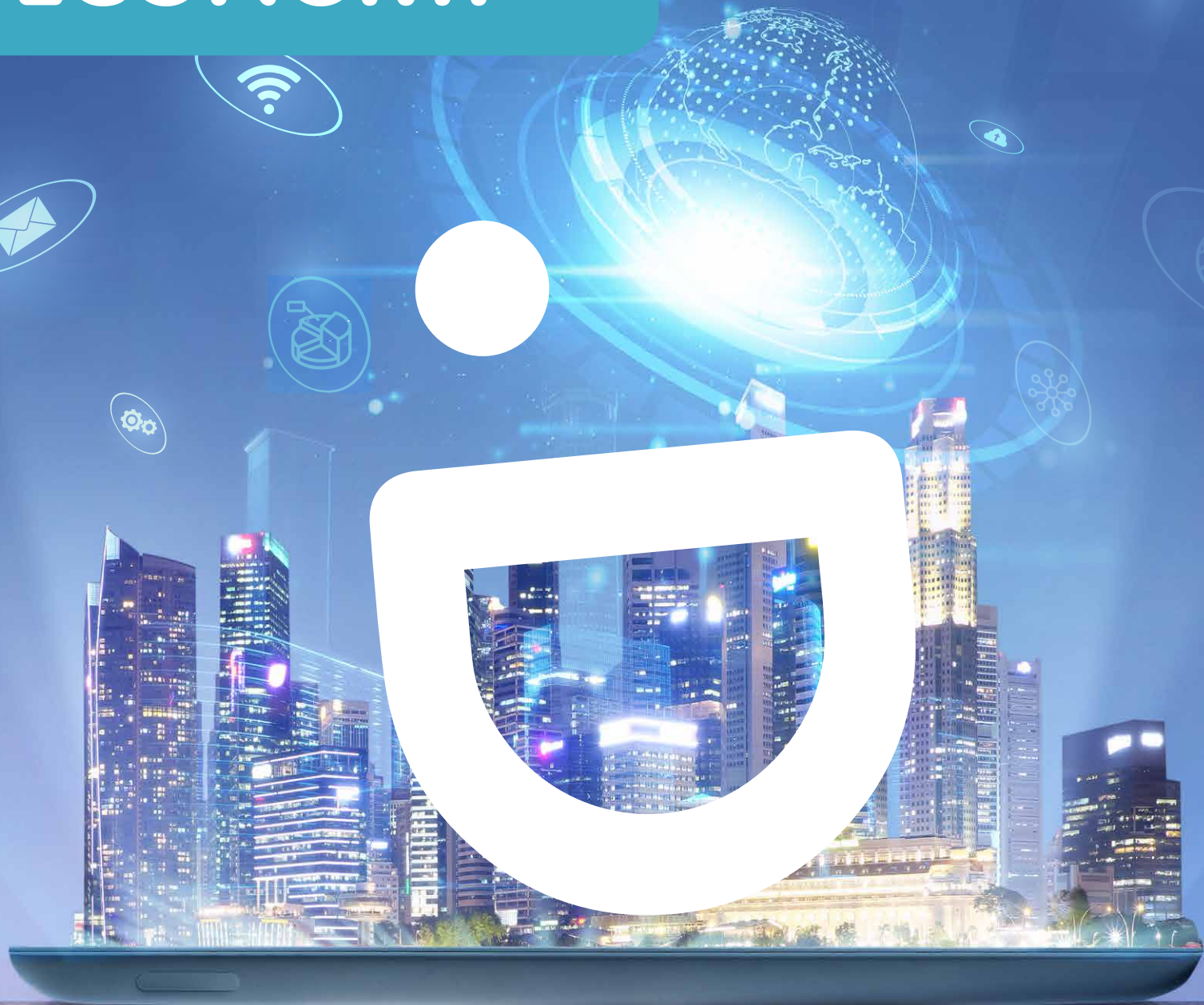


# DIGITAL PLATFORMS IN A DIGITAL ECONOMY



Jointly developed between IMDA and Platformation Labs (Sangeet Paul Choudary)

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# EXECUTIVE SUMMARY

Platform businesses have become some of the most powerful businesses in the digital world. Seven of the top ten most valuable companies globally are now based on a platform business model. Digital platforms have become an essential part of the business landscape, and are equally applicable to incumbents as well as digital natives. Successful platform play by incumbent companies can yield significant performance gains. However, incumbents are only about half as likely as digital natives to embrace platform business models.

