

London split over open platforms

London's elected authority is trying set itself up as an emblem of open government, its head of IT told a public forum in April. Open source software was ostensibly a primary means for the Greater London Authority (GLA) to achieve its goals. But powerful software corporations and commercial pressures have forced an awkward compromise.

Openness became part of London's political identity when architect Norman Foster wove the concept into his designs for City Hall, the London Assembly building erected in 2002 to house the Mayor and elected upper chamber.

Openness was also what the current Mayor offered when he was first elected in 2008; it continues to characterise initiatives like his Smart City Plan, a scheme to invigorate civic life with open data and transparent administration.

Openness is therefore the natural posture officials like David Munn, the GLA's head of IT, take when talking publicly about their work. It is the way London's administration wants to be seen.

Munn introduced himself at the UK's annual [Open Source and Open Standards conference](#) in April with a picture of the iconic City Hall as a backdrop.

He told how "open" is the preferred mode for those building London's computing infrastructure.

"I've been an IT manager for a long time and most of my life has been based in Portakabins and dingy old town halls," he told the audience.

"But... this is a very modern building. The idea is that it's all glass, it's all open. It's about trying to have a new approach to government, which is about openness and transparency and innovation."

"And in a way that's the challenge for us as an organisation, really, to try and really show that we are emblematic of that approach," Munn said.

The GLA building was always meant to be an inspiration. Foster and Partners, its architects, likened its design to the Reichstag, the German parliament building they reconstructed in 1999.

Twinned with Reichstag

"City Hall advances themes explored in the Reichstag, expressing the transparency and accessibility of the democratic process," said the architects' brochure.

So Foster endowed City Hall with a scenic walkway that runs up and round the open-plan insides of an egg-shaped glass shell and on to a top-floor room with views over the city. Both were once open to the public. But no longer.

The public are still permitted to sit in the London Assembly chamber. But Munn's department has played the greatest part in opening London's administration up to citizens, with a website for [webcasts](#) and public records, and an open data initiative called the [London DataStore](#).

Munn's place at the conference demonstrated how London was also committed to open source software, the technological correlate of its openness agenda. Open source is also a prominent part of the national agenda for the Conservative Party, which holds power in London and in Westminster's coalition government.

London built both its website and its data platform (as significant in the digital age as an assembly chamber and a transport infrastructure) using open source tools. Its digital bricks and mortar were the open source Drupal content management system, Apache web server and MySQL database manager.

Entreaty and Warning

So it was with some authority that Munn gave his presentation. And it was with some enthusiasm that he agreed to talk about it with Joinup. London had some lessons to give after six years building open platforms.

Munn's message to his peers was an entreaty and a warning.

Government IT managers should use open source software, he said, because it was their duty to cut costs. This was not intended only as practical advice for councils suffering budget cuts. It was a "moral imperative", he told them.

"People are being made redundant," Munn said. "Technology needs to be doing some of the heavy lifting in trying to reduce costs."

"This is important stuff. We should all be trying to adopt this and do something we can feel proud of," he said.

His warning, however, was that doing open source was not as easy as saying it – because powerful corporations stood in the way.

Open source, Munn said, is the hard path, obstructed by those proprietary software vendors whose products IT managers routinely used to build their IT infrastructure. It was obstructed too, by business and finance managers who preferred the certainties of the high road. And it was obstructed by the press, who were themselves so preoccupied with the high road that nobody ever got to hear about the merits of open source software.

Munn was incredulous about this. Because everyone used proprietary software even though it was too expensive, even though it was sold under licences so complex it had become an imposition, and even though it stopped IT managers innovating. Proprietary software vendors had become so powerful they enforced their pricey, exacting license terms punitively, with legal action and fines that made IT managers reluctant to step out of line.

Communist conspiracy

But this problem wasn't caused by IT managers, Munn told his audience of IT managers. It was caused by the business managers who controlled their IT budgets. Business managers liked proprietary software because they liked big brand names. The brand would excuse them if anything went wrong. You never got sacked for buying you-know-who, said Munn. Whereas they thought open source was some sort of communist conspiracy.

Yet IT managers needed to innovate. They couldn't do that with proprietary software. So they had to convince business managers there was a business case for open source.

That in a nutshell was what Munn called his open source philosophy sort of thing. That was the way he talked about it when Joinup collared him at the conference.

