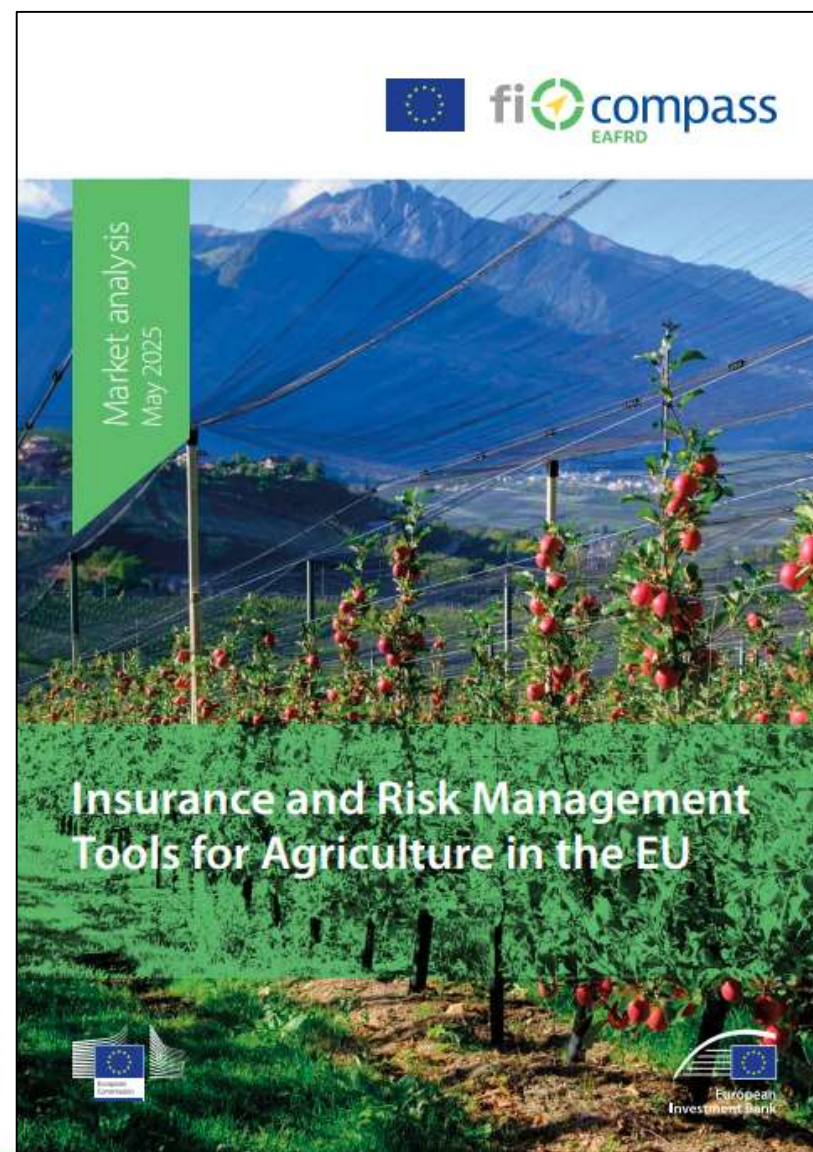


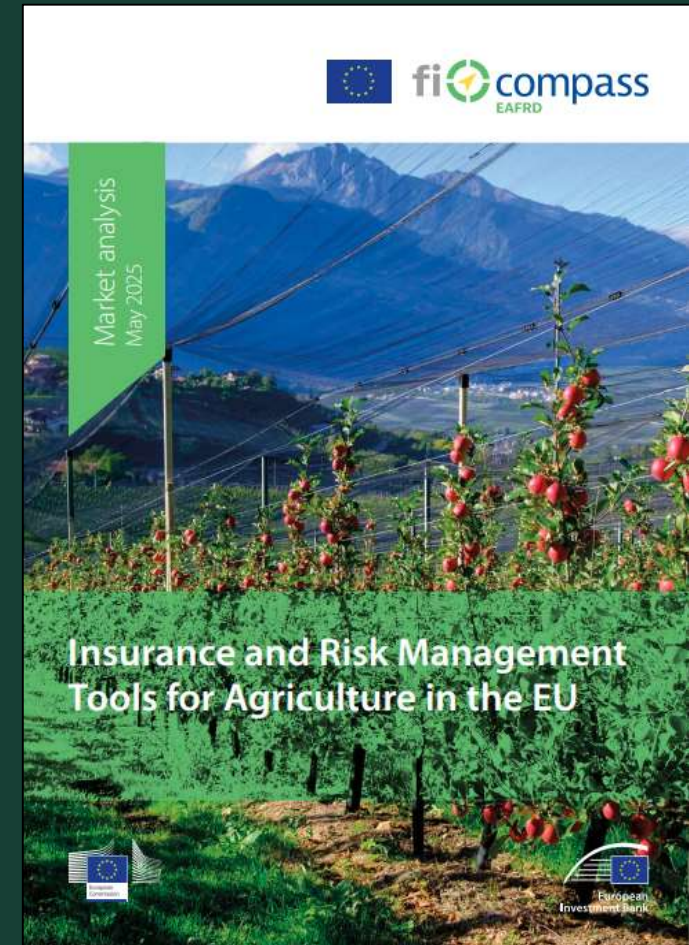


#ficompass



Objectives

- Assess whether EU agricultural insurance systems are sufficient and sustainable considering current and future climate risks.
- Explore what mechanisms at EU level could contribute to the sustainability of national agricultural insurance systems.



