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**Internalisation of external costs –
direct impact on the economies of the individual
EU Member States, and the consequences on
the European road haulage industry**

Presentation charts for the
Breakfast Meeting with Transport Attaches
Brussels, September 09, 2010

Dr. Stefan Rommerskirchen, Managing Director ProgTrans AG (Basel)

Overview

- Overview
- 1. Starting situation
- 2. Subjects / Definitions
- 3. Questions / Objectives
- 4. Basics / Scenarios
- 5. Study results
- 6. Conclusions

- 1. Starting situation**
Reasons to conduct the external costs study
- 2. What is the study dealing with?**
Subjects and definitions of the external costs study
- 3. Final questions/objectives of the external costs study**
Two points of view to look at charging balances
- 4. Basics and scenarios**
Data processing and scenario definitions
- 5. Study results**
Part I – V: most important outcome
- 6. Conclusions**
Main findings and conclusions in brief

Starting situation of the External Costs study

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- **Amendment of Directive 1999/62/EC will allow EU Member States in future to charge external costs for road infrastructure usage**
- **The so-called “Handbook” issued by CE Delft in 2008 on behalf of the European Commission provides a wide range of possible tariffs**
- **The financial impact on the EU Member States, Norway and Switzerland (as road infrastructure owners), on road hauliers and on the national economies is unclear**
- **The today’s revenues from road user charges in most European countries are not reported**

Subjects of the External Costs study

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- **Road User Charges (RUC)**
with regard to direct costs (as today) and
to external costs (as planned)
- **for Heavy Goods Vehicles (HGV)**
- **of and in 25 EU Member States** (EU without CY and MT)
+ Norway + Switzerland
- **quantification of present and future situation**
(2007, 2009, 2020, 2030)
- **quantification of four charging scenarios**
(base case plus, EC case, Handbook minimum / maximum cases)

Questions/Objectives of the External Costs study

➤ to work out 2 different “balances” (surplus/deficit)

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[1] **Revenues** *minus* **Charges** paid by
 from RUC **economy (shippers)**
 for all HGV of each individual country
 in each individual (for inland transport +
 country (of operation) ½ international transport)
= Road user charge surplus/deficit for the economy

[2] **Revenues** *minus* **Charges** paid by
 from RUC **road hauliers**
 for all HGV of each individual country
 in each individual (in inland transport +
 country (of operation) international transport)
= Road user charge surplus/deficit for road hauliers

Basics of the External Costs study

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- **official Eurostat road transport statistics and additional national sources with regard to road goods transport in terms of tonnes, tonne kilometres and vehicle kilometres**
- **modelled by ProgTrans to transfer data from nationality to territorial principle**
(such data are not available from official statistics in the required definition!)
 - **“national principle”**: data for road freight transport of HGV registered in each individual country *(data are available)*
 - **“territorial principle”**: data for road transport of HGV on the roads of each individual country *(data are not available from official statistics and had to be produced by ProgTrans)*

Scenarios of the External Costs study

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- **Base Case 2007**
 - Traffic demand: 2007
 - Charge rates: Actual charge rates of 2007 based on the current directive 2006/38/EC
 - Charging results: 2007
 - used to calibrate the traffic model and the model for quantifying the balances
- **Base Case plus**
 - Traffic demand: 2007, 2020 and 2030
 - Charge rates: Actual charge rates 2009 and additionally introduction of a distance-related road user charge in those countries (including the “Eurovignette countries”) in which they have not yet been implemented
 - Charging results: 2009, 2020 and 2030
- **European Commission case**
 - Traffic demand: 2007, 2020 and 2030
 - Charge rates: Actual charge rates 2009 and additionally road user charge rates with regard to external costs based on the Commission’s 2008 proposal to amend Directive 1999/62/EC
 - Charging results: 2009, 2020 and 2030
- **Handbook minimum case**
 - Traffic demand: 2007, 2020 and 2030
 - Charge rates: Actual charge rates 2009 and additionally **minimum** road user charge rates with regard to external costs as described in the so-called “Handbook”
 - Charging results: 2009, 2020 and 2030
- **Handbook maximum case**
 - Traffic demand: 2007, 2020 and 2030
 - Charge rates: Actual charge rates 2009 and additionally **maximum** road user charge rates with regard to external costs as described in the so-called “Handbook”
 - Charging results: 2009, 2020 and 2030

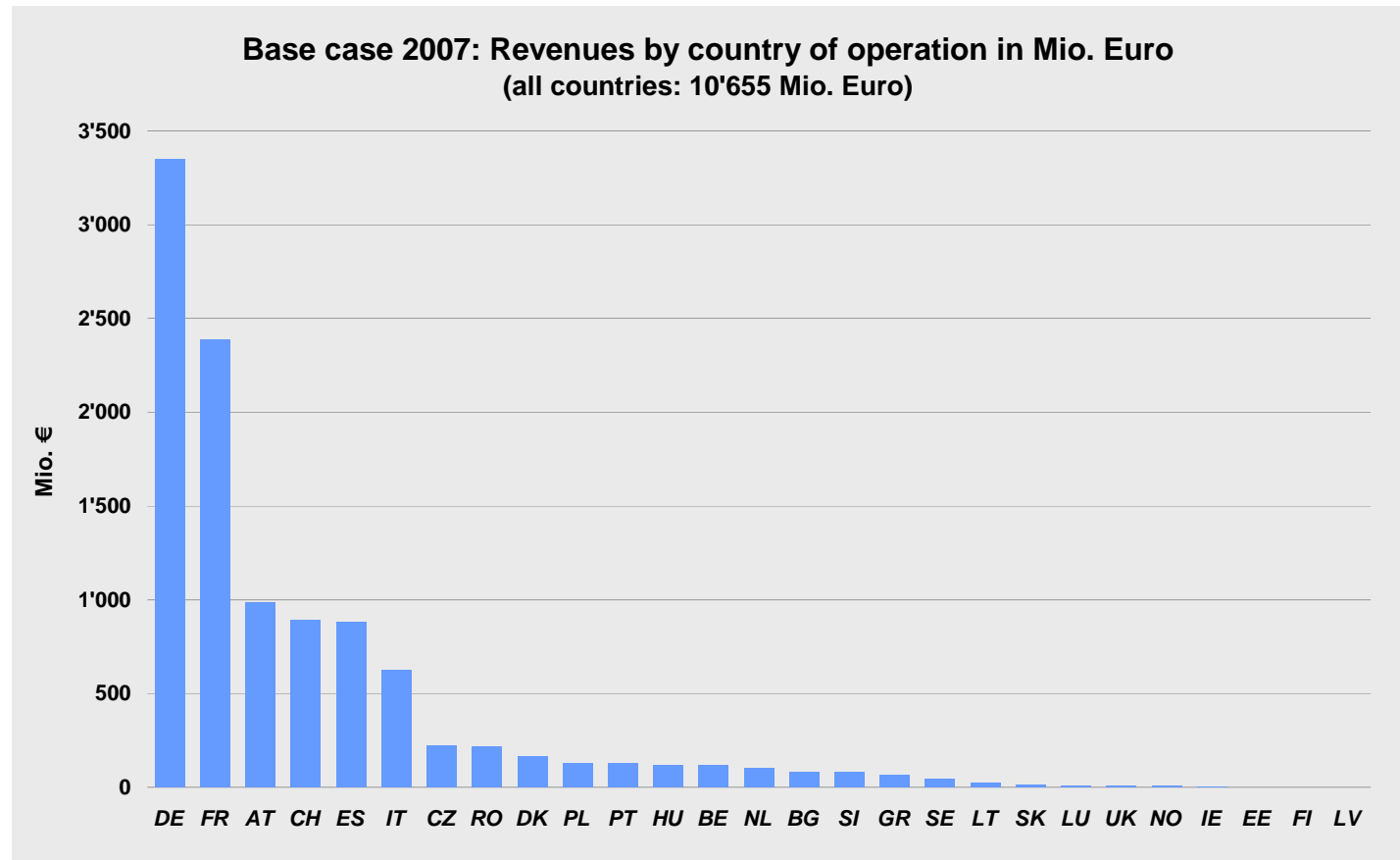
Main results of the External Costs study - overview

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- I. Part I**
HGV charging *revenues* 2007 and by scenarios
- II. Part II**
Revenue/Charge *balances* (surplus/deficits) 2007 - 2030
related to economies by scenarios
- III. Part III**
Revenue/Charge *balances* (surplus/deficits) 2007 - 2030
related to road hauliers by scenarios
- IV. Part IV**
Scenario *comparisons* 2009, 2020, 2030
- V. Part V**
Overall *comparisons*

