International Year of Light

Endorsed by the UNESCO Executive Board in 2012, a resolution by the UN General Assembly is on schedule for adoption in December 2013.

This will give a full twelve months for definite planning, but we should begin right now – there is a lot to do!!

Preparatory Meeting at UN General Assembly in May.
Overview and Aims

The International Year of Light is a cross-disciplinary educational and outreach project with more than 100 partners from over 85 countries.

Why Light?

The science and applications of light creates revolutionary - but often unseen - technologies that directly improve quality of life worldwide.

Health  Communications  Economy  Environment  Social
Overview and Aims

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Why Light?

Light-based technology is a major economic driver with potential to revolutionize the 21st century [as electronics did in the 20th century].

Health  Communications  Economy  Environment  Social
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Why Light?

The **Proclamation of an International Year of Light** will ensure the importance of light and its potential applications are appreciated by all.

**Health**  **Communications**  **Economy**  **Environment**  **Social**
100+ partners from 85 countries
Opportunity for the future

The Proclamation of an International Year of Light is a tremendous opportunity to coordinate international activities and promote new initiatives to support the revolutionary potential of light technologies.

How?
Clear themes, cross-cutting activities, communication with the public
Light has an inclusive identity for all

Origin of Life
Sustainability
Culture
Universal

Flags
International
Inclusive

Colour Spectrum, Science Art and Culture Education
2015 celebrates major anniversaries

1015  Ibn Al Haythem *Book of Optics*

1815  Fresnel and the wave nature of light

1865  Maxwell and electromagnetic waves

1915  General relativity – light in space and time
      Nikola Tesla & practical technology

1965  Discovered evidence of the Big Bang through the cosmic microwave background
Activities are very broad - science…

Origin of Life

Healthcare

Communications & GPS

Optical Instruments

The Universe
... and more than science

Cultural Heritage

Education for All

Nature

Light and Art
Cultural Heritage

Smart lighting can both highlight culture and reduce light pollution

Optical technologies give new impetus - from art to archaeology

Laser imaging at Caracol, Mexico
Highlighting impact on development

Light technology is at the heart of the Internet and communications.

Raising awareness of disparities in information access is essential for future development of society.
International Student Chapters

The partnership has existing student networks of 10000+ of young people – an enthusiastic volunteer base to interact with the public.
Expanding existing training activities

Resources such as the *Optics Suitcase* teach broad concepts in science and have had great success internationally.
Highlighting impact on development

Inexpensive optical techniques can be used in water purification

Solar power for off-grid lighting and replacing kerosene lamps

Optical instruments are essential for healthcare and diagnosis
International Educational Programmes

Why light and optics?

Optics is an “enabling” science with long-term impact.
Optics uses inexpensive materials for inquiry-based teaching.
Light is an ideal subject to motivate interest in science and art.
Light is visual and excites enthusiasm and imagination.

Global projects

Pollution measurement

Virtual Museums for all the world
International linkages with industry

Optics is one of the fields of science with the closest links to industry and a major economic driver.

Professional Societies in the Partnership contain 1000+ of corporate members, and interact with 20000+ companies.

We will improve industry’s role in international outreach programmes.
Conclusions

Why light and optics?

Light is central to science, technology, art and culture
Light can promote education at all levels
Light technology drives development

Why an International Year of Light?

The importance of light technology needs to be appreciated
International coordination will create durable programmes
We aim to inspire a new generation to study science through light

The 21st century is the Century of Light