How we
answered
those
questions



Step 1

**Quantifying current and future climate risk (2050)
for EU agricultural yields & related financial
impact**



Step 2

**Creation of a comprehensive inventory of
agricultural insurance systems in the EU**



Step 3

**Assessing agricultural insurance systems and the
protection gap**



Step 4

Recommendations

Risk quantification method:

Engineering + Actuarial Science + Geography + Climate Science

1) HAZARD



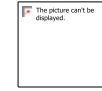
- **Stochastic** statistical methods: Whole distribution of weather events at different intensities in a particular location
- **Meteorological and Climate Science:** Integrating Risk Models and Climate Models

2) EXPOSURE



- **Geolocation**
Incorporation of terrestrial and satellite data
- **Attributes of exposed assets**
(e.g. crop type & variety, growth cycle-season)

3) VULNERABILITY



- **Level of damage to assets exposed under different threat intensities:** Which phenomena, with what intensity, affect which crops and in which locations
- **Result: Average Annual Loss and Maximum Probable Loss as a % of Agricultural Yield**

Quantification of the economic impact – Pure risk price/pure premium:



We convert the average annual losses of agricultural yield into economic losses through an additional financial module incorporated into the risk model (e.g. a loss of 1% of yield produces x euros of economic loss).

EU results summary

By 2025, a loss of **€60 billion*** is a year of realistic extreme catastrophe for EU agriculture (crops and livestock)

2025

Average
Annual Loss
>28 billion
euros

Between **20% and 30%**
is insured.

70 %-80% falls on farmers &
governments.

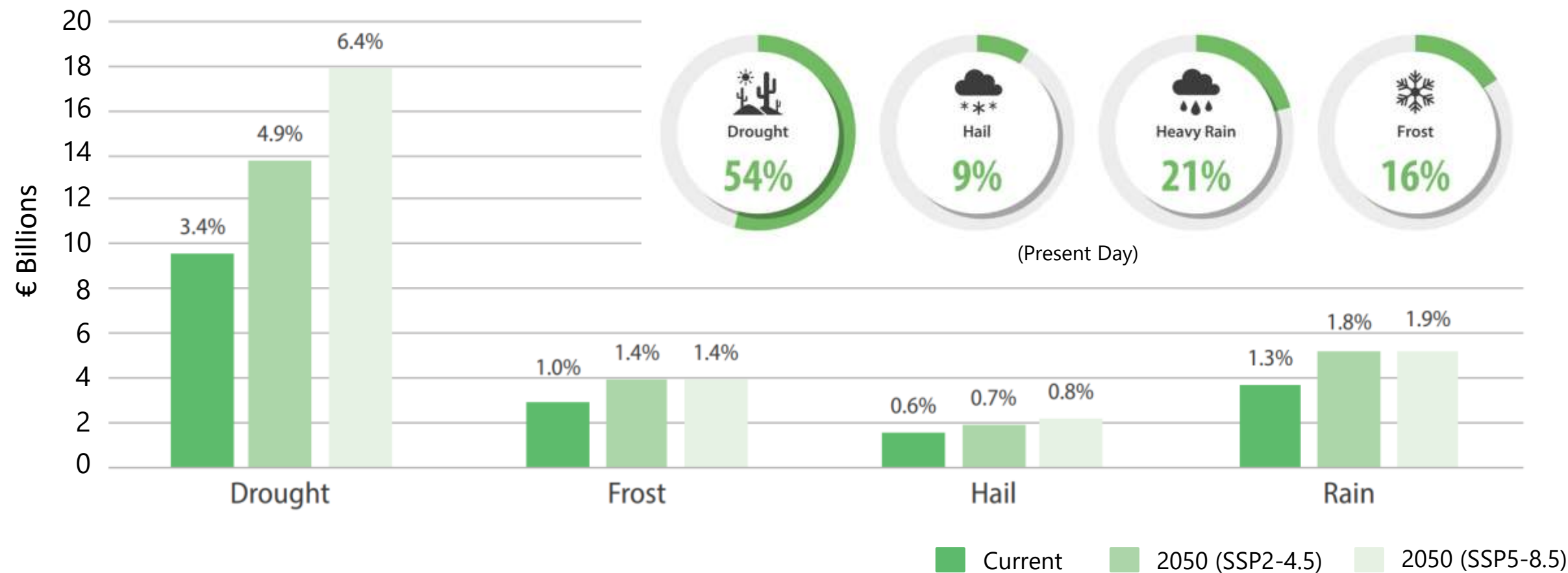
By 2050, the EU's total extreme losses are projected to increase by **50%** (> €90 billion)

