AUTOMOTIVE LEAN PRODUCTION AWARD & STUDY

Automotive Lean Production Award

Award & Study Questionnaire 2025

Application until May 16 2025

Award Ceremony: ALP Congress on 25 – 26 Nov 2025

A joint initiative by

AUTOMOBIL PRODUKTION

AGAMUS CONSULT

Automotive Lean Production Award

The 2024 winners in 5 categories

OEM
Volkswagen Poznań, Poznań, Poland

Part Supplier
Magna Exteriors (Meerane) GmbH,
Meerane, Gernany

Digital Use Case
GlobalFoundries, Dresden, Germany

Lean Digital Transformation (Special Award)
BMW Group, Technologie Exterieur Komponenten
Leipzig, Germany

Rapid group wide implementation of a loss-based improvement management system (Special Award):
Brembo N.V.

Award ceremony 2024 at the winner of 2023: Volkswagen Autoeuropa hosted the congress in Palmela. (from left to right) Marc Kräutle (Agamus), Pascal Nagel (Automobil Produktion), Mario Piccioni (Brembo N.V.), Enrico Böhme (Magna Exteriors (Meerane) GmbH), Marcin Kanturski (Volkswagen Poznań), Christoph Theiselmann (BMW Group), Dr Manfred Horstmann (GlobalFoundries), Dr Werner Geiger (Agamus), Dirk Reusch (Automobil Produktion)

Automotive Lean Production
Study and specialist congress

The industry magazine Automobil Produktion and Agamus Consult are conducting the **Automotive Lean Production** study for the 19th time in 2025.The comprehensive study focusses on the implementation of lean production structures in the European automotive industry:

What makes **lean** so successful in practice? Which lean components are implemented and how? Which results are achieved in terms of quality, costs and delivery performance achieved? How is lean knowledge developing knowledge develop in the personnel structure? How does the **digitalisation** of the production effect the manufacturing systems? What about the application of lean tools and **sustainability**?

The internal engagement with lean structures alone during the processing of the questionnaire is already value-adding (Lean Expertise of Agamus Consult from 19 years of ALP initiative)

Participation is **free of charge**. Just send in the attached questionnaire (German or English). The only condition: The plant must have more than 250 employees.

On request, **all participants** will receive an **individual evaluation with benchmarks** of international comparison.

The best plants are nominated for the **Automotive Lean Production Award** and additionally evaluated on site. The final evaluation is followed by the

Automotive Lean Production Congress with award ceremony on 25-26 Nov 2025 at Volkswagen Poznań in Poland.

At the high-calibre event, the winners will present their successful projects to the automotive industry. All with one goal:

To learn from the best:
Excellence in Lean & Digitalisation

Also on the programme: topical specialist presentations, roundtables, workshops- and of course the festive award ceremony in the 5 award categories.

The winners can receive an editorial profile from the industry magazine Automobil Production for positive communication in the media.

The Automotive Lean Production Initiative:
A joint initiative of Automobil Produktion and Agamus Consult.

> *I am pleased that the next edition of the respected Automotive Lean Production Congress will take place in Poznań, a city where development and tradition complement each other. Here, at the Volkswagen Poznań plant, we have been proudly producing the Volkswagen Caddy for more than 20 years.*
>
> *At our plant, we focus on innovative solutions in processes and technology. This makes it a perfect place for discussions and the exchange of experiences on the topic of LEAN in the automotive industry.*
>
> *We warmly invite you to Poznań!"*
>
> Stefanie Hegels, Plant Manager Volkswagen Commercial Vehicles, Poland

> *Learning from the other automotive players and reflecting on our achievements helped us to define the next steps on the (never-ending) way of lean & continuous improvement.*
>
> *The study is an excellent opportunity for the benchmark and for critical talks with the Agamus experts to understand our advantages and gaps to become successful in the future.*
>
> Lukas Hlava, Plant Director TE Wört/Dinkelsbühl, Germany

