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Knowledge for better Cities



Administration
of Perm City

Perm UPAT: Knowledge Hub and Science City, 08-13 July 2012

UPAT OVERALL OBJECTIVE: The objective of UPATs is to think 'out of the box' and to develop **simple, practical and original solutions** that improve the quality of people's life and communities in sustainable cities. These solutions must be implementable and translated into reality within the next years and serve as a paradigm and reference for communities worldwide.



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Пермь

Objectives for the City of Perm: a vision, a strategy and practical steps to become a knowledge hub and science city.

The Ministry of Education of the Perm Region and the City of Perm have a shared interest for vision and a strategy to become a knowledge hub and science city.

This requires an analysis about the way that the universities and the city relate to each other and can benefit from each other in the most positive and productive way.

Therefore, the main objective of this UPAT workshop has been to provide strategic and practical assistance to the:

Ministry of Education, Region of Perm and the City of Perm.

OBSERVATIONS



City in transition (sometimes lost in transition), urgent need to grow towards a knowledge based economy, but now Perm is at a (too) slow speed: **demographic decline as a threat...**

In this moment the absolute value of Perm Economy do not consent to launch astonishing actions – even if extremely needed – of **urban regeneration and renewal**.

PERM SITUATION...AT A GLANCE

Perm is a city at risk! The evident difficulties in managing and steering a proper development strategies can trigger opportunities for un-sustainable and not resilient project...as we saw in many other European (especially post socialist) cities:

The mushrooming of shopping malls (what added value do they provide to citizens knowledge?)

The proliferation of gated communities (they fragment both the civic and the urban fabric and **create social polarization / urban sprawl**)

The realization of high and mono-functional buildings usual architecture without any local identities or added value of uniqueness



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Пермь

Accessibility and mobility (transportation infrastructures) networks are very old and requires urgent need to be updated to current global standards

Public spaces and green areas are not adequately valorized. They do not present particular innovative design, or are not easy accessible and usable and often are running down

Cultural heritage (especially the urban fabric of city center) presents relevant dissonances (e.g. relevant contrast in way of refurbishing historical buildings or in juxtaposing new edifices without considering effects on the urban landscape)

Peripheral urban settlements in extreme difficult conditions and not easy to access, need of ecological upgrading of blocks (energy efficiency/heat dispersion), social and cultural empowerment of populations/local communities

Dispersed facilities, congestion, better logistics needed, shortage in facilities of all kind!



ANALYSIS



THREATS



Urban Sprawl



Traffic Congestion



Degradation of City Centre



Flood Risk



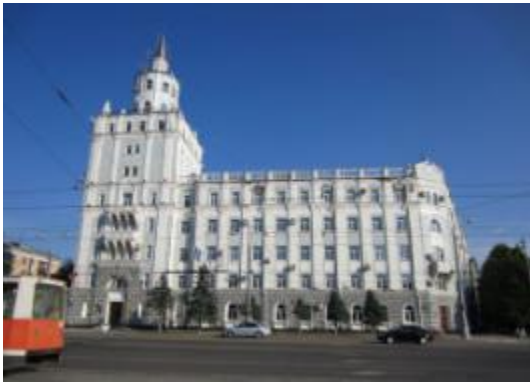
Harsh Pedestrian Environment



Loss of Heritage



OPPORTUNITIES



Historical Fabric



Variety of Universities



Multimodality



Natural Resources

THE CONTEXT

The renaissance of cities all over the world as job generators and ideal biotope in the knowledge economy and **the need to restructure and reorganize them in order to meet the new needs.**

Russian cities have to cope with profound changes in their political and economic context. Increased individualism and growing wealth in combination with a diminishing role for spatial planning have led to urban sprawl and sometimes make chaotic development without much guidance or coherence.

At the same time cities still are in a situation where the political influence of the federal state is still substantial and this limits consistent and coherent decision making on **the local and regional level.**

