K+S Group
K+S at a Glance

K+S Group financials H1/2021 – continuing operations

<table>
<thead>
<tr>
<th>Category</th>
<th>Revenues (€ million)</th>
<th>EBITDA (€ million)</th>
<th>EBITDA-Margin (%)</th>
<th>Adjusted Free cash flow (€ million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuing operations</td>
<td>€1,398</td>
<td>€237</td>
<td>17%</td>
<td>€-83</td>
</tr>
</tbody>
</table>

Customer Segments

**Agriculture**
- Revenues: €943 million (67%)
  - Potassium chloride (MOP)
  - Fertilizer specialties

**Industry+**
- Revenues: €455 million (33%)
  - Chemical
  - Pharma
  - Food
  - Animal nutrition
  - Oil and gas
  - Water softening
  - Other industrial products

**Industry**

**Consumer**

**Communities**
Global Presence – continuing operations¹

¹ Revenues by regions 2020

Employees by region 2020

<table>
<thead>
<tr>
<th>Region</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>91%</td>
</tr>
<tr>
<td>North America</td>
<td>4%</td>
</tr>
<tr>
<td>Rest of Europe</td>
<td>4%</td>
</tr>
<tr>
<td>Rest of the World</td>
<td>1%</td>
</tr>
</tbody>
</table>
## Adding value along our entire supply chain

<table>
<thead>
<tr>
<th>Exploration</th>
<th>Our potash and salt deposits came into being millions of years ago. They are either our property or we have corresponding rights or approvals that allow the extraction or solution mining of the raw material reserves.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining</td>
<td>We extract raw materials in conventional mining above and below ground as well as through solution mining. We also use the power of the sun and extract salt by evaporating sea water or saline water.</td>
</tr>
<tr>
<td>Production</td>
<td>The refining of raw materials is one of our core competencies. Above ground, the crude salt is processed in complex, multi-phase, mechanical or physical processes, with the natural properties of the mineral remaining unchanged.</td>
</tr>
<tr>
<td>Logistics</td>
<td>The long-term securing of freight capacity is of strategic importance to us. A large part of our international transportation volume is forwarded by service providers with which we maintain long-standing partnerships.</td>
</tr>
<tr>
<td>Sales/Marketing</td>
<td>The K+S Group wants to be its customers' preferred partner in the market. High product quality and reliability are decisive preconditions for this. K+S offers a comprehensive range of goods and services for agriculture, industry and private consumers.</td>
</tr>
<tr>
<td>Application</td>
<td>Our customers apply our products, use our raw materials in their processes or process them in their products. We make extensive product information available and advise our customers on the application of our products.</td>
</tr>
</tbody>
</table>
Board of Executive Directors

Dr. Burkhard Lohr  
CEO

Thorsten Boeckers  
CFO

Holger Riemensperger  
COO
Active portfolio management

1999
- Fertilizer Acquisition

2000
- Fertilizer Acquisition

2002
- Fertilizer Acquisition

2006
- Fertilizer Acquisition

2009
- Fertilizer Acquisition

2011
- Fertilizer Divestment

2012
- Fertilizer Acquisition

2016
- Fertilizer Acquisition

2017
- Fertilizer Acquisition

2021
- Fertilizer Acquisition

Salt Acquisition
- Frisia Zout B.V.
- esco
- SPL
- MORTON SALT

Salt Foundation

Salt Acquisition

Salt Acquisition

Salt Acquisition

Salt Acquisition

Salt Acquisition

Salt Divestment

Fertilizer Acquisition
- fertiva
- COMPO

Fertilizer Acquisition
- POTASH ONE

Fertilizer Divestment

Fertilizer Acquisition
- Nitrogen

Fertilizer Acquisition

Fertilizer Acquisition

Fertilizer Acquisition

Ashburton Salt

MORTON SALT
Signing achieved for complete OU Americas sale

Key data of the signed agreement:

- **Buyer:** Stone Canyon Industries Holdings LLC, Mark Demetree and affiliates
- **Gross proceeds:** USD 3.2 bn
- **EV/EBITDA:** 12.5x 2019 EBITDA of USD 257 million
- **Closing:** April 30, 2021
- **Preliminary net proceeds:** €2.6bn after tax
- **Preliminary gain on disposal:** €742 million
Important megatrends

- Arable land shrinking
- Yield needs to be improved
- Higher efficiency of fertilization and irrigation needed
- Plants have to be more stress resistant
- Infrastructure needs to be improved → focus on renewable energy
- Growing population, especially in Asia, needs more salt for various purposes

