

THE INDEX OF SUSTAINABLE ECONOMIC WELFARE IN THE EU27

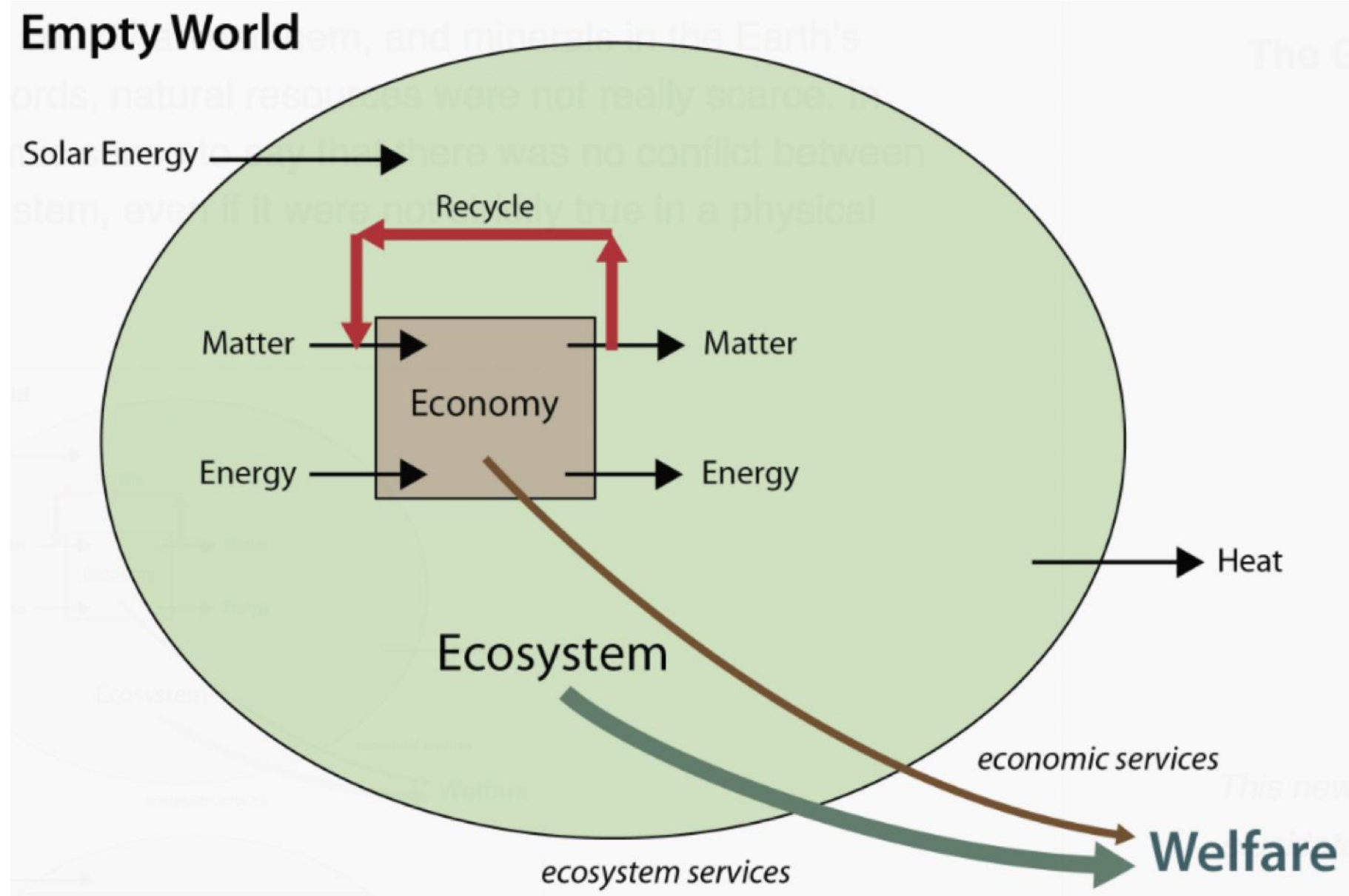
CESS 2024 (Paris) – 15.10.2024
Claire Soupart & Brent Bleys

AGENDA

- What is the ISEW?
- Our ISEWs
 - Methodology
 - Results for the EU27
 - Results for France
- Conclusion
- What is next?

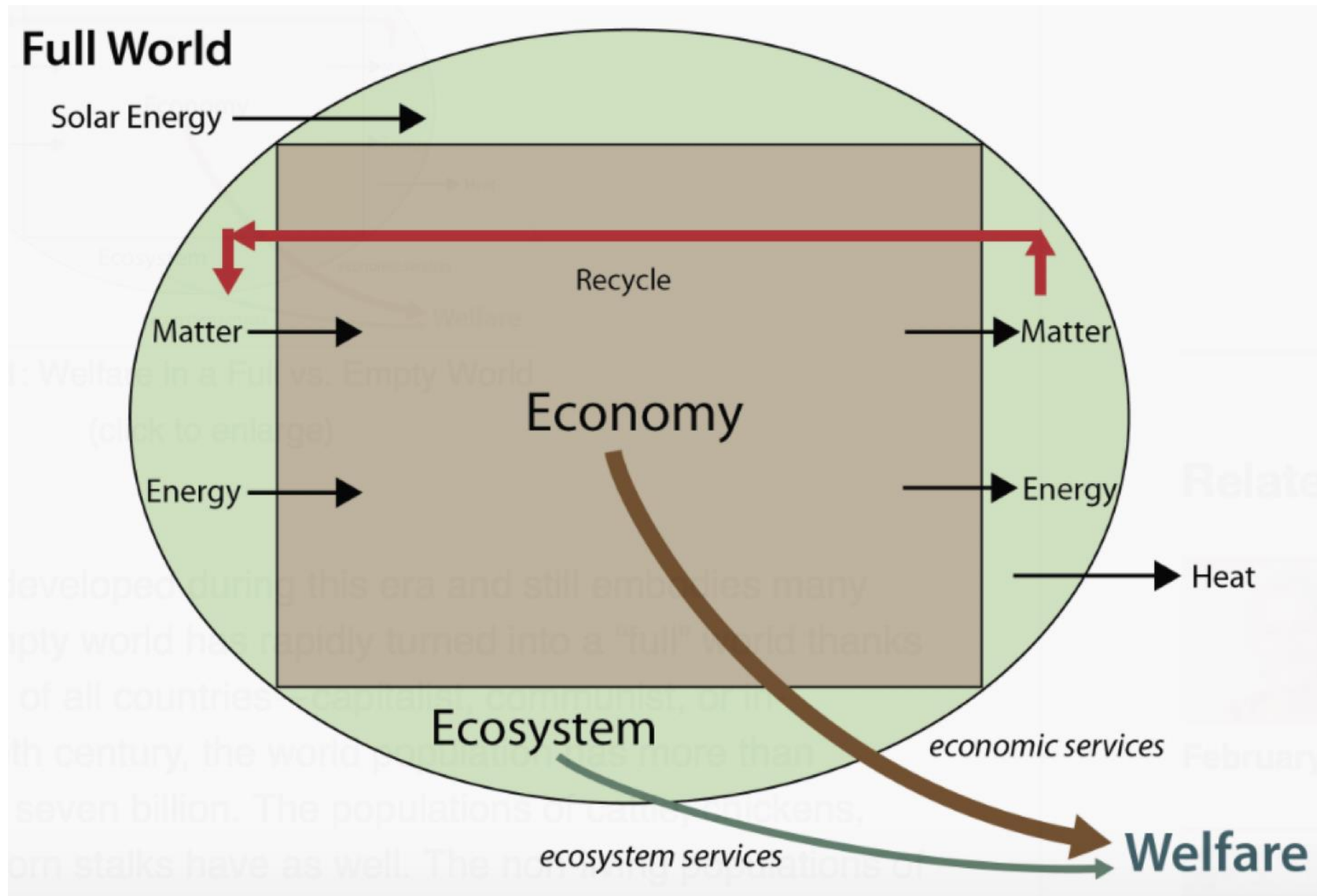
WHAT IS THE ISEW?

