

FROM RESEARCH TO INDUSTRY

**cea tech**

# Architecture, IC Design & Embedded Software

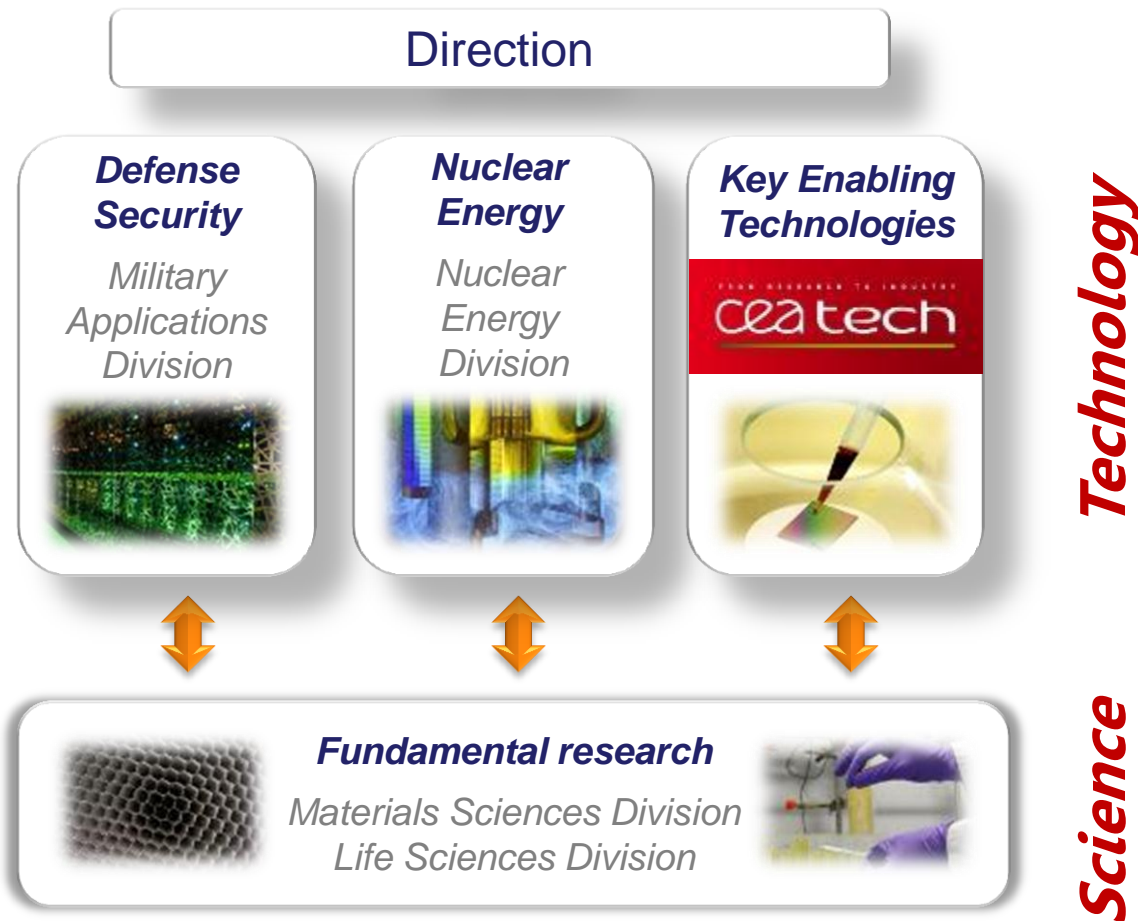
[www.cea.fr](http://www.cea.fr)

**leti & list**

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- » 16 000 employees
- » 10 research centers
- » 4 regional extensions
- » Budget of 4.3 billion €
- » 650 patents/year
- » 4000 publications/year
- » 50 Joint Research Laboratory
- » 150 startup creations in 30 years



**Technology**

**Science**



 *Une mission unique :*



Contribuer à la **création de valeur** et **d'emplois** pérennes  
dans l'industrie française (tous types d'entreprises)  
en améliorant la **compétitivité** **qualité** des entreprises  
par **l'innovation technologique**

