ÉCOLE DOCTORALE
Sciences et technologies
de l'information
et de la communication (STIC)

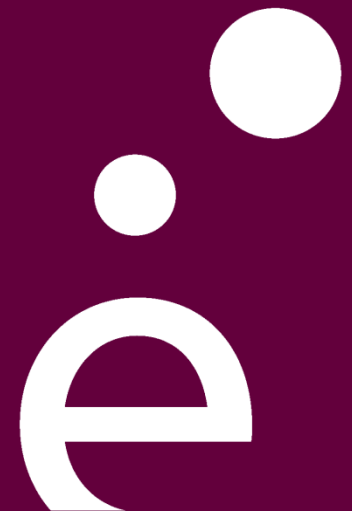université
PARIS-SACLAY

STIC Doctoral School Welcome Meeting

November, 28th 2019

CentraleSupélec

Schedule

8:30 Welcoming coffee

9:00 Doing a PhD at the ED STIC Paris-Saclay
           - general presentation
           - courses and training
           - doctoral representatives
           - Science Accueil organization

11:00 Break

11:30 Awards Ceremony,
           with Mérouane Debbah (Huawei – CentraleSupélec)

13:15   - Lunch

The Doctoral School

15 institutions: 3 universities, 5 « grandes écoles », 7 national research organisms, 1 associated IRT (Institute of Research and Technology)

STIC Doctoral School

Sciences and

Technologies of

Information and

Communication

One of the **20 Doctoral Schools** of **Paris Saclay University**

Agriculture, alimentation, biologie, environnement, santé (ABIES)
Read more

Astronomie et astrophysique d'Ile-de-France
Read more

Cancérologie, Biologie, Médecine, Santé
Read more

Ecole doctorale de mathématiques Hadamard (EDMH)
Read more

Ecole Doctorale Ondes et Matière
Read more

Ecole doctorale Physique en Ile de France
Read more

Electrical, Optical, Bio: PHYSICS_AND_ENGINEERING (EOBE)
Read more

Innovation thérapeutique du fondamental à l'appliqué
Read more

Interfaces
Read more

Particles, Hadrons, Energy, Nuclei, Instrumentation, Imaging, Cosmos et Simulation (PHENIICS)
Read more

Santé Publique
Read more

Sciences Chimiques : Molécules, Matériaux, Instrumentation et Biosystèmes (2MIB)
Read more

Sciences de l'environnement d'Ile-de-France
Read more

Sciences de l'Homme et de la Société ED SHS
Read more

Sciences du sport, de la motricité et du mouvement humain (SSMMH)
Read more

Sciences du végétal : du gène à l'écosystème
Read more

Sciences et technologies de l'information et de la communication (STIC)
Read more

