

Application to the Independent Radio and Television Commission  
for a Special Interest Sound Broadcasting Service  
in Dublin City by

Dublin Christian Radio

(Solas FM)

19 July, 1999

# Section 1

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## Section 2

(a) **Name of Applicant:** Dublin Christian Radio (Actinium Ltd)

**Address:** Divine Master Convent  
Newtownpark Avenue  
Stillorgan  
Co Dublin

**Telephone:** 087 2561416

**Fax Number:** 2835130

**Website:** None

**Certificate:** See Appendix 1

(b) **Main Contact:**

**Name:** Declan Cronin

**Telephone:** 087 2561416

**Group's Main Contact Address:** Divine Master Convent  
Newtownpark Avenue  
Stillorgan  
Co Dublin

(c) **Proposed Station Name:** Solas FM

(d) **Brief Description of Programme Service:** A broad based Christian service of speech and music, which will be aimed at all age groups. It will feature news and current affairs, activities in the churches, parishes and local communities and religious services. It will be of particular interest to those seeking to develop the spiritual aspect of their lives. Solas FM will provide for debate on the moral, social and religious issues of the day from a predominantly Christian perspective, but will create a forum for other interested and relevant groups to have their voices heard.

(e) **List of Advisers:**

(i) **Consultants:-**

Name: Sean Davin  
Auctioneer,  
Chartered Surveyor and Valuer

Address: Est. Mews,  
Upper Lad Lane, Dublin 2

Name: Oliver Maloney  
M. Econ, B.D.,  
(Milltown Institute)  
(former Director General, RTE)

Address: 60 Highfield Road  
Rathgar, Dublin 6

Name: Deloitte and Touche  
(Corporate Finance)

Address: Earlsfort Terrace, Dublin 2

Name: Myles K O'Reilly, FCA, MIMCI  
O'Reilly Consultants

Address: 7 Ely Place, Dublin 2

Name: Pat Buckley  
Buckley Partnership Architects

Address: 20 Vesey Place  
Dun Laoghaire, Co Dublin

Name: Antonio Correa de Oliveira  
Secretary General

Address: Radio Renascenca  
Lisboa  
Portugal

Name: Eanna Johnson  
Director MIE Programme

Address: University College Dublin

Name: Very Rev. Anthony Gaughan PP

Address: Newtown Park Avenue  
Blackrock, Co Dublin

Name: Ronan Johnston  
Broadcaster and Music Writer

Address: 78 Watson Drive  
Killiney, Co Dublin

Name: Gerry Brady

Address: Law Library  
Church Street, Dublin 7

Name: Thomas F. Sneyd, MBS  
(Human Resource Management)

Address: 258 Navan Road, Dublin 7

Name: Seán Mistéil,  
B. Soc. Sc N. Dip MP  
M.Sc Mgmt

Address: 14 Sydney Avenue  
Blackrock, Co Dublin

Name: John Cogavin  
Address: Strategic Management Group  
Ferrybank House  
6 Park Road, Dun Laoghaire

(ii) **Auditors:-**

Name: Ardagh Horan  
Chartered Accountants

Address: 168 Walkinstown Road  
Dublin 12

(iii) **Solicitors:-**

Name: Colm Gaynor & Co

Address: 20 Harcourt Terrace  
Dublin 2

(iv) **Bankers:-**

Name: Allied Irish Banks

Address: 103 Upper George's Street  
Dun Laoghaire  
Co Dublin

## Section 3

### **Membership and Description of the Applicant Group**

(a) **Name:** Michael A. Carroll B.E.

**Background and Experience:** Former Director of Radio Programmes, RTE

**Name:** Declan Cronin

**Background and Experience:** Company Director

**Name:** \_\_\_\_\_ Fionnuala Cronin B. Ed.

**Background and Experience:** Primary School Teacher and Housewife

**Name:** \_\_\_\_\_ John E. Nolan

**Background and Experience:** Managing Director, Company Consultants Ltd

(b) **Applicant Group:** The group was formed in early 1998 and submitted an expression of interest in a radio licence to the IRTC in May 1998. Actinium Limited is currently a private company, limited by shares, registered in Dublin on Wednesday, the 3rd March, 1999 (Certificate No. 302760) and having its registered office at 6 Lower Hatch Street, Dublin 2.

The Company will be converted, by resolution, into a non-profit making company, limited by guarantee and not having a share capital. All directorships are honorary.

It has been resolved to change the name of the Company to Dublin Christian Radio, Limited. The Company has also registered the business name, "Solas FM" (the proposed station name).



## Section 4

### **Ownership, Control and Staffing of Company** **which will operate the Licence**

(a)

#### **Board of Directors:**

(i) The following people have agreed to comprise the Board of Directors of the Company which will operate the licence:

