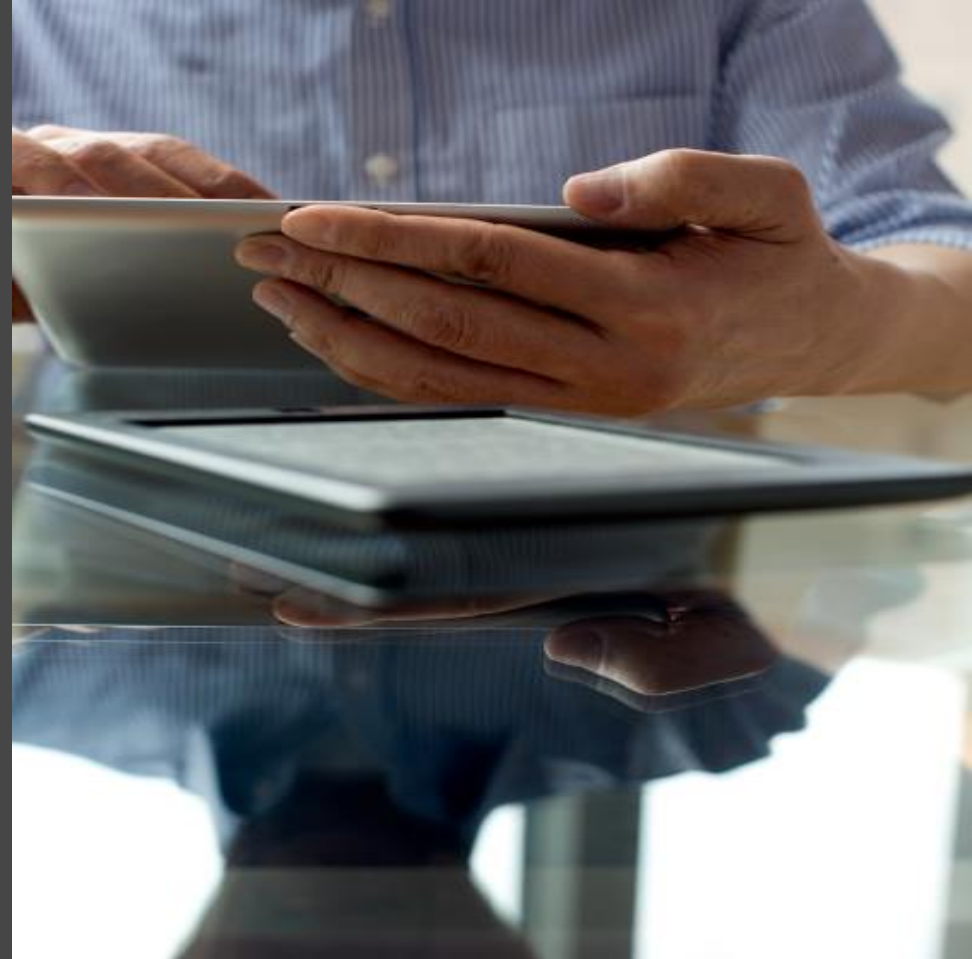


Economic impact of digital services tax in Spain

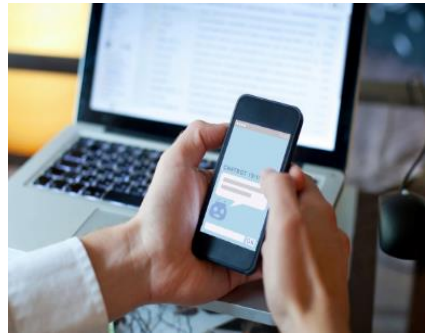


Final Report
9 January 2019



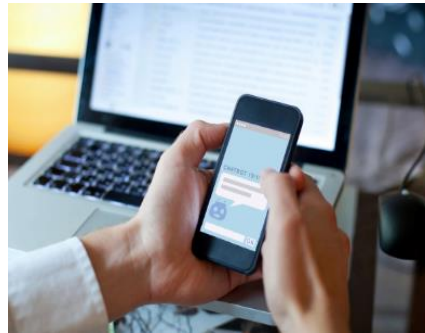
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Executive summary

Digital services tax

The **Digital Services Tax (DST)** introduced by the Spanish Government is more challenging than the European proposal, due to the **tax applied to intra-group transactions and the reduction of thresholds.**

The correct control of digital revenues requires **homogenous and coordinated global measures within the OECD in order** to minimise inefficiencies and unrequired distorting effects on the market.



International regulatory context

The digitalisation of the economy requires changes in its taxation to guarantee equity and efficiency in the tax collection of the countries regarding globalisation of the economy.

These reforms require coordination among the countries in order for the measures to be effective, homogeneous, non-discriminatory and minimise the adverse effects on economic growth.

As a result, both within OECD and EU countries, a debate has been introduced and some proposals have been made at taxing certain digital services, however they are still at a very early stage.



Differences with the European proposal

During March of this year, the EC drafted a tax proposal on digital services to be discussed.

The Spanish Government prepared a draft framework law, which differs from the European proposal. The aforementioned application is expected by 2019 and will achieve the following:

- Tax intra-group transactions, which multiplies the effect of the tax along the entire value chain within the same company.
- Reduce the tax exemption threshold to €3m of revenue in Spain.

Spanish companies that use digital services will recognise a reduction in their profits between €450m and €562m, in addition to the increase in cost of using platforms and online marketing and the decrease in sales due to the expected transfer part of the price to the final customer.

The tax granted by the Government will have an impact on Spanish consumer ranging from €515m to €665m, due to the increase in the price of products and services consumed and the value of goods that will stop consuming.

Executive summary

Impact on companies and consumers



Effect on small and medium sized enterprises

The majority of the tax cost will be borne by SMEs using digital platforms:

- Advantage of the offline channel versus the online one, reducing the digitalisation level.
- Increase in the cost of sales and online advertising, reducing the margin and the ability to communicate with customers.
- Drop in sales, in case of transferring the cost to the price.
- Reduction in productivity and competitiveness.
- Advantage of non-digital firms over digital exporters; and of foreign importers over local digital firms.



Effect on digital consumers

Consumers, on the other hand, will experience a reduction in their welfare due to the following:

- Rise in the cost of the products as a result of the tax.
- Reduction in obtaining income from unused resources.
- Fewer options in regards to the digital channel.
- Slowdown in the digitalisation process of the economy.

Executive summary

Impact on GDP

The tax effect on Spanish company profits will have a **negative economic impact between €586m and €662m on GDP.**

The slowdown of the Spanish companies digitalisation process within the long-term will result in the **Spanish economy being less productive, less innovative, less entrepreneurial and, consequently, less competitive globally.**



Short-term effects on the economy

The cost of tax will be borne by consumers and small companies that use digital services:

- Consumers will experience a loss of welfare between €515m and €665m due to the price increase
- Companies that use digital services will experience a loss of their operating profit of around €450m and €562m, due to the increase in costs and the fall in sales.
- These will result in a negative impact of between €586m and €662m on GDP.



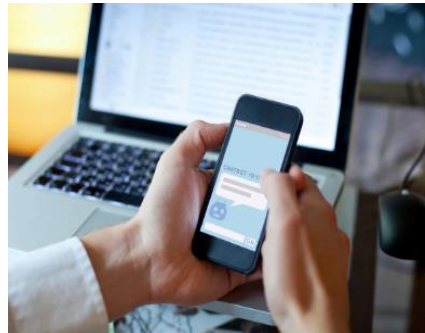
Long-term effect on the economy

The tax will slow down the digitalisation process of the Spanish economy.

- The slowdown of this digital transformation will create a less favorable environment for technological development, entrepreneurship and start-ups.
- Digitalisation is key to the growth of SMEs, with the small size of Spanish companies being one of the biggest challenges of Spanish productivity.
- Digitalisation is linked to economic growth and investment in R&D.

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The European Commission has developed a proposal for the creation of an homogeneous tax on digital services for the entire EU

The taxation of revenues derived from online channels does not generate competitive distortions as digital transformation requires global and coordinated legal responses

The implementation of digitalisation has mainly eliminated physical barriers in regards to international trade, which poses a challenge for governments from a legal point of view. This challenge requires a joint response to be effective and non-discriminatory in nature. Some countries, including Spain, have shown an interest in establishing a tax digital services as a solution.

In this regard, during March of last year **the European Commission (EC) presented a proposal for Management regarding a tax establishment that collects certain digital revenues at a European level.**

The EC proposal includes, among several options, a short-term and transitory measure, pending a final internationally agreed framework. **The EC has decided to delay its application until 2021.**

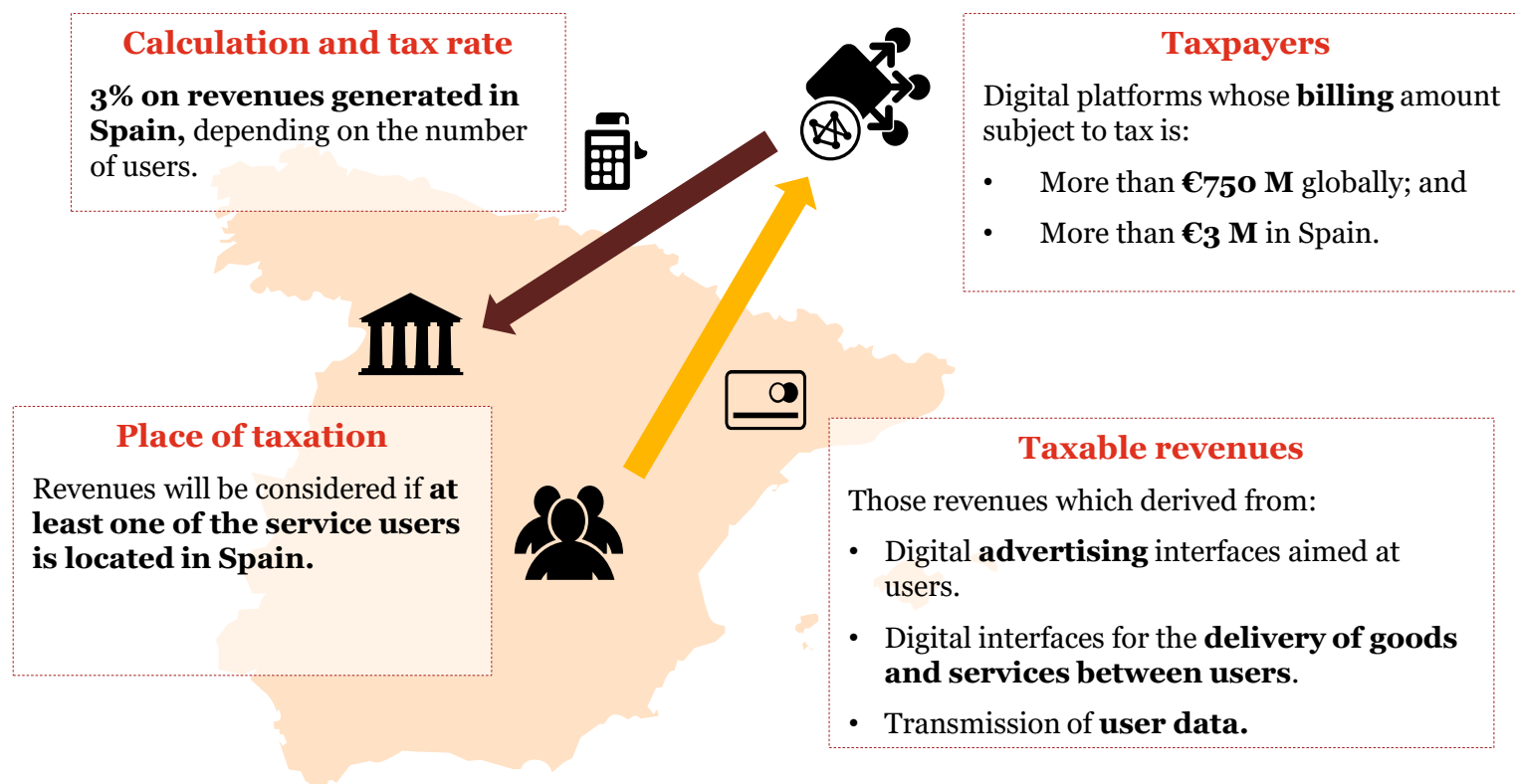
This transitory measure would consist of a 3% rate that taxes revenues from:

- a) The inclusion of **advertising in a digital interface aimed at users.**
- b) The provision to users of a **digital interface that allows them to interact with other users and that can facilitate the delivery of goods and services** among them.
- c) **Transmission of user data** that have been generated by them in their activity in digital interfaces.



