

Exhaust Heat Recovery System Market by Technology (EGR, Turbocharger, ORC, TEG), Component (EGR Valve & Cooler, Turbine, Compressor, Evaporator, Condenser, TEG Module), Vehicle (PC, LCV, Truck, Bus, Hybrid, OHV) and Region - Global Forecast to 2025

https://marketpublishers.com/r/E81911DF58EEN.html

Date: October 2018

Pages: 180

Price: US\$ 5,650.00 (Single User License)

ID: E81911DF58EEN

# **Abstracts**

"Increase in demand for the diesel vehicles in the developing countries and rising stringency in the emission norms are boosting the exhaust heat recovery system market"

The exhaust heat recovery system (EHRS) market is primarily driven by the increasing stringency toward the automotive emissions across the globe. The exhaust heat recovery system market is projected to grow at a CAGR of 10.38% from 2018 to 2025. From a market size of USD 32.54 billion in 2018, it is projected to reach USD 64.94 billion by 2025.

"Construction equipment expected to be the largest market for exhaust heat recovery system, by off-highway vehicles"

The growth in the off-highway segment can be observed with the increase in the infrastructural activities across the globe. This has increased demand for the construction equipment, which has subsequently boosted the technologies and components market. With the introduction of new emission norms, off-highway vehicles are mandated to be under emission limits, which has positively impacted the EHRS market.



"Future heat recovery technologies, ORC and TEG are projected to be the fastest growing segment of the EHRS market"

With the advancement of technologies, the manufactures of exhaust heat recovery systems are investing in the research and development of the new EHRS technologies, which will meet the emission standards. Future technologies such as ORC and TEG can reuse the exhaust heat for auxiliary purposes such as HVAC and battery charging. Due to such benefits over conventional technologies, ORC and TEG are expected to report exponential growth during the forecast period. The growth can be observed with the increase in demand for commercial vehicles. Due to size constraints, the ORC would be fitted onto the CVs first. However, TEG has potential opportunities in the passenger car segment.

"Asia Oceania to be the largest and fastest growing market for EHRS"

Asia Oceania is the largest market for small passenger cars, and the majority of the cars in this region run on gasoline. However, due to huge vehicle production in the region, diesel vehicles are also present in significant numbers. A large number of diesel vehicles are equipped with conventional technologies such as EGR and turbocharger. Currently, the gasoline-powered vehicles have a very less installation rate of exhaust heat recovery technologies, but due to stringent emission norms, OEMs are also manufacturing exhaust heat recovery systems for gasoline cars, and this trend is expected to increase rapidly throughout the forecast period.

```
By Company Type - Tier I – 55 %, OEMs – 30% and Tier II – 15%

By Designation – C level – 45%, Director level – 34%, Others – 21%
```

By Region – Europe - 35%, North America – 25%, Asia Oceania – 25%, RoW – 15%

The report provides detailed profiles of the following companies:

Faurecia (France)

Mahle (Germany)

Continental (Germany)



Denso (Japan)
Valeo (France)
BorgWarner (US)
Dana (US)
Calsonic Kansei (Japan)
Delphi Technologies (UK)
Mitsubishi Electric (Japan)

# Research Coverage

Exhaust Heat Recovery System Market by Technology (EGR, Turbocharger, ORC, and TEG), Component (EGR Valve, EGR Cooler, Turbine, Compressor, Evaporator, Condenser, Expander, Pump, Thermoelectric Module, and Heat Exchanger), vehicle type (PC, LCVs, Trucks, and Buses), hybrid vehicles (HEVs and PHEVs), off-highway vehicles (construction equipment and agriculture tractors), and region (Asia Pacific, Europe, North America, and RoW)

Reasons to Buy the Report:

The report provides insights with reference to the following points:

Market Development: The report provides comprehensive information about lucrative emerging markets. The report analyzes the markets for the global EHRS market across regions.

Product Development/Innovation: The report offers detailed insights into R&D activities, upcoming technologies, and new product launches in the global EHRS market.

Market Diversification: The report provides detailed information about untapped markets, investments, new products, and recent developments in the global



EHRS market.

Competitive Assessment: The report provides an in-depth assessment of strategies, products, and manufacturing capabilities of leading players in the global EHRS market.

Market coverage: The report provides market details for 17 countries by conventional EHRS technologies (EGR and Turbocharger) as well as future technologies (ORC and TEG).



# **Contents**

## 1 INTRODUCTION

- 1.1 OBJECTIVES OF THE STUDY
- 1.2 MARKET DEFINITION
- 1.3 MARKET SCOPE
  - 1.3.1 MARKETS COVERED
  - 1.3.2 YEARS CONSIDERED FOR THE STUDY
- 1.4 CURRENCY
- 1.5 PACKAGE SIZE
- 1.6 LIMITATIONS
- 1.7 STAKEHOLDERS