## Key Enabling Technologies (KETs)

Address all applications



Multiple opportunities for transfer to industry

Not affected by industry-specific economical cycles

CEA ownership of KET Intellectual Property

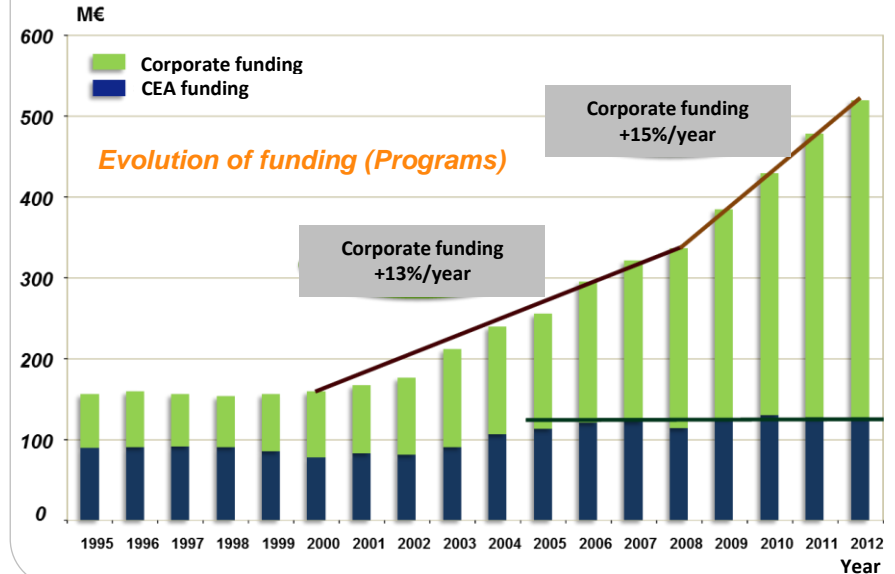
Ensure steady, long-term growth for CEA Tech

**Budget** > €500 million/year

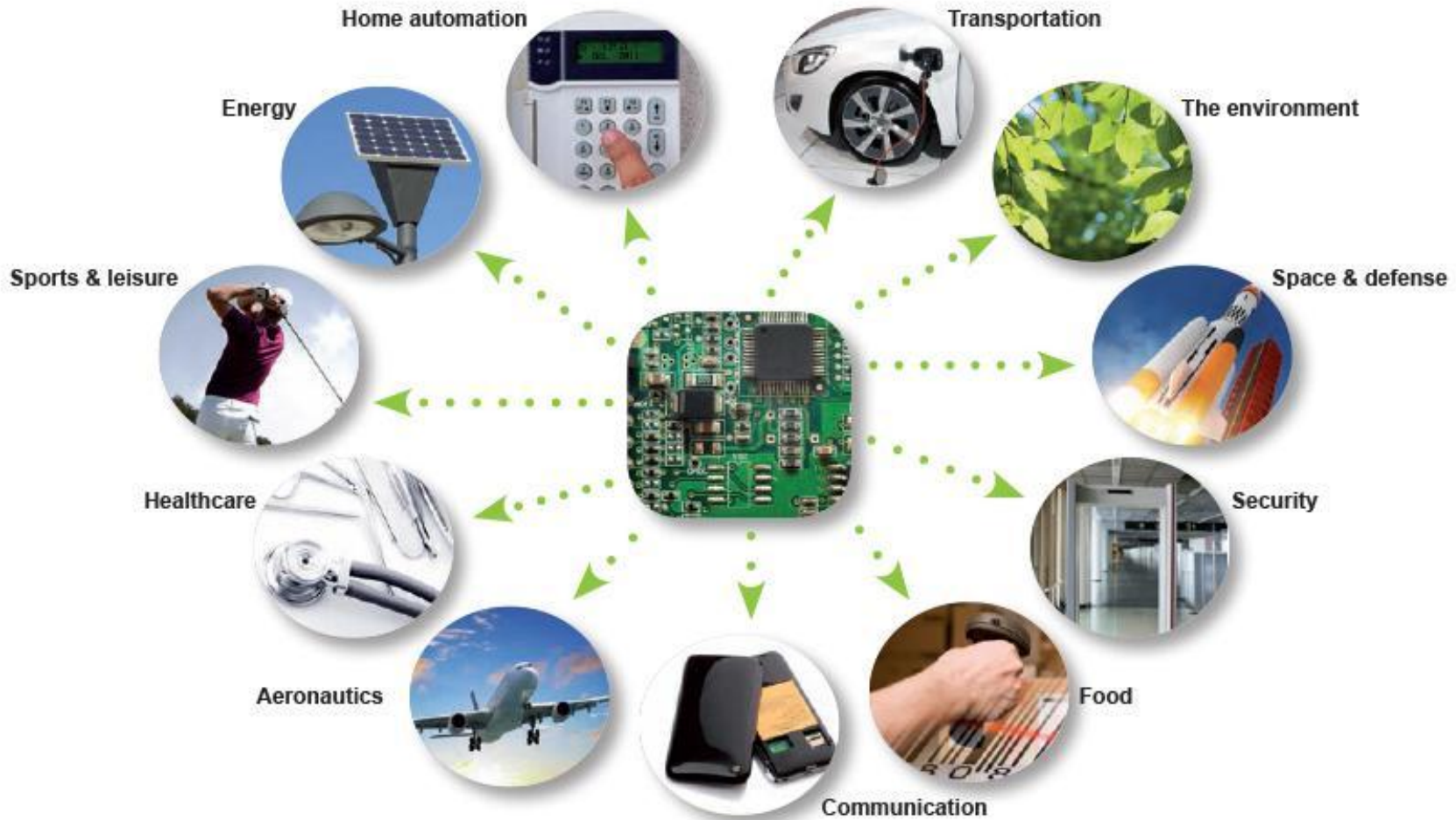
- 24% CEA funding
- 41% Corporate funding
- 35% Incentives
- 43% Payroll costs
- 33% Operating costs
- 24% Investment



