ETL

A healthier perspective

Guidelines for planning and design in a 4D healthcare system

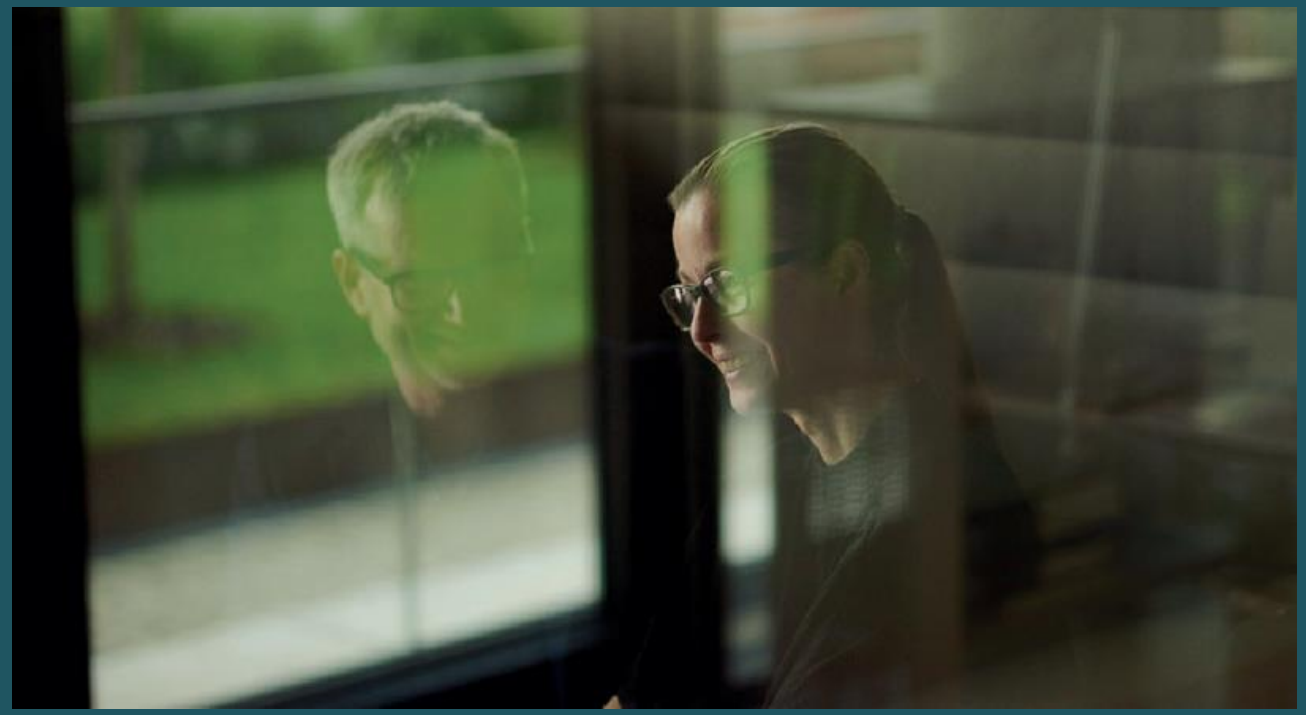
Tina Nolan & Regina Kennedy

Transcending place

Emerging technologies are broadening the scope of places where healthcare can be delivered.

