



# **Supporting the Value Proposition of the Pharmaceutical Industry in Mexico**

Widening the Portfolio of Factors that Define the Value of Pharmaceuticals

**Presentation at the “Second Health Innovation Week”**



**Preliminary Remarks and Introduction**

**Key Findings of the Economic Footprint of the  
Pharmaceutical Industry and Clinical Studies in Mexico**

**Conclusion and Outlook**



## **Preliminary Remarks and Introduction**

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# Preliminary Remarks and Introduction

WifOR fosters the paradigm shift in the worldwide healthcare sector



## OLD UNDERSTANDING

Part of healthcare

Instead of mainly public financing

Less of input orientation

Instead of health care as cost factor

Instead of healthcare consumption

Instead of separate silos, e.g. the Statutory health insurance



## NEW UNDERSTANDING

Is the health economy

New financing methods, second health market;  
new methods of paying providers (P4P)

Better quality, more outcome orientation

Growing sectors, increasing work force, new  
career opportunities

Investment in health to promote growth and  
productivity

Health in all areas of life  
and lifelong; less fragmentation

Source: Own illustration.

# Preliminary Remarks and Introduction

## High-level commission on health employment and economic growth



### WHO Director-General Dr. Margaret Chan:

“The Commission calls for a **change in the way policy-makers look at the health sector, not as a drain on resources but as a source of opportunities [...]**. Employment in the health sector can operate as a counterforce to the world’s growing inequalities in income levels and opportunities.”

### Remarkable agreements for the Commission’s Meeting:

- » The need for a transformative people-centred health agenda.
- » Enhance investment in health and overall human capital at domestic, regional and international level.
- » Building resilient and performing health systems.
- » A major political and paradigm shift to promote investment in the health sector in order to stimulate inclusive and sustainable economic growth and productive employment and decent work, in addition to ensuring healthy lives and well-being.

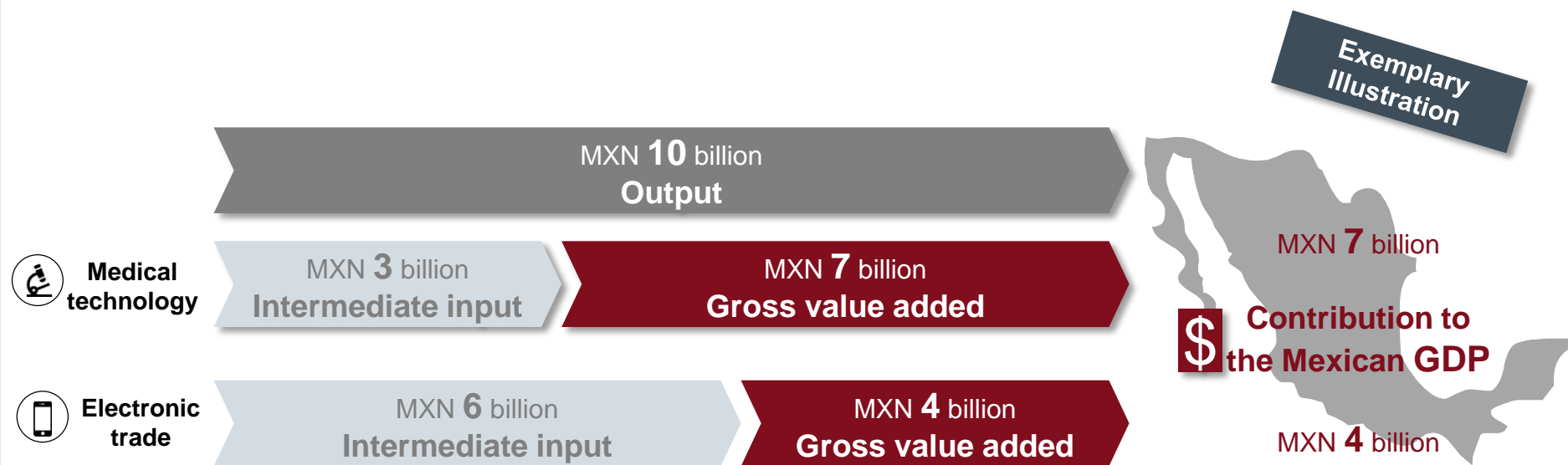


Source: WHO; OECD; Laurent Cipriani.

# Preliminary Remarks and Introduction



Gross value added is the only indicator showing contributions to the GDP



Only the gross value added allows statements about the performance and thus the economic importance of sectors to the national or global economy.

Source: Own illustration.



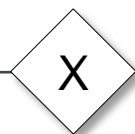
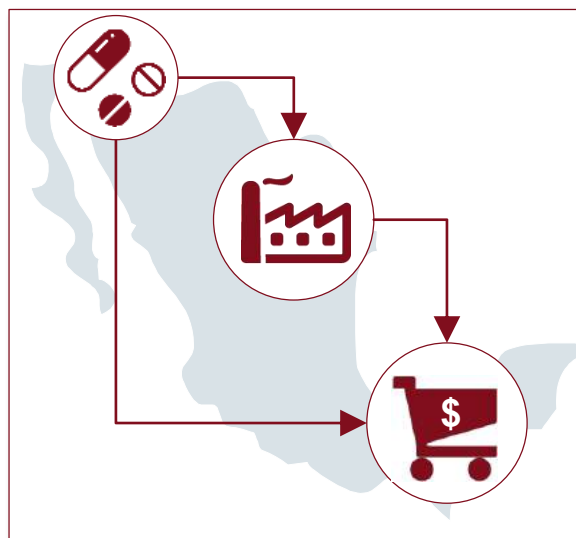
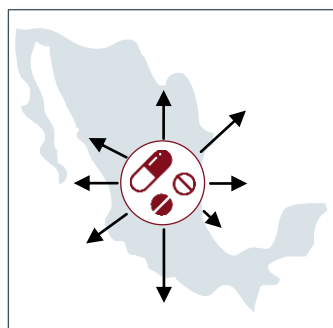
# Preliminary Remarks and Introduction

The total economic effects consist in direct, indirect and induced effects



## Total Effects

### Direct Effects



### Direct Effects

describe the immediate economic effects that are directly generated by the object of investigation.



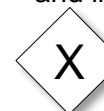
### Indirect Effects

are effects that arise due to the input the object of investigation demands from other economic agents.



### Induced Effects

originate from subsequent expenditure of directly and indirectly generated incomes.



### Multiplier

are factors that get multiplied by the direct effects to calculate the indirect, induced and total effects.

## The Economic Footprint of the pharmaceutical industry and clinical studies in Mexico



Gross value added



Employment



Compensation of employees



Intermediate consumption



Investment



Research and Development

Source: Own illustration.

# Preliminary Remarks and Introduction

## Two major references



### Health Satellite Account of the German Healthcare Sector

First creation of a Health Satellite Account (HSA), first development of a National Health Account (NHA) and productivity analysis.

Annual updates of the NHA and publication of the results in a special brochure: "Facts and Figures about the German Healthcare Sector".

