



Universiteit Antwerpen
| Faculteit Wetenschappen

Assessing physical climate risks in private equity portfolios Case study at Gimv

Thesis presentation 7/6/2024

Nick Van Hee

Content of presentation



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2. Research questions

3. Methodology

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5. Conclusion

6. Limitations & recommendations

1.1 Relevance

Record voor 'extreme hittestress' in Europa



Een vrouw in Griekenland moet haar huis verlaten door bosbranden in Griekenland vorige zomer.

JAN DE SCHAMPHELAERE

22 april 2024 07:26

Het nieuwe klimaatrapport schetst een verontrustend beeld van de toestand in Europa. De periodes van 'extreme hittestress' - met een gevoelstemperatuur van 46 graden of meer - worden frequenter en langer. 'Dat heeft ernstige gevolgen voor de volksgezondheid.'

NOS Nieuws • Vandaag, 00:01

Van alle klimaatrisico's is waterschaarste voor Nederland het meest nijpend

Climate Change's 'Physical Risks' Are Catching Up With Banks

The financial industry is waking up to the potential losses from extreme events and long-term changes in weather patterns.



A container ship navigates through the Miraflores locks of the Panama Canal on Nov. 3. Drought has led to restrictions on ships transiting the waterway. Photographer: Bloomberg

By Alastair Marsh

18 april 2024 at 12:00 CEST

Wereldwijd is meer dan de helft van de verliezen door natuurrampen niet verzekerd

De klimaatfactuur van 2021: 250 miljard euro schade door natuurrampen

Homeowners face a \$25trn bill from climate change

Property, the world's biggest asset class, is also its most vulnerable



De omvang van de schade zal pas later helemaal duidelijk worden.
Foto: AP

Balans door overstromingen Brazilië wordt steeds zwaarder: "Slachtoffers zijn onderkoeld en getraumatiseerd"

In het zuiden van Brazilië loopt de balans door de intense regenval en zware overstromingen verder op. Er is voorlopig sprake van 136 doden en 806 gewonden. De balans zal ongetwijfeld nog oplopen, want zowat 125 mensen blijven vermist. Dit weekend blijft het weer er slecht. "De mensen zijn getraumatiseerd, ze hebben schrik", vertelt een lid van de brandweer.

