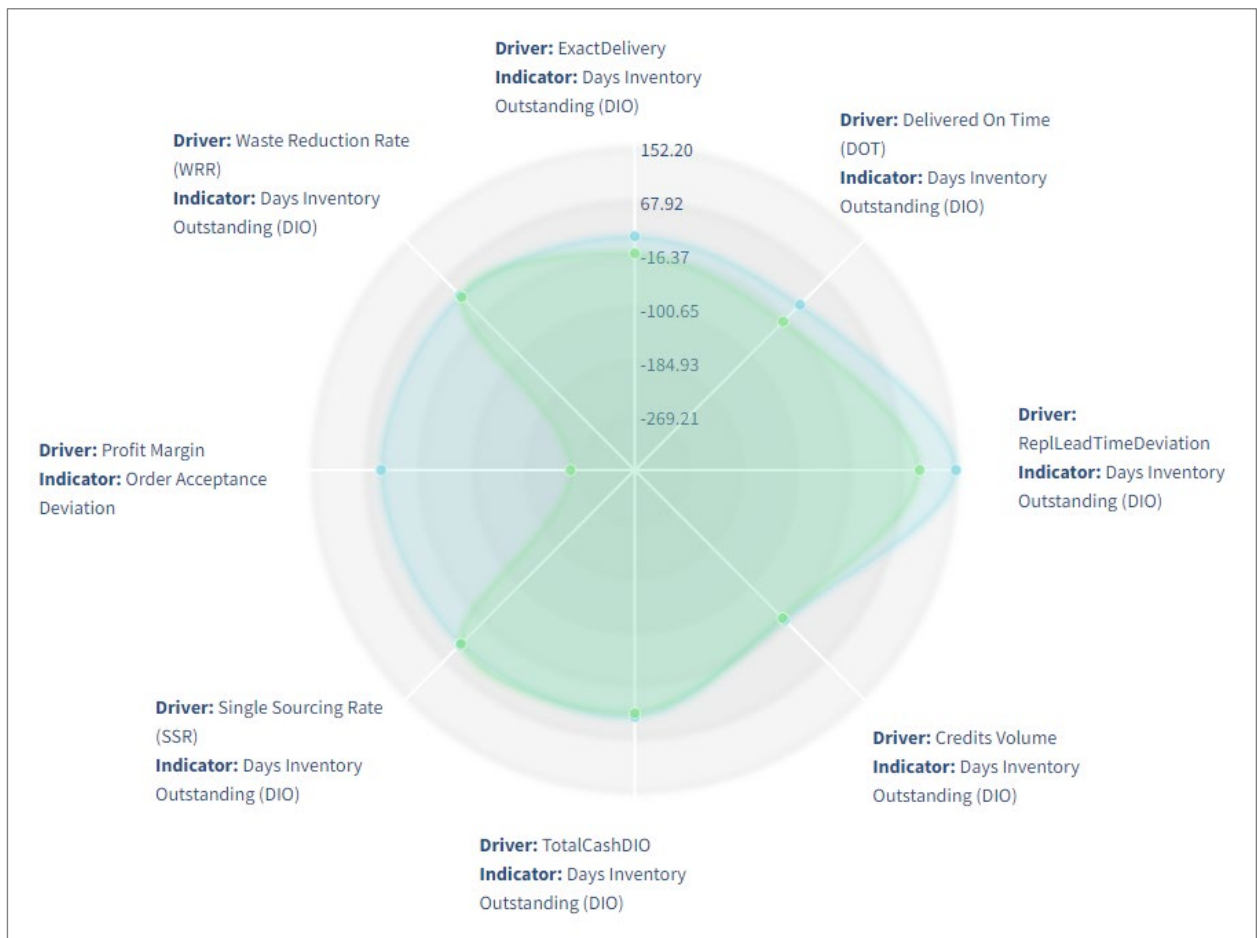


# NEMO Release Letter

Version 2022-09-02



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## Summary

As of September 2, 2022, proALPHA has released NEMO version 2022-09-02.

NEMO – standing for Natural Enterprise Management Optimizer – is a new breed of AaaS – Analytics-as-a-Service – offering from proALPHA. NEMO analyzes all sorts of event data. In particular NEMO analyzes business processes as performed with proALPHA ERP. The objective of NEMO is to enable better daily decisions by relating operational activities (input factors) with financial results (output factors).

NEMO 2022-09-02 features various error corrections and performance improvements. Also, various housekeeping improvements have been implemented.

Furthermore, NEMO 2022-09-02 provides new and improved capabilities triggered by customers:

- Metrics (NEW and IMPROVED)
  - Production
    - MRP MPS-based Rate
    - MRP Document-Based Rate
    - MRP Demand-Based Rate
    - MRP Without MRP Rate
    - MRP Consumption-Based Rate
    - MRP Stock-Based Rate
  - Sales
    - Quoted Price Deviation
  - Procurement
    - Supplier Price Deviation
- Targeting (IMPROVED)
  - In particular we finetuned further the target calculation for DIO.
- Focus (NEW and IMPROVED)
  - Coupled Attributes (NEW)
  - Reports selection (IMPROVED)
- Data Export (IMPROVED)
  - Weekly data update configuration.