## **2 RESEARCH METHODOLOGY**

- 2.1 RESEARCH DATA
- 2.2 SECONDARY DATA
  - 2.2.1 KEY SECONDARY SOURCES FOR BASE NUMBERS
  - 2.2.2 KEY SECONDARY SOURCES FOR MARKET SIZING
  - 2.2.3 KEY DATA FROM SECONDARY SOURCES
- 2.3 PRIMARY DATA
  - 2.3.1 SAMPLING TECHNIQUES & DATA COLLECTION METHODS
  - 2.3.2 PRIMARY PARTICIPANTS
- 2.4 MARKET SIZE ESTIMATION
  - 2.4.1 BOTTOM-UP APPROACH
- 2.5 MARKET BREAKDOWN AND DATA TRIANGULATION
- 2.6 ASSUMPTIONS

## **3 EXECUTIVE SUMMARY**

## **4 PREMIUM INSIGHTS**

- 4.1 ATTRACTIVE OPPORTUNITIES IN THE FUTURE EXHAUST HEAT RECOVERY SYSTEM MARKET
- 4.2 EXHAUST HEAT RECOVERY SYSTEM MARKET, BY TECHNOLOGY
- 4.3 EXHAUST HEAT RECOVERY SYSTEM MARKET, BY COMPONENT
- 4.4 EXHAUST HEAT RECOVERY SYSTEM MARKET, BY VEHICLE TYPE
- 4.5 EXHAUST HEAT RECOVERY SYSTEM MARKET, BY HYBRID VEHICLE



# 4.6 EXHAUST HEAT RECOVERY SYSTEM MARKET, BY OFF-HIGHWAY VEHICLE

## 4.7 EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION

## **5 MARKET OVERVIEW**

## 5.1 INTRODUCTION

- **5.1.1 DRIVERS** 
  - 5.1.1.1 Introduction of stringent emission regulations
    - 5.1.1.1.1 Emission regulation for on-road vehicles
  - 5.1.1.1.2 Emission regulation for off-road vehicles
- 5.1.1.2 Growing demand for diesel vehicles, especially in commercial vehicle segment, to foster the growth of EHR systems
  - 5.1.2 RESTRAINTS
- 5.1.2.1 Shifting trend toward electric propulsion in light-duty vehicles in developed countries
  - 5.1.3 OPPORTUNITIES
    - 5.1.3.1 Use of exhaust heat for auxiliary applications like HVAC and oil cooling
- 5.1.3.2 Rapid adoption of EGR and Turbocharger in gasoline vehicle will boost the market for EHRS
  - 5.1.4 CHALLENGES
- 5.1.4.1 Commercialization, less cost-effectiveness and low efficiency of future technologies like TEG & ORC
  - 5.1.4.2 Harmonization of emission standards

## **6 TECHNOLOGICAL OVERVIEW**

- **6.1 INTRODUCTION**
- 6.2 ENGINE TECHNOLOGIES VS EXHAUST HEAT RECOVERY SYSTEM
- 6.3 DANA'S THERMAL MANAGEMENT SOLUTION (EGHR SYSTEM)
- 6.4 BORGWARNER'S EXHAUST HEAT RECOVERY SYSTEM (EHRS)
- 6.4.1 EHRS FOR HYBRID ELECTRIC VEHICLES (HEV) & PLUG-IN HYBRID ELECTRIC VEHICLES (PHEV)
  - 6.4.2 FLEX FUEL TURBOCHARGER
- 6.5 TENNECO FUTURE EXHAUST HEAT RECOVERY SYSTEM
- 6.5.1 THERMOELECTRIC GENERATORS (TEG) FOR POWERING ELECTRICAL ACCESSORIES
  - 6.5.2 RANKINE CYCLE
- 6.6 SANGO CONVENTIONAL AND FUTURE EXHAUST HEAT RECOVERY SYSTEM 6.6.1 HEAT COLLECTORS



- 6.6.2 THERMOELECTRIC GENERATION TECHNOLOGY
- 6.7 AVL WASTE HEAT RECOVERY SYSTEM FOR COMMERCIAL VEHICLES
- 6.8 CONTINENTAL THERMOELECTRIC GENERATION TECHNOLOGY
- 6.9 FAURECIA EXHAUST HEAT RECOVERY SYSTEM
  - 6.9.1 LOW-PRESSURE EXHAUST GAS RECIRCULATION (LP EGR)
  - 6.9.2 ELECTRICALLY-HEATED CATALYST
  - 6.9.3 EXHAUST HEAT POWER GENERATION (EHPG) SYSTEM

## 7 EXHAUST HEAT RECOVERY SYSTEM MARKET, BY TECHNOLOGY

Note – The Chapter is Further Segmented at Regional Level and Considered Regions are Asia Oceania, Europe, North America, and RoW

- 7.1 INTRODUCTION
- 7.2 CONVENTIONAL TECHNOLOGY
  - 7.2.1 EXHAUST GAS RECIRCULATION (EGR)
    - 7.2.1.1 Asia Oceania has the largest EGR installation rate in diesel vehicles
  - 7.2.2 TURBOCHARGER
    - 7.2.2.1 Expansions to be the key strategy to boost turbocharger market.
- 7.3 FUTURE TECHNOLOGY
  - 7.3.1 ORGANIC RANKINE CYCLE (ORC)
  - 7.3.1.1 ORC is projected to get first commercialized for heavy duty vehicles
  - 7.3.2 THERMOELECTRIC GENERATOR (TEG)
    - 7.3.2.1 TEG is expected to be first commercialized in the developed countries

