POSITION PAPER

Brussels, 30 June 2020

Orgalim calls for an impact assessment and a delay of implementation of ECHA SCIP database

The upcoming Waste Framework Directive SCIP database deadline of 5 January 2021 should be delayed by at least one year to allow the European Commission to undertake an impact assessment of the database to ensure that its implementation will be workable, proportionate and will contribute to a circular economy

Europe's technology industries, represented by Orgalim, are major downstream users and article manufacturers under the REACH Regulation 1907/2006/EC.

Our industries are fully committed to reducing the content of hazardous substances in their products to support a more circular economy and achieve sustainability goals. A meaningful exchange of information between partners in the value chain focusing on Substances of Very High Concern will improve recycling and therefore contribute to a circular economy. When looking at legislation to achieve these goals, our industries believe that any proposal should be evaluated on the basis of its demonstrable improvements for the environment.

One example of new legal requirements is the Waste Framework Directive (WFD) 2018/851 and its Article 9. This sets out a requirement for the European Chemicals Agency (ECHA) to establish and maintain a database for the submission of information by suppliers of an article pursuant to Article 33(1) of REACH Regulation. Our industry is strongly affected by this new requirement, and Orgalim is actively contributing to the development of this SCIP database - the database for information on Substances of Concern In articles as such or in complex objects (Products) established under WFD - by providing regular feedback and input to the European Commission and ECHA to help them improve the database. Since February 2018, we have on several occasions expressed our serious concerns regarding the workability, proportionality and added value of this database.

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On 23 April 2020 Orgalim sent a letter to President von der Leyen concerning the Commission's work in 2020 in light of Covid-19 in which **we called on the Commission to delay by at least one year the upcoming Waste Framework Directive SCIP database deadline of 5 January 2021:** for suppliers of articles to provide the information pursuant to Article 33(1) of REACH Regulation - **to allow the Commission to do an impact assessment of the database,** and for all the reasons explained hereafter.

Executive summary

1. Because of the lack of prior impact assessment, we call on the Commission to conduct an evaluation and impact assessment of the current SCIP database to verify whether the objectives of Article 9 of the Waste Framework Directive can be achieved. To date, the possible benefits that data from this database could bring to waste operators, consumers and authorities versus the implementation and administration required in the complete supply chain have not been demonstrated.

2. We question the workability and the proportionality of the database. The deadline of 5 January 2021 is unrealistic and should be delayed.

3. The current SCIP database information requirements exceed REACH Article 33(1) legal obligations. Only the information legally required by REACH Article 33(1) should be requested on a mandatory basis.

4. The majority of waste treatment operators are expressing serious doubts about the usefulness of the SCIP database. It is unlikely to contribute to a circular economy if waste treatment operators will not use it. The impact assessment should evaluate the effectiveness and added value of the database for waste treatment operators to ensure that the significant efforts and costs facing article suppliers will be worth it.

5. Practical points related to operating the SCIP database:
    - Data should be processed automatically, existing standards should be recognised and alternative reporting formats should be included.
    - The protection of European Intellectual Property Rights regarding confidential business information on products is crucial for the competitiveness of European companies and must be guaranteed.
    - Fair competition and a level playing field must be ensured between EU-produced and imported articles.
    - The implementation of the Waste Framework Directive must be harmonised and done within the legal framework.
    - ECHA needs more resources to develop and maintain the SCIP database.

6. This paper also outlines examples of possible alternative proposals to meet the objectives of the WFD Article 9 to improve the provision of information related to Substances of Very High Concern and therefore the circular economy.

Orgalim calls for an impact assessment and a delay in implementation of the ECHA SCIP database

The upcoming Waste Framework Directive SCIP database deadline of 5 January 2021 should be delayed by at least one year to allow the European Commission to undertake an impact assessment of the database to ensure that its implementation will be workable, proportionate and will contribute to a circular economy

Our comments and recommendations in more detail:

1. **Because of the lack of a prior impact assessment, we call on the Commission to conduct such an evaluation and impact assessment of the current SCIP database to verify whether the objectives of Article 9 of the Waste Framework Directive can be achieved. To date, the possible benefits that data from this database could bring to waste operators, consumers and authorities versus the implementation and administration required in the complete supply chain have not been demonstrated.**

   The proposal for such a complex database, which was added to the draft revised Waste Framework Directive in the very last phase of the trialogue, has not been subject to any prior consultation, feasibility study or impact assessment. It is therefore not in line with the Better Regulation principles.We expect that the implementation of the database in its current design will represent an extreme burden for companies, with very limited benefit. The economic consequences both in terms of human resources to be dedicated to it and in terms of the IT developments to be implemented *(see our estimated data in Annex I)* seem to us to be totally disproportionate compared to the **expected benefits, which have not yet been assessed.** In particular, **the environmental benefits of the database and the benefits for waste treatment operators and consumers have not been demonstrated**. Therefore, we strongly recommend the Commission to do an impact assessment to evaluate whether the objectives of Article 9 are achieved in the most efficient and effective way via the use of this database containing all candidate list substances and for all products.
   A proper impact assessment must cover the whole value chain: from the creation of parts and Substances of Very High Concern (SVHC) information on an entity producing a detailed part, through higher levels of suppliers and OEMs, to the different end users of the information (waste treatment operators, consumers and authorities). An impact assessment must also contain a detailed analysis of how the actual linking and copying of these vast amounts of data will work in practice over the lifecycle of the products. Finally, the assessment must include a legal analysis to make sure that the solution does not contradict other European laws and regulations e.g. intellectual property rights and reporting obligations of information sensitive to stock markets etc.

