### ANEXA 3 - Domenii științifice

<b>Domain Code:</b>	PE
<b>Subdomain Code:</b>	PE1, PE2, PE3 PE10
Research Area Code:	PE1_1 PE1_21; P10_1 P10_18

# DOMAIN PHYSICAL SCIENCES AND ENGINEERING

DE1	Mothematics: All areas of methamatics must and applied plus methamatical foundations of
PE1	<b>Mathematics:</b> All areas of mathematics, pure and applied, plus mathematical foundations of
DE1 1	computer science, mathematical physics and statistics
PE1_1	Logic and foundations
PE1_2	Algebra
PE1_3	Number theory
PE1_4	Algebraic and complex geometry
PE1_5	Geometry
PE1_6	Topology
PE1_7	Lie groups, Lie algebras
PE1_8	Analysis
PE1_9	Operator algebras and functional analysis
PE1_10	ODE and dynamical systems
PE1_11	Theoretical aspects of partial differential equations
PE1_12	Mathematical physics
PE1_13	Probability
PE1_14	Statistics
PE1_15	Discrete mathematics and combinatorics
PE1_16	Mathematical aspects of computer science
PE1_17	Numerical analysis
PE1_18	Scientific computing and data processing
PE1_19	Control theory and optimisation
PE1_20	Application of mathematics in sciences
PE1_21	Application of mathematics in industry and society
PE2	Fundamental Constituents of Matter: Particle, nuclear, plasma, atomic, molecular, gas, and
	optical physics
PE2_1	Fundamental interactions and fields
PE2_2	Particle physics
PE2_3	Nuclear physics
PE2_4	Nuclear astrophysics
PE2_5	Gas and plasma physics
PE2_6	Electromagnetism
PE2_7	Atomic, molecular physics
PE2_8	Ultra-cold atoms and molecules
PE2_9	Optics, non-linear optics and nano-optics
PE2 10	Quantum optics and quantum information
PE2 11	Lasers, ultra-short lasers and laser physics
PE2_12	Acoustics
PE2_13	Relativity
PE2_14	Thermodynamics
PE2_15	Non-linear physics
PE2_16	General physics
PE2_17	Metrology and measurement
PE2_18	Statistical physics (gases)
PE3	Condensed Matter Physics: Structure, electronic properties, fluids, nanosciences, biophysics
PE3_1	Structure of solids and liquids
PE3_2	Mechanical and acoustical properties of condensed matter, Lattice dynamics
PE3_2 PE3_3	Transport properties of condensed matter  Transport properties of condensed matter
PE3_3 PE3_4	Electronic properties of materials, surfaces, interfaces, nanostructures, etc.
PE3_5	Semiconductors and insulators: material growth, physical properties
PE3_6	Macroscopic quantum phenomena: superconductivity, superfluidity, etc.

