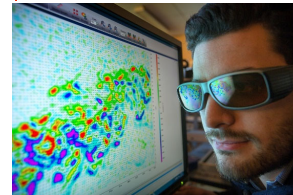# A quick tour of Inria

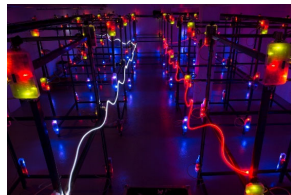# Scientific excellence

ALGORITHMS & PROGRAMMING

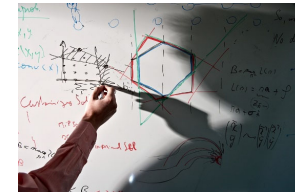**DATA SCIENCE & KNOWLEDGE ENGINEERING**

MODELING & SIMULATION

OPTIMIZATION & CONTROL

ARCHITECTURE, SYSTEMS & NETWORKS

SECURITY & PRIVACY

INTERACTION & MULTIMEDIA

ARTIFICIAL INTELLIGENCE & AUTONOMOUS SYSTEMS

Socio-economic impact

HEALTH

ENERGY

SECURITY &
RÉSILIENCE

ENVIRONMENT

CLIMATE

TRANSPORTATION

CULTURE &
ENTERTAINMENT

ÉCONOMY

FINANCE

FOOD &
AGRICULTURE

Research centres

Centres

Local offices

Saclay
Île-de-France

Lille
Nord Europe

Paris

Nancy
Grand Est