> *GlobalFoundries is proud to be the first semiconductor company ever to receive the Lean Manufacturing Award from AGAMUS. The Lean Manufacturing Workshop gave us the opportunity to better understand the challenges of the automotive industry. GlobalFoundries continues to expand this growing field by providing 'Essential Chips'. Combining the key principles of the lean manufacturing approach with digital solutions has huge growth potential, which is central to both the automotive and semiconductor industries."*
>
> Dr. Manfred Horstmann, SVP GFES & GM European Fabs, GlobalFoundries

> *We have used our participation in the Automotive Lean Production Initiative to gain a competent view from the outside on our vehicle assembly at the BMW Group plant in Dingolfing, which ultimately also provided us with valuable tips.*
>
> *Receiving the prestigious award impressively shows that we are consistently implementing the BMW iFACTORY. We always think lean and digital together."*
>
> Gunther Böhner, Director Rolls Royce Motorcars, Plant Goodwood

Download questionnaire as PDF form:
www.automotive-lean-production.de

	A. Contact data		
1	**Name and job title of respondent:**		
2	**Company and address:**		
3	**Phone number:**		
4	**E-mail:**		
5	**What is the exact designation of your unit** (company, plant, ...) **you are participating with in the study? Hereafter always designated as plant:**		
6	**State your plant's two most important products:**		
		YES	NO
7	**Do you wish to apply for one of the awards for your plant?** (upon request you will receive the results of the study even if you do not apply for the award)		

	B. Structural data	
8	**How many employees work at your plant?**	
9	**What is the ratio of direct employees in relation to the entire workforce?** (direct employees = spend at least 80% of their attendance on value adding activities)	%
10	**How high is the proportion of women from the management level of team leader to top management?**	%
11	**What is the turnover rate of direct employees?** (direct employees = spend at least 80% of their time on value-adding activities)	%
12	**What is the turnover rate of indirect employees?** (Indirect employees = spend less than 80% of attendance on value-adding activities)	%
13	**How high is the absenteeism rate among direct employees?** (direct employees = spend at least 80% of their presence on value-adding activities)	%
14	**What is the absence rate for indirect employees?** (Indirect employees = spend less than 80% of attendance on value-adding activities)	%
15	**What were the sales of your plant in the last fiscal year?**	Mio. €
16	**What percentage of your turnover do you generate directly with companies from the automotive industry?**	%
17	**How do you supply your customers?** (please differentiate according to the following types in percent by value of goods)	
	Batch (lot sizes)	%
	Just in Time (JIT)	%
	Just in Sequence (JIS)	%
18	**What are the main production technologies at your plant?** (please rate the distribution of your direct production employees)	
	Assembly	%
	Robot welding (e.g. body shop)	%
	Casting (metal)	%
	Pressing, punching, forging ... (metal)	%
	Machining (shape cutting)	%
	Painting, powder coating, heat treatment, electroplating...	%
	Plastics processing (e.g. injection moulding, thermoforming, RIM process)	%
	Manufacturing of electronic parts (e.g. SMD assembly)	%
	Other (please specify): _____	%

	C. Production system – structure and implementation level					
	To what extent have you sustainably implemented the following Lean production practices at your plant?	NOT IMPLEMENTED	PILOT	HALFWAY	EXTENSIVELY	COMPLETELY
19	**5S** Sort, set in order, shine, standardise, sustain					
20	**FMC – Flexible Manpower Cell** A working environment in which people and machines can quickly adapt to changing customer demands					
21	**Flexible working hours** e.g. flex time accounts					
22	**Flow production** Layout of the workstations corresponds to the material flow; synchronous and interlinked processes					
23	**Group / team work models** Multiple qualifications, partly autonomous teams					
24	**Kaizen- / CIP-Workshops** Continuous improvement workshops with the employees who take part in the process					
25	**Supplier development** Proactively develop the supplier to extensively integrate material and information flows					
26	**Cyclic material supplier in production** Milkrun, waterspider, etc.					
27	**Levelling of production** Smoothing of customer call-offs with the aim of producing constant quantities at defined intervals for a defined period					
28	**Poka Yoke** Avoidance of defects by a special design of the material or the manufacturing process; fail-safe processes, test equipment, and facilities					
29	**Q-Tools** QFD, FMEA, 6-Sigma, 8D-Reports, A3-problem-solving process, etc.					
30	**Fast response systems** Standardised event- and time-driven escalation routines that provide the necessary resources in the event of problems; e.g.rip cord					
31	**Fast setup** Fast tooling to flexibly respond to customer requirements; goal: reducing stock and increasing flexibility					
32	**Standardised workflows** Clearly visualise workflows, defined operator cycles dependent on the customer tact time; Goal: process reliability and efficient employee deployment					
33	**Standardised KPIs** Key figures, that represent the necessary efficiency ratios (OEE, workforce productivity, complaint files) at production group level and are aggregated to area codes					
34	**TPM – Total Productive Maintenance** Maintenance strategy, autonomous maintenance, management of external services, spare part management, workload planning and scheduling in maintenance					
35	**Pull production control** Pull principle driven by demand, self-regulated control loops					
36	**Visual Management** Visual marking of standards in the flow of materials and information, so that deviations become obvious and countermeasures can be taken immediately					