2. **We question the workability and the proportionality of the database. The deadline of 5 January 2021 is unrealistic and should be delayed.**

   The upcoming deadline of 5 January 2021 for suppliers of articles to provide the information pursuant to Article 33(1) of REACH Regulation to ECHA **has been extremely challenging from the start** considering that the information requirements go beyond the legal requirements, the complexity involved, and the number of articles and complex articles to be included. In addition, ECHA is still developing the database - which is now expected to be available end of October 2020. It will be extremely challenging for companies to adapt their information systems to the new requirements of the SCIP database.

   The existing REACH Article 33(1) obligations are already very difficult for companies to implement. This is why the **new SCIP database obligations, which exceed by far the legal requirements** of REACH Article 33(1) – see details in below point 3 - **will be even more difficult** for companies to implement.

- Existing REACH Article 33(1) obligations are already very difficult for companies to implement since the Judgement of the European Court of Justice (ECJ) related to case C-106/14 of 10th September 2015 which ruled that the given concentration threshold of 0.1% does not apply any more to the entire complex or very complex object. but to each article included in the complex or very complex object. We recall that the objective of REACH Article 33 is to allow the safe use of articles. Sub-articles (components) of complex products are often deeply integrated, assembled or joined together into the final article with no exposure under reasonable and foreseeable conditions of use. To allow for safe use, it is therefore in our view not necessary to require a complete breakdown of a complex article into all of its components (*see an example in Annex III*).
- According to a recent ECHA enforcement project report on substances in articles from November 2019, companies are facing very serious difficulties in complying with their current REACH Article 33(1) obligations. Indeed, the outcome of this ECHA project is that 88% of inspected article suppliers are failing to communicate sufficient information to their customers about SVHCs in products they supply. In other words, only 12% of inspected article suppliers were complying with the existing REACH Article 33 obligations.
- The communication of material data along the supply chain is challenging and onerous because of the reliability, completeness and quality of data, especially from exporters based in non-EU countries. The technology industries manufacture complex products and their supply chains are also complex, global and involving numerous parties. Often there is more than one supplier for a given item. Current REACH Article 33(1) obligations already pose major challenges to companies with global supply chains and require great effort to gather the necessary information from suppliers outside the European Economic Area. As the SCIP database requires the communication of information that far exceeds the information requirements pursuant to REACH Article 33(1), such information is currently not available in the supply chain, not stored in in-house systems, and not communicated.
- **In conclusion**, with the publication of Article 9 WFD it was assumed that companies could use the data they were already gathering to comply with REACH Article 33(1). However, as demonstrated above, most companies are still at the beginning of the process to comply with REACH Article 33(1). **Uploading data in the current version of the SCIP database will require much more than a simple "copy-paste" exercise**, as the current SCIP database information requirements exceed REACH Article 33(1) legal obligations (see point 3 below).

The database is still under development, some major issues (such as grouping and hierarchy) are still under analysis by ECHA, and the release is planned for end of October 2020. This timeline is not realistically compatible with the time needed to develop and modify IT systems and to plan the corresponding investments.

Finally, we would like to point out that the current exceptional **Covid-19** economic crisis is imposing very serious budget and resources constraints for companies. The vast majority of them are being forced to immediately deal with this crisis, resulting in loss of turnover, customers, suppliers, etc.

For all the above reasons, the **majority of companies will not be ready on 5 January 2021** to comply with their new legal obligations arising from the Waste Framework Directive.

3. The current SCIP database information requirements exceed REACH Article 33(1) legal obligations. Only the information legally required by REACH Article 33(1) should be requested on a mandatory basis.

Article 9.1 of the revised Waste Framework Directive refers to REACH Article 33(1) as a basis for data submission. The communication duties for suppliers and importers defined in REACH Article 33(1) include the substance name (SVHC) in the REACH Candidate List and information on the safe use of the product (if necessary). According to the "Detailed information requirements for the SCIP database" published by ECHA in September 2019, **far more data than legally required are mandatory in the submission.**

In addition, Article 9.1a of the revised Waste Framework Directive stipulates that "*ECHA shall provide access to that database to waste treatment operators. It shall also provide access to that database to consumers upon request*." This raises the issue of legal compatibility with the REACH Regulation because according to Article 33(2) of REACH, any supplier of an article containing SVHCs shall provide the consumer with "*sufficient information only on request by a consumer*". Can ECHA take over the role of the supplier and make this information available to consumers? Can ECHA act on behalf of the supplier to fulfill the requirements of Article 33(2)? Will additional requests to the supplier by the consumer still be necessary?

We strongly recommend that only the information legally required by REACH Article 33(1) must be requested on a mandatory basis. Other information should be requested on an optional basis and contribute to the goals of the WFD Article 9 objectives based on an impact assessment.
You will find our recommendations in Annex II of this Position Paper.

4. The majority of waste treatment operators are expressing serious doubts about the effectiveness of the SCIP database. This database is unlikely to contribute to a circular economy if waste treatment operators will not use it. The impact assessment should evaluate the effectiveness and added value of the database for waste treatment operators to ensure that the significant efforts and costs of article suppliers will be worth it.

We recall that the information in the SCIP database aims to help waste operators improve waste management practices and promote the use of waste as a resource.

However, according to a recent joint EuRIC-Plastics Recyclers Europe Technical Paper on the SCIP Database dated 20 February 2020:

- "*The design of the SCIP database…is far from representing the perfect solution to improve information between producers and recyclers in a fully circular economy.*
- *Two main issues have been identified that hinder the usability of this SCIP database:*
    - *The database does not address the question of legacy substances, which is the one most problematic issue for the recycling industry,*
    - *The article-based design of the database is unlikely to fit the technical and economic constraints of the recycling industry,*
    - *Therefore,* ***EuRIC and Plastics Recyclers Europe express their doubts about the effectiveness of the SCIP database in its current design. If ECHA wants to make it valuable, a proper interface between the database and the operator would be needed, for instance through an appropriate level of data aggregation***".