Sciences mécaniques et énergétiques, matériaux et géosciences - SMEMAG
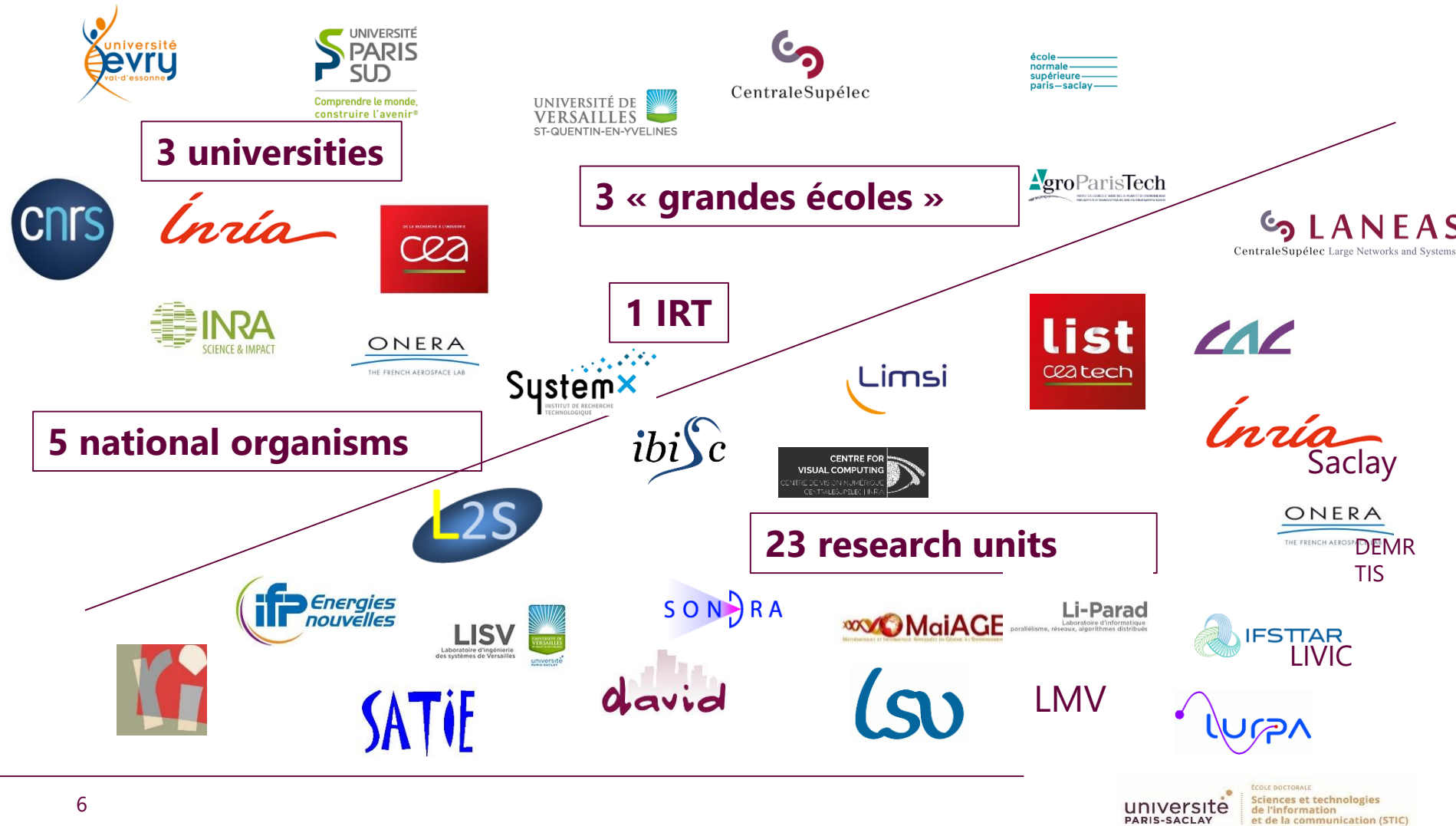Read more

Signalisations et réseaux intégratifs en biologie (BIOSIGNE)
Read more

Structure et dynamique des systèmes vivants
Read more

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ÉCOLE DOCTORALE
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3 universities

3 « grandes écoles »

5 national organisms

1 IRT

23 research units

STIC Doctoral School

Sciences and

Technologies of

Information and

Communication

One of the **20 Doctoral Schools** of **Paris Saclay University**

- 479 PhD students in 2018-2019

- Nationalities and languages (2018-2019)
  – 57% come from abroad
  – 34% come from a country where French is not an official or used language.

- 298 PhD supervisors (HdR)

