

Decorative elements on the page include a blue line starting from the top left, moving right, then down, then right again. A green line starts from the top left, moving right, then down, then right again. Two black corner brackets are positioned on the left and right sides of the page, each consisting of a vertical line and a horizontal line meeting at a corner with a small black square at the intersection.

# *ICT Strategy for Education*

## OVERVIEW

### Definition of Information and Communications Technology

Information and Communications Technology (ICT) is regarded as the overlap of computer information and telecommunications technologies, and their applications. In this Strategy Document the term ICT refers to the complete range of technologies involved in information processing and electronic communications, including the Internet, electronic mail (email) and videoconferencing.

#### Rationale

The aim for ICT in Community Services: Education is:

#### **To establish an ICT capability in our Learning Community.**

This capability will ensure that the Learning Community will be able to take advantage of the full range of ICTs that are available within establishments, on Eòlas and the services that will become available through the **SCOTTISH SCHOOLS DIGITAL NETWORK (SSDN)**. The SSDN Intranet will deliver a range of critical services, applications and content to teachers, pupils and education managers across the country. In turn, this will contribute to raising standards of attainment across all areas of teaching and learning, particularly in the key skills of literacy and numeracy and in delivering the National Priorities.

The development of the SSDN will provide a new focus for schools with the guarantee of fast access to online curricular resources and activities. It is essential that these services are seen as an enhancement to the curriculum and integrated into the existing methodologies in Argyll and Bute Education.

If learners are to take full advantage of these facilities, a fully integrated approach to ICT is essential. Schools require access to up-to-date advice and a working knowledge of how ICT can be utilised effectively. Accessing content-rich software through the SSDN will aid teaching within the classroom. Communication of, and collaboration on ideas with others will broaden pupils' attitudes, knowledge, understanding and skills.

Informed and selective use of ICT will be an important life skill both in the workplace and at home. The process of developing the relevant knowledge, skills & understanding will begin at the earliest stages of pupil development and be embedded into daily learning.

The increased access to computers and online communication at home and in public buildings provides the opportunity to extend learning beyond the classroom. Through the use of e-mail and video-conferencing facilities, learners will be able to access a range of learning experiences outwith the school environment.

In order to meet the aim of establishing an ICT Capability, Argyll and Bute Community Services will:

- develop teachers' skills and understanding in the uses of ICT to manage teaching and learning
- minimise the disadvantages of geographical isolation and provide equality of opportunity for all learners
- keep all learners well informed about current and potential applications of ICT and skilled and effective in their use
- equip learners with the skills to evaluate the effectiveness of ICT resources and determine when it is most appropriate to use them
- lay the foundations for creativity, ambition and lifelong learning

### **ICT in Argyll and Bute - Overarching Themes**

Community Services': Education approach to achieving ICT capability is based on four overarching themes. These are:

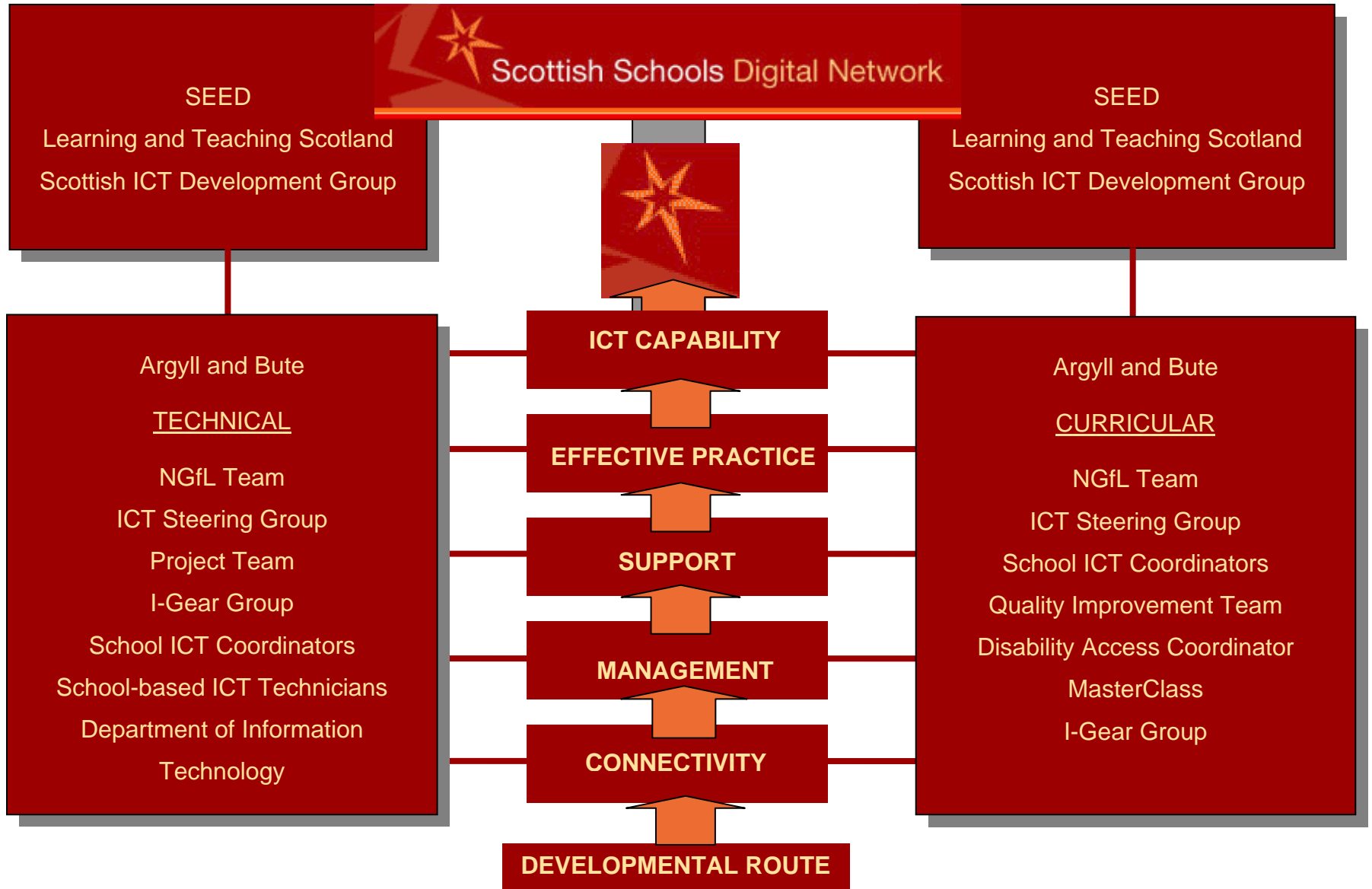
1. Connectivity
2. Management
3. Support
4. Effective Practice in relation to the National Priorities

The synergy between, and the effective management of, these overarching themes facilitates the ICT Capability of the Learning Community.

Efficient **Connectivity** is the foundation of an effective ICT strategy and the infrastructure on which the remaining themes are developed.

The **Developmental Route** to successful ICT Capability can be illustrated as the central core of a strategy map illustrating the important role that local and national ICT development groups play in facilitating and maintaining the Developmental Route.

# ICT STRATEGY MAP



## The Developmental Route

The synergy between **Technical** and **Curricular** application is acknowledged as essential to the continued well being and development of current and future ICT practises.

That synergy is emphasised and described below.

