

# LEARNING LEGACY PLAN

## Document History:

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2.0		██████████			Revised for Learning Legacy revival post 2019

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# 1 Introduction

The objective of the Crossrail Learning Legacy is to collate and share lessons learned, best practice and innovation from the Crossrail project for the benefit of future projects and programmes, aimed at raising the bar in industry and show casing UK PLC.

A Learning Legacy team will work with champions from within Crossrail, across the supply chain, from academia and with industry partners to produce and share lessons learned material for use by future projects and programmes. This will include a combination of Insight documents (such as research papers, case studies and micro-reports) and Datasets (such as best practice documents, management systems and statistical data) as well as a focus on the people producing the learning legacy (including people profiles and creation of a Learning Legacy Ambassador programme which connects the people who have contributed to the learning legacy with industry partners hosting knowledge sharing events and fora).

The Crossrail Learning Legacy will build on the learning legacy created by the Olympic Delivery Authority showing how the lessons have been taken forward.

The Learning Legacy team will engage with industry and legacy projects such as HS2, TfL, and Thames Tideway to market test the learning legacy proposals and ensure that the right learning legacy is being produced and prioritised to meet market demands and provide best value. The Learning Legacy is also intended to mitigate the high number of adhoc requests for lessons learned from the industry by providing a strategic framework for sharing lessons learned.

The Crossrail learning legacy will be a pathfinder project for a wider Major Projects Knowledge Hub which is being developed with the Major Projects Association to collate knowledge from projects across the industry and provide a tool for interacting with the knowledge and the authors.

The purpose of this document is to set out the plan for delivering the Crossrail Learning Legacy through to end of construction in 2018 and operations to 2020. This is a live document that will be updated throughout the life of the project.

## 2 Scope

Crossrail will, working with its delivery partners and research partners, seek to collate lessons learned, best practice and innovation from the Crossrail project.

Crossrail will publish the learning legacy via the Crossrail website and other appropriate third party places of deposit.

Crossrail will develop partnerships with industry bodies to facilitate their active dissemination of the learning legacy.

Crossrail will work with the Major Projects Association for the development of an industry wide Major Projects Knowledge Hub with the Crossrail Learning Legacy being a pathfinder project.

### 2.1 Knowledge Types

The learning legacy will comprise Insight, Data and People.

#### 2.1.1 Insight

Insight will include documentation of the approach taken by Crossrail in initiating and delivering the project and the lessons learned for future projects and programmes. This information will be published on the Crossrail learning legacy website from 2016 onwards and also made available to the Major Projects Knowledge Hub as required.

It will be shared in the following formats:

- 1) **Case studies** – 3000 word peer reviewed papers on topics authored by the project teams or with/by partners. These would typically focus at macro/strategic level and include analysis of the process with lessons learned and recommendations for future projects and programme. Peer review by independent parties would seek to validate the recommendations for future projects and programmes.
- 2) **Research Papers** – detailed project studies completed by academics (using interviews, document review and questionnaires)
- 3) **Technical Papers** – circa 3000 word papers produced by the project team, contractors, designers and project partners focused on technical innovation or documentation of the approach taken by Crossrail on a particular aspect of the project. These papers would be less focused on analysis and more about sharing what Crossrail did with some lessons learned hence these papers will not be peer reviewed by external parties.
- 4) **Micro-reports** - 1-2 page lessons learned, innovations and/or best practice completed by project teams including contractors, designers, engineers, etc. Micro-reports focus on particular topics, a number of micro-reports may be linked to a case study spotlighting topics in more detail.
- 5) **Technical Publications** – A collection of peer reviewed papers that document the planning, delivery and operational legacy of the Crossrail project and published by industry partners.
- 6) **Video Podcasts** - video/audio commentary by users/authors that accompanies one of the learning legacy papers.

#### 2.1.2 Data

Data will comprise the sharing of raw data, tools, templates, processes and procedures for reuse by future projects and programmes. This information will generally be shared at the end of the project when information sensitivities will have reduced. Data will **not** be published on the Crossrail Learning Legacy website and will instead seek external places of deposit such as the Major Projects Knowledge Hub and/or specialist end-users or libraries.

The learning legacy team will work with partners and the MPA to identify datasets that should be shared, at the same time, seeking to set standards for future projects and programmes.

