

DELFT
ZUSO

● Holland

● Autarkic

● Distinctly Delft

● Pride

● Area 42

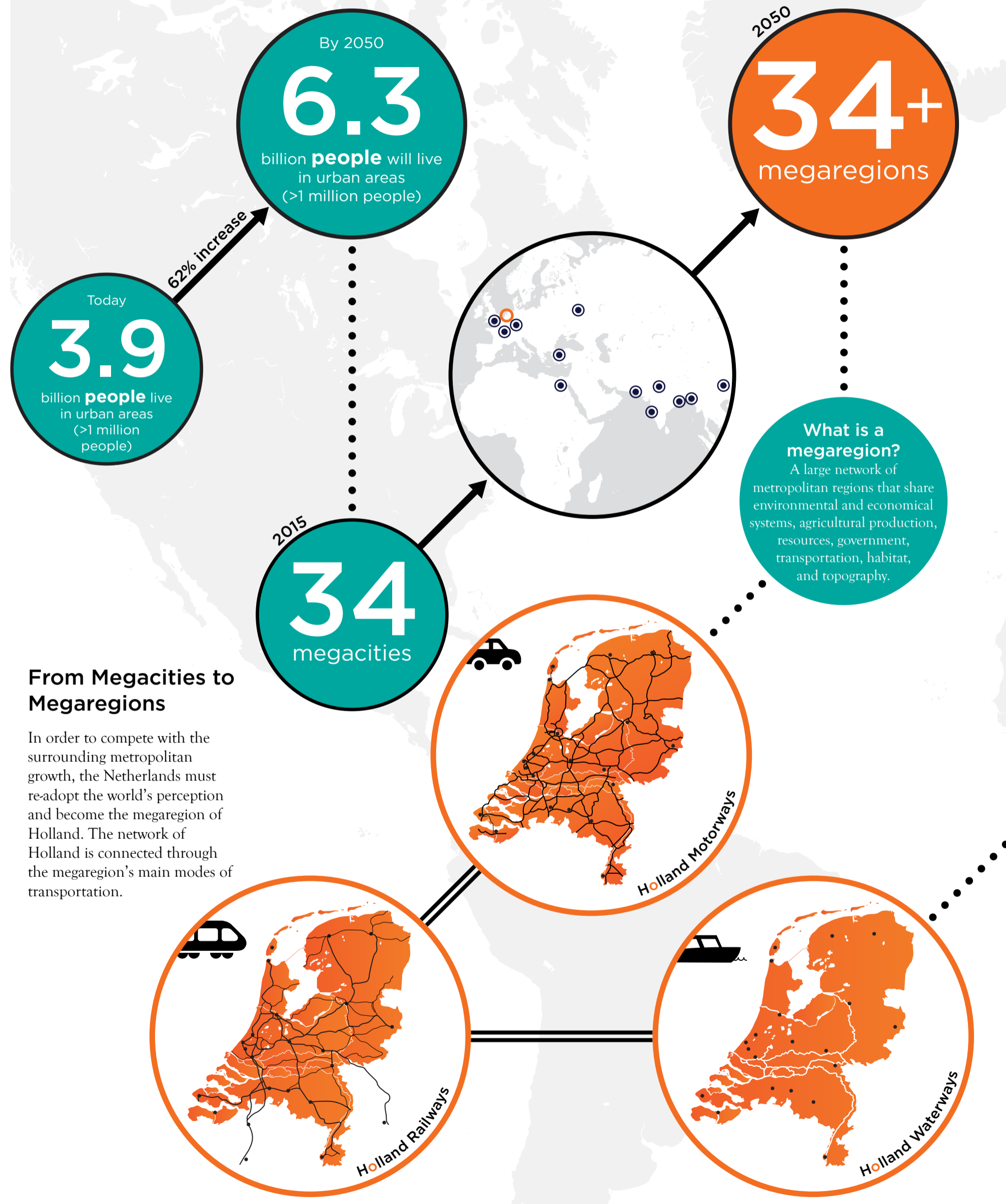
TALENS
OCULUS

UNIVERSITY OF KENTUCKY: Arden Cooper, Zhulin He, Morgan McKinney, Amanda Olix, Olivia VonBokel INSTRUCTORS: Siebe Bakker, Dré Kampfraath, Frans Schupp SUPPORT: Bob van der Nol, Richard Toussain SCENARIOS: Holland - Arden Cooper, DISTINCTLY DELFT - Amanda Olix, AUTARKIC - Olivia VonBokel, PRIDE - Zhulin He, AREA 42 - Morgan McKinney PUBLICATION: University of Kentucky students & bureaubakker INFO: Siebe Bakker: mail@bureaubakker.com

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Holland

re-adopting the world's perception of the Netherlands



From Megacities to Megaregions

In order to compete with the surrounding metropolitan growth, the Netherlands must re-adopt the world's perception and become the megaregion of Holland. The network of Holland is connected through the megaregion's main modes of transportation.

DELFT SCENARIOS 03 - DELFT 2050

Summer 2015

Exploring plausible futures for the municipality of Delft

<ul style="list-style-type: none"> • TECHNOLOGY • AESTHETICS LANGUAGE • ATTRactions • BIKE PATHS RECREATION CANALS GREEN SPACE 	<ul style="list-style-type: none"> SUSTAINABILITY COST OF LIVING DIVERSITY TOURISM HISTORY • PROXIMITY HEALTH & ACTIVITY • UNIVERSITY 	SWOT	<ul style="list-style-type: none"> • GENDER RATIO STUDENT NUMBERS JOB SEGMENTATION CONSTRUCTION • JOB MARKET FEW ACTIVITIES LABOR LAWS COMMUNITY SEPERATION 	<ul style="list-style-type: none"> • COMPETING CITIES • WAYFINDING • BANKRUPT INCOME LEVEL WEATHER • UNEMPLOYMENT INFLATION
<ul style="list-style-type: none"> RENOVATION CANALS BRANDING • CITY CONNECTIONS UNIVERSITY EXPANSION 	<ul style="list-style-type: none"> SPOORZONE TOURISM • MARKETING • RECREATION WAYFINDING • LAND • TRANSPORTATION • ENTREPRENEURSHIP 		<ul style="list-style-type: none"> CONSTRUCTION INFLATION THEFT GLOBAL WARMING DISEASE • GOVERNMENT SEA LEVEL • COMPETING REGIONS 	<ul style="list-style-type: none"> • BANKRUPTCY • UNEMPLOYMENT TOURISM POLLUTION • COMPETING CITIES INFLUX OF REFUGEES • SEGMENTED MARKET

