

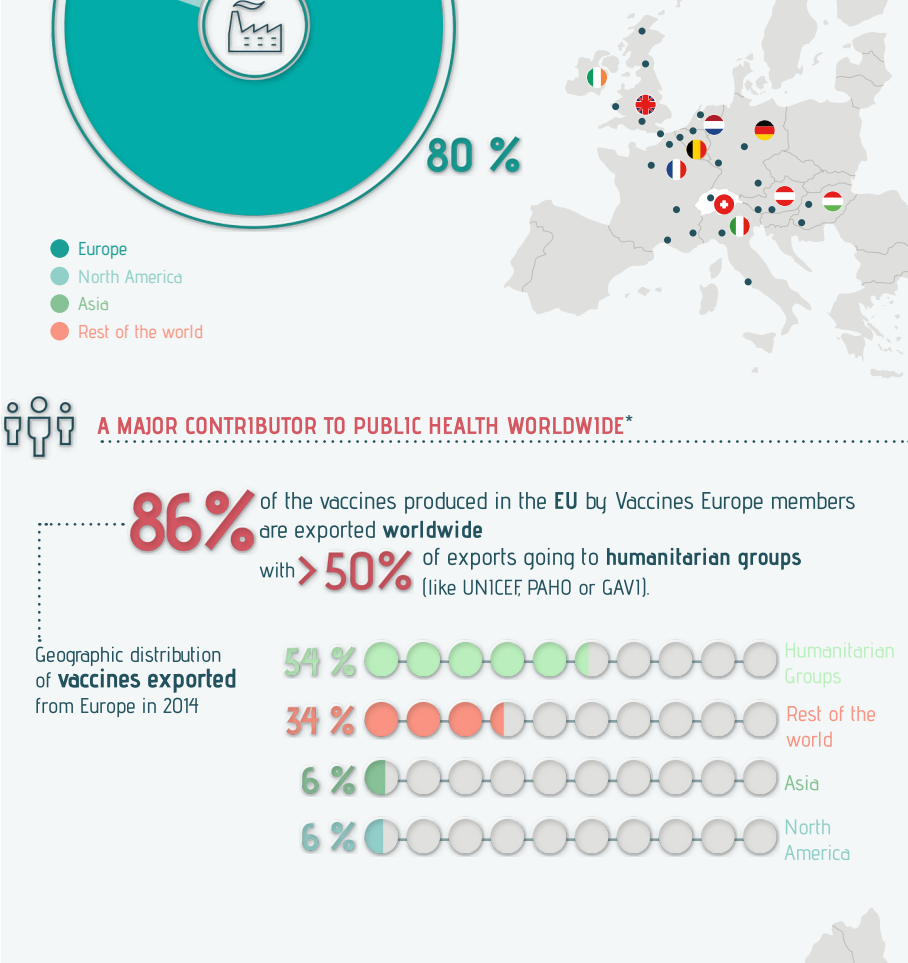
# THE EU VACCINE INDUSTRY IN FIGURES

EUROPE IS AT THE HEART OF GLOBAL VACCINE RESEARCH AND PRODUCTION. MOST OF THE ACTIVITIES OF THE MAJOR INNOVATIVE VACCINES EUROPE MEMBERS RESEARCH-BASED COMPANIES ARE BASED IN THE REGION.

## EUROPE IS...

### A STRATEGIC CENTER OF VACCINE PRODUCTION\*

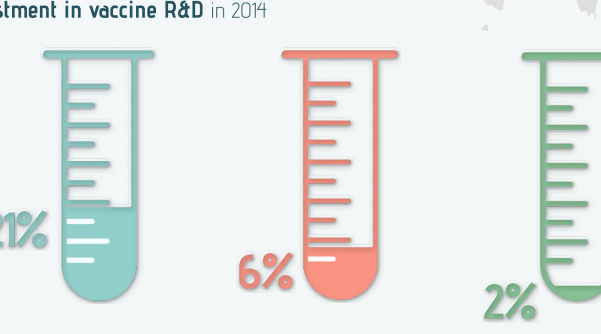
Doses of vaccines produced by Vaccines Europe members by region in 2014



### A MAJOR CONTRIBUTOR TO PUBLIC HEALTH WORLDWIDE\*

86% of the vaccines produced in the EU by Vaccines Europe members are exported worldwide with >50% of exports going to humanitarian groups (like UNICEF PAHO or GAVI).

