

# Vision 2025: Läkemedel i miljön är inte längre ett problem

*BLOCK 1: Tillverkning "Perspektiv läkemedelsindustri"*

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# Hållbarhet – genom hela läkemedelskedjan

t.ex. grön kemi, klimatprogram, (avlopps)vatten- och avfallsprogram, gröna förpackningar, åtgärder i leverantörskedjan.

**SYFTE:** Det piller som tillverkas ska vara så grönt som möjligt



t.ex. klimat/avfall/vatten etc. men även program gällande prevention och livsstilsförändringar, följsamhet, läkemedelsgenomgångar, orsaker till överblivna läkemedel etc.

**SYFTE:** Pillret som tillverkas ska vara så grönt som möjligt för att skapa patientnytta

Utan att negativt påverka patientnytta och medicinsk effekt



Hur når vi en långsiktigt hållbar användning av läkemedel

... och vad betyder det egentligen?

# ”Grön kemi”

[Home](#) | [Projects & results](#) | [Project Factsheets](#) | CHEM21

[f](#) [t](#) [in](#)

## CHEM21

Chemical manufacturing methods for the 21st century pharmaceutical industries

*Ongoing | IMI1 | [Environmental aspects](#), [Manufacturing technologies](#)*


### Summary

The CHEM21 project plans to generate a range of methods to make the drug development process more environmentally friendly. What's more, as well as being good for the planet, the methods developed by CHEM21 will also help the pharmaceutical industry to cut costs, resulting in cheaper medicines for patients. [➤](#)

### Achievements & News

**CHEM21 makes big contributions to green manufacturing for the pharmaceutical industry**  
*December 2017*

The processes and chemicals used in drug production are often toxic, expensive and produce a lot of waste – posing a threat to the environment and the sustainability of the industry. In response, IMI's [CHEM21 project](#) has developed new manufacturing processes for the pharmaceuticals industry to **reduce the use of expensive and toxic materials**. It has also developed new, more environmentally friendly methods that save time and costs, while reducing waste. [➤](#)



### FACTS & FIGURES

|                        |                   |
|------------------------|-------------------|
| Start Date             | 01/10/2012        |
| End Date               | 30/06/2017        |
| Call                   | IMI1 - Call 4     |
| Grant agreement number | 115360            |
| <b>Contributions</b>   | <b>€</b>          |
| IMI Funding            | 9 829 638         |
| EFPIA in kind          | 13 871 772        |
| Other                  | 3 009 396         |
| <b>Total Cost</b>      | <b>26 710 806</b> |

### PROJECT LINKS

**Project website**  
[www.chem21.eu](http://www.chem21.eu)

# “Klimatprogram”

## EFPIA White Paper on Climate Change

The pharmaceutical industry is committed to making a positive impact on the lives of patients while operating sustainably and therefore wants to contribute to a healthy environment and demonstrate leadership in doing what's necessary to prevent climate disruption. The driving motivation of the pharmaceutical industry is to improve human health and wellbeing. We all need to ensure that the impact of climate change on health is better understood so that we can form and execute our response by understanding the interface between people, health and the environment. We are committed to contribute responsibly to progress in regard to science-based CO<sub>2</sub>e reduction targets.

This White Paper highlights the commitment made by the EFPIA companies to:

- Establish climate change policies/strategies based on materiality and impact for individual companies;
- Develop actions that support science-based CO<sub>2</sub>e reduction targets;
- Contribute to increased energy efficiency and aim to use more energy from renewable sources;
- Strive to harmonize GHG reporting based on recognized calculation methodologies and publicly disclose CO<sub>2</sub>e performance.



