



EU funded research on bees and pollinators (FP7 and H2020)

Collecting and Sharing Data on
bee health
Towards a European Bee
Partnership

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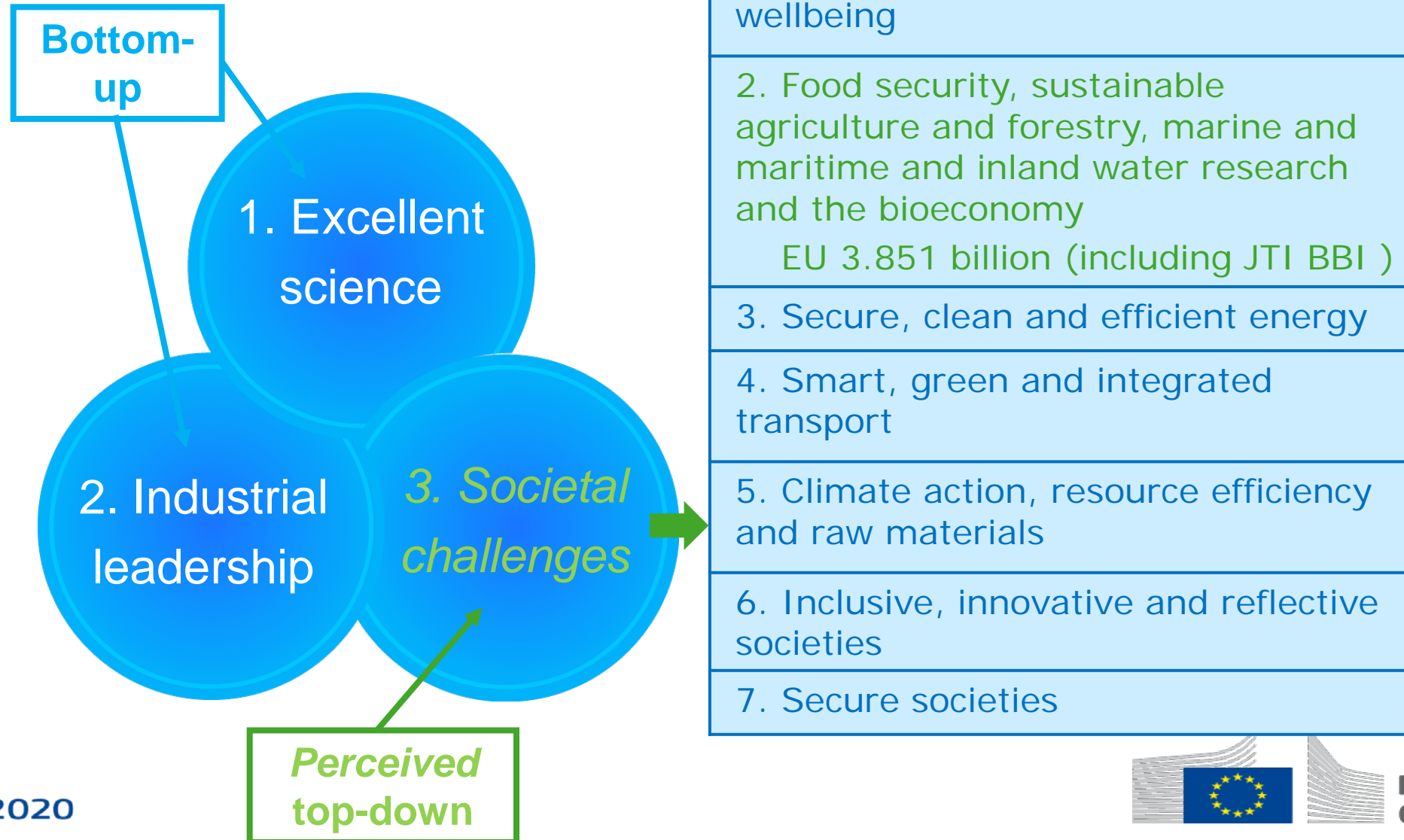