Michaël Torfs

Update zo 12 mei 19:12
zo 12 mei 15:47

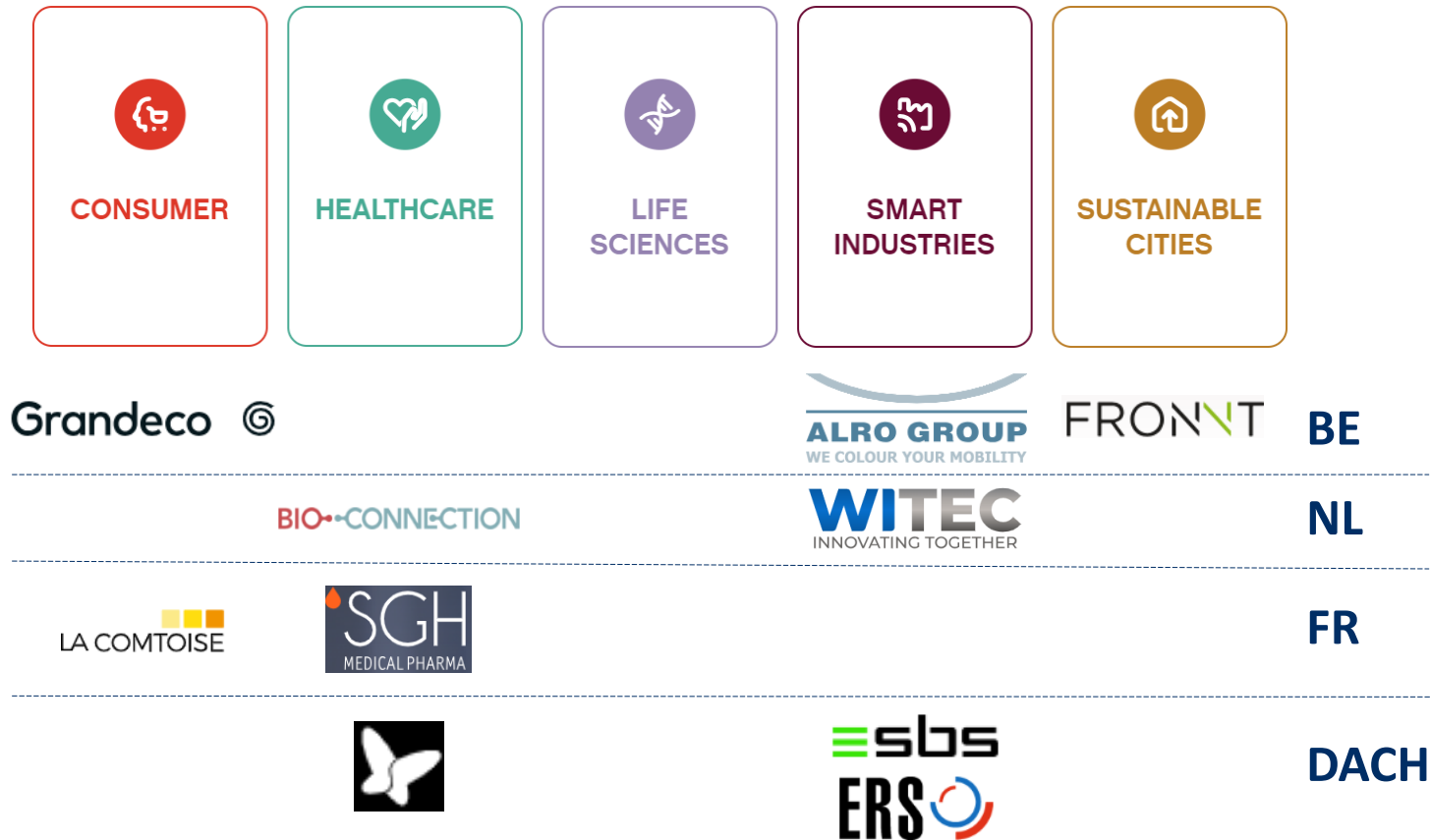
NIEUWS | ONDERNEMEN | MILIEU & ENERGIE

Moody's: 'Investeerder kan klimaatrisico's niet meer negeren'

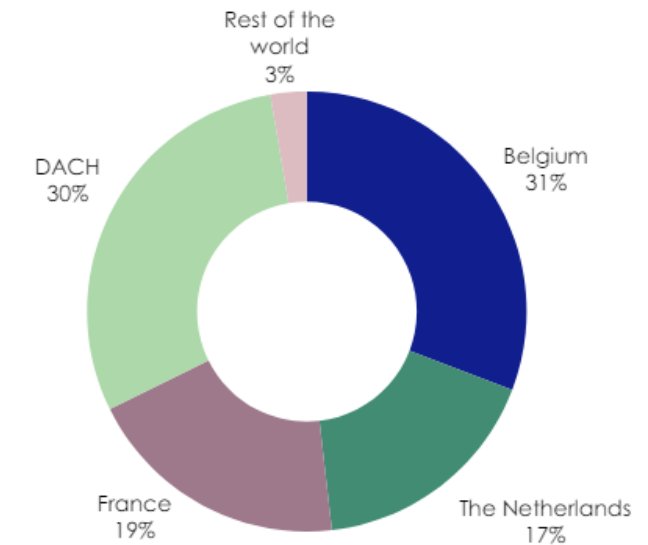
➡ Focus on assessing physical climate risks

1.2 Gimv as a private equity company in a nutshell

5 investment platforms &
10 investigated portfolio companies (out of total of ~60)



Countries total portfolio



2. Research questions



How can physical climate risks be assessed for the private equity portfolio of Gimv?



