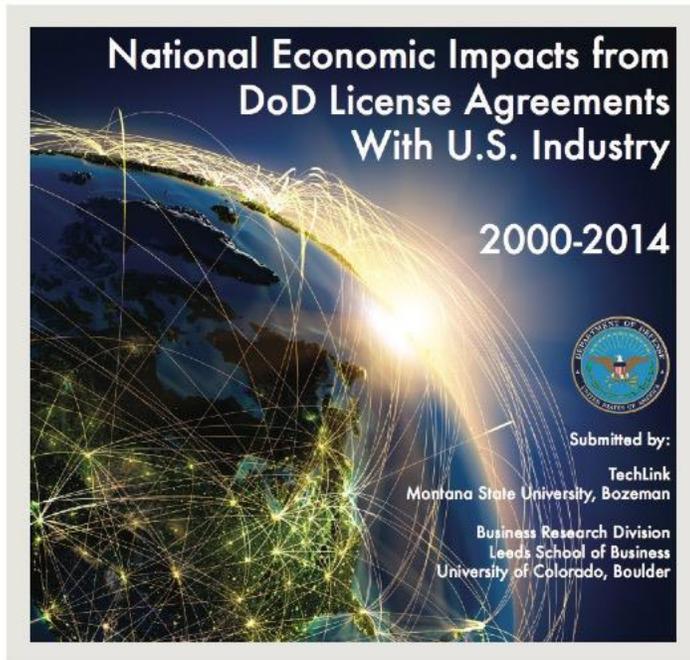
**Patents Issued ~2,000 per year**

**Patent Licenses ~ 500 per year**

**Royalties - \$194M**



# TRANSFER OF FED INNOVATION GENERATES ECONOMIC GROWTH



*TechLink Study: 663 DoD Licenses Results*

<https://techlinkcenter.org/2016-report-economic-impact-dod-licensing-2000-2014/>



Federal Laboratory Consortium  
for Technology Transfer

# OUR PLATFORMS FOR DELIVERING LAB TO MARKET SERVICES

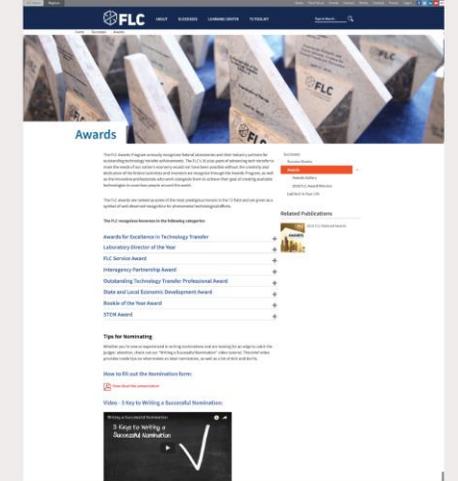
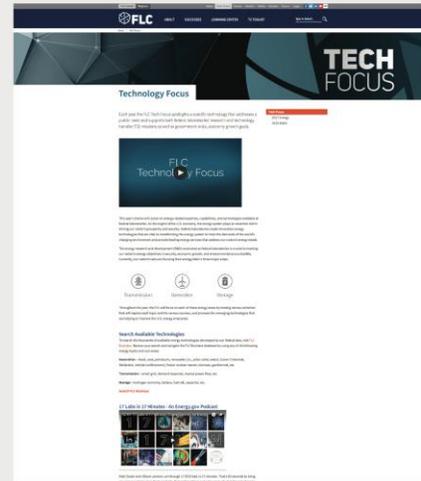
## Federallabs.org

## FLC Business

## Tech Focus

## Education & Training

## Awards



NOVEMBER 16 - 17, 2017  
WALT DISNEY WORLD SWAN HOTEL, ORLANDO, FL  
**R&D 100 CONFERENCE**

# START HERE – Resources on FLC Web Site

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



- **Points of Contact**  
Agency TTOs, >300 Lab Tech Transfer Offices
- **Locate Technologies & Capabilities**  
FLC Business
- **Training and Education**  
Learning Center, Webinars, Classes, Videos, etc.
- **Reference Materials**  
Green Book, Desk Reference, Playbook
- **Successes**  
Success Stories, Awards, LabTech in Your Life
- **News & General Information**