Cause for alarm

It is also how he talks when Joinup sits down with him two weeks later, in the cafeteria at City Hall: modest, softly spoken, conciliatory. He is keen to talk about his philosophy. But

he can't elaborate it without trying to retract anything in his talk that might have offended someone.

Now his fellow IT managers are not in front of him and his business managers are upstairs - even perhaps within ear shot - he says the problem is not business managers after all. The problem is his fellow IT managers. He just hadn't wanted to upset them by saying so, he says.

"IT managers should be stepping up to the plate," he says. "There's big reductions in budgets. That's when managers should be showing they are able to innovate.

"It's just so much easier to keep signing the checks to the bigger companies. If you are an IT manager you shouldn't really just be looking for the easy life, you should be looking at whether its possible to use alternatives that may be more difficult to get across to the people who have to approve your budgets," he says.

Munn just doesn't like to point the finger. He retracts his criticism of the press as well. He seems wary of talking to a journalist who might turn the slightest hypocrisy or flaw into a cause for alarm, or blow his casual speculations out of all proportion.

Inertia at City Hall

He had told his fellow IT managers he had tackled inertia head on at City Hall by singling out the business managers with the greatest influence and persuading them to see things his way. But in person he is reluctant to admit he had to do any persuading at all.

Actually, he says, open source software is held in generally high regard at City Hall. The problem is not the people at City Hall. It's the software vendors who have tied London's IT infrastructure down with expensive, complex licensing arrangements.

But who were the business managers who had to be persuaded?

Munn avoids answering. This obstructs the more interesting question of how he persuaded them: how he defeated inertia at City Hall. If there were no inertia or ignorance among London officials, then there was no victory to tell of, and no lesson to learn.

In his speech, Munn had claimed the GLA's chief executive and chief financial officer both supported his open source strategy. So, who were the business managers he had to persuade?

"We've been fortunate that some politicians in this organisation really get the wider issues around open source," says Munn. "Not just the financial issues. But there are some moral issues as well, in that you are doing something that supports openness."

Yes, but what about the business managers who had to be persuaded?

"Well, as I say, we've got..."

"...some politicians," we say together.

This question does a couple more rounds before spinning off without an answer.

Political constraints

Munn's position has been framed by politics more than most other IT managers. Mayor Boris Johnson's 2008 electoral campaign, and subsequently his information strategy and the London DataStore, were instigated by Conservative Party advisors associated with Prime Minister David Cameron, according to former DataStore chief Emer Coleman.

“Mayor Boris Johnson had brought with him to City Hall a cadre of advisers, all of whom had close ties with the Conservative Party,” Coleman wrote in the book [Beyond Transparency](#), published last year.

“Individuals like Guto Harri, communications director, and Dan Ritterband, marketing director, were close to Steve Hilton, former director of strategy for David Cameron. Hilton is also the husband of Rachel Whetstone, the global VP of public affairs and communications for Google.”

“This group of people all encouraged the Mayor to support an official [open data portal](#) for London, called the London DataStore, in order to fulfil his manifesto pledges.”

“They were also keeping a keen eye on the national position being adopted by Conservative Campaign Headquarters before the 2010 General Election,” Coleman wrote.

The group helped formulate the Conservative Party’s strategy for open source, open standards and open data. Ritterband had worked as head of communications for Cameron before the latter became prime minister. Cameron reportedly appointed him to run Johnson’s Mayoral bid.

Ritterband, Cameron, Hilton and Whetstone were connected through work at Conservative Party Headquarters. Harri, a contemporary of Cameron and Johnson at Oxford University, had been mooted as Cameron’s head of communications. He became campaign director for Johnson instead.

Coleman herself went on to become deputy director of digital engagement at Government Digital Service (GDS), the branch of Cabinet Office implementing the Conservative-led coalition’s information strategy. Mark Taylor, chief executive of open source supplier Sirius, who has supported London’s website developments, contributed to the Conservative effort.

Violence against women

Their London DataStore, launched four months before Cameron was elected prime minister in 2010, was the first substantial product of that strategy and set the model the Conservative Party would pursue in office: breaking boundaries between the public and private sectors by releasing public data over platforms built on open source software.

City Hall has since released [542 datasets](#) describing London’s population, health, education, transport, economy, services and crime.

They include house prices, cycle flows, coach parking locations, street trees, internet use, languages spoken by pupils, violence against women, hours worked, unemployed households with children, life expectancy, abandoned vehicles, Mayoral decisions and bus stops.