1. What does the global physical climate risk landscape look like?

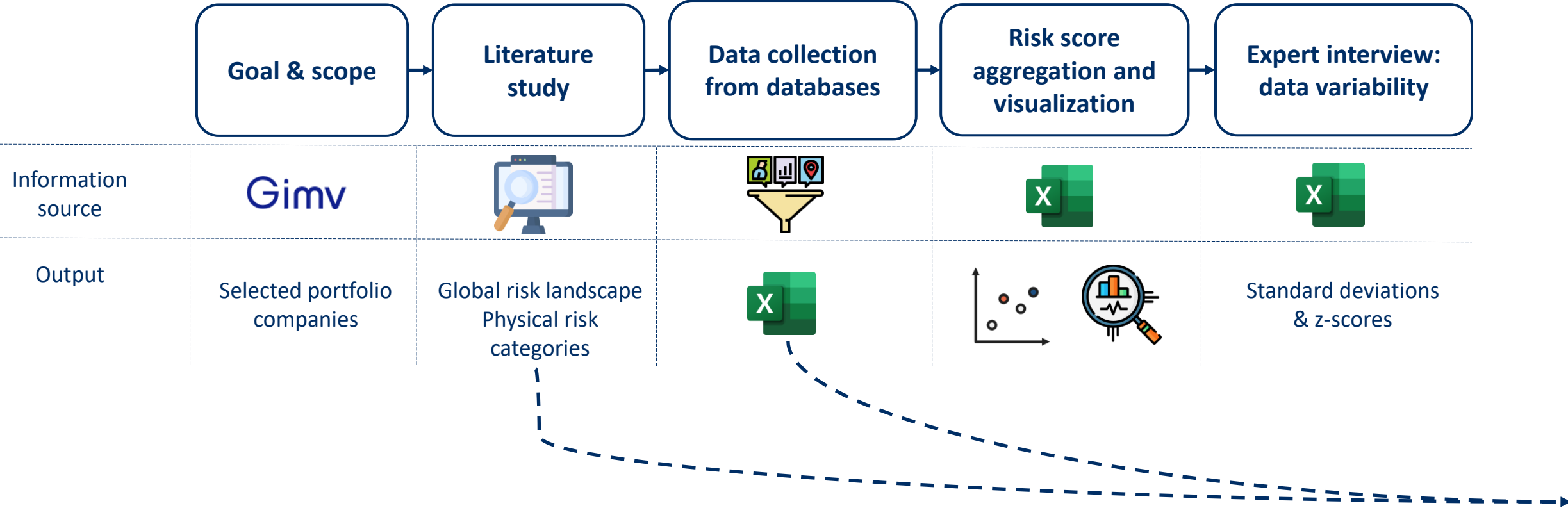


2. What are the recurring constituents of physical climate risk assessments in common practice?

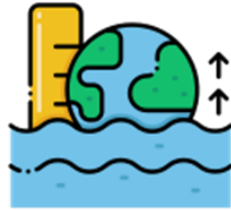
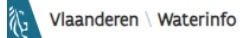
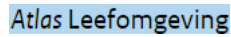


