Mechanical Engineering in Slovakia
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This brochure is designed as an introduction to the mechanical engineering sector in Slovakia — an engine of the Slovak industrial production. Given its strong overlap, the handout partially reflects the automotive industry as well.

GENERAL INFORMATION
Total area: 49,035 km²
Population: 5.4 million
Capital city: Bratislava
Member of: European Union, Eurozone, Schengen Area, OECD, WTO, NATO
Time zone: GMT +1 hour
Mechanical Engineering in Slovakia — Key Facts

The sector of mechanical engineering represents one of the key pillars of the Slovak economy. It has a strong historical background and maintains its stable position in the Slovak industry. It is a sector of crucial importance, not only because of its contribution to the GDP and foreign trade balance, but also for its potential to create jobs, boosting the overall employment.

Top 10 Reasons to Invest in Mechanical Engineering in Slovakia

1. Highest labour productivity in CEE region
2. Cost-effective & skilled labour force
3. Strong automotive industry as a driving force of mechanical engineering
4. Strategic location in Europe with great export potential
5. Political & economic stability
6. Attractive investment incentives for industry
7. Euro currency as one of the few in CEE
8. Fastest growing Eurozone member within the last 10 years
9. Large selection of industrial real estates
10. Well-developed infrastructure

33% (+5% year over year growth)
Of industry workers employed by the mechanical engineering sector

735
Companies active in mechanical engineering*

33 BN € (+13% year over year growth)
Sales revenue generated by the mechanical engineering sector

42% (+3% year over year growth)
Share of the mechanical engineering on the country’s industrial production

50% (+3% year over year growth)
Share of the mechanical engineering on the total industrial export

5 BN € (+1/10 year over year growth)
Added value in the mechanical engineering sector

Source: Statistical Office of the Slovak Republic, Trend *includes companies with over 20 employees
Strong Tradition in Mechanical Engineering

Slovakia has a long tradition in mechanical engineering. Although many activities transformed over the years, some merging into the automotive industry, the traditional engineering products created a strong skill driven environment and still maintain an important share on the entire Slovak manufacturing sector.

Before the year 1989, heavy and specialized engineering belonged to the key sectors of Slovak economy. Thanks to the successful transition into the market-oriented economy, massive development of the automotive industry and entry of strategic foreign investors, mechanical engineering has transformed into a modern and internationally recognized segment.

EXAMPLES OF HOLDINGS FROM THE PAST
Industrial companies established before 1989 represented significant holdings, carrying out their own R&D and employing thousands of people throughout various locations in Slovakia. After 1989, many plants were closed or heavily downsized. However, the infrastructure of vocational schools and overall manufacturing heritage these companies developed, still have significant impact on the industrial landscape of the region.

Famous Mechanical Engineering Inventions from the Past
Slovak scientists stand behind number of great inventions

- Parachute
  Štefan Banič
- Water Pump Machine used in Mining
  Jozef Karol Hell
- Steam & Gas Turbine
  Aurel Stodola
- Helicopter
  Ján Bahýľ

NETWORK OF COMPANIES AT THE PEAK OF THEIR EXISTENCE
- ZTS (Závody ťažkého strojárstva) — military equipment (since 1937)
- ZVL (Závody valivých ložísk) — bearings (since 1968)
- Strojstav — construction machinery (since 1951)
- ŽOS (Železničné opravovne a strojárne) — reparation of motor locomotives (since 1952)
Automotive Industry — The Strongest Branch of Mechanical Engineering

Mechanical engineering in Slovakia is closely linked to the automotive industry, which is the highest accelerator of investments in Slovakia. Increasing volume of investments into the automotive industry provides significant opportunities for manufacturers in mechanical engineering.

300+ AUTOMOTIVE SUPPLIERS
More than 300 suppliers operate in Slovakia. Based on past experience with the arrival of previous OEMs, it is expected the investment of Jaguar Land Rover will considerably expand the automotive suppliers network, also to the central and eastern part of the country.