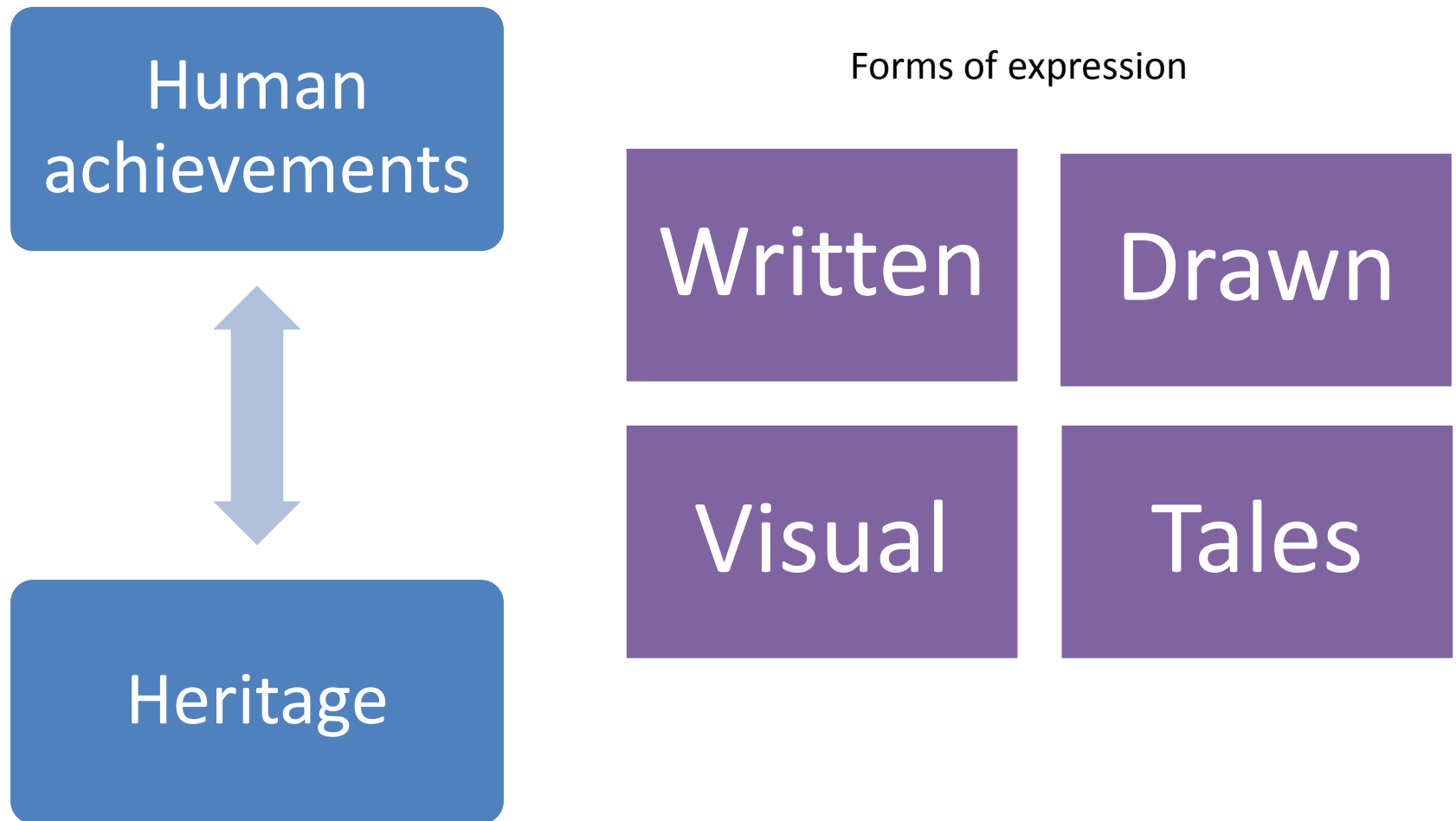


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Пермь

Knowledge – configuration in time and space



Use of Knowledge



Future

- New generated concepts

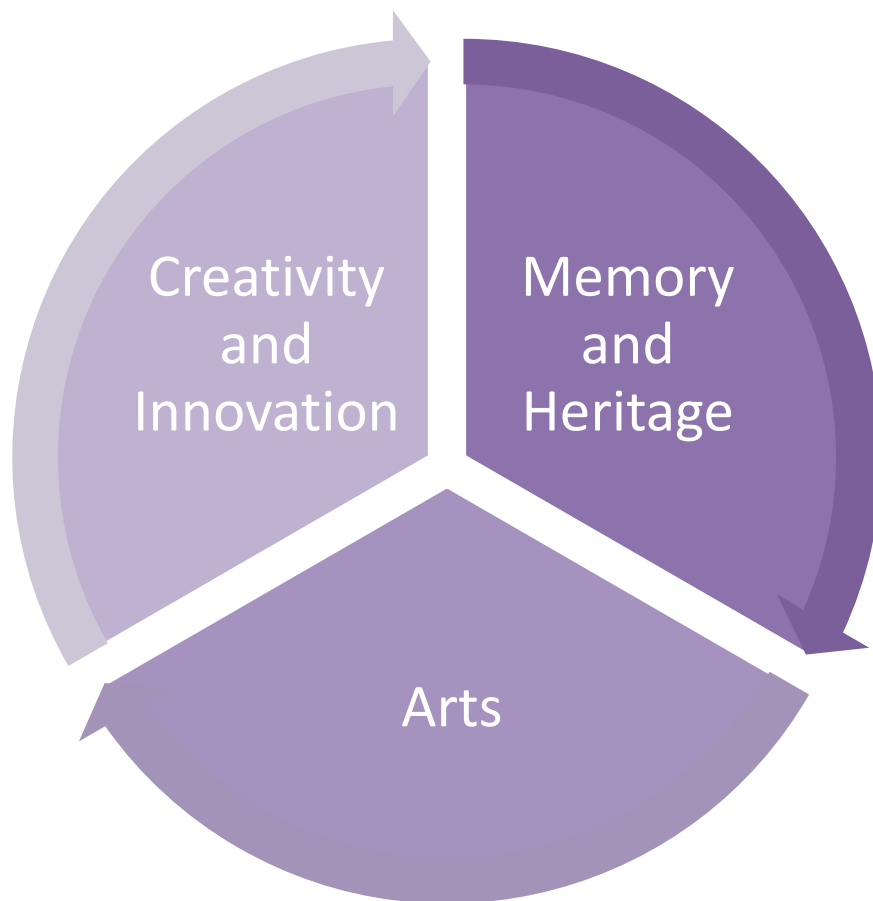
Present

- Expression

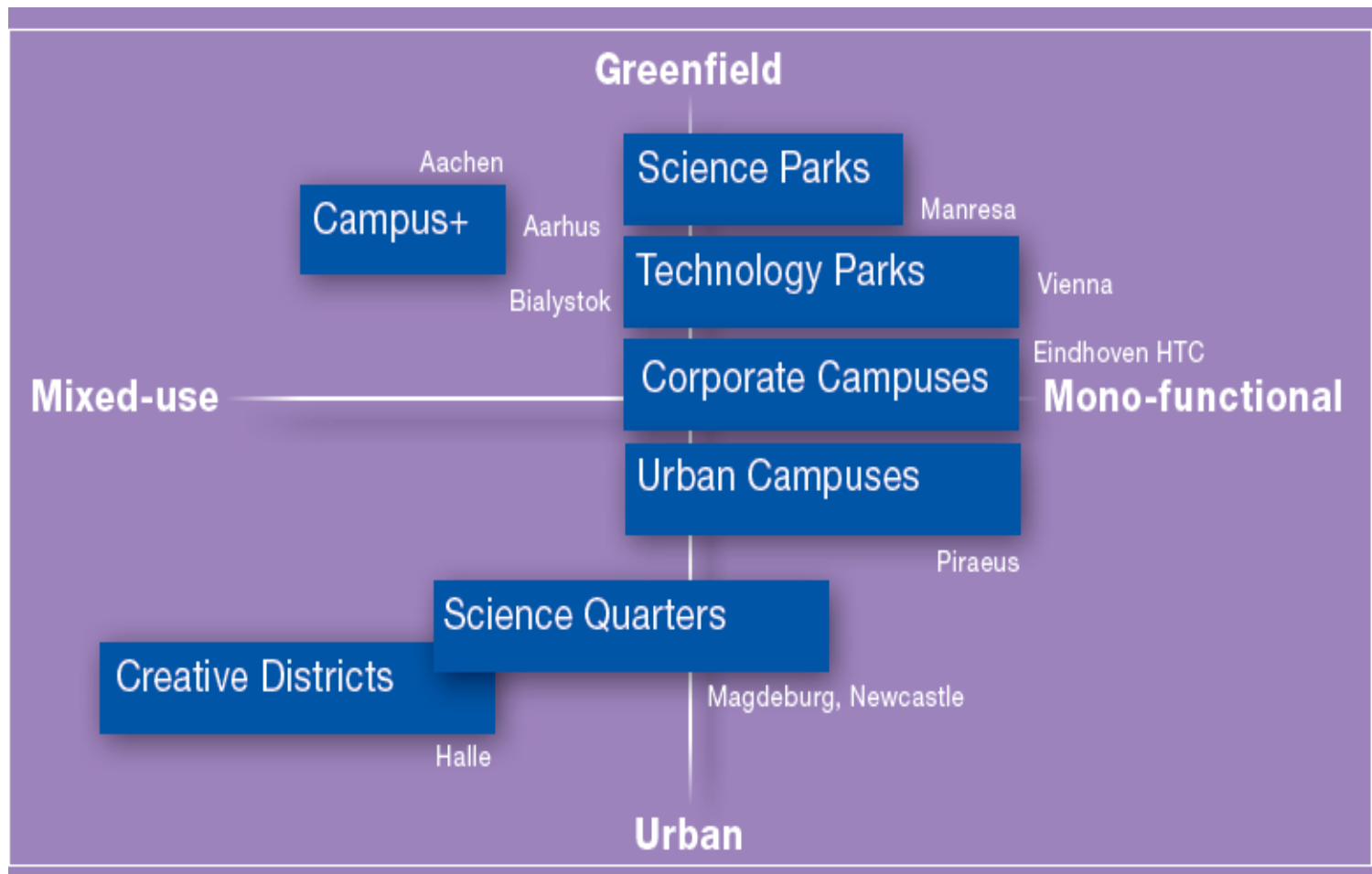
Past

- Recollection

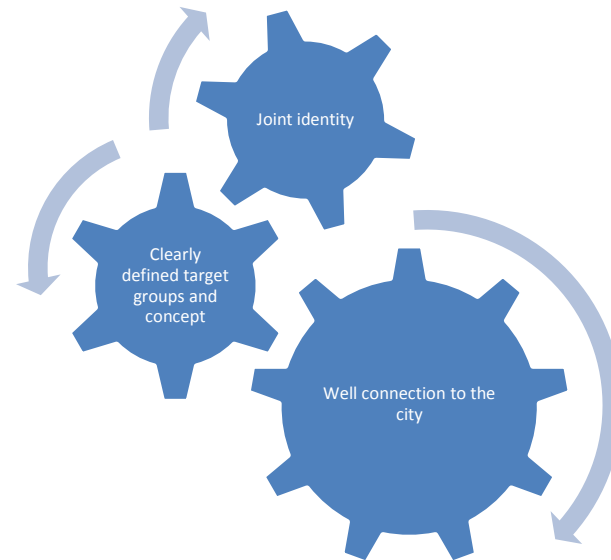
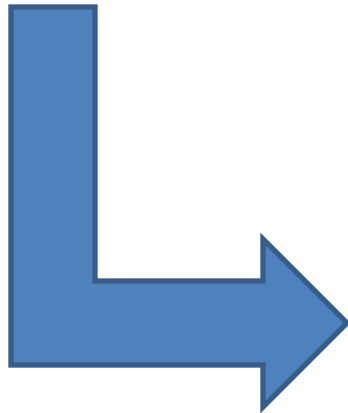
Knowledge



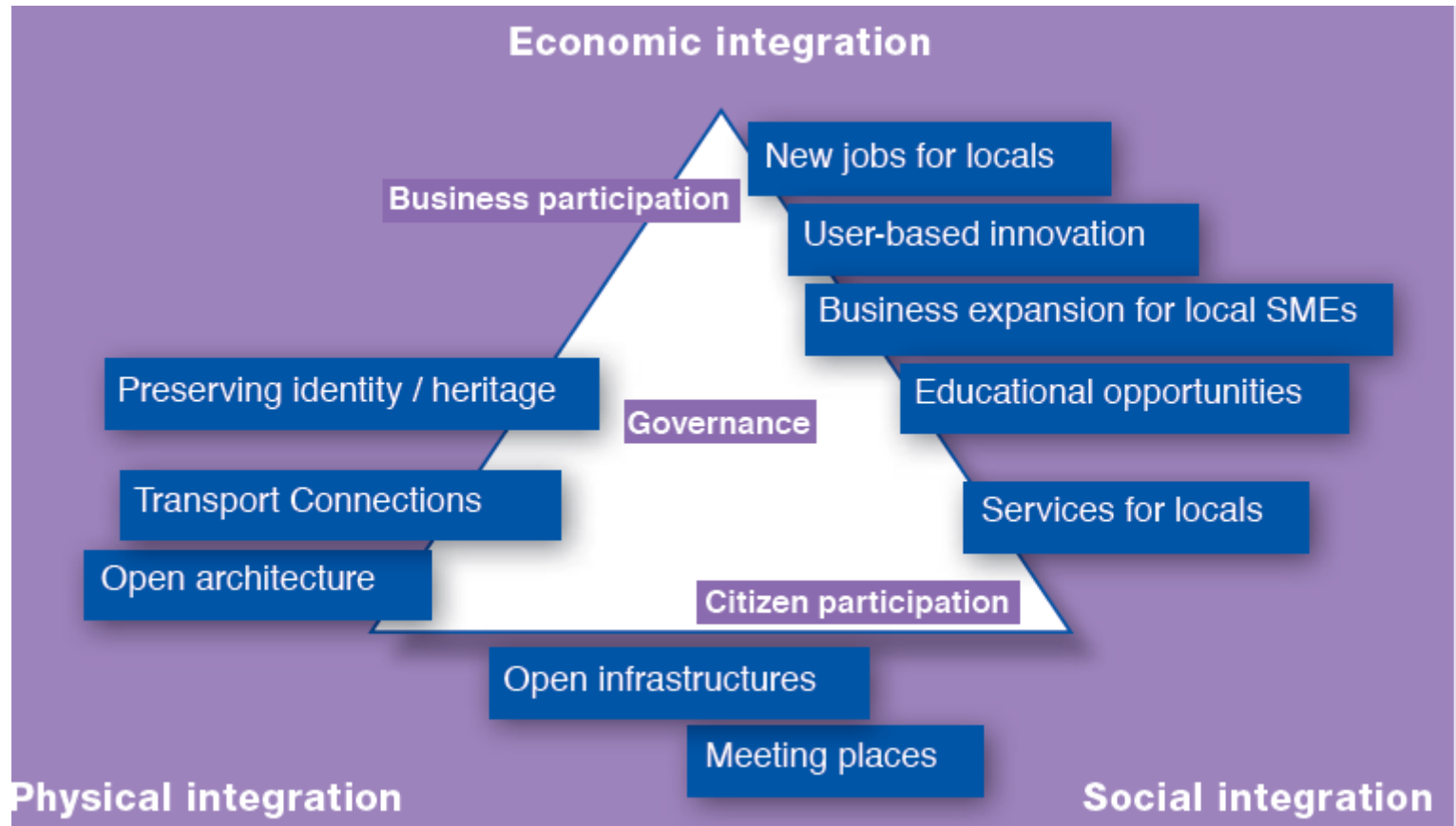
Types of knowledge hubs



What makes a good knowledge hub?



Integration of the knowledge hubs in the urban fabric

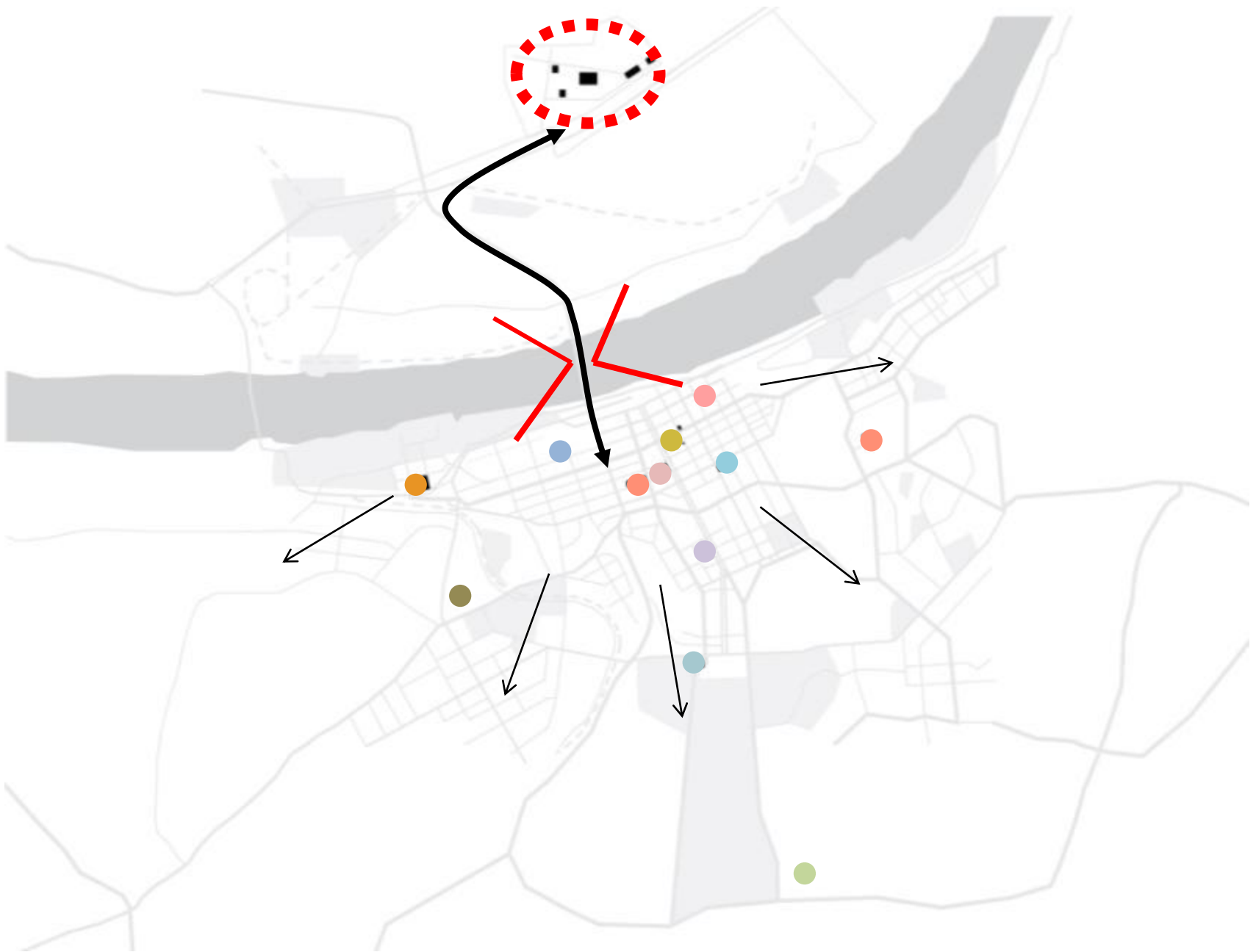




Scenario 1: Business as usual

Scenario 1: Business as usual

- Universities **spread all** over the city
- **Low** educational standard
- **No shared** facilities
- **Decreasing** number of students
- **No improvement** of the existing situation (traffic congestion etc.)
- **No further investments** in education
- **No vision** for the city