This is largely what became of Johnson’s 2008 election campaign commitments to transparency and openness. Munn cited these commitments to his peers. Yet open source was never official policy for London, though it featured prominently in the Conservative campaign for government.

Official indifference

Munn is hard pressed to cite any official commitment to open source at City Hall. He says most London Assembly Members support open source. It has cross-party support. Both Greens and Conservatives advocated it, in the past.

And the Labour Party? "Yes, I think so. Perhaps it's just not become obvious," he says. "It's one of those things where pretty much across the whole of the London Assembly there is support for this sort of thing."

That seems vague. To counter the impression, Munn proffers that four or five years ago Johnson addressed some questions on open source in Mayor's Question Time. He had not actually declared support for open source, Munn admits after some prodding. The Mayor had been asked merely for a tally. So he gave a tally.

London does not have an explicit open source policy, Munn says finally. The last Mayor had some sort of explicit open source preference. But under Johnson, open source is implicit, in his policy of openness, transparency and budget cuts.

"What you do get from the Mayor is a person who's been behind the open data that's been released as part of the Open DataStore, building that platform on an open source infrastructure," says Munn.

Johnson was behind the Open DataStore?

"Yes."

"It was his initiative?"

"Yes."

Was it his idea?

"Yeah, I would say it is... absolutely in line with an ethos of openness and transparency."

Was open source a part of that?

"Yeah."

Was open source a part of the specification for the London DataStore?

"It wasn't specified."

London may not have an open source policy, but it does have an ICT Strategy featuring open source as one option for cutting costs alongside cloud computing and virtualisation technology.

It favours cloud first however. An off-site cloud software service would make London's own in-house computing infrastructure redundant, the strategy says. It would therefore "in most cases" satisfy the London authority's needs, which are primarily to cut costs.

"The growing availability of these services and the increasing competitiveness of the cost of the service means that this will now be the preferred option for providing new applications for the GLA," the strategy says.

Photo finish

It makes London's commitment to open source seem even less. Yet Munn insists its strategy is "open source first" as well as "Cloud first". He insists both are possible.

"What I'm instructing our people to do is, if serious open source software or cloud alternatives are available, look at which offers the best value for money."

"If that means a cloud-based service ends up being value for money because it's built on open source software, then that's great," he says.

This was how the GLA's first significant open source implementation came about as a means to cut the cost of its database infrastructure: open source software delivered as a cloud service.

Munn's department estimated it could save £100 per employee per year for three years by rewriting around 300 Oracle database applications in Postgres, an open source database.

After 18 months, it is halfway through the project. The experience formed the basis of Munn's philosophy about the easy road being one of subjection.

He was persuaded down the hard path after the GLA formed an IT and procurement partnership with four other London authorities: the Metropolitan Police Authority, the Fire and Emergency Planning Authority, the Development Agency, and Transport for London (TfL).

This [GLA Group](#) moved onto a shared computing and networking infrastructure operated by TfL. But Munn discovered that it would be too expensive and complex to move the GLA's databases because they were based on Oracle, proprietary software whose licenses he thinks are expensive, complex, constricting and punitive.

Hard path

Munn is reluctant to talk about this, apparently for fear of reprisals from Oracle. He spoke about it circumspectly in his speech as well. The conference organisers had forbidden anyone from naming names.

"But I think you know who I'm talking about," he told delegates. "There are big suppliers out there who take up big chunks of our IT estate. And they are incredibly expensive."

"And they are backed up by mind-numbingly complex licensing arrangements.

"I know a number of organisations where a person is employed just to understand how the licensing works, just so you don't have the awful situation of having the auditors come in and legal action being taken," he said.

"This complexity means we have to compromise our approach," he said. "Those compromises stifle innovation."

"I can't be the only manager in the world who's had real problems seeing a technology like virtualisation – which has real opportunities to simplify and reduce costs – being stymied because you've got vague licensing terms which are backed up with the possible threat of legal action," he told his peers.

Later in the City Hall cafe, Munn tells Joinup how Oracle made London's attempt to use virtualisation a struggle..

The GLA used VMWare virtualisation technology to cut the number of its servers from 150 to 50, saving £30,000 a year on hardware alone. But then Oracle blocked the way.

The GLA couldn't virtualise its Oracle applications, says Munn, because doing so would have made the whole project unaffordable.

"We were going to either have to take out more Oracle licences or forget about the virtualisation plan. So we ended up making compromises about the way we run the infrastructure."

