

Press release

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DotEcon receives Queen's Award for Innovation for online auctions

Ofcom to use combinatorial clock auction for award of 4G licences

Economic consultancy DotEcon has received a Queen's Award for Enterprise in the Innovation category for the design and implementation of online auctions, used by governments worldwide for the sale of valuable public assets, notably radio spectrum.

DotEcon designed and implemented the combinatorial clock auction used for the recent UK spectrum auctions by Ofcom, which also intends to use the format for the forthcoming auction of 4G phone licences. Since 2002, DotEcon has also implemented more than 20 major spectrum auctions across the world, raising substantial government revenues: the auction of 3G and BWA licences in India generated £14bn in 2010.

DotEcon has been recognised for over ten years of continuous auction design and software development, enabling complex economic theory to be translated into practical application and a range of advanced auction formats to be tested and then efficiently and quickly deployed, using its web-based WebBidder platform.

In particular, the Award acknowledges the company's pioneering work in implementing the combinatorial auctions that are ideally suited to selling radio spectrum. These allow bidders who rely on different technologies and different business plans to compete on a level playing field and regulators to maintain competitive markets by ensuring that spectrum does not become excessively concentrated in the hands of a few operators.

As well as its public sector work, DotEcon has advised bidders in spectrum auctions, and across other sectors including petrol retailing and nuclear energy, in more than a dozen countries across Europe, the Americas and Asia Pacific, helping them to develop and test auction bid strategies and to train their bid teams.

"Economics is not just about forecasting stuff", commented DotEcon Founding Partner Dr Dan Maldoom, "rather economists are increasingly working like engineers, building practical tools to solve real-world problems. Better managing public assets like radio spectrum creates enormous value for everyone, from poorest to richest. Using auctions to award government-granted concessions and licences ensures that these vital resources are efficiently used and achieve a fair return for the taxpayer. Hopefully we will see these tools used ever more widely in both the public and private sector. We are very grateful for this recognition of our work in this field."

ENDS

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Notes for editors:

The Queen's Award

The Queen's Award for Enterprise is the UK's top award for business performance. Awards are made by Her Majesty The Queen on the advice of the Prime Minister and his advisory committee, comprised of leading industry leaders and government representatives, for special contributions towards innovation and commercial success. The Queens Award for Enterprise will be conferred on Her Majesty's birthday, 21 April 2011.

About DotEcon

DotEcon is an economic consultancy advising private and public sector clients in:

- Competition cases, regulatory proceedings and commercial litigation
- Public policy design and regulatory impact assessments
- Design and implementation of auctions and trading mechanisms
- Bidder support for high-value transactions
- Econometric analysis and data mining
- Business strategy and decision support

Founded in 1999, the company focuses on providing high-value advice to governments and leading companies using rigorous microeconomic techniques. DotEcon works for clients across the world, and is involved with many high-profile policy debates and business decisions. DotEcon has a particular focus on network industries such as telecommunications, transport, energy and payment systems.

For more information: www.dotecon.com

DotEcon spokesmen are available for interview/to provide comment on the following topics:

Auctions, bidding processes and market design

- Use of auctions for 4G licences across Europe
- Use of auctions for procurement and their impact on suppliers
- Public procurement, competition and efficiency savings
- Market-based approaches to the delivery of public services

Regulation and spectrum management

- Access to infrastructure, incentives for network upgrading and maintaining competition
- Regulatory policy across the value chain
- Spectrum management – technology- and service-neutral licensing

Media economics

- Digital piracy/the copyright framework – Digital Economy Act
- Pay TV regulation – Ofcom and Sky
- Take-up modelling for new services – such as mobile TV

Competition policy

- Anti-competitive practices (or not) – interchange fees in the banking sector
- Mergers – consolidation in the cable and mobile phone sectors

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FURTHER BACKGROUND INFORMATION – ONLINE AUCTIONS*What are these auctions used for?*

Auctions are finding many new applications. Governments now use them routinely to allocate resources as diverse as radio spectrum, oil fields, government bonds and carbon emission rights. Both governments and B2B buyers are streamlining supply chains and saving money with procurement auctions. Regulators now use auctions for enforced divestments following mergers to prevent sweetheart deals. New ideas about bidding processes are influencing competition enforcement and merger control.

Why do spectrum auctions matter?

Radio spectrum is the life-blood of the mobile communications industry. Access to large amounts of radio spectrum is essential for fulfilling ambitions for high bandwidth data services on the move. These services are increasingly key inputs into many sectors of the economy and are now seen as essential to achieving economic growth by initiatives such as the European Commission's Digital Agenda 2020.

What is novel about combinatorial auctions?

In these auctions, spectrum can be offered in a very flexible manner, by offering the frequencies in small lots and giving bidders the opportunity to assemble combinations of lots as they wish without risk that they might win only part of what they would ultimately need. This means that bidders with potentially very different needs can compete for spectrum licences on a level playing field. Complex algorithms are used to trade-off the competing demands of different bidders and ensure that the best possible use is made of the available resources.

Why are such new auction formats needed?

In order to promote efficiency and innovation, radio spectrum is increasingly offered on a technology- and service-neutral basis. This allows operators to use different wireless technologies, and pursue different business plans with different spectrum requirements, yet to compete fairly for radio spectrum. In order to accommodate these different needs, spectrum is typically offered in small blocks that bidders can combine to suit their particular requirements. However, unless an appropriate auction format is used, this flexibility also exposes bidders to the risk of winning some, but not all of the blocks that they need. The combinatorial auction formats developed by DotEcon eliminate such risks, without penalising bidders with smaller spectrum requirements. These auction formats are particularly suitable for making spectrum available for the latest 4G mobile data technologies, such as LTE, where bidders may wish to access larger blocks of spectrum.

How are these auctions different from the UK's £22.4bn 3G auction in 2000?

In the UK 3G award, the Government made an administrative decision about how spectrum was packaged, with a bidder being able to bid for only one lot. The amount of spectrum for each spectrum licence was given and bidders had no option to combine different lots offered in the auction. Essentially one lot equalled one operator in the 2000 auction. The new forms of auction that DotEcon has pioneered provide much more flexibility to allow different telecoms operators to assemble different amounts of spectrum to meet their particular needs. These latest auctions provide a level playing field for different technologies to compete in a way that was not possible with first generation auctions.

Is the UK using these auctions?

Ofcom has already successfully run two combinatorial clock auctions designed and implemented by DotEcon: the L-band auction and the 10-40GHz auction, both of which took place in 2008, and a sealed bid combinatorial auction for the award of spectrum in the 412-414 MHz paired with 422-424MHz band in 2006, also designed and implemented by DotEcon. These proved the versatility of the format, which is now proposed for the forthcoming UK "4G" auction planned for 2012.

Which countries have used DotEcon's auctions?

DotEcon's combinatorial auction designs have been used in the UK, Ireland, Holland, Austria and Denmark. Switzerland is planning to use DotEcon's combinatorial auction design for its forthcoming award of frequencies across all bands suitable for mobile services. DotEcon has also run more conventional auctions around the world, including India, Sweden, Norway and Hong Kong.

What are the future applications for auctions?

Governments have been using, or are looking at the feasibility of using, auctions and market mechanisms for selling many different rights and concessions: oil tracts, emission permits, power station sites and water abstraction rights to name but a few. Auctions can also be used to procure goods and services cost-efficiently. DotEcon regularly works with both public and private sector partners looking to apply auctions and market mechanisms in new areas.