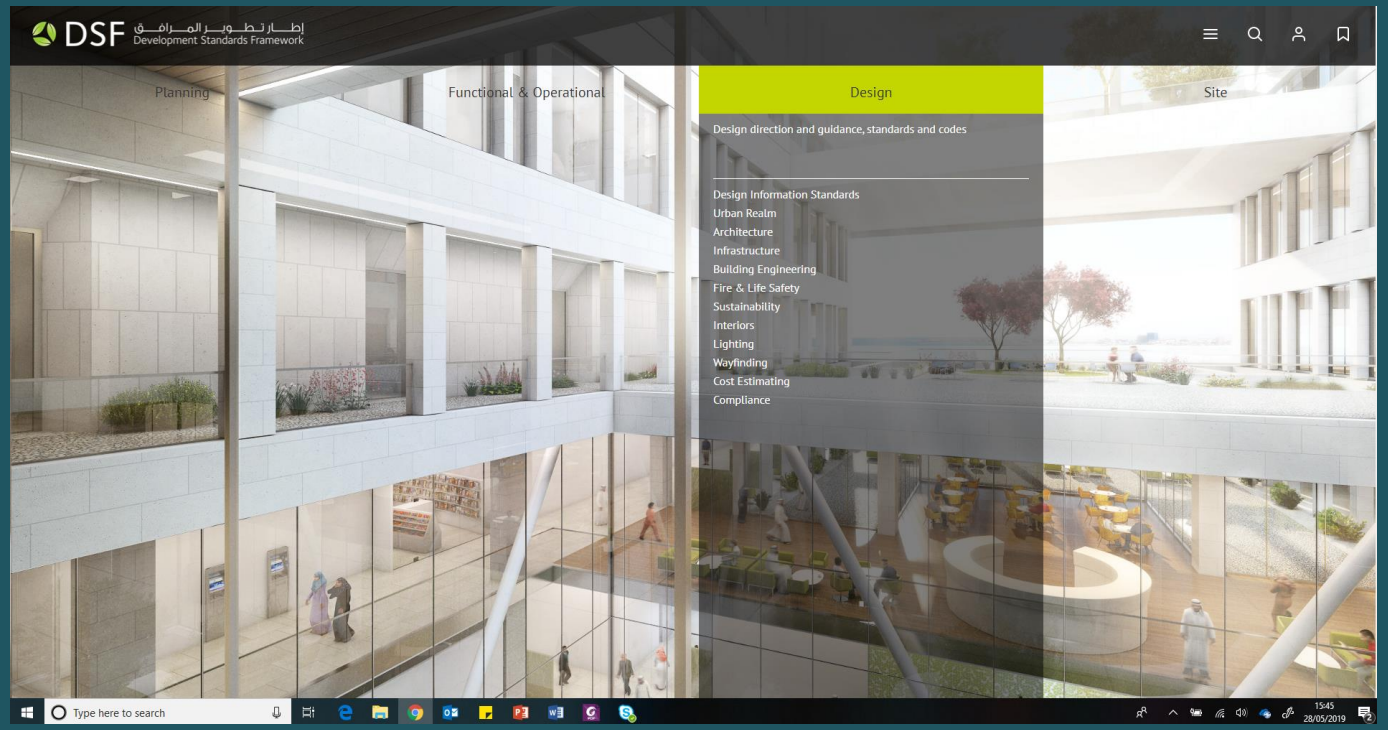
Processes are increasingly untethered: robotic surgery, electronic health records, teleconferencing and telemedicine are breaking down barriers, and reducing distances.

Today, particularly in specialist fields of medicine, health and care system integration already transcends place.



Hamad Medical Corporation's DSF & Guys and St Thomas' AES

…helping to design our future



Adaptable Estate Strategy

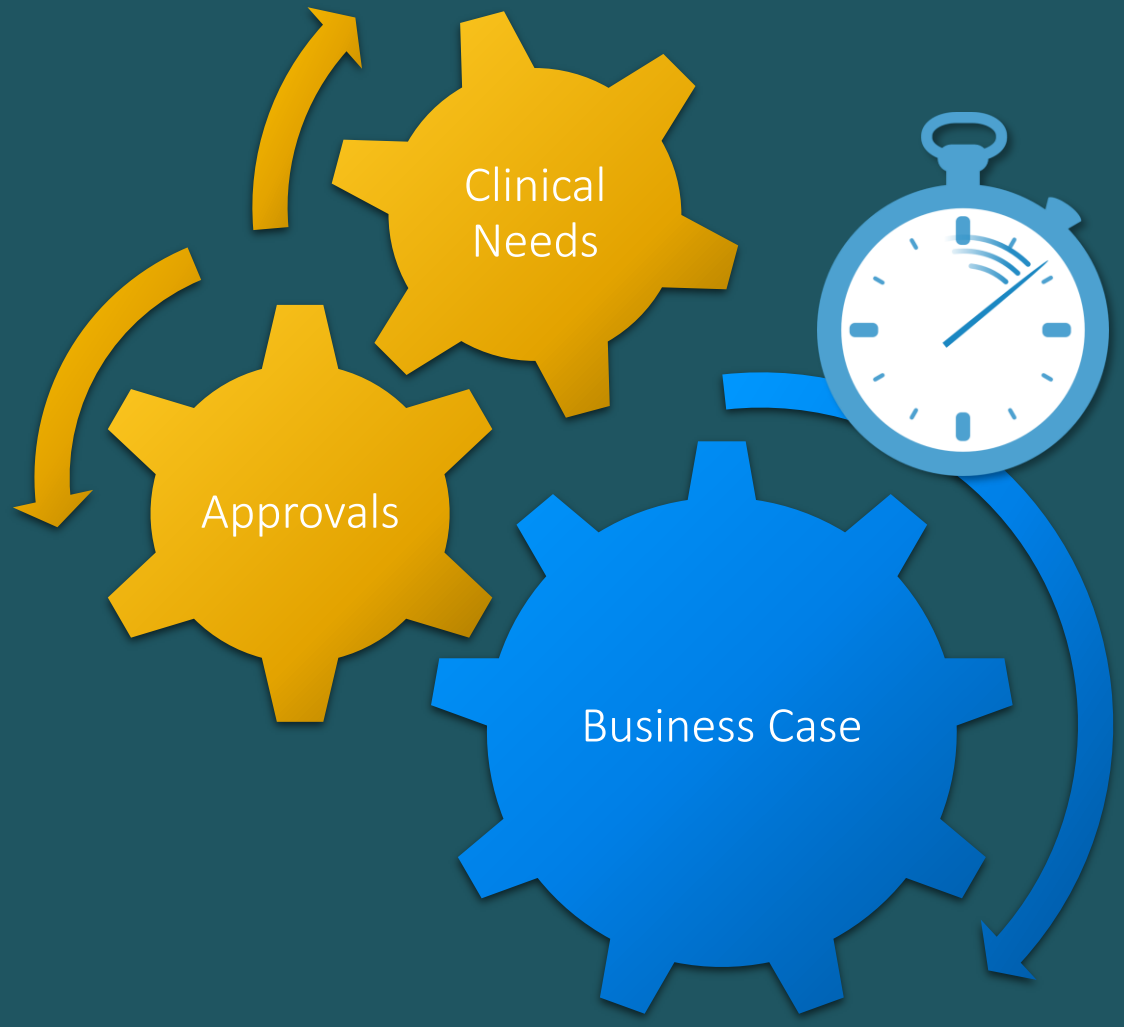
A different view of the business case process.

