

Thursday
June 8

Economic importance

Economic Impact of Lightweighting

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AUSTRIAN ADVANCED
LIGHTWEIGHT TECHNOLOGY

Economic Impact of Lightweight Technology

A Lightweight Satellite Account for Austria

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The overall economic importance of lightweight construction is persistently underestimated

What contribution to gross value added, employment and fiscal revenues does lightweight construction trigger in Europe?

- You will not find anything on the economic significance of the whole value added chain “lightweight construction” in Europe.
- Question cannot be answered directly with data from official statistics

Reasons:

- Cross-sectoral issue
- Lack of definition → **Definition of Lightweight construction**
- Only direct effects, no indirect and induced effects
- Lack of data → **Lightweight Satellite Account**
- Lack of methods

Challenges and To do's

Lightweight Satellite Accounts should not be addressed only on national but also on European level! (Harmonization)

- Definition: we need a common and harmonized definition
- Satellite account: we need lightweight satellite accounts on the national and – best – at European level (use scale effects)
- Data collection: primary data collection, extensive secondary data research, improve data availability and quality
- Impact Analysis

→ to address this at the European level it needs the support of (some/most important) Member states

Definition

Different dimensions have to be taken into account within the framework of a definition for lightweight construction:

Product-based differentiation: according to goods (CPA)

Activity-based differentiation: according to economic activities (NACE)

Process-oriented differentiation: *Change in production processes (cost structure or use of raw materials) through the use of lightweight materials. (not in the 1st step)*

Based on technologies: Enabling technologies, applications

Definition

Enabling technologies, LW inS, LW ibS, including Services

Enabling Technologies	
B08	Other mining and quarrying
C13	Manufacture of textiles
C16	Manufacture of wood and products of wood
C17	Manufacture of paper and paper products
C20	Manufacture of chemicals and chemical products
C22	Manufacture of rubber and plastic products
C23	Manufacture of other non-metallic mineral products
C24	Manufacture of basic metals
C25	Manufacture of fabricated metal products
C28	Manufacture of machinery and equipment n.e.c.
Lightweight in a narrow Sense: ET +	
C16	Manufacture of wood and products of wood
C23	Manufacture of other non-metallic mineral products
C25	Manufacture of fabricated metal products
C27	Manufacture of electrical equipment
C28	Manufacture of machinery and equipment n.e.c.
C29	Manufacture of motor vehicles, trailers and semi-trailers
C30	Manufacture of other transport equipment
C32	Other manufacturing
C33	Repair and installation of machinery and equipment
D35	Electricity, gas, steam and air conditioning supply
F41	Construction of buildings
F42	Civil engineering
F43	Specialised construction activities