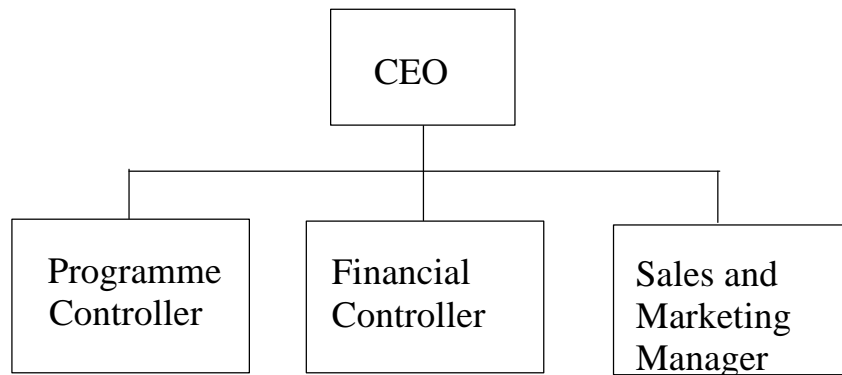
- |        |                                |   |
|--------|--------------------------------|---|
| (i)    | Name:                          | Declan Cronin (Chairperson)                             |
| (ii)   | Address:                       | Coollattin, Newtownpark Avenue,<br>Blackrock, Co Dublin |
| (iii)  | Age:                           | 39  |
| (iv)   | Nationality:                   | Irish   |
| (v)    | Occupation:                    | Company Director  |
| (vi)   | Other Directorships:           | Newpark Service Station Ltd,<br>Cortip Developments Ltd |
| (vii)  | Other Media Interests:         | None  |
| (viii) | Background & Media Experience: | Business experience                                     |

- (i) Name: Finnuala Cronin
- (ii) Address: Coollattin, Newtownpark Avenue,  
Blackrock, Co Dublin
- (iii) Age: 37
- (iv) Nationality: Irish
- (v) Occupation: Primary School Teacher/  
Housewife
- (vi) Other Directorships: Newpark Service Station Ltd
- (vii) Other Media Interests: None
- (viii) Background & Media Experience: Teaching

- (i) Name: Michael A. Carroll
- (ii) Address: 47 Cherrygarth  
Mount Merrion  
Co Dublin
- (iii) Age: 64
- (iv) Nationality: Irish
- (v) Occupation: Retired
- (vi) Other Directorships: Nil
- (vii) Other Media Interests: None
- (viii) Background & Media Experience:  
Spent 29 years in RTE, the last  
11 of those as Controller/Director of  
Radio Programmes. Diploma in Theology  
(Adult Education), 1993.

- (i) Name: John E. Nolan
- (ii) Address: 21 Yale  
Ardilea  
Dublin 14
- (iii) Age: 62
- (iv) Nationality: Irish
- (v) Occupation: Company Director
- (vi) Other Directorships: Company Consultants Ltd
- (vii) Other Media Interests: Nil
- (viii) Background & Media Experience:  
One of the original campaigners  
for Independent Local Radio in Ireland.

- (ii) It is intended to appoint further Directors including Liam Nolan the broadcaster, writer and journalist.
- (b) **Proposed Shareholding Structure:** As stated in response in section 3(b) earlier, Dublin Christian Ltd will be set up as a company limited by guarantee and not having share capital.
- (c) **Management Structure:**
- (i) **Management Structure of Company:** The company management structure will be:



The Chief Executive Officer will be a member of the Board of Directors and responsible to it for implementing the policy of the Board. To assist the CEO, it is intended to appoint three others to the management team, covering programmes, finance, and sales and marketing. These four key management personnel will all work on a full-time basis, with the exception of the Financial Controller who may be engaged on a part-time basis. All four will be recruited, with the assistance of the management consultants engaged by Dublin Christian

Radio (DCR), as soon as possible after the contract to operate the licence has been awarded. Initially, these posts will be filled on a contract basis. Already, DCR has appointed four experienced, professional people to fulfil these key functions on a voluntary basis until the recruitment of the new staff has been completed.

(ii) Profiles of Temporary Management Team:

(a) **Chief Executive Officer**

Name: Declan Cronin

Age: 39

Education: St Brendan's College, Killarney

Qualifications: Leaving Cert. and Graduate of Bolton St. DIT

Experience: 15 years experience in sales and marketing

(b) **Programme Controller**

Name: Michael A. Carroll

Age: 64

Education: O'Connell's CBS and UCD

Qualifications: B.E. (Elec.), UCD

Experience: Former Director of Radio Programmes, RTE

(c) **Financial Controller**

Name: Richard Fitzpatrick

Age: 56

Education: Abbey CBS, Newry, Co Down

Qualifications: Leaving Cert. and  
Diploma of Institute of Bankers

Experience: Retired Bank Manager

(d) **Sales and Marketing Manager**

Name: P.J. McAllister

Age: 54

Education: Belvedere College, Dublin and  
College of Commerce, Rathmines

Qualifications: Leaving Cert. and  
Diploma in Business Studies and Member of  
Marketing Institute

Experience: Divisional Sponsorship Manager,  
Guinness Ireland



(iii) Company Policy:

(a) **Management Remuneration:** The company will pay the market rate for the services of its top management, given the size of the company and the nature of the business. The services of management consultants will be availed of, in an advisory capacity.

(b) **Employment Contracts:** The company intends to engage management on a two year contract basis, with appropriate annual targets for the performance levels expected. The key to success will be management's ability to turn policy into practical, achievable goals and take responsibility for achieving specific, challenging targets within an agreed timescale and budget, without compromising quality standards.

(c) **Share options:** Nil

(d) **Relevant financial and other commitments:** DCR will consider awarding bonus payments to management and staff for the achievement of specific targets.

