# FRANCE - ISRAEL <br> PHC MAIMONIDE 

## Update of the scientific impact of the programme (2005-2021)

## MESR-DAEI / MEAE

2023

## GENERAL PRESENTATION OF THE PROGRAMME

Creation : 2002
Maximum number of selected projects per year : 6
Duration of the projects : 2 years
Maximum annual budget per country: 480 K€

From 2010-2022:
287 applications submitted
79 projects funded

## DATA SOURCES

## Campus France

- Information about the PHC Maimonide programme applications (2010-2022 period)
- List of mobilities (2012-2022 period)

Survey (conducted by the French Ministry of Higher Education and Research and the Ministry for Europe and Foreign Affairs)

- Target : Principal Investigators of selected projects between 2005 and 2021
- Survey 1 duration : March and April 2016 (2005-2014 period)
- Survey 2 duration : June and July 2023 (2015-2021 period)
- $39 \%$ mean response ratio (50 respondents for 127 funded projects)


## Survey content :

- General information
- Scientific production
- Involvement of young researchers
- Post project
- General opinion on the programme

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Average response rate to the surveys : 39 \% (50 answers)
$\square$ Number of funded projects $\quad$ Number of survey answers


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## 2005-2021 KEY POINTS

## SUCCESS RATE

## Average selection rate from 2010-2022: 28 \%

$\square$ Number of applications $\quad$ Number of selections Selection rate


## NUMBER OF APPLICATIONS VS SELECTION RATE



Survey 2016 : 26 programmes
Survey 2023 : 48 programmes

BEFORE THE PHC MAIMONIDE PROJECT (1/2)

Did you already cooperate with Israel in the past ?

If yes, was it with the same partner?


Data from 50 responses
Data from 25 responses

| With which scientific collaboration program ? |  |
| :--- | :--- |
| European project | $40 \%$ |
| Programme MAIMONIDE | $10 \%$ |
| INRIA Associated Team | $10 \%$ |
| CNRS International Research Project | $10 \%$ |
| CNRS International Research Laboratory | $10 \%$ |
| Other | $20 \%$ |

Data from 10 responses

## SCIENTIFIC DOMAINS OF PROJECTS

Number of applications: 287


Number of funded projects : 79


- Mathematics

■ Physics
■ Marine/Earth/Planet Sciences

- Chemistry
- Biology and Health
- Humanities
- Social Sciences
- Information Technology
$\square$ Engineering Sciences
- Agronomy/Ecology


## Programme Maimonide, Israel <br> Regional numbers of applications and selections <br> 2010-2022


(all domains)

The region lle de France is the main contributor both for applications and selections

## REGIONAL DISTRIBUTION OF SELECTED PROJECTS

## Programme Maimonide, Israel Regional percentages of applications and selections 2010-2022


\% of applications (all domains)

\% of selections
(all domains)

The region Ile de France is the main contributor both for applications and selections

## SCIENTIFIC DOMAINS : REGIONAL DISTRIBUTION

> Programme Maimonide, Israel Regional percentages of applications and selections
> Mathematics 2010-2022
 (DS1)
Occitanie and Guadeloupe (not shown) share 50\% of selections each

## SCIENTIFIC DOMAINS : REGIONAL DISTRIBUTION

## Programme Maimonide, Israel <br> Regional percentages of applications and selections <br> Physics 2010-2022

 (DS2)

Ile de France and Occitanie share 50\% of selections each

## SCIENTIFIC DOMAINS : REGIONAL DISTRIBUTION

Programme Maimonide, Israel
Regional percentages of applications and selections
Marine, Earth, Planet sciences 2010-2022
 (DS3)
Three main regions for the selections : Occitanie (60\%), Grand Est et Provence-Alpes-Côte d'Azur (20\%)

## SCIENTIFIC DOMAINS : REGIONAL DISTRIBUTION

> Programme Maimonide, Israel
> Regional percentages of applications and selections
> Chemistry 2010-2022


Three regions share the selections : Auvergne Rhône Alpes, Hauts de France and Occitanie (33\%)

## SCIENTIFIC DOMAINS : REGIONAL DISTRIBUTION

Programme Maimonide, Israel
Regional percentages of applications and selections
Biology and Health 2010-2022


The region lle de France is the main contributor both for applications (50\%) and selections (61\%)

## SCIENTIFIC DOMAINS : REGIONAL DISTRIBUTION

## Programme Maimonide, Israel <br> Regional percentages of applications and selections <br> Humanities 2010-2022

 (DS6) (DS6)

