



ESG & ERM at Prysmian Group

Prysmian
Group

Linking
the Future

ERM MISSION

Create a **pervasive risk management culture** by integrating risk thinking into the main strategic and operation decision making processes of the Group



ERM PRINCIPLES AND GUIDELINES



The purpose of ISO 31000:2009 is to provide **principles and generic guidelines on risk management**.



The Committee of Sponsoring Organizations of the Treadway Commission (COSO) is a joint initiative of the US five private sector organizations and is dedicated to providing thought leadership through the development of **frameworks and guidance on enterprise risk management, internal control and fraud deterrence**.



Principles, criteria and comments, in order to facilitate the implementation of the **“comply or explain” principle** and the **full understanding**, by the market, **of the corporate governance model** applied by each company.



Introduced the concept of **Risk Based Thinking based on Plan/Do/Act/Check**

ERM GROUP RISK MODEL

The Risk Model is designed to capture the **broad portfolio** of potential **external** and **internal risks** to which the business of the Prysmian Group may be exposed.

Five Risk Families are identified:



1 STRATEGIC	2 FINANCIAL	3 OPERATIONAL
• Macroeconomic, demand trends & Competitive environment • Stakeholder expectations and Corporate Social Responsibility • Key customer & business partners • Emerging country risk • Law & regulation evolution • Research & Development • M&A / JVs and integration process • Operative CAPEX • Strategy implementation • Organizational framework & governance	• Raw materials price volatility • Exchange rate volatility • Interest rate volatility • Financial instruments • Credit risk • Liquidity risk / Working Capital risk • Capital availability / cost risk • Financial counterparties	• Sales & Tendering • Production Capacity / Efficiency • Supply Chain Capacity / Efficiency • Business interruption / Catastrophic events • Contract execution / liabilities • Product quality / liabilities • Environmental • Information Technology • Human Resources • Outsourcing
4 LEGAL & COMPLIANCE	5 PLANNING & REPORTING	
• Intellectual Property rights • Compliance to laws and regulations • Compliance to Code of Ethics, Policies & Procedures	• Budgeting & Strategic planning • Tax & Financial Planning • Management reporting • Financial reporting	

CONSOLIDATION OF ESG RISKS INTEGRATION WITHIN ERM

Analysis of main frameworks and best practices to assess ESG risks



Enterprise Risk Management

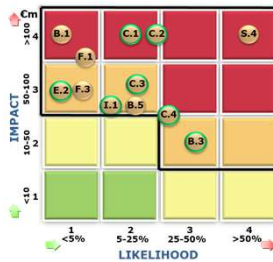
Applying enterprise risk management to environmental, social and governance-related risks



Analysis of existing Prysmian ESG risks and identification of potential new risks



2020 Web survey & Top Managers interviews



OTHER ENVIRONMENTAL, SOCIAL & GOVERNANCE

- 1 Risk related to the **availability of water**
- 2 Risks related to **climate change** (precipitation, temperature, sea level)
- 3 **HSE** risks (fires and injuries)
- 4 **Environmental** risks (soil, water, air pollution)
- 5 Risk related to **increased severity of extreme weather events** (cyclones, etc.)
- 6 Risks related to the **sustainability of the Group supply chain**
- 7 Risks related to the **social sustainability of the organizational structure**
- 8 Risk of increased production costs due to **increased pricing of GHG emissions**
- 9 Compliance risks concerning the **Code of Ethics, Policies and Procedures**
- 10 Risks of **non-compliance with environmental legislation** (incl. GHG emissions)
- 11 Risks related to **changes in the legislative environment**
- 12 Risk of **negative evaluation or misunderstanding of ESG performances**

Mapping of ESG risks as per materiality matrix, DLgs.254/2016 and TCFD

RISKS # 2020	RISK CATEGORY	RISK AREA	RISK DESCRIPTION	DLGS 254/16	Materiality Matrix	TCFD-related
C.1	LEGAL & COMPLIANCE	Environmental risks and regulations	Risk to incur in Export Sanctions	Not applicable (not)	Not applicable	Not applicable
C.2	LEGAL & COMPLIANCE	Environmental risks and regulations	Risk of breach of Anti-bribe legislation	Not applicable (not)	Not applicable	Not applicable
C.3	LEGAL & COMPLIANCE	Environmental risks and regulations	Risk of breach of Anti-corruption legislation	Not applicable (not)	Not applicable	Not applicable
C.4	LEGAL & COMPLIANCE	Environmental risks and regulations	Data Protection Risk (Privacy) in case of unauthorized disclosure and/or processing of Personal Information (Data) or violation of data protection law leading to potential sanctions	Not applicable (not)	Not applicable	Not applicable
B.1	OPERATIONAL	Human Resources	Lack / loss of key personnel in strategic operational functions	Not applicable (not)	Not applicable	Not applicable
1.1	OPERATIONAL	Information Technology	Cyber Security risk with consequent loss of key business data (e.g. Industrial espionage and extortion)	Not applicable (not)	Not applicable	Not applicable
E.1	OPERATIONAL	Environmental	Potential costs for asbestos removal from factories	Not applicable (not)	Not applicable	Not applicable
E.2	OPERATIONAL	Environmental	Ground / water pollution risk	Not applicable (not)	Not applicable	Not applicable
1.2	OPERATIONAL	Environmental	Fraud risk due to non compliance with S&P model	Not applicable (not)	Not applicable	Not applicable
E.3	OPERATIONAL	Environmental	Risks related to the availability of water for manufacturing plants leading to potential increased operating costs or related reduction in future production	Not applicable (not)	Not applicable	Not applicable
E.4	OPERATIONAL	Environmental	Risks related to climate change (change in precipitation, increase of temperature, sea level rise)	Not applicable (not)	Not applicable	Not applicable
E.5	OPERATIONAL	Environmental	HSE risks (fires and injuries)	Not applicable (not)	Not applicable	Not applicable
E.6	OPERATIONAL	Environmental	Environmental risks (soil, water pollution due to incidents/spills)	Not applicable (not)	Not applicable	Not applicable
E.7	OPERATIONAL	Environmental	Risk of damages and consequent business interruption or manufacturing plants due to increased severity of extreme weather events such as cyclones and floods	Not applicable (not)	Not applicable	Not applicable
E.8	OPERATIONAL	Environmental	Risks related to the sustainability of the Group supply chain	Not applicable (not)	Not applicable	Not applicable
E.9	OPERATIONAL	Environmental	Risks related to the social sustainability of the organizational structure and business model	Not applicable (not)	Not applicable	Not applicable
E.10	OPERATIONAL	Environmental	Risk of increased production costs due to increased pricing of GHG emissions (Carbon Tax or Emissions Trading Scheme)	Not applicable (not)	Not applicable	Not applicable
E.11	OPERATIONAL	Environmental	Compliance risks concerning the Code of Ethics, Policies and Procedures	Not applicable (not)	Not applicable	Not applicable
E.12	OPERATIONAL	Environmental	Risks of non-compliance with environmental legislation in particular on energy efficiency and GHG emissions	Not applicable (not)	Not applicable	Not applicable
E.13	OPERATIONAL	Environmental	Risks related to changes in the legislative environment governing HSE	Not applicable (not)	Not applicable	Not applicable
E.14	OPERATIONAL	Environmental	Risk of negative evaluation or misunderstanding of sustainable business strategy or ESG performance in comparison to competitors/peers	Not applicable (not)	Not applicable	Not applicable

Quantitative assessment of climate risks as per TCFD

RISK RELATED TO INCREASED SEVERITY OF EXTREME WEATHER EVENTS

RISK TOPIC	Risk of significant property damages and business interruption due to increased severity of extreme weather events such as windstorms, floods, etc.
SCORE	Cross
RISK CONTEXT	Prysmian Group assets (112 manufacturing plants plus Distribution centers, R&D and others) are located worldwide in 36 countries exposed to damages due to weather events (windstorms and tornadoes, river floods, storm surge, hailstorms, lightning). As per IPCC report "warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. The atmosphere and oceans have warmed, the amounts of snow and ice have diminished, and sea level has risen". As a consequence, there is growing evidence that weather events are becoming more severe, and that the frequency of extreme events is increasing. As per assessment of Prysmian assets exposure to such events has been done with Climatis, a global risk tool of climate risk, with the same tool, an assessment under a high CO2 emission scenario (RCP8.5 as per IPCC) has been also done, confirming a low overall exposure, and 2025, to the risk deriving from the change in precipitation in summer and winter and from the increase in temperatures, with the exception of a very few plants in areas with a maximum expected increase in temperature of +1.5°C. A maximum foreseeable loss analysis has been performed for some locations with higher flood exposure and limited insurance coverage. Historical losses due to weather events of Prysmian assets during the last 20 years (2000 - 2019) have been considered, showing no past catastrophic events (over loss equal to € 1 mio) and an increase of frequency and severity.
RISK MITIGATIONS	Group Loss Prevention program, aimed to prevent and mitigate property damages and business interruption in all Prysmian plants, including weather changes monitoring Dedicated flood analysis on several plants has been performed Group agreement with Beifeng, company specialized in disaster recovery and restoration services Property Damages & Business Interruption insurance coverage with CIPRO (limit and sub-limit of €400m for flood and windstorm (incl. tornado) each loss and annual aggregate coverage includes buildings, machinery, stocks and production margin) Prysmian captive insurance company with €4.5m retention each loss and in annual aggregate to mitigate handling of insurance market risk for Prysmian or other market risks
MAIN ROOT CAUSES	Increased severity of extreme weather events such as windstorms, floods, etc. due to warming of the climate system
RISK QUANTIFICATION	Estimate on 2020-2035 period € 5 - 44 mio
Assumptions	A sensitivity analysis on increased severity of extreme weather events for 2020-2035 period has been carried out assessing the existing severity level Expected losses are covered by P&O&I insurance coverage considering (i) property damages in events (ii) interruption of cables production and relevant contribution margin loss Impact has been calculated considering Prysmian additional expenditures (as per TCFD recommendations): lease retention (deductible and Copay retention) Potential insurance premium increase for 2020-2035 period Exposure excludes any economic effects in case of (i) reputational damages, (ii) potential loss of market share, (iii) people injuries

New ESG risk scoring scale and time horizon

PROPOSAL TO BE DISCUSSED

EXISTING ERM RISK SCORING SCALE				PROPOSAL DRAFT
Level	Description	Financial Impact	Reputational Impact	Operational Impact
4	VERY HIGH	> 100 M Euro on expected EBITDA/CASH FLOW	Negative judgments widespread at global level, significantly affecting stock exchange performance and firm reputation, public opinion and clients relationships. Serious threats to business continuity	Consequences on efficiency / continuity of one or more critical business processes
3	HIGH	50 - 100 M Euro on expected EBITDA/CASH FLOW	Negative judgments widespread at national level, affecting firm reputation and image	Consequences on efficiency / continuity of one or more critical business processes
2	MODERATE	10 - 50 M Euro on expected EBITDA/CASH FLOW	Competitors' negative judgments expressed in case of negative performances and events	Consequences on efficiency / continuity of one critical business processes
1	MINOR / INSIGNIFICANT	< 10 M Euro on expected EBITDA/CASH FLOW	Competitors' negative and unjustified judgments expressed	Consequences on efficiency of one non critical business processes
				Sustainability Impact

ESG risks and ESG index benchmark with peers (Nexans, NKT, Saipem)

Index	Prysmian Group	SAIPEM	Nexans	NKT
• CDP	2019 Rank: B+/100 (EU World) (included) 2018 Rank: B+/100 (EU World) (not included)	2019 Rank: (Energy World) (included) 2018 Rank: (Energy World) (not included)	2019 Rank: (not included) 2018 Rank: (not included)	2019 Rank: (not included) 2018 Rank: (not included)
• Standard ethics	2019 Score: B (World) 2018 Score: B (World)	2019 Score: B (World) 2018 Score: B (World)	2019 Score: A+ (World) 2018 Score: A (World)	N/A
• FTSE4Good	2020 Score: 4.0/5 2019 Score: 3.8/5 2018 Score: 3.5/5	2019 Score: 4.0/5	2019 Score: 4.0/5	N/A
• ecovadis	2020 Score: 77/100 (Plat.) 2019 Score: 75/100 (Gold) 2018 Score: N/A	N/A	2018 Score: 72/100 (Gold) 2019 Score: N/A	2019 Score: (Gold) 2018 Score: (Gold)
STOXX	2018 included in STOXX Italy 40 ESG-X and STOXX Europe 600 ESG-X	2018 included in STOXX Italy 40 ESG-X and STOXX Europe 600 ESG-X	N/A	2019 included in STOXX Nordic Total Market ESG-X

ESG RISKS PATHWAY IN PRYSMIAN

Consolidation of ESG risks integration within ERM

ERM implementation at Group level

First sustainability report with the new **Sustainability Risk Model**

Introduction of **ESG risks** (descriptive only) in Sustainability report (NFD)