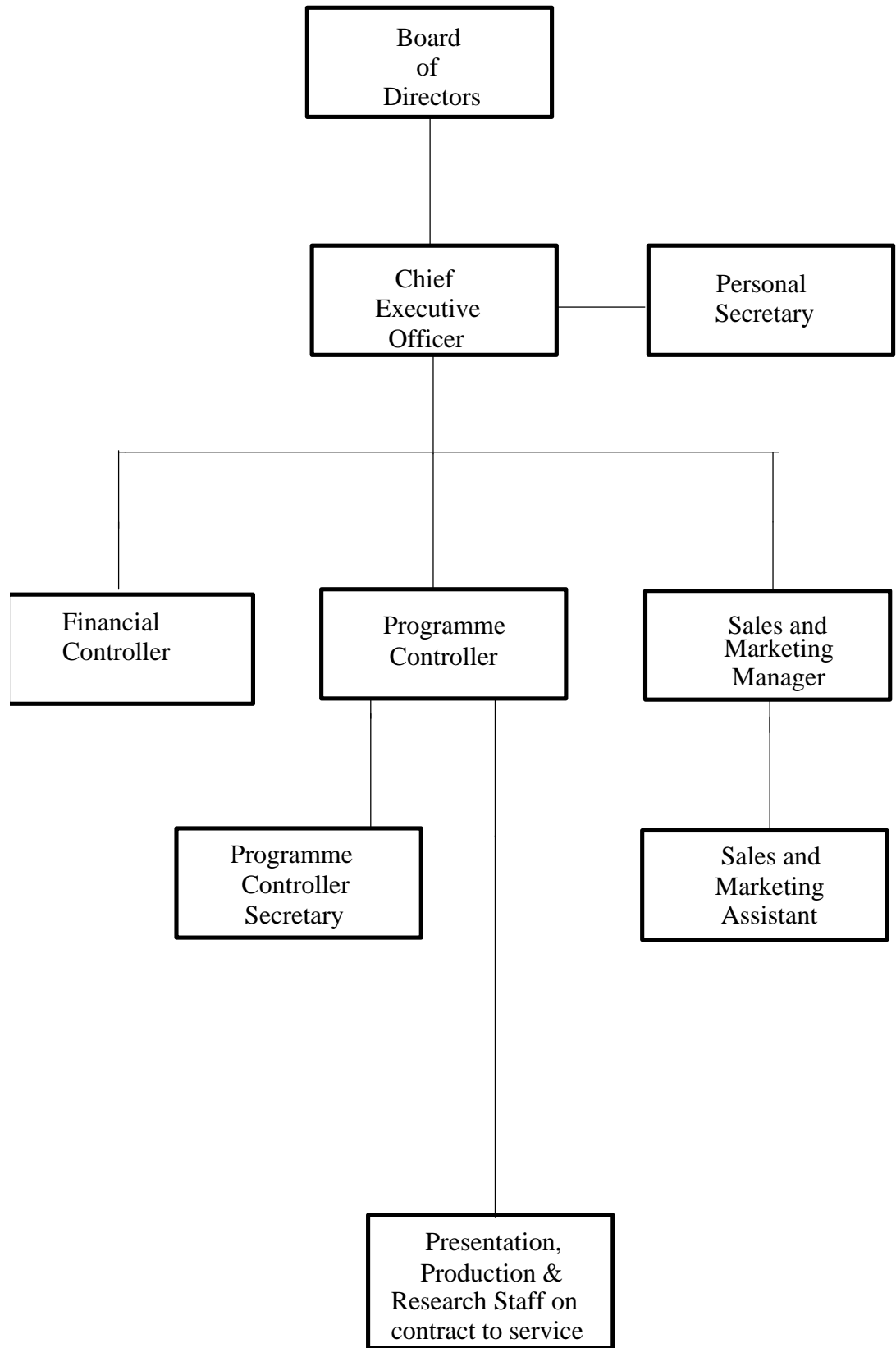
(d) Staffing Matters:

(i) Staffing structure and details: A detailed account of the proposed staffing structure for the organisation is provided on the next page.

The management structure will consist of the four posts identified earlier, one of which may be part-time.

The office staff will consist of three staff (full-time equivalent, again recruited on contract) who will provide receptionist, telephonist, programme and secretarial support. Given the small scale nature of the operation these office staff will be expected to have a flexible workload depending on the priorities at

a particular time. Programming staff will be recruited on contract. In addition, DCR have already been offered assistance, on a voluntary basis, by a



number of people with a broad range of experience and skills. In common with other local stations, DCR will avail of these services.

(ii) Salary levels: Details of proposed salary levels are contained in the Confidential Annex to this application.

(iii) Sourcing and recruitment of staff: Management staff will be recruited with the assistance of management consultants, and using the expertise of the existing management personnel. Secretarial support will be recruited using normal channels by the management staff, whilst the Programme Controller will be responsible for engaging programming staff.

(iv) Industrial Relations Policy: Dublin Christian Radio will have a human resource management philosophy which reflects its Christian ethos. In broad terms, the Christian sees work as a fundamental dimension of every individual's existence, and the basis for determining the value of human work is not primarily the kind of work being done, but the dignity of each individual worker. Dublin Christian Radio will follow best practice in human resource management regarding its approach to staff. In particular, DCR is conscious of its obligations under the Health and Safety legislation which requires each employer to produce a safety statement specifically, on industrial relations matters. The service will recognise and negotiate with trade unions, if and when staff choose to join one. In addition Dublin Christian Radio is aware of the statutory provisions in relation to employees and the guidance available from the Codes of Practice produced by the Labour Relations Commission in recent years following the enactment of the Industrial Relations Act 1990.

(v) Pay agreements, pension, training and development: Dublin Christian Radio will pay the 'market rate' to its employees, and will honour all relevant obligations in respect of national pay agreements. The service will set up a defined contribution pension scheme, and will engage professional pension trustees to manage same.

DCR fully recognises the need to invest in the training and development of its staff. It will follow a systematic approach to this. Whilst much of this training and development will be 'on the job' initially, further external training opportunities will be explored as appropriate. DCR has made provision for a training and development budget of 3% of its full-time and part-time staff of seven (approximately £5,000 per year).

