## FOR ALPLA, IT'S THE FORM THAT MATTERS. WHEN IT COMES TO SUSTAINABILITY, **IT'S THE CONTENT.**





### EFFICIENCY AND TECHNOLOGY

Our products not only protect the content in question, but also convey our values to the outside world. This is why ALPLA is an international technology leader. With high-quality packaging solutions that are produced ultra efficiently.

### ENVIRONMENT AND INNOVATION

ALPLA was founded on beautiful Lake Constance in 1955, and our company headquarters is based here. We have always understood the importance of environmental and climate protection.

### EMPLOYEES AND SOCIETY

Our employees – with their individual motivation, enthusiasm, knowledge and expertise – are the key factor in the success of ALPLA. Long-term working relationships secure our competitive edge.

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# SUSTAINABILITY IS NOT A MERE **FORMALITY**.

Sustainability management has always been our top priority. We are well aware of our significant responsibility in this important matter. And we strive to take a leading role in this every day. **With substance and ideas.** 



ALPLA SUSTAINABILITY REPORT 2015

## - ALPLA AT A GLANCE



ALPLA is one of the leading companies in plastic packaging. We produce packaging systems, bottles, caps and injection-moulded parts of the highest quality.

Our customers include both global companies and regional businesses. The range of applications of our products is just as diverse. We develop customised packaging solutions for food and drinks, cosmetics and care products, household detergents, washing and cleaning agents, engine oils and lubricants.

ALPLA celebrated its 60th anniversary in 2015. In 1955, Alwin Lehner founded our company under the name 'Alpenplastik Alwin Lehner GmbH' in Hard, Austria. We have remained true to our headquarters since this time as well as to our philosophy as a family-run company.

At the time of reporting, 16,500 employees worked for ALPLA at 159 locations across 41 countries around the globe.

#### GLOBAL EMPLOYEE STRUCTURE

FTE', basic 40 hrs.     15,612     16,656     17,781       Total employees as of 31 December <sup>a</sup> 15,346     15,909     16,572       Female     3,977     4,265     4,763     29%       Male     11,360     11,644     11,809     71%       Employees excl. contract workers as of 31 December <sup>3</sup> 3,395     3,652     3,3932     27%       Male     10,205     10,446     11,809     71%       Employees excl. contract workers as of 31 December <sup>3</sup> 3,395     3,652     3,3932     27%       Male     10,205     10,446     14,188     89%     66%       Employees aged between 30 and 50     7,768     8,014     8,236     66%       Employees with a disability     251     217     240     2%       National employees     10,196     12,767     12,986     88%       International employees     10,114     1,098     1,122     8%       Male     285     101     139     39%       Contract workers as of 31 December <sup>3</sup> 370     317     359 <th></th> <th>2013</th> <th>2014</th> <th>2015</th> <th>2015 percentage</th>		2013	2014	2015	2015 percentage
Fernale     3,977     4,265     4,763     29%       Male     11,369     11,644     11,809     71%       Employees excl. contract workers as of 31 December <sup>3</sup> 14,148     14,683     89%       Available detailed information     13,600     14,148     14,683     89%       Female     3,395     3,652     3,932     27%       Male     10,205     10,496     10,751     73%       Employees under 30 years of age     4,146     4,213     4,388     30%       Employees over 50 years of age     16,866     1,921     2,059     144%       Employees with a disability     251     217     240     2%       National employees     10,101     1,098     11,122     8%       Part-time workers as of 31 December <sup>3</sup> 370     317     359     29%       Male     85     110     139     39%       Contract workers as of 31 December     1,746     1,761     1,889     11%       Number of new employees per year <sup>3</sup> 3,652     33%     31%     <	FTE <sup>1</sup> , basic 40 hrs.	15,612	16,556	17,781	
Male     11,369     11,644     11,809     71%       Employees excl. contract workers as of 31 December <sup>3</sup> 13,600     14,148     14,683     89%       Female     3,395     3,652     3,932     27%       Male     10,205     10,496     10,751     73%       Employees under 30 years of age     4,144     4,213     4,388     30%       Employees over 50 years of age     1,686     1,921     2,059     14%       Employees over 50 years of age     11,996     12,767     12,986     88%       International employees     11,996     12,767     12,986     88%       International employees     11,014     1,098     1,122     8%       Part-time workers as of 31 December <sup>3</sup> 370     317     359     2%       Male     285     207     220     61%       Male     1,746     1,889     31%       Female     1,287     1,903     1,526     33%       Male     2,332     3,482     3,067     67%       Employ	Total employees as of 31 December <sup>2</sup>	15,346	15,909	16,572	
Employees excl. contract workers as of 31 December <sup>3</sup> 13,600     14,148     14,683     89%       Available detailed information     3,395     3,652     3,932     27%       Male     3,395     3,652     3,932     27%       Employees under 30 years of age     4,146     4,213     4,388     30%       Employees aged between 30 and 50     7,768     8,014     8,236     56%       Employees over 50 years of age     1,686     1,921     2,059     14%       Employees with a disability     251     217     240     2%       National employees     1,014     1,098     1,122     8%       International employees     1,014     1,098     1,122     8%       Part-time workers as of 31 December     1,761     1,389     39%       Male     85     110     139     39%       Contract workers as of 31 December     1,764     1,761     1,889     11%       Number of new employees per year <sup>3</sup> 3,619     5,385     4,593     31%       Female     1,287     1,903	Female	3,977	4,265	4,763	29%
Available detailed information     13,600     14,148     14,683     89%       Female     3,395     3,652     3,932     27%       Male     10,205     10,496     10,751     73%       Employees under 30 years of age     4,146     4,213     4,388     30%       Employees aged between 30 and 50     7,768     8,014     8,236     56%       Employees over 50 years of age     1,686     1,921     2,055     14%       Employees with a disability     251     217     240     2%       National employees     11,196     12,767     12,986     88%       International employees     1,014     1,098     1,122     8%       Part-time workers as of 31 December <sup>4</sup> 285     207     220     61%       Male     85     110     139     39%     6       Contract workers as of 31 December     1,746     1,761     1,889     11%       Number of new employees per year <sup>3</sup> 3,619     5,385     4,593     31%       Female     1,287     1,903<	Male	11,369	11,644	11,809	71%
Female     3,395     3,652     3,932     27%       Male     10,205     10,496     10,751     73%       Employees under 30 years of age     4,146     4,213     4,388     30%       Employees aged between 30 and 50     7,768     8,014     8,236     56%       Employees with a disability     251     217     240     2%       National employees     11,996     12,767     12,986     88%       International employees     1,014     1,098     1,122     8%       Part-time workers as of 31 December <sup>3</sup> 370     317     359     2%       Female     285     207     220     61%       Male     85     110     139     39%       Contract workers as of 31 December     1,746     1,761     1,889     11%       Number of new employees per year <sup>3</sup> 3,619     5,385     4,593     31%       Female     1,287     1,903     1,526     33%       Male     2,332     3,482     3,067     67% <td< td=""><td>Employees excl. contract workers as of 31 December<sup>3</sup></td><td></td><td></td><td></td><td></td></td<>	Employees excl. contract workers as of 31 December <sup>3</sup>				
Male     10,205     10,496     10,751     73%       Employees under 30 years of age     4,146     4,213     4,388     30%       Employees aged between 30 and 50     7,768     8,014     8,236     56%       Employees over 50 years of age     1,686     1,921     2,059     14%       Employees over 50 years of age     1,686     1,921     2,059     14%       Mational employees     11,996     12,767     12,986     88%       International employees     1,014     1,098     1,122     8%       Part-time workers as of 31 December <sup>3</sup> 370     317     359     2%       Gentract workers as of 31 December     1,746     1,761     1,889     11%       Number of new employees per year <sup>3</sup> 3,619     5,385     4,593     31%       Female     2,332     3,482     3,067     67%       Male     2,332     3,482     3,067     67%       Employees under 30 years of age     1,646     2,383     1,968     43%       Employees over 50 years of age     12,232 <td>Available detailed information</td> <td>13,600</td> <td>14,148</td> <td>14,683</td> <td>89%</td>	Available detailed information	13,600	14,148	14,683	89%
Employees under 30 years of age     4,146     4,213     4,388     30%       Employees aged between 30 and 50     7,768     8,014     8,236     56%       Employees over 50 years of age     1,686     1,921     2,059     14%       Employees with a disability     251     217     240     2%       National employees     11,996     12,767     12,986     88%       International employees     1,014     1,098     1,122     8%       Part-time workers as of 31 December <sup>3</sup> 370     317     359     2%       Female     285     207     220     61%       Male     85     110     139     39%       Contract workers as of 31 December     1,746     1,761     1,889     11%       Number of new employees per year <sup>3</sup> 3,619     5,385     4,593     31%       Female     1,287     1,903     1,526     33%       Male     2,332     3,482     3,067     67%       Employees under 30 years of age     182     323     249     <	Female	3,395	3,652	3,932	27%
Employees aged between 30 and 50     7,768     8,014     8,236     56%       Employees over 50 years of age     1,686     1,921     2,059     14%       Employees with a disability     251     217     240     2%       National employees     11,996     12,767     12,986     88%       International employees     1,014     1,098     1,122     8%       Part-time workers as of 31 December <sup>3</sup> 370     317     359     2%       Female     285     207     220     61%       Male     85     110     139     39%       Contract workers as of 31 December     1,746     1,761     1,889     11%       Number of new employees per year <sup>3</sup> 3,619     5,385     4,593     31%       Female     1,287     1,903     1,526     33%       Male     2,332     3,482     3,067     67%       Employees under 30 years of age     182     323     249     5%       Number of employee departures per year <sup>4</sup> 2,433     2,560     2,489	Male	10,205	10,496	10,751	73%
Employees over 50 years of age     1.686     1.921     2.059     14%       Employees with a disability     251     217     240     2%       National employees     11,996     12,767     12,986     88%       International employees     1,014     1,098     1,122     8%       Part-time workers as of 31 December <sup>3</sup> 370     317     359     2%       Female     285     207     220     61%       Male     85     110     139     39%       Contract workers as of 31 December     1,746     1,761     1,889     11%       Number of new employees per year <sup>3</sup> 3,619     5,885     4,593     31%       Female     2,332     3,482     3,067     67%       Employees under 30 years of age     1,646     2,383     1,968     43%       Employees over 50 years of age     182     323     249     5%       Male     1,701     2,669     2,489     17%       Female     732     896     752     30%	Employees under 30 years of age	4,146	4,213	4,388	30%
Employees with a disability     251     217     240     2%       National employees     11,996     12,767     12,986     88%       International employees     1,014     1,098     1,122     8%       Part-time workers as of 31 December <sup>3</sup> 370     317     359     2%       Female     285     207     220     61%       Male     85     110     139     39%       Contract workers as of 31 December     1,746     1,761     1,889     11%       Number of new employees per year <sup>3</sup> 3,619     5,385     4,593     31%       Female     2,332     3,482     3,067     67%       Employees under 30 years of age     1,646     2,383     1,968     43%       Employees over 50 years of age     182     323     249     5%       Number of employee departures per year <sup>4</sup> 2,433     2,560     2,489     17%       Female     732     896     752     30%     6%       Male     1,701     1,664     1,737	Employees aged between 30 and 50	7,768	8,014	8,236	56%
National employees     11,996     12,767     12,986     88%       International employees     11,014     1,098     1,122     8%       Part-time workers as of 31 December <sup>3</sup> 370     317     359     2%       Female     285     207     220     61%       Male     85     110     139     39%       Contract workers as of 31 December     1,746     1,761     1,889     11%       Number of new employees per year <sup>3</sup> 3,619     5,385     4,593     31%       Female     1,287     1,903     1,526     33%       Male     2,332     3,482     3,067     67%       Employees under 30 years of age     1,646     2,383     1,968     43%       Employees over 50 years of age     182     323     249     5%       Number of employee departures per year <sup>4</sup> 2,433     2,560     2,489     17%       Female     732     896     752     30%       Male     1,701     1,664     1,737     70%	Employees over 50 years of age	1,686	1,921	2,059	14%
International employees     1,014     1,098     1,122     8%       Part-time workers as of 31 December <sup>3</sup> 370     317     359     2%       Female     285     207     220     61%       Male     85     110     139     39%       Contract workers as of 31 December     1,746     1,761     1,889     11%       Number of new employees per year <sup>3</sup> 3,619     5,385     4,593     31%       Female     1,287     1,903     1,526     33%       Male     2,332     3,482     3,067     67%       Employees under 30 years of age     1,646     2,383     1,968     43%       Employees over 50 years of age     182     323     249     5%       Number of employee departures per year <sup>4</sup> 2,433     2,660     2,489     17%       Female     732     896     752     30%       Male     1,701     1,664     1,737     70%       Employees under 30 years of age     995     1,032     995     40%	Employees with a disability	251	217	240	2%
Part-time workers as of 31 December <sup>3</sup> 370     317     359     2%       Female     285     207     220     61%       Male     85     110     139     39%       Contract workers as of 31 December     1,746     1,761     1,889     11%       Number of new employees per year <sup>3</sup> 3,619     5,385     4,593     31%       Female     1,287     1,903     1,526     33%       Male     2,332     3,482     3,067     67%       Employees under 30 years of age     1,646     2,383     1,968     43%       Employees over 50 years of age     182     323     249     5%       Number of employee departures per year <sup>4</sup> 2,433     2,560     2,489     17%       Female     732     896     752     30%       Male     1,701     1,664     1,737     70%       Employees under 30 years of age     995     1,032     995     40%       Employees aged between 30 and 50     1,143     1,276     1,203     48%	National employees	11,996	12,767	12,986	88%
Female     225     207     220     61%       Male     85     110     139     39%       Contract workers as of 31 December     1,746     1,761     1,889     11%       Number of new employees per year <sup>3</sup> 3,619     5,385     4,593     31%       Female     1,287     1,903     1,526     33%       Male     2,332     3,482     3,067     67%       Employees under 30 years of age     1,646     2,383     1,968     43%       Employees aged between 30 and 50     1,791     2,679     2,376     52%       Employees over 50 years of age     182     323     249     5%       Number of employee departures per year <sup>4</sup> 2,433     2,560     2,489     17%       Female     732     896     752     30%       Male     1,701     1,664     1,737     70%       Employees under 30 years of age     995     1,032     995     40%       Employees aged between 30 and 50     1,143     1,276     1,203     48%	International employees	1,014	1,098	1,122	8%
Male     B5     110     139     39%       Contract workers as of 31 December     1,746     1,761     1,889     11%       Number of new employees per year <sup>3</sup> 3,619     5,385     4,593     31%       Female     1,287     1,903     1,526     33%       Male     2,332     3,482     3,067     67%       Employees under 30 years of age     1,646     2,383     1,968     43%       Employees aged between 30 and 50     1,791     2,679     2,376     52%       Employees over 50 years of age     182     323     249     5%       Number of employee departures per year <sup>4</sup> 2,433     2,560     2,489     17%       Female     732     896     752     30%       Male     1,701     1,664     1,737     70%       Employees under 30 years of age     995     1,032     996     40%       Employees under 30 years of age     995     1,032     996     40%       Employees under 30 years of age     995     1,032     996     <	Part-time workers as of 31 December <sup>3</sup>	370	317	359	2%
Contract workers as of 31 December     1,746     1,761     1,889     11%       Number of new employees per year <sup>3</sup> 3,619     5,385     4,593     31%       Female     1,287     1,903     1,526     33%       Male     2,332     3,482     3,067     67%       Employees under 30 years of age     1,646     2,383     1,968     43%       Employees aged between 30 and 50     1,791     2,679     2,376     52%       Employees over 50 years of age     182     323     249     5%       Number of employee departures per year <sup>4</sup> 2,433     2,560     2,489     17%       Female     732     896     752     30%       Male     1,701     1,664     1,737     70%       Employees under 30 years of age     995     1,032     995     40%       Employees aged between 30 and 50     1,143     1,276     1,203     48%       Employees over 50 years of age     295     252     291     12%       Fluctuation rate <sup>4</sup> 18%     18%	Female	285	207	220	61%
Number of new employees per year <sup>3</sup> 3,619     5,385     4,593     31%       Female     1,287     1,903     1,526     33%       Male     2,332     3,482     3,067     67%       Employees under 30 years of age     1,646     2,383     1,968     43%       Employees aged between 30 and 50     1,791     2,679     2,376     52%       Employees over 50 years of age     182     323     249     5%       Number of employee departures per year <sup>4</sup> 2,433     2,560     2,489     17%       Female     732     896     752     30%       Male     1,701     1,664     1,737     70%       Employees under 30 years of age     995     1,032     995     40%       Employees under 30 years of age     295     252     291     12%       Female     732     896     752     30%       Male     1,701     1,664     1,737     70%       Employees aged between 30 and 50     1,143     1,276     1,203     48%	Male	85	110	139	39%
Female   1,287   1,903   1,526   33%     Male   2,332   3,482   3,067   67%     Employees under 30 years of age   1,646   2,383   1,968   43%     Employees aged between 30 and 50   1,791   2,679   2,376   52%     Employees over 50 years of age   182   323   249   5%     Number of employee departures per year <sup>4</sup> 2,433   2,560   2,489   17%     Female   732   896   752   30%     Male   1,701   1,664   1,737   70%     Employees under 30 years of age   995   1,032   995   40%     Employees under 30 years of age   295   252   291   12%     Female   732   896   752   30%     Male   1,701   1,664   1,737   70%     Employees under 30 years of age   295   252   291   12%     Female   5%   6%   5%   6%   5%     Malve   13%   12%   12%   12%     Female   5%<	Contract workers as of 31 December	1,746	1,761	1,889	11%
Male     2,332     3,482     3,067     67%       Employees under 30 years of age     1,646     2,383     1,968     43%       Employees aged between 30 and 50     1,791     2,679     2,376     52%       Employees over 50 years of age     182     323     249     5%       Number of employee departures per year <sup>4</sup> 2,433     2,560     2,489     17%       Female     732     896     752     30%       Male     1,701     1,664     1,737     70%       Employees under 30 years of age     995     1,032     995     40%       Employees aged between 30 and 50     1,143     1,276     1,203     48%       Employees over 50 years of age     295     252     291     12%       Fluctuation rate <sup>4</sup> 18%     18%     17%     12%       Female     5%     6%     5%     6%     5%       Male     13%     12%     12%     12%     12%	Number of new employees per year <sup>3</sup>	3,619	5,385	4,593	31%
Employees under 30 years of age   1,646   2,383   1,968   43%     Employees aged between 30 and 50   1,791   2,679   2,376   52%     Employees over 50 years of age   182   323   249   5%     Number of employee departures per year <sup>4</sup> 2,433   2,560   2,489   17%     Female   732   896   752   30%     Male   1,701   1,664   1,737   70%     Employees under 30 years of age   995   1,032   995   40%     Employees aged between 30 and 50   1,143   1,276   1,203   48%     Employees over 50 years of age   295   252   291   12%     Fluctuation rate <sup>4</sup> 18%   18%   17%     Female   5%   6%   5%     Male   13%   12%   12%     Average employee service in years   4.39   4.28   4.01	Female	1,287	1,903	1,526	33%
Employees aged between 30 and 50     1,791     2,679     2,376     52%       Employees over 50 years of age     182     323     249     5%       Number of employee departures per year <sup>4</sup> 2,433     2,560     2,489     17%       Female     732     896     752     30%       Male     1,701     1,664     1,737     70%       Employees under 30 years of age     995     1,032     995     40%       Employees aged between 30 and 50     1,143     1,276     1,203     48%       Employees over 50 years of age     295     252     291     12%       Fluctuation rate <sup>4</sup> 18%     18%     17%       Female     5%     6%     5%       Male     13%     12%     12%       Average employee service in years     4.39     4.28     4.01	Male	2,332	3,482	3,067	67%
Employees over 50 years of age     182     323     249     5%       Number of employee departures per year <sup>4</sup> 2,433     2,560     2,489     17%       Female     732     896     752     30%       Male     1,701     1,664     1,737     70%       Employees under 30 years of age     995     1,032     995     40%       Employees aged between 30 and 50     1,143     1,276     1,203     48%       Employees over 50 years of age     295     252     291     12%       Fluctuation rate <sup>4</sup> 18%     18%     17%       Female     5%     6%     5%       Male     13%     12%     12%       Average employee service in years     4.39     4.28     4.01	Employees under 30 years of age	1,646	2,383	1,968	43%
Number of employee departures per year <sup>4</sup> 2,433     2,560     2,489     17%       Female     732     896     752     30%       Male     1,701     1,664     1,737     70%       Employees under 30 years of age     995     1,032     995     40%       Employees aged between 30 and 50     1,143     1,276     1,203     48%       Employees over 50 years of age     295     252     291     12%       Fluctuation rate <sup>4</sup> 18%     18%     17%       Female     5%     6%     5%       Male     13%     12%     12%       Average employee service in years     4.39     4.28     4.01	Employees aged between 30 and 50	1,791	2,679	2,376	52%
Female     732     896     752     30%       Male     1,701     1,664     1,737     70%       Employees under 30 years of age     995     1,032     995     40%       Employees aged between 30 and 50     1,143     1,276     1,203     48%       Employees over 50 years of age     295     252     291     12%       Fluctuation rate <sup>4</sup> 18%     18%     17%       Female     5%     6%     5%       Male     13%     12%     12%       Average employee service in years     4.39     4.28     4.01	Employees over 50 years of age	182	323	249	5%
Male     1,701     1,664     1,737     70%       Employees under 30 years of age     995     1,032     995     40%       Employees aged between 30 and 50     1,143     1,276     1,203     48%       Employees over 50 years of age     295     252     291     12%       Fluctuation rate <sup>4</sup> 18%     18%     17%       Female     5%     6%     5%       Male     13%     12%     12%       Average employee service in years     4.39     4.28     4.01	Number of employee departures per year4	2,433	2,560	2,489	17%
Employees under 30 years of age     995     1,032     995     40%       Employees aged between 30 and 50     1,143     1,276     1,203     48%       Employees over 50 years of age     295     252     291     12%       Fluctuation rate <sup>4</sup> 18%     18%     17%       Female     5%     6%     5%       Male     13%     12%     12%       Average employee service in years     4.39     4.28     4.01	Female	732	896	752	30%
Employees aged between 30 and 50     1,143     1,276     1,203     48%       Employees over 50 years of age     295     252     291     12%       Fluctuation rate <sup>4</sup> 18%     18%     17%     1       Female     5%     6%     5%     12%       Male     13%     12%     12%     12%       Average employee service in years     4.39     4.28     4.01	Male	1,701	1,664	1,737	70%
Employees over 50 years of age     295     252     291     12%       Fluctuation rate <sup>4</sup> 18%     18%     17%     12%       Female     5%     6%     5%     5%     12%       Male     13%     12%     12%     12%       Average employee service in years     4.39     4.28     4.01	Employees under 30 years of age	995	1,032	995	40%
Fluctuation rate <sup>4</sup> 18%     17%       Female     5%     6%     5%       Male     13%     12%     12%       Average employee service in years     4.39     4.28     4.01	Employees aged between 30 and 50	1,143	1,276	1,203	48%
Female     5%     6%     5%       Male     13%     12%     12%       Average employee service in years     4.39     4.28     4.01	Employees over 50 years of age	295	252	291	12%
Male     13%     12%     12%       Average employee service in years     4.39     4.28     4.01	Fluctuation rate <sup>4</sup>	18%	18%	17%	
Average employee service in years 4.39 4.28	Female	5%	6%	5%	
	Male	13%	12%	12%	
Accident frequency rate <sup>5</sup> 255     213     208	Average employee service in years	4.39	4.28	4.01	
	Accident frequency rate <sup>5</sup>	255	213	208	

