

## Rationale for R&D

Since its inception, Central R&D has had the responsibility for seeking products and processes which improve the Company's competitive performance and also for exploring the smoking and health question. As regards smoking and health, it is apparent that after more than 25 years of studying smoke and of using various biological models based on animals to reflect biological activity, no clear answers have emerged from the research conducted in our own laboratories about the role of tobacco smoke, if any, in human disease. Consequently, it is considered appropriate to re-define the role of internal R&D, to re-evaluate the distribution of resources and facilities between internal and external research and to set a new course for Group R&D in the future.

The new rationale for R&D recognises the two separate targets, identified above - but makes much clearer distinction between their purpose and also between work to be carried out in-house and that done, more appropriately, externally. The two arms of R&D are thus Product Research ("internal") and Smoking and Health ("external").

### PRODUCT RESEARCH

Projects in this field are designed principally to anticipate and meet:

- (1) Consumer demand
- (2) Requirements of regulatory authorities.

Because this work is product and market driven, it is most appropriately carried out by internal resources.

#### (1) Consumer Demand

The principal considerations in setting our internal research strategy are consumer acceptance and the ability to anticipate and to respond to consumer demand.

Subjective smoke quality (taste, flavour, aroma, texture, harshness and related sensory aspects) play a key role in determining consumer choice. We must research the materials we use in making our products and the constituents of smoke to determine their organoleptic effects. This will enable us to develop products which will meet changing tastes and which will give a high level of consumer acceptance and a competitive advantage.

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Increasingly our consumers will seek products which offer novelty or distinctiveness and this will range from cigarette length, tipping and packaging variants to radically new products.

Cost considerations are increasingly important to the consumer: correspondingly our Product Research plan should include technologies in leaf processing and cigarette manufacture to minimise costs.

Consumers may also respond to criticisms, whatever their merits, levelled against particular elements of our products and we must, therefore, anticipate and be ready to meet demands for products which have high or low levels of specific smoke components. In this area market research will give few pointers: we must try to give a broad coverage in our research programmes, but, in the end, give priority based on our reading of the impact which the scientific and anti-smoking lobby concerns may have on the market place.

In addition the social impact of smoking is receiving greater attention and we must develop products which cater for our customers' sensitivities to the social aspects of smoking and which reduce sidestream visibility, irritation, smell etc.

Well-planned R&D will seek to anticipate consumer demand rather than await it. In some cases we may even take the decision to make specific modifications ahead of any external stimulus but in anticipation of a future need by introducing innovations as sleeper brands.

(2) Requirements of Regulatory Authorities

Although consumer demand may be stimulated by the media raising issues from unpredictable sources and the company may take a view on whether there is a scientific or a commercial reason to respond, Governmental requirements are, by contrast, either actually or effectively mandatory. Ability to respond to legislation or Government guidelines on cigarettes is therefore of highest priority for Product Research. Projects pursuing this theme will include the search for technology to regulate whole smoke deliveries, specific smoke components and biological activity (using techniques recognised as having wide acceptance). Again, we must work closely with those bodies which influence Governmental decisions in order to ensure that our R&D programme is constructed to enable the Company to respond. At the extreme we must be prepared for any external research that suggests a specific smoke modification is desirable or essential and that is accepted as such and implemented by the relevant authorities.

As is the case with any company in any industry, we must examine proposed new products, additives or process changes by such generally agreed chemical/biological tests as may be thought necessary, recognising or anticipating legislative or administrative standards.

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SMOKING AND HEALTH RESEARCH

Unlike product research, most smoking and health research is not market driven. It nevertheless remains a legitimate area of enquiry for a responsible company, but it is generally less appropriate to an internal R&D effort.

The overall purpose of this research is to investigate the effects of smoking on the smoker. What we will do in-house is to critically review all scientific papers which claim to associate smoking, and individual smoke components, with particular diseases and health consequences and discuss with regulatory authorities the association between smoking, individual smoke components, various diseases and normal health.

So far as the remainder of the programme is concerned, research will be carried out externally by using the facilities of the leading research groups in universities, medical departments and institutes, to investigate the various claims made against the product.

We shall support new lines of research in similar establishments in areas which we feel are not being adequately researched by others and which may provide better information about whether or not there is in fact any relationship between smoking or individual smoke components and particular health consequences.

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