These activities may be taxed exclusively on entities whose total revenues exceed €750m and €50m within the EU.

The Spanish Government has approved a draft proposal to Management in order to introduce digital tax in Spain

The Spanish Government approved a proposal on 19 October to Management for the establishment of digital services tax (DST), with a structure very similar to the European proposal.



The DST proposed by the Spanish Government differs from that proposed by the European Union for higher tax collection

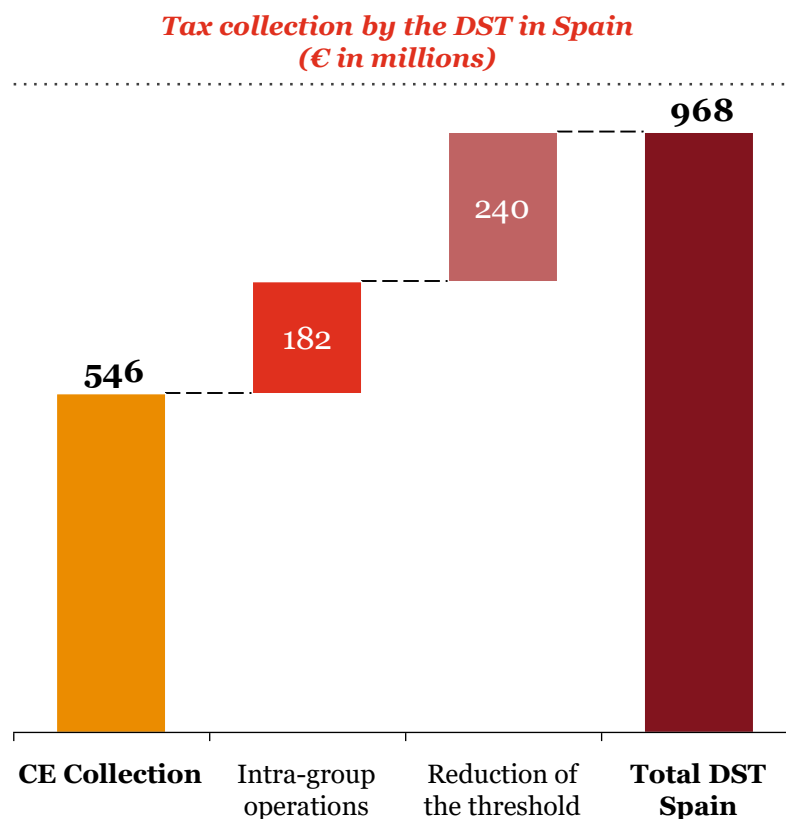
	 Draft Proposal Spain	 Management Proposal for EU
Entry into force	2019	2021 (The transposition must be carried out prior to 31 December 2019)
Tax rate	3%	3%
Taxable Revenues	<ul style="list-style-type: none"> • Online advertising services • Online brokerage services • Transmission of user data 	<ul style="list-style-type: none"> • Online advertising services • Online brokerage services • Transmission of user data
Global threshold	€750m	€750m
Internal threshold	€3m of taxable revenue obtained in Spain. The thresholds are taken into account at the group level, if the group exceeds the threshold all entities are subject to the extent that they perform the taxable event.	€50m in the EU
Intra-group operations	Yes, they are taxed. The taxable base will be its market value.	They are not taxed.
Expected collection	€1,200m annually.	€5,000m annually in the EU, €546m in Spain.

The differences with the European proposal would generate an increase in tax collection of around €420m compared to the initial estimation of the EC

The Government is based on the estimates of the European Commission¹, according to which this tax would have an impact of €6,000m per year for the EU. Applying the percentage represented by Spain in the European digital market (9.1%), a collection of €546m M is obtained.

There are two elements in which the Spanish tax differs from the European and that would increase the collection as follows:

- Incorporates intra-group transactions, with including the Spanish collection would amount to €728 m.
- The minimum billing threshold of the companies affected in Spain is €3m instead of €5m, with which the collection would amount to €968m.
- In addition, the government estimates that the digital business growth in 2019, with which the collection would rise from €968m to €1,200m. In any case, according to AIREF², the starting figure of the EC already takes into account the increase of the digital business in 2019.

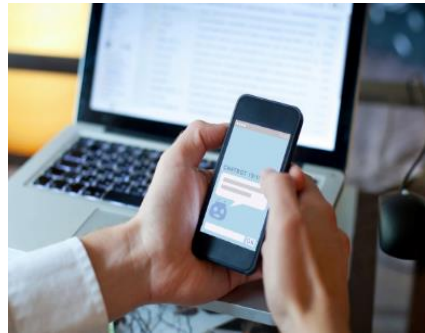


¹Commission Staff Draft Document. Impact Assessment, Proposal for Management on the common system of a digital services tax on revenues resulting from the provision of certain digital services, SWD (2018).

² Autoridad Independiente de Responsabilidad Fiscal.

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Marketplaces are suitable digital selling platforms for SMEs and start-ups, giving them quick market access at a relatively low cost

The marketplaces are online platforms in which sellers and buyers, third parties outside the platform itself, can exchange goods (textiles, footwear, electronics, etc.) or services (accommodation, transport, etc.). The revenues of the platform derive from the payment for the provision of the users, generally to the sellers, of the online interface to formalise the transactions.

They are an **affordable solution so that smaller companies, of recent creation or start-ups make the online sale of their products** without having to develop their own platform.

SMEs advantages

- **Cost savings of digital infrastructure:** The company pays a monthly fee and / or a commission for each sale.
- **Access to markets and online positioning:** Significant network economies associated with the platform. The larger the size of the platform, the greater access to final clients. In addition, the marketplace itself invests in advertising, saving part of the cost to the SMEs.
- **Cross sales and synergies:** The seller can benefit from the synergies with complementary goods offered by other vendors of the platform (a computer and a keyboard, for example).

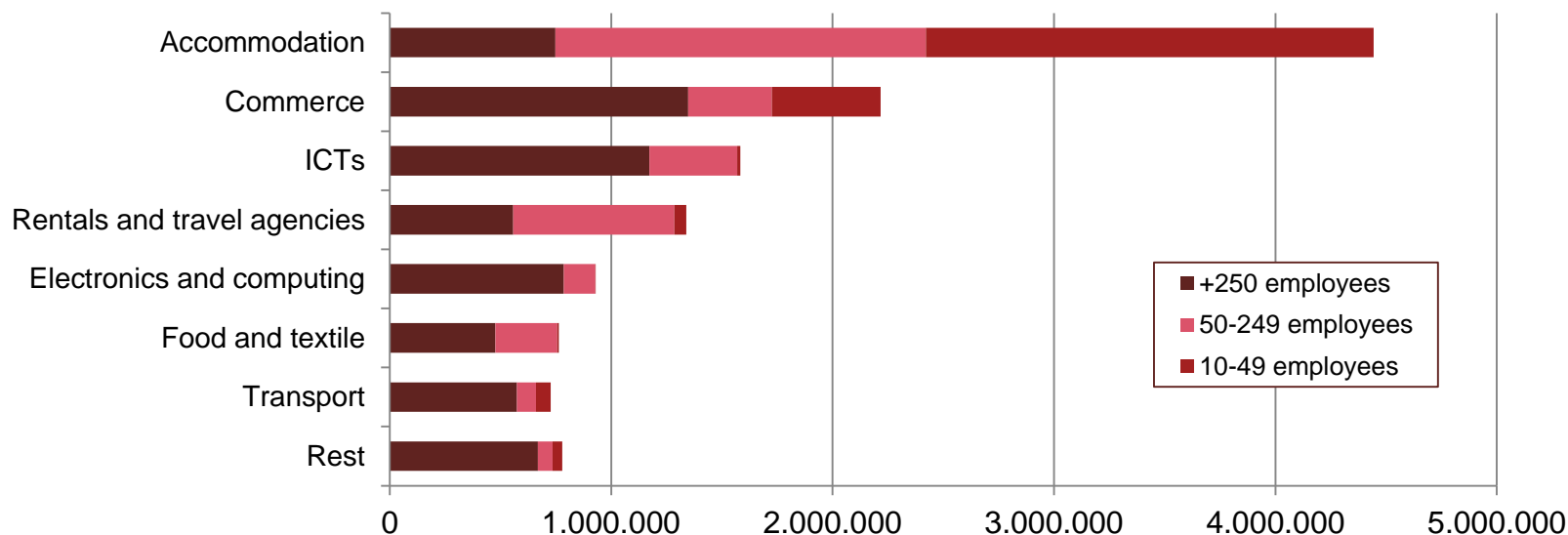
Clients advantages

- **More transparency in prices:** The consumer can compare prices easily between different options within the same platform.
- **Higher offer:** aggregate supply of equal, similar or substitute products from different suppliers on the same platform.
- **Lower price:** Increased transparency and volume of supply finally translates into greater competition and a lower sales price.

Marketplaces are suitable digital selling platforms for SMEs and start-ups, giving them quick market access at a relatively low cost

The total volume of **sales through marketplaces of companies with more than 10 employees was around €12,800m** in 2017, 10.7% of total sales through websites or apps. In the ranking by sectors, **accommodation services are placed in first place with €4,400m**, followed by the retail sector, both wholesale and retail, with €2,200m. The contribution of marketplaces to the Spanish tourism sector stands out, a sector that accounts for almost 15% of GDP and has mainly contributed to the recovery of Spain's economy.

Sales in marketplaces in Spain € in millions (companies with more than 10 employees)



Source: Survey of usage of ICTs and online commerce by companies 2017-2018 (INE) and PwC analysis

50% of sales in marketplace platforms are carried out by SMEs, and 25% of them are exports

There is a significant **digital gap between large and small and medium-sized companies**, which could result in a reduction in their competitiveness within the medium term.

Only 6% of sales relating to small companies are made online, compared to 14% of medium-sized companies and 25% of large ones.

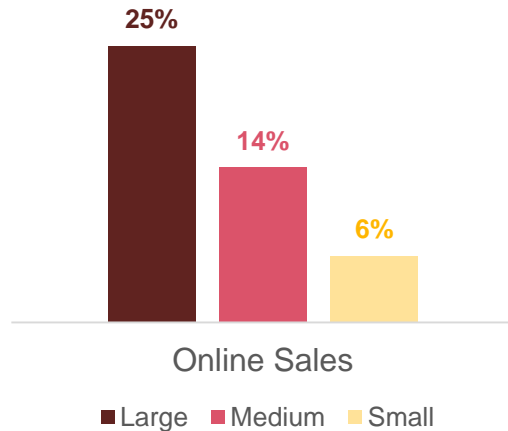
The marketplaces are **digital sales platforms especially useful for small and medium companies**, given their relative low cost.

Half of the sales of Spanish companies through these platforms were SMEs (between 10 and 250 employees).