- 1) **Good Practice Documents** - templates, tools and documents used successfully on a project that could be usefully applied by other projects and programmes.
- 2) **Datasets** – A collection of that documents that together make up a data set, eg, Management System, contracts, etc
- 3) **Statistical Data** – raw numerical data collected by Crossrail during its life, eg, Air quality data, H&S data, P6 data, IT configuration code, etc.

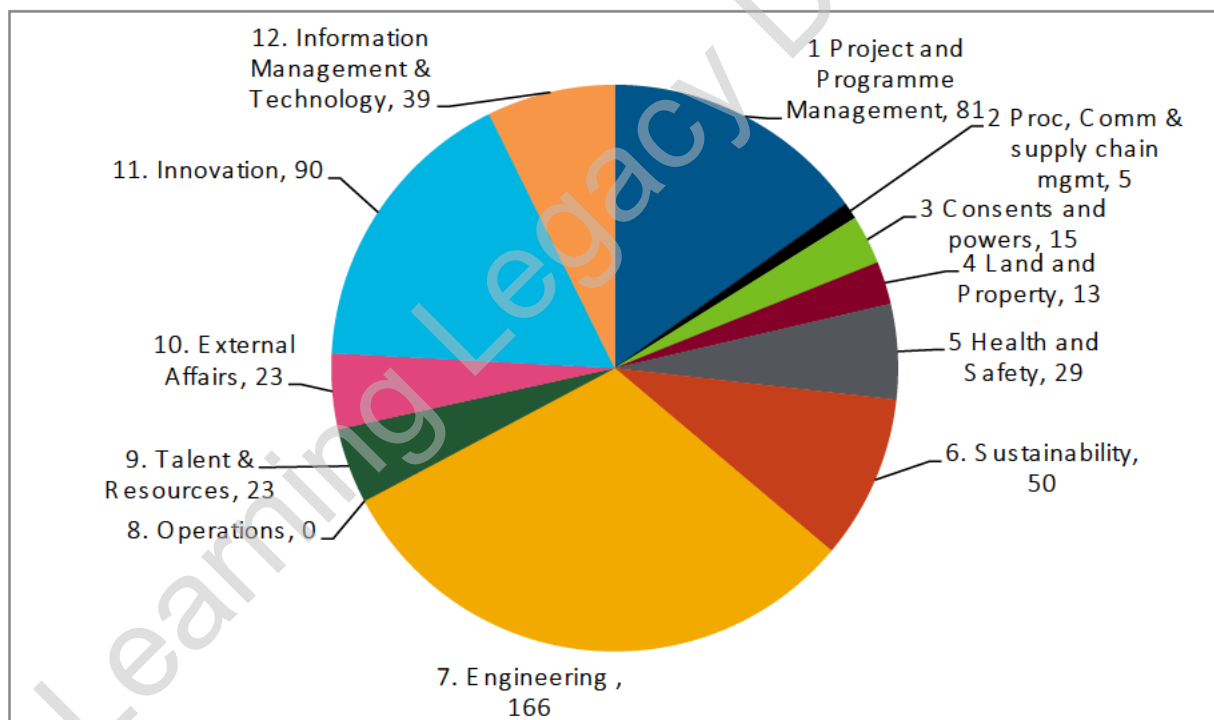
### 2.1.3 People

The learning legacy will seek to promote the People side of knowledge sharing as much as the documentation side. This will be done through the following methods:

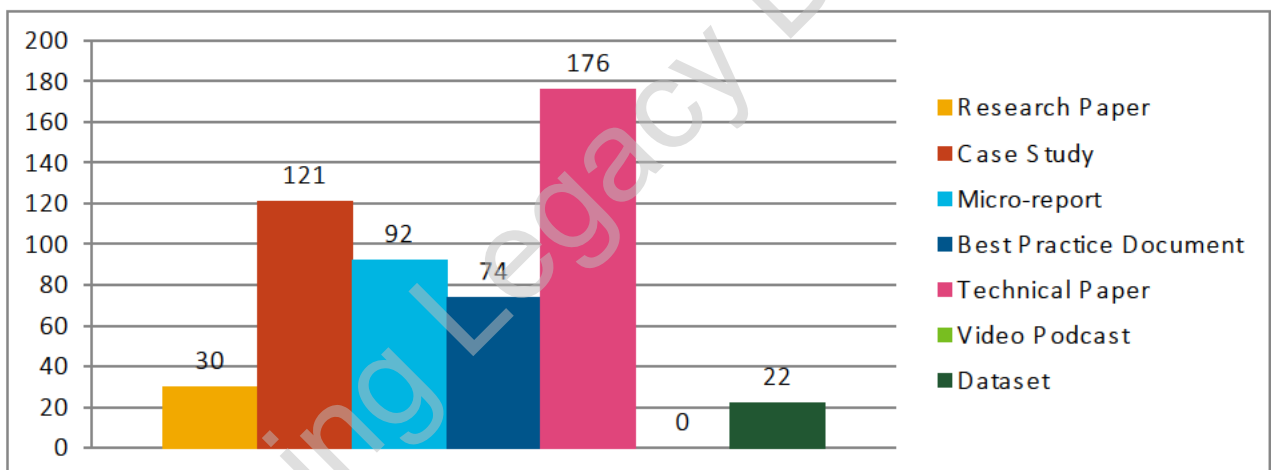
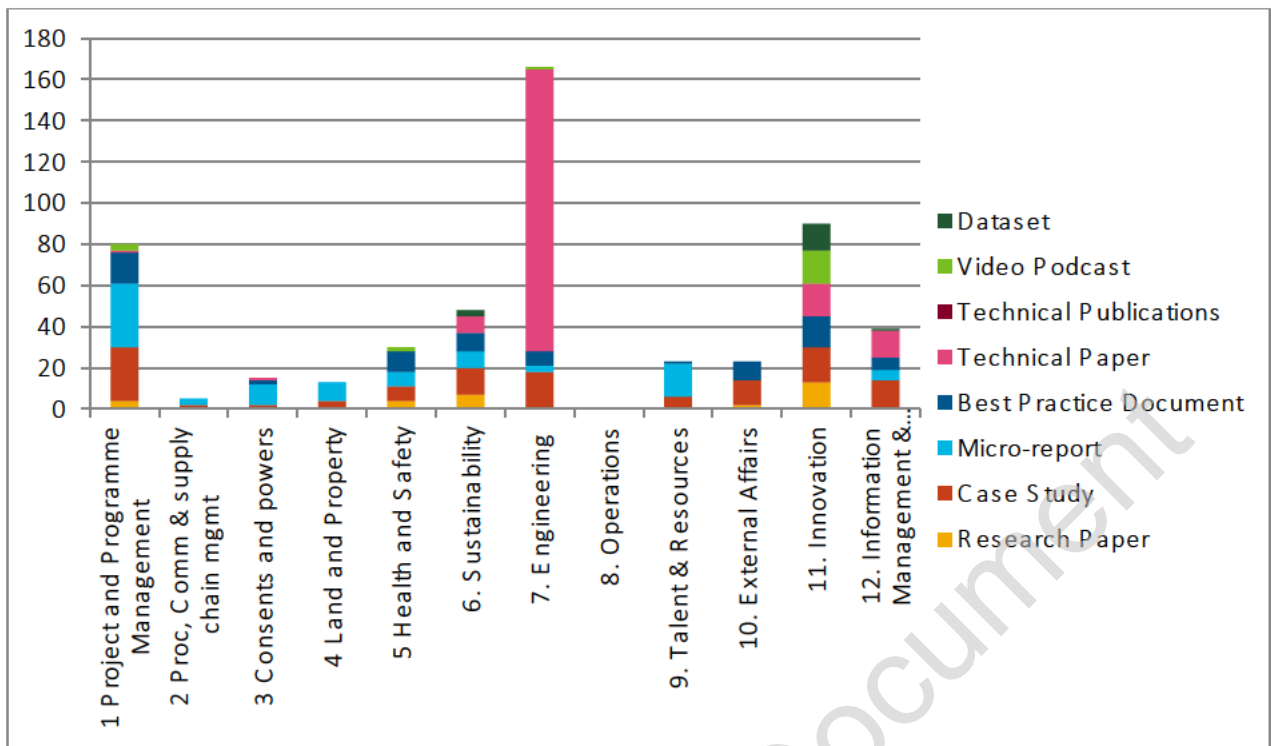
- 1) **Author Biogs** – The website will include author biogs alongside the document abstract.
- 2) **Learning Legacy Ambassadors** – Authors will be invited to join the learning legacy ambassador community which will be set up on a LinkedIn group. This is then available to the industry partners to invite the authors to speak at events hosted by them on the learning legacy. In this way even if authors move on from the Crossrail project they can still be invited to speak at events.
- 3) **Social Media** – the Major Projects Knowledge Hub will provide an interactive tool that will promote commentary and discussion on the learning legacy.

