



## 2018-2019 European survey - preliminary report

PRODUCTION VOLUME OF FORGINGS (metric net tons x 1000)	Germany		Italy		France		Spain		United Kingdom <sup>1)</sup>		Sweden <sup>1)</sup>		Czech Republic		Poland		Slovenia		Finland <sup>1)</sup>		Turkey		EUROFORGE		
	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	
<b>CLOSED DIE FORGING TOTAL</b>	1.802	1.637	950	901	408	416	345	304	191	191	78	78	151	151	189	192	51	59	8	8	188	182	4.361	4.119	-6%
of which production of forging industry (subcontracting)	1.311	1.175	795	755	408	416	304	278	191	191	74	74	60	58	189	192	18	47	5	5	160	155	3.515	3.346	-5%
of which inhouse production of the automotive industry	210	200											70	71			33						313	271	-13%
of which inhouse production of the finished assembly subcontracting	110	100	68	66									5	4				12			19	18	202	200	-1%
of which catalogue items (flanges+fittings, pipes, connectors, armatures, tools, etc.)	171	162	87	80			41	26			4	4	16	18				0	3	3	9	9	331	302	-9%
<b>COLD FORGING TOTAL</b>	599	542	0	0	50	51	25	23	26	26	0	0	27	35	0	0	10	11	1	1	2	2	740	691	-7%
of which production of cold forging industry (subcontracting)	529	472			50	51	25	23	26	26	0	0	27	35							2	2	659	609	-8%
of which inhouse production of final customer industries	70	70																	1	1			71	71	0%
<b>OPEN DIE FORGING TOTAL</b>	287	325	315	322	39	25	66	63	29	29	0	0	97	72	115	114	0	0	1	1	25	25	974	976	0%
of which ring rolling	141	139	90	92			35	30					38	36							22	22	326	319	-2%
of which other open die forging (excluding steel bars, blanks and railway stacks)	146	186	225	230		0	31	33	29	29		0	59	36					1	1	3	3	494	518	5%
<b>CLOSE DIE FORGING NON-FERROUS</b>	90	85			15	20							28	26							4	4	137	135	-2%
<b>TOTAL FORGING PRODUCTION VOLUME</b>	2.778	2.589	1.265	1.223	512	512	436	390	246	246	78	78	303	284	304	306	61	70	10	10	219	213	6.212	5.921	-5%
<b>NB OF FORGE PLANTS</b>	237	237	70	70	71	71	32	32	44	44	8	8	28	27	31	31	4	4	6	6	30	30	561	560	0%
<b>NB OF EMPLOYEES</b>	31.700	31.700	8.400	8.250	7.789	7.782	3.964	3.768	4.000	4.000	784	784	5.204	5.391	3.100	3.040	800	760	94	94	2.400	2.400	68.235	67.969	0%
	45%	44%	20%	21%	8%	9%	7%	7%	4%	4%	1%	1%	5%	5%	5%	5%	1%	1%	0%	0%	4%	4%	100%	100%	
		-7%		-3%		0%		-11%		0%		0%		-6%		1%		15%		0%		-3%		-5%	

1) = no update available for 2018/2019 - data base is 2016

**EUROFORGE** European survey 2020 / FC 2021

PRODUCTION VOLUME OF FORGINGS (metric net tons x 1000)	Germany		Italy		France		Spain		United Kingdom		Sweden <sup>1)</sup>		Czech Republic		Poland		Slovenia		Finland		Turkey		EUROFORGE	
	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021
<b>CLOSED DIE FORGING TOTAL</b>	1.243	1.407	686	961	265	286	241	270	135	170	78	78	129	140	148	170	48	58	7	8	175	215	3.155	3.762
of which production of forging industry (subcontracting)	880	1.000	566	793	237	256	220	250	100	114	74	74	50						3	3	150	183	2.280	2.673
of which inhouse production of the automotive industry	140	160											61										201	160
of which inhouse production of the finished assembly subcontracting	80	90	60	84									4								17	23	161	197
of which catalogue items (flanges+ fittings, pipes, connectors, armatures, tools, etc.)	143	157	60	84	28	30	21	20	35	56	4	4	15						4	5	8	9	318	365
<b>COLD FORGING TOTAL</b>	379	432	0	0	29	31	19	20	50	78	0	0	29	31	0	0	2	2	5	5	3	3	516	602
of which production of cold forging industry (subcontracting)	319	367					19	20				0	29						5	5	3	3	375	395
of which inhouse production of final customer industries	60	65																					60	65
<b>OPEN DIE FORGING TOTAL</b>	300	329	225	248	114	123	55	61	109	101	0	0	70	72	86	103	0	0	0	0	47	47	1.006	1.084
of which ring rolling	139	152	64	71			20	25					35								22	22	280	270
of which other open die forging (excluding steel bars, blanks and railway stacks)	161	177	161	177			35	36				0	35								25	25	417	415
<b>CLOSE DIE FORGING NON-FERROUS</b>	75	82							15	17			25	27							4	4	119	130
<b>TOTAL FORGING PRODUCTION VOLUME</b>	1.997	2.250	912	1.209	408	440	315	351	309	366	78	78	253	270	234	273	50	60	12	13	229	269	4.797	5.579
Change to previous year (%)		13%		33%		8%		11%		18%		0%		7%		17%		20%		8%		17%		16%
<b>NB OF FORGE PLANTS</b>	235	235	85	85	71	71	32	32	44	44	8	8	27	27	31	31	4	4	6	6	31	31	574	574
<b>NB OF EMPLOYEES</b>	31.000	31.000	9.200	9.650	7.556	7.556	3.568	3.765	4.000	4.000	784	784	4.985	4.985	3.040	3.040	980	980	94	94	2.450	2.500	67.657	68.354