- Analysis of **main frameworks** and **best practices** to assess **ESG risks**
- Analysis of **existing Prysmian ESG risks** and identification of **potential new risks** (web survey, top managers interviews, etc.)
- **Mapping** of ESG risks as per **materiality matrix**, **DLgs.254/2016** and **TCFD**
- **Quantitative assessment** of **climate risks** as per **TCFD**
- New **ESG risk scoring scale** and **time horizon**
- ESG risks and ESG index **benchmark with peers**



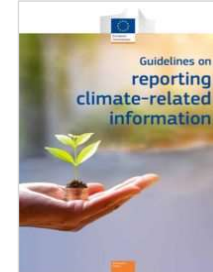
Non-Financial Reporting Directive 2014/95/EU

TCFD establishment

DLgs 254/2016

TCFD 1st report

Non-Financial Reporting Directive 2014/95/EU incorporates TCFD recommendations



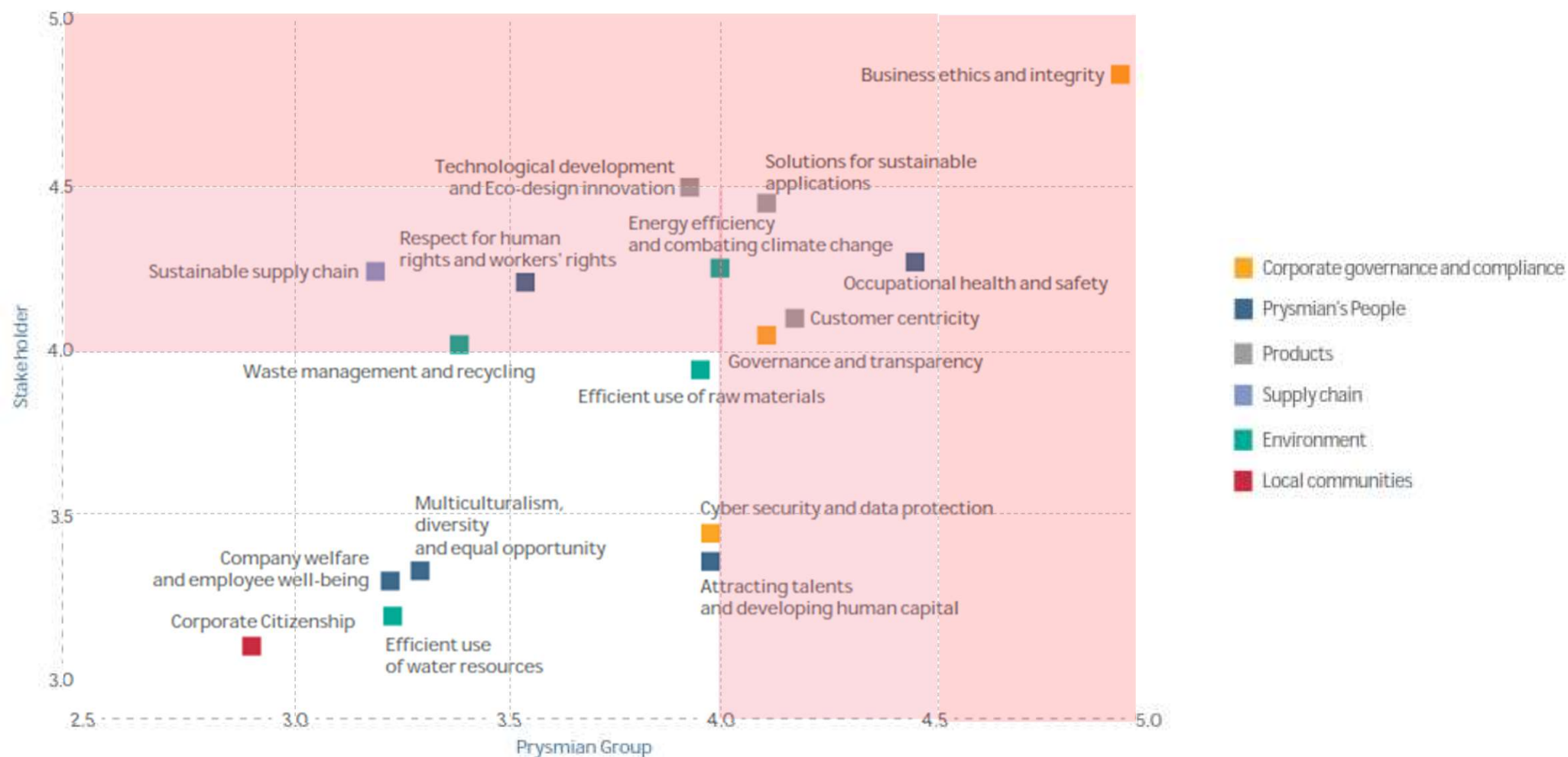
ERM RISK SCORING SCALES

Level	Description	Financial Impact	Reputational impact	Operational Impact	Sustainability Impact
4	VERY HIGH	> 100 M Euro on expected EBITDA/CASH FLOW	Negative judgments widespread at global level , significantly affecting, stock exchange performance and firm reputation, public opinion and clients' relationships. Serious threatens to business continuity	Consequences on Company ability to undertake "key" strategy for business growth and sustainability	Risk within a topic assessed in the Prysmian Materiality Matrix with a priority > 4,0 and with a Very high impact on environmental, social and governance matters
3	HIGH	50 - 100 M Euro on expected EBITDA/CASH FLOW	Negative judgments widespread at national level , affecting firm reputation and image	Consequences on efficiency / continuity of one or more critical business processes	Risk within a topic assessed in the Prysmian Materiality Matrix with a priority > 4,0 and with a High impact on environmental, social and governance matters
2	MODERATE	10 - 50 M Euro on expected EBITDA/CASH FLOW	Competitors' negative judgments expressions in case of negative performances and events	Consequences on efficiency / continuity of non critical business processes	Risk within a topic assessed in the Prysmian Materiality Matrix with a priority > 4,0 and with a Moderate impact on environmental, social and governance matters
1	MINOR / INSIGNIFICANT	< 10 M Euro on expected EBITDA/CASH FLOW	Competitors' negative and unjustified judgments expressions	Consequences on efficiency of one non-critical business process	Risk within a topic assessed in the Prysmian Materiality Matrix with a priority < 4,0 and with a Minor / Insignificant impact on environmental, social and governance matters

Level	Description	Likelihood
4	PROBABLE	>50% <i>likelihood of occurrence on an annual basis</i> - The future event or events are expected to occur in most circumstances (with a likelihood greater than 50%)
3	LIKELY	25-50% <i>likelihood of occurrence on an annual basis</i> - The chance of the future event or events is less than likely but still with a good possibility to occur
2	UNLIKELY	5-25% <i>likelihood of occurrence on an annual basis</i> - The chance of the future event or events occurring is slight
1	REMOTE	<5% <i>likelihood of occurrence on an annual basis</i> - The future event or events may occur only exceptional circumstances.

Level	Description	RM capabilities
4	INEXISTENT <i>Complete exposure to the risk</i>	- Risk management systems are not in place - Risk management initiatives are chaotic and not methodical - Risk management mainly relies on "heroics" individuals
3	INADEQUATE <i>Significant residual risk</i>	- Risk management systems are not clearly defined - Risk management processes are established and repeated with minimum traceability - Risk management mainly relies on individual initiative and skills
2	IMPROVABLE <i>Limited residual risk</i>	- Risk management systems are defined but need some improvements - Risk management processes are established but not completely formalized and monitored - Risk management methodologies & tools are partially defined and institutionalized
1	ADEQUATE <i>No residual risk</i>	- Risk management systems are in line with best practices - Risk management is supported by quantitative analysis and ensure continuous improvement - Organizational structure, roles and responsibilities are clearly defined - coordination is in place - Risk management processes are applied on enterprise-wide basis

PRYSMIAN 2019 MATERIALITY MATRIX



ESG RISKS – 2020

Reported in 2019 DNF, except new risks identified in 2020

RISK # 2020	RISK FAMILY	RISK AREA	RISK DESCRIPTION	DLGS 254 ref.	Materiality Matrix	Climate related TCFD
C.1	LEGAL & COMPLIANCE	Compliance to laws and regulations	Risk to incur in Export Sanctions	Anti-corruption and bribery	Business ethics and integrity	Not applicable
C.2	LEGAL & COMPLIANCE	Compliance to laws and regulations	Risk of breach of Antitrust legislation	Anti-corruption and bribery	Business ethics and integrity	Not applicable
C.3	LEGAL & COMPLIANCE	Compliance to laws and regulations	Risk of breach of Anti-corruption legislation	Anti-corruption and bribery	Business ethics and integrity	Not applicable
C.4	LEGAL & COMPLIANCE	Compliance to laws and regulations	Data Protection Risk (<i>Privacy</i>) in case of unauthorized disclosure and/or processing of Personal Identifiable Information or sensitive data and information leading to potential sanctions	Social	Cyber security and Data protection	Not applicable
B.3	OPERATIONAL	Human Resources	Lack / Loss of key personnel in strategic operational functions	Employees	Attracting talent and developing human capital	Not applicable
I.1	OPERATIONAL	Information Technology	Cyber Security risk with consequent loss of key business data (e.g. industrial espionage and extortion)	Social	Cyber security and Data protection	Not applicable
E.2	OPERATIONAL	Environmental	Ground / water pollution risk	Environment	Waste management and recycling	Not applicable
S.1	OPERATIONAL	Business interruption / Catastrophic events	Risks related to the availability of water for manufacturing plants leading to potential increased operating costs or reduced revenues due to lower production	Environment	Efficient use of water resources	Physical Risks - Chronic
S.2	OPERATIONAL	Business interruption / Catastrophic events	Risks related to climate change (change in precipitation, increase of temperature, sea level rise)	Environment	Energy efficiency and combating climate change	Physical Risks - Chronic
S.3	OPERATIONAL	Environmental	H&S risks (illness and injuries)	Employees	Occupational health and safety	Not applicable
S.4	OPERATIONAL	Environmental	Environmental risks (soil, water pollution due to incident/spills)	Environment	Waste management and recycling	Not applicable
S.5	OPERATIONAL	Business interruption / Catastrophic events	Risk of damages and consequent business interruption at manufacturing plants due to increased severity of extreme weather events such as cyclones and floods NEW 2020	Environment	Energy efficiency and combating climate change	Physical Risks - Acute
S.6	OPERATIONAL	Cross	Risks related to the sustainability of the Group supply chain	Cross	Sustainable supply chain	Not applicable
S.7	OPERATIONAL	Human resources	Risks related to the social sustainability of the organizational structure and business model	Human rights	Respect for human rights and workers' rights	Not applicable
S.8	OPERATIONAL	Production capacity / Efficiency	Risk of increased production costs due to increased pricing of GHG emissions (Carbon Tax or Emission Trading Scheme) NEW 2020	Environment	Energy efficiency and combating climate change	Transition - Policy & Legal
S.9	LEGAL & COMPLIANCE	Compliance to Code of Ethics, Policies & Procedures	Compliance risks concerning the Code of Ethics, Policies and Procedures	Anti-corruption and bribery	Business ethics and integrity	Not applicable
S.10	LEGAL & COMPLIANCE	Compliance to laws and regulations	Risks of non-compliance with environmental legislation in particular on energy efficiency and GHG emissions	Environment	Energy efficiency and combating climate change	Transition - Policy & Legal
S.11	STRATEGIC	Environmental	Risks related to changes in the legislative environment governing HSE	Cross	Cross	Not applicable
S.12	STRATEGIC	Stakeholder Expectations and Corporate Social Responsibility	Risk of negative evaluation or misunderstanding of sustainable business strategy or ESG performances by stakeholders (in particular financial) NEW 2020	Cross	Cross	Not applicable