The region lle de France is the main contributor both for applications (59\%) and selections (50\%)

## SCIENTIFIC DOMAINS : REGIONAL DISTRIBUTION

> Programme Maimonide, Israel Regional percentages of applications and selections
> Social sciences 2010-2022


The region Ile de France is the main contributor both for applications ( $83 \%$ ) and selections (100\%)
\% OF REGIONAL APPLICATIONS/SELECTIONS FOR EACH SCIENTIFIC DOMAIN AS COMPARED TO
THE TOTAL NUMBER OF APPLICATIONS/SELECTIONS IN THE SCIENTIFIC DOMAIN

## SCIENTIFIC DOMAINS : REGIONAL DISTRIBUTION

Programme Maimonide, Israel
Regional percentages of applications and selections
Engineering sciences 2010-2022


Two regions share the selections : Nouvelle Aquitaine and Occitanie (50\%)

## SCIENTIFIC DOMAINS : REGIONAL DISTRIBUTION

Programme Maimonide, Israel
Regional percentages of applications and selections Information technology 2010-2022
 (DS9)

\% of selections (DS9)

The region Ile de France is the main contributor both for applications (48\%) and selections (67\%)

## SCIENTIFIC DOMAINS : REGIONAL DISTRIBUTION

## Programme Maimonide, Israel <br> Regional percentages of applications and selections <br> Agronomy/Ecology 2010-2022



The region Occitanie is the main contributor both for applications (26\%) and selections (42\%)

## FRENCH PARTICIPATING INSTITUTIONS <br> (DATA FROM CAMPUS FRANCE)

Applications by Institutions


Selected applications by Institutions


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## FRENCH PARTICIPATING INSTITUTIONS <br> (DATA FROM CAMPUS FRANCE)

Number of occurencies for each institution
(applications vs selections)


# FRENCH PARTICIPATING INSTITUTIONS <br> (DATA FROM 2016 AND 2023 SURVEYS) 

## Pl's employers

Laboratories authorities


Data from 19 answers (survey 2023)
Data from 50 answers (surveys 2016 and 2023)

## AGE OF PRINCIPAL INVESTIGATORS (PI)



Survey 2016: 26 programmes
Survey 2023 : 48 programmes

## FRENCH PIS (PRINCIPAL INVESTIGATORS) : STATUS

## Applicants professional status

Laureates professional status


Data from 178 candidates and 49 laureates

## FRENCH PIS (PRINCIPAL INVESTIGATORS) : STATUS

## Previous professional status

Current professional status (at the beginning of the project)


Data from 19 answers (survey 2023)


Survey 2016:26 programmes
Survey 2023:48 programmes

## PARTICIPATION OF FRENCH YOUNG RESEARCHERS

## Number of French PhD <br> students




58\% of projects involve at
least one French PhD student

Number of French postdoctoral researchers

$30 \%$ of projects involve at least one French post-doctoral researcher

IMPLICATION OF FRENCH YOUNG RESEARCHERS IN THE PUBLICATIONS


Survey 2016 : 25 programmes Survey 2023 : 48 programmes

## Number of PhD students

## PARTICIPATION OF BOTH FRENCH AND ISRAELI YOUNG RESEARCHERS

Number of post-doctoral researchers


64\% of projects involve at least one PhD student

34\% of projects involve at least one post-doctoral researcher


Survey 2016:25 programmes
Survey 2023 : 46 programmes

## PARTICIPATION OF ISRAELI YOUNG RESEARCHERS

## Number of Israeli PhD <br> students



21\% of projects involve at least one Israeli PhD student

Number of Israeli postdoctoral researchers


21\% of projects involve at least one Israeli post-doctoral researcher

IMPLICATION OF ISRAELI YOUNG RESEARCHERS IN THE PUBLICATIONS


Survey 2023 : 46 programmes

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## MOBILITY

## MOBILITIES

Projects with/without mobilities (67 selected projects)

$\square 0$

- from 1 to 5
from 6 to 10
from 11 to 15
from 16 to 20
from 21 to 25
from 26 to 30
■ more than 30


