Content

The FWO supports fundamental and strategic research

7

What can FWO do for me?

11

Scientific Prizes

15

Graphs

19

Financing of the FWO

27

Organisation

33

Support the FWO

47
THE FWO SUPPORTS FUNDAMENTAL AND STRATEGIC RESEARCH
Science pushes the boundaries of our knowledge. The Research Foundation - Flanders (FWO) is the agency that supports ground-breaking fundamental and strategic research at the universities of the Flemish Community. The FWO also stimulates cooperation between the Flemish universities and other research institutes.

**Science opens new horizons**

Fundamental scientific research is focussed on expanding knowledge about human beings and their environment. As the level of knowledge of our society grows, so does the quality of life in general and the quality of training in particular. Young people are thus provided with every opportunity to deploy their talents in a broad array of disciplines.

Research financed by FWO, specially Strategic Basic Research, also contains an important step in the valorisation of scientific breakthroughs.

**Science creates opportunities**
Science is essential for our well-being

In the long term, such a high level of knowledge in combination with the resulting human capital pave the way for targeted and applied research, which has also a policy-supporting role. Decisions in economic or social domains can then also be influenced by the work of excellent research groups. This is not surprising, as ground-breaking research may lie at the heart of solutions to the key challenges facing our society today (environment, mobility, health, etc.).

Science is the driver of innovation

Fundamental research seldom leads to short-term economic or social valorisation. It is, however, essential for ensuring our welfare and well-being in the long term. That is why the FWO is dependent on government funding. A balanced distribution of resources between targeted and non-targeted research is required.

With the financing of strategic research in the broadest sense, the FWO takes an important step to valorisation.
The FWO and Europe

Non-governmental ‘research councils’ are a tradition in Europe. The FWO, too, is a member of the European Research Council (ERC) and involved in various European research initiatives.

FWO support the Flemish Supercomputer Centre (VSC)

The Flemish Supercomputer Centre (VSC) is a virtual centre making supercomputer infrastructure available for both the academic and industrial world. This centre is managed by the Research Foundation - Flanders (FWO) in partnership with the five Flemish university associations.
WHAT CAN FWO DO FOR ME?
The FWO invests in young talents

- Fellowships for young researchers (PhD fellowships: 2x2 years)
- PhD fellowships strategic basic research: 2x2 years
- Special PhD fellowships: 1 year
- Clinical PhD fellowships: 2 years, part-time
- ICM-FWO fellowships: 3x1 year
- EUI fellowships: 4 years

- Postdoctoral fellowships: 2x3 years
- Senior Clinical investigators: 3x5 years, part-time

The FWO gives grants to individual researchers

- Research grants: 1 year

The FWO supports research teams

- Research projects: 4 years, max. 2 times renewable
- Research projects Strategic Basic Research: 2 - 4 years
- Research projects Applied Biomedical Research with a Primary Social finality: 2 - 4 years
— Big Science: supporting research projects at major international research facilities (CERN, ESRF, ICECUBE, MERCATOR, GANIL)
— Odysseus: providing start-up funding for researchers who have built up a career outside Flanders
— Medium-scale and Large-scale research infrastructure

**The FWO rewards excellent research**

— FWO-Excellence Prizes: 5 prizes of each €100,000 awarded every 5 years
— FWO-scientific prizes: prizes sponsored by private companies or non-profit organisations that reward both young and experienced researchers

**FWO pushes boundaries**

— Participation in (inter)national conferences
— Short and long stays abroad in and outside Europe
— [PEGASUS]² Marie Skłodowska-Curie incoming and outgoing Fellowships

— Scientific research networks
— Organisation of scientific meetings
— Funds for coordination activities of international collaborative associations
— Bilateral research networks (Brazil, China, Ecuador, Québec, Vietnam, South-Africa)
— Lead Agency Procedures (Luxemburg, Netherlands, Austria, Slovenia)
— Exchange agreements
— Scientific cooperations
— European programmes (Horizon2020, COST, ERA-NET and JPI)

More information and lists of beneficiaries on www.fwo.be
SCIENTIFIC PRIZES
The awarding of scientific prizes, sponsored by private companies or non-profit organisations, creates close ties between the business world and the research community. With these prizes the FWO rewards outstanding fundamental scientific research. But these prizes also have an important signal function: they highlight the societal relevance of scientific research.

