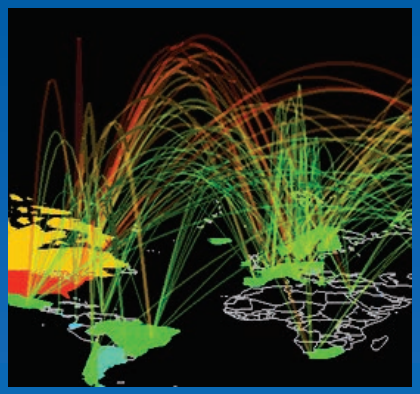
The International Year of Light

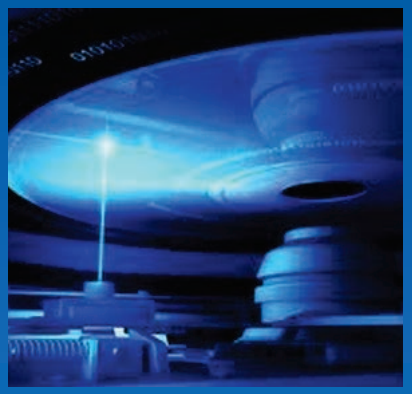
and Light-based Technologies

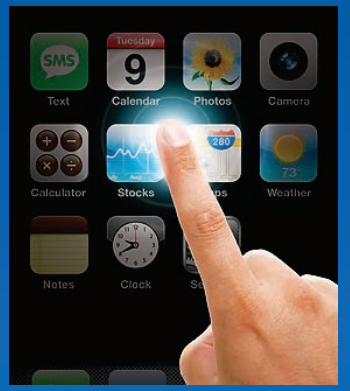
2015

INTERNATIONAL YEAR OF LIGHT 2015

Health **Communications** **Economy** **Environment** **Social**







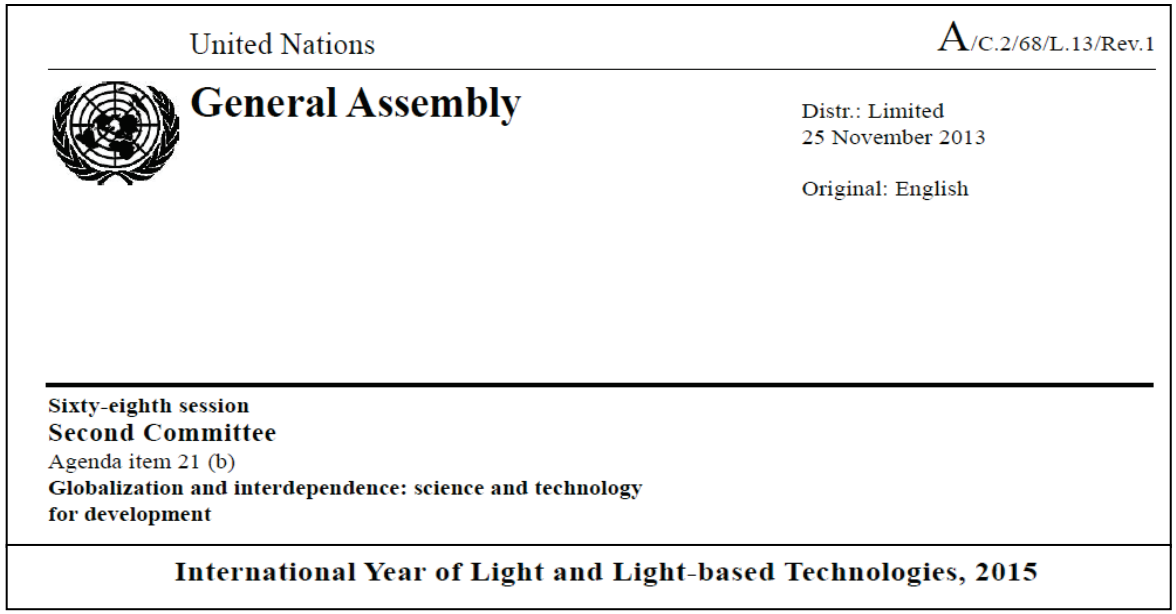
Background

With endorsement by the UNESCO Executive Board in November 2012, leading scientists were invited to present the case for an International Year of Light at the United Nations General Assembly in May 2013.

