Progetto Previeni

Il punto di vista del WWF sull'inquinamento chimico

Dr. Eva Alessi
Responsabile Programma Sostenibilità WWF Italia
25 10 2011

WWF IN BREVE

+100

Il WWF presente in 100 paesi, in 5 continenti

+5,000

Il WWF ha oltre 5.000 persone di staff

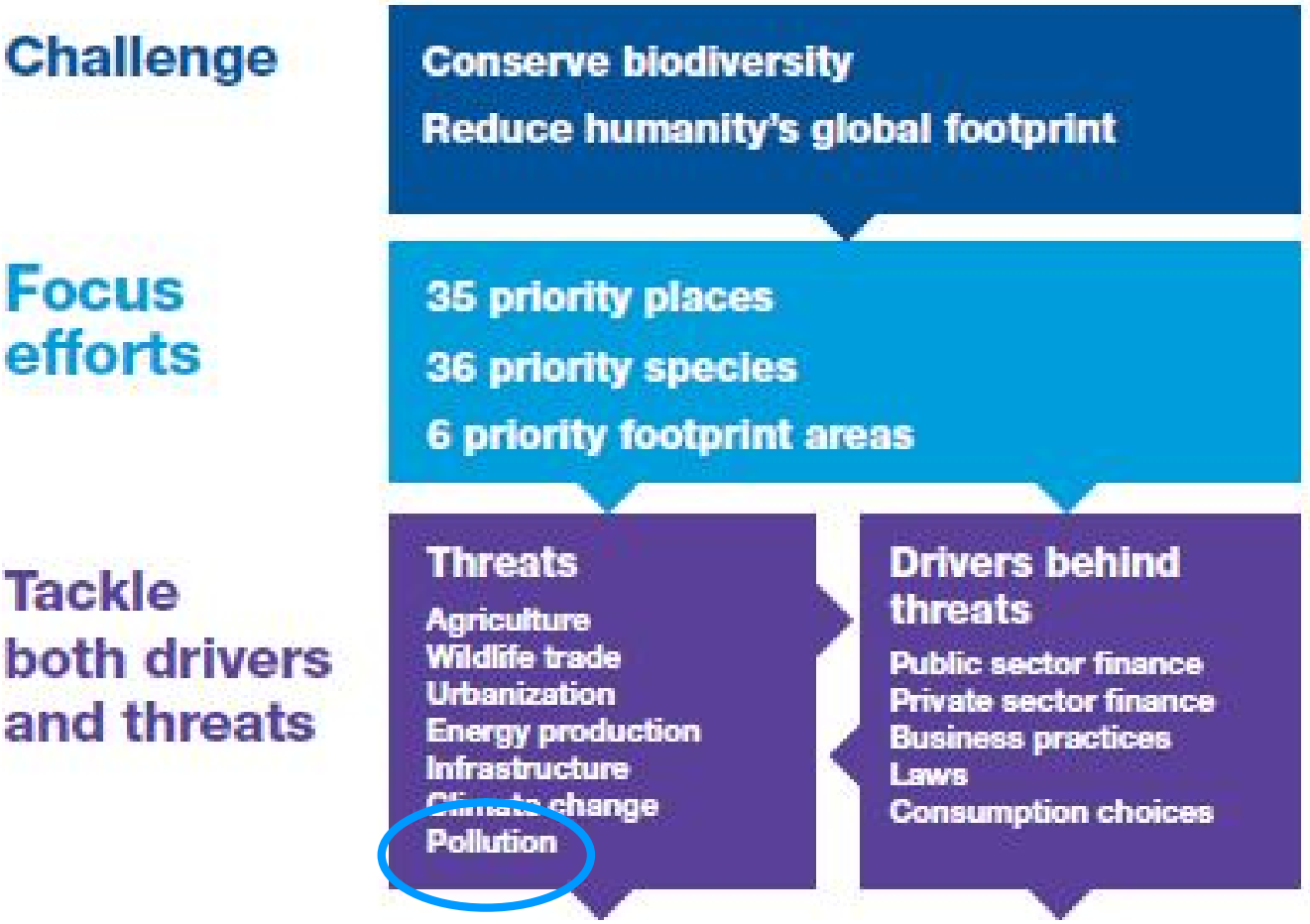
1961

Il WWF fondato nel 1961

+5M

Il WWF ha oltre 5 milioni d sostenitori

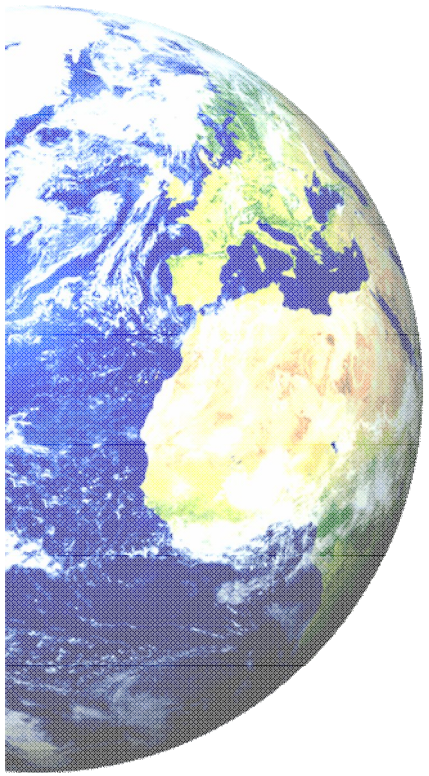
WWF's global conservation framework



popolazione x consumi ≠ pianeta

(I = P x A x T)

Ehrlich and Holdren, 1971



Aumento consumi
+ crescita popolazione
= aumento domanda di risorse

Aumento crescita e ricchezza economiche

Aumento attività industriali e sviluppo

Sovrasfruttamento
Degrado/perdita habitat
Inquinamento
= MINACCE ALLA BIODIVERSITA'





