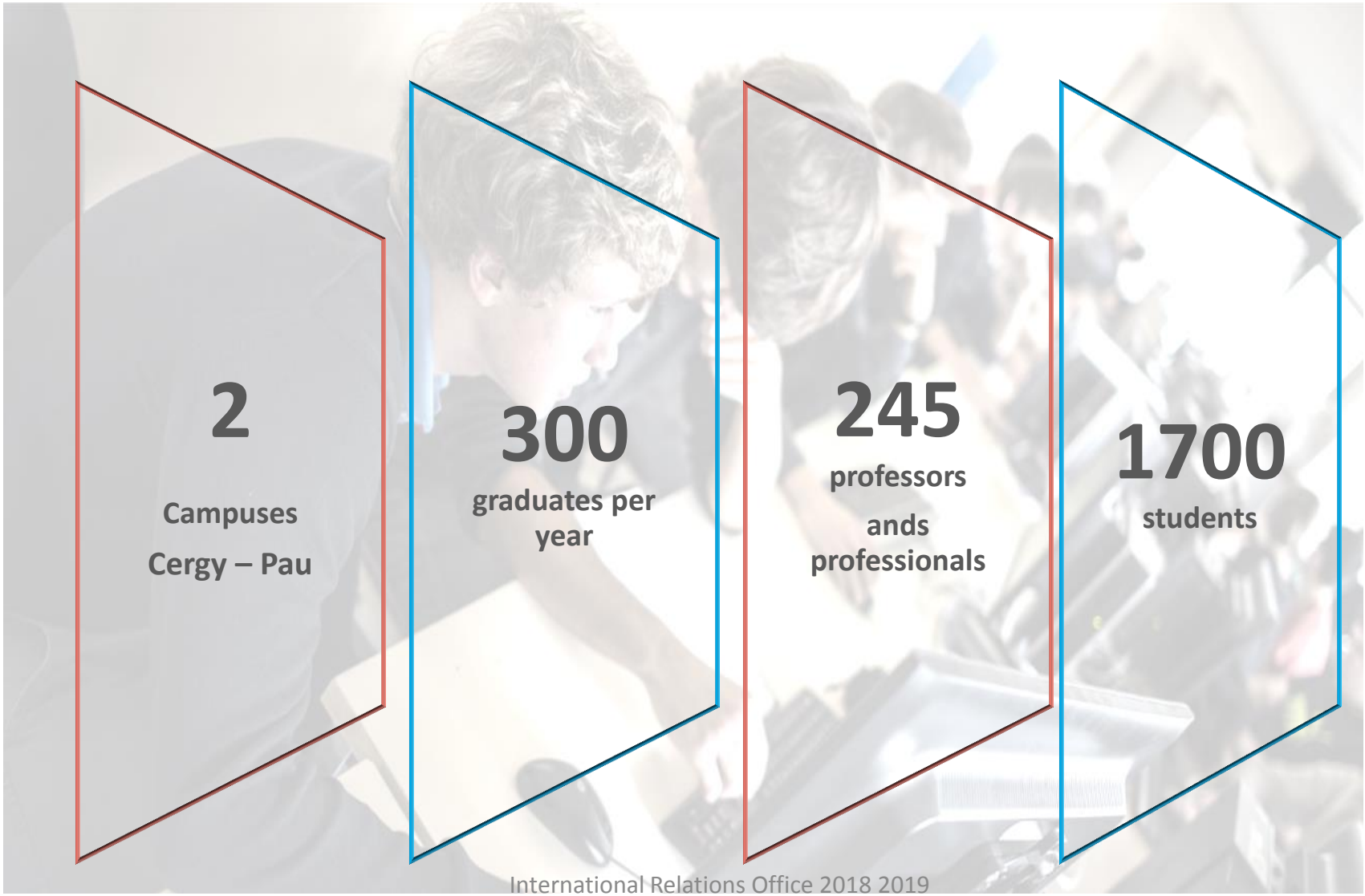
Cergy Pau

EISTI

GRADUATE SCHOOL OF ENGINEERING IN COMPUTER SCIENCE AND APPLIED MATHEMATICS

KEY FIGURES


2
Campuses
Cergy – Pau
300
graduates per year
245
professors
ands
professionals
1700
students

ACCREDITATIONS