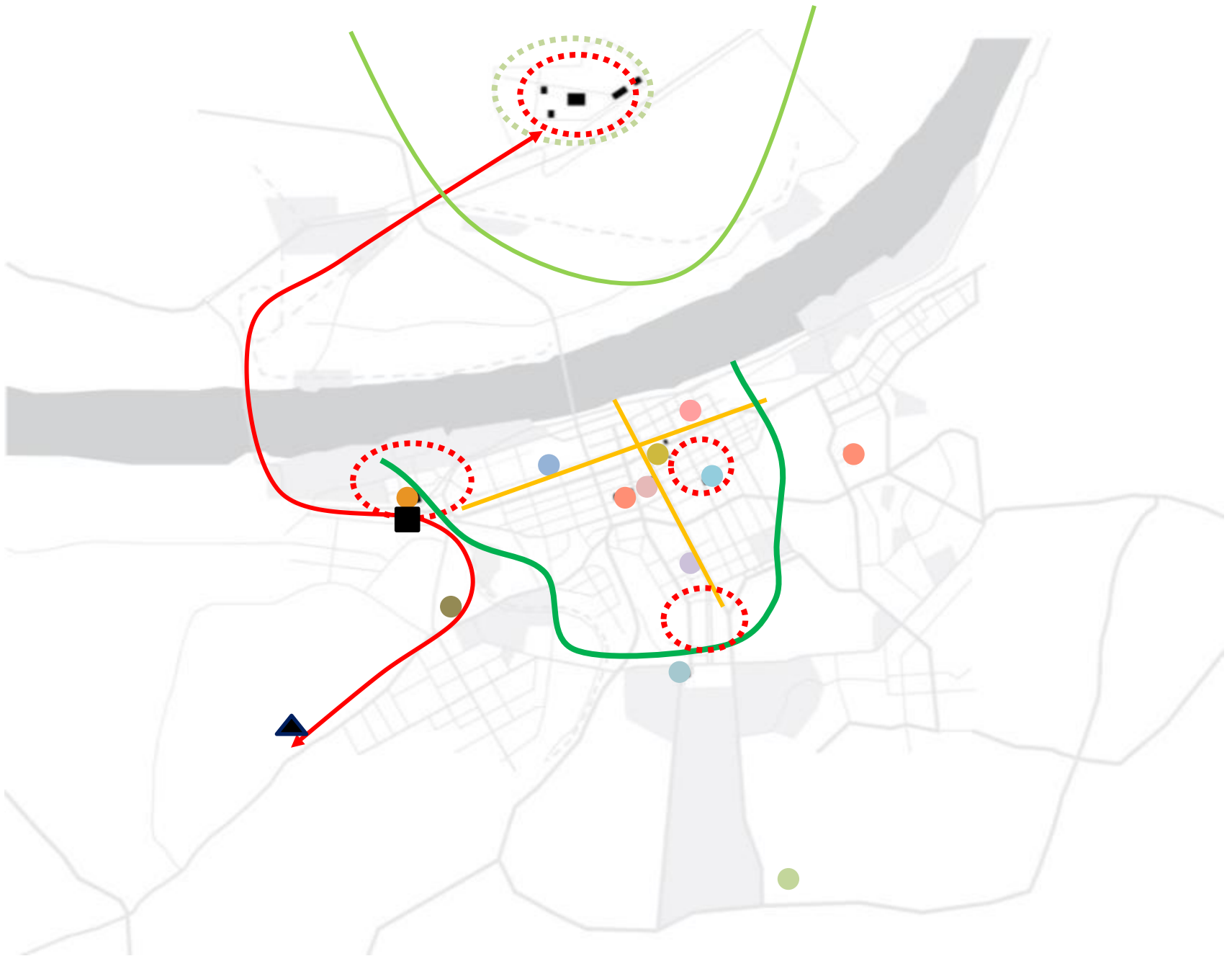
Scenario 2: Techno-Park



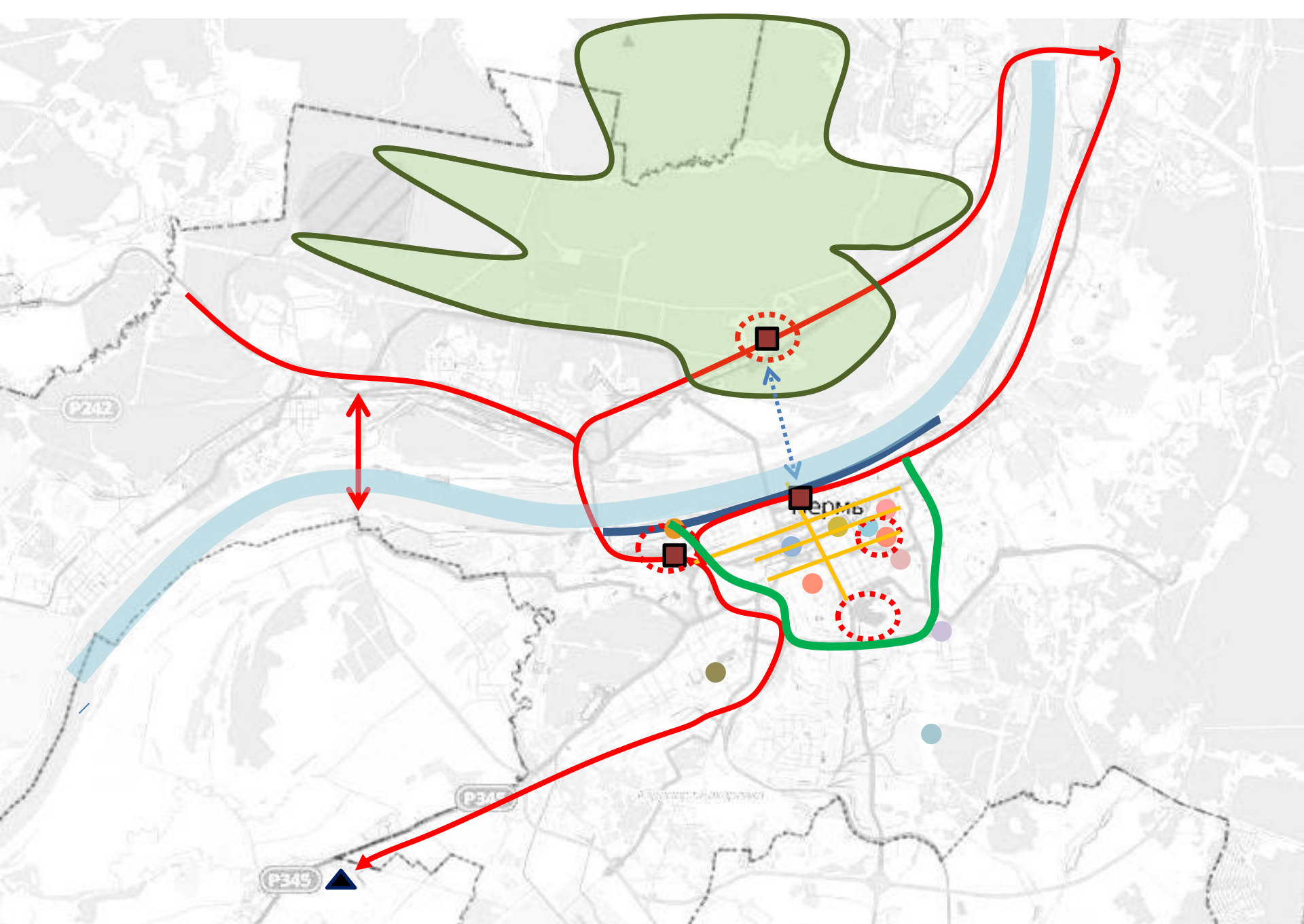
Scenario 2.2: Techno-Parks **without the City**

Scenario 2: Science Park

- Higher level of research standard
- Permanent number of students (more technical, less classical)
- No shared facilities
- No benefit for the city
- Isolated investment in research center and outer development
- No vision for knowledge city
- Sprawling development on the north embankment



Scenario 3: Techno-Park and Science City: City as a Campus



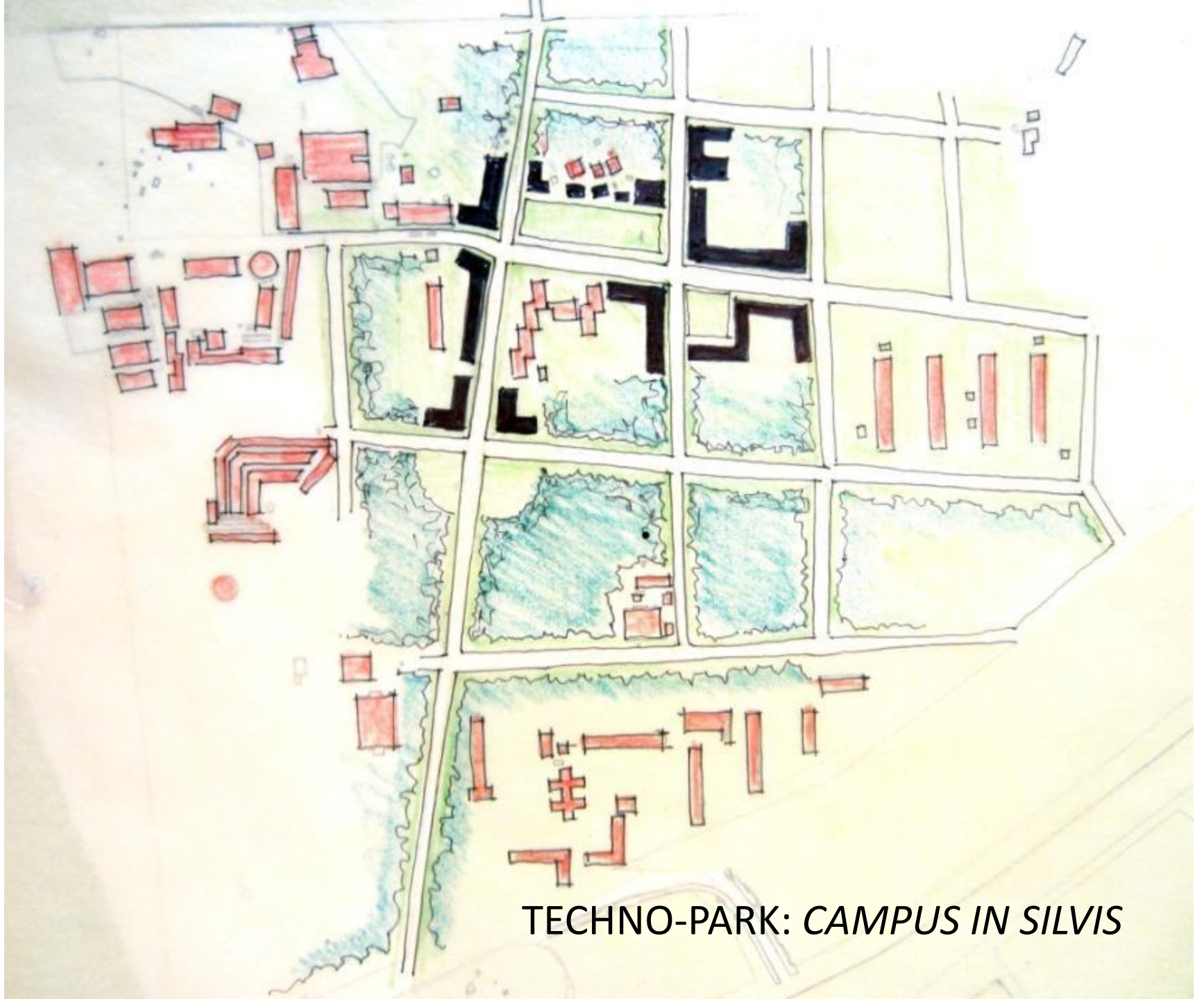
Techno-Park and City as a Campus: Synoptic Scheme

Scenario 3: Science Park and Science City

- Highest level of educational standard
- Increasing number of students
- Shared facilities and additional functions
- Investment with benefit for the city
- Clear vision for the development of the city as a city of knowledge

TECHNO-PARK (*CAMPUS IN SILVIS*): PRELIMINARY CONCLUSIONS

1. Campus as part of a forest
2. Campus connected by rail with Perm II
3. Perm II is connected by rail with Perm Airport
4. Freight trains will use new rail bridge
5. One icon buildings on each side of the river
6. Perm is a colorful city
7. 4th bridge is NOT necessary
8. Respect the flood planes - use the waterfront
9. Forest Campus = Technical university
10. Perm II Campus = Classical university



TECHNO-PARK: *CAMPUS IN SILVIS*



TECHNO-PARK: *CAMPUS IN SILVIS*

FUNCTIONS OF THE SCIENCE CAMPUS



Science Park



residential housings for teachers



Event and sport facilities

SCIENCE IN THE CITY



Universities and shared facilities (library, etc.)