<sup>1</sup> Full-time equivalent.

<sup>2</sup> Values based on all employees incl. contract workers.

<sup>3</sup> Values based on all employees excl. contract workers.
<sup>4</sup> Values based on departures of employees with fixed-term and permanent contracts excl. contract workers.

<sup>5</sup> Number of working hours lost due to accidents per 1 million working hours performed.

#### PRODUCTION AND ENVIRONMENT

	2013	2014	2015	Development 2013-2015
Energy [MWh]	1,961,664	2,049,225	2,099,943	7.0%
Specific energy consumption [kWh/kg material usage]	1.125	1.108	1.089	-3.2%
CO <sub>2</sub> e emissions [t] (scope 2) <sup>1</sup>	763,371	810,103	837,509	9.7%
Specific CO <sub>2</sub> e emissions [kg CO <sub>2</sub> /kg material]	0.438	0.438	0.434	-0.9%
Specific material – total [g/unit]	20.04	19.93	19.36	-3.0%
EBM [g/unit] <sup>2</sup>	33.85	34.35	35.04	4.0%
IM caps [g/unit] <sup>2</sup>	2.59	2.45	2.43	-6.0%
SBM PET [g/unit] <sup>2</sup>	30.00	29.19	28.03	-7.0%
IM PET [g/unit] <sup>2</sup>	28.41	28.33	27.31	-4.0%
Water (fresh) [m <sup>3</sup> ]	1,164,425	1,097,751	1,183,645	1.7%
Specific water consumption [m³/t. material]	0.67	0.59	0.61	-9.0%

Scope 2: CO<sub>2</sub>e emissions through power consumption.
EBM – extrusion blow moulding, IM caps – injection moulding caps, SBM PET – stretch blow moulding, IM PET – injection moulding preforms (more information about ALPLA processing technologies from page 29).

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#### Dear Employees, Esteemed Partners,

The media celebrated the agreement concluded between 196 states at the 2015 UN Climate Summit in Paris as a historic occasion. In accordance with this agreement, the global community will strive to restrict global warming to less than 2 degrees.

CO<sub>2</sub> emissions should reach a peak as soon as possible. By the second half of the 21st century at the latest, the parties to the agreement shall strive to achieve a balance between the emission and absorption of greenhouse gases. Also noteworthy is that damage caused by climate change including potential countermeasures is explicitly mentioned in the agreement. The tough negotiations held by the international community highlight the importance of climate protection for all of our futures. Even though political and economical interests frequently seem to counteract the objectives of sustainability, it is clear to all parties that the time to act is now. As a global company, we also have our part to play. It is our responsibility to use resources sparingly, to reduce emissions and to prevent environmental pollution. Our goal is to reduce specific power consumption by 15 per cent to 1 kWh/kg and CO<sub>2</sub> emissions by 20 per cent per tonne of processed material by 2018.

### 'OUR GOAL IS TO REDUCE SPECIFIC POWER CONSUMPTION BY 15 PER CENT AND CO<sub>2</sub> EMISSIONS BY 20 PER CENT PER TONNE OF PROCESSED MATERIAL BY 2018.'

Günther Lehner, CEO

Throughout our 60-year history, we have always strived to position ALPLA as a technology leader. Innovation is the key to success. We believe that innovation is also the key to sustainability. We are constantly modernising our operating facilities and infrastructure as well as improving our equipment and production processes. This allows us to save energy and produce efficient packaging solutions more easily. For example, the innovative EBM technology known as 'foaming', on which ALPLA has worked for over four years, has reduced material consumption

by 15 per cent. Based on our collaboration with other global leaders in the development and processing of new, sustainable raw materials such PEF, industry visions are now within reach.

