

The background of the slide is an aerial photograph of the EPFL campus in Lausanne, Switzerland. The image shows a large, modern building with a distinctive, curved, white roof structure. The building is surrounded by green spaces and other campus buildings. In the background, a large body of water (Lake Geneva) is visible, along with mountains under a cloudy sky.

S3 as an effective & regional policy response to Grand Challenges and the European Green Deal

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Grand challenges

- One thing is to identify Grand Challenges or societal goals and to argue for more *Moonshots* to spur a step change in the search for solutions...
- ...another thing is to build roadmaps and undertake real activities to deliver the aspired transformation in a cost-effective way

Horizon Europe – Mission areas

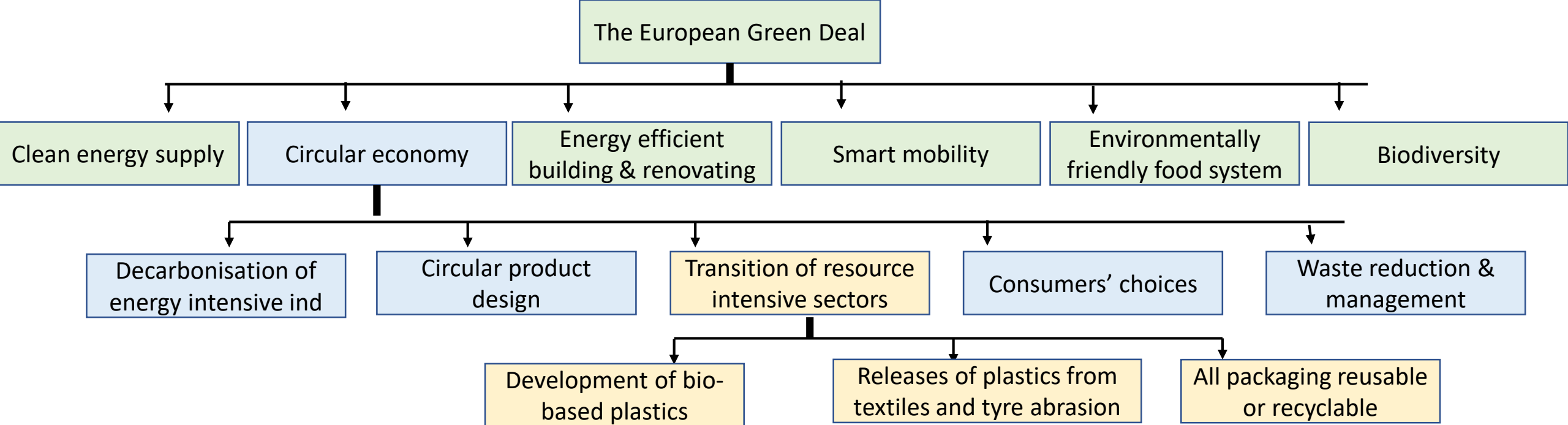


The European Green Deal

von der Leyen Commission

STAINABLE DEVELOPMENT GOALS





Building an intelligent plan from the top does not reduce problems of complexity and uncertainty – even if the plan is established at a very fine level of granularity

- It requires so much **information**
- What is needed is not only technologies but **innovations** and innovation is not something that can be « domesticated »!
- **Redistributive effects**

Recognize **uncertainty**: there is plan but no omniscient planner

The policy design solution is about **combining** a planning logic with a logic of freedom to experiment, entrepreneurial discovery and innovation



North Karelia's
Smart Specialization Strategy



CAMPANIA

Smart Specialization

RIS③

STRATEGY

EUSKADI

Towards a Smart
Specialisation Strategy for
The Basque Country

Department of Industry, Innovation, Trade and Tourism
BASQUE GOVERNMENT



SMART
SPECIALISATION
STRATEGY
OF MONTENEGRO
2019 - 2024

S.me

Smart Specialisation
Strategies



estrategia RIS3
Extremadura

Estrategia de Investigación e Innovación para la Especialización Inteligente de Extremadura