# Signature Features

## Natural Performance Index (NPI)

The NPI measures and ranks the fitness of a business. High NPIs indicate a significant improvement potential which is likely to be achieved. They help the user find and decide between the available optimization opportunities and are key to the daily decision support provided by NEMO.

## Natural Leverage Index (NLI)

The NLI measures and ranks the degree of efficiency (“Wirkungsgrad”) of a certain operational measure. High NLIs indicate a significant leverage which is likely to be achieved. They help the user find and decide between the available opportunities and as such facilitate the daily decision support provided by NEMO.

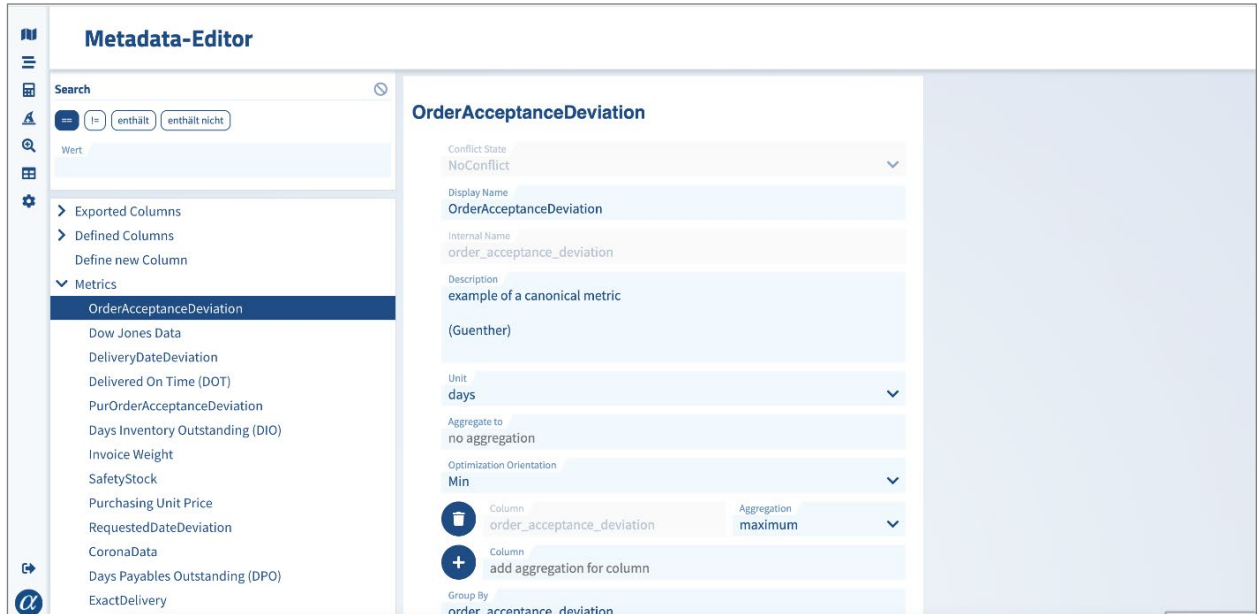
## Unsupervised Learning

Since there is no optimum for business process optimization typical machine learning approaches don't apply. Hence NEMO leverages robust advanced statistics out of the so-called space of unsupervised learning algorithms.



## Meta-data Driven

NEMO is not only data- but also metadata-driven. This means that virtually all metrics and scopes can be formed – either manually or automatically.



## Hyper-Dashboard

NEMO continuously ranks all business process correlations. This enables dynamic dashboards which are complementing classical dashboards.



## All Details

NEMO works always on details. There is no need to do any pre-aggregations at all. This means that the user can drill down to the detailed business documents at any point in time and instantaneously.

Here an example for the Payment Method Invoice. The Hyper-Dashboard provides an overview of the top measures for process improvements.



The Ranker table gives the details behind the Hyper-Dashboard.