ECONOMIC VS ECOSYSTEM SERVICES



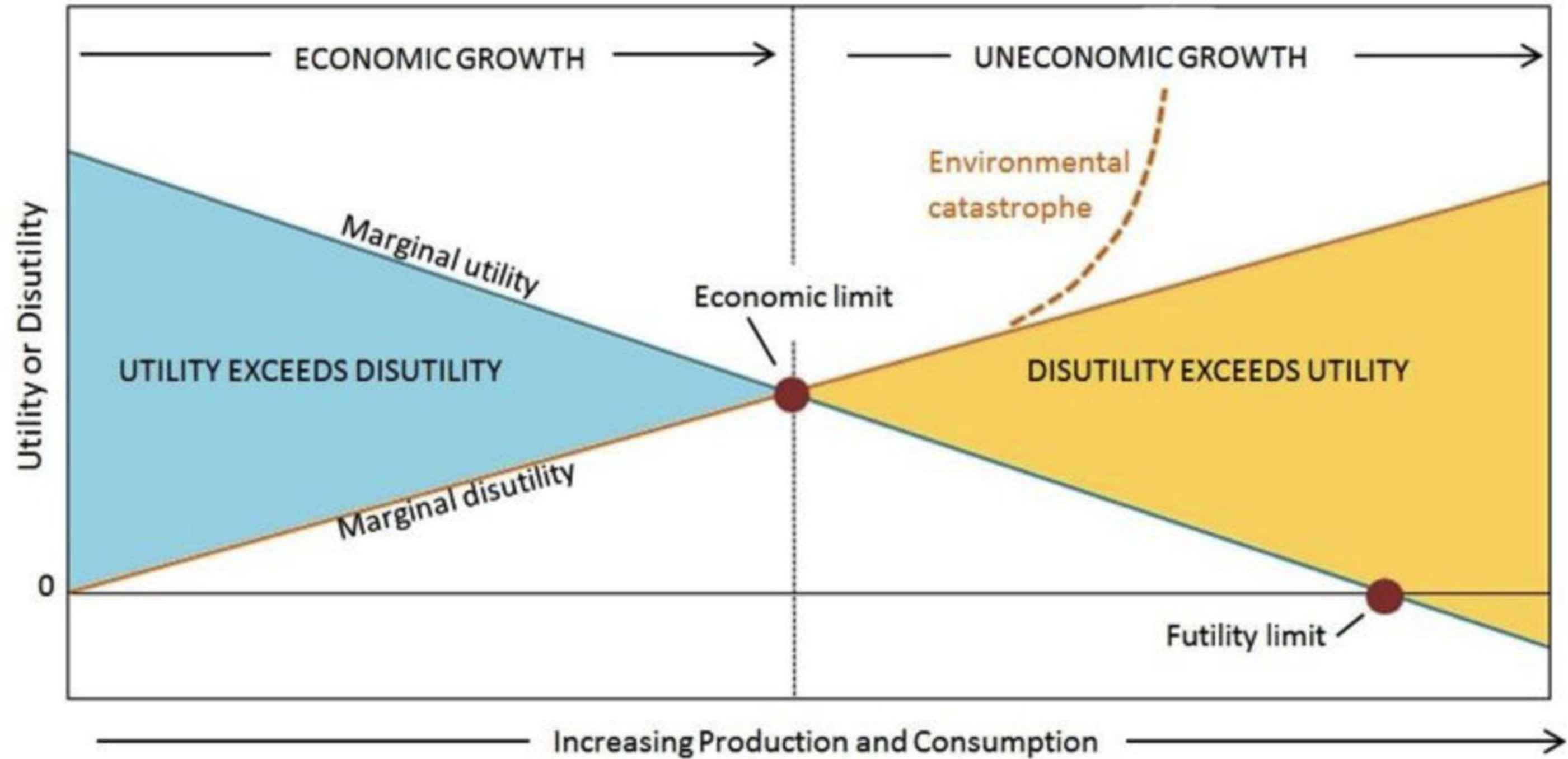
- GDP or GDP/capita is a poor measure of the “services” provided by the economy (brown arrow):
 - Narrow focus on market production,
 - No distinction between welfare-enhancing and defensive expenditures,
 - Lack of attention to distributional issues,
 - No decreasing marginal utility of consumption.

MACROECONOMIC COST-BENEFIT ANALYSIS



- Additionally, in a full world we also need to take into account the loss of ecosystem services as a result of GDP growth.
- GDP growth brings both ...
 - decreasing marginal benefits of “consumption” and
 - increasing marginal costs on the environment.
- Macroeconomic cost-benefit analysis is needed to identify the “optimal” scale of the economy.

