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Advancing Digital Empowerment  
of Libraries in Europe

## Case studies template

ICCU – December 2022





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## Introduction

This document provides the template for the development of the Case Studies on digital transformation in libraries.

The ADELE project aims to contribute to the internationalisation of organisations that choose a path of digital transformation. Through the network they can connect, collaborate, compare, and exchange ideas with organisations across Europe and beyond.

The 100 case studies are aimed at initiating the digital transformation of libraries and inspiring libraries that want to improve their performance on certain areas of the tool.

The areas of the ADELE tool cover the use of digital technologies in libraries from different perspectives: management, infrastructure and equipment but also lifelong learning, users training opportunities and community and stakeholders involvement.

The case studies may be linked to an activity, a service, a new professional profile, an initiative, a place or a library infrastructure in line with the areas and the statements of the ADELE tool. We aim to create a database of good practices to foster innovation and the adoption of digital practices in the library.

Library presenting the case study  
(Name, city, website and contact  
details)

dlr Lexicon, dlr Libraries, Dun Laoghaire.  
Website: <https://libraries.dlrcoco.ie/>  
General library email: [dlrlexiconlib@dlrcoco.ie](mailto:dlrlexiconlib@dlrcoco.ie)  
Contact email: [nmaccarthaigh@dlrcoco.ie](mailto:nmaccarthaigh@dlrcoco.ie)

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<p>Title of the case study</p>	<p>dlr Teen Entrepreneur STEM Camp</p>
<p>Area of ADELE tool illustrated by the case study Please underline the selected area</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> <i>Management</i></li> <li><input type="checkbox"/> <i>Infrastructure, Equipment and Support</i></li> <li><input type="checkbox"/> <i>Continuing Professional Development</i></li> <li><input type="checkbox"/> <i>Self-reflection on digital competences</i></li> <li><input checked="" type="checkbox"/> <i>Learning opportunities on digital competences for users</i></li> <li><input checked="" type="checkbox"/> <i>Collaboration, Networking, and Community</i></li> </ul>
<p>Description of the experience: aim, methods and outcomes</p>	<p>The dlr Teen Entrepreneur STEM Camp is an active learning course of eight weekly sessions which is open to students in Transition Year (TY) in secondary schools. Students learn and combine both STEM and entrepreneurial skills to invent a new product which is prototyped and showcased in front of peers and industry experts.</p> <p>AIMS:</p> <ul style="list-style-type: none"> <li>*Help students develop new skills in areas of STEM using coding, basic electronics, robotics and design software</li> <li>* Introduce students to the practical uses and possibilities of new creative technology</li> <li>* Encourage and support entrepreneurial skills</li> <li>*Foster teamwork, collaboration and learning.</li> <li>*Demonstrate how these skills can be used in the real world so that students might consider STEM as an area of further study and a credible career path.</li> </ul> <p>METHOD:</p> <p>Students have four active learning workshops which are 2 ½ hrs long each. The workshops from Weeks 1 -4 cover:</p> <ul style="list-style-type: none"> <li>*Coding- block based coding with Scratch and mBlock</li> <li>*Electronics and Programming using Raspberry Pi and Arduino</li> <li>*3D Design and Printing ; CAD</li> <li>*Prototyping; Design thinking and PaperPprototyping</li> </ul> <p>Week 5: Students participate in a business modelling workshop and Q&amp;A sessions with guest technology developers/ STEM Entrepreneurs.</p> <p>Week 6 and 7: Maker Days. Students work in groups of four on ideas and solutions, prototype creation and design of their products</p> <p>Week 8: Show and Share Event. Students formally present their projects to their peers, teachers, and industry experts.</p> <p>BENEFITS &amp; OUTCOMES</p> <p>Through ‘hands on’ workshops students acquire skills in STEM areas such as coding, electronics, 3D printing and design. Students develop skills in the areas of problem solving, collaboration, communication and presentation. They achieve an understanding of how digital technology can create solutions to everyday problems and appreciate the relevance of STEM as a further study and career option.</p>
<p>Resources needed to implement the idea Please, provide any link and/or send them in attachment</p>	<p>Experienced teacher(s) and course developer. Library staff to oversee, organise, liaise, promote, and assist on the days. Contacts with STEM Entrepreneurs – dlr Libraries work with the Local Enterprise Office in this regard <a href="https://www.localenterprise.ie/DLR/">https://www.localenterprise.ie/DLR/</a> Good relationship with local second level schools to raise awareness</p>



	<p>of the Camp and get participants. Relevant hardware and software for the workshops e.g arduinos, raspberry pi, computers, 3D printer. Suitable space for students to work, create, discuss, present to group.</p>
Target groups	Teens - approx 16 years old in Transition Year of secondary school
Elements of innovation	<p>The project is an innovative way of bringing teenagers into the physical library space to discover an element of our service – the dlr Lexicon Lab / Maker Space- that they may have been previously unaware of. It provides the opportunity to show this demographic the wide range of services the public library now provides. Working directly with the secondary schools to make the STEM Camp part of their TY programme helps to link students and the library's maker space and encourages students to turn up and participate. Not many students would have easy access to the technologies on offer or a chance to develop their digital skills in this area. By providing this access, the library service is helping students to develop these skills and encouraging students to consider STEM as a credible area of future study or career path.</p>
Tips to other library staff using this idea	<p>Develop good contacts with secondary schools –they are key to getting students to attend. Advertise the camp a few months in advance so the schools can organise it as part of their school year and apply for spaces. Develop contacts with STEM entrepreneurs / entrepreneurial organisations e.g in Ireland, Local Enterprise Office. Have a well thought out programme of workshops with experienced facilitators. Consider sponsorship/ partnership to help cover costs.</p>
Keywords	#teenagers #STEM #entrepreneurialskills #codingskills #roboticskills #equipment #newtechnologies #digitalskills #userskills
References	<p>Webpage: <a href="https://libraries.dlrcoco.ie/library-services/dlr-lexicon-lab/lab-projects">https://libraries.dlrcoco.ie/library-services/dlr-lexicon-lab/lab-projects</a> Promo video on Facebook: <a href="https://fb.watch/l9p2c_DfPe/">https://fb.watch/l9p2c_DfPe/</a> Blog for 2018's Camp: <a href="https://dlrtyentrepreneurstemcamp.home.blog/">https://dlrtyentrepreneurstemcamp.home.blog/</a> Sample Social Media posts: <a href="https://twitter.com/DLR_Libraries/status/1179040568896299008?s=20">https://twitter.com/DLR_Libraries/status/1179040568896299008?s=20</a> <a href="https://twitter.com/DLR_Libraries/status/1192446959749083137?s=20">https://twitter.com/DLR_Libraries/status/1192446959749083137?s=20</a> <a href="https://m.facebook.com/story.php?story_fbid=pfbid03289RwqtYqUCGrhU53Z3efWrMrdigrfGJi9AiPHDC89oD22abA7x9gQBK5BUkob6ol&amp;id=140854052632439">https://m.facebook.com/story.php?story_fbid=pfbid03289RwqtYqUCGrhU53Z3efWrMrdigrfGJi9AiPHDC89oD22abA7x9gQBK5BUkob6ol&amp;id=140854052632439</a></p>