**Ranker** Filter by Scopes  
All Data

R Squared:  1

**Indicators**

Filter by Name

- Waste Reduction Rate (WRR)
- Profit Margin
- Order Acceptance Deviation
- ReplLeadTimeDeviation
- Number of Payment Targets
- Realized Price
- Single Sourcing Rate (SSR)
- Late Invoicing Rate
- Delivered On Time (DOT)
- Days Inventory Outstanding (DIO)
- Average Temperature
- SafetyStock
- ReplenishmentDeviation

NPI	NLI	Driver	Indicator	R Squared	Correlation	Actuals	Gain	Scope
601,917,952	40,704.1	Delivered On...	Days Invento...	0.05	0.23	€14,787.66k	€11,839,552...	PaymentMet...
567,153,024	38,353.1	PurExactDeli...	Days Invento...	0.06	0.25	€14,787.66k	€8,897,089.5...	PaymentMet...
558,322,112	40,228.5	PurExactDeli...	Days Invento...	0.07	0.26	€13,878.75k	€8,437,466.6...	[[invoicing_d...
551,381,504	1,133,087.3	ReplLeadTi...	Days Invento...	0.24	0.49	€486.62k	€2,317,477.3...	[[customer_r...
541,763,584	39,035.5	Delivered On...	Days Invento...	0.05	0.22	€13,878.75k	€11,146,345...	[[invoicing_d...
368,957,248	13,932.0	Replenishme...	Days Invento...	0.53	0.73	€26,482.77k	€692,769.54k	[[part_type[9]]]
249,010,336	16,839.1	ReplLeadTi...	Days Invento...	0.02	-0.14	€14,787.66k	€13,503,370...	PaymentMet...
248,111,296	25,661.8	ReplLeadTi...	Days Invento...	0.04	-0.19	€9,668.50k	€6,729,405.4...	[[customer_j...
205,359,856	14,796.7	ReplLeadTi...	Days Invento...	0.02	-0.13	€13,878.75k	€11,834,033...	[[invoicing_d...
176,447,920	32,377.2	PurExactDeli...	Days Invento...	0.09	0.30	€5,449.76k	€1,909,336.5...	[[customer_a...
174,167,904	23,651.6	ReplLeadTi...	Days Invento...	0.03	-0.16	€7,363.89k	€6,652,653.0...	[[customer_a...
172,000,192	3,384.2	Delivered On...	Days Invento...	0.05	0.23	€50,825.06k	€3,189,364.7...	[[part_a_b_c...
171,797,920	3,349.2	Delivered On...	Days Invento...	0.05	0.23	€51,294.62k	€3,269,720.8...	[[invoice_doc...
171,730,720	3,349.2	Delivered On...	Days Invento...	0.05	0.23	€51,274.56k	€3,268,441.8...	[[supplier_a...
160,876,304	3,136.3	PurExactDeli...	Days Invento...	0.07	0.26	€51,294.62k	€2,386,454.0...	[[invoice_doc...
160,813,376	3,136.3	PurExactDeli...	Days Invento...	0.07	0.26	€51,274.56k	€2,385,520.6...	[[supplier_a...
152,162,416	2,993.8	PurExactDeli...	Days Invento...	0.07	0.26	€50,825.06k	€2,277,224.4...	[[part_a_b_c...
141,023,744	14,585.9	Delivered On...	Days Invento...	0.10	0.31	€9,668.50k	€1,458,552.4...	[[customer_i...
128,455,368	13,286.0	PurExactDeli...	Days Invento...	0.06	0.25	€9,668.50k	€2,082,220.8...	[[cus

[Provide feedback](#)

And the Focus view gives the details behind the Ranker table. And all within seconds.

**Focus** Filter by Scopes  
Temporary scope

Start Analysis View

Zoom in Exclude Zoom out Back Next

Attributes: 732 of 732  
Objects: 237,183 of 2,791,918

**CustomerIndustry**

28 values

Value	Frequency
Power	101605
Building technology	75514
General Industry	32122
Process	12003
Sonstige	6878

**Infoscape**

Delivery Data

- ShippingType: D., K., P., U., a., s., w.
- ShippingDateActual: [Bar chart]
- ShippingDate: [Bar chart]
- DeliveryDate: [Bar chart]
- Count(DeliveryDate): 143568
- DeliveryDateActual: [Bar chart]
- Count(DeliveryDateActual): 139256
- RequestedDate: [Bar chart]
- TransportTime: 0, 1, 2, 4, 6
- Mean(TransportTime): 2

General

**ShippingDate**

862 + 1 values

ShippingDate	Frequency
2017-12-20	1
2018-03-22	2
2018-06-28	1
2018-07-09	7
2018-07-11	1

**CustomerState**

1448 values

State	Frequency
State 100000	292
State 100001	38
State 100003	23
State 100005	2
State 100006	2

App version: 0.34.2 [Provide feedback](#)

**Instantly Live**

NEMO doesn't need any customization. Even chart-of-account or financial calendar are not needed for NEMO to function.

