



Scotland's Water Map: Understanding water sector links to support decision making for the Hydro Nation Agenda

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The value of Scotland's water and sewerage market is projected to grow to £.24bn by 2016/17. Developing future opportunities must take place alongside maintaining current service provision; however the demand on water and waste water services is constantly evolving. An integrated approach to water management requires an understanding of complex interactions that exist between key actors in the sector to allow water management strategies to exploit inter-sectorial links. Successful integrated analysis of the water sector in Scotland will support management activities key to responding to the Hydro Nation themes of 1) Governance and international development 2) Environmental protection 3) Economic opportunities 4) Research development. In order to deliver on these objectives an approach is required to capture and communicate the scope and scale of the water sector and its interconnectedness.

The methodology required to determine scope, scale and interconnectedness of water sector involved the identification and application of an appropriate range of techniques from the Information and Knowledge Management disciplines combined with the Information Visualisation field. Scope and scale of the water sector was identified by a desk based study and this data was visualized using a geographic map. Sector interconnectedness was determined by interviewing key actors. The interviews identified the stakeholders associated with information flows, and the purpose of the information transfer through Reporting/Managing (R/M), Influence and Information sharing (I) or Control (C) activities. Primary information flows were also scored with respect to importance against the 4 key Hydro Nation agenda themes. Many organisations were identified who interact within Scotland's water sector including the Scottish Government and Ministers, the Regulators (WICS, DWQR, SEPA), Scottish Water (core and non-core functions), plus many other stakeholders ranging from research institutions to private sector businesses. This data was used in a water wheel visualisation where connections between stakeholders are shown as links and the width of the link represents the importance of the information exchange. Both maps will be used by the Scottish Government and its stakeholders to support decision making and illustrate the management and control aspects of the water sector.