The campus in the city

MOBILITY



Public transportation system: light trains, trams and buses



Improvement for cyclists and pedestrians



CITY CAMPUS: CORE IDEAS FOR THE DEVELOPMENT

- Bringing education, culture, research and business together
- Promoting innovation
- A dense city with high architectural quality
- An urban and liveable city
- Revitalizing the knowledge spots in the city

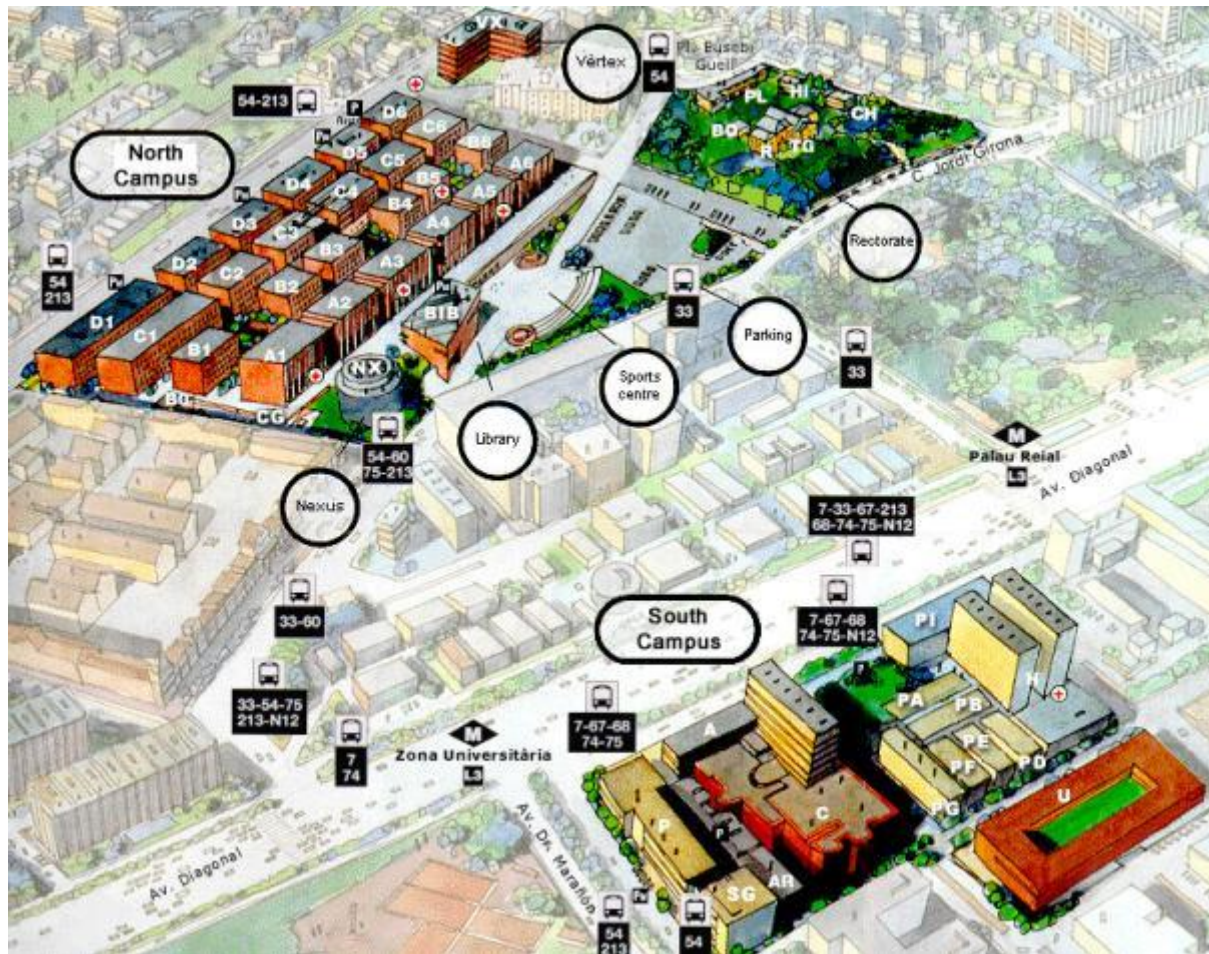
Barcelona @ 22 Example

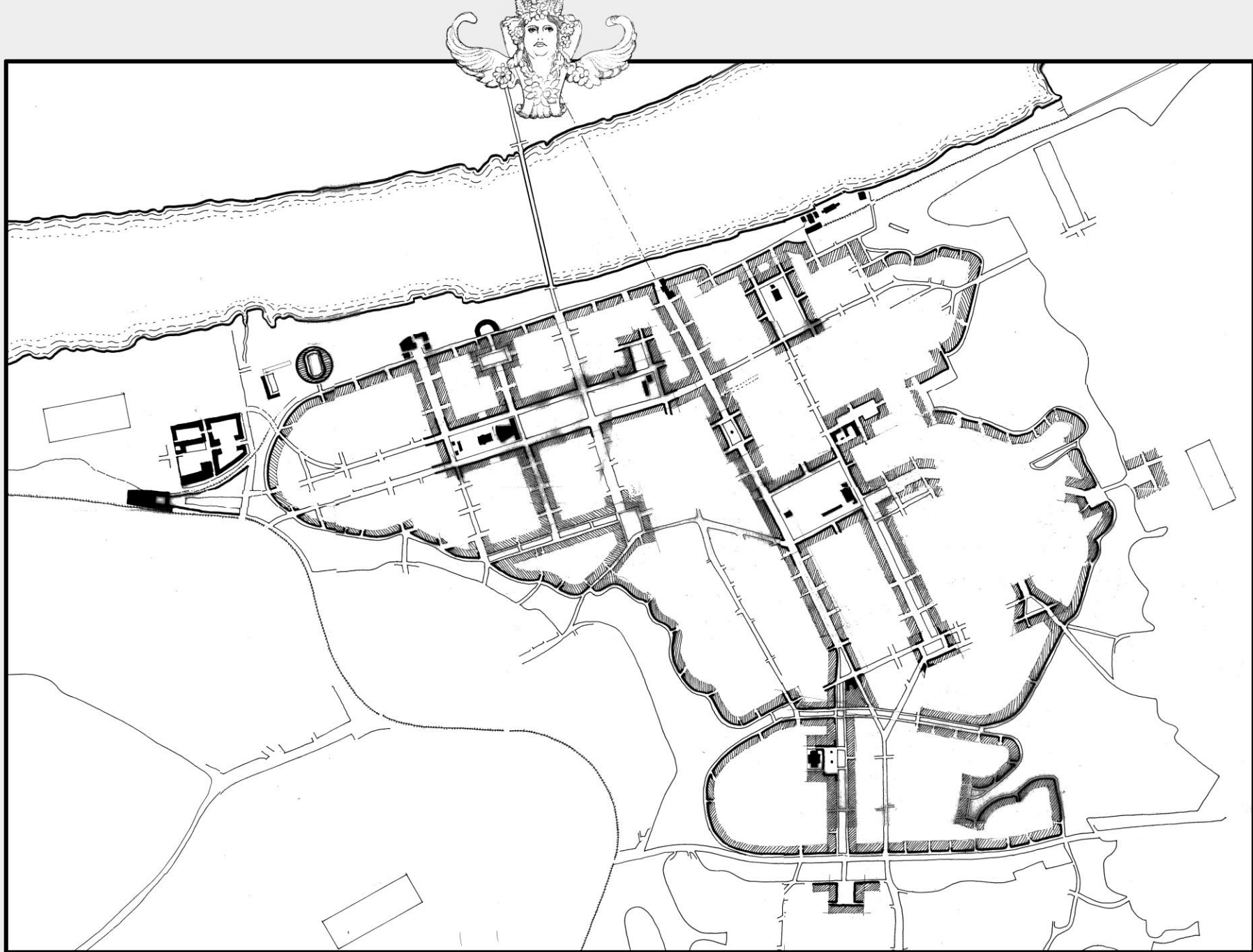


Concentration of intensive knowledge-based activities

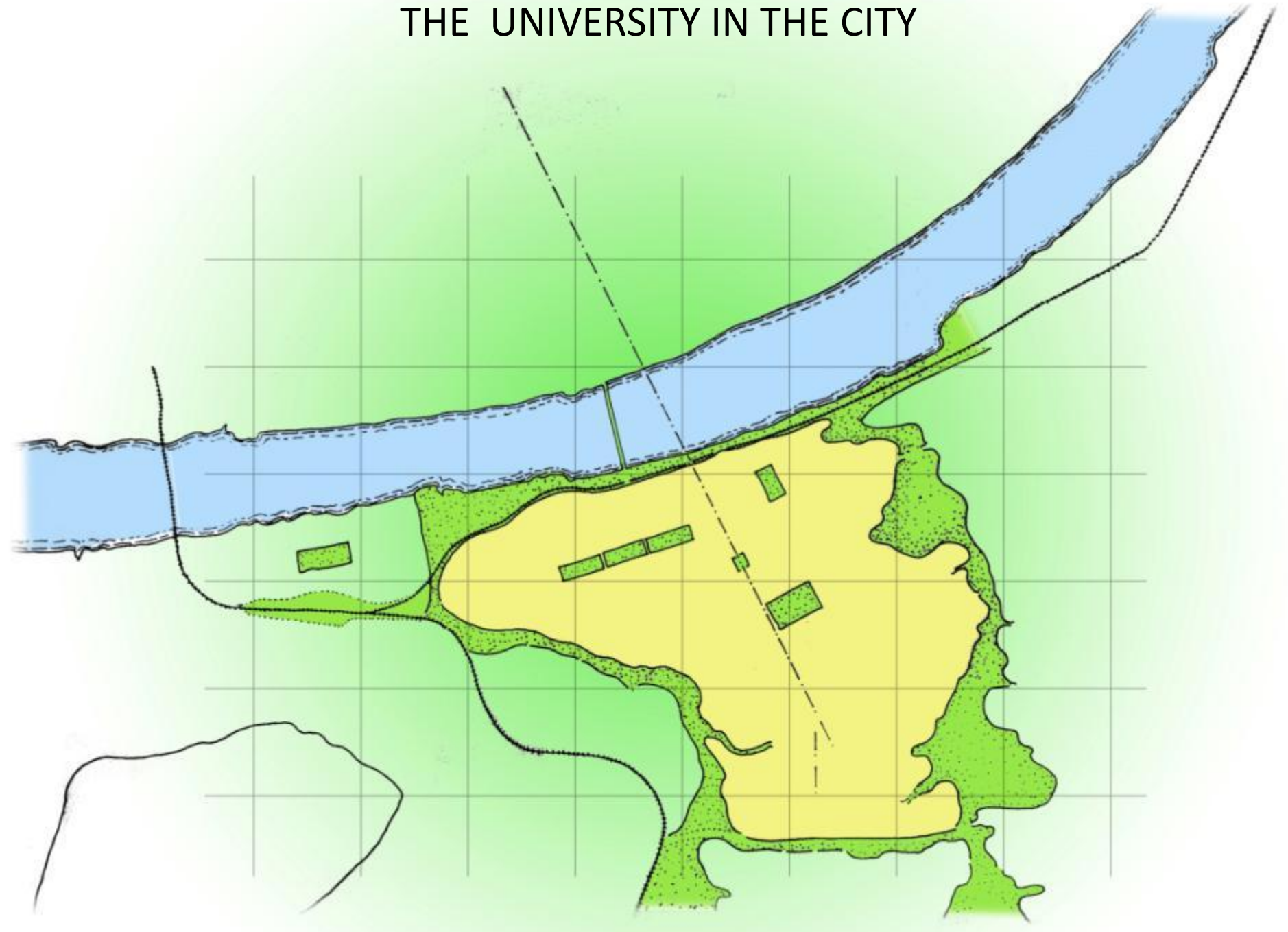


Barcelona @ 22 Example

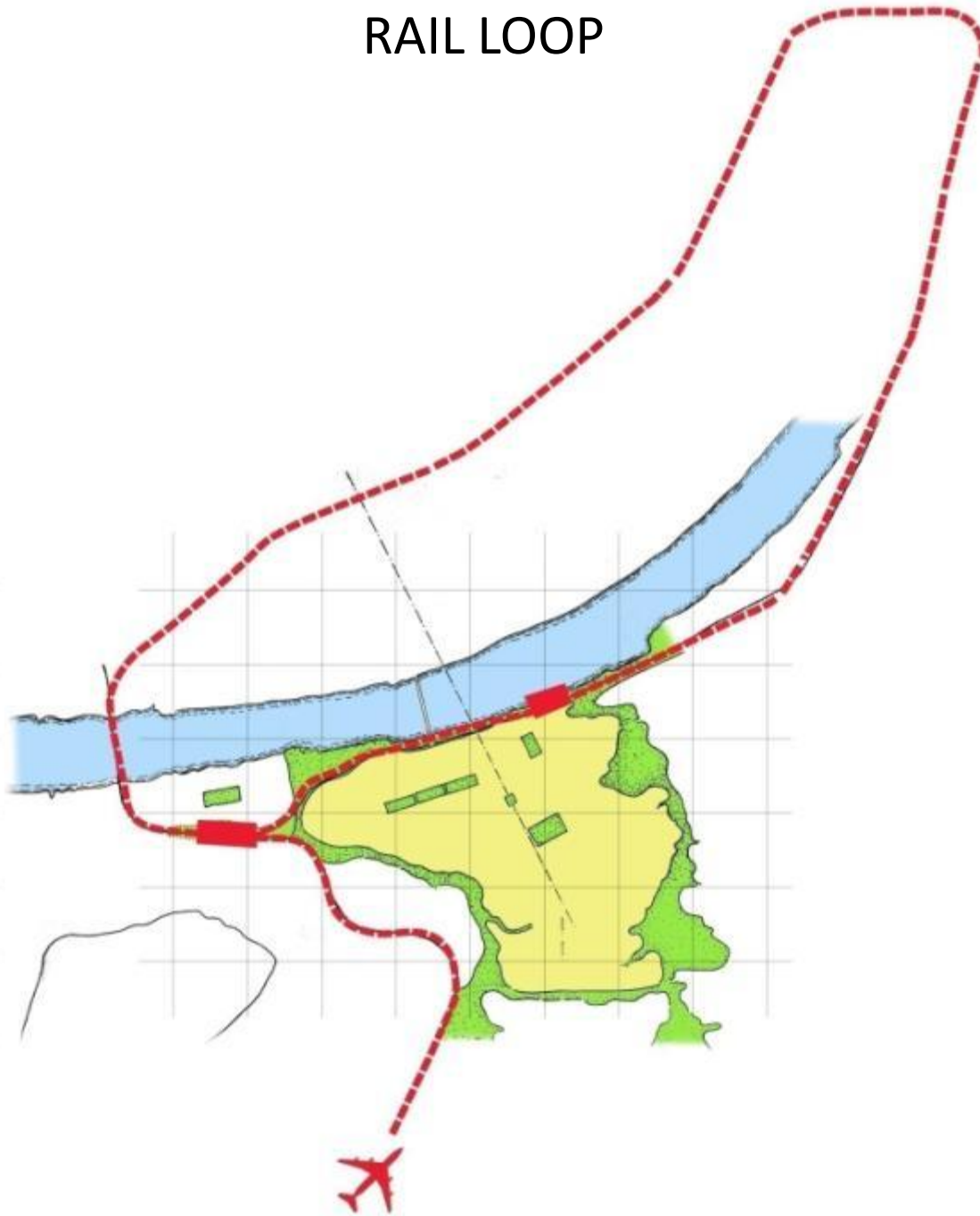




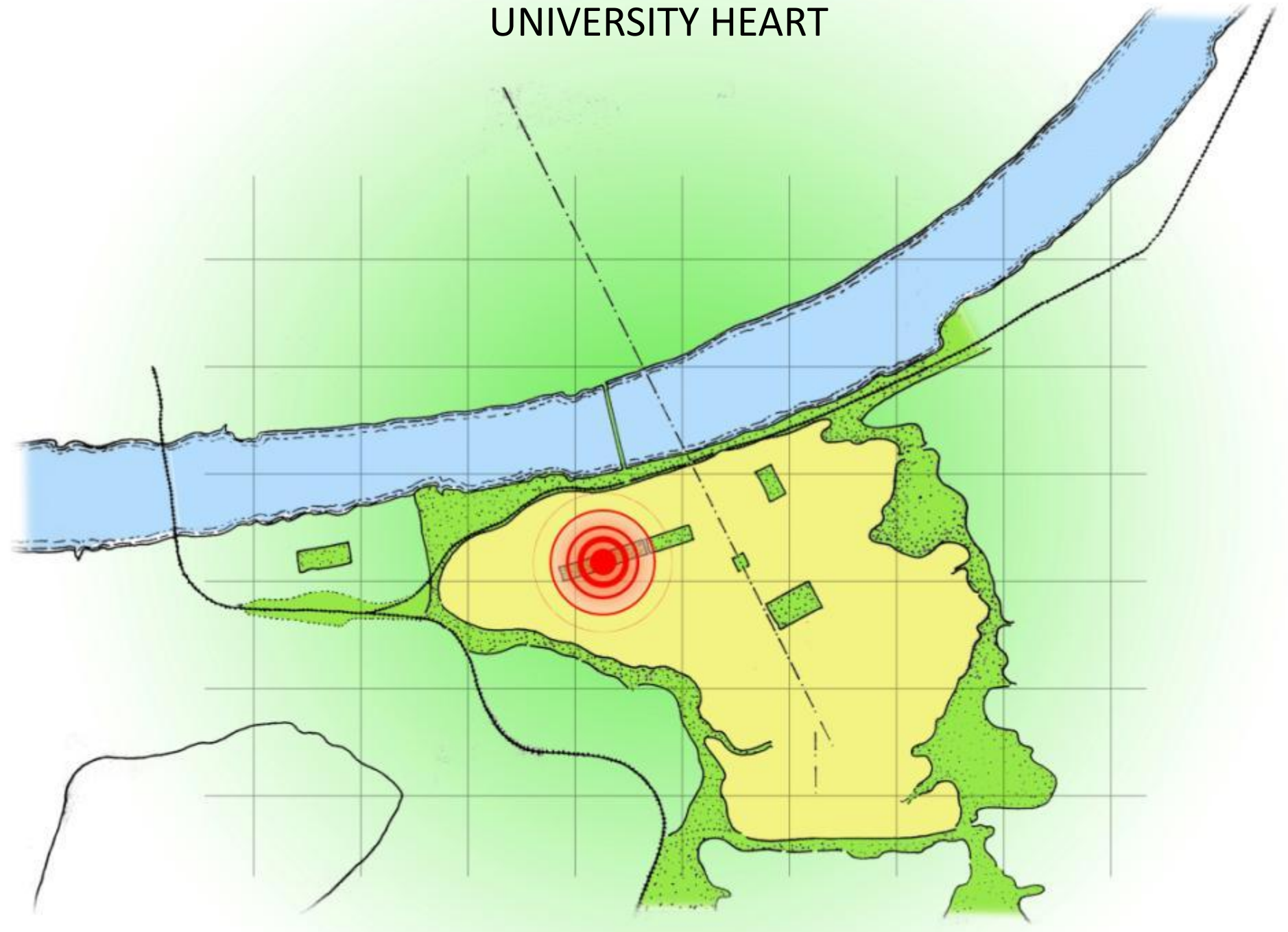
THE UNIVERSITY IN THE CITY