Structure of the presentation

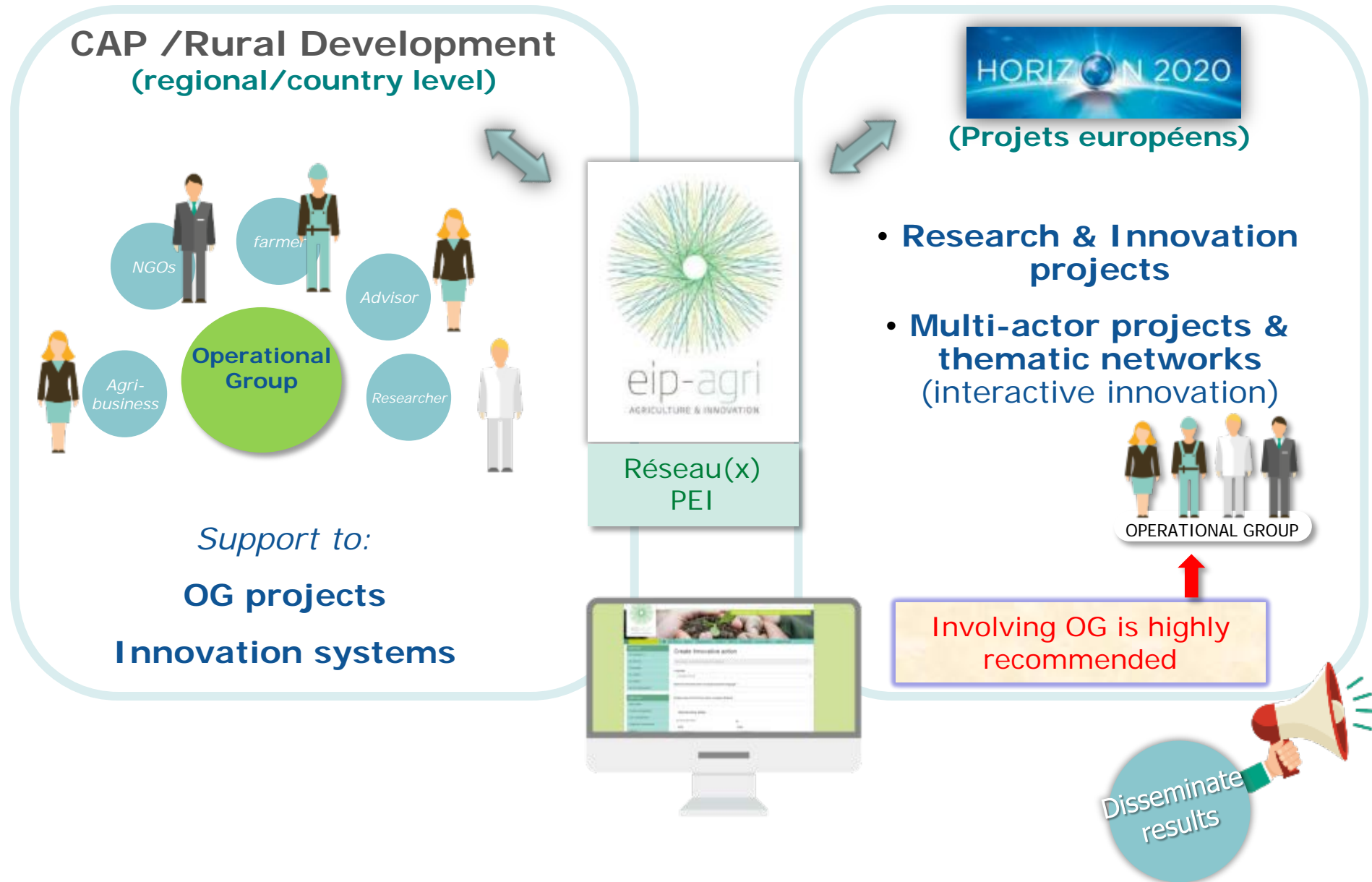
- 1. H2020 and Societal Challenge 2*
- 2. FP7 projects*
- 3. H2020 projects*
- 4. In the pipeline and perspectives*

The presentation shall neither be binding nor construed as constituting commitment by the European Commission.

Horizon 2020 Overall Structure



Connecting policies: overview of EIP-AGRI





FP7 projects

At least 20 projects addressing wholly or partly bees and/or pollinators/pollination:

- FP7-**KBBE** - Specific Programme 'Cooperation' - Research Theme: 'Food, agriculture and fisheries, and biotechnology' : **AMIGA, BEE DOC, LIBERATION, QUESSA, SMARTBEES**
- FP7-**ENVIRONMENT** - Specific Programme 'Cooperation'- Research Theme: 'Environment (including climate change)' : **STEP**
- FP7-**SME** - Research theme: Research for the benefit of SMEs: **APIFRESH, CLEANHIVE, ECOSYN, SWARMONITOR**
- FP7-**IDEAS-ERC** - Specific Programme 'Ideas' implementing the Seventh Framework Programme: **FLORSIGNALS, SPACERADARPOLLINATOR, VIBES**
- FP7-**PEOPLE**-Marie Curie Actions: **BEEFUN, BEESPATNET, ColonyPersPOLs, DYVERSE, FLORDETERSIGNALS, NEUROBEECOG2012, Pynamite**

Cumulative EU contribution: EUR 39million (around half focussed on honey bees)

