

DE LA RECHERCHE À L'INDUSTRIE



CEA

From research
to industry

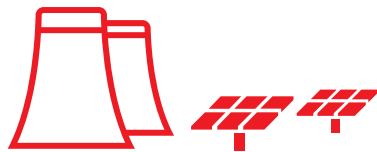
Infor EAM Research Organizations
User Group Meeting at CERN -
21/03/2018

French Alternative Energies and Atomic Energy Commission

www.cea.fr



Defence and security
of the
country



Nuclear and
renewable
energy



Technology research
for industry



Fundamental research

A UNIQUE PUBLIC RESEARCH ORGANISATION



16,000
employees



1,400
doctoral students
and post-docs

10

CENTRES

Cadarache (*nuclear fission, fusion, propulsion, new energy technologies*), Cesta (*nuclear warhead architecture and guarantee, MegaJoule Laser*), DAM Île-de-France (*physics of nuclear weapons, numeric simulation, battle against nuclear proliferation and terrorism, engineering, Very Large Computing Centre, tsunami warning centre*), Fontenay-aux-Roses (*life and health sciences*), Gramat (*weapon system vulnerability and armament effectiveness*), Grenoble (*new technologies for energy, health, information and communication, nanosciences, cryogenics, biosciences and biotechnologies*), Le Ripault (*non-nuclear materials for deterrence, fuel cell, hydrogen storage*), Marcoule (*nuclear fuel cycle and waste*), Saclay (*nuclear technology, climate and environment, material sciences, health, technological research*), Valduc (*nuclear materials for deterrence, Epure radiographic facility*)

5

REGIONAL PLATFORMS FOR TECHNOLOGY TRANSFER

Nantes, Bordeaux, Toulouse, Metz, Lille



Business creation

- ▶ Incubator of industrial activities
(STMicroelectronics, Areva, Soitec, ...)
- ▶ Startup creation
(187 since 1972)
- ▶ Catalyst for investments in technology
(through its subsidiary, CEA Investissement)

Acquisition

- ▶ €2.4 billion in acquisitions of high technology

45,000 qualified jobs created
(direct, indirect and resulting)

Top innovative organisation in the world*

Intellectual property

- ▶ 5,844 families of active patents
Filing of some 750 priority patents each year

Industrial partnerships

- ▶ Around 500 industrial partnerships in all sectors of activity

A GROWING COMMITMENT IN EUROPE

730 projects in the Seventh Framework Programme

204 projects already accepted in Horizon 2020
(*success rate: 21%*)*

180 in millions of euros*

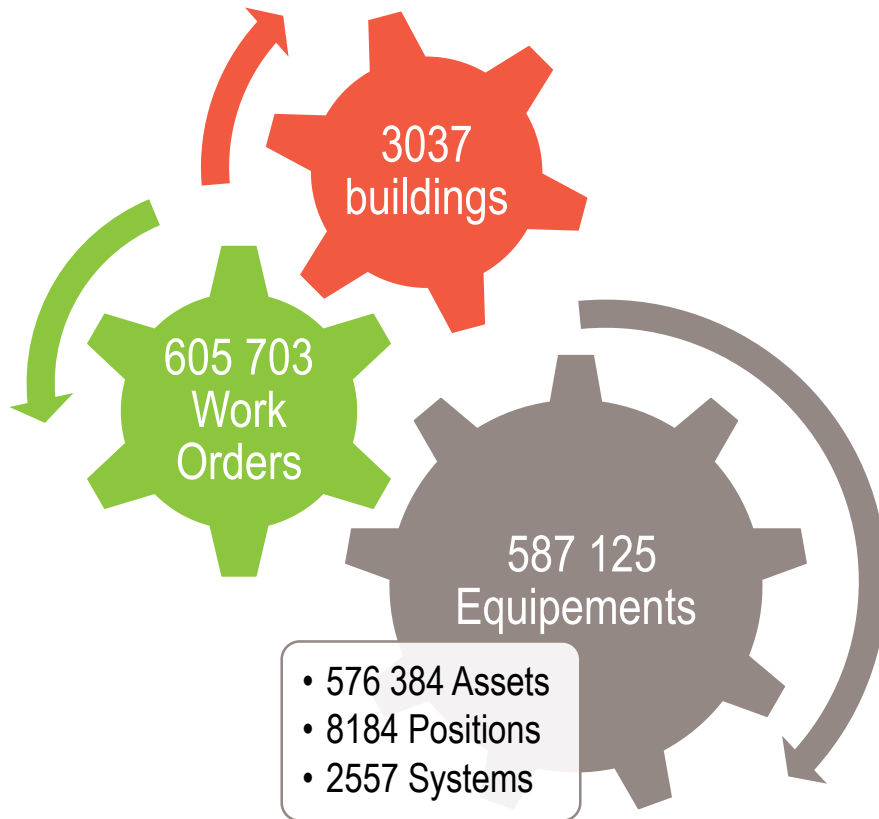
In addition to numerous partnerships and other joint projects