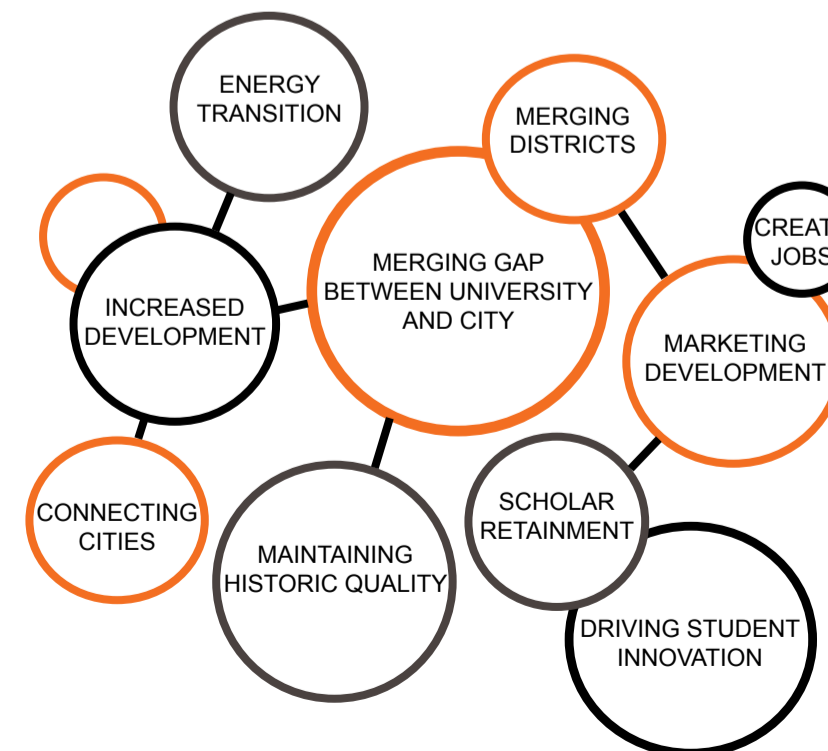
TRENDS



STEEPLE

<p>SOCIAL</p> <ul style="list-style-type: none"> • COMMUNITY DEVELOPMENT • DECENTRALIZATION
<p>TECHNOLOGY</p> <ul style="list-style-type: none"> • EXPERIENTIAL TECHNOLOGY
<p>ECONOMICAL</p> <ul style="list-style-type: none"> • GROWING POPULATION • MIN. VARIATION/ MAX. IMPACT • GLOBALIZATION • MULTI-USE BUILDINGS • ARCHITECTURAL RESTORATION • MIDDLE CLASS
<p>ENVIRONMENTAL</p> <ul style="list-style-type: none"> • EMISSION REDUCTION/ ENVIRONMENTAL FOOTPRINT • ENERGY NEUTRAL • NATURAL DISASTER PREP AND PROTECTION • RENEWABLE ENERGY
<p>POLITICAL</p> <ul style="list-style-type: none"> • INTERGENERATIONAL INTEGRATION • IMMIGRATION ISSUES
<p>LEGAL</p> <ul style="list-style-type: none"> • DEREGULATION
<p>ETHICAL</p> <ul style="list-style-type: none"> • CITY CENTER VS. PERIPHERY

AMBITIONS



<p>SOCIAL</p> <ul style="list-style-type: none"> • RETAIN SCHOLARS • MERGE UNIVERSITY AND CITY • MARKETING DEVELOPMENT
<p>TECHNOLOGY</p> <ul style="list-style-type: none"> • DRIVE STUDENT INNOVATION
<p>ECONOMICAL</p> <ul style="list-style-type: none"> • ATTRACT EDUCATED PEOPLE • CREAT JOBS / INCREASE EMPLOYMENT • INCREASE DEVELOPMENT OPPORTUNITIES
<p>ENVIRONMENTAL</p> <ul style="list-style-type: none"> • ENERGY TRANSITION • SUSTAINABILITY
<p>POLITICAL</p> <ul style="list-style-type: none"> • MERGE DISTRICTS • WATER MANAGEMENT • CONNECT RANSTAD
<p>LEGAL</p> <ul style="list-style-type: none"> • DEREGULATION
<p>ETHICAL</p> <ul style="list-style-type: none"> • MAINTAIN HISTORIC QUALITY

INVENTORY & ANALYSES

SWOT	SCENARIOS	HOLLAND			
		DISTINCTLY DELFT	AUTARKIC	PRIDE	AREA 42
STRENGTHS					
TECHNOLOGY		X		X	X
PROXIMITY			X		
UNIVERSITY		X			X
SUSTAINABILITY				X	
GREEN SPACE				X	
DIVERSITY			X		X
TOURISM		X	X		X
UNIVERSITY		X			X
WEAKNESSES					
STUDENT NUMBERS					X
CONSTRUCTION					X
FEW ACTIVITIES			X		
COMMUNITY SEPERATION			X		X
COMPETING CITIES		X			
BANKRUPT					X
WEATHER				X	
WAYFINDING			X		
OPPORTUNITIES					
SPOORZONE					X
TOURISM					X
MARKETING		X	X		
LAND				X	
ENTREPRENEURSHIP					X
BRANDING		X	X		X
UNIVERSITY EXPANSION		X			X
RECREATION			X		
THREATS					
BANKRUPTCY					X
TOURISM			X		X
POLLUTION				X	
COMPETING CITIES		X			
CONSTRUCTION					X
SEA LEVEL				X	
COMPETING REGIONS		X			
SEGMENTED MARKET			X		

An outside view of Delft

The city of Delft is centrally located in the metropolitan region of the Netherlands. A city rich with history, it is the ideal background for a bustling downtown and a charming center with a varied selection of shop, restaurants, history, culture, and events. The recently developed train station optimizes full accessibility from surrounding cities to Delft and vice versa, while the main method of travel remains as biking to and from various locations. Due to the presence of technical training and knowledge enterprises the city exerts a strong attraction from students and knowledge workers.

The downtown area is also popular with the creative and innovative sector. Visitors, residents, and companies all have their own needs that require a diverse range of facilities. In preparation for the coming years of change and innovation, Delft continues to invest in efforts towards bringing more successful businesses to the city. The municipality thereby provides ample space for innovative retail and hospitality concepts, new entrepreneurs, and new features. All that is left is for Delft to successfully market the vast number of opportunities and attractions within the city.

Design thinking

Cities all over the world are reinventing their positions, either driven by changes in national policies decentralizing governance or reacting to the reality of competition and collaboration on subjects such as economy, services or the changing number of inhabitants. Often this is generated out of a desire or perceived necessity to respond to the changing ambitions of industries and citizens. One only has to think of notions like 'Creative Cities', 'Metropolitan Regions', 'City Branding' and 'Self-regulation' to understand that traditional ways to organize one's community will fail to adequately address these emerging ambitions.

There is a need to improve decision-making and policy processes just as much as there is a need to service and renew spatial structures as demands are changing. One can state that changes in urban developments are driven by changes in population and their needs. Energy and sustainability issues have become a common consciousness deserving appropriate response in terms of policy and spatial planning. One can easily add to these examples.

These current challenges are becoming more complex and interwoven. Fed by a large number of sometimes contradictory and definitely various ambitions, they need to be addressed in a manner that justifies all involved. Changes are good. And by nature, changes are complex and difficult to implement. They are disruptive and evoke resistance. Change needs community, involvement, and commitment. The more complex a challenge is, the more actors or stakeholders need to be involved, and the more inadequate traditional means for development becomes.

One needs to build robust solutions, or better, robust environments and contexts. Solutions tend to address current situations incapable of adjusting to changing realities. It is exactly those rapidly changing realities – economical, political and social – that have led to the realization that innovation in governance and policy-

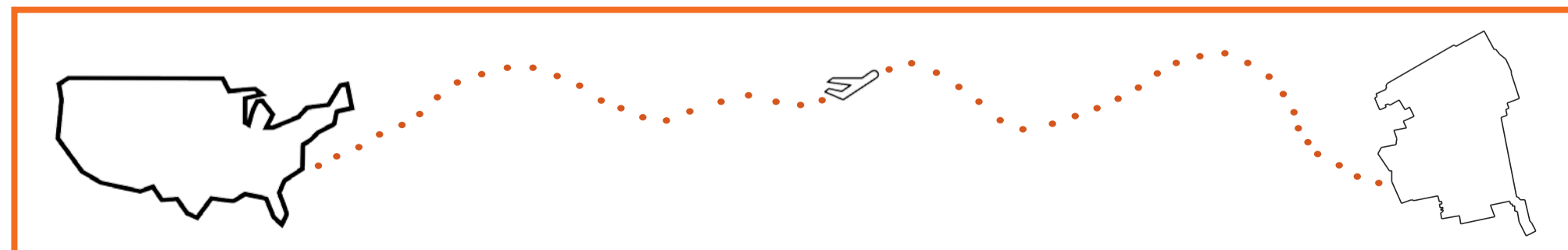
making processes is crucial for a city to keep operating successfully. Intelligent ways to address and implement developments are needed. Intelligent in terms of creating efficient and economically viable solutions for both processes and implementations; intelligent as in being informed by relevant parties.

Current notions on 'Design Thinking' move towards inclusive and collaborative processes. These are aimed at efficiently producing inventories and analyses of stakeholders and context. Organizing effective prototyping presents essentially different strategic options and scenarios. Finally and foremost, these processes create collaborative structures for professionals, administrators and citizens.