Ministry of Higher Education and Research

Commission for Engineering Titles

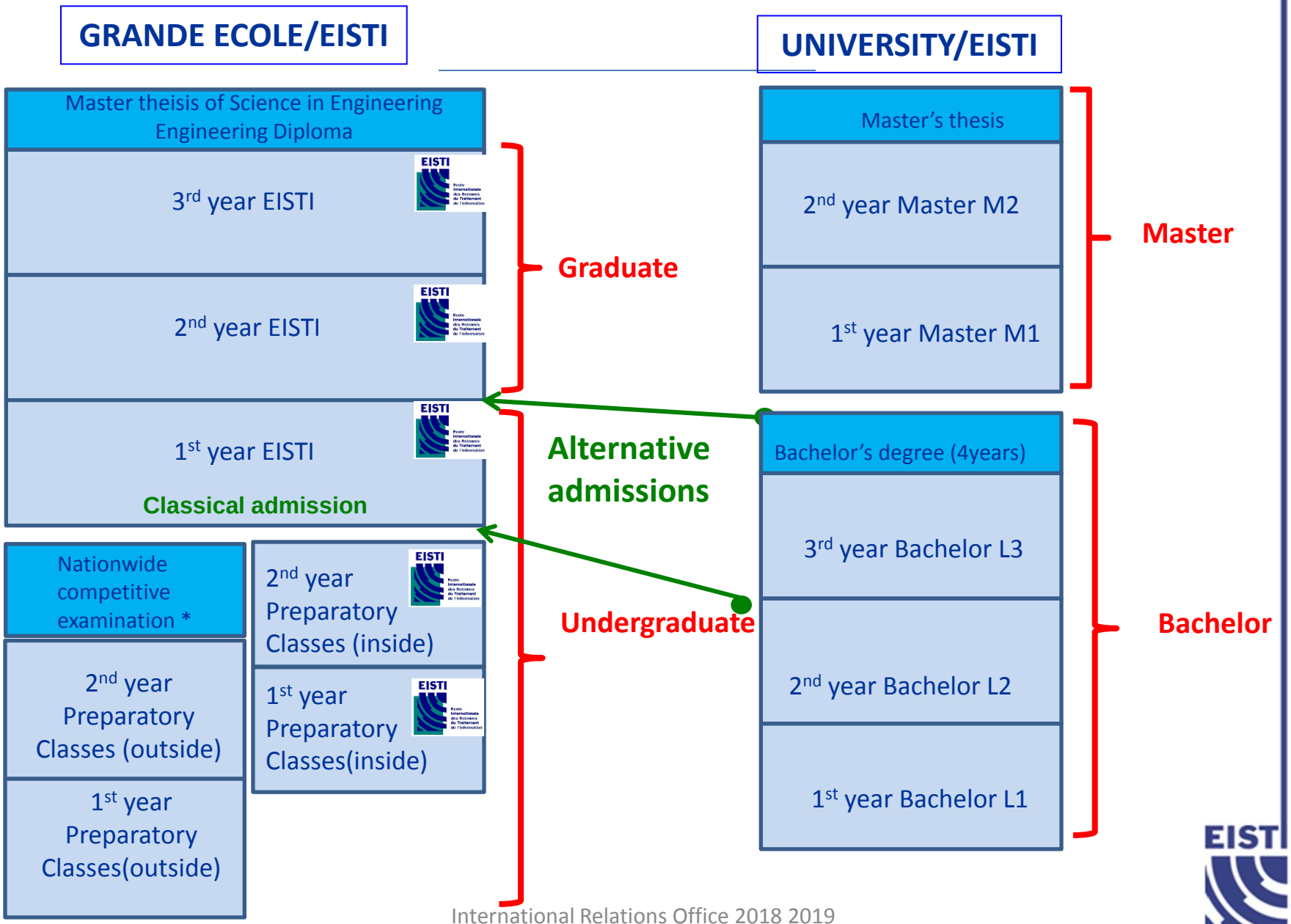
(CTI)

WHAT'S A "GRANDE ÉCOLE"?

- Distinctive element of the French higher education system which parallels the classical university system.