8.5bn
Global population in 2030

0.2
Average global warming (°C)

40%
of population suffer from water shortage by 2030

5.4bn
people belonging to the middle class by 2030

70% of water used for agriculture

Today: 7.3bn
Per decade

2015: 3.0bn
Growth areas

K+S Growth Landscape

Geo-expansion
- Africa
  - Increase of fertilizer specialties

Fertilizer
- Asia
  - Ramp of low-cost commodities

Industry
- Expand Pharma & Food portfolio
  - Chemical applications

Growth areas and ideas cover core and adjacent businesses
# K+S sustainability KPIs and targets 2030

## Environment

<table>
<thead>
<tr>
<th>Goal (sponsor)</th>
<th>KPI</th>
<th>2019</th>
<th>2020</th>
<th>Target by 2020 at the latest</th>
<th>Achievements of targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>Deep-well injection of saline wastewater in Germany (m³ p.a.)</td>
<td>1,5</td>
<td>1,3</td>
<td>0 (starting January 2022)</td>
<td>100% starting 2022</td>
</tr>
<tr>
<td></td>
<td>Additional reduction of saline process water from potash production in Germany (m³ p.a.)*</td>
<td>+800,000</td>
<td>+200,000</td>
<td>-500,000 (excluding reduction by KCF facility and end of production SI)</td>
<td>0%</td>
</tr>
<tr>
<td>Waste</td>
<td>Amount of residues used for other purposes than tailings or increased amount of raw material yield (million tonnes p.a.)</td>
<td>1,5</td>
<td>1,2</td>
<td>3</td>
<td>39%</td>
</tr>
<tr>
<td></td>
<td>Additional area of tailings piles covered (ha)</td>
<td>8,7</td>
<td>8,9</td>
<td>155</td>
<td>6%</td>
</tr>
<tr>
<td>Energy &amp; Climate</td>
<td>Carbon footprint for power consumed (kg CO₂/MWh)</td>
<td>-1,7 %</td>
<td>-1,6 %</td>
<td>-20 %</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>Specific greenhouse gas emissions (CO₂) in logistics</td>
<td>-11,1 %</td>
<td>-2,9 %</td>
<td>-10 %</td>
<td>29%</td>
</tr>
</tbody>
</table>

* LTI relevant
# K+S sustainability KPIs and targets 2030

## People

<table>
<thead>
<tr>
<th>Goal (sponsor)</th>
<th>KPI</th>
<th>2019</th>
<th>2020</th>
<th>Target by 2030 at the latest</th>
<th>Achievements of targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health &amp; Safety (Holger Riemensperger, COO)</td>
<td>Lost time incident rate (LTIR)*</td>
<td>10,3</td>
<td>6,9</td>
<td>0 Vision 2030</td>
<td>20%</td>
</tr>
<tr>
<td>Diversity &amp; Inclusion (Dr. Burkhard Lohr, CEO)</td>
<td>Employees' favorable perception of inclusive work environment</td>
<td>54 %</td>
<td>54 %</td>
<td>&gt;90 %</td>
<td>60%</td>
</tr>
<tr>
<td>Human Rights (Dr. Burkhard Lohr, CEO)</td>
<td>Sites covered by a human right due to due diligence process</td>
<td>8 %</td>
<td>8 %</td>
<td>100 %</td>
<td>8%</td>
</tr>
</tbody>
</table>

* LTI relevant
# K+S sustainability KPIs and targets 2030

## Business Ethics

<table>
<thead>
<tr>
<th>Ziel (sponsor)</th>
<th>KPI</th>
<th>2019</th>
<th>2020</th>
<th>Target by 2030 at the latest</th>
<th>Achievements of targets</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sustainable Supply Chains</strong> (Thorsten Boeckers, CFO)</td>
<td>Critical suppliers aligned with the K+S Group Supplier Code of Conduct (SCoC)*</td>
<td>23.3%</td>
<td>68%</td>
<td>100% by the end of 2025</td>
<td>68%</td>
</tr>
<tr>
<td></td>
<td>Spend coverage of the K+S Group (SCoC)*</td>
<td>44.9%</td>
<td>71.7%</td>
<td>&gt; 90% by end of 2025</td>
<td>80%</td>
</tr>
<tr>
<td><strong>Compliance &amp; Anti-Corruption</strong> (Thorsten Boeckers, CFO)</td>
<td>New since 2020: Coverage of K+S companies with a standardized compliance risk analysis (after achieving the old goal with 100% in 2019)</td>
<td>0%</td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

* LTI relevant
Customer Segments

- Agriculture
- Industry+
Long-term dynamics in demand for our customer segments

Agriculture

Demand driven by ...

