
PROTECT RESOURCES. STRENGTHEN THE ECONOMY.

*Improving Efficiency in
Small and Medium-sized
Enterprises (SME's)*

*Efficiency Agency
North Rhine-Westphalia*

EFFIZIENZ
AGENTUR
NRW

ef^a+

PROTECT RESOURCES. STRENGTHEN THE ECONOMY.

*PRESOURCE Transnational Workshop
7th February 2014, Prague, Czech Republic*

Speaker: Henning H. Sittel, Project Manager

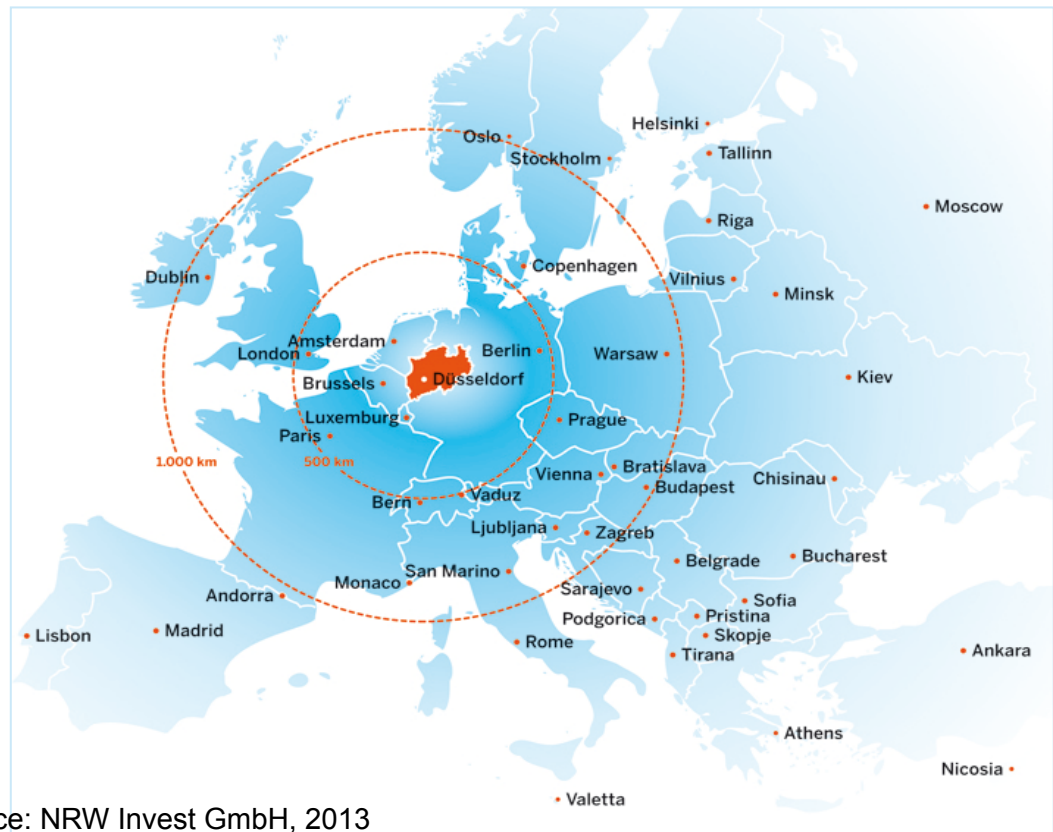
NORTH-RHINE WESTPHALIA

FACTS



- Population: 17,5 m
- Area: 34,100 km²
- GDP: 582 Euro bn
(Rank 14 in the world)
- Foreign Trade:
 - Imports: 204 Euro bn
 - Exports: 182 Euro bn