PE3 7	Spintronics
PE3 8	Magnetism and strongly correlated systems
PE3_9	Condensed matter – beam interactions (photons, electrons, etc.)
PE3_10	Nanophysics: nanoelectronics, nanophotonics, nanomagnetism, nanoelectromechanics, etc.
PE3_11	Mesoscopic physics
PE3 12	Molecular electronics
PE3 13	Structure and dynamics of disordered systems: soft matter (gels, colloids, liquid crystals, etc.),
123_13	glasses, defects, etc.
PE3_14	Fluid dynamics (physics)
PE3 15	Statistical physics: phase transitions, noise and fluctuations, models of complex systems, etc.
PE3_16	Physics of biological systems
PE4	Physical and Analytical Chemical Sciences: Analytical chemistry, chemical theory, physical
12.	chemistry/chemical physics
PE4_1	Physical chemistry
PE4_2	Spectroscopic and spectrometric techniques
PE4_3	Molecular architecture and Structure
PE4_4	Surface science and nanostructures
PE4_5	Analytical chemistry
PE4_6	Chemical physics
PE4_7	Chemical instrumentation
PE4_8	Electrochemistry, electrodialysis, microfluidics, sensors
PE4_9	Method development in chemistry
PE4_10	Heterogeneous catalysis
PE4_11	Physical chemistry of biological systems
PE4_12	Chemical reactions: mechanisms, dynamics, kinetics and catalytic reactions
PE4_13	Theoretical and computational chemistry
PE4_14	Radiation and Nuclear chemistry
PE4_15	Photochemistry
PE4_16	Corrosion
PE4_17	Characterisation methods of materials
PE4_18	Environment chemistry
PHS	
PE5	<b>Synthetic Chemistry and Materials:</b> Materials synthesis, structure-properties relations, functional and advanced materials, molecular architecture, organic chemistry.
	functional and advanced materials, molecular architecture, organic chemistry
PE5_1	functional and advanced materials, molecular architecture, organic chemistry  Structural properties of materials
PE5_1 PE5_2	functional and advanced materials, molecular architecture, organic chemistry  Structural properties of materials  Solid state materials
PE5_1 PE5_2 PE5_3	functional and advanced materials, molecular architecture, organic chemistry  Structural properties of materials  Solid state materials  Surface modification
PE5_1 PE5_2 PE5_3 PE5_4	functional and advanced materials, molecular architecture, organic chemistry  Structural properties of materials  Solid state materials  Surface modification  Thin films
PE5_1 PE5_2 PE5_3 PE5_4 PE5_5	functional and advanced materials, molecular architecture, organic chemistry  Structural properties of materials  Solid state materials  Surface modification  Thin films  Ionic liquids
PE5_1 PE5_2 PE5_3 PE5_4 PE5_5 PE5_6	functional and advanced materials, molecular architecture, organic chemistry  Structural properties of materials  Solid state materials  Surface modification  Thin films  Ionic liquids  New materials: oxides, alloys, composite, organic-inorganic hybrid, nanoparticles
PE5_1 PE5_2 PE5_3 PE5_4 PE5_5 PE5_6 PE5_7	functional and advanced materials, molecular architecture, organic chemistry  Structural properties of materials  Solid state materials  Surface modification  Thin films  Ionic liquids  New materials: oxides, alloys, composite, organic-inorganic hybrid, nanoparticles  Biomaterials, biomaterials synthesis
PE5_1 PE5_2 PE5_3 PE5_4 PE5_5 PE5_6 PE5_7 PE5_8	functional and advanced materials, molecular architecture, organic chemistry  Structural properties of materials  Solid state materials  Surface modification  Thin films  Ionic liquids  New materials: oxides, alloys, composite, organic-inorganic hybrid, nanoparticles  Biomaterials, biomaterials synthesis  Intelligent materials – self assembled materials
PE5_1 PE5_2 PE5_3 PE5_4 PE5_5 PE5_6 PE5_7 PE5_8 PE5_9	functional and advanced materials, molecular architecture, organic chemistry  Structural properties of materials  Solid state materials  Surface modification  Thin films  Ionic liquids  New materials: oxides, alloys, composite, organic-inorganic hybrid, nanoparticles  Biomaterials, biomaterials synthesis  Intelligent materials – self assembled materials  Coordination chemistry
PE5_1 PE5_2 PE5_3 PE5_4 PE5_5 PE5_6 PE5_7 PE5_8 PE5_9 PE5_10	functional and advanced materials, molecular architecture, organic chemistry  Structural properties of materials  Solid state materials  Surface modification  Thin films  Ionic liquids  New materials: oxides, alloys, composite, organic-inorganic hybrid, nanoparticles  Biomaterials, biomaterials synthesis  Intelligent materials – self assembled materials  Coordination chemistry  Colloid chemistry
PE5_1 PE5_2 PE5_3 PE5_4 PE5_5 PE5_6 PE5_7 PE5_8 PE5_9 PE5_10 PE5_11	functional and advanced materials, molecular architecture, organic chemistry  Structural properties of materials  Solid state materials  Surface modification  Thin films  Ionic liquids  New materials: oxides, alloys, composite, organic-inorganic hybrid, nanoparticles  Biomaterials, biomaterials synthesis  Intelligent materials – self assembled materials  Coordination chemistry  Colloid chemistry  Biological chemistry
PE5_1 PE5_2 PE5_3 PE5_4 PE5_5 PE5_6 PE5_7 PE5_8 PE5_9 PE5_10 PE5_11 PE5_12	functional and advanced materials, molecular architecture, organic chemistry  Structural properties of materials  Solid state materials  Surface modification  Thin films  Ionic liquids  New materials: oxides, alloys, composite, organic-inorganic hybrid, nanoparticles  Biomaterials, biomaterials synthesis  Intelligent materials – self assembled materials  Coordination chemistry  Colloid chemistry  Biological chemistry  Chemistry of condensed matter
PE5_1 PE5_2 PE5_3 PE5_4 PE5_5 PE5_6 PE5_7 PE5_8 PE5_9 PE5_10 PE5_11 PE5_12 PE5_13	functional and advanced materials, molecular architecture, organic chemistry  Structural properties of materials  Solid state materials  Surface modification  Thin films  Ionic liquids  New materials: oxides, alloys, composite, organic-inorganic hybrid, nanoparticles  Biomaterials, biomaterials synthesis  Intelligent materials – self assembled materials  Coordination chemistry  Colloid chemistry  Biological chemistry  Chemistry of condensed matter  Homogeneous catalysis
PE5_1 PE5_2 PE5_3 PE5_4 PE5_5 PE5_6 PE5_7 PE5_8 PE5_9 PE5_10 PE5_11 PE5_12 PE5_13 PE5_14	functional and advanced materials, molecular architecture, organic chemistry  Structural properties of materials  Solid state materials  Surface modification  Thin films  Ionic liquids  New materials: oxides, alloys, composite, organic-inorganic hybrid, nanoparticles  Biomaterials, biomaterials synthesis  Intelligent materials – self assembled materials  Coordination chemistry  Colloid chemistry  Biological chemistry  Chemistry of condensed matter  Homogeneous catalysis  Macromolecular chemistry
PE5_1 PE5_2 PE5_3 PE5_4 PE5_5 PE5_6 PE5_7 PE5_8 PE5_9 PE5_10 PE5_11 PE5_12 PE5_13 PE5_14 PE5_15	functional and advanced materials, molecular architecture, organic chemistry  Structural properties of materials  Solid state materials  Surface modification  Thin films  Ionic liquids  New materials: oxides, alloys, composite, organic-inorganic hybrid, nanoparticles  Biomaterials, biomaterials synthesis  Intelligent materials – self assembled materials  Coordination chemistry  Colloid chemistry  Biological chemistry  Chemistry of condensed matter  Homogeneous catalysis  Macromolecular chemistry  Polymer chemistry
PE5_1 PE5_2 PE5_2 PE5_3 PE5_4 PE5_5 PE5_6 PE5_7 PE5_8 PE5_9 PE5_10 PE5_11 PE5_12 PE5_13 PE5_14 PE5_15 PE5_16	functional and advanced materials, molecular architecture, organic chemistry  Structural properties of materials  Solid state materials  Surface modification  Thin films  Ionic liquids  New materials: oxides, alloys, composite, organic-inorganic hybrid, nanoparticles  Biomaterials, biomaterials synthesis  Intelligent materials – self assembled materials  Coordination chemistry  Colloid chemistry  Biological chemistry  Chemistry of condensed matter  Homogeneous catalysis  Macromolecular chemistry  Polymer chemistry  Supramolecular chemistry  Supramolecular chemistry
PE5_1 PE5_2 PE5_2 PE5_3 PE5_4 PE5_5 PE5_6 PE5_7 PE5_8 PE5_9 PE5_10 PE5_11 PE5_12 PE5_13 PE5_14 PE5_15 PE5_16 PE5_15 PE5_16 PE5_17	functional and advanced materials, molecular architecture, organic chemistry  Structural properties of materials  Solid state materials  Surface modification  Thin films  Ionic liquids  New materials: oxides, alloys, composite, organic-inorganic hybrid, nanoparticles  Biomaterials, biomaterials synthesis  Intelligent materials – self assembled materials  Coordination chemistry  Colloid chemistry  Biological chemistry  Chemistry of condensed matter  Homogeneous catalysis  Macromolecular chemistry  Polymer chemistry  Supramolecular chemistry  Organic chemistry  Organic chemistry
