Transport Sector Leadership Development Programme

Phase 1 Inception Report

Mott MacDonald and University of Cape Town
RAF2079A

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Cover Photo: Rural roads on a Mott MacDonald project in Uganda.

                        (Source: Mott MacDonald)

Quality assurance and review table			
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Acronyms: MM: Mott MacDonald; UCT: University of Cape Town; QUB: Queens University Belfast

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Abstract

The Transport Sector Leadership Development Programme (TSLDP) is being created to develop the technical and managerial capacity of young African transportation professionals so they will have the capacity to deliver Africa's transportation infrastructure. It will potentially form a 2-3 year programme over which time candidates' technical and managerial skills will be developed through a structured course and syllabus, likely incorporating a mix of taught modules and on-the-job training. At the outset it is planned that up to 20 candidates will be selected to participate on the initial pilot program.

Candidates can come from a range of sectors, from public bodies, consultancy, and contractors. A strong focus will be placed on ensuring gender balance and promoting female participation on the course and ultimately into the future management of infrastructure projects.

Key words

Transport Sector Leadership Development Programme, capacity building, training, leadership, transport infrastructure, gender balance.

RESEACH FOR COMMUNITY ACCESS PARTNERSHIP (ReCAP)
Safe and sustainable transport for rural communities

ReCAP is a research programme, funded by UK Aid, with the aim of promoting safe and sustainable transport for rural communities in Africa and Asia. ReCAP comprises the Africa Community Access Partnership (AfCAP) and the Asia Community Access Partnership (AsCAP). These partnerships support knowledge sharing between participating countries in order to enhance the uptake of low cost, proven solutions for rural access that maximise the use of local resources. The ReCAP programme is managed by Cardno Emerging Markets (UK) Ltd.

See www.afcap.org

Acknowledgements

Acronyms, Units and Currencies

ADB	Asian Development Bank
AfDB	African Development Bank
AFCAP	Africa Community Access Partnership
ARMFA	African Road Maintenance Funds Association
ASANRA	Association of Southern African National Road Authorities
ASCAP	Asia Community Access Partnership
BEng	Bachelor of Engineering
BSc	Bachelor of Science
BTECH	Bachelor of Technology
CIHT	Chartered Institution of Highways and Transportation
CPD	Continuous Professional Development
DFID	Department of International Development
ECSA	Engineering Council of South Africa
EU	European Union
GIS	Geographic Information System
HVT	High Volume Transport (DFID funded Programme)
ICE	Institution of Civil Engineers
IELTS	International English Language Testing System
IRF	International Roads Federation
IS4DP	Infrastructure Skills for Development Programme (DFAT funded Programme)
JBM	Joint Board of Moderators
L&D	Learning and Development (Mott MacDonald)
MBA	Master of Business Administration
MEng	Master of Engineering
MPfE	Managing People for Excellence
MSc	Master of Science
ReCAP	Research for Community Access Partnership
SAICE	South African Institution of Civil Engineers
SSA	Sub-Saharan Africa
TSLDP	Transport Sector Leadership Development Programme
TPP	Transport Planning Professional
UCT	University of Cape Town
UK	United Kingdom (of Great Britain and Northern Ireland)
QUB	Queens University Belfast

Contents

1   Introduction

1.1   Background

Transport infrastructure is a vital driver of every nation's economy, facilitating the movement of goods, services and people both nationally and internationally. However, as highlighted by the World Bank[1], Africa remains the least connected region in the world.

Decision makers, professional service providers and contractors across sub-Saharan Africa face the growing challenge of reducing this connectivity deficit on a local, national and international scale. These challenges require innovative, motivated and technically capable leaders who can effectively manage and deliver infrastructure projects within this environment.

Industry leaders understand the broader picture when it comes to coordinating the concept, planning, design and construction of infrastrure projects. However, it is being observed that often this technical and managerial capacity is lacking, particularly when it comes to experience and ability to deliver large and complex projects.

This project was originally conceived by the Association of Southern Africa National Road Authorities (ASANRA). ASANRA recognised the leadership issues within the industry and promoted this project as a means of developing professionals within the sector. However, in terms of AfCAP support, this initial concept was considered:

- Too focussed on transport infrastructure, with little focus on transport services, planning and delivery

- Focussed only on southern Africa. Other ReCAP partners in East and West Africa, recognising the importance of this opportunity, requested that they were included

These concerns were bought on board for the development of the Transport Sector Leadership Development Programme (TSLDP). It is expected that the programme will encompass both transport infrastructure and transport services and should be deliverable across sub-Saharan Africa.

Whilst it is recognised that ReCAP generally focusses on rural road infrastructure, technical and managerial leaders are required across the transport profession. This encompasses much more than just rural roads and therefore this project will co-ordinate with the wider sector.

1.2   Aims

The overarching aim of the TSLDP is to provide a sustainable leadership development programme that can be expanded into the whole of sub-Saharan Africa. The project will be implemented in three phases:

1. *Phase 1 Planning and Scoping (i.e. current phase)*: includes a review of options, development of appropriate programmes and preparation of an implementation plan including a candidate selection procedure and budget.

2. *Phase 2 Selection of Participants:* call for applications and screening through a series of aptitude tests and other selection criteria.

3. *Phase 3 Implementation:* Implementation and management of customised development programmes for each participant, including project administration, monitoring and evaluation.

The specific aims of Phase 1 are as follows:

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[1] Ali et al, 2015, *Highways to Success or Byways to Waste,* World Bank Group.

- Development of a business plan and budget for implementation that should include:
    - An appropriate management structure
    - Competency streams and curricula for the programme
    - Development of an application and selection process for participants
    - Monitoring and evaluation criteria
    - Action plan for implementation
- Identification of appropriate professional bodies and tertiary institutions for accreditation of the programme
- Identification of regional structures that will drive and sustain the TSLDP in the future

1.3   Objectives

There are five core objectives outlined in the Terms of Reference (ToR). These are as follows:

1. Research: whilst not a specific research project in itself, research projects may be included as part of the curricula to develop skills.

2. Capacity building: important to ensure sustainable continuation of this project and ReCAP's overall aims and objectives once the ReCAP programme ends.

3. Knowledge exchange: develop the ability to communicate knowledge and ideas effectively through interventions like technical reporting and paper writing, giving presentations, managing and presenting at stakeholder workshops, developing and presenting training courses and how to review and assess technical papers.

4. Uptake and embedment: monitoring and evaluating the uptake and embedment of skills throughout the programme. The output from the TSLDP should be a group of forward thinking, confident and competent young professionals for the roads and transport sector in SSA. They will become role models to other young professionals and be able to influence the development of future generations.

5. Gender Balance: this is a key element of the project, with a focus on trying to address the issue of gender balance and the increased participation of female professionals in the technical leadership of the transport sector in SSA.

1.4   Team Structures

The project team is shown in Table 1 below and is the same team put forward in the Mott MacDonald/UCT proposal.

Table 1 Project Team Members

Key Staff		
1	Stephen Jones	Team Leader
2	Mark Zuidgeest	Education Management Specialist
Supporting Staff		
3	David Hughes	Transportation Education Specialist
4	Marianne Vanderschuren	Transportation Education Specialist
5	Obiora Nnene	Research Assistant
6	Kieran Kelly	Project Coordinator
Backstopping and Project Management Support		
7	Farook Chowdhury	Project Director
8	Richard Lebon	Project Manager

The overall ReCAP project management unit (PMU) is shown in Table 2 below. The key point of contact for this project is Les Sampson, with additional support from Jasper Cook and Caroline Visser. Support on contractual matters will be provided by Gerome Rich and Edson Madeira.

Table 2 ReCAP Project Management Unit Structure

Non-Technical Management		
1	*Gerome Rich*	*Project Director*
2	*Edson Madeira*	*Procurement Manager*
3	Caitlin Poole	Project Manager
Technical Managers		
4	*Jasper Cook*	*Technical Team Leader*
5	*Les Sampson*	*Technical Manager (Infrastructure)*
6	Paul Starkey	Technical Manager (Transport Services)
7	*Caroline Visser*	*Technical Manager (Knowledge Management)*
Regional Managers		
8	Nkululeko Leta	Eastern and Southern Africa
9	Paulina Agyekum	West Africa
10	Chandra Shrestha	Nepal and Bangladesh
11	Nandar Kyaw	Myanmar

1.5   Project Programme

1.5.1   Development

The programme has been amended since proposal stage due to the following:

- To reflect the project commencing later than anticipated (i.e. 30th November 2016) and the impact of the Christmas break on staff availability in the UK and South Africa

- The necessity to have sufficient information prepared for a Stakeholder Workshop, which is provisionally planned to coincide with the T2 Conference in Zambia, May 2017

- Revised reporting requirements to include a Status Report in advance of the Interim Report, due on 3rd March 2017

1.5.2   Programme Logic

The programme and overall thinking for the project has largely been reformatted to configure with the T^2 Conference in Zambia in May 2017. Subsequent to discussions with ReCAP, this is currently seen as the best opportunity to hold the Stakeholder Workshop, given most stakeholders will be present for the event.

However, the workshop happens earlier in the programme than originally anticipated (i.e. Week 28 rather than Week 36). As a result, extra input will be required to try complete tasks in advance of the workshop to ensure stakeholders have as much information as possible. As described in Section 1.5.3.3, this will require greater input and more detail up to the Interim Report Stage, which may require further review with ReCAP PMU.

Additional Workshops, namely an Options Development Workshop and Curriculum Development Workshop are shown in the programme. The purpose of these workshops is to inform programme structure and curriculum development. They are intended to be internal team workshops in addition to ReCAP attendance where key members wish to join or participate via teleconferencing.

1.5.3   Deliverables

1.5.3.1   Inception Report

This report outlines the basic project data, any updates and changes to the original methodology for adoption on the project and relevant information sourced to date. Revised submission date of **9th January 2017** was agreed in ReCAP meeting on 30th November 2016.

1.5.3.2   Status Report

The Status Report is an additional deliverable added to the final contract. The report will provide an update on the current findings and progress of the project up to mid-February 2017 – in advance of its submission date of **28th February 2017**. The content and structure will take the format of a less detailed Interim Report.

1.5.3.3   Interim Report

The Interim Report will provide further information on the programme to be offered and its overall structure. It will also include information on core competency courses, specialist courses in defined and agreed thematic areas, allocation of mentors, job placement and linkages to tertiary institutions and professional bodies. The report is scheduled for submission on the **30th April 2017.**

In the original ToR and Contract, it was envisaged that the Draft Phase 1 Report would be submitted in advance of the Stakeholder Workshop. However, given T^2 is currently considered the most appropriate venue for the workshop, and that this occurs in early May 2017, it is not feasible to deliver the Draft Phase 1 Report, in addition to the Status Report and Interim Report in this period. Based on the commencement date and contractual timing, the Draft Phase 1 would otherwise be due after 36 weeks, which would be the end of June 2017.

Therefore, the Interim Report will need to be more detailed than originally envisaged as it will be the primary deliverable in advance of the Stakeholder Workshop. Therefore, it requires sufficient information to inform the various stakeholders and gain maximum benefit from the workshop. This may increase time input and workload in advance of the Stakeholder Workshop. At this stage, it is anticipated that the Consultant will work within the time allocated in the contract, however, this may require review with ReCAP PMU later.

1.5.3.4   Stakeholder Workshop Report

Our intention is to bring forward the submission of the Stakeholder Workshop Report against the contract, in line with the date for the Stakeholder Workshop, recommended by the client to be linked to the T^2 conference in Livingstone on 8th May.   Assuming the Stakeholder Workshop proceeds according to schedule on the 8th May, submission date for the Stakeholder Workshop Report will be on **26th May 2017**. If the Stakeholder Workshop date or location changes, this submission date would require review. This Report will include the findings from the workshop and feedback from participants. This feedback will be summarised and a review of what will (and will not) be taken forward into the final programme will be provided.

1.5.3.5   Curriculum Development Report

Similarly, and where curriculum development work will necessarily follow optioneering feedback from the Stakeholder Workshop, the Curriculum Development Report will be submitted on **14th July 2017**, containing information pertaining to the course content and layout. This will cover the technical and leadership streams and outline aspects such as information to be covered, the form of delivery (i.e. classroom, self-learn etc.), duration and an indication as to where the course will be delivered. The requirement for and scope of a potential Curriculum Development Workshop proposed in the work plan will be discussed with the client following the Stakeholder Workshop.

1.5.3.6   Final Reporting

The Draft Final Report is due for submission on the **31st August 2017**, with the Final Report due on **30th September 2017**. The report will cover the programme structure, selection criteria for candidates, course curriculum, management structure, programme partners, linkages to tertiary institutions and professional bodies, and the implementation plan and budget.

Figure 1: Phase 1 Programme

ID	Task	Week End:	02/12/2016 (1)	09/12/2016 (2)	16/12/2016 (3)	23/12/2016 (4)	30/12/2016 (5)	06/01/2017 (6)	13/01/2017 (7)	20/01/2017 (8)	27/01/2017 (9)	03/02/2017 (10)	10/02/2017 (11)	17/02/2017 (12)	24/02/2017 (13)	03/03/2017 (14)	10/03/2017 (15)	17/03/2017 (16)	24/03/2017 (17)	31/03/2017 (18)	07/04/2017 (19)	14/04/2017 (20)	21/04/2017 (21)	28/04/2017 (22)	05/05/2017 (23)	12/05/2017 (24)	19/05/2017 (25)	26/05/2017 (26)	02/06/2017 (27)	09/06/2017 (28)	16/06/2017 (29)	23/06/2017 (30)	30/06/2017 (31)	07/07/2017 (32)	14/07/2017 (33)	21/07/2017 (34)	28/07/2017 (35)	04/08/2017 (36)	11/08/2017 (37)	18/08/2017 (38)	25/08/2017 (39)	01/09/2017 (40)	08/09/2017 (41)	15/09/2017 (42)	22/09/2017 (43)	29/09/2017 (44)	06/10/2017 (45)	13/10/2017 (46)	20/10/2017 (47)
0	**PROJECT LAUNCH**																																																
0.1	Inception Meeting		◆																																														
1	**INCEPTION REPORT**																																																
1.1	Literature Review		█	█																																													
1.2	Initial Desktop study		█	█																																													
1.3	Draft Inception Report				█																																												
1.4	Issue Inception Report					◆																																											
1.5	Client review						█																																										
2	**STATUS REPORT**																																																
2.1	Needs Assessment/Gap Analysis - Review of Documents									█	█																																						
2.2	Needs Assessment/Gap Analysis - Survey of Courses Sub-Saharan Africa											█	█	█																																			
2.3	Needs Assessment/Gap Analysis - Survey of Courses International											█	█																																			
2.4	Needs Assessment/Gap Analysis - Review of Data from Professional Bodies													█																																		
2.5	Confirmation of Workshop and Draft List of Attendees														█																																	
2.5	Issue Status Report															◆																																
3	**INTERIM REPORT**																																																
3.1	Analysis of Options for Partnering															█	█																																
3.2	Analysis of Options for Job Placements																	█	█																													
3.3	Analysis of Options for Mentoring																		█																													
5.3	Options Development Workshop (internal)																			█																													
3.4	Summary of Options for Programme/Curriculum Development																				█																												
3.5	Draft Interim Report																					█																											
3.6	Issue Interim report																						◆																										
4	**STAKEHOLDER WORKSHOP**																																																
4.1	Scope and prepare workshop																						█	█																									
4.2	Invite attendees																							█	█																								
4.3	Hold workshop (T2 conference, Livingstone, 8th May)																									◆																							
4.4	Draft workshop report																										█																						
4.5	Issue Interim/Stakeholder Workshop report																											◆																					
4.6	Client review																												█																				
5	**CURRICULUM DEVELOPMENT REPORT**																																																
5.1	Review of Existing Curricula																												█	█	█																		
5.2	Scoping & Planning of Curriculum Development workshop																													█	█	█																	
5.3	Curriculum Development Workshop																																█																
5.4	Draft Curriculum Development Report																																█	█															
5.5	Issue Curriculum Development Report																																		◆														
6	**DRAFT PHASE 1 REPORT**																																																
6.1	Development of Preliminary Business Plan																																			█	█												
6.2	Definition of scope for Personnel Contracting																																					█											
6.3	Resourcing and delivery of scope relating to Personnel Contracting																																						█										
6.5	Draft Report																																							█									
6.6	Issue Draft Phase 1 Report report																																								◆								
6.7	Client review																																									█							
7	**FINAL PHASE 1 REPORT**																																																
7.1	Draft report																																												█	█			
7.2	Issue report																																															◆	
7.3	Client review																																														█	█	
7.4	Amend and issue final report																																																◆

2   Inception Phase

2.1   Initial Meetings

Following signing of the contract, the project team was mobilised for the inception stage of the project. The project team mobilised at the University of Cape Town for the Kick-Off Meeting on 30th November 2016, with this becoming the commencement date for the project. Minutes from this meeting are provided in Appendix B.