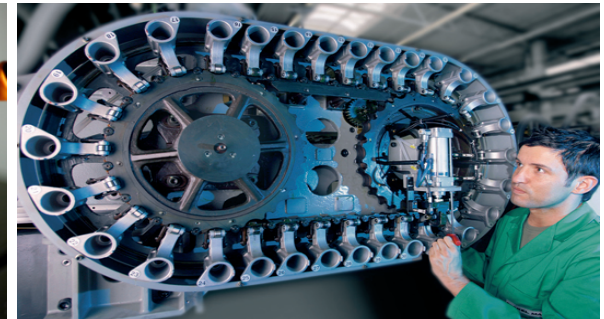
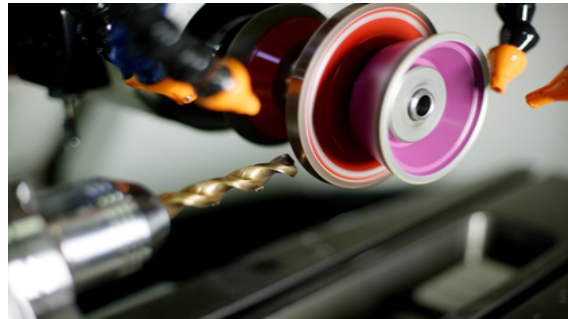
150 million consumers within about a 500-kilometer radius – database 2012



Source: NRW Invest GmbH, 2013

MECHANICAL AND PLANT ENGINEERING IN NRW

FACTS AND FIGURES



- With 197,000 employees, the 1,400 mechanical engineering companies in NRW are the biggest industrial employers in the Rhine and Ruhr regions. In 2009 they generated sales of EUR 39.2 billion, of which 43 % was in Germany.
- Strong mid-market character: approx. 70 % of all companies employ fewer than 100 staff, and 88 % fewer than 250 staff.
- Alongside these are also big names such as Claas, GEA, Gildemeister and SMS.
- With interpack, drupa, K, METAV and METEC, five important trade fairs for mechanical engineering take place in Düsseldorf.



CHEMICAL INDUSTRY IN NRW

FACTS AND FIGURES



- NRW is the most important chemical region in Germany. More than 400 companies employ approx. 85,200 staff (a quarter of all employees in this industry in Germany).
- In terms of sales, at around 37 billion euros, the chemical location NRW occupies 6th place in the EU and 11th worldwide.
- Of the 20 top-selling German chemical companies, seven of them have their headquarters in NRW: ALTANA, Bayer, Cognis, Evonik Industries, Henkel, LANXESS, and Westfalen AG.
- With approx. 100 chemistry-oriented study courses, Max Planck Institutes, and the Forschungszentrum Jülich research center, the university and research landscape is in excellent shape.



FOOD INDUSTRY IN NRW

FACTS AND FIGURES



- More than 850,000 people in over 110,000 businesses work in NRW along the food value added chain, which ranges from the input sectors of agriculture to the numerous consumer interfaces in the food retail trade or the food service industry.
- On the one hand, a predominantly SME structure: 80 % of the companies employ fewer than 100 persons.
- On the other hand, global players such as HARIBO, Humana or Oetker and international retailers such as Aldi, Metro or Rewe value the location advantages on the Rhine and Ruhr very highly.
- Every two year, the world's largest trade fair for food takes place in Cologne: anuga.



NORTH-RHINE WESTPHALIA

SME



- There are 763,000 small and medium-sized companies in NRW.
- They account for 99.6 % of all the companies in the state.
- They provide jobs for 70.6 % of all employed people.
- They provide 82.8 % of all training positions in NRW.
- They generate 42 % of the net value added.