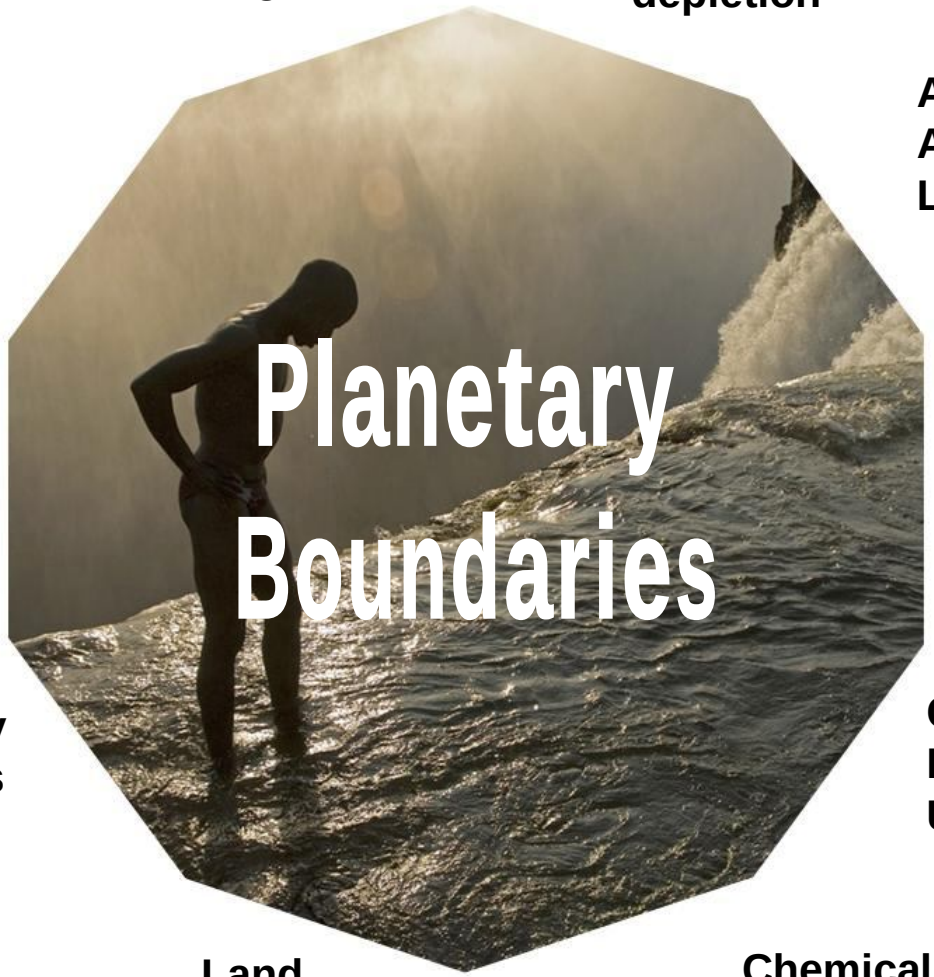



Climate Change

Ozone depletion

Atmospheric Aerosol Loading

Biogeochemical loading: Global N & P Cycles



Ocean acidification

Rate of Biodiversity Loss

Global Freshwater Use

Land System Change

Chemical Pollution

Plastics, Endocrine Desruptors, Nuclear Waste Emitted globally To be determined

Rockström *et al*., Safe Operating Space for Humanity. *Nature,* 461, 472-475, 2009

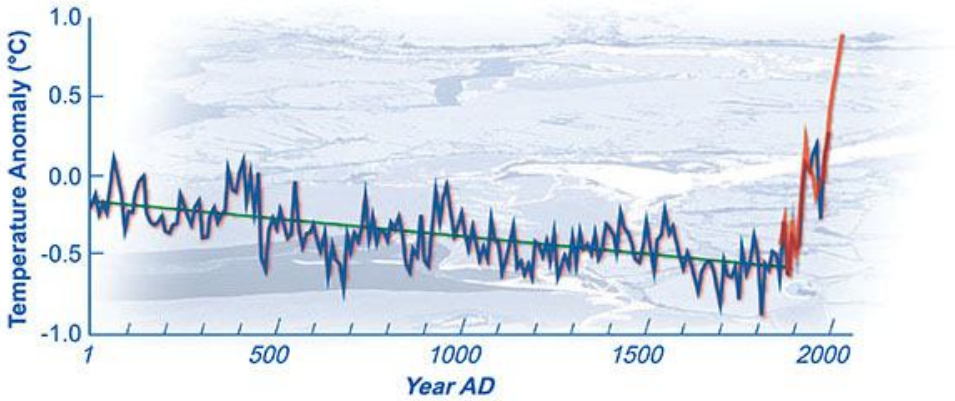
PLANETARY BOUNDARIES

Earth-system process	Parameters	Proposed boundary	Current status	Pre-industrial value
Climate change	(i) Atmospheric carbon dioxide concentration (parts per million by volume)	350	387	280
	(ii) Change in radiative forcing (watts per metre squared)	1	1.5	0
Rate of biodiversity loss	Extinction rate (number of species per million species per year)	10	>100	0.1–1
Nitrogen cycle (part of a boundary with the phosphorus cycle)	Amount of N_2 removed from the atmosphere for human use (millions of tonnes per year)	35	121	0
Phosphorus cycle (part of a boundary with the nitrogen cycle)	Quantity of P flowing into the oceans (millions of tonnes per year)	11	8.5–9.5	~1
Stratospheric ozone depletion	Concentration of ozone (Dobson unit)	276	283	290
Ocean acidification	Global mean saturation state of aragonite in surface sea water	2.75	2.90	3.44
Global freshwater use	Consumption of freshwater by humans (km^3 per year)	4,000	2,600	415
Change in land use	Percentage of global land cover converted to cropland	15	11.7	Low
Atmospheric aerosol loading	Overall particulate concentration in the atmosphere, on a regional basis		To be determined	
Chemical pollution	For example, amount emitted to, or concentration of persistent organic pollutants, plastics, endocrine disrupters, heavy metals and nuclear waste in, the global environment, or the effects on ecosystem and functioning of Earth system thereof		To be determined	

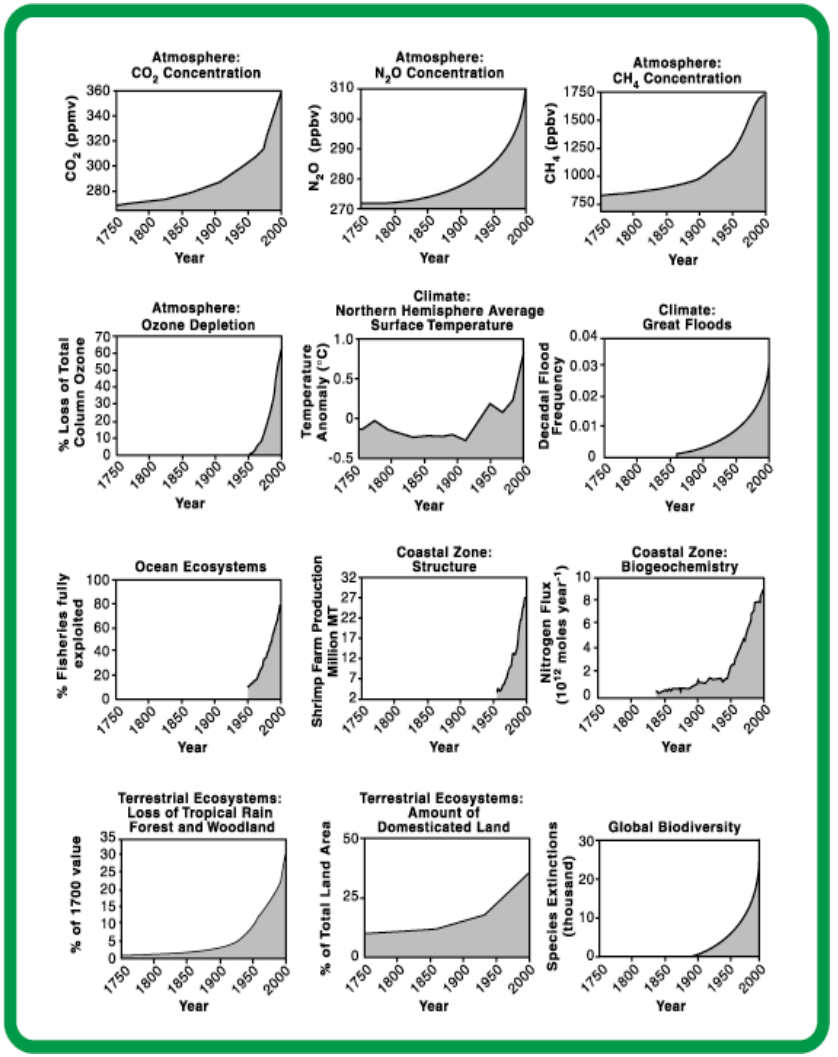
Carpenter and Bennett, Reconsideration of the planetary boundary for phosphorus. *Environmental Research Letters,* 2011