2050

Average
Annual Loss
>40 billion
euros

*PML - EU-27 Maximum Probable Loss from extremes with a 2% annual probability of occurrence

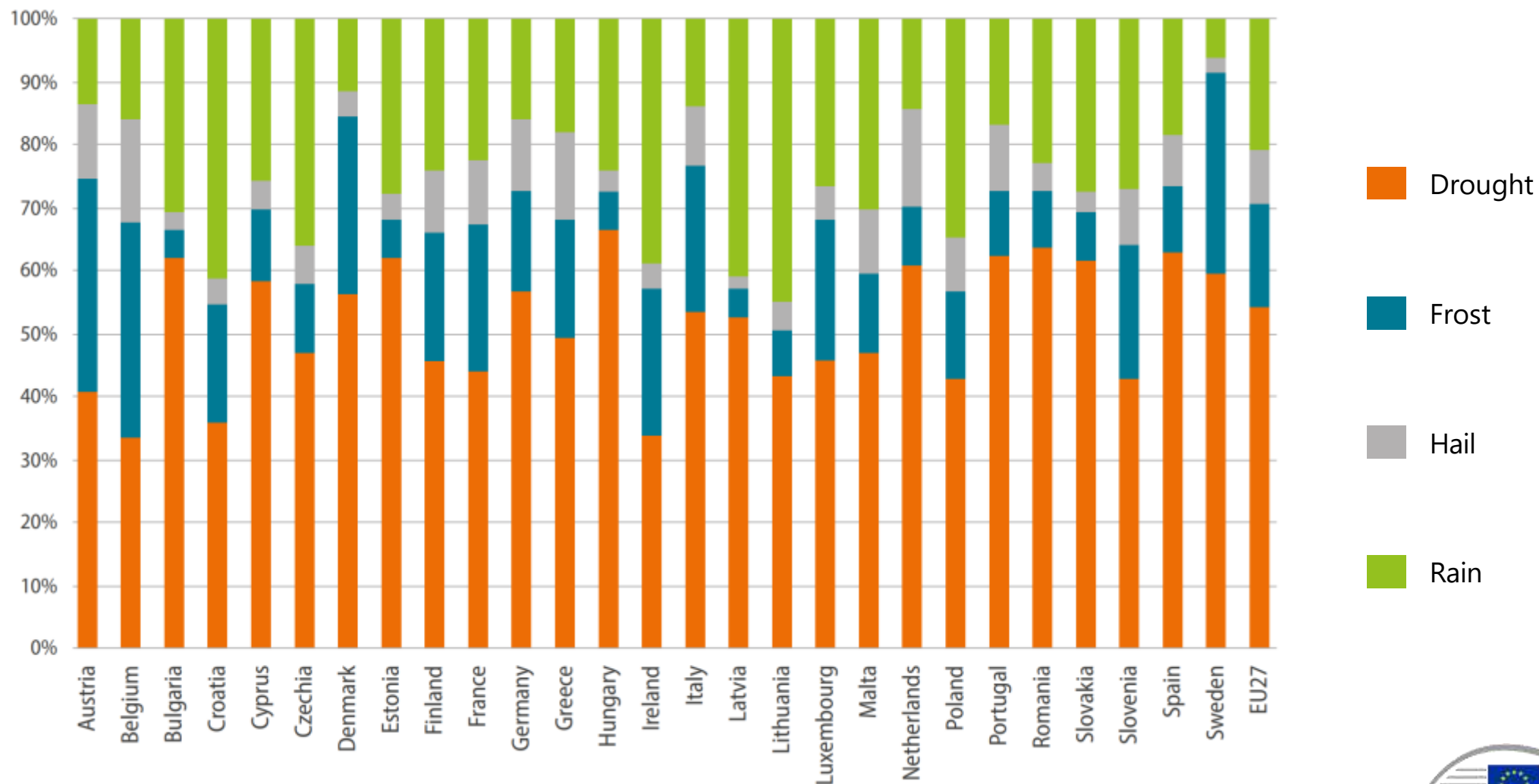
Average Annual Losses (Crops)



