

Place Services and Economic Growth Scrutiny Committee

10:00	Thursday, 23 February 2017	Committee Room 1, County Hall, Chelmsford, Essex
--------------	---------------------------------------	-------------------------------------------------------------------------

Quorum: 5

Councillor D Louis
Councillor S Barker
Councillor K Bobbin
Councillor T Cutmore
Councillor I Grundy
Councillor C Guglielmi
Councillor T Hedley
Councillor J Huntman
Councillor D Kendall
Councillor C Pond
Councillor S Robinson
Councillor A Turrell
Councillor K Twitchen
Councillor A Wood

Chairman

For information about the meeting please ask for:

Christine Sharland, Scrutiny Officer

Lisa Siggins Committee Officer

Telephone: 033301 34594

Email: lisa.siggins@essex.gov.uk

www.essex.gov.uk/scrutiny



Essex County Council

Essex County Council and Committees Information

All Council and Committee Meetings are held in public unless the business is exempt in accordance with the requirements of the Local Government Act 1972.

Most meetings are held at County Hall, Chelmsford, CM1 1LX. A map and directions to County Hall can be found at the following address on the Council's website:
<http://www.essex.gov.uk/Your-Council/Local-Government-Essex/Pages/Visit-County-Hall.aspx>

There is ramped access to the building for wheelchair users and people with mobility disabilities.

The Council Chamber and Committee Rooms are accessible by lift and are located on the first and second floors of County Hall.

If you have a need for documents in the following formats, large print, Braille, on disk or in alternative languages and easy read please contact the Committee Officer before the meeting takes place. If you have specific access requirements such as access to induction loops, a signer, level access or information in Braille please inform the Committee Officer before the meeting takes place. For any further information contact the Committee Officer.

Induction loop facilities are available in most Meeting Rooms. Specialist head sets are available from Duke Street and E Block Receptions.

The agenda is also available on the Essex County Council website, www.essex.gov.uk. From the Home Page, click on 'Your Council', then on 'Meetings and Agendas'. Finally, select the relevant committee from the calendar of meetings.

Please note that in the interests of improving access to the Council's meetings, a sound recording is made of the public parts of many meetings of the Council's Committees. The Chairman will make an announcement at the start of the meeting if it is being recorded. The recording/webcast service is not guaranteed to be available.

If you are unable to attend and wish to see if the recording/webcast is available you can visit this link www.essex.gov.uk/Your-Council any time after the meeting starts. Any audio available can be accessed via the 'On air now!' box in the centre of the page, or the links immediately below it.

Part 1

(During consideration of these items the meeting is likely to be open to the press and public)

		Pages
1	Apologies and Substitution Notices The Committee Officer to report receipt (if any) .	
2	Declarations of Interest To note any declarations of interest to be made by Members in accordance with the Members' Code of Conduct	
3	Minutes To approve as a correct record the Minutes of the meeting held on 17 January 2017.	5 - 10
4	Questions from the Public A period of up to 15 minutes will be allowed for members of the public to ask questions or make representations on any item on the agenda for this meeting. On arrival, and before the start of the meeting, please register with the Committee Officer.	
5	Essex Employment and Skills Board To receive a briefing from the Essex Skills and Employment Board, and consider an update on the Jobs, Skills and Welfare Scrutiny Report as set out in report PSEG/07/17.	11 - 58
6	Corporate Information Services and Communications Support to Frontline Services To consider report PSEG/08/17 and a briefing on the support provided by the Council's Information Services (IS) and Communications Teams to the Flood and Water Management Team in respect of the Third Party Responsibilities and Flood Enforcement Scrutiny Report in Essex Scrutiny Report.	59 - 72
7	Passenger Transport To receive report PSEG/09/17 and a briefing updating the Committee on passenger transport matters affecting Essex.	73 - 78

- | | | |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| 8 | Call In Of Decision - FP/686/12/16 Proposed One Way
7.5 Tonnes Weight Limit On Oak Road, Rivenhall
To receive report PSEG/10/17 confirming that no further
action will be undertaken in respect of the call in of this
particular decision. | 79 - 80 |
| 9 | Work Programme
To receive report PSEG/11/17 concerning the Committee's
work programme. | 81 - 82 |
| 10 | Date of Next Meeting
To note that the next committee activity day will be
on Thursday 23 March 2017. | |
| 11 | Urgent Business
To consider any matter which in the opinion of the Chairman
should be considered in public by reason of special
circumstances (to be specified) as a matter of urgency. | |
| 12 | Urgent Exempt Business
To consider in private any other matter which in the opinion
of the Chairman should be considered by reason of special
circumstances (to be specified) as a matter of urgency. | |

Exempt Items

(During consideration of these items the meeting is not likely to be open to the
press and public)

To consider whether the press and public should be excluded from the meeting during consideration of an agenda item on the grounds that it involves the likely disclosure of exempt information as specified in Part I of Schedule 12A of the Local Government Act 1972 or it being confidential for the purposes of Section 100A(2) of that Act.

In each case, Members are asked to decide whether, in all the circumstances, the public interest in maintaining the exemption (and discussing the matter in private) outweighs the public interest in disclosing the information.

Minutes of the meeting of the Place Services and Economic Growth Scrutiny Committee, held in Committee Room 1 County Hall, Chelmsford, Essex on Tuesday, 17 January 2017

Present:

Councillor D Louis (Chairman)	Councillor N Hume
Councillor B Aspinell	Councillor D Kendall
Councillor K Bobbin	Councillor S Robinson
Councillor T Cutmore	Councillor K Twitchen
Councillor I Grundy	Councillor A Wood
Councillor C Guglielmi	

The following Officers were present in support throughout the meeting:

Christine Sharland	-	Scrutiny Officer
Lisa Siggins	-	Committee Officer

1 Apologies for Absence

Apologies were received from Councillors Hedley and Pond, Councillor Barker who was substituted at the meeting by Councillor Hume and from Councillor Turrell who substituted by Councillor Aspinell.

2 Minutes

The Minutes of the Committee meeting held on 24 November 2016 were approved as a correct record and signed by the Chairman.

3 Declarations of Interest

No declarations of interest were submitted at this meeting

4 Questions from the Public

There were no questions raised by members of the public.

5 Greater Essex Growth And Infrastructure Framework

The Committee considered report PSEG/01/17 on the Greater Essex Growth And Infrastructure Framework (GIF) by way of the Cabinet's response to recommendation 4 set out in the 'Third Party Responsibilities and Flood Enforcement in Essex' scrutiny report namely the identification of infrastructure needs across the county. The recommendation focussed upon how the County Council is co-ordinating its activities to identify and address overall infrastructure needs in Essex.

At the meeting the Committee received a PowerPoint presentation on the GIF from Councillor Kevin Bentley, Cabinet Member for Economic Growth,

Infrastructure and Partnerships, and Graham Thomas, Head of Commissioning: Strategic Planning, Housing Growth & Development. An overview of the GIF was also set out in the briefing paper attached to report PSEG/01/17.

The GIF was initiated by Essex County Council and delivered with support from the Housing and Connectivity and Infrastructure and Growth Workstreams of the Greater Essex devolution programme. It provides a detailed evidence base, which can be used to develop priorities and lobby other agencies for support for planned growth. Infrastructure is defined broadly and includes flood prevention, health, education, social care, green space, and transportation. The principle of the GIF is supported by all 15 Local Authorities across Essex, and all, are actively engaged to refine the document to produce a strategic position for each district, the four sub-regions and an overall Greater Essex position.

The GIF will be finalised in due course, and its endorsement will be sought in March 2017. At the meeting Members took the opportunity to seek clarification on various aspects of the GIF from the Cabinet Member.

With particular reference to the NHS, Members were pleased to learn about the interest shown by the NHS at a regional level in the 20 year strategic plan, and were keen to support what appears to be emerging as a positive opportunity to develop improved relationships with other service providers including the NHS and the utilities. Currently the NHS produces 5 year strategic plans. It was anticipated that there will be more local discussion to facilitate action to bridge identified gaps.

The Committee suggested that Councillor Bentley provide a tailored briefing for the Health Overview and Scrutiny Committee (HOSC) on the GIF in order to raise awareness of the strategic plan for Greater Essex, and foster more effective dialogue with the NHS in the planning of strategic infrastructure moving forward.

The GIF provides a key evidence base for strategic planning and infrastructure purposes across Essex over the 20 year framework up to 2036. Given the importance of the framework Cllr Bentley suggested that the Committee be updated on an annual or bi annual basis on the GIF, and the delivery of growth and infrastructure.

Councillor Bentley expressed his hope that other Essex Councils would raise their own Members' awareness of the GIF as he was doing through this Scrutiny Committee

On behalf of the Committee the Chairman thanked Councillor Bentley and Graham Thomas for an informative and interesting briefing.

While no specific issues were identified for further specific scrutiny investigation, a progress report on the GIF would be included in the Committee's future work programme.

The Committee received report PSEG/02/17 on this scrutiny report.

At its meeting on 22 September, Councillor Bentley, Cabinet Member for Economic Growth, Infrastructure and Partnerships, had provided an oral response to the Scrutiny Report entitled 'We can work it out: The case for a locally determined employment, skills, careers advice and welfare for work system in Essex'. At the following meeting on 20 October he provided a detailed written response to the sixteen recommendations set out in the scrutiny report. His letter and formal response were reproduced at the Appendix to report PSEG/02/17.

At this meeting the Cabinet Member answered Member's questions and drew attention to some of the detail in his written response as well as providing an update on related matters.

The Committee's consideration included the following points:

- ECC is working with the construction industry to promote skills required by this industry, and to address the skills gap.
- A new college is being constructed at Stansted airport specialising in aviation training.
- Work is in progress to promote qualifications in the care and health sector.
- Work is in progress to improve transport connectivity in respect of schools and further education establishments.
- Essex has some of the lowest NEET numbers in the country, but it will be impossible to achieve a zero rate as there are some people who are very hard to reach eg they travel a lot and cannot be contacted.
- The Local Government Association has written to the Council's Leader to invite Essex County Council to take part in a project. The Cabinet Member confirmed a response was in hand.
- Councillor Bentley confirmed that a suggestion for an Essex MP to be approached to sponsor the scrutiny report was a matter for the Committee to address rather than the Cabinet Member. The Committee discussed an option that a letter be sent to Robert Halfon MP, Harlow given the interest he has shown in the topic of jobs and skills, albeit he has already been written to as a Government Minister.
- A copy of the final version of the White Paper report will be sent to the Committee.
- The Chairman confirmed that of the five letters sent to the Government, he has received one response from Damien Green MP, Secretary of State for Work and Pensions dated 6 December 2016.

The Committee noted that Suzanne Jude, Chairman of the Essex Employment and Skills Board has accepted an invitation to attend the February Committee meeting to provide information on its activities, as well as feedback on the Scrutiny Report.

On behalf of the Committee the Chairman thanked Councillor Bentley for his update and clarification of some of the outstanding issues from the Scrutiny Report, so that the Committee could move forward in drawing this particular

investigation to a conclusion.

7 Third Party Responsibilities And Flood Enforcement Scrutiny Report

The Committee received report PSEG/03/17 on the Cabinet response to recommendations 2 and 3 set out in this Scrutiny Report, which was endorsed in November 2015 (Minute 8).

On 22 September 2016 (Minute 6) Councillor Walsh, Cabinet Member for Environment and Waste, and Councillor Johnson, Cabinet Member for Highways and Transport, had submitted a detailed written response to recommendations 2 and 3 insofar as they related to their Cabinet portfolios. The original response was attached as a briefing paper to report PSEG/03/17. However, the Committee decided at that time that it wished to invite the Cabinet Members to a future meeting to answer in person its questions on their written responses. Consequently Councillors Walsh and Johnson, attended this meeting to provide oral updates and answer questions including those set out in report. They were supported respectively by Peter Maisie, Head of Commissioning Essex Highways, and Lucy Shepherd, Lead Local Flood Authority Manager.

Councillor Johnson confirmed that the Highways Enforcement pilot project in Maldon had been successful and is being rolled out across the County. However, the Enforcement Team was small with limited resources so there would have to be prioritisation of work involving strict criteria. Questions on gully cleansing were raised, and although answers were given it was pointed out that gullies were not the focus of scrutiny review.

Councillor Walsh confirmed there is an approved Enforcement Strategy in place. It will be updated this year and take account of the capital programme. He indicated that he would update the Committee on this matter later in the year.

In response to questions on sharing of flood expertise with local planning authority teams for the consideration of planning applications, it was confirmed that all District Councils had been offered a service level agreement (SLA) for £2000 during this financial year but only 50% had taken up opportunity. Details on the package being offered at £2000 and identity of Councils using the service would be forwarded to Committee Members.