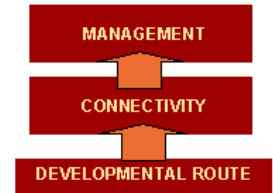


### 1. Connectivity

*The technological and human connection to the ICT interface.*

| Technical  | Curricular   |
|--|--|
| <p>The <b>Technical</b> infrastructure supports a range of services that offer users various routes to online resources. The infrastructure consists of:</p> <ul style="list-style-type: none"><li>• The Wide Area Network</li><li>• Internet access</li><li>• A Managed Service with the Department of Information Technology</li><li>• A range of ICTs used:<ul style="list-style-type: none"><li>Phone</li><li>Fax</li><li>Email</li><li>Videoconferencing</li></ul></li><li>• Eòlas - Online Learning Community</li></ul> <p>SEED's plans for the SSDN will continue to influence the development of the infrastructure.</p> | <p>The Learning Community is able to access online services and resources that enhance the <b>Curricular</b> experience.</p> |

## 2. Management

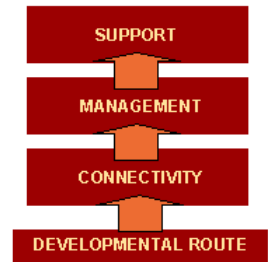


*The management requirements in order that connectivity is established, maintained and developed; allowing curricular application to take place.*

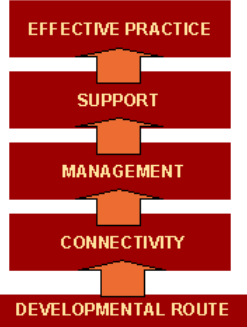
| Technical   | Curricular   |
|---|--|
| <p>A large online infrastructure requires a well-managed <b>Technical</b> Support Team that can ensure continuous access. The Team:</p> <ul style="list-style-type: none"> <li>• Provides Technical management and advice</li> <li>• Liaises with Department of Information Technology (DIT)</li> <li>• Investigates emerging practises and new Technologies</li> </ul> | <p>The ICT strategy is based on, and has evolved in response to, the <b>Curricular</b> needs of the Learning Community. Management areas are:</p> <ul style="list-style-type: none"> <li>• Curricular and Technical staff</li> <li>• Budget</li> <li>• Policy creation</li> <li>• Training and CPD</li> <li>• Encouraging the creation of innovative practises</li> <li>• The integration of National Initiatives</li> </ul> |

### 3. Support

*The mechanisms that support the Learning Community's effective use of the available ICTs.*



| Technical   | Curricular   |
|---|--|
| <p>The <b>Technical</b> Team provides a range of services that create a better understanding of the infrastructure, its capabilities and contribution to the learning process. These services include:</p> <ul style="list-style-type: none"> <li>• Technician Training</li> <li>• Support Manuals</li> <li>• Repair shop facilities</li> <li>• Maintenance arrangements</li> <li>• A Managed Service, Service Level Agreement</li> </ul> | <p>Effective advice and support in the application of ICT in a <b>Curricular</b> context, will lead to innovative and effective practice. Advice and support is provided in the form of:</p> <ul style="list-style-type: none"> <li>• Inservice and CPD</li> <li>• Guidelines</li> <li>• In-school Support</li> <li>• The development of, and access to the MasterClass Team</li> <li>• Dissemination of ideas and best practice.</li> </ul> |



**4. Effective Practice**

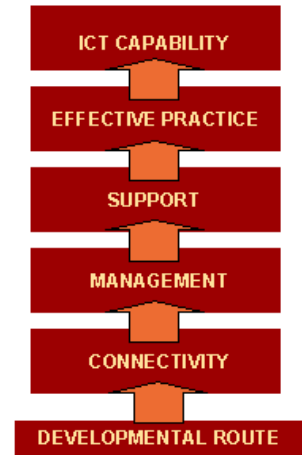
*The types of ICT activity that enhance management and teaching and learning across the curriculum.*

