

Internationalization of innovation starts with empowerment

VCW Conference on Internationalization of R&D and Innovation

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Essen, November 26th 2015



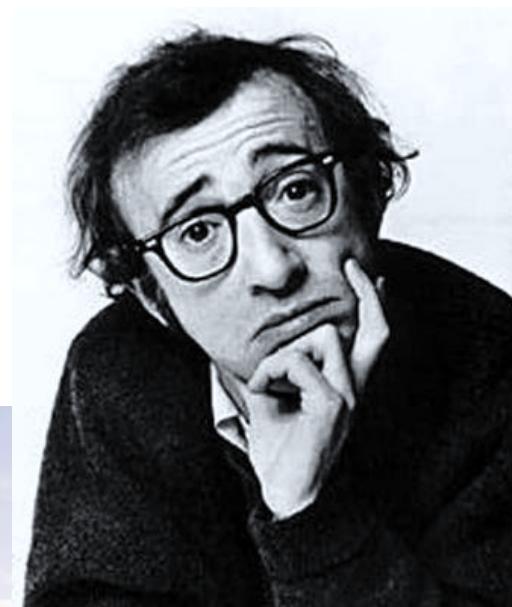
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“If you're not failing every now and again,
it's a sign you're not doing anything very innovative.”

Woody Allen

Courage to Innovate

Evonik – Power to create



R&D and innovation are key elements for Evonik's sustainable growth ...



Key R&D Figures Evonik 2014

8

% Increase in R&D expenditures/year since 2009

>500

Innovation projects

>4

Billion euros for R&D over the next 10 years

3.2

% R&D rate

>25,000

Patents and patent applications
(new applications ~250)

