



Consorci de Salut i
Social de Catalunya

Incorporació de la política de sostenibilitat en la gestió del medicament: Consideracions ambientals en els processos de compra pública

Josep Maria Guiu Segura

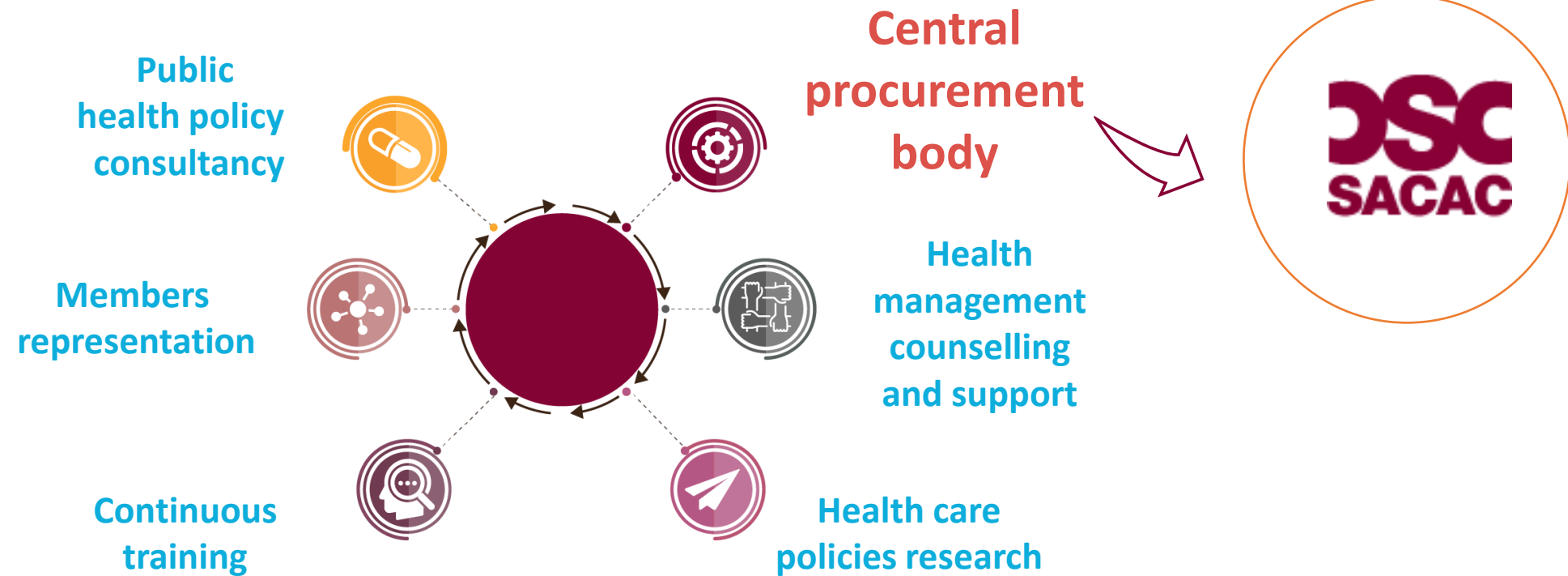
Consorti de Salut i Social de Catalunya

The Consorci de Salut i Social de Catalunya (CSC) is a local public entity with an associative base, founded in 1983 and composed of organizations providing healthcare and social services.

All CSC members are public entities and/or non-profit private organizations.



Consorti de Salut i Social de Catalunya Services



Tender volume

Activity (2023)

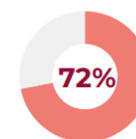


317

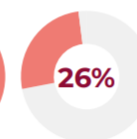
expedients tramitats
per un volum total de
1.682.216.012,61 €

54

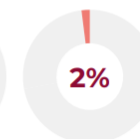
expedients tramitats com
a central de contractació
per un volum total de
1.497.691.207,66 euros



farmàcia



producte
sanitari



producte
no sanitari

Activity (2024)



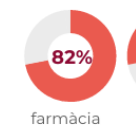
384

expedients tramitats
per un volum total de
1.181.140.887,80 €

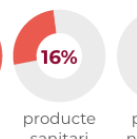


50

expedients tramitats com
a central de contractació
per un volum total de
986.002.543,09 euros