Commissioned by the German Federal Ministry for Economic Affairs and Energy.



### The Economic Footprint of the Global Pharmaceutical Industry

First investigation of the impact of the pharmaceutical industry on the world economy.

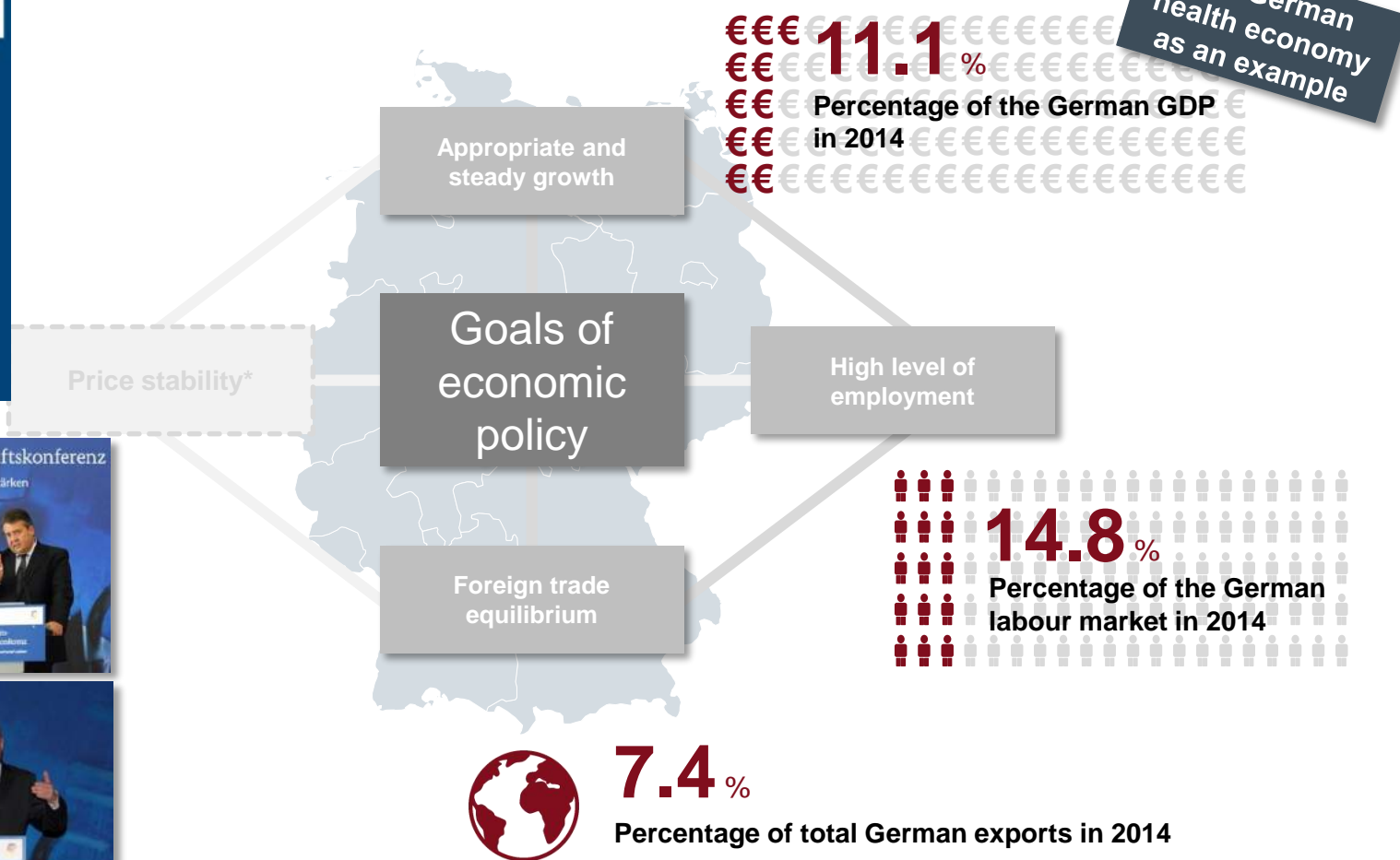
Regional breakdown of the value of the pharmaceutical industry.

Commissioned by the International Federation of Pharmaceutical Manufacturers & Associations (IFPMA).



# Preliminary Remarks and Introduction

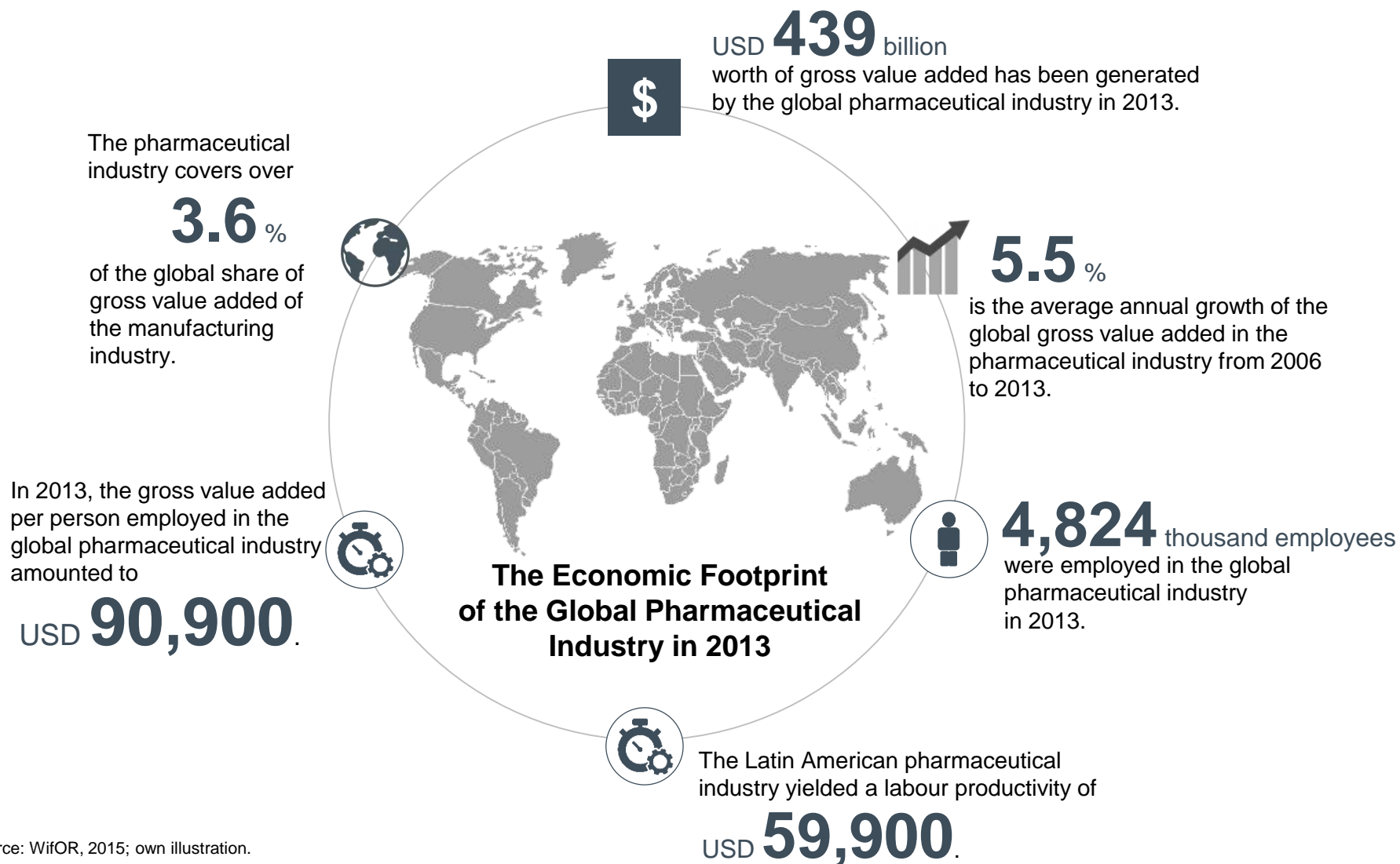
Health economy is a major contributor to the goals of economic policy