## 2018-2019 world-wide survey - preliminary report

PRODUCTION VOLUME OF FORGINGS (metric net tons x 1000)	EUROFORGE countries		Japan		USA, Canada, Mexico <sup>1)</sup>		China		India		Brazil <sup>2)</sup>		Korea		Taiwan		WORLD	
	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019
<b>CLOSED DIE FORGING TOTAL</b>	<b>4.361</b>	<b>4.119</b>	<b>1.926</b>	<b>1.809</b>	<b>1.492</b>	<b>1.492</b>	<b>7.953</b>	<b>7.763</b>	<b>1.525</b>	<b>1.725</b>	<b>498</b>	<b>498</b>	<b>1.137</b>	<b>1.273</b>	<b>852</b>	<b>627</b>	<b>19.744</b>	<b>19.306</b>
of which production of forging industry (subcontracting)	3.515	3.346	1.625	1.522	1.492	1.492	7.953	7.763	1.525	1.725	460	460	1.137	1.273	852	627	18.559	18.208
of which inhouse production of the automotive industry	313	271	301	287													614	558
of which inhouse production of the finished assembly subcontracting	202	200									36	36					238	236
of which catalogue items (flanges+fittings, pipes, connectors, armatures, tools, etc.)	331	302									2	2					333	304
<b>COLD FORGING TOTAL</b>	<b>743</b>	<b>691</b>	<b>116</b>	<b>106</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>187</b>	<b>212</b>	<b>3</b>	<b>3</b>	<b>112</b>	<b>127</b>	<b>96</b>	<b>71</b>	<b>1.257</b>	<b>1.210</b>
of which production of cold forging industry (subcontracting)	662	609	116	106		0			187	212	2	2	112	127	96	71	1.175	1.127
of which inhouse production of final customer industries	71	71									1	1					72	72
<b>OPEN DIE FORGING TOTAL</b>	<b>974</b>	<b>976</b>	<b>402</b>	<b>359</b>	<b>536</b>	<b>536</b>	<b>4.128</b>	<b>4.221</b>	<b>401</b>	<b>454</b>	<b>0</b>	<b>0</b>	<b>130</b>	<b>0</b>	<b>15</b>	<b>14</b>	<b>6.587</b>	<b>6.560</b>
of which ring rolling	326	319	289	251	161	161	765	870	120	140			88		6	5	1.755	1.746
of which other open die forging (excluding steel bars, blanks and railway stacks)	494	518	113	108	375	375	3.363	3.351	281	314			42		9	9	4.677	4.675
<b>CLOSE DIE FORGING NON-FERROUS</b>	<b>133</b>	<b>135</b>	<b>47</b>	<b>43</b>	<b>98</b>	<b>98</b>			<b>152</b>	<b>160</b>			<b>30</b>	<b>36</b>	<b>18</b>	<b>21</b>	<b>478</b>	<b>493</b>
<b>TOTAL FORGING PRODUCTION VOLUME</b>	<b>6.211</b>	<b>5.921</b>	<b>2.491</b>	<b>2.317</b>	<b>2.126</b>	<b>2.126</b>	<b>12.081</b>	<b>11.984</b>	<b>2.265</b>	<b>2.550</b>	<b>501</b>	<b>501</b>	<b>1.409</b>	<b>1.436</b>	<b>981</b>	<b>733</b>	<b>28.065</b>	<b>27.568</b>
<b>NB OF FORGE PLANTS</b>	<b>561</b>	<b>560</b>	<b>323</b>	<b>323</b>	<b>255</b>	<b>255</b>	<b>450</b>	<b>450</b>	<b>450</b>	<b>450</b>	<b>37</b>	<b>37</b>	<b>102</b>	<b>103</b>	<b>210</b>	<b>210</b>	<b>2.388</b>	<b>2.388</b>
<b>NB OF EMPLOYEES</b>	<b>68.235</b>	<b>67.969</b>	<b>15.604</b>	<b>15.638</b>	<b>34.000</b>	<b>34.000</b>	<b>130.000</b>	<b>130.000</b>	<b>300.000</b>	<b>320.000</b>	<b>14.000</b>	<b>14.000</b>	<b>6.756</b>	<b>7.094</b>	<b>15.000</b>	<b>13.000</b>	<b>583.595</b>	<b>601.701</b>