In addition, the SCIP database demands entries for all products marketed within the European Economic Area in all variations, regardless of quantity or complexity, and on all substances on the REACH Candidate List. However, processes at waste management facilities follow different patterns. For components, complex appliances (electrical appliances in particular), and very complex machinery, the waste flow is far from homogenous. It is often not possible to correlate them with specific substances, materials, and Substances of Very High Concern. In accordance with the WEEE Directive, electronic waste is handled separately by specialised recyclers, and manufacturers already provide the information demanded in Article 15 of the WEEE Directive (e.g. via the I4R platform). During the recycling process, only specific components (such as batteries, for example) are removed manually, before the remaining parts pass through certain sorting and treatment processes. In complex electronic devices such as electronic boards, SVHCs are often present in very small quantities in tiny parts of the article. Detailed information on these microscopic parts (article category, material category) is useless to the recycler, since the presence of an SVHC would usually not affect the final, often metallurgic treatment process. It is impossible to separate the sub-components (resistors, capacitors, etc) since they are firmly soldered. Waste operators therefore cannot use the information at all.

5. Practical points related to operating the SCIP database:

- **Data should be processed automatically, existing standards should be recognised and alternative reporting formats should be included.**

  ECHA has delivered its database under great time pressure and with a very small budget. As a result, the requirements of producers and importers have only been taken into account to a limited extent. ECHA currently only has the IUCLID v6 data exchange electronic format for uploading article notification with system-to-system communication. In this format, ECHA requires more information than is legally required under Article 33 of the REACH Regulation (as explained in point 3 above). Our industry is very concerned by the following two issues:

  1. The existing standards and systems to comply with REACH Article 33 communication obligations *(IEC 62474 (Material Declaration for Products of and for the Electrotechnical Industry) and IPC 1752A (Data Exchange Standards*)) are not recognised for the SCIP database. The SCIP database will need an interface to automatically upload the existing information from existing standards. To avoid duplication, we consider it extremely important that information/datasets from existing standards and systems can be easily transferred into the database. Therefore, it is important to investigate the compatibility of the database with existing standards and common practices/systems.
  2. The additional mandatory data required by the SCIP database do not exist today in companies because they are beyond EU REACH Article 33. This will result in companies having to change their ICT and data collection processes from suppliers to get these data which will cause more delays and add huge additional costs to upgrade their ICT systems.

  The result of existing standards not being recognised, and additional mandatory data, is that companies and entire sectors that work with differing ICT formats and standards must therefore either pay additional costs or upload information manually. All the costs saved by ECHA are thus shifted to companies, resulting in a larger total expenditure. These costs are ultimately passed on to users of the products and to the European taxpayer. We believe that the Commission should enable ECHA to set up the database in such a way as to avoid manual entries for companies that already have an ICT system. We call for more investment in a business-friendly database.

- **The protection of European Intellectual Property Rights regarding confidential business information on products is crucial for the competitiveness of our European companies and must be guaranteed.**

  In our opinion, ECHA has so far not managed to set up a sound safety concept to protect business data in implementing the SCIP database, e.g. with regard to the disclosure of supply chain information or to protect against identity theft. There are valid and unrefuted concerns that the correlation of article data to 'Complex Objects' (finished products) as well as article names and quantities carry the risk of state-of-the-art data-analysis technology being used to draw inferences about sensitive business information. The protection of business data and competition-relevant information must be ensured. We call on ECHA to put all measures in place to protect the Intellectual Property Rights of European companies.

- **Fair competition and a level playing field must be ensured between EU-produced and imported articles.**

  To ensure a level playing field between EU produced and imported articles, we strongly recommend that articles imported directly by consumers, for example through online web shops from non-EU countries (such as for example Amazon, Alibaba, etc.), should be included in the new database, with strong enforcement of this requirement.

- **The implementation of the Waste Framework Directive must be harmonised and carried out within the legal framework.**

  The Waste Framework Directive (WFD) needs to be transposed by the Member States and we see a high risk that Member State transposition of the WFD will be fragmented. This will lead to different obligations being imposed on producers depending on the country in which their products are placed on the market. Furthermore, ECHA recently stated that "*Any deviations will not be able to be accommodated technically by the ECHA systems and would also distort the level-playing field for industry across the EU*."

  Due to the pan-European activities of the technology industries, we call on the Member States to implement the information requirements in Articles 9.1 and 9.2 of the Waste Framework Directive in the national legislation in a harmonised way. Any deviations in implementing these Articles between Member States would create a non-level playing field.

  In addition, the implementation must only take place within the legal framework provided by Article 33(1) of REACH and Articles 9.1 and 9.2 of the Waste Framework Directive. *You will find our recommendations in Annex II of this document*. Also it should be clarified in a harmonised manner what level and quality of documentation from a supplier is sufficient for an article assembler to be compliant.

- **ECHA needs more resources to develop and maintain the SCIP database.**

  ECHA has developed the SCIP database under great time pressure and with a very small budget. We call on the Commission to allocate additional resources and budget to ECHA to enable them to adequately develop and maintain the SCIP database. The delays in development result in less time for companies to test the prototype version, making it very difficult to be ready to comply with the new obligations.

6. This document outlines examples of possible alternative proposals to meet the objectives of the WFD Article 9 to improve the provision of information related to Substances of Very High Concern (SVHC) and therefore contribute to a better circular economy.