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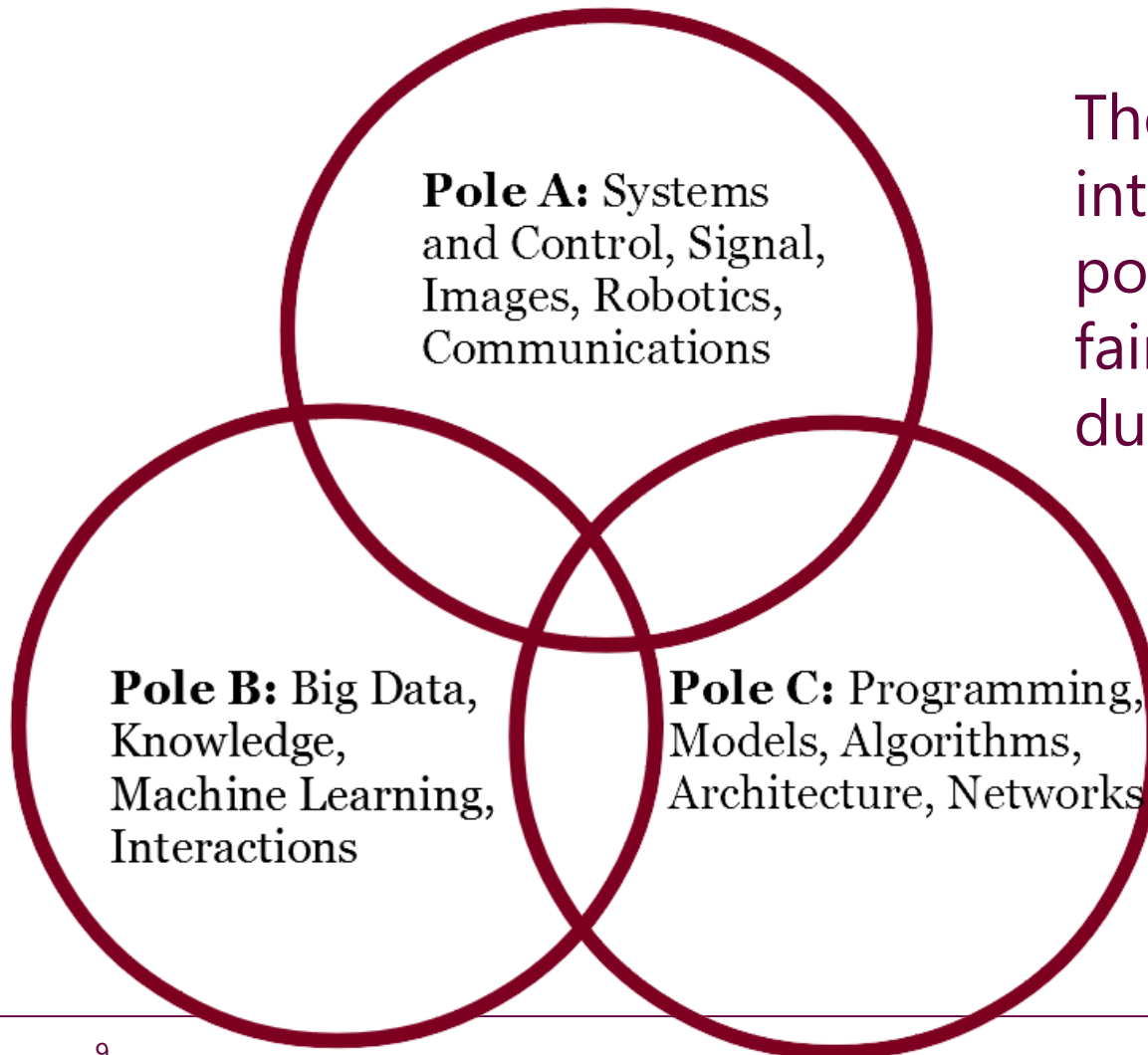et de la communication (STIC)