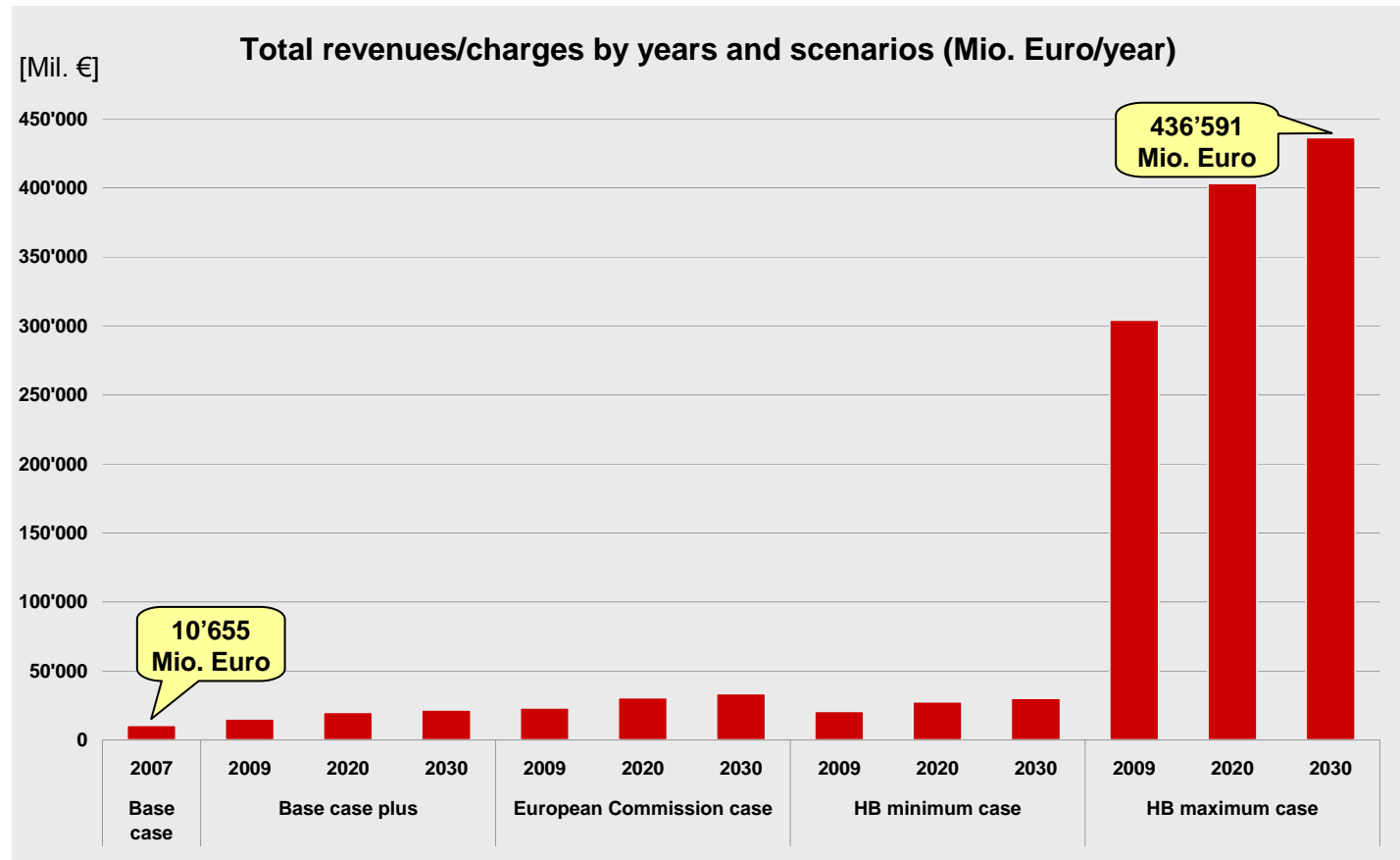
Results – Part I: 2007 revenues by country of operation

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Results – Part I: revenues development by scenarios

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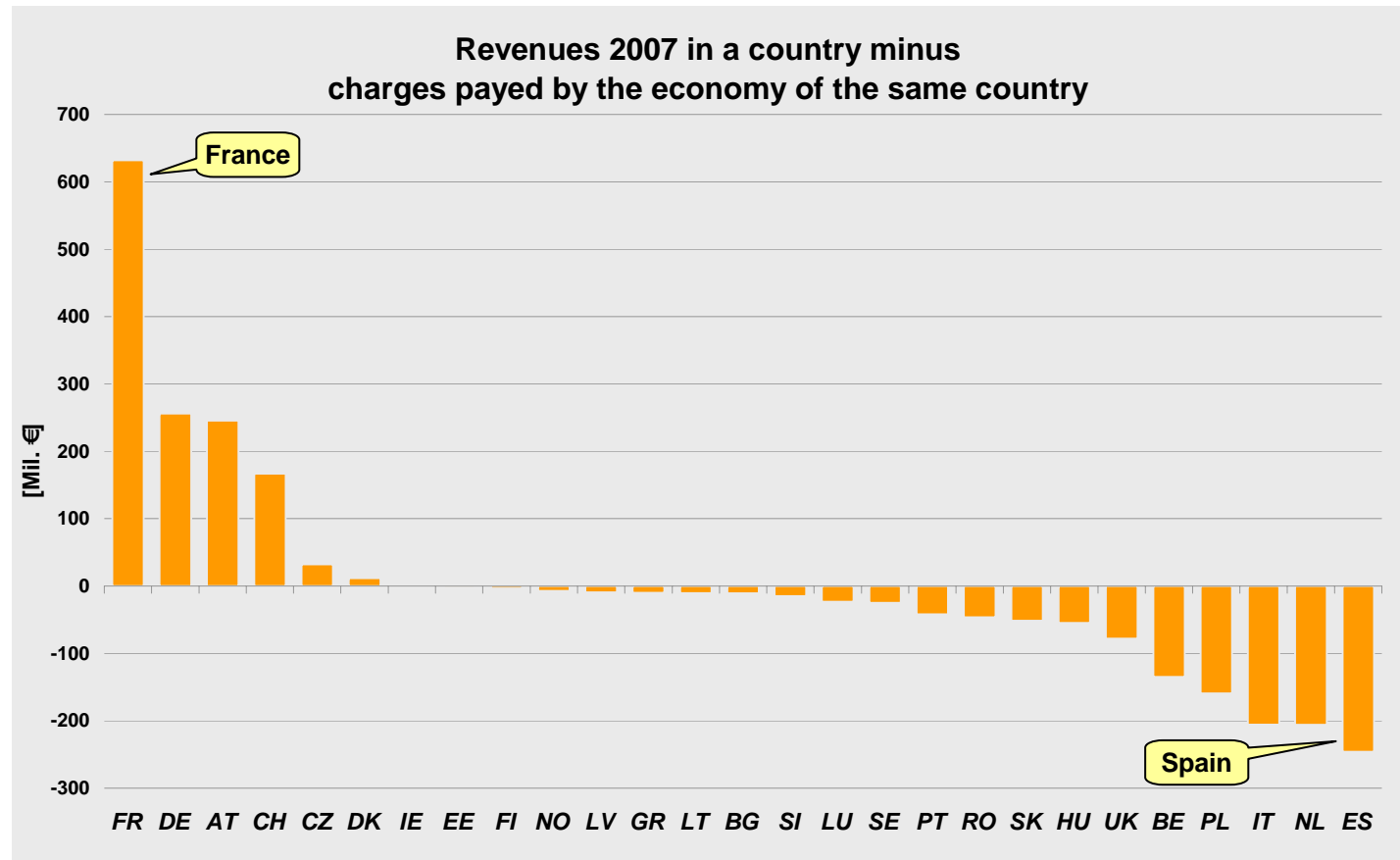
Results – Part I: revenues overview by scenarios

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Year	Road user charge revenues [in Mil. EUR]				
	Base case	Base case plus	European commission case	Handbook minimum case	Handbook maximum case
2007	10'655	-	-	-	-
2009	-	15'294	23'255	20'689	304'338
2020	-	20'031	30'679	27'581	403'272
2030	-	21'788	33'584	30'247	436'591
Year	Share of revenues with regard to external and congestion costs				
2007	-	-	-	-	-
2009	-	-	7'961	5'395	289'044
2020	-	-	10'648	7'550	383'241
2030	-	-	11'796	8'459	414'803
Year	Comparison to base case 2007 in %				
2007	-	-	-	-	-
2009	-	44%	118%	94%	2756%
2020	-	88%	188%	159%	3685%
2030	-	104%	215%	184%	3998%

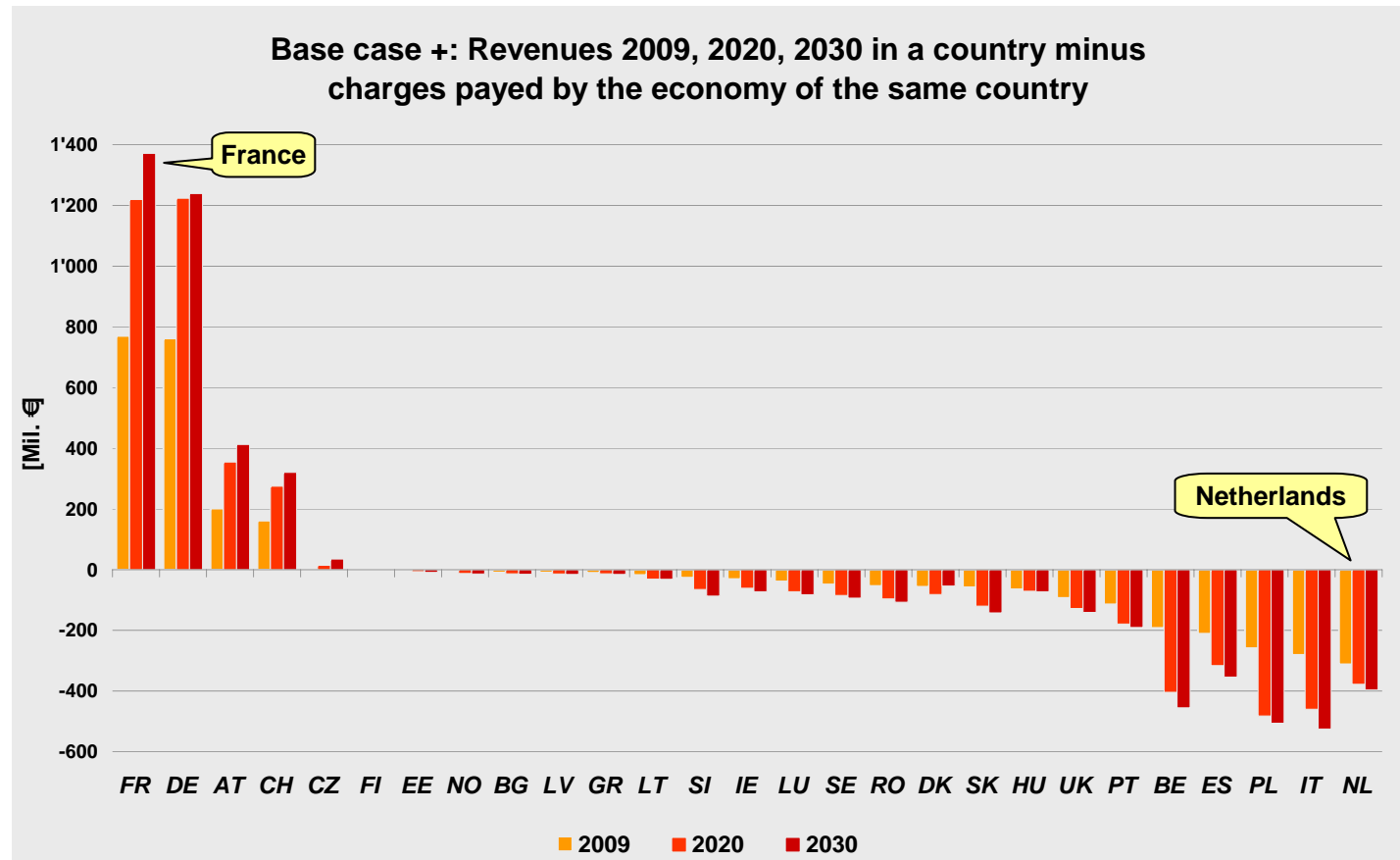
Results – Part II: surplus/deficits with regard to economy by country 2007