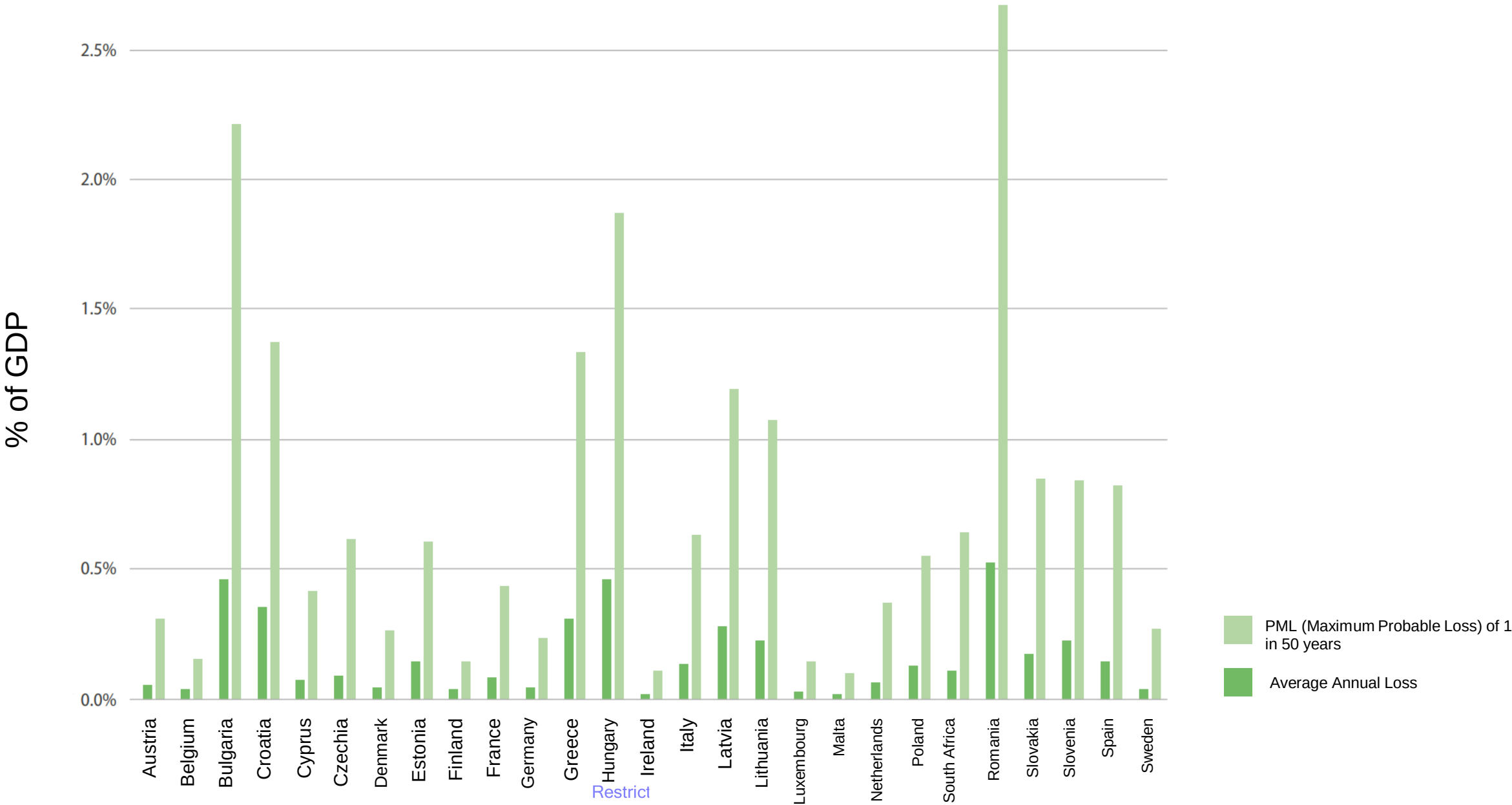
Drought is a problem for everyone



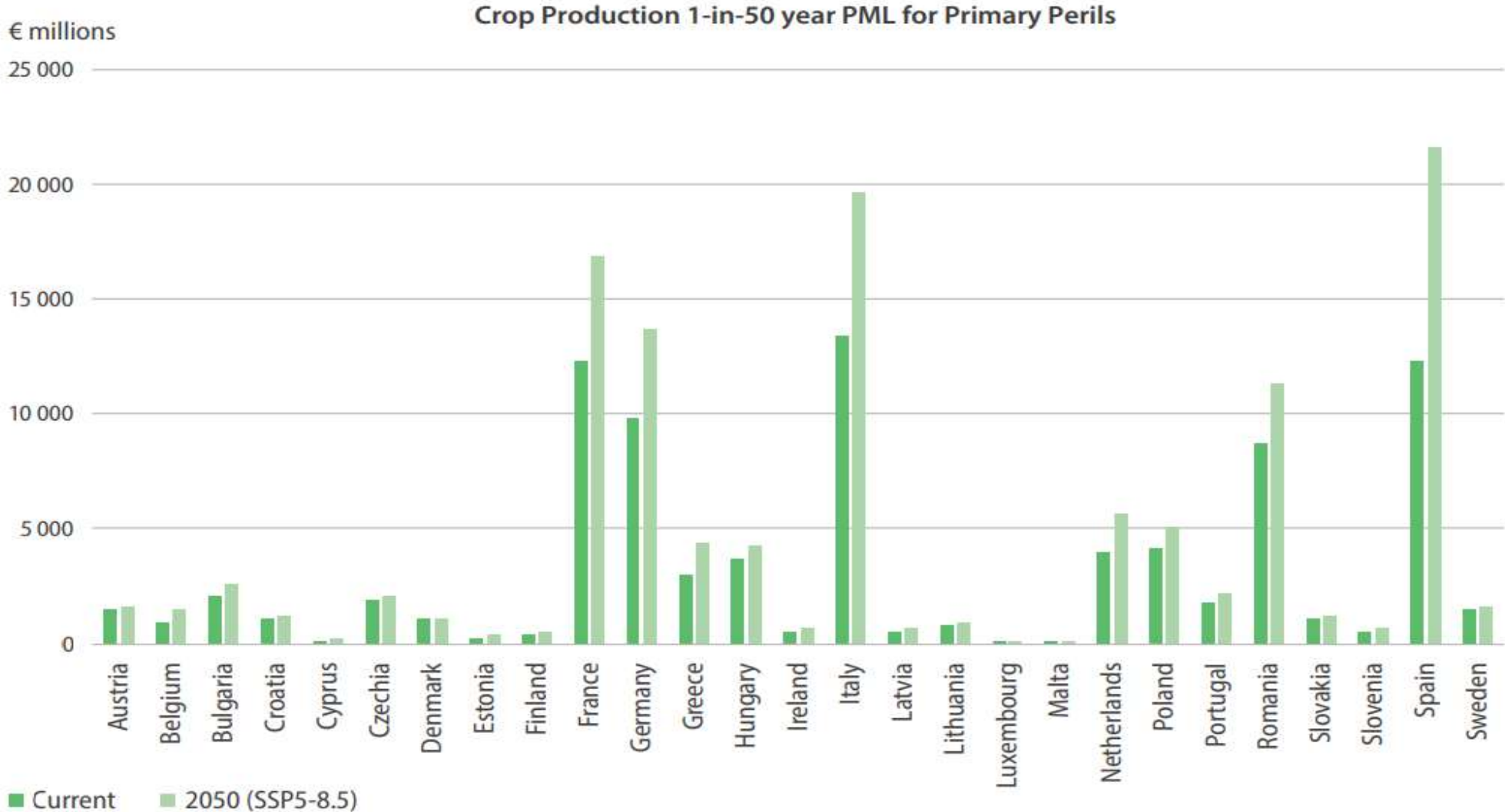
% of average annual losses due to meteorological phenomena



Losses as % of GDP:
catastrophic years = losses 4 or 5 times more than the annual average



Catastrophic losses





Types of agricultural insurance systems in the EU:

- **Public** – an insurance market that is owned by the state, often with compulsory participation
- **Private** – an insurance market without any state financial support planned in advance (excluding tax breaks)
- **Public-Private Partnership** – An insurance market with some level of pre-planned state financial support:
 - Use of EU funds: The support is co-financed by the national government and EU CAP funding.
 - Using only national funds: support is financed only by the national government

Key Market Indicators:

- Market size (total agricultural insurance premiums)
- Insurance penetration (insured farm area)
- Average loss ratio (showing the financial stability of insurers)
- Insurance availability (products available on the market)

This classification allows us to evaluate:

- 1) The level of protection in place
- 2) Its effectiveness against the results of climate risk modelling
- 3) How effectively public funds are used



Inventory of agricultural insurance systems in the 27 EU countries

	Market Characteristics					Insurance System Classification					Source of Funding	Subsidy	
