

**IHS TECHNOLOGY**

Presentation


1 March 2016

**Paving the way: online advertising & the digital economy in Europe**

Prepared for EDAA ihs.com



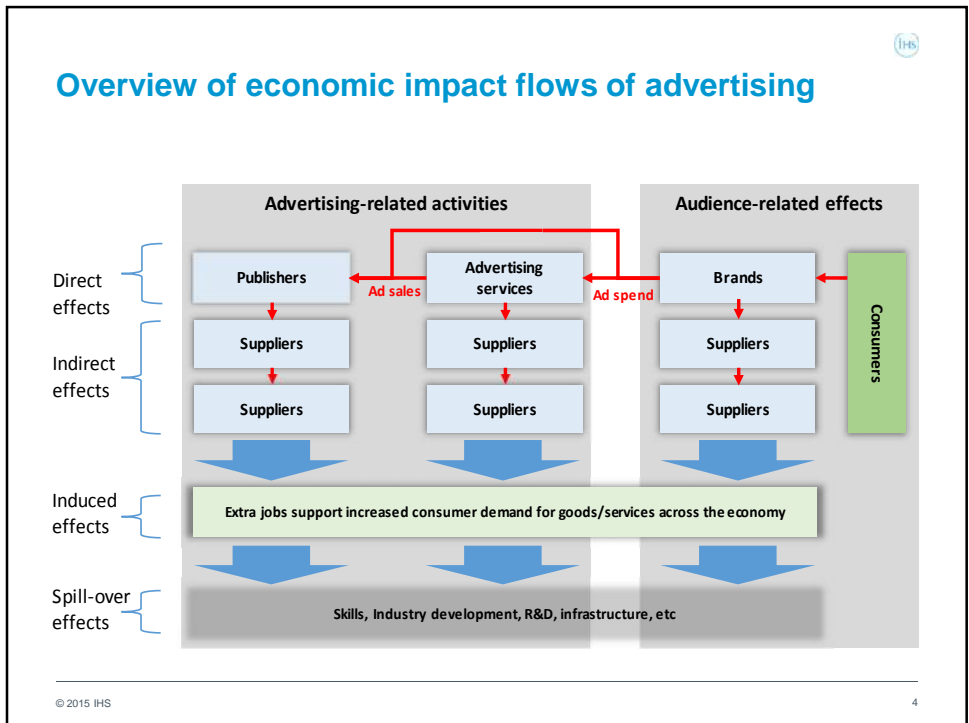
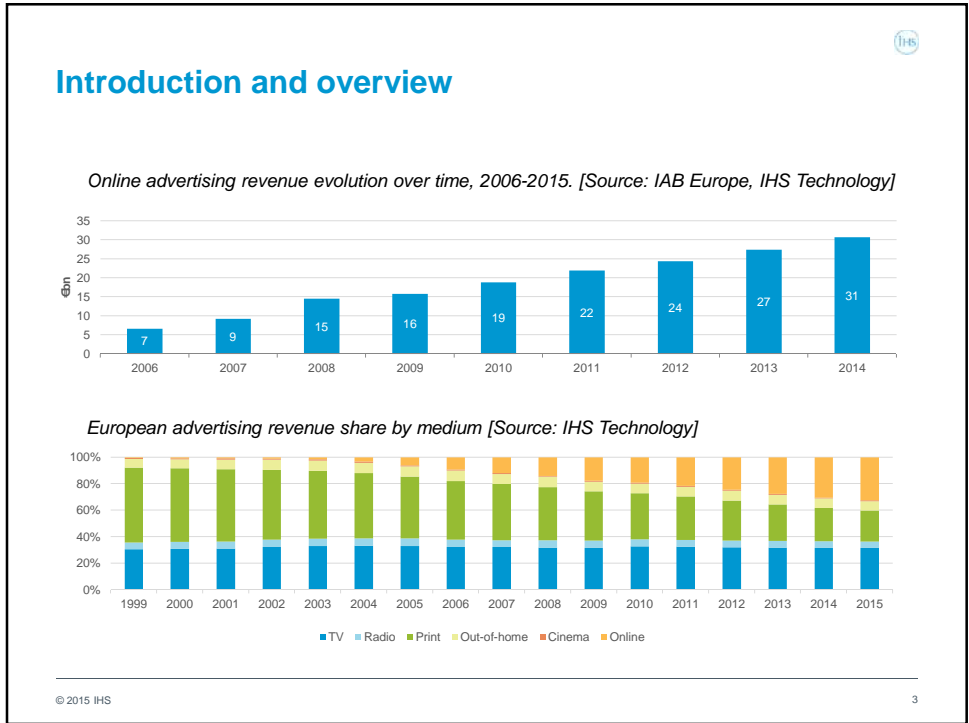
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**Key numbers at a glance**

