



Dipartimento di
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IoT, economic and management challenges for e-health integration in the enlarged Europe

University of Trieste, Department of Engineering and Architecture

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eProcurement in Health

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Content – Some Questions

- What is eProcurement?
- How important are efficiency and effectiveness of eProcurement?
- What are the issues in eProcurement in Health?
- What is eMarketplace and how it works?
- Which actions for e-health integration in the enlarged Europe should we pay attention to?
- How could I engage in a cross-border Health eProcurement development in the eRegion?

eProcurement

eProcurement (electronic procurement, sometimes also known as supplier exchange) is the business-to-business or business-to-consumer or business-to-government purchase and sale of supplies, work, and services through the Internet as well as other information and networking systems, such as electronic data interchange and enterprise resource planning.

Changes and Challenges in the Healthcare Supply Chain

- **Supply chain** – obtaining products/services via a network of producers, manufacturers, distributors, transporters and vendors.
- **Consumers are the patients** in healthcare; the product they want is their own **improved health** at the best, or most affordable, price possible.
- Healthcare is **not based on supply and demand**. It can't be 'stocked' like it's a traditional product.
- A hospital's supply chain is **very different from a company's** supply chain.
- The **changing expectations** of patients as consumers and the **highly regulated nature of healthcare**.

Supply Chain Costs

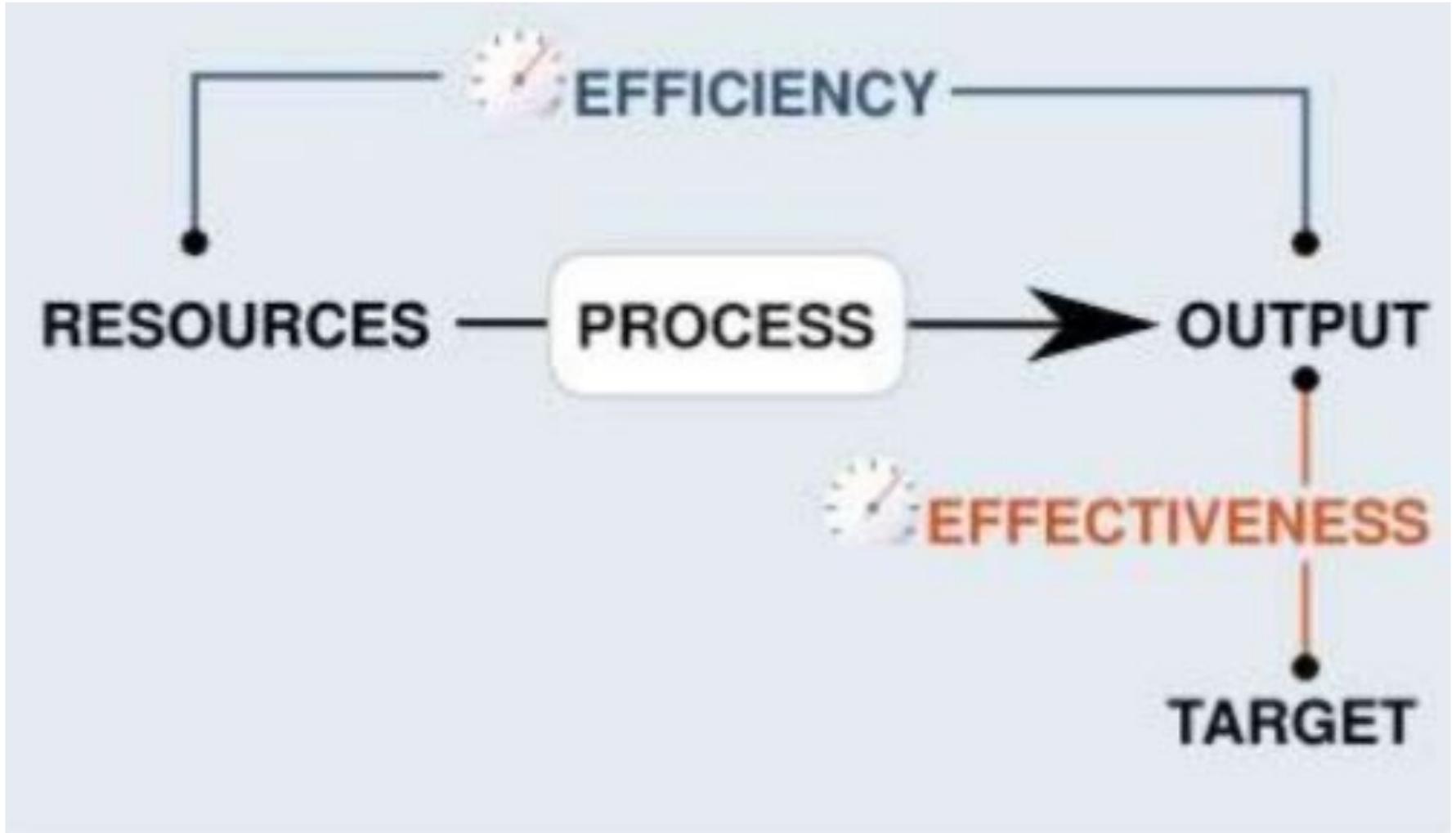
- **Outdated IT Infrastructure** (poor access to data, errors, looking for supplies or the correct clinical equipment).
- Supply chain management costs - **the largest expenses** for healthcare and hospital and one of **the biggest areas for savings opportunities**.
- Focusing not on product costs only, but on **distribution and invisible costs** as well.
- Some larger hospital systems become their own warehouses and distributors, **bypassing vendors**.

