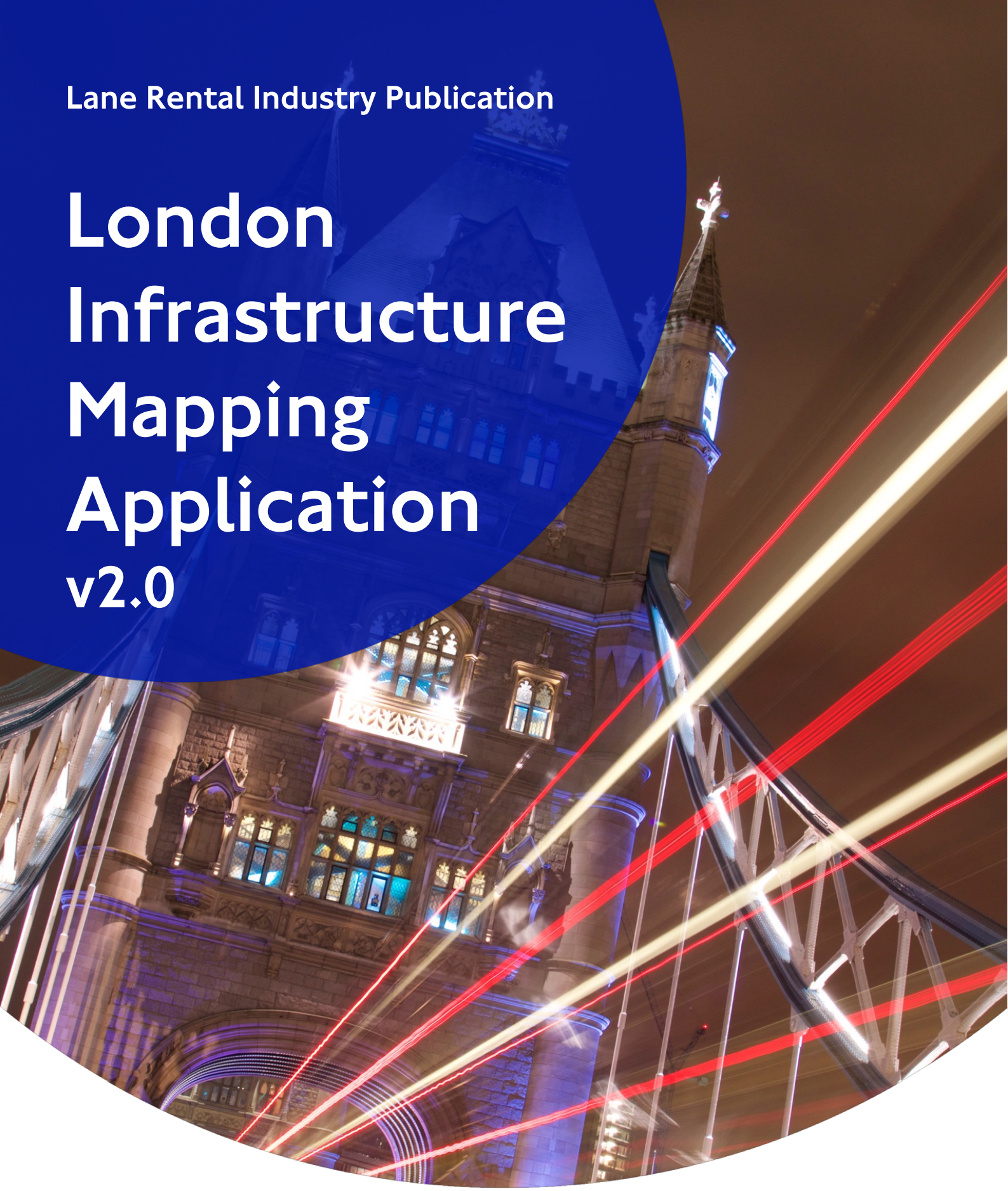
Lane Rental Industry Publication

London Infrastructure Mapping Application

v2.0



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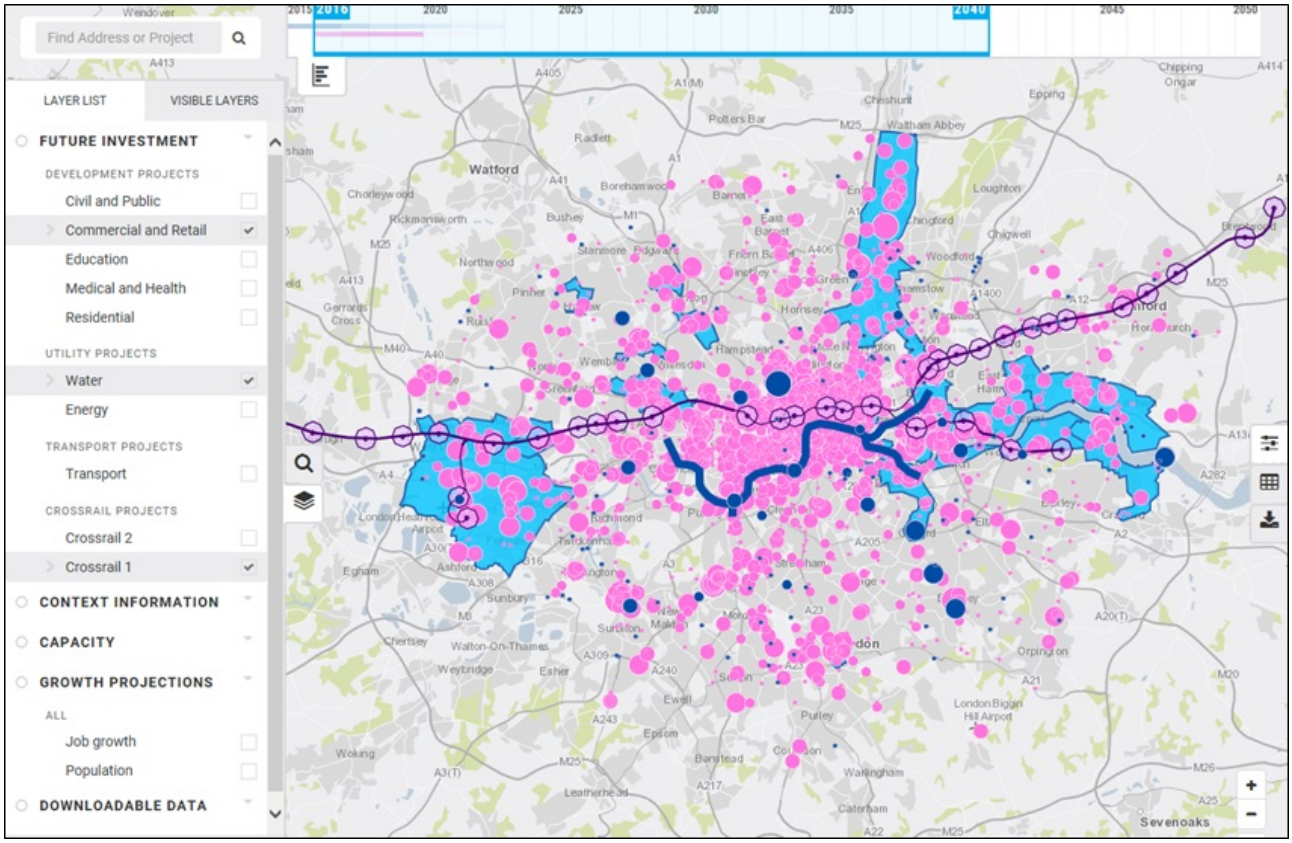
London Infrastructure Mapping Application

Executive Summary

This project focuses on London's need for improved coordination around infrastructure delivery to minimise disruption. The sector called upon the Greater London Authority (GLA) to create a tool that would allow utilities, transport providers and additional stakeholders to plan for joined up delivery, among other objectives. With Lane Rental funding, the GLA delivered the London Infrastructure Mapping Application (IMA) Version 2.0, building off of a prototype developed in 2015. The updated tool offers new user-friendly functionalities—like filtering options and data downloads—as well as improvements to speed, responsiveness, integration with related maps, automated data updates, and privacy protections. With technical delivery a success, the GLA now intends to focus on further refinements and expansion of data within the IMA, along with efforts to embed the tool within infrastructure providers' decision-making processes.