Subsequent to the Kick-Off Meeting, an additional inception meeting was held at OTB offices in London (see Appendix B) between the Team Leader, Project Co-ordinator and Les Sampson and Jasper Cook from ReCAP. These meetings, and other key meetings from this period, are summarised in Table 1.

Out of these meetings, some key points were raised which will inform the project moving forward. Some of the key actions going forward were identified as:

- Co-ordinating with other key programmes, such as DFID's High Volume Transport Programme and Infrastructure Skills for Development which is being managed by Cardno Emerging Markets

- Contact and co-ordinate with key stakeholders and other institutions which may be of assistance, such as ASANRA, ARMFA, the IRF and donor agencies like DfID and the World Bank

- Future sustainability of the programme after ReCAP ends is a key component of the project

- Trying to ensure gender balance on the programme is also of high importance

Additional meetings were held internally within Mott MacDonald and UCT. One of the key meetings was with Mott MacDonald's Learning and Development Division to determine the leadership courses currently offered and whether these can be used on the TSLDP. This is discussed in greater detail in Section 3.2.

2.2   Initial Literature Review & Desktop Study

During the Inception Phase, an initial desktop study has been undertaken to understand existing work undertaken for the development and direction of the TSLDP, and with particular emphasis on locating existing courses which may be beneficial to TSLDP. This will be expanded upon in the next stage of the project for submission as part of the Status and Interim Reports. Further detail on the information found so far is discussed further in Section 3 which discusses Curriculum Development and in Appendix D.

Table 3 Summary of key meetings and information during Inception Stage

Meeting/Event	Action/Key Contacts	Issues/Information
Kick-Off Meeting *Date: 30/11/16*	**Key Contact**: Les Sampson (ReCAP). **Actions**: preparation of Inception Report. Make contact with IS4DP and DFID HVT programme.	Gerome Rich and Caitlin Poole managing similar project for Cardno Emerging Markets called Infrastructure Skills for Development Programme (IS4DP). This project should co-ordinate with IS4DP. The project should co-ordinate closely with the DFID High Volume Transport (HVT) programme.
Initial Contact with Infrastructure Skills for Development Programme *Date: 06/12/16*	**Key Contacts**: Gerome Rich and Caitlin Poole **Actions**: review project background and findings.	Information provided by Cardno about the ongoing programme. Follow-up meeting to be arranged.
Initial Contact with Mott MacDonald Learning and Development Team *Date: 06/12/16*	**Key Contact**: Dawn Avis **Actions:** set up meeting to discuss leadership courses offered by Mott MacDonald.	Meeting arranged from 05/01/2017.
Post-Inception meeting at OTB Engineering, London *Date: 14/12/16*	**Key Contacts**: Les Sampson and Jasper Cook **Actions:** draft letter for ReCAP to circulate to Partner Countries. Make contact with Cardno regarding IS4DP.	Letter drafted and circulated to ReCAP Partner Countries (see Appendix D for exemplar letter). Meeting with Cardno/Caitlin Poole to be arranged in January 2017.
Meeting with Mott MacDonald Learning and Development (L&D) Team *Date: 05/01/17*	**Key Contact**: Dawn Avis, Vanessa Calvino and Paul Smith **Actions:** review information provided by L&D. Feed back to them later in the project for further inputs.	Information on Mott MacDonald's *Managing People for Excellence* course – see Appendix F.

2.2.1   Initial Needs Analysis

Under the inception process, an initial review was conducted of professional registration in Sub-Saharan Africa, focussing on data from the Engineering Council of South Africa (ECSA), the South African Institution of Civil Engineering (SAICE), and relevant sister organisations.

Focussing initially on SAICE, with 11,186 registered members, 38% are Professional Engineers, registered with the Engineering Council South Africa (ECSA). Another 36% of members are Associates, which have an engineering qualification but not (yet) the experience required to become a Professional Engineer. Technologists and Technicians (11%) are qualified members that have a BTECH or similar degree. Student engineers make up the remaining 15% of membership.

Figure 2 SAICE Membership Categories (Source: SAICE Membership Report, Oct 2016)
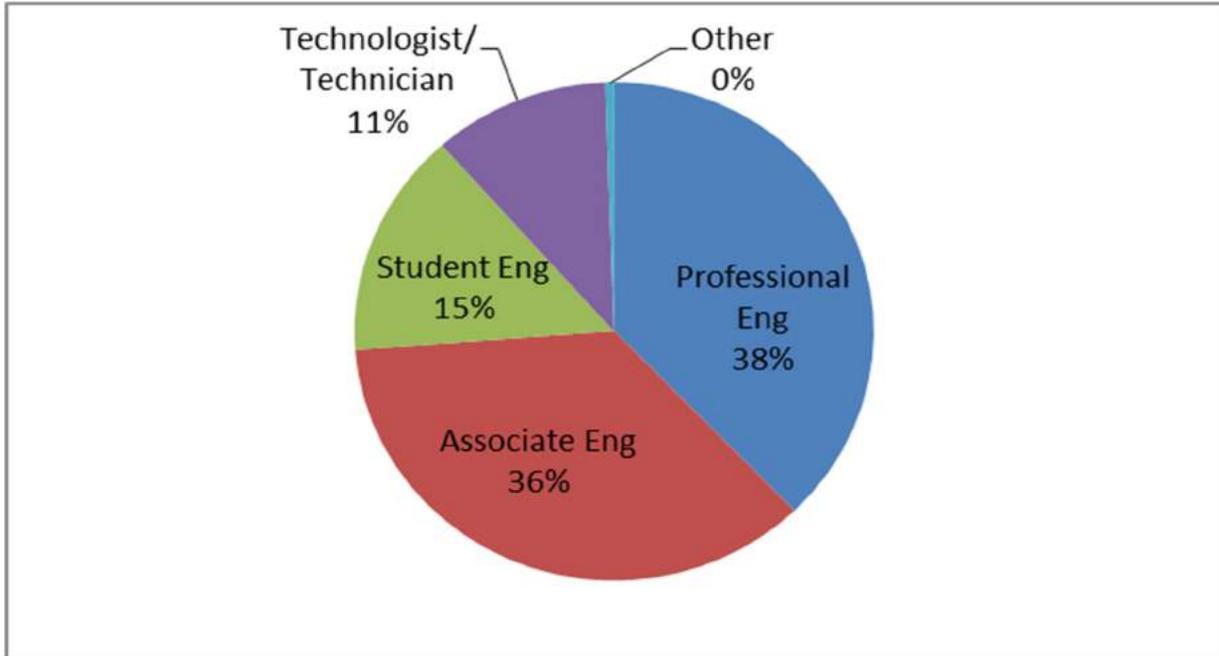
Within this, Figure 3 below demonstrates that transportation makes up about 18% of the total SAICE membership, with a further 18% taken up by project managers. Consideration of the above figure suggests a potential 4,000 SAICE members that could be eligible for the newly developed programme. However, this is only one portion of the sector and other professional institutions will also be reviewed as part of studies in the next stage.

Figure 3 SAICE Membership Categories (Source: SAICE Membership Report, Oct 2015)
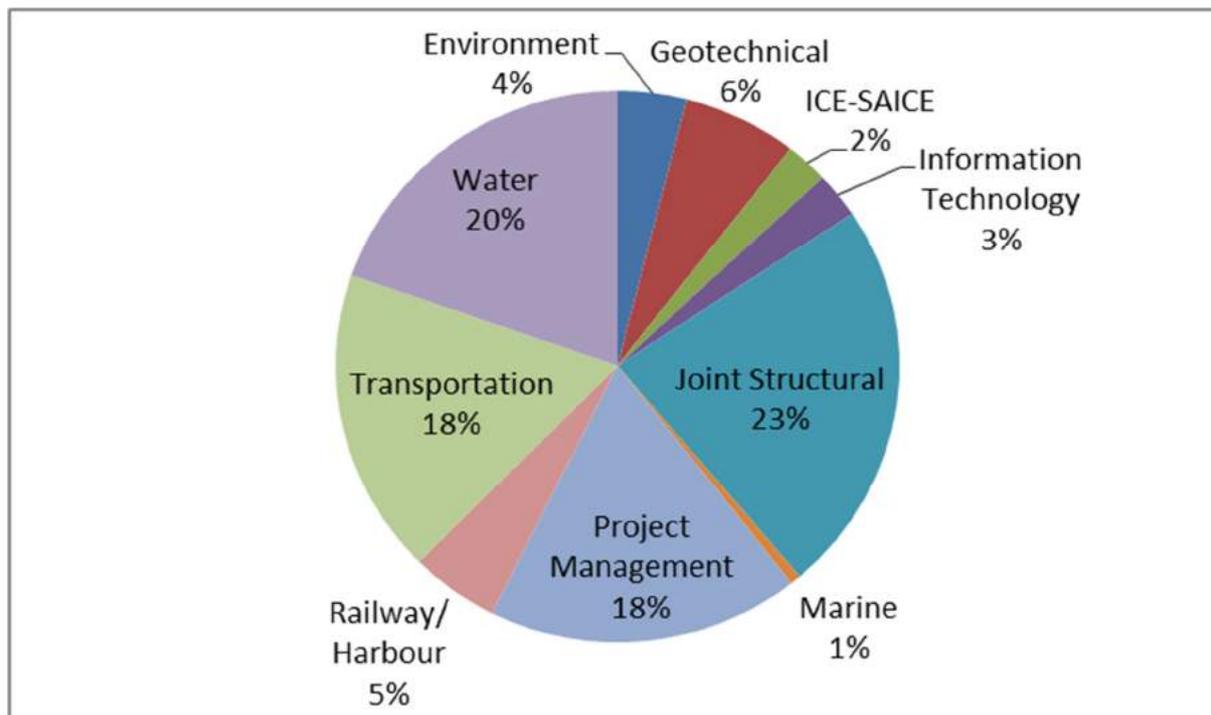
This diverse breakdown of membership suggests that candidates are likely to come from a range of industry sectors, from public/government bodies, consultancy, and contractors, bearing in mind an initial focus will largely be on ReCAP Partner Countries and candidates from associated public bodies.

2.2.2   Stakeholders

During the inception phase, the following list of ReCAP partner organisations and key stakeholders was identified for ongoing engagement in the development of the TSLDP, and with whom contact has been made at inception stage:

ReCAP Partner Organisations

Country	Contact	Affiliation
Southern Africa		
Mozambique	Rubina Normahomed	National Administration of Roads (ANE)
D.R. Congo	Billy Tshibambe	Cellule Infrastructures
Zambia	Thomas Banda	Road Development Agency (RDA)
Malawi	Sharmey Banda	Malawi Roads Authority
East Africa		
Kenya	Stephen Kogi	Materials Testing & Research Department (MTRD), Ministry of Transport and Infrastructure
Ethiopia	Alemayehu Endale	Ethiopian Roads Authority (ERA)

Country	Contact	Affiliation
Tanzania	Fikiri Magafu	President's Office - Regional Administration and Local Government (PO-RALG)
Uganda	Mark Henry Rubarenzya	National Roads Authority (UNRA)
South Sudan	Philip Marlow	Ministry of Transport and Roads
West Africa		
Ghana	Kwasi Osafo Ampadu	Department of Feeder Roads
Sierra Leone	Tamba Amara	Sierra Leone Roads Authority (SLRA)
Liberia	Sumoiwuo Harris	Ministry of Public Works
Others		
Regional	Jephita Chagunda	Africa Rural Transport Association (ARTA)
Regional	Joey Malota	Association of Southern National Road Agencies (ASANRA)
Regional	Joseph Haule	African Road Maintenance Funds Association (ARMFA) (Past Chair)

Further potential partners for future engagement include:

- Professional organizations in civil engineering
    - Institution of Civil Engineers (ICE)
    - South African Institute of Civil Engineers (SAICE)
    - Chartered Institution of Highways and Transportation (CIHT)
    - Institution of Highway Engineering (IHE)
    - Women in Engineering (WomEng)
    - The Southern African Federation of Engineering Organisations (SAFEO)
    - World Federation of Engineering Organisations (WFEO)
    - American Association of Civil Engineering (ASCE)
    - Engineers Against Poverty (EAP)
    - Royal Academy of Engineering (RAE)
    - African Road Maintenance Fund Association (ARMFA)
    - Association of Southern African National Roads Agencies (ASANRA)
    - Federation of Eastern and Southern African Road Transport Associations
    - New Partnership for Africa's Development
    - Southern Africa Development Community
    - Southern Africa Transport & Communications Commission (SATCC)
- Development organizations

- African Development Bank
- Department for International Development, UK
- World Bank
- EU
- DFAT
- UNEP
- UN-Habitat
- UNDP
- SLoCaT
- Development Bank of Southern Africa
- Existing initiatives
  - Australia-Africa Partnerships Facility: Infrastructure Skills for Development
  - DFID High Volume Transport Programme
  - World Bank Sub-Saharan Africa Transport Policy Programme
  - UNEP Share the Road Programme
  - TEST Network
  - International Road Federation (IRF)
  - African Centre of Excellence in Public Transport and Non-Motorized Transport
- Research organizations
  - Centre for Scientific and Industrial Research, SA (CSIR)
  - Transport Research Laboratory, UK (TRL)
  - Australian Road Research Board (ARRB)
- Networks of universities
  - World Universities Network
  - African Research Universities Alliance

2.2.3   Core Streams

It is possible to identify two fundamental skills streams for the TSLDP, being 'Technical' and 'Management & Leadership'.

First, future leaders of the transportation sector should have a broad understanding of the various technical components which drive a project from planning, policy and the environmental impacts, through to design, construction, and maintenance. Typically, this technical development stream is taught in the early stages of programmes, with aims related to introducing and/or expanding knowledge, comprehension and application skills in the transport domain, looking at engineering and maintenance, planning, safety, operations, delivery, economics and impact assessment of transport infrastructure.