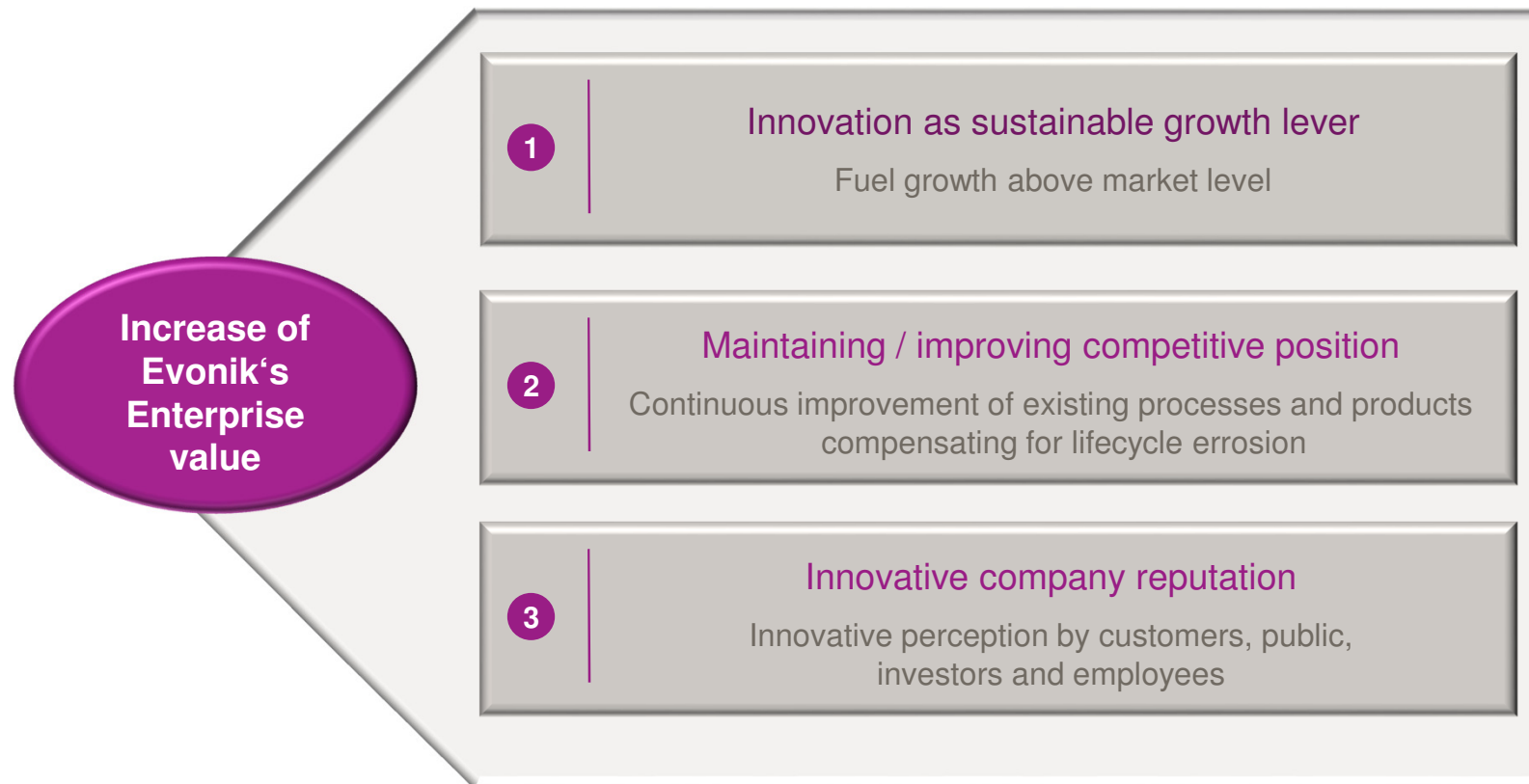
2,600

Employees at 35 sites

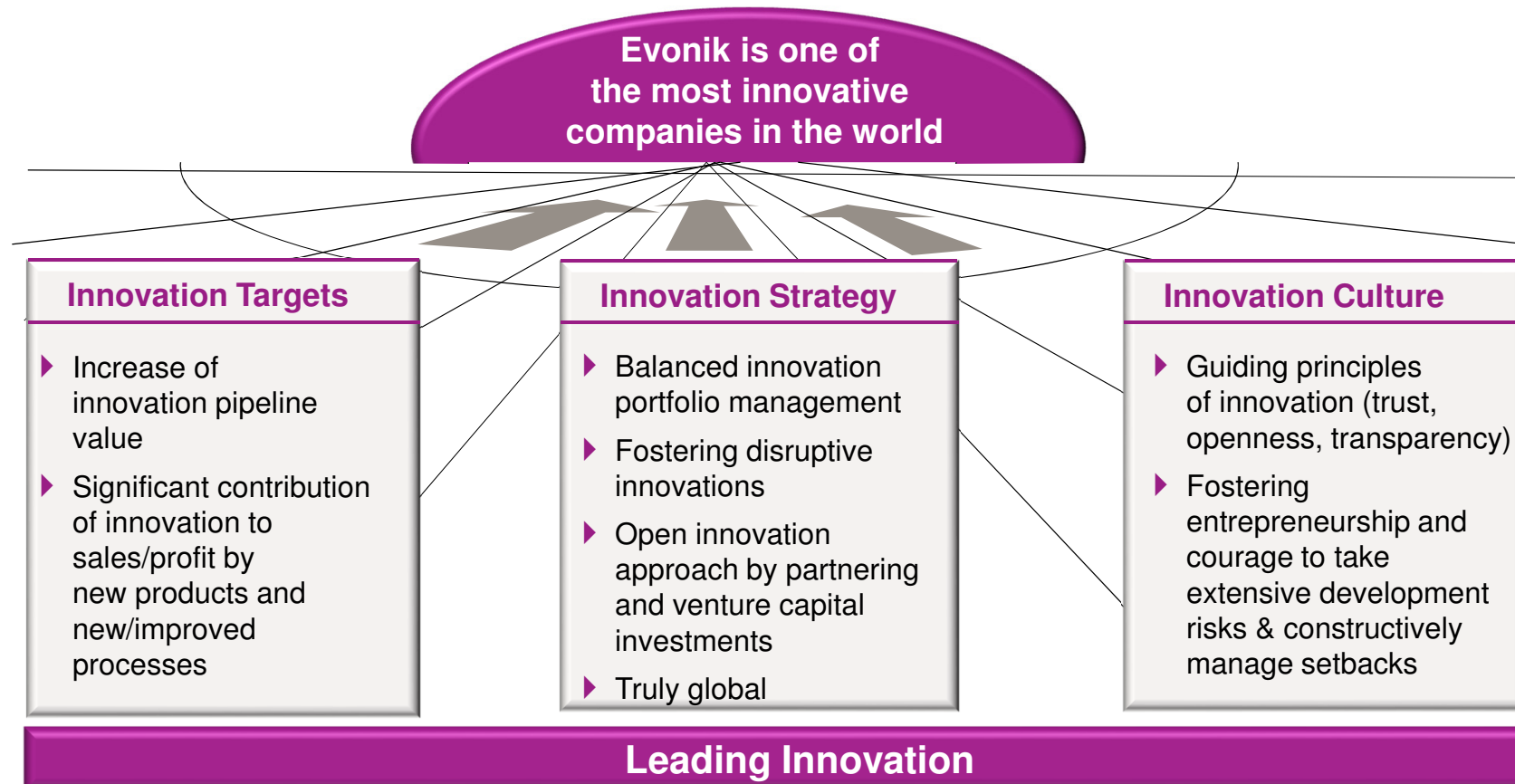
... and increase the enterprise value



Role of Evonik's Innovation



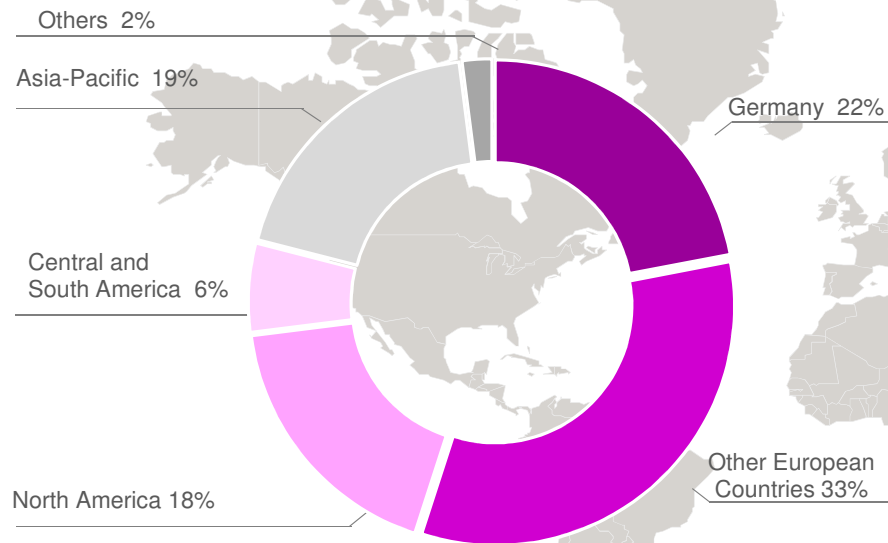
Evonik has created an ambitious vision and defined the roadmap ...



