

ERC Panel Structure and Keywords

(Consolidated version as of 7/11/06)

Social Sciences and Humanities

Panel SH1 - Individuals and organisations: economics, management, demography, geography, urban and environmental studies

SH1_1	Macroeconomics, growth, development, business cycles
SH1_2	Microeconomics, institutional economics
SH1_3	Environment, sustainability, social and industrial ecology
SH1_4	Econometrics, statistical methods
SH1_5	Financial markets, banking and corporate finance
SH1_6	Innovation, competitiveness, research and development
SH1_7	Consumer behaviour, marketing
SH1_8	Organization studies, strategy
SH1_9	Human resource management, employment and earnings
SH1_10	Public administration, public economics
SH1_11	Income distribution, poverty
SH1_12	International trade, economic geography
SH1_13	Human and social geography, spatial and regional planning
SH1_14	Population dynamics, health and population
SH1_15	Urbanization, urban planning, transport studies

Panel SH2 - Institutions, behaviour, values and beliefs: anthropology, sociology, political science, law, communication, social studies of science and technology

SH2_1	Social structure, inequalities, mobility
SH2_2	Communication networks, media studies, information society
SH2_3	Ageing, work, social policies
SH2_4	Globalization, migration, interethnic relations
SH2_5	Identity, community, nation, religion
SH2_6	Legal systems, human rights, constitutions
SH2_7	Kinship, cultural dimensions of classification and cognition
SH2_8	Myth, ritual, symbolic representations
SH2_9	Ethnography
SH2_10	Political systems, legitimacy, political support
SH2_11	Global and transnational governance, civic participation
SH2_12	Transformation of societies, democratization, social movements
SH2_13	Scientific knowledge production, politics of knowledge
SH2_14	Technosciences and societies, mutual engagement
SH2_15	History of science and technology

Panel SH3 - The human mind and its complexity: cognition, linguistics, psychology, philosophy and education

SH3_1	Evolution of mind and cognitive functions
SH3_2	Formal, cognitive and functional linguistics
SH3_3	Neuro-, psycho-, sociolinguistics
SH3_4	Linguistic typology, comparative and historical linguistics
SH3_5	Human life-span development
SH3_6	Neuro and cognitive psychology
SH3_7	Clinical and experimental psychology
SH3_8	Education
SH3_9	Philosophy
SH3_10	Epistemology, logic
SH3_11	Ethics and morality

Panel SH4 - Cultures and cultural diversity: literature, visual and performing arts, music and cultural studies

SH4_1	Classics, classical literature, classical art
SH4_2	Literature, literary theory, analysis and criticism
SH4_3	Comparative literature
SH4_4	Textual philology and textual criticism
SH4_5	Visual arts
SH4_6	Performing arts
SH4_7	Museums and exhibitions
SH4_8	Music and musicology
SH4_9	Cultural studies, cultural diversity
SH4_10	Ethnic and postcolonial studies
SH4_11	Cultural heritage

Panel SH5 - The study of the past and of cultural artefacts: memory, history and archaeology

SH5_1	Modern and contemporary history
SH5_2	Ancient history, ancient cultures
SH5_3	Medieval history
SH5_4	National, transregional and transnational history
SH5_5	Entangled histories, global history
SH5_6	Social, economic, cultural, political history
SH5_7	Historiography
SH5_8	Archaeology, prehistory, protohistory
SH5_9	Collective memories and identities, lieux de memoire
SH5_10	History of art and architecture
SH5_11	History of ideas, intellectual history

Mathematics, physical sciences, information and communication, engineering, universe and earth sciences

Panel PE1 - Mathematical foundations: all areas of mathematics, pure and applied, plus mathematical aspects of theoretical computer science, and mathematical physics