1) = no update available for 2018/19 - data base is 2016

2) = no data available for 2019 - data base is 2018

## ForgeNet International 2020 Worldwide survey / 2021 Forecast

PRODUCTION VOLUME OF FORGINGS (metric net tons x 1000)	EUROFORGE countries		Japan		USA, Canada, Mexico <sup>1)</sup>		China		India <sup>3)</sup>		Brazil <sup>2)</sup>		Korea		Taiwan		WORLD	
	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021
<b>CLOSED DIE FORGING TOTAL</b>	<b>3.155</b>	<b>3.762</b>	<b>1.524</b>	<b>1.867</b>	<b>1.492</b>	<b>1.492</b>	<b>8.850</b>	<b>9.558</b>	<b>1.468</b>	<b>1.468</b>	<b>498</b>	<b>498</b>	<b>1.273</b>	<b>1.116</b>	<b>627</b>	<b>870</b>	<b>18.887</b>	<b>20.631</b>
of which production of forging industry (subcontracting)	2.280	2.673	1.305		1.492	1.492			1.468	1.468	460	460	1.273	1.116	627	870	8.905	8.079
of which inhouse production of the automotive industry	201	160	119														320	160
of which inhouse production of the finished assembly subcontracting	161	197									36	36					197	233
of which catalogue items (flanges+fittings, pipes, connectors, armatures, tools, etc.)	318	365	100								2	2					420	367
<b>COLD FORGING TOTAL</b>	<b>516</b>	<b>602</b>	<b>90</b>	<b>108</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>180</b>	<b>180</b>	<b>3</b>	<b>3</b>	<b>127</b>	<b>114</b>	<b>74</b>	<b>103</b>	<b>990</b>	<b>1.110</b>
of which production of cold forging industry (subcontracting)	375	395				0			180	180	2	2	127	114	74	103	758	794
of which inhouse production of final customer industries	60	65									1	1					61	66
<b>OPEN DIE FORGING TOTAL</b>	<b>1.006</b>	<b>1.084</b>	<b>300</b>	<b>363</b>	<b>536</b>	<b>536</b>	<b>4.642</b>	<b>4.874</b>	<b>386</b>	<b>386</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>17</b>	<b>6.884</b>	<b>7.260</b>
of which ring rolling	280	270	198	254	161	161			119	119					5	6	764	810
of which other open die forging (excluding steel bars, blanks and railway stacks)	417	415	102	109	375	375			267	267					9	11	1.170	1.177
<b>CLOSE DIE FORGING NON-FERROUS</b>	<b>119</b>	<b>130</b>	<b>40</b>	<b>53</b>	<b>98</b>	<b>98</b>			<b>136</b>	<b>136</b>			<b>36</b>	<b>33</b>	<b>26</b>	<b>46</b>	<b>455</b>	<b>496</b>
<b>TOTAL FORGING PRODUCTION VOLUME</b>	<b>4.797</b>	<b>5.579</b>	<b>1.954</b>	<b>2.391</b>	<b>2.126</b>	<b>2.126</b>	<b>13.492</b>	<b>14.432</b>	<b>2.170</b>	<b>2.170</b>	<b>501</b>	<b>501</b>	<b>1.436</b>	<b>1.263</b>	<b>767</b>	<b>1.036</b>	<b>27.243</b>	<b>29.498</b>
Change to previous year (%)		16%		22%		0%		7%		0%		0%		-12%		35%		8%
<b>NB OF FORGE PLANTS</b>	<b>574</b>	<b>574</b>	<b>323</b>		<b>255</b>	<b>255</b>	<b>450</b>		<b>406</b>	<b>406</b>	<b>37</b>	<b>37</b>	<b>103</b>	<b>103</b>	<b>200</b>	<b>200</b>	<b>2.348</b>	
<b>NB OF EMPLOYEES</b>	<b>67.657</b>	<b>68.354</b>	<b>15.500</b>		<b>34.000</b>	<b>34.000</b>	<b>130.000</b>				<b>14.000</b>	<b>14.000</b>	<b>7.094</b>	<b>7.100</b>	<b>13.000</b>	<b>13.000</b>	<b>281.251</b>	

1) = no update available for 2020 - data base is 2016

2) = no data available for 2020 - data base is 2018

3) = no forecast available for 2020