An advance procurement strategy for the business case process dichotomy of rigorous approach *VS* the reality of healthcare's rapidly changing needs.

And, an estate strategy for significant change every 30 years, optimising cost *vs* adaptability.

Med-Tech campus at St Thomas &
Biomedical campus at Guy's:

- Masterplan & Development Control Plan
  - **Essentia, ETL** with
  - **BDP** and **Mott MacDonald**
- Adaptable Estate Strategy
  - **Essentia, ETL** with
  - **NBBJ** architects and **Mott MacDonald**



Design Standards Framework

To drive quality and safety, as well as dynamism; to support the **best and safest** clinical practice, without locking ourselves into a rigid estate that wouldn't keep up with the pace of change and innovation.

To confidently work with contributors from many cultures, and dealing with diverse opinions.

Client: **HMC (Hamad Medical Corporation)**
Masterplan: **Allies and Morrison** Health
Architect: **Stantec**
Engineers: **Buro Happold**
Health Strategy & Planning: **ETL**

"If I had asked people what they wanted, they would have said faster horses."

- Henry Ford
(...maybe)

Future planning

- **Best practice and standards**
  - Building upon knowledge and experience
- **Incremental improvements**
  - Process improvement incl. people flows
  - Create new tools
- **Projections**
  - Based on the evidence, trends, and current data
- **Future-proofing**
  - Strategic use of flexibility and adaptability
- **Self awareness and good methodology**
  - Adjust for biases, proactively detect risk
- **Vision**
  - The ideal, the inevitable, and their knock on effects.

Whatever happened to post-project evaluation?

How might it be adopted in the digital age?

Where is the evidence?

HMC

Support the vision for expansion and service reconfiguration

Quality assurance i.e. best care, great environments

Rationalise FM

Improve safety

GSTT

Support a transformative vision

Agile procurement and resilience

Our brief

DSF

versus

AES

approaches

Campus masterplans

live, city centre sites

GSTT

HBNs, HTMs, ETL own standards,

+ UK building regs.

standards -BS, EN, etc.