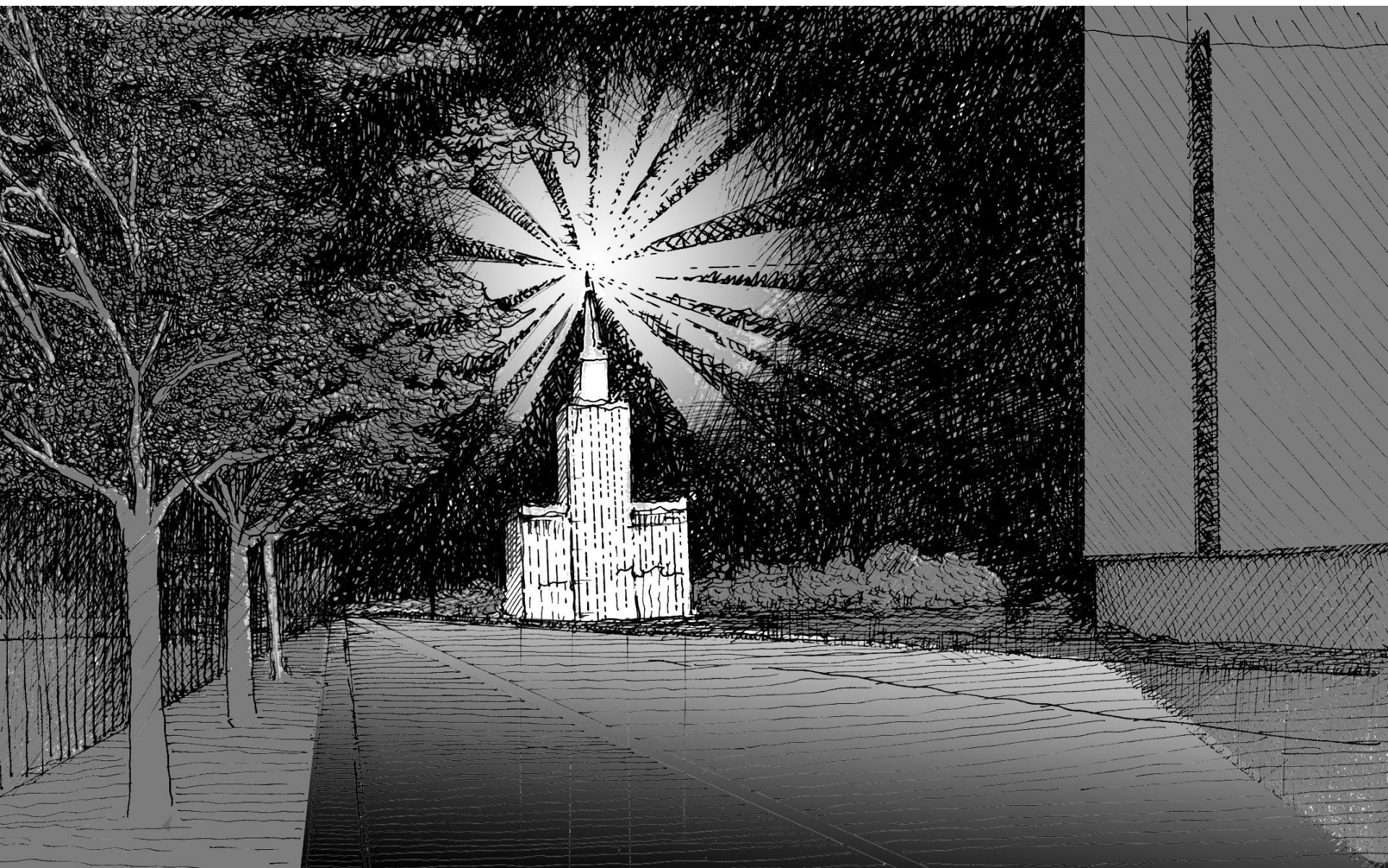


RAIL LOOP

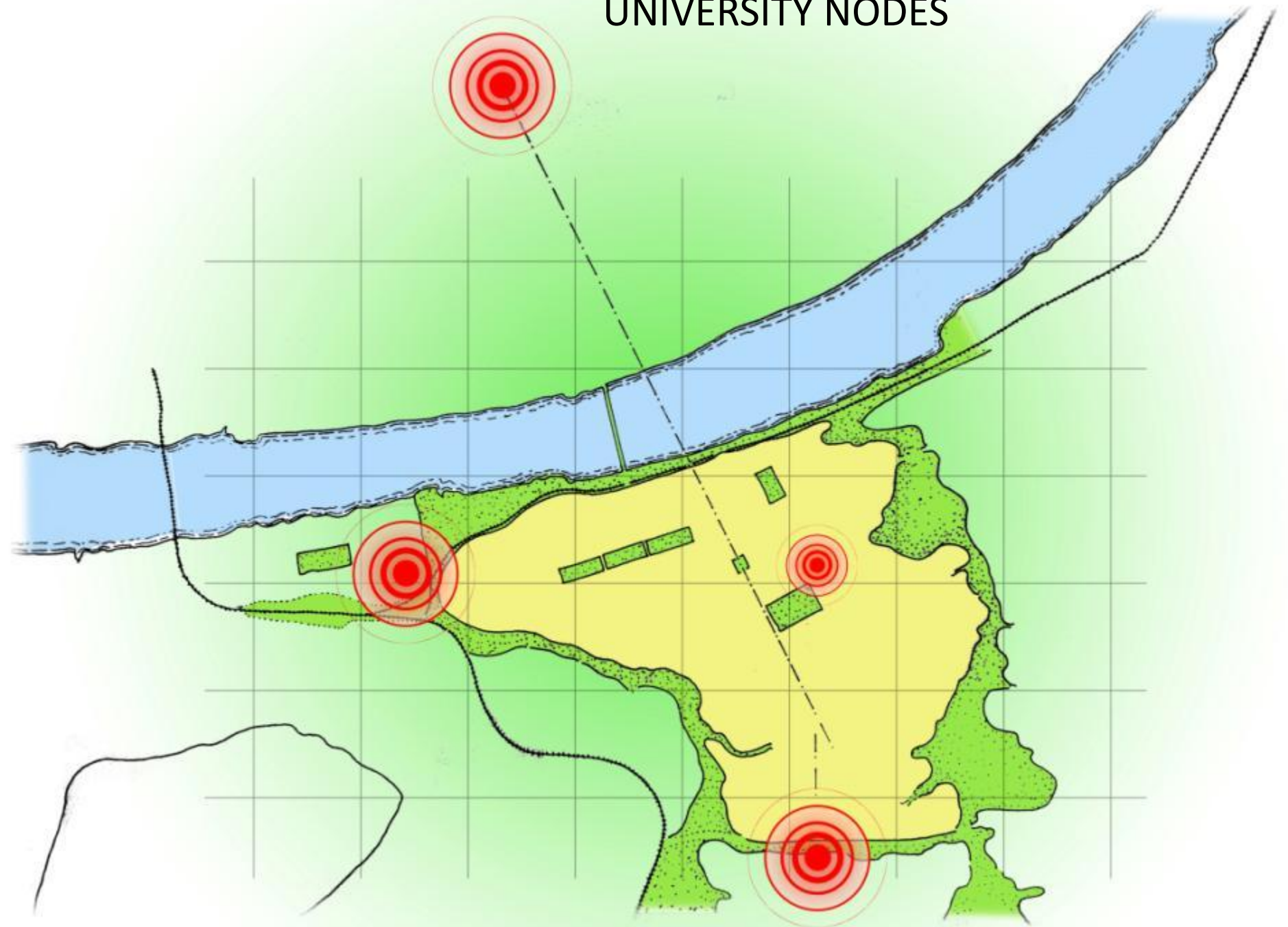


UNIVERSITY HEART

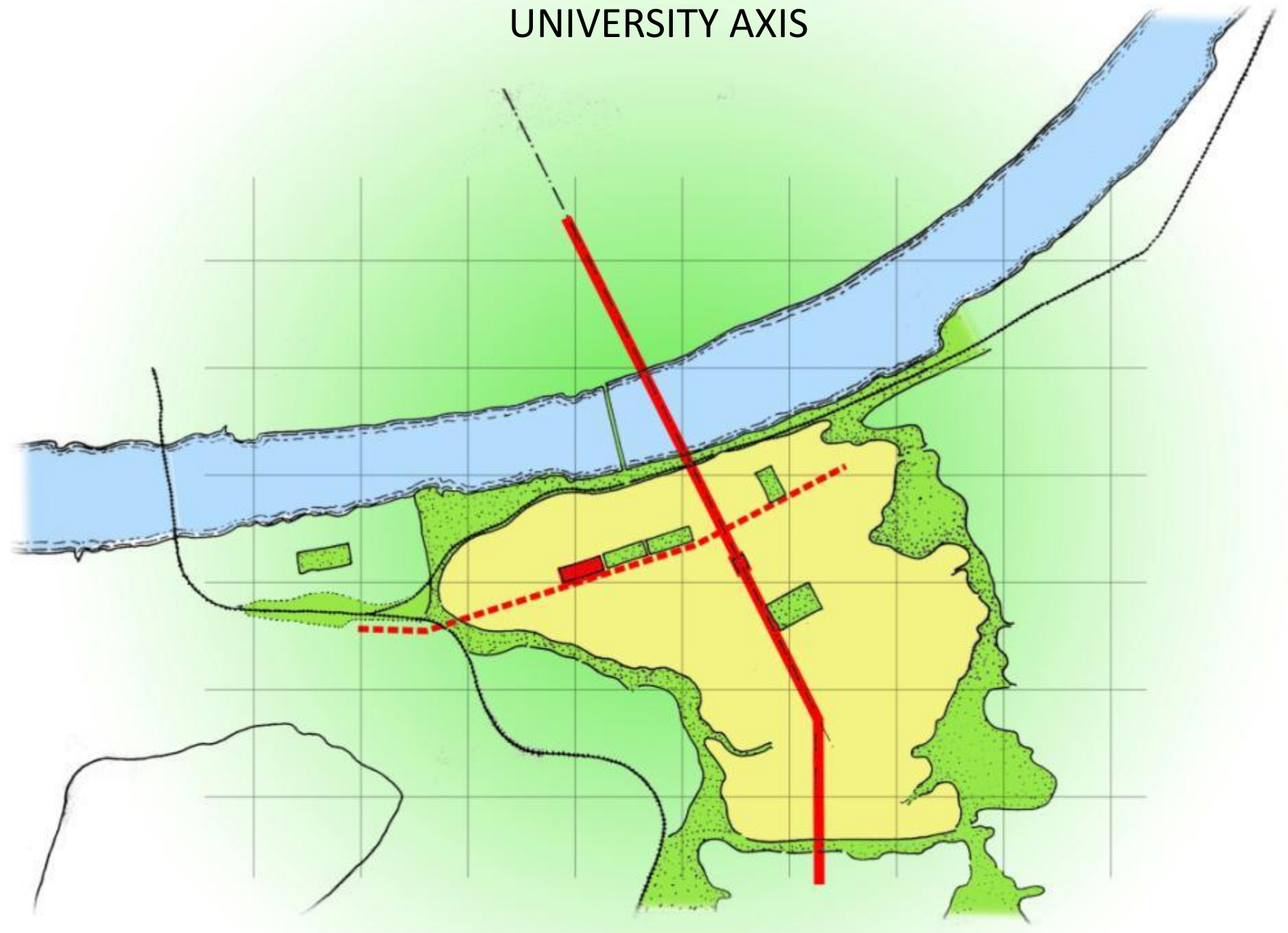




UNIVERSITY NODES



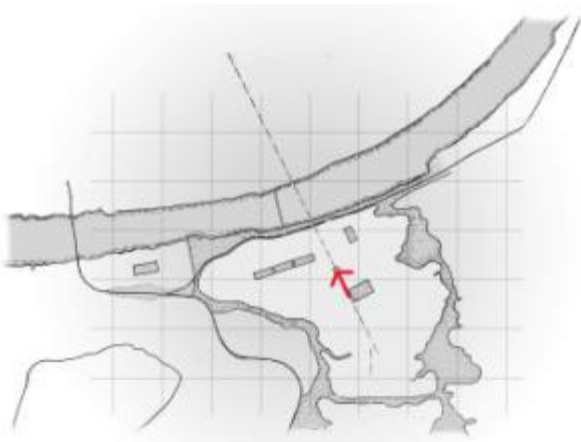
UNIVERSITY AXIS



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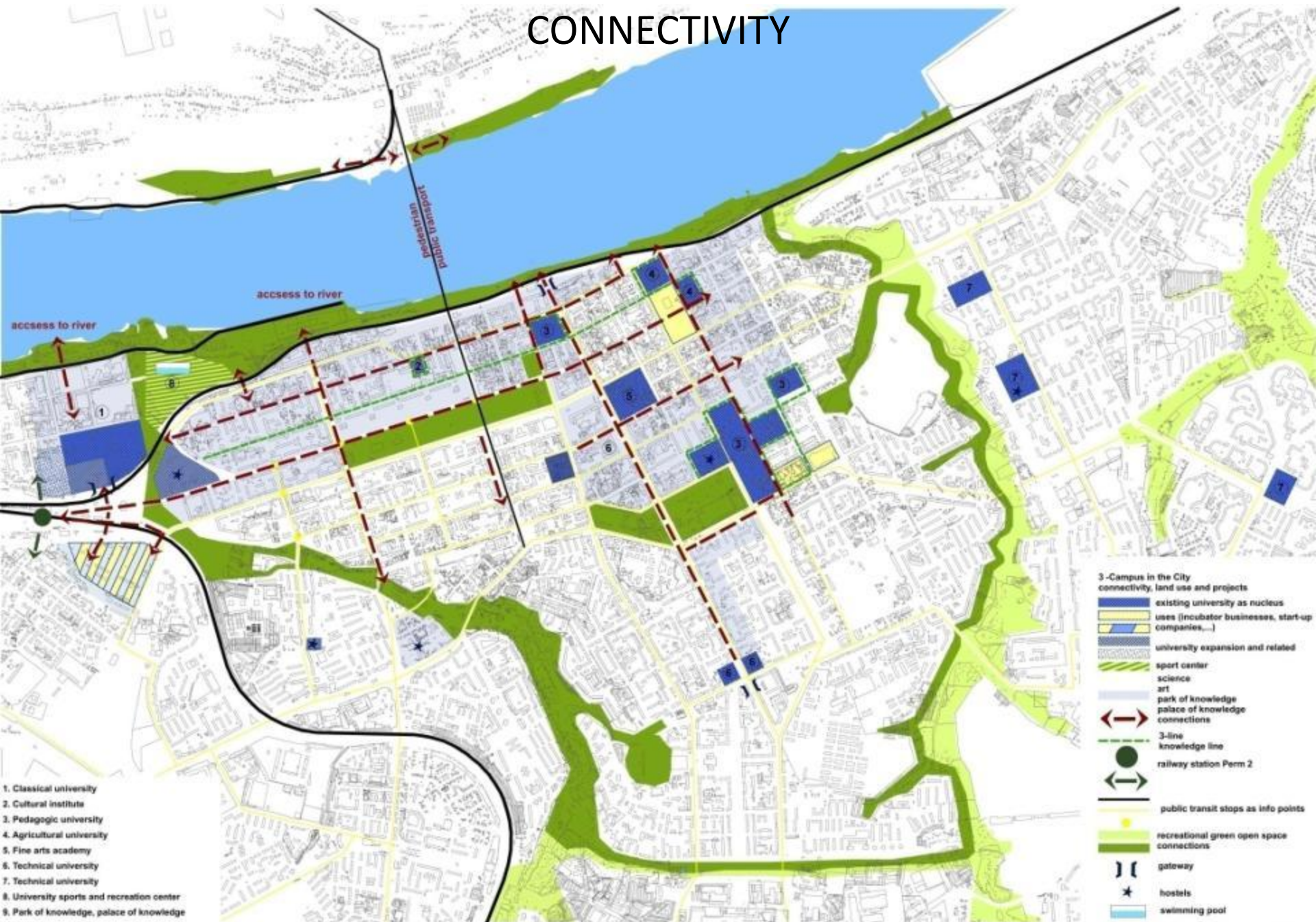
UNIVERSITY AXIS