Secondly, in order to lead effectively, candidates require the soft skills necessary to manage teams and communicate ideas in a logical and structured manner. This is likely to be the most challenging aspect of the programme, and one which requires practice to perfect, therefore is unlikely to be achieved through classroom training alone. Typically, courses in **leadership and managerial development** aim to develop a foundation of knowledge and experience on effective leadership and management, where coursework is often carried out from within their workplaces or in job placements.

One illustration of the work-based nature of skills development for leadership and management, and for possible adaptation to the TSLDP context, can be provided through Mott MacDonald's own internal Learning and Development programme for post-qualification professionals, entitled *"Managing People for Excellence (MPfE)"*.   MPfE is predominantly a classroom course covering the key components below:

- **Talent management**: how to develop and work with a team, get people engaged in their work and deliver better performance.

- **Situational leadership**: focuses on how to get the best out of the team and others surrounding the team. It is about understanding your management style and the different needs and personalities of others.

- **Performance management**: developing the performance of your team, developing an environment of trust and how to handle poor staff performance.

- **Coaching skills**: teaching you to work with an individual or group to unlock their full potential.

- **Skilful communication and collaboration**: better engagement with team members and colleagues at all levels (internal and external).

- **Mapping motivation**: defining and measuring motivation from an individual, team and an organisational perspective. Strengthens team productivity, reward, customer service and cultural change.

2.2.4   Existing Courses - International

An initial review has been conducted of international courses covering core transport sector and associated management disciplines. At this stage, the focus has been on courses offered in the UK, with likelihood of an expanded search in the coming phases of the project. A summary of courses found to date is provided in Table 4 below, with further detail included in Appendix C, and noting that these courses are professionally accredited by one or more of the following:

- Joint Board of Moderators (JBM) for the Institution of Civil Engineers (ICE), the Institution of Structural Engineers (IStructE), the Chartered Institution of Highways and Transportation (CIHT) and the Institute of Highway Engineers (IHE)

- Transport Planning Professional (TPP)

Table 4: Accredited UK MSc Courses Accepted for Professional Registration

University	JBM	TPP
Cardiff University		
MSc. Transport & Planning		▓
Edinburgh Napier University		
MSc Transport Planning and Engineering	▓	▓
Glasgow University		
MSc Urban Transport		Pending
Imperial College London & UCL		
MSc Transport	▓	▓
MSc Transport with Business Management	▓	▓
MSc Transport with Sustainable Development	▓	▓
The University of Leeds		
MSc Transport Planning & Engineering	▓	▓
MSc Transport Planning		▓

University	JBM	TPP
MSc Transport Planning & Environment		
MA Transport Economics		
Newcastle University		
MSc Transport Planning & Engineering		
MSc Transportation Planning & ITS		
MSc Transport and Business Management		
MSc Transport and the Environment		
University of Salford		
MSc Transport Engineering & Planning		Pending
University of Southampton		
MSc Transportation Planning and Engineering		
UWE, Bristol		
MSc Transport Planning		
MSc Transport Engineering & Planning		
University of Westminster		
MSc Transport Planning & Management		
University of Ulster		
MSc Infrastructure Engineering		
University of Nottingham		
MSc Civil Engineering (Transport)		
Brunel University		
MSc Project & Infrastructure Management		
University of Birmingham		
MSc Roads Management & Engineering		

2.2.5   Existing Courses – Sub-Saharan Africa

A preliminary investigation of existing leadership, transportation/civil engineering courses in SSA is summarised in Table 5 below, and for continuation of the investigation under section 3.1.2 of the ongoing project methodology. The courses are identified in universities and other institutions of higher learning within the specific countries where the leadership programme will focus, and representing potential stakeholders for participation in the ReCAP leadership programme.

Table 4: Summary of courses available in SSA

Country	Institution	Programme	Unit	Course	Qualification	Collaboration
Ethiopia	Ethiopia Civil Service University	Urban Development	Institute of Urban Studies	Urban Engineering (Highway Engineering)	Bachelors	
				Transportation Management	Masters	
			Institute of leadership and good governance	Leadership and good governance	Masters	
	International Leadership Institute	MTLC		Transformational Leadership and Change	Masters	University of Greenwich of London
Tanzania	Eastern and Southern African Management Institute (ESAMI)	MBA	Business School	MBA in transportation economics and logistics management	Masters	Trade Policy Training Centre in Africa (TRAPCA) Lund University of Sweden
		Short Courses	Transportation, Infrastructural and Procurement	Advanced transportation management; Road and traffic safety and mgt; fleet operations, maintenance and management	CPD	Trade Policy Training Centre in Africa (TRAPCA) Lund University of Sweden

Country	Institution	Programme	Unit	Course	Qualification	Collaboration
Kenya	Strathmore Business School	Modular Programme	Executive Education	Senior Management Leadership Programme		
			Centre for sustainability leadership	African sustainable leadership (ASL) programme		UN Global Compact Network, Kenya, Safaricom, Unilever and two world-class centres of research and teaching on business and sustainability issues: The University of Cambridge's Institute for Sustainability Leadership (CISL) South Africa; The University of Cape Town.
	Kenyatta University	Bachelor of Science	School of Engineering and Technology	Civil Engineering (focus on Transportation engineering)	Bachelors	
Ghana	Kwameh Nkrumah Uni of Sci & Tech	MSc & Mphil	Department of Civil Engineering	Road and Transport Engineering	Masters	University of Birmingham India Institute of Technology, Madras
	University of Professional Studies	MSc & Mphil	School of graduate studies	Leadership	Masters	
Zambia	Copperbelt University	MSc & MPhil	School of graduate studies	Civil Infrastructure	Masters	

Country	Institution	Programme	Unit	Course	Qualification	Collaboration
Malawi	Malawi Institute of Management	Short term training		Leadership		African University; University of Derby; University of Bolton; African Capacity Alliance; Cyprus Institute of Marketing
	University of Malawi the Polytechnic	Advanced Diploma	Transport and Technology Transfer Center	Transport Operations Management		
Uganda	Makerere University	Civil Engineering	The College of Engineering, Design, Art and Technology	Urban Engineering (Highway Engineering)	Bachelors	https://cedat.mak.ac.ug/undergraduate-programmes/bachelor-of-science-in-civil-engineering
Sierra Leone	-	-	-	-	-	-
South Sudan	-	-	-	-	-	-
Liberia	-	-	-	-	-	-
Central African Republic	-	-	-	-	-	-
Democratic Rep. of Congo	-	-	-	-	-	-

2.2.6   Candidate Selection

Example selection criteria from the courses outlined above have been summarised below, understanding that candidates for the TSLDP might have varied backgrounds, ranging from civil engineering to economics or urban and regional planning:

- Honours Degree or above or equivalent qualification acceptable to the Programme Organisers in a relevant Engineering/Science discipline. Applicants with qualifications below 2.2 Honours Degree standard (or equivalent qualification acceptable to the University) will be considered on a case by case basis

- Minimum 10 years post-graduate experience in industry

- Professional registration or accreditation (e.g. Chartered Engineer status)

- Proficiency in English in order to benefit fully from the course. Evidence of IELTS score of 6.5, with not less than 5.5 in any component, or an equivalent qualification acceptable to the Programme Organisers and taken within the last 2 years

Typically, additional evaluation criteria is often included related to:

- Gender balance component i.e. male/female split in participation

- Employer support or nomination to participate on course

On programmes with strong leadership/management components, there is an emphasis on the expectation for candidates to show some leadership experience and initiative, particularly in the areas of professional and career development.

2.2.7   National Vocational Education Qualifications Framework

During the literature review exercise, the **National Vocational Education Qualifications Framework (NVEQF)** was researched as a relevant and potential framework for the delivery of a programme such as TSLDP. It provides the framework for courses to be delivered as modular systems, where tailor made course programme can be developed for individual participants with a minimum percentage of (compulsory) core courses combined with a range of optional modules. Such an approach would support the likely diversity in candidate's background, experience and qualifications outlined in section 2.2.6.

A full description of the NVEQF is given in Appendix G. Within the existing understanding around the Transport Sector Leadership Development Programme, it is likely that the programme would be positioned to move candidates from a Level 6 qualification (Undergraduate degree level) or Level 7 qualification (Masters or postgraduate degree) to an equivalent to Level 8 qualification, associated with a level of skill and education commensurate with a doctorate. It should be noted that completion of this programme is unlikely to give candidates the accreditation to this level (i.e. a PhD), but is reflective of the skills they should be able demonstrate upon completion.

This is shown diagrammatically in Figure 4, with a brief description of the NVEQF levels outlined below:

- Level 6 (BSc/BEng Hons): Candidates should have the qualities and transferable skills necessary for employment requiring:

    - The exercise of initiative and personal responsibility

    - Decision-making in complex and unpredictable contexts

    - The learning ability needed to undertake appropriate further training of a professional or equivalent nature.

- Level 7 (MEng/MSc): Candidates should have the qualities and transferable skills necessary for employment requiring:

  - The exercise of initiative and personal responsibility
  - Decision making in complex and unpredictable situations
  - The independent learning ability required for continuing professional development.

- Level 8 (typically PhD or equivalent): Candidates should be able to:

  - Make informed judgements on complex issues in specialist fields, often in the absence of complete data, and be able to communicate their ideas and conclusions clearly and effectively to specialist and non-specialist audiences
  - Have the qualities and transferable skills necessary for employment requiring the exercise of personal responsibility and largely autonomous initiative in complex and unpredictable situations, in professional or equivalent environments.

In designing a Leadership Development Programme thought will be given as to how candidates may achieve an equivalent to Level 8. This may be through a Personal Development Plan supervised or mentored by suitable senior transport professionals; though attendance at approved courses or by engaging in a significant piece of research and development.

Figure 4 Educational route to 'Transport Leadership' based on the National Vocational Education Qualifications Framework (NVEQF)
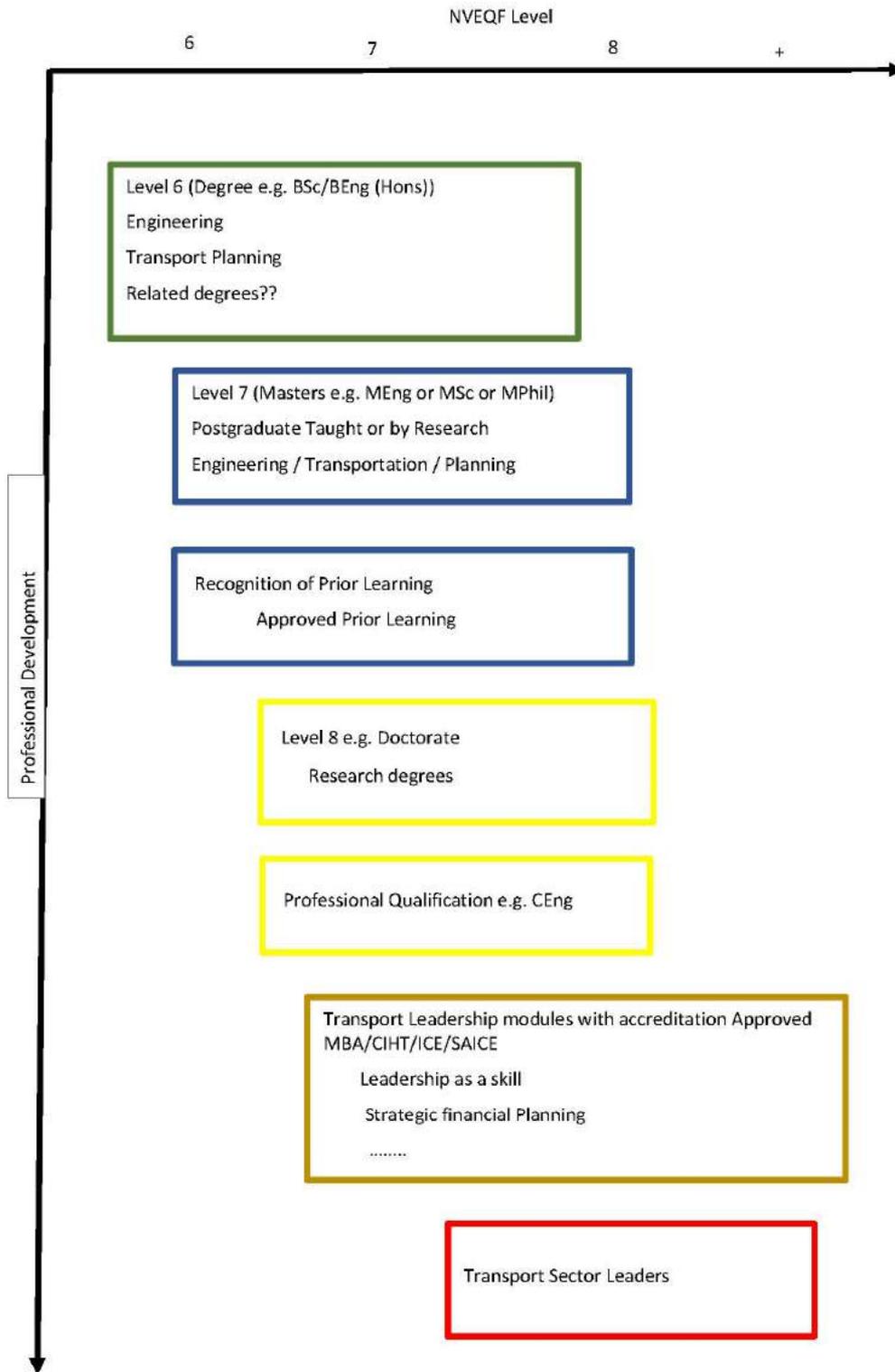
2.2.8   Diversity and Inclusion

In a situation where SAICE's professional membership lists 9,576 males and 1,610 females, diversity remains a major concern for the transport sector in Sub-Saharan Africa.

Figure 5 SAICE Membership by Race and Gender (Source: SAICE Membership Report, Oct 2016)
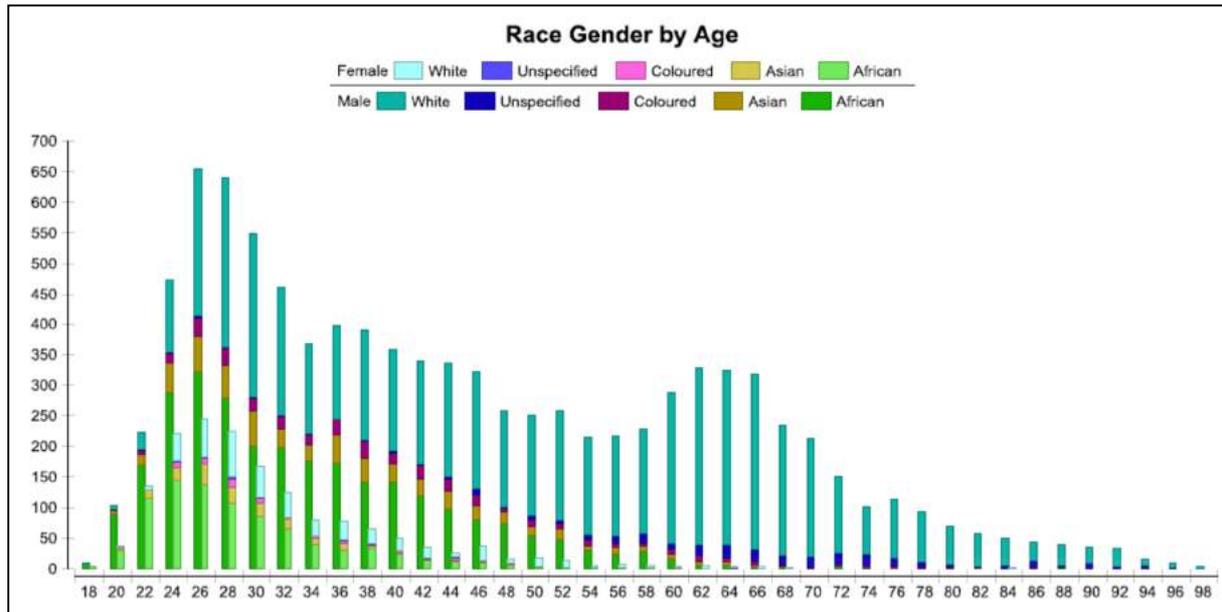
A number of international institutions have launched initiatives surrounding diversity and inclusion. One such example is the Chartered Institution of Highways and Transportation (CIHT), who have launched the Diversity and Inclusion Charter to help embed a change in culture in the highways and transportation industry. CIHT is working with its Corporate Partners to continue to make, and strengthen the case for diversity and inclusion, with a particular focus on increased participation of female professionals in the technical leadership of the transport sector.