AER

Region
Värmland



- Planning logic and entrepreneurial discovery logic are often opposed (theoretically and in practice) –
 - A plan (or mission) reflects something like a **discipline**, a **roadmap** including clear objectives, targets and results
 - Entrepreneurial discovery (or innovation) requires a different logic based on **freedom to experiment**, involving surprise and discoveries and the market place as the final arbiter
- The **recent S3 experiments** in Europe have engaged scholars and practitioners in developing and testing an effective concept for S3 design and implementation which deals with this tension (between the **need for a plan or priorities** and the **need to let entrepreneurs experimenting and discovering new ideas**)

- **Identifying** priorities which are not just sectors but the **transformation of sectors**
 - A priority is not just a sector but one or several sectors and a direction of change – it targets vertical transformations (just as in the Green Deal of the EU)
- Encourage a logic of **entrepreneurial discovery**
 - The targeted transformation will not follow a path that is decided from the top but will be discovered as the process unfolds

The S3 trademark – 1 – combining the two logics

S3 is marked by a **high level of intentionality, strategic focus and a high level of discovery and initiatives by the actors of the innovation process.**

There is a planning logic in S3 but the plan recognizes the existence of uncertainty – hence the other logic, that of EDP

It is the combination of the two policy logics (frequently opposed) - planning and entrepreneurial discovery - that constitutes the S3 trademark

Neither absolute top down nor total bottom up - ***“It is rather an intermediate process aiming to enhance entrepreneurial coordination within a framework (a small number of priority areas) structured by the government” Paul A. David***

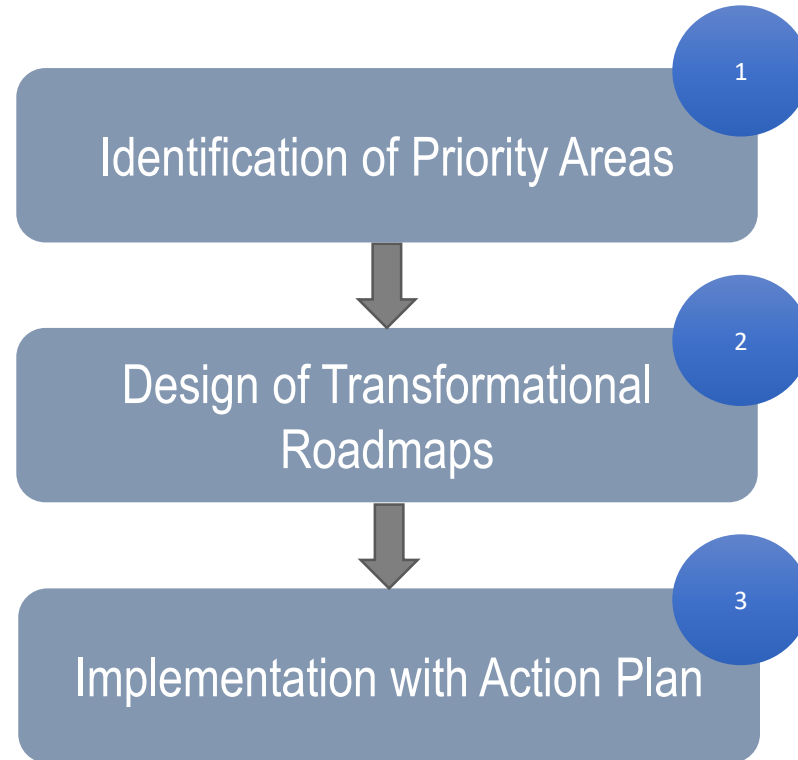
To efficiently achieve such structural transformations, S3 builds on the **logics of agglomeration effects and density of projects: proximity and local systems matter!**

Regional specificities: The priorities which are identified and above all the way they are achieved (the transformational roadmap) reflects **region-specific capacities, potentials, opportunities.**