TOP RISKS

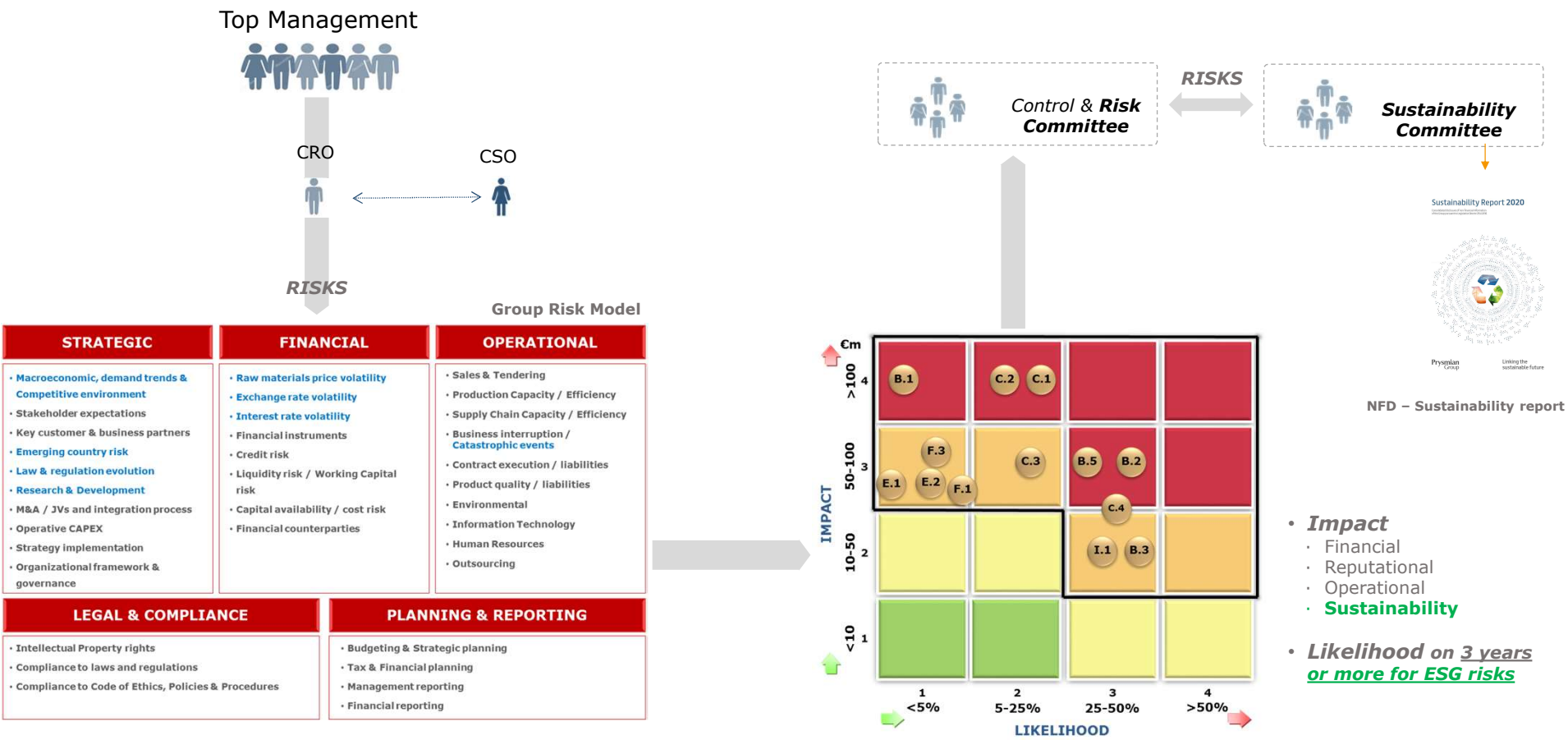
OTHER ESG

Assessment

Done with ERM scoring

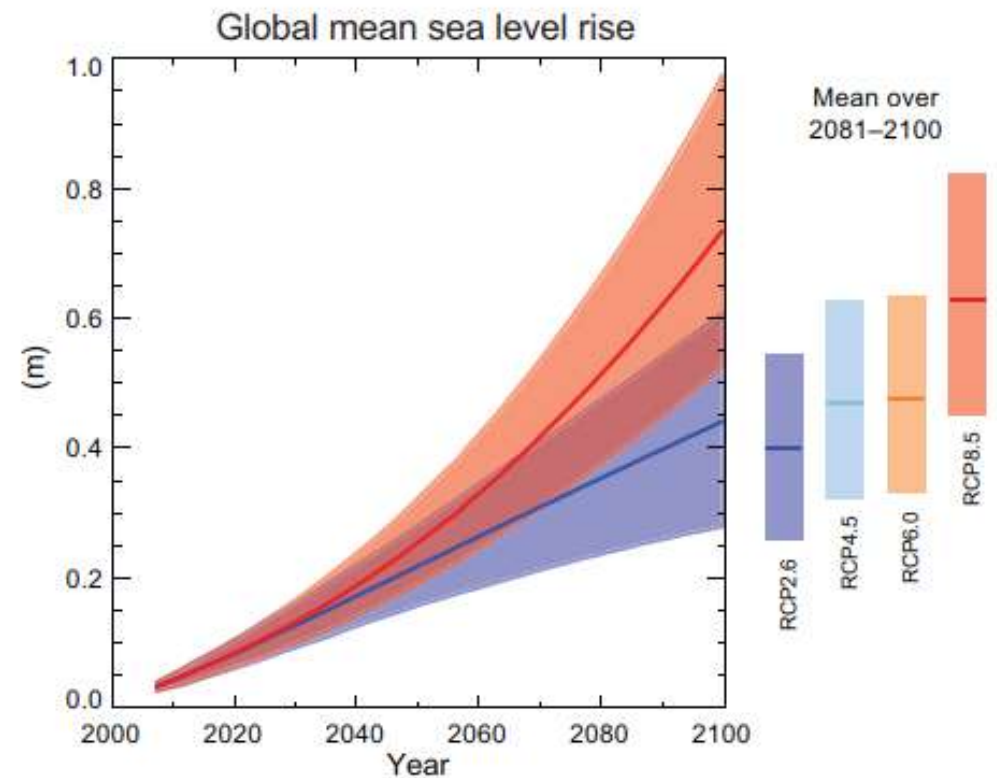
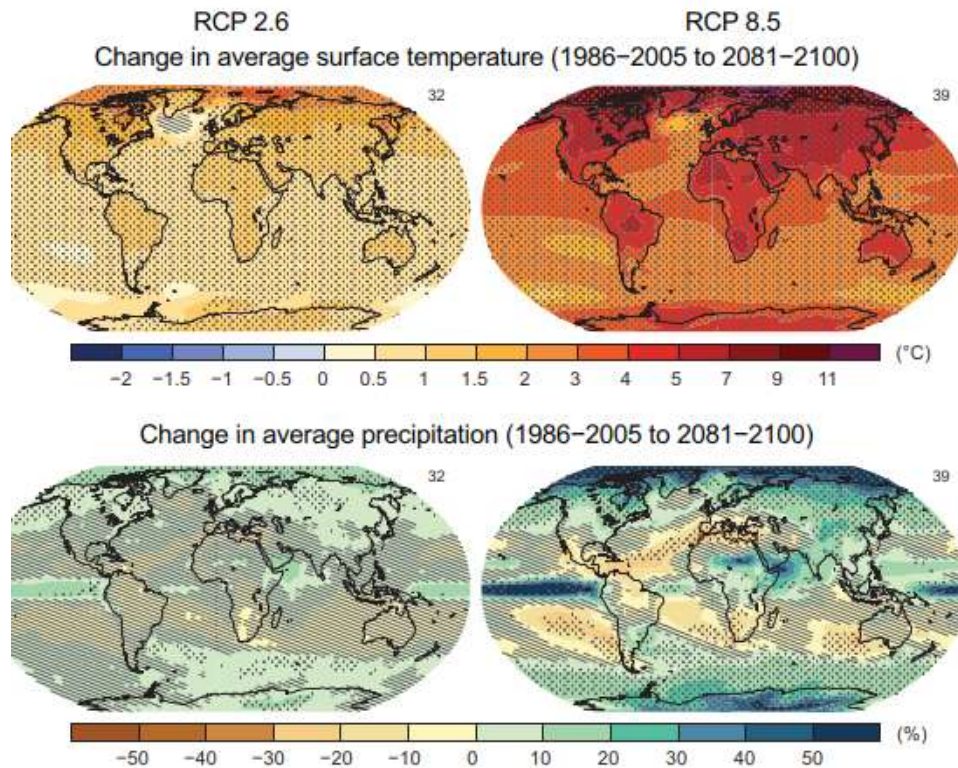
ERM scoring (financial as per TCFD)	✓
ERM scoring (financial as per TCFD)	✓
*	
*	
ERM scoring (financial as per TCFD)	✓
*	
*	
ERM scoring (financial as per TCFD)	TBD
*	
ERM scoring (financial as per TCFD)	✓
*	
*	

ESG RISKS PROCESS ASSESSMENT



NEW ESG RISKS TIME HORIZON PROPOSAL

While ERM risks' likelihood is assessed considering the probability that a situation or event may occur on a **3-year basis**, ESG risks' likelihood could be assessed on a **longer time horizon** and in particular **Climate related risks** that could be assessed on a **15-years or more**.

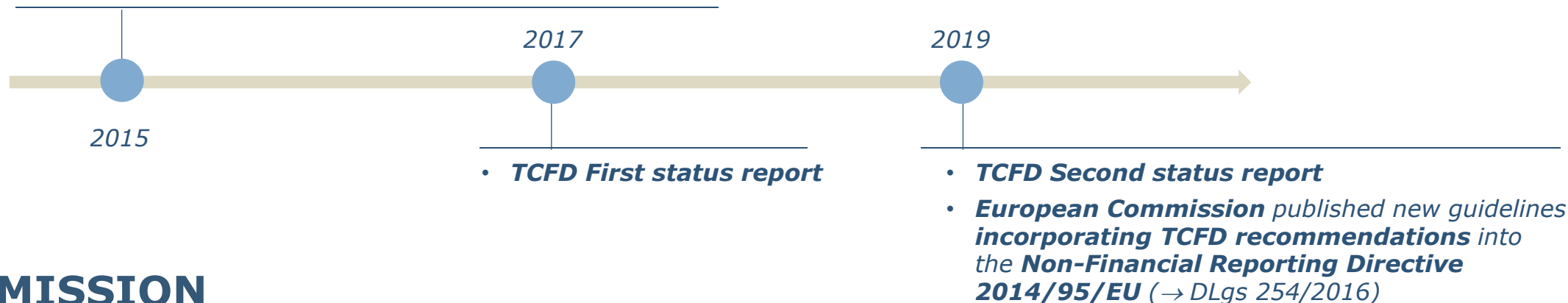


TCFD IN BRIEF

- **G20** asked the **FSB** to review how the financial sector can take account of **climate-related issues**
- FSB established the **Task Force on Climate-related Financial Disclosures** (TCFD) to develop **recommendations** for more effective **climate-related disclosures**



- **32 international members** (financial and non, incl. ENI)
- **Chairman: Michael Bloomberg**
- **1.300 supporters** (incl. 15 Italian companies)



MISSION

- Develop **voluntary, consistent climate-related financial risk disclosures** for use by companies in providing information to investors, lenders, insurers, and other stakeholders.
- Consider the **physical and transition risks** associated with **climate change** and **what constitutes effective financial disclosures** across industries.
- Help companies understand **what financial markets want from disclosure** in order to measure and respond to climate change risks, and encourage firms to align their disclosures with investors' needs.

DIRETTIVA 2014/95/UE AND TCFD

La doppia rilevanza individuata dalla direttiva sulla comunicazione di informazioni di carattere non finanziario nel contesto della comunicazione delle informazioni relative al clima



Source: COMUNICAZIONE DELLA COMMISSIONE - Orientamenti sulla comunicazione di informazioni di carattere non finanziario: Integrazione concernente la comunicazione di informazioni relative al clima (2019/C 209/01). Documento integrativo della direttiva 2014/95/UE

TCFD - 4 THEMATIC AREAS AND 11 RECOMMENDATIONS

Recommendations and Supporting Recommended Disclosures			
Governance	Strategy	Risk Management	Metrics and Targets
Disclose the organization's governance around climate-related risks and opportunities.	Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.	Disclose how the organization identifies, assesses, and manages climate-related risks.	Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.
a) Describe the board's oversight of <u>climate-related risks and opportunities</u> .	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	a) Describe the organization's processes for identifying and assessing climate-related risks.	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.
b) Describe management's role in assessing and managing <u>climate-related risks and opportunities</u> .	b) Describe the impact of climate-related risks and <u>opportunities</u> on the organization's businesses, strategy, and financial planning.	b) Describe the organization's processes for <u>managing</u> climate-related risks.	b) Disclose Scope 1, Scope 2, and, if appropriate, <u>Scope 3</u> greenhouse gas (GHG) emissions, and the related risks.
	c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	c) Describe the <u>targets</u> used by the organization to manage climate-related risks and opportunities and performance against targets.

In red, areas where an improvement is recommended



S.1 - RISK OF WATER AVAILABILITY FOR MANUFACTURING PLANTS

CONSIDERED SCENARIO

SCENARIOS



Optimistic

The "optimistic" scenario (**SSP2 RCP4.5**) represents a world with **stable economic development and carbon emissions peaking and declining by 2040**, with emissions constrained to stabilize at ~650 ppm CO2 and temperatures to 1.1–2.6°C by 2100.



Business as usual

The "business as usual" scenario (**SSP2 RCP8.5**) represents a world with **stable economic development and steadily rising global carbon emissions**, with CO2 concentrations reaching ~1370 ppm by 2100 and global mean temperatures increasing by 2.6–4.8°C relative to 1986–2005 levels.