PE1_1	Foundations of mathematics and logic
PE1_2	Algorithms
PE1_3	Number theory
PE1_4	Combinatorial analysis
PE1_5	Algebra
PE1_6	Geometry
PE1_7	Topology
PE1_8	Analysis
PE1_9	Computational mathematics
PE1_10	Theoretical computer science
PE1_11	Numerical analysis
PE1_12	Probability and statistics
PE1_13	Applied mathematics
PE1_14	Operations research
PE1_15	Mathematical physics
PE1_16	Other areas of mathematics

Panel PE2 - Fundamental constituents of matter: high energy, particle, nuclear, plasma, atomic, molecular, gas, and optical physics

PE2_1	High energy physics
PE2_2	Fundamental interactions and particles
PE2_3	Particle physics
PE2_4	Nuclear physics
PE2_5	Gas and plasma physics
PE2_6	Atomic, molecular physics
PE2_7	Optics and quantum optics
PE2_8	Relativity
PE2_9	Classical physics
PE2_10	Thermodynamics
PE2_11	Non-linear physics
PE2_12	General physics
PE2_13	Metrology

Panel PE3 - Condensed matter in physics and chemistry: condensed matter (structure, electronic properties, fluids,...), statistical physics, nanosciences, reactions

PE3_1	Biophysics
PE3_2	Condensed matter and solid state physics
PE3_3	Statistical physics
PE3_4	Phase transitions
PE3_5	Structural properties of materials
PE3_6	Electronic properties of materials and transport
PE3_7	Magnetism
PE3_8	Superconductivity
PE3_9	Semiconductors
PE3_10	Material sciences (physics related)
PE3_11	Nanosciences and nanotechnology (physics related)
PE3_12	Reaction mechanisms
PE3_13	Chemical reactions
PE3_14	Reaction dynamics
PE3_15	Theoretical and computational chemistry of condensed matter
PE3_16	Chemical physics, physical chemistry of condensed matter
PE3_17	Nanochemistry

Panel PE4 - Material and chemical sciences: material sciences, molecular architecture, chemical theory, analysis and synthesis (organic and inorganic), physical and environmental chemistry, method development

PE4_1	Physical chemistry of molecules
PE4_2	Environment chemistry
PE4_3	Homogeneous and heterogeneous catalysis
PE4_4	Spectroscopic and spectrometric techniques
PE4_5	Molecular architecture
PE4_6	Molecular chemistry
PE4_7	Analytical chemistry
PE4_8	Organic chemistry
PE4_9	Inorganic chemistry
PE4_10	Instrumental techniques
PE4_11	Macromolecular chemistry, polymer chemistry
PE4_12	Solid state chemistry
PE4_13	Synthesis (organic and inorganic)
PE4_14	Material science (chemistry related)
PE4_15	Surface science
PE4_16	Colloid chemistry
PE4_17	Combinatorial chemistry
PE4_18	Theoretical and computational chemistry of molecules
PE4_19	Method development
PE4_20	Supramolecular chemistry
PE4_21	Chemistry of biological systems (biological chemistry)

Panel PE5 - Information and communication: informatics and information systems, computer science, scientific computing, communication technology, intelligent systems

PE5_1	Computer architecture
PE5_2	Database management
PE5_3	Formal methods
PE5_4	Graphics
PE5_5	Human computer interaction and interface
PE5_6	Informatics and information systems
PE5_7	Theoretical computer science
PE5_8	Intelligent systems
PE5_9	Scientific Computing
PE5_10	Modelling tools
PE5_11	Multimedia
PE5_12	Networks
PE5_13	Parallel and Distributed Computing
PE5_14	Robotics
PE5_15	Signals, Speech and Image Processing
PE5_16	Systems and software

Panel PE6 - Engineering sciences: electronics, product design, process design and control, construction methods, fluid and solid mechanics, energy systems, bio-engineering

PE6_1	Aerospace engineering
PE6_2	Biomedical engineering and technology
PE6_3	Chemical engineering
PE6_4	Civil engineering
PE6_5	Control engineering
PE6_6	Electrical and electronic engineering
PE6_7	Computational engineering
PE6_8	Fluid dynamics
PE6_9	Energy systems
PE6_10	Maritime engineering
PE6_11	Microengineering
PE6_12	Mechanical engineering
PE6_13	Materials Engineering
PE6_14	Nuclear engineering
PE6_15	Process engineering
PE6_16	Product design
PE6_17	Simulation engineering and modelling
PE6_18	Systems engineering