# New and Changed Features

## Metrics (NEW and IMPROVED)

### Production

There are multiple ways to control your production. In particular, your MRP process is determined by various categories of planning:

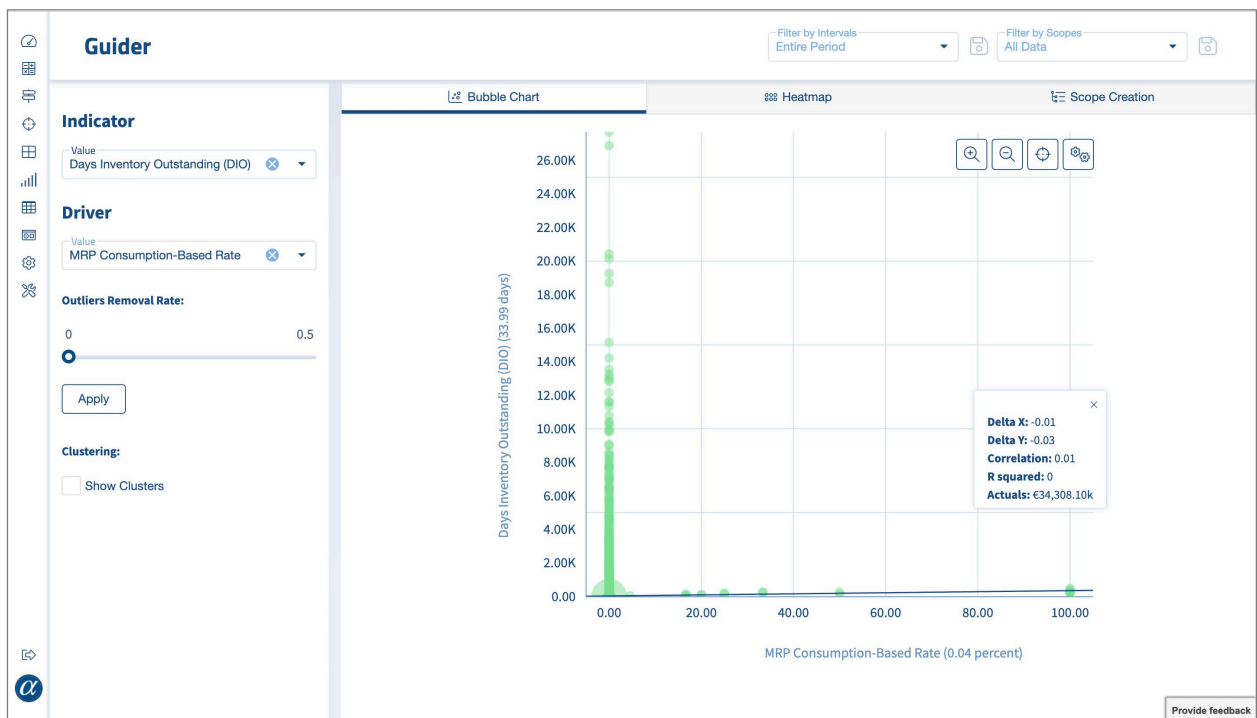
- MPS-based
- Document-Based
- Demand-Based
- Without MRP
- Consumption-Based
- Stock-Based

These variants can be assessed via metrics now.

Please note that not all different ways of planning are used in the reference data set.

### MRP Consumption-Based Rate (NEW)

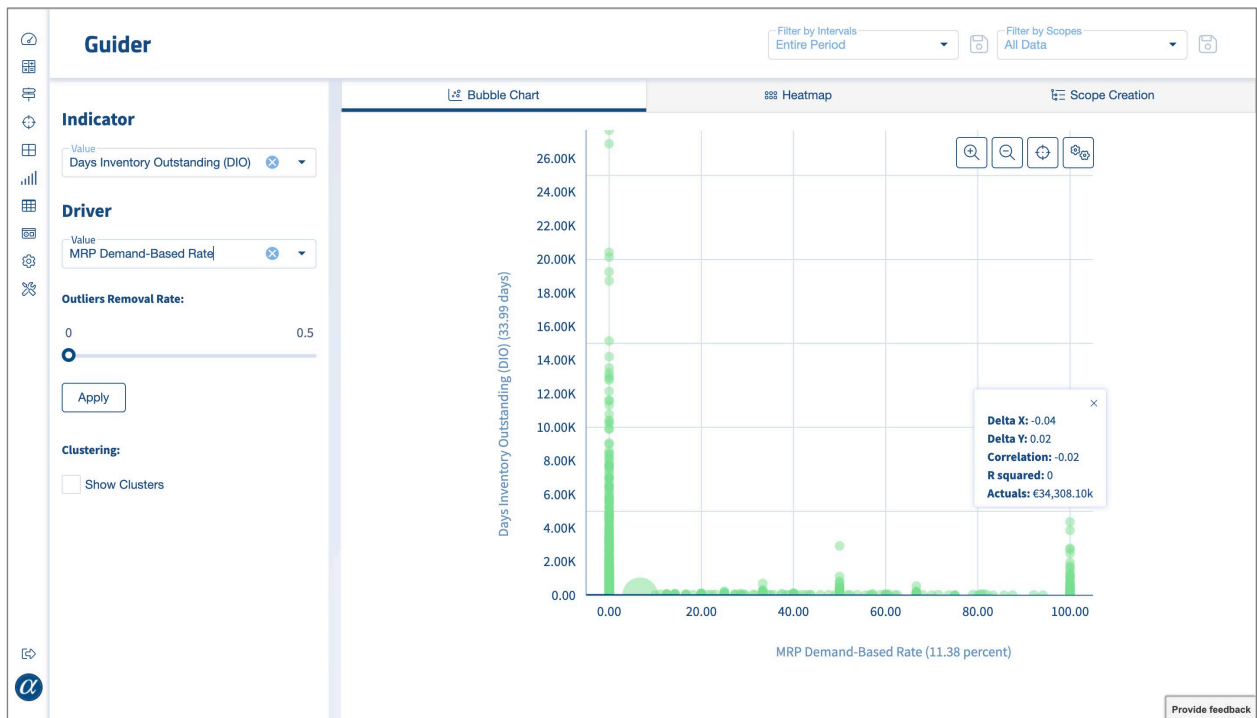
In the MRP area, the part is planned as consumption-based.