- Arable land shrinking
- Water shortage
- Increasing standard of living
- Population growth
- Economic growth and industrialization
- Urbanization
- Winter weather conditions
- Infrastructure development
- Global warming

Industry+

Industry

Consumer

Communities
Customer Segment Agriculture at a glance

Agriculture customer segment

<table>
<thead>
<tr>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Close proximity to our main customers provides logistical advantages</td>
</tr>
<tr>
<td>▪ Shipments to overseas customers at competitive costs from Hamburg harbor</td>
</tr>
<tr>
<td>▪ Strong and long-standing customer relationships</td>
</tr>
<tr>
<td>▪ Broad specialty portfolio provides flexibility and stability, partly following different trends and seasons</td>
</tr>
</tbody>
</table>

Revenue split by region 2020 (%)

- Asia: 22%
- South America: 18%
- North America: 5%
- Europe: 49%
- Others: 6%

Revenue Split by products H1/2021 (%)

- Fertilizer specialties: 44%
- Potassium chloride: 56%
Why use fertilizers?

Agriculture customer segment

- Plants need sunlight, water and **minerals** to thrive
- There are only few soils on earth which have a sufficient content and availability of **plant nutrients** to achieve **high yields** over a longer period without fertilization
- Potash is an **indispensable** supplement to the natural nutrient content of soils
- Compensation of the nutrient losses by harvest and other losses is necessary

---

“The growth and yield of plants are limited by the nutrient which is in shortest supply”\(^1\)

\(^1\) Justus von Liebig, ‘The Natural Laws of Husbandry’, 1863
Long-term key drivers for our fertilizer business

Agriculture customer segment

Less arable land – but more protein consumption per capita

- Global population development:
  - 1960: 3.0 billion
  - 2010: 6.9 billion
  - 2050: 9.7 billion

- Arable land per capita:
  - 1960: 4.300 m²
  - 2010: 2.100 m²
  - 2050: 1.800 m²

- Protein per capita:
  - 1960: 60 g/day
  - 2010: 80 g/day
  - 2050: 130 g/day[^1]

- Each year an additional 80 million people need to be fed – this equals to the population of Germany
- Available arable land per capita will decrease at the same time
- By 2050 an expanded world population will be consuming two thirds more animal protein than it does today

In 2050, only roughly a quarter of a soccer field will be available to feed one person year round - 80 percent of future growth in crop production will come from yield advancements driven by balanced use of fertilizers

[^1]: FAO 2014 - forecasts based on the expected increase in animal protein
What makes us different?

Agriculture customer segment

Fertilizer Specialties

- mainly used for special applications (e.g. chloride-sensitive crops)
- products containing a broad range of nutrients (e.g. potash, magnesium, sulphur)
- premium products used for high-value crops

Potassium Chloride (MOP)

- can be applied universally to all crops not sensitive to chloride and to all types of soil
- standard product used for commodity crops
Potash price development
Agriculture customer segment

Pricing (Source: FMB Argus Potash)
World potash production and sales by region

Agriculture customer segment

World potash production:
- 2020: 75.5 million tonnes
- 2019: 71.0 million tonnes

World potash sales volume:
- 2020: 76.2 million tonnes
- 2019: 68.5 million tonnes

Incl. sulphate of potash and low-grade potash

Sources: IFA, K+S

Basis: year 2020
Supplier structure on the global potash market

Agriculture customer segment

Global Potash sales volumes:
2020: 76.2 million tonnes
2019: 68.5 million tonnes

Canpotex  BPC  Uralkali  K+S  ICL  APC  EuroChem  SQM  China  Other
Nutrien (prev. Potash Corp. & Agrium)
Mosaic
Belaruskali
DSW
CPL
Iberpotash
> 20 producers
Intrepid
Vale
Compass
Usbekistan
Laos
Incl. potassium sulphate and potash grades with lower K₂O content

Basis: 2020
Source: IFA, K+S
Global potash supply and demand

Agriculture customer segment

Production is driven by demand despite continuous excess capacity

Source: IFA, K+S; incl. sulphate of potash and low grade potash of about 5 million tonnes eff. (product)
Agriculture customer segment

Between plan and reality: Potash projects announced since 2006 (Greenfield)

- Announced projects or in early development phases: 160
- Projects with a high probability of implementation by 2025: 6
- Projects in ramp-up phase: 2
Agriculture customer segment

What is behind the greatly feared oversupply?

- Only 5 years ago, the technically available capacity in 2025 was estimated to be 12 million tonnes higher than today.
- Even now, greenfield projects by potash newcomers will still account for a significant share of the total until 2025.
- Non-utilization of capacity by existing producers not taken into account.
- Global capacity load should level off at the long-term average by 2025.

![Graph showing thousand tonnes from '05 to '25v with different scenarios and forecasts.]