It was agreed that Lucy Shepherd would provide information on SLAs with District Councils for circulation to the Committee, and information on Environment Agency investment on Essex coastal defences.

On behalf of the Committee the Chairman thanked Councillors Johnson and Walsh, and Ms Shepherd for attending, and clarifying outstanding issues so that monitoring of this investigation could be drawn to a conclusion.

8 Call In Of Decision - FP/686/12/16 Proposed One Way 7.5 Tonnes Weight Limit On Oak Road, Rivenhall

The Committee noted report PSEG/04/17 and its addendum explaining the delay

in proceedings as agreed by both parties to the call in.

9 Call In Of Decision - FP/687/12/16 Proposed 20mph Speed Limit On The Three Arch And Eastham Estate, Brentwood

The Committee noted report PSEG/05/17 and its addendum regarding the recent call in.

It was noted that call in by Councillor Kendall had been withdrawn as Councillor Johnson, the Cabinet Member for Highways and Transportation, had changed his decision so that a proposal for a traffic regulation Order to introduce a speed limit at Brentwood would be now published.

10 Work Programme

The Committee noted report PSEG/06/17 and arrangements underway for the Committee's meetings in February and March 2017.

11 Date of Next Meeting

The Committee noted that there would be a formal Committee meeting on Thursday 23 February 2017.

There being no urgent business the meeting closed at 12.12 pm

Chairman

		AGENDA ITEM 5
		PSEEG/07/17
Committee:	Place Services and Economic Growth Scrutiny Committee	
Date:	23 February 2017	
ESSEX EMPLOYMENT AND SKILLS BOARD (Minute 6/January 2017)		
Enquiries to:	Christine Sharland, Scrutiny Officer Christine.sharland@essex.gov.uk	

- **Essex Employment and Skills Board**

The Board has accepted an invitation from the Committee to attend this meeting in order to provide a briefing on its activities, and its reaction to the Scrutiny Report 'We can work it out: The case for a locally determined employment, skills, careers advice and welfare to work system in Essex' ie the Jobs, Skills and Welfare Scrutiny Report.

A briefing paper has been prepared by the Board and is attached at the Appendix.

- **Update on the Scrutiny Report**

Following the last meeting the Chairman has written to all Essex MPs drawing their attention to the Scrutiny Report as a valuable resource that highlights matters that are pertinent to this county, so that they too may champion its conclusions. It was also pointed out that this Council believes that some of the responsibilities and funding relating to employment, skills, career advice and welfare to work that currently sit with the Government, should be devolved to the local level where local expertise and a strong track record of delivery could be built upon effectively for the benefit of the local population.

Today's meeting will conclude this particular scrutiny investigation albeit that consideration may be given in the future to the inclusion of a new review relating to economic growth and employment. The Committee has received the Cabinet Member's response to the recommendations set out in the Jobs, Skills and Welfare Scrutiny Report, and there are no proposals for any further action on this specific report.

Action required by the Committee at this meeting:

To receive the Essex Employment and Skills Board's briefing, and note concluding action taken in respect of the Scrutiny Report since the last meeting.

Appendix

Essex Employment and Skills Board

Place Services and Economic Growth Scrutiny Committee Meeting on 23 February 2017

Prepared by Caroline Betts, Secretariat for the Essex Employment and Skills Board

Introduction

The South East Local Enterprise Partnership (SE LEP) is the business-led, public/private body established to drive economic growth across East Sussex, Essex, Kent, Medway, Southend and Thurrock.

The Essex Employment and Skills Board (ESB) is the board that feeds into the SE LEP on Essex's employment and skills issues. The ESB is key in determining strategic economic priorities and making investments and delivering activities to drive growth, increase the pipeline of skilled workers and create local jobs and Apprenticeships.

Role of the Board

The ESB board was established in 2014. The primary purpose of the board is to ensure skills provision across Essex is driven by the needs of the employers; and delivers the skills they need by influencing the skills system.

The ESB will also be a vital component in any potential devolution deal as it is proposed that any skills funding decisions be routed through the board.

Background

The ESB was established in 2014. The board is made up of high profile business leaders and is chaired by Suzanne Jude (Raytheon). She is supported by two vice chairs Alison Calnan (Ford) and David Bell (Federation of Small Businesses). The ESB brings together businesses, councils, colleges, universities and other key industry players to form partnerships whose geography properly reflects the natural economic areas of Essex and understanding of the economy.

The board has commissioned a detailed Evidence Base (*use hyperlink to access document*) that outlines the seven key growth sectors and provides an overview of the current and future local skills demand in Greater Essex. This document is highly regarded and referenced in many funding bids whilst also providing a focus for all the programmes the board commission.

Feedback from local businesses, through local data and via national and regional reports continue to highlight skills shortages, recruitment challenges and mismatches between the training people have and what is required. The ESB continues to respond to these skills challenges by developing new and innovative solutions, and by delivering our existing programmes, in order to achieve our mission '*to build the most productive and responsive skills system in the country*'.

Growth Sectors

- Advanced Manufacturing and Engineering
- Care
- Construction
- Finance and Insurance
- Health
- IT, Digital and Creative
- Logistics

Board Members

Suzanne Jude	Raytheon	Chair
David Bell	Simboc/FSB	Vice Chair
Alison Calnan	Ford	Vice Chair
Adele Carnera	IFDS	Finance Sector Lead
Alan Cadman	Cadman	Construction Lead
Andrew Ames	Creative Skills	Creative Lead
Daniel Whyllie	Aldernat Care	Care Lead
Del Hunter	CWind	Energy Lead
Paul Coffey	Coastal Digital	IT/Digital/Creative Lead
Sunil Gupta	NHS	Health Lead
Marion Whitty	Countryside	Construction Lead
Nigel Hookway	Primary heads Ass	Primary School Lead
Simon Thompson	Executive Director ASHE	Secondary School lead
Angela O'Donoghue	South Essex College	FE Lead
Antony Cotterill	University of Essex	HE Lead
Liz Austin	Stansted Airport	Member
Louise Aitken	SELEP skills lead	Member
Paul Hayman	South Essex Teaching Alliance	Member
Ricki Gadsby	ECC on behalf Cllr Bentley	Member
Brin Martin	Southend Council	Observer
David Burch	Essex Chambers of Commerce	Observer
Tim Rignall	Thurrock Council	Observer

Current ESB Programme

Digital Skills for Growth programme: which supported over 70 businesses to develop their Digital Skilled workforce by both upskilling existing staff or recruiting and upskilling new starters.

Tutor/Assessor CPD programme: In order to ensure that Greater Essex FE colleges and training providers have the most knowledgeable and industry aware staff the ESB ran two successful CPD pilots for the Advanced Manufacturing and Engineering Sector working with local, leading companies in the sector such as Ford, e2v, Raytheon, Flakt Woods and Konica Minolta. The CPD events invited tutors and staff to visit key manufacturing and engineering sites.

The aim of the CPD is to increase tutors knowledge about:

- local industries and businesses,

- the technology and processes they use,
- the roles that they have available
- and the skills challenges these employers face

This information then directly helped providers with curriculum development, lesson planning and enabled them to provide enhanced IAG to their students.

FE Golden Hello, Tutor and Training programme: This grant provides eligible training providers access to grant funding (of up to £5k per tutor) to help them deliver employer led training provision in subject areas where Essex's growth sectors are experiencing skills shortages. The programme has a target to upskill or recruits 30 tutors by April 2017. Investing in improving the quality and knowledge of teaching staff will have a long lasting impact and help create a large pool of highly skilled new entrants entering Essex's growth sectors.

Health and Social Care rotational Apprenticeship programme: The White Paper "Caring for Our Future", sets out the role to play in shaping the local market and working with the NHS and others to integrate local services. As such the ESB have commissioned the delivery of a 'Rotational Apprenticeship' programme that supports the needs of the health and social care sectors by building a flexible workforce with a broad range of skills that are needed in a more integrated services going forward.

Education and Industry STEM programme: Local jobs for local people. This programme is designed to inspire and influences secondary schools students to understand what employment opportunities in our growth sectors are available to them locally. The programme operates in 30 secondary schools in Essex and runs a variety of inspiring projects mentored by businesses; work experience opportunities; awareness raising events; work place visits and recruitments events along with links into the 'Apprenticeship and Promotion Hub' if they are seeking an apprenticeship opportunity.

The following documents outline some of the projects available to school, and are attached as separate annexes to this report:

- Education and Industry STEM Programme Projects North 2016-2017
- Education and Industry STEM Programme Projects South 2016-2017

Careers Enterprise Company (CEC) programme: The ESB is working in partnership with the CEC to inspire and prepare young people for the fast-changing world of work. The Enterprise Adviser Network is a key government initiative set up to ensure employers are more engage with schools. Every secondary school in Essex will have the opportunity to engage with the programme. Each school will be appointed an Enterprise Adviser (EA) which best matches their individual needs. The EA's will be volunteers from the world of work and will be a mixture of public & private sector workers, self-employed and from SMEs as well as large organisations.

Sector Action Groups: are being formed for each of our growth sectors to open dialogue with companies across Greater Essex.

Forth coming programme: for Logistics to qualify and train new drivers; Building Opportunities Construction School which will showcase opportunities; refreshing the Evidence Base and ensuring Essex gets its fair share of funding

The Essex Employment and Skills Board website can be accessed via the following link: <http://essexpartnership.org/content/essex-employment-and-skills-board>



Employment and Skills Board

Education and Industry

STEM Programme

Projects | North
2016-2017

CONTENTS

1	Introduction	3
2	Programme Information	4
3	Term Timetable and Contacts	5
4	List of All Events by Sector	6
	Enrichment Days	6
	Construction	7
	IT, Digital and Creative	8
	Advanced Manufacturing and Engineering	9
	Health and Care	12
	Royal Institution Masterclasses	13
	Customised and Other STEM Projects	14
5	Activity Participation Forms	15

INTRODUCTION

The Essex Employment and Skills Board (ESB)'s Education and Industry STEM programme currently works with 30 secondary schools across Essex to develop greater links with local key industry contacts in order to promote the breadth of opportunities open to Essex students.

Through a range of activities we aim to encourage greater take-up of key sector-related qualifications at GCSE, FE and HE levels, and greater numbers of young people progressing into jobs (including Apprenticeships) in the sectors in question. Those activities include industry-led projects, presentations and one-off activities delivered by local companies, and opportunities for young people to gain valuable experience of work.



Royal Institution (Ri) Science - Engineering Masterclasses

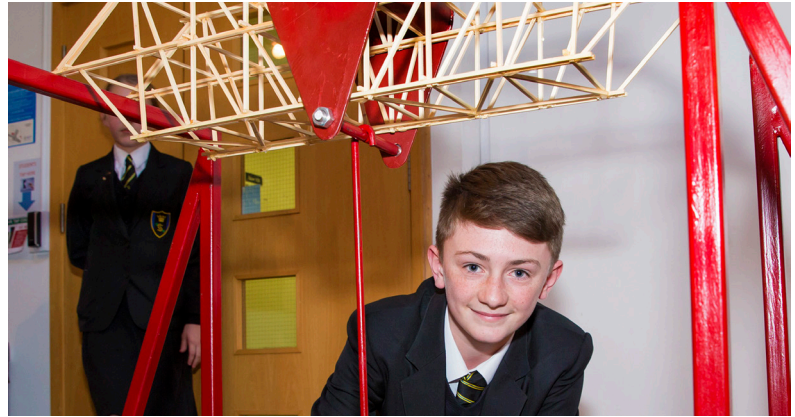
The key to the success of our programme is effective engagement with companies and individuals with a vested interest in supporting delivery. Through this programme, employers are afforded the opportunity to:

- Identify and work with future talent in local schools
- Raise aspirations of young people and direct them to local opportunities
- Raise awareness amongst young people and their families of specific Apprenticeship routes
- Support communication and the sharing of knowledge between industry and education

We have a menu of planned activities for 2016-17 available to schools across the county. Please find the list of activities and projects, listed by date and by sector focus, on page 6 onwards. We invite your school to be part of them.

CHANGES FOR 2016-17

- Schools need to identify a core group of circa 30 students in years 9 & 10
- Certificates will be given to the students at the end of the two year Programme
- Schools will pick a **minimum** of one project for each term
- We will help support 1-2 enrichment days for years 7-8 to inspire pre-GCSE students to think about STEM subjects



UKAYRoC Build a Rocket Competition | AECOM Build a Bridge Competition

CLAIMING FUNDING

We will endeavour to support the best we can on any projects we have listed; if a school wishes to claim any financial help please check with your Skills Manager first before making arrangements.

We have strict procedures regarding the end of the financial year. This means we cannot retrospectively pay for anything after we have submitted our accruals in March 2017. Please be diligent regarding any funding promised – we will send reminders at the end of the year but be aware that without your input your school may miss out.

