

AUDES LLC OÜ

*TOP QUALITY
SINCE 1935*

AUDES



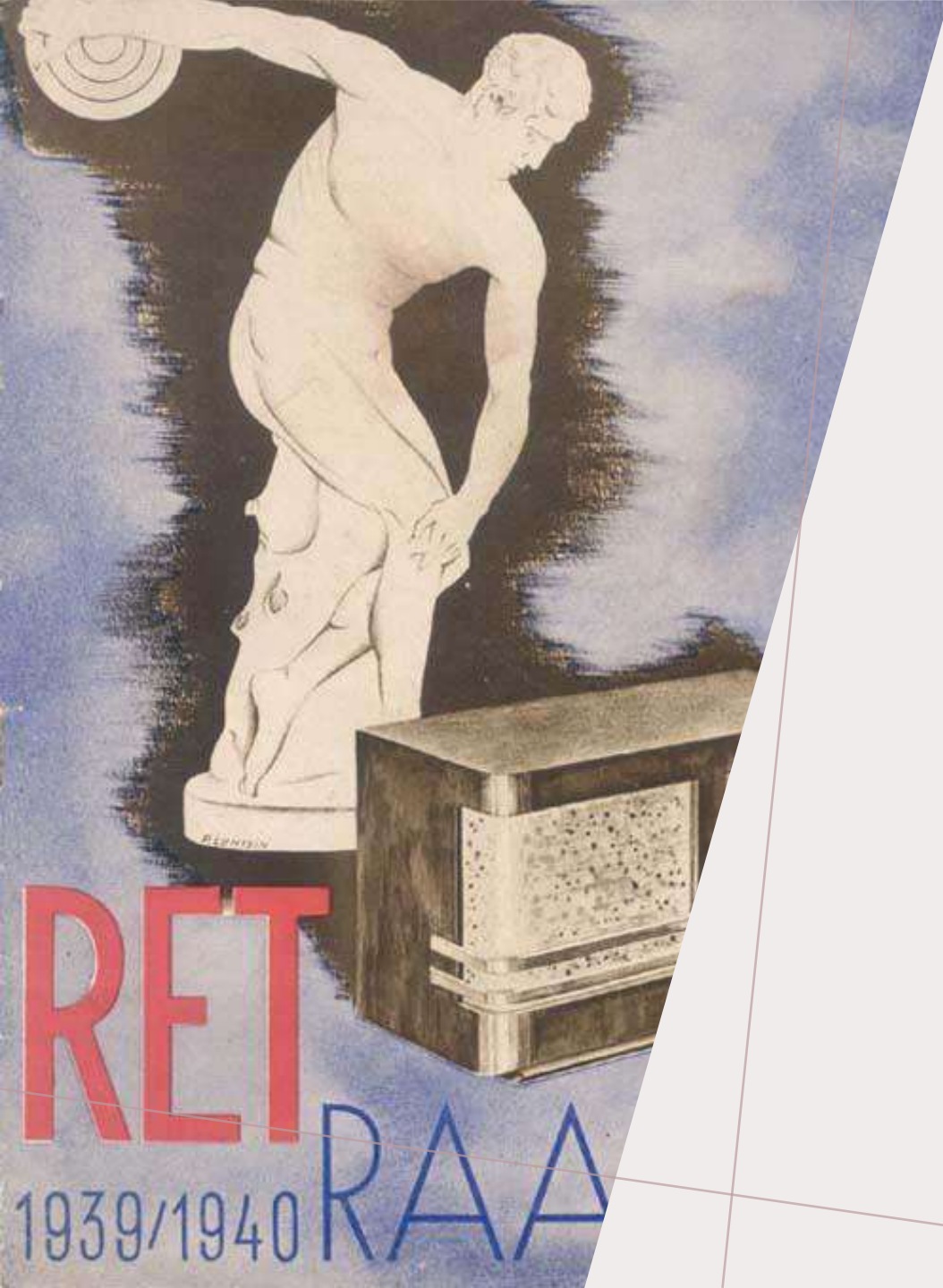
We are **Audes**, a privately owned company from Estonia with a long history.

