



Skillset Cymru evidence for STEM skills review undertaken by the Wales Assembly Enterprise and Learning Committee – November 2010.

Introduction and the Sectors involved

1. Skillset is the Sector Skills Council (SSC) for the Creative Media Industries and Fashion and Textiles industries, comprising TV, Radio, Advertising, Interactive Content Design, Animation, Content for Computer Games, Facilities, Photo Imaging, Publishing and Fashion & Textiles.
2. Skillset estimates show that around 13,000 people work in Creative Media in Wales. The largest sectors in Wales in terms of workforce are 'Interactive Content Design' (almost 4,000 people), 'Television' (around 3,500 people) and 'Publishing' (2,000 people).
3. The Fashion and Textiles sector in Wales employs 10,000 people within 3,000 firms. (TBR 2008) Manufacturing makes up a significant amount of this employment with over half of the workforce employed within this area, predominantly within textiles. The sector is heavily clustered around the M4 corridor extending from South East to South West Wales although there is also significant sector presence in the North and the West of the country. (Step Up Report 2009)

Main STEM requirements for these sectors

4. Skillset believes that the creative industries must be given as much support as possible for STEM subjects to keep Wales at the forefront of the UK and indeed world economy. The Comprehensive Spending Review has been about priorities and the Welsh Assembly Government has prioritised the Creative industries as a sector of economic importance to the Welsh economy. Creative media education should, therefore, take its place alongside STEM subjects as a strategic priority for government.
5. **Creative Media skills priorities are around developing and exploiting multi-platform skills.** The onset of convergence between the Television, Digital and Interactive Content Design Industries is creating new challenges and demanding new skills from the Creative Media workforce. Advanced digital technology is also making geographical location less of an issue. If Welsh companies are to take advantage of the global opportunities which exist, the broad consensus from industry is that traditional core skills, such as TV production, will need to be supplemented with an understanding of how the end product can be distributed.

6. **Innovation** is also at the heart of the Creative Media sector as emphasised in *Digital Britain*. Innovative new technologies are a key factor in driving the demand for skills.
7. 13% of the Welsh workforce in the 'Broadcast, Facilities, Animation, Interactive Media and Computer Games' sectors stated a need for training in 'online, web design, interactive media or computer games.
8. Additional skills needs in Wales were identified by the Skillset Cymru Training Framework and from detailed interviews held with key employers and sector stakeholders during December 2009 and January 2010:
- **Digital convergence skills** . Independent Production companies have highlighted the need for multi-skilled staff with an understanding of multi-platforms.
 - **New technologies** - stakeholders further reported that new technologies (such as High Definition and 3D) have also created skills gaps, especially in terms of set design and manufacture and hair and make-up given the added level of detail involved [but not camera-related].
 - A lack of **skilled engineers** and of **engineering skills** - in the context of Broadcast technology. Broadcast engineering courses have also proved unpopular with students in recent years, which has also not helped to address this skills gap;
 - **Programme formatting skills** - stakeholders also raised concerns that Wales may be lagging behind as a result of skills gaps amongst senior producers in programme formatting skills (linked to the convergence agenda);
 - **Special effects** - develop an increased specialism and capacity in special effects in Wales to service both TV and feature film productions.
9. Finding people with the right mix of skills can be difficult - particularly the combination of creative and technical thinking, and a solid foundation of transferable life and work skills. While individuals with deep, specific skills (such as graphic designers or programmers) are relatively easy to find, those with the hybrid or combinations of skills needed by the industry are not. An absence of cross-disciplinary awareness and understanding of role context is particularly significant. Demand for ever increasing levels of skill will require ongoing updating and acquisition of skills by individuals both updating in the latest technology or software and skills in research, information organization and self-education.

10. **STEM skills are increasingly of importance for Fashion & Textiles employers within Wales** - this is in common with fashion and textiles manufacturers across the UK. As the sector looks to maintain its competitiveness advantage by diversifying into and leading the market with innovative and technologically advanced manufacturing and new product development, servicing the requirements of a number of key markets. This is coupled with production processes that are becoming increasingly advanced and technologically reliant.
11. Demand for STEM skills is high amongst fashion and textiles employers in Wales with almost a fifth reporting that attracting STEM graduates was a key skill priority for their business. (Fashion and Textiles employer survey 2008) whilst the Step Up report (2009) highlighted how employers in Wales identified training needs across a number of key STEM reliant occupations, consistent with earlier findings from the 2008 employer survey.

