



university of  
 groningen

faculty of economics  
 and business

# Master Supply Chain Management



# Welcome





# Supply Chain Processes

- Foxconn's Zhengzhou ("iPhone City")
  - 3 plants, 90 production lines and up to 350.000 (!! ) employees
  - Assemble up to half a million iPhones per day
  - 400 steps to assemble an iPhone
  - Typical working day
    - 48 hour per week regular hours (60 hours incl. over time)





# Transport & Logistics

- > The “iPhone effect”
  - > Increase in air freight prices when new iPhone is introduced

## THE LAUNCH OF THE NEW IPHONE DRIVES UP THE COST OF AIR FREIGHT

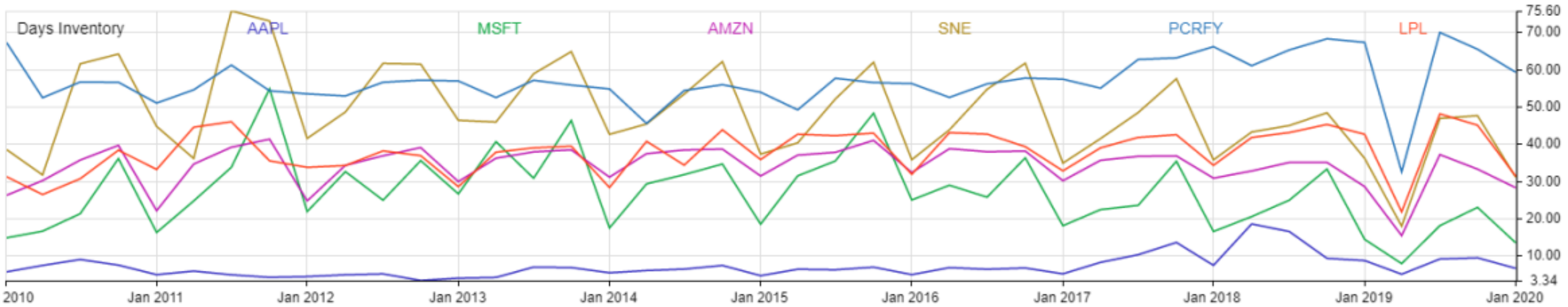
by Modus Modus | Oct 20, 2020 | Uncategorized | 0 comments