	Total Insurance Premium	Insurance Penetration	Number of companies	Product Availability	Conditionality	Private	Public	Public Private Partnership			Use of EU funds	Subsidy Amount	Subsidy Amount
								Premium Subsidy	Government Participation in Cat Risk	Public Reinsurance			
Austria	234	H	1	N M P	V			x			N		< 55%
Belgium - Flanders	14	L	4	N M	V			x			N	83.94	< 65%
Belgium - Wallonia				N	V	x		Planned			N/A		0
Bulgaria	10	M	13	N	V			x			And	22.20	< 70%
Croatia	30	M	5	N	V			x			And		< 70%
Cyprus	8	VH	1	N	C		x				N	273.9	
Czechia	50	H	6	N	V			x			N		< 65%
Denmark	0	VL	0		V	x					N/A	422.2	0
Estonia	0.5	VL	1	N	V			x			And		< 70%
Finland	0.5	M	1	N	V	x					N	126.4	
France	860	M	9	N M R P	V			x	x		And	172.7	< 70%
Germany	255	H	6	N M P	V	Federal		Some States			Some States	1.60	0
Greece	155	VH	3	N M	C		x				N		
Hungary	71	M	11	N M	C			x			And	4128.1	< 65%
Ireland	0	VL	0		V	x					N/A	23.8	0
Italy	700	L	25	N M P	V			x	x	x	And	5.72	< 70%
Latvia	13	M	2	N	V			x			And	147.1	50%
Lithuania	5	M	1	N	V			x			And	99.6	< 70%
Luxembourg	7		1	N	V			x			N		< 65%
Malta	0	VL	0	N	V	x					N/A	164.2	0
Netherlands	33	L	3	N M	V			x			And	115.6	53%
Poland	130	M	7	N M	C			x			And	180.3	< 65%
Portugal	33	L	5-7	N M	V			x		x	And		< 70%
Romania	60	M	12	N M	V			x			And	7.50	< 70%
Slovakia	14	M	4	N	V			x			And	83.9	< 70%
Slovenia	5	L	4	N	V			x			N		< 60%
Spain	1011	M	16	N M P	V			x	x	x	N	2812.5	42%
Sweden	50	H	2	N	V	x					N/A	65.1	0
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)