- **Improvement proposal 1: start with combinations of SVHC substances and waste streams that cause problems in recycling and use a phased approach.**

  The SCIP database collects information on all products made and imported in Europe and their SVHC substances with a concentration of 0.1% w/w or higher. It concerns millions of products and their sub-components, and currently more than two hundred substances (REACH Candidate List for Authorisation). This combination will lead to the largest-ever European database. Despite the presence of SVHC substances with percentages above 0.1%, most products will not cause a problem in the waste phase but must be included in the database. Ideally, the Commission and ECHA should come up with an harmonised framework for specifying lists of substances. Part of that framework may be to ask companies in the waste and recycling sector to compile and prioritize SVHC substances that are problematic. After that, one could analyse from which products these SVHC substances stem, and then only include these products in a database. The list can then be expanded, based on the success that has been achieved in daily waste practice. In this way, the database aligns with the manner in which businesses operate.

- **Improvement proposal 2: a mass-based approach.**

  Waste companies cannot separate all substances (including SVHC substances) from all products that are present in very low concentrations. Waste companies receive large mixed waste streams with a wide range of different products that are processed mechanically as much as possible. It is doubtful whether individual products can be identified in, for example, construction and demolition waste, electrical and electronic equipment or household residual waste. Waste companies are focused on adding value to waste streams and turning them into usable raw materials that meet all legal requirements, but also customer specifications. It is therefore sensible to focus on those

products containing SVHC substances that can make the greatest contribution to recycling in terms of weight percentage in the waste phase and the intended environmental benefits. After all, the recycling of 10 products with SVHC substances in percentages of 10% or higher yields more environmental gains than 1,000 products with 0.10% SVHC substances. If products are processed in incinerators, including those products is of no benefit at all. Therefore, we suggest taking a mass-based approach, through which demonstrable environmental gains can be achieved at the lowest possible price. If necessary, a step-by-step tightening of the weight limit over a longer period of time can be introduced. This mass-based approach will some take time to be implemented.

- **Improvement proposal 3: facilitate prevention and substitution of SVHC substances.**

  Companies add SVHC substances to products because they are necessary. For example, a fire retardant is included in a printed circuit board to increase product safety. Ideally, the use of SVHC substances in products would be avoided altogether. Many problems associated with SVHC substances that are now being discovered at the waste stage and subsequently related to the use of SVHC substances, are the result of decisions that were sometimes made decades ago based on the knowledge and practices of the time. Therefore, prevention and substitution of the use of SVHC substances should be encouraged. Producers and importers cannot do this alone. They do not know whether or not their product is causing a problem in the waste phase. Companies will implement substitution if the customer is willing to pay the costs, even if the project is unsuccessful. That is why cooperation is required between companies, research centres and waste and recycling companies. Substitution makes a direct contribution to the environment and also makes European industry more innovative and competitive. It makes sense to facilitate the prevention and substitution of SVHC substances through European innovation programs.

Conclusions

The implementation of the database in its current design will represent an extreme burden for companies. The economic consequences both in terms of human resources to be dedicated to it and in terms of the IT developments to be implemented by the companies (*see details in Annex I)* are disproportionate compared to the **expected benefits, which have not yet been assessed.** Indeed, this complex database was added to the Waste Framework Directive (WFD) in the very last phase of the trialogue without any prior impact assessment to check whether the objectives of the WFD Article 9 would be achieved. In particular, the **environmental benefits of the database and the benefits for waste treatment operators and consumers have not been demonstrated.**

For all the above reasons, and as outlined in the Orgalim letter sent to President von der Leyen on 23 April concerning the Commission's work in 2020 in light of Covid-19, **we call on the Commission to delay the upcoming legislative Waste Framework Directive deadline of 5 January 2021 by at least one year, to allow the Commission to undertake an impact assessment on how to achieve in the most efficient and effective way the objectives of Waste Framework Directive Article 9.1(i) to prevent waste generation by promoting the reduction of the content of hazardous substances in materials and products.**

In addition, and **in parallel, we request the Commission to investigate whether our examples of possible alternative proposals could be helpful to meet the objectives of the WFD Article 9.**

ANNEX I
Estimation of quantitative data on the impacts of the SCIP database obligations for our industry sent to the European Commission DG ENVI & DG GROW on 27 April 2020

The below data are our best **estimate data** considering the very short time period given to us and the difficulty to have representative data (eg. differences between various industry sectors, between larger and smaller companies, between complex articles and more simple articles, between catalogue products and customized products, etc).

Orgalim response to QUESTION 1 - Number of envisaged notifications to be submitted (evaluation per company per year):

- **Estimate number of envisaged notifications to be submitted by SMEs: from 10.000 up to 25.000 notifications** per company for the first notification year
- **Estimate number of envisaged notifications to be submitted by large companies: from 30.000 up to 200.000 notifications*** per company for the first notification year

Notes: the number of notifications is increasing and depending on the level of complexity of articles and components (articles can have up to 10 levels of declaration) including the number of Substances of Very High Concern (SVHCs), the size of the companies (large companies have more experience in the field of « material compliance » and so are better able to assess the consequences expected with the SCIP database) as well as on how far the obligation to upload data extends for manufacturers beyond 1st tier supplier.
**One member Association reported up to 500 000 notifications.*

Orgalim response to QUESTION 2 - Requirements in terms of manpower (FTEs required)

- **Estimate manpower for SMEs: from 0.5 FTE up to 3 FTEs** per company for the first year of notification
- **Estimate manpower for large companies: from 5 FTEs up to 20 FTEs** per company for the first year of notification

Notes:

- The number of FTEs required is depending on the factors explained under above question 1 and also on the final information reporting requirements in the database which have not yet been finalized by ECHA.
- The number of FTEs required consists of persons needed for collecting, processing internally (allocation of the collected data to a product), uploading (manually or automatically) the data and also of persons from other departments (eg. sales, purchase, quality, management).

