

Annex 1 – Opening Speech by Megan Richards

The Internet of Things Conference

Poznań, 26 October 2011

Opening Speech by Megan Richards

- It is a great pleasure for me to be here today with you in Poznań during the Polish presidency of the European Union and to be able to experience at first hand this "action packed" Future Internet week.
- This Internet of Things Conference is the fifth to be held under the auspices of an EU Presidency: following those of Berlin (June 2007), Lisbon (November 2007), Nice (October 2008), and Budapest earlier this year. There is clearly a growing understanding of the importance of the Internet of Things and the role that research will and can play in developing further policy in this area in the coming years.
- The Internet of Things will be central in underpinning the future growth and development of Europe's economy by providing consumers with new products and services at lower cost and greater variety. And Europe is taking an active and indeed leading role in setting high technical and policy standards for competitive, privacy-aware, secure, and affordable Internet of Things-based applications and services.
- But what is important about the Internet of Things is not the "things" themselves but its impact and implications for people. For no matter how important the Internet of Things may be or we might like it to be,

nothing trumps people in this equation. Otherwise this hall would be full of "things" and not you.

- At the last Internet of Things conference in Budapest, I suggested that the following key questions needed to be addressed:
 - How do we take the bright ideas and keen insights about Internet of Things technology developments and applications and turn them into something powerful for Europe's economy?
 - How do we capitalise on Europe's current leadership and commitment in the domain of the Internet of Things to make innovation that accommodates the needs and expectations of its citizens and society?
- We have begun to look at answers to them by taking the following actions:
 - First, to maintain **an organised and continuing "disruptive" voice**, industry and academia have been supporting Internet of Things research and innovation through collaboration. The *European Research Cluster on the Internet of Things* that combines 20 IoT related projects with some € 90 million EC funding, is demonstrating this. The cluster targets even better integration with IoT initiatives in the Member States. Its activities cover dynamic network architectures, standardisation requirements, privacy and security, IoT Governance, and enhanced international collaboration with major global players all of which will be important to make progress in IoT governance.

- Second, **an on-going policy forum** will be key to ensuring adequate Governance of the Internet of Things. An EU-funded Coordination Action, coordinated by the University of Surrey in England, will soon establish an "IoT Forum". This forum will serve as a platform for global debate on Internet of Things, bringing together technology and service providers, academics, end-users and actors from multiple application domains, as well as policy makers. The launch of this initiative will take place on November 23rd and 24th in Berlin.
- In this context too, it will be essential to ensure global reach of forums. You will have heard perhaps of the dynamic coalition on the Internet of Things that was proposed at the last meeting Internet Governance Forum in Nairobi. This will build upon the work being carried out in the Internet of Things expert group established by the European Commission and reach out to stakeholders beyond European borders.
- Third, to **broaden and prioritize research and innovation efforts** the discussions on Horizon 2020 will very important, particularly in the EU Member States. I count on all of you, given your different backgrounds and interests to make your voices known to the public authorities and to ensure that adequate support of IoT research and innovation is adequately included in future research funding priorities. We have started this debate but it must continue and develop.
- Fourth, **talking to the public** is of course essential. You have a special knowledge and interest in IoT and its future development. But the public does not necessarily understand

who you are, why you are important to the European economy, and why the Internet of Things can benefit our economy and citizens. You are even closer to citizens and have a direct interest, so your efforts will be invaluable in continuing to talk to your neighbours, your family, your community, to pass on the right messages.

- In July 2011, Vice-President Kroes launched an initiative to develop a proposal for a future Commission Recommendation on the governance of the Internet of Things by 2013. It would be pre-mature today to speculate on the details or exact nature of such a Recommendation but will most likely address principles for: the naming and addressing of objects, defining allocation policies for IPv6 numbers, ensuring fair competition against market domination and discrimination, securing privacy and the protection of personal data. Governance will also need to address any ethical issues that may arise.
- Today's conference is an important milestone in the open consultation process with all stakeholders that will accompany this initiative. The launch of an online public consultation will take place this year and you are of course encouraged to add your voice to those contributing responses.
- So on to some details of today's conference: The first discussion panel will address the challenges and opportunities that the Internet of Things offers to European enterprises. The "Sensing Enterprise" will enable exchange of data between assets and business artefacts ensuring that the enterprise system delivers more efficiency in business processes and developing new business models.

