

# EnMS IMPLEMENTATION IN REFRACTORIES MANUFACTURING

Experience of VARDAR DOLOMIT

**Vardar**  
**Dolomit**



# Company profile

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- \* Company name: VARDAR DOLOMIT
- \* Country: Republic of Macedonia
- \* Type of industry: dolomite based refractories
- \* No. of employees: 85
- \* Annual production: 28.093 tons of refractories
- \* 25,520 GWh annual consumption of oil
- \* 3,074 GWh annual consumption of electricity

Note: In this presentation the dot . is used for thousands and the comma , for decimals

# Top management reasons for Implementing EnMS

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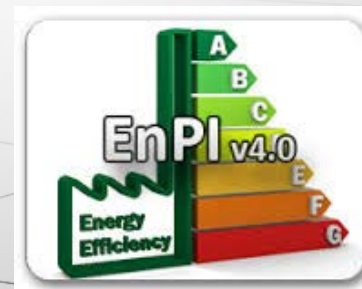
- \* *“The EnMS is a perfect tool for every company which recognizes that energy saving enhances business opportunities and maximizes competitiveness” – **Mr. Remzi Abdulai** general manager of Vardar Dolomit*

# My own reasons for Implementing EnMS



- \* Reducing energy usage
- \* Decreasing energy cost
- \* Reducing CO2 emissions
- \* Improving energy performance
- \* Stop climate change

↓ kWh



# Barriers before starting with implementation of EnMS

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- \* We don't need system to save energy – we already are efficient enough
  - \* Positive examples of implementing ISO 50001 worldwide
- \* Fear of change!
  - \* Employees who are not afraid to change the way of their work are usually the most valuable employees. This is ideal opportunity to identify them

# Barriers during implementation of EnMS 1/2

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- \* Employees are not aware about importance of energy management
  - \* Chance to explain what you are occupied with
- \* Different sectors in the company do not communicate often so employees don't have feeling that they belong to same team.
  - \* Organizing team building events. Employees will be happy to know that implementation of energy savings changes made some positive changes in their social life

# Barriers during implementation of EnMS 2/2

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- \* Not all Energy Team members were happy for being part of it, because they don't want to get more obligations
  - \* Being part of this team is not must but matter of Honor
- \* We don't have enough money and time for this
  - \* There are lot of possibilities for energy saving even without need of investment
  - \* We have the support of top management, so they will provide us with the necessary resources

# Main benefits from implementing EnMS

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- \* Organizational benefits
  - \* Get Energy Policy in place
  - \* Energy savings Awareness
  - \* Reduced risk of not fulfilling legal requirements regarded to energy
  - \* System approach to energy saving projects
  - \* Identified energy allocation per production lines



# Main benefits from implementing EnMS

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- \* Operational benefits
  - \* Improved operational control
  - \* Improved reliability
  - \* Transfer from corrective to preventive maintenance
  - \* Higher priority to Critical Operational Parameters
  - \* Better trained and more competent employees

# Main benefits from implementing EnMS

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- \* Business benefits
  - \* Energy cost savings
  - \* Reducing energy usage
  - \* Improving company sustainability and productivity
  - \* Better company reputation

# Achieved results – energy costs savings

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- \* With implementing EnMS we are able to calculate our exact electricity need
- \* Good understanding of needs allow us to pick the electricity supplier with contract that fits the best with our consumption
- \* Result of the above mentioned fact is that we get electricity price reduction of 30%
- \* That is 70.000 EUR annual electricity cost reduction
- \* This amount will be reinvested in energy conservation projects for 2017

# Achieved results – energy savings

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- \* Company has 7 main SEU's of electricity
- \* So far we have implemented ECO ideas only to 5 of this electricity SEU's and achieved savings for 9 months is more than 5% of their annual consumption of electricity (all implemented ideas were low or no cost)
- \* For next year we plan to extend our activities to conservation of fuel consumption which has most intensive energy impact

# Achieved results – non energy benefits

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- \* Due to better operational control we found irregularities in the temper oven at an early stage thus avoiding fire hazards
- \* Capability to calculate exact production price due to good allocation of energy usage
- \* With regression models for calculating the EnPI's we are able to predict our future energy consumption
- \* Bigger energy awareness of employees

# Changes for the better

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- \* Better operational control leads to better and more reliable maintenance of equipment
- \* Awareness of energy savings is much bigger
- \* Fact that our company is between first companies in our country who implement ISO 50001, give us leader position in the region and give us better view of the future business opportunities

# Barriers at the moment

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- \* Energy manager don't have enough time to fulfil all obligations
  - \* If you want something done you will find way, if you don't want to you will find excuse
- \* Employees are not competent enough to fulfil new obligations
  - \* There are people who work in the company long time and they don't get any training for years. You'll be surprised how one trivial training can build their confidence and motivation for work.
- \* Changing of People Behaviour Reality or Science fiction
  - \* One of biggest energy saving potential in almost every company is changing people behaviour

# Useful aspects of UNIDO EnMS program 1/4

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- \* The company was actively involved throughout the implementation of the standard
- \* Whole program was very well structured
- \* Implementation was step by step, with enough time for the company to adjust to each new module
- \* Companies were monitored and guided by international experts





# Useful aspects of UNIDO EnMS program 2/4

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- \* Every company included in the project has opportunity to share it's experience with other companies and also learn from other companies experience
- \* Progress of the companies was regularly uploaded on internet so each of them has challenge to compete with others





# Useful aspects of UNIDO EnMS program 4/4

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- \* Countries that has been part of this program get trained national experts capable to continue the implementation of the EnMS in other local companies
- \* on behalf of my manager, *Mr. Remzi Abdulai*, as well as on my own behalf I would like to recommend this program of UNIDO to continue because it has really big impact in promoting of EnMS and in raising awareness for energy conservation world wide!

# Thank You for your attention!

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