Studio

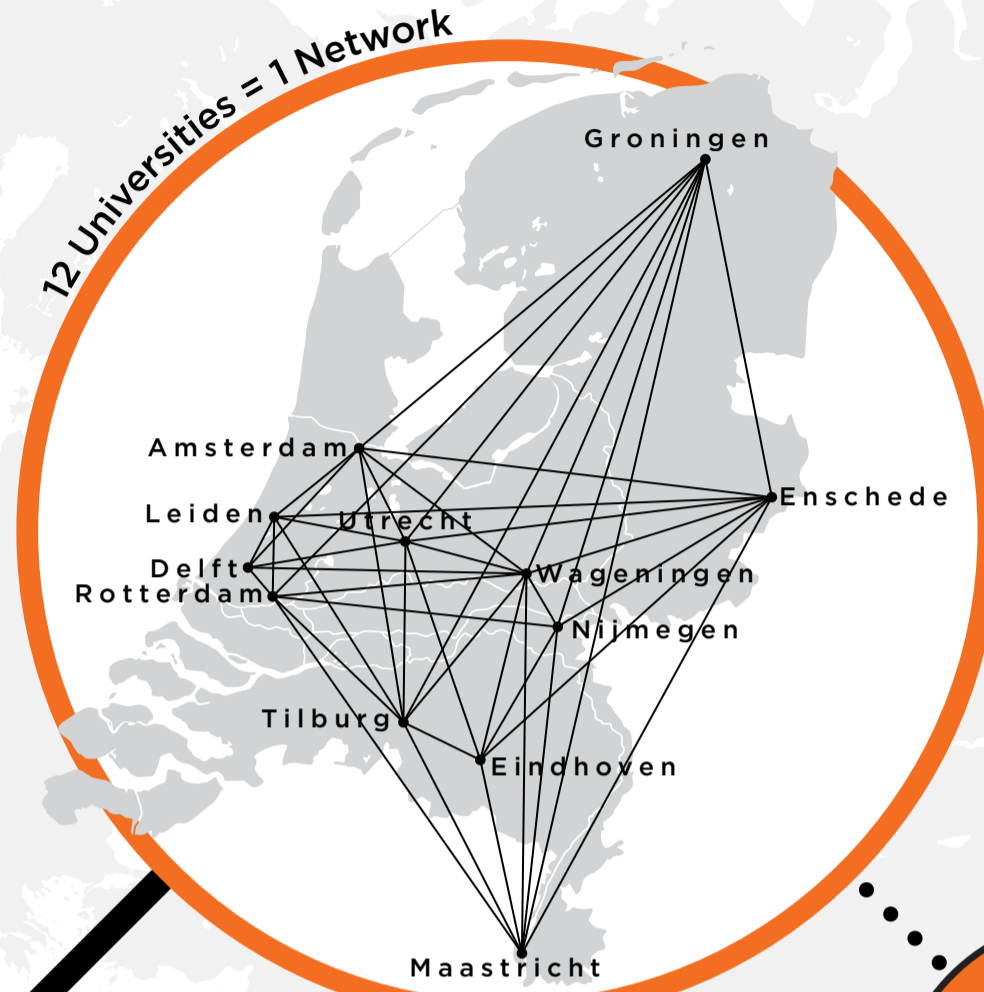
During the past years the municipality of Delft has conducted several studies into aspects of Delft as a knowledge city, their relationship with the Technical University Delft and more recently financial challenges due to the global crises.

Delft Scenarios 03 is a casestudy based research program investigating the future of Delft. Students from the University of Kentucky took on the challenge to research potential interventions for the municipality of Delft in a global, European and regional context. Inventory of ambitions, foresights and perceptions led to a number of SWOT-analyses, both from the perspective of the individual stakeholders as well as on a 'macro level'. Scenario specific information was collected and implemented in more precise descriptions of plausible futures for Delft. The scenarios present extreme positions aimed to unveil current conditions and realistic future situations. They operate as context to test current plans on their robustness and adaptability to remain significant regardless of how the future actually unfolds.



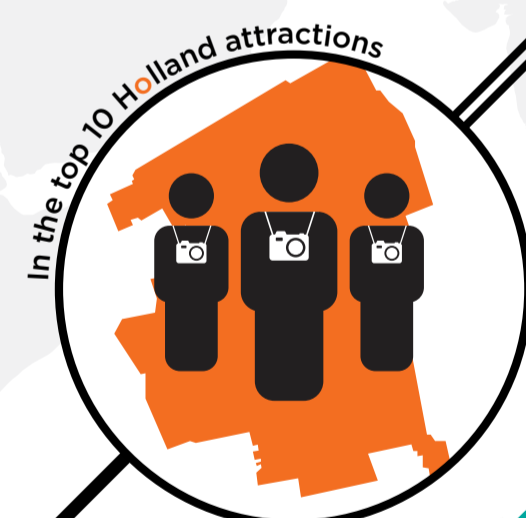
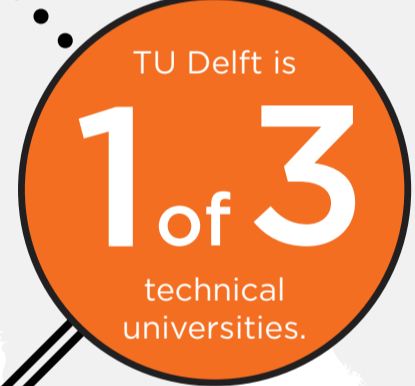
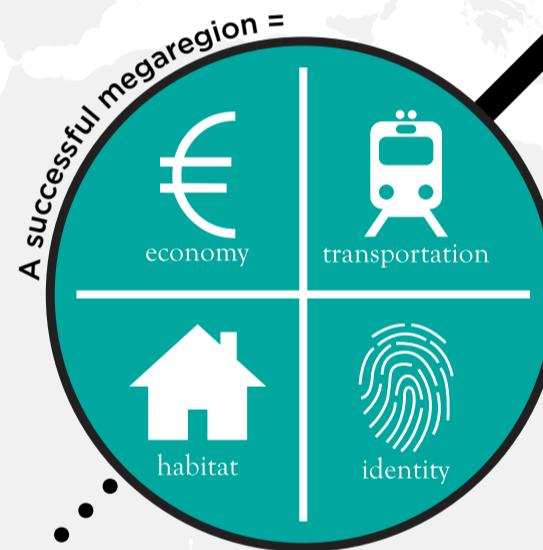
Holland University

To support the growth and success of the megaregion of Holland the major universities of the Netherlands must come together to create a university network. This network will be known as Holland University and will contain 12 universities across Holland.



