

# Industrial Batteries Economic Outlook

Authors: EUROBAT IBC Committee

Presenters:

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- VP Sales & Marketing Motive Power EMEA – ENERSYS
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- Vice-chairman of the EUROBAT IBC Committee

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- **Workmethod & contributors**

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## **Part 3 – Analyzing Market evolutions in off-grid and grid-connected applications**



# **Part I – Economic Outlook report**

## **Work method & contributors**

**EUROBAT FORUM**  
7 June 2013  
Rome / Italy



# An instrument from the IBC Committee

## Committee members:

- Lorenzo De Micheli - ENERSYS – Committee Chair
- Michael Geiger – EXIDE – Vice Committee Chair
- Rainer Bussar – EXIDE – Leader TF Smart Grid
- Giorgio Crugnola – FIAMM – co-leader TF Rural Electrification
- Andrea Compostella – FIAMM
- Balbo Piergiorgio – FIAMM
- Marc Zoellner – HOPPECKE
- Manfred Schrewe – HOPPECKE
- René Lincke – HOPPECKE
- Anda Ghiran – JCI
- Stefano Bovo – MIDAC
- Pierre-Marc Leroy – SAFT
- Orkun Gayretli – INCI AKÜ
- Mehmet Külahci - INCI AKÜ
- Matthaïos Sarantos – SUNLIGHT
- Tyron Williams – YUASA
- Erwin Marckx / Chris Heron - EUROBAT

EU Battery Industry well represented



- **MARKET SEGMENTS:**
  - Motive Power:
    - 2V Cells Sealed & 2V Cells Vented
    - Monoblocs > 50 Ah sealed & Monoblocs > 50 Ah vented
  - Stand-by Power
    - Flooded and Sealed
    - Telecommunication, UPS and others
- **AREA:**
  - «Wider» Europe, the Middle East and Africa (EMEA)
  - Number of countries: 72
- **WORK METHOD – IBC SURVEY:**
  - Data collection from EUROBAT members
  - Members submitting data every 6 months
  - Based on invoicing addresses
  - Increased participation of members, including national data
  - Secretariat in compliance with competition law:
    - Calculating and displaying the results and trends
    - Ensuring confidentiality of company information



# 72 Survey Countries

Western Europe (31 countries)	Other CEE (8 countries)	Middle East (15 countries)	Africa (18 countries)
EU 27	Belarus	Azerbaijan	Algeria
Norway	Bosnia-Herzegovina	Bahrain	Angola
Switzerland	Croatia	Egypt	Cameroon
Russia	Georgia	Iran	Congo
Turkey	Macedonia	Iraq	Equatorial Guinea
	Moldova	Israel	Gabon
	Serbia-Montenegro	Jordan	Ghana
	Ukraine	Kuwait	Kenya
		Lebanon	Mauritius
		Pakistan	Morocco
		Qatar	Mozambique
		Saudi Arabia	Niger
		United Arab Emirates	Nigeria
		Uzbekistan	Senegal
		Yemen	South Africa
			Tunisia
			Uganda
			Zambia



# Contributors – Survey 2012

## A. Members of the IBC Committee and their sales representatives

- Lorenzo De Micheli / John Lawton / Phil Jones - ENERSYS
- Michael Geiger / José Luis Nebot / Andreas Suessbauer - EXIDE
- Giuseppe Vitalli / Andrea Salvatelli – FAAM
- Andrea Compostella / Piergiorgio Balbo - FIAMM
- Marc Zoellner / Heinrich Becker / René Lincke – HOPPECKE
- Orkun Gayretli / Mehmet Külahci - INCI AKÜ
- Stefano Nogara, Stefano Bovo - MIDAC
- Vicky Kokothaki / Matthaïos Sarantos – SUNLIGHT
- Richard Davies / Tyron Williams – YUASA

## B. Other members of EUROBAT

- Andreas Bawart / Josef Berger / Thomas Amon – BANNER
- Irvin Komar – Bogomir Auprih / TAB