Orgalim response to QUESTION 3 - The costs that will be incurred (human resources + IT software, including to set up a link to ECHA's system-to-system service to submit notifications in an automated way) [EUR]

- **Estimate human resources costs** (per company per year for the first year of notification) which are based on the above estimate number of FTEs:
  - **Estimate costs for SMEs: from 80.000 EUR** (for 0.5 FTE) **up to 480.000 EUR** (for 3 FTEs)
  - **Estimate costs for large companies**: **from 800.000 EUR** (for 5 FTEs) up **to 3.2 million EUR** (for 20 FTEs)
- **Other costs** (per company per year for the first year of notification): **from 100.000 EUR up to 1 million EUR** depending on the level of complexity of the articles and components including the number of SVHCs, size of companies, final information reporting requirements, complexity of supply chains and last but not least IT systems/software already in place. Note that SME companies are often too small to have their own IT systems and staff with the right knowledge to make these notifications. Hence why, we expect SMEs to outsource this by hiring expensive consultants or choose to upload data manually. In addition, SMEs that will do less notifications compared to larger companies will still have a disadvantage because their notification costs are higher per notification. Furthermore, a notification from an SME will generally cover a smaller number or sold items for a given article. SMEs will thus have to make more notifications in proportion of their turnover than large companies.

ANNEX II
Recommendations on the information requirements
Additional information regarding point 3 above "*The current SCIP database information requirements exceed REACH Article 33(1) legal obligations*"

Assessment of the mandatory data fields as defined in the document entitled "Detailed information requirements for the SCIP database" without "Number of Units" and "Candidate List Version".

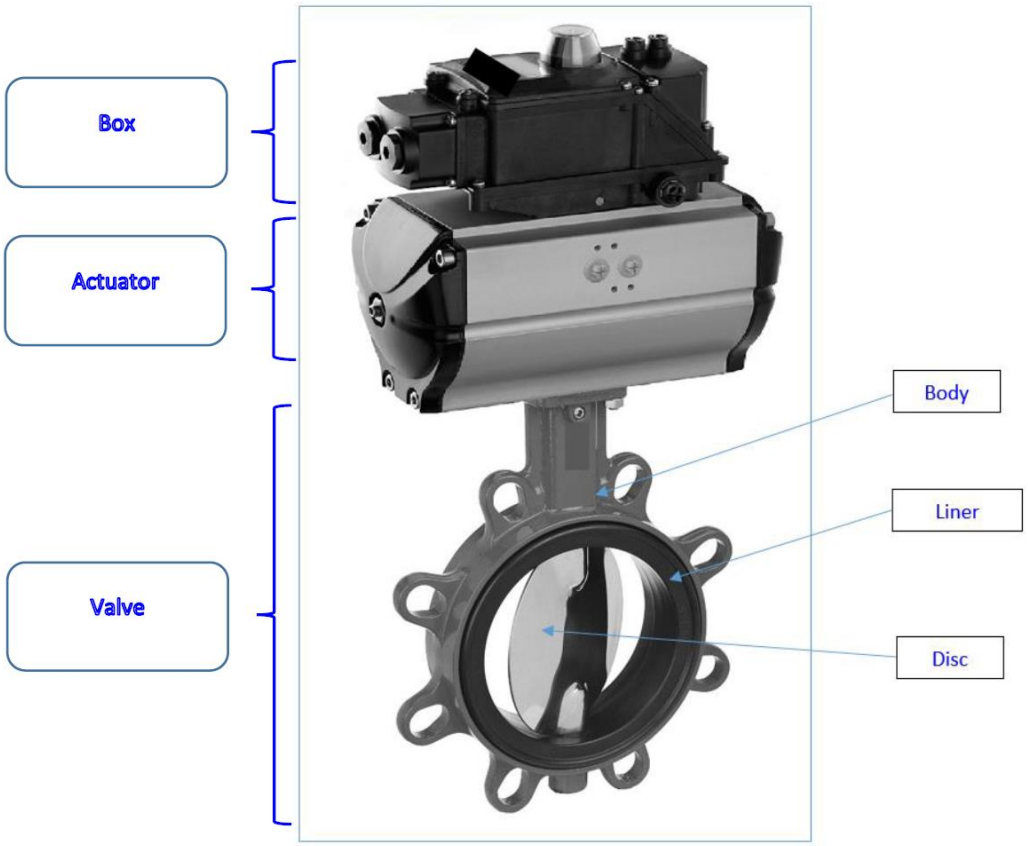
Information on Article and complex product		**Information on Concern Element and substance**	
Mandatory field	**Assessment**	**Mandatory field**	**Assessment**
Article Name	Relevant information under REACH art. 33 ONLY for top-level articles	Candidate Liste Substance	Relevant information under REACH art. 33
Primary Article Identifier	exceeds legal requirements	Concentration Range	exceeds legal requirements
Article Category	exceeds legal requirements	Material Category	exceeds legal requirements
Production in European Union	exceeds legal requirements	Mixture Category	exceeds legal requirements
Safe use instruction(s)	Relevant information under REACH art. 33 ONLY for top-level articles		
Linked Article	exceeds legal requirements		

ANNEX III
Description of a "configurable" complex product type from a European valve manufacturer in the butterfly valve range

Summary: for the valve manufacturer of the example below, this represents in practice **12,800 notifications** for the year 2019. For a manufacturer with 200 FTEs producing that product family and other standard products, this means additional 3.5 FTEs which will result indirectly in increasing the price of the product with no added value for the customer.

Description of a so-called "configurable" complex product type from an European valve manufacturer in the butterfly valve range

It is a complex product placed on the market which is composed of 3 products which are themselves complex; it is a valve actuated and controlled.