## France $\rightarrow$ Israel



## Israel $\rightarrow$ France



- < 15 days
$\square$ between 15 days and 3 months
- $>3$ months

Data from 308 outgoing mobilities and 161 incoming mobilities

## MOBILITY : GENDER DISTRIBUTION

## France $\rightarrow$ Israel



Israel $\rightarrow$ France


Men ■ Women

Data from 308 outgoing mobilities and 161 incoming mobilities

## MOBILITIES : STATUS

## France $\rightarrow$ Israel

## Israel $\rightarrow$ France



Data from 308 outgoing mobilities and 161 incoming mobilities


Survey 2016 : 25 programmes
Survey 2023 : 46 programmes



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## SCIENTIFIC PRODUCTION (2005-2022)

## SCIENTIFIC PRODUCTION (2/2) ENQUETE 2016+2023

|  | Number of funded projects 2016 survey | Number of funded projects $2016+2023$ surveys | Average annual number of scientific coproductions per project 2016 survey | Average annual number of scientific coproductions per project 2016+2023 surveys |
| :---: | :---: | :---: | :---: | :---: |
| Mathematics | 3 | 5 | 0,0 | 0,6 |
| Physics | 2 | 2 | 2,5 | 2,5 |
| Marine/Earth/Planet Sciences | 4 | 4 | 1,3 | 1,3 |
| Chemistry | 2 | 4 | 2,5 | 2,0 |
| Biology and Health | 8 | 16 | 3,1 | 2,4 |
| Humanities | 0 | 3 |  | 2,7 |
| Social Sciences | 0 | 0 |  |  |
| Engineering Sciences | 3 | 3 | 3,3 | 3,3 |
| Information Technology | 3 | 6 | 1,7 | 1,8 |
| Agronomy / Ecology | 3 | 7 | 0,7 | 1,7 |
| TOTAL/MOYENNE | 28 | 50 | 2,0 | 2,0 |

Overall average annual number of scientific coproductions per project $2016: 1,0$ vs 0,96 mean Overall average annual number of scientific coproductions per project 2016+2023:1,0

## Enquête 2016+2023

62\% of funded projects led to at least 1 scientific coproduction (vs 64\% survey 2016) $53 \%$ scientific coproductions involve at least 1 young researcher (vs $44 \%$ survey 2016)
The average annual rate of publication of young researchers involved in the projects is 0,46 (vs 0,22 survey 2016) The average annual rate of young researchers involved in the scientific coproductions is 0,66 (no data from survey 2016)

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## WHAT HAPPENS AFTER A MAIMONIDE PROJECT ?

CONTINUATION OF THE COOPERATION (1/7)


Survey 2016 : 26 programmes
Survey 2023 : 47 programmes

## CONTINUATION OF THE COOPERATION (2/7)

$86 \%$ of the collaborations continued after the MAIMONIDE project

| Which activities? |  |
| :--- | :---: |
| Cooperative research | $84 \%$ |
| Scientific co-productions | $57 \%$ |
| Researchers mobilities | $43 \%$ |
| Joint participation to conferences | $32 \%$ |
| Co-organisation of scientific events | $16 \%$ |
| PhD mobilities | $5 \%$ |
| Joint diplomas (Master, PhD...) | $3 \%$ |
| Other | $19 \%$ |

## CONTINUATION OF THE COOPERATION (3/7)

## $42 \%$ of cooperations have been funded following the project



## CONTINUATION OF THE COOPERATION (4/7)

## What kind of funded collaborations after the MAIMONIDE project ?



Data from 15 responses

## CONTINUATION OF THE COOPERATION (5/7)

Detailed fundings following the MAIMONIDE project


Data from 15 responses

## CONTINUATION OF THE COOPERATION (6/7)

Has the French-Israeli cooperation involved new partners?

Data from 28 responses

## CONTINUATION OF THE COOPERATION (7/7)

If the French-Israeli cooperation involves new partners, list with which countries


## IMPACT ON YOUNG RESEARCHERS' CAREER (1/2)

Was young researchers' career impacted by the MAIMONIDE program ?