farmàcia



producte
sanitari



producte
no sanitari

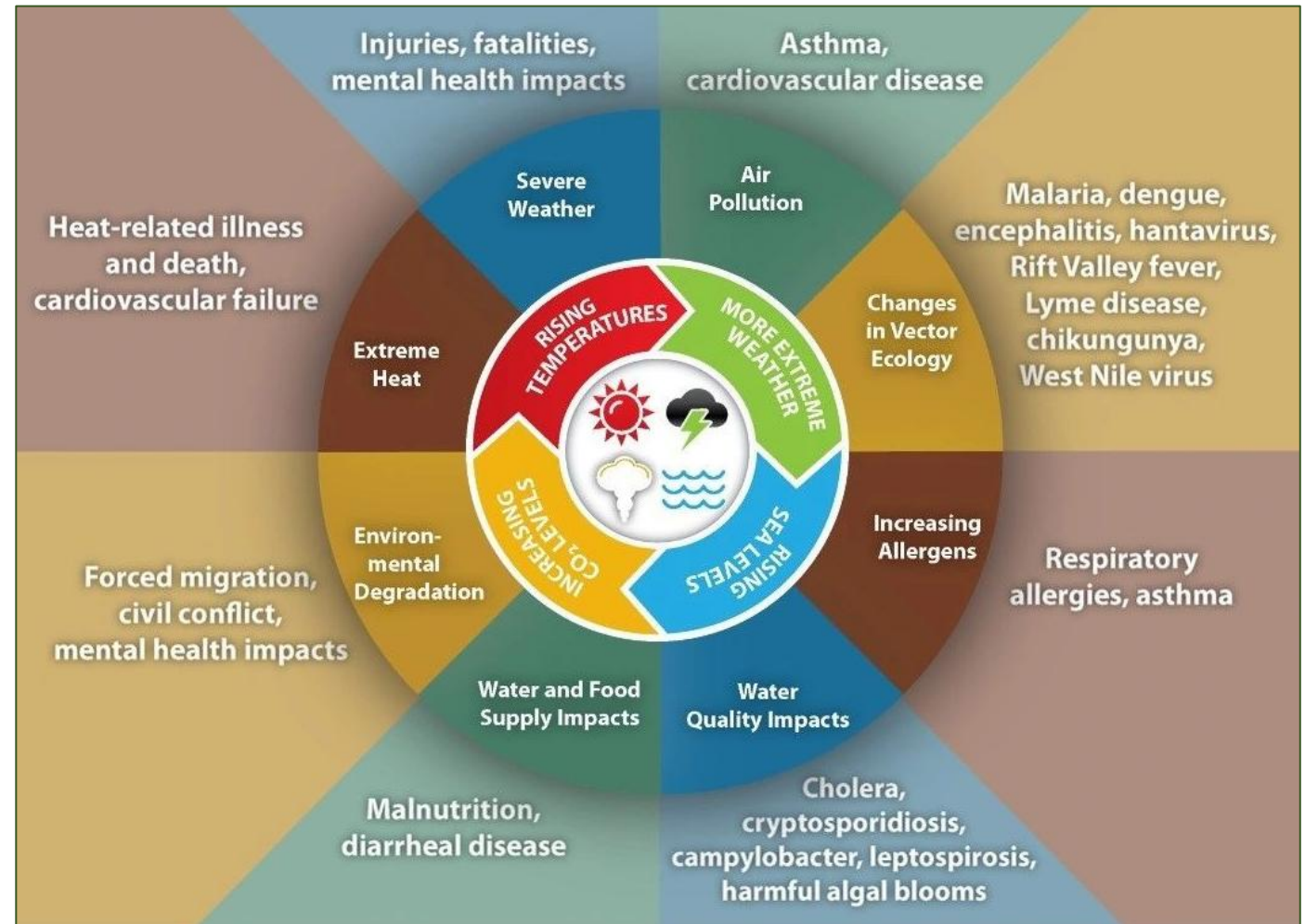


55

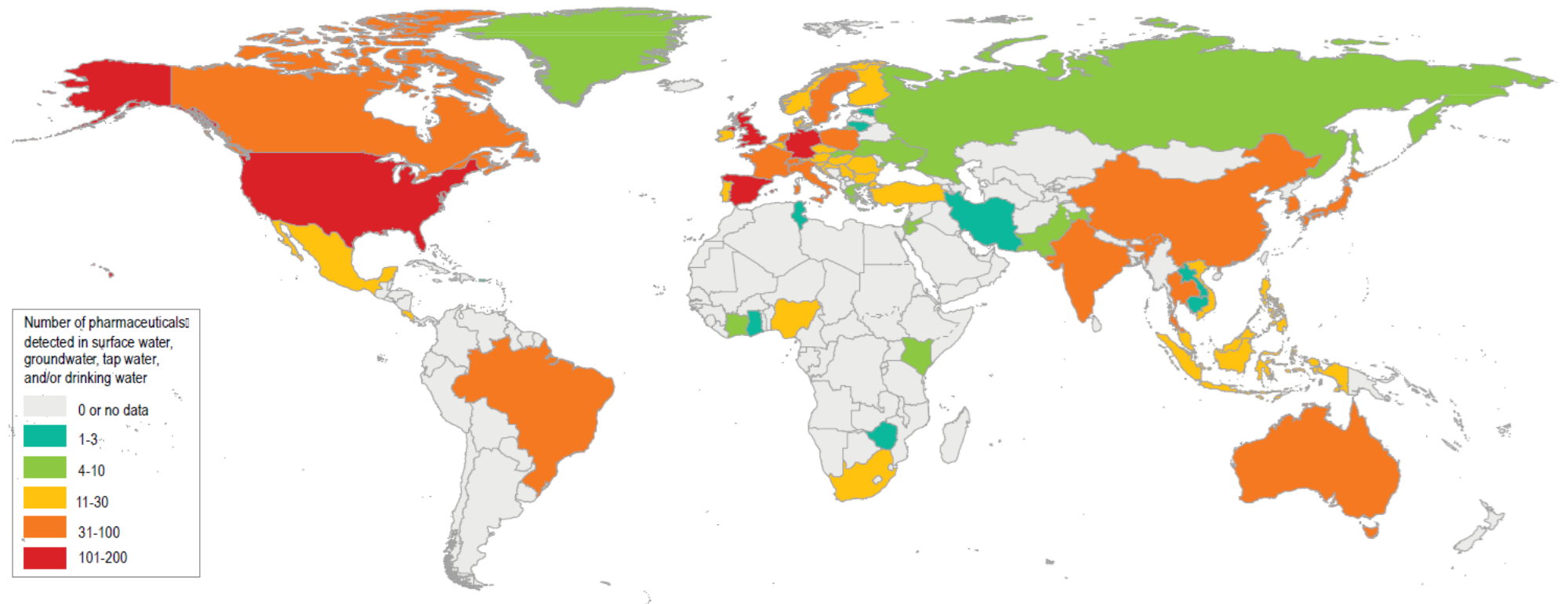
contractes
menors

Impact of Climate Change on Human Health

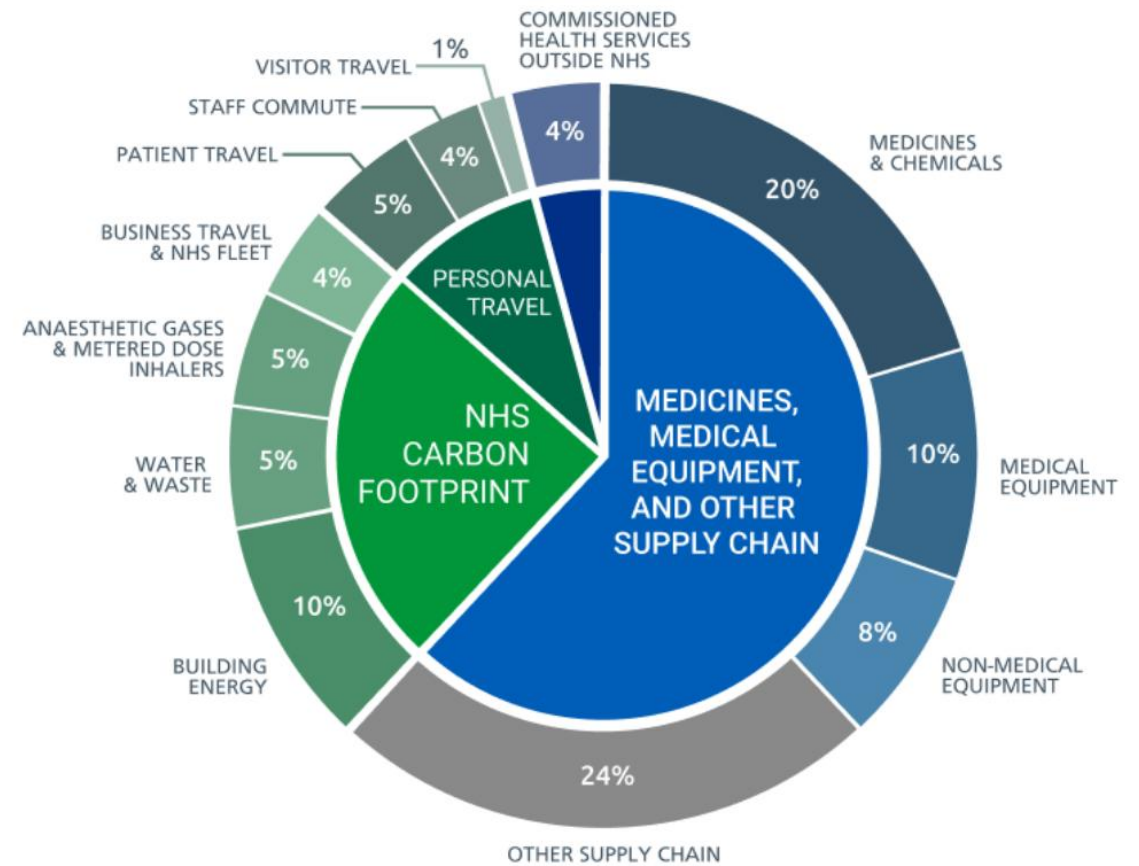
Climate change impacts a wide range of health outcomes.