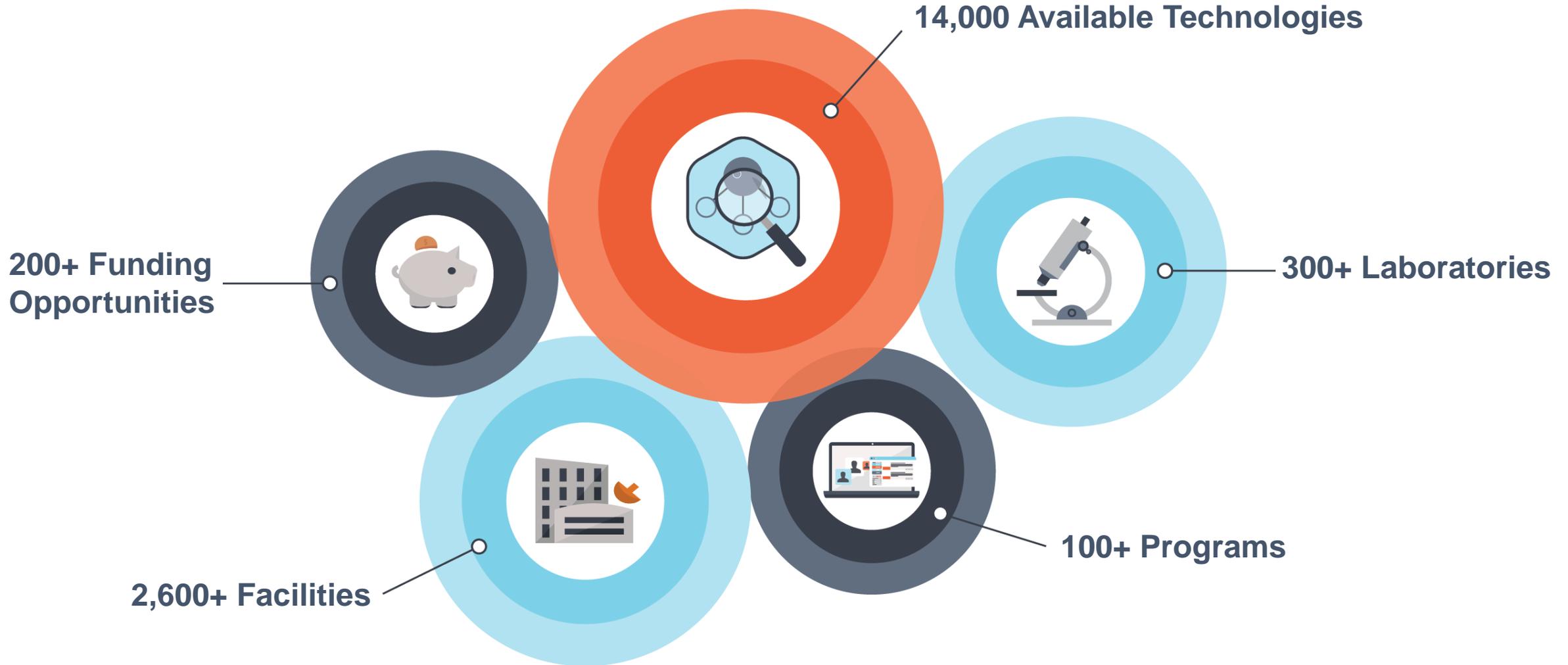
## WHAT IS FLC BUSINESS?



You can use this video for your T2 purposes!

NOVEMBER 16 - 17, 2017  
WALT DISNEY WORLD SWAN HOTEL, ORLANDO, FL

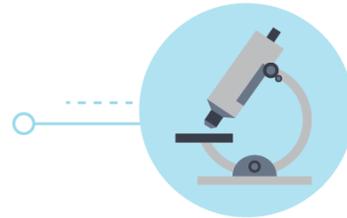
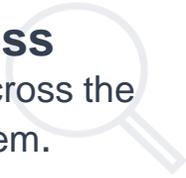
# FLC BUSINESS BY THE NUMBERS



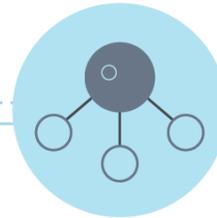
1

## SEARCH FLC Business

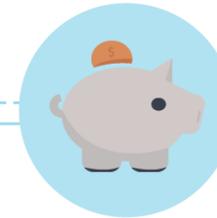
Locate valuable resources across the entire federal laboratory system.