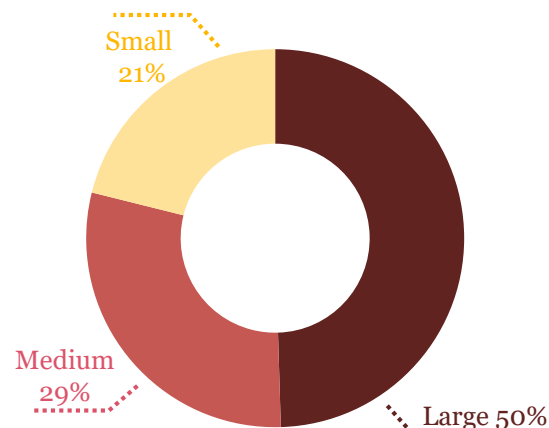
The marketplaces also **facilitate the internationalisation of SMEs**, allowing them to expand their market outside the national territory.

25% of sales made by SMEs through web pages or apps were carried outside of Spain (18% to rest EU countries, and 7% outside the EU).

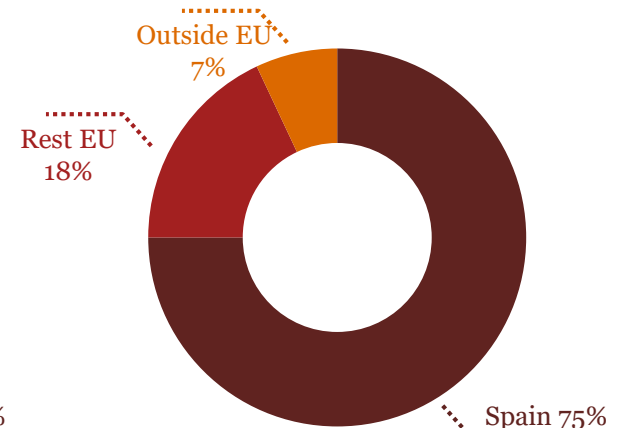
Share of electronic commerce over total sales



Distribution of sales in marketplaces by company size



Geographic distribution of sales through web / app of SMEs



Marketplaces allow small developers to offer their applications, software or their own professional services

The **marketplaces are widely used** by developers and ICT companies **to enhance the presence of their products under the same conditions established as international companies.**

It is estimated that **there may be more than 320,000 developers in Spain, with an average salary of over €30,000, € gross per year¹.** As a result, the software development sector is an important **potential sector of unemployment absorption**, especially for the youth in Spain.

From public institutions the development of STEM skills (Science, Technology, Engineering and Mathematic) is encouraged and, among them, programming, to improve the employability of young people, facilitate insertion in the ICT sector, promote entrepreneurship and improve their situation in the labour market.

¹Tech Cities Experis IT España 2017. Manpower Group.

²The Report "Empleo en IT 2017. Profesiones con future" (Deloitte)



The Spanish Government aims to boost employment in the ICT sector through the "Profesionales Digitales" programme.



Spain is below the average of ICT specialists in the European Union.



100,000 workers will be required in Spain for the ICT sector within the next 10 years²

Sharing economy boosts efficiency and cost saving, and allows households to monetise their underused resources and assets

The collaborative economy connects private individuals (service providers) that offer services or products that they do not use, with or without economic compensation, with other private individuals (consumers or users) through a digital platform that facilitates communication and transaction.

This type of platform creates new opportunities for consumers and entrepreneurs, contributing to the increase of employment, competitiveness and economic growth. For consumers, the collaborative economy can provide advantages through new services, the expansion of supply and lower prices. It can also promote a higher distribution of assets and a more efficient use of resources, contributing to the EU's sustainability agenda.

Advantages of the collaborative economy

- **Cost savings for the buyer:** The prices are lower for a property that is shared and acquired or rented for a specific use. The price reduction allows access to people who in other conditions could not access them.
- **Source of income:** The collaborative economy is an additional source of flexible income for many households, taking advantage of underused resources.
- **Efficiency in the use of resources:** The efficient use of resources (cars, for example) reflects savings in terms of time, CO2 emissions or cost to the user.

Typology of services

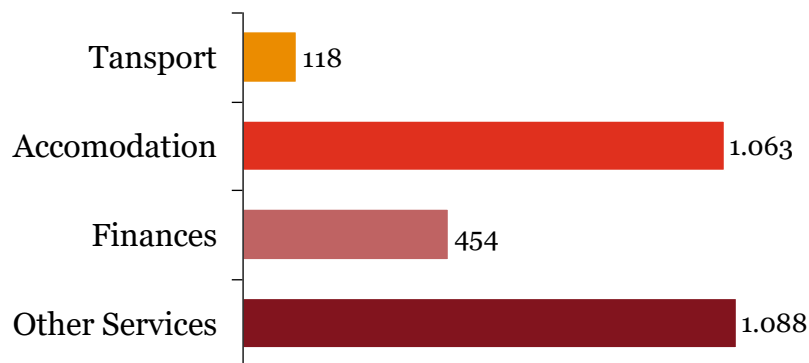
- **Accommodation:** home sharing, rental of residences, residence exchanges.
- **Financial services:** crowd funding, crowd lending.
- **Transportation:** car sharing, trips on demand, parking, other transport services.
- **Other services:** services provided by professionals, individuals (home delivery, for example).

Around 29% of Spanish people are users of sharing economy platforms and generated a business of €2,700m in 2017

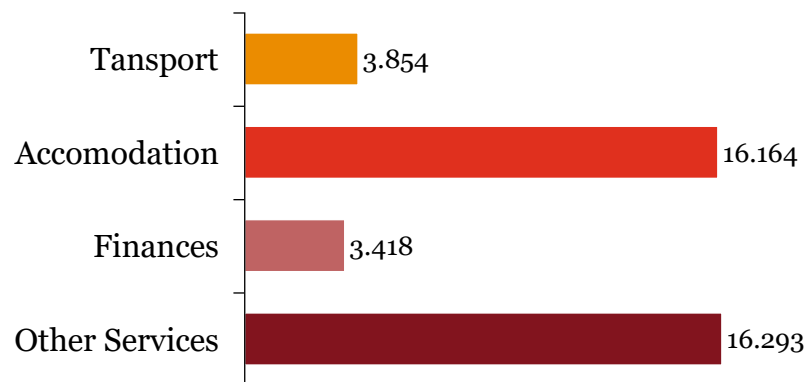
29% of Spaniards use the platforms of collaborative economy at least once a year. By activity, the sale or rental of second-hand products is the most used by Spaniards (27% have used it at least once in the last year), followed by the rent of a room or dwelling of a private individual, with a 13% of all respondents.

The collaborative economy generated in Spain a volume of business among users of **€2,700m in 2017**, a figure that **could be doubled by 2022¹**, and create around **39,700 jobs**. In addition, **many of the start-ups created in Spain are included in the collaborative economy**.

Sales volume 2017 (€ in millions)



Jobs created in 2017



Source: Study to Monitor the Economic Development of the Collaborative Economy at sector level in the 28 EU countries (European Commission)

¹Sharing Economy .Opportunities, Impacts & Disruptors 2017-2022 (Juniper Research)

Digital marketing allows smaller companies to increase their exposure, access new markets and obtain communication with their clients

Advertising and digital marketing helps to considerably increase the exposure of products and services of companies, which generates knowledge, familiarity and confidence in consumers, increasing sales and the base potential customers. The relative low cost of digital media over traditional or offline advertising channels allows smaller companies to compete on an equal footing with larger ones.

On the other hand, social networks represent a two-way communication channel between companies and consumers, providing feedback on the process of offering products and services and adjusting them to the requirements of customers and users.

Advantages for SMEs

- **Cost savings in marketing:** Online advertising has a much lower cost than traditional and shorter implementation times.
- **Direct conversion:** Online advertising can be directly converted into sales through digital channels.
- **Access to markets:** Access to any user, home or device, offering a customer base that has been previously allowed only to large companies. Digital marketing allows segmentation, increasing its effectiveness.
- **Follow-up:** Online advertising is measurable, allowing the obtaining of reliable statistics, the analysis of its effectiveness and its monitoring over time.

Advantages for users

- **Customisation of the offer of products and services:** The tracking that allows online advertising reverts higher customisation of advertising adjusted to the needs of interests of customers or users.
- **Increased transparency:** Advertising results in higher knowledge on behalf of the consumer of the range of products available within the market.
- **Greater competition:** A rise in transparency results in an increase in competition levels and lower prices within the medium and long-term.

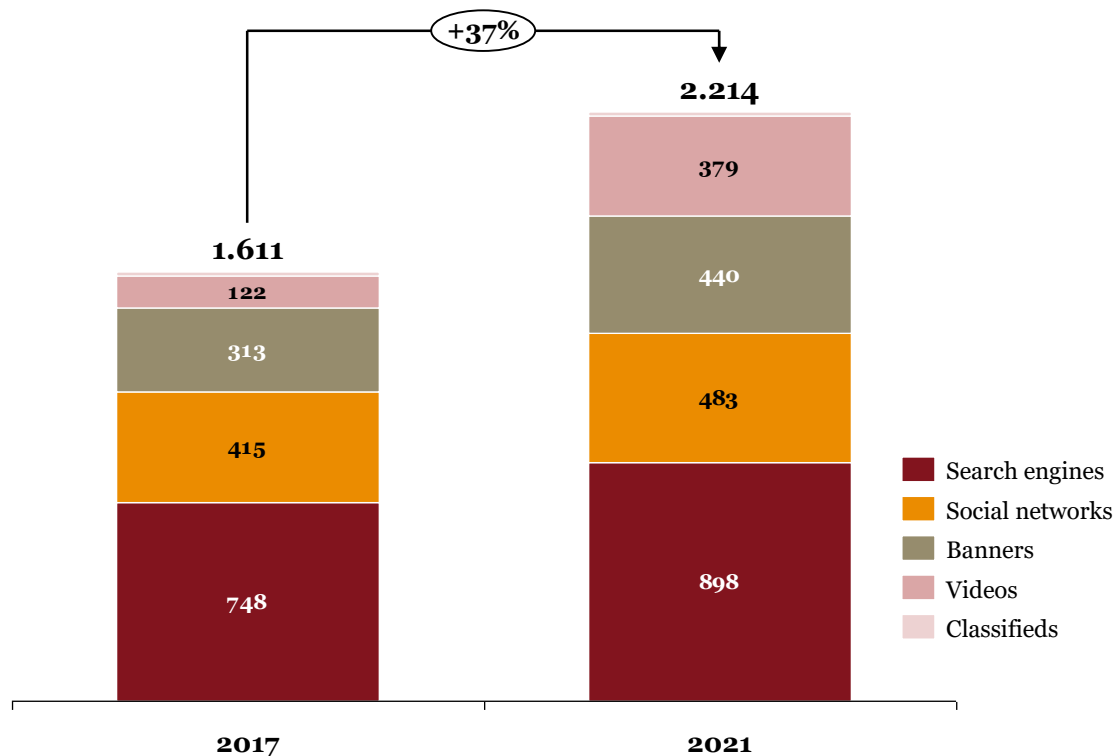
Online advertising investment in Spain was around €1,600m in 2017, and it is expected to increase significantly during the next years

Revenues from online advertising in Spain amounted to €1,600m in 2017, of which 46% corresponds to search engines and 26% to social networks, two of the activities that, due to the size of their main operators, will be affected by the tax.

Given the importance of network services and scale in both sectors, the larger size, the higher productivity and lower unit cost, as well as increased projection to potential customers (more users of the networks).

The best search engines and larger social networks are those that have a better cost-effectiveness for the advertiser or user.