Strasbourg

Rennes
Bretagne Atlantique

Nantes

Lyon

Grenoble
Rhône-Alpes

Bordeaux
Sud-Ouest

Sophia Antipolis
Méditerranée

Pau

Montpellier
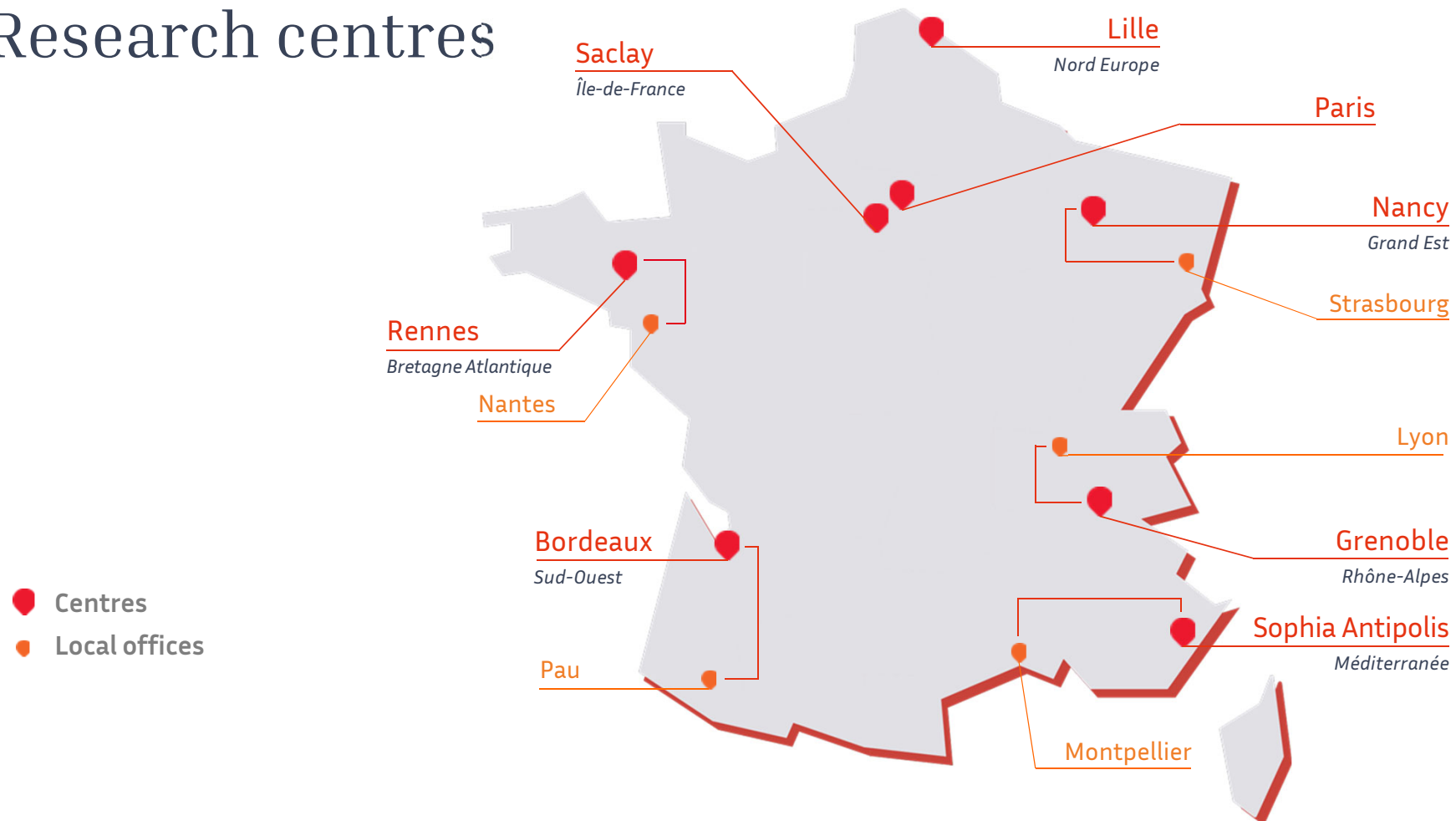
Inria, people above all

4350 collaborators

Inria **2500**   Partners **1850**

3400
scientists

950
supports
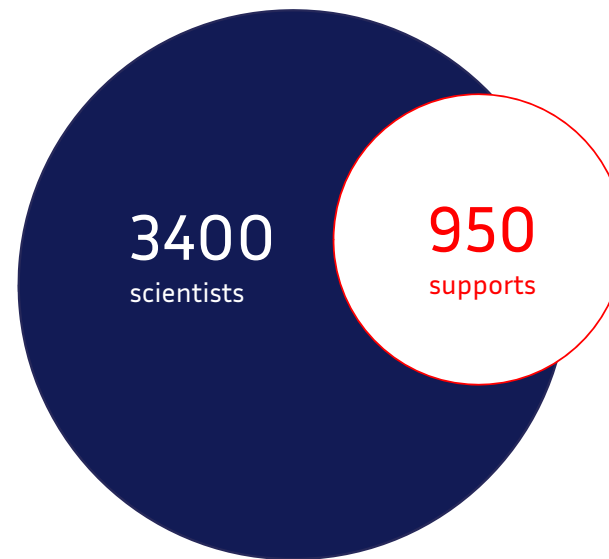
Inria project-team

- 10 to 30 people, under the direction of a scientific leader
- A precise research theme
- Financial and scientific autonomy
- An international evaluation at creation and every 4 years
- A maximum duration of 12 years
- In connection and collaboration with industrial and scientific partners in France and around the world