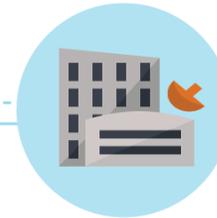
LABORATORIES



AVAILABLE  
TECHNOLOGIES



FUNDING & PROGRAMS



FACILITIES &  
EQUIPMENT



## CONNECT with a laboratory

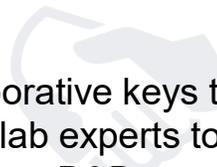
FLC Business provides the most up-to-date laboratory information to connect you directly with a lab representative to explore your options and next steps to accessing resources.

2

3

## ENGAGE with an expert

FLC Business' data provides you the collaborative keys to engage with our nation's top scientists and lab experts to start the right tech transfer process that meets your R&D needs.





# FLC TECHNOLOGY FOCUS INITIATIVE

An annual spotlight on a specific technology that addresses a public need and supports both federal laboratories' research and technology transfer missions as well as government-wide economic growth goals.

## FLC EXECUTIVE BOARD SELECTS A THEME EACH YEAR:



**2016 (inaugural year):**  
Water



**2017 - 2018:**  
Energy

## THEME-RELATED EVENTS

(i.e., webinars, forums, etc)

## FLC EXECUTIVE BOARD TECHNOLOGY FOCUS (TF) AWARD

Recognizes a TF theme-related technology transfer. Selections for this award may be from any of the traditional FLC award categories except Laboratory Director of the Year.

## PROMOTION

News, success stories, available technologies

## COLLABORATIVE PARTNERSHIPS

## INFORMATIONAL WEBPAGE

# 2016 FLC TECH FOCUS: WATER

**THEME IMPETUS:** The FLC supported 2016 national policy issues related to the White House Water Summit event on March 22, 2016, which sought solutions for:



WATER-QUALITY  
CRISIS IN FLINT,  
MICHIGAN



SEVERE  
DROUGHTS  
IN THE WEST



FLOODING  
IN THE  
SOUTHEAST

## Technology Focus Award Recipients (2017)

**USDA ARS National Laboratory for Agriculture and the Environment**

Development and Transfer of the Agricultural Conservation Planning Framework

**EPA National Risk Management Research Laboratory**

NoMonia: A Process to Remove Ammonia from Drinking Water

# Water Innovation Virtual Forum (WIVF)

<https://www.federallabs.org>

**Host partner:** The Water Council

Free virtual forum and exhibit hall to view available technologies/lab resources

Sessions covered water-related issues by OSTP, agency and industry speakers.

**Exhibitors:** 13 federal agencies, labs, and water-related organizations



## Tech Focus: Water

The FLC has undertaken a new Tech Focus initiative—an annual spotlight on a specific technology that addresses a public need and supports both government-wide lab-to-market goals and federal laboratories' research and technology transfer (T2) missions.

This year's theme will center around the water-related expertise, capabilities, and technologies available at federal laboratories. Numerous challenges face our nation and the world when it comes to water sustainability, treatment, infrastructure and disease, and many federal labs are working to address and provide lasting solutions.

To carry out this technology initiative, the FLC is planning Tech Focus water-themed activities that will take place throughout the rest of 2016 and beyond.

### Tech Focus Featured Events

There are numerous ways for federal agencies, labs, and water industry professionals to get involved and support this year's water-related Tech Focus activities. Starting fall 2016, the FLC will hold a virtual forum to advocate the Tech Focus initiative and promote federally developed water technologies.

Click on the [Events tab](#) below to view additional water-related events.

Tech Focus  
2017 Energy  
2016 Water

### Tech Focus Supporters



Become a supporter

## FLC TECH FOCUS WATER INNOVATION VIRTUAL FORUM

OCTOBER 26, 2016



The FLC's Water Innovation Virtual Forum is a one-day event that serves as a space to expand upon the issues presented during the **White House Water Summit: March 22, 2016**, and provides federal labs the opportunity to exhibit their water-related R&D and ready-to-license technologies to industry professionals in an easy-to-access online setting.