With this second sustainability report, we are informing our employees, partners and customers about our performance and objectives for sustainable company development. Successful business activity can coincide with our values of reason, responsibility, trust and commitment. We are in no doubt about this.

Nicolas Lehner Chief Commercial Officer

Günther Lehner Chief Executive Officer

Georg Früh Chief Financial Officer

## - ABOUT THIS REPORT

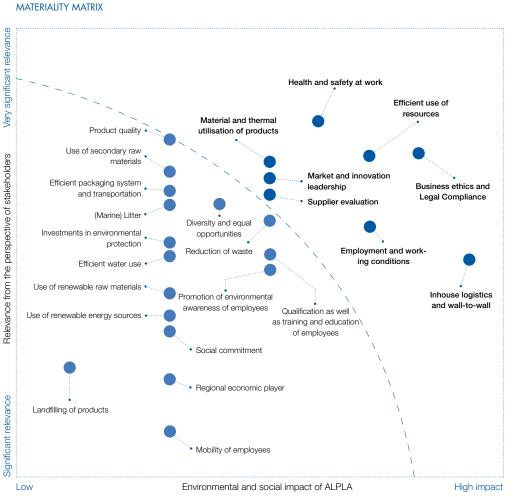
Sustainable business management at group level since 2012 This second ALPLA sustainability report provides information about all relevant economic, environmental, social and societal developments from 2013 to 2015. The information portrayed relates to all ALPLA locations worldwide, including inhouse facilities and joint ventures. We have compiled the information relating to our recycling plants and the corresponding consumption data in a special section.

The report is based on the specifications and indicators of the Global Reporting Initiative (GRI G4). We aim to publish the report every two years. ALPLA published its first sustainability report in 2014.

ALPLA Sustainability Management (part of the Strategy, Business Development & Sustainability department) is responsible for the content of the report. By forming this department along with an independent sustainability officer (Linda Mauksch), ALPLA established sustainable business management across the entire group in 2012. The ALPLA Sustainability Steering Council also contributes towards the company-wide support of sustainability targets. It is made up of representatives from various departments of the company, including HR, Sales, Regional Management, Technology and Plant Engineering. The Council offers regular support regarding current challenges and how to deal with them.



ALPLA Sustainability Steering Council (from left): Nicolas Lehner, Dietmar Marin, Christoph Hoffmann, Hermann Riedlsperger, Günther Lehner, Linda Mauksch, Christian Buchgraber, Klaus Allgäuer, Martin Stark and Hanspeter Hollender.



The stakeholders surveyed rated the topics illustrated from 'important' to 'very important'. The present report outlines our performance in these areas and highlights our progress compared to previous years as well as our future steps and targets.

We have involved our stakeholders in the development process of the report for the first time. During the course of a workshop, the ALPLA Sustainability Steering Council defined which stakeholders should be involved for which issues with regard to the materiality matrix. In autumn 2015, selected employees from different levels and regions, as well as customers and representatives of the owner family were then provided with a written survey. A high response rate was achieved due to the personal nature of the target groups.

The survey related to 31 issues from two perspectives. Firstly, it examined the relevance

of individual issues for ALPLA. Secondly, the comprehensive survey examined how ALPLA's social commitment is perceived in the relevant areas. In total, eight key issues were identified for ALPLA, which were rated from 'important' to 'very important' by the stakeholders.

We added further specific environmental issues to the eight issues identified. According to our estimations, these are extremely important issues for the plastics industry, such as marine pollution, waste prevention and upcycling, which we will address in this report from page 62. Of course, we want to ensure added value for our company by compiling this report. From the evaluation of the stakeholder survey, we identified that our commitments have so far remained largely unnoticed internally, for example. In order to raise awareness, we therefore want to intensify internal communication regarding sustainability issues in the employee magazine and on the intranet in the future.

**KEY ISSUES** 

Business ethics and Legal Compliance	13
Employment and working conditions	16
Health and safety at work	20
Supplier evaluation	25
Efficient use of resources	30
Market and innovation leadership	46
Inhouse logistics and wall-to-wall	54
Material and thermal utilisation of products	58

Overall, we view the entire reporting process, from data collection to the responses of our stakeholders on the final report, as a valuable opportunity: in this way, we regularly and critically examine our performance and targets and define specific courses of action to further develop our sustainability strategy.

#### Key issues

The international community has set itself the goal of combating corruption and bribery. In this context, export companies are invited to implement control systems. At ALPLA, we also employ preventive measures and strive to raise awareness, such as through the relevant training of all employees. Page 13

Good, motivated employees are the basis of our success. We view HR management as an effective tool for implementing sustainable business management. Our value system corresponds to internationally recognised ethical standards. We want to set an example with regard to social and ethical concerns. Page 16

Occupational health and safety deserve a high level of attention. After all, every instance of sick leave on the part of an employee results in costs for the company and for society as a whole. We provide the best-possible protection for our employees from accidents and occupational illness. Page 20 Supply chain management is becoming an increasingly important issue. The provision of products and services is always connected to the consumption of resources. Accordingly, we cooperate with suppliers who operate in an environmentally and socially sustainable manner. Page 25

It is very important to ALPLA to minimise material consumption and maximise the use of environmentally sustainable raw materials. Page 30

In relation to its long-term responsibility across multiple generations, ALPLA promotes resource-saving, environmentally friendly innovation. Page 46

We are on hand wherever our customers need us. To minimise the amount of journeys required, we have been following an inhouse strategy for decades. This has benefits for the environment and also promotes efficient collaboration with our customers. Page 54

ALPLA is passionate about recycling. We use recycled plastics in our production processes. Furthermore, we are convinced of the value of high-quality recycling strategies at the end of the life cycle of plastic containers. Separate collection and utilisation conserve raw materials and ensure optimal use of the heating value of plastic waste. Page 58

We surveyed the employees responsible with regard to each subject area. They are referenced by name and quoted in the specific sections.

## BUSINESS ETHICS AND LEGAL COMPLIANCE

### ANTI-CORRUPTION - CODE OF CONDUCT

As a global company, ALPLA believes in responsible operations. The main areas of focus are fair and honest contact, partnership-style collaboration, respectful treatment and mutual consideration, equal treatment of all persons and law-abiding behaviour. Our company is built on these principles and we also expect our employees and partners to observe these values.

Safe, hygienic working conditions and strict observance of safety regulations are the cornerstones of our working organisation. We do not tolerate any form of discrimination or sexual harassment. We do not tolerate child labour under any circumstances, and believe that this should be prevented at all costs. Our operations are to a large extent shaped by the sustainable use of resources and comprehensive use of recycling options. The applicable legal regulations in the respective countries should be observed in all cases. We refer here, in particular, to competition, antitrust and corruption laws. We are constantly improving our compliance system in order to implement these principles. On the one hand, this ensures that legislative changes are taken into consideration as quickly as possible. On the other hand, we ensure that changes are also communicated and that the implementation of the changes is examined.

Since the beginning of 2015, all ALPLA employees throughout the world receive training on the Code of Conduct through our e-learning platform. By completing a test, each individual employee confirms that they have studied and understood the content.

#### MEMBERSHIPS

The following memberships highlight our environmental and social commitment:

AIM Progress – Program for responsible sourcing Altstoff Recycling Austria association	OFI Österreichisches Kunststoffinstitut (Austrian plastics institute)	
Bundesvereinigung Logistik (German logistics association)	Austrian Packaging Institute	
CDP – Carbon Disclosure Project	PCE (Polymer Comply Europe) – FREP (Plastics	
Deutsche Gesellschaft für Personalführung (German	Converter Food Contact Regulatory Experts Panel)	
association for HR management)	Petcore – PET Container Recycling Europe	
Ecovadis – Supplier Sustainability Ranking	Petcycle	
Ellipso – French Plastic and Flexible Packaging	RAL quality association in Germany	
Association	respACT – business platform for CSR and	
EUPC – European Plastic Converters	sustainable development	
Forum PET Europe	SEDEX – Supplier Ethical Data Exchange	
Klimaneutralitätsbündnis 2025 (climate neutrality alliance 2025)	Verein Netzwerk Logistik VNL (network logistics association)	
Industrievereinigung Kunststoffverpackungen e. V. (German association for plastics packaging) Vorarlberger Eigentümer Vereinigung (Vor		
Moll, des goht – association for the promotion of sustainable development in Vorarlberg, Austria		

IT IS NOT ABOUT GETTING EVERYTHING OUT OF OUR EMPLOYEES.

— IT IS ABOUT HELPING THEM TO FULFIL THEIR POTENTIAL.



## OUR EMPLOYEES AND ALPLA'S COMMITMENT

### COMMITMENT FOR OUR EMPLOYEES' WELL-BEING

#### Our principles

The people who work for ALPLA are important to us. Regardless of their background, gender or beliefs, we treat everybody the same. We not only respect their differences, but regard them as a source of innovation and of our success.

It is our responsibility to create a healthy, safe working environment at our facilities. Our employees should not be subject to injury or other harm as part of their duties. Furthermore, we ensure that we give our employees the opportunity to develop, grow on a personal level and take control of their own lives. The key criteria here are a secure income and the ability to provide for their family.

Our value system corresponds to internationally recognised ethical standards. It has always been our goal not only to meet legal regulations,

but to set an example. ALPLA currently has production sites in 41 countries around the world. We are aware that our values are not accepted in each of these countries and cannot be implemented in the way we would like. Conversely, we regularly encounter attitudes and behaviour that are contrary to our fundamental principles. We see it as a significant part of our social responsibility to operate in this diverse and inconsistent world, remain true to our principles and initiate improvements. We do not tolerate discrimination, sexual harassment, child labour or forced labour, and we believe that these should be prevented at all costs. Regular audits are conducted (e.g. SMETA -SEDEX Member Ethical Trade Audit) by independent, external companies to verify that we are compliant in this regard. Our score on the independent Ecovadis platform also confirms this.

sites in 41 countries around the world

ALPLA currently has production

You really feel at home here. ALPLA frequently works with several generations of the same family under one roof.





As a family-run company, we strongly believe in long-term thinking. We act in the interests, and to the benefit, of future generations. Company founder Alwin Lehner and his family represent the principles of reliability and consistency and embody the core values of our company philosophy.

#### Sustainable HR management

HR management is directly defined as a management function from the perspective of company sustainability. Balancing of resources also forms part of HR processes in our company. HR management is also a central tool in the implementation of sustainable business management. 'Our employees, with their individual motivation, enthusiasm, knowledge and expertise, are the key factor in the success of ALPLA,' emphasises Hanspeter Hollender, Head of Corporate Human Resources. Since the pioneering phase of the 60s and 70s through to today, the goal has been to find the right employees, provide them with opportunities for technical and personal development, and establish the basis for long-term collaboration in the company. We want to retain and share the expertise we already have in our company.

### 'OUR EMPLOYEES, WITH THEIR INDIVIDUAL MOTIVATION, ENTHUSIASM, KNOWLEDGE AND EXPERTISE, ARE THE KEY FACTOR IN THE SUCCESS OF ALPLA.'

Hanspeter Hollender, Head of Corporate Human Resources

> We put this basic concept of HR management into practice through various different measures. We consider the stages of life of our employees and the stages of their experience within the company – ranging from recruitment and integration in the company, to education, continuous training and support in work processes, through to professional management and development of appropriate management processes.

> Transparency and equal opportunities are key factors in the recruitment process. All job advertisements across the world are posted internally for ALPLA employees and externally for potential applicants on the ALPLA careers portal. Our Recruiting Policy guarantees fair opportunities for all candidates throughout the entire selection process.

In Austria and other European countries, ALPLA has been providing training to young professionals as part of the dual training programme for decades. In conjunction with other companies, we exported this professional training concept to Mexico and China. We now offer young people in these countries the opportunity to combine practical training at our production sites with a general qualification from a vocational college. In 2015, the first Mexican trainees successfully completed this attractive training programme. All graduates were hired by ALPA and work at our site in Toluca.

'It is our responsibility to provide exceptional training to young people across the globe.

This allows us to establish the same basic conditions within the ALPLA group and ensure the same high quality at all locations.' (Günther Lehner, CEO)

We place considerable focus on the development and advancement of our employees. Striking a balance between the company's needs and our employees' expectations is a key responsibility of management. Our employee development concept includes individual support, interesting job profiles and programmes such as job rotation, coaching, mentoring and individual further training. All forms of learning are utilised, including e-learning and other modern educational methods. We are constantly expanding our training concept. In 2013, we had 150 training sessions with around 1,200 participants, while in 2015, 2,485 people completed one of 310 training sessions.

The ALPLA People management process supports management staff in their development and advancement responsibilities. During employee discussions, management and employees work together to establish their range of duties, targets and measures. The ALPLA Management Development Program is our international development programme for management staff. This programme has been in operation internationally since 2007. Specific programmes are also offered in the various ALPLA regions.

ALPLA careers portal https://career.alpla.com





Hanspeter Hollender (left) and Georg Früh (centre) at the presentation of the Austrian Staatspreis (state prize) 'KnewLEDGE 2016'.

ALPLA was nominated for the final round of the Austrian Staatspreis KnewLEDGE 2016. We achieved second place with our holistic, global concept of human resources development, of which we are very proud.

All employees should be able to work in a healthy and safe environment at ALPLA. To further increase the already high standard at our facilities and raise awareness of this issue, we set up a separate Health, Safety & Environment (HSE) office within the Corporate Human Resources department.