The white paper outlines the platform opportunity for Singapore, and is intended to guide business leaders in understanding how the industries they operate in are being affected by platforms. Business leaders can also learn about the opportunities enabled by adopting a platform business model and/or ecosystems strategy.

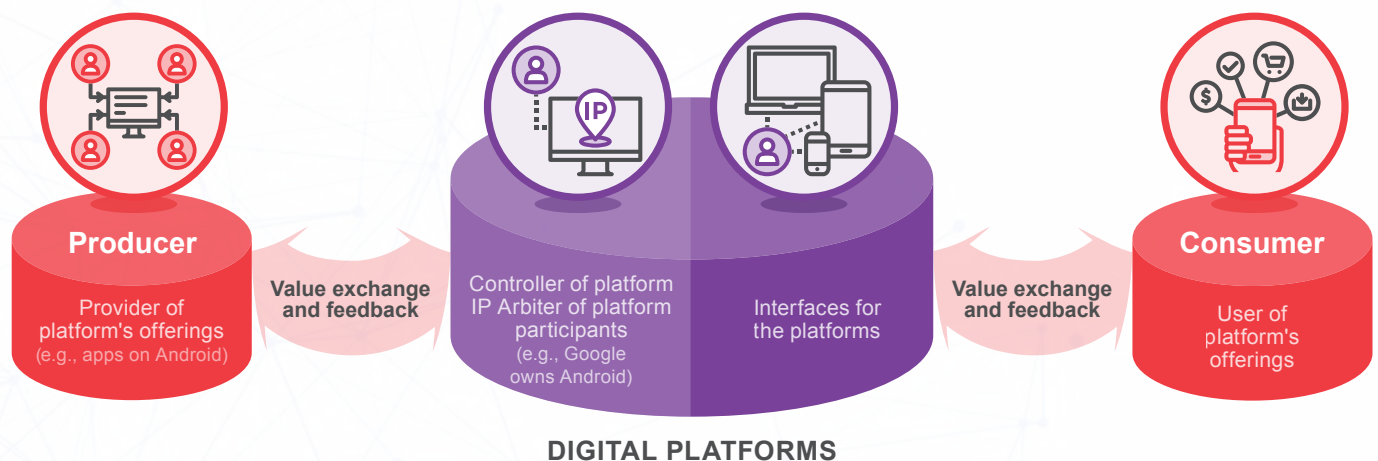


## Digital Platform Business Model

The platform business model facilitates value-creating interactions between external producers and consumers. Platform business models are powerful because of positive network effects from its ecosystem of connected services, over others building single services.

All platforms constitute three key elements:

1. A mechanism to pull producers and consumers;
2. An infrastructure and governance model that facilitates their interactions; and
3. A matchmaking facility and learning capability that matches producers and consumers in value-creating interactions and learns from their activity on the platform.



The goal of the platform is to facilitate these value-creating interactions and constantly scale its ability to perform all three functions described above.