PE5_1 PE5_2 PE5_2 PE5_3 PE5_4 PE5_5 PE5_6 PE5_7 PE5_8 PE5_9 PE5_10 PE5_11 PE5_12 PE5_13 PE5_14 PE5_15 PE5_16 PE5_17 PE5_16 PE5_17 PE5_18	functional and advanced materials, molecular architecture, organic chemistry  Structural properties of materials  Solid state materials  Surface modification  Thin films  Ionic liquids  New materials: oxides, alloys, composite, organic-inorganic hybrid, nanoparticles  Biomaterials, biomaterials synthesis  Intelligent materials – self assembled materials  Coordination chemistry  Colloid chemistry  Biological chemistry  Chemistry of condensed matter  Homogeneous catalysis  Macromolecular chemistry  Polymer chemistry  Supramolecular chemistry  Organic chemistry  Molecular chemistry  Molecular chemistry
PE5_1 PE5_2 PE5_3 PE5_4 PE5_5 PE5_6 PE5_7 PE5_8 PE5_9 PE5_10 PE5_11 PE5_12 PE5_13 PE5_14 PE5_15 PE5_15 PE5_16 PE5_17 PE5_18 PE5_17 PE5_18 PE5_19	functional and advanced materials, molecular architecture, organic chemistry  Structural properties of materials  Solid state materials  Surface modification  Thin films  Ionic liquids  New materials: oxides, alloys, composite, organic-inorganic hybrid, nanoparticles  Biomaterials, biomaterials synthesis  Intelligent materials – self assembled materials  Coordination chemistry  Colloid chemistry  Biological chemistry  Chemistry of condensed matter  Homogeneous catalysis  Macromolecular chemistry  Polymer chemistry  Supramolecular chemistry  Organic chemistry  Organic chemistry  Molecular chemistry  Combinatorial chemistry
PE5_1 PE5_2 PE5_2 PE5_3 PE5_4 PE5_5 PE5_6 PE5_7 PE5_8 PE5_9 PE5_10 PE5_11 PE5_12 PE5_13 PE5_14 PE5_15 PE5_16 PE5_17 PE5_16 PE5_17 PE5_18	functional and advanced materials, molecular architecture, organic chemistry  Structural properties of materials  Solid state materials  Surface modification  Thin films  Ionic liquids  New materials: oxides, alloys, composite, organic-inorganic hybrid, nanoparticles  Biomaterials, biomaterials synthesis  Intelligent materials – self assembled materials  Coordination chemistry  Colloid chemistry  Biological chemistry  Chemistry of condensed matter  Homogeneous catalysis  Macromolecular chemistry  Polymer chemistry  Supramolecular chemistry  Organic chemistry  Organic chemistry  Molecular chemistry  Combinatorial chemistry  Computer Science and Informatics: Informatics and information systems, computer science,
PE5_1 PE5_2 PE5_3 PE5_4 PE5_5 PE5_6 PE5_7 PE5_8 PE5_9 PE5_10 PE5_11 PE5_12 PE5_13 PE5_14 PE5_15 PE5_16 PE5_17 PE5_16 PE5_17 PE5_18 PE5_17 PE5_18 PE5_19 PE6	functional and advanced materials, molecular architecture, organic chemistry  Structural properties of materials  Solid state materials  Surface modification  Thin films  Ionic liquids  New materials: oxides, alloys, composite, organic-inorganic hybrid, nanoparticles  Biomaterials, biomaterials synthesis  Intelligent materials – self assembled materials  Coordination chemistry  Colloid chemistry  Biological chemistry  Chemistry of condensed matter  Homogeneous catalysis  Macromolecular chemistry  Polymer chemistry  Supramolecular chemistry  Organic chemistry  Molecular chemistry  Combinatorial chemistry  Computer Science and Informatics: Informatics and information systems, computer science, scientific computing, intelligent systems
PE5_1 PE5_2 PE5_3 PE5_4 PE5_5 PE5_6 PE5_7 PE5_8 PE5_9 PE5_10 PE5_11 PE5_12 PE5_13 PE5_14 PE5_15 PE5_16 PE5_17 PE5_16 PE5_17 PE5_18 PE5_19 PE6	functional and advanced materials, molecular architecture, organic chemistry  Structural properties of materials  Solid state materials  Surface modification  Thin films  Ionic liquids  New materials: oxides, alloys, composite, organic-inorganic hybrid, nanoparticles  Biomaterials, biomaterials synthesis  Intelligent materials – self assembled materials  Coordination chemistry  Colloid chemistry  Biological chemistry  Chemistry of condensed matter  Homogeneous catalysis  Macromolecular chemistry  Polymer chemistry  Supramolecular chemistry  Organic chemistry  Molecular chemistry  Combinatorial chemistry  Computer Science and Informatics: Informatics and information systems, computer science, scientific computing, intelligent systems  Computer architecture, pervasive computing, ubiquitous computing
PE5_1 PE5_2 PE5_3 PE5_4 PE5_5 PE5_6 PE5_7 PE5_8 PE5_9 PE5_10 PE5_11 PE5_12 PE5_13 PE5_14 PE5_15 PE5_16 PE5_17 PE5_16 PE5_17 PE5_18 PE5_17 PE5_18 PE5_19 PE6	functional and advanced materials, molecular architecture, organic chemistry  Structural properties of materials  Solid state materials  Surface modification  Thin films  Ionic liquids  New materials: oxides, alloys, composite, organic-inorganic hybrid, nanoparticles  Biomaterials, biomaterials synthesis  Intelligent materials – self assembled materials  Coordination chemistry  Colloid chemistry  Biological chemistry  Chemistry of condensed matter  Homogeneous catalysis  Macromolecular chemistry  Polymer chemistry  Supramolecular chemistry  Organic chemistry  Molecular chemistry  Combinatorial chemistry  Computer Science and Informatics: Informatics and information systems, computer science, scientific computing, intelligent systems  Computer systems, parallel/distributed systems, sensor networks, embedded systems, cyber-
PE5_1 PE5_2 PE5_3 PE5_4 PE5_5 PE5_6 PE5_7 PE5_8 PE5_9 PE5_10 PE5_11 PE5_12 PE5_13 PE5_14 PE5_15 PE5_16 PE5_17 PE5_18 PE5_17 PE5_18 PE5_19 PE6	functional and advanced materials, molecular architecture, organic chemistry  Structural properties of materials  Solid state materials  Surface modification  Thin films  Ionic liquids  New materials: oxides, alloys, composite, organic-inorganic hybrid, nanoparticles  Biomaterials, biomaterials synthesis  Intelligent materials – self assembled materials  Coordination chemistry  Colloid chemistry  Biological chemistry  Chemistry of condensed matter  Homogeneous catalysis  Macromolecular chemistry  Polymer chemistry  Supramolecular chemistry  Organic chemistry  Molecular chemistry  Computer Science and Informatics: Informatics and information systems, computer science, scientific computing, intelligent systems  Computer systems, parallel/distributed systems, sensor networks, embedded systems, cyber-physical systems
PE5_1 PE5_2 PE5_3 PE5_4 PE5_5 PE5_6 PE5_6 PE5_7 PE5_8 PE5_9 PE5_10 PE5_11 PE5_12 PE5_13 PE5_14 PE5_15 PE5_16 PE5_17 PE5_18 PE5_17 PE5_18 PE5_19 PE6 PE6_1 PE6_2 PE6_3	functional and advanced materials, molecular architecture, organic chemistry  Structural properties of materials  Solid state materials  Surface modification  Thin films  Ionic liquids  New materials: oxides, alloys, composite, organic-inorganic hybrid, nanoparticles  Biomaterials, biomaterials synthesis  Intelligent materials – self assembled materials  Coordination chemistry  Colloid chemistry  Biological chemistry  Chemistry of condensed matter  Homogeneous catalysis  Macromolecular chemistry  Polymer chemistry  Supramolecular chemistry  Organic chemistry  Computer Science and Informatics: Informatics and information systems, computer science, scientific computing, intelligent systems  Computer systems, parallel/distributed systems, sensor networks, embedded systems, cyberphysical systems  Software engineering, operating systems, computer languages
PE5_1 PE5_2 PE5_3 PE5_4 PE5_5 PE5_6 PE5_7 PE5_8 PE5_9 PE5_10 PE5_11 PE5_12 PE5_13 PE5_14 PE5_15 PE5_16 PE5_17 PE5_18 PE5_17 PE5_18 PE5_19 PE6	functional and advanced materials, molecular architecture, organic chemistry  Structural properties of materials  Solid state materials  Surface modification  Thin films  Ionic liquids  New materials: oxides, alloys, composite, organic-inorganic hybrid, nanoparticles  Biomaterials, biomaterials synthesis  Intelligent materials – self assembled materials  Coordination chemistry  Colloid chemistry  Biological chemistry  Chemistry of condensed matter  Homogeneous catalysis  Macromolecular chemistry  Polymer chemistry  Supramolecular chemistry  Organic chemistry  Computer science and Informatics: Informatics and information systems, computer science, scientific computing, intelligent systems  Computer systems, parallel/distributed systems, sensor networks, embedded systems, cyber-physical systems