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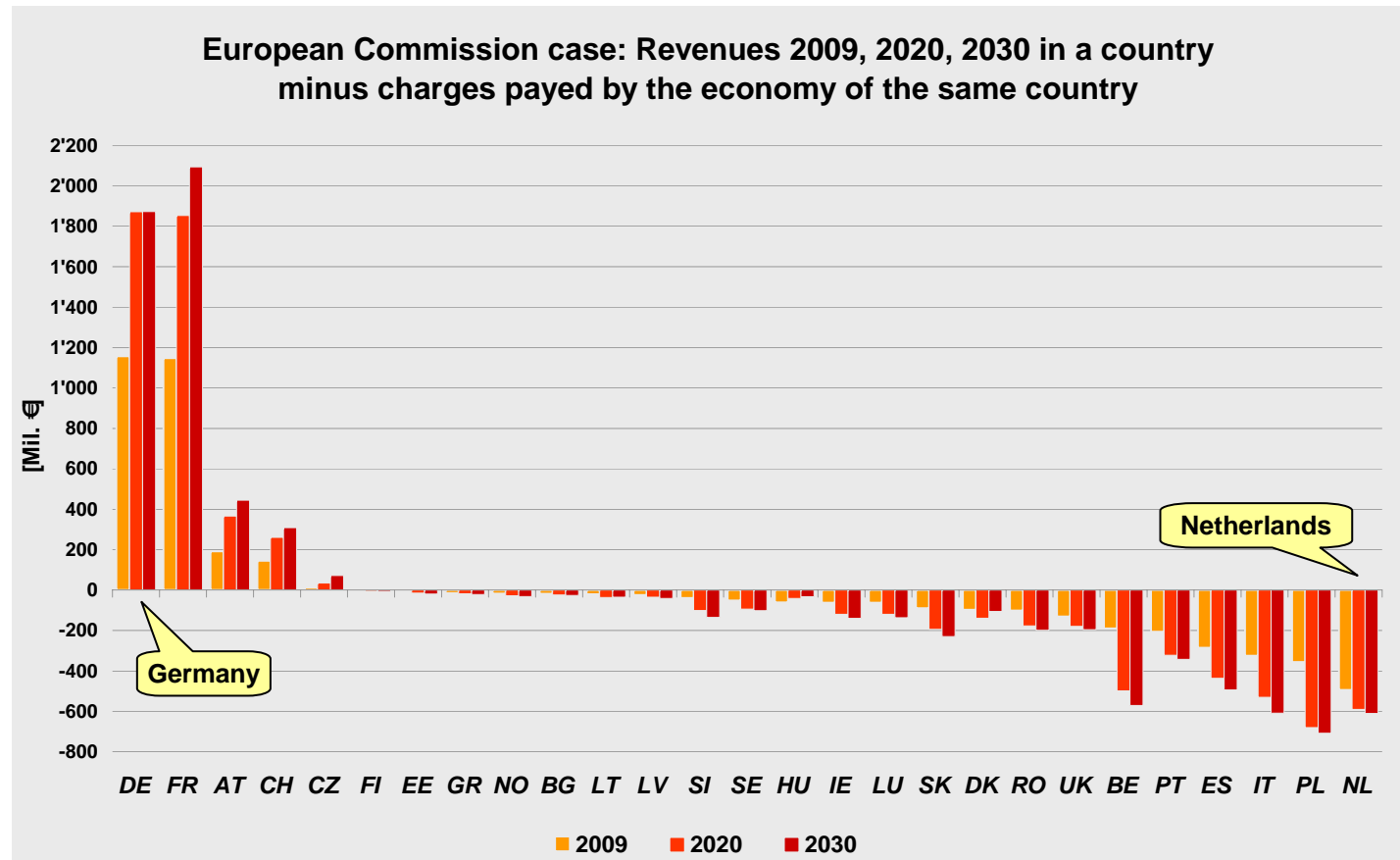
Results – Part II: Base case plus: surplus/deficits with regard to economy by country 2009 - 2030

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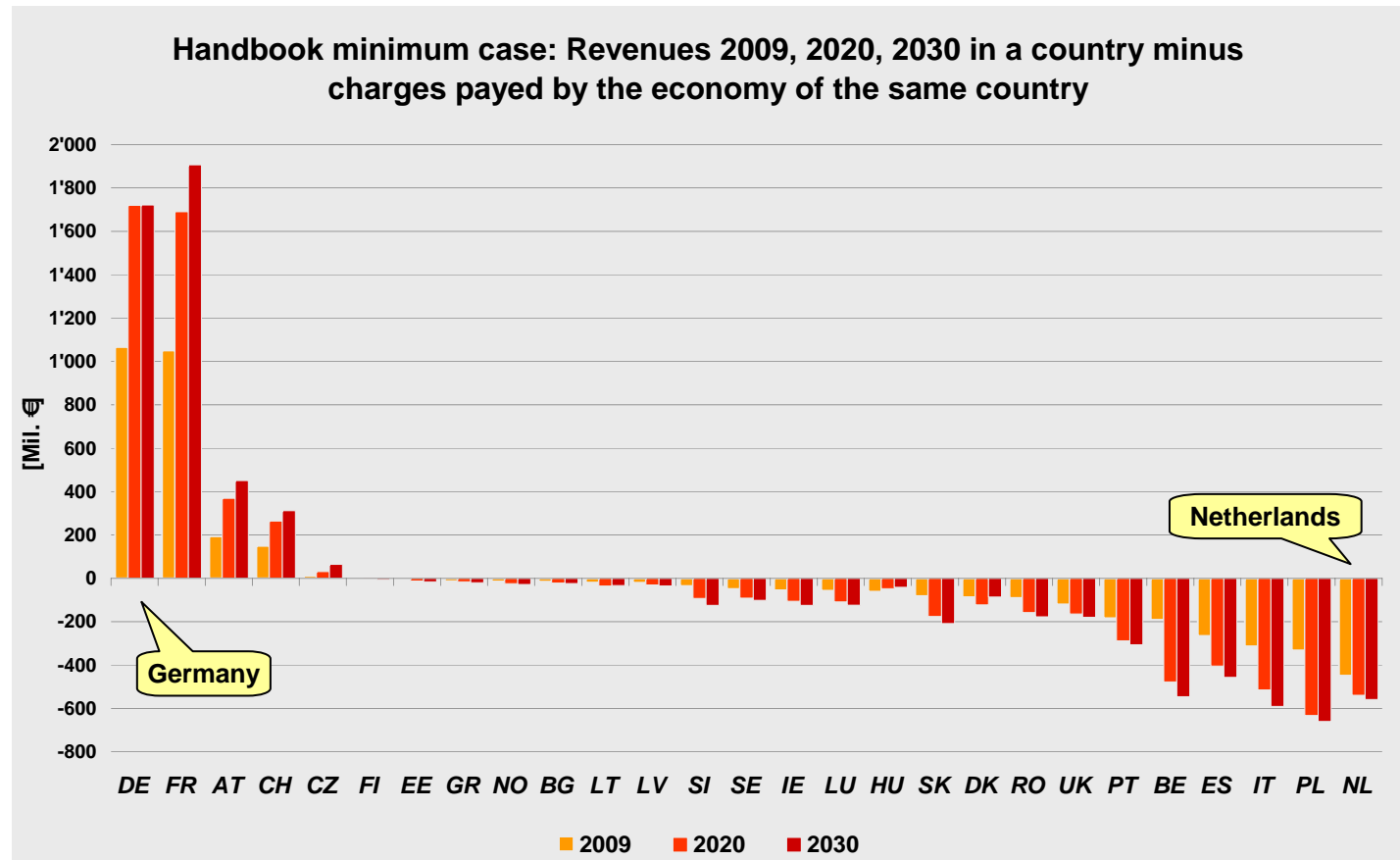
Results – Part II: European Commission case: surplus/ deficits with regard to economy by country 2009 - 2030

