



National Green Infrastructure Standards Trial

Development of a national Framework for GI Standards

Context - National project and LCR Strategy

- LCR Green and Blue Infra Strategy and Delivery Plan adopted - December 2018
- Gov. 25 year Environment Plan includes commitment to develop national framework of GI standards
- 10 trial areas incl. West Yorkshire (through Devo Deal) – to test and strengthen draft Framework
- This phase - 4 month trial area projects (**mid February 2021**)
- Soft launch planned for 2021 with further trialling
- Finalised national standards framework planned for final launch 2022
- Potential for incorporation into national planning guidance and policy



Source: Arup

Context - West Yorkshire project

1. Use national draft Standards Framework to test LCR GBI Strategy and Delivery Plan and embed into CA policy and strategy **[CA action]**
2. Test how the draft Standard Framework (or elements) can be embedded into LCR Assurance Framework **[CA action]**
3. Use benchmarking data and new standards/tools **[CA/partners action]**
 - *To produce new mapping for regional/local strategies e.g. GBI Strategy; Nature Recovery Strategies*
 - *To identify areas in greatest need of nature recovery – build into local planning policy*
 - *To align with Emissions Reduction Pathway work and develop nature recovery/climate emergency investment pipelines*

Provide feedback and evidence to Natural England on application and experience of using Standards Framework

Milestone for completion – February 2021

Summary of draft national Green Infrastructure Standards Framework

Draft National GI Standards Framework

Principles of Good GI

1. Multiple Benefits/Value
2. Partnership
3. Policy
4. Evidence
5. Planning and Design
6. Stewardship/ Governance

Benchmarking/Mapping

- Green and blue space land cover
- Greenness Ratio
- Accessible natural greenspace
- Woodland
- Public Rights of Way
- Socio-economic data
- + *analyses based on above*

GI Standards

Could include:

- Updated Accessible Natural Greenspace Standards *e.g. Neighbourhood Greenspace standard - at least 10ha within 1km of a home*
- Urban Greening Factors
- Others TBC