Efficiency vs. Effectiveness

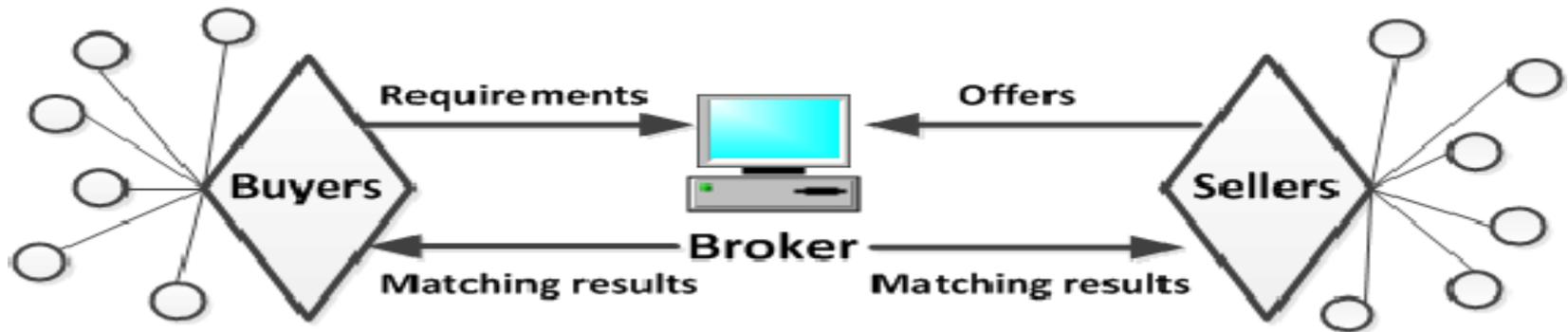
Efficiency is the ability to produce an intended result in the way that results in the least waste of time, effort, and resources. *Effectiveness* is the ability to produce a better result, one that delivers more value or achieves a better outcome

Effectiveness is doing the right things, while *efficiency* is doing things right. Either requires the assumption that you can define what the right outcome is and what things should be done.