Our core business has been OEM high quality audio systems and inductive components to support the business.

Manufacturing process is organised in accordance with **ISO9001:2015 Certificate** provided by Bureau Veritas.

RET RAWDIO

*HISTORY AND
MILESTONES*



Established in **1935** by a group of enthusiasts, Friedrich Olbrei, Karl Reinmann and Hans Võrk, in Tallinn, Estonia, the company was first named RET (Raadio-Elektroonika Tehas) and registered in Estonian Chamber of Commerce and Industry by June, with equity capital in amount of 35000 Estonian Kroons.

By **1938** the personnel had grown to 130 people, among them 5 engineers and 5 technicians. 15 persons were granted with joining additional courses either at technical- or radio school. In production were used components by the best possible manufacturers worldwide, including Marconi and Philips.

Shares of RET were noted on Stock exchange of Tallinn.

Year	1938	1939	1940	1941
Employees	130	220	250	285
Produced units	3 348	4 500	10 000	N/a

In 1938, within 5 months, was erected a new, 4-story facility for manufacturing transformers, different inductives and other winded products.

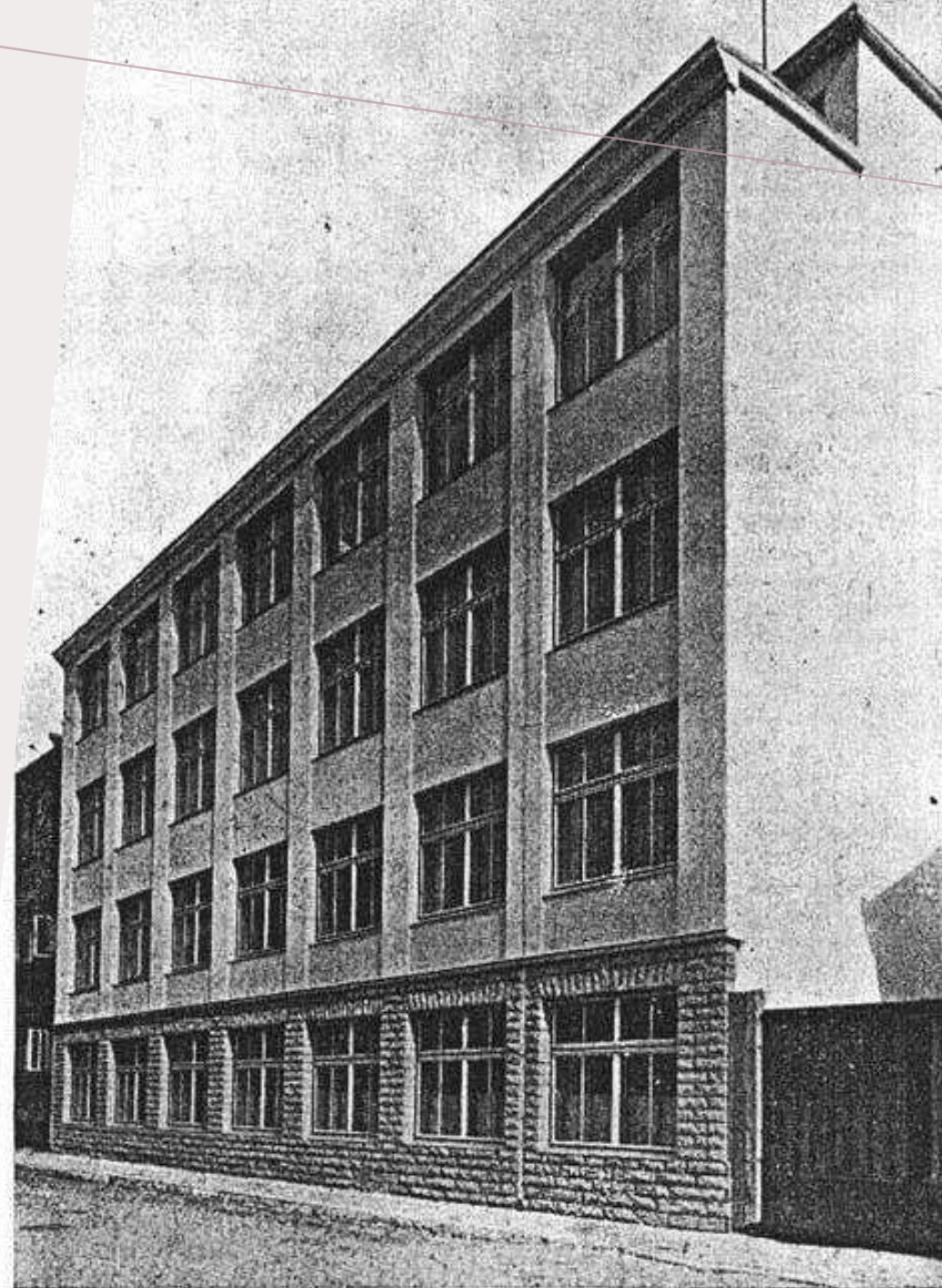


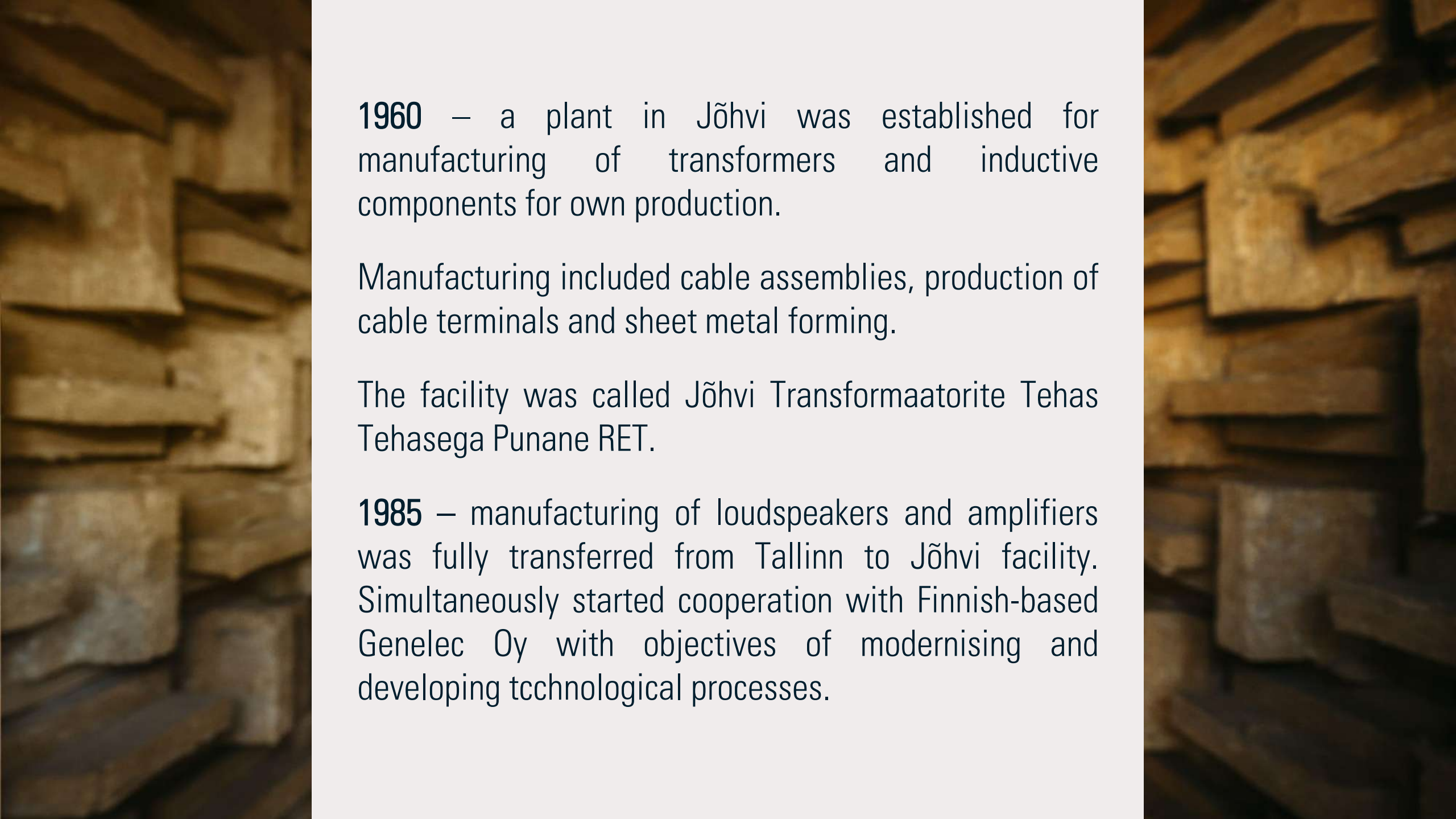
Later in **1940** RET was nationalised and formed into a Public Corporation by integrating businesses of similar profile: radio dpt. of Tartu Phone factory and radio manufacturer ARE from neighbourhood.