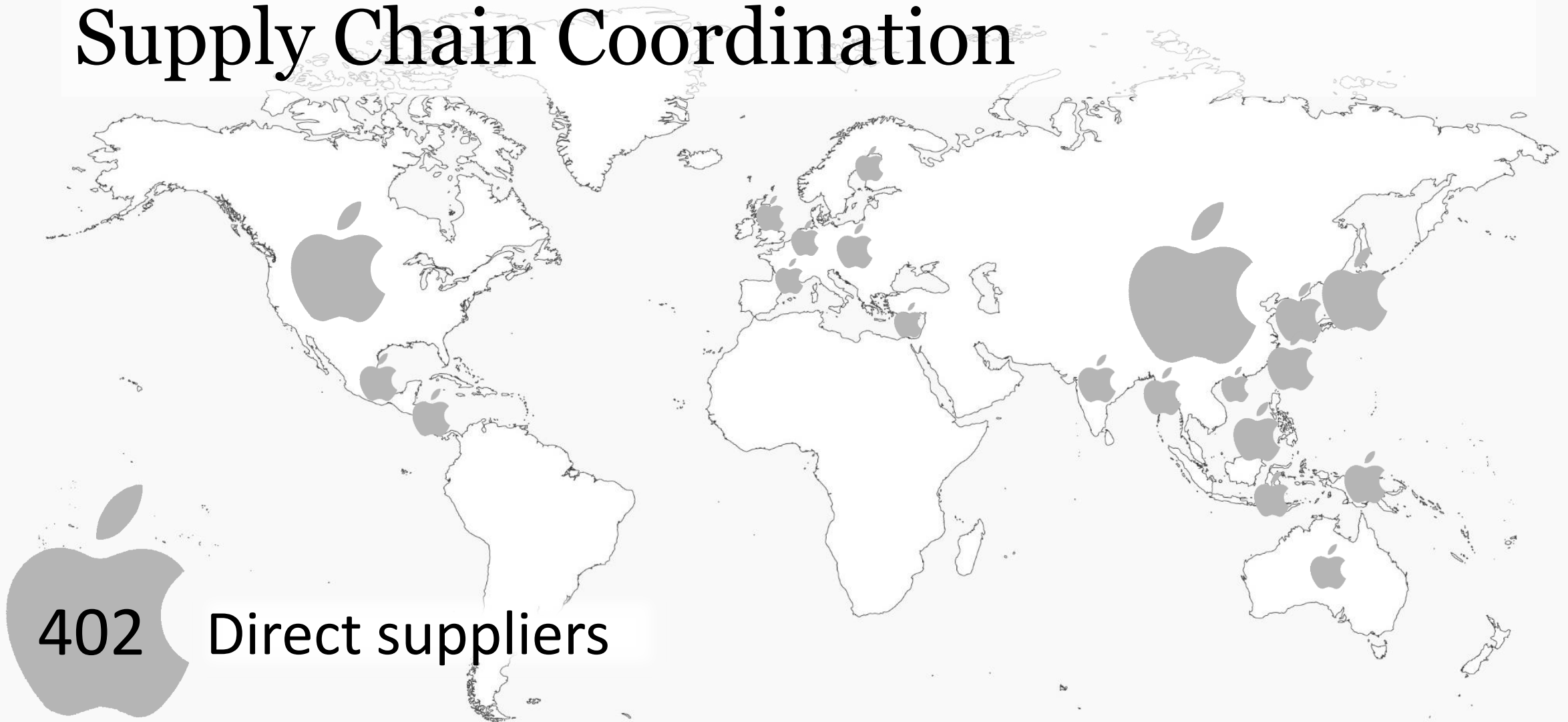
# Inventory Management

> Apple holds very little inventory





# Supply Chain Coordination



402

Direct suppliers



# TSMC reportedly books its entire 5nm chip production capacity for Apple

By Jeet - Sep 18, 2020



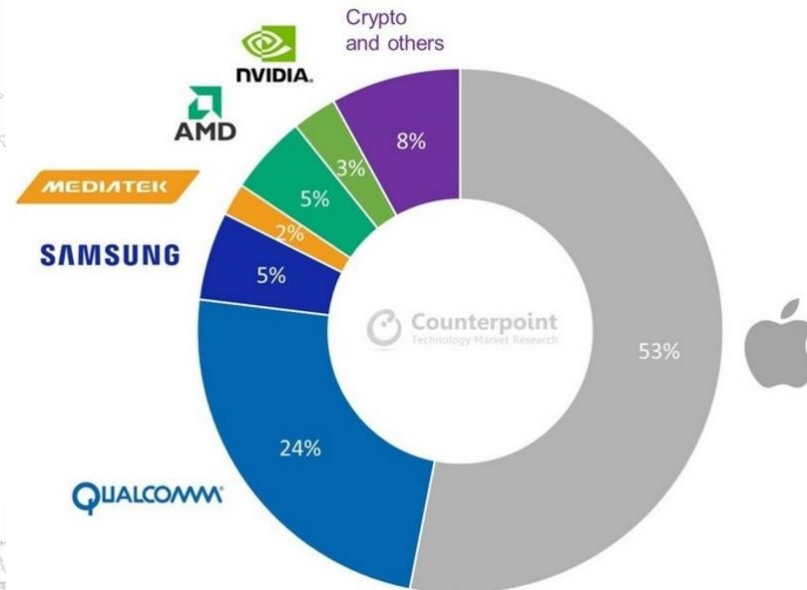
TSMC, the world's largest chipset manufacturer, had started mass-production of [5nm chips](#) for the past few months. Now, it is being reported that the company's facility for the production of 5nm chips has been fully booked by Apple.

According to the [latest report](#) coming from China, the Taiwanese Semiconductor Manufacturing Company will be making chips for the iPhone 12, iPad Air, 5G iPad Pro, and the upcoming MacBook.



# Supply Chain Coordination

> Suppliers strongly depend on Apple, ...