37	**Value stream methodology** Graphical visualisation of the material and information flow as a map and as a design, determination of the total lead time and the included non-value adding activities					
38	**Shop floor management** Leading on the spot; standardised work and control loops for employees and managers					

	D. Introduction of Lean		YES	NO
39	**Since when** (year) **have you been introducing Lean principles and tools to an appreciable extent?**		2024	
40	**Do you perform maturity assessments on the status of your production system?**			
	If yes: Which maturity level shows your plant? (rate positive 0-100%; if you use a stage model, please refer to the highest stage)		%	
41	**How many exempt lean experts (FTEs) who do not perform a line function do you have per 100 employees?**			
42	**What were the relative improvements in percent that you achieved as a result of your lean activities in the last two years? What will be the relative improvements you plan to achieve in the next two years?** Regarding:	IMPROVEMENT OVER THE LAST 2 YEARS	IMPROVEMENT IN THE NEXT 2 YEARS	
	Productivity	%	%	
	Cost reduction	%	%	
	Internal PPM	%	%	
	Supplier's PPM	%	%	
	PPM to customers	%	%	
	Lead time	%	%	
	Inventory	%	%	
	OEE	%	%	
	Reaction speed	%	%	
	Flexibility	%	%	
	Ergonomics	%	%	
	Other (please specify): _____	%	%	
43	**How many suggestions for improvement are submitted per employee per year?**			

	E. Digitalisation – structure and status of implementation					
	To what extent have you sustainably implemented the following digitalisation modules at your plant?	NOT IMPLEMENTED	PILOT	HALFWAY	EXTENSIVELY	COMPLETELY
44	**Culture of change** Employees have room for invention and further development: In addition to innovation workshops, employee ideas are used to generate projects that contribute to the further development of the company (Digital Factory Lab)					
45	**No-code apps & tools development** Employees can develop their own apps and workflows without programming skills, which are made available to the organisation via a library					
46	**Virtual reality for workplace design and worker training** The workplace is virtually tested after planning and freed from weaknesses. For effective training or a shortened start-up, the workers are then trained at the virtual workplace					