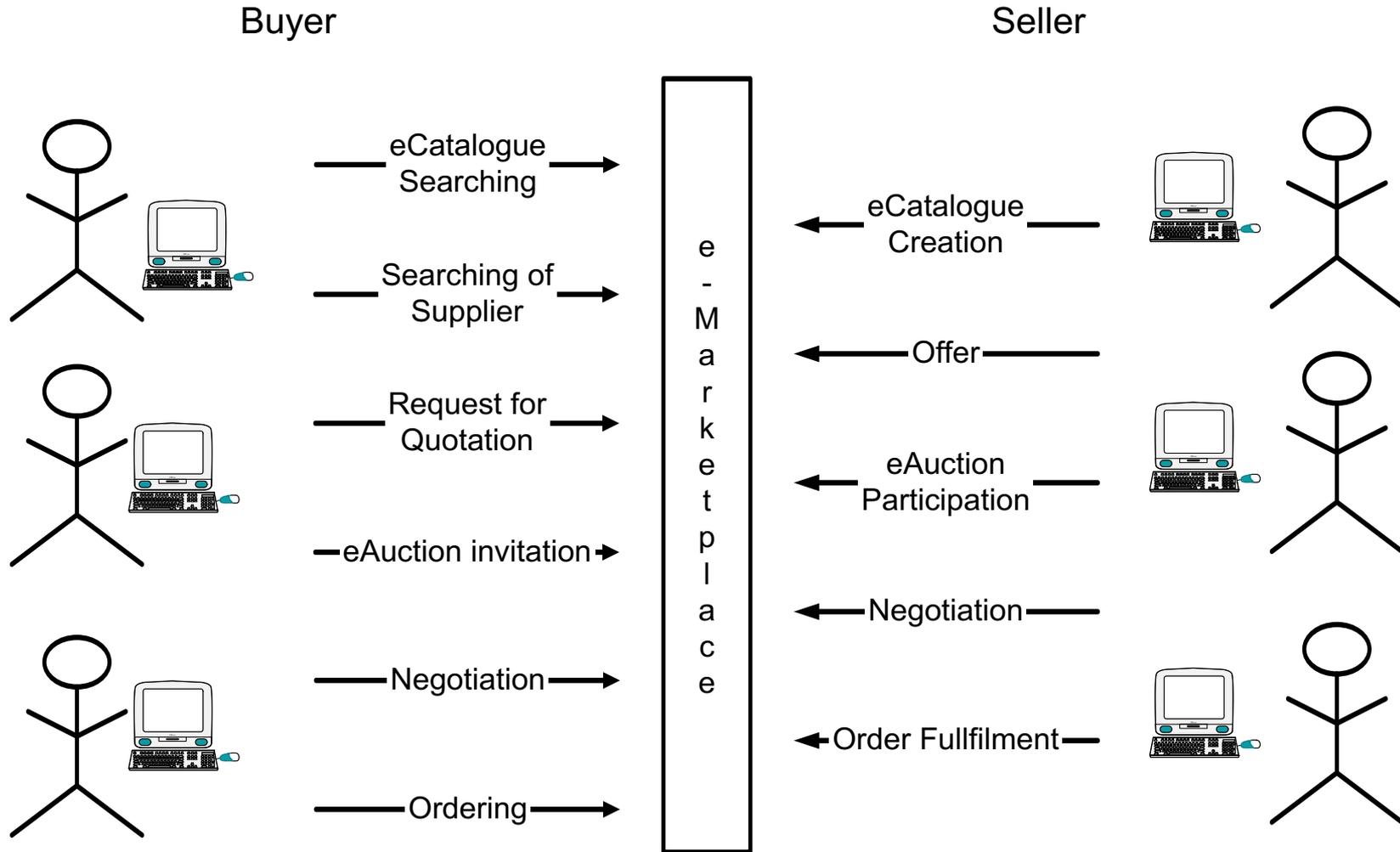
Efficiency vs. Effectiveness



Trading processes through a broker



eMarketplace Trading Processes



eMarketplace added value

- Aggregating a large number of buyers or sellers
- Matching buyers and sellers to negotiate prices on a dynamic and real-time basis
- Ensuring trust among participants by maintaining neutral position
- Facilitating market operations by supporting certain transactions

eMarketplace functions

- Partner search
- Brokerage
- Auction
- Payment
- Logistics
- Insurance
- Legal
- Consulting



Complete eService provided



eMarketplace - Revers Auction

- Supplier creates a catalogue.
- Buyer searches for products and services.
- Buyer creates request for quotation to several possible suppliers.
- Supplier submits a quotation.
- Selected suppliers are invited to participate in a revers auction.
- The most convenient bid is accepted by the buyer.
- The buyer issues an order.
- The supplier takes care of the order fulfillment.

Cloud Computing

Cloud computing is the on-demand availability of computer system resources, especially data storage (cloud storage) and computing power, without direct active management by the user.

Large clouds often have functions distributed over multiple locations, each location being a data center.

Cloud computing relies on sharing of resources to achieve coherence and typically using a "pay-as-you-go" model which can help in reducing capital expenses but may also lead to unexpected operating expense.

Top Five Benefits of E-Procurement & Cloud-Based Computing

Boosting Speed. Developers can quickly test their ideas and design applications architecture.

Saving Money. Companies no longer have to spend a sizable part of their budget setting up servers and equipment maintenance.

Scalability. Companies can easily expand their capacity without spending any resources or time setting up physical infrastructure.

