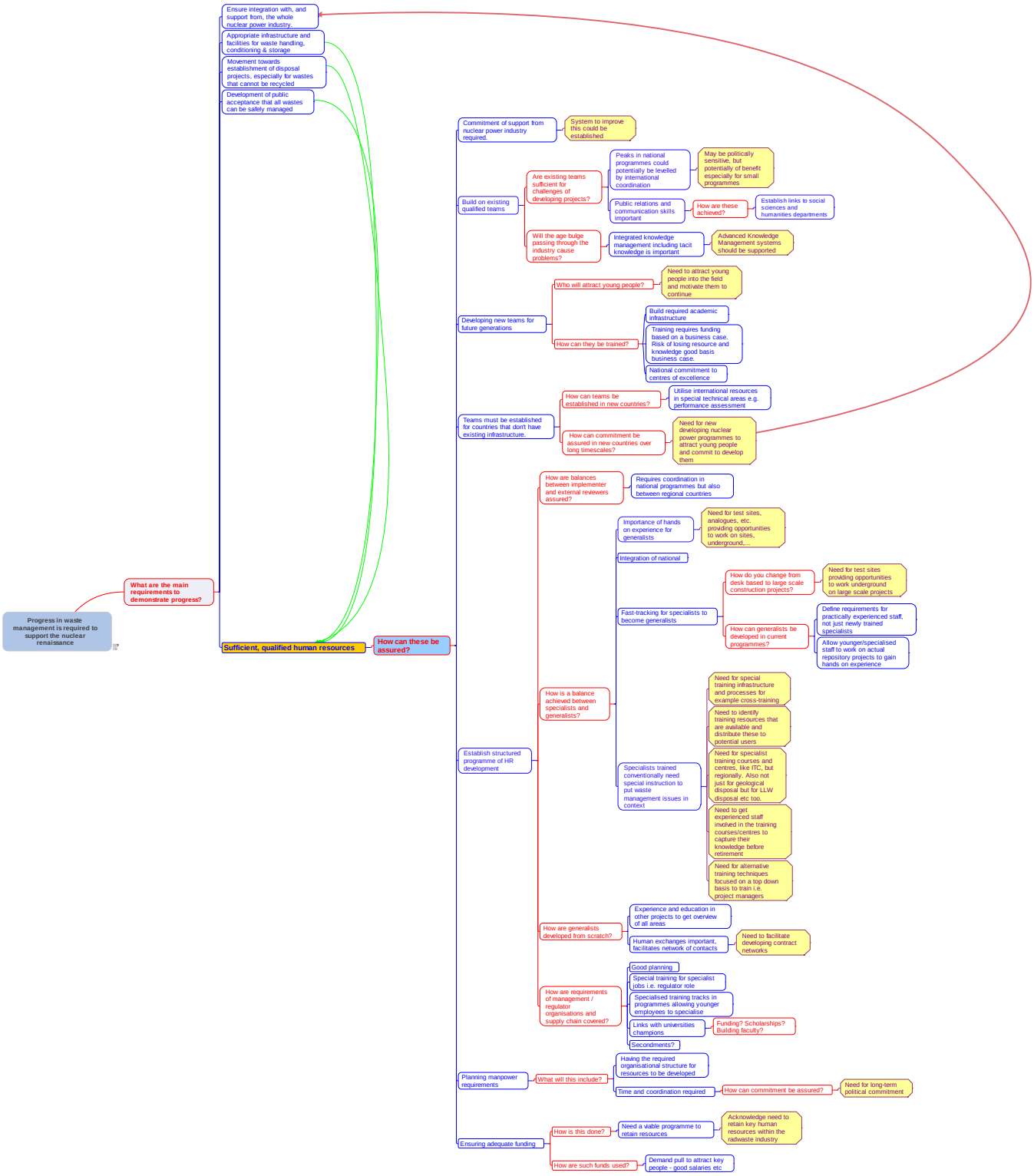
Progress in waste management is required to support the nuclear renaissance
What are the main requirements to demonstrate progress?
Ensure integration with, and support from, the whole nuclear power industry.
Appropriate infrastructure and facilities for waste handling, conditioning & storage
Movement towards establishment of disposal projects, especially for wastes that cannot be recycled
Development of public acceptance that all wastes can be safely managed
Sufficient, qualified human resources
How can these be assured?
Commitment of support from nuclear power industry required.
System to improve this could be established
Build on existing qualified teams
Are existing teams sufficient for challenges of developing projects?
Peaks in national programmes could potentially be levelled by international coordination
May be politically sensitive, but potentially of benefit especially for small programmes
Public relations and communication skills important
How are these achieved?
Establish links to social sciences and humanities departments
Will the age bulge passing through the industry cause problems?
Integrated knowledge management including tacit knowledge is important
Advanced Knowledge Management systems should be supported
Developing new teams for future generations
Who will attract young people?
Need to attract young people into the field and motivate them to continue
How can they be trained?
Build required academic infrastructure
Training requires funding based on a business case. Risk of losing resource and knowledge good basis business case.
National commitment to centres of excellence
Teams must be established for countries that don't have existing infrastructure.
How can teams be established in new countries?
Utilise international resources in special technical areas e.g. performance assessment
How can commitment be assured in new countries over long timescales?
Need for new developing nuclear power programmes to attract young people and commit to develop them
Establish structured programme of HR development
How are balances between implementer and external reviewers assured?
Requires coordination in national programmes but also between regional countries
How is a balance achieved between specialists and generalists?
Importance of hands on experience for generalists
Need for test sites, analogues, etc. providing opportunities to work on sites, underground...
Integration of national
Fast-tracking for specialists to become generalists
How do you change from desk based to large scale construction projects?
Need for test sites providing opportunities to work underground on large scale projects
How can generalists be developed in current programmes?
Define requirements for practically experienced staff, not just newly trained specialists
Allow younger/specialised staff to work on actual repository projects to gain hands on experience
Specialists trained conventionally need special instruction to put waste management issues in context
Need for special training infrastructure and processes for example cross-training
Need to identify training resources that are available and distribute these to potential users
Need for specialist training courses and centres, like ITC, but regionally. Also not just for geological disposal but for LLW disposal etc too.
Need to get experienced staff involved in the training courses/centres to capture their knowledge before retirement
Need for alternative training techniques focused on a top down basis to train i.e. project managers
How are generalists developed from scratch?
Experience and education in other projects to get overview of all areas
Human exchanges important, facilitates network of contacts
Need to facilitate developing contract networks
How are requirements of management / regulator organisations and supply chain covered?
Good planning
Special training for specialist jobs i.e. regulator role
Specialised training tracks in programmes allowing younger employees to specialise
Links with universities champions
Funding? Scholarships? Building faculty?
Secondments?
Planning manpower requirements
What will this include?
Having the required organisational structure for resources to be developed
Time and coordination required
How can commitment be assured?
Need for long-term political commitment
Ensuring adequate funding
How is this done?
Need a viable programme to retain resources
Acknowledge need to retain key human resources within the radwaste industry
How are such funds used?
Demand pull to attract key people - good salaries etc