ULille : an international university focused on the transitions of our time, at the heart of the Hauts de France region

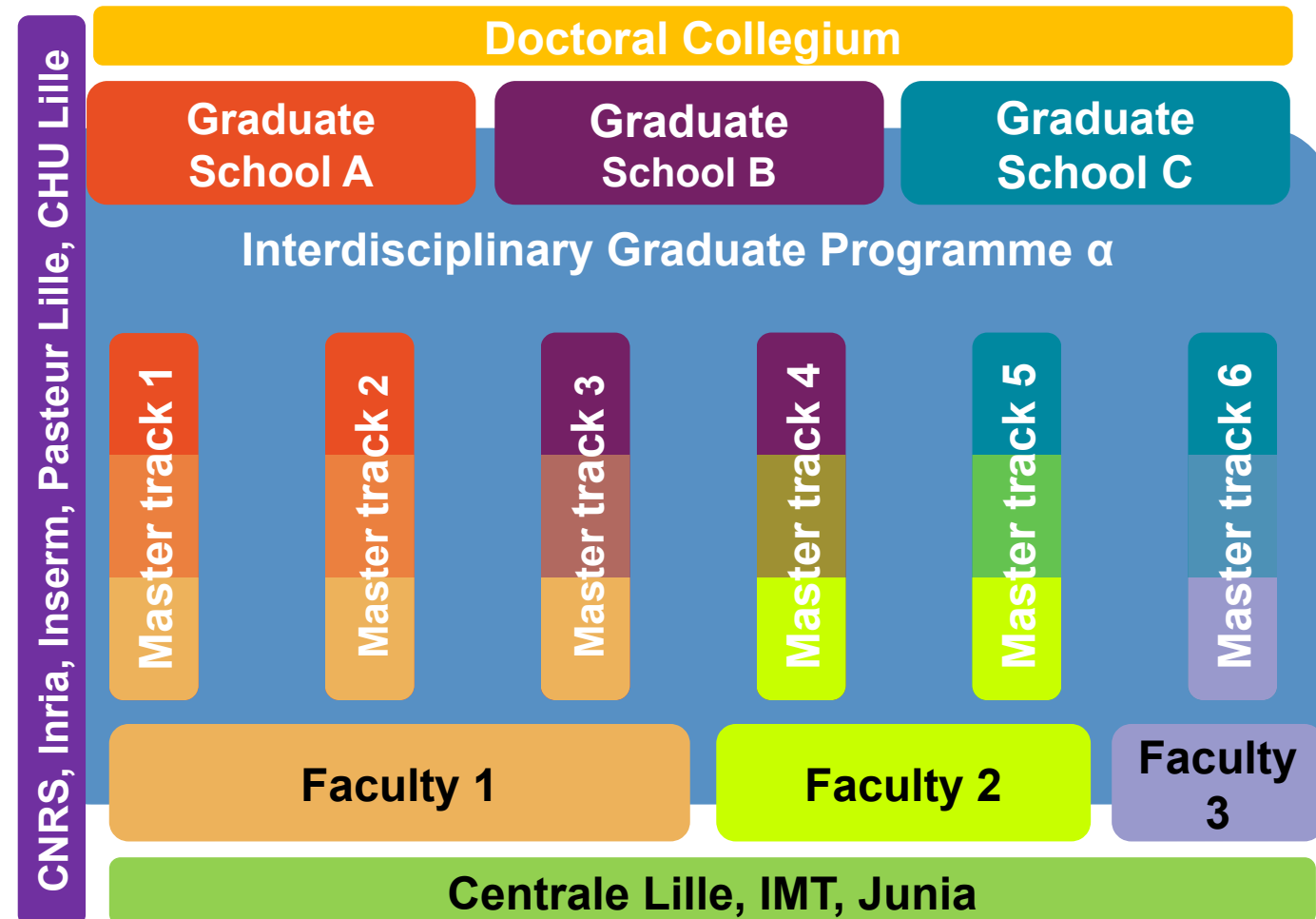A strategy organized around four societal challenges ("hubs") :

- **Precision Health**
- **Science for a Changing Planet**
- **Human-friendly digital world**
- **Changing Cultures, Societies and practices**

- Societal challenges require interdisciplinary approaches
- Research and innovation do not know about borders

ULille Graduate Programmes (GP)

GPs align graduate training with societal challenges related to transitions
(e.g. Democracy, Sustainable Energies, Translational and Precision Medicine,...)