| Technical  | Curricular  |
|--|---|
| <p>Consistent and effective <b>Technical</b> practice across the Wide Area network is essential in order that the Learning Community can work in a consistent, safe and secure online environment.</p> <p>Ensuring this requires:</p> <ul style="list-style-type: none"> <li>• The ongoing development of systems</li> <li>• Procurement advice</li> <li>• Standardisation of networks</li> <li>• Standardisation of practises</li> <li>• Anti-virus strategy</li> <li>• Copyright strategy</li> <li>• Personal safety and security</li> </ul> | <p>Effective practice in the application of ICT in a <b>Curricular</b> context, will be many and varied. The exemplification and dissemination of these practises will take place through:</p> <ul style="list-style-type: none"> <li>• Multi-media exemplars</li> <li>• Online collaboration</li> <li>• Resourcing Eòlas</li> <li>• Interactive and collaborative projects</li> <li>• Innovative use of a full range of ICTs</li> <li>• Extending access to outside providers</li> </ul> |

## 5. ICT Capability

*The ability to know when and how to use available ICT resources, to the benefit of a particular task.*

The mix of **Technical** and **Curricular** application in the Developmental Route to ICT Capability is an ever-evolving relationship, ensuring that initiatives are served equally in terms of input, innovation and eventual outcomes.



## **ICT DEVELOPMENT GROUPS**

### **CURRICULAR**

There are a number of groups and individuals within Community Services: Education that contribute to the **Curricular** dimensions of the Learning Community's ICT Capability. They are:

- **THE NGFL TEAM**
- **ICT STEERING GROUP**
- **SCHOOL ICT COORDINATORS**
- **MASTERCLASS**
- **THE QUALITY IMPROVEMENT TEAM**
- **DISABILITY ACCESS COORDINATOR**
- **I-GEAR GROUP**

This section describes their contribution to and influence on the ICT Developmental Route.

#### **NGfL TEAM**

- Operates strategically to put in place systems that promote coherence across the locality.
- Ensures that the infrastructure enables staff to access valuable content.
- Develops the ICT Strategy for Argyll & Bute Education Service and raises its profile by dissemination.
- Influences thinking on current and future learning styles related to ICT application.
- Supports collaboration in ICT initiatives at all levels.
- Facilitates curricular projects which involve ICT.
- Manages skills development and the implementation of the 5-14 ICT Guidelines.
- Offers advice on the selection and use of appropriate ICT resources.
- Formulates Policy Statements in partnership with ICT Steering Group.
- Develops curricular resources and training materials for staff and pupils.
- Works with individual and groups of schools to develop innovative uses of ICT.
- Sets high expectations.
- Has clear objectives.
- Uses a variety of teaching methods and strategies.
- Models effective practice.

## **NGfL TEAM** continued

- Provides authentic experiences.
- Provide guidelines for effective management of ICT.
- Provides leadership and direction for the Masterclass Group.

## **ICT STEERING GROUP**

- The Steering Group meets regularly with the NGfL Team to discuss all aspects of ICT planning and development.
- Considers and makes recommendations on ongoing and new developments.
- Provides advice and comment on methods of information delivery to establishments.
- Receives regular updates on the management of the infrastructure and curricular application.
- Requests and considers information on management strategies and subsequently makes recommendations to NGfL Management.
- Provides a focussed view on the most appropriate and effective forms of support to establishments.

## **SCHOOL ICT COORDINATORS**

- The ICT School Coordinators are responsible for the development of ICT within their individual schools.
- The secondary school ICT Coordinators meet regularly with the NGfL Team to discuss all aspects of ICT management in secondary schools and its impact on the learning process.
- Contribute to a range of initiatives that promote the development of the secondary schools' networks as a method of extending and enhancing the learning process.

## **MASTERCLASS**

- The MasterClass Team participates in a Masterclass national online learning community.
- Keeps abreast of national developments through this online community.
- Contributes to a local MasterClass community through Eòlas.
- Contributes to a bank of curricular resources.
- Disseminates the Argyll and Bute ICT Strategy.
- Delivers staff development training.
- Disseminates guidelines for effective practice.
- Advises on implementation of appropriate resources.
- Models appropriate resources.
- Uses a variety of teaching methods and strategies.
- Selects a range of ICTs to support curricular objectives.
- Develops staff confidence in using ICT within the curriculum.