Type of impacts



Data from 50 responses

Data from 29 positive responses for a total of 41 young researchers

## 98\% of French principal investigators are satisfied



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GENERAL OPINION OF FRENCH PIS ON THE PROGRAMME (2/3) POSITIVE COMMENTS

| Strengths of this program | Number of <br> occurencies <br> (out of 168) | \% of funded <br> projects |
| :--- | :---: | :---: |
| Fostering an international scientific cooperation | 31 | $62 \%$ |
| Sufficient financial means for the mobility costs | 27 | $54 \%$ |
| Easy implementation (administrative flexibility) | 16 | $32 \%$ |
| Fostering researchers' mobility | 15 | $30 \%$ |
| Flexibility of the programme for actions co-financed with the Israeli partner |  |  |
| Survey 2023 | 5 | $26 \%^{*}$ |
| Financial autonomy towards your institution Survey 2023 | 5 | $26 \%^{*}$ |
| Fostering exchanges enabling scientific production | 12 | $24 \%$ |
| Simplicity of the application process | 11 | $22 \%$ |
| Fostering the training of the young researchers | 9 | $18 \%$ |
| Helpful to initiate other fundraising | 6 | $12 \%$ |
| Implementation schedule Survey 2023 | 2 | $11 \%{ }^{*}$ |
| Helping to know the partner country | 5 | $10 \%$ |
| Good scientific-added value on financial investment | 5 | $10 \%$ |
| Sufficient amount of mobility time given to collaborate | 4 | $8 \%$ |
| Transparency of the selection process | 3 | $6 \%$ |
| Sufficiently long duration of the projects | 2 | $4 \%$ |
| Other | 168 | $0 \%$ |
| Total number of occurencies |  |  |

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## GENERAL OPINION OF FRENCH PIS ON THE PROGRAMME (3/3) NEGATIVE COMMENTS

| Weaknesses of this program | Number of <br> occurencies <br> (out of 75) | \% of funded <br> projects |
| :--- | :---: | :---: |
| Insufficient financial means to cover a project | 15 | $30 \%$ |
| Financial means insufficient for the expenditure of mobility (transport) | 13 | $26 \%$ |
| Financial means insufficient for the expenditure of mobility (per diem) | 11 | $22 \%$ |
| Length of support too short | 10 | $20 \%$ |
| Administrative complexity | 9 | $18 \%$ |
| Difficult to continue the collaboration | 5 | $10 \%$ |
| Heaviness of the process of applications | 3 | $6 \%$ |
| Flexibility of the programme for actions co-financed with the Israeli partner | 1 | $5 \%^{*}$ |
| Survey 2023 | 1 | $5 \%^{*}$ |
| Financial autonomy towards your institution Survey 2023 | 1 | $5 \%^{*}$ |
| Implementation schedule Survey 2023 | 1 | $2 \%$ |
| Lack of transparency in the selection process | 1 | $2 \%$ |
| Insufficient communication on the evaluation's results | 0 | $0 \%$ |
| Too short duration of mobilities | 0 | $0 \%$ |
| Too long duration of mobilities | 0 | $0 \%$ |
| Too low number of mobilities | 4 | $8 \%$ |
| Other | 75 |  |
| Total number of occurencies |  |  |

## PRELIMINARY CONCLUSIONS

Preliminary conclusions suggest that the funding scheme has efficiently contributed to create (or to maintain) fruitful and long-term cooperation.

Stable number of applications with a small increase over last years 50\% of new cooperations
A good implication of french and israeli young researchers in the scientific coproductions
Scientific coproductions in the mean of the other programmes
Continuation of the cooperation in the mean of the other programmes but a better rate of financed continuation
33\% of post-project fundings are european fundings
Ongoing cooperation involves new partners in $61 \%$ of the projects
$80 \%$ of applicants are older than 40 years
Rather low implication of young researchers in the mobilities

## COMPARISON SURVEY 2016 - SURVEY 2023

" Response rate : 2016 : 39\% (31 responses), 2023 : 43\% (19 responses)

- Stable average annual number of applications (-0,9\%)
- Decrease in the number of selected projects carried by young researchers (-9\%)
- Increase in the number of women applicants (+5\%) and laureates (+1\%)
- Clear progression of the participation of young researchers to the projects (+12\%) but apparent decrease of their involvement in the scientific coproductions (-26\%)
- No evolution in the mobilities of young researchers
- Stable average annual number of scientific coproductions per project $(1,0)$
- Very significant progression of cooperations continued with financing (+45\%)


## PRELIMINARY RECOMMANDATIONS

- Encourage young researchers applications (only 20\% of laureates under 40 years old)
- Encourage women researchers applications (only 32\%)
- Enhance scientific coproductions (38\% of projects with no scientific coproduction, 1.0 coproduction in average per project and per year)
- Promote both outgoing (29\%) and incoming (24\%) mobilities of young researchers

French national ministries (MESR / MEAE) will provide a complete analysis of the survey. It will be sent to the recipients of the funding who participated in this survey.

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