## Section 5

### The Programme Service

(a) **Broadcasting Philosophy:**

(i) Solas FM will aim to help and support listeners in their exploration for the ultimate meaning to life, and encourage them to develop their spiritual lives. It will endeavour to show that such meaning is to be found in the life and teaching of Jesus Christ.

Beidh sé mar aidhm ag Solas FM cuidiú agus tacú le héisteoirí agus iad ag tóraíocht bunchiall na beatha. Chomh maith leis sin, spreagfar éisteoirí len a saol spioradálta a fhorbairt. Beidh Solas FM dícheallach ag iarraidh a léiriú gur trí saol agus teagasc Íosa Críost a thiocfar ar an chiall sin ar an bheatha.

(ii) **Strategies:** Solas FM will be a professional quality service engaging full-time and part-time presenters, researchers and producers. It will also engage outside expertise, where necessary.

Solas FM will employ an experienced, professional, programme controller who will be responsible to the CEO and the Board of Directors to ensure that it maintains a quality service, consistent with its own philosophy and adhering strictly to its contractual and statutory obligations. It will also avail of legal expertise, where necessary, to ensure such compliance.

(iii) **Criteria for Success:** The success of programming can be measured in two distinct ways, quantitatively and qualitatively. Solas FM's target listenership will be the Christian population of Dublin, which numbers approximately 1 million (Source: Census of Population 1991 Religion Table 3). Solas FM is a special interest service. Therefore, listenership figures alone

will be an inadequate reflection of its success. Nevertheless, Solas FM will, of course, take account of market share of radio listenership, as a criterion of its success. In addition, Solas FM will look for qualitative measures of success, via ongoing listenership feedback through phone-ins, letters and e-mails etc.

(b) **Programme Schedule:**

(i) Solas FM will begin transmission on a daily 12 hour schedule from 0800 to 2000. It will, within the following two years expand to a full 24 hour service. In the meantime, Solas FM propose to offer a sustaining service of music from 2000 to 0800.

Solas FM's weekday schedule is built around four main elements:

- ◆ a live, primarily music based programme, with some information (0800-1000)
- ◆ a largely speech based current affairs programme from a mainly Christian perspective (1000-1300)
- ◆ a "drive-time", primarily music based programme, with a reflective element to help people wind down after the day's activity (1700-1900)
- ◆ daily Mass

(ii) A typical seven day programme scheduled is appended at Appendix 2.

(c) **Programme Policy Statement:** The philosophy of Solas FM has been set out earlier. It is a unique philosophy which will be delivered through quality professional programmes from a largely Christian perspective. Specifically, Solas FM will provide:

- ◆ music to speech ratio of approximately 50:50 (excluding sustaining music service)

- ◆ percentage of speech programming proposed to be devoted to news and current affairs will be 25% (excluding sustaining music service)
- ◆ there will be national, international and local news daily every hour, on the hour
- ◆ there will be two hours of current affairs coverage daily Monday to Friday
- ◆ the main sports results of the day will follow the news every hour on the hour each day
- ◆ the music policy of Solas FM will reflect its primarily Christian perspective. This will be interpreted broadly. It will cover a wide range of music from liturgical, gospel, contemplative, inspirational, and appropriate popular music
- ◆ there will be no music playlist
- ◆ features and documentaries will be developed on a phased basis. Initially, they will be bought-in from independent producers, and/or foreign broadcasters
- ◆ the Irish language will form an integral part of the daily celebration of the Mass and will be used naturally at appropriate times during the day. There will be one specific hour-long bilingual programme presented each weekday. In addition, particular aspects of Celtic spirituality will be explored from time to time
- ◆ the richness of Irish talent in music will be reflected in our music element. Every effort will be made to promote and create opportunities for new musical talent to develop
- ◆ opportunities will be identified to promote local talent through the parish based network in Christian churches
- ◆ independently produced programmes will be broadcast. Sale of Solas FM programmes is not envisaged, but the exchange of programmes with other broadcasters at home and abroad, will be pursued



- ◆ the presentational style will be professional, friendly and informal
  
- ◆ among the other programming proposals are programmes to cater for specific groups for example children, young people, the elderly and specific groups such as prisoners, travellers, refugees, and the hospitalised and house-bound
  
- ◆ Solas FM will identify closely with the community it intends to serve through contact with the parish network of the Christian churches throughout the city. In particular, it will invite ongoing community participation in programming.

## Section 6

### **Market Analysis**

- (a) **Analysis of Existing Marketplace:** From the launch date, Solas FM will broadcast from 0800 to 2000. An analysis of the existing radio market in Dublin, during those hours, shows that RTE (Radio 1 and 2FM), FM104, 98FM, Today FM, have a combined market share of 98%. “Other local” services have the remaining 2% (Source: INLR/MRBI, 1998).

Assuming all five new sound broadcasting licences, currently on offer, are issued, these new services, especially the three new “commercial” services, will have an impact on the market share of existing services particularly on the major players mentioned above.

Apart from RTE Radio 1, all the major existing services above are mainly driven by popular music. Solas FM, on the other hand, will provide a distinctive alternative music choice as the service will provide a unique showcase for music of a specifically Christian ethos, which is not, at present, given the airtime which it deserves.

- (b) **Demand for the Type of Service Proposed:** There are over 940,000 Christians in Dublin. 911,000 of these are Roman Catholic (Source: Census of Population 1991). 60% of Roman Catholics in Dublin attend Mass at least once per week (Source: Mass Attendance Survey, Lansdowne Market Research Ltd, 1994). Therefore, over half a million Christians attend church weekly, and this group forms both the main potential and demand for the new service, which will differ radically in format from existing services.