[Learn more](#)

[View Proceedings](#)

# 2017 – 2018 FLC TECH FOCUS: ENERGY

**THEME IMPETUS:** Federal laboratories conduct innovative energy R&D that is crucial to meeting our nation’s energy objectives in security, economic growth, and environmental accountability.



TRANSMISSION



PRODUCTION



STORAGE

## Technology Focus Award Recipient (2018)

**Sandia National Laboratories**

Successful Collaboration Accelerates Testing of New Blade Designs

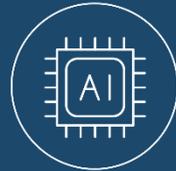
### Tech Focus Partnerships

WIPO GREEN and FLC Partnership

FLC and M-WERC Energy Innovation Collaboration

# FLC TECH FOCUS: AUTONOMOUS SYSTEMS

**THEME IMPETUS:** Autonomous systems technology is providing revolutionary solutions for our federal agencies' missions and operation effectiveness. From aerial to underwater frontiers, federal laboratories are pioneering new, smarter technologies through autonomous R&D.



INTELLIGENT  
AUTONOMY



SENSOR  
SYSTEMS



HUMAN-AUTONOMOUS  
SYSTEMS



NETWORKING &  
COMMUNICATION

## Examples of Autonomous Systems:

- Autonomous underwater vehicles (AUVs)
- Remotely operated underwater vehicles (ROVs)
- Unmanned aerial vehicles (UAVs)
- Unmanned aircraft systems (UAS)
- Intelligence, surveillance, reconnaissance (ISR)
- Robotics
- Satellites

# NIST ROI Request For Information



RFI closed July 30

104 submitted responses

4 public forums

<https://www.nist.gov/tpo/return-investment-roi-initiative>



# Future Timeline, Deliverables, Expectations

<p><b>8/16/18</b> L2M SC Meeting</p>	<p>10/12/18 L2M SC Receives Draft ROI Report</p>	<p>10/15/18 L2M SC Q4FY18 CAP Goal Updates Due</p>	<p><b>10/27/18</b> L2M SC Meeting</p>	<p>11/2/18 L2M SC ROI Report Feedback Due</p>	<p><b>1/21/19</b> L2M SC Meeting</p>
<p>7/27 – 8/7 ST Kick-off Meetings</p>		<p>10/15/18 ST Draft Strategy Action Plan Recs Due</p>			<p>1/15/19 ST Strategy Action Plan Recs Due</p>
	<p>8/24/18 Q3FY18 CAP Goal Update Due to OMB</p>			<p>11/23/18 Q4FY18 CAP Goal Update Due to OMB</p>	

## Future Cadence:

- t = - 6 weeks L2M SC CAP progress, outcomes due, before L2M SC meeting
- t = - 4 weeks L2M SC meeting, agree on & finalize CAP updates
- t= 0 OSTP/NIST submit quarterly CAP update to OMB



