

Annex 1.

Principle Scientific Area

- A. Medical & Health Sciences
- B. Natural Sciences and Life Sciences
- C. Mathematics & Information Sciences
- D. Social Sciences
- E. Humanities and Arts
- F. Other

Scientific Sub-Fields

A. Medical & Health Sciences

A1. Molecular and Structural Biology, Biochemistry and Molecular biophysics

- A1.1 Molecular synthesis, modification, mechanisms and interaction
- A1.2 Biochemistry
- A1.3 Molecular Biophysics
- A1.4 Structural Biology
- A1.5 Metabolism
- A1.6 Signaling pathways

A2. Genetics, 'Omics', Bioinformatics and System Biology

- A2.1 Molecular and population genetics
- A2.2 Quantitative genetics
- A2.3 Genomics
- A2.4 Metagenomics
- A2.5 Transcriptomics
- A2.6 Proteomics
- A2.7 Metabolomics
- A2.8 Glycomics
- A2.9 Bioinformatics
- A2.10 Computational Biology
- A2.11 Biostatistics
- A2.12 System Biology
- A2.13 Genetic Epidemiology
- A2.14 Epigenetics

A3. Cellular and Developmental Biology

- A3.1 Cell Biology
- A3.2 Cell Physiology
- A3.3 Signal transduction
- A3.4 Organogenesis
- A3.5 Developmental genetics
- A3.6 Pattern formation in plants and animals
- A3.7 Stem cell Biology

A4. Physiology, Pathophysiology and Endocrinology

- A4.1 Organ physiology
- A4.2 Pathophysiology
- A4.3 Endocrinology
- A4.4 Metabolism
- A4.5 Ageing
- A4.6 Tumorigenesis
- A4.7 Cardiovascular disease
- A4.8 Metabolic syndrome

A5. Neurosciences and Neural Disorders

- A5.1 Neural cell function and signalling
- A5.2 Neural bases of cognitive and behavioral processes
- A5.3 Neuroanatomy and neurophysiology
- A5.4 Neurochemistry and neuropharmacology
- A5.5 Neuroimaging
- A5.6 Systems neuroscience
- A5.7 Neurological and psychiatric disorders

A6. Oncology and Cancer Research

- A6.1 Cancer biology
- A6.2 Cancer diagnosis research
- A6.3 Cancer treatment research

A7. Immunity and Infection

- A7.1 The immune system and related disorders
- A7.2 Biology of Infectious agents and infection
- A7.3 Biological bases of prevention and treatment of infectious diseases

A8. Applied Medical Technologies, Diagnostics, Therapies and Public Health

- A8.1 Diagnostic tools
- A8.2 Diagnosis and treatment of disease
- A8.3 Epidemiology and public health
- A8.4 Pharmacology
- A8.5 Clinical medicine
- A8.6 Regenerative medicine
- A8.7 Medical ethics

B. Natural Sciences and Life Sciences

B1. Physical Sciences

- B1.1. Acoustics
- B1.2. Atomic Physics
- B1.3. Molecular and chemical physics
- B1.4. Condensed matter physics
- B1.5. Nanosciences and nanotechnology
- B1.6. Fluids and plasma physics
- B1.7. Nuclear physics
- B1.8. Optics
- B1.9. Quantum optics
- B1.10. Laser Physics
- B1.11. Particles and field Physics

B2. Chemical Sciences

- B2.1 Analytical chemistry
- B2.2 Applied and industrial chemistry
- B2.3 Colloid chemistry
- B2.4 Inorganic and nuclear chemistry
- B2.5 Organic chemistry
- B2.6 Physical chemistry
- B2.7 Electrochemistry
- B2.8 Nanotechnology
- B2.9 Molecular architecture
- B2.10 Chemical theory

B3. Material sciences

- B3.1. Material synthesis
- B3.2. Structure-Property relation
- B3.3. Functional and Advanced materials
- B3.4. 2D Materials
- B3.5. Materials properties (e.g. thermal, electrical, mechanical)
- B3.6. Polymer science
- B3.7. Composite materials

B4. Earth and related environmental sciences

- B4.1 Climatology
- B4.2 Geochemistry and geophysics
- B4.3 Geology
- B4.4 Hydrology
- B4.5 Atmospheric sciences
- B4.6 Mineralogy
- B4.7 Marine sciences
- B4.8 Paleontology
- B4.9 Physical geography
- B4.10 Water resources