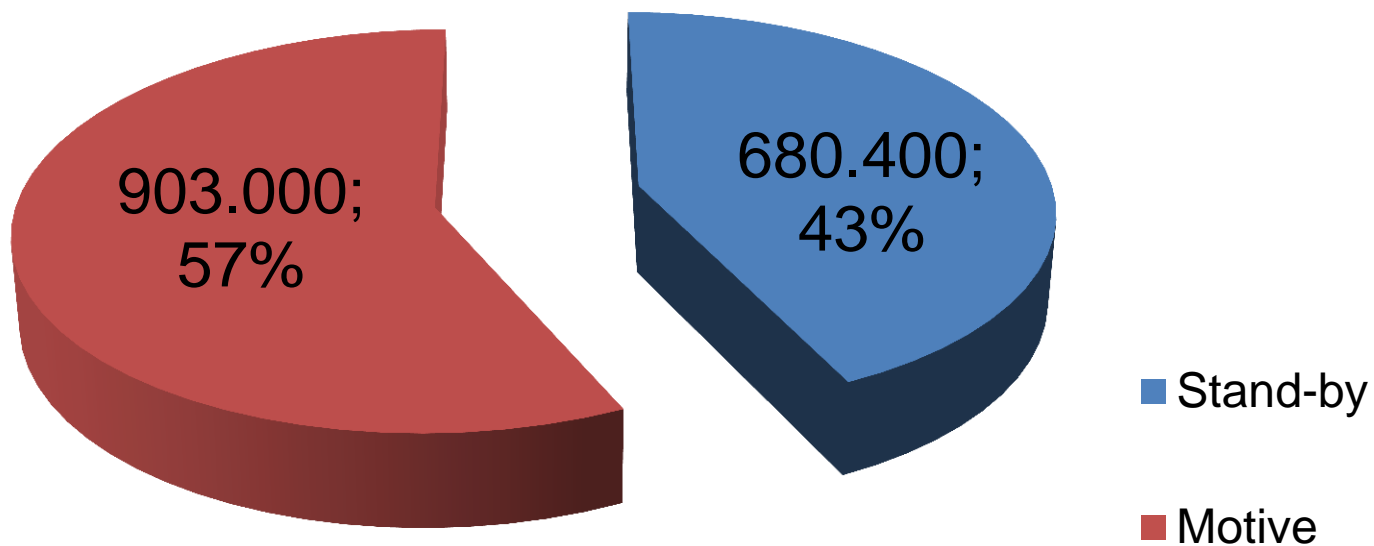
## **Part 2 – Economic Outlook**

- Motive Power markets**
- Stand-by Power markets**





# Motive versus Stand-by Markets EMEA – k Euro



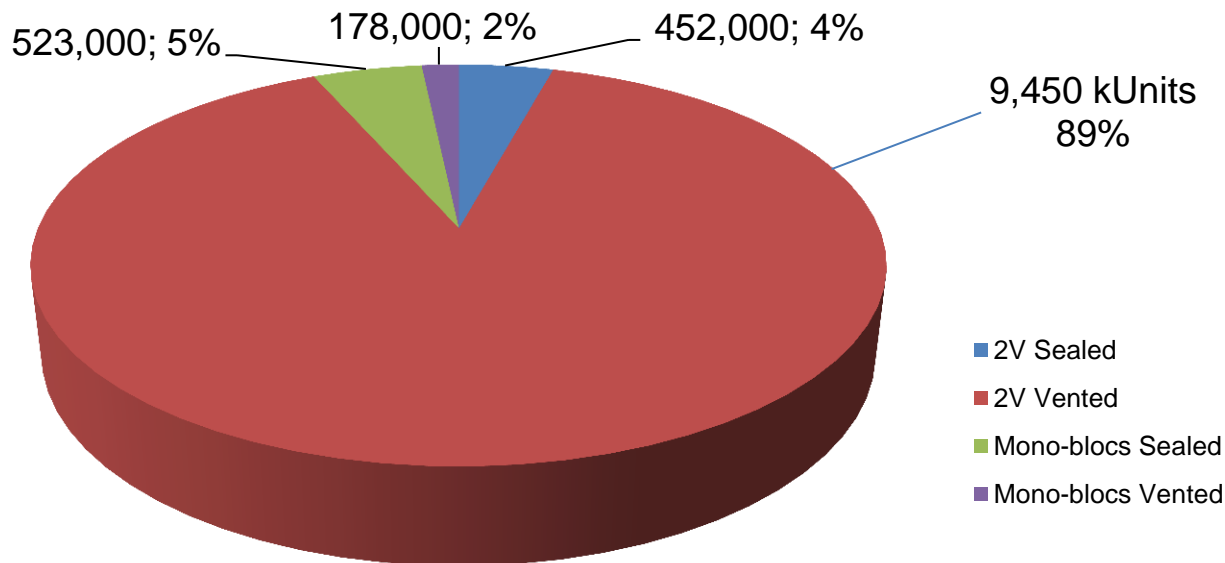
Based on EUROBAT Member Information only