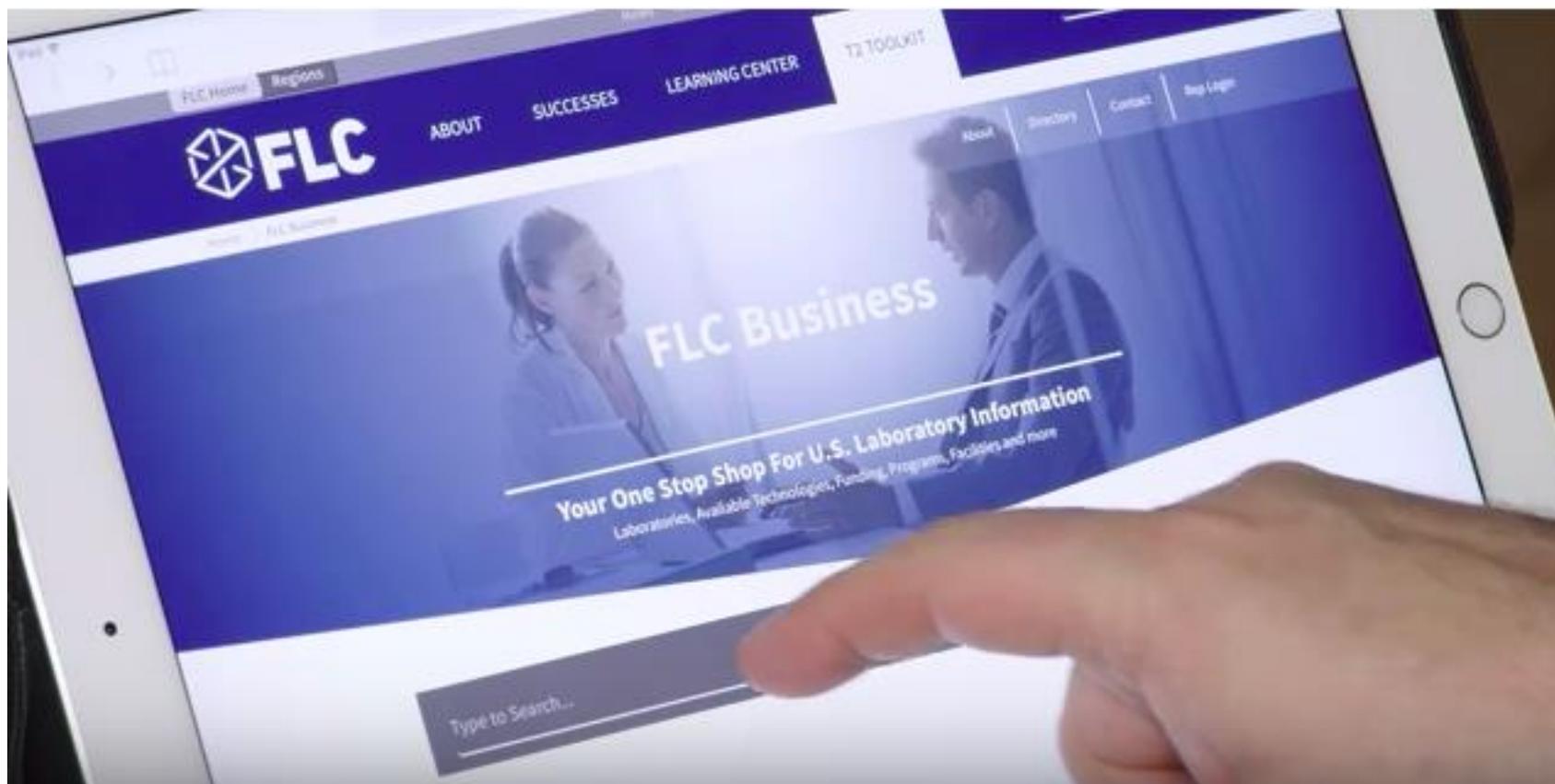
# START HERE – Resources on FLC Web Site

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



- **Points of Contact**  
Agency TTOs, >300 Lab Tech Transfer Offices
- **Locate Technologies & Capabilities**  
FLC Business
- **Training and Education**  
Learning Center, Webinars, Classes, Videos, etc.
- **Reference Materials**  
Green Book, Desk Reference, Playbook
- **Successes**  
Success Stories, Awards, LabTech in Your Life
- **News & General Information**