PE6_6	Algorithms, distributed, parallel and network algorithms, algorithmic game theory
PE6_7	Artificial intelligence, intelligent systems, multi agent systems
PE6_8	Computer graphics, computer vision, multi media, computer games
PE6_9	Human computer interaction and interface, visualisation and natural language processing
PE6_10	Web and information systems, database systems, information retrieval and digital libraries, data
120_10	fusion
PE6_11	Machine learning, statistical data processing and applications using signal processing (e.g. speech,
	image, video)
PE6_12	Scientific computing, simulation and modelling tools
PE6_13	Bioinformatics, biocomputing, and DNA and molecular computation
PE7	Systems and Communication Engineering: Electrical, electronic, communication, optical and
12.	systems engineering
PE7_1	Control engineering
PE7_2	Electrical engineering: power components and/or systems
PE7_3	Simulation engineering and modelling
PE7_4	(Micro and nano) systems engineering
PE7_5	(Micro and nano) electronic, optoelectronic and photonic components
PE7_6	Communication technology, high-frequency technology
PE7_7	Signal processing
PE7_8	Networks (communication networks, sensor networks, networks of robots, etc.)
PE7_9	Man-machine-interfaces
PE7 10	Robotics and mechatronics
PE7_11	Components and systems for applications (in e.g. medicine, biology, environment)
PE7_12	Electrical energy production, distribution, application
PE8	Products and Processes Engineering: Product design, process design and control, construction
120	methods, civil engineering, energy processes, material engineering
PE8_1	Aerospace engineering
PE8_2	Chemical engineering, technical chemistry
PE8_3	Civil engineering, architecture, maritime/hydraulic engineering, geotechnics, waste treatment
PE8_4	Computational engineering
PE8_5	Fluid mechanics, hydraulic-, turbo-, and piston engines
PE8_6	Energy processes engineering
PE8_7	Mechanical and manufacturing engineering (shaping, mounting, joining, separation)
PE8_8	Materials engineering (metals, ceramics, polymers, composites, etc.)
PE8_9	Production technology, process engineering
PE8_10	Industrial design (product design, ergonomics, man-machine interfaces, etc.)
PE8_11	Sustainable design (for recycling, for environment, eco-design)
PE8_12	Lightweight construction, textile technology
PE8_13	Industrial bioengineering
PE9	Universe Sciences: Astro-physics/chemistry/biology; solar system; stellar, galactic and
	extragalactic astronomy, planetary systems, cosmology, space science, instrumentation
PE9_1	Solar and interplanetary physics
PE9_2	Planetary systems sciences
PE9_3	Interstellar medium
PE9_4	Formation of stars and planets
PE9_5	Astrobiology
PE9_6	Stars and stellar systems
PE9_7	The Galaxy
PE9_8	Formation and evolution of galaxies
PE9_9	Clusters of galaxies and large scale structures
PE9_10	High energy and particles astronomy – X-rays, cosmic rays, gamma rays, neutrinos
PE9_11	Relativistic astrophysics
PE9_12	Dark matter, dark energy
PE9_13	Gravitational astronomy
PE9_14	Cosmology
PE9_15	Space Sciences
PE9_16	Very large data bases: archiving, handling and analysis
PE9_17	Instrumentation - telescopes, detectors and techniques
PE10	Earth System Science: Physical geography, geology, geophysics, atmospheric sciences,
İ	oceanography, climatology, cryology, ecology, global environmental change, biogeochemical