A resolution has now been adopted at the United Nations General Assembly, and so 2015 will be the International Year of Light

International Year of Light

The resolution was sponsored by more countries than any other science-based international year, and adopted on 3 December 2013



United Nations A/C.2/68/L.13/Rev.1

General Assembly

Distr.: Limited
25 November 2013

Original: English

Sixty-eighth session
Second Committee
Agenda item 21 (b)
Globalization and interdependence: science and technology for development

International Year of Light and Light-based Technologies, 2015

Argentina, Australia, Azerbaijan, Bosnia and Herzegovina, Chile, China, Colombia, Cuba, Dominican Republic, Ecuador, France, Ghana, Guinea, Haiti, Honduras, Israel, Italy, Japan, Mauritius, Mexico, Montenegro, Morocco, Nepal, New Zealand, Nicaragua, Palau, Republic of Korea, Russian Federation, Somalia, Spain, Sri Lanka, Tunisia, Turkey, Ukraine and United States of America

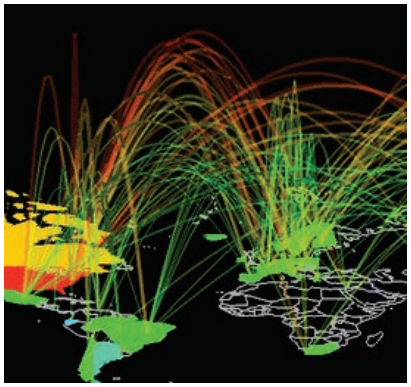
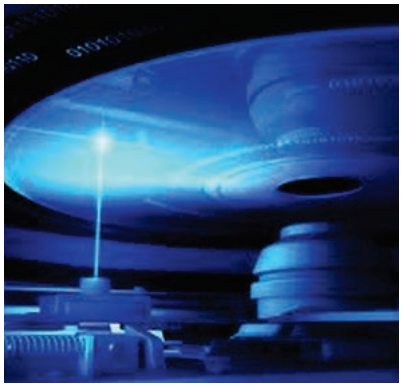
Overview and Aims

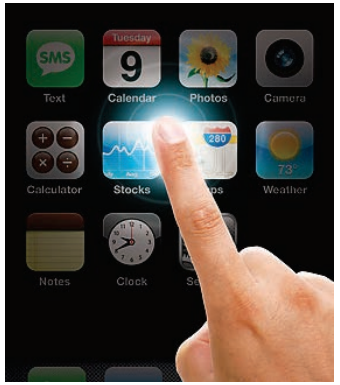
The International Year of Light is a cross-disciplinary educational and outreach project with more than 100 partners from over 85 countries

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**



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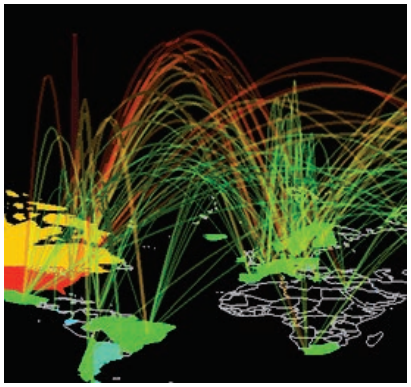
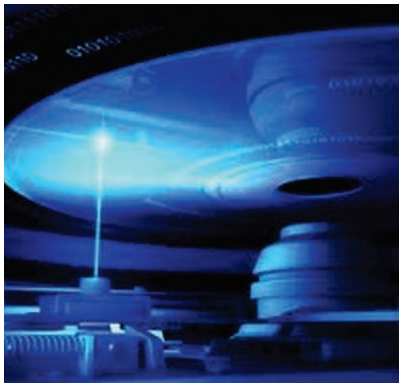
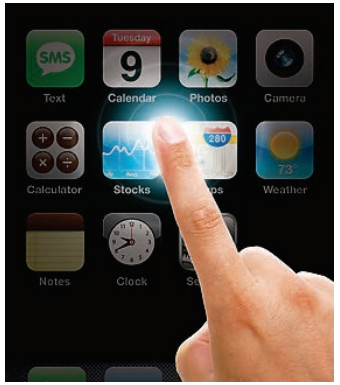
Why Light?

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**



Overview and Aims

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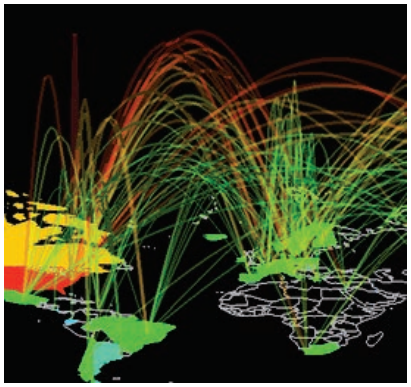
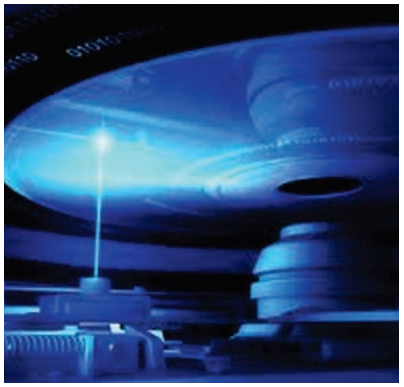
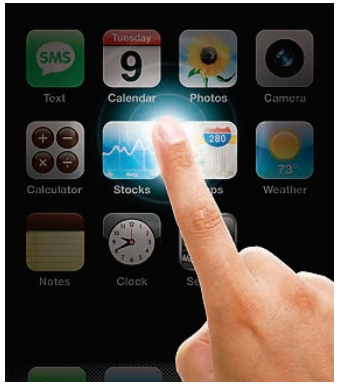
Why Light?