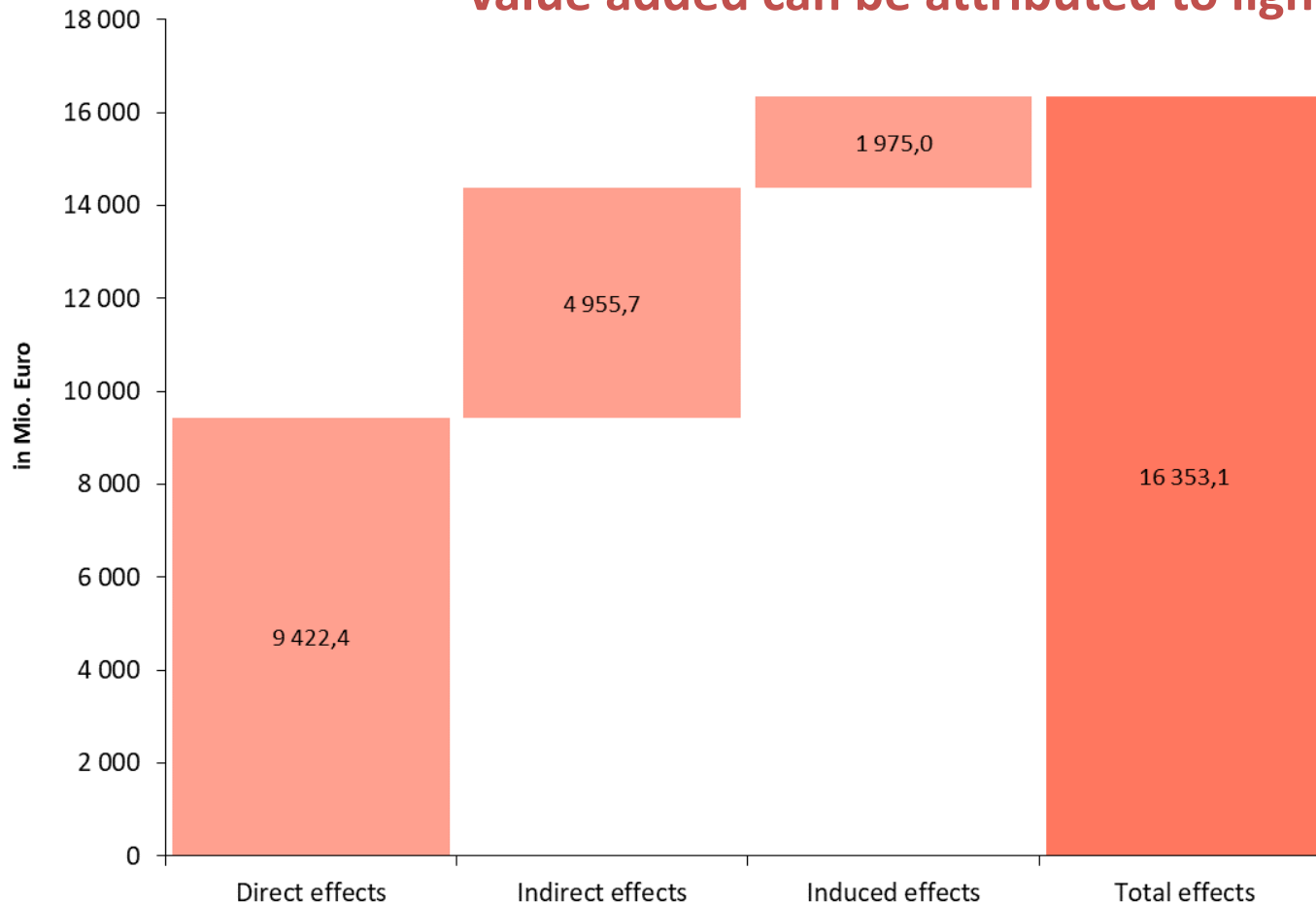
Lightweight in a broader Sense: inS +	
C15	Manufacture of leather and related products
C23	Manufacture of other non-metallic mineral products
C25	Manufacture of fabricated metal products
C26	Manufacture of computer, electronic and optical products
C27	Manufacture of electrical equipment
C32	Other manufacturing
E36	Water collection, treatment and supply
F43	Specialised construction activities

Lightweight including services: ibS +	
G46	Wholesale
G47	Retail trade
J62	Computer programming, consultancy and related activities
M71	Architectural and engineering activities; technical testing and analysis
M72	Scientific research and development
M74	Other professional, scientific and technical activities
N82	Office administrative, office support and other business support activities
N84	Public administration and defence; compulsory social security
P 85	Education
S 94	Activities of membership organisations

Gross Value Added (Austria)

Total Effects, Likely Scenario

In a likely scenario, more than every 22nd euro generated in value added can be attributed to lightweight construction.



Share of gross value added:

- direct: 2.65%
- total: 4.60%

Value Added Multiplier: 1.74

One € generated in lightweight construction triggers 0.74 € of GVA in the rest of the economy.