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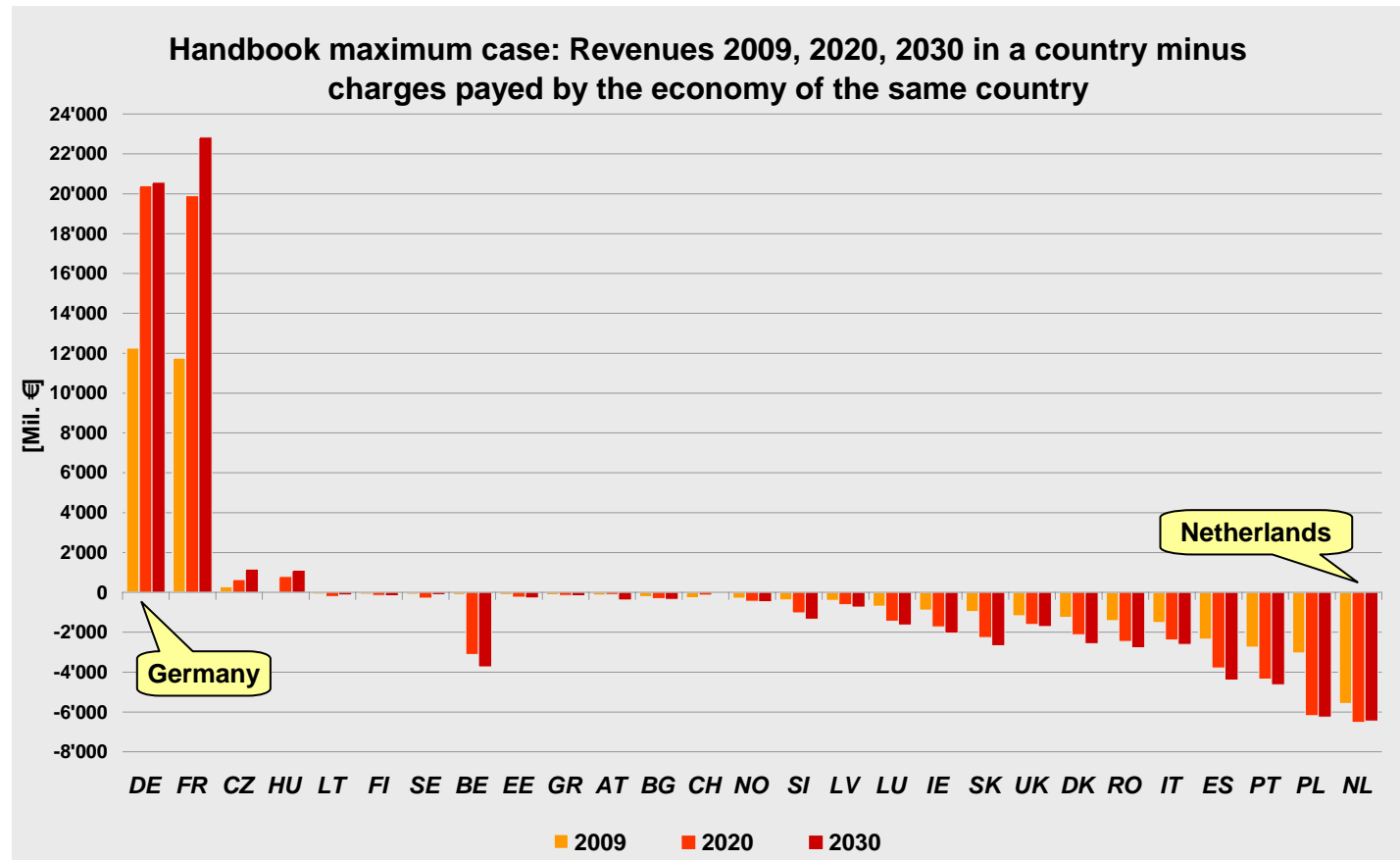
Results – Part II: Handbook minimum case: surplus/ deficits with regard to economy by country 2009 - 2030

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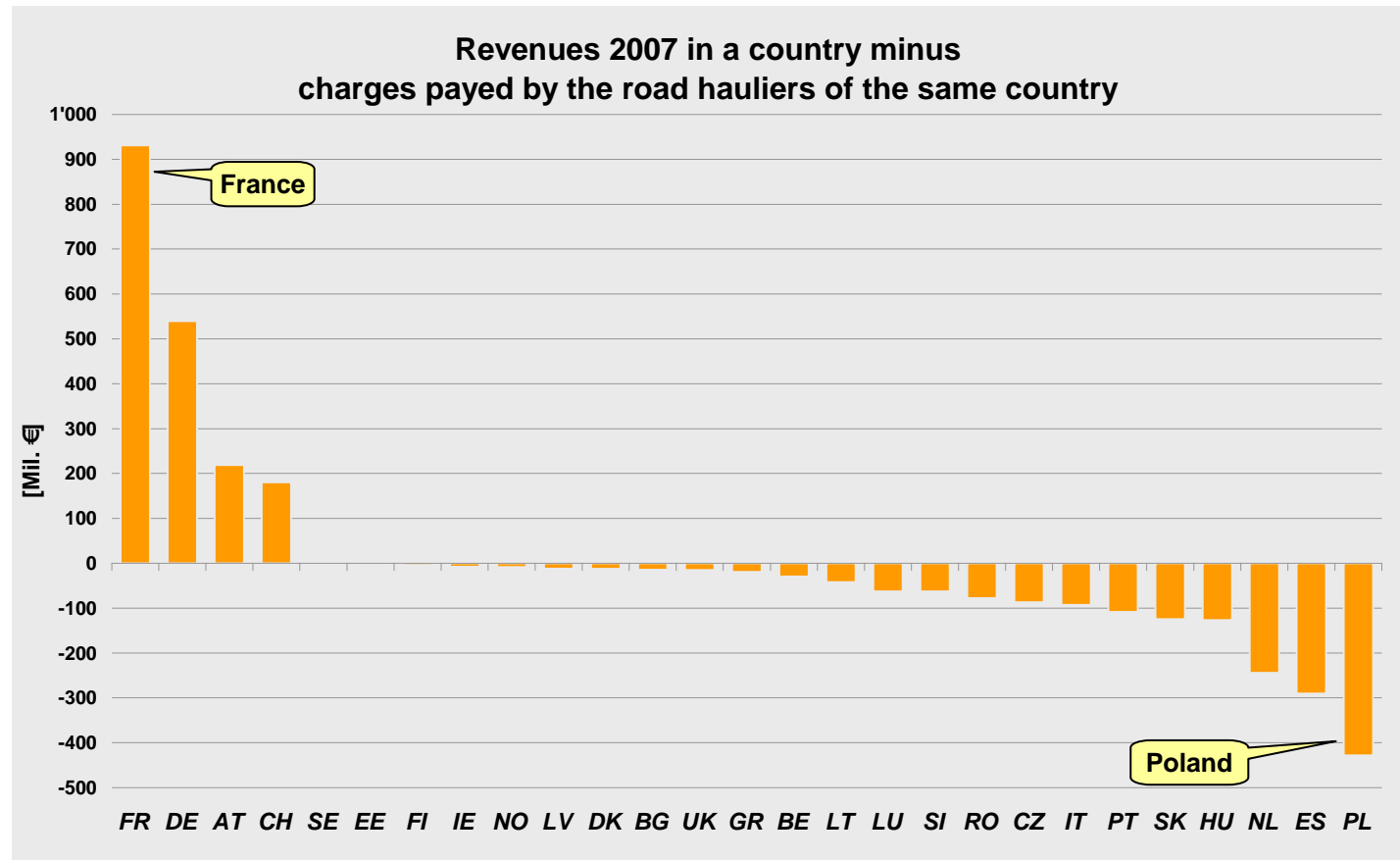
Results – Part II: Handbook maximum case: surplus/ deficits with regard to economy by country 2009 - 2030

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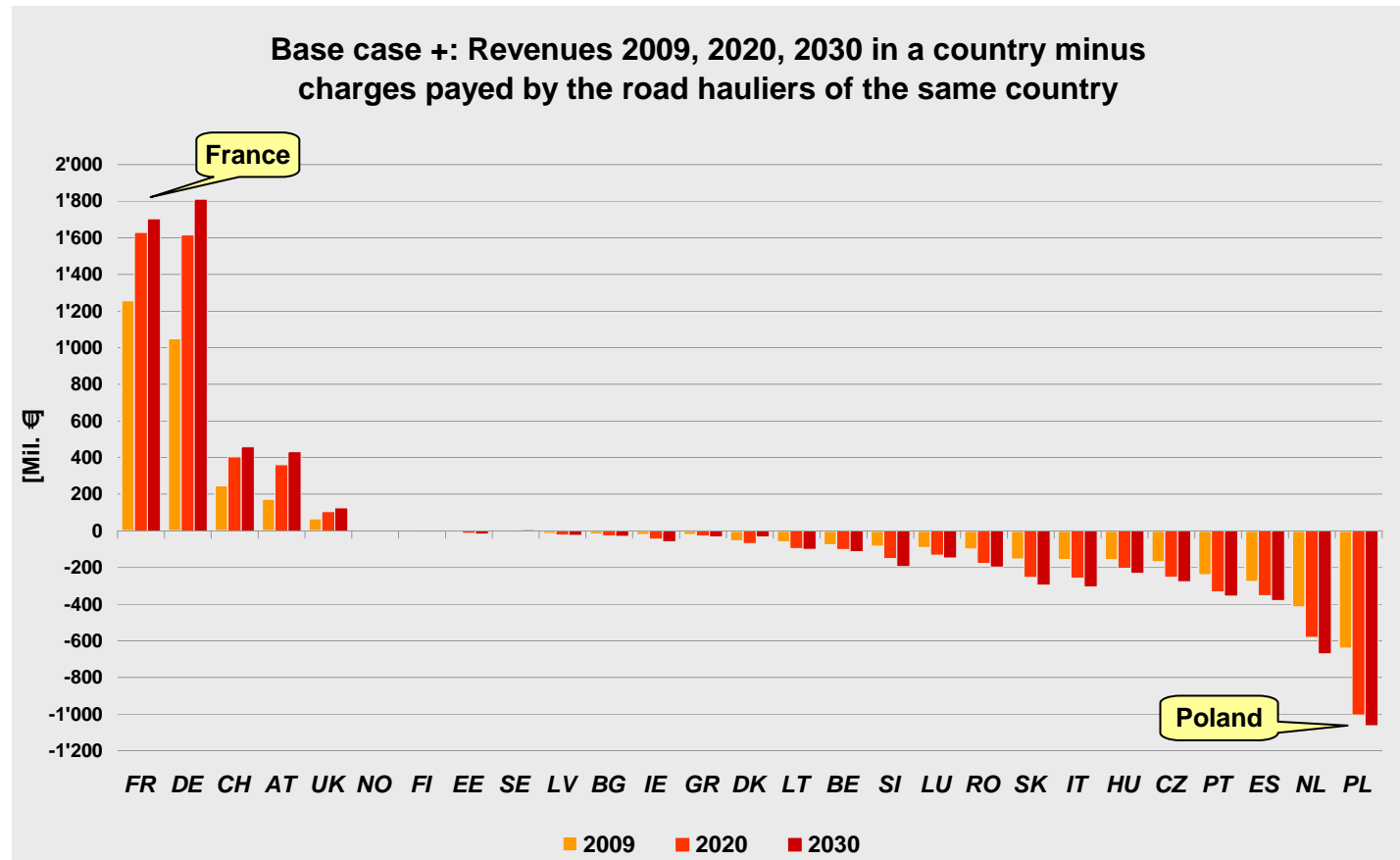
Results – Part III: surplus/deficits with regard to road hauliers by country 2007