<b>€46bn</b> invested in online advertising	<b>€31bn</b> revenue generated by publishers	<b>30.4%</b> of all ad revenue generated online
<b>€22bn</b> direct GVA to EU-28 economy	<b>€113bn</b> GVA to EU-28 economy incl. indirect effects	<b>€473bn</b> GVA contribution to EU-28 economy incl. wider ripple effects
<b>0.9m</b> jobs directly in EU-28 online ad industry	<b>1.4m</b> jobs supported by wider online ad industry	<b>5.4m</b> jobs supported if broader effects taken into account

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## Secondary analysis of literature and segmentation of types of economic impact

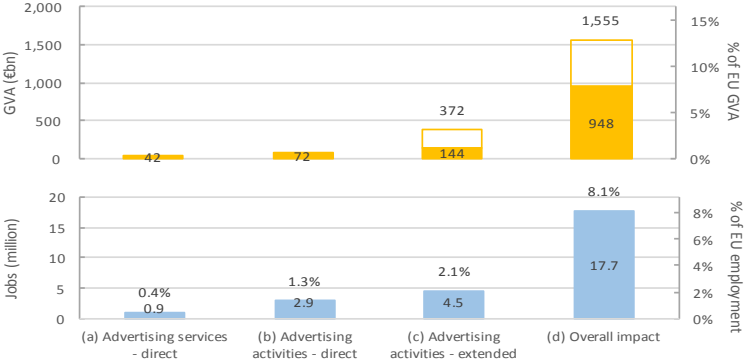
- **Direct footprint of advertising services:** GVA and jobs data as reported by Eurostat for the ‘advertising’ industry in official statistics (corresponding to advertising services in our definition)
- **Direct footprint of advertising related activities:** as above, plus jobs and value added for advertising-funded publishers (for advertisers that are only partly ad-funded, only a corresponding proportion of jobs and value added is taken), and advertising-related staff within advertisers (e.g. within marketing departments)
- **Extended footprint of advertising-related activities:** as per (b) above, but also considering the corresponding indirect and induced effects
- **Overall economic impact:** including all of the above as well as audience-related effects.

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## Estimated 2013 Contribution of advertising to EU employment and GVA advertising through direct, indirect, induced and audience-related effects\*

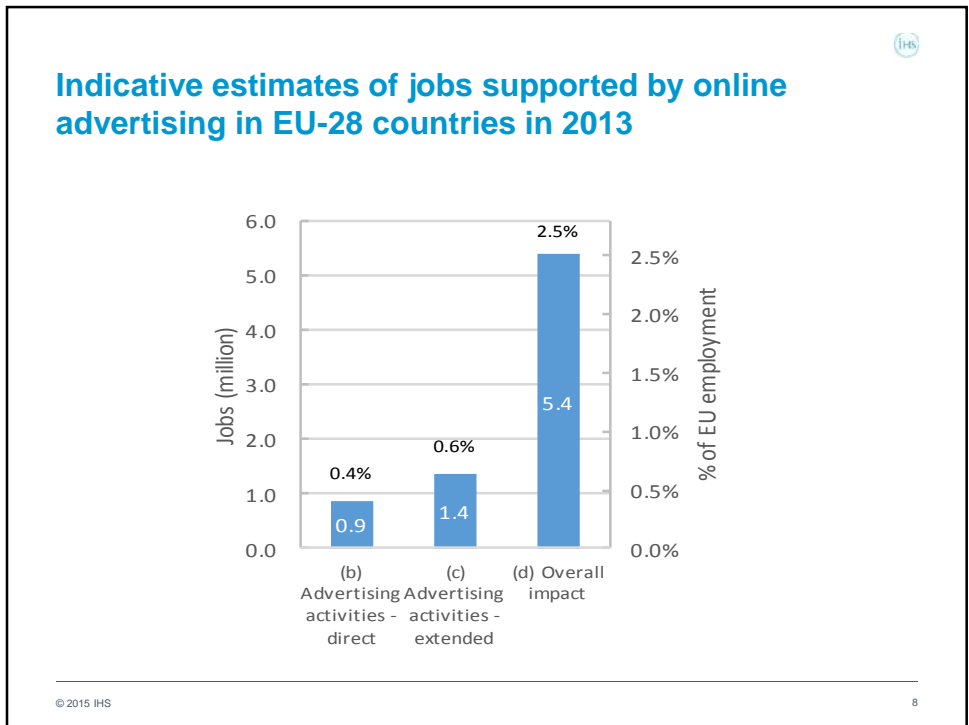
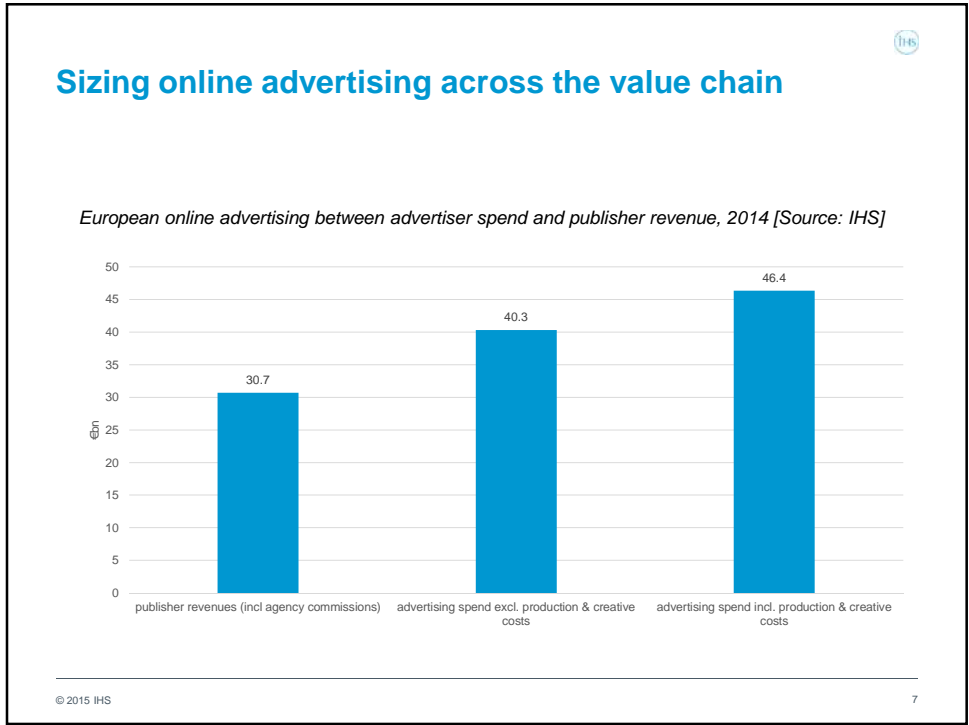