**In all sectors of its activity,
CEA participates in European research**



INFOR EAM AT CEA

INFOR EAM AT CEA IN NUMBERS



Today



9 Platforms for 10 centers



End of 2018



- 1** Platform for 5 centers related to the Defence and security of the country activities
- 4** Platforms for 5 civils centers

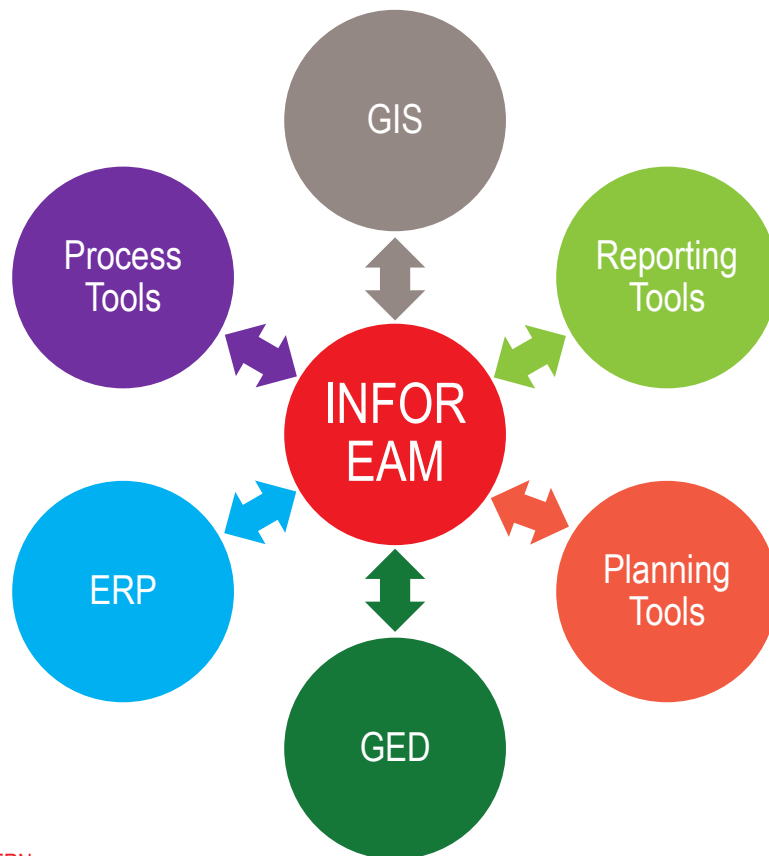


From 8.4 to 11.3



SQL Server and Oracle

INTEGRATING TOOLS AND PROCESSES



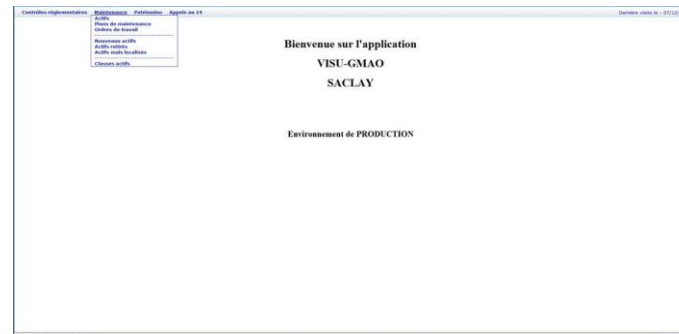
Infor EAM

Full / Expert Web Interface



Infor EAM

Simplify / Read only Interface



- Very wide range of user profiles :
 - Maintenance managers
 - Engineers
 - Maintenance technicians (internal + contractors)
 - End users