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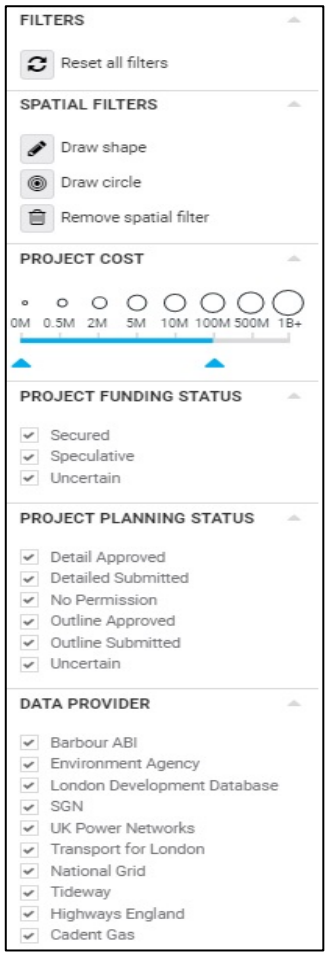
Introduction



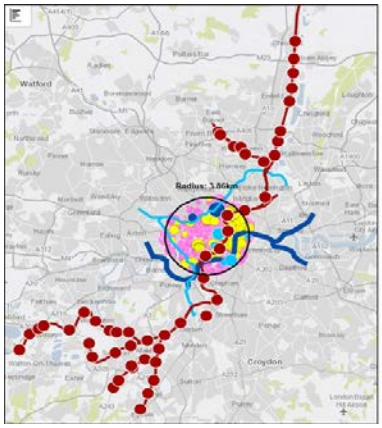
In a city like London, where land and time are some of its most valuable resources, infrastructure should be delivered as efficiently as possible. However, delivery is frequently fragmented instead, with governance split within and across sectors. Historically, London's utilities and infrastructure providers have not shared their forward-looking plans with one another, and therefore opportunities for more coordinated, joined-up infrastructure delivery have been overlooked. This issue was particularly pronounced where working together required significant forward planning to 'design in' joint delivery.

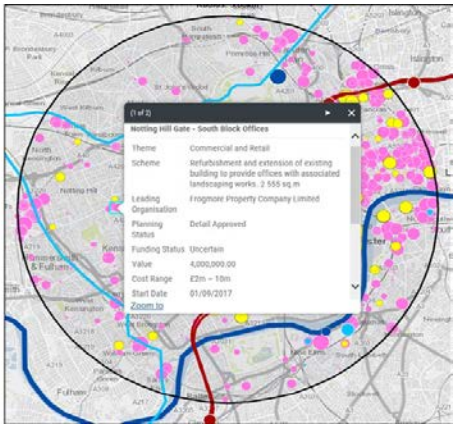
Faced with this gap in knowledge and the need for improved coordination, infrastructure providers called on the Greater London Authority (GLA) in 2014 to develop a tool that could integrate disparate datasets. In response, the GLA prototyped the London Infrastructure Mapping Application in 2015. The online tool was intended to bring together data on planned future investments in infrastructure and development, along with relevant context and capacity information. However, the IMA in its original form required significant technical and data improvements before it could become a central element of decision-making in the industry.

The Project

Through Lane Rental funding, the GLA developed and released Version 2.0 of the London Infrastructure Mapping Application on 1 August 2017.

