



THE NATURAL STEP'S COMMENTARY ON VINYLPLUS PROGRESS REPORT FOR 2018

The Natural Step (TNS) acts as an external advisor, stakeholder intermediary and capacity builder to VinylPlus. The writing of commentary coincides with the 20-year milestone of our work within the chemical industry, and with PVC in particular. With just a few years remaining in the current VinylPlus commitment period it provides a moment for reflection on where the industry has come from, current progress and important reminders in preparing future steps beyond 2020.

What have we learned?

In 1999, at the request of retailers in the United Kingdom under pressure from Greenpeace about their use of PVC, The Natural Step was asked to bring stakeholders to the table to analyse the challenges and opportunities for PVC. Could the material play a role in a sustainable society, and if so, what challenges would need to be solved? The conclusion from the process was that all materials have their strengths and challenges to be sustainably managed and that the PVC industry in Europe would need to tackle a set of key challenges – those now incorporated into the VinylPlus commitment. By using scientific principles, it has been possible to clearly define challenges, set goals to address them and work toward a common vision.

Solid progress, year on year

Despite some stakeholders continuing to have concerns about PVC, VinylPlus is clearly succeeding in providing direction and leadership to address them. We observe a shift in awareness within industry, good recognition and improved perceptions by important stakeholders and solid year on year progress reported against multiple targets. Notable achievements during 2018 include progress on recycling volumes, verified PVC products appearing on the market (VinylPlus® Product Label), outreach and engagement with other parts of the PVC, plastics and chemical industries and work to assess additives in the context of the circular economy, something we have contributed to directly.

New targets on recycling

VinylPlus commitment to plastic industry circularity programmes and announcements of recycling targets beyond 2020 are also welcomed. For the first time these include an absolute percentage of waste targeted for recycling. This is something we view as important in helping stakeholders understand progress. Nevertheless, we have also noted to VinylPlus management that the commitments should be bolder given the learning and investment in a common platform over the years. When demand for recycled rigid PVC is high, as noted in this progress report, this already suggests that there is scope for increasing recycling rates. The real sustainability goal is still controlled-loop PVC management.

Sustainability as a driver of innovation

The role of a voluntary sustainability commitment is to go beyond what is required by law but 'doing more than what's asked' misses the point. The vision, a desire to achieve it and recognition of the necessity and benefits of doing so should energize the change. One topic we have raised with VinylPlus is working to ensure all parts of the industry are really using sustainability to drive innovation. The progress report gives an overall picture of activities at industry level but how well do

individual companies internalize knowledge about sustainable PVC management when making decisions about product development, for example? We would like to hear more about that and believe that VinylPlus could investigate this more. For example, through evaluating the company-level impact of the product label, benchmarking company practices, outcomes from the assessment of additives etc.

How much progress is enough?

The pace of change in industry and society is far too slow given what we know about sustainability. This needs to be remembered when discussing the progress being made year on year. The reality is that business models are still largely based on the linear economy, the majority of PVC waste is still not being recycled, regulators and industry continue to struggle with how to manage legacy additives and the climate is changing faster than even leading scientists expected. We therefore encourage VinylPlus to make all efforts to increase the sense of urgency in tackling the key challenges for PVC. We will keep reinforcing that 2020 is not the finish line, but a milestone on the longer sustainability journey.

Changing context and the global situation for PVC

The circular economy, Paris Accord and the UN Sustainable Development Goals are further evidence that the context for VinylPlus is changing. Pressure to act will continue to mount. Ultimate success must be to future-proof the industry at a rate that meets stakeholder expectations, demonstrating where and how PVC serves societal needs better than alternatives. Therefore, we recommend that VinylPlus begin the process of consulting stakeholders on where the industry needs to go next, including how to address bottlenecks and speed up progress. With PVC production now mostly in Asia, it will be important that progress in Europe is also expanded. Global standards are clearly needed if different levels of PVC sustainability performance are to be recognized. This should be an important priority for industry and policy-makers in Europe from a competitiveness perspective, and it is critical for overall progress toward sustainability.

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Stockholm, February 2019



APPENDIX

CHALLENGES

1

CONTROLLED-LOOP MANAGEMENT:

"We will work towards the more efficient use and control of PVC throughout its life cycle."

TARGETS

1. Recycle 800,000 tonnes/year of PVC by 2020.
> **ongoing**

2

ORGANOCHLORINE EMISSIONS:

"We will help to ensure that persistent organic compounds do not accumulate in nature and that other emissions are reduced."

TARGETS

1. Engage with external stakeholders in the discussion on organochlorine emissions during 2012.
> **achieved**

3

SUSTAINABLE USE OF ADDITIVES:

"We will review the use of PVC additives and move towards more sustainable additive systems."