"We virtualised pretty much everything other than our backend databases." But going any further, Munn says, "we would have fallen foul of our licensing agreements with Oracle."

Fear of Oracle

He refuses to say any more. He won't talk about the threat of legal action from Oracle. "I need to be a little bit wary," he says. "I don't want to put something out there that will have people coming at me."

"To be fair, this isn't about a particular company. For us, both Microsoft and Oracle... we have a lot of people saying they want to come in and have a conversation with us," he says.

Who does?

There is hesitation. Shared laughter. A slightly giddy waft of transgression.

Who?

"Well it is Oracle, isn't it? But if you put that in there I'm going to have them all over me again."

You make them sound like the Gestapo...

"If you've been audited you will see what it feels like."

When did Oracle come in and see you?

"Last year."

They do this regularly?

"Yes."

And the last time?

"About a year ago. Microsoft about a year ago as well. We've been really fortunate that our stuff is up to date. But when the process is happening, it's not nice."

Two-fold complaint

Munn refuses to say any more about it. He calls Graham Lane, his projects and consulting manager, down from their office. Lane is managing the virtualisation project. He seems reluctant to talk specifics as well.

Lane says London had wanted to back up its systems at a TfL data centre, which Joinup happens to know is in Woking. The backup would mirror London's live systems.

But this would "probably" have been prohibitively complex and expensive with Oracle software, Lane says.

Such things "can be" expensive, he says. They "can become" a technical issue. Software licenses "sometimes" prohibit virtualisation by being hugely expensive. That's "partly what's happening" to London.

At each qualification, Joinup asks again, would you provide a specific example? How would it work specifically? What systems? What constraints? Specifically?

"It's not really one exact point," says Lane, "but a landscape that has got a lot of potential issues in it."

His complaint is, approximately, two-fold.

First, vendors might set their fees as a multiple of the number of microprocessors customers use to run their proprietary software. So a customer could have a server with 10 processors but use only one of those to run their proprietary software application. Yet the vendor might still charge as though it were running on 10 processors.

Then there's the maintenance fee.

The GLA's 300 Oracle applications run on three servers. The programme of rewriting them in Postgres is about halfway through. Lane reckons if the GLA gets rid of enough Oracle databases they can decommission a server and cut the maintenance payments to Oracle.

But if the GLA runs just a single Oracle app on a particular server, it will still pay the same maintenance fee as though the server was full.

Lane also wants to put all GLA's low-priority applications on one server and then stop paying maintenance cover for this machine. But if he did that he would lose favourable licence terms for the GLA's other Oracle applications.

Unpleasant corroboration

Joinup put it to Oracle that for London its licence terms had been expensive, complex, restrictive and punitive. The company declined to comment.

But a lawyer in Amsterdam who defends companies against legal action from Oracle backed the GLA story.

"This issue comes up frequently," said Judica Krikke, partner at law firm Stibbe in Amsterdam. "Customers pay millions sometimes. I believe they shouldn't have to."

She said Oracle was particularly alert for customers like GLA that used VMWare to run their Oracle databases as cloud applications. It looked out for that when it audited them for compliance with its licence policies.

"I haven't seen any other situation that is so unpleasant as Oracle's," she said.

London's ongoing Oracle purge would solve that problem. And it would demonstrate that London had some commitment to open source software. But the GLA had not done much else in the same vein.

The VMWare cloud platform used by the GLA is proprietary, as is the Modern.gov public administration system. Then there is the Microsoft desktop software. The GLA tried to replace that with an open source alternative, but gave up in 2012 because the hard path was too hard.

Long way to go

Like other public authorities that have tried to use open source alternatives, the GLA found that Microsoft's proprietary document formats constituted a monopoly power it could not escape.

The GLA had the old Microsoft XP system on 850 desktop computers until 2012. Other authorities used more recent versions of Microsoft's software, so London could no longer exchange documents with them. That ruled out open source alternatives as well.

So London conceded and in 2012 arranged to pay £160,000 a year to upgrade its Microsoft desktop software. Munn says this was frustrating. But he is satisfied he looked hard at the problem before [concluding he had no choice](#).

London's open source ambitions were similarly constrained by its partnership with the GLA Group. TfL does procurement for the group, as well as networking, security, data centres and business continuity. It uses proprietary SAP software for business administration, and VMWare in its data centres.

Munn says even if the GLA did want to swap out these major proprietary systems, it would have little say over the matter: "TfL are in the driving seat in relation to that."