- The second panel will debate the principles that Europe should pursue to ensure that participation in the Internet of Things is affordable for everyone. To achieve this we need a clear view on the optimal model for the governance of the Internet of Things.
- I wish you an insightful and inspiring conference and look forward to hearing about its results.

Annex 2 – Keynote Presentation by Elżbieta Hałas



Institut Logistyki i Magazynowania

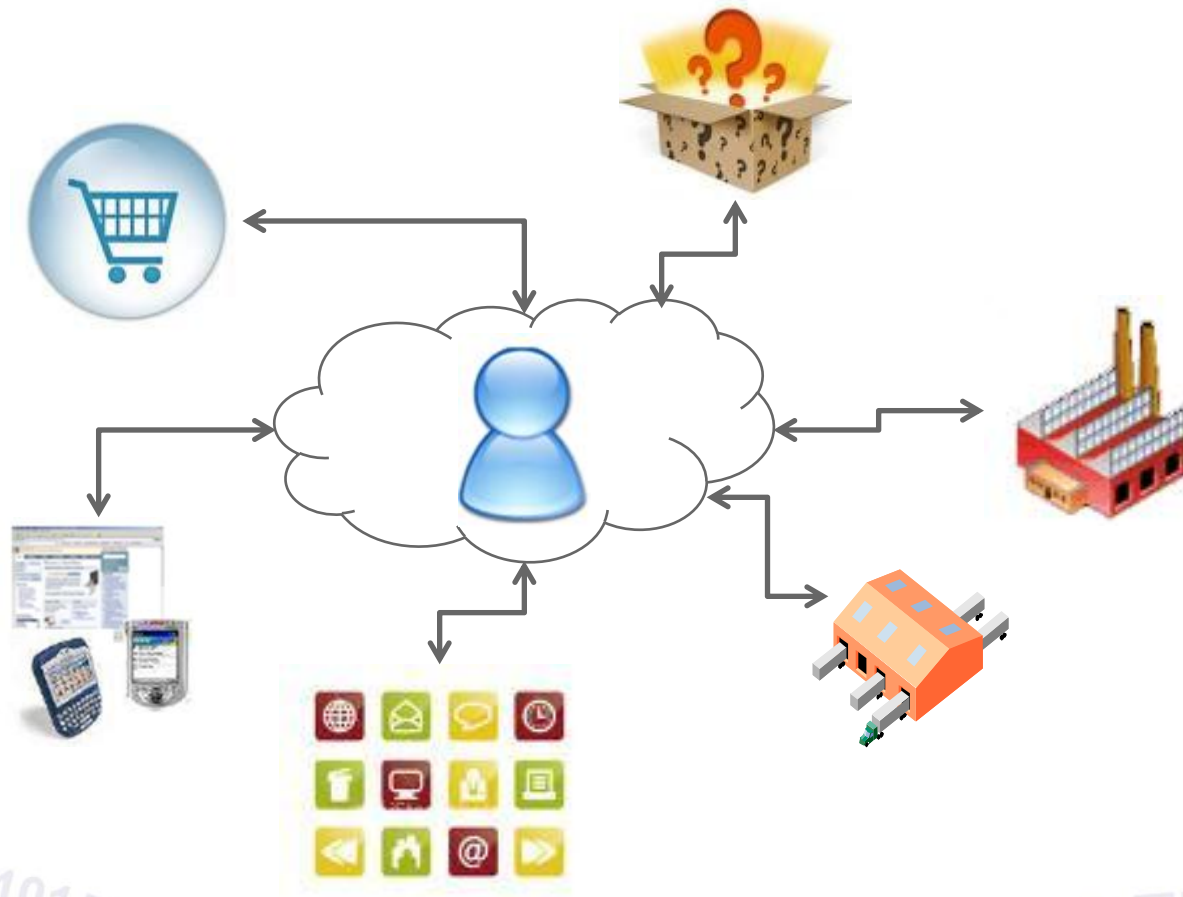
Visibility of products in the Internet of Things

Elżbieta Hałas
Institut Logistyki i Magazynowania
CEO GS1 Poland
Chair of GS1 in Europe



Challenge

Connecting places, things & people...