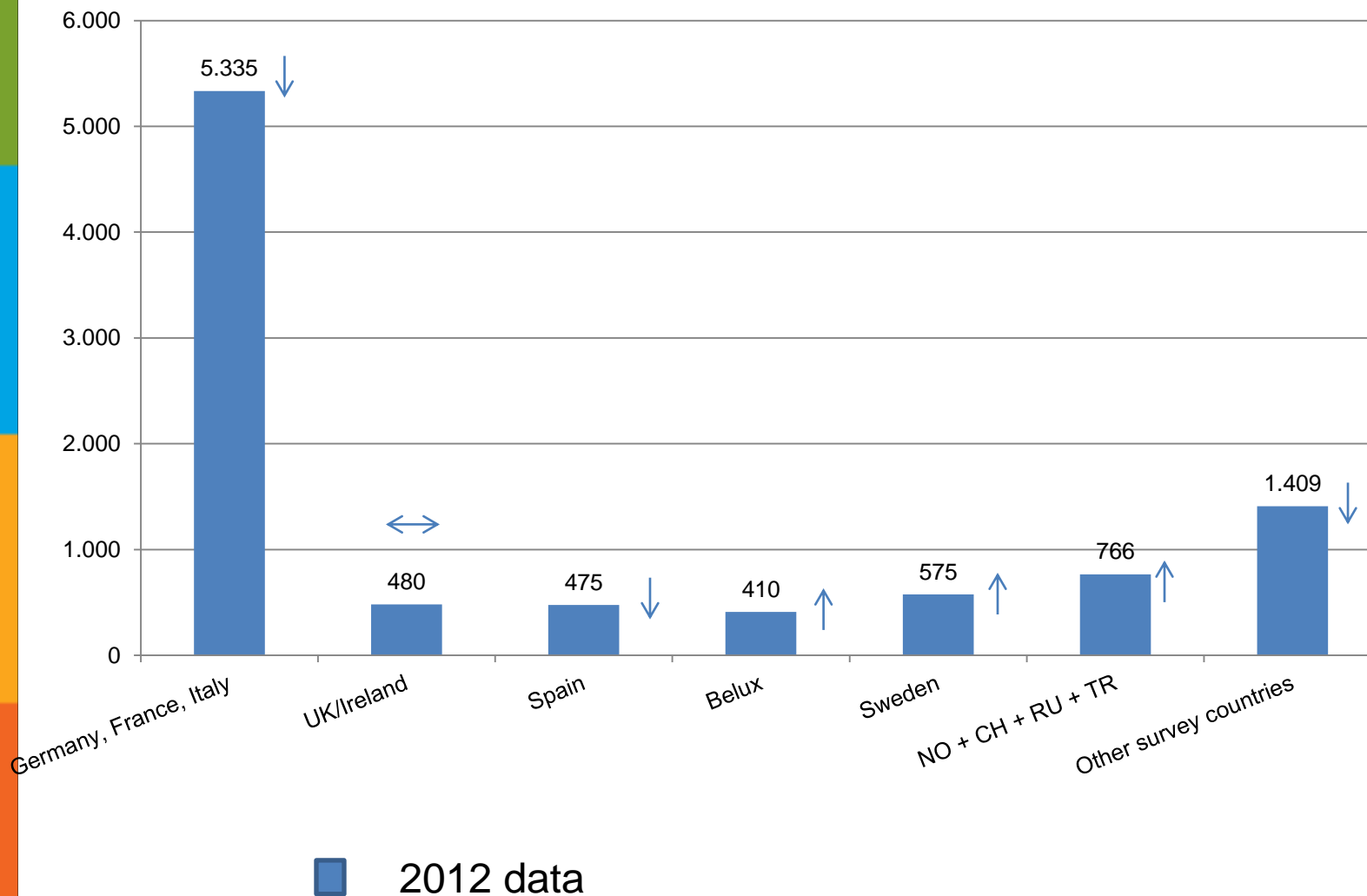
# Motive Battery Market in 2012 by Product Category