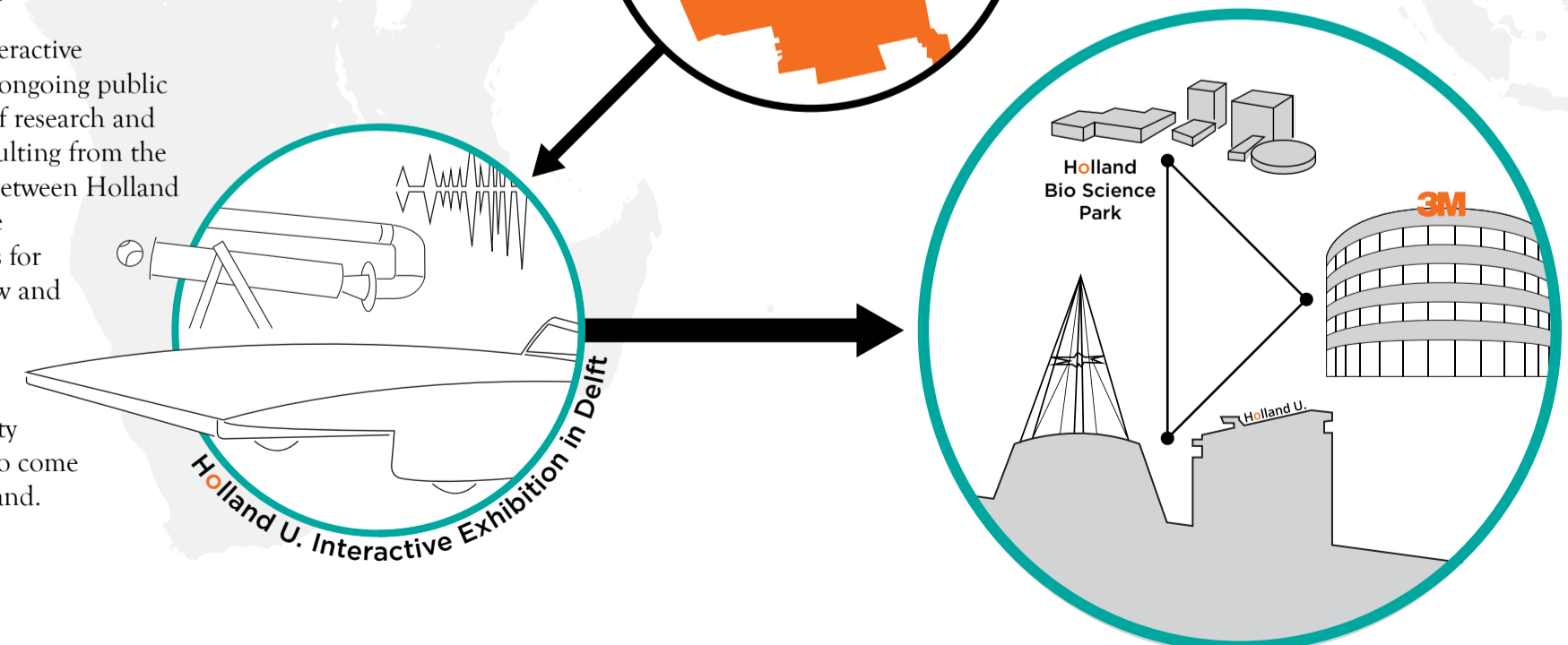
Applied Academics

The objective of Holland University is to develop an applied academic approach where education and industry work together toward a common goal. In order for Holland to be a successful megaregion, innovation and knowledge must contribute to the balance between economy, habitat, transportation, and identity.



Holland Interactive Exhibition

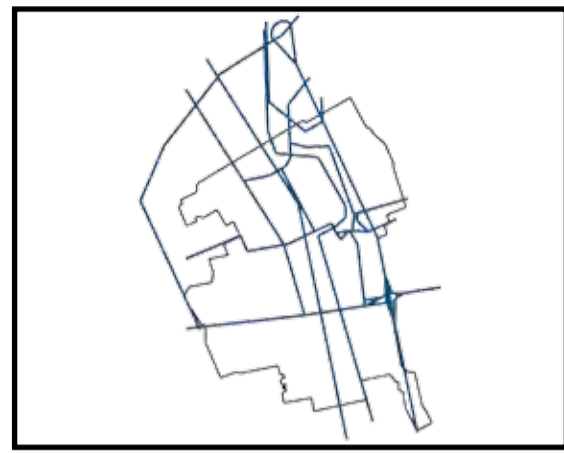
The Holland Interactive Exhibition is an ongoing public demonstration of research and development resulting from the strong network between Holland Universities. The exhibition allows for the public to view and share Holland's innovations, which will influence a variety of technologies to come together in Holland.



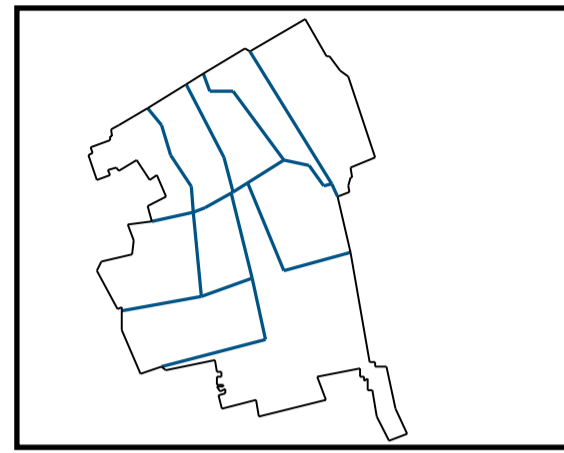
DISTINCTLY DELFT



1 Delft developed through time from the City Centre outwards. It gradually expanded further and further out as population increased.



2 Roadways and waterways were created and split up the city.



3 This created separate districts.

CAUSES FOR SEPERATION:



INCOME LEVELS



VARYING BUILDINGS

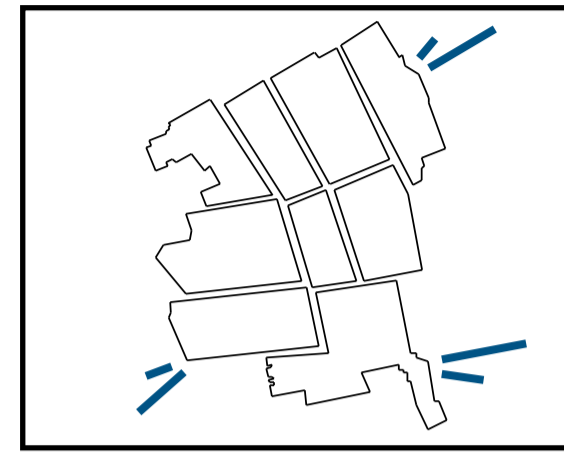


AGE DIFFERENCES

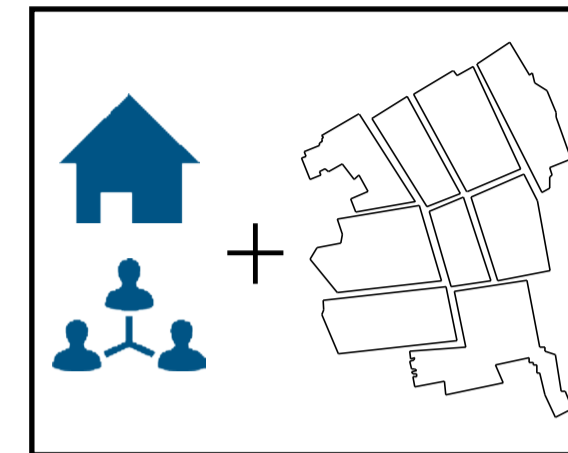


PARKS

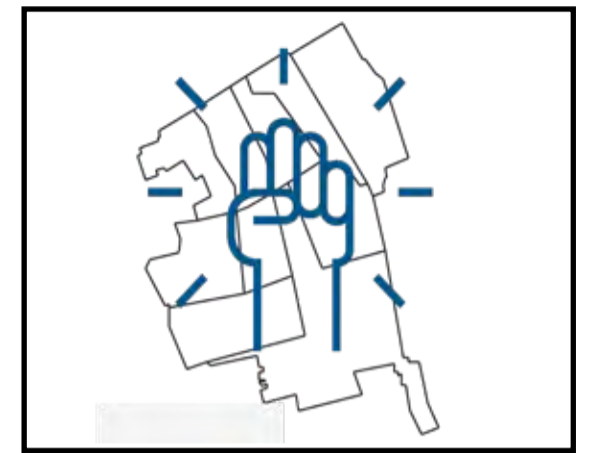
FOCUSING ON ENHANCING THE DISTRICTS SEPERATELY TO CREATE A STRONGER DELFT!



4 When separated the districts each have their own strengths. Delft can use what it already has to offer and foster it.



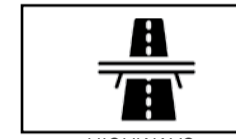
5 Focus is drawn on implementing social, spatial, or programmatical interventions to enhance the districts individual strengths. Therefore creating an individually driven city.