47	**Use of assist systems for workers** Workers use assist systems based on the networked infrastructure for various tasks in manufacturing/assembly					
48	**Use of mobile assist systems for the lower management level in production** The lower management level in production uses mobile assist systems based on the networked infrastructure for management and control tasks					
49	**Usability** Operation of complex equipment by normal operators based on auser-centred software environment and user-friendly human-machine-interfaces (semiotics).					
50	**Human-robot-collaboration** Operators share their workspace with robots without separative protection devices (maintaining same safety level). Work steps between humans and robots can be combined individually					
51	**Intuitive methods of robot-programming** Robots are no longer plain-text programmed, but are now installed by teach-by-demonstration (human demonstrates assembly operations), by app or speech-based solution					
52	**Inline component manufacturing using additive processes** Use of additive processes to manufacture components in order to meet increasing individualisation of customer requirements (batch size 1, reduction of lead times, reduction of logistics costs)					
53	**Integrated quality assurance system** In the event of quality issues, the system intervenes in the control loops in real time and initiates processes to solve the problem					
54	**Predictive maintenance** By determining optimal maintenance times based on real time monitoring, errors can be prevented by maintenance or early repairs					
55	**Augmented reality** Maintenance and repairs can be supported with the help of displayed virtual objects (for better explanation)					
56	**Flexible manufacturing concepts** Thanks to a modular structure, production units/lines can easily be modified or expanded. A flexible change of production technologies can proceed with a minimum effort via plug & play solutions					
57	**Digital shop floor management** Relevant shop floor data are available at multi-sites in real time (enhancing know-ledge management) and being reviewed on a virtual board by all stakeholders					
58	**Digital integration of value chain partners** All partners worldwide (suppliers, customers, service providers, etc.) are using the same up-to-date data pool					
59	**'Digital twin' of the real production** All equipment, products, plants as well as their conditions are clearly monitored, mapped and interconnected into a virtual representation (digital world)					
60	**Digital platform controls the real production** A manufacturing-process-platform based on the 'digital twin' controls the production and logistics in real time by autonomously adjusting the work organisation when changes of the 'twin' occur. (Integration of industrial engineering, planning, production control and management of production and logistic into one platform)					
61	**Digital integration of manufacturing and logistics** Changes in the manufacturing process (e.g. product is manufactured at a different working station) update automatically related logistics processes and the simulation- and production-planning tool of the digital world					

62	**Process mining** Business processes are automatically mapped and analysed (e.g. divergences from standards) based on process log data from IT systems					
63	**Deep learning / machine learning** Digital systems enable to process large data volumes of different formats and identify recurring patterns and cause-effect correlations. In this way, trends and anomalies can be detected – in real time and within the running system					

	F. Lean and Industry 4.0 – prerequisites, culture change, future trends						
64	**To what extent do you agree with the following statements regarding the interaction of Lean and Industry 4.0?** (please rate with *0: don't agree* to *3: fully agree*)						**0 - 3**
	Lean is the prerequisite for a successful implementation of Industry 4.0						0
	Industry 4.0 will replace our previous Lean activities						0
65	**To what level are goals for the following topics broken down in policy deployment (hoshin kanri)?** (please tick the appropriate box)	Top management	Middle management	Foreman/ group leader	Team leader	Operator	**n.a.**
	Lean						
	Digitalisation						
	Sustainability						
66	**To what extent do you agree with the following statements about changes in cooperation as a result of the digitalisation at your plant?** (please rate with *0: don't agree* to *3: fully agree*)						**0 - 3**
	Management decisions have become more transparent for employees						0
	Decisions are now made quicker and more targeted						0
	Leaders are delegating more often their tasks						0
	Decisions are now made more often within a team						0
	The quality of regular meetings improved						0
	Working is less hierarchical						0
	The spirit of innovation is now higher						0
	'Pockets of knowledge' are decreasing						0
	Experienced employees respect the input from younger colleagues more (digital natives)						0
	Junior colleagues are taking management responsibilities more quickly						0
67	**Penetration level of smart applications/technologies? With reference to:**						
	How much of the assembly do you do with sensitive lightweight robots?						%
	What proportion of internal transportation is carried out by AGVs?						%
	What proportion of the picking processes are carried out fully automatically without manual effort?						%
	What proportion of manual picking processes are carried out using so-called pick-by-X technologies (pick-by-light, voice, vision, etc.)						%
	What proportion of your internal material flow is tracked online (e.g. via RFID, UWB)?						%
	What proportion of the systems do you maintain “condition based” – i.e. based on condition monitoring?						%
	What proportion of manual quality controls have been replaced by smart solutions (e.g. camera systems) in the past 5 years?						%
	What proportion of training in your factory takes place via virtual systems?						%
	What level of digitization does your shop floor management have at the lowest cascade?						%
	What proportion of rpoduction starts do you do virtually in advance?						%
	What proportion of administrative processes are supported by a digital workflow?						%
	How many so-called low code APPs (e.g. PowerAPPs) are created in your factory per 1,000 FTE per year?						#
	How many digitization projects has your factory completed in the last 12 months?						#