The issue of occupational health and safety merits a high level of awareness. We want to build awareness of this among our employees, customers and suppliers. This is why our vision is called 'Zero Accident'. By providing special training sessions, workshops and other initiatives, we support the occupational safety officers in the specific regions. An area of focus involves our inhouse operations and our collaboration with our customers.

Since 2013, ALPLA has been encouraging the documentation and processing of near misses. These are unintentional events which could lead to an accident or failure.

ALPLA follows the OHSAS 18001 standard (OHSAS = Occupational Health and Safety Assessment Series) worldwide as a reference system. Based on this, various operations will be certified over the coming years.

'IT IS OUR RESPONSIBILITY TO PROVIDE EXCEPTIONAL TRAINING TO YOUNG PEOPLE ACROSS THE GLOBE. THIS ALLOWS US TO ESTABLISH THE SAME BASIC CONDITIONS WITHIN THE ALPLA GROUP AND ENSURE THE SAME HIGH QUALITY AT ALL LOCATIONS.'

Günther Lehner, CEO

### ALPLA IN SOCIETY - SOCIAL COMMITMENT

We selected 25 examples from over 90 projects in the table below. These 25 projects provide an overview of ALPLA's social commitment and highlight the diversity of the support offered.

Region	Country	Sponsoring project/explanation
Headquarters	Austria	ALPLA KIDS – day-care centre for employees' children
		Elijah project in Romania – building of village
Africa, Middle East and Turkey	Turkey	Scholarship programme – financial support for selected students
China	China	Support for employees in case of natural disasters
		Material assistance for children in north-western China
CIS/Russia	Russia	Student scholarship programme at Ugresha College
		Fundraising for children suffering from cancer
India	India	Assistance programme for eight children whose parents (ALPLA employees) died outside of ALPLA – Baddi and Pashamylaram sites
		Training programme for 13 students of Baddi University – with opportunity to take up a position at the company
		Support for WADI project – disinfection of water through PET bottles and measuring instrument in Indian villages
Caribbean	Puerto Rico	Food donations – employees are given a turkey for Thanksgiving
		Health campaign - flu and H1N1 vaccines for employees
Mexico and Central America	Mexico and Central America	Financial support for employees in case of natural disasters
	Mexico	ALPLA training programme – 50 trainees over three years; plastics modellers and metal technicians
	Costa Rica	Orphanage assistance – material and financial support
North America	USA	Charity run – Haven House Shelter (McDonough, GA)/shelter for victims of abuse in need of protection
		Donations for the Little Pink Houses of Hope organisation (Cortland, NY) – facilitating holidays for cancer patients
Eastern Europe	Serbia	Red Cross – financial support for flood disaster work in 2014
	Poland	'Stage Kotłownia' theatre – awareness programme for young people
South America	Brazil	Fundraising – employees raise funds for social associations and disadvantaged people on public holidays
	Colombia	Environmental protection project in partnership with Clariant Colombia – reforestation of Forest Majui
South East Asia	Vietnam	Material and financial support for orphans – Hoa Hong Orphanage
	Thailand	Scholarship programme for 27 children of employees
Western Europe	Germany	Exter Triathlon - relay competition teams
	Italy	Partnership with local infrastructures – discount campaigns for employees

— REGIONALITY, SOCIAL RESPONSIBILITY AND EFFICIENT USE OF RESOURCES.

WHAT IS IMPORTANT WITH REGARD TO SUPPLIERS?





## – WHERE DOES THE MATERIAL COME FROM FOR OUR BOTTLES?

The integration of environmental, social and compliance standards in the procurement process is a key aspect of sustainability management at ALPLA. Through the conscious selection of suppliers and subsequent longterm cooperation, we contribute to improving sustainability standards throughout the entire supply chain. Since the beginning of 2014, we have been evaluating suppliers with regard to materials, energy, equipment and staff leasing in accordance with specific criteria. We established our guidelines in a supplier code which came into effect at the end of 2014. Within one and a half years of its publication, around 180 principal suppliers had signed up to the code.

### SUPPLIER CODE OF CONDUCT

The ALPLA Supplier Code of Conduct requires the fulfilment of criteria such as quality, pricing and delivery reliability. In addition to our general compliance guidelines, there are requirements relating to environmental management, occupational health and safety, as well as social responsibility at the centre of the agreement.

The code applies for our suppliers and their employees, including temporary staff and contractors. The requirements are consistent throughout the world. Existing contracts and general terms and conditions are not replaced. We also encourage our suppliers to require similar standards from their suppliers.

Fairness, honesty, respect and mutual consideration are the cornerstones of any collaboration. We also expect our suppliers to treat all people equally and act in accordance with the law.

In particular, we stress compliance with legal regulations in relation to competition and monopolies as well as combating corruption. By signing the agreement, suppliers guarantee that no third parties are harmed as a result of their actions and that information is treated confidentially.

The principles of the ETI (Ethical Trading Initiative) Base Code are the established standard for us in this regard. The clear rejection of child labour, discrimination and inhumane treatment, as well as a free and regulated job, safe and hygienic working conditions, and fair remuneration are just some of the aspects explicitly required.

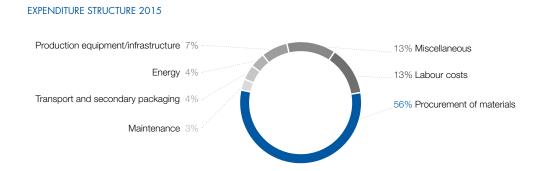
The applicable laws should also be observed in relation to environmental protection. In particular with regard to the handling of chemicals or toxic substances, we place considerable emphasis on high safety standards through to proper disposal. We ask our suppliers to act in accordance with this precautionary principle in relation to all environmental matters. The sustainable and efficient use of resources is just as important to us as the economical consumption of energy and the use of renewable energy sources. Code of Conduct: Page 13

#### **RELATIONSHIP WITH SUPPLIERS**

### Procurement and raw material markets for ALPLA

At 56 per cent, a large portion of expenditure at ALPLA goes to the materials required for

production. Salary payments account for 13 per cent of expenditure, with infrastructure accounting for 7 per cent and energy costs 5 per cent.





## PRICING COMPETITION VERSUS SUSTAINABILITY

An interview with Christian Mayr, Director Corporate Purchasing, about the key framework conditions in purchasing and ALPLA's cooperation with suppliers.

### What are the duties of the Purchasing department?

The Corporate Purchasing department is responsible for the purchase of material and coordinates the procurement of paints, additives and packaging. We purchase materials globally – centrally through our headquarters in Hard and also locally for our individual regions.

### Could you outline the situation of the raw material markets relevant for ALPLA?

The PET market (PET = polyethylene terephthalate) is very fragmented with a large number of buyers and sellers. There is oversupply globally for this market. The situation is quite different for the polyethylene market. It is quite highly concentrated and even quite scarce in certain regions. In Europe, in particular, we therefore frequently encounter bottlenecks.

PET is currently cheaper than PE. At the same time, demand is greater. We are noticing that the trend is moving towards PET in the case of new products. In addition to price, properties such as transparency and recycling capability are pivotal.

### You coordinate purchasing globally, so what role is played by local suppliers?

In terms of raw materials, sustainability and cost go hand in hand. Logistics costs make up a large portion of overall costs. Consequently, we try to purchase materials regionally insofar as possible, while being as close to suppliers as we can. PET suppliers are present in all of our regions and are quite well distributed. In the case of PE, imports are playing a larger role due to the current scarcity. As a result, we import PE to Europe from the USA and to China from the Middle East, for example.

#### What requirements does ALPLA generally place on its suppliers and how do you communicate criteria such as environmental issues or working conditions?

For us, quality, availability, price and environmental issues are the primary criteria for cooperations with potential suppliers. In relation to social framework conditions or working conditions, we always seek a dialogue in advance. The ALPLA Supplier Code of Conduct has made our work easier since 2014, as many principles are established from the outset. All principal suppliers promptly signed up to the code. Most suppliers already work to high standards, and many of them even exceed our expectations.

### What is the function of the ALPLA Supplier Evaluation Tool?

We use this tool to evaluate quality-related criteria in our ongoing cooperations with suppliers, such as reliable supply or granule quality. Previously, we have done this at a site level, as it is a requirement for certification in accordance with ISO 9001. Now, we are implementing this worldwide. Our goal is to enable the consolidated evaluation of suppliers at a global corporate level. We are currently putting the necessary conditions in place in our processes, such as setting up the required IT systems. The Supplier Evaluation Tool enables us to further improve quality and reduce rejects sustainably. In the case of any issues with certain suppliers, we identify this at an early stage and can take immediate action.

### How do you estimate supply and demand for materials from renewable raw materials?

In relation to PE, there is Green PE from Braskem, which is produced entirely from sustainable raw materials. With regard to PET, the equivalent is Plant PET from Coca-Cola, 30 per cent of which is produced from plant-based raw materials. There are some customers who want to use these sustainable materials for their packaging solutions. ALPLA is 'just' the processor here, and the decision lies with the customer. The fact is that demand is currently very low due to the relatively high prices. The prices are up to 50 per cent higher than for conventional materials made from fossil fuel resources. These are fundamentally cheaper, as the low oil prices are further driving the stiff price competition. Green PE and Plant PET currently account for 2 per cent of our entire material usage.

### Do recycling materials offer another possible alternative?

At ALPLA, we have set ourselves the goal of promoting the use of recycled materials. With our own three recycling plants, we have reliable sources of high-quality materials. In general, unfortunately, we need to note that interest on the part of our customers is also low in this regard at the present time. Recycled materials are currently more expensive than new products and are also subject to stiff competition. The amount of recycled materials used is just 5.1 per cent for PET and less than 1 per cent for HDPE (high-density polyethylene). High-quality recycled HDPE is available in smaller quantities than rPET, as a consequence of the numbers indicated.

## How can ALPLA still reach its long-term targets regarding the increased usage of recycled materials?

We can only recommend this to our customers and make it as attractive as possible for them. We therefore also try to bring the price of the recycled materials from our own plants in line with that of new products as much as possible.

#### CORPORATE PURCHASING

The Corporate Purchasing department coordinates the purchasing of PET, HDPE, PP, paints, additives and secondary packaging throughout the world.

## – HOW ARE OUR BOTTLES CREATED?

### MULTIPLE WAYS OF CREATING BOTTLES

### Technology leader with decades of experience

We are on hand wherever our customers need us. Consequently, we have production sites in Europe, Asia, the USA, Latin America and Africa. Another aspect of our success concept is that, on request of our customers, we can also produce our high-quality packaging directly at our customer's bottling plant and supply them to their bottling facility. We have been offering this inhouse model since 1985, a particularly efficient form of collaboration which optimises the supply chain and saves hundreds of thousands of miles travelled by lorries each year.

Our customers are spread across the entire world and also come from a wide range of

different industries. Drinks, food, cosmetics, household products, engine oils, lubricants – whatever the industry, the experts at our technology centres develop the right form of packaging for every customer requirement.

With our use of the latest technologies and production processes as well as a separate tool-making and special-purpose engineering department, ALPLA is a recognised technology leader. This innovative edge, combined with decades of experience, allows us to work on the packaging solutions of tomorrow, today. Recycling, lightweighting and plastics from sustainable raw materials are the cornerstones of a sustainable future for our industry, and we will work with our customers to drive this forward.

From preform to bottle through PET stretch blow moulding technology.





Left: injection moulding. Right: extrusion-blowmoulded bottles on the way to the next processing step.

#### **OVERVIEW OF TECHNOLOGIES**

#### Extrusion blow moulding/EBM

In extrusion blow moulding, a tubular preform is adapted (extruded) to the inner contours of a tool shape using pressure. A typical feature of packaging made using this technology is the welding seam at the base of the bottle. The advantages of the procedure include the wide range of potential designs (round, angular, oval, with handle) and the flexibility in the production output. EBM is particularly suitable for bottles and packaging for cosmetics, household products, drinks and food, as well as oils and lubricants. Some of ALPLA's innovations in EBM include dual-chamber bottles and multilayer technology. Through foam technology, we have made an important contribution in further reducing weight. HDPE, LDPE, PP and PETG are suitable for the plastics to be used.

#### Injection stretch blow moulding (ISBM), twostep process

ALPLA primarily follows a two-step procedure for the production of PET bottles. The preforms are first produced in the injection moulding process. In the second step, known as stretch blow moulding, the preforms are heated up in the machine and then stretched to the shape of the product in the tool. The advantages of this technology include rapid cycle times and high output quantities. This enables bottle production to be connected directly to the bottling plant. The typical feature of these bottles is the clearly distinguishable injection point at the base of the bottle. Due to its transparent nature, low weight, pressure resistance and unbreakability, PET is ideally suited for carbonated drinks such as soft drinks or mineral water. However, ALPLA also specialises in the use of this technology for household and personal care products and also offers solutions for oval and angular bottles. In the production of drinks and mineral water bottles, we process high volumes of recycled materials.

ALPLA also utilises the one-step PET process at selected locations. This process combines the production of the preform with the stretch blow moulding of the bottle in a machine.

#### Injection moulding (IM)

Injection moulding is one of the principal procedures for producing moulded plastic parts. Here, plastic mass is injected into a tool shape under pressure and cooled. There is virtually a free choice of shapes and surfaces available. ALPLA uses this technology to primarily produce individual components and caps. PS, PP and PE are the plastic materials used.

#### Injection blow moulding (IBM)

For smaller containers with high quality standards, ALPLA also uses the injection blow moulding process at selected locations. Due to the high dimensional accuracy, low weight fluctuation and good surface quality, the injection blow moulds are particularly suitable for the production of jars or roll-on deodorants. Typical plastics processed by means of this technology include PE, PP and PET.

