



Trends, Wishes and Dreams (TWD) Symposium on Detection and Imaging Technologies

Barcelona, Spain June 30-July 1, 2016

ESADE Business School

What new path breaking detection and imaging concepts could be developed and used by 2025 for scientific instrumentation?

What they will represent for industry, business and society?

The ATTRACT Consortium (<http://www.attract-eu.org/>) in collaboration with [ERDIT](#) and [iWoRiD 2016](#) launches these questions to support its efforts for finding resources to fund new breakthrough ideas.

Symposium Scope

The scope is on novel detector and imaging concepts developed for scientific instrumentation in connection with European Research Infrastructures and their collaborating partners (universities, research labs, industry).

It will cover a broad technology spectrum (front/back-end electronics, system integration, data transmission/processing, software, etc).

These technologies will be used in astronomy, space research, synchrotron light physics, optical (laser) physics, photonics, nuclear engineering, molecular biology, particle physics, etc. There is no geographical limitation for presenting ideas.





Symposium format and call for contributions

The symposium will consist of concise, 10 minutes presentations based on submitted light-reviewed selected abstracts. Physical presence at the Symposium is preferred but also Skype contributions are accepted. The symposium will include four short visionary key talks, including industrial technology development and business perspectives. A call for contributions and instructions will be announced soon at the ATTRACT website <http://www.attract-eu.org/>.

Technology Evolution

Today we are witnessing an unprecedented dawn of technological development, impacting scientific research, industry, business and society at large. In order to offer a consistent view of detection and imaging technologies available by 2025, the following assumptions are made:

- Microprocessor clock speeds double every three years.
- Individual transistor prices halve every 1.6 years.
- RAM doubles every 1.5 years (bit/\$).
- DNA sequencing costs halve every 1.6 years for a finished base pair.
- Size of mechanical devices halve every five years (in diameter).
- Wireless performance increases by a factor of ten every five years (bits/second).
- The performance of supercomputers improves by a factor of 1,000 every 11 years.

Organizing Committee

Francesco Sette (ESRF, Chair), Sergio Bertolucci (Bologna), Luke Collins (EIRMA), Andrew McCarthy (EMBL) Jonathan Wareham (ESADE), Christer Frodjh (Mid-Sweden University), Cinzia da Via (Manchester), Marzio Nessi (CERN), Paolo Mutti (ILL), Mark Casali (ESO), John Wood (ATTRACT), Thorsten Lux (IFAE), Michael Krisch (ESRF).





Local organizing committee and Secretariat

Jonathan Wareham (ESADE), Laura Castellucci (ESADE), Markus Nordberg (CERN), Pablo Garcia Tello (CERN).

Venue: ESADE Business School, Avenida Pedralbes, 60-62, 08034 Barcelona, Spain.

More information soon: <http://www.attract-eu.org/>