	Units ('000)	Trend (units) 2011-2012	k€	Trend (€) 2011/2012
2V Cells Sealed	452	-3%	44,850	-5%
2V Cells Vented	9,450	-4%	819,750	-5%
Mono-blocks Sealed	523	+4%	58,250	+7%
Mono-blocks Vented	178	+5%	19,550	-7%

**Total Motive Market 2012: 942,400 k€ - 10,600,000 units**



# Motive Power 2V Cells Vented EMEA Total Market 2012 9,450,000 units - By Region



# Conclusions: Motive Battery Market

## Trends 2012 vs 2011

- 2V Cells:
  - The trend in 2012 is a downturn of around -4% for EU27 and -1% for “wider” Europe
  - Middle East and Africa still growing considerably, but market much smaller in size than ‘Europe’
  - Downturn is both for sealed as for vented technologies
- Mono-blocs:
  - Steadily continuation of the market uptake; close 4-5% (units)
  - Discrepancy in currency and units indicates a trend to smaller batteries but more units sold



# Conclusions: Motive Battery Market

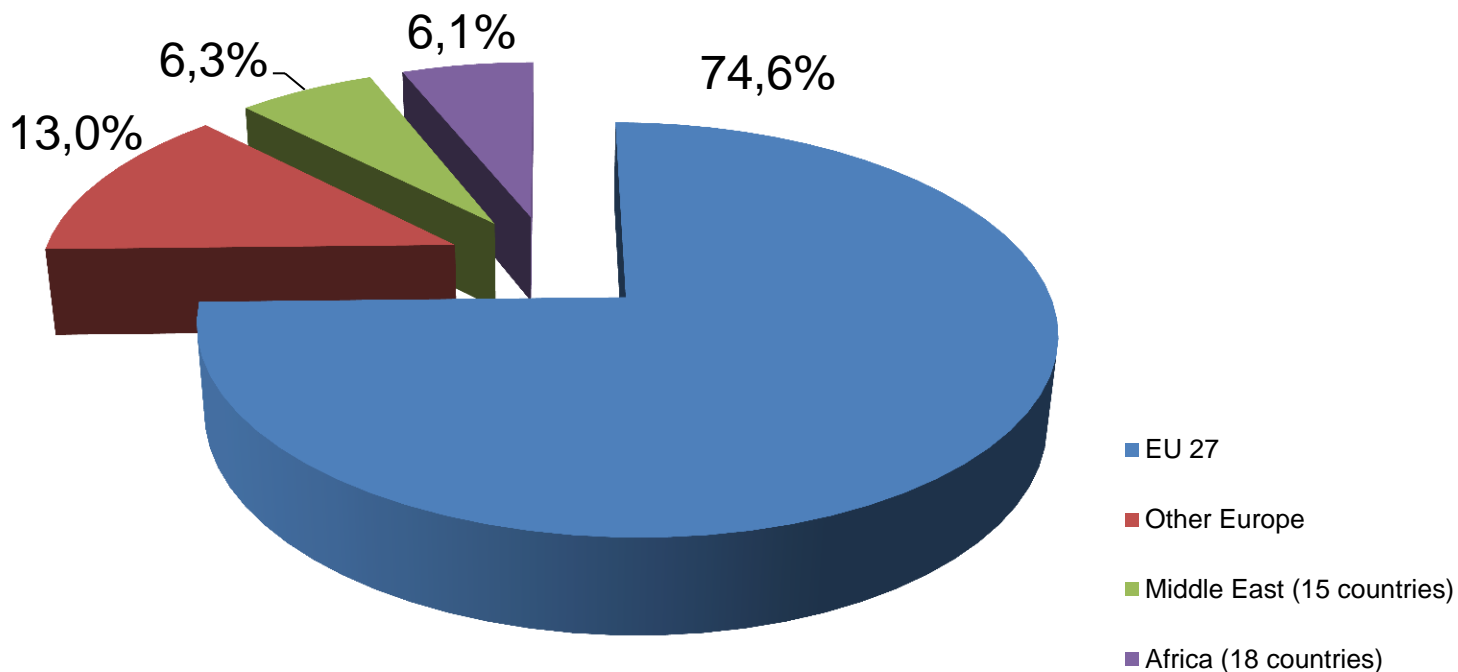
## Predicted Trend 2013

- Continuation of the weak position of the Eurozone is confirmed:  
1Q2013: 9 of the 17 Eurozone countries are in recession
- Material Handling Sector extremely sensitive to economic situation
- Both sealed and vented technology will remain in the market
- Interest in the evaluation of technological alternatives to lead batteries. Targeted benefits in operation and design.



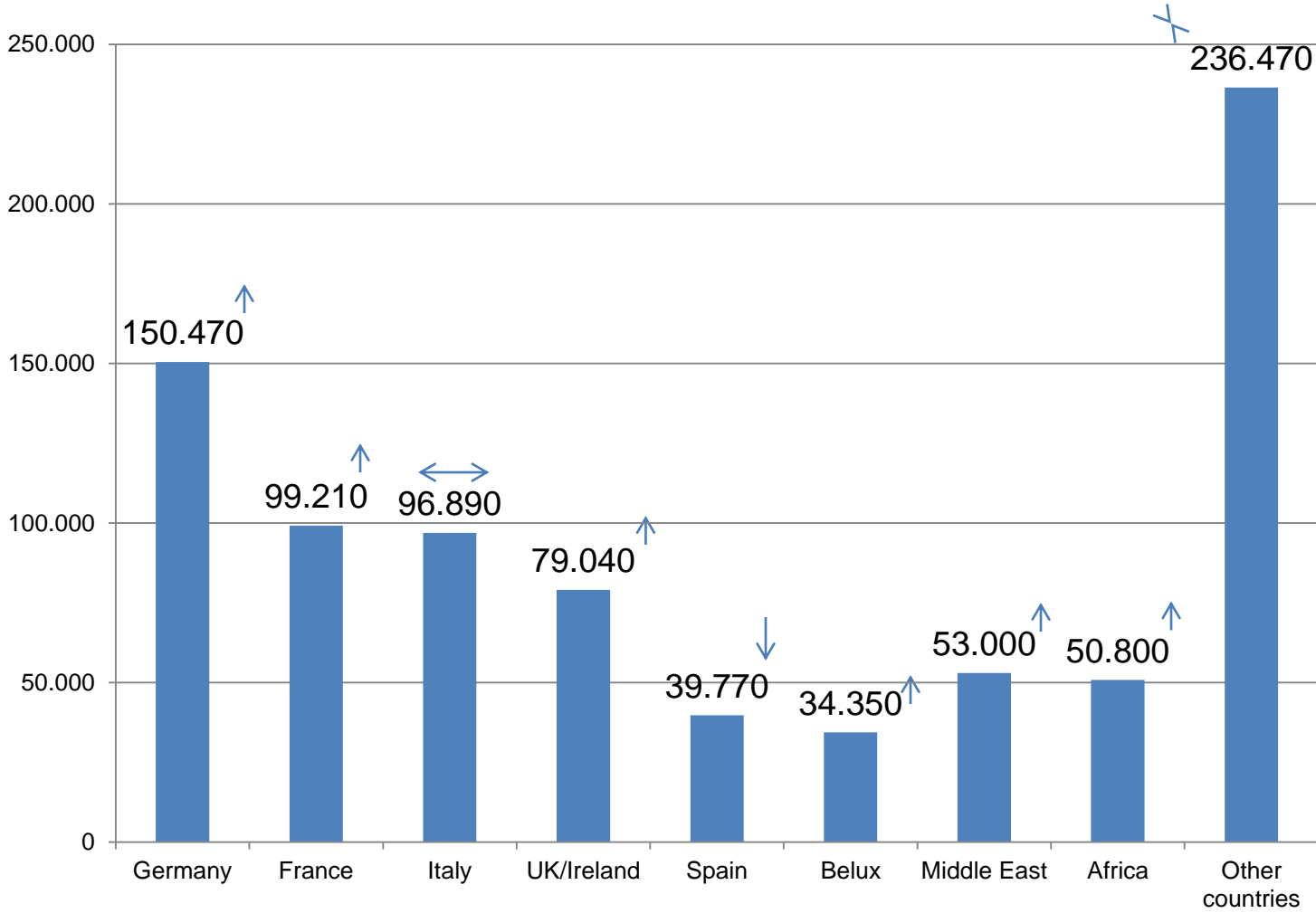
# Stand-by Market 2012 by Region - k€

	Value 2012	Trend 2011/2012
Total EMEA	840,000	+2%
EU-27	627,000	+1%
Other Europe	109,000	+5%
Middle East	53,000	+7%
Africa	51,000	Double digit increase