UNECONOMIC GROWTH



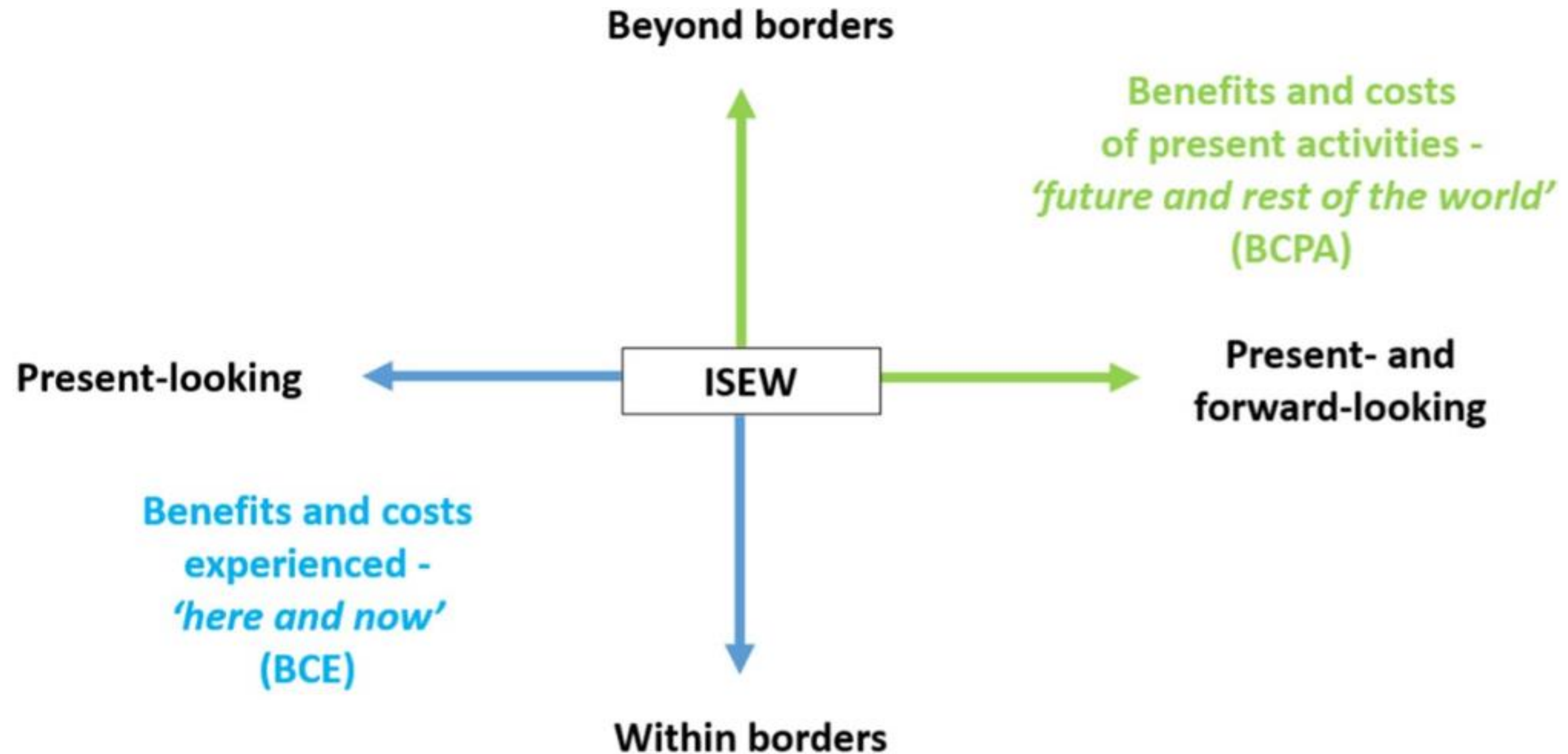
INDEX OF SUSTAINABLE ECONOMIC WELFARE

- Index of Sustainable Economic Welfare (ISEW)
provides such a macroeconomic CBA tool
 - “uncancelled” benefits ~ corrected consumption expenditures;
 - “uncancelled” costs ~ environmental degradation and non-renewable resource use.
- ISEW = monetary index
 - directly comparable to GDP (+),
 - (good) valuation methods need to be available for items to be included & problem of trade-offs between variables (-).

OUR ISEWs

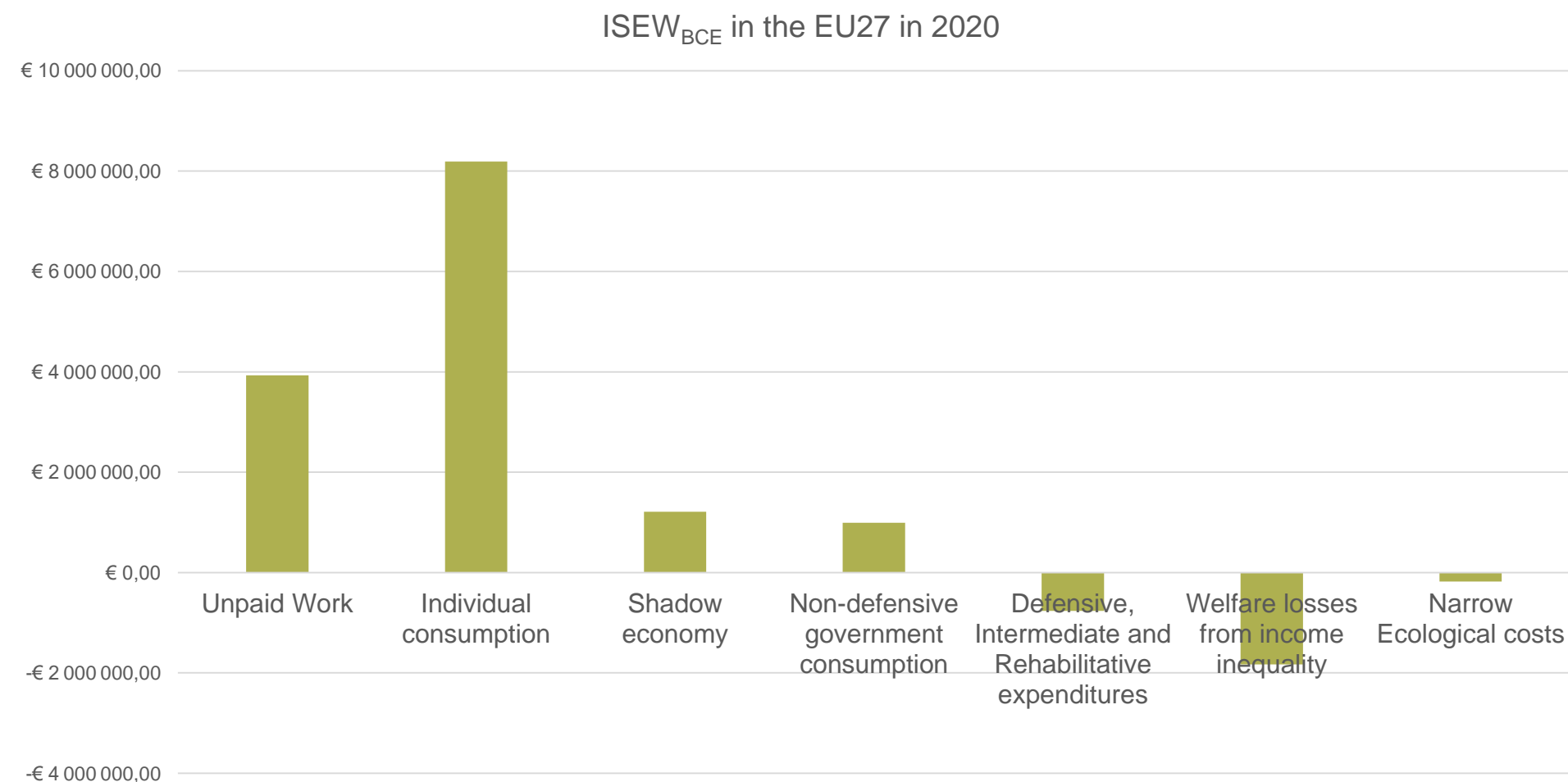
TWO DIFFERENT ISEWs

Which costs and benefits?