This all puts his advice to his peers into perspective. We've come a long way down the road of open source, he told them. "But there is still an awful long way to go."

Locked-in, locked out

London is locked into using proprietary software it doesn't necessarily want, Munn concedes. He wishes software markets were more competitive.

The strategy Cameron and Chancellor George Osborne put to the electorate between 2007 and 2010, for "open source, open standards and open data", was intended to address this very problem. They would use open standards to reform software markets and deliver competition so people like Munn could deploy alternatives to software like Microsoft's.

Instead, London has been left with that part of the Conservative strategy Johnson took to the electorate in 2008. That was its over-arching mantra of "transparency and openness", and the mechanism by which he would deliver it: the complete disclosure of public spending records.

This would "restore trust in how City Hall spends our money," said [Johnson's 2008 manifesto](#). Yet spending transparency has worsened.

London Assembly's GLA Oversight Committee called last June for something to be done about the GLA's poor spending transparency. This was eight years after Johnson was elected on a promise to do just that.

The committee called for London to publish payment details, dates and full contracts. It blamed the organisational culture of the GLA Group for this not being done already.

"The things you often most want to know are those which are most jealously guarded by an organisation," said rapporteur and Labour assembly member John Biggs in the [report](#).

"It often seems a politician elected with a commitment to maximum transparency will find this a challenge to keep to," he said.

There was also a tendency to laziness. Officials would release just a nugget of information and neglect everything else. His committee's report traced the problem to commercial confidentiality – the secrecy terms private companies imposed on public bodies.

Spending obscured

Joinup spent considerable time looking for contract notices for City Hall's ICT expenditure without success. The GLA's own website referred voters to Transport for London (TfL), which does procurement for GLA Group.

TfL had merely published a [spreadsheet](#) with single-line descriptions that neglected to record what money had been spent, under what contract terms, and when. There were no contracts, no terms, no records of tenders.

The contract notices that usually provide such base-level accountability were absent even from the European procurement portal, Tenders Direct. They were missing also from an alternative website set up by the UK Cabinet Office, the Contracts Finder.

The TfL spreadsheet line-items described 23 ICT contracts with reference numbers that matched no other obviously available public records. What information the spreadsheet did provide was unreliable. The GLA's 2012 contract to purchase Microsoft desktop software through an agent called Trustmarque was not categorised under ICT, so it would have escaped any automated query of public records. Its contract reference ITQ3875 did not match any other online record at City Hall, nor in European procurement records.

The decision reads as if the supplier had already been lined up. But it was not possible to trace the actual purchase in the public records.

The GLA has published internal justifications for purchase decisions. In the case of the Microsoft contract the document contained [20 pages of detailed reasoning and cost estimates](#). It was, however, hard to find and impossible to link against actual spending. Other justifications and supplier contracts were simply impossible to find.

“I know we’ve had a lot of grief over this in the past,” said Munn. “You’re not the first person to make comments along those lines.”

“We have got some people working here on transparency. We were talking about making stuff more available on the DataStore and the new website,” he says.

TfL said GLA's procurement documentation should be available in the places where it could not be found and suggested looking in some other places where it was not available.

The London DataStore was intended to help solve this problem. But it too had run up against inertia

Coleman marked the DataStore launch on 7 January 2010 by predicting its certain success. In reality, as she wrote in *Beyond Transparency*, she felt the opposite was true. The Mayor’s officials opposed it.

With the general election only months away, Labour and the Conservatives were competing to get the best story on IT. Every major political party had promised open data in its manifesto. The outgoing Labour government had already launched a beta public data portal. Johnson wowed the press with a satellite link to the chiefs of IT for President Barack Obama and NASA at the high-profile Consumer Electronics Show in Las Vegas.

“In reality, however, things were a little less rosy behind the scenes,” Coleman wrote. She kept quiet because to tell the truth would have undermined the Mayor and exposed divisions within the GLA, she said.

“Even though the Mayor [promised] openness by default at the launch of the London Datastore, it was becoming clear that many of his public servants were not inclined to comply with his wishes.”

That inertia was not obvious in last December’s [Smart City Plan](#), under which the Mayor corralled the London DataStore with the GLA’s other public-facing, tech-related initiatives, portraying them as optimistically as his party had done in its 2008 and 2010 manifestos.

“We need to open up City Hall budgets to more transparent and innovative ways,” the plan repeated, as though copied from the 2008 manifesto. “We will use digital technology to raise awareness of City Hall’s spending priorities and continue to open up GLA contracts.”