Considered scenario



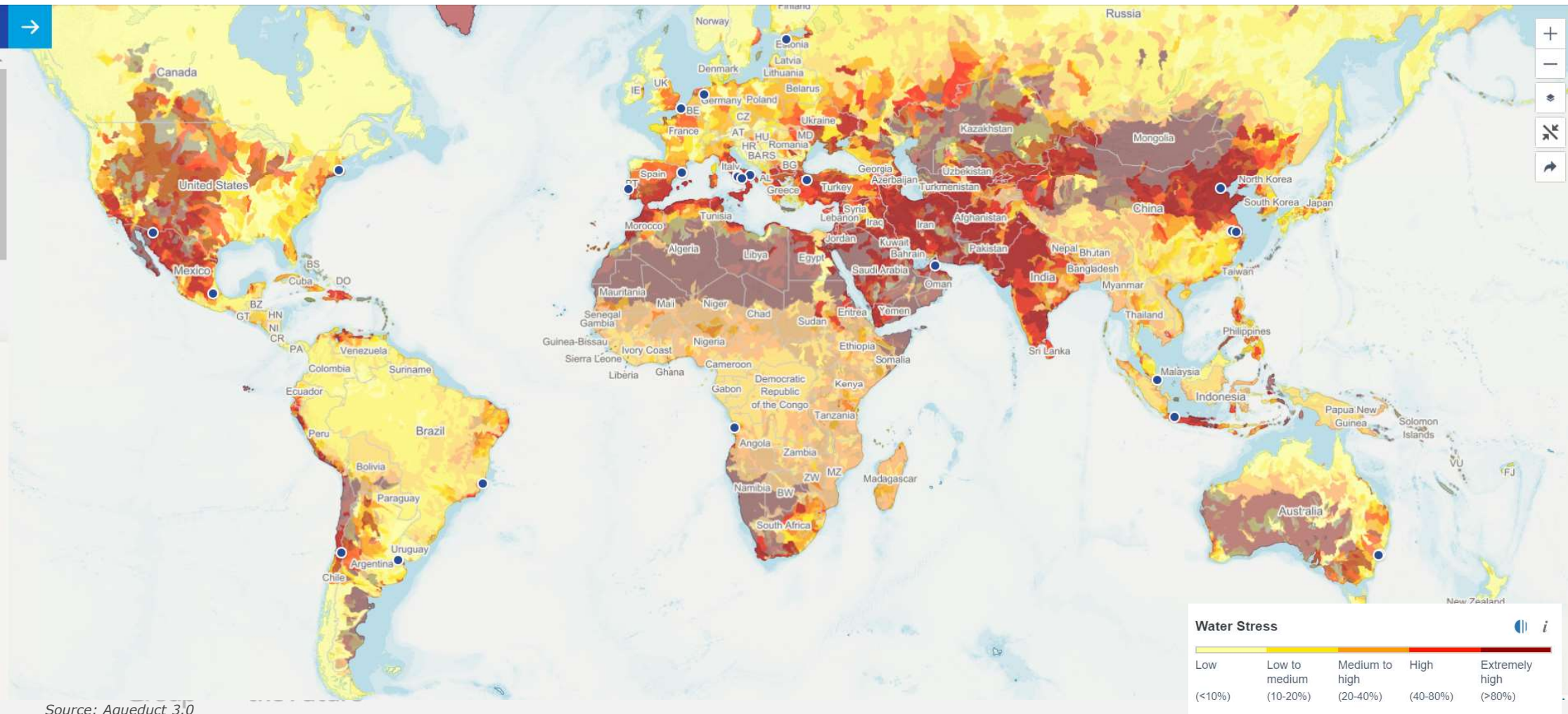
Pessimistic

The "pessimistic" scenario (**SSP3 RCP8.5**) represents a fragmented world with **uneven economic development, higher population growth, lower GDP growth, and a lower rate of urbanization, all of which potentially affect water usage**; and **steadily rising global carbon emissions**, with CO2 concentrations reaching ~1370 ppm by 2100 and global mean temperatures increasing by 2.6–4.8°C relative to 1986–2005 levels.

Each scenario uses a combination of a representative concentration pathway (RCP) (van Vuuren et al. 2011) and a shared socioeconomic pathway (SSP) (van Vuuren et al. 2014)

S.1 - RISK OF WATER AVAILABILITY FOR MANUFACTURING PLANTS

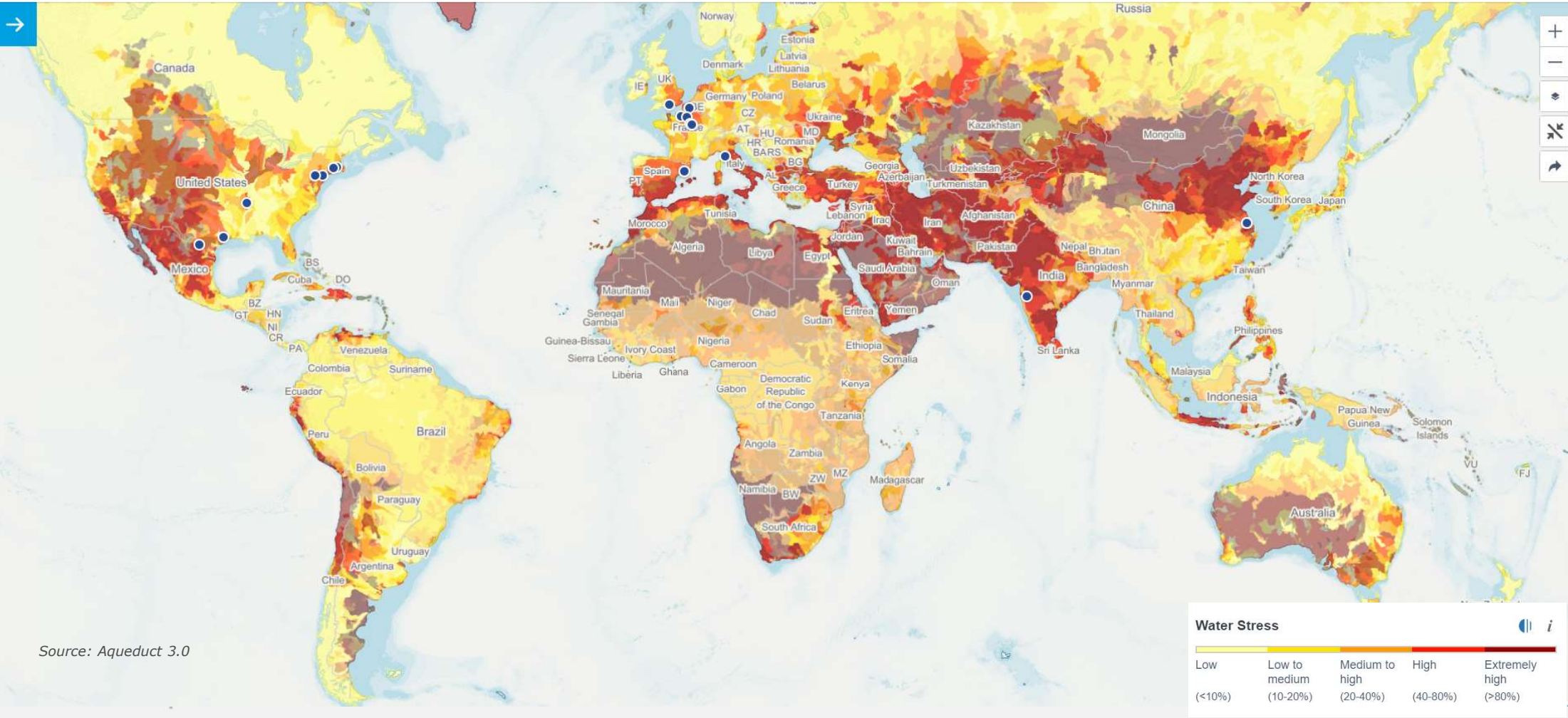
PRYSMIAN PLANTS WITH EXTREMELY HIGH WATER STRESS IN 2040 UNDER RCP8.5 SCENARIO



Source: Aqueduct 3.0

S.1 - RISK OF WATER AVAILABILITY FOR MANUFACTURING PLANTS

PRYSMIAN PLANTS WITH HIGH WATER STRESS IN 2040 UNDER RCP8.5 SCENARIO



Source: Aqueduct 3.0

S.1 - RISK OF WATER AVAILABILITY FOR MANUFACTURING PLANTS

Source: GRI 303 Water

Water withdrawal

Sum of all water drawn from surface water, groundwater, seawater, or a third party for any use over the course of the reporting period

Water consumption

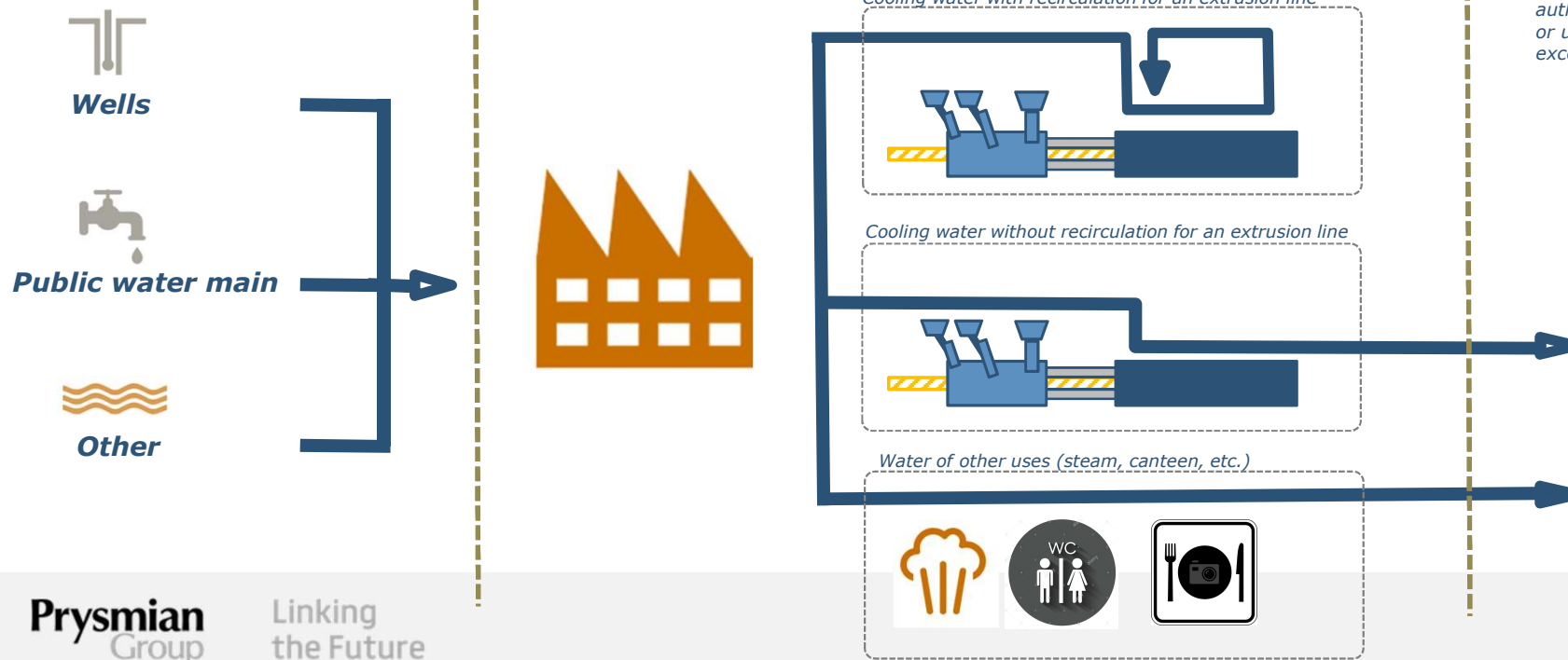
Sum of all water that has been withdrawn and incorporated into products, used in the production of crops or generated as waste, has evaporated, transpired, or been consumed by humans or livestock, or is polluted to the point of being unusable by other users, and is therefore not released back to surface water, groundwater, seawater, or a third party over the course of the reporting period

Note 1: Water consumption includes water that has been stored during the reporting period for use or discharge in a subsequent reporting period. Note 2: This definition is based on CDP, CDP Water Security Reporting Guidance, 2018.

Water discharge

Sum of effluents, used water, and unused water released to surface water, groundwater, seawater, or a third party, for which the organization has no further use, over the course of the reporting period

Note 1: Water can be released into the receiving waterbody either at a defined discharge point (point source discharge) or dispersed over land in an undefined manner (non-point-source discharge). Note 2: Water discharge can be authorized (in accordance with discharge consent) or unauthorized (if discharge consent is exceeded).