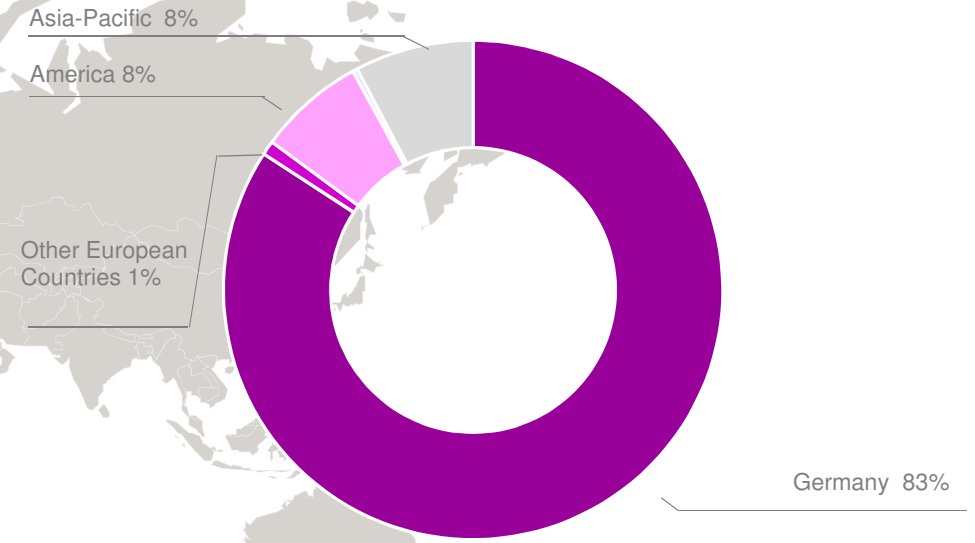
... however, internationalization of R&D remains a challenge



Sales by Region (2014): 12,9 bn. EUR



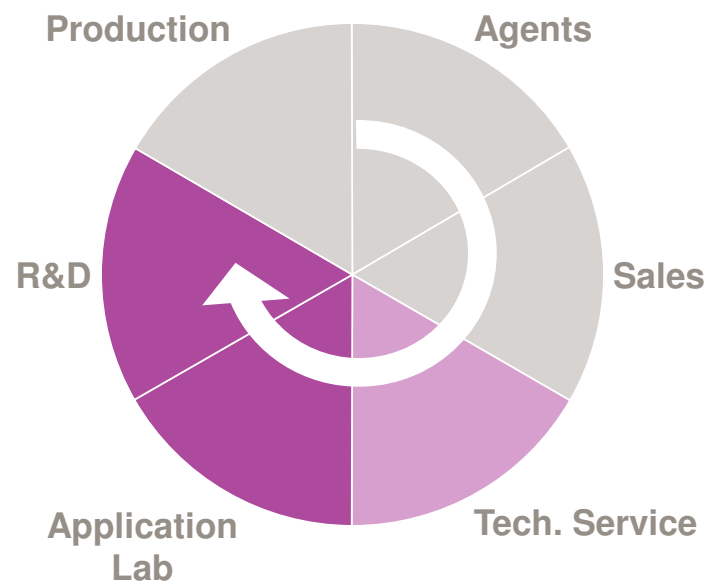
R&D Employees by Region (2014): ~2.600 FTE