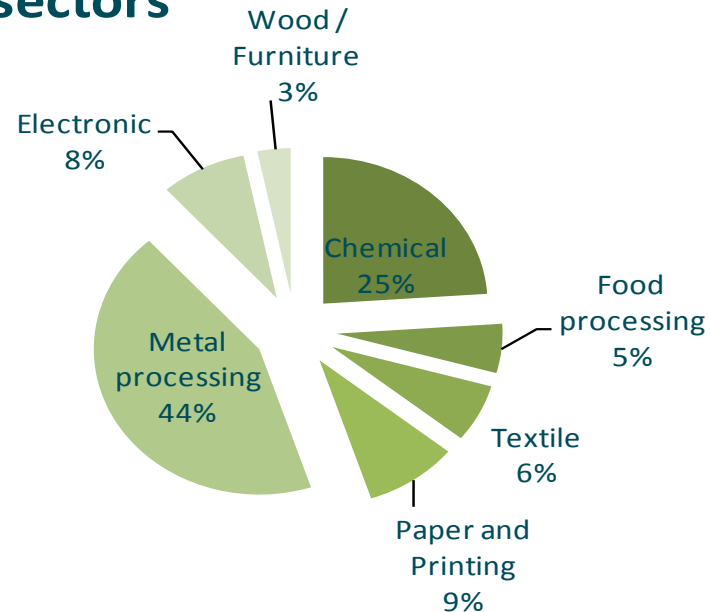


NORTH-RHINE WESTPHALIA

OPERATING INDUSTRIES OF SMES IN NRW

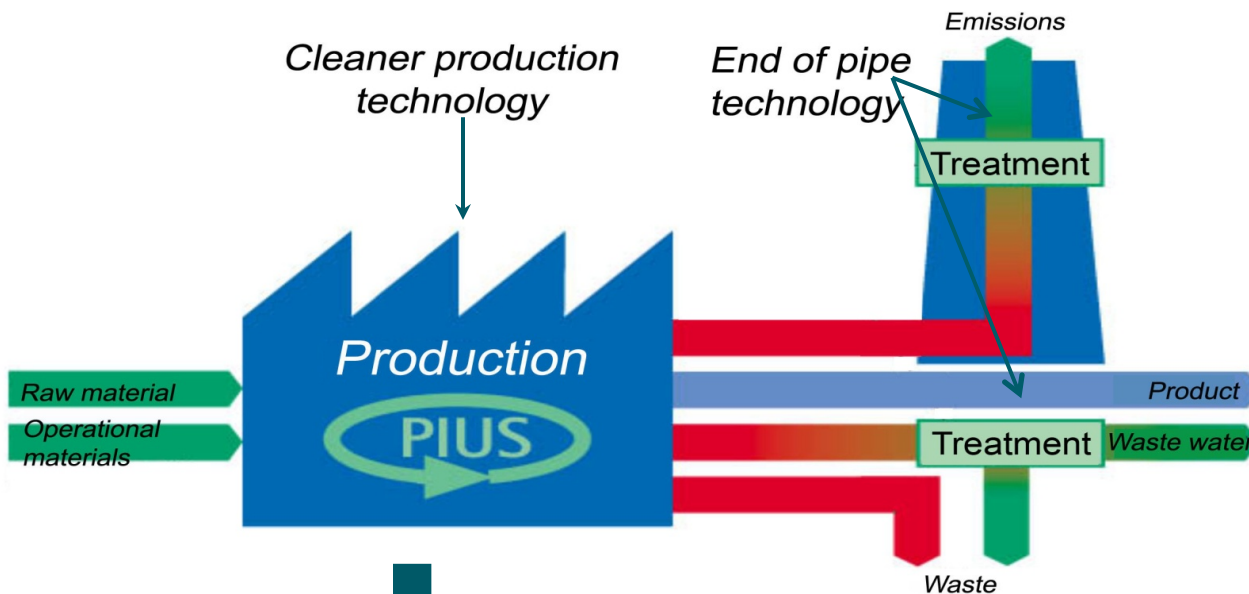
- Small and medium-sized enterprises: 763,000
- in industrial production: 10,000
(20 up to 500 employees)