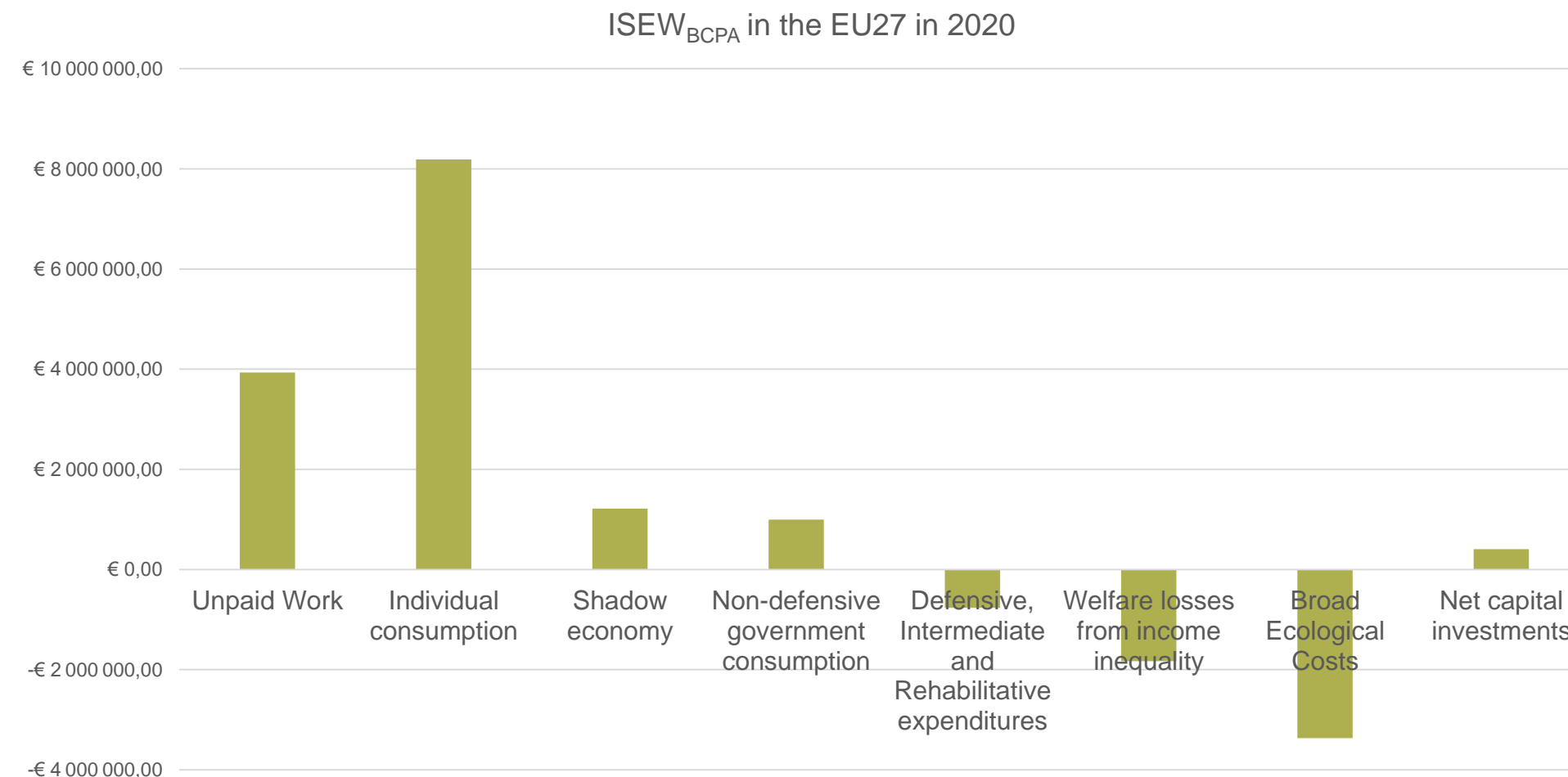


ISEW_{BCE}

- Benefits and Cost Experienced in the present and in a given country.
- Benefits and Costs coming from past and current activities.



- Benefits and Costs of Present economic Activities.
 - Benefits and Costs in the present and in a given country but also in the future and abroad.
 - Benefits and Costs coming from activities taking place in the present.



BCE VERSUS BCPA

$$\text{ISEW}_{\text{BCE}} = \text{UW} + C_i + S + G_c - \text{DIRE}_p - \text{INQ} - \mathbf{NEC}$$

$$\text{ISEW}_{\text{BCPA}} = \text{UW} + C_i + S + G_c - \text{DIRE}_p - \text{INQ} - \mathbf{BEC} + \mathbf{\Delta K}$$

In common:

- value of unpaid work (UW)
- individual consumption (C_i)
- shadow economy
- non-defensive government consumption (G_c)
- defensive, intermediate and rehabilitative expenditures (DIRE_p)
- welfare losses from income inequality

Only BCE (experiential ~ Fisher)

- narrow ecological costs (NEC)

Only BCPA (capital consumption = cost ~ Hicks)

- broad ecological costs (BEC), including depletion of natural capital / costs of the energy transition
- capital adjustments