TRANSPORT

To enable students to attend activities it is envisioned that the schools will use their minibuses. On occasions where this is not viable please contact your Skills Manager.

TERM TIME TABLE 2016-17

2016-17	First day of term	Last day of term
Autumn Term	Thursday 1 September 2016	Friday 21 October 2016
Autumn Term	Monday 31 October 2016	Wednesday 21 December 2016
Spring Term	Thursday 5 January 2017	Friday 10 February 2017
Spring Term	Monday 20 February 2017	Friday 31 March 2017
Summer Term	Tuesday 18 April 2017	Friday 26 May 2017
Summer Term	Monday 5 June 2017	Friday 21 July 2017

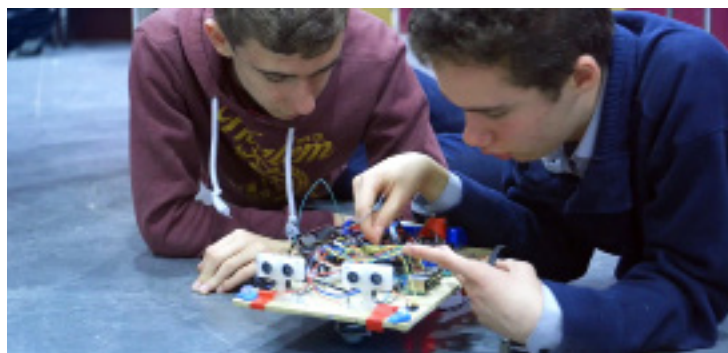
E&I STEM PROGRAMME CONTACTS

James Wilkinson

Skills Manager
james.wilkinson@essex.gov.uk
03330 131289
07584 262943

Fern Gower

Senior Skills Officer
fern.gower@essex.gov.uk
03330 130937



Ri Science Show - Explosive Food Event | Future of Essex EDA winner 2016

Look out for these symbols to give you a guide as to what you can expect from the events below:



Careers Event



Industry Visit



Project



Work Experience

ENRICHMENT DAYS

Royal Institution Science Shows

Target Year Group(s): [Years 7-8](#)

Participant Numbers: [Up to 450 students and 30 staff members](#)



These shows are jam-packed with experiments, demonstrations and the odd explosion! The shows give students, teachers and families a chance to see the **Royal Institution's** specially trained presenters in action, delivering science shows to your students in the school setting. The RI's presenters will deliver two or three science shows to students, and a CPD session for teaching staff.

STEM Speed Networking



Target Year Group(s): [Years 9-11](#)

Date: [Date convenient to the school in question](#)

Schools will be asked to identify students, plus a family member/carer, with a genuine interest in finding out more about careers in STEM. Students will have the opportunity to meet a range of local STEM ambassadors in order to gain a concise insight into STEM careers and opportunities. Students will spend five-six minutes at each table. This will be an opportunity for ambassadors to share details about their own career journey and their day to day work and for the students to ask questions.

Upscience Enrichment Days



Target Year Group(s): [All ages](#)

Participant Numbers: [Up to 30 students in total](#)

Date: [Summer term](#)



Upscience have a catalogue of STEM based workshops and presentations ranging from Rocketry, Aerodynamics, Aviation, Electronics, Microcontrollers, Telemetry, Hydraulics, material sciences, Engineering History, Enterprise and many more. These workshops are suitable for opening events, science and STEM festivals, maker fairs, transition weeks and enterprise weeks.

ARMY IN EDUCATION

Biology | Nutrition and Digestion

Target Year Group(s): [Years 8-9](#)

Students will design an all-in-one ration snack, taking into account energy and nutritional needs when expending a lot of energy. The snack needs to provide the right balance of nutrients and remain safe and stable under a wide range of temperature conditions.

Chemistry | Materials

Target Year Group(s): [Years 8-9](#)

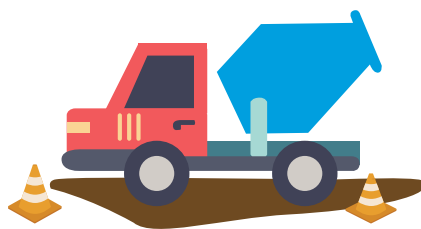
Students look at how to design a protective, lightweight helmet made of composite material. It must be strong and resistant and allow a range of accessories to be attached. Students need to explain how they have combined materials with different properties to provide comfortable, lightweight protection.

Physics | Heating and Thermal Equilibrium and Physical Changes

Target Year Group(s): [Years 8-9](#)

Students look at designing and explaining how a cooling suit will remove heat and allow soldiers to work safely and in comfort without overheating in tropical/arid environments.

CONSTRUCTION



Construction Taster Days



Target Year Group(s): [Year 9](#)

Participant Numbers: [Up to 100 in total](#)

Date: [Autumn term, October-November 16](#)

Delivered off-site, these day-long taster events for year 9 students at schools in and around the county serve to promote professional and technical roles within the construction sector through a combination of presentations and activities, led by local construction firms. We'll look to build upon student interest as they move into year 10 by securing work experience placements and group visits with those same local companies.

CITB CREST Awards



Target Year Group(s): [Years 9-10](#)

Date: [Throughout the academic year](#)



The CREST Award scheme is managed by the British Science Association and helps young people to discover their passion for Science, Technology, Engineering and Mathematics (STEM) subjects. Many CREST projects develop students' knowledge and skills, supporting their attainment in national curriculum subjects and qualifications. CREST Awards are highly regarded and are the only STEM scheme endorsed by UCAS for students to highlight in personal statements.

The Construction Industry Training Board has developed three CREST challenges for construction and the built environment – 'Sustainable Communities', 'Building Bridges' and 'Casement Park SOS'. Available at Bronze, Silver and Gold levels, students will be supported by CITB professionals and afforded the opportunity to gain exposure to the local construction sector.

IT, DIGITAL AND CREATIVE



'hACKT' - Essex Employment & Skills Board & Mercury Theatre Digital Summer School



Target Year Group(s): **Year 9**

Participant Numbers: **Up to 100 students in total**

When: **Summer term**



hACKT is a week long summer school for young people aged 11-16 to explore drama and theatre making through digital technology and computer game design. Young people will work with **Mercury Theatre** professionals, **Teaboy Games**, a Colchester based app and game design studio, and **BBC Radio One Presenter** Julia Hardy and can expect to use drama, video game design software, choreography, **Raspberry Pi's**, filmmaking and coding to experiment and explore the possibilities of digital creativity.

VEX IQ Robots



Target Year Group(s): **Year 9**

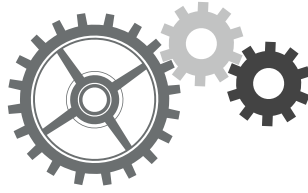
Participant Numbers: **Up to 100 in total**

Date: **Date convenient to school**



With the growing societal need to enhance science, technology, engineering, and mathematics (STEM) instruction in classrooms and beyond, there is a call for integrated learning programs that allow teachers to engage students meaningfully in STEM, especially at the elementary and middle school levels. As the ideal platform for exploring important STEM fundamentals, VEX IQ is proud to offer a twelve-unit curriculum mapped to national standards and ready for classroom use.

ADVANCED MANUFACTURING AND ENGINEERING



ADS Build a Rocket Competition



Open to all age groups with no team member cap. Please note ECC will only fund teams consisting exclusively of E&I STEM Programme pupils.

Date: [Regional competition event in Summer term](#)



The UK Aerospace Youth Rocketry Challenge (UKAYRoC) has proven a huge success in recent years. Teams of students are tasked with building rockets in order to reach a target height, release its payload and see it return to Earth unscathed. Organised by **ADS**, this is an exciting way to learn more about maths and science, with the UK winners getting to compete with international winners.



UKAYRoC - Regional winners Shenfield High School 2015 | National third place winners Stewards Academy

Assisted Living Technologies Engineering Project

Target Year Group(s): [Years 9-11](#)

Participant Numbers: [Teams of eight to ten students comprised of Health and Social Care, Engineering or broader-STEM](#)

When: [Spring/Summer term](#)



To design and build a prototype of an assisted living technology that will make a positive impact on the lives of residents in care homes across Essex. Students will choose to focus on one of a number of categories. ►

- Teams will be linked to care providers in Essex to initially work to research and understand the uses of such technologies locally, and get a feel for the gaps/areas for improvement. Students will visit care providers to meet residents and staff in order to come up with and then develop their idea. Teams will then be linked to a local engineering company to assist in the process of building the prototype. Teams will gather for the final event where they will present to a panel of judges – taken from engineering and social care backgrounds. Teams may work on the project in after-school clubs, or indeed as part of the subject curriculum.

Bloodhound Microbit Car Challenge



Target Year Group(s): [Years 7-11](#)

Participant Numbers: [Teams of four to six students](#)

Date: [Summer term](#)



Teams are tasked with building a model rocket-powered vehicle integrating Micro:bits that have been coded to act as accelerometers that will be 'fired' through a timing gate, along a steel wire. Schools will be linked, prior to the final competition event, to engineering experts to support the design and build process.

Build a Bridge Challenge



Target Year Group(s): [Years 7-11](#)

Participant Numbers: [Teams of four to six students](#)

Date: [Date convenient to school](#)

Ambassadors from civil engineering and construction will support students to design and build a bridge using wooden sticks and glue. At the final, the students' bridges will be attached to a jig and slotted weights will be added until the bridge snaps under the weight.

Colchester Zoo Engineering Project



Target Year Group(s): [Years 7-11](#)

Participant Numbers: [Teams of four to six students](#)

Date: [Summer term](#)



Following on from the success of this year's competition, students will work in teams, with support from local engineering and IT companies, to design and build a prototype feeder for one of **Colchester Zoo's** animal enclosures. The winning entry will be built by participants and installed into the enclosure itself.



Colchester Zoo Engineering Project - Sun Bear Feeder Competition

Drone Build & Flying School

Target Year Group(s): **Years 7-9**

Participant Numbers: **Groups of three (up to four groups)**

Date: **Autumn term | October onwards TBA**

The Boswells Computing Department are offering on a Saturday morning (10:00 - 12:30) the chance for students to come along to learn how to build and fly quadcopters. This will be run in conjunction with the STEM Programme and will be run over a series of 6-8 weeks where students can practice their flying on a simulator and understand the construction of a drone so they will be able to repair them and rebuild them as and when necessary. This will be run by teachers who are passionate and enthusiastic and lead a team of students to win National Raytheon UK Champion status. Since then they have set up their own drone flying school for Boswells students.

Pi in the Sky

Target Year Group(s): **Year 9-10**

Participant Numbers: **TBC**

Date: **Summer term**



Students will be asked to assemble, program and test a device capable of tracking the location of a high altitude balloon. They also have to design and assemble a suitable payload container, considering environmental conditions in flight and safety on landing while monitoring and capturing data throughout the flight for analysis afterwards. In this project students learn the basic operation of a raspberry pi, along with its applications and limitations. Students also learn basic theory of radio and frequency-shift keying (FSK) modulation, along with how it is used to send data.



Target Year Group(s): **Years 9-10**

Participant Numbers: **TBC**

Date: **Summer term**

Students are tasked with designing a Raspberry Pi controlled, programmable buggy. Using a Raspberry Pi and its GPIO pins, your students can program the PiBot in whatever language you like, from Scratch, to Python and C, via Basic, Logo etc. Anything else that works with a Pi can be interfaced, so that means, Raspberry Pi camera, WiFi, LCD screens - the sky's the limit!

HEALTH AND CARE



Developing Careers in Health at ARU



Target Year Group(s): **Year 12**

Participant Numbers: **Up to 80 in total**

Date: **Spring term, February 2017**



Anglia Ruskin University

Health and Social Care students will benefit from a range of presentations and activities, delivered by staff at **Anglia Ruskin University** and industry representatives, serving to highlight the variety of Health-related careers and courses on offer at the University.



Developing Future Social Care Leaders Programme



Target Year Group(s): [Years 9-11](#)

Participant Numbers: [Schools to nominate up to four students](#)

Date: [Throughout 2016-17](#)

Social Care (or with aspirations to work in caring professions). Sessions will be predominantly industry-led, and will serve to highlight the fantastic opportunities available in the sector (and of course salaries!), inform students about the breadth of roles and responsibilities and link potential employees to local companies that expect to be recruiting in the coming years.

Health and Social Care Scenario Events



Target Year Group(s): [Years 7-8](#)

Participant Numbers: [Up to 150 in total](#)

When: [To be agreed with clusters of schools](#)

Students will gain insight into the range of professions and disciplines in the Health sector through this interactive day that includes a re-enactment of an emergency situation and workshops delivered by Health professionals.