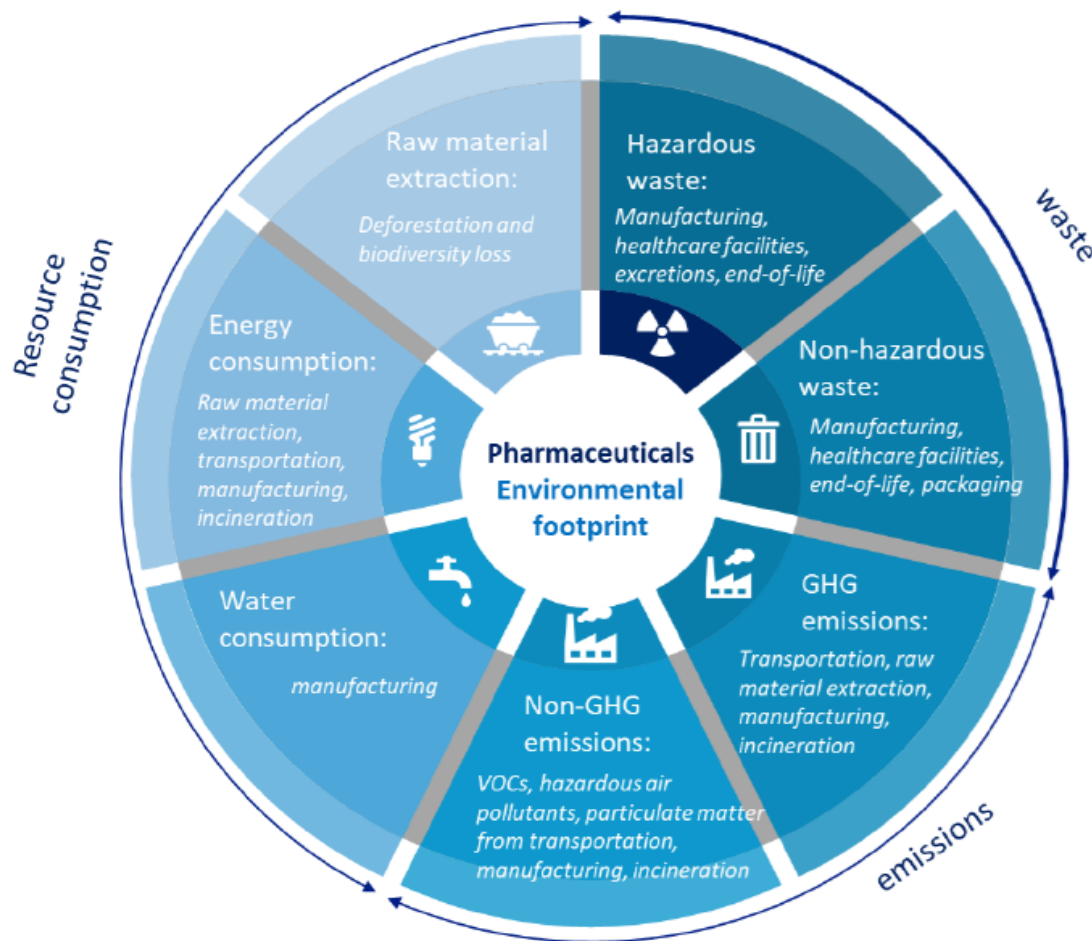
Pharmaceuticals detected in surface water, groundwater or drinking water globally



Sources of carbon emissions by proportion of NHS Carbon Footprint



Pharmaceutical product's life cycle and environmental footprint



Environmental impacts of medicines arise throughout their entire life cycle.

The pharmaceutical industry has a key role in reducing these impacts in early production phases

Circular economy opportunities available to the pharmaceutical industry



	RAW MATERIALS	DRUG PRODUCT	DEVICES	PACKAGING
1. Raw Material 	<ul style="list-style-type: none"> Non-Hazardous Materials 	<ul style="list-style-type: none"> Non-Hazardous Materials 	<ul style="list-style-type: none"> Avoid the use of substances within the device that negatively affect the re-use and recycling of the materials Certified, Renewable or Recycled Materials 	<ul style="list-style-type: none"> Avoid the use of substances within the packaging that negatively affect the re-use and recycling of the materials Certified, Renewable or Recycled Materials
2. Design 	<ul style="list-style-type: none"> Biodegradable Green Chemistry Principles Use approved schemes e.g., Palm Oil 	<ul style="list-style-type: none"> Biodegradable Green Chemistry Principles Dosage optimisation Maximise Shelf Life 	<ul style="list-style-type: none"> Reusable or refillable Use less different materials Maximise life of the device Build LCA/DFE into Design Process 	<ul style="list-style-type: none"> Optimise Packaging Size Use less different materials Design to minimise secondary & tertiary packaging Design for recyclability
3. Production 	<ul style="list-style-type: none"> Green energy at production facilities Minimize carbon footprint of production Maximise mass production efficiency Secondary raw materials 	<ul style="list-style-type: none"> Green energy at production facilities Minimize carbon footprint of production Maximise API vs raw material efficiency Minimise API emissions 	<ul style="list-style-type: none"> Suppliers to meet sustainability criteria Minimize environmental footprint of production Local sourcing of parts 	<ul style="list-style-type: none"> Suppliers to meet sustainability criteria Minimize environmental footprint of production Local sources of packaging materials
4. Distribution 	<ul style="list-style-type: none"> Apply Green Logistics Minimize carbon footprint of distributor(s) Manufacture at point of use 	<ul style="list-style-type: none"> Apply Green Logistics Minimize carbon footprint of distributor(s) Manufacture at point of use 	<ul style="list-style-type: none"> Apply Green Logistics Minimize carbon footprint of distributor(s) 	<ul style="list-style-type: none"> Local Sourcing Apply Green Logistics Carbon footprint of distributor(s) Reduce use of passive shipper boxes for cold chain
5. Consumption, use, reuse, repair 	<ul style="list-style-type: none"> Recirculation of solvents Reuse of catalysts 	<ul style="list-style-type: none"> Dosage & Pack size optimization 'Personalised' medicines Promote Patient Compliance (particularly for Chronic conditions) 	<ul style="list-style-type: none"> Offer repair options Minimise waste generated over treatment period 	<ul style="list-style-type: none"> Maximise efficiency on packaging lines Reuse transport packaging
6. Collection 	<ul style="list-style-type: none"> Incineration of Drug product waste Education of Patient 	<ul style="list-style-type: none"> Incineration of Drug product waste Take Back Schemes Education of Patient 	<ul style="list-style-type: none"> Segregate waste at source to optimise recycling Take Back Schemes 	<ul style="list-style-type: none"> Segregate waste at source to optimise recycling Consider Take Back Schemes
7. Recycling 	<ul style="list-style-type: none"> Solvent reuse Re-use of water for primary rinses Re-use of bi-products and waste streams for other purposes Recycling of metals (e.g. PGMS) 	<ul style="list-style-type: none"> Develop certified unused drug recycling programs 	<ul style="list-style-type: none"> Clear recyclability signs on packaging Recycle device materials 	<ul style="list-style-type: none"> Clear recyclability labelling on packaging Recycle packaging materials