3. How can a framework be established to evaluate physical climate risks for a sample of portfolio companies of Gimv?

3. Methodology

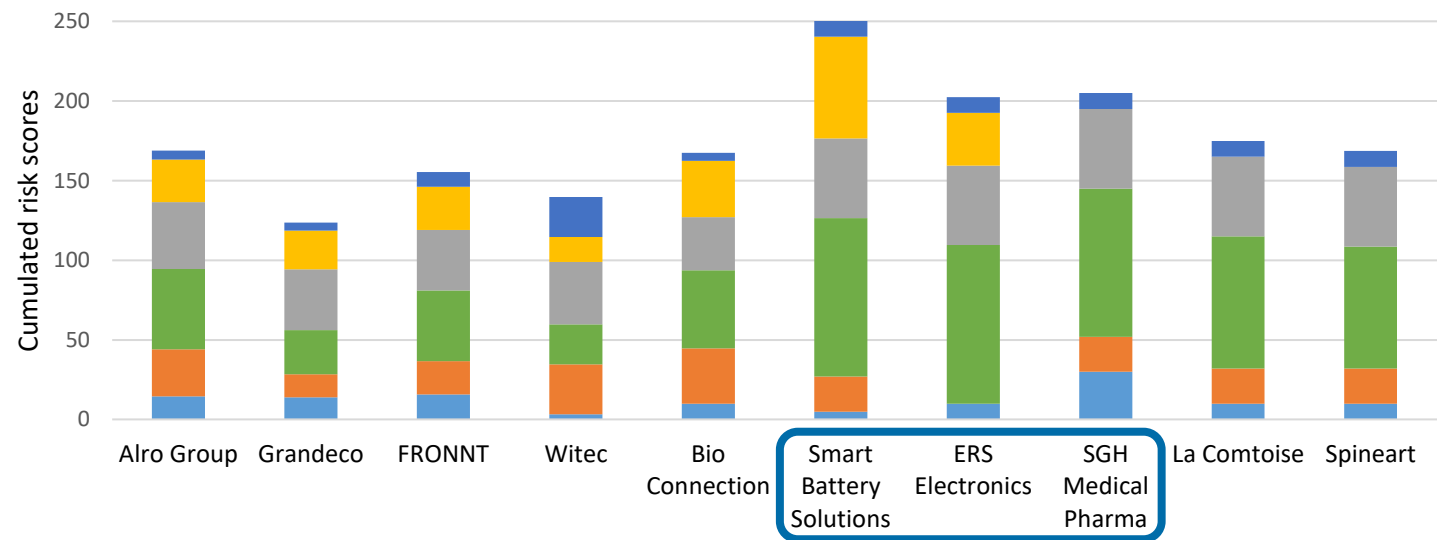


3. Selected databases per risk category

	Acute physical risks (events)			Chronic physical risks (processes)		
	Fluvial floods	Pluvial storms	Wildfires	Drought	Heat	Sea level rise
						
	✓					✓
	✓			✓		✓
	✓			✓		
Climate Change Knowledge Portal For Development Practitioners and Policy Makers		✓		✓	✓	
			✓			
			✓			
	✓	✓		✓	✓	✓
		✓			✓	
	✓					
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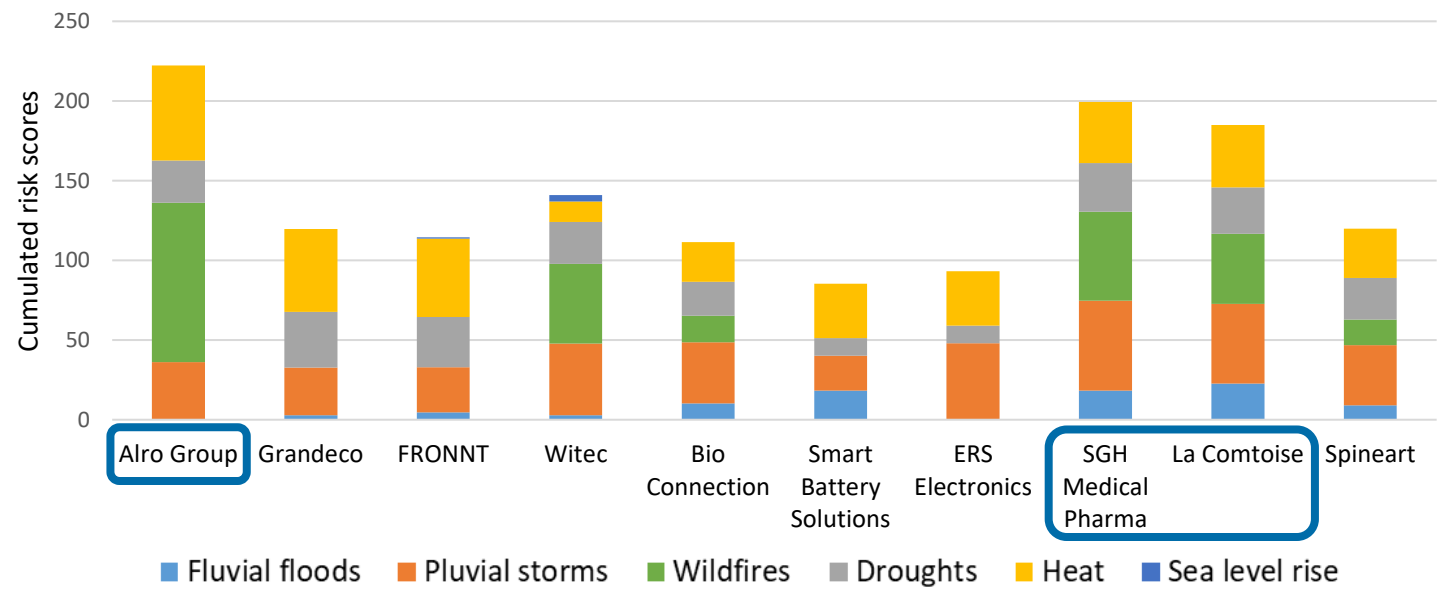
4.1 Cumulated physical risk