Rockstrom et al., *Nature,* 2009

L'umanità nell'Antropocene



Kaufman *et al.*, Recent Warming Reverses Long-Term Arctic Cooling. *Science*, 2009



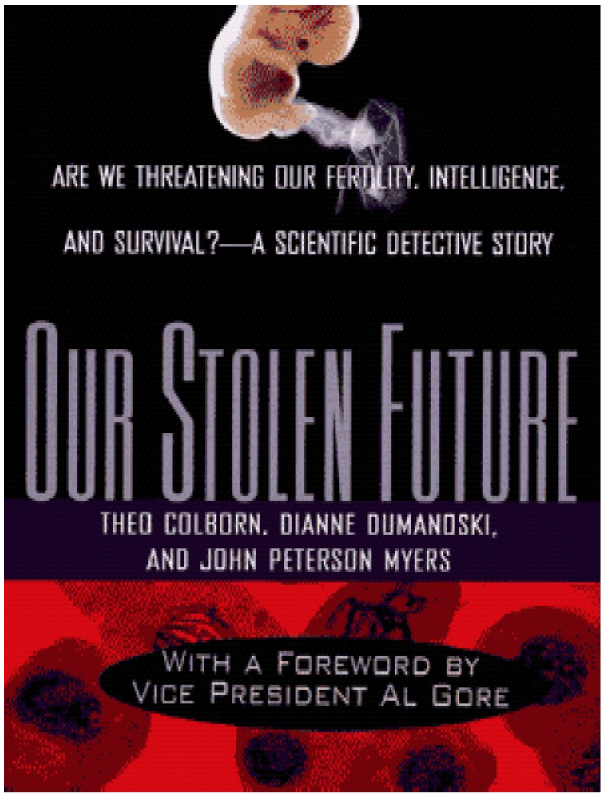
Steffen *et al.*, 2004

Pollution is one of the primary ways in which humans have caused drastic modifications of wildlife habitat

« Più riusciamo a focalizzare la nostra attenzione sulle meraviglie e le realtà dell'universo attorno a noi, meno dovremmo trovare gusto nel distruggerlo» (Rachel Carson)

“Our stolen future” T. Colborn, D. Dumanoski, P. Myers (1996)

- WWF: preoccupazione per le minacce alla biodiversità e alla salute
- Impatti sulla fauna selvatica nelle aree inquinate di tutto il mondo
- Malattie/disordini umani legati all’esposizioni agli IE

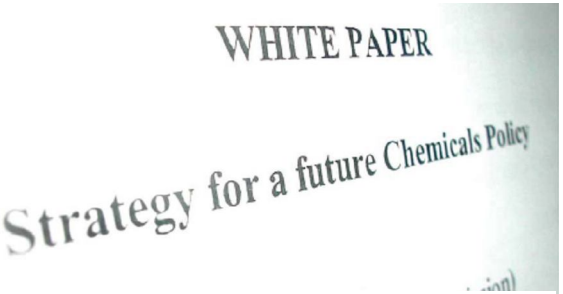


for a living planet®

DETOX

Campaigning for safer chemicals

WWF, January 2007



A truly European campaign

Operating from the heart of EU decision-making, DetoX ran in parallel in 13 European countries, giving it a truly European impact. With the leadership of the core team in Brussels, WWF's national offices managed to place the need for a stronger EU regulation on chemicals in the media, with politicians and ultimately, in the minds of the people, thereby increasing the pressure on EU decision-makers. The global media success achieved with the involvement of most WWF European offices in the biomonitoring studies, and the report on contamination of the food chain, were crucial in making a Europe-wide breakthrough on the political debate front and in the public's awareness.

Some national highlights include:

Having taken part in WWF's biomonitoring survey, the mother of the Belgian family tested (a doctor herself) started a strong personal campaign to persuade the medical community, the media and the Belgian politicians of the need for a strong REACH.

In May 2006, after strong pressure from WWF and other Danish NGOs, Danish Members of the European Parliament sent a letter to the REACH "rapporteur" supporting the substitution of hazardous chemicals. The campaign also attracted huge media attention.

In Finland, the family blood testing became such a hot topic of conversation that people could be overheard talking about it on public transport and in supermarkets. Very good cooperation was established with Finnish Members of the European Parliament, which has now been extended to other environmental issues.

In France, following an event in the European Parliament with French companies in favour of substituting harmful chemicals for safer alternatives, WWF is now working with the French Environment Ministry to persuade other companies to choose safer chemicals.

In Germany, the family blood testing and reports about wildlife contamination resulted in good media coverage about the problem of chemical contamination.

In Greece, DetoX put together a strong coalition of consumers, trade unions, professional organizations and media that effectively influenced the national debate on REACH.

In Hungary, WWF built a coalition of NGOs on REACH and was chosen to represent their points of view in the Hungarian REACH ad-hoc committee. The TV spot featuring a Hungarian Member of the European Parliament was run on 24 TV channels.

After testing the blood of 18 Italian celebrities and politicians, an on-line chemical contamination self-test attracted more than 22.000 visitors in a week. Numerous street actions, joint petitions and email campaigns targeted Italian Members of the European Parliament and placed the toxics issue high up on the political agenda.

In Latvia, two years of street actions, many publications, discussions, lectures and contacts with top officials brought chemical contamination into the public arena.

In Poland, DetoX engaged celebrities and generated one of the most intensive media campaigns in Europe, including a television spot with Polish celebrities that was shown in cinemas and a widely played song created by famous Polish pop stars.

In Spain, getting the Minister for Environment to test her blood for chemicals and the launch of several chemical contamination reports were key in attracting the attention of citizens, media and politicians. WWF/Adena forged good relationships with key MEPs and worked closely with other Spanish organisations to put REACH on the Spanish government's political agenda.