CIHT has also developed a Routes to Diversity and Inclusion toolkit, the first of its kind for the highways and transportation sector. It provides a route map to success through diversity, gender balance and inclusion. The Royal Academy of Engineering in the UK has also produced a case study toolkit to encourage diversity and inclusion in engineering.

An example from Sub-Saharan Africa is that of WomEng at UCT. During a third year structures class in 2004, two female students decided that more needed to be done to attract females into the (Civil) Engineering field. A year later, *WomEng* was launched, first at UCT, then nationally (South Africa) and since 2014 throughout Africa (the second branch operates from Kenya) and beyond (see Figure 6 below).

Figure 6 WomEng Locations throughout the World (Source: http://www.womeng.org)

WomEng supports the recruitment of girls into engineering students, graduates entering the professional market, as well as mature women in industry through workshops, networking opportunities etc. (see Figure 7 below), and where there is strong potential for linkage with the recruitment and candidate selection elements of the TSLDP.

Figure 7 WomEng Support Structure (Source: http://www.womeng.org)
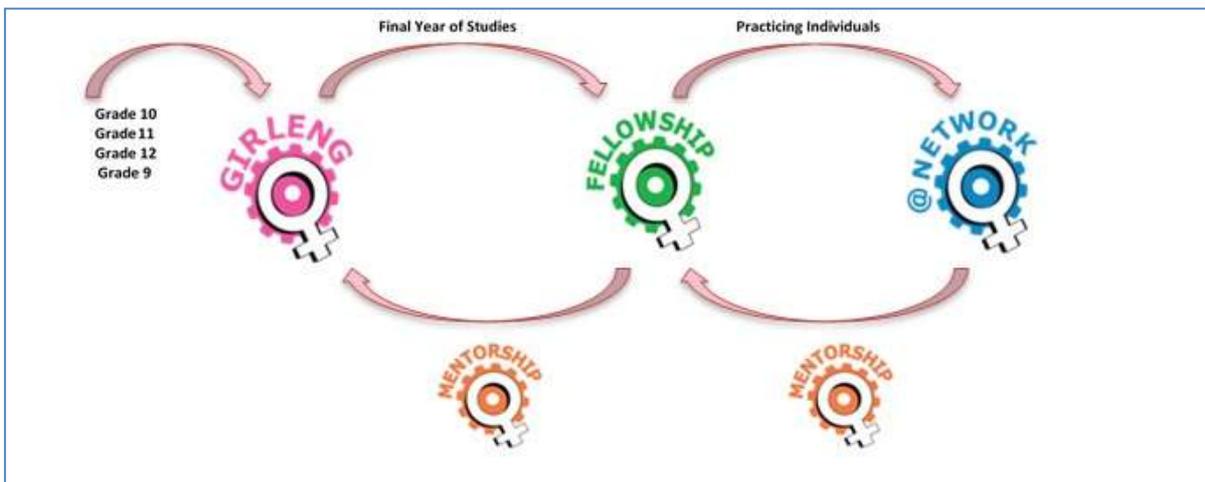
2.2.9   Professional Accreditation

Professional accreditation of the transport sector leadership development programme for Sub-Saharan Africa will be an important component in both quality assurance, and could follow one or more of the following routes:

- National Accreditation – accreditation from national professional transport and engineering institutions (e.g. Engineering Councils)
- Academic Accreditation – accreditation from internationally reputed tertiary education institutions within Africa

- International Accreditation – accreditation from international professional institutions (e.g. ICE; CIHT) – noting that the process here is likely to take several years, based on large committees of external examiners and multiple assessment visits

The process of professional accreditation for a new course is likely to be rigorous and lengthy – our initial studies for engineering courses in UK tertiary institutions demonstrate that this will typically include:

- Course duration and host institution

- Organogram/structure of teaching and support staff

- CVs, skills and professional membership of teaching staff, including teaching qualifications

- Course budget

- Assessment of teaching facilities – classrooms, IT, library; and where relevant, laboratories, drawing offices, accommodation for private study

- Admissions process

- Overall student experience - e.g. support networks, special learning support, staff-student committees; links with other courses

- Detailed course timetable

- Assessment of programme learning outcomes and content covering:

  o Underlying themes e.g. sustainability; environmental & social impact; leadership & management

  o Knowledge and Understanding – technical content and theory

  o Intellectual Abilities – e.g. core skills such as problem solving, analysis, management

  o Practical Skills – e.g. site, laboratory and project experience

  o General Transferable Skills – e.g. communication, presentation, report-writing

- Assessment methods (e.g. exams, modules, project work) and independent review

- Analysis of completion and pass rate and ongoing processes of monitoring, evaluation and improvement

- Links with industry, research, and external and overseas institutions (e.g. visiting lecturers, industrial placements)

- Mechanisms for student mentoring and professional membership

- Post-course award, progression and destination – access to and monitoring of follow-on study, professional qualifications and career paths

2.2.10 Sustainability

With the likely completion of the ReCAP programme in 2020, the future sustainability of the TSLDP is a fundamental component of planning for implementation.   Fundamental to this will be securing long-term funding into the future, in addition to a body (or bodies) who can take ownership of the management and implementation of the programme.

At this stage, it is considered that there are a number of regional bodies and international donors who may be able assist in this regard. Organisations such ASANRA or ARMFA would be ideal candidates to take on the management of the programme in years to come, supported by key donor agencies active in the sector in Sub-Saharan Africa.

It is recognised that this project was originally conceived by ASANRA, who are a Southern Africa body. However, there is no known equivalent body in West Africa or East Africa, and which will provide a significant challenge for the programme implementation - it will be necessary to look at alternative partnering options.

2.2.11 Summary

During the inception phase, the consultant team conducted initial meetings and carried out an initial literature review and desktop study. The key areas of focus for this initial study encompassed:

- **Initial Needs Analysis** – an overview of professional membership of SAICE as a representative professional institution, understanding the potential recruitment base and level for a required Transport Sector Leadership Development Programme

- **Stakeholders** – identification of key stakeholders in Sub-Saharan Africa to be engaged in the ongoing development of the Transport Sector Leadership Development Programme

- **Core Steams** – a conceptual overview of the core streams for a Transport Sector Leadership Development Programme, focussing on expanding technical knowledge at a leadership/managerial level; and on the development of specific leadership and managerial skills

- **Existing Courses** – an initial review of relevant postgraduate courses in the transport sector in the UK and Sub-Saharan Africa

- **Candidate Selection** – a summary of candidate selection criteria based on existing experience from some existing international postgraduate courses in the transport sector

- **National Vocational Education Qualifications Framework** – a review of the National Vocational Education Qualifications Framework as a possible framework for the structuring of the Transport Sector Leadership Development Programme

- **Diversity and Inclusion**: A summary of some of the diversity issues facing the transportation sector in Sub-Saharan Africa, with an overview of some existing concepts/programmes addressing these issues

- **Professional Accreditation**: A summary of possible existing mechanisms for professional accreditation of the Transport Sector Leadership Development Programme, with an overview of likely requirements for the achievement of professional accreditation for the future programme

- **Sustainability**: A brief summary of the requirements for ongoing sustainability of the Transport Sector Leadership Development Programme to inform the ongoing programme development and methodology

Through the project launch meetings and process of preliminary desktop study & literature review, some commonalities have begun to emerge on the requirements, expectations and possibilities for the Transport Sector Leadership Development Programme moving forward, including:

- Possible format of the course as a 2-3 year programme based on a modular structure

- Possible route to development of technical capacity through existing tertiary education courses

- Possible target group of mid-career professionals with 10 years' experience in the transport sector

Following the project launch and initial literature review and desktop study, a project methodology was developed, outlined in chapter 3 below.

3   Methodology

Based on the submitted technical proposal and further development during the inception phase, this chapter outlines the methodology for the first phase of development for the Transport Sector Leadership Development Programme. The methodology follows the deliverables schedule outlined in section 1.5.3, and the workplan detailed in Appendix A.

3.1   Needs Assessment & Gap Analysis (Status Report)

To develop the programme content for capacity and leadership development in transport a needs assessment and gap analysis will be performed and used to inform a draft curriculum for stakeholder review.

Figure 8: Flowchart outlining the stages involved in developing course content
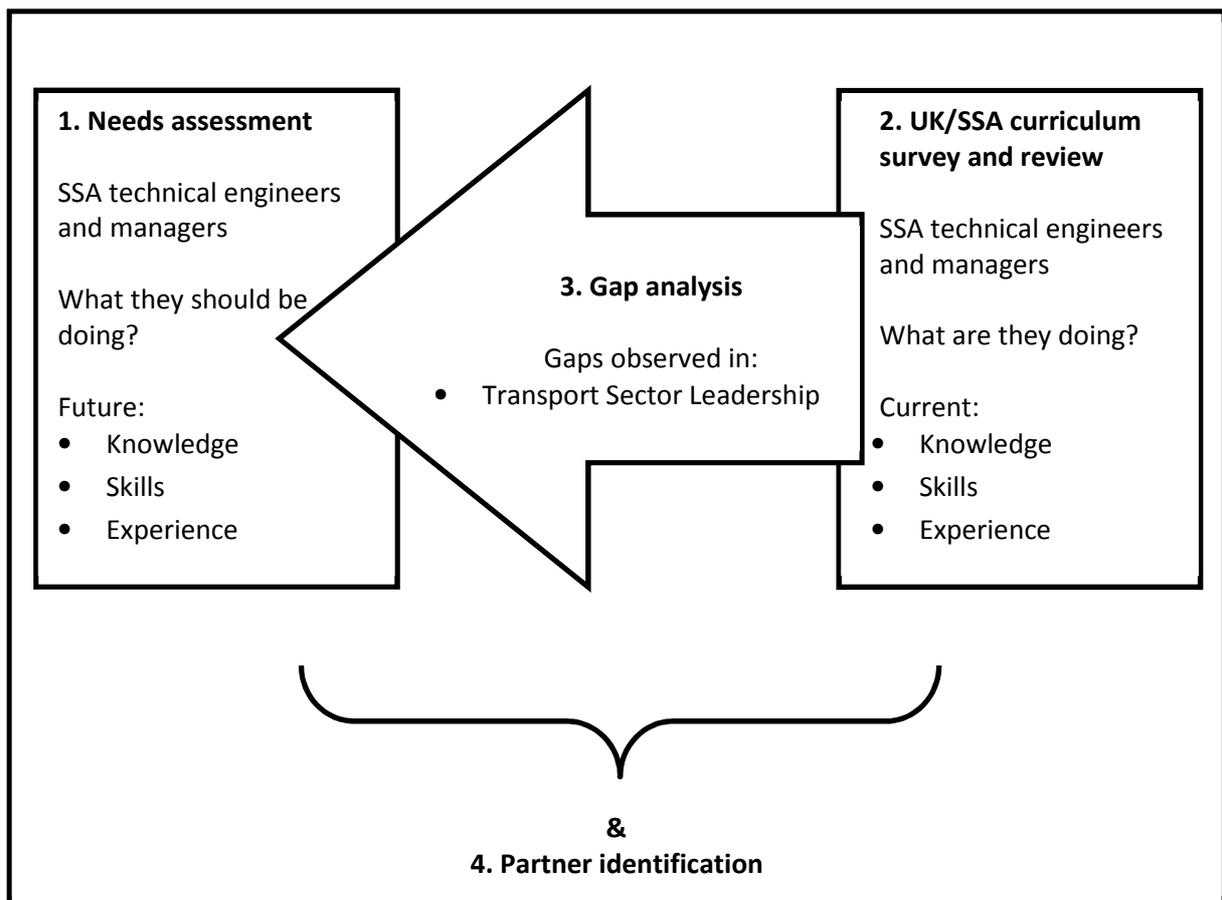
The process of curriculum development will follow the below steps outlined in the appended workplan and above flowchart:

- A **needs assessment** comprising of a systematic review of gathered information about the required knowledge, skills and practical experience in transport leadership of graduate engineers in SSA is performed. The outcome will be a student profile. Methods include the following:

    - Review of documents (ASANRA Strategic Plan, IS4D Annual Work Plan, documents of ICE, SAICE, ASCE etc.)
    - A review of relevant curricula and courses in the domains of road and transport engineering as well as management sciences in the UK as well as in ReCAP partner and supported countries in SSA is performed, first, to assist the gap analysis, and, second, to identify potential partners that are relevant to the proposed curriculum.

> In this step also existing programmes/courses offered by multilateral donors, such as the Asian Development Bank, are reviewed
>
> o Meetings with stakeholders (donor agencies, national roads agencies, ARMFA etc.); and a survey among selected experienced professionals (academics, practitioners etc.) in the field

- A **gap analysis**, determining the difference between current knowledge, skills and experience (what graduate engineers do) and current best-practices of transport leadership in the sector (what graduate engineers should be doing). Gaps can occur in knowledge, skills or practical experience. The gaps will determine the course of action following, i.e. define the purpose of the capacity building activity, which will become a learning objective in the proposed curriculum.

3.1.1   Review of Documents

A continued review will be undertaken on documents collected from online studies, including:

- Review of publications and academic research on transport leadership and capacity building in Sub-Saharan Africa

- Available documentary information on existing programmes to develop and/or improve leadership capacity in the transport sector in Sub-Saharan Africa;

- Available documentary information supporting the development of core competencies for the TSLDP

- Collection of data related to financial planning and programme budgets for each of long term courses in the transportation sector

3.1.2   Survey of Courses International

Building on the desk study conducted at inception phase, the survey of relevant international courses will be expanded and analysed, and further communications established with appropriate providers as key stakeholders or potential partners for the development of the TSLDP. Anecdotal evidence also suggests that there are experiences external to the transport sector that may have a useful bearing on the development of TSLDP, such as the experience of a parallel leadership course run by DFID for the banking sector in Africa.

3.1.3   Survey of Courses Sub-Saharan Africa

Building on the desk study conducted at inception phase, the needs assessment and gap analysis will consist of a web and phone-based survey in the ReCAP partner and supported countries. This will be principally achieved by drawing on the resources of UCT's existing students from across Sub-Saharan Africa within the Faculty of Engineering & the Built Environment students.