6 Stronger districts creates a stronger Delft.



CANALS



HIGHWAYS



HOF VAN DELFT

- Close proximity to the city center
- Relatively young population with many families in their 20s
- Contains the central train station



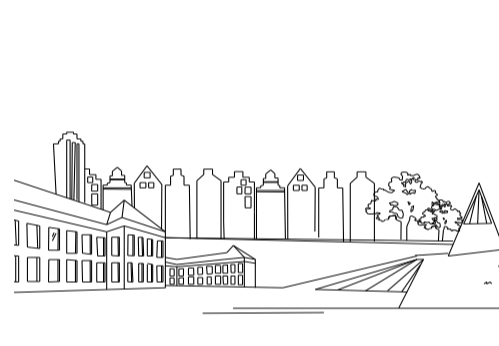
CITY CENTRE

- Attracts tourism
- Strong historical quality, half the homes were built before 1906
- Pedestrian zones



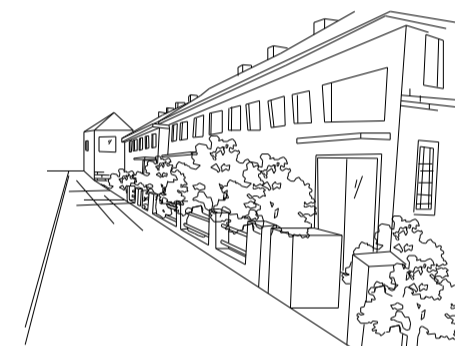
VOORHOF

- Very densely populated area, built according to modern city planning
- Lots of green space
- Buildings at various heights
- Contains the south train station



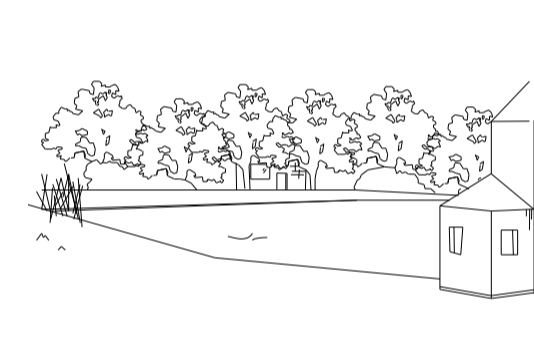
WIPPOLDER

- Largest in terms of area
- Diversity in building type
- Young population
- Knowledgeable population



VOORDIJKSHORN

- Lots of greenery
- Mostly flats and individual family homes
- One of the most child friendly districts



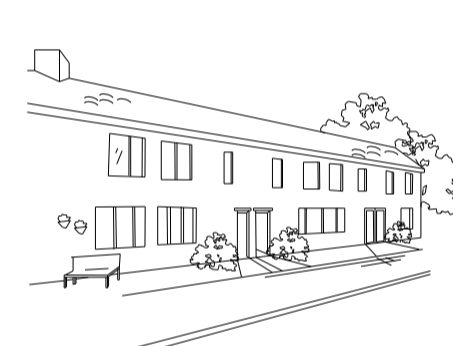
VRIJENBAN

- Very green district between centre of Delft and Delftse Hout
- Space for various sports and recreation
- Oldest average current population



BUITENHOF

- Wide streets, open space
- Many high rise flats and also single family luxury homes,
- Easily accessible to the Hague
- Contains the hospital



TANTHOF

- Lots of greenery and very few high rise buildings
- 80% of residents are of Dutch origin
- A family neighborhood

OL' HOLLAND
Brings a strong artistic quality to an older neighborhood. Draws in young people to live here.

CITY CENTER
A source of pride in Delft's history and an attraction for tourism which brings in revenue for the city.

BLUE HILL
Creates a modern aesthetic that will attract young entrepreneurs and students from the technical university.

TU VILLE
Brings a modernized community to Delft. Creating a place for new businesses and entrepreneurs to flourish. A site for tourism as well as a space that helps retain scholars.

PARK PLACE
An area where young families can raise their children in peace with lots of room for recreation. Close proximity to cultural city center.

LAKEVIEW
A peaceful place for the elderly to retire and relax. Conveniently located within walking distance to the city center.

HAVEN
Creates a sense of place for the wealthy business people to settle down and feel like a community and be proud of their property.

GREENER GARDENS
A space for middle age families and couples to relax and live in secure neighborhoods, but still easily commute to jobs in the business area.

FUTURE INTERVENTIONS

SHARED FACILITIES

SOCIAL MEDIA

LEISURE ACTIVITIES

BUSINESSES

PARKS

CHILD FRIENDLY AREAS

COMMUNITY GARDENS

INCREASED BIKE PATHS

WITH STRONG SEPERATE IDENTITIES FOR THE DISTRICTS FOCUSED ON CURRENT STRENGTHS.

DELFT WILL BECOME **LOCALLY PROUD, DIVERSE, AND ECONOMICALLY SUCCESSFUL.**



AUTARKIC SUSTAINABILITY IS FOR SISSIES

- Pollution
- Global Warming
- Natural Resource Depletion
- Waste Disposal
- Climate Change
- Water Pollution



SUSTAINABILITY HAS BECOME A GROWING GLOBAL TREND.

Becoming sustainable is too slow and only focuses on one issue at a time. There is no time to waste!



SUSTAINABILITY

THE POINT BEYOND THE HORIZON

Delft becoming autarkic is a far reaching goal that is set beyond the horizon. The idea is not so easy to accomplish, so by setting standards high, there is a larger pull of ideas to become autarkic. In order for this idea to become a reality, a type of urgency is needed.



An example of an event that has an urgency and pulls ideas quickly is the Olympic Games. The Olympics is a large event that has big ideas and causes a large pull from the community and innovators to create new infrastructure.

DELFT'S FINANCIAL URGENCY

After the 117 M euro contributed to the Spoorzone tunnel construction, only 85 M euro has been paid off.



This financial struggle pushes the community to work towards a better tomorrow i.e. autarkic.

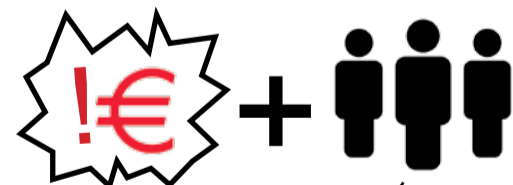
The city needs to save 16 M euro each year through cutbacks.

AUTARKIC

To be self-sufficient; independent

In an environmental standpoint, to be autarkic means to be completely independent with resources and virtually go "off the grid."

WORKING TOGETHER



The financial urgency gives the community even more reason to become autarkic. Without the community working together the goal is impossible.

LOCALS



#23
Technical Universities

Sustainable Energy
Technology
Solar Energy
Wind Energy
Electrical Sustainable Energy