In Sweden, DetoX has been the most successful WWF campaign ever. It has generated extensive media coverage on the toxics issue and kept the pressure on Swedish politicians to vote for a strong REACH

In the UK, the excellent media coverage of campaign activities and reports increased public awareness of the campaign. Intense political contacts and media pressure made UK Tory leader, David Cameron, join the ranks for a strong REACH and cross-party support for the substitution of hazardous chemicals was achieved in the European Parliament's Environment Committee vote.


WWF
for a living planet®
SAATCHI & SAATCHI WWF-ONLUS FOTO: BOUDEWIJN SMIT
Le sostanze chimiche nocive stanno leggermente cambiando il mondo.
Informati sulle iniziative della Settimana contro la chimica nociva: www.wwf.it - tel. 06.844971.
Svelénati. L'antidoto sei tu.
SVELÉNATI
DETOX
Met.Ro.


WWF
for a living planet
SAATCHI & SAATCHI WWF-UNUS FOTO: BOUDEWIJN SMIT
Le sostanze chimiche nocive ti stanno leggermente cambiando.
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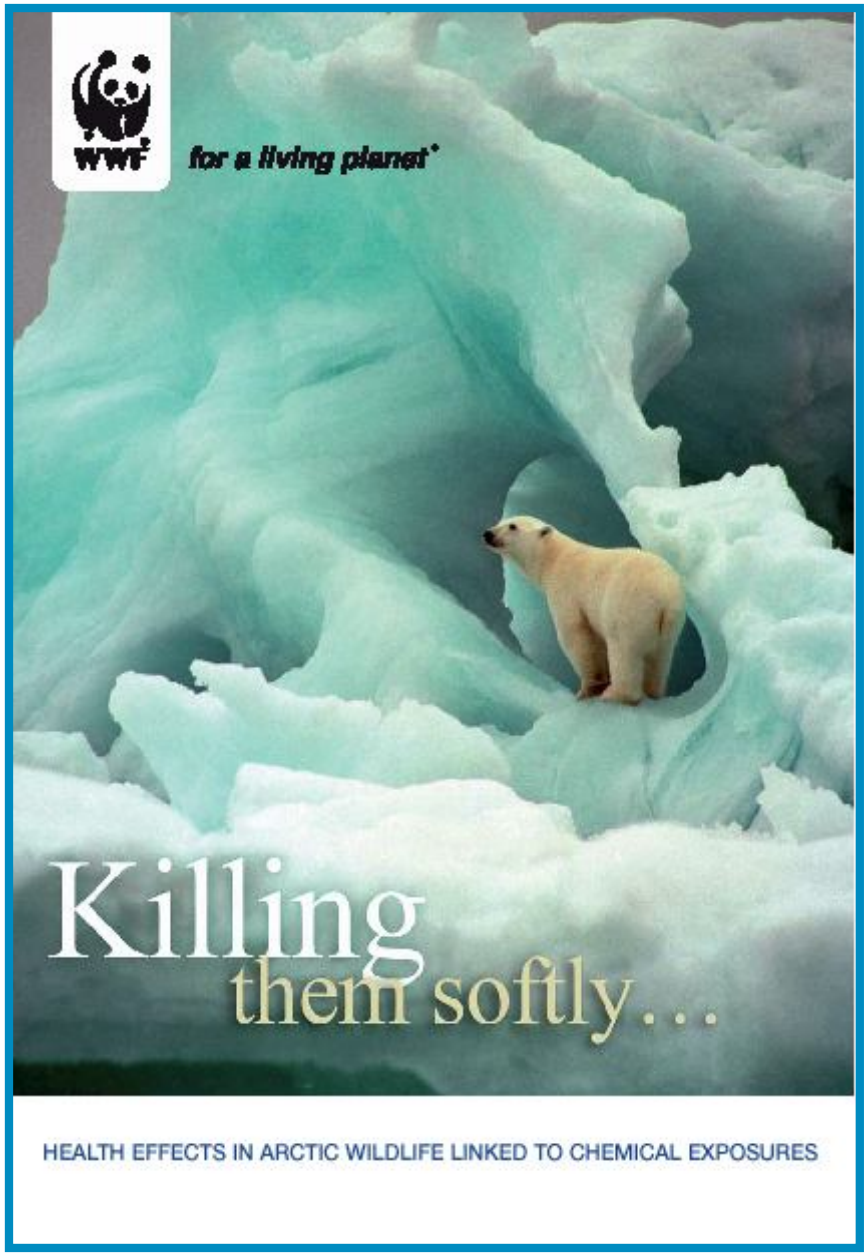
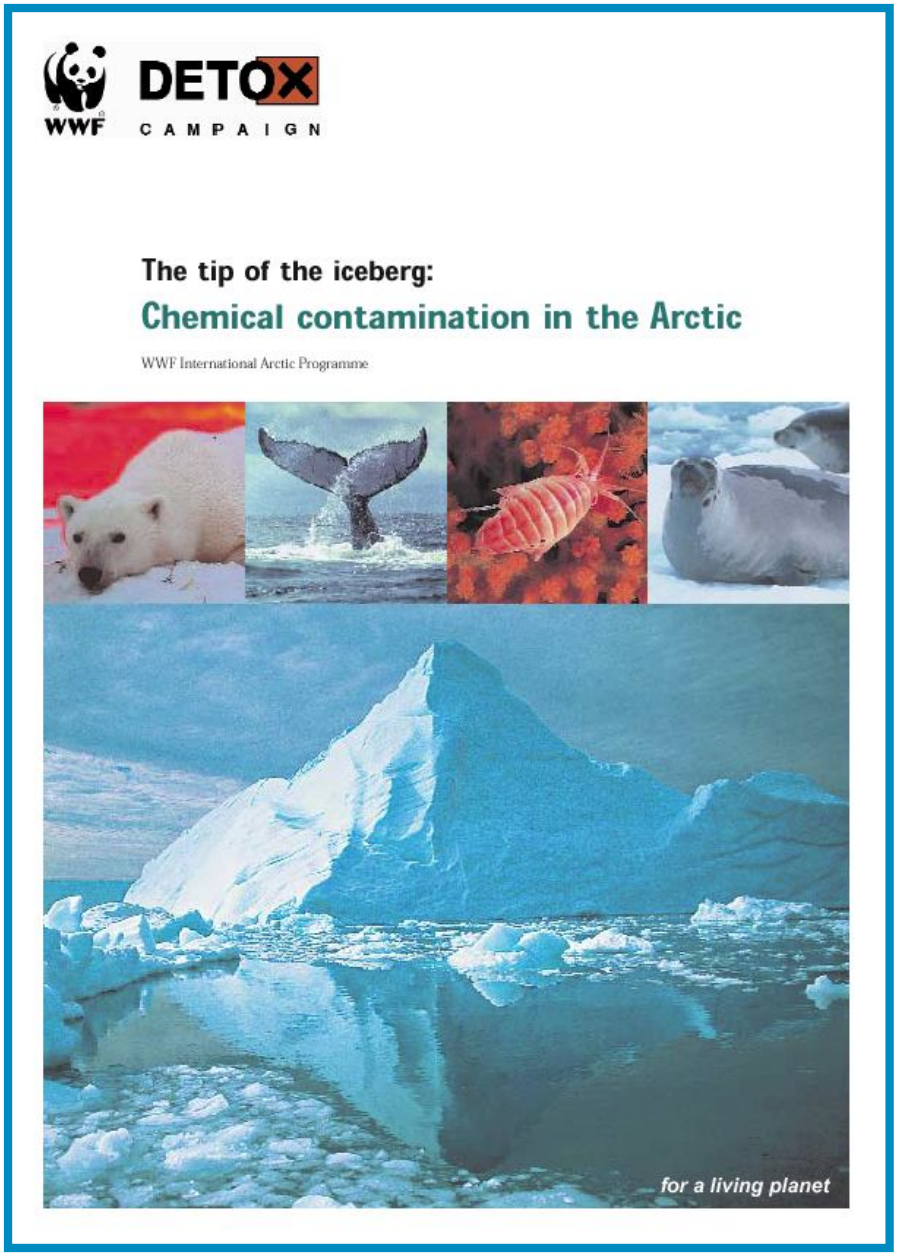
Svelénati. L'antidoto sei tu.
svelénati
DETOX
Met.Ro.