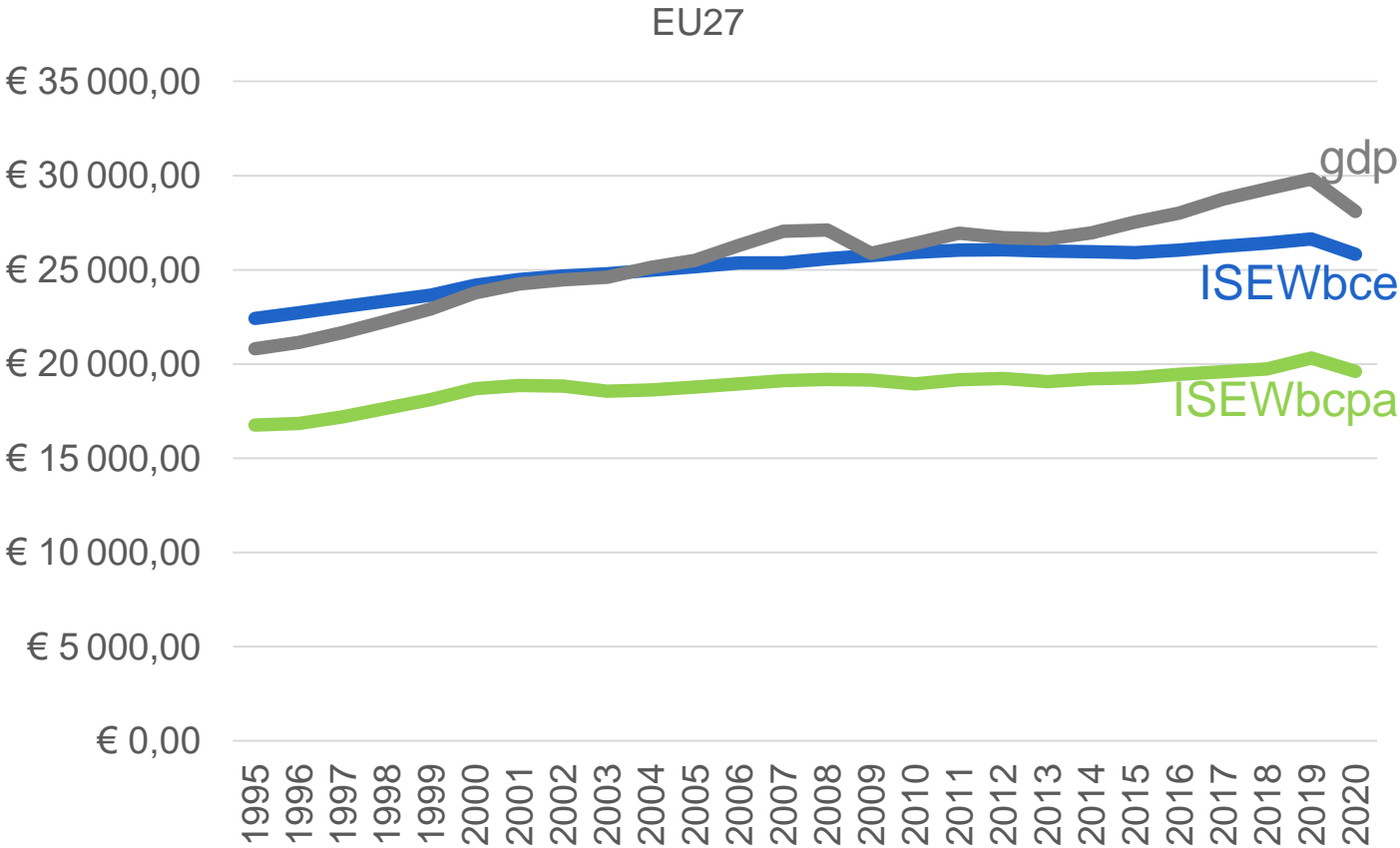
RESULTS

ISEW IN THE EU27

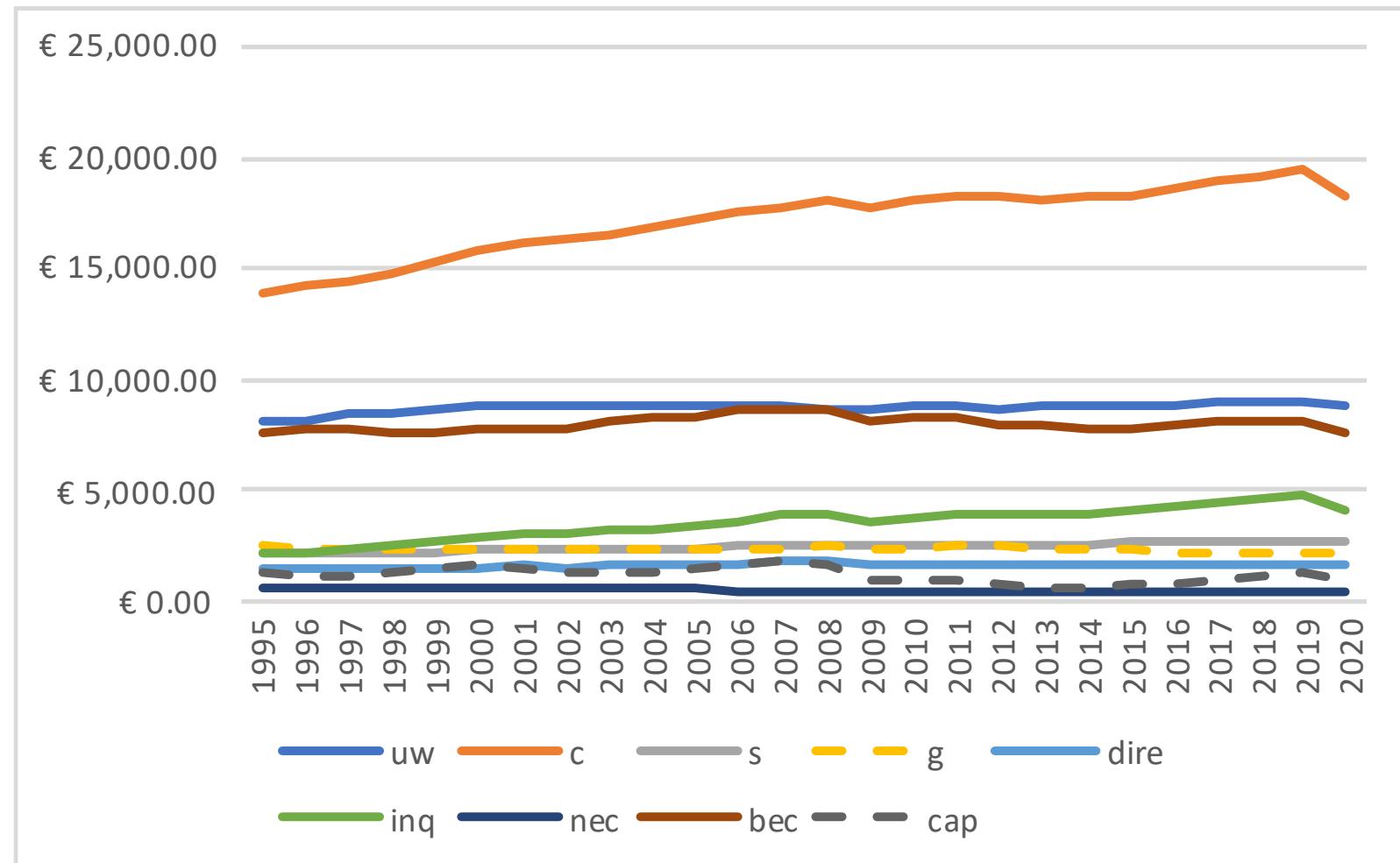
ISEWs VS GDP IN THE EU27

Annual growth rates in %

Time period	ISEW BCE	ISEW BCPA	GDP
1995-2020 (total)	0,57 (15,21)	0,63 (16,95)	1,21 (34,99)
1995-2001	1,49	1,98	2,58
2001-2008	0,62	0,25	1,61
2008-2011	0,59	-0,02	-0,22
2011-2014	-0,11	0,09	0,03
2014-2019	0,52	1,12	2,03
2019-2020	-3,05	-3,54	-5,77