## 2.2 Proposed Content

12 themes comprising 62 sub themes and champions (see Appendix 1 for details).



534 learning legacy documents proposed to date. This will evolve over time. In particular it is not expected that the Operations learning legacy theme will develop until 2017/18 when Operations is approaching.



## 2.3 Publication

The existing Crossrail website will be used to publish the learning legacy insight documents and author biogs.

Crossrail will also work with industry partners for publication through links to/from their websites and published journals.

Additionally Crossrail is working with the Major Projects Association to integrate the Crossrail Learning Legacy into the Major Projects Knowledge Hub as part of a wider project to link together learning legacies from many different projects.

## 2.4 Working with Partners

### 2.4.1 Research Partners

Research partners will:

1. Undertake peer review of learning legacy papers in their expert area
2. Undertake self-funded research on the Crossrail project and produce a Research Summary for the Crossrail learning legacy
3. Provide guidance on production of learning legacy material for use as teaching material
4. Contribute to the Learning Legacy Steering Group (LLSG) providing oversight of the learning legacy theme

Crossrail will:

1. Make available appropriate people and data as required by research partners to produce their agreed research
2. Invite research partners to participate in the LLSG to provide oversight and direct the learning legacy theme
3. Allow use of the Crossrail learning legacy logo by research partners.
4. Include on the Crossrail website and other learning legacy collateral the name of the Crossrail Research Partner

#### 2.4.2 Delivery Partners

Delivery partners will:

1. Contribute to production of learning legacy material aimed at raising the bar in industry through the open sharing of lessons learned and recommendations for future projects
2. Support dissemination of learning legacy material by industry partners, eg, through learning legacy ambassadors speaking at events, social media, knowledge sharing
3. Provide funding or resource support

Crossrail will:

1. Publish and promote the learning legacy material
2. Make Crossrail facilities available with support from Crossrail executives at events
3. Include on the Crossrail website and other learning legacy collateral the name of the Crossrail Partners

#### 2.4.3 Industry Partners

Industry partners will:

1. Commit to actively disseminating the learning legacy programme through means such as hosting of events, social media, publications, etc-
2. Measure the impact of the learning legacy on the industry in relation to their strategic objectives
3. Coordinate peer review of learning legacy documents eg, through special interest groups
4. Provide funding or resource support

Crossrail will:

1. Encourage participants to become learning legacy ambassadors
2. Invite industry partners to participate in the LLSG to provide oversight and direct the learning legacy theme
3. Allow use of the Crossrail learning legacy logo by industry partners.
4. Include on the Crossrail website and other learning legacy collateral the name of the Crossrail Industry Partners

#### 2.4.4 Advisory Partners

Advisory partners will:

1. Provide strategic advice and guidance on the link between academic learning legacy and practical application to the industry

2. May contribute learning legacy content through analysis of data and value add on top of the learning legacy produced by Crossrail.

#### 2.4.5 Legacy Projects

Stakeholders from Legacy projects such as HS2, Thames Tideway and HS2 will be invited to participate in the themed Learning Legacy Steering Groups to provide strategic advice and guidance on the learning legacy that is being produced and be the link back into their organisations on promotion of the learning legacy as a tool. They will also be the single points of contact for any requests for lessons learned.

These partners may also contribute to the learning legacy if they have specific requirements perhaps through the running of workshops and producing lessons learned reports from the outputs.

#### 2.4.6 Partnerships by theme.

Below are the industry and academic organisations that have been\* or plan to be approached to partner with Crossrail on each learning legacy theme.