# Supply Chain Coordination

> ..., but Apple is also strongly dependent on its suppliers

Bloomberg

**What you need to know:** [The Global Chip Crisis](#)

Technology

## Apple Set to Cut iPhone Production Goals Due to Chip Crunch

By [Debby Wu](#) +Follow

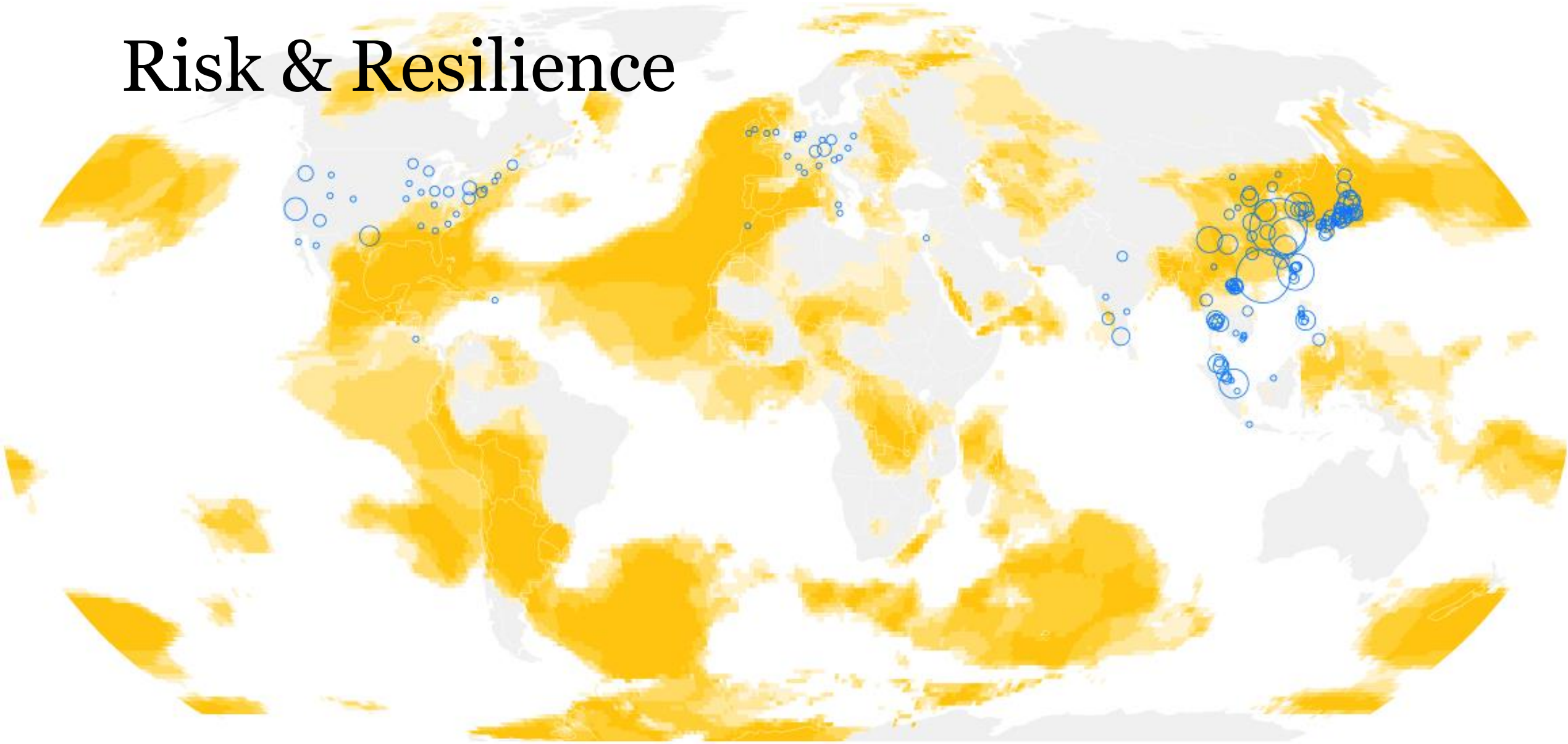
12 October 2021, 22:00 CEST *Updated on 12 October 2021, 22:09 CEST*