Industrial sectors



RESOURCE EFFICIENCY – CLEANER PRODUCTION VS. END-OF-PIPE

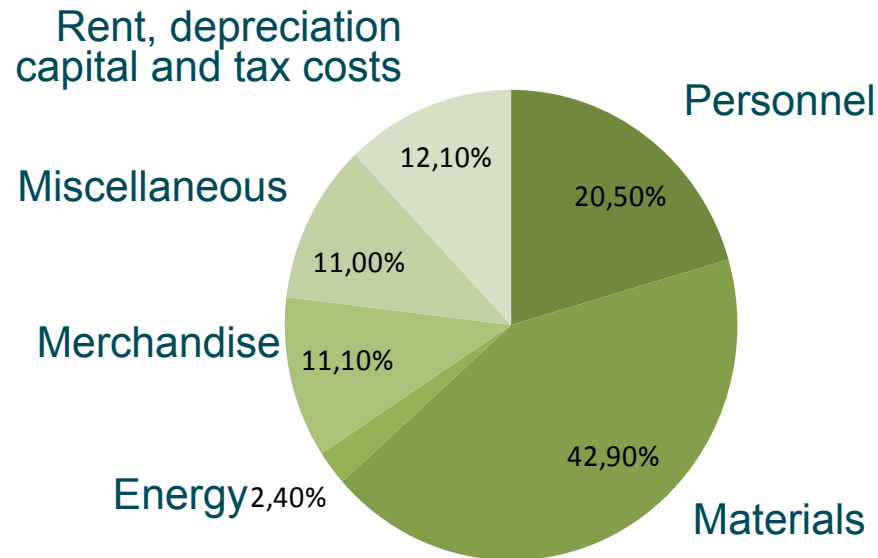
- increases the Resource Efficiency in the production
- reduces the input of resources, the need for end-of-pipe-technology and the mass of waste



- process optimisation
- innovative and future-oriented technology

PROCESSING BUSINESSES IN GERMANY

COST STRUCTURE



EFFIZIENZ-AGENTUR NRW

PARTNER FOR RESOURCE EFFICIENCY



Founded 1998 by the Ministry of Climate Protection, Environment, Agriculture, Nature Conservation and Consumer Protection of the German State of North Rhine-Westphalia

▪ Objective

Improve Competitiveness of Small and Medium sized Enterprises (SMEs) by supporting a strategy of sustainable growth

▪ Approach

Introduce Innovative Technologies, Methods and (Business-) Processes to SMEs that improve resource efficiency, avoid waste & hazardous emissions, deliver instant results and reduce carbon emissions

- over **1.600 Resource-Efficiency-Projects** in SME's since 2000
- 30 employees and 7 regional offices

WORKING WITH SME

OUR SERVICE

Basic Approach

- Resource consumption as a cost factor and
- Reduction of resource consumption as a competitive advantage

Offer

- Competent and independent support with the first steps towards resource efficiency

EFA-TOOLBOX

THE FIRST STEP TO MORE RESOURCE EFFICIENCY



Material Flow Analysis

Objective: Implementing Cleaner Production Solutions



Resource Cost Accounting

Objective: Transparency regarding costs and business processes



Eco-Design

Objective: Creating “Greener Products” faster



PIUS-Financing and Funding

Objective: Inform about programmes and conditions

®PIUS-CHECK PARAMETERS

Cooperation project between

- an **industrial producer**
- and **Effizienz-Agentur NRW**

both authorise

- a **technical consulting company**

to perform a material flow analysis
at the industrial company.

Conditions:

- companies < 1.000 employees
(larger SMEs)
- 10 up to 30 consulting days
- the company pays 50 %



®PIUS-CHECK

TASKS

Company

- availability - internal resources, data
- one Projectmanager (client)

Effizienz-Agentur NRW

- consulting, driving resource efficiency
- coach to the change-process (client)