Often, business internationalization follows a typical pathway

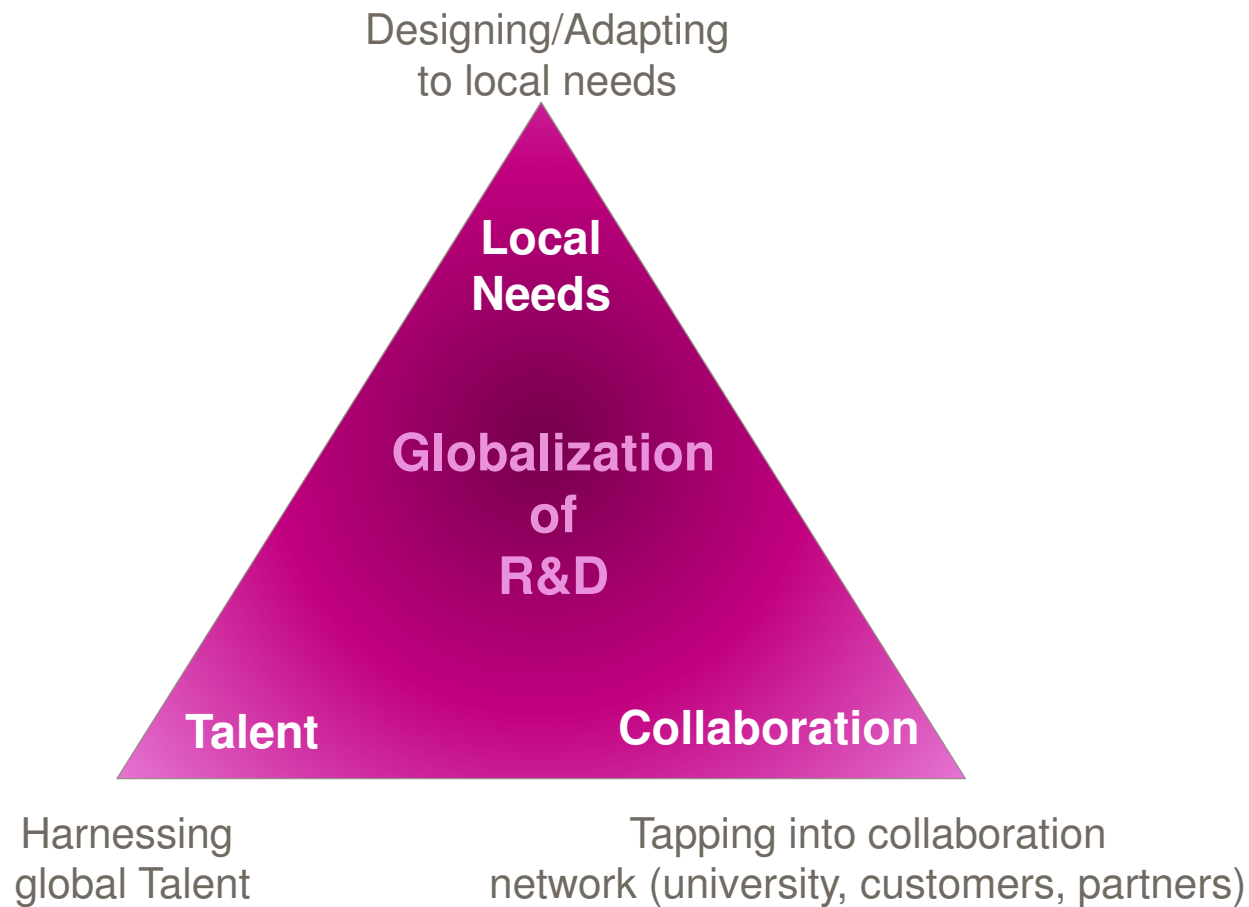


Framework of Business Internationalization

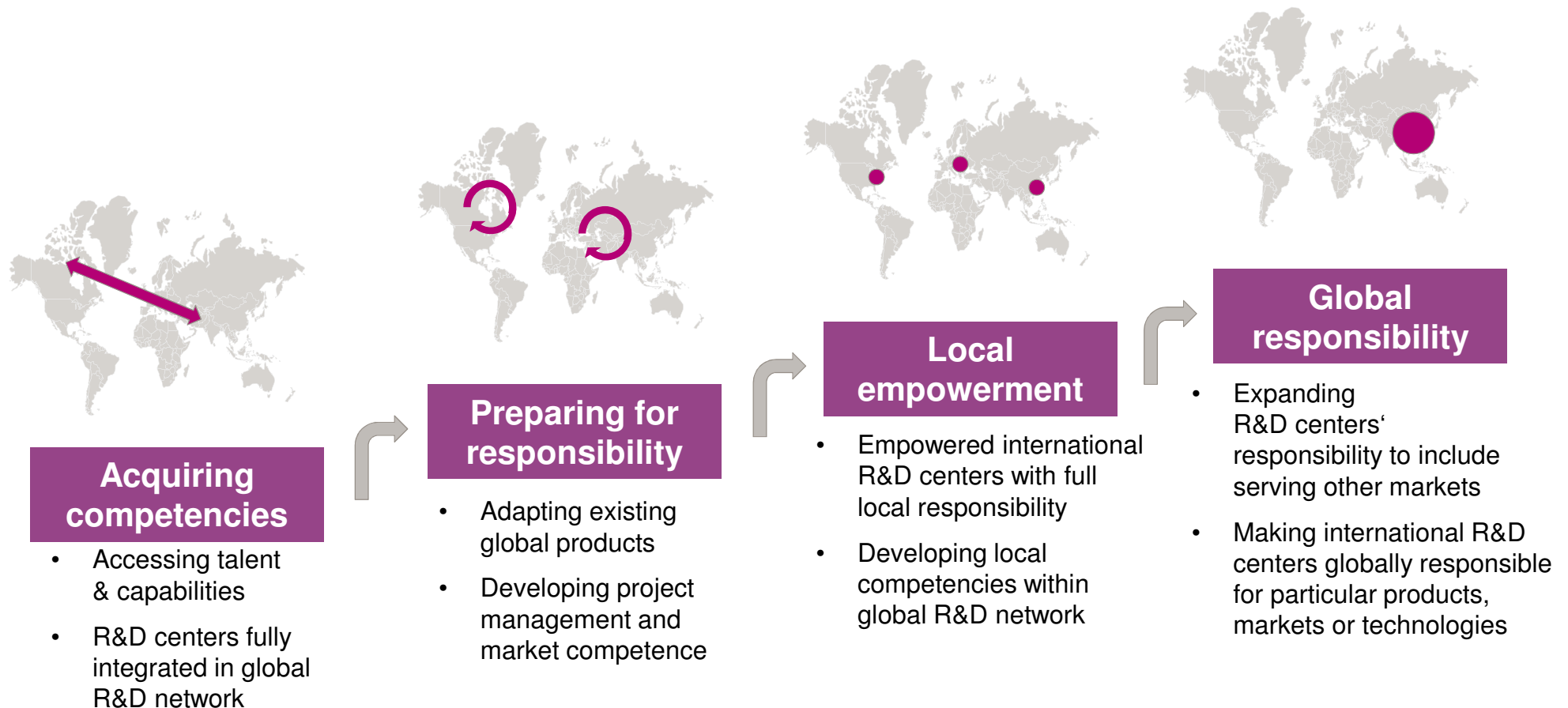


- Normally it starts **with agent or distribution** business
- As sales grows and critical mass is reached, an **own sales force** is added
- Solution businesses often add **Technical Services** afterwards
- **Application Labs**, serving different industries enable formulation adaption and lead to more intimate customer interaction
- **Development capabilities** are added to co-innovate with customers and/or to build competencies due to local talent, industry or scientific capabilities
- Especially for a Specialty Chemical Player, **production** capabilities come last