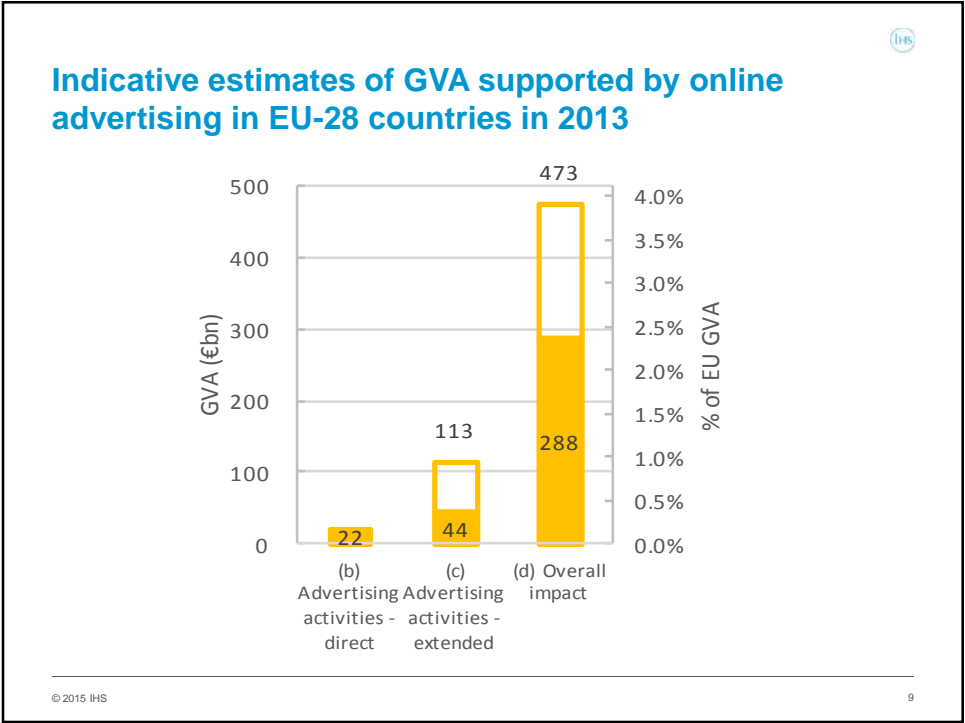
Category	GVA (€bn)	% of EU GVA	Jobs (million)	% of EU employment
(a) Advertising services - direct	42	0.4%	0.9	0.4%
(b) Advertising activities - direct	72	1.3%	2.9	1.3%
(c) Advertising activities - extended	144	2.1%	4.5	2.1%
(d) Overall impact	1,555	8.1%	17.7	8.1%