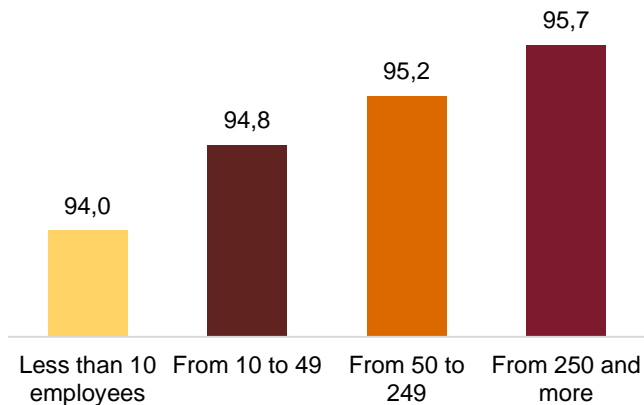
Revenue from online advertising in 2017, and estimated 2021 (€ in millions)



Source: Statista

Around 25% of companies pay for online advertisement, and more than 94% use social networks to communicate with their clients

% of companies that use social networks

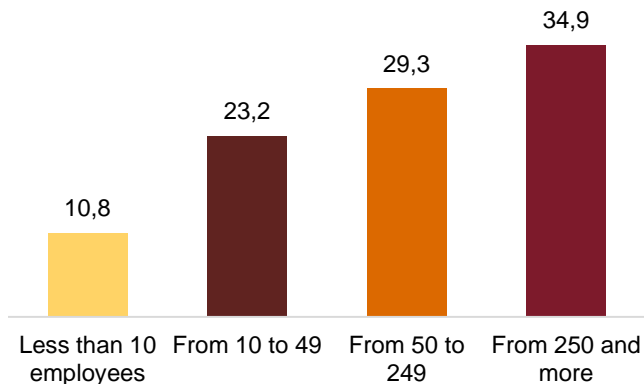


More than 94% of Spanish companies use social networks as a digital marketing tool, including micro and SMEs.

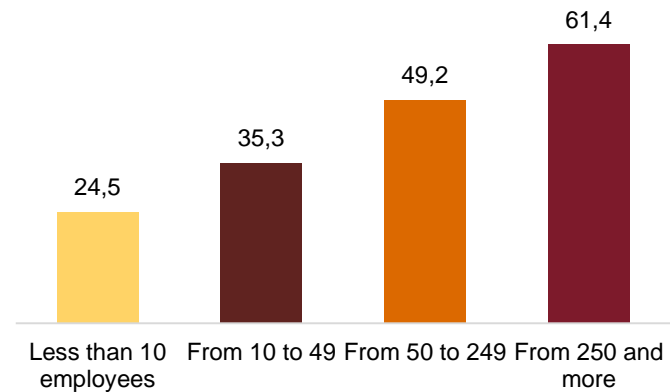
In addition, SMEs and micro-companies are also users of other tools such as multi-media content (34%, 40% and 56% for micro, small and medium-sized companies) and blogs and microblogs -for example, twitter- (25%, 35 % and 49%), although well below the largest companies.

This gives an idea of the potential improvement margin that SMEs have in these two areas, which will be inevitably slowed down by the effect of DST, reducing their level of digitalisation and increasing their costs.

% of companies that pay to advertise on the Internet



% of companies that use blogs / microblogs



Source: INE

Digital marketing boosts online sales, allowing growth for small and medium sized businesses at a relatively low cost

The average rate of digital conversion is 1.56%, and the average order value is of €178

€1 For each €1 invested in digital marketing ...

... on average **€3** is generated in digital sales

The cost per click (CPC) of online advertising is between €0.5 and €2, depending on the platform

Online advertising can be up to 6 times cheaper than traditional or offline advertising. This is an important advantage for smaller companies, since otherwise they would not have access to the advertising market.

Assuming an average conversion rate of 1.5%, an average value of each order of almost €180 and an average cost per click of around €1, **each euro invested in advertising increases a company's sales by around €3.**

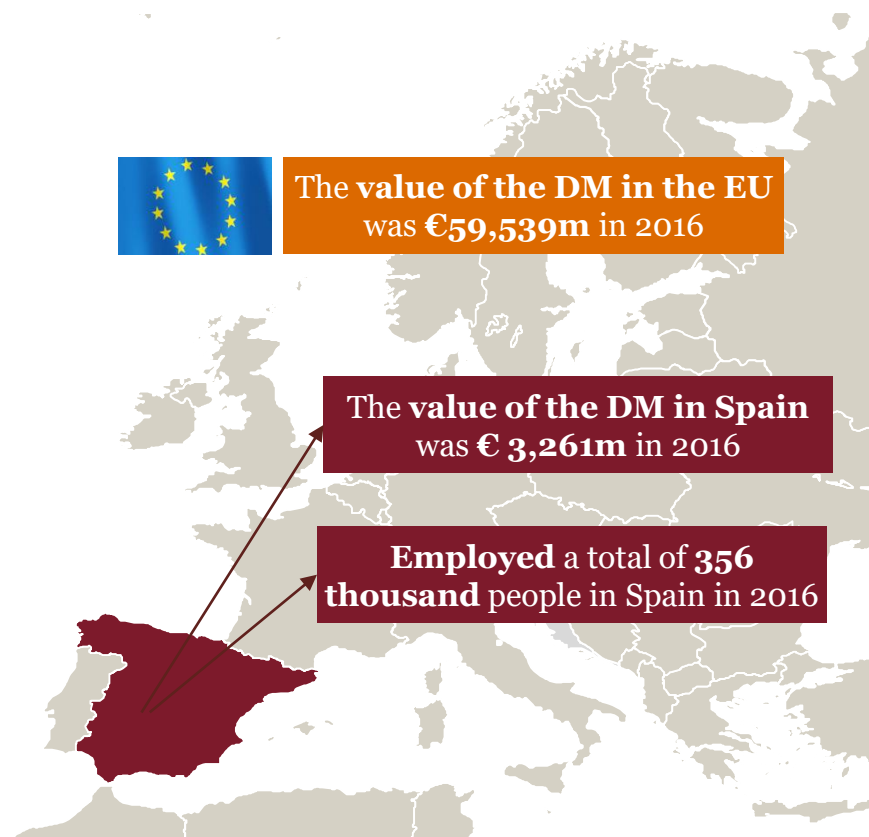
In addition, **online advertising not only increases digital sales but also those through traditional channels**, although this effect is hardly measurable.

Data market is a fundamental innovation tool for all economic sectors, and generated an impact of €20,971m in Spain during 2016

Data Markets (DM) allow to customise the searches that are carried out within the large databases, which results in a **more efficient and economical management** of their storage and processing.

The **European Union is working to achieve a Common Digital Market** where large databases will become the **catalysts for economic growth, innovation and digitalisation** in a cross-cutting way in the economy, but particularly for small and medium-sized enterprises and start-ups.

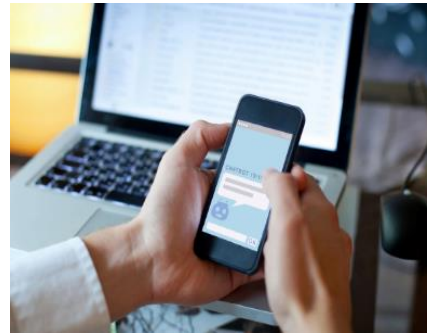
The **impact of the MDs in the European Union almost reached € 300,000m** in 2016, and is expected to exceed €430,000m by 2020.



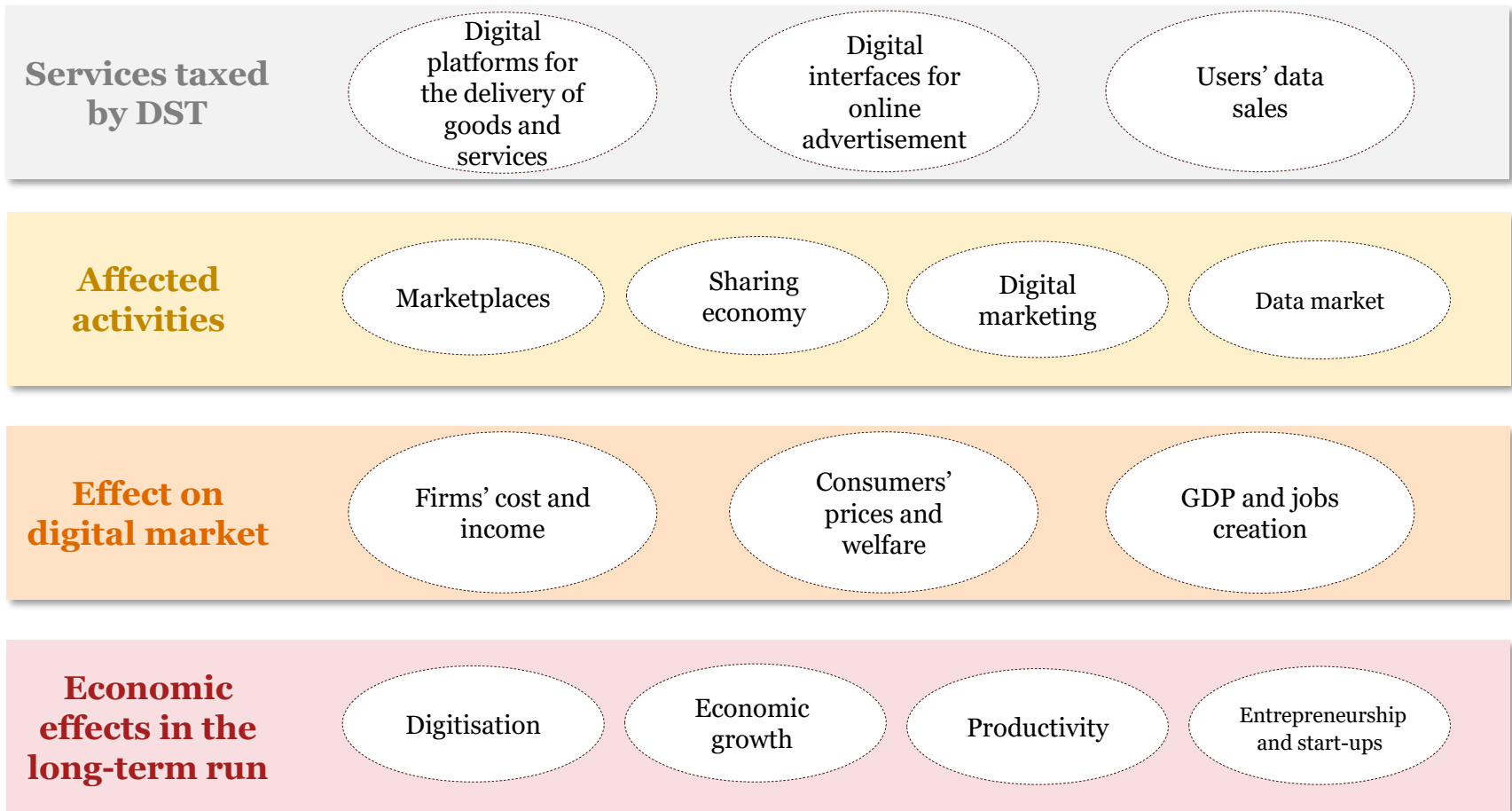
Source: European Commission (2017): European Data Market Study: Data Set Delivery