It is also noteworthy that outside Dublin, many of the existing local services have religious programmes in their schedules. In Dublin, however, there is virtually no spiritual dimension, or indeed religious programming broadcast on the local services.

A further significant indication of demand is that a foreign-based Christian broadcasting service has been broadcasting, until recently, in Dublin, and the rest of the country, for some years, and had apparently some success in attracting a listenership in Dublin. It is also noteworthy that that particular service has applied to the Office of the Director of Telecommunication Regulation for a “Retransmission licence” to broadcast to the UK and Ireland on AM.

Dublin city is virtually unique in Europe, in that it is almost the only capital city without a Christian radio service. For example, London, Paris, Berlin, Madrid, Lisbon, Moscow and Rome etc all have successful Christian radio services, and the newly emerging countries such as Croatia, Slovenia, Slovakia, Latvia also have Christian radio services up and running. See list of delegates to CERC Conference, in Lisbon June, 1998 at Appendix 3.

Finally, next year is particularly timely for a Christian radio service to begin operating given that the year 2000 is the Jubilee of the birth of Jesus Christ. In this regard please see the supportive letter from Bishop Eamon Walsh and the Jesuit Communication Centre at Appendix 4 and 5 respectively.

(c) **Anticipated Performance of Service:** Solas FM will establish itself as a professional quality radio service. Solas FM will not be run or controlled by any religious denomination. It will be both independent and ecumenical.

(i) **Target Audience:** Our specific target audience are the 1 million Christians in Dublin, particularly the 60% who are regular church-goers and those hospitalised or house-bound. The service will also appeal to a substantial number of Christians of all age groups. The proposed service will be an alternative to existing services as it will provide varied and entertaining programmes which both express Christian belief and values together with practical help and insight associated with those values.

(ii) **Size and Nature of Market:** Solas FM expects to achieve a listenership of 25,000 in the first year of operation. The programme schedule has been designed to attract

people of all age groups as well as those with specific needs and interests. The new service will be a distinctive voice appealing to voluntary and locally based community groups as well as involving these groups in programming. It will provide an alternative to the existing services as there is virtually no regular programming from a Christian viewpoint on air at present.

(iii) Listenership Ratings: It is somewhat speculative to project listenership ratings for a unique service as proposed by DCR. However, in the rest of Europe the market share varies from country to country. In London, for example, Premier Radio (a Christian radio service) has a ‘reach’ of 2%. Such a reach is relevant to Dublin, particularly when the relatively high church attendance in this country is compared with the UK and European countries e.g.

**Respondents attending church regularly**

Britain	11%	(1995 figure)
France (Paris only)	4%	(1998 figure)
West Germany	7%	(1998 figure)
Norway	4.1%	(1998 figure)
Italy	29.4%	(1998 figure)
Ireland	63.2%	(1998 figure)

[Sources: 1991/98 Comparative Country Data from International Social Survey Programme: National Secular Society, Office of the Archbishop of Paris as quoted in “Newsweek” July 12, 1999, page 52]

Therefore, given the much larger percentage level of church going population in Dublin, it is considered that a higher listenership level is attainable quite quickly. Our target is to achieve a reach of 3% within the first 12 months broadcasting. This would translate into a listenership of almost 25,000. Our target therefore is to have a listenership of at least 25,000 within the first twelve months of the service.

(iv) Advertising Revenue: In analysing our ability to attract advertising revenue, we have assumed a reach of 3%. With the offer of attractive introductory rates to potential advertisers, it is considered that the advertising revenue target will be reached. The projected advertising figures are based on six days per week (no advertising on Sundays) for 50 weeks of the year.

(v) Impact on Existing Services: Solas FM is likely to have some impact on the listenership and advertising revenue of existing services. However, with a target reach of 25,000 this will be relatively small. Moreover, the current and forecast future economic growth rates for Dublin indicate that the market for advertising will continue to expand in line with a buoyant economy. This will, of course, increase the size of the advertising 'cake' and reduce the impact of Solas FM on revenue of existing services.

In particular, Solas FM expects to attract new listeners and also advertisers of a specialist kind, who would wish to reach the kind of listener Solas FM is catering for.

(d) Strategies for Achieving Proposed Listenership and Revenue Targets: Solas FM will use the services of a professional advertising/marketing company to work out a strategy on how best to advertise its presence in the pre-broadcasting phase. From a more specific community perspective, Solas FM will use the parish based organisation of the Christian churches to disseminate information on its proposed schedule both in the pre-broadcasting phase, and when broadcasting commences e.g. announcements in churches, schedules on notice boards, and through various voluntary groups which can be both parish-based and otherwise. Another element of our strategy is the proposed employment of a full-time Sales and Marketing Manager, whose role will be to promote Solas FM to individuals, communities and businesses. Finally, an important part of the strategy of the service will be a strenuous effort to persuade people to become members of Solas FM. These members will subscribe an annual fee, but will also assist in achieving our listenership targets. Solas FM will be their service, a service which they help finance, but also which they are part of, and is responsive to their requirements on an ongoing basis. Solas FM will regularly update its membership via mail and internet.

Full details of the listenership and revenue targets of Solas FM are contained in the Confidential Annex to this application.

## Section 7

### **Financial and Business Plan**

- (a) **Overall Financial Strategy:** Dublin Christian Radio (DCR) has been established to apply to the IRTC for a special interest broadcasting licence for the Dublin area and to provide a service which reflects the station's Christian ethos.