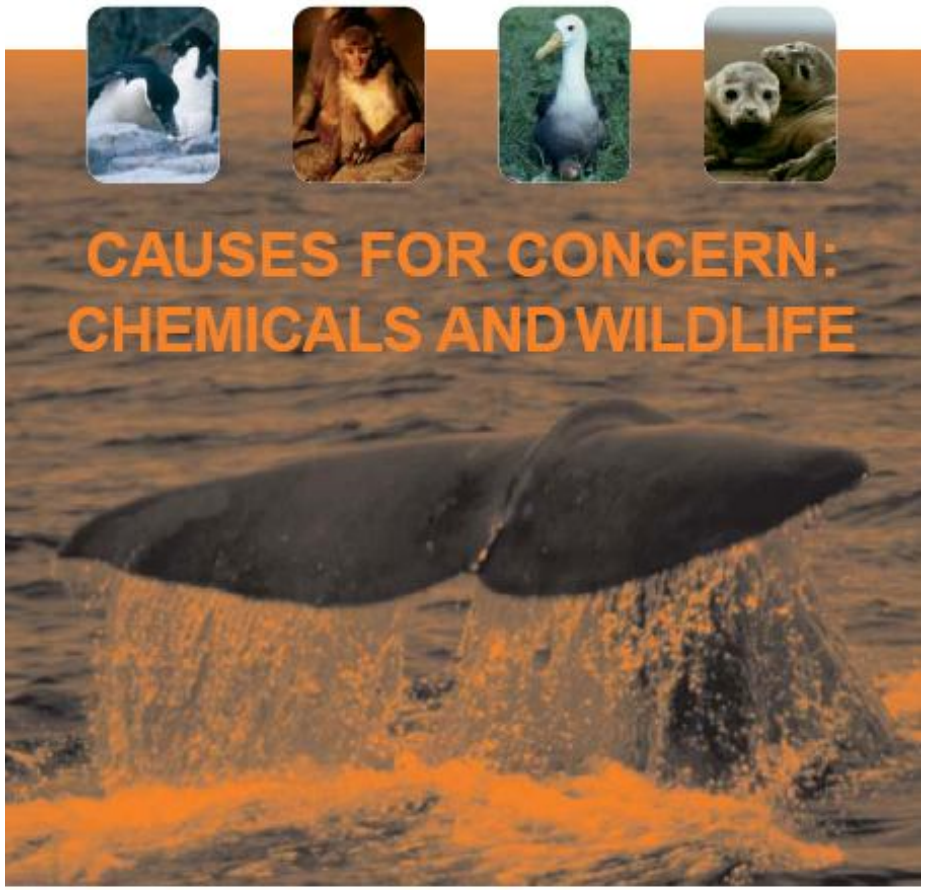
A single tin of paint can pollute millions of litres of water.

A single can of dissolvent pollute millions of litres of water.


WWF
for a living planet
Killing
them softly...
HEALTH EFFECTS IN ARCTIC WILDLIFE LINKED TO CHEMICAL EXPOSURES


WWF
DETOX
CAMPAIGN
The tip of the iceberg:
Chemical contamination in the Arctic
WWF International Arctic Programme
for a living planet

WWF DETOX CAMPAIGN



EFFECTS IN WILDLIFE LINKED TO HORMONE DISRUPTERS

Many male fish in EU estuaries and in the North Sea are abnormally producing the female egg yolk protein;

CredIt: Jo Benn / WWF-Canon

Frogs and toads in some parts of the world have eggs in their testicles;

CredIt: Wild Wonders of Europe / Tom Schandy / WWF

Male peregrine falcons in e.g. Spain have been feminised and also produce the female egg yolk protein;

CredIt: Daniela Andreea Spyropoulos/IStock

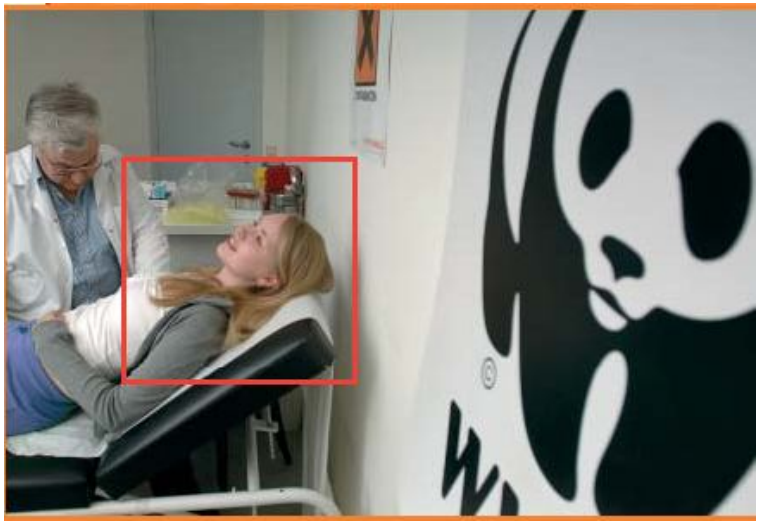
Otters have been reported with undescended testicles and in Europe have suffered reduced reproduction;

CredIt: DSanchez&Lope / WWF-Canon

Male polar bears also seem to have been affected by hormone disrupters as some have been found with smaller genitalia.