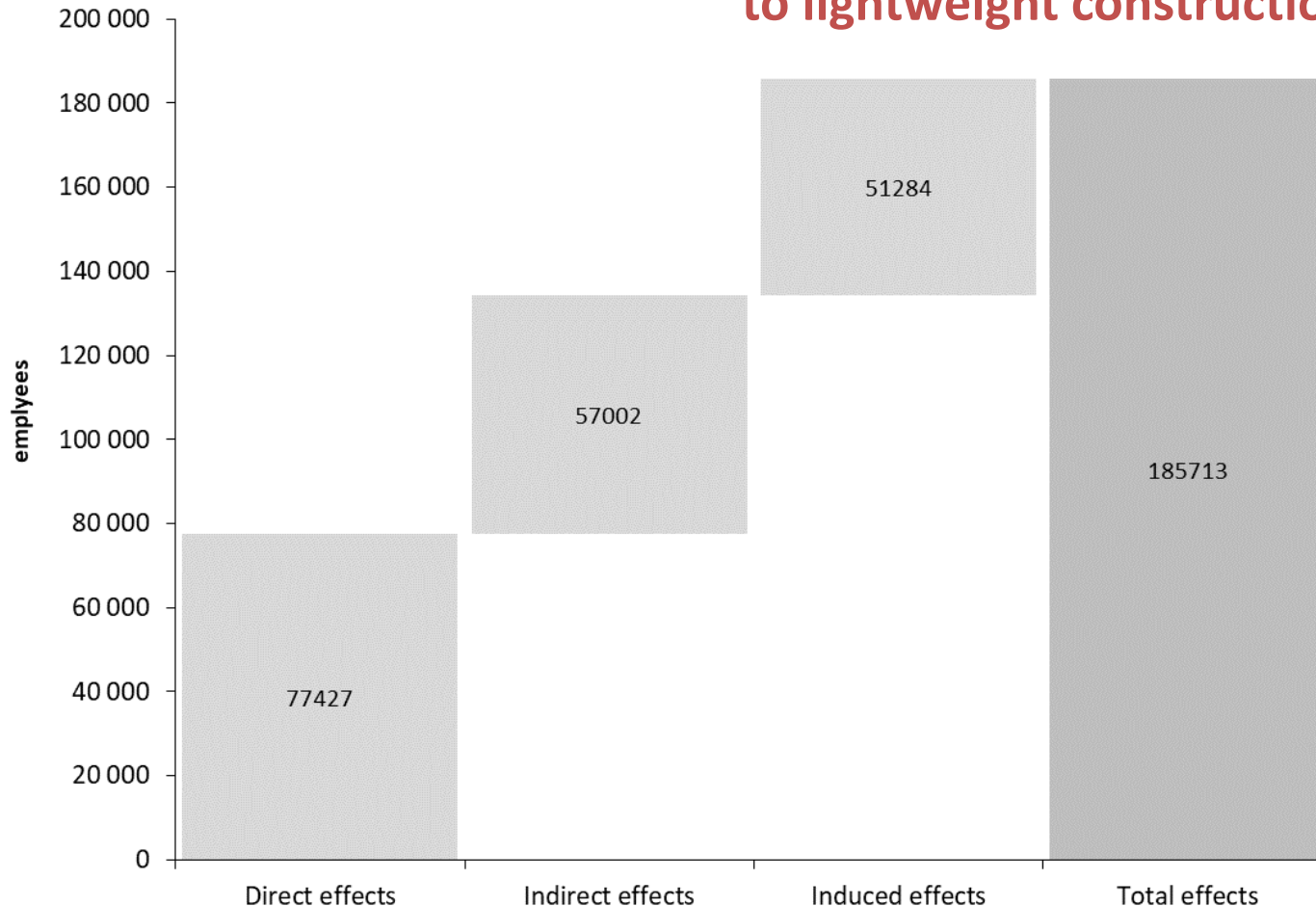
Lightweight construction in Austria is

- Twice as bis as construction of buildings
- almost as bis as “Accommodation + food services”

Employment

Total Effects, Likely Scenario

In a likely scenario, every 24th job in Austria can be attributed to lightweight construction.



Share of employment:

- direct: 1.71%
- total: 4.09%

Employment Multiplier: 2.4

One job in lightweight construction creates or secures at least 1.4 other jobs in the rest of the economy.

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THANK YOU

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