	cycles, natural resources management
PE10_1	Atmospheric chemistry, atmospheric composition, air pollution
PE10_2	Meteorology, atmospheric physics and dynamics
PE10_3	Climatology and climate change
PE10_4	Terrestrial ecology, land cover change
PE10_5	Geology, tectonics, volcanology
PE10_6	Palaeoclimatology, palaeoecology
PE10_7	Physics of earth's interior, seismology, volcanology
PE10_8	Oceanography (physical, chemical, biological, geological)
PE10_9	Biogeochemistry, biogeochemical cycles, environmental chemistry
PE10_10	Mineralogy, petrology, igneous petrology, metamorphic petrology
PE10_11	Geochemistry, crystal chemistry, isotope geochemistry, thermodynamics
PE10_12	Sedimentology, soil science, palaeontology, earth evolution
PE10_13	Physical geography
PE10_14	Earth observations from space/remote sensing
PE10_15	Geomagnetism, palaeomagnetism
PE10_16	Ozone, upper atmosphere, ionosphere
PE10_17	Hydrology, water and soil pollution
PE10_18	Cryosphere, dynamics of snow and ice cover, sea ice, permafrosts and ice sheets

<b>Domain Code:</b>	SH
<b>Subdomain Code:</b>	SH1, SH2, SH3, SH4, SH5, SH6
Research Area Code:	SH1_1,SH1_14; SH6_1,SH6_14

## DOMAIN SOCIAL SCIENCES AND HUMANITIES

SH1	Individuals, Markets and Organisations: Economics, finance and management
SH1_1	Macroeconomics; monetary economics; economic growth
SH1_2	International trade; international business; international management; spatial economics
SH1_3	Development economics, health economics, education economics
SH1_4	Financial economics; banking; corporate finance; international finance; accounting; auditing;
	insurance
SH1_5	Labour and demographic economics; human resource management
SH1_6	Econometrics; operations research
SH1_7	Behavioural economics; experimental economics; neuro-economics
SH1_8	Microeconomics; game theory
SH1_9	Industrial organisation; strategy; entrepreneurship
SH1_10	Management; marketing; organisational behaviour; operations management
SH1_11	Technological change, innovation, research & development
SH1_12	Agricultural economics; energy economics; environmental economics
SH1_13	Public economics; political economics; law and economics
SH1_14	Quantitative economic history; institutional economics; economic systems
SH2	Institutions, Values, Environment and Space: Political science, law, sustainability science,
	geography, regional studies and planning
SH2_1	Political systems, governance
SH2_2	Democratisation and social movements
SH2_3	Conflict resolution, war
SH2_4	Legal studies, constitutions, human rights, comparative law
SH2_5	International relations, global and transnational governance
SH2_6	Sustainability sciences, environment and resources
SH2_7	Environmental and climate change, societal impact and policy
SH2_8	Energy, transportation and mobility
SH2_9	Urban, regional and rural studies
SH2_10	Land use and regional planning
SH2_11	Human, economic and social geography
SH2_12	GIS, spatial analysis; big data in political, geographical and legal studies
SH3	The Social World, Diversity, Population: Sociology, social psychology, demography, education,
	communication
SH3_1	Social structure, social mobility
SH3 2	Inequalities, discrimination, prejudice, aggression and violence, antisocial behaviour