Source: Federal Ministry for Economic Affairs and Energy, 2015. \* Not of importance in the Economic Footprint due to non-transferability to industry and branches.

# Preliminary Remarks and Introduction

The pharmaceutical industry as an important part of the worldwide economy

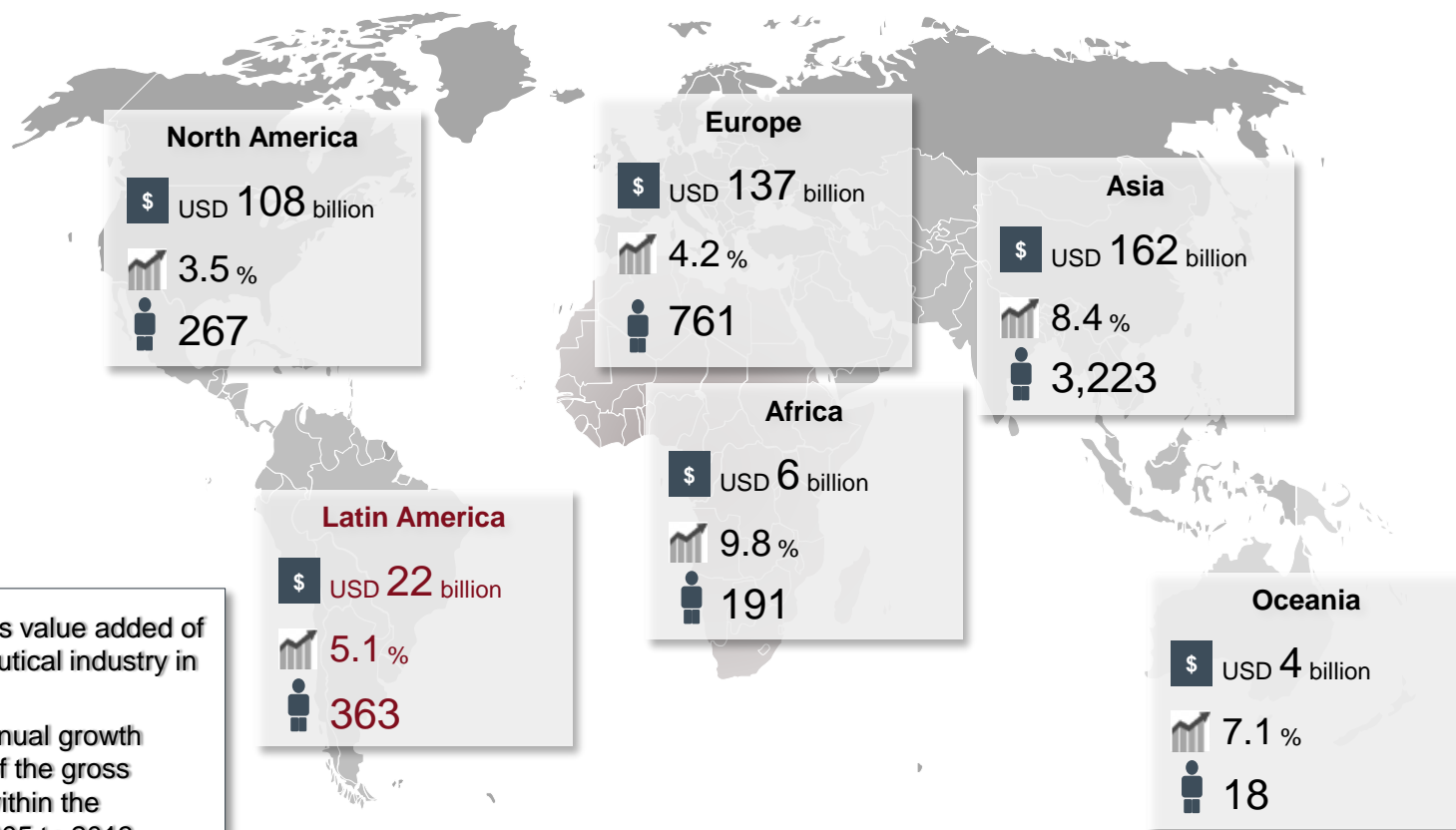


Source: WifOR, 2015; own illustration.

# Preliminary Remarks and Introduction



Asia is in pole position in terms of the absolute share of value and growth



Regional gross value added of the pharmaceutical industry in 2013.

Compound annual growth rate (CAGR) of the gross value added within the region from 2005 to 2013.

Regional employment in thousand persons.

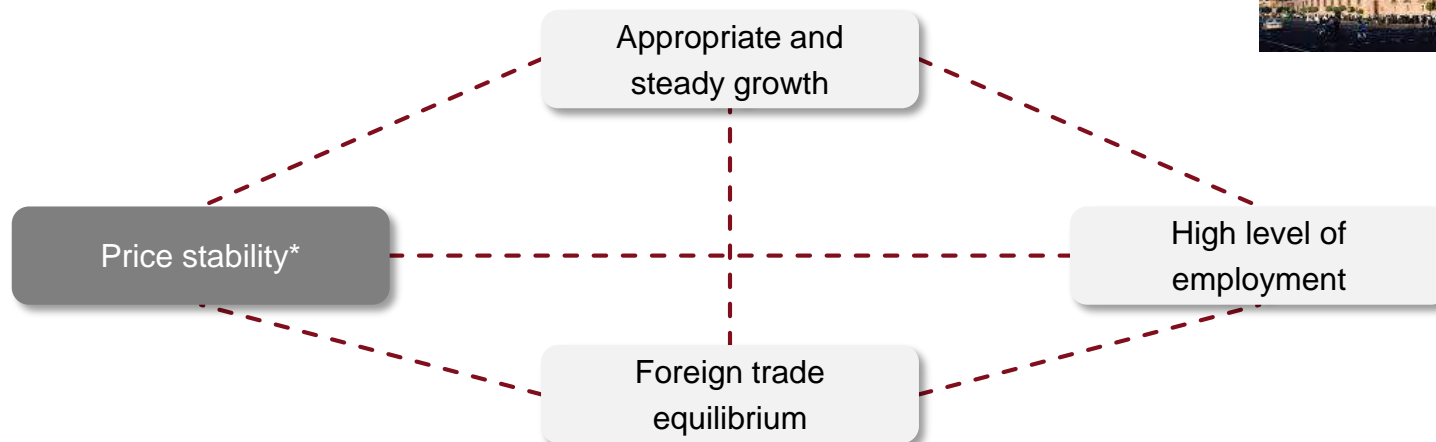
Source: WifOR, 2015.