200
INRIA PROJECT-TEAMS IN 2018

80% IN
COLLABORATION

AN ADDITIONAL ORGANIZATION TO THAT OF UNIVERSITIES AND CNRS
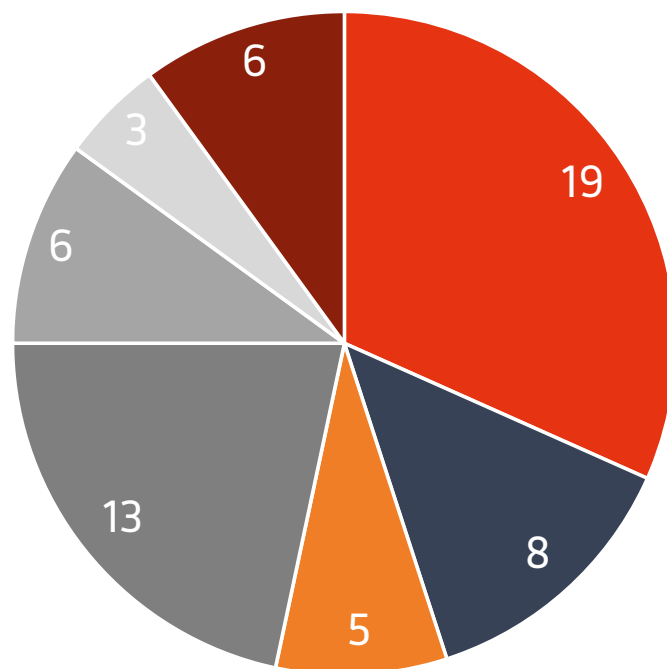
Budget 2018

INITIAL BUDGET
236 M€

GRANT FOR PUBLIC SERVICE CHARGES

174 M€

OWN RESOURCES
62 M€

Pie chart values:
- European Union: 19
- ANR outsides PIA: 8
- PIA: 5
- French public contracts (excluding ANR et PIA): 13
- Private contracts: 6
- Intellectual property, sale of products and services: 3
- Other resources: 6

Legend:
- European Union
- ANR outsides PIA
- PIA
- French public contracts (excluding ANR et PIA)
- Private contracts
- Intellectual property, sale of products and services
- Other resources

Outstanding researchers

56 ERC grants since 2007

Karthik Bhargavan

Rachid Deriche

Marie Doumic

Stanley Durrleman

Christine Guillemot
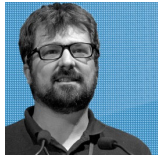
Laura Grigori

Cătălin Hritcu

Anne-Marie Kermarrec

Fabien Lotte

Wendy Mackay

Xavier Pennec

Jean-Baptiste Mouret

Maria Naya-Plasencia

Jan Ramon

Cordelia Schmid

Institut de France Académie des sciences

François Baccelli

Alain Bensoussan

Serge Abiteboul

Jacques-Louis Lions *(deceased)*

Benoit Perthame

Philippe Flajolet *(deceased)*

Gérard Huet

Gilles Kahn *(deceased)*

Roland Glowinski

Nicholas Ayache

Gérard Berry

Olivier Faugeras

Olivier Pironneau

Médailles du CNRS

IEEE *Fellow*

acm Association for Computing Machinery

Transfer devices at Inria

TECHNOLOGY TRANSFER AND SKILLS

Joint laboratories	Technology transfer
R&D partnerships	Transfer of expertise/know-how

CREATION OF START-UPS

By providing structural assistance
By facilitating funding aids
By working in partnership and network

More than160
start-ups created
75% of which are in operation or acquired

FRENCH TECH CENTRAL

Inria coordinates and develops links between public research and start-ups within French Tech Central

Industrial partnerships

Partnerships with SMEs

Toutirobo aims to create farm management modules and vehicles for autonomous guidance, navigation and planning and interaction devices adapted to the constraints of farmers' jobs.

Lab Voice Technologie is a laboratory specialized in speech and sound processing, and pays particular attention to source separation, foreign language learning and audiovisual speech synthesis.

CertiVibe facilitates the development of medical devices based on OpenViBE, Inria's flagship software that provides daily support in the medical field.
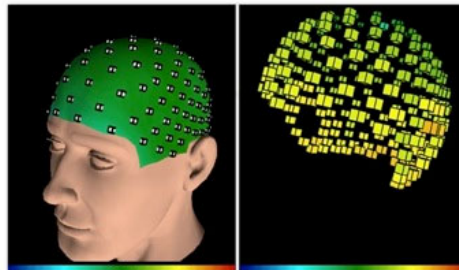
EduMics develops new solutions in ontology engineering and semantic web models and techniques to gain a competitive advantage in the e-learning market.

