Transport Sector Leadership Development Programme – Supporting Africa’s Future Transportation Leaders

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2nd IRF Africa Regional Congress, Windhoek, Namibia / July 11-13, 2017
Future of Transport Sector in Africa

- **Threats**
  - Political uncertainty
  - Macroeconomic uncertainty
  - Poor state of road facilities and transport facilities
  - *Shortage of adequately skilled professionals to manage and lead the sector*

- **Opportunities**
  - Increased demand for infrastructure and services
  - Increased investment opportunities in the sector
  - Increased prospects for technological advancements in sector
  - Increased spending by government

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Our Assignment

Transport Sector Leadership Development Programme

- Equip young professionals
- Tackle current problems
  - Envision a future
  - Mentor others

- Continent wide Coverage
- Expand into all of sub-Saharan Africa

- Self Sustaining
- Funding
  - Accreditation
  - Acceptance

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Needs Assessment

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Needs Assessment – Industry Survey

- **50 percent** of the participants agree that leadership skills are more relevant to prepare a transport professional for effective management of the sector.
- **60 percent** think that leadership and managerial components are the most important aspects of the proposed Transport Sector Leadership Development Programme.
- **75 percent** have little or no skills in project impact assessment.
- **69 percent** have little or no skills in project asset management.
- **79 percent** have little or no skill in transport planning, urban and regional planning, land use planning, and transport modelling.
- **79 percent** have little or no skills in transport policy planning and governance.

https://www.surveymonkey.com/r/Q2KQCYL
Needs Assessment – Curricular Survey

- 15 countries
  - Transport related program inventory:
    - Degree options per programme
    - Accreditation
    - Collaboration (programme level)
    - Laboratory facilities
    - Computer facilities (department level)
    - Blended learning facilities (university level)
    - Library facilities
    - Student population
    - Curriculum details
    - Staff (in relevant program)
    - International standing (university)
    - (Inter)national standing (programme

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Needs Assessment – Findings

- Insufficient human and institutional capacity.
- Insufficient interdisciplinary corporation between different experts (engineers, planners, environmentalists etc).
- Insufficient mechanisms for mentorship and knowledge transfer.
- Disconnect between the industry and academia
- Complexity of transportation related projects.
- Lack of general awareness of the sector.
Gap Analysis

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Profile of a transport sector leader

- The profile of an ideal leader for the future of the transport sector in SSA is one who:
  - **Able to envision** a future for the transport sector in Africa, and communicate this vision, inspire and mentor others towards this vision.
  - **Is technically sound** in various facets of transport engineering across all land-based modes and users;
  - **Understands the complexities** of planning transport infrastructure and services within the built environment;
  - **Appreciates the impacts** of transport decision-making and is able to assess them;
  - **Capable of managing** complex projects throughout the project life cycle;

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<table>
<thead>
<tr>
<th>Curricular Requirements</th>
<th>AfCAP</th>
<th>Africa Community Access Partnership</th>
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### Curricular Requirements Table