HMC

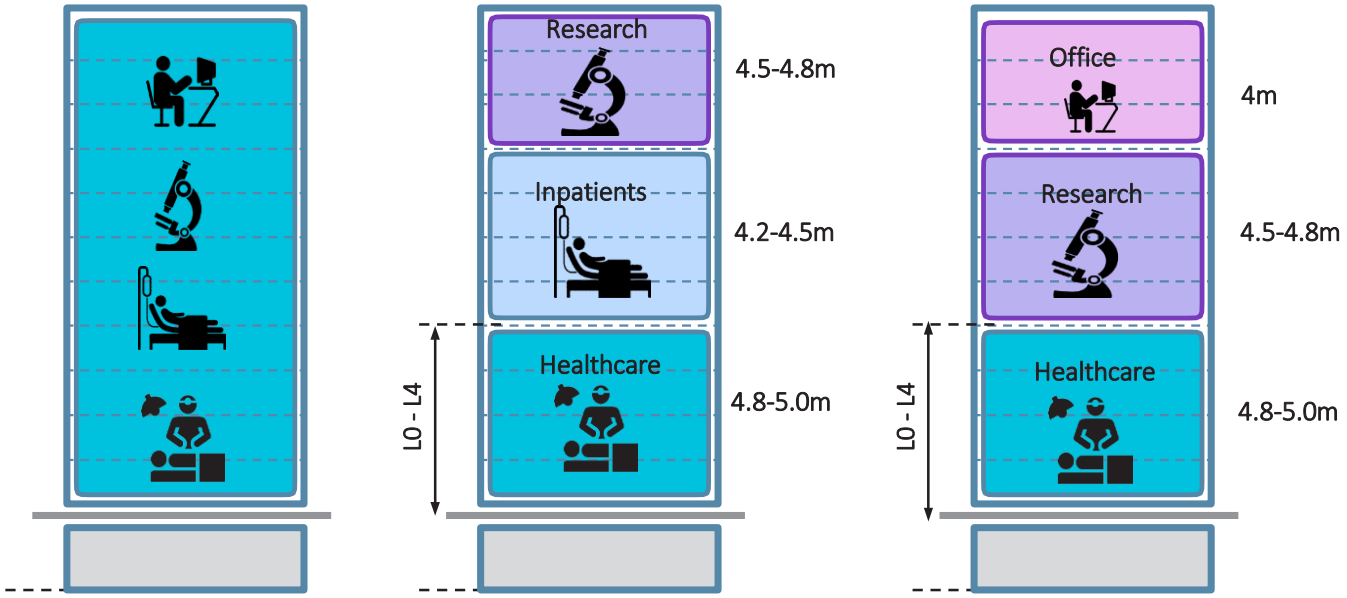
National construction standards, plus adopted (borrowed and adapted) Healthcare standards

the backdrop

AES: The Adaptable Approach

Floor Height: Degrees of Adaptability

The vertical zoning principle locates highly service technical areas on Levels 0-4 with reduced heights to the less serviced areas on the upper levels.

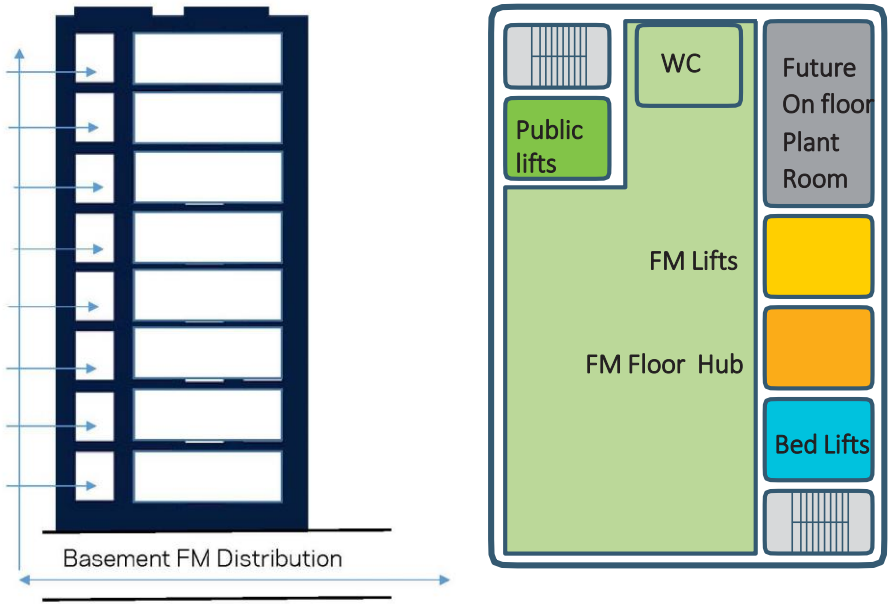


1. Technical : Mixed Use Fully adaptable

2. Technical + Inpatients & Research

3. Technical + Research & Commercial Offices

NBBJ architects' section diagrams illustrating different use typology and floor height requirements



Site Strategy

Basement + FM Lifts to Floor Hubs

Building Floor FM Hub

NBBJ architects' section and plan diagrams illustrating services strategy for adaptability