Geographic distribution of vaccines exported from Europe in 2014

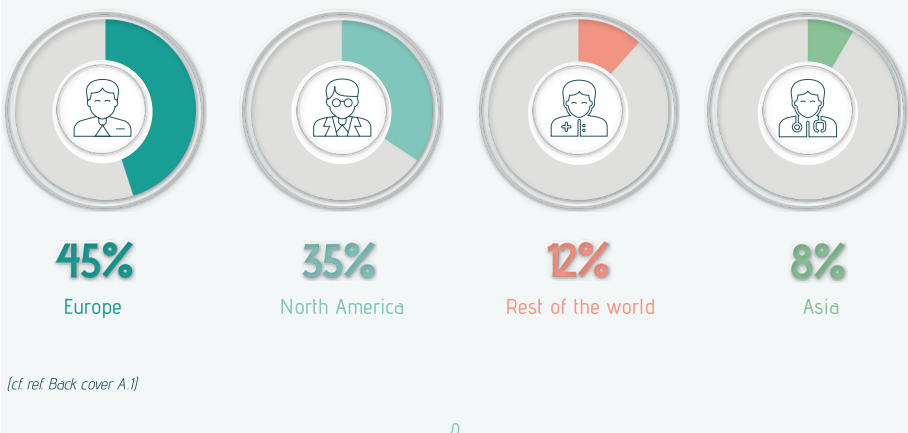


### A LEADER IN THE R&D OF INNOVATIVE VACCINES\*

Around €2 billion R&D spending globally,

by Vaccines Europe members with 13 R&D key sites.

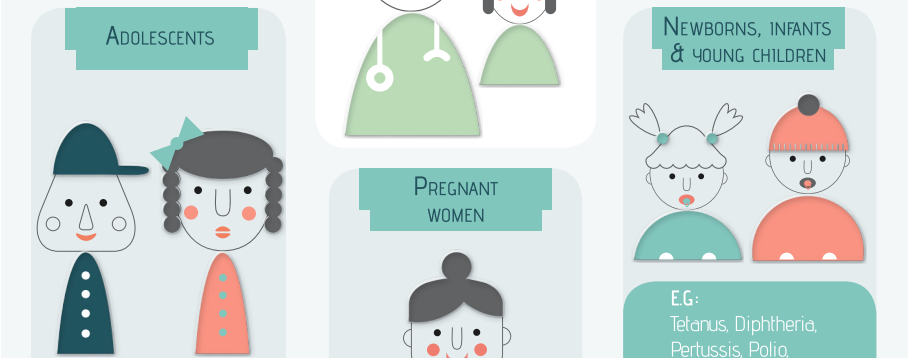
Geographic distribution of investment in vaccine R&D in 2014



\* Data based on answers provided by the following companies: Abbott Biologicals, AstraZeneca, Bio CSL, GSK Vaccines, Novartis Influenza Vaccines, Sanofi Pasteur and Sanofi Pasteur MSD

## GLOBAL LEADER IN HIGHLY-SKILLED SCIENCE-BASED WORKFORCE

Total worldwide employees of Vaccines Europe members in 2014

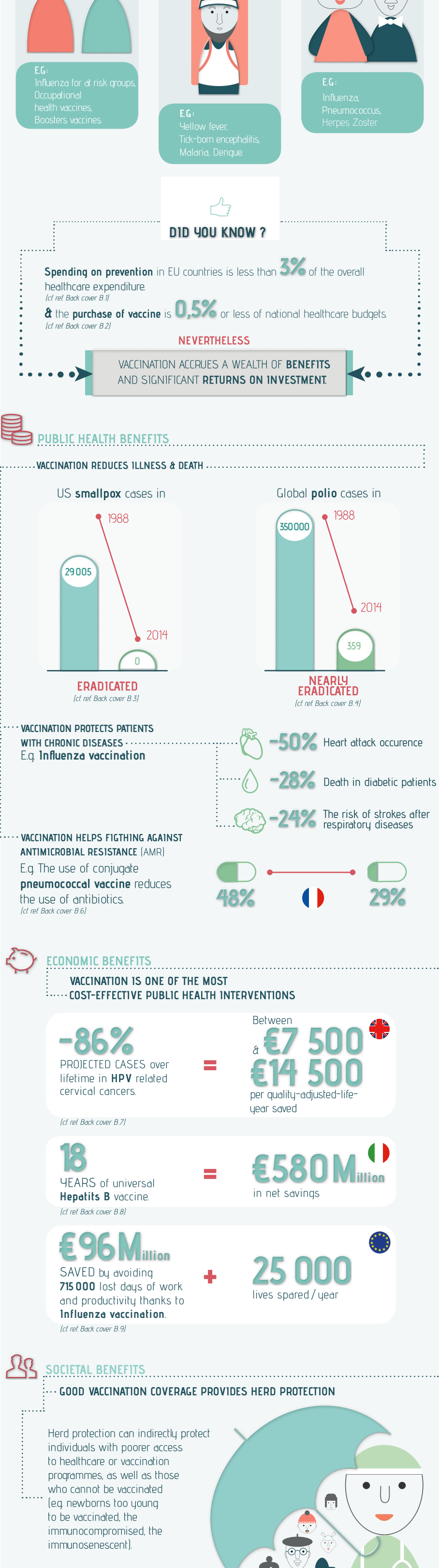


(cf ref Back cover A.1)