1941-1944 – the factory was exploited by Telefunken and re-named Funktechnische Fabrik Reval.

1945-1954 – re-named to Punane RET with changes in used components to those of Soviet origin and rapidly increased number of manufactured models.

1955 – a brand name Estonia was introduced with all manufactured models of radio equipment labeled respectively. The brand name was in use for all produced units until 1992.





1960 – a plant in Jõhvi was established for manufacturing of transformers and inductive components for own production.

Manufacturing included cable assemblies, production of cable terminals and sheet metal forming.

The facility was called Jõhvi Transformaatorite Tehas Tehasega Punane RET.

1985 – manufacturing of loudspeakers and amplifiers was fully transferred from Tallinn to Jõhvi facility. Simultaneously started cooperation with Finnish-based Genelec Oy with objectives of modernising and developing technological processes.



1986 – RET launched manufacturing of the first model of CD-players in the whole Soviet Union, using Philips mechanism CDM-2 and Digital-to-Analog converter TDA1540.

1992 – the trademark of RET was changed to AUDES („Audio from Estonia”).

1993 – started in-house manufacturing of loudspeaker bodies that has continued through decades and is currently still one of the production lines.

Inductive components for audiotechnics have been manufactured simultaneously since the very beginning.



TRANSFORMERS AND WINDED INDUCTIVES



Power transformers:

- 50–60 Hz; separation and safe separation in accordance with EN 60742:
 - Toroidal tape-wound core:
 - Outer $\varnothing$ from 5 mm to 1 200 mm;
 - Tape-wound split-core (center cut);
 - Laminated core:
 - E and EI-type (single-phase);
 - 3UI (three-phase).

Audio frequency transformers:

- 10 Hz–20 kHz; output, booster, impedance-matching:
 - Tape-wound split-core (center cut);
 - Laminated core (EI, UI and other types).

Ferrite power transformers:

- Pulse, high-frequency and switched-mode power supply transformers;
- In accordance with Siemens Matsushita and Philips component specifications.





Chokes:

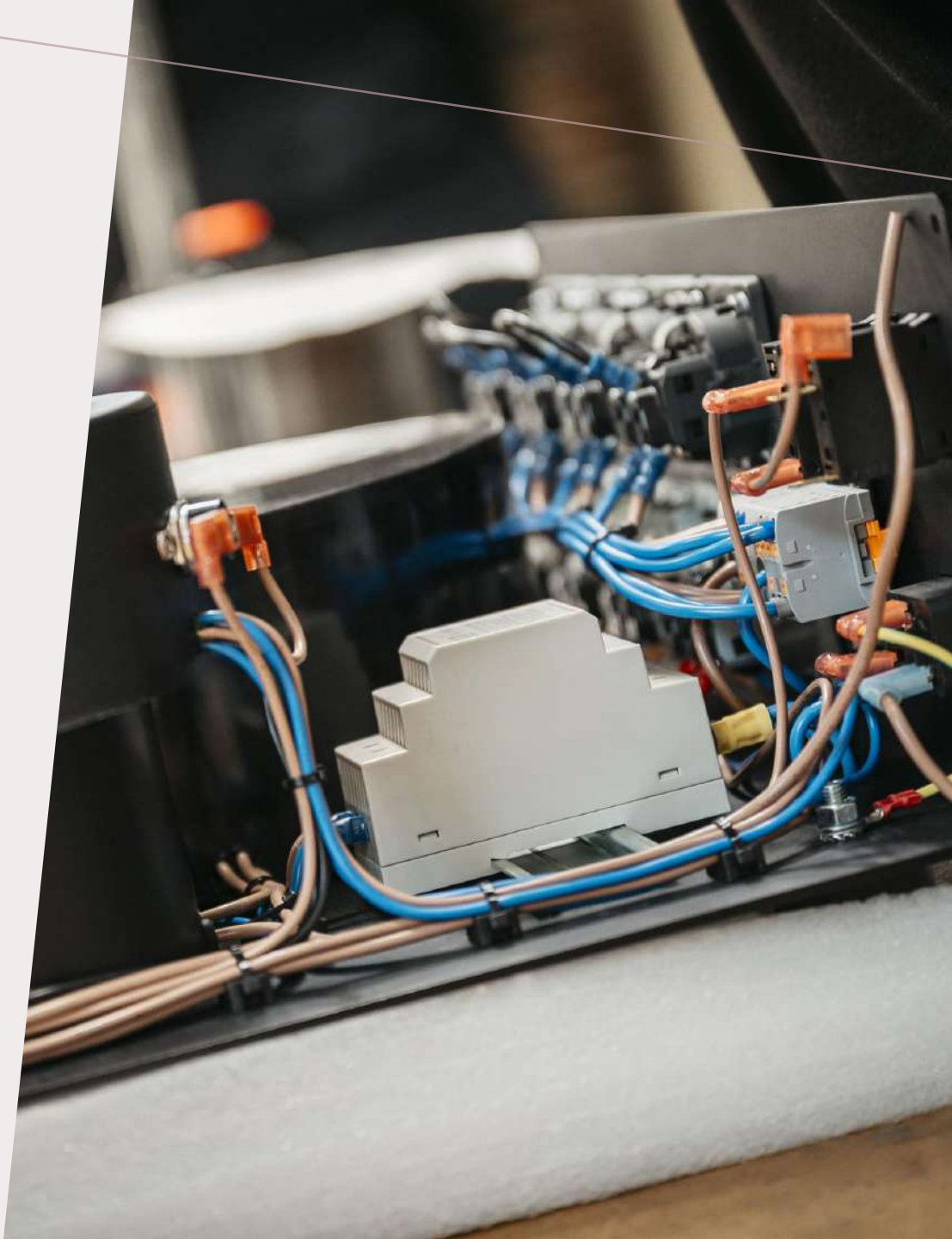
- Round tape-wound split-core (center cut);
- Tape-wound split-core (center cut).

Inductors (for switched-mode power supplies and other applications):

- Ferrite core;
- Air core.

Power supplies and converters:

- AC/AC converters;
 - AC/DC converters.
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- If required by technical specifications, the production process can perform foil winding and apply polyurethane filling.



CAPABILITIES





Built-to-order solutions

Order-driven production

- Flexible order quantities
- Prototyping

Customised solutions

- Custom design development and testing

Range up to 20 000 VA

Wire thickness from 0.07 mm upward. Rectangular wire supported.

We support our business partners on the scale from R&D phase and protoserries to mid-size volume production from our factory in Jõhvi, Estonia.

Our **Lean Management system** enables flexibility and individual approach to our Customers, supported by a team of highly professional people.

Outsourcing to a specialized partner like Audes LLC enables flexibility, reduces investment needs in manufacturing equipment and allows to react efficiently to market fluctuations or smoothing peaks of increasing demand without losing a focus on your core business.





We manufacture **products on demand** to support reducing warehousing costs and achieving higher figures on inventory turnover of our Customers,

strictly following standards and parameters, all technical requirements and safety to meet the Customer's expectations for **Custom made solutions**.

Individual approach – because we value our Customers.

*THINKING OF HIGHLY QUALIFIED
BUSINESS PARTNER?*

THINK AUDES.

THANK YOU!

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AUDES