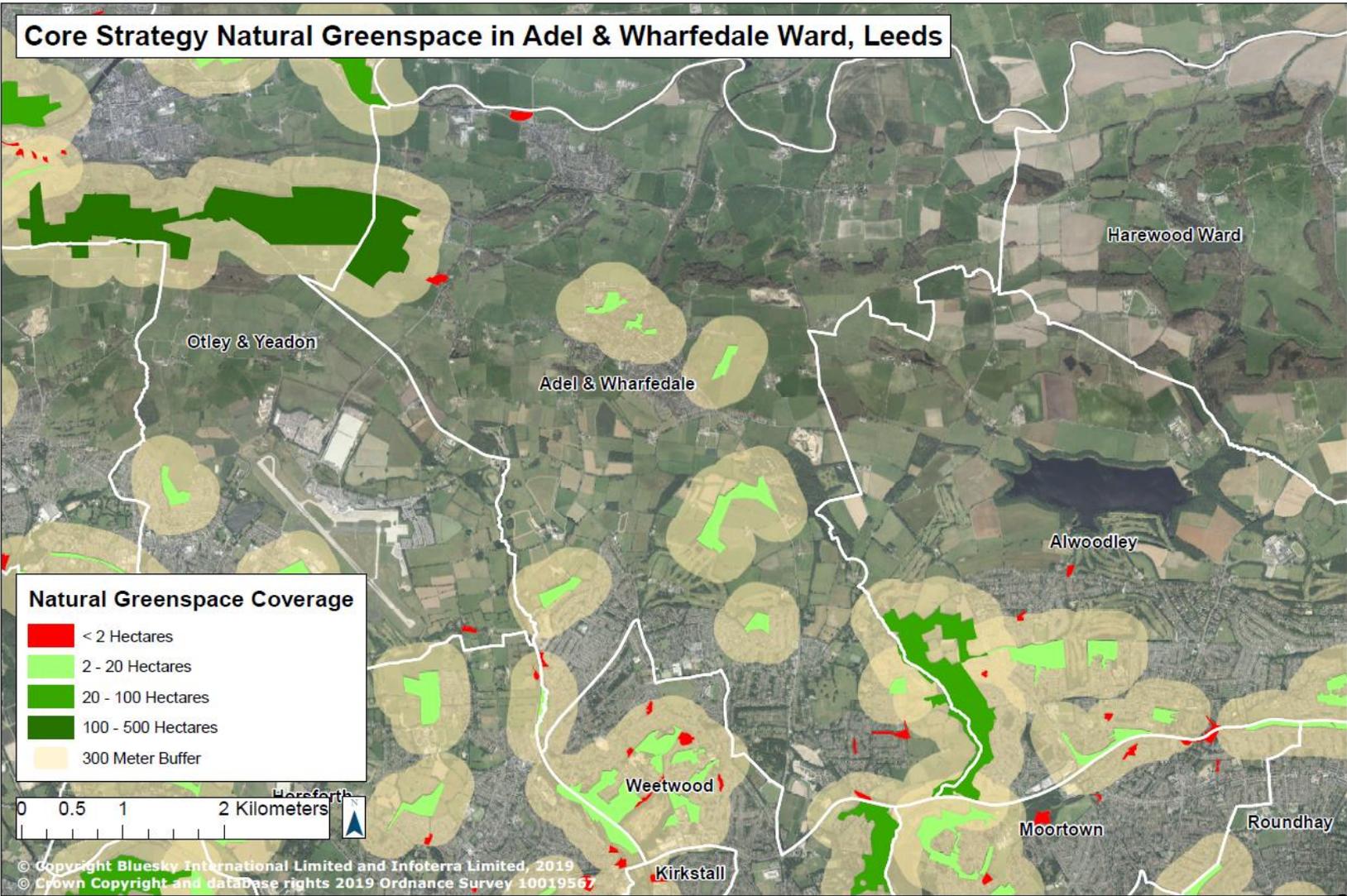
Guidance

- How to self assess against Principles of Good GI
- How to apply GI Standards Framework (incl. checklists, process maps for e.g. development managers)
- How to design GI