AES
A futureproofed asset base

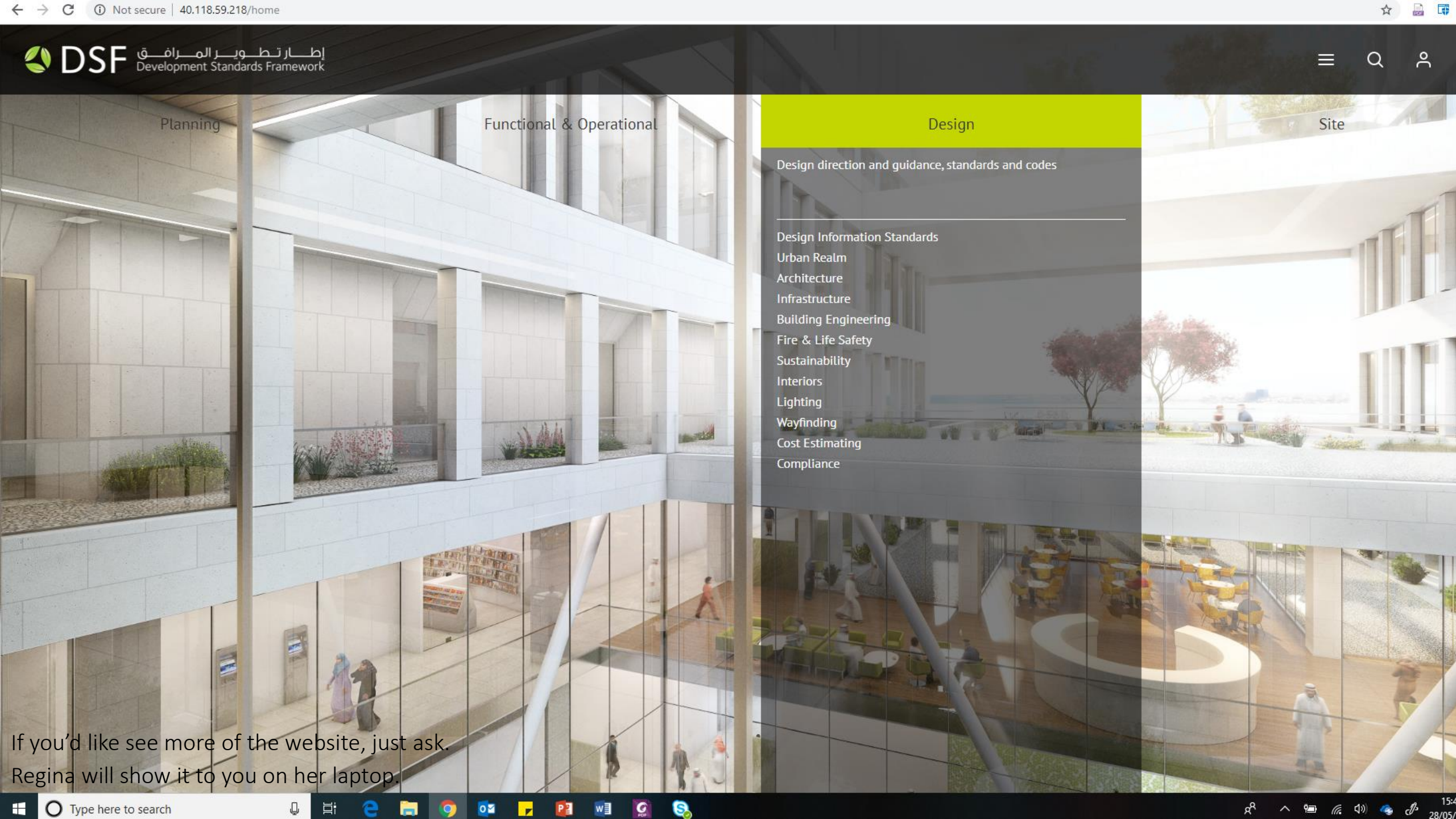
AES
A pattern book for an adaptable estate, master plan overlay

Framework + module approach

DSF
A framework for a live set of standards and guidance documents

Live

DSF
Web-based searchable standards and exemplars, clinical and facility strategies,
+ multidiscipline site master plan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DSF إطار تطوير المرافق
Development Standards Framework
Planning
Functional & Operational
Design
Site
Design direction and guidance, standards and codes
Design Information Standards
Urban Realm
Architecture
Infrastructure
Building Engineering
Fire & Life Safety
Sustainability
Interiors
Lighting
Wayfinding
Cost Estimating
Compliance
If you'd like see more of the website, just ask.
Regina will show it to you on her laptop.
Type here to search

Modular SoAs, Flow diagrams, Stacking

6.1 Clinical practice module

DSF إطار تطوير المرافق Development Standards Framework

Clinical | Functional Requirements | SOA (Schedule of Accommodation) | Clinical Facilities | Outpatient/Ambulatory Services

This schedule of accommodation (SOA) is for a module within an outpatient area which will be sized according to project-specific requirements.