# Preliminary Remarks and Introduction

What are the main goals of the Mexican president Enrique Peña Nieto?



AMIIIF  
Investigación para la vida



- » Appropriate and steady growth → **GDP growth** in 2014: **5.6%**
- » High level of employment → **labour market growth** in 2014: **1.3%**
- » The foreign trade equilibrium → **net exports** in 2014: **MXN -185 billion**
- » Price stability → **inflation** in 2014: **3.4%**

Source: INEGI, 2015. \* Not of importance in the Economic Footprint due to non-transferability to industry and branches.

# Preliminary Remarks and Introduction



What is the contribution of the pharmaceutical industry to the main goals?



-  **Generate growth**  
→ Gross value added
-  **Create employment**  
→ Labour force
-  **Increase productivity**  
→ Labour productivity
-  **Sustain growth and employment**  
→ R&D intensity





Preliminary Remarks

**Key Findings of the Economic Footprint of the  
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# Key Findings of the Economic Footprint

Pharmaceutical industry contributes with MXN 149 bn to the Mexican growth



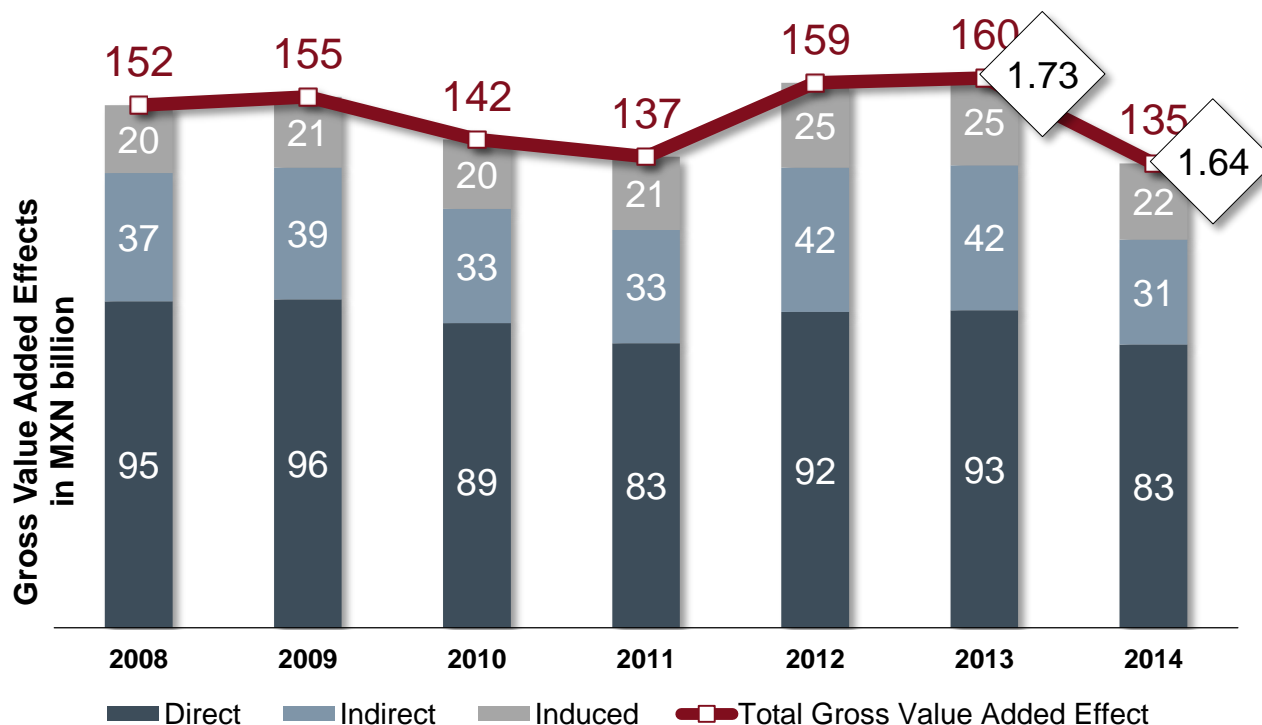
On average from 2008 to 2014, the pharmaceutical industry yielded total gross value added effects of

MXN **149** billion.

Thereof,  
MXN **90** billion  
were directly generated by the pharmaceutical industry.

The annual growth rate of the total gross value added effects reported

**-2.0** %.



Source: INEGI, 2015; OECD, 2015; own calculation; own illustration.

Pharmaceutical Industry

# Key Findings of the Economic Footprint

GDP impact of clinical studies increased by 27.5% to MXN 161 bn



In 2014, the clinical studies reached total gross value added effects of

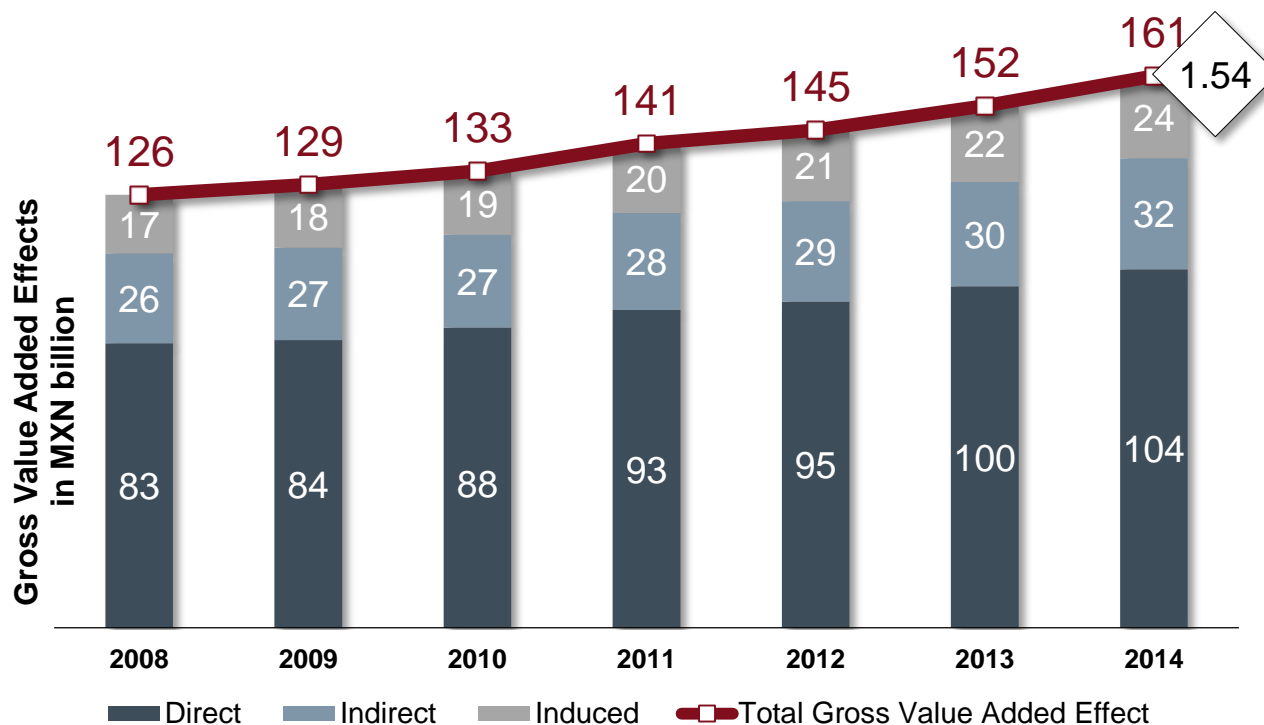
MXN **161** billion.

