

# UTC – from vision to reality

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# Overview

- Policy background and curriculum context
- UTCs – genesis, aims and progress
- The Black Country UTC – progress so far
- Employer led curriculum in practice
- ... the solution

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- Policy background and curriculum context
- UTCs – genesis, aims and progress
- The Black Country UTC – progress so far
- Employer led curriculum in practice
- ... the solution???

# Policy background and curriculum context

- 14 – 19 Reform (2003)
  - Integrated qualifications framework based on a Diploma model
  - Partial rejection by government
  - 14 – 19 Diplomas
- Academies programme
- Wolf review
- English Baccalaureate
- Technical Baccalaureate ?

# University Technical Colleges

- High quality technical learning leading to employment or higher education
- Employer driven
- National movement – local skills needs
- Teachers and secondees from employers working hand in hand
- Selection at 14
- Bringing together best features of FE, HE and a school environment
- First ones: Black Country UTC, Aston Engineering Academy, (JCB Academy)
- Budget 2011: expansion of the programme to a total of 24 initially

## The Black Country UTC – case study

- Lead sponsor: Walsall College, co-sponsor: University of Wolverhampton
- Opened in September 2011
- Initial cohort of 120 students across Y10 & Y12
  - App 50% girls in Y10!
- Major employer support: SIEMENS, Lemforder, Houghton Designs

# The Black Country UTC – Why is the University of Wolverhampton involved?

- Strategic alignments of aims and priorities around skills and regeneration
  - Knowledge – Innovation - Enterprise
- Changing landscape across all educational sectors
- Innovation is critical in, as well as leading to, Higher Education
- Implications for HE: curriculum, pedagogy, teaching and learning and employer involvement

# The Black Country UTC

## The vision

The UTC will deliver a radical transformation to the education outcomes for the UTC students by providing a demanding and innovative work related learning curriculum led by employers, in partnership with Walsall College and the University of Wolverhampton. The UTC curriculum will drive progression and excellence which is relevant to the regeneration of the region and the emergent employment and social needs of the 21st century. This UTC will strive to end the cycle of low expectation and achievement, and transform the culture of low self-esteem and poor employment prospects for school leavers. (Education Brief, Black Country UTC)

# The Black Country UTC – key features

- The UTC movement proposes radical change to the public, student and employer perception of 14-19 education and training. In particular:
- A longer school day
  - A school year of 40 weeks divided into 5 terms
  - Additional teaching time will provide the potential equivalent of an extra 70% of a typical school year across Years 10&12 and Years 12&13
  - A common pay spine and contractual terms and conditions for all teaching, training, mentoring and delivery staff
  - CPD to ensure staff have recent & relevant experience of the employment sector
  - Each student to have a personal mentor from the employment, engineering or science sectors
  - Transition and progression planned across educational phases
  - Professional accreditation on graduation from the UTC
  - High level access to learning technologies and digital media

# The Black Country UTC – defining characteristics

- Develop individual potential and securing high academic and personal standards for students
- Raise the standards of literacy and numeracy for all students when they first enter the UTC
- Have a true specialism in Engineering and Science
- Develop as a nationally-renowned, specialist education centre of excellence for Engineering, with a focus on Process Engineering and Product Design, and Science, with a focus on Sustainability
- Provide a good academic / technical-vocational balance, with full coverage of the four core National Curriculum subjects and modern foreign language learning at the heart of the curriculum
- Innovative, integrated curriculum
- Cater for the 14-19 age range with the curriculum delivered, in part, through innovative partnerships with business and industry
- Promote independent and team learning through innovative approaches to the curriculum, including the development of “Learning Companies”
- Have a curriculum underpinned by the innovative use of new technologies to secure ‘any-time’ learning
- Offer a comprehensive programme of enrichment and personal development support supported by staff and students from Walsall College and the University of Wolverhampton and industry partners

# The Black Country UTC – curriculum

- Principal learning of the Engineering Diploma translated into employer led projects
- Employers involved in making projects real
- Learning outcomes and assessment criteria mapped into Diploma specification
- Collaboration with Awarding Body (OCR)
- Projects are real, assessment is meaningful

# The Black Country UTC curriculum model

- Curriculum based on local employer need
- Curriculum framework built on extended learning opportunities (8.30 – 5pm, five terms)
- Integrated interdisciplinary/intradisciplinary model
  - Project based
  - Interdisciplinary: Mathematics, English, history, physics, German into Engineering
  - Intradisciplinary: Product design, electrical engineering, mechatronics (employability skills)
- Engineering Diploma plus English Baccalaureate
- Vertically organised learning companies
- Horizontal and vertical progression



## Employer led – in practice at the BCUTC

- Principal learning of the Engineering Diploma translated into employer led projects
- Employers involved in making it a real project
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- **Task 1: Product analysis and design  
(Unit F549: Engineering Design)**
- **Assessment criteria F549 AC 1.1, AC 1.2, AC 2.1, AC 3.1, AC 3.2, AC 4.1, AC 5.1**
- Haughton Design Ltd has been asked to develop a product design for a bedside entertainment system that is to be used by patients who are confined to bed in hospital.
- As a product design consultant you will be responsible for the design from initial research through to the generation of the final design proposal.
- **You will need to:**
  - carry out an analysis of other existing bedside entertainment systems and/or products with a similar function to establish their strengths and weaknesses
  - identify an improvement to the bedside entertainment system you have researched
  - develop designs for an improved bedside entertainment system
  - produce a design brief and justified specification for the bedside entertainment system
  - research standards and legislation appropriate to the bedside entertainment system and apply these to your designs
  - using appropriate presentation and communication techniques produce design ideas for the improved bedside entertainment system
  - define success criteria and devise suitable tests (measurement, mathematical calculation and calibration) to prove the developed design

(BCUTC, OCR, Haughton Design Ltd: 2010)

# Employer led – the answer?

- Curriculum development at UTC more akin to that in FE and HE
- Deep employer engagement (as opposed to surface engagement)
- Parental and student buy-in
- Assessment is mapped into standards and outcomes
- Outcomes are relevant and realistic
- No gap between youngsters' experience and reality
- Impact on soft skills and employability
- Curriculum development leading to further support from employers

# The Black Country UTC – early lessons

- Local/sub-regional specificity
- Break at 14
- Recruitment patterns
- Costs/sustainability (sponsor investment!)
- Underpinning systems and processes
- Expectations
- System and policy readiness for innovation
  - Measuring of progress: league tables vs student destination
  - Measuring of quality (Ofsted)