



Francesco
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Director
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A world landmark for Science

- First in scientific output: 2000 publications/year
- Leader in number of users: 6 500 user visits/year, more than 10 000 users in the last three years
- 4 Nobel Prizes granted to laureates using ESRF
- Very high reliability and quality service to users
- Strong synergies with national synchrotrons

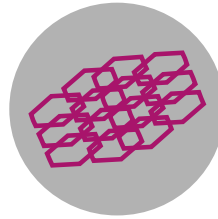
**ESRF today: the world's most
performing and bright
« third-generation » light source**

X-ray science and tomorrow's challenges

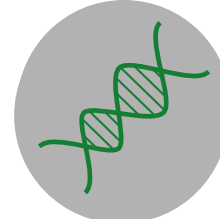
Challenges and Objectives of Storage Ring and XFEL sources:

- Explore from the extremely fast:
FEMTO-SECOND SCALE
- Explore from the extremely small:
NANO-WORLD
- New tools to investigate condensed and living matter, bridging gaps and complementing optical and electron microscopies
- New tools to answer the pressing technological, economic, health and environmental challenges facing Society.

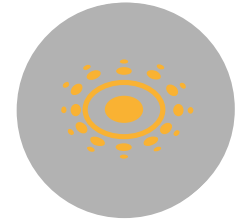
New, better science



New and
innovative
materials



Health &
life sciences



Energy and
Environment

➤ A new paradigm for beamlines and source: **ESRF Upgrade Programme, ESRF-EBS**

AN AMBITIOUS UPGRADE PROGRAMME TO PREPARE THE FUTURE



ESRF UPGRADE PROGRAMME 180 M€ (2009-2015): ESFRI ROADMAP 2006-2016 ON TIME – WITHIN BUDGET

- 19 new beamlines, many specialised on *nano*-beam science
- Upgrade and renewal of facilities and support laboratories

ESRF-EBS Extremely Brilliant Source 150 M€ (2015-2022) ESFRI LANDMARK (2016)

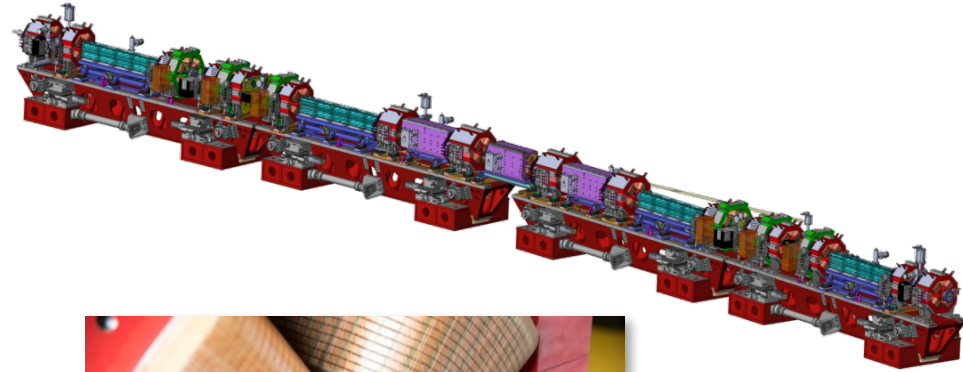
Revolutionary design
for a new generation of synchrotron
source storage rings



AN AMBITIOUS UPGRADE PROGRAMME TO PREPARE THE FUTURE

ESRF Extremely Brilliant Source ESRF-EBS – 150 M€ (2015-2022)

- **FIRST** of a new generation of synchrotron storage rings
- ~100 times more brilliant and coherent X-rays
- Programme to exploit the qualities of this extremely brilliant X-ray source:
 - Creation of new beamlines
 - Innovative detector programme
 - « Data as a Service » strategy



Unprecedented tool to better understand the infinite ways atoms combine, giving origin to the Universe in which we exist and making Life possible!

“Thanks for your
attention”

Francesco Sette