2024



Disclaimer: Missing data: Heat scores for Alro Group site (4), SGH Medical Pharma – Spineart site (4)

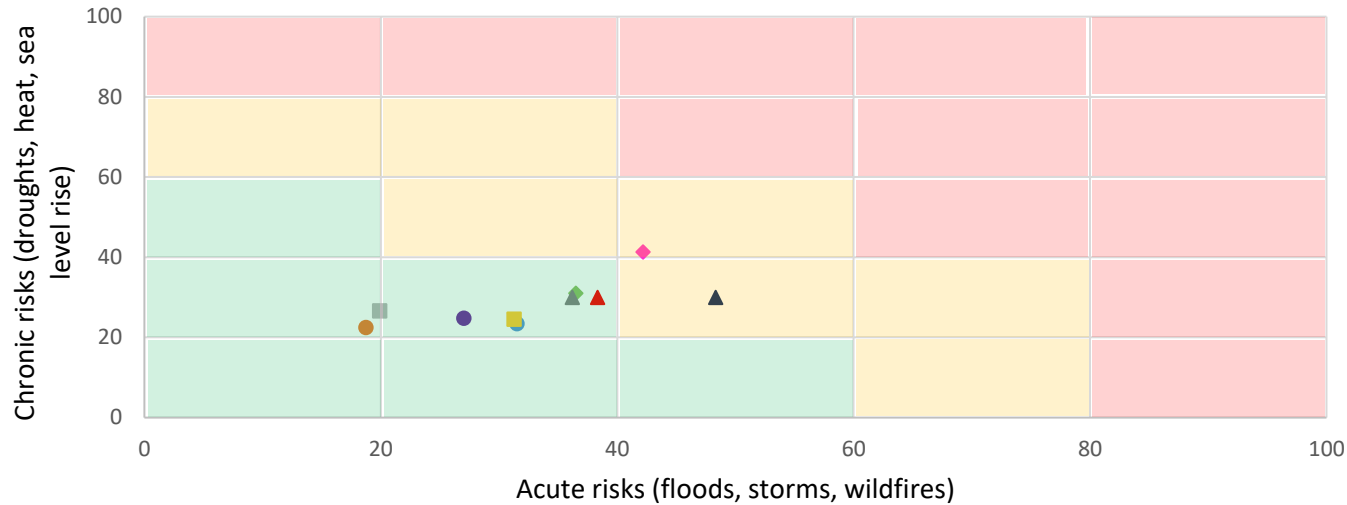
2050



Disclaimer: Missing data: Wildfire scores for Alro Group sites (1), (2) & (4), Grandeco, FRONNT, Smart Battery Solutions, ERS Electronics, Spineart sites (1) & (4)