	Industry		Academic	
	Tier 1	Tier 2	Tier 1	Tier 2
1 Project and Programme Management	APM*	CQI	UCL	Manchester Business School?
2 Procurement, Commercial & supply chain management	RICS			
3 Consents and powers	RTPI			
4 Land and Property	RICS	CPA NLA		
5 Health and Safety	IOSH* BSC*	BOHS*		
6. Sustainability	IEMA* CIRIA*			Kings (KCL) UCL Staffordshire
7. Engineering	ICE* IET*/IMechE			
8. Operations	REF CILT			
9. Talent & Resources	CIPD*	CITB RAE		UoW (people) Cambridge (IR)
10. External Affairs	CIPR	Inst of Govt		
11. Innovation	Innovate UK	APM MPA KTN	Imperial College	
12. Information Management and Technology		APM ICE		

\*Agreed Partners



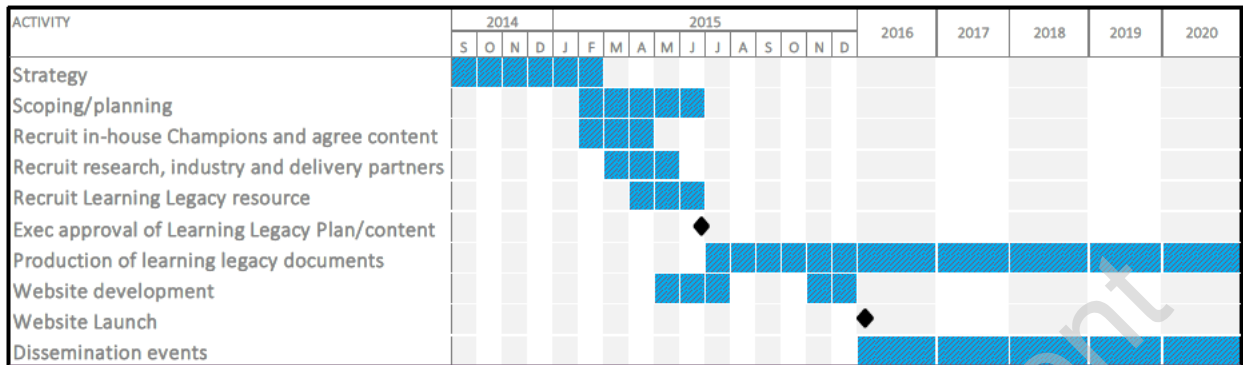
## **2.5 Working with the Projects**

The learning legacy explained above is functionally based using the 12 themes. It is important however that learning legacy is also sought through the Projects. It is proposed to do this through accessing the lessons learned database and also tapping into the lessons learned workshops that are held at key points in the Projects, possibly through the creation of learning legacy champions on the projects in the same way as innovations champions and lessons learned champions currently work. This would enable more effective engagement of the supply chain with the learning legacy.

Learning Legacy Document

### 3 Implementation

#### 3.1 Programme



The learning legacy team will work with the theme leads to develop a programme over the next few months for publication of the learning legacy and dissemination events.

The key date is the launch of the learning legacy website in early 2016.

#### 3.2 Budget

The table below shows the costs included in the Business Plan for Learning Legacy from 2015/16 to 2020/21.

Description	Budget
IT	£120k
Remaining resource budget	£185k
<b>Total</b>	<b>£305k</b>

The table below shows the estimated costs for delivering the learning legacy:

Description	Budget
Website	£20k
Branding and artworking	£25k*
Collateral (eg, badges)	£5k
Specialist resources (9*£25k each)	£225k
<b>Sub-total</b>	<b>£275k</b>
Contingency 10%	£30k
<b>Total</b>	<b>£305k</b>

\*on the assumption that artworking of content will mostly be completed in-house.