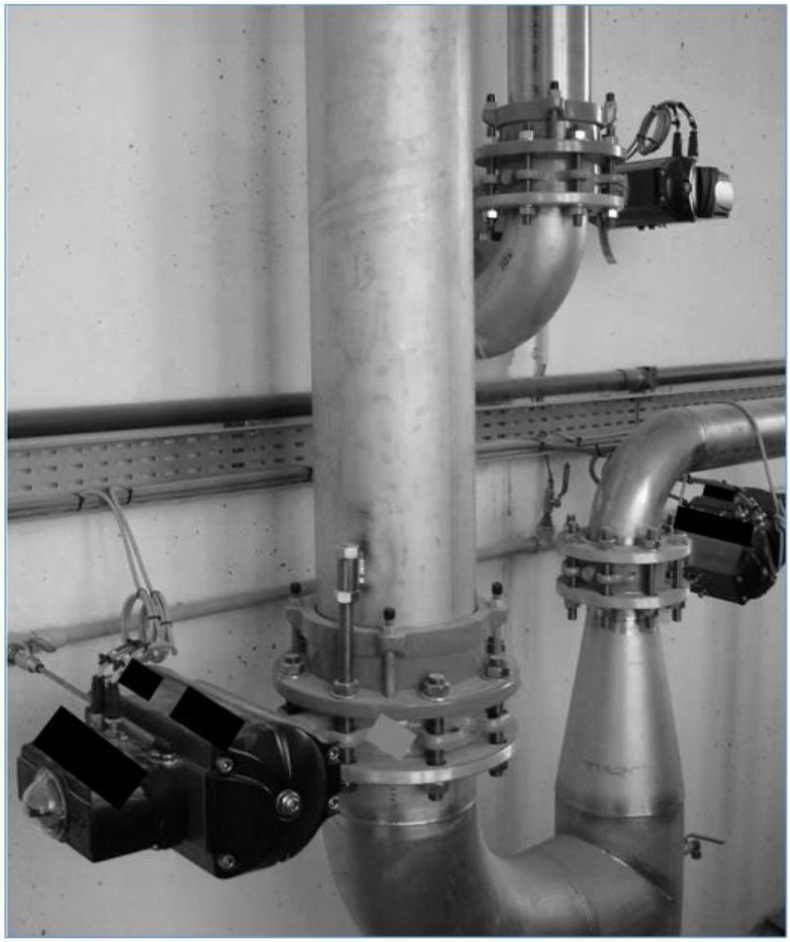
Picture 1

- **Valve :**
  - It is the valve,
  - This is the part that is directly mounted on the piping such as the example in picture 2,
  - This is a "butterfly" valve that allows the flow of fluid through the pipe to be blocked or not by rotating by a quarter turn the central disc (called the butterfly).

- **Actuator :**
  - It is an actuator,
  - In this case, it is a pneumatic actuator powered by compressed air,
  - It is in fact the engine that makes it possible to make a quarter turn the disc by the transmission on the valve shaft (it is a cylinder with 2 chambers and the injection of compressed air in one chamber or in the other makes it possible to open or close).

- **Box :**

- It is a control-command box,
- It allows the actuator to be controlled to direct compressed air into the correct actuator chamber to open or close the valve; it also allows the position of the rotating shaft to be detected and thus to inform and communicate the disc position.



Picture 2

Why is this product complex and said to be "configurable"?

- It is a product composed of 3 products,
- Each of these products is composed of about ten to several dozen articles,
  ⇨ They are therefore complex products,

- Many of these articles composing each part are available in several sizes or materials or in several shapes (see below),
- Each of the 3 products is therefore available in a very wide variety of different combinations,
- To constitute the product placed on the market, these combinations intersect between the variants of the 3 products and therefore allow a multitude of different variants of the piloted actuated valve and it is impossible to simply identify each variant with a permanent code; for example, a single size (diameter) of valve (blue part only) can be sold to more than 200 different variants over one year,

⇨ The company has therefore chosen to manage the manufacturing and marketing of this family of valves thanks to a product (and nomenclature) configurator that allows the product to be "built" by choosing each option for each customer order. This is why we speak of a configurable product whose multiple possible versions cannot appear in a catalogue presenting them one by one. The entire product organization (design and production) is based on this configurator

Details of possible variants (see details in product booklets)

Valve :

- Dimensions: 22 diameters,
- Body: 7 variants (material + shape),
- Butterfly: 15 variants,
- Shaft: 2 variants,
- Pressure ranges: 2 variants,
- Liner (rubber seal): 13 variants,
- Other variants (finish, actuator type, Atex directive, etc.).

Actuator :