CredIt: Jon Aars / Norwegian Polar Institute / WWF-Canon


WWF
DETOX
CAMPAIGN
GENERAZIONE
WWF 2005
WWF 2005
Risultati del biomonitoraggio
sulle famiglie europee




DETOX
PRESENZA DI CONTAMINANTI CHIMICI
CAMPIONI DI SANGUE UMANO DI INDIVIDU
ESPOSTI PROFESSIONALMENTE
Università degli Studi di Siena
Dipartimento di Scienze Ambientali "G. Sarfatti"
"Ecologia ed ecofisiologia applicate ai cambiamenti globali"
Via Mattioli 4, 53100 Siena
Silvano Focardi (focardi@unisi.it)
con la collaborazione di
Cristiana Guerranti, Guido Perra, Davide Baroni,
Michela Mariottini, Nicoletta Borghesi, Teresa
Benincasa, Alessandra Schiavone
1
DETOX
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CAMPIONI DI SANGUE UMANO DI INDIVIDUI NON
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WWF
La catena della contaminazione globale:
il ruolo dell'alimentazione
Settembre 2006


Alimenti analizzati
Regno Unito: burro, formaggio "cheddar", pancetta affumicata (bacon), salsicce, uova, latte, olio d'oliva, petto di pollo, bastoncini di pesce, salmone affumicato scozzese, tonno (in scatola), miele, pane nero, succo d'arancia, formaggio "cheddar" scozzese.
Finlandia: wurstel, carne di renna.
Svezia: aringhe marinate ("strömming"), manzo macinato ("köttfärs").
Polonia: bistecche di maiale ("schabowy"), formaggio cottage ("serek wiejski" – fiocchi di latte).
Italia: salame cacciatore, ciaiotta.
Spagna: prosciutto crudo ("jamon curado"), formaggio "manchego".
Grecia: bistecche di maiale, formaggio kefalotyri.