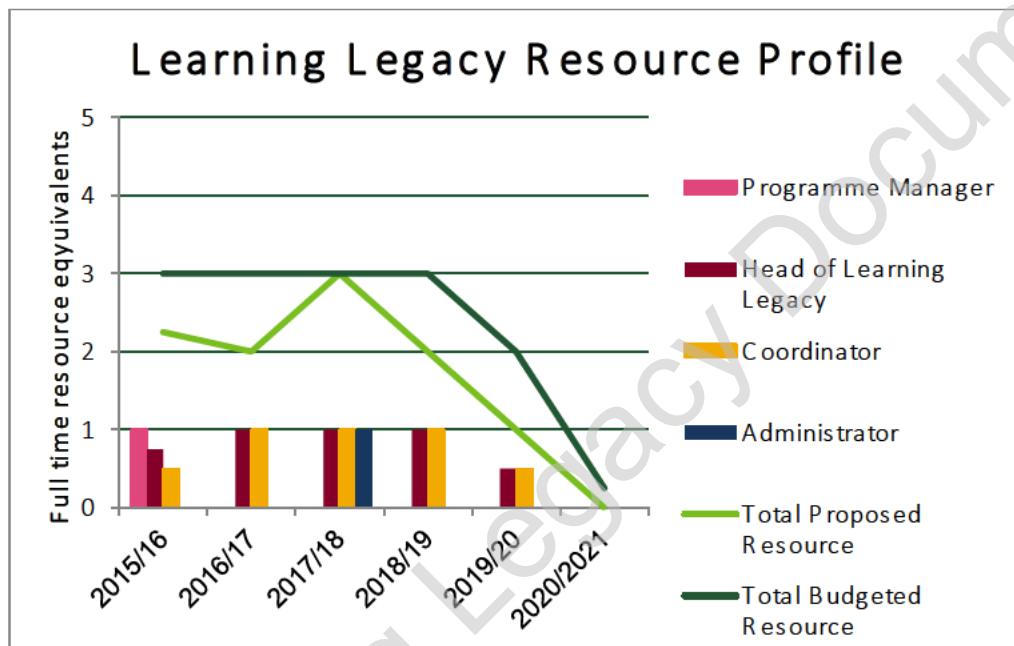
### 3.3 Resourcing

It is proposed to have a core learning legacy team of 2 made up of:

- Head of Learning Legacy
- Learning Legacy Coordinator

This will be supplemented by a specialist Learning Legacy Programme Manager in the first year to set up and launch the learning legacy and then at the back end of the programme by administrative support to collate and prepare the management system documents for publication.

Additionally there will be specialist resources brought in to support the teams in the production of the learning legacy material. Ideally these resources will be identified by the teams and will have worked in or with the team previously. These will be short term assignments funded by the learning legacy.