# 8 EXHAUST HEAT RECOVERY SYSTEM MARKET, BY COMPONENT

Note – The Chapter is Further Segmented at Regional Level and Considered Regions are Asia Oceania, Europe, North America, and RoW

- 8.1 INTRODUCTION
- **8.2 EGR COMPONENT** 
  - 8.2.1 EGR VALVE
    - 8.2.1.1 Asia Oceania is expected to be the largest market for EGR valve.
  - 8.2.2 EGR COOLER
- 8.2.2.1 With increase in gasoline vehicle, North America is to be the largest market for EGR cooler
- 8.3 TURBOCHARGER COMPONENT
  - **8.3.1 TURBINE**



- 8.3.1.1 Asia Oceania is the largest and fastest market for turbocharger turbine
- 8.3.2 COMPRESSOR
  - 8.3.2.1 North America is the fastest growing market for compressor
- 8.4 ORGANIC RANKINE CYCLE (ORC)
  - 8.4.1 EVAPORATOR
  - 8.4.1.1 Asia Oceania is expected to be the largest and fastest market for Evaporator
  - 8.4.2 CONDENSER
- 8.4.2.1 During the forecast period condenser market is expected to follow the same trend as that of evaporator
  - 8.4.3 EXPANDER
  - 8.4.3.1 Asia Oceania is projected to be the largest market for expander
  - 8.4.4 PUMP
    - 8.4.4.1 Asia Oceania is expected to be the largest and fastest market for pump.
- 8.5 THERMOELECTRIC GENERATOR (TEG)
  - 8.5.1 THERMOELECTRIC MODULE
  - 8.5.1.1 Asia Oceania is to be the fastest growing market for thermoelectric module
  - 8.5.2 HEAT EXCHANGER
  - 8.5.2.1 Asia Oceania is expected to be the largest market for heat exchanger

## 9 EXHAUST HEAT RECOVERY SYSTEM MARKET, BY VEHICLE TYPE

Note – The Chapter is Further Segmented at Regional Level and Considered Regions are Asia Oceania, Europe, North America, and RoW

- 9.1 INTRODUCTION
- 9.2 PASSENGER CAR
- 9.2.1 OWING TO LARGEST MARKET FOR PASSENGER CARS, ASIA OCEANIA IS EXPECTED TO BE FASTEST GROWING MARKET
- 9.3 LIGHT COMMERCIAL VEHICLE (LCV)
- 9.3.1 OWING TO LARGEST SHARE OF LCV, NORTH AMERICA IS EXPECTED TO BE FASTEST GROWING MARKET
- 9.4 TRUCK
- 9.4.1 THE MARKET IS ESTIMATED TO BE DOMINATED BY THE ASIA OCEANIA REGION
- 9.5 BUSES
- 9.5.1 EHRS MARKET FOR BUSES IS EXPECTED TO BE DOMINATED BY THE ASIA OCEANIA REGION

## 10 EXHAUST HEAT RECOVERY SYSTEM MARKET, BY HYBRID AND PLUG-IN



## **HYBRID VEHICLE**

Note – The Chapter is Further Segmented at Regional Level and Considered Regions are Asia Oceania, Europe, North America, and RoW

- **10.1 INTRODUCTION**
- 10.2 HYBRID ELECTRIC VEHICLE (HEV)
- 10.2.1 IN HEV, EHRS WILL GREATLY BE SEEN IN THE NORTH AMERICAN AND EUROPEAN REGION
- 10.3 PLUG-IN HYBRID ELECTRIC VEHICLE (PHEV)
  - 10.3.1 THE SALES OF PHEV VEHICLES ARE LIKELY TO INCREASE BY 2025

## 11 EXHAUST HEAT RECOVERY SYSTEM MARKET, BY OFF HIGHWAY VEHICLE

Note – The Chapter is Further Segmented at Regional Level and Considered Regions are Asia Oceania, Europe, North America, and RoW

- 11.1 INTRODUCTION
- 11.2 AGRICULTURAL TRACTOR
- 11.2.1 INCREASE IN MECHANIZATION TO DRIVE THE AGRICULTURAL TRACTORS MARKET
- 11.3 CONSTRUCTION EQUIPMENT
- 11.3.1 TURBOCHARGERS AND EGR ARE PREDOMINANTLY USED IN CONSTRUCTION EQUIPMENT

# 12 EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION

Note - The Chapter is Further Segmented by technology type and considered technologies are EGR, Turbocharger, ORC, and TEG

- 12.1 INTRODUCTION
- 12.2 ASIA OCEANIA
- 12.2.1 BECAUSE OF HEAVY VEHICLE PRODUCTION, CHINA IS EXPECTED TO BE THE LARGEST MARKET FOR EHRS
  - 12.2.2 CHINA
- 12.2.2.1 China has higher adoption rate of conventional as well as future EHRS technologies
  - 12.2.3 INDIA
    - 12.2.3.1 Rapidly growing demand for commercial vehicle, ORC market will be