Source: IFA, K+S; including potassium sulfate and potash varieties with a lower K2O content of about 5 million tonnes eff.
Potash use by crop in selected countries

Agriculture customer segment

Source: IFA, Estimates of Fertilizer Use by Crop in Selected Countries in 2010-2011, published 2013
Expenditure on potash products only amounting to approx. 4% of the total costs

Earnings prospects should give the agricultural industry sufficient incentive to increase yield per hectare by using plant nutrients
## Global potash sales volume by region

### Agriculture customer segment

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Europe</td>
<td>5.9</td>
<td>5.6</td>
<td>5.8</td>
<td>6.2</td>
<td>6.0</td>
<td>5.9</td>
<td>6.2</td>
<td>6.2</td>
<td>6.0</td>
<td>6.2</td>
</tr>
<tr>
<td>Central Europe / FSU</td>
<td>4.4</td>
<td>5.1</td>
<td>4.7</td>
<td>4.4</td>
<td>4.8</td>
<td>4.8</td>
<td>5.2</td>
<td>5.4</td>
<td>5.5</td>
<td>5.4</td>
</tr>
<tr>
<td>Africa</td>
<td>0.7</td>
<td>0.7</td>
<td>0.8</td>
<td>1.0</td>
<td>1.0</td>
<td>1.1</td>
<td>1.4</td>
<td>1.6</td>
<td>1.4</td>
<td>1.4</td>
</tr>
<tr>
<td>North America</td>
<td>10.2</td>
<td>9.1</td>
<td>9.7</td>
<td>11.8</td>
<td>9.5</td>
<td>10.9</td>
<td>11.2</td>
<td>11.5</td>
<td>9.8</td>
<td>11.3</td>
</tr>
<tr>
<td>Latin America</td>
<td>10.5</td>
<td>10.5</td>
<td>11.0</td>
<td>11.9</td>
<td>11.5</td>
<td>12.2</td>
<td>12.7</td>
<td>13.7</td>
<td>13.5</td>
<td>16.6</td>
</tr>
<tr>
<td>Asia</td>
<td>28.0</td>
<td>23.4</td>
<td>26.2</td>
<td>32.4</td>
<td>32.3</td>
<td>30.1</td>
<td>32.5</td>
<td>32.6</td>
<td>31.6</td>
<td>34.6</td>
</tr>
<tr>
<td>- thereof China</td>
<td>12.7</td>
<td>12.0</td>
<td>13.8</td>
<td>16.7</td>
<td>18.5</td>
<td>16.2</td>
<td>16.2</td>
<td>16.3</td>
<td>17.8</td>
<td>18.7</td>
</tr>
<tr>
<td>- thereof India</td>
<td>5.0</td>
<td>2.8</td>
<td>3.5</td>
<td>4.5</td>
<td>4.1</td>
<td>4.0</td>
<td>5.0</td>
<td>4.5</td>
<td>4.5</td>
<td>5.2</td>
</tr>
<tr>
<td>Oceania</td>
<td>0.5</td>
<td>0.4</td>
<td>0.5</td>
<td>0.7</td>
<td>0.6</td>
<td>0.6</td>
<td>0.7</td>
<td>0.8</td>
<td>0.7</td>
<td>0.7</td>
</tr>
<tr>
<td><strong>World total</strong></td>
<td><strong>60.2</strong></td>
<td><strong>54.8</strong></td>
<td><strong>58.7</strong></td>
<td><strong>68.4</strong></td>
<td><strong>65.7</strong></td>
<td><strong>65.6</strong></td>
<td><strong>69.9</strong></td>
<td><strong>71.8</strong></td>
<td><strong>68.5</strong></td>
<td><strong>76.2</strong></td>
</tr>
</tbody>
</table>

Incl. potassium sulphate and potash grades with lower K₂O content of around 5 million tonnes eff.

Sources: IFA, K+S
Industry+ customer segment at a glance

Industry+ customer segment: continuing operations

<table>
<thead>
<tr>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Emerging markets: Footprint in rising markets such as Asia as industrialization drives demand for electrolysis</td>
</tr>
<tr>
<td>▪ Electrolysis and specialties: High product quality, service and customer proximity</td>
</tr>
<tr>
<td>▪ Pharma: High quality standards, certificates, innovation and superior customer services as well as reliability</td>
</tr>
<tr>
<td>▪ Consumers: strong brands for table salt, water softening, pool salts and de-icing salt</td>
</tr>
<tr>
<td>▪ Communities: public road construction authorities, winter road clearance service providers and large commercial users procure de-icing salt from K+S through public tenders</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>€ million</th>
<th>H1/2020</th>
<th>H1/2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues</td>
<td>379.0</td>
<td>454.8</td>
</tr>
<tr>
<td>Sales volume (mt)</td>
<td>2.55</td>
<td>3.96</td>
</tr>
<tr>
<td>-thereof: de-icing</td>
<td>0.43</td>
<td>1.64</td>
</tr>
</tbody>
</table>

Revenue Split by products H1/2021 (%)

- Industry 70.7
- Chemical 22.8
- Food 14.4
- Animal nutrition 9.5
- Complementary 25.0
- Other 3.0
- Communities 22.6
- Consumers 6.8
- Industrial applications 13.5
- Water softening 8.0
- Other 3.0
Broad variety of industry application areas (1)