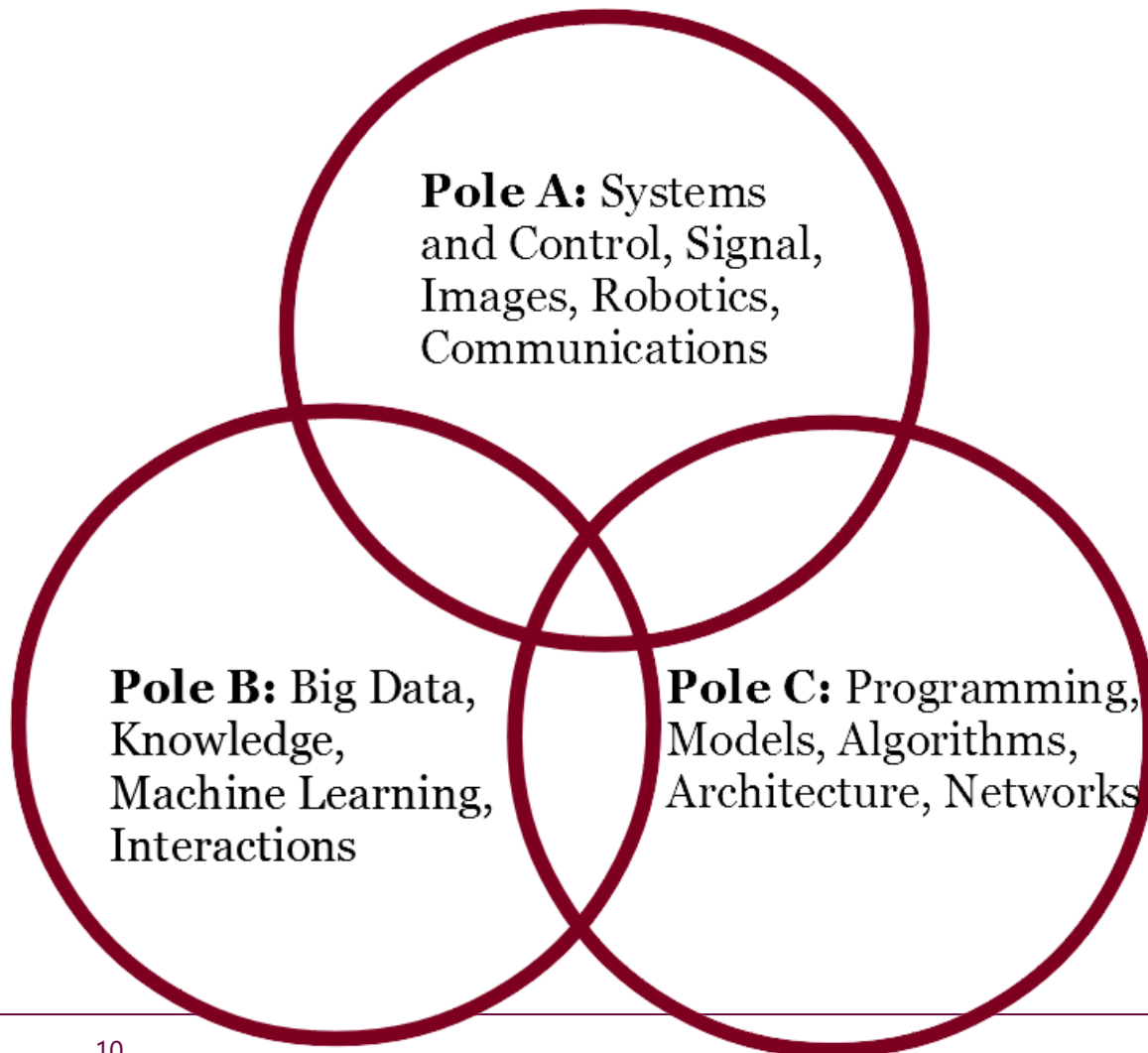# The roles of the STIC Doctoral School in a nutshell

The DS is mainly to **ensure that the PhD goes well** from the beginning to the end.

It **coordinates** actors and processes for :

- Recruiting

- Registration, Registration renewal

- Follow up (and help if problems occur)

- Training

- Support for thematic schools and international mobility

- PHD Defense

- Professional Carrier

Pole A: Systems and Control, Signal, Images, Robotics, Communications

Pole B: Big Data, Knowledge, Machine Learning, Interactions

Pole C: Programming, Models, Algorithms, Architecture, Networks

The organization in three interconnected scientific poles ensure a good and fair scientific follow-up during all the PhD thesis.

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et de la communication (STIC)

Pole A: Systems and Control, Signal, Images, Robotics, Communications

Pole B: Big Data, Knowledge, Machine Learning, Interactions

Pole C: Programming, Models, Algorithms, Architecture, Networks

NB : in fact, until the end of 2019, there are 4 poles numbered 1, 2, 3, 4.