#### boosted

- 12.2.4 JAPAN
- 12.2.4.1 Future technologies like ORC & TEG are expected to show significant growth in Japan
  - 12.2.5 SOUTH KOREA
    - 12.2.5.1 Turbocharger is expected to be the largest market for EHRS in South Korea.
  - **12.2.6 THAILAND**
- 12.2.6.1 In terms of conventional technologies, turbocharger is expected to showcase largest market
  - 12.2.7 ASIA OCEANIA OTHERS
- 12.2.7.1 Future technology like ORC and TEG are expected to have low market share
- **12.3 EUROPE**
- 12.3.1.1 EHRS technologies like EGR and Turbocharger are expected to show promising market for gasoline vehicle
  - **12.3.2 GERMANY** 
    - 12.3.2.1 ORC is expected to show fastest EHRS market
  - 12.3.3 FRANCE
    - 12.3.3.1 Turbocharger market is expected to be the fastest growing market
  - 12.3.4 SPAIN
  - 12.3.4.1 Growing vehicle production and emission norms will boost the Spain market
  - 12.3.5 TURKEY
- 12.3.5.1 Turkey has the significant share in diesel cars, hence EGR is expected have the largest share
  - 12.3.6 UK
- 12.3.6.1 With significant investments, ORC is expected to be the fastest growing market
  - 12.3.7 RUSSIA
    - 12.3.7.1 Turbocharger market is expected to be the fastest growing market.
  - 12.3.8 EUROPE OTHERS
- 12.3.8.1 Low technological advancement to hinder ORC and TEG market growth 12.4 NORTH AMERICA
- 12.4.1 US IS EXPECTED TO HAVE THE LARGEST NORTH AMERICAN MARKET FOR FUTURE TECHNOLOGIES LIKE TEG AND ORC
  - 12.4.2 US
    - 12.4.2.1 Presence of EHRS manufacturers and OEM's, to uplift the market.
  - 12.4.3 CANADA
  - 12.4.3.1 Presence of few tier 1 players and OEM's, hinder the market
  - 12.4.4 MEXICO



12.4.4.1 Mexico is the fastest growing EHRS market as it is second largest market In North America

12.5 ROW

12.5.1 BRAZIL IS EXPECTED TO BE THE LARGEST MARKET FOR EHRS IN ROW REGION

12.5.2 BRAZIL

12.5.2.1 Turbocharger is expected to have the largest market share.

12.5.3 IRAN

12.5.3.1 Low technological adoption to hinder TEG and ORC market growth

**12.5.4 ROW OTHERS** 

12.5.4.1 Turbocharger is expected to have the largest market over the forecast period.

#### 13 COMPETITIVE LANDSCAPE

- 13.1 OVERVIEW
- 13.2 EXHAUST HEAT RECOVERY SYSTEM MARKET FOR AUTOMOTIVE: MARKET SHARE ANALYSIS
- 13.3 COMPETITIVE SCENARIO
  - 13.3.1 EXPANSIONS
  - 13.3.2 SUPPLY CONTRACTS/AGREEMENTS
  - 13.3.3 NEW PRODUCT LAUNCHES/DEVELOPMENTS
- 13.3.4 PARTNERSHIPS/JOINT VENTURES/ACQUISITION

## 14 COMPANY PROFILES

(Business overview, Products offered, Recent developments & SWOT analysis)\*

- 14.1 FAURECIA
- **14.2 MAHLE**
- 14.3 CONTINENTAL
- **14.4 DENSO**
- 14.5 BORGWARNER
- **14.6 VALEO**
- 14.7 DANA
- 14.8 CALSONIC KANSEI
- 14.9 DELPHI TECHNOLOGIES
- 14.10 MITSUBISHI ELECTRIC
- 14.11 ADDITIONAL COMPANY PROFILES



14.11.1 NORTH AMERICA

14.11.1.1 Clean Diesel Technologies

14.11.1.2 Katcon

14.11.1.3 Tenneco Inc.

14.11.2 ASIA OCEANIA

14.11.2.1 Sankei Giken Kogyo Co., Ltd.

14.11.2.2 Hanon Systems

14.11.3 EUROPE

14.11.3.1 Bosal

14.11.3.2 Eberspaecher

14.11.3.3 Johnson Matthey

14.11.3.4 Schaeffler

14.11.3.5 HELLA

\*Details on Business overview, Products offered, Recent developments & SWOT analysis might not be captured in case of unlisted companies.

## **15 APPENDIX**

- 15.1 INSIGHTS OF INDUSTRY EXPERTS
- 15.2 DISCUSSION GUIDE
- 15.3 KNOWLEDGE STORE: MARKETSANDMARKETS' SUBSCRIPTION PORTAL
- 15.4 AVAILABLE CUSTOMIZATIONS