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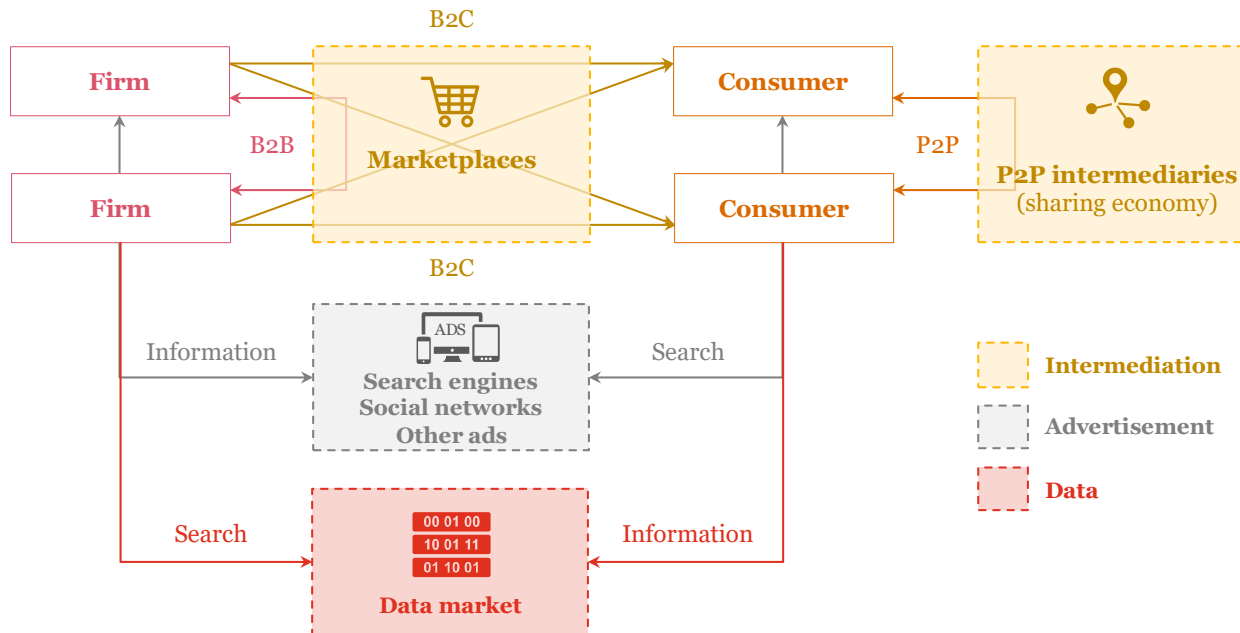
DST will have an impact on e-commerce, digital companies, consumers' welfare and the digitisation of the Spanish economy



DST will affect companies and consumers through intermediation online platforms and digital advertisement

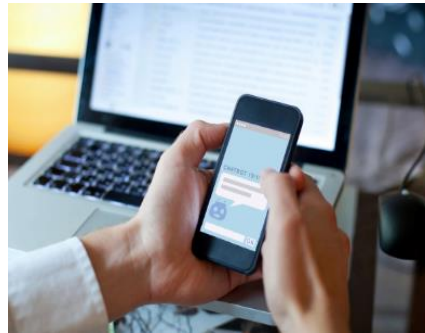
The activities that will be affected by the tax, and its relationship with companies and individuals / consumers, are the following:

- a) Platforms for the exchange of products and services (**marketplaces**), either between companies (B2B) or companies to final consumers (B2C);
- b) Intermediation platforms for the exchange of goods or services between individuals (P2P);**
- c) User data sales;** and
- d) Digital advertising platforms.**



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During the short term, the DST will boost the cost of online goods and services, diminish the activity of digital companies and consequently impact on GDP

Tax cost and pass-through to final prices

- The cost of DST will be transferred to final users of the taxed digital services.
- Depending on elasticity-price of supply and demand of each product or service, firms will share the cost with consumers.

Effect on sales

- With the turnover magnitudes of the digital market, elasticity-price of demand and some scenarios about the supply curve, we can estimate:
 - Variation of prices.
 - Variation on quantities sold.
 - Variation on total revenues.

Effect on firms and consumers

- Once we have the variation in prices and quantities, we can calculate the effect on consumers' welfare (consumer surplus).
- Under some assumptions about company' margins and costs, we can also estimate the effect on profits of DST.

Impact on GDP and employment

- We can measure the total impact (direct, indirect and induced) on GDP and employment from the effect on revenues and profits using the Input-Output methodology.

Given the difficulty of knowing the exact tax base of DST, our estimates will be **expressed in terms of each €1 of DST collected**, and then **scaled using Government expectations of tax earnings** (see slide 12).

We will analyse the effect of an increase in digital services cost of 3% on prices, quantities and total turnover for different goods and services, using their elasticity-price of demand and under some general assumptions regarding costs and margins. The majority of these were taken from the European Commission Impact Assessment Report.

Given the characteristics of the sector, the tax cost will be supported by the users of digital platforms - companies and final consumers-

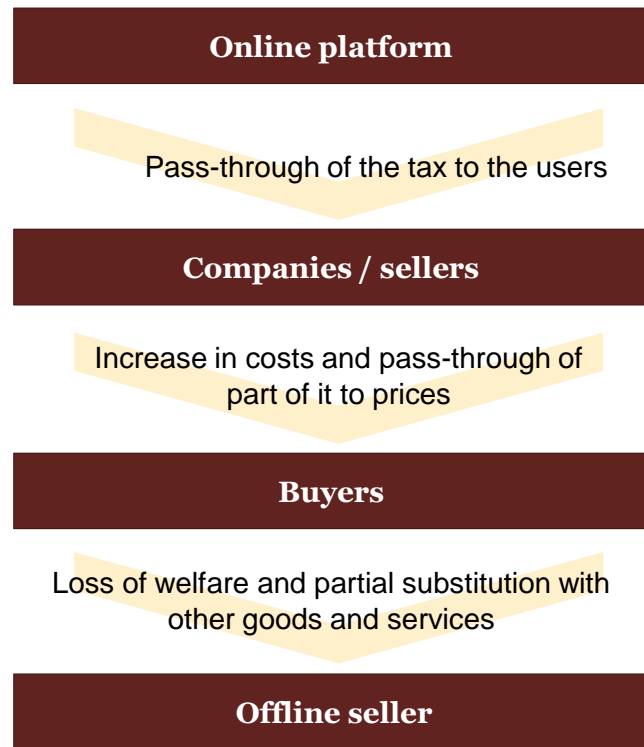


Due to the unprecedented nature of this type of charge on digital services, no quantified references and analyses have been carried out regarding the effects of these taxes on the economy.

However, the empirical evidence¹ of indirect taxes shows that, **independent to the subject obliged to pay, part of the tax will be borne by the consumer**, depending on the price-elasticities of supply and demand, through a readjustment of prices and the quantities sold.

Given the **narrow operating profit margins of digital platforms** (in many cases lower than 5%, as in the case of Amazon -2.3% -, AirBnB -3.6% -, or Zalando -4.2% -²), the final cost will be transferred to the end users of the platforms, mainly the companies, and shared with the consumer.

Among these companies, **SMEs and 100% digital companies will experience the highest increase in cost**, as there are no alternatives to the platforms that are taxed.



¹ For example: Welfare Effects of VAT Reforms: A General Equilibrium Analysis. Bye, Strøm y Åvitsland (2003); Economic Effects of VAT Reform in Germany. Boeters, Böhringer, Büttner y Kraus (2006)

² Source: public income statements.

Companies that use digital services taxed by DST will transfer part of the cost increase to final prices, paid by consumers

Tax cost and pass-through to final prices

Effect on sales

Effect on companies and consumers

Impact on GDP and employment

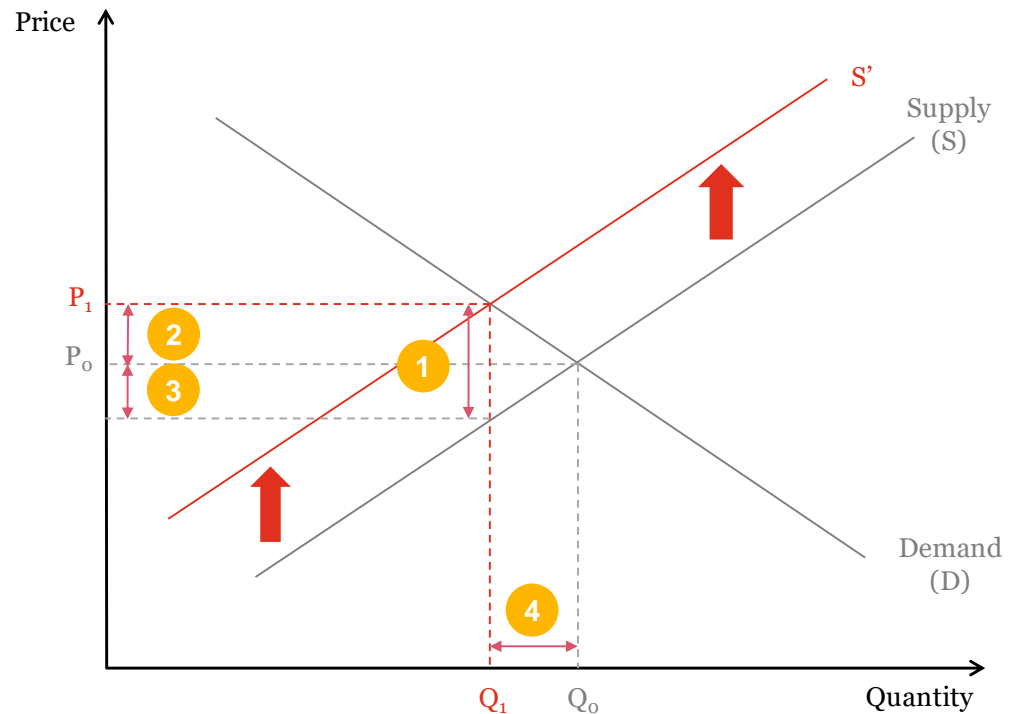
The transfer of the DST cost will increase 3% of the companies cost of digital services (sales platforms, digital marketing), moving the supply curve upwards from S to S' [1].

Depending on the elasticity-price of demand D (variation of the demand of a product or service caused by a variation in prices), there will be a pass-through of part of the cost to consumer (through the price) [2], assuming the producer the remaining cost [3].

The increase price [2] will reduce the amount of units demanded for each product or service [4].

Although it is not represented in the graph, we have taken into account the VAT effect on final prices for consumers, multiplying the effect on prices and quantities.

We have assumed a general VAT rate of 21% for all products and services.



The decrease in quantity sold as a consequence of the increase in prices, will have a negative net effect on the turnover

Tax cost and pass-through to final prices

Effect on sales

Effect on companies and consumers

Impact on GDP and employment

Based on the volumes of electronic commerce by sectors published by INE¹, the increase in costs and estimated price elasticities for different types of products and services², we can obtain the percentage variations in the final price for consumers (incorporating the effect of VAT, $\Delta P_d/P_d$), the quantity received by the seller ($\Delta P_s/P_s$) and the amount exchanged ($\Delta Q/Q$) for each one. Finally, from that point we can obtain the variations in billing ($\Delta R/R$).

The variations have been calculated for a broad range of supply elasticity (the variation in the quantities offered in response to a variation in the price), between 0.75 and 1.25³.

Note that, the higher the price elasticity of the supply, the greater the negative effect on the final price to the consumer.