ROYAL INSTITUTION MASTERCLASSES

Ri Computer Science Masterclasses



Target Year Group(s): [Year 9](#)

Participant Numbers: [Up to 100 in total](#)

Date: [Spring term](#)

These **Royal Institution** Masterclasses are designed to encourage, inspire and engage young people in the subject of Computer Science.

- Masterclasses are organised regionally and take place on Saturday mornings, with able and mechanically minded students attending from local schools. There are typically at least six 2½ hour classes in each series, with each class being given by a different speaker who is passionate about sharing their own experiences and enthusiasm for the subject. Speakers come from a variety of industries, academic and teaching, and topics have ranged from cyber-security to information technology.

Ri Engineering Masterclasses



Target Year Group(s): [Year 8](#)

Participant Numbers: [Up to 30 students in total](#)

Date: [Autumn term \(Oct. & Nov.\)](#)

The highly successful Royal Institution Engineering Masterclasses are back this year to inspire students in the various possibilities of Engineering and connect their academic knowledge to practical skills in the industry.



Ri Science Engineering Masterclass Session | Hanon Systems

Ri Mathematics Masterclasses

Target Year Group(s): [Year 12](#)

Participant Numbers: [TBC](#)

Date: [Autumn Term \(Sep. & Oct.\)](#)

The Masterclasses are a series of hands-on and interactive extracurricular sessions led by top experts from academia and industry. The Masterclasses aim to open the eyes of young people to the excitement, and value of maths and inspire the next generation. ***Please note this will be run out of Billericay School, Billericay.***

Customised Projects

Please note that the Education & Industry STEM team are happy to help create personalised projects with your school. If you have an ideas please let us know as we can help assist.

Other STEM Projects

If there are any other STEM projects which you are aware of that your school would like to take part in, please notify us.

ACTIVITY PARTICIPATION FORM

In the boxes below please select the activities that you would like your school to take part in for the 2016-17 academic year. You will need to provide us with notice of six weeks if your school can no longer participate in the planned activity. Date confirmations, reminds and relevant information will be sent for each project when appropriate.

Term and Project	Tick
Autumn Term	
Build a Bridge Challenge	
Construction Taster Days	
Royal Institution Mathematics Masterclasses	
Spring Term	
Developing Careers in Health at ARU	
Royal Institution Computer Science Masterclasses	
Summer Term*	
ADS Build a Rocket Competition	
Assisted Living Technologies Engineering Project	
Bloodhound Microbit Car Challenge	
Colchester Zoo Engineering Project	
'hACKT' Summer School	
Pi in the Sky	
Pibots	
Royal Institution Engineering Masterclasses	
Date Convenient to School in Question	
CITB CREST Awards	
Developing Future Social Care Leaders Programme	
Health and Social Care Scenario Events	
Royal Institution Science Shows	
STEM Speed Networking	
VEX IQ Robots	

School Contact Details			
School Name and Address			
Lead Teacher Name (Mr/Mrs/Miss/Ms/Dr)		Department	
E-mail address (Block Capitals)		Phone	
Signature		Date	
Additional Staff			
Teacher Name (Mr/Mrs/Miss/Ms/Dr)		Department	
E-mail address (Block Capitals)		Phone	
Confirmation			
I have had my planning meeting with an E&I STEM Programme member regarding 2016-17 (if 'NO', please identify a meeting time).	YES/NO	If 'NO' Define Meeting Date	

Additional Comments:			

Please note: if you have selected one of the events which states 'Date convenient to school', we will try where possible to accommodate, the desired term or start date. If there is a high demand from other schools for a particular term/date – we will accommodate the majority vote.

Please complete and scan back to fern.gower@essex.gov.uk or send information via excel file/e-mail.

**Please note competition finales are planned for the summer term, however school teams may choose to conduct the planning and development earlier in the school year.*



Employment and Skills Board

Education and Industry

STEM Programme

Projects | South
2016-2017

CONTENTS

1. INTRODUCTION / CHANGES / CLAIMING FUNDING	3
2. TIMETABLE / CONTACTS / KEY	4
3. ENRICHMENT DAYS	5-8
4. CONSTRUCTION	9-10
5. SCIENCE	10-11
6. ADVANCED MANUFACTURING & ENGINEERING	11-16
7. HEALTH & SOCIAL CARE	16-17
8. LOGISTICS.....	18-19
9. RI MASTERCLASSES.....	20
10.CUSTOMISED PROJECTS / OTHER STEM PROJECTS / INDUSTRY VISITS / WORK EXPERIENCE / IN CURRICULUM SUPPORT	21
11. ACTIVITY PARTICPATION FORM	22-23

INTRODUCTION

The Education & Industry (E&I) STEM Programme was created to tackle the ever growing skill shortage in STEM careers. Nationwide counties have identified a decrease in suitable STEM applicants. This programme aims to rectify this by working with a select group of schools that have identified 30 young people who have the ability/passion to pursue STEM related careers.



CHANGES FOR 2016-17

- Schools need to identify a core group of circa **30 students in years 9 and 10**
- Certificates will be given to the students at the end of the two year programme
- Schools will pick a **minimum of one project for each term**
- We will help support 1-2 enrichment days to inspire pre-GCSE students to think about STEM subjects
- It is envisioned that schools will use their minibuses for travel. On occasions where this is not viable please contact your Skills Manager.

CLAIMING FUNDING

We will endeavour to support the best we can on any projects/events we have listed; if a school wishes to claim any financial help please check with your Skills Manager first before making arrangements.

We have strict procedures regarding the end of the financial year. This means we cannot retrospectively pay for anything after we have submitted our accruals in March 2017. Please be diligent regarding any funding promised – we will send reminders at the end of the year but be aware that without your input your school may miss out.

2016-17	First day of term	Last day of term
Autumn Term	Thursday 1 September 2016	Friday 21 October 2016
Autumn Term	Monday 31 October 2016	Wednesday 21 December 2016
Spring Term	Thursday 5 January 2017	Friday 10 February 2017
Spring Term	Monday 20 February 2017	Friday 31 March 2017
Summer Term	Tuesday 18 April 2017	Friday 26 May 2017
Summer Term	Monday 5 June 2017	Friday 21 July 2017

E&I STEM PROGRAMME CONTACTS

Richard Bambridge
 Skills Manager
 richard.bambridge@essex.gov.uk
 03330 130912
 07740 901162

Madison Eisenstadt
 Senior Skills Officer
 madison.eisenstadt
 @essex.gov.uk
 03330 131289



Ri Science Show - Explosive Food Event | Future of Essex EDA winner 2016

Look out for these symbols to give you a guide as to what you can expect from the events below:



Careers Event



Industry Visit



Mentored
Projects



Work Experience

ENRICHMENT DAYS

PROCAT Young Engineers Club



Target Year Group(s): Years 8-9

Participant Numbers: 14

Date: Spring and Summer options however there are limited spaces so please notify interest as soon as possible

Attendance of the PROCAT Young Engineers is an opportunity to extend an interest in engineering and learn new skills. This invite only club runs for 2 weeks and involves parents/careers undertaking a project alongside the students. The aim of the course is for each participant to engineer an item to keep. The manufacturing process will involve real life application of maths as well as developing hand skills when working with wood and metal. There will be time to talk to PROCAT tutors about their time in industry and find out about routes into engineering careers.

Engineers Week at PROCAT



Target Year Group: KS4 or KS5 Engineering students

Participant Number: 14

Date: 19-25th February 2017

Have your engineering students considered their next step into technical professional careers?

Visit the UK's first college of advanced technology during "Engineers Week 19-25th February 2017" to find out about pathways into professional technical careers. 98% of apprentice graduates gain full-time employment in their chosen career. Our technical courses are designed to provide students with the academic and practical skills needed to move into a successful career. Try activities in our fully kitted workshops where our specialist facilities aim to provide a learning experience that is close to industry.

National Apprenticeship Week at PROCAT



Target Year Group: Year 9-10

Participant Number: 14

Date: 14-18th March 2017

If you have students with ambitions to start an apprenticeship in the engineering or construction industry then this is a great opportunity to meet with employers. There will be representatives from advanced manufacture, transport engineering, construction and building services to talk to as well as a variety of hands on tasks. PROCAT would like to work with schools to follow up this event with visits to employers in order for students to get a taste of industry.

QinetiQ Projectile Power!



Target Year Group(s): Years 9-11 (negotiable)

Participant Numbers: Up to 16 students

Date: Negotiable



QinetiQ is inviting teachers and students to spend a day on the live weapons testing and evaluation Range at Ministry of Defence, Shoeburyness.

The day kicks off with an introduction to the Range and the QinetiQ's work with the **UK Armed Forces**. Then follows an exclusive visit to the main large calibre gun firing battery where students can find out what goes on during weapons trials and test the velocity of their kick using the hi-tech instrumentation. In the afternoon, students will be split into small teams and will be given their own Trebuchet to experiment with, testing trajectory, velocity and accuracy. The team that produces the most accurate performance wins the challenge!

Royal Institution Science Shows



Target Year Group(s): Years 7-8

Participant Numbers: Up to 450 students and 30

Staff members

Date: Negotiable

These shows are jam-packed with experiments, demonstrations and the odd explosion! The shows give students, teachers and families a chance to see the **Royal Institution's** specially trained presenters in action, delivering science shows to your students in the school setting. The RI's presenters will deliver two or three science shows to students, and a **CPD session** for teaching staff.

STEM Speed Networking Event



Target Year Group(s): Years 9+

Participant Numbers: Negotiable

Date: Negotiable

STEM Speed Networking is an event which allows students to interact with local STEM industries. Students will gain a better understanding of their local offer and may even develop key contacts which will help them with their post-secondary career choices. Please notify your Skills Manager if you wish to run a bespoke STEM Speed Networking Event in your school.

Upscience Enrichment Days



Target Year Group(s): All

Participant Numbers: Negotiable

Date: Negotiable

Upscience have a catalogue of STEM based workshops and presentations ranging from Rocketry, Aerodynamics, Aviation, Electronics, Microcontrollers, Telemetry, Hydraulics, material sciences, Engineering History, Enterprise and many more. These workshops are suitable for opening events, science and STEM festivals, maker fairs, transition weeks and enterprise weeks.

STEMillions – The new school based club



Target Year Group(s): All (Girls Only)

Date: To be determined by the school

STEMillions⁺

STEMillions is not like your usual school club, this is about empowering the girls to run their own club and providing a support network from industry, facilitated by the Stemettes. The emphasis is on passing it forward: both the girls to other girls and from industry to the girls - increasing their general skills and awareness of STEM roles and their variety in everyday life..

NEW Battelle Open Evening



Target Year Group(s): Years 9+

Participant Numbers: Limited to 100 spaces - please confirm interest asap

Date: Spring Term – 16 March 2017

5.30pm-8.00pm

Battelle UK

Every day, the people of Battelle apply science and technology to solving what matters most. At major technology centres and national laboratories around the world, Battelle conducts research and development, designs and manufactures products, and delivers critical services for government and commercial customers.

For science enthusiastic young people, Battelle will be opening its doors at its Chelmsford labs allowing students to get better insight of analytical chemistry in the work place. Students will get to have a tour of the lab, talk to staff, and a hands-on experience with chromatography.

This is an offer not to miss; being one of the premier science firms in the county Battelle offer many opportunities (including apprenticeships); so ensure your students who are interested in science based careers attend!



CONSTRUCTION



NEW South Essex College Construction Taster Days



Target Year Group(s): Year 9
Participant Numbers: Up to 100 in total
Date: TBC 18th or 25th May 9am – 2.30pm

A day long taster session for year 9 and 10 students particularly interested in a future career in high-end construction roles. Across the day there will be a series of 4 fun, one hour long hands-on workshops inspiring young people to think about roles and opportunities in the sector.

NEW Civil Engineering Masterclasses



Target Year Group(s): Year 9
Participant Numbers: Schools to nominate up to 6 students
Date: ProCAT, Basildon. 6, 13, 20 May 10am-12.30pm

A masterclass is a hands-on session where students work on a task or activity (usually in groups). They are fun, stretching and challenging and will give students an insight into professional and technical roles in the construction sector.

The series is planning to run over three consecutive Saturday mornings from 10am – 12.30pm. Each session is delivered by a different ambassador and seeks to cover a different aspect within to civil engineering eg design, planning, estimating, surveying, architecture etc.

CITB CREST AWARDS



Target Year Group(s): Year 9-10

Date: Throughout the academic year

The CREST Award scheme is managed by the British Science Association and helps young people to discover their passion for STEM subjects. Many CREST projects develop students' knowledge and skills, supporting their attainment in national curriculum subjects and qualifications. CREST Awards are highly regarded and are the only STEM scheme endorsed by UCAS for students to highlight in personal statements.