B5. Universe Sciences

- B5.1 Astronomy
- B5.2 Astro-physics/chemistry/biology
- B5.3 Solar system
- B5.4 Stellar
- B5.5 Galactic and extragalactic astronomy
- B5.6 Planetary systems
- B5.7 Cosmology
- B5.8 Space science
- B5.9 Instrumentation

B6. Life Sciences

- B6.1 Ecology, Evolution, Population and Environmental Biology
- B6.2 Evolutionary biology
- B6.3 Population, community and ecosystem ecology
- B6.4 Animal physiology
- B6.5. Animal behavior
- B6.6 Biodiversity
- B6.7 Biogeography
- B6.8 Oceanography - Marine Biology
- B6.9 Eco-toxicology
- B6.10 Microbial ecology
- B6.11 Applied plant and animal sciences
- B6.12 Fisheries & Aquaculture
- B6.13 Applied biotechnology
- B6.14 Environmental and marine biotechnology
- B6.15 Synthetic and chemical biology

B7. Other physical/natural/life sciences

C. Mathematics & Information Sciences

C1. Mathematics

- C1.1 Logic and foundations
- C1.2 Algebra and number theory
- C1.3 Algebraic and complex geometry
- C1.4 Geometry and topology
- C1.5 Lie groups, Lie algebras
- C1.6 Analysis
- C1.7 Operator algebras and functional analysis
- C1.8 ODE, PDE and dynamical systems
- C1.9 Mathematical physics
- C1.10 Probability and statistics
- C1.11 Discrete mathematics and combinatorics
- C1.12 Numerical analysis
- C1.13 Mathematical aspects of computer science
- C1.14 Scientific computing, computational science and symbolic computation
- C1.15 Control theory, optimization and mathematical finance
- C1.16 Application of mathematics in sciences, industry and society

C2. Computer and information sciences

- C2.1 Computer architecture, pervasive computing, ubiquitous computing
- C2.2 Computer systems, parallel/distributed systems, sensor networks, embedded systems, cyber-physical systems
- C2.3 Software engineering, operating systems, computer languages
- C2.4 Theoretical computer science, complexity theory, formal methods, and quantum computing
- C2.5 Cryptology, security, privacy, quantum crypto
- C2.6 Algorithms, distributed, parallel and network algorithms, algorithmic game theory, computational geometry
- C2.7 Artificial intelligence, intelligent systems, multi agent systems
- C2.8 Computer graphics, computer vision, multimedia, computer games
- C2.9 Human computer interaction and interface, visualization, robotics
- C2.10 Web and information systems, database systems, information retrieval and digital libraries, data fusion
- C2.11 Machine learning and data processing
- C2.12 Natural language processing and signal processing (e.g. speech, image, video)
- C2.13 Scientific computing, computational methods, simulation and modelling tools
- C2.14 Bioinformatics, computational biology, systems biology, biocomputing and DNA and molecular computation

C3. Other mathematics

C4. Other Computer and information sciences

D. Social Sciences

D1. Anthropology, Ethnology

- D1.1 Anthropology of gender
- D1.2 Anthropology of religion
- D1.3 Cultural anthropology
- D1.4 Economic anthropology
- D1.5 Medical anthropology
- D1.6 Political anthropology
- D1.7 Visual anthropology

D2. Economics and Business

- D2.1 Economics
- D2.2 Finance
- D2.3 Management/Marketing
- D2.4 (Applications of) quantitative methods to economics and business
- D2.5 (Economy of) Sustainable growth/economic alternatives (circular economy, social and solidarity economy)

D3. Management & Economics of Innovations

- D3.1 Innovation Systems, Innovation Policy, Innovation Governance and Metrics
- D3.2 Innovation and Entrepreneurship
- D3.3 Innovation Strategy, Organization and Management at the Business, Industry and sectoral Level.
- D3.4 ICT enabled Innovation, Digitisation and Industrial Renewal.
- D3.5 Globalization of Innovation, global value chains, and catch-up processes.
- D3.6 Innovation and Finance