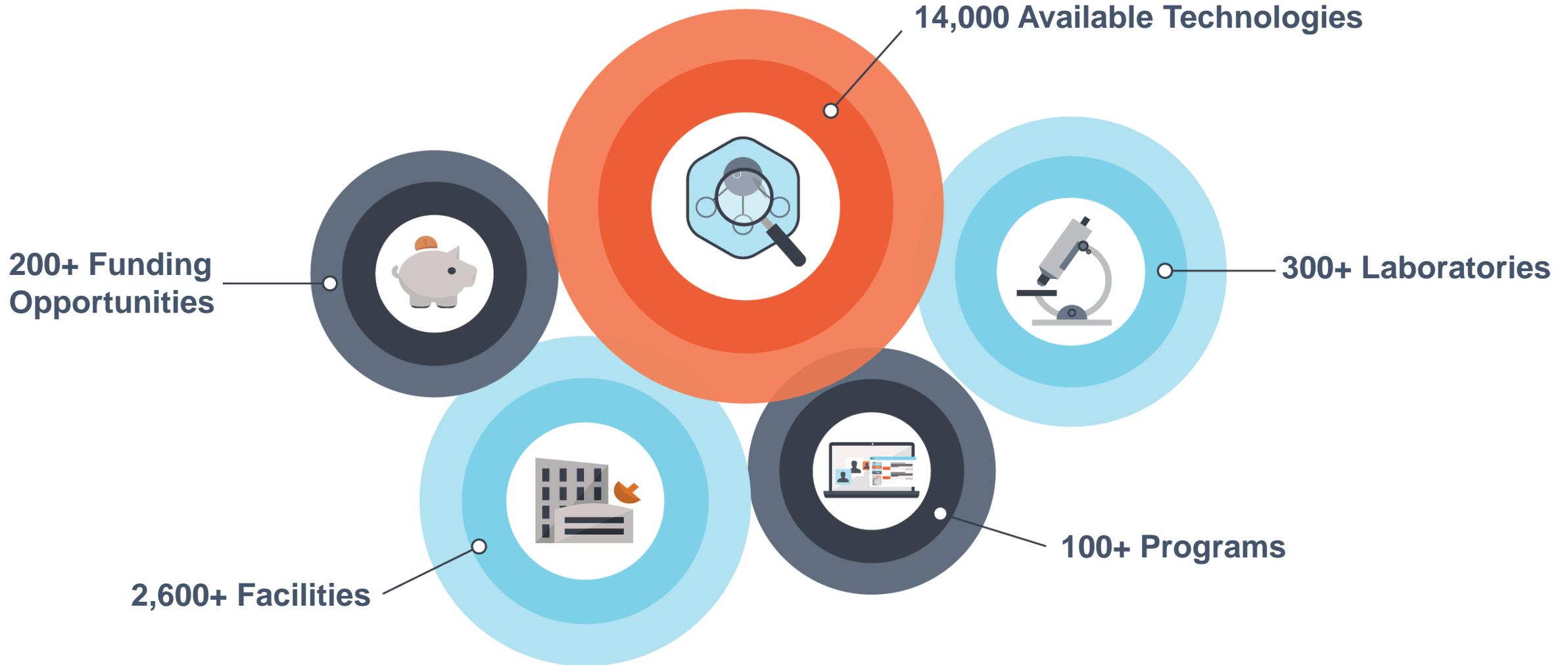
## WHAT IS FLC BUSINESS?



You can use this video for your T2 purposes!

NOVEMBER 16 - 17, 2017  
WALT DISNEY WORLD SWAN HOTEL, ORLANDO, FL

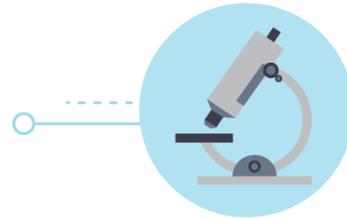
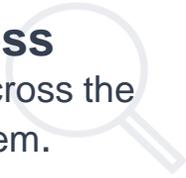
## FLC BUSINESS BY THE NUMBERS



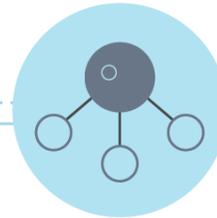
1

## SEARCH FLC Business

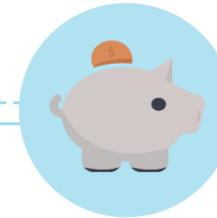
Locate valuable resources across the entire federal laboratory system.



LABORATORIES



AVAILABLE  
TECHNOLOGIES



FUNDING & PROGRAMS



FACILITIES &  
EQUIPMENT



## CONNECT with a laboratory

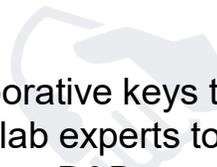
FLC Business provides the most up-to-date laboratory information to connect you directly with a lab representative to explore your options and next steps to accessing resources.

2

3

## ENGAGE with an expert

FLC Business' data provides you the collaborative keys to engage with our nation's top scientists and lab experts to start the right tech transfer process that meets your R&D needs.





# FLC TECHNOLOGY FOCUS INITIATIVE

An annual spotlight on a specific technology that addresses a public need and supports both federal laboratories' research and technology transfer missions as well as government-wide economic growth goals.

## FLC EXECUTIVE BOARD SELECTS A THEME EACH YEAR:



**2016 (inaugural year):**  
Water



**2017 - 2018:**  
Energy

## THEME-RELATED EVENTS

(i.e., webinars, forums, etc)

## FLC EXECUTIVE BOARD TECHNOLOGY FOCUS (TF) AWARD

Recognizes a TF theme-related technology transfer. Selections for this award may be from any of the traditional FLC award categories except Laboratory Director of the Year.