1 → A
2 → A/C (mainly)
3 → B
4 → C

Thanks to Alain Sibille and Florence Besnard (pôle 2)!

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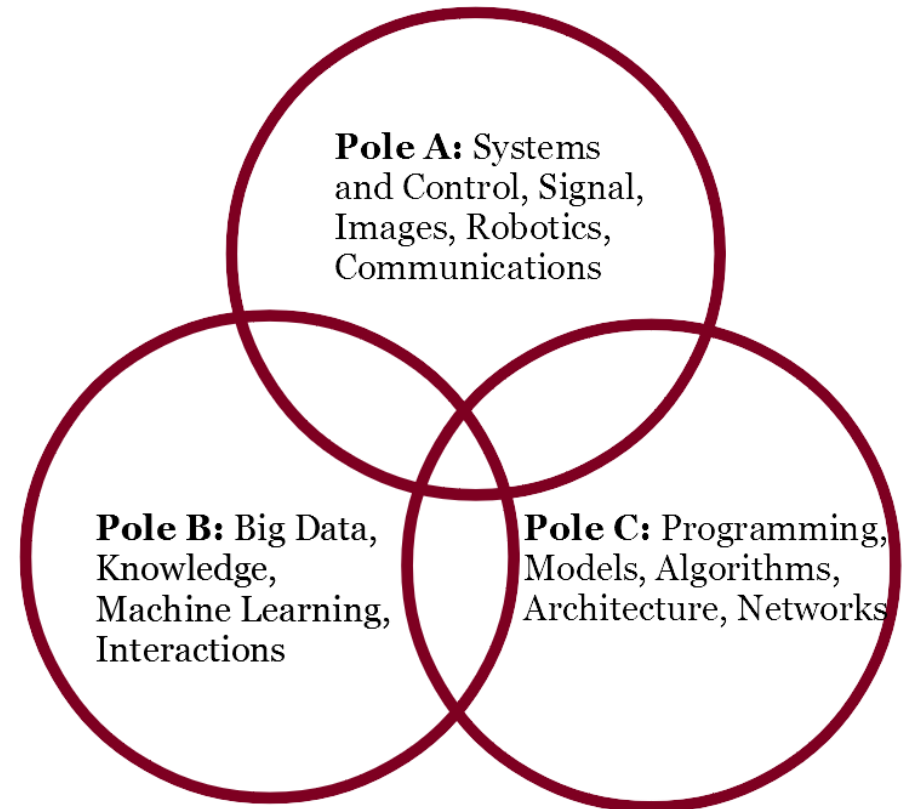
From the PhD student point of view

Each PhD student of the STIC DS

- works (generally) in a **laboratory** which is associated to the STIC DS

- under the supervision of a **researcher** from that laboratory (generally),

- is registered in one **institution** (either university or « grande école »),

- belongs to one **scientific pole** of the STIC DS (generally – but not always - the one of his/her supervisor).

- The organisation in thematic poles ensures a fair scientific follow-up of the thesis by the STIC DS.
- Whatever your location and your pole, same processes apply for: recruiting, registration, training, support, defense, etc.
- **The director and the secretary of your pole are your natural interlocutors within the STIC DS.**

Pole A: Systems and Control, Signal, Images, Robotics, Communications

Pole B: Big Data, Knowledge, Machine Learning, Interactions

Pole C: Programming, Models, Algorithms, Architecture, Networks

Director: **Gilles DUC/Antoine BERTHET** (2020)
Assistant: **Anne BATALIE**
Email: poleAstic@lri.fr

Pole A: Systems and Control, Signal, Images, Robotics, Communications

Director: **Anne VILNAT**
Assistant: **Stéphanie DRUETTA**
Email: poleBstic@lri.fr