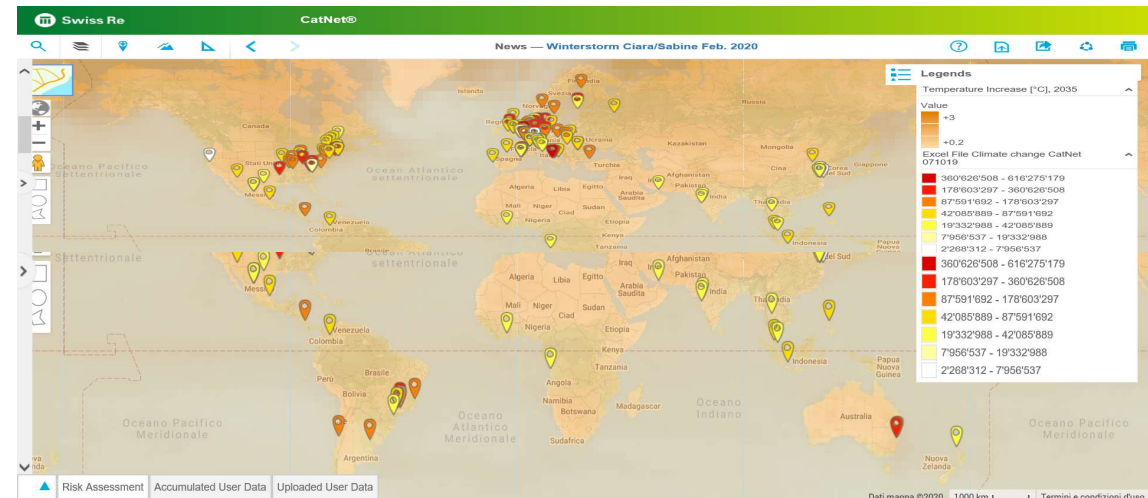


S.2 - CLIMATE CHANGE RISKS (PRECIPITATION, TEMPERATURE, SEA LEVEL)

METHODOLOGY

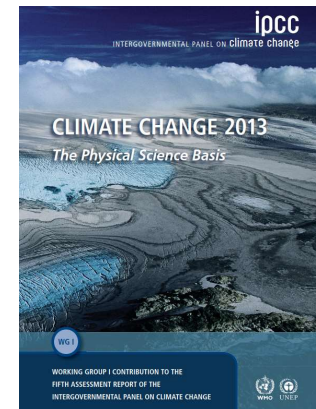
Rev. September 2020

- Prysmian climate change assessment has been carried out with **CatNet®**, a geo risk tool of Swiss Re, based on **4 global maps layers** showing information on **sea level rise** (projected to 2100), **temperature change** (2016-2035), and **precipitation change** for **summer** and **winter** (2016-2035). Source of the layers is the **IPCC AR5 Fifth Assessment Report** and its Annex I.
- The **Intergovernmental Panel on Climate Change (IPCC)** is the United Nations body for assessing the **science related to climate change**. Created in 1988 by the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP), the objective of the IPCC is to provide governments at all levels with scientific information that they can use to develop climate policies.
- The **Fifth Assessment Report (AR5)** of the IPCC is the fifth in a series of such reports and provides an update of knowledge on the **scientific, technical and socio-economic aspects of climate change**.



CatNet®
Swiss Re

ipcc
INTERGOVERNMENTAL PANEL ON
climate change



S.2 - CLIMATE CHANGE RISKS (PRECIPITATION, TEMPERATURE, SEA LEVEL)

METHODOLOGY

- The projections are made under the **Representative Concentration Pathway (RCP) scenarios**. Scenarios can be thought of as stories of possible futures. The RCPs were defined by the scientific community; they are identified by their approximate total radiative forcing in year 2100 relative to 1750.



1. **RCP2.6** (W m^{-2}): **massive reduction of greenhouse gas emissions**, climate change mitigation scenario leading to a very low forcing level, **CO₂ concentrations reach 421 ppm by the year 2100** (CO₂ concentrations do not include the CO₂-equivalent of CH₄ and N₂O).



2. **RCP 4.5** (W m^{-2}): **climate change stabilization scenario**, relatively ambitious emissions reductions due to stringent climate policies, **CO₂ concentrations reach 538 ppm by the year 2100**

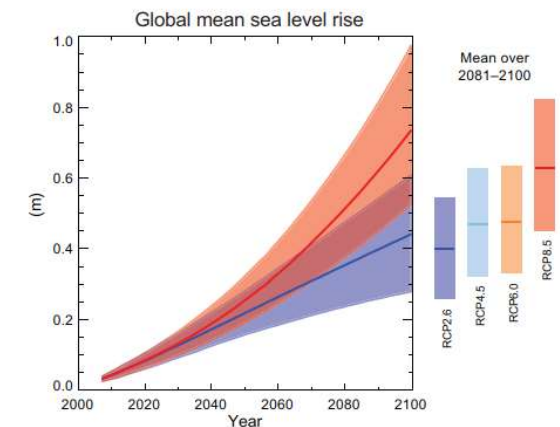
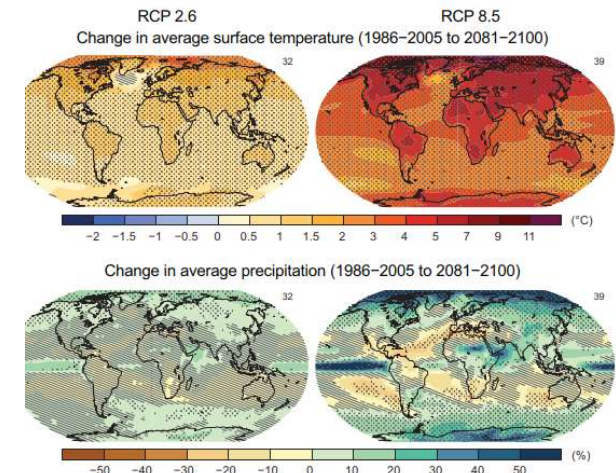


3. **RCP 6.0** (W m^{-2}): **climate change stabilization scenario**, **CO₂ concentrations reach 670 ppm by the year 2100**



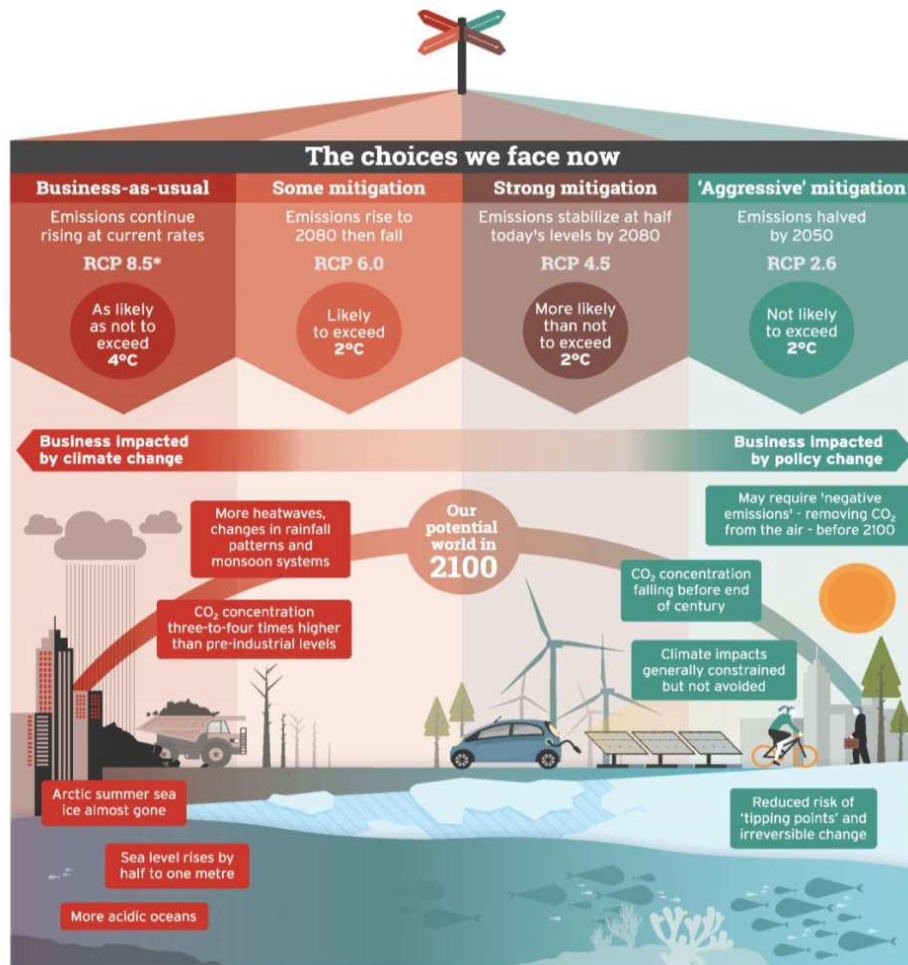
4. **RCP 8.5** (W m^{-2}): **scenario with very high greenhouse gas emissions**, no policy changes to reduce emissions, **CO₂ concentrations reach 936 ppm by the year 2100**

Considered scenario

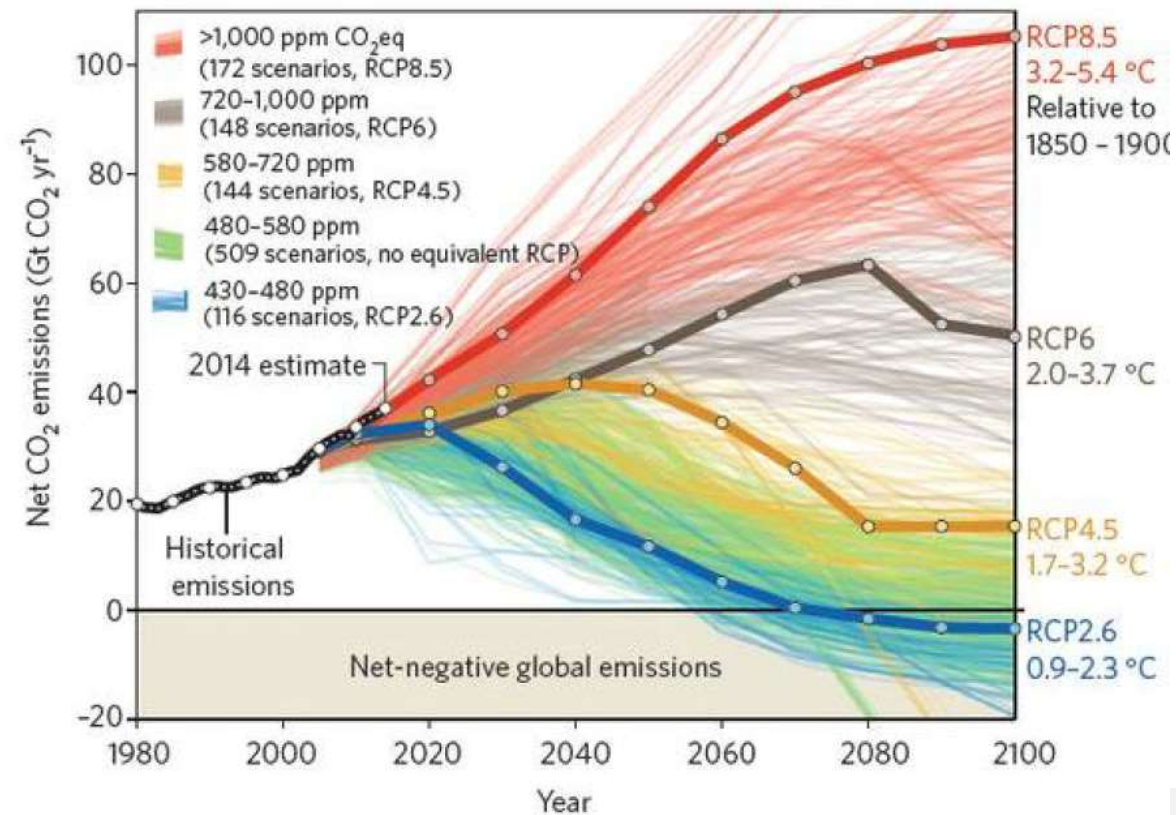


S.2 - CLIMATE CHANGE RISKS (PRECIPITATION, TEMPERATURE, SEA LEVEL)

METHODOLOGY



CO2 Emissions Pathways and Temperature Outcomes in IPCC AR5 RCP Scenarios



S.2 - CLIMATE CHANGE RISKS (PRECIPITATION, TEMPERATURE, SEA LEVEL)

METHODOLOGY

On a **conservative basis** Prysmian adopted the **RCP 8.5 scenario** and the following layers:

1) Temperature increase (°C) until 2035

Map of temperature changes in 2016–2035 with respect to 1986–2005 in the RCP8.5 scenario. The map is based on the 50th percentile of the distribution of the CMIP5 ensemble; this includes both natural variability and inter-model spread. Source: IPCC AR5, Annex I (Atlas of Global and Regional Climate Projections).

2) Precipitation change in summer (%) until 2035

Map of precipitation changes from October to March in 2016–2035 with respect to 1986–2005 in the RCP8.5 scenario. The map is based on the 50th percentile of the distribution of the CMIP5 ensemble; this includes both natural variability and inter-model spread.

3) Precipitation change in winter (%) until 2035

Map of precipitation changes from April to September in 2016–2035 with respect to 1986–2005 in the RCP8.5 scenario. The map is based on the 50th percentile of the distribution of the CMIP5 ensemble; this includes both natural variability and inter-model spread.