Each clinical practice module (CPM) includes a functional content (FC) of:

- two counseling rooms,
- twenty-four consult exam rooms,
- two treatment rooms.

Modules may, as a design solution, be arranged as a few pods of consult/exam rooms jointly supported by the indicated treatment rooms.

Schedule of accommodation: outpatients, clinical practice module

Expand all

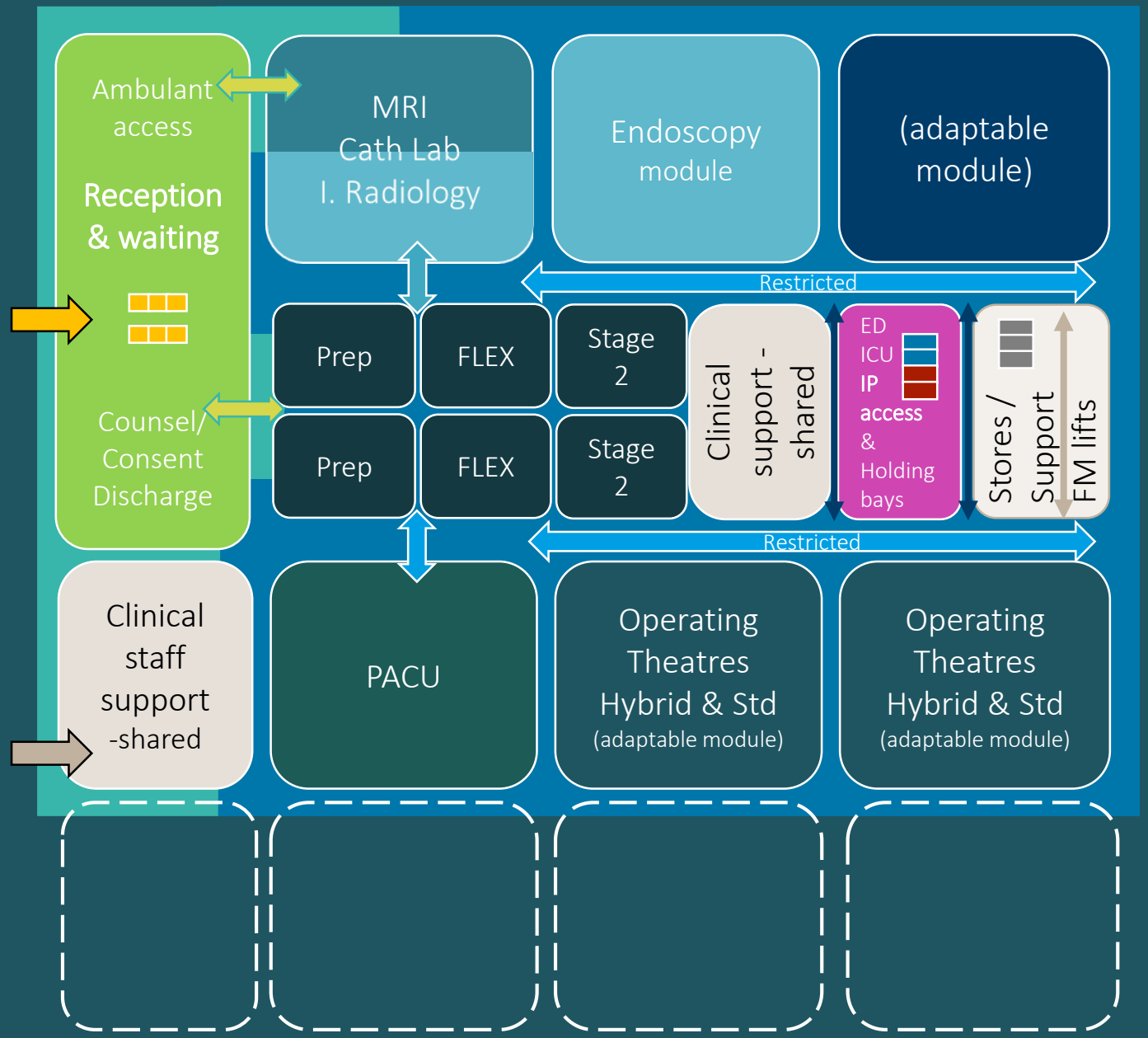
	Net sqm	Gross	DGSM
Total: CPM	**985**	**45%**	**1,428**