(1) GWP, EUR millions, crop insurance only where available

(2) VH(>70%) H(>50%) M(20%-50%) L(<20%) VL (<1%)

(3) Most recent publicly available estimate of insurers with >1% market share

(4) Named (N) Multi Peril (M) Revenue (R) Parametric (P)

(5) Voluntary (V) Compulsory (C)

(11) Yes (Y) National Funds only (N) No Funding (N/A)

(12) Sum of EU, public and additional national financing for risk management tools under 2023-2029 CAP, EUR

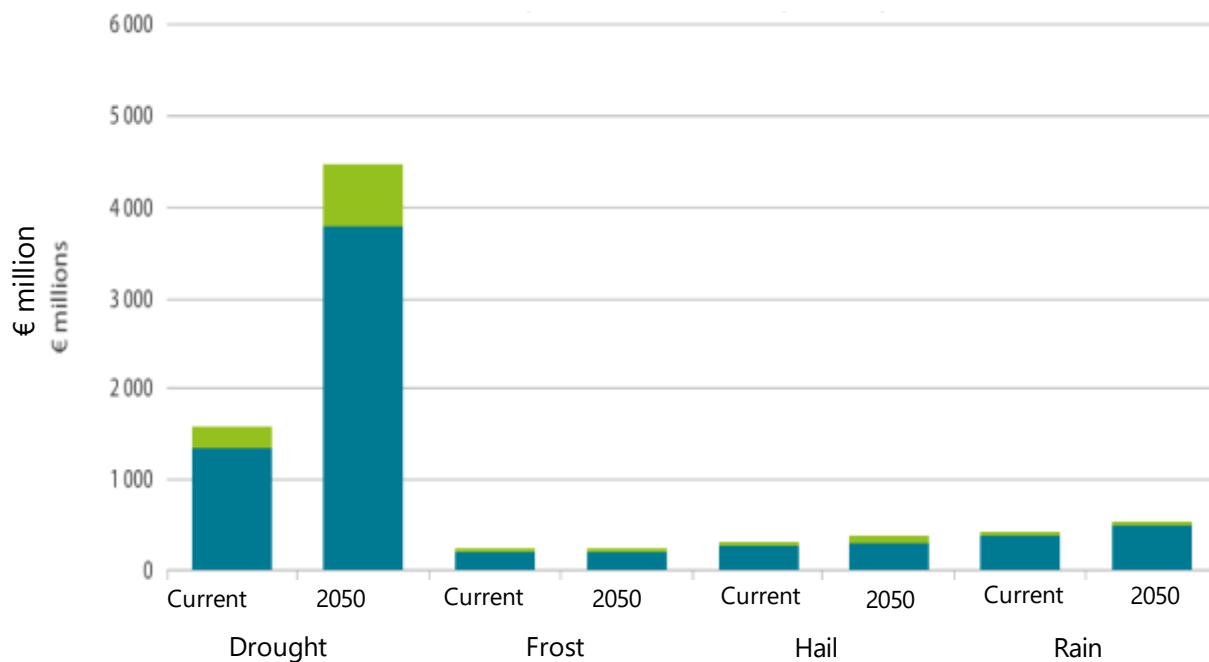
(13) % Premium



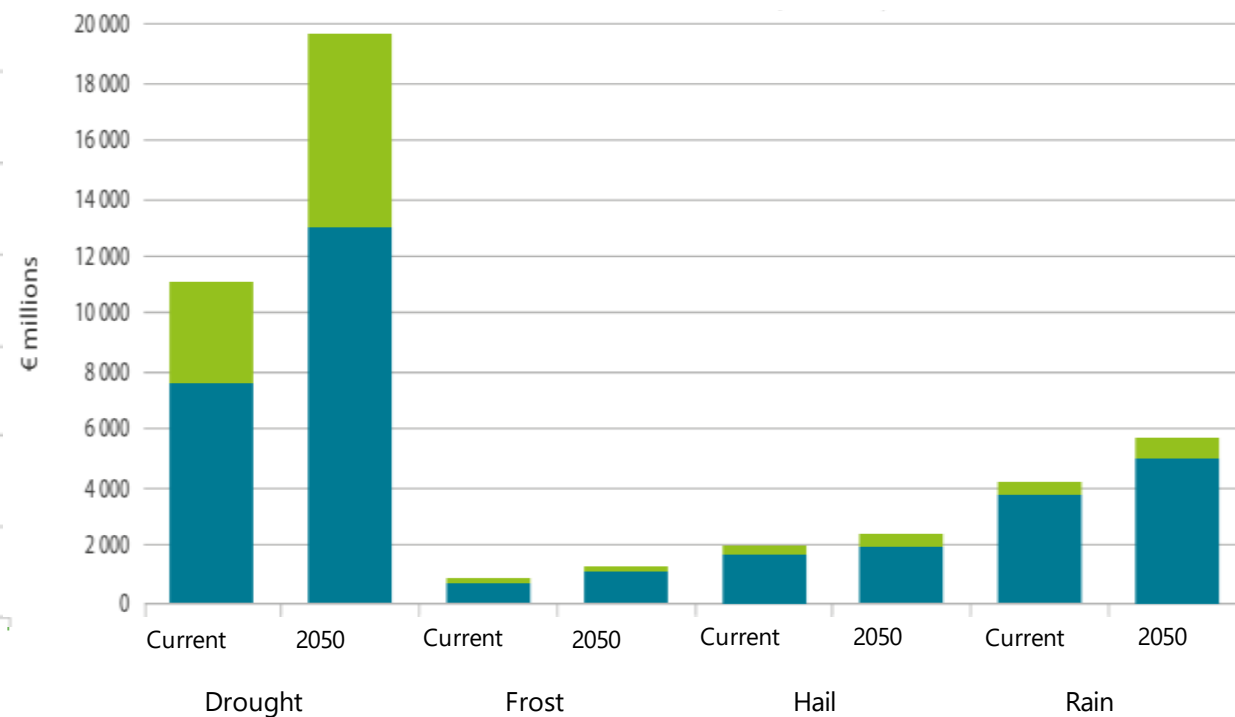
Example - Risk Layering in Spain: *who pays?*



Frequent losses (20% annual probability)



Extreme losses (2% annual probability)