A strong growth based on corporate funding



KETs drive new developments across a broad range of industries



Example: nanoelectronics

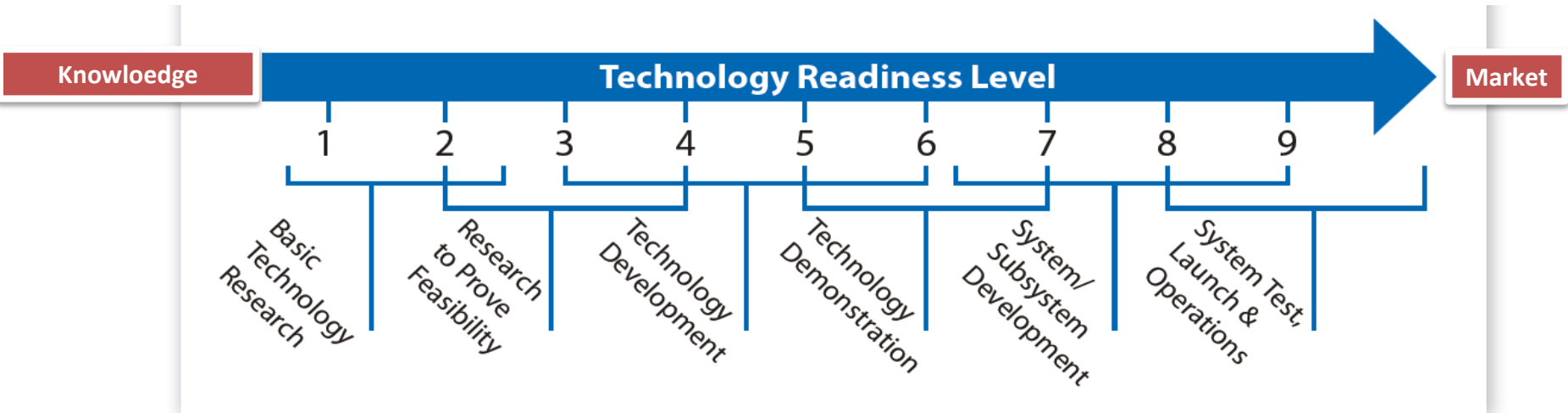
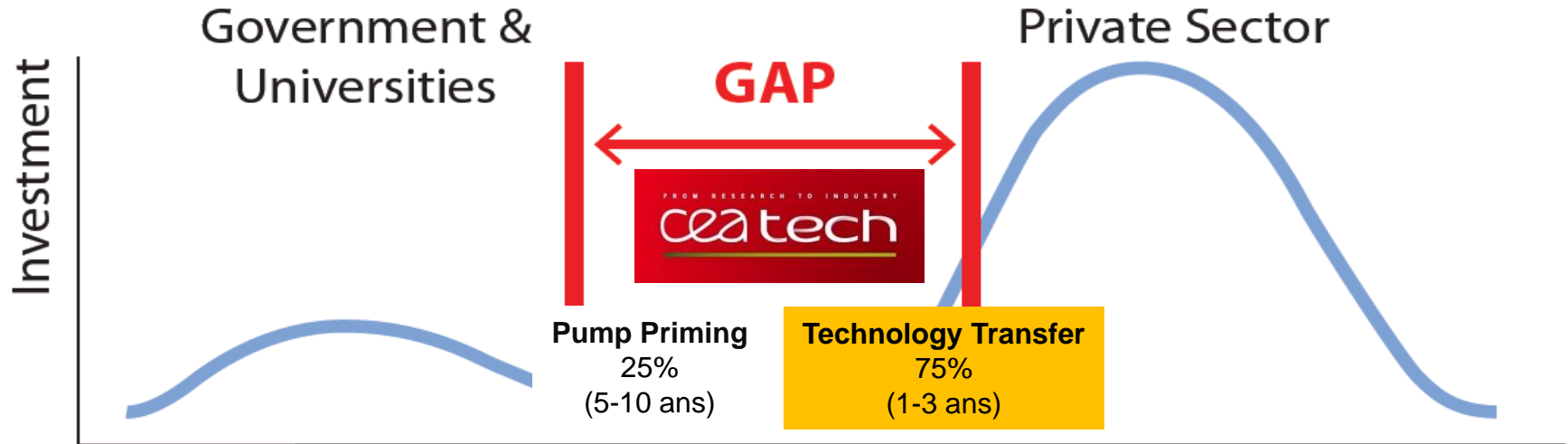
**MISSION :** To develop and disseminate new technologies for industry