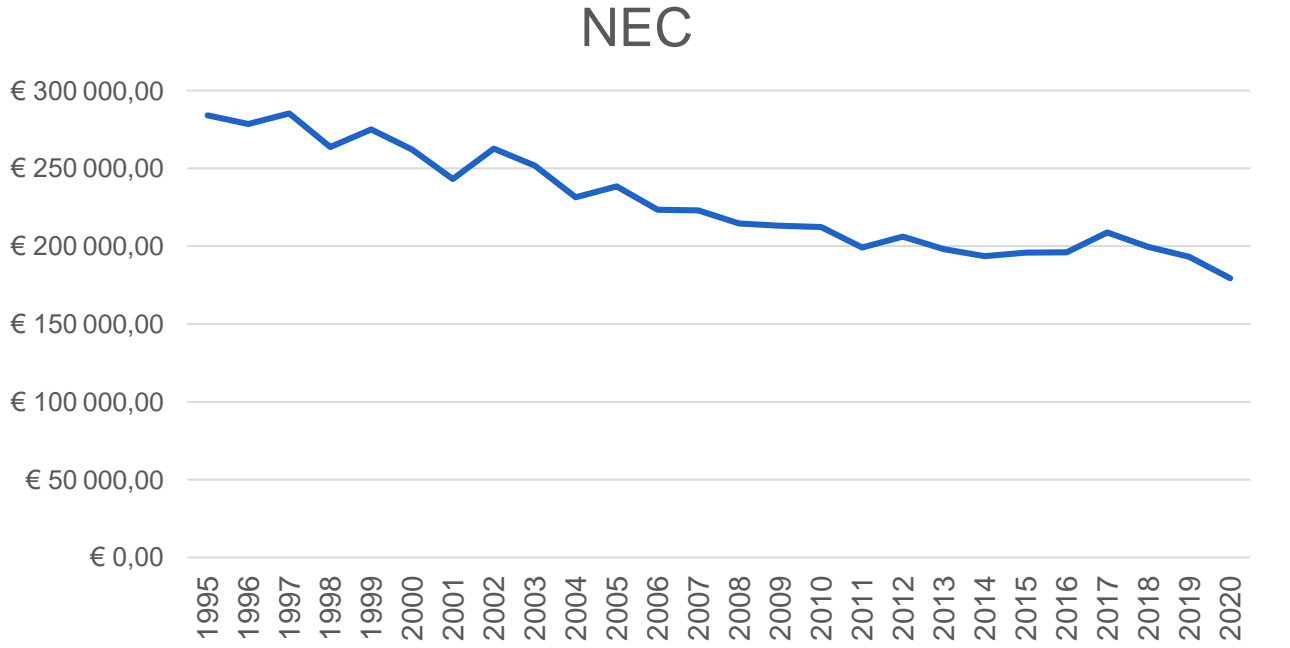
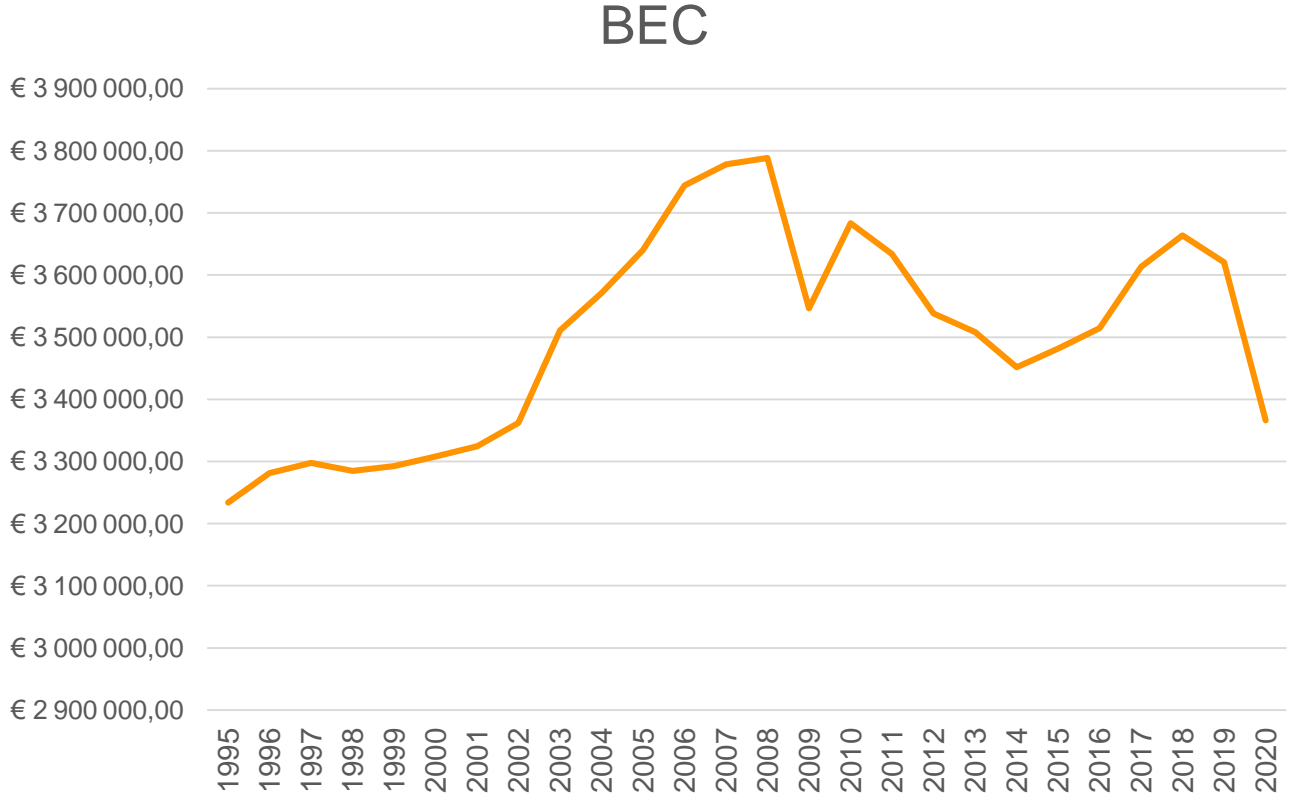
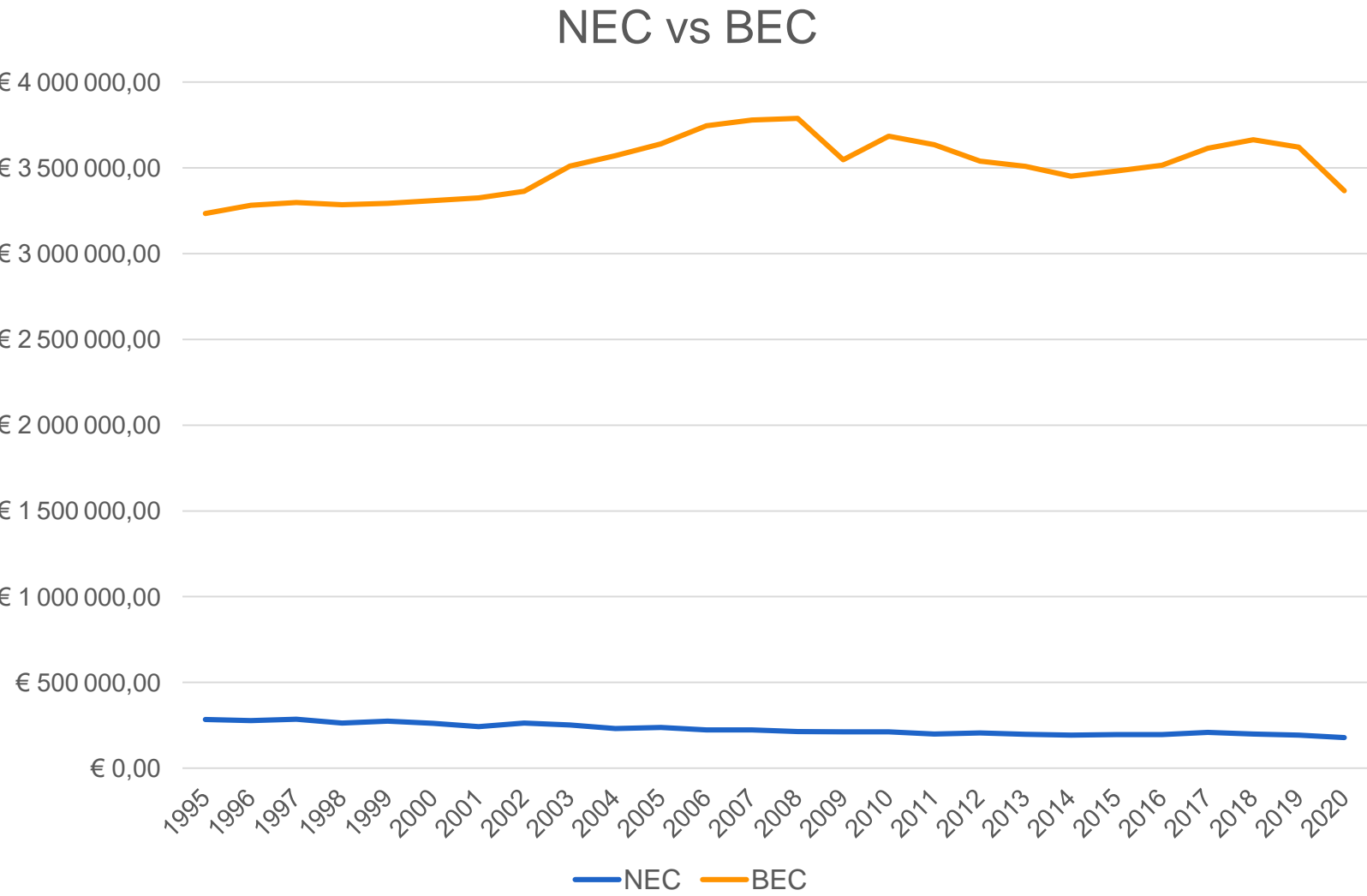