The following prizes were awarded in 2015:

— **FWO Excellence Prizes** (€ 100,000 each)
  - Physical Sciences: Staf Van Tendeloo (UAntwerpen)
  - Applied Sciences: Luc Van Gool (KU Leuven)
  - Fundamental Biomedical Sciences: Peter Vandenabeele (UGent)
  - Clinical Biomedical Sciences: Greet Van den Berghe (KU Leuven)
  - Humanities: Marc Leman (UGent)

— **Alcatel-Lucent Bell** (€ 8,000)
  - Thomas Van Vaerenbergh (UGent)

— **AstraZeneca Awards** (€ 25,000 each)
  - Oncology: Massimiliano Mazzone (KU Leuven / VIB)
  - Respiratory Diseases: Wim Janssens (KU Leuven)
Bio-informatics:
Yves Morau (KU Leuven)

- BiRD (Belgian Industrial Research & Development Board) (€ 10,000 each)

Science & Technology:
Sammy Verbruggen (UAntwerpen)

Life Sciences:
Amandine Everard (UCL)

- ExxonMobil Chemical (€ 40,000)
  Maarten Roeffaers (KU Leuven)

- Gustave Boël - Sofina Fellowships (€ 10,000 each)
  Floris Daelemans (KU Leuven)
  Lara Pivodic (VUB)
  Florence Pilate (UMons)

- IBL Health (€ 250,000)
  Bruce M. Spiegelman (Harvard Medical School)

- IBL Grants for Medical Research
  (€ 750,000 for research project of 5 years)
  Patrice Cani (UCL)

- IBM-Belgium Prijzen voor Informatica (€ 5,000)
  Jo Vermeulen (UHasselt)

- Joséphine Charlotte (€ 12,500)
  Xavier Saelens (UGent)

- McKinsey (€ 5,000 each)
  Nico De Leu (VUB)
  Jeroen Luyten (UAntwerpen)
— **Umicore Materials Technology Awards – MSc Award**
  (€ 2,500 each)
  Tom Renders (KU Leuven)
  Jonas Bekaert (UAntwerpen)
— **Umicore Scientific Awards – PhD Award**
  (€ 10,000)
  Stephane Knoppe (Geneva University)
Evolution successes rates Fellowships, Research projects and Research grants
PhD Fellowships per Scientific discipline

- 12% Biological Science
- 17% Humanities
- 19% Social Sciences
- 25% Medical Sciences
- 26% Science and Technology
- 2% Interdisciplinary
Postdoctoral Fellowships per Scientific discipline

- 15% Biological Science
- 15% Humanities
- 13% Social Sciences
- 25% Medical Sciences
- 28% Science and Technology
- 3% Interdisciplinary
Research Project per Scientific discipline

- 13% Biological Science
- 9% Humanities
- 17% Social Sciences
- 35% Medical Sciences
- 24% Science and Technology
- 2% Interdisciplinary
FINANCING OF THE FWO
FWO relies on various financing sources to support researchers. In 2016 the budget totalled 253.6 million euros. Since 2016, FWO works with authorizations and correlative credits. There is also a division made between the operational resources (10.8 million euros) and the policy resources (242.8 million euros). The policy resources are distributed as follows:

— **Flemish Government**

Subsidy, including the Odysseus programme, international collaboration and research at big international research facilities: 185.4 million euros

Subsidy from the National Lottery: 11.5 million euros (5%)

— **Federal Government**

Grant for additional researchers (Federal Science Policy): 4.9 million euros

FGWO subsidy: Fund for Medical Scientific Research (Federal Public Service Health, Food Chain safety and Environment): 1.5 million euros

IIKW subsidy: Inter-University Institute for Nuclear Science (Federal Public Service Economy, SMEs, Self-employed and Energy): 2.1 million euros
— Fiscal and parafiscal measures
For its postdoctoral fellowships FWO is granted a 80% income tax exemption, which results in an estimated extra budget of 11.0 million euros. Moreover, FWO is exempt from employers’ social security contributions for Postdoctoral Researchers, which have been added to the reference list dated 31 December 1995. This gives FWO an estimated extra 6.8 million euros to spend. Finally, FWO can rely on the employment programme for fundamental research, the Scientific Maribel Plan, which brings in 16.8 million euros.

— European Union
Via the MSCA COFUND, the subsidy by the European Commision for 2016 for the FWO will amount to 0.3 million euros. On the one hand the final fase of the first Pegasus programme (FP7) is financed (appr. € 40,000). The purpose of this programme was to attract excellent postdoctoral researchers to Flanders. On the other hand this subsidy will be used to support incoming and outgoing postdoctoral fellowships of 3 years via the new [PEGASUS]2 programme (H2020) (appr. € 265,000)

— Moreover the European Union also supported 2 ERA projects for the amount of 0.1 million euros.
Funds are raised not only through subsidies, but also via benefactors:

— Prizes: various companies and institutions support fundamental research in their fields with their own prizes
— Donations and legacies
— Interests
Subsidy distribution in 2016

- 43% Fellowships
- 2% Scientific contacts
- 1% Research grants
- 50% Research projects
- 4% Administrative management
ORGANISATION
Financial Advisory Committee

Audit Committee of the board of trustees

Expertpanel

Administration

Board of trustees

President
**Board of trustees**

The board of trustees decides upon the recommendations by the Expert panels and scientific committees, the activities of the FWO, the budget and accounts, etc.