EXAMPLES OF AUTOMOTIVE ENGINEERING COMPONENTS & MAJOR MANUFACTURERS

- Engines & Engine Parts
  - Mobis, Pankl, Miba Sinter, Nemak, Getrag Ford Transmissions

- Door Systems & Modules
  - Brose, PHA Slovakia, Dura Automotive, U-Shin, Faurecia

- Air-conditioning
  - Hanon Systems, Delphi

- Bearings
  - Schaeffler, PSL, Omnia KLF, KINEX, ZVL Auto, MAHLE

- Brake Systems
  - Continental, Akebono, Europalt, Ti-Hanil, Mobis

- Body & Body Stampings
  - ArcelorMittal, Gonvarri SSC, Benteler, Farguell, Matador, Gestamp

Source: Online Matchmaking Fair for Automotive Slovakia, GLOBAL Slovakia, 2016, Automotive Industry Association of the Slovak Republic (ZAP SR), SARIO
Different Subsectors of Mechanical Engineering

The mechanical engineering in Slovakia is not only connected to the automotive industry. There is also a variety of other industrial segments in demand of production capacities.

METALWORKING INDUSTRY

Along with dynamic car production, metalworking is on the rise as well — representing one of the most significant economic sectors. In Slovakia, companies are active in a wide range of metalworking activities, usually performing combination of various processes.

396 Companies active in metalworking industry*

29 600 Estimate of all workers employed in metalworking industry*

4.8% Share of the metalworking industry on the country's industrial production

Source: The Statistical Office of the Slovak Republic
Note: Examples of the most common metalworking operations.
*companies over 20 employees
Examples of Engineering Products & Major Manufacturers in Slovakia

<table>
<thead>
<tr>
<th>Category</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEFENSE SYSTEMS</td>
<td>DMD Group, Way Industries, MSM Martin, Konštrukta Defence, ZTS Metalurgy</td>
</tr>
<tr>
<td>HEATING BOILERS</td>
<td>Vaillant Industrial Slovakia, Protherm Production, Hoval</td>
</tr>
<tr>
<td>RAIL WAGONS</td>
<td>Tatravagónka, ŽOS Trnava, ŽOS Vrútky, Lokotrans</td>
</tr>
<tr>
<td>HYDRAULIC SYSTEMS &amp; COMPRESSIONS</td>
<td>Embraco, Secop, Danfoss Power Solutions</td>
</tr>
<tr>
<td>FOOD PROCESSING MACHINES</td>
<td>TOMRA Sorting, IMC, Marel, Rademaker, PSS Svidník</td>
</tr>
<tr>
<td>METAL FORMING MACHINERY</td>
<td>MicroStep, Trens, LVD S3, Kabelschlepp — Systemtechnik, Konštrukta, H.M. Transtech, Matador Industries</td>
</tr>
<tr>
<td>PRODUCTION LINES EQUIPMENT</td>
<td>Energyco, VUKOV Extra, Manz, MAKS–D, MTS, Glunz &amp; Jensen, KUKA</td>
</tr>
<tr>
<td>GEARBOXES</td>
<td>Bauer Gear Motor, Spinea, Hriňovské strojárne, ZTS Sabinov</td>
</tr>
<tr>
<td>COOLING &amp; VENTILATION EQUIPMENT</td>
<td>Hanon Systems, Vertiv (Emerson), Danfoss, Camfil, Nissens, IMOS–Systemair</td>
</tr>
</tbody>
</table>

Source: Global Slovakia, 2016
Regional Distribution of the Mechanical Engineering Sector

Mechanical engineering companies are located across Slovakia. Some regions have a historically strong tradition in this sector, due to the former presence of large engineering holdings. The automotive industry, as the strongest branch of mechanical engineering, is mostly concentrated in the regions of Western Slovakia.