The students will conduct an inventory in their home countries based on the following (draft) checklist:

Table 5: Draft Checklist for Existing Course Desk Study

1. Programme a. Civil engineering b. Transportation studies c. Urban and regional planning/town planning d. MBA e. Other relevant 2. Degree options per programme	9. Student population a. Total b. Local c. African d. Non-African 10. Curriculum details a. Curriculum roadmap b. Courses i. Electives (free or list)

3. Continuous Professional Development (CPD)
   a. Exists for the profession
      i. Yes
      ii. No
4. Accreditation
   a. National
   b. International
5. Collaboration (programme level)
   a. National
   b. Regional
   c. International
6. Laboratory facilities
   a. Pavement
   b. Traffic
   c. Geo-technique
   d. GIS
7. Computer facilities (department level)
   a. Proprietary software
      i. ArcGIS
      ii. AutoCAD
      iii. HDM4
      iv. SPSS
   b. Blended learning facilities (faculty/university level)
      i. Video-conferencing
      ii. Broadband internet (reliability)
8. Library facilities
   a. Online access to major civil engineering journals
   b. Libraries
      i. Engineering
      ii. Planning
      iii. Business

c. Course content
d. Course credits
11. Staff (in relevant programme)
    a. Number
    b. Number of PhD holding staff
    c. Number of PhD students
    d. International staff
12. Ranking (university)
    a. QS ranking
       i. Africa
       ii. Global
    b. Times Higher Education
       i. Africa
       ii. Global
    c. Shanghai Ranking
       i. Africa
       ii. Global
13. Ranking (programme)
    a. QS ranking
       i. Africa
       ii. Global
    b. Times Higher Education
       i. Africa
       ii. Global
    c. Shanghai Ranking
       i. Africa
       ii. Global
14. Transportation expertise in other programmes
    a. As claimed by staff of relevant programmes

The output from the desktop study will be a database that gives an overview of relevant courses in the ReCAP partner and supported countries, allowing the team to establish, analyse and map gaps in tertiary education offering in the field of transport and leadership.

3.1.4   Review of Data from Professional Bodies

Following the initial review of data from SAICE, the project team will further investigate the wider body of data available from SAICE and partner organisations, and incorporate any relevant analyses that will further inform the needs assessment and gap analysis for the TSLDP.

3.1   Options Development (Interim Report)

3.1.1   Analysis of Options for Partnering

Following the analysis of existing courses and educational institutions with relevant experience and connectivity, this step will intend to provide a clear shortlist of partnering options and relevant implementing partners for each option.

3.1.2   Analysis of Options for Job Placements

Related to the identification of options for partnering, the first stage of developing industrial placements will be to define the basic requirements for the placements, including:

- Aims and objectives of the placement in relation to the overall outcomes of the transport sector leadership development programme;

- Required length of placement and possible funding arrangements – longer placements will facilitate more detailed exposure and internal rotations to facilitate a broader exposure for leadership/management candidates;

- Requirements for potential host organisations regarding job description, induction, line management, mentoring and access to learning resources from host organisation;

- Mechanisms for quality assessment and candidate support from the parent course;

- Consideration of ongoing study during industrial placement (e.g. dissertation);

Once the overall concept for the industrial placements has been defined according to the above criteria, the transport sector leadership development programme will then be in a position at a later stage to approach potential host organisations such as:

- Contractors for experience in construction and maintenance techniques and exposure to site management and health & safety practices

- Engineering consultants for design, design review, construction supervision; and asset management/whole-life costing; and/or experience related to transport planning, economics; transport safety and freight operations

- Materials testing laboratories – for quality control and technical knowledge

- Road Authority, Agency or Road Fund - for client side, public sector, and contract management experience

- Road and transport research organisations – for exposure to research, planning and critical assessment and judgement

Similarly, with agreement on scope of the programme and the structure of individual placements, potential host organisations can be approached, beginning with those identified as key partners and stakeholders, such that a shortlist of potential job placement opportunities identified.

3.1.3   Analysis of Options for Mentoring

The role of a mentor typically includes:

- Understanding of aims and objectives of the course/professional development programme in question

- Assisting the candidate in navigating professional accreditation processes

- Initial review of experience, competencies and abilities of the candidate against the course and longer term professional development aims

- Assistance/Review in development of action plan for the mentee in achieving defined learning outcomes and addressing areas identified for development

- Liaising with course/industry contacts to support professional development for mentee

- Assisting the mentee to boost professional judgement and competence

- Asking questions and challenging the mentee, whilst providing guidance and management

- Assisting in preparing the candidate for interviews and examinations related to the course/professional development programme in question

With this in mind, the identification of mentors is necessarily related to the selected level of professional accreditation, where more rigorous professional accreditation will require formal processes of mentor selection and training. At this stage, the requirements for mentoring will be presented as a options in the interim report and at the Stakeholder Workshop, but where more rigorous professional accreditation will require formal processes of mentor selection and training.

Moving beyond the Stakeholder Workshop and into the Draft Phase 1 Report, a set of minimum qualifications and relevant technical, management and leadership experience and competencies will be established, and where a shortlist of selected individual mentors could be collated through partner organisations and in consultation with the personnel sub-consultant.

3.1.4   Options Development Workshop

Prior to the stakeholder development workshop, it is likely that an internal/client workshop will be necessitated to finalise an overview of options for tabling covering:

- Core Streams and Competencies
- Course Content
- Course structure
- Professional Accreditation
- Candidate Selection Criteria
- Partnering
- Job placements
- Mentoring
- Sustainability/Funding

3.1.5   Summary of Options for Programme/Curriculum Development

Following the above process, the interim report will be drafted, for initial circulation to stakeholders prior to the Stakeholder Engagement Workshop, and containing a summary of the key options concerning the following phases of curriculum development and implementation/business planning.

3.2   Stakeholder Engagement (Workshop Report)

3.2.1   Overview

Meaningful stakeholder engagement is fundamental to the success and future sustainability of this programme. This engagement process will continue throughout the project, focussed around Stakeholder Workshop, anticipated to take place at the T^2 Conference in Zambia between 8-10th May 2017.

The benefits of a proactive engagement process can be broadly summarised as follows:

- Publicises the programme and gain interest amongst beneficiaries and potential investors to ensure future sustainability

- Enables the project team to get 'buy-in' from key project partners and provide them with a sense of ownership in its ongoing success

- Understanding what future participants feel their development needs are to become industry managers and leaders. This can feed into the training programmes development

- Develops links with other institutions and programmes, which will help with future sustainability and adding value to the current programme

Stakeholders identified during the inception and desktop phase have been outlined in section 2.2.2, and will be reviewed and expanded as the project progresses. Key stakeholders at this stage have been identified as:

- ReCAP Partner Country Representatives
- ASANRA
- ARMFA
- Women in Engineering (WomEng)
- South Africa Institution of Civil Engineers
- Institution of Civil Engineers (ICE), UK
- Chartered Institution of Highways and Transportation (CIHT)
- DFID High Volume Transport Programme
- DFAT Infrastructure Skills for Development Programme, managed by Cardno Emerging Markets
- International Road Federation (IRF)
- Donor agencies such as DFID, World Bank, African Development Bank and EU

Mott MacDonald and UCT anticipate maintaining regular contact with key stakeholders throughout the project, and in advance of the planned Stakeholder Workshop on 8th May.

3.2.2 Stakeholder Workshop

Following initial client meetings (Appendices B and C), the 2017 T^2 conference in Zambia has been identified as the target for the Stakeholder Workshop at which to present and discuss the core principles and options for the TSLDP. The following requirements are understood for the workshop implementation:

- Attendance at the T^2 conference, and possible presentation of the TSLDP is likely to be required to be facilitated through ReCAP
- Stakeholder workshop is likely to take place approximately half a day and will take place after the conference on either the 11th or 12th May
- Draft list of attendees will need to be included in the Brief Status Report in early March 2017, such that sufficient time is allowed for issuing of formal invitations, flight confirmations and booking, and detailed workshop planning

Following the Stakeholder Workshop, a report will be prepared outlining the progress of the Stakeholder Workshop, where key decisions that will require to have been tabled and concluded prior to and during the Stakeholder Workshop include:

- Target education/qualification level for the programme
- Areas of core competency for the programme
- Requirements for Professional Accreditation
- Length, duration, and studentship numbers of the proposed programme
- Required facilities and nature of delivery for the programme

- Structure for job placements and mentoring
- Models for long term sustainability/funding

3.3 Curriculum Development

Building on the development of core streams identified in the desktop study & literature review, and following the definition and agreement at the Stakeholder Workshop of the underlying course structures, a more detailed process of curriculum development can begin, focussing on:

- Definition of learning/performance objectives, building on the areas of core competency
- Definition of key course areas/modules
- Definition of assessment mechanism, and content breakdown - project, portfolio, report, oral, practical, examination, work-based/placement learning
- Development of initial Terms of Reference for teaching staff
- Outline of requirements and timescales for later process i.e. detailed content development, marking mechanisms
- Alignment of course aims/objectives/curriculum with those from partner/host organisations
- Alignment of course aims/objectives/curriculum with requirements for professional accreditation

The curriculum development process is often most effective in a workshop scenario, such that a curriculum development workshop is proposed at this stage of the project, where attendance requirements (internal/external) can be discussed with the client for approval prior to the workshop.

3.4 Phase 1 Report

Following the inception, needs assessment & gap analysis; stakeholder engagement and curriculum development stages; the Phase 1 report will pull together all the information, analyses, prioritisations and decisions to   provide a clear roadmap for the TSLDP moving forward. The report will be initially submitted as to the client a draft prior to review, incorporation of comments, and submission of a final report. Additional areas for inclusion in the Phase 1 Report are outlined below.

3.4.1 *Development of Preliminary Business Plan*

A preliminary business plan will be drafted containing:

- Organisational and personnel structure for the proposed programme, including teaching and support staff and governance/advisory board structures
- Outline of process and projected timescales for accreditation
- Candidate identification and selection
- Outline budget for running the programme, covering facilities, equipment, salaries and candidate costs, international travel and partner/stakeholder liaison, and including options for breakdown of costs provided by delivery partners; consideration of lifecycle costs
- Outline work plan for the course development process, covering curriculum development; candidate and staff recruitment; partner and mentor agreements and professional accreditation processes

Outline of suitable monitoring and evaluation measures for the programme. These might include:

- Establishment of an advisory committee for the programme

- Data collection for programme including enrolment; contact hours; full-time equivalency; costs; graduation and success rates

- Student engagement, feedback and perception surveys to understand whether increased knowledge, skills and attitudes were achieved

- Formal feedback from host and partner organisations

- Formal feedback from external examination and professional accreditors

Finally, the preliminary business plan will need to return to and address the issue of long term sustainability outlined in section 2.2.10 and further explored in the stakeholder consultation process and workshop in section 3.2.2. Another consideration will be finding suitable structures to manage the programme within East and West Africa once ReCAP ends, as existing suitable institutional bodies do not appear to be as common as in the Southern region.

3.4.2   Personnel Contracting

In the development of a management and implementation plan, the scope will be clarified for the development of documentation relating to personnel contracting.   It is likely that this will focus on:

- **Participation agreement**: to be drafted for candidates accepted onto the course in the form of a simple document/letter. An example of a Mott MacDonald letter used for their "Roads Academy" course is attached as Appendix H. It is anticipated that a document similar to this would be adapted for the candidates.

- **Mentor agreement**: Similarly, an agreement will need to be developed for mentors assigned to candidates to summarise the scope of their roles and their obligations. It is expected that this could follow a similar form to that given for the candidates previously

- **Contract agreements**: As required for any institutions or bodies with whom the programme partners for delivery of elements of the TSLDP. These are likely further developed in the next phases of the project, with more detailing than those required for candidates and mentors

- **Candidate Selection**: will be engaged to advise on and develop transparent advertisement, recruitment, and selection processes for course candidates. Key considerations for the selection process will include:

    o Candidate nationality – in a programme with potential multi-national candidacy, the consultant would in this scenario be required to provide detailed advice on the relevant cross-border application, permit and visa requirements and processes

    o Dissemination of advertisement, in relation to any geographical and sectoral prioritisations identified during the inception and course development processes. A significant component will be in planning and strategising for gender-balanced candidate appeal and interest

    o Strategy for addressing the course gender balance at this later stage of the process

Mott MacDonald additionally has in-house experience and expertise in personnel recruitment and management processes who will be considered as a potential resource for this stream of work.

4   Summary

Following the initial development of the TSLDP concept by ASANRA, the programme has developed to focus on a wider geographic area across Sub-Saharan Africa. This inception report built upon this existing work through an initial review and desktop study, for which findings are summarised above in section 2.1.11, and to define the methodology for the ongoing development of the Transport Sector Leadership Development Programme, through Chapter 3 of this report.

The programme offers an exciting opportunity for the transport sector in Sub-Saharan Africa, and where there are a number of core challenges to be addressed through the programme development process, including:

- **Candidate Availability**: As the programme is targeting mid-level professionals, there may be significant impact (and benefit) to employers releasing individual candidates for further education, secondments or on-the-job training

- **Candidate Retention**: There is also the risk, and which may be subject to factors external to this project, that upskilled professionals will move on to seek employment externally to the transport sector in Sub-Saharan Africa. However, it is also the case that a well-structured programme of professional development, fully supported by relevant employers, is likely to be a contributing factor in career satisfaction and higher retention of skilled individuals

- **Sustainability**: It is not unreasonable that the processes of course development, establishment and accreditation can take up to a decade. With ReCAP scheduled to end in 2020, the financial and institutional sustainability of the ongoing programme will remain an important focus throughout development of the programme and implementation planning

At this stage, in addressing these challenges and providing clear focus for the ongoing programme, the below direction can be drawn from the analyses that have been conducted so far and outlined in this report:

- It is considered that the most appropriate route to develop technical capacity will be through existing courses offered through conventional tertiary institutions

- It is expected that the TSLDP pilot will be 2-3 years in duration, for up to 20 candidates, and will encompass technical development and learning leadership and managerial skills

- The course is likely to be structured on a modular basis, around some core courses, possibly delivered online, and with a syllabus to cover technical components ranging from engineering and transport services to management (project, construction, business), environment, policy, planning and economics. It is likely that leadership development and managerial skills will require the most effort in content development under this project

- It is likely that classroom training will supplemented through mentor-assisted on-the-job training. The requirements of each candidate in this regard are likely to vary on a case by case basis

- Course accreditation requires a detailed focus, particularly where the leadership aspect may not form part of existing accredited courses

- Candidates are likely to come from across the sector, including government/public bodies, consultants and contractors. However, it is likely that the first pilot programme will largely be filled by candidates from ReCAP partner country government bodies

- Gender balance is a fundament focus for the project and encouraging access to the course for female engineers remains an important priority

The above identified conclusions from the Inception Phase will inform the ongoing development of the TSLDP according to the methodology outlined in Chapter 3 and workplan included in Appendix A.