SH3_3	Social integration, exclusion, prosocial behaviour
SH3_4	Attitudes and beliefs
SH3_5	Social influence; power and group behaviour; classroom management
SH3_6	Diversity and identities, gender, interethnic relations
SH3 7	Social policies, welfare
SH3_8	Population dynamics; households, family and fertility
SH3_9	Health, ageing and society
SH3_10	Social aspects of learning, curriculum studies, educational policies
SH3_11	Communication and information, networks, media
SH3_12	Digital social research
SH3_13	Science and technology studies
SH4	The Human Mind and Its Complexity: Cognitive science, psychology, linguistics, philosophy of
	mind
SH4_1	Cognitive basis of human development and education, developmental disorders; comparative
	cognition
SH4_2	Personality and social cognition; emotion
SH4_3	Clinical and health psychology
SH4_4	Neuropsychology
SH4_5	Attention, perception, action, consciousness
SH4_6	Learning, memory; cognition in ageing
SH4_7	Reasoning, decision-making; intelligence
SH4_8	Language learning and processing (first and second languages)
SH4_9	Theoretical linguistics; computational linguistics
SH4_10	Language typology
SH4_11	Pragmatics, sociolinguistics, discourse analysis
SH4_12	Philosophy of mind, philosophy of language
SH4_13	Philosophy of science, epistemology, logic
SH5	Cultures and Cultural Production: Literature, philology, cultural studies, anthropology, study of
	the arts, philosophy
SH5_1	Classics, ancient literature and art
SH5_2	Theory and history of literature, comparative literature
SH5_3	Philology and palaeography; historical linguistics
SH5_4	Visual and performing arts, film, design
SH5_5	Music and musicology; history of music
SH5_6	History of art and architecture, arts-based research
SH5_7	Museums, exhibitions, conservation and restoration
SH5_8	Cultural studies, cultural identities and memories, cultural heritage
SH5_9	Social anthropology, religious studies, symbolic representation
SH5_10	Metaphysics, philosophical anthropology; aesthetics
SH5_11	Ethics; social and political philosophy
SH5_12	History of philosophy
SH5_13	Computational Modelling and Digitisation in the Cultural Sphere
SH6	The Study of the Human Past: Archaeology and history
SH6_1	Historiography, Theory and methods in history, including the analysis of digital data

SH6_2	Classical archaeology, history of archaeology
SH6_3	General archaeology, archaeometry, landscape archaeology
SH6_4	Prehistory, palaeoanthropology, palaeodemography, protohistory
SH6_5	Ancient history
SH6_6	Medieval history
SH6_7	Early modern history
SH6_8	Modern and contemporary history
SH6_9	Colonial and post-colonial history
SH6_10	Global history, transnational history, comparative history, entangled histories
SH6_11	Social and economic history
SH6_12	Gender history; Cultural History; History of Collective Identities and Memories
SH6_13	History of Ideas, Intellectual History, history of economic thought
SH6_14	History of Science, Medicine and Technologies

Domain Code:	LS
Subdomain Code:	LS1,LS2,LS3, LS4,LS5,LS6
Research Area Code:	LS1_1 LS1_11; LS9_1LS9_9

#### DOMAIN LIFE SCIENCES

LS1	Molecular and Structural Biology and Biochemistry: Molecular synthesis, modification and
	interaction, biochemistry, biophysics, structural biology, metabolism, signal transduction
LS1_1	Molecular interactions
LS1_2	General biochemistry and metabolism
LS1_3	DNA synthesis, modification, repair, recombination and degradation
LS1_4	RNA synthesis, processing, modification and degradation
LS1_5	Protein synthesis, modification and turnover
LS1_6	Lipid synthesis, modification and turnover
LS1_7	Carbohydrate synthesis, modification and turnover
LS1_8	Biophysics (e.g. transport mechanisms, bioenergetics, fluorescence)
LS1_9	Structural biology (crystallography and EM)
LS1_10	Structural biology (NMR)
LS1_11	Biochemistry and molecular mechanisms of signal transduction
LS2	Genetics, Genomics, Bioinformatics and Systems Biology: Molecular and population genetics,
	genomics, transcriptomics, proteomics, metabolomics, bioinformatics, computational biology,
	biostatistics, biological modelling and simulation, systems biology, genetic epidemiology
LS2_1	Genomics, comparative genomics, functional genomics
LS2_2	Transcriptomics
LS2_3	Proteomics
LS2_4	Metabolomics
LS2_5	Glycomics
LS2_6	Molecular genetics, reverse genetics and RNAi
LS2_7	Quantitative genetics
LS2_8	Epigenetics and gene regulation
LS2_9	Genetic epidemiology
LS2_10	Bioinformatics
LS2_11	Computational biology
LS2_12	Biostatistics
LS2_13	Systems biology
LS2_14	Biological systems analysis, modelling and simulation
LS3	Cellular and Developmental Biology: Cell biology, cell physiology, signal transduction,
	organogenesis, developmental genetics, pattern formation in plants and animals, stem cell biology
LS3_1	Morphology and functional imaging of cells
LS3_2	Cell biology and molecular transport mechanisms
LS3_3	Cell cycle and division
LS3_4	Apoptosis
LS3_5	Cell differentiation, physiology and dynamics
LS3_6	Organelle biology
LS3_7	Cell signalling and cellular interactions
LS3_8	Signal transduction
LS3_9	Development, developmental genetics, pattern formation and embryology in animals
LS3_10	Development, developmental genetics, pattern formation and embryology in plants
LS3_11	Cell genetics
LS3_12	Stem cell biology
LS4	Physiology, Pathophysiology and Endocrinology: Organ physiology, pathophysiology,
	endocrinology, metabolism, ageing, tumorigenesis, cardiovascular disease, metabolic syndrome
LS4_1	Organ physiology and pathophysiology
LS4_2	Comparative physiology and pathophysiology
LS4_3	Endocrinology
LS4_4	Ageing
LS4_5	Metabolism, biological basis of metabolism related disorders
LS4_6	Cancer and its biological basis