- ▶ Company expects to make 10 million fewer iPhones than planned
- ▶ Broadcom, Texas Instruments struggling to deliver enough parts



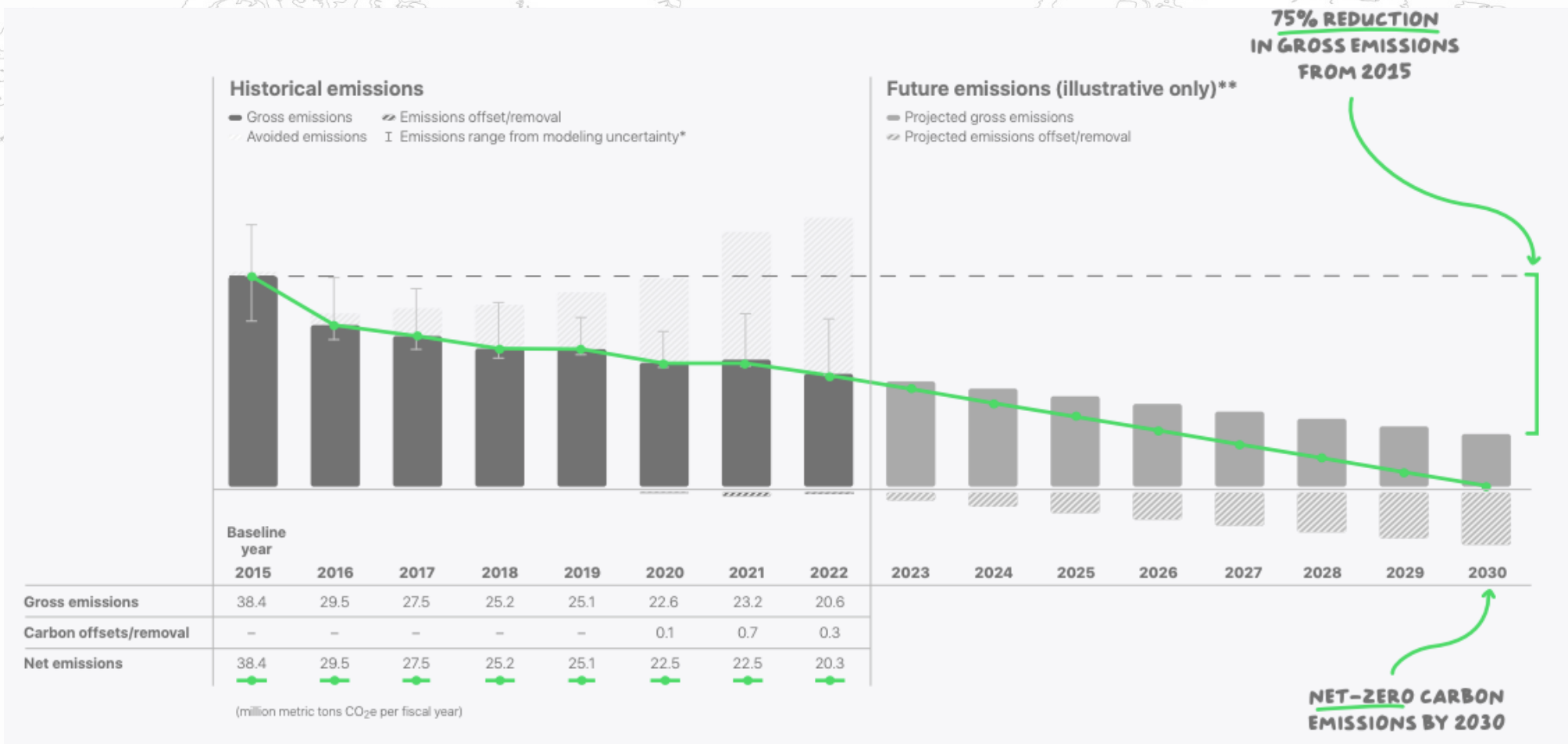


# Risk & Resilience





# Sustainable Supply Chain Management





# Compulsory courses

Semester 1a	Semester 1b	Semester 2a	Semester 2b
SCM Fundamentals	Research Methods for SCM	Supply Chain Coordination	
Supply Chain Processes		MSc thesis	