Appendix A: Kick-Off Meeting Minutes

Record of meeting/discussion

Project title	Transport Sector Leadership Development Programme: Phase 1	**Division**	IDS/HWY
Subject	Project Kick-Off Meeting	**Project no**	RAF2097A (RECAP) 376257 (IDS)
Location	University of Cape Town, 4ᵗʰ Floor Board Room, New Engineering Building	**Date of meeting**	30/11/2016 (10:30 – 13:30)

Present				
Stephen Jones (SJ)	MM	Team Leader	stephen.jones@mottmac.com
Richard Lebon (RL)	MM	Project Manager	richard.lebon@mottmac.com
Kieran Kelly (KK)	MM	Project Coordinator	kieran.kelly@mottmac.com
David Hughes (DH)	MM/QUB	Transport Education Specialist	d.hughes@qub.ac.uk
Mark Zuidgeest (MZ)	UCT	Education Management Specialist	mark.zuidgeest@uct.ac.za
Marianne Vanderschuren (MV)	UCT	Education Specialist	marianne.vanderschuren@uct.ac.za
Obiora Nnene (ON)	UCT	Research Specialist	nnnobi002@myuct.ac.za
Les Sampson (LS)	RECAP	Theme Leader - Infrastructure	lsampson@iafrica.com

Acronyms: MM: Mott MacDonald; QUB: Queens University Belfast; UCT: University of Cape Town; RECAP: Research for Community Access Partnership

Recorded by	**Distribution**
KK	Project Team and RECAP

Item		Text	Action on
01		**Opening** Meeting chaired by RL and started with round-table introductions at 10:30.	

2.0		**Background to Project**
		
		LS gave brief background to project:
		
		The Leadership Development Programme (LDP) has been in the pipeline for past 12 months and is RECAP's 'flagship' capacity building project. It was originally conceived by the Association of Southern Africa Road Agencies (ASANRA). At this stage it was perceived to be too southern Africa focussed and representatives from Eastern and West African stakeholders expressed an interest in being involved.
		
		The following key points were made by LS:
		
		   1. Project must look at how all sub-Saharan African RECAP members are incorporated.
		
		   2. There needs to be a focus on long-term sustainability beyond RECAP.
		
		   3. The project is not just about academic qualifications, but how to lead. It is also not just about transport infrastructure, but also transport	

Project No. RAF2097A / 376257   **Date of Meeting** 30/11/2016

		services. This is a key reason why the MM/UCT proposal was selected, as there is a balance between the infrastructure and transport services specialists.	
		4. Gender balance is a key focus which must be considered.	
		5. DFID's High Volume Transport (HVT) research programme are keen to look for overlaps with this project. This is because the project is not just rural roads focussed, but transport in general. However, RECAP are happy to act as facilitators for the project overall. The project team will need to speak with IMC Worldwide, who it is understood have been awarded the HVT programme.	MM/UCT
		6. There is also a programme in South Africa which is being managed by Cardno. It will be beneficial to coordinate with Gerome Rich and Caitlin Poole about this project.	MM/UCT
		7. A key deliverable for this project will be how it moves forward.	
2.0		**Background to RECAP** LS proceeded to gave a background to RECAP: 1. Funded by DFID and follows on from the African Community Access Programme (AFCAP) which ran from 2008 – 2014. 2. Funding of £26.4 million over 6 years. 70% of this allocated to Africa under "AFCAP 2" and 30% to Asia under the Asian Community Access Programme (ASCAP). AFCAP and ASCAP come under the RECAP umbrella. 3. Operating in 12 countries in Africa and 3 in Asia. This will expand to 5 in Asia once Afghanistan and Pakistan come on stream in next few months. 4. AFCAP and ASCAP each have their own steering committees which are overseen by a main steering committee. 5. RECAP project management unit consists of 11 staff as follows: 6. Non-Technical Management: Gerome Rich (Project Director), Edson Madeira (Procurement) and Caitlyn Poole (Manager) 7. Theme Leaders: Jasper Cook, Les Sampson (Infrastructure), Paul Starkey (Transport) and Caroline Visser (Knowledge Manager) 8. Regional Technical Managers: Nkululeko Leta (East/Southern Africa), Paulina Agyekum (West Africa), Chandra Shrestha (Nepal and Bangladesh) and Nandar Kyaw (Myanmar) LS is the main point of contact for this project within the PMU. Project deliverables will be reviewed by LS and Jasper Cook. Contractual issues may involve Gerome Rich and Edson Madeira. Caroline Visser may have more involvement as the project progresses.	

Project No.   RAF2097A / 376257   **Date of Meeting**   30/11/2016

3.0		**Organisational Buy-In** SJ raised the issue of getting buy-in from organisations we contact, as there may need to be some incentive for them to assist us – i.e. involvement or funding in future phases of the programme. LS explained that RECAP would look to fund the first participants in the programme (say maybe 20 people) to go through the LDP. However, the clock is ticking as the programme ends in 2020. For sustainability it will have to form part of something else after 2020, perhaps other donor funded projects. However, first implementation of the project is likely to be a 2-3 year pilot.	
4.0		**Course Content and Delivery** LS explained the project is not specific to research. MM/UCT to identify which courses are currently available and whether there are ones we can use. The IRF have said they have courses and would like to be involved. MZ highlighted that we may be a broker for existing courses and not necessarily create new ones. LS agreed this may be an approach. Query was raised by MZ and DH about the use of online courses. LS indicated these are an option and RECAP would be open to these. LS explained we can look at building a programme around what is available. Gap analysis may be needed to assess the need for this course. DH suggested a Bologna-style agreement where students can attend different universities which all deliver accredited modules. MZ indicated there can be issues with who ultimately owns the degree – i.e. which university? However, it is still an option to be considered. DH mentioned that there must be examples of good leadership practice (and good people) which could be used as case studies. Also other professions must be looking at leadership too e.g. law, economics etc. and what are they doing? The project team should look at what has been found by the Cardno team on the other programme.	MM/UCT
5.0		**Participants** As explained by LS, the course is not just restricted to Road Authorities. Participants could come from consultants and contractors etc. But leadership in government authorities is a priority. It would also be up to the	

Project No.   RAF2097A / 376257   **Date of Meeting**   30/11/2016

		employers to secure retention clauses for their staff to ensure they are not lost to the private sector or other parts of the world.	

6.0		**Course Length and Levels**
		
		MZ queried the required course length and levels. LS explained RECAP originally thinking young leader level (35-40 years old) and looking at a 2-3 year course in duration. Looking towards core leadership courses and technical streams.
		
		MV explained she considers there to be 3-4 key levels:
		
		    1. Leadership
		
		    2. Technical
		
		    3. Planning (i.e. understanding the bigger picture)
		
		    4. Research/knowledge management
		
		LS highlighted that there is a similar programme being run by Cardno in South Africa through Australian Aid. It is being managed by Gerome Rich and Caitlyn Poole. They have a framework which we will need to look at and assess. Action on project team to contact Gerome Rich about this.
			MM/UCT

7.0		**Additional Meetings** Suggested to have a meeting in UK between the project team, LS, Jasper Cook, Gerome Rich and Caitlyn Poole to discuss the current Cardno programme in South Africa and get inputs into the direction for this project. Suggested date of 14th December 2016. Action on MM/UCT/LS to coordinate and arrange in next couple of days.	ALL
8.0		**Stakeholder Engagement** SJ raised a query about the stakeholder workshop being towards the end of the process. It is considered that it would be more beneficial towards the start of the process. LS explained that it would be beneficial to tie in with other events so you have everyone in one place anyway. The current obvious choice appears to be the T2 conference being held in Livingstone in May 2017. This broadly corresponds with the current programmed time for the stakeholder workshop. LS added that we will also need to get a feeling for how big this project is. This will largely be based on who we can get interested – including the DFID HVT programme.	
9.0		**External Funders and Other Stakeholders etc.** Query raised about whether other donors are on the steering committees and whether they are interested in this programme. This could be	

Project No. RAF2097A / 376257　　　　　**Date of Meeting** 30/11/2016

		particularly useful when considering long-term sustainability of this programme. LS informed the team that the World Bank are on the AFCAP and ASCAP steering committees. However, EU and AFDB are not. Mentioned that PIARC (now World Road Association) may have information that could be used on the project.	
10.0		**UCT Centre for Transport Studies** LS requested some further information on the UCT Centre for Transport Studies. MV explained the centre was set up in the year 2000 and currently has 4 academic staff member and more than 6 affiliated faculty (guest lecturers/visiting professors). The Centre offers MEng, MPhil, MSc and MSc (Eng) courses in Transport Studies. For the engineering stream the focus is on design and operations management of systems, for the philosophy stream more on policy and planning of transport systems. The Centre also gives inputs into the Civil Engineering undergraduate programme, amongst others in the courses Introduction to Engineering (incl. Informal Settlement Upgrading), Transportation Planning, Transportation Engineering as well as Professional Practice. The Centre has received substantial sponsoring from the Volvo Research and Educational Foundations (VREF) to set up and run the African Centre of Excellence in Public Transport and Non-Motorized Transport, which has been administered together with the University of Dar es Salaam and University of Nairobi. The Centre hosts about 30 Masters students from more than 10 countries in Africa and annually attracts about an equal number of students doing their undergraduate degree in transport studies (as part of their Civil Engineering studies).	
11.0		**Inception Report Submission** RL asked that given the delay commencing with the kick off meeting and the imminent Christmas break, would it be possible to submit the inception report in early January. Submission date currently agreed as Monday 9th January 2017.	

Appendix B: Minutes from Post Kick-Off Meeting

Record of meeting/discussion

Project title	Transport Sector Leadership Development Programme: Phase 1			Division	IDS/HWY

Subject	Inception Meeting at OTB Engineering, London			**Project no**	RAF2097A (RECAP) 376257 (IDS)

Location	OTB Engineering, Loman Street, London			**Date of meeting**	12/14/2016 (11:00 – 12:15)

Present	Stephen Jones (SJ)	MM	Team Leader	stephen.jones@mottmac.com
	Kieran Kelly (KK)	MM	Project Coordinator	kieran.kelly@mottmac.com
	Les Sampson (LS)	ReCAP	Theme Leader - Infrastructure	lsampson@iafrica.com les.sampson@cardno.uk.com
	Jasper Cook (JC)	ReCAP	ReCAP Team Leader	jasper.cook@cardno.uk.com

Acronyms: MM: Mott MacDonald; ReCAP: Research for Community Access Partnership

Recorded by	Distribution
KK	Project Team and ReCAP

Item		Text	Action on
01		**Opening** Meeting chaired by LS.	
2.0		**Structure** LS reiterated that he is the RECAP lead/key point of contact for this project and will be supported by JC as Team Leader and Caroline Visser as Theme Leader for Knowledge Management. (CV).	Note
3.0		**DFID, High Volume Transport Programme** DFID HVT is a potential key contact for this programme. IMC Worldwide is understood to be the preferred bidder but doesn't appear to be made public yet. Initial contact with DFID HVT will be made by RECAP through JC/LS to Colin Gourley and is anticipated in the next two weeks.	RECAP
4.0		**International Road Federation (IRF) and Other Institutions** It is suggested that MM should look at what IRF are offering in terms of courses – they have a 'fellowship' programme which should be looked at. Also need to look at others, such as Stellenbosch and Birmingham Universities. JC to send details of key IRF contact to MM. LS explained that it is likely we will use existing courses and programmes as much as possible. Key element will be how the overall course, or non-recognised course elements, can become recognised or accredited. Need to understand how significant a role ASANRA are likely to want/have. There may be an opportunity to gain national support through road agencies, which could be facilitated through ASANRA. MM to speak with ASANRA	MM JC

Project No. RAF2097A / 376257   **Date of Meeting** 30/11/2016

		Manager Joey Malota (JM). LS to send introductory email and/or letter to JM in advance.	MM/LS
		MM to look at ARTREF, which is a research forum which was started by AFCAP. Consists of 17 members, which includes the 12 AFCAP countries plus an additional 5.	MM
		ARMFA (African Road Management Fund Association) may be a very useful contact. Key person is Joseph Haule (JH), who is well-known to RECAP. This body may have capacity building funds and might be able contribute towards TSLDP – perhaps part of future sustainability. LS to send introductory email and/or letter to JH in advance of MM contacting.	LS
		Cardno's existing project in Southern Africa was mentioned by LS. MM to speak with Caitlin Poole this week about this project.	MM
		DFID have a leadership programme for the banking sector which MM should look into to see if there are generic leadership courses/elements that can be used here. However, it was noted that DFID contact mentioned this programme took 10-12 years to mature.	MM
		DFID also have some basic information on their website relating to capacity building which may be of use. MM to review.	MM
		Other donor agencies may be interested and should be contacted – e.g. World Bank, EU, African Development Bank, Asian Development Bank etc.	MM
		Asian Development Bank have a course that has been running for a number of years that develops people through their careers. MM to investigate further. JC to speak to contacts in ADB	MM
		RECAP have contacts to many of these institutions and will facilitate introductions and provide key contacts as required.	MM/JC
5.0		**Private vs. Public Sector Participants**	
		MM will need to provide an opinion on this in our submissions. Ultimately it is anticipated that it will be open to everyone. However, RECAP partner countries are likely to want to be the beneficiaries of the initial courses.	
6.0		**Data Gathering from Participants and Others**	
		MM are preparing questionnaires to issue to RECAP partner country contacts and others to gather information about current opportunities, courses and their thoughts about the training programme in their countries.	MM
		To improve feedback it is anticipated these questionnaires will form the framework of a phone interview, rather than relying on people to respond in writing.	
6.0		**East and West Africa**	

Record of meeting/discussion
Continuation sheet

Project No. RAF2097A / 376257 **Date of Meeting** 30/11/2016

		Another challenge will be to look at how to get East and West Africa blocks on board, particularly with a view towards future sustainability, as they don't have a regional body like ASANRA.	
7.0		**T² Conference** All agreed that we are aiming for the 2017 T² Conference for the Stakeholder Workshop. However, a standard workshop slot is only about 2 hours at the conference which is likely to be insufficient for the TSLDP workshop. Stakeholder Workshop likely to be 1-2 days after the workshop. We could however give a presentation at the Conference to publicise the programme. This will need coordination between RECAP, MM and partner country contacts. Workshop will need to be coordinated around other workshops for other regional RECAP programmes and RECAP Steering Committee Meetings. KK asked whether deliverables schedule order could be revised to show Draft Phase 1 Report after the Stakeholder Workshop so it can incorporate feedback from participants. Instead, it was agreed that it would be beneficial to complete as much as possible in advance of the workshop in May so participants are well-informed. This may require additional work in earlier stages. MM to bring these aspects out in the Inception Report and also check/comment on the programme and financials for any impact in revising delivery to meet this.	MM
8.0		**Needs Assessment** KK asked about any pre-existing information from concept notes etc. for this project which may have identified 'the need'. We are all agreed the project is needed, but hoping to build some evidence to support this. LS to send MM ASANRA's strategic plan. JC to look at overall RECAP business case and provide information which may be of assistance. MM to gather further information as part of the ongoing project and through discussions with RECAP partners.	LS/JC/MM

