

Agenda Item	20.
Report No	CLH 57/19

## **HIGHLAND COUNCIL**

**Committee:** Care, Learning and Housing

**Date:** 21 August 2019

**Report Title:** ICT in Learning Strategy and Chromebook Rollout in Schools

**Report By:** Chief Executive

### **1.**

#### **Purpose/Executive Summary**

- 1.1 The report provides members with an update on implementation of the Council's ICT in Learning Strategy, and deployment of Chromebook devices to schools. The report confirms the completion of the physical deployment of approximately 22,000 Chromebooks to schools by the end of June 2019, provides initial feedback on the Chromebook deployment project, and sets out next steps to in relation to Chromebooks and the use of technology to support learning, teaching and attainment.

### **2. Recommendations**

- 2.1 Members are asked to:
- i. Note the successful deployment of approximately 22,000 Chromebooks to Highland schools by June 2019;
  - ii. Note the initial feedback for the project to date;
  - iii. Note the next steps in ICT and Digital Learning in schools.

### **3. Implications**

- 3.1 Resource – financial implications are as highlighted in section 5 and section 8.
- 3.2 Legal – there are no implications to report.
- 3.3 Community (Equality, Poverty and Rural) – the deployment has been on a pan-Highland basis with no specific community or related implications to highlight.
- 3.4 Climate Change / Carbon Clever – while the 22,000 Chromebooks represent an additional number of devices across the school estate, the Chromebooks are a lower power usage and more energy efficient device than the traditional desktop or laptop found in schools. Once the managed device refresh is completed by Wipro that will see a circa 50% reduction in those traditional desktops/laptops.

- 3.5 Risk – the costs/budget of Chromebook device refresh at the end of the device life are provided in 2023/24 and 2024/25. The risk is that as the Chromebooks become older the capital provision may be insufficient to cover the number of Chromebooks requiring replacement before 2023/24.
- 3.6 Gaelic – no implications to highlight.

#### 4. Background

- 4.1 In February 2015, Members of the Education, Children and Adult Services Committee endorsed the ICT in Learning Strategic Action Plan. That action plan had been developed based on significant consultation activity within the Highlands, with both staff and pupils, and in turn reviewing developing trends in technology and digital learning, and best practice elsewhere, both nationally and internationally.

- 4.2 The Vision set out within that Strategy was as follows:

*We will create an ICT infrastructure that supports and inspires 3rd Millennium learners. ICT in Learning must enable the development of digital literacy skills that will support learners in their education careers, lifestyles and world of work.*

- 1. Promote anywhere, anytime learning for everyone, pupils and staff*
- 2. Getting it Right for Every child by knowing the whole child*
- 3. Ensure that we are more effective and efficient in the use of our resources. Seek to build capacity and reduce bureaucracy.*

- 4.3 That strategy was developed recognising that education globally is undergoing a radical transformation, with rapid change in modern digital lifestyles and changing youth culture. Learning using culturally relevant technology and the need for pupils to learn about technology for future careers and life is essential. In the future, the communities in Highland and Scotland will depend on accessing the global digital marketplace. Digital access for all and the skills to use it effectively are also essential for health, wellbeing and prosperity. This is particularly important for areas of digital exclusion either from rural or deprivation issues.
- 4.4 The strategy was used to inform the Council's strategic planning for its re-procurement of ICT Services, and future device models. In a schools context, that meant a project to implement a 1:1 Chromebook device model for Highland pupils, and in turn through the Wipro ICT contract, to reduce the number of managed devices (core contract managed laptops and desktops) by approximately 50% across the school estate.
- 4.5 The Council commenced the Chromebook Project in November 2017, where every pupil from Primary 6 to Secondary 6 would be allocated a Chromebook for their use in school and at home for educational purposes on a 1:1 basis. In addition, for Primary 1 to Primary 5 pupils, Highland Primary schools would be provided Chromebooks allocated on a 1:5 ratio. Governance of the project was through an ICT in Learning Strategy Group, consisting of Officer representatives from Care and Learning and ICT Services, staff side representatives, and chaired by the Director of Care and Learning and subsequently the Head of Resources.
- 4.6 The Chromebook deployment commenced with the Millburn Associated School Group (ASG), and concluded in June 2019 with the final deployment to the Kilchuimen ASG. The full ASG schedule is set out in **Appendix 1**. The approach used was to deploy devices to one ASG at a time in a linear deployment schedule that took account of

school readiness and was closely coordinated with the network refresh in schools. It must be noted that in some schools, where devices were only physically received by schools in the latter part of June 2019, it will in practice be the new academic year before all pupils have access to the devices. In total over 22,000 Chromebooks have now been deployed across Highland schools over the past 20 months.

