

INTRODUCTION:

Wild pollinators are declining in occurrence and diversity in the EU and numerous species are threatened with extinction. This is a serious cause for concern because pollinators are an integral part of healthy ecosystems. Without them, many plant species would decline and eventually disappear, along with the organisms that depend on them. This phenomenon has attracted worldwide attention, leading to persistent calls for action. The decline of pollinators will have far-reaching consequences on terrestrial ecosystems where animal-pollinated plants play a vital role, and will lead to their collapse in the long term. This will inevitably hinder the EU's path to sustainable development and threaten human wellbeing. The European Commission has therefore launched the first-ever comprehensive EU initiative on pollinators. The initiative will tackle the decline of pollinators through three priorities:  
 I. Improving knowledge on pollinator decline, its causes and consequences  
 II. Tackling the causes of pollinator decline  
 III. Raising awareness, engaging wider society and promoting collaboration

POLLINATORS :

Pollinators are a functional group of animals that pollinate plants. Pollination the transfer of pollen (male gametes) between the male and female parts of flowers enables fertilisation and reproduction of plants. As many plants do little to no self-pollination, they rely on vectors like wind, water and animals for pollination. The vast majority of flowering plants (87.5 %) worldwide are pollinated by animals<sup>1</sup>. The pollinator-plant relationship is a mutualistic one. Plants provide pollinators with food resources (pollen, nectar, oils), fragrances and resins (for nest construction). In Europe, pollinators are dominated by insects, in particular bees and hoverflies. Bees are the most prolific pollinators. There are almost 2 000 wild bee species in the EU. The most well-known bee species is the western honeybee (*Apis mellifera*), a domesticated species essential to the beekeeping sector and the production of honey and other beehive products. Besides honeybees, some bumblebee and solitary bee species are also actively managed.

POLLINATOR DECLINE :

Our understanding of the status and trends of pollinators, the threats they face and the consequences of their loss has significantly improved in recent times thanks to a growing body of research. Although we do not yet have the full picture, the evidence has shown that the decline of pollinators is a serious cause for concern and primarily a consequence of human activities. While pollinators are a broad group of animals, their decline has been dominantly reported by data on bees, in particular honeybees.

EUROPEAN RED LIST :

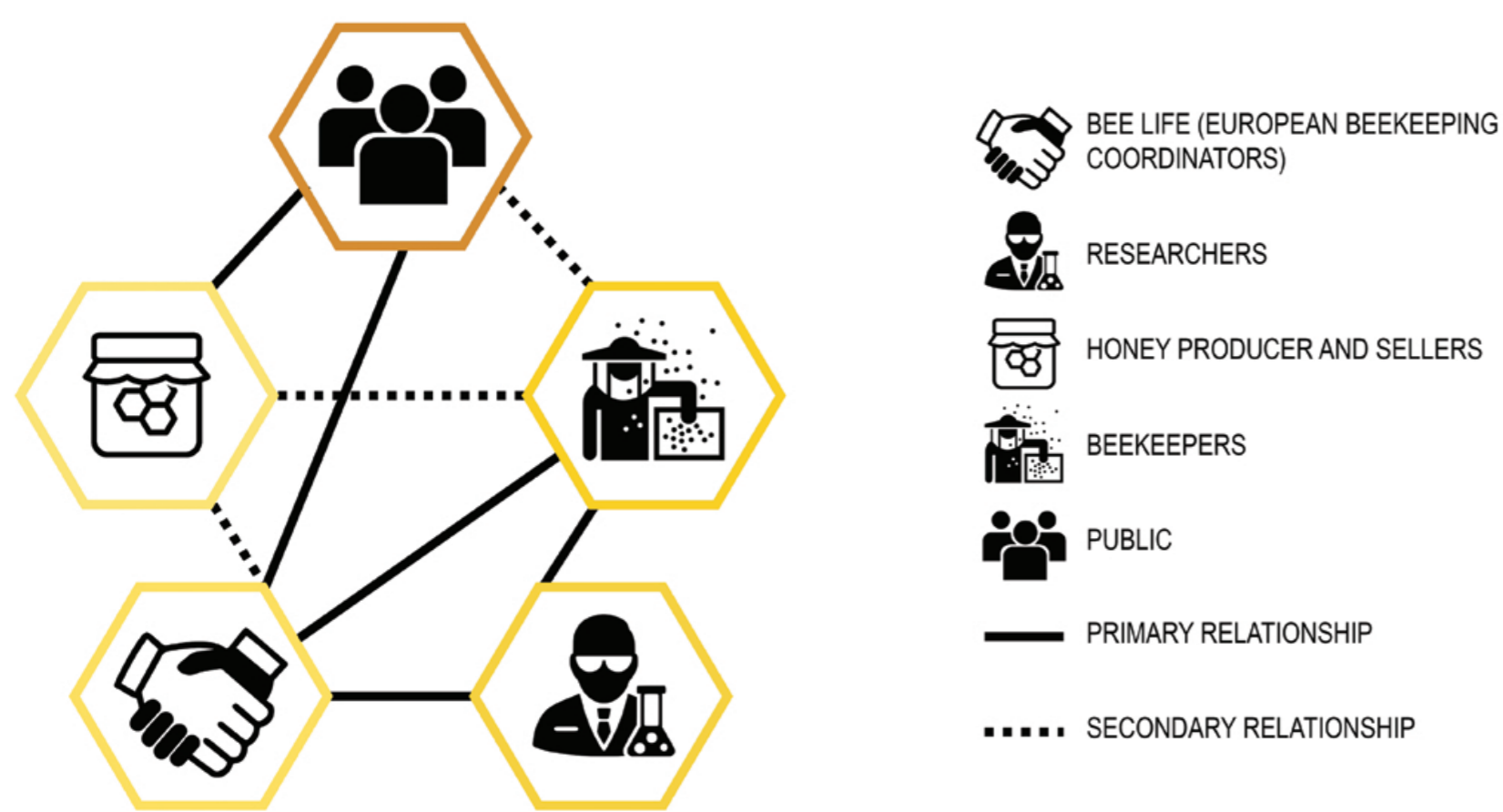
The European Red List is a review of the status of European species according to the Regional Red Listing guidelines of the International Union for Conservation of Nature (IUCN). It identifies those species that are threatened with extinction<sup>11</sup> at European level (both Pan-European and in the EU) so that appropriate conservation actions can be taken to improve their status. The Red List assessed so far two groups of insect pollinators: bees<sup>12</sup> and butterflies<sup>13</sup>. The European Red List assessments of bees and butterflies are presented in detail below (European level).

