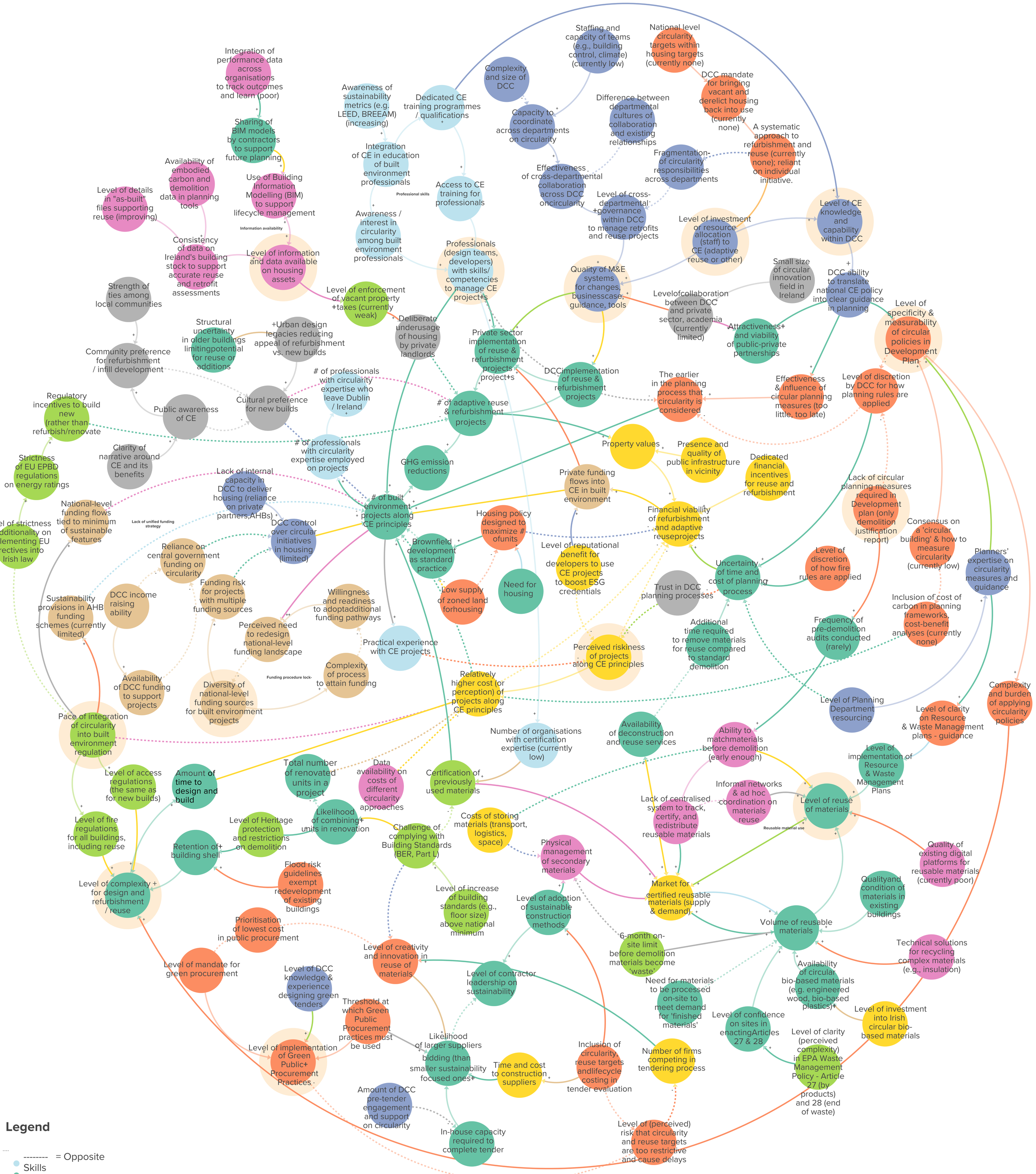
Integration of performance data across organisations to track outcomes and learn (poor)
Sharing of BIM models by contractors to support future planning
Use of Building Information Modelling (BIM) to support lifecycle management
Information availability
Level of details in "as-built" files supporting reuse (improving)
Availability of embodied carbon and demolition data in planning tools
Consistency of data on Ireland's building stock to support accurate reuse and retrofit assessments
Level of information and data available on housing assets
Strength of ties among local communities
Community preference for refurbishment / infill development
Structural uncertainty in older buildings limitingpotential for reuse or additions
+Urban design legacies reducing appeal of refurbishment vs. new builds
Public awareness of CE
Cultural preference for new builds
Regulatory incentives to build new (rather than refurbish/renovate
Clarity of narrative around CE and its benefits
Strictness of EU EPBD regulations on energy ratings
Level of strictness or additionality on implementing EU directives into Irish law
Awareness of sustainability metrics (e.g. LEED, BREEAM) (increasing)
Dedicated CE training programmes / qualifications
Integration of CE in education of built environment professionals
Professional skills
Access to CE training for professionals
Awareness / interest in circularity among built environment professionals
Professionals (design teams, developers) with skills/ competencies to manage CE project+s
Level of enforcement of vacant property +taxes (currently weak)
Deliberate underusage of housing by private landlords
Private sector implementation of reuse & refurbishment projects project+s
# of professionals with circularity expertise who leave Dublin / Ireland
# of professionals with circularity expertise employed on projects
# of adaptive reuse & refurbishment projects
GHG emission reductions
# of built environment projects along CE principles
Lack of internal capacity in DCC to deliver housing (reliance on private partners,AHBs)
National-level funding flows tied to minimum of sustainable features
Lack of unified funding strategy
DCC control over circular initiatives in housing (limited)
Reliance on central government funding on circularity
Funding risk for projects with multiple funding sources
Sustainability provisions in AHB funding schemes (currently limited)
DCC income raising ability
Availability of DCC funding to support projects
Perceived need to redesign national-level funding landscape
Willingness and readiness to adoptadditional funding pathways
Practical experience with CE projects
Diversity of national-level funding sources for built environment projects
Funding procedure lock-
Complexity of process to attain funding
Pace of integration of circularity into built environment regulation
Level of access regulations (the same as for new builds)
Amount of time to design and build
Level of fire regulations for all buildings, including reuse
Level of complexity + for design and refurbishment / reuse
Retention of+ building shell
Level of Heritage protection and restrictions on demolition
Likelihood of combining+ units in renovation
Total number of renovated units in a project
Data availability on costs of different circularity approaches
Challenge of complying with Building Standards (BER, Part L)
Flood risk guidelines exempt redevelopment of existing buildings
Prioritisation of lowest cost in public procurement
Level of mandate for green procurement
Level of DCC knowledge & experience designing green tenders
Level of implementation of Green Public+ Procurement Practices -
Threshold at which Green Public Procurement practices must be used
Level of creativity and innovation in reuse of materials
Level of contractor leadership on sustainability
Likelihood of larger suppliers bidding (than smaller sustainability focused ones+
Time and cost to construction suppliers
Amount of DCC pre-tender engagement and support on circularity
In-house capacity required to complete tender
Relatively higher cost (or perception) of projects along CE principles
Number of organisations with certification expertise (currently low)
Certification of previously used materials
Costs of storing materials (transport, logistics, space)
Level of increase of building standards (e.g., floor size) above national minimum