## 5. Project Milestones

5.1 Programme – the original programme had been intended to run from August 2017 to January 2020. While there were some initial delays, in part due to dependency on network refresh, subsequently it was possible to accelerate rollout, given the steps taken by ICT Services and Wipro to recover and accelerate the network refresh programme. The final device deployment in June 2019 was 6 months ahead of schedule.

5.2 Budget – the budget for provision of devices was from within the Council's approved capital programme. Despite price and currency fluctuations, and concern over the potential impact of Brexit, the project was able to mitigate risk and come within the capital budget through use of a national framework contract for the devices, and early bulk ordering to secure and fix prices. In summary, the capital cost is as summarised below.

	<b>Actual Capital Cost</b>	<b>Budgeted Capital Cost</b>	<b>Underspend</b>
Chromebook costs 2017/18 – 2019/20	£5.925m	£6.203m	£0.278m

5.3 Deliverables – the project successfully deployed 22,000 devices as described in this report. There were a number of associated key deliverables which were also delivered as key outcomes to support the deployment of those devices:-

- The delivery of training and support to schools and teaching staff, including implementing an 18 point 'school readiness' action plan prior to device handover. That support incorporated:-
  - Planning, preparing and delivering bespoke training with the specific purpose of upskilling practitioners in the use of Chromebooks, G-Suite for Education and E-Safety;
  - Ensuring schools had access up-to-date information and examples of good practice through the provision of ASG meetings, school networking seminars and celebration events;
  - Directing schools to online resources to support ongoing continuing professional development opportunities e.g. G-Suite (Google) Learning Centre, Google for Education Teacher Centre, DigiLearnHighland website, Shared Drives, audit tools, websites, video tutorials and social media forums
  - Modelling and promoting best practice - specifically relating to the use of ICT to enhance digital literacy;
  - Helping teachers/leaders who were experiencing difficulties via email, phone, video conference and/or onsite visits.
- The completion of the network refresh project, which included the upgrading of wi-fi infrastructure within schools, and where necessary the bandwidth and other infrastructure necessary to support the 22,000 Chromebook devices (this was a separate project and budget, part of the ICT Services transformation activity);

- The creation of a number of key resources, policies and processes to support the Chromebook model, including:-
  - Establishing a Chromebook helpdesk and self-service support to schools in managing Chromebooks and G Suite for Education.
  - Develop and maintain the Google Admin Console.
  - Develop policies and practices to support Chromebooks in schools.

## 6. Initial Feedback

6.1 In many respects it is too early to undertake a substantive evaluation of the project. From the perspective of the core of the project, and the physical deployment of devices, at the time of preparing this report, the last devices have only just been deployed to schools, and some further reflection will be necessary and preparation of formal project evaluation and project closure in the coming months. From the wider perspective of education, learning and attainment, arguably this becomes an even longer-term evaluation, both to ensure the effective bedding-in of digital learning and Chromebooks within schools, but also to thereafter undertake assessment of the benefits and impact on education and learning.

6.2 Despite these caveats above, given the landmark completion of the rollout of devices to schools, it was appropriate to use this report to provide some initial high level feedback, and in turn set out the further actions that will be undertaken to ensure longer-term evaluation and reflection is in place. Over the period May-June 2019, a survey was issued to Highland schools to provide initial feedback on the project to date, key messages from which are summarised below (to date the responses reflect only teacher comments; wider views from pupils and parents are being gathered and analysed):

- 100% of questionnaire respondents stated that they 'agree' or 'strongly agree' that the Chromebooks were having a positive effect in education.
- 83% felt that they had enough support prior to receiving Chromebooks.
- 92% knew where to go to receive help and support.
- 76% said they enjoyed using the Chromebooks in their teaching.
- Only 6% said they found it difficult using Chromebooks in their teaching.
- 95% understood how digital learning can enhance children's learning.
- 90% felt it was an additional resource to meeting learning needs.
- Only 14% preferred using more traditional methods rather than Chromebooks.

6.3 In addition, the following summarise some of the key points made by teaching staff and being considered in relation to further improvement actions in relation to advice and support:-

- Further development of training and support was necessary, with more bespoke support recognising the different needs that exist.
- The need to ensure that pupils had the necessary skills and support in relation to Chromebooks, and to ensure they were used in a balanced way alongside

other traditional (non digital) resources.

- The need for additional monitoring within the classroom by staff to ensure pupils were focused on the current classroom activity and not being distracted by the Chromebook or using it for personal messaging or other purposes during class time.
- Further improvement to the helpdesk and support approach was necessary, to improve device warranty handling and in turn ensure calls were assigned to the correct queues.
- Further improvement of the guidance resources available to staff was required.
- More parental advice and support was necessary including on matters such as monitoring and social media use. Greater parental collaboration was required.