The Construction Industry Training Board has developed three CREST challenges for construction and the built environment – 'Sustainable Communities', 'Building Bridges' and 'Casement Park SOS'. Available at Bronze, Silver and Gold levels, students will be supported by CITB professionals and afforded the opportunity to gain exposure to the local construction sector.

SCIENCE



Army 'New Science Workshops'



Target Year Group(s): Year 8-9

Date: Negotiable

The Army have developed a suite of three science-based challenges focused on a humanitarian mission scenario. These show the real outcomes of practical science as part of the Army. The activities have been expertly designed and developed in collaboration with the Defence Science and Technology Laboratory and the Institute of Naval Medicine.

BIOLOGY

Subject link: Nutrition and digestion

Students will design an all-in-one ration snack, taking into account energy and nutritional needs when expending a lot of energy. The snack needs to provide the right balance of nutrients and remain safe and stable under a wide range of temperature conditions.

CHEMISTRY

Subject link: Materials (properties of ceramics, polymers and composites).

Students look at how to design a protective, lightweight helmet made of composite material. It must be strong and resistant and allow a range of accessories to be attached. Students need to explain how they have combined materials with different properties to provide comfortable, lightweight protection.

PHYSICS

Subject link: Heating and thermal equilibrium and physical changes.

Students look at designing and explaining how a cooling suit will remove heat and allow soldiers to work safely and in comfort without overheating in tropical/ arid environments.

Army 'Forensic Challenge'



Target Year Group(s): **Year 9+**

Date: **Negotiable**

Think **Army** meets CSI. This exciting new workshop challenges students to use science-based activities to explore the ways in which crime is investigated. The task takes students through an interactive experience that tests their observation, communication, team building and problem solving skills, as they uncover clues and learn about forensic science techniques used in the real world.

ADVANCED MANUFACTURING AND ENGINEERING



ADS UKAY RoC Build a Rocket Competition



Target Year Group(s): Open to all year groups with no team member cap. Please note ECC will only fund teams consisting exclusively of E&I STEM pupils

Date: August 2016 competition opens, rocket launches in April 2017



!!Registration is now open!!

The UK Aerospace Youth Rocketry Challenge (UKAYRoC) has proven a huge success in recent years. Teams of students are tasked with building rockets in order to reach a target height, release its payload and see it return to Earth unscathed. Organised by **ADS**, this is an exciting way to learn more about maths and science, with the UK winners getting to compete with international winners.



UKAYRoC - Regional winners Shenfield High School 2015 | National third place winners Stewards Academy

Bloodhound Microbit Car Challenge

Target Year Group(s): Years 7-8

Participant Numbers: Teams of four to six students

Date: Register date is 30 Sept with competitions in Nov 2016, Feb 2017 and Finals in July 2017



Teams are tasked with building a model rocket-powered vehicle integrating Micro:bits that have been coded to act as accelerometers that will be 'fired' through a timing gate, along a steel wire. Schools will be linked, prior to the final competition event, to engineering experts to support the design and build process.

Bloodhound Car Challenge (Non Microbit)

Target Year Group(s): Years 9-10

Participant Numbers: Teams of four to six students

Date: Summer Term



Teams are tasked with building a rocket-powered vehicle that will be 'fired' through a timing gate, along a steel wire. Schools will be linked, prior to the final competition event, to engineering experts to support the design and build process. Teams will compete against students representing schools across Essex.

Drone Workshops



Target Year Group(s): Year 9

Participant Numbers: Up to 30 students in total

Date: Summer term

Students will have the opportunity to build and fly drones, with support from experts. Workshop delivered at **Stow Maries Aerodrome** on Saturdays. We require commitments of a minimum of three workshops.

Ford Higher Apprentice Challenge

Target Year Group(s): Year 9-10



Participant Numbers: Two teams of five students

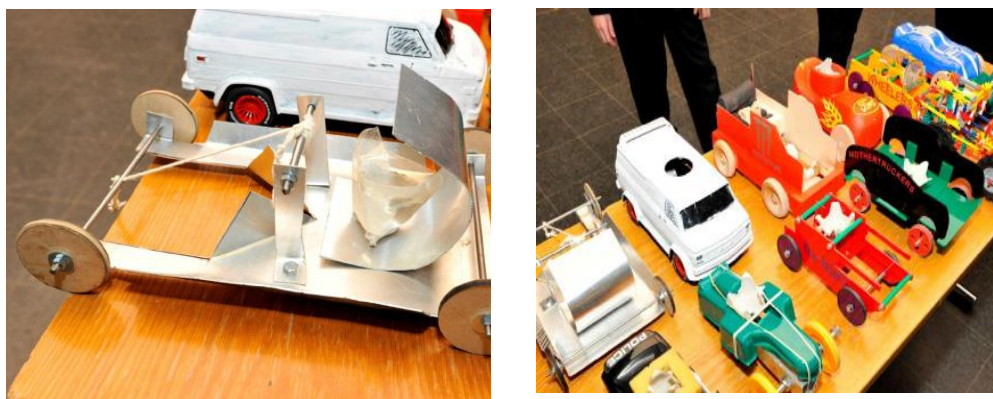
Date: 5 – 28 June 2017



Please note – following the first edition we already received a number of nominations. You can still nominate your school but be advised your school will be put in a waiting list and there is **no guarantee.**

Ford Motor Company UK Higher Apprentices will assist students in teams of five to take part in an Engineering and IT challenge. Students will design, build and develop a vehicle with a braking system to safely transport an egg for the engineering challenge. The IT challenge will see students from schools design and produce a digital experience based on their vehicle. The experience will be in the form of a website, video, or promotional presentation and will include

multimedia elements to show off the masterpieces. Last year's winners of the Ford Higher Apprentice Challenge won an exclusive week of work experience at Ford!



Ford Higher Apprentice Challenge - Ford Motor Company UK

NEW Leonardo's Rampaging Chariots Challenge



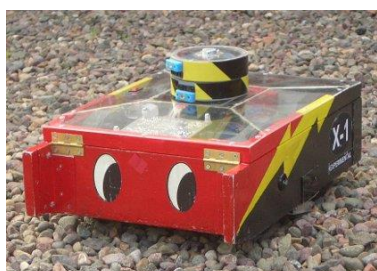
Target Year Group(s): Year 9-10

Participant Numbers: Teams of 3-4

Date: Nominations should be registered in January for the Summer term

Limited places available for this competition, please nominate yourselves in January and we will notify you if you have gained a place.

The Rampaging Chariot is a powerful, radio controlled featherweight sporting robot provided as a mechanical and electronic kit for teams of young people; demonstrating the principles of robotics, basic electronics, woodworking, metalworking skills and project management.". The competition allows each school team of 3 or 4 members to compete in three separate activities. Everyone competes in a timed assault course and there is a choice of two 'strength' events - a tug-of-war and a sumo style wrestling competition where Chariots try to push one another out of the arena! Finally teams of two Rampaging Chariots compete in a football match demanding skill agility and strength.



Pi in the Sky



Target Year Group(s): Year 9-10

Participant Numbers: Groups of four

Date: Summer term

Students will be asked to assemble, program and test a device capable of tracking the location of a high altitude balloon. They also have to design and assemble a suitable payload container, considering environmental conditions in flight and safety on landing while monitoring and capturing data throughout the flight for analysis afterwards. In this project students learn the basic operation of a raspberry pi, along with its applications and limitations. Students also learn basic theory of radio and frequency-shift keying (FSK) modulation, along with how it is used to send data.



Boswells Pi in the Sky

PiBots

Target Year Group(s): Year 9-10

Participant Numbers: Groups of four

Date: Spring term (negotiable)



Students are tasked with designing a Raspberry Pi controlled, programmable buggy. Using a Raspberry Pi and its GPIO pins, your students can program the PiBot in whatever language you like, from Scratch, to Python and C, via Basic, Logo etc. Anything else that works with a Pi can be interfaced, so that means, Raspberry Pi camera, WiFi, LCD screens - the sky's the limit!

Little Planes – Work Experience

Target Year Group(s): **Year 9**

Participant Numbers: **Up to 30 students in total**

Date: **10-13 April, 2017**



Students will have the opportunity to build little peddle controlled planes, with support from experts. Workshop delivered at **Stow Maries Aerodrome** on Saturdays. We require commitments of a minimum of four workshops during Easter Break.



Little Planes – Stow Maries Aerodrome

HEALTH AND CARE



Developing Careers in Health at ARU



Target Year Group(s): Years 12 who are considering a Health or Social Care pathway. They do not have to be on H&S Care courses specifically

Participant Numbers: Up to 80 in total

Date: February 2017

Health and Social Care students will benefit from a range of presentations and activities, delivered by staff at **Anglia Ruskin University** and industry representatives, serving to highlight the variety of Health-related careers and courses on offer at the University.

The day will begin with a short opening presentation from ARU, students will then move to a speed-networking session with Health and Social Care professionals, and then after lunch they'll be rotated around a number of shorter sessions highlighting ARU undergraduate courses in either Health or Social Care. Before leaving the University, ARU will offer students assistance in the future with their UCAS personal statements. The likely session topics through the day will be; Medical Science, Pharmaceutical Science, Operating Department Practitioner, Medical Technologies, Paramedic Science, Nutrition, Social Care & Social Work.

LOGISTICS



European Supply Chain Days

Target Year Group(s): Years 9-10

When: 21 April 2017



After the success of the first two European Supply Chain Days, the Chartered Institute of Logistics and Transport (CILT) is pleased to announce that European Supply Chain Day 2016 will take place on April 21st.

The European Supply Chain Day is a unique and exciting opportunity offering a hands on experience for students to better understand the opportunities in this industry.



THE EDUCATION & INDUSTRY STEM PROGRAMME

LOGISTICS IN SCHOOL DAY

The Essex Education & Industry STEM Programme is looking to promote Logistics to students through a day of fun, immersive and interactive activities designed to develop young people's understanding of logistics.



FREE FOR SCHOOLS



YEAR 8 STUDENTS



1 HR 20 MINS
X 3 SESSIONS

Nova Engage Virtual Reality (VR) Experience

Student will use the Development Kit 2 (VR Headset) and CastAR, Driving Simulation Equipment with Haptic Feedback (for realism) and Software like EuroTruck Simulator to produce a gaming / driver experience that's both fun and engaging.



Business on the Move Board Game

Business on the move is an educational board game to excite and inspire (young) players about global supply chains. The game was developed by two former teachers to support schools to develop partnerships with business. The aim of the game is to;

- Run a logistics business, delivering orders to customers
- Transport goods by air, sea, rail and road from China to customers in the UK
- Aim to be the first to complete deliveries and / or to make the biggest profit

INDUSTRY

Industry will bring equipment along to show to students – ideally it would be of interest to bring a lorry if the school has the capacity to fit this on site. Industry would also talk about their careers plus a Q&A opportunity.



HOW TO GET INVOLVED

How the day will work

Students will be split into 3 groups of 50. Each station will run for 80 mins; after which students will rotate to the next activity.

Schools will provide the venue and also tables and chairs.

Requirements

The day is entirely free for schools however if cancelling with less than 6 weeks costs may need to be recovered.

Schools are promising to provide 150 year 8 students.

Students are required to attend all 3 sessions.

To allow adequate organisation we are suggestion this date be run in March.

Register Interest

- STEP ONE** Confirm interest with the E&I STEM Team
- STEP TWO** Identify a date in March you would like to host this session
- STEP THREE** Confirm venue availability (2 rooms capable of hold 50 students at a time + school grounds and class room)
- STEP FOUR** Send over a list of 150 year 8 student names who will be taking part

ROYAL INSTITUTION MASTERCLASSES



Ri Computer Science Masterclasses

Target Year Group(s): Year 9

Participant Numbers: Schools to nominate up to four students

Date: Saturdays – 6, 13, 20 May + 10, 17, 24 June 2017



These **Royal Institution** Masterclasses are designed to encourage, inspire and engage young people in the subject of Computer Science.

Masterclasses are organised regionally and take place on Saturday mornings, with able and mechanically minded students attending from local schools. There are typically at least six 2½ hour classes in each series, with each class being given by a different speaker who is passionate about sharing their own experiences and enthusiasm for the subject. Speakers come from variety of industries, academic and teaching, and topics have ranged from cyber-security to information technology.

Series to be hosted at The Billericay School, Billericay. It is expected that students will organise their own travel.

Customised Projects

Please note that the Education & Industry STEM team are happy to help create personalised projects with your school. If you have an ideas please let us know as we can help assist.

Other STEM Projects

If there are any other STEM projects which you are aware of that your school would like to take part in, please notify us.

Work Experience

As part of the Education & Industry STEM Programme we endeavour to offer all students relevant work experience in one of the seven priority sectors. Please send CV's as soon as possible along with comments on what industry each student is interested in. A special note to make – we are currently working with the ICHEMI to organise chemical engineering placements.