**The board of trustees is made up of the following members (from 04-06-2016)**

**PRESIDENT**
Verstraete Willy - Emeritus professor - UGent

**MEMBERS**
Aerts Conny - Professor - KU Leuven
Bury Jo - President - VIB
De Knop Paul - Rector - Free University of Brussels
De Paepe Anne - Rector - Ghent University
De Schepper Luc - Rector - University of Hasselt
Torfs Rik - Rector - KU Leuven
Verschoren Alain - Rector - UAntwerpen
NN - Onafhankelijke bestuurder
NN - Onafhankelijke bestuurder
NN - Onafhankelijke bestuurder
NN - Onafhankelijke bestuurder

**SECRETARY GENERAL**

NN - Secretary General - FWO
GOVERNMENT DELEGATES
Mr. Koen Algoed, principal private secretary of Philippe Muyters, Flemish Minister for Work, Economy, Innovation and Sport
Mr. Simon Van Damme, advisor higher education cabinet Flemish viceminister-president Hilde Crevits

OBSERVER
De Potter Bernard, leading official Flanders Innovation & Entrepreneurship

FWO in its national context – the FFWO

The board of trustees of the FWO is responsible for the allocation of the funds which mainly come from the Flemish Government, and to a lesser extent from the Federal Government. The French Community has a fund analogous to the FWO: the “Fonds de la Recherche Scientifique F.R.S.- FNRS”. The boards of trustees of both institutions manage the Federal Fund for Scientific Research (FFWO). The FFWO decides on non-divisible resources and a number of well-defined responsibilities (decisions on common rooms of buildings or certain prizes, donations and legacies).
FWO-Expertpanels

The Expertpanels are the beating heart of the FWO. They evaluate the applications for fellowships and research projects. There are 30 subject specialist panels and 1 interdisciplinary panel. Most panels are composed of 16 members, the majority of which are not affiliated to a Flemish university. The panels meet twice a year and submit scientific advice to the Senate and the board of trustees.

The 30 Expertpanels are divided into 5 scientific domains:

- Biological Sciences
- Humanities
- Social Sciences
- Medical Sciences
- Science and Technology

There is also an International Scientific Collaboration Committee (CIWC) consisting of 14 Flemish members, or former members, of Expertpanels from various disciplines. This committee advises on applications for attending conferences, stays abroad, bilateral exchange agreements, scientific research networks, European programmes (ERA-NET, JPI,...)

1. Uitzonderingen zijn de Expertpanels Cult2, Cult3, G&M3, G&M4, Med5, Med8, W&T7 en W&T8 met 18 leden
and requests to organize conferences in Belgium. This committee meets once every month.

The panel for International Collaboration (CIS) meets three or four times a year, depending on the needs, and evaluates all proposals for international collaboration that go beyond individual mobility and for which there is no continuous submission process:

- Bilateral research cooperation
- ERA-NET (Flemish members are consulted for advice)
- International Coordination Action
- [PEGASUS]² Marie Skłodowska-Curie Fellowships

The FWO calls upon the international commission Hercules Science for the scientific evaluation of the biennial applications for large research infrastructure. The commission Hercules Invest was established to evaluate the financial feasibility of the proposals. This last one consists of Flemish experts.

The meta evaluation of the SBO-applications is done by two steering evaluation committees. One for the evaluation of the applications with economic finality and one for the ones with social finality. These committees, who also functioned within the former IWT, will be newly composed by the FWO.
There are also a number of advisory groups with well-defined mandates which advise on a specific line of research (Jury Clinical Fellowships, Odysseus Jury, Big Science Jury,...) or within a specific collaboration. These groups meet once or twice a year as requested.
Overview

BIOLOGICAL SCIENCES
Bio1: Molecular and Cellular Biology
Bio2: Functional Biology
Bio3: Biodiversity and Ecology
Bio4: Applied Biological Sciences

HUMANITIES
Cult1: Languages
Cult2: Art, Art History and Literature
Cult3: History and Archeology
Cult4: Theology and Religion Sciences
Cult5: Philosophy and Ethics

SOCIAL SCIENCES
G&M1: Sciences of Law and Criminology
G&M2: Economics, Business Economics and Management
G&M3: Psychology, Pedagogy, Didactics and Social Work
G&M4: Social, Political and Communication Sciences

