

Company Brochure



**Nedstack**

PEM FUEL CELLS

*To be sure.*



## A PEM Fuel Cell Market Leader

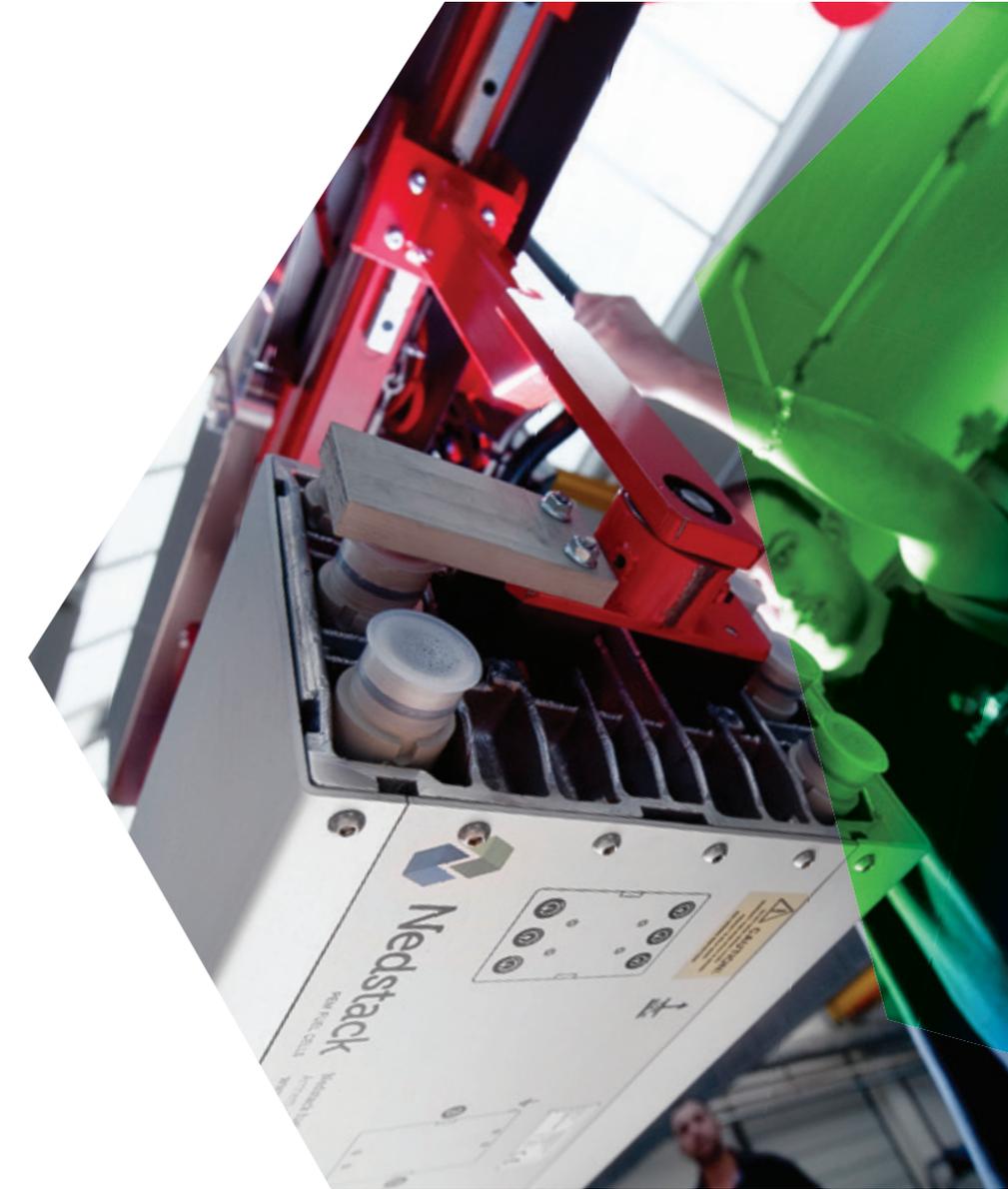
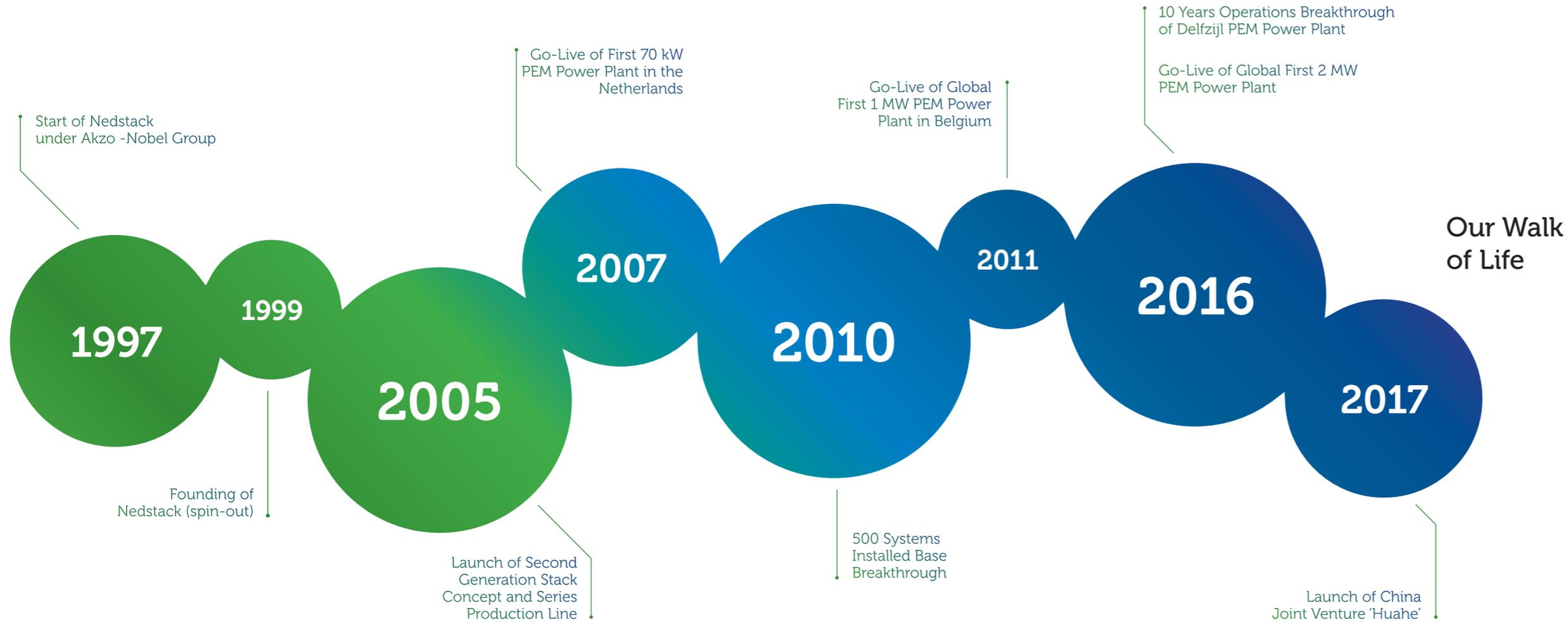
*To be sure.*