Industry Visits

As a part of our offer we are able to help with bespoke industry visits. Please let our team know the type of industry you are interested in and suitable dates.

In Curriculum Support

If you would like to arrange industry to help with the delivery of specific topics in the curriculum please do make us aware.

ACTIVITY PARTICIPATION FORM

In the boxes below please select the activities that you would like your school to take part in for the 2016-17 academic year. **You will need to provide us with notice of six weeks if your school can no longer participate in the planned activity.** Date confirmations, reminders and relevant information will be sent for each project when appropriate.

Please note	Please tick (ensure a minimum of 4 projects over the course of the year have been selected)
Spring Term Activity	
ADS Build a Rocket Competition (Project)	
PROCAT Young Engineers Club	
Engineers Week at PROCAT	
National Apprenticeship Week at PROCAT	
Battelle Open Evening	
Developing Careers in Health at ARU	
Pibots (Project)	
Little Planes (during Easter holidays)	
Summer Term Activity	
Bloodhound Microbit Car Challenge (Project)	
Bloodhound (Non Microbit) Car Challenge (Project)	
Ford Higher Apprenticeship Challenge (Project)	
Pi in the Sky (Project)	
Ri Computer MasterClasses (Project)	
Construction Taster Days	
EDT EES Event (Project)	
CILT European Supply Chain Day	
Rampaging Chariots (Project)	
Civil Engineering Masterclasses (Project)	
Ri Computer Science Masterclasses (Project)	
Pibots (Project)	
Drone Workshops (Project)	
PROCAT Young Engineers Club	

Dates convenient to schools (Specify a term where applicable)	
CITB Crest Award	
QinetiQ Projectile Power	
Royal Institution Science Shows	
STEM Speed Networking Event	
Upscience Enrichment Days	
In Curriculum Support	
Industry Visits	
Army 'New Science Workshops'	
STEMettes	
Army 'Forensic Challenge'	
Logistics Day in School	
CILT European Supply Chain Day	

School Contact Details			
School Name & Address			
Lead Teacher Name (MR/MRS/MISS/MS/DR)			
Email			
Signature		Department	
Additional Staff		Phone	
Teacher Name (MR/MRS/MISS/MS/DR)		Email	

Comments

		AGENDA ITEM 6
		PSEG/08/17
Committee:	Place Services and Economic Growth Scrutiny Committee	
Date:	23 February 2017	
Corporate Information Services and Communications Support to Frontline Services		
Enquiries to:	Christine Sharland, Scrutiny Officer Christine.sharland@essex.gov.uk	

Purpose of report

To receive a briefing on the support provided by the Council's Information Services (IS) and Communications Teams to the Flood and Water Management Team.

The briefing has been arranged in response to recommendation 5 contained in the Committee's 'Third Party Responsibilities and Flood Enforcement in Essex' Scrutiny Report.

Background

In November 2015 (Minute 8) the Committee endorsed the Scrutiny Report 'Third Party Responsibilities and Flood Enforcement in Essex'. The scrutiny report contained five recommendations, which were duly sent to the relevant Cabinet Members. The Report can be accessed via the following link: [Scrutiny Report](#)

Alternatively a full copy of the Scrutiny Report may be found on the Essex County Council website www.essex.gov.uk From the Home Page, click on 'Your Council', then on 'Meetings and Agendas', then on 'Public Documents' followed by 'Scrutiny Reports'. Finally, select the scrutiny reports from the list reports that have been published.

As part of the Committee's scrutiny review attention was drawn to the relationship between a frontline service, which in this case is the Flood and Water Management Team, and some of the corporate services they have to rely on to deliver that service.

An extract on raising public awareness from the Scrutiny Report itself is attached at Appendix A to this report.

Raising public awareness about third party responsibilities is an integral part of the County Council's programme for rolling out its flood management programme, and it was evident that it will rely quite heavily upon the effectiveness of the internet, online services, and social media. Overall the Task and Finish Group (TFG) that undertook the in depth investigation, was satisfied that its conclusions were based

upon well evidenced information. However, in the matter of IS and Communications support it was considered that further investigation was required before any final conclusions or recommendations could be reached. Consequently the following recommendation was agreed:

‘That the Task and Finish Group (TFG) conduct a short supplementary scrutiny review of the IT and Communications support provided for the delivery of frontline flood management services using the website and social media, with the aim of reporting to the Committee early in the New Year (2016).’

The TFG did not proceed with the supplementary review as originally envisaged due to the Committee’s resources having to be redirected elsewhere. Nevertheless Councillor Walsh, the Committee’s Chairman at that time, sought further information from the various services in order to consider how the recommendation could be satisfactorily addressed. It was proposed to the Committee that rather than establishing a TFG to conduct a short review it would be worthwhile engaging its full membership by commissioning a briefing to raise awareness of how corporate services may be supporting the Flood and water Management Team in practice now and in the future. It was intended that the briefing should be focussed around the delivery of a frontline service rather than strategic IS and Communications matters that would fall within the remit of the Corporate Services Scrutiny Committee. (Minute 9/ May 2016 refers).

Based upon the original scrutiny review today’s contributors were given the following key lines of enquiry to develop the content of the briefing with an emphasis upon the support provided to the Flood and Water Management Team:

1. How does the County Council organise and manage the provision of IS and communication facilities to its frontline services?
2. How is the provision of those services funded, and what is the impact upon the frontline services?
3. What is the ability of individual Teams to take forward the delivery of their services using the internet and social media tools?
4. Bearing in mind the importance of partnership working across organisations, what are the challenges faced by the Council in terms of compatibility between IS systems and how can problems be overcome?
5. To what extent are the Council’s own IS systems across the organisation integrated, and what is the programme for any necessary improvements?
6. How is the future development of IS and communications being taken forward, and the implications for a frontline service?

Analysis

A briefing paper is attached at Appendix B.

Councillor Stephen Canning, Cabinet Member for Digital Innovation, IT and Customer Services, will be attending the meeting together with Andrew Webb, IS

Technical Business Relationship Manager, and Kathryn Dedman, SUDS Approval Body Manager.

Action required by the Committee at this meeting:

To consider the information provided through the briefing in response to recommendation 5 set out in this report. If there are any particular issues where further investigation may be considered necessary then a recommendation should be referred to the appropriate scrutiny committee with reasons for that referral.

Appendix A

Extract from the Third Party Responsibilities and Flood Enforcement in Essex Scrutiny Report dated November 2015

- **ECC Flood Management Website**

In June 2015 with the endorsement of the Essex Flood Partnership Board, the Flood & Water Management Team launched an animated version of the Essex Flood Risk Strategy on all forms of media including the County Council's website hosted under the 'what we do' pages, about the LLFA's Strategy. The site includes a three minute video, and provides seamless referral to the correct body responsible for different flooding issues. Unfortunately on the day that the Group viewed the website not all the links were fully functional.

It is available via the following link- *Please note that this link can no longer be opened site has been updated since scrutiny report published,*

There are proposals to develop online facilities via the website too so that advice can be sought easily, and processes around Section 23 consents and SuDS can be handled more efficiently.

The Flood Team drew attention to the toolkit that has been published by Northamptonshire County Council and is considered to be very good being held up as best practice by other LLFAs. However, it is expensive to acquire the toolkit and ECC has no proposals to acquire it.

Overall the Group was mindful of the importance of good information technology and its effective application. On behalf of the Group Councillor Pond had sought the views of the Epping Forest District Council contributors given their proven experience in raising public awareness about flood alleviation. While that Council had conducted some successful campaigns using informative printed leaflets, their distribution had been limited to targeted areas and delivery to households. It was agreed that publication of information via the internet is now essential providing access for a much wider audience than in the past. Similarly Councillor Butland had sought the views of Braintree District Council to obtain some additional views on steps that those Councils had taken around communication.

While the importance of imparting information through good electronic means cannot be overstated, contributors reinforced Members' own sentiments that a variety of communication channels need to be used including the internet, social media, distribution of leaflets, and attending meetings and other forum to engage directly with the public. On a practical level information that is published should be easy to understand and navigate, with key information such as telephone contact numbers and related website links being clearly provided in prominent positions.

The Group's consideration of the action being taken to raise public awareness using electronic means was at a time when changes were in the process of being made. IT and social media are a key component in the ability of the LLFA to engage more closely with the community in order to fulfil the County Council's statutory duties

around flood management. This also co-incides with the Council's strategic actions on the indicator 'Preventable flooding incidents' in the commissioning strategy 'People in Essex experience a high quality and sustainable environment'.

At a late stage in the production of the scrutiny report, concerns arose about the IT support and facilities available to the Flood Team that will play a key role in the development of frontline commissioned services. Aside from the need to be able to deliver effective online services, the Group learned that some members of the public had drawn the Team's attention to difficulties encountered in accessing online services via the County Council's website.

The scrutiny investigation has highlighted flood management as a positive example of a new evolving service where joined up working across services and teams as well as with other external bodies, is producing positive benefits. It is an area of high profile activity that is growing in stature not only as a result of the LLFA's proactive approach to embedding a new service necessary to fulfil the County Council's statutory responsibilities, but in terms of the wider flood agenda such as SuDS and infrastructure.

The impact of current IT facilities upon the development of flood management in particular is perhaps an area where the Task and Finish Group should undertake a short supplementary investigation. While welcoming the progress that has been made by the Flood and Highways Enforcement Teams during the scrutiny review, councillors were mindful that effective online facilities are crucial to the roll out of flood prevention measures. In practice the scrutiny review has proven to be a useful vehicle providing third party challenge to the way flood enforcement is moving forward, and it could be construed as an oversight if the matter of corporate IT support in the delivery of flood management services is not addressed satisfactorily given its underlying importance for engaging with the public.

Appendix B

Corporate Information Services and Communications Support

This briefing paper was commissioned as part of the actions arising from the Place Services and Economic Growth Scrutiny Committee's Scrutiny Report on 'Third Party Responsibilities and Flood Enforcement in Essex' for its meeting on 23 February 2017

The paper has been prepared on behalf of Councillor Canning, Cabinet Member for Digital Innovation, IT and Customer Services, by the following officers:

- Lucy Shepherd, Lead Local Flood Authority Manager
- Andy Webb, IS Technical Business Relationship Manager
- Georgianna Young, Digital Delivery Manager, Customer Services
- Andy Allsopp, Head of Communications and Marketing
- Hilary Rodgers, Channels, Digital and Social Media Manager

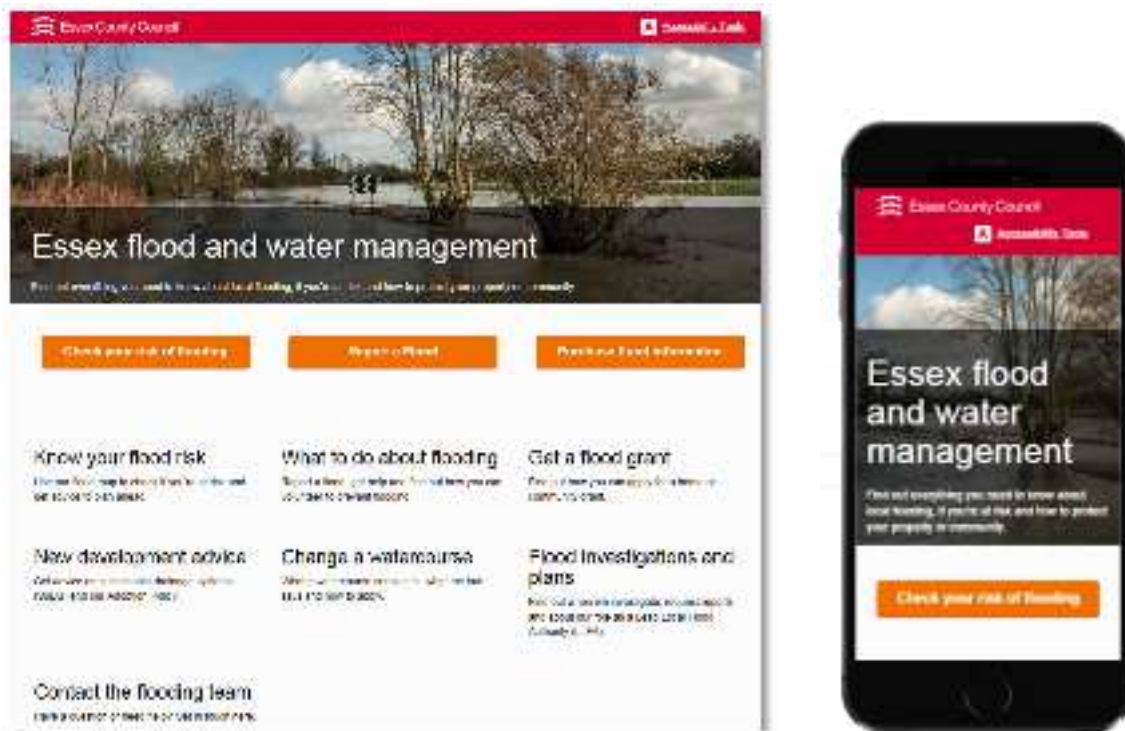
Overview of the Flood and Water Management Team

Since becoming established as a 'Lead Local Flood Authority' in 2010 after the implementation of the Flood and Water Management Act, Essex County Council (ECC) has developed a team of thirteen specialists, delivering a range of statutory and chargeable services.