### MATERIALS MANAGEMENT

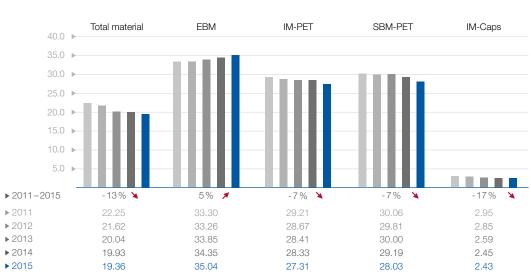
Material costs account for 56 per cent of the expenditure for the production of our packaging systems. Consequently, this is a major incentive to pay attention to 'specific material consumption' (grams of material per unit produced) and reduce this continuously.

Between 2011 and 2015, we succeeded in reducing specific material consumption by a total of 13 per cent. We achieved the largest reduction of 17 per cent in the IM caps business unit, followed by 7 per cent for SBM and IM PET (preforms). Specific material consumption rose in the EBM business unit, as the bottles increased in volume.

Material consumption based on plastic type has barely changed during the reporting years of 2014 and 2015. We still primarily process PET (50.7 per cent) and HDPE (36.2 per cent). Recycled materials are made up of 5.1 per cent rPET and 0.7 per cent rHDPE. However, demand for rPET varies considerably depending on the region. We process almost 20 per cent rPET on average in German-speaking countries. At 7.0 per cent and 0.3 per cent respectively, PP and LDPE make up a considerably lower share in our material mix.

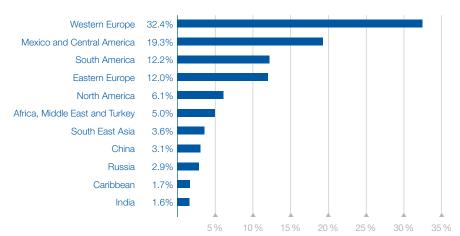
The use of master batches (colour granules) and other additives accounts for just 0.8 per cent of overall material consumption at ALPLA. These additives modify the properties of the processed plastics. They give the bottles the desired colour, improve their protective function (e.g. oxygen barrier) or make them resistant to environmental effects (e.g. UV radiation).

#### SPECIFIC MATERIAL CONSUMPTION BASED ON TECHNOLOGY



[g material/unit]

Specific material consumption from 2011–2015 Overall: -13% IM caps: -17% SBM: -7% IM PET (preform): -7% EBM: +5%



#### MATERIAL CONSUMPTION ACCORDING TO REGION 2015

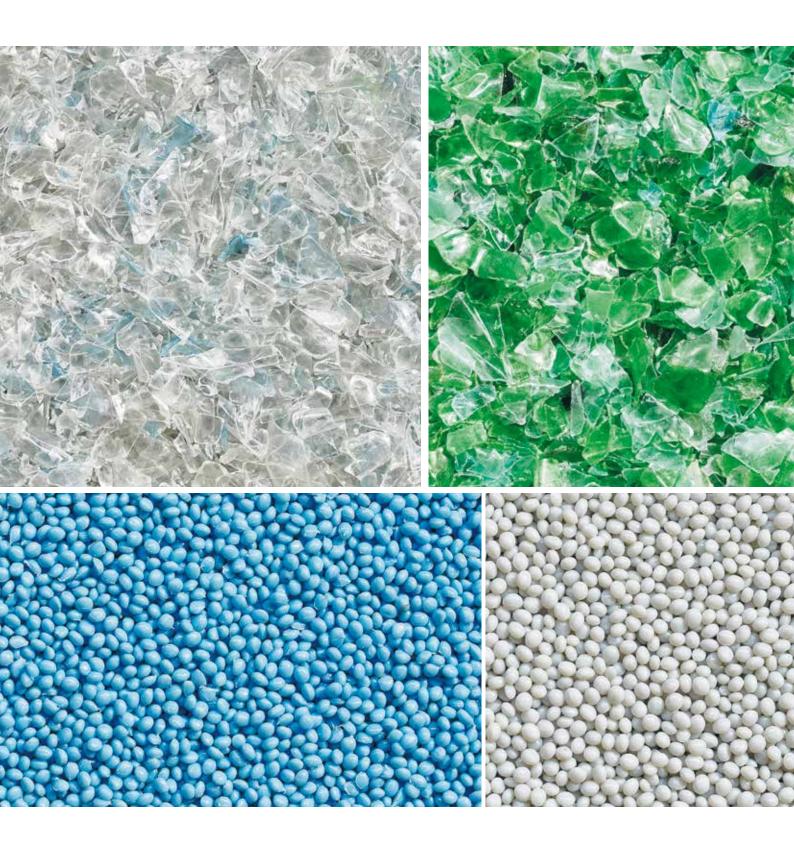
Conventional plastics are produced from crude oil, and thus from a fossil fuel and non-sustainable material. In terms of sustainability, we offer alternatives to our customers. As well as the use of recycled materials, we focus on new plastics from sustainable raw materials. In addition to the wide use of materials such as Plant PET (Coca-Cola) and Green PE (Braskem), ALPLA is also working on the development of PEF with an international consortium. PEF (polyethylene furanoate) is produced entirely from plant-based materials. The technology used for the production of the bio-based plastic was created by the Dutch company Avantium. As research and mould validations have shown, PEF is superior to other types of plastics in many respects. The plastic has excellent properties, so the gas barrier for oxygen is ten times higher than that of PET, for example. The fully recyclable polymer is therefore particularly suitable for foods and drinks.

### More information about recycling: Page 58

MATERIAL DISTRIBUTION ACCORDING TO TYPE 2015



### BETWEEN 2011 AND 2015, WE SUCCEEDED IN REDUCING SPECIFIC MATERIAL CONSUMPTION BY A TOTAL OF 5 PER CENT.



### Foaming: a revolutionary development in extrusion blow moulding

ALPLA spent around four years working with partners to develop foaming technology in extrusion blow moulding (EBM). Foaming reduces material consumption with full functionality and recycling capability.

The successful application of foaming technology in the production of EBM plastic bottles is the result of years of research and cooperation between ALPLA, Unilever and MuCell<sup>®</sup>. In microcellular foaming technology, a gas is injected into the middle layer of the bottle wall. This creates bubbles in the material, similar to the structure of a honeycomb. Plastic consumption and weight are reduced by up to 15 per cent.

The production process is a purely physical one and does not require any chemical additives. The bottles are therefore fully recyclable. The density of the material is reduced, but the wall thickness remains the same. The bottles therefore have practically the same high level of functionality at the bottling plants, during transportation and on handling as conventional EBM bottles. For the end user, the bottles look and function exactly the same.

ALPLA has been producing shower gel bottles in Lübeck for the European market for Unilever based on this procedure since 2014. According to its own figures, Unilever will save up to 275 tonnes of plastic per year across Europe for this product line.

Prestigious industry awards highlight the potential of foaming for more sustainable packaging solutions. In November 2014, ALPLA won the special prize from ARA (Altstoff Recycling Austria AG) as part of the 'Smart Packaging' Austrian state prize. ALPLA received the Pack-TheFuture award in the environmental design category in 2015, and then at the beginning of 2016, it received the prestigious WorldStar award in the health and beauty category from the World Packaging Organisation. Multiple international awards for foaming technology in extrusion blow moulding



MICROCELLULAR BOTTLE WALL

MuCell<sup>®</sup> microcellular foaming technology was developed at Massachusetts Institute of Technology (MIT) in Boston, Massachusetts. The company MuCell<sup>®</sup> Extrusion LLC specialises in marketing and developing this technology. For more information, see www.mucellextrusion.com.

ALPLA produces its renowned bottles, containers and caps from plastic granulate and plastic flakes OUR COMMITMENT TO CLIMATE PROTECTION DOES NOT FINISH ON THE BICYCLE SEAT.

- WE PROMOTE INNOVATIVE SOLUTIONS FOR ENERGY EFFICIENCY AND CONSERVATION OF RESOURCES.



#### ENERGY MANAGEMENT

#### Energy management and CO, emissions

Energy is an important factor in the processing of raw materials for plastic packaging. Energy consumption not only has a considerable influence on the total cost of production, but also on the environment. ALPLA has striven to ensure efficient, responsible use of energy and resources for decades. We regard it as a matter of course to use the latest technologies with respect to high customer value and the environment. As comparative internal industry figures demonstrate, energy management is highly sophisticated at ALPLA.

### Energy consumption and specific energy consumption

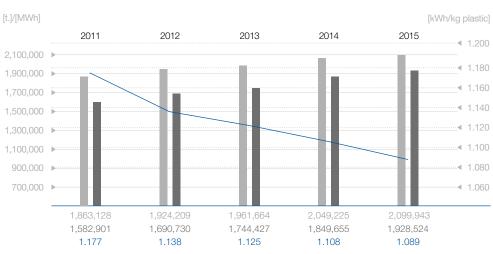
In 2014, ALPLA required 2,050 GWh of power worldwide, with 2,099 GWh required in 2015. Material consumption was 1.85 million tonnes in 2014, and 1.93 tonnes in 2015.

The 'specific energy consumption' key indicator expresses power consumption in

relation to the material processed. In 2011, overall specific power consumption (including technical centres and offices) per kilogram of material processed was 1.177 kWh/kg. Thanks to a wide range of measures, we succeeded in further reducing this specific energy consumption during the reporting period: from 1.108 kWh/kg in 2014 to 1.089 kWh/kg in 2015. This corresponds to a reduction of 1.5 per cent. In 2015, the region with the greatest energy usage was Western Europe (33 per cent), followed by Mexico and Central America (17 per cent) and South America (12 per cent).

When we consider the technologies in absolute figures, extrusion blow moulding tops the list with regard to energy consumption at 43 per cent, ahead of injection moulding at 34 per cent and stretch blow moulding at 13 per cent. In relation to specific energy consumption, however, injection moulding (caps) is more energy intensive than other technologies.

Absolute energy consumption according to technology Extrusion blow moulding: 43% Injection moulding: 34% Stretch blow moulding: 13%



TOTAL ENERGY AND MATERIAL CONSUMPTION AND SPECIFIC ENERGY CONSUMPTION 2015

Energy [MWh]

- Material [tonnes]
- Specific energy consumption [kWh/kg plastic]

In 2016, several production sites were tested, including Fußach (image below). Five to six locations are assessed each year on average. Savings potential following a successful assessment lies at around 15–20 per cent.

#### Energy management at ALPLA

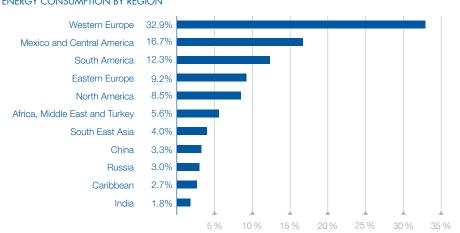
For ALPLA, a state-of-the-art infrastructure is the key factor in energy management. Martin Stark, Director Corporate Plant Engineering and responsible for energy management at ALPLA, emphasises: 'Modernisation is the most effective strategy.'

Each year, a dedicated team of employees from Austria, Spain, Mexico and Brazil conduct plant energy assessments. Our experts analyse selected operations worldwide with regard to energy consumption and efficiency. Based on the results and in accordance with the future economic development of each facility, an individual action plan is drawn up. In 2016, the production sites in Fußach (Austria), Noblejas (Spain), Nowy Dwor (Poland), Mariscala (Mexico) and Duque de Caxias (Brazil) were examined. Five to six locations are assessed each year on average. We assessed the urgency and order in accordance with the specific energy consumption of the facilities.

Savings potential following a successful assessment lies at around 15–20 per cent. Around one third of savings are made possible through investments such as the procurement of systems and equipment or modernisation projects. Two thirds are achieved through organisational measures and process optimisations, particularly with regard to air pressure.

'SYSTEMATIC ENERGY MANAGEMENT IS THE ONLY WAY TO SUSTAINABLY REDUCE ENERGY CONSUMPTION, ENERGY COSTS AND EMISSIONS.'

Martin Stark, Director Corporate Plant Engineering



ENERGY CONSUMPTION BY REGION

Systematic energy management is the only way to sustainably reduce energy consumption, energy costs and emissions. This is our objective, and it is also the greatest challenge in this regard. For us, it is essential that the specific energy consumption of the plants remains stable with the same configuration. This is ensured through continuous checks and employee training. The regional energy managers compile the key indicators and take appropriate measures, where necessary.

All plant energy assessments are carried out in accordance with the guidelines of the energyspecific ISO 50001 standard. The European plants are subject to the EU Energy Efficiency Directive, and the prescribed audits are carried out at the plants by external companies every four years. ISO 50001 certification is planned for these sites over the long-term.

All employees responsible for energy management and plant engineering receive regular training. In the future, we also want to set up special training for employees in relation to maintenance. Compressed air is required for the production of plastic bottles. In addition to refrigeration and air conditioning, compressed air is the most energy-intensive factor in our production process. Compressed air recycling and the recovery of energy used are important strategies for ALPLA.

For example, our PET machines are fitted with recycling systems as standard. This enables part of the compressed air to be reused in the production process. We use the waste heat produced by machines and air compressors to provide heating or hot water.

We successfully installed free cooling at our site in Berlin (Germany) in 2015. Low external temperatures can be used to cool the cooling water for EBM machines to the required temperatures, with low energy and technology usage. Within the first four months, specific energy consumption was reduced from 0.92 to 0.86 at this plant. Following the test phase, we will then check the suitability of this system at further sites.

FOR THE PERIOD FROM 2011 TO 2018, ALPLA HAS SET ITSELF THE GOAL OF REDUCING SPECIFIC POWER CONSUMPTION BY 15 PER CENT TO 1 KWH/KG.

