# REGIO DEAL TVENTE

wente aims to become a leader in high tech developments, and since the beginning of the corona crisis, new projects have accelerated their shift to more innovative technologies. For example, under the Regio Deal Twente, which is together with the Agenda for Twente called Investing in Twente, the central Dutch government and the Region of Twente are investing €60 million towards developing technological knowledge and talent. Twente Board is a triple helix organisation that stands for strengthening the economy in Twente; they are responsible for and invest in the socialeconomic agenda of Twente.

### Investing in technologies and directed education

With Industry 4.0 and technologies like machine learning, extensive data analysis, additive manufacturing, the Internet of Things, and others that are changing the business landscape, no one can afford to stay behind the innovation curve. So, to get on the right track, Regio Deal Twente set up 12 initiatives with some ambitious goals. Wim Boomkamp, Chairman of Twente Board, said: "Our ambition is high, with the preservation and strengthening of business activity and employment being central. In addition, we encourage technical innovations and invest in an attractive and accessible region for living and working."

Investing in Twente's projects include cofunding a programme for part-time jobs at IT companies for students to connect regional business and IT talent in an early stage. There is also co-funding for training in the fields of, amongst others, healthcare, logistics, and technical education, worth up to €5000. Also, Regio Deal Twente invests in a programme that is coworking with civilians on new ICT applications, for e.g. patient care. Other project funding examples are trials with agricultural drones, the development of novel production techniques with the help of the university, and trainings that are optimally aligned to the current business needs.

## SPARKING THE USE OF **NEW TECHNOLOGY** AND **INNOVATION** IN LOCAL COMPANIES



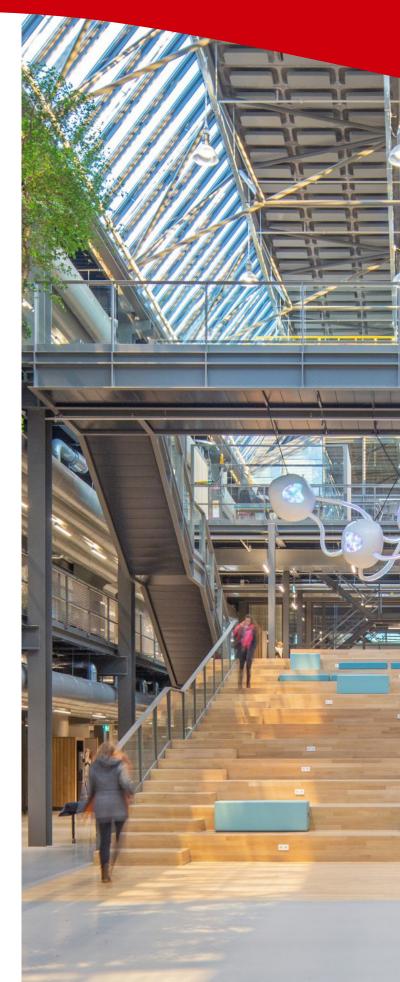
#### **Projects and goals**

The Triple Helix collaboration exists of municipalities, educational institutes such as the University of Twente and Saxion, and entrepreneurs, and works closely together with the Province of Overijssel and the National Government to carry out the investment agenda. Within the Regio Deal Twente, the programme development takes place between two lines:

- Technology & Innovation: Technology as an engine, accessibility and business climate, circular economy, and sustainability.
- Talent: Work and education.

To achieve the country's and the Region's sustainability goals and accelerate technological initiatives, the parties involved developed and carried out several projects to reduce the labour market shortage and increase innovations in healthcare and agriculture, and investment in technical knowledge. Wim Boomkamp explained:

"The Agenda for Twente is the foundation for this, and the Regio Deal functions as an accelerator. The projects are taking shape, and new collaborations are emerging, also in the triple helix context. For example, entrepreneurs, knowledge institutions, and the government are working together on various campaigns to attract, fascinate and bind talent."



[...] creating a more **comprehensive technology-driven talent pool** is essential for future growth [...].



#### Helping industry with innovation

The actions under Investing in Twente go in several directions. Circular economy and sustainability are topics all of Europe must work together on, to achieve the global climate goals. However, labour market initiatives, such as the PDEng programme, are more fundamental requirements for regional companies wanting to stay on top of the innovative technologies required to enable such plans.

**"Technology as an engine"** is the motto for one line of action within Investing in Twente. On one side, the focus is on SMEs and creating innovation and talent. On the other hand, there is a strong focus on intelligent business applications backed by scientific research.