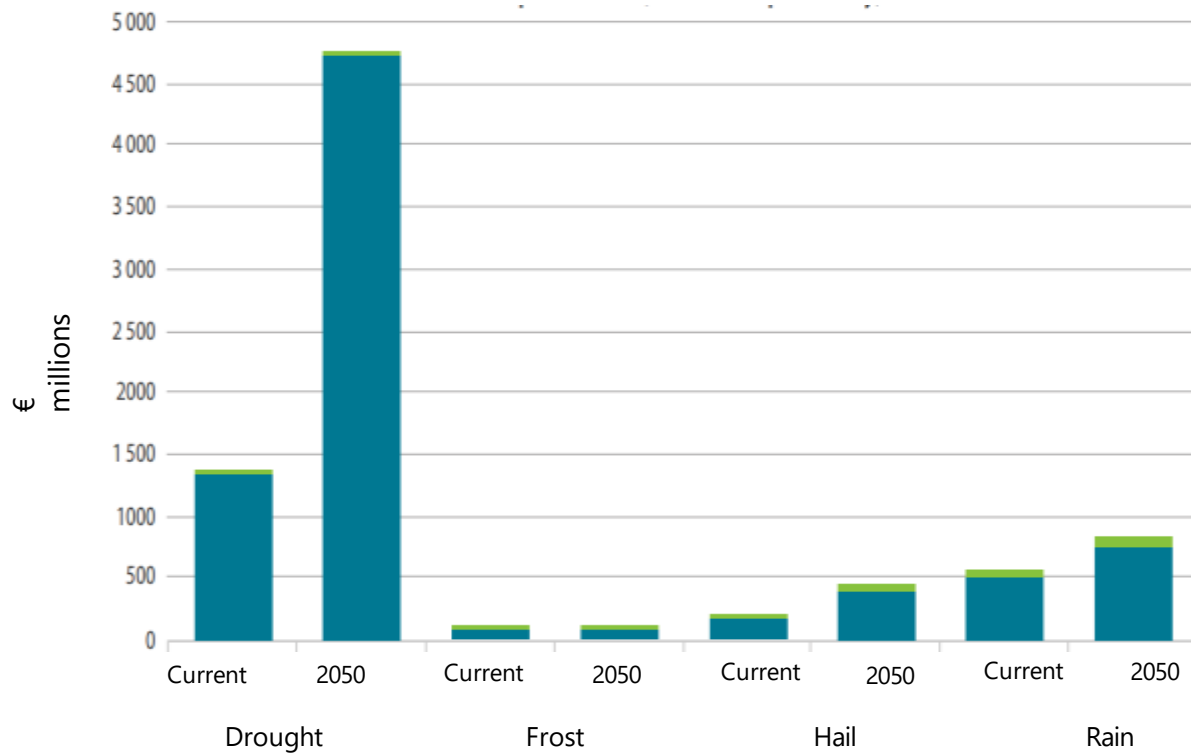


Example - Risk Layering in Romania: *who pays?*

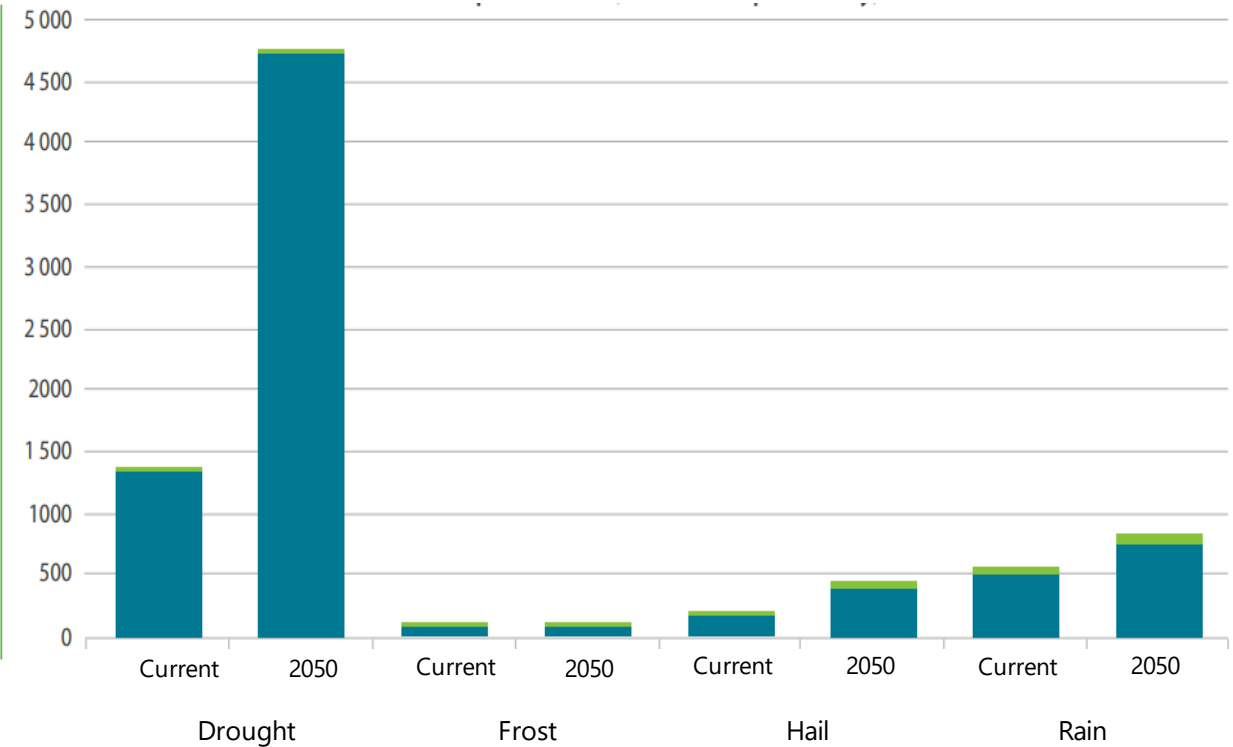


Retained vs Insured losses for different loss severities (Billion EUR)

Frequent Losses (20% annual probability)



Extreme Losses (2% annual probability)





Pillar I:

Technical assistance and improvement of risk modelling



Recommendation 1:

**A platform for shared access to resources,
Technical assistance and collective experience**

Recommendation 2:

**Develop consistent standards and protocols for the
collection and uptake of EU agricultural
performance data**

Recommendation 3:

**Open Access Information for Agriculture
Modeling with Insurance-Aligned
Quantification Metrics**

Pillar 2:

Managing and Financing Catastrophic Climate Risks



Aligns with the broader proposals of the ECB and EIOPA



Recommendation 4:

Using venture capital markets to increase the capacity of the EU's emergency central funds for catastrophic years:

- (Re)insurance
- Catastrophic bonds (cat)
- A combination of both through complementary programs



Recommendation 5:

Help Member States organise additional parametric protection against disasters to complement their existing national systems

Recommendation 6:

In the longer term: towards a multi-sovereign venture fund

Pillar 3: Enhancing adaptation and resilience of agriculture



Maintaining
long-term
insurability
and access to
credit



Recommendation 7:

Promote a more coordinated approach to climate change adaptation in agriculture between financing instruments, insurance and EU policies.

Recommendation 8:

Supporting stable access to finance for farmers and rural areas

- Risk Models in Insurance-Aligned Agricultural Loan Portfolios
- Insurance recognized as a contingent asset in banks' regulatory capital

EU
Commission
President,
Ursula von der
Leyden

Quotes from
State of Union
Speech - Sept
2026

“Crops need water to grow, while livestock need it to survive. Entire harvests depend on it. **This is why we will make proposals to improve risk management and address the insurance gap.**”

“Whether drought-resistant crops, flood prevention or energy-efficient cooling, Europe is already a leader. And we must capture this market.”

“**Today, only around 25 % of catastrophe losses in Europe are covered by private insurance. This means that, far too often, national budgets become the insurer of last resort.**”

“And we need to support the most vulnerable...**We need to take action to close this gap.** This is why the Commission will set up a Climate Insurance Alliance.”

https://ec.europa.eu/commission/presscorner/detail/en/speech_26_1868

https://ec.europa.eu/detail/en/speech_26_1868