#### CO<sub>2</sub> EMISSIONS AND CO<sub>2</sub> REDUCTION

#### CO, emissions

Carbon dioxide  $(CO_2)$  and other greenhouse gas emissions are caused by our production operations, operating materials, the transportation of our products, packaging and our employees.

We have been systematically recording power consumption emissions at our company since 2007. This information serves as a basis for strategic measures for reducing emissions, which we want to keep as low as possible or offset. The carbon footprint is used as a measurement parameter. Other greenhouse gases are indicated as a  $CO_2$  equivalent unit. The contribution of gases to the greenhouse gas effect are converted to an equivalent  $CO_2$  volume.

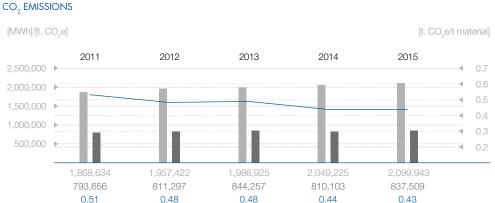
In determining our emissions balance, we focus on indirect emissions through energy generation (scope 2). This includes all greenhouse gas emissions created through power and heat generation outside of our company. In the long term, however, our goal is also to document scope 3 (indirect emissions through

the production of externally sourced materials) and scope 1 (direct emissions through the combustion of fossil fuels in the company).

For ALPLA as a plastics-processing company, scope 2 is the most important category. To date, we have been recording scope 1 and scope 3 emissions exclusively for our headquarters in Hard and our site in Fußach. Through our participation in the Klimaneutralitätsbündnis 2025 (climate neutrality alliance 2025), we have committed to neutralising emissions at our Vorarlberg sites by 2018 at the latest.

To obtain company-wide, comparable data, we contrast the relevant emissions with the materials used. This 'specific  $CO_2$  equivalent per tonne of material' parameter [t.  $CO_2e/t$ . material] has been reduced continuously in recent years. In 2011, ALPLA's  $CO_2$  emissions were 0.51 tonnes per tonne of material. In 2015, this was at 0.43 tonnes, corresponding to a reduction of around 14 per cent.

More information about the Klimaneutralitätsbündnis 2025 (climate neutrality alliance 2025) on page 40



Energy consumption [MWh]

- CO,e [t. CO,e]
- Specific CO\_e [t. CO\_e/t. material]

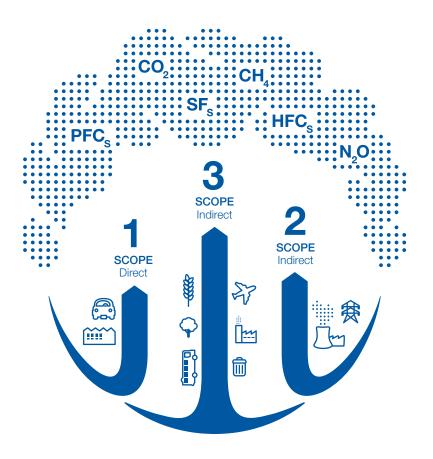
# BY 2018, OUR TARGET IS TO REDUCE SPECIFIC ENERGY CONSUMPTION (POWER) BY 15 PER CENT AND ASSOCIATED $CO_2$ EMISSIONS BY 20 PER CENT COMPARED TO 2011.



#### Renewable energy sources

The selection of energy sources for power production has a major effect on a company's  $CO_2$  emissions. ALPLA actively focuses on renewable energy sources in cooperation with its partners. Our own photovoltaic modules produce 9.6 GWh per year worldwide, for

example. This corresponds to a reduction in  $CO_2$  emissions of 2,900 tonnes. In Mexico, ALPLA has a comprehensive cooperation agreement with a wind farm and consumes 200 GWh of power from renewable energy sources per year. This equates to a further saving of 90,000 tonnes of  $CO_2$ .



#### EMISSION SOURCES – SCOPES

Scope 1: direct emissions caused by the combustion of fossil fuels within the company itself; emissions caused by physical or chemical processes and fugitive emissions.

Scope 2: indirect emissions caused by energy generation; including emissions caused by power and heat generation outside of the company itself.

Scope 3: other indirect emissions caused by services performed by third parties and services acquired, such as materials purchased, transportation to customers, rental vehicles or business trips.

### BY 2018, THE USE OF RENEWABLE ENERGY SOURCES IS EXPECTED TO HAVE INCREASED BY 50 PER CENT COMPARED TO THE BASE YEAR OF 2011.







#### An alliance for climate protection

In 2015, ALPLA established the Klimaneutralitätsbündnis 2025 (climate neutrality alliance 2025) in conjunction with other renowned companies from Vorarlberg. The aim of the businesses involved is to make their carbon footprint climate-neutral and thus make a voluntary contribution to reaching climate objectives both regionally and globally. Through its participation in the alliance, ALPLA wants to live up to its sense of responsibility for future generations, in particular, and play an active part in ensuring a high quality of life in the region.

First, the companies measure and record their  $CO_2$  emissions. Using the data compiled, efficiency measures are drawn up and energy consumption is reduced in reasonable manner. The partners balance out unavoidable emissions through  $CO_2$  certificates and thus support global climate protection projects. The alliance, which over 50 companies and organisations have joined since its foundation, also strives to certify businesses in accordance with ISO 14064 (greenhouse gas accounting and verification). 'Together with our employees, the association of undertakings and the state of Vorarlberg, we can set an example for other countries, regions and businesses,' stresses ALPLA CEO Günther Lehner.

ALPLA is planning to neutralise its entire CO<sub>2</sub> emissions at its sites in Vorarlberg by 2018. Emissions from recent years will also be compensated for retrospectively, with five international climate protection projects supported. These include two projects in Brazil and Costa Rica, where ALPLA operates production facilities.



Foundation of the Klimaneutralitätsbündnis 2025 (climate neutrality alliance 2025) with nine other Vorarlberger companies in 2015

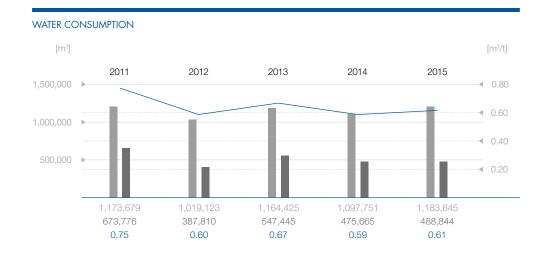
#### WATER AND WASTE MANAGEMENT

#### Water management

During the production process, we need water for cooling as well as for drinking and process water at our administration and production sites. We source most of our water from public networks, with a small portion coming from our own groundwater sources.

Total fresh water consumption was almost 1.2 million m<sup>3</sup> in 2011 and, despite increased production levels, did not change in 2015 compared to the base year of 2011. Specific fresh water consumption was 0.61 m<sup>3</sup>/tonne material in 2015. This key indicator has been reduced significantly by 20 per cent since the base year of 2011. In 2015, waste water amounted to around 0.4 million m<sup>3</sup>, which we directed into the sewage system.

In relation to water management, we have set ourselves the goal of promoting systematic data collection. The individual sites are responsible for collecting data regarding their fresh water consumption and waste water. In 2015, 98 sites fulfilled this requirement and reported their figures to our internal database. We calculated the remaining 61 facilities based on the number of employees and the cooling water system in operation.



# Reduction of specific fresh water consumption since base year 2011: 20%

### year 2011: 20%



Waste water

Specific water consumption

### ALPLA IS PLANNING TO REDUCE PRODUCTION WASTE BY 20 PER CENT FROM 2011 TO 2018.



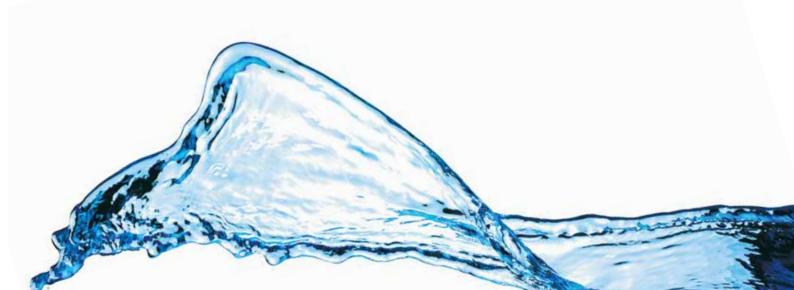
'WATER IS ONE OF THE MOST PRECIOUS RESOURCES IN THE WORLD. DRINKING WATER, IN PARTICULAR, HAS BEEN SCARCE IN MANY REGIONS FOR A LONG TIME AND THIS SITUATION IS GETTING WORSE. CONSEQUENTLY, ALPLA PROMOTES CONSCIOUS, EFFICIENT USE OF WATER. BY 2018, WE ARE PLANNING TO REDUCED OUR WATER CONSUMP-TION BY 40 PER CENT COMPARED TO THE BASE YEAR OF 2011.'

Linda Mauksch, Sustainability Management

#### Waste management

At ALPLA, we strive to produce as little waste as possible in the production of our packaging systems. For cost reasons alone, this is important, as well as, of course, to conserve resources and protect the environment. However, waste is still produced. This may involve contaminated or surplus raw materials, or rejects from failed production process. Other types of waste such as secondary packaging or metal waste are less important.

We can return part of the plastic waste to the production cycle either directly or following processing (collection and grinding). The other forms of waste are recycled externally as part of a regulated process. We have been systematically recording waste volumes at the individual sites since 2009. ALPLA has installed an electronic data system worldwide for all sites and strives to further increase data quality. In the future, we also want to record data for which our customers are responsible. For example, in situations where a customer provides materials for production and is also responsible for waste disposal. Smaller sites or inhouse operations send the waste to our base plant if they do not have sufficient storage capacity at their site. We also want to record these volumes in the future.



#### ALPLA INNOVATION MANAGEMENT

ALPLA is an internationally renowned technology leader for customer-specific plastic packaging solutions. Alwin Lehner, the company founder, is himself a passionate technician and inventor. He has always been a central driving force in the improvement of equipment and processes. Always with the goal of producing ultra-efficient high-quality bottles and packaging.

One innovation is a new solution for a specific market or market segment which provides relevant benefits to the target group (customer or end consumer) as well as an economic benefit to the supplier company.

As mentioned at the outset, ALPLA has always been an innovative company based on its history and company philosophy. Initial inventions such as the legendary ALPLAmat (blow moulding machine) enable rapid advancement and economic success. Our innovation history illustrates that innovations in the past were predominantly technology-focused. Our goal is to respond proactively to trends in the future with product innovations and forward-thinking innovation management.

Accordingly, ALPLA launched a new process in 2014. Relevant people from all regions throughout the world can provide their own ideas via a regional portal. The innovation team made up of leading employees from sales, technology and engineering evaluates these suggestions based on a specific criteria catalogue. The compatibility of the potential product innovation with the sustainable corporate strategy is an important factor.

If the idea meets the criteria and obtains approval from the innovation board, project

#### (from left):

Klaus Allgäuer, Director Corporate Technics, Christian Zmölnig, Head of Corporate Development & Innovation, and Christoph Hoffmann, Director of Corporate Strategy, Business Development & Sustainability, present the ALPLA innovation history. The development of equipment and products with various technologies is ensured by ALPLA Innovation Management.



### 'THE FOCUS IS ON THE SEARCH FIELDS OF CONVENIENCE AND NEW MATERIALS SUCH AS BIO-BASED PLASTICS AND COST INNOVATIONS.'

Christoph Hoffmann, Director of Corporate Strategy, Business Development & Sustainability

planning and the specific project phase are then started. The team has met every six weeks and worked through around 110 suggestions since 2014. 'We also hold group discussions on an ongoing basis on further development of the internal process and analysis of market and industry trends,' explains Daniella Dittmar, Senior Manager Business Development & Innovation.

The team defined six search fields outlining the guidelines for their activities, which apply for

all markets and for ALPLA core technologies. 'Our focus in on the search fields of convenience and new materials such as bio-based plastics and cost innovations,' says Christoph Hoffmann, Director of Corporate Strategy, Business Development & Sustainability. Relevant criteria for the evaluation of ideas include differentiation from existing solutions, consumer-friendliness, cost savings, efficiency and packaging benefits for the contents.

### 'WHEN I HAVE A GREAT IDEA FOR A NEW PRODUCT, I NEED THE RIGHT TECHNOLOGY. AND NEW TECHNOLOGIES IN TURN CAN LEAD TO NEW PRODUCTS.'

Christian Zmölnig, Head of Corporate Development & Innovation

ALPLA also substitutes other materials such as glass or aluminium for plastic. PET is an excellent substitute for glass. PET packaging is break-proof, lighter than glass, recyclable and has an attractive life cycle assessment. It also has very good barrier properties, which has a positive effect on product durability. Aerosols (spray containers) made from PET present a good alternative to aluminium cans. Another trend in which we are strategically involved is flexible packaging (pouches/flat-bottom bags).

One example of an innovation which perfectly combines technology and sustainability is the development of the BMU machine for extrusion blow moulding. The initial ideas had already been around for about 20 years before the first prototype was created in 2001 in the form of the 'Gazelle'. This technology enables highly efficient, resource-conserving production of EBM bottles. Through to the present day, ALPLA has continued to developed this machine type over multiple generations through to a fully electric version.

At ALPLA, we are convinced that a good innovation must be based on the combination of a practical, market-oriented invention with a sophisticated technological base. 'These two factors cannot be separated and are intrinsic to one another. When I have a great idea for a new product, I need the right technology. And new technologies in turn can lead to new products,' stresses Christian Zmölnig, Head of Corporate Development & Innovation.

