

# Manufacturing Industry Radar: explanatory notes

## *What is the Manufacturing Industry Radar?*

The Manufacturing Industry Radar is an instrument developed by Statistics Netherlands to analyse developments in Dutch manufacturing and place them in some sort of context. Using six indicators – selected on the basis of an econometric study – the radar monitors whether circumstances have developed favourably or unfavourably for the Dutch manufacturing industry.

It is relevant for industrial production how demand for manufactured products develops among the other producers and among consumers. The radar provides several indicators to analyse the underlying developments of the volume of industrial production.

The six selected indicators:

- The level of producer confidence
- The level of Dutch consumer confidence
- The year-on-year changes in the production of manufacturing in the 27 countries of the European Union (EU-27 industrial production)
- The year-on-year changes of the orders in manufacturing in the EU-27 (EU-27 industrial orders)
- The year-on-year changes of the Dutch goods exports
- The year-on-year changes of Dutch household consumption

The indicators about the European Union (production and orders) give an indication of the major export market for the Dutch manufacturing industry. Three quarters of all Dutch exports go to Europe.

These six indicators were selected because in combination they show developments in the Netherlands and the major European markets, and among producers and consumers. These six selected indicators as a whole are strongly correlated with the development of the production volume of manufacturing in the Netherlands.

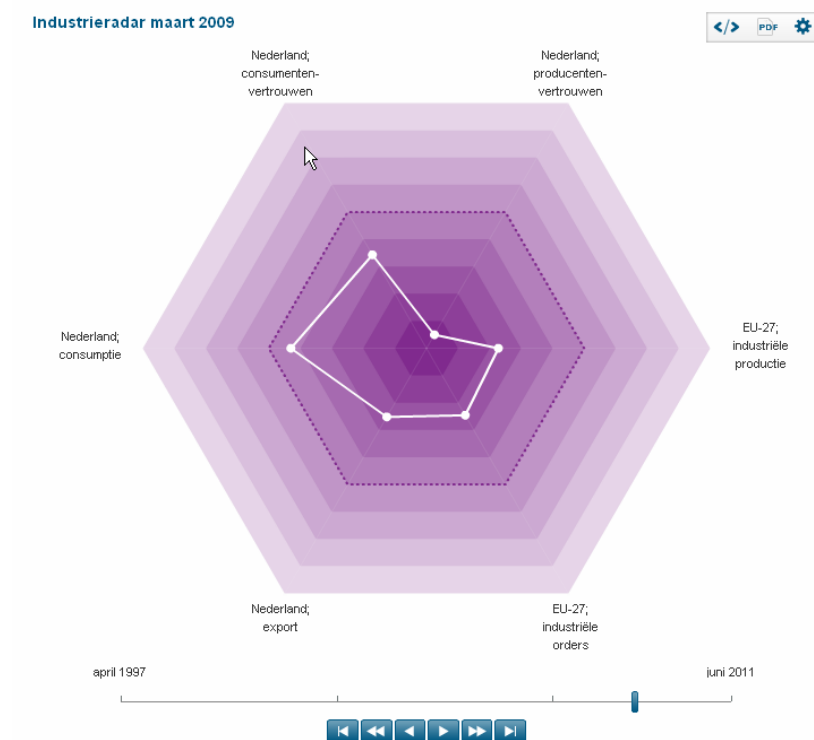
The Manufacturing Industry Radar describes a given reporting period and the circumstances at a given moment. Any adjustments in an underlying indicator do not necessarily lead to adjustments in how the production at a given moment is shown (as the snapshot is taken), but they do provide a different picture at a later date.

## *How it works and what it shows*

The Manufacturing Industry Radar presents the selected indicators in a hexagonal diagram, with each indicator in a corner (figure 1). For each indicator a normalised value is calculated which determines how far from the zero line the indicator is located. The zero line represents the average value for each indicator for the period since January 1997 or earlier if the data are available for the variable. The longest series are on the European production, producer and consumer confidence (since 1985).