EFPIA White Paper on Climate Change

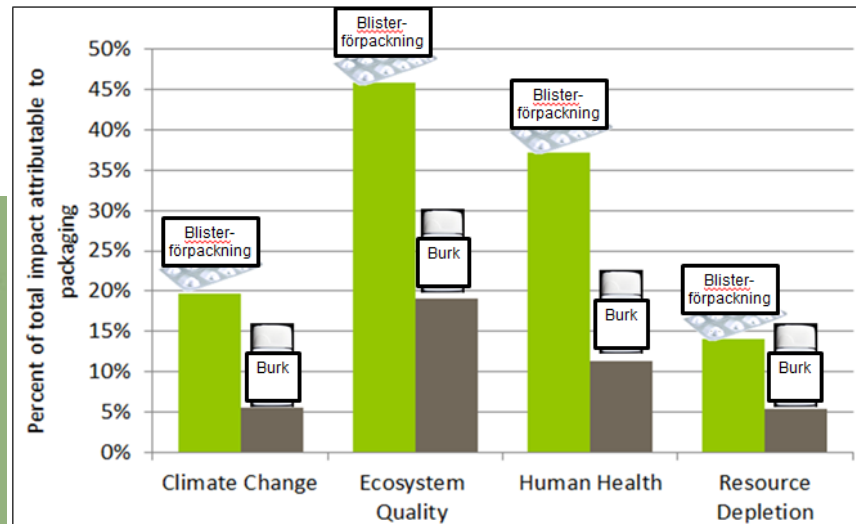


# ”Gröna förpackningar”



Alvedon®. Filmdragerad tablett 500 mg

Väljer du Alvedon 500 mg filmdragerade tabletter, så st du bidrar du till en bättre utveckling i läkemedelsförpackningen, som bidrar till att du får en snabb återhämtning med största möjliga säkerhet. Genom att byta till polypropylenplast sparar vi över 4 ton aluminium per år vilket motsvarar en aluminiumbitar med ett värde av hela 10 miljard kronor! Även när du väljer en grön förpackning bidrar du till ett stort miljönyttande.



# ”Vatten, avfall, åtgärder i leverantörskedjan”



# ”Vatten, avfall, åtgärder i leverantörskedjan”

## - stor press på industrin att agera -

### Some recent developments

1. Mistra Pharma - Swedish research initiative briefs Parliament, makes 10 policy proposals for managing PIE
2. Sum of Us – Activist group issued report on Antimicrobial resistance report including concerns for Chinese pharmaceutical suppliers' practices
3. Nordea - The largest Nordic financial services firm expresses concerns with water pollution in India from pharmaceutical suppliers
4. SAICM - UNEP consultation opens on persistent pharmaceuticals as a new emerging global issue.
5. EU Commission - Roadmap for a Strategic Approach to Pharmaceuticals in the Environment

1. **MISTRA** The Swedish Foundation for Strategic Environmental Research. Recommendations for Improving Environmental Risk Assessment of Pharmaceuticals. MISTRAPHARMA POLICY BRIEF.

2. **Sum Of Us** + Bad Factories & their Customers. Risk Medicine. A world map showing supply chains and environmental risks.

3. **Nordea** Pharmaceutical pollution in India is bitter pill for Nordea. A photo of a person wearing a mask with the text: "This is a poor example of water pollution for seen at a long time."

4. **saicm** Fourth session of the International Conference on Chemicals Management (ICCM) Geneva, Switzerland, 18 September - 2 October 2015. A photo of a chemical plant with the text: "SAICM: Antimicrobial resistance & PHARMACEUTICALS".

5. **European Commission** ROADMAP. A logo of the European Commission.

# “Vatten, avfall, åtgärder i leverantörskedjan”

- *Industry Roadmap for Progress on AMR* -

## Industry Roadmap for Progress on Combating Antimicrobial Resistance – September 2016

The Davos Declaration\* signed by >100 companies and trade associations in January 2016, called for collective action to create a sustainable and predictable market for antibiotics†, vaccines and diagnostics, that enhances conservation for new and existing treatments. It also called for coordinated action to improve prevention of infections, hygiene, stewardship and conservation measures.