DCR believes the proposition to be viable in terms of a funding proposal based on the assumptions and financial projections in the Confidential Annex.. The initial capital expenditure will be funded primarily by donations to the Company by individuals and also by a commercial loan. The funding of the business will be met by a combination of advertising revenues and annual subscriptions from those who support the ideals the station will represent. This funding model is used widely by Christian broadcasting stations in Europe and the US. In this regard, DCR has availed of the experience of the European Conference of Christian Radios (CERC) and is being advised by a Board member of that group, Mr Antonio Correra de Oliveira. DCR has also discussed this business model in detail during a visit to a London based Christian radio service (Premier Radio). Finally, the advertising revenues have been projected based on discussions with a number of advertising agencies in Dublin.

- (b) **Investment Proposal:**

- (i) The total funding requirements of the Company has been calculated based on financial projections for the business. The requirement in respect of capital expenditure, set-up costs and working capital at the launch date is estimated at £735,000.

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Table 7.1

**Funding Requirement**

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**IR£ 000**

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(i) Capital Expenditure	590
(ii) Other Pre-Operational Expenditure	110
(iii) Working Capital (at on-air date)	35
Total Funding Requirement	<u>735</u>

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(ii) **METHODS OF FUNDING:**

The funding requirement of IR£735,000 will be met as follows:

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Table 7.2

**Methods of Funding**

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	<b>IR£ 000</b>
(i) Share Capital	Nil
(ii) Loan Stock/Medium Term Borrowing	100
(iii) Leasing	Nil
(iv) Bank Overdraft	Nil
(v) Grants/Donations	490
(vi) Others .... Subscriptions	145
Total	<hr/> 735 <hr/>

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(iii) **SOURCES OF FUNDING:**

Further details on the sources and timeframe for funding are contained in the Confidential Annex to this application.

(c) **Projections:**

DCR has prepared financial projections for the period ended 31 December 2002. These projections reflect the set up period and the two year period after the launch of DCR. The projections are set out in summary form in the Confidential Annex.

(d) **Advertising Levy:** Provision has been made for an IRTC levy of 3% of advertising revenue.

## Section 8

### **Transmission Proposals**

- (i) Three Rock Mountain
- Longitude: 06W14
  - Latitude: 53N15
  - 448 metres
- (ii) 40m above ground level
- (iii) Dublin Christian Radio's technical advisers, RTE, propose a 1000W ERP, vertically polarised transmitter. The area which it is proposed will be covered and the radiation pattern is shown in Appendix 6.
- (iv) RTE is the owner and principal user of the antenna support structure. RTE proposes to combine the following frequencies (MHz) into the antenna: - 88.5, 90.7, 92.9, 96.7, 100.3 and 106.8.
- (v) See Appendix 6.
- (vi) The ERP is 1000W. The antenna system is that proposed by RTE and the radiation pattern is shown in Appendix 7.
- (vii) The capital cost of providing all the proposed transmission equipment, etc is £37,000, with an annual cost of £37,000, thereafter, to provide full service and power requirements. (Appendix 8) In our projections, however, we have allowed a figure of £45,000 to cater for outside broadcasting facilities.
- (viii) It is proposed that RTE will provide the technical expertise.
- (ix) RTE has received full planning approval for the transmission facility on Three Rock Mountain.

## Section 9

### Studios and Operations

(i) **Site:**

The site is in the grounds of the convent 'Disciples of the Divine Master' premises formally known as Consolata at Whites Cross on the corner of the Stillorgan Road with Newtownpark Avenue, Blackrock, as set out on the enclosed site plan.

Brief

Ground Floor

<b>Gross ground floor area</b>	<b>135m<sup>2</sup></b>
2 no. Studios	14.7m <sup>2</sup> each, 29.4m <sup>2</sup> total
Control room/phone-in area	13.5m <sup>2</sup>
Reception	6.8m <sup>2</sup>
Main Office	18.6m <sup>2</sup>
W.C. (Disabled Access)	5.6m <sup>2</sup>
Entrance Lobby include stairs	23m <sup>2</sup>
Plant Room	8.1sqm
Apparatus Room	5.7m <sup>2</sup>
News/Editing Room	4.9sqm

First Floor

<b>Gross 1st floor area</b>	<b>126.3m<sup>2</sup></b>
Canteen/Kitchen	29m <sup>2</sup>
Meeting Room	16.7m <sup>2</sup>
3 no. Offices	10.3m <sup>2</sup> each, 30.9m <sup>2</sup> total
1 no. Office	9.0m <sup>2</sup>
Store Room	6.8m <sup>2</sup>
W.C. Male	6.5m <sup>2</sup>
W.C. Female	6.5m <sup>2</sup>
<b>Total Gross Floor Area</b>	<b>261.3m<sup>2</sup></b>

Concept

Although the building design has yet to be finalised, the accompanying plans at Appendix 9, illustrate the facilities envisaged.

The entrance is located centrally in plan, with a central double height Entry/Reception area separating the building into a studio area and an office/reception area.

The 'studio' block is located on the 'single aspect' side of the building, while the main office, meeting room and canteen enjoy more light on the dual aspect side of the buildings. The scale of the surrounding buildings is the retained.

### Ground Floor

The main on-air studios have been given a clear line of sight to each other and to the 'phone-in' area which is central to the studio design. This area also contains a News desk/Editing area and the equipment room. The main office/reception area and a disabled access toilet are located on the other side of the building.

### First Floor

4 offices and 2 toilets are located in the 'studio' side of the building and the canteen and meeting room are positioned over the reception and general office.