COST Actions: **COLOSS, SUPER-B**



Some FP7 projects



COLOSS
honey bee research association



QuESSA





FP 7 : On-going projects

- **SMARTBEES** – Sustainable Management of Resilient Bee populations (2014-2018) http://cordis.europa.eu/project/rcn/192071_en.html - KBBE
- **SPACERADARPOLLINATOR** - Space use by bees– radar tracking of spatial movement patterns of key pollinators (2014-2019) http://cordis.europa.eu/project/rcn/185402_en.html - ERC
- **BeeFun** - pollinator responses to global change and its implications for ecosystem function (2014-2018) - http://cordis.europa.eu/project/rcn/186904_en.html - MCA

COST Action

SUPER-B – Sustainable Pollination in Europe: joint Research on Bees and other pollinators (2014-2018)

http://www.cost.eu/COST_Actions/fa/FA1307; <http://www.superb-project.eu/>



Horizon 2020 projects: honeybees

- **BeeDanceGap** - Honeybee communication: animal social learning at the height of social complexity (2016-2021) – http://cordis.europa.eu/project/rcn/193605_en.html - ERC
- **Hapi** - Hyperthermia in Apiculture - A new product against the Deformed Wing Virus of honey bees (2017) – http://cordis.europa.eu/project/rcn/210654_en.html - SC2/SME
- **IoBee** - Beehive health IoT application to fight Honey Bee Colony Mortality (2017-2020) – http://cordis.europa.eu/project/rcn/210011_en.html - FTIPilot
- **MicroBeeOme** - Evolution of honey bee gut microbiome through bacterial diversification (2017-2022) – http://cordis.europa.eu/project/rcn/206057_en.html - ERC
- **MICRO4BEE** - A sustainable organic solution for bees decline (2016) – http://cordis.europa.eu/project/rcn/200618_en.html - SC2/SME



Marie Skłodowska-Curie Actions

- **DRiveR** - How does dopamine link QMP with reproductive repression to mediate colony harmony and productivity in the honeybee? (2018-2020) http://cordis.europa.eu/project/rcn/209660_en.html - IF
- **BeeSymOverSpace** - How to help the hive? Incidence and impact of heritable microbes on bee health (2016-2019) http://cordis.europa.eu/project/rcn/206460_en.html – IF

Cumulative EU contribution: €3,7 million

ERA-NET SUSAN:

- New indicators and on-farm practices to improve honeybee health in the Aethina Tumida ERA in Europe – *€0,7 million*

Develop new management practices (Good Beekeeping Practices – GBPs) adopting new clinical methods, biomechanical and innovative biomolecular techniques respecting the natural behaviour of bees





In the pipeline: Societal Challenge 2

Topic SFS-16-2017: Bee health and sustainable pollination

- **RIA; €9million;** 2 stage selection; *deadline submission full proposals 13/09/2017*
- **'multi-actor approach'**. .../...Projects should ensure appropriate dissemination to the breeding and professional sectors and other relevant stakeholders to facilitate uptake of results.
- "There should be **cooperation as appropriate with relevant initiatives**, e.g. in the context of MUST-B, and other funded projects in this field, e.g. those selected under SFS-28-2017."
- "Research will focus on hazard identification for **managed and wild bees, social and solitary bees**, focusing mainly on exposure and risk characterisation of mixtures of chemicals for bee health. It will take into account the presence or absence of main pathogens../...and will develop molecular markers using omics technologies. Moreover, it will also take into account the aspect of nutrition and its interplay with the other two stress factors since it has been shown that quality of diet plays an important role in bee health.../... "

NB: topic inspired by the EU scientific workshop on bee health and sustainable pollination organised by DG AGRI with the support of EFSA (<http://onlinelibrary.wiley.com/doi/10.2903/sp.efsa.2016.EN-1026/full>)



Topic SFS-28-2017: Functional biodiversity – productivity gains through functional biodiversity: effective interplay of crop pollinators and pest predators

- **RIA; €10million**; 2 stage selection; *deadline submission full proposals 13/09/2017*
- Proposals will use transdisciplinary research methods and should fall under the concept of the '**multi-actor approach**', involving the farming sector with a view to generating cross-fertilisation and co-ownership.
- Proposals will explore the **functional role of biodiversity in the delivery of ecosystem services**, in particular the spatial and temporal interactions between plants/animals as pollinators and natural enemies of pests. They will help to improve understanding of the factors and mechanisms that govern the delivery of such services, including agricultural management and landscape characteristics.../...
- .../...Proposals should establish a farm-level observatory and knowledge-exchange network on biological control and pollinator services linking with the European Innovation Partnership with a focus on innovative system solutions for short- and long-term needs.../...



Perspectives under Horizon 2020

- The last work-programme of Horizon 2020, covering 2018-2020 is currently in preparation. It is due to be adopted and published before the end of October 2017.
- In the SC2 work-programme, consideration is being given to further contribute to pollination and bee health, including to building a community around the theme of today.
- Expected deadline for submission of proposals: February or March 2018. Information will be available on H2020 "Participant Portal"
- The event of today can certainly contribute to shaping a possible partnership





Thank you for your attention!