There are three primary reasons companies globalize R&D and innovation

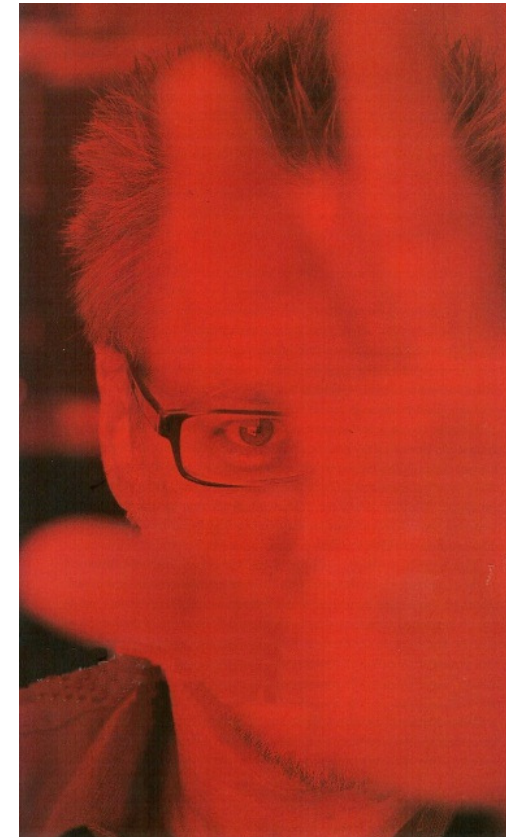


Companies tend to pass through 4 stages in taking R&D global

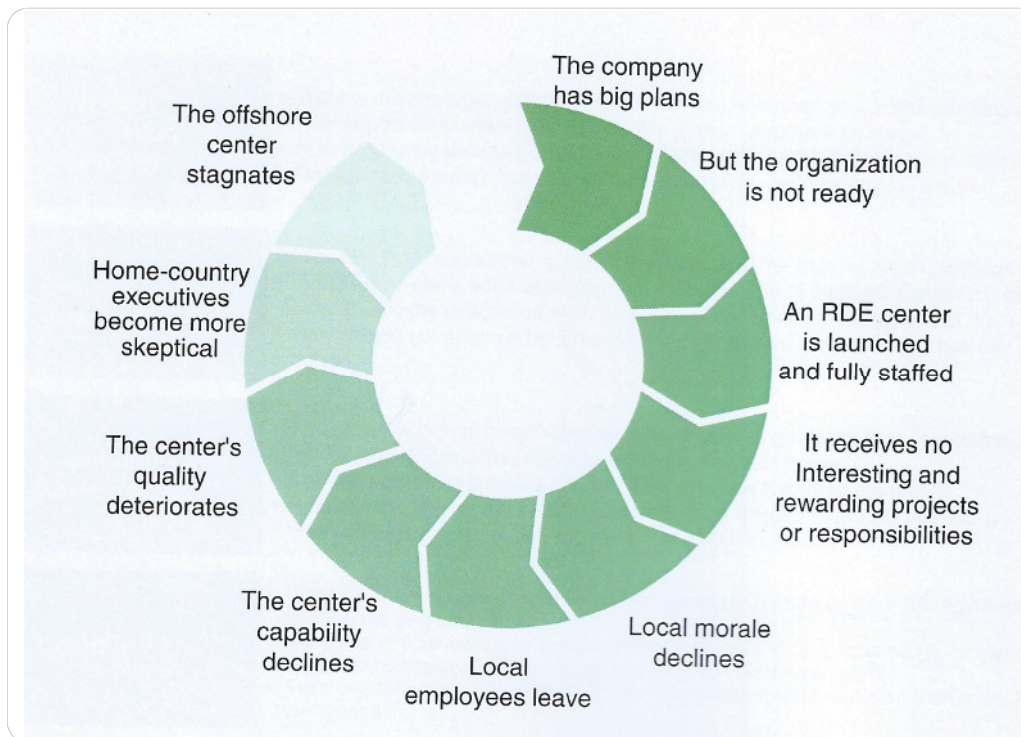


What does not work?

- Remote controlling and steering R&D people in international hubs (no local empowerment and responsibility)
- Working on same topics without alignment (double work as consequence)
- To force R&D work and select R&D topics from a central hub (no local responsibility)
- Central decision on local R&D project priorities (local needs neglected)
- No sharing of knowledge and insights because of IP issues



Taking R&D global before the organisation is ready can trigger a vicious cycle



Source: Boston Consulting Group

- Does this sound familiar to you?
- Have you gone through a similar experience?
- How to counteract?
- How can you avoid it?

What helps?

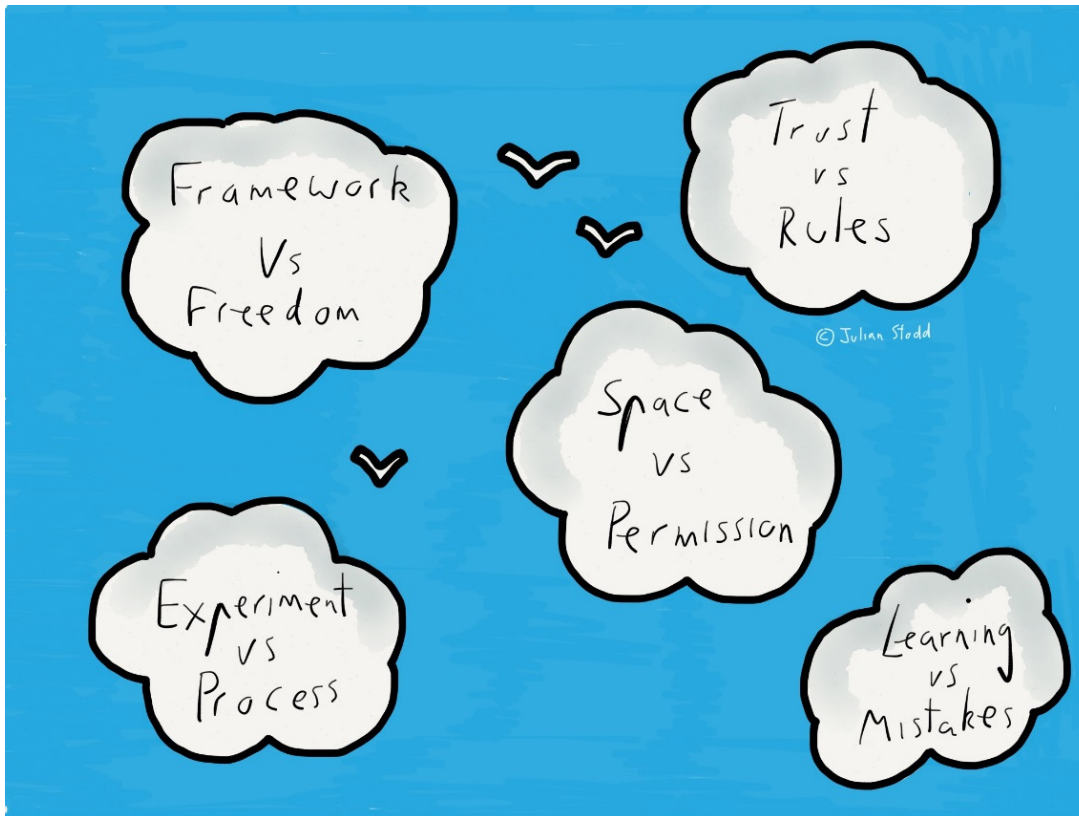


- Senior Management sponsorship & attention
- Building a culture fostering trust and empowerment
- Creating a vision, ambitious targets and challenging projects
- Exchanging people between R&D hubs
- Work with credible expats and at the same time develop local people