\*GVA data for 2013 has been estimated based on available 2013 data. 'Empty boxes' denote high and low estimates depending on the sources and methodologies used. Source: IHS Technology estimates based on data and estimates from IHS Global Insight, IHS Technology, Eurostat, Deloitte, Cambridge Economics and Work Foundation]

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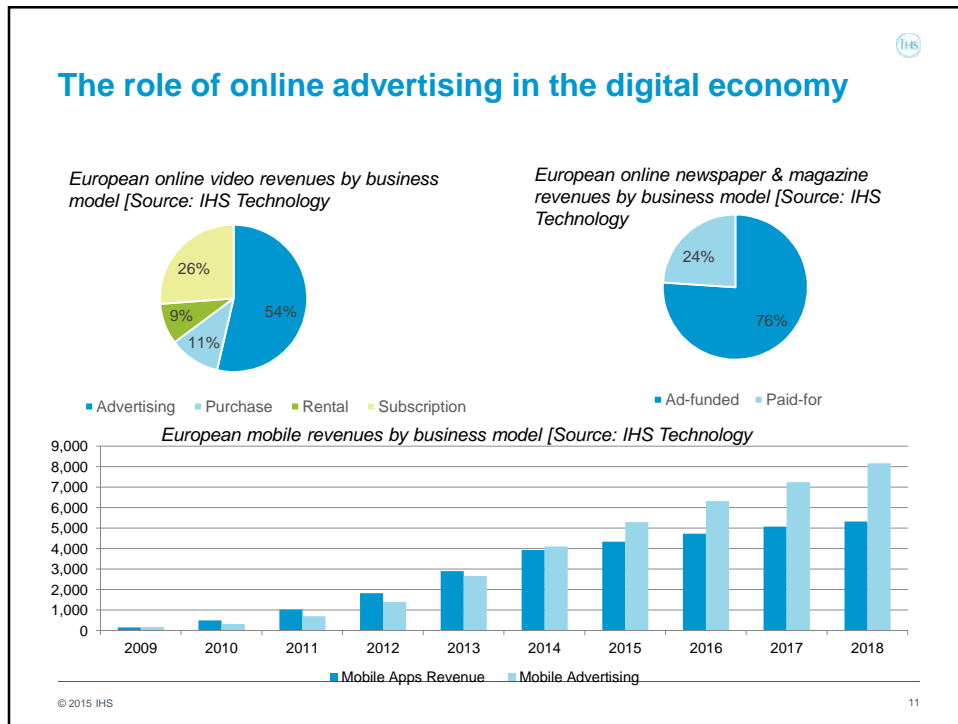


### Defining and quantifying the digital economy

- Definitions centred around the **Internet**, which vary from including all online service providers, to also encompassing network operators and equipment manufacturers
- Definitions centred around **Information and Communication Technologies (ICTs)**, which generally encompass (among other things) all providers of computer hardware and software, all telecommunications services, and all associated professional services.
- To gain a sense of the digital economy's size, we have reviewed a number of existing studies.

Study	Type of definition	GDP contribution		Jobs (% of employment)	
		Restrict ed	Exten ded	Restrict ed	Exten ded
(Boston Consulting Group, 2012)	Internet	5.30%			
(Deighton, 2012)	Internet	2.0% (average of high & low estimates)		1.4% (direct)	3.6% (inc indirect & induced)
(McKinsey, 2011)	Internet		3.4%		
(OECD, 2014)	ICT	6%		4%	
(Tech City UK, 2015)	ICT			4.7%	

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## The ripple effect of skills developed in digital advertising

- Staff with digital skills are hard to come by. For example, a 2013 survey of European managers found that 62% believe there is a shortage of data-related skills (Teradata, 2013), and McKinsey (McKinsey, 2011a) predicts that by 2018 the US will have a shortfall of data experts of around 180,000. These are precisely the skills that are key in online advertising.
- Online advertising has been a key breeding ground for not only the skills but also the technologies and techniques that are expected to transform the overall economy. For example, the R&D efforts of firms active in advertising technology have played a key role in exploring practical applications of concepts such as 'bandit' algorithms, which have a wealth of applications from medicine to finance.
- There are already encouraging signs that such cross-fertilisation is taking place in Europe, with innovative start-up in many areas leveraging approaches, skills and talent from online advertising and adjacent digital industries. For example, Kloeckner-I in Germany is focussed on "digitalization for the steel industry".

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**Thank you**



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