MRP Demand-Based Rate (NEW)

In the MRP area, the part is planned as demand-based.



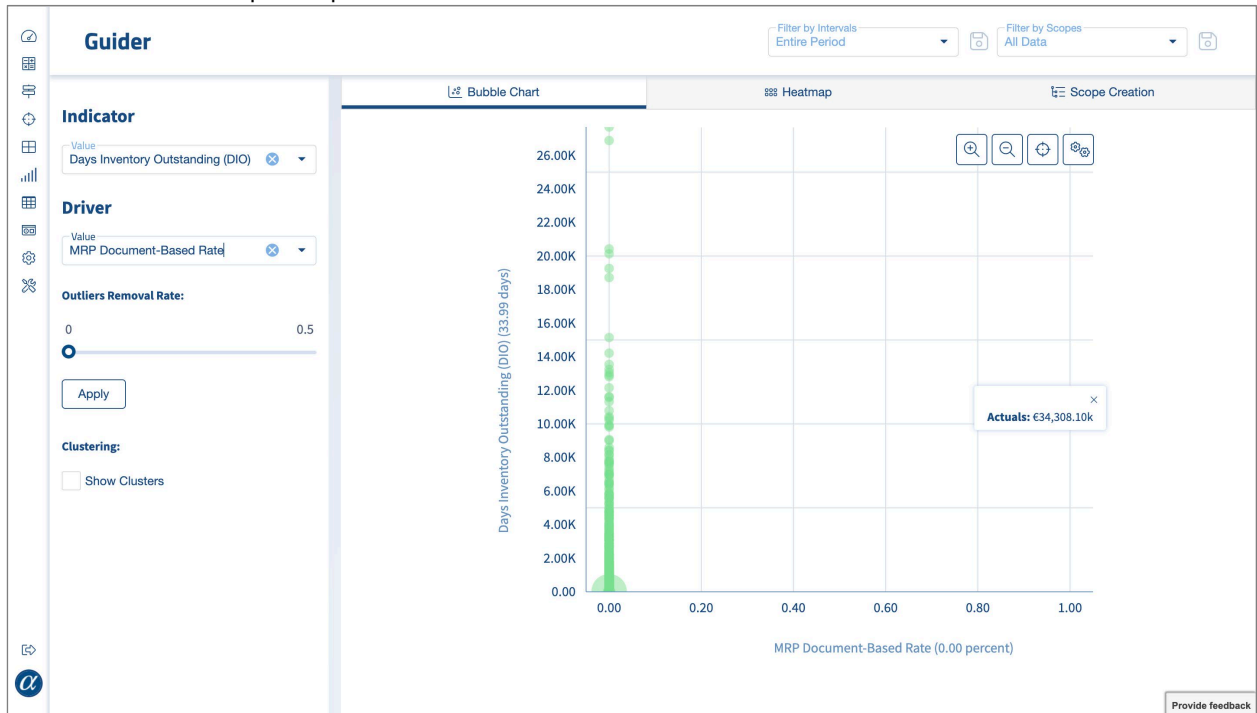
MRP Stock-Based Rate (NEW)

In the MRP area, the part is planned as stock-based.