Industry+ customer segment

### Chemical
- **Main applications:**
  - Chemical industry
  - Chlor-Alkali processes (→ PVC)
  - Polycarbonates, MDI (Isocyanate) (→ plastics, synthetic resin)
  - Synthetic Soda ash (→ glass)

### Food processing
- **Main applications:**
  - Food processing industry
  - Baking industry
  - Condiment and preservative agent
  - Preserving of fish

### Pharma
- **Main applications:**
  - Infusion, dialysis solutions
  - Pharmaceuticals

### Oil and Gas
- **Main applications:**
  - Drilling fluids
Industry+ customer segment

**Animal nutrition**
- **Main applications:**
  - Animal feed
  - Lickstones

**Water softening**
- **Main applications:**
  - Water softening
  - Water treatment

**Complementary**
- **Main services:**
  - Waste management and recycling
  - Granulation of Catsan® for Mars GmbH
  - K+S Transport GmbH
  - CFK (Trading)

**Other**
- **Main services:**
  - Dyeing works
  - Leather treatment
Main salt suppliers in Europe

Industry+ customer segment

Capacity in million tonnes (crystallized salt and salt in brine; excl. captive use)

Source: Roskill, K+S
Development of salt consumption and production

Industry+ customer segment

in million tonnes

Consumption

<table>
<thead>
<tr>
<th>Year</th>
<th>North America</th>
<th>Europe</th>
<th>Asia</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>220</td>
<td></td>
<td></td>
<td></td>
<td>220</td>
</tr>
<tr>
<td>2009</td>
<td>268</td>
<td></td>
<td></td>
<td></td>
<td>268</td>
</tr>
<tr>
<td>2015</td>
<td>295</td>
<td></td>
<td></td>
<td></td>
<td>295</td>
</tr>
</tbody>
</table>

CAGR: 2.0%

CAGR: 1.2%

Production

<table>
<thead>
<tr>
<th>Year</th>
<th>North America</th>
<th>Europe</th>
<th>Asia</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>217</td>
<td></td>
<td></td>
<td></td>
<td>217</td>
</tr>
<tr>
<td>2009</td>
<td>264</td>
<td></td>
<td></td>
<td></td>
<td>264</td>
</tr>
<tr>
<td>2015</td>
<td>295</td>
<td></td>
<td></td>
<td></td>
<td>295</td>
</tr>
</tbody>
</table>

CAGR: 2.1%

CAGR: 2.5%

1 excl. captive use; Source: K+S, Roskill 2011, 2014, 2016
Production
Potash sites in Germany

Potash production

Share of annual production capacity (in %)

1. Wintershall
2. Untereisbach Integrated Werra plant ~ 50
3. Hattorf
4. Zielitz ~ 25
5. Neuhof-Ellers ~ 20
6. Bergmannsseggen-Hugo ~5
   (production site only, no mining)
Underground mining production cycle

Potash production

1. Blasting after shift end
2. Muck pile load and dump
3. Roof scaling
4. Cleaning
5. Roof bolting
6. Auger drilling
7. Face cleaning
8. Drilling
9. Charging with explosives
Potash processing above ground

Potash production

**Thermal dissolution**
- Heating: 25 °C to 110 °C
- Mother brine
- Undissolved residue + dissolved KCl
- Finely ground crude salt
- Filtering
- Cooling: 95 °C

**Flotation**
- Flotation agent
- Air bubbles
- Filtering and drying
- Potassium chloride (KCl) or Kieserite
- Residue (NaCl)

**Electrostatic separation (ESTA®)**
- Finely ground crude salt
- Conditioning
- Triboelectric charging
- Separation in a free-fall separator
- Residue (NaCl) and Potassium chloride (KCl) or Kieserite
Management of residues

Potash production

- The mined rock salt only contains a limited share of usable material (max. 30%), therefore a residue accumulation is unavoidable.
- This challenge is shared among all potash producing companies in the world!
- The recovery of residues is performed as effective as possible.
- The methods, processes and equipment for the construction of tailings piles from solid residues are scientifically justified, tried and tested in practice.
- Solid or liquid residues are disposed of worldwide in the following ways:

![Tailings piles](image1)
![Underground disposal](image2)
![River injection*](image3)
![Deep well injection](image4)

Ø Share of residue disposed by this method in the Hessian-Thuringian potash district:
- Tailings piles: ~80%
- Underground disposal: ~9%
- River injection*: ~8%
- Deep well injection: ~3%

- These ways of disposal – depending on the corresponding site – are used also in combination. They currently represent the best available technique.