Regional share of Mechanical Engineering in Industrial Production

### THE LARGEST COMPANIES IN MECHANICAL ENGINEERING (EXL. AUTOMOTIVE OEMs)

<table>
<thead>
<tr>
<th>COMPANY NAME</th>
<th>COUNTRY OF ORIGIN</th>
<th>LOCATION</th>
<th>REVENUES (THS. EUR)</th>
<th>NUMBER OF EMPLOYEES</th>
<th>CORE BUSINESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobis Slovakia</td>
<td>South Korea</td>
<td>Gbeľany</td>
<td>1,260,731</td>
<td>1,830</td>
<td>axle &amp; control panel production, brake systems</td>
</tr>
<tr>
<td>Schaeffler Slovensko</td>
<td>Germany</td>
<td>Kysucké Nové Mesto/ Skalica</td>
<td>965,350</td>
<td>9,109</td>
<td>bearings</td>
</tr>
<tr>
<td>Johnson Controls International</td>
<td>USA</td>
<td>Bratislava</td>
<td>626,148</td>
<td>2,743</td>
<td>Interior systems</td>
</tr>
<tr>
<td>Faurecia Slovakia</td>
<td>France</td>
<td>Bratislava</td>
<td>611,998</td>
<td>1,966</td>
<td>Interior systems &amp; emission control technology</td>
</tr>
<tr>
<td>SAS Automotive</td>
<td>Germany</td>
<td>Bratislava</td>
<td>611,495</td>
<td>463</td>
<td>assembly of control panels</td>
</tr>
<tr>
<td>ZF Slovakia</td>
<td>Germany</td>
<td>Trnava/Levice</td>
<td>382,253</td>
<td>2,298</td>
<td>powertrain modules, chassis components, suspension technology</td>
</tr>
<tr>
<td>Magneti Marelli Slovakia</td>
<td>Italy</td>
<td>Kechnec</td>
<td>375,541</td>
<td>604</td>
<td>dashboards, engine components</td>
</tr>
<tr>
<td>Yura Corporation Slovakia</td>
<td>South Korea</td>
<td>Lednické Rovne</td>
<td>314,209</td>
<td>2,787</td>
<td>cable harnesses</td>
</tr>
<tr>
<td>Hanon Systems</td>
<td>South Korea</td>
<td>Ilava</td>
<td>295,677</td>
<td>529</td>
<td>air conditioning</td>
</tr>
<tr>
<td>Vaillant Industrial Slovakia</td>
<td>Germany</td>
<td>Skalica</td>
<td>294,723</td>
<td>628</td>
<td>modules for heating units</td>
</tr>
<tr>
<td>Inteva Products Slovakia</td>
<td>USA</td>
<td>Lozorno</td>
<td>266,676</td>
<td>848</td>
<td>roof windows</td>
</tr>
<tr>
<td>Continental Automotive Systems Slovakia</td>
<td>Germany</td>
<td>Zvolen</td>
<td>254,683</td>
<td>971</td>
<td>brakes and brake calipers for the automotive industry</td>
</tr>
<tr>
<td>Getrag Ford Transmissions (Magna)</td>
<td>Germany (Canada)</td>
<td>Kechnec</td>
<td>246,896</td>
<td>833</td>
<td>gearboxes and transmissions</td>
</tr>
<tr>
<td>Embraco Slovakia</td>
<td>Brazil</td>
<td>Spišská Nová Ves</td>
<td>237,324</td>
<td>2,043</td>
<td>hermetic compressors &amp; condensing units</td>
</tr>
<tr>
<td>Matador Holding</td>
<td>Slovakia</td>
<td>Púchov</td>
<td>214,326</td>
<td>1,276</td>
<td>body stampings, exhaust systems</td>
</tr>
<tr>
<td>Tatravagónka</td>
<td>Slovakia</td>
<td>Poprad</td>
<td>211,283</td>
<td>1,958</td>
<td>rail freight wagons &amp; chassis</td>
</tr>
<tr>
<td>Sungwoo Hitech Slovakia</td>
<td>South Korea</td>
<td>Žilina</td>
<td>197,976</td>
<td>744</td>
<td>metal body parts</td>
</tr>
<tr>
<td>U-Shin Slovakia</td>
<td>Japan</td>
<td>Košice</td>
<td>193,290</td>
<td>1,723</td>
<td>door lockers</td>
</tr>
<tr>
<td>Secop</td>
<td>Germany</td>
<td>Zlaté Moravce</td>
<td>189,365</td>
<td>833</td>
<td>hermetic compressors</td>
</tr>
<tr>
<td>Sejong Slovakia</td>
<td>South Korea</td>
<td>Lietavská Lúčka</td>
<td>185,237</td>
<td>172</td>
<td>exhaust systems</td>
</tr>
<tr>
<td>Protherm Production</td>
<td>Czech Republic/ Germany</td>
<td>Skalica</td>
<td>178,427</td>
<td>460</td>
<td>boilers, heaters</td>
</tr>
<tr>
<td>HIBPO Slovakia</td>
<td>Germany</td>
<td>Lozorno</td>
<td>170,157</td>
<td>144</td>
<td>modul front ends</td>
</tr>
<tr>
<td>Leoni Slovakia</td>
<td>Germany</td>
<td>Trenčín</td>
<td>161,702</td>
<td>2,331</td>
<td>cable harnesses</td>
</tr>
<tr>
<td>Plastic Omnium Auto Exteriors</td>
<td>France</td>
<td>Lozorno</td>
<td>158,989</td>
<td>691</td>
<td>plastic bumpers</td>
</tr>
<tr>
<td>Seoyon E-HWA Automotive</td>
<td>South Korea</td>
<td>Dubníca nad Vahom</td>
<td>157,498</td>
<td>631</td>
<td>plastic components</td>
</tr>
<tr>
<td>Lear Corporation Seating</td>
<td>USA</td>
<td>Prešov</td>
<td>156,494</td>
<td>988</td>
<td>steel frames</td>
</tr>
<tr>
<td>ŽOS Trnava</td>
<td>Slovakia</td>
<td>Trnava</td>
<td>155,569</td>
<td>2,450</td>
<td>rail wagons</td>
</tr>
</tbody>
</table>