At ALPLA's technical centres worldwide, experts work on individual solutions for our customers. Energy-efficient machines and equipment ensure efficient production of our packaging solutions. Modern technologies such as virtual prototyping and 3D printing improve and accelerate the product development process. We see this as an important factor in retaining our role as a technology leader in the future.

Machine development at ALPLA.





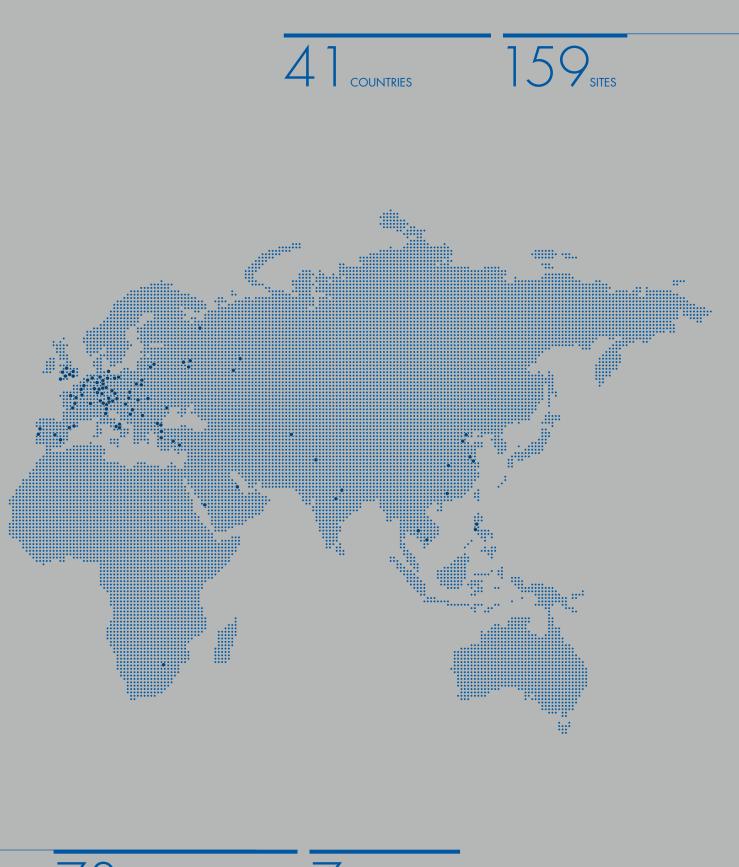
#### GREEN ENERGY TRENDS

The sustainable potential of innovations – in addition to a range of other trends, the following sustainable properties are very important for new products. Light, refillable, reusable, easy to recycle, childproof, easy to open and close, low waste, space-saving, resource-efficient, easy to transport, simple metering, thorough removal of residues, can be cooled, user-friendly, ready to use, simple application, cost-efficient, etc.

# - GLOBAL PRESENCE: WHERE IS PRODUCTION CARRIED OUT?

regional customers.





inhouse operations



# CLEAR FOCUS ON THE SOCIAL ASPECTS OF SUSTAINABILITY

An interview with Shoba Dixit, Deputy General Manager Corporate Affairs, ALPLA India, on current projects in relation to corporate social responsibility.

#### INDIA

ALPLA has been active in India since 2006. There are currently five production sites in addition to the regional headquarters in Hyderabad. Vagish Dixit is responsible for the region as Regional Manager at ALPLA India. His wife, Shobha Dixit, is responsible for corporate social responsibility as Deputy General Manager Corporate Affairs. She discusses ongoing projects in the interview:

## What does sustainability mean for you personally?

The welfare of our employees is close to the hearts of both myself and my husband, Vagish. We want to support them and also provide help and assistance to the regional population.

#### What are our main emphases in this area?

Our focus is on corporate social responsibility and on the social aspects of sustainability. We focus our attention particularly on children and people with disabilities. Of course, we are also involved in the areas of energy, the environment, occupational safety and hygiene in relation to sustainability.

# Has ALPLA India initiated a special programme for people with disabilities?

Yes, our goal is to provide secure employment for at least twenty people with disabilities in our plants. We currently have 13 people with disabilities (as of May 2016), and we will hire five more during the course of 2016. We work closely with regional NGOs in order to optimally cater for the particular needs of people with disabilities. They receive special training and we adapt the safety regulations in our facilities. For example, in the case of a fire alarm, there is an acoustic signal with sirens as well as a visual signal with warning lights to ensure that people with a hearing impairment are notified of the alarm. They are also actively involved via WhatsApp.

### And you have school projects to help the youngest members of society?

A good school education is vital for the children's future. We offer financial support to schools in Baddi and Pashamylaram. In Pashamylaram, for example, we have been providing lunchtime meals for the last three years, and last year we also launched a summer programme for students in the eighth and ninth classes.

#### Does the active involvement of employees show that these issues are important to many people?

We are very pleased that our employees respond with great social commitment. We made a call for blood donations at our plant in Baddi, and over 70 people came forward almost immediately. Everybody has helped to make this project a great success.

#### ALPLA INDIA

#### Employees: 731

Number of plants: 6

Turnover: 7.1 billion INR (EUR 95 m)

Our employees at our site in Pashamylaram are actively involved.





# OUR DOOR IS OPEN FOR NEW IDEAS

In discussions, three representatives from Werner & Mertz, Birgitta Schenz (head of corporate communication), Uwe-Jürgen Eggert (environment and project management) and Dr Detlef Matz (head of sustainability management) outlined the benefits of the inhouse cooperation with ALPLA.

#### DIRECTLY WITH THE CUSTOMER – INHOUSE LOGISTICS AND WALL-TO-WALL

An example of a successful ALPLA inhouse cooperation is Werner & Mertz in Germany. The family-run company, which was founded as a wax goods factory in 1867 and is based in Mainz, specialises in cleaning and care products. Almost 1,000 employees produce renowned labels such as Frosch, Erdal and Emsal, as well as products for industrial cleaning and for use in commercial kitchens.

#### Werner & Mertz and ALPLA have been cooperating in Mainz for 20 years. What are the reasons behind this inhouse operation?

**Detlef Matz:** This is based on both environmental and economic factors. With the production of our packaging in the inhouse facility, we save almost 1.5 million miles of lorry transportation and 250,000 litres of diesel per year, thus also reducing our  $CO_2$  equivalent. This form of cooperation leads to huge time savings and a high degree of flexibility. This allows us to respond immediately in the case of capacity changes, for example. We don't have to set up an order process that takes several days before production can start.

**Birgitta Schenz:** In my opinion, our recycling initiative would not have come so far were it not for our close cooperation with the experts at ALPLA. Some things simply work better when the people work together on-site. Reaching agreements is not a protracted process, but takes place on a personal level and in the shortest way possible.

## What do you particularly value about the cooperation?

**Birgitta Schenz:** The partnership is cooperative and future-oriented. The long-term cooperation has led to a sense of mutual trust. We don't just discuss prices and delivery schedules, but also mutual values and targets. For us, it was clear from the outset that ALPLA plays a very important role in our recycling initiative. Initially, some persuasion was needed internally, albeit with great success. Now, ALPLA promotes the environmental efficiency concept of the initiative. We are following a genuine cycle principle with the goal of managing without the use of crude oil in the production of plastic packaging. Instead, we want to process a high-quality, reusable material from a previously unused source which can even be used for food-grade packaging. This is our idea of an effective raw material cycle. Over ten million transparent PET bottles made entirely from recycled materials with twenty per cent coming from 'Gelber Sack' sources (note: term used for the collection system for packaging waste in Germany and Austria) have already been produced. And the amount of packaging kept in true circulation is expanding every week.

**Detlef Matz:** We highly value the fact that ALPLA CEO Günther Lehner also comes to business meetings in Mainz with Reinhard Schneider, our managing partner. The owners of each company hold discussions on equal footing, and this is highly beneficial. Something which family-run companies such as ALPLA and Werner & Mertz can benefit from.

## What do you expect from ALPLA in your future cooperation?

**Uwe-Jürgen Eggert:** With the construction of the inhouse facility which will commence in 2017, we are laying an important foundation for the future of our partnership. The modern building which houses the production operations is even closer to our bottling operations, so merchandise logistics are now more efficient and environmentally friendly.

#### What do you believe are the current trends in plastic packaging? What are end customers looking for? For example, are they specifically looking for bottles made from recycling materials?

**Birgitta Schenz:** Sophisticated end customers with high regard for the issue care a lot about packaging. The average customer tends to

place their trust in a brand such as Frosch, a company with a history and functioning products. We have now applied small informational brochures to millions of Frosch products. Despite the slight tinge of grey on the packaging, consumers are not aware that this is made entirely from recycled material. The Frosch symbol informs the consumer that they are doing something good for the environment with their purchase. This message now comes across in the clearest sense. Products with this sticker are preferred by consumers.

**Detlef Matz:** Our primary goal is to get further partners on board. The use of recycling materials from 'Gelber Sack' sources of packaging should become standard and have economic benefits. Formulae and packaging need to take the same approach towards environmental issues – building this awareness is one of our greatest challenges.

# How would you rate the opportunities and significance of sustainable materials such as PEF?

**Uwe-Jürgen Eggert:** We generally rate everything positively, other than things like sugar cane from tropical sources which would be in competition with food production. We are open to these types of future issues. Recyclability is also important, and this cannot be affected by a mixture of different types of plastic.

#### In relation to the end of the product life cycle of a plastic bottle, what initiatives would you like to see?

**Uwe-Jürgen Eggert:** That this end of life cycle doesn't exist.

#### ALPLA INHOUSE OPERATIONS, MAINZ SITE

Inhouse production launched at Mainz site: 1996

Employees: 40 (as of June 2016)

Production runs five days per week in a three-shift structure

Capacity: 100 million bottles per year/700,000 bottles per day; from 2018 (following the new construction) 150 million per year

Technologies: EBM and SBM with eight machines in total

Preforms and caps come from ALPLA's sites in Kaiserslautern, Oudenaarde and Föritz

www.werner-mertz.de

# WE HAVE EXTENSIVE EXPERIENCE IN PLASTICS RECYCLING.

— WE HAVE BEEN DOING EVERYTHING WE CAN FOR OVER 20 YEARS.



# - END OF LIFE CYCLE -NEW FROM OLD

Nature is a role model for the circular economy. Used packaging should be collected, recycled and restored to the production process. With our own recycling plants, systematic waste prevention at our plants and our support of upcycling projects, we are supporting the cradle-to-cradle principle.

#### BOTTLE RECYCLING

#### ALPLA believes in recycling

At ALPLA, we have been working intensively on PET recycling for over 20 years. We are happy to help our customers in relation to transforming recycled plastics (PET, HDPE and PP) into high-quality packaging. These plastics are high-quality products and represent an excellent alternative to new products.

The use of recycled plastics saves fossil fuels and reduces  $CO_2$  emissions. If we compare the carbon footprint of food-grade PET recycled material (or rPET) and new granulate, rPET fares up to 67 per cent better\*. This corresponds to a saving of 1.4 tonnes  $CO_2$  equivalent per tonne of material.

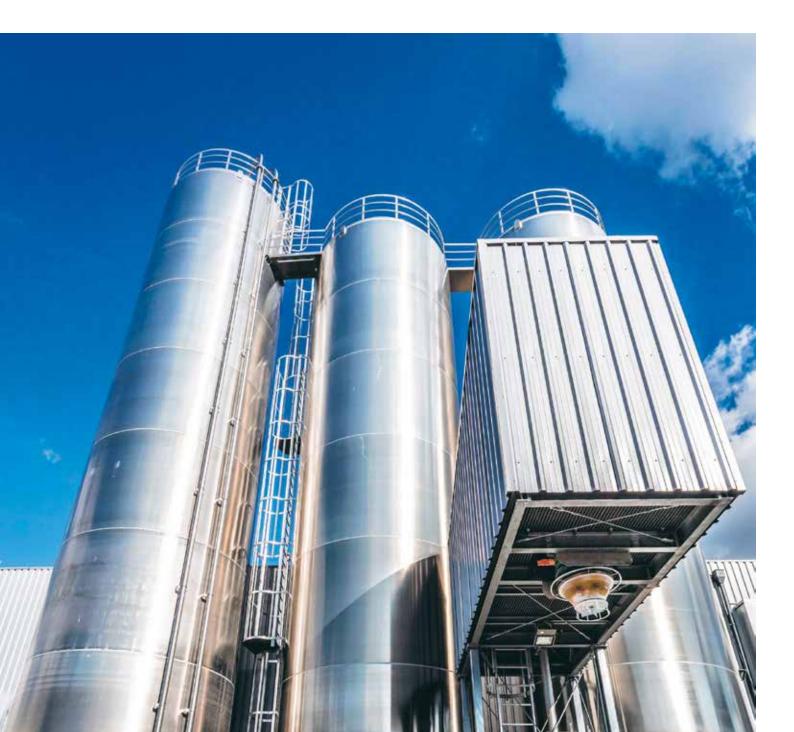
Since 2005, ALPLA has been a joint venture partner of a PET recycling plant in Mexico (Toluca), which produces 15,000 tonnes of foodgrade rPET flakes based on a URRC (United Resource Recovery Corporation) process. ALPLA also acquired a majority shareholding in the Austrian company PET Recycling Team GmbH in 2011. This plant in Wöllersdorf has an annual capacity of 35,000 tonnes of rPET in food-grade quality. rPET can be reprocessed into packaging or bottles for food and drinks (bottle-to-bottle recycling).