Sector	$\Delta P_d/P_d$	$\Delta P_s/P_s$	$\Delta Q/Q$	$\Delta R/R$
Food, clothes and shoes	0,29% / 0,22%	0,23% / 0,18%	-0,32% / -0,24%	-0,09% / -0,07%
Pharmacy, plastic, refining	0,32% / 0,25%	0,25% / 0,20%	-0,28% / -0,22%	-0,03% / -0,03%
Metallic products	0,37% / 0,30%	0,29% / 0,24%	-0,22% / -0,18%	0,07% / 0,06%
Electronic, hardware	0,28% / 0,21%	0,22% / 0,17%	-0,33% / -0,25%	-0,11% / -0,08%
Energy, water	0,39% / 0,33%	0,31% / 0,26%	-0,19% / -0,16%	0,11% / 0,09%
Construction	0,36% / 0,29%	0,28% / 0,23%	-0,23% / -0,19%	0,05% / 0,04%
Wholesale and retail commerce	0,27% / 0,20%	0,21% / 0,16%	-0,34% / -0,26%	-0,13% / -0,10%
Transport and storage	0,34% / 0,27%	0,27% / 0,21%	-0,26% / -0,21%	0,01% / 0,00%
Accommodation	0,25% / 0,19%	0,20% / 0,15%	-0,37% / -0,27%	-0,17% / -0,12%
Information and communication	0,33% / 0,26%	0,26% / 0,20%	-0,27% / -0,21%	-0,01% / -0,01%
Real Estate services	0,32% / 0,25%	0,25% / 0,20%	-0,28% / -0,22%	-0,02% / -0,02%
Professional activities	0,35% / 0,28%	0,27% / 0,22%	-0,25% / -0,20%	0,03% / 0,02%
Auxiliary and administration	0,25% / 0,19%	0,20% / 0,15%	-0,37% / -0,27%	-0,17% / -0,12%
TIC	0,28% / 0,21%	0,22% / 0,17%	-0,33% / -0,25%	-0,11% / -0,08%

¹ Survey on the use of ICT and Electronic Commerce in companies 2017-2018

² Obtained from the "Study on reduced VAT applied to goods and services in the Member States of the European Union" (Copenhagen Economics). An additional elasticity has been implemented since they are online products of -0,46 See Annex in the Report).

³ A relatively low range of values has been selected since the elasticity price of the supply is reasonably inelastic within the short term, or at least more inelastic than compared to the long-term.

The Buyers' welfare will drop due to the price growth and lower consumption due to the aforementioned increase

Tax cost and pass-through to final prices

Effect on sales

Effect on companies and consumers

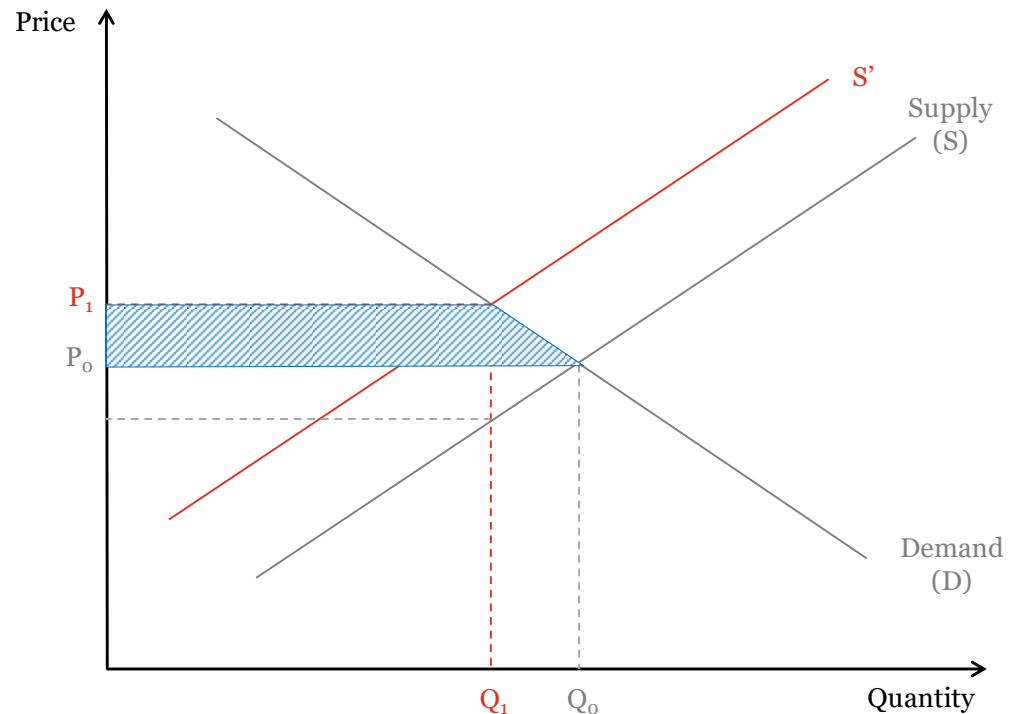
Impact on GDP and employment

Consumer surplus is an economic concept that measures the welfare obtained by the demand of a given good or service due to the units consumed of it.

In this case, the variation of consumer surplus represents the loss of welfare caused by the introduction of DST (as presented in the blue colored area of the graph illustrated opposite). This loss of welfare has two sources:

- The additional cost paid by buyers for the quantities of goods and services consumed;
- The value for consumers (willingness to pay minus the price paid) of non-consumed goods due to the increase in prices.

As a collateral effect, the net drop in sales will have a negative net effect on VAT earnings.



In our designed scenarios, expected DST earnings will have a negative impact on consumers' welfare between €515m and €665m

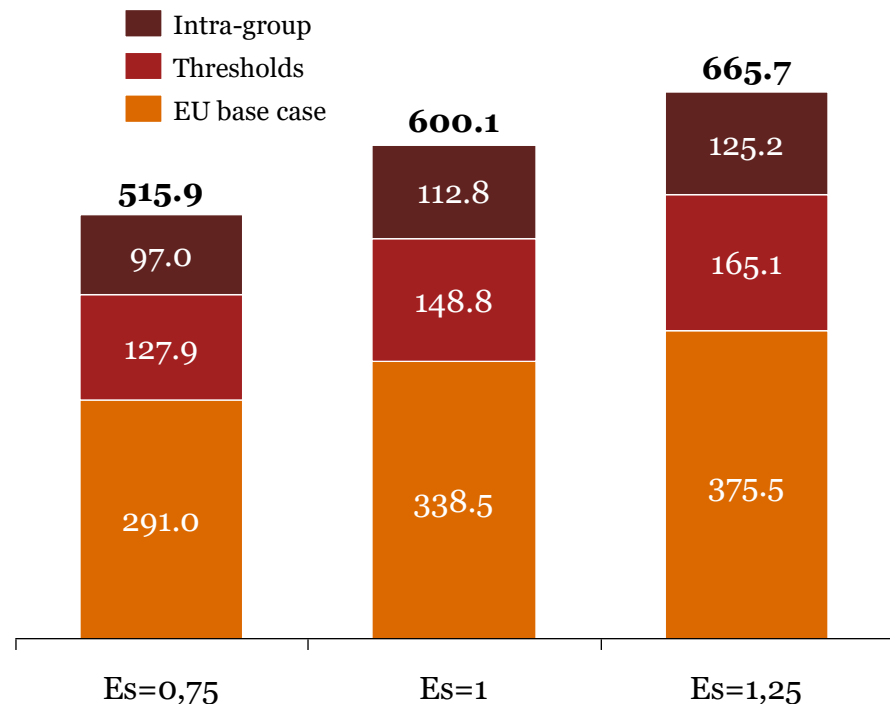


Each €1 of DST collected will have a negative impact on consumer surplus between €0.53 and €0.69, for our range of scenarios for the elasticity-price of the supply (E_s).

If the Government obtains the expected amount of €968m collected in 2019, the total impact on consumers' welfare will be between €515m and €665m.

We estimate that the additional negative impact due intragroup sales taxation and the decrease in thresholds is between €225m and €290m, around 43% more than with the EU proposal.

The graph illustrated opposite shows the results for 3 different scenarios of supply elasticity-price. The higher it is, the higher the pass-through of the tax cost to consumers, and consequently the higher the loss in their welfare.



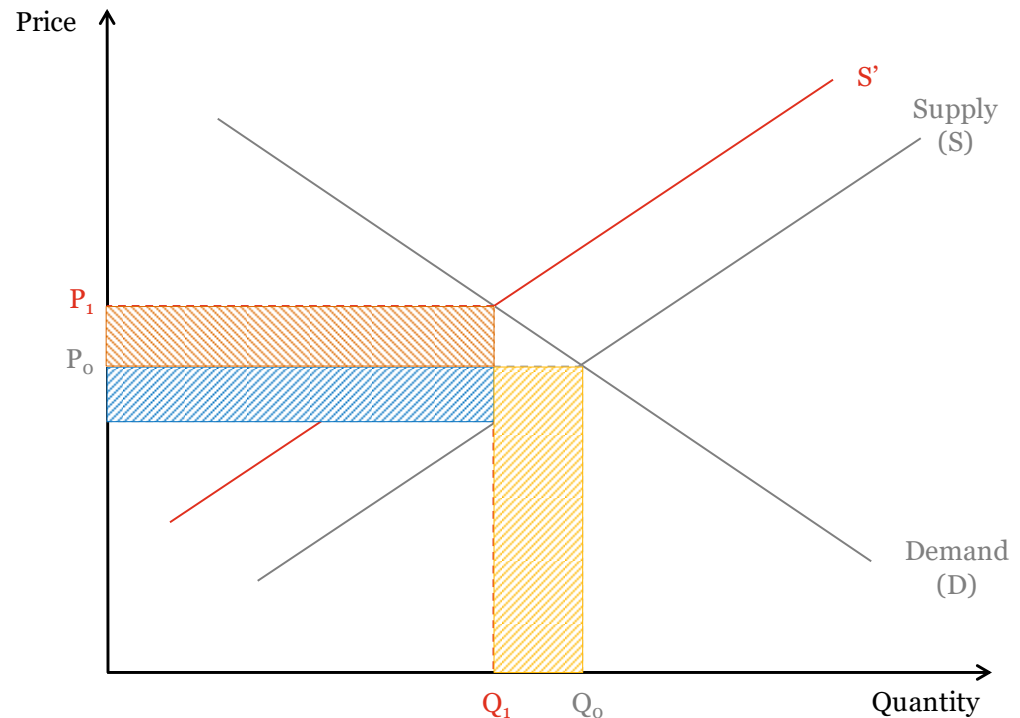
Companies will reduce their revenues as a result of the net effect on prices and quantities, and their operational margins due to the increase in costs



The sellers, on the other hand, will see their turnover diminished (yellow area within graph illustrated opposite) despite the increase in the price (the orange area), due to the lower volume sold, in addition to suffering an increase in costs that will reduce the margin of benefits (the blue area).

All this will reduce the operating profit of the sellers, in regards to the calculation of the variation of the profits, we have assumed an average margin of operative benefit on sales of the digitalised companies of 15%, the same one used by the European Commission for its valuation of the impact of the tax at the European level¹.

The decrease in profits will also result in a drop in the collection of corporate taxes of digital companies.



¹ 1Commission Staff Draft Document. Impact Assessment, Proposal for a Management on the common system of a digital services tax on revenues resulting from the provision of certain digital services, SWD (2018).

Increase in costs and decrease in revenues will drop the operational margin of companies between €450m and €562m

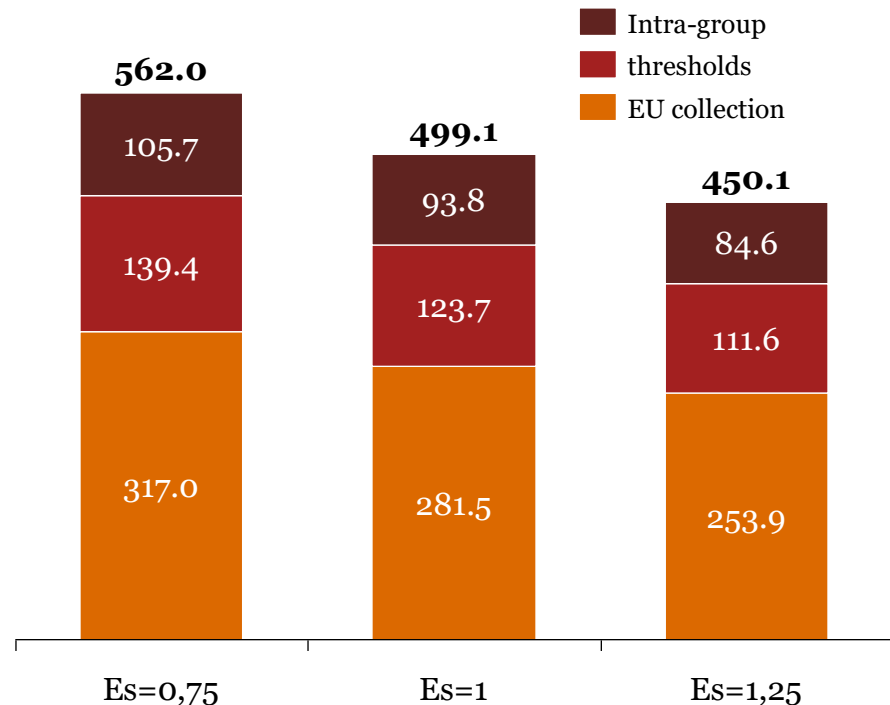


The tax will reduce the operating profit of companies between €0.46 and €0.58 for each euro collected from it, as a result of the rise in the cost of using platforms and online marketing and the decrease in sales due to the transfer of part of it from the price to the final customer.