		TODAY	FUTURE
68	**How important do you think the use of artificial intelligence is today or will be in the future in the following areas?** (please give your assessment as follows: *0: no use*; *1: low benefit*; *2: average benefit*; *3: high benefit*; *9: no statement possible*)		
	Use of AI to optimize production processes AI is used specifically to analyze and optimize production processes and increase efficiency.	9	9
	Use of AI to control and adapt production processes AI is used in real time to dynamically control and adapt production processes based on current production data, demand forecasts and unexpected fluctuations.	9	9
	Use of AI for predictive maintenance AI is used to predict maintenance requirements and proactively plan maintenance measures.	9	9
	Automation of tasks through AI-supported systems AI-based systems are increasingly automating tasks. This relieves humans of routine tasks and increases the flexibility of production.	9	9
	Integration of AI to support decision-making AI is used to support decision-making processes by analyzing large amounts of data and deriving recommendations for action that lead to faster and more informed decisions.	9	9
	Use of AI for quality improvement AI-based systems are used to detect quality deviations in real time and make automatic adjustments.	9	9
	Use of AI to optimize the use of resources AI is used to optimize the use of resources, e.g. to reduce energy consumption, use materials efficiently or minimize waste.	9	9
	Collaboration between humans and machines through AI AI-controlled systems work hand in hand with employees to manage complex tasks, increase the flexibility and efficiency of production and improve safety and working conditions at the same time.	9	9
	Use of AI for the digital integration of supply chains AI is increasingly being used to control and integrate supply chains in real time, enabling better transparency, faster response times and more efficient collaboration with suppliers.	9	9
	AI-based support for the implementation of sustainability goals Artificial intelligence helps to monitor the achievement of sustainability goals such as CO2 reduction and energy efficiency and to propose targeted measures for improvement.	9	9

G. Sustainability

69	**How high is the share of renewable energy in total consumption?**	%
70	**How high is the share of self-generated energy in total consumption?**	%

		IMPROVEMENTS OVER THE PAST 2 YEARS	IMPROVEMENTS IN THE NEXT 2 YEARS
71	**What was the relative improvement in percentage terms that you achieved through your sustainability activities in the last two years? What relative improvements do you plan to achieve in the next two years?** Regarding:		
	GHG emissions	%	%
	Amount of waste	%	%
	Water consumption	%	%
	Energy consumption	%	%
	Share of recycled materials	%	%
	Media consumption (compressed air, coolant, ...)	%	%
	Others (please state): _____	%	%

		YES	NO
72	**Have you defined annual target values for the sustainability indicators from question 71?**		
73	**Have you defined a target year for the plant's CO2 neutrality?**		
	If yes: By when would you like to achieve this goal?	years	

		YES	NO
74	**What approach do you take to ensure improvements in sustainability at your plant?**		
	Quantifiable target values (e.g. CO2 emission)		
	Environmental certification (ISO14000 ff)		
	Energy management system certification (ISO 16000ff / ISO 50000ff)		
	Corporate Social Responsibility indicator		
	Internal audit system		
	Checklist for self-assessment		
	Third party audit system (please state): _____		

		YES	NO
75	**How do current legal regulations influence your actions?**		
	Are you aware of current EU regulations, ESG reporting and the Green Deal, and have you aligned your sustainability goals with these requirements?		
	Do you believe that achieving the targets set by legislation will increase the competitiveness of your plant?		
76	**What proportion of the material used** (including auxiliary and operating materials) is waste (e.g. also rejects, offcuts, residual quantities) **that is not recycled?**		%

H. Value Stream Performance

77	**What is the proportion of material cost in relation to the total turnover?** (raw materials and purchased parts)	%
78	**In what kind of delivery are these materials been supplied?** (please specify each as a percentage by value of goods)	
	Batch (lot sizes)	%
	Just-In-Time (JIT)	%
	Just-In-Sequence (JIS)	%
79	**How many days supply** (own + consigned) **of finished goods do you maintain on average?**	
80	**How many days supply** (own + consigned) **of raw materials do you maintain on average?**	
81	**What is the frequency of production of A-products?** (one answer only, please)	
	Several times a day	
	Every day	
	Every third day	
	Every week	
	At intervals longer than weekly or irregularly	
	Unknown / not analysed	
82	**What is your plant's service level** (on time in full deliveries) **from your customers' perspective?** (order placement date, delivery date)	%
83	**What is your suppliers' customer service level from your plant's perspective?** (order placement date, delivery date)	%
84	**What is the average overall equipment effectiveness** (OEE) **as a percentage of total production time at bottleneck processes/machines?**	%
85	**What is your direct customer complains rate?** (product and logistics defects only)	PPM
86	**What is your first-pass yield?**	%
87	**Number of days without reportable accidents**	days
88	**Number of near-accidents per thousand hours of attendance**	