Autarkic Knowledge

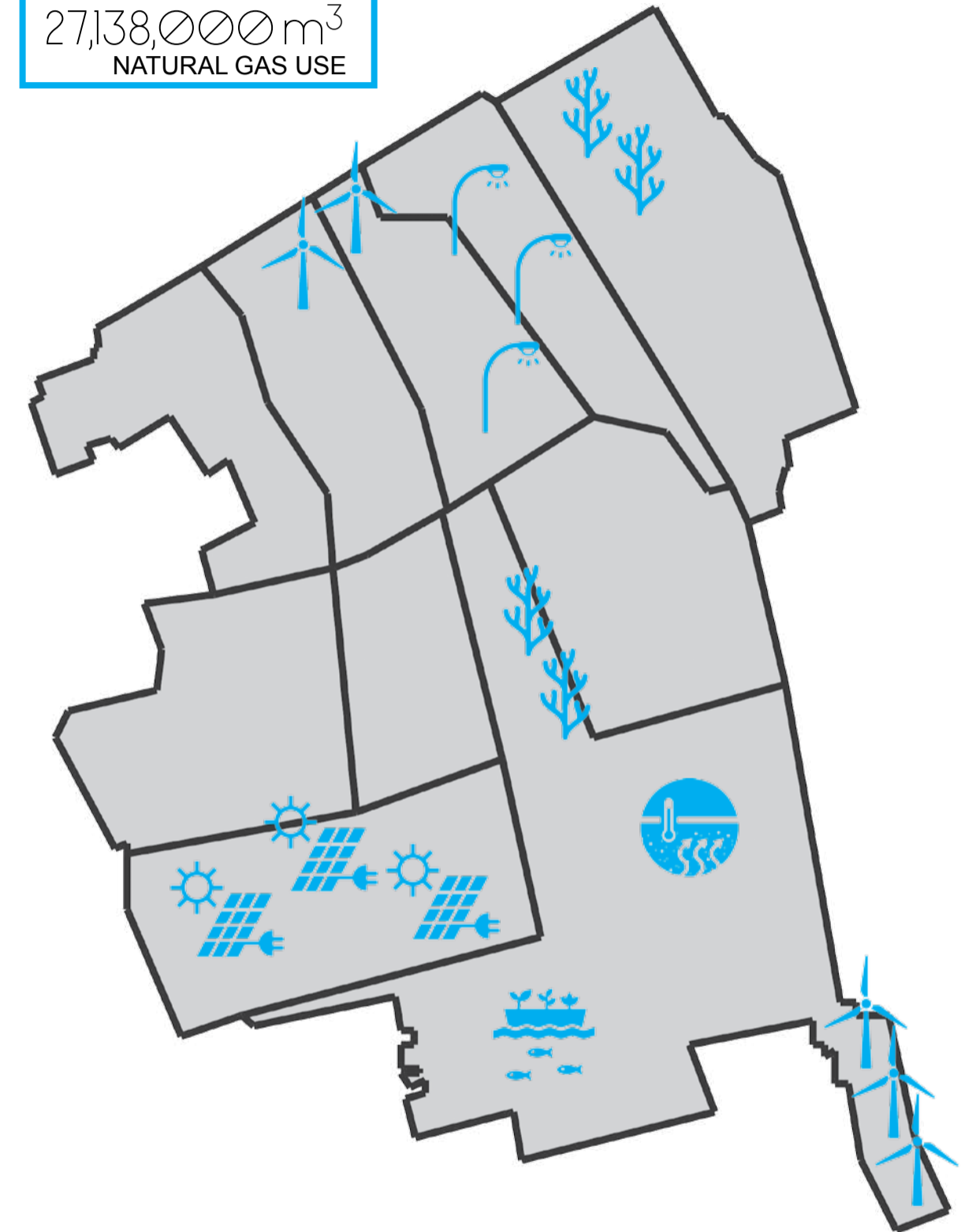
The knowledge base for what needs to be done to become autarkic all comes from the inside of the city from the University.

WHAT CAN BE DONE



177,402,000 kw/h
ELECTRICITY USE

27,138,000 m³
NATURAL GAS USE



THE AGENDA



2 MW generates 4,380,000 kw per hour
40 windmills would be needed to generate enough power for the city

TU Delft can focus some of their students on improving the wind turbine quality so that it reduces the amount needed, and becomes cheaper to install and run.



200 W panel
9 panels for each household to generate enough power

Technology used to develop the Solar Car can be applied to improve solar panel quality and come up with new devices or applications that can be powered by solar panels.



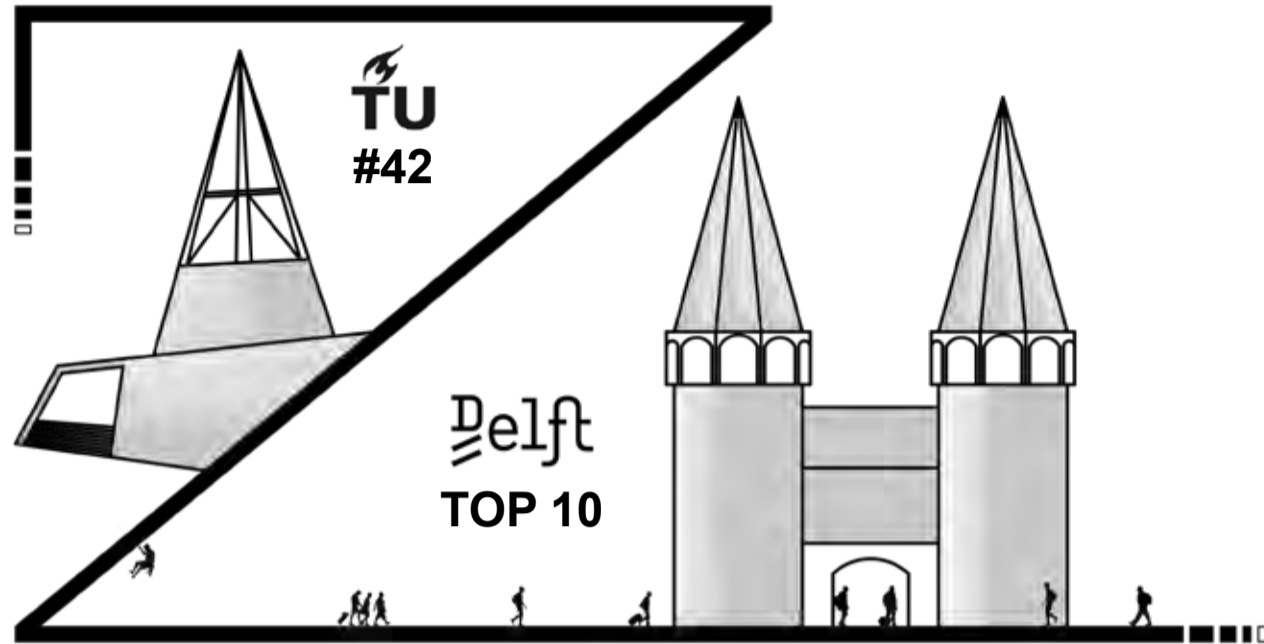
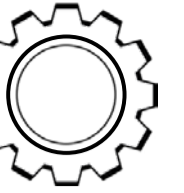
11 MW pump per household reduces CO2 emissions 44-72%

A university designed power plant would provide heat for all of Delft in an efficient manner using an advanced form of Enhanced Geothermal Systems.

- SOLAR PANELS
- WIND TURBINE
- AT HOME TRACKING
- GEOTHERMAL HEAT
- SOLAR/LED STREET LIGHTS
- ALGAE FARMING
- AQUAPONICS
- ELECTRIC TRANSPORTATION

!€ + people + lightbulb = Delft CREATING FUTURE

PRIDE



DELFT

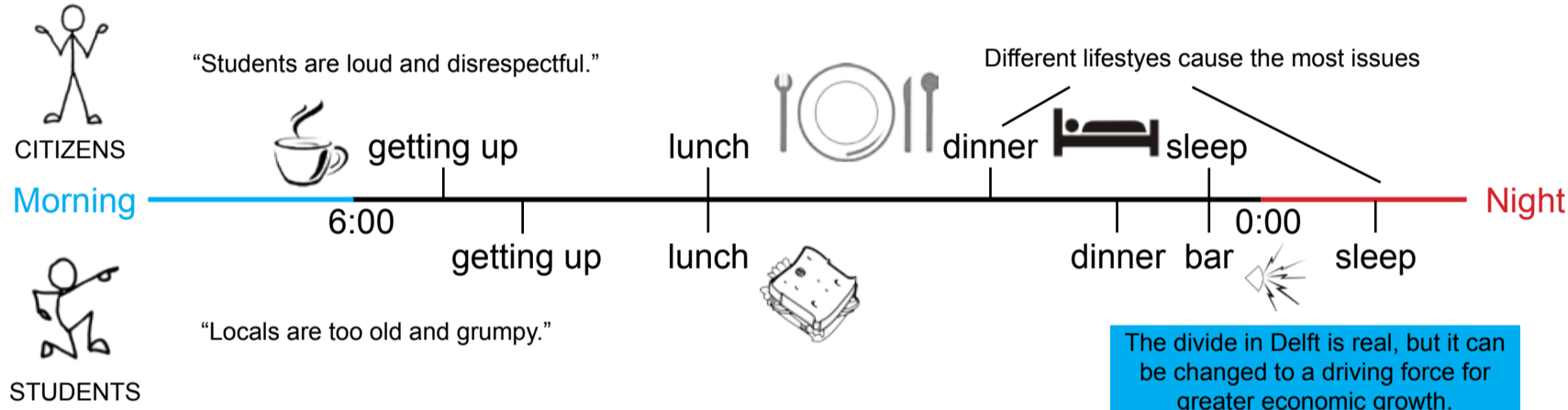
The two largest economic growths in Delft are tourism and TU Delft. According to Touropia, Delft is one of the top 10 tourist attractions in the Netherlands. However, Delft is well known as a historical town, and not so much of the TU Delft, which has high potential to the city. Based on the release of the Times Higher Education World Reputation Rankings for 2014, TU Delft is ranked as 42. However, there is a divide among the citizens and students, which could be a threat to Delft's economy.