15.4.1 EXHAUST HEAT RECOVERY SYSTEM MARKET FOR HYBRID AND PLUG-IN HYBRID VEHICLE, BY TECHNOLOGY

15.4.1.1 Hybrid vehicle

15.4.1.1.1 EGR

15.4.1.1.2 Turbocharger

15.4.1.1.3 ORC

15.4.1.1.4 TEG

15.4.1.2 Plugin hybrid vehicle

15.4.1.2.1 EGR

15.4.1.2.2 Turbocharger

15.4.1.2.3 ORC

15.4.1.2.4 TEG

15.4.2 EXHAUST HEAT RECOVERY SYSTEM MARKET FOR OFF HIGHWAY VEHICLE, BY TECHNOLOGY

15.4.2.1 Agricultural tractor

15.4.2.1.1 EGR



15.4.2.1.2 Turbocharger

15.4.2.1.3 ORC

15.4.2.1.4 TEG

15.4.2.2 Construction equipment

15.4.2.2.1 EGR

15.4.2.2.2 Turbocharger

15.4.2.2.3 ORC

15.4.2.2.4 TEG

15.4.3 EXHAUST HEAT RECOVERY SYSTEM MARKET FOR ON HIGHWAY

VEHICLE, BY VEHICLE TYPE & TECHNOLOGY

15.4.3.1 Passenger car

15.4.3.1.1 EGR

15.4.3.1.2 Turbocharger

15.4.3.1.3 ORC

15.4.3.1.4 TEG

15.4.3.2 LCV

15.4.3.2.1 EGR

15.4.3.2.2 Turbocharger

15.4.3.2.3 ORC

15.4.3.2.4 TEG

15.4.3.3 Truck

15.4.3.3.1 EGR

15.4.3.3.2 Turbocharger

15.4.3.3.3 ORC

15.4.3.3.4 TEG

15.4.3.4 Bus

15.4.3.4.1 EGR

15.4.3.4.2 Turbocharger

15.4.3.4.3 ORC

15.4.3.4.4 TEG

15.5 RELATED REPORT

15.6 AUTHOR DETAILS



# **List Of Tables**

## LIST OF TABLES

Table 1 CURRENCY EXCHANGE RATES (PER USD)

Table 2 LIST OF ASSUMPTIONS CONSIDERED

Table 3 EXHAUST HEAT RECOVERY SYSTEM MARKET: MARKET DYNAMICS IMPACT

Table 4 ON-ROAD VEHICLE EMISSION REGULATION OUTLOOK FOR PASSENGER CARS, 2016–2021

Table 5 GOVERNMENT INCENTIVES FOR ELECTRIC VEHICLES

Table 6 AVERAGE COST OF EHRS TECHNOLOGIES, 2018 (USD)

Table 7 FAURECIA'S SUPPLIES TO GLOBAL AUTOMOTIVE MANUFACTURERS: EXHAUST & EHRS SYSTEMS

Table 8 ENGINE TECHNOLOGIES VS. AFTERTREATMENT DEVICES FOR ON HIGHWAY VEHICLES

Table 9 ENGINE TECHNOLOGIES VS. AFTERTREATMENT DEVICES FOR OFF-HIGHWAY VEHICLES

Table 10 EXHAUST HEAT RECOVERY SYSTEM MARKET, BY TECHNOLOGY, 2016–2025 (MILLION UNITS)

Table 11 EXHAUST HEAT RECOVERY SYSTEM MARKET, BY TECHNOLOGY, 2016–2025 (USD BILLION)

Table 12 EGR: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2016–2025 (MILLION UNITS)

Table 13 EGR: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2016–2025 (USD BILLION)

Table 14 TURBOCHARGER: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2016–2025 (MILLION UNITS)

Table 15 TURBOCHARGER: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2016–2025 (USD BILLION)

Table 16 ORC: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2016–2025 (MILLION UNITS)

Table 17 ORC: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2016–2025 (USD BILLION)

Table 18 TEG: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2016–2025 (MILLION UNITS)

Table 19 TEG: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2016–2025 (USD BILLION)

Table 20 EXHAUST HEAT RECOVERY SYSTEM MARKET, BY COMPONENT,



2016-2025 (MILLION UNITS)

Table 21 EXHAUST HEAT RECOVERY SYSTEM MARKET, BY COMPONENT, 2016–2025 (USD BILLION)

Table 22 EGR COMPONENT: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2016–2025 (MILLION UNITS)

Table 23 EGR COMPONENT: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2016–2025 (USD BILLION)

Table 24 EGR VALVE: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2016–2025 (MILLION UNITS)

Table 25 EGR VALVE: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2016–2025 (USD BILLION)

Table 26 EGR COOLER: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2016–2025 (MILLION UNITS)

Table 27 EGR COOLER: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2016–2025 (USD BILLION)

Table 28 TURBOCHARGER COMPONENT: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2016–2025 (MILLION UNITS)

Table 29 TURBOCHARGER COMPONENT: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2016–2025 (USD BILLION)

Table 30 TURBINE: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2016–2025 (MILLION UNITS)

Table 31 TURBINE: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2016–2025 (USD BILLION)

Table 32 COMPRESSOR: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2016–2025 (MILLION UNITS)

Table 33 COMPRESSOR: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2016–2025 (USD BILLION)

Table 34 ORC COMPONENT: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2020–2025 (MILLION UNITS)

Table 35 ORC COMPONENT: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2020–2025 (USD BILLION)

Table 36 EVAPORATOR: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2020–2025 (MILLION UNITS)

Table 37 EVAPORATOR: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2020–2025 (USD BILLION)

Table 38 CONDENSER: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2020–2025 (MILLION UNITS)

Table 39 CONDENSER: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2020–2025 (USD BILLION)



Table 40 EXPANDER: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2020–2025 (MILLION UNITS)