Three steps

Similarities across regions

Regional differentiation



Planning component

EDP

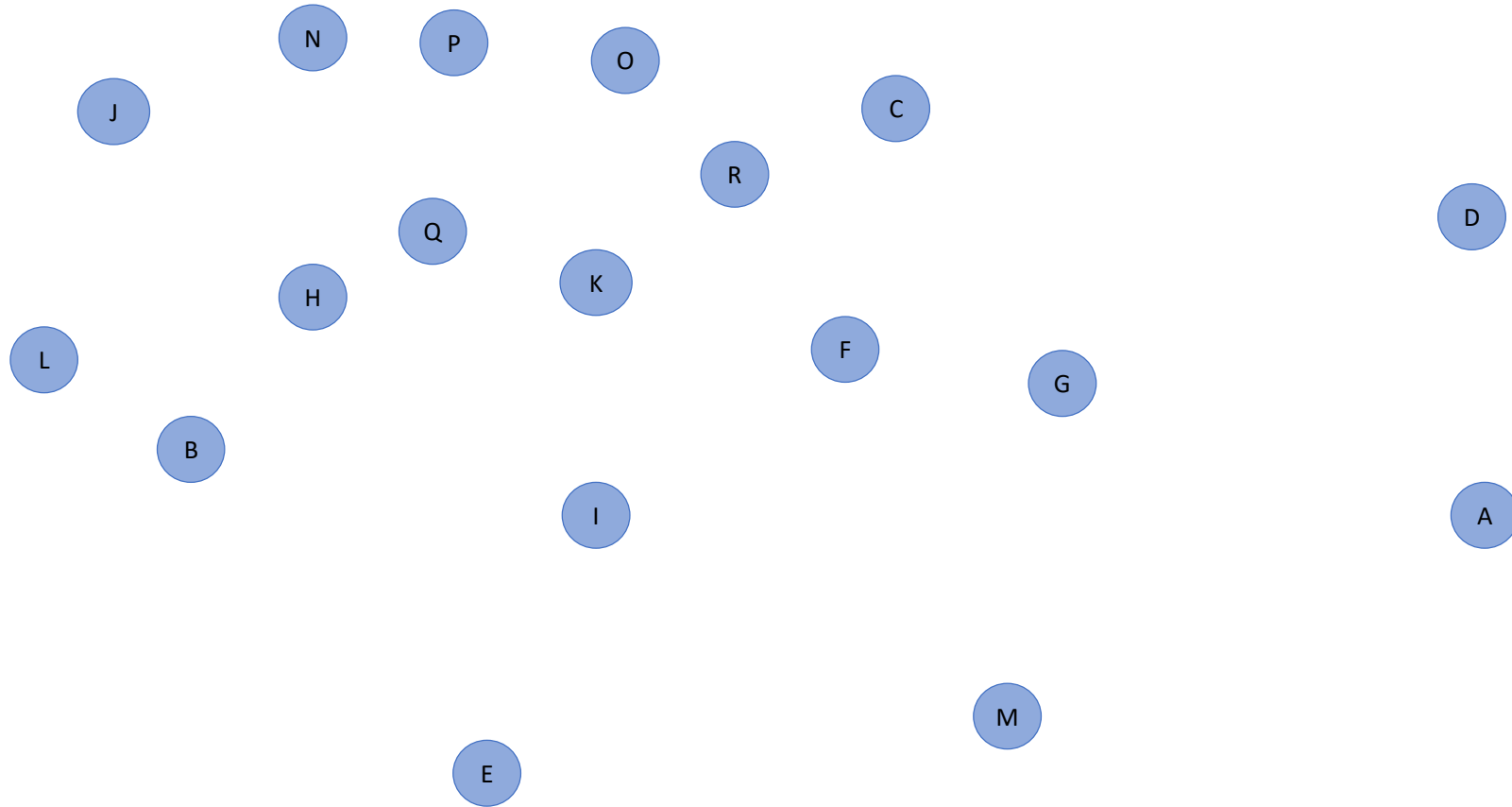
EDP

- A priority area targets **vertical transformations**
- A priority area associates one (or several) sector(s) **with one direction of change**
 - Not too narrow not to broad
 - Reflects regional specific capacities and opportunities
 - Is inclusive
- Defining **a direction of change(for one or several sectors) as a S3 priority** allows to fit a regional economy with the right mechanism to deal with the Green Deal and other Grand Challenges