- "Grandes Écoles" are smaller in size than universities and recruit their students with very selective processes.

SCHEDULE OF HIGHER EDUCATION IN FRANCE



* Concours Communs Polytechniques (19 000 candidates)

CURRICULUM TAUGHT IN FRENCH

Engineering degree

Math track

- Data Science
- Financial Engineering
- Maths Eng. and Computer Simulation
- Fin Tech

IT track

- Business Intelligence
- Smart Systems
- Embedded Systems
- Cloud Computing
- Visual Computing
- ERP Integration
- Cyber Security
- Artificial Intelligence

COMPULSARY INTERNSHIP

WE ATTACH GREAT IMPORTANCE TO BUSINESS INTERNSHIPS

13 months internship during the engineering curriculum:

- 1st year: 3 months
- 2nd year: 4 months
- 3rd year : 6 months

EISTI CAREER CENTER

WE HAVE UP TO 5 INTERNSHIP OFFERS PER STUDENT

FIND AN INTERNSHIP

- Career Fairs
- EISTI ALUMNI meetings
- Job/internship search tools
- Business conferences with guest speakers
- CV/cover letter /interview workshops

PROGRAMS OFFERED IN ENGLISH

Duration	Fees	ECTS credits	Language	Beginning date	Entry requirements
24 months	7000 EUR/year	120	English*	September	Bachelor of Science or equivalent & English certificate

*All the classes will be taught in English except French as a foreign language.

MASTER PROGRAM ORGANIZATION

1-2 weeks

Update their knowledge's and intensive French course

1st year M1

Sept-June

60 ECTS

2nd Year M2

Sept-Sept

60 ECTS

M2 courses
September-April

M2 internship
April-Sept

Master thesis

CV workshops, alumni meetings, conferences, career fairs, parties, competitions, sport events…

Master in Big Data

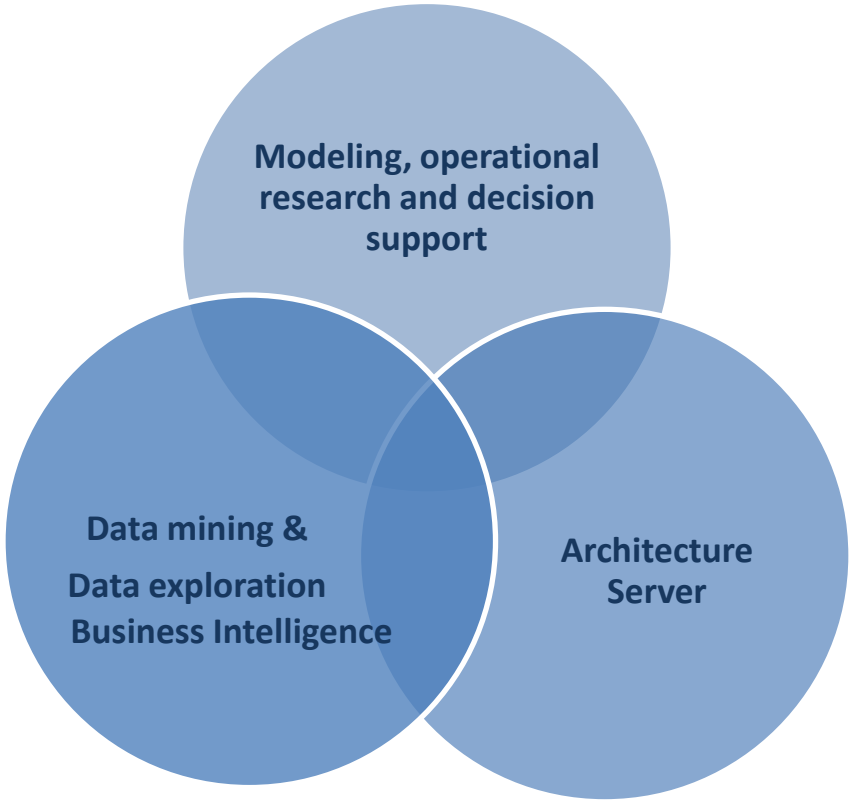
Entry requirements

Bachelor of Computer Science or Equivalent

Proof of English language level

e.g.: TOEFL (min 80) or TOEIC (min 800)