Essex is considered a nationally high flood risk area with a total of 108,000 properties at risk from sources including the sea, main rivers, and surface water or rainfall flooding. In recent years we have seen some severe downpours and many cases of properties flooding internally. This has increased the customer and political focus on our role in managing flooding, along with a higher level of expectation. The support the Flood and Water Management Team receives from Communications and Information Support services has the potential to help it educate its customers, promote self-service and manage demand. The Team is keen to create a more structured communications plan in line with the emerging digital strategy. It would also like to develop its software and skills, enabling it to operate as a competitive traded service, with marketing and communications support to promote this. Its main aims are to ensure that future development is sustainable, and communities and individuals are safer from the risk of flooding.

Updates on Recent Progress

Working with the Flood and Water Management team, the Digital Channels Programme team have designed and delivered a new website. The site is designed for accessibility and is mobile responsive. The work involved cutting the technical content down and rewriting in user friendly language. The site was content was structured around customer journeys, clear 'call to action' buttons have been added to the homepage for the most frequently requested information and services. New online applications have been created for grants and existing forms have been reviewed and improved.



Source : <http://flood.essex.gov.uk/>

Following feedback from Councillor Brown, additional emergency information content has been added to the site. This provides residents with a one stop information page for advice, contact numbers and signposting to other services.

<http://flood.essex.gov.uk/what-to-do-about-flooding/in-an-emergency/>

Information Services recently recruited two business relationship managers to lead on strategic alignment and development across place-based and people-based Council services. They are engaged with the Flood Management team at this time working to develop the business case for new commercial services. The proposal includes sales and service management software to support the new business model, provided through the Council's Digital Foundations Programme which is itself moving through the governance process.

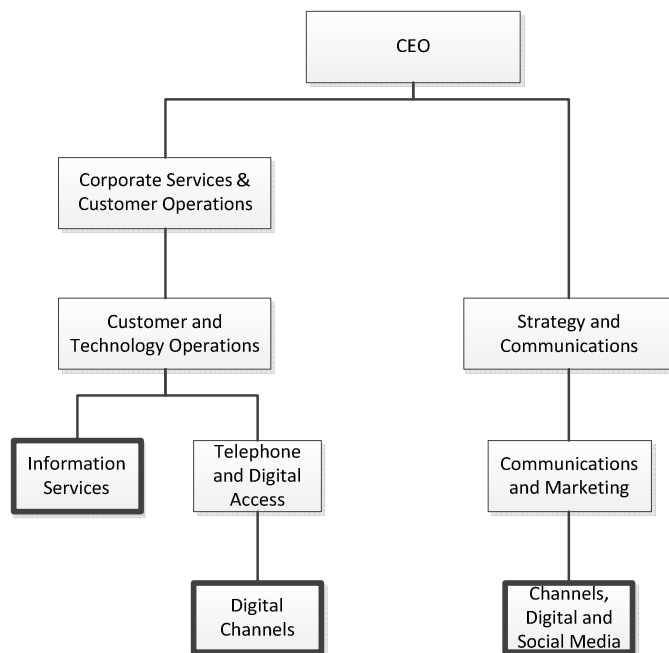
The Information Services projects team have also worked with the Flood Management team on initial trials of specialist flood modelling software. The team found some issues around compatibility and performance between the software and standard ECC laptops and have proposed an alternative and more flexible approach should the flood modelling software be procured.

Key Lines of Enquiry

1. How does the County Council organise and manage the provision of IS and communication facilities to its frontline services?

Under the current organisational structure, Information Services and the Digital Channels programme are both part of Customer and Technology Operations. Social media services and web content editing report thorough the Director for Strategy and Communications. The Digital Channels team design and create web sites and the

Communications team are responsible for ongoing management of content within sites.



Current service structure, December 2016.

The Council operates a mixed sourcing model for the provision of Information Services. The core team provides a range of management, technical and development services. Further specific services are delivered by strategic partners. For example, a contract for Next Generation Network services was let to Daisy Update Communications Limited and includes data network services across our estate, telephony services and contact centre facilities.

Information Services are designed around recognised good practice including ITIL (Information Technology Infrastructure Library i.e. a globally-recognized, comprehensive set of guidelines and best practices for IT services), and most services can be accessed through a self-service Online Portal. The wider IS leadership team also includes two business relationship managers who provide a strategic consultancy and engagement service across the organisation and with partners.

The Service Level Agreement for Information Services is available on the Intranet and through the link below

<http://supportworks/sw/kb/documents/sla2015.pdf>

The Digital Channels Programme is small multi skilled team. They focus on the customer, putting their energy into delivering tangible benefits that make a difference to the customer. The programme is making access to ECC simpler and more in line with customer expectations by moving more services to digital (channel shift) and implementing self-service wherever possible. This means that these interactions can take place at a time that fits with customer lifestyles; 24 hours a day 7 days a week, on a medium that the customer chooses. The team have adopted Agile working to develop innovative portals and solutions built around excellence in customer

experience; the first time this method has been used within ECC. By taking an iterative approach, it allows them to take into account new technological developments, changes to services, customer demand and expectations as well as the context in which we are operating. It importantly reduces the risk of a major investment upfront, by requesting a series of investment 'instalments' and allows the success of the programme to be demonstrated in smaller, more manageable phases of transformation.

Communications provides full service communications across all audiences as part of business-as-usual outputs and also in the event of an incident or emergency. A campaign to increase awareness of ECC's approach to flooding would require additional campaign budget.

2. How are the provision of these services funded, and what is the impact upon the front line services?

Information Services are fully funded through a mixed model. Staff time for standard (Business as Usual) services such as incidents and simple service requests are funded through a central base budget. Projects resources are recharged directly, in line with the approach set out in the Service Level Agreement.

The Digital Channels programme is funded centrally on a per-project basis through the Investment Board.

Front line services typically need to budget or bid for funding to provide resources for technology projects. IS Business Relationship Managers can now provide support in developing business cases and outline requirements for digital and technology services.

Communications support is predominantly funded through the Strategy and Communications corporate allocation but the team does generate its own income on much more limited basis from partners.

3. What is the ability of individual Teams to take forward the delivery of their services using the internet and social media tools?

A devolved approach to social media is applied across the organisation, with Corporate Communications providing advice, training and general support (along with the necessary policy and procedures) to ensure consistency of approach. In the event of a major incident like a flood, corporate communications would lead on social media messaging, coordinated through established links with other blue light communications teams.

4. Bearing in mind the importance of partnership working across organisations, what are the challenges faced by the Council in terms of compatibility between IS systems and how can problems be overcome?

The prevailing model for Information Systems security and delivery amongst most organisations has long been insular, providing services for employees and protecting organisational borders from external access. This creates challenges in facilitating

requests to allow external suppliers and partners access to systems like our Intranet. The hurdles that must be overcome include compliance with data protection law, compliance with software licensing agreements and maintaining effective network and cyber security controls. As an example, Ringway Jacobs are a significant partner but do not currently have access to our Intranet data and services.

Flood services rely heavily on geographical (GIS) map data. The flood management team would benefit from greater access to GIS data held by district authorities and other partners. The scope, currency and format of data varies from authority to authority. GIS resource varies considerably from partner to partner. Some authorities have a dedicated GIS team whereas in others, GIS may be one of a number of responsibilities of a single post.

Authorities and partners have also made different investments in computing devices and software. For example, some of our commercial partners have invested heavily in supporting mobile computing devices and specialist flood modelling software. We do not currently have the technical infrastructure in place to support a wide range of mobile devices while maintaining security around our most sensitive sets of personal data such as social care records.

There are also challenges in supporting small installations of highly specialised software such as flood modelling applications. Due to the demands these place on computers and the network, they may require additional investment to ensure that employees can expect a reasonable experience when using the software.

A specific area of challenge is sharing large amounts of data with partners. The Flood Management team do not have access to a service that allows very large files to be shared with other organisations.

A number of work streams are in place to address these points and they are covered later in this report.

5. To what extent are the Council's own IS systems across the organisation integrated, and what is the programme for any necessary improvements?

The Council has standardised around widely used core technology from well-known suppliers including Microsoft and Dell. This continues to create opportunities to integrate systems across the authority.

The Flood Management team have highlighted GIS mapping data as an area where there is significant scope to join up information across the organisation. For example, each services area will typically maintain their own set of mapping data for local requirements and this can lead to duplication of information. Where data can be shared, it may not have been developed in a suitable format to meet other services' requirements.

6. How is the future development of IS and communications being taken forward, and the implications for a frontline service?

The Digital Foundations Programme led by Information Services is a roadmap for technology investment and delivery that will provide the computing devices and software to enable the authority's digital journey. This includes further work to join up information across the authority and greater flexibility in choice of laptop and mobile computing devices. The full business case has been submitted and is currently under consideration. Information Services have started to deploy Egress software initially to the IS Superuser community. This software can be trialled with the Flood Management team and is designed to move large files quickly and securely between organisations.

Information Services are configuring our Intranet and network to allow controlled access to Ringway Jacobs' highways employees. It is intended that this is extended to Mitie staff and then as a general model for partner access. This has included negotiation with our software suppliers to ensure that any additional license costs are minimised and services will be available by the end of Quarter one 2017.

Collaborating around GIS map data is a complex challenge. Information Services are currently completing a review of GIS services and data. This will include scope for further harmonisation of map data within the authority. Collaboration between partners might best be encouraged through agreeing standards amongst the GIS community, perhaps through the Essex Online Partnership GIS group.

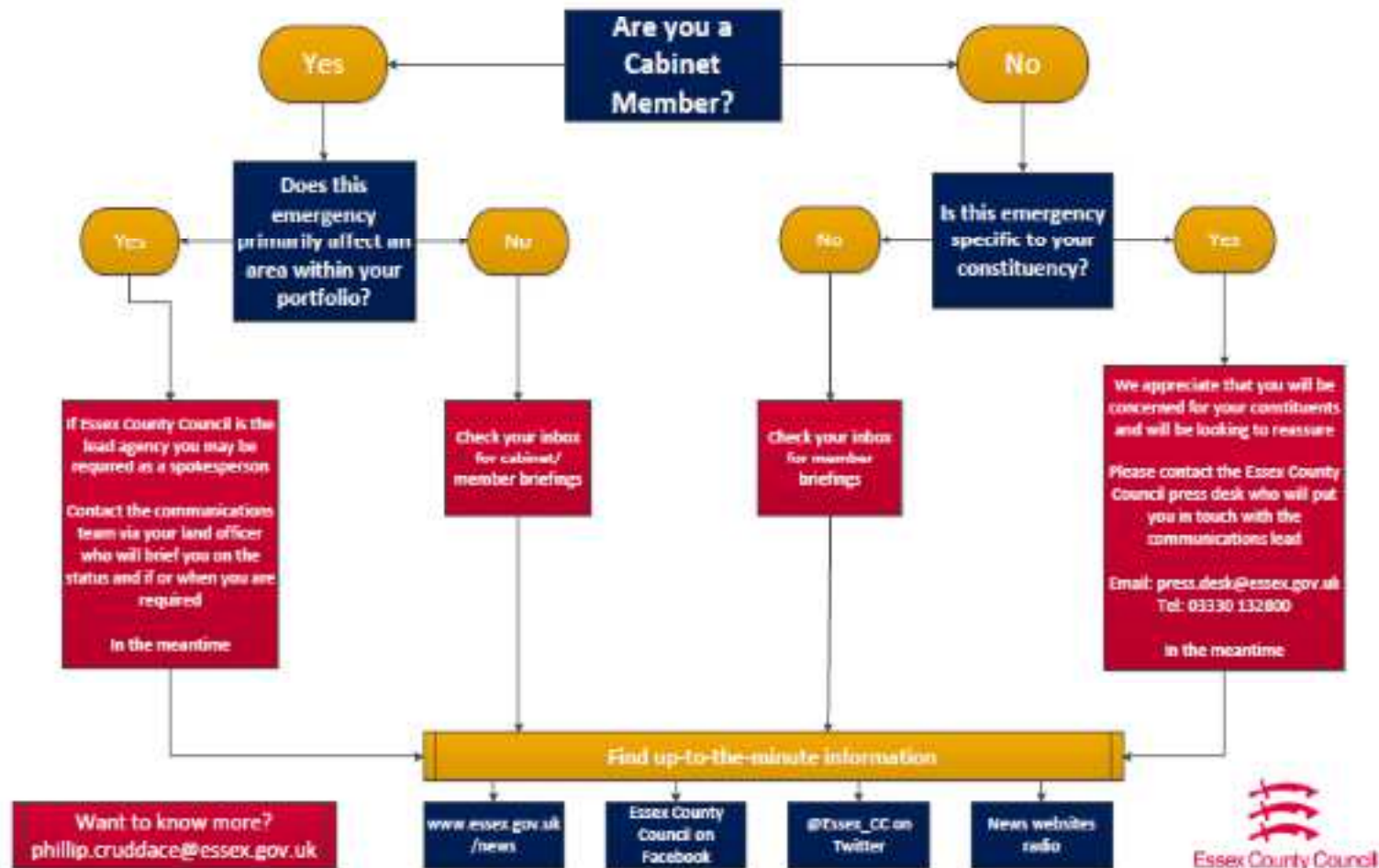
Gavin Jones has presented a compelling vision for the future of the organisation and has described a well networked and highly collaborative culture. Programmes like Digital Foundations will provide the underpinning technology that will support a more joined-up approach to front line service delivery.