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CONNECTIVITY



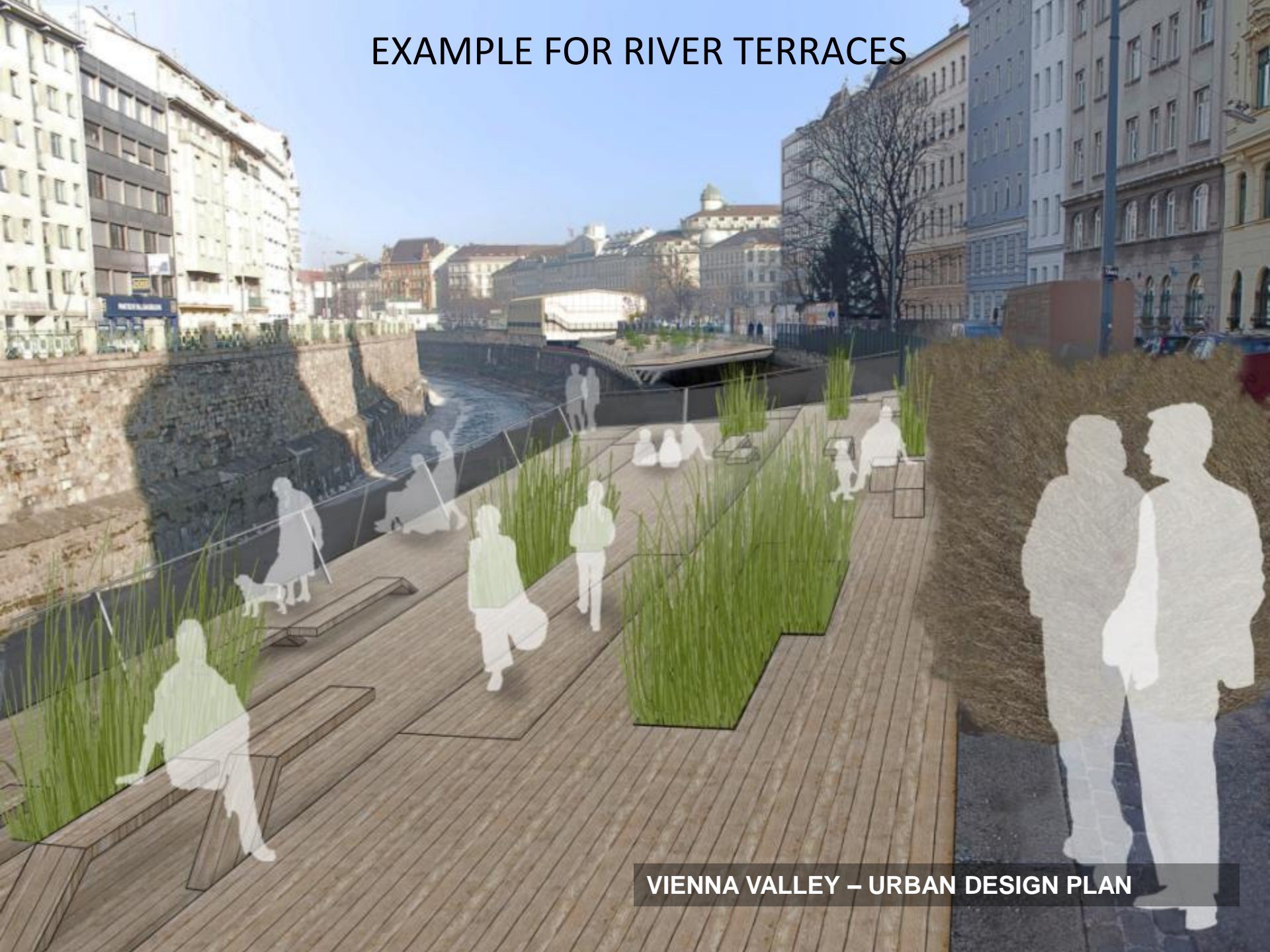
CONNECT RIVER TO THE CITY WITH TERRACES



EXAMPLE FOR RIVER TERRACES



EXAMPLE FOR RIVER TERRACES



VIENNA VALLEY – URBAN DESIGN PLAN

EXAMPLE FOR RIVER TERRACES



Lyon: conversion of former parking lot into recreation area

Architect: Helene Jourda

WALKABLE STREETS



Improvement and widening of sidewalks in front of campuses

WALKABILITY



Mixed Land Use



Lane Width



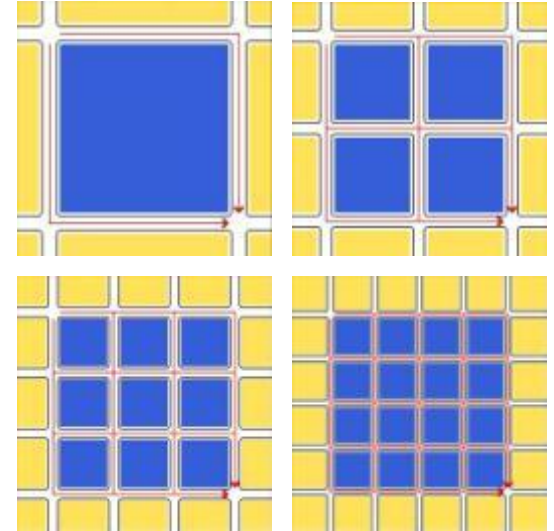
On Street Parking



Lighting & Safety



Lower Traffic Speeds



Interconnected Streets



Buildings Fronting a Street



Street Trees



Sidewalks & Crosswalks

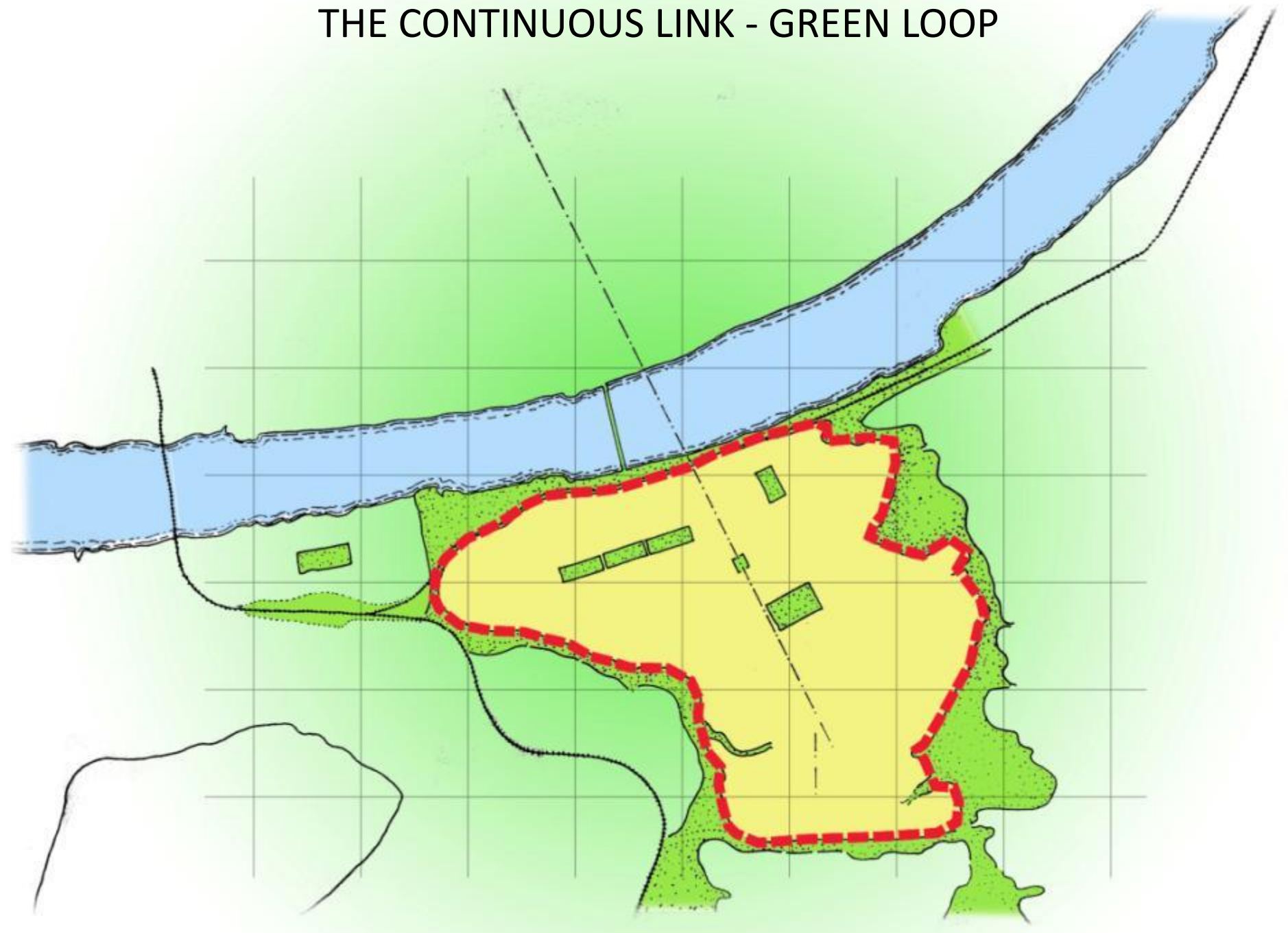
«3»-LINE



INFO-TRANSIT STOP



THE CONTINUOUS LINK - GREEN LOOP



COMMON SPORT FACILITIES IN THE GREEN LOOP



COMMON SPORT FACILITIES IN THE GREEN LOOP



COMMON SPORT FACILITIES IN THE GREEN LOOP



PRIORITIZATION / PHASING



PRIORIZATION - PHASING MAP

- Phase I – Immediate Implementation possible - 2012
- Phase I - Implementation possible in the near future - 2013
- Phase III - Implementation possible in the future - 2014
- Phase I a – **Pedagogical Campus** : improve connectivity
- extension with start-up companies in buildings in the vicinity
- Open space and street design along the edges of the campus
- Phase I b: **Central Library** in the building of Technological University in the city center
- Phase 1 c: Create a „**3 –Line**“ – as the „**Line of Knowledge**“, street-cars and buses on certain streets in special design, Internet, stops as information-points
- Phase I d: **Kama Bridge** for pedestrians, bicycles and public transportation
- Phase I e: **Parc of Knowledge with the Palace of Knowledge** on available industrial site
- Phase I f: Create **access to the river with terraces**
- Phase I g: Improved **access to the beaches**
- Phase II a: **New shelters for transportation stops** with wireless internet
- Phase II b: **Central sports complex** with swimming pool on industrial land by the river
- Phase II c: **river park along Kama river** - terraces connect to the city
- Phase II d: **Valley parc connection** for pedestrians, cyclists and public electric bus

A coherent strategy for a college town/ city of science, better public space, clear urban containment strategy (compact city on one side of the river), decision on the future of the campus on the north bank, a secure protection arrangement for the flood risk area (strict building restrictions), earn money with the knowledge economy, bridging the gap between science and business, making Perm a vibrant place to live and work in (braindrain, improve the quality of life), attracting and keeping talent in the city and in the region.