Support available through Framework

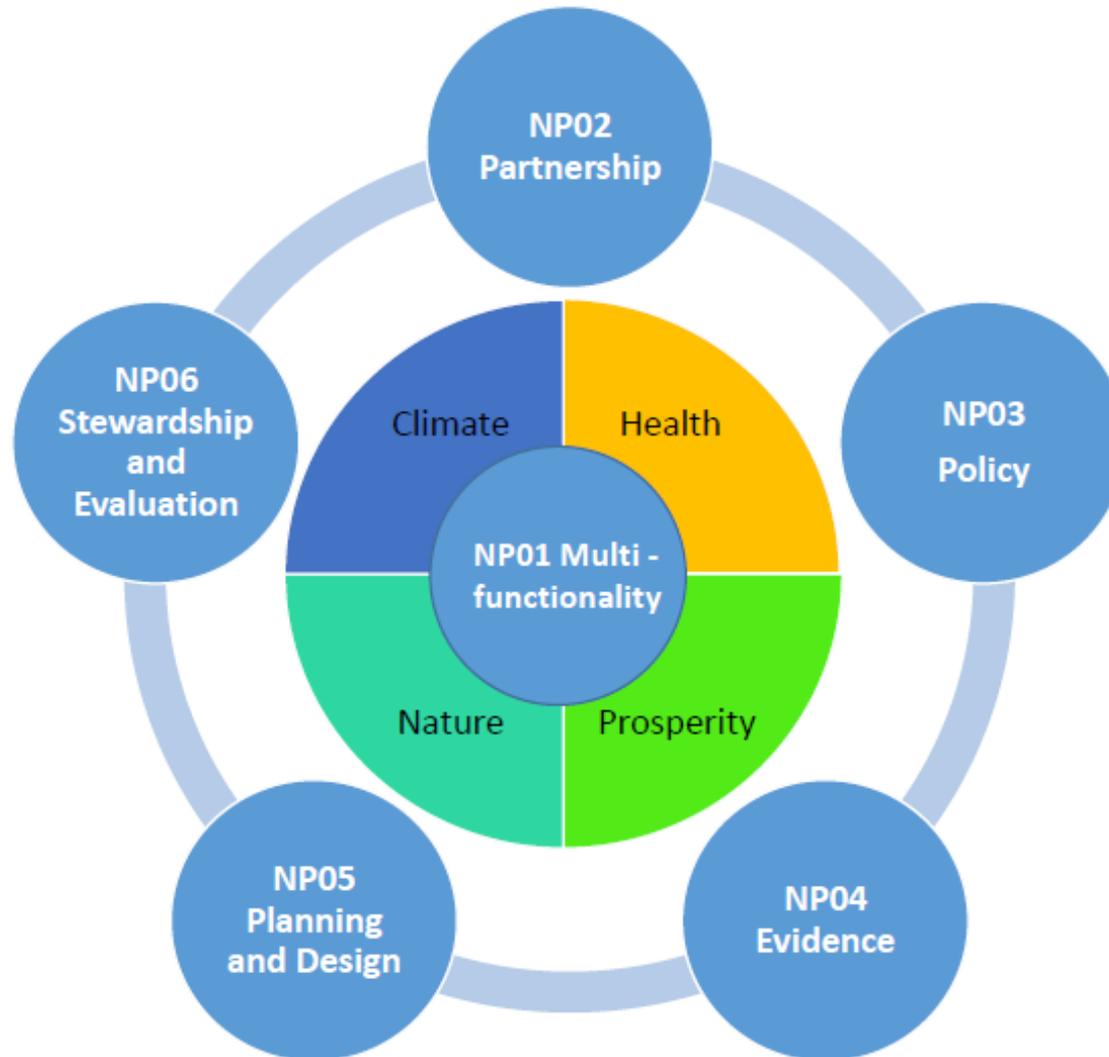
- Tools/guidance included in Standards Framework
 - Updated standards e.g. ANGSt; UGF
 - National mapping and analyses (e.g. greenness factor, green/blue land cover)
 - Process maps and checklists incl.
 - Developing Green Infrastructure Strategy (For Local Planning Authorities)
 - Incorporating Green Infrastructure Into Development (For Developers/Promoters)
 - Ensuring New Developments Deliver Good Green Infrastructure (For LPA Development Managers)
 - Incorporating Green Infrastructure into Neighbourhood Plans (for communities preparing a Neighbourhood Plan)
- Knowledge community of 10 trial areas across England

Example: use of ANGSt – Leeds City Council



Standards Framework - in detail

Principles of Good GI



Standards Framework - in detail

Principles of Good GI

Multiple Benefits and Value	<p>NP01 Develop, design and deliver multi-functional Green infrastructure that delivers a range of benefits for people, places and nature. This includes:</p> <ol style="list-style-type: none">Health and wellbeing benefits;Thriving nature and biodiversity gains;Making places more resilient to climate change and helping to meet zero carbon targets;Adding value and supporting prosperous communities.
Partnership	<p>NP02 Facilitate partnership working, collaboration and stakeholder engagement. Include local authorities, developers, communities, green space managers and others. These are critical for planning and delivering green infrastructure that meets local needs.</p>
Policy	<p>NP03 Secure green infrastructure as essential infrastructure in local strategy and policy. Deliver a range of environmental, social, health and economic policy objectives as part of place-making and place-keeping.</p>
Evidence	<p>NP04 Plan green infrastructure to meet different people's needs. Use evidence of quantity, quality and distribution of GI assets and data on environmental and health challenges to address inequalities in provision. (see Guidance section at end for guidance examples)</p>
Planning and Design	<p>NP05 Plan and design green infrastructure strategically to function and connect as a living network at a local and landscape scale, responding to and enhancing local character</p>
Stewardship Governance Funding & Evaluation	<p>NP06 Plan good governance, management, monitoring, evaluation and funding of green infrastructure from the outset and secure it for the long-term.</p>