Panel PE7 - Universe science: astro-physics/chemistry/biology/geology; solar system; stellar, galactic and extragalactic astronomy, cosmology; space science, instrumentation

PE7_1	Solar and interplanetary physics
PE7_2	Planetary systems sciences
PE7_3	Interstellar medium
PE7_4	Formation of stars and planets
PE7_5	Astrobiology
PE7_6	Stars and stellar systems
PE7_7	The Galaxy
PE7_8	Formation and evolution of galaxies
PE7_9	Clusters of galaxies and large scale structures
PE7_10	High energy and particles astronomy – X-rays, cosmic rays, gamma rays, neutrinos
PE7_11	Relativistic Astrophysics
PE7_12	Dark matter, dark energy
PE7_13	Gravitational astronomy
PE7_14	Cosmology
PE7_15	Space Sciences
PE7_16	Very large data bases: archiving, handling and analysis
PE7_17	Instrumentation - telescopes, detectors and techniques

Panel PE8 - Earth system science: physical geography, geology, geophysics, meteorology, oceanography, climatology, ecology, global environmental change, biogeochemical cycles, solar planets, natural resources management

PE8_1	Atmospheric chemistry and aeronomy
PE8_2	Meteorology and atmospheric sciences
PE8_3	Climatology (incl. paleo-climatology), climate modeling
PE8_4	Ecology, environmental chemistry, water, air and soil pollution
PE8_5	Geography, geology, geochemistry
PE8_6	Global environmental change
PE8_7	Geophysics, seismology, volcanology
PE8_8	Oceanography/marine sciences (physical, chemical, biological),
PE8_9	Biogeochemistry
PE8_10	Geophysics, geochemistry, mineralogy
PE8_11	Solar planetology
PE8_12	Petrology, sedimentology
PE8_13	Physical geography
PE8_14	Earth observations from space / remote sensing
PE8_15	Geomagnetism, paleomagnetism
PE8_16	Ozone and atmospheric composition
PE8_17	Soil science, tectonics
PE8_18	Waste disposal, water science

Life Sciences

Panel LS1 - Molecular, cellular and developmental biology: molecular biology, biochemistry, biophysics, structural biology, cell biology, cell physiology, signal transduction and pattern formation in plants and animals

LS1_1	Molecular biology and interactions
LS1_2	General biochemistry and metabolism
LS1_3	Nucleic acid biosynthesis, modification and degradation
LS1_4	RNA processing and modification
LS1_5	Protein synthesis, modification and turnover
LS1_6	Biophysics
LS1_7	Structural biology (crystallography, NMR, EM)
LS1_8	Morphology and functional imaging of cells
LS1_9	Cell biology and molecular transport mechanisms
LS1_10	Cell cycle and division
LS1_11	Apoptosis
LS1_12	Cell differentiation, physiology and dynamics
LS1_13	Organelle biology
LS1_14	Cell signalling and cellular interactions
LS1_15	Signal transduction
LS1_16	Development, developmental genetics, pattern formation and embryology

Panel LS2 - Genetics, genomics, bioinformatics and systems biology: molecular and cell genetics, genomics, transcriptomics, proteomics, metabolomics, bioinformatics, computational biology, biostatistics, biological modelling and simulation, systems biology

LS2_1	Molecular genetics
LS2_2	Epigenetics and gene regulation
LS2_3	Quantitative genetics
LS2_4	Cell genetics
LS2_5	Comparative genetics
LS2_6	Human genetics
LS2_7	Reverse genetics and RNAi
LS2_8	Genomics, comparative genomics, functional genomics
LS2_9	Proteomics
LS2_10	Transcriptomics
LS2_11	Metabolomics
LS2_12	Glycomics
LS2_13	Bioinformatics
LS2_14	Computational biology
LS2_15	Biostatistics
LS2_16	Systems biology
LS2_17	Biological systems analysis, modelling and simulation