Being Sure is our commitment to Society and Industry.

Your choice for Nedstack is a choice to be sure about:

- Durability
- Safety
- Superior Efficiency
- Product Maturity
- Reliability
- Feasibility
- Timely delivery
- Zero-emission
- Recyclable

## COMPANY TIMELINE





## Multi Purpose Stacks Applied to Your Needs

At Nedstack we have successfully implemented and certified our PEM stack portfolio into a wide range of mobile and larger stationary applications.

Our multi-purpose stack philosophy allows our customers to benefit from product maturity and volumes in other markets.

## Fuel Cell Development Expertise

We are committed to developing Fuel Cells with a competitive total cost of ownership.

Our pursuit of PEM Fuel Cell excellence focuses both on applied industrial R&D as well as mere fundamental research in close cooperation with our partner universities and research institutes.

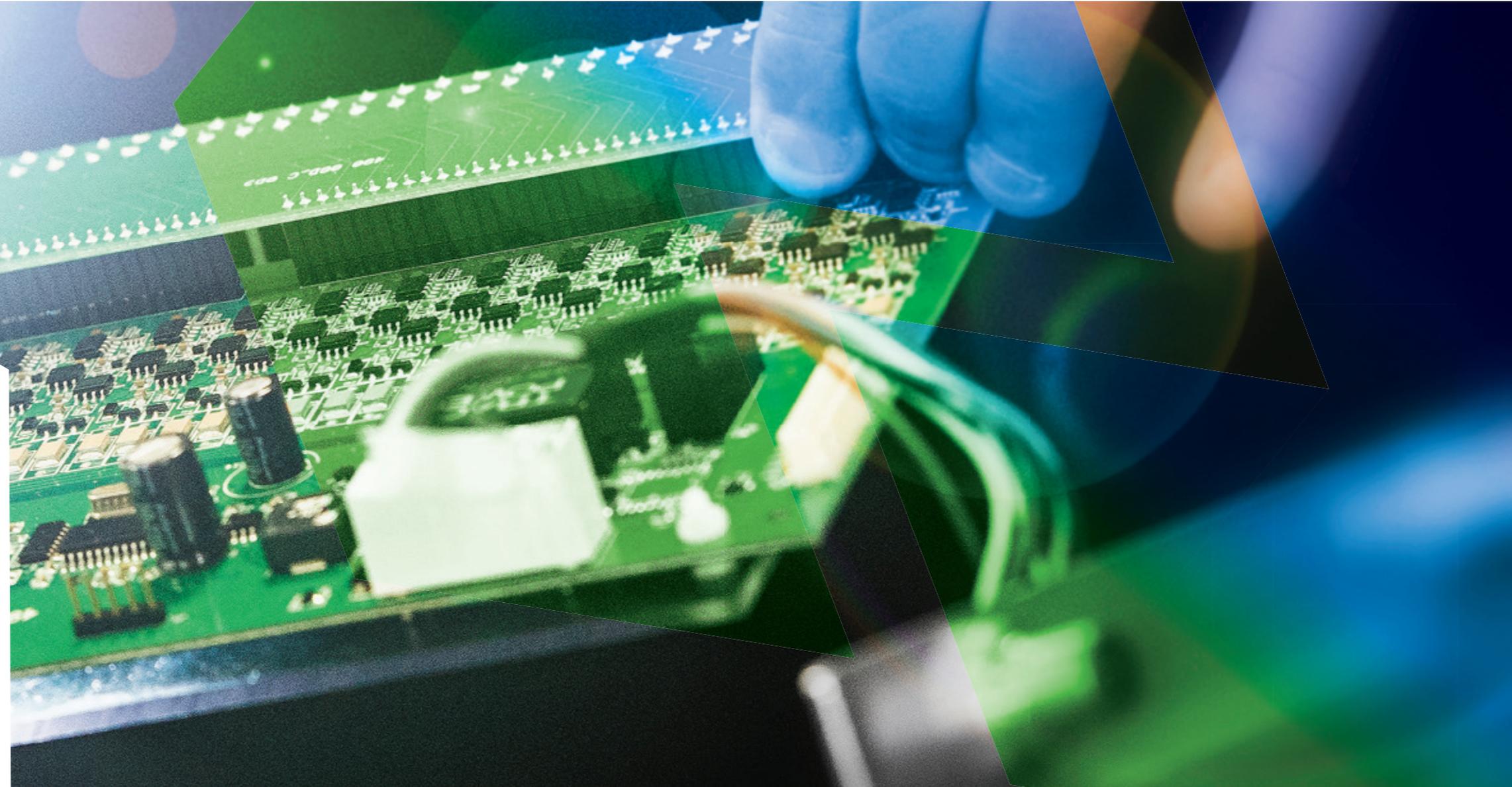
Our Stack Engineering Team excels in MEA-utilization, light-weight cell plate materials, cost-engineering and further lifetime improvements.