## **QUALITY IMPROVEMENT TEAM**

- The Quality Improvement Team influences thinking on current and future learning styles.
- Disseminates the Argyll and Bute ICT Strategy.
- Delivers staff development training.
- Produces management tools which facilitate planning, assessment and reporting.
- Offers advice in relation to the Argyll and Bute ICT Strategy.
- Challenges and supports the effective use of ICT across the curriculum.
- Identifies and disseminates examples of effective practice.

## **DISABILITY ACCESS COORDINATOR (DAC)**

- The DAC collaborates with identified Area Network Support Staff in relation to ICT development.
- Accesses advice on effective implementation of additional resources and associated skills development.
- Maintains a database of specialist equipment.
- Organises a range of ICT events related additional support needs.

## **I-GEAR GROUP**

- The I-Gear Group represents school users and meets regularly to discuss the Internet filtering strategy for Education.
- The Group reviews sampled Web sites that have been added to the allow list for Argyll and Bute Schools.
- Request clarification on 'allowed' sites from school personnel where required.
- Actions changes to the existing guidelines and checklist based on ongoing information from Group members and schools.
- Advises the ICT Steering Group on such changes
- Contributes to the ongoing development of I-Gear as a multi-levelled filtering system for the Education Service.

## **ICT DEVELOPMENT GROUPS**

### **TECHNICAL**

There are a number of groups and individuals within Community Services: Education and Department of Information Technology (DIT) that contribute to the **Technical** development of the Learning Community's ICT Capability. They are:

- 1. NGFL TEAM**
- 2. ICT STEERING GROUP**
- 3. PROJECT TEAM**
- 4. I-GEAR GROUP**
- 5. SCHOOL ICT COORDINATORS**
- 6. SCHOOL-BASED ICT TECHNICIANS**
- 7. DEPARTMENT OF INFORMATION TECHNOLOGY**

This section describes their contribution to and influence on the ICT Developmental Route.

#### **NGfL TEAM**

- The NGfL Team operates in a strategic way and puts in place systems that promote coherence across the locality.
- Ensures that the infrastructure enables staff to access valuable content.
- Supports collaboration in ICT initiatives at all levels.
- Provides Technical management and advice to establishments.
- Liaises with DIT on all aspects of the Managed Service.
- Investigates emerging practises and new Technologies.
- Provides Technician Training for both Central and Secondary School Technicians.
- Creates Support Manuals that assist in the maintenance of the infrastructure.
- Operates an Apple repair workshop based at Inveraray Computer Centre.
- Provides maintenance arrangements.
- Receives a Managed Service SLA from the Department of Information Technology.
- Participates in ongoing development of systems that ensure continuous and effective networking.
- Provides procurement advice to establishments that will maintain standards of equipment.
- Standardises networks.
- Standardises practises.
- Produces an anti-virus strategy.
- Produces a copyright strategy.
- Is proactive in ensuring a safe and secure environment for users.

## **ICT STEERING GROUP**

- The Steering Group meets regularly with the NGfL Team to discuss all aspects of the ICT planning and development.
- Considers and makes recommendations on ongoing and new developments.
- Provides advice and comment on methods of information delivery to establishments.
- Receives regular updates on the management of the infrastructure and curricular application.
- Requests and considers information on management strategies and subsequently makes recommendations to NGfL Management.
- Provides a focussed view on the most appropriate and effective forms of support to establishments.

## **PROJECT TEAM**

- The Project Team is the integration of the NGfL Team and the Department of Information Technology (DIT).
- The Project Team oversees the connectivity and ongoing development of the infrastructure.
- Integrates connectivity to the services provided to Education by DIT.
- Provides overall management of the ICT infrastructure for establishments.
- Discusses policy on future networking and online services.
- Actions a range of procedures related to the maintenance and development of the infrastructure.
- Monitors all mechanisms relevant to ensuring continuous online activity.
- Effects changes to support where required.