Visibility



Illustrations for TIME by C.J. Burton





GS1: The Global Language of Business



Institut Logistyki i Magazynowania



GS1 is a neutral not-for-profit organization driven by its users, that facilitates collaboration amongst trading partners, to create more efficient, safer and sustainable value chains through global standards.





GS1: the most widely used system of standards in the world



Instytut Logistyki i Magazynowania

GS1 is a fully integrated not-for-profit global organization

- More than 30 years of history
- Over 111 local GS1 Organizations representing all points in the supply chain
- Over 1.5 million member companies, from multinationals to SMEs, doing business across 150 countries

GS1 operates in multiple sectors & industries

- Over 20 represented sectors ranging Retail and Consumer Goods to Healthcare, Transport & Logistics, Aerospace & Defense...





At GS1, our **vision** is a world where **goods** and related **information** move **efficiently** and **securely** for the benefit of businesses and people's lives

Our **mission** is to be the **neutral** leader enabling communities to develop and implement **open global standards**



Visibility – the ability to know exactly where a given object is at any point in time, and why it is there, along the end-to-end supply chain



What?
Where?
When?
Why?

A magnifying glass with a black handle and a silver frame is positioned over the text. The lens is focused on the four questions: 'What?', 'Where?', 'When?', and 'Why?'.



GS1 Global Visibility Framework



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Global Location Number



Manufacturer



Item



Case



Pallet



Transport

Global Location Number



Distributor



Transport



Pallet

Global Location Number



Distribution Center



Transport



Case



Item



Store



Customer

Global Location Number



Identify

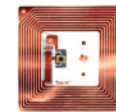
GTIN
Global Trade Item Number

SSCC
Serial Shipping Container Code

GTIN
Global Trade Item Number

Capture

GS1 System Data Carriers
Barcodes and EPC-enabled RFID tags



Share

Electronic Commerce Information Flow

Electronic Data Interchange ••• Extensible Markup Language ••• Global Data Synchronization Network ••• EPC Information Services

Interoperability

Item Data

Request For Quotation

Price And Promotion Data

Purchase Order

Planning Schedule

Shipping Notice

Invoice

Product Recall

Without visibility

- Lost inventory, stolen inventory, **lost sales**
- **Bottlenecks** and delays in orders and deliveries, goods stuck at customs
- **Tampered goods, damaged goods, counterfeit goods** along the supply chain and no way of identifying it
- **Bigger product safety** crises: slower identification of source of safety issue, slower recall process

Visibility gives you the power to see and understand what you didn't know so that you can act upon it

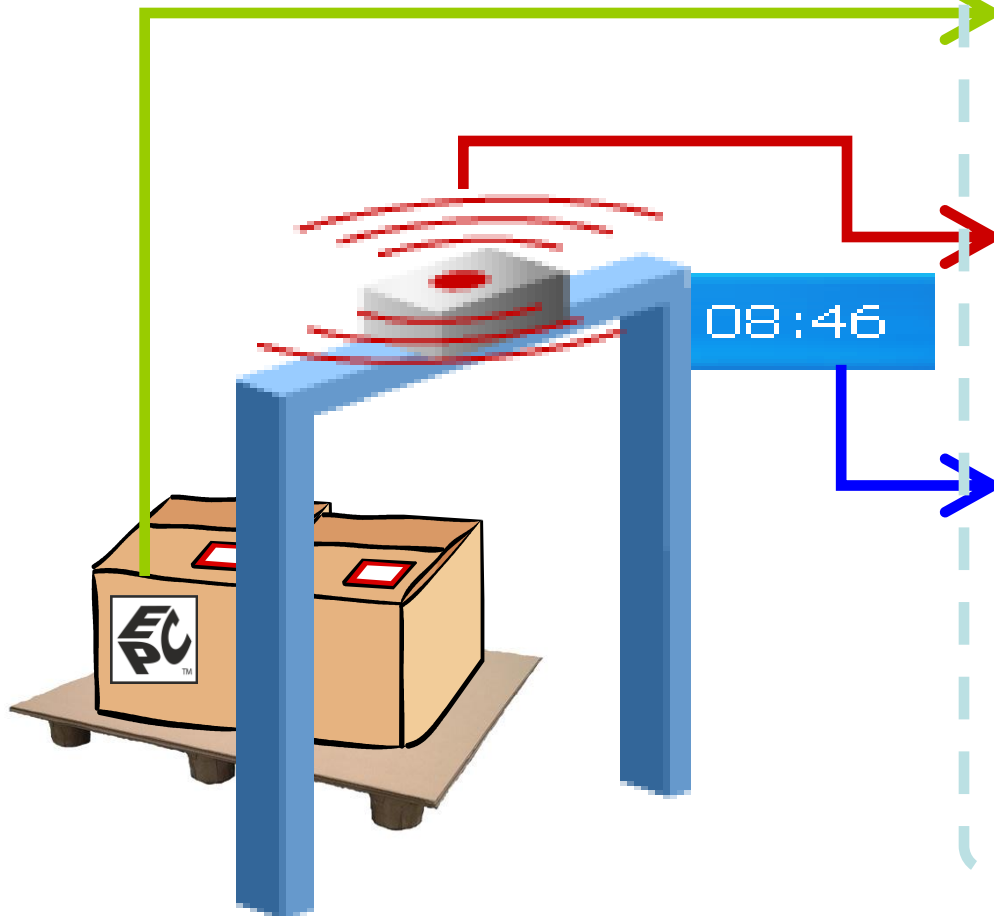
GS1 Electronic Product Code Information Service