MEDICAL SCIENCES
Med1: Pharmaceutical Sciences and Medical Biochemistry
Med2: Genetics, Functional Genome Research, Bio-informatics Science, Developmental Biology
Med3: Microbiology and Immunology
Med4: Cancer Research
Med5: Neuroscience, Clinical Neurology, Psychiatry, Musculoskeletal Research, Rheumatology, Orthopedics and Dermatology
Med6: Cardiovascular System, Respiratory System, Nephrology, Hematology
Med7: Gastroenterology, Hepatology, Endocrinology, Metabolism and Nutrition, Reproduction, Urogenital System
Med8: Health Sciences

SCIENCE AND TECHNOLOGY
W&T1: Mathematical Sciences
W&T2: Physics
W&T3: Condensed Matter and Physical Chemistry
W&T4: Chemistry
W&T5: Informatics and Knowledge Technology
W&T6: Chemical Engineering, Material Sciences
W&T7: Energy, Electrical Engineering, Electronics and Mechanics
W&T8: Sciences of the Earth and Space
W&T9: Science and Technology of Construction and the Built Environment

INTERDISCIPLINARY EXPERT PANEL
Research integrity

In 2013, a taskforce at FWO set out to propose measures to ensure research integrity. The taskforce was made up of academics from the Flemish universities and from various research areas. It was chaired by Professor Jacob Fokkema, Honorary Rector of TU Delft. The conclusions of the taskforce have been the subject of intensive consultation between the FWO and the Flemish universities. The proposals were approved by the board of trustees in June 2015.

Attention was directed to both prevention and awareness raising, detection and monitoring, corrective action and sanctioning.

The following measures were implemented:
— incorporation of a clause in calls, application forms and agreements;
— profiles for researchers, supervisors and institutions, with rights and duties;
— amendments to the regulations;
— further development of the procedures used by the FWO and the host institutions of the researchers to deal with infringements.
Contact the FWO

Biolgocial Sciences
T: +32 (0)2 550 15 82
E: bio@fwo.be

Humanities
T: +32 (0)2 550 15 84
E: cult@fwo.be

Social Sciences
T: +32 (0)2 550 15 86
E: GM@fwo.be

Medical Sciences
T: +32 (0)2 550 15 90
E: med@fwo.be

Science and Technology
T: +32 (0)2 550 15 88
E: WT@fwo.be

Interdisciplinary research
T: +32 (0)2 550 15 13
E: interdisciplinair@fwo.be
International mobility
T: +32 (0)2 550 15 92
E: interprog@fwo.be

SB-fellowships
T: +32 (0)2 550 15 89
E: sb@fwo.be

SBO-projects
T: +32 (0)2 550 15 91
T: +32 (0)2 550 15 95
E: sbo@fwo.be

TBM-projects
T: +32 (0)2 550 15 93
E: tbm@fwo.be

Research infrastructure
T: +32 (0)2 550 15 42
E: infrastructuur@fwo.be

National Contact Point
T: +32 (0)2 550 15 76
E: ncp_fwo@fwo.be
ERA-NET and JPI
T: +32 (0)2 550 15 70
E: eranet@fwo.be / jpi@fwo.be

Expertpanels
T: +32 (0)2 550 15 35
E: expert@fwo.be
SUPPORT THE FWO
Fundamental research, or the search to push the boundaries of our knowledge, is a necessity in our society. Without this search there would be no penicillin, velcro or post-it’s.

But the search for new foundations of science is not always readily visible. It is only after many years of searching, testing and double-checking that scientists come out. As many years go by before fundamental scientific research finds a practical application.

This long search makes today’s researchers tomorrow’s inventors. And they need your support! With your support to scientific research you consciously choose for the future. With your donation or legacy you help to build the future of your children and grandchildren. And your great-grandchildren.
How to support the FWO?

The Fund fulfils its mission partly thanks to financial donations from benefactors and testators. The desired goal and type of scientific research can be set out in the conditions of the act of donation or will, as long as the research topic is sufficiently generic. The government has ensured that the tax levied on these donations is very limited, so that the money goes almost entirely to scientific research through the following instruments:


— Monetary donations are tax deductible under Art. 104, 3° b of the 1992 Income Tax Act, provided the sum donated is at least 40 euro (Art. 107) and lower than 250,000 euro (to be indexed); moreover, the sum donated cannot amount to more than 10% of the net taxable income (Art. 109), or, in the case of companies, 500,000 euro and not more than 5% of the net taxable income (Art. 200).

Colophon

Research Foundation-Flanders (FWO)
Egmontstraat 5
1000 Brussels, Belgium
T  +32 2 512 91 10
F  +32 2 512 58 90
E  post@fwo.be
www.fwo.be

Editor-in-chief
Acting Secretary General FWO

Copyright
Research Foundation-Flanders

Creation and design
CIBE Communicatie coach in communication

Published in April 2016