4) Sea level rise (m) until 2100

Ensemble mean regional relative sea level change (metres) evaluated from 21 CMIP5 models for the RCP scenario 8.5 between 1986–2005 and 2081–2100. The map includes effects of atmospheric loading, plus land ice, glacial isostatic adjustment and terrestrial water sources. (Source: IPCC AR5, Figure 13.20 d).

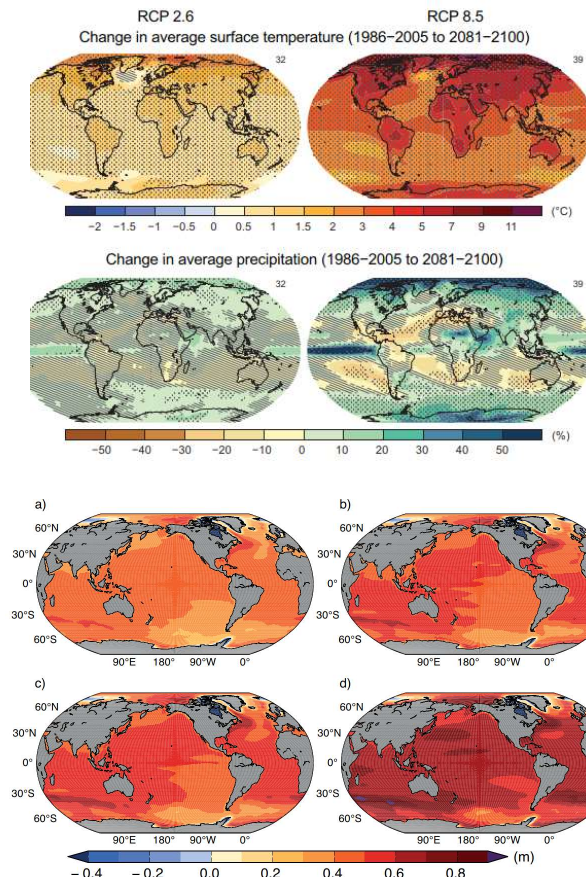


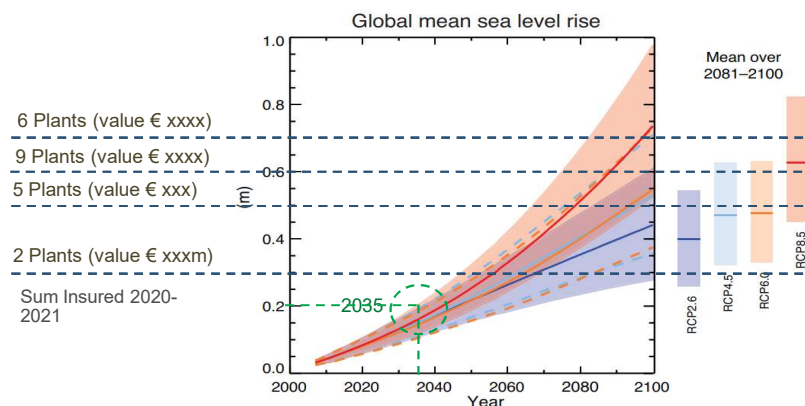
Figure 13.20 | Ensemble mean regional relative sea level change (metres) evaluated from 21 CMIP5 models for the RCP scenarios (a) 2.6, (b) 4.5, (c) 6.0 and (d) 8.5 between 1986–2005 and 2081–2100. Each map includes effects of atmospheric loading, plus land ice, glacial isostatic adjustment (GIA) and terrestrial water sources.

S.2 - CLIMATE CHANGE RISKS (SEA LEVEL RISE)

THEORETICAL EXPOSURE AS PER CATNET

Rev. September 2020

- A selection of **22 plants** located **within 30 km from the coast or river mouth** and **altitude lower than 15 m** has been analysed.
- On a conservative basis, a scenario with **very high greenhouse gas emissions** and **no policy changes** to reduce emissions has been considered (RCP8.5).
- Under the above scenario, in **2035**, sea level rise maximum value is **0,2 meter**, leading to a very **low impact**, so on a conservative basis, a longer time horizon until 2100, has been considered.
- Using **CatNet®**, a geo risk tool of Swiss Re, **potential sea level rise** has been analysed **until 2100** and **15 plants** are located in areas where a value higher than **0,5 meter** is expected. Considering plant altitude itself, **no direct impact is expected**, however sea level rise will likely **increase** the risk of **coastal flood** due to storm surge*.



Country	Plant	Sea level rise (m)	Distance from sea* (km)	Altitude (m)	PS (Cm)	BS (Cm)	TSV (Cm)
AUSTRALIA	Deer Wily	0,7	2	12	45	13	58
HONG KONG	Aldagen	0,7	1	5	26	3	29
NEW ZEALAND	New Lynn	0,7	3	0	29	2	31
PHILIPPINES	Cebu - Lapu Lapu City	0,7	2	3	50	3	53
USA	North Dighton	0,7	0	4	32	-	32
USA	Taunton	0,7	0	4	88	21	109
BRAZIL	Vila Velha	0,6	0	9	141	5	146
CHINA	Tianjin (PTCC) Xiqing	0,6	1	1	46	5	51
CHINA	Nantong (Hekuan)	0,6	29	2	8	2	10
CHINA	Nantong (Zhengye)	0,6	29	2	19	4	23
CHINA	Sulzhou	0,6	24	2	89	13	102
FRANCE	Cabot, Cadez	0,6	1	3	81	0	81
GERMANY	Norderhorn	0,6	0	5	267	33	301
NETHERLANDS	Delft	0,6	13	1	108	17	125
SINGAPORE	Singapore	0,6	1	8	35	4	39
ITALY	Livorno Mare	0,5	2	11	34	4	38
ITALY	Arco Felice	0,5	0	4	272	209	481
SPAIN	Santander	0,5	1	3	73	4	77
TURKEY	Mudanya	0,5	0	1	85	18	103
UK	Birmingham	0,5	0	10	127	27	154
FINLAND	Pirkkala	0,3	0	2	190	40	231
NORWAY	Drammen	0,3	0	2	82	11	93

Projections from process-based models of **global mean sea level (GMSL)** rise relative to 1986–2005 for the four RCP scenarios. The solid lines show the median projections, the dashed lines show the likely ranges for RCP4.5 and RCP6.0, and the shading the likely ranges for RCP2.6 and RCP8.5.

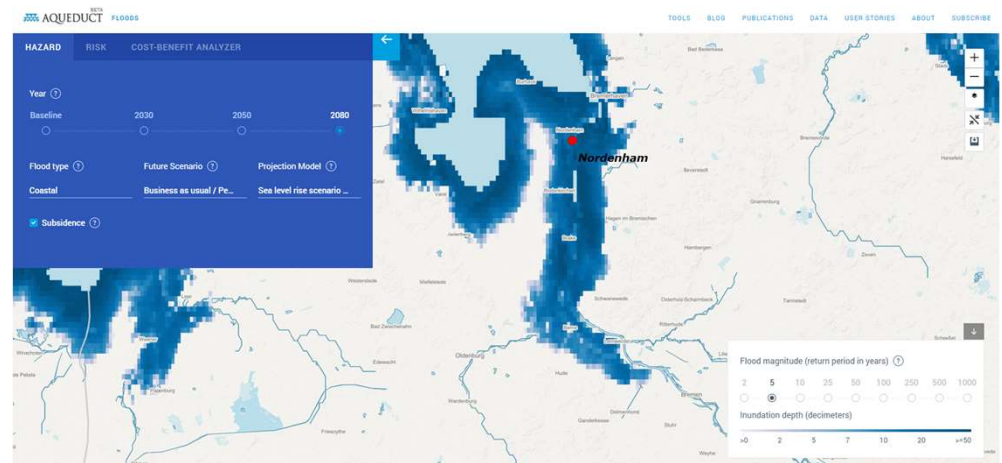
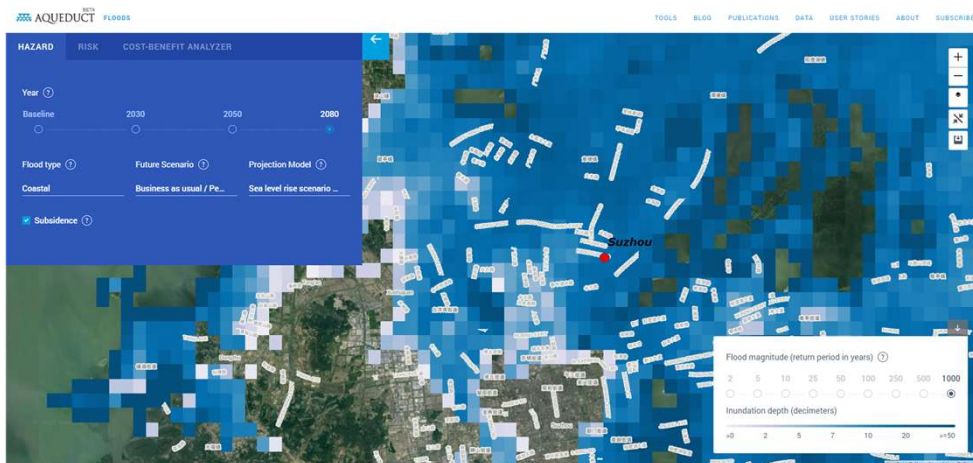
Source: IPCC AR5 Fifth Assessment Report

* Abnormal rise in seawater level during a storm, measured as the height of the water above the normal predicted astronomical tide. The surge is caused primarily by a storm's winds pushing water onshore

S.2 - CLIMATE CHANGE RISKS (SEA LEVEL RISE)

COASTAL FLOOD RISK ANALYSIS AS PER AQUEDUCT

- **Aqueduct Floods** is an online platform, made available by the World Resources Institute (WRI)*, that measures **coastal flood** risk, taking into account **climate change** and in particular **sea level rise, subsidence** and **socioeconomic growth** under **future projections** in 2030, 2050, and 2080, with **three CO2 emissions scenarios** (RCP4.5/SSP2, RCP8.5/SSP2 and RCP8.5/SSP3, which are a combination of a representative concentration pathway (RCP) and a shared socioeconomic pathway (SSP)).
- Coastal flood is represented by global scale layers of inundation depth at 30" × 30" resolution, with different layers representing **inundation depths for different annual average probabilities of occurrence**. The hazard layers are simulated **without considering the presence of flood protection**.
- Using Aqueduct platform, the selected 22 plants have been analysed and, under a high CO2 emission scenario (RCP8.5/SSP2), **only Suzhou and Nordenham plants** are exposed to coastal flood in 2080 with an inundation depth higher than 50 dm and a return period of 1000 and 5 years, respectively.



S.2 - CLIMATE CHANGE RISKS (SEA LEVEL RISE)

CONSIDERED SCENARIO

SCENARIOS



Optimistic

The "optimistic" scenario (**SSP2 RCP4.5**) represents a world with **stable economic development and carbon emissions peaking and declining by 2040**, with emissions constrained to stabilize at ~650 ppm CO2 and temperatures to 1.1–2.6°C by 2100.



Business as usual

The "business as usual" scenario (**SSP2 RCP8.5**) represents a world with **stable economic development and steadily rising global carbon emissions**, with CO2 concentrations reaching ~1370 ppm by 2100 and global mean temperatures increasing by 2.6–4.8°C relative to 1986–2005 levels.

