

Improving our understanding of the human body

TSE Systems is one of the world's leading specialists in the areas of behavioral, physiological, metabolic and inhalation research. "We develop products that improve our understanding of the human body with the goal of fighting disease and minimizing health risks," says Dr. Harm J. Knot, CEO. *Wirtschaftsforum* spoke to him about key milestones in the innovative company's product development work and their position as a center of innovation.

Interview with
Dr. Harm J. Knot,
CEO
of TSE Systems



Wirtschaftsforum: Dr. Knot, what do the letters TSE stand for?

Dr. Harm J. Knot: TSE stands for 'Together through Science and Engineering' and reflects our philosophy: to drive advances in Life Science research together with

and research institutes to automate tests and processes and thereby improve efficiency and objectivity. PhenoMaster was a milestone. It is our main product for metabolic research and has quickly become a world leader.

We are continually developing new applications for PhenoMaster. Metabolic research is a huge area of interest. We are interested in state of the art technology and always try to be the first to market.

Wirtschaftsforum: It would therefore be fair to describe the company as highly innovative?

Dr. Harm J. Knot: Our ability to innovate is what sets us apart. We work in close collaboration with top researchers and opinion leaders worldwide; our multidisciplinary team of scientists and engineers anticipates trends in science, and translates these into research tools.

Wirtschaftsforum: Another successful product worldwide is IntelliCage, which is widely regarded as the standard tool for behavioural and cognitive phenotyping.

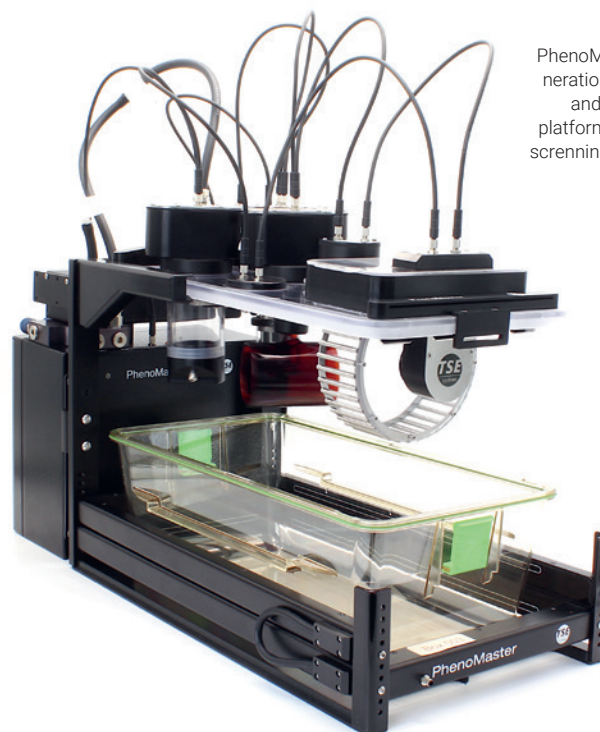
Dr. Harm J. Knot: IntelliCage is a fully automated system for assessing the behavior and cognitive performance of test animals while they are living in a social environment. It is primarily used to aid research into Alzheimer's

125+
YEARS
IN BUSINESS

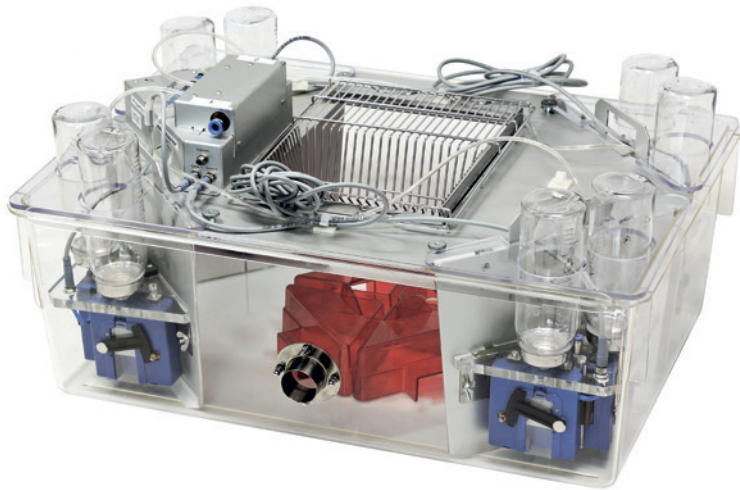
our customers and partners. We are proud of what we do.

Wirtschaftsforum: You are probably best known for PhenoMaster, a system for use in research into metabolism.

Dr. Harm J. Knot: We were an early adopter when automation began to be used in laboratories



PhenoMaster Next Generation is the newest and most versatile platform for metabolic screening in the market



IntelliCage is the leading system for behavioural and cognitive phenotyping of laboratory animals in social groups



CONTACT

TSE Systems GmbH
 Louisenstrasse 65
 61348 Bad Homburg
 Germany
 ☎ +49 6172 7890
 📧 +49 6172 789500
 info@tse-systems.com
 www.tse-systems.com

and Parkinson's disease as well as autism. We are the market leaders worldwide for colony housing of laboratory animals. No other supplier can offer a system comparable to IntelliCage.

Wirtschaftsforum: Are there any further product milestones?

Dr. Harm J. Knot: In the field of inhalation toxicology we are one of only a handful of providers offering a complete solution rather than individual components. Our systems are used by institutions worldwide including the US Federal Drug Administration. Furthermore, we also offer market-leading products in the field of telemetry. Here, we develop implants for remotely monitoring various physiological functions such as respiration volume, heartbeat frequency and body temperature. Innovation is driven by higher quality data, which in turn means fewer test animals are needed.

Wirtschaftsforum: How has the Corona crisis affected the company and its work?

Dr. Harm J. Knot: At the start of the pandemic we suffered from fluctuations caused by the lockdown. Overall, however, 2020 has turned out better than 2019. Health research is a growth market. In 2021 we expect to see

75
EMPLOYEES

further expansion. Generally speaking, Corona has made the climate for medical research more favorable. The pharmaceutical sector has performed superbly to produce vaccines in less than a year. The research base in Germany has improved significantly, which in turn means that companies like us have been able to grow. Respect for us as a cen-

ter of innovation has increased to a level comparable with the USA.

Wirtschaftsforum: What are the current drivers of growth at TSE?

Dr. Harm J. Knot: Telemetry is being used more and more, and is therefore set to grow strongly. We are always searching for disruptive technologies with which we can make a quantum leap forward. We are currently in talks with several pharmaceutical companies regarding the potential of PhenoMaster to be used in human research into subjects such as basic nutritional needs or solutions for newborns.

Wirtschaftsforum: Who are your customers?

Dr. Harm J. Knot: We supply universities and research organizations as well as major pharmaceutical companies such as Sanofi and Novartis and institutes like the Max Planck Institute and the Paul Ehrlich Institute. Half of

our customers are headquartered in Europe and 30% in the USA, while the remainder are located worldwide.

Wirtschaftsforum: What are the reasons for your global success?

Dr. Harm J. Knot: Understanding and delivering on the needs of our customers has been key to our success. We offer the total solution experience - from scientific guidance to customization of novel applications to 24/7 support. We are true partners to our customers with the desire to form lifelong cooperations.