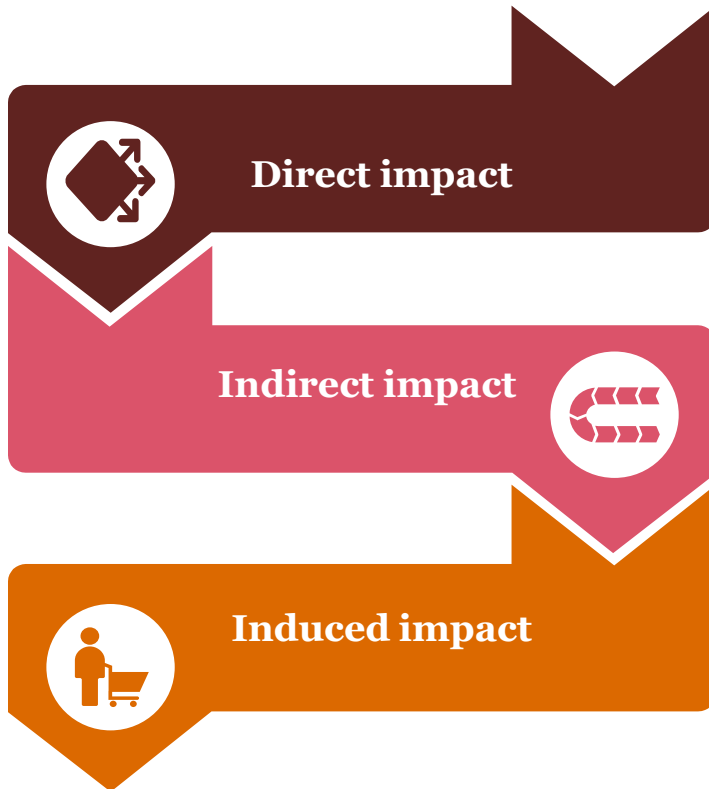
These values would result in a loss for companies that range from €450m to €562m in total, of which between 224 and 245 would come from the reduction of the thresholds with respect to the European proposal and the tax on intra-group transactions.

The graph on the right hand side shows, analogously to consumers, the loss of the expected benefit for businesswomen using digital taxed services, for the same 3 scenarios.

Note that, the greater the elasticity, the higher the transfer of the cost to the consumer and therefore, the lower losses for the sellers.



We will estimate the impact on GDP and employment of this negative effect on company profits and turnover, applying the Input-Output Methodology



Direct impact

Decrease in company profits due to the rise in costs and the reduction in sales, and the loss in wages and salaries, production taxes and jobs caused by the lower turnover.

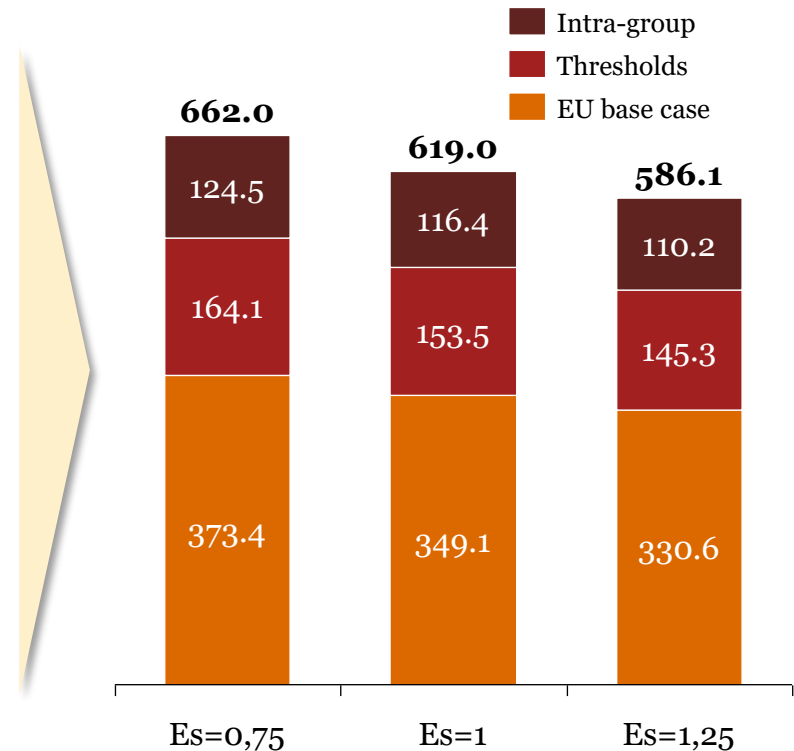
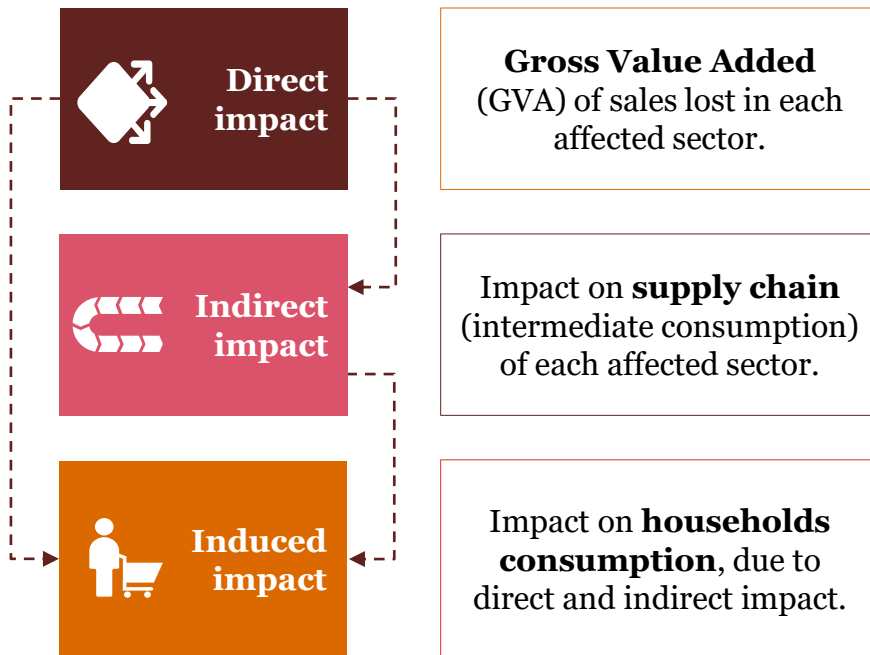
Indirect impact

Lower turnover will decrease intermediate consumption throughout the supply chain of each affected product or service, having an impact on the economy's activity.

Induced impact

Decrease in economic activity (GDP and employment) as a consequence of lower households income due to direct and indirect effects.

The introduction of DST may reduce the Spanish GDP between €586m and €662m



The tax will also have an indirect cost of 'compliance' and adaptation of systems for tax management for firms and tax administration

Obligations provided by the draft proposal

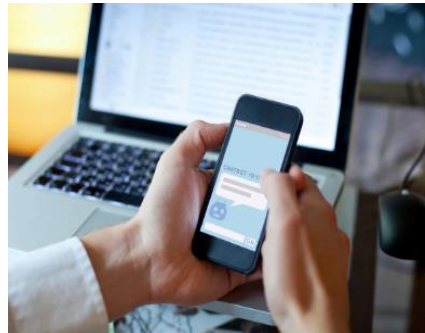
1. Present quarterly statements regarding the beginning, modification and cessation of the activities that determine their subjection to the tax.
2. Present periodically, or at the request of the Administration, information related to their digital services.
3. Request from the Administration its registration in the register of entities created for the purposes of this tax.
4. Keep the records that are established by regulation.
5. Appoint a representative for the purposes of compliance with the obligations imposed, whether they are taxpayers who not established in the European Union.
6. Keep the supporting documents and those including the transactions subject to tax during the prescribed limitation period. In particular, they must keep those means of proof that allow to identify the place of provision of the digital service taxed.
7. Translate into Spanish, or another official language, when required by the tax administration the invoices, contracts or supporting documents corresponding to digital services that are understood to be made in the territory of application of the tax.

These obligations relating to the payment of the tax will require investments and expenses in infrastructure of the company to be able to face them, which will increase the costs derived from the tax. **Additionally, tax administration will also face an extra cost in managing, collecting and punishing infractions.**

However, **these costs are out with the economic impact of the tax analysis**, but it is expected to be high, given the nature of the tax.

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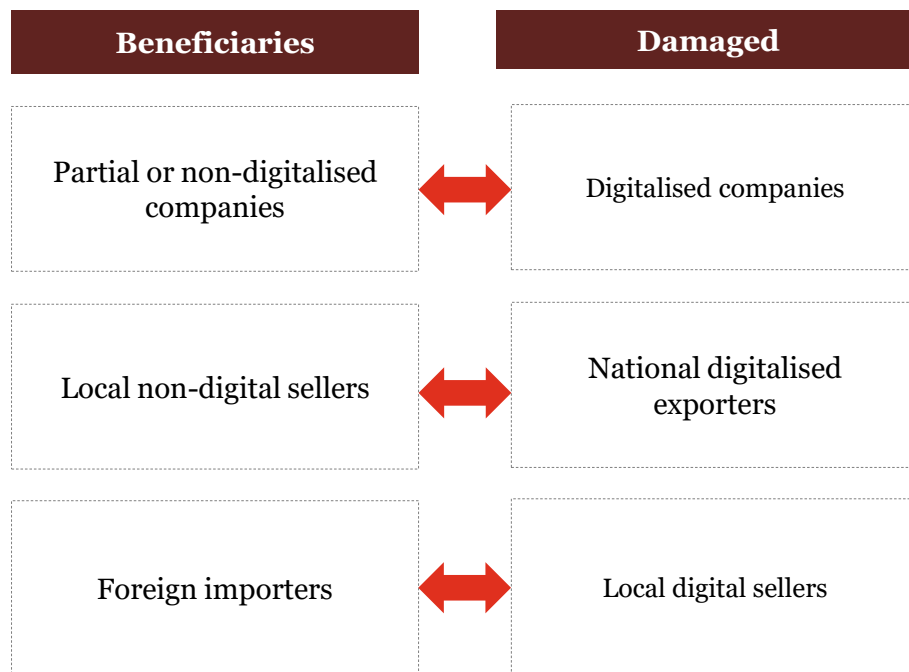
The DST will have a distorting effect on the market, damaging the digital business versus the non-digital

The DST will have a distorting effect on the market, creating competitive advantages of certain companies over others.

On the one hand, the tax will damage the most digitalised companies that use third-party platforms to sell or advertise their products (generally SMEs, due to the lower cost). Digital SME will be damaged (1) when exporting (DST will work as an export tariff); and (2) in the local market, against foreign importers (DST will work as a subsidy to import).