* With low river water levels in the Werra, there are possibilities for K+S in the Hessian-Thuringian potash district to temporarily store liquid residues in water basins or suitable mine spaces on site or temporary ways of disposal by flooding decommissioned mines or gas caverns in Lower Saxony or Saxony-Anhalt.
Current environmental investments create long-term planning security

- Tailings pile extensions
  - Hattorf
  - Wintershall
  - Zielitz
  - Completed by end of 2022 / beginning of 2023
  - Next permit and significant investments in tailings pile extensions will not be necessary again until the end of the 2020s

- Liquid residues
  - Werra
  - Deep-well injection ends 2021
  - As of 2022: permanent storage underground (subject to approval)
  - From 2028: Higher utilization of underground storage through further treatment of saline water
  - Injection from 2028: only less concentrated tailings pile waters and no process waters
### Development of saline wastewater Werra river

#### Potash production

<table>
<thead>
<tr>
<th>Year</th>
<th>Utilization/Avoidance (CapEx: almost € 500 million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>20 million cbm</td>
</tr>
<tr>
<td>1998</td>
<td>6.0</td>
</tr>
<tr>
<td>2012</td>
<td>4.0</td>
</tr>
<tr>
<td>until 2015: ESTA 1 facility, cold preliminary decomposition and high consistency facility, kainite crystallization and MgCl₂ facility</td>
<td>3.0</td>
</tr>
<tr>
<td>until 2018: kainite crystallization and flotation facility; advantage: additional product</td>
<td>1.5</td>
</tr>
<tr>
<td>2018</td>
<td>avg. saline wastewater from 2018</td>
</tr>
<tr>
<td>2027</td>
<td>Disposal until</td>
</tr>
<tr>
<td>2028</td>
<td>Disposal as of</td>
</tr>
<tr>
<td>Tailings pile waters</td>
<td>5.5 million cbm</td>
</tr>
<tr>
<td>Process waters</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>1.5</td>
</tr>
</tbody>
</table>

#### Saline Waste-water

- **1997:** Saline wastewater from 1998: Underground disposal in Unterbreizbach
- **until 2012:** K+S package of measures (Optimization of production and manufacturing processes)
- **until 2015:** ESTA 1 facility, cold preliminary decomposition and high consistency facility, kainite crystallization and MgCl₂ facility
- **until 2018:** kainite crystallization and flotation facility; advantage: additional product
- **avg. saline wastewater from 2018**
- **Disposal until 2027**
- **Disposal as of 2028**

#### No discharge of process waters into the Werra as of 2028!

#### No deep-well injection as of 2022!

---

2 **At low water levels of the Werra river:**

**On-site:**
- Temporary storage possibility of up to 1.0 million cbm (basins and temporary storage underground)

**Off-site:**
- Flooding of decommissioned mines or gas caverns for their restoration

---

4 Electrostatic separation method; 5 Further reduction and avoidance of tailings pile waters targeted by building polders and covering tailings piles; continuing R&D developments, amongst others together with the company K-UTEC to be able to produce additional products from process and tailings pile waters. 4 River Basin Community Weser

Deep-well Injection until 2021, as of 2022: permanent storage underground (subject to approval); as of 2028: higher utilization of storage underground with additional processing

Discharge Werra²: as of 2028: only tailings pile waters with lower concentration³: (in accordance with targets of FGG Weser⁴)
In solution mining, freshwater is brought into solvent (salt) rock through a drill hole, therefore creating chambers, or caverns, filled with a water-salt solution. In a subsequent step, the saturated brine is brought to the surface through an additional pipeline.

During the primary mining process, the cavern expands to create an ideal form for commencing secondary mining (see next page).
Secondary mining uses exclusively saturated NaCl solution to selectively dissolve residual KCl from existing caverns.

**Advantages (in comparison to primary mining):**
- lower energy intensity (e.g. injection brine is heated via waste heat from evaporators and KCl is crystalized in the cooling pond via natural cooling)
- substantially more efficient with the use of water
- reduces salt to tailings up to 30%

Operates at 50% lower production costs than primary mining.
Bethune – strengthening our global presence

Potash production

- Expanding our current production portfolio in Germany with a North American production site → Second-source supplier
- Securing a good asset base with competitive production costs
- Sales and distribution through existing distribution structures of the K+S Group
- Regional growth projects in China and Southeast Asia
- Flexible multi-product strategy
Main production methods

- Around 70% of worldwide salt production (more than 290 million tonnes including brine) is obtained from rock salt mining and solution mining.
- Approximately 30% of production is obtained from seawater and salt lakes.
- Salt is produced in almost every country in the world. Due to the high share of transportation costs in production costs, markets are generally regionally limited to the area around the production locations.
Key financials

**Revenues (€ billion)**

<table>
<thead>
<tr>
<th>Year</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.5</td>
<td>3.6</td>
<td>4.0</td>
<td>4.1</td>
<td>3.7</td>
</tr>
</tbody>
</table>