The 3 pillars



MASTER ADEO M2, SEMESTRE 1

Semester 1			
Skills	**Courses**	**Hours**	**ECTS**
Computer technologies	Machine learning with Scala	21	10
	Advanced data base 2	21	
	Web services	21	
	NoSQL	21	
	Dynamic web application (JEE and Frameworks)	21	
Data exploration	Data mining approach	21	7
	Semantic web and Ontology	21	
	Social Network Analysis	15	
Business Intelligent	Advanced BI & Data Visualization (Teradat)	24	3
Operations Research	Data Analysis (SAS)	12	7
	Forecasting models 2	33	
	Heuristics & AI	24h	
Foreign language & HR	FFL: French and Foreign Languages	30	3
	PPP: Personalized Professional Project	15	
	Total M2: Semester 1	300	30

MASTER ADEO M2, SEMESTRE 2

Semester 2			
Skills	**Courses**	**Hours**	**ECTS**
Data exploration	Text Mining and natural language	18	3
	Elastic serach & Kibana (Smart Team)	12	
	Deep learning	12	
Operations Research	Constraint programming (IBM)	18	4
	Multi-objective optimization	18	
	Game theory	10	
Project Big data	Big data and Advanced Analytics (Teradata)	42	4
Foreign language	FFL: French and Foreign languages	21	1
Master thesis	Master thesis	86	9
	Total M2 : Semester 2 without internship	225	21
Internship	Internship (22 weeks minimum)	175	9
	Total M2 : Semester 2		30

IPS (INTERNATIONAL PROGRAM SEMESTER)

	International Project Semester IPS				
Skills	**Courses**	**Hours**		Cof	**ECTS**
Mathematics	Machine learning & Deep learning	24,0	h	2,0	**5,0**
	Text Mining & Natural Language	21,0	h	2,0	
	Heuristics and Artifial intelligence	21,0	h	2,0	
	Data analysis and forcasting models	24,0	h	2,0	
Computer science	No SQL	21,0	h	2,0	**5,0**
	Functional programming	21,0	h	2,0	
	Advanced databases	24,0	h	2,0	
Management and Humain relationship	Project management	6,0	h	1,0	**3,0**
	Oral and written expression	12,0	h	2,0	
	Team work	12,0	h	2,0	
Foreign language	FFL: French and Foreign languages	45,0	h	1,0	**2,0**
Transverse	Advanced BI & Data Visualization	30,0		**3**	**15,0**
	Big Data & Advanced Analytics	42,0	h	4	
Totals		**303,0**	**h**		**30**

PROFESSIONAL FUTURE

Job opportunities

Data Scientist

Consulting engineer

Tool design engineer

BI/Business Analytics Solutions-provider

Social networks analyst

Research and development

PhD

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Areas

Digital Marketing

Business Analytics

Risk Management

Yield Management

Industrial applications

Supply and distribution

Healthcare industry

Social networks

Software industry

…

PARTNERSHIP WITH COMPANIES

RESEARCH

The research is done most often in partnership with other establishments: University of Cergy-Pontoise, University of Pau and Pays de l'Adour, SUPMECA, ENSEA through QUARTZ and ETIS (UMR CNRS)

- Director of Research in Computer Science

  Rachid Chelouah: rc@eisti.eu

- Director of Research in Mathematics and responsible of Master QFRM

  Erik Taflin: : et@eisti.eu

INTERNATIONAL PARTNERSHIPS

86 agreements

in 39 countries

THE DIFFERENT RESEARCH TOPICS DEVELOPED AT EISTI

- Knowledge engineering and applications
  - Semantic interoperability between heterogeneous systems
  - Social networks and big graphs
  - Big data and Data Analytics
  - BI and Data visualization
- Modeling, design and formal verification of complex systems based on components.
  - Designing Systems based on dependability
  - Integration of Model-Based Systems Engineering and Safety Analysis
  - Software Verification by using Static Analysis and Code Instrumentation
- Security and cybersecurity
  - Security and Safety of Connected and Embedded Systems (IoT)
  - Security and privacy in intelligent networks and systems
  - Safety in transport systems
- Visual computing
  - Image processing
  - Human machine interaction
  - Immersion

Thank you