Appendix C: Table of Existing Courses Found to Date

Institution	Course		Description	Link	Duration	Cost	Location
International Road Federation	Procurement & Contract Management in Highway Projects		This course is designed to meet the educational needs of government officials in charge of surface transportation-related procurements and contracts. Topics span the entire project cycle, including planning and needs assessment, concept of operations, pre-qualification and qualification of contractors, tendering or RFP process, proper use and management of consultants and contractors, the importance of mid and long term strategic planning, procurement negotiation, best practices in project supervision, completing projects on time and on budget, the role of technical specifications and standards, as well as the critical importance of ethics.	https://www.irf.global/portfolio/procurement-contract-management-in-highway-projects/	?	?	?
International Road Federation	PPPs in Road Projects		This course addresses major PPP success factors such as building capacity within the public and private sector, the necessary policy & legal frameworks, optimal risk sharing practices, and available tools to assess the financial viability of projects. In addition, the program will examine successful examples from both emerging and developed economies and present practices and tools that can be utilized under different country conditions.	https://www.irf.global/portfolio/ppps-in-road-projects/	?	?	?
International Road Federation	Megaproject Management		This course is designed to meet the educational needs of senior government officials and private sector contractors in fast-growing economies who are involved in the design, development and operation of complex highway projects. Instructors are drawn from both the public and private sectors of countries well-recognized for superior highway project management. Topics include planning and needs assessment, business-government relations, management and construction under fixed and tight deadlines, contingency planning, financial considerations, and outsourcing.	https://www.irf.global/portfolio/megaproject-management/	?	?	?
University of Birmingham	HDM4 course in Road Management	Classroom		http://www.birmingham.ac.uk/postgraduate/courses/cpd/civil-engineering/hdm4.aspx	5 Days	£2,300	Birmingham, UK
University of Birmingham	Road Management and Engineering Masters/MSc/Diploma	Classroom	This programme in its current form is a natural progression from our previous programmes in highway engineering, management and traffic engineering that have gained an international reputation over the past 25 years. Its purpose is to provide advanced training for engineers aspiring to higher or middle-management positions in either private or public sector road engineering organisations.		1 Year	£19,890	Birmingham, UK
University of Birmingham	Senior Road Executives Programme	Classroom	For almost twenty years, the Senior Road Executive Programme has been providing continuing professional development for senior professionals working in the road sector and, by so doing, contributed to the dissemination of knowledge and expertise and facilitated the implementation of modern approaches to the management and financing of road networks world-wide.		12 Days	£5,600	Birmingham, UK
University of Birmingham	Road Sector Reforms and Financing	Classroom	Module 1 of 4 from Senior Road Executives Programme		3 days	£2,300	Birmingham, UK
University of Birmingham	Road Services Procurement and Integrity	Classroom	Module 2 of 4 from Senior Road Executives Programme		3 days	£2,300	Birmingham, UK
University of Birmingham	Road Maintenance Management	Classroom	Module 3 of 4 from Senior Road Executives Programme	http://www.birmingham.ac.uk/postgraduate/courses/cpd/civil-engineering/senior-roads-executive.aspx	3 days	£2,300	Birmingham, UK
University of Birmingham	Road Safety	Classroom	Module 4 of 4 from Senior Road Executives Programme		3 days	£2,300	Birmingham, UK
IDC Technologies	Engineering Leadership	Online	This online Engineering Leadership course offered by IDC Technologies examines the importance of creating results through people, by starting with personal leadership and then growing to being a leader of people.	http://www.shortcoursesportal.com/studies/138840/engineering-leadership.html	6 hours	£235	
Kingston University	Management in Construction (Civil Engineering) Masters (MSc)	Classroom	This degree is accredited by the Joint Board of Moderators, which includes the Institution of Civil Engineers and the Institution of Structural Engineers, under licence from the Engineering Council, as meeting the requirements for Further Learning for a Chartered Engineer (CEng) for candidates who have already acquired a Accredited CEng (Partial) BEng(Hons) or an Accredited IEng (Full) BEng/BSc(Hons) undergraduate first degree.	http://www.kingston.ac.uk/postgraduate-course/management-construction-civil-engineering-msc/			London, UK
Pitman Training	Different Leadership Attributes & Skills	Online	This course is designed for those who need to gain an understanding of key leadership skills. Also it would be relevant for Team Leaders or experienced staff being given leadership or management responsibilities.	https://www.pitman-training.com/our-courses/different-leadership-attributes-skills	2 days		
Aspire Leadership	London-based Public Courses in Leadership, Presentation and Communication skills		The Aspire Leadership executive coaching experience is completely confidential and very personal; delving into your conscious and unconscious values, beliefs, motivators and sense of identity.	http://www.aspire-leadership.co.uk/coaching/			London, UK
University of Oxford	Global Challenges in Transport - Oxford Leadershp programme	Classroom	New Technologies and Changing Behaviours (14 - 17 March 2017)	http://www.tsu.ox.ac.uk/course/	4 days	£1,500	
			Governing Transitions in Urban Transport (27 - 30 June 2017)	http://www.tsu.ox.ac.uk/course/	4 days	£1,500	
			Infrastructure, Development and Finance (5-8 September 2017)	http://www.tsu.ox.ac.uk/course/	4 days	£1,500	
			Health, Wellbeing and Urban Mobility (5-8 December 2017)	http://www.tsu.ox.ac.uk/course/	4 days	£1,500	
Knowledge Train	PRINCE2 Foundation & Practitioner course	Classroom/Online	Many jobs now expect you to have PRINCE2 Practitioner certification. Get your PRINCE2 Practitioner qualification with this highly recommended 4.5 day course in London. Dedicated trainers, high pass rates and small class sizes give you the best chance of success.	https://www.knowledgetrain.co.uk/courses/prince2	4.5 days		
	PRINCE2 Foundation course	Classroom/Online	This 2.5 day course provides everything you'll need to gain PRINCE2 Foundation certification. Taught by trainers with a passion for learning and with unsurpassed knowledge, we'll have you speaking PRINCE2 in no time.	https://www.knowledgetrain.co.uk/courses/prince2	2.5 days		
	PRINCE 2 Practitioner course	Classroom/Online	Look no further than this 2 day course in London if you've already got your PRINCE2 Foundation certification. Our highly experienced trainers will help you learn to apply PRINCE2, and prepare you to sit your PRINCE2 Practitioner exam. Our high exam pass rates mean you can book with confidence.	https://www.knowledgetrain.co.uk/courses/prince2	2 days		
Project Management Institution	The Complete Agile Project Manager	Online	You've made the decision to adopt an agile approach, but what's next? Effectively implementing agile practices requires grasping methodologies, and also fine tuning your team strategy.	http://learning.pmi.org/course-detail.php?courseID=264		$372	
Project Management Institution	Essentials of Project Management (Full Series)	Online	Learn the essentials of project management and more. It's a great way to prepare for the Certified Associate in Project Management (CAPM)® credential exam.	http://learning.pmi.org/course-detail.php?courseID=539		$400	
Project Management Institution	Program Management Success Series - Full Series	Online	Learn about the interrelationship between the program management domains with this 10-part series of online courses. Follow a scenario where you will shadow a program manager on a municipal construction program. Interactive exercises allow you to apply your skills as you revise documents, analyze data, make decisions, and build out engagement guidelines.	http://learning.pmi.org/course-detail.php?courseID=635		$450	
Project Management Institution	Project Management Fundamentals	Online	This series provides foundation-level information on each Knowledge Area of the PMBOK® Guide—Fifth Edition and will enable you to effectively put principles to work at your own organizations. A unique Pre- and Post-assessment feature allows you to track your learning as you complete each module. Upon successful completion of this series, you will hold the 23 hours of project management education required for the Certified Associate in Project Management (CAPM)® credential exam.	http://learning.pmi.org/course-detail.php?courseID=791		$350	
Project Management Institution	Leadership Essentials Power Pack	Online	Learn to apply leadership skills and become more valuable to your organization through this leadership series: Leadership Essentials Power Pack. This seven-course series provides you with the techniques and strategies to build influence, communicate a vision, grow and develop as a leader, execute a business strategy that can keep pace with today's fast-changing world, build an innovative culture, lead with a strong mixture of social and management skills, and finally motivate employees to be successful within your organization. Learn to apply leadership skills and become more valuable to your organization through this leadership series: Leadership Essentials Power Pack. This seven-course series provides you with the techniques and strategies to build influence, communicate a vision, grow and develop as a leader, execute a business strategy that can keep pace with today's fast-changing world, build an innovative culture, lead with a strong mixture of social and management skills, and finally motivate employees to be successful within your organization. Learn to apply leadership skills and become more valuable to your organization through this leadership series: Leadership Essentials Power Pack. This seven-course series provides you with the techniques and strategies to build influence, communicate a vision, grow and develop as a leader, execute a business strategy that can keep pace with today's fast-changing world, build an innovative culture, lead with a strong mixture of social and management skills, and finally motivate employees to be successful within your organization	http://learning.pmi.org/course-detail.php?courseID=282		$318.5	
Project Management Institution			A crucial component of project success is professional and efficient project administration. Project administrators provide administrative support to the project manager and team, which is essential for ensuring that projects run more effectively. In fact, an efficient and skilled project administrator will not only provide indispensable support to the project manager, but also offers a backbone of support to the whole project team. This course will guide learners through the role that the project administrator should perform during the project life cycle.	https://ccrs.pmi.org/search/Activity/186033	3 Days		Johannesburg, South Africa
The Whitehall and Industry Group	Step Up Step Across	Classroom	◦Learn how to raise your own and your team's performance, and how to contribute to the success of your organisation ◦Resilience to meet management challenges ◦Personalised, practical tools from leading management thinking ◦A peer-group network of co-coaches and critical friends		7 days over 5 months	£3,600	London, UK

Institution	Course		Description	Link	Duration	Cost	Location
Harvard	Strategic Leadership Programme	Classroom	This Strategic Leadership program from Harvard University analyzes the symbiotic relationship between leadership and decision making. It combines theory and practice to inform the participants of the latest and best studies on how effective decisions are made, as well as how bad decisions can be avoided. Attention will be paid to recent research in neuroscience on the dual aspects of the decision-making process: intuitive vs. rational, and the respective values of both. Similarly the qualities that make for an outstanding leader will be discussed, especially in terms of strategic decision making and implementation to maximize results for the organization.		2 days	£2,166	MA, USA
Hemsley Fraser	High-Performance Leadership	Classroom	This high-impact residential programme will give leaders a crystal clear, 360-degree view of their strengths and development areas, using a globally recognised leadership framework from thought leaders Kouzes and Posner.		3 days	£1,359	Oxford, UK
IDC Technologies	Engineering Leadership - Making the Transition from Engineer to Leader Self-Paced Online Course	Online	This online course examines the importance of creating results through people, by starting with personal leadership and then growing to being a leader of people. The key components of effective leadership is the ability to develop, motivate and equip people by being able to communicate clearly, manage conflict, develop creativity and coach effectively. You will gain the knowledge and resources to immediately put these components into practice.		5 hours	$299	
MIT	Challenges of Leadership in Teams		This course prepares participants to handle the various challenges they will face in leading teams throughout their life cycle. The course supports self-reflection and skill development by creating changes in each participant's internal dialogue through interactive role-playing, self-assessment measures, group discussions, exercises, and interactive lectures. These activities will enhance each participant's development of their own unique leadership capabilities. Leadership styles are uniquely individual and situational. Participants will learn to use their new capabilities in a team environment and to select the most effective management style for a specific situation. They will also learn the competency level required to improve task performance. As leaders, participants will learn to successfully support their teams by reducing uncertainty and to increase collaboration by providing structure and developing trust during the life cycle of a project.		5 days	$5850	
EEF	CMI level 5 award in management and leadership		This seven-day accredited course is aimed at middle managers to improve their abilities to operate functionally and contribute to the strategic thinking and direction of their organisation. It will equip delegates with the core knowledge, skills and behaviours to work effectively as leaders and managers.	https://www.eef.org.uk/training/management-and-leadership/cmi-level-5-award-in-management-and-leadership	7 days	£1,875	
EEF	CMI level 7 award in management and leadership		This seven-day day programme is designed to help managers build on their strategic management and leadership skills and to focus on the requirements of implementing the organisation's strategy. It is aimed at managers who have the authority and inspiration to translate organisational strategy into effective operational performance.	https://www.eef.org.uk/training/management-and-leadership/cmi-level-7-award-in-leadership-and-management	7 days	£1,876	
EEF	Essential management skills		Training is tailored to your needs and delivered at your location or ours by EEF's highly experienced HR and employment law specialists, with a wealth of experience of legislation and best practice. This two-day course is designed to provide managers with the essential management skills they need to effectively manage their teams. It covers all of the key HR areas from effective recruitment and selection through to ending the employment relationship. Case studies and practical exercises help delegates to effectively apply knowledge learned.	https://www.eef.org.uk/training/management-and-leadership/essential-management-skills	2 days	£495	
Corporate Coach Group	Leadership and Management Training		This course is also available as a bespoke in house group training course in the UK and worldwide. We can tailor the content to fit your specific needs. Group training costs from £1,850 +VAT per day for up to 20 delegates (international training price varies).	https://corporatecoachgroup.com/courses/leadership-and-management-training	2 days	£850	Various, Global

Appendix D: Exemplar ReCAP Introductory Letter

22nd November 2016

Dear Joey Malota
Programmes Officer
ASANRA
Lilongwe
Malawi

Dear Mr Malota,

Leadership Development Programme – RAF2079A

I am writing to you to introduce Mott MacDonald and the University of Cape Town, who have been contracted by AfCAP/RECAP as the service provider for Phase 1 of the Transport Sector Leadership Development Programme (TSLDP).

As indicated at previous AfCAP steering committee meetings, the project is focussed on creating a training programme to develop the future leaders charged with delivering Africa's transport infrastructure. The project commenced on 30th November 2016 and the first phase is programmed to finish by early September 2017.

At this early stage, the service providers are keen to establish contact and communicate with the key contacts from each RECAP partner country. Aspects such as your opinions on training needs, current training opportunities and courses available in your country or regionally will be discussed.

An element of the project will also consist of a Stakeholder Workshop. At this early stage we are anticipating holding this in association with the T^2 Conference in Livingstone, Zambia between 8-10 May 2017, although this may be subject to change. The service provider will contact each of you in advance of this to ensure you are kept informed of the progress and enable you to contribute meaningfully to the workshop.

Thank you in anticipation of your support for this important capacity building project for AfCAP and ReCAP. If you have any queries or wish to get in contact, please feel free to communicate your queries to myself (les.sampson@cardno.uk.com) or directly with the project Team Leader, Stephen Jones of Mott MacDonald (stephen.jones@mottmac.com; tel +44 (0)23 8062 8833). If contacting the team directly, I kindly ask that I am copied in to these communications.

Yours Sincerely

Les Sampson

Infrastructure Research Manager, AfCAP/ReCAP

Research for Community Access Partnership
is funded by the UK Government and managed by
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www.cardno.com/emergingmarkets

Appendix E: Mott MacDonald "Managing People for Excellence" Course

MANAGING PEOPLE FOR EXCELLENCE

Managing People for Excellence is a management skills programme designed for the EUNA region of Mott MacDonald. The programme consists of 5 key modules which will take place over a period of 8 months and will be underpinned by self-directed learning.

DISCOVER - Using a variety of learning techniques, including self-directed learning, delegates will learn the core management skills needed by the business

SHARE - Delegates will share learning with their managers and also put it into practice in their day-to-day business to widen the impact and pace of change

GROW - Resulting in personal, professional and commercial success

Programme Module Overviews

Module One – Talent Management (1-day classroom session)

Talent Management tackles probably the most rewarding aspect of a manager's role – how to work with all the different talented people in your team, so that your people get engaged with their work and fulfil their true potential. We focus less on under-performers, and much more on how to get the best from those delivering satisfactory or better performance.

Throughout the day you will be working on your own team's patterns and issues in a practical and applied way. You'll come away with new insights, and will benefit from seeing how the same principles apply to the different teams managed by colleagues.