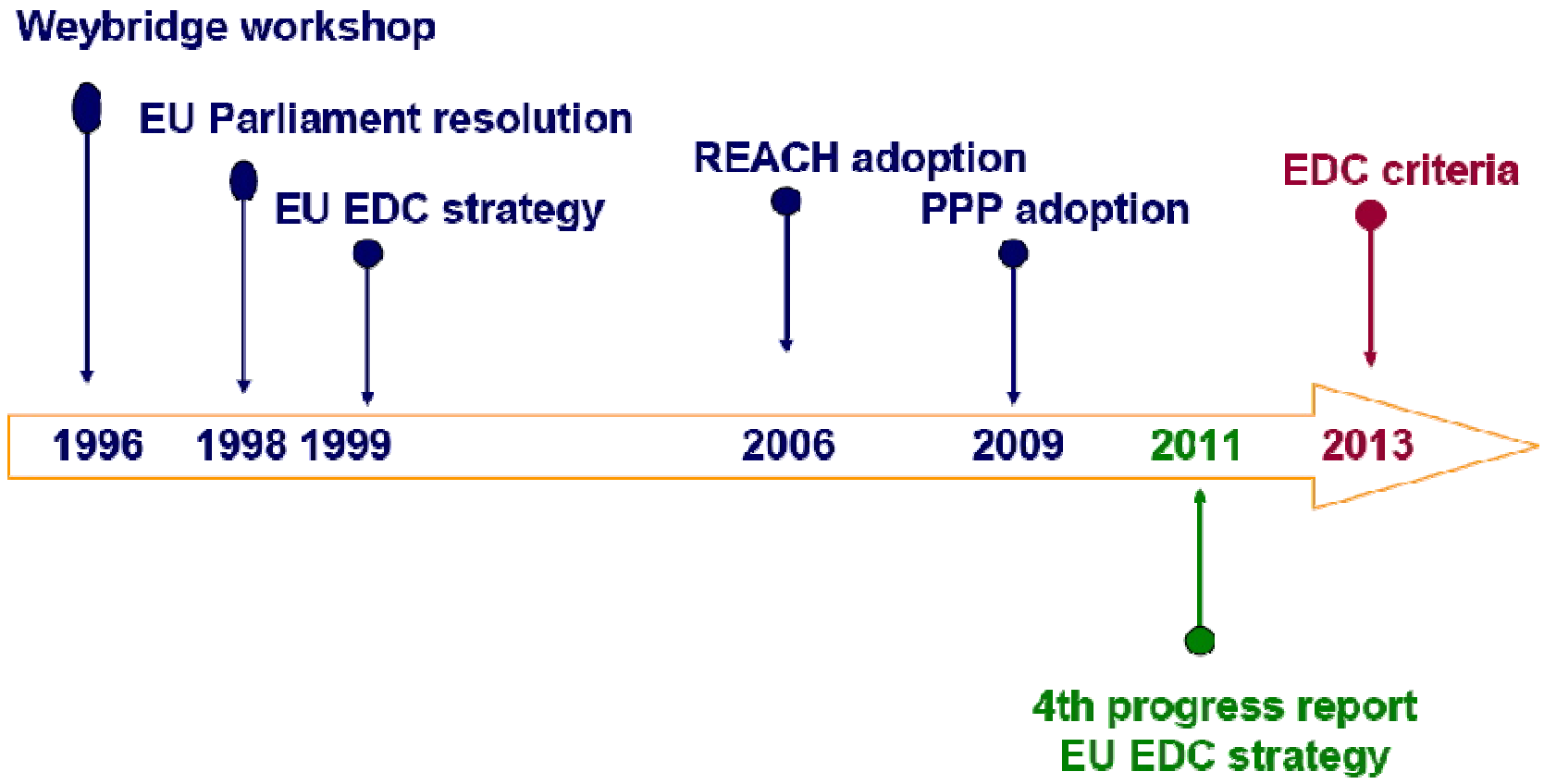
WWF for a living planet

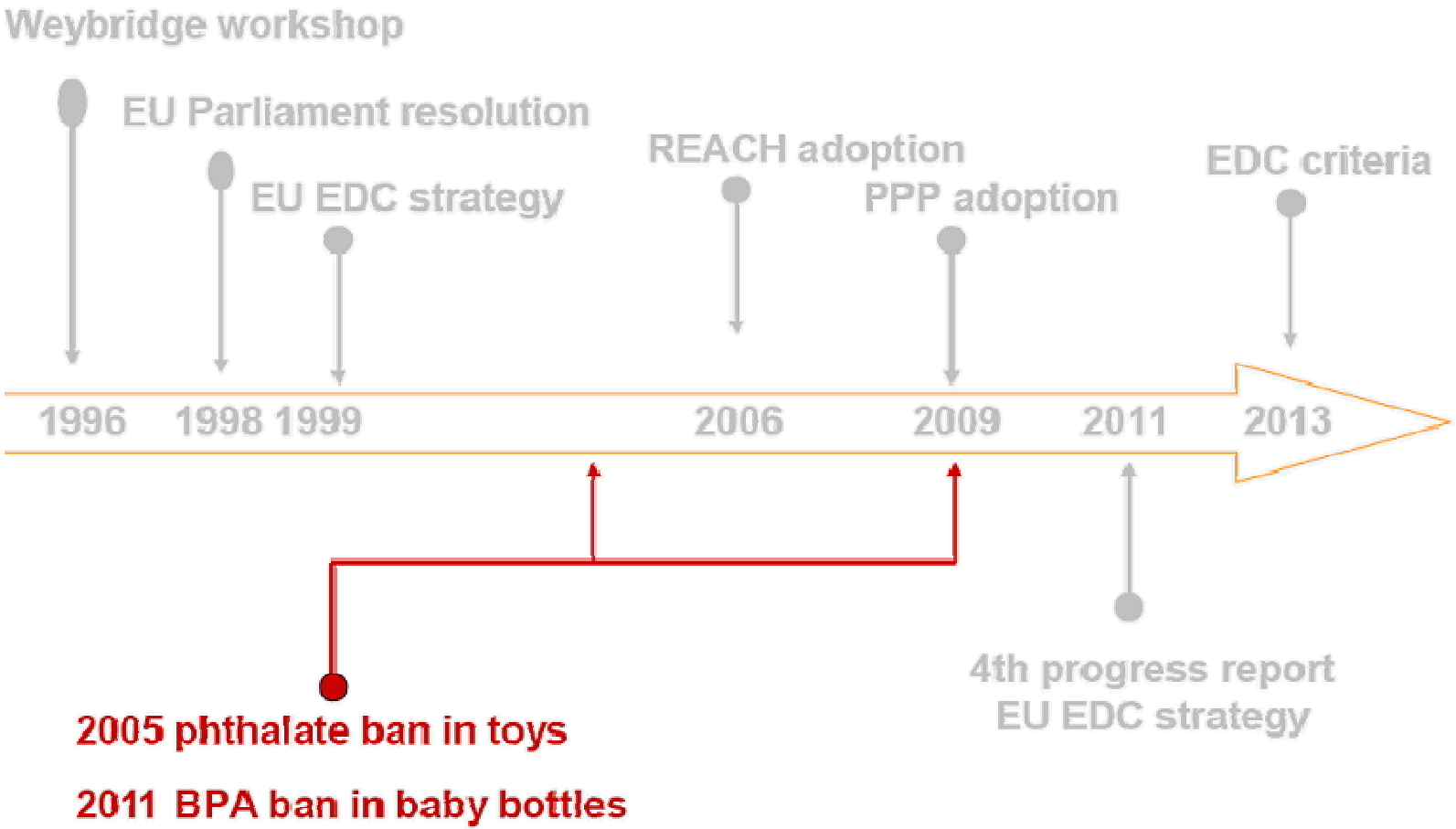
CHEMICAL CONTAMINATION IN THE MEDITERRANEAN: THE CASE OF SWORDFISH

WWF

Invisible burden

Good reasons to get rid of PBT chemicals


Weybridge workshop
EU Parliament resolution
EU EDC strategy
REACH adoption
PPP adoption
EDC criteria
1996
1998
1999
2006
2009
2011
2013
4th progress report
EU EDC strategy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EU EDC strategy
2005 phthalate ban in toys
2011 BPA ban in baby bottles

Effetti sulla biosfera (1)

CHEMICAL COCKTAILS

HARMFUL MIXTURES UPSET OUR HORMONES

Effetti sulla biosfera (2)

- Effetti potenzialmente irreversibili (finestra critica sullo sviluppo)
- Effetti ritardati
- Effetti a basse dosi (non prevedibili dalle sperimentazioni ad alte dosi)





HEALTH IMPACTS LINKED TO HORMONE DISRUPTERS

CHEMICALS DISRUPTING MALE REPRODUCTIVE HEALTH: A LIFELONG THREAT TO BOYS, MEN AND FUTURE GENERATIONS

It now appears that in several EU countries around 1 in 5 young men have impaired fertility[1]. Men's exposure to 'gender bender' hormone disrupters has been linked to this problem. Studies of male animals have also shown that chemicals to which we may be exposed, which block the male hormone (testosterone), may cause birth defects of the penis and testicles, and low sperm counts. It is therefore likely that these chemicals play a role in the birth defects of baby boys, declining sperm counts in young men and testicular cancer.

A RISK OF BREAST CANCER IN WOMEN

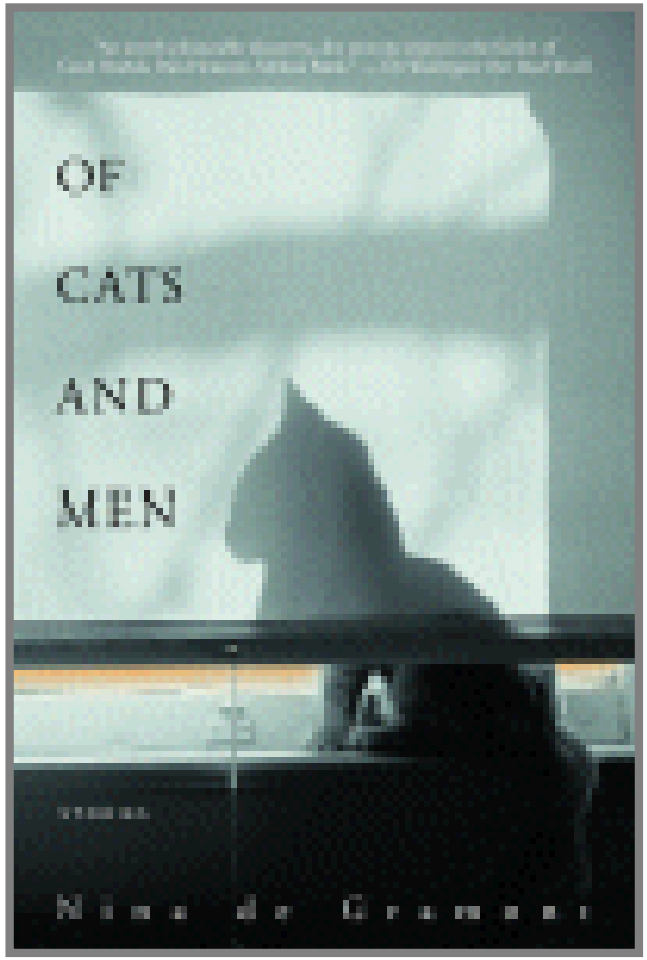
Around 1 in 10 women in Europe now gets breast cancer, a higher rate than twenty years ago.[2] The increase is not just due to higher life expectancy, later childbirth, inherited genetic risk or more screening for breast cancer.