Table 41 EXPANDER: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2020–2025 (USD BILLION)

Table 42 PUMP: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2020–2025 (MILLION UNITS)

Table 43 PUMP: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2020–2025 (USD BILLION)

Table 44 TEG COMPONENT: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2022–2025 (MILLION UNITS)

Table 45 TEG COMPONENT: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2022–2025 (USD BILLION)

Table 46 THERMOELECTRIC MODULE: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2022–2025 (MILLION UNITS)

Table 47 THERMOELECTRIC MODULE: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2022–2025 (USD BILLION)

Table 48 HEAT EXCHANGER: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2022–2025 (MILLION UNITS)

Table 49 HEAT EXCHANGER: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2022–2025 (USD BILLION)

Table 50 EXHAUST HEAT RECOVERY SYSTEM MARKET, BY VEHICLE TYPE, 2016–2025 (MILLION UNITS)

Table 51 EXHAUST HEAT RECOVERY SYSTEM MARKET, BY VEHICLE TYPE, 2016–2025 (USD BILLION)

Table 52 PASSENGER CAR: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2016–2025 (MILLION UNITS)

Table 53 PASSENGER CAR: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2016–2025 (USD BILLION)

Table 54 LCV: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2016–2025 (MILLION UNITS)

Table 55 LCV: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2016–2025 (USD BILLION)

Table 56 TRUCK: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2018–2025 (MILLION UNITS)

Table 57 TRUCK: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2016–2025 (USD BILLION)

Table 58 BUS: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2016–2025 (MILLION UNITS)

Table 59 BUS: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION,



2016-2025 (USD BILLION)

Table 60 EXHAUST HEAT RECOVERY SYSTEM MARKET, BY HYBRID & PLUGIN HYBRID VEHICLE 2016–2025 ('000 UNITS)

Table 61 EXHAUST HEAT RECOVERY SYSTEM MARKET, BY HYBRID & PLUG-IN HYBRID VEHICLE 2016–2025 (USD MILLION)

Table 62 HEV: EXHAUST HEAT RECOVERY SYSTEM MARKET, 2016–2025 ('000 UNITS)

Table 63 HEV: EXHAUST HEAT RECOVERY SYSTEM MARKET, 2016–2025 (USD MILLION)

Table 64 PHEV: EXHAUST HEAT RECOVERY SYSTEM MARKET, 2016–2025 ('000 UNITS)

Table 65 PHEV: EXHAUST HEAT RECOVERY SYSTEM MARKET, 2016–2025 (USD MILLION)

Table 66 EXHAUST HEAT RECOVERY SYSTEM MARKET, BY OFF-HIGHWAY VEHICLE, 2016–2025 (000' UNITS)

Table 67 EXHAUST HEAT RECOVERY SYSTEM MARKET, BY OFF-HIGHWAY VEHICLE, 2016–2025 (USD MILLION)

Table 68 AGRICULTURAL TRACTOR: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2016–2025 (000' UNITS)

Table 69 AGRICULTURAL TRACTOR: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2016–2025 (USD MILLION)

Table 70 CONSTRUCTION EQUIPMENT: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2016–2025 (000' UNITS)

Table 71 CONSTRUCTION EQUIPMENT: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2016–2025 (USD MILLION)

Table 72 EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2016–2025 (MILLION UNITS)

Table 73 EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2016–2025 (USD BILLION)

Table 74 ASIA OCEANIA: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY COUNTRY, 2016–2025 (MILLION UNITS)

Table 75 ASIA OCEANIA: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY COUNTRY, 2016–2025 (USD BILLION)

Table 76 CHINA: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY

TECHNOLOGY, 2016–2025 (MILLION UNITS)

Table 77 CHINA: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY

TECHNOLOGY, 2016-2025 (USD BILLION)

Table 78 INDIA: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY

TECHNOLOGY, 2016–2025 (MILLION UNITS)



Table 79 INDIA: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY

TECHNOLOGY, 2016–2025 (USD BILLION)

Table 80 JAPAN: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY

TECHNOLOGY, 2016–2025 (MILLION UNITS)

Table 81 JAPAN: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY

TECHNOLOGY, 2016–2025 (USD BILLION)

Table 82 SOUTH KOREA: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY

TECHNOLOGY, 2016–2025 (MILLION UNITS)

Table 83 SOUTH KOREA: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY

TECHNOLOGY, 2016–2025 (USD BILLION)

Table 84 THAILAND: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY

TECHNOLOGY, 2016–2025 (MILLION UNITS)

Table 85 THAILAND: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY

TECHNOLOGY, 2016–2025 (USD BILLION)

Table 86 ASIA OCEANIA OTHERS: EXHAUST HEAT RECOVERY SYSTEM MARKET,

BY TECHNOLOGY, 2016–2025 (MILLION UNITS)

Table 87 ASIA OCEANIA OTHERS: EXHAUST HEAT RECOVERY SYSTEM MARKET.