"I've got 2 hours left, let's just see the historical town and call it a day."

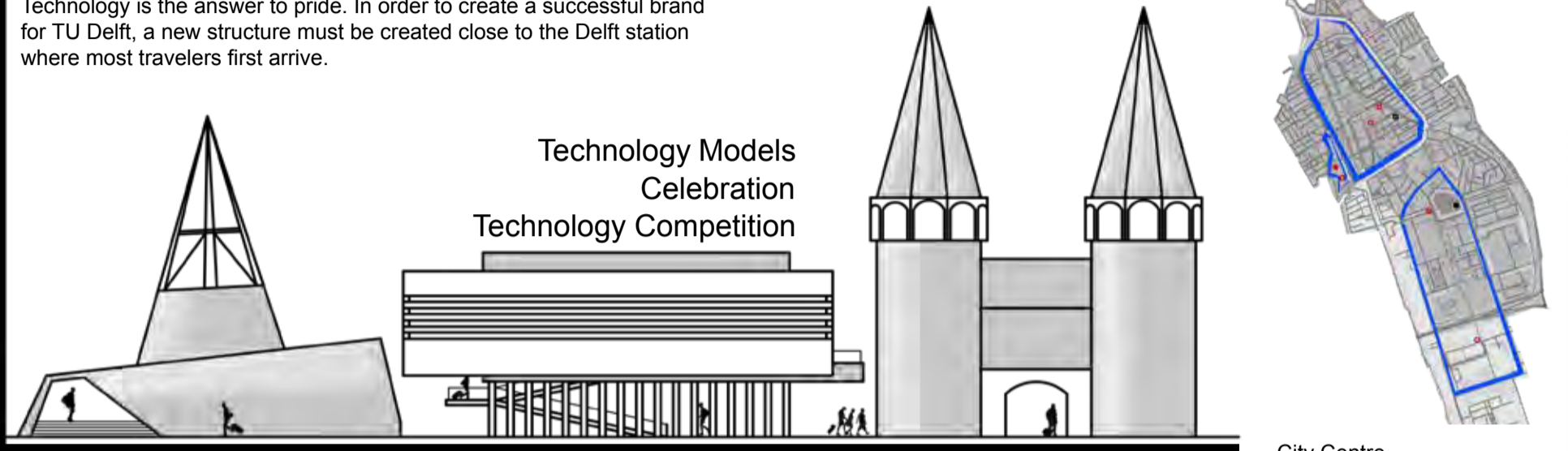
TOURIST

DIVIDE

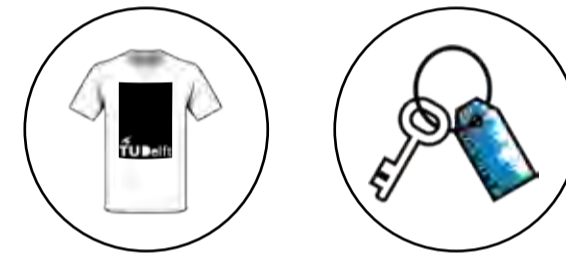


ONE PLACE FOR ALL TECHNOLOGY

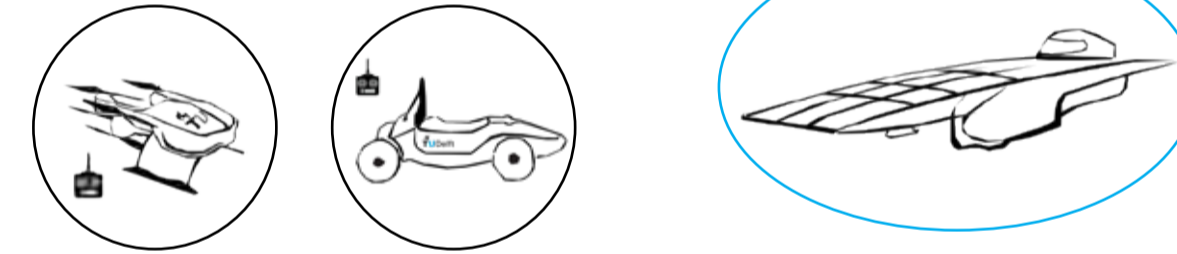
Technology is the answer to pride. In order to create a successful brand for TU Delft, a new structure must be created close to the Delft station where most travelers first arrive.



TECHNOLOGY SHOW

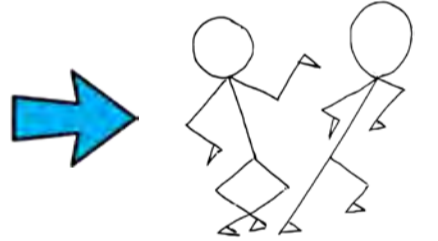


TECHNOLOGY AWARENESS



PRIDE IN DELFT

Technology becomes the main theme for Delft where both local people and students gain pride through the creation of a new building for showing the winning technologies.



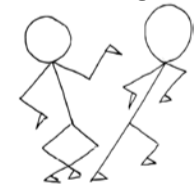
CITIZENS OF TECHNOLOGY



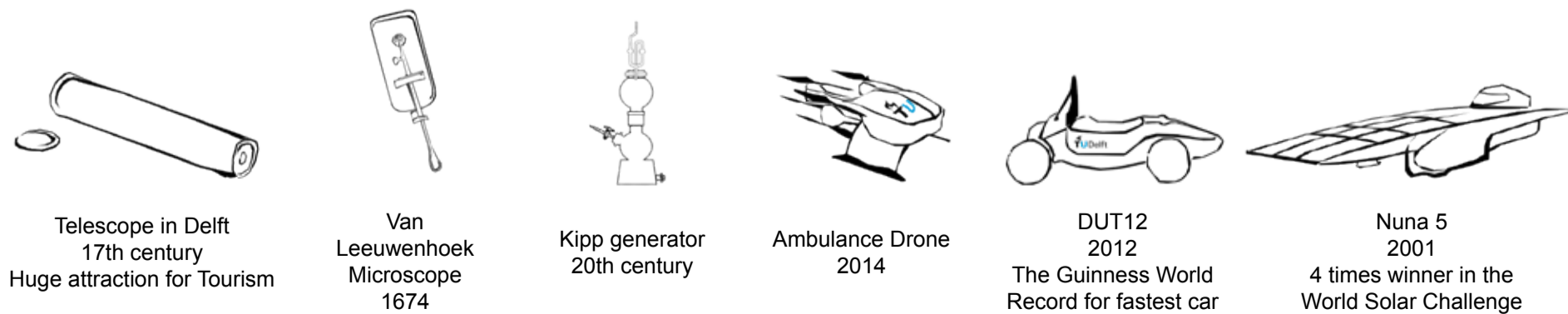
PRIDE IN THE USA

The USA shows the binding among people through sports and competition. For instance, I have been living in Lexington, Kentucky for many years. I have seen people coming out on the street cheering for their teams. It happens in Delft too when there is national football. People dress in orange and cover the buildings in orange. However, it happens only on a national level. In Lexington, many are proud of being a part of the Big Blue Nation and it brings citizens and students together. Since sports aren't as popular in Delft, there should be a new driving force to unite citizens and students together.

CITIZENS OF SPORTS



TU DELFT INVENTIONS



PRIDE

A place where all the most advanced sciences and technologies meet.