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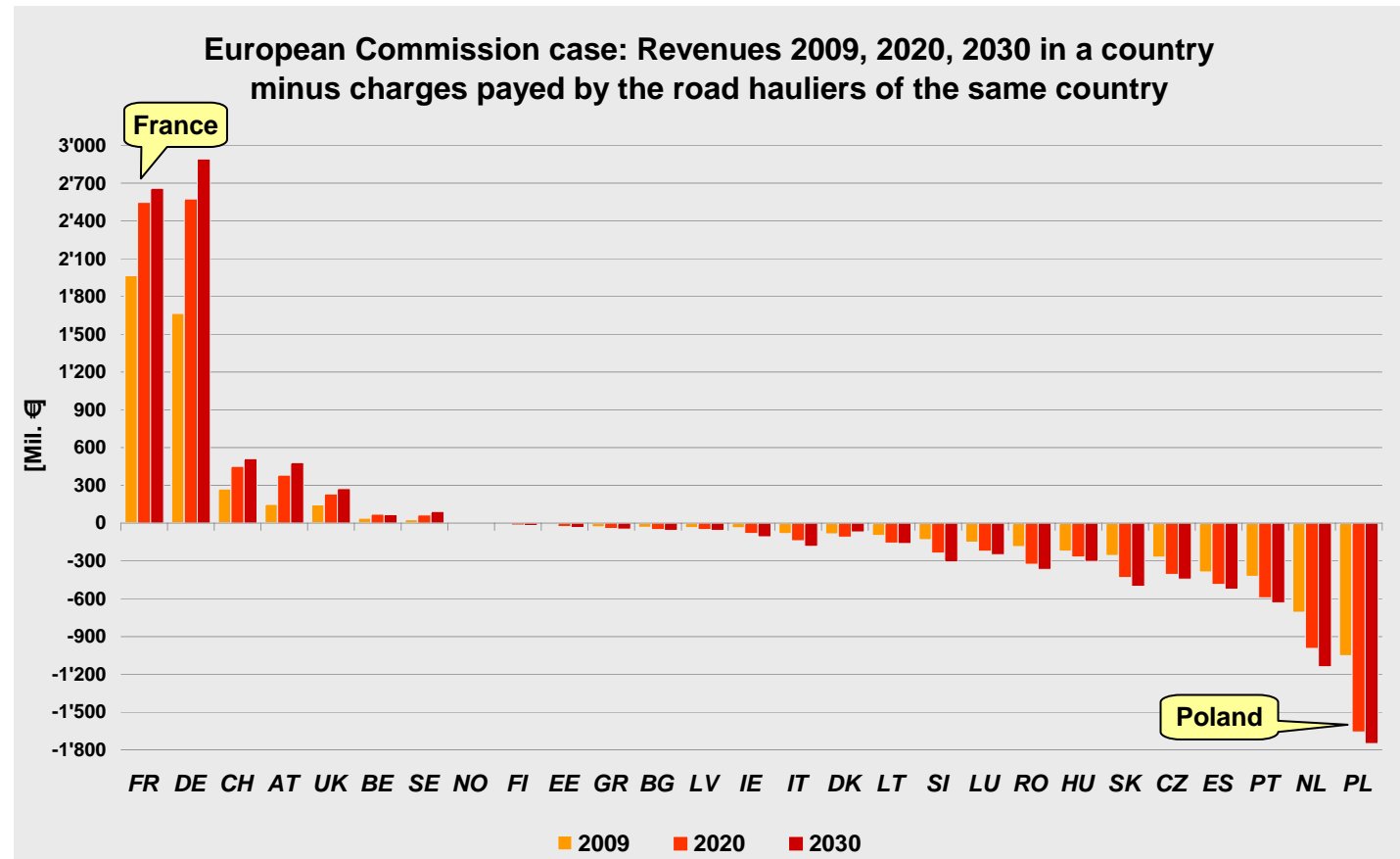
Results – Part III: Base case plus: surplus/deficits with regard to hauliers by country 2009 - 2030

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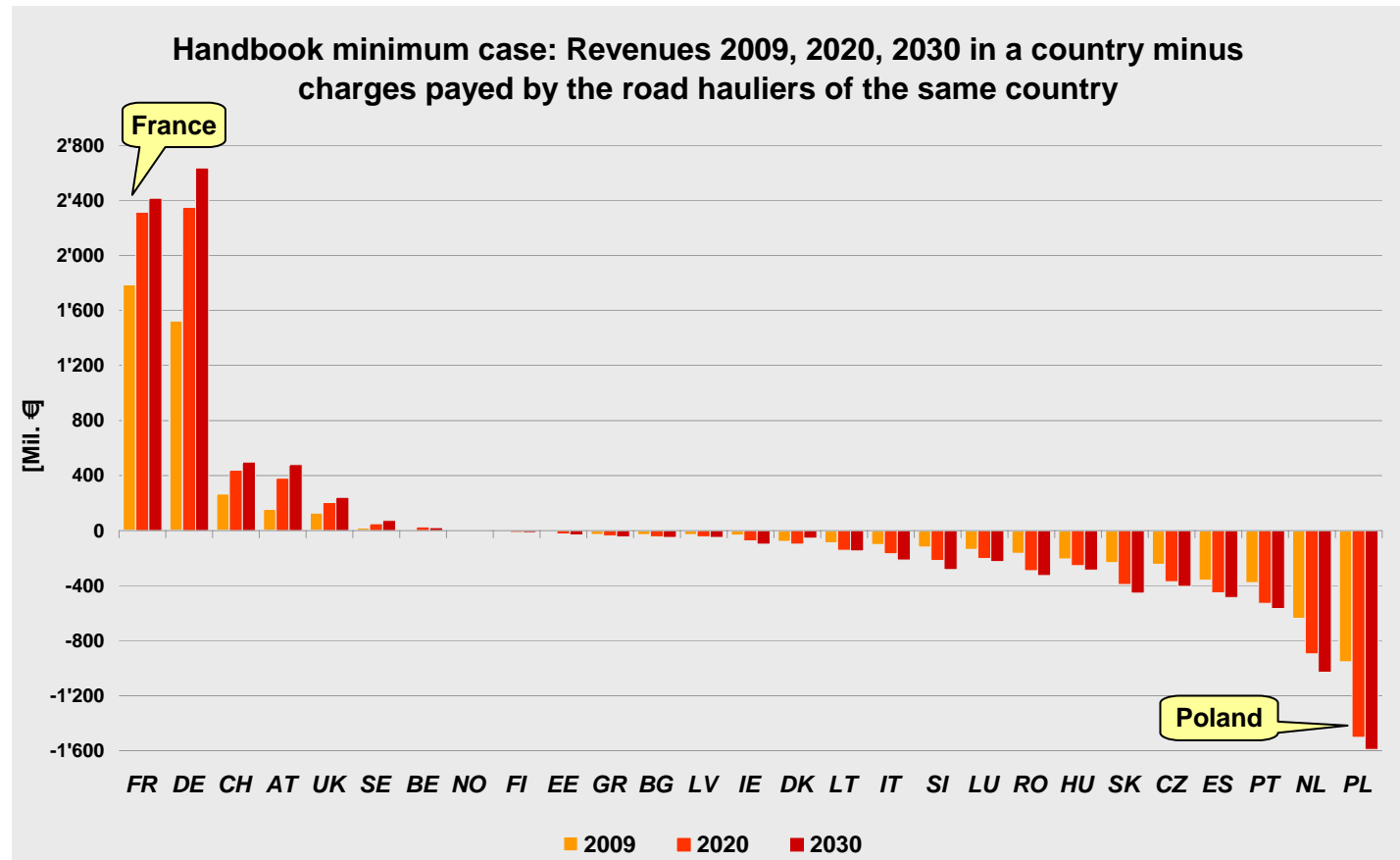
Results – Part III: European Commission case: surplus/ deficits with regard to hauliers by country 2009 - 2030