THE EVOLUTION AND IMPORTANCE OF THE COMPONENTS



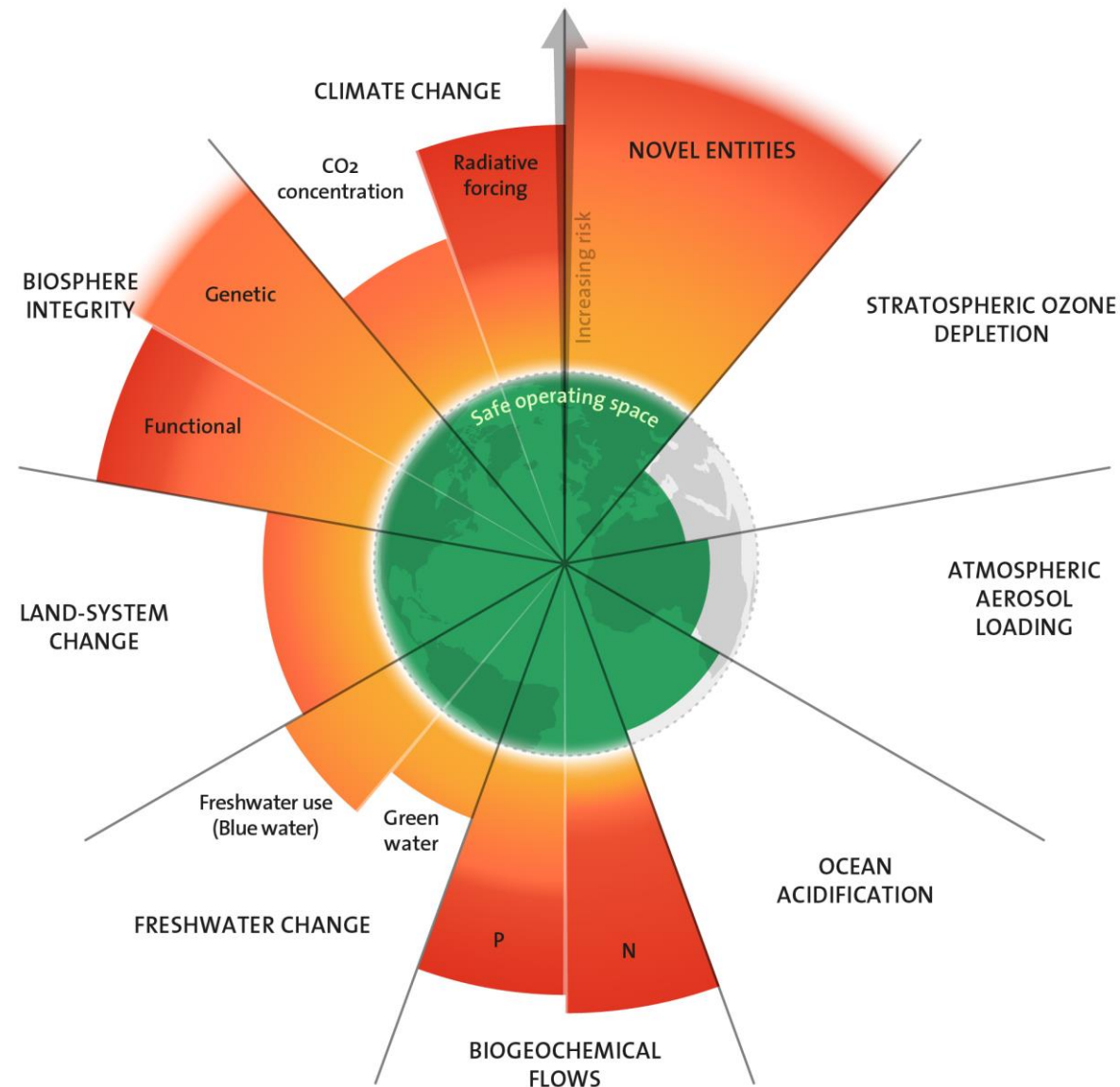
- Three most important components:
 - Individual consumption expenditures
 - The value of unpaid work
 - Broad ecological costs
- One component gaining importance:
 - Welfare losses from income inequality

NEC VS BEC



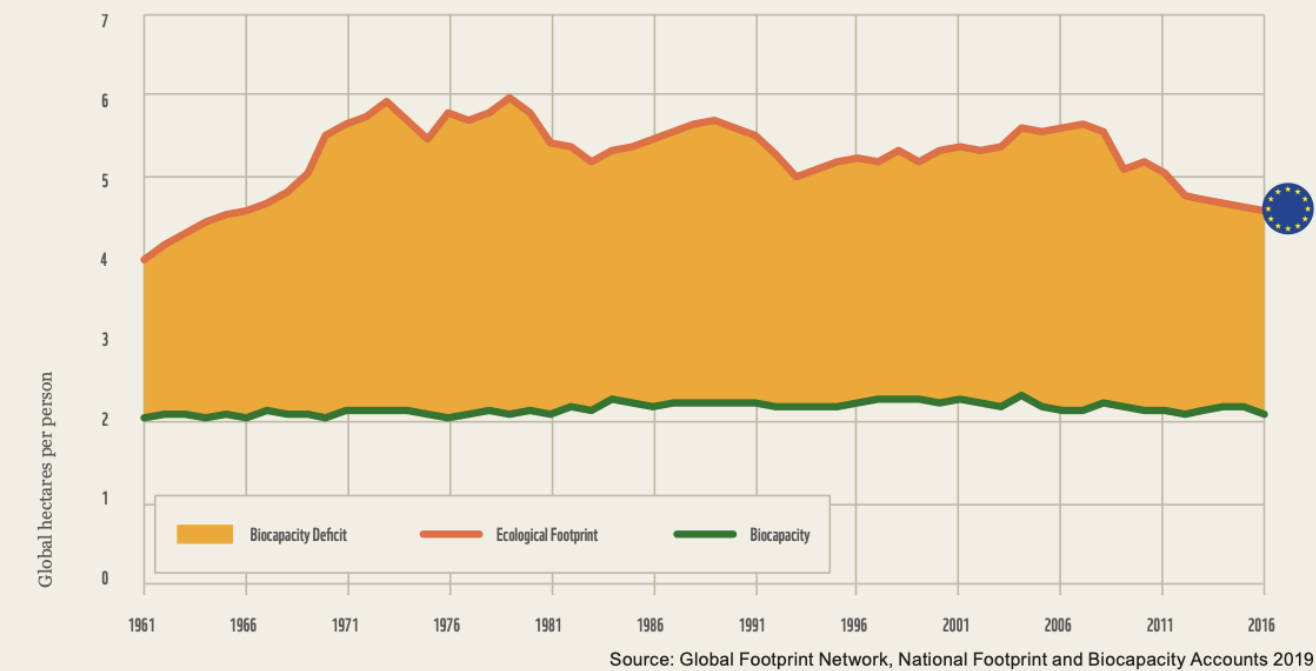
BEC IS HIGH(ER) BUT STILL INCOMPLETE

Planetary boundaries in 2023



Credits PB figure: "Azote for Stockholm Resilience Centre, based on analysis in Richardson et al 2023".

THE EVOLUTION OF EU 28 ECOLOGICAL FOOTPRINT AND BIOCAPACITY



→ Overshooting 6 of the 9 planetary boundaries and our biocapacity (ecological footprint), in line with our finding of increasing BEC.
/!\ Our BEC only includes data related to 2 of the 9 planetary boundaries: climate change and biogeochemical flows.

