

SPOT THE DIFFERENCE



ILLUSTRATION BY DAVID PARKINS



International

Human Frontier Science Program

Organization

HFSP Support for international research collaboration

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Director of Science Policy & Communications

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HFSP Membership & Mission

A voluntary international collaboration established in 1989 currently supported by

Australia, Canada, European Commission, France, Germany, India, Israel, Italy, Japan, New Zealand, **Norway**, Republic of Korea, **South Africa**, Singapore, Switzerland, United Kingdom, and the United States of America

First grants awarded in 1990

Headquarter in Strasbourg, France (www.hfsp.org)

Annual budget: ~ USD 55M



Facts and Figures about HFSP

<p>1212 Research Grants To 4387 Scientists</p>	<p>3425 Postdoctoral Fellowships</p>	<p>204 Research Grants - Early Career</p>	<p>3252 Long-Term Fellowships</p>
<p>173 Cross- Disciplinary Fellowships</p>	<p>50 Countries hosting HFSP Research Grants</p>	<p>71 Nationalities of HFSP Fellows</p>	<p>584 Early Career Grant Team Members</p>

1990 -2022: HFSP programs supported more than 7500 scientists worldwide

28 Nobel Prize 

24 Canada Gairdner Awards 

16 Kavli Prizes 

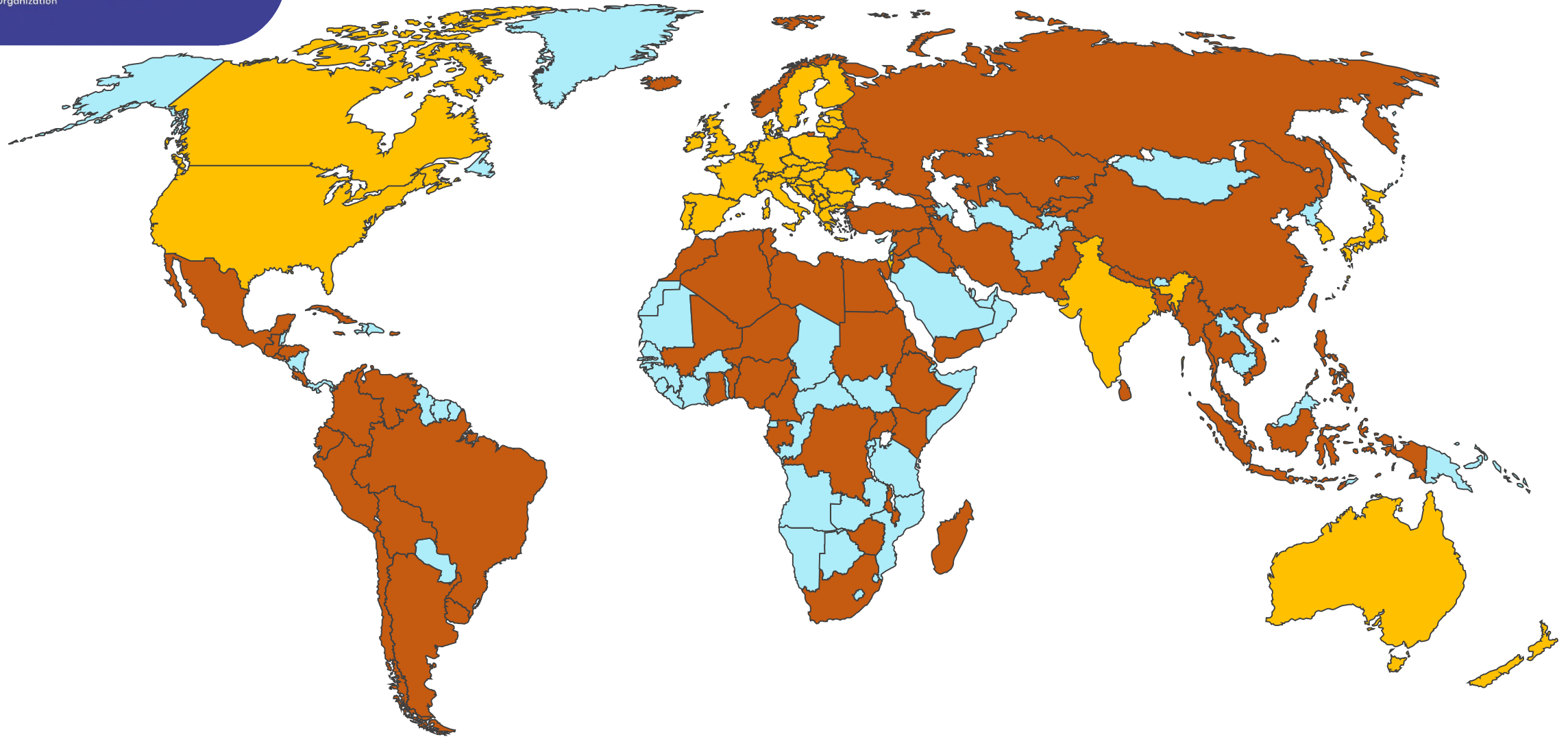
16 Breakthrough Prizes 

13 Lasker Research Awards 

7 L'Oreal UNESCO Women in Science Awards 



Nationalities of HFSP Applicants 1990 - 2021



HFSP Members





Innovative elements that distinguish HFSP

- **No red tape:** Independent HFSP budget allowing for unrestricted international collaboration
- **No geo-tagging:** Financial contributions to HFSP's annual budget in a "common pot"
- **Putting Ideas First:** HFSP Research = bottom-up investigator-driven approaches
- **Not for profit:** Intellectual property resulting from HFSP remains with inventors
- **"HFSP Culture":** Independent, impartial scientific peer review.



How HFSP operates?

Member countries



Contributions

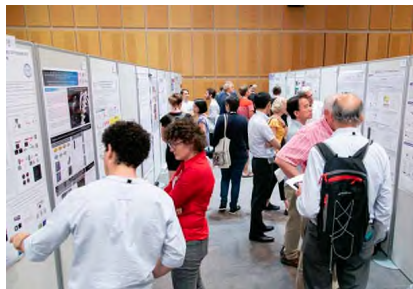


Reporting



Proposal & award
management

HFSP support is not only
about money, it's a culture.