# Selecting your (!) program

Semester 1a	Semester 1b	Semester 2a	Semester 2b
SCM Fundamentals	Research Methods for SCM	Supply Chain Coordination	
Supply Chain Processes		MSc thesis	
Service Operations*	Purchasing*	Global SCM & Sustainability*	Sales and Operations Planning*
Facility Design and Planning*	Sustainable Transport & Logistics*	Supply Chain Dynamics*	Inventory Management*
Healthcare Purchasing and Supply Chains	Strategic Collaboration in Healthcare	Healthcare Operations	Challenges in Healthcare
Sustainability: Strat., Innov. & Change	Sustainable Energy Supply	Energy Transition & Innovation	Carbon Footprint of Supply Chains
Financial Reporting and Risk Management	Smart Industry Operations	Financing the Energy Transition	Regulating Energy Markets
	Data-driven Business Processes		Innovation & Entrepreneurship

# Your program (management)

Semester 1a	Semester 1b	Semester 2a	Semester 2b
SCM Fundamentals	Research Methods for SCM	Supply Chain Coordination	
Supply Chain Processes		MSc thesis	
Service Operations*	Purchasing*	Global SCM & Sustainability*	Sales and Operations Planning*
Facility Design and Planning*	Sustainable Transport & Logistics*	Supply Chain Dynamics*	Inventory Management*
Healthcare Purchasing and Supply Chains	Strategic Collaboration in Healthcare	Healthcare Operations	Challenges in Healthcare
Sustainability: Strat., Innov. & Change	Sustainable Energy Supply	Energy Transition & Innovation	Carbon Footprint of Supply Chains
Financial Reporting and Risk Management	Smart Industry Operations	Financing the Energy Transition	Regulating Energy Markets
	Data-driven Business Processes		Innovation & Entrepreneurship

# Your program (quantitative)

Semester 1a	Semester 1b	Semester 2a	Semester 2b
SCM Fundamentals	Research Methods for SCM	Supply Chain Coordination	
Supply Chain Processes		MSc thesis	
Service Operations*	Purchasing*	Global SCM & Sustainability*	Sales and Operations Planning*
Facility Design and Planning*	Sustainable Transport & Logistics*	Supply Chain Dynamics*	Inventory Management*
Healthcare Purchasing and Supply Chains	Strategic Collaboration in Healthcare	Healthcare Operations	Challenges in Healthcare
Sustainability: Strat., Innov. & Change	Sustainable Energy Supply	Energy Transition & Innovation	Carbon Footprint of Supply Chains
Financial Reporting and Risk Management	Smart Industry Operations	Financing the Energy Transition	Regulating Energy Markets
	Data-driven Business Processes		Innovation & Entrepreneurship

# Your program (health)

Semester 1a	Semester 1b	Semester 2a	Semester 2b
SCM Fundamentals	Research Methods for SCM	Supply Chain Coordination	
Supply Chain Processes		MSc thesis	
Service Operations*	Purchasing*	Global SCM & Sustainability*	Sales and Operations Planning*
Facility Design and Planning*	Sustainable Transport & Logistics*	Supply Chain Dynamics*	Inventory Management*
Healthcare Purchasing and Supply Chains	Strategic Collaboration in Healthcare	Healthcare Operations	Challenges in Healthcare
Sustainability: Strat., Innov. & Change	Sustainable Energy Supply	Energy Transition & Innovation	Carbon Footprint of Supply Chains
Financial Reporting and Risk Management	Smart Industry Operations	Financing the Energy Transition	Regulating Energy Markets
	Data-driven Business Processes		Innovation & Entrepreneurship