Director: **Leïla KLOUL**
Assistant: TBA
Email: poleCstic@lri.fr

Pole B: Big Data, Knowledge, Machine Learning, Interactions

Pole C: Programming, Models, Algorithms, Architecture, Networks

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ÉCOLE DOCTORALE
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POLE A

**Systems & Control, Signal,
Image, Robotics, Communications**

Director: Gilles Duc/Antoine Berthet – CentraleSupélec
Assistant: Anne Batalie
Email: poleAstic@lri.fr

Scientific Domain Based Organization

POLE B

Data, Knowledge, Machine Learning and Interactions

Director: **Anne Vilnat** – UPSud
Assistant :   **Stéphanie Druetta**
Email :   **poleBstic@lri.fr**

POLE C

Programming, Models, Algorithms, Architecture, Networks

Director: **Leïla Kloul** – UVSQ
Assistant: TBA
Email: **poleCstic@lri.fr**

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Direction

Alain DENISE – UPsud
Stéphanie DRUETTA - Assistant
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Training

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Email: formation-edstic@lri.fr

International & Industry

Véronique VEQUE – UPSud
Email: international-edstic@lri.fr
Email: industriel-edstic@lri.fr

Director: **Gilles DUC / Antoine BERTHET** (2020)
Assistant: **Anne BATALIE**
Email: poleAstic@lri.fr

Pole A: Systems and Control, Signal, Images, Robotics, Communications

Director: **Leïla KLOUL**
Assistant: TBA
Email: poleCstic@lri.fr

Director: **Anne VILNAT**
Assistant: **Stéphanie DRUETTA**
Email: poleBstic@lri.fr

Pole B: Big Data, Knowledge, Machine Learning, Interactions

Pole C: Programming, Models, Algorithms, Architecture, Networks

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International Cotutelle

To prepare a PhD in both countries

Double Diploma

➡ International cotutella agreement between Paris-Saclay and a foreign University *signed* by all parties

- Doctoral project
- Supervisors in each country
- Alternating periods
- Defence of thesis: jury, organization, place...

International Cotutelle Process

1. The supervisor provides online information on this <u>interface</u>

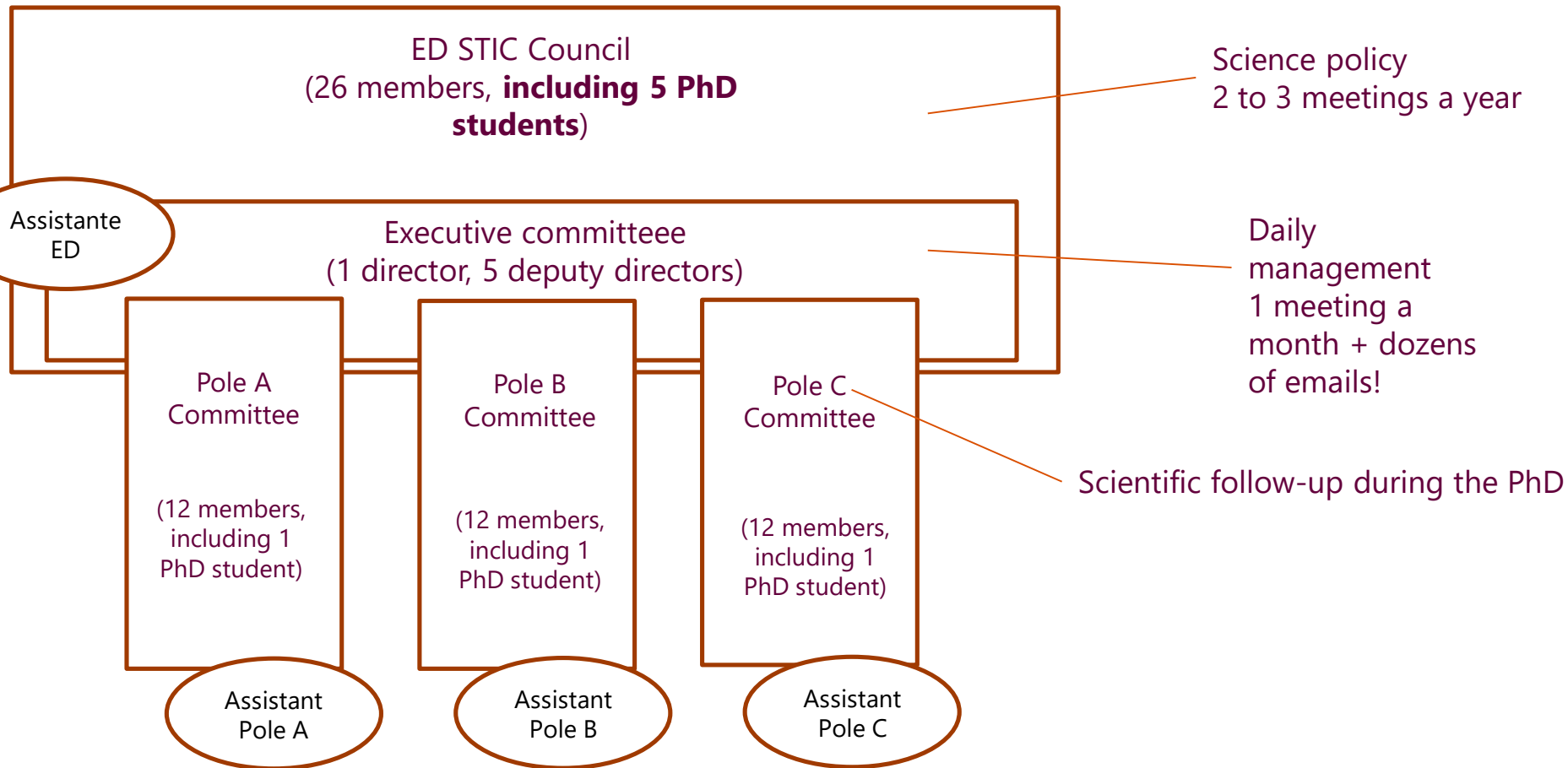   **<u>Online application for an international cotutella agreement</u>**