Research proposal: no
priority areas!



Independent review
committees with
highly interdisciplinary
composition



Basic Research in the Life Sciences: molecular level to biological systems including higher cognitive functions!

- Scientific research at the frontiers of knowledge
- Competition of ideas: high-risk, high-gain wanted!
- **Interdisciplinarity**: integration of diverse research fields (material science, chemistry, physics, mathematics, etc.)
- **Original**, innovative projects that hold promise for the future
- **International** collaboration (Intercontinentality)
- Emphasis on young scientists
- Scientific excellence



You are
expected to
shine but
allowed to
fail!



Overview HFSP Support 2023

Research Grants (~2000 scientists in ~650 LOIs > ~100 scientists; 32-34 projects)

- International researcher teams (“Research Grants”)
- Starting investigators (“Research Grants - Early Career”)
- One team – one project– 3 years support
- About \$120.000 p.a. per laboratory



Postdoc Fellowships (600 scientists applying > 65 fellowships)

- PhD in biology („Long-Term“)
- PhD in physics, chemistry, etc. („Cross-Disciplinary“)
- Research abroad in a new country – 3 years support
- Salary support





HFSP Fellowships – Mission & Objectives

For PhD candidates that...

- ...are driven by adventurous new ideas
- ...want to experiment with new methods and approaches
- ... aim to disrupt existing paradigms and established ways of thinking
- ...intent to expand their work beyond the scope of the PhD project
- ...motivate to move to a new research environment & country



HFSP Fellowship Program

- **Long-Term Fellowships:**
 - for applicants with a PhD on a biological topic
 - to embark on a new project in a different field in the life sciences
- **Cross-Disciplinary Fellowships:**
 - for applicants with a PhD from outside the life sciences (e.g. in physics, chemistry, mathematics, engineering or computer sciences)
 - no prior training or research experience in the life sciences
 - want to move to biological research



HFSP Fellowships – Application criteria

Applicants must....

