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PRESS RELEASE

Avalution presents Size NorthAmerica results

**Body height growth is slowing in the USA, but
body circumferences are increasing**

Frankfurt May 14, 2019 **The first results of Size NorthAmerica are now available. This was the most comprehensive representative measurement survey ever carried out with 3D body scanners, and it provides the industry with up-to-date information on how the bodies of US Americans have changed over the past years. Avalution will be presenting the results for the first time at the Texprocess 2019.**

The population of the USA has changed – body height growth is slowing, while body circumferences are increasing. This has now been proven by the recent Size NorthAmerica measurement survey, the most comprehensive measurement project on the North American continent to date and the largest survey in the world performed with 3D body scanners. Significant differences can be seen between urban and rural populations, and between populations of different ethnic origins.

Highest average BMI (body mass index) ever recorded

One value is even more important here than the actual body dimensions, because it clearly illustrates the challenges that the American market poses for apparel companies – the BMI has the highest average values ever determined by a measurement survey. This means that that the proportion of overweight people in the USA is significantly higher than in other nations. At the same time,

however, there is a very broad spectrum of differing BMIs – in the Western USA, for example, the BMI is significantly lower than in the Midwest.

USA body measurements prepared for the apparel industry

A precise knowledge of human body shapes is indispensable for the development of apparel. “Size NorthAmerica confirms the impression that the body dimensions and proportions of the US population have changed noticeably in recent decades, as has the demographic structure,” says Michael Stöhr, Managing Director of Avalution. “Anthropometric data and the standard size tables were based on earlier data and could only help the apparel industry in a limited way. This Size NorthAmerica survey provides brand new and highly detailed information about specific target groups and market potential, data that has never been available in the past. All this data will now be transferred to our online portal, so fashion companies can filter and evaluate the data to match their own special requirements.”

The results at a glance

Women

Around 6,200 women aged between 18 and 75 years were measured for Size NorthAmerica. Compared to the values of the 1990 NHANES III US study (accelerated to 2008), the following changes were found:

Body height:	+ 1.1 cm
Chest circumference:	+ 4.8 cm
Waist circumference:	+ 2.5 cm
Hip circumference:	+ 9.2 cm

Men

Around 4,000 men aged between 18 and 75 were measured for Size NorthAmerica. Compared to the values of the 1990 NHANES III US study (accelerated to 2008), the following changes were found:

Body height:	+ 1.0 cm
Chest circumference:	+ 4.4 cm
Waist circumference:	+ 5.0 cm
Hip circumference:	+ 6.6 cm

Systematic measurement of children for the first time

In addition to the updating of the measurement tables for adults, children and juveniles were also measured. No special measurement survey for the 6-17 age group has ever taken place in the USA – the children's sizetables currently used there are based on data acquired between 1930 and 1970 – and the average BMI of the children in the USA has increased significantly. For example, the BMI has already exceeded 22 in the 14-17 age group – and that is in the overweight range according to the WHO definition.

The special challenge – a heterogeneous society

The USA is a typical immigration country, so the population is correspondingly heterogeneous – which is why the Size NorthAmerica data can also be filtered by different ethnic groups. “Our experience with country-specific measurement surveys has shown clear differences in body dimensions in different countries. Especially in a country like the USA, where many people of different ethnic origins live, it's important to have access to a valid database for product development,” says Stöhr. The differences between the population groups are often very clear – depending on the population group, size differences of 4 to 5 centimeters in average body height and up to 15 centimeters in average chest circumference were determined.

Comparison with Germany

An important message for German clothing manufacturers – German clothing sizes are not suitable for the US market. Collections developed for the German market must be adapted to the body dimensions of the US population. The average body heights of the German size tables for men and women are higher than those of the USA – and German waist circumferences are generally too small.

World's largest measurement survey performed with 3D body scanners

When the Canadian survey has been concluded, a total of 18,000 men, women and children in the USA and Canada will have been

measured. The test persons are scanned with 3D body scanners in different postures to record their body measurements & proportions and their socio-demographic data is also acquired. The survey in the USA has now been completed, and the body measurements of around 14,000 people have been acquired and evaluated. The planning and evaluation of Size NorthAmerica was carried out by the Avalution team in Germany. Avalution's sister company Human Solutions of Northamerica carried out the survey in the USA and the Canadian survey will be finished by September 2019. The final results will be available by the end of the year.

Interested companies can still become partners of SizeNA and use the extensive survey data for their product development.

You'll find Avalution at the Texprocess 2019 in the Assyst booth, Hall 4.0, C21.

About Avalution

Avalution puts the human being at the heart of product development. The company has the world's largest body dimension database – the Aalytics Portal. It contains the body scans of around 100,000 persons. Avalution also carries out measurement surveys and is a leader in the field of body scanning. The 20 employees at the company headquarters in Kaiserslautern make ergonomics and sizing & fitting measurable for product development in various industries.

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