
AFCAP

Rural Transport Research Needs: An International (mainly African) Perspective



Low Volume Roads Symposium
Cairns, Queensland, Australia
25 - 27 November 2013





- Perspective
- Research v Knowledge Management
 - Holistic approach
- Sustainability of Research
- Institutional Needs
 - Coordination of and accessibility to knowledge sources
- Capacity Needs
- Technical Needs
 - Consistency of information and knowledge
- Value of Research
- Conclusions

Supporting Infrastructure

IT



Innovation



Supporting Infrastructure

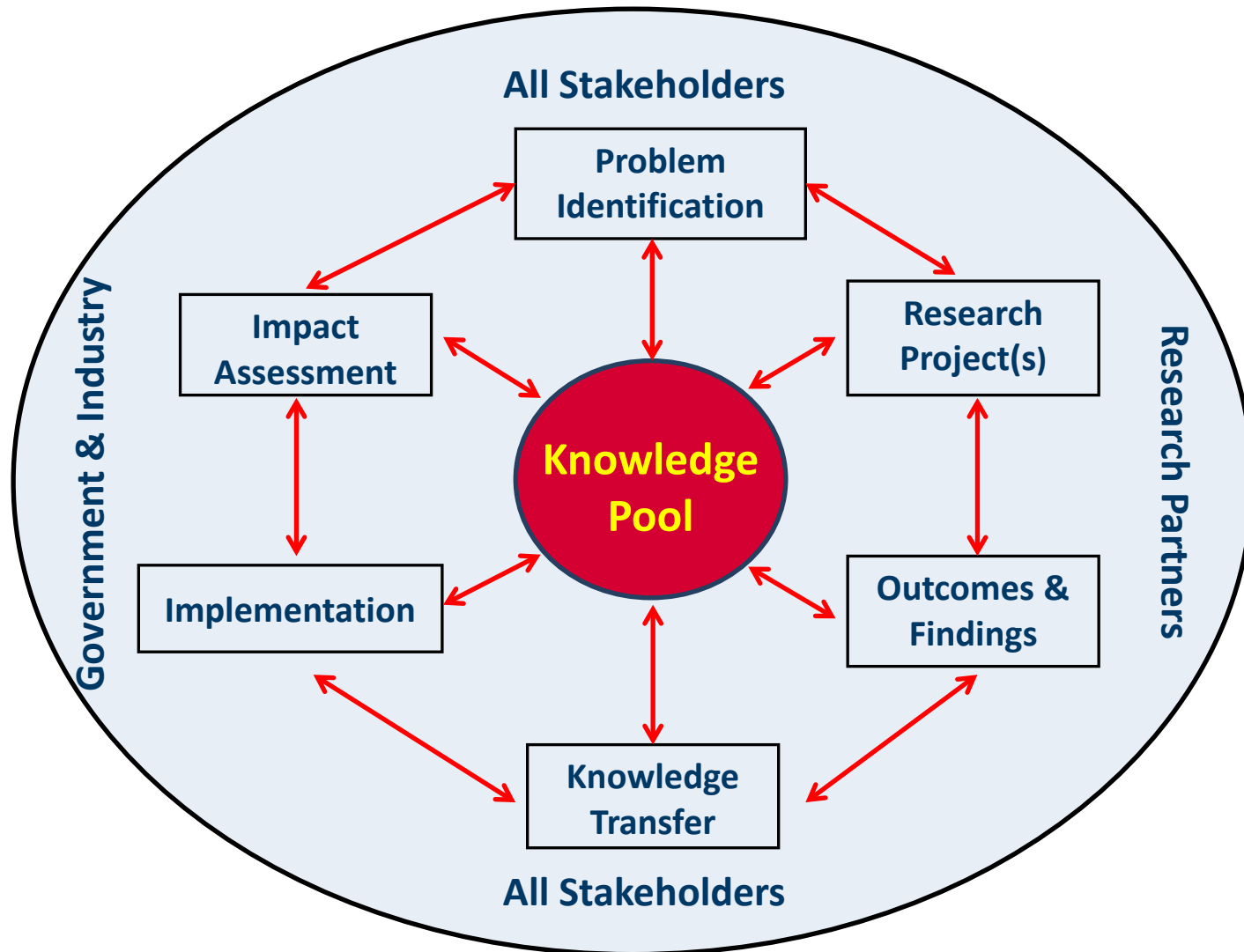
Financial Control



Have a good time



Framework for Managing Research & Knowledge Transfer



- Africa-specific knowledge fragmented
- Consolidation of international best-practice
- Sources of Knowledge and Information
 - TRL Overseas Road Notes
 - S Africa Manuals & Specs
 - SADC LVR Guideline
 - SEACAP
 - National knowledge sources
 - Donors
 - Australian Standards & Specs
 - ASTM/AASHTO/BS
- Variability of information
- AFCAP role





- Improved decision making
- Reduced risk
 - Policy Development
 - Planning strategies
 - Material Selection
 - Design Options
 - Construction & Maintenance
 - Transport Service Provision
 - Safety & Environment