## VACCINES: AN EFFECTIVE PUBLIC HEALTH TOOL

VACCINES KEEP PEOPLE HEALTHIER FOR LONGER AND ACROSS ALL AGES

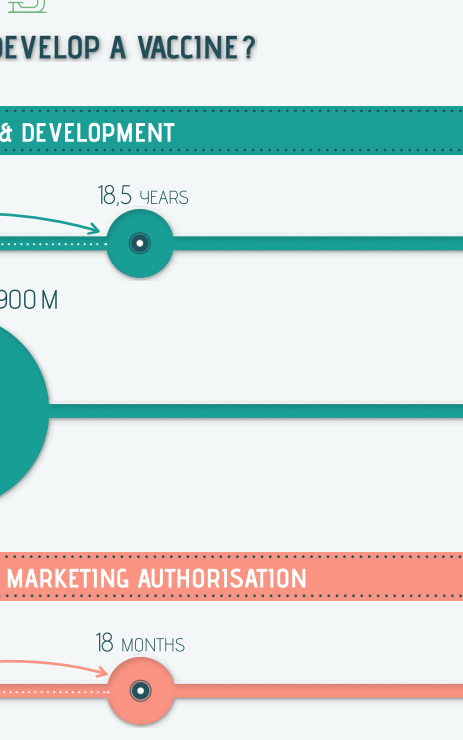
PREVENTING DEATH & ILLNESS FROM VACCINE PREVENTABLE DISEASES



## SOCIETAL BENEFITS

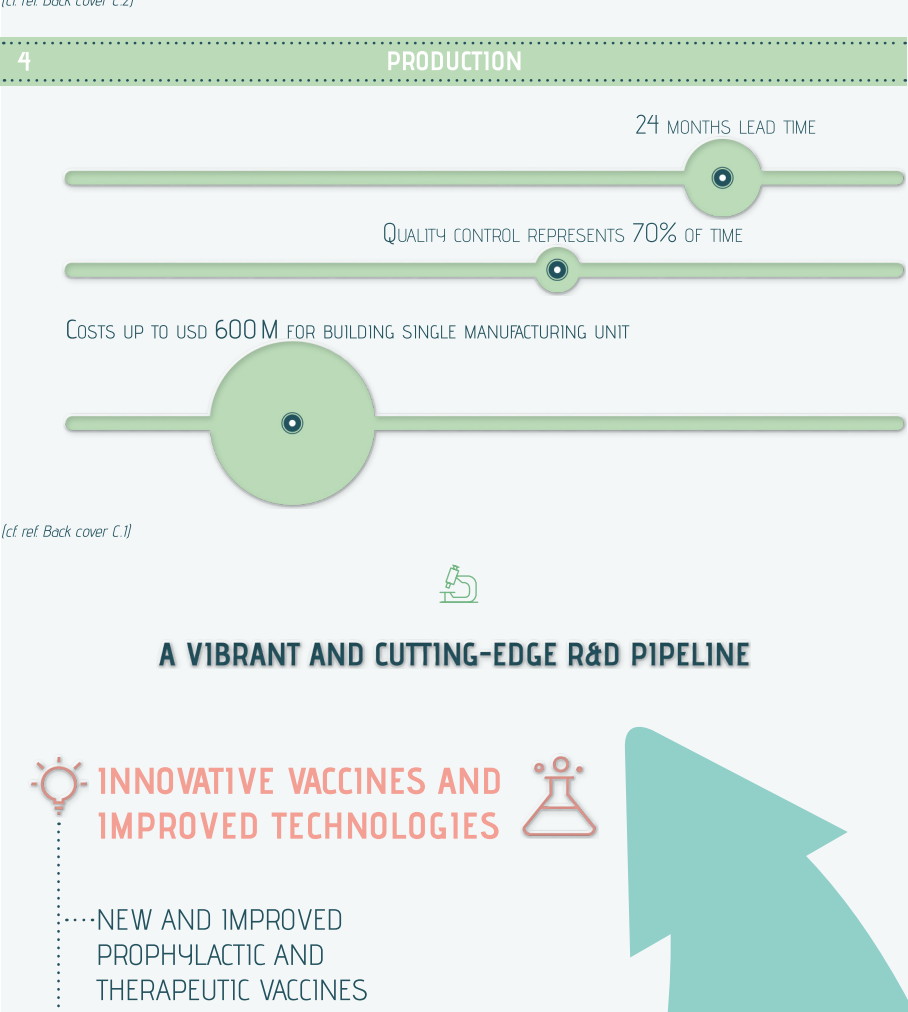
### GOOD VACCINATION COVERAGE PROVIDES HERD PROTECTION

Herd protection can indirectly protect individuals with poorer access to healthcare or vaccination programmes, as well as those who cannot be vaccinated (e.g. newborns too young to be vaccinated, the immunocompromised, the immunosenescent).