Our start-ups

160 renown start-ups, some acquired by market leaders

REGAIND

Apple

kelkoo

Yahoo

ILOG

IBM

Chorus

Sun Microsystems

Medience

Business Objects

ESTEREL Technologies

Ansys

ISTAR

EADS

REALVIZ

Autodesk

PolySpace

The Mathworks

Trusted Logic

Gemalto

athys
CONTROL SOLUTIONS
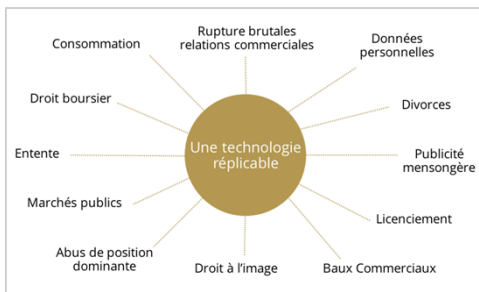
Dassault Systèmes

HIKOB
LEARN FROM REALITY.

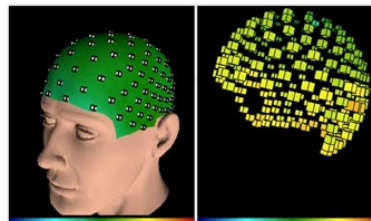Tagmaster

Some recent start-ups

Open Agora provides tools to enable companies and local authorities to organise consultations based on votes.

CASE LAW ANALYTICS

Artificial Intelligence serving the quantification of the legal risk

Consommation
Rupture brutales relations commerciales
Données personnelles
Droit boursier
Divorces
Entente
Une technologie réplicable
Publicité mensongère
Marchés publics
Licenciement
Abus de position dominante
Droit à l'image
Baux Commerciaux

Brain interfaces and neurophysiology — **MENSIA** TECHNOLOGIES

Ullo

Ullo is developing new therapeutic approaches for the care of cognitive disorders...

Lybero.net
Sécurité Numérique Collaborative

Data protection by cryptography

Some great software

140 software packages per year

CAML

COQ

GATB

MUMPS

NATRON

RIOT

SAMSON

SOFA

Inria international Labs

CWI-Inria
THE NETHERLANDS

EPFL-Inria
SWITZERLAND

Joint-Laboratory on
Extreme Scale Computing
UNITED STATES

Inria@SiliconValley
UNITED STATES

LIAMA
CHINA

InriaChile
CHILE

LIRIMA
SENEGAL

Inria in the world

93 associated teams active in 2019

Canada — 11
USA — 31
Mexico — 2
Chile — 6
Brazil — 6
Europe — 14
Senegal — 1
Tunisia — 1
Cameroon — 2
Gabon — 1
South Africa — 1
India — 5
China — 3
Taiwan — 1
Japan — 3
Singapore — 1
Australia — 4

Inria and the European Research Area

HORIZON 2020

Scientific excellence	Industrial leadership	Societal challenges

More of 120 projects H2020

erc
European Research Council

56 ERC **successful researchers** have chosen Inria as a host institution since 2007

1st in terms of the **number of ERC grants awarded** for the PE6 panel (*Computer Science and Informatics*)

eit **(European Institute of Innovation & Technology)**

In the EIT, Inria participates in 2 KICs (Knowledge and Innovation Communities):