Corporate megalomaniacs

The DataStore was at the heart of this Smart City Plan. London would make it an “exemplar” to the world, it said.

Smart City would establish a digital civic infrastructure – the virtual counterpart of the physical city. It would use open data to combine public services with private enterprise. It would, for example, hook police systems up to its surveillance infrastructure, creating a “ring of steel” around the City to catch criminals and people with irregular paperwork. But it would make London’s 20 million surveillance sensors available to app developers as well.

This had raised the prospect that the same corporate powers would come to dominate the smart city as already dominated corporate software and public spending, – and as became the subject of liberation policies in the 2008 and 2010 manifestos.

The Smart City Plan addressed this fear briefly. London would ensure that personal data would only ever be carried by the DataStore to serve the public interest, it said.

But the race for ownership of the Smart City was already on when London launched its DataStore in 2010, Coleman wrote last year. Corporate megalomaniacs were rushing to carve out monopolies from the Smart City.

“The urban poor could be the biggest losers,” she said.

Data rights

The Greater London Authority approved at least as much budget for commercial data feeds last year as it saved by virtualising its computer infrastructure.

Directors signed off £30,000 for an agent to source data from 18 mostly quasi-public sources including the Bank of England, World Bank, Directorate of Economic Affairs, International Monetary Fund and Office for National Statistics.

The decision read like the supplier had already been lined up. But it was not possible to trace the actual purchase in the public records.

This same tension between public and private also marked the limit of London’s open source ambitions.

Munn’s vision for open source was pragmatic, he said. He used open source software because it cut costs. He had little use for the open source ethos.

London’s DataStore had been built using open source tools but it was not an open source project. Its ongoing development was not open. Its code was not published, its software was not shared with other cities.

Munn said he would hand the code over if somebody asked for it. But nobody had thought to ask. Likewise, nobody thought to make the Datastore an open source project, perhaps an international collaboration. Nor had London imagined making its other database applications open source.

Munn said he didn’t share the open source ethos of public ownership either. He understood it. It was why he could get open source software for free. But he had no cause to build an open, public software infrastructure.

Enterprise not ownership

London has instead worked with other European cities under the iCity programme to get public data into the hands of entrepreneurs so they can deliver public services. Its pre-occupation has been enterprise, not ownership.

The Conservative project had similar priorities, which manifested finally in the Cabinet Office Government Digital Service (GDS) plan to turn public services into [automated web apps](#).

The concomitant job cuts were estimated at 78 per cent. Without apparent irony, Munn had implored his peers to adopt technology innovations in order to save public sector jobs.

The GDS plan to automate public services started taking hold in local government last year. As a strategic authority, the GLA does not face the same difficult reforms. It does not deliver the staff-heavy services set for automation elsewhere in UK local government.

But as a provider solely of strategic administration and a digital infrastructure to carry services of unspecified ownership, it may be the emblem of all their fates.

The GLA even declared an ambition for its Smart City data fortress to be the exemplar for other cities in the UK. The City Hall building may therefore not be emblematic of the kind of openness imagined by the open source software movement in 2008.

It may rather represent the sort of openness that has caused some public officials to worry that private interests will engulf the public sphere.

Because London doesn't own City Hall. It has it on a 25-year lease that is half-way done. The building was owned until recently by the Bahamas-based investment vehicle of an Armenian peanut tycoon, and is now leased to London by St. Martins Group, a property firm belonging to the state of Kuwait.

1066 and all that

The City Hall building, designed by Foster and Partners architects and erected in 2002, was meant as an emblem of openness and transparency.

It became more infamous than emblematic. It has been likened by its two Mayors to an egg and an onion. Others say it looks like a motorcycle helmet or a Dalek.

It also evokes the helmets worn by the Norman conquerors of 1066, who concentrated booty and power in great castles they scattered about the country.

It looks over the river, toward the newer parts of the City of London, with a poise that suggests someone leading optimistically into the future – or braced against the weather.

It is reminiscent of La Ville en Marche, the Jean Michel Folon sculpture of an office-block automaton, which is on Rue du Progrès in Brussels.

Offices for corporations like Ernst & Young have sprung up around City Hall. A pedestrian boulevard leads down between the office blocks toward the tallest skyscraper in the European Union: a building some have nicknamed Dalek headquarters, and is otherwise known as The Shard.

This article was written by Mark Ballard for the European Commission's Open Source Observatory and Repository, OSOR.