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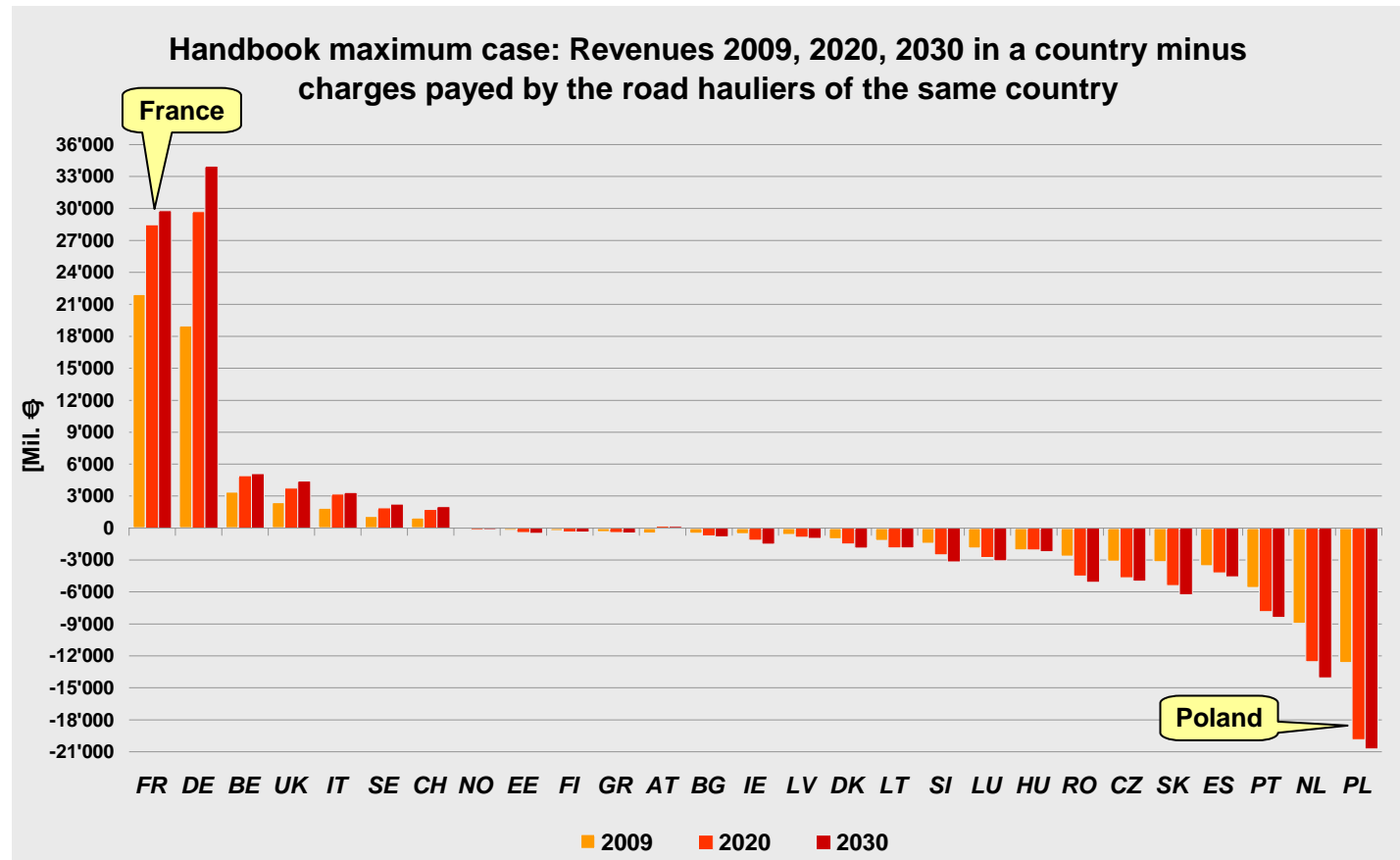
Results – Part III: Handbook minimum case: surplus/ deficits with regard to hauliers by country 2009 - 2030

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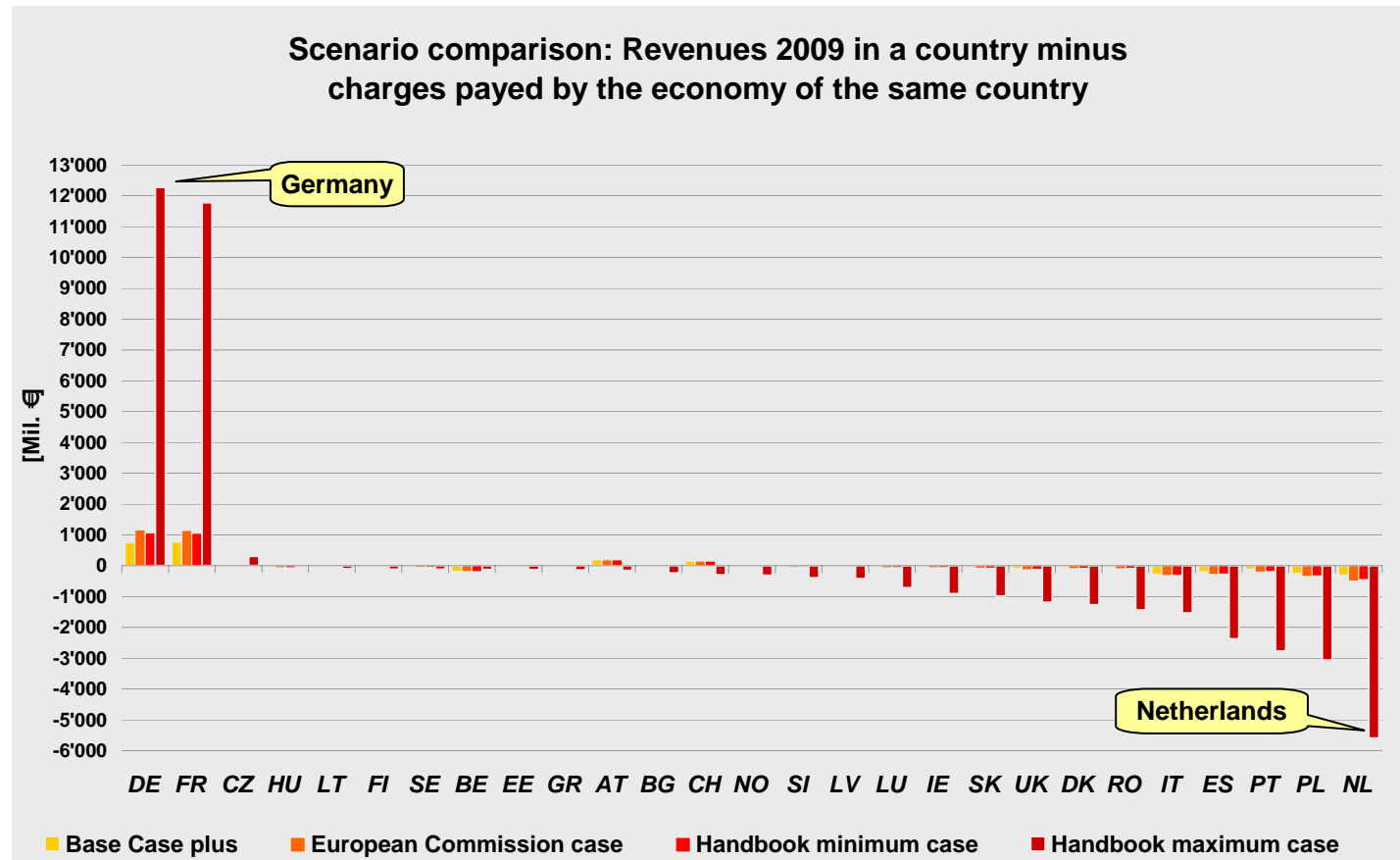
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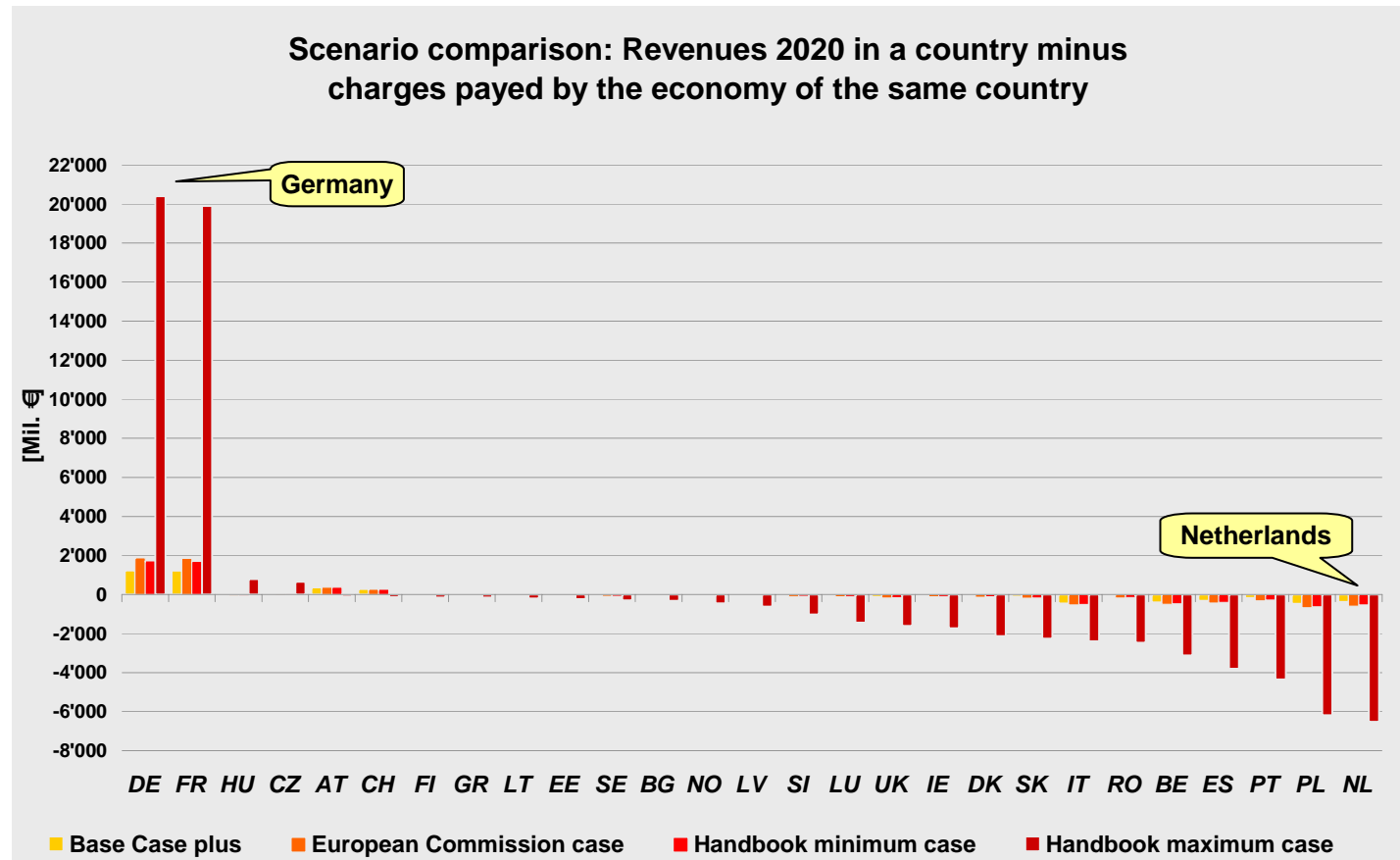
Results – Part IV: Scenario comparison 2009: surplus/deficits with regard to economy by country