## PROMOTION

News, success stories, available technologies

## COLLABORATIVE PARTNERSHIPS

## INFORMATIONAL WEBPAGE

# 2016 FLC TECH FOCUS: WATER

**THEME IMPETUS:** The FLC supported 2016 national policy issues related to the White House Water Summit event on March 22, 2016, which sought solutions for:



WATER-QUALITY  
CRISIS IN FLINT,  
MICHIGAN



SEVERE  
DROUGHTS  
IN THE WEST



FLOODING  
IN THE  
SOUTHEAST

## Technology Focus Award Recipients (2017)

**USDA ARS National Laboratory for Agriculture and the Environment**

Development and Transfer of the Agricultural Conservation Planning Framework

**EPA National Risk Management Research Laboratory**

NoMonia: A Process to Remove Ammonia from Drinking Water

# Water Innovation Virtual Forum (WIVF)

<https://www.federallabs.org>

**Host partner:** The Water Council

Free virtual forum and exhibit hall to view available technologies/lab resources

Sessions covered water-related issues by OSTP, agency and industry speakers.

**Exhibitors:** 13 federal agencies, labs, and water-related organizations



## Tech Focus: Water

The FLC has undertaken a new Tech Focus initiative—an annual spotlight on a specific technology that addresses a public need and supports both government-wide lab-to-market goals and federal laboratories' research and technology transfer (T2) missions.

This year's theme will center around the water-related expertise, capabilities, and technologies available at federal laboratories. Numerous challenges face our nation and the world when it comes to water sustainability, treatment, infrastructure and disease, and many federal labs are working to address and provide lasting solutions.

To carry out this technology initiative, the FLC is planning Tech Focus water-themed activities that will take place throughout the rest of 2016 and beyond.

### Tech Focus Featured Events

There are numerous ways for federal agencies, labs, and water industry professionals to get involved and support this year's water-related Tech Focus activities. Starting fall 2016, the FLC will hold a virtual forum to advocate the Tech Focus initiative and promote federally developed water technologies.

Click on the **Events** tab below to view additional water-related events.

Tech Focus  
2017 Energy  
2016 Water

### Tech Focus Supporters



Become a supporter

## FLC TECH FOCUS WATER INNOVATION VIRTUAL FORUM

OCTOBER 26, 2016



The FLC's Water Innovation Virtual Forum is a one-day event that serves as a space to expand upon the issues presented during the **White House Water Summit: March 22, 2016**, and provides federal labs the opportunity to exhibit their water-related R&D and ready-to-license technologies to industry professionals in an easy-to-access online setting.

Learn more

View Proceedings

# 2017 – 2018 FLC TECH FOCUS: ENERGY

**THEME IMPETUS:** Federal laboratories conduct innovative energy R&D that is crucial to meeting our nation’s energy objectives in security, economic growth, and environmental accountability.



TRANSMISSION



PRODUCTION



STORAGE

## Technology Focus Award Recipient (2018)

**Sandia National Laboratories**

Successful Collaboration Accelerates Testing of New Blade Designs

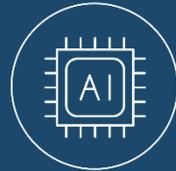
### Tech Focus Partnerships

WIPO GREEN and FLC Partnership

FLC and M-WERC Energy Innovation Collaboration

# FLC TECH FOCUS: AUTONOMOUS SYSTEMS

**THEME IMPETUS:** Autonomous systems technology is providing revolutionary solutions for our federal agencies' missions and operation effectiveness. From aerial to underwater frontiers, federal laboratories are pioneering new, smarter technologies through autonomous R&D.



INTELLIGENT  
AUTONOMY



SENSOR  
SYSTEMS



HUMAN-AUTONOMOUS  
SYSTEMS



NETWORKING &  
COMMUNICATION

## Examples of Autonomous Systems:

- Autonomous underwater vehicles (AUVs)
- Remotely operated underwater vehicles (ROVs)
- Unmanned aerial vehicles (UAVs)
- Unmanned aircraft systems (UAS)
- Intelligence, surveillance, reconnaissance (ISR)
- Robotics
- Satellites