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Is this response a personal view or is it made on behalf of an organisation?
Organisation

Do you consent to the submission being published online at the end of the consultation?
Yes

The written submission is made under the 'Priorities and Supports' focus. Computer science should be prioritised to support the development of high-level ICT skills. The supports required are specifically trained ICT personnel and the engagement of third party stakeholders. The rationale for both is outlined below.

Ludgate is an initiative based in west Cork which is focused on rural regeneration and development. It is the groups belief that high-level ICT skills are essential to promote growth and to support the rejuvenation of rural Ireland. As technologies and their applications are continuously evolving, advancing digital equity are among the most significant challenges for a society. The development and attraction of high-level ICT skills is crucial to the growth of the Irish economy and job creation, and has been over many years. Ireland has established itself as a hub for the technology sector, and has formally sought to meet its associated skills needs through the ICT Skills Action Plan.[1] The supply of high-level ICT skills is no longer just a sectoral issue, but national economic priority. The number of level 8+ ICT graduates in mainstream settings rose by 46%, from 2,310 in 2012 to 3,378 in 2016 and was estimated to reach 3,549 in 2018.[2] It is widely acknowledged that these figures need to be increased.[3]
Research has found that teachers are key influencers of students' subject choices, second only to parents.[4] Challenges that continue to exist in equipping teachers with the knowledge to inform pupils of the opportunities presented by a Science, Technology, Engineering and Mathematics (STEM) career. As Ireland continues to position itself as the epicentre of the world's digital economy, we need to future proof the talent pipeline. The starting salary for an ICT graduate with a basic degree is €35,000 increasing €65,000 in 3-5 years.[5] The starting salary for a secondary school teacher with a masters in education is €36,953 rising to €65,302 in 25 years.[6]
Economically it does not make sense for ICT gradates to choose teaching as a profession when their skills are in high demand. According to studies on monitoring skills demand and supply, by 2020 there will be a demand for almost 6.3 million ICT professionals in the EU.[1] Supply is not keeping up. The resultant strong competition for skills, especially in a region where there is free movement of labour, makes it of significant importance to develop, attract and retain the right high-level ICT skills to satisfy the demand across the Irish economy.
As such the up skilling of teachers from other disciplines is a priority however when choosing the teachers to up skill we must be mindful of the areas which these teachers will typically originate from.[7] The areas will be from other STEM disciplines, areas in which there is already a shortage of teachers.[8] Whilst it is logical to up skill existing teachers, we have to be cognisant of where they are originating from and as such it is imperative to consider less linear solutions.

Proposal 1: The implementation of a multi-school ex-quota ICT skills teaching resource.

Schools are extremely busy places with considerable demand being placed on teachers, management, parents and students. Digital literacy and fluency is not just the preserve of the 'techies,' ICT skills are a whole school activity. This is especially the case as we move to classroom based digital assessments. To effectively deliver on the current and future ICT skills action plan, the proposed computer science leaving certificate programme has to attract students to the new curriculum who would not instinctively choose computer science degrees upon leaving secondary school. Transition year programmes are a suitable starting point to immerse students in the areas of ICT which speaks to them. The simple up skilling of staff in an environment where there are very few with the technical background makes for a very slow process.[7] To effectively deliver on developing an ICT ecosystem it is proposed that a specific ICT technical skills resource would be allocated to the role. The role would be shared between multiple secondary schools and would be ex quota.

Proposal 2: The utilisation of third party stakeholders to support the delivery of ICT skills and computer science in schools.

Given the relentless pace of technical innovation, the demand for ICT skills in Ireland is expected to grow at a rate of 8.5% corresponding to 139,00 ICT practitioner jobs in 2022.[3] This poses new challenges not only to the education and training system, but to the whole socioeconomic system. Third party stakeholders like Universities, Institutes of Technology, Industry and others have a specific need to see more viable candidates come through their doors. Proactive measures to increase the number of graduates are required and as such it is important to consider the role of third party stakeholder in developing their future candidates. Third party stakeholders should be embraced with many offering STEM outreach programmes to primary and secondary schools. These programmes can be effectively structured, tailored and dovetailed into existing offerings within schools.
Ludgate as a not for profit with a considerable track record to date has the personnel which can help mobilise and facilitate universities and industry stakeholders with a specific aim of supporting secondary schools. This is particularly prescient in areas like west Cork where rural decline and talent drain to urban areas and to further shores has been a constant narrative. A high-level ICT infrastructure of facilities, industry, education and people can help promote rural regeneration.

1. Technology Skills 2022 Ireland's Third ICT Skills Action Plan https://www.education.ie/en/Publications/Policy-Reports/technology-skills-2022.pdf
2. The Higher Education Authority: What do gradates do - The class of 2016 https://hea.ie/assets/uploads/2018/01/HEA-What-Do-Grads-Do-2016.pdf
3. Forecasting the Future Demand for High-Level ICT Skills in Ireland, 2017- 2022 https://dbei.gov.ie/en/Publications/Publication-files/Forecasting-Future-Demand-High-Level-ICT-Skills-Ireland-2017-2022.pdf
4. Choices, Chances, Changes - IWish 2017 survey of females attitudes to STEM http://www.iwish.ie/wp-content/uploads/2017/11/I-Wish-2017-Survey-FD.pdf
5. IT Salaries 2018 https://www.irishjobs.ie/careeradvice/it-salaries-2018/
6. https://www.asti.ie/pay-and-conditions/pay/salary-scales-and-qualification-allowances/
7. Striking the Balance: Teacher supply in Ireland - Technical working group report https://www.teachingcouncil.ie/en/Publications/Teacher-Education/Teacher-Supply-in-Ireland.pdf
8. The Structure of Teacher Education in Ireland: Review of progress in implementing reform https://hea.ie/assets/uploads/2019/05/HEA-Structure-of-Teacher-Education.pdf