## **7. Impact in the Classroom**

7.1 As explained above, further time, and further work will be necessary to allow Chromebooks to be embedded within our schools, and to put in place appropriate evaluation arrangements to assess their impact on an ongoing basis. In the meantime, and using the survey responses gathered to date from teaching staff, the following comments and anecdotes give some insight into their use and impact in the classroom to date.

7.2 Inevitably, the classroom is changing as technology advances. To fully prepare pupils for life beyond school, the ability to use technology effectively is essential. The following qualitative feedback collected from school staff demonstrates how the shift towards a digital classroom is changing the dynamics in positive ways.

- “Allows easy access to homework exercises. Pupils can access material and notes at home through our website. Pupils can track their own learning and progress with individual charts that are shared between them and their teacher.”
- “It helps pupils with literacy difficulties access courses and supports writing. Videos can be used more to support ideas. Pupils can be more independent in their studies”
- “allows immediate research for project work, helps recording project work, allows evaluation and sharing”
- “It has made it much easier for pupils to do research e.g to help with discursive writing; to access online revision resources; to access Google Classroom.”
- “Interactive simulations of science topics to help them imagine what is going on microscopically”
- “If they have their Chromebook they have access to a much greater number of learning opportunities. No lost pages. Much easier to catch up after absence so fewer gaps in learning. It is good to be able to provide remedial or extension material for the pupils that require it, often without the rest of the class knowing.”
- “It has given them confidence to push themselves and try new things, as mistakes are easily rectified or activities tried again - They have discovered new skills e.g. coding”
- “Children with literacy difficulties don't feel different/odd when all class is using

Chromebook rather than just them.”

- “Easier research for assignments”

## **8. Next Steps**

- 8.1 It is important to note that the deployment of Chromebooks represented but one part of the ICT in Learning Strategy, and the device is in practice simply the gateway to access the resources that support digital learning, digital literacy, and learning and teaching. As such it has always been understood that the physical deployment of devices represents essentially a ‘phase 1’, with the next steps focusing on maximising the benefit from the Council’s investment and taking steps to ensure a legacy is in place, and there is mainstreaming of support for schools going forward.
- 8.2 Work is already underway to take forward many of the necessary actions, the key themes of which are described below:-
- To further develop arrangements to review and monitor the impact on learning and digital literacy through the use of G Suite (Google) for Education and Chromebooks within the classroom;
  - To develop recommendations for mainstream ongoing support to schools, to replace the current time limited project based support (current project support arrangements will cease 31 March 2020);
  - Within our schools, ensuring legacy arrangements are in place to support digital leaders in schools, provide pedagogical support, ensure continuing professional development takes accounting of digital training needs of staff, and such further steps to ensure technology and digital learning are embedded within our schools;
  - Ongoing review of technological trends in education and any implications for Council strategy;
  - Ongoing review of device requirements and planning for a future device refresh as current Chromebooks reach end of life (current assumption is a 4 year life);
  - Monitoring of infrastructure and network performance;
- 8.3 Further information arising from 8.2 will help inform the most appropriate approach to implementing device refresh including purchase *versus* lease for example. At The Highland Council meeting on 7 March 2018, the Council considered their capital programme 2018/19 to 2022/23 including rescheduling the Chromebook refresh to 2023/24 and 2024/25. An annual provision for the replacement of failed/lost Chromebooks has been provided to 2022/23 inclusive. The risk is that as the Chromebooks become older the capital provision may be insufficient to cover the number of Chromebooks requiring replacement before 2023/24. Therefore there is a risk that the number of devices failing before the full refresh commences in 2023/24 exceeds current budget provision. This reiterates the importance of information required at 8.2 to help inform the most effective service delivery approach and deliver sustainable affordability. This information will help inform consideration of refresh costs as part of the Council’s forthcoming capital programme refresh.
- 8.4 Further reports will come back to this Committee to provide further updates on Digital Learning within Highland schools.

Designation: Chief Executive

Date: 29 July 2019

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Background Papers:

## **Appendix 1 - Rollout Order Schedule**

### **ASG**

Millburn  
Dingwall  
Portree  
Kinlochleven  
Kingussie  
Gairloch  
Mallaig  
Lochaber  
Grantown  
Ardnamurchan  
Dornoch  
Invergordon  
Plockton  
Wick  
Inverness High  
Fortrose  
Charleston  
Inverness Royal  
Golspie  
Thurso  
Ullapool  
Alness  
Culloden  
Nairn  
Farr  
Tain  
Glenurquhart  
Kinlochbervie  
Kilchuimen