- Each GP organizes **interdisciplinary thematic activities** bringing together :

  - **Master students** (managed by faculties)

  - **PhD students** (managed by GSs)

- Contributes to the visibility & attractiveness of EPE ULille research flagships

The objectives of the Graduate Programmes

- **Bring together research, training and innovation** in the context of the 4 hubs of ULille, connecting master and PhD students

- **Teach students interdisciplinary thinking,** by having them interact today with future experts from other fields, with whom they will work tomorrow

- Give students **a real international outlook** and improve the international attractiveness of the courses involved in GPs

- **Help students in their professional project** and encouraging their integration into the professional world

Precision health

Science for a changing planet

Information and knowledge society

Changing cultures, societies, practices

Why promote interdisciplinarity?

Some questions cannot be addressed from a single viewpoint

- Societal challenges (public health, digital society, environmental transition and climate change, inequalities,...)

- Questions that naturally arise in several fields and that benefit from exchanging ideas (decision making in uncertain situations,...)

- Complex questions : undertanding living systems (biology, mathematics, imaging, nano-systems, physics,…), disruptive technologies (devices, acceptability, economics,...)

Interdisciplinarity and training

Research-driven training requires an introduction to interdisciplinarity

- Prepare students from different fields to exchange today and work together tomorrow
- Give students a broad overview of the general domain in which they will act (e.g., the digital world)
- Stimulate curiosity and ability to learn by themselves.

The graduate programmes of the University of Lille aim at introducing their students to interdisciplinarity

Benefits for PhD students

- Interdisciplinary meetings (annual days + monthy afterwork sessions) :
  - Meet master and Phd students with complementary expertises and discuss about outstanding questions related to a human-friendly digital worlds
  - Explain your research to master students and help them to consider pursuing a PhD thesis
  - Strenghten your skills in communicating about your work, perhaps in organizing common activities
- Mobility grants: Receive up to 3000 € for a stay abroad (900 € for the first 4 weeks et 150 €/week for the 14 remaining ones).
- With your PhD diploma, receive a certificate attesting of your participation in the Graduate Programme.

Context: towards a human-friendly digital world

In our modern societies, information has never been so easy to produce, transport and share, fostering the creation of new knowledge.

We are experiencing a transition to a massively connected world, where everyone can be reached everywhere at any time.

Massive amounts of data gives us unprecedented insight into the dynamics of the world around us.

Making the digital world friendly to humans and giving sense to it are outstanding challenges.