THRESHOLD HYPOTHESIS IN THE EU27

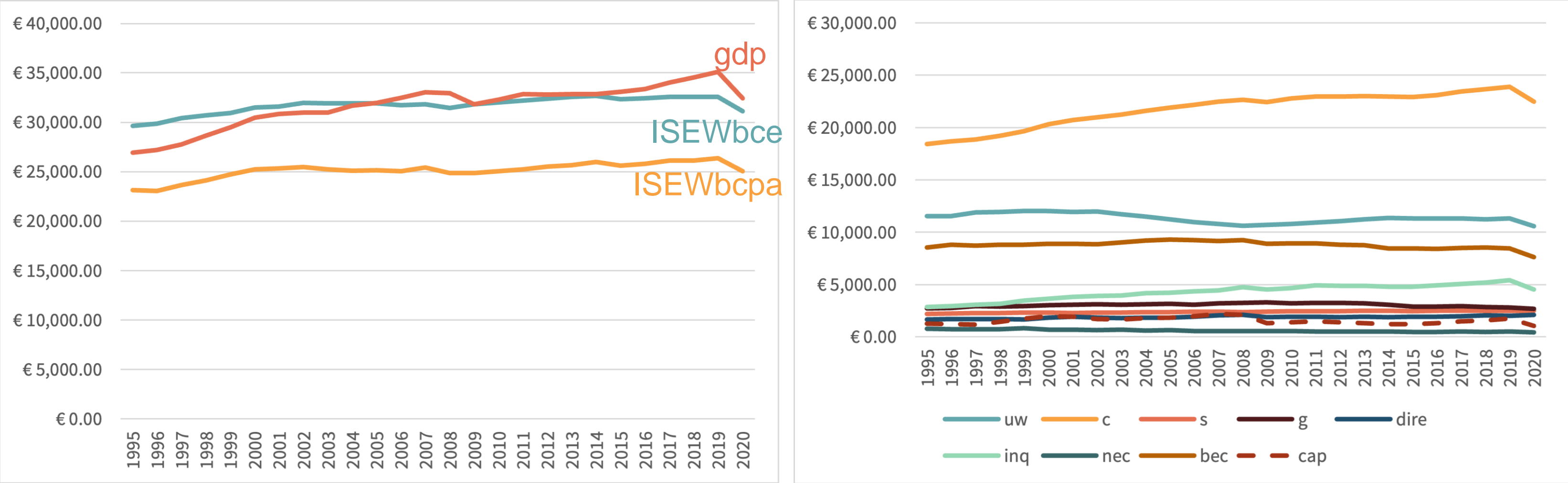
- Max-Neef (1995): “for every society there seems to be a period in which **economic growth** ... brings about an **improvement in the quality of life**, but only **up to a point** – the threshold point – **beyond** which, if there is **more economic growth**, **quality of life** may begin to **deteriorate**.”

ISEWs	2020 value	Peak year	Peak value	% difference	Confirmed ?
BCE	€ 25,823.79	2019	€ 26,635.20	- 3.05 %	NO
BCPA	€ 19,604.54	2019	€ 20,323.24	- 3.54 %	NO

→ Not confirmed because peak in 2019 (Covid19) and small difference.

ISEW IN INDIVIDUAL COUNTRIES

ISEWs AND COMPONENTS IN FRANCE



	ISEW bce	ISEW bcpa	gdp
1995-2008	0.46	0.56	1.57
2008-2020	-0.08	0.05	-0.14
1995-2020 (total)	0.20 (5.08)	0.32 (8.23)	0.75 (20.43)

THRESHOLD HYPOTHESIS IN FRANCE

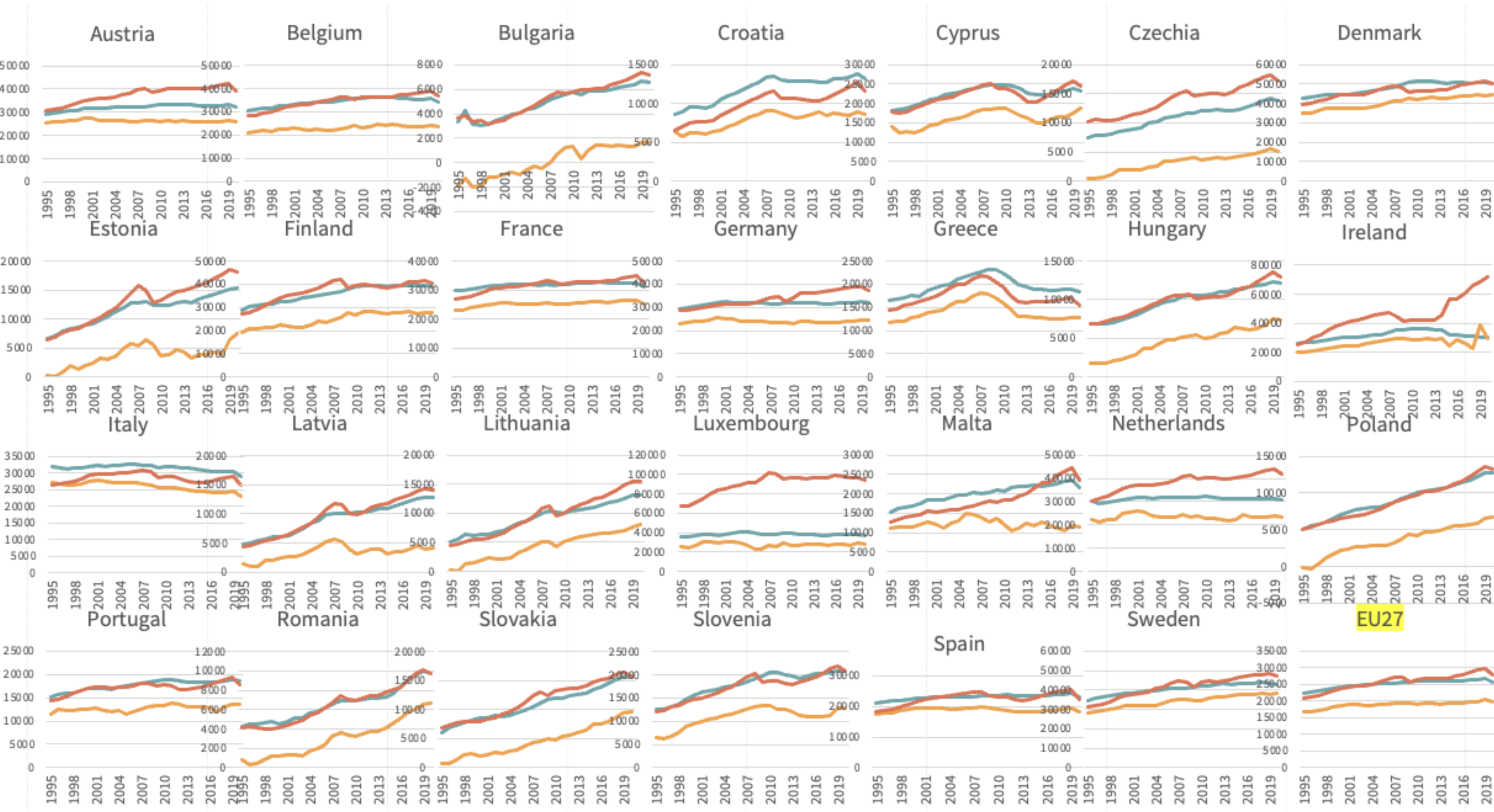
ISEWs	2020 value	Peak year	Peak value	% difference	Confirmed ?
BCE	€ 31,139.51	2014	€ 32,684.56	-4.73%	MAYBE
BCPA	€ 25,028.42	2019	€ 26,375.93	-5.11%	MAYBE

→ BCE: peak in 2014 but relatively small difference, so not confirmed.

→ BCPA: maybe confirmed because bigger difference, but peak in 2019 so not sure.

RESULTS INDIVIDUAL COUNTRIES

bce/cap bcpa/cap gdp/cap



CONCLUSION

CONCLUSION

1. First standardised ISEW data compilation for the EU27 countries, its Member States, the UK and the US;
2. Results should be interpreted cautiously BUT ISEWs are good indicators to “debunk” GDP;
3. Welfare measures increased less than GDP between 1995 and 2020 → GDP is not a good measure of welfare;
4. Growth has not (yet?) become uneconomic.

WHAT'S NEXT?

NEXT STEPS

- ToBe:
 - Using the panel dataset collected to compare the determinants of economic growth and sustainable economic welfare in Europe.
- MERGE:
 - Workshop on indicators aimed at further developing and harmonizing methodologies.
 - October 2025,
 - If interested, please contact me (Claire.Soupart@ugent.be).

Thank you!

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Dataset: <https://doi.org/10.5281/zenodo.13365452>

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