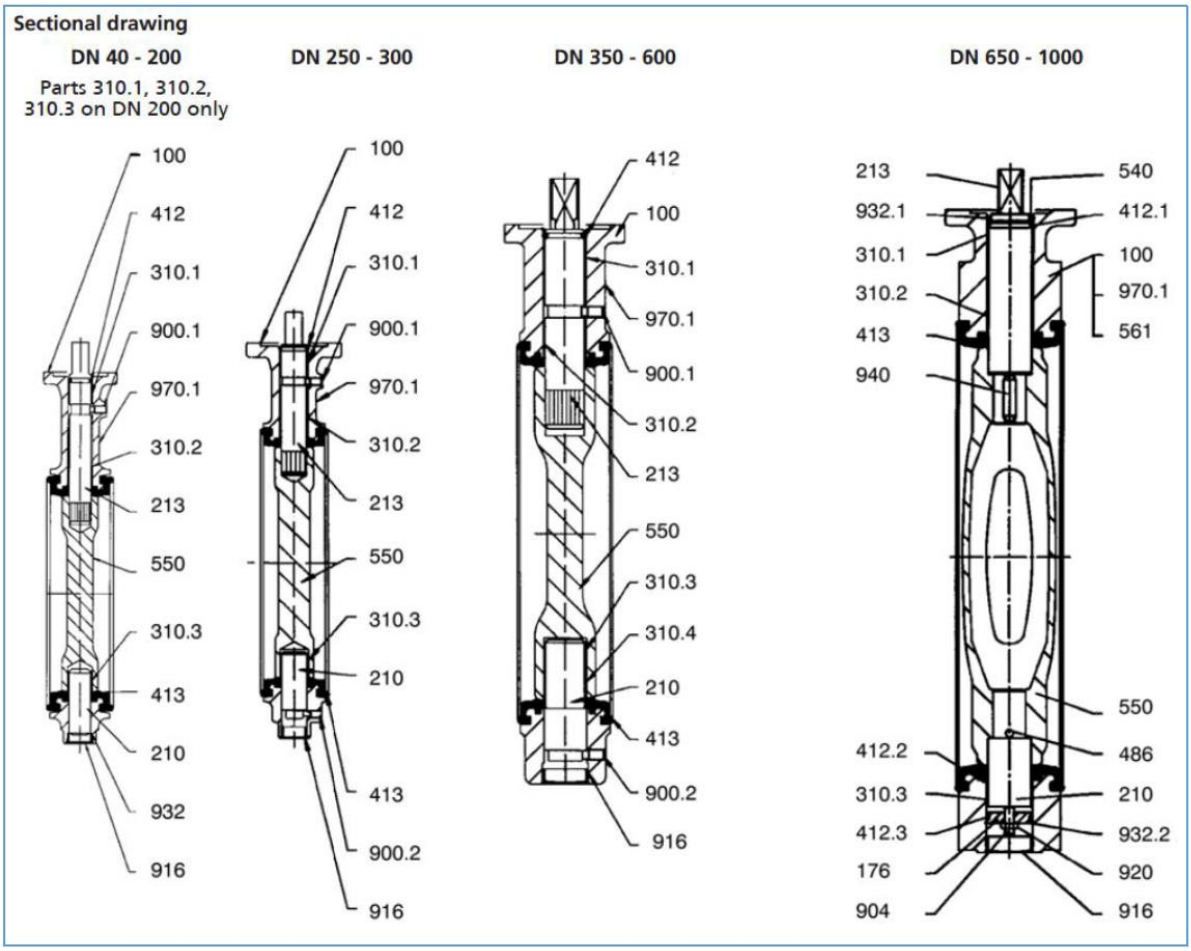
- Dimensions: 11 sizes (power),
- Actuation type: 2 variants (double acting or single acting),
- Temperature ranges: 3 variants (seal materials),
- Other variants (visual indicator, connection, positioner,...).

Control-command box:

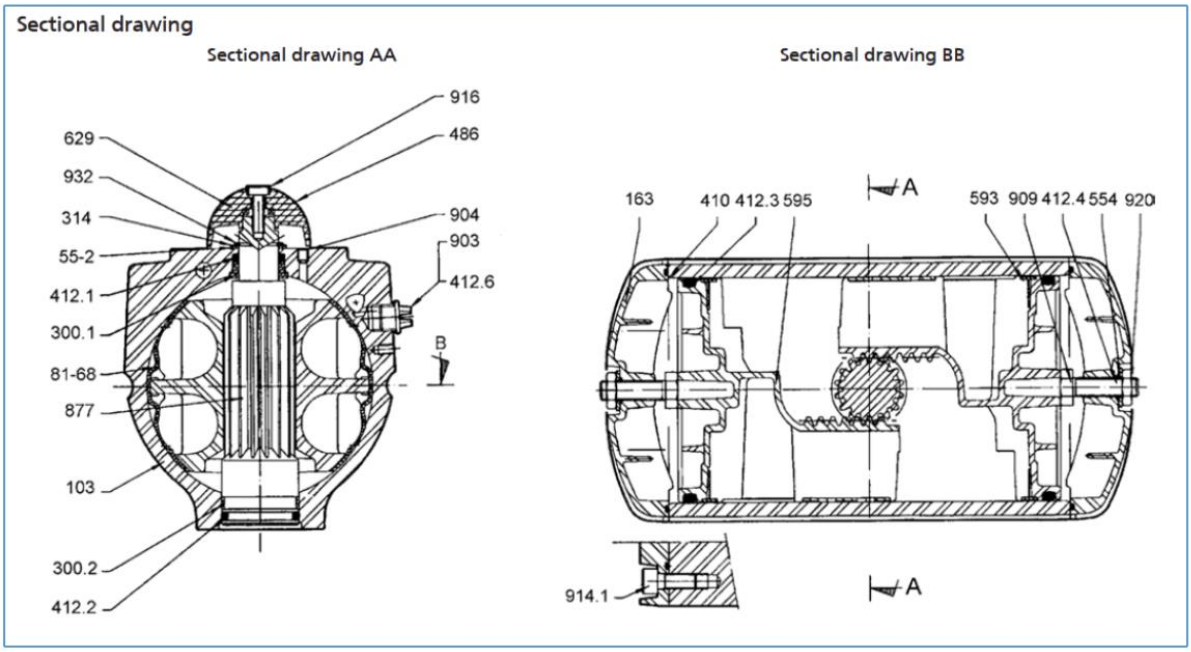
- Sensors: 27 variants,
- Indicator: 4 variants,
- Position feedback: 4 variants,
- Electrical connection: 3 variants,
- Solenoid valve: 3 variants,
- Power supply: 5 variants,
- Actuator type: 13 variants,
- Security lock configuration: 4 variants,
- Fieldbus: 4 variants,
- Heating resistance: 3 variants.

All these variants generate multiple configurations of the finished product.