Step 2 - Design of Transformational Roadmaps

- The **conversion** of each priority area into a more concrete transformational roadmap – the most difficult step – shift from planning to entrepreneurial discovery logic
- Here – in the identification and the search for resolutions for problems and obstacles, it is where **entrepreneurial discovery kicks in**, and **regional differentiation happens**
- Projects are not only about R&D but need to **cover many issues** – training and new skills formation, management capabilities, specialized services, technology diffusion –
- A transformative activity: neither an individual project nor a sector but **a collection of related projects and capacities**, all oriented towards a certain direction of changes
 - The appropriate level of granularity at which S3 must materialize
 - Strategic complementarities
 - Visualization of the process

Generate projects according to a priority area





**What makes a project
a «good» project
to support a Priority Area
(supports the transformation
of a sub-sector towards ...)**

- **Capacity**

- Are the resources needed in the project available?

- **Opportunity**

- How well are latest developments taken up in the project?
(like: technological developments, megatrends, new business models, ...)

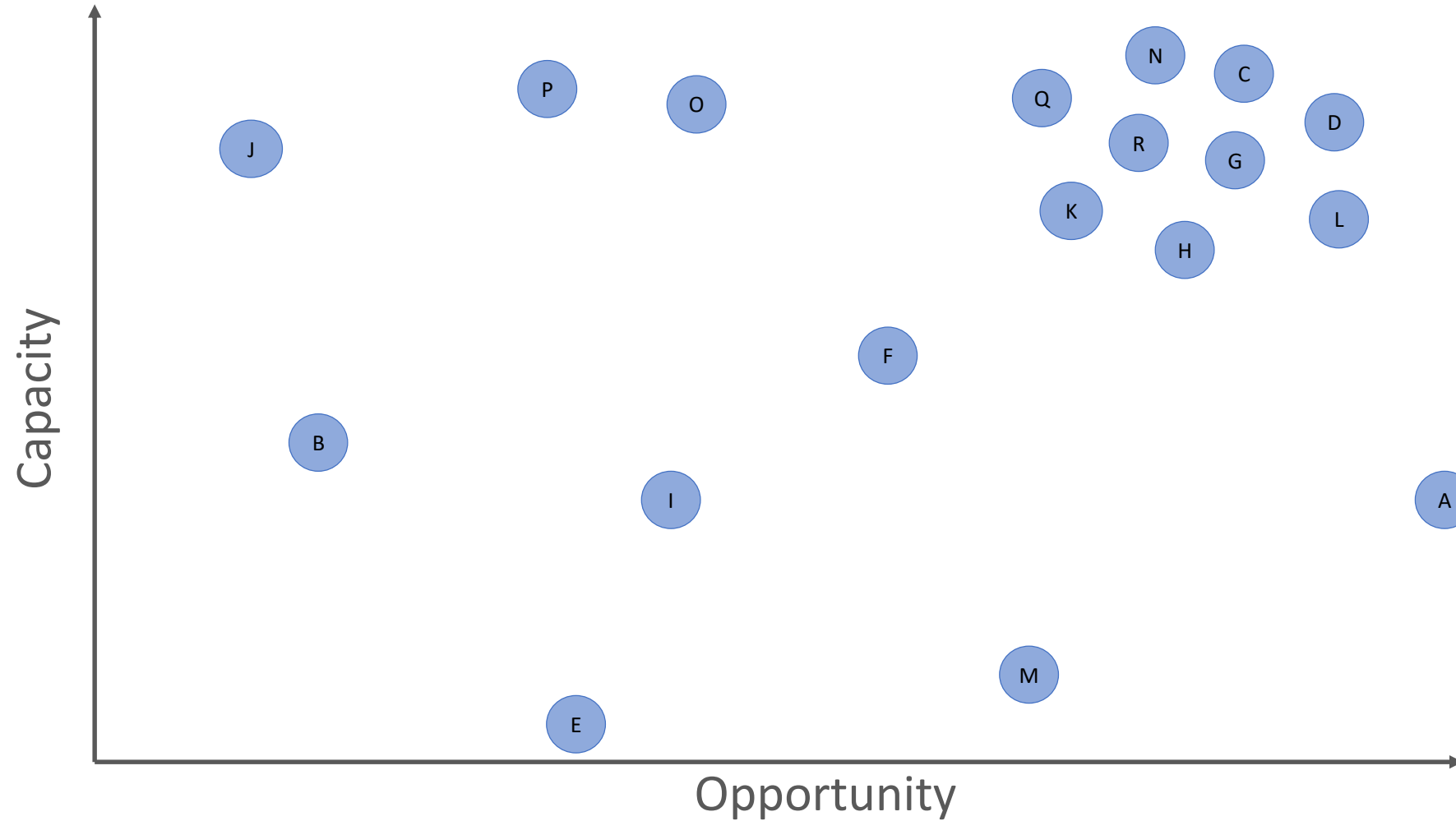
- **Relatedness**

- How many “points of contact” has the project with other projects in the map?

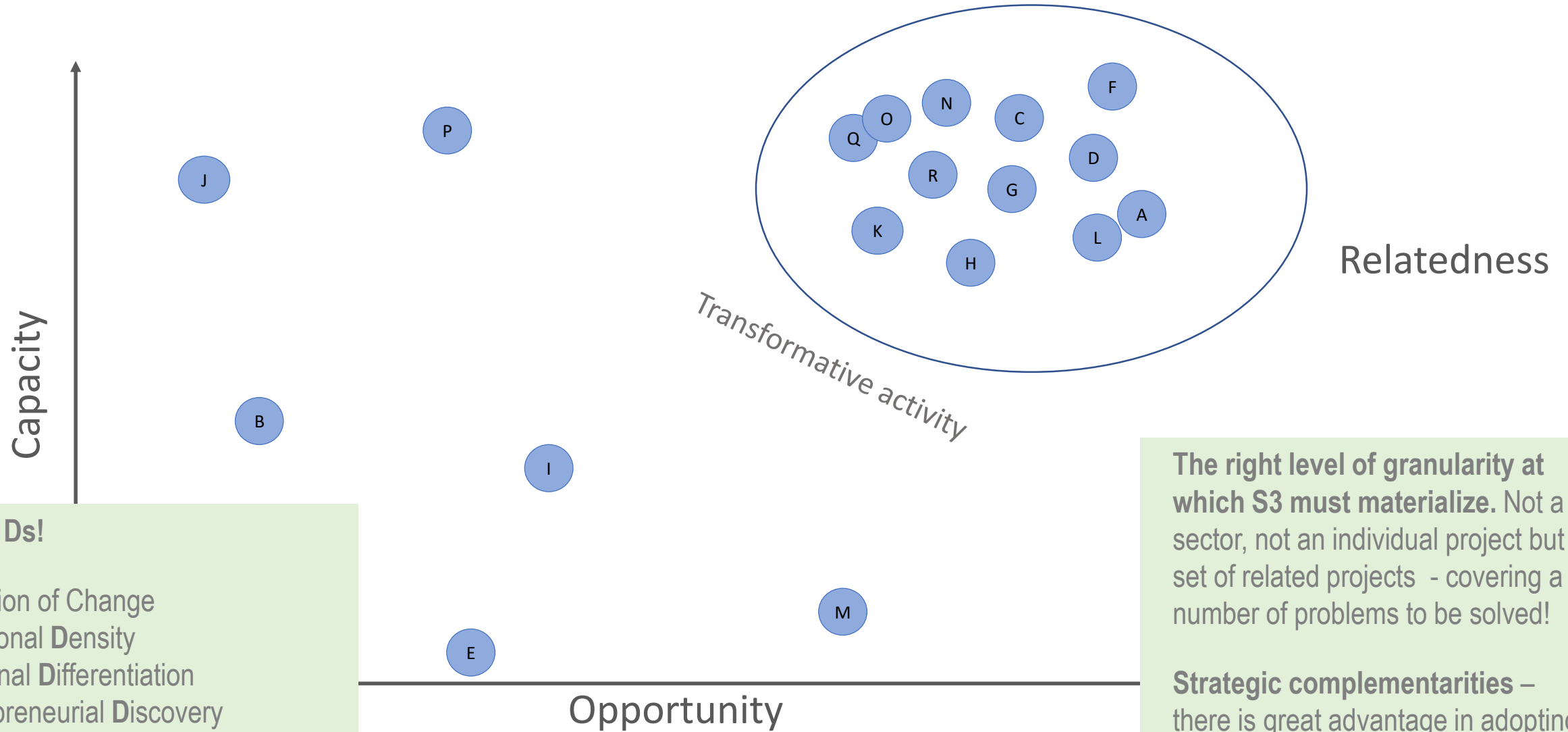
- **Support of transformation**

- How large is the potential of the project to initialize the aspired transformation? Is it consistent with the S3 (S4) goal?