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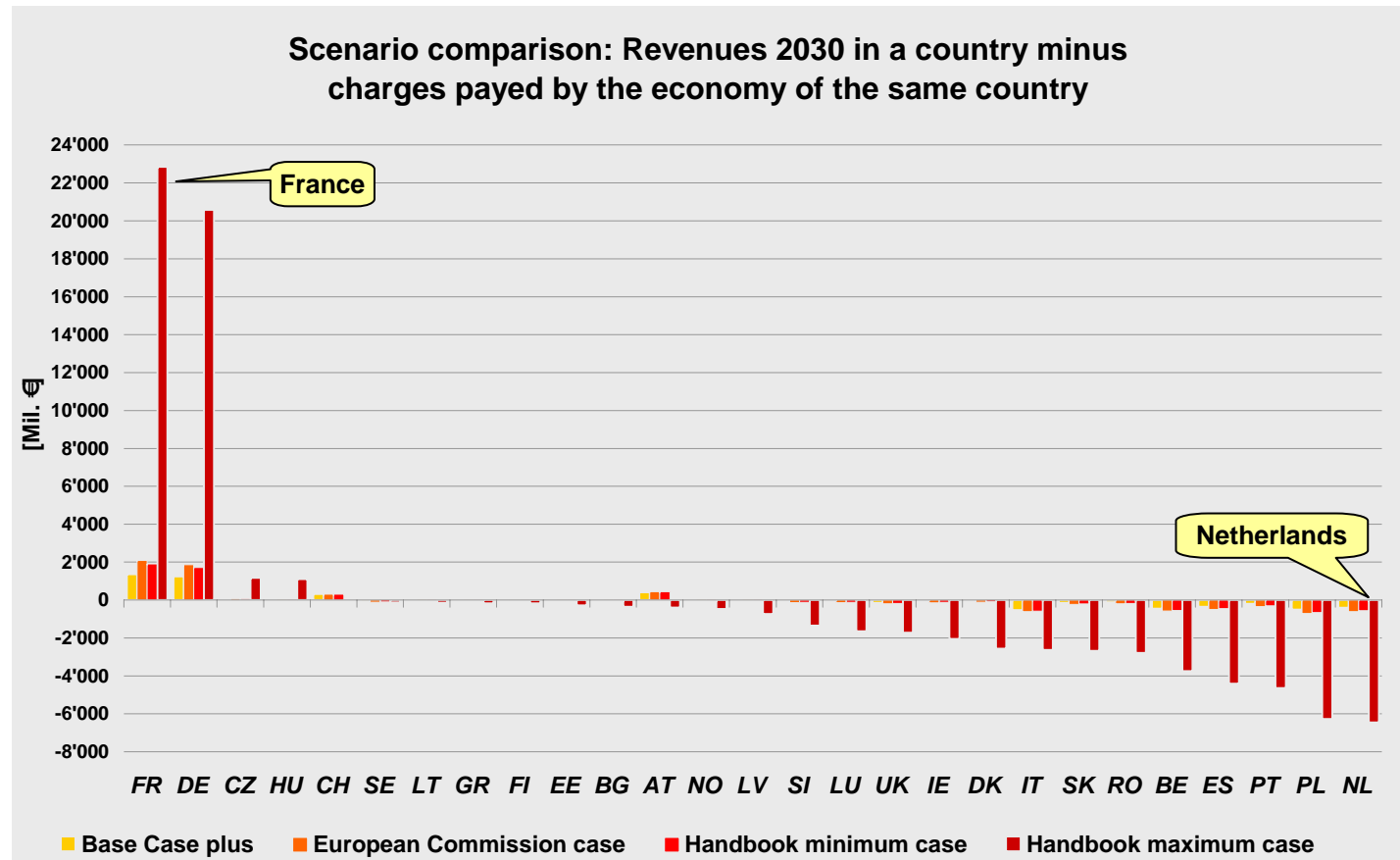
Results – Part IV: Scenario comparison 2020: surplus/deficits with regard to economy by country

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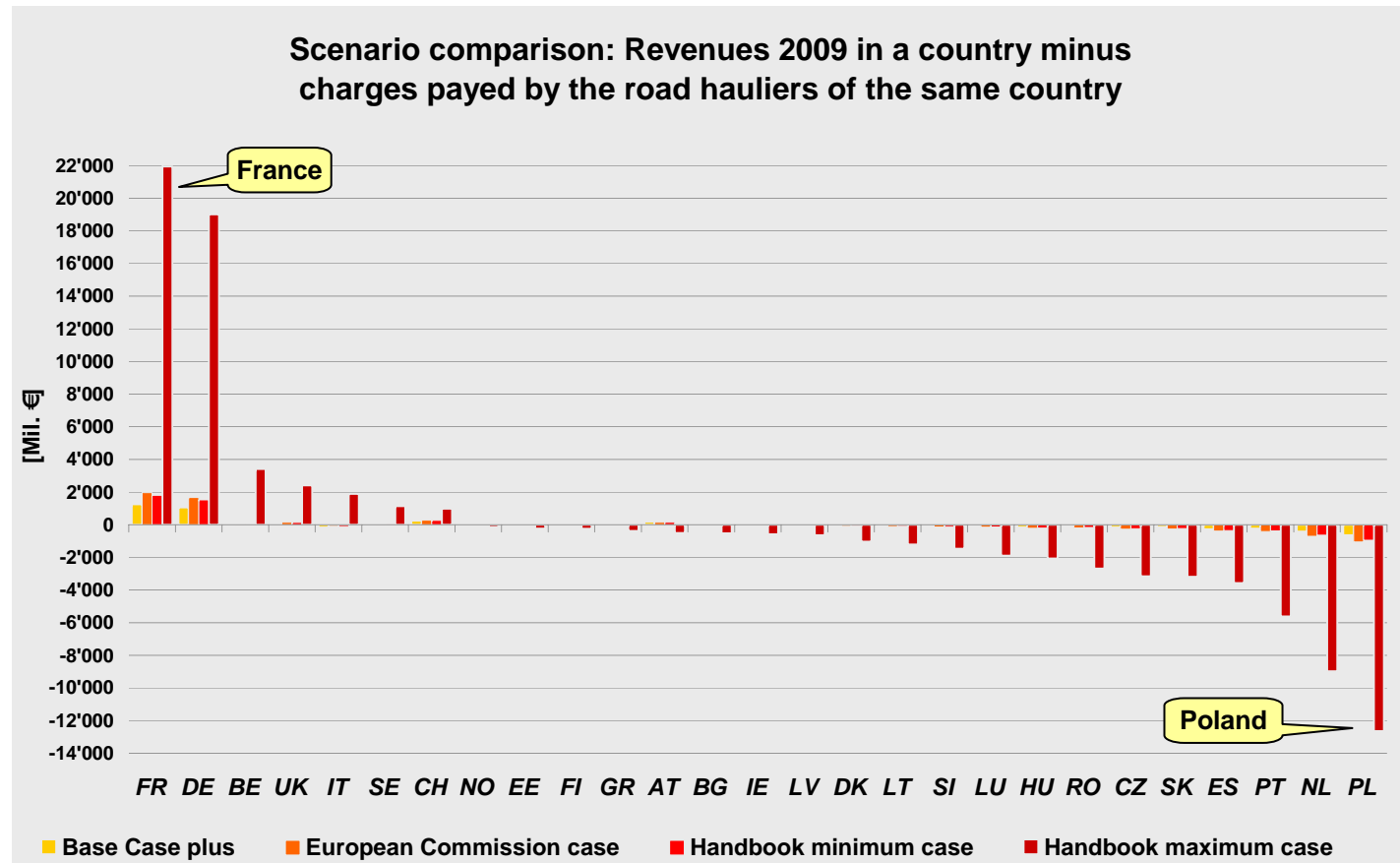
Results – Part IV: Scenario comparison 2030: surplus/deficits with regard to economy by country