AREA 42

TECHNOLOGY TEST DISTRICT FOR AN INNOVATIVE COMMUNITY

TU DELFT DEVELOPMENT

EDUCATION • INNOVATION • GLOBAL RANKINGS

3 OF 8 DEPARTMENTS GLOBALLY RANKED

- CEG
- 3ME
- EEMS
- IDE
- ARCH
- TPM
- AS
- AE

#3 #16 #51 #42

TU ranks 42nd place in the global reputation of universities. Last year, they held 51-60th place. If they continue at this rate, within 2-5 years they could become

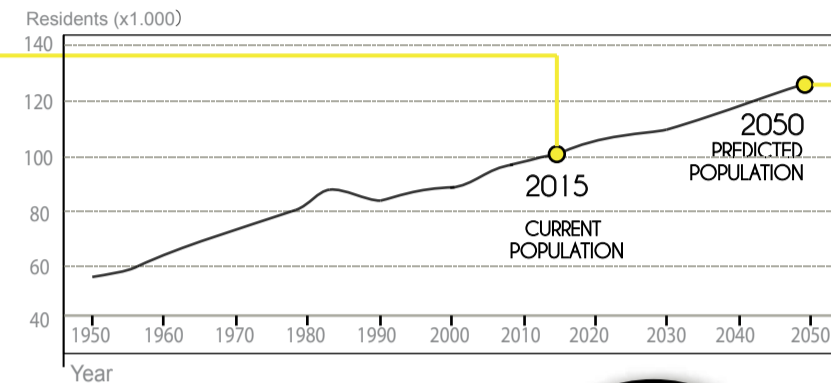


TU STUDENTS MAKE UP 1/5 OF DELFTS TOTAL POPULATION



CITY DEVELOPMENT

TOURISM • LOCATION • HISTORY



FRAMEWORK PRINCIPLES

The chosen location addresses several planning/design principles that tackle cite challenges of the spoorzone while also supporting aspirational goals for the community.

- 24/7 ACTIVITY
- HEART OF COMMUNITY
- NEW CITY ENTRANCE
- PROGRAMATIC EXHIBITIONS
- EXPERIMENTAL ENVIRONMENT
- ATTRACT KNOWLEDGE
- ATTRACT INVESTORS
- INCREASE EMPLOYMENT
- BUILD LIVE/WORK RESIDENTIAL UNITS
- INCREASE TOURISM
- STRENGTHEN LOCAL ECON.
- BECOME REGULATION LENIENT CITY/SCHOOL

CORE ELEMENTS

Transfer of ideas from the classroom to the community shared space. A variety of programs and design elements will foster creativity and exchange of ideas throughout all seasons, flexible places and spaces for planned and serendipitous gatherings.

HEADQUARTERS FOR EXSISTING PROGRAMS

- 1.DSM
- 2.YES! DELFT
- 3.TECHNOPOLIS
- 4.OGD
- 5.EXACT BUSINESS SOFTWARE
6. ISIS
- 7.BRIGHTSIDE
- 8.IKEA
- 9.SMITHS DESIGN CENTER

FABRICATING NON-EXSISTING SYSTEMS

1. COLLABORATION CUBES
2. LEARNING LABS
3. PRODUCTION/MAUNU CENTERS
4. COMMUNITY PARK
5. RESIDENTIAL LIVING
6. PROTOTYPING FACILITIES
7. MIXED-USE GALLERIES
8. ENTERTAINMENT AREAS
9. SHORT CIRCUIT CAFE
10. LOCAL FOOD TRUCKS

IMPLEMENTING SOCIAL ELEMENTS FOR ALL

1. EXHIBITION PASSPORT
2. EXPERIENTIAL APP
3. PROJECTION SCREEN (Snapchat stream, outdoor theatre, live concerts, interactive gaming)
4. ROCK CLIMBING WALL
5. COMMUNITY POOL
6. EXERSIZE CIRCUIT
7. BIKE NETWORK
8. FARMERS MARKET
9. OPEN PUBLIC LECTURES

SEASONAL TRANSITION

YEAR ROUND



SUMMER

1. CONCERTS
2. FESTIVALS
3. EDU COMPETITIONS
4. PICNIC GATHERINGS
5. BEER GUARDENS
6. FOOD FESTIVALS
7. REC LEAGUE GAMES

WINTER

1. ICE SKATING (CANAL)
2. SMORE PITS
3. CAMPFIRES
4. SLED CENTER
5. CITY CHRISTMAS TREE
6. ICE SCULPTING
7. SNOW MAN COMP.

SPRING/FALL

- 1.ENERGY CHALLENGE
- 2.CARNIVALS
3. CIRCUS SHOWS
4. THEMED DANCE NIGHTS
- 5.PUMPKIN PICKING/ PAINTING.

TU / CITIZEN DIVIDE

- They are too rowdy and loud
- Do they even contribute to the local economy?
- That new campus takes away from our historical delft

CITIZENS



Though Students and residents share the city of Delft, it is perceived that they live very separate lives. While much of the gap stems from a physical separation, a large majority is psychological. This meaning, people will identify with the campus or city, but not both. As the university continues to grow, so does the disparity between each group. Delft is continually seeking a solution to somehow connect the divided parties & create a combined community.

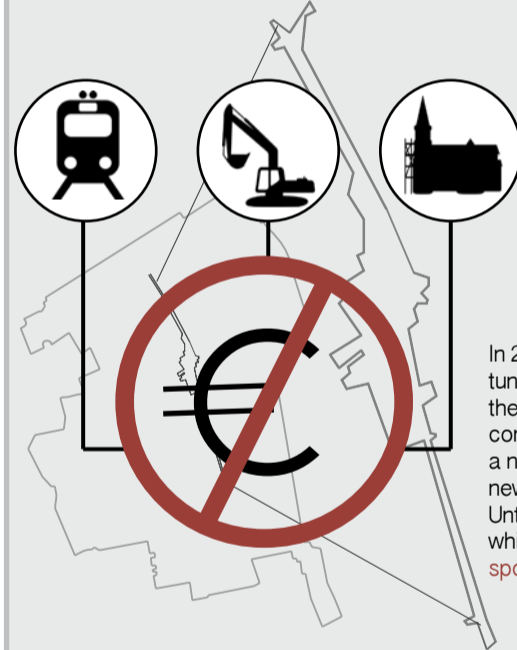
- Do they want us here
- The city of delft is boring, I live & travel from the Hauge
- Who cares, Im only here temporarily

STUDENTS



"IF THE RIGHT HAND DOES NOT KNOW WHAT THE LEFT HAND IS DOING, YOU RUN THE RISK OF BECOMING INEFFICIENT"

DELFT SPOORZONE



€1.2 BILLION EUROS PROJECT COST

€342 MILLION EUROS OWED BY DELFT

In 2002 Delft began constructing a new railway tunnel in an area known as 'the spoorzone'. Since then, unexpected developmental problems have continued to emerge while burdering the city with a number of financial setbacks. Due to the city's new dept, development has been put on hold Until an economic solution can be found. All the while, the question of what to do with the spoorzone still remains.

BRING BOTH GROUPS TOGETHER & GAIN FROM RESOURCS/FACILITIES

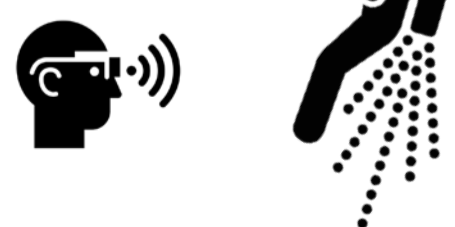
COMMUNITY DEVELOPMENT

MEMBERS COME TOGETHER TO VIEW/ TEST STUDENT WORK THIS HELPING GENERATE A SOCIAL / CULTURAL / ECONOMIC CHANGE



EXPERIENTIAL TECHNOLOGY

STUDENTS SHARE KNOWLEDGE & INNOVATION BEING PRODUCED AT TU WITH CITIZENS



SPOORZONE LOCATION

AREA 42

The spoorzone is currently characterized by train station traffic, ongoing demolition (moving of cables, pipes, old railway, and inward-facing properties). Though the area is experiencing constant reinovations, it remains an inspiring vision for the revitalization of the district. Leveraging the potential of key institutional anchors within the district (tu, local businesses, the municipality) along with memebers of the community, area 42 proposes a plan that creates an environment that fosters knowledge generation and innovation. The plan repurposes recent planning during the historic building stock with uses that accelerate innovation, promote entrepreneurship, and build community relationships around the generation of ideas in a vibrant, mixed-use setting.



#42 MEANING

AREA 51 CONCEPT