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

INTERNATIONAL YEAR OF LIGHT 2015

Origin of Life
Sustainability
Culture
Universal

Flags
International
Inclusive

Colour
Spectrum, Science
Art and Culture
Education

2015 celebrates major anniversaries

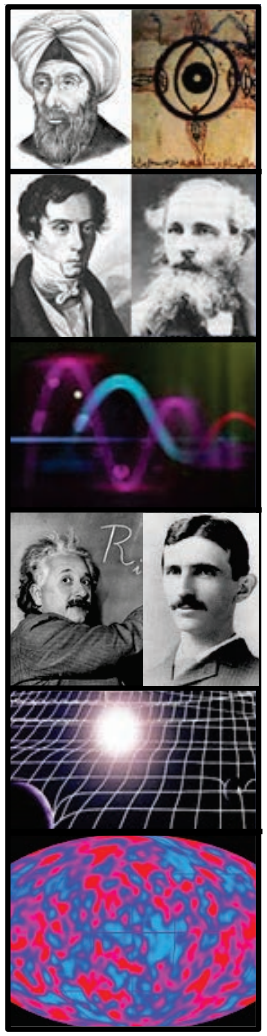
1015 Ibn Al Haythem *Book of Optics*

1815 Fresnel and the wave nature of light

1865 Maxwell and electromagnetic waves

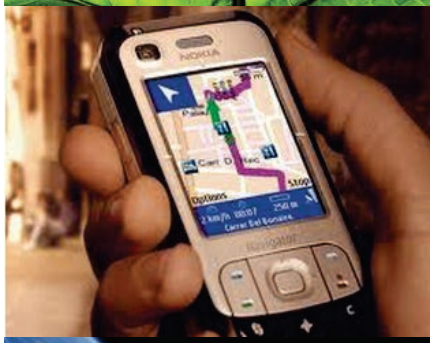
1915 General relativity – light in space and time

