Research **Brief**

The emergence of platforms: new policy required

As part of the ongoing digitization process, virtually all economic and social sectors will be affected by 'platforms'. In *De kracht van platformen* ('The Power of Platforms'), the Rathenau Instituut analyses innovation strategies in various domains. The authors advise the government to update its policy.

Apple, Google, Facebook, Airbnb and Uber: these are all companies which have created new economic domains. They have transformed traditional businesses by means of platform based innovation strategies.

A platform is a foundation of products, services or technologies upon which other parties can build further products, services and technologies. Often platforms are digital marketplaces which facilitate transactions between buyers and sellers, and which draw upon the knowledge and input of their users to promote further development.

A platform can bring about a marked acceleration of innovation processes. New business models are created, with an entirely new work structure. Public sector bodies, companies of all sizes and individuals can all be involved in the joint development of new products and services.

Platforms can be very influential: they clearly have strength. But this strength also has a downside. If platforms become too powerful, economic and societal interests are at risk. Whether there is indeed any adverse impact depends in part on the conditions that the providers impose in terms of who can make use of their platform, and how. Closed platforms exclude other companies, smaller businesses and civil initiatives, thereby severely restricting competition. Consumers who make significant use of one platform provider's products will find it extremely difficult to switch to another provider whose products are not compatible.

RECOMMENDATIONS

To derive the full benefit of platforms, it is essential that government updates its policy. It can:

- **Support businesses**
  Allow them to take the lead in the development of new platforms and technologies, in forming consortia and in establishing standards.

- **Amend competition policy**
  Proposed mergers and acquisitions should be assessed in terms of their impact on new and existing markets. Ongoing digitization results in market convergence. Where necessary, force the separation of the platform providers' bundled products and services, ensuring access for other parties.

- **Prevent switching barriers**
  The integration of products and services within a single platform makes it difficult for users to seek alternatives. Examine whether the current regulations intended to ensure consumer choice are adequate, particularly in highly dynamic domains such as healthcare, manufacturing and agriculture.

- **Safeguard public interests**
  Where platforms evolve into a 'public good', examine whether additional requirements should be imposed. Such requirements may relate to conditions of use, the stability of the infrastructure, and accessibility. When designing a regulatory system for platforms, lessons can be drawn from past experience in regulating internet access, telephony and net neutrality.

Exploit strength, restrict power

Airbnb, the online marketplace for private holiday rentals, is now active in 192 countries and is worth an estimated 7.3 billion euros. The City of New York has sued the company in order to receive tourist taxes. Uber is an app which connects users with the drivers of vehicles for hire. It places the livelihood of licensed taxi operators at risk and has already been banned in Brussels, Berlin and Hamburg. These are just two examples of companies which have disrupted the existing markets to such an extent that the authorities were forced to intervene.

Uber and Airbnb are based on platforms. From a technological perspective, platforms are standardized 'building blocks' on which other parties can base products and services. In an economic sense, platforms are often marketplaces. They draw upon the knowledge, services and data of their users to feed the innovation process. It is the platform owners who make the rules: they decide who can access the platform, whether as a developer or a user, and under what conditions.

Platform-based strategies are driving innovation in many sectors. They are also responsible for a convergence of markets and a restructuring of value chains. They create new power relationships. This generates countless opportunities for private sector companies of all sizes, including sole traders and social entrepreneurs, and for innovation in important domains such as healthcare, energy, 3D printing and DNA technology.

With the new opportunities come new challenges for policy. On the one hand, the integration of products and services within a single platform brings greater convenience for users. On the other, it restricts consumer choice. If the data from apps, music files or 3D designs cannot readily be ported to a competitor's products, the consumer is 'locked in'.

Platforms can achieve a degree of penetration and user take-up that makes them almost essential, as in the case of WhatsApp and Google Maps. They take on the character of 'public' goods and services. The Rathenau Instituut advises government to safeguard public interest through conditions for the platforms when public goods are under threat. Access to services must be guaranteed, as must the compatibility of systems to ensure free competition. The regulation of digital platforms can build on past experience in regulating internet access, telephony and net neutrality.

The authors of *De kracht van platformen* urge policy-makers to adopt a novel approach to innovation and regulation. It is important to establish a policy vision which is shared by all departments, whereby all contribute to the development of the technology in use, intellectual property rights, (technical) standards and the regulatory system, including market regulation and competition.

SUMMARY

- A 'platform' is a foundation of products, services or technologies upon which other parties can develop complementary products services and technologies. Many platforms are marketplaces which facilitate transactions between sellers and buyers, and which draw upon the knowledge or services of users.

- Platforms allow various parties to share infrastructure or technology, knowledge and competences. In doing so, they use standards, licences and other agreements. Platforms enable market parties to develop products and services jointly and efficiently. They can address new developments and changing demand in dynamic markets such as energy and healthcare.

- Platforms derive their value from the number of users and from user data. The more people who use WhatsApp, for example, the more valuable the service becomes. At the same time, it becomes more difficult for users to take their custom elsewhere. This is a self-reinforcing process.

- In *De kracht van platformen*, the researchers examine the emergence of platforms in diverse domains: app stores, healthcare, smart energy meters, potato breeding, 3D printing, journalism, logistics and crowdfunding.

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