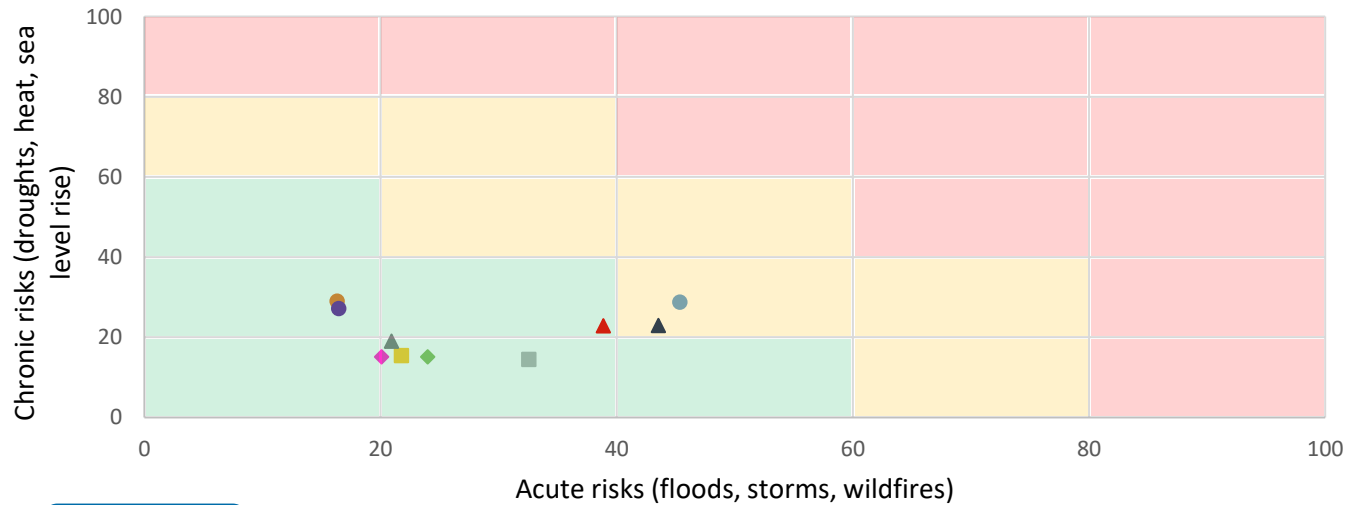
4.2 Acute vs. chronic physical risk scatterplot

2024



Disclaimer: Missing data: Heat scores for Alro Group site (4), SGH Medical Pharma – Spineart site (4)

2050



Disclaimer: Missing data: Wildfire scores for Alro Group sites (1), (2) & (4), Grandeco, FRONNT, Smart Battery Solutions, ERS Electronics, Spineart sites (1) & (4)

Alro Group

Bio Connection

La Comtoise

Grandeco

Smart Battery Solutions

Spineart

FRONNT

ERS Electronics

Witec

SGH Medical Pharma

○ = BE, CH & SK

◇ = DE

□ = NL

△ = FR

5. Conclusion



Physical vs. transition climate risks

Most affected industries = energies, material & utilities

Most affected countries = Global South



Constituents of physical climate risk assessments: (1) fluvial **floods**; (2) pluvial **storms**; (3) **wildfires**; (4) **droughts**; (5) **heat**; and (6) **sea level rise**



Framework for **10 portfolio companies** at Gimv based on **15 open-source databases**: (1) Risk score **standardization (0-100)** and **aggregation** & (2) Data **visualization** in stacked column & scatterplot

→ **Highest physical climate risk** for German **SBS & ERS**, French **SGH & La Comtoise** and Belgian **Alro Group**

6. Limitations & recommendations



Analyze **transition risks** thoroughly



Include **other ~50 portfolio companies** in model



Keep framework up-to-date to ensure **data accuracy and availability**

(extra data for 2030, updates, missing data, more accurate aggregation function)



Evaluate effective **adaptation actions**



Explore **commercial databases**

Thank you to



Promotor: Prof. Dr. Luc Van Liedekerke

Co-promotor: Dhr. Vincent Van Bueren

Assessor: Dr. Jan Cools

Questions?



Sources slide 3

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