- ...propose to work in a new country and with a new supervisor
 - Citizen of a HFSP Member? -> Choose to go anywhere
 - Not from a Member country? -> Choose a lab in a Member country
- ...apply within 3 years of PhD
- ...have at least one first-authorship paper



HFSP Fellowships – Success Rate & Funding

- Award includes 3 year salary support plus travel, child and parental leave allowances
- **Career building**: HFSP fellowship can be deferred for up to two years
- Option to use 3rd year for **repatriation** to home country
- Success rate ~ 10% (~65 fellows in 2023)

Country	Currency	Gross yearly living allowance Year 1	Gross yearly living allowance Year 2	Gross yearly living allowance Year 3	Yearly child allowance (per child)	Yearly R/T allowance
Argentina	ARS	2,277,576	2,315,532	2,353,500	227,758	416,628
Australia	AUD	90,132	91,644	93,144	9,013	10,356
Austria	EUR	57,192	58,140	59,088	5,719	6,432
Belgium	EUR	53,592	54,492	55,380	5,359	6,432
UK	GBP	65,772	66,864	67,956	6,577	5,640
USA	USD	59,460	60,456	61,440	5,946	7,200



New: HFSP Fellowships – Two Step Application Process

1. Letter of intent

1. Submission deadline 11 May 2023 (~600)
2. Triage (~ 10% not in scope & formal)
3. Initial review by Review Committee members
4. First ranking
5. Top 15-20% of LoI will receive invitation to submit a full applicaiton

2. Full application

1. Submission deadline 12 Sept 2023
2. Reviewed by initial LoI Reviewers
3. Use of 2-3 external reviewers to provide additional evaluation
4. Second scoring w/o cut off
5. Meeting of the full RC in January to discuss all full applications and establish final ranking

**Review process and list of committee members available on
<https://www.hfsp.org/funding>**



HFSP Fellowships – Developing an application

Have a *Curriculum vitae* that shows your ability to

- think independently and beyond conventional approaches
- adopt new approaches and methodology

Propose a **research project** that

- is clearly your idea (conceptual input from supervisor is OK)
- is creative, frontier and basic research, challenges existing paradigms, addresses barriers to progress in the field
- will introduce you to new fields, theory and methodology (departure from previous research)



HFSP Fellowships – Developing an application

Don't propose a project

- that is only an incremental step forward (no change)
- that is the logic next step after your PhD
- that is a mainstream project in your host's lab
- that fails to make clear *your* intellectual contribution



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HFSP Fellowships – Upcoming Call for Applications

<https://www.hfsp.org/funding/hfsp-funding/postdoctoral-fellowships>

HFSP POSTDOCTORAL FELLOWSHIPS

CALL FOR LETTERS OF INTENT

AWARD YEAR 2024

Submission period: 15 March – 11 May 2023

[READ MORE](#)



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HFSP Program and Early Career Research Grants

Research Grants: Team grants for 2-4 scientists

Program Grants

- Scientists at any career stage

Early Career Grants

- All team members must be
 - within 5 years of their first independent position
 - within 10 years after PhD

Deadlines

- **Lol: mid March**
- **Proposal: early September**



Research projects that HFSP supports...

Stimulate novel, daring ideas and innovative approaches in basic life sciences

- preliminary results not required
- Investigator driven, no priority areas

Engage scientists from outside the life sciences in the team

- to bring new understanding and methodology
- International/intercontinental

Develop new lines of research through new interdisciplinary collaborations

- working together on bold, novel, potentially transformative ideas



HFSP does not support research projects that are...

- Applied and translational research:
 - clinical and pharmaceutical research (human participants, diagnostics, therapy development)
 - applied technology or applied engineering
 - studies concerned with improving agricultural production and yield
- Mostly environmental/ecological or agricultural research (unless about complex basic mechanisms of life), studies of bioremediation
- Data collecting, observational studies (-omics without functional questions)
- Research in for-profit environments (but collaboration are possible)