Ordre de Travail: 1002149 - DEPÔSE AMOUREUX TOP 044.6 BÂTIMENT 610

Menu: Liste | Engagements | Commandes | Actifs | Pointers man d'œuvre | Clôture | Actifs | Equipement | FAI | Inspections

Message: Toutes les inspections

Engagements: 2 sur 2

| Equipement | Organisation Equipements | Description de l'Equipement | Point | Type de point | Numéro de séquence | Aspect | Valeur | Méthode | UDM |
|------------|--------------------------|-----------------------------|-------|---------------|--------------------|--------|--------|---------|-----|
| 107465 | | CLIMATISATION 1 P06A | 1 | LIQ1 | 10 | VOLU | | | |

Détails de point

Equipement: 107465 CLIMATISATION 1 P06A

Point: 1 Liquide 1 de la cuve

Type de point: LIQ1 Aspect: VOLU

Numéro de séquence: 10 Méthode:

Détails de résultat

Date: 18/01/2015 15:31 Ordre de Travail standard:

Résultat: Valide Nouvel ordre de travail nécessaire:

Valeur: 150 L Ordre de Travail:

SOUMETTRE EFFACER

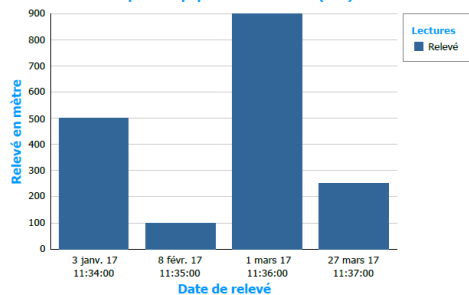
Infor EAM

Relevés d'inspection



Graphique Histogramme

Relevés pour l'équipement : CUVE R1 (LSE) 500 m3



| Date de relevé | Relevé | Unité de mesure | OT de travail |
|---------------------|--------|-----------------|---------------|
| 3 janv. 17 11:34:00 | 500 | mètre | 1475555 |
| 8 févr. 17 11:35:00 | 100 | mètre | 1475556 |
| 1 mars 17 11:36:00 | 900 | mètre | 1475557 |
| 27 mars 17 11:37:00 | 250 | mètre | 1475558 |



A tool to ask and manage big project and studies



Créer une demande: 1



Consulter une demande: 0



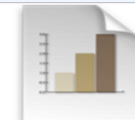
Valider une demande: 0



Orienter une demande: 0



Traiter une demande: 0



Superviser une demande: 0

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Thank you for your attention

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Appendices

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THEY EXIST THANKS TO CEA



French nuclear deterrent



First gene therapy for Parkinson's disease and beta-thalassemia
(hereditary blood disease)



French nuclear power plant fleet
Reprocessing of spent fuel (*world first*)
Vitrification of nuclear waste
(*disposal management*)



Flat screen technology
Airbag deployment system
Ultrasound inspection of automotive, aerospace and nuclear parts



First French CT scanner
Mad cow disease: European screening test
First rapid Ebola screening test



Superconducting magnets and Atlas and CMS experiments at CERN
(discovery of Higgs Boson)
Pollution cleanup technology using supercritical fluids (*green chemistry*)

A CONTRIBUTION TO THE DEVELOPMENT OF KEY SECTORS

Manufacturing -
Digital engineering



High-performance
computing



Micro-and
nanoelectronics



Nuclear sector: electricity
production and fuel cycle



Cleanup and
dismantling



Solar
energy



Transportation: electricity
storage, hydrogen, fuel cell



Design of very large
research instruments