You will take away a Talent Manager's Toolkit that will be immediately useful in starting discussions with team members

Module Two – Situational Leadership (1-day classroom session)

Situational Leadership is one of the easiest frameworks to understand, and yet can have a significantly positive impact in your day to day role. It focuses on how to get the best out of your team and those around you, tap into others' potential and maximise results. Through understanding your own management style, and the different stages and needs of others, you will identify what is working and how this may need to change. This one day intensive workshop includes practical exercises using relevant business situations, providing you with easy ways to apply what we cover back into the work place.

Module Three – Performance Management (Self-directed learning)

Performance Management is an essential part of any Managers role, it's a process that when properly undertaken will provide enormous benefits for the team members, the team as a whole and the manager.

This self-directed module will require you to work your way through the 'Chartered Management Institute (CMI) - Pathways to Management and Leadership' workbook, as well as forming links with your unit HR team; you will be allocated a key contact / module three assessor. The workbook starts by exploring how to identify and agree performance objectives, what organisational alignment means in practice and how your team fits into the bigger picture. It then looks at what's involved in actively managing the performance of your team, including how to develop an environment of trust, how to access performance and how to handle poor performance.

Module Four - Coaching Skills (1-day classroom session)

Coaching is one of the most powerful ways of working with an individual or group to unlock their full potential. Eliciting the best in another person enables them to transform their potential into real results both for themselves and the business. During this one-day intensive workshop you'll have the opportunity to practice 4 powerful coaching skills and one versatile model C.I.G.A.R. This practical set of tools and techniques can be used many times every day to develop talent and fast-track the potential of individuals and teams around you.

Module Five – Skilful Communication and Collaboration (2-day classroom session)

Skilful Communication and collaboration can lead to better engagement with team members and colleagues at all levels (internal and external). Communication is also the key to managing change, increasing productivity and effectiveness.

Through understanding your own communication preferences and those of others you will be better equipped to deal with conflict and difficult situations when they arise.

Mapping Motivation (3-hour virtual session)

In addition to the key modules outlined above, the programme also explores motivation, for individuals and teams. Defining and measuring motivation from an individual, team and, most critically organisational perspective, can have a radical impact on performance. It also strengthens productivity, team building, PDR conversations, leadership development, engagement, recruitment, reward, customer service and cultural change.

As part of the Managing People for Excellence programme, each delegate will receive their own Motivational Map before attending a virtual session to help them understand their map and motivation, as well as the benefits of looking at motivation within their teams.

Who is the programme for?

Whilst the programme will be of interest to all those who manage others, the target audience are those with first line management responsibility for employees. We would however encourage Business Units to consider the objectives and put forward those who they think most appropriate, even if outside of the direct scope of the intended audience.

What is the nomination process?

Co-ordination of nominations is managed by Unit HR teams and the number of cohorts scheduled each year depends on demand.
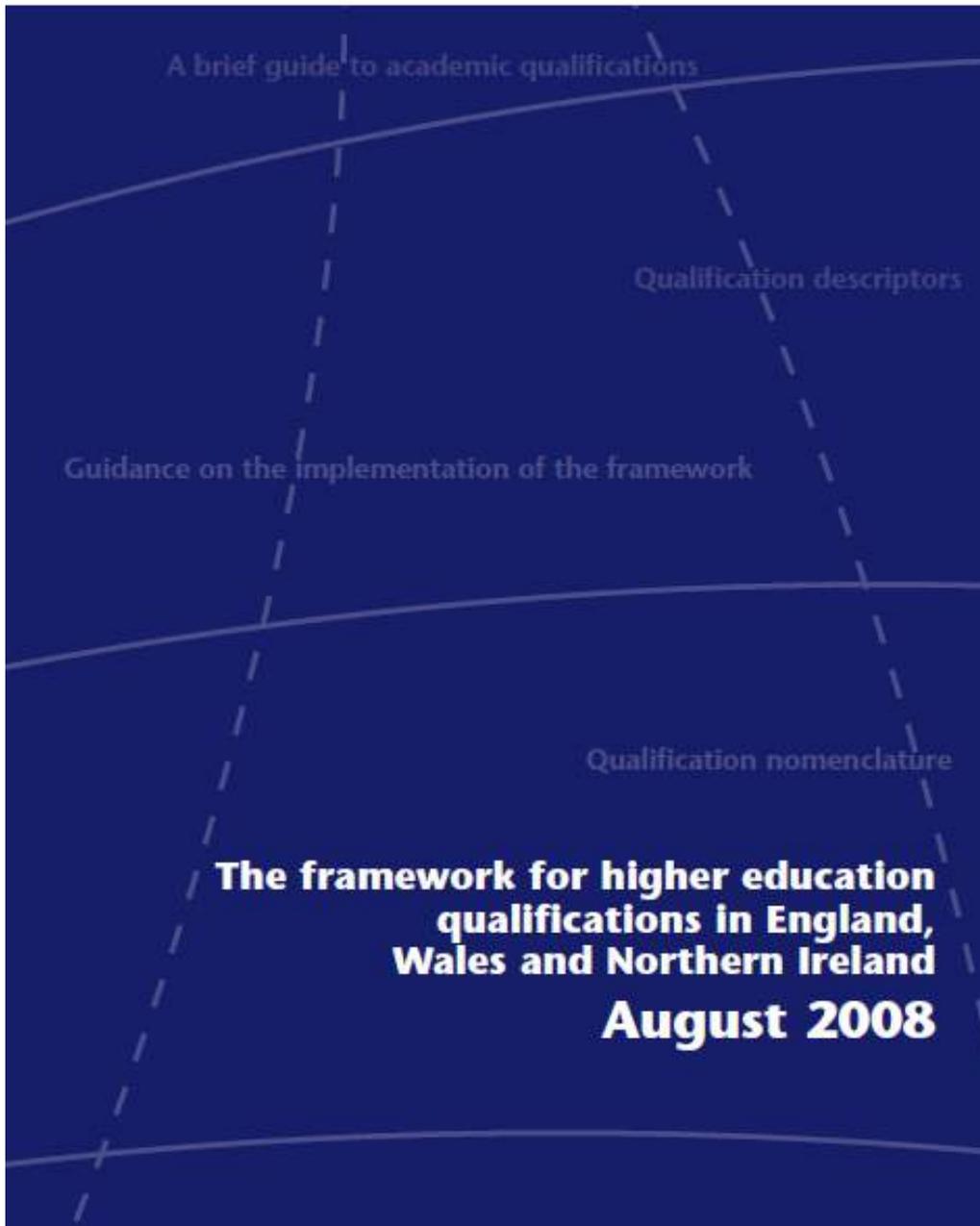
EMPLOYEE FULFILMENT

How do I find out more?

In the first instance please speak with your Line Manager, Sub Divisional Manager or Divisional Manager or Unit HR.

More information on available and future cohorts can be provided upon request, please contact the EUNA Learning and Development team on euna.learningpoint@mottmac.com for more information.

EMPLOYEE FULFILMENT

Appendix F: NVEQF Standards

QAA

A brief guide to academic qualifications

Qualification descriptors

Guidance on the implementation of the framework

Qualification nomenclature

The framework for higher education qualifications in England, Wales and Northern Ireland
August 2008

Reference for Levels of achievement through Higher Education

Table 1: Examples of the typical higher education qualifications at each level of the FHEQ and the corresponding cycle of the FQ-EHEA

Within each level, the various qualifications involve different volumes of learning and hence differences in the range of intended learning outcomes.

Typical higher education qualifications within each level	FHEQ level*	Corresponding FQ-EHEA cycle
Doctoral degrees (eg, PhD/DPhil (including new-route PhD), EdD, DBA, DClinPsy)**	8	Third cycle (end of cycle) qualifications
Master's degrees (eg, MPhil, MLitt, MRes, MA, MSc)	7	Second cycle (end of cycle) qualifications
Integrated master's degrees*** (eg, MEng, MChem, MPhys, MPharm)	7	
Postgraduate diplomas	7	
Postgraduate Certificate in Education (PGCE)****	7	
Postgraduate certificates	7	
Bachelor's degrees with honours (eg, BA/BSc Hons)	6	First cycle (end of cycle) qualifications
Bachelor's degrees	6	
Professional Graduate Certificate in Education (PGCE)****	6	
Graduate diplomas	6	
Graduate certificates	6	
Foundation Degrees (eg, FdA, FdSc)	5	Short cycle (within or linked to the first cycle) qualifications
Diplomas of Higher Education (DipHE)	5	
Higher National Diplomas (HND)	5	
Higher National Certificates (HNC)*****	4	
Certificates of Higher Education (CertHE)	4	

Descriptors for Level 6: Bachelor's degree with honours

The descriptor provided for this level of the FHEQ is for any bachelor's degree with honours which should meet the descriptor in full. This qualification descriptor can also be used as a reference point for other level 6 qualifications, including bachelor's degrees, graduate diplomas etc.

Bachelor's degrees with honours are awarded to students who
have demonstrated:

- a systematic understanding of key aspects of their field of study, including acquisition of coherent and detailed knowledge, at least some of which is at, or informed by, the forefront of defined aspects of a discipline.
- an ability to deploy accurately established techniques of analysis and enquiry within a discipline
- conceptual understanding that enables the student:
  - to devise and sustain arguments, and/or to solve problems, using ideas and techniques, some of which are at the forefront of a discipline
  - to describe and comment upon particular aspects of current research, or equivalent advanced scholarship, in the discipline
- an appreciation of the uncertainty, ambiguity and limits of knowledge
- the ability to manage their own learning, and to make use of scholarly reviews and primary sources (for example, refereed research articles and/or original materials appropriate to the discipline).

Typically, holders of the qualification will be able to:

- apply the methods and techniques that they have learned to review, consolidate, extend and apply their knowledge and understanding, and to initiate and carry out projects
- critically evaluate arguments, assumptions, abstract concepts and data (that may be incomplete), to make judgements, and to frame appropriate questions to achieve a solution - or identify a range of solutions - to a problem
- communicate information, ideas, problems and solutions to both specialist and non-specialist audiences.

And holders will have:

- the qualities and transferable skills necessary for employment requiring:
  - the exercise of initiative and personal responsibility
  - decision-making in complex and unpredictable contexts
  - the learning ability needed to undertake appropriate further training of a professional or equivalent nature.

Descriptor for level 7: Master's degree

The descriptor provided for this level of the framework is for any master's degree which should meet the descriptor in full. This qualification descriptor can also be used as a reference point for other
level 7 qualifications, including postgraduate certificates and postgraduate diplomas.

Master's degrees are awarded to students who have demonstrated:
- a systematic understanding of knowledge, and a critical awareness of current problems and/or new insights, much of which is at, or informed by, the forefront of their academic discipline, field of study or area of professional practice
- a comprehensive understanding of techniques applicable to their own research or advanced scholarship
- originality in the application of knowledge, together with a practical understanding of how established techniques of research and enquiry are used to create and interpret knowledge in the discipline
- conceptual understanding that enables the student:
    - to evaluate critically current research and advanced scholarship in the discipline
    - to evaluate methodologies and develop critiques of them and, where appropriate, to propose new hypotheses.

Typically, holders of the qualification will be able to:
- deal with complex issues both systematically and creatively, make sound judgements in the absence of complete data, and communicate their conclusions clearly to specialist and non-specialist audiences
- demonstrate self-direction and originality in tackling and solving problems, and act autonomously in planning and implementing tasks at a professional or equivalent level
- continue to advance their knowledge and understanding, and to develop new skills to a high level.

And holders will have:
- the qualities and transferable skills necessary for employment requiring:
    - the exercise of initiative and personal responsibility
    - decision-making in complex and unpredictable situations
    - the independent learning ability required for continuing professional development.

Descriptor for level 8: Doctoral degree
The descriptor provided for this level of the FHEQ is for any doctoral degree which should meet the descriptor in full. This qualification descriptor can also be used as a reference point for other **level 8 qualifications.**

Doctoral degrees are awarded to students who have demonstrated:
- the creation and interpretation of new knowledge, through original research or other advanced scholarship, of a quality to satisfy peer review, extend the forefront of the discipline, and merit publication
- a systematic acquisition and understanding of a substantial body of knowledge which is at the forefront of an academic discipline or area of professional practice
- the general ability to conceptualise, design and implement a project for the generation of new knowledge, applications or understanding at the forefront of the discipline, and to adjust the project design in the light of unforeseen problems
- a detailed understanding of applicable techniques for research and advanced academic enquiry.

Typically, holders of the qualification will be able to:
- make informed judgements on complex issues in specialist fields, often in the absence of complete data, and be able to communicate their ideas and conclusions clearly and effectively to specialist and non-specialist audiences
- continue to undertake pure and/or applied research and development at an advanced level, contributing substantially to the development of new techniques, ideas or approaches.

And holders will have:
- the qualities and transferable skills necessary for employment requiring the exercise of personal responsibility and largely autonomous initiative in complex and unpredictable situations, in professional or equivalent environments.

Doctoral degrees are awarded for the creation and interpretation, construction and/or exposition of knowledge which extends the forefront of a discipline, usually through original
research.

Holders of doctoral degrees will be able to conceptualise, design and implement projects for the generation of significant new knowledge and/or understanding. Holders of doctoral degrees will have the qualities needed for employment that require both the ability to make informed judgements on complex issues in specialist fields and an innovative approach to tackling and solving problems.

Appendix G: Roads Academy Letter

Appendix G: Roads Academy Letter

26 November 2015

Dear <Insert addressee, press F11 to proceed>

TRAINING AGREEMENT : ROADS ACADEMY

Congratulations for achieving a place on the Roads Academy. Further to our recent discussions, I am pleased to confirm the terms and conditions of the payment of this course.

Subject to your continuing employment, for the duration of the course, the Company will pay for the cost of the course fees, up to £5,000. Invoices will be paid for directly by the Company.

As required by the course we commit to releasing you for the days required to do the course totalling _____ days/weeks per year. Your normal working week will remain as 37.5 hours with the normal days of work being Monday through to Friday inclusive. *However, on the days at University you are to book your time to training job code _____.*

I know that you appreciate the extent of this commitment by the Company and that it is our wish to see you continue to develop a successful career with Mott MacDonald.

We make this offer conditional and are seeking your agreement to repay some or all of the fees should you leave Mott MacDonald's employment of your own volition, or be dismissed for reasons other than redundancy, during or up to two years upon completion of this course.

Repayment will be on the following basis:
- If you leave Mott MacDonald's employment whilst still undertaking the course, you will repay 100% of the costs;
- If you leave Mott MacDonald's employment within one year of completion, you will repay 75% of the

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costs;
- If you leave Mott MacDonald's employment between one and two years of completion, you will repay 50% of the costs.
- Should you fail to complete the course, you may be required to repay all of the fees paid up to date by the Company.
- If you fail to adequately attend the course as deemed necessary by the Institution, you may be required to repay monies relating to your non-attendance.

We are supportive of your ambition to complete this Course and believe that the above arrangement provides a mechanism for helping to reduce financial pressure on you whilst protecting the Group's interests.

Please keep us informed and up to date on your progress in your professional development by sending through copies of your results and record of attendance. Please also notify us of any changes to your circumstances.

I hope this letter serves to clarify the terms and conditions of the Company's sponsorship and I would ask you to sign and return the enclosed copy, signifying your agreement.

It only remains for me to wish you all the very best for your studies.

Yours sincerely
for and on behalf of
Mott MacDonald Limited   I accept the terms and conditions of this agreement:

                                          Signed ....

NAME   Dated ....
Human Resources Advisor