Source: Trend Top, 2016
Qualified, Productive & Cost–Effective Labour Force

For investors active in mechanical engineering, availability of a skilled workforce is a key factor for successful site selection. Slovak labor force combines an outstanding level of productivity and qualification, while still remaining cost–competitive on regional as well as European levels.

DUAL EDUCATION
The Slovak Government fully implemented a new dual education framework facilitating shared theoretical education in schools and practical training in companies. The companies joining the new scheme have the advantage of not only benefiting from a prepared and qualified labor force, but also from the possibility to utilize a related tax relief.

AVERAGE GROSS MONTHLY SALARY IN MECHANICAL ENGINEERING (SELECTED POSITIONS/EUR)

<table>
<thead>
<tr>
<th>POSITION</th>
<th>BRATISLAVA</th>
<th>TRNAVA</th>
<th>NITRA</th>
<th>TRENČÍN</th>
<th>ŽILINA</th>
<th>BANSKÁ BÝSTRICA</th>
<th>KOŠICE</th>
<th>PREŠOV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non–qualified Worker</td>
<td>Min.</td>
<td>600</td>
<td>500</td>
<td>500</td>
<td>500</td>
<td>450</td>
<td>550</td>
<td>500</td>
</tr>
<tr>
<td></td>
<td>Max.</td>
<td>750</td>
<td>650</td>
<td>650</td>
<td>650</td>
<td>550</td>
<td>700</td>
<td>650</td>
</tr>
<tr>
<td>Welder</td>
<td>Min.</td>
<td>800</td>
<td>700</td>
<td>700</td>
<td>700</td>
<td>650</td>
<td>750</td>
<td>700</td>
</tr>
<tr>
<td></td>
<td>Max.</td>
<td>1300</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
<td>1100</td>
<td>1300</td>
<td>1200</td>
</tr>
<tr>
<td>Quality Controller</td>
<td>Min.</td>
<td>900</td>
<td>800</td>
<td>800</td>
<td>700</td>
<td>650</td>
<td>900</td>
<td>800</td>
</tr>
<tr>
<td></td>
<td>Max.</td>
<td>1100</td>
<td>950</td>
<td>950</td>
<td>900</td>
<td>850</td>
<td>1100</td>
<td>1000</td>
</tr>
<tr>
<td>CNC Machine Operator</td>
<td>Min.</td>
<td>900</td>
<td>800</td>
<td>800</td>
<td>800</td>
<td>650</td>
<td>900</td>
<td>800</td>
</tr>
<tr>
<td></td>
<td>Max.</td>
<td>1500</td>
<td>1400</td>
<td>1400</td>
<td>1400</td>
<td>1200</td>
<td>1500</td>
<td>1400</td>
</tr>
<tr>
<td>Technician</td>
<td>Min.</td>
<td>1100</td>
<td>1000</td>
<td>1000</td>
<td>1000</td>
<td>1000</td>
<td>1000</td>
<td>1000</td>
</tr>
<tr>
<td></td>
<td>Max.</td>
<td>1600</td>
<td>1600</td>
<td>1600</td>
<td>1600</td>
<td>1500</td>
<td>1600</td>
<td>1600</td>
</tr>
<tr>
<td>Production Supervisor</td>
<td>Min.</td>
<td>1400</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
<td>1000</td>
<td>1300</td>
<td>1200</td>
</tr>
<tr>
<td>Production Manager</td>
<td>Min.</td>
<td>2500</td>
<td>2200</td>
<td>2200</td>
<td>2200</td>
<td>1900</td>
<td>2300</td>
<td>2100</td>
</tr>
<tr>
<td></td>
<td>Max.</td>
<td>4000</td>
<td>3500</td>
<td>3500</td>
<td>3500</td>
<td>3000</td>
<td>3700</td>
<td>3500</td>
</tr>
</tbody>
</table>