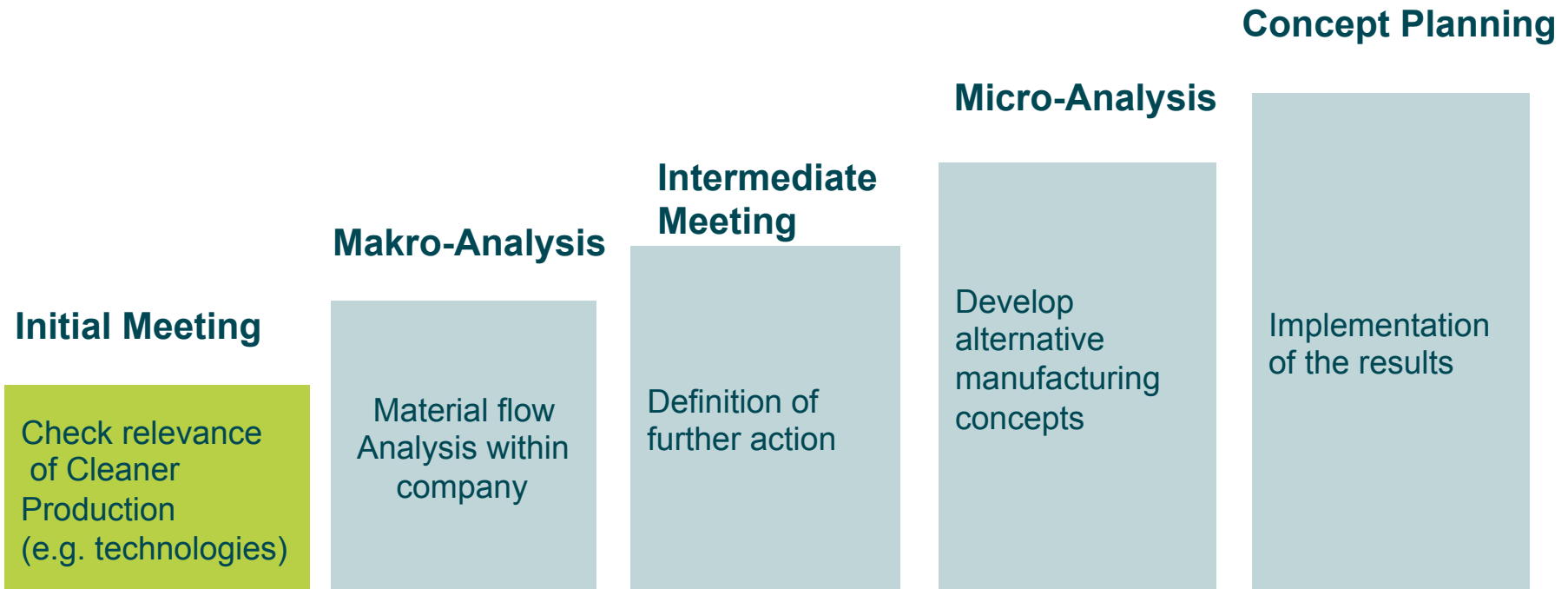
Consulting Company

- material flow analysis,
- developing of manufacturing plans (customer)