**EBITDA (€ million)**

<table>
<thead>
<tr>
<th>Year</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>519</td>
<td>577</td>
<td>606</td>
<td>640</td>
<td>445</td>
</tr>
</tbody>
</table>

**EBITDA margin (%)**

<table>
<thead>
<tr>
<th>Year</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15</td>
<td>16</td>
<td>15</td>
<td>16</td>
<td>12</td>
</tr>
</tbody>
</table>

**FCF vs Net Financial Debt/EBITDA**

<table>
<thead>
<tr>
<th>Year</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-777</td>
<td>-390</td>
<td>-206</td>
<td>+140</td>
<td>7.2</td>
</tr>
</tbody>
</table>
Operating and free cash flow (adjusted) continuing and discontinued operations

(€ million)

<table>
<thead>
<tr>
<th>Year</th>
<th>Operating Cash Flow</th>
<th>Free Cash Flow (adjusted)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>756</td>
<td>49</td>
</tr>
<tr>
<td>2014</td>
<td>719</td>
<td>-306</td>
</tr>
<tr>
<td>2015</td>
<td>669</td>
<td>-636</td>
</tr>
<tr>
<td>2016</td>
<td>445</td>
<td>-777</td>
</tr>
<tr>
<td>2017</td>
<td>307</td>
<td>-390</td>
</tr>
<tr>
<td>2018</td>
<td>309</td>
<td>-206</td>
</tr>
<tr>
<td>2019</td>
<td>640</td>
<td>140</td>
</tr>
<tr>
<td>2020</td>
<td>429</td>
<td>-42</td>
</tr>
</tbody>
</table>
Debt profile (promissory notes and bonds)

### Financing instruments

<table>
<thead>
<tr>
<th>€m</th>
<th>Amount outstanding</th>
<th>Coupon</th>
<th>Maturity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promissory note and loans</td>
<td>13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senior unsecured notes due 2021</td>
<td>451</td>
<td>4.125%</td>
<td>Dec-21</td>
</tr>
<tr>
<td>Senior unsecured notes due 2022</td>
<td>233</td>
<td>3.000%</td>
<td>Jun-22</td>
</tr>
<tr>
<td>Senior unsecured notes due 2023</td>
<td>443</td>
<td>2.625%</td>
<td>Apr-23</td>
</tr>
<tr>
<td>Senior unsecured notes due 2024</td>
<td>485</td>
<td>3.250%</td>
<td>Jul-24</td>
</tr>
</tbody>
</table>

### Debt maturity profile

<table>
<thead>
<tr>
<th>Year</th>
<th>Bonds</th>
<th>Promissory note</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>451</td>
<td>13</td>
</tr>
<tr>
<td>2022</td>
<td>233</td>
<td>443</td>
</tr>
<tr>
<td>2023</td>
<td>456</td>
<td>485</td>
</tr>
<tr>
<td>2024</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

+ Syndicated credit facility of up to € 600 million (available until 2024)
+ commercial paper program as an additional source of liquidity
## Cash flow and balance sheet continuing and discontinued operations

<table>
<thead>
<tr>
<th>In € million</th>
<th>9M/19</th>
<th>FY/19</th>
<th>3M/20</th>
<th>H1/20</th>
<th>9M/20</th>
<th>FY/20</th>
<th>3M/21</th>
<th>H1/21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating cash flow</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- thereof continuing operations</td>
<td>510</td>
<td>640</td>
<td>255</td>
<td>124</td>
<td>323</td>
<td>169</td>
<td>328</td>
<td>429</td>
</tr>
<tr>
<td>Investing cash flow</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(pre-sale/ purchase of securities)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- thereof continuing operations</td>
<td>-306</td>
<td>-500</td>
<td>-51</td>
<td>-157</td>
<td>-283</td>
<td>-471</td>
<td>-110</td>
<td>2.480</td>
</tr>
<tr>
<td>Adjusted free cash flow</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- thereof continuing operations</td>
<td>204</td>
<td>140</td>
<td>204</td>
<td>161</td>
<td>45</td>
<td>-110</td>
<td>37</td>
<td>2.549</td>
</tr>
<tr>
<td>Capex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- thereof continuing operations</td>
<td>310</td>
<td>493</td>
<td>88</td>
<td>207</td>
<td>343</td>
<td>526</td>
<td>428</td>
<td>135</td>
</tr>
</tbody>
</table>

### Net financial debt

| Net financial debt | 3.031 | 3.117 | 2.917 | 2.979 | 3.109 | 3.217 | 3.185 | 695   |

### Net financial debt/ EBITDA (LTM)

| Net financial debt/ EBITDA (LTM) | 4,3 | 4,9 | 5,6 | 5,7 | 7,2 | 7,2 | 2,0 |

### Equity ratio

| Equity ratio | 43% | 42% | 42% | 43% | 26% | 27% | 30% | 48% |
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IR-Website: www.kpluss.com/ir
Newsletter: www.kpluss.com/newsletter
K+S Share