1965 Cosmic microwave background, Charles Kao and optical fibre technology



Activities are very broad - science…

Origin of Life



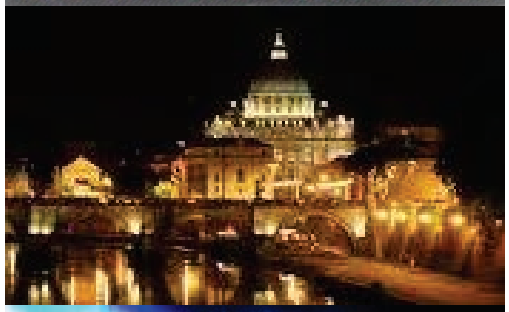
Healthcare

Communications & GPS

Optical Instruments

The Universe

… and more than science

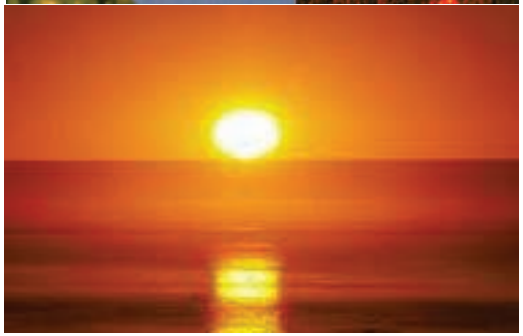


Cultural Heritage

Education for All

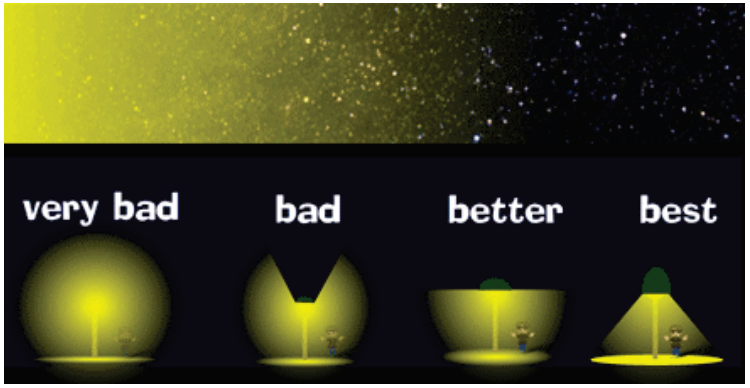
Nature

Light and Art

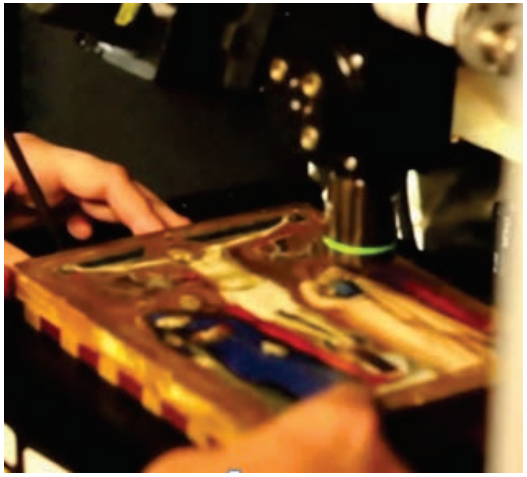


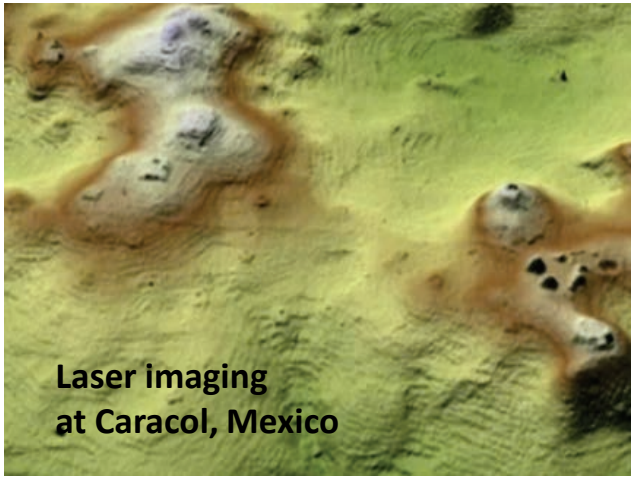
Cultural Heritage

Smart lighting can both highlight culture and reduce light pollution



Optical technologies give new impetus - from art to archaeology



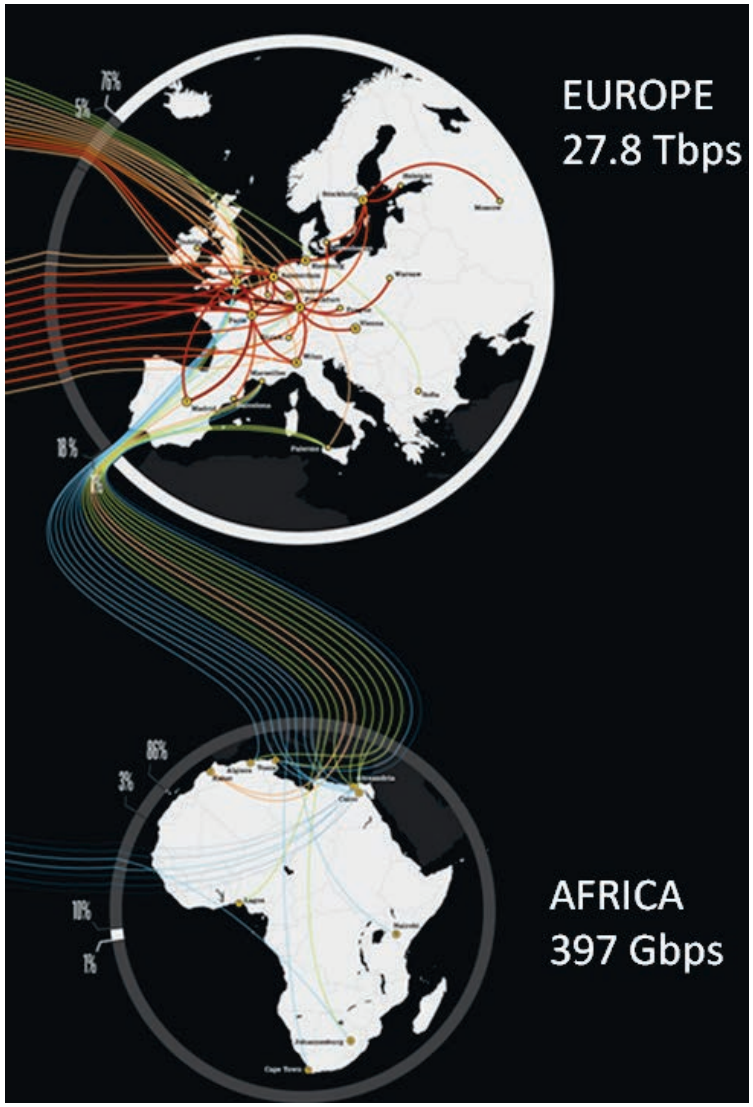


Natural connections with art

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



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