Control. Classified user authorizations, providing control and streamlining collaboration between departments.

Integration. By integrating all data sources into a single interface, cloud computing and e-procurement solutions streamline the entire process, thereby maximizing customer satisfaction.

6 Procurement Best Practices to Prepare for The Future

- Implement a fully digital procurement process.
- Shift to sustainable procurement practices.
- Make transparency a priority.
- Embrace mobile app technology.
- Form strategic alliances with preferred suppliers.
- Improve supply chain communication.

Country Perspectives: Italy

Health Proc Europe 11. April 2020

In Italy there is a high level of concentration. The Italian procurement system moved from Hospital Procurement to centralized procurement in a couple of years. Today healthcare public procurement is performed by 21 regional and one national procurement body.

Public procurement is perceived as a means to fight corruption.

There is a progressive harmonization at EU level. The EU countries that are not implementing the Public Procurement Directive will slowly adopt it. The overall communalities within EU countries will increase. Harmonization does not mean equality.

Association IHE Austria

Integrating the Healthcare Enterprise

Framework for IT integration and data transmission in healthcare

Lobbying and promotion in Austria. Proprietary interfaces create unforeseeable costs and quality problems; IHE ensures flexibility, sustainability, quality, and economy for the client.

The establishment of seminars and training will help to raise awareness and to create standardized training on the topic of IHE.

International collaboration takes the form of representation on the committees of IHE Europe and IHE International as well as participation in working groups.

Amazon: Simplified sourcing for healthcare

Healthcare is complex. Buying shouldn't be.

Improving the way healthcare organizations source and purchase products, making supply chains more efficient, simplifying contract administration, and bringing comparison-shopping to healthcare.

Simplify your purchasing processes by integrating systems to drive efficiencies and quickly discover insights.

Consolidate purchases and invoices into a digital system.

ICT-Powered eRegion



eRegion

In the eRegion
business & government
organizations,
as well as individuals,
extensively use
eTechnologies
in order to support
their work

eRegion Portal



The benefits of the eRegion Portal:

- contributing to increased efficiency of current business processes;
- assisting in bringing together researchers and developers in eRegion;
- supporting eCollaboration;
- promoting cross-border events: meetings, workshops, conference;
- supporting new business creation.

ICT-Powered eRegion



**Invitation
to a Cross-border
eCollaboration
in Health eProcurement**

**What is a problem?
Which individuals agree
on the problem?
Who should be
involved?**

1st Pan-European Hospital & Healthcare Procurement Summit

Brussels, September 20-21, 2022

Organized by the largest European hospital & health care procurement ecosystem.

The European Health Public Procurement Alliance (EHPPA since 2012) a consortium of non profit Group Procurement Organisations which aims to pool expertise, leverage performance and provide its members with a strategic position in the European health procurement market.

Health Proc Europe (since 2019) - non-profit association of the buyers of hospitals and healthcare facilities which unites like-minded procurement experts & professionals in Europe with a passion for driving change and improvement in healthcare procurement.

Actions Needed

Prepare for the eProcurement.

Engage in doing business on eMarketplace.

Define a problem in the eProcurement process.

Establish contacts with the organizations in the cross-border eRegion.

Invite to thinking outside the box & innovating.

Prepare for EU calls for project.

Exploit the *eRegion Portal*.

Be the leader!



References

Efficiency vs. effectiveness in business: Why your team needs both. Julia Martins. Asana, San Francisco, United States, June 7th, 2022.

Top Five Benefits Of E-Procurement & Cloud-Based Computing. Iyad Aldalooj. Penny Procurement Software, March 14, 2022.

E-marketplaces increase market efficiencies by attracting a large user-base and improving data access. Chutipha Klungjaturavet. Krungsri, Bangkok Thailand, 11 March 2020.

6 Procurement Best Practices to Prepare for The Future. Gabriel Swain. Tradogram.

Country Perspectives: Italy. Health Proc Europe. Filippo Gabbia, Consultant on public procurement- Supplier side, Value in Tenders. 11. April 2020.

Association IHE Austria - Integrating the Healthcare Enterprise. Framework for IT integration and data transmission in healthcare.

1st Pan-European Hospital & Healthcare Procurement Summit. Program. Brussels Square Conference Centre, Sep 20-21, 2022: pp 23.

Thank you!

If we tell someone everything we know,
we still have everything left.