Source: ADECCO Slovakia, 2016 — The member of the Investment Support Association. Employer’s contributions (35.2%) are not included.
Growing R&D & Innovation Network

Suitable conditions for establishing R&D in terms of highly qualified workforce at affordable costs, presence of technology clusters and established cooperation between companies and domestic universities, motivate companies to establish their R&D divisions in Slovakia.

**EXAMPLES OF SLOVAK R&D SUCCESS STORIES**

**SPINEA**
Development of high precision reduction gears

**MICROSTEP**
Development of CNC cutting machines

**CEIT**
Innovative solutions for industrial companies

**PRVÁ ZVÁRAČSKÁ**
Development of welding technologies

**EXAMPLES OF R&D SUCCESS STORIES OF FOREIGN COMPANIES IN SLOVAKIA**

**EMBRACO**
Development of compressors

**KUKA SYSTEMS**
Development of robotized production lines

**EXAMPLES OF R&D SUCCESS STORIES OF SLOVAK UNIVERSITIES**

**SOLAR POWERED VEHICLE**
University of Žilina & Academy of Fine Arts & Design

**THE NATIONAL ROBOTICS CENTER**
Slovak University of Technology

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**R&D Infrastructure Related to Mechanical Engineering**

- **35** Centers of excellence
- **9** Science parks and research centers
- **3** Centers of competence

**RIS3 — NATIONAL R&D SPECIALIZATION STRATEGY**

RIS3 is national R&D strategy focused on innovation support through cooperation between companies and research institutions. This strategy defines material research and nanotechnology as one of the priorities linked to R&D funding.

30% of all material research outputs in the international scientific journals originates in Slovakia

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**Slovak Academy of Science**

**INSTITUTE OF MATERIALS & MACHINE MECHANICS**

Applied research institute within the Slovak Academy of Sciences.

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The primary role of investment incentives is to motivate investors to place their new projects in regions with higher unemployment. New investments shall prove to have a positive impact on the creation of jobs, improving chances for graduates as well as creating new entrepreneurial opportunities for local companies and suppliers.

**MAXIMAL REGIONAL INTENSITIES OF INVESTMENT AID IN SLOVAKIA**

**ELIGIBLE PROJECTS**
The Act on Investment Aid divides the projects which may be supported into four categories:
- industry
- technology Centers
- shared Services Centers
- tourism

**ELIGIBLE COSTS**
- costs of land acquisition
- costs of buildings acquisition and construction
- costs of new technological equipment and machinery acquisition
- intangible long-term assets — licences, patents, etc.

**FORMS OF INVESTMENT INCENTIVES**
- contribution for the creation of new jobs
- cash grant
- tax relief

**TECHNOLOGY CENTERS**
- Minimum investment of 500 000 EUR on the fixed assets in all regions
- At least 250 000 EUR must be covered by own equity
- The company must employ at least 70% of employees having university education
- Minimum 30 newly created jobs
SARIO Profile

Slovak Investment and Trade Development Agency (SARIO) is a governmental investment and trade promotion agency of the Slovak Republic. The agency was established in 2001 and it operates under the Ministry of Economy of the SR.