- Standard interfaces to obtain and share data about unique objects within and across enterprises
- A supplement to, not a replacement of, existing enterprise systems
- Upload and query information in a standard way
- Answers the **What, Where, When** and **Why** by capturing event data

EPCIS Events at supply chain read points



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WHAT

one or more tags, bar codes

WHERE

- *readPoint*
- *bizLocation*

WHEN

date + time + time zone

WHY

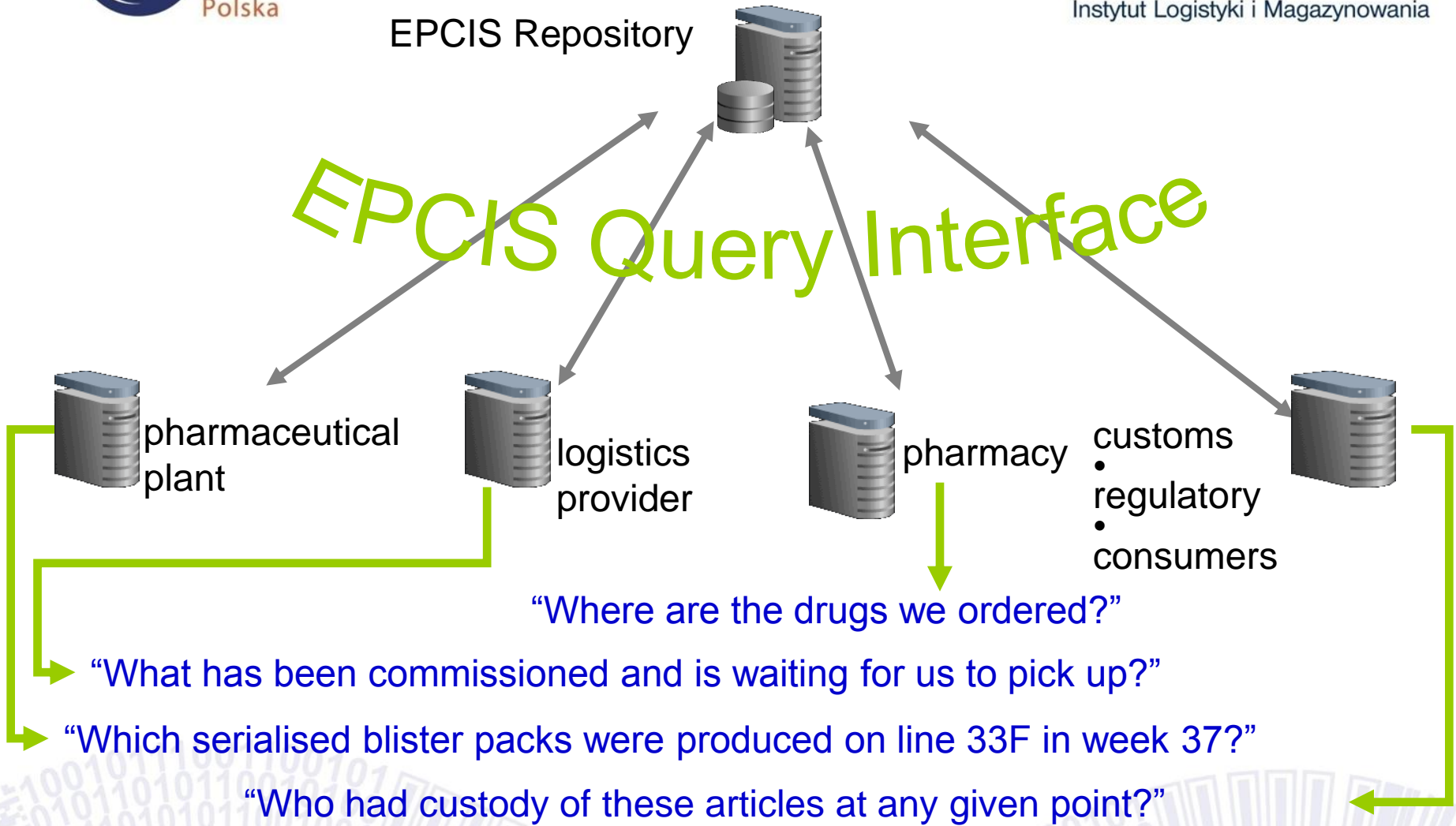
bizStep (e.g., packing)