# Standby Market 2012 by Country

## Total Market EMEA - k€ 840,000



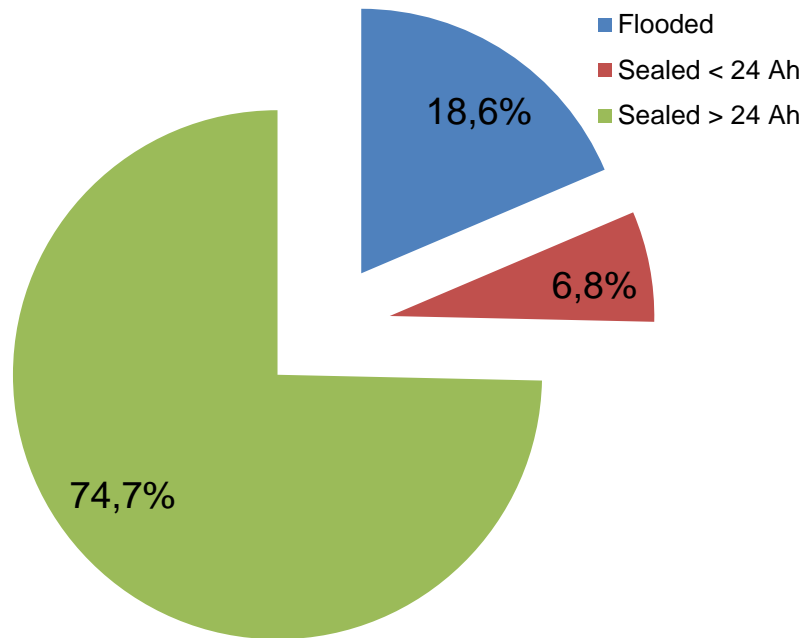
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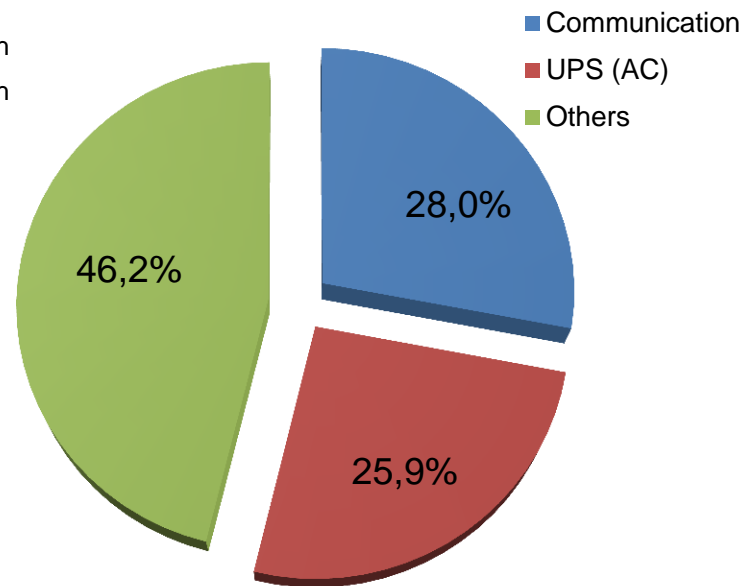
# Stand-by Market 2012 – EU 27

## Total Market: 627,000 k€

Per Technology



Per Application



Others: power, lighting, switching, security, solar, train infrastructure...