Considered scenario



Pessimistic

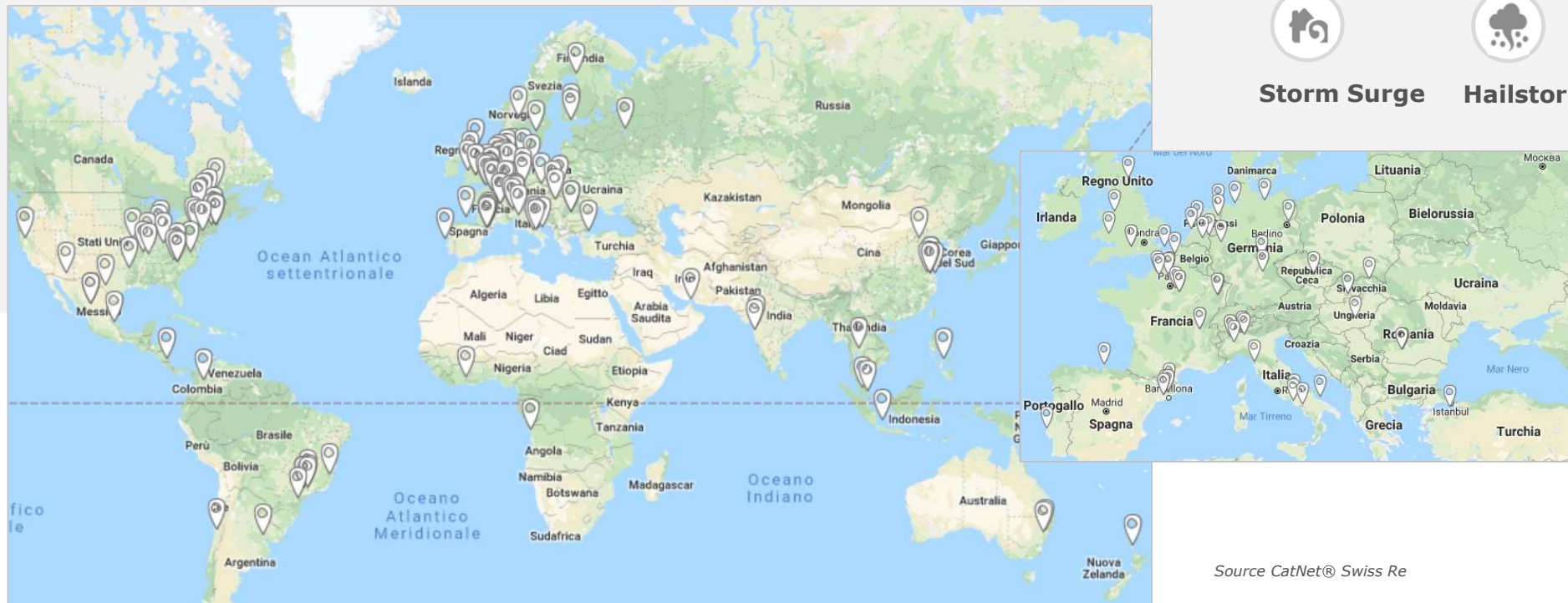
The "pessimistic" scenario (**SSP3 RCP8.5**) represents a fragmented world with **uneven economic development, higher population growth, lower GDP growth, and a lower rate of urbanization, all of which potentially affect water usage**; and **steadily rising global carbon emissions**, with CO2 concentrations reaching ~1370 ppm by 2100 and global mean temperatures increasing by 2.6–4.8°C relative to 1986–2005 levels.

Each scenario uses a combination of a representative concentration pathway (RCP) (van Vuuren et al. 2011) and a shared socioeconomic pathway (SSP) (van Vuuren et al. 2014)

S.5 - INCREASED SEVERITY OF EXTREME WEATHER EVENTS

LOCATIONS GEOGRAPHICAL DISTRIBUTION

112 plants in 36 countries exposed to weather events



Source CatNet® Swiss Re

S.5 - INCREASED SEVERITY OF EXTREME WEATHER EVENTS

AS IS PLANTS EXPOSURE

RISK IDENTIFICATION & RISK EVALUATION

- **CatNet® Swiss Re geo risk tool** specifically designed to assess natural hazard exposures worldwide with maps and satellite imagery
- **FMGlobal flood maps**

River Flood



Berlin (DRAKA)
Delft
Drammen
Gron
Liverpool
Montereau
Nordenham
North Dighton
Paron
Taunton
Abidjan
Amfreville
Vila Velha

Return period

100 years

50 years

Tornado



Houston
Lawrenceburg
Lexington (700)
Lexington (710)
Marion
Du Quoin
Indianapolis
Jackson
Marshall
Paragould

Significant

High

Windstorm



Aberdare
Delft
Calais, Cedex
Houston
Santander
Cebu - Lapu lapu City

Significant

High

Storm Surge



Cebu - Lapu lapu City
Calais, Cedex
Delft
Mudanya
Nordenham
Vila Velha

Return period

100 years

50 years

Hailstorm



Abbeville
Bicocca (ex area Ansaldo 16)
Claremont
Dee Why
Eindhoven
Liverpool
Livorno Ferraris
Manlleu
Merlino
Milano (New Head Quarter)
Nuremberg
Presov (New Plant)
Slatina
Slatina (Telecom)
Tianjin (PTCC) Xiqing
Charvieu
Chavanoz
Sedalia

Significant

High

Lightning *



Cikampek
Melaka
Singapore

Very High

Locations in **bold** have double exposure

RISK TREATMENT

- Group **Loss Prevention and Risk Engineering** program
- Group **Insurance Property Damage & Business Interruption** program

Insurance Limit: € 400m but USA €100m, Australia, Thailand and Germany €50m, Netherlands €10m
Deductible: € 250k but € 400k in sublimited countries

Insurance Limit: € 400m (*except €700m for Lightning)
Deductible: 5% min € 250k

RISK RESIDUAL



See next slide for details



S.5 - INCREASED SEVERITY OF EXTREME WEATHER EVENTS

AS IS FLOOD SCENARIOS ANALYSIS COMPARED TO INSURANCE SUBLIMITS



Country	Plant	River	Sum Insured (€ mio)	Impact Flood 100-yr (% on SI)	Impact Flood 100-yr (€ mio)	Total Impact Flood 100-yr (€ mio)	Impact Flood 500-yr (% on SI)	Impact Flood 500-yr (€ mio)	Total Impact Flood 500-yr (€ mio)	Insurance sublimit (€ mio)	
	GRON	Yonne	xxx	5%	xx	xx	8%	xx	xxx	xxx	
	PARON	Yonne	xxx	3%	x		5%	x			
	MONTEREAU	Seine, Yonne	xxx	10%	xx		20%	xx			
	AMFREVILLE	Seine	xx	0,1%	0,X		2%	x			
	DELFT	North Sea	xxx	0%		0	0%	0	0	xx	
	BERLIN	Spree, Havel	xx	10%	x	xx	20%	xx	xx	xx	
	NORDENHAM	Weser	xxx	10%	xx		10%	xx			
	LIVERPOOL	Georges	xxx	2%	x	x	4%	x	x	xx	
	RAYONG	Mae Nam Rayong	xx	0%	x	0	0%	0	0	xx	
	NORTH DIGHTON	Three mile river	xx	10%	x	xx	20%	x	xx	xxx	
	TAUNTON	Three mile river	xxx	10%	xx		20%	xx			

S.5 - INCREASED SEVERITY OF EXTREME WEATHER EVENTS

AS IS FLOOD SCENARIOS CONSIDERING AGGREGATE EXPOSURE AND/OR INSURANCE SUBLIMITS

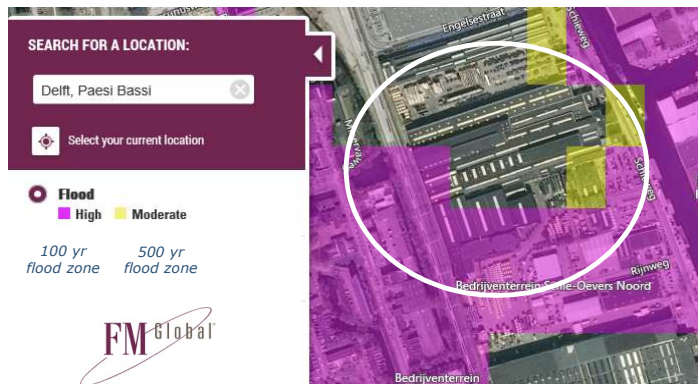


NETHERLAND

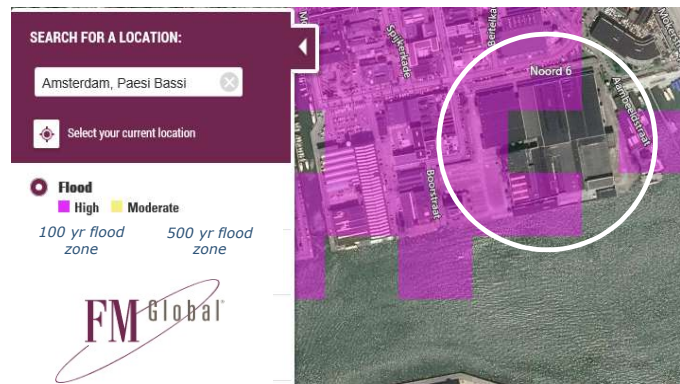


Plant	River	Sum Insured (€ mio)	Impact Flood 100-yr (% on SI)	Impact Flood 100-yr (€ mio)	Impact Flood 500-yr (% on SI)	Impact Flood 500-yr (€ mio)	Note
DELFT	North Sea	xxx	0%	0	0%	0	Flood visit done *
TOTAL		xxx	0%	0	0%	0	

Insurance sublimit: € xx mio



Sum Insured 2020-2021

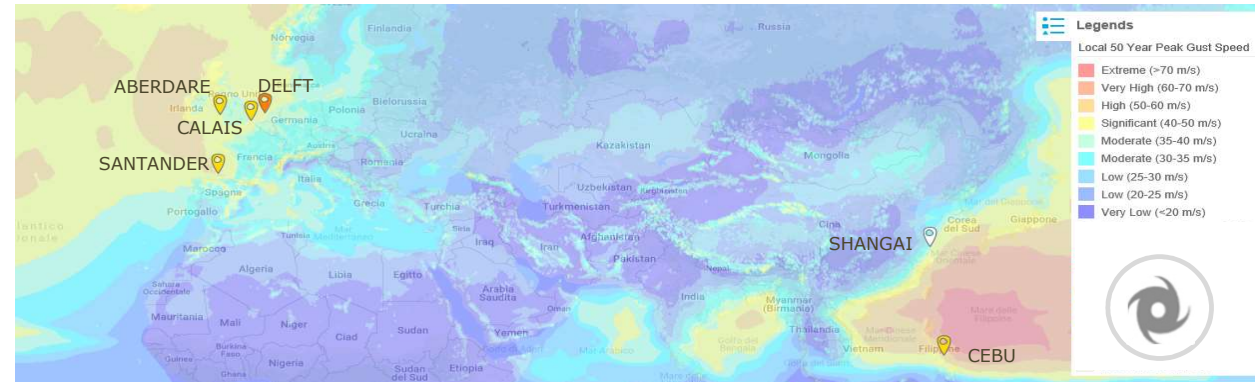


* Source: FMGlobal flood study 2004-2008 revised with updated sum insured

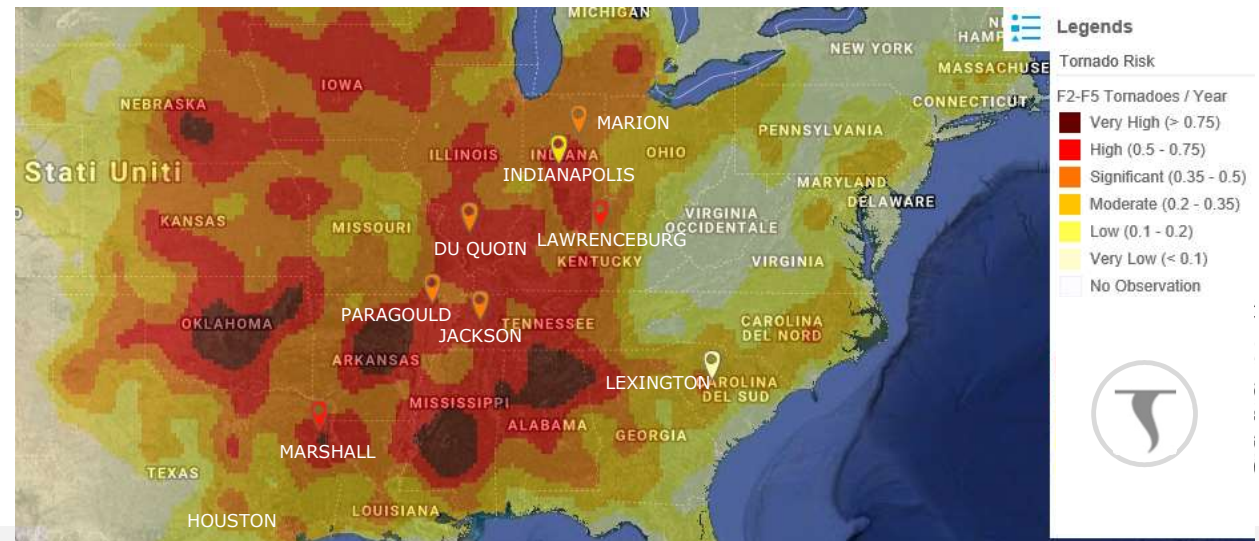
S.5 - INCREASED SEVERITY OF EXTREME WEATHER EVENTS

AS IS WINDSTORM AND TORNADO SCENARIOS CONSIDERING AGGREGATE EXPOSURE AND/OR INSURANCE LIMIT

Plant	Country	Sum Insured (€ mio)	50 year peak gust range (m/s)
CEBU - LAPU LAPU CITY	Philippines		High (50-60 m/s)
ABERDARE	UK		Significant (40-50 m/s)
CALAIS, CEDEX	France		Significant (40-50 m/s)
DELFT	Netherlands		Significant (40-50 m/s)
HOUSTON	USA		Significant (40-50 m/s)
SANTANDER	Spain		Significant (40-50 m/s)