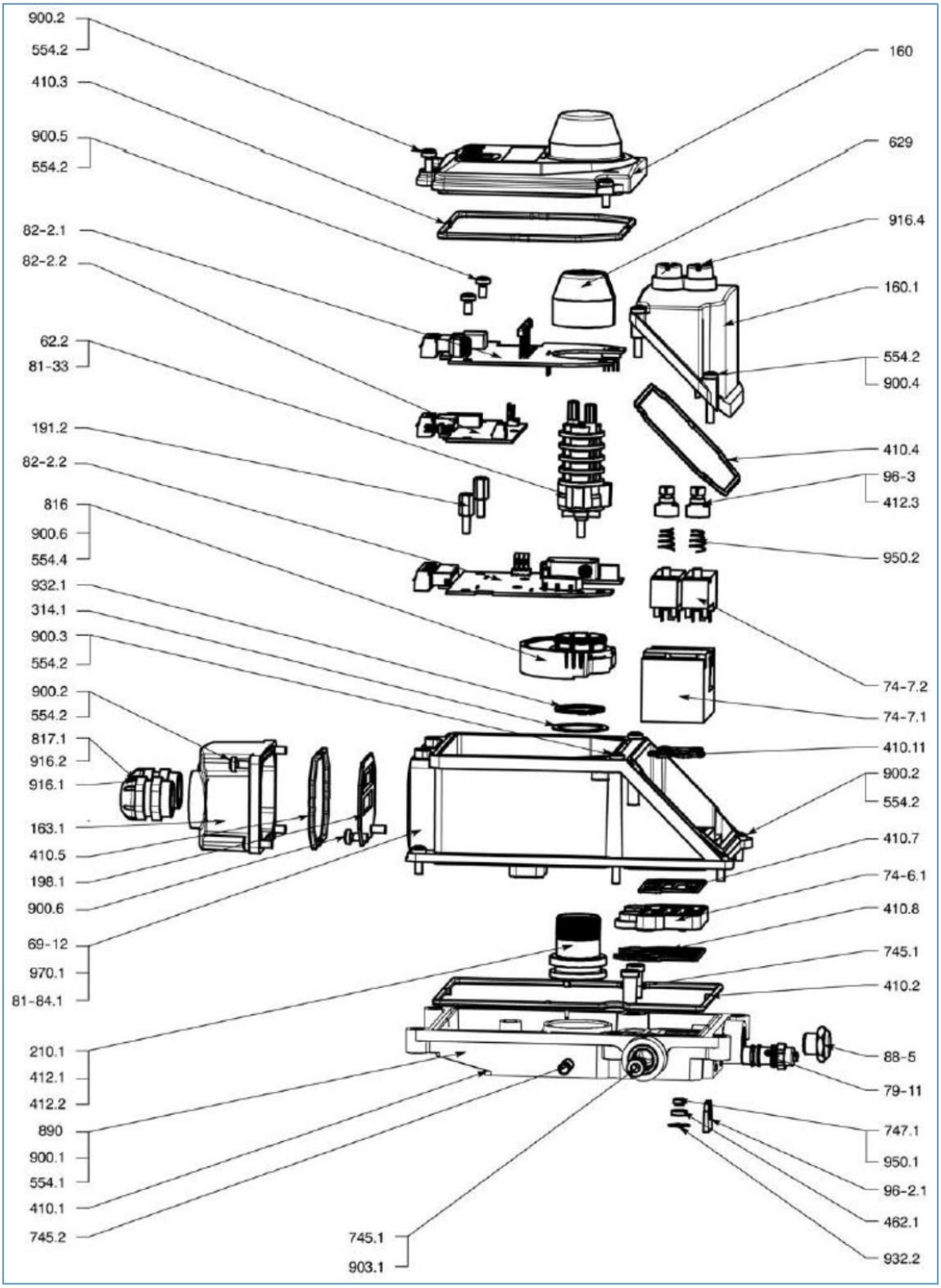
Constructions :



Valve



Actuator


900.2
554.2
410.3
900.5
554.2
82-2.1
82-2.2
62.2
81-33
191.2
82-2.2
816
900.6
554.4
932.1
314.1
900.3
554.2
900.2
554.2
817.1
916.2
916.1
163.1
410.5
198.1
900.6
69-12
970.1
81-84.1
210.1
412.1
412.2
890
900.1
554.1
410.1
745.2
745.1
903.1
160
629
916.4
160.1
554.2
900.4
410.4
96-3
412.3
950.2
74-7.2
74-7.1
410.11
900.2
554.2
410.7
74-6.1
410.8
745.1
410.2
88-5
79-11
747.1
950.1
96-2.1
462.1
932.2

Box

Based on the above example, here is a **calculation of the amount of theoretically possible variants for this configurable product.**

We draw your attention to how quickly the amount of potential SCIP notifications rises when SVHCs are supposed to be reported at the lowest level inside a complex object, and when all product variants sold are supposed to be reported.

Assuming that :

- SVHCs are contained at the lowest level inside the complex product (e.g. inside the rubber seal in the valve, or the sensors or PCB of the control box)
- The SCIP notifications need to be structured down to the lowest level
- All product variants sold need a separate product notification

And assuming that all variants are possible:

- Valve : amount of variants = 7 x 15 x 2 x2 x 13 = more than 5000 variants
- Actuator : amount of variants = 11 x 2 x 3 = 66 variants
- Box : amount of variants = 27 x 4 x 4 x 3 x 3 x 5 x 13 x 4 x 4 x 3 = more than 12 million variants

Complete product: 10^12 (ten to the power of twelve) **variants that could require a SCIP notification.**This is just the amount of variants **theoretically** possible. **In practice, in this case the amount of SCIP notifications can be assumed to be close to the amount of items actually sold in one year. For the valve manufacturer of the above example, this represents in practice 12 800 notifications for the year 2019 which is a very high number of notifications.** For a manufacturer with 200 FTEs producing that product family and other standard products, this means additional 3,5 FTEs which will result indirectly in increasing the price of the product with no added value for the customer.

Calculation basis:
General combinatorics rule: to calculate the total number of variants, multiply the amount of variants of the separate parts with each other.