The gross value added multiplier of clinical studies averaged from 2008 to 2014 at

**1.53**.

The total gross value added effects have an increasing trend and experienced an annual growth rate of

**+4.1** %.



Source: Canifarma, 2015; INEGI, 2015; OECD, 2015; own calculation; own illustration.

**Clinical Studies**

# Key Findings of the Economic Footprint

Every new job in the pharmaceutical industry creates 3.3 additional jobs



On average, total employment effects of the pharmaceutical industry obtained

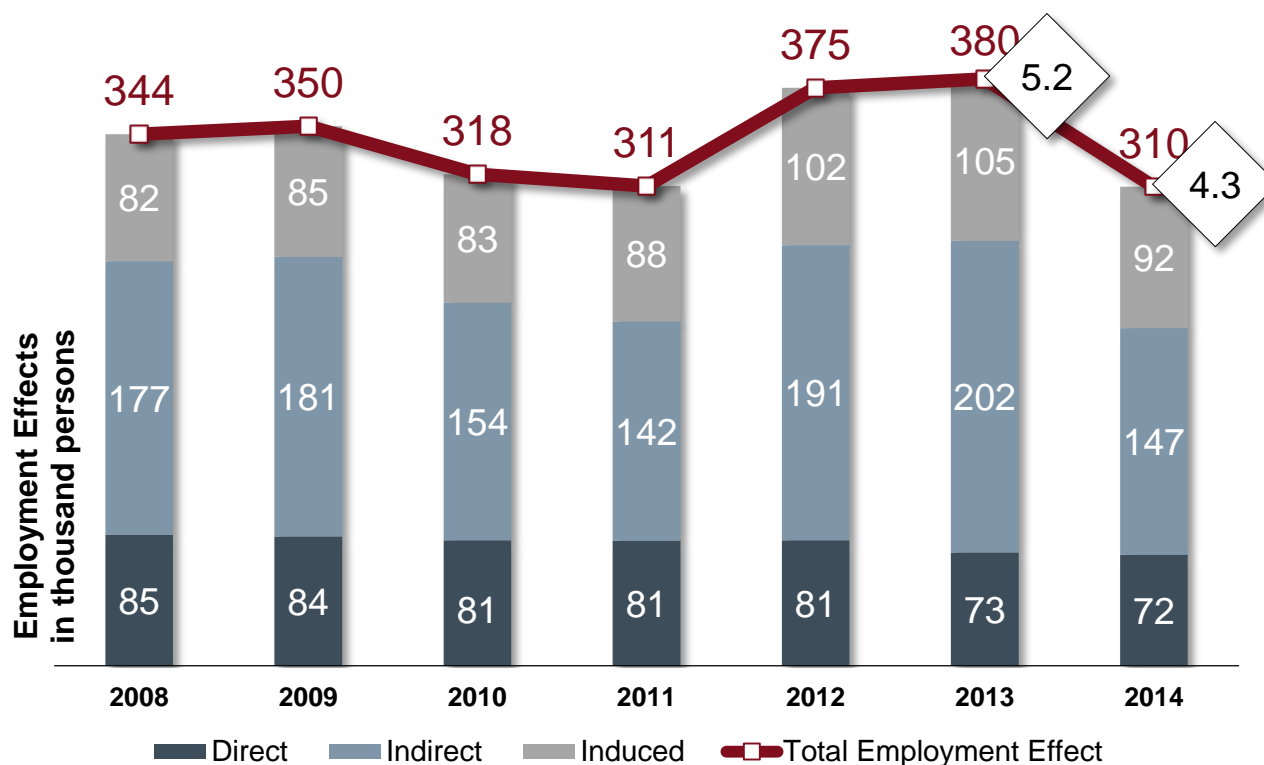
**341** thousand persons.

From 2008 to 2014, the direct employment registered an average of

**80** thousand persons.

The total employment effects of the pharmaceutical industry declined annually by

**-1.7** %.



Source: INEGI, 2015; OECD, 2015; own calculation; own illustration.

Pharmaceutical Industry

# Key Findings of the Economic Footprint

The branch employs highly skilled and productive employees



On average from 2008 to 2014, the pharmaceutical industry reached a labour productivity of

MXN **1.13** million.

It overshoot the total Mexican economy by a factor of

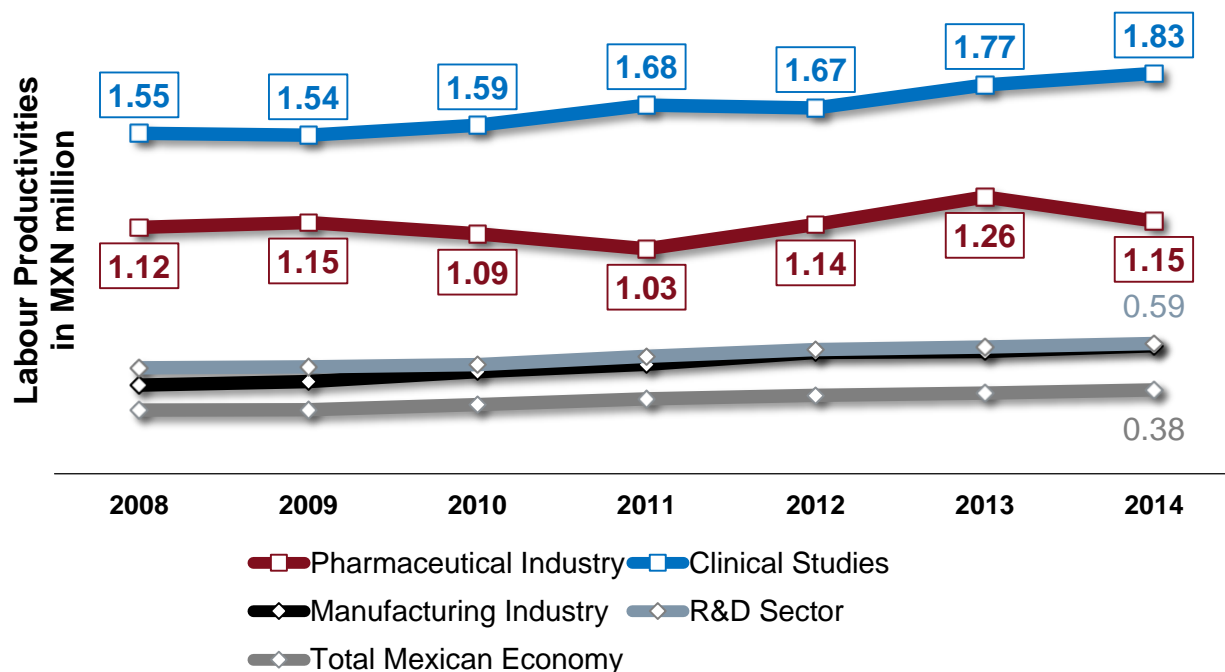
**3.4**.