Provision for STEM skills development in the Creative Media and Fashion & Textiles industries in Wales

12. There are some concerns that FE and HE colleges are under-equipped with the latest technologies and that substantial investment is needed into the overall infrastructure in Wales to ensure that students and learners have the best possible and latest equipment/technology to work on.
13. Skillset Cymru is collaborating with stakeholders to address some of these issues – i.e. via the HEFCW and industry funded Skillset Media Academy in Wales and Academi+ project. Skillset Cymru is committed to developing capacity within the Further Education sector to respond to the current and future skills requirements associated with movement towards a Digital Economy in Wales. Skillset is currently piloting the Level 3 Creative and Digital Media Apprenticeship with support from the Welsh Assembly Government’s Sector Priorities Fund Pilot Programme.
14. In October 2009, Skillset announced the establishment of the **Skillset Media Academy for Wales**,¹ which provides support for a range of high-level, industry-focused training, education and development for the key media disciplines of digital entertainment; television and radio broadcasting; scriptwriting; journalism; media technology; special effects; sound technology; animation; digital imaging and photography.

¹ http://www.skillset.org/training/san/nations/article_7409_1.asp

15. Skillset has accredited 2 Animation Courses and 1 Computer Games Course in Wales BA/HND in Art & Design (Computer Animation) and the BA Hons Animation at Glamorgan University; and the BA (Hons) Animation at the University of Wales, Newport. Cyfle is the national vocational training company for the Film, Television and Interactive Content Design Industries in Wales, and a Skillset Approved Industry Training Provider.
16. The Skillset Academi + programme is informed by Skillset Cymru and managed by the Skillset Screen and Media Academies in Wales. The project is co-financed by the HEIs and the Higher Education Funding Council for Wales (HEFCW). The Programme delivers short, medium and long-term courses for professionals working across our industries. The training is focussed on responding to the skills needs of the sector during the economic downturn including convergence skills.
17. **Fashion & Textiles:** Whilst there are considerable resources going into technical textile innovations (such as research activities at the University of Newport), employers are struggling to access training due to the lack of current provision that exists within Wales. Indeed, 30% of fashion and textiles employers in Wales reported the lack of access to suitable off-the-job training as a major issue to them, well above the all sector figure of 21%. (FSW 2005)

The future challenges

18. We believe that Creative digital technologies must be a "priority" in Welsh Universities and the promotion of STEM subjects, should be extended to digital technology. Digital industries require skills and types of creativity that cross boundaries between arts and sciences. Digital businesses are a combination of entertainment, engineering, retailing, design, technology and art and need a different kind of support from the backing given to STEM subjects.
19. In broadcast and those sectors that support others like Facilities and Interactive Content Design, it is thought that the speed of technological change will continue to be substantial. As such, it is predicted that employers in these sectors will focus their training budgets on specialist/technical skills development. In contrast, in the Photo Imaging sector, there is some evidence that advancements in digital technology, specifically, have reached a plateau. In this respect, specialist/technical training may arguably be less prominent and involve keeping up to date with modifications and improvements within the sector.
20. Demand for STEM skills is high amongst fashion and textiles employers in Wales with almost a fifth reporting that attracting STEM graduates was a key skill priority for their business – this is the trend that will continue.

21. We believe that the Welsh Assembly Government should take a much broader view of what subjects are important to the social as well as economic well-being of the country. The Creative Industries has been identified by the Welsh Assembly Government as a priority sector and therefore we believe that courses at Universities that teach within the creative disciplines and have proven to be addressing industry needs (for example, those courses that fall within the Skillset Media Academy and courses accredited by Skillset in Wales) should be funded on par to that of STEM subjects.

22. Whilst a number of key initiatives have and are being delivered or supported by Skillset in Wales linked to the development of digital skills, very often in partnership with Further and Higher Education, more needs to be done to support interdisciplinary training needs. This would produce the 'hybrid' skills needed within our sector - the combination of creative and technical (STEM-subject) thinking, and a solid foundation of transferable life and work skills.

Contact details:

Please note that this evidence will also be included in the Alliance of Sector Skills Councils in Wales' evidence submission. However, if you would like to contact Skillset Cymru directly for more information or any more questions regarding this evidence, please contact:

Gwawr Hughes, Cyfarwyddwraig Skillset Cymru Director

Skillset Cymru, 33-35 West Bute Street, Bae Caerdydd/Cardiff Bay, Caerdydd/Cardiff, CF10 5LH

T: 02920 452 828 - E: Gwawrh@skillset.org