Mapping



Relatedness



The 5 Ds!

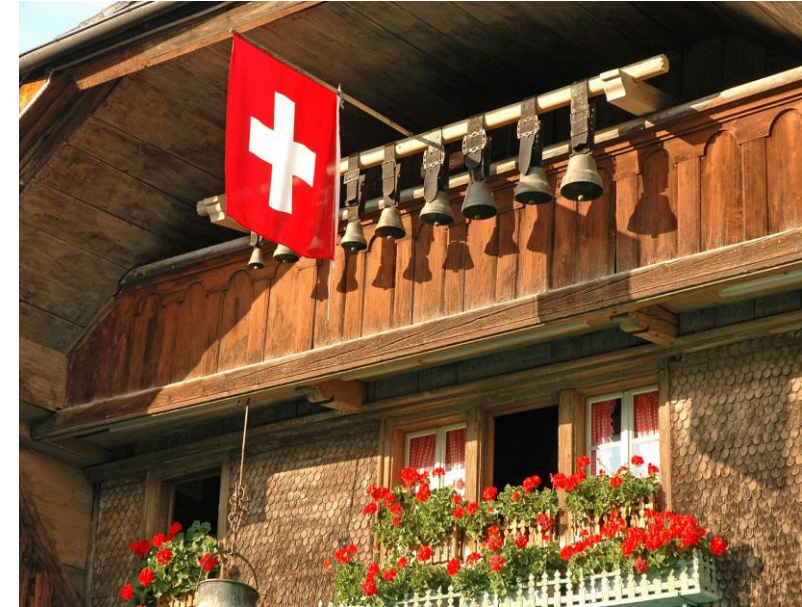
- Direction of Change
- Relational **D**ensity
- Regional **D**ifferentiation
- Entrepreneurial **D**iscovery
- D**istributed Capacities

The right level of granularity at which S3 must materialize. Not a sector, not an individual project but a set of related projects - covering a number of problems to be solved!

Strategic complementarities – there is great advantage in adopting all these projects simultaneously

- The implementation of the transformative activity
 - Mobilizing and coordinating financial instruments and evaluating projects for funding decisions
 - The plan should fit the profound logic of S3 – recognizing the value of a simultaneous support of coordinated projects and investments – this should be written for instance in the business plan (the private placement memorandum) of the dedicated S3 fund
 - Designing monitoring, feedback and flexibility mechanisms to maximize the informational effects of entrepreneurial discovery

The example of Fribourg (Switzerland) – towards a bioeconomy in agrofood, materials and construction