CAUSES OF POLLINATOR DECLINE :

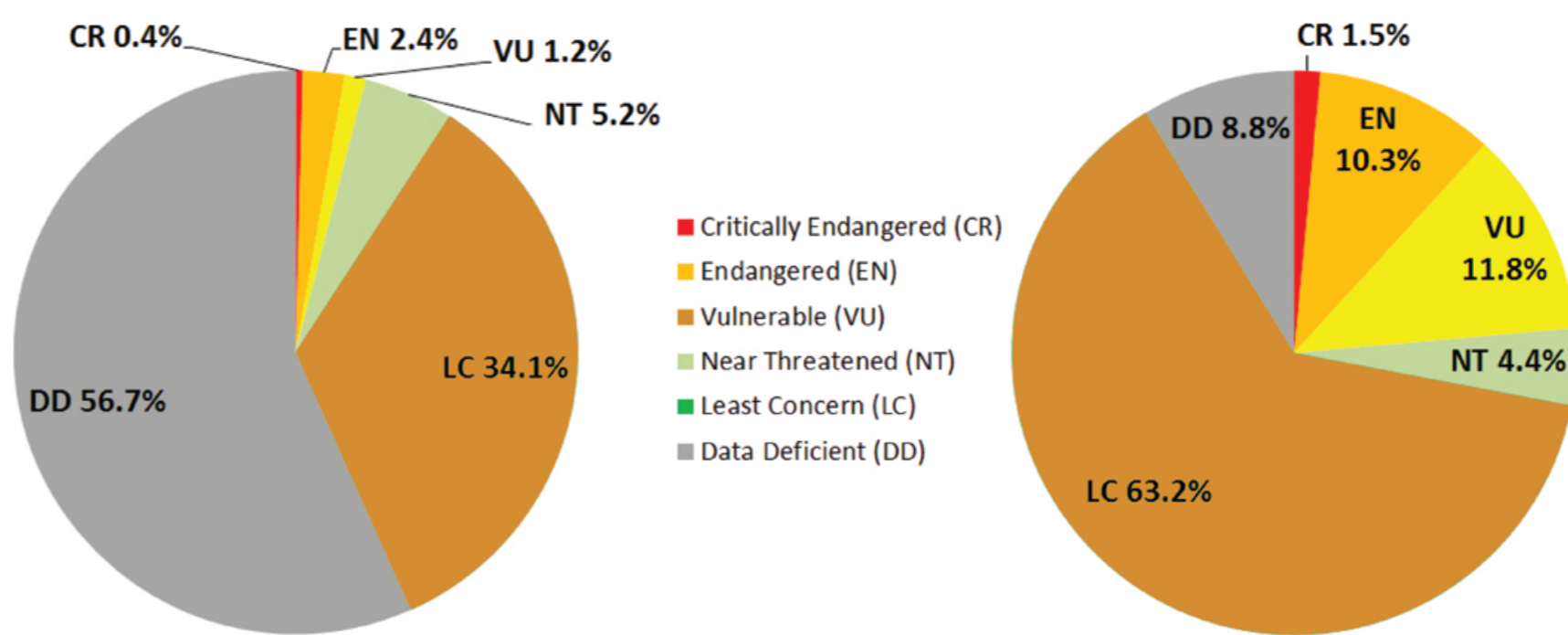
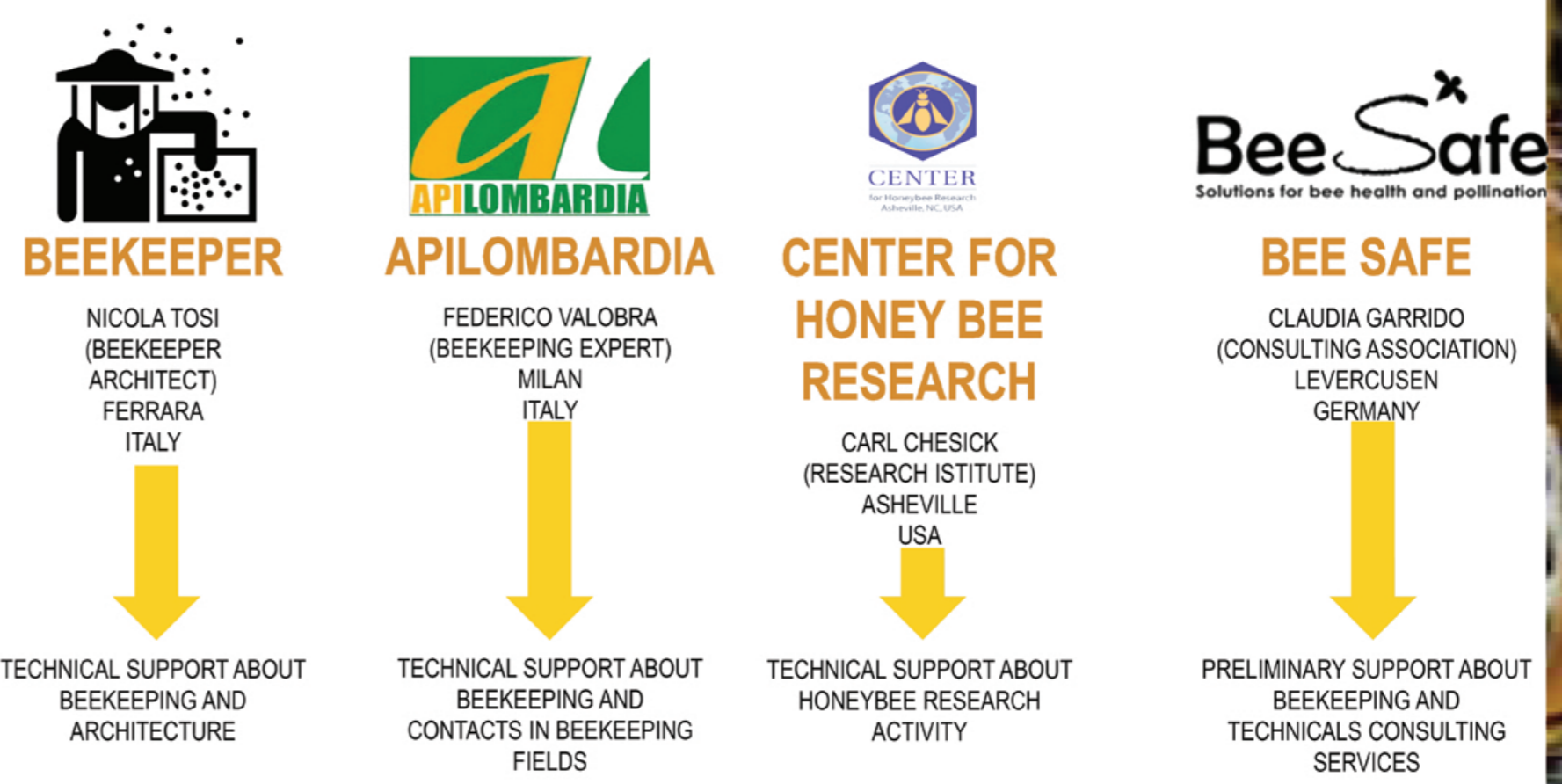
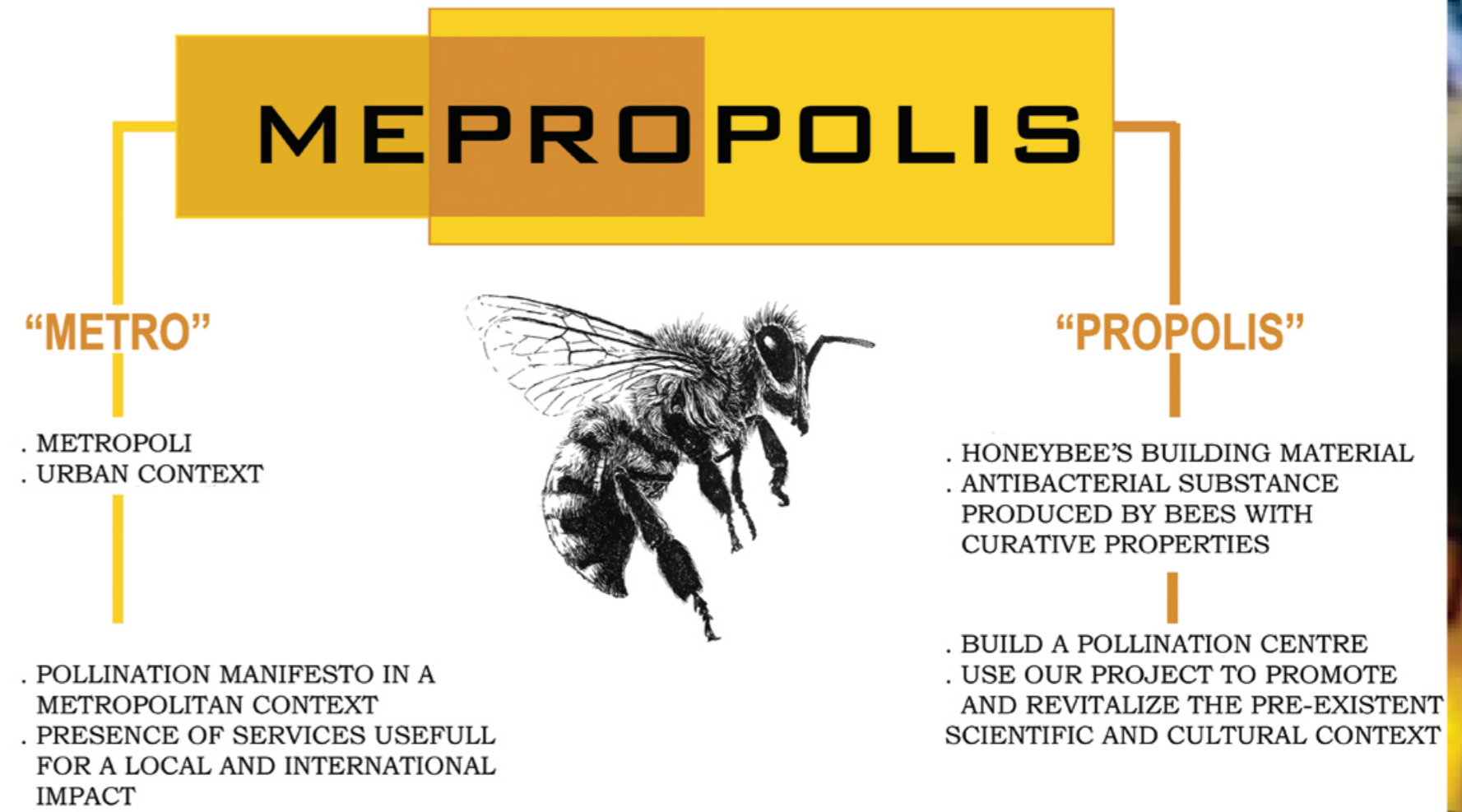
The current scientific knowledge suggests that there is no one single driver of pollinator decline. The IPBES report<sup>6</sup> lists the following threats to pollinators: land-use change, intensive agricultural management and pesticide use, environmental pollution, invasive alien species, diseases and climate change. The report provides a comprehensive review of the existing evidence on these direct drivers. The European Red List also presents a valuable source of information as it identifies threats per species. This section provides a brief description of each direct driver.