Standards Framework - in detail

Principles of Good GI

PROCESS MAP 1: DEVELOPING A GREEN INFRASTRUCTURE (GI) STRATEGY

Process for Local Planning Authorities (LPAs)

PROCESS MAP 2: INCORPORATING GREEN INFRASTRUCTURE (GI) INTO DEVELOPMENT

Process for Developers and Design Teams

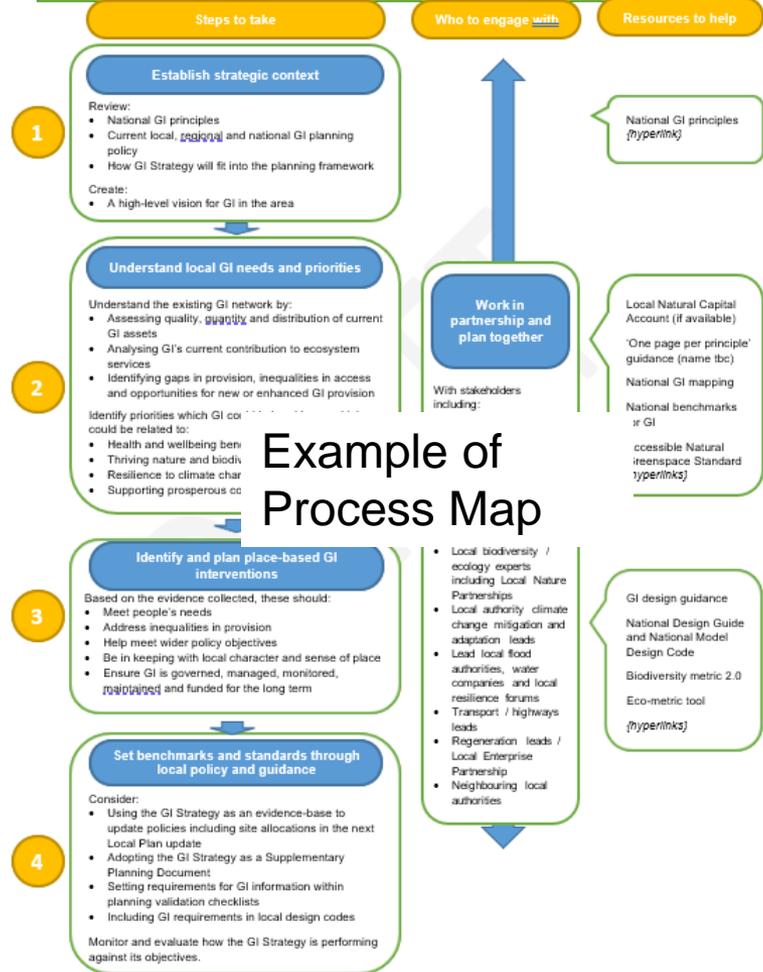
PROCESS MAP 3: ENSURING NEW DEVELOPMENTS DELIVER GOOD GREEN INFRASTRUCTURE (GI)

Process for Development Managers within Local Planning Authorities (LPAs)

PROCESS MAP 4: INCORPORATING GREEN INFRASTRUCTURE INTO NEIGHBOURHOOD PLANS

Process for communities developing Neighbourhood Plans

PROCESS MAP 1: DEVELOPING A GREEN INFRASTRUCTURE (GI) STRATEGY *Process for Local Planning Authorities (LPAs)*



Example of Process Map

Standards Framework - in detail

GI Standards: updated Accessible Natural Greenspace Standards (ANGSt)