INVESTMENT SERVICES

SERVICES FOR POTENTIAL INVESTORS
• Investment environment overview
• Assistance with investment projects implementation
• Starting a business consultancy
• Sector and regional analyses
• Investment incentives consultancy
• Site location and suitable real estate consultancy

SERVICES FOR ESTABLISHED INVESTORS
• Identification of local suppliers, service providers
• Assistance with expansion preparation and execution
• Relocation assistance, work/stay permits
• Support of innovation and R&D activities
• Social networking

FOREIGN TRADE SERVICES

IF YOU ARE LOOKING FOR
• Slovak supplier or subcontractor
• Information about Slovak export/trade environment
• Sourcing opportunities
• Forming a joint venture, production cooperation or other forms of partnership with a Slovak partner

SERVICES FOR EXPORTERS
• Information on foreign territories
• Customized search for foreign partners
• On-line database of business opportunities
• Export Training Centre
• Subcontracting assistance

INNOVATION SUPPORT
• Support activities for development and popularization of Slovak innovations and R&D environment
• Establishment of relations with domestic and foreign well-established innovative companies
• Interconnection of Slovak R&D capacities with industrial production and investors’ needs in order to transfer leading innovative technology processes closer to production praxis
• Encouragement to foreign investors to bring investments with substantial R&D components to the SR
• Ecosystem analysis of local investment opportunities as well as domestic and foreign investors in order to support acquisitions and joint ventures projects
• Specific information from the field, in order to obtain capital and foreign markets penetration

To find out more about the Slovak investment environment visit our website sario.sk

468
Number of SARIO Investment Projects from 2002 — 2016

170
Number of SARIO Mechanical Engineering Projects 2002 — 2016

Our Award
2014 Global Best to Invest 2013 Selection Site magazine

ALL OUR SERVICES ARE FREE OF CHARGE!
SARIO is your one-stop shop for investment and trade in Slovakia. Talk to us today!

INVESTMENT SERVICES
We will take your investment plans in Slovakia to success from A through Z. We provide in-depth information about the Slovak business environment, industry opportunities, complex information on setting up a business, site selection assistance, as well as real estate consultancy and complex aftercare services for established investors.

FOREIGN TRADE SERVICES
SARIO ensures identification of potential suppliers and subcontractors by matching your sourcing and procurement needs with the potential of Slovak producers. Business networking and matchmaking events bring Slovak partners closer to your company.

SARIO is the official governmental agency promoting Slovak investment opportunities and business potential.
Slovak Investment and Trade Development Agency brings you a series of one of a kind cooperation international business-to-business events under the name SARIO Business Link — Slovak Matchmaking Fair promoting business potential of Slovakia through Slovak companies looking for foreign partners and presenting business offers, tenders, available production capacities, joint venture proposals and partnership offers in a whole range of industries.

AGENDA
- all day filled with prescheduled individual B2B meetings
- panel discussions on the latest trends in the industry
- free consultations and networking in various industry sectors

ADVANTAGES
- get to know your future business partners in advance through their company profiles
- invite your prospective partner for a meeting, accept or deny any meeting invitations you get
- find out about the latest trends and signals of various industry sectors
- whole day filled with networking and fruitful negotiations
- get to know Slovakia’s business potential at first hand

Two largest SARIO Business Link Events

SLOVAK MATCHMAKING FAIR NITRA (spring)
The Slovak Matchmaking Fair Nitra takes place as a part of the International Engineering Fair in Nitra giving you the opportunity to see even more Slovak companies present in this sector in one place and in one day.

SLOVAK MATCHMAKING FAIR BRATISLAVA (autumn)
The Slovak Matchmaking Fair Bratislava is annually the largest international B2B matchmaking event in Slovakia. Besides your scheduled bilateral meetings, you may attend accompanying program of the fair and enjoy the Gala evening with attractive cultural and gastronomic experience.

For more information go to www.sario.sk
SARIO IS YOUR ONE STOP SHOP FOR INVESTMENT & TRADE IN SLOVAKIA. TALK TO US TODAY!

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