# Conclusions: Stand-By Battery Market

## 2012 vs 2011

- Demand in 2011 was essentially flat, for 2012 we see a growth:
  - Growth in EU 27 at 1%
  - Other Europe at 5%
  - Middle East and Africa more significant growth
- Market split per technology
  - Main market in 'sealed': >80%
  - Flooded market: < 20%
- Applications
  - Communication 28%
  - UPS 26%
  - Others 46% (ex. power lighting, switching, security, solar, train infrastructure etc)



# Conclusions: Stand-By Battery Market

## Predicted Trend 2013

- Most opportunities for growth to be expected in Eastern Europe, Middle East and Africa.
- There is the prospect for better demand for emerging applications around telecom hybrid energy systems, plus storage for both smarter grids and renewable power (however, these applications are still mostly pilot installations or modest in scale today in comparison to the larger classic telecom, UPS and utility applications)



## **Part III**

# **Analyzing market evolutions in off-grid and grid-connected applications**



Two IBC Task forces to share knowlegde on stand-by power market developments in 2 different areas:

**IBC TF on Rural Electrification:**

*For off-grid and mini-grid markets  
(Islands and developing countries)*

*Participating members:*

- K-Dieter Merz, Abertax, co-leader
- Giorgio Crugnola, FIAMM, co-leader
- Géry Bonduelle, EnerSys EMEA
- Raf Bruggeman, Exide
- François Linck, Saft
- René Linke, Hoppecke Batterien
- Joseph Cilia, Abertax
- Chris Heron, EUROBAT
- Erwin Marckx, EUROBAT

**IBC TF on Smart Grid:**

*For new markets for on-grid battery storage*

*Participating member:*

- Rainer Bussar, TF Leader
- Michael Lippert, Saft
  - Géry Bonduelle, EnerSys
  - René Linke, Hoppecke Batterien
  - Giorgio Crugnola, Fiamm
  - Joseph Cilia, Abertax
  - Klaus-Dieter Merz, Abertax
  - Chris Heron, EUROBAT
  - Erwin Marckx, EUROBAT



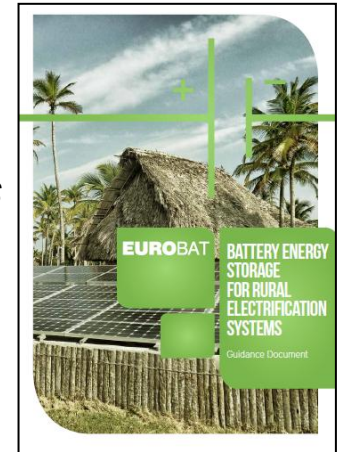
- IBC and Task Forces
  - Assessing/Evaluate technical and functional requirements
    - Battery Technology Roadmaps
    - Better View of applications and market segments
    - Further define precise function of BES
    - Evaluation of current and future potential values of battery energy storage (cost, functions, benefits...)
  - Communicate on the role and value of BES to all stakeholders:



# Two new EUROBAT publications

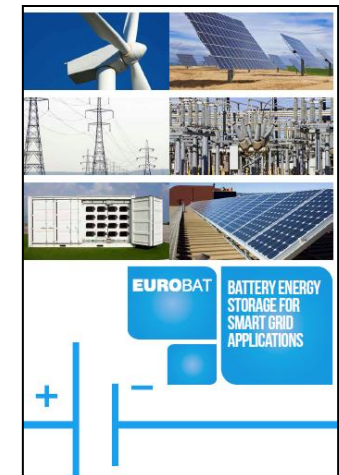
## « *Battery Storage for Rural Electrification systems* »:

- *Current state of knowledge of off- and mini-grid systems*
- *General guidelines for optimized battery selection*
- *Enhance the knowledge about combination of functions*
- *Lead, Lithium, Nickel and Sodium technology*



## « *Battery Storage for Smart grid applications* »:

- *Complementary paper to the joint EASE/EERA « European Energy Storage Technology Development Roadmap towards 2030 »*
- *Explains the potential contribution /advantages of battery energy storage at all levels of the electricity grid: generation, transmission, distribution and customer.*
- *Recommendations to facilitate mass-market utilization*
- *Lead, Lithium, Nickel and Sodium technology*



***IBC welcomes the new EUROBAT members who joined the IBC survey 2012: Midac, TAB***

***IBC welcomes new EUROBAT members to join the IBC***

- To participate IBC Sales survey: bi-yearly basis
- To join the IBC Committee: quarterly meeting

**- THANK YOU -**