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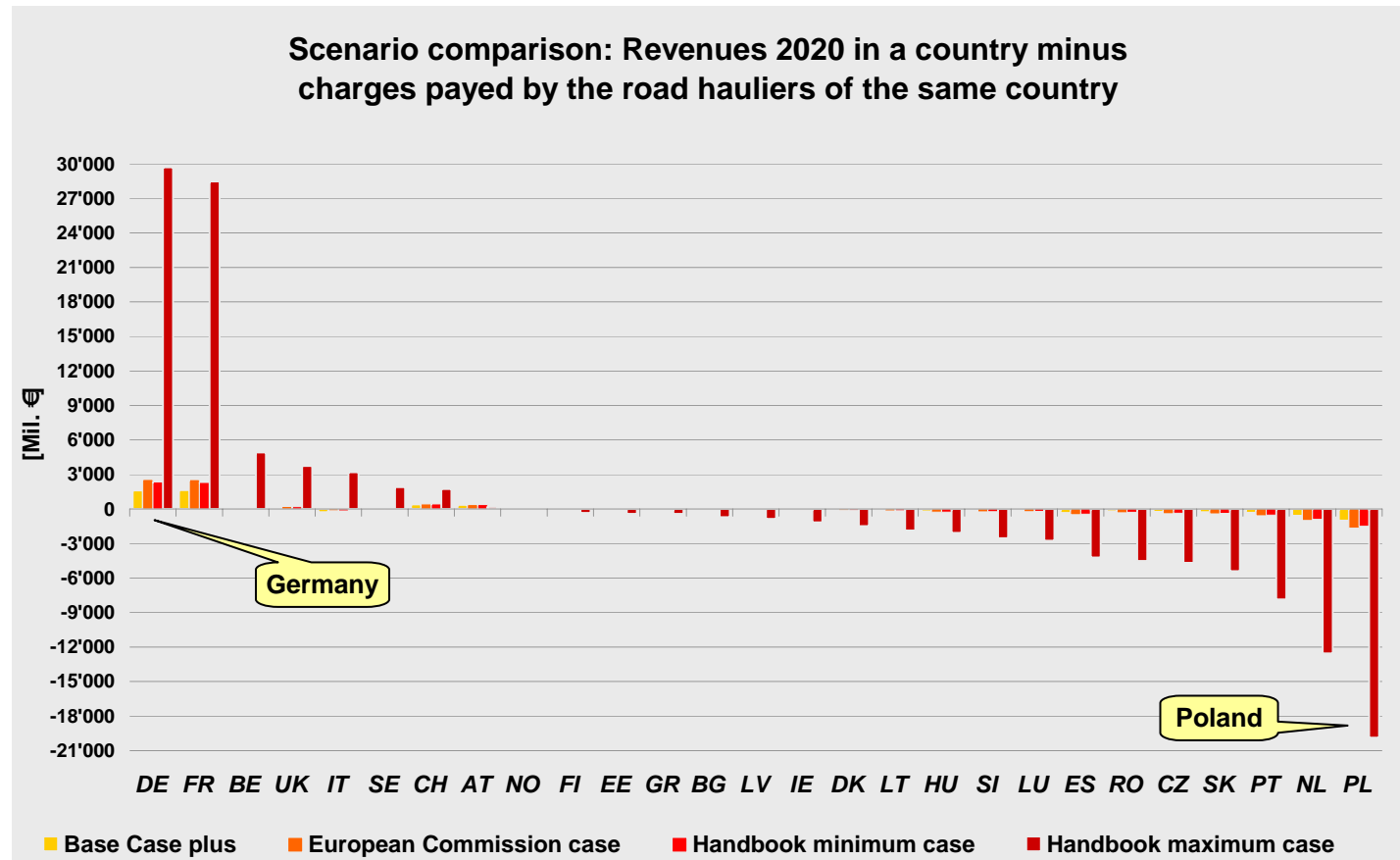
Results – Part IV: Scenario comparison 2009: surplus/deficits with regard to road hauliers by country

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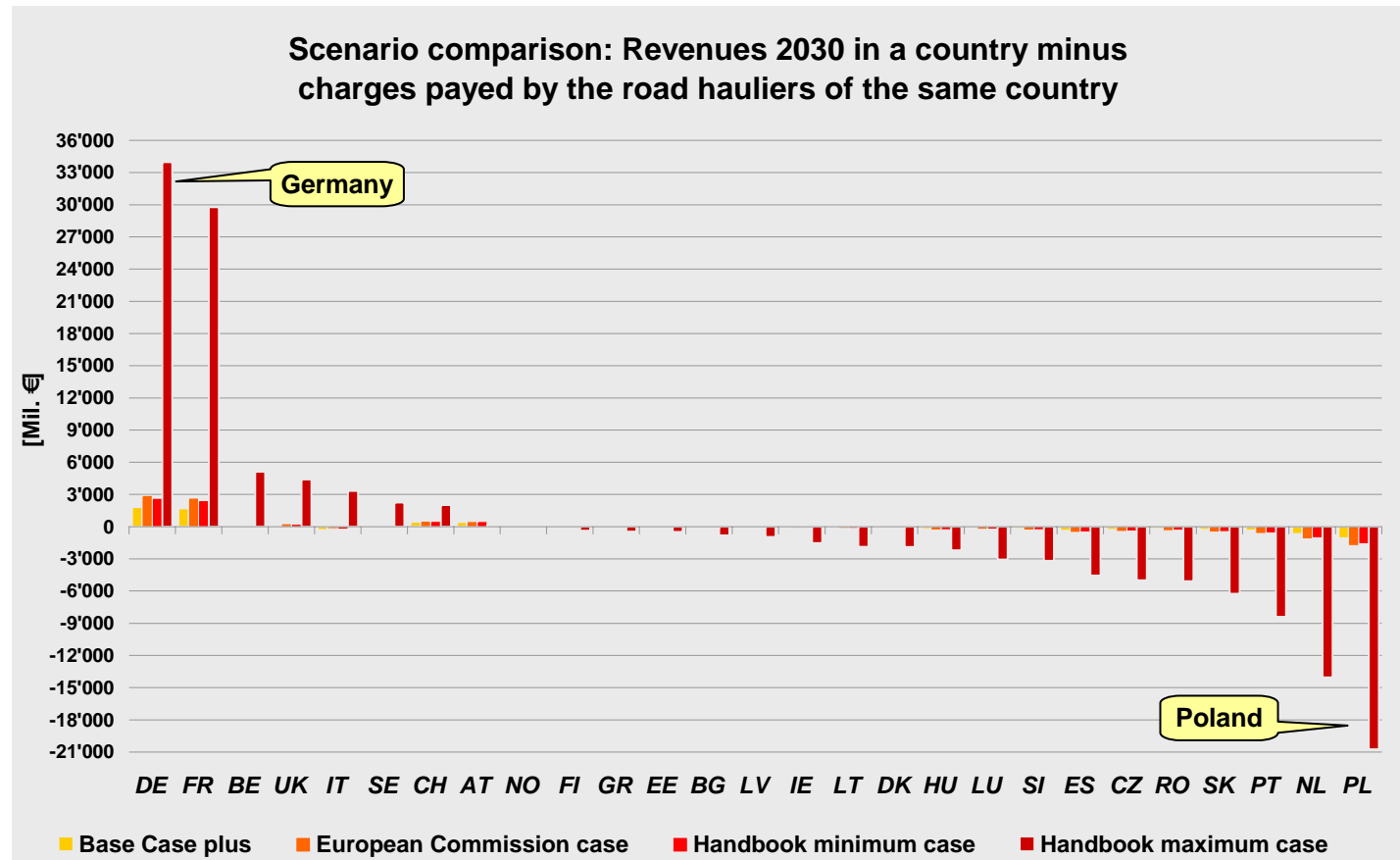
Results – Part IV: Scenario comparison 2020: surplus/deficits with regard to road hauliers by country

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Results – Part IV: Scenario comparison 2030: surplus/deficits with regard to road hauliers by country

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Results – Part V: Surplus or deficit for all study countries – including all scenarios and all study years

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- **green:** surplus in all scenarios and study years
- **red:** deficit in all scenarios and study years
- **yellow:** variation according to scenarios and/or study years
- **white:** not considered

Results – Part V: Surplus or deficit ranges for all study countries – including all scenarios and all study years

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Country	Range of surplus or deficit for			
	national economy		road hauliers	
	Minimum	Maximum	Minimum	Maximum
	in Mil. EUR			
AT	-386	450	-501	481
BE	-3'738	-124	-114	5'114
BG	-355	-10	-803	-15
CH	-296	321	181	2'004
CZ	3	1'164	-4'985	-86
DE	256	20'577	540	33'964
DK	-2'568	12	-1'893	-12
EE	-280	-3	-478	-4
ES	-4'406	-211	-4'563	-279
FI	-174	-0	-383	-4
FR	632	22'841	931	29'785
GR	-173	-10	-470	-19
HU	-73	1'108	-2'202	-126
IE	-2'044	-2	-1'521	-8
IT	-2'619	-206	-305	3'345
LT	-207	-11	-1'872	-42
LU	-1'639	-23	-3'072	-63
LV	-736	-9	-956	-12
NL	-6'527	-206	-14'045	-244
NO	-464	-6	-153	1
PL	-6'265	-159	-20'742	-428
PT	-4'631	-42	-8'399	-108
RO	-2'782	-46	-5'090	-78
SE	-295	-25	-9	2'254
SI	-1'342	-15	-3'162	-63
SK	-2'673	-52	-6'247	-124
UK	-1'717	-78	-15	4'399

Main findings

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- ✓ **Current HGV charging revenues have been calculated for the first time Europe wide: in 2007 more than 10,5 Bio. Euro**
- ✓ **HGV charging including current road charges and the imposition of all external costs at maximum rates would amount to more than 400 Bio. Euro in 2030, of which 95% stem from the internalisation of external costs**
- ✓ **Only two countries would profit from the internalisation of external costs in all scenarios and years namely Germany and France**
- ✓ **15 countries would face losses of national income, and the remaining 10 countries would experience various outcomes, yet with overall quite large losses of national income in most years and scenarios**

Conclusions

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- **In all scenarios, the internalisation of external costs leads to substantially increasing costs for the road freight transport industry as well as for the European economy**
- **This may have also consequences for European competitiveness with regard to globalisation**
- **and will show more than today disadvantages of peripheral regions**