I. Best Practice Example "Digital Use Case" (Optional)

89	**In the category "Digital Use Case", for the first time we are also awarding prizes for individual projects and not just entire works. Each participant has the opportunity to apply for one of the coveted awards with a successful digitization project that improved the KPIs of the value stream. Please present your project in a separate documentation, whose form we leave up to you. In particular, please address the following aspects of the project.**
	Name / Designation
	Start and end date
	Target
	Essential contents / milestones
	Improvements attained (qualitative, key figures)
	Innovations/what distinguishes the project in particular?
	Experiences/lessons learned
	Rollout/further implementations planned

Fill in and send by e-mail to: lean.award@agamus.com

Formular senden

AUTOMOBIL PRODUKTION Agamus CONSULT

AUTOMOTIVE LEAN PRODUCTION AWARD & STUDY

AUTOMOBIL PRODUKTION AGAMUS CONSULT

Award & Study 2025: Application & Dates

Automotive Lean Production – Award & Study is an initiative of Automobil Produktion and Agamus Consult. Data from the questionnaire is stored electronically by Agamus Consult for evaluation purposes and will not be passed on to third parties. The use of the data for statistical purposes is exclusively anonymised. Personal data will only be used for queries for the purposes of the study. Of the award winners only the company names are published.

Application deadline: 16 May 2025

More information and download questionnaire:
www.automotive-lean-production.de/en

Fill out the PDF locally on your PC, save, complete and email directly to:
lean.award@agamus.com

Agamus Consult, Manuela Hanusa
Phone: +49 89 44 388 99 22

Welcome to Volkswagen Poznań

Poland 25-26 November 2025

The new Host 2025: Marcin Kanturski (Volkswagen Poznań), between (left) Dr Werner Geiger and (right) Marc Kräutle from Agamus Consult.

Foto: Volkswagen Poznań

- Presentations of the award winners
- Gala dinner, festive presentation of the awards
- Exclusive tour of the Poznań plant

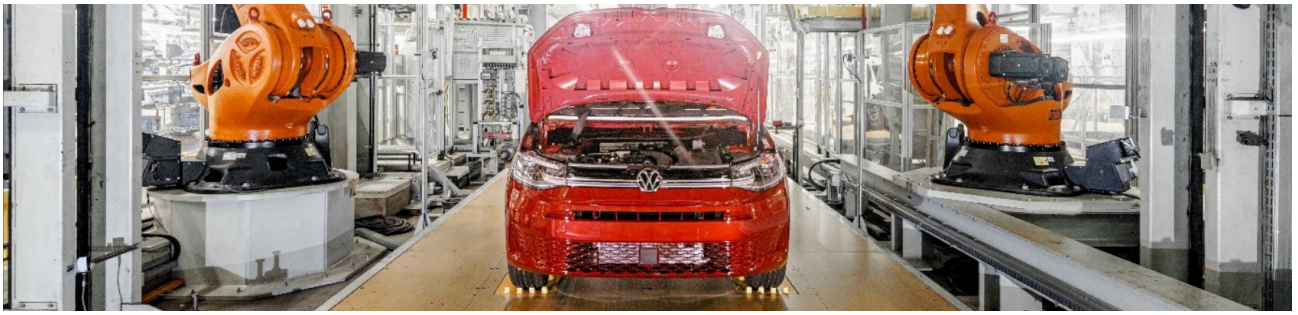

Foto: Volkswagen Poznań

LEAN on every line

AUTOMOTIVE LEAN PRODUCTION AWARD & STUDY

Volkswagen Poznań

Factory in Poland producing Caddy, with lean management driving excellence in production.

Commercial Vehicles