## Manufacturing Capabilities

During 20 years of Fuel Cell manufacturing we have developed and optimized our proprietary way of Fuel Cell parts design and production.

By in-housing critical parts we make sure that we offer you qualified Fuel Cell solutions that subscribe to the highest standards only.





## Fuel Cell Assembly

At Nedstack we operate several Fuel Cell stack assembly lines and cell production units to supply sufficient capacity for rapidly upscaling markets. Our current capacity exceeds 20 MWe of Fuel Cell Stacks per annum which can be expanded rapidly should markets so require.

Our production system utilizes advanced machinery including high-precision press docks and highly automated end-of-line functional test stations. This enables us to certify a 100% exit-factory inspection rate on finished products.

## Fuel Cell Verification Services

Our laboratories offer a research environment for testing of Power Packs, Fuel Cell stacks, MEA's and cell plates and enable us to offer a large variety of verification services.

All our stacks are verified and certified against Nedstack company standards and ruling Fuel Cell Industry standards. Additionally, we secure compliancy to any application relevant standards according to your project need.



## Hydrogen-to-Power Applications

We specialize in supporting your Hydrogen-to-Power need from intake to delivery throughout the whole life cycle of the system. Nedstack offers a comprehensive portfolio of PEM Power Pack and PEM Power Plant concepts which are of high value to our clients. Together with our partners we offer you mature and proven plant designs, safety concepts and control strategies for your application to rely on.

Application Intake and Definition	Application Analysis	System Design and Development	Realization and Verification	Implementation and Commissioning	Support & Services
<ul style="list-style-type: none"> <li>• Application investigation;</li> <li>• Duty/Load Cycle investigation;</li> <li>• Client Joint-Requirement Engineering;</li> <li>• Market investigation and benchmark studies;</li> <li>• Preliminary schedule and scope of work</li> </ul>	<ul style="list-style-type: none"> <li>• Mass and Energy Balance Studies;</li> <li>• High Level PFD modelling;</li> <li>• Technical System Modelling and simulations;</li> <li>• Technical Regulations and Compliancy planning;</li> <li>• Business Case Studying</li> </ul>	<ul style="list-style-type: none"> <li>• P&amp;ID Design;</li> <li>• CAD Studies;</li> <li>• E-Systems Engineering;</li> <li>• Hazop analysis and Safety Concept Definition;</li> <li>• Control System Design;</li> <li>• Supply Chain and Sourcing Planning;</li> <li>• Test Planning and Engineering;</li> <li>• Quality Plan</li> </ul>	<ul style="list-style-type: none"> <li>• Procurement plan execution;</li> <li>• Health and Safety Planning;</li> <li>• Build Plan Execution;</li> <li>• System Verification by FAT testing;</li> <li>• Optional Notified Body Verification;</li> <li>• Detailed Documentation</li> </ul>	<ul style="list-style-type: none"> <li>• Pre-installation site-survey;</li> <li>• System Transport and Delivery Planning;</li> <li>• System Delivery, Installation and Commissioning;</li> <li>• Customer Acceptance and establishment of warranty;</li> <li>• Final documentation</li> </ul>	<ul style="list-style-type: none"> <li>• Finalize Inspection, Maintenance and Service Plan;</li> <li>• Training Services;</li> <li>• Install spare parts plan;</li> <li>• Install Monitoring, Analytics and Support Plan;</li> <li>• Project Evaluation and Lessons learned;</li> <li>• Project closure</li> </ul>
<p>Project Management - Project Risk Management - Quality and Budget Planning.</p>					



## Monitoring, Support and Services

We look forward to support you throughout the lifetime of your system by offering remote-monitoring systems, spare-parts or field engineering services.



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