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<th>Engineering</th>
<th>Operations</th>
<th>Policy and Planning</th>
<th>Asset Mgmt</th>
<th>Impact Asset</th>
<th>Project Mgmt</th>
<th>Project Asset</th>
<th>Procurement</th>
<th>Leadership</th>
<th>Mgmt and mentoring</th>
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<tr>
<td>Geometric design</td>
<td>Traffic simulation</td>
<td>Drivers for change</td>
<td>HDM &amp; others</td>
<td>Environment, Impacts</td>
<td>Project programming</td>
<td>Project funding</td>
<td>Planning &amp; legal framework</td>
<td>Effective leadership</td>
<td>Situational leadership</td>
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<td>Junction design</td>
<td>NMT design &amp; operations</td>
<td>Demand &amp; supply analysis</td>
<td>Asset management</td>
<td>Social Impacts</td>
<td>Financial accounting</td>
<td>Cost benefit analysis</td>
<td>Legal issues</td>
<td>Best-worst practice</td>
<td>Coaching</td>
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<tr>
<td>Drainage</td>
<td>PT design &amp; operations</td>
<td>Transport modelling</td>
<td>Geotechnical management</td>
<td>Economic Impacts</td>
<td>Project lifecycle ass.</td>
<td>Multi-criteria analysis</td>
<td>Preparation of tenders</td>
<td>Critical thinking</td>
<td>Skilled communicator</td>
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<td>Appropriate technology</td>
<td>Traffic engineering</td>
<td>Land use planning</td>
<td>Bridge/structural asset mgmt.</td>
<td>Quality control</td>
<td>Contract negotiation</td>
<td>Ethics &amp; compliance</td>
<td>Gender awareness</td>
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<td>Low volume rural roads</td>
<td>Traffic management</td>
<td>Road user behaviour</td>
<td>Drainage asset mgmt.</td>
<td>Resource management</td>
<td>Complicity of projects</td>
<td>Diversity awareness</td>
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<td>Safe road design</td>
<td>Gender issues</td>
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<td>Governance</td>
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<td>CAD</td>
<td>Urban &amp; rural planning</td>
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<td>Design coordination</td>
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<td>Equitable road space</td>
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<td>Design public spaces</td>
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<tr>
<td>Universal design</td>
<td>Mostly offered</td>
<td>Sometimes offered</td>
<td>Generally no offering</td>
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Curriculum Development – Our Options

- Bespoke MSc in Transportation Leadership - in approved institution in UK or Africa - must be commercially viable for the institution (2 years)

- Modular part-time MSc - Modules largely taken from approved institutions in UK and Africa - build up 120 CATS (over 3/4 years)

- CPD bespoke courses - candidates sign up to technical and leadership CPD courses in the UK and Africa - Institutions would require this to be commercially viable (2 years)

- CPD extant - candidates sign up to existing relevant technical and leadership CPD approved course in the UK and Africa (2 years)

- Do Minimum - candidates sign up to existing short term relevant technical and leadership approved courses in the UK and Africa (2 years)

Time - both to initiate programme and the duration (years)

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Curriculum Development – Proposal 1

- **Professional Masters**

  - **Elective Transport Modules**
    - Road Engineering (20)
    - Transport Systems (20)
    - Transport Policy (20)
    - Asset Management (20)
    - Project Assessment (20)
    - Project Procurement (20)

  - **Mandatory Leadership and Management Modules**
    - Effective Leadership (20)
    - Management and Mentoring (20)
    - Project Management (20)

  - **Mandatory Dissertation**
    - Research Project (45)

**Professional Masters Degree in Leadership in Transportation (Requires min. 180 Credits)**

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Curriculum Development – Proposal 2

- **Continuing Professional Development**

![Diagram showing Elective and Mandatory CPD Modules]

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Major themes grappled with?

- Programme sustainability
- Work placement for the programme participants
- Gender equality/Balance
- Cost/Funding
- Programme management/ Accreditation
Stakeholder Workshop – Agenda

- **Introduction and Voting Setup**
- **Presentations and Interactive Feedback**
  1. Introduction and Background
  2. Needs Assessment
  3. Gap Analysis
  4. Course Review
  5. Delivery Review
- **Break**
  6. Candidate Selection
  7. Gender Balance
  8. Work Placements/Secondments
  9. Mentoring
  10. Sustainability
- **Workshop Feedback**
Stakeholder Workshop

- Innovative online voting platform
- Facilitates active participation through real time collation of participants feedback
- Please come with a tablet, smartphone or laptop for the voting session.
- Wi-Fi will be provided for the session.
“A leader ... is like a shepherd. He stays behind the flock, letter the most nimble go out ahead, where upon the others follow, not realizing that all along they are being directed from behind.”

- Nelson Mandela
Thank you for your attention

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