Less federal rules, more autonomy for the city and its institutions. Moscow is sending strong incentives for quantitative growth while city institutions aim at qualitative growth. What counts for both is that the city as well as the knowledge institutions are in the need of a more controlled growth in their own domain.

UPAT PROPOSAL KEY ITEMS

- **Elaborating the city as a campus** in a concept, a design and in instrumental conditions. **Annex with it, the development plan for a techno-pole on the north bank** within already given conditions (160 ha) in combination with the city as a campus.

We see the further development of the already existing campus on the north bank as a given fact and a possibility for enhanced functional and spatial quality which can be part of the success of Perm as a knowledge city and which does not necessarily conflicts with the concept of the city as a campus.

We have concluded that even in a finished stadium of development there **is no current urgent need for big and new investments in the infrastructure between city and campus** (at least not in the short period).

- **Economic sustainable growth as a basic requirement** (business incubators, science park, innovation district offering better conditions for knowledge economy)
- Building public support for spatial quality, broader support for the principles of the 2010 masterplan. At the same time **operational tools are needed to implement the proposals of the masterplan** (regulations and economic incentives)

STRUCTURING THE PROPOSAL

- Defining and assessing **long term** necessary measures, investments and interventions (**20 to 30 years**)
- Programming all sorts of actions, specific and generic, for the **next 10 years**
- **Small steps** taken by a broad array of actors, fitting within the long term framework.

We call that everyday urbanism.

ACTION PLAN: WHAT SHOULD BE DONE FIRST ?

In our view we should take practical steps as well as steps that should foster a culture of cooperation and remove the barriers for institutional fragmentation.

In a few (2012/2013) years time there we should be founded a real estate oriented development corporation on the city level (public/private, universities) which has the task to facilitate a better performance of the knowledge institutions in terms of their building stock and logistics. This development corporation also has the general task to do everything that is in the interest of transforming the city on the basis of the concept of the city as a campus.

In order to make first steps in that direction on the short term a task force (city, region, ministry of education and knowledge institutions) should be created whit the task of developing the Techno Pole on the North Bank of the Kama river. The scope of the task force should be to develop both the site itself as well as setting conditions for a proper embedding in the city structure especially the relation with the innovation district around Perm 2 station.



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Пермь

ACTION PLAN: WHAT SHOULD BE DONE FIRST ?

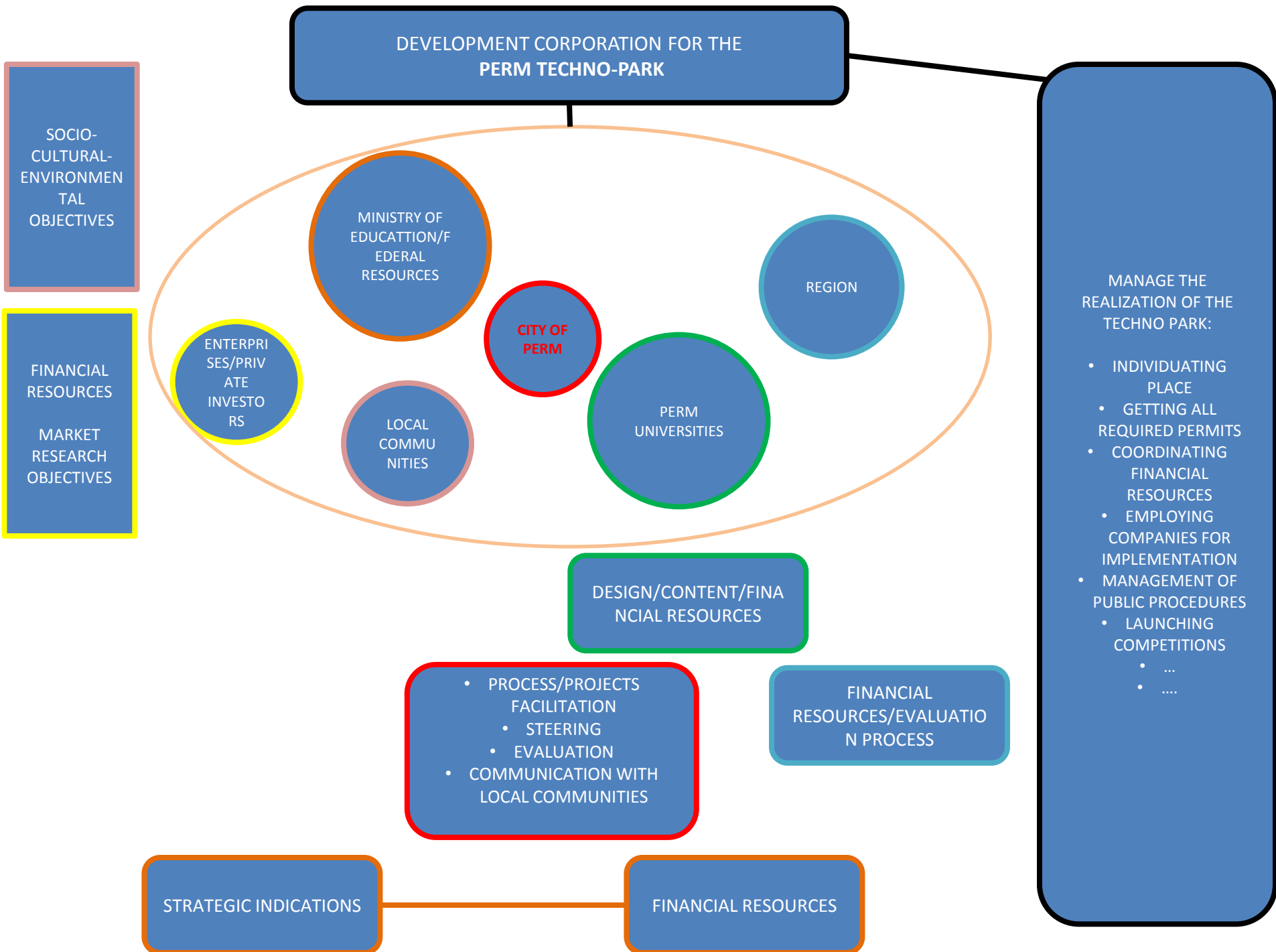
These are practical, operational and maybe original solutions to break through certain dead locks in making the city ready for the next phase. But they should be combined with a set of actions aimed at more transparency and cooperation between the parties involved and responsible for this assignment. There is an urgent need for an informal platform on the city and regional level to discuss the matters and pave the way for actions. We should distinguish the need to discuss matters which are of importance in the long run and need the support and commitment of all parties. But there is an equally important task concerning the short term actions needed, for instance the real estate strategy of the city.

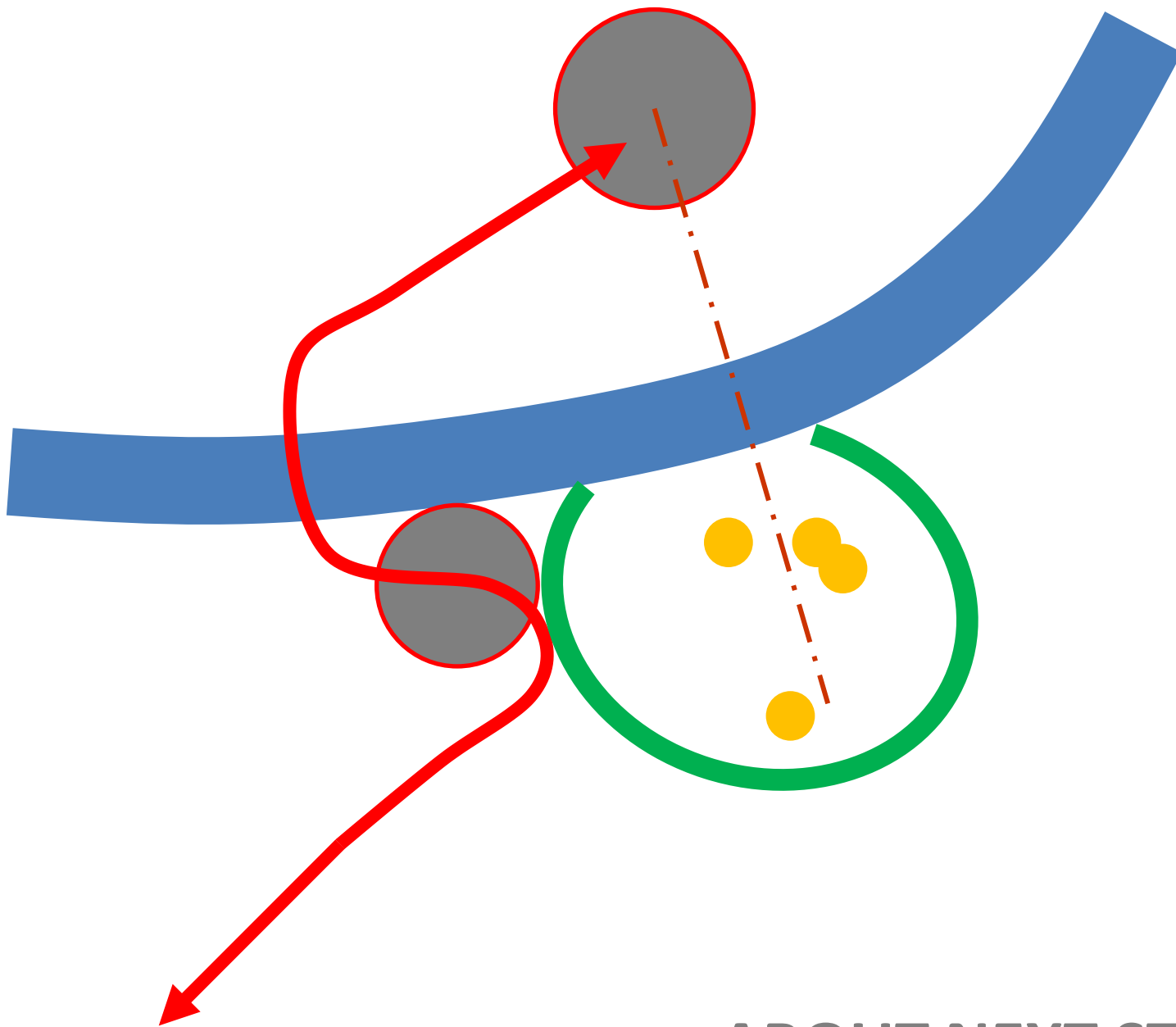


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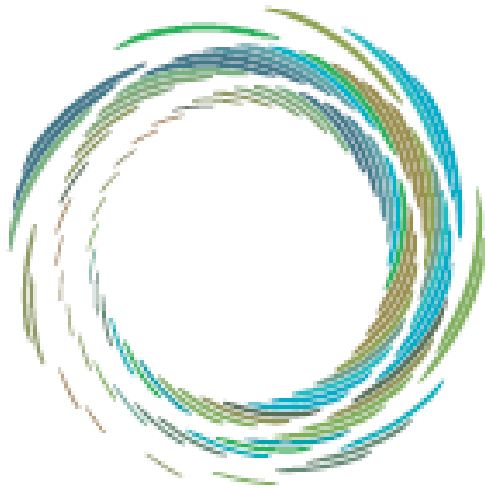
ABOUT NEXT STEPS...

THANK YOU FOR TIME AND ATTENTION!

THE UPAT TEAM



QUESTIONS ?



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