



The Fibreoptic Industry Association

[www.fia-online.co.uk](http://www.fia-online.co.uk)

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## THE YEAR AHEAD

by

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**for Networking+ (December 2006)**

Given that this is the December issue of Networking+ and also that by the time you read this the New Year will probably be upon us - I thought it appropriate to look back at this years FIA articles and re-consider what we, at the FIA, expect to see in the coming year.

In terms of the products on offer to the user of optical fibre technologies, we should see a growing impetus behind the LC connector at the expense of the other small form factor products. We may also see the first implementations of new very high bandwidth plastic optical fibres - both in the home and in the data centre environment.

For those of you involved in data centre design, the concepts explained in the publicly available FIA documents ([www.fia-online.co.uk/pdf/QS/thesis050001.pdf](http://www.fia-online.co.uk/pdf/QS/thesis050001.pdf)) and the publication of BS EN 50173-5 (February 2007) will link together to produce effective foundations for the design of advanced structured cabling. The decision by IEEE to consider 100GB/s networks using both SMF and MMF will no doubt underpin dimensional constraints and product choices indicated in both the FIA documents and the new standard. We should therefore expect to see major cabling system suppliers emphasising the need for "parallel optics" and multi-fibre array connectors. A new Annex to the installation standard EN 50174-1 is expected to address the maintenance of polarity in such systems.

Some might think that talk of 100Gb/s Ethernet reflects a somewhat aggressive development cycle when it is considered that 10GBASE-T has only just been ratified. Maybe the difficulties surrounding the effective delivery of 10Gb/s serve to show the disparity of optical fibre and balanced cabling. Optical fibre certainly seems to have the upper hand, with its obvious technical and physical advantages: bandwidth, electromagnetic immunity, 97% reduction in mass and 85% saving in cabled volume, as compared to balanced cabling - which seems to have grudgingly accepted the need for screening to guarantee service delivery.

In 2006 the FIA set out to define best practice for the industry and in the technical area has grown increasingly involved with international standards associated with installation practices. The FIA has just launched its Mk.II Approved Installers Scheme and it will be rolled out during the coming months. Unlike the majority of such schemes the FIA AIS is much, much more than just a badge. The FIA Approved Installer Database records the installers (and customers) survey of over three hundred "risk-reduction" topics for each installation - although not all of them will apply to every installation - and each topic is supported by on-line and local documentation that explains its importance. The scheme is therefore not only of interest to our members but also to their customers and their customers

consultants - who also see it as a means of reducing their own exposure to risk. One of the real benefits to the scheme is that it can be applied to any type of installation including Category 5e, 6 and 7 solutions - allowing installers of optical fibre to implement a risk-averse philosophy and strategy to all their work. Go to [www.fia-online.co.uk/eais01.htm](http://www.fia-online.co.uk/eais01.htm) for further details.

In 2007 the issue of optical fibre safety will come under scrutiny as legislation is considered in support of the Artificial Optical Radiation Directive issued by the EC in April 2006. This legislation will certainly have an impact on installers but more importantly will have long-standing implications for the owner/tenant of premises within which optical fibre cabling is installed.

At the start of this year I reported that the FIA found itself in a market where the products used by its members deliver more, in terms of performance and data per second, than ever before. However, I also said that a rampant de-skilling of basic project management jeopardises any benefits that may result from their use. This situation has not improved during 2006 and we do not really expect to see any light at the end of the tunnel (no metaphorical reference intended) in 2007. The FIA is committed to provide more and more tools - both hard and soft - to mitigate the effect of these business trends that also apply, sadly, to other areas of telecommunications cabling installation.