- Annual operating budget of more than **€500 M**
- More than **50 HIGH-TECH START-UP** over the past 10 years
- **4,500 EMPLOYEES**
- **550 PRIORITY PATENT** applications per year
- **Our CUSTOMERS :**
  - ✓ **80 %** listed on the **CAC 40**
  - ✓ More than **500 SMBS**
  - ✓ **145 INTERNATIONAL CUSTOMERS**





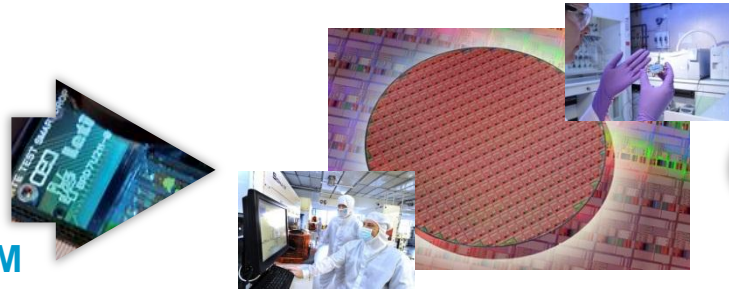
## Gap in Manufacturing Innovation



## leti

Laboratory of Electronics and Information Technologies

Staff: 1600, Budget: €300 M

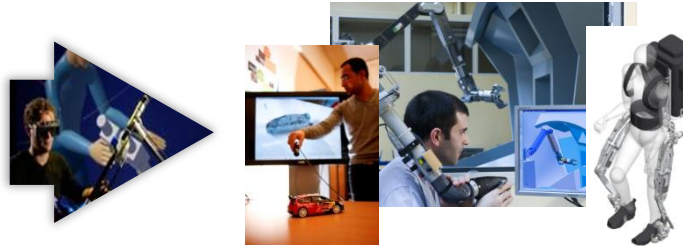


Micro-nanotechnologies and their intégration in systems

## list

Laboratory of Integrated Systems and Technologies

Staff: 700, Budget: €90 M



Software-intensive systems  
Advanced manufacturing

## liten

Laboratory of Innovation for new Technologies for Energy and Nanomaterial

Staff: 1100, Budget: €170 M



New energy technologies  
and nanomaterials





## World-class experts, « application » know-how and equipments

### Micro- and nanoelectronics

7,000 sq. m. (clean rooms)  
Staff: 800  
Investment: €1 billion



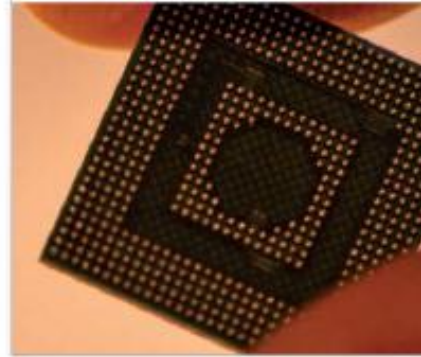
### Nanocharacterization

2,500 sq. m.  
Staff: 80  
Investment: €30 million



### Design

1,800 sq. m.  
Staff: 100



### Embedded systems

1,200 sq. m.  
Staff: 180



### Batteries

3,000 sq. m.  
Staff: 200  
Investment: €50 million



### Solar

25,000 sq. m.  
Staff: 380  
Investment: €150 million



### Clinatec

6,000 sq. m.  
Staff: 100  
Investment: €40 million



### Advanced manufacturing

2,000 sq. m.  
Staff: 200



# INDUSTRIAL PARTNERSHIPS

|                     | Cooperative Project                    | Bilateral Project                      | Common Lab                              |
|---------------------|--|--|---|
| Technical Objective | <b>STATIC</b><br>(agreed before start) | <b>STATIC</b><br>(agreed before start) | <b>EVOLUTIVE</b><br>(based on progress) |
| Resources           | <b>Multiple Partners</b>               | <b>CEA Tech</b>                        | <b>CEA Tech + Partner R&amp;D</b>       |
| Governance          | <b>Ext Project leader</b>              | <b>Partner</b>                         | <b>Partner + CEA Tech</b>               |
| Duration            | <b>3 yrs avg</b>                       | <b>1-3 yrs avg</b>                     | <b>2-5 yrs avg</b>                      |
| Deliverables        | <b>Results</b>                         | <b>Results &amp; Solution</b>          | <b>Results, Solution &amp; Know-How</b> |
| IP Transfer         | ★                                      | ★★★                                    | ★★★                                     |