D4. Educational Sciences

- D4.1. Lifelong learning
- D4.2. New technologies in education
- D4.3. Non formal education/museum education
- D4.4. Politics of education
- D4.5. Sociology of education
- D4.6. Special education
- D4.7. Teaching and learning art and humanities
- D4.8. Teaching and learning natural sciences

D5. Law, Organization Theory, Public Administration

- D5.1. Civil law
- D5.2. Commercial law
- D5.3. Comparative law
- D5.4. Constitutional law
- D5.5. Criminal law/Criminology
- D5.6. International law
- D5.7. Philosophy/History of law
- D5.8. Public administration law

D6. Media and Communications

- D6.1. Computational media studies
- D6.2. Cultural media studies
- D6.3. Journalism
- D6.4. Semiotics
- D6.5. Visual communication
- D6.6. Visual semiotics

D7. Political Science

- D7.1. Comparative politics
- D7.2. Contentious politics
- D7.3. Greek politics
- D7.4. International relations
- D7.5. Political sociology
- D7.6. Political theory

D8. Psychology and Cognitive Sciences

- D8.1. Clinical/Counseling psychology
- D8.2. Cognitive psychology/Neurosciences
- D8.3. Critical psychology
- D8.4. Cross-cultural psychology
- D8.5. Developmental psychology
- D8.6. Educational/School psychology
- D8.7. Health psychology
- D8.8. Organizational/Occupational psychology
- D8.9. Political psychology
- D8.10. Social psychology

D9. Social and Economic Geography

- D9.1. Applied economic geography
- D9.2. Critical geography
- D9.3. Cultural geography
- D9.4. Theoretical economic geography
- D9.5. Urban geography
- D9.6. Urban sociology

D10. Sociology

- D10.1. Applied sociology
- D10.2. Community informatics/social network
- D10.3. Critical sociology
- D10.4. Cultural/leisure sociology
- D10.5. Demography
- D10.6. Educational sociology
- D10.7. Ethnographic sociology
- D10.8. Sociology of work
- D10.9. Sociology of youth
- D10.10. Visual/Cyber sociology

E. Humanities and Arts

E1. History and archaeology

- E1.1 Classical archaeology
- E1.2 Byzantine archaeology
- E1.3 Archaeometry
- E1.4 Prehistory and protohistory
- E1.5 Ancient history
- E1.6 Medieval history
- E1.7 Early modern history, modern and contemporary history
- E1.8 Colonial and post-colonial history, global and transnational history, entangled histories, history of international relations
- E1.9 Social history, economic history
- E1.10 Oral history, public history
- E1.11 Institutional history, political history
- E1.12 Military history, war history
- E1.13 Gender history, history of ideas, intellectual history and history of sciences and techniques, cultural history, history of collective identities and memories
- E1.14 Historiography, theory and methods of history
- E1.15 Other

E2. Languages and literature

- E2.1 General Language Studies
- E2.2 Specific languages
- E2.3 General literature studies
- E2.4 Literary theory
- E2.5 Specific literatures
- E2.6 Linguistics

E3. Philosophy, ethics and religion

- E3.1 Philosophy, history and philosophy of science and technology
- E3.2 Philosophy of mind, epistemology and logic
- E3.3 Ethics (except ethics related to specific subfields)
- E3.4 Theology
- E3.5 Religious studies

E4 Arts (arts, history of arts, performing arts, music)

- E4.1 Arts, art history
- E4.2 Architectural design
- E4.3 Performing arts studies (Musicology, Theater science, Dramaturgy)
- E4.4 Cultural studies
- E4.5 Studies on Film, Radio and Television

E5. Other humanities

F. Other Scientific Fields

F1. Engineering Sciences & Technology

F1.1 Civil, Surveying & Architectural engineering

- F1.1.1 Civil engineering
- F1.1.2 Architecture engineering
- F1.1.3 Construction engineering
- F1.1.4 Municipal and structural engineering
- F1.1.5 Transport engineering
- F1.1.6 Structural Engineering
- F1.1.7 Other

F1.2 Electrical, electronic & communication engineering

- F1.2.1 Electrical and electronic engineering
- F1.2.2 Optical and systems engineering
- F1.2.3 Communication engineering and systems
- F1.2.4 Telecommunications
- F1.2.5 Computer hardware and architecture
- F1.2.6 Robotics and automatic control
- F1.2.7 Automation and control systems
- F1.2.8 Other