eit Digital

THEME: Information and Communication Sciences and Technologies *(since 2011)*

eit Health

THEME: Wellbeing and healthy aging *(since 2015)*

Digital culture & teaching
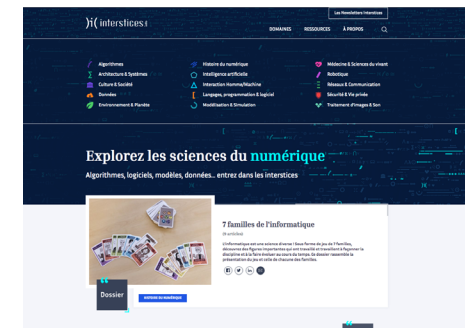
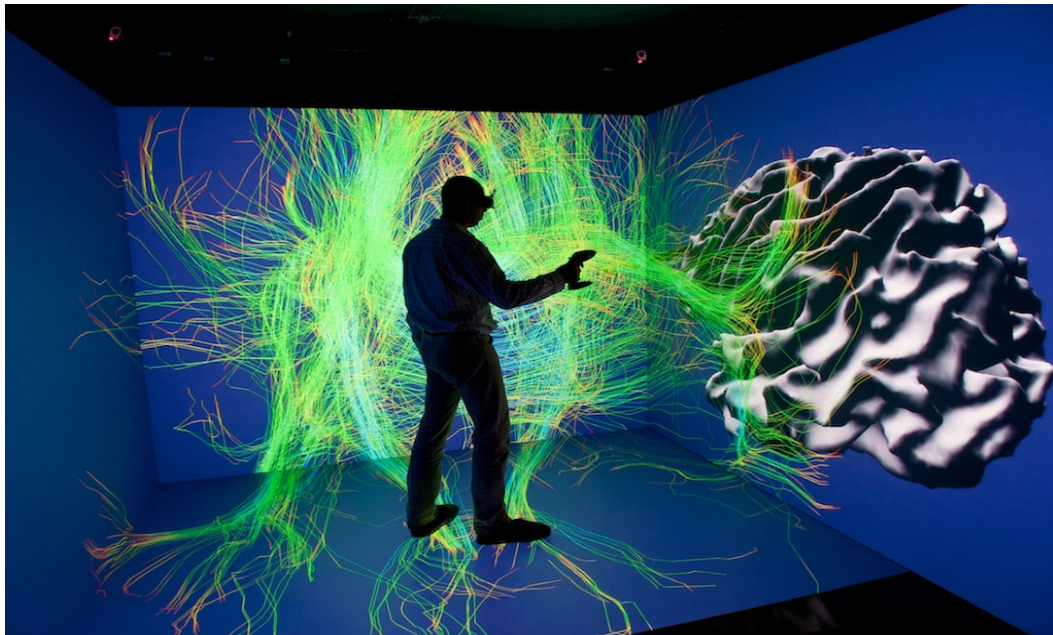Cité des sciences et de l'industrie

Inria | Learning Lab

< Class'Code >

Interstices

Inria Sophia Antipolis – Méditerranée,
a major player in the field of digital sciences and technologies,
deliberately oriented towards the European research area

Milestones

1983 - Creation Inria Sophia Antipolis Centre in
Sophia Antipolis scientific park

1988 - First TCP/IP connection Europe – US
- Operator of the first regional research computer network

1994 - Creation of the W3C Europe office and host of the European group ERCIM

2003 - First Inria project-team in Montpellier

2010 - First Inria project-team with an European university (Bologna-Italy)
- KIC EIT ICT labs creation

2012 - Opening of the SophiaTech Campus

2015 - Creation of Université Cote d'Azur (Inria founder)

2016 - IDEX UCA^{JEDI} et 2nd Inria project-team with European university
(Athens-Greece)

2017 - l-Site MUSE (UCA-Inria Data Science Chair; host of IRT St Exupery

2018 - InriaTECH Sud,

2019 - 3AI Institute

34 research teams   **5** main topics

1 **Applied Mathematics, Computation and Simulation (6 teams)**
- ACUMES, ECUADOR, FACTAS, McTAO, NACHOS, TOSCA-post

2 **Algorithmic, Programming, Software and Architecture (4 teams)**
- AROMATH, DATASHAPE, KAIROS, MARELLE

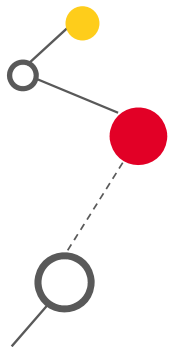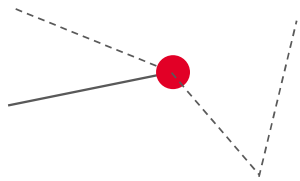**3** **Networks, Systems and Services, Distributed Computing (5 teams)**
- COATI, DIANA, FOCUS, INDES, NEO

4 **Perception, Cognition, Interaction (8 teams)**
- CHORALE, GRAPHDECO, GRAPHIK, HEPHAÏSTOS, STARS, TITANE, WIMMICS, ZENITH