## **I-GEAR GROUP**

- The I-Gear Group represents school users and meets regularly to discuss the Internet filtering strategy for Education.
- The Group reviews sampled Web sites that have been added to the allow list for Argyll and Bute Schools.
- Request clarification on 'allowed' sites from school personnel where required.
- Actions changes to the existing guidelines and checklist based on ongoing information from Group members and schools.
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## **SCHOOL ICT COORDINATORS**

- The ICT School Coordinators are responsible for the development of ICT within their individual schools.
- The secondary school ICT Coordinators meet regularly with the NGfL Team to discuss all aspects of ICT management in secondary schools.
- Contribute to a range of initiatives that promote the development of the secondary schools' networks and ICT practises.

## **SCHOOL BASED ICT TECHNICIANS**

- The School-based ICT Technicians support all technical aspects of ICT within their individual schools.
- Liaise with, support and advise their school ICT Coordinator.
- Maintain and repair school ICT equipment.
- Liaise with the NGfL team on technical aspects of the school ICT infrastructure.
- Contribute to the continued development of the schools ICT infrastructure.

## **DEPARTMENT OF INFORMATION TECHNOLOGY (DIT)**

- The DIT provides Education with a Managed Service for Internet and email for schools.
- Works to a series of performance measures that ensure continuous provision.
- Liaises with the NGfL Team on all aspects of the Managed Service.
- Regularly participates in Project Team meetings.
- Provides a range of advice on the development of Education's ICT infrastructure.

## NATIONAL BODIES

There are a number of National bodies in Scotland that play a pivotal role in the continuing development of ICT. They are:

- 1. THE SCOTTISH EXECUTIVE EDUCATION DEPARTMENT (SEED)**
- 2. LEARNING AND TEACHING SCOTLAND (LTS)**
- 3. SCOTTISH ICT DEVELOPMENT GROUP (SICTDG)**

### **THE SCOTTISH EXECUTIVE EDUCATION DEPARTMENT (SEED)**

SEED is responsible for administering policy on the National Grid for Learning Scotland (NGfL). The NGfL is a portal or gateway, web site specifically designed to meet the needs of Scotland's education and lifelong learning sectors. It is Scotland's national focal point for on-line learning and provides an easy way for teachers and learners to find and use educationally valuable materials. The content is provided by schools, colleges, education authorities, government departments, educational organisations and businesses, and it is constantly being added to and updated. As a fundamental part of the Government's commitment to lifelong learning and the creation of a learning society, NGfL Scotland has something to offer everyone. Anyone with a computer connected to the Internet can access it.

### **LEARNING AND TEACHING SCOTLAND (LTS)**

LTS is a national public body sponsored by SEED. LTS provides advice, support, resources and staff development, enhancing the quality of educational experience with a view to improving attainment and achievement and promoting lifelong learning. Its remit is to keep under review, and provide independent advice to Scottish Ministers on all matters relating to:

- The school and pre-school curriculum, including the use of ICT to support the delivery of that curriculum.
- The use of ICT in Scottish education and lifelong learning.
- Quality assurance and research and development work related to the school and pre-school curriculum and to the use of ICT in Scottish education.
- Development work, including staff development, in relation to ICT and the curriculum.

### **SCOTTISH ICT DEVELOPMENT GROUP (SICTDG)**

SICTDG consists of ICT representatives from each education authority in Scotland. The group meets regularly to discuss all aspects of ICT development in relation to NGfL and SSDN initiatives. There are regular representations from national bodies including SEED, LTS and MasterClass, providing SICTDG with up to date information on ongoing and planned initiatives.

**This policy will be reviewed in 2007/08**