...recorded as an EPCIS Event

Traceability data query of supply chain events

EPCIS Repository

EPCIS Query Interface



Look-up Services for data



Polska



ONS Query



Object Name Service (ONS)

Point to source of information

EPCIS Interface

Manufacturer

EPCIS Interface

Distributor

EPCIS Interface

Retailer

Authenticate, check for authorization

Discovery Services

Authenticate, check for authorization

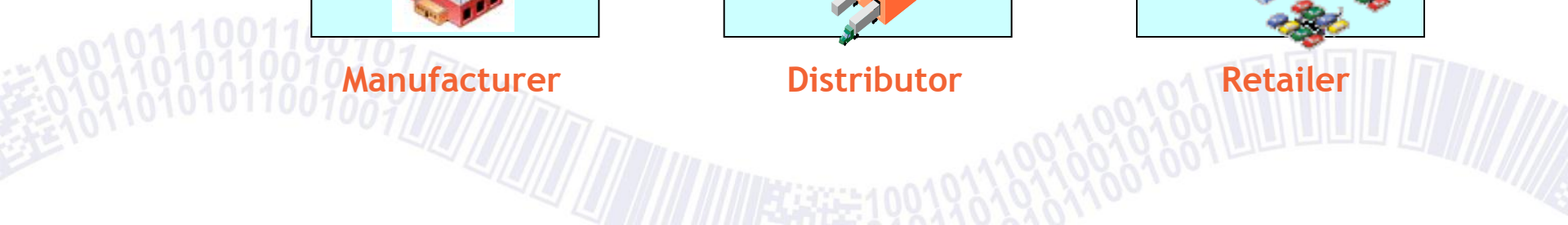


DS Query

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Find multiple information providers





- **Gerry Weber International**, German clothing company, 430 department stores, 2000 shops
- **26 million items / year** tagged with EPC/RFID and EAS
- Automated warehouse logistics: lower **labor costs**, increased **accuracy**
- **30-minutes full inventory once a week**: rapid replenishment, **+2-3% sales per store**

Visibility in fine wines from vineyards to the stores



- Two wine retailers in Hong Kong working with vineyards in Italy
- Piloting **GS1 EPCIS** for tracking shipments from vineyards across the world
- **Quality ensured** - EPC/RFID tags with sensors monitoring temperature during transport
- **Over 99% accurate inventory** thanks to real-time monitoring of stock

The virtual world is becoming closer to the physical world





For more information:

www.gs1.org

www.gs1pl.org