TARGETS

1. Lead (Pb) replacement in the EU-27 by end 2015 (extended to the EU-28 in 2014).
> **achieved**

4

SUSTAINABLE USE OF ENERGY AND RAW MATERIALS:

"We will help to minimise climate impacts through reducing energy and raw material use, potentially endeavouring to switch to renewable sources and promoting sustainable innovation."

TARGETS

1. Establish Energy Efficiency Task Force by end 2011. > **achieved**
2. PVC resin producers to reduce their specific energy consumption, targeting 20% by 2020. > **ongoing**

5

SUSTAINABILITY AWARENESS:

"We will continue to build sustainability awareness across the value chain – including stakeholders inside and outside the industry – to accelerate resolving our sustainability challenges."

TARGETS

1. VinylPlus web portal to go online in summer 2011.
> **achieved**
2. VinylPlus Monitoring Committee, which will meet a minimum of twice a year, will be established by end 2011.
> **achieved + ongoing**
3. A VinylPlus Membership Certificate will be launched end 2011.
> **achieved**

⁵⁹ Even though this target has had to be withdrawn (see p.12 of VinylPlus Progress Report 2017), VinylPlus will continue to pursue efforts to find technically and economically viable solutions for difficult-to-recycle PVC waste

⁶⁰ Converters are striving to increase their energy efficiency. However, due to the complexity and variety of operations in the converting sectors, an overall target would be meaningless, as would targets for many of the subsectors

⁶¹ Even though this target was not achieved in 2013, VinylPlus continued to work on increasing the number of programme participants. It will continue to do so in the future too

VINYLPLUS VOLUNTARY COMMITMENT TARGETS

2. Exact definitions and reporting concept to be available by end 2011.
> achieved

3. Develop and exploit innovative technology to recycle 100,000 tonnes/year of difficult-to-recycle PVC material (within the overall 800,000 tonnes/year recycling target) by 2020.
> withdrawn⁵⁹

4. Address the issue of 'legacy additives' and deliver a status report within each annual VinylPlus Progress Report.
> ongoing

2. Develop a plan to deal with stakeholder concerns on organochlorine emissions by end 2012.
> achieved

3. Compliance with the PVC resin Industry Charters by first Quarter 2012.
> partially achieved
 3.a. Achieve full compliance by 2020.

4. Risk assessment for the transportation of major raw materials, in particular VCM, by end 2013.
> achieved in 2015

5. Target zero-accident rate with VCM release during transportation in the next 10 years.
> ongoing

2. Robust criteria for the 'sustainable use of additives' to be developed, with status report by end 2012.
> achieved in 2014

3. Validation of the robust criteria for the 'sustainable use of additives' in conjunction with the downstream value chain, with status report by end 2014. **> partially achieved**
 3.a. Develop a methodology for the sustainable choice of additives for profiles. **> achieved**
 3.b. Develop a methodology for the sustainable choice of additives for flexible applications. **> ongoing**
 3.c. Develop a systematic framework methodology, taking into account the EU PEF concept. **> achieved**

4. Other PVC additive producers and the downstream value chain will be invited to participate in the 'sustainable additives' initiative.
> ongoing

3. Define targets for specific energy reduction for converters by end 2012.
> partially achieved⁶⁰
 3.a. PVC converters will report their gains in energy efficiency year on year. **> ongoing**

4. Energy Efficiency Task Force to recommend suitable environmental footprint measurement by end 2014.
> delayed (waiting for the EU PEF pilot phase results)

5. Establish Renewable Materials Task Force by end first Quarter 2012.
> achieved

6. Renewable Materials Task Force's status report by end 2012.
> achieved + extended
 6.a. Updated status report by the end of 2020.

4. A public, and independently audited, VinylPlus Progress Report will be published annually and proactively promoted to key stakeholders. With the first edition being published in 2012.
> achieved + ongoing

6. A VinylPlus product label will be launched by end 2012.
> launch achieved in 2014; implementation ongoing

8. ESPA stabiliser producers will actively promote VinylPlus outside the EU-28.
> ongoing

11. A review of progress towards the globalisation of the approach will be undertaken by end 2015.
> achieved

5. Annual external stakeholder meetings will be organised, commencing in 2012.
> achieved + ongoing

7. ECVM will take an active role in promoting VinylPlus within international PVC industry organisations worldwide.
> ongoing

9. VinylPlus will increase the number of programme participants by 20% compared to 2010 by end 2013. **> not achieved⁶¹**

12. A Social dialogue commitment endorsed by the EU Sectoral Social Dialogue Committee for the Chemical Industry will be included in the VinylPlus programme by the end of 2016.
> achieved + ongoing

10. VinylPlus will engage with five global brand holders by end 2013.
> partially achieved + ongoing