- Based on appropriate or customised African research and knowledge

- **Not** inappropriate, inherited International Practice

- Ownership critical





- Priority for Developing Countries
- Improved access to information
- Coordinated structures and links required
- Web based
- National Research Centres' responsibilities for populating and updating of information databases
- Personal information sharing
- AFCAP Community of Practice
 - LinkedIn

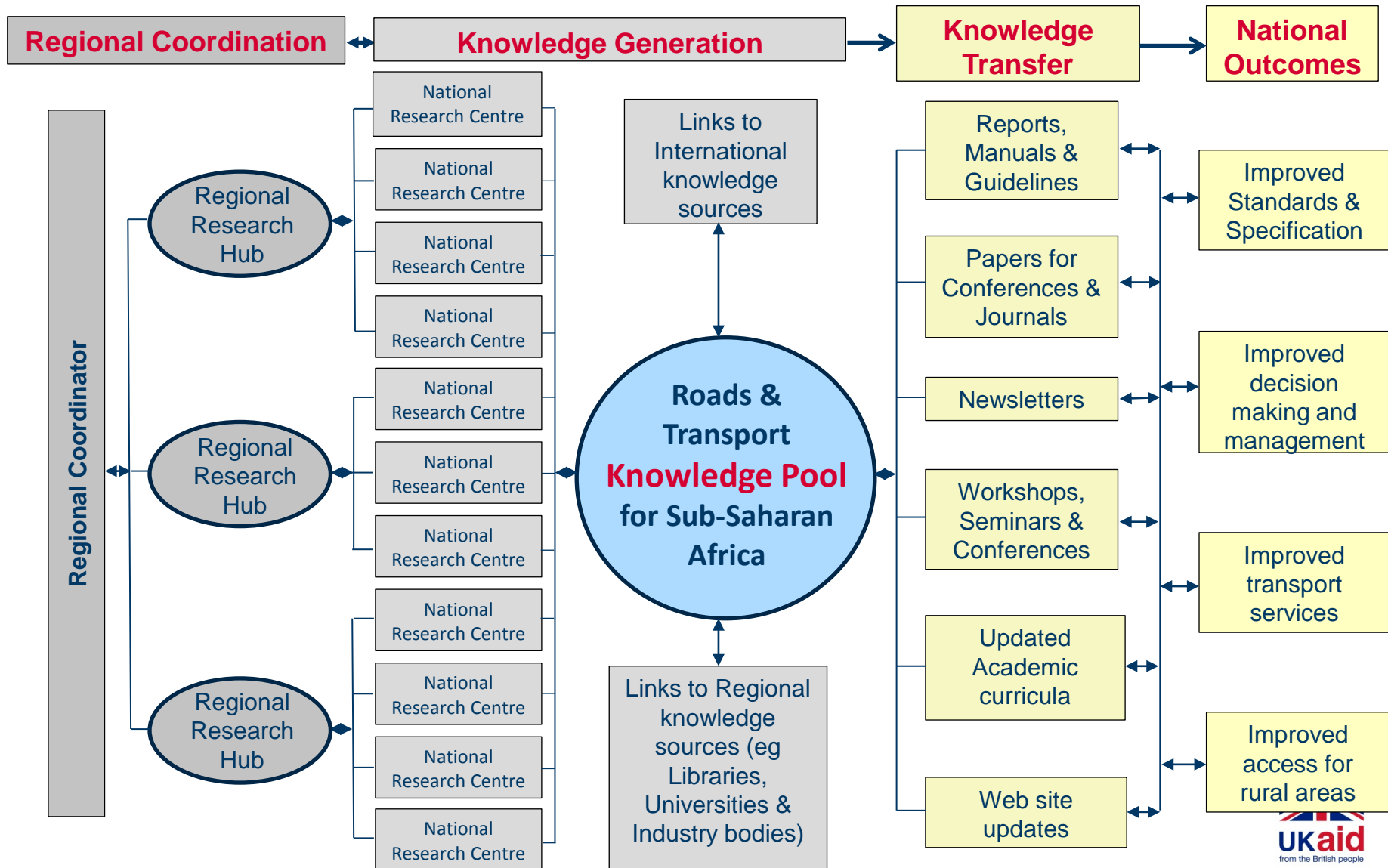
Framework for Sustainability



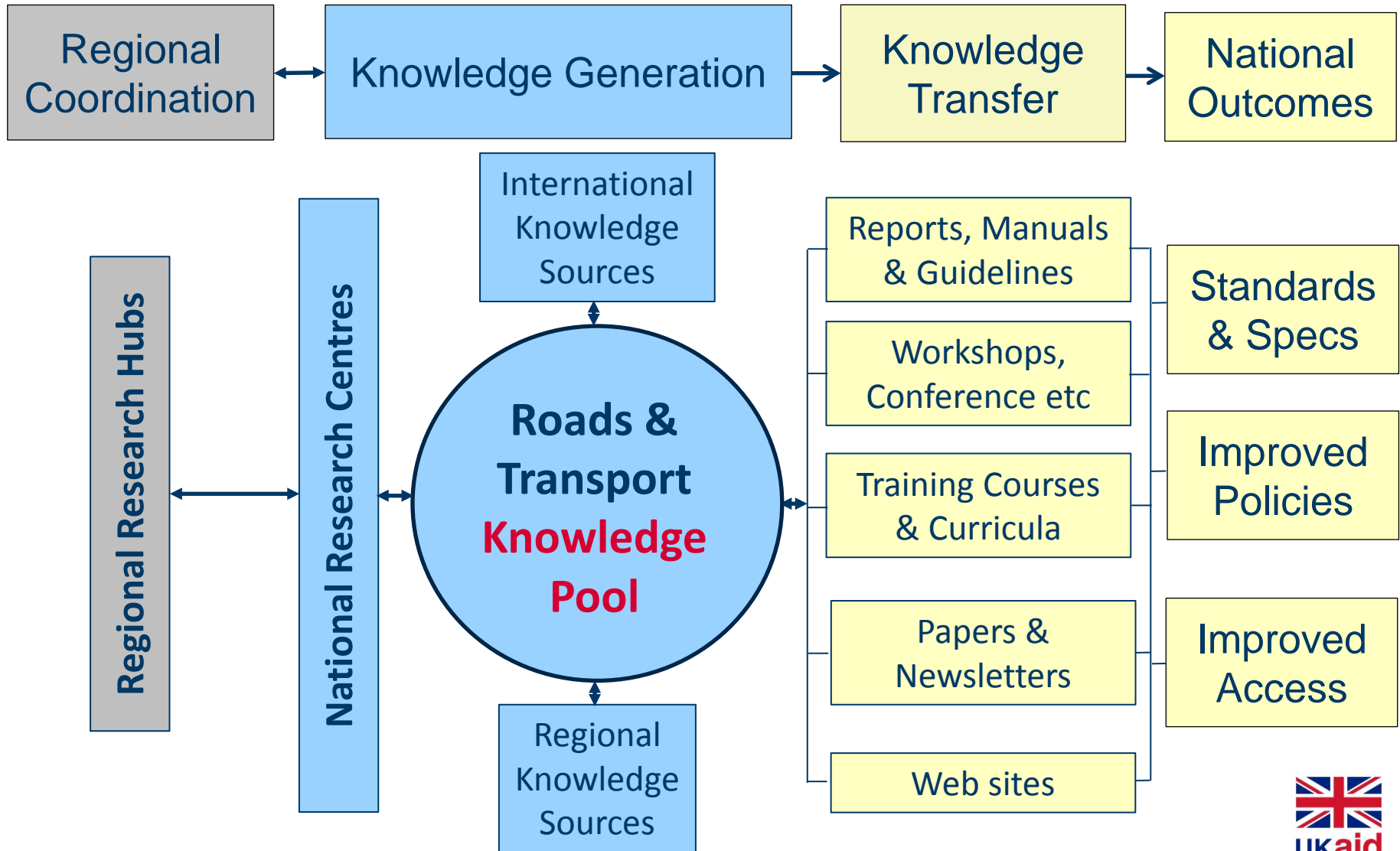
- Countries have to take responsibility for research
- Driven through National Research/Knowledge Centre
- Partnerships between national governments and research partners such as AFCAP
- Projects managed by Research centres
- Mentorship & Capacity Building by experienced individuals and organisations
- Regional Coordinating structure



Development Approach



Development Approach





- Research & Knowledge Management capacity in Africa is limited
 - Some better than others
 - CSIR in S Africa exception
- Image of research
- Soils & Materials Laboratories
- Regional hubs with specialist equipment
- Role of international research organisations
- Technical Assistance & Mentorship
- Linkage to Tertiary Institutions



- Materials for LVRs
 - Alternative waterproofing agent for seals
 - Alternative surfacings
 - Non-standard materials
 - Demonstration sections
 - Materials databases
- Designs for Low Volume Roads
 - DCP method
- Performance models
 - RUCs, HDM4, RED etc
 - Life-cycle costing
 - Maintenance strategies
- Contractor Performance & Productivity rates



- Transport Services
 - Cost-benefit models
 - Social impacts
 - Access indicators
 - Planning of services & Regulation
 - Technical compliance of vehicles
 - Overload control
 - Conflict areas
- Safety on LVRs
 - Improved data collection and statistics
 - Community Involvement
- Climate Change
 - Impact of changing weather patterns
- Other environmental issues
 - Dust



- Research provides good returns – already quantified
 - \$1 invested = \$3 return
- Research partners have to justify investment
- Competition for scarce resource
- Rigorous evaluation process
- Better performance measures needed
- Joint funding
- Coordinated programmes between donors



Conclusions



- National government must take responsibility for research and knowledge management
- Mentorship and capacity building will become critical
- Role of established research organisations and experienced individuals critical
- Strategic move by AFCAP funding to support the development of sustainable national research centres
- Technical and regional priorities established by a coordinated institutional structure
- Value-for-money



Thank you