Key Data

- **WKN:** KSAG88
- **ISIN:** DE000KSAG888
- **Type of shares:** Registered shares of no-par value
- **Total number of shares:** 191,400,000
- **Trading segment:** Prime Standard
- **Ticker symbols:** Bloomberg SDF / Reuters SDFG

Shareholder Structure as of 31.12.2020

- **Freefloat 100%**
  - **Private Investors 55 %**
  - **Institutional Investors 45 %**

Covered by

- AlphaValue
- Baader Helvea Equity Research
- Bank of America Merrill Lynch
- BMO Capital Markets
- Citi Research
- Commerzbank
- Credit Suisse
- Deutsche Bank
- DZ Bank AG
- Pareto Securities AS
- Exane BNP Paribas
- Independent Research
- J.P. Morgan Cazenove
- Kepler Cheuvreux
- LBBW
- M.M. Warburg
- MainFirst Bank AG
- Morningstar
- Nord/LB
- Scotia Capital
- Société Générale
- Solventis
- UBS
The K+S ADR Program offers North American investors the opportunity to take stock in K+S. Since the ADRs are quoted in US dollars and dividends are also distributed in US dollars, this financial instrument closely resembles an American share. Two ADRs represent one K+S ordinary share. The K+S ADRs are traded in the United States under a level 1 ADR Program in the over-the-counter market (OTC).

**Trade on OTCQX**

- **Symbol:** KPLUY
- **CUSIP:** 48265W108
- **Ratio:** 2 ADRs = 1 Share
- **Country:** Germany
- **ISIN:** DE000KSAG888
- **Depositary:** The Bank of New York Mellon

**Benefits to North American investors**

- Clear and settle according to normal U.S. standards
- Stock quotes and dividend payments in U.S. dollars
- Can be purchased/sold in the same way as other U.S. stocks via a U.S. broker
- Cost-effective means of international portfolio diversification

Further information: [www.kpluss.com/adr](http://www.kpluss.com/adr)
## K+S bonds and issuer rating

<table>
<thead>
<tr>
<th></th>
<th>Bond 12/2021</th>
<th>Bond 06/2022</th>
<th>Bond 04/2023</th>
<th>Bond 07/2024</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WKN</strong></td>
<td>A1Y CR5</td>
<td>A1P GZ8</td>
<td>A2E 4U9</td>
<td>A2N BE7</td>
</tr>
<tr>
<td><strong>ISIN</strong></td>
<td>XS0997941355</td>
<td>DE000A1PGZ82</td>
<td>XS1591416679</td>
<td>XS1854830889</td>
</tr>
<tr>
<td><strong>Listing</strong></td>
<td>Luxembourg SE</td>
<td>Luxembourg SE</td>
<td>Luxembourg SE</td>
<td>Luxembourg SE</td>
</tr>
<tr>
<td><strong>Issue volume</strong></td>
<td>EUR 500 million</td>
<td>EUR 500 million</td>
<td>EUR 625 million</td>
<td>EUR 600 million</td>
</tr>
<tr>
<td><strong>Outstanding volume</strong></td>
<td>EUR 450.909 million</td>
<td>EUR 233.000 million</td>
<td>EUR 443.398 million</td>
<td>EUR 484.700 million</td>
</tr>
<tr>
<td><strong>Issue price</strong></td>
<td>99.539%</td>
<td>99.422%</td>
<td>100.000%</td>
<td>100.000%</td>
</tr>
<tr>
<td><strong>Coupon payment</strong></td>
<td>4.125%</td>
<td>3.000%</td>
<td>2.625%</td>
<td>3.25%</td>
</tr>
<tr>
<td><strong>Maturity</strong></td>
<td>06.12.2021</td>
<td>20.06.2022</td>
<td>06.04.2023</td>
<td>18.07.2024</td>
</tr>
<tr>
<td><strong>Face value</strong></td>
<td>1,000 EUR</td>
<td>100,000 EUR</td>
<td>1,000 EUR</td>
<td>100,000 EUR</td>
</tr>
</tbody>
</table>

**Issuer rating (S&P):** B (outlook: negative), May 2021
## Financial calendar 2021/2022

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Shareholders’ Meeting</td>
<td>May 12, 2021</td>
</tr>
<tr>
<td>Quarterly Report, 30 September 2021</td>
<td>November 11, 2021</td>
</tr>
<tr>
<td>2021 Annual Report</td>
<td>March 10, 2022</td>
</tr>
<tr>
<td>Quarterly Report; 31 March 2022</td>
<td>May 11, 2022</td>
</tr>
</tbody>
</table>

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