Clinical studies were even more productive, obtaining an average labour productivity of

MXN **1.66** million.

This exceeded the average labour productivity of the total economy by a factor of

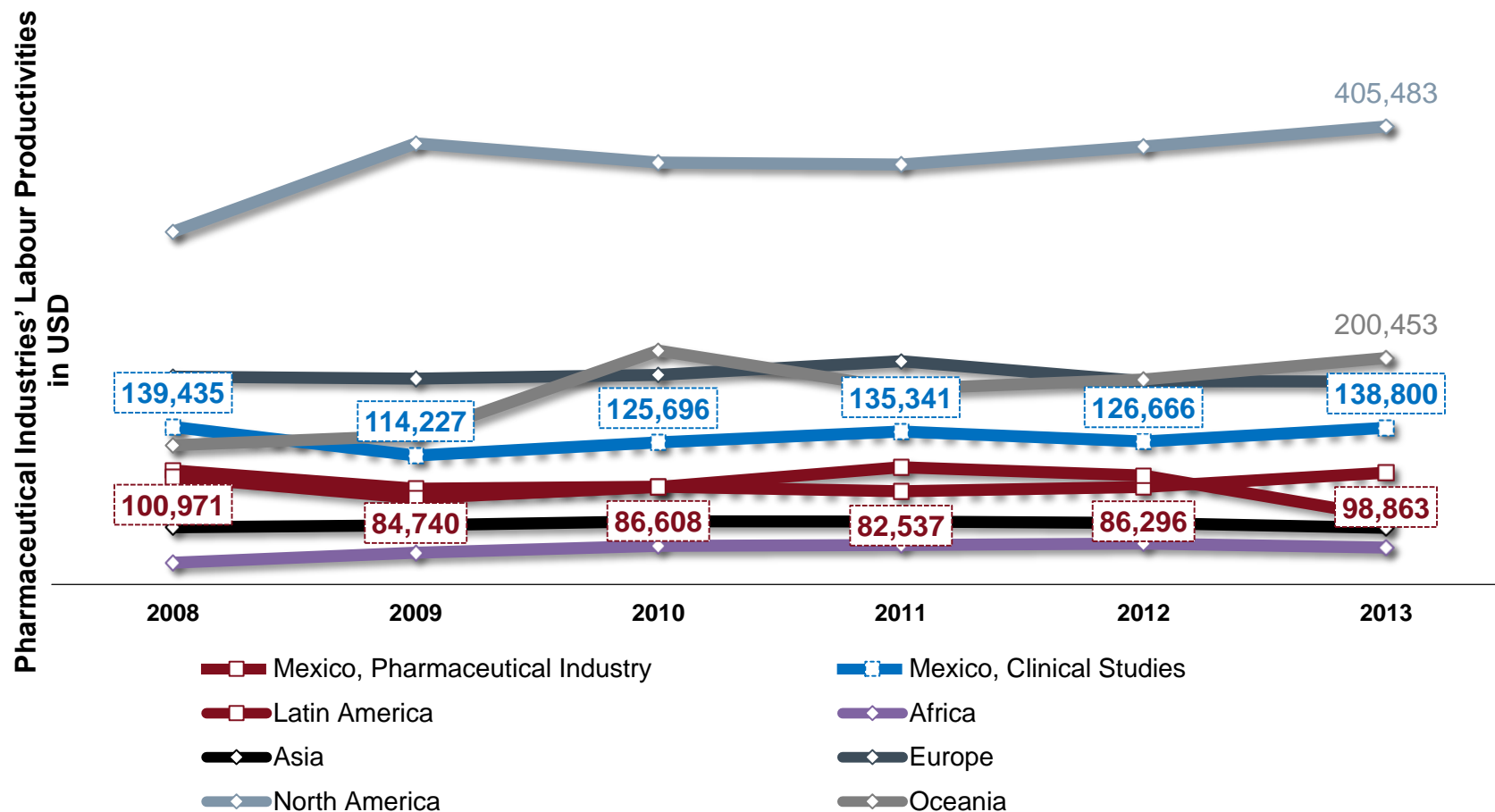
**5.0**.



Source: INEGI, 2015; own calculation; own illustration.

# Key Findings of the Economic Footprint

International benchmark: There is still room for improvement



Source: Canifarma, 2015; INEGI, 2015; World Bank, 2015; own calculation; own illustration.