In 2012, ALPLA invested in the construction of a PET recycling plant in Radomsko (southern Poland). Around 75 employees have been recycling approximately 50,000 tonnes of PET bottles at this plant since 2013. The plant features two sorting and washing lines as well as an extrusion line. Annual output is around 13,500 tonnes of food-grade rPET and 33,600 tonnes of flakes (non-food-grade). These flakes can be used for the production of rPET or in the films or fibre industry. They are therefore suitable for the production of textiles, strapping and films. 'Almost all bottles collected for our plant in Poland come from Poland. There are a lot of small companies that collect and presort PET bottles locally. They have recognised the market potential of recycling. This gives the market an interesting dynamic,' explains Georg Lässer, ALPLA Corporate PET Recycling Services.

Both PRT (PET Recycling Team) operations in Poland and Austria are wholly owned ALPLA subsidiaries.

\*Source: 'Recycling for climate protection' brochure, Alba Group, 2012. 'ALMOST ALL BOTTLES COLLECTED FOR OUR PLANT IN POLAND COME FROM POLAND. THERE ARE A LOT OF SMALL COMPANIES THAT COLLECT AND PRESORT PET BOTTLES LOCALLY. THEY HAVE RECOGNISED THE MARKET POTENTIAL OF RECYCLING. THIS GIVES THE MARKET AN INTERESTING DYNAMIC.'

Georg Lässer, ALPLA Corporate PET Recycling Services



### 'DESPITE FLUCTUATING CRUDE OIL PRICES AND OTHER CHALLENGES, WE ARE FIRMLY BEHIND THE ISSUE OF RECYCLING.'

Günther Lehner, CEO



The latest technology for a liveable future through optimised efficiency: ALPLA's recycling plant in Radomsko, Poland. The conditions for the recycling of plastics are difficult at present due to a number of different factors. The steep drop in crude oil prices in recent years has placed enormous pressure on recycled plastics. The complex production process of rPET, in particular, through to foodgrade quality cannot keep pace here in terms of price. However, ALPLA CEO Günther Lehner explains: 'Despite fluctuating crude oil prices and other challenges, we are firmly behind the issue of recycling.'

The increasing production volumes of films and packaging films take up a large portion of the rPET flakes available on the market. In contrast, collection rates of plastic packaging are stagnating, including in Europe. We believe that steps for providing information to consumers and obligatory recycling quotas including controls should be further expanded. Furthermore, increasing numbers of coloured PET bottles are coming into circulation, which negatively impacts on collection rates for clear rPET and also makes it more difficult to achieve high-quality recycling. Recycling of other plastics such as HDPE remains more complex and difficult than PET. On request of our customers, we will naturally purchase and process these materials. There is strong demand for this on the American market, in particular. At ALPLA, we fully back recycling initiatives and are pleased when we can implement these types of projects for our customers. We still rely on the role model effect of progressive companies and environmentally aware consumers. Recycled plastics cannot be used for packaging purely for price reasons. It should be regarded as a serious economic sector with positive effects for the environment and the future of our industry.

We believe that recycling is important and appropriate not just for legal reasons.

If material recycling (collection and recycling) is not possible, used packaging should at least be thermally recycled. Here, the heating value of plastic waste can be used for district heating or power, for example. Landfilling is the poorest form of disposal. Consequently, we also support private collection organisations in Poland.



ALPLA uses its own recycling symbol to improve awareness among customers and consumers





ALPLA's company headquarters is located directly on the Austrian shore of Lake Constance. We therefore see it as our responsibility to help ensure clean water.

#### 'ZERO PELLET LOSS' PACT-MARINE LITTER

#### A pact for clean water

The seas contain up to 150 million tonnes of waste, with a further estimated 10 million tonnes added each year, the majority of which is plastic waste. Marine creatures and birds confuse this pollution with food, subsequently either dying or introducing it into the human food chain.

Almost 80 per cent of waste reaches the oceans from land through major rivers. One of the main transport routes in Austria is the river Danube, which is polluted with industrial plastic waste in addition to various other sources of pollution. The industry is aware of its responsibility with regard to clean water and wants to prevent waste in the future.

In March 2015, the Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management (BMLFUW – Bundesministerium für Land- und Forstwirtschaft, Umwelt und Wasserwirtschaft) and the Association of the Austrian Chemical Industry (FCIO – Fachverband der chemischen Industrie Österreichs) established the 'Zero Pellet Loss' pact. ALPLA signed up to the pact with twenty other companies from the plastics industry. The objective of the pact is to reduce industrial pollution in the Danube from around 7 kilograms of plastic raw materials per day at present to less than 1 kilogram. IK Industrievereinigung Kunststoffverpackungen e.V. also established the 'Zero Granulate Waste' initiative in Germany in mid-2015, which ALPLA also supports. Since the agreements were signed, ALPLA's Austrian and German sites have rigorously implemented a comprehensive action plan with the support of Sustainability Management. First, the responsible parties were defined at the individual sites and inventories taken. The extensive information from employees and suppliers as well as the relevant training establishes the necessary awareness among those involved. Furthermore, simple, yet practical, investment prevents plastic granulate from being wasted in the production process. Some specific examples include collecting vessels, cleaning stations and specially developed collecting screens for discharges. Regular checks and maintenance work ensure the long-term compliance and efficiency of measures.

We have now communicated the initiative throughout the entire Western and Eastern European regions and have largely implemented it there. An initial interim report from the FCIÖ at the end of March 2016 confirmed that the various measures have been effective and that waste has really been reduced. Finally, ALPLA wants to introduce the action plan as soon as possible across all other regions.

Industry target: Reduce daily pollution to 1 kg of plastic

# BOTTLE HOUSES PROJECT IN UGANDA

### ALPLA supports an upcycling project in Uganda

The Social Innovation Academy (SINA) in Uganda constructs classrooms for young people out of plastic bottles. This project conserves resources, prevents pollution to the environment, turns seemingly useless rubbish into valuable materials and provides young people with a space for work and education. ALPLA has been providing financial support for the initiative since autumn 2015.

The population of Uganda is growing rapidly, while construction materials for new houses are scarce. Furthermore, the production of bricks for traditional buildings demands vast amounts of combustible material. Rainforests are being felled, with negative effects on our climate and water supply.

As is the case in most developing countries, Uganda has neither a regulated rubbish disposal system nor a recycling system. Plastic bottles, in particular, are thrown away carelessly or burned in front of houses. The Social Innovation Academy (SINA) uses free resources such as this type of plastic rubbish and thus creates items of value – true to the upcycling principle of 'Rubbish is only rubbish if you waste it'.

Students and their mentors construct classrooms for the academy single-handedly out of plastic bottles. They fill the bottles with dry clay and tie them together with string. The gaps in between are filled with clay and the walls are then cleaned. After it is painted, a house made from plastic bottles cannot be distinguished from a conventional house. Based on the good insulation properties of the bottles filled with clay, the interior has a constant temperature of 22°C. A cost-efficient, sturdy, environmentally friendly building is built out of useless waste. SINA works with engineers to further develop this construction technology and offers workshops for professional dissemination of the technology.

#### SOCIAL INNOVATION ACADEMY (SINA)

2009: Etienne Salborn founds Verein Jangu e.V. with the aim of supporting orphans in Uganda with educational sponsorships.

2014: Jangu graduates develop SINA as a training location which helps turn disadvantaged young people into social entrepreneurs. The companies of the SINA students create jobs and demonstrate that social and environmental value can exist hand in hand with economic success.



# WE ARE FAR FROM FINISHED IN OUR WORK ON CURRENT SUSTAINABILITY ISSUES.

— THIS WAS JUST THE BEGINNING. WE HAVE A LOT MORE TO DO.



# ALPLA SUSTAINABILITY PROGRAMME

The subsequent sustainability programme provides an overview of the latest challenges for the next three years. We set ourselves ambitious targets which we are constantly reviewing and developing.

#### BUSINESS ETHICS AND LEGAL COMPLIANCE

Targets	Who	Schedule
Global Car Policy incl. CO <sub>2</sub> criteria Revise Code of Conduct	Corporate HR and Corporate Finance	2016
Global Environment Day – July 2017	Sustainability Management	2017
CO <sub>2</sub> neutrality of Austrian sites and measures	Sustainability Management	2018

#### EMPLOYMENT AND WORKING CONDITIONS

Targets	Who	Schedule
Management qualification and sustainability workshops Sustainability workshop for trainees Employer branding through sustainability	Corporate HR and Corporate Technics	2016
Programme for building awareness of sustainability issues	Corporate HR	2016
Office building/sustainable space concept Employee satisfaction – Global Employee survey	Corporate HR and Corporate Plant Engineering	2017
Burnout prevention course	Corporate HR	2017
Response to global employee survey establish framework conditions	Corporate HR	2018

#### SUPPLIER MANAGEMENT

Targets	Who	Schedule
Supply chain mapping – strategic suppliers Supplier management programme	Corporate HR, Corporate Business Units, Corporate Purchase, Corporate Technics and Sustainability Management	2016
Purchasing Raise awareness (sustainability training) IT equipment, purchasing based on sustainability indicators Solidarity sourcing/responsible sourcing	Corporate HR, Corporate Business Units, Corporate Purchase, Corporate Technics and Sustainability Management	2017

### 'IMPLEMENTATION OF TARGETS IS A CORE TASK OF SUSTAINABILITY MANAGEMENT AND IS CLOSELY CONNECTED TO THE STRATEGIC CORPORATE OBJECTIVES.'

Linda Mauksch, Sustainability Management

#### EFFICIENT USE OF RESOURCES IN PRODUCTION

Targets	Who	Schedule
PEF strategy for communication Energy reduction – efficiency measures at our plants (regions, countries)	Corporate ISBM Management; Corporate Plant Engineering	2016
Product-specific carbon footprint calculator	Corporate Sales Management and Sustainability Management	2017
Industry 4.0 as a concept PEF project implemented	Corporate IT, Corporate Business Unit	2018

#### RECYCLING

Targets	Who	Schedule
rPET Increase material usage Research for further recycling plants rHDPE Increase material usage Step up research Develop a strategy to increase rHDPE	Corporate Recycling Services	2016
Ocean plastics – test materials	Corporate Recycling Services	2017
Establish requirements for rHDPE processing Promote HDPE recycling projects Ocean plastics – test materials	Corporate Recycling Services	2018

#### MARKET AND INNOVATION LEADERSHIP

Targets	Who	Schedule
Sales Raise awareness (sustainability training) Revise sales presentation Evaluate ideas with sustainability criteria	Corporate Sales Management and Sustainability Management; Corporate Technics and Innovation Management	2016
Two inventions with sustainability aspects	Corporate Technics and Innovation Management	2018

#### INHOUSE LOGISTICS AND WALL-TO-WALL

Targets	Who	Schedule
Wall-to-wall concept – small/local Evaluation of logistics partners in relation to sustainability	Corporate Logistics	2016

# - GRI CONTENT INDEX

# The subsequent index provides an overview of the GRI indicators reported based on the G4 standard.

General standard disclosures	Abbreviated designation for each indication	Report page
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G4-1	Statement from most senior decision maker of the organisation	8 f.
Organisation profile		
G4-3	Name of the organisation	5
G4-4	Overview of products	5
G4-5	Location of the organisation's headquarters	5
G4-6	Overview of countries where the organisation has significant operations	5, 50 f.
G4-7	Nature of ownership and legal form	5
G4-8	Markets served	5
G4-9	Scale of the organisation, net sales, total capitalisation, quality of products or services provided	4
G4-10	Employment profile	6
G4-12	Description of the supply chain	25 ff.
G4-13	Changes to shareholder structure, change in supply chain, major changes in organisation	Not applicable
Commitments to extern	nal initiatives	
G4-14	Precautionary approach	25
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Stakeholder engageme	nt	
G4-24 to G4-27	Stakeholder engagement	11
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G4-30	Reporting cycle	10
G4-31	Contact point for questions regarding the report or its contents	Cover
GRI content index		
G4-32	GRI content index	68 f.
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disclosures	Abbreviated designation for each indication	Report page
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CATEGORY: SOCIAL		
Employment		
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G4-LA1	Total number and rates of new employee hires and employee turnover	4, 6
Occupational health	and safety	
G4-DMA	Disclosures on management approach	16, 20
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Diversity and equal o	pportunity	
G4-DMA	Disclosures on management approach	16, 18
G4-DMA	Diversity and equal opportunity	6
Supplier evaluation for	or labour practices	
G4-DMA	Disclosures on management approach	24 f.
G4-LA14	Number of suppliers that were screened using labour practice criteria	24
SOCIETY		
Local communities		
G4-DMA	Disclosures on management approach	21, 53, 63
G4-SO1	Percentage of operations with implemented local community engagement, impact assessment and development programmes	21, 53, 63
Anti-corruption		
G4-DMA	Disclosures on management approach	13
G4-SO4	Communication and training on anti-corruption policies and procedures	13
G4-SO5	Confirmed incidents of corruption and actions taken	None
		NUTIE

# - GLOSSARY

Abbreviation	Explanation
CO <sub>2</sub> e	Carbon dioxide equivalent = Greenhouse gas potential of all greenhouse gases, compared to the global warming effect of carbon dioxide over a period of 100 years
EBM	Extrusion blow moulding
Green PE	Bio-based – high-density polyethylene
GRI	Global Reporting Initiative
GWP	Global warming potential
HDPE	High-density polyethylene
IM caps	Injection moulding caps
IM PET	Injection moulding preforms
ISBM	Injection stretch blow moulding
LDPE	Low-density polyethylene
PEF	Polyethylene furanoate
PET	Polyethylene terephthalate
PETG	Polyethylene terephthalate glycol
Plant PET	Bio-based polyethylene terephthalate
PP	Polypropylene
rHDPE	Recycled high-density polyethylene
rPET	Recycled polyethylene terephthalate
SBM	Stretch blow moulding

# - LEGAL INFORMATION

We look forward to receiving your questions, suggestions or feedback about our sustainability report or our activities.

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