Doorstep Greenspace (new addition)	At least 0.5 ha within 200 metres or under 5 mins walk*	includes a wider range of greenspace especially important in existing built up areas where homes don't have gardens.
Local Greenspace	At least 2 ha within 300 m (straight line route) or 500 m (actual walking/cycling route) i.e. within 5- 10 mins walk* 2 mins cycle	especially relevant in new urban extensions and garden communities as part of accessible nature recovery and biodiversity / environmental net gain.
Neighbourhood (new addition)	10 ha within 1 km or a 15-20 mins walk* (straight line – or network distance to be determined) 4 mins cycle	Distance criteria to promote active travel to visit greenspace. We are testing the size criteria around this i.e. the size within a 15-20 min walk
Wider neighbourhood	At least 20ha within 2km	eg parks and gardens
District	100 ha within 5 km 20 mins cycle	eg country parks, access land, accessible woodland.
Sub-regional	500 ha within 10 km 40 mins cycle	e.g. access land, accessible woodland, and the largest nature reserves.
Local and National Nature Reserves	LNRs and NNRs of at least 1 ha per 1000 population	measured at district/borough level (original ANGSt criterion only included LNRs)

Standards Framework - in detail

GI Standards – Urban Greening Factors

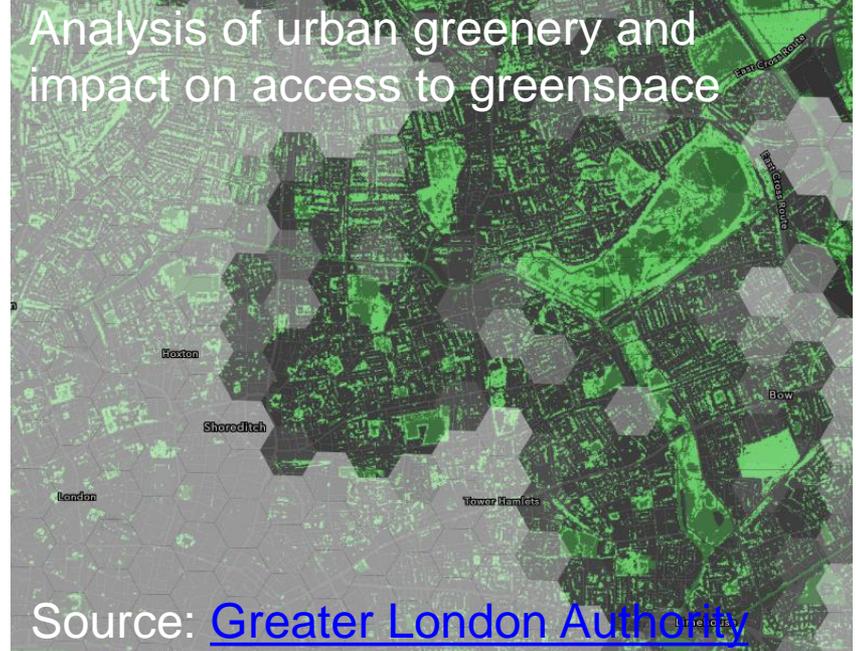
A tool that evaluates and quantifies the amount and quality of **urban greening** that a scheme provides to inform decisions about appropriate levels of **greening** in new developments

UGF works well in higher density urban districts that generally struggle to significantly increase the quantum of green space but can benefit incrementally from the addition of greenery within development

Developed in London and incorporated into London Plan

Calculated by multiplying:

- the area of each type of land cover with the relevant weighting factor in the table (see table 1 as an example of a scoring table)
- summing the weighted scores
- dividing the result by the total land area of the site



London Plan sets a standard for an UGF of 0.3 for commercial development and 0.4 for residential development. It is important to note that UGF **does not consider losses**, so a UGF of 0.4 could represent a loss if the starting baseline is over 0.4 (e.g. in greenfield development)