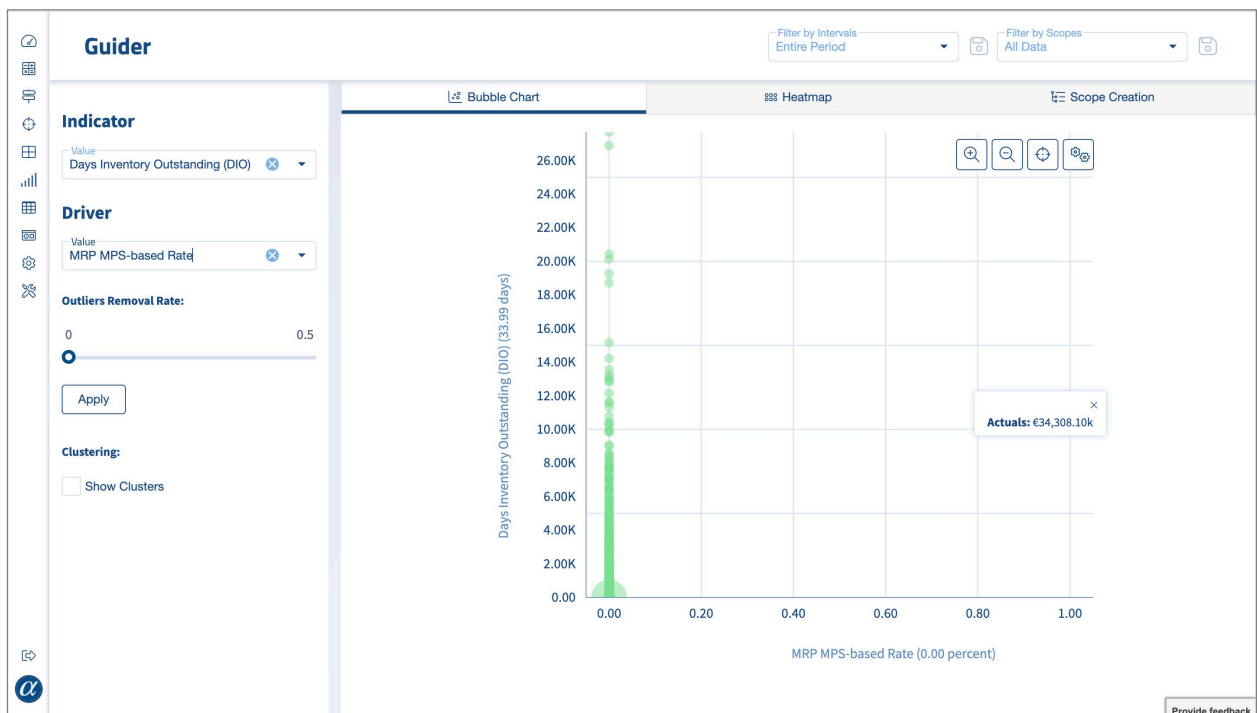
MRP Document-Based Rate (NEW)

In the MRP area, the part is planned as document-based.



MRP MPS-based Rate (NEW)

In the MRP area, the part is planned as MPS-based.



### MRP Without MRP Rate (NEW)

The part is not planned in the MRP area.



### Sales

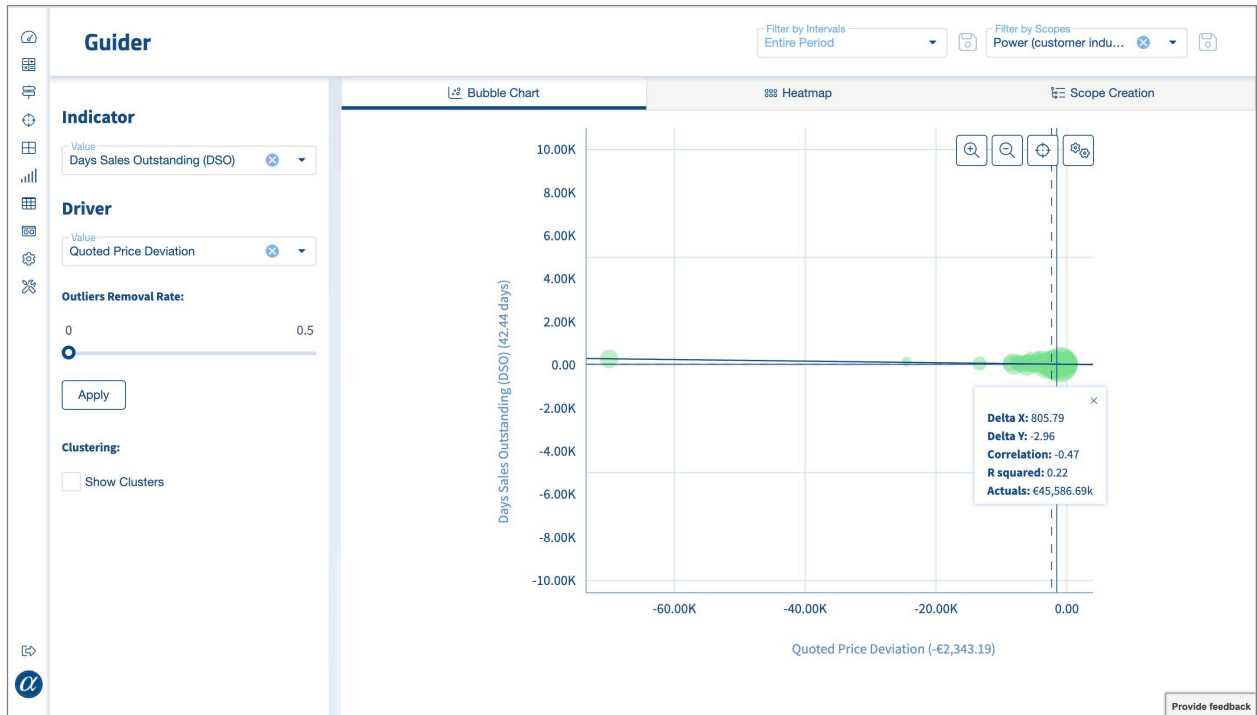
Pricing deviations are always quite insightful.