PROTECTING YOURSELF IS ALSO ABOUT PROTECTING OTHERS

## HOW LONG TO DEVELOP A VACCINE ?



## A VIBRANT AND CUTTING-EDGE R&D PIPELINE



Vaccines Europe is the specialised vaccine industry group operating within the European Federation of Pharmaceutical Industries and Associations (EFPIA). It represents innovative research-based global vaccine companies as well as small and medium-sized enterprises operating in Europe. For more information, visit: [WWW.VACCINESEUROPE.EU](http://WWW.VACCINESEUROPE.EU)

www.vaccineurope.eu

Vaccines Europe  
An industry for healthy lives

## THE EU VACCINE INDUSTRY IN FIGURES

A1 Vaccines Europe members' data for the year 2014. Data concerns figures from the following companies: Abbott Biologicals, AstraZeneca, bioCSL, GSK Vaccines, Janssen, Novartis Influenza Vaccines, Pfizer, Sanofi Pasteur and Sanofi Pasteur MSD

## VACCINES: AN EFFECTIVE PUBLIC HEALTH TOOL

B.1 WHO report on The case for investing in public health: [http://www.who.int/\\_data/assets/pdf\\_file/0009/278073/Case-Investing-Public-Health.pdf](http://www.who.int/_data/assets/pdf_file/0009/278073/Case-Investing-Public-Health.pdf)

B.2 Olivier Eltgen, Florence Baron-Papillon & Murielle Carrier (2016). How much money is spent on vaccines across Western European countries? Human Vaccines & Immunotherapeutics. DOI: 10.1080/21645515.2016.1155015. To link to

B.3 Roush et al. (2007). Historical Comparisons of Morbidity and Mortality for Vaccine-Preventable Diseases in the United States. JAMA. 298 (18): 2155-2163. doi: 10.1001/jama.298.18.2155

B.4 WHO (2015). Poliomyelitis fact sheet N°194. Accessible at: <http://www.who.int/mediacentre/factsheets/fs194/en/>

B.5 Udell et al. (2013). Association Between Influenza Vaccination and Cardiovascular Outcomes in High-Risk Patients. JAMA. 2013; 310 (16): 1711-1720. doi: 10.1001/jama.2013.279206

B.6 Wilby et al. (2012). A review of the effect of immunization programs on antimicrobial utilization. Vaccine Oct 12;30(46):6509-14. doi: 10.1016/j.vaccine.2012.08.035. [http://www.wjg.com/pharmacology/research\\_backup/publication\\_documents/2012/KJ\\_A\\_review\\_of\\_the\\_effect\\_pub\\_Sep2012.pdf](http://www.wjg.com/pharmacology/research_backup/publication_documents/2012/KJ_A_review_of_the_effect_pub_Sep2012.pdf)

B.7 Vaccines and alternative approaches: reducing our dependence on antimicrobials. The review on antimicrobial resistance chaired by Jim O'Neill. February 2016. To link to this article: [http://amr-review.org/sites/default/files/Vaccines%20and%20alternatives\\_v4\\_LR.pdf](http://amr-review.org/sites/default/files/Vaccines%20and%20alternatives_v4_LR.pdf)

B.8 Dasbach et al. (2008). The epidemiological and economic impact of a quadrivalent human papillomavirus vaccine in the UK. BJOG: An international journal of obstetrics and gynaecology. 115(8): 947-56

B.8 Boccia et al. (2015). Economic analysis of the first 20 years of universal hepatitis B vaccination program in Italy - An a posteriori evaluation and forecast of future benefits. Human Vaccines & Immunotherapeutics 9: 5, 119-128

B.9 Pr  aud et al. (2014). Annual public health and economic benefits of seasonal influenza vaccination: a European estimate. BMC Public Health 2014, 14: 813. <http://www.biomedcentral.com/1471-2458/14/813>

## HOW LONG TO DEVELOP A VACCINE ?

C.1 IFPIA (2013). Vaccine Research & Development. <http://www.ifpia.org/resource-centre/vaccine-research-and-development/> and IFPIA (2014). Maintaining the vaccines innovation edge: <http://www.ifpia.org/resource-centre/maintaining-the-vaccines-innovation-edge/>

C.2 Blank PR et al. (2013). Population access to new vaccines in European countries. Vaccine. 31 (27): 2862-7