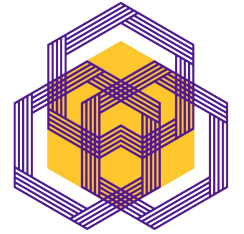


3Os and IP awareness raising for collaborative ecosystems



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**COSTS REDUCTION AND OPERATIONS SIMPLIFICATION
VIA 3Os**

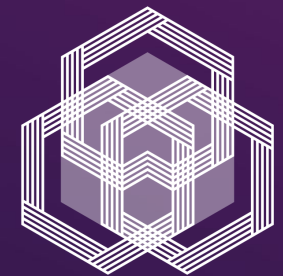
EIT Manufacturing



Funded by the
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AGENDA

- Introduction
- Costs saving sources
- Operations comparison, with and without 3Os use
- Recommendations and tips to reduce costs and simplify operations by using open source solutions



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THE MAIN OBJECTIVES OF THIS COURSE



Understand how open source solutions can help businesses reduce costs and simplify operations



LEARNING OUTCOMES



By the end of this course, you will be able to:

- Identify the main sources of costs saving for businesses that use open source solutions
- Compare and contrast the operations of businesses that use open source solutions versus those that do not
- Apply the knowledge and skills learned to their own business contexts and scenarios

BACKGROUND



Costs and operations are crucial for business competitiveness and performance.



Challenges include increasing competition, evolving customer demands, and the need for technological innovation and sustainability.



Open source solutions like free and open source software, open hardware, and open data provide alternative ways for businesses to access technology and knowledge.



Benefits of open source solutions include lower costs, improved interoperability, innovation opportunities, and enhanced trust and reputation.

COSTS SAVING SOURCES WITH OPEN SOFTWARE



Software Acquisition

Open source solutions can be obtained for free or at a low cost, providing significant savings compared to proprietary software.



Software Maintenance

Businesses can access and modify the source code, fix bugs, and customize open source software, leading to cost savings in maintenance. Active developer communities provide support and updates.



Software Integration

Open source solutions are designed to be interoperable and compatible with other systems, reducing the need for costly integration processes. This enhances flexibility and scalability of software solutions, resulting in cost savings.

COSTS SAVING SOURCES WITH OPEN HARDWARE



Hardware acquisition

Open source solutions can run on a variety of hardware devices, have lower hardware requirements, reduce the need for new hardware purchases, and extend existing hardware lifespan.



Hardware maintenance

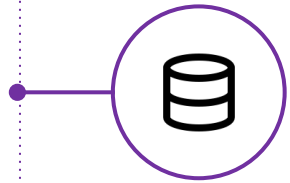
Open source solutions provide better performance, reliability, security, and customization options for hardware, reducing the risk of failures and downtime.



Hardware integration

Open source solutions support a wide range of hardware devices, standards, and enable seamless integration, reducing costs and complexity in hardware integration processes.

COSTS SAVING SOURCES WITH OPEN DATA



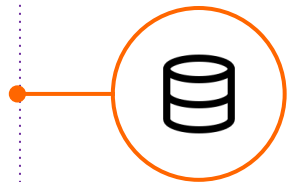
Data acquisition

Open data approaches can enable businesses to access a large amount of data from various sources, reducing the need for purchasing data.



Data processing

Open data approaches are often linked with efficient open source tools for analyzing and processing data, reducing the need for expensive software.



Data publishing

Open data approaches enable businesses to publish data in standardized formats, increasing visibility and impact.

DEEP DIVE REFERENCES

Bonaccorsi, A., & Rossi, C. (2003)

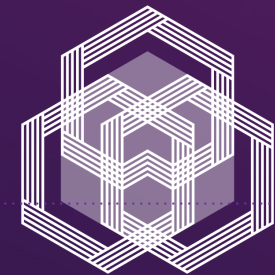
This paper analyses the economic and organisational factors that enable open source software to compete with proprietary software, focusing on the role of cost reduction and quality improvement.

Henkel, J. (2006)

This paper examines the phenomenon of selective revealing, where firms strategically disclose some of their proprietary knowledge to the open source community, while keeping other parts secret, in order to benefit from cost savings and innovation spillovers.

West, J., & Gallagher, S. (2006)

This paper explores the challenges and benefits of open innovation in the context of open source software, highlighting the trade-offs between cost savings and competitive advantage.



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OPERATIONS COMPARISON, WITH AND WITHOUT 3Os USE

Efficiency

- Open source solutions reduce time and resources for development, deployment, and maintenance.
- Increase productivity and performance of software and hardware solutions.
- For example, Netflix is a company that uses open source software and hardware to deliver streaming services to millions of customers worldwide with high speed and quality.

Effectiveness

- Enhance quality and functionality of software and hardware solutions.
- Enable meeting customer and stakeholder needs and expectations.
- For example, Tesla is a company that uses open source software and hardware to develop electric vehicles and renewable energy solutions with cutting-edge features and performance.

OPERATIONS COMPARISON, WITH AND WITHOUT 3Os USE

Quality

- Improve reliability and security of software and hardware solutions
- Provide transparency and accountability for development and operations
- For example, Wikipedia with high accuracy and reliability due to volunteer contributions

Performance

- Enable leveraging of latest and advanced technologies
- Offer scalability and flexibility for software and hardware solutions

DEEP DIVE REFERENCES

Bonaccorsi, A.,
Giannangeli, S., & Rossi,
C. (2006)

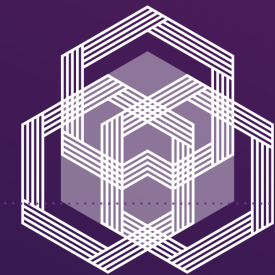
This paper analyses how open source software (OSS) firms can adopt hybrid business models that combine proprietary and open source components, and how this affects their entry strategies and competitive advantages.

Chesbrough, H., &
Appleyard, M. M. (2007)

This paper discusses how open innovation can be integrated into the strategic management of firms, and how it can create value for both the firm and its partners.

Zeleti, F. A., Ojo, A., &
Curry, E. (2016)

This paper identifies and characterizes different business models for open data, based on a taxonomy of value creation, value proposition, value capture, and value network.



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KEY TAKEAWAYS

Open source solutions, like free and open source software, open hardware, and open data, offer businesses a cost-effective way to access and create knowledge and technology.

Businesses benefit from open source solutions with lower costs, higher interoperability, customization, innovation, collaboration, trust, and reputation.

Open source solutions enhance business operations by leveraging community knowledge, meeting customer needs, and ensuring reliability, security, and performance.

RECOMMENDATIONS AND TIPS TO REDUCE COSTS AND SIMPLIFY OPERATIONS BY USING OPEN SOURCE SOLUTIONS

- 1 Assess the suitability and feasibility of open source solutions for business needs and goals, considering advantages, disadvantages, opportunities, challenges, costs, and benefits.
- 2 Choose the appropriate open source solutions and licensing strategies based on compatibility, interoperability, legal and ethical implications, and value proposition.
- 3 Engage and collaborate with the open source community for support, resources, feedback, and co-creation of open source solutions.