Room names	Quantity	Net sqm	Total net sqm	See notes
Reception and waiting				
Patient zone (FC 28)				
Staff zone				
Staff zone: shared				
Facilities management				

Notes

Adaptable, expandable platforms

Sample diagrammatic layout
(not from DSF)



Legend

- Public zone lifts
- Clinical lifts
- Priority/ E.D. lifts
- Logistical support lifts
- Controlled circulation/ FM zone
- Ambulant patient access
- Controlled access/ theatre zone
- Public access

A vetted, evidence based reference

Example:
DSF standard patient rooms

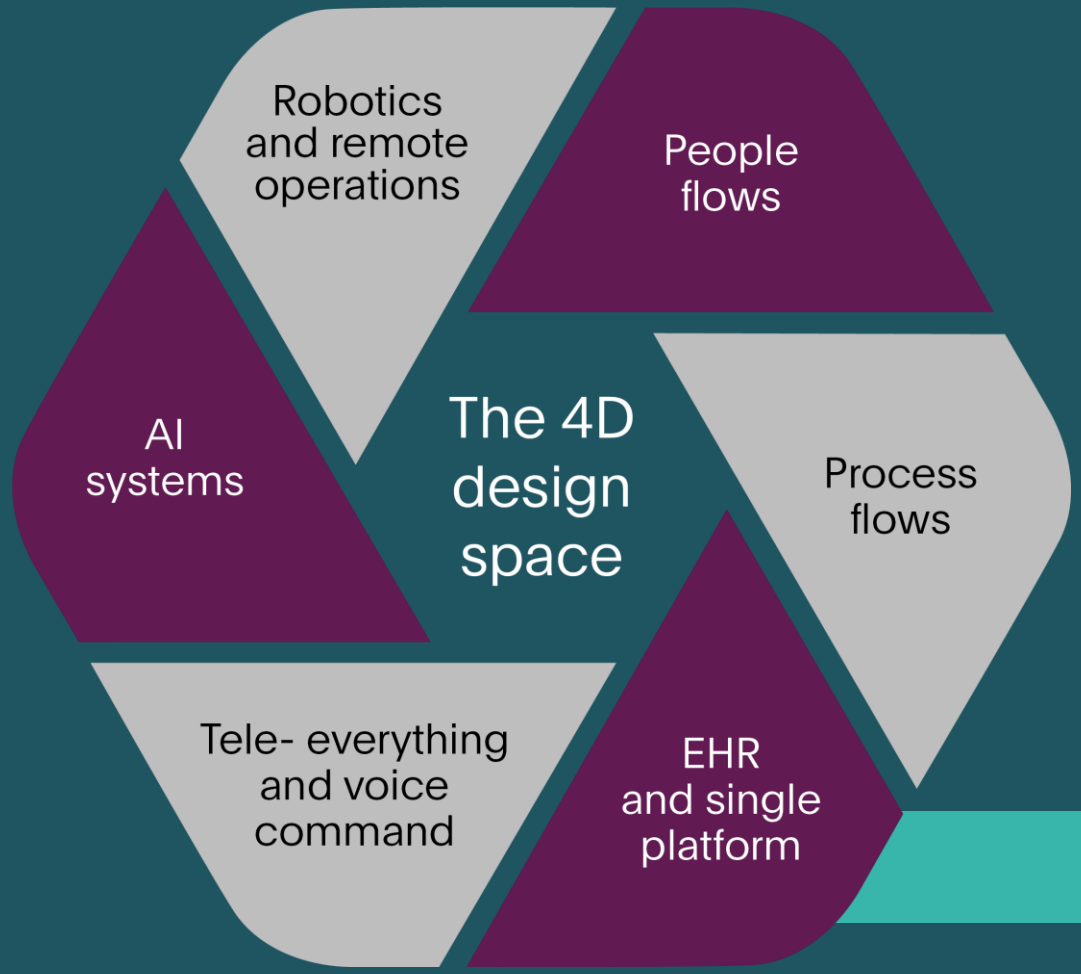
A reference design resulting from extensive stakeholder workshops as well as a study of the evidence. Includes detailed RDS.

‘Pre approved’ elements speed up the approvals process.

Design: Stantec

DSF, AES similarities

- Strategy & Framework guide future development
- Frame permits local unit updates without harm to the whole
- Focus on rationalisation: evidence-based, benchmarked standards
- Focus on efficient procurement & high quality clinical environments
- Support future development with accessible guidance
- Strong strategy makes room for future innovation



Planning for technology enabled transformation

Virtual flows described in clinical and support strategy for every service.

What’s the next step?