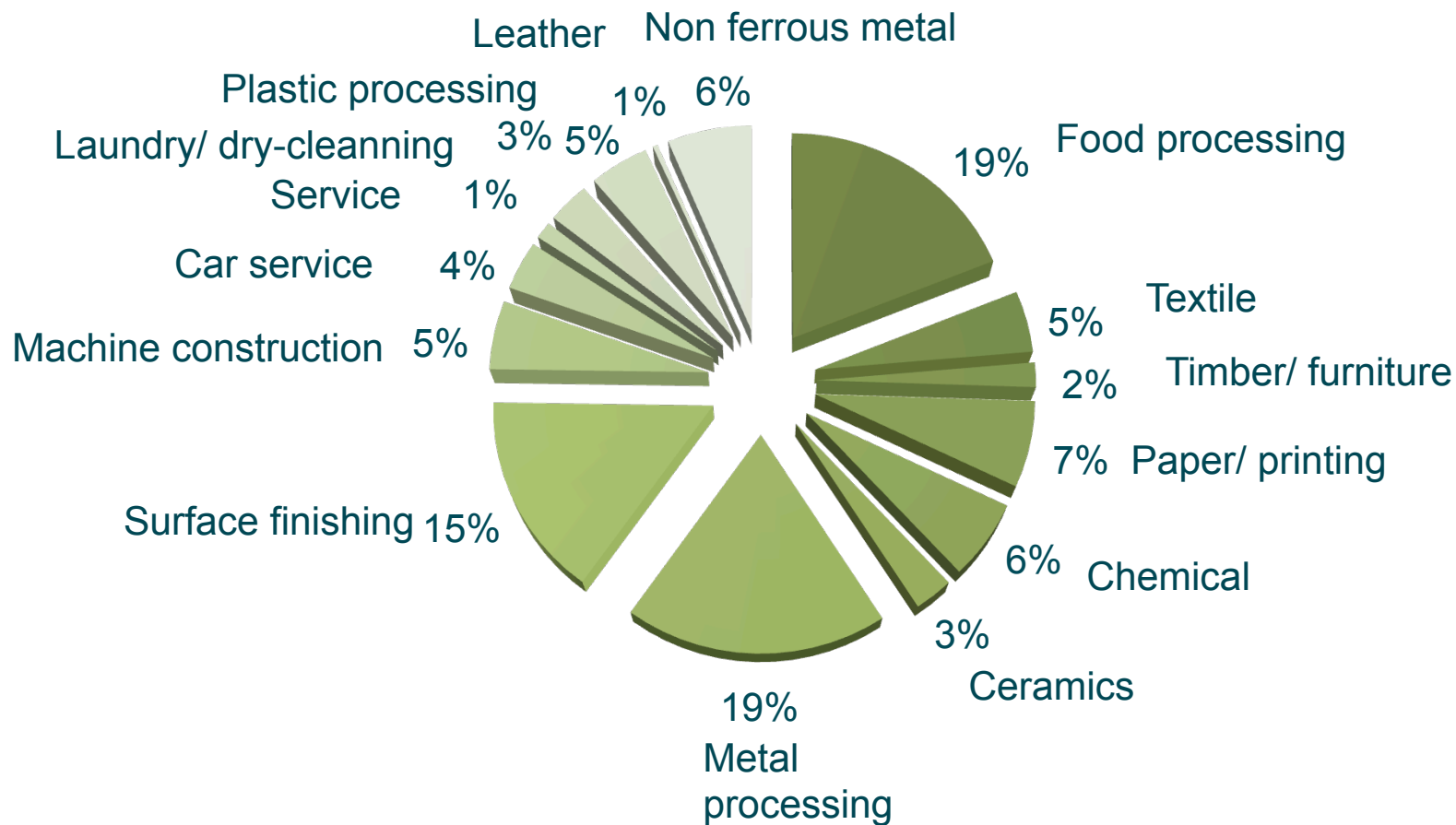
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5 STEPS TO IMPROVE RESOURCE EFFICIENCY



After 6 - 9 months: EFA checks whether goals have been achieved (visit)

PIUS-CHECK STATUS QUO



RESOURCE

- Build up confidence in showing best practice examples
- Check the philosophy of the enterprise
- Produce transparency (e.g. Visualization of material flows)
- Verify facts & figures - balancing and evaluation
- Start with small measures (with low Invest)
- Support the implementation by offering technology solutions and funding/financing consulting
- Share contacts to further needed partners



EU-PROJECT PRESOURCE (2012-2014)

WORKSHOP, PRAGUE, 07 FEBRUARY 2014

PRESOURCE

Discussion points to get more success in collaboration with SMEs

- We don't need new projects - we need more exchange about the available results of completed projects in terms of best practice examples, technology potentials, benefits and funding options.
- We need to include the cultural differences and share experiences to provide services across national boundaries into regional structures.
- We have to create an intelligent concept close to the needs of SMEs – easy to understand, offering economic advantages and to get direct contacts.



RESOURCE EFFICIENCY IN SME

CONCLUSION

**Resource efficiency in production,
a key to sustainable growth!**

- Potential and benefits are recognised by the company with the aid of consultants and other experts
- Concepts, approaches and methods are available
- **For the implementation, the need for tangible and independent support is particularly relevant for SMEs**
- Further training is also required by the consultants

PROTECT RESOURCES. STRENGTHEN THE ECONOMY.

Thank you very much for your attention!

Further information about the
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