The SME, unable to access another sales channel, will be debating between assuming the cost of the tax and reducing margins and employment, or transferring the tax and reducing its turnover, with the consequent impact on in benefits.

In the second case, the consumer will be affected by their welfare by having to consume products, more expensive, or through an offline channel.



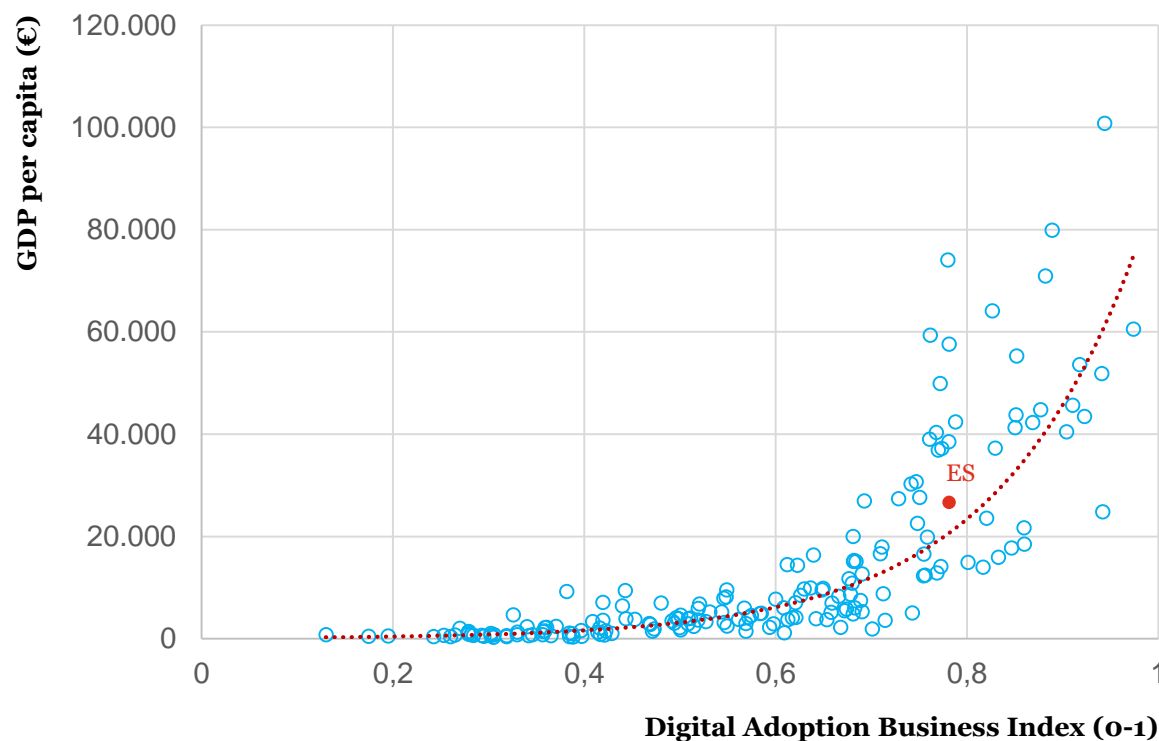
The lower digitalisation of SMEs will result in less productivity, entrepreneurship, R&D and innovation.

The lower digitalisation of SMEs will result in less productivity, entrepreneurship, R&D and innovation and, therefore, less economic growth

The digitalisation of companies is essential to guarantee the competitiveness of the Spanish economy within the medium and long-term and to survive globally. It is also an opportunity for substantial modification or the creation of new business processes that allow Spanish SMEs to grow faster and more solidly, and address new customer segments.

Spain is at an intermediate level of digitalisation and therefore, it still has room for improvement, which would be affected by the distorting effect of DST. The consequent brake on digitisation will have a long-term effect on economic growth.

Relationship between digitalisation of companies and GDP per capita



Source: World Bank and PwC analysis

If the size and efficiency of Spanish companies is not improved, their productivity gap will be increased in respect to the rest of Europe

Spain has a significant fragmented productive framework compared to other European countries, with an increasing weight of SMEs over the total economy. SMEs are less productive than larger companies, which benefit from economies of scale, this being the main factor that slows down Spanish productivity¹. Digitisation allows an increase in productivity through (1) improvements in efficiency and cost reduction, and (2) growth of SMEs and economies of scale.

A 10% increase in the digitisation index of a country results in a 0.75% growth in GDP per capita and a reduction of 1.02 percentage points in unemployment rate². The DST, by ballasting the necessary digitisation process, will prevent these potential benefits that digital technologies can provide to Spain in terms of productivity.

Effect of digitisation on productivity by sector²

Sector	Production (growth %)	Productivity (growth %)
Financial services	1,98	2,82
Manufactures	1,19	1,79
Retail	1,34	0,71
Services	1,27	1,00
Accommodation	1,52	0,41

¹ BBVA Research. *Retos a Largo Plazo de la Economía Española: Dimensión Empresarial e Internacionalización.*

² PwC Strategy&. *Digitiation for economic growth and job creation. Regional and industry perspectives.*

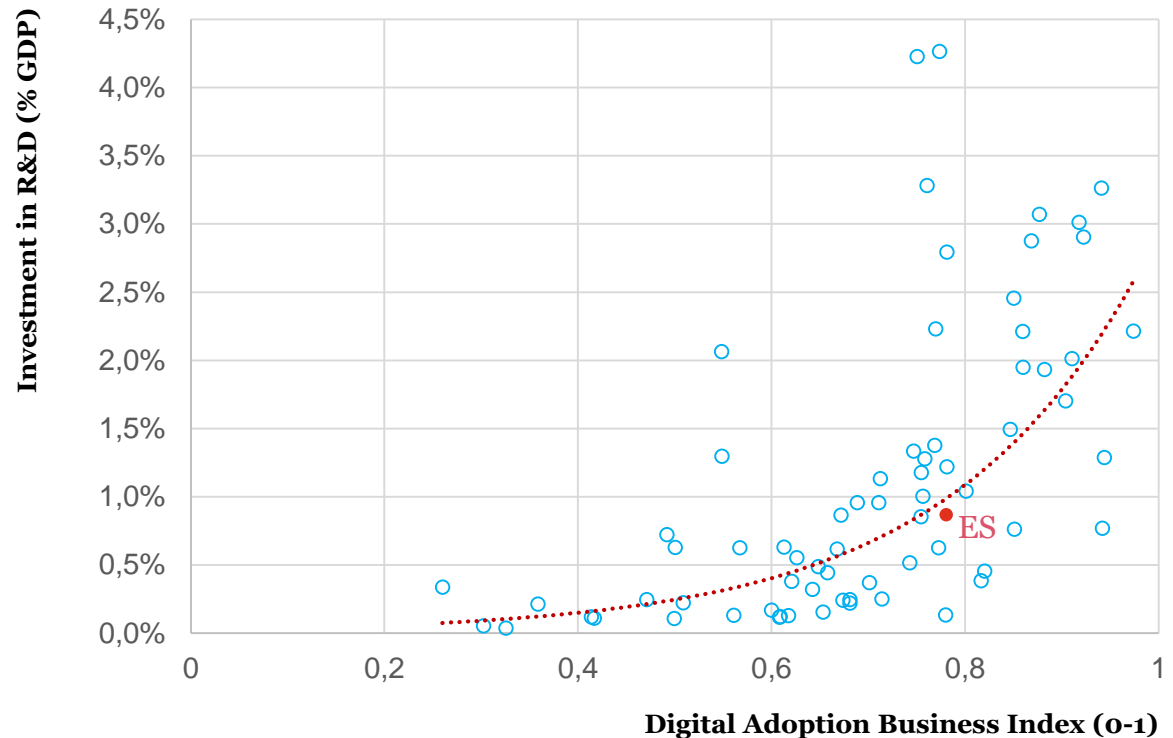
There is an important relationship between digitalisation and investment in R&D, which in turn has a positive effect on economic growth

There is a positive bidirectional effect between digitalisation and R & D. On the one hand, R & D in digital technology increases the level of digitalisation and, on the other hand, the digital environment itself is a lever for the development and innovation of new products, services and processes.

The knowledge generated by the investment in R & D is also a non-rival good, that is, the entire economy can benefit from these innovations generated.

Digitalisation also plays a fundamental role in the transmission of these innovations among all agents of the economy.

Relationship between digitalisation and investment in R & D



Source: World Bank and PwC Analysis

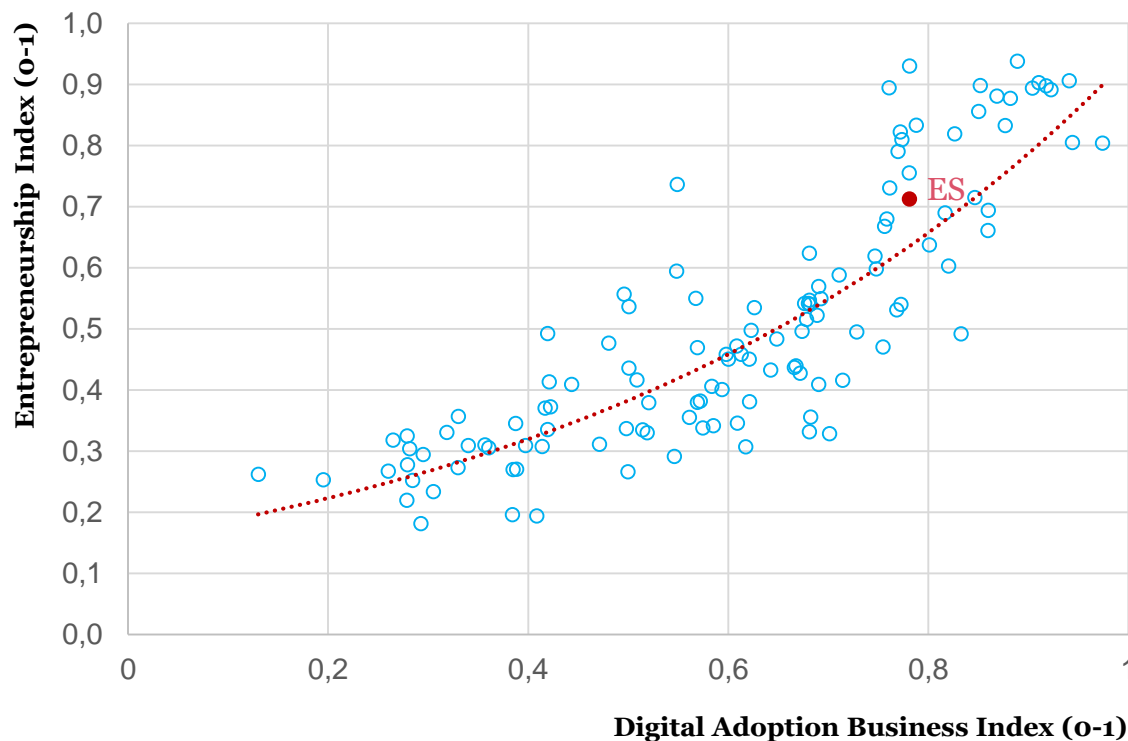
Digital ecosystems also create a competitive environment conducive to entrepreneurship, another positive factor for growth

Digital platforms are an advantage for entrepreneur since they can rely on them, both those linked to social networks and digital markets, to implement a business model that allows them to develop their business more easily.

There is sufficient empirical evidence in the economic literature regarding the positive relationship between entrepreneurship and economic growth.

Startups and entrepreneurship generate significant positive externalities in terms of social and human capital, knowledge and transmission of innovations throughout the economy.

Relationship between digitalisation and entrepreneurship



Source: World Bank, Global Entrepreneurship Institute y PwC Analysis



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