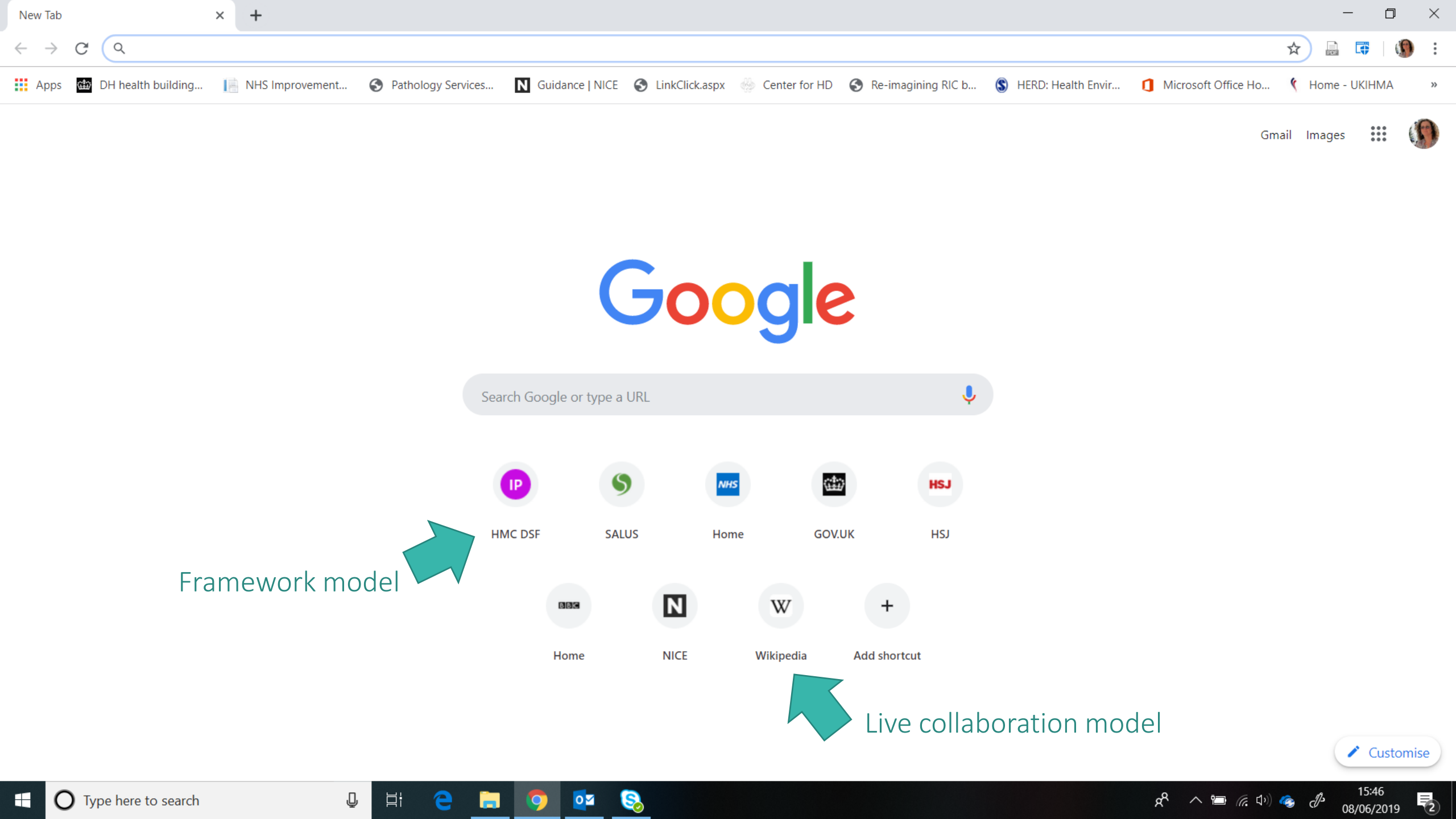
What’s the most practical way to get answers that are

✓ relevant,

✓ user-friendly, easily searched,

✓ and up-to-date

….but reliable


New Tab
Apps
DH health building...
NHS Improvement...
Pathology Services...
Guidance | NICE
LinkClick.aspx
Center for HD
Re-imagining RIC b...
HERD: Health Envir...
Microsoft Office Ho...
Home - UKIHMA
Gmail
Images
Google
Search Google or type a URL
HMC DSF
SALUS
Home
GOV.UK
HSJ
Framework model
Home
NICE
Wikipedia
Add shortcut
Live collaboration model
Customise
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08/06/2019

ETL

A healthier perspective

Thank you

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www.etl.co.uk