As a group of leading companies supporting the Davos Declaration, we welcome the continued high level political focus on Antimicrobial Resistance (AMR), including discussions at the UN, WHO, G7, G20, the AMR Review team’s Final Report as well as regional and national debate. This work has established an ambitious, comprehensive agenda for the world and challenges each key stakeholder group to act and contribute to managing the threat of resistance.

### Signatory Companies





# ”Vatten, avfall, åtgärder i leverantörskedjan”

*- The Industry Roadmap for Progress on AMR, examples of environmental commitments -*

1) We support measures to reduce environmental impact from production of antibiotics, and will:

- i. Review our own manufacturing and supply chains to assess good practice in controlling releases of antibiotics into the environment.
- ii. Establish a common framework for managing antibiotic discharge, building on existing work such as PSCI, and start to apply it across our own manufacturing and supply chain by 2018.
- iii. Work with stakeholders to develop a practical mechanism to transparently demonstrate that our supply chains meet the standards in the framework.
- iv. Work with independent technical experts to establish science-driven, risk-based targets for discharge concentrations for antibiotics and good practice methods to reduce environmental impact of manufacturing discharges, by 2020.

# "Vatten, avfall, åtgärder i leverantörskedjan"

- PSCI, Pharmaceutical Supply Chain Initiative -

The screenshot shows the PSCI website homepage. At the top, there is a navigation bar with links for 'about us', 'what we do', 'resources', 'contact', and a 'log in' button. The main content area features a large image of a tunnel opening to a sunset. Below this image are three news snippets: 'PSCI runs another successful supplier conference in China', 'PSCI members meet at Johnson & Johnson for the Annual General Meeting', and 'PSCI helps suppliers manage APIs in manufacturing effluent'. A sidebar on the right titled 'Latest on Twitter' displays several tweets from PSCI. At the bottom, there is a 'KEY RESOURCES' section with three links: 'PSCI Audit Guidance', 'Guidance For Implementing The Principles', and 'The Principles'.



# ”Vatten, avfall, åtgärder i leverantörskedjan”

- *EPS, Eco-Pharmaco-Stewardship* -

- Ett gemensamt program från den europeiska läkemedelsindustrin (AESGP, EFPIA, MfE) för att minimera negativ miljöpåverkan från läkemedel i miljön

## ***EPS – Eco-Pharmaco-Stewardship***

Webinar on EPS: <https://www.youtube.com/watch?v=0azJDhcFIDg>

# Vision 2025: Läkemedel i miljön är inte längre ett problem

## Och hur når vi då dit...

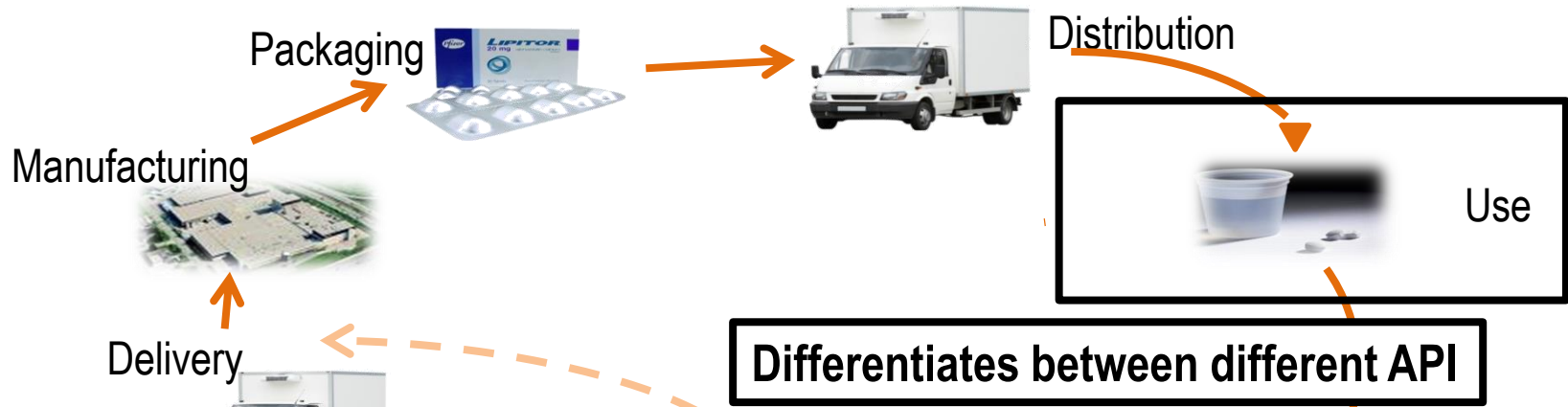
- Ha regelverk och andra drivkrafter ("piska och morötter") på plats genom hela kedjan

*Miljökrav i GMP (med de risker och problem det har), eller kanske ett GEP*

- *Miljökrav i upphandling*
- *Gröna incitament inom generiska systemet*
- *Gröna val inom egenvårdssortimentet*

***Behov av en miljöbedömningsmodell för läkemedelsprodukter***

# Environmental Assessment of Pharmaceutical Substances

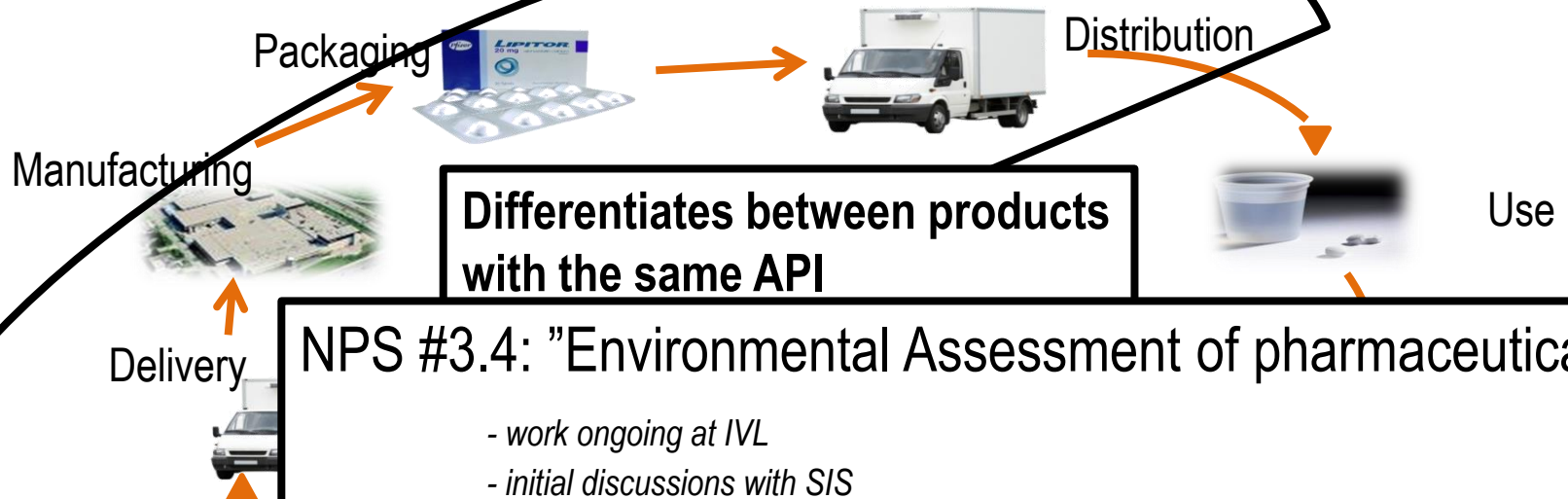


**Data published on Fass.se since 2005**

Raw Materials

Recycling

# Environmental Assessment of Pharmaceutical Products



**LIF long-term ambition: The basis for green incentives in the generic substitution system**