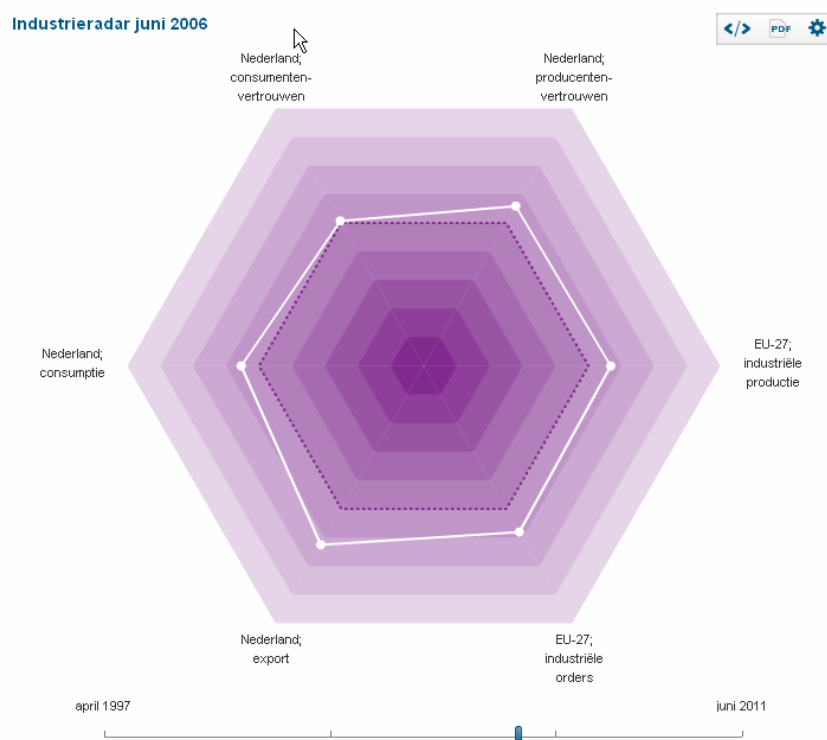
A normalised value above zero means that this indicator has a **more favourable value than average**. If the value is below zero, the indicator has a **less favourable value than average**. In the radar, the zero line is marked as a dark dotted line. The figure is divided into bands coloured from dark to light purple. The darker the band in which the indicator is located, the less favourable circumstances are for industrial production. Users can see at a glance which indicators show a positive picture and which a more unfavourable picture. By moving the slide on the time bar, which runs from February 1997 to today, users can select previous

months as well. This makes it possible to see whether circumstances for the Dutch manufacturing industry have become more, or less favourable and which factors were significant in these developments.



**Figure 1 Manufacturing Industry Radar for March 2009**

Figure 1 shows the Manufacturing Industry Radar for March 2009. All normalised values were significantly below zero. This indicates that the circumstances for the Dutch industrial production were extremely unfavourable in March 2009. In more favourable circumstances most indicators would be beyond the zero line. By moving the slide on the time bar users can see if circumstances improved or deteriorated compared to the previous month.



**Figure 2 Manufacturing Industry Radar for June 2006**

Figure 2 shows the Radar for June 2006. The circumstances were decidedly more favourable than in March 2009. All normalised values were greater than zero.

It should be mentioned that the values of the indicators in the radar do not necessarily refer to the same month. The Manufacturing Industry Radar is published once a month. It is consistently updated with the most recent figures, and shows the picture of that particular moment. In the radar for March 2009 the figures on consumer and producer confidence refer to February 2009 whereas the other figures refer to December 2008. There are new data available each month on all statistics. A tool tip shows the reference period.

The tool tip also indicates whether the indicator concerned has improved or deteriorated compared with the previous month.

Another tool tip indicates the source of the figures. Statistics Netherlands is not always the source of the data. The data about the EU-27 are published by Eurostat, the statistical bureau of the European Union.

### ***Calculating the normalised values***

To calculate the normalised values in the Manufacturing Industry Radar, first the long-term average is subtracted from the original value. Subsequently the difference is divided by the standard deviation. As a formula this reads:

Normalised value = (Original value – long-term average / (standard deviation).

The long-term average is the average value since January 1997 to December 2010. The same is true for the standard deviation.