   This demand is sent to all actors (ED, lab, supervisor,…)

2. We check the demand and some details are often requested:
   1. Periods in each country (at least one year here)
   2. Training programs
   3. Jury

3. Advisor for International Cotutelle inParis-Saclay will contact the correspondent of the partner institution abroad to prepare the draft of the international cotutella agreement

4. Approbation by all the parties and signature

Before end of 2nd year

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Council and Executive Committee

ED STIC Council
(26 members, **including 5 PhD students**)

Science policy
2 to 3 meetings a year

Assistante ED

Executive committeee
(1 director, 5 deputy directors)

Daily management
1 meeting a month + dozens of emails!

Pole A Committee

(12 members, including 1 PhD student)

Pole B Committee

(12 members, including 1 PhD student)

Pole C Committee

(12 members, including 1 PhD student)

Scientific follow-up during the PhD

Assistant Pole A

Assistant Pole B

Assistant Pole C

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Election on the PhD representatives

- 5 representatives, elected for 1 year
- All members of the ED STIC Council
- 3 of them are members of a pole committee

- Election in january
- You will soon receive an email about the organization of the election.

The PhD project

PhD duration

- Standard duration : **3 years (36 months)**.
- The 4th year registration is allowed only on exemption.
- Funding must be insured during the whole duration.

- Your PhD supervisor and yourself must **anticipate** these requirements.

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The PhD Thesis is a project with several actors

- **PhD student:** selects a thesis subject, conducts supervised research activities, publishes the work after agreement of the thesis supervisor, writes his manuscript and presents his work

- **Thesis supervisor:** defines the subject of the thesis and supervise the doctoral student; intervenes directly for any question related to the progress of the thesis

- **Director of the laboratory:** validates the subject from a scientific point of view, ensures the material reception of the doctoral student

- **Direction of the doctoral school (via the pole):** ensures the material conditions of the doctoral student, carries out his follow-up, defines the doctoral training program, organizes the registration / re-registration and defense procedures, intervenes for any question during the thesis (in particular: helth problems, conflicts).