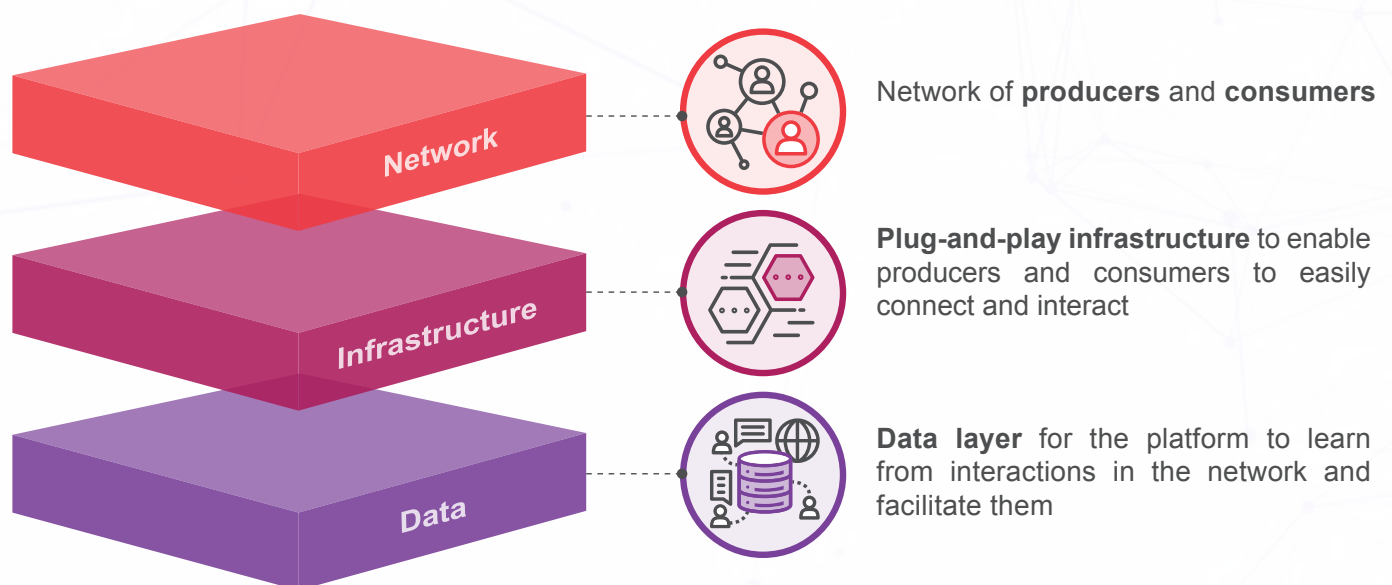


## Three Platform Archetypes

There are many different types of platforms, but all of them perform the three core functions mentioned above and consist of three key value layers:

1. A network of participating actors;
2. A plug-and-play infrastructure to enable these parties to connect and interact with each other; and
3. A data layer that helps the platform learn from the ecosystem activity and facilitate these interactions.

These three layers are represented through a visual framework – the platform stack:







## Platform Opportunities for Different Industries

Platform business models are becoming increasingly important across every industry.

The paper examines three (3) categories of industries that have been impacted to varying degrees by digitalisation:

### 1. Information-intensive industries



These industries were the earliest to be impacted by digitalisation, from the early days of the internet, largely because the core output of the industry is information-based.

### 2. Services-intensive industries and B2C



These industries have been impacted by large-scale digitalisation since the mid-2000s, particularly driven by the rise of new reputation systems and by the digitalisation of labour through cloud-hosted workflow management.

Traditionally regulated services industries, like banking and healthcare, are also moving towards platforms with deregulation.

### 3. Asset-intensive industries and B2B



These industries have been least impacted by digitalisation. However, since the early 2010s, the proliferation of sensors has led to the digitalisation of asset performance, coupled with the rise of new standards for data exchange in these industries.

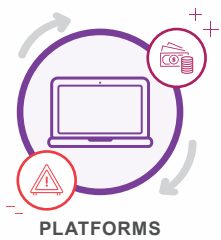
The white paper further elaborates on sectors in these categories of industries to examine business opportunities, be it as digital platform players, or participants of platform ecosystems.



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## Challenges for the Platform Business

Platform business models create competitive advantage in a digital, connected and data-rich world and transitioning to a platform business model is an attractive proposition for every firm looking to differentiate itself in the digital economy.



However, building platforms as well as partnering with platforms involve inherent risks which need to be understood and exhaustively evaluated before firms decide to invest in this direction.



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Scan the QR code or visit [www.imda.gov.sg/digital-platforms](http://www.imda.gov.sg/digital-platforms) to download a copy of the “Digital Platforms in a Digital Economy” white paper.

## ABOUT SINGAPORE DIGITAL (SG:D)

Singapore Digital (SG:D) is a nation-wide movement to unify Singapore's digitalisation efforts. Whether it is help for different industries to start their digitalisation journeys, or creating new ecosystems, opportunities and capabilities for the future, SG:D is set to take us ahead as a leading digital global node. The :D smiley face icon in the logo signifies the optimism of Singaporeans advancing together with digital innovation. As we progress into the digital economy, it is all about the people – the heart of all we do.



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