HFSP Research Grants – Success rate & Funding

- Three-year grants
- Principal investigator must lead a laboratory in HFSP member countries
- **Funding: Increased for 2024 competition!**
 - **300 kUSD p.a. (team of 2), 400 kUSD (team of 3), 500 kUSD (team of 4; max. funds)**
 - Not available for salary of team members
 - There is a “penalty” if more than one member works in the same country
- **Success rate**
 - ~2000 scientists submit ~650 LoIs > 200 LOIs discussed at Selection Committee meeting
 - 200-250 scientists invited to submit ~ 80 proposals > ~ 100 scientists funded in 32-34 grant awards (~40% of invited proposals are supported)
 - **~ 4% of initial LOIs are supported**



HFSP Research Grants – Two Step Review Process

Letter of intent stage

1. Submission deadline March/April (~650 LOIs)
2. Triage (~ 10% not in scope)
3. Initial review by Review Committee members
4. Discussion of ~200 promising LOIs by Selection Committee
5. 80 - 100 invitations to submit proposal (beginning of July)

Proposal stage

1. Submission deadline mid-September
2. Reviewed by up to 6 external reviewers and by Review Committee members
3. Recommendations (32-34) made at Review Committee meeting end of January
4. Approval by Board of Trustees (late March)

Review Committee members listed on www.hfsp.org



HFSP Research Grants – Developing an application

- Start early! Start **NOW!**
- Build a team that is
 - international, preferably intercontinental
 - Interdisciplinary, complementary expertise for the research project
 - New w/o previous collaboration and joint publications in the area of the proposed project
- HFSP is not looking for preliminary results – nor do our reviewers!



HFSP Research Grants – Developing an application – Good Ideas

Each team member should bring a **completely novel approach** to the research question

- Think of a question at the absolute **frontier of your field**
 - don't shy away from **risk**, but explain *how* the idea *may* work
- Make sure that **each investigator is essential to the team** – **no add ons!**
- Convince that **close, ongoing interaction** between team members is essential
- Clearly **articulate the iterations** between theoretical and experimental work



HFSP Research Grants – Developing an application Bad Ideas

Avoid:

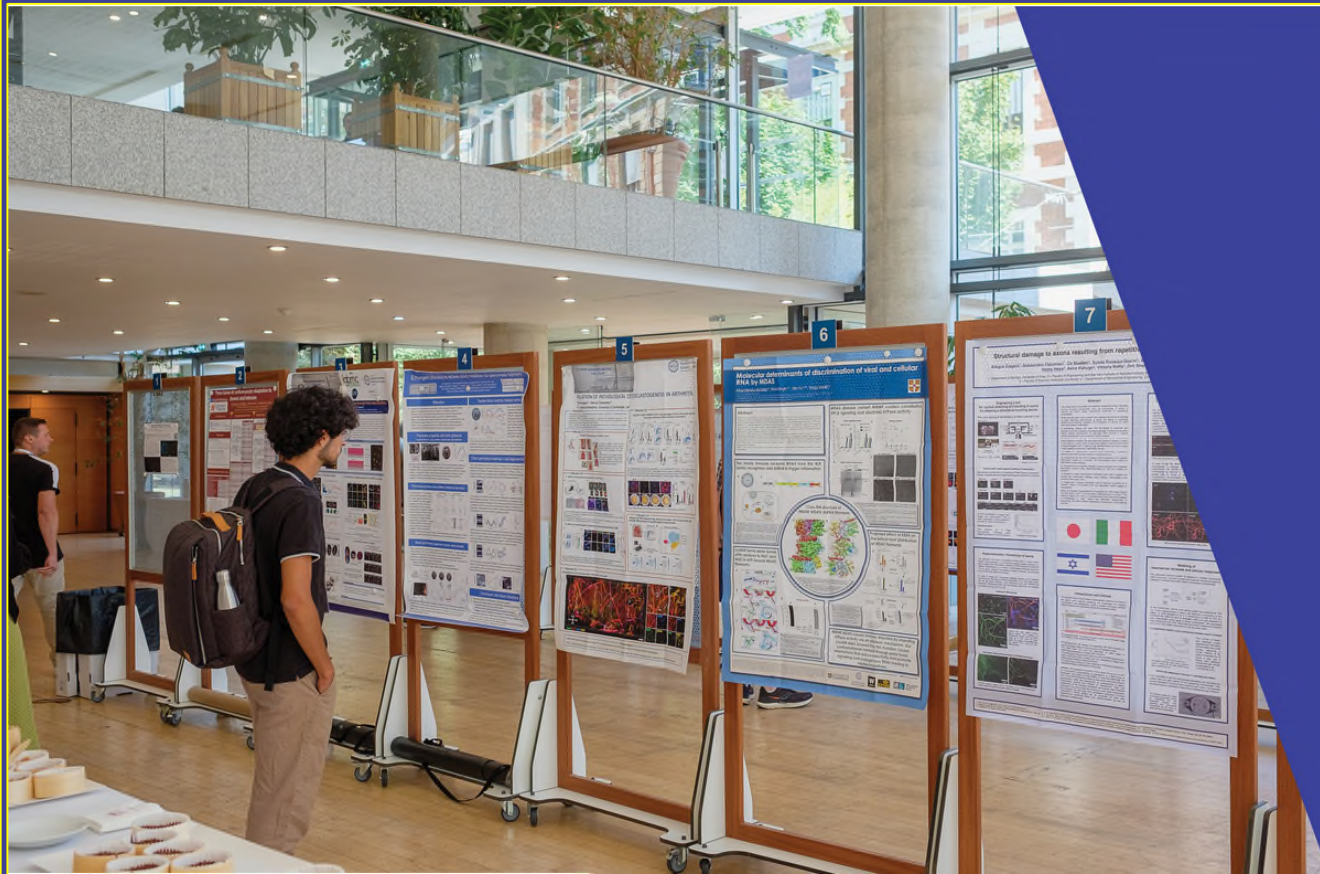
- “The next logical step” for you or another team member’s lab
- Applications that can be funded by your national research funding agencies
- Collaborations within a single country
- More than one member from the same institution
- Adding someone famous for the name, not the contribution **(Add on!)**
- “We will improve the therapy of...” “we will cure the ...” – the research question has to be basic