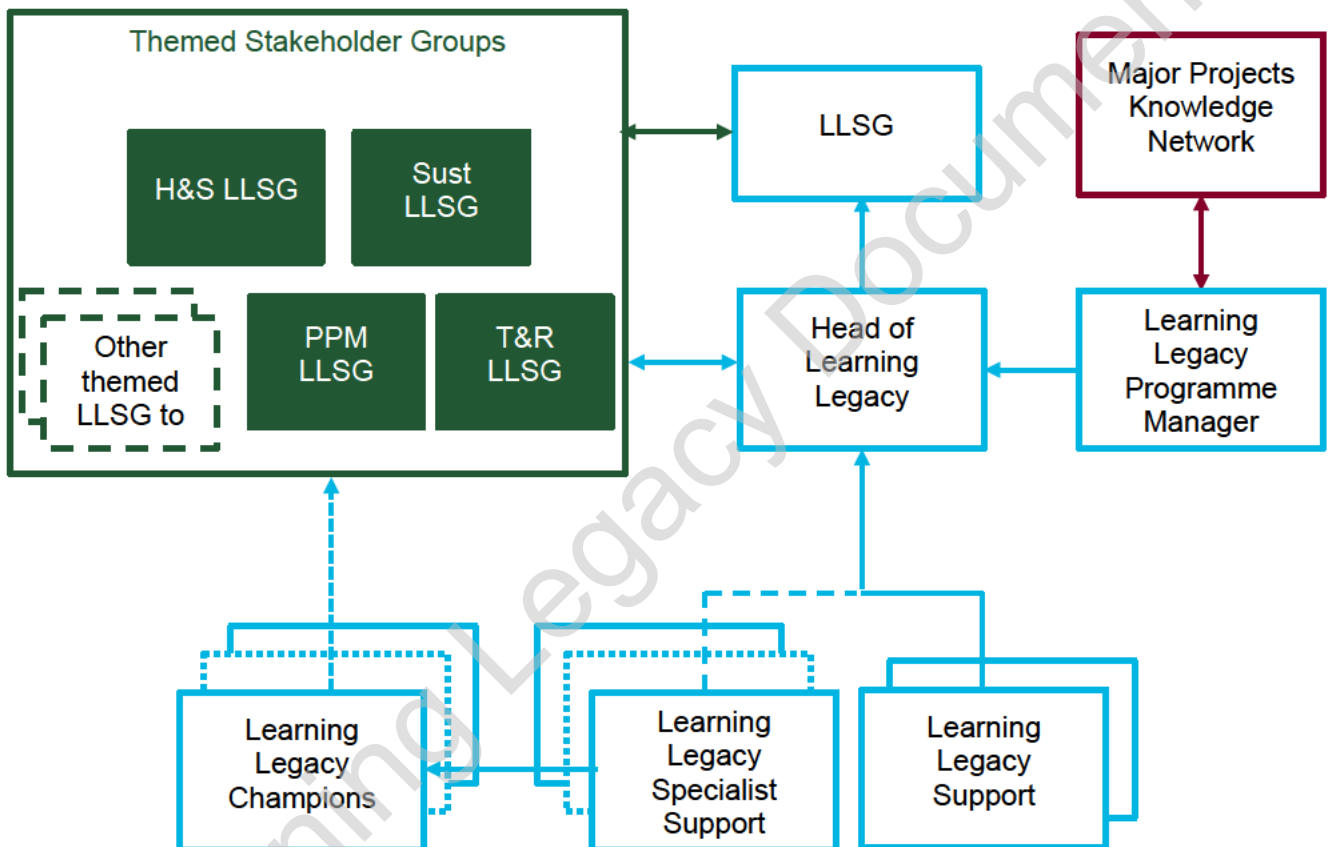


### 3.4 Governance and Delivery Framework

An exec level Learning Legacy Steering Group will meet quarterly and provide oversight and direction of the learning legacy. This however will not be a sub-Committee of ExCom and will be limited to the delegated authority of its members.

The Major Projects Knowledge Network will provide the external review and validation of the approach taken including a leadership campaign to promote both the learning legacy and the Knowledge Hub.

Stakeholder groups will be managed by themed steering groups chaired by the Crossrail Exec lead for the theme. These will be supported by working groups as necessary such as for coordination of communications and events with partners.



## **4 Communications**

### **4.1 Learning Legacy Brand**

A Crossrail learning legacy sub brand will be developed with the Marketing team that can be used by Crossrail and partners to create a presence that is easily recognised across the industry.

Cover sheets and templates for learning legacy material will be created in the brand and aim to minimise the need for extensive artworking.

### **4.2 Website**

The learning legacy website will be part of the Crossrail.co.uk website [learninglegacy.crossrail.co.uk](http://learninglegacy.crossrail.co.uk)

It will be use the standard website structure and search functions so to minimise cost.

It will be designed so that it can be archived as a separate site to be hosted by a legacy owner such as the Major Projects Authority or Major Projects Association.

### **4.3 Video Team**

A key part of the learning legacy will be to ensure that the material is suitable for use as educational material by universities. Videos will play a key role in achieving this as guided and directed by the academic partners.

### **4.4 Review of material**

As the learning legacy content will be published on the learning legacy website it is expected that the External Affairs team will want to review the content prior to publication. Resource will need to be allocated accordingly.