# Key Findings of the Economic Footprint

High R&D intensities will yield competitive advantage and future growth



In 2011, the pharmaceutical industry yielded a R&D intensity of

**5.0 %.**

On average, it surpassed the total economy by a factor of

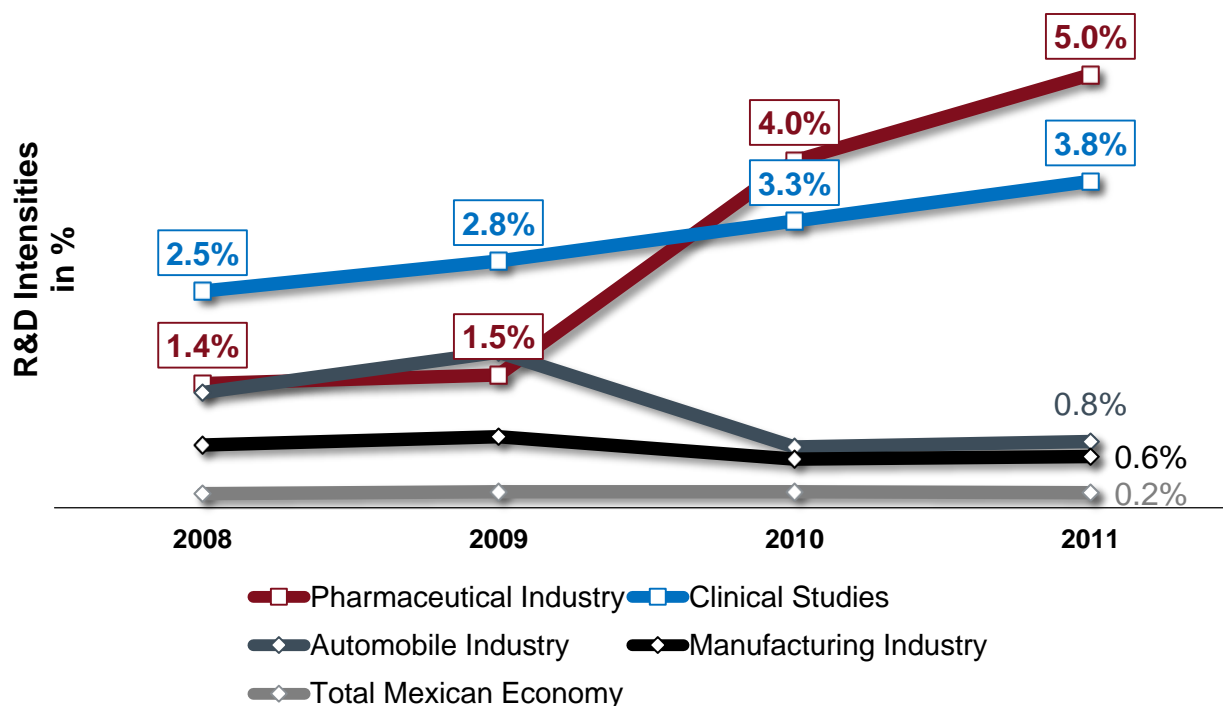
**17.1.**

Clinical studies are also very R&D intensive and in 2011, they reached an intensity of

**3.8 %.**

Due to its higher average R&D intensity, it even exceeded the total economy by a factor of

**17.7.**



Source: Canifarma, 2015; INEGI, 2015; own calculation; own illustration.





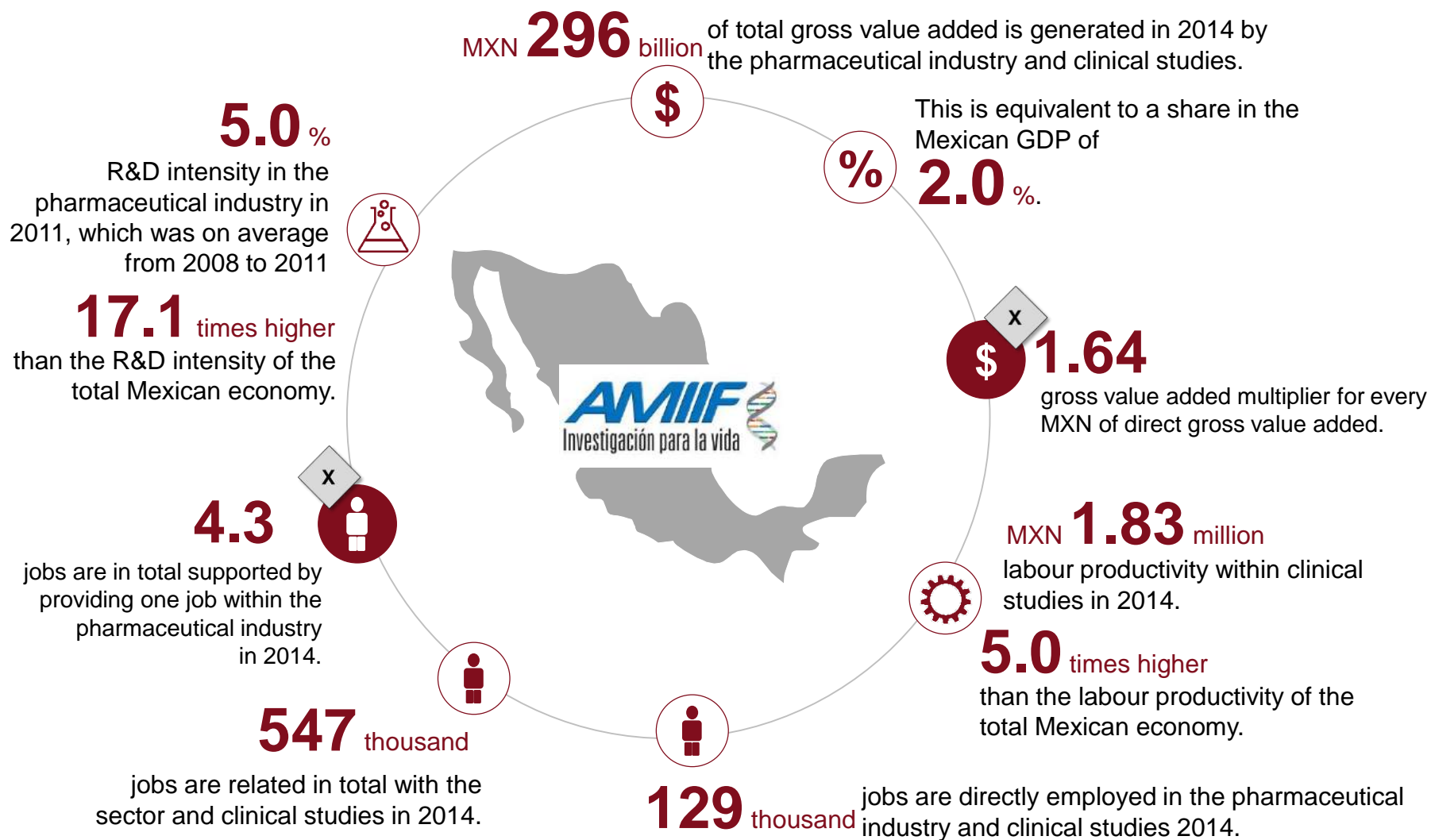
Preliminary Remarks

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# Conclusion and Outlook

## Economic Footprint of pharmaceutical industry and clinical studies at a glance



Source: Own illustration.

# Conclusion and Outlook



## Strengthen the impact of the pharmaceutical industry in Mexico

### Measuring the Social Impact of the pharmaceutical industry

- Additional healthy life years as a major policy objective
- Gain new insights with macroeconomic cost-benefit analyses

### Attracting foreign direct investments (FDI) to the Mexican pharmaceutical industry

- Create attractive institutional frameworks for foreign investors
- Use and enforce the close connection to the car industry as a blue print
- Aim to reach two to three direct investments within 2020

### Positioning Mexico as the R&D hub in Latin America

- Enlarge the activities in R&D and especially in clinical studies
- Develop a centre of innovations in healthcare in Latin America

### Creating more gross value added within Mexico

- Increase the labour productivity and therefore the competitiveness
- Develop a centre of production of pharmaceutical goods, also producing for exports
- Create more jobs within any kind of pharmaceutical companies and organizations