LS4_7	Cardiovascular diseases
LS4_8	Non-communicable diseases (except for neural/psychiatric, immunity-related, metabolism-related
	disorders, cancer and cardiovascular diseases)
LS5	Neurosciences and Neural Disorders: Neurobiology, neuroanatomy, neurophysiology,
	neurochemistry, neuropharmacology, neuroimaging, systems neuroscience, neurological and
	psychiatric disorders
LS5_1	Neuroanatomy and neurophysiology
LS5_2	Molecular and cellular neuroscience
LS5_3	Neurochemistry and neuropharmacology
LS5_4	Sensory systems (e.g. visual system, auditory system)
LS5_5	Mechanisms of pain
LS5_6	Developmental neurobiology
LS5_7	Cognition (e.g. learning, memory, emotions, speech)
LS5_8	Behavioural neuroscience (e.g. sleep, consciousness, handedness)
LS5_9	Systems neuroscience
LS5_10	Neuroimaging and computational neuroscience
LS5_11	Neurological disorders (e.g. Alzheimer's disease, Huntington's disease, Parkinson's disease)
LS5_12	Psychiatric disorders (e.g. schizophrenia, autism, Tourette's syndrome, obsessive compulsive
	disorder, depression, bipolar disorder, attention deficit hyperactivity disorder)
LS6	<b>Immunity and Infection:</b> The immune system and related disorders, infectious agents and diseases,
T G C 4	prevention and treatment of infection
LS6_1	Innate immunity and inflammation
LS6_2	Adaptive immunity
LS6_3	Phagocytosis and cellular immunity
LS6_4	Immunosignalling
LS6_5	Immunological memory and tolerance
LS6_6	Immunogenetics
LS6_7	Microbiology
LS6_8	Virology
LS6_9	Bacteriology
LS6_10	Parasitology
LS6_11	Prevention and treatment of infection by pathogens (e.g. vaccination, antibiotics, fungicide)
LS6_12 LS6_13	Biological basis of immunity related disorders (e.g. autoimmunity)  Veterinary medicine and infectious diseases in animals
LS0_13 LS7	Diagnostic Tools, Therapies and Public Health: Aetiology, diagnosis and treatment of disease,
LS/	public health, epidemiology, pharmacology, clinical medicine, regenerative medicine, medical ethics
LS7_1	Medical engineering and technology
LS7_1 LS7_2	Diagnostic tools (e.g. genetic, imaging)
LS7_2 LS7_3	Pharmacology, pharmacogenomics, drug discovery and design, drug therapy
LS7_3 LS7_4	Analgesia and Surgery
LS7_5	Toxicology
LS7_6	Gene therapy, cell therapy, regenerative medicine
LS7_7	Radiation therapy
LS7_8	Health services, health care research
LS7_9	Public health and epidemiology
LS7_10	Environment and health risks, occupational medicine
LS7_11	Medical ethics
LS8	Evolutionary, Population and Environmental Biology: Evolution, ecology, animal behaviour,
250	population biology, biodiversity, biogeography, marine biology, ecotoxicology, microbial ecology
LS8_1	Ecology (theoretical and experimental; population, species and community level)
LS8_2	Population biology, population dynamics, population genetics
LS8_3	Systems evolution, biological adaptation, phylogenetics, systematics, comparative biology
LS8_4	Biodiversity, conservation biology, conservation genetics, invasion biology
LS8_5	Evolutionary biology: evolutionary ecology and genetics, co-evolution
LS8_6	Biogeography, macro-ecology
LS8_7	Animal behaviour
LS8_8	Environmental and marine biology
LS8_9	Environmental toxicology at the population and ecosystems level
LS8_10	Microbial ecology and evolution
LS8_11	Species interactions (e.g. food-webs, symbiosis, parasitism, mutualism)
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LS9	Applied Life Sciences and Non-Medical Biotechnology: Applied plant and animal sciences; food
	sciences; forestry; industrial, environmental and non-medical biotechnologies, bioengineering;
	synthetic and chemical biology; biomimetics; bioremediation
LS9_1	Non-medical biotechnology and genetic engineering (including transgenic organisms, recombinant
	proteins, biosensors, bioreactors, microbiology)
LS9_2	Synthetic biology, chemical biology and bio-engineering
LS9_3	Animal sciences (including animal husbandry, aquaculture, fisheries, animal welfare)
LS9_4	Plant sciences (including crop production, plant breeding, agroecology, soil biology)
LS9_5	Food sciences (including food technology, nutrition)
LS9_6	Forestry and biomass production (including biofuels)
LS9_7	Environmental biotechnology (including bioremediation, biodegradation)
LS9_8	Biomimetics
LS9_9	Biohazards (including biological containment, biosafety, biosecurity)