#### Quoted Price Deviation (NEW)

Deviation between Quoted and Invoice Price.

Values:

- Negative: Invoice Price is higher than Quoted Price
- Positive: Quoted Price is higher than Invoice Price



## Procurement

Pricing deviations are always quite insightful.

### Supplier Price Deviation (NEW)

Rate between Purchasing Quoted Price and Purchasing Invoice Price.

Values:

- Negative: Purchasing Invoice Price is higher than Purchasing Quoted Price
- Positive: Purchasing Quoted Price is higher than Purchasing Invoice Price



### Targeting (IMPROVED)

We are constantly improving our algorithms. Especially we finetune the Gain calculation continuously.

With this release we paid special attention to DIO.

Here an example:

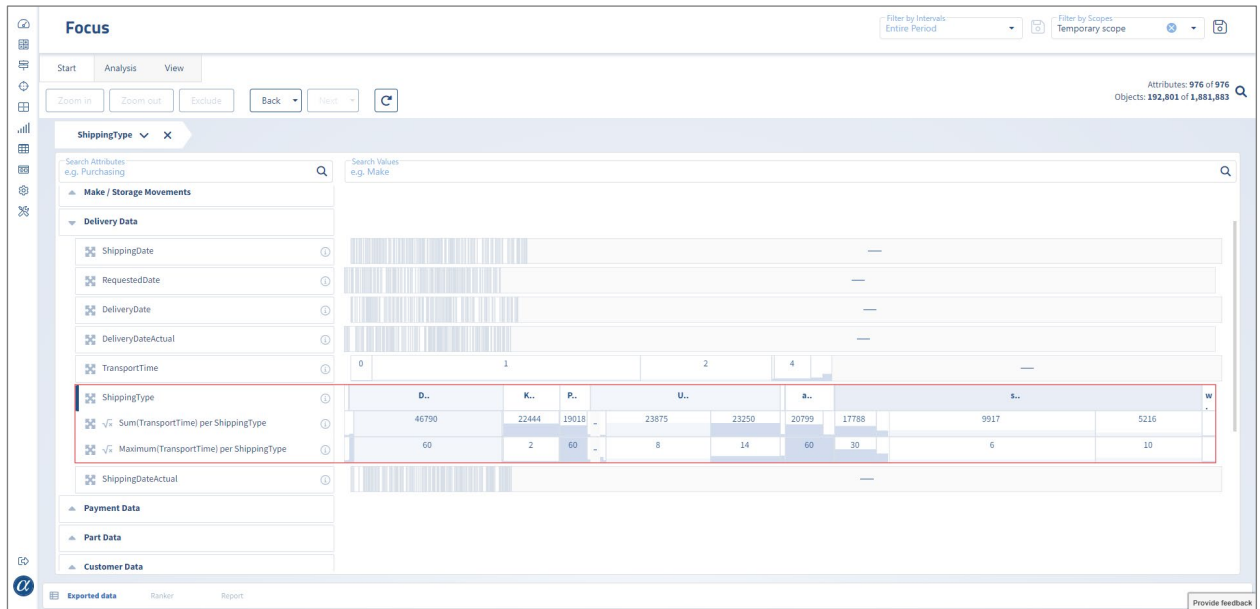
The 'Ranker' interface displays a table of indicators and drivers. The table is filtered by 'General Industry (cust...)'. The columns are: NPI, NLI, Driver, Indicator, R Squared, Correlation, Actuals, Gain, and Scope. The 'Correlation' column is sorted in ascending order.