BY TECHNOLOGY, 2016-2025 (USD BILLION)

Table 88 EUROPE: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY COUNTRY,

2016-2025 (MILLION UNITS)

Table 89 EUROPE: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY COUNTRY,

2016-2025 (USD BILLION)

Table 90 GERMANY: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY

TECHNOLOGY, 2016–2025 (MILLION UNITS)

Table 91 GERMANY: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY

TECHNOLOGY, 2016–2025 (USD BILLION)

Table 92 FRANCE: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY

TECHNOLOGY, 2016–2025 (MILLION UNITS)

Table 93 FRANCE: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY

TECHNOLOGY, 2016–2025 (USD BILLION)

Table 94 SPAIN: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY

TECHNOLOGY, 2016–2025 (MILLION UNITS)

Table 95 SPAIN: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY

TECHNOLOGY, 2016–2025 (USD BILLION)

Table 96 TURKEY: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY

TECHNOLOGY, 2016–2025 (MILLION UNITS)

Table 97 TURKEY: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY

TECHNOLOGY, 2016–2025 (USD BILLION)

Table 98 UK: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY TECHNOLOGY,



2016-2025 (MILLION UNITS)

Table 99 UK: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY TECHNOLOGY, 2016–2025 (USD BILLION)

Table 100 RUSSIA: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY

TECHNOLOGY, 2016–2025 (MILLION UNITS)

Table 101 RUSSIA: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY

TECHNOLOGY, 2016-2025 (USD BILLION)

Table 102 EUROPE OTHERS: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY TECHNOLOGY, 2016–2025 (MILLION UNITS)

Table 103 EUROPE OTHERS: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY TECHNOLOGY, 2016–2025 (USD BILLION)

Table 104 NORTH AMERICA: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY COUNTRY, 2016–2025 (MILLION UNITS)

Table 105 NORTH AMERICA: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY COUNTRY, 2016–2025 (USD BILLION)

Table 106 US: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY TECHNOLOGY, 2016–2025 (MILLION UNITS)

Table 107 US: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY TECHNOLOGY, 2016–2025 (USD BILLION)

Table 108 CANADA: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY TECHNOLOGY, 2016–2025 (MILLION UNITS)

Table 109 CANADA: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY TECHNOLOGY, 2016–2025 (USD BILLION)

Table 110 MEXICO: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY TECHNOLOGY, 2016–2025 (MILLION UNITS)

Table 111 MEXICO: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY TECHNOLOGY, 2016–2025 (USD BILLION)

Table 112 ROW: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY COUNTRY, 2016–2025 (MILLION UNITS)

Table 113 ROW: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY COUNTRY, 2016–2025 (USD BILLION)

Table 114 BRAZIL: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY TECHNOLOGY, 2016–2025 (MILLION UNITS)

Table 115 BRAZIL: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY TECHNOLOGY, 2016–2025 (USD BILLION)

Table 116 IRAN: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY

TECHNOLOGY, 2016–2025 (MILLION UNITS)

Table 117 IRAN: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY

TECHNOLOGY, 2016–2025 (USD BILLION)



Table 118 ROW OTHERS: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY

TECHNOLOGY, 2016–2025 (MILLION UNITS)

Table 119 ROW OTHERS: EXHAUST HEAT RECOVERY SYSTEM MARKET, BY

TECHNOLOGY, 2016–2025 (USD BILLION)

Table 120 EXPANSIONS

Table 121 SUPPLY CONTRACTS

Table 122 NEW PRODUCT LAUNCHES/DEVELOPMENTS

Table 123 PARTNERSHIPS/JOINT VENTURES



# **List Of Figures**

## LIST OF FIGURES

Figure 1 MARKET SEGMENTATION: EXHAUST HEAT RECOVERY SYSTEM MARKET FOR AUTOMOTIVE

Figure 2 RESEARCH DESIGN - EXHAUST HEAT RECOVERY SYSTEM MARKET

Figure 3 RESEARCH METHODOLOGY MODEL

Figure 4 BREAKDOWN OF PRIMARY INTERVIEWS

Figure 5 EXHAUST HEAT RECOVERY SYSTEM MARKET: BOTTOM-UP APPROACH

Figure 6 EXHAUST HEAT RECOVERY SYSTEM MARKET: MARKET OUTLOOK

Figure 7 EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2018 VS. 2025 (USD BILLION)

Figure 8 STRINGENT EMISSION NORMS AND INCREASING TREND OF VEHICLE LIGHTWEIGHTING TO FUEL THE EHRS MARKET DURING THE FORECAST PERIOD

Figure 9 TURBOCHARGER TECHNOLOGY IS EXPECTED TO HOLD THE LARGEST MARKET SHARE BY 2025 (USD MILLION)

Figure 10 EGR COOLER SEGMENT IS EXPECTED TO HOLD THE LARGEST MARKET SHARE BY 2025 (USD BILLION)

Figure 11 PASSENGER CAR SEGMENT TO BE THE LARGEST MARKET DURING THE FORECAST PERIOD (USD BILLION)

Figure 12 BEV SEGMENT IS ESTIMATED TO BE THE LARGEST AND FASTEST GROWING EXHAUST HEAT RECOVERY SYSTEM MARKET BY 2025 (USD MILLION)

Figure 13 CONSTRUCTION EQUIPMENT TO BE THE LARGEST MARKET DURING THE FORECAST PERIOD, 2018-2025 (USD MILLION)