IMA 2.0 is an innovative, versatile tool to support improved planning, delivery, and coordination of London's infrastructure through the layering of data and visualisation technologies. IMA 2.0 includes both a publicly accessible site and a password-protected site that is restricted to infrastructure providers, regulators, and certain public-sector organisations to allow for further data sharing.





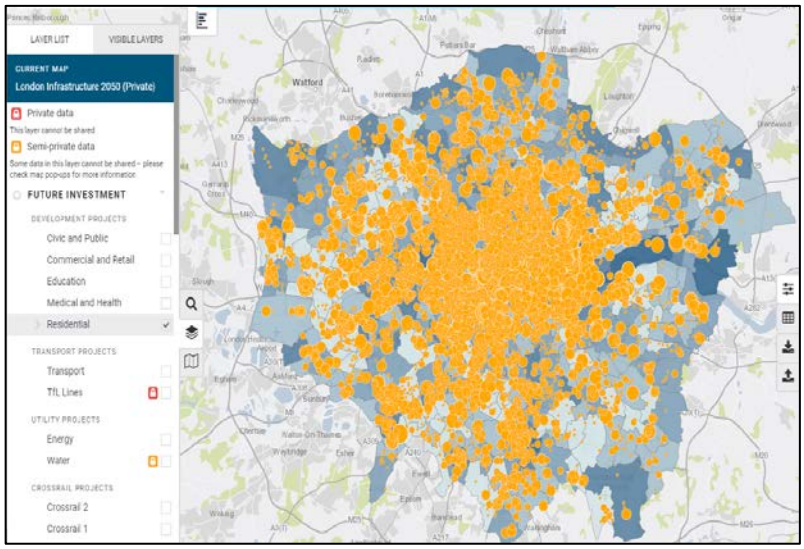
The improved IMA connects automatically to two sources of development data, refreshing weekly to ensure information remains up to date. Establishing these initial machine-to-machine links will allow the IMA to continue increasing automation across its data providers, many of which continue to require manual updates.

Version 2.0 also provides a user-friendly interface with new functionalities, including allowing users to filter data based on a location

or area of interest, export open data, upload their own data for use within the tool, and alter the map's visualisation to serve their purposes.

The site was redesigned to significantly improve its performance and speed, allowing it to process and present many complex datasets without slowing down. Improved privacy protocols were implemented, including clearer labelling of restricted datasets.

Delivery of the technical product spanned just over a year, benefiting from both in-house expertise and external consultants. The process included engagement with the sector to identify users' needs and address them during the iterative design of the product. The project concluded with outreach to begin spreading knowledge of the IMA throughout the sector.



Outcomes

IMA Version 2.0 was first unveiled by the Mayor of London at the Growth and Infrastructure Forum in July 2017. The industry, which showed ongoing interest and buy-in during the tool's development, received Version 2.0 positively. Uptake is increasing across a wide range of stakeholders, including utilities, transport providers, engineers, contractors, consultancies, developers, and homebuilders.

The project has achieved its central objective: delivering an improved technical product that—by providing visibility of infrastructure providers' plans and clarity on expected areas of growth—can now promote coordination, facilitate future-proofing, and highlight areas appropriate for investment ahead of demand.

In its first two months, IMA Version 2.0 received 6,291 pageviews from 2,910 users. A survey of the tool's Senior User Group indicated satisfaction with the product as delivered, as well as suggestions for another stage of improvements.

With IMA Version 2.0 live, the GLA team plans to focus on promoting it widely across the sector and integrating it into daily operations and long-term planning, along with continued improvements to the data within it.

Lessons Learnt

Given the positive responses we received following the launch of Version 2.0, this project confirmed the desire within the sector for the IMA tool and for its continued improvement.

Our focus on technical delivery during this project highlighted, in contrast, the need now for concerted and ongoing efforts to embed the IMA into providers' workstreams and decision-making processes. This will be a focus going forward.