Level of adoption of sustainable construction methods
Physical management of secondary materials
Inclusion of circularity, reuse targets andlifecycle costing in tender evaluation
Housing policy designed to maximize # ofunits
Brownfield development as standard practice
Low supply of zoned land forhousing
Need for housing
Private funding flows into CE in built environment
Level of reputational benefit for developers to use CE projects to boost ESG credentials
Perceived riskiness of projects along CE principles
Complexity and size of DCC
Staffing and capacity of teams (e.g., building control, climate) (currently low)
Capacity to coordinate across departments on circularity
Effectiveness of cross-departmental collaboration across DCC oncircularity
Difference between departmental cultures of collaboration and existing relationships
Level of cross-departmental governance within DCC to manage retrofits and reuse projects
Quality of M&E systems for changes, businesscase, guidance, tools
Levelofcollaboration between DCC and private sector, academia (currently limited)
Attractiveness+ and viability of public-private partnerships
DCCimplementation of reuse & refurbishment projects
National level circularity targets within housing targets (currently none)
DCC mandate for bringing vacant and derelict housing back into use (currently none)
A systematic approach to refurbishment and reuse (currently none); reliant on individual initiative.
Fragmentation- of circularity responsibilities across departments
Level of investment or resource allocation (staff) to CE (adaptive reuse or other)
Small size of circular innovation field in Ireland
DCC ability to translate national CE policy into clear guidance in planning
Level of CE knowledge and capability within DCC
Level of specificity & measurability of circular policies in Development Plan
Effectiveness & influence of circular planning measures (too little, too late)
Level of discretion by DCC for how planning rules are applied
The earlier in the planning process that circularity is considered
Property values
Presence and quality of public infrastructure in vicinity
Dedicated financial incentives for reuse and refurbishment
Financial viability of refurbishment and adaptive reuseprojects
Lack of circular planning measures required in Development plan (only demolition justification report)
Consensus on a 'circular building' & how to measure circularity (currently low)
Planners' expertise on circularity measures and guidance
Uncertainty of time and cost of planning process
Level of discretion of how fire rules are applied
Trust in DCC planning processes
Additional time required to remove materials for reuse compared to standard demolition
Frequency of pre-demolition audits conducted (rarely)
Inclusion of cost of carbon in planning frameworks, cost-benefit analyses (currently none)
Level of Planning Department resourcing
Level of clarity on Resource & Waste Management plans - guidance
Complexity and burden of applying circularity policies
Availability of deconstruction and reuse services
Ability to matchmaterials before demolition (early enough)
Level of implementation of Resource & Waste Management Plans
Informal networks & ad hoc coordination on materials reuse
Lack of centralised system to track, certify, and redistribute reusable materials
Level of reuse of materials
Reusable material use
Quality of existing digital platforms for reusable materials (currently poor)
Market for certified reusable materials (supply & demand)
Qualityand condition of materials in existing buildings
Volume of reusable materials
6-month on-site limit before demolition materials become 'waste'
Technical solutions for recycling complex materials (e.g., insulation)
Need for materials to be processed on-site to meet demand for 'finished materials'
Availability of circular bio-based materials (e.g. engineered wood, bio-based plastics)+
Level of confidence on sites in enactingArticles 27 & 28
Level of investment into Irish circular bio-based materials
Level of clarity (perceived complexity) in EPA Waste Management Policy - Article 27 (by products) and 28 (end of waste)
Number of firms competing in tendering process
Level of (perceived) risk that circularity and reuse targets are too restrictive and cause delays
Legend
-------- = Opposite
Skills
Built environment delivery
Policy
DCC capacity
Data & infrastructure
Regulation
Economics
Funding
Culture