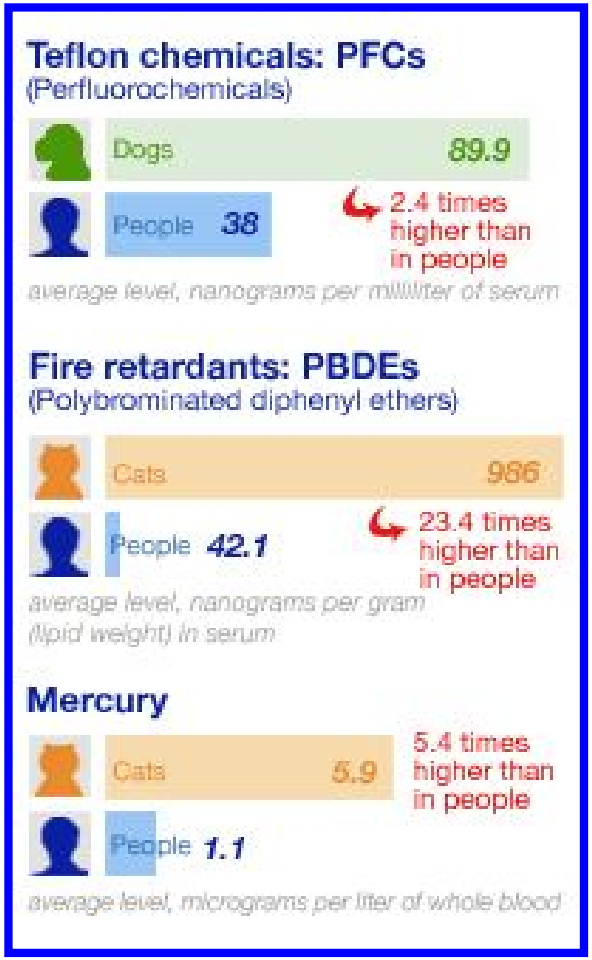
There is good reason to suspect that hormone disrupters that mimic estrogen play a role in the increase, because it is well known that a woman's lifetime exposure to estrogen influences her risk of breast cancer. Research suggests that we will not be able to reduce the rates of breast cancer without addressing people's exposure to hormone disrupting chemicals.

FEMINISING WILDLIFE

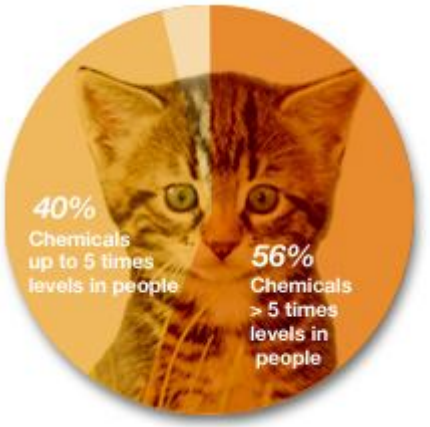
Wildlife, too, is suffering from exposure to hormone disrupters, and a CHEM Trust report reviews many of the effects seen in male wildlife, which indicate that they are being biologically 'feminised'.[3] Reduced reproduction has been reported in some populations of many different species in polluted areas all over the world.

Polluted Pets





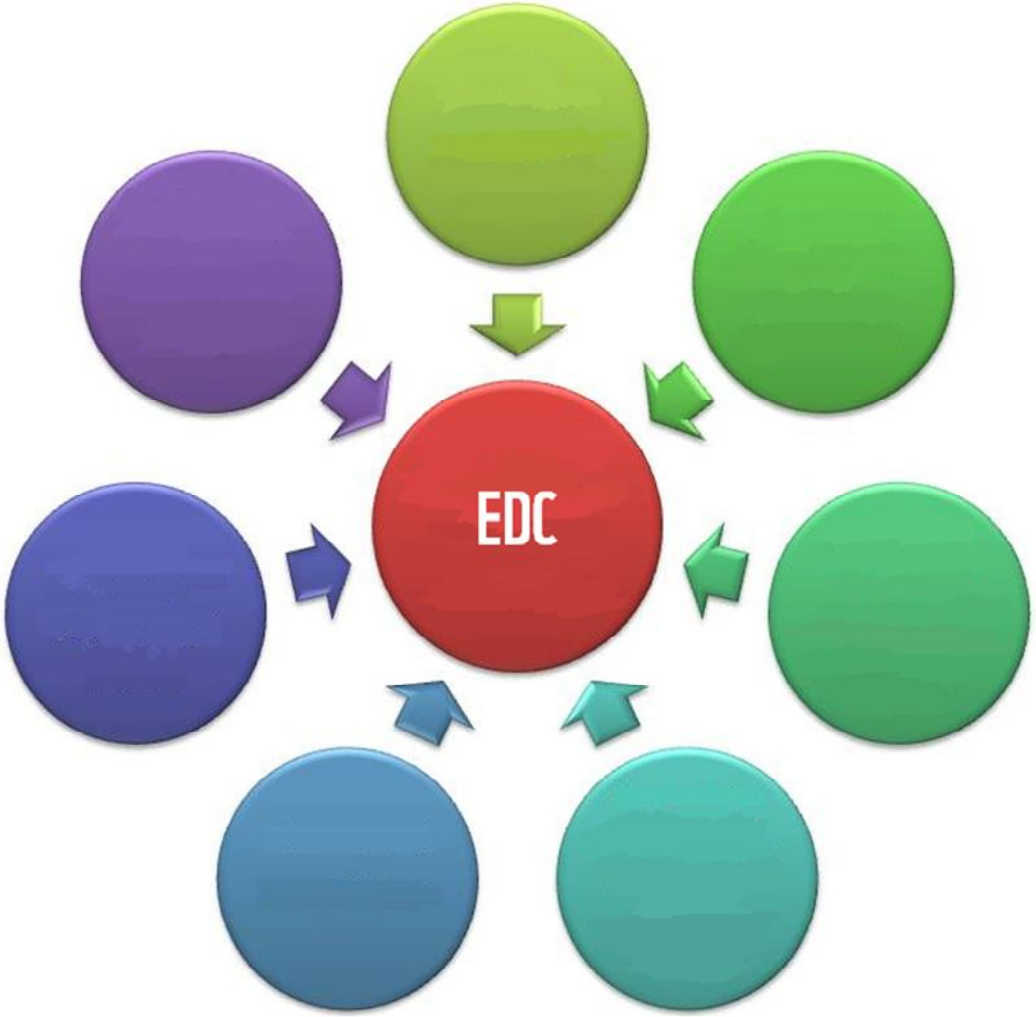
35 chemicals detected
- 40% at higher levels
in dogs than people



46 chemicals detected
- 96% at higher levels
in cats than people

High Levels of Toxic Industrial Chemicals Contaminate Cats And Dogs. In Environmental Working Group (EWG), 2008 (www.ewg.org/node/26243)

Sostanze Chimiche EDC
approccio multidisciplinare



Sostanze Chimiche EDC
approccio multidisciplinare

Esistono soluzioni? Si! (1)

- Principio di precauzione (***Not Safe, only Safer***)
- Divieto immediato per le sostanze più pericolose:
  - persistenti e bioaccumulanti
  - IE noti e altre con effetti identificati
  - con effetti combinati e attività basse dosi
- Sostituzione
- Dimostrare causa-effetto

Esistono soluzioni? Si! (2)

tutela della salute e mantenimento dei servizi ecosistemici

Il pianeta Terra è un complesso sistema guidato da interrelazioni multiple tra i suoi componenti, in particolare tra uomini e ambiente naturale.

In questo contesto la biodiversità è essenziale per mantenere i beni e servizi del nostro pianeta e, in sostanza, la vita stessa

I dream a better world, and
ask, why not?

WWF

for a living planet®