

Mark Wild CEO at Crossrail shares the lessons he learned from being in charge of the massive rail project.



Mark Wild has handed over the reins of Crossrail to Transport for London (TfL).
Image credit: Mark Wild

I had the privilege and honour to be the CEO of **Crossrail** as delivery was completed and we opened the **Elizabeth line**.

I'm only one of 75,000 people who, over 22 years, completed one of the greatest engineering achievements of our age.

I'd like to acknowledge the incredible contribution of all the people who preceded my team and me.

It genuinely took us all over two decades to get this amazing railway open.

Source: <https://www.ice.org.uk/news-insight/news-and-blogs/ice-blogs/ice-community-blog/crossrail-ceo-what-i-learned-leading/>

I now understand Isaac Newton's words about standing on the shoulders of giants!

Now that we are on the other side of the opening, I've stepped down as CEO as planned and my colleagues in TFL will now take up the push to fully integrating the railway in the autumn.

Crossrail has always taken its responsibility to provide learning for the benefit of future programmes and the industry seriously.

I've thought a lot about the lessons I've learned as we got the railway open.

1. Own the whole

Crossrail was never just a huge civil engineering project, it's a large complex system made up of many interdependent constituent parts.

To complete the railway we needed to move beyond a conventional mindset of the individual parts working in collaboration with each other and more towards every leader and team owning the whole of the system. Genuinely standing in the shoes of others.

This **true systems approach** (facilitated by the use of **NEC contracts**) is an essential prerequisite to bringing such a complex entity together.

A key lesson for me is spotting the difference between collaboration and everyone seeing the whole and truly acting in its service.

2. Transparency always

In a programme as large and complex as Crossrail, I found it impossible for the whole truth to be known definitively at any point in time.

By adopting a culture of ultra-transparency across the programme we revealed the gaps in integration and future icebergs that lay in wait for us, so that we could work on them together, in a spirit of active intervention.

3. Co-ordinating complexity

As complexity increased within Crossrail so I observed the need for the client organisation to coordinate and sequence the work.

Providing the agile game plan that gave clarity to everyone in the programme.

I really admired the way Jim Crawford, as programme director, conducted the orchestra and set the priority of work elements.

This was catalytic in dramatically improving productivity.

4. Simplify

In a world of great uncertainty, the multiple interfaces and complexity of Crossrail greatly added to the system integration challenge.

For a variety of reasons, while the programme set out with a strategy of common components, it progressively did far too much installation, testing and commissioning actually at the coalface, 25m under London.

Much more use should have been made in the design of modular solutions and **DfMA** (design for manufacture and assembly) techniques.

A key lesson from Crossrail is the utter criticality of strategic and tactical design management.

5. End dates can be deadly

The single fixed end date of the planned commencement of the Elizabeth line was determined years before.

In my belief, this distorted the reported realism of where the programme was at and forced the programme into exponentially escalating systems integration risk as activities become overlapping.

Programmes of this size and uncertainty should always plan in windows, not a singular date.

It's the art of major programme management to manage the tension between an aspirational internal date to drive the teams and the realistic later public date that stakeholders can rely upon.

I believe the "authorising environment" above and around programme leaders will ultimately get better value with this approach.

6. Being inclusive

Finally (and most importantly) I learned that the leadership style most appropriate in this situation is one of inclusivity.

This is where the most important characteristic is everyone authentically owning the whole of the system, including the gaps and the "red issues". I used to think of these programmes as a relay race with Delivery passing on a baton to Operations.

I now realise that it's much more like a "Tough Mudder" obstacle course, where everyone needs to cross the line together.

To achieve that means creating a culture of kindness, the removal of fear and the acceptance that failure is an intrinsic part of ultimately winning.

It's also greatly assisted by a diverse as possible decision-making collective of all the talents. Despite all the well-known Crossrail challenges and bumps in the road, it really is a once-in-a-generation success story over more than two decades.

A true engineering triumph delivered by 75,000 people.

It has set a new benchmark of complexity and therefore uncertainty in delivery.

The advent of digitisation and the drive to net zero is likely to increase this complexity.

I believe that to lead in this challenging environment needs a new contemporary leadership style, one with "transparency" and "owning the whole" at its core.

For more papers on Crossrail see:

<https://mosaicprojects.com.au/PMKI-ITC-012.php#Crossrail>

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