Building an innovation culture and fostering it is key

Some forces are opposed to innovation: We need to recognise and navigate them



Stimulating Culture

- Ambitious Targets
- Trust
- Empowerment
- Creativity
- Diversity
- Constructive Feedback
- Failure as Learning
- Celebrating Success

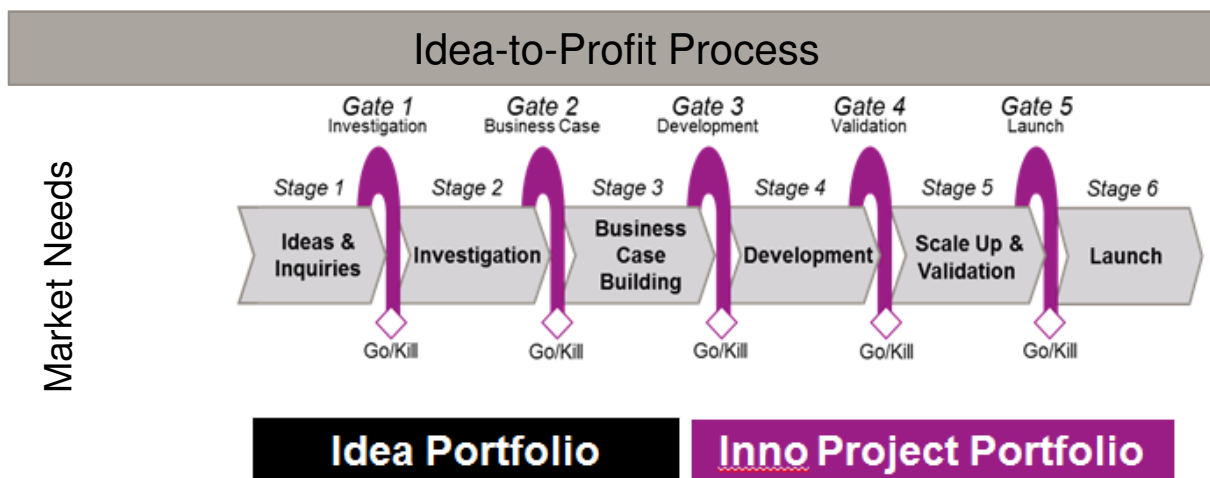
What has worked for us?

Case 1: Empowerment of local R&D



Main ingredients

- Decision on Idea/Pre-Project Portfolio within regional organisation
- Providing budget
- Empowerment comes with Responsibility
- Let them fail and be there as a coach



What has worked for us?

Case 2: Building new competencies



Starting Point:

- Tego as the technology leader for waterborne coating additives
- Tech Center & Application Lab in China
- Remote control of Chinese scientists from Germany
- Missing trust in capabilities

Fostering local creativity and using local speed:

- Credible Expat and local demand for solventborne coating additives
- Build up of synthesis & application lab (critical mass is key)
- Within 18 months new solventborne coating additives for Asian market
- Today: Global Innovation hub for solventborne coating additives

tego



What has worked for us?

Case 3: Going where you find competencies & talent



CREAVIS – Science to Business

- Creavis supports Evonik in its growth and sustainability strategy
 - with mid and long term innovation projects supporting Evonik's growth fields
 - with transformational innovations providing new business options
- Creavis develops and provides competence platforms for Evonik
- Creavis fosters Evonik's image as an innovative company:
"Evonik. Power to create."