The Graduate Programme "*Information and Knowledge Society*" prepares its students to build together the digital world of tomorrow, and to tackle the three following challenges:
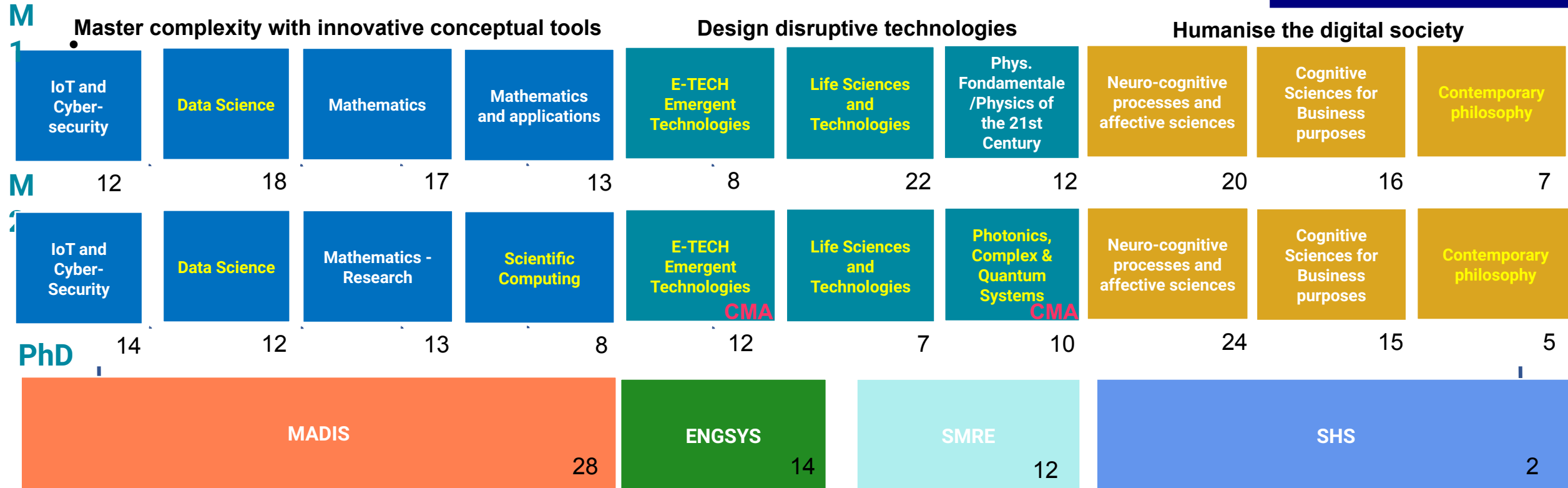
- *Humanise the digital world*
- *Master complexity with innovative conceptual tools*
- *Design disruptive technologies for friendly devices*

Le Graduate Programme IKS

Gather complementary expertises to build a digital world for humans and to tackle its challenges along a master-PhD continuum (common conferences, seminars,...)

Université de Lille

Foreign students >30%
CMA : compétences et métiers d'avenir

M1

Master complexity with innovative conceptual tools   **Design disruptive technologies**   **Humanise the digital society**

IoT and Cyber-security	Data Science	Mathematics	Mathematics and applications	E-TECH Emergent Technologies	Life Sciences and Technologies	Phys. Fondamentale /Physics of the 21st Century	Neuro-cognitive processes and affective sciences	Cognitive Sciences for Business purposes	Contemporary philosophy
12	18	17	13	8	22	12	20	16	7

M2

IoT and Cyber-Security	Data Science	Mathematics - Research	Scientific Computing	E-TECH Emergent Technologies CMA	Life Sciences and Technologies	Photonics, Complex & Quantum Systems CMA	Neuro-cognitive processes and affective sciences	Cognitive Sciences for Business purposes	Contemporary philosophy
14	12	13	8	12	7	10	24	15	5

PhD

MADIS	ENGSYS	SMRE	SHS
28	14	12	2

Total: 133 M1 (43 foreign) + 120 M2 (25 foreign) = 253 master students (68 foreign; 26%)
55 PhD students (with ~ 40 first year students coming)

Graduate Programmes Lille

Applying: International Master in Robotics and Transport (Polytech, Centrale Lille).

IKS days (october):
An interdisciplinariy meeting

- **Presentation of the master tracks by the students**

- Trustful image processing with machine learning *(data science)*

- Vortex nucleation in cold atoms*(physics and mathematics)*

- **Flash poster presentation by PhD students from all research units**

- **And the number became word: ethics of generative AI** *(artificial intelligence, philosophy)* **by Alexei Grinbaum**

- Nanotechnology approaches in wound healing *(nanotechnology, biology)*

- Recent trends in human face and body generation *(computer science, human/machine interface)*

- Complex dynamics of cancer heterogeneity: towards new therapeutic strategies *(modeling&simulation, biology)*