## (ii) **Acoustic Treatment:**

### Sound Insulation

Sound insulation relates to both noise transfer and noise intrusion, where:

- ◆ noise transfer is the passage of sound between the studios and ancillary areas;
- ◆ noise intrusion is caused by sound breaking into the studio facility from external sources.

Appropriate criteria can be taken from the BBC publication Guide to Acoustic Practice.

Sound insulation performance can be specified in terms of Weighted Apparent Sound Reduction Index (R'w) a single figure value that is representative of frequency dependent performance.

The recommended performance criteria are set out in Table 1 below.

<b>Construction</b>	<b>R'<sub>w</sub> (dB)</b>
Critical separating partitions (i.e. studio to studio, studio to control room)	60
Other elements of the studio envelope (i.e. studio to corridor, studio to outside, control room to office, etc)	55
Separating partitions (i.e. office to corridor, keyboard lab to computer lab etc)	50

*Table 1 Sound insulation performance criteria*

Means of achieving these criteria are discussed overleaf.

(Please note that absorptive treatments will be required for the room finishes in addition to the specified sound insulating treatments.)

### Walls

Typical options for the partition separating the control room and studio are as follows. (This construction will also apply to the walls separation both the studio and computer lab as well as the control room to office.)

- (i) Plasterboard stud partition as follows: 2 no. layers of 12.5mm thick plasterboard on 92mm stud - 62mm clear gap - 50mm mineral wool quilt in cavity - 2 no. layers of 12.5mm thick plasterboard on 92mm stud. Whilst offering good sound insulation performance, the overall width of this construction is almost 300mm.
- (ii) Blockwork wall with independent wall lining: 150mm dense concrete blockwork - minimum 50mm cavity - 25mm mineral wool quilt in cavity 2 no.

layers of 12.5mm thick plasterboard on stud independent of blockwork.  
Overall width of the order of 225mm.

- (iii) Cavity blockwork wall: 100mm dense concrete blockwork - 100mm cavity - 25mm mineral wool quilt in cavity - butterfly wire ties only - 100mm dense concrete blockwork. Overall width of the order of 300mm with potential weight implications.

We have assumed that the construction of the building envelope will be 215mm dense block - 100mm cavity - 100mm dense block. This being the case, the exterior walls of the studio and control room should only require wall lining to the following specification:

- (iv) Plasterboard wall lining: 2 no. layers of 12.5mm plasterboard on Gypliner system over 70mm cavity. Overall depth of the order 95mm.

(Please note that we have not provided a specification for a plant room located in proximity to the studio spaces. This will be analysed as details become available.)

All walls should extend full height and be sealed airtight to the underside of the roof.

### Ceilings

A suspended plasterboard ceiling will be required in both the control room and studio. The suspended ceiling will have the following typical specification:

- (v) Suspended plasterboard ceiling: 2 no. layers of 12.5mm plasterboard fixed to an MF ceiling grid over a minimum of 300mm cavity containing 75mm mineral wool quilt (minimum density 32kgm<sup>3</sup>). Overall width of the order of 325mm.

### Glazing

The limiting factor in the performance of the separating partitions is often the observation window. A figure from the BBC Guide to Acoustic Performance which shows a typical detail for such a window is shown at Appendix 9, Figure 1.

The glass elements within the glazing would typically comprise a 6mm float and 10mm float.

### Doors

Doors to the studio, studio corridor and control room should be formed from proprietary timber or metal acoustic door sets offering a mean Sound Reduction Index (SRI) of the order of 40dB.

Doors to the teaching and office areas should comprise solid core timber doors (minimum surface mass 30kgm<sup>2</sup>) with effective perimeter seals on head, threshold and jambs.

### Floating Floor

It would be prudent to consider installation of lightweight concrete floating floor in the studio in order to minimise footfall and other impact noises from other areas. A typical detail for such a floor is shown in Appendix 9, Figure 2.

### Other Considerations

Other aspects that will require consideration during the detailed design include detailing around penetrations and scope for bringing cables into the studio on an occasional basis.

### Sound Insulation of Mechanical Services

Mechanical services noise levels in the studio should not be permitted to exceed PNC 15 to 20 (approximately equivalent to NR17 to NR22). This low noise level is required to facilitate the digital recording of acoustic sources. The criteria may be relaxed to PNC 20 to 25 (~ NR22 to 27) in the control room.

The design considerations are as follows:

- ◆ Duct-mounted splitter attenuators will be required in order to control ductborne fan noise.
- ◆ Duct lagging may be required in order to control noise break-out.
- ◆ Plant located close to the studios may require vibration isolation.



- ♦ Air velocities should not exceed (and preferably less than) 3.4m/s in main ducts, 2.45m/s in branch ducts and 1.6m/s in final run-outs.
- ♦ Pressure drops should not exceed 8Pa across branch dampers and 4Pa across trimming dampers.
- ♦ It would be prudent to serve studio and control room with a separate branch. If this is not possible, crosstalk attenuators will be required.

### Room Acoustics

The parameter most commonly used in the assessment of room acoustics is Reverberation Time (RT), which is expressed in seconds (s) and is a measure of the echoic quality of a room.

We recommend a mid-frequency RT in the studio and control room. Experience leads us to believe that approximately one-third of the lining should be formed from broadband absorbers, one-third from low-frequency absorbers and the remainder from “blanks” (i.e. reflective panels).

In order to achieve an RT of 0.2s, a wall lining typically 100mm deep will have to be applied to all internal surfaces of the studio and control room. Experience leads us to believe that approximately one-third of the lining should be formed from broadband absorbers, one-third from low-frequency absorbers and the remainder from “blanks” (i.e. reflective panels).