F1.3 Mechanical engineering

- F1.3.1 Applied mechanics
- F1.3.2 Thermodynamics and thermal engineering
- F1.3.3 Fluid mechanics and turbomachinery
- F1.3.4 Aerospace engineering (aeronautics & astronautical engineering)
- F1.3.5 Manufacturing engineering and machine design
- F1.3.6 Automotive engineering
- F1.3.7 Naval engineering
- F1.3.8 Nuclear related engineering
- F1.3.9 Other

F1.4 Environmental engineering & biotechnology

- F1.4.1 Environmental engineering
- F1.4.2 Ocean and coastal engineering
- F1.4.3 Other environmental engineering
- F1.4.4 Environmental biotechnology
- F1.4.5 Bioremediation
- F1.4.6 Bioprocessing technologies, biocatalysis
- F1.4.7 Bioproducts, biomaterials, biofuels etc.
- F1.4.8 Bio-derived novel materials
- F1.4.9 Other

F1.5 Computer and telecommunications engineering

- F1.5.1 Information and intelligent systems engineering
- F1.5.2 Computer engineering
- F1.5.3 Computational methods in engineering
- F1.5.4 Other

F1.6 Chemical and materials engineering

- F1.6.1 Chemical process engineering
- F1.6.2 Other chemical engineering
- F1.6.3 Petroleum engineering (fuels, oils)
- F1.6.4 Energy and fuels
- F1.6.5 Materials engineering
- F1.6.6 Mining and mineral processing
- F1.6.7 Nanotechnology
- F1.6.8 Catalysis
- F1.6.9 Energy production/processes (fuel cells, batteries, etc.)
- F1.6.10 Other

F1.7 Medical engineering

- F1.7.1 Medical engineering
- F1.7.2 Medical laboratory technology
- F1.7.3 Biomedical engineering
- F1.7.4 Other
- F1.7.5 Other engineering sciences and technology (e.g. security)

F.2 Agricultural Sciences – Food Science & Technology

F2.1 Food sciences and Technology

- F2.1.1 Dairy science and technology
- F2.1.2 Food chemistry
- F2.1.3 Food engineering
- F2.1.4 Food microbiology
- F2.1.5 Food packaging
- F2.1.6 Food processing
- F2.1.7 Food technology
- F2.1.8 Molecular gastronomy
- F2.1.9 New product development
- F2.1.10 Quality control

F2.2 Other agricultural sciences and Food sciences and Technology

F.3 Environment & Energy

F3.1 Climate change

- F3.1.1. Observations and remote sensing
- F3.1.2. Modelling and projections
- F3.1.3. Impact studies
- F3.1.4. Adaptation and mitigation strategies

F3.2 Meteorology

- F3.2.1. Weather forecasting
- F3.2.2. Experimental meteorology
- F3.2.3. Hydrometeorology
- F3.2.4. Agricultural meteorology
- F3.2.5. Environmental meteorology

F3.3 Energy resources

F3.3.1. Fossil and nuclear energy

F3.3.2. Energy grids

F3.3.3. End use efficiency

F3.3.4. Policies and economics

F3.4 Renewable energy resources and systems

F3.4.1. Bioenergy

F3.4.2. Geothermal energy

F3.4.3. Hydraulic energy

F3.4.4. Solar energy

F3.4.5. Wind energy

F3.4.6. Hydrogen and fuel cells

F3.4.7. Wave and tidal energy

F3.4.8. Hybrid systems

F3.4.9. Energy storage

F3.4.10. Emerging technologies

F3.5 Energy and the built environment

F3.5.1. Sustainable building design

F3.5.2 Sustainable urban living

F3.5.3. Energy technologies for buildings

F3.5.4. Smart and innovative materials

F3.5.5. Smart buildings in smart cities

F3.6 Sustainable mobility and logistics

F3.6.1. Sustainable urban mobility

F3.6.2. Freight transport and logistics

F3.7 Circular economy

F3.7.1. Bioeconomy

F3.7.2. Sustainable industry and manufacturing systems

F3.7.3. Waste and resource management

F3.7.4. Water in the circular economy