- **Direction of the university or *grande école* :** takes decisions on the basis of what has been transmitted

Role of the PhD supervisor

- Ensures remuneration of his PhD students during the whole duration of the PhD
- Elaborates the PhD project in cooperation with the PhD student
- Ensures a frequent and regular follow-up of the thesis advancement
- Provides the needed resources for the accomplishment of the PhD project
- Encourages the PhD student to attend useful courses for his PhD project
- Commits to help the PhD student preparing the rest of his career
- Incites and helps the PhD student to publish his work
- Advices the PhD student for the writing of the manuscript and the preparation of the defense
- Proposes the two reviewers for the manuscript and the jury's members for the defense

Follow up by the STIC Doctoral school

- **1st year:** a **referent** (a researcher who does not work in your research group) is designated for each of you. You must meet him/her (at least once) at the end of the 1st year, before your registration in 2nd year.

- **2nd year: mid-term evaluation**, by a scientific committee (at least two researchers: one from the pole committee, one from another university).
  - **Scientific report** (10 pages) + future work + training + professional project
  - **Oral presentation** and discussion with the committee

- **3rd year:** meeting with the **pole director**.

- **At the end of every year**, you must write a (short) **report** and fill an **auto-evaluation form** before registration.

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The Doctoral School is here to help you in any case, especially in case of problems (conflicts, health problems etc.) :

- The pole director (and the DS director)
- The referent
- The PhD student representatives

Many things that have'nt been addressed

- **After the PHD**
    - another meeting in March (2nd year)

- **Social PHD life**
    - PhD representatives
    - Phd student organizations
    - Scientific organisations

- **Events**
    - PHD seminars, industrial meetings...
    - **Paris-Saclay Graduation Ceremony**

Important informations

- **Very useful links:**
  - ADUM (where your account for registration, training etc. is): www.adum.fr
  - The STIC pages on the Paris-Saclay web site:
    https://www.universite-paris-saclay.fr/fr/ecoles-doctorales
    (the ED STIC pages will change in 2020)
- **Communication:**
  - **read carefully the emails** from ADUM and from your pole. They are sent to the email address you wrote in ADUM.
  - To send an email to your pole (director and assistant) : poleXstic@lri.fr, where X=A, B or C.

Last recommendations (1/2)

- **Many things to do:**
  - Experimental work, Software development,
  - Publications, Training, Teaching, Administration

- **Have a roadmap** ... to check and revise at least once a year !
  - Research & Training

- (Learn to) be **autonomous** but **get help** (supervisor) and collaborate (team)

- **Be well-organized**
  - Some periods are more productive than others
  - Do not waste time !

- 2,5% of the PhD students (too many) stop before their defense !
- **In case of (any kind of) difficulties get in touch with the DS as early as possible !**

Last Recommendations (2/2)

FOCUS ON YOUR GOALS

AND ENJOY YOURSELF !

Doing Research

Developping & Sharing Experiences

Travelling To Conferences

Visiting Research Teams Around The World And in Companies

PhD Award

PhD award, by STIC DS and DigiCosme

- It happens every year.
- It is not a thesis award!
- Can be submitted any research work achieved the year before: publication, experiment, demo, software, competition.

- 2019: 19 works submitted.

- The committee is composed of researchers from the STIC DS

Mérouane DEBBAH

Huawei - CentraleSupélec

PhD award

- First award ex aequo:
  - **Adrien KOUTSOS**, LSV, ENS Paris-Saclay, for the paper « The 5G-AKA Authentication Protocol Privacy »
  - **Ammar MIAN**, SONDRA, CentraleSupélec, for the paper « New Robust Statistics for Change Detection in Time Series of Multivariate SAR Images"

- 2nd award ex aequo:
  - **Marie FORTIN**, LSV, ENS Paris-Saclay, for the paper « FO = FO3 for linear orders with monotone binary relations »
  - **Zhenyu LIAO**, L2S, CentraleSupélec, for the paper « A Large Dimensional Analysis of Least Squares Support Vector Machines »

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