# Your program (sustainable energy)

Semester 1a	Semester 1b	Semester 2a	Semester 2b
SCM Fundamentals	Research Methods for SCM	Supply Chain Coordination	
Supply Chain Processes		MSc thesis	
Service Operations*	Purchasing*	Global SCM & Sustainability*	Sales and Operations Planning*
Facility Design and Planning*	Sustainable Transport & Logistics*	Supply Chain Dynamics*	Inventory Management*
Healthcare Purchasing and Supply Chains	Strategic Collaboration in Healthcare	Healthcare Operations	Challenges in Healthcare
Sustainability: Strat., Innov. & Change	Sustainable Energy Supply	Energy Transition & Innovation	Carbon Footprint of Supply Chains
Financial Reporting and Risk Management	Smart Industry Operations	Financing the Energy Transition	Regulating Energy Markets
	Data-driven Business Processes		Innovation & Entrepreneurship





# Selecting your (!) program

- 4 Compulsory courses (20 EC)
- 4 Electives (20 EC)
  - With at least 10 EC within the SCM discipline (more allowed)
  - With room for 10 EC electives on broader themes
- 1 Master's thesis (20 EC)





# Entry requirements

Business Administration	University of Groningen	No additional requirements
Econometrics and Operations Research	University of Groningen	No additional requirements
Economics and Business Economics	University of Groningen	No additional requirements
International Business	University of Groningen	No additional requirements
Industrial Engineering and Management	University of Groningen	No additional requirements

From another program or university?

Check <https://www.rug.nl/masters/supply-chain-management/#!requirements>





# Why Supply Chain Management?

## Now's the time to be a supply chain professional



The demand for logistics talent has never been greater. The low unemployment rate has created a supply/demand imbalance, spurring employers to raise salaries in a bid to attract and retain top talent. Of the 454 respondents to *CSCMP's Supply Chain Quarterly's* 3rd annual Salary Survey, nearly three-quarters (72%) saw a boost in their total compensation in the past year.

On the flip side, that same worker shortage has also boosted their workload. Nearly eight in 10 respondents say they've taken on new job responsibilities in the last year. But even that hasn't soured them on the profession: A whopping 93% say they would still encourage a young person entering the job market to pursue a career in supply chain.





# Why Supply Chain Management?

- Management trainee Supply Chain Operations
- Supply chain analyst / engineer / planner / coordinator
- (Strategic) buyer / procurement coordinator





# Why SCM in Groningen?

- Lecturers that are world-renowned experts in their field
- Strong link with practice
  - Guest speakers and real-world case assignment
  - Focus on developing skills that are essential for a supply chain management position:
    - Making informed decisions based on supply chain data
    - Thrive within diverse teams
    - Communication



# DOUBLE DEGREE MASTER IN SERVICE & SUPPLY CHAIN MANAGEMENT





# Double Degree Master in Service & Supply Chain Management

- 2-year program
  - 1<sup>st</sup> year at Católica Porto Business School, MSc in Management, Specialization in Service Management.
  - 2<sup>nd</sup> year at the University of Groningen, MSc in Supply Chain Management.



CATÓLICA  
CATÓLICA PORTO  
BUSINESS SCHOOL

PORTO

EMPOWER  
YOUR  
FUTURE



connecting for impact



# Double Degree Master in Service & Supply Chain Management

- Information Session:  
 April 8, 13:00-14:00  
 Room: 5419.0109
- Register if you want to attend:







# Student Perspective

Alieke Haanstra

- BSc Economics and Business Economics
- MSc SCM and MSc TOM



# Why I chose MSc SCM at the University of Groningen?

- Relevance to the current economic landscape
- Practical Applications
  - Desire for a program with immediate applicability
- Balance between Quantitative and Qualitative
  - Combined with MSc TOM for a deeper dive into quantitative aspects





# My experience so far

- Real-life Assignments
- Emphasis on Group Work
- Motivated Group of Students and Lecturers
- Addresses the Latest Developments



# Example of a Course set-up

## Supply Chain Network Design

- Quantitative Course
- Week 4: Exam
  - High pace, but everyone on the same track
- Week 5-7: Group Project
  - Present your idea
  - Introduce an innovation
  - Find a feasible solution to a Facility Location Problem





# Example of a Course set-up

## Strategic Supply Chain Management

- Qualitative Course
- Serious Game: The Fresh Connection
  - Everyone plays a different role (VP Operations, SCM, Strategic Alignment, Purchasing, Sales)
  - Weekly meetings to think of a strategy
  - Goal: Maximize revenue
  - Use of theory to back up your decisions





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Thank you



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