## 5 Appendices

### 5.1 Appendix 1 – Learning Legacy Themes

Themes	Exec Lead	Champion
<b>1 Project and Programme Management</b>	<b>Richard Pacenzki Martin Buck</b>	<b>Richard Wood</b>
a. Requirements definition		Lucy Findlay (Sarah Johnson)
b. Business case	Martin Buck	Simon Adams
c. Funding	David Allen	Simon Adams
d. Structuring and governance	Martin Buck	Simon Adams
e. Delivery/execution strategy	Bill Tucker	Will Sharp
f. Cost Control	Richard Palczynski	Julian Bartlett
g. Planning	Richard Palczynski	Rob Little
h. Risk management	Richard Palczynski	Rob Halstead
i. Change management	Richard Palczynski	Walter Macharg
j. Reporting	Richard Palczynski	Mike Laws
k. Performance Assurance	Richard Palczynski	James Corrigan
i. Quality	Chris Sexton	Chris Titterton
j. Audit	Chris Sexton	Robert Kemp
k. Financial Operations	Robert Flanagan	
l. Handover	Chris Sexton	Jeremy Bates
m. Transition	Martin Buck	David Yass
o. Smart clienting with industry partners	Matt White	
<b>2 Procurement, Commercial and supply chain management</b>	<b>Martin Buck?</b>	
a. Procurement	Kevin Lloyd Davies	ICG Routemap
b. Supply chain management	Martin Buck	Simon Pain
c. Commercial	Paul Grammer	David Morris
d. Legal agreements	Mark Fell	
e. Insurance	Mark Fell	
<b>3 Consents and powers</b>	<b>Rob Paris</b>	
a. Town Planning	Rob Paris	Julie Davis
b. Traffic and Highways Consents	Rob Paris	Gary Moreira
c. Undertakings and Assurances	Rob Paris	Iftikhar Abutin
d. Constitutional Arrangements	Mark Fell	
e. Engagement with statutory regulators and other third parties		
<b>4 Land and Property</b>	<b>Ian Lindsay</b>	
a. Land Management and Estates	Ian Lindsay	Harry Younger ; Paul Bolton
b. Over site development (incl. route protection)	Ian Lindsay	Niall Lindsay; David Taylor
c. Urban Integration	Ian Lindsay	Sam Richards
d. Regeneration	Ian Lindsay	Neil Roberts?
<b>5 Health and Safety</b>	<b>Steve Hails</b>	
a. Occupational Health and Wellbeing	Steve Hails	Christina Butterworth
b. Health and Safety improvement	Steve Hails	Steve Crofts
c. Health and Safety Assurance	Steve Hails	Darren Sellman
d. Diversity and Inclusion in H&S	Steve Hails	Pamela McEnroy

c. Security	Bill Tucker	David Buck
<b>6. Sustainability</b>	<b>Chris Sexton</b>	<b>Rob Paris</b>
a. Sustainability	Rob Paris	Mike De Silva
b. Environmental	Rob Paris	Cathy Myatt
c. Social	Valerie Todd	Andrew Eldred
d. Economic	Martin Buck	Simon Pain
e. Archaeology		Jay Carver
<b>7. Engineering</b>	<b>Chris Sexton</b>	
a. Civils	Chris Sexton	Mike King, Mike Black
b. MEP	Chris Sexton	Rhys Williams
d. Rail systems	Chris Sexton	David Lyle
g. Technical assurance and integration	Chris Sexton	Jeremy Bates
<b>8. Operations</b>	<b>Howard Smith</b>	
a. Planning a service	Howard Smith	
b. Operations and Infrastructure Management	Howard Smith	
c. Rolling Stock	Howard Smith	Phil Hinde
d. Passenger Experience	Howard Smith	
<b>9. Talent &amp; Resources</b>	<b>Valerie Todd</b>	
a. People Strategy	Valerie Todd	Valerie Todd
b. Culture, Values and Engagement	Valerie Todd	Rob Jones
c. Talent and Development	Valerie Todd	Rob Jones
d. Alignment and Collaboration	Valerie Todd	Rob Jones
d. Resourcing and People Management	Valerie Todd	Dawn Barker
e. Employment and Skills	Valerie Todd	Andrew Eldred Paul Butler Nathan Pascutto
f. Youth Strategy	Valerie Todd	Sally Speed (Kate Myers)
<b>10. External Affairs</b>	<b>Will Parkes</b>	
a. Community relations	Will Parkes	Ben White
b. Wider stakeholders/Public Affairs	Will Parkes	James Gray
c. Media relations	Will Parkes	Peter MacLennan
d. Marketing comms	Will Parkes	Sarah Allen
e. Art	Will Parkes	Christina Anderson
<b>11. Innovation</b>	<b>John Pelton</b>	<b>Marie Gilmour</b>
a. H&S Innovation	John Pelton	Marie Gilmour
b. Sustainability Innovation	John Pelton	Maggie Brown
c. Efficiency Innovation	John Pelton	William Reddaway
d. Digital Integration Innovation	John Pelton	Syinyi Phoon
<b>12. Information Management and Technology</b>		
n. Information Management - GIS, BIM, IM	Chris Sexton	Malcolm Taylor
f. IT	David Allen	Andrew Turner

**5.2 Appendix 2 – Learning Legacy Content Plan**

Learning Legacy Document