FIP STATEMENT OF POLICY

Environmental sustainability within pharmacy



FIP STATEMENT OF POLICY

Environmental sustainability within pharmacy

Background

Both the practice of pharmacy and medicines themselves have negative impacts on the environment through greenhouse gas (GHG) emissions and pollution which contribute to climate change and ecological damage, both of which threaten human health. Given the role of pharmacy professionals in supporting health, these issues present the profession with ongoing challenges and an imperative to address environmental sustainability.

Environmental sustainability in pharmacy involves –

- i) mitigation measures which include the reduction of pharmaceutical pollution and contributions to climate change and,
 - ii) adaptation measures that support the health of people and communities impacted by climate change and ecological crises, now and in the future.
- The optimal use of medicines in disease prevention and treatment can mitigate the environmental footprint of healthcare, by avoiding unnecessary, ineffective, or more carbon-intensive treatments and procedures. Moreover, secure, and equitable access to medicines and to pharmacy services must be prioritised as part of any effort to improve environmental sustainability.

Through equitable and environmentally sustainable practice, pharmacy professionals can support planetary health (the health of human civilisation and the natural systems on which it depends).

Climate change poses diverse, immediate, and long-term threats to human health. Global health systems have a significant climate impact and medicines account for a significant portion of health system-related GHG emissions in every country. Pharmaceutical pollution causes damage to the environment and ecosystem degradation with downstream impacts on patient care e.g., antimicrobial pollution causing antimicrobial resistance (AMR). Pharmacists, as medicines experts, are well-positioned and ethically responsible to mitigate climate and pollution risks to health throughout the pharmaceutical supply chain and across the spectrum of medication management.

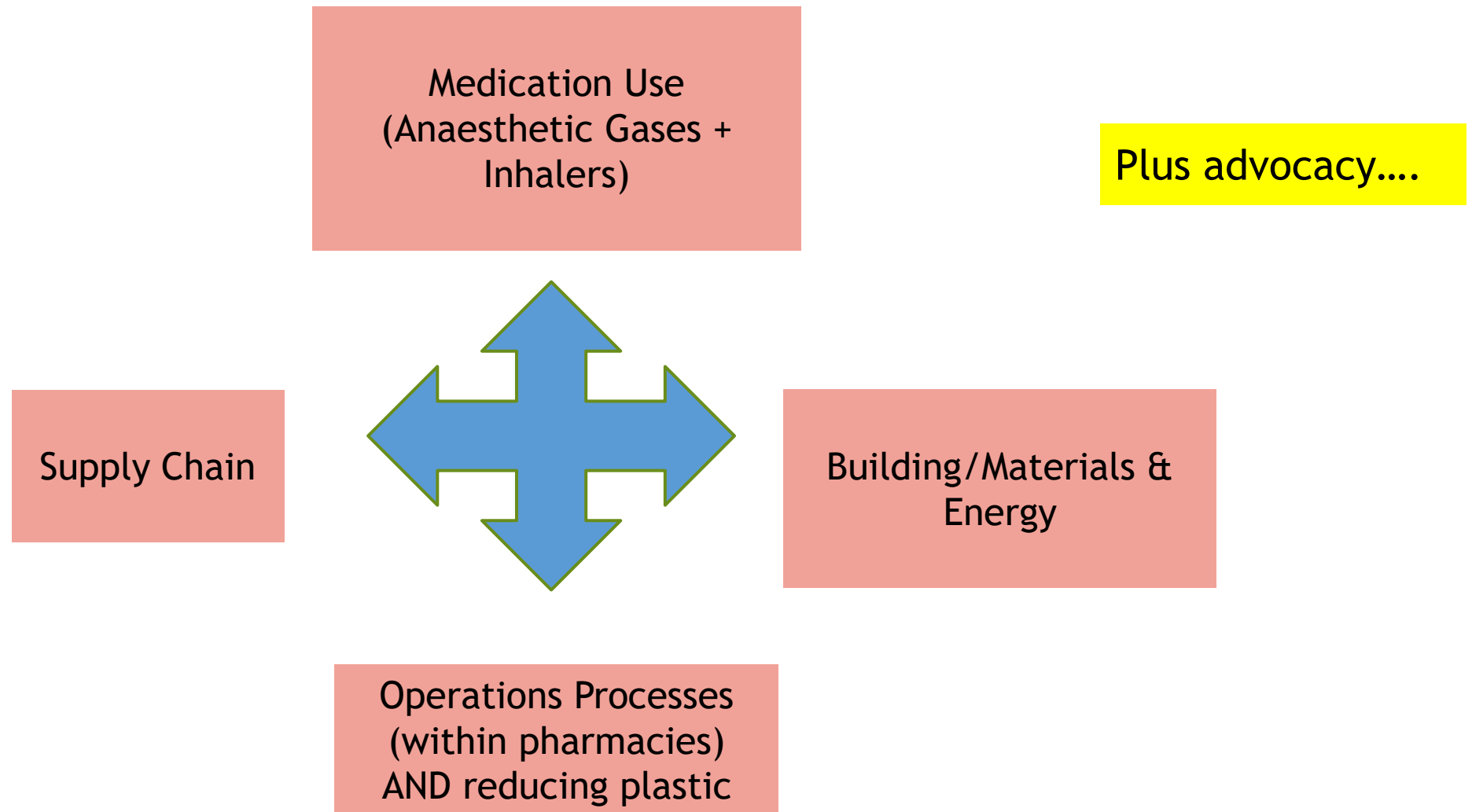
In addition, the pharmacy profession must address climate adaptation to allow for the sustainability of pharmacy services in changing environments; these roles include disaster preparedness and support of patients already experiencing or at highest risk of the impacts of climate change on health, due to co-morbidities or social or geographical factors.