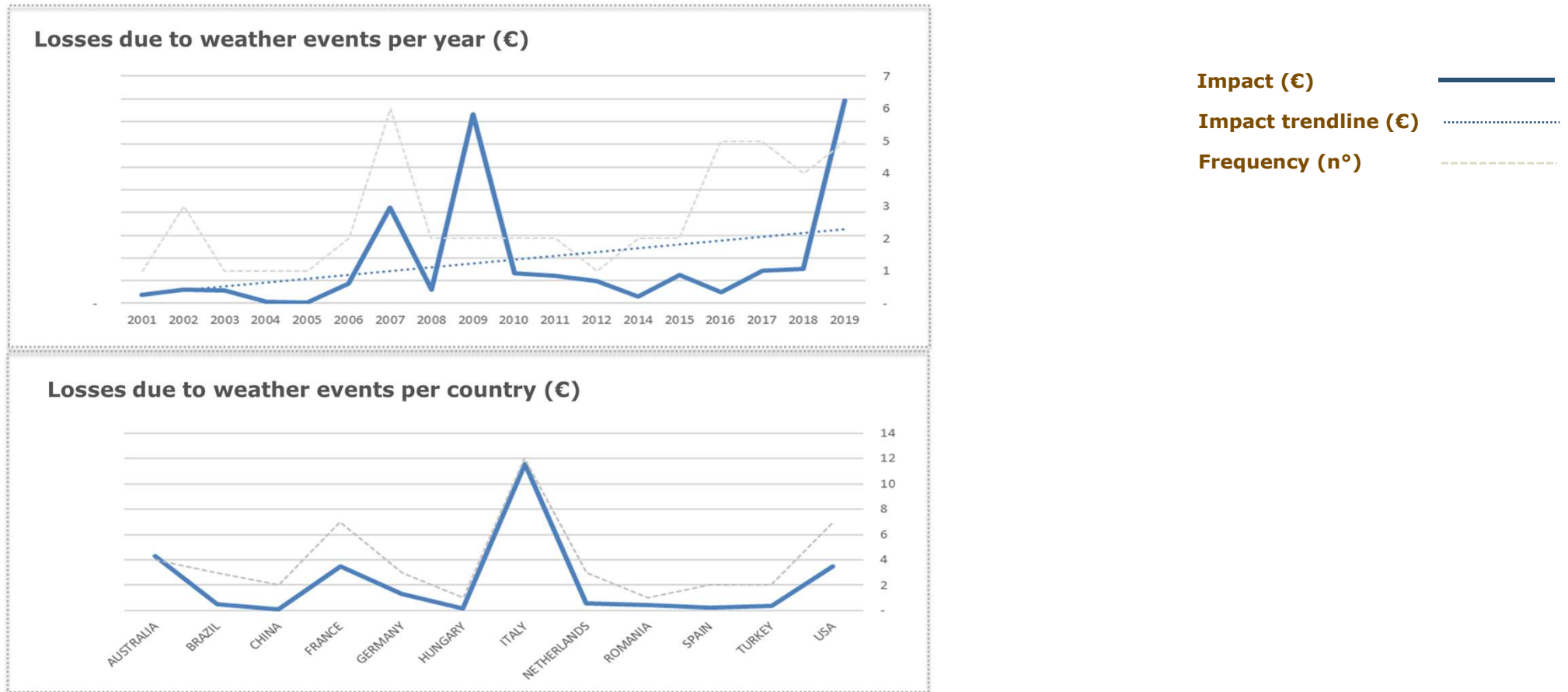


Plant	Country	Sum Insured (€ mio)	F2-F5 tornadoes per year
HOUSTON	Texas	30	High (0.5 - 0.75)
MARSHALL	Texas	213	High (0.5 - 0.75)
PARAGOULD	Arkansas	91	High (0.5 - 0.75)
JACKSON	Tennessee	117	High (0.5 - 0.75)
DU QUOIN	Illinois	127	High (0.5 - 0.75)
INDIANAPOLIS	Indiana	66	High (0.5 - 0.75)
LEXINGTON (700)	South Carolina	85	Significant (0.35 - 0.5)
LEXINGTON (710)	South Carolina	9	Significant (0.35 - 0.5)
LAWRENCEBURG	Kentucky	184	Significant (0.35 - 0.5)
MARION	Indiana	180	Significant (0.35 - 0.5)



S.5 - INCREASED SEVERITY OF EXTREME WEATHER EVENTS

PRYSMIAN LOSS HISTORY 2000 – 2019: WEATHER EVENTS (flood and windstorm)



S.5 - INCREASED SEVERITY OF EXTREME WEATHER EVENTS

SENSITIVITY ANALYSIS SCENARIOS ON 2020-2035 PERIOD

A **sensitivity analysis** on increased severity of extreme weather events for 2020-2035 period has been carried out stressing the existing trendline considering the following scenarios:

SCENARIO

0

Prysmian extreme weather events **trendline continues to increase as per previous years**

1

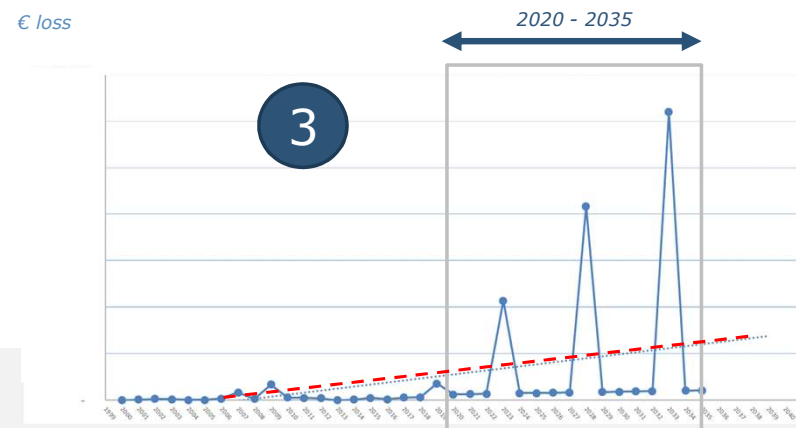
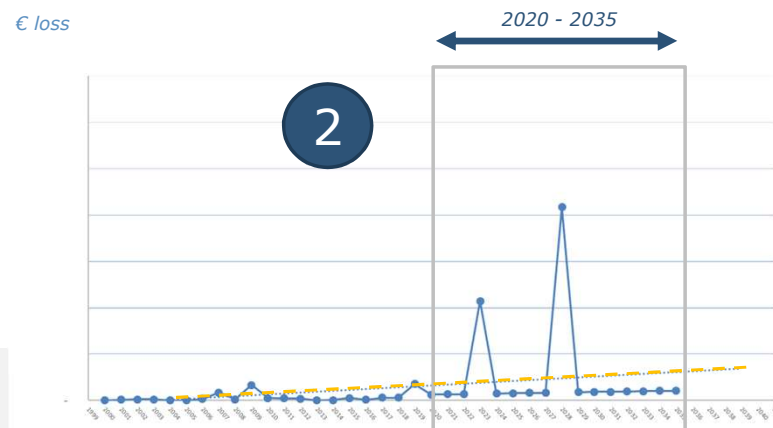
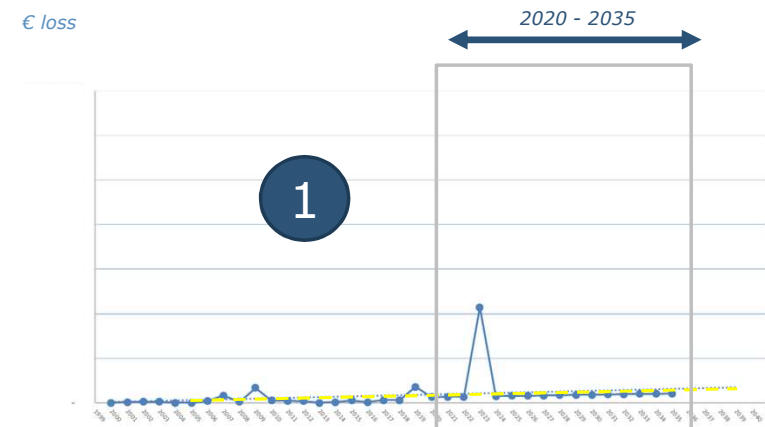
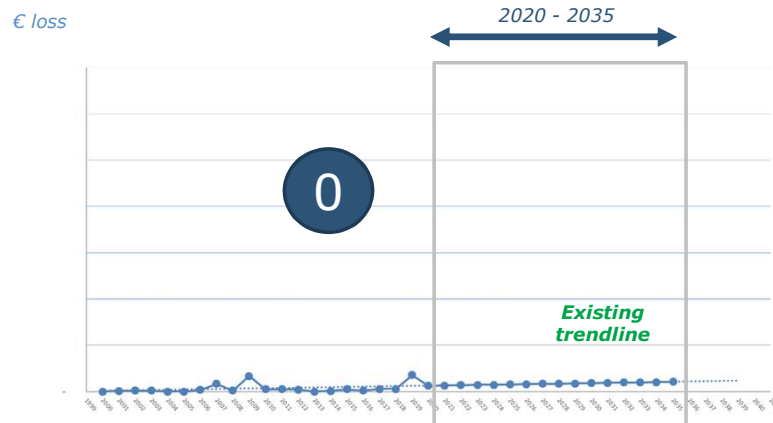
One additional extreme event with Low impact

2

Two additional extreme events with Low and Medium impact

3

Three additional extreme events with Low, Medium and High impact



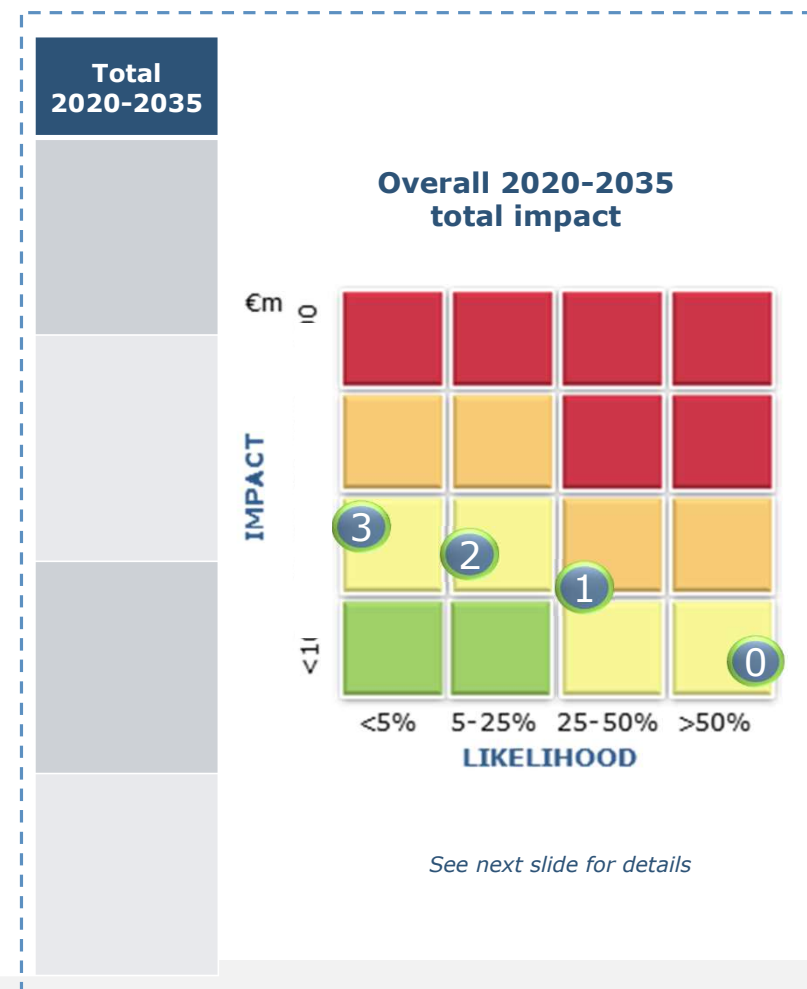
On a conservative basis windstorm events have been considered due to higher deductible

S.5 - INCREASED SEVERITY OF EXTREME WEATHER EVENTS

SENSITIVITY ANALYSIS IMPACTS ON 2020-2035 PERIOD

Values in € mio

	Scenario	Description	Additional Prysmian retention	Additional insurance premium
0	Prysmian extreme weather events trendline continues to increase as per previous years	Losses fully retained by Prysmian as insurance deductible or Prysmian captive coverage. Insurers not impacted. No additional premium		
1	One additional extreme event with Low impact	Losses retained by Prysmian as insurance deductible or Prysmian captive coverage with Insurers slightly impacted. Low additional premium		
2	Two additional extreme events with Low and Medium impact	Losses retained by Prysmian as insurance deductible or Prysmian captive coverage with Insurers moderately impacted. Medium additional premium		
3	Three additional extreme events with Low, Medium and High impact	Losses retained by Prysmian as insurance deductible or Prysmian captive coverage with Insurers significantly impacted. Significant additional premium		



Prysmian Linking
Climate to
the future

Considering actual coverage, premiums, captive retention (€ 4,5 mio eea) and deductible €250k but 10% for windstorm losses
Losses covered by PDBI insurance coverage. Additional impact related to deductible and Captive retention. Additional insurance premium 5%, 15%, 50% respectively for scenario 1, 2 and 3.