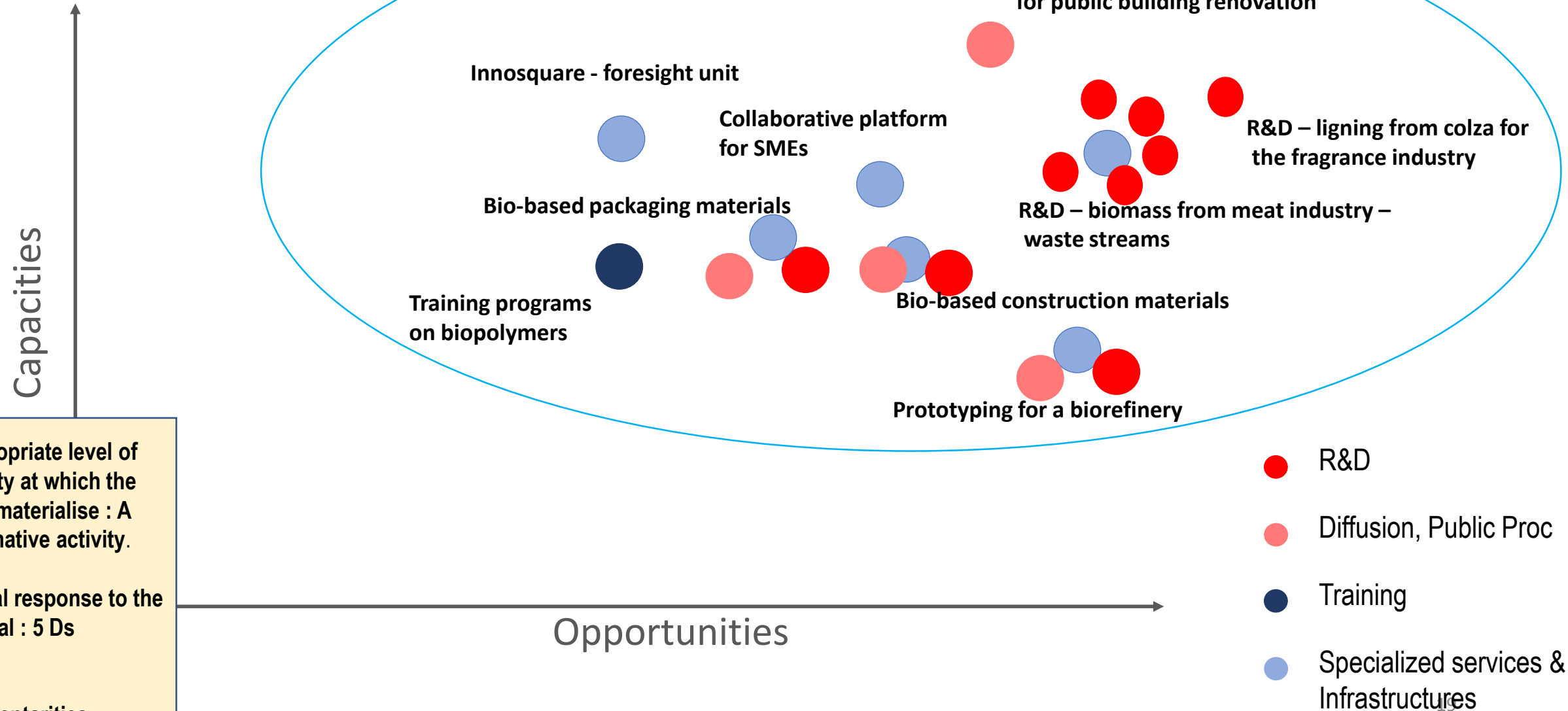


- The S3 methodology
- defining priority areas
 - translating priorities into a collection of projects
 - implementing action plans

Step 1 & step 2

- **Towards a bioeconomy – developing supply of bio-based inputs for regional key manufacturing industries (agrofood, construction, materials)**
- The priority is not only about a structure but it represents a direction of structural change, it reflects regional capacities and opportunities
- The definition of the priority area is the planning component of the whole approach – it provides a framework to enhance and stimulate entrepreneurial efforts and coordination
- **Translation of the priority area into a transformational roadmap and activity**
- Identifying and mapping projects in a bottom up way through an EDP – projects cover R&D, training, services, technology adoption, public procurement for innovation.
- Capacity, opportunity, relatedness and support of transformation
- The collection of projects forms the transformative activity

The transformative activity – bio-based inputs for regional key industries – December 2019 – *Source: Foray & Keller*



The appropriate level of granularity at which the S3 must materialise : A transformative activity.

A regional response to the Green deal : 5 Ds

Strategic complementarities

Conclusion

- In contexts where influencing the **direction** of innovation matters (Grand Challenges, Crisis, Structural changes), S3 provides regions with an appropriate toolbox
- Based on S3 (or S4) Regions can:
- Combine a planning logic (what is the priority?) and an EDP logic (how to meet the priority?) – to build a roadmap and a transformative activity in presence of uncertainty
- Propose effective responses to Grand Challenges at regional level
 - By building transformational paths towards a priority which reflect regional-specific capacities, potentials and opportunities
 - By recognizing the importance of geography - density and agglomeration - as a key determinant of innovation success



Merci!