The most cost-effective approach may be to erect non-proprietary panels onto a timber framework as follows:

- ♦ Broadband absorbers - perforated timber over mineral wool;
- ♦ low-frequency absorbers - thin timber membrane (e.g. 3mm hardboard over air cavity);
- ♦ “blanks” - 18mm chipboard or similar.

The entire assembly could be fabric faced to give the desired finish.

As an alternative, proprietary acoustic panels could be used.

### Room Dimensions

Studio dimensions should follow certain guidelines in order to avoid unwanted room modes that have a detrimental effect upon the acoustic environment. The appropriate formula is as follows:

$$1.1w/h < 1h < 4.5w/h-4$$

where:            w = room width  
                      h = room height  
                      l = room length

Assuming a floor to ceiling height of 2.7m the current dimension ratios for both the studio and control room should be acceptable.

### (iii) **Access for the Disabled**

The entire ground floor (including all the studios) are suitable for access by those with disabilities, and the ground floor toilet is wheelchair accessible.

Access for disabled will be designed in accordance with the current building regulations.

(iv) **Mechanical and Electrical Services Outline Scheme**

Ventilation and Air-conditioning

The offices, meeting room, canteen, reception and one of the stores will be naturally ventilated. The studios and mixing rooms will be mechanically ventilated and air-conditioned. All other areas will have mechanical ventilation.

The noise rating from building services plant within the studios and mixing rooms will be NR20.

The air-conditioning condenser unit will be either wall mounted externally or roof mounted. The air handling unit for the studios will ideally be roof mounted.

Heating and Water Services

A gas fired boiler serving a LPHW radiator system is proposed for all areas except the studio and mixing rooms. The latter will be heated via the ventilation system. The boiler will also heat a calorifier which provides hot water to the toilets and kitchen area. Radiator pipework will be medium grade steel.

Mains water will be provided to the kitchen and to the water storage tank at roof level. The tank will provide cold water to the toilets.

Fire Detection and Prevention

A fire detection and alarm system will be installed with accordance with IS 3218. Fire extinguishers will be provided in accordance with IS 291.

Power Distribution

The building will be provided with 3 phase power. The supply will be metered and distributed from a main distribution board. The electrical system will be designed in accordance with ETCI rules.

### Lighting and Emergency Lighting

The building will have fluorescent lighting in most locations. Tubular fluorescent luminaires in the office type area will be Category 3. Some LV spot lights will be provided for the purpose of dimming and architectural effect. Emergency lighting will be installed in accordance with IS 3217.

### Stand By Generator

In the event of power failure a stand by generator will be available and will automatically take over from the main supply.

- (v) A list of the principal studio technical equipment is provided at Appendix 10 and office/studio software equipment for Solas FM is provided at Appendix 11.

(vi) **Preliminary Budget Costing**

Floor Area 261m<sup>2</sup>

Brief Specification

2 Storey

Loadbearing Walls

Concrete Floors and Roof

Double Glazing

<b>Budget Costing</b>	<b>Total IR£</b>
Sub-Structure	14,000
External Walls	31,605
Internal Walls	24,770
Stairs	8,018

Roof	16,000
Frame/Upper Floor	12,000
External Walls Completion	31,650
Internal Walls Completion	7,385
Stairs Completion	8,000
Mechanical Services Installation	66,000
Electrical Installation	42,000
External Works/Drains	10,000
Preliminaries 10%	27,200
Insurance 2%	5,700
Contingency %	16,300
	<hr/>
	320,628
	<hr/>

Exclusions

VAT @ 12.5%/21%

Capital Charges (ESB/Local Authority, Water/Sewers, Electricity)

Fees (including Health and Safety Supervisor - design stage subject to agreement approximately 14%.

Fit-Out/technical equipment.

**Note:** The preliminary budget is based on the outline plan and the information available at the time of preparation of the costings - in due course when a final design brief is available a full cost plan can be prepared.

(vii) **Planning Application**

A planning application has been submitted. We await a decision in due course.

## Section 10

### **Proposed Commencement of Broadcasting**

- (a) **Readiness Date:** Solas FM will commence broadcasting on air no later than one year after signing the relevant contract with the IRTC.

Subject to IRTC approval, Solas FM is committed to commence broadcasting in the year 2000, the Jubilee of the Birth of Jesus Christ.

- (b) **Critical Path Analysis:**

See table on next page.

ACTIVITY	MONTH												
	Sept 99				Jan 2000				May 2000				Sept 2000
	0	1	2	3	4	5	6	7	8	9	10	11	12
				Contract Signed									Commence Broadcasting
Building			Planning permission obtained		Commence Building			Building Completed					
Studio Equipment										Install	Test	Test	
Recruit Staff					Advertise for top management				Recruit CEO	Recruit other Managers			
Training Staff										Begin Training			
Transmission Equipment										Install	Test	Test	
“On-Air Tests”										1		Test	
Sales & Marketing		Start Subscription Drive			Start advertising and promotion campaign								
Programme Preparation					Begin research for ‘bought-in’				Begin research for ‘in-house’				

					programmes				production				
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## Section 11

### Appendices

<b>No.</b>	<b>Title</b>
1	Certificate of Incorporation
2	Programme Schedule
3	List of Delegates to CERC Conference
4	Letter of Support from Bishop Eamon Walsh
5	Letter of Support from Jesuit Communication Centre
6	Field Strength Map
7	Radiation Pattern
8	Transmission Equipment
9	Architecture Plans
10	Studio Technical Equipment
11	Office/Studio Software Equipment