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HFSP Research Grants – Upcoming Call for Applications

<https://www.hfsp.org/funding/hfsp-funding/research-grants>



HFSP RESEARCH GRANTS

CALL FOR LETTERS OF INTENT

AWARD YEAR 2024

Initiation deadline: 21 March 2023
Submission Deadline: 30 March 2023

The application site is now open

[READ MORE](#)



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Writing the letter of intent for HFSP!

- Letter of Intent is the critical step in the HFSP selection process
- Simple language and style can be very convincing (reviewers are generalists and read many applications)
- Ask someone from outside the field to read it – are abbreviations needed and intuitive?

Don't lecture reviewers:

- Do not write "this is interdisciplinary, international and innovative" - that should be clear from the text
- Don't waste space to say how fantastic a project this is. Focus on novelty



Writing the HFSP proposal

- The proposal will reveal if the project or collaboration is genuine or simply the mainstream of one participating laboratory
- Don't list all possible methods that could be used, say what you plan to do, and if it is risky, which is the plan B
- Read the literature, don't miss important papers - reviewers know the literature
- **For Research Grants:** Think about which reviewers to list. HFSP will invite some reviewers suggested by the applicants, some suggested by Review Committee members and some selected by the HFSP office



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HFSP Contacts & Helpful Resources

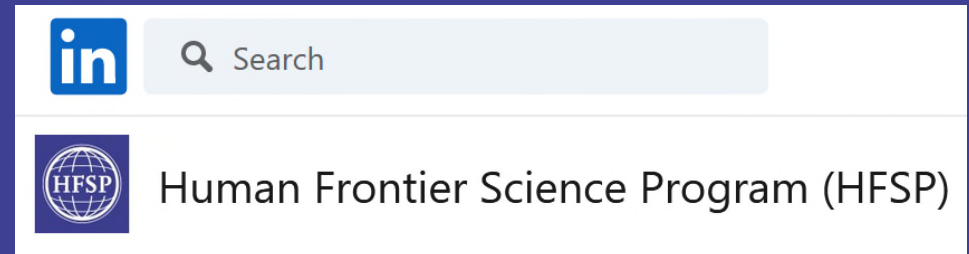


Fellowship Awards
fellow@hfsp.org

Research Grants – Program and Early Career
grant@hfsp.org

Website: www.hfsp.org

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Thank you!



Les Ponts Couverts, Strasbourg