Panel LS3 - Organismic physiology, including infection and immunity: organogenesis, organ physiology, endocrinology, ageing, regeneration, metabolism, immunobiology, microbiology, virology, parasitology, toxicology

LS3_1	Organ physiology
LS3_2	Comparative physiology
LS3_3	Endocrinology
LS3_4	Ageing
LS3_5	Metabolism, biological basis of metabolism related disorders
LS3_6	Toxicology
LS3_7	Parasite biology
LS3_8	Microbiology, microbial genetics
LS3_9	Virology, viral genetics
LS3_10	Innate immunity
LS3_11	Adaptive immunity
LS3_12	Phagocytosis and cellular immunity
LS3_13	Immunosignalling
LS3_14	Immunological memory and tolerance
LS3_15	Immunogenetics
LS3_16	Biological basis of immunity related disorders

Panel LS4 -Neurosciences: neurobiology, neuroanatomy, neurophysiology, neurochemistry, neuropharmacology, neuroimaging, systems neuroscience, psychiatry

LS4_1	Neurobiology
LS4_2	Neuroanatomy
LS4_3	Neurophysiology
LS4_4	Neurochemistry and neuropharmacology
LS4_5	Systems neuroscience
LS4_6	Cognition
LS4_7	Behaviour
LS4_8	Brain and neuroimaging
LS4_9	Biological basis of neural and psychiatric disorders

Panel LS5 - Evolutionary, population and environmental biology: evolution, ecology, animal behaviour, population biology, biodiversity, biogeography, marine biology, ecotoxicology

LS5_1	Evolutionary biology, biological adaptation
LS5_2	Molecular evolution
LS5_3	Evolution and development
LS5_4	Population biology, population dynamics, population genetics
LS5_5	Ecology, environmental and conservation biology, biodiversity, ecotoxicology, marine biology, radiation biology
LS5_6	Environment and health risks including radiation biology, environmental medicine and toxicology

Panel LS6 - Medical and health science research: aetiology, diagnosis and treatment of disease, public health, epidemiology, pharmacology, regenerative medicine, veterinary medicine, medical ethics

- LS6_1 Biological basis of non-communicable diseases, except for neural/psychiatric, immunity-related and metabolism-related disorders. E.g. cancer and cardiovascular diseases
- LS6_2 Diagnostics
- LS6_3 Therapies: drug therapies, gene therapy, surgery
- LS6_4 Stem cell biology, regenerative medicine
- LS6_5 Public health and epidemiology
- LS6_6 Pharmacology and pharmacogenomics
- LS6_7 Health services, health care research
- LS6_8 Veterinary medicine
- LS6_9 Ethics in medical and health sciences

Panel LS7 - Applied life sciences, biotechnology and bioengineering: agricultural, animal, fishery, forestry and food sciences; biotechnology, chemical biology, genetic engineering, synthetic biology, industrial biosciences; environmental biotechnology and remediation; bioethics

- LS7_1 Genetic engineering, transgenic organisms, recombinant proteins, biosensors
- LS7_2 Synthetic biology and new bio-engineering concepts
- LS7_3 Chemical biology
- LS7_4 Agriculture and food: animal husbandry, dairying, livestock raising, crop production, soil biology and cultivation, applied plant biology
- LS7_5 Aquaculture, fisheries
- LS7_6 Forestry, biomass production
- LS7_7 Environmental biotechnology: bioremediation; biodegradation
- LS7_8 Industrial biotechnology: bioreactors, industrial microbiology
- LS7_9 Drug discovery, drug design
- LS7_10 Biofuels, biomimetics
- LS7_11 Biohazards, biological containment, biosafety, biosecurity
- LS7_12 Ethics in life sciences (other than medical and health sciences)