Fédération
Internationale
Pharmaceutique

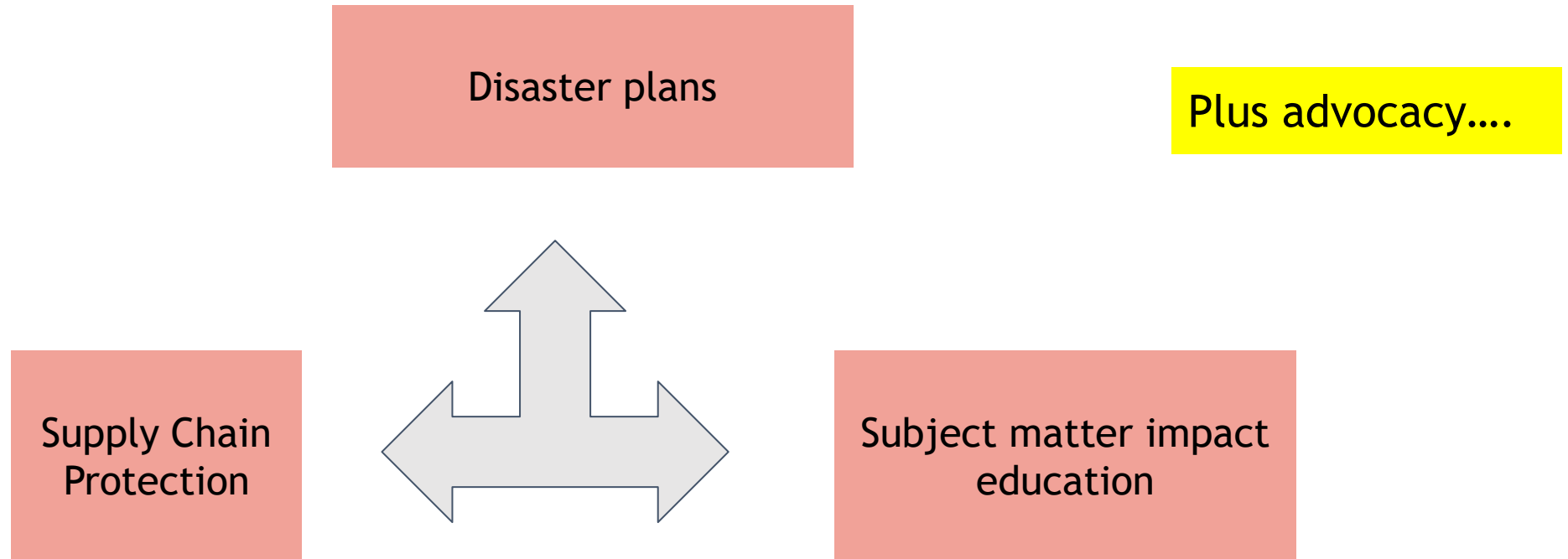
International
Pharmaceutical
Federation

International Pharmaceutical Federation. Title: FIP statement of policy on Environmental sustainability with pharmacy. 2023.
Available at: www.fip.org/publications

Climate Mitigation Within Pharmacy



Climate Adaptation Within Hospital Pharmacy



Thinking about criteria - FIP starting point for mitigation

Hospital pharmacy professionals should:

1. Where possible, collaborate with the healthcare team, in multidisciplinary committees where applicable, to raise awareness of the **environmental classifications of medicines** and other products (e.g., high power disinfectants, medical devices and dressings) in their practices;
2. Work with healthcare teams and patients to **optimise respiratory care for patients and review inhaler prescribing guidelines** to promote lower carbon alternatives (e.g., dry powder inhalers);
3. Work with anaesthesiology teams to optimise care within **anaesthesia** (e.g., reducing desflurane use to <5% of total hospital use or eliminating it altogether and reducing piped nitrous oxide and mixed nitrous oxide wastage);
4. Within distribution and dispensing processes, **consider reviewing the transfer process** of medicines from admission onwards to reduce unnecessary waste;
5. Consider reusable cytotoxic waste bins in aseptic units and sharps bins in pharmacies to reduce carbon impacts in pharmaceutical **waste management processes**;
6. **Closely manage drug inventories** with ward-based clinicians and revise standard operating procedures in pharmacy to prevent overstocking and wastage from drugs expiring;
7. **Limit the use of single-use medical devices** wherever possible

Thinking about criteria - FIP starting point for adaptation

Hospital pharmacy professionals should:

1. Regularly update **hospital pharmacy disaster plans** for emergencies and provide regular training or drills to hospital pharmacists on new disaster plan procedures relevant to worsening natural disasters and extreme weather events
2. Provide **extended medication monitoring of at-risk patients** on wards during heat waves;
3. Ensure minima and maxima of inventory management can manage **unexpected medicine shortage challenges** related to worsening natural disasters and extreme weather events;
4. Consider appropriate stock management within pharmacies and wards during heat waves as **raised temperatures may accelerate medicines degradation.**

Some preliminary reflections

Public procurement begins in the evaluation and selection processes of medicines and healthcare products

Can HTA and procurement accelerate the pace towards net zero of healthcare organizations?

Progressing towards decarbonizing the healthcare sector and the pharmaceutical industry is gaining momentum

Should environment effects be considered in HTA or reimbursement process?

What are the practical hurdles?

What are the unintended consequences?

How much health gain are we willing to pay for a reduction in environmental impact?

Is the new EU Health Technology Assessment considering environmental sustainability?

**REGULATION (EU) 2021/2282 OF THE EUROPEAN PARLIAMENT AND
OF THE COUNCIL
of 15 December 2021
on health technology assessment and amending Directive 2011/24/EU
(Text with EEA relevance)**