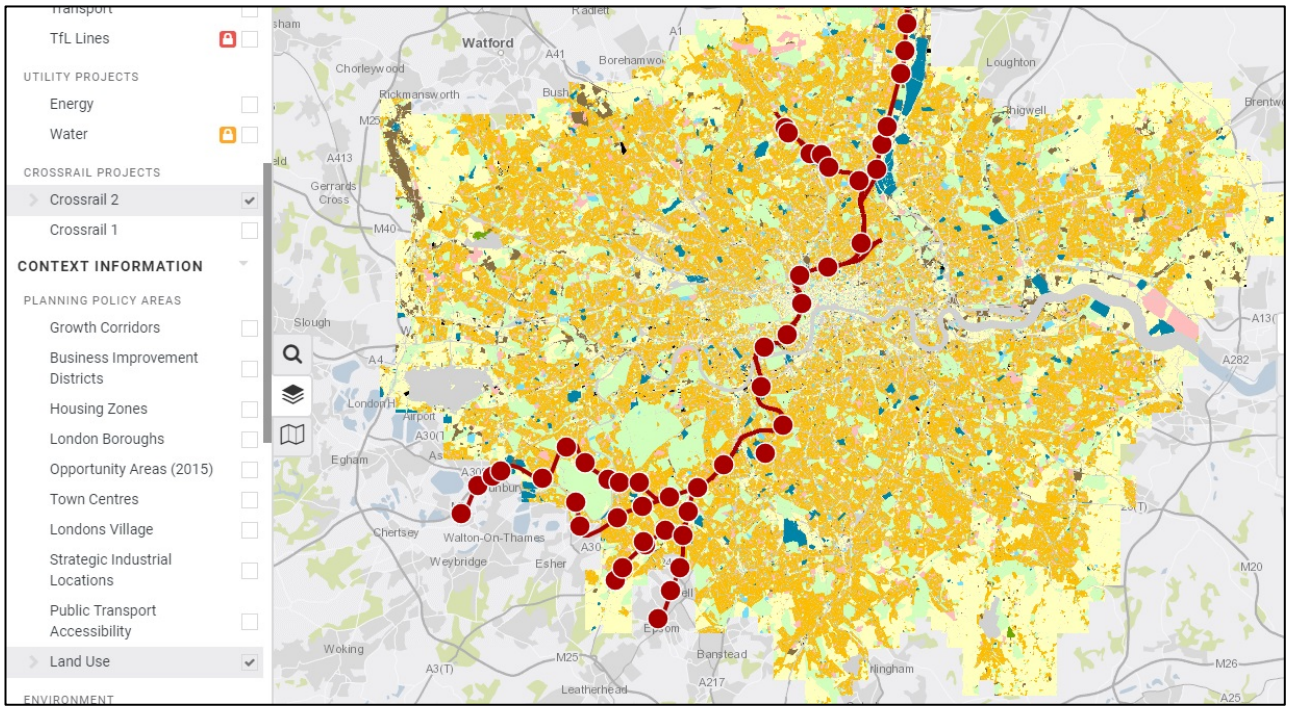
Feedback from stakeholders has indicated a preference for development data sourced directly from boroughs. The GLA will explore expanding its data collection to meet this need.

Given the plethora of mapping occurring within the GLA, TfL, and across the IMA's stakeholders, the project identified the need to ensure, going forward, that different tools integrate effectively with one another.

Finally, the process confirmed the challenges of sharing data about speculative infrastructure projects, including datasharing limitations faced by providers. In order to improve the map's usefulness for long-term planning activities, we will continue to work with industry to promote the sharing of more of this data.

Conclusion / Recommendations

The London Infrastructure Mapping Application Version 2.0 represents a major step forward toward integrating disparate datasets from a wide range of sources, to capture a picture of future investment, expected growth, and capacity challenges across London. Now that improved functionality has been achieved, the GLA intends to continue refining and expanding the data included in the tool. With a focus on increasing uptake of the IMA by demonstrating its capabilities and responding to suggestions with new improvements, the GLA intends for the IMA to support the coordination of delivery and reduction of roadworks across London for years to come.



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