- Autonomous robotics: from a monolithic to large-scale systems *(robotics, automation)*

- **Presentation of the main technological platforms of Ulille**

- **Pursuing a PhD, during and after.**

- **International mobility**

- Methods and tools for tactile and gesture-based interaction (*electronics, computer science, human/machine interaction*)

- Quantum information and technologies: what can we do with them? (*physics, mathematics, computer science,...*)

The Road Ahead (2026-2029)

21 GPs involving all faculties and schools
167 master's tracks (initial target: 110)

2025-2026 will be the last year of the Information and Knowledge Society graduate programme.

Starting in september 2026, 21 new graduate programmes will replace the 4 current GPs. The new GPs will be focused on more specific themes.

Students from the current IKS GP will move to:
- The Artificial Intelligence and Computer Science GP (computer science, data science, IoT,...)
- The Complexity in the digital and the physical worlds GP (mathematics, physics, nanotechnologies)
- The Brain, Society and Technologies GP (psychology, cognitive sciences,...)
- The Radical Uncertainties GP (Philosophy).

Activities for PhD students will probably be further developed.

The Road Ahead (2026-2029)

21 GPs involving all faculties and schools

167 master's tracks (initial target: 110)

Lead Faculty	GP Name	N° Tracks	Other Faculties Involved	Linked Graduate schools
FASEST	**Radical Uncertainties**	8	FHuma, PsySEF	SESAM, SHS
FASEST	**Economic, Ecological and Sociological Transitions (TEES)**	12	FSJPS, IAE, Sc. Po	SESAM,SJPG
FASEST	**Game-Changing for Just and Sustainable cities**	9	ICID, FSJPS, Sc. Po, ENSAPL	SESAM,SHS
FLCS	**Environmental Humanities**	9	Humanités	SHS
FSJPS	**Democracy**	5	Humanités, Sc. Po Lille, ICID	SHS, SJPG
FSJPS	**European Studies**	7	FASEST, Humanités	SESAM, SJPG, SHS
FST	**Complexity in the Digital and Physical World**	13	Polytech, Centrale	MADIS, ENGSYS,SMRE
FST	**Environmental Sciences**	12	Centrale, IUT, FASEST	SMRE
FST	**Artificial Intelligence & Software Engineering**	9	Polytech, FASEST, IAE, UFR3S	MADIS, ENGSYS
FST	**Materials for a Sustainable Future**	10	Polytech, Centrale, ENSAIT	SMRE, ENGSYS, MADIS
FST	**Life Science Technologies**	7	Polytech	BSL, ENGSYS, SMRE, MADIS
Humanités	**Easy Language & Inclusion**	5	PsySEF, INSPE, LCS	SHS, BSL
Humanités	**Digital Humanities**	10	FSJPS, LCS, ICID	SHS, MADIS
IAE	**Work, AI, Organisations & Territories in Transition**	9	FSJPS, PsySEF	SHS, SJPG, MADIS
Polytech	**Sustainable Energies & Applications**	6	FST	SMRE, MADIS, ENGSYS
PsySEF	**Education, Transformations & Training Courses, Professionalisation**	4	FST	SHS
UFR-3S	**Neurosciences, Technologies & Society**	8	FST, PsySEF, Polytech	BSL, SHS, ENGSYS, MADIS
UFR-3S	**Drug Discovery & Health Technologies**	8	Centrale	BSL, ENGSYS, SMRE, MADIS
UFR-3S	**Interdisciplinary Approaches to Translational & Precision Medicine**	2		BSL
UFR-3S	**Prevention & Vulnerability**	8	PsySEF, ICID, INSPE, FSJPS	SESAM, BSL, SHS, SJPG
UFR-3S	**Therapeutic Innovations and Environmental & Societal Transitions in Inflammatory & Infectious Diseases**	6	FASEST, FSJPS	BSL, SESAM, SJPG, MADIS, ENGSYS

More information

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