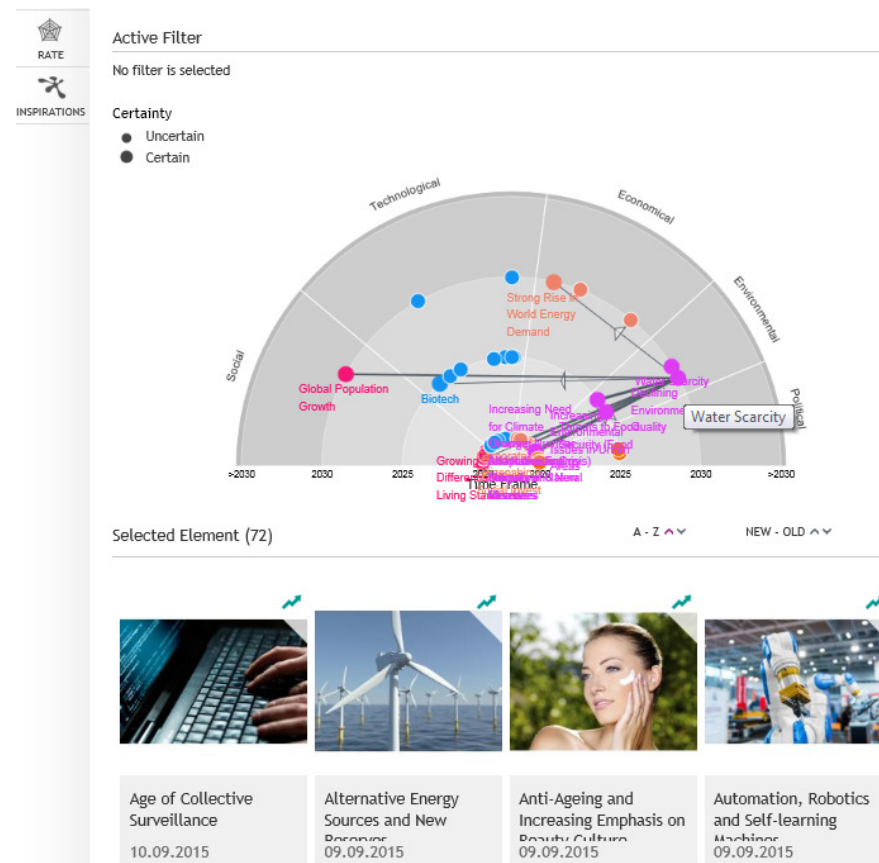
Project Houses

- "Project Houses" are "Joint Ventures" between Creavis and our Business Segments
- Used for transformational innovation and competence development
- With a limited lifespan of 3 years
- About 15 years incubation experience with project houses (11 project houses)
- In earlier years only in Hanau or Marl (Germany)

Our foresight radar supports the organization in identifying future trends globally



Evonik Foresight and Trend Radar available to all employees globally



What has worked for us?

Case 3: Going where you find competencies & talent



Global Innovation Hubs of the last years



Light &
Electronics
2011 – 2015

Taiwan



Medical
Devices
2014 – 2017

USA



Yeast
Biotechnology
2013 -

China

Decisions on new R&D hubs based on:

- Location of major customer markets
- Location of talents and experts
- Location of cooperation partners

and considering:

- Critical mass
- Leadership
- Culture

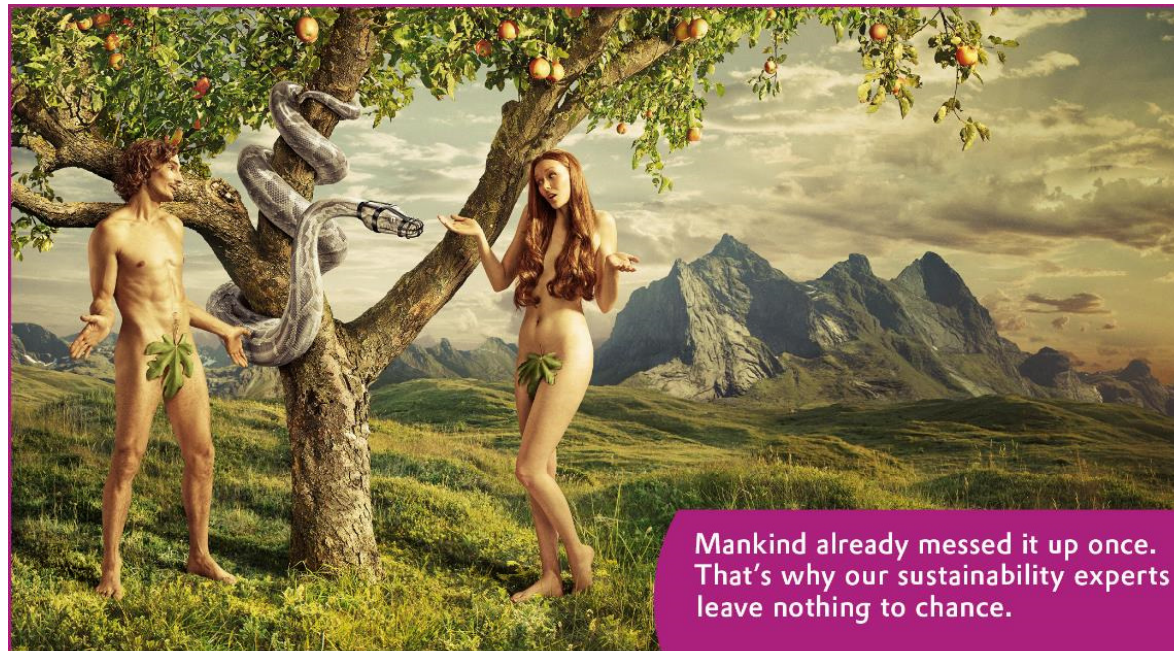
Summary – Take home message



- Globalization of R&D and innovation is by far not easy
- There doesn't exist an one-fits-all recipe
- Start with the topic and then decide for the best location
- Empower your local R&D hub and request responsibility
- Building a stimulating innovation culture takes time – be patient
- There is no alternative: Only global innovation provides sustainable top and bottom line growth



Thank you for your attention



Mankind already messed it up once.
That's why our sustainability experts
leave nothing to chance.

Evonik is the creative industrial group that combines sustainability with profitability. Our impassioned experts draw on their know-how to develop solutions for tomorrow – from lightweight construction and medical devices all the way to alternative energy generation. Creavis, our strategic innovation unit, thinks long term because the needs of our planet are just as important as those of our customers. Visit us in the future at www.creavis.com.

Evonik. Power to create.





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