5 **Computational Sciences for Biology, Medicine and Environment (11 teams)**
- ABS, ATHENA, BIOCORE, BIOVISION, CAMIN, CASTOR, COFFEE, EPIONE, LEMON, MATHNEURO, MORPHEME

Key figures (2017)

- **498** people : **362** scientists, (researchers/PhD/post-doc/permanent researchers)
  70 engineers R&D and staff support ;
  316 employed by Inria

- **3** sites: Sophia Antipolis, Montpellier, Bologna ; **29 M€** budget 2018

- **34** research teams - 18 teams in partnership with CNRS, INRA, universities & engineering schools => **28** concerned with UCAJedi

- **5** domains:
  1. Applied Mathematics, Computation and Simulation (6 teams)
  2. Algorithmic, Programming, Software and Architecture (4 teams)
  3. Networks, Systems and Services, Distributed Computing (5 teams)
  4. Perception, Cognition, Interaction (8 teams)
  5. Computational Sciences for Biology, Medicine & Environment (11 teams)

- **38** PhD defended in 2017

- ERC since 2007

- **14** start-up since 2000

- **13** MOOC (Python, semantic Web, Linked Data, cryptography, privacy, smart cities etc,)

Industrial partners

Côte d'Azur
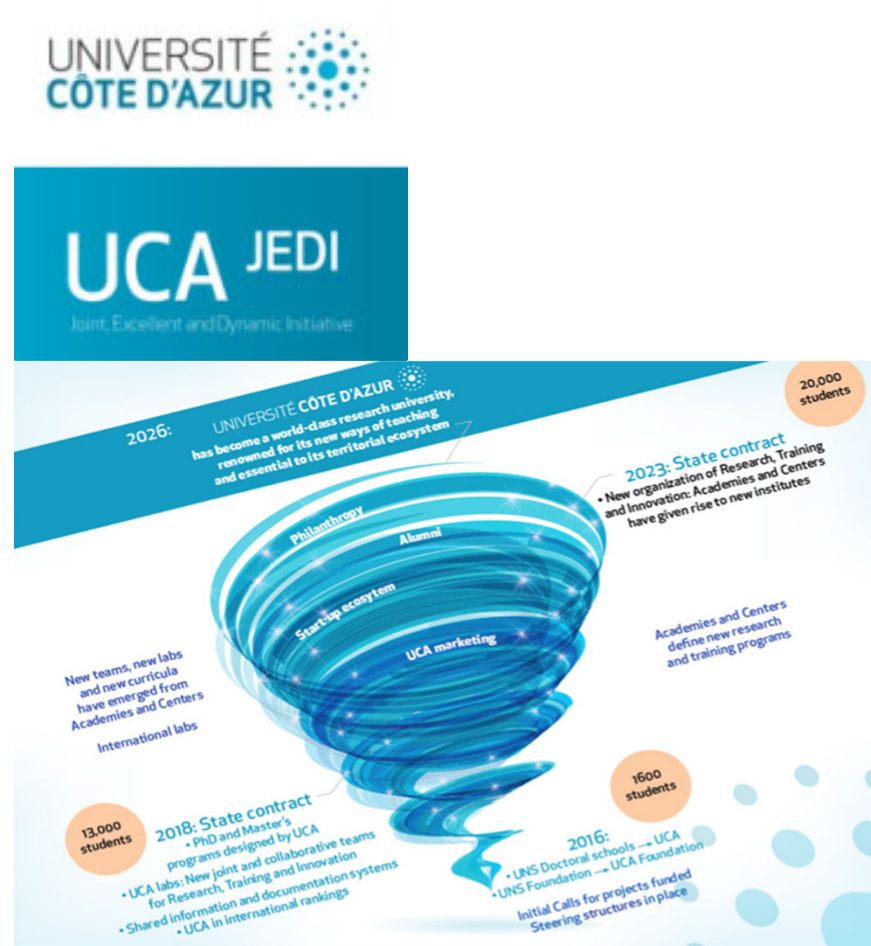
Thank you!

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