Figure 14 ASIA OCEANIA IS PROJECTED TO HOLD THE LARGEST SHARE OF THE EXHAUST HEAT RECOVERY SYSTEM MARKET, BY VALUE, DURING THE FORECAST PERIOD

Figure 15 EXHAUST HEAT RECOVERY SYSTEM MARKET: MARKET DYNAMICS Figure 16 ON-ROAD VEHICLE EMISSION REGULATION OUTLOOK FOR HEAVY DUTY VEHICLES, 2014–2025

Figure 17 OFF-ROAD VEHICLE EMISSION REGULATION OUTLOOK, 2014–2025 Figure 18 DIESEL PENETRATION IN COMMERCIAL VEHICLES, BY COUNTRY, 2017 (%)

Figure 19 DIESEL PENETRATION IN PASSENGER CAR, BY COUNTRY, 2017 (%)
Figure 20 EXHAUST HEAT RECOVERY SYSTEM MARKET, BY TECHNOLOGY, 2018
VS. 2025 (USD BILLION)



Figure 21 EXHAUST HEAT RECOVERY SYSTEM MARKET, BY COMPONENT, 2018 VS. 2025 (USD BILLION)

Figure 22 EXHAUST HEAT RECOVERY SYSTEM MARKET, BY VEHICLE TYPE, 2018 VS. 2025 (USD BILLION)

Figure 23 EXHAUST HEAT RECOVERY SYSTEM MARKET, BY HYBRID & PLUG-IN HYBRID VEHICLE, 2018 VS. 2025 (USD MILLION)

Figure 24 OFF-HIGHWAY EXHAUST HEAT RECOVERY SYSTEM MARKET, 2018 VS. 2025 (USD MILLION)

Figure 25 EXHAUST HEAT RECOVERY SYSTEM MARKET, BY REGION, 2018 VS. 2025 (USD BILLION)

Figure 26 ASIA OCEANIA: EXHAUST HEAT RECOVERY SYSTEM MARKET SNAPSHOT

Figure 27 ASIA OCEANIA: EXHAUST HEAT RECOVERY SYSTEM MARKET, 2018 VS. 2025 (USD BILLION)

Figure 28 EUROPE: EXHAUST HEAT RECOVERY SYSTEM MARKET SNAPSHOT Figure 29 EUROPE: EXHAUST HEAT RECOVERY SYSTEM MARKET, 2018 VS. 2025 (USD BILLION)

Figure 30 NORTH AMERICA: EXHAUST HEAT RECOVERY SYSTEM MARKET, 2018 VS. 2025 (USD BILLION)

Figure 31 ROW: EXHAUST HEAT RECOVERY SYSTEM MARKET, 2018 VS. 2025 (USD BILLION)

Figure 32 COMPANIES ADOPTED EXPANSIONS AS THE KEY GROWTH STRATEGY, 2016–2017

Figure 33 EXHAUST HEAT RECOVERY SYSTEM MARKET FOR AUTOMOTIVE: OE MARKET SHARE ANALYSIS, 2017

Figure 34 FAURECIA: COMPANY SNAPSHOT

Figure 35 FAURECIA: SWOT ANALYSIS

Figure 36 MAHLE: COMPANY SNAPSHOT

Figure 37 MAHLE: SWOT ANALYSIS

Figure 38 CONTINENTAL: COMPANY SNAPSHOT

Figure 39 CONTINENTAL: SWOT ANALYSIS

Figure 40 DENSO: COMPANY SNAPSHOT

Figure 41 DENSO: SWOT ANALYSIS

Figure 42 BORGWARNER: COMPANY SNAPSHOT

Figure 43 BORGWARNER: SWOT ANALYSIS

Figure 44 VALEO: COMPANY SNAPSHOT

Figure 45 DANA: COMPANY SNAPSHOT

Figure 46 CALSONIC KANSEI: COMPANY SNAPSHOT

Figure 47 DELPHI TECHNOLOGIES: COMPANY SNAPSHOT



Figure 48 MITSUBISHI ELECTRIC: COMPANY SNAPSHOT



## I would like to order

Product name: Exhaust Heat Recovery System Market by Technology (EGR, Turbocharger, ORC, TEG),

Component (EGR Valve & Cooler, Turbine, Compressor, Evaporator, Condenser, TEG Module), Vehicle (PC, LCV, Truck, Bus, Hybrid, OHV) and Region - Global Forecast to

2025

Product link: https://marketpublishers.com/r/E81911DF58EEN.html

Price: US\$ 5,650.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer

Service:

info@marketpublishers.com

# **Payment**

First name:

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <a href="https://marketpublishers.com/r/E81911DF58EEN.html">https://marketpublishers.com/r/E81911DF58EEN.html</a>

To pay by Wire Transfer, please, fill in your contact details in the form below:

Email:	
Company:	
Address:	
City:	
Zip code:	
Country:	
Tel:	
Fax:	
Your message:	
	**All fields are required
	Custumer signature

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <a href="https://marketpublishers.com/docs/terms.html">https://marketpublishers.com/docs/terms.html</a>



To place an order via fax simply print this form, fill in the information below and fax the completed form to  $+44\ 20\ 7900\ 3970$