While creating a more comprehensive technology-driven talent pool is essential for future growth, investing in new tech and teaching employees to adopt such innovations is a parallel process. For example, among the 12 projects under the Regio Deal Twente, the Advanced Manufacturing Program plans to directly implement Additive Manufacturing and other advanced techniques into manufacturing processes.



The end game for Twente would be sustainability, huge strides towards green technology, and welfare for everyone.

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#### Sharing the know-how for Additive Manufacturing and another new tech

Twente already has a robust high-tech industry and knowledge base. However, staying on course to catch the Industry 4.0 train means companies and communities must continuously reinvent themselves. Luckily, the industry base, higher education and local government have recognised the potential of innovation and are cooperating to create a framework that will allow companies to embrace new technologies in advanced manufacturing.

The contribution of €3m comes from Regio Deal Twente and the Province of Overijssel. The driving force for the Advanced Manufacturing Program is the Fraunhofer Project Center at the University of Twente. Prof. Dr Ian Gibson, Scientific Director of Fraunhofer Project Center at the University of Twente and Chair Professor of Design Engineering, commented on the project:

"AMP is an enabler for local industry to investigate new manufacturing technologies. By combining with other companies, they can leverage their involvement and contribution to look at technologies outside their current scope or budget. Furthermore, their staff can quickly learn about the technology and determine whether it is suitable for their immediate needs or in the future." To date, there are 3 projects currently running under this programme, consisting of 10 companies in total. Interested companies have support from the project to familiarise themselves with the new technologies, attend knowledge transfer sessions and work towards viable solutions for enhancing their manufacturing processes. A couple of companies from Twente are already in the programme, and the initiative is picking up steam, with local companies and from outside of the Region also interested in the programme.

Maurice Herben, Program Director of Fraunhofer Project Center at the University of Twente, explained:

"In addition to the financial assistance, they can partner with other companies towards a common goal. Even if these other companies are competitors, they can learn from each other to gain confidence in moving forward together. They also get direct access to world-class expertise and experience."

Further efforts are being made to enhance production processes with new and innovative monitoring of the condition of resources. One example replaces visual inspection with constant monitoring where measurements are automated, and a maintenance alert results if they deviate from the norm. The use of technology here allows personnel to be diverted towards areas where they are more needed.





Maurice Herben from Fraunhofer Project Center at the University of Twente is delighted to deliver initiatives like AMP. He said:

"Too often, the knowledge gained from top-level research institutions does not benefit local SMEs. This programme can surely overcome this for the betterment of the Region."

#### **Education of workforce**

Implementing new technologies in companies is part of the equation, and the next step is the education and training of personnel. You cannot integrate new tech into the manufacturing process without also training the workers. To further this, the Fraunhofer Project Center works alongside internationally recognised experts, contributing to the knowledge and innovation in the Region. Companies can find out more about several topics within the Advanced Manufacturing Program, such as support within the Region, learning about and the implementation of technologies, and other topics.

#### More examples showing significant potential

In Technology as an engine, part of the Regio Deal project, there are two more exciting programmes. First, TopFit CitizenLab follows the collaboration of citizens, patients, and healthcare partners to investigate technological innovations to health in a CitizenLab.

#### A second example would be the PDEng programme for Digital Transformation and Advanced Manufacturing which is

about training and deploying designers to help companies create tech solutions in their workflow. The use of technology here allows personnel to be diverted towards areas where they are more needed.



Other projects also use technology, create disruption, and offer better opportunities. A great example can be seen in technology for more efficient goat farming. The Veelers family participates in a project that tries to lower costs for goat feed by using drones. Drones are equipped with advanced cameras that can see many more colours than humans, and automatically measure the amount of proteins in the grass. Such valuable information can be used to indicate when to use extra fertiliser and the timing for mowing, all leading to better quality grass. The result is the Veelers do not have to buy so much other food.

#### **Positive outcomes**

Investments are in full swing, with 23 projects that are part of Investing in Twente (Agenda for Twente and Regio Deal Twente). Results are visible all over the region. For example, the University of Twente has growing student numbers with more engineering candidates than the national average. Simultaneously, we see advancements in renewable energy and an increase in the number of homes with solar panels. With the rise in initiatives to fill these new jobs, the Region has found less tension in the labour market. Usually the tension on the labour market increases when new jobs are realised and the influx of new employees lags behind. The ICT sector has the most substantial growth, which means initiatives to implement new technologies into existing businesses have a serious chance to fall on the fertile soil.

The end game for Twente would be sustainability, huge strides towards green technology, and welfare for everyone. It is undoubtedly trending in the right direction.

If you want to know more about Investing in Twente you can reach out to: www.twenteboard.nl/contact or www.twente.com/twente-board/investerenin-twente (information is in Dutch)