NPI	NLI	Driver	Indicator	R Squared	Correlation	Actuals	Gain	Scope
624,369	221	Avg Price B...	Days Invent...	0.44	-0.66	€2,828.45k	€1,414.70k	General Ind...
121,229	43	Number of ...	Days Invent...	0.06	-0.24	€2,828.45k	€2,126.68k	General Ind...
57,702	20	Costs	Days Invent...	0.05	-0.23	€2,828.45k	€1,091.66k	General Ind...
57,702	20	Realized Price	Days Invent...	0.05	-0.23	€2,828.45k	€1,091.66k	General Ind...
112,756	40	Cash Receiv...	Days Invent...	0.05	-0.22	€2,828.45k	€2,281.08k	General Ind...
112,461	40	Number of ...	Days Invent...	0.05	-0.22	€2,828.45k	€2,281.34k	General Ind...
109,618	39	Too Late Cu...	Days Invent...	0.05	-0.22	€2,828.45k	€2,256.52k	General Ind...
36,984	13	Revenue	Days Invent...	0.05	-0.22	€2,828.45k	€790.08k	General Ind...
13,267	5	Profit	Days Invent...	0.03	-0.18	€2,828.45k	€390.02k	General Ind...
8,807	3	Single Sour...	Days Invent...	0.02	-0.13	€2,828.45k	€522.47k	General Ind...
-9	-0	Order Acce...	Days Invent...	0	-0.03	€2,828.45k	-€13.51k	General Ind...
61	0	Too Late Su...	Days Invent...	0	-0.02	€2,828.45k	€179.24k	General Ind...
0	0	Average De...	Days Invent...	0	0	€2,828.45k	€9.57k	General Ind...
0	0	Average Pur...	Days Invent...	0	0	€2,828.45k	€10.79k	General Ind...
6	0	Renlenshm...	Days Invent...	0	0.02	€2,828.45k	€17.61k	General Ind...

## Focus (NEW and IMPROVED)

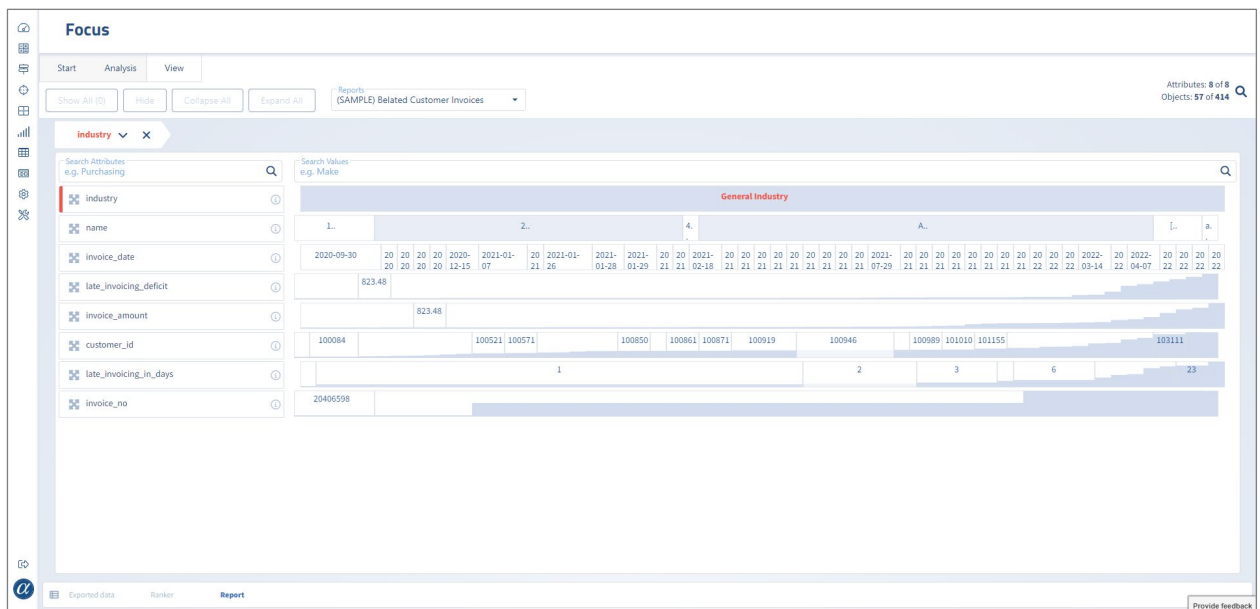
### Coupled Attributes (NEW)

Advanced Summary Function Attributes are visually coupled to their dimensional Attribute.



### Reports selection (IMPROVED)

Reports selection in Focus is now part of the View menu.



## Data Export (IMPROVED)

### Weekly Data Update Configuration

To improve performance, we moved the automatic execution to the customer's database server. The jobs are triggered via task scheduling in Windows. The time windows have already been coordinated with all customers. The customer thus automatically receives new data every week without having to intervene. This also includes the crawler run after the data is available in NEMO.

## Compatibility

NEMO is compatible with all ERP releases from 6.1 onwards.

### Functional Limitations

Following functionality is restricted as of now:

- Updating of Reports is not supported yet.
- Calculations of Driver and Indicators are not based on Intervals yet.

### Component Status

- Project Management support is only available as beta currently.
- Qlik integration doesn't function yet.

### Known Issues

- None

## Documentation

Apart from this Release Letter, the following documentation is available from pAWorld (<https://paworld.proalpha.com/display/RN/Knowledge>).

- NEMO Glossary 2022-06-24 (no update)
- NEMO Data Structure 2022-05-13 (no update)
- NEMO Formula Syntax 2022-07-22 (no update)

## Availability

All customer environments as well as DEMO have been updated already.