Standards Framework - in detail

GI Standards: Urban Greening Factors

No	Surface Cover Type	Factor
01	Semi-natural vegetation (e.g. trees, woodland, species-rich grassland) maintained or established on site.	1.0
02	Wetland or open water (semi-natural; not chlorinated) maintained or established on site.	1.0
03	Intensive green roof or vegetation over structure. Substrate minimum settled depth of 150mm [see livingroofs.org for descriptions].	0.8
04	Standard trees planted in connected tree pits with a minimum soil volume equivalent to at least two thirds of the projected canopy area of the mature tree	0.8
05	Extensive green roof with substrate of minimum settled depth of 80mm (or 60mm beneath vegetation blanket) [meets the requirements of GRO Code 2014].	0.7
06	Flower-rich perennial planting [see RHS perennial plants for guidance].	0.7
07	Rain gardens and other vegetated sustainable drainage elements [see CIRIA for case-studies]	0.7
08	Hedges (line of mature shrubs one or two shrubs wide) [see RHS for guidance].	0.6
09	Standard trees planted in pits with soil volumes less than two thirds of the projected canopy area of the mature tree.	0.6
10	Green wall - modular system or climbers rooted in soil [see NBS Guide to Façade Greening].	0.6
11	Groundcover planting [see RHS Groundcover Plants for overview].	0.5
12	Amenity grassland (species-poor, regularly mown lawn).	0.4
13	Extensive green roof of sedum mat / other lightweight systems not meeting GRO Code 2014.	0.3
14	Water features (chlorinated) or unplanted detention basins.	0.2
15	Permeable paving [see CIRIA for overview].	0.1
16	Sealed surfaces (e.g. concrete, asphalt, waterproofing, stone).	0.0

For example, an office development with a 600 sqm footprint on a site of 1,000 sqm including a green roof, 250 sqm car parking, 100 sqm open water and 50 sqm of amenity grassland would score the following:

$$(0.7 \times 600) + (0.0 \times 250) + (1 \times 100) + (0.4 \times 50) / 1000 = 0.54$$

So, in this example, the proposed office development exceeds the interim target score of 0.3 for a predominately commercial development

Standards Framework - in detail

Comparison of standards

	Biodiversity Net Gain (minimum 10%)	Eco-metric*	Urban Greening Factor (0.3 for commercial and 0.4 for residential)
Greenfield development	Biodiversity net gain (min 10%) can be delivered on and/or off site.	Used help to maximise gains and minimise losses from development across 18 different ecosystem services. Helps to support multi-functionality of GI	UGF could be designed to set min on-site greening based on specific service (eg permeability or other services)
Urban Development	Biodiversity net gain (min 10%) can be delivered on and/or off site. Where baseline biodiversity is zero, there is potential to set minimum standard for biodiversity.	Used help to maximise gains and minimise losses from development across 18 different ecosystem services. Helps to support multi-functionality of GI.	UGF could be designed to set min on-site greening based on specific service (eg permeability or other services)
Area-wide	BNG is not normally applied at an area-wide level to determine quantum of biodiversity.	The eco-metric scoring matrix is being tested at an area-wide level as a baseline against which to test development scenarios.	A simpler version of UGF, greenness ratio (ratio of soil/vegetation to man-made surfaces eg 50%) -use as a measure of the greenness of an area.

* [eco-metric](#) is a tool to assess how to maximise gains and minimise losses across 18 different ecosystem services, being tested by Birmingham and Cumbria as part of national Standards Trial

Standards Framework - in detail

Benchmarking/Mapping

- Green and blue space land cover
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soil/vegetation land cover versus manmade surface (50/250m grid)



% of population with access
Hectares per head of accessible natural greenspace; (+ Hectares of LNR/NNR per 1,000 population)
Analysis of population density and population growth in relation to access to accessible natural greenspace;
access to greenspace by level of deprivation (using the Index of Multiple Deprivation), ethnicity, disability and long-term illness

Standards Framework - in detail

Guidance

- *How to self-assess* against the principles of good green infrastructure using **checklists**
- *How to apply* the Framework of GI Standards - **Process maps** for planners, developers, local communities, and greenspace managers);
- *How to design GI* – an evidence-based GI design guide (subject to resources)
- Other guidance document references (relating to 6 principles)
- Access to Green Infra Resource Library (<https://brillianto.co.uk/GIRL/>) – searchable database of 1,500 resources