ACTIONS IN EU MEMBER STATES :

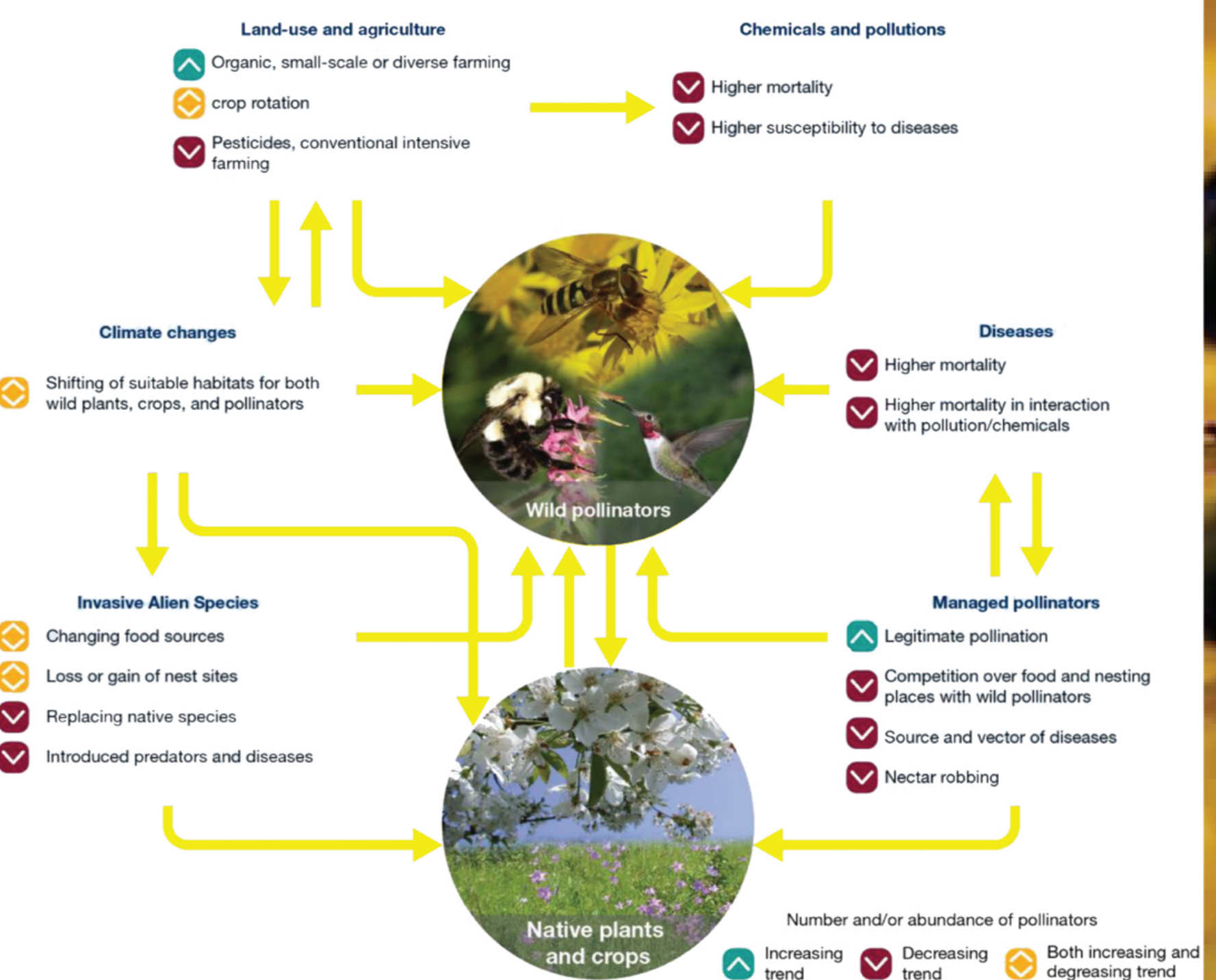
There are a number of national and regional pollinator strategies in EU Member States. A recent report for the Commission shows that there are at least six national or regional strategies or action plans addressing wild pollinator conservation in EU Member States. A number of others are planned or in preparation. Belgium has the Federal Bee Plan 2017-2019, which aims to halt the loss of both wild and domesticated pollinators. However, it focuses on honeybees. There are no regional strategies focused on wild pollinators. Red lists of bees in Belgium are being prepared. Flanders has a butterfly monitoring network. The Federal Pesticide Reduction Programme (2013-2017) set up coordinated monitoring of the effects of pesticides on bees<sup>76</sup>. Awareness of wild pollinators in Belgium has increased in recent years, in particular since 2015 thanks to both public and non-governmental organisation (NGO) initiatives and campaigns.



Relation between different aspects of mepropolis project



IUCN : Red List status of European bees (left)  
Bumblebees - the best studied group of bees (right)



Single and combined impacts of different pressures on pollinators and pollination (source: IPBES)