## Lista domeniilor în interiorul cărora proiectele sunt ierarhizate

Denumire subdomeniu	Cod Arie de Cercetare
	PE1_1;PE1_2; PE1_3; PE1_4; PE1_5; PE1_6; PE1_7; PE1_8; PE1_9; PE1_10;
Matematică si	PE1_11; PE1_13; PE1_14; PE1_15; PE1_16; PE1_17; PE1_18; PE1_19; PE1_20;
Informatică	PE1_21.
	PE6_1; PE6_2; PE6_3; PE6_4; PE6_5; PE6_6; PE6_7; PE6_8; PE6_9; PE6_10;
	PE6_11; PE6_12; PE6_13.
	PE4_1; PE4_3; PE4_4; PE4_5; PE4_7; PE4_8; PE4_9; PE4_10; PE4_11; PE4_12;
Chimie	PE4_13;PE4_14; PE4_15; PE4_16; PE4_17; PE4_18.
	PE5_13; PE5_14; PE5_16; PE5_17; PE5_18; PE5_19.
	PE1_12
	PE2_1; PE2_2; PE2_3; PE2_4; PE2_5; PE2_6; PE2_7; PE2_8; PE2_9; PE2_10;
	PE2_11; PE2_12; PE2_13; PE2_14; PE2_15; PE2_16; PE2_17; PE2_18.
Fizică	PE3_1; PE3_2; PE3_3; PE3_4; PE3_5; PE3_6; PE3_7; PE3_8; PE3_9; PE3_10;
	PE3_11; PE3_12; PE3_13; PE3_14; PE3_15; PE3_16.
	PE4_2; PE4_6.
	PE9_1; PE9_2; PE9_3; PE9_4; PE9_5; PE9_6; PE9_7; PE9_8; PE9_9; PE9_10;
	PE9_11; PE9_12; PE9_13; PE9_14; PE9_15; PE9_16; PE9_17.
Știința materialelor	PE5_1; PE5_2; PE5_3; PE5_4; PE5_5; PE5_6; PE5_7; PE5_8; PE5_9; PE5_10;
	PE5_11; PE5_12.
Ştiinţele	PE10_1; PE10_2; PE10_3; PE10_4; PE10_5; PE10_6; PE10_7; PE10_8; PE10_9;
pământului	PE10_10; PE10_11; PE10_12; PE10_13; PE10_14; PE10_15; PE10_16; PE10_17;
	PE10_18.
	PE5_15
	PE7_1; PE7_2; PE7_3; PE7_4; PE7_5; PE7_6; PE7_7; PE7_8; PE7_9; PE7_10;
Științe Inginerești	PE7_11; PE7_12;
	PE8_1; PE8_2; PE8_3; PE8_4; PE8_5; PE8_6; PE8_7; PE8_8; PE8_9; PE8_10;
	PE8_11; PE8_12; PE8_13;
Biologie și	LS1_1; LS1_2; LS1_3; LS1_4; LS1_5; LS1_6; LS1_7; LS1_8; LS1_9; LS1_10;
Ecologie	LS1_11;

	LS2_1; LS2_2; LS2_3; LS2_4; LS2_5; LS2_6; LS2_7; LS2_8; LS2_9; LS2_10;
	LS2_11; LS2_12; LS2_13; LS2_14;
	LS3_1; LS3_2; LS3_3; LS3_4; LS3_5; LS3_6; LS3_7; LS3_8; LS3_9; LS3_10;
	LS3_11; LS3_12;
	LS8_1, LS8_2; LS8_3; LS8_4; LS8_5; LS8_6; LS8_7; LS8_8; LS8_9; LS8_10;
	LS8_11
	LS4_1; LS4_2; LS4_3; LS4_4; LS4_5; LS4_6; LS4_7; LS4_8;
	LS5_1; LS5_2; LS5_3; LS5_4; LS5_5; LS5_6; LS5_7; LS5_8; LS5_9; LS5_10;
	LS5_11; LS5_12;
Sănătate	LS6_1; LS6_2; LS6_3; LS6_4; LS6_5; LS6_6; LS6_7; LS6_8; LS6_9; LS6_10;
	LS6_11; LS6_12; LS6_13;
	LS7_1; LS7_2; LS7_3; LS7_4; LS7_5; LS7_6; LS7_7; LS7_8; LS7_9; LS7_10;
	LS7_11;
Științele vieții	LS9_1; LS9_2; LS9_3; LS9_4; LS9_5; LS9_6; LS9_7; LS9_8; LS9_9
aplicate și Biotehnologii	
Dioterniologii	SH1 1; SH1 2; SH1 3; SH1 4; SH1 5; SH1 6; SH1 7; SH1 8; SH1 9; SH1 10;
	SH1_11; SH1_12; SH1_13; SH1_14;
	SH2_1; SH2_2; SH2_3; SH2_4; SH2_5; SH2_6; SH2_7; SH2_8; SH2_10; SH2_11;
Științe sociale si	SH2_12;
economice	SH3_1; SH3_2; SH3_;3 SH3_4; SH3_5; SH3_6; SH3_7; SH3_8; SH3_9; SH3_10;
	SH3_11; SH3_12; SH3_13;
	SH4_1; SH4_2; SH4_3; SH4_4; SH4_5; SH4_7.
	SH2 9;
	SH4_6; SH4_8; SH4_9; SH4_10; SH4_11; SH4_12; SH4_13;
Științe umaniste	SH5_1; SH5_2; SH5_3; SH5_4; SH5_5; SH5_6; SH5_7; SH5_8; SH5_9; SH5_10;
y viiiiy viiiiuiiiov	SH5_11; SH5_12; SH5_13;
	SH6_1; SH6_2; SH6_3; SH6_4; SH6_5; SH6_6; SH6_7; SH6_8; SH6_9; SH6_10;
	SH6_11; SH6_12; SH6_13; SH6_14;