The essex.gov.uk and flood.essex.gov.uk websites will have the functionality to display IMPORTANT announcements messages. The flooding team will have training and access to add and update these messages out of hours.

A flowchart showing ECC communications in an emergency is shown overleaf.

Members flowchart

Essex County Council communications in an emergency



		AGENDA ITEM 7
		PSEG/09/17
Committee:	Place Services and Economic Growth Scrutiny Committee	
Date:	23 February 2017	
PASSENGER TRANSPORT (Minute 8 / 22 September 2017)		
Enquiries to:	Christine Sharland, Scrutiny Officer Christine.sharland@essex.gov.uk	

Deborah Fox, Head of Commissioning, Connected Essex Infrastructure (Passenger Transport) will be attending this meeting to update the Committee on Passenger Transport matters affecting Essex. A briefing paper is attached at the Appendix to this report.

The primary purpose of bringing this item to this meeting is for the sharing of information rather than conducting any specific in depth scrutiny on this particular occasion. Nevertheless following the County Council elections in May 2017 there are several matters that may be considered for potential inclusion in the Scrutiny Committee's work programme providing that a more in depth investigation would, in practice, add value to the consideration of how certain aspects of passenger transport might evolve in the future. By way of example:

- How might the County Council work with communities better to ensure passenger numbers increase?
- How might the County Council reduce the tax-payer subsidy of its park and ride sites?
- How might the County Council improve the market for those bus services that it supports?

Action required by the Committee at this meeting:

To receive the planned update on passenger transport matters.

Appendix

Delivering the Getting Around in Essex Bus Strategy

Briefing paper prepared by Deborah Fox, Head of Commissioning, Connected Essex Infrastructure

Dated 3 February 2017

1. Introduction and background

A lot has changed since the launch of 'Getting Around in Essex – a bus and passenger transport strategy' in June 2015. There have been some significant challenges, as well as many opportunities. However, progress has been made in delivering the three objectives that were set:

- To support growth in the network by improving services
- To maximise the economic and social benefits of our services
- And for Essex County Council, to deliver good value for money and cost effectiveness for taxpayers.

This is a seven year strategy and the contribution made by all partners in this first year has been welcomed. The challenges that both the bus industry and local government face should not be underestimated.

1.1. This is a summary of recent progress and challenges in delivering the Getting Around in Essex Bus Strategy (the Bus strategy). It may be read alongside the bus strategy and the local bus priority policy, which may be found here: <http://www.essexhighways.org/Transport-and-Roads/Getting-Around/Bus/Bus-review.aspx> (See the documents at the bottom of the web page: Bus Strategy (40 pages) and Local Bus Service Priority Policy 2015 to 2020). In addition, section 10 of this briefing covers a new ECC vision for 'transport integration', which is an emerging approach.

1.2. Through the Bus Strategy was published in 2015. It aims to deliver a long term strategy for improving passenger transport (bus, minibus, taxi and community transport) services in Essex. It contains eight areas for strategic action in order to make bus travel better, easier and the way that more people get around:

- a. Working in partnership
- b. Customer quality commitment
- c. Better, well-used services
- d. Support for valuable, but not commercial, services
- e. Good customer information
- f. Tailored solutions
- g. Ticketing
- h. Focused local planning.

There are at least 15 active projects underway to deliver the Bus Strategy. A list of these is available upon request.

1.3. Successes and challenges are reported in various ways. Terms of reference and membership are available for the following structures:

- A new strategic partnership with a formal Board that meets quarterly to review progress, address issues and identify new opportunities.
- An external Bus Forum, which includes members, operators and community stakeholders, such as bus and rail user groups.

1.4. Other forums provide partnership arrangements to help ECC officers to deliver the Bus Strategy. A summary could be made available from:

- Transport representatives meetings every six months, with operators and local representatives such as parish councils or ward members in unparished areas.
- Colchester Blueprint meetings with Colchester Borough Council and operators and other stakeholders.
- Confederation of Passenger Transport meetings, to help build our partnership with the passenger transport sector.

1.5. Success is monitored by hard measures, such as passenger numbers and net cost. Operators also contribute data to a system of KPIs collated by ECC Contract Management colleagues.

1.6. Performance to others is compared nationally. Around the country, passenger numbers are declining. The next report on passenger figures is May/June 2017.

1.7. The three Essex park and ride sites (Sandon and Chelmer Valley in Chelmsford and north Colchester) have plans to increase passenger numbers and use the sites effectively. There is an opportunity for scrutiny members to feed into the plans through identifying the item as suggested item for scrutiny work programme.

1.8. An update on each of the eight areas for strategic action follows.

2. Working in partnership

2.1. A multi-operator quality partnership on route 88 from Colchester to Halstead to improve service quality, grow passenger numbers and provide a model for others areas. This is together with First and Hedingham (Go-Ahead).

2.2. The Colchester Bus Blueprint has nine elements that are being worked on with Colchester Borough Council and operators:

- 2.2.1. Vision
- 2.2.2. Ticketing
- 2.2.3. Business Engagement
- 2.2.4. Current Services
- 2.2.5. New developments
- 2.2.6. Car Parking Provision & Pricing

- 2.2.7. Marketing Bus Travel In Colchester
- 1.1.1. Town Centre Bus Hub Infrastructure
- 1.1.2. Route and Stop Infrastructure.

To date, circa 100 local infrastructure issues have been identified and most of them have been resolved. Local businesses have offered incentives to people travelling to their facilities by bus. Through a local travel club, there is access to local businesses with a combined total of thousands of employees. Operators have looked at maps of proposed developments in Colchester, to see where additional services might be funded through Section 106 agreements or run commercially. This suggests that locality based-working creates better conditions for customers to travel by bus, subject to resources being available.

3. Customer quality commitment

- 3.1. A new bus quality standard has been established, with operators being awarded gold, silver and bronze based on how they perform against the set of criteria that passengers told us were important.

4. Better, well used services

- 4.1. A modernised local bus network bringing value to passengers and tax-payers.
- 4.2. There is a communications plan for reactive and proactive messaging. Current challenges include reactive messaging on commercial withdrawals, which necessitates commercial confidentiality.
- 4.3. In 2016, campaigns were run for children to go free on park and ride in August and opened the Chelmsford park and ride sites on Sundays in the run-up to Christmas. Park and ride sites were free on 'Small Business Saturday' in December.

5. Support for valuable, but not commercial services

- 5.1. There were around 20 commercial service withdrawals in 2016/17. This is a challenging process. The network is largely (around 85%) driven commercially, which is Central Government's preferred approach.
- 5.2. ECC gives a lot more support to the local bus network than other councils – around £7.8 million a year. The statutory requirement is to review non-commercial services and not, as some would believe it, to support any service deemed non-commercial.
- 5.3. Work is underway to secure a new voluntary agreement with operators to a 90 day notification period for significant changes including service

withdrawals. This will help us to find new commercial providers, or community transport, to run services deemed non-commercial.

- 5.4. Three new Demand Responsive Transport services were launched, providing 50 parishes with flexible services to fit their needs.

6. Good customer information

- 6.1. Starting the roll out of real time bus information across the county – a technically complex project that has required significant commitment from all the partners involved and real time bus tracking available on the First and Arriva apps.

7. Tailored solutions

- 7.1. The Total Transport project is to find solutions for people wanting to travel in remote rural areas. This is a project together with Suffolk County Council and FutureGov.

8. Ticketing

- 8.1. Supporting Bus Operators in moving the Colchester Borough Card to a smartphone application ticket.
- 8.2. Operators including First Bus, Ensign and Arriva have developed their own apps.
- 8.3. Online ticket purchasing at Colchester park and ride is being introduced.

9. Focused local planning

- 9.1. Development locations with operators were considered at the Colchester Blueprint meetings. This is to identify where they might establish new services supported by developer contributions.
- 9.2. A scarcity of forward planning by operators was identified in developing the Essex Growth and Infrastructure Framework that would be useful to address.

10. Transport integration

- 10.1. If ECC is to be successful in further reducing spend whilst safeguarding outcomes for citizens, changes to operating practise, processes and policies will be necessary in order to support the development of an integrated approach, incorporating the wider public and private sector.
- 10.2. The following Vision Statement was developed during the development of the Outline Business Case on Transport Integration to communicate the transformed, beneficial future state to the programme's stakeholders:

When this programme is completed, ECC will have a holistic, efficient, streamlined and integrated passenger transport system which supports communities to access a range of both public and private services at a reduced cost to the taxpayer.

10.3. The Programme Objectives are as follows:

By the end of the Programme in March 2018, ECC will have a transport delivery model which

- is aligned to Essex Residents needs
- is sustainable over the longer term
- is informed by a single view of transport supply and demand
- clearly articulates ECC's requirement of the market
- enables improved utilisation of available vehicle capacity.

10.4. The first project in delivery is the 'Getting around in Essex' procurement. The CMA for this was published in December 2016.

		AGENDA ITEM 8
		PSEG/10/17
Committee:	Place Services and Economic Growth Scrutiny Committee	
Date:	23 February 2017	
CALL IN OF DECISION - FP/686/12/16 PROPOSED ONE WAY 7.5 TONNES WEIGHT LIMIT ON OAK ROAD, RIVENHALL (Minute 8/ January 2017)		
Enquiries to:	Christine Sharland, Scrutiny Officer Tele no 03330134569 Christine.sharland@essex.gov.uk	

At its meeting on 17 January 2017 (Minute 8) the Committee was advised that Councillor James Abbott had called in decision reference FP/686/12/16 relating to a proposed one way 7.5 tonne weight limit on Oak Road, Rivenhall.

An informal meeting was held on 9 January 2017 for Councillor Abbott to discuss his call in with Councillor Johnson, the Cabinet Member for Highways and Transport. As a result of the discussion Councillor Abbott confirmed that he would not withdraw his call in and so it would have to be considered by this Committee. However, he agreed with the Cabinet Member that it would be helpful for further details to be obtained on the issues raised by the objection before being considered by the Committee. Although this approach was not in line with normal procedure both parties agreed that on this particular occasion a delay in proceedings would assist the Committee in more effective scrutiny of the decision based upon the reasons highlighted in the Notification of Call In.

In the intervening period the Cabinet Member has reviewed the situation, and at the time of writing this report he has advised Councillor Abbott that he has withdrawn the decision and is reviewing lorry movements at the location and will publish a new decision in due course.

As Councillor Johnson has withdrawn the decision, the Committee will no longer consider the call in of a decision. However, the situation will be kept under review. Any new decision will of course be subject to call in.

Action required by the Committee:

The Committee note that no further will be undertaken in respect of the call in of this particular decision.

		AGENDA ITEM 9
		PSEG/11/17
Committee:	Place Services and Economic Growth Scrutiny Committee	
Date:	23 February 2017	
WORK PROGRAMME		
Enquiries to:	Christine Sharland, Scrutiny Officer Tele no 03330134569 Christine.sharland@essex.gov.uk	

This report provides an update on the Committee's work programme.

➤ **Meeting 23rd March**

At the March meeting Councillor Simon Walsh, Cabinet Member for Environment and Waste, will attend the meeting to update the Committee on the outcome of the changes recently introduced at the Recycling Centres for Household Waste in Essex.

➤ **Meeting April**

There are no plans for a meeting in April.

Action required by the Committee:

To note the contents of this report and on the planned arrangements for the Committee's meeting in March 2017.