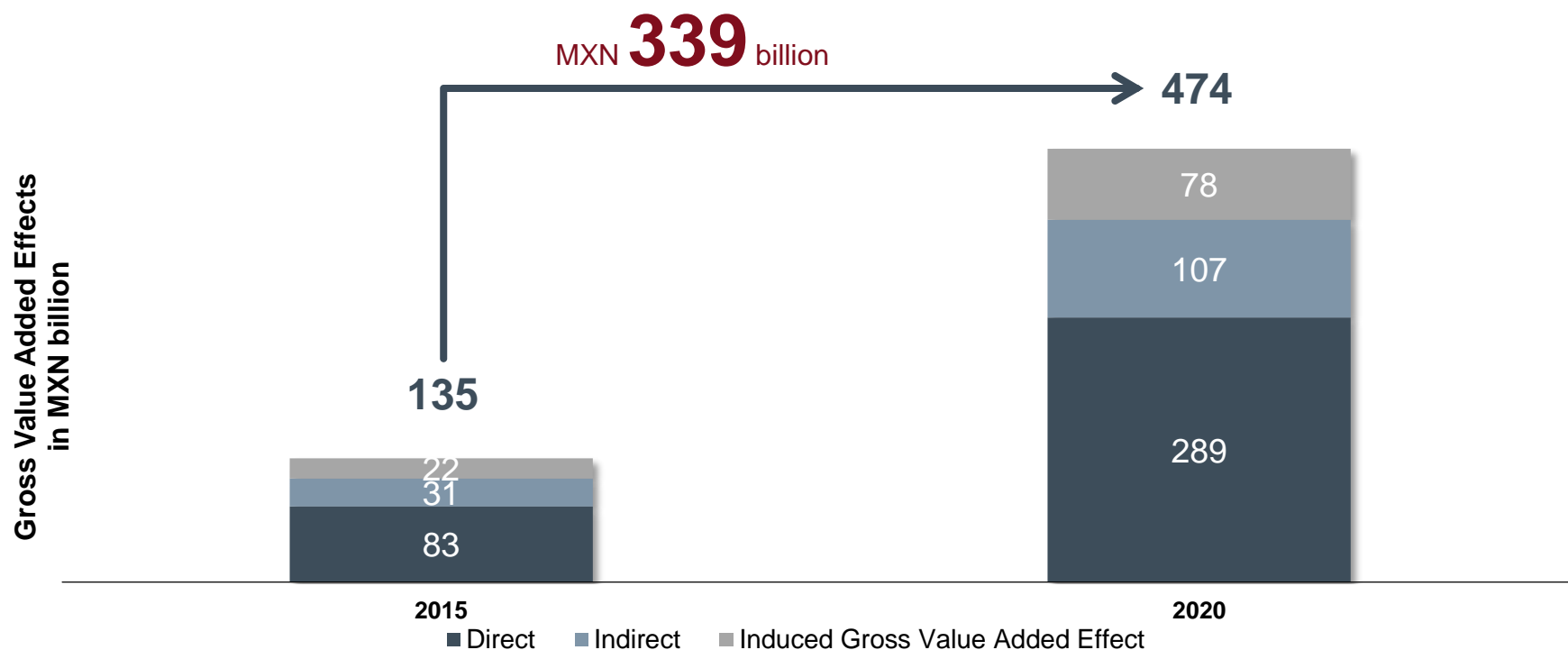
### Updating the Economic Footprint of the pharmaceutical industry in Mexico

- Measure the Economic Footprint regularly on the basis of the National Accounting System

# Conclusion and Outlook



By 2020, the impact can be tripled by investing additional MXN 1,500 m p.a.

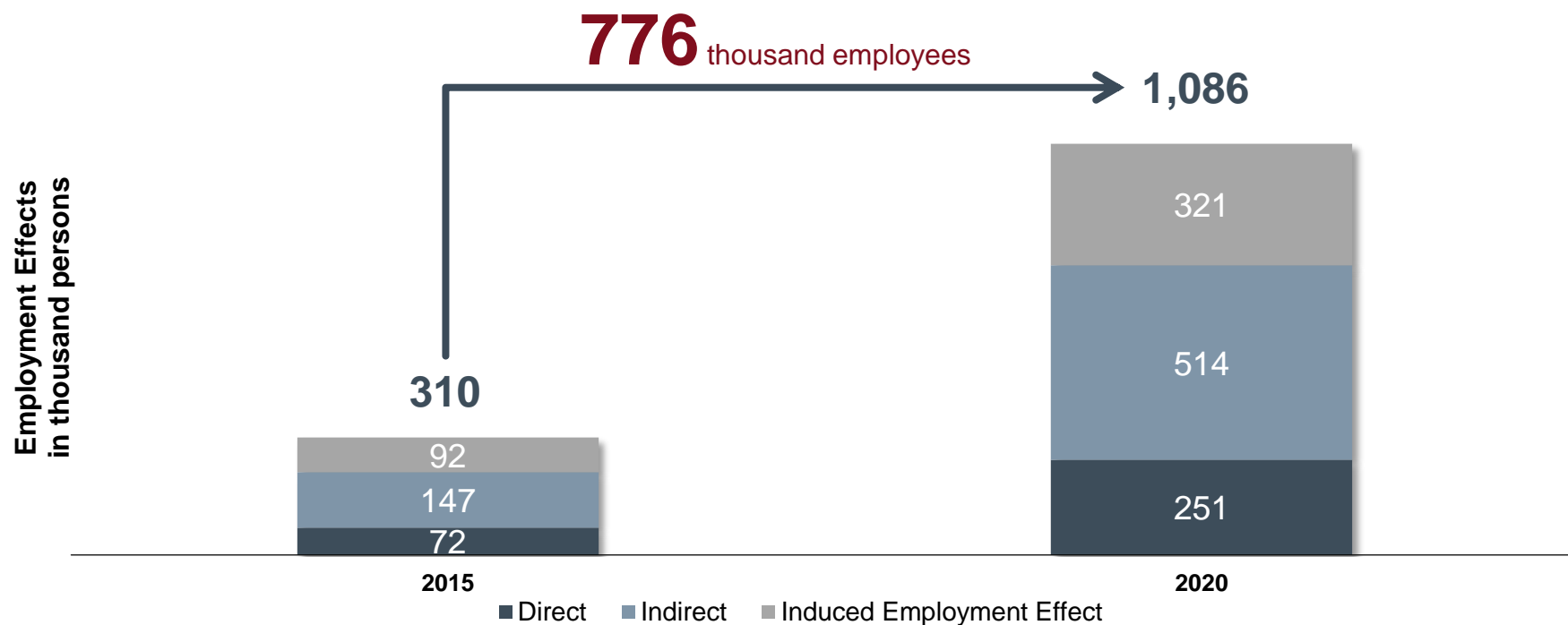


Source: Own calculation; own illustration.

Pharmaceutical Industry

# Conclusion and Outlook

More than one million employees can be related to the industry in 2020



Source: Own calculation; own illustration.

Pharmaceutical Industry

# Conclusion and Outlook

Measuring performance of pharma industry as part of the health economy



## What is the Mexican pharmaceutical industry after all?

Within the National Accounting Systems, it is an economic sector similar to many others.

### Open Question:

What is the connection between the Economic Footprint and the health impact of the pharmaceutical industry as part of the healthcare industry in Mexico?





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