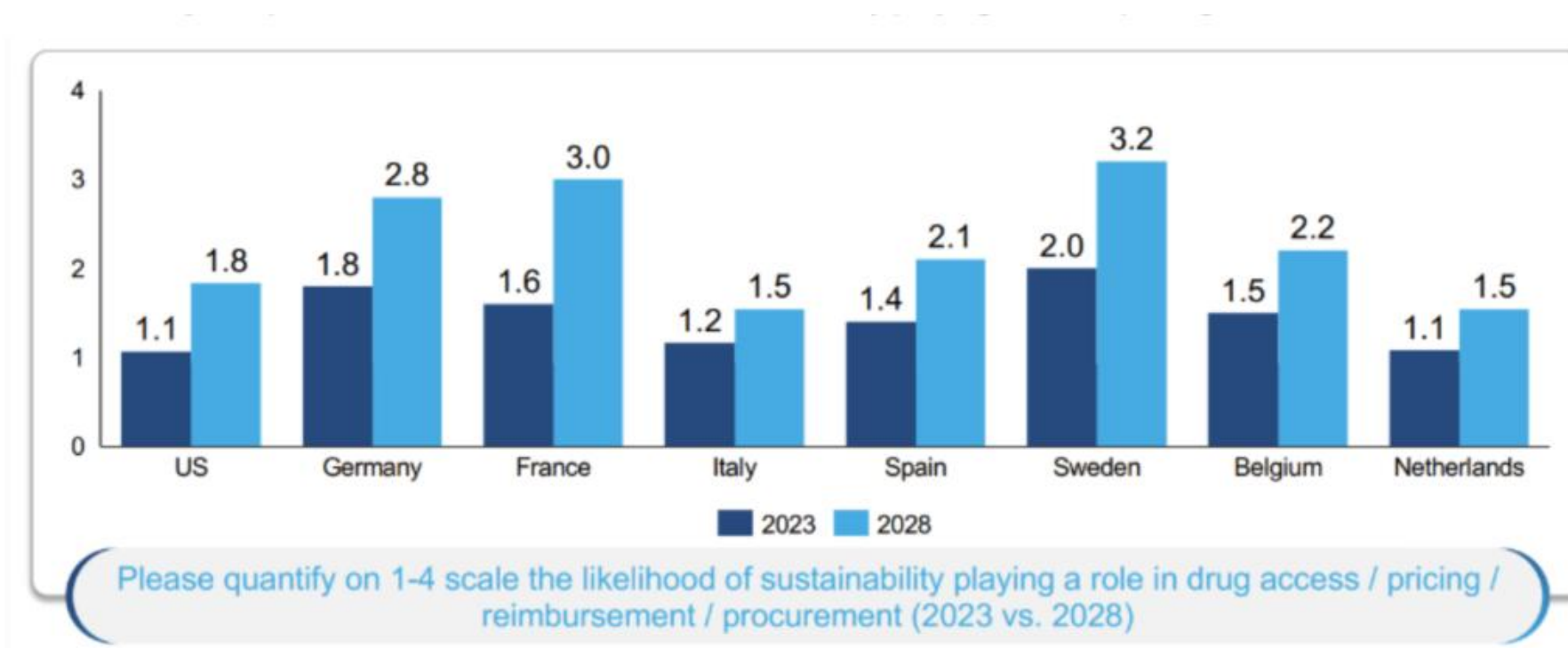
HTA can cover both clinical and non-clinical aspects of a health technology, depending on the healthcare system. The Union's co-funded joint actions on HTA (EUnetHTA Joint Actions) have identified nine domains by reference to which health technologies are assessed. Of these nine domains, four are **clinical** and five are **non-clinical**. The four clinical domains of assessment concern

- **(1)** the identification of a health problem and current health technology,
- **(2)** the examination of the technical characteristics of the health technology under assessment, **(3)** its relative safety, and its **(4)** relative clinical effectiveness.

The five non-clinical assessment domains concern

- **(1)** cost and **(2)** economic evaluation of a health technology, and its
- **(3)** ethical, **(4)** organisational, **(5)** social and legal aspects.

Payer expectations on the likelihood of sustainability playing a role in pricing and reimbursement

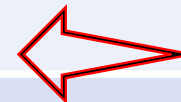


Note: figures represent the average score assigned by experts.

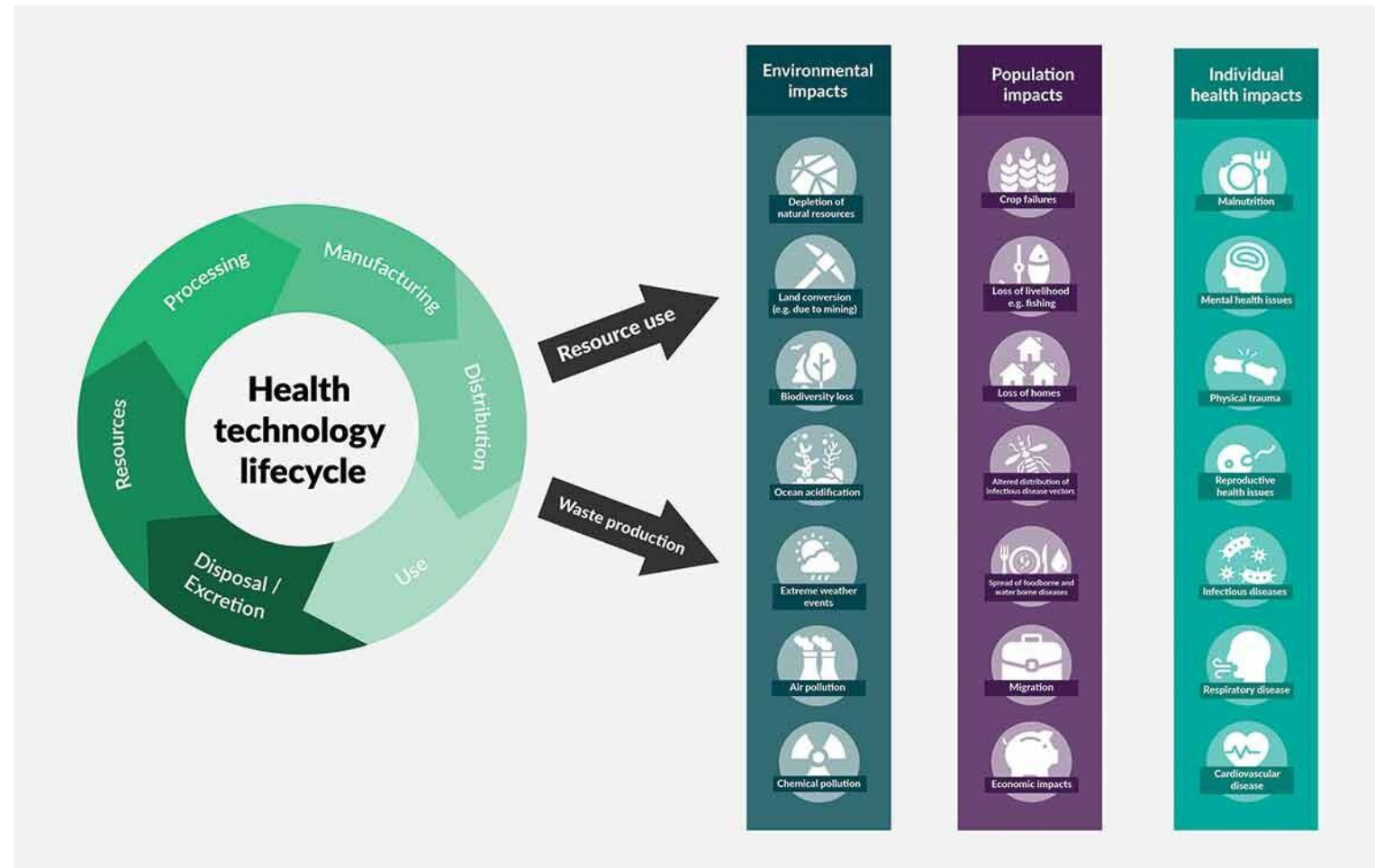
Source: BCG research.

Main criteria and 'other' considerations used internationally to prioritise new health technologies

PRINCIPLES OF ALLOCATIVE JUSTICE	CRITERIA
Need	General Severity of the condition Availability of alternatives
Appropriateness	Efficacy and safety Effectiveness
Clinical benefits	General Effect on mortality (life saving) Effect on longevity Effect on health-related quality -of-life
Efficiency	Cost -effectiveness /benefit Budgetary impact Cost
Equality	General Accessibility to the service Affordability to the individual
Solidarity	
Other ethical or social values	Autonomy Public health value Impact on future generations
OTHER CONSIDERATIONS	
Quality of the clinical and economic evidence	
Other considerations not elsewhere classified	Strategic issues consistency with previous decisions and precedents



Environmental impacts and human health impacts of health technologies across their lifecycle.



Sarah Catherine Walpole, et al. (2023) How can environmental impacts be incorporated in health technology assessment, and how impactful would this be?, Expert Review of Pharmacoeconomics & Outcomes Research, 23:9, 975-980,

Environmental impact assessment in health technology assessment: challenges

There are important questions of analytical scope (boundaries) depending on the approach they take:

- domains of environmental impacts considered (including species and ecosystems considered) and weighting of impacts relative to each other in analyses;
- analytical perspective (e.g., health system or societal, national or global), which costs and outcomes across which areas (e.g., health sector, wider society, other nations, environment) are included and how (and how much) they are valued
- time horizon over which impacts are measured, forecast, or discounted (e.g., are impacts on future generations included, and if so, how are they weighted against impacts affecting current populations?);
- parts of a technology's lifecycle to which impacts relate (production, distribution, use, or disposal) and whether both “direct” and “indirect” impacts should be included (e.g., indirect impacts that arise at the use stage include the downstream environmental consequences of the technology's impact on the disease course and subsequent healthcare resource utilization.

How might HTA take account of environmental sustainability in pricing pharmaceuticals?

Environmental impact thresholds

Incentives of sustainable practices

Public engagement and transparency

Collaboration with environmental experts

Continuous monitoring and reporting

Incorporate environmental impact assessment

Quantify environmental costs and benefits

Cost-effectiveness analysis with Environ. Impact

Sustainability adjusted QALY (SA-QALY)

Discount rates and time horizons

Leading industry actions for environmental sustainability

- ✓ Green supply chain
- ✓ Energy efficiency
- ✓ Waste reduction
- ✓ Water conservation
- ✓ Product innovation

Environmental impact assessment



Product information

22/06/2023 Rydapt - EMEA/H/C/004095 - II/0029



[Rydapt : EPAR - Product Information](#) (PDF/692.44 KB)

First published: 25/10/2017

Last updated: 26/07/2023

Environmental risk assessment (ERA)

ERA studies have shown that midostaurin has the potential to be persistent, bioaccumulative and toxic to the environment.

Environmental impact assessment



REvalMed SNS
Comisión Permanente de
Farmacia

INFORME DE POSICIONAMIENTO TERAPÉUTICO
PT 125-2023/V1/05042023

**Informe de Posicionamiento Terapéutico de tepotinib (Tepmetko®)
en cáncer de pulmón no microcítico avanzado con mutaciones que
conducen a la omisión del exón 14 del gen MET**

Fecha de publicación: 05/04/2023

“The environmental impact assessment has shown that tepotinib has the potential to be highly persistent and toxic to the environment.”

Others:

- Anesthetic gases (desflurane)
- Inhalers with propellants.
- Recycled and recyclable polyester clothing

Implementation in clinical settings of HTA and sustainable procurement.



Proposed to make to change prescribing practices holistic and environmentally sustainable :

- Non-pharmacologic interventions
- Evidence-based prescribing and medicine optimization
- **Eco-informed prescribing during patient consultation** (Environmental profiles of drugs)
- Patient-centred and shared decision making

**Our experience in introducing environmental
criteria in drug tenders**

The regulation that initiated the process



- ✓ ***The new public procurement law***

Ley 9/2017, de 8 de noviembre, de Contratos del Sector Público, por la que se transponen al ordenamiento jurídico español las Directivas del Parlamento Europeo y del Consejo 2014/23/UE y 2014/24/UE, de 26 de febrero de 2014.

- ✓ ***Social clauses***

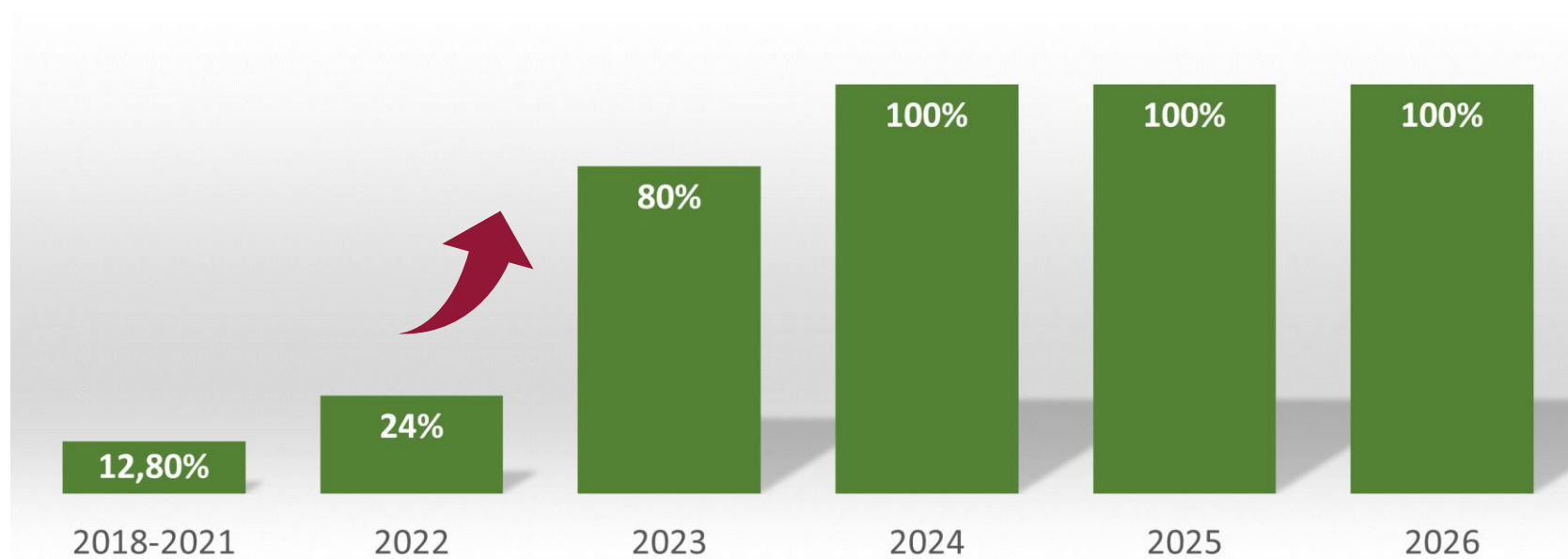
- ✓ ***Environmental clauses***

The public procurement contracts law emphasizes the instrumental dimension of public procurement for the development of an economy based on sustainable growth, environmental respect, and social responsibility

Institutional commitments of CSC

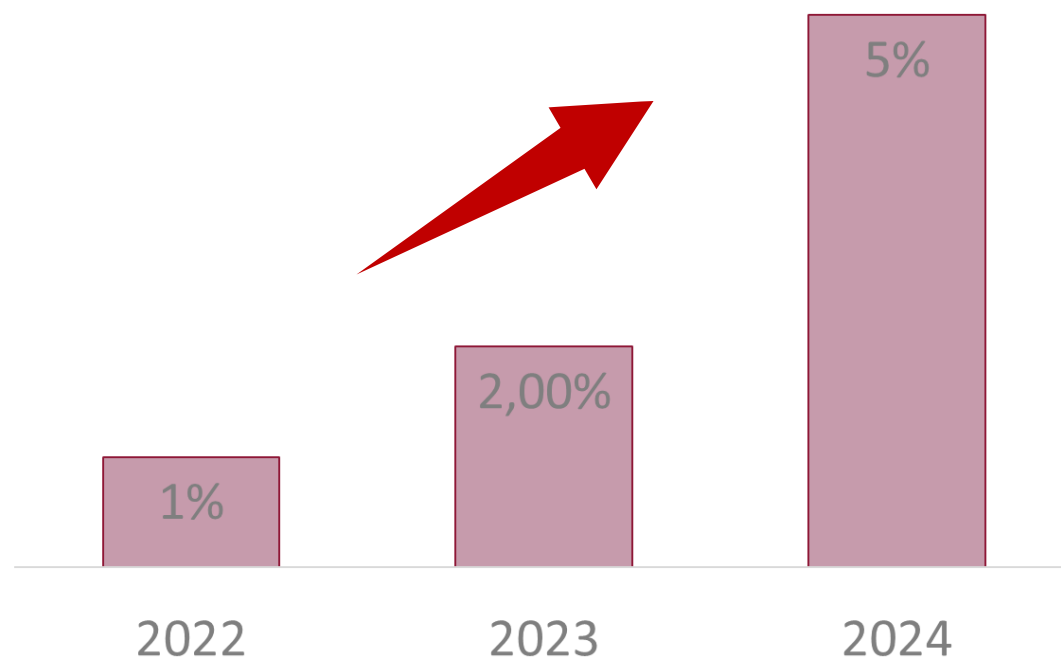
- ✓ Commitment of CSC to Social Responsibility and Sustainable Development Goals (2019)
- ✓ Leadership in Social and Environmental Responsibility (Corporate Social Responsibility Manager)
- ✓ Member of the global network Global Green and Healthy Hospitals (GGHH)
- ✓ Distinction as a responsible organization for hiring vulnerable individuals
- ✓ Responsible Label Distinction
- ✓ Adherence to the Time Pact
- ✓ Publication of a Sustainability Guide for the Health and Social Sector

Tenders with environmental criteria at CSC (forecast)



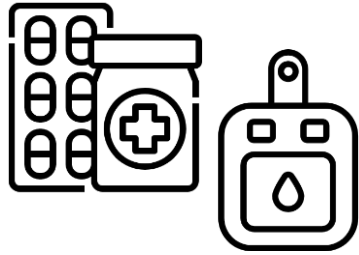
Weighting of environmental criteria in framework agreements

Average of weighting of explicit environmental criteria at CSC (forecast)



At CSC, we are going to work to give increasing importance to explicit environmental criteria as added value for medicines and healthcare products.

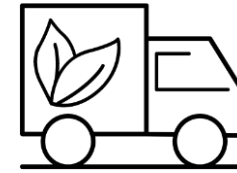
Criteria design - areas focused on environmental sustainability



Products



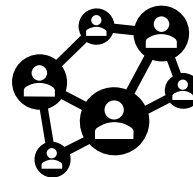
Environment



**Supply
chain**



Patients



People



**Corporate
responsibility**

Current environmental criteria in our Framework Agreements

- ✓ *Recyclable devices or packaging / reduced impact.*
- ✓ *Use of substances with lower environmental impact.*
- ✓ *Efficient use of energy and water in the production process, as well as waste reduction.*
- ✓ *Commitment to reducing carbon footprint (carbon neutrality).*
- ✓ *Data on carbon footprint and environmental toxicity.*

Dialogue and consensus on strategy among buyers

Examples:



Under the Big Buyers Working Together (BBWT) Project, several Communities of Practice (CoPs) have been created on the Public Buyers Community platform



An alliance of public and non-profit group procurement organisations (GPOs) specialised in the health & care sector which aims to pool expertise, leverage performance and provide its members with a strategic position in the European market.

Dialogue with suppliers and prior market consultations

- ✓ Certifications
- ✓ Social and environmental value
- ✓ Innovation in sustainability
- ✓ Collaboration in projects to reduce environmental impact
- ✓ Innovative procurement
- ✓ Adoption of innovation contributing to environmental sustainability

Other European experiences

NHS England : Incorporating Social Value Model themes into procurement

NHS England's stated policy objective is to meet its Net Zero carbon targets while achieving its wider Social Value priorities. Procurement of NHS Goods and Services can play its part in achieving these policy objectives.

Social Value Model theme	NHS priority areas	Example opportunity areas
Fighting climate change (must be included in all procurement)	<ul style="list-style-type: none">• Reduce emissions• Reduce air pollution• Promote circular economy principles• Reduce consumption and waste	<ul style="list-style-type: none">• Demonstrate reduced greenhouse gas emissions• Initiatives to reduce environmental impact with the redesign of the product or service• Source materials from and manufacture products within the UK (or relevant region) to reduce carbon emissions and improve supply chain transparency• Delivery optimisation and use of low/zero carbon vehicles• Reduce single use plastics, packaging and increase recyclability of products• Support environmental protection and improvement through the delivery of the contract• Biodiversity initiatives developed or supported in the local area

NHS England. Applying net zero and social value in the procurement of NHS goods and services. 2022. Available at: <https://www.england.nhs.uk/greenernhs/wp-content/uploads/sites/51/2022/03/B1030-applying-net-zero-and-social-value-nhs-goods-and-services.pdf>

Environmental impact as art of procurement decision-making : Norway

Norwegian Hospital Procurement Trust (Sykehusinnkøp HF) introduced criteria to reduce the environmental impact of pharmaceutical products in 2019.

First applied to antibiotics, with environmental requirements weighted at 30%. New environmental requirements that contribute to less development of resistance in connection with antibiotic production shall be used in all joint Nordic procurements of antibiotics, as well as local procurements for Norway, Denmark, Iceland and Finland.

Main domains in the criteria
for pharmaceutical
procurement

Price	25,00 %
Ease of use, packaging and product range	35,00 %
Security of supply: Stock	7,00 %
Security of supply: Countries	3,00 %
Environment: Organizational	20,00 %
Environment: Product	10,00 %



Key Takeaways

Reducing the environmental impacts of drugs requires collaboration among diverse stakeholders, including manufacturers, healthcare providers, and patients.

International cooperation among procurers is essential for the standardization of environmental criteria.

A market dialogue